

Friday, February 26, 2010

Page 1 of 2  
REQUEST NUMBER: 10-2140

**LOS ALAMOS**  
NATIONAL LABORATORY

ATTN: Valerie Davis

These Samples are on:

General Engineering Laboratories, Inc., Charleston, SC.

LANL Request Number: 10-2140

2040 Savage Rd

Per Agreement Number: 126310011

Charleston, SC 29407

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples  
according to the schedule indicated:

SHIP DATE: 2/26/2010

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ERS MO CONTACT:

Signature:



PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8062	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
		1	RE36-10-8283	R	2/24/2010	
	SW-846:8260B	1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
		1	RE36-10-8296	S	2/24/2010	

Friday, February 26, 2010

Page 2 of 2  
REQUEST NUMBER: 10-2140

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:83270C		1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
	SW-846:8321A_MOD	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	

Final Page of REQUEST NUMBER 10-2140

Friday, February 26, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2140

LOS ALAMOS

REQUEST NUMBER: 10-2140

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/28/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

## LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-8285	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8285	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8286	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8286	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8283	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8283	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8284	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8284	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8296	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Printed Name

Signature

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2505

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

SAMPLE ID: RE36-10-8283

WORK ORDER:

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

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

SAMPLE DESC:

Brown sandy silt, roots

SAMPLE COMMENTS:

NA

FTB: RE36-10-8296

LOCATION DESC:

8-21

FIELD SCREENING/MEASUREMENT RESULTS:

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

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

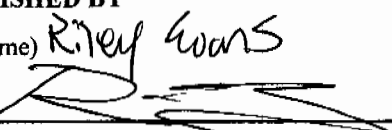
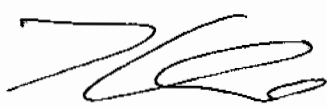
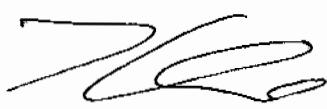
T3m 2/24/10

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

Jon Roberson

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



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2505

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

SAMPLE ID: RE36-10-8284

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/24/2010		MEDIA: QBT3		Allh	
TIME COLLECTED (HH:MM)		0940		SUB-MEDIA: TUFF 1		NA	
PRS ID: C-36-003		ok		SAMPLE TECH CODE: HA		ok	
LOCATION ID: 36-610826		↓		FIELD QC TYPE: NA		↓	
LOCATION TYPE: GENERIC		↓		FIELD PREP: NA		↓	
TOP DEPTH: 0		2.0		SAMPLE USAGE: INV		↓	
BOTTOM DEPTH: 0		3.0		SCREEN/PORT DESC:		NA	
FIELD MATRIX: R		S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: NA		COMPOSITE TIME INTERVAL: NA		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: NA		BOREHOLE DIRECTION: NA			

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

SAMPLE DESC:

Brown sandy silt; roots

SAMPLE COMMENTS: NA

LOCATION DESC: 8-21

FIELD SCREENING/MEASUREMENT RESULTS:

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

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

73m 2/24/10

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT) JmRoberson

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

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2505

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

SAMPLE ID: RE36-10-8285

WORK ORDER:

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

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

SAMPLE DESC:

Brown silty sand, organics

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-12

FIELD SCREENING/MEASUREMENT RESULTS:

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

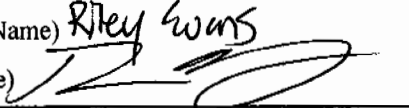

PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$  13m 2/24/10

COLLECTED BY (PRINT)

T. McFarland

REVIEWED BY (PRINT)

Jon Roberson

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

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2505

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

SAMPLE ID: RE36-10-8286

WORK ORDER:

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

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

SAMPLE DESC:

Brown silty sand, roots, few pebbles

SAMPLE COMMENTS:

NA

LOCATION DESC:

8 - 12

FIELD SCREENING/MEASUREMENT RESULTS:

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

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

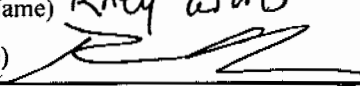

T2m 2/24/10

COLLECTED BY (PRINT)

T. McFarland

REVIEWED BY (PRINT)

Jon Roberson

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

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2505

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

SAMPLE ID: RE36-10-8296

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/24/2010	MEDIA:	NA	
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	OTHER	
PRS ID:	C-36-003	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	36-C10826	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES/NO/NA		
COMPOSITE TYPE:	NA		COMPOSITE TIME INTERVAL:	NA	
			WATER FLOWING: YES/NO/NA		
BOREHOLE: YES/NO/NA			BOREHOLE DECLINATION:	NA	
			BOREHOLE DIRECTION:	NA	

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

SAMPLE DESC: QC Sample of

RE36-10-8283

SAMPLE COMMENTS:

FTB

LOCATION DESC:

NA

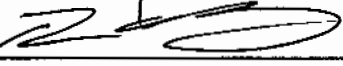


FIELD SCREENING/MEASUREMENT RESULTS:

NA

COLLECTED BY (PRINT)

Th McFarland

REVIEWED BY (PRINT) Jon Roberson

RELINQUISHED BY (Printed Name) Riley Evans (Signature) 	Date/Time 2/24/10 1034	RECEIVED BY (Printed Name)  (Signature) 	Date/Time 2/24/10 4:30
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00073

Request or PO Number:

Client Sample ID: RE36-10-8284

ARS Sample ID: ARS2-10-00073-012

Sample Collection Date: 02/24/10 09:40

Date Received: 02/25/10 00:00

Sample Matrix: Soil/Solid

Report Date: 02/26/10 13:09

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	17.26	21.39	32.75	21.50		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
GROSS BETA	41.35	15.75	16.31	15.55		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
NA-22	0.13	0.24	0.14	0.24		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
K-40	31.13	10.68	1.51	10.72		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CO-60	0.09	0.18	0.18	0.18		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-134	-0.06	42.50	0.10	42.50		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-137	0.03	0.12	0.10	0.12		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
EU-152	-0.59	169.21	0.38	169.21		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
PB-212	1.14	0.50	0.15	0.50		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
RA-228	1.79	0.90	0.37	0.90		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-235	0.44	0.97	0.57	0.97		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-238	4.89	3.30	1.34	3.48		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
AM-241	0.23	0.38	0.17	0.38		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
NOTES: % Moisture: 0.50										

*Matthew L. Edgar*  
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



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

ARS Sample Delivery Group: ARS2-10-00073  
Client Sample ID: RE36-10-8285  
Sample Collection Date: 02/24/10 09:20  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00073-013  
Date Received: 02/26/10 00:00  
Report Date: 02/26/10 13:09

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	41.89	30.06	33.91	30.50		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
GROSS BETA	38.15	19.29	17.73	15.99		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
NA-22	-0.04	44.41	0.14	44.41		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
K-40	17.68	8.11	1.53	8.13		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CO-60	0.00	0.00	0.13	0.00		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-134	-0.06	43.18	0.10	43.18		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-137	0.21	0.21	0.09	0.21		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
HU-182	-0.14	-0.66	0.39	-0.66		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
PB-212	0.85	0.46	0.16	0.46		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
RA-228	1.47	0.79	0.37	0.79		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-235	-0.65	224.07	0.50	224.07		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-238	4.27	3.75	1.70	3.88		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
AM-241	0.22	0.41	0.17	0.41		pCi/g	EPA 901.1M	2/26/2010	ME	N/A

NOTES: % Moisture: 4.17

*Matthew L. Eden*  
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



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9834

ARS Sample Delivery Group: ARS2-10-00073  
 Client Sample ID: RE36-10-8286  
 Sample Collection Date: 02/24/10 09:36  
 Sample Matrix: Soil/Solid

Request or PO Number:  
 ARS Sample ID: ARS2-10-00073-014  
 Date Received: 02/25/10 00:00  
 Report Date: 02/25/10 13:09

Analyte Description	Analysis Results	Analysis Error +/- 2 s	HDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	29.51	27.75	37.46	27.98		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
GROSS BETA	35.10	14.91	18.42	15.51		pCi/g	EPA 900.0M	2/26/2010	ME	N/A
NA-22	0.25	0.29	0.12	0.29		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
K-40	24.96	8.82	1.28	8.85		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CO-60	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-134	-0.03	36.20	0.08	36.20		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
CS-137	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
BU-152	0.67	0.46	0.32	0.46		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
PB-212	1.07	0.43	0.12	0.43		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
RA-228	2.17	1.17	0.31	1.18		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-235	0.00	-0.64	0.44	-0.64		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
U-238	2.96	3.51	1.63	3.58		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
AM-241	0.42	0.48	0.19	0.48		pCi/g	EPA 901.1M	2/26/2010	ME	N/A
NOTES: % Moisture: 0.76										

Quality Assurance Review

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LELAP Certificate# 30658

NELAP Certificate # E87558

## DATA VALIDATION COVER SHEET

5114-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-2140 VALIDATION DATE: 4/28/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal 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 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 ICAL and ICV RRFs for trichlorotrifluoroethane were  $<0.05$ . The associated sample results were NDs and, thus, were qualified R,V7b.
- In the FTB, sample RE36-10-8296 associated with samples -8283 and -8284, acetone was detected. The acetone result for sample -8283 was a detect  $\leq 10X$  the FTB concentration and, thus, was qualified U,V4d. The acetone result for sample -8284 was an ND and, thus, was not qualified.
- Samples -8286, -8283 and -8284 were analyzed  $>1X$  but  $\leq 2X$  past their method specified holding times. The toluene result for sample -8286; the methylene chloride; toluene; m,p-xylenes; 1,2,4-trimethylbenzene and 4-isopropyltoluene results for sample -8283; and the toluene and 4-isopropyltoluene results for sample -8284 were detects and, thus, were qualified J-,V9. The remaining associated sample results were either NDs or qualified ND and, thus, were qualified UJ,V9.
- The ICV or CCV %Ds for acetone, 2-hexanone and trichlorotrifluoroethane were  $>20\%$ . The acetone result for sample -8296 was a detect and, thus, was qualified J,V7c. The remaining associated sample results were NDs or qualified NDs and, thus, were qualified UJ,V7c.
- The bromofluorobenzene surrogate %Rs for samples -8285, -8286 and -8283 were  $>$  the laboratory's UAL. The methylene chloride; toluene; m,p-xylenes; 1,2,4-trimethylbenzene and 4-isopropyltoluene results for sample -8283 and the toluene result for sample -8286 were detects and, thus, were qualified J+,V3b. The remaining associated sample results were NDs and, thus, were not qualified.
- The MS/MSD was performed on a sample from another LANL RN and was not spiked with



trichlorotrifluoroethane. The MSD %Rs for 2-butanone and 2-hexanone did not meet laboratory acceptance criteria. Since the analysis of an MS or an MSD was not a client requirement, no sample data were qualified as a result.

**Reviewed by:** Monica Dymerski      **Level I**      **Date:** 05/03/10


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

*K. Neal*


DATE: 4/28/10

Form 5114-1, Revision 0.0

LOS ALAMOS  
Environmental Restoration Project

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 checked="" type="checkbox"/>	<input 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 (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12. The sample result is $\leq 5X$ (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was $> 5X$ (10X for common laboratory contaminants).	N/A	J, V4a
<input checked="" type="checkbox"/>	<input 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**

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 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**

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"/>	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

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

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249001	Date Received: 02/27/2010 09:10	%Moisture: 27.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8285	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOA5.I	Dilution: 1
Run Date: 03/10/2010 21:45	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/10/2010 08:39	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031010V55B334.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.39	ug/kg	0.472	1.39
74-87-3	Chloromethane	U	1.39	ug/kg	0.416	1.39
75-01-4	Vinyl chloride	U	1.39	ug/kg	0.416	1.39
74-83-9	Bromomethane	U	1.39	ug/kg	0.416	1.39
75-00-3	Chloroethane	U	1.39	ug/kg	0.416	1.39
75-69-4	Trichlorofluoromethane	U	1.39	ug/kg	0.416	1.39
67-64-1	Acetone	U	6.94	ug/kg	2.30	6.94 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.39	ug/kg	0.416	1.39
74-88-4	Iodomethane	U	6.94	ug/kg	2.22	6.94
75-09-2	Methylene chloride	U	6.94	ug/kg	2.77	6.94
75-15-0	Carbon disulfide	U	6.94	ug/kg	1.73	6.94
156-60-5	trans-1,2-Dichloroethylene	U	1.39	ug/kg	0.416	1.39
75-34-3	1,1-Dichloroethane	U	1.39	ug/kg	0.416	1.39
78-93-3	2-Butanone	U	6.94	ug/kg	2.08	6.94
156-59-2	cis-1,2-Dichloroethylene	U	1.39	ug/kg	0.416	1.39
594-20-7	2,2-Dichloropropane	U	1.39	ug/kg	0.416	1.39
67-66-3	Chloroform	U	1.39	ug/kg	0.416	1.39
74-97-5	Bromochloromethane	U	1.39	ug/kg	0.458	1.39
71-55-6	1,1,1-Trichloroethane	U	1.39	ug/kg	0.416	1.39
563-58-6	1,1-Dichloropropene	U	1.39	ug/kg	0.416	1.39
56-23-5	Carbon tetrachloride	U	1.39	ug/kg	0.416	1.39
107-06-2	1,2-Dichloroethane	U	1.39	ug/kg	0.416	1.39
71-43-2	Benzene	U	1.39	ug/kg	0.416	1.39
79-01-6	Trichloroethylene	U	1.39	ug/kg	0.458	1.39
78-87-5	1,2-Dichloropropane	U	1.39	ug/kg	0.416	1.39
75-27-4	Bromodichloromethane	U	1.39	ug/kg	0.416	1.39
74-95-3	Dibromomethane	U	1.39	ug/kg	0.416	1.39
108-10-1	4-Methyl-2-pentanone	U	6.94	ug/kg	1.73	6.94
10061-01-5	cis-1,3-Dichloropropylene	U	1.39	ug/kg	0.416	1.39
108-88-3	Toluene	U	1.39	ug/kg	0.416	1.39
10061-02-6	trans-1,3-Dichloropropylene	U	1.39	ug/kg	0.416	1.39
79-00-5	1,1,2-Trichloroethane	U	1.39	ug/kg	0.416	1.39
591-78-6	2-Hexanone	U	6.94	ug/kg	2.08	6.94 UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.39	ug/kg	0.416	1.39
127-18-4	Tetrachloroethylene	U	1.39	ug/kg	0.416	1.39
124-48-1	Dibromochloromethane	U	1.39	ug/kg	0.416	1.39
106-93-4	1,2-Dibromoethane	U	1.39	ug/kg	0.416	1.39
108-90-7	Chlorobenzene	U	1.39	ug/kg	0.416	1.39

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

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249001	Date Received: 02/27/2010 09:10	%Moisture: 27.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8285	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOA5.I	Dilution: 1
Run Date: 03/10/2010 21:45	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/10/2010 08:39	Allquot: 5 g	Final Volume: 5 mL
Data File: 031010V5\5B334.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.39	ug/kg	0.416	1.39
179601-23-1	m,p-Xylenes	U	2.77	ug/kg	0.416	2.77
95-47-6	o-Xylene	U	1.39	ug/kg	0.416	1.39
100-42-5	Styrene	U	1.39	ug/kg	0.416	1.39
75-25-2	Bromoform	U	1.39	ug/kg	0.416	1.39
79-34-5	1,1,2,2-Tetrachloroethane	U	1.39	ug/kg	0.416	1.39
96-18-4	1,2,3-Trichloropropane	U	1.39	ug/kg	0.416	1.39
108-86-1	Bromobenzene	U	1.39	ug/kg	0.416	1.39
103-65-1	n-Propylbenzene	U	1.39	ug/kg	0.416	1.39
95-49-8	2-Chlorotoluene	U	1.39	ug/kg	0.416	1.39
98-82-8	Isopropylbenzene	U	1.39	ug/kg	0.416	1.39
108-67-8	1,3,5-Trimethylbenzene	U	1.39	ug/kg	0.416	1.39
106-43-4	4-Chlorotoluene	U	1.39	ug/kg	0.416	1.39
98-06-6	tert-Butylbenzene	U	1.39	ug/kg	0.416	1.39
95-63-6	1,2,4-Trimethylbenzene	U	1.39	ug/kg	0.416	1.39
135-98-8	sec-Butylbenzene	U	1.39	ug/kg	0.416	1.39
99-87-6	4-Isopropyltoluene	U	1.39	ug/kg	0.416	1.39
541-73-1	1,3-Dichlorobenzene	U	1.39	ug/kg	0.416	1.39
106-46-7	1,4-Dichlorobenzene	U	1.39	ug/kg	0.416	1.39
104-51-8	n-Butylbenzene	U	1.39	ug/kg	0.416	1.39
96-12-8	1,2-Dibromo-3-chloropropane	U	1.39	ug/kg	0.416	1.39
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.94	ug/kg	2.22	6.94 R,V7b
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.39	ug/kg	0.416	1.39
95-50-1	1,2-Dichlorobenzene	U	1.39	ug/kg	0.416	1.39

**Tentatively Identified Compound Summary**

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

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

SDG Number: 10-2140  
 Lab Sample ID: 248249002

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 7.5  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8286  
 Batch ID: 962697  
 Run Date: 03/11/2010 10:13  
 Prep Date: 03/11/2010 08:46  
 Data File: 031110V5\SB409.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	HU	1.08	ug/kg	0.368	1.08 UJ,V9
74-87-3	Chloromethane	HU	1.08	ug/kg	0.324	1.08
75-01-4	Vinyl chloride	HU	1.08	ug/kg	0.324	1.08
74-83-9	Bromomethane	HU	1.08	ug/kg	0.324	1.08
75-00-3	Chloroethane	HU	1.08	ug/kg	0.324	1.08
75-69-4	Trichlorofluoromethane	HU	1.08	ug/kg	0.324	1.08
67-64-1	Acetone	HU	5.41	ug/kg	1.79	5.41
75-35-4	1,1-Dichloroethylene	HU	1.08	ug/kg	0.324	1.08
74-88-4	Iodomethane	HU	5.41	ug/kg	1.73	5.41
75-09-2	Methylene chloride	HU	5.41	ug/kg	2.16	5.41
75-15-0	Carbon disulfide	HU	5.41	ug/kg	1.35	5.41
156-60-5	trans-1,2-Dichloroethylene	HU	1.08	ug/kg	0.324	1.08
75-34-3	1,1-Dichloroethane	HU	1.08	ug/kg	0.324	1.08
78-93-3	2-Butanone	HU	5.41	ug/kg	1.62	5.41
156-59-2	cis-1,2-Dichloroethylene	HU	1.08	ug/kg	0.324	1.08
594-20-7	2,2-Dichloropropane	HU	1.08	ug/kg	0.324	1.08
67-66-3	Chloroform	HU	1.08	ug/kg	0.324	1.08
74-97-5	Bromochloromethane	HU	1.08	ug/kg	0.357	1.08
71-55-6	1,1,1-Trichloroethane	HU	1.08	ug/kg	0.324	1.08
563-58-6	1,1-Dichloropropene	HU	1.08	ug/kg	0.324	1.08
56-23-5	Carbon tetrachloride	HU	1.08	ug/kg	0.324	1.08
107-06-2	1,2-Dichloroethane	HU	1.08	ug/kg	0.324	1.08
71-43-2	Benzene	HU	1.08	ug/kg	0.324	1.08
79-01-6	Trichloroethylene	HU	1.08	ug/kg	0.357	1.08
78-87-5	1,2-Dichloropropane	HU	1.08	ug/kg	0.324	1.08
75-27-4	Bromodichloromethane	HU	1.08	ug/kg	0.324	1.08
74-95-3	Dibromomethane	HU	1.08	ug/kg	0.324	1.08
108-10-1	4-Methyl-2-pentanone	HU	5.41	ug/kg	1.35	5.41
10061-01-5	cis-1,3-Dichloropropylene	HU	1.08	ug/kg	0.324	1.08
108-88-3	Toluene	HU	0.422	ug/kg	0.324	1.08 J-,V9
10061-02-6	trans-1,3-Dichloropropylene	HU	1.08	ug/kg	0.324	1.08 UJ,V9
79-00-5	1,1,2-Trichloroethane	HU	1.08	ug/kg	0.324	1.08
591-78-6	2-Hexanone	HU	5.41	ug/kg	1.62	5.41
142-28-9	1,3-Dichloropropane	HU	1.08	ug/kg	0.324	1.08
127-18-4	Tetrachloroethylene	HU	1.08	ug/kg	0.324	1.08
124-48-1	Dibromochloromethane	HU	1.08	ug/kg	0.324	1.08
106-93-4	1,2-Dibromoethane	HU	1.08	ug/kg	0.324	1.08
108-90-7	Chlorobenzene	HU	1.08	ug/kg	0.324	1.08



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

SDG Number: 10-2140  
 Lab Sample ID: 248249002

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.1  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 7.5  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8286  
 Batch ID: 962697  
 Run Date: 03/11/2010 10:13  
 Prep Date: 03/11/2010 08:46  
 Data File: 031110V5\SB409.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	HU	1.08	ug/kg	0.324	1.08 UJ,V9
179601-23-1	m,p-Xylenes	HU	2.16	ug/kg	0.324	2.16
95-47-6	o-Xylene	HU	1.08	ug/kg	0.324	1.08
100-42-5	Styrene	HU	1.08	ug/kg	0.324	1.08
75-25-2	Bromoform	HU	1.08	ug/kg	0.324	1.08
79-34-5	1,1,2,2-Tetrachloroethane	HU	1.08	ug/kg	0.324	1.08
96-18-4	1,2,3-Trichloropropane	HU	1.08	ug/kg	0.324	1.08
108-86-1	Bromobenzene	HU	1.08	ug/kg	0.324	1.08
103-65-1	n-Propylbenzene	HU	1.08	ug/kg	0.324	1.08
95-49-8	2-Chlorotoluene	HU	1.08	ug/kg	0.324	1.08
98-82-8	Isopropylbenzene	HU	1.08	ug/kg	0.324	1.08
108-67-8	1,3,5-Trimethylbenzene	HU	1.08	ug/kg	0.324	1.08
106-43-4	4-Chlorotoluene	HU	1.08	ug/kg	0.324	1.08
98-06-6	tert-Butylbenzene	HU	1.08	ug/kg	0.324	1.08
95-63-6	1,2,4-Trimethylbenzene	HU	1.08	ug/kg	0.324	1.08
135-98-8	sec-Butylbenzene	HU	1.08	ug/kg	0.324	1.08
99-87-6	4-Isopropyltoluene	HU	1.08	ug/kg	0.324	1.08
541-73-1	1,3-Dichlorobenzene	HU	1.08	ug/kg	0.324	1.08
106-46-7	1,4-Dichlorobenzene	HU	1.08	ug/kg	0.324	1.08
104-51-8	n-Butylbenzene	HU	1.08	ug/kg	0.324	1.08
96-12-8	1,2-Dibromo-3-chloropropane	HU	1.08	ug/kg	0.324	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	HU	5.41	ug/kg	1.73	5.41 R,V7b
630-20-6	1,1,1,2-Tetrachloroethane	HU	1.08	ug/kg	0.324	1.08 UJ,V9
95-50-1	1,2-Dichlorobenzene	HU	1.08	ug/kg	0.324	1.08 UJ,V9

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
No Tentatively Identified Compounds Found						

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249003	Date Received: 02/27/2010 09:10	%Moisture: 6.3
Client ID: RE36-10-8283	Client: LANL010	Project: LANL01004
Batch ID: 962697	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/11/2010 10:40	Inst: VOA5.I	Dilution: 1
Prep Date: 03/11/2010 08:47	Analyst: CDS1	Purge Vol: 5 mL
Data File: 031110V5\SB410.D	Aliquot: 5 g	Final Volume: 5 mL
	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	HUh	1.07	ug/kg	0.363	1.07 UJ,V9
74-87-3	Chloromethane	HUh	1.07	ug/kg	0.320	1.07
75-01-4	Vinyl chloride	HUh	1.07	ug/kg	0.320	1.07
74-83-9	Bromomethane	HUh	1.07	ug/kg	0.320	1.07
75-00-3	Chloroethane	HUh	1.07	ug/kg	0.320	1.07
75-69-4	Trichlorofluoromethane	HUh	1.07	ug/kg	0.320	1.07
67-64-1	Acetone	HJh	4.02	ug/kg	1.77	5.34 U,V4d
75-35-4	1,1-Dichloroethylene	HUh	1.07	ug/kg	0.320	1.07 UJ,V9
74-88-4	Iodomethane	HUh	5.34	ug/kg	1.71	5.34 UJ,V9
75-09-2	Methylene chloride	HJh	3.15	ug/kg	2.14	5.34 J-,V9
75-15-0	Carbon disulfide	HUh	5.34	ug/kg	1.33	5.34 UJ,V9
156-60-5	trans-1,2-Dichloroethylene	HUh	1.07	ug/kg	0.320	1.07
75-34-3	1,1-Dichloroethane	HUh	1.07	ug/kg	0.320	1.07
78-93-3	2-Butanone	HUh	5.34	ug/kg	1.60	5.34
156-59-2	cis-1,2-Dichloroethylene	HUh	1.07	ug/kg	0.320	1.07
594-20-7	2,2-Dichloropropane	HUh	1.07	ug/kg	0.320	1.07
67-66-3	Chloroform	HUh	1.07	ug/kg	0.320	1.07
74-97-5	Bromochloromethane	HUh	1.07	ug/kg	0.352	1.07
71-55-6	1,1,1-Trichloroethane	HUh	1.07	ug/kg	0.320	1.07
563-58-6	1,1-Dichloropropene	HUh	1.07	ug/kg	0.320	1.07
56-23-5	Carbon tetrachloride	HUh	1.07	ug/kg	0.320	1.07
107-06-2	1,2-Dichloroethane	HUh	1.07	ug/kg	0.320	1.07
71-43-2	Benzene	HUh	1.07	ug/kg	0.320	1.07
79-01-6	Trichloroethylene	HUh	1.07	ug/kg	0.352	1.07
78-87-5	1,2-Dichloropropane	HUh	1.07	ug/kg	0.320	1.07
75-27-4	Bromodichloromethane	HUh	1.07	ug/kg	0.320	1.07
74-95-3	Dibromomethane	HUh	1.07	ug/kg	0.320	1.07
108-10-1	4-Methyl-2-pentanone	HUh	5.34	ug/kg	1.33	5.34
10061-01-5	cis-1,3-Dichloropropylene	HUh	1.07	ug/kg	0.320	1.07
108-88-3	Toluene	Hh	1.13	ug/kg	0.320	1.07 J-,V9
10061-02-6	trans-1,3-Dichloropropylene	HUh	1.07	ug/kg	0.320	1.07 UJ,V9
79-00-5	1,1,2-Trichloroethane	HUh	1.07	ug/kg	0.320	1.07
591-78-6	2-Hexanone	HUh	5.34	ug/kg	1.60	5.34
142-28-9	1,3-Dichloropropane	HUh	1.07	ug/kg	0.320	1.07
127-18-4	Tetrachloroethylene	HUh	1.07	ug/kg	0.320	1.07
124-48-1	Dibromochloromethane	HUh	1.07	ug/kg	0.320	1.07
106-93-4	1,2-Dibromoethane	HUh	1.07	ug/kg	0.320	1.07
108-90-7	Chlorobenzene	HUh	1.07	ug/kg	0.320	1.07

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2140  
Lab Sample ID: 248249003

Client ID: RE36-10-8283  
Batch ID: 962697  
Run Date: 03/11/2010 10:40  
Prep Date: 03/11/2010 08:47  
Data File: 031110V5\SB410.D

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.I  
Analyst: CDS1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 6.3  
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	HUh	1.07	ug/kg	0.320	1.07 UJ,V9
179601-23-1	m,p-Xylenes	HJh	0.822	ug/kg	0.320	2.14 J-,V9
95-47-6	o-Xylene	HUh	1.07	ug/kg	0.320	1.07 UJ,V9
100-42-5	Styrene	HUh	1.07	ug/kg	0.320	1.07
75-25-2	Bromofonn	HUh	1.07	ug/kg	0.320	1.07
79-34-5	1,1,2,2-Tetrachloroethane	HUh	1.07	ug/kg	0.320	1.07
96-18-4	1,2,3-Trichloropropane	HUh	1.07	ug/kg	0.320	1.07
108-86-1	Bromobenzene	HUh	1.07	ug/kg	0.320	1.07
103-65-1	n-Propylbenzene	HUh	1.07	ug/kg	0.320	1.07
95-49-8	2-Chlorotoluene	HUh	1.07	ug/kg	0.320	1.07
98-82-8	Isopropylbenzene	HUh	1.07	ug/kg	0.320	1.07
108-67-8	1,3,5-Trinethylbenzene	HUh	1.07	ug/kg	0.320	1.07
106-43-4	4-Chlorotoluene	HUh	1.07	ug/kg	0.320	1.07
98-06-6	tert-Butylbenzene	HUh	1.07	ug/kg	0.320	1.07
95-63-6	1,2,4-Trimethylbenzene	HJh	1.00	ug/kg	0.320	1.07 J-,V9
135-98-8	sec-Butylbenzene	HUh	1.07	ug/kg	0.320	1.07 UJ,V9
99-87-6	4-Isopropyltoluene	Hh	2.36	ug/kg	0.320	1.07 J-,V9
541-73-1	1,3-Dichlorobenzene	HUh	1.07	ug/kg	0.320	1.07 UJ,V9
106-46-7	1,4-Dichlorobenzene	HUh	1.07	ug/kg	0.320	1.07
104-51-8	n-Butylbenzene	HUh	1.07	ug/kg	0.320	1.07
96-12-8	1,2-Dibromo-3-chloropropane	HUh	1.07	ug/kg	0.320	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha	HUh	5.34	ug/kg	1.71	5.34 R,V7b
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	HUh	1.07	ug/kg	0.320	1.07 UJ,V9
95-50-1	1,2-Dichlorobenzene	HUh	1.07	ug/kg	0.320	1.07 UJ,V9

## Tentatively Identified Compound Summary

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

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

SDG Number: 10-2140  
 Lab Sample ID: 248249004

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA5.I  
 Analyst: CDS1  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 5.5  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-8284  
 Batch ID: 962697  
 Run Date: 03/11/2010 11:07  
 Prep Date: 03/11/2010 08:48  
 Data File: 031110V5\SB411.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	HU	1.06	ug/kg	0.360	1.06 UJ,V9
74-87-3	Chloromethane	HU	1.06	ug/kg	0.318	1.06
75-01-4	Vinyl chloride	HU	1.06	ug/kg	0.318	1.06
74-83-9	Bromomethane	HU	1.06	ug/kg	0.318	1.06
75-00-3	Chloroethane	HU	1.06	ug/kg	0.318	1.06
75-69-4	Trichlorofluoromethane	HU	1.06	ug/kg	0.318	1.06
67-64-1	Acetone	HU	5.29	ug/kg	1.76	5.29
75-35-4	1,1-Dichloroethylene	HU	1.06	ug/kg	0.318	1.06
74-88-4	Iodomethane	HU	5.29	ug/kg	1.69	5.29
75-09-2	Methylene chloride	HU	5.29	ug/kg	2.12	5.29
75-15-0	Carbon disulfide	HU	5.29	ug/kg	1.32	5.29
156-60-5	trans-1,2-Dichloroethylene	HU	1.06	ug/kg	0.318	1.06
75-34-3	1,1-Dichloroethane	HU	1.06	ug/kg	0.318	1.06
78-93-3	2-Butanone	HU	5.29	ug/kg	1.59	5.29
156-59-2	cis-1,2-Dichloroethylene	HU	1.06	ug/kg	0.318	1.06
594-20-7	2,2-Dichloropropane	HU	1.06	ug/kg	0.318	1.06
67-66-3	Chloroform	HU	1.06	ug/kg	0.318	1.06
74-97-5	Bromochloromethane	HU	1.06	ug/kg	0.349	1.06
71-55-6	1,1,1-Trichloroethane	HU	1.06	ug/kg	0.318	1.06
563-58-6	1,1-Dichloropropene	HU	1.06	ug/kg	0.318	1.06
56-23-5	Carbon tetrachloride	HU	1.06	ug/kg	0.318	1.06
107-06-2	1,2-Dichloroethane	HU	1.06	ug/kg	0.318	1.06
71-43-2	Benzene	HU	1.06	ug/kg	0.318	1.06
79-01-6	Trichloroethylene	HU	1.06	ug/kg	0.349	1.06
78-87-5	1,2-Dichloropropane	HU	1.06	ug/kg	0.318	1.06
75-27-4	Bromodichloromethane	HU	1.06	ug/kg	0.318	1.06
74-95-3	Dibromomethane	HU	1.06	ug/kg	0.318	1.06
108-10-1	4-Methyl-2-pentanone	HU	5.29	ug/kg	1.32	5.29
10061-01-5	cis-1,3-Dichloropropylene	HU	1.06	ug/kg	0.318	1.06
108-88-3	Toluene	HU	0.476	ug/kg	0.318	1.06 J-,V9
10061-02-6	trans-1,3-Dichloropropylene	HU	1.06	ug/kg	0.318	1.06 UJ,V9
79-00-5	1,1,2-Trichloroethane	HU	1.06	ug/kg	0.318	1.06
591-78-6	2-Hexanone	HU	5.29	ug/kg	1.59	5.29
142-28-9	1,3-Dichloropropane	HU	1.06	ug/kg	0.318	1.06
127-18-4	Tetrachloroethylene	HU	1.06	ug/kg	0.318	1.06
124-48-1	Dibromochloromethane	HU	1.06	ug/kg	0.318	1.06
106-93-4	1,2-Dibromoethane	HU	1.06	ug/kg	0.318	1.06
108-90-7	Chlorobenzene	HU	1.06	ug/kg	0.318	1.06

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

SDG Number: 10-2140

Lab Sample ID: 248249004

Date Collected: 02/24/2010 12:00

Date Received: 02/27/2010 09:10

Matrix: R

%Moisture: 5.5

Client: LANL010

Method: SW846 8260B

Project: LANL01004

SOP Ref: GL-OA-E-038

Client ID: RE36-10-8284

Batch ID: 962697

Inst: VOA5.1

Dilution: 1

Run Date: 03/11/2010 11:07

Analyst: CDS1

Purge Vol: 5 mL

Prep Date: 03/11/2010 08:48

Aliquot: 5 g

Final Volume: 5 mL

Data File: 031110V5\SB411.D

Column: DB-624

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	HUh	1.06	ug/kg	0.318	1.06 UJ,V9
179601-23-1	m,p-Xylenes	HUh	2.12	ug/kg	0.318	2.12
95-47-6	o-Xylene	HUh	1.06	ug/kg	0.318	1.06
100-42-5	Styrene	HUh	1.06	ug/kg	0.318	1.06
75-25-2	Bromoform	HUh	1.06	ug/kg	0.318	1.06
79-34-5	1,1,2,2-Tetrachloroethane	HUh	1.06	ug/kg	0.318	1.06
96-18-4	1,2,3-Trichloropropane	HUh	1.06	ug/kg	0.318	1.06
108-86-1	Bromobenzene	HUh	1.06	ug/kg	0.318	1.06
103-65-1	n-Propylbenzene	HUh	1.06	ug/kg	0.318	1.06
95-49-8	2-Chlorotoluene	HUh	1.06	ug/kg	0.318	1.06
98-82-8	Isopropylbenzene	HUh	1.06	ug/kg	0.318	1.06
108-67-8	1,3,5-Trimethylbenzene	HUh	1.06	ug/kg	0.318	1.06
106-43-4	4-Chlorotoluene	HUh	1.06	ug/kg	0.318	1.06
98-06-6	tert-Butylbenzene	HUh	1.06	ug/kg	0.318	1.06
95-63-6	1,2,4-Trimethylbenzene	HUh	1.06	ug/kg	0.318	1.06
135-98-8	sec-Butylbenzene	HUh	1.06	ug/kg	0.318	1.06
99-87-6	4-Isopropyltoluene	Hh	10.1	ug/kg	0.318	1.06 J-,V9
541-73-1	1,3-Dichlorobenzene	HUh	1.06	ug/kg	0.318	1.06 UJ,V9
106-46-7	1,4-Dichlorobenzene	HUh	1.06	ug/kg	0.318	1.06
104-51-8	n-Butylbenzene	HUh	1.06	ug/kg	0.318	1.06
96-12-8	1,2-Dibromo-3-chloropropane	HUh	1.06	ug/kg	0.318	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane <i>Trichlorotrifluoroethane</i>	HUh	5.29	ug/kg	1.69	5.29 R,V7b
630-20-6	1,1,1,2-Tetrachloroethane	HUh	1.06	ug/kg	0.318	1.06 UJ,V9
95-50-1	1,2-Dichlorobenzene	HUh	1.06	ug/kg	0.318	1.06 UJ,V9

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	12	11.8	ug/kg	0	J

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

SDG Number: 10-2140  
 Lab Sample ID: 248249005

Date Collected: 02/24/2010 12:00  
 Date Received: 02/27/2010 09:10

Matrix: S

Client ID: RE36-10-8296  
 Batch ID: 962697  
 Run Date: 03/10/2010 23:30  
 Prep Date: 03/10/2010 08:43  
 Data File: 031010V5\5B338.D

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

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	1.00	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	J	2.87	ug/kg	1.66	5.00 J,V7c
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 U,V7c
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**

Page 2 of 2

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: S
Lab Sample ID: 248249005	Date Received: 02/27/2010 09:10	
Client ID: RE36-10-8296	Client: LANL010	Project: LANL01004
Batch ID: 962697	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/10/2010 23:30	Inst: VOA5.I	Dilution: 1
Prep Date: 03/10/2010 08:43	Analyst: CDS1	Purge Vol: 5 mL
Data File: 031010V5\5B338.D	Aliquot: 5 g	Final Volume: 5 mL
	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 R,V7b
	<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		

## DATA VALIDATION COVER SHEET

5115-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-2140 VALIDATION DATE: 4/29/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO      ☐ HIGH EXPLOSIVES      ☐ DIOXIN FURANS      ☐ LCMSMS PERCHLORATES  
☐ TPH-DRO      ☐ METALS      ☐ PCB CONGENERS      ☐ ORGANOCHLORINE  
☐ GENERAL CHEMISTRY      ☐ RADIOCHEMISTRY      ☐ LCMSMS HIGH EXPLOSIVES      PESTICIDES/POLYCHLORINATED BIPHENYLS  
☒ OTHER (DESCRIBE): SVOCs

## Section II. Completeness Check

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

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


1. The ICV or CCV %Ds for pyridine; 4-nitrophenol; benzyl alcohol; 2,4-dimethylphenol; 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol were >20%. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. The LCS %R for 4-nitrophenol and benzyl alcohol were < the laboratory's LAL but ≥10%. The associated sample results were NDs and, thus, were qualified UJ,SV12a. The LCS %R for 2,4-dimethylphenol was > the laboratory's UAL. The associated sample results were NDs and, thus, were not qualified.
3. The MS/MSD was performed on a sample from another LANL RN and the raw data for the parent sample were not included in the data package. The MS/MSD %Rs for several target analytes did not meet laboratory acceptance criteria. Since the analysis of an MS or an MSD was not a client requirement, no sample results were qualified.

Reviewed by: Monica Dymerski Level I Date: 05/03/10


VALIDATOR'S SIGNATURE: Linda Thal

DATE: 4/29/10




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


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

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

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

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

Yes No N/A (Check One)			Assign Qualifier Listed Below If Criterion = Yes	Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
<input 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 checked="" type="checkbox"/>	<input 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: 10-2140  
Lab Sample ID: 248249003

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.18 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 6.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8283  
Batch ID: 960971  
Run Date: 03/18/2010 15:52  
Prep Date: 03/04/2010 23:22  
Data File: s6c1821.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	1410	ug/kg	283	1410
108-95-2	Phenol	U	1410	ug/kg	283	1410
95-57-8	2-Chlorophenol	U	1410	ug/kg	283	1410
106-46-7	1,4-Dichlorobenzene	U	1410	ug/kg	283	1410
621-64-7	N-Nitrosodipropylamine	U	1410	ug/kg	283	1410
59-50-7	4-Chloro-3-methylphenol	U	1410	ug/kg	283	1410
83-32-9	Acenaphthene	J	91.2	ug/kg	46.7	141
121-14-2	2,4-Dinitrotoluene	U	1410	ug/kg	141	1410
100-02-7	4-Nitrophenol	U	1410	ug/kg	467	1410 UJ,SV7c
87-86-5	Pentachlorophenol	U	1410	ug/kg	354	1410
129-00-0	Pyrene		2830	ug/kg	42.4	141
110-86-1	Pyridine	U	1410	ug/kg	283	1410 UJ,SV7c
62-53-3	Aniline	U	1410	ug/kg	424	1410
111-44-4	bis(2-Chloroethyl) ether	U	1410	ug/kg	283	1410
541-73-1	1,3-Dichlorobenzene	U	1410	ug/kg	283	1410
100-51-6	Benzyl alcohol	U	1410	ug/kg	424	1410 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	1410	ug/kg	283	1410
108-60-1	bis(2-Chloroisopropyl)ether	U	1410	ug/kg	283	1410
95-48-7	o-Cresol	U	1410	ug/kg	283	1410
65794-96-9	m,p-Cresols	U	1410	ug/kg	424	1410
67-72-1	Hexachloroethane	U	1410	ug/kg	283	1410
98-95-3	Nitrobenzene	U	1410	ug/kg	283	1410
78-59-1	Isophorone	U	1410	ug/kg	283	1410
88-75-5	2-Nitrophenol	U	1410	ug/kg	283	1410
105-67-9	2,4-Dimethylphenol	U	1410	ug/kg	495	1410 UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	1410	ug/kg	283	1410
120-83-2	2,4-Dichlorophenol	U	1410	ug/kg	283	1410
65-85-0	Benzoic acid	U	2830	ug/kg	707	2830
91-20-3	Naphthalene	U	141	ug/kg	42.4	141
106-47-8	4-Chloroaniline	U	1410	ug/kg	283	1410
87-68-3	Hexachlorobutadiene	U	1410	ug/kg	283	1410
91-57-6	2-Methylnaphthalene	U	141	ug/kg	28.3	141
77-47-4	Hexachlorocyclopentadiene	U	1410	ug/kg	283	1410
88-06-2	2,4,6-Trichlorophenol	U	1410	ug/kg	283	1410
95-95-4	2,4,5-Trichlorophenol	U	1410	ug/kg	283	1410
91-58-7	2-Chloronaphthalene	U	141	ug/kg	46.7	141
88-74-4	2-Nitroaniline	U	1410	ug/kg	283	1410
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	1410	ug/kg	283	1410

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

SDG Number: 10-2140  
Lab Sample ID: 248249003

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.18 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 6.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
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	1410	ug/kg	283	1410
606-20-2	2,6-Dinitrotoluene	U	1410	ug/kg	141	1410
208-96-8	Acenaphthylene	U	141	ug/kg	42.4	141
51-28-5	2,4-Dinitrophenol	U	2830	ug/kg	538	2830 UJ,SV7c
132-64-9	Dibenzofuran	U	1410	ug/kg	283	1410
84-66-2	Diethylphthalate	U	1410	ug/kg	283	1410
86-73-7	Fluorene	J	95.7	ug/kg	42.4	141
7005-72-3	4-Chlorophenylphenylether	U	1410	ug/kg	283	1410
534-52-1	2-Methyl-4,6-dinitrophenol	U	1410	ug/kg	283	1410 UJ,SV7c
100-01-6	4-Nitroaniline	U	1410	ug/kg	424	1410
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	1410	ug/kg	283	1410
122-66-7	Azobenzene	U	1410	ug/kg	283	1410
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	1410	ug/kg	283	1410
118-74-1	Hexachlorobenzene	U	1410	ug/kg	283	1410
85-01-8	Phenanthrene		1330	ug/kg	42.4	141
120-12-7	Anthracene		277	ug/kg	28.3	141
84-74-2	Di-n-butylphthalate	J	547	ug/kg	283	1410
206-44-0	Fluoranthene		2770	ug/kg	42.4	141
85-68-7	Butylbenzylphthalate	U	1410	ug/kg	283	1410
56-55-3	Benzo(a)anthracene		1550	ug/kg	42.4	141
91-94-1	3,3'-Dichlorobenzidine	U	1410	ug/kg	424	1410
218-01-9	Chrysene		1620	ug/kg	42.4	141
117-81-7	bis(2-Ethylhexyl)phthalate	U	1410	ug/kg	283	1410
117-84-0	Di-n-octylphthalate	U	1410	ug/kg	283	1410
205-99-2	Benzo(b)fluoranthene		3000	ug/kg	42.4	141
207-08-9	Benzo(k)fluoranthene	U	141	ug/kg	42.4	141
50-32-8	Benzo(a)pyrene		1570	ug/kg	42.4	141
193-39-5	Indeno(1,2,3-cd)pyrene		695	ug/kg	42.4	141
53-70-3	Dibenzo(a,h)anthracene	U	141	ug/kg	42.4	141
191-24-2	Benzo(ghi)perylene		710	ug/kg	42.4	141
120-82-1	1,2,4-Trichlorobenzene	U	1410	ug/kg	283	1410

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
7785-70-8	1R- $\alpha$ -Pinene	3.54	2760	ug/kg	97	NJ
	Unknown	7.12	576	ug/kg		J

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

SDG Number: 10-2140  
Lab Sample ID: 248249003

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Allquot: 30.18 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 6.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	7.8	646	ug/kg		J
5737-13-3	Cyclopenta(def)phenanthrene	8.28	699	ug/kg	94	NJ
243-17-4	11H-Benzo[b]fluorene	8.86	876	ug/kg	95	NJ
	Unknown	8.95	1270	ug/kg		J
2381-21-7	Pyrene, 1-methyl-	9.05	579	ug/kg	93	NJ
	Unknown	9.12	1290	ug/kg		J
64401-21-4	Pyrene, 1,3-dimethyl-	9.25	591	ug/kg	95	NJ
479-79-8	11H-Benzo[a]fluoren-11-one	9.35	1120	ug/kg	90	NJ
	Unknown	9.4	675	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.48	1380	ug/kg	90	NJ
479-79-8	11H-Benzo[a]fluoren-11-one	9.55	657	ug/kg	96	NJ
239-35-0	Benzo[b]naphtho[2,1-d]thiophene	9.62	632	ug/kg	89	NJ
	Unknown	9.81	882	ug/kg		J
	Unknown	9.93	709	ug/kg		J
544-76-3	Hexadecane	10.13	703	ug/kg	95	NJ
	Unknown	10.61	1430	ug/kg		J
1000130-81-0	11,13-Dimethyl-12-tetradecen-1-ol acetat	10.63	1110	ug/kg	83	NJ
604-53-5	1,1'-Binaphthalene	10.69	1520	ug/kg	86	NJ
	Unknown	10.77	1550	ug/kg		J
192-97-2	Benzo[e]pyrene	11.26	1560	ug/kg	98	NJ
112-95-8	Eicosane	11.93	1070	ug/kg	98	NJ

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

SDG Number: 10-2140  
Lab Sample ID: 248249004

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Allquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 5.5  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8284  
Batch ID: 960971  
Run Date: 03/18/2010 14:40  
Prep Date: 03/04/2010 23:22  
Data File: s6c1818.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	1410	ug/kg	282	1410
108-95-2	Phenol	U	1410	ug/kg	282	1410
95-57-8	2-Chlorophenol	U	1410	ug/kg	282	1410
106-46-7	1,4-Dichlorobenzene	U	1410	ug/kg	282	1410
621-64-7	N-Nitrosodipropylamine	U	1410	ug/kg	282	1410
59-50-7	4-Chloro-3-methylphenol	U	1410	ug/kg	282	1410
83-32-9	Acenaphthene	J	72.5	ug/kg	46.6	141
121-14-2	2,4-Dinitrotoluene	U	1410	ug/kg	141	1410
100-02-7	4-Nitrophenol	U	1410	ug/kg	466	1410 UJ,SV7c
87-86-5	Pentachlorophenol	U	1410	ug/kg	353	1410
129-00-0	Pyrene		1880	ug/kg	42.3	141
110-86-1	Pyridine	U	1410	ug/kg	282	1410 UJ,SV7c
62-53-3	Aniline	U	1410	ug/kg	423	1410
111-44-4	bis(2-Chloroethyl) ether	U	1410	ug/kg	282	1410
541-73-1	1,3-Dichlorobenzene	U	1410	ug/kg	282	1410
100-51-6	Benzyl alcohol	U	1410	ug/kg	423	1410 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	1410	ug/kg	282	1410
108-60-1	bis(2-Chloroisopropyl)ether	U	1410	ug/kg	282	1410
95-48-7	o-Cresol	U	1410	ug/kg	282	1410
65794-96-9	m,p-Cresols	U	1410	ug/kg	423	1410
67-72-1	Hexachloroethane	U	1410	ug/kg	282	1410
98-95-3	Nitrobenzene	U	1410	ug/kg	282	1410
78-59-1	Isophorone	U	1410	ug/kg	282	1410
88-75-5	2-Nitrophenol	U	1410	ug/kg	282	1410
105-67-9	2,4-Dimethylphenol	U	1410	ug/kg	494	1410 UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	1410	ug/kg	282	1410
120-83-2	2,4-Dichlorophenol	U	1410	ug/kg	282	1410
65-85-0	Benzoic acid	U	2820	ug/kg	705	2820
91-20-3	Naphthalene	U	141	ug/kg	42.3	141
106-47-8	4-Chloroaniline	U	1410	ug/kg	282	1410
87-68-3	Hexachlorobutadiene	U	1410	ug/kg	282	1410
91-57-6	2-Methylnaphthalene	U	141	ug/kg	28.2	141
77-47-4	Hexachlorocyclopentadiene	U	1410	ug/kg	282	1410
88-06-2	2,4,6-Trichlorophenol	U	1410	ug/kg	282	1410
95-95-4	2,4,5-Trichlorophenol	U	1410	ug/kg	282	1410
91-58-7	2-Chloronaphthalene	U	141	ug/kg	46.6	141
88-74-4	2-Nitroaniline	U	1410	ug/kg	282	1410
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	1410	ug/kg	282	1410



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

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249004	Date Received: 02/27/2010 09:10	%Moisture: 5.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8284	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 4
Run Date: 03/18/2010 14:40	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30.01 g	Final Volume: 1 mL
Data File: s6c1818.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	1410	ug/kg	282	1410
606-20-2	2,6-Dinitrotoluene	U	1410	ug/kg	141	1410
208-96-8	Acenaphthylene	U	141	ug/kg	42.3	141
51-28-5	2,4-Dinitrophenol	U	2820	ug/kg	536	2820 UJ,SV7c
132-64-9	Dibenzofuran	U	1410	ug/kg	282	1410
84-66-2	Diethylphthalate	U	1410	ug/kg	282	1410
86-73-7	Fluorene	J	71.9	ug/kg	42.3	141
7005-72-3	4-Chlorophenylphenylether	U	1410	ug/kg	282	1410
534-52-1	2-Methyl-4,6-dinitrophenol	U	1410	ug/kg	282	1410 UJ,SV7c
100-01-6	4-Nitroaniline	U	1410	ug/kg	423	1410
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	1410	ug/kg	282	1410
122-66-7	Azobenzene	U	1410	ug/kg	282	1410
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	1410	ug/kg	282	1410
118-74-1	Hexachlorobenzene	U	1410	ug/kg	282	1410
85-01-8	Phenanthrene		988	ug/kg	42.3	141
120-12-7	Anthracene		191	ug/kg	28.2	141
84-74-2	Di-n-butylphthalate	J	739	ug/kg	282	1410
206-44-0	Fluoranthene		2040	ug/kg	42.3	141
85-68-7	Butylbenzylphthalate	U	1410	ug/kg	282	1410
56-55-3	Benzo(a)anthracene		988	ug/kg	42.3	141
91-94-1	3,3'-Dichlorobenzidine	U	1410	ug/kg	423	1410
218-01-9	Chrysene		1200	ug/kg	42.3	141
117-81-7	bis(2-Ethylhexyl)phthalate	U	1410	ug/kg	282	1410
117-84-0	Di-n-octylphthalate	U	1410	ug/kg	282	1410
205-99-2	Benzo(b)fluoranthene		1960	ug/kg	42.3	141
207-08-9	Benzo(k)fluoranthene	U	141	ug/kg	42.3	141
50-32-8	Benzo(a)pyrene		1080	ug/kg	42.3	141
193-39-5	Indeno(1,2,3-cd)pyrene		502	ug/kg	42.3	141
53-70-3	Dibenzo(a,h)anthracene	U	141	ug/kg	42.3	141
191-24-2	Benzo(ghi)perylene		525	ug/kg	42.3	141
120-82-1	1,2,4-Trichlorobenzene	U	1410	ug/kg	282	1410

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Ft	Qual
	Unknown	2.06	1870	ug/kg		J
1058-61-3	Stigmast-4-en-3-one	9.17	1890	ug/kg	98	NJ

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

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249004	Date Received: 02/27/2010 09:10	%Moisture: 5.5
Client ID: RE36-10-8284	Client: LANL010	Project: LANL01004
Batch ID: 960971	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/18/2010 14:40	Inst: MSD6.I	Dilution: 4
Prep Date: 03/04/2010 23:22	Analyst: NAG1	Inj. Vol: .5 uL
Data File: s6c1818.d	Aliquot: 30.01 g	Final Volume: 1 mL
	Column: J&W DB-5MS	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
479-79-8	11H-Benzo[a]fluoren-11-one	9.35	652	ug/kg	96	NJ
	Unknown	9.48	925	ug/kg		J
	Unknown	9.62	768	ug/kg		J
	Unknown	9.81	699	ug/kg		J
	Unknown	9.93	574	ug/kg		J
629-78-7	Heptadecane	10.13	646	ug/kg	96	NJ
	Unknown	10.25	792	ug/kg		J
559-74-0	Friedelan-3-one	10.66	10800	ug/kg	98	NJ
	Unknown	10.77	1480	ug/kg		J
198-55-0	Perylene	11.26	1120	ug/kg	99	NJ
	Unknown	11.73	1260	ug/kg		J
	Unknown	12.66	6370	ug/kg		J
	Unknown	13	1700	ug/kg		J
	Unknown	13.43	8200	ug/kg		J
	Unknown	13.56	793	ug/kg		J

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

SDG Number: 10-2140  
Lab Sample ID: 248249001

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.1 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 27.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
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	1840	ug/kg	369	1840
108-95-2	Phenol	U	1840	ug/kg	369	1840
95-57-8	2-Chlorophenol	U	1840	ug/kg	369	1840
106-46-7	1,4-Dichlorobenzene	U	1840	ug/kg	369	1840
621-64-7	N-Nitrosodipropylamine	U	1840	ug/kg	369	1840
59-50-7	4-Chloro-3-methylphenol	U	1840	ug/kg	369	1840
83-32-9	Acenaphthene		244	ug/kg	60.8	184
121-14-2	2,4-Dinitrotoluene	U	1840	ug/kg	184	1840
100-02-7	4-Nitrophenol	U	1840	ug/kg	608	1840 UJ,SV7c
87-86-5	Pentachlorophenol	U	1840	ug/kg	461	1840
129-00-0	Pyrene		9030	ug/kg	55.3	184
110-86-1	Pyridine	U	1840	ug/kg	369	1840 UJ,SV7c
62-53-3	Aniline	U	1840	ug/kg	553	1840
111-44-4	bis(2-Chloroethyl) ether	U	1840	ug/kg	369	1840
541-73-1	1,3-Dichlorobenzene	U	1840	ug/kg	369	1840
100-51-6	Benzyl alcohol	U	1840	ug/kg	553	1840 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	1840	ug/kg	369	1840
108-60-1	bis(2-Chloroisopropyl)ether	U	1840	ug/kg	369	1840
95-48-7	o-Cresol	U	1840	ug/kg	369	1840
65794-96-9	m,p-Cresols	U	1840	ug/kg	553	1840
67-72-1	Hexachloroethane	U	1840	ug/kg	369	1840
98-95-3	Nitrobenzene	U	1840	ug/kg	369	1840
78-59-1	Isophorone	U	1840	ug/kg	369	1840
88-75-5	2-Nitrophenol	U	1840	ug/kg	369	1840
105-67-9	2,4-Dimethylphenol	U	1840	ug/kg	645	1840 UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	1840	ug/kg	369	1840
120-83-2	2,4-Dichlorophenol	U	1840	ug/kg	369	1840
65-85-0	Benzoic acid	U	3690	ug/kg	922	3690
91-20-3	Naphthalene	U	184	ug/kg	55.3	184
106-47-8	4-Chloroaniline	U	1840	ug/kg	369	1840
87-68-3	Hexachlorobutadiene	U	1840	ug/kg	369	1840
91-57-6	2-Methylnaphthalene	U	184	ug/kg	36.9	184
77-47-4	Hexachlorocyclopentadiene	U	1840	ug/kg	369	1840
88-06-2	2,4,6-Trichlorophenol	U	1840	ug/kg	369	1840
95-95-4	2,4,5-Trichlorophenol	U	1840	ug/kg	369	1840
91-58-7	2-Chloronaphthalene	U	184	ug/kg	60.8	184
88-74-4	2-Nitroaniline	U	1840	ug/kg	369	1840
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	1840	ug/kg	369	1840

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

SDG Number: 10-2140  
Lab Sample ID: 248249001

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Allquot: 30.1 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 27.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
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	1840	ug/kg	369	1840
606-20-2	2,6-Dinitrotoluene	U	1840	ug/kg	184	1840
208-96-8	Acenaphthylene	U	184	ug/kg	55.3	184
51-28-5	2,4-Dinitrophenol	U	3690	ug/kg	701	3690 UJ,SV7c
132-64-9	Dibenzofuran	U	1840	ug/kg	369	1840
84-66-2	Diethylphthalate	U	1840	ug/kg	369	1840
86-73-7	Fluorene		253	ug/kg	55.3	184
7005-72-3	4-Chlorophenylphenylether	U	1840	ug/kg	369	1840
534-52-1	2-Methyl-4,6-dinitrophenol	U	1840	ug/kg	369	1840 UJ,SV7c
100-01-6	4-Nitroaniline	U	1840	ug/kg	553	1840
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	1840	ug/kg	369	1840
122-66-7	Azobenzene	U	1840	ug/kg	369	1840
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	1840	ug/kg	369	1840
118-74-1	Hexachlorobenzene	U	1840	ug/kg	369	1840
85-01-8	Phenanthrene		3590	ug/kg	55.3	184
120-12-7	Anthracene		787	ug/kg	36.9	184
84-74-2	Di-n-butylphthalate	J	1240	ug/kg	369	1840
206-44-0	Fluoranthene		7630	ug/kg	55.3	184
85-68-7	Butylbenzylphthalate	U	1840	ug/kg	369	1840
56-55-3	Benzo(a)anthracene		4680	ug/kg	55.3	184
91-94-1	3,3'-Dichlorobenzidine	U	1840	ug/kg	553	1840
218-01-9	Chrysene		5700	ug/kg	55.3	184
117-81-7	bis(2-Ethylhexyl)phthalate	U	1840	ug/kg	369	1840
117-84-0	Di-n-octylphthalate	U	1840	ug/kg	369	1840
205-99-2	Benzo(b)fluoranthene		13000	ug/kg	55.3	184
207-08-9	Benzo(k)fluoranthene	U	184	ug/kg	55.3	184
50-32-8	Benzo(a)pyrene		5940	ug/kg	55.3	184
193-39-5	Indeno(1,2,3-cd)pyrene		3010	ug/kg	55.3	184
53-70-3	Dibenzo(a,h)anthracene	U	184	ug/kg	55.3	184
191-24-2	Benzo(ghi)perylene		3130	ug/kg	55.3	184
120-82-1	1,2,4-Trichlorobenzene	U	1840	ug/kg	369	1840

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
2381-21-7	Pyrene, 1-methyl-	8.76	956	ug/kg	95	NJ
33543-31-6	Fluoranthene, 2-methyl-	8.86	1840	ug/kg	97	NJ

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

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249001	Date Received: 02/27/2010 09:10	%Moisture: 27.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8285	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 4
Run Date: 03/18/2010 19:26	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30.1 g	Final Volume: 1 mL
Data File: s6c1830.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.96	1440	ug/kg		J
	Unknown	9.05	941	ug/kg		J
	Unknown	9.09	1010	ug/kg		J
479-79-8	11H-Benzo[a]fluoren-11-one	9.35	1320	ug/kg	97	NJ
239-35-0	Benzo[b]naphtho[2,1-d]thiophene	9.46	1290	ug/kg	92	NJ
	Unknown	9.49	1530	ug/kg		J
	Unknown	9.52	1160	ug/kg		J
	Unknown	9.55	1610	ug/kg		J
	Unknown	9.62	1510	ug/kg		J
	Unknown	9.82	1660	ug/kg		J
	Unknown	9.93	1130	ug/kg		J
2498-77-3	Benz[a]anthracene, 1-methyl-	10.11	1550	ug/kg	96	NJ
3351-32-4	Chrysene, 2-methyl-	10.15	1320	ug/kg	91	NJ
	Unknown	10.26	1130	ug/kg		J
	Unknown	10.33	1330	ug/kg		J
1090-13-7	5,12-Naphthacenedione	10.47	1130	ug/kg	90	NJ
	Unknown	10.57	1860	ug/kg		J
	Unknown	10.7	4350	ug/kg		J
	Unknown	10.77	5730	ug/kg		J
198-55-0	Perylene	11.27	5670	ug/kg	99	NJ

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

Page 1 of 3

SDG Number: 10-2140  
Lab Sample ID: 248249002

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 7.5  
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	359	ug/kg	71.8	359
108-95-2	Phenol	U	359	ug/kg	71.8	359
95-57-8	2-Chlorophenol	U	359	ug/kg	71.8	359
106-46-7	1,4-Dichlorobenzene	U	359	ug/kg	71.8	359
621-64-7	N-Nitrosodipropylamine	U	359	ug/kg	71.8	359
59-50-7	4-Chloro-3-methylphenol	U	359	ug/kg	71.8	359
83-32-9	Acenaphthene	J	14.5	ug/kg	11.8	35.9
121-14-2	2,4-Dinitrotoluene	U	359	ug/kg	35.9	359
100-02-7	4-Nitrophenol	U	359	ug/kg	118	359 UJ,SV7c
87-86-5	Pentachlorophenol	U	359	ug/kg	89.7	359
129-00-0	Pyrene		425	ug/kg	10.8	35.9
110-86-1	Pyridine	U	359	ug/kg	71.8	359 UJ,SV7c
62-53-3	Aniline	U	359	ug/kg	108	359
111-44-4	bis(2-Chloroethyl) ether	U	359	ug/kg	71.8	359
541-73-1	1,3-Dichlorobenzene	U	359	ug/kg	71.8	359
100-51-6	Benzyl alcohol	U	359	ug/kg	108	359 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	359	ug/kg	71.8	359
108-60-1	bis(2-Chloroisopropyl)ether	U	359	ug/kg	71.8	359
95-48-7	o-Cresol	U	359	ug/kg	71.8	359
65794-96-9	m,p-Cresols	U	359	ug/kg	108	359
67-72-1	Hexachloroethane	U	359	ug/kg	71.8	359
98-95-3	Nitrobenzene	U	359	ug/kg	71.8	359
78-59-1	Isophorone	U	359	ug/kg	71.8	359
88-75-5	2-Nitrophenol	U	359	ug/kg	71.8	359
105-67-9	2,4-Dimethylphenol	U	359	ug/kg	126	359 UJ,SV7c
111-91-1	bis(2-Chloroethoxy)methane	U	359	ug/kg	71.8	359
120-83-2	2,4-Dichlorophenol	U	359	ug/kg	71.8	359
65-85-0	Benzoic acid	U	718	ug/kg	179	718
91-20-3	Naphthalene	U	35.9	ug/kg	10.8	35.9
106-47-8	4-Chloroaniline	U	359	ug/kg	71.8	359
87-68-3	Hexachlorobutadiene	U	359	ug/kg	71.8	359
91-57-6	2-Methylnaphthalene	U	35.9	ug/kg	71.8	35.9
77-47-4	Hexachlorocyclopentadiene	U	359	ug/kg	71.8	359
88-06-2	2,4,6-Trichlorophenol	U	359	ug/kg	71.8	359
95-95-4	2,4,5-Trichlorophenol	U	359	ug/kg	71.8	359
91-58-7	2-Chloronaphthalene	U	35.9	ug/kg	11.8	35.9
88-74-4	2-Nitroaniline	U	359	ug/kg	71.8	359
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	359	ug/kg	71.8	359

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

SDG Number: 10-2140  
Lab Sample ID: 248249002

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 7.5  
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	359	ug/kg	71.8	359
606-20-2	2,6-Dinitrotoluene	U	359	ug/kg	35.9	359
208-96-8	Acenaphthylene	U	35.9	ug/kg	10.8	35.9
51-28-5	2,4-Dinitrophenol	U	718	ug/kg	136	718 UJ,SV7c
132-64-9	Dibenzofuran	U	359	ug/kg	71.8	359
84-66-2	Diethylphthalate	U	359	ug/kg	71.8	359
86-73-7	Fluorene	J	13.4	ug/kg	10.8	35.9
7005-72-3	4-Chlorophenylphenylether	U	359	ug/kg	71.8	359
534-52-1	2-Methyl-4,6-dinitrophenol	U	359	ug/kg	71.8	359 UJ,SV7c
100-01-6	4-Nitroaniline	U	359	ug/kg	108	359
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	359	ug/kg	71.8	359
122-66-7	Azobenzene	U	359	ug/kg	71.8	359
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	359	ug/kg	71.8	359
118-74-1	Hexachlorobenzene	U	359	ug/kg	71.8	359
85-01-8	Phenanthrene		212	ug/kg	10.8	35.9
120-12-7	Anthracene	J	30.4	ug/kg	7.18	35.9
84-74-2	Di-n-butylphthalate	J	258	ug/kg	71.8	359
206-44-0	Fluoranthene		425	ug/kg	10.8	35.9
85-68-7	Butylbenzylphthalate	U	359	ug/kg	71.8	359
56-55-3	Benzo(a)anthracene		171	ug/kg	10.8	35.9
91-94-1	3,3'-Dichlorobenzidine	U	359	ug/kg	108	359
218-01-9	Chrysene		269	ug/kg	10.8	35.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	359	ug/kg	71.8	359
117-84-0	Di-n-octylphthalate	U	359	ug/kg	71.8	359
205-99-2	Benzo(b)fluoranthene		490	ug/kg	10.8	35.9
207-08-9	Benzo(k)fluoranthene	U	35.9	ug/kg	10.8	35.9
50-32-8	Benzo(a)pyrene		220	ug/kg	10.8	35.9
193-39-5	Indeno(1,2,3-cd)pyrene		111	ug/kg	10.8	35.9
53-70-3	Dibenzo(a,h)anthracene	U	35.9	ug/kg	10.8	35.9
191-24-2	Benzo(ghi)perylene		126	ug/kg	10.8	35.9
120-82-1	1,2,4-Trichlorobenzene	U	359	ug/kg	71.8	359

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
506-30-9	Eicosanoic acid	9.06	275	ug/kg	91	NJ
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.14	170	ug/kg	98	NJ

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

Page 3 of 3


SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249002	Date Received: 02/27/2010 09:10	%Moisture: 7.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8286	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 1
Run Date: 03/18/2010 14:16	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Allquot: 30.13 g	Final Volume: 1 mL
Data File: s6c1817.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	9.19	147	ug/kg		J
54482-31-4	D-Homoandrostane, (5.alpha.,13.alpha.)-	9.37	191	ug/kg	95	NJ
	Unknown	9.41	195	ug/kg		J
	Unknown	9.46	210	ug/kg		J
	Unknown	9.5	867	ug/kg		J
	Unknown	9.62	170	ug/kg		J
1599-67-3	1-Docosene	9.8	907	ug/kg	97	NJ
7773-83-3	1-Docosanethiol	9.93	298	ug/kg	87	NJ
1786-12-5	Cyclotetradecane, 1,7,11-trimethyl-4-(1-	9.99	151	ug/kg	94	NJ
930-02-9	Octadecane, 1-(ethenyloxy)-	10.04	190	ug/kg	90	NJ
629-78-7	Heptadecane	10.13	195	ug/kg	92	NJ
	Unknown	10.24	234	ug/kg		J
2433-96-7	Tricosanoic acid	10.41	447	ug/kg	89	NJ
559-74-0	Friedelan-3-one	10.63	2610	ug/kg	93	NJ
	Unknown	10.71	478	ug/kg		J
	Unknown	10.77	965	ug/kg		J
1000130-78-5	11,12-Dibromo-tetradecan-1-ol acetate	11.04	376	ug/kg	84	NJ



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

Section I.			
REQUEST NUMBER: <u>10-2140</u>	VALIDATION DATE: <u>5/3/10</u>	LAB CODE: <u>GEL</u>	
CONTRACT LABORATORY NAME: <u>GEL Laboratories LLC</u>			
VALIDATOR: <u>Linda Thal</u>		ORGANIZATION: <u>Analytical Quality Associates, Inc.</u>	
ANALYTICAL SUITE (CHECK ALL THAT APPLY):			
<input type="checkbox"/> TPH-GRO	<input type="checkbox"/> HIGH EXPLOSIVES	<input type="checkbox"/> DIOXIN FURANS	<input type="checkbox"/> LCMSMS PERCHLORATES
<input type="checkbox"/> TPH-DRO	<input type="checkbox"/> METALS	<input type="checkbox"/> PCB CONGENERS	<input type="checkbox"/> ORGANOCHLORINE
<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):							
<ol style="list-style-type: none"> <li>The ICAL RRF for p-nitrotoluene was <math>&lt;0.05</math> but <math>\geq 0.01</math>. The associated sample results were NDs and, thus, were qualified UJ,HE7b.</li> <li>The ICV and/or CCV %Ds for RDX; 2,4-diamino-6-nitrotoluene and 3,5-dinitroaniline were <math>&gt;20\%</math> with positive bias. The associated sample results were NDs and, thus, were not qualified. The ICV %D for m-nitrotoluene was <math>&gt;20\%</math> but <math>\leq 40\%</math> with negative bias. The %Ds for m-nitrotoluene and o-nitrotoluene were <math>&gt;20\%</math> but <math>\leq 40\%</math> with negative bias for the CCVs associated with samples RE36-10-8283 and -8284. The %Ds for m-nitrotoluene, p-nitrotoluene and o-nitrotoluene were <math>&gt;20\%</math> but <math>\leq 40\%</math> with negative bias for the CCVs associated with the remaining samples. The associated sample results were NDs and, thus, were qualified UJ,HE7c.</li> <li>It should be noted that the raw ICAL data from the instrument used for the secondary HE analysis were not reported in the data package. Thus, the surrogate RT criteria could not be evaluated. No sample data were qualified as a result.</li> <li>The LCS %R for tetryl was <math>&lt;</math> the laboratory's LAL but <math>\geq 10\%</math>. The associated sample results were NDs and, thus, were qualified UJ,HE12a.</li> <li>The MS/MSD %Rs for tetryl were <math>&lt;</math> the laboratory's LAL but <math>\geq 10\%</math>. The associated sample results were NDs and, thus, were qualified UJ,HE12e.</li> </ol>							
Reviewed by: <u>Monica Dymerski</u> Level I      Date: <u>05/03/10</u>							


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

*A. Hal*


DATE: 5/3/10

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 (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
<input type="checkbox"/>	<input checked="" 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: RE36-10-8285

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249001

Sample Amount 2

Moisture: 27.9

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412197a

Date Analyzed: 16-APR-10 16:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene UJ,HE7c	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene UJ,HE7c	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene UJ,HE7b	500	U

\*Concentration =

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

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8285

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249001

Sample Amount 2

Molsture: 27.9

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050100.wiff

Date Analyzed: 06-APR-10 14:41

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



High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8286

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249002

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412160a

Date Analyzed: 15-APR-10 21:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene UJ,HE7c	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene UJ,HE7c	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene UJ,HE7b	500	U

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8286

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249002

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050103.wiff

Date Analyzed: 06-APR-10 15:28

Units: ug/kg

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

\*Concentration =

Instrument Value	X	$\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$	X	Dilution Factor
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1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8283

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249003

Sample Amount 2

Moisture: 6.3

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412161a

Date Analyzed: 15-APR-10 22:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene UJ,HE7c	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene UJ,HE7c	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene UJ,HE7b	500	U

\*Concentration =

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

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8283

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SQL

GEL Sample ID: 248249003

Sample Amount 2

Moisture: 6.3

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050104.wiff

Date Analyzed: 06-APR-10 15:43

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

LT 5/3/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8284

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249004

Sample Amount 2

Moisture: 5.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412198a

Date Analyzed: 16-APR-10 16:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene UJ,HE7c	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene UJ,HE7c	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene UJ,HE7b	500	U

\*Concentration =

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

LT 5/3/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8284

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249004

Sample Amount 2

Moisture: 5.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050105.wiff


Date Analyzed: 06-APR-10 15:59

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

DATA VALIDATION COVER SHEET	
<b>5116-1</b>  <p style="text-align: center;"><b>Data Validation Cover Sheet</b></p>	Records Use only  

Section I.		
REQUEST NUMBER: <u>10-2140</u>	VALIDATION DATE: <u>4/29/10</u>	LAB CODE: <u>GEL</u>
CONTRACT LABORATORY NAME: <u>GEL Laboratories LLC</u>		
VALIDATOR: <u>Linda Thal</u> ORGANIZATION: <u>Analytical Quality Associates, Inc.</u>		
ANALYTICAL SUITE (CHECK ALL THAT APPLY):		
<input type="checkbox"/> TPH-GRO	<input type="checkbox"/> HIGH EXPLOSIVES	<input type="checkbox"/> DIOXIN FURANS
<input type="checkbox"/> TPH-DRO	<input type="checkbox"/> METALS	<input type="checkbox"/> PCB CONGENERS
<input type="checkbox"/> GENERAL CHEMISTRY	<input type="checkbox"/> RADIOCHEMISTRY	<input type="checkbox"/> LCMSMS HIGH EXPLOSIVES
<input type="checkbox"/> OTHER (DESCRIBE): <u>PCBs</u>		<input type="checkbox"/> LCMSMS PERCHLORATES <input checked="" type="checkbox"/> ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS

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 MS/MSD was performed on a sample from another LANL RN and the raw data for the parent sample were not included in the data package. No sample results were qualified.

Reviewed by: Monica Dymerski Level I Date: 05/03/10

VALIDATOR'S SIGNATURE: *L. Thal*

DATE: 4/29/10

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



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

5116-2

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

Records Use only



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

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

5116-2

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

Records Use only



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

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

5116-2

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

Records Use only



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

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

SDG Number: 10-2140  
Lab Sample ID: 248249003

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.04 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
% Moisture: 6.3  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 5  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8283  
Batch ID: 965805  
Run Date: 03/17/2010 15:22  
Prep Date: 03/16/2010 21:02  
Data File: 049f4901.d  
049b4901.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	17.8	ug/kg	5.92	17.8	1
11104-28-2	Aroclor-1221	U	17.8	ug/kg	5.92	17.8	1
11141-16-5	Aroclor-1232	U	17.8	ug/kg	5.92	17.8	1
53469-21-9	Aroclor-1242	U	17.8	ug/kg	5.92	17.8	1
12672-29-6	Aroclor-1248	U	17.8	ug/kg	5.92	17.8	1
11097-69-1	Aroclor-1254		67.8	ug/kg	5.92	17.8	1
11096-82-5	Aroclor-1260		47.3	ug/kg	5.92	17.8	1

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

SDG Number: 10-2140  
Lab Sample ID: 248249004

Client ID: RE36-10-8284  
Batch ID: 965805  
Run Date: 03/17/2010 15:35  
Prep Date: 03/16/2010 21:02  
Data File: 050f5001.d  
050b5001.d

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.02 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 5.5  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 5  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	17.6	ug/kg	5.87	17.6	1
11104-28-2	Aroclor-1221	U	17.6	ug/kg	5.87	17.6	1
11141-16-5	Aroclor-1232	U	17.6	ug/kg	5.87	17.6	1
53469-21-9	Aroclor-1242	U	17.6	ug/kg	5.87	17.6	1
12672-29-6	Aroclor-1248	U	17.6	ug/kg	5.87	17.6	1
11097-69-1	Aroclor-1254		64.1	ug/kg	5.87	17.6	1
11096-82-5	Aroclor-1260		43.0	ug/kg	5.87	17.6	1

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

SDG Number: 10-2140  
Lab Sample ID: 248249001

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.03 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 27.9  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 5  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	23.1	ug/kg	7.69	23.1	1
11104-28-2	Aroclor-1221	U	23.1	ug/kg	7.69	23.1	1
11141-16-5	Aroclor-1232	U	23.1	ug/kg	7.69	23.1	1
53469-21-9	Aroclor-1242	U	23.1	ug/kg	7.69	23.1	1
12672-29-6	Aroclor-1248	U	23.1	ug/kg	7.69	23.1	1
11097-69-1	Aroclor-1254		137	ug/kg	7.69	23.1	1
11096-82-5	Aroclor-1260		101	ug/kg	7.69	23.1	1

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

SDG Number: 10-2140  
Lab Sample ID: 248249002

Client ID: RE36-10-8286  
Batch ID: 965805  
Run Date: 03/17/2010 15:09  
Prep Date: 03/16/2010 21:02  
Data File: 048f4801.d  
048b4801.d

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.18 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
% Moisture: 7.5  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 5  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	17.9	ug/kg	5.96	17.9	1
11104-28-2	Aroclor-1221	U	17.9	ug/kg	5.96	17.9	1
11141-16-5	Aroclor-1232	U	17.9	ug/kg	5.96	17.9	1
53469-21-9	Aroclor-1242	U	17.9	ug/kg	5.96	17.9	1
12672-29-6	Aroclor-1248	U	17.9	ug/kg	5.96	17.9	1
11097-69-1	Aroclor-1254		79.1	ug/kg	5.96	17.9	1
11096-82-5	Aroclor-1260		55.6	ug/kg	5.96	17.9	1

Friday, February 26, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2140

LOS ALAMOS

REQUEST NUMBER: 10-2140

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/28/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

248249

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-8285	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8285	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8286	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8286	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8283	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8283	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8284	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8284	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8296	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

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



**LOS ALAMOS  
NATIONAL LABORATORY**

**General Engineering Laboratories, Inc., Charleston, SC.**

**Charleston, SC 29407**

**These Samples are on:**

LANL Request Number: 10-2140

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

**Please analyse the enclosed samples according to the schedule indicated:**

SHIP DATE: 2/28/2010

**TURNAROUND/REPORT DUE: 3/28/2010**

**TURNAROUND REQ'D: 30 Days**

### **RAD SCREENING: Yes, Below Background**

**LAB REQUEST COMMENTS:**

LANL ER SMO CONTACT:

**Signature:**

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846-8082	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
	SW-846-8260B	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
		1	RE36-10-8286	S	2/24/2010	

Friday, February 26, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
	SW-846:8321A_MOD	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	

Final Page of REQUEST NUMBER 10-2140



May 03, 2010

[www.gel.com](http://www.gel.com)

Ms. Joylenc 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: 248249  
SDG: 10-2140

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 27, 2010, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, GC/MS Semivolatile and GC/MS Volatile. This report has been revised to include the missing Explosives data.

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: 10-2140  
Enclosures

**Los Alamos National Laboratory (72733-001-09)**  
**LANL ER Project**  
**Work Order #: 248249**  
**SDG: 10-2140**

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# Case Narrative

**Case Narrative for  
Los Alamos National Laboratory (72733-001-09)  
LANL ER Project  
Workorder #: 248249  
SDG #: 10-2140**

**March 06, 2010**

**Laboratory Identification:**

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

**Summary**

**Sample receipt** The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 27, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The original chain of custody was received 3/2/10. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 10/11C temperatures. Shipping container temperature was within specification (0 - 6C).

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

<b><u>Laboratory ID</u></b>	<b><u>Client ID</u></b>
248249001	RE36-10-8285
248249002	RE36-10-8286
248249003	RE36-10-8283
248249004	RE36-10-8284
248249005	RE36-10-8296

**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 and GC/MS Volatile.

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



Valerie Davis

Project Manager

**List of current GEL Certifications as of 06 March 2010**

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



# **Chain of Custody and Supporting Documentation**

Friday, February 26, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2140

LOS ALAMOS

REQUEST NUMBER: 10-2140

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/28/2010

General Engineering Laboratories, Inc.,  
Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

248249

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-8285	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8285	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8286	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8286	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8283	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8283	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8284	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-8284	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-8296	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By:

Date

Time

Remarks:

Printed Name

Signature

Friday, February 26, 2010

**LOS ALAMOS  
NATIONAL LABORATORY**

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

Please analyse the enclosed samples  
according to the schedule indicated:

**SHIP DATE: 2/26/2010**

**TURNAROUND/REPORT DUE: 3/28/2010**

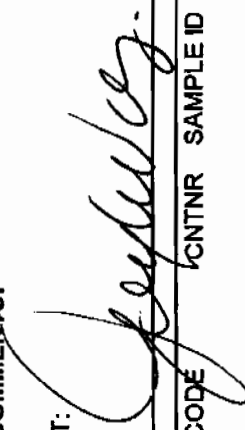
**TURNAROUND REQ'D: 30 Days**

**RAD SCREENING: Yes, Below Background**

**LAB REQUEST COMMENTS:**

LANL ER SMO CONTACT:

Signature:



These Samples are on:

LANL Request Number: 10-2140

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

REQUEST NUMBER: 10-2140

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
	SW-846:8260B	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
		1	RE36-10-8296	S	2/24/2010	

Friday, February 26, 2010

REQUEST NUMBER: 10-2140

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	
	SW-846:8321A_MOD	1	RE36-10-8283	R	2/24/2010	
		1	RE36-10-8284	R	2/24/2010	
		1	RE36-10-8285	R	2/24/2010	
		1	RE36-10-8286	R	2/24/2010	

Final Page of REQUEST NUMBER 10-2140



## SAMPLE RECEIPT &amp; REVIEW FORM

Client: LANL		SDG/ARCO/Work Order: 10-2140	
Received By: Patricia Dover-Dent		Date Received: 2/27/10	
Suspected Hazard Information	Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: 60cpm
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	X			Circle Applicable: seals broken    damaged container    leaking container    other (describe)
2 Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags    blue ice    dry ice    none    other 1-6C    10,11C
3 Chain of custody documents included with shipment?	X		X	the original COC rec'd 3/2/10
4 Sample containers intact and sealed?	X			Circle Applicable: seals broken    damaged container    leaking container    other (describe)
5 Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6 VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7 Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8 Samples received within holding time?	X			Id's and tests affected:
9 Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?		X		Sample ID's affected: <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 2525 1C    7209 7850 2570 5C  
 7209 7850 2606 1C    7209 7850 2558 6C  
 7209 7850 2547 1C    7209 7850 2536 6C  
 7209 7850 2639 2C    7209 7850 2591 6C  
 7209 7850 2580 2C    7209 7850 2514 10C  
 7209 7850 2499 2C    7209 7850 2628 11C  
 7209 7850 2617 3C    7209 7850 2503 11C  
 7209 7850 2569 4C

PM (or PMA) review: Initials

Date

3/3/10

**Subject:** Sample Receipt for 2/27/10

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

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

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

Keith,

The lab did not receive any original chain of custodies.

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

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

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

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

The following containers were rec'd without a COC:

RE36-10-7533 and 7535

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

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

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

RE36-10-7491

500ml amber glass H3, 8270+NMED Exp

Thanks,

Dionne

--

Dionne Francis

Project Manager Assistant

GEL Laboratories, LLC

2040 Savage Road

Charleston, SC (USA) 29407

Direct: 843.769.7376 Ext. 4432

Main: 843.556.8171

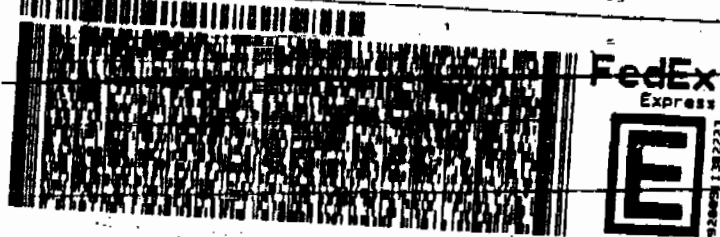
Fax: 843.766.1178

E-mail: [daf@gel.com](mailto:daf@gel.com)

Web: [www.gel.com](http://www.gel.com)

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

BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US  
CHD: 0014176/CAFE2450  
BILL SENDER  
TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD  
CHARLESTON SC 29407  
(843) 556-8171  
REF: MR3A0223CY10



1 of 2  
TRKH 0201 7209 7850 2525  
MASTER MH  
### SATURDAY ### A1  
PRIORITY OVERNIGHT



28 FEB 10  
6 LB MAN  
0014176/CAFE2450  
LOS ALAMOS, NM 87545  
UNITED STATES US  
BILL SENDER  
TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD  
CHARLESTON SC 29407  
(843) 556-8171  
REF: MR3A0223FCY10



1 of 2  
TRKH 0201 7209 7850 2547  
MASTER MH  
### SATURDAY ### A1  
PRIORITY OVERNIGHT



TA00 BLDG 1237 DPU 03  
LOS ALAMOS, NM 87545  
UNITED STATES US  
BILL SENDER  
TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD  
CHARLESTON SC 29407  
(843) 556-8171  
REF: MR2A0515BY00



1 of 2  
TRKH 0201 7209 7850 2606  
MASTER MH  
### SATURDAY ### A1  
PRIORITY OVERNIGHT



28 FEB 10  
6 LB MAN  
0014176/CAFE2450  
LOS ALAMOS, NM 87545  
UNITED STATES US  
BILL SENDER  
TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD  
CHARLESTON SC 29407  
(843) 556-8171  
REF: MR3A0223CY10



2 of 2  
NPS# 0263 7209 7850 2639  
Mstr# 7209 7850 2628 0201  
### SATURDAY ### A1  
PRIORITY OVERNIGHT



LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: MR2A0515BYD0

TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: MR3A0223CY10

FedEx  
Express



FedEx  
Express



TRKH 0201 7209 7850 2580  
NN MASTER NN

1 of 2  
### SATURDAY ### A1  
PRIORITY OVERNIGHT

X0 CHSA

29407  
SC-US  
CHS

TRKH 0201 7209 7850 2499  
NN MASTER NN

1 of 3

### SATURDAY ### A1  
PRIORITY OVERNIGHT

X0 CHSA

29407  
SC-US  
CHS

TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: MR2A0515BYD0

JOYLENE VALDEZ  
205 ALAMOS-INTL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 53.0 LB MAN  
CAD: 00141767CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171  
REF: MR2A0515BYD0

FedEx  
Express



FedEx  
Express



MPSH 0263 7209 7850 2617  
Metrx 7209 7850 2606 0201

2 of 2  
### SATURDAY ### A1  
PRIORITY OVERNIGHT

X0 CHSA

29407  
SC-US  
CHS

TRKH 0201 7209 7850 2569  
NN MASTER NN

1 of 2

### SATURDAY ### A1  
PRIORITY OVERNIGHT

X0 CHSA

29407  
SC-US  
CHS



LOS ALAMOS, NM 87545  
UNITED STATES US

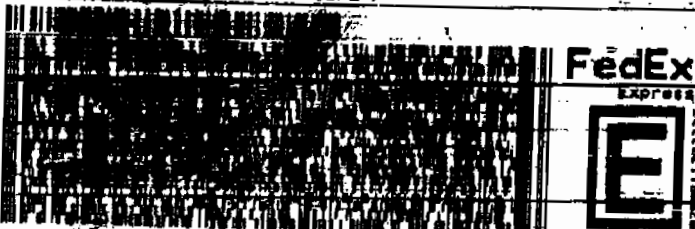
BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

5c

CHARLESTON SC 29407

(843) 556-8171  
REF: MR3A0223CY10



2 of 2  
PSN 7209 7850 2570  
Instr 7209 7850 2569 0201

### SATURDAY ### A1  
PRIORITY OVERNIGHT

X0 CHSA

29407  
SC-US  
CHS



LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

6c

CHARLESTON SC 29407

(843) 556-8171  
REF: MR3A0223CY10



2 of 2  
PSN 7209 7850 2536  
Instr 7209 7850 2525 0201

### SATURDAY ### A1  
PRIORITY OVERNIGHT

X0 CHSA

29407  
SC-US  
CHS



LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

6c

CHARLESTON SC 29407

(843) 556-8171  
REF: MR3A0223FCY10



2 of 2  
PSN 7209 7850 2558  
Instr 7209 7850 2547 0201

### SATURDAY ### A1  
PRIORITY OVERNIGHT

X0 CHSA

29407  
SC-US  
CHS



LOS ALAMOS, NM 87545  
UNITED STATES US

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

6c

CHARLESTON SC 29407

(843) 556-8171  
REF: MR2A0515BYD0



2 of 2  
PSN 7209 7850 2591  
Instr 7209 7850 2580 0201

### SATURDAY ### A1  
PRIORITY OVERNIGHT

X0 CHSA

29407  
SC-US  
CHS



TA00 BLDG 1237 DPA 83

LOS ALAMOS NM 87545  
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

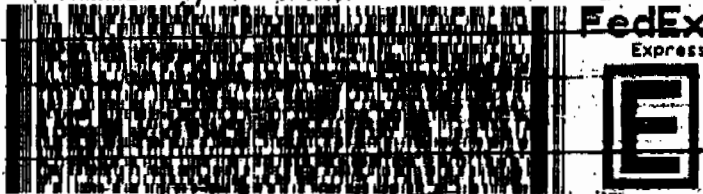
CHARLESTON SC 29407

(843) 556-8171

REF: MR3A0223CY10

10c

00141/91UMFE4400



3 of 3

### SATURDAY ### A1  
PRIORITY OVERNIGHT

MPS# 7209 7850 2514

Matr# 7209 7850 2499 0201

29407  
SC-US  
CHS

X0 CHSA



LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPA 83

LOS ALAMOS NM 87545  
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: MR3A0223CY10

11c

00141/91UMFE4400



1 of 2

### SATURDAY ### A1  
PRIORITY OVERNIGHT

TRCH 7209 7850 2628

Matr# MASTER MH

29407  
SC-US  
CHS

X0 CHSA



ORIGIN ID: YFAFA (805) 805-8966  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPA 83

LOS ALAMOS NM 87545  
UNITED STATES US

SHIP DATE: 06/01/00  
ACTWGT: 48.0 LB MAN  
CRD: 0014176/CRFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

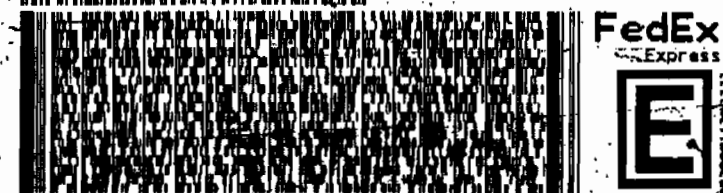
CHARLESTON SC 29407

(843) 556-8171

REF: MR3A0223CY10

11c

00141/91UMFE4400



2 of 3

### SATURDAY ### A1  
PRIORITY OVERNIGHT

MPS# 7209 7850 2503

Matr# 7209 7850 2499 0201

29407  
SC-US  
CHS

X0 CHSA

04 09

00141/91UMFE4400

# **Data Review Qualifier Flag Definition Sheet**

## Data Review Qualifier Definitions

Qualifier    Explanation

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

\*\*    Analyte is a surrogate compound

<    Result is less than value reported

>    Result is greater than value reported

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

A    The TIC is a suspected aldol-condensation product

B    Target analyte was detected in the associated blank

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

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

C    Analyte has been confirmed by GC/MS analysis

D    Results are reported from a diluted aliquot of the sample

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

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

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

H    Analytical holding time was exceeded

h    Preparation or preservation holding time was exceeded

J    Value is estimated

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

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

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

ND    Analyte concentration is not detected above the reporting limit

UI    Gamma Spectroscopy-Uncertain identification

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

Y    QC Samples were not spiked with this compound

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

# **GC/MS Volatile Analysis**

# Case Narrative

**ChemStation Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2140**

**Method/Analysis Information**

Procedure: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer  
Analytical Method: SW846 8260B  
Prep Method: SW846 5030  
Analytical Batch Number: 962697  
Prep Batch Number: 962696

**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>
248249001	RE36-10-8285
248249002	RE36-10-8286
248249003	RE36-10-8283
248249004	RE36-10-8284
248249005	RE36-10-8296
1202068443	Method Blank (MB)
1202068444	Laboratory Control Sample (LCS)
1202068445	Laboratory Control Sample (LCS)
1202076187	Method Blank (MB)
1202076188	Laboratory Control Sample (LCS)
1202076189	Laboratory Control Sample (LCS)
1202065320	248377004(WST16-10-13293) Post Spike (PS)
1202065321	248377004(WST16-10-13293) 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.

Samples 248249 001, 002, 003 and 004 in this SDG were analyzed on an "dry weight" basis. Samples 248249 005 in this SDG were analyzed on a "as received" 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 MBs analyzed with this SDG met the acceptance criteria.

**Surrogate Recoveries**

The surrogate recoveries, in the following samples, were above the acceptance limits. Sample re-analysis confirmed matrix interference: 248249002 (RE36-10-8286) and 248249003 (RE36-10-8283). See DER# 806872.

**Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

**QC Sample Designation**

Spike analyses were not required for this SDG.

**Matrix Spike (PS) Recovery Statement**

The spike recoveries were not all within the acceptance limits, however, due to rounding rules and/or significant figures, 2-Hexanone is not flagged on the form. See DER# 806872.

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

The spike duplicate recoveries were not all within the acceptance limits. See DER# 806872.

**Relative Percent Difference (RPD) Statement**

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

**Internal Standard (ISTD) Acceptance**

In the following samples, internal standard responses were outside the required acceptance criteria. Sample reanalysis confirmed matrix interference: 248249001 (RE36-10-8285) and 248249003 (RE36-10-8283). See DER# 806872.



## **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. See DER # 806872: 1202065321 (WST16-10-13293), 248249001 (RE36-10-8285), 248249002 (RE36-10-8286), 248249003 (RE36-10-8283) and 248249004 (RE36-10-8284).

### **Sample Preservation and Integrity**

All samples met the sample preservation and integrity requirements.

### **Sample Dilutions**

The samples in this SDG did not require dilutions.

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

The samples in this SDG were re-analyzed due to unacceptable recoveries in the initial analysis: 248249001 (RE36-10-8285), 248249002 (RE36-10-8286), 248249003 (RE36-10-8283) and 248249004 (RE36-10-8284).

## **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 # 806872 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: 10-2140 GEL Work Order: 248249

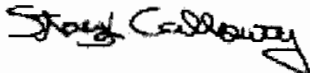
#### The Qualifiers in this report are defined as follows:

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

#### Review/Validation

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

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

Signature: 

Name: Stacy Calloway

Date: 26 MAR 2010

Title: Data Validator

# Sample Data Summary

Volume  
Certificate of Analysis  
Sample Summary

Page 1 of 2

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249001	Date Received: 02/27/2010 09:10	%Moisture: 27.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8285	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOA5.I	Dilution: 1
Run Date: 03/10/2010 21:45	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/10/2010 08:39	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031010V55B334.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.39	ug/kg	0.472	1.39
74-87-3	Chloromethane	U	1.39	ug/kg	0.416	1.39
75-01-4	Vinyl chloride	U	1.39	ug/kg	0.416	1.39
74-83-9	Bromomethane	U	1.39	ug/kg	0.416	1.39
75-00-3	Chloroethane	U	1.39	ug/kg	0.416	1.39
75-69-4	Trichlorofluoromethane	U	1.39	ug/kg	0.416	1.39
67-64-1	Acetone	U	6.94	ug/kg	2.30	6.94
75-35-4	1,1-Dichloroethylene	U	1.39	ug/kg	0.416	1.39
74-88-4	Iodomethane	U	6.94	ug/kg	2.22	6.94
75-09-2	Methylene chloride	U	6.94	ug/kg	2.77	6.94
75-15-0	Carbon disulfide	U	6.94	ug/kg	1.73	6.94
156-60-5	trans-1,2-Dichloroethylene	U	1.39	ug/kg	0.416	1.39
75-34-3	1,1-Dichloroethane	U	1.39	ug/kg	0.416	1.39
78-93-3	2-Butanone	U	6.94	ug/kg	2.08	6.94
156-59-2	cis-1,2-Dichloroethylene	U	1.39	ug/kg	0.416	1.39
594-20-7	2,2-Dichloropropane	U	1.39	ug/kg	0.416	1.39
67-66-3	Chloroform	U	1.39	ug/kg	0.416	1.39
74-97-5	Bromochloromethane	U	1.39	ug/kg	0.458	1.39
71-55-6	1,1,1-Trichloroethane	U	1.39	ug/kg	0.416	1.39
563-58-6	1,1-Dichloropropene	U	1.39	ug/kg	0.416	1.39
56-23-5	Carbon tetrachloride	U	1.39	ug/kg	0.416	1.39
107-06-2	1,2-Dichloroethane	U	1.39	ug/kg	0.416	1.39
71-43-2	Benzene	U	1.39	ug/kg	0.416	1.39
79-01-6	Trichloroethylene	U	1.39	ug/kg	0.458	1.39
78-87-5	1,2-Dichloropropane	U	1.39	ug/kg	0.416	1.39
75-27-4	Bromodichloromethane	U	1.39	ug/kg	0.416	1.39
74-95-3	Dibromomethane	U	1.39	ug/kg	0.416	1.39
108-10-1	4-Methyl-2-pentanone	U	6.94	ug/kg	1.73	6.94
10061-01-5	cis-1,3-Dichloropropylene	U	1.39	ug/kg	0.416	1.39
108-88-3	Toluene	U	1.39	ug/kg	0.416	1.39
10061-02-6	trans-1,3-Dichloropropylene	U	1.39	ug/kg	0.416	1.39
79-00-5	1,1,2-Trichloroethane	U	1.39	ug/kg	0.416	1.39
591-78-6	2-Hexanone	U	6.94	ug/kg	2.08	6.94
142-28-9	1,3-Dichloropropane	U	1.39	ug/kg	0.416	1.39
127-18-4	Tetrachloroethylene	U	1.39	ug/kg	0.416	1.39
124-48-1	Dibromochloromethane	U	1.39	ug/kg	0.416	1.39
106-93-4	1,2-Dibromoethane	U	1.39	ug/kg	0.416	1.39
108-90-7	Chlorobenzene	U	1.39	ug/kg	0.416	1.39

Certificate of Analysis  
Sample Summary

Page 4 of 4

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249001	Date Received: 02/27/2010 09:10	%Moisture: 27.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8285	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOA5.I	Dilution: 1
Run Date: 03/10/2010 21:45	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/10/2010 08:39	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031010V55B334.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.39	ug/kg	0.416	1.39
179601-23-1	m,p-Xylenes	U	2.77	ug/kg	0.416	2.77
95-47-6	o-Xylene	U	1.39	ug/kg	0.416	1.39
100-42-5	Styrene	U	1.39	ug/kg	0.416	1.39
75-25-2	Bromoform	U	1.39	ug/kg	0.416	1.39
79-34-5	1,1,2,2-Tetrachloroethane	U	1.39	ug/kg	0.416	1.39
96-18-4	1,2,3-Trichloropropane	U	1.39	ug/kg	0.416	1.39
108-86-1	Bromobenzene	U	1.39	ug/kg	0.416	1.39
103-65-1	n-Propylbenzene	U	1.39	ug/kg	0.416	1.39
95-49-8	2-Chlorotoluene	U	1.39	ug/kg	0.416	1.39
98-82-8	Isopropylbenzene	U	1.39	ug/kg	0.416	1.39
108-67-8	1,3,5-Trimethylbenzene	U	1.39	ug/kg	0.416	1.39
106-43-4	4-Chlorotoluene	U	1.39	ug/kg	0.416	1.39
98-06-6	tert-Butylbenzene	U	1.39	ug/kg	0.416	1.39
95-63-6	1,2,4-Trimethylbenzene	U	1.39	ug/kg	0.416	1.39
135-98-8	sec-Butylbenzene	U	1.39	ug/kg	0.416	1.39
99-87-6	4-Isopropyltoluene	U	1.39	ug/kg	0.416	1.39
541-73-1	1,3-Dichlorobenzene	U	1.39	ug/kg	0.416	1.39
106-46-7	1,4-Dichlorobenzene	U	1.39	ug/kg	0.416	1.39
104-51-8	n-Butylbenzene	U	1.39	ug/kg	0.416	1.39
96-12-8	1,2-Dibromo-3-chloropropane	U	1.39	ug/kg	0.416	1.39
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.94	ug/kg	2.22	6.94
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.39	ug/kg	0.416	1.39
95-50-1	1,2-Dichlorobenzene	U	1.39	ug/kg	0.416	1.39

Tentatively Identified Compound Summary

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

VOLUME  
Certificate of Analysis  
Sample Summary

Page 1 of 2

SDG Number: 10-2140  
Lab Sample ID: 248249002

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.I  
Analyst: CDS1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 7.5  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

Client ID: RE36-10-8286  
Batch ID: 962697  
Run Date: 03/11/2010 10:13  
Prep Date: 03/11/2010 08:46  
Data File: 031110V55B409.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	HUh	1.08	ug/kg	0.368	1.08
74-87-3	Chloromethane	HUh	1.08	ug/kg	0.324	1.08
75-01-4	Vinyl chloride	HUh	1.08	ug/kg	0.324	1.08
74-83-9	Bromomethane	HUh	1.08	ug/kg	0.324	1.08
75-00-3	Chloroethane	HUh	1.08	ug/kg	0.324	1.08
75-69-4	Trichlorofluoromethane	HUh	1.08	ug/kg	0.324	1.08
67-64-1	Acetone	HUh	5.41	ug/kg	1.79	5.41
75-35-4	1,1-Dichloroethylene	HUh	1.08	ug/kg	0.324	1.08
74-88-4	Iodomethane	HUh	5.41	ug/kg	1.73	5.41
75-09-2	Methylene chloride	HUh	5.41	ug/kg	2.16	5.41
75-15-0	Carbon disulfide	HUh	5.41	ug/kg	1.35	5.41
156-60-5	trans-1,2-Dichloroethylene	HUh	1.08	ug/kg	0.324	1.08
75-34-3	1,1-Dichloroethane	HUh	1.08	ug/kg	0.324	1.08
78-93-3	2-Butanone	HUh	5.41	ug/kg	1.62	5.41
156-59-2	cis-1,2-Dichloroethylene	HUh	1.08	ug/kg	0.324	1.08
594-20-7	2,2-Dichloropropane	HUh	1.08	ug/kg	0.324	1.08
67-66-3	Chloroform	HUh	1.08	ug/kg	0.324	1.08
74-97-5	Bromochloromethane	HUh	1.08	ug/kg	0.357	1.08
71-55-6	1,1,1-Trichloroethane	HUh	1.08	ug/kg	0.324	1.08
563-58-6	1,1-Dichloropropene	HUh	1.08	ug/kg	0.324	1.08
56-23-5	Carbon tetrachloride	HUh	1.08	ug/kg	0.324	1.08
107-06-2	1,2-Dichloroethane	HUh	1.08	ug/kg	0.324	1.08
71-43-2	Benzene	HUh	1.08	ug/kg	0.324	1.08
79-01-6	Trichloroethylene	HUh	1.08	ug/kg	0.357	1.08
78-87-5	1,2-Dichloropropane	HUh	1.08	ug/kg	0.324	1.08
75-27-4	Bromodichloromethane	HUh	1.08	ug/kg	0.324	1.08
74-95-3	Dibromomethane	HUh	1.08	ug/kg	0.324	1.08
108-10-1	4-Methyl-2-pentanone	HUh	5.41	ug/kg	1.35	5.41
10061-01-5	cis-1,3-Dichloropropylene	HUh	1.08	ug/kg	0.324	1.08
108-88-3	Toluene	HUh	0.422	ug/kg	0.324	1.08
10061-02-6	trans-1,3-Dichloropropylene	HUh	1.08	ug/kg	0.324	1.08
79-00-5	1,1,2-Trichloroethane	HUh	1.08	ug/kg	0.324	1.08
591-78-6	2-Hexanone	HUh	5.41	ug/kg	1.62	5.41
142-28-9	1,3-Dichloropropane	HUh	1.08	ug/kg	0.324	1.08
127-18-4	Tetrachloroethylene	HUh	1.08	ug/kg	0.324	1.08
124-48-1	Dibromochloromethane	HUh	1.08	ug/kg	0.324	1.08
106-93-4	1,2-Dibromoethane	HUh	1.08	ug/kg	0.324	1.08
108-90-7	Chlorobenzene	HUh	1.08	ug/kg	0.324	1.08

# Certificate of Analysis

## Sample Summary

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249002	Date Received: 02/27/2010 09:10	%Moisture: 7.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8286	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOA5.I	Dilution: 1
Run Date: 03/11/2010 10:13	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/11/2010 08:46	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031110V55B409.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	HUh	1.08	ug/kg	0.324	1.08
179601-23-1	m,p-Xylenes	HUh	2.16	ug/kg	0.324	2.16
95-47-6	o-Xylene	HUh	1.08	ug/kg	0.324	1.08
100-42-5	Styrene	HUh	1.08	ug/kg	0.324	1.08
75-25-2	Bromoform	HUh	1.08	ug/kg	0.324	1.08
79-34-5	1,1,2,2-Tetrachloroethane	HUh	1.08	ug/kg	0.324	1.08
96-18-4	1,2,3-Trichloropropane	HUh	1.08	ug/kg	0.324	1.08
108-86-1	Bromobenzene	HUh	1.08	ug/kg	0.324	1.08
103-65-1	n-Propylbenzene	HUh	1.08	ug/kg	0.324	1.08
95-49-8	2-Chlorotoluene	HUh	1.08	ug/kg	0.324	1.08
98-82-8	Isopropylbenzene	HUh	1.08	ug/kg	0.324	1.08
108-67-8	1,3,5-Trimethylbenzene	HUh	1.08	ug/kg	0.324	1.08
106-43-4	4-Chlorotoluene	HUh	1.08	ug/kg	0.324	1.08
98-06-6	tert-Butylbenzene	HUh	1.08	ug/kg	0.324	1.08
95-63-6	1,2,4-Trimethylbenzene	HUh	1.08	ug/kg	0.324	1.08
135-98-8	sec-Butylbenzene	HUh	1.08	ug/kg	0.324	1.08
99-87-6	4-Isopropyltoluene	HUh	1.08	ug/kg	0.324	1.08
541-73-1	1,3-Dichlorobenzene	HUh	1.08	ug/kg	0.324	1.08
106-46-7	1,4-Dichlorobenzene	HUh	1.08	ug/kg	0.324	1.08
104-51-8	n-Butylbenzene	HUh	1.08	ug/kg	0.324	1.08
96-12-8	1,2-Dibromo-3-chloropropane	HUh	1.08	ug/kg	0.324	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	HUh	5.41	ug/kg	1.73	5.41
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	HUh	1.08	ug/kg	0.324	1.08
95-50-1	1,2-Dichlorobenzene	HUh	1.08	ug/kg	0.324	1.08

### Tentatively Identified Compound Summary

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



VOLUME  
Certificate of Analysis  
Sample Summary

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SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249003	Date Received: 02/27/2010 09:10	%Moisture: 6.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8283	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOA5.1	Dilution: 1
Run Date: 03/11/2010 10:40	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/11/2010 08:47	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031110V5\5B410.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	HUh	1.07	ug/kg	0.363	1.07
74-87-3	Chloromethane	HUh	1.07	ug/kg	0.320	1.07
75-01-4	Vinyl chloride	HUh	1.07	ug/kg	0.320	1.07
74-83-9	Bromomethane	HUh	1.07	ug/kg	0.320	1.07
75-00-3	Chloroethane	HUh	1.07	ug/kg	0.320	1.07
75-69-4	Trichlorofluoromethane	HUh	1.07	ug/kg	0.320	1.07
67-64-1	Acetone	HJh	4.02	ug/kg	1.77	5.34
75-35-4	1,1-Dichloroethylene	HUh	1.07	ug/kg	0.320	1.07
74-88-4	Iodomethane	HUh	5.34	ug/kg	1.71	5.34
75-09-2	Methylene chloride	HJh	3.15	ug/kg	2.14	5.34
75-15-0	Carbon disulfide	HUh	5.34	ug/kg	1.33	5.34
156-60-5	trans-1,2-Dichloroethylene	HUh	1.07	ug/kg	0.320	1.07
75-34-3	1,1-Dichloroethane	HUh	1.07	ug/kg	0.320	1.07
78-93-3	2-Butanone	HUh	5.34	ug/kg	1.60	5.34
156-59-2	cis-1,2-Dichloroethylene	HUh	1.07	ug/kg	0.320	1.07
594-20-7	2,2-Dichloropropane	HUh	1.07	ug/kg	0.320	1.07
67-66-3	Chloroform	HUh	1.07	ug/kg	0.320	1.07
74-97-5	Bromochloromethane	HUh	1.07	ug/kg	0.352	1.07
71-55-6	1,1,1-Trichloroethane	HUh	1.07	ug/kg	0.320	1.07
563-58-6	1,1-Dichloropropene	HUh	1.07	ug/kg	0.320	1.07
56-23-5	Carbon tetrachloride	HUh	1.07	ug/kg	0.320	1.07
107-06-2	1,2-Dichloroethane	HUh	1.07	ug/kg	0.320	1.07
71-43-2	Benzene	HUh	1.07	ug/kg	0.320	1.07
79-01-6	Trichloroethylene	HUh	1.07	ug/kg	0.352	1.07
78-87-5	1,2-Dichloropropane	HUh	1.07	ug/kg	0.320	1.07
75-27-4	Bromodichloromethane	HUh	1.07	ug/kg	0.320	1.07
74-95-3	Dibromomethane	HUh	1.07	ug/kg	0.320	1.07
108-10-1	4-Methyl-2-pentanone	HUh	5.34	ug/kg	1.33	5.34
10061-01-5	cis-1,3-Dichloropropylene	HUh	1.07	ug/kg	0.320	1.07
108-88-3	Toluene	Hh	1.13	ug/kg	0.320	1.07
10061-02-6	trans-1,3-Dichloropropylene	HUh	1.07	ug/kg	0.320	1.07
79-00-5	1,1,2-Trichloroethane	HUh	1.07	ug/kg	0.320	1.07
591-78-6	2-Hexanone	HUh	5.34	ug/kg	1.60	5.34
142-28-9	1,3-Dichloropropane	HUh	1.07	ug/kg	0.320	1.07
127-18-4	Tetrachloroethylene	HUh	1.07	ug/kg	0.320	1.07
124-48-1	Dibromochloromethane	HUh	1.07	ug/kg	0.320	1.07
106-93-4	1,2-Dibromoethane	HUh	1.07	ug/kg	0.320	1.07
108-90-7	Chlorobenzene	HUh	1.07	ug/kg	0.320	1.07

Certificate of Analysis  
Sample Summary

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SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249003	Date Received: 02/27/2010 09:10	%Moisture: 6.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8283	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOAS.I	Dilution: 1
Run Date: 03/11/2010 10:40	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/11/2010 08:47	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031110V55B410.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	HUh	1.07	ug/kg	0.320	1.07
179601-23-1	m,p-Xylenes	HJh	0.822	ug/kg	0.320	2.14
95-47-6	o-Xylene	HUh	1.07	ug/kg	0.320	1.07
100-42-5	Styrene	HUh	1.07	ug/kg	0.320	1.07
75-25-2	Bromoform	HUh	1.07	ug/kg	0.320	1.07
79-34-5	1,1,2,2-Tetrachloroethane	HUh	1.07	ug/kg	0.320	1.07
96-18-4	1,2,3-Trichloropropane	HUh	1.07	ug/kg	0.320	1.07
108-86-1	Bromobenzene	HUh	1.07	ug/kg	0.320	1.07
103-65-1	n-Propylbenzene	HUh	1.07	ug/kg	0.320	1.07
95-49-8	2-Chlorotoluene	HUh	1.07	ug/kg	0.320	1.07
98-82-8	Isopropylbenzene	HUh	1.07	ug/kg	0.320	1.07
108-67-8	1,3,5-Trimethylbenzene	HUh	1.07	ug/kg	0.320	1.07
106-43-4	4-Chlorotoluene	HUh	1.07	ug/kg	0.320	1.07
98-06-6	tert-Butylbenzene	HUh	1.07	ug/kg	0.320	1.07
95-63-6	1,2,4-Trimethylbenzene	HJh	1.00	ug/kg	0.320	1.07
135-98-8	sec-Butylbenzene	HUh	1.07	ug/kg	0.320	1.07
99-87-6	4-Isopropyltoluene	Hh	2.36	ug/kg	0.320	1.07
541-73-1	1,3-Dichlorobenzene	HUh	1.07	ug/kg	0.320	1.07
106-46-7	1,4-Dichlorobenzene	HUh	1.07	ug/kg	0.320	1.07
104-51-8	n-Butylbenzene	HUh	1.07	ug/kg	0.320	1.07
96-12-8	1,2-Dibromo-3-chloropropane	HUh	1.07	ug/kg	0.320	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	HUh	5.34	ug/kg	1.71	5.34
630-20-6	1,1,1,2-Tetrachloroethane	HUh	1.07	ug/kg	0.320	1.07
95-50-1	1,2-Dichlorobenzene	HUh	1.07	ug/kg	0.320	1.07

Tentatively Identified Compound Summary

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

▼ Volume  
**Certificate of Analysis**  
**Sample Summary**

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<b>SDG Number:</b> 10-2140	<b>Date Collected:</b> 02/24/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248249004	<b>Date Received:</b> 02/27/2010 09:10	<b>%Moisture:</b> 5.5
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-8284	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 962697	<b>Inst:</b> VOA5.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/11/2010 11:07	<b>Analyst:</b> CDS1	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/11/2010 08:48	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 031110V55B411.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	HUh	1.06	ug/kg	0.360	1.06
74-87-3	Chloromethane	HUh	1.06	ug/kg	0.318	1.06
75-01-4	Vinyl chloride	HUh	1.06	ug/kg	0.318	1.06
74-83-9	Bromomethane	HUh	1.06	ug/kg	0.318	1.06
75-00-3	Chloroethane	HUh	1.06	ug/kg	0.318	1.06
75-69-4	Trichlorofluoromethane	HUh	1.06	ug/kg	0.318	1.06
67-64-1	Acetone	HUh	5.29	ug/kg	1.76	5.29
75-35-4	1,1-Dichloroethylene	HUh	1.06	ug/kg	0.318	1.06
74-88-4	Iodomethane	HUh	5.29	ug/kg	1.69	5.29
75-09-2	Methylene chloride	HUh	5.29	ug/kg	2.12	5.29
75-15-0	Carbon disulfide	HUh	5.29	ug/kg	1.32	5.29
156-60-5	trans-1,2-Dichloroethylene	HUh	1.06	ug/kg	0.318	1.06
75-34-3	1,1-Dichloroethane	HUh	1.06	ug/kg	0.318	1.06
78-93-3	2-Butanone	HUh	5.29	ug/kg	1.59	5.29
156-59-2	cis-1,2-Dichloroethylene	HUh	1.06	ug/kg	0.318	1.06
594-20-7	2,2-Dichloropropane	HUh	1.06	ug/kg	0.318	1.06
67-66-3	Chloroform	HUh	1.06	ug/kg	0.318	1.06
74-97-5	Bromochloromethane	HUh	1.06	ug/kg	0.349	1.06
71-55-6	1,1,1-Trichloroethane	HUh	1.06	ug/kg	0.318	1.06
563-58-6	1,1-Dichloropropene	HUh	1.06	ug/kg	0.318	1.06
56-23-5	Carbon tetrachloride	HUh	1.06	ug/kg	0.318	1.06
107-06-2	1,2-Dichloroethane	HUh	1.06	ug/kg	0.318	1.06
71-43-2	Benzene	HUh	1.06	ug/kg	0.318	1.06
79-01-6	Trichloroethylene	HUh	1.06	ug/kg	0.349	1.06
78-87-5	1,2-Dichloropropane	HUh	1.06	ug/kg	0.318	1.06
75-27-4	Bromodichloromethane	HUh	1.06	ug/kg	0.318	1.06
74-95-3	Dibromomethane	HUh	1.06	ug/kg	0.318	1.06
108-10-1	4-Methyl-2-pentanone	HUh	5.29	ug/kg	1.32	5.29
10061-01-5	cis-1,3-Dichloropropylene	HUh	1.06	ug/kg	0.318	1.06
108-88-3	Toluene	HJh	0.476	ug/kg	0.318	1.06
10061-02-6	trans-1,3-Dichloropropylene	HUh	1.06	ug/kg	0.318	1.06
79-00-5	1,1,2-Trichloroethane	HUh	1.06	ug/kg	0.318	1.06
591-78-6	2-Hexanone	HUh	5.29	ug/kg	1.59	5.29
142-28-9	1,3-Dichloropropane	HUh	1.06	ug/kg	0.318	1.06
127-18-4	Tetrachloroethylene	HUh	1.06	ug/kg	0.318	1.06
124-48-1	Dibromochloromethane	HUh	1.06	ug/kg	0.318	1.06
106-93-4	1,2-Dibromoethane	HUh	1.06	ug/kg	0.318	1.06
108-90-7	Chlorobenzene	HUh	1.06	ug/kg	0.318	1.06

Volatile  
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Sample Summary

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SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249004	Date Received: 02/27/2010 09:10	%Moisture: 5.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8284	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOA5.I	Dilution: 1
Run Date: 03/11/2010 11:07	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/11/2010 08:48	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031110V55B411.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	HUh	1.06	ug/kg	0.318	1.06
179601-23-1	m,p-Xylenes	HUh	2.12	ug/kg	0.318	2.12
95-47-6	o-Xylene	HUh	1.06	ug/kg	0.318	1.06
100-42-5	Styrene	HUh	1.06	ug/kg	0.318	1.06
75-25-2	Bromoform	HUh	1.06	ug/kg	0.318	1.06
79-34-5	1,1,2,2-Tetrachloroethane	HUh	1.06	ug/kg	0.318	1.06
96-18-4	1,2,3-Trichloropropane	HUh	1.06	ug/kg	0.318	1.06
108-86-1	Bromobenzene	HUh	1.06	ug/kg	0.318	1.06
103-65-1	n-Propylbenzene	HUh	1.06	ug/kg	0.318	1.06
95-49-8	2-Chlorotoluene	HUh	1.06	ug/kg	0.318	1.06
98-82-8	Isopropylbenzene	HUh	1.06	ug/kg	0.318	1.06
108-67-8	1,3,5-Trimethylbenzene	HUh	1.06	ug/kg	0.318	1.06
106-43-4	4-Chlorotoluene	HUh	1.06	ug/kg	0.318	1.06
98-06-6	tert-Butylbenzene	HUh	1.06	ug/kg	0.318	1.06
95-63-6	1,2,4-Trimethylbenzene	HUh	1.06	ug/kg	0.318	1.06
135-98-8	sec-Butylbenzene	HUh	1.06	ug/kg	0.318	1.06
99-87-6	4-Isopropyltoluene	Hh	10.1	ug/kg	0.318	1.06
541-73-1	1,3-Dichlorobenzene	HUh	1.06	ug/kg	0.318	1.06
106-46-7	1,4-Dichlorobenzene	HUh	1.06	ug/kg	0.318	1.06
104-51-8	n-Butylbenzene	HUh	1.06	ug/kg	0.318	1.06
96-12-8	1,2-Dibromo-3-chloropropane	HUh	1.06	ug/kg	0.318	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	HUh	5.29	ug/kg	1.69	5.29
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	HUh	1.06	ug/kg	0.318	1.06
95-50-1	1,2-Dichlorobenzene	HUh	1.06	ug/kg	0.318	1.06

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	12	11.8	ug/kg	0	J

Volatilic  
Certificate of Analysis  
Sample Summary

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<b>SDG Number:</b> 10-2140	<b>Date Collected:</b> 02/24/2010 12:00	<b>Matrix:</b> S
<b>Lab Sample ID:</b> 248249005	<b>Date Received:</b> 02/27/2010 09:10	
<b>Client ID:</b> RE36-10-8296	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 962697	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Run Date:</b> 03/10/2010 23:30	<b>Inst:</b> VOA5.I	<b>Dilution:</b> 1
<b>Prep Date:</b> 03/10/2010 08:43	<b>Analyst:</b> CDS1	<b>Purge Vol:</b> 5 mL
<b>Data File:</b> 031010V55B338.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	1.00	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	J	2.87	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  
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Sample Summary

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SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: S
Lab Sample ID: 248249005	Date Received: 02/27/2010 09:10	
Client ID: RE36-10-8296	Client: LANL010	Project: LANL01004
Batch ID: 962697	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/10/2010 23:30	Inst: VOA5.I	Dilution: 1
Prep Date: 03/10/2010 08:43	Analyst: CDS1	Purge Vol: 5 mL
Data File: 031010V55B338.D	Aliquot: 5 g	Final Volume: 5 mL
	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
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

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**

# Surrogate Recovery Report

Page 35 of 1205

SDG Number: 10-2140

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202068444	LCS for batch 962696	76	85	114
1202068445	LCS for batch 962696	76	85	113
1202068443	MB for batch 962696	75	85	117
248249001	RE36-10-8285	72	102	158 *
248249005	RE36-10-8296	74	86	118
1202076188	LCS for batch 962696	74	82	115
1202076189	LCS for batch 962696	74	83	115
1202076187	MB for batch 962696	70	84	120
248249002	RE36-10-8286	70	88	137 *
248249003	RE36-10-8283	71	93	153 *
248249004	RE36-10-8284	75	82	128

## 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



**Quality Control Summary  
Spike Recovery Report**

**SDG Number:** 10-2140

**Client ID:** WST16-10-13293PS

**Lab Sample ID:**1202065320

**Instrument:** VOA5.I

**Analyst:** CDS1

**Purge Vol:** 5 mL

**Sample Type:** Post Spike

**Matrix:** R

**% Moisture:** 10.1

**Analysis Date:** 03/10/2010 23:57

**Dilution:** 1

**Prep Batch ID:** 962696

**Batch ID:** 962697

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 26.1	52	39-148
74-87-3	PS Chloromethane	50.0	0.00	U 37.1	74	42-131
75-01-4	PS Vinyl chloride	50.0	0.00	U 40.4	81	50-127
74-83-9	PS Bromomethane	50.0	0.00	U 38.5	77	26-135
75-00-3	PS Chloroethane	50.0	0.00	U 40.7	81	54-128
75-69-4	PS Trichlorofluoromethane	50.0	0.00	U 40.9	82	55-138
67-64-1	PS Acetone	250	0.00	U 92.3	37	20-144
75-35-4	PS 1,1-Dichloroethylene	50.0	0.00	U 40.4	81	55-128
74-88-4	PS Iodomethane	250	0.00	U 183	73	47-132
75-09-2	PS Methylene chloride	50.0	0.00	U 41.5	83	56-123
75-15-0	PS Carbon disulfide	250	0.00	U 196	78	53-133
156-60-5	PS trans-1,2-Dichloroethylene	50.0	0.00	U 41.5	83	57-119
75-34-3	PS 1,1-Dichloroethane	50.0	0.00	U 43.7	87	62-125
78-93-3	PS 2-Butanone	250	0.00	U 78.3	31	30-150
156-59-2	PS cis-1,2-Dichloroethylene	50.0	0.00	U 42.4	85	60-124
594-20-7	PS 2,2-Dichloropropane	50.0	0.00	U 40.4	81	56-129
67-66-3	PS Chloroform	50.0	0.00	U 42.8	86	62-120
74-97-5	PS Bromochloromethane	50.0	0.00	U 43.0	86	51-135
71-55-6	PS 1,1,1-Trichloroethane	50.0	0.00	U 43.1	86	58-129
563-58-6	PS 1,1-Dichloropropene	50.0	0.00	U 41.6	83	59-126
56-23-5	PS Carbon tetrachloride	50.0	0.00	U 43.4	87	55-132
107-06-2	PS 1,2-Dichloroethane	50.0	0.00	U 41.8	84	54-121

**Quality Control Summary  
Spike Recovery Report**

Page 2 of 3

**SDG Number:** 10-2140

**Sample Type:** Post Spike

**Client ID:** WST16-10-13293PS

**Matrix:** R

**Lab Sample ID:**1202065320

**%Moisture:** 10.1

**Instrument:** VOA5.I

**Analysis Date:** 03/10/2010 23:57

**Dilution:** 1

**Analyst:** CDS1

**Pre Batch ID:** 962696

**Purge Vol:** 5 mL

**Batch ID:** 962697

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	40.9	82	58-120
79-01-6	PS Trichloroethylene	50.0	0.00 U	39.7	79	54-130
78-87-5	PS 1,2-Dichloropropane	50.0	0.00 U	42.2	84	59-121
75-27-4	PS Bromodichloromethane	50.0	0.00 U	43.3	87	57-130
74-95-3	PS Dibromomethane	50.0	0.00 U	42.9	86	57-124
108-10-1	PS 4-Methyl-2-pentanone	250	0.00 U	178	71	40-137
10061-01-5	PS cis-1,3-Dichloropropylene	50.0	0.00 U	35.2	70	50-131
108-88-3	PS Toluene	50.0	1.24	41.7	81	54-119
10061-02-6	PS trans-1,3-Dichloropropylene	50.0	0.00 U	37.0	74	47-133
79-00-5	PS 1,1,2-Trichloroethane	50.0	0.00 U	41.1	82	60-130
591-78-6	PS 2-Hexanone	250	0.00 U	75.0	30	30-139
142-28-9	PS 1,3-Dichloropropane	50.0	0.00 U	41.2	82	59-125
127-18-4	PS Tetrachloroethylene	50.0	0.00 U	38.5	77	50-126
124-48-1	PS Dibromochloromethane	50.0	0.00 U	42.5	85	54-131
106-93-4	PS 1,2-Dibromoethane	50.0	0.00 U	39.3	79	55-127
108-90-7	PS Chlorobenzene	50.0	0.00 U	38.2	76	50-130
100-41-4	PS Ethylbenzene	50.0	0.00 U	37.0	74	50-121
179601-23-1	PS m,p-Xylenes	100	0.00 U	73.1	73	47-125
95-47-6	PS o-Xylene	50.0	0.00 U	38.9	78	51-127
100-42-5	PS Styrene	50.0	0.00 U	34.7	69	41-136
75-25-2	PS Bromoform	50.0	0.00 U	45.7	91	48-143
79-34-5	PS 1,1,2,2-Tetrachloroethane	50.0	0.00 U	42.5	85	52-129

**Quality Control Summary  
Spike Recovery Report**

Page 3 of 3

**SDG Number:** 10-2140

**Client ID:** WST16-10-13293PS

**Lab Sample ID:**1202065320

**Instrument:** VOA5.I

**Analyst:** CDS1

**Purge Vol:** 5 mL

**Sample Type:** Post Spike

**Matrix:** R

**%Moisture:** 10.1

**Analysis Date:** 03/10/2010 23:57

**Dilution:** 1

**Prep Batch II** 962696

**Batch ID:** 962697

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	44.0	88	56-139
108-86-1	PS Bromobenzene	50.0	0.00 U	39.5	79	54-125
103-65-1	PS n-Propylbenzene	50.0	0.00 U	37.8	76	46-127
95-49-8	PS 2-Chlorotoluene	50.0	0.00 U	40.5	81	47-130
98-82-8	PS Isopropylbenzene	50.0	0.00 U	41.8	84	42-126
108-67-8	PS 1,3,5-Trimethylbenzene	50.0	0.00 U	41.1	82	44-132
106-43-4	PS 4-Chlorotoluene	50.0	0.00 U	36.2	72	46-127
98-06-6	PS tert-Butylbenzene	50.0	0.00 U	40.8	82	48-136
95-63-6	PS 1,2,4-Trimethylbenzene	50.0	0.00 U	36.7	73	42-132
135-98-8	PS sec-Butylbenzene	50.0	0.00 U	38.2	76	47-130
99-87-6	PS 4-Isopropyltoluene	50.0	4.21	28.9	49	36-142
541-73-1	PS 1,3-Dichlorobenzene	50.0	0.00 U	35.3	71	41-130
106-46-7	PS 1,4-Dichlorobenzene	50.0	0.00 U	34.2	68	41-126
104-51-8	PS n-Butylbenzene	50.0	0.00 U	33.1	66	37-136
96-12-8	PS 1,2-Dibromo-3-chloropropane	50.0	0.00 U	37.6	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	35.2	70	42-128

# Quality Control Summary Spike Recovery Report

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SDG Number: 10-2140

Sample Type: Post Spike Duplicate

Client ID: WST16-10-13293PSD

Matrix: R

Lab Sample ID:1202065321

%Moisture: 10.1

Instrument: VOA5.I

Analysis Date: 03/11/2010 00:23

Dilution: 1

Analyst: CDS1

Pre Batch II 962696

Purge Vol: 5 mL

Batch ID: 962697

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 26.2	52	39-148	0	0-19
74-87-3	PSD Chloromethane	50.0	0.00	U 37.0	74	42-131	0	0-23
75-01-4	PSD Vinyl chloride	50.0	0.00	U 39.7	79	50-127	2	0-23
74-83-9	PSD Bromomethane	50.0	0.00	U 37.6	75	26-135	2	0-22
75-00-3	PSD Chloroethane	50.0	0.00	U 40.4	81	54-128	1	0-25
75-69-4	PSD Trichlorofluoromethane	50.0	0.00	U 40.4	81	55-138	1	0-21
67-64-1	PSD Acetone	250	0.00	U 88.5	35	20-144	4	0-22
75-35-4	PSD 1,1-Dichloroethylene	50.0	0.00	U 39.9	80	55-128	1	0-20
74-88-4	PSD Iodomethane	250	0.00	U 173	69	47-132	5	0-20
75-09-2	PSD Methylene chloride	50.0	0.00	U 40.9	82	56-123	1	0-20
75-15-0	PSD Carbon disulfide	250	0.00	U 191	76	53-133	3	0-22
156-60-5	PSD trans-1,2-Dichloroethylene	50.0	0.00	U 40.5	81	57-119	2	0-20
75-34-3	PSD 1,1-Dichloroethane	50.0	0.00	U 42.5	85	62-125	3	0-20
78-93-3	PSD 2-Butanone	250	0.00	U 68.7	27 *	30-150	13	0-21
156-59-2	PSD cis-1,2-Dichloroethylene	50.0	0.00	U 41.3	83	60-124	3	0-20
594-20-7	PSD 2,2-Dichloropropane	50.0	0.00	U 39.7	79	56-129	2	0-20
67-66-3	PSD Chloroform	50.0	0.00	U 42.4	85	62-120	1	0-25
74-97-5	PSD Bromochloromethane	50.0	0.00	U 41.9	84	51-135	3	0-20
71-55-6	PSD 1,1,1-Trichloroethane	50.0	0.00	U 42.8	86	58-129	1	0-20
563-58-6	PSD 1,1-Dichloropropene	50.0	0.00	U 40.4	81	59-126	3	0-20
56-23-5	PSD Carbon tetrachloride	50.0	0.00	U 43.1	86	55-132	1	0-20
107-06-2	PSD 1,2-Dichloroethane	50.0	0.00	U 41.5	83	54-121	1	0-20

**Quality Control Summary  
Spike Recovery Report**

Page 5 of 5

**SDG Number:** 10-2140

**Sample Type:** Post Spike Duplicate

**Client ID:** WST16-10-13293PSD

**Matrix:** R

**Lab Sample ID:**1202065321

**%Moisture:** 10.1

**Instrument:** VOA5.I

**Analysis Date:** 03/11/2010 00:23

**Dilution:** 1

**Analyst:** CDS1

**Pren Batch II** 962696

**Purge Vol:** 5 mL

**Batch ID:** 962697

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	40.3	81	58-120	1	0-20
79-01-6	PSD Trichloroethylene	50.0	0.00 U	38.9	78	54-130	2	0-23
78-87-5	PSD 1,2-Dichloropropane	50.0	0.00 U	41.8	84	59-121	1	0-20
75-27-4	PSD Bromodichloromethane	50.0	0.00 U	42.9	86	57-130	1	0-20
74-95-3	PSD Dibromomethane	50.0	0.00 U	42.2	84	57-124	2	0-20
108-10-1	PSD 4-Methyl-2-pentanone	250	0.00 U	175	70	40-137	2	0-25
10061-01-5	PSD cis-1,3-Dichloropropylene	50.0	0.00 U	33.4	67	50-131	5	0-20
108-88-3	PSD Toluene	50.0	1.24	41.0	79	54-119	2	0-23
10061-02-6	PSD trans-1,3-Dichloropropylene	50.0	0.00 U	35.7	71	47-133	4	0-24
79-00-5	PSD 1,1,2-Trichloroethane	50.0	0.00 U	40.4	81	60-130	2	0-20
591-78-6	PSD 2-Hexanone	250	0.00 U	61.6	25 *	30-139	20	0-21
142-28-9	PSD 1,3-Dichloropropane	50.0	0.00 U	40.1	80	59-125	3	0-20
127-18-4	PSD Tetrachloroethylene	50.0	0.00 U	37.7	75	50-126	2	0-20
124-48-1	PSD Dibromochloromethane	50.0	0.00 U	40.9	82	54-131	4	0-23
106-93-4	PSD 1,2-Dibromoethane	50.0	0.00 U	38.7	77	55-127	2	0-23
108-90-7	PSD Chlorobenzene	50.0	0.00 U	36.8	74	50-130	4	0-24
100-41-4	PSD Ethylbenzene	50.0	0.00 U	36.0	72	50-121	3	0-24
179601-23-1	PSD m,p-Xylenes	100	0.00 U	71.5	71	47-125	2	0-25
95-47-6	PSD o-Xylene	50.0	0.00 U	37.6	75	51-127	3	0-24
100-42-5	PSD Styrene	50.0	0.00 U	33.2	66	41-136	4	0-24
75-25-2	PSD Bromoform	50.0	0.00 U	44.1	88	48-143	3	0-20
79-34-5	PSD 1,1,2,2-Tetrachloroethane	50.0	0.00 U	40.3	81	52-129	5	0-20

# Quality Control Summary Spike Recovery Report

SDG Number: 10-2140

Client ID: WST16-10-13293PSD

Lab Sample ID:1202065321

Instrument: VOA5.1

Analyst: CDS1

Purge Vol: 5 mL

Sample Type: Post Spike Duplicate

Matrix: R

%Moisture: 10.1

Analysis Date: 03/11/2010 00:23

Dilution: 1

Pre Batch ID: 962696

Batch ID: 962697

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 42.6	85	56-139	3	0-34
108-86-1	PSD Bromobenzene	50.0	0.00	U 36.7	73	54-125	7	0-22
103-65-1	PSD n-Propylbenzene	50.0	0.00	U 35.7	71	46-127	6	0-25
95-49-8	PSD 2-Chlorotoluene	50.0	0.00	U 37.6	75	47-130	8	0-24
98-82-8	PSD Isopropylbenzene	50.0	0.00	U 39.5	79	42-126	6	0-22
108-67-8	PSD 1,3,5-Trimethylbenzene	50.0	0.00	U 38.4	77	44-132	7	0-25
106-43-4	PSD 4-Chlorotoluene	50.0	0.00	U 34.4	69	46-127	5	0-26
98-06-6	PSD tert-Butylbenzene	50.0	0.00	U 38.3	77	48-136	6	0-24
95-63-6	PSD 1,2,4-Trimethylbenzene	50.0	0.00	U 34.9	70	42-132	5	0-26
135-98-8	PSD sec-Butylbenzene	50.0	0.00	U 35.6	71	47-130	7	0-27
99-87-6	PSD 4-Isopropyltoluene	50.0	4.21	26.7	45	36-142	8	0-27
541-73-1	PSD 1,3-Dichlorobenzene	50.0	0.00	U 32.5	65	41-130	8	0-25
106-46-7	PSD 1,4-Dichlorobenzene	50.0	0.00	U 31.6	63	41-126	8	0-25
104-51-8	PSD n-Butylbenzene	50.0	0.00	U 30.3	61	37-136	9	0-29
96-12-8	PSD 1,2-Dibromo-3-chloropropane	50.0	0.00	U 35.9	72	42-143	5	0-21
630-20-6	PSD 1,1,1,2-Tetrachloroethane	50.0	0.00	U 41.4	83	58-127	2	0-20
95-50-1	PSD 1,2-Dichlorobenzene	50.0	0.00	U 32.2	64	42-128	9	0-24

**Quality Control Summary  
Spike Recovery Report**

Page 1 of 2

**SDG Number: 10-2140**

**Sample Type: Laboratory Control Sample**

**Client ID: LCS for batch 962696**

**Matrix: SOIL**

**Lab Sample ID:1202068444**

**Instrument: VOA5.1**

**Analysis Date: 03/10/2010 19:59**

**Dilution: 1**

**Analyst: CDS1**

**Prep Batch ID: 962696**

**Purge Vol: 5 mL**

**Batch ID: 962697**

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	29.2	58	52-151
74-87-3	LCS Chloromethane	50.0	0.0	39.1	78	56-130
75-01-4	LCS Vinyl chloride	50.0	0.0	42.1	84	66-130
74-83-9	LCS Bromomethane	50.0	0.0	43.0	86	70-126
75-00-3	LCS Chloroethane	50.0	0.0	42.2	84	67-129
75-69-4	LCS Trichlorofluoromethane	50.0	0.0	44.5	89	73-143
67-64-1	LCS Acetone	250	0.0	171	68	30-140
75-35-4	LCS 1,1-Dichloroethylene	50.0	0.0	43.2	86	71-129
74-88-4	LCS Iodomethane	250	0.0	213	85	72-125
75-09-2	LCS Methylene chloride	50.0	0.0	43.9	88	64-121
75-15-0	LCS Carbon disulfide	250	0.0	222	89	70-133
156-60-5	LCS trans-1,2-Dichloroethylene	50.0	0.0	44.7	89	73-120
75-34-3	LCS 1,1-Dichloroethane	50.0	0.0	45.3	91	73-120
78-93-3	LCS 2-Butanone	250	0.0	181	72	32-145
156-59-2	LCS cis-1,2-Dichloroethylene	50.0	0.0	44.9	90	74-124
594-20-7	LCS 2,2-Dichloropropane	50.0	0.0	43.9	88	73-134
67-66-3	LCS Chloroform	50.0	0.0	44.7	89	74-120
74-97-5	LCS Bromochloromethane	50.0	0.0	44.8	90	73-122
71-55-6	LCS 1,1,1-Trichloroethane	50.0	0.0	45.6	91	74-132
563-58-6	LCS 1,1-Dichloropropene	50.0	0.0	45.9	92	79-128
56-23-5	LCS Carbon tetrachloride	50.0	0.0	46.6	93	75-135
107-06-2	LCS 1,2-Dichloroethane	50.0	0.0	44.2	88	65-120

**Quality Control Summary  
Spike Recovery Report**

Page 4 of 5

**SDG Number:** 10-2140

**Sample Type:** Laboratory Control Sample

**Client ID:** LCS for batch 962696

**Matrix:** SOIL

**Lab Sample ID:**1202068444

**Instrument:** VOA5.I

**Analysis Date:** 03/10/2010 19:59

**Dilution:** 1

**Analyst:** CDS1

**Prep Batch ID:** 962696

**Purge Vol:** 5 mL

**Batch ID:** 962697

CAS No	Parname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS Benzene	50.0	0.0	43.5	87	74-120
79-01-6	LCS Trichloroethylene	50.0	0.0	44.4	89	77-124
78-87-5	LCS 1,2-Dichloropropane	50.0	0.0	44.4	89	73-120
75-27-4	LCS Bromodichloromethane	50.0	0.0	46.5	93	75-128
74-95-3	LCS Dibromomethane	50.0	0.0	45.9	92	75-120
108-10-1	LCS 4-Methyl-2-pentanone	250	0.0	207	83	63-133
10061-01-5	LCS cis-1,3-Dichloropropylene	50.0	0.0	44.9	90	78-127
108-88-3	LCS Toluene	50.0	0.0	41.6	83	74-120
10061-02-6	LCS trans-1,3-Dichloropropylene	50.0	0.0	44.4	89	70-125
79-00-5	LCS 1,1,2-Trichloroethane	50.0	0.0	42.4	85	75-120
591-78-6	LCS 2-Hexanone	250	0.0	179	72	40-153
142-28-9	LCS 1,3-Dichloropropane	50.0	0.0	42.7	85	73-120
127-18-4	LCS Tetrachloroethylene	50.0	0.0	42.5	85	72-126
124-48-1	LCS Dibromochloromethane	50.0	0.0	45.6	91	74-126
106-93-4	LCS 1,2-Dibromoethane	50.0	0.0	43.5	87	79-120
108-90-7	LCS Chlorobenzene	50.0	0.0	42.6	85	76-120
100-41-4	LCS Ethylbenzene	50.0	0.0	41.2	82	74-120
179601-23-1	LCS m,p-Xylenes	100	0.0	85.3	85	76-120
95-47-6	LCS o-Xylene	50.0	0.0	42.2	84	76-122
100-42-5	LCS Styrene	50.0	0.0	45.3	91	75-125
75-25-2	LCS Bromoform	50.0	0.0	46.1	92	68-135
79-34-5	LCS 1,1,2,2-Tetrachloroethane	50.0	0.0	40.4	81	72-122



# **Quality Control Summary Spike Recovery Report**

Page 3 of 3

**SDG Number:** 10-2140

**Sample Type:** Laboratory Control Sample

**Client ID:** LCS for batch 962696

**Matrix:** SOIL

**Lab Sample ID:**1202068444

**Instrument:** VOA5.I

**Analysis Date:** 03/10/2010 19:59

**Dilution:** 1

**Analyst:** CDS1

**Prep Batch ID:** 962696

**Purge Vol:** 5 mL

**Batch ID:** 962697

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	41.6	83	72-129
108-86-1	LCS Bromobenzene	50.0	0.0	41.4	83	74-120
103-65-1	LCS n-Propylbenzene	50.0	0.0	41.7	83	70-120
95-49-8	LCS 2-Chlorotoluene	50.0	0.0	42.2	84	70-120
98-82-8	LCS Isopropylbenzene	50.0	0.0	43.0	86	60-121
108-67-8	LCS 1,3,5-Trimethylbenzene	50.0	0.0	42.5	85	71-121
106-43-4	LCS 4-Chlorotoluene	50.0	0.0	41.5	83	71-120
98-06-6	LCS tert-Butylbenzene	50.0	0.0	41.3	83	75-123
95-63-6	LCS 1,2,4-Trimethylbenzene	50.0	0.0	42.4	85	73-120
135-98-8	LCS sec-Butylbenzene	50.0	0.0	42.9	86	74-123
99-87-6	LCS 4-Isopropyltoluene	50.0	0.0	43.3	87	76-127
541-73-1	LCS 1,3-Dichlorobenzene	50.0	0.0	41.6	83	75-120
106-46-7	LCS 1,4-Dichlorobenzene	50.0	0.0	41.3	83	73-120
104-51-8	LCS n-Butylbenzene	50.0	0.0	41.5	83	73-128
96-12-8	LCS 1,2-Dibromo-3-chloropropane	50.0	0.0	40.0	80	69-136
630-20-6	LCS 1,1,1,2-Tetrachloroethane	50.0	0.0	44.2	88	75-124
95-50-1	LCS 1,2-Dichlorobenzene	50.0	0.0	42.0	84	75-120

**Quality Control Summary  
Spike Recovery Report**

Page 1 of 1

**SDG Number:** 10-2140

**Sample Type:** Laboratory Control Sample

**Client ID:** LCS for batch 962696

**Matrix:** SOIL

**Lab Sample ID:**1202068445

**Instrument:** VOA5.1

**Analysis Date:** 03/10/2010 20:25

**Dilution:** 1

**Analyst:** CDS1

**Prep Batch ID:** 962696

**Purge Vol:** 5 mL

**Batch ID:** 962697

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 <i>Trichlorotrifluoroethane</i>	250	0.0	302	121	67-140

# Quality Control Summary Spike Recovery Report

Page 1 of 3

SDG Number: 10-2140

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 962696

Matrix: SOIL

Lab Sample ID:1202076188

Instrument: VOA5.I

Analysis Date: 03/11/2010 08:01

Dilution: 1

Analyst: CDS1

Pre Batch ID 962696

Purge Vol: 5 mL

Batch ID: 962697

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	58.5	117	52-151
74-87-3	LCS Chloromethane	50.0	0.0	54.5	109	56-130
75-01-4	LCS Vinyl chloride	50.0	0.0	58.2	116	66-130
74-83-9	LCS Bromomethane	50.0	0.0	54.6	109	70-126
75-00-3	LCS Chloroethane	50.0	0.0	54.1	108	67-129
75-69-4	LCS Trichlorofluoromethane	50.0	0.0	58.7	117	73-143
67-64-1	LCS Acetone	250	0.0	232	93	30-140
75-35-4	LCS 1,1-Dichloroethylene	50.0	0.0	54.6	109	71-129
74-88-4	LCS Iodomethane	250	0.0	261	104	72-125
75-09-2	LCS Methylene chloride	50.0	0.0	51.9	104	64-121
75-15-0	LCS Carbon disulfide	250	0.0	282	113	70-133
156-60-5	LCS trans-1,2-Dichloroethylene	50.0	0.0	55.0	110	73-120
75-34-3	LCS 1,1-Dichloroethane	50.0	0.0	54.7	109	73-120
78-93-3	LCS 2-Butanone	250	0.0	240	96	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	56.1	112	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	53.4	107	73-122
71-55-6	LCS 1,1,1-Trichloroethane	50.0	0.0	56.3	113	74-132
563-58-6	LCS 1,1-Dichloropropene	50.0	0.0	56.2	112	79-128
56-23-5	LCS Carbon tetrachloride	50.0	0.0	57.7	115	75-135
107-06-2	LCS 1,2-Dichloroethane	50.0	0.0	52.1	104	65-120

# **Quality Control Summary Spike Recovery Report**

Page 4 of 5

**SDG Number:** 10-2140

**Sample Type:** Laboratory Control Sample

**Client ID:** LCS for batch 962696

**Matrix:** SOIL

**Lab Sample ID:**1202076188

**Instrument:** VOA5.I

**Analysis Date:** 03/11/2010 08:01

**Dilution:** 1

**Analyst:** CDS1

**Preo Batch ID:** 962696

**Purge Vol:** 5 mL

**Batch ID:** 962697

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	51.7	103	74-120
79-01-6	LCS Trichloroethylene	50.0	0.0	53.7	107	77-124
78-87-5	LCS 1,2-Dichloropropane	50.0	0.0	52.4	105	73-120
75-27-4	LCS Bromodichloromethane	50.0	0.0	55.5	111	75-128
74-95-3	LCS Dibromomethane	50.0	0.0	53.8	108	75-120
108-10-1	LCS 4-Methyl-2-pentanone	250	0.0	256	102	63-133
10061-01-5	LCS cis-1,3-Dichloropropylene	50.0	0.0	53.4	107	78-127
108-88-3	LCS Toluene	50.0	0.0	49.6	99	74-120
10061-02-6	LCS trans-1,3-Dichloropropylene	50.0	0.0	51.9	104	70-125
79-00-5	LCS 1,1,2-Trichloroethane	50.0	0.0	49.4	99	75-120
591-78-6	LCS 2-Hexanone	250	0.0	235	94	40-153
142-28-9	LCS 1,3-Dichloropropane	50.0	0.0	49.7	99	73-120
127-18-4	LCS Tetrachloroethylene	50.0	0.0	51.6	103	72-126
124-48-1	LCS Dibromochloromethane	50.0	0.0	53.7	107	74-126
106-93-4	LCS 1,2-Dibromoethane	50.0	0.0	50.4	101	79-120
108-90-7	LCS Chlorobenzene	50.0	0.0	49.9	100	76-120
100-41-4	LCS Ethylbenzene	50.0	0.0	48.6	97	74-120
179601-23-1	LCS m,p-Xylenes	100	0.0	102	102	76-120
95-47-6	LCS o-Xylene	50.0	0.0	50.4	101	76-122
100-42-5	LCS Styrene	50.0	0.0	53.2	106	75-125
75-25-2	LCS Bromoform	50.0	0.0	54.4	109	68-135
79-34-5	LCS 1,1,2,2-Tetrachloroethane	50.0	0.0	47.7	95	72-122

# Quality Control Summary Spike Recovery Report

Page 3 of 3

SDG Number: 10-2140

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 962696

Matrix: SOIL

Lab Sample ID:1202076188

Instrument: VOA5.I

Analysis Date: 03/11/2010 08:01

Dilution: 1

Analyst: CDS1

Pren Batch ID: 962696

Purge Vol: 5 mL

Batch ID: 962697

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	48.8	98	72-129
108-86-1	LCS Bromobenzene	50.0	0.0	48.0	96	74-120
103-65-1	LCS n-Propylbenzene	50.0	0.0	49.7	99	70-120
95-49-8	LCS 2-Chlorotoluene	50.0	0.0	49.2	98	70-120
98-82-8	LCS Isopropylbenzene	50.0	0.0	50.5	101	60-121
108-67-8	LCS 1,3,5-Trimethylbenzene	50.0	0.0	50.0	100	71-121
106-43-4	LCS 4-Chlorotoluene	50.0	0.0	48.3	97	71-120
98-06-6	LCS tert-Butylbenzene	50.0	0.0	48.9	98	75-123
95-63-6	LCS 1,2,4-Trimethylbenzene	50.0	0.0	49.8	100	73-120
135-98-8	LCS sec-Butylbenzene	50.0	0.0	50.8	102	74-123
99-87-6	LCS 4-Isopropyltoluene	50.0	0.0	51.1	102	76-127
541-73-1	LCS 1,3-Dichlorobenzene	50.0	0.0	48.7	97	75-120
106-46-7	LCS 1,4-Dichlorobenzene	50.0	0.0	48.5	97	73-120
104-51-8	LCS n-Butylbenzene	50.0	0.0	50.0	100	73-128
96-12-8	LCS 1,2-Dibromo-3-chloropropane	50.0	0.0	47.6	95	69-136
630-20-6	LCS 1,1,1,2-Tetrachloroethane	50.0	0.0	51.9	104	75-124
95-50-1	LCS 1,2-Dichlorobenzene	50.0	0.0	48.7	97	75-120

**Quality Control Summary  
Spike Recovery Report**

Page 1 of 1

**SDG Number:** 10-2140

**Sample Type:** Laboratory Control Sample

**Client ID:** LCS for batch 962696

**Matrix:** SOIL

**Lab Sample ID:**1202076189

**Instrument:** VOA5.I

**Analysis Date:** 03/11/2010 08:27

**Dilution:** 1

**Analyst:** CDS1

**Prep Batch ID:** 962696

**Purge Vol:** 5 mL

**Batch ID:** 962697

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 <i>Trichlorotrifluoroethane</i>	250	0.0	336	134	67-140

### Method Blank Summary

Page 1 of 1

SDG Number:	10-2140	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 962696	Instrument ID:	VOA5.I	Data File:	031010V5\5B333BSA.D
Lab Sample ID:	1202068443	Prep Date:	03/10/2010 15:30	Analyzed:	03/10/10 21:18
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 962696	1202068444	031010V5\5B330LA.D	03/10/10	1959
02 LCS for batch 962696	1202068445	031010V5\5B331SLSA.D	03/10/10	2025
03 RE36-10-8285	248249001	031010V5\5B334.D	03/10/10	2145
04 RE36-10-8296	248249005	031010V5\5B338.D	03/10/10	2330

## Method Blank Summary

Page 1 of 1

SDG Number:	10-2140	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 962696	Instrument ID:	VOA5.I	Data File:	031110V5\SB407BS1.D
Lab Sample ID:	1202076187	Prep Date:	03/11/2010 06:00	Analyzed:	03/11/10 09:20
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 962696	1202076188	031110V5\SB404LS1.D	03/11/10	0801
02 LCS for batch 962696	1202076189	031110V5\SB405SL1.D	03/11/10	0827
03 RE36-10-8286	248249002	031110V5\SB409.D	03/11/10	1013
04 RE36-10-8283	248249003	031110V5\SB410.D	03/11/10	1040
05 RE36-10-8284	248249004	031110V5\SB411.D	03/11/10	1107



## Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2140

Instrument ID: VOA5.1

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: 10-2140

Instrument ID: VOA5.I

Injection Date/Time: 10-MAR-10 18:39

Column Description: DB-624

Lab File ID 031010V5\5B327.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	19.9
75	30.0 - 60.0% of mass 95	44.9
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	76.7
175	5.0 - 9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	97.4
177	5.0 - 9.0% of mass 176	6.6

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
CCVMIX[A]04	W5VM100310-05	031010V5\5B328.D	10-MAR-10 19:06
BLK01LCS	1202068444	031010V5\5B330LA.D	10-MAR-10 19:59
CCVMIX[B]05	W5VM100310-08	031010V5\5B331.D	10-MAR-10 20:25
BLK01SLCS	1202068445	031010V5\5B331SLSA.D	10-MAR-10 20:25
BLK01	1202068443	031010V5\5B333BSA.D	10-MAR-10 21:18
RE36-10-8285	248249001	031010V5\5B334.D	10-MAR-10 21:45
RE36-10-8296	248249005	031010V5\5B338.D	10-MAR-10 23:30

## Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2140

Instrument ID: VOA5.1

Injection Date/Time: 11-MAR-10 06:41

Column Description: DB-624

Lab File ID 031110V5\5B401.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	46
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	0.5
174	50.0 - 100.0% of mass 95	78.8
175	5.0 - 9.0% of mass 174	6.8
176	95.0 - 101.0% of mass 174	96.8
177	5.0 - 9.0% of mass 176	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]06	W5VM100311-01	031110V5\5B402.D	11-MAR-10 07:08
BLK02LCS	1202076188	031110V5\5B404LS1.D	11-MAR-10 08:01
CCVMIX[B ]07	W5VM100311-04	031110V5\5B405.D	11-MAR-10 08:27
BLK02SLCS	1202076189	031110V5\5B405SLS1.D	11-MAR-10 08:27
BLK02	1202076187	031110V5\5B407BS1.D	11-MAR-10 09:20
RE36-10-8286	248249002	031110V5\5B409.D	11-MAR-10 10:13
RE36-10-8283	248249003	031110V5\5B410.D	11-MAR-10 10:40
RE36-10-8284	248249004	031110V5\5B411.D	11-MAR-10 11:07

### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2140

Instrument: VOA5.1

STD Analysis Time: 10-MAR-10 19:06

GC Column: DB-624

Data File: C:\msdchem\1\DATA\031010V5\5B328.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1508539		8.39	1111966		11.1	565862		13.4
Upper Limit	3017078		8.89	2223932		11.6	1131724		13.9
Lower Limit	754270		7.89	555983		10.6	282931		12.9
Sample ID									
BLK01LCS	1483847		8.39	1122837		11.1	573907		13.4
BLK01SLCS	1513110		8.39	1129367		11.1	570266		13.4
BLK01	1478853		8.39	1097369		11.1	531739		13.4
RE36-10-8285	1351561		8.39	756991		11.1	204421	*	13.4
RE36-10-8296	1433277		8.39	1050144		11.1	499491		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

# **Internal Standard Area and RT Summary**

Lab Name : GEL Laboratories LLC

Client SDG: 10-2140

Instrument: VOA5.I

STD Analysis Time: 11-MAR-10 07:08

GC Column: DB-624

Data File: C:\msdchem\1\DATA\031110V5\SB402.D

	Fluorobenzene				Chlorobenzene-d5				1,4-Dichlorobenzene-d4			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	1428247		8.39		1072946		11.1		550065		13.4	
Upper Limit	2856494		8.89		2145892		11.6		1100130		13.9	
Lower Limit	714124		7.89		536473		10.6		275033		12.9	
Sample ID												
BLK02LCS	1393474		8.39		1064611		11.1		553083		13.4	
BLK02SLCS	1397071		8.39		1054675		11.1		537423		13.4	
BLK02	1402275		8.39		1039581		11.1		502993		13.4	
RE36-10-8286	1368001		8.39		900757		11.1		329994		13.4	
RE36-10-8283	1361353		8.39		854445		11.1		262659	*	13.4	
RE36-10-8284	905680		8.39		652156		11.1		281693		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

VOLUME  
Certificate of Analysis  
Sample Summary

Page 1 of 2

SDG Number: 10-2140  
Lab Sample ID: 248249001

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.1  
Analyst: CDS1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 27.9  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

Client ID: RE36-10-8285  
Batch ID: 962697  
Run Date: 03/10/2010 21:45  
Prep Date: 03/10/2010 08:39  
Data File: 031010V55B334.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.39	ug/kg	0.472	1.39
74-87-3	Chloromethane	U	1.39	ug/kg	0.416	1.39
75-01-4	Vinyl chloride	U	1.39	ug/kg	0.416	1.39
74-83-9	Bromomethane	U	1.39	ug/kg	0.416	1.39
75-00-3	Chloroethane	U	1.39	ug/kg	0.416	1.39
75-69-4	Trichlorofluoromethane	U	1.39	ug/kg	0.416	1.39
67-64-1	Acetone	U	6.94	ug/kg	2.30	6.94
75-35-4	1,1-Dichloroethylene	U	1.39	ug/kg	0.416	1.39
74-88-4	Iodomethane	U	6.94	ug/kg	2.22	6.94
75-09-2	Methylene chloride	U	6.94	ug/kg	2.77	6.94
75-15-0	Carbon disulfide	U	6.94	ug/kg	1.73	6.94
156-60-5	trans-1,2-Dichloroethylene	U	1.39	ug/kg	0.416	1.39
75-34-3	1,1-Dichloroethane	U	1.39	ug/kg	0.416	1.39
78-93-3	2-Butanone	U	6.94	ug/kg	2.08	6.94
156-59-2	cis-1,2-Dichloroethylene	U	1.39	ug/kg	0.416	1.39
594-20-7	2,2-Dichloropropane	U	1.39	ug/kg	0.416	1.39
67-66-3	Chloroform	U	1.39	ug/kg	0.416	1.39
74-97-5	Bromochloromethane	U	1.39	ug/kg	0.458	1.39
71-55-6	1,1,1-Trichloroethane	U	1.39	ug/kg	0.416	1.39
563-58-6	1,1-Dichloropropene	U	1.39	ug/kg	0.416	1.39
56-23-5	Carbon tetrachloride	U	1.39	ug/kg	0.416	1.39
107-06-2	1,2-Dichloroethane	U	1.39	ug/kg	0.416	1.39
71-43-2	Benzene	U	1.39	ug/kg	0.416	1.39
79-01-6	Trichloroethylene	U	1.39	ug/kg	0.458	1.39
78-87-5	1,2-Dichloropropane	U	1.39	ug/kg	0.416	1.39
75-27-4	Bromodichloromethane	U	1.39	ug/kg	0.416	1.39
74-95-3	Dibromomethane	U	1.39	ug/kg	0.416	1.39
108-10-1	4-Methyl-2-pentanone	U	6.94	ug/kg	1.73	6.94
10061-01-5	cis-1,3-Dichloropropylene	U	1.39	ug/kg	0.416	1.39
108-88-3	Toluene	U	1.39	ug/kg	0.416	1.39
10061-02-6	trans-1,3-Dichloropropylene	U	1.39	ug/kg	0.416	1.39
79-00-5	1,1,2-Trichloroethane	U	1.39	ug/kg	0.416	1.39
591-78-6	2-Hexanone	U	6.94	ug/kg	2.08	6.94
142-28-9	1,3-Dichloropropane	U	1.39	ug/kg	0.416	1.39
127-18-4	Tetrachloroethylene	U	1.39	ug/kg	0.416	1.39
124-48-1	Dibromochloromethane	U	1.39	ug/kg	0.416	1.39
106-93-4	1,2-Dibromoethane	U	1.39	ug/kg	0.416	1.39
108-90-7	Chlorobenzene	U	1.39	ug/kg	0.416	1.39

Volatile  
Certificate of Analysis  
Sample Summary

Page 2 of 2

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249001	Date Received: 02/27/2010 09:10	%Moisture: 27.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8285	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOA5.I	Dilution: 1
Run Date: 03/10/2010 21:45	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/10/2010 08:39	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031010V5\5B334.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.39	ug/kg	0.416	1.39
179601-23-1	m,p-Xylenes	U	2.77	ug/kg	0.416	2.77
95-47-6	o-Xylene	U	1.39	ug/kg	0.416	1.39
100-42-5	Styrene	U	1.39	ug/kg	0.416	1.39
75-25-2	Bromoform	U	1.39	ug/kg	0.416	1.39
79-34-5	1,1,2,2-Tetrachloroethane	U	1.39	ug/kg	0.416	1.39
96-18-4	1,2,3-Trichloropropane	U	1.39	ug/kg	0.416	1.39
108-86-1	Bromobenzene	U	1.39	ug/kg	0.416	1.39
103-65-1	n-Propylbenzene	U	1.39	ug/kg	0.416	1.39
95-49-8	2-Chlorotoluene	U	1.39	ug/kg	0.416	1.39
98-82-8	Isopropylbenzene	U	1.39	ug/kg	0.416	1.39
108-67-8	1,3,5-Trimethylbenzene	U	1.39	ug/kg	0.416	1.39
106-43-4	4-Chlorotoluene	U	1.39	ug/kg	0.416	1.39
98-06-6	tert-Butylbenzene	U	1.39	ug/kg	0.416	1.39
95-63-6	1,2,4-Trimethylbenzene	U	1.39	ug/kg	0.416	1.39
135-98-8	sec-Butylbenzene	U	1.39	ug/kg	0.416	1.39
99-87-6	4-Isopropyltoluene	U	1.39	ug/kg	0.416	1.39
541-73-1	1,3-Dichlorobenzene	U	1.39	ug/kg	0.416	1.39
106-46-7	1,4-Dichlorobenzene	U	1.39	ug/kg	0.416	1.39
104-51-8	n-Butylbenzene	U	1.39	ug/kg	0.416	1.39
96-12-8	1,2-Dibromo-3-chloropropane	U	1.39	ug/kg	0.416	1.39
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.94	ug/kg	2.22	6.94
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.39	ug/kg	0.416	1.39
95-50-1	1,2-Dichlorobenzene	U	1.39	ug/kg	0.416	1.39

Tentatively Identified Compound Summary

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



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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
Data File : 5B334.D  
Acq On : 10 Mar 2010 9:45 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248249001|962697|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 11 07:52:16 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	1351561	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	756991	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	204421	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1351561	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	756991	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	204421	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.175	8.172	0.975	65	235866	36.06	ug/L	0.00
Spiked Amount	50.000	Range 66 - 134	Recovery	=	72.12%			
43) Toluene-d8	9.721	9.721	0.872	98	982775	50.76	ug/L	0.00
Spiked Amount	50.000	Range 71 - 128	Recovery	=	101.52%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	323038	78.78	ug/L	0.00
Spiked Amount	50.000	Range 65 - 130	Recovery	=	157.56%#			
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	4.910	4.900	0.585	50	906	Below Cal		59
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	5.876	5.866	0.701	59	745	N.D.		
9) Acetone	6.170	6.174	0.736	43	2451	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	6.460	6.464	0.770	41	234	N.D.		
13) Methyl acetate	6.170	6.365	0.736	43	2451	N.D.		
14) Carbon disulfide	6.435	6.435	0.767	76	5980	N.D.		
15) Methylene chloride	6.534	6.538	0.779	84	11235	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	6.800	6.969	0.811	43	117	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	0.000	7.450	0.000		0	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	8.214	8.203	0.979	78	121	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D. d		
33) n-Butyl alcohol	8.387	8.377	1.000	56	7828	Below Cal	#	20
34) Trichloroethylene	8.677	8.677	1.035	95	865	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.		

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Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B334.D  
 Acq On : 10 Mar 2010 9:45 pm  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |248249001|962697|1|VOA|1|VOA8260BS|  
 Misc : LANL 5G - SOIL  
 ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 11 07:52:16 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	1447	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	10.279	10.279	0.923	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	11.174	11.174	1.003	112	124	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.181	11.181	1.003	91	236	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	0.000	12.016	0.000		0	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	12.408	12.415	0.925	91	971	N.D.	
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	109	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.698	12.698	0.947	91	1766	N.D.	
69) tert-Butylbenzene	0.000	12.900	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	12.956	12.956	0.966	105	544	N.D.	
71) sec-Butylbenzene	13.108	13.119	0.977	105	112	N.D.	
72) 4-Isopropyltoluene	13.232	13.229	0.987	119	2072	N.D.	
73) 1,3-Dichlorobenzene	13.356	13.349	0.996	146	118	N.D.	
74) 1,4-Dichlorobenzene	13.444	13.441	1.002	146	120	N.D.	
75) n-Butylbenzene	13.650	13.653	1.018	91	1501	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	425	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.988	15.988	1.192	128	1776	N.D.	
81) 1,2,3-Trichlorobenzene	16.284	16.291	1.214	180	283	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	6.446	6.425	0.769	41	106	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.	

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GEL Laboratories, LLC

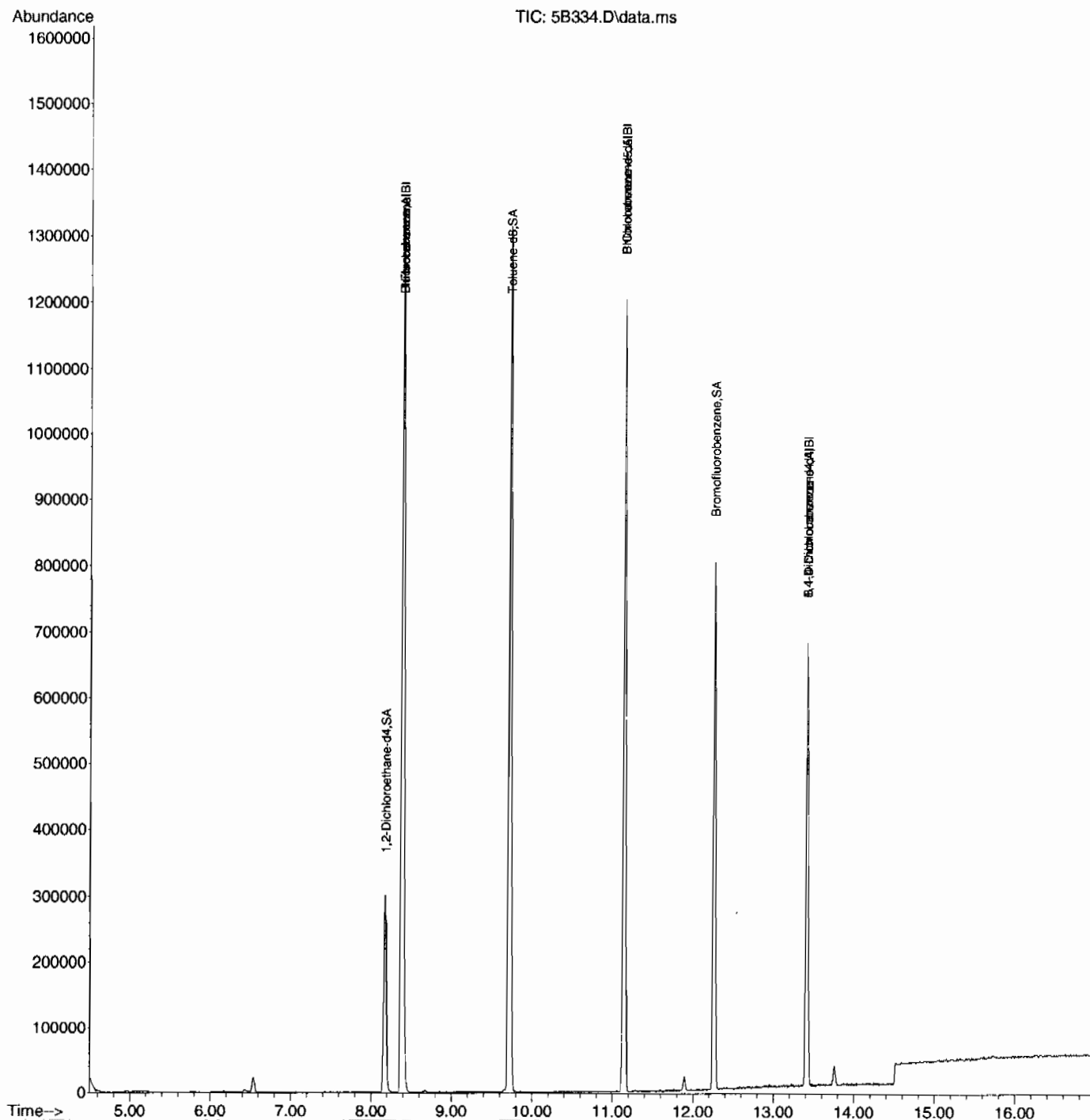
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Data File : 5B334.D  
Acq On : 10 Mar 2010 9:45 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248249001|962697|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 34 Sample Multiplier: 1

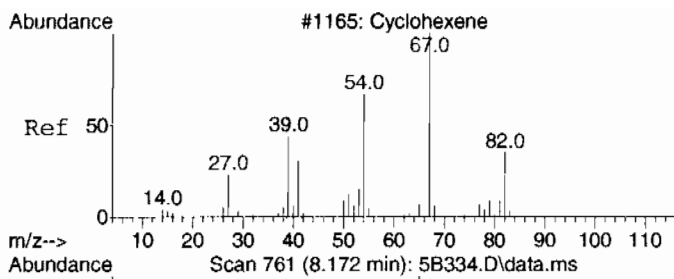
Quant Time: Mar 11 07:52:16 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.850	7.680	0.936	41	112	N.D.	
97) Tetrahydrofuran	7.719	7.716	0.920	42	121	N.D.	
98) Isobutyl alcohol	7.850	7.857	0.936	41	112	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	12.164	12.136	0.907	53	112	N.D.	
108) Cyclohexanone	0.000	12.267	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	12.164	12.412	0.907	53	112	N.D.	
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.554	13.565	1.011	91	1087	N.D.	
112) bis(2-Chloroisopropyl)...	13.939	13.929	1.039	45	123	N.D.	

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

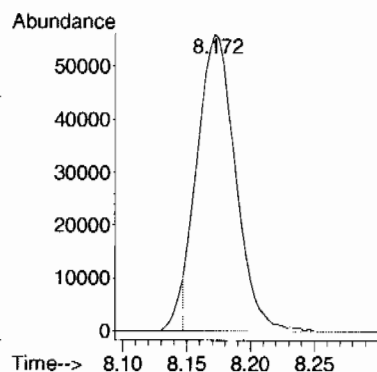
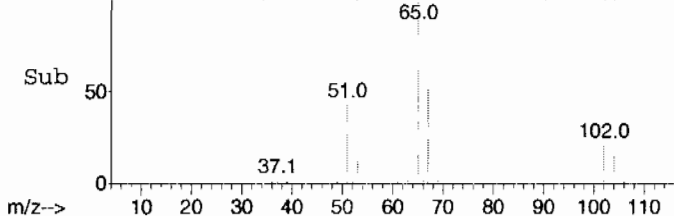
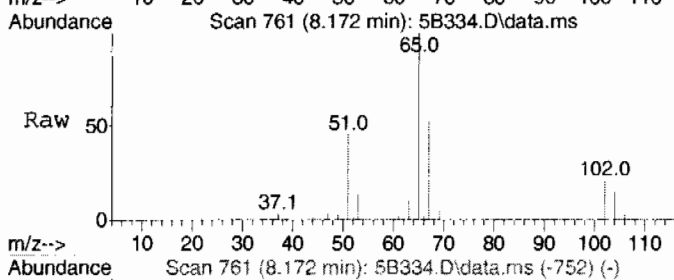
Quant Time: Mar 11 07:52:16 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE





#32 BEFORE analyst DELETION  
Cyclohexene  
Concen: 12.79 ug/L  
RT: 8.172 min Scan# 761  
Delta R.T. -0.074 min  
Lab File: 5B334.D  
Acq: 10 Mar 2010 9:45 pm

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



GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
Data File : 5B334.D  
Acq On : 10 Mar 2010 9:45 pm  
Operator : CDS1  
Sample : |248249001|962697|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 34 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

\*\*\*\*\*

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B334.D  
 Acq On : 10 Mar 2010 9:45 pm  
 Operator : CDS1  
 Sample : |248249001|962697|1|VOA|1|VOA8260BS|  
 Misc : LANL 5G - SOIL  
 ALS Vial : 34 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

Volume  
Certificate of Analysis  
Sample Summary

Page 1 of 4

<b>SDG Number:</b> 10-2140	<b>Date Collected:</b> 02/24/2010 12:00	<b>Matrix:</b> S
<b>Lab Sample ID:</b> 248249005	<b>Date Received:</b> 02/27/2010 09:10	
<b>Client ID:</b> RE36-10-8296	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 962697	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Run Date:</b> 03/10/2010 23:30	<b>Inst:</b> VOA5.1	<b>Dilution:</b> 1
<b>Prep Date:</b> 03/10/2010 08:43	<b>Analyst:</b> CDS1	<b>Purge Vol:</b> 5 mL
<b>Data File:</b> 031010V55B338.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	1.00	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	J	2.87	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



Volume  
**Certificate of Analysis**  
**Sample Summary**

Page 2 of 2

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: S
Lab Sample ID: 248249005	Date Received: 02/27/2010 09:10	
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8296	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOA5.I	Dilution: 1
Run Date: 03/10/2010 23:30	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/10/2010 08:43	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031010V55B338.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
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

**Tentatively Identified Compound Summary**

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

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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B338.D  
 Acq On : 10 Mar 2010 11:30 pm  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |248249005|962697|1|VOA|1|VOA8260BS|  
 Misc : LANL 5G - SOIL  
 ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 11 07:56:54 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	1433277	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1050144	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	499491	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1433277	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1050144	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	499491	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	255992	36.90	ug/L	0.00
Spiked Amount	50.000	Range 66 - 134	Recovery	=	73.80%			
43) Toluene-d8	9.721	9.721	0.872	98	1152587	42.92	ug/L	0.00
Spiked Amount	50.000	Range 71 - 128	Recovery	=	85.84%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	592629	59.15	ug/L	0.00
Spiked Amount	50.000	Range 65 - 130	Recovery	=	118.30%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.960	4.900	0.591	50	1043	Below Cal		99
4) Vinyl chloride	5.031	5.041	0.600	62	174	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	5.866	5.866	0.699	59	195	N.D.		
9) Acetone	6.174	6.174	0.736	43	12280	2.87	ug/L	86
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	6.474	6.464	0.772	41	629	N.D.		
13) Methyl acetate	0.000	6.365	0.000		0m	N.D.	d	
14) Carbon disulfide	6.435	6.435	0.767	76	123	N.D.		
15) Methylene chloride	6.531	6.538	0.779	84	3493	N.D.		
16) tert-Butyl methyl ether	6.640	6.640	0.792	73	3369	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.796	6.969	0.810	43	151	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	7.457	7.450	0.889	43	258	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	0.000	8.203	0.000		0m	N.D.	d	
32) Cyclohexene	0.000	8.246	0.000		0m	N.D.	d	
33) n-Butyl alcohol	8.394	8.377	1.001	56	8245	Below Cal	#	20
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.		

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B338.D  
 Acq On : 10 Mar 2010 11:30 pm  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |248249005|962697|1|VOA|1|VOA8260BS|  
 Misc : LANL 5G - SOIL  
 ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 11 07:56:54 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	9.781	9.788	0.878	91	2993	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	119	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	11.170	11.181	1.003	91	564	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	12.260	12.016	0.914	105	124	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	12.422	12.415	0.926	91	663	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	12.564	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.691	12.698	0.946	91	1240	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	118	N.D.	
71) sec-Butylbenzene	0.000	13.119	0.000		0	N.D.	
72) 4-Isopropyltoluene	13.222	13.229	0.986	119	3063	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	13.649	13.653	1.018	91	690	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	0.000	15.619	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.988	15.988	1.192	128	3942	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	16.291	0.000		0	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	6.449	6.425	0.769	41	260	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	7.440	7.383	0.887	43	137	N.D.	

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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
Data File : 5B338.D  
Acq On : 10 Mar 2010 11:30 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248249005|962697|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 38 Sample Multiplier: 1

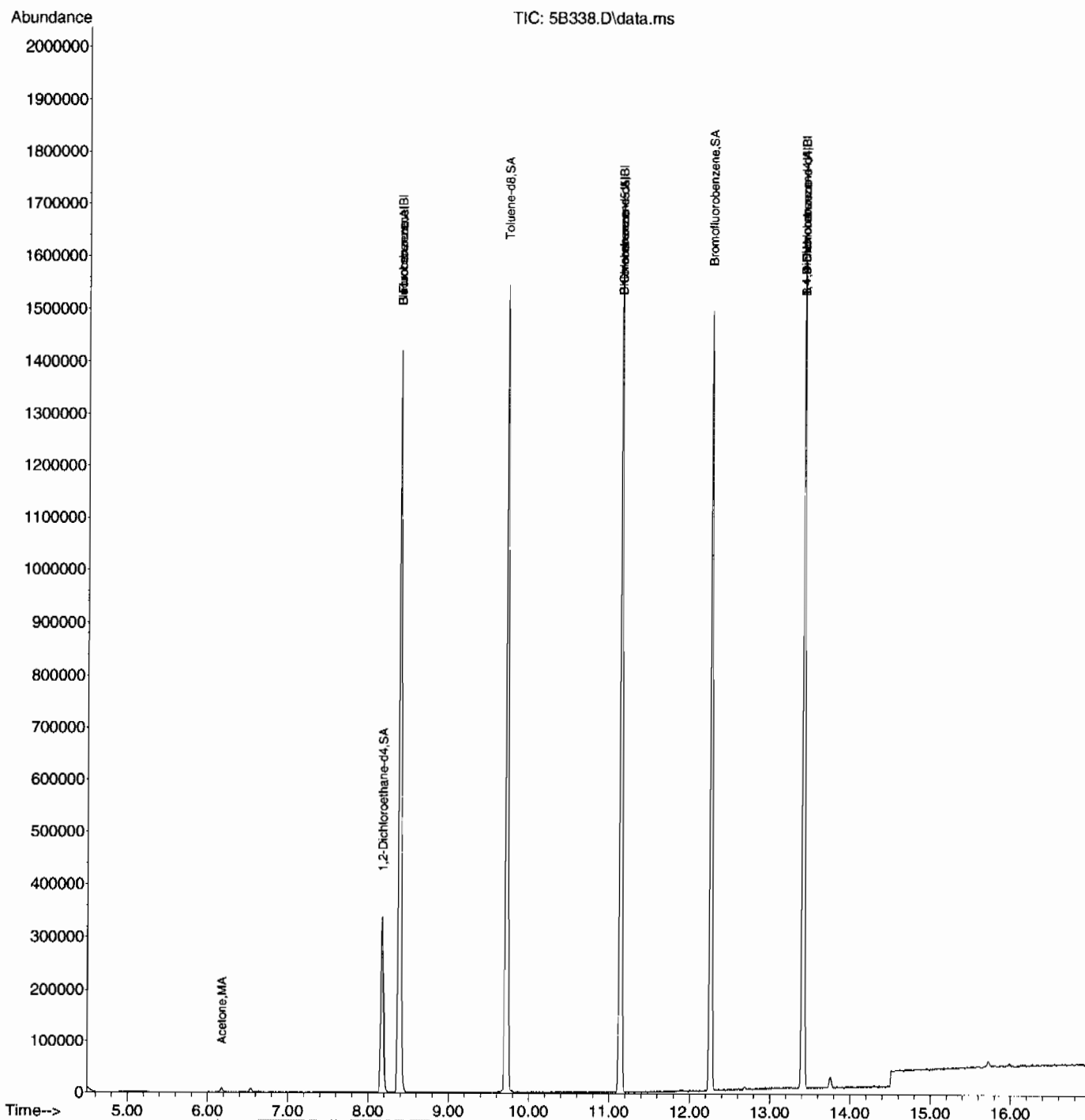
Quant Time: Mar 11 07:56:54 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

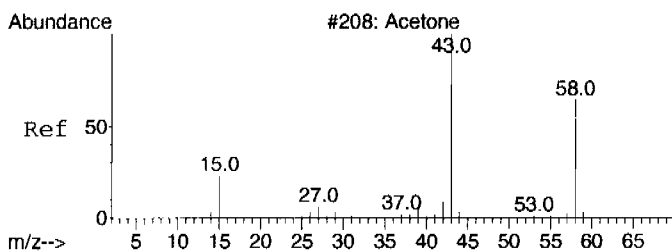
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.708	7.680	0.919	41	108	N.D.	
97) Tetrahydrofuran	7.708	7.716	0.919	42	622	N.D.	
98) Isobutyl alcohol	7.733	7.857	0.922	41	107	N.D.	
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	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		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	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	13.572	13.565	1.012	91	1098	N.D.	
112) bis(2-Chloroisopropyl)...	13.929	13.929	1.038	45	114	N.D.	

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

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B338.D  
 Acq On : 10 Mar 2010 11:30 pm  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |248249005|962697|1|VOA|1|VOA8260BS|  
 Misc : LANL 5G - SOIL  
 ALS Vial : 38 Sample Multiplier: 1

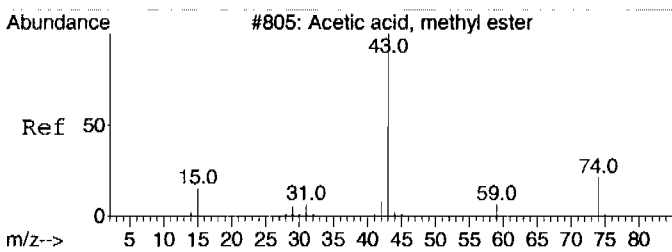
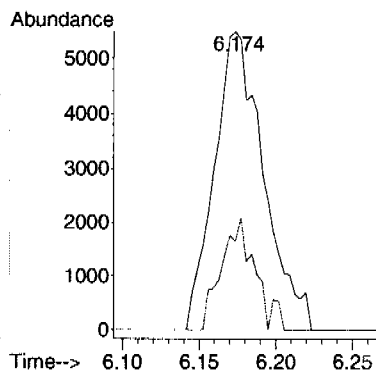
Quant Time: Mar 11 07:56:54 2010  
 Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
 Quant Title : Volatile Organics 8260B SubList :  
 QLast Update : Tue Mar 09 07:08:19 2010  
 Response via : Initial Calibration  
 Integrator: RTE





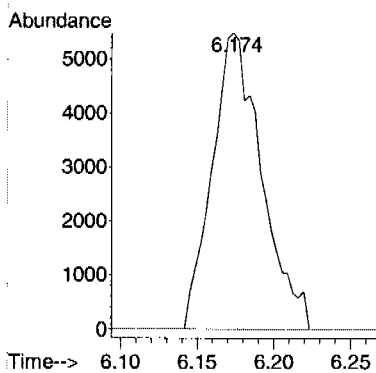
#9  
Acetone  
Concen: 2.87 ug/L  
RT: 6.174 min Scan# 196  
Delta R.T. -0.000 min  
Lab File: 5B338.D  
Acq: 10 Mar 2010 11:30 pm

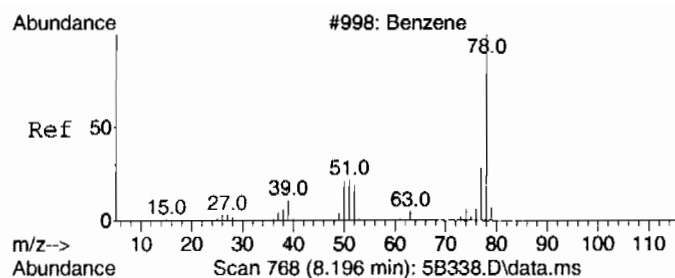
Tgt Ion: 43 Resp: 12280  
Ion Ratio Lower Upper  
43 100  
58 24.0 1.9 61.9



#13 BEFORE analyst DELETION  
Methyl acetate  
Concen: 2.62 ug/L  
RT: 6.174 min Scan# 196  
Delta R.T. -0.191 min  
Lab File: 5B338.D  
Acq: 10 Mar 2010 11:30 pm

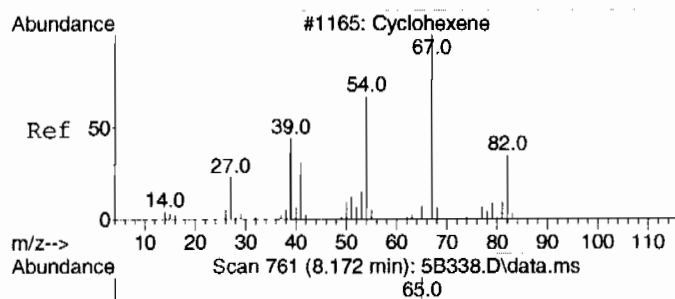
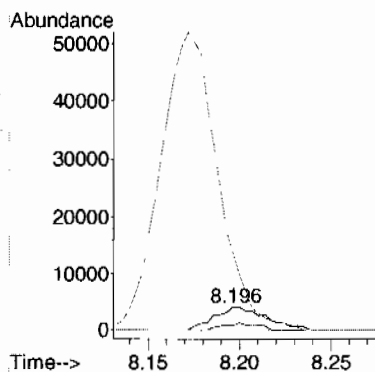
Tgt Ion: 43 Resp: 12280  
Ion Ratio Lower Upper  
43 100  
74 0.0 0.0 48.8  
59 0.0 0.0 37.6





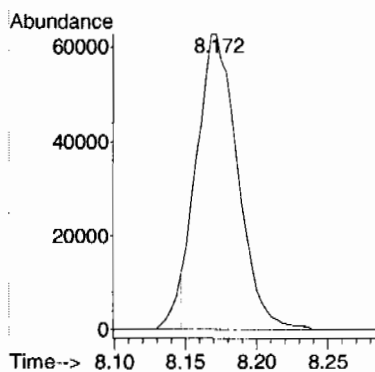
#31 BEFORE analyst DELETION  
Benzene  
Concen: 0.38 ug/L  
RT: 8.196 min Scan# 768  
Delta R.T. -0.007 min  
Lab File: 5B338.D  
Acq: 10 Mar 2010 11:30 pm

Tgt Ion: 78 Resp: 7967  
Ion Ratio Lower Upper  
78 100  
77 20.2 0.0 55.8  
51 1435.2 12.0 72.0#



#32 BEFORE analyst DELETION  
Cyclohexene  
Concen: 12.99 ug/L  
RT: 8.172 min Scan# 761  
Delta R.T. -0.074 min  
Lab File: 5B338.D  
Acq: 10 Mar 2010 11:30 pm

Tgt Ion: 67 Resp: 125294  
Ion Ratio Lower Upper  
67 100  
54 0.0 46.3 106.3#



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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
Data File : 5B338.D  
Acq On : 10 Mar 2010 11:30 pm  
Operator : CDS1  
Sample : |248249005|962697|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 38 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

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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
Data File : 5B338.D  
Acq On : 10 Mar 2010 11:30 pm  
Operator : CDS1  
Sample : |248249005|962697|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 38 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

Page 1 of 2

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249002	Date Received: 02/27/2010 09:10	%Moisture: 7.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8286	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOA5.I	Dilution: 1
Run Date: 03/11/2010 10:13	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/11/2010 08:46	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031110V55B409.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	HUh	1.08	ug/kg	0.368	1.08
74-87-3	Chloromethane	HUh	1.08	ug/kg	0.324	1.08
75-01-4	Vinyl chloride	HUh	1.08	ug/kg	0.324	1.08
74-83-9	Bromomethane	HUh	1.08	ug/kg	0.324	1.08
75-00-3	Chloroethane	HUh	1.08	ug/kg	0.324	1.08
75-69-4	Trichlorofluoromethane	HUh	1.08	ug/kg	0.324	1.08
67-64-1	Acetone	HUh	5.41	ug/kg	1.79	5.41
75-35-4	1,1-Dichloroethylene	HUh	1.08	ug/kg	0.324	1.08
74-88-4	Iodomethane	HUh	5.41	ug/kg	1.73	5.41
75-09-2	Methylene chloride	HUh	5.41	ug/kg	2.16	5.41
75-15-0	Carbon disulfide	HUh	5.41	ug/kg	1.35	5.41
156-60-5	trans-1,2-Dichloroethylene	HUh	1.08	ug/kg	0.324	1.08
75-34-3	1,1-Dichloroethane	HUh	1.08	ug/kg	0.324	1.08
78-93-3	2-Butanone	HUh	5.41	ug/kg	1.62	5.41
156-59-2	cis-1,2-Dichloroethylene	HUh	1.08	ug/kg	0.324	1.08
594-20-7	2,2-Dichloropropane	HUh	1.08	ug/kg	0.324	1.08
67-66-3	Chloroform	HUh	1.08	ug/kg	0.324	1.08
74-97-5	Bromochloromethane	HUh	1.08	ug/kg	0.357	1.08
71-55-6	1,1,1-Trichloroethane	HUh	1.08	ug/kg	0.324	1.08
563-58-6	1,1-Dichloropropene	HUh	1.08	ug/kg	0.324	1.08
56-23-5	Carbon tetrachloride	HUh	1.08	ug/kg	0.324	1.08
107-06-2	1,2-Dichloroethane	HUh	1.08	ug/kg	0.324	1.08
71-43-2	Benzene	HUh	1.08	ug/kg	0.324	1.08
79-01-6	Trichloroethylene	HUh	1.08	ug/kg	0.357	1.08
78-87-5	1,2-Dichloropropane	HUh	1.08	ug/kg	0.324	1.08
75-27-4	Bromodichloromethane	HUh	1.08	ug/kg	0.324	1.08
74-95-3	Dibromomethane	HUh	1.08	ug/kg	0.324	1.08
108-10-1	4-Methyl-2-pentanone	HUh	5.41	ug/kg	1.35	5.41
10061-01-5	cis-1,3-Dichloropropylene	HUh	1.08	ug/kg	0.324	1.08
108-88-3	Toluene	HUh	0.422	ug/kg	0.324	1.08
10061-02-6	trans-1,3-Dichloropropylene	HUh	1.08	ug/kg	0.324	1.08
79-00-5	1,1,2-Trichloroethane	HUh	1.08	ug/kg	0.324	1.08
591-78-6	2-Hexanone	HUh	5.41	ug/kg	1.62	5.41
142-28-9	1,3-Dichloropropane	HUh	1.08	ug/kg	0.324	1.08
127-18-4	Tetrachloroethylene	HUh	1.08	ug/kg	0.324	1.08
124-48-1	Dibromochloromethane	HUh	1.08	ug/kg	0.324	1.08
106-93-4	1,2-Dibromoethane	HUh	1.08	ug/kg	0.324	1.08
108-90-7	Chlorobenzene	HUh	1.08	ug/kg	0.324	1.08

VOLUME  
Certificate of Analysis  
Sample Summary

Page 4 of 4

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249002	Date Received: 02/27/2010 09:10	%Moisture: 7.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8286	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOA5.1	Dilution: 1
Run Date: 03/11/2010 10:13	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/11/2010 08:46	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031110V55B409.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	HUh	1.08	ug/kg	0.324	1.08
179601-23-1	m,p-Xylenes	HUh	2.16	ug/kg	0.324	2.16
95-47-6	o-Xylene	HUh	1.08	ug/kg	0.324	1.08
100-42-5	Styrene	HUh	1.08	ug/kg	0.324	1.08
75-25-2	Bromoform	HUh	1.08	ug/kg	0.324	1.08
79-34-5	1,1,2,2-Tetrachloroethane	HUh	1.08	ug/kg	0.324	1.08
96-18-4	1,2,3-Trichloropropane	HUh	1.08	ug/kg	0.324	1.08
108-86-1	Bromobenzene	HUh	1.08	ug/kg	0.324	1.08
103-65-1	n-Propylbenzene	HUh	1.08	ug/kg	0.324	1.08
95-49-8	2-Chlorotoluene	HUh	1.08	ug/kg	0.324	1.08
98-82-8	Isopropylbenzene	HUh	1.08	ug/kg	0.324	1.08
108-67-8	1,3,5-Trimethylbenzene	HUh	1.08	ug/kg	0.324	1.08
106-43-4	4-Chlorotoluene	HUh	1.08	ug/kg	0.324	1.08
98-06-6	tert-Butylbenzene	HUh	1.08	ug/kg	0.324	1.08
95-63-6	1,2,4-Trimethylbenzene	HUh	1.08	ug/kg	0.324	1.08
135-98-8	sec-Butylbenzene	HUh	1.08	ug/kg	0.324	1.08
99-87-6	4-Isopropyltoluene	HUh	1.08	ug/kg	0.324	1.08
541-73-1	1,3-Dichlorobenzene	HUh	1.08	ug/kg	0.324	1.08
106-46-7	1,4-Dichlorobenzene	HUh	1.08	ug/kg	0.324	1.08
104-51-8	n-Butylbenzene	HUh	1.08	ug/kg	0.324	1.08
96-12-8	1,2-Dibromo-3-chloropropane	HUh	1.08	ug/kg	0.324	1.08
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	HUh	5.41	ug/kg	1.73	5.41
630-20-6	1,1,1,2-Tetrachloroethane	HUh	1.08	ug/kg	0.324	1.08
95-50-1	1,2-Dichlorobenzene	HUh	1.08	ug/kg	0.324	1.08

Tentatively Identified Compound Summary

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

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
 Data File : 5B409.D  
 Acq On : 11 Mar 2010 10:13 am  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |248249002|962697|1|VOA|1|VOA8260BS|  
 Misc : LANL 5G - SOIL  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 11 17:35:54 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	8.387	8.387	1.000	96	1368001	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	900757	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	329994	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1368001	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	900757	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	329994	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	231220	34.92	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	=	69.84%		
43) Toluene-d8	9.721	9.721	0.872	98	1016424	44.12	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	=	88.24%		
61) Bromofluorobenzene	12.260	12.260	0.914	95	454941	68.73	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	=	137.46%#		
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.869	4.900	0.581	50	191	Below Cal	#	5
4) Vinyl chloride	5.041	5.041	0.601	62	175	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	5.876	5.866	0.701	59	454	N.D.		
9) Acetone	6.181	6.174	0.737	43	2092	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	401	N.D.		
13) Methyl acetate	6.181	6.365	0.737	43	2092	N.D.		
14) Carbon disulfide	6.435	6.435	0.767	76	2475	N.D.		
15) Methylene chloride	6.541	6.538	0.780	84	10056	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	6.803	6.969	0.811	43	1828	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	0.000	7.450	0.000		0	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	701	N.D.		
32) Cyclohexene	8.235	8.246	0.982	67	109	N.D.		
33) n-Butyl alcohol	8.384	8.377	1.000	56	7888	Below Cal	#	19
34) Trichloroethylene	8.670	8.677	1.034	95	521	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.		

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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B409.D  
Acq On : 11 Mar 2010 10:13 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248249002|962697|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 11 17:35:54 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	7630	0.39 ug/L	98
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	0.000	10.279	0.000		0	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	2033	N.D.	
55) m,p-Xylenes	11.287	11.280	1.013	106	2208	N.D.	
56) o-Xylene	11.704	11.701	1.050	106	1217	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	0.000	12.016	0.000		0	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	12.405	12.415	0.925	91	1142	N.D.	
66) 1,3,5-Trimethylbenzene	12.553	12.564	0.936	105	275	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.695	12.698	0.946	91	1878	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	3843	N.D.	
71) sec-Butylbenzene	13.112	13.119	0.978	105	251	N.D.	
72) 4-Isopropyltoluene	0.000	13.229	0.000		0m	N.D.	d
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	13.441	13.441	1.002	146	247	N.D.	
75) n-Butylbenzene	13.660	13.653	1.018	91	521	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	15.619	15.619	1.165	180	156	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.981	15.988	1.191	128	2534	N.D.	
81) 1,2,3-Trichlorobenzene	16.298	16.291	1.215	180	111	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	6.428	6.425	0.766	41	110	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.	

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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B409.D  
Acq On : 11 Mar 2010 10:13 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248249002|962697|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 11 17:35:54 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

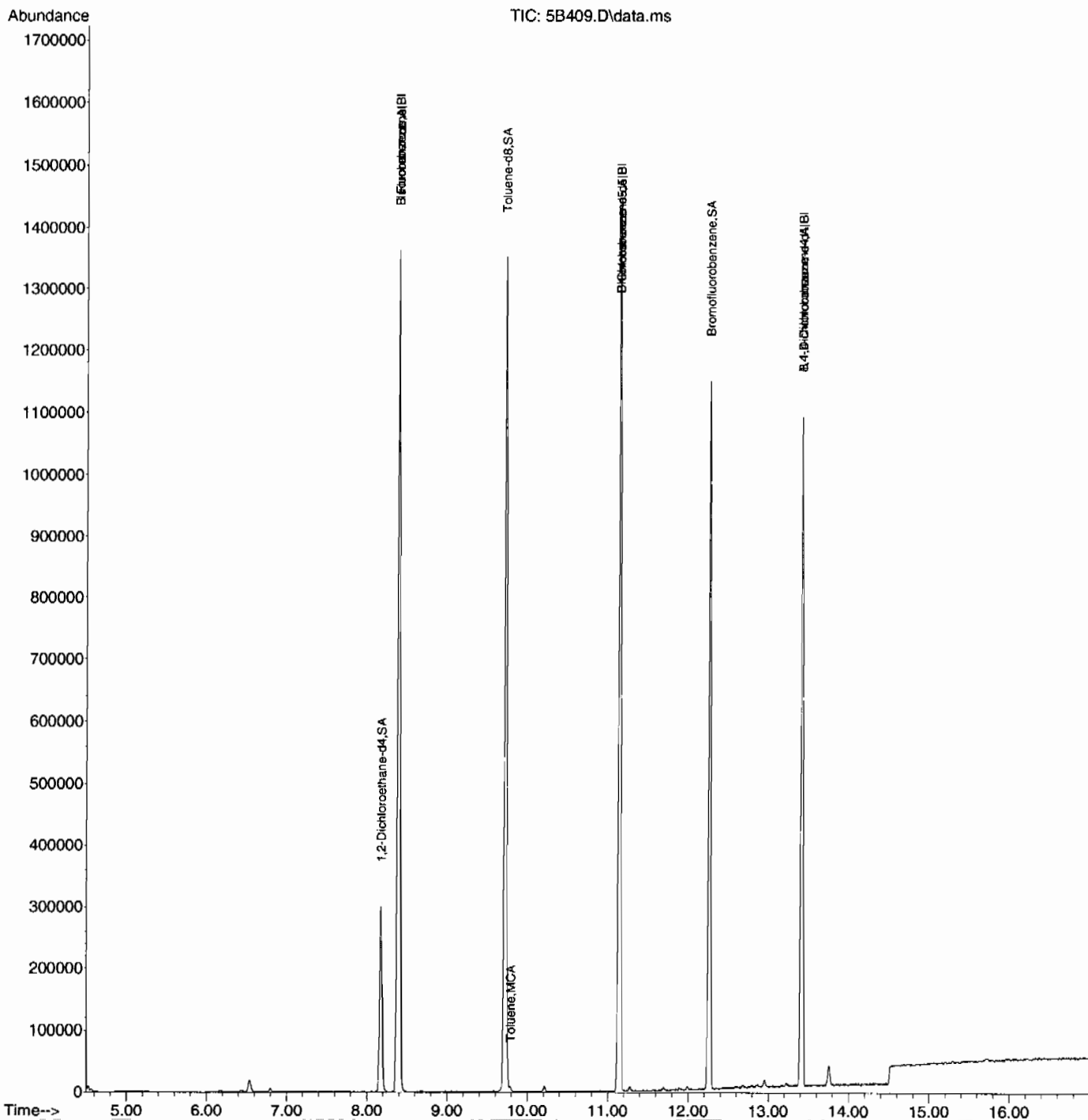
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.705	7.680	0.919	41	121	N.D.	
97) Tetrahydrofuran	7.726	7.716	0.921	42	235	N.D.	
98) Isobutyl alcohol	7.722	7.857	0.921	41	145	N.D.	
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	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	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	13.565	13.565	1.011	91	1198	N.D.	
112) bis(2-Chloroisopropyl)...	13.929	13.929	1.038	45	124	N.D.	

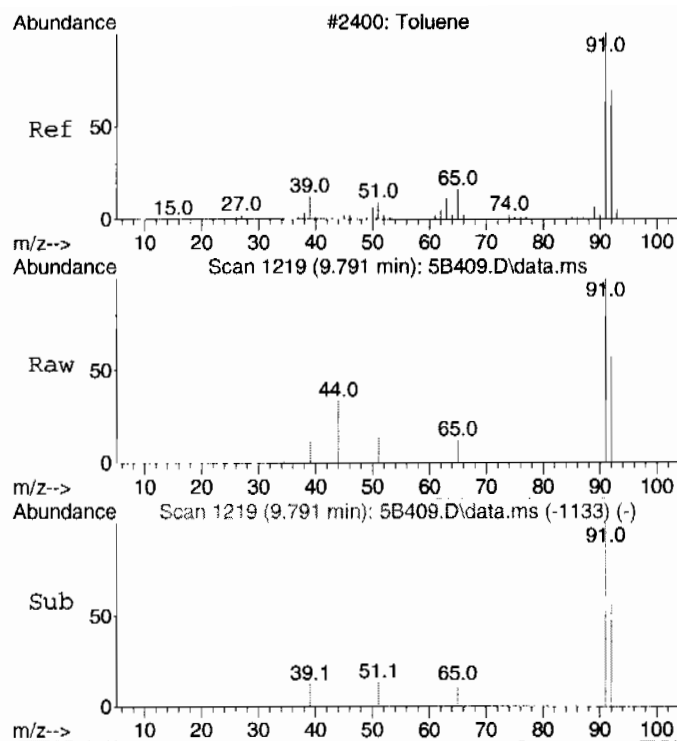
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
 Data File : 5B409.D  
 Acq On : 11 Mar 2010 10:13 am  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |248249002|962697|1|VOA|1|VOA8260BS|  
 Misc : LANL 5G - SOIL  
 ALS Vial : 9 Sample Multiplier: 1

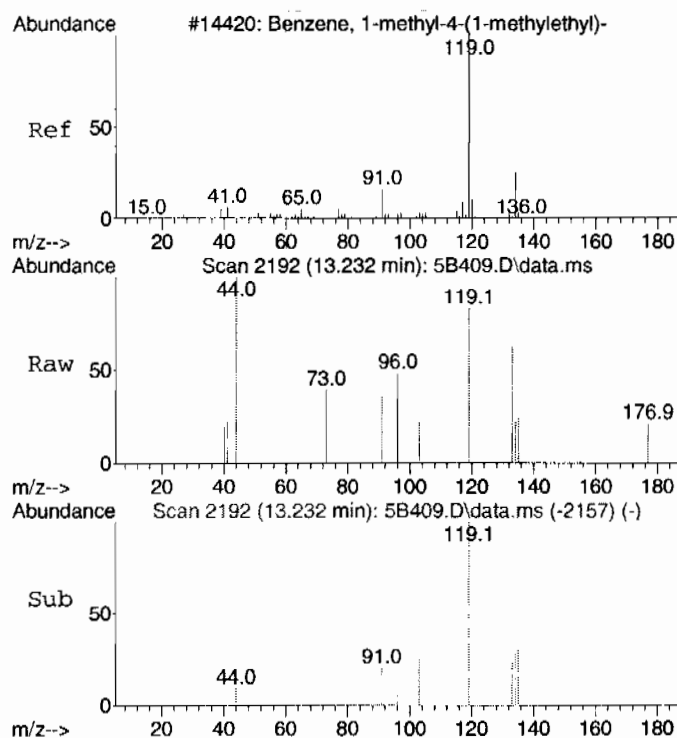
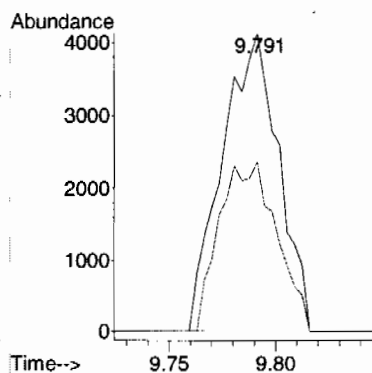
Quant Time: Mar 11 17:35:54 2010  
 Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
 Quant Title : Volatile Organics 8260B SubList :  
 QLast Update : Tue Mar 09 07:08:19 2010  
 Response via : Initial Calibration  
 Integrator: RTE





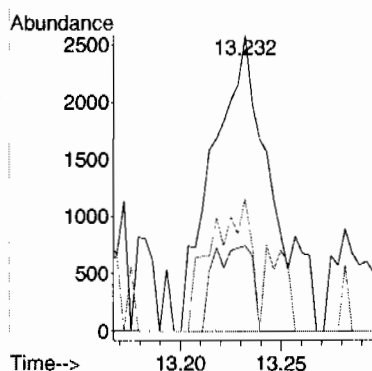
#44  
Toluene  
Concen: 0.39 ug/L  
RT: 9.791 min Scan# 1219  
Delta R.T. 0.003 min  
Lab File: 5B409.D  
Acq: 11 Mar 2010 10:13 am

Tgt Ion: 91 Resp: 7630  
Ion Ratio Lower Upper  
91 100  
92 58.1 29.5 89.5



#72 BEFORE analyst DELETION  
4-Isopropyltoluene  
Concen: 0.39 ug/L  
RT: 13.232 min Scan# 2192  
Delta R.T. 0.003 min  
Lab File: 5B409.D  
Acq: 11 Mar 2010 10:13 am

Tgt Ion: 119 Resp: 5165  
Ion Ratio Lower Upper  
119 100  
134 19.0 0.0 57.2  
91 30.4 0.0 53.0





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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B409.D  
Acq On : 11 Mar 2010 10:13 am  
Operator : CDS1  
Sample : |248249002|962697|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 9 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

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GEL Laboratories, LLC  
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Data Path : C:\msdchem\1\DATA\031110V5\  
 Data File : 5B409.D  
 Acq On : 11 Mar 2010 10:13 am  
 Operator : CDS1  
 Sample : |248249002|962697|1|VOA|1|VOA8260BS|  
 Misc : LANL 5G - SOIL  
 ALS Vial : 9 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
-----								

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

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249003	Date Received: 02/27/2010 09:10	%Moisture: 6.3
Client ID: RE36-10-8283	Client: LANL010	Project: LANL01004
Batch ID: 962697	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/11/2010 10:40	Inst: VOA5.1	Dilution: 1
Prep Date: 03/11/2010 08:47	Analyst: CDS1	Purge Vol: 5 mL
Data File: 031110V5SB410.D	Aliquot: 5 g	Final Volume: 5 mL
	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	HUh	1.07	ug/kg	0.363	1.07
74-87-3	Chloromethane	HUh	1.07	ug/kg	0.320	1.07
75-01-4	Vinyl chloride	HUh	1.07	ug/kg	0.320	1.07
74-83-9	Bromomethane	HUh	1.07	ug/kg	0.320	1.07
75-00-3	Chloroethane	HUh	1.07	ug/kg	0.320	1.07
75-69-4	Trichlorofluoromethane	HUh	1.07	ug/kg	0.320	1.07
67-64-1	Acetone	HJh	4.02	ug/kg	1.77	5.34
75-35-4	1,1-Dichloroethylene	HUh	1.07	ug/kg	0.320	1.07
74-88-4	Iodomethane	HUh	5.34	ug/kg	1.71	5.34
75-09-2	Methylene chloride	HJh	3.15	ug/kg	2.14	5.34
75-15-0	Carbon disulfide	HUh	5.34	ug/kg	1.33	5.34
156-60-5	trans-1,2-Dichloroethylene	HUh	1.07	ug/kg	0.320	1.07
75-34-3	1,1-Dichloroethane	HUh	1.07	ug/kg	0.320	1.07
78-93-3	2-Butanone	HUh	5.34	ug/kg	1.60	5.34
156-59-2	cis-1,2-Dichloroethylene	HUh	1.07	ug/kg	0.320	1.07
594-20-7	2,2-Dichloropropane	HUh	1.07	ug/kg	0.320	1.07
67-66-3	Chloroform	HUh	1.07	ug/kg	0.320	1.07
74-97-5	Bromochloromethane	HUh	1.07	ug/kg	0.352	1.07
71-55-6	1,1,1-Trichloroethane	HUh	1.07	ug/kg	0.320	1.07
563-58-6	1,1-Dichloropropene	HUh	1.07	ug/kg	0.320	1.07
56-23-5	Carbon tetrachloride	HUh	1.07	ug/kg	0.320	1.07
107-06-2	1,2-Dichloroethane	HUh	1.07	ug/kg	0.320	1.07
71-43-2	Benzene	HUh	1.07	ug/kg	0.320	1.07
79-01-6	Trichloroethylene	HUh	1.07	ug/kg	0.352	1.07
78-87-5	1,2-Dichloropropane	HUh	1.07	ug/kg	0.320	1.07
75-27-4	Bromodichloromethane	HUh	1.07	ug/kg	0.320	1.07
74-95-3	Dibromomethane	HUh	1.07	ug/kg	0.320	1.07
108-10-1	4-Methyl-2-pentanone	HUh	5.34	ug/kg	1.33	5.34
10061-01-5	cis-1,3-Dichloropropylene	HUh	1.07	ug/kg	0.320	1.07
108-88-3	Toluene	Hh	1.13	ug/kg	0.320	1.07
10061-02-6	trans-1,3-Dichloropropylene	HUh	1.07	ug/kg	0.320	1.07
79-00-5	1,1,2-Trichloroethane	HUh	1.07	ug/kg	0.320	1.07
591-78-6	2-Hexanone	HUh	5.34	ug/kg	1.60	5.34
142-28-9	1,3-Dichloropropane	HUh	1.07	ug/kg	0.320	1.07
127-18-4	Tetrachloroethylene	HUh	1.07	ug/kg	0.320	1.07
124-48-1	Dibromochloromethane	HUh	1.07	ug/kg	0.320	1.07
106-93-4	1,2-Dibromoethane	HUh	1.07	ug/kg	0.320	1.07
108-90-7	Chlorobenzene	HUh	1.07	ug/kg	0.320	1.07

VOLUME  
Certificate of Analysis  
Sample Summary

Page 4 of 4

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249003	Date Received: 02/27/2010 09:10	%Moisture: 6.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8283	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOAS.I	Dilution: 1
Run Date: 03/11/2010 10:40	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/11/2010 08:47	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031110V55B410.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	HUh	1.07	ug/kg	0.320	1.07
179601-23-1	m,p-Xylenes	HJh	0.822	ug/kg	0.320	2.14
95-47-6	o-Xylene	HUh	1.07	ug/kg	0.320	1.07
100-42-5	Styrene	HUh	1.07	ug/kg	0.320	1.07
75-25-2	Bromoform	HUh	1.07	ug/kg	0.320	1.07
79-34-5	1,1,2,2-Tetrachloroethane	HUh	1.07	ug/kg	0.320	1.07
96-18-4	1,2,3-Trichloropropane	HUh	1.07	ug/kg	0.320	1.07
108-86-1	Bromobenzene	HUh	1.07	ug/kg	0.320	1.07
103-65-1	n-Propylbenzene	HUh	1.07	ug/kg	0.320	1.07
95-49-8	2-Chlorotoluene	HUh	1.07	ug/kg	0.320	1.07
98-82-8	Isopropylbenzene	HUh	1.07	ug/kg	0.320	1.07
108-67-8	1,3,5-Trimethylbenzene	HUh	1.07	ug/kg	0.320	1.07
106-43-4	4-Chlorotoluene	HUh	1.07	ug/kg	0.320	1.07
98-06-6	tert-Butylbenzene	HUh	1.07	ug/kg	0.320	1.07
95-63-6	1,2,4-Trimethylbenzene	HJh	1.00	ug/kg	0.320	1.07
135-98-8	sec-Butylbenzene	HUh	1.07	ug/kg	0.320	1.07
99-87-6	4-Isopropyltoluene	Hh	2.36	ug/kg	0.320	1.07
541-73-1	1,3-Dichlorobenzene	HUh	1.07	ug/kg	0.320	1.07
106-46-7	1,4-Dichlorobenzene	HUh	1.07	ug/kg	0.320	1.07
104-51-8	n-Butylbenzene	HUh	1.07	ug/kg	0.320	1.07
96-12-8	1,2-Dibromo-3-chloropropane	HUh	1.07	ug/kg	0.320	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	HUh	5.34	ug/kg	1.71	5.34
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	HUh	1.07	ug/kg	0.320	1.07
95-50-1	1,2-Dichlorobenzene	HUh	1.07	ug/kg	0.320	1.07

**Tentatively Identified Compound Summary**

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

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
 Data File : 5B410.D  
 Acq On : 11 Mar 2010 10:40 am  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |248249003|962697|1|VOA|1|VOA8260BS|  
 Misc : LANL 5G - SOIL  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 11 17:37:14 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	Dev (Min)
Internal Standards								
1) Fluorobenzene	8.388	8.387	1.000	96	1361353	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	854445	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	262659	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.391	1.000	96	1361353	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	854445	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	262659	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	234353	35.57	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	=	71.14%		
43) Toluene-d8	9.721	9.721	0.872	98	1016855	46.53	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	=	93.06%		
61) Bromofluorobenzene	12.260	12.260	0.914	95	402576	76.41	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	=	152.82%#		
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.880	4.900	0.582	50	559	Below Cal		52
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	797	N.D.		
9) Acetone	6.170	6.174	0.736	43	15336	3.77	ug/L	97
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	6.471	6.464	0.771	41	261	N.D.		
13) Methyl acetate	6.361	6.365	0.758	43	806	N.D.		
14) Carbon disulfide	6.435	6.435	0.767	76	6226	N.D.		
15) Methylene chloride	6.534	6.538	0.779	84	18198	2.95	ug/L	94
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	6.849	6.969	0.817	43	112	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	7.450	7.450	0.888	43	1772	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	8.204	8.203	0.978	78	2111	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	8050	N.D.		
34) Trichloroethylene	8.670	8.677	1.034	95	1396	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.		

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
 Data File : 5B410.D  
 Acq On : 11 Mar 2010 10:40 am  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |248249003|962697|1|VOA|1|VOA8260BS|  
 Misc : LANL 5G - SOIL  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 11 17:37:14 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
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	9.788	9.788	0.878	91	19403	1.06 ug/L	94
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	0.000	10.279	0.000		0	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	0.000	11.181	0.000		0m	N.D. d	
55) m,p-Xylenes	11.277	11.280	1.012	106	6133	0.77 ug/L	89
56) o-Xylene	0.000	11.701	0.000		0m	N.D. d	
57) Styrene	11.715	11.715	1.051	104	539	N.D.	
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	11.995	12.016	0.894	105	1932	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	12.419	12.415	0.926	91	4074	N.D.	
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	2851	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	12.698	0.000		0m	N.D. d	
69) tert-Butylbenzene	0.000	12.900	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	12.949	12.956	0.965	105	9796	0.94 ug/L	88
71) sec-Butylbenzene	13.112	13.119	0.978	105	359	N.D.	
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	23426	2.21 ug/L	92
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	13.434	13.441	1.002	146	120	N.D.	
75) n-Butylbenzene	13.657	13.653	1.018	91	1880	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	114	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.981	15.988	1.191	128	2489	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	16.291	0.000		0	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	666	N.D.	
89) tert-Butyl Alcohol	6.467	6.460	0.771	59	227	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	7.450	7.383	0.888	43	1772	N.D.	

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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B410.D  
Acq On : 11 Mar 2010 10:40 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248249003|962697|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 10 Sample Multiplier: 1

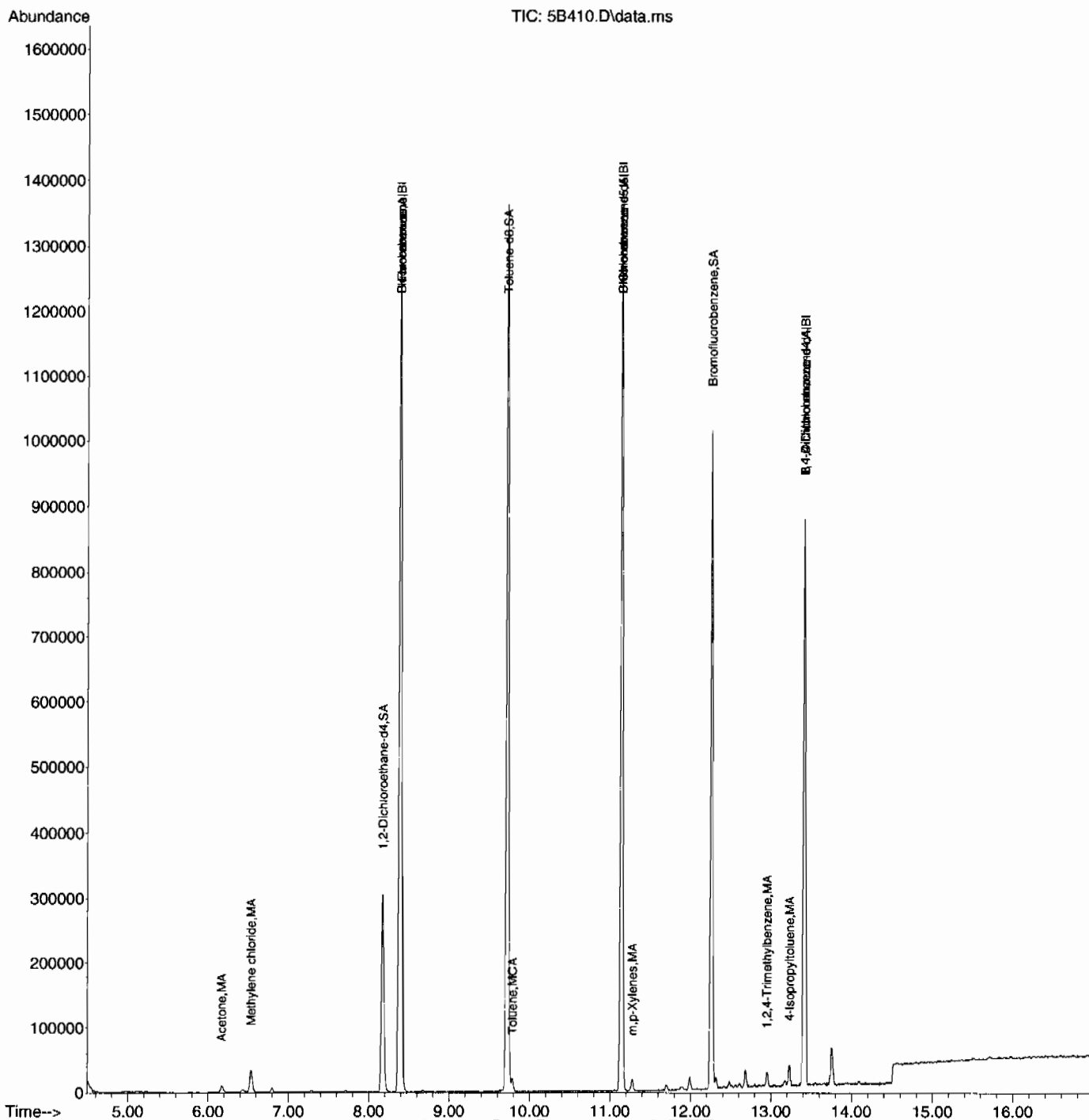
Quant Time: Mar 11 17:37:14 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.684	7.680	0.916	41	106	N.D.	
97) Tetrahydrofuran	7.716	7.716	0.920	42	1976	N.D.	
98) Isobutyl alcohol	7.861	7.857	0.937	41	118	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	12.005	12.136	0.895	53	113	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		0m	N.D.	d
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.582	13.565	1.013	91	1493	N.D.	
112) bis(2-Chloroisopropyl)...	13.926	13.929	1.038	45	111	N.D.	

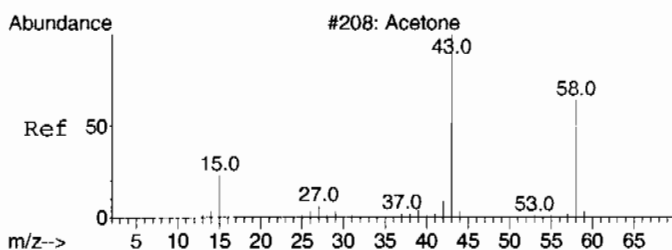
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B410.D  
Acq On : 11 Mar 2010 10:40 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248249003|962697|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 11 17:37:14 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

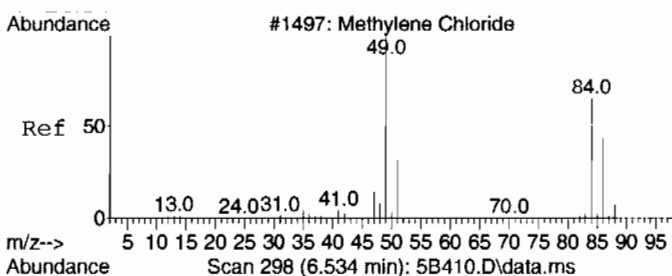
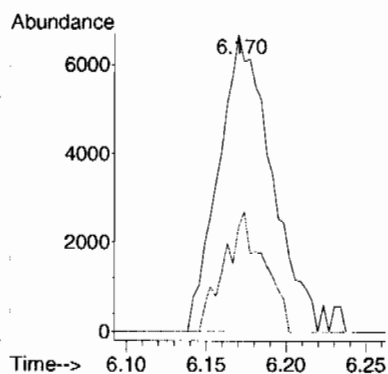






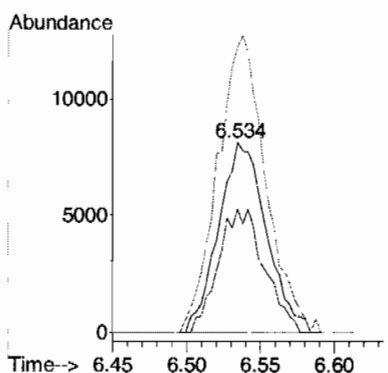
#9  
Acetone  
Concen: 3.77 ug/L  
RT: 6.170 min Scan# 195  
Delta R.T. -0.004 min  
Lab File: 5B410.D  
Acq: 11 Mar 2010 10:40 am

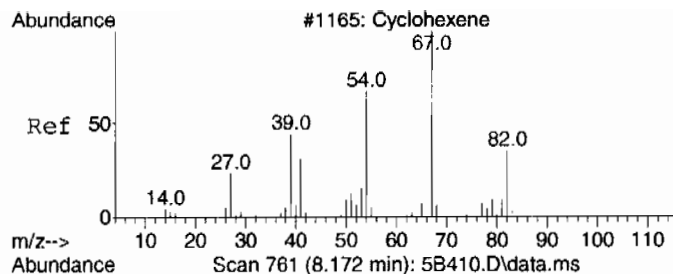
Tgt Ion: 43 Resp: 15336  
Ion Ratio Lower Upper  
43 100  
58 30.1 1.9 61.9



#15  
Methylene chloride  
Concen: 2.95 ug/L  
RT: 6.534 min Scan# 298  
Delta R.T. -0.004 min  
Lab File: 5B410.D  
Acq: 11 Mar 2010 10:40 am

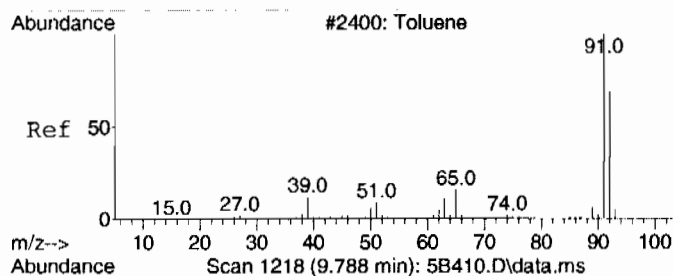
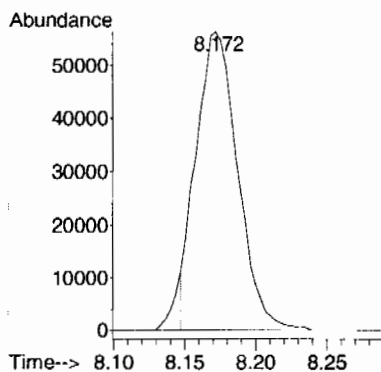
Tgt Ion: 84 Resp: 18198  
Ion Ratio Lower Upper  
84 100  
86 62.3 33.2 93.2  
49 157.6 117.6 177.6





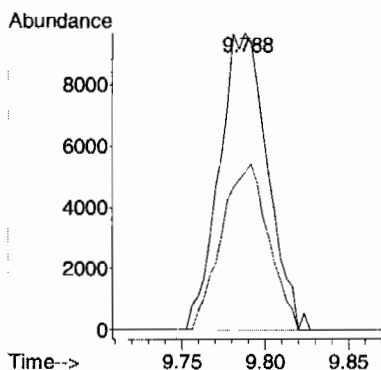
#32 BEFORE analyst DELETION  
Cyclohexene  
Concen: 12.60 ug/L  
RT: 8.172 min Scan# 761  
Delta R.T. -0.074 min  
Lab File: 5B410.D  
Acq: 11 Mar 2010 10:40 am

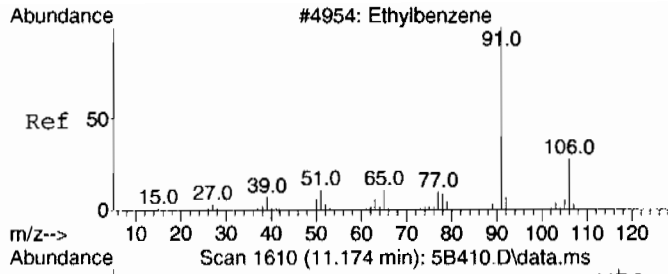
Tgt Ion: 67 Resp: 115428  
Ion Ratio Lower Upper  
67 100  
54 0.0 46.3 106.3#



#44  
Toluene  
Concen: 1.06 ug/L  
RT: 9.788 min Scan# 1218  
Delta R.T. -0.000 min  
Lab File: 5B410.D  
Acq: 11 Mar 2010 10:40 am

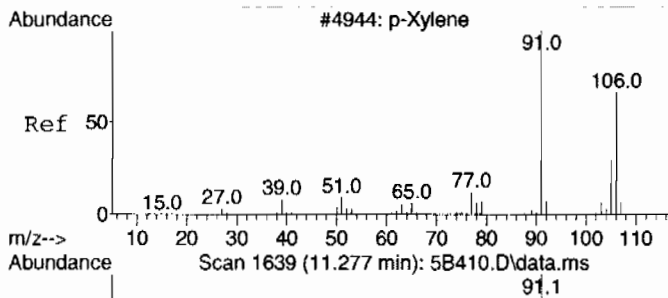
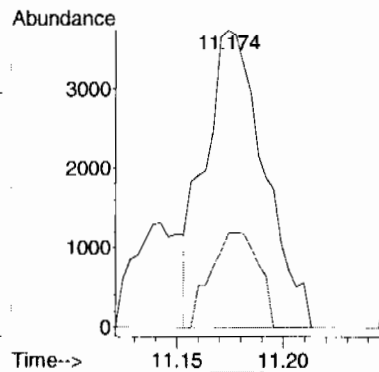
Tgt Ion: 91 Resp: 19403  
Ion Ratio Lower Upper  
91 100  
92 54.7 29.5 89.5





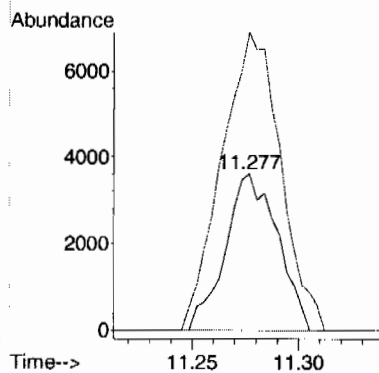
#54 BEFORE analyst DELETION  
Ethylbenzene  
Concen: 0.35 ug/L  
RT: 11.174 min Scan# 1610  
Delta R.T. -0.007 min  
Lab File: 5B410.D  
Acq: 11 Mar 2010 10:40 am

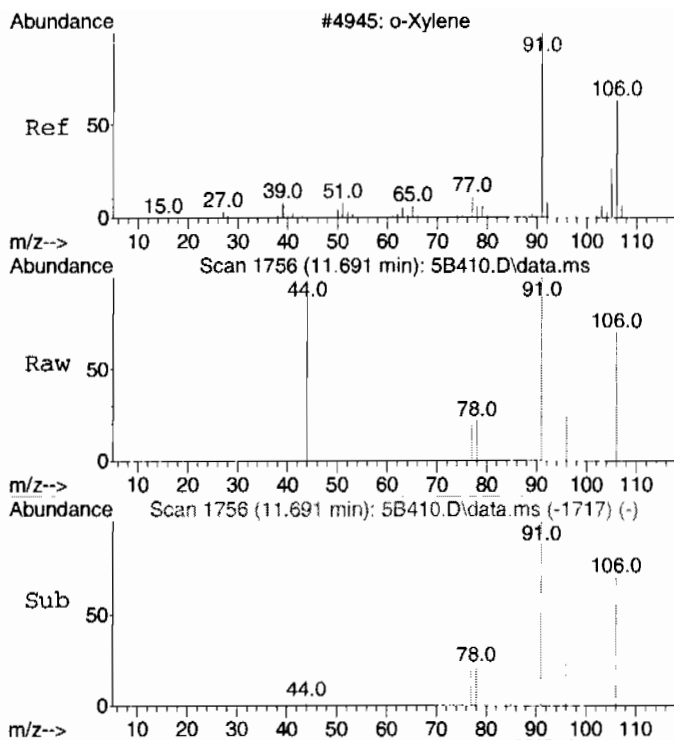
Tgt Ion: 91 Resp: 7245  
Ion Ratio Lower Upper  
91 100  
106 25.6 2.6 62.6



#55  
m,p-Xylenes  
Concen: 0.77 ug/L  
RT: 11.277 min Scan# 1639  
Delta R.T. -0.003 min  
Lab File: 5B410.D  
Acq: 11 Mar 2010 10:40 am

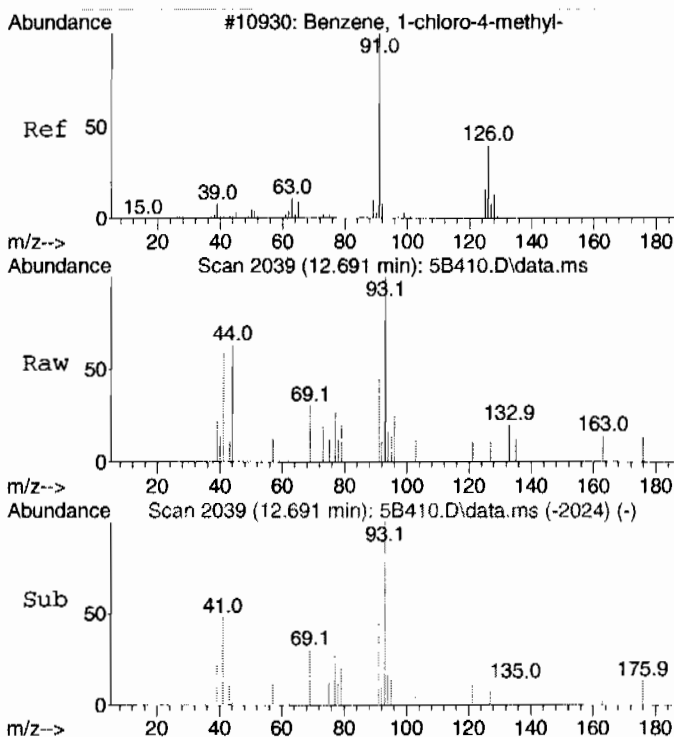
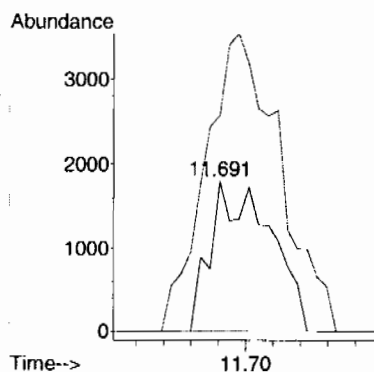
Tgt Ion: 106 Resp: 6133  
Ion Ratio Lower Upper  
106 100  
91 215.8 168.5 228.5





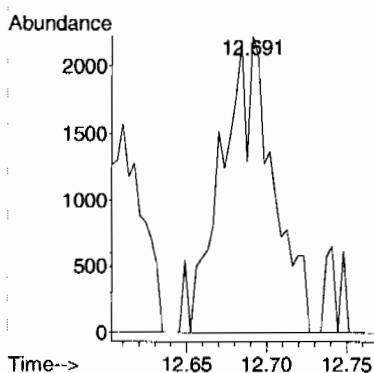
#56 BEFORE analyst DELETION  
o-Xylene  
Concen: 0.34 ug/L  
RT: 11.691 min Scan# 1756  
Delta R.T. -0.010 min  
Lab File: 5B410.D  
Acq: 11 Mar 2010 10:40 am

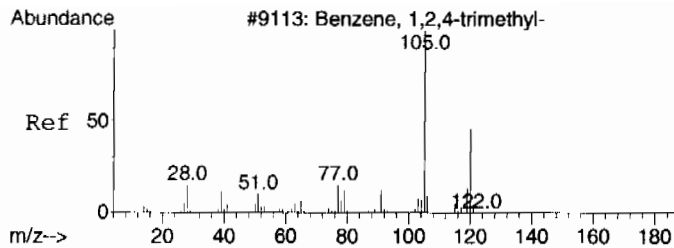
Tgt Ion: 106 Resp: 2739  
Ion Ratio Lower Upper  
106 100  
91 243.8 179.3 239.3#



#68 BEFORE analyst DELETION  
4-Chlorotoluene  
Concen: 0.54 ug/L  
RT: 12.691 min Scan# 2039  
Delta R.T. -0.007 min  
Lab File: 5B410.D  
Acq: 11 Mar 2010 10:40 am

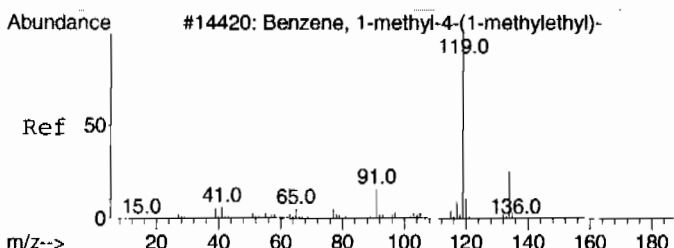
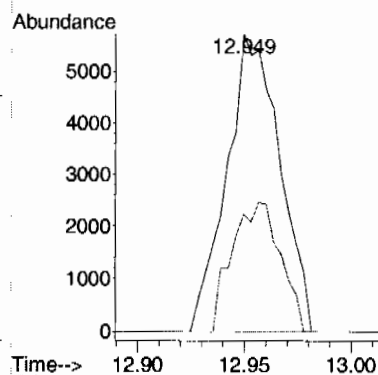
Tgt Ion: 91 Resp: 5012  
Ion Ratio Lower Upper  
91 100  
126 0.0 3.6 63.6#





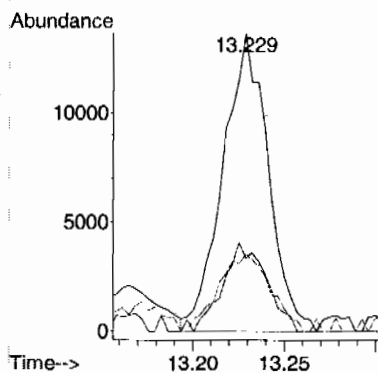
#70  
1,2,4-Trimethylbenzene  
Concen: 0.94 ug/L  
RT: 12.949 min Scan# 2112  
Delta R.T. -0.007 min  
Lab File: 5B410.D  
Acq: 11 Mar 2010 10:40 am

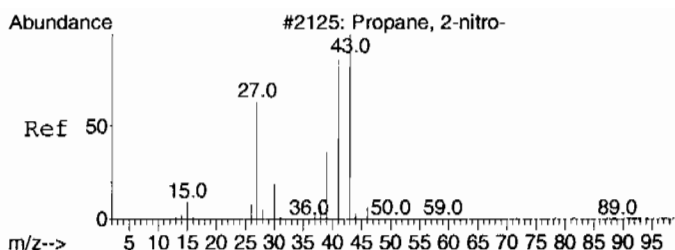
Tgt Ion:105 Resp: 9796  
Ion Ratio Lower Upper  
105 100  
120 39.4 17.4 77.4



#72  
4-Isopropyltoluene  
Concen: 2.21 ug/L  
RT: 13.229 min Scan# 2191  
Delta R.T. -0.000 min  
Lab File: 5B410.D  
Acq: 11 Mar 2010 10:40 am

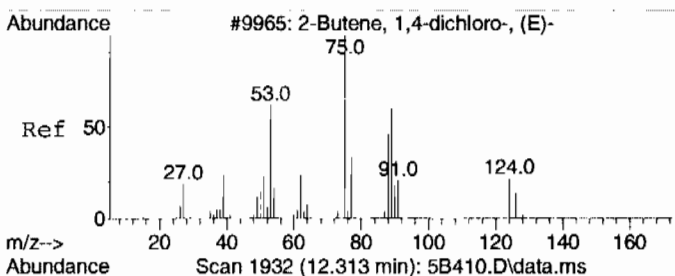
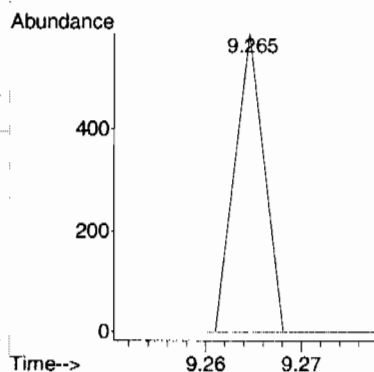
Tgt Ion:119 Resp: 23426  
Ion Ratio Lower Upper  
119 100  
134 28.9 0.0 57.2  
91 29.8 0.0 53.0





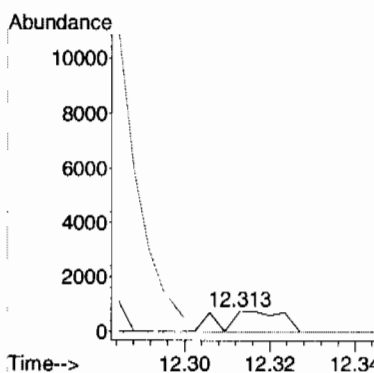
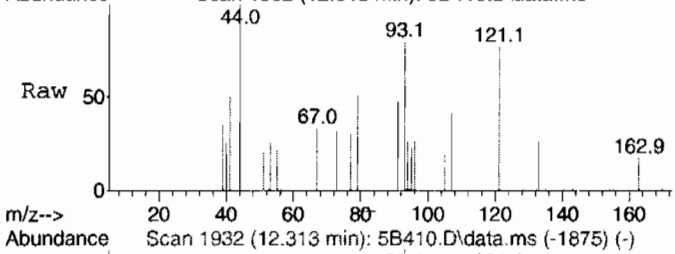
#102 BEFORE analyst DELETION  
2-Nitropropane  
Concen: 6.97 ug/L  
RT: 9.265 min Scan# 1070  
Delta R.T. -0.077 min  
Lab File: 5B410.D  
Acq: 11 Mar 2010 10:40 am

Tgt Ion: 43 Resp: 124  
Ion Ratio Lower Upper  
43 100  
41 86.3 52.5 112.5



#109 BEFORE analyst DELETION  
trans-1,4-Dichloro-2-butene  
Concen: 0.80 ug/L  
RT: 12.313 min Scan# 1932  
Delta R.T. -0.099 min  
Lab File: 5B410.D  
Acq: 11 Mar 2010 10:40 am

Tgt Ion: 53 Resp: 741  
Ion Ratio Lower Upper  
53 100  
88 0.0 15.5 75.5#  
75 0.0 92.0 152.0#



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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B410.D  
Acq On : 11 Mar 2010 10:40 am  
Operator : CDS1  
Sample : |248249003|962697|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 10 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

\*\*\*\*\*

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
 Data File : 5B410.D  
 Acq On : 11 Mar 2010 10:40 am  
 Operator : CDS1  
 Sample : |248249003|962697|1|VOA|1|VOA8260BS|  
 Misc : LANL 5G - SOIL  
 ALS Vial : 10 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



VOLATILE  
Certificate of Analysis  
Sample Summary

Page 1 of 2

SDG Number: 10-2140  
Lab Sample ID: 248249004

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.I  
Analyst: CDS1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 5.5  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

Client ID: RE36-10-8284  
Batch ID: 962697  
Run Date: 03/11/2010 11:07  
Prep Date: 03/11/2010 08:48  
Data File: 031110V55B411.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	HUh	1.06	ug/kg	0.360	1.06
74-87-3	Chloromethane	HUh	1.06	ug/kg	0.318	1.06
75-01-4	Vinyl chloride	HUh	1.06	ug/kg	0.318	1.06
74-83-9	Bromomethane	HUh	1.06	ug/kg	0.318	1.06
75-00-3	Chloroethane	HUh	1.06	ug/kg	0.318	1.06
75-69-4	Trichlorofluoromethane	HUh	1.06	ug/kg	0.318	1.06
67-64-1	Acetone	HUh	5.29	ug/kg	1.76	5.29
75-35-4	1,1-Dichloroethylene	HUh	1.06	ug/kg	0.318	1.06
74-88-4	Iodomethane	HUh	5.29	ug/kg	1.69	5.29
75-09-2	Methylene chloride	HUh	5.29	ug/kg	2.12	5.29
75-15-0	Carbon disulfide	HUh	5.29	ug/kg	1.32	5.29
156-60-5	trans-1,2-Dichloroethylene	HUh	1.06	ug/kg	0.318	1.06
75-34-3	1,1-Dichloroethane	HUh	1.06	ug/kg	0.318	1.06
78-93-3	2-Butanone	HUh	5.29	ug/kg	1.59	5.29
156-59-2	cis-1,2-Dichloroethylene	HUh	1.06	ug/kg	0.318	1.06
594-20-7	2,2-Dichloropropane	HUh	1.06	ug/kg	0.318	1.06
67-66-3	Chloroform	HUh	1.06	ug/kg	0.318	1.06
74-97-5	Bromochloromethane	HUh	1.06	ug/kg	0.349	1.06
71-55-6	1,1,1-Trichloroethane	HUh	1.06	ug/kg	0.318	1.06
563-58-6	1,1-Dichloropropene	HUh	1.06	ug/kg	0.318	1.06
56-23-5	Carbon tetrachloride	HUh	1.06	ug/kg	0.318	1.06
107-06-2	1,2-Dichloroethane	HUh	1.06	ug/kg	0.318	1.06
71-43-2	Benzene	HUh	1.06	ug/kg	0.318	1.06
79-01-6	Trichloroethylene	HUh	1.06	ug/kg	0.349	1.06
78-87-5	1,2-Dichloropropane	HUh	1.06	ug/kg	0.318	1.06
75-27-4	Bromodichloromethane	HUh	1.06	ug/kg	0.318	1.06
74-95-3	Dibromomethane	HUh	1.06	ug/kg	0.318	1.06
108-10-1	4-Methyl-2-pentanone	HUh	5.29	ug/kg	1.32	5.29
10061-01-5	cis-1,3-Dichloropropylene	HUh	1.06	ug/kg	0.318	1.06
108-88-3	Toluene	HJh	0.476	ug/kg	0.318	1.06
10061-02-6	trans-1,3-Dichloropropylene	HUh	1.06	ug/kg	0.318	1.06
79-00-5	1,1,2-Trichloroethane	HUh	1.06	ug/kg	0.318	1.06
591-78-6	2-Hexanone	HUh	5.29	ug/kg	1.59	5.29
142-28-9	1,3-Dichloropropane	HUh	1.06	ug/kg	0.318	1.06
127-18-4	Tetrachloroethylene	HUh	1.06	ug/kg	0.318	1.06
124-48-1	Dibromochloromethane	HUh	1.06	ug/kg	0.318	1.06
106-93-4	1,2-Dibromoethane	HUh	1.06	ug/kg	0.318	1.06
108-90-7	Chlorobenzene	HUh	1.06	ug/kg	0.318	1.06

Volatile  
Certificate of Analysis  
Sample Summary

Page 2 of 2

SDG Number: 10-2140  
Lab Sample ID: 248249004

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA5.1  
Analyst: CDS1  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 5.5  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

Client ID: RE36-10-8284  
Batch ID: 962697  
Run Date: 03/11/2010 11:07  
Prep Date: 03/11/2010 08:48  
Data File: 031110V55B411.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	HUh	1.06	ug/kg	0.318	1.06
179601-23-1	m,p-Xylenes	HUh	2.12	ug/kg	0.318	2.12
95-47-6	o-Xylene	HUh	1.06	ug/kg	0.318	1.06
100-42-5	Styrene	HUh	1.06	ug/kg	0.318	1.06
75-25-2	Bromoform	HUh	1.06	ug/kg	0.318	1.06
79-34-5	1,1,2,2-Tetrachloroethane	HUh	1.06	ug/kg	0.318	1.06
96-18-4	1,2,3-Trichloropropane	HUh	1.06	ug/kg	0.318	1.06
108-86-1	Bromobenzene	HUh	1.06	ug/kg	0.318	1.06
103-65-1	n-Propylbenzene	HUh	1.06	ug/kg	0.318	1.06
95-49-8	2-Chlorotoluene	HUh	1.06	ug/kg	0.318	1.06
98-82-8	Isopropylbenzene	HUh	1.06	ug/kg	0.318	1.06
108-67-8	1,3,5-Trimethylbenzene	HUh	1.06	ug/kg	0.318	1.06
106-43-4	4-Chlorotoluene	HUh	1.06	ug/kg	0.318	1.06
98-06-6	tert-Butylbenzene	HUh	1.06	ug/kg	0.318	1.06
95-63-6	1,2,4-Trimethylbenzene	HUh	1.06	ug/kg	0.318	1.06
135-98-8	sec-Butylbenzene	HUh	1.06	ug/kg	0.318	1.06
99-87-6	4-Isopropyltoluene	Hh	10.1	ug/kg	0.318	1.06
541-73-1	1,3-Dichlorobenzene	HUh	1.06	ug/kg	0.318	1.06
106-46-7	1,4-Dichlorobenzene	HUh	1.06	ug/kg	0.318	1.06
104-51-8	n-Butylbenzene	HUh	1.06	ug/kg	0.318	1.06
96-12-8	1,2-Dibromo-3-chloropropane	HUh	1.06	ug/kg	0.318	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	HUh	5.29	ug/kg	1.69	5.29
630-20-6	1,1,1,2-Tetrachloroethane	HUh	1.06	ug/kg	0.318	1.06
95-50-1	1,2-Dichlorobenzene	HUh	1.06	ug/kg	0.318	1.06

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	12	11.8	ug/kg	0	J

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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B411.D  
Acq On : 11 Mar 2010 11:07 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248249004|962697|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 11 17:38:02 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	8.388	8.387	1.000	96	905680	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	652156	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	281693	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.391	1.000	96	905680	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	652156	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	281693	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	164143	37.45	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	=	74.90%		
43) Toluene-d8	9.721	9.721	0.872	98	682417	40.92	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	=	81.84%		
61) Bromofluorobenzene	12.260	12.260	0.914	95	360626	63.82	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	=	127.64%		
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	4.910	4.900	0.585	50	161	Below Cal	#	1
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	173	N.D.		
9) Acetone	6.167	6.174	0.735	43	1767	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	108	N.D.		
13) Methyl acetate	6.167	6.365	0.735	43	1767	N.D.		
14) Carbon disulfide	6.432	6.435	0.767	76	127	N.D.		
15) Methylene chloride	6.535	6.538	0.779	84	4241	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	1084	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	118	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	8.388	8.203	1.000	78	681	N.D.		
32) Cyclohexene	8.250	8.246	0.984	67	106	N.D.		
33) n-Butyl alcohol	8.388	8.377	1.000	56	4761	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.		

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
 Data File : 5B411.D  
 Acq On : 11 Mar 2010 11:07 am  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |248249004|962697|1|VOA|1|VOA8260BS|  
 Misc : LANL 5G - SOIL  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 11 17:38:02 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	
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	9.788	9.788	0.878	91	6305	0.45	ug/L	87
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	0.000	10.279	0.000		0	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	11.178	11.181	1.003	91	1647	N.D.		
55) m,p-Xylenes	11.284	11.280	1.013	106	406	N.D.		
56) o-Xylene	11.694	11.701	1.050	106	121	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	0.000	12.016	0.000		0m	N.D.	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	12.426	12.415	0.926	91	1304	N.D.		
66) 1,3,5-Trimethylbenzene	12.557	12.564	0.936	105	230	N.D.		
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.		
68) 4-Chlorotoluene	12.691	12.698	0.946	91	2709	N.D.		
69) tert-Butylbenzene	0.000	12.900	0.000		0	N.D.		
70) 1,2,4-Trimethylbenzene	12.960	12.956	0.966	105	1874	N.D.		
71) sec-Butylbenzene	13.112	13.119	0.978	105	359	N.D.		
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	108193	9.53	ug/L	98
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	13.660	13.653	1.018	91	270	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	15.620	15.619	1.165	180	112	N.D.		
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.		
80) Naphthalene	15.989	15.988	1.192	128	2182	N.D.		
81) 1,2,3-Trichlorobenzene	0.000	16.291	0.000		0	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	6.464	6.425	0.771	41	108	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.		

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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B411.D  
Acq On : 11 Mar 2010 11:07 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248249004|962697|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 11 Sample Multiplier: 1

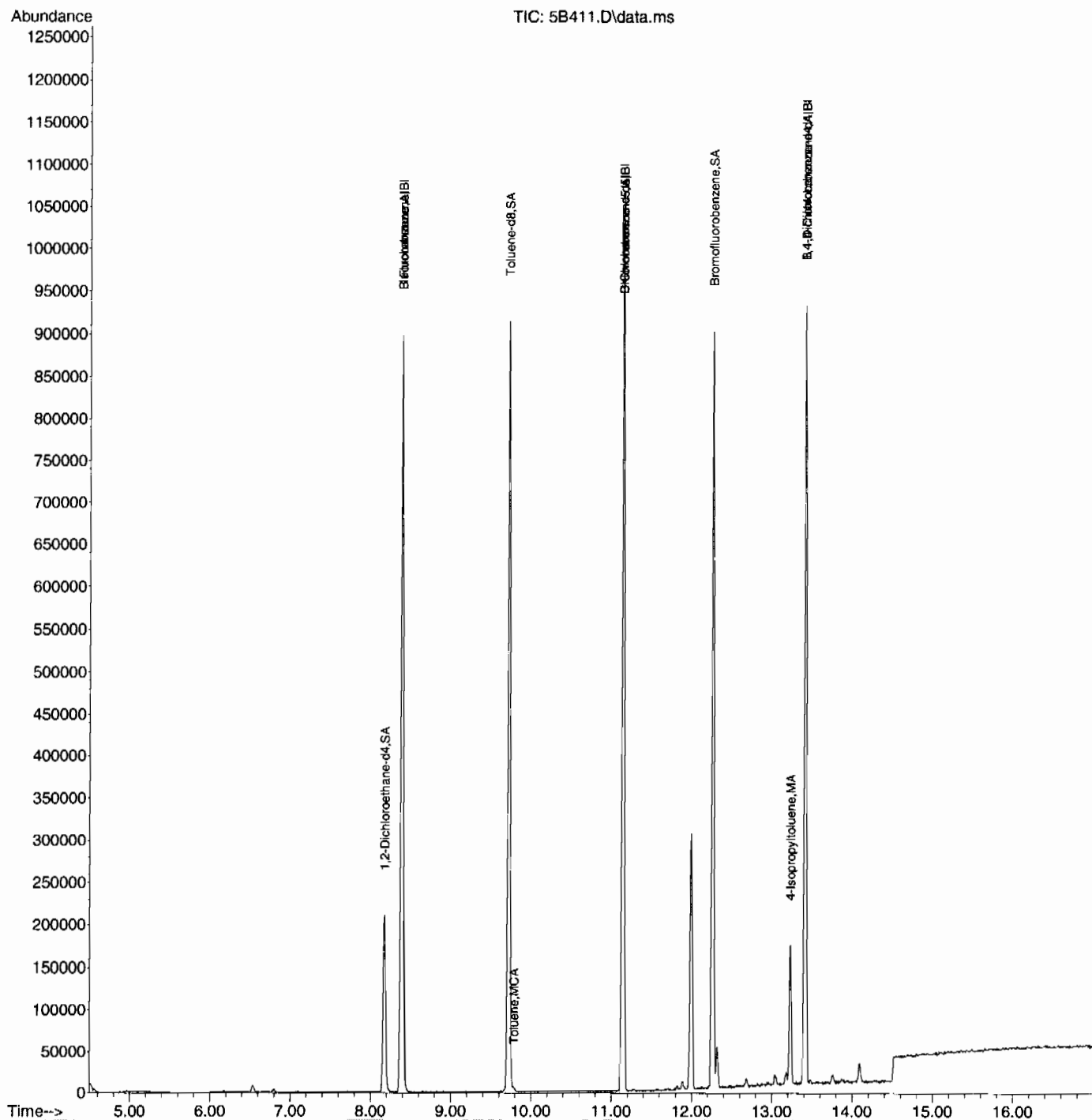
Quant Time: Mar 11 17:38:02 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

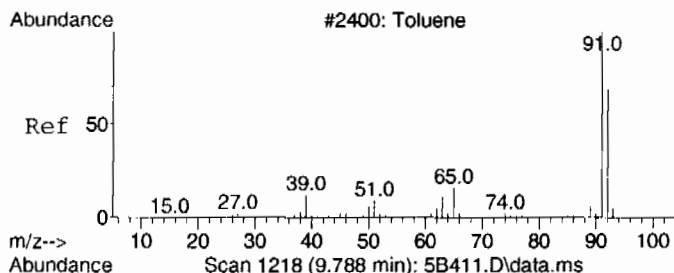
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.709	7.680	0.919	41	128	N.D.	
97) Tetrahydrofuran	7.712	7.716	0.919	42	533	N.D.	
98) Isobutyl alcohol	7.709	7.857	0.919	41	128	N.D.	
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	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		0m	N.D.	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		0m	N.D.	d
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.572	13.565	1.012	91	260	N.D.	
112) bis(2-Chloroisopropyl)...	13.933	13.929	1.039	45	120	N.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 : 5B411.D  
Acq On : 11 Mar 2010 11:07 am  
Operator : CDS1  
InstName : VOA5  
Sample : |248249004|962697|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 11 Sample Multiplier: 1

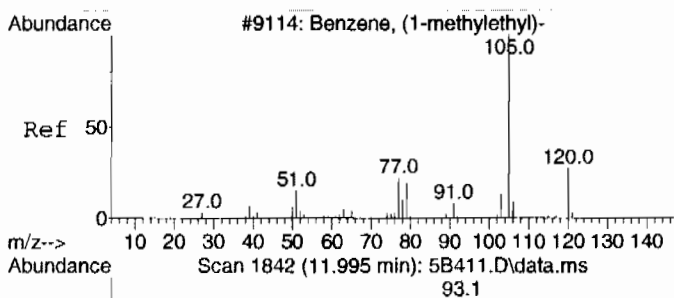
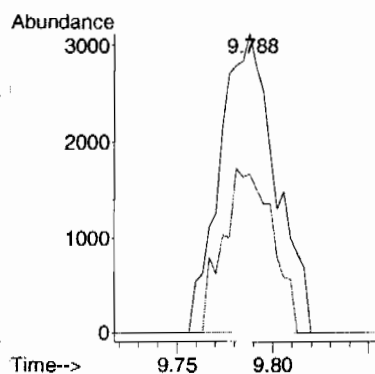
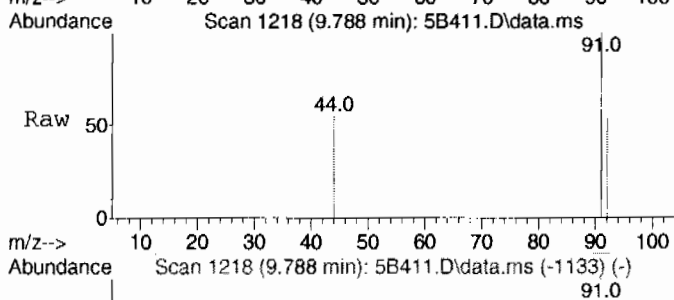
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Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE





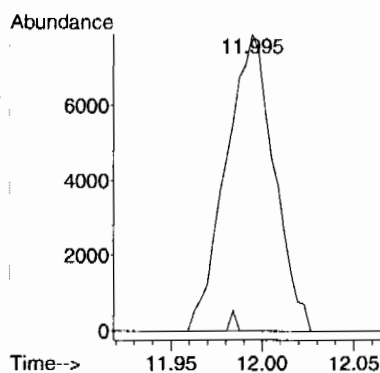
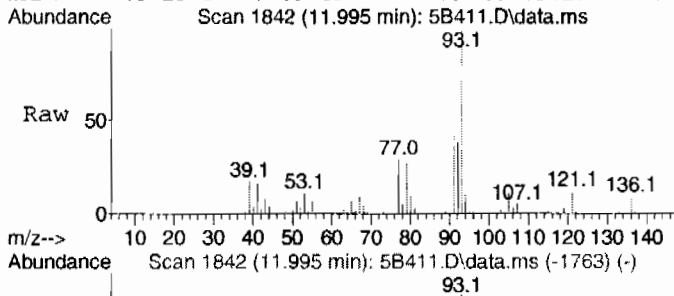
#44  
Toluene  
Concen: 0.45 ug/L  
RT: 9.788 min Scan# 1218  
Delta R.T. -0.000 min  
Lab File: 5B411.D  
Acq: 11 Mar 2010 11:07 am

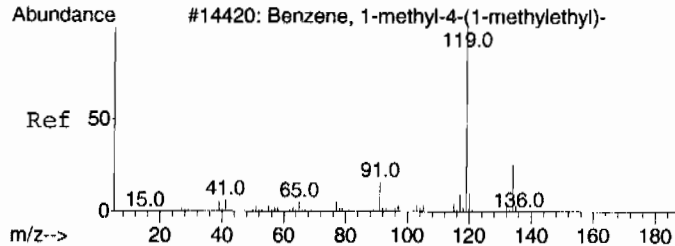
Tgt Ion: 91 Resp: 6305  
Ion Ratio Lower Upper  
91 100  
92 49.5 29.5 89.5



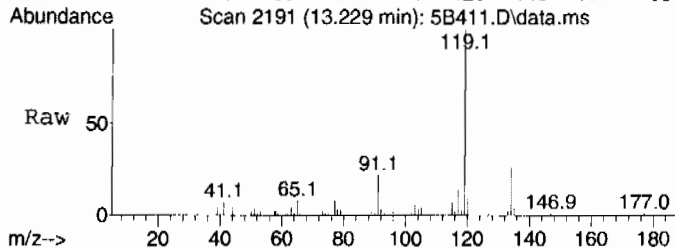
#60 BEFORE analyst DELETION  
Isopropylbenzene  
Concen: 1.12 ug/L  
RT: 11.995 min Scan# 1842  
Delta R.T. -0.021 min  
Lab File: 5B411.D  
Acq: 11 Mar 2010 11:07 am

Tgt Ion: 105 Resp: 14440  
Ion Ratio Lower Upper  
105 100  
120 0.8 0.0 57.3

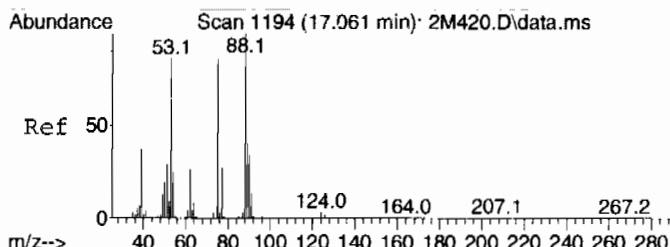
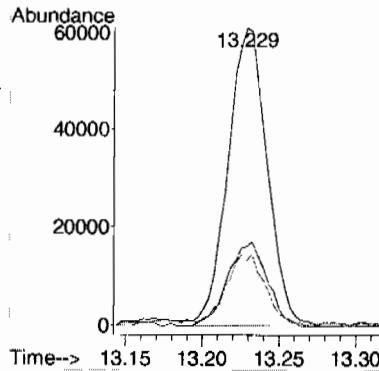
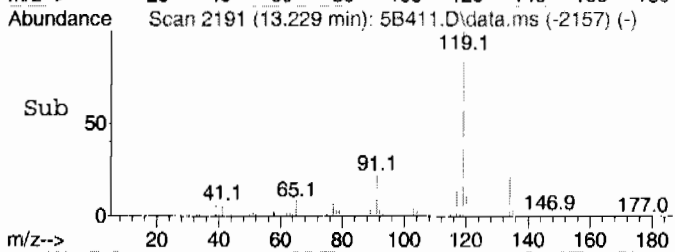




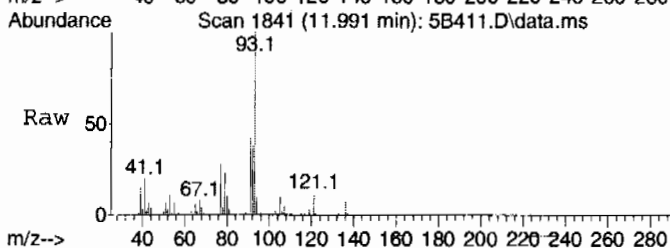
#72  
4-Isopropyltoluene  
Concen: 9.53 ug/L  
RT: 13.229 min Scan# 2191  
Delta R.T. -0.000 min  
Lab File: 5B411.D  
Acq: 11 Mar 2010 11:07 am



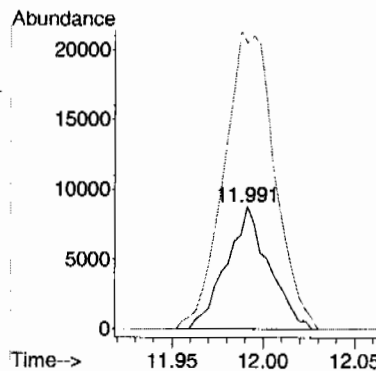
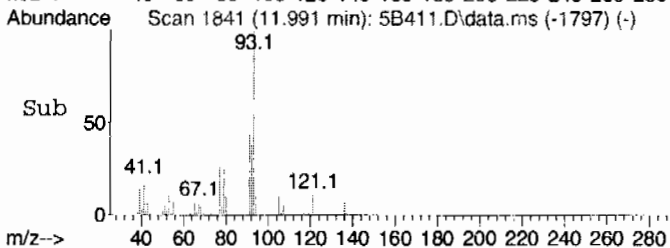
Tgt Ion	Ratio	Lower	Upper
119	100		
134	28.0	0.0	57.2
91	24.0	0.0	53.0



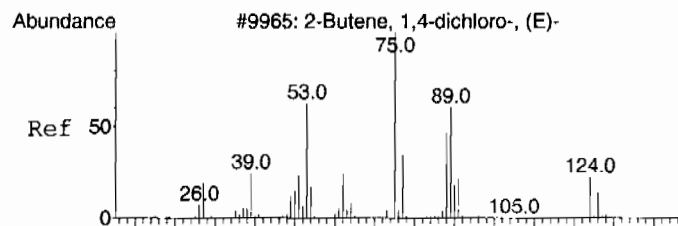
#107 BEFORE analyst DELETION  
cis-1,4-Dichloro-2-butene  
Concen: 13.56 ug/L  
RT: 11.991 min Scan# 1841  
Delta R.T. -0.145 min  
Lab File: 5B411.D  
Acq: 11 Mar 2010 11:07 am



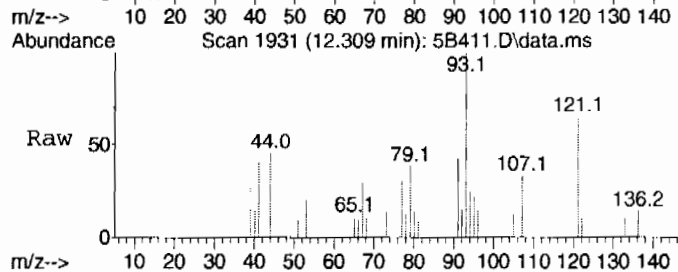
Tgt Ion	Ratio	Lower	Upper
53	100		
88	0.0	67.1	127.1#
77	288.4	1.8	61.8#



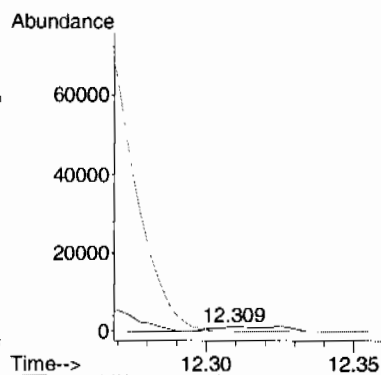
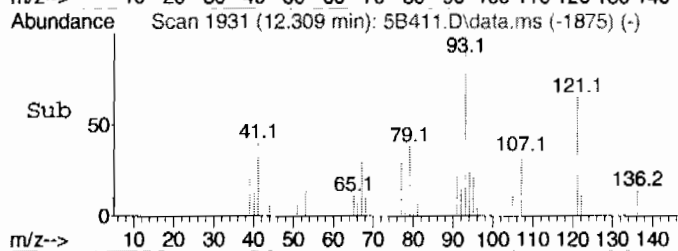




#109 BEFORE analyst DELETION  
 trans-1,4-Dichloro-2-butene  
 Concen: 2.14 ug/L  
 RT: 12.309 min Scan# 1931  
 Delta R.T. -0.103 min  
 Lab File: 5B411.D  
 Acq: 11 Mar 2010 11:07 am



Tgt Ion: 53 Resp: 2124  
 Ion Ratio Lower Upper  
 53 100  
 88 617.5 15.5 75.5#  
 75 7755.5 92.0 152.0#



GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
 Data File : 5B411.D  
 Acq On : 11 Mar 2010 11:07 am  
 Operator : CDS1  
 Sample : |248249004|962697|1|VOA|1|VOA8260BS|  
 Misc : LANL 5G - SOIL  
 ALS Vial : 11 Sample Multiplier: 1

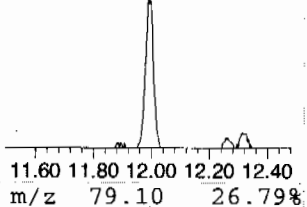
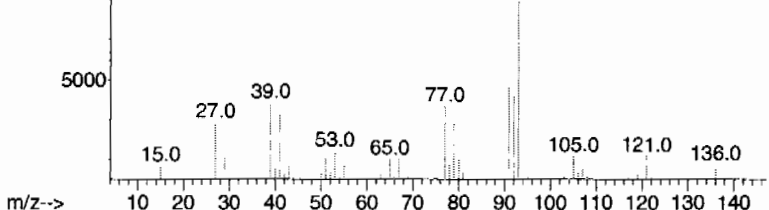
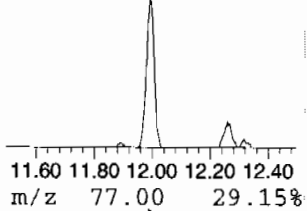
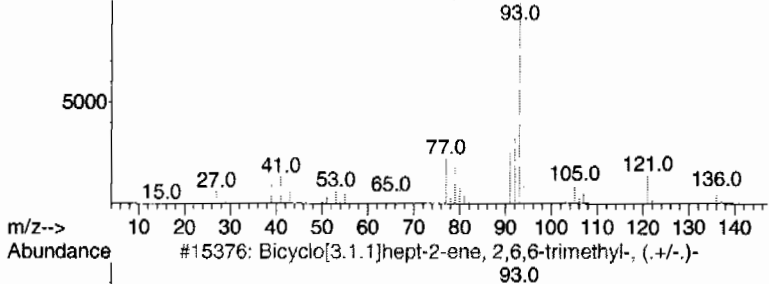
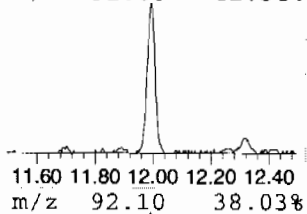
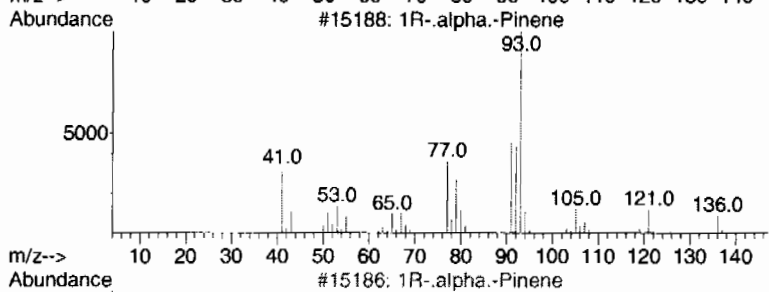
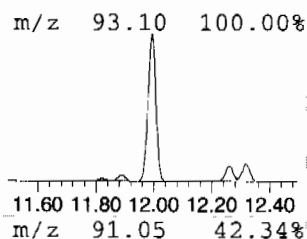
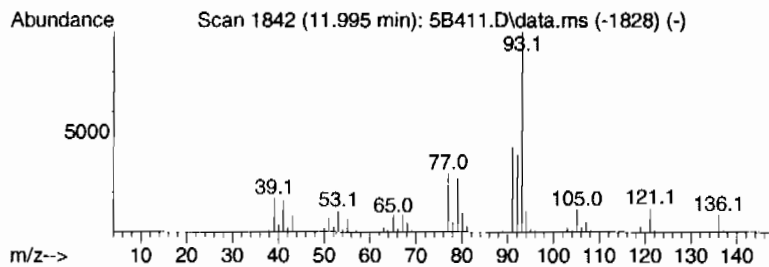
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
 Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
 Peak Number 1 unknown hydrocarbon Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.995	11.14 ug/L	446889	B Chlorobenzene-d5	11.142

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1R-.alpha.-Pinene	136	C10H16	007785-70-8	97
2	1R-.alpha.-Pinene	136	C10H16	007785-70-8	95
3	Bicyclo[3.1.1]hept-2-ene, 2,6,6-...	136	C10H16	002437-95-8	95
4	.alpha.-Pinene	136	C10H16	000080-56-8	94
5	1S-.alpha.-Pinene	136	C10H16	007785-26-4	91



GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
 Data File : 5B411.D  
 Acq On : 11 Mar 2010 11:07 am  
 Operator : CDS1  
 Sample : |248249004|962697|1|VOA|1|VOA8260BS|  
 Misc : LANL 5G - SOIL  
 ALS Vial : 11 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
unknown hydroca...	11.995	11.1	ug/L	446889	4	11.142	2005700	50.0

# 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

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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

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 ml   m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
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		LINR		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		LINR		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

## 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>
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	1,1-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  
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>
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 0.0059   0.0070   0.00	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)MCA	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 ml   m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
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-Tetrachloroethan	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-Tetrachloroethan	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

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 m1   m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA	Bromobenzene	0.5547476	0.6486814 0.5243606	0.6270489	0.5549342	0.5944725	0.5351627	0.5771	AVRG		8.2053
65)MA	n-Propylbenzene	2.6188023	3.1428673 2.4230362	3.0740107	2.7659361	2.7519459	2.6123049	2.7698	AVRG		9.3207
66)MA	1,3,5-Trimethylbenzene	1.9147331	2.1140806 1.7809313	2.1176062	1.9345676	1.9838360	1.8693101	1.9593	AVRG		6.3245
67)MA	2-Chlorotoluene	0.5556979	0.6336821 0.5174526	0.6149888	0.5712532	0.5980658	0.5347064	0.5751	AVRG		7.4098
68)MA	4-Chlorotoluene	1.6724026	2.0033682 1.5676196	1.9506321	1.7393299	1.7773161	1.6165466	1.7610	AVRG		9.3178
69)MA	tert-Butylbenzene	0.4229275	0.5220044 0.3925972	0.5067096	0.4594991	0.4418889	0.4115510	0.4510	AVRG		10.7312
70)MA	1,2,4-Trimethylbenzene	1.9586218	2.1474948 1.8420857	2.1428091	1.9400417	2.0243304	1.8983398	1.9934	AVRG		5.9008
71)MA	sec-Butylbenzene	2.4689370	2.7713754 2.2728207	2.7409960	2.5556188	2.5245775	2.4127685	2.5353	AVRG		6.9611
72)MA	4-Isopropyltoluene	1.9874771	2.1276691 1.8512791	2.1644277	1.9988403	2.0283563	1.9476327	2.0151	AVRG		5.2660
73)MA	1,3-Dichlorobenzene	1.0613620	1.2393706 1.0114602	1.1735978	1.0546701	1.1091368	1.0209850	1.0958	AVRG		7.6742
74)MA	1,4-Dichlorobenzene	1.0794919	1.2623150 1.0206465	1.1764354	1.0887098	1.1479739	1.0224741	1.1140	AVRG		7.8575
75)MA	n-Butylbenzene	1.8731727	2.2862752 1.7525689	2.2057605	1.9471241	1.9465316	1.8399483	1.9788	AVRG		9.8883
76)MA	1,2-Dichlorobenzene	1.0422240	1.1619981 0.9895673	1.1046351	1.0096084	1.0812630	0.9841815	1.0534	AVRG		6.2618
77)MA	1,2-Dibromo-3-chloroprop	0.1172103	0.1466513 0.1082926	0.1103702	0.0987550	0.1134385	0.0964579	0.1130	AVRG		14.6986
78)MA	1,2,4-Trichlorobenzene	0.7207589	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 ml   m2	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		LNIR		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				
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 -0.0083   0.0603   0.00	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		0.1664803 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:  $y = \text{concentration ratio}$ ,  $x = \text{response ratio}$ ,  $y = b + m1(x) + m2(xE2)$

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

(#) = Out of Range



## Continuing Calibration Summary

Page 1 of 3

Client SDG: 10-2134

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	
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

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Instrument ID: VOA5.I

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	
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

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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

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	Dev (Min)
Internal Standards								
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								
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								
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

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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	

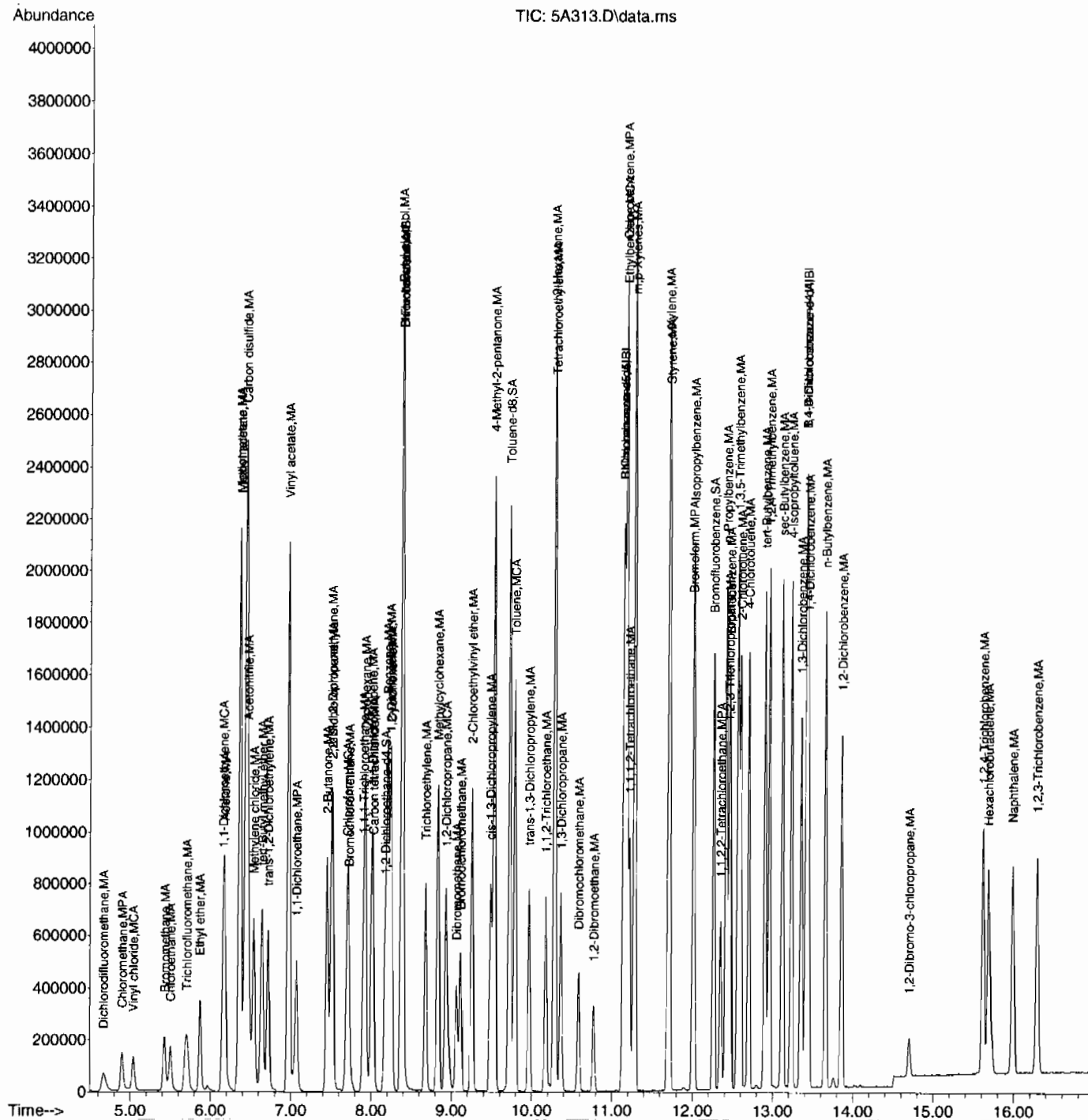
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GEL Laboratories, LLC

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

Abundance TIC: 5A313.D\data.ms

## Continuing Calibration Summary

Page 1 of 1

Client SDG: 10-2134

Instrument ID: VOA5.1

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
S1,2-Dichloroethane-d4	0.242	0.24732		.01		2.19835	30		Averaged
SToluene-d8	1.2787	1.27239		.01		-0.49347	30		Averaged
SBromofluorobenzene	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



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	Dev(Min)
Internal Standards								
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								
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								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	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	

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

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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

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

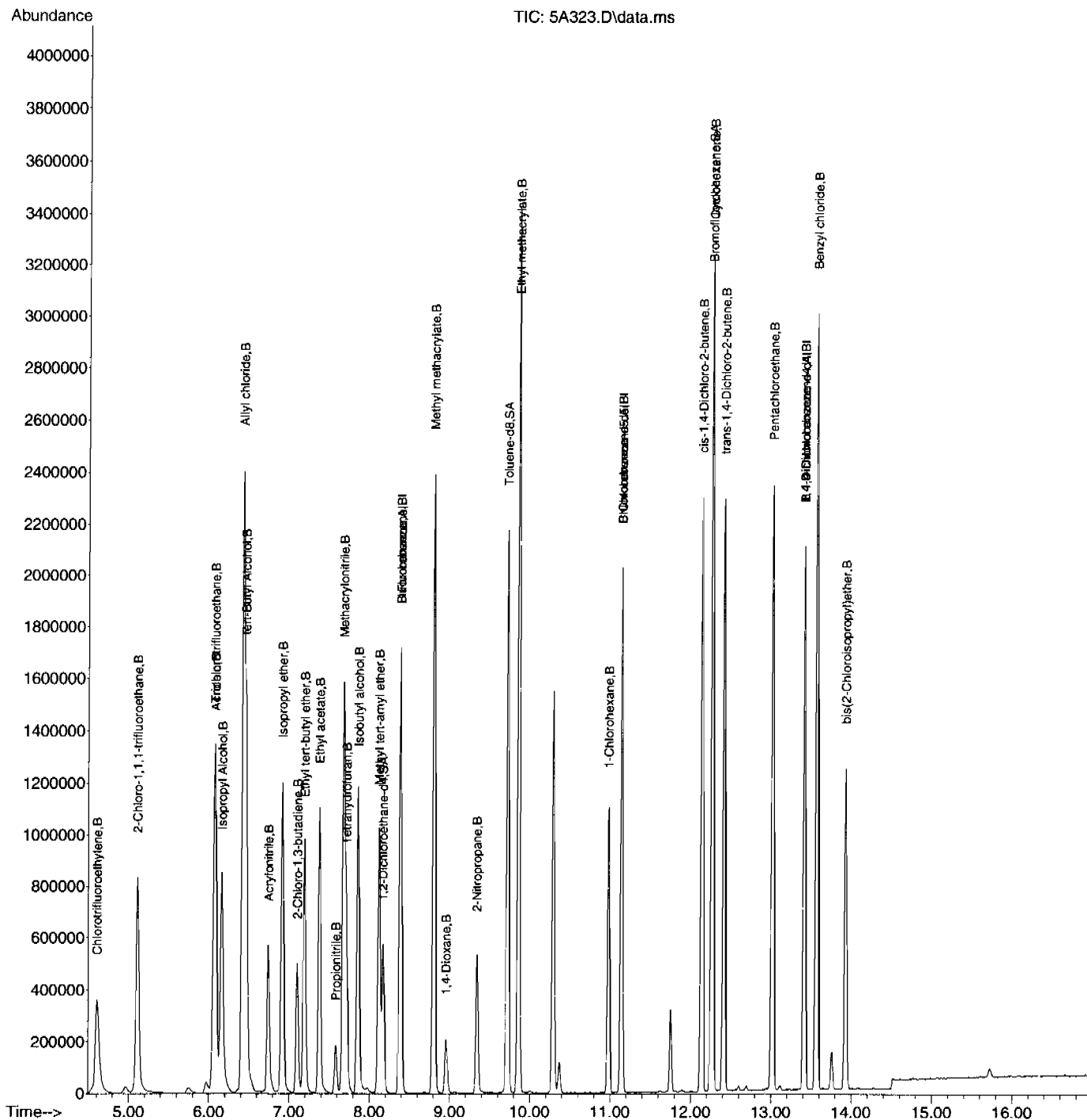
Quant Title : Volatile Organics 8260B

SubList :

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

Response via : Initial Calibration

Integrator: RTE



## Continuing Calibration Summary

Page 1 of 3

Client SDG: 10-2140

Instrument ID: VOA5.I

Injection Date 10-MAR-10 19:06

Data File: 031010V5\5B328.D

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

Lab Sample ID W5VM100310-05

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	0.18275		.01		-24.48347	30		Averaged	
S Toluene-d8	1.2787	1.12437		.01		-12.06929	30		Averaged	
S Bromofluorobenzene	1.0029	1.15632		.01		15.29764	30		Averaged	
Dichlorodifluoromethane	0.1167	0.1085		.01		-7.02656	30		Averaged	
Chloromethane	50	52.13	50			4.26	30		Linear	spcc
Vinyl chloride	0.1232	0.12445		.01		1.01461	20		Averaged	ccc
Bromomethane	0.1177	0.12103		.01		2.82923	30		Averaged	
Chloroethane	0.1249	0.12368		.01		-0.97678	30		Averaged	
Trichlorofluoromethane	0.2144	0.21629		.01		0.88153	30		Averaged	
Ethyl ether	0.1846	0.18563		.01		0.55796	30		Averaged	
1,1-Dichloroethylene	0.2389	0.2697		.01		12.89242	20		Averaged	ccc
Acetone	0.1494	0.15904		.01		6.45248	40		Averaged	
Methyl acetate	0.1633	0.16481		.01		0.92468	40		Averaged	
Iodomethane	0.2468	0.2701		.01		9.44084	30		Averaged	
Carbon disulfide	0.4789	0.52565		.01		9.76195	30		Averaged	
Acetonitrile	0.0293	0.02843		.01		-2.96928	30		Averaged	
Methylene chloride	50	52.74	50			5.48	30		Linear	
tert-Butyl methyl ether	0.4975	0.50004		.01		0.51055	30		Averaged	
trans-1,2-Dichloroethylene	0.2598	0.28849		.01		11.04311	30		Averaged	
Vinyl acetate	0.4091	0.39531		.01		-3.37081	40		Averaged	
1,1-Dichloroethane	0.3217	0.35737		.1		11.08797	30		Averaged	spcc
2-Butanone	0.178	0.21039		.01		18.19663	40		Averaged	
2,2-Dichloropropane	0.2385	0.25518		.01		6.99371	30		Averaged	
cis-1,2-Dichloroethylene	0.3022	0.32855		.01		8.71939	30		Averaged	
Chloroform	0.2882	0.31202		.01		8.26509	20		Averaged	ccc
Bromochloromethane	0.0893	0.09692		.01		8.53303	30		Averaged	
1,1,1-Trichloroethane	0.2377	0.26047		.01		9.5793	30		Averaged	
Cyclohexane	0.3381	0.37414		.01		10.65957	30		Averaged	
1,1-Dichloropropene	0.218	0.23856		.01		9.43119	30		Averaged	
Carbon tetrachloride	0.2039	0.22697		.01		11.31437	30		Averaged	
Benzene	0.7238	0.75943		.01		4.92263	30		Averaged	
1,2-Dichloroethane	0.249	0.26362		.01		5.87149	30		Averaged	
Cyclohexene	0.3364	0.36657		.01		8.96849	30		Averaged	
n-Butyl alcohol	5000	5240.22	5000			4.8044	40		Linear	
Trichloroethylene	0.1719	0.18122		.01		5.42176	30		Averaged	
Methylcyclohexane	0.3141	0.33674		.01		7.2079	30		Averaged	
1,2-Dichloropropane	0.2044	0.21855		.01		6.9227	20		Averaged	ccc

## Continuing Calibration Summary

Page 2 of 3

Instrument ID: VOA5.I

Injection Date 10-MAR-10 19:06

Data File: 031010V5\5B328.D

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

Lab Sample ID W5VM100310-05

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	0.11414		.01		9.85563	30		Averaged	
Bromodichloromethane	0.2124	0.23535		.01		10.80508	30		Averaged	
2-Chloroethylvinyl ether	0.0653	0.05799		.01		-11.19449	30		Averaged	
cis-1,3-Dichloropropylene	0.2908	0.31346		.01		7.7923	30		Averaged	
4-Methyl-2-pentanone	0.1196	0.13219		.01		10.52676	40		Averaged	
Toluene	1.0734	1.09498		.01		2.01043	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3656	0.3904		.01		6.78337	30		Averaged	
1,1,2-Trichloroethane	0.1811	0.18787		.01		3.73827	30		Averaged	
2-Hexanone	0.3247	0.39198		.01		20.72067	40		Averaged	
Tetrachloroethylene	0.1966	0.2024		.01		2.95015	30		Averaged	
1,3-Dichloropropane	0.3892	0.40704		.01		4.58376	30		Averaged	
Dibromochloromethane	0.2155	0.23881		.01		10.81671	30		Averaged	
1,2-Dibromoethane	0.2099	0.21898		.01		4.32587	30		Averaged	
Chlorobenzene	0.6963	0.70612		.3		1.41031	30		Averaged	spcc
Ethylbenzene	1.2247	1.21483		.01		-0.80591	20		Averaged	ccc
1,1,1,2-Tetrachloroethane	0.2359	0.25118		.01		6.47732	30		Averaged	
m,p-Xylenes	0.4639	0.48151		.01		3.79608	30		Averaged	
o-Xylene	0.4688	0.48278		.01		2.98208	30		Averaged	
Styrene	0.7161	0.7852		.01		9.64949	30		Averaged	
Bromoform	0.2722	0.30872		.1		13.41661	30		Averaged	spcc
Isopropylbenzene	2.2942	2.3753		.01		3.535	30		Averaged	
1,1,2,2-Tetrachloroethane	0.5938	0.58658		.3		-1.2159	30		Averaged	spcc
n-Propylbenzene	2.7698	2.81403		.01		1.59687	30		Averaged	
1,2,3-Trichloropropane	0.1585	0.16069		.01		1.3817	30		Averaged	
Bromobenzene	0.5771	0.56616		.01		-1.89569	30		Averaged	
1,3,5-Trimethylbenzene	1.9593	2.02746		.01		3.47879	30		Averaged	
2-Chlorotoluene	0.5751	0.57722		.01		0.36863	30		Averaged	
4-Chlorotoluene	1.761	1.7352		.01		-1.46508	30		Averaged	
tert-Butylbenzene	0.451	0.44985		.01		-0.25499	30		Averaged	
1,2,4-Trimethylbenzene	1.9934	2.05161		.01		2.92014	30		Averaged	
sec-Butylbenzene	2.5353	2.6262		.01		3.58537	30		Averaged	
4-Isopropyltoluene	2.0151	2.0911		.01		3.77152	30		Averaged	
1,3-Dichlorobenzene	1.0958	1.08567		.01		-0.92444	30		Averaged	
1,4-Dichlorobenzene	1.114	1.08847		.01		-2.29174	30		Averaged	
n-Butylbenzene	1.9788	1.99167		.01		0.65039	30		Averaged	
1,2-Dichlorobenzene	1.0534	1.05493		.01		0.14524	30		Averaged	
1,2-Dibromo-3-chloropropane	0.113	0.11021		.01		-2.46903	30		Averaged	

## Continuing Calibration Summary

Page 3 of 3

Instrument ID: VOA5.I

Injection Date 10-MAR-10 19:06

Data File: 031010V5\5B328.D

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

Lab Sample ID W5VM100310-05

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	0.72925		.01		2.79814	30		Averaged
Hexachlorobutadiene	0.4309	0.44717		.01		3.77582	30		Averaged
Naphthalene	1.6113	1.66857		.01		3.55427	30		Averaged
1,2,3-Trichlorobenzene	0.6191	0.64668		.01		4.45485	30		Averaged

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B328.D  
 Acq On : 10 Mar 2010 7:06 pm  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |W5VM100310-05|CCV|1|VOA|1|  
 Misc : CCV 5mL - MIX[A] 0222-07B+0106-07D  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 10 19:42:21 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	1508539	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1111966	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	565862	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1508539	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1111966	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	565862	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.168	8.172	0.974	65	275679	37.76	ug/L	0.00
43) Toluene-d8	9.721	9.721	0.872	98	1250258	43.97	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	654319	57.65	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	4.668	4.668	0.557	85	163680	46.47	ug/L	97
3) Chloromethane	4.900	4.900	0.584	50	233797	52.13	ug/L	100
4) Vinyl chloride	5.041	5.041	0.601	62	187737	50.50	ug/L	98
5) Bromomethane	5.423	5.423	0.647	94	182577	51.43	ug/L	99
6) Chloroethane	5.504	5.504	0.656	64	186580	49.49	ug/L	100
7) Trichlorofluoromethane	5.695	5.695	0.679	101	326285	50.43	ug/L	100
8) Ethyl ether	5.866	5.866	0.699	59	280024	50.27	ug/L	99
9) Acetone	6.170	6.174	0.736	43	1199612	266.14	ug/L	99
10) 1,1-Dichloroethylene	6.149	6.156	0.733	61	406846	56.44	ug/L	99
11) Iodomethane	6.358	6.357	0.758	142	2037258	273.64	ug/L	99
12) Acetonitrile	6.464	6.464	0.771	41	1072351	1213.87	ug/L	98
13) Methyl acetate	6.361	6.365	0.758	43	1243141	252.37	ug/L	100
14) Carbon disulfide	6.435	6.435	0.767	76	3964821	274.42	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	303196	52.74	ug/L	95
16) tert-Butyl methyl ether	6.633	6.640	0.791	73	754332	50.26	ug/L	100
17) trans-1,2-Dichloroethy...	6.711	6.715	0.800	61	435196	55.52	ug/L	99
18) Vinyl acetate	6.966	6.969	0.831	43	2981705	241.57	ug/L	99
19) 1,1-Dichloroethane	7.068	7.068	0.843	63	539107	55.54	ug/L	100
20) 2-Butanone	7.447	7.450	0.888	43	1586914	295.50	ug/L	99
21) cis-1,2-Dichloroethylene	7.507	7.507	0.895	61	495628	54.36	ug/L	98
22) 2,2-Dichloropropane	7.510	7.514	0.895	77	384943	53.51	ug/L	96
23) Bromochloromethane	7.719	7.719	0.920	128	146210	54.28	ug/L	96
24) Chloroform	7.701	7.701	0.918	83	470694	54.14	ug/L	99
25) 1,1,1-Trichloroethane	7.903	7.906	0.942	97	392929	54.79	ug/L	99
26) Cyclohexane	7.924	7.924	0.945	56	564408	55.33	ug/L	99
27) 1,1-Dichloropropene	8.002	8.005	0.954	75	359879	54.72	ug/L	97
28) Carbon tetrachloride	8.020	8.020	0.956	117	342391	55.66	ug/L	99
30) 1,2-Dichloroethane	8.235	8.235	0.982	62	397687	52.93	ug/L	100
31) Benzene	8.200	8.203	0.978	78	1145629	52.46	ug/L	96
32) Cyclohexene	8.246	8.246	0.983	67	552983	54.48	ug/L	99
33) n-Butyl alcohol	8.377	8.377	0.999	56	1111062	5240.22	ug/L	99
34) Trichloroethylene	8.674	8.677	1.034	95	273379	52.71	ug/L	100
35) 1,2-Dichloropropane	8.928	8.932	1.065	63	329696	53.45	ug/L	100
36) Methylcyclohexane	8.829	8.826	1.053	83	507982	53.60	ug/L	99
37) Dibromomethane	9.059	9.059	1.080	93	172178	54.92	ug/L	99
38) Bromodichloromethane	9.112	9.112	1.086	83	355035	55.40	ug/L	100
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	437404	221.96	ug/L	99
40) cis-1,3-Dichloropropylene	9.484	9.487	1.131	75	472870	53.90	ug/L	97



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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
Data File : 5B328.D  
Acq On : 10 Mar 2010 7:06 pm  
Operator : CDS1  
InstName : VOA5  
Sample : [W5VM100310-05|CCV|1|VOA|1|  
Misc : CCV 5mL - MIX[A] 0222-07B+0106-07D  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 10 19:42:21 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	734936	276.38	ug/L	96
44) Toluene	9.788	9.788	0.878	91	1217579	51.00	ug/L	100
45) trans-1,3-Dichloroprop...	9.965	9.968	0.894	75	434110	53.39	ug/L	98
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	208906	51.86	ug/L	98
47) 2-Hexanone	10.279	10.279	0.923	43	2179348	301.83	ug/L	99
48) 1,3-Dichloropropane	10.361	10.364	0.930	76	452615	52.29	ug/L	98
49) Tetrachloroethylene	10.294	10.290	0.924	164	225058	51.47	ug/L	100
50) Dibromochloromethane	10.587	10.583	0.950	129	265549	55.41	ug/L	99
51) 1,2-Dibromoethane	10.771	10.771	0.967	107	243503	52.17	ug/L	100
52) Chlorobenzene	11.171	11.174	1.003	112	785177	50.71	ug/L	99
53) 1,1,1,2-Tetrachloroethane	11.216	11.216	1.007	131	279307	53.24	ug/L	99
54) Ethylbenzene	11.178	11.181	1.003	91	1350850	49.60	ug/L	100
55) m,p-Xylenes	11.280	11.280	1.012	106	1070838	103.79	ug/L	99
56) o-Xylene	11.697	11.701	1.050	106	536837	51.50	ug/L	99
57) Styrene	11.715	11.715	1.051	104	873121	54.82	ug/L	92
59) Bromoform	12.005	12.005	0.895	173	174694	56.70	ug/L	99
60) Isopropylbenzene	12.012	12.016	0.896	105	1344090	51.77	ug/L	100
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	331923	49.39	ug/L	99
63) 1,2,3-Trichloropropane	12.454	12.454	0.929	110	90931	50.68	ug/L #	88
64) Bromobenzene	12.461	12.465	0.929	156	320371	49.06	ug/L	98
65) n-Propylbenzene	12.415	12.415	0.926	91	1592352	50.80	ug/L	99
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	1147265	51.74	ug/L	100
67) 2-Chlorotoluene	12.596	12.596	0.939	126	326629	50.18	ug/L #	79
68) 4-Chlorotoluene	12.698	12.698	0.947	91	981882	49.27	ug/L	100
69) tert-Butylbenzene	12.900	12.900	0.962	134	254553	49.87	ug/L	99
70) 1,2,4-Trimethylbenzene	12.956	12.956	0.966	105	1160930	51.46	ug/L	98
71) sec-Butylbenzene	13.116	13.119	0.978	105	1486066	51.79	ug/L	99
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	1183272	51.89	ug/L	99
73) 1,3-Dichlorobenzene	13.349	13.349	0.995	146	614338	49.54	ug/L	100
74) 1,4-Dichlorobenzene	13.441	13.441	1.002	146	615924	48.85	ug/L	99
75) n-Butylbenzene	13.653	13.653	1.018	91	1127013	50.33	ug/L	100
76) 1,2-Dichlorobenzene	13.855	13.858	1.033	146	596947	50.07	ug/L	100
77) 1,2-Dibromo-3-chloropr...	14.705	14.704	1.096	157	62366	48.76	ug/L	95
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164	180	412654	51.40	ug/L	100
79) Hexachlorobutadiene	15.686	15.686	1.169	225	253039	51.89	ug/L	99
80) Naphthalene	15.988	15.988	1.192	128	944180	51.78	ug/L	100
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	365934	52.23	ug/L	100
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	6.181	6.163	0.737		0m	N.D.	d	
88) Allyl chloride	6.464	6.425	0.771		0m	N.D.	d	
89) tert-Butyl Alcohol	6.471	6.460	0.771		0m	N.D.	d	
90) Acrylonitrile	6.640	6.747	0.792		0m	N.D.	d	
91) Isopropyl ether	6.962	6.920	0.830		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	7.040	7.104	0.839		0m	N.D.	d	
93) Ethyl tert-butyl ether	7.054	7.192	0.841		0m	N.D.	d	
94) Ethyl acetate	7.383	7.383	0.880		0m	N.D.	d	
95) Propionitrile	7.673	7.585	0.915		0m	N.D.	d	
96) Methacrylonitrile	7.673	7.680	0.915		0m	N.D.	d	
97) Tetrahydrofuran	7.719	7.716	0.920		0m	N.D.	d	

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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
Data File : 5B328.D  
Acq On : 10 Mar 2010 7:06 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100310-05|CCV|1|VOA|1|  
Misc : CCV 5mL - MIX[A] 0222-07B+0106-07D  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 10 19:42:21 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	7.765	7.857	0.926		0m	N.D.	d
99) Methyl tert-amyl ether	8.193	8.122	0.977		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	9.370	9.342	1.117		0m	N.D.	d
104) Ethyl methacrylate	9.851	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	12.016	12.136	0.896		0m	N.D.	d
108) Cyclohexanone	12.263	12.267	0.914		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	12.412	12.412	0.925		0m	N.D.	d
110) Pentachloroethane	13.020	13.017	0.971		0m	N.D.	d
111) Benzyl chloride	13.554	13.565	1.011		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	13.922	13.929	1.038		0m	N.D.	d

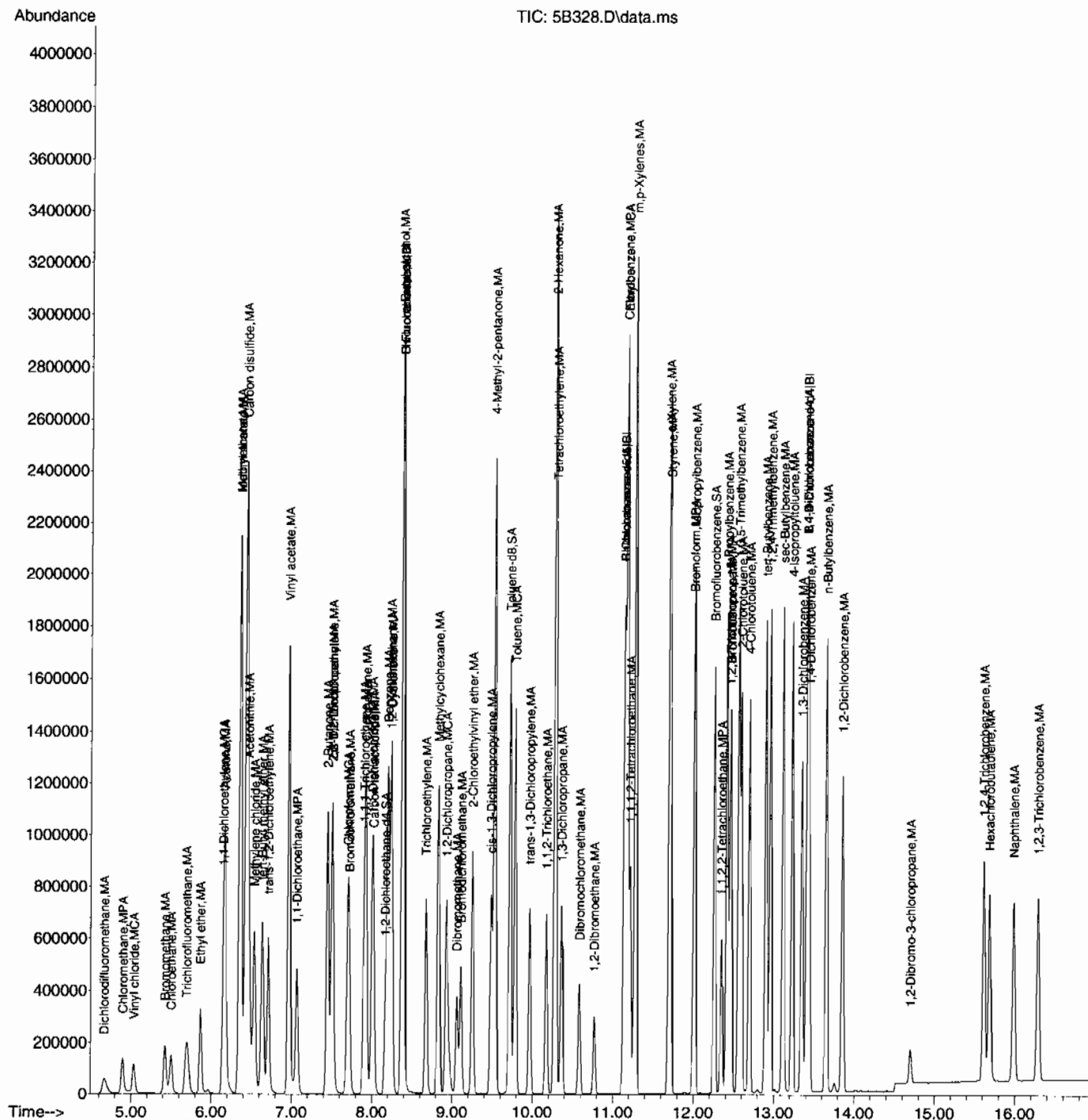
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

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Data Path : C:\msdchem\1\DATA\031010V5\
Data File : 5B328.D
Acq On    : 10 Mar 2010    7:06 pm
Operator  : CDS1
InstName  : VOA5
Sample    : |W5VM100310-05|CCV|1|VOA|1|
Misc      : CCV 5mL - MIX[A] 0222-07B+0106-07D
ALS Vial   : 28    Sample Multiplier: 1

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Quant Time: Mar 10 19:42:21 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

Page 1 of 1

Client SDG: 10-2140

Instrument ID: VOA5.1

Injection Date 10-MAR-10 20:25

Data File: 031010V5\5B331.D

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

Lab Sample ID W5VM100310-08

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
S1,2-Dichloroethane-d4	0.242	0.18279		.01		-24.46694	30		Averaged
SToluene-d8	1.2787	1.08762		.01		-14.9433	30		Averaged
SBromofluorobenzene	1.0029	1.13561		.01		13.23263	30		Averaged
Trichlorotrifluoroethane	0.0448	0.05407		.01		20.69196	30		Averaged
Acrolein	250	253.41	250			1.364	30		Linear
Allyl chloride	0.3291	0.28657		.01		-12.92312	30		Averaged
Acrylonitrile	0.0724	0.06886		.01		-4.8895	30		Averaged
2-Chloro-1,3-butadiene	0.2124	0.26211		.01		23.40395	30		Averaged
Ethyl acetate	0.196	0.17341		.01		-11.52551	40		Averaged
Propionitrile	0.0278	0.02663		.01		-4.20863	30		Averaged
Methacrylonitrile	0.153	0.144		.01		-5.88235	30		Averaged
Tetrahydrofuran	0.0692	0.06433		.01		-7.03757	30		Averaged
Isobutyl alcohol	0.0073	0.00676		.01		-7.39726	40		Averaged
Methyl methacrylate	0.1155	0.11276		.01		-2.37229	30		Averaged
1,4-Dioxane	0.0021	0.00179		.01		-14.7619	40		Averaged
2-Nitropropane	250	231.55	250			-7.38	30		Linear
Ethyl methacrylate	0.2951	0.29608		.01		0.33209	30		Averaged
cis-1,4-Dichloro-2-butene	0.187	0.19691		.01		5.29947	30		Averaged
Cyclohexanone	0.0154	0.05741		.01		272.79221	40	*	Averaged
trans-1,4-Dichloro-2-butene	0.1761	0.18265		.01		3.71948	30		Averaged
Pentachloroethane	0.2439	0.26751		.01		9.6802	30		Averaged
Benzyl chloride	0.8953	0.90571		.01		1.16274	30		Averaged
bis(2-Chloroisopropyl)ether	0.3294	0.29014		.01		-11.91864	30		Averaged

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B331.D  
 Acq On : 10 Mar 2010 8:25 pm  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |W5VM100310-08|CCV|1|VOA|1|VOA8260BS|  
 Misc : CCV 5G - SOIL MIX[B ]UVM100215-08B  
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 11 07:16:44 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	1513110	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1129367	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	570266	50.00	ug/L	0.00
82) B Fluorobenzene	8.391	8.391	1.000	96	1513110	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1129367	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	570266	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	276575	37.77	ug/L	0.00
43) Toluene-d8	9.724	9.721	0.873	98	1228326	42.53	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	647597	56.62	ug/L	0.00
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.890	4.900	0.583		0m	N.D.	d	
4) Vinyl chloride	5.031	5.041	0.600		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	6.071	5.866	0.724		0m	N.D.	d	
9) Acetone	6.174	6.174	0.736		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.071	6.156	0.724		0m	N.D.	d	
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.425	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	6.534	6.538	0.779		0m	N.D.	d	
16) tert-Butyl methyl ether	6.640	6.640	0.791		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	7.097	6.969	0.846		0m	N.D.	d	
19) 1,1-Dichloroethane	7.104	7.068	0.847		0m	N.D.	d	
20) 2-Butanone	7.510	7.450	0.895		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	7.510	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	0.917		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	7.857	7.924	0.936		0m	N.D.	d	
27) 1,1-Dichloropropene	8.126	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	8.172	8.246	0.974		0m	N.D.	d	
33) n-Butyl alcohol	8.394	8.377	1.000		0m	N.D.	d	
34) Trichloroethylene	8.681	8.677	1.035		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	8.801	8.826	1.049		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	9.484	9.487	1.130		0m	N.D.	d	

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B331.D  
 Acq On : 10 Mar 2010 8:25 pm  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |W5VM100310-08|CCV|1|VOA|1|VOA8260BS|  
 Misc : CCV 5G - SOIL MIX[B ]UVM100215-08B  
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 11 07:16:44 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		0m	N.D.	d
44) Toluene	9.791	9.788	0.879		0m	N.D.	d
45) trans-1,3-Dichloroprop...	9.972	9.968	0.895		0m	N.D.	d
46) 1,1,2-Trichloroethane	10.290	10.173	0.924		0m	N.D.	d
47) 2-Hexanone	10.279	10.279	0.923		0m	N.D.	d
48) 1,3-Dichloropropane	10.368	10.364	0.930		0m	N.D.	d
49) Tetrachloroethylene	10.293	10.290	0.924		0m	N.D.	d
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	10.781	10.771	0.968		0m	N.D.	d
52) Chlorobenzene	11.174	11.174	1.003		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.178	11.181	1.003		0m	N.D.	d
55) m,p-Xylenes	11.284	11.280	1.013		0m	N.D.	d
56) o-Xylene	11.694	11.701	1.050		0m	N.D.	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	12.352	12.348	0.921		0m	N.D.	d
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	12.468	12.465	0.930		0m	N.D.	d
65) n-Propylbenzene	12.412	12.415	0.925		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	12.564	12.564	0.937		0m	N.D.	d
67) 2-Chlorotoluene	12.603	12.596	0.940		0m	N.D.	d
68) 4-Chlorotoluene	12.698	12.698	0.947		0m	N.D.	d
69) tert-Butylbenzene	12.903	12.900	0.962		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	12.960	12.956	0.966		0m	N.D.	d
71) sec-Butylbenzene	13.116	13.119	0.978		0m	N.D.	d
72) 4-Isopropyltoluene	13.229	13.229	0.986		0m	N.D.	d
73) 1,3-Dichlorobenzene	13.352	13.349	0.996		0m	N.D.	d
74) 1,4-Dichlorobenzene	13.437	13.441	1.002		0m	N.D.	d
75) n-Butylbenzene	13.653	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	15.605	15.619	1.163		0m	N.D.	d
79) Hexachlorobutadiene	15.678	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	220366	253.41	ug/L 97
86) Trichlorotrifluoroethane	6.071	6.071	0.724	85	409033	301.50	ug/L 98
87) Isopropyl Alcohol	0.000	6.163	0.000		0m	N.D.	d
88) Allyl chloride	6.425	6.425	0.766	41	2168065	217.71	ug/L 93
89) tert-Butyl Alcohol	0.000	6.460	0.000		0m	N.D.	d
90) Acrylonitrile	6.743	6.747	0.804	53	520967	237.93	ug/L 99
91) Isopropyl ether	0.000	6.920	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	7.107	7.104	0.847	53	396608	61.72	ug/L 100
93) Ethyl tert-butyl ether	7.376	7.192	0.879	59	1108	N.D.	
94) Ethyl acetate	7.383	7.383	0.880	43	1311920	221.23	ug/L 99
95) Propionitrile	7.585	7.585	0.904	54	201436	239.01	ug/L 100
96) Methacrylonitrile	7.680	7.680	0.915	41	1089433	235.22	ug/L 100
97) Tetrahydrofuran	7.712	7.716	0.919	42	486673	232.51	ug/L 99

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B331.D  
 Acq On : 10 Mar 2010 8:25 pm  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |W5VM100310-08|CCV|1|VOA|1|VOA8260BS|  
 Misc : CCV 5G - SOIL MIX[B ]UVM100215-08B  
 ALS Vial : 31 Sample Multiplier: 1

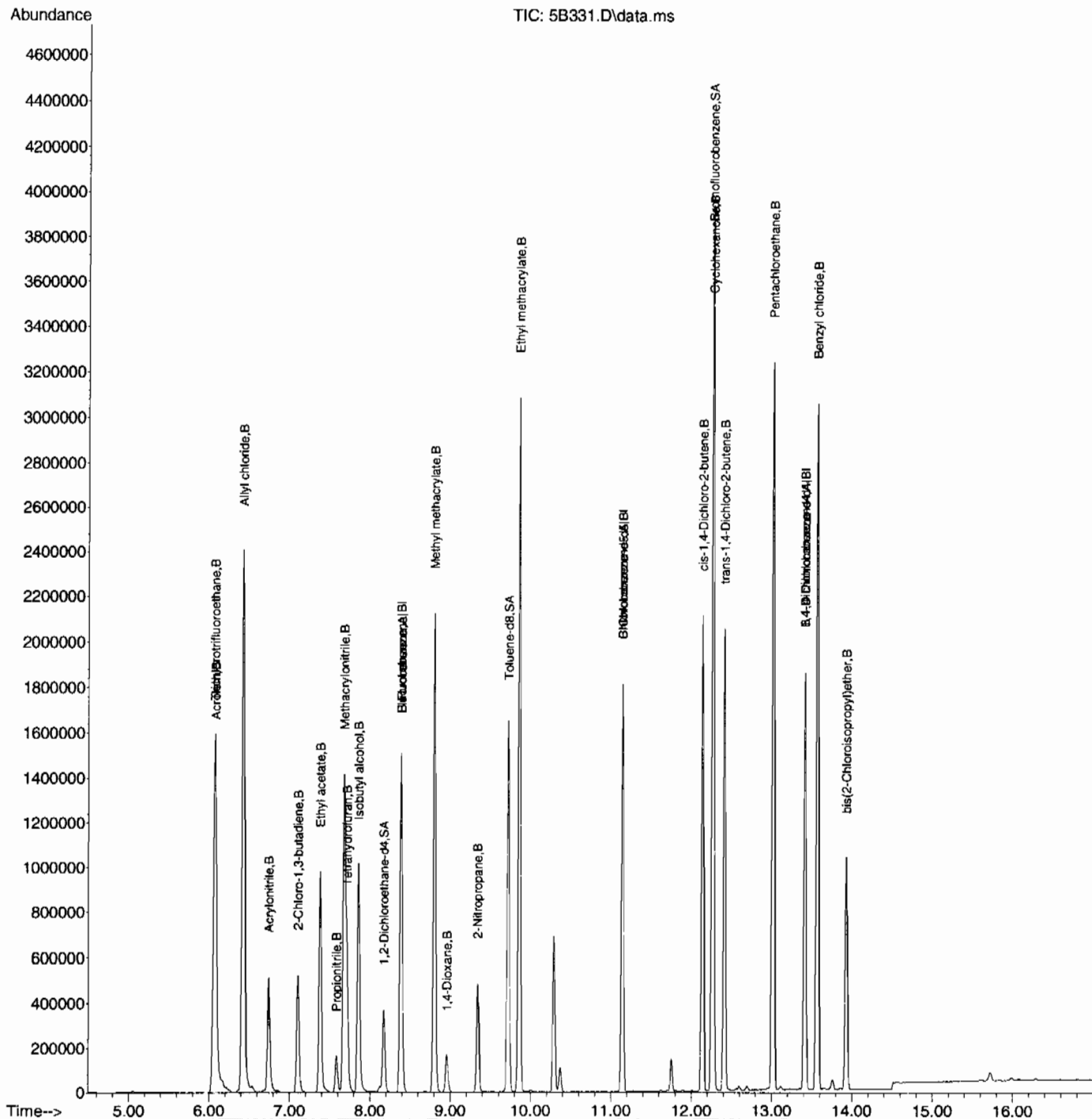
Quant Time: Mar 11 07:16:44 2010  
 Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
 Quant Title : Volatile Organics 8260B SubList :  
 QLast Update : Tue Mar 09 07:08:19 2010  
 Response via : Initial Calibration  
 Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98) Isobutyl alcohol	7.857	7.857	0.936	41	511513	2319.82	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	853082	244.11	ug/L	98
101) 1,4-Dioxane	8.960	8.957	1.068	88	135501	2172.71	ug/L	100
102) 2-Nitropropane	9.342	9.342	1.113	43	409817	231.55	ug/L	100
104) Ethyl methacrylate	9.859	9.859	0.885	69	1671912	250.80	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	561464	263.30	ug/L	99
108) Cyclohexanone	12.267	12.267	0.915	42	818414	4668.82	ug/L	98 E
109) trans-1,4-Dichloro-2-b...	12.408	12.412	0.925	53	520799	259.27	ug/L	99
110) Pentachloroethane	13.016	13.017	0.970	167	762750	274.19	ug/L	100
111) Benzyl chloride	13.565	13.565	1.011	91	2582465	252.89	ug/L	100
112) bis(2-Chloroisopropyl)...	13.925	13.929	1.038	45	827293	220.19	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\031010V5\  
 Data File : 5B331.D  
 Acq On : 10 Mar 2010 8:25 pm  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |W5VM100310-08|CCV|1|VOA|1|VOA8260BS|  
 Misc : CCV 5G - SOIL MIX[B ]UVM100215-08B  
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 11 07:16:44 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

Page 1 of 3

Client SDG: 10-2140

Instrument ID: VOA5.I

Injection Date 11-MAR-10 07:08

Data File: 031110V5\5B402.D

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

Lab Sample ID W5VM100311-01

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	
S1,2-Dichloroethane-d4	0.242	0.17376		.01		-28.19835	30		Averaged	
SToluene-d8	1.2787	1.06303		.01		-16.86635	30		Averaged	
SBromofluorobenzene	1.0029	1.1393		.01		13.60056	30		Averaged	
Dichlorodifluoromethane	0.1167	0.12643		.01		8.33762	30		Averaged	
Chloromethane	50	54.56	50			9.12	30		Linear	spcc
Vinyl chloride	0.1232	0.13383		.01		8.62825	20		Averaged	ccc
Bromomethane	0.1177	0.12968		.01		10.17842	30		Averaged	
Chloroethane	0.1249	0.13049		.01		4.47558	30		Averaged	
Trichlorofluoromethane	0.2144	0.22904		.01		6.82836	30		Averaged	
Ethyl ether	0.1846	0.187		.01		1.30011	30		Averaged	
1,1-Dichloroethylene	0.2389	0.26778		.01		12.08874	20		Averaged	ccc
Acetone	0.1494	0.15952		.01		6.77376	40		Averaged	
Methyl acetate	0.1633	0.15954		.01		-2.30251	40		Averaged	
Iodomethane	0.2468	0.2636		.01		6.80713	30		Averaged	
Carbon disulfide	0.4789	0.52421		.01		9.46127	30		Averaged	
Acetonitrile	0.0293	0.02713		.01		-7.40614	30		Averaged	
Methylene chloride	50	50.7	50			1.4	30		Linear	
tert-Butyl methyl ether	0.4975	0.48299		.01		-2.91658	30		Averaged	
trans-1,2-Dichloroethylene	0.2598	0.28586		.01		10.03079	30		Averaged	
Vinyl acetate	0.4091	0.43942		.01		7.41139	40		Averaged	
1,1-Dichloroethane	0.3217	0.3495		.01		8.64159	30		Averaged	spcc
2-Butanone	0.178	0.21162		.01		18.88764	40		Averaged	
2,2-Dichloropropane	0.2385	0.26494		.01		11.08595	30		Averaged	
cis-1,2-Dichloroethylene	0.3022	0.3217		.01		6.45268	30		Averaged	
Chloroform	0.2882	0.3008		.01		4.37196	20		Averaged	ccc
Bromochloromethane	0.0893	0.09368		.01		4.90482	30		Averaged	
1,1,1-Trichloroethane	0.2377	0.26149		.01		10.00841	30		Averaged	
Cyclohexane	0.3381	0.38117		.01		12.73883	30		Averaged	
1,1-Dichloropropene	0.218	0.23983		.01		10.01376	30		Averaged	
Carbon tetrachloride	0.2039	0.23058		.01		13.08485	30		Averaged	
Benzene	0.7238	0.74333		.01		2.69826	30		Averaged	
1,2-Dichloroethane	0.249	0.25507		.01		2.43775	30		Averaged	
Cyclohexene	0.3364	0.36811		.01		9.42628	30		Averaged	
n-Butyl alcohol	5000	4961.07	5000			-0.7786	40		Linear	
Trichloroethylene	0.1719	0.17873		.01		3.97324	30		Averaged	
Methylcyclohexane	0.3141	0.33917		.01		7.98153	30		Averaged	
1,2-Dichloropropane	0.2044	0.21032		.01		2.89628	20		Averaged	ccc

## Continuing Calibration Summary

Page 2 of 3

Instrument ID: VOA5.I

Injection Date 11-MAR-10 07:08

Data File: 031110V5\5B402.D

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

Lab Sample ID W5VM100311-01 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	0.11118		.01		7.00674	30		Averaged	
Bromodichloromethane	0.2124	0.22823		.01		7.45292	30		Averaged	
2-Chloroethylvinyl ether	0.0653	0.06227		.01		-4.64012	30		Averaged	
cis-1,3-Dichloropropylene	0.2908	0.30649		.01		5.39546	30		Averaged	
4-Methyl-2-pentanone	0.1196	0.13582		.01		13.56187	40		Averaged	
Toluene	1.0734	1.05847		.01		-1.39091	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3656	0.37657		.01		3.00055	30		Averaged	
1,1,2-Trichloroethane	0.1811	0.17707		.01		-2.22529	30		Averaged	
2-Hexanone	0.3247	0.3984		.01		22.69787	40		Averaged	
Tetrachloroethylene	0.1966	0.19737		.01		0.39166	30		Averaged	
1,3-Dichloropropane	0.3892	0.3832		.01		-1.54162	30		Averaged	
Dibromochloromethane	0.2155	0.22806		.01		5.82831	30		Averaged	
1,2-Dibromoethane	0.2099	0.20592		.01		-1.89614	30		Averaged	
Chlorobenzene	0.6963	0.68066		.3		-2.24616	30		Averaged	spcc
Ethylbenzene	1.2247	1.19182		.01		-2.68474	20		Averaged	ccc
1,1,1,2-Tetrachloroethane	0.2359	0.24382		.01		3.35735	30		Averaged	
m,p-Xylenes	0.4639	0.46855		.01		1.00237	30		Averaged	
o-Xylene	0.4688	0.46849		.01		-0.06613	30		Averaged	
Styrene	0.7161	0.75345		.01		5.21575	30		Averaged	
Bromoform	0.2722	0.2909		.1		6.86995	30		Averaged	spcc
Isopropylbenzene	2.2942	2.34093		.01		2.03688	30		Averaged	
1,1,2,2-Tetrachloroethane	0.5938	0.5569		.3		-6.21421	30		Averaged	spcc
n-Propylbenzene	2.7698	2.78278		.01		0.46863	30		Averaged	
1,2,3-Trichloropropane	0.1585	0.149		.01		-5.99369	30		Averaged	
Bromobenzene	0.5771	0.54546		.01		-5.48259	30		Averaged	
1,3,5-Trimethylbenzene	1.9593	1.97365		.01		0.7324	30		Averaged	
2-Chlorotoluene	0.5751	0.56871		.01		-1.11111	30		Averaged	
4-Chlorotoluene	1.761	1.69879		.01		-3.53265	30		Averaged	
tert-Butylbenzene	0.451	0.43948		.01		-2.55432	30		Averaged	
1,2,4-Trimethylbenzene	1.9934	2.00397		.01		0.53025	30		Averaged	
sec-Butylbenzene	2.5353	2.61728		.01		3.23354	30		Averaged	
4-Isopropyltoluene	2.0151	2.09278		.01		3.8549	30		Averaged	
1,3-Dichlorobenzene	1.0958	1.06026		.01		-3.24329	30		Averaged	
1,4-Dichlorobenzene	1.114	1.07102		.01		-3.85817	30		Averaged	
n-Butylbenzene	1.9788	2.00781		.01		1.46604	30		Averaged	
1,2-Dichlorobenzene	1.0534	1.00929		.01		-4.18739	30		Averaged	
1,2-Dibromo-3-chloropropane	0.113	0.10429		.01		-7.70796	30		Averaged	

## Continuing Calibration Summary

Page 3 of 3

Instrument ID: VOA5.I

Injection Date 11-MAR-10 07:08

Data File: 031110V5\5B402.D

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

Lab Sample ID W5VM100311-01 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	0.7231		.01		1.93121	30		Averaged
Hexachlorobutadiene	0.4309	0.45124		.01		4.72035	30		Averaged
Naphthalene	1.6113	1.57746		.01		-2.10017	30		Averaged
1,2,3-Trichlorobenzene	0.6191	0.6246		.01		0.88839	30		Averaged

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
 Data File : 5B402.D  
 Acq On : 11 Mar 2010 7:08 am  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |W5VM100311-01|CCV|1|VOA|1|  
 Misc : CCV 5mL - MIX[A] 0222-07B+0106-07D  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 11 07:21:23 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	1428247	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1072946	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	550065	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.391	1.000	96	1428247	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1072946	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	550065	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	248173	35.90	ug/L	0.00
43) Toluene-d8	9.721	9.721	0.872	98	1140573	41.57	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	626687	56.80	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	4.668	4.668	0.557	85	180577	54.15	ug/L	97
3) Chloromethane	4.900	4.900	0.584	50	231545	54.56	ug/L	98
4) Vinyl chloride	5.041	5.041	0.601	62	191148	54.31	ug/L	99
5) Bromomethane	5.423	5.423	0.647	94	185217	55.10	ug/L	99
6) Chloroethane	5.504	5.504	0.656	64	186367	52.22	ug/L	100
7) Trichlorofluoromethane	5.705	5.695	0.680	101	327129	53.40	ug/L	100
8) Ethyl ether	5.867	5.866	0.699	59	267078	50.64	ug/L	97
9) Acetone	6.170	6.174	0.736	43	1139153	266.93	ug/L	100
10) 1,1-Dichloroethylene	6.153	6.156	0.734	61	382453	56.04	ug/L	99
11) Iodomethane	6.358	6.357	0.758	142	1882423	267.06	ug/L	100
12) Acetonitrile	6.460	6.464	0.770	41	968733	1158.22	ug/L	97
13) Methyl acetate	6.361	6.365	0.758	43	1139323	244.30	ug/L	99
14) Carbon disulfide	6.435	6.435	0.767	76	3743515	273.67	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	276081	50.70	ug/L	97
16) tert-Butyl methyl ether	6.637	6.640	0.791	73	689832	48.55	ug/L	100
17) trans-1,2-Dichloroethy...	6.711	6.715	0.800	61	408279	55.01	ug/L	98
18) Vinyl acetate	6.966	6.969	0.831	43	3138022	268.53	ug/L	99
19) 1,1-Dichloroethane	7.068	7.068	0.843	63	499179	54.32	ug/L	99
20) 2-Butanone	7.447	7.450	0.888	43	1511215	297.22	ug/L	99
21) cis-1,2-Dichloroethylene	7.507	7.507	0.895	61	459473	53.23	ug/L	98
22) 2,2-Dichloropropane	7.511	7.514	0.895	77	378395	55.55	ug/L	97
23) Bromochloromethane	7.719	7.719	0.920	128	133800	52.47	ug/L	96
24) Chloroform	7.701	7.701	0.918	83	429611	52.19	ug/L	100
25) 1,1,1-Trichloroethane	7.903	7.906	0.942	97	373475	55.01	ug/L	99
26) Cyclohexane	7.924	7.924	0.945	56	544405	56.37	ug/L	98
27) 1,1-Dichloropropene	8.006	8.005	0.954	75	342540	55.01	ug/L	98
28) Carbon tetrachloride	8.020	8.020	0.956	117	329324	56.55	ug/L	100
30) 1,2-Dichloroethane	8.235	8.235	0.982	62	364298	51.21	ug/L	98
31) Benzene	8.204	8.203	0.978	78	1061661	51.35	ug/L	96
32) Cyclohexene	8.246	8.246	0.983	67	525758	54.71	ug/L	100
33) n-Butyl alcohol	8.377	8.377	0.999	56	996336	4961.07	ug/L	98
34) Trichloroethylene	8.674	8.677	1.034	95	255271	51.99	ug/L	100
35) 1,2-Dichloropropane	8.929	8.932	1.065	63	300393	51.44	ug/L	100
36) Methylcyclohexane	8.830	8.826	1.053	83	484421	53.99	ug/L	98
37) Dibromomethane	9.059	9.059	1.080	93	158797	53.50	ug/L	98
38) Bromodichloromethane	9.113	9.112	1.086	83	325963	53.73	ug/L	99
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	444717	238.36	ug/L	99
40) cis-1,3-Dichloropropylene	9.487	9.487	1.131	75	437745	52.70	ug/L	100

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
 Data File : 5B402.D  
 Acq On : 11 Mar 2010 7:08 am  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |W5VM100311-01|CCV|1|VOA|1|  
 Misc : CCV 5mL - MIX[A] 0222-07B+0106-07D  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 11 07:21:23 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	728626	283.98	ug/L	97
44) Toluene	9.788	9.788	0.878	91	1135683	49.30	ug/L	100
45) trans-1,3-Dichloroprop...	9.965	9.968	0.894	75	404038	51.50	ug/L	100
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	189984	48.88	ug/L	99
47) 2-Hexanone	10.280	10.279	0.923	43	2137325	306.77	ug/L	99
48) 1,3-Dichloropropane	10.364	10.364	0.930	76	411158	49.23	ug/L	98
49) Tetrachloroethylene	10.294	10.290	0.924	164	211765	50.19	ug/L	98
50) Dibromochloromethane	10.587	10.583	0.950	129	244701	52.92	ug/L	100
51) 1,2-Dibromoethane	10.771	10.771	0.967	107	220944	49.06	ug/L	99
52) Chlorobenzene	11.174	11.174	1.003	112	730310	48.88	ug/L	98
53) 1,1,1,2-Tetrachloroethane	11.213	11.216	1.006	131	261605	51.68	ug/L	99
54) Ethylbenzene	11.178	11.181	1.003	91	1278759	48.66	ug/L	99
55) m,p-Xylenes	11.280	11.280	1.012	106	1005462	101.00	ug/L	100
56) o-Xylene	11.701	11.701	1.050	106	502663	49.97	ug/L	99
57) Styrene	11.712	11.715	1.051	104	808412	52.61	ug/L	93
59) Bromoform	12.005	12.005	0.895	173	160013	53.43	ug/L	100
60) Isopropylbenzene	12.012	12.016	0.896	105	1287664	51.02	ug/L	100
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	306333	46.89	ug/L	100
63) 1,2,3-Trichloropropane	12.454	12.454	0.929	110	81961	46.99	ug/L #	83
64) Bromobenzene	12.465	12.465	0.929	156	300038	47.26	ug/L	99
65) n-Propylbenzene	12.415	12.415	0.926	91	1530710	50.23	ug/L	99
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	1085635	50.37	ug/L	100
67) 2-Chlorotoluene	12.596	12.596	0.939	126	312828	49.44	ug/L #	81
68) 4-Chlorotoluene	12.698	12.698	0.947	91	934443	48.23	ug/L	100
69) tert-Butylbenzene	12.903	12.900	0.962	134	241741	48.72	ug/L	100
70) 1,2,4-Trimethylbenzene	12.957	12.956	0.966	105	1102315	50.27	ug/L	99
71) sec-Butylbenzene	13.116	13.119	0.978	105	1439674	51.62	ug/L	100
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	1151165	51.93	ug/L	99
73) 1,3-Dichlorobenzene	13.349	13.349	0.995	146	583210	48.38	ug/L	100
74) 1,4-Dichlorobenzene	13.437	13.441	1.002	146	589131	48.07	ug/L	100
75) n-Butylbenzene	13.653	13.653	1.018	91	1104427	50.73	ug/L	100
76) 1,2-Dichlorobenzene	13.858	13.858	1.033	146	555175	47.91	ug/L	100
77) 1,2-Dibromo-3-chloropr...	14.705	14.704	1.096	157	57365	46.13	ug/L	99
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164	180	397752	50.97	ug/L	100
79) Hexachlorobutadiene	15.686	15.686	1.169	225	248212	52.36	ug/L	99
80) Naphthalene	15.989	15.988	1.192	128	867708	48.95	ug/L	100
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	343572	50.45	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	6.177	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	6.460	6.460	0.770		0m	N.D.	d	
90) Acrylonitrile	6.641	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	7.033	7.104	0.839		0m	N.D.	d	
93) Ethyl tert-butyl ether	7.051	7.192	0.841		0m	N.D.	d	
94) Ethyl acetate	7.376	7.383	0.879		0m	N.D.	d	
95) Propionitrile	7.670	7.585	0.914		0m	N.D.	d	
96) Methacrylonitrile	7.666	7.680	0.914		0m	N.D.	d	
97) Tetrahydrofuran	7.719	7.716	0.920		0m	N.D.	d	

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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B402.D  
Acq On : 11 Mar 2010 7:08 am  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100311-01|CCV|1|VOA|1|  
Misc : CCV 5mL - MIX[A] 0222-07B+0106-07D  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 11 07:21:23 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	7.747	7.857	0.924		0m	N.D.	d
99) Methyl tert-amyl ether	8.207	8.122	0.978		0m	N.D.	d
100) Methyl methacrylate	8.830	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	9.371	9.342	1.117		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	12.133	12.136	0.905		0m	N.D.	d
108) Cyclohexanone	12.263	12.267	0.914		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	13.568	13.565	1.012		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	13.915	13.929	1.037		0m	N.D.	d

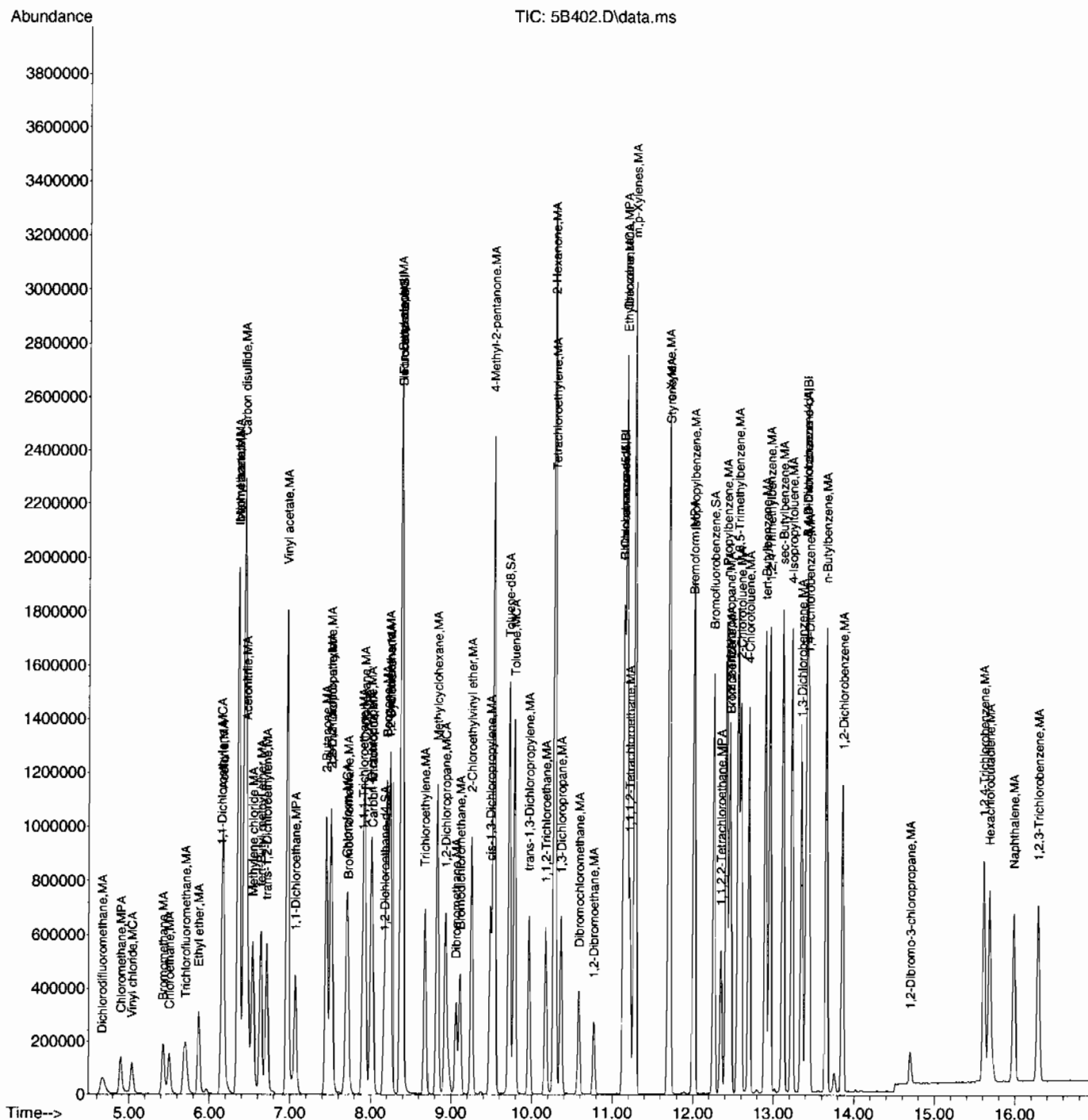
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

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Data Path : C:\msdchem\1\DATA\031110V5\
Data File : 5B402.D
Acq On    : 11 Mar 2010    7:08 am
Operator  : CDS1
InstName  : VOA5
Sample    : |W5VM100311-01|CCV|1|VOA|1|
Misc      : CCV 5mL - MIX[A] 0222-07B+0106-07D
ALS Vial  : 2    Sample Multiplier: 1

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Quant Time: Mar 11 07:21:23 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

Page 1 of 1

Client SDG: 10-2140

Instrument ID: VOA5.I

Injection Date 11-MAR-10 08:27

Data File: 031110V5\5B405.D

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

Lab Sample ID W5VM100311-04 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
S1,2-Dichloroethane-d4	0.242	0.17886		.01		-26.09091	30		Averaged
SToluene-d8	1.2787	1.06084		.01		-17.03762	30		Averaged
SBromofluorobenzene	1.0029	1.15668		.01		15.33353	30		Averaged
Trichlorotrifluoroethane	0.0448	0.06026		.01		34.50893	30	*	Averaged
Acrolein	250	260.66	250			4.264	30		Linear
Allyl chloride	0.3291	0.29552		.01		-10.20359	30		Averaged
Acrylonitrile	0.0724	0.07077		.01		-2.25138	30		Averaged
2-Chloro-1,3-butadiene	0.2124	0.27591		.01		29.90113	30		Averaged
Ethyl acetate	0.196	0.179		.01		-8.67347	40		Averaged
Propionitrile	0.0278	0.0276		.01		-0.71942	30		Averaged
Methacrylonitrile	0.153	0.14848		.01		-2.95425	30		Averaged
Tetrahydrofuran	0.0692	0.06682		.01		-3.43931	30		Averaged
Isobutyl alcohol	0.0073	0.00693		.01		-5.06849	40		Averaged
Methyl methacrylate	0.1155	0.11451		.01		-0.85714	30		Averaged
1,4-Dioxane	0.0021	0.00181		.01		-13.80952	40		Averaged
2-Nitropropane	250	241.26	250			-3.496	30		Linear
Ethyl methacrylate	0.2951	0.29774		.01		0.89461	30		Averaged
cis-1,4-Dichloro-2-butene	0.187	0.2019		.01		7.96791	30		Averaged
Cyclohexanone	0.0154	0.0597		.01		287.66234	40	*	Averaged
trans-1,4-Dichloro-2-butene	0.1761	0.18941		.01		7.55821	30		Averaged
Pentachloroethane	0.2439	0.28721		.01		17.75728	30		Averaged
Benzyl chloride	0.8953	1.01427		.01		13.28828	30		Averaged
bis(2-Chloroisopropyl)ether	0.3294	0.29517		.01		-10.39162	30		Averaged



## GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
 Data File : 5B405.D  
 Acq On : 11 Mar 2010 8:27 am  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |W5VM100311-04|CCV|1|VOA|1|VOA8260BS|  
 Misc : CCV 5G - SOIL MIX[B ]UVM100215-08B  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 11 17:15:12 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	1397071	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1054675	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	537423	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.391	1.000	96	1397071	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1054675	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	537423	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	249884	36.96	ug/L	0.00
43) Toluene-d8	9.721	9.721	0.872	98	1118838	41.48	ug/L	0.00
61) Bromofluorobenzene	12.260	12.260	0.914	95	621626	57.67	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.890	4.900	0.583		0m	N.D.	d	
4) Vinyl chloride	5.031	5.041	0.600		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	5.867	5.866	0.699		0m	N.D.	d	
9) Acetone	6.170	6.174	0.736		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.064	6.156	0.723		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	6.421	6.435	0.766		0m	N.D.	d	
15) Methylene chloride	6.542	6.538	0.780		0m	N.D.	d	
16) tert-Butyl methyl ether	6.634	6.640	0.791		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.973	6.969	0.831		0m	N.D.	d	
19) 1,1-Dichloroethane	7.104	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	7.380	7.507	0.880		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	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	7.854	7.924	0.936		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	8.193	8.203	0.977		0m	N.D.	d	
32) Cyclohexene	8.250	8.246	0.984		0m	N.D.	d	
33) n-Butyl alcohol	8.384	8.377	1.000		0m	N.D.	d	
34) Trichloroethylene	8.692	8.677	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	8.798	8.826	1.049		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	9.480	9.487	1.130		0m	N.D.	d	

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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B405.D  
Acq On : 11 Mar 2010 8:27 am  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100311-04|CCV|1|VOA|1|VOA8260BS|  
Misc : CCV 5G - SOIL MIX[B ]UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 11 17:15:12 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	9.792	9.788	0.879		0m	N.D.	d
45) trans-1,3-Dichloroprop...	9.972	9.968	0.895		0m	N.D.	d
46) 1,1,2-Trichloroethane	10.287	10.173	0.923		0m	N.D.	d
47) 2-Hexanone	10.276	10.279	0.922		0m	N.D.	d
48) 1,3-Dichloropropane	10.368	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	10.764	10.771	0.966		0m	N.D.	d
52) Chlorobenzene	11.174	11.174	1.003		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.178	11.181	1.003		0m	N.D.	d
55) m,p-Xylenes	11.280	11.280	1.012		0m	N.D.	d
56) o-Xylene	11.701	11.701	1.050		0m	N.D.	d
57) Styrene	11.715	11.715	1.051		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	12.408	12.348	0.925		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	12.408	12.415	0.925		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	12.561	12.564	0.936		0m	N.D.	d
67) 2-Chlorotoluene	12.596	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	13.356	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	13.653	13.653	1.018		0m	N.D.	d
76) 1,2-Dichlorobenzene	13.858	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	209673	260.66 ug/L	99
86) Trichlorotrifluoroethane	6.071	6.071	0.724	85	420908	336.02 ug/L	100
87) Isopropyl Alcohol	0.000	6.163	0.000		0m	N.D.	d
88) Allyl chloride	6.421	6.425	0.766	41	2064299	224.51 ug/L	93
89) tert-Butyl Alcohol	6.421	6.460	0.766	59	764	N.D.	
90) Acrylonitrile	6.743	6.747	0.804	53	494368	244.54 ug/L	100
91) Isopropyl ether	0.000	6.920	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	7.104	7.104	0.847	53	385462	64.96 ug/L	100
93) Ethyl tert-butyl ether	7.369	7.192	0.879	59	107	N.D.	
94) Ethyl acetate	7.380	7.383	0.880	43	1250386	228.37 ug/L	99
95) Propionitrile	7.585	7.585	0.904	54	192800	247.77 ug/L	99
96) Methacrylonitrile	7.677	7.680	0.915	41	1037180	242.54 ug/L	100
97) Tetrahydrofuran	7.709	7.716	0.919	42	466766	241.52 ug/L	99

\*\*\*\*\*  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B405.D  
Acq On : 11 Mar 2010 8:27 am  
Operator : CDS1  
InstName : VOA5  
Sample : |W5VM100311-04|CCV|1|VOA|1|VOA8260BS|  
Misc : CCV 5G - SOIL MIX[B ]UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

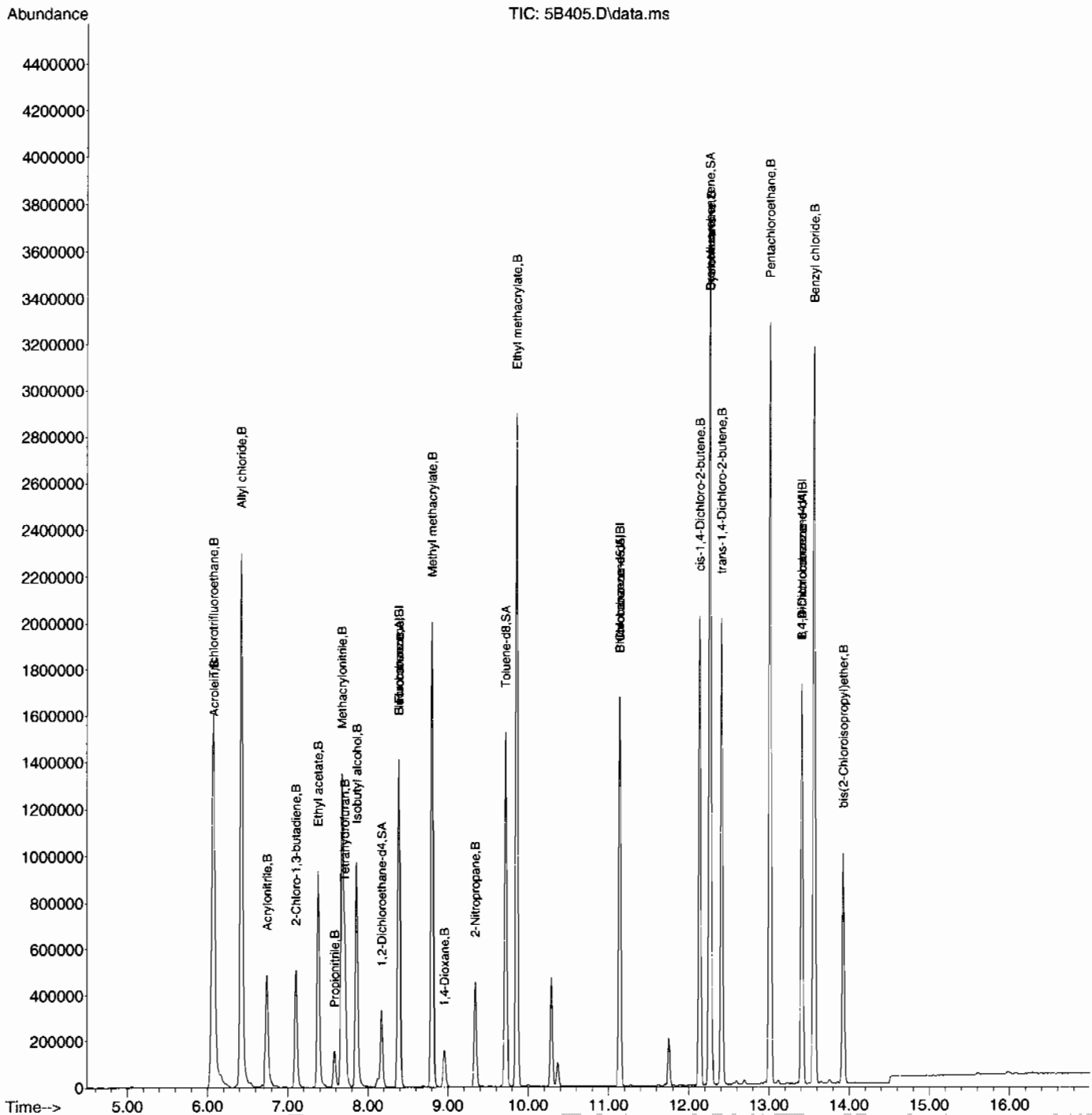
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Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98) Isobutyl alcohol	7.861	7.857	0.937	41	483945	2377.09	ug/L	98
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.		
100) Methyl methacrylate	8.801	8.801	1.049	69	799913	247.91	ug/L	97
101) 1,4-Dioxane	8.957	8.957	1.068	88	126561	2197.92	ug/L	99
102) 2-Nitropropane	9.342	9.342	1.114	43	394732	241.26	ug/L	99
104) Ethyl methacrylate	9.859	9.859	0.885	69	1570077	252.20	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	542526	269.96	ug/L	100
108) Cyclohexanone	12.267	12.267	0.915	42	802097	4855.37	ug/L	97 E
109) trans-1,4-Dichloro-2-b...	12.408	12.412	0.925	53	508969	268.86	ug/L	98
110) Pentachloroethane	13.013	13.017	0.970	167	771770	294.39	ug/L	99
111) Benzyl chloride	13.565	13.565	1.011	91	2725462	283.21	ug/L	100
112) bis(2-Chloroisopropyl)...	13.926	13.929	1.038	45	793167	224.01	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 : 5B405.D  
 Acq On : 11 Mar 2010 8:27 am  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |W5VM100311-04|CCV|1|VOA|1|VOA8260BS|  
 Misc : CCV 5G - SOIL MIX[B]UVM100215-08B  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 11 17:15:12 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

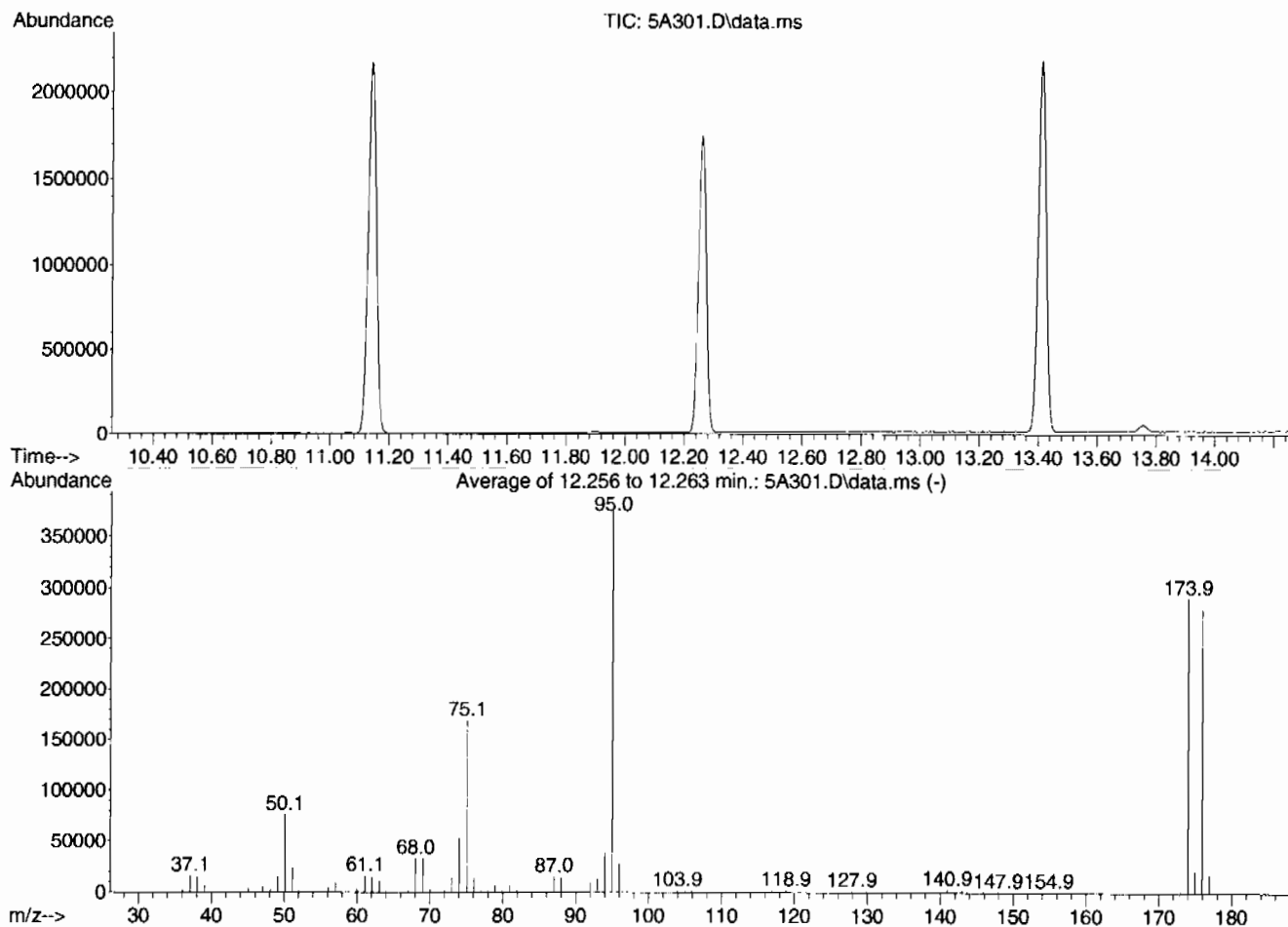


# Quality Control Data

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.

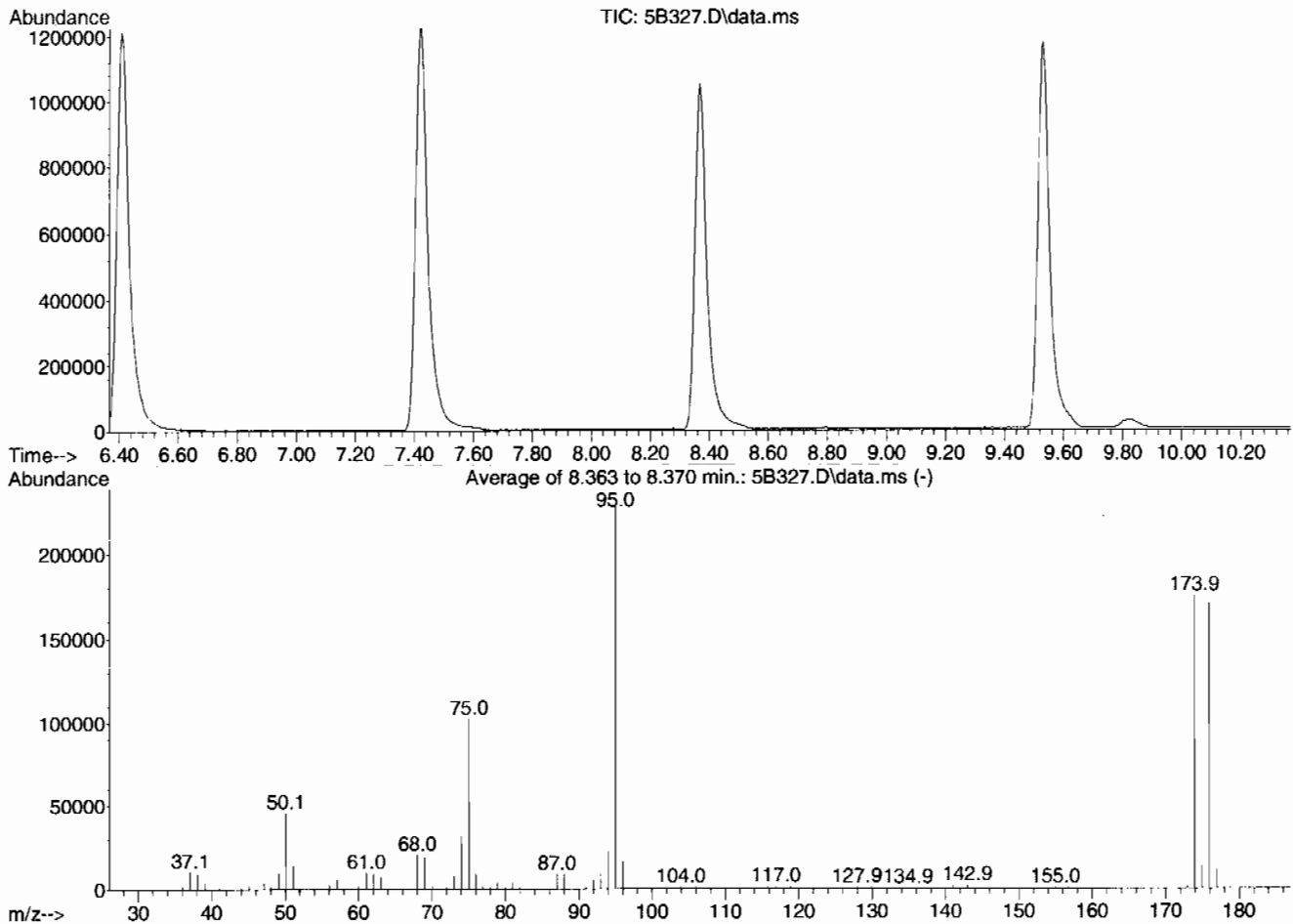
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	75616	PASS
75	95	30	60	45.2	169109	PASS
95	95	100	100	100.0	373952	PASS
96	95	5	9	7.4	27492	PASS
173	174	0.00	2	0.6	1817	PASS
174	95	50	100	77.7	290688	PASS
175	174	5	9	7.4	21371	PASS
176	174	95	101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

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B327.D  
 Acq On : 10 Mar 2010 6:39 pm  
 Operator : CDS1  
 Sample : |UVM100217-02|BFB2|1|VOA|1|  
 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



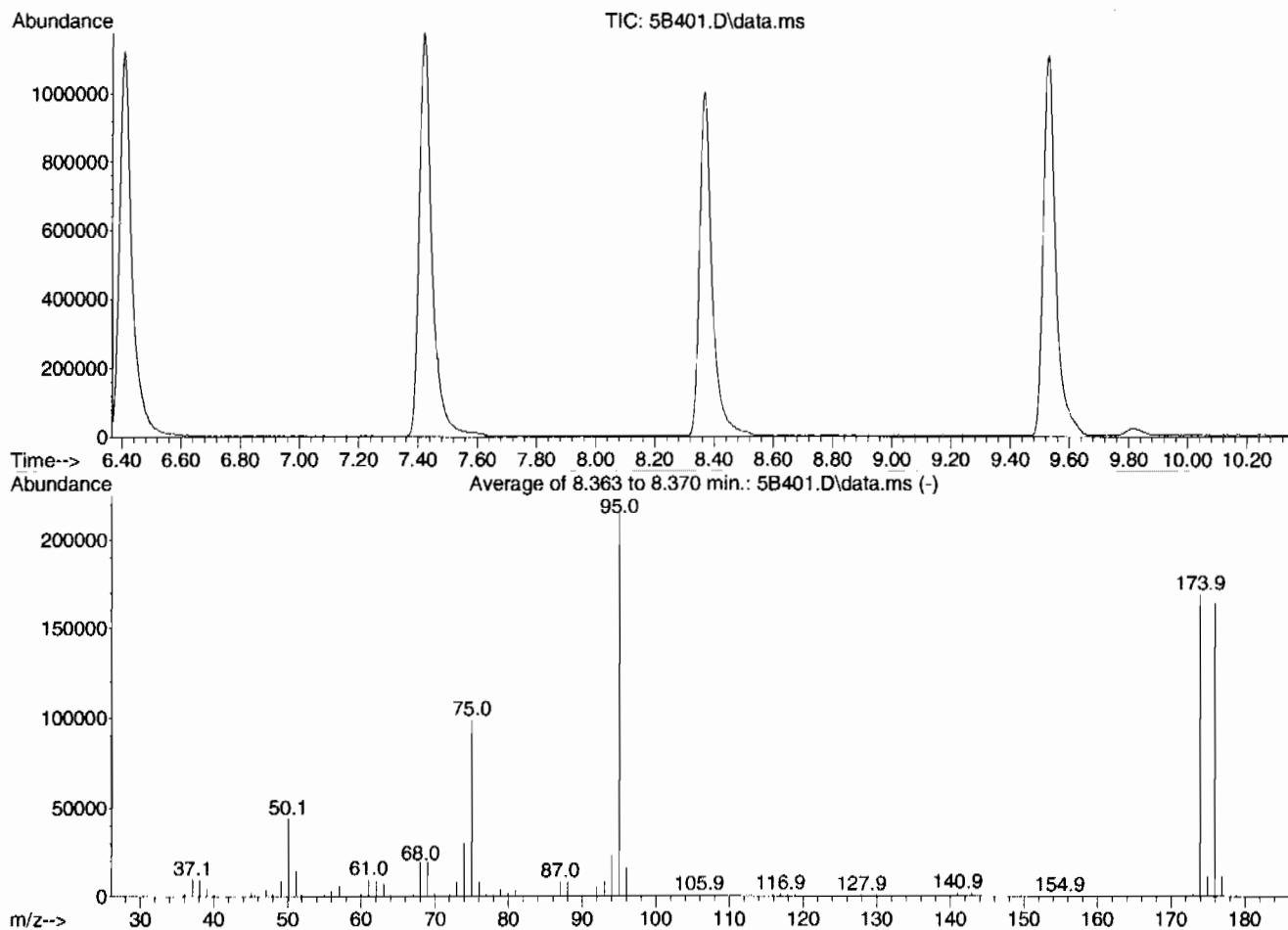
Spectrum Information: Average of 8.363 to 8.370 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.9	45368	PASS
75	95	30	60	44.9	102365	PASS
95	95	100	100	100.0	227947	PASS
96	95	5	9	7.2	16480	PASS
173	174	0.00	2	0.6	1031	PASS
174	95	50	100	76.7	174763	PASS
175	174	5	9	7.4	12927	PASS
176	174	95	101	97.4	170261	PASS
177	176	5	9	6.6	11173	PASS

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B401.D  
Acq On : 11 Mar 2010 6:41 am  
Operator : CDS1  
Sample : |UVM100217-02|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 : 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	43597	PASS
75	95	30	60	46.0	98624	PASS
95	95	100	100	100.0	214549	PASS
96	95	5	9	7.5	16033	PASS
173	174	0.00	2	0.5	889	PASS
174	95	50	100	78.8	169067	PASS
175	174	5	9	6.8	11523	PASS
176	174	95	101	96.8	163669	PASS
177	176	5	9	7.0	11476	PASS



Volatile  
Certificate of Analysis  
Sample Summary

Page 1 of 2

SDG Number: 10-2140		Matrix: SOIL
Lab Sample ID: 1202068443		
Client Sample: QC for batch 962696	Client: LANL010	Project: QC
Client ID: MB for batch 962696	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOA5.J	Dilution: 1
Run Date: 03/10/2010 21:18	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/10/2010 15:30	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031010V5\5B333BSA.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

Page 2 of 2

SDG Number: 10-2140		Matrix: SOIL
Lab Sample ID: 1202068443		
Client Sample: QC for batch 962696	Client: LANL010	Project: QC
Client ID: MB for batch 962696	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOA5.I	Dilution: 1
Run Date: 03/10/2010 21:18	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/10/2010 15:30	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031010V5\5B333BSA.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		

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B333BSA.D  
 Acq On : 10 Mar 2010 9:18 pm  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |1202068443|962697|1|VOA|1|VOA8260BS|  
 Misc : BLANK 5G - SOIL  
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 11 07:17:10 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	1478853	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1097369	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	531739	50.00	ug/L	0.00
82) B Fluorobenzene	8.391	8.391	1.000	96	1478853	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1097369	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	531739	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	8.175	8.172	0.974	65	269729	37.68	ug/L	0.00
Spiked Amount	50.000	Range 66 - 134	Recovery	=	75.36%			
43) Toluene-d8	9.724	9.721	0.873	98	1191200	42.45	ug/L	0.00
Spiked Amount	50.000	Range 71 - 128	Recovery	=	84.90%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	624047	58.51	ug/L	0.00
Spiked Amount	50.000	Range 65 - 130	Recovery	=	117.02%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.890	4.900	0.583	50	601	Below Cal		94
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	6.174	6.174	0.736	43	1301	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	0.770	41	1013	N.D.		
13) Methyl acetate	6.202	6.365	0.739	43	116	N.D.		
14) Carbon disulfide	6.428	6.435	0.766	76	716	N.D.		
15) Methylene chloride	6.534	6.538	0.779	84	6186	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	0.000	6.969	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	0.000	7.450	0.000		0	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	8.387	8.203	1.000	78	2036	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	8325	Below Cal	#	20
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.		

\*\*\*\*\*  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
Data File : 5B333BSA.D  
Acq On : 10 Mar 2010 9:18 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202068443|962697|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 11 07:17:10 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	9.795	9.788	0.879	91	1506	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	10.283	10.279	0.923	43	245	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	11.163	11.174	1.002	112	126	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.178	11.181	1.003	91	273	N.D.	
55) m,p-Xylenes	11.280	11.280	1.012	106	132	N.D.	
56) o-Xylene	0.000	11.701	0.000		0	N.D.	
57) Styrene	11.719	11.715	1.052	104	124	N.D.	
59) Bromoform	0.000	12.005	0.000		0	N.D.	
60) Isopropylbenzene	12.263	12.016	0.914	105	501	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	12.465	12.465	0.929	156	113	N.D.	
65) n-Propylbenzene	12.415	12.415	0.926	91	813	N.D.	
66) 1,3,5-Trimethylbenzene	12.567	12.564	0.937	105	395	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.691	12.698	0.946	91	2213	N.D.	
69) tert-Butylbenzene	12.910	12.900	0.963	134	106	N.D.	
70) 1,2,4-Trimethylbenzene	12.960	12.956	0.966	105	885	N.D.	
71) sec-Butylbenzene	13.108	13.119	0.977	105	907	N.D.	
72) 4-Isopropyltoluene	13.264	13.229	0.989	119	974	N.D.	
73) 1,3-Dichlorobenzene	13.360	13.349	0.996	146	329	N.D.	
74) 1,4-Dichlorobenzene	13.451	13.441	1.003	146	118	N.D.	
75) n-Butylbenzene	13.646	13.653	1.017	91	1772	N.D.	
76) 1,2-Dichlorobenzene	13.851	13.858	1.033	146	121	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	14.704	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	15.619	15.619	1.165	180	1005	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.988	15.988	1.192	128	4828	N.D.	
81) 1,2,3-Trichlorobenzene	16.284	16.291	1.214	180	478	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	6.464	6.425	0.770	41	1013	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.	

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B333BSA.D  
 Acq On : 10 Mar 2010 9:18 pm  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |1202068443|962697|1|VOA|1|VOA8260BS|  
 Misc : BLANK 5G - SOIL  
 ALS Vial : 33 Sample Multiplier: 1

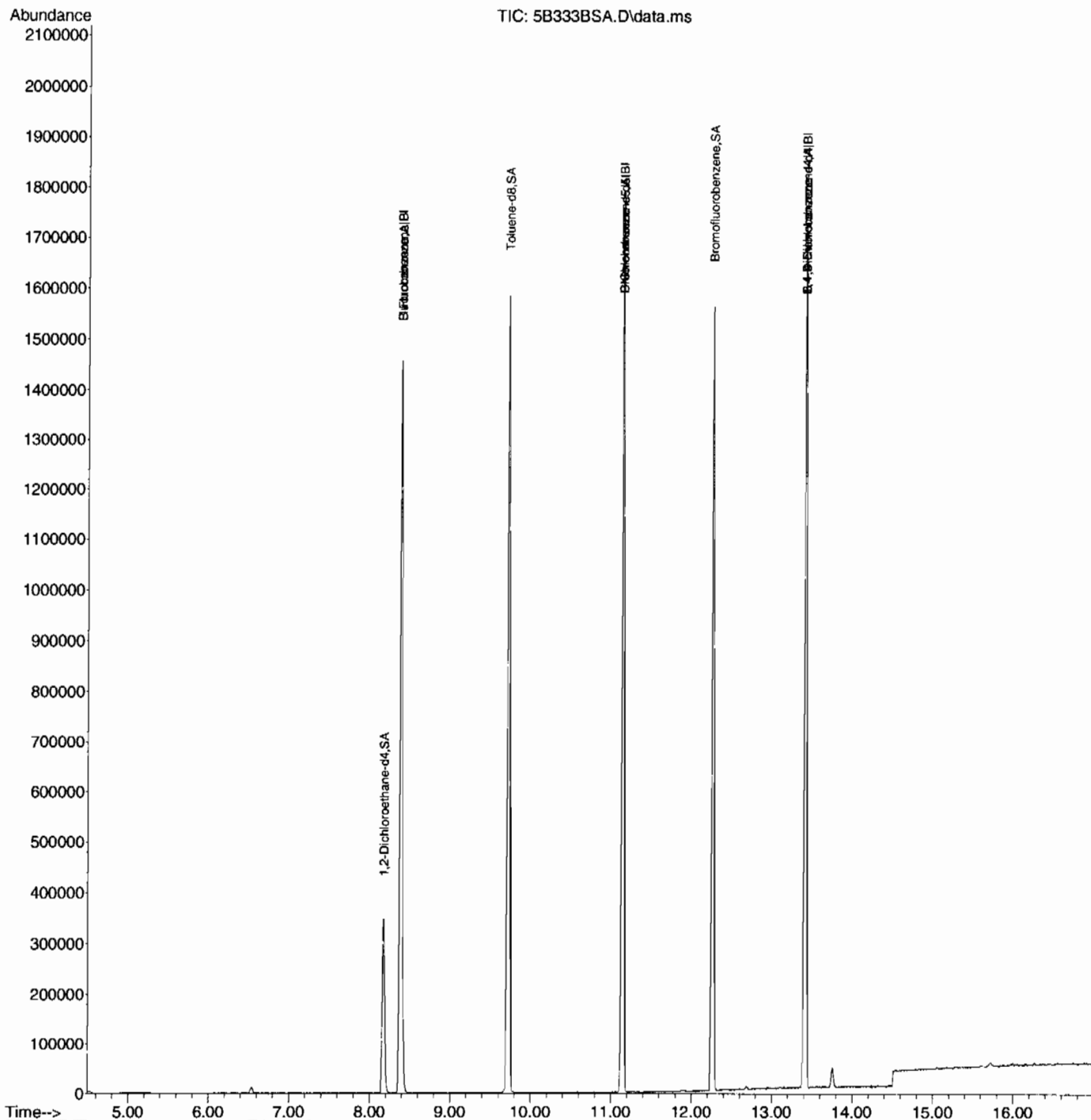
Quant Time: Mar 11 07:17:10 2010  
 Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
 Quant Title : Volatile Organics 8260B SubList :  
 QLast Update : Tue Mar 09 07:08:19 2010  
 Response via : Initial Calibration  
 Integrator: RTE

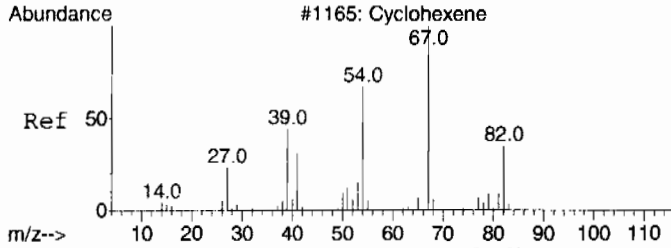
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.719	7.680	0.920	41	111	N.D.	
97) Tetrahydrofuran	0.000	7.716	0.000		0	N.D.	
98) Isobutyl alcohol	7.719	7.857	0.920	41	111	N.D.	
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.	
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	12.270	12.267	0.915	42	240	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	13.561	13.565	1.011	91	2658	N.D.	
112) bis(2-Chloroisopropyl)...	13.918	13.929	1.038	45	361	N.D.	

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

Data Path : C:\msdchem\1\DATA\031010V5\  
Data File : 5B333BSA.D  
Acq On : 10 Mar 2010 9:18 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202068443|962697|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 33 Sample Multiplier: 1

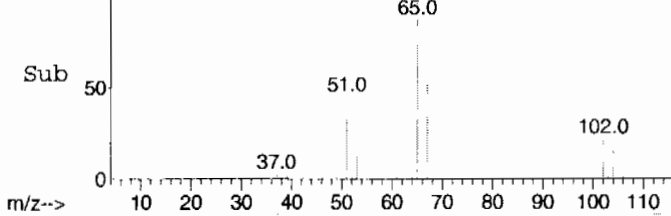
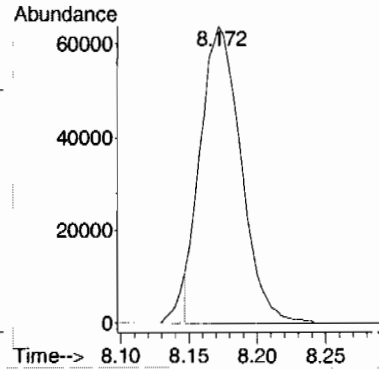
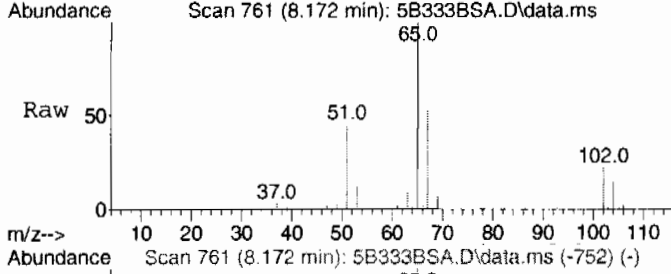
Quant Time: Mar 11 07:17:10 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE





#32 BEFORE analyst DELETION  
Cyclohexene  
Concen: 13.24 ug/L  
RT: 8.172 min Scan# 761  
Delta R.T. -0.074 min  
Lab File: 5B333BSA.D  
Acq: 10 Mar 2010 9:18 pm

Tgt Ion: 67 Resp: 131726  
Ion Ratio Lower Upper  
67 100  
54 0.0 46.3 106.3#



Data Path : C:\msdchem\1\DATA\031010V5\  
Data File : 5B333BSA.D  
Acq On : 10 Mar 2010 9:18 pm  
Operator : CDS1  
Sample : |1202068443|962697|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

\*\*\*\*\*



GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B333BSA.D  
 Acq On : 10 Mar 2010 9:18 pm  
 Operator : CDS1  
 Sample : |1202068443|962697|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
-----								

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

Page 1 of 2

<b>SDG Number:</b> 10-2140		<b>Matrix:</b> SOIL
<b>Lab Sample ID:</b> 1202076187		
<b>Client Sample:</b> QC for batch 962696	<b>Client:</b> LANL010	<b>Project:</b> QC
<b>Client ID:</b> MB for batch 962696	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 962697	<b>Inst:</b> VOA5.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/11/2010 09:20	<b>Analyst:</b> CDS1	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/11/2010 06:00	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 031110V55B407BS1.D	<b>Column:</b> 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

VOLUME  
Certificate of Analysis  
Sample Summary

Page 4 of 4

SDG Number: 10-2140		Matrix: SOIL
Lab Sample ID: 1202076187		
Client Sample: QC for batch 962696	Client: LANL010	Project: QC
Client ID: MB for batch 962696	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOA5.I	Dilution: 1
Run Date: 03/11/2010 09:20	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/11/2010 06:00	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031110V55B407BS1.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
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

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

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
 Data File : 5B407BS1.D  
 Acq On : 11 Mar 2010 9:20 am  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |1202076187|962697|1|VOA|1|VOA8260BS|  
 Misc : BLANK 5G - SOIL  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 11 17:16:25 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	1402275	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1039581	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	502993	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1402275	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1039581	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	502993	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	239195	35.24	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 70.48%			
43) Toluene-d8	9.721	9.721	0.872	98	1116666	42.00	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 84.00%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	606779	60.14	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 120.28%			
Target Compounds								
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	4.900	4.900	0.584	50	527	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	6.170	6.174	0.736	43	762	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	373	N.D.		
13) Methyl acetate	6.191	6.365	0.738	43	245	N.D.		
14) Carbon disulfide	6.435	6.435	0.767	76	844	N.D.		
15) Methylene chloride	6.541	6.538	0.780	84	3919	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	6.800	6.969	0.811	43	2172	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	0.000	7.450	0.000		0	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	8.196	8.203	0.977	78	118	N.D.		
32) Cyclohexene	0.000	8.246	0.000		0m	N.D.	d	
33) n-Butyl alcohol	8.391	8.377	1.000	56	8241	Below Cal	#	20
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.		

-----F-----  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B407BS1.D  
Acq On : 11 Mar 2010 9:20 am  
Operator : CDS1  
InstName : VOA5  
Sample : |1202076187|962697|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 11 17:16:25 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
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	9.774	9.788	0.877	91	2188	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	10.272	10.279	0.922	43	249	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	11.178	11.181	1.003	91	244	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	0.000	12.016	0.000		0	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	1720	N.D.	
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	215	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.695	12.698	0.946	91	1372	N.D.	
69) tert-Butylbenzene	0.000	12.900	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	12.960	12.956	0.966	105	671	N.D.	
71) sec-Butylbenzene	13.108	13.119	0.977	105	842	N.D.	
72) 4-Isopropyltoluene	13.299	13.229	0.992	119	1017	N.D.	
73) 1,3-Dichlorobenzene	13.342	13.349	0.995	146	108	N.D.	
74) 1,4-Dichlorobenzene	13.441	13.441	1.002	146	497	N.D.	
75) n-Butylbenzene	13.650	13.653	1.018	91	2339	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	15.620	15.619	1.165	180	837	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	0.000	15.988	0.000		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	16.284	16.291	1.214	180	712	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	6.446	6.425	0.769	41	109	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.	

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
 Data File : 5B407BS1.D  
 Acq On : 11 Mar 2010 9:20 am  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |1202076187|962697|1|VOA|1|VOA8260BS|  
 Misc : BLANK 5G - SOIL  
 ALS Vial : 7 Sample Multiplier: 1

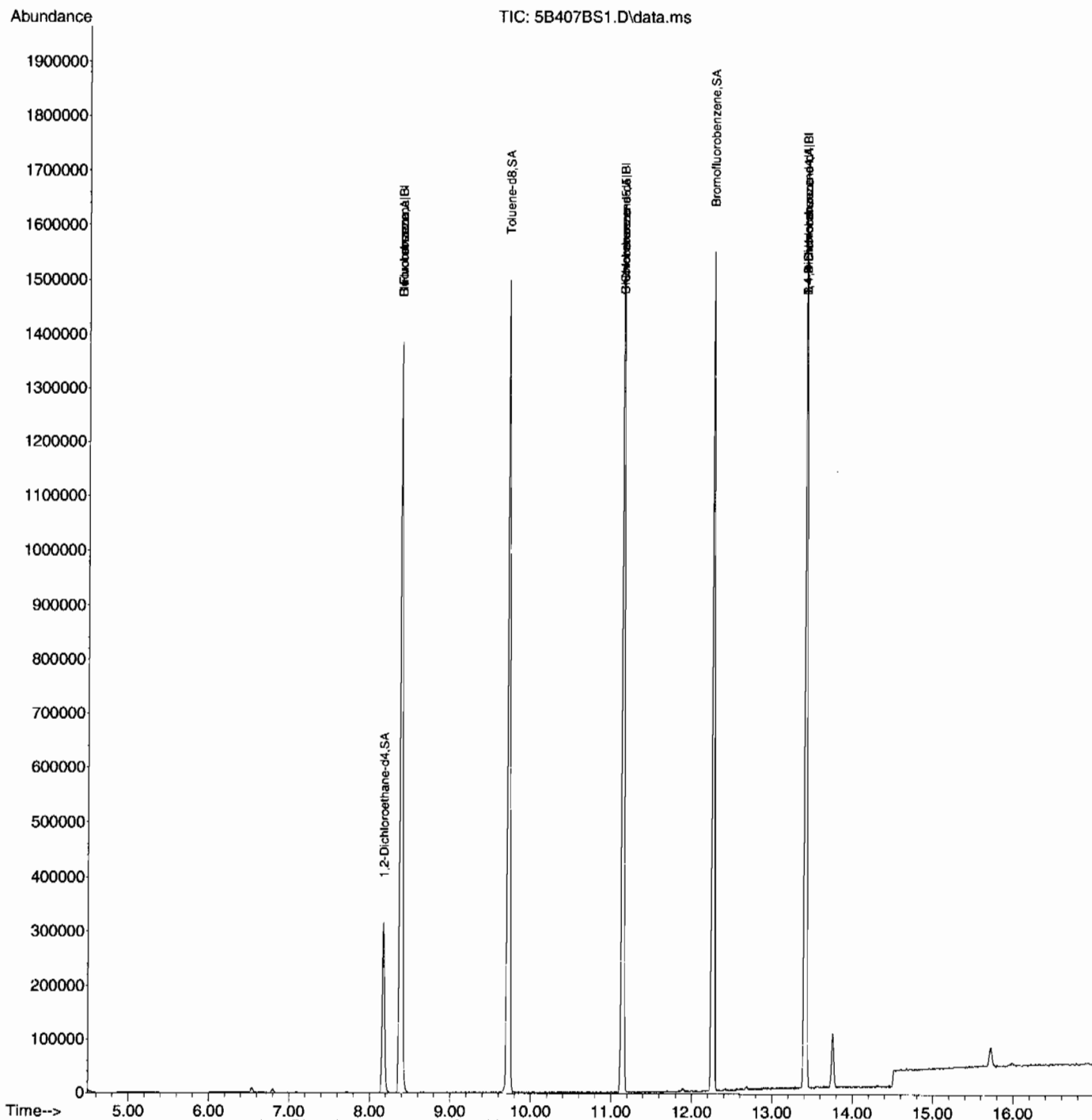
Quant Time: Mar 11 17:16:25 2010  
 Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
 Quant Title : Volatile Organics 8260B SubList :  
 QLast Update : Tue Mar 09 07:08:19 2010  
 Response via : Initial Calibration  
 Integrator: RTE

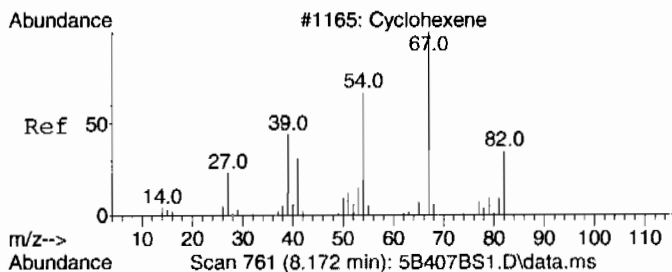
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.712	7.680	0.919	41	229	N.D.	
97) Tetrahydrofuran	7.705	7.716	0.919	42	113	N.D.	
98) Isobutyl alcohol	7.744	7.857	0.923	41	107	N.D.	
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	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		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	229	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	3422	N.D.	
112) bis(2-Chloroisopropyl)...	13.932	13.929	1.039	45	132	N.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 : 5B407BS1.D  
 Acq On : 11 Mar 2010 9:20 am  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |1202076187|962697|1|VOA|1|VOA8260BS|  
 Misc : BLANK 5G - SOIL  
 ALS Vial : 7 Sample Multiplier: 1

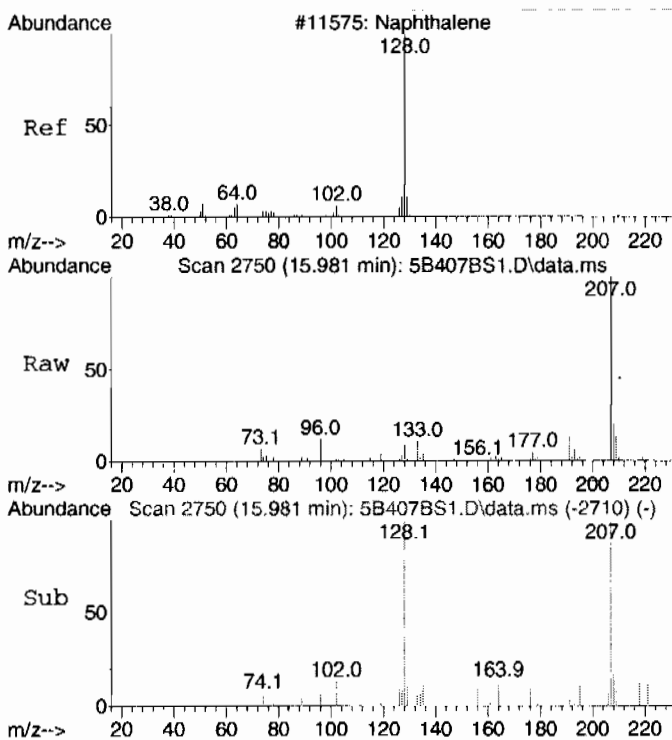
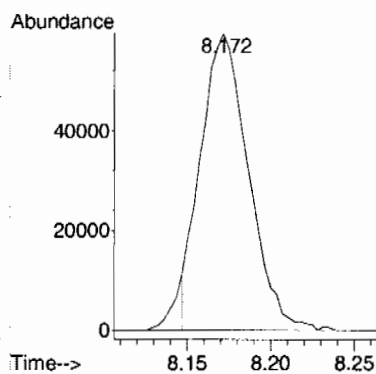
Quant Time: Mar 11 17:16:25 2010  
 Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
 Quant Title : Volatile Organics 8260B SubList :  
 QLast Update : Tue Mar 09 07:08:19 2010  
 Response via : Initial Calibration  
 Integrator: RTE





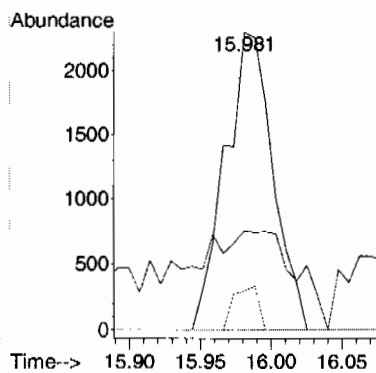
#32 BEFORE analyst DELETION  
Cyclohexene  
Concen: 12.52 ug/L  
RT: 8.172 min Scan# 761  
Delta R.T. -0.074 min  
Lab File: 5B407BS1.D  
Acq: 11 Mar 2010 9:20 am

Tgt Ion: 67 Resp: 118132  
Ion Ratio Lower Upper  
67 100  
54 0.0 46.3 106.3#



#80 BEFORE analyst DELETION  
Naphthalene  
Concen: 0.33 ug/L  
RT: 15.981 min Scan# 2750  
Delta R.T. -0.007 min  
Lab File: 5B407BS1.D  
Acq: 11 Mar 2010 9:20 am

Tgt Ion: 128 Resp: 5333  
Ion Ratio Lower Upper  
128 100  
127 77.1 0.0 42.4#  
129 7.4 0.0 40.8





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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\

Data File : 5B407BS1.D

Acq On : 11 Mar 2010 9:20 am

Operator : CDS1

Sample : |1202076187|962697|1|VOA|1|VOA8260BS|

Misc : BLANK 5G - SOIL

ALS Vial : 7 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

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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B407BS1.D  
Acq On : 11 Mar 2010 9:20 am  
Operator : CDS1  
Sample : |1202076187|962697|1|VOA|1|VOA8260BS|  
Misc : BLANK 5G - SOIL  
ALS Vial : 7 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
-----								

Volatiles  
Certificate of Analysis  
Sample Summary

Page 1 of 2

SDG Number: 10-2140		Matrix: SOIL
Lab Sample ID: 1202068444		
Client Sample: QC for batch 962696	Client: LANL010	Project: QC
Client ID: LCS for batch 962696	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOA5.I	Dilution: 1
Run Date: 03/10/2010 19:59	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/10/2010 15:30	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031010V5\5B330LA.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		29.2	ug/kg	0.340	1.00
74-87-3	Chloromethane		39.1	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		42.1	ug/kg	0.300	1.00
74-83-9	Bromomethane		43.0	ug/kg	0.300	1.00
75-00-3	Chloroethane		42.2	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		44.5	ug/kg	0.300	1.00
67-64-1	Acetone		171	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		43.2	ug/kg	0.300	1.00
74-88-4	Iodomethane		213	ug/kg	1.60	5.00
75-09-2	Methylene chloride		43.9	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		222	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		44.7	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		45.3	ug/kg	0.300	1.00
78-93-3	2-Butanone		181	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		44.9	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		43.9	ug/kg	0.300	1.00
67-66-3	Chloroform		44.7	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		44.8	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		45.6	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		45.9	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		46.6	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		44.2	ug/kg	0.300	1.00
71-43-2	Benzene		43.5	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		44.4	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		44.4	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		46.5	ug/kg	0.300	1.00
74-95-3	Dibromomethane		45.9	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		207	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		44.9	ug/kg	0.300	1.00
108-88-3	Toluene		41.6	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		44.4	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		42.4	ug/kg	0.300	1.00
591-78-6	2-Hexanone		179	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		42.7	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		42.5	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		45.6	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		43.5	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		42.6	ug/kg	0.300	1.00

Volatile  
Certificate of Analysis  
Sample Summary

Page 4 of 4

SDG Number: 10-2140		Matrix: SOIL
Lab Sample ID: 1202068444		
Client Sample: QC for batch 962696	Client: LANL010	Project: QC
Client ID: LCS for batch 962696	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOA5.I	Dilution: 1
Run Date: 03/10/2010 19:59	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/10/2010 15:30	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031010V55B330LA.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		41.2	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		85.3	ug/kg	0.300	2.00
95-47-6	o-Xylene		42.2	ug/kg	0.300	1.00
100-42-5	Styrene		45.3	ug/kg	0.300	1.00
75-25-2	Bromoform		46.1	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		40.4	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		41.6	ug/kg	0.300	1.00
108-86-1	Bromobenzene		41.4	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		41.7	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		42.2	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		43.0	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		42.5	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		41.5	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		41.3	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		42.4	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		42.9	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		43.3	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		41.6	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		41.3	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		41.5	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		40.0	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		44.2	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		42.0	ug/kg	0.300	1.00

\*\*\*\*\*  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
Data File : 5B330LA.D  
Acq On : 10 Mar 2010 7:59 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202068444|962697|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[A] 0220-01E+0308-01  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 10 21:38:56 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	1483847	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1122837	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	573907	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.391	1.000	96	1483847	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1122837	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	573907	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	274198	38.18	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	76.36%			
43) Toluene-d8	9.721	9.721	0.872	98	1220735	42.51	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	85.02%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	654519	56.86	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	113.72%			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.668	4.668	0.557	85	101182	29.21	ug/L	98
3) Chloromethane	4.900	4.900	0.584	50	173368	39.13	ug/L	97
4) Vinyl chloride	5.041	5.041	0.601	62	153836	42.07	ug/L	99
5) Bromomethane	5.423	5.423	0.647	94	150059	42.97	ug/L	98
6) Chloroethane	5.504	5.504	0.656	64	156576	42.23	ug/L	100
7) Trichlorofluoromethane	5.695	5.695	0.679	101	283112	44.49	ug/L	100
8) Ethyl ether	5.867	5.866	0.699	59	239024	43.62	ug/L	100
9) Acetone	6.174	6.174	0.736	43	757051	170.75	ug/L	100
10) 1,1-Dichloroethylene	6.153	6.156	0.734	61	306316	43.20	ug/L	100
11) Iodomethane	6.358	6.357	0.758	142	1562083	213.31	ug/L	99
12) Acetonitrile	6.460	6.464	0.770	41	873174	1004.85	ug/L	98
13) Methyl acetate	6.361	6.365	0.758	43	990255	204.38	ug/L	99
14) Carbon disulfide	6.435	6.435	0.767	76	3159977	222.35	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	248859	43.91	ug/L	96
16) tert-Butyl methyl ether	6.637	6.640	0.791	73	613227	41.54	ug/L	100
17) trans-1,2-Dichloroethy...	6.715	6.715	0.801	61	344303	44.66	ug/L	99
18) Vinyl acetate	6.966	6.969	0.831	43	2822300	232.46	ug/L	98
19) 1,1-Dichloroethane	7.068	7.068	0.843	63	432363	45.28	ug/L	99
20) 2-Butanone	7.447	7.450	0.888	43	956443	181.06	ug/L	99
21) cis-1,2-Dichloroethylene	7.503	7.507	0.895	61	402731	44.91	ug/L	98
22) 2,2-Dichloropropane	7.511	7.514	0.895	77	310970	43.94	ug/L	97
23) Bromochloromethane	7.719	7.719	0.920	128	118746	44.82	ug/L	95
24) Chloroform	7.701	7.701	0.918	83	382053	44.67	ug/L	100
25) 1,1,1-Trichloroethane	7.903	7.906	0.942	97	321617	45.60	ug/L	99
26) Cyclohexane	7.924	7.924	0.945	56	460927	45.94	ug/L	98
27) 1,1-Dichloropropene	8.006	8.005	0.954	75	296687	45.86	ug/L	99
28) Carbon tetrachloride	8.020	8.020	0.956	117	282009	46.61	ug/L	100
30) 1,2-Dichloroethane	8.235	8.235	0.982	62	326770	44.22	ug/L	100
31) Benzene	8.204	8.203	0.978	78	934398	43.50	ug/L	98
32) Cyclohexene	8.246	8.246	0.983	67	433678	43.44	ug/L	100
33) n-Butyl alcohol	8.377	8.377	0.999	56	901626	4315.82	ug/L	99
34) Trichloroethylene	8.678	8.677	1.035	95	226307	44.36	ug/L	100
35) 1,2-Dichloropropane	8.932	8.932	1.065	63	269157	44.36	ug/L	99
36) Methylcyclohexane	8.826	8.826	1.052	83	411366	44.13	ug/L	99
37) Dibromomethane	9.063	9.059	1.081	93	141428	45.86	ug/L	99

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B330LA.D  
 Acq On : 10 Mar 2010 7:59 pm  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |1202068444|962697|1|VOA|1|VOA8260BS|  
 Misc : LCS 5G - SOIL MIX[A] 0220-01E+0308-01  
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 10 21:38:56 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	9.112	9.112	1.086	83	293205	46.52 ug/L	100
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	387460	199.89 ug/L	99
40) cis-1,3-Dichloropropylene	9.484	9.487	1.131	75	387511	44.91 ug/L	99
42) 4-Methyl-2-pentanone	9.530	9.526	0.855	58	556486	207.25 ug/L	98
44) Toluene	9.788	9.788	0.878	91	1002732	41.60 ug/L	100
45) trans-1,3-Dichloroprop...	9.968	9.968	0.895	75	364172	44.35 ug/L	99
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	172640	42.44 ug/L	99
47) 2-Hexanone	10.280	10.279	0.923	43	1308607	179.48 ug/L	99
48) 1,3-Dichloropropane	10.364	10.364	0.930	76	373143	42.69 ug/L	98
49) Tetrachloroethylene	10.294	10.290	0.924	164	187665	42.50 ug/L	99
50) Dibromochloromethane	10.587	10.583	0.950	129	220711	45.61 ug/L	100
51) 1,2-Dibromoethane	10.771	10.771	0.967	107	204794	43.45 ug/L	99
52) Chlorobenzene	11.174	11.174	1.003	112	666301	42.61 ug/L	99
53) 1,1,1,2-Tetrachloroethane	11.217	11.216	1.007	131	234232	44.22 ug/L	99
54) Ethylbenzene	11.178	11.181	1.003	91	1131745	41.15 ug/L	100
55) m,p-Xylenes	11.280	11.280	1.012	106	888687	85.30 ug/L	100
56) o-Xylene	11.701	11.701	1.050	106	444481	42.22 ug/L	99
57) Styrene	11.715	11.715	1.051	104	727969	45.27 ug/L	93
59) Bromoform	12.005	12.005	0.895	173	144056	46.10 ug/L	100
60) Isopropylbenzene	12.012	12.016	0.896	105	1132323	43.00 ug/L	100
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	275533	40.42 ug/L	100
63) 1,2,3-Trichloropropane	12.454	12.454	0.929	110	75771	41.64 ug/L #	84
64) Bromobenzene	12.461	12.465	0.929	156	274128	41.39 ug/L	98
65) n-Propylbenzene	12.415	12.415	0.926	91	1326719	41.73 ug/L	100
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	956618	42.54 ug/L	100
67) 2-Chlorotoluene	12.596	12.596	0.939	126	278381	42.17 ug/L #	81
68) 4-Chlorotoluene	12.698	12.698	0.947	91	839263	41.52 ug/L	100
69) tert-Butylbenzene	12.903	12.900	0.962	134	214004	41.34 ug/L	99
70) 1,2,4-Trimethylbenzene	12.957	12.956	0.966	105	971115	42.44 ug/L	99
71) sec-Butylbenzene	13.116	13.119	0.978	105	1248605	42.91 ug/L	100
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	1000703	43.27 ug/L	99
73) 1,3-Dichlorobenzene	13.349	13.349	0.995	146	523795	41.64 ug/L	100
74) 1,4-Dichlorobenzene	13.441	13.441	1.002	146	528434	41.33 ug/L	100
75) n-Butylbenzene	13.653	13.653	1.018	91	943032	41.52 ug/L	100
76) 1,2-Dichlorobenzene	13.858	13.858	1.033	146	507428	41.97 ug/L	100
77) 1,2-Dibromo-3-chloropr...	14.705	14.704	1.096	157	51948	40.04 ug/L	96
78) 1,2,4-Trichlorobenzene	15.620	15.619	1.165	180	347990	42.74 ug/L	100
79) Hexachlorobutadiene	15.686	15.686	1.169	225	214619	43.40 ug/L	100
80) Naphthalene	15.989	15.988	1.192	128	801862	43.36 ug/L	100
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	321964	45.31 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	6.633	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	7.072	7.192	0.843		0m	N.D. d	
94) Ethyl acetate	7.376	7.383	0.879		0m	N.D. d	

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B330LA.D  
 Acq On : 10 Mar 2010 7:59 pm  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |1202068444|962697|1|VOA|1|VOA8260BS|  
 Misc : LCS 5G - SOIL MIX[A] 0220-01E+0308-01  
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 10 21:38:56 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

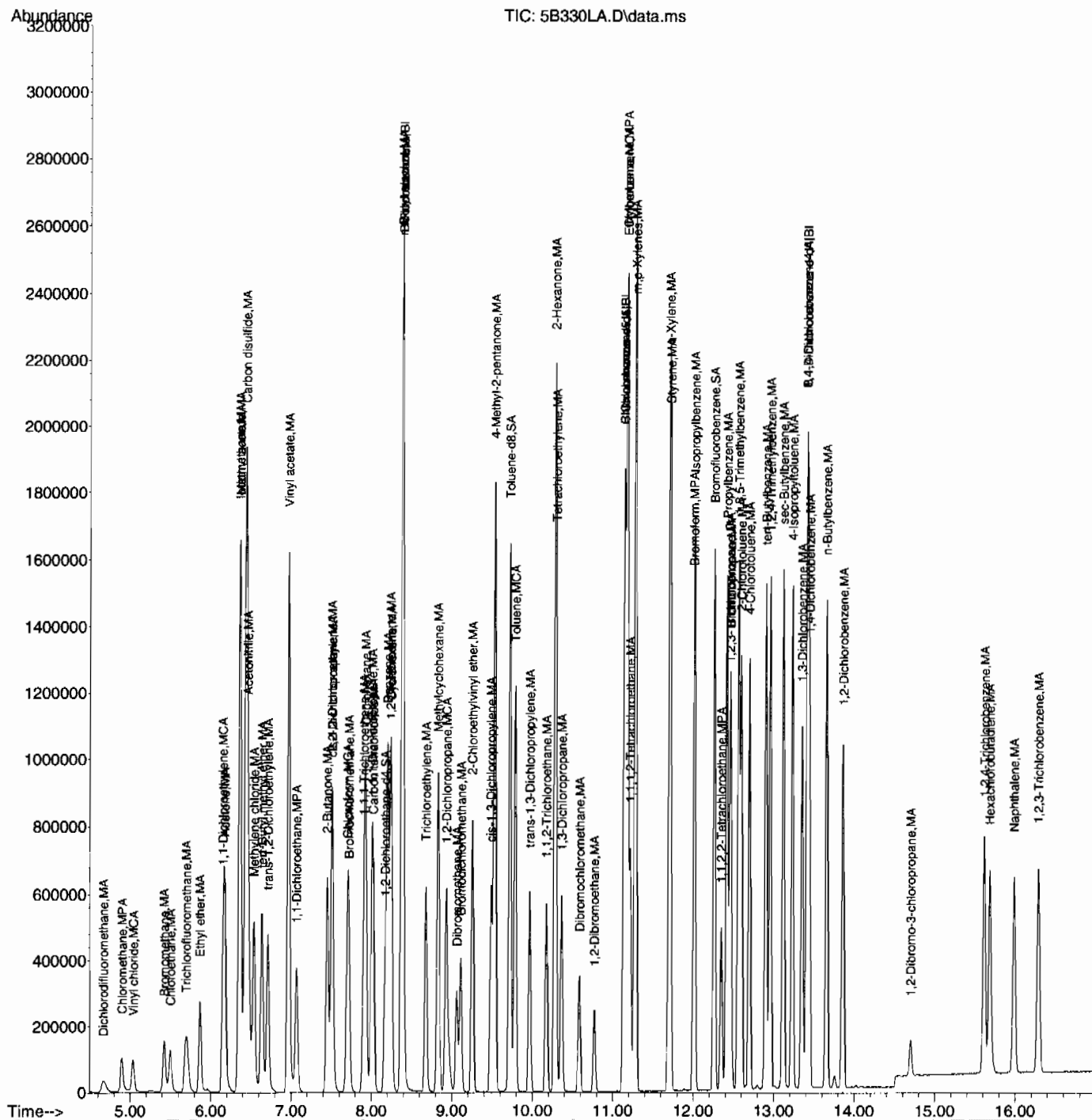
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	7.454	7.585	0.889		0m	N.D.	d
96) Methacrylonitrile	7.511	7.680	0.895		0m	N.D.	d
97) Tetrahydrofuran	7.701	7.716	0.918		0m	N.D.	d
98) Isobutyl alcohol	7.832	7.857	0.934		0m	N.D.	d
99) Methyl tert-amyl ether	8.122	8.122	0.968		0m	N.D.	d
100) Methyl methacrylate	8.826	8.801	1.052		0m	N.D.	d
101) 1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102) 2-Nitropropane	9.364	9.342	1.116		0m	N.D.	d
104) Ethyl methacrylate	9.852	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	12.362	12.267	0.922		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	12.419	12.412	0.926		0m	N.D.	d
110) Pentachloroethane	13.020	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

1. *Journal of the American Medical Association*, 2000; 284: 2689-2695.

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Data Path : C:\msdchem\1\DATA\031010V5\  
Data File : 5B330LA.D  
Acq On : 10 Mar 2010 7:59 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202068444|962697|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[A] 0220-01E+0308-01  
ALS Vial : 30 Sample Multiplier: 1
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Quant Time: Mar 10 21:38:56 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





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

Page 1 of 2

<b>SDG Number:</b> 10-2140		<b>Matrix:</b> SOIL
<b>Lab Sample ID:</b> 1202068445		
<b>Client Sample:</b> QC for batch 962696	<b>Client:</b> LANL010	<b>Project:</b> QC
<b>Client ID:</b> LCS for batch 962696	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 962697	<b>Inst:</b> VOA5.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/10/2010 20:25	<b>Analyst:</b> CDS1	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/10/2010 15:30	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 031010V55B331SLSA.D	<b>Column:</b> 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

Certificate of Analysis  
Sample Summary

Page 2 of 2

SDG Number: 10-2140		Matrix: SOIL
Lab Sample ID: 1202068445		
Client Sample: QC for batch 962696	Client: LANL010	Project: QC
Client ID: LCS for batch 962696	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOA5.1	Dilution: 1
Run Date: 03/10/2010 20:25	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/10/2010 15:30	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031010V55B331SLSA.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		302	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

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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
Data File : 5B331SLSA.D  
Acq On : 10 Mar 2010 8:25 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202068445|962697|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[B ]UVM100215-08B  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 11 07:16:44 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	1513110	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1129367	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	570266	50.00	ug/L	0.00
82) B Fluorobenzene	8.391	8.391	1.000	96	1513110	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1129367	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	570266	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	276575	37.77	ug/L	0.00
Spiked Amount	50.000	Range 66 - 134	Recovery	=	75.54%			
43) Toluene-d8	9.724	9.721	0.873	98	1228326	42.53	ug/L	0.00
Spiked Amount	50.000	Range 71 - 128	Recovery	=	85.06%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	647597	56.62	ug/L	0.00
Spiked Amount	50.000	Range 65 - 130	Recovery	=	113.24%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.890	4.900	0.583		0m	N.D.	d	
4) Vinyl chloride	5.031	5.041	0.600		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	6.071	5.866	0.724		0m	N.D.	d	
9) Acetone	6.174	6.174	0.736		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.071	6.156	0.724		0m	N.D.	d	
11) Iodomethane	0.000	6.357	0.000		0	N.D.		
12) Acetonitrile	6.425	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	6.534	6.538	0.779		0m	N.D.	d	
16) tert-Butyl methyl ether	6.640	6.640	0.791		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	7.097	6.969	0.846		0m	N.D.	d	
19) 1,1-Dichloroethane	7.104	7.068	0.847		0m	N.D.	d	
20) 2-Butanone	7.510	7.450	0.895		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	7.510	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	0.917		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	7.906	0.000		0	N.D.		
26) Cyclohexane	7.857	7.924	0.936		0m	N.D.	d	
27) 1,1-Dichloropropene	8.126	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	8.172	8.246	0.974		0m	N.D.	d	
33) n-Butyl alcohol	8.394	8.377	1.000		0m	N.D.	d	
34) Trichloroethylene	8.681	8.677	1.035		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	8.801	8.826	1.049		0m	N.D.	d	
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

\*-----\*  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
Data File : 5B331SLSA.D  
Acq On : 10 Mar 2010 8:25 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202068445|962697|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[B ]UVM100215-08B  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 11 07:16:44 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	9.484	9.487	1.130		0m	N.D. d	
42) 4-Methyl-2-pentanone	9.530	9.526	0.855		0m	N.D. d	
44) Toluene	9.791	9.788	0.879		0m	N.D. d	
45) trans-1,3-Dichloroprop...	9.972	9.968	0.895		0m	N.D. d	
46) 1,1,2-Trichloroethane	10.290	10.173	0.924		0m	N.D. d	
47) 2-Hexanone	10.279	10.279	0.923		0m	N.D. d	
48) 1,3-Dichloropropane	10.368	10.364	0.930		0m	N.D. d	
49) Tetrachloroethylene	10.293	10.290	0.924		0m	N.D. d	
50) Dibromochloromethane	0.000	10.583	0.000		0	N.D.	
51) 1,2-Dibromoethane	10.781	10.771	0.968		0m	N.D. d	
52) Chlorobenzene	11.174	11.174	1.003		0m	N.D. d	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.178	11.181	1.003		0m	N.D. d	
55) m,p-Xylenes	11.284	11.280	1.013		0m	N.D. d	
56) o-Xylene	11.694	11.701	1.050		0m	N.D. 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	12.352	12.348	0.921		0m	N.D. d	
63) 1,2,3-Trichloropropane	0.000	12.454	0.000		0	N.D.	
64) Bromobenzene	12.468	12.465	0.930		0m	N.D. d	
65) n-Propylbenzene	12.412	12.415	0.925		0m	N.D. d	
66) 1,3,5-Trimethylbenzene	12.564	12.564	0.937		0m	N.D. d	
67) 2-Chlorotoluene	12.603	12.596	0.940		0m	N.D. d	
68) 4-Chlorotoluene	12.698	12.698	0.947		0m	N.D. d	
69) tert-Butylbenzene	12.903	12.900	0.962		0m	N.D. d	
70) 1,2,4-Trimethylbenzene	12.960	12.956	0.966		0m	N.D. d	
71) sec-Butylbenzene	13.116	13.119	0.978		0m	N.D. d	
72) 4-Isopropyltoluene	13.229	13.229	0.986		0m	N.D. d	
73) 1,3-Dichlorobenzene	13.352	13.349	0.996		0m	N.D. d	
74) 1,4-Dichlorobenzene	13.437	13.441	1.002		0m	N.D. d	
75) n-Butylbenzene	13.653	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	15.605	15.619	1.163		0m	N.D. d	
79) Hexachlorobutadiene	15.678	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	220366	253.41 ug/L	97
86) Trichlorotrifluoroethane	6.071	6.071	0.724	85	409033	301.50 ug/L	98
87) Isopropyl Alcohol	0.000	6.163	0.000		0m	N.D. d	
88) Allyl chloride	6.425	6.425	0.766	41	2168065	217.71 ug/L	93
89) tert-Butyl Alcohol	0.000	6.460	0.000		0m	N.D. d	
90) Acrylonitrile	6.743	6.747	0.804	53	520967	237.93 ug/L	99
91) Isopropyl ether	0.000	6.920	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	7.107	7.104	0.847	53	396608	61.72 ug/L	100
93) Ethyl tert-butyl ether	7.376	7.192	0.879	59	1108	N.D.	
94) Ethyl acetate	7.383	7.383	0.880	43	1311920	221.23 ug/L	99

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B331SLSA.D  
 Acq On : 10 Mar 2010 8:25 pm  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |1202068445|962697|1|VOA|1|VOA8260BS|  
 Misc : LCS 5G - SOIL MIX[B ]UVM100215-08B  
 ALS Vial : 31 Sample Multiplier: 1

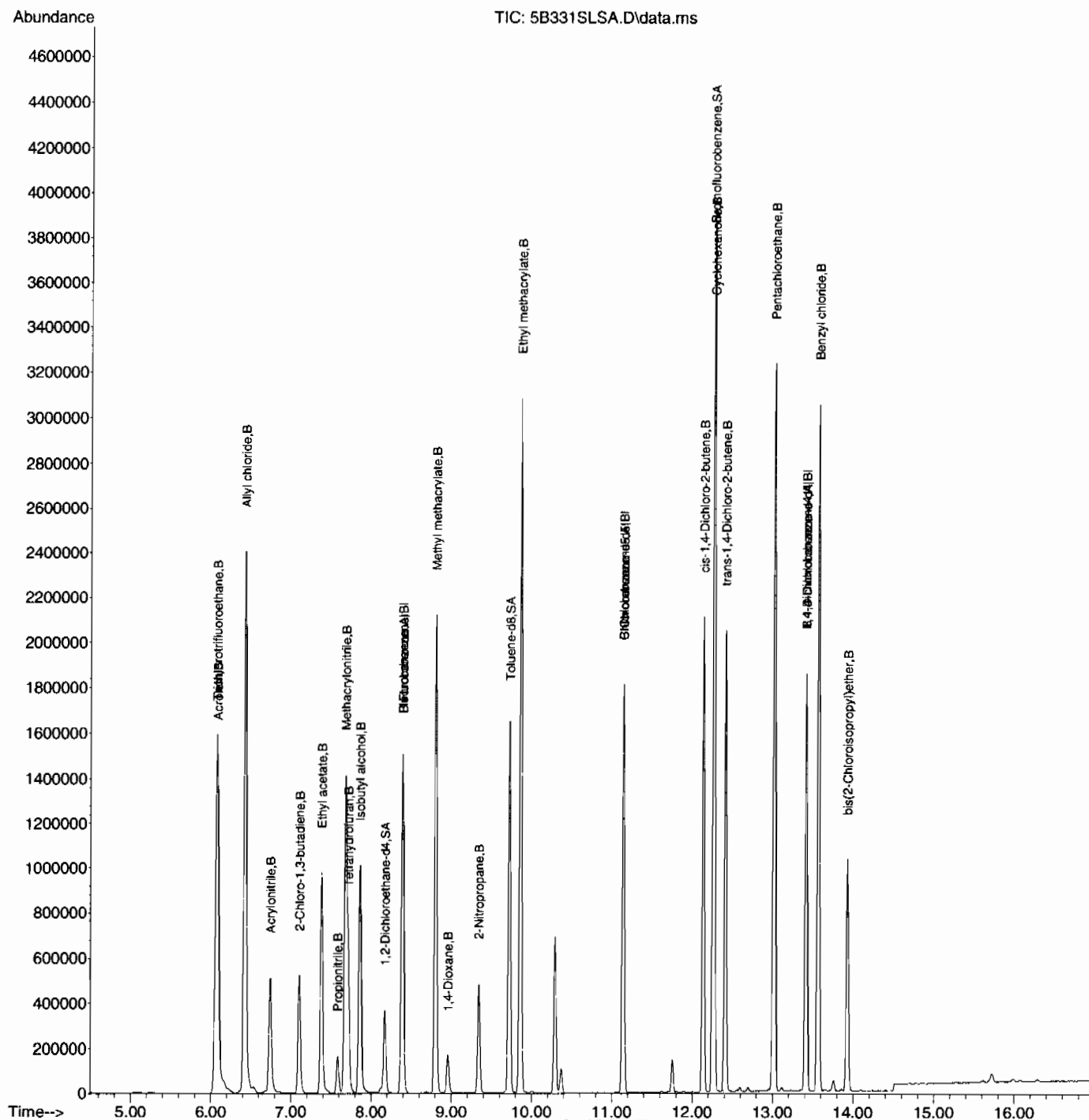
Quant Time: Mar 11 07:16:44 2010  
 Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
 Quant Title : Volatile Organics 8260B SubList :  
 QLast Update : Tue Mar 09 07:08:19 2010  
 Response via : Initial Calibration  
 Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95) Propionitrile	7.585	7.585	0.904	54	201436	239.01	ug/L	100
96) Methacrylonitrile	7.680	7.680	0.915	41	1089433	235.22	ug/L	100
97) Tetrahydrofuran	7.712	7.716	0.919	42	486673	232.51	ug/L	99
98) Isobutyl alcohol	7.857	7.857	0.936	41	511513	2319.82	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	853082	244.11	ug/L	98
101) 1,4-Dioxane	8.960	8.957	1.068	88	135501	2172.71	ug/L	100
102) 2-Nitropropane	9.342	9.342	1.113	43	409817	231.55	ug/L	100
104) Ethyl methacrylate	9.859	9.859	0.885	69	1671912	250.80	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	561464	263.30	ug/L	99
108) Cyclohexanone	12.267	12.267	0.915	42	818414	4668.82	ug/L	98 E
109) trans-1,4-Dichloro-2-b...	12.408	12.412	0.925	53	520799	259.27	ug/L	99
110) Pentachloroethane	13.016	13.017	0.970	167	762750	274.19	ug/L	100
111) Benzyl chloride	13.565	13.565	1.011	91	2582465	252.89	ug/L	100
112) bis(2-Chloroisopropyl)...	13.925	13.929	1.038	45	827293	220.19	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\031010V5\  
 Data File : 5B331SLSA.D  
 Acq On : 10 Mar 2010 8:25 pm  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |1202068445|962697|1|VOA|1|VOA8260BS|  
 Misc : LCS 5G - SOIL MIX[B ]UVM100215-08B  
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 11 07:16:44 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: 10-2140		Matrix: SOIL
Lab Sample ID: 1202076188		
Client Sample: QC for batch 962696	Client: LANL010	Project: QC
Client ID: LCS for batch 962696	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOAS.I	Dilution: 1
Run Date: 03/11/2010 08:01	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/11/2010 06:00	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031110V5\5B404LS1.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		58.5	ug/kg	0.340	1.00
74-87-3	Chloromethane		54.5	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		58.2	ug/kg	0.300	1.00
74-83-9	Bromomethane		54.6	ug/kg	0.300	1.00
75-00-3	Chloroethane		54.1	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		58.7	ug/kg	0.300	1.00
67-64-1	Acetone		232	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		54.6	ug/kg	0.300	1.00
74-88-4	Iodomethane		261	ug/kg	1.60	5.00
75-09-2	Methylene chloride		51.9	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		282	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		55.0	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		54.7	ug/kg	0.300	1.00
78-93-3	2-Butanone		240	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		56.1	ug/kg	0.300	1.00
67-66-3	Chloroform		53.2	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		53.4	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		56.3	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		56.2	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		57.7	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		52.1	ug/kg	0.300	1.00
71-43-2	Benzene		51.7	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		53.7	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		52.4	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		55.5	ug/kg	0.300	1.00
74-95-3	Dibromomethane		53.8	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		256	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		53.4	ug/kg	0.300	1.00
108-88-3	Toluene		49.6	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		51.9	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		49.4	ug/kg	0.300	1.00
591-78-6	2-Hexanone		235	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		49.7	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		51.6	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		53.7	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		50.4	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		49.9	ug/kg	0.300	1.00

Volatile  
Certificate of Analysis  
Sample Summary

Page 4 of 4

SDG Number: 10-2140  
Lab Sample ID: 1202076188  
Client Sample: QC for batch 962696  
Client ID: LCS for batch 962696  
Batch ID: 962697  
Run Date: 03/11/2010 08:01  
Prep Date: 03/11/2010 06:00  
Data File: 031110V55B404LS1.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
100-41-4	Ethylbenzene		48.6	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		102	ug/kg	0.300	2.00
95-47-6	o-Xylene		50.4	ug/kg	0.300	1.00
100-42-5	Styrene		53.2	ug/kg	0.300	1.00
75-25-2	Bromoform		54.4	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		47.7	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		48.8	ug/kg	0.300	1.00
108-86-1	Bromobenzene		48.0	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		49.7	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		49.2	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		50.5	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		50.0	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		48.3	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		48.9	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		49.8	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		50.8	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		51.1	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		48.7	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		48.5	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		50.0	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		47.6	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane <i>Trichlorotrifluoroethane</i>	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		51.9	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		48.7	ug/kg	0.300	1.00



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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B404LS1.D  
Acq On : 11 Mar 2010 8:01 am  
Operator : CDS1  
InstName : VOA5  
Sample : |1202076188|962697|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[A] 0305-01A+0310-01  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 11 08:29:37 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	1393474	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1064611	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	553083	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1393474	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1064611	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	553083	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	250550	37.15	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	=	74.30%		
43) Toluene-d8	9.721	9.721	0.872	98	1117775	41.05	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	=	82.10%		
61) Bromofluorobenzene	12.260	12.260	0.914	95	639510	57.65	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	=	115.30%		
Target Compounds								
	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.668	4.668	0.557	85	190296	58.49	ug/L	97
3) Chloromethane	4.900	4.900	0.584	50	225677	54.50	ug/L	98
4) Vinyl chloride	5.041	5.041	0.601	62	199981	58.24	ug/L	99
5) Bromomethane	5.423	5.423	0.647	94	179015	54.59	ug/L	98
6) Chloroethane	5.504	5.504	0.656	64	188292	54.07	ug/L	100
7) Trichlorofluoromethane	5.695	5.695	0.679	101	350523	58.65	ug/L	100
8) Ethyl ether	5.866	5.866	0.699	59	268662	52.21	ug/L	95
9) Acetone	6.174	6.174	0.736	43	967895	232.46	ug/L	100
10) 1,1-Dichloroethylene	6.152	6.156	0.734	61	363711	54.62	ug/L	99
11) Iodomethane	6.357	6.357	0.758	142	1793802	260.84	ug/L	99
12) Acetonitrile	6.460	6.464	0.770	41	987210	1209.77	ug/L	98
13) Methyl acetate	6.361	6.365	0.758	43	1101573	242.10	ug/L	100
14) Carbon disulfide	6.435	6.435	0.767	76	3757922	281.58	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	275595	51.89	ug/L	95
16) tert-Butyl methyl ether	6.637	6.640	0.791	73	696732	50.25	ug/L	100
17) trans-1,2-Dichloroethy...	6.715	6.715	0.801	61	398279	55.01	ug/L	98
18) Vinyl acetate	6.969	6.969	0.831	43	3417387	299.73	ug/L	99
19) 1,1-Dichloroethane	7.068	7.068	0.843	63	490347	54.69	ug/L	99
20) 2-Butanone	7.450	7.450	0.888	43	1190548	239.99	ug/L	99
21) cis-1,2-Dichloroethylene	7.503	7.507	0.895	61	450813	53.53	ug/L	98
22) 2,2-Dichloropropane	7.510	7.514	0.895	77	372785	56.10	ug/L	98
23) Bromochloromethane	7.719	7.719	0.920	128	132745	53.35	ug/L	96
24) Chloroform	7.698	7.701	0.918	83	427198	53.19	ug/L	100
25) 1,1,1-Trichloroethane	7.903	7.906	0.942	97	373048	56.32	ug/L	100
26) Cyclohexane	7.924	7.924	0.945	56	539360	57.24	ug/L	99
27) 1,1-Dichloropropene	8.002	8.005	0.954	75	341172	56.16	ug/L	99
28) Carbon tetrachloride	8.023	8.020	0.957	117	327561	57.65	ug/L	99
30) 1,2-Dichloroethane	8.235	8.235	0.982	62	361529	52.09	ug/L	99
31) Benzene	8.200	8.203	0.978	78	1043662	51.74	ug/L	96
32) Cyclohexene	8.246	8.246	0.983	67	507223	54.10	ug/L	99
33) n-Butyl alcohol	8.377	8.377	0.999	56	1024845	5232.66	ug/L	100
34) Trichloroethylene	8.677	8.677	1.035	95	257099	53.67	ug/L	100
35) 1,2-Dichloropropane	8.932	8.932	1.065	63	298548	52.40	ug/L	100
36) Methylcyclohexane	8.829	8.826	1.053	83	483678	55.25	ug/L	99
37) Dibromomethane	9.059	9.059	1.080	93	155659	53.75	ug/L	99

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
 Data File : 5B404LS1.D  
 Acq On : 11 Mar 2010 8:01 am  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |1202076188|962697|1|VOA|1|VOA8260BS|  
 Misc : LCS 5G - SOIL MIX[A] 0305-01A+0310-01  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 11 08:29:37 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	328621	55.52	ug/L	99
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	410578	225.55	ug/L	99
40) cis-1,3-Dichloropropylene	9.487	9.487	1.131	75	432801	53.41	ug/L	97
42) 4-Methyl-2-pentanone	9.526	9.526	0.855	58	650794	255.63	ug/L	98
44) Toluene	9.788	9.788	0.878	91	1133278	49.58	ug/L	100
45) trans-1,3-Dichloroprop...	9.968	9.968	0.895	75	403747	51.86	ug/L	99
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	190412	49.37	ug/L	99
47) 2-Hexanone	10.279	10.279	0.923	43	1621063	234.50	ug/L	100
48) 1,3-Dichloropropane	10.364	10.364	0.930	76	411792	49.69	ug/L	98
49) Tetrachloroethylene	10.293	10.290	0.924	164	216159	51.63	ug/L	99
50) Dibromochloromethane	10.587	10.583	0.950	129	246203	53.66	ug/L	99
51) 1,2-Dibromoethane	10.771	10.771	0.967	107	225419	50.44	ug/L	99
52) Chlorobenzene	11.174	11.174	1.003	112	740375	49.94	ug/L	99
53) 1,1,1,2-Tetrachloroethane	11.216	11.216	1.007	131	260574	51.88	ug/L	100
54) Ethylbenzene	11.178	11.181	1.003	91	1266225	48.56	ug/L	100
55) m,p-Xylenes	11.280	11.280	1.012	106	1008223	102.07	ug/L	99
56) o-Xylene	11.697	11.701	1.050	106	502903	50.39	ug/L	99
57) Styrene	11.712	11.715	1.051	104	811763	53.24	ug/L	93
59) Bromoform	12.005	12.005	0.895	173	163765	54.39	ug/L	99
60) Isopropylbenzene	12.012	12.016	0.896	105	1281854	50.51	ug/L	99
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	313058	47.66	ug/L	100
63) 1,2,3-Trichloropropane	12.451	12.454	0.928	110	85587	48.80	ug/L #	90
64) Bromobenzene	12.461	12.465	0.929	156	306243	47.98	ug/L	99
65) n-Propylbenzene	12.415	12.415	0.926	91	1522034	49.68	ug/L	99
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	1083770	50.01	ug/L	100
67) 2-Chlorotoluene	12.596	12.596	0.939	126	313234	49.24	ug/L #	80
68) 4-Chlorotoluene	12.698	12.698	0.947	91	940301	48.27	ug/L	100
69) tert-Butylbenzene	12.900	12.900	0.962	134	243826	48.87	ug/L	99
70) 1,2,4-Trimethylbenzene	12.956	12.956	0.966	105	1097407	49.77	ug/L	100
71) sec-Butylbenzene	13.115	13.119	0.978	105	1424819	50.81	ug/L	99
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	1138818	51.09	ug/L	99
73) 1,3-Dichlorobenzene	13.349	13.349	0.995	146	590201	48.69	ug/L	100
74) 1,4-Dichlorobenzene	13.441	13.441	1.002	146	597250	48.47	ug/L	100
75) n-Butylbenzene	13.653	13.653	1.018	91	1094849	50.02	ug/L	99
76) 1,2-Dichlorobenzene	13.855	13.858	1.033	146	566891	48.65	ug/L	100
77) 1,2-Dibromo-3-chloropr...	14.704	14.704	1.096	157	59452	47.55	ug/L	99
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164	180	399320	50.89	ug/L	99
79) Hexachlorobutadiene	15.686	15.686	1.169	225	246575	51.73	ug/L	99
80) Naphthalene	15.988	15.988	1.192	128	897785	50.37	ug/L	100
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	362064	52.87	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	6.644	6.747	0.792		0m	N.D.	d	
91) Isopropyl ether	6.909	6.920	0.824		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	7.036	7.104	0.839		0m	N.D.	d	
93) Ethyl tert-butyl ether	7.181	7.192	0.856		0m	N.D.	d	
94) Ethyl acetate	7.387	7.383	0.881		0m	N.D.	d	

\*\*\*\*\*  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B404LS1.D  
Acq On : 11 Mar 2010 8:01 am  
Operator : CDS1  
InstName : VOA5  
Sample : |1202076188|962697|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[A] 0305-01A+0310-01  
ALS Vial : 4 Sample Multiplier: 1

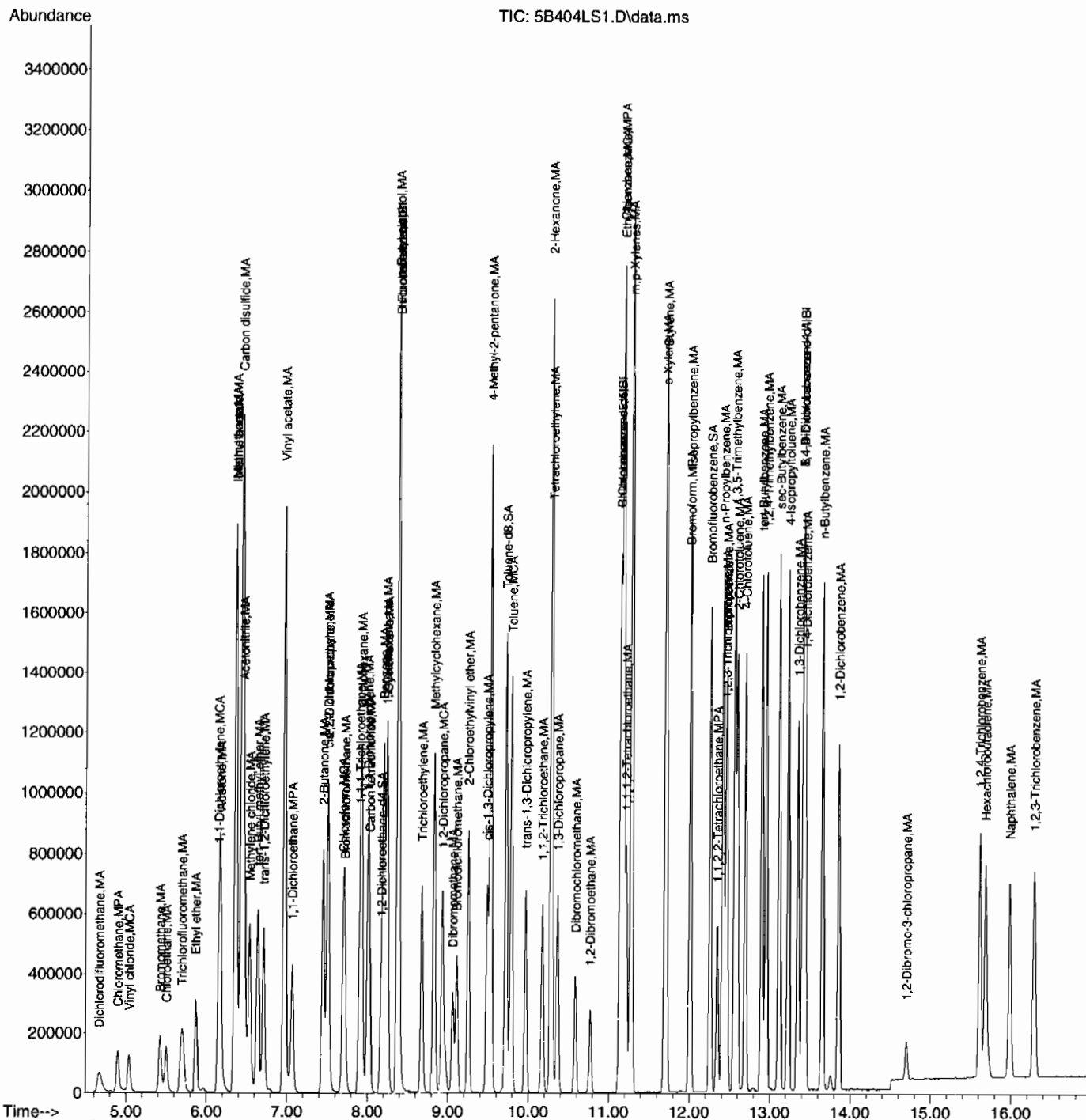
Quant Time: Mar 11 08:29:37 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	7.669	7.585	0.914		0m	N.D.	d
96) Methacrylonitrile	7.669	7.680	0.914		0m	N.D.	d
97) Tetrahydrofuran	7.712	7.716	0.919		0m	N.D.	d
98) Isobutyl alcohol	7.800	7.857	0.930		0m	N.D.	d
99) Methyl tert-amyl ether	8.126	8.122	0.969		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	9.370	9.342	1.117		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	12.012	12.136	0.896		0m	N.D.	d
108) Cyclohexanone	12.359	12.267	0.921		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	12.408	12.412	0.925		0m	N.D.	d
110) Pentachloroethane	13.016	13.017	0.970		0m	N.D.	d
111) Benzyl chloride	13.568	13.565	1.012		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	13.897	13.929	1.036		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 : 5B404LS1.D  
Acq On : 11 Mar 2010 8:01 am  
Operator : CDS1  
InstName : VOA5  
Sample : |1202076188|962697|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[A] 0305-01A+0310-01  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 11 08:29:37 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: 10-2140

Lab Sample ID: 1202076189

Client Sample: QC for batch 962696

Client ID: LCS for batch 962696

Batch ID: 962697

Run Date: 03/11/2010 08:27

Prep Date: 03/11/2010 06:00

Data File: 031110V55B405SLS1.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
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

Page 2 of 2

SDG Number: 10-2140		Matrix: SOIL
Lab Sample ID: 1202076189		
Client Sample: QC for batch 962696	Client: LANL010	Project: QC
Client ID: LCS for batch 962696	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 962697	Inst: VOA5.I	Dilution: 1
Run Date: 03/11/2010 08:27	Analyst: CDS1	Purge Vol: 5 mL
Prep Date: 03/11/2010 06:00	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031110V5\SB405SLS1.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		336	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

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
 Data File : 5B405SLS1.D  
 Acq On : 11 Mar 2010 8:27 am  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |1202076189|962697|1|VOA|1|VOA8260BS|  
 Misc : LCS 5G - SOIL MIX[B ]UVM100215-08B  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 11 17:15:12 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	8.388	8.387	1.000	96	1397071	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1054675	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	537423	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.391	1.000	96	1397071	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1054675	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	537423	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	249884	36.96	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 73.92%			
43) Toluene-d8	9.721	9.721	0.872	98	1118838	41.48	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 82.96%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	621626	57.67	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 115.34%			
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.890	4.900	0.583		0m	N.D.	d	
4) Vinyl chloride	5.031	5.041	0.600		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	5.867	5.866	0.699		0m	N.D.	d	
9) Acetone	6.170	6.174	0.736		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.064	6.156	0.723		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	6.421	6.435	0.766		0m	N.D.	d	
15) Methylene chloride	6.542	6.538	0.780		0m	N.D.	d	
16) tert-Butyl methyl ether	6.634	6.640	0.791		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	6.715	0.000		0	N.D.		
18) Vinyl acetate	6.973	6.969	0.831		0m	N.D.	d	
19) 1,1-Dichloroethane	7.104	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	7.380	7.507	0.880		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	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	7.854	7.924	0.936		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	8.193	8.203	0.977		0m	N.D.	d	
32) Cyclohexene	8.250	8.246	0.984		0m	N.D.	d	
33) n-Butyl alcohol	8.384	8.377	1.000		0m	N.D.	d	
34) Trichloroethylene	8.692	8.677	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	8.932	0.000		0	N.D.		
36) Methylcyclohexane	8.798	8.826	1.049		0m	N.D.	d	
37) Dibromomethane	0.000	9.059	0.000		0	N.D.		

\*\*\*\*\*  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B405SLS1.D  
Acq On : 11 Mar 2010 8:27 am  
Operator : CDS1  
InstName : VOA5  
Sample : |1202076189|962697|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[B ]UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 11 17:15:12 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	9.480	9.487	1.130		0m	N.D. d	
42) 4-Methyl-2-pentanone	9.519	9.526	0.854		0m	N.D. d	
44) Toluene	9.792	9.788	0.879		0m	N.D. d	
45) trans-1,3-Dichloroprop...	9.972	9.968	0.895		0m	N.D. d	
46) 1,1,2-Trichloroethane	10.287	10.173	0.923		0m	N.D. d	
47) 2-Hexanone	10.276	10.279	0.922		0m	N.D. d	
48) 1,3-Dichloropropane	10.368	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	10.764	10.771	0.966		0m	N.D. d	
52) Chlorobenzene	11.174	11.174	1.003		0m	N.D. d	
53) 1,1,1,2-Tetrachloroethane	0.000	11.216	0.000		0	N.D.	
54) Ethylbenzene	11.178	11.181	1.003		0m	N.D. d	
55) m,p-Xylenes	11.280	11.280	1.012		0m	N.D. d	
56) o-Xylene	11.701	11.701	1.050		0m	N.D. d	
57) Styrene	11.715	11.715	1.051		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	12.408	12.348	0.925		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	12.408	12.415	0.925		0m	N.D. d	
66) 1,3,5-Trimethylbenzene	12.561	12.564	0.936		0m	N.D. d	
67) 2-Chlorotoluene	12.596	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	13.356	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	13.653	13.653	1.018		0m	N.D. d	
76) 1,2-Dichlorobenzene	13.858	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	209673	260.66 ug/L	99
86) Trichlorotrifluoroethane	6.071	6.071	0.724	85	420908	336.02 ug/L	100
87) Isopropyl Alcohol	0.000	6.163	0.000		0m	N.D. d	
88) Allyl chloride	6.421	6.425	0.766	41	2064299	224.51 ug/L	93
89) tert-Butyl Alcohol	6.421	6.460	0.766	59	764	N.D.	
90) Acrylonitrile	6.743	6.747	0.804	53	494368	244.54 ug/L	100
91) Isopropyl ether	0.000	6.920	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	7.104	7.104	0.847	53	385462	64.96 ug/L	100
93) Ethyl tert-butyl ether	7.369	7.192	0.879	59	107	N.D.	
94) Ethyl acetate	7.380	7.383	0.880	43	1250386	228.37 ug/L	99



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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031110V5\  
Data File : 5B405SLS1.D  
Acq On : 11 Mar 2010 8:27 am  
Operator : CDS1  
InstName : VOA5  
Sample : |1202076189|962697|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[B ]UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

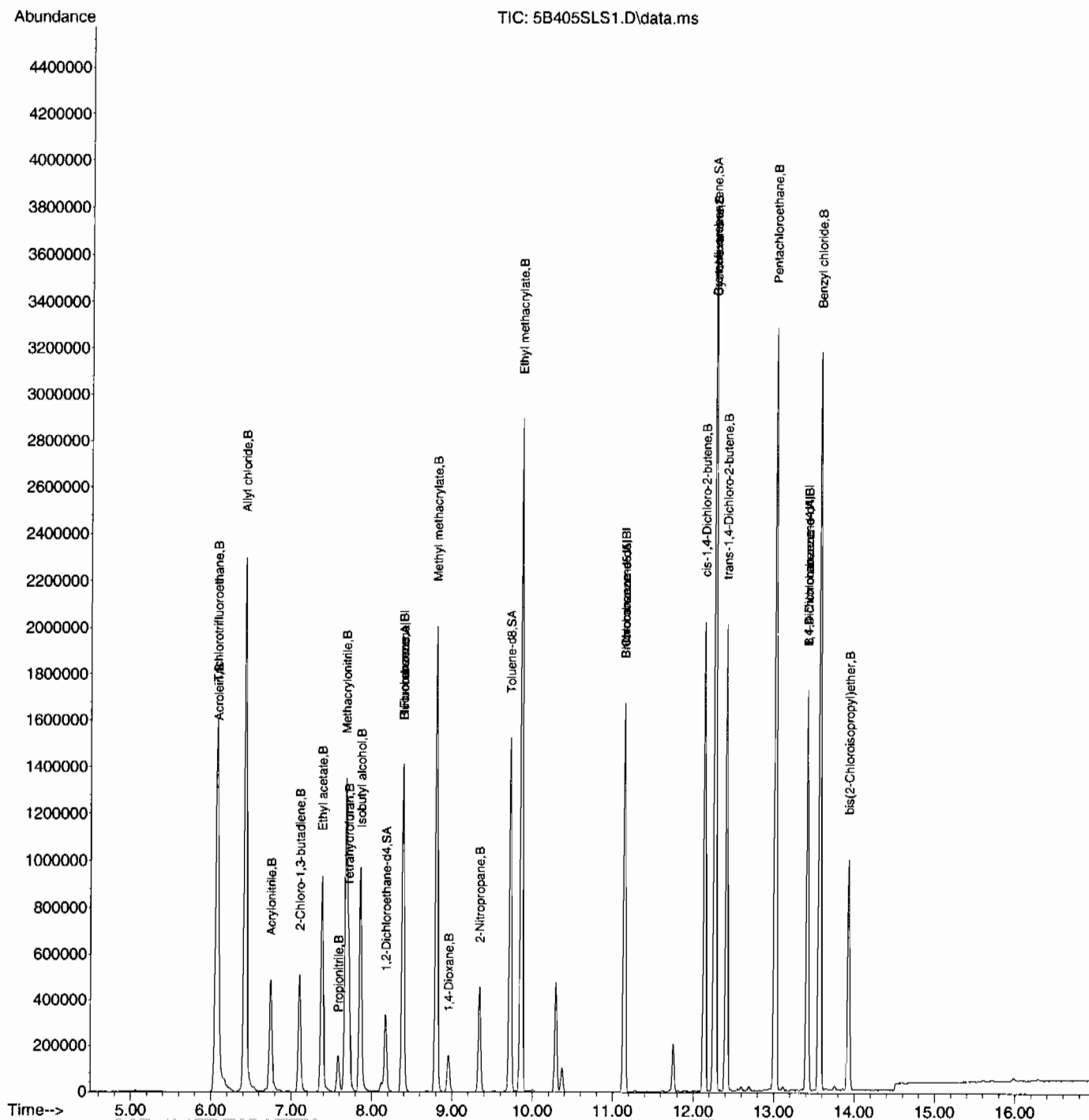
Quant Time: Mar 11 17:15:12 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95) Propionitrile	7.585	7.585	0.904	54	192800	247.77	ug/L	99
96) Methacrylonitrile	7.677	7.680	0.915	41	1037180	242.54	ug/L	100
97) Tetrahydrofuran	7.709	7.716	0.919	42	466766	241.52	ug/L	99
98) Isobutyl alcohol	7.861	7.857	0.937	41	483945	2377.09	ug/L	98
99) Methyl tert-amyl ether	0.000	8.122	0.000		0	N.D.		
100) Methyl methacrylate	8.801	8.801	1.049	69	799913	247.91	ug/L	97
101) 1,4-Dioxane	8.957	8.957	1.068	88	126561	2197.92	ug/L	99
102) 2-Nitropropane	9.342	9.342	1.114	43	394732	241.26	ug/L	99
104) Ethyl methacrylate	9.859	9.859	0.885	69	1570077	252.20	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	542526	269.96	ug/L	100
108) Cyclohexanone	12.267	12.267	0.915	42	802097	4855.37	ug/L	97 E
109) trans-1,4-Dichloro-2-b...	12.408	12.412	0.925	53	508969	268.86	ug/L	98
110) Pentachloroethane	13.013	13.017	0.970	167	771770	294.39	ug/L	99
111) Benzyl chloride	13.565	13.565	1.011	91	2725462	283.21	ug/L	100
112) bis(2-Chloroisopropyl)...	13.926	13.929	1.038	45	793167	224.01	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 : 5B405SLS1.D  
Acq On : 11 Mar 2010 8:27 am  
Operator : CDS1  
InstName : VOA5  
Sample : |1202076189|962697|1|VOA|1|VOA8260BS|  
Misc : LCS 5G - SOIL MIX[B ]UVM100215-08B  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 11 17:15:12 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

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

**Batch ID:** 962696      Verified by: \_\_\_\_\_      Type: \_\_\_\_\_      Sample Id: \_\_\_\_\_      Description: \_\_\_\_\_      Serial Number: \_\_\_\_\_      Spike Amount: Spike Units  
**Analyst:** Crystal Stacey  
**Method:** SW846 5030  
**Lab SOP:** GL-OA-E-038 REV# 14  
**Instrument:** Sartorius Balance B-001

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202065319 MB	10-MAR-2010 06:00:00	Soil	5	5	1	
1202065322 LCS	10-MAR-2010 06:00:00	Soil	5	5	1	
1202065323 LCS	10-MAR-2010 06:00:00	Soil	5	5	1	
248377001	10-MAR-2010 08:30:00	Misc Solid	5	5	1	
248377002	10-MAR-2010 08:31:00	Soil	5	5	1	
248377003	10-MAR-2010 08:32:00	Soil	5	5	1	
248377004	10-MAR-2010 08:33:00	Soil	5	5	1	
248377005	10-MAR-2010 08:34:00	Soil	5	5	1	
248377006	10-MAR-2010 08:35:00	Soil	5	5	1	
248377007	10-MAR-2010 08:36:00	Soil	5	5	1	
1202065320 PS (248377004)	10-MAR-2010 08:37:00	Soil	5	5	1	
1202065321 PSD (248377004)	10-MAR-2010 08:38:00	Soil	5	5	1	
248249001	10-MAR-2010 08:39:00	Soil	5	5	1	
248249005	10-MAR-2010 08:43:00	Misc Solid	5	5	1	
1202068443 MB	10-MAR-2010 15:30:00	Soil	5	5	1	
1202068444 LCS	10-MAR-2010 15:30:00	Soil	5	5	1	
1202068445 LCS	10-MAR-2010 15:30:00	Soil	5	5	1	
1202076187 MB	11-MAR-2010 06:00:00	Soil	5	5	1	
1202076188 LCS	11-MAR-2010 06:00:00	Soil	5	5	1	
1202076189 LCS	11-MAR-2010 06:00:00	Soil	5	5	1	
248249002	11-MAR-2010 08:46:00	Soil	5	5	1	
248249003	11-MAR-2010 08:47:00	Soil	5	5	1	
248249004	11-MAR-2010 08:48:00	Soil	5	5	1	

Comments:

Amount

Reagent/Solvent Lot ID Description

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
Data File : 5B339.D  
Acq On : 10 Mar 2010 11:57 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |1202065320|962697|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL MS 248377004 MIX[A]  
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 11 07:07:12 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	1488888	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1076412	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	486001	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.391	1.000	96	1488888	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1076412	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	486001	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	262144	36.38	ug/L	0.00
Spiked Amount	50.000	Range 66 - 134	Recovery	=	72.76%			
43) Toluene-d8	9.721	9.721	0.872	98	1166909	42.39	ug/L	0.00
Spiked Amount	50.000	Range 71 - 128	Recovery	=	84.78%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	593131	60.84	ug/L	0.00
Spiked Amount	50.000	Range 65 - 130	Recovery	=	121.68%			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.668	4.668	0.557	85	90775	26.11	ug/L	96
3) Chloromethane	4.900	4.900	0.584	50	165255	37.14	ug/L	97
4) Vinyl chloride	5.041	5.041	0.601	62	148111	40.37	ug/L	99
5) Bromomethane	5.423	5.423	0.647	94	134811	38.47	ug/L	100
6) Chloroethane	5.504	5.504	0.656	64	151224	40.65	ug/L	100
7) Trichlorofluoromethane	5.695	5.695	0.679	101	261342	40.93	ug/L	99
8) Ethyl ether	5.867	5.866	0.699	59	230174	41.86	ug/L	100
9) Acetone	6.170	6.174	0.736	43	410644	92.31	ug/L	99
10) 1,1-Dichloroethylene	6.153	6.156	0.734	61	287458	40.40	ug/L	100
11) Iodomethane	6.358	6.357	0.758	142	1341813	182.61	ug/L	99
12) Acetonitrile	6.464	6.464	0.771	41	836531	959.42	ug/L	98
13) Methyl acetate	6.365	6.365	0.759	43	902359	185.61	ug/L	99
14) Carbon disulfide	6.435	6.435	0.767	76	2794644	195.98	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	235894	41.45	ug/L	95
16) tert-Butyl methyl ether	6.637	6.640	0.791	73	583031	39.36	ug/L	100
17) trans-1,2-Dichloroethy...	6.711	6.715	0.800	61	321319	41.53	ug/L	99
18) Vinyl acetate	6.969	6.969	0.831	43	13524	N.D.		
19) 1,1-Dichloroethane	7.068	7.068	0.843	63	418482	43.68	ug/L	100
20) 2-Butanone	7.450	7.450	0.888	43	415149	78.32	ug/L	99
21) cis-1,2-Dichloroethylene	7.507	7.507	0.895	61	381696	42.42	ug/L	98
22) 2,2-Dichloropropane	7.514	7.514	0.896	77	286740	40.38	ug/L	97
23) Bromochloromethane	7.723	7.719	0.921	128	114383	43.03	ug/L	97
24) Chloroform	7.698	7.701	0.918	83	366928	42.76	ug/L	100
25) 1,1,1-Trichloroethane	7.903	7.906	0.942	97	305019	43.10	ug/L	99
26) Cyclohexane	7.921	7.924	0.944	56	415937	41.32	ug/L	99
27) 1,1-Dichloropropene	8.006	8.005	0.954	75	270094	41.61	ug/L	98
28) Carbon tetrachloride	8.020	8.020	0.956	117	263296	43.37	ug/L	100
30) 1,2-Dichloroethane	8.232	8.235	0.981	62	310248	41.84	ug/L	100
31) Benzene	8.204	8.203	0.978	78	881691	40.91	ug/L	98
32) Cyclohexene	8.246	8.246	0.983	67	403977	40.33	ug/L	99
33) n-Butyl alcohol	8.377	8.377	0.999	56	369400	1737.28	ug/L	98
34) Trichloroethylene	8.674	8.677	1.034	95	203151	39.69	ug/L	99
35) 1,2-Dichloropropane	8.929	8.932	1.065	63	257066	42.23	ug/L	99
36) Methylcyclohexane	8.830	8.826	1.053	83	356155	38.08	ug/L	99
37) Dibromomethane	9.059	9.059	1.080	93	132861	42.94	ug/L	98

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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B339.D  
 Acq On : 10 Mar 2010 11:57 pm  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |1202065320|962697|1|VOA|1|VOA8260BS|  
 Misc : LANL 5G - SOIL MS 248377004 MIX[A]  
 ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 11 07:07:12 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	273714	43.28	ug/L	99
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	335062	172.27	ug/L	99
40) cis-1,3-Dichloropropylene	9.484	9.487	1.131	75	305152	35.24	ug/L	98
42) 4-Methyl-2-pentanone	9.530	9.526	0.855	58	458008	177.93	ug/L	98
44) Toluene	9.788	9.788	0.878	91	962531	41.65	ug/L	100
45) trans-1,3-Dichloroprop...	9.968	9.968	0.895	75	290934	36.96	ug/L	98
46) 1,1,2-Trichloroethane	10.170	10.173	0.913	83	160217	41.09	ug/L	99
47) 2-Hexanone	10.280	10.279	0.923	43	523935	74.96	ug/L	98
48) 1,3-Dichloropropane	10.361	10.364	0.930	76	344769	41.15	ug/L	98
49) Tetrachloroethylene	10.294	10.290	0.924	164	163094	38.53	ug/L	99
50) Dibromochloromethane	10.584	10.583	0.950	129	197280	42.53	ug/L	99
51) 1,2-Dibromoethane	10.771	10.771	0.967	107	177705	39.33	ug/L	99
52) Chlorobenzene	11.171	11.174	1.003	112	572298	38.18	ug/L	99
53) 1,1,1,2-Tetrachloroethane	11.217	11.216	1.007	131	213882	42.12	ug/L	99
54) Ethylbenzene	11.178	11.181	1.003	91	975000	36.98	ug/L	99
55) m,p-Xylenes	11.280	11.280	1.012	106	730404	73.13	ug/L	100
56) o-Xylene	11.701	11.701	1.050	106	392076	38.85	ug/L	100
57) Styrene	11.712	11.715	1.051	104	534514	34.67	ug/L	91
59) Bromoform	12.005	12.005	0.895	173	120796	45.65	ug/L	98
60) Isopropylbenzene	12.012	12.016	0.896	105	932897	41.84	ug/L	100
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	245251	42.49	ug/L	100
63) 1,2,3-Trichloropropane	12.451	12.454	0.928	110	67854	44.03	ug/L	96
64) Bromobenzene	12.465	12.465	0.929	156	221314	39.46	ug/L	99
65) n-Propylbenzene	12.415	12.415	0.926	91	1016412	37.75	ug/L	98
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	783530	41.14	ug/L	100
67) 2-Chlorotoluene	12.596	12.596	0.939	126	226570	40.53	ug/L	# 79
68) 4-Chlorotoluene	12.698	12.698	0.947	91	619598	36.20	ug/L	100
69) tert-Butylbenzene	12.900	12.900	0.962	134	178926	40.81	ug/L	99
70) 1,2,4-Trimethylbenzene	12.957	12.956	0.966	105	710997	36.70	ug/L	99
71) sec-Butylbenzene	13.116	13.119	0.978	105	940353	38.16	ug/L	100
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	565623	28.88	ug/L	99
73) 1,3-Dichlorobenzene	13.349	13.349	0.995	146	375460	35.25	ug/L	99
74) 1,4-Dichlorobenzene	13.441	13.441	1.002	146	370395	34.21	ug/L	99
75) n-Butylbenzene	13.653	13.653	1.018	91	636181	33.08	ug/L	100
76) 1,2-Dichlorobenzene	13.855	13.858	1.033	146	360220	35.18	ug/L	100
77) 1,2-Dibromo-3-chloropr...	14.705	14.704	1.096	157	41349	37.64	ug/L	94
78) 1,2,4-Trichlorobenzene	15.620	15.619	1.165	180	169278	24.55	ug/L	99
79) Hexachlorobutadiene	15.686	15.686	1.169	225	117629	28.09	ug/L	99
80) Naphthalene	15.989	15.988	1.192	128	331960	21.19	ug/L	100
81) 1,2,3-Trichlorobenzene	16.284	16.291	1.214	180	144952	24.09	ug/L	100
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	6.637	6.425	0.791		0m	N.D.	d	
89) tert-Butyl Alcohol	6.467	6.460	0.771		0m	N.D.	d	
90) Acrylonitrile	6.637	6.747	0.791		0m	N.D.	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	7.065	7.192	0.842		0m	N.D.	d	
94) Ethyl acetate	7.337	7.383	0.875		0m	N.D.	d	

GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B339.D  
 Acq On : 10 Mar 2010 11:57 pm  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |1202065320|962697|1|VOA|1|VOA8260BS|  
 Misc : LANL 5G - SOIL MS 248377004 MIX[A]  
 ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 11 07:07:12 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	7.610	7.680	0.907		0m	N.D.	d
97) Tetrahydrofuran	7.702	7.716	0.918		0m	N.D.	d
98) Isobutyl alcohol	7.861	7.857	0.937		0m	N.D.	d
99) Methyl tert-amyl ether	8.197	8.122	0.977		0m	N.D.	d
100) Methyl methacrylate	8.830	8.801	1.053		0m	N.D.	d
101) 1,4-Dioxane	9.059	8.957	1.080		0m	N.D.	d
102) 2-Nitropropane	9.254	9.342	1.103		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	12.419	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	13.017	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)...	13.929	13.929	1.038		0m	N.D.	d

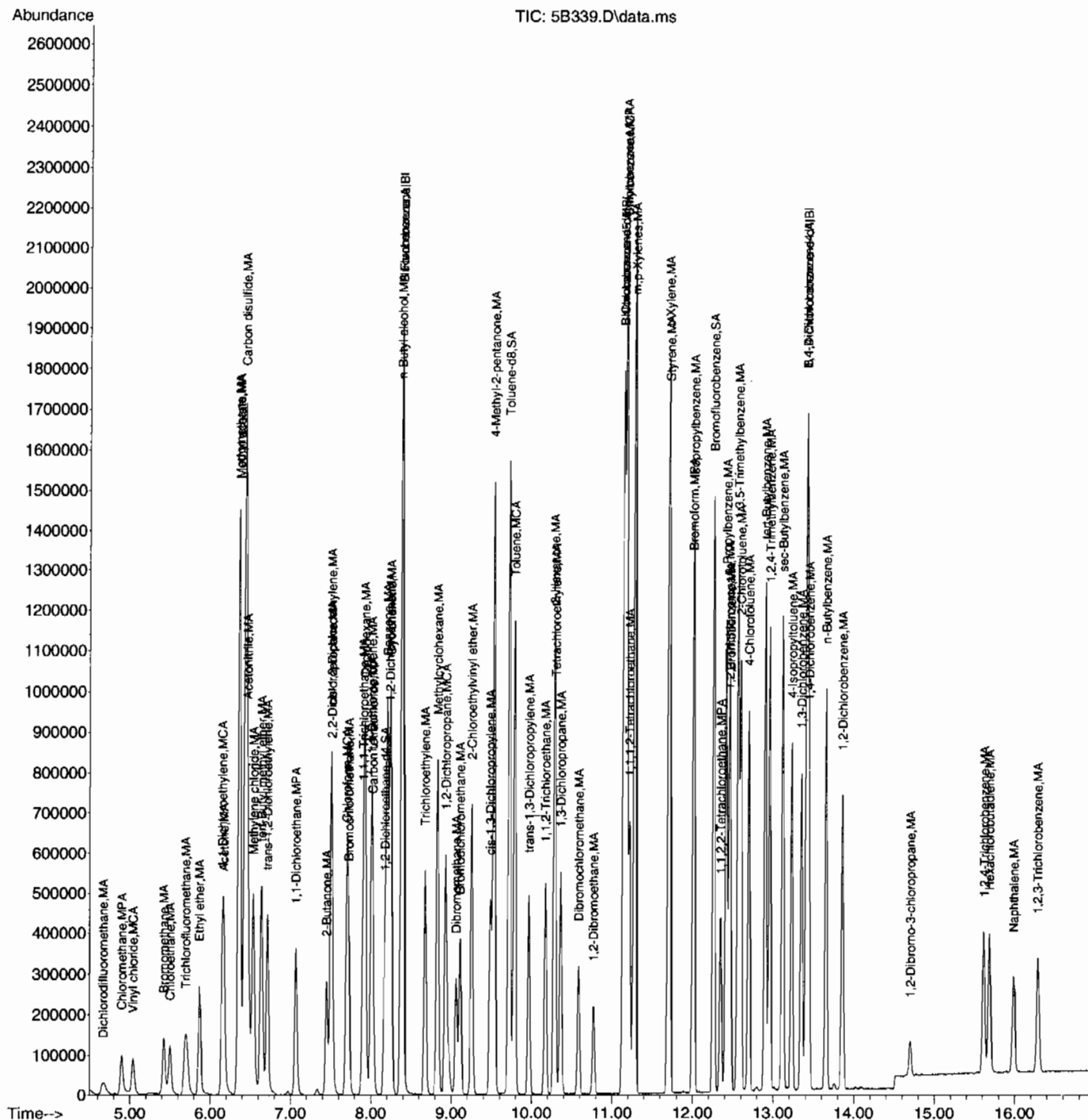
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
 (E) = Over the calibration range (d) = deleted

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Data Path : C:\msdchem\1\DATA\031010V5\
Data File : 5B339.D
Acq On    : 10 Mar 2010  11:57 pm
Operator  : CDS1
InstName  : VOA5
Sample    : |1202065320|962697|1|VOA|1|VOA8260BS|
Misc      : LANL 5G - SOIL MS 248377004 MIX[A]
ALS Vial  : 39      Sample Multiplier: 1

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Quant Time: Mar 11 07:07:12 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE





GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B340.D  
 Acq On : 11 Mar 2010 12:23 am  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |1202065321|962697|1|VOA|D|VOA8260BS|  
 Misc : LANL 5G - SOIL MSD 248377004 MIX[A]  
 ALS Vial : 40 Sample Multiplier: 1

Quant Time: Mar 11 07:07:14 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	Dev(Min)
Internal Standards								
1) Fluorobenzene	8.387	8.387	1.000	96	1462953	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1065075	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	489750	50.00	ug/L	0.00
82) B Fluorobenzene	8.387	8.391	1.000	96	1462953	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1065075	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	489750	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	261189	36.89	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	=	73.78%		
43) Toluene-d8	9.721	9.721	0.872	98	1173126	43.07	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	=	86.14%		
61) Bromofluorobenzene	12.260	12.260	0.914	95	595558	60.63	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	=	121.26%		
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.668	4.668	0.557	85	89471	26.19	ug/L	97
3) Chloromethane	4.900	4.900	0.584	50	161908	37.03	ug/L	97
4) Vinyl chloride	5.041	5.041	0.601	62	143077	39.69	ug/L	99
5) Bromomethane	5.423	5.423	0.647	94	129493	37.61	ug/L	98
6) Chloroethane	5.504	5.504	0.656	64	147547	40.36	ug/L	99
7) Trichlorofluoromethane	5.695	5.695	0.679	101	253151	40.35	ug/L	99
8) Ethyl ether	5.866	5.866	0.699	59	225802	41.80	ug/L	94
9) Acetone	6.174	6.174	0.736	43	386744	88.47	ug/L	100
10) 1,1-Dichloroethylene	6.152	6.156	0.734	61	279225	39.94	ug/L	100
11) Iodomethane	6.361	6.357	0.758	142	1250441	173.19	ug/L	99
12) Acetonitrile	6.464	6.464	0.771	41	811901	947.68	ug/L	98
13) Methyl acetate	6.361	6.365	0.758	43	766344	160.43	ug/L	99
14) Carbon disulfide	6.432	6.435	0.767	76	2678349	191.15	ug/L	100
15) Methylene chloride	6.538	6.538	0.779	84	228841	40.92	ug/L	95
16) tert-Butyl methyl ether	6.640	6.640	0.792	73	580385	39.87	ug/L	100
17) trans-1,2-Dichloroethy...	6.711	6.715	0.800	61	308077	40.53	ug/L	99
18) Vinyl acetate	6.962	6.969	0.830	43	3096	N.D.		
19) 1,1-Dichloroethane	7.072	7.068	0.843	63	400337	42.53	ug/L	100
20) 2-Butanone	7.450	7.450	0.888	43	357529	68.65	ug/L	100
21) cis-1,2-Dichloroethylene	7.507	7.507	0.895	61	365117	41.29	ug/L	98
22) 2,2-Dichloropropane	7.510	7.514	0.895	77	277004	39.70	ug/L	97
23) Bromochloromethane	7.719	7.719	0.920	128	109352	41.86	ug/L	95
24) Chloroform	7.701	7.701	0.918	83	357533	42.40	ug/L	98
25) 1,1,1-Trichloroethane	7.903	7.906	0.942	97	297408	42.77	ug/L	99
26) Cyclohexane	7.921	7.924	0.944	56	402454	40.68	ug/L	99
27) 1,1-Dichloropropene	8.002	8.005	0.954	75	257398	40.36	ug/L	98
28) Carbon tetrachloride	8.023	8.020	0.957	117	256944	43.07	ug/L	99
30) 1,2-Dichloroethane	8.232	8.235	0.981	62	302456	41.51	ug/L	100
31) Benzene	8.204	8.203	0.978	78	854408	40.34	ug/L	99
32) Cyclohexene	8.246	8.246	0.983	67	393558	39.99	ug/L	100
33) n-Butyl alcohol	8.380	8.377	0.999	56	262468	1244.59	ug/L	98
34) Trichloroethylene	8.677	8.677	1.035	95	195700	38.91	ug/L	100
35) 1,2-Dichloropropane	8.928	8.932	1.065	63	249939	41.78	ug/L	99
36) Methylcyclohexane	8.829	8.826	1.053	83	338753	36.86	ug/L	99
37) Dibromomethane	9.059	9.059	1.080	93	128344	42.22	ug/L	99

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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
Data File : 5B340.D  
Acq On : 11 Mar 2010 12:23 am  
Operator : CDS1  
InstName : VOA5  
Sample : |1202065321|962697|1|VOA|D|VOA8260BS|  
Misc : LANL 5G - SOIL MSD 248377004 MIX[A]  
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Mar 11 07:07:14 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
38) Bromodichloromethane	9.109	9.112	1.086	83	266309	42.85	ug/L 100
39) 2-Chloroethylvinyl ether	9.254	9.254	1.103	63	321918	168.45	ug/L 99
40) cis-1,3-Dichloropropylene	9.487	9.487	1.131	75	283894	33.37	ug/L 99
42) 4-Methyl-2-pentanone	9.530	9.526	0.855	58	444465	174.51	ug/L 97
44) Toluene	9.788	9.788	0.878	91	936411	40.95	ug/L 100
45) trans-1,3-Dichloroprop...	9.968	9.968	0.895	75	277796	35.67	ug/L 99
46) 1,1,2-Trichloroethane	10.173	10.173	0.913	83	155792	40.38	ug/L 98
47) 2-Hexanone	10.279	10.279	0.923	43	426273	61.64	ug/L 98
48) 1,3-Dichloropropane	10.361	10.364	0.930	76	332387	40.09	ug/L 98
49) Tetrachloroethylene	10.290	10.290	0.924	164	158039	37.73	ug/L 100
50) Dibromochloromethane	10.584	10.583	0.950	129	187797	40.91	ug/L 100
51) 1,2-Dibromoethane	10.771	10.771	0.967	107	172986	38.69	ug/L 99
52) Chlorobenzene	11.174	11.174	1.003	112	546204	36.83	ug/L 99
53) 1,1,1,2-Tetrachloroethane	11.217	11.216	1.007	131	207878	41.37	ug/L 100
54) Ethylbenzene	11.181	11.181	1.003	91	938649	35.98	ug/L 99
55) m,p-Xylenes	11.280	11.280	1.012	106	706078	71.45	ug/L 100
56) o-Xylene	11.701	11.701	1.050	106	375463	37.60	ug/L 100
57) Styrene	11.715	11.715	1.051	104	505891	33.16	ug/L 91
59) Bromoform	12.005	12.005	0.895	173	117615	44.11	ug/L 99
60) Isopropylbenzene	12.012	12.016	0.896	105	888150	39.52	ug/L 100
62) 1,1,2,2-Tetrachloroethane	12.348	12.348	0.921	83	234355	40.29	ug/L 100
63) 1,2,3-Trichloropropane	12.458	12.454	0.929	110	66180	42.62	ug/L 93
64) Bromobenzene	12.461	12.465	0.929	156	207391	36.69	ug/L 98
65) n-Propylbenzene	12.415	12.415	0.926	91	968575	35.70	ug/L 99
66) 1,3,5-Trimethylbenzene	12.560	12.564	0.936	105	736533	38.38	ug/L 100
67) 2-Chlorotoluene	12.596	12.596	0.939	126	211526	37.55	ug/L # 79
68) 4-Chlorotoluene	12.698	12.698	0.947	91	593651	34.42	ug/L 100
69) tert-Butylbenzene	12.900	12.900	0.962	134	169343	38.33	ug/L 98
70) 1,2,4-Trimethylbenzene	12.956	12.956	0.966	105	682211	34.94	ug/L 99
71) sec-Butylbenzene	13.116	13.119	0.978	105	884981	35.64	ug/L 100
72) 4-Isopropyltoluene	13.229	13.229	0.986	119	527792	26.74	ug/L 99
73) 1,3-Dichlorobenzene	13.352	13.349	0.996	146	349168	32.53	ug/L 100
74) 1,4-Dichlorobenzene	13.441	13.441	1.002	146	344953	31.61	ug/L 99
75) n-Butylbenzene	13.653	13.653	1.018	91	588057	30.34	ug/L 100
76) 1,2-Dichlorobenzene	13.858	13.858	1.033	146	332378	32.21	ug/L 100
77) 1,2-Dibromo-3-chloropr...	14.705	14.704	1.096	157	39714	35.87	ug/L 97
78) 1,2,4-Trichlorobenzene	15.612	15.619	1.164	180	150685	21.69	ug/L 100
79) Hexachlorobutadiene	15.686	15.686	1.169	225	105804	25.07	ug/L 98
80) Naphthalene	15.988	15.988	1.192	128	271863	17.23	ug/L 99
81) 1,2,3-Trichlorobenzene	16.291	16.291	1.215	180	127600	21.04	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	6.160	6.163	0.734		0m	N.D.	d
88) Allyl chloride	6.637	6.425	0.791		0m	N.D.	d
89) tert-Butyl Alcohol	6.467	6.460	0.771		0m	N.D.	d
90) Acrylonitrile	6.630	6.747	0.790		0m	N.D.	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	7.068	7.192	0.843		0m	N.D.	d
94) Ethyl acetate	7.387	7.383	0.881		0m	N.D.	d

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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B340.D  
 Acq On : 11 Mar 2010 12:23 am  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |1202065321|962697|1|VOA|D|VOA8260BS|  
 Misc : LANL 5G - SOIL MSD 248377004 MIX[A]  
 ALS Vial : 40 Sample Multiplier: 1

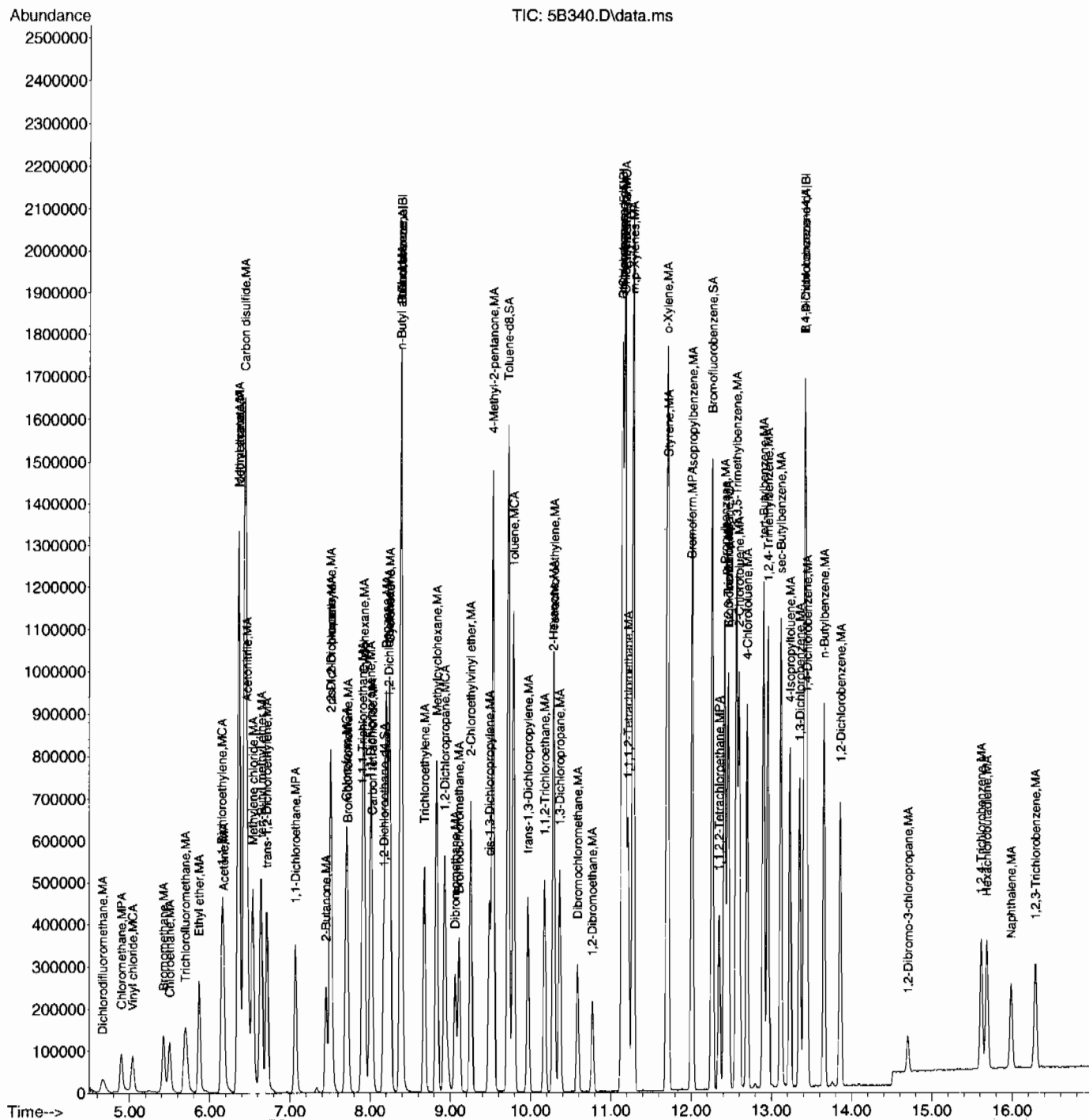
Quant Time: Mar 11 07:07:14 2010  
 Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
 Quant Title : Volatile Organics 8260B SubList :  
 QLast Update : Tue Mar 09 07:08:19 2010  
 Response via : Initial Calibration  
 Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	7.440	7.585	0.887		0m	N.D.	d
96) Methacrylonitrile	7.510	7.680	0.895		0m	N.D.	d
97) Tetrahydrofuran	7.701	7.716	0.918		0m	N.D.	d
98) Isobutyl alcohol	7.857	7.857	0.937		0m	N.D.	d
99) Methyl tert-amyl ether	8.126	8.122	0.969		0m	N.D.	d
100) Methyl methacrylate	8.826	8.801	1.052		0m	N.D.	d
101) 1,4-Dioxane	0.000	8.957	0.000		0	N.D.	
102) 2-Nitropropane	9.254	9.342	1.103		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	12.012	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...	12.415	12.412	0.926		0m	N.D.	d
110) Pentachloroethane	13.020	13.017	0.971		0m	N.D.	d
111) Benzyl chloride	13.554	13.565	1.011		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\031010V5\  
 Data File : 5B340.D  
 Acq On : 11 Mar 2010 12:23 am  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |1202065321|962697|1|VOA|D|VOA8260BS|  
 Misc : LANL 5G - SOIL MSD 248377004 MIX[A]  
 ALS Vial : 40 Sample Multiplier: 1

Quant Time: Mar 11 07:07:14 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



GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B323.D  
 Acq On : 10 Mar 2010 4:53 pm  
 Operator : CDS1  
 InstName : VOA5  
 Sample : |248377004|962697|1|VOA|1|VOA8260BS|  
 Misc : LANL 5G - SOIL  
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 11 07:39:15 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	8.388	8.387	1.000	96	1515889	50.00	ug/L	0.00
41) Chlorobenzene-d5	11.142	11.142	1.000	117	1069333	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	448304	50.00	ug/L	0.00
82) B Fluorobenzene	8.388	8.391	1.000	96	1515889	50.00	ug/L	0.00
103) B Chlorobenzene-d5	11.142	11.142	1.000	117	1069333	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	13.413	13.413	1.000	152	448304	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	8.172	8.172	0.974	65	268226	36.56	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery =		73.12%			
43) Toluene-d8	9.721	9.721	0.872	98	1196316	43.75	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery =		87.50%			
61) Bromofluorobenzene	12.260	12.260	0.914	95	559807	62.25	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery =		124.50%			
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.668	0.000		0	N.D.		
3) Chloromethane	4.890	4.900	0.583	50	541	Below Cal		96
4) Vinyl chloride	5.041	5.041	0.601	62	375	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	191	N.D.		
9) Acetone	6.174	6.174	0.736	43	3042	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	244	N.D.		
13) Methyl acetate	6.368	6.365	0.759	43	107	N.D.		
14) Carbon disulfide	6.428	6.435	0.766	76	814	N.D.		
15) Methylene chloride	6.534	6.538	0.779	84	6058	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	6.803	6.969	0.811	43	227	N.D.		
19) 1,1-Dichloroethane	0.000	7.068	0.000		0	N.D.		
20) 2-Butanone	0.000	7.450	0.000		0	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	8.182	8.203	0.976	78	124	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	8430	Below Cal	#	20
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.		

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GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
Data File : 5B323.D  
Acq On : 10 Mar 2010 4:53 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248377004|962697|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 11 07:39:15 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	9.788	9.788	0.878	91	28564	1.24 ug/L	100
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	10.283	10.279	0.923	43	107	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	10.711	10.583	0.961	129	250	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	11.386	11.216	1.022	131	125	N.D.	
54) Ethylbenzene	11.185	11.181	1.004	91	915	N.D.	
55) m,p-Xylenes	11.280	11.280	1.012	106	722	N.D.	
56) o-Xylene	11.694	11.701	1.050	106	232	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	0.000	12.016	0.000		0m	N.D. 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		0m	N.D. d	
65) n-Propylbenzene	12.405	12.415	0.925	91	856	N.D.	
66) 1,3,5-Trimethylbenzene	12.564	12.564	0.937	105	529	N.D.	
67) 2-Chlorotoluene	0.000	12.596	0.000		0	N.D.	
68) 4-Chlorotoluene	12.684	12.698	0.946	91	4094	N.D.	
69) tert-Butylbenzene	12.978	12.900	0.968	134	111	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	12.956	0.000		0m	N.D. d	
71) sec-Butylbenzene	13.119	13.119	0.978	105	243	N.D.	
72) 4-Isopropyltoluene	13.232	13.229	0.987	119	76083	4.21 ug/L	97
73) 1,3-Dichlorobenzene	0.000	13.349	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	13.445	13.441	1.002	146	111	N.D.	
75) n-Butylbenzene	13.646	13.653	1.017	91	1598	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	0.000	15.619	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	15.686	0.000		0	N.D.	
80) Naphthalene	15.981	15.988	1.191	128	3835	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	16.291	0.000		0	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	6.428	6.425	0.766	41	141	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.	

-----  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
Data File : 5B323.D  
Acq On : 10 Mar 2010 4:53 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248377004|962697|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 23 Sample Multiplier: 1

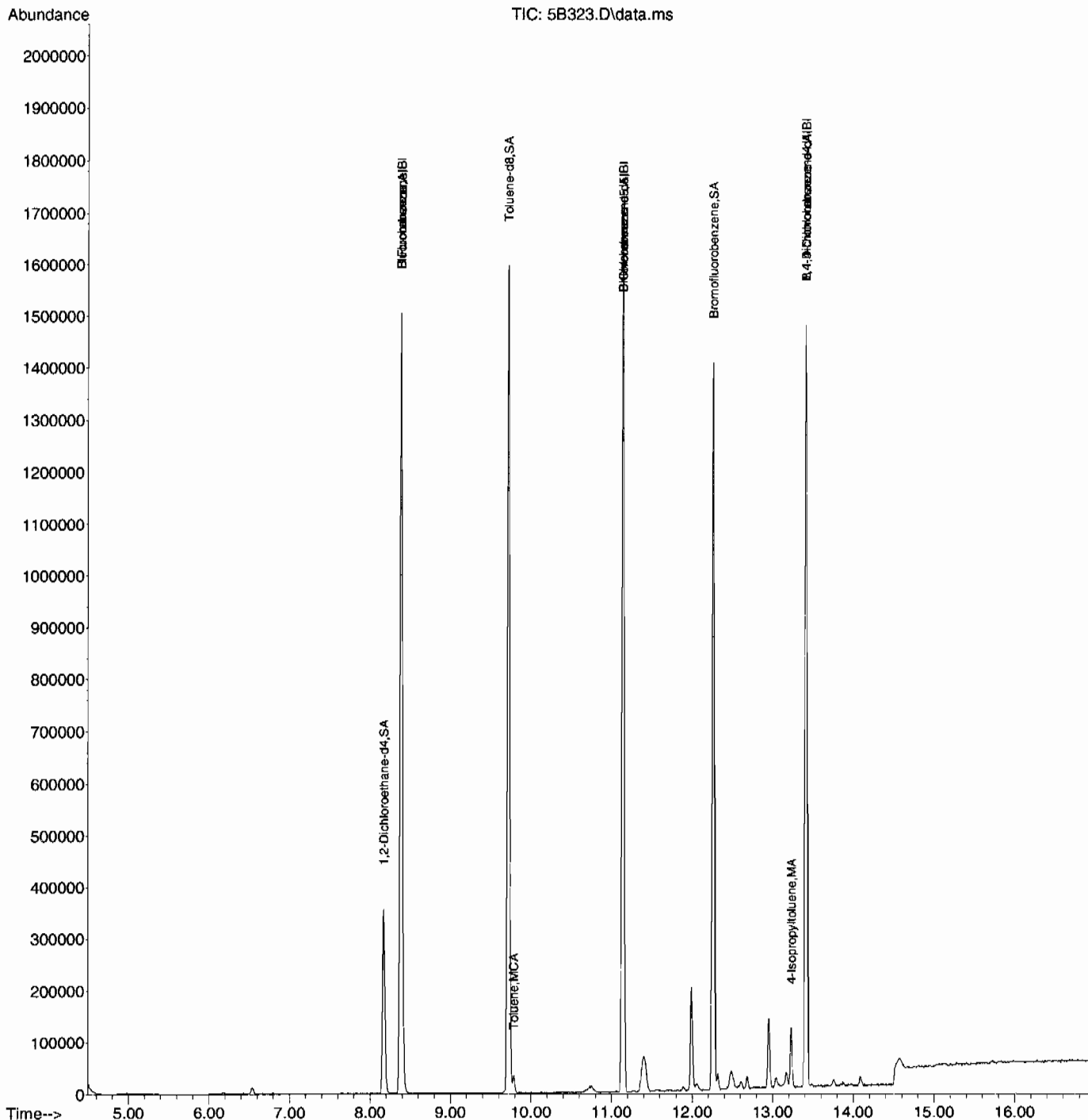
Quant Time: Mar 11 07:39:15 2010  
Quant Method : C:\msdchem\1\DATA\030310V5\VOA5-8260-030310.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Tue Mar 09 07:08:19 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95) Propionitrile	0.000	7.585	0.000		0	N.D.	
96) Methacrylonitrile	7.705	7.680	0.919	41	116	N.D.	
97) Tetrahydrofuran	7.730	7.716	0.922	42	223	N.D.	
98) Isobutyl alcohol	7.839	7.857	0.935	41	113	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	11.029	10.980	0.822	55	113	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	12.136	0.000		0m	N.D.	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		0m	N.D.	d
110) Pentachloroethane	0.000	13.017	0.000		0	N.D.	
111) Benzyl chloride	13.565	13.565	1.011	91	573	N.D.	
112) bis(2-Chloroisopropyl)...	13.926	13.929	1.038	45	127	N.D.	

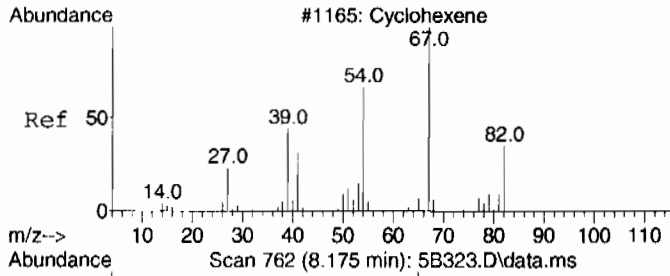
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Data Path : C:\msdchem\1\DATA\031010V5\  
Data File : 5B323.D  
Acq On : 10 Mar 2010 4:53 pm  
Operator : CDS1  
InstName : VOA5  
Sample : |248377004|962697|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 11 07:39:15 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

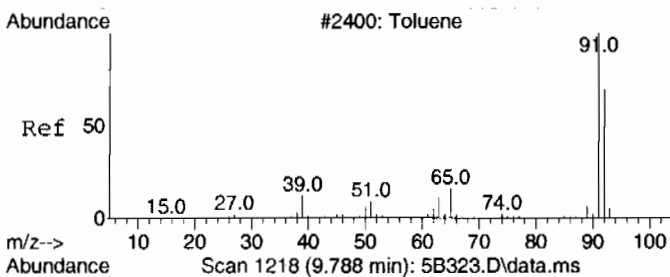
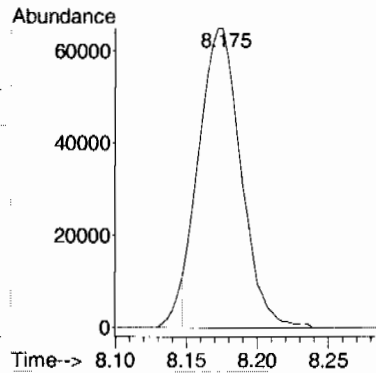






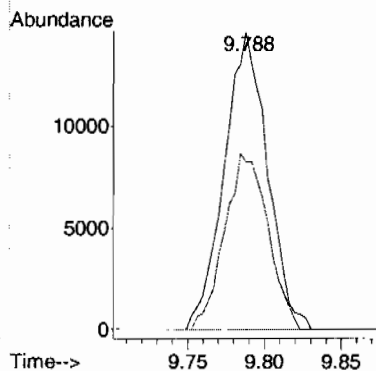
#32 BEFORE analyst DELETION  
Cyclohexene  
Concen: 13.05 ug/L  
RT: 8.175 min Scan# 762  
Delta R.T. -0.071 min  
Lab File: 5B323.D  
Acq: 10 Mar 2010 4:53 pm

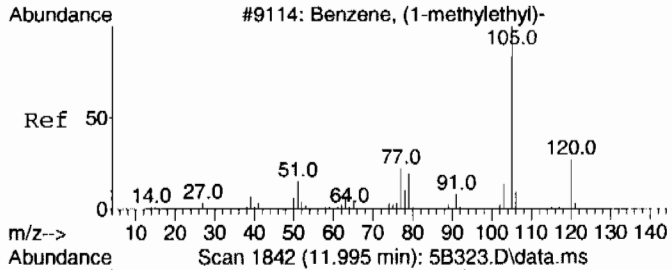
Tgt Ion: 67 Resp: 133057  
Ion Ratio Lower Upper  
67 100  
54 0.0 46.3 106.3#



#44  
Toluene  
Concen: 1.24 ug/L  
RT: 9.788 min Scan# 1218  
Delta R.T. -0.000 min  
Lab File: 5B323.D  
Acq: 10 Mar 2010 4:53 pm

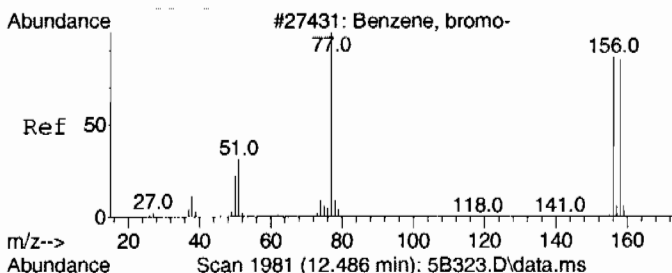
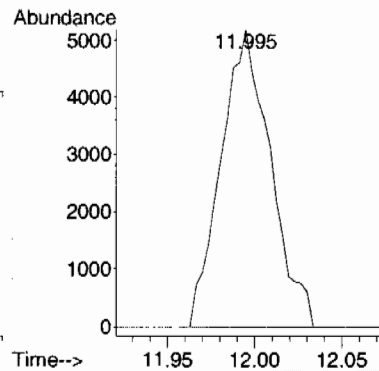
Tgt Ion: 91 Resp: 28564  
Ion Ratio Lower Upper  
91 100  
92 59.6 29.5 89.5





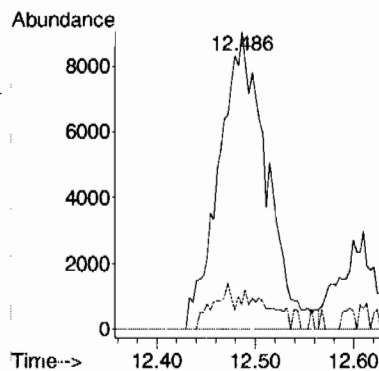
#60 BEFORE analyst DELETION  
Isopropylbenzene  
Concen: 0.50 ug/L  
RT: 11.995 min Scan# 1842  
Delta R.T. -0.021 min  
Lab File: 5B323.D  
Acq: 10 Mar 2010 4:53 pm

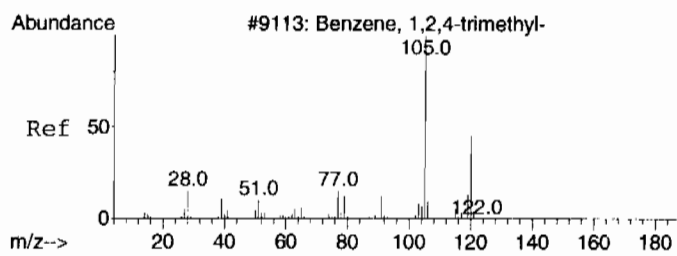
Tgt Ion:105 Resp: 10210  
Ion Ratio Lower Upper  
105 100  
120 0.0 0.0 57.3



#64 BEFORE analyst DELETION  
Bromobenzene  
Concen: 5.85 ug/L  
RT: 12.486 min Scan# 1981  
Delta R.T. 0.021 min  
Lab File: 5B323.D  
Acq: 10 Mar 2010 4:53 pm

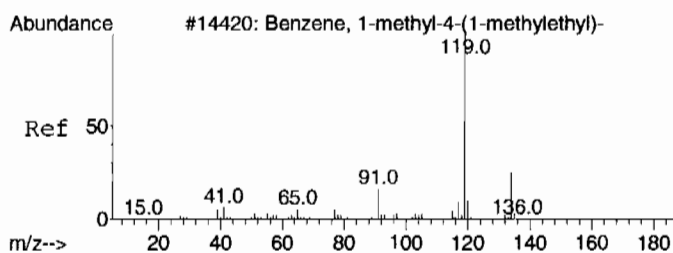
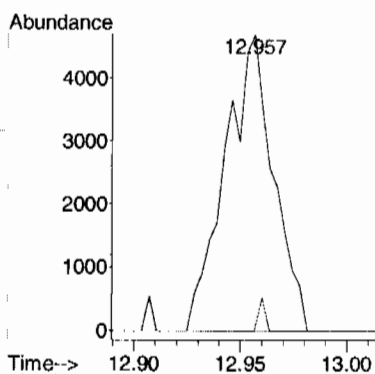
Tgt Ion:156 Resp: 30252  
Ion Ratio Lower Upper  
156 100  
77 8.1 163.0 223.0#  
158 0.0 66.0 126.0#





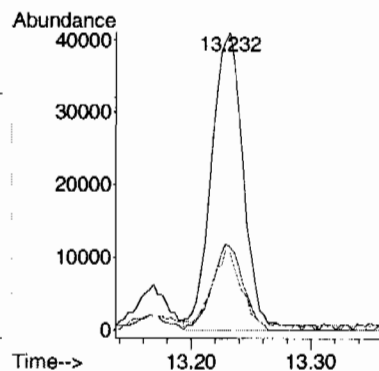
#70 BEFORE analyst DELETION  
1,2,4-Trimethylbenzene  
Concen: 0.41 ug/L  
RT: 12.957 min Scan# 2114  
Delta R.T. 0.001 min  
Lab File: 5B323.D  
Acq: 10 Mar 2010 4:53 pm

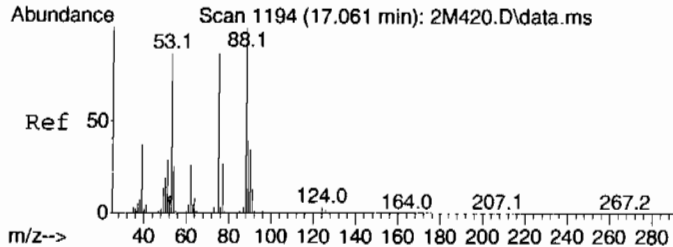
Tgt Ion	Ratio	Lower	Upper
105	100		
120	1.5	17.4	77.4#



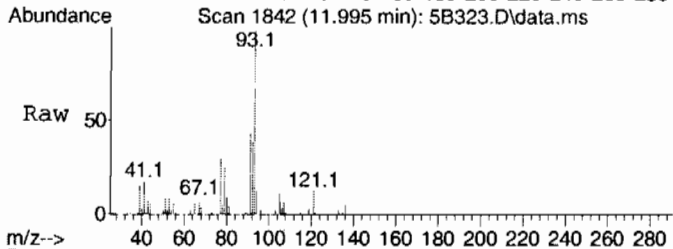
#72  
4-Isopropyltoluene  
Concen: 4.21 ug/L  
RT: 13.232 min Scan# 2192  
Delta R.T. 0.003 min  
Lab File: 5B323.D  
Acq: 10 Mar 2010 4:53 pm

Tgt Ion	Ratio	Lower	Upper
119	100		
134	27.7	0.0	57.2
91	25.7	0.0	53.0

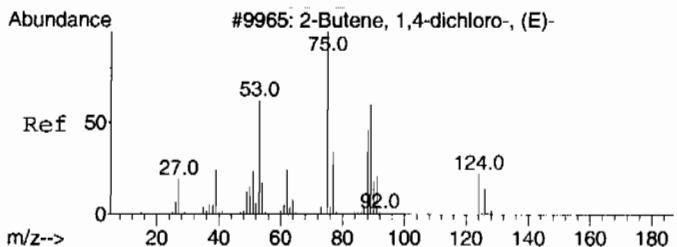
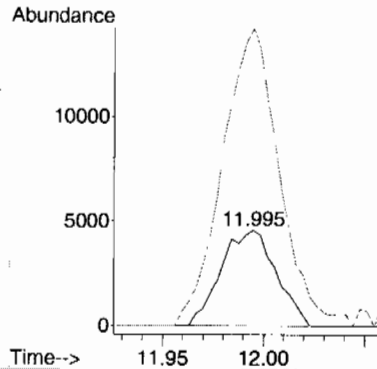
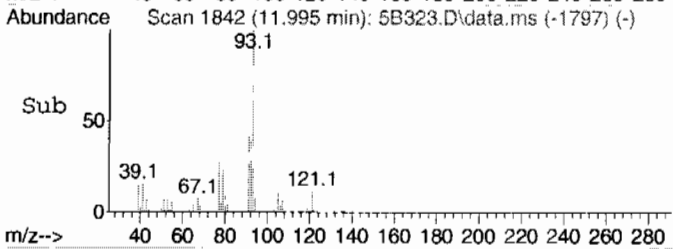




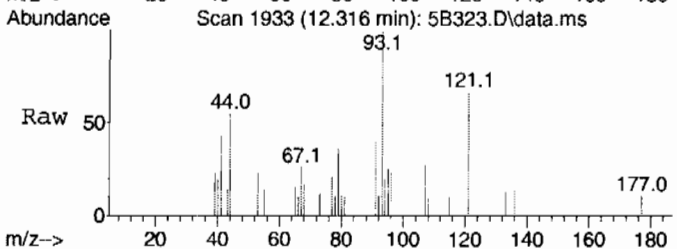
#107 BEFORE analyst DELETION  
 cis-1,4-Dichloro-2-butene  
 Concen: 5.16 ug/L  
 RT: 11.995 min Scan# 1842  
 Delta R.T. -0.141 min  
 Lab File: 5B323.D  
 Acq: 10 Mar 2010 4:53 pm



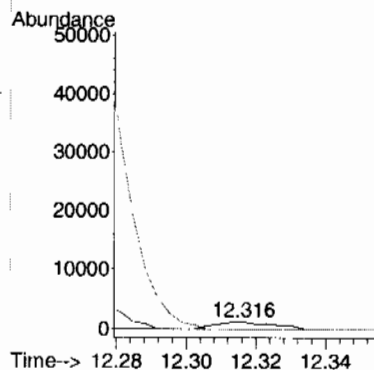
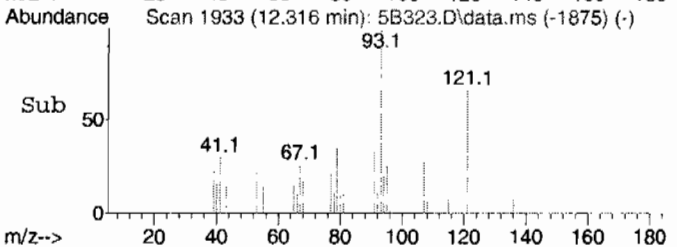
Tgt Ion: 53 Resp: 8642  
 Ion Ratio Lower Upper  
 53 100  
 88 0.0 67.1 127.1#  
 77 321.1 1.8 61.8#



#109 BEFORE analyst DELETION  
 trans-1,4-Dichloro-2-butene  
 Concen: 0.87 ug/L  
 RT: 12.316 min Scan# 1933  
 Delta R.T. -0.096 min  
 Lab File: 5B323.D  
 Acq: 10 Mar 2010 4:53 pm



Tgt Ion: 53 Resp: 1374  
 Ion Ratio Lower Upper  
 53 100  
 88 0.0 15.5 75.5#  
 75 0.0 92.0 152.0#



Data Path : C:\msdchem\1\DATA\031010V5\  
Data File : 5B323.D  
Acq On : 10 Mar 2010 4:53 pm  
Operator : CDS1  
Sample : |248377004|962697|1|VOA|1|VOA8260BS|  
Misc : LANL 5G - SOIL  
ALS Vial : 23 Sample Multiplier: 1

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

Quant Title : Volatile Organics 8260B

SubList :

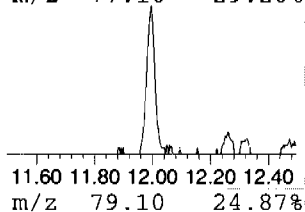
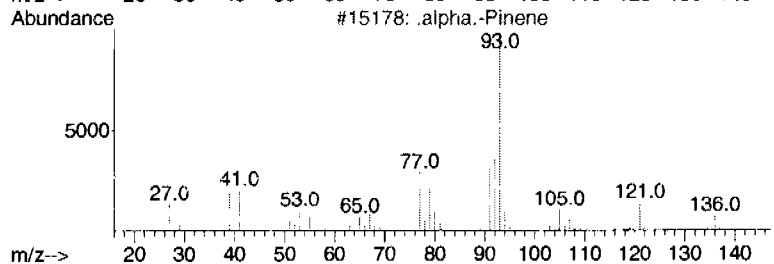
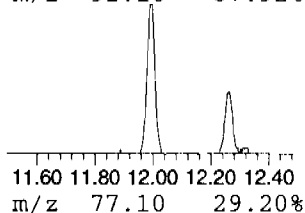
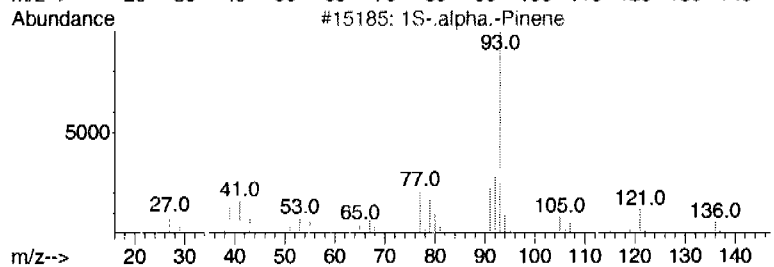
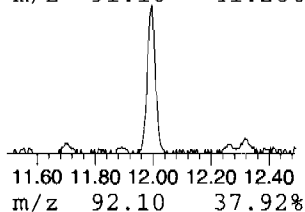
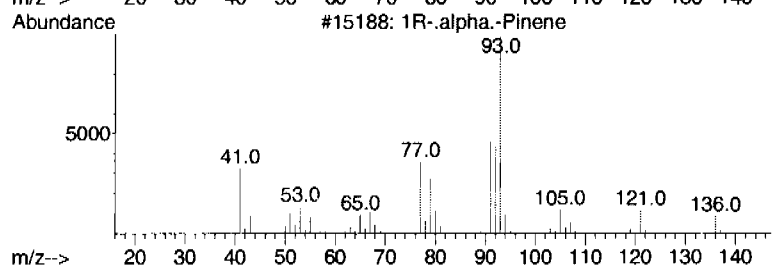
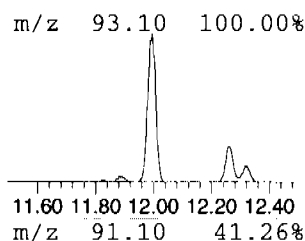
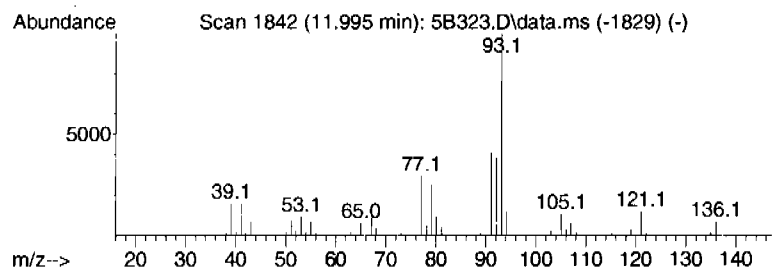
TIC Library : C:\Database\NIST05.L

TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 1 unknown hydrocarbon Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
11.995	6.61 ug/L	435388	B Chlorobenzene-d5	11.142

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		1R-.alpha.-Pinene	136	C10H16	007785-70-8	97
2		1S-.alpha.-Pinene	136	C10H16	007785-26-4	96
3		.alpha.-Pinene	136	C10H16	000080-56-8	96
4		1R-.alpha.-Pinene	136	C10H16	007785-70-8	95
5		Bicyclo[3.1.1]hept-2-ene, 2,6,6-...	136	C10H16	002437-95-8	95



GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V5\  
 Data File : 5B323.D  
 Acq On : 10 Mar 2010 4:53 pm  
 Operator : CDS1  
 Sample : |248377004|962697|1|VOA|1|VOA8260BS|  
 Misc : LANL 5G - SOIL  
 ALS Vial : 23 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
unknown hydroca...	11.995	6.6	ug/L	435388	4	11.142	3294640	50.0

Date: 3/3/2010 Method 8260/624 Operator: cds1 REVIEWED BY: \_\_\_\_\_  
 Date: \_\_\_\_\_ DATE: \_\_\_\_\_  
 HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 Daily Instrument Readings: \_\_\_\_\_  
 Multiplier Voltage: 1412

## CALIBRATION &amp; CC INFORMATION:

Initial Calibration Date: \_\_\_\_\_ Purge Amount  
 (See pg. \_\_\_\_\_ for ICAL Std. Sci. Ids)  
 Daily Standard Volume Added for Purge (ul)  
 Solution ID# Smpl CCV LCS MS/ 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  
 Sequence Number: 03310V5

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

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol.(ml/ul)	Dil.	Factor pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptance ble(O/X)	Comments
3 Mar 2010	11:00	5A301.D	UVM100203-02	BLANK	BFB	5mL	1	N/A	1	w	CDS1	N/A	O	
3 Mar 2010	11:26	5A302.D	120206-----	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-----	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+UVM100301-01 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+UVM100301-01
3 Mar 2010	16:35	5A314.D	120206-----	BLANK	BLANK	5mL	1	N/A	14	w	CDS1	N/A	X	clean-up blank
3 Mar 2010	17:01	5A315.D	W5VM100303-11	VSTD0005L	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-----	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: 3/10/2010 Method 8260/624 Operator: CDS1  
REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
Daily Instrument Readings: \_\_\_\_\_  
Multiplier Voltage: 1412

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/3/2010

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

NaHSO4 lot # n/a

CI test lot # n/a

Sequence Number: 031010V5pm

Daily Standard Volume Added for Purge (ul)

Solution ID#	CCV	W5VM100310-05	MS/	LCS	BFB
IS	UVM100203-01	1	1	1	
SS	UVM100217-02	1	1	1	
LCS/MS	W5VM100310-06/07			5+5	
BFB	UVM100217-02				1
SHORT	W5VM100310-08			5	5

Purge Amount

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

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol.(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix Analyst	CI test (Y/N)	Acceptance ble(O/X)	Comments
3/10/2010	18:39	5B327.D	UVM100217-02	-----	BFB2	5ml	1	N/A	27	w	CDS1	N/A	O
3/10/2010	19:06	5B328.D	W5VM100310-05	-----	CCV	5ml	1	N/A	28	w	CDS1	N/A	O
3/10/2010	19:33	5B329.D	W5VM100310-06	-----	LCS	5ml	1	N/A	29	w	CDS1	N/A	O
3/10/2010	19:59	5B330.D	W5VM100310-07	-----	LCS	5G	1	N/A	30	w	CDS1	N/A	O
3/10/2010	20:25	5B331.D	W5VM100310-08	-----	CCV	5G	1	N/A	31	w	CDS1	N/A	O
3/10/2010	20:52	5B332.D	120206-----	-----	BLANK	5ML	1	N/A	32	w	CDS1	N/A	O
3/10/2010	21:18	5B333.D	120206-----	-----	BLANK	5G	1	N/A	33	s	CDS1	N/A	O
3/10/2010	21:45	5B334.D	248249001	LANL	962697	5G	1	N/A	34	s	CDS1	N/A	O
3/10/2010	22:11	5B335.D	248249002	LANL	962697	5G	1	N/A	35	s	CDS1	N/A	X
3/10/2010	22:38	5B336.D	248249003	LANL	962697	5G	1	N/A	36	s	CDS1	N/A	X
3/10/2010	23:04	5B337.D	248249004	LANL	962697	5G	1	N/A	37	s	CDS1	N/A	X
3/10/2010	23:30	5B338.D	248249005	LANL	962697	5G	1	N/A	38	s	CDS1	N/A	O
3/10/2010	23:57	5B339.D	1202065320	LANL	962697	5G	1	N/A	39	s	CDS1	N/A	O
3/11/2010	0:23	5B340.D	1202065321	LANL	962697	5G	1	N/A	40	s	CDS1	N/A	O
3/11/2010	0:49	5B341.D	1202066163	LANL	963122	5G	1	N/A	41	s	CDS1	N/A	O
3/11/2010	1:15	5B342.D	1202066164	LANL	963122	5G	1	N/A	42	s	CDS1	N/A	O
3/11/2010	1:42	5B343.D	120206-----	BLANK	BLANK	5ML	1	N/A	43	w	CDS1	N/A	X
3/11/2010	2:08	5B344.D	248370001	LANL	963122	5G	1	N/A	44	s	CDS1	N/A	O
3/11/2010	2:34	5B345.D	248370004	LANL	963122	5G	1	N/A	45	s	CDS1	N/A	O
3/11/2010	3:01	5B346.D	248370006	LANL	963122	5G	1	N/A	46	s	CDS1	N/A	O
3/11/2010	3:27	5B347.D	248370007	LANL	963122	5G	1	N/A	47	s	CDS1	N/A	X
3/11/2010	3:54	5B348.D	248370009	LANL	963122	5G	1	N/A	48	s	CDS1	N/A	O
3/11/2010	4:20	5B349.D	248370010	LANL	963122	5G	1	N/A	49	s	CDS1	N/A	X
3/11/2010	4:46	5B350.D	248370011	LANL	963122	5G	1	N/A	50	s	CDS1	N/A	X



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  
Daily Standard Volume Added for Purge (ul) MS/ BFB  
Solution ID# Smp/ CCV LCS BFB  
CCV W5VM100311-01 1 1 1  
IS UVM100203-01 1 1 1  
SS UVM100217-02 1 1 1  
LCS/MS W5VM100311-02/03 5+5  
BFB UVM100217-02 1  
SHORT W5VM100311-04 5 5  
Water Purge Vol: 5  
Soil Purge Wt: 5  
Mid level ext. MeOH Vol: \_\_\_\_\_  
Methanol Lot #: \_\_\_\_\_  
Heated Purge: X

Sequence Number: 031110V5

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)	Accepta ble(O/X)	Comments
3/11/2010	6:41	5B401.D	UVM100217-02	-----	BFB	5ML	1	N/A	1	W	CDS1	N/A	O	
3/11/2010	7:08	5B402.D	W5VM100311-01	-----	CCV	5ML	1	N/A	2	W	CDS1	N/A	O	UVM100222-07B+UVM100106-07D
3/11/2010	7:34	5B403.D	W5VM100311-02	-----	LCS	5ML	1	N/A	3	W	CDS1	N/A	O	UVM100305-01A+UVM100310-01
3/11/2010	8:01	5B404.D	W5VM100311-03	-----	LCS	5g	1	N/A	4	S	CDS1	N/A	O	UVM100305-01A+UVM100310-01
3/11/2010	8:27	5B405.D	W5VM100311-04	-----	CCV/lcs	5g	1	N/A	5	S	CDS1	N/A	O	UVM100215-08B
3/11/2010	8:54	5B406.D	120206-0000	-----	BLANK	5ML	1	N/A	6	W	CDS1	N/A	O	
3/11/2010	9:20	5B407.D	120206-0000	-----	BLANK	5G	1	N/A	7	S	CDS1	N/A	O	
3/11/2010	9:47	5B408.D	248249001	LANL	962697	5G	1	N/A	8	S	CDS1	N/A	X	IS low, SS high--conf. of 5B334
3/11/2010	10:13	5B409.D	248249002	LANL	962697	5G	1	N/A	9	S	CDS1	N/A	O	SS high--conf. by 5B335
3/11/2010	10:40	5B410.D	248249003	LANL	962697	5G	1	N/A	10	S	CDS1	N/A	O	IS low, SS high--conf. by 5B336
3/11/2010	11:07	5B411.D	248249004	LANL	962697	5G	1	N/A	11	S	CDS1	N/A	O	
3/11/2010	11:33	5B412.D	248370014	LANL	963122	5G	1	N/A	12	S	CDS1	N/A	X	SS high--conf. of 5B313
3/11/2010	11:59	5B413.D	248370016	LANL	963122	5G	1	N/A	13	S	CDS1	N/A	O	H'
3/11/2010	12:26	5B414.D	248370017	LANL	963122	5G	1	N/A	14	S	CDS1	N/A	X	SS high--conf. of 5B316
3/11/2010	12:53	5B415.D	248370018	LANL	963122	5G	1	N/A	15	S	CDS1	N/A	X	SS high--conf. of 5B317
3/11/2010	13:19	5B416.D	248370020	LANL	963122	5G	1	N/A	16	S	CDS1	N/A	X	IS low, SS high--conf. of 5B319
3/11/2010	13:45	5B417.D	248517001	LANL	963809	5G	1	N/A	17	S	CDS1	N/A	O	IS low, SS high--conf. by 3D417
3/11/2010	14:12	5B418.D	248519001	LANL	963809	5G	1	N/A	18	S	CDS1	N/A	O	IS low, SS high--conf. by 5B514
3/11/2010	14:39	5B419.D	248519002	LANL	963809	5G	1	N/A	19	S	CDS1	N/A	O	SS high--conf. by 5B515
3/11/2010	15:05	5B420.D	248519003	LANL	963809	5G	1	N/A	20	S	CDS1	N/A	O	IS low, SS high--conf. by 5B516
3/11/2010	15:32	5B421.D	248519004	LANL	963809	5G	1	N/A	21	S	CDS1	N/A	O	IS low, SS high--conf. by 5B517
3/11/2010	15:58	5B422.D	248519005	LANL	963809	5G	1	N/A	22	S	CDS1	N/A	O	SS high--conf. by 5B518
3/11/2010	16:25	5B423.D	248519006	LANL	963809	5G	1	N/A	23	S	CDS1	N/A	O	SS high--conf. by 5B526
3/11/2010	16:51	5B424.D	248519007	LANL	963809	5G	1	N/A	24	S	CDS1	N/A	O	IS low, SS high--conf. by 5B527
3/11/2010	17:18	5B425.D	248519008	LANL	963809	5G	1	N/A	25	S	CDS1	N/A	O	IS low, SS high--conf. by 5B528
3/11/2010	17:44	5B426.D	248519009	LANL	963809	5G	1	N/A	26	S	CDS1	N/A	O	IS low, SS high--conf. by 5B529

### DATA EXCEPTION REPORT

<b>Mo.Day Yr.</b> 19-MAR-10	<b>Division:</b> Federal	<b>Quality Criteria:</b> Client Contract	<b>Type:</b> Process
<b>Instrument Type:</b> VOA GC/MS	<b>Test / Method:</b> SW846 8260B	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL010
<b>Batch ID:</b> 962697	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG): 248249(10-2140),248377(10-2157)</b> <b>Application Issues:</b> Failed Recovery for Surrogate or Tracer Failed Recovery for MS/PS Container scanning event for custody missed Sample Analyzed out of Holding Other Failed Recovery for MSD/PSD			
<b>Specification and Requirements</b>		<b>DER Disposition:</b>	
<b>Exception Description:</b>  1. The recovery for 2-Hexanone was outside of the acceptance limits in the MS and in the MSD performed on sample 248377004. The recovery for 2-Butanone was outside of the acceptance limits in the MSD. The recovery for this compound was near but within the lower control limit in the MS.  in MS: 2-Hexanone 29.9% limits: 30-139%  in MSD: 2-Hexanone 24.7% limits: 30-139% 2-Butanone 27% limits: 30-150%  2. Samples 248249001-004 were analyzed within the 14 day holding time but there were multiple QC non-conformances with internal standard and surrogate recoveries. The samples were re-analyzed outside of the 14 day holding time but within two times the collection date. The re-analyzed data for samples 248249002-004 was reported due to more acceptable internal standard and surrogate recoveries. The data for sample 248249001 confirmed the original in-holding results.  3. The MSD performed on sample 248377004 was outside of the 14th day of hold time. The sample was prepped on the last day of holding time, but the file was not acquired until just after midnight.  4. The recoveries for one or more internal standards and/or surrogates were outside of acceptance limits in the following samples: 248249001, 249249002, 249249003. The samples were re-analyzed with similar recovery results.  5. Samples 249248001-005 and 248377001 were not scanned into the analyst's custody prior to analysis.		1,2,3. Narrate and report data.  4. Narrate and report data. It is believed that the similar results obtained by re-analysis demonstrated matrix interference.  5. Narrate and report data. The analyst maintained custody of the samples throughout their analysis.	

**Originator's Name:**

Crystal Stacey 19-MAR-10

**Data Validator/Group Leader:**

Erin Haubert 22-MAR-10

# **GC/MS Semivolatile Analysis**

**Semi-Volatile Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2140**

**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:	960971
Prep Batch Number:	960970

**Sample Analysis**

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

<b>Sample ID</b>	<b>Client ID</b>
248249001	RE36-10-8285
248249002	RE36-10-8286
248249003	RE36-10-8283
248249004	RE36-10-8284
1202061168	Method Blank (MB)
1202061169	Laboratory Control Sample (LCS)
1202061170	248255001(RE46-10-13534) Matrix Spike (MS)
1202061171	248255001(RE46-10-13534) Matrix Spike Duplicate (MSD)

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

**Preparation/Analytical Method Verification**

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

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

**Calibration Information**

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

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

calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

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

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

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

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are 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.

#### **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**

All the surrogate recoveries were within the established acceptance criteria for this SDG.

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

The LCS (1202061169) recovered 2,4-dimethylphenol at 123%(Limits: 32%-112%), 4-Nitrophenol at 18%(Limits: 24%-113%) and Benzyl alcohol at 20%(limits: 27%-108%).

The failures represented less than 5% of the requested spike analyte list. That satisfied the clients acceptance criteria and the data were reported.

**QC Sample Designation**

The non-SDG sample 248255001 (RE46-10-13534) was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

**Matrix Spike (MS) Recovery Statement**

The MS recoveries were not within the acceptance limits. The failures confirmed in the MSD and were attributed to matrix interference. Please see the spike recovery report for the specific failures.

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

The MS recoveries were not within the acceptance limits. The failures confirmed in the MSD and were attributed to matrix interference. Please see the spike recovery report for the specific failures.

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

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

**Internal Standard (ISTD) Acceptance**

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

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

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

**Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

**Sample Dilutions**

Samples 248249001 (RE36-10-8285), 248249003 (RE36-10-8283) and 248249004 (RE36-10-8284) were diluted because the extracts were very dark and viscous.

Parmname	248249
	001 003 004
All	4X 4X 4X

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

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

**Miscellaneous Information****Data Exception (DER) Documentation**

The following DER was generated for this SDG: 807012. It is located in the Miscellaneous Section of the data report.

**Manual Integrations**

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

**Additional Comments**

The SDG associated samples were not scanned into analyst custody prior to analysis. The analyst maintained physical custody of the samples throughout the analysis process.

**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>
MSD6.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.20mm x 0.33 um (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 Renshaw Date: 3-26-10



## Roadmap for LANL 10-2140 SVOA

This roadmap was analyzed by llo00884 on 03-19-2010, 15:30.

This roadmap was packaged by CHA01131 on 03-25-2010, 16:54.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
<input type="checkbox"/>	N	/chem/MSD6.i/s031810.b/s6c1817.d	248249002	18-MAR-2010	14:16	10-2140.sub	RE36-10-8286	1	960971	<input type="text"/>
<input type="checkbox"/>	N	/chem/MSD6.i/s031810.b/s6c1818.d	248249004	18-MAR-2010	14:40	10-2140.sub	RE36-10-8284	4	960971	<input type="text"/>
<input type="checkbox"/>	N	/chem/MSD6.i/s031810.b/s6c1821.d	248249003	18-MAR-2010	15:52	10-2140.sub	RE36-10-8283	4	960971	<input type="text"/>
<input type="checkbox"/>	N	/chem/MSD6.i/s031810.b/s6c1830.d	248249001	18-MAR-2010	19:26	10-2140.sub	RE36-10-8285	4	960971	<input type="text"/>

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
<input type="checkbox"/>	Y	/chem/MSD6.i/s031810.b/s6c1804-1.d	1202061168	mb	18-MAR-2010	09:08	10-2140.sub	SBLK01	1.00000	960971	<input type="text"/>
<input type="checkbox"/>	Y	/chem/MSD6.i/s031810.b/s6c1805-1.d	1202061169	lcs	18-MAR-2010	09:33	10-2140.sub	SBLK01LCS	1.00000	960971	<input type="text"/>

# Sample Data Summary

Certificate of Analysis  
Sample Summary

Page 1 of 2

SDG Number: 10-2140  
Lab Sample ID: 248249003

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.1  
Analyst: NAG1  
Aliquot: 30.18 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 6.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8283  
Batch ID: 960971  
Run Date: 03/18/2010 15:52  
Prep Date: 03/04/2010 23:22  
Data File: s6c1821.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	1410	ug/kg	283	1410
108-95-2	Phenol	U	1410	ug/kg	283	1410
95-57-8	2-Chlorophenol	U	1410	ug/kg	283	1410
106-46-7	1,4-Dichlorobenzene	U	1410	ug/kg	283	1410
621-64-7	N-Nitrosodipropylamine	U	1410	ug/kg	283	1410
59-50-7	4-Chloro-3-methylphenol	U	1410	ug/kg	283	1410
83-32-9	Acenaphthene	J	91.2	ug/kg	46.7	141
121-14-2	2,4-Dinitrotoluene	U	1410	ug/kg	141	1410
100-02-7	4-Nitrophenol	U	1410	ug/kg	467	1410
87-86-5	Pentachlorophenol	U	1410	ug/kg	354	1410
129-00-0	Pyrene		2830	ug/kg	42.4	141
110-86-1	Pyridine	U	1410	ug/kg	283	1410
62-53-3	Aniline	U	1410	ug/kg	424	1410
111-44-4	bis(2-Chloroethyl) ether	U	1410	ug/kg	283	1410
541-73-1	1,3-Dichlorobenzene	U	1410	ug/kg	283	1410
100-51-6	Benzyl alcohol	U	1410	ug/kg	424	1410
95-50-1	1,2-Dichlorobenzene	U	1410	ug/kg	283	1410
108-60-1	bis(2-Chloroisopropyl)ether	U	1410	ug/kg	283	1410
95-48-7	o-Cresol	U	1410	ug/kg	283	1410
65794-96-9	m,p-Cresols	U	1410	ug/kg	424	1410
67-72-1	Hexachloroethane	U	1410	ug/kg	283	1410
98-95-3	Nitrobenzene	U	1410	ug/kg	283	1410
78-59-1	Isophorone	U	1410	ug/kg	283	1410
88-75-5	2-Nitrophenol	U	1410	ug/kg	283	1410
105-67-9	2,4-Dimethylphenol	U	1410	ug/kg	495	1410
111-91-1	bis(2-Chloroethoxy)methane	U	1410	ug/kg	283	1410
120-83-2	2,4-Dichlorophenol	U	1410	ug/kg	283	1410
65-85-0	Benzoic acid	U	2830	ug/kg	707	2830
91-20-3	Naphthalene	U	141	ug/kg	42.4	141
106-47-8	4-Chloroaniline	U	1410	ug/kg	283	1410
87-68-3	Hexachlorobutadiene	U	1410	ug/kg	283	1410
91-57-6	2-Methylnaphthalene	U	141	ug/kg	28.3	141
77-47-4	Hexachlorocyclopentadiene	U	1410	ug/kg	283	1410
88-06-2	2,4,6-Trichlorophenol	U	1410	ug/kg	283	1410
95-95-4	2,4,5-Trichlorophenol	U	1410	ug/kg	283	1410
91-58-7	2-Chloronaphthalene	U	141	ug/kg	46.7	141
88-74-4	2-Nitroaniline	U	1410	ug/kg	283	1410
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	1410	ug/kg	283	1410

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Certificate of Analysis  
Sample Summary

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SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249003	Date Received: 02/27/2010 09:10	%Moisture: 6.3
Client ID: RE36-10-8283	Client: LANL010	Project: LANL01004
Batch ID: 960971	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/18/2010 15:52	Inst: MSD6.I	Dilution: 4
Prep Date: 03/04/2010 23:22	Analyst: NAG1	Inj. Vol: .5 uL
Data File: s6c1821.d	Aliquot: 30.18 g	Final Volume: 1 mL
	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	U	1410	ug/kg	283	1410
606-20-2	2,6-Dinitrotoluene	U	1410	ug/kg	141	1410
208-96-8	Acenaphthylene	U	141	ug/kg	42.4	141
51-28-5	2,4-Dinitrophenol	U	2830	ug/kg	538	2830
132-64-9	Dibenzofuran	U	1410	ug/kg	283	1410
84-66-2	Diethylphthalate	U	1410	ug/kg	283	1410
86-73-7	Fluorene	J	95.7	ug/kg	42.4	141
7005-72-3	4-Chlorophenylphenylether	U	1410	ug/kg	283	1410
534-52-1	2-Methyl-4,6-dinitrophenol	U	1410	ug/kg	283	1410
100-01-6	4-Nitroaniline	U	1410	ug/kg	424	1410
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	1410	ug/kg	283	1410
122-66-7	Azobenzene	U	1410	ug/kg	283	1410
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	1410	ug/kg	283	1410
118-74-1	Hexachlorobenzene	U	1410	ug/kg	283	1410
85-01-8	Phenanthrene		1330	ug/kg	42.4	141
120-12-7	Anthracene		277	ug/kg	28.3	141
84-74-2	Di-n-butylphthalate	J	547	ug/kg	283	1410
206-44-0	Fluoranthene		2770	ug/kg	42.4	141
85-68-7	Butylbenzylphthalate	U	1410	ug/kg	283	1410
56-55-3	Benzo(a)anthracene		1550	ug/kg	42.4	141
91-94-1	3,3'-Dichlorobenzidine	U	1410	ug/kg	424	1410
218-01-9	Chrysene		1620	ug/kg	42.4	141
117-81-7	bis(2-Ethylhexyl)phthalate	U	1410	ug/kg	283	1410
117-84-0	Di-n-octylphthalate	U	1410	ug/kg	283	1410
205-99-2	Benzo(b)fluoranthene		3000	ug/kg	42.4	141
207-08-9	Benzo(k)fluoranthene	U	141	ug/kg	42.4	141
50-32-8	Benzo(a)pyrene		1570	ug/kg	42.4	141
193-39-5	Indeno(1,2,3-cd)pyrene		695	ug/kg	42.4	141
53-70-3	Dibenzo(a,h)anthracene	U	141	ug/kg	42.4	141
191-24-2	Benzo(ghi)perylene		710	ug/kg	42.4	141
120-82-1	1,2,4-Trichlorobenzene	U	1410	ug/kg	283	1410

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
7785-70-8	1R-.alpha.-Pinene	3.54	2760	ug/kg	97	NJ
	Unknown	7.12	576	ug/kg		J

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SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249003	Date Received: 02/27/2010 09:10	%Moisture: 6.3
Client ID: RE36-10-8283	Client: LANL010	Project: LANL01004
Batch ID: 960971	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/18/2010 15:52	Inst: MSD6.I	Dilution: 4
Prep Date: 03/04/2010 23:22	Analyst: NAG1	Inj. Vol: .5 uL
Data File: s6c1821.d	Aliquot: 30.18 g	Final Volume: 1 mL
	Column: J&W DB-SMS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
	Unknown	7.8	646	ug/kg		J
5737-13-3	Cyclopenta(def)phenanthrene	8.28	699	ug/kg	94	NJ
243-17-4	11H-Benzo[b]fluorene	8.86	876	ug/kg	95	NJ
	Unknown	8.95	1270	ug/kg		J
2381-21-7	Pyrene, 1-methyl-	9.05	579	ug/kg	93	NJ
	Unknown	9.12	1290	ug/kg		J
64401-21-4	Pyrene, 1,3-dimethyl-	9.25	591	ug/kg	95	NJ
479-79-8	11H-Benzo[a]fluoren-11-one	9.35	1120	ug/kg	90	NJ
	Unknown	9.4	675	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.48	1380	ug/kg	90	NJ
479-79-8	11H-Benzo[a]fluoren-11-one	9.55	657	ug/kg	96	NJ
239-35-0	Benzo[b]naphtho[2,1-d]thiophene	9.62	632	ug/kg	89	NJ
	Unknown	9.81	882	ug/kg		J
	Unknown	9.93	709	ug/kg		J
544-76-3	Hexadecane	10.13	703	ug/kg	95	NJ
	Unknown	10.61	1430	ug/kg		J
1000130-81-0	11,13-Dimethyl-12-tetradecen-1-ol acetat	10.63	1110	ug/kg	83	NJ
604-53-5	1,1'-Binaphthalene	10.69	1520	ug/kg	86	NJ
	Unknown	10.77	1550	ug/kg		J
192-97-2	Benzo[e]pyrene	11.26	1560	ug/kg	98	NJ
112-95-8	Eicosane	11.93	1070	ug/kg	98	NJ

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SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249004	Date Received: 02/27/2010 09:10	%Moisture: 5.5
Client ID: RE36-10-8284	Client: LANL010	Project: LANL01004
Batch ID: 960971	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/18/2010 14:40	Inst: MSD6.I	Dilution: 4
Prep Date: 03/04/2010 23:22	Analyst: NAG1	Inj. Vol: .5 uL
Data File: s6c1818.d	Aliquot: 30.01 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	1410	ug/kg	282	1410
108-95-2	Phenol	U	1410	ug/kg	282	1410
95-57-8	2-Chlorophenol	U	1410	ug/kg	282	1410
106-46-7	1,4-Dichlorobenzene	U	1410	ug/kg	282	1410
621-64-7	N-Nitrosodipropylamine	U	1410	ug/kg	282	1410
59-50-7	4-Chloro-3-methylphenol	U	1410	ug/kg	282	1410
83-32-9	Acenaphthene	J	72.5	ug/kg	46.6	141
121-14-2	2,4-Dinitrotoluene	U	1410	ug/kg	141	1410
100-02-7	4-Nitrophenol	U	1410	ug/kg	466	1410
87-86-5	Pentachlorophenol	U	1410	ug/kg	353	1410
129-00-0	Pyrene		1880	ug/kg	42.3	141
110-86-1	Pyridine	U	1410	ug/kg	282	1410
62-53-3	Aniline	U	1410	ug/kg	423	1410
111-44-4	bis(2-Chloroethyl) ether	U	1410	ug/kg	282	1410
541-73-1	1,3-Dichlorobenzene	U	1410	ug/kg	282	1410
100-51-6	Benzyl alcohol	U	1410	ug/kg	423	1410
95-50-1	1,2-Dichlorobenzene	U	1410	ug/kg	282	1410
108-60-1	bis(2-Chloroisopropyl)ether	U	1410	ug/kg	282	1410
95-48-7	o-Cresol	U	1410	ug/kg	282	1410
65794-96-9	m,p-Cresols	U	1410	ug/kg	423	1410
67-72-1	Hexachloroethane	U	1410	ug/kg	282	1410
98-95-3	Nitrobenzene	U	1410	ug/kg	282	1410
78-59-1	Isophorone	U	1410	ug/kg	282	1410
88-75-5	2-Nitrophenol	U	1410	ug/kg	282	1410
105-67-9	2,4-Dimethylphenol	U	1410	ug/kg	494	1410
111-91-1	bis(2-Chloroethoxy)methane	U	1410	ug/kg	282	1410
120-83-2	2,4-Dichlorophenol	U	1410	ug/kg	282	1410
65-85-0	Benzoic acid	U	2820	ug/kg	705	2820
91-20-3	Naphthalene	U	141	ug/kg	42.3	141
106-47-8	4-Chloroaniline	U	1410	ug/kg	282	1410
87-68-3	Hexachlorobutadiene	U	1410	ug/kg	282	1410
91-57-6	2-Methylnaphthalene	U	141	ug/kg	28.2	141
77-47-4	Hexachlorocyclopentadiene	U	1410	ug/kg	282	1410
88-06-2	2,4,6-Trichlorophenol	U	1410	ug/kg	282	1410
95-95-4	2,4,5-Trichlorophenol	U	1410	ug/kg	282	1410
91-58-7	2-Chloronaphthalene	U	141	ug/kg	46.6	141
88-74-4	2-Nitroaniline	U	1410	ug/kg	282	1410
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	1410	ug/kg	282	1410

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<b>SDG Number:</b> 10-2140	<b>Date Collected:</b> 02/24/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248249004	<b>Date Received:</b> 02/27/2010 09:10	<b>%Moisture:</b> 5.5
<b>Client ID:</b> RE36-10-8284	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 960971	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Run Date:</b> 03/18/2010 14:40	<b>Inst:</b> MSD6.I	<b>Dilution:</b> 4
<b>Prep Date:</b> 03/04/2010 23:22	<b>Analyst:</b> NAG1	<b>Inj. Vol:</b> .5 uL
<b>Data File:</b> s6c1818.d	<b>Aliquot:</b> 30.01 g	<b>Final Volume:</b> 1 mL
	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<i>m-Nitroaniline</i>						
131-11-3	Dimethylphthalate	U	1410	ug/kg	282	1410
606-20-2	2,6-Dinitrotoluene	U	1410	ug/kg	141	1410
208-96-8	Acenaphthylene	U	141	ug/kg	42.3	141
51-28-5	2,4-Dinitrophenol	U	2820	ug/kg	536	2820
132-64-9	Dibenzofuran	U	1410	ug/kg	282	1410
84-66-2	Diethylphthalate	U	1410	ug/kg	282	1410
86-73-7	Fluorene	J	71.9	ug/kg	42.3	141
7005-72-3	4-Chlorophenylphenylether	U	1410	ug/kg	282	1410
534-52-1	2-Methyl-4,6-dinitrophenol	U	1410	ug/kg	282	1410
100-01-6	4-Nitroaniline	U	1410	ug/kg	423	1410
<i>p-Nitroaniline</i>						
122-39-4	Diphenylamine	U	1410	ug/kg	282	1410
122-66-7	Azobenzene	U	1410	ug/kg	282	1410
<i>1,2-Diphenylhydrazine</i>						
101-55-3	4-Bromophenylphenylether	U	1410	ug/kg	282	1410
118-74-1	Hexachlorobenzene	U	1410	ug/kg	282	1410
85-01-8	Phenanthrene		988	ug/kg	42.3	141
120-12-7	Anthracene		191	ug/kg	28.2	141
84-74-2	Di-n-butylphthalate	J	739	ug/kg	282	1410
206-44-0	Fluoranthene		2040	ug/kg	42.3	141
85-68-7	Butylbenzylphthalate	U	1410	ug/kg	282	1410
56-55-3	Benzo(a)anthracene		988	ug/kg	42.3	141
91-94-1	3,3'-Dichlorobenzidine	U	1410	ug/kg	423	1410
218-01-9	Chrysene		1200	ug/kg	42.3	141
117-81-7	bis(2-Ethylhexyl)phthalate	U	1410	ug/kg	282	1410
117-84-0	Di-n-octylphthalate	U	1410	ug/kg	282	1410
205-99-2	Benzo(b)fluoranthene		1960	ug/kg	42.3	141
207-08-9	Benzo(k)fluoranthene	U	141	ug/kg	42.3	141
50-32-8	Benzo(a)pyrene		1080	ug/kg	42.3	141
193-39-5	Indeno(1,2,3-cd)pyrene		502	ug/kg	42.3	141
53-70-3	Dibenzo(a,h)anthracene	U	141	ug/kg	42.3	141
191-24-2	Benzo(ghi)perylene		525	ug/kg	42.3	141
120-82-1	1,2,4-Trichlorobenzene	U	1410	ug/kg	282	1410

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.06	1870	ug/kg		J
1058-61-3	Stigmast-4-en-3-one	9.17	1890	ug/kg	98	NJ

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SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249004	Date Received: 02/27/2010 09:10	%Moisture: 5.5
Client ID: RE36-10-8284	Client: LANL010	Project: LANL01004
Batch ID: 960971	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/18/2010 14:40	Inst: MSD6.1	Dilution: 4
Prep Date: 03/04/2010 23:22	Analyst: NAG1	Inj. Vol: .5 uL
Data File: s6c1818.d	Aliquot: 30.01 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary				Estimated		
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
479-79-8	11H-Benzo[a]fluoren-11-one	9.35	652	ug/kg	96	NJ
	Unknown	9.48	925	ug/kg		J
	Unknown	9.62	768	ug/kg		J
	Unknown	9.81	699	ug/kg		J
	Unknown	9.93	574	ug/kg		J
629-78-7	Heptadecane	10.13	646	ug/kg	96	NJ
	Unknown	10.25	792	ug/kg		J
559-74-0	Friedelan-3-one	10.66	10800	ug/kg	98	NJ
	Unknown	10.77	1480	ug/kg		J
198-55-0	Perylene	11.26	1120	ug/kg	99	NJ
	Unknown	11.73	1260	ug/kg		J
	Unknown	12.66	6370	ug/kg		J
	Unknown	13	1700	ug/kg		J
	Unknown	13.43	8200	ug/kg		J
	Unknown	13.56	793	ug/kg		J



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SDG Number:	10-2140	Date Collected:	02/24/2010 12:00	Matrix:	R
Lab Sample ID:	248249001	Date Received:	02/27/2010 09:10	%Moisture:	27.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE36-10-8285	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	960971	Inst:	MSD6.I	Dilution:	4
Run Date:	03/18/2010 19:26	Analyst:	NAG I	Inj. Vol:	.5 uL
Prep Date:	03/04/2010 23:22	Aliquot:	30.1 g	Final Volume:	1 mL
Data File:	s6c1830.d	Column:	J&W DB-SMS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	1840	ug/kg	369	1840
108-95-2	Phenol	U	1840	ug/kg	369	1840
95-57-8	2-Chlorophenol	U	1840	ug/kg	369	1840
106-46-7	1,4-Dichlorobenzene	U	1840	ug/kg	369	1840
621-64-7	N-Nitrosodipropylamine	U	1840	ug/kg	369	1840
59-50-7	4-Chloro-3-methylphenol	U	1840	ug/kg	369	1840
83-32-9	Acenaphthene		244	ug/kg	60.8	184
121-14-2	2,4-Dinitrotoluene	U	1840	ug/kg	184	1840
100-02-7	4-Nitrophenol	U	1840	ug/kg	608	1840
87-86-5	Pentachlorophenol	U	1840	ug/kg	461	1840
129-00-0	Pyrene		9030	ug/kg	55.3	184
110-86-1	Pyridine	U	1840	ug/kg	369	1840
62-53-3	Aniline	U	1840	ug/kg	553	1840
111-44-4	bis(2-Chloroethyl) ether	U	1840	ug/kg	369	1840
541-73-1	1,3-Dichlorobenzene	U	1840	ug/kg	369	1840
100-51-6	Benzyl alcohol	U	1840	ug/kg	553	1840
95-50-1	1,2-Dichlorobenzene	U	1840	ug/kg	369	1840
108-60-1	bis(2-Chloroisopropyl)ether	U	1840	ug/kg	369	1840
95-48-7	o-Cresol	U	1840	ug/kg	369	1840
65794-96-9	m,p-Cresols	U	1840	ug/kg	553	1840
67-72-1	Hexachloroethane	U	1840	ug/kg	369	1840
98-95-3	Nitrobenzene	U	1840	ug/kg	369	1840
78-59-1	Isophorone	U	1840	ug/kg	369	1840
88-75-5	2-Nitrophenol	U	1840	ug/kg	369	1840
105-67-9	2,4-Dimethylphenol	U	1840	ug/kg	645	1840
111-91-1	bis(2-Chloroethoxy)methane	U	1840	ug/kg	369	1840
120-83-2	2,4-Dichlorophenol	U	1840	ug/kg	369	1840
65-85-0	Benzoic acid	U	3690	ug/kg	922	3690
91-20-3	Naphthalene	U	184	ug/kg	55.3	184
106-47-8	4-Chloroaniline	U	1840	ug/kg	369	1840
87-68-3	Hexachlorobutadiene	U	1840	ug/kg	369	1840
91-57-6	2-Methylnaphthalene	U	184	ug/kg	36.9	184
77-47-4	Hexachlorocyclopentadiene	U	1840	ug/kg	369	1840
88-06-2	2,4,6-Trichlorophenol	U	1840	ug/kg	369	1840
95-95-4	2,4,5-Trichlorophenol	U	1840	ug/kg	369	1840
91-58-7	2-Chloronaphthalene	U	184	ug/kg	60.8	184
88-74-4	2-Nitroaniline	U	1840	ug/kg	369	1840
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	1840	ug/kg	369	1840

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<b>SDG Number:</b> 10-2140	<b>Date Collected:</b> 02/24/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248249001	<b>Date Received:</b> 02/27/2010 09:10	<b>% Moisture:</b> 27.9
<b>Client ID:</b> RE36-10-8285	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 960971	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Run Date:</b> 03/18/2010 19:26	<b>Inst:</b> MSD6.I	<b>Dilution:</b> 4
<b>Prep Date:</b> 03/04/2010 23:22	<b>Analyst:</b> NAG1	<b>Inj. Vol:</b> .5 uL
<b>Data File:</b> s6c1830.d	<b>Aliquot:</b> 30.1 g	<b>Final Volume:</b> 1 mL
	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	1840	ug/kg	369	1840
606-20-2	2,6-Dinitrotoluene	U	1840	ug/kg	184	1840
208-96-8	Acenaphthylene	U	184	ug/kg	55.3	184
51-28-5	2,4-Dinitrophenol	U	3690	ug/kg	701	3690
132-64-9	Dibenzofuran	U	1840	ug/kg	369	1840
84-66-2	Diethylphthalate	U	1840	ug/kg	369	1840
86-73-7	Fluorene		253	ug/kg	55.3	184
7005-72-3	4-Chlorophenylphenylether	U	1840	ug/kg	369	1840
534-52-1	2-Methyl-4,6-dinitrophenol	U	1840	ug/kg	369	1840
100-01-6	4-Nitroaniline	U	1840	ug/kg	55.3	1840
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	1840	ug/kg	369	1840
122-66-7	Azobenzene	U	1840	ug/kg	369	1840
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	1840	ug/kg	369	1840
118-74-1	Hexachlorobenzene	U	1840	ug/kg	369	1840
85-01-8	Phenanthrene		3590	ug/kg	55.3	184
120-12-7	Anthracene		787	ug/kg	36.9	184
84-74-2	Di-n-butylphthalate	J	1240	ug/kg	369	1840
206-44-0	Fluoranthene		7630	ug/kg	55.3	184
85-68-7	Butylbenzylphthalate	U	1840	ug/kg	369	1840
56-55-3	Benzo(a)anthracene		4680	ug/kg	55.3	184
91-94-1	3,3'-Dichlorobenzidine	U	1840	ug/kg	55.3	1840
218-01-9	Chrysene		5700	ug/kg	55.3	184
117-81-7	bis(2-Ethylhexyl)phthalate	U	1840	ug/kg	369	1840
117-84-0	Di-n-octylphthalate	U	1840	ug/kg	369	1840
205-99-2	Benzo(b)fluoranthene		13000	ug/kg	55.3	184
207-08-9	Benzo(k)fluoranthene	U	184	ug/kg	55.3	184
50-32-8	Benzo(a)pyrene		5940	ug/kg	55.3	184
193-39-5	Indeno(1,2,3-cd)pyrene		3010	ug/kg	55.3	184
53-70-3	Dibenzo(a,h)anthracene	U	184	ug/kg	55.3	184
191-24-2	Benzo(ghi)perylene		3130	ug/kg	55.3	184
120-82-1	1,2,4-Trichlorobenzene	U	1840	ug/kg	369	1840

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
2381-21-7	Pyrene, 1-methyl-	8.76	956	ug/kg	95	NJ
33543-31-6	Fluoranthene, 2-methyl-	8.86	1840	ug/kg	97	NJ

SEMI-VOLATILE  
Certificate of Analysis  
Sample Summary

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SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249001	Date Received: 02/27/2010 09:10	%Moisture: 27.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8285	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 4
Run Date: 03/18/2010 19:26	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30.1 g	Final Volume: 1 mL
Data File: s6c1830.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
	Unknown	8.96	1440	ug/kg		J
	Unknown	9.05	941	ug/kg		J
	Unknown	9.09	1010	ug/kg		J
479-79-8	11H-Benzo[a]fluoren-11-one	9.35	1320	ug/kg	97	NJ
239-35-0	Benzo[b]naphtho[2,1-d]thiophene	9.46	1290	ug/kg	92	NJ
	Unknown	9.49	1530	ug/kg		J
	Unknown	9.52	1160	ug/kg		J
	Unknown	9.55	1610	ug/kg		J
	Unknown	9.62	1510	ug/kg		J
	Unknown	9.82	1660	ug/kg		J
	Unknown	9.93	1130	ug/kg		J
2498-77-3	Benz[a]anthracene, 1-methyl-	10.11	1550	ug/kg	96	NJ
3351-32-4	Chrysene, 2-methyl-	10.15	1320	ug/kg	91	NJ
	Unknown	10.26	1130	ug/kg		J
	Unknown	10.33	1330	ug/kg		J
1090-13-7	5,12-Naphthacenedione	10.47	1130	ug/kg	90	NJ
	Unknown	10.57	1860	ug/kg		J
	Unknown	10.7	4350	ug/kg		J
	Unknown	10.77	5730	ug/kg		J
198-55-0	Perylene	11.27	5670	ug/kg	99	NJ

Sample Volume  
Certificate of Analysis  
Sample Summary

Page 1 of 2

SDG Number: 10-2140  
Lab Sample ID: 248249002

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.13 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 7.5  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8286  
Batch ID: 960971  
Run Date: 03/18/2010 14:16  
Prep Date: 03/04/2010 23:22  
Data File: s6c1817.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	359	ug/kg	71.8	359
108-95-2	Phenol	U	359	ug/kg	71.8	359
95-57-8	2-Chlorophenol	U	359	ug/kg	71.8	359
106-46-7	1,4-Dichlorobenzene	U	359	ug/kg	71.8	359
621-64-7	N-Nitrosodipropylamine	U	359	ug/kg	71.8	359
59-50-7	4-Chloro-3-methylphenol	U	359	ug/kg	71.8	359
83-32-9	Acenaphthene	J	14.5	ug/kg	11.8	35.9
121-14-2	2,4-Dinitrotoluene	U	359	ug/kg	35.9	359
100-02-7	4-Nitrophenol	U	359	ug/kg	118	359
87-86-5	Pentachlorophenol	U	359	ug/kg	89.7	359
129-00-0	Pyrene		425	ug/kg	10.8	35.9
110-86-1	Pyridine	U	359	ug/kg	71.8	359
62-53-3	Aniline	U	359	ug/kg	108	359
111-44-4	bis(2-Chloroethyl) ether	U	359	ug/kg	71.8	359
541-73-1	1,3-Dichlorobenzene	U	359	ug/kg	71.8	359
100-51-6	Benzyl alcohol	U	359	ug/kg	108	359
95-50-1	1,2-Dichlorobenzene	U	359	ug/kg	71.8	359
108-60-1	bis(2-Chloroisopropyl)ether	U	359	ug/kg	71.8	359
95-48-7	o-Cresol	U	359	ug/kg	71.8	359
65794-96-9	m,p-Cresols	U	359	ug/kg	108	359
67-72-1	Hexachloroethane	U	359	ug/kg	71.8	359
98-95-3	Nitrobenzene	U	359	ug/kg	71.8	359
78-59-1	Isophorone	U	359	ug/kg	71.8	359
88-75-5	2-Nitrophenol	U	359	ug/kg	71.8	359
105-67-9	2,4-Dimethylphenol	U	359	ug/kg	126	359
111-91-1	bis(2-Chloroethoxy)methane	U	359	ug/kg	71.8	359
120-83-2	2,4-Dichlorophenol	U	359	ug/kg	71.8	359
65-85-0	Benzoic acid	U	718	ug/kg	179	718
91-20-3	Naphthalene	U	35.9	ug/kg	10.8	35.9
106-47-8	4-Chloroaniline	U	359	ug/kg	71.8	359
87-68-3	Hexachlorobutadiene	U	359	ug/kg	71.8	359
91-57-6	2-Methylnaphthalene	U	35.9	ug/kg	7.18	35.9
77-47-4	Hexachlorocyclopentadiene	U	359	ug/kg	71.8	359
88-06-2	2,4,6-Trichlorophenol	U	359	ug/kg	71.8	359
95-95-4	2,4,5-Trichlorophenol	U	359	ug/kg	71.8	359
91-58-7	2-Chloronaphthalene	U	35.9	ug/kg	11.8	35.9
88-74-4	2-Nitroaniline	U	359	ug/kg	71.8	359
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	359	ug/kg	71.8	359

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

<b>SDG Number:</b> 10-2140	<b>Date Collected:</b> 02/24/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248249002	<b>Date Received:</b> 02/27/2010 09:10	<b>%Moisture:</b> 7.5
<b>Client ID:</b> RE36-10-8286	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 960971	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Run Date:</b> 03/18/2010 14:16	<b>Inst:</b> MSD6.I	<b>Dilution:</b> 1
<b>Prep Date:</b> 03/04/2010 23:22	<b>Analyst:</b> NAG1	<b>Inj. Vol:</b> .5 uL
<b>Data File:</b> s6c1817.d	<b>Aliquot:</b> 30.13 g	<b>Final Volume:</b> 1 mL
	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<i>m-Nitroaniline</i>						
131-11-3	Dimethylphthalate	U	359	ug/kg	71.8	359
606-20-2	2,6-Dinitrotoluene	U	359	ug/kg	35.9	359
208-96-8	Acenaphthylene	U	35.9	ug/kg	10.8	35.9
51-28-5	2,4-Dinitrophenol	U	718	ug/kg	136	718
132-64-9	Dibenzofuran	U	359	ug/kg	71.8	359
84-66-2	Diethylphthalate	U	359	ug/kg	71.8	359
86-73-7	Fluorene	J	13.4	ug/kg	10.8	35.9
7005-72-3	4-Chlorophenylphenylether	U	359	ug/kg	71.8	359
534-52-1	2-Methyl-4,6-dinitrophenol	U	359	ug/kg	71.8	359
100-01-6	4-Nitroaniline	U	359	ug/kg	108	359
<i>p-Nitroaniline</i>						
122-39-4	Diphenylamine	U	359	ug/kg	71.8	359
122-66-7	Azobenzene	U	359	ug/kg	71.8	359
<i>1,2-Diphenylhydrazine</i>						
101-55-3	4-Bromophenylphenylether	U	359	ug/kg	71.8	359
118-74-1	Hexachlorobenzene	U	359	ug/kg	71.8	359
85-01-8	Phenanthrene		212	ug/kg	10.8	35.9
120-12-7	Anthracene	J	30.4	ug/kg	7.18	35.9
84-74-2	Di-n-butylphthalate	J	258	ug/kg	71.8	359
206-44-0	Fluoranthene		425	ug/kg	10.8	35.9
85-68-7	Butylbenzylphthalate	U	359	ug/kg	71.8	359
56-55-3	Benzo(a)anthracene		171	ug/kg	10.8	35.9
91-94-1	3,3'-Dichlorobenzidine	U	359	ug/kg	108	359
218-01-9	Chrysene		269	ug/kg	10.8	35.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	359	ug/kg	71.8	359
117-84-0	Di-n-octylphthalate	U	359	ug/kg	71.8	359
205-99-2	Benzo(b)fluoranthene		490	ug/kg	10.8	35.9
207-08-9	Benzo(k)fluoranthene	U	35.9	ug/kg	10.8	35.9
50-32-8	Benzo(a)pyrene		220	ug/kg	10.8	35.9
193-39-5	Indeno(1,2,3-cd)pyrene		111	ug/kg	10.8	35.9
53-70-3	Dibenzo(a,h)anthracene	U	35.9	ug/kg	10.8	35.9
191-24-2	Benzo(ghi)perylene		126	ug/kg	10.8	35.9
120-82-1	1,2,4-Trichlorobenzene	U	359	ug/kg	71.8	359

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
506-30-9	Eicosanoic acid	9.06	275	ug/kg	91	NJ
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.14	170	ug/kg	98	NJ

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 3 of 3

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249002	Date Received: 02/27/2010 09:10	%Moisture: 7.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8286	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 1
Run Date: 03/18/2010 14:16	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30.13 g	Final Volume: 1 mL
Data File: s6c1817.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
	Unknown	9.19	147	ug/kg		J
54482-31-4	D-Homoandrostane, (5.alpha.,13.alpha.)-	9.37	191	ug/kg	95	NJ
	Unknown	9.41	195	ug/kg		J
	Unknown	9.46	210	ug/kg		J
	Unknown	9.5	867	ug/kg		J
	Unknown	9.62	170	ug/kg		J
1599-67-3	1-Docosene	9.8	907	ug/kg	97	NJ
7773-83-3	1-Docosanethiol	9.93	298	ug/kg	87	NJ
1786-12-5	Cyclotetradecane, 1,7,11-trimethyl-4-(1-	9.99	151	ug/kg	94	NJ
930-02-9	Octadecane, 1-(ethenyl-oxy)-	10.04	190	ug/kg	90	NJ
629-78-7	Heptadecane	10.13	195	ug/kg	92	NJ
	Unknown	10.24	234	ug/kg		J
2433-96-7	Tricosanoic acid	10.41	447	ug/kg	89	NJ
559-74-0	Friedelan-3-one	10.63	2610	ug/kg	93	NJ
	Unknown	10.71	478	ug/kg		J
	Unknown	10.77	965	ug/kg		J
1000130-78-5	11,12-Dibromo-tetradecan-1-ol acetate	11.04	376	ug/kg	84	NJ

# QC Summary

# Surrogate Recovery Report

Page 1 of 1

SDG Number: 10-2140

Matrix Type: SOLID

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

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202061168	MB for batch 960970	61	60	61	70	67	90
1202061169	LCS for batch 960970	50	48	50	56	60	72
248249002	RE36-10-8286	62	64	61	74	87	95
248249004	RE36-10-8284	65 D	66 D	62 D	81 D	85 D	93 D
248249003	RE36-10-8283	65 D	65 D	63 D	78 D	80 D	96 D
248249001	RE36-10-8285	71 D	71 D	68 D	86 D	87 D	114 D

## 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



# **Quality Control Summary Spike Recovery Report**

**SDG Number:** 10-2140

**Client ID:** LCS for batch 960970

**Lab Sample ID:**1202061169

**Instrument:** MSD6.1

**Analyst:** NAG1

**Inj. Vol:** .5 uL

**Sample Type:** Laboratory Control Sample

**Matrix:** SOIL

**Analysis Date:** 03/18/2010 09:33

**Dilution:** 1

**Pre Batch II** 960970

**Batch ID:** 960971

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS N-Methyl-N-nitrosomethylam	1670	0.0	729	44	22-114
108-95-2	LCS Phenol	1670	0.0	808	48	39-104
95-57-8	LCS 2-Chlorophenol	1670	0.0	916	55	40-107
106-46-7	LCS 1,4-Dichlorobenzene	1670	0.0	876	53	33-108
621-64-7	LCS N-Nitrosodipropylamine	1670	0.0	831	50	34-113
59-50-7	LCS 4-Chloro-3-methylphenol	1670	0.0	798	48	42-114
83-32-9	LCS Acenaphthene	1670	0.0	867	52	40-105
121-14-2	LCS 2,4-Dinitrotoluene	1670	0.0	1070	64	49-112
100-02-7	LCS 4-Nitrophenol	1670	0.0	297	18 *	24-113
87-86-5	LCS Pentachlorophenol	1670	0.0	929	56	27-116
129-00-0	LCS Pyrene	1670	0.0	1040	63	42-113
110-86-1	LCS Pyridine	1670	0.0	771	46	8-125
62-53-3	LCS Aniline	1670	0.0	678	41	18-126
111-44-4	LCS bis(2-Chloroethyl) ether	1670	0.0	776	47	32-103
541-73-1	LCS 1,3-Dichlorobenzene	1670	0.0	890	53	32-108
100-51-6	LCS Benzyl alcohol	1670	0.0	328	20 *	27-108
95-50-1	LCS 1,2-Dichlorobenzene	1670	0.0	906	54	35-111
108-60-1	LCS bis(2-Chloroisopropyl)ether	1670	0.0	807	48	28-117
95-48-7	LCS o-Cresol	1670	0.0	897	54	39-111
65794-96-9	LCS m,p-Cresols	1670	0.0	954	57	45-121
67-72-1	LCS Hexachloroethane	1670	0.0	828	50	30-109
98-95-3	LCS Nitrobenzene	1670	0.0	901	54	33-116

**Quality Control Summary  
Spike Recovery Report**

Page 2 of 7

SDG Number: 10-2140

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 960970

Matrix: SOIL

Lab Sample ID:1202061169

Instrument: MSD6.I

Analysis Date: 03/18/2010 09:33

Dilution: 1

Analyst: NAG1

Pre Batch ID: 960970

Inj. Vol: .5 uL

Batch ID: 960971

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	870	52	35-113
88-75-5	LCS 2-Nitrophenol	1670	0.0	975	59	31-117
105-67-9	LCS 2,4-Dimethylphenol	1670	0.0	2040	123 *	32-112
111-91-1	LCS bis(2-Chloroethoxy)methane	1670	0.0	833	50	34-110
120-83-2	LCS 2,4-Dichlorophenol	1670	0.0	900	54	34-116
65-85-0	LCS Benzoic acid	3330	0.0	2110	63	22-138
91-20-3	LCS Naphthalene	1670	0.0	792	48	35-103
106-47-8	LCS 4-Chloroaniline	1670	0.0	782	47	20-118
87-68-3	LCS Hexachlorobutadiene	1670	0.0	954	57	31-117
91-57-6	LCS 2-Methylnaphthalene	1670	0.0	886	53	38-115
77-47-4	LCS Hexachlorocyclopentadiene	1670	0.0	1140	69	22-140
88-06-2	LCS 2,4,6-Trichlorophenol	1670	0.0	795	48	40-110
95-95-4	LCS 2,4,5-Trichlorophenol	1670	0.0	1000	60	43-113
91-58-7	LCS 2-Chloronaphthalene	1670	0.0	925	55	37-111
88-74-4	LCS 2-Nitroaniline <i>o</i> -Nitroaniline	1670	0.0	875	53	41-113
99-09-2	LCS 3-Nitroaniline <i>m</i> -Nitroaniline	1670	0.0	907	54	34-125
131-11-3	LCS Dimethylphthalate	1670	0.0	1110	66	48-122
606-20-2	LCS 2,6-Dinitrotoluene	1670	0.0	1070	64	47-107
208-96-8	LCS Acenaphthylene	1670	0.0	974	58	44-110
51-28-5	LCS 2,4-Dinitrophenol	1670	0.0	1260	75	18-127
132-64-9	LCS Dibenzofuran	1670	0.0	1040	62	49-115
84-66-2	LCS Diethylphthalate	1670	0.0	1130	68	51-126

**Quality Control Summary  
Spike Recovery Report**

Page 3 of 4

**SDG Number:** 10-2140

**Sample Type:** Laboratory Control Sample

**Client ID:** LCS for batch 960970

**Matrix:** SOIL

**Lab Sample ID:**1202061169

**Instrument:** MSD6.I

**Analysis Date:** 03/18/2010 09:33

**Dilution:** 1

**Analyst:** NAG1

**Prep Batch ID:** 960970

**Inj. Vol:** .5 uL

**Batch ID:** 960971

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	924	55	43-109
7005-72-3	LCS 4-Chlorophenylphenylether	1670	0.0	1080	65	45-115
534-52-1	LCS 2-Methyl-4,6-dinitrophenol	1670	0.0	1300	78	32-117
100-01-6	LCS 4-Nitroaniline <i>p-Nitroaniline</i>	1670	0.0	1090	65	33-148
122-39-4	LCS Diphenylamine	1670	0.0	1120	67	46-114
122-66-7	LCS Azobenzene <i>1,2-Diphenylhydrazine</i>	1670	0.0	1040	63	38-123
101-55-3	LCS 4-Bromophenylphenylether	1670	0.0	1150	69	40-119
118-74-1	LCS Hexachlorobenzene	1670	0.0	1180	71	43-111
85-01-8	LCS Phenanthrene	1670	0.0	1000	60	46-107
120-12-7	LCS Anthracene	1670	0.0	992	60	46-110
84-74-2	LCS Di-n-butylphthalate	1670	0.0	1100	66	52-132
206-44-0	LCS Fluoranthene	1670	0.0	1100	66	51-115
85-68-7	LCS Butylbenzylphthalate	1670	0.0	1070	64	47-137
56-55-3	LCS Benzo(a)anthracene	1670	0.0	1040	63	50-108
91-94-1	LCS 3,3'-Dichlorobenzidine	1670	0.0	902	54	36-103
218-01-9	LCS Chrysene	1670	0.0	1070	64	48-111
117-81-7	LCS bis(2-Ethylhexyl)phthalate	1670	0.0	1050	63	48-139
117-84-0	LCS Di-n-octylphthalate	1670	0.0	990	59	42-141
205-99-2	LCS Benzo(b)fluoranthene	1670	0.0	1040	63	49-114
207-08-9	LCS Benzo(k)fluoranthene	1670	0.0	1120	67	50-116
50-32-8	LCS Benzo(a)pyrene	1670	0.0	1110	67	54-114
193-39-5	LCS Indeno(1,2,3-cd)pyrene	1670	0.0	1130	68	53-120

**Quality Control Summary  
Spike Recovery Report**

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**SDG Number:** 10-2140

**Sample Type:** Laboratory Control Sample

**Client ID:** LCS for batch 960970

**Matrix:** SOIL

**Lab Sample ID:**1202061169

**Instrument:** MSD6.I

**Analysis Date:** 03/18/2010 09:33

**Dilution:** 1

**Analyst:** NAG1

**Pre Batch II** 960970

**Inj. Vol:** .5 uL

**Batch ID:** 960971

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	1120	67	53-121
191-24-2	LCS Benzo(ghi)perylene	1670	0.0	1100	66	50-121
120-82-1	LCS 1,2,4-Trichlorobenzene	1670	0.0	936	56	32-114

# **Quality Control Summary Spike Recovery Report**

SDG Number: 10-2140

Client ID: RE46-10-13534MS

Lab Sample ID:1202061170

Instrument: MSD6.1

Analyst: NAG1

Inj. Vol: .5 uL

Sample Type: Matrix Spike

Matrix: S

%Moisture: 14.1

Analysis Date: 03/18/2010 16:40

Dilution: 4

Prep Batch ID: 960970

Batch ID: 960971

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	1930	0.00 U	917	47	27-98
108-95-2	MS Phenol	1930	0.00 U	1190	62	33-94
95-57-8	MS 2-Chlorophenol	1930	0.00 U	1290	67	29-96
106-46-7	MS 1,4-Dichlorobenzene	1930	0.00 U	1200	62	27-96
621-64-7	MS N-Nitrosodipropylamine	1930	0.00 U	1180	61	29-102
59-50-7	MS 4-Chloro-3-methylphenol	1930	0.00 U	1520	79	29-110
83-32-9	MS Acenaphthene	1930	150 J	1290	59	17-109
121-14-2	MS 2,4-Dinitrotoluene	1930	0.00 U	1360	71	33-107
100-02-7	MS 4-Nitrophenol	1930	0.00 U	1300	67	15-110
87-86-5	MS Pentachlorophenol	1930	0.00 U	1350	70	23-110
129-00-0	MS Pyrene	1930	1740	2180	23 *	24-118
110-86-1	MS Pyridine	1930	0.00 U	851	44	25-102
62-53-3	MS Aniline	1930	0.00 U	1060	55	18-109
111-44-4	MS bis(2-Chloroethyl) ether	1930	0.00 U	1050	54	29-96
541-73-1	MS 1,3-Dichlorobenzene	1930	0.00 U	1220	63	26-97
100-51-6	MS Benzyl alcohol	1930	0.00 U	0.00	0 *	19-112
95-50-1	MS 1,2-Dichlorobenzene	1930	0.00 U	1330	69	30-97
108-60-1	MS bis(2-Chloroisopropyl)ether	1930	0.00 U	1080	56	28-103
95-48-7	MS o-Cresol	1930	0.00 U	1480	77	32-107
65794-96-9	MS m,p-Cresols	1930	0.00 U	1660	86	33-115
67-72-1	MS Hexachloroethane	1930	0.00 U	1030	53	25-100
98-95-3	MS Nitrobenzene	1930	0.00 U	1340	69	27-106

# Quality Control Summary Spike Recovery Report

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SDG Number: 10-2140

Client ID: RE46-10-13534MS

Lab Sample ID:1202061170

Instrument: MSD6.I

Analyst: NAG1

Inj. Vol: .5 uL

Sample Type: Matrix Spike

Matrix: S

%Moisture: 14.1

Analysis Date: 03/18/2010 16:40

Dilution: 4

Prep Batch ID: 960970

Batch ID: 960971

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS Isophorone	1930	0.00 U	1290	67	29-104
88-75-5	MS 2-Nitrophenol	1930	0.00 U	1320	68	26-102
105-67-9	MS 2,4-Dimethylphenol	1930	0.00 U	1960	101	22-104
111-91-1	MS bis(2-Chloroethoxy)methane	1930	0.00 U	1270	66	27-101
120-83-2	MS 2,4-Dichlorophenol	1930	0.00 U	1490	77	26-103
65-85-0	MS Benzoic acid	3860	0.00 U	2400	62	13-131
91-20-3	MS Naphthalene	1930	0.00 U	1260	65	23-103
106-47-8	MS 4-Chloroaniline	1930	0.00 U	1300	67	26-103
87-68-3	MS Hexachlorobutadiene	1930	0.00 U	1390	72	28-101
91-57-6	MS 2-Methylnaphthalene	1930	0.00 U	1410	73	27-106
77-47-4	MS Hexachlorocyclopentadiene	1930	0.00 U	785	41	24-117
88-06-2	MS 2,4,6-Trichlorophenol	1930	0.00 U	1480	77	26-105
95-95-4	MS 2,4,5-Trichlorophenol	1930	0.00 U	1590	82	30-110
91-58-7	MS 2-Chloronaphthalene	1930	0.00 U	1420	73	28-102
88-74-4	MS 2-Nitroaniline <i>o</i> -Nitroaniline	1930	0.00 U	1170	61	33-106
99-09-2	MS 3-Nitroaniline <i>m</i> -Nitroaniline	1930	0.00 U	1340	69	33-116
131-11-3	MS Dimethylphthalate	1930	0.00 U	1590	82	38-113
606-20-2	MS 2,6-Dinitrotoluene	1930	0.00 U	1400	72	29-107
208-96-8	MS Acenaphthylene	1930	0.00 U	1470	76	25-108
51-28-5	MS 2,4-Dinitrophenol	1930	0.00 U	1300	67	14-102
132-64-9	MS Dibenzofuran	1930	0.00 U	1650	85	35-112
84-66-2	MS Diethylphthalate	1930	0.00 U	1640	85	36-122

**Quality Control Summary  
Spike Recovery Report**

Page 3 of 3

SDG Number: 10-2140

Client ID: RE46-10-13534MS

Lab Sample ID: 1202061170

Instrument: MSD6.I

Analyst: NAG1

Inj. Vol: .5 uL

Sample Type: Matrix Spike

Matrix: S

%Moisture: 14.1

Analysis Date: 03/18/2010 16:40

Dilution: 4

Pre Batch ID: 960970

Batch ID: 960971

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS Fluorene	1930	145 J	1480	69	33-105
7005-72-3	MS 4-Chlorophenylphenylether	1930	0.00 U	1640	85	30-110
534-52-1	MS 2-Methyl-4,6-dinitrophenol	1930	0.00 U	1200	62	26-97
100-01-6	MS 4-Nitroaniline <i>p</i> -Nitroaniline	1930	0.00 U	1510	78	28-135
122-39-4	MS Diphenylamine	1930	0.00 U	1620	84	33-109
122-66-7	MS Azobenzene <i>1,2</i> -Diphenylhydrazine	1930	0.00 U	1520	78	31-113
101-55-3	MS 4-Bromophenylphenylether	1930	0.00 U	1620	84	31-109
118-74-1	MS Hexachlorobenzene	1930	0.00 U	1520	79	37-99
85-01-8	MS Phenanthrene	1930	1300	1770	24 *	29-109
120-12-7	MS Anthracene	1930	240	1510	66	19-118
84-74-2	MS Di-n-butylphthalate	1930	0.00 U	1510	78	39-123
206-44-0	MS Fluoranthene	1930	1810	1970	8 *	33-114
85-68-7	MS Butylbenzylphthalate	1930	0.00 U	1600	83	35-131
56-55-3	MS Benzo(a)anthracene	1930	729	1530	42	30-111
91-94-1	MS 3,3'-Dichlorobenzidine	1930	0.00 U	1260	65	30-124
218-01-9	MS Chrysene	1930	763	1680	48	32-108
117-81-7	MS bis(2-Ethylhexyl)phthalate	1930	0.00 U	1540	80	37-129
117-84-0	MS Di-n-octylphthalate	1930	0.00 U	1830	95	31-143
205-99-2	MS Benzo(b)fluoranthene	1930	1190	1750	29	29-118
207-08-9	MS Benzo(k)fluoranthene	1930	0.00 U	1660	86	32-118
50-32-8	MS Benzo(a)pyrene	1930	596	1600	52	33-115
193-39-5	MS Indeno(1,2,3-cd)pyrene	1930	253	1300	54	29-114

# Quality Control Summary Spike Recovery Report

Page 7 of 8

SDG Number: 10-2140

Sample Type: Matrix Spike

Client ID: RE46-10-13534MS

Matrix: S

Lab Sample ID:1202061170

%Moisture: 14.1

Instrument: MSD6.I

Analysis Date: 03/18/2010 16:40

Dilution: 4

Analyst: NAG1

Pre Batch ID: 960970

Inj. Vol: .5 uL

Batch ID: 960971

CAS No	Paramname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS Dibenzo(a,h)anthracene	1930	0.00 U	1270	66	27-119
191-24-2	MS Benzo(ghi)perylene	1930	231	1170	48	28-112
120-82-1	MS 1,2,4-Trichlorobenzene	1930	0.00 U	1400	73	28-99



**Quality Control Summary  
Spike Recovery Report**

Page 2 of 3

**SDG Number: 10-2140**

**Sample Type: Matrix Spike Duplicate**

**Client ID: RE46-10-13534MSD**

**Matrix: S**

**Lab Sample ID:1202061171**

**%Moisture: 14.1**

**Instrument: MSD6.I**

**Analysis Date: 03/18/2010 17:03**

**Dilution: 4**

**Analyst: NAG1**

**Prep Batch ID: 960970**

**Inj. Vol: .5 uL**

**Batch ID: 960971**

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	1930	0.00 U	779	40	27-98	16	0-30
108-95-2	MSD Phenol	1930	0.00 U	1020	53	33-94	16	0-30
95-57-8	MSD 2-Chlorophenol	1930	0.00 U	1060	55	29-96	20	0-30
106-46-7	MSD 1,4-Dichlorobenzene	1930	0.00 U	1020	53	27-96	16	0-30
621-64-7	MSD N-Nitrosodipropylamine	1930	0.00 U	978	51	29-102	19	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	1930	0.00 U	1310	68	29-110	15	0-30
83-32-9	MSD Acenaphthene	1930	150 J	1110	50	17-109	15	0-30
121-14-2	MSD 2,4-Dinitrotoluene	1930	0.00 U	1150	60	33-107	17	0-30
100-02-7	MSD 4-Nitrophenol	1930	0.00 U	1120	58	15-110	15	0-30
87-86-5	MSD Pentachlorophenol	1930	0.00 U	1070	55	23-110	23	0-30
129-00-0	MSD Pyrene	1930	1740	1970	12 *	24-118	10	0-30
110-86-1	MSD Pyridine	1930	0.00 U	729	38	25-102	15	0-30
62-53-3	MSD Aniline	1930	0.00 U	944	49	18-109	12	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	1930	0.00 U	874	45	29-96	18	0-30
541-73-1	MSD 1,3-Dichlorobenzene	1930	0.00 U	1000	52	26-97	20	0-30
100-51-6	MSD Benzyl alcohol	1930	0.00 U	0.00	0 *	19-112	0	0-30
95-50-1	MSD 1,2-Dichlorobenzene	1930	0.00 U	1080	56	30-97	21	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	1930	0.00 U	893	46	28-103	19	0-30
95-48-7	MSD o-Cresol	1930	0.00 U	1200	63	32-107	21	0-30
65794-96-9	MSD m,p-Cresols	1930	0.00 U	1360	71	33-115	20	0-30
67-72-1	MSD Hexachloroethane	1930	0.00 U	852	44	25-100	19	0-30
98-95-3	MSD Nitrobenzene	1930	0.00 U	1130	59	27-106	16	0-30

**Quality Control Summary  
Spike Recovery Report**

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**SDG Number:** 10-2140

**Sample Type:** Matrix Spike Duplicate

**Client ID:** RE46-10-13534MSD

**Matrix:** S

**Lab Sample ID:**1202061171

**%Moisture:** 14.1

**Instrument:** MSD6.I

**Analysis Date:** 03/18/2010 17:03

**Dilution:** 4

**Analyst:** NAG1

**Pre Batch ID:** 960970

**Inj. Vol:** .5 uL

**Batch ID:** 960971

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	1930	0.00 U	1080	56	29-104	17	0-30
88-75-5	MSD 2-Nitrophenol	1930	0.00 U	1070	56	26-102	20	0-30
105-67-9	MSD 2,4-Dimethylphenol	1930	0.00 U	1530	79	22-104	25	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1930	0.00 U	1040	54	27-101	20	0-30
120-83-2	MSD 2,4-Dichlorophenol	1930	0.00 U	1260	65	26-103	17	0-30
65-85-0	MSD Benzoic acid	3850	0.00 U	1990	52	13-131	19	0-30
91-20-3	MSD Naphthalene	1930	0.00 U	1050	55	23-103	18	0-30
106-47-8	MSD 4-Chloroaniline	1930	0.00 U	1150	60	26-103	12	0-30
87-68-3	MSD Hexachlorobutadiene	1930	0.00 U	1190	62	28-101	15	0-30
91-57-6	MSD 2-Methylnaphthalene	1930	0.00 U	1160	60	27-106	19	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1930	0.00 U	602	31	24-117	26	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1930	0.00 U	1230	64	26-105	18	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1930	0.00 U	1270	66	30-110	22	0-30
91-58-7	MSD 2-Chloronaphthalene	1930	0.00 U	1180	61	28-102	18	0-30
88-74-4	MSD 2-Nitroaniline <i>o</i> -Nitroaniline	1930	0.00 U	983	51	33-106	18	0-30
99-09-2	MSD 3-Nitroaniline <i>m</i> -Nitroaniline	1930	0.00 U	1150	60	33-116	15	0-30
131-11-3	MSD Dimethylphthalate	1930	0.00 U	1320	69	38-113	18	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1930	0.00 U	1160	60	29-107	19	0-30
208-96-8	MSD Acenaphthylene	1930	0.00 U	1220	63	25-108	18	0-30
51-28-5	MSD 2,4-Dinitrophenol	1930	0.00 U	1220	63	14-102	7	0-30
132-64-9	MSD Dibenzofuran	1930	0.00 U	1380	72	35-112	18	0-30
84-66-2	MSD Diethylphthalate	1930	0.00 U	1380	71	36-122	18	0-30

# Quality Control Summary Spike Recovery Report

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SDG Number: 10-2140

Client ID: RE46-10-13534MSD

Lab Sample ID:1202061171

Instrument: MSD6.I

Analyst: NAG1

Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate

Matrix: S

%Moisture: 14.1

Analysis Date: 03/18/2010 17:03

Dilution: 4

Prep Batch ID: 960970

Batch ID: 960971

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD Fluorene	1930	145 J	1280	59	33-105	15	0-30
7005-72-3	MSD 4-Chlorophenylphenylether	1930	0.00 U	1390	72	30-110	17	0-30
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	1930	0.00 U	1110	58	26-97	8	0-30
100-01-6	MSD 4-Nitroaniline <i>p-Nitroaniline</i>	1930	0.00 U	1370	71	28-135	10	0-30
122-39-4	MSD Diphenylamine	1930	0.00 U	1370	71	33-109	17	0-30
122-66-7	MSD Azobenzene <i>1,2-Diphenylhydrazine</i>	1930	0.00 U	1250	65	31-113	19	0-30
101-55-3	MSD 4-Bromophenylphenylether	1930	0.00 U	1390	72	31-109	15	0-30
118-74-1	MSD Hexachlorobenzene	1930	0.00 U	1300	68	37-99	16	0-30
85-01-8	MSD Phenanthrene	1930	1300	1680	20 *	29-109	5	0-30
120-12-7	MSD Anthracene	1930	240	1350	57	19-118	12	0-30
84-74-2	MSD Di-n-butylphthalate	1930	0.00 U	1270	66	39-123	17	0-30
206-44-0	MSD Fluoranthene	1930	1810	1880	3 *	33-114	4	0-30
85-68-7	MSD Butylbenzylphthalate	1930	0.00 U	1300	68	35-131	20	0-30
56-55-3	MSD Benzo(a)anthracene	1930	729	1400	35	30-111	9	0-30
91-94-1	MSD 3,3'-Dichlorobenzidine	1930	0.00 U	1130	59	30-124	11	0-30
218-01-9	MSD Chrysene	1930	763	1510	38	32-108	11	0-30
117-81-7	MSD bis(2-Ethylhexyl)phthalate	1930	0.00 U	1320	69	37-129	15	0-30
117-84-0	MSD Di-n-octylphthalate	1930	0.00 U	1500	78	31-143	20	0-30
205-99-2	MSD Benzo(b)fluoranthene	1930	1190	1590	20 *	29-118	10	0-30
207-08-9	MSD Benzo(k)fluoranthene	1930	0.00 U	1420	73	32-118	16	0-30
50-32-8	MSD Benzo(a)pyrene	1930	596	1410	42	33-115	12	0-30
193-39-5	MSD Indeno(1,2,3-cd)pyrene	1930	253	1080	43	29-114	19	0-30

**Quality Control Summary  
Spike Recovery Report**

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<b>SDG Number:</b> 10-2140	<b>Sample Type:</b> Matrix Spike Duplicate
<b>Client ID:</b> RE46-10-13534MSD	<b>Matrix:</b> S
<b>Lab Sample ID:</b> 1202061171	<b>% Moisture:</b> 14.1
<b>Instrument:</b> MSD6.I	<b>Analysis Date:</b> 03/18/2010 17:03
<b>Analyst:</b> NAG1	<b>Dilution:</b> 4
<b>Inj. Vol:</b> .5 uL	<b>Prep Batch ID:</b> 960970
	<b>Batch ID:</b> 960971

CAS No	Paramname	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	1930	0.00 U	1080	56	27-119	17	0-30
191-24-2	MSD Benzo(ghi)perylene	1930	231	1010	41	28-112	14	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1930	0.00 U	1190	62	28-99	17	0-30

## Method Blank Summary

Page 1 of 1

SDG Number:	10-2140	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 960970	Instrument ID:	MSD6.I	Data File:	s6c1804-1.d
Lab Sample ID:	1202061168	Prep Date:	03/04/2010 23:22	Analyzed:	03/18/10 09:08
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 960970	1202061169	s6c1805-1.d	03/18/10	0933
02 RE36-10-8286	248249002	s6c1817.d	03/18/10	1416
03 RE36-10-8284	248249004	s6c1818.d	03/18/10	1440
04 RE36-10-8283	248249003	s6c1821.d	03/18/10	1552
07 RE36-10-8285	248249001	s6c1830.d	03/18/10	1926

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2140

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: 10-2140

Instrument ID: MSD6.1

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: 10-2140

Instrument ID: MSD6.I

Injection Date/Time: 18-MAR-10 07:59

Column Description: Phenomenex ZB-5MS

Lab File ID /chem/MSD6.i/s031810.b/s6c1801.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.7
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	44.5
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	48.5
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23
365	Greater than 1% of mass 198	2
441	Present, but less than mass 443	74.1
442	Greater than 40% of mass 198	63.5
443	17 - 23% of mass 442	19.3

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
MEGACVS	WBN100309-05.3	s6c1802-D.d	18-MAR-10 08:12
APCVS	WBN10031203.3	s6c1803.d	18-MAR-10 08:42
SBLK01	1202061168	s6c1804-1.d	18-MAR-10 09:08
SBLK01LCS	1202061169	s6c1805-1.d	18-MAR-10 09:33
RE36-10-8286	248249002	s6c1817.d	18-MAR-10 14:16
RE36-10-8284	248249004	s6c1818.d	18-MAR-10 14:40
RE36-10-8283	248249003	s6c1821.d	18-MAR-10 15:52
RE36-10-8285	248249001	s6c1830.d	18-MAR-10 19:26



# Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2140

Instrument: MSD6.I

STD Analysis Time: 18-MAR-10 08:12

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

Data File: s6c1802-D.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	395994		3.96	1442881		4.83	878105		6.09	1467337		7.27	1252158		9.7	1051962		11.4
Upper Limit	791988		4.46	2885762		5.33	1756210		6.59	2934674		7.77	2504316		10.2	2103924		11.9
Lower Limit	197997		3.46	721441		4.33	439053		5.59	733669		6.77	626079		9.2	525981		10.9
Sample ID																		
BLK01	473345		3.97	1702921		4.83	1049987		6.1	1731342		7.27	1471042		9.7	1195601		11.4
BLK01LCS	466391		3.97	1771443		4.84	1031726		6.1	1706712		7.28	1509750		9.71	1333922		11.4
RE36-10-8286	467885		3.97	1718788		4.84	1062732		6.1	1855330		7.28	1363261		9.71	836682		11.4
RE36-10-8284	452664		3.97	1640033		4.84	1015475		6.1	1791253		7.28	1471832		9.71	1017053		11.4
RE36-10-8283	517540		3.97	1836964		4.84	1149176		6.1	1976070		7.28	1469512		9.71	944179		11.4
RE36-10-8285	536610		3.97	1898182		4.84	1160051		6.1	1968173		7.28	1280963		9.71	704184		11.4

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

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 1 of 2

SDG Number: 10-2140  
Lab Sample ID: 248249003

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.18 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 6.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8283  
Batch ID: 960971  
Run Date: 03/18/2010 15:52  
Prep Date: 03/04/2010 23:22  
Data File: s6c1821.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	1410	ug/kg	283	1410
108-95-2	Phenol	U	1410	ug/kg	283	1410
95-57-8	2-Chlorophenol	U	1410	ug/kg	283	1410
106-46-7	1,4-Dichlorobenzene	U	1410	ug/kg	283	1410
621-64-7	N-Nitrosodipropylamine	U	1410	ug/kg	283	1410
59-50-7	4-Chloro-3-methylphenol	U	1410	ug/kg	283	1410
83-32-9	Acenaphthene	J	91.2	ug/kg	46.7	141
121-14-2	2,4-Dinitrotoluene	U	1410	ug/kg	141	1410
100-02-7	4-Nitrophenol	U	1410	ug/kg	467	1410
87-86-5	Pentachlorophenol	U	1410	ug/kg	354	1410
129-00-0	Pyrene		2830	ug/kg	42.4	141
110-86-1	Pyridine	U	1410	ug/kg	283	1410
62-53-3	Aniline	U	1410	ug/kg	424	1410
111-44-4	bis(2-Chloroethyl) ether	U	1410	ug/kg	283	1410
541-73-1	1,3-Dichlorobenzene	U	1410	ug/kg	283	1410
100-51-6	Benzyl alcohol	U	1410	ug/kg	424	1410
95-50-1	1,2-Dichlorobenzene	U	1410	ug/kg	283	1410
108-60-1	bis(2-Chloroisopropyl)ether	U	1410	ug/kg	283	1410
95-48-7	o-Cresol	U	1410	ug/kg	283	1410
65794-96-9	m,p-Cresols	U	1410	ug/kg	424	1410
67-72-1	Hexachloroethane	U	1410	ug/kg	283	1410
98-95-3	Nitrobenzene	U	1410	ug/kg	283	1410
78-59-1	Isophorone	U	1410	ug/kg	283	1410
88-75-5	2-Nitrophenol	U	1410	ug/kg	283	1410
105-67-9	2,4-Dimethylphenol	U	1410	ug/kg	495	1410
111-91-1	bis(2-Chloroethoxy)methane	U	1410	ug/kg	283	1410
120-83-2	2,4-Dichlorophenol	U	1410	ug/kg	283	1410
65-85-0	Benzoic acid	U	2830	ug/kg	707	2830
91-20-3	Naphthalene	U	141	ug/kg	42.4	141
106-47-8	4-Chloroaniline	U	1410	ug/kg	283	1410
87-68-3	Hexachlorobutadiene	U	1410	ug/kg	283	1410
91-57-6	2-Methylnaphthalene	U	141	ug/kg	28.3	141
77-47-4	Hexachlorocyclopentadiene	U	1410	ug/kg	283	1410
88-06-2	2,4,6-Trichlorophenol	U	1410	ug/kg	283	1410
95-95-4	2,4,5-Trichlorophenol	U	1410	ug/kg	283	1410
91-58-7	2-Chloronaphthalene	U	141	ug/kg	46.7	141
88-74-4	2-Nitroaniline	U	1410	ug/kg	283	1410
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	1410	ug/kg	283	1410

Semi-volatile  
Certificate of Analysis  
Sample Summary

Page 2 of 3

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249003	Date Received: 02/27/2010 09:10	%Moisture: 6.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8283	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 4
Run Date: 03/18/2010 15:52	Analyst: NAGJ	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30.18 g	Final Volume: 1 mL
Data File: s6c1821.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	1410	ug/kg	283	1410
606-20-2	2,6-Dinitrotoluene	U	1410	ug/kg	141	1410
208-96-8	Acenaphthylene	U	141	ug/kg	42.4	141
51-28-5	2,4-Dinitrophenol	U	2830	ug/kg	538	2830
132-64-9	Dibenzofuran	U	1410	ug/kg	283	1410
84-66-2	Diethylphthalate	U	1410	ug/kg	283	1410
86-73-7	Fluorene	J	95.7	ug/kg	42.4	141
7005-72-3	4-Chlorophenylphenylether	U	1410	ug/kg	283	1410
534-52-1	2-Methyl-4,6-dinitrophenol	U	1410	ug/kg	283	1410
100-01-6	4-Nitroaniline	U	1410	ug/kg	424	1410
<i>p-Nitroaniline</i>						
122-39-4	Diphenylamine	U	1410	ug/kg	283	1410
122-66-7	Azobenzene	U	1410	ug/kg	283	1410
<i>1,2-Diphenylhydrazine</i>						
101-55-3	4-Bromophenylphenylether	U	1410	ug/kg	283	1410
118-74-1	Hexachlorobenzene	U	1410	ug/kg	283	1410
85-01-8	Phenanthrene		1330	ug/kg	42.4	141
120-12-7	Anthracene		277	ug/kg	28.3	141
84-74-2	Di-n-butylphthalate	J	547	ug/kg	283	1410
206-44-0	Fluoranthene		2770	ug/kg	42.4	141
85-68-7	Butylbenzylphthalate	U	1410	ug/kg	283	1410
56-55-3	Benzo(a)anthracene		1550	ug/kg	42.4	141
91-94-1	3,3'-Dichlorobenzidine	U	1410	ug/kg	424	1410
218-01-9	Chrysene		1620	ug/kg	42.4	141
117-81-7	bis(2-Ethylhexyl)phthalate	U	1410	ug/kg	283	1410
117-84-0	Di-n-octylphthalate	U	1410	ug/kg	283	1410
205-99-2	Benzo(b)fluoranthene		3000	ug/kg	42.4	141
207-08-9	Benzo(k)fluoranthene	U	141	ug/kg	42.4	141
50-32-8	Benzo(a)pyrene		1570	ug/kg	42.4	141
193-39-5	Indeno(1,2,3-cd)pyrene		695	ug/kg	42.4	141
53-70-3	Dibenzo(a,h)anthracene	U	141	ug/kg	42.4	141
191-24-2	Benzo(ghi)perylene		710	ug/kg	42.4	141
120-82-1	1,2,4-Trichlorobenzene	U	1410	ug/kg	283	1410

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
7785-70-8	1R-.alpha.-Pinene	3.54	2760	ug/kg	97	NJ
	Unknown	7.12	576	ug/kg		J

Semi-volatile  
Certificate of Analysis  
Sample Summary

Page 3 of 3

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249003	Date Received: 02/27/2010 09:10	%Moisture: 6.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8283	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 4
Run Date: 03/18/2010 15:52	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30.18 g	Final Volume: 1 mL
Data File: s6c1821.d	Column: J&W DB-SMS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
---------	----------	-----------	--------	-------	---------	---------

Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
	Unknown	7.8	646	ug/kg		J
5737-13-3	Cyclopenta(def)phenanthrenone	8.28	699	ug/kg	94	NJ
243-17-4	11H-Benzo[b]fluorene	8.86	876	ug/kg	95	NJ
	Unknown	8.95	1270	ug/kg		J
2381-21-7	Pyrene, 1-methyl-	9.05	579	ug/kg	93	NJ
	Unknown	9.12	1290	ug/kg		J
64401-21-4	Pyrene, 1,3-dimethyl-	9.25	591	ug/kg	95	NJ
479-79-8	11H-Benzo[a]fluoren-11-one	9.35	1120	ug/kg	90	NJ
	Unknown	9.4	675	ug/kg		J
1740-19-8	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.48	1380	ug/kg	90	NJ
479-79-8	11H-Benzo[a]fluoren-11-one	9.55	657	ug/kg	96	NJ
239-35-0	Benzo[b]naphtho[2,1-d]thiophene	9.62	632	ug/kg	89	NJ
	Unknown	9.81	882	ug/kg		J
	Unknown	9.93	709	ug/kg		J
544-76-3	Hexadecane	10.13	703	ug/kg	95	NJ
	Unknown	10.61	1430	ug/kg		J
1000130-81-0	11,13-Dimethyl-12-tetradecen-1-ol acetat	10.63	1110	ug/kg	83	NJ
604-53-5	1,1'-Binaphthalene	10.69	1520	ug/kg	86	NJ
	Unknown	10.77	1550	ug/kg		J
192-97-2	Benzo[e]pyrene	11.26	1560	ug/kg	98	NJ
112-95-8	Eicosane	11.93	1070	ug/kg	98	NJ

Data File: /chem/MSD6.i/s031810.b/s6c1821.d  
 Report Date: 18-Mar-2010 16:35

Page 1

# GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1821.d  
 Lab Smp Id: 248249003 Client Smp ID: RE36-10-8283  
 Inj Date : 18-MAR-2010 15:52  
 Operator : nagl Inst ID: MSD6.i  
 Smp Info : |248249003|960971|4|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100310-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 18-Mar-2010 16:23 llo00884 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
 Als bottle: 21  
 Dil Factor: 4.00000  
 Integrator: HP RTE Compound Sublist: 10-2140.sub  
 Target Version: 3.50  
 Processing Host: hpclpl

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

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.18000	weight of sample
M	6.33300	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				CONCENTRATIONS		
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.969	3.963	(1.000)	517540	40.0000	
* 29 Naphthalene-d8	136	4.840	4.834	(1.000)	1836964	40.0000	
* 46 Acenaphthene-d10	164	6.098	6.092	(1.000)	1149176	40.0000	
* 67 Phenanthrene-d10	188	7.281	7.269	(1.000)	1976070	40.0000	
* 91 Chrysene-d12	240	9.710	9.698	(1.000)	1469512	40.0000	
* 98 Perylene-d12	264	11.422	11.404	(1.000)	944179	40.0000	
\$ 3 2-Fluorophenol	112	3.151	3.140	(0.794)	232502	16.1605	2290
\$ 5 Phenol-d5	99	3.675	3.669	(0.926)	296012	16.1786	2290
\$ 20 Nitrobenzene-d5	82	4.328	4.328	(0.894)	137856	7.85048	1110
\$ 39 2-Fluorobiphenyl	172	5.581	5.575	(0.915)	288270	9.72275	1380
\$ 60 2,4,6-Tribromophenol	329	6.698	6.692	(1.098)	64525	20.0093	2830
\$ 81 p-Terphenyl-d14	244	8.663	8.651	(0.892)	307666	12.0147	1700

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
47 Acenaphthene	154	6.122	6.116	(1.004)	19216	0.64448	91.2(a)
79 Pyrene	202	8.563	8.551	(0.882)	896263	20.0071	2830
53 Fluorene	166	6.510	6.504	(1.067)	21729	0.67662	95.7(a)
68 Phenanthrene	178	7.298	7.286	(1.002)	451938	9.38609	1330
69 Anthracene	178	7.339	7.334	(1.008)	95059	1.95969	277
72 Di-n-butylphthalate	149	7.698	7.692	(1.057)	216803	3.86465	547(a)
76 Fluoranthene	202	8.345	8.333	(1.146)	956403	19.5865	2770
89 Benzo(a)anthracene	228	9.698	9.680	(0.999)	419360	10.9290	1550
92 Chrysene	228	9.733	9.722	(1.002)	420552	11.4745	1620
95 Benzo(b)fluoranthene	252	10.892	10.874	(0.954)	544981	21.2315	3000
97 Benzo(a)pyrene	252	11.339	11.322	(0.993)	241607	11.1139	1570
99 Indeno(1,2,3-cd)pyrene	276	13.227	13.210	(1.158)	98018	4.91362	695
101 Benzo(ghi)perylene	276	13.780	13.763	(1.206)	85491	5.01913	710

#### QC Flag Legend

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

## ION RATIO REPORT

## SV REPORT

Data file: s6c1821.d

Report Date: 03/18/2010 16:24

Lab. ID: 248249003

SampleType: SAMPLE

Injection Date: 18-MAR-2010 15:52

Operator: nagl

Instrument: MSD6.i

Sample Info: |248249003|960971|4|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m

Dilution Factor= 4.0

Integrator: HP RTE

Compound Sublist: 10-2140

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
22	Isophorone		CAS#: 78-59-1			
82	137856	4.33	4.49	80-120	100	(T)
138	297	4.67	4.49	0- 49	0	(T)
-----						
40	2-Chloronaphthalene		CAS#: 91-58-7			
162	1061177	6.10	5.68	80-120	100	(T)
164	1149176	6.10	5.68	3- 63	108	(QT)
127	815	6.12	5.68	8- 68	0	(QT)
-----						
43	Dimethylphthalate		CAS#: 131-11-3			
163	210040	6.10	5.85	80-120	100	(T)
164	1149176	6.10	5.85	0- 41	547	(QT)
-----						
45	Acenaphthylene		CAS#: 208-96-8			
152	14003	5.68	5.99	80-120	100	(T)
151	15103	5.67	5.99	0- 50	108	(QT)
153	2563	5.67	5.99	0- 44	18	(T)
-----						
47	Acenaphthene		CAS#: 83-32-9			
154	19216	6.12	6.12	80-120	100	( )
153	18853	6.12	6.12	68-128	98	( )
152	7492	6.12	6.12	16- 76	39	( )
-----						
48	2,4-Dinitrophenol		CAS#: 51-28-5			
184	153	6.45	6.11	80-120	100	(T)
154	464	6.50	6.12	682-742	303	(QT)
-----						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	153597	6.10	6.20	80-120	100	(T)
89	2004	6.10	6.20	40-100	1	(QT)
63	1651	6.10	6.20	18- 78	1	(QT)
-----						
53	Fluorene			CAS#: 86-73-7		
166	21729	6.51	6.50	80-120	100	( )
165	18854	6.51	6.50	61-121	87	( )
167	4163	6.51	6.50	0- 44	19	( )
-----						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	108	6.70	6.52	80-120	100	(T)
105	1041	6.76	6.52	10- 70	958	(QT)
51	901	6.69	6.51	37- 97	829	(QT)
-----						
68	Phenanthrene			CAS#: 85-01-8		
178	451938	7.30	7.29	80-120	100	( )
179	75440	7.30	7.29	0- 46	17	( )
176	84570	7.30	7.29	0- 49	19	( )
-----						
69	Anthracene			CAS#: 120-12-7		
178	95059	7.34	7.33	80-120	100	( )
179	26775	7.34	7.33	0- 47	28	( )
176	16016	7.34	7.33	0- 48	17	( )
-----						
72	Di-n-butylphthalate			CAS#: 84-74-2		
149	216803	7.70	7.69	80-120	100	( )
150	22259	7.70	7.69	0- 40	10	( )
104	11241	7.70	7.69	0- 35	5	( )
-----						
76	Fluoranthene			CAS#: 206-44-0		
202	956403	8.35	8.33	80-120	100	( )
203	172619	8.35	8.33	0- 48	18	( )
101	105826	8.35	8.33	0- 42	11	( )
-----						
79	Pyrene			CAS#: 129-00-0		
202	896263	8.56	8.55	80-120	100	( )
200	186336	8.56	8.55	0- 51	21	( )
101	123191	8.56	8.55	0- 44	14	( )
-----						
89	Benzo(a)anthracene			CAS#: 56-55-3		
228	419360	9.70	9.68	80-120	100	( )
226	100401	9.70	9.68	0- 56	24	( )
229	108207	9.69	9.68	0- 50	26	( )
-----						
92	Chrysene			CAS#: 218-01-9		
228	420552	9.73	9.72	80-120	100	( )
229	111449	9.73	9.72	0- 50	27	( )
226	133332	9.73	9.72	0- 59	32	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	544981	10.89	10.87	80-120	100	( )
253	123061	10.89	10.87	0- 52	23	( )
125	62649	10.89	10.87	0- 40	11	( )
-----						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	544981	10.89	10.91	80-120	100	( )
253	123883	10.89	10.91	0- 52	23	( )
125	62649	10.89	10.91	0- 42	11	( )
-----						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	241607	11.34	11.32	80-120	100	( )
253	57806	11.34	11.32	0- 52	24	( )
125	28191	11.34	11.32	0- 43	12	( )
-----						
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	98018	13.23	13.21	80-120	100	( )
138	23684	13.23	13.22	0- 60	24	( )
-----						
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	26535	13.24	13.23	80-120	100	( )
139	4242	13.23	13.23	0- 50	16	( )
-----						
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	85491	13.78	13.76	80-120	100	( )
138	19620	13.79	13.76	0- 59	23	( )

Q qualifier indicates ion failed ratio requirement

Data File: /chem/MSD6.i/s031810.b/s6c1821.d  
Report Date: 18-Mar-2010 16:35

Page 1

GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1821.d  
Lab Smp Id: 248249003 Client Smp ID: RE36-10-8283  
Inj Date : 18-MAR-2010 15:52  
Operator : nag1 Inst ID: MSD6.i  
Smp Info : |248249003|960971|4|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 18-Mar-2010 16:23 llo00884 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 21  
Dil Factor: 4.00000  
Integrator: HP RTE Compound Sublist: 10-2140.sub  
Target Version: 3.50  
Processing Host: hpclpl

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

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.18000	weight of sample
M	6.33300	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.969	3207742	40.000
* 67 Phenanthrene-d10	7.281	6321698	40.000
* 91 Chrysene-d12	9.710	7913505	40.000
* 98 Perylene-d12	11.422	3399280	40.000

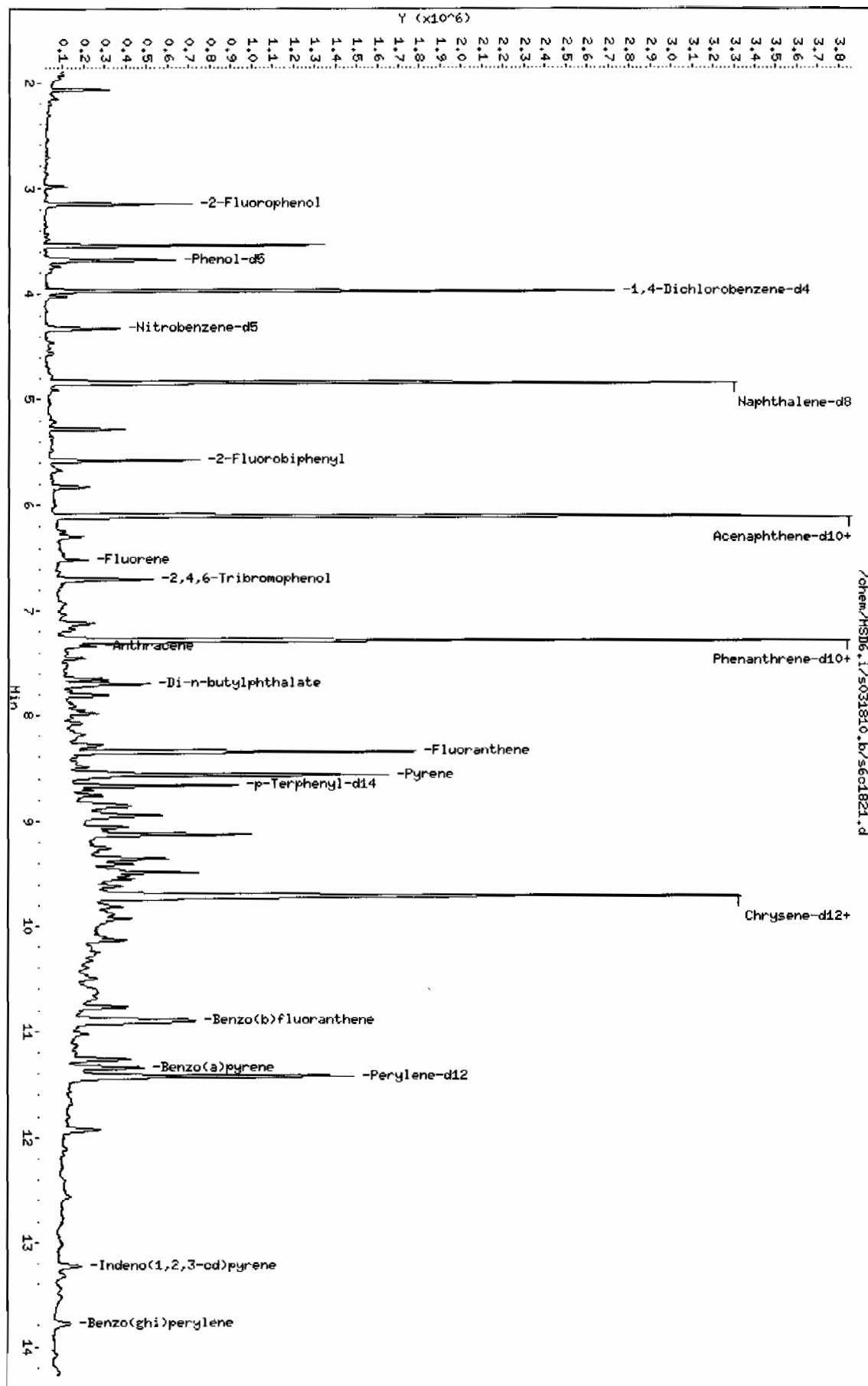
CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	=====	=====	====	=====	=====	=====

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
1R-.alpha.-Pinene					CAS #: 7785-70-8		
3.540	1565355	19.5197138	2760	97	NIST05.L	15188	10
Unknown					CAS #:		
7.116	643178	4.06965087	576	0		0	67
Unknown					CAS #:		
7.804	721091	4.56264328	646	0		0	67
Cyclopenta(def)phenanthrenone					CAS #: 5737-13-3		
8.281	780896	4.94105478	699	94	NIST05.L	60105	67
11H-Benzo[b]fluorene					CAS #: 243-17-4		
8.857	1224689	6.19037215	876	95	NIST05.L	68695	91
Unknown					CAS #:		
8.945	1770633	8.94993212	1270	0		0	91
Pyrene, 1-methyl-					CAS #: 2381-21-7		
9.051	809108	4.08975667	579	93	NIST05.L	68688	91
Unknown					CAS #:		
9.122	1808053	9.13907312	1290	0		0	91
Pyrene, 1,3-dimethyl-					CAS #: 64401-21-4		
9.251	826457	4.17745062	591	95	NIST05.L	78799	91
11H-Benzo[a]fluoren-11-one					CAS #: 479-79-8		
9.351	1563541	7.90315241	1120	90	NIST05.L	78768	91
Unknown					CAS #:		
9.404	943169	4.76739036	674	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 1740-19-8		
9.480	1932059	9.76588211	1380	90	NIST05.L	125036	91
11H-Benzo[a]fluoren-11-one					CAS #: 479-79-8		
9.545	918520	4.64279687	657	96	NIST05.L	78768	91
Benzo[b]naphtho[2,1-d]thiophene					CAS #: 239-35-0		
9.616	884186	4.46925255	632	89	NIST05.L	81181	91
Unknown					CAS #:		
9.810	1233020	6.23248576	882	0		0	91

RT	AREA	CONCENTRATIONS		QUAL	QUANT		CPND #
		ON-COL(nq/ul)	FINAL(ug/Kg)		LIBRARY	LIB ENTRY	
====	===	=====	=====	=====	=====	=====	=====
Unknown				CAS #:			
9.928	991440	5.01137984	709	0		0	91
Hexadecane				CAS #: 544-76-3			
10.133	983153	4.96949571	703	95	NIST05.L	76093	91
Unknown				CAS #:			
10.610	859778	10.1171753	1430	0		0	98
11,13-Dimethyl-12-tetradecen-1-ol acetat				CAS #: 1000130-81-0			
10.633	665511	7.83120319	1110	83	NIST05.L	113394	98
1,1'-Binaphthalene				CAS #: 604-53-5			
10.686	913325	10.7472722	1520	86	NIST05.L	94963	98
Unknown				CAS #:			
10.769	933002	10.9788148	1550	0		0	98
Benzo[el]pyrene				CAS #: 192-97-2			
11.263	937343	11.0298947	1560	98	NIST05.L	93577	98
Eicosane				CAS #: 112-95-8			
11.927	639814	7.52881529	1060	98	NIST05.L	113492	98

Data File: /chem/HSD6.i/s031810.b/s6c1821.d  
 Date: 18-Mar-2010 15:52  
 Client ID: RE36-10-8283  
 Sample Info: 1248249003196097141SVH11LNL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

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



Date: 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 1248249003/96097114/ISVH11/LANL

Volume Injected (uL): 0.5

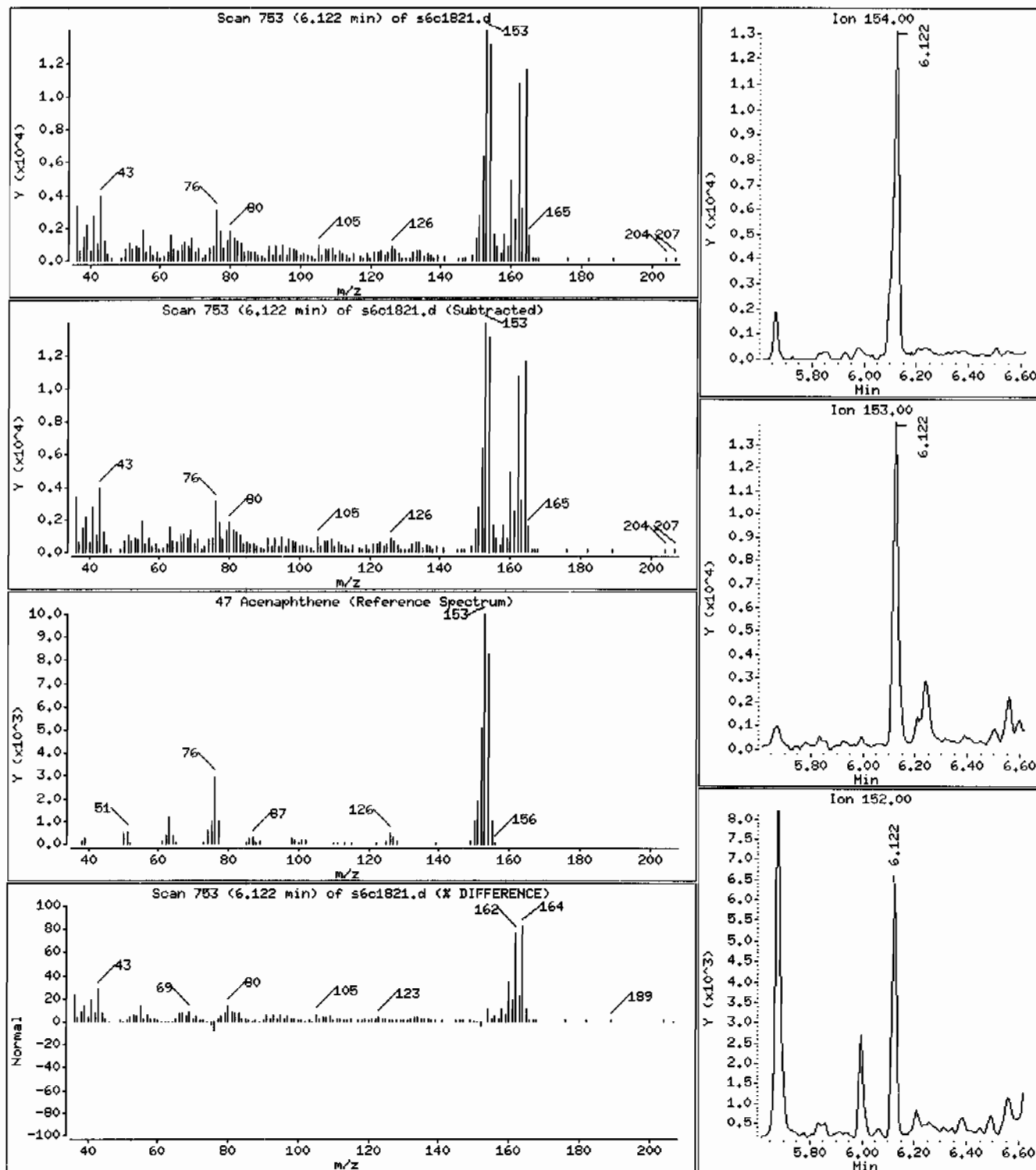
Operator: nag1

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

Column diameter: 0.20

47 Acenaphthene

Concentration: 91.2 ug/Kg



Date : 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 12482490031960971141SVMI1|LANL

Volume Injected (UL): 0.5

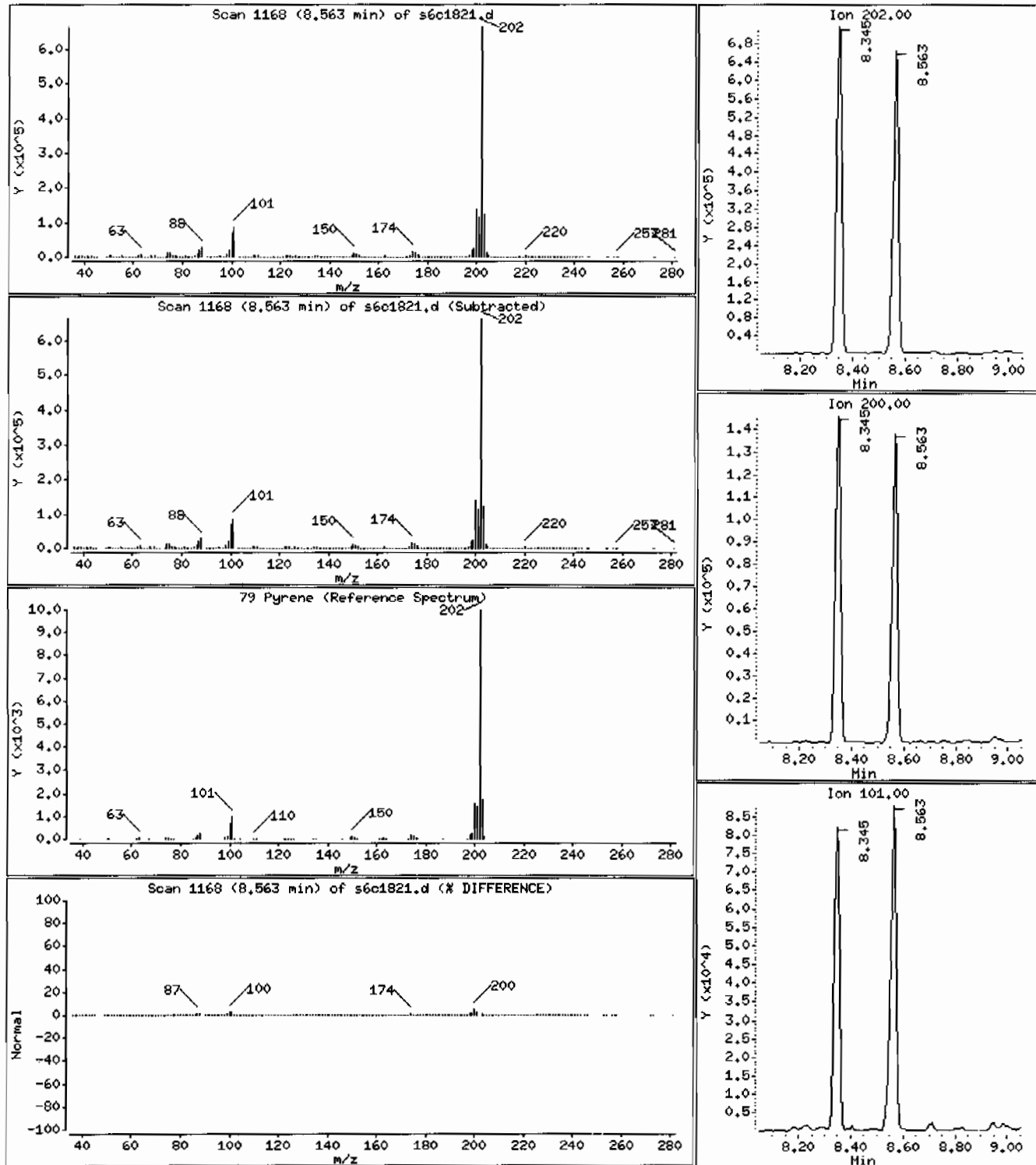
Operator: nag1

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

Column diameter: 0.20

79 Pyrene

Concentration: 2830 ug/Kg





Date : 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 12482490031960971141SVMI11LANL

Volume Injected (uL): 0.5

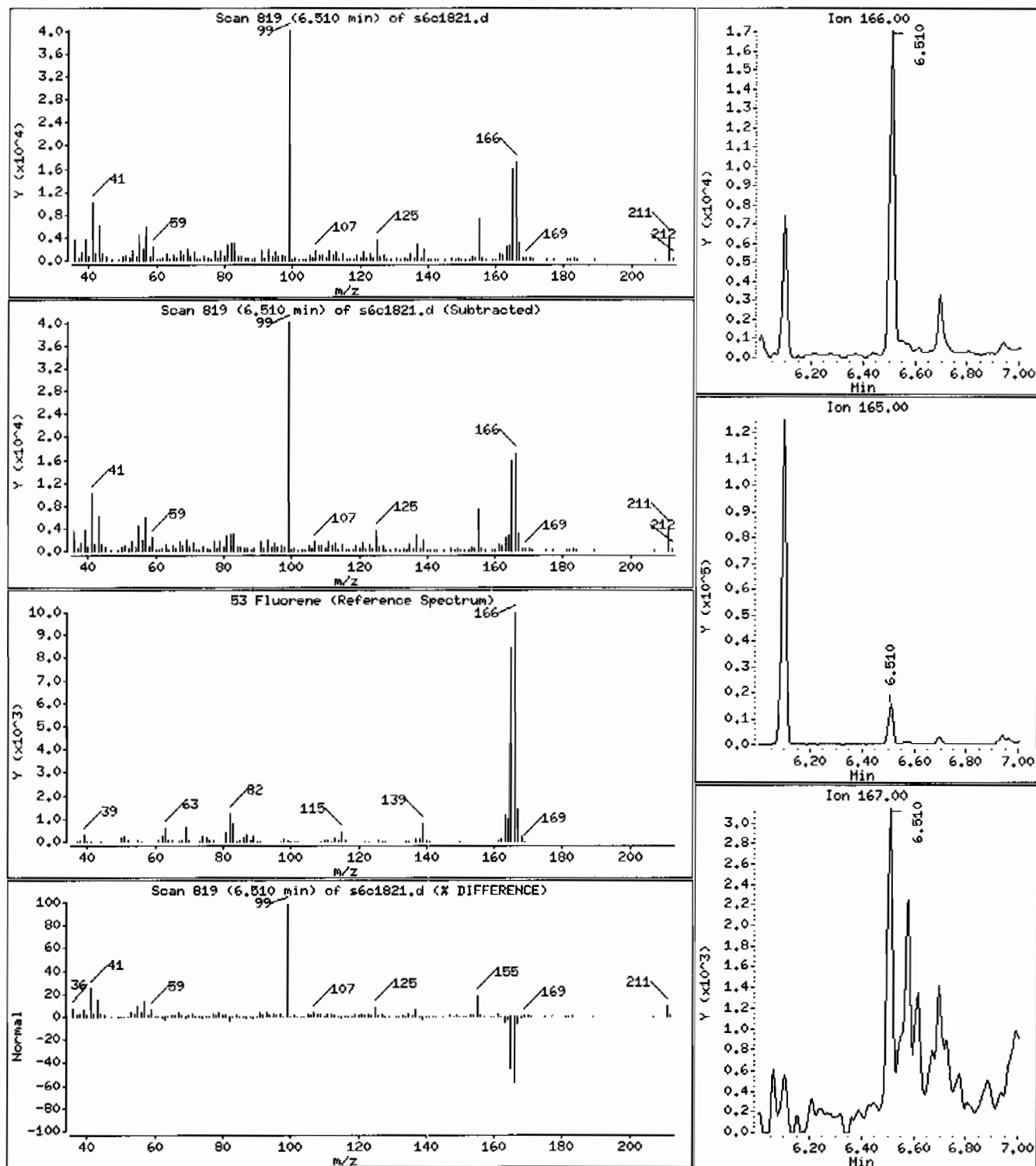
Operator: nag1

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

Column diameter: 0.20

53 Fluorene

Concentration: 95.7 ug/Kg



Date : 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 12482490031960971141SVH111LANL

Volume Injected (uL): 0.5

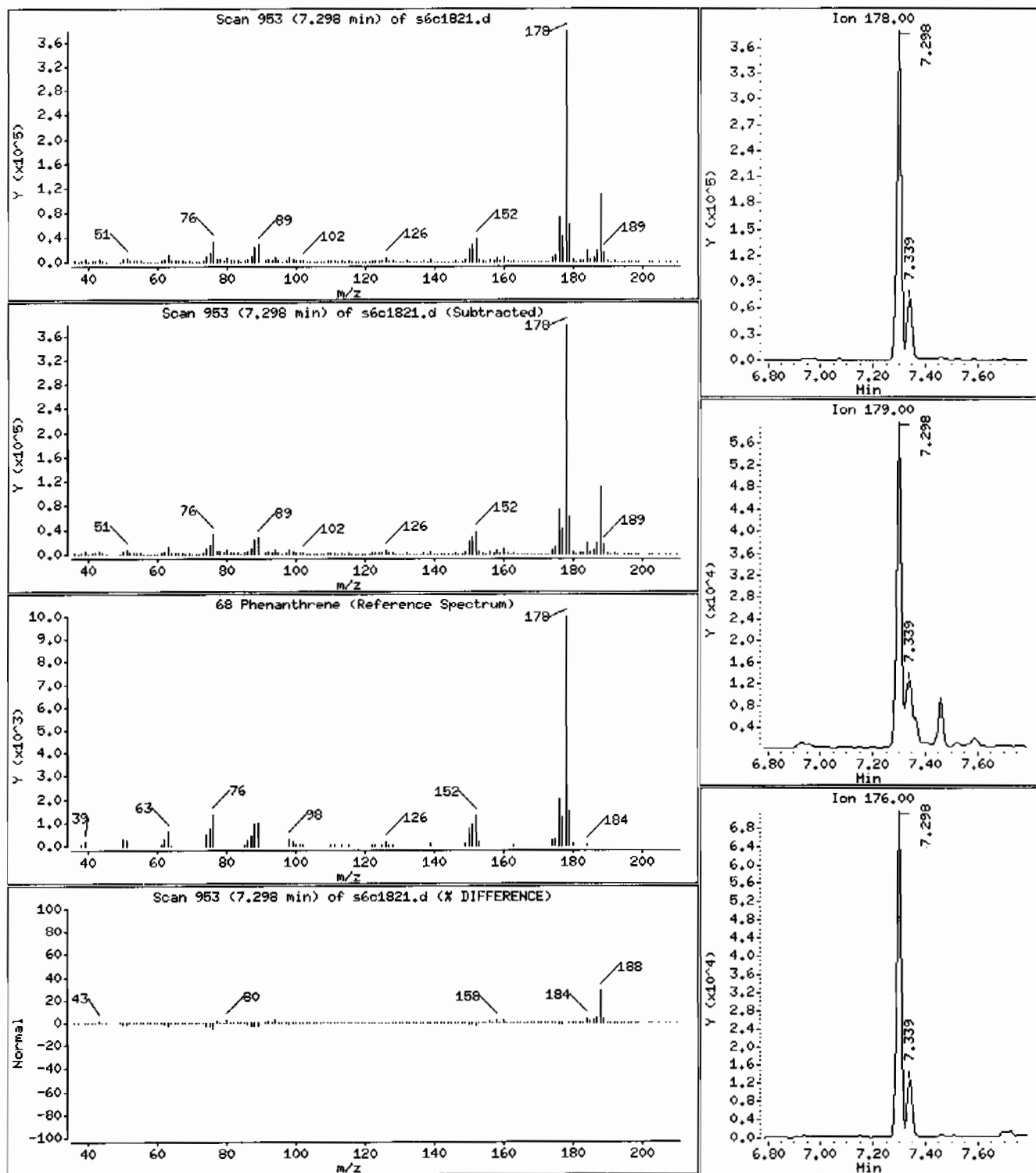
Operator: nag1

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

Column diameter: 0.20

68 Phenanthrene

Concentration: 1330 ug/Kg



Date : 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 12482490031960971141SVH111LANL

Volume Injected (uL): 0.5

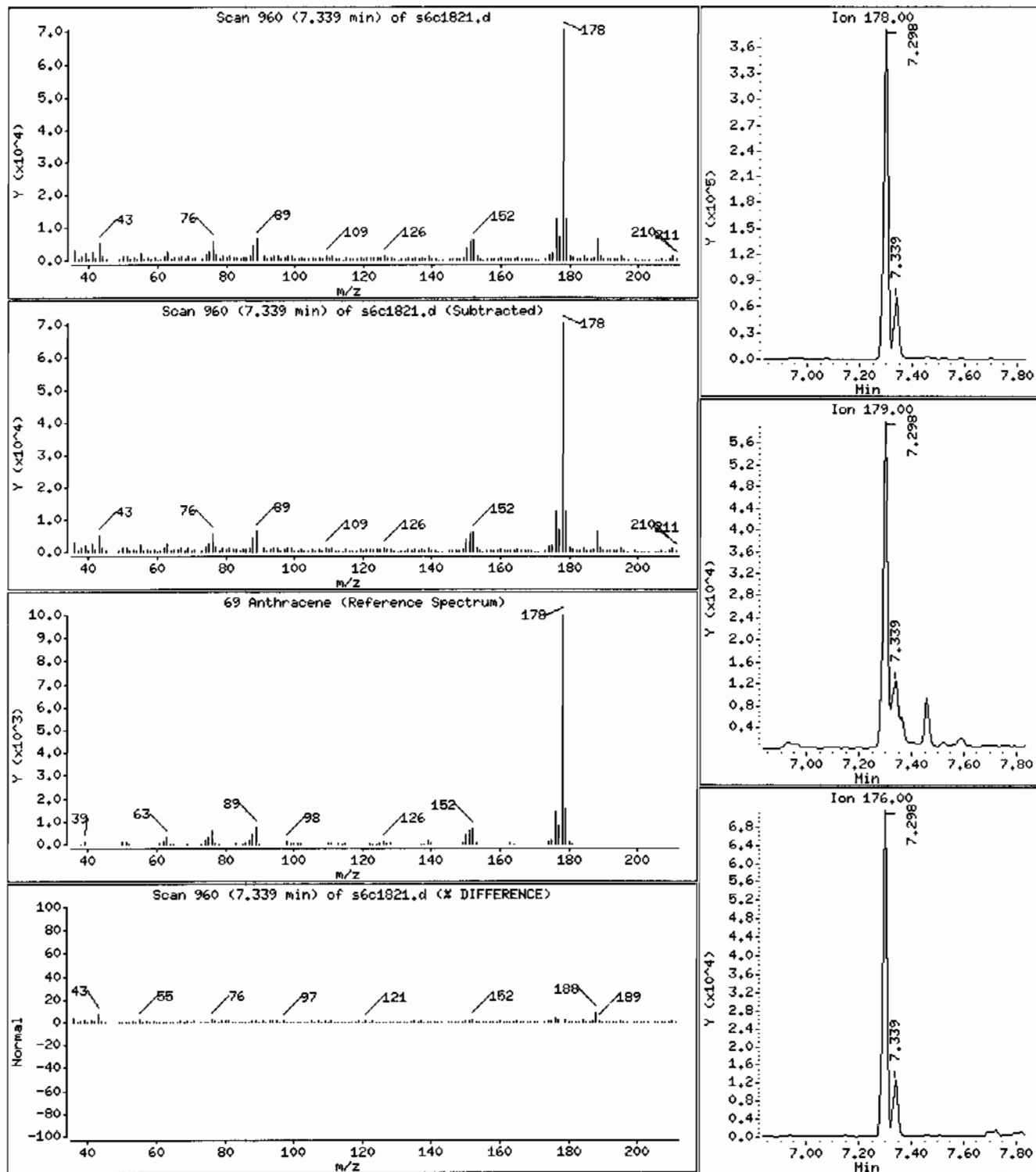
Operator: nag1

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

Column diameter: 0.20

69 Anthracene

Concentration: 277 ug/Kg



Date : 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 12482490031960971141SVH111LANL

Volume Injected (uL): 0.5

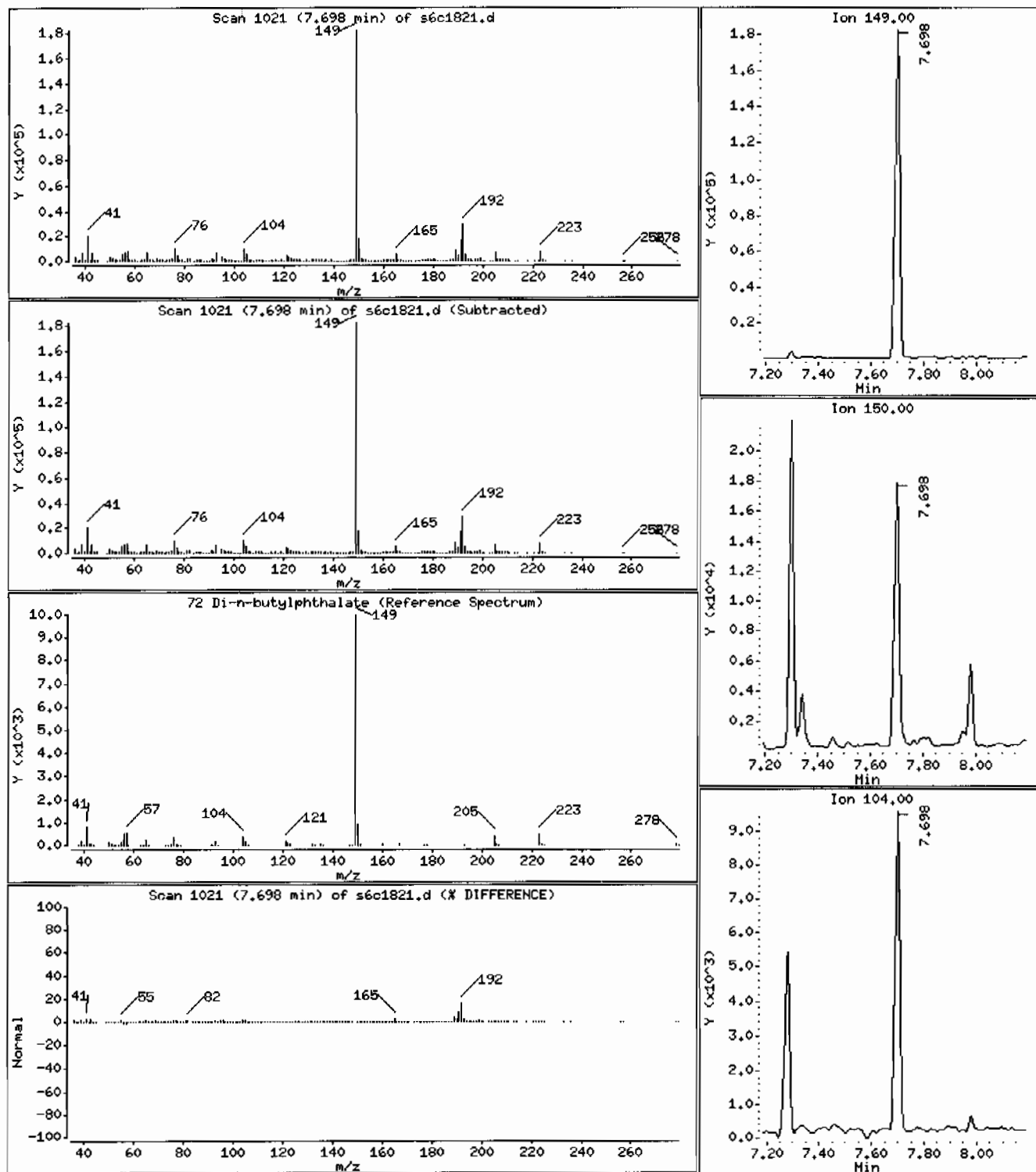
Operator: nag1

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

Column diameter: 0.20

72 Di-n-butylphthalate

Concentration: 547 ug/Kg



Date : 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.1

Sample Info: 12482490031960971141SVH111LANL

Volume Injected (uL): 0.5

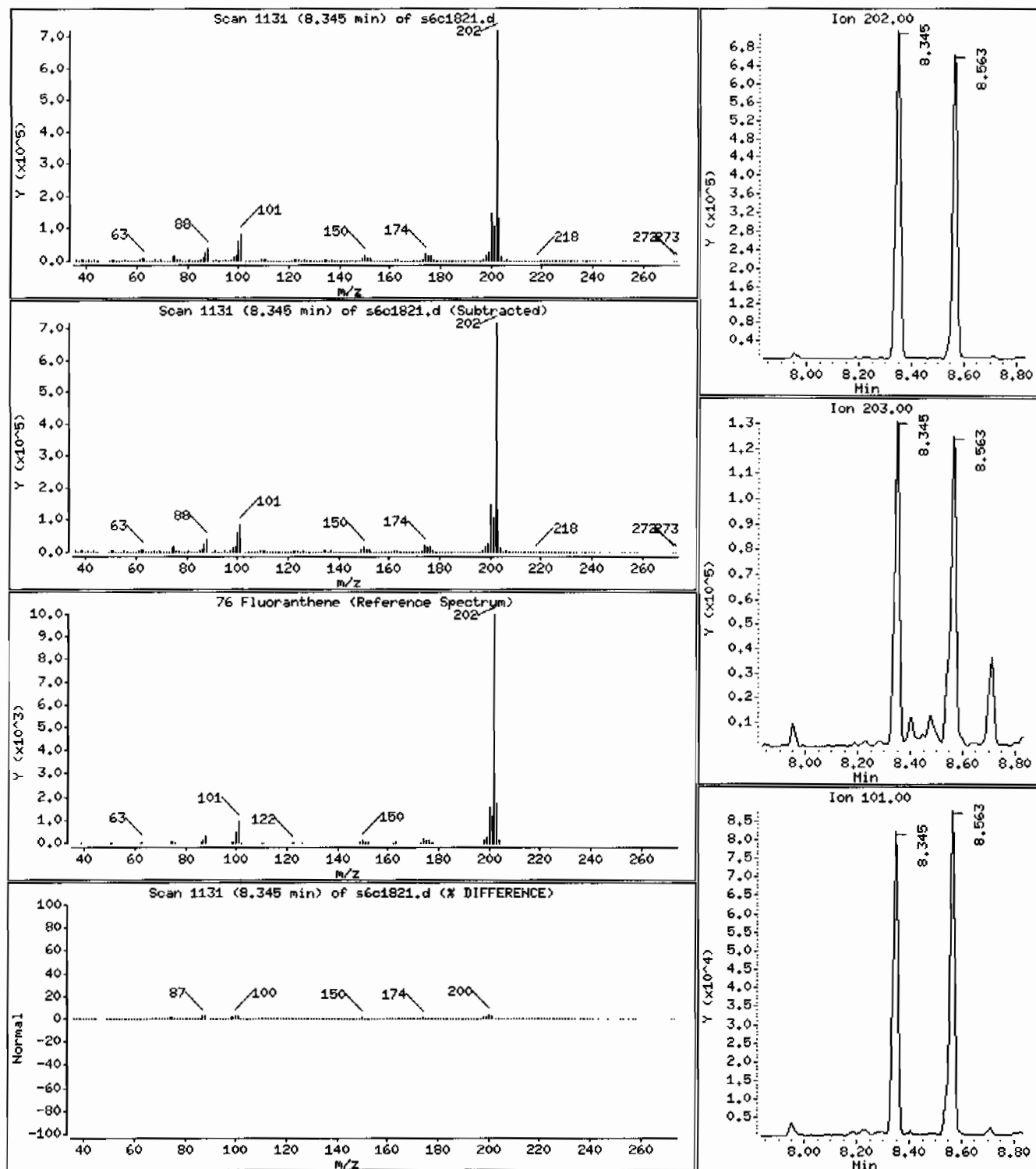
Operator: nag1

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

Column diameter: 0.20

76 Fluoranthene

Concentration: 2770 ug/Kg



Date : 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 12482490031960971141SVH111LANL

Volume Injected (uL): 0.5

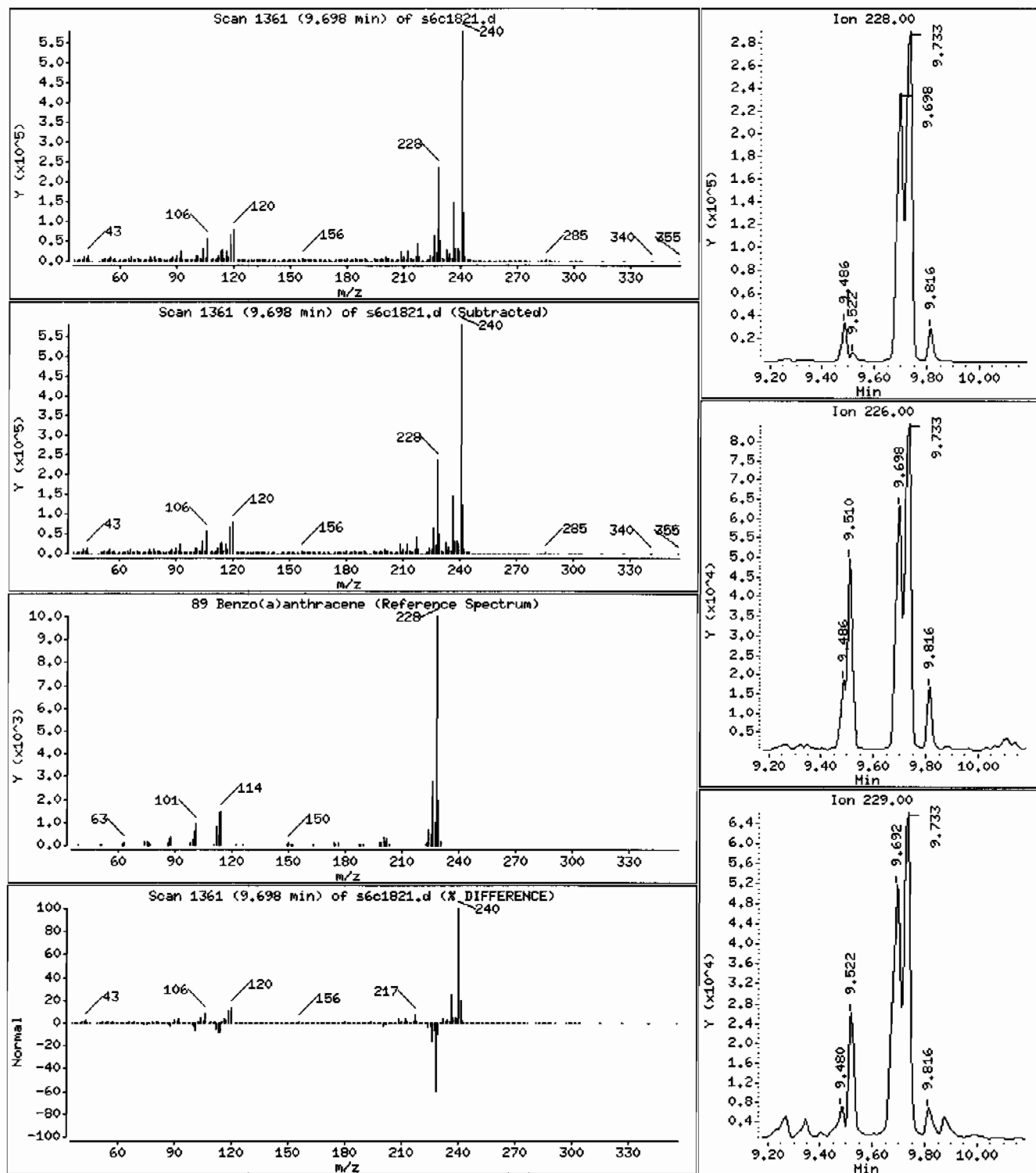
Operator: nag1

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

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 1550 ug/Kg



Date : 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: I248249003|960971|4|SVH1|1|LANL

Volume Injected (uL): 0.5

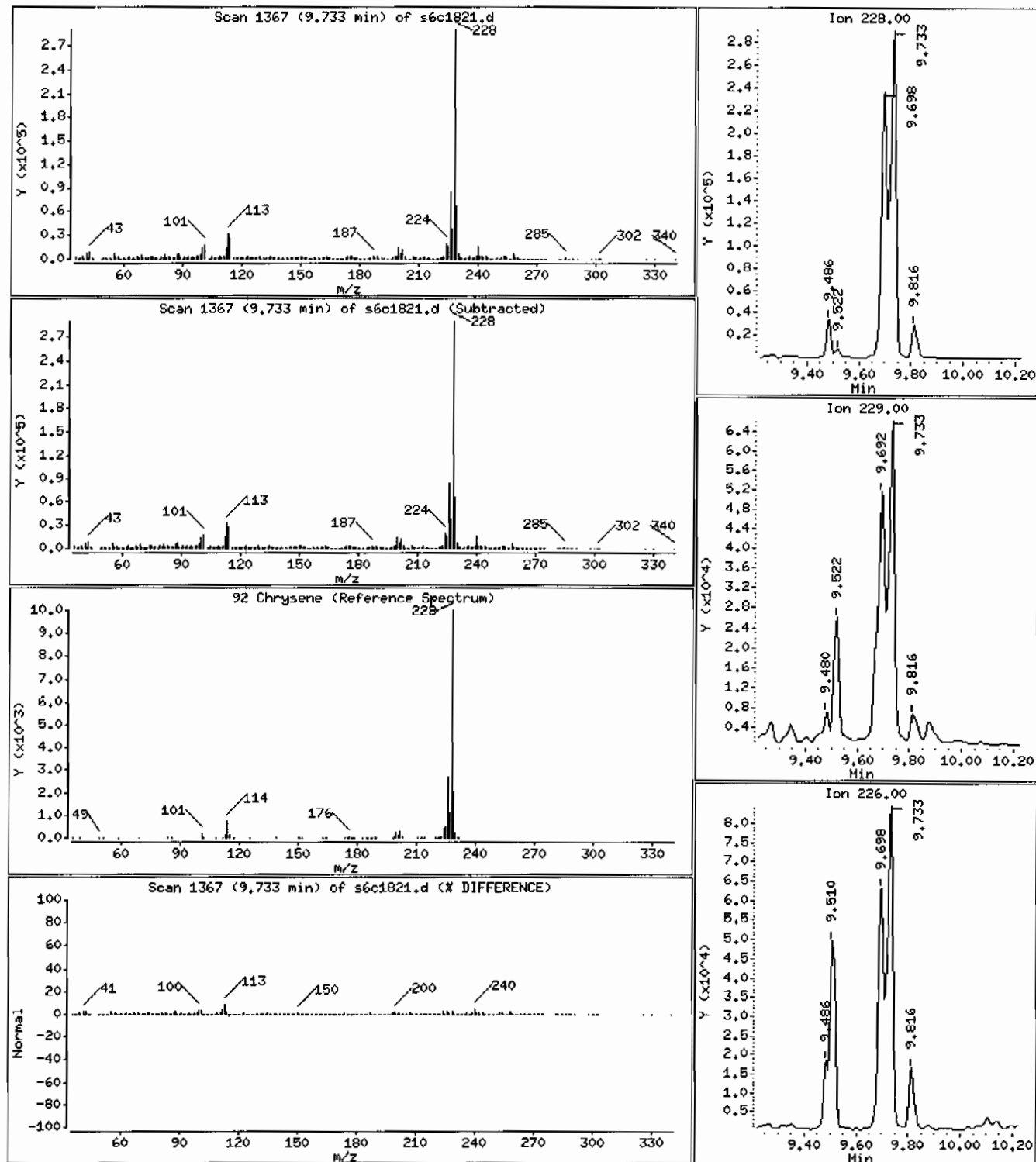
Operator: nag1

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

Column diameter: 0.20

92 Chrysene

Concentration: 1620 ug/Kg



Date : 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 12482490031960971141SVH111LANL

Volume Injected (uL): 0.5

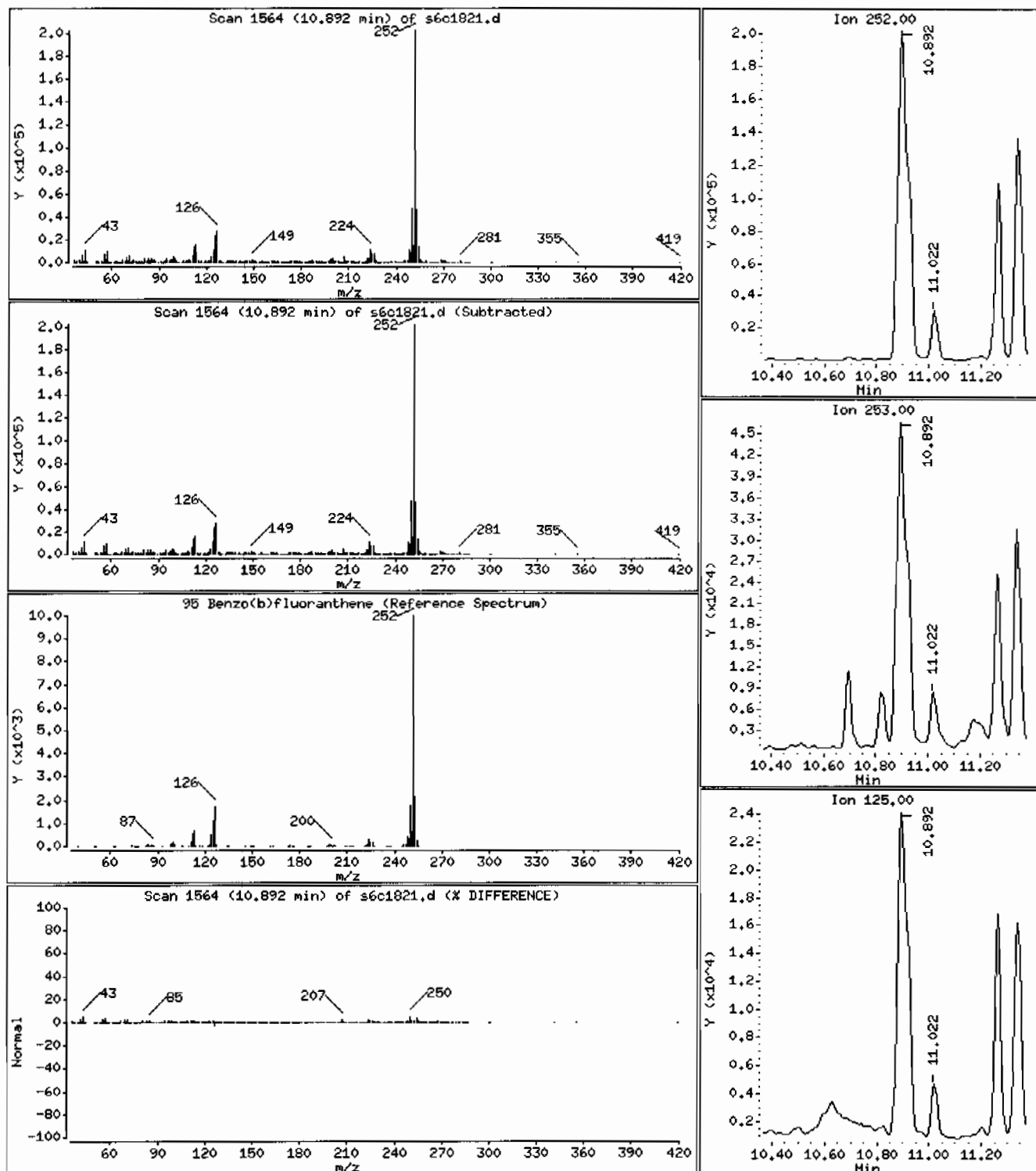
Operator: nag1

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

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 3000 ug/Kg





Date : 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: HSD6.i

Sample Info: 1248249003|96097114|SVH11|LANL

Volume Injected (uL): 0.5

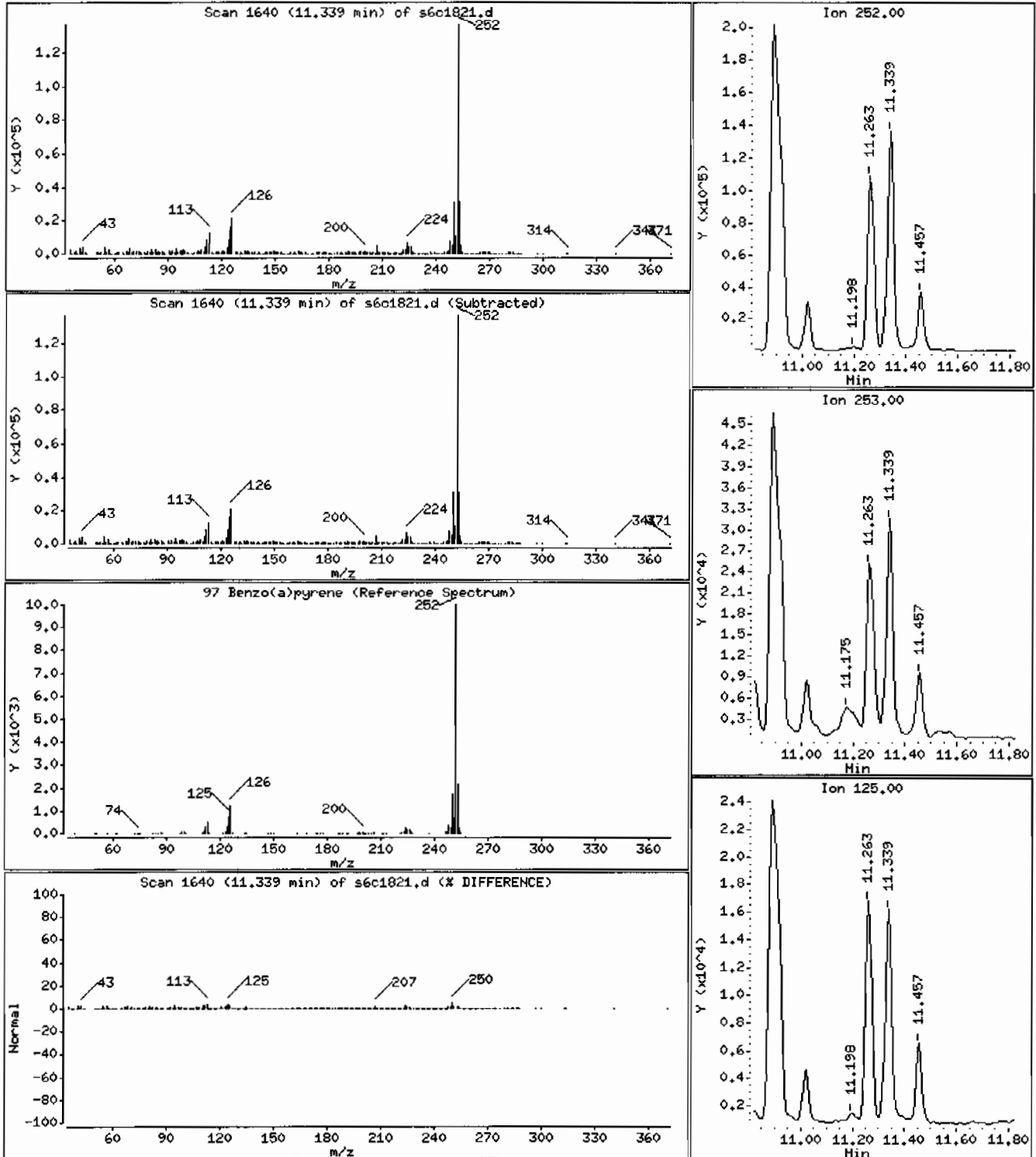
Operator: nag1

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

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 1570 ug/Kg



Date : 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.1

Sample Info: 12482490031960971141SVH111LANL

Volume Injected (uL): 0.5

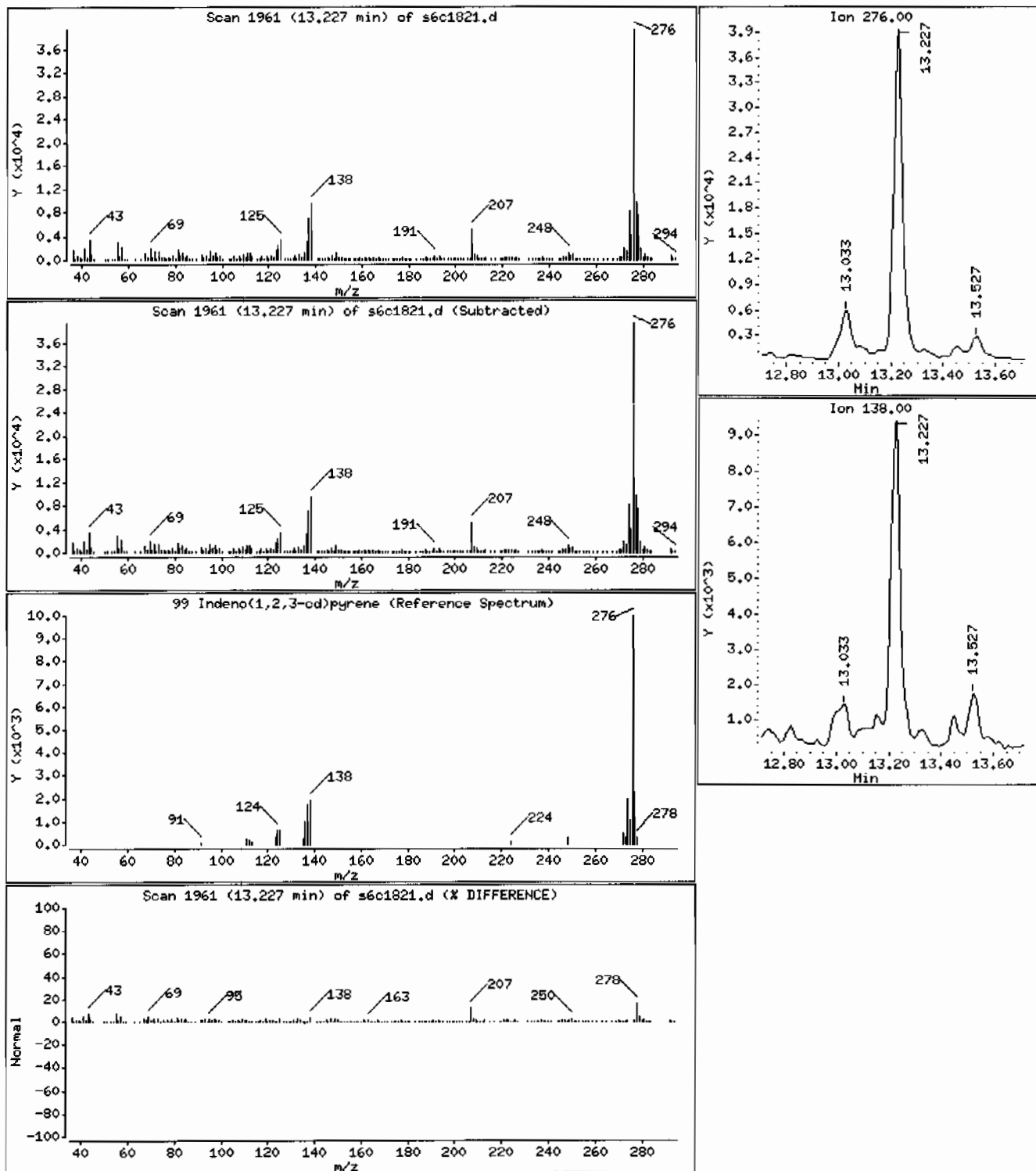
Operator: nag1

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

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 695 ug/Kg



Date: 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: HSD6.i

Sample Info: 12482490031960971141SVH111LANL

Volume Injected (uL): 0.5

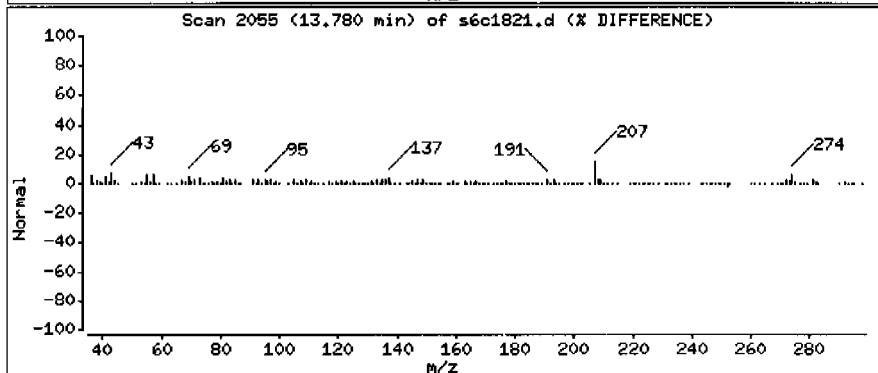
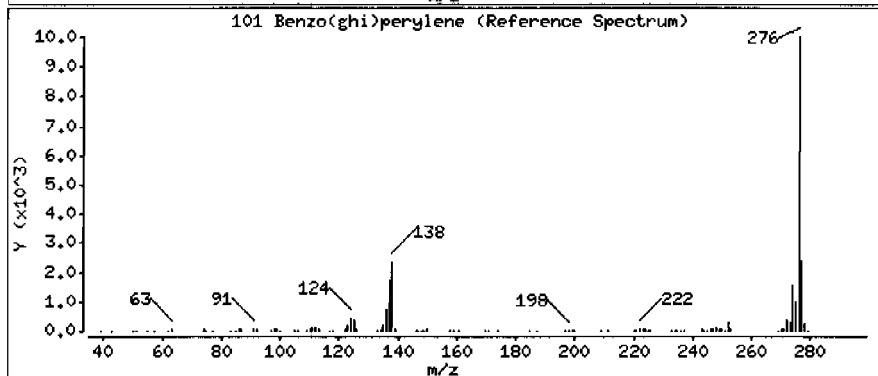
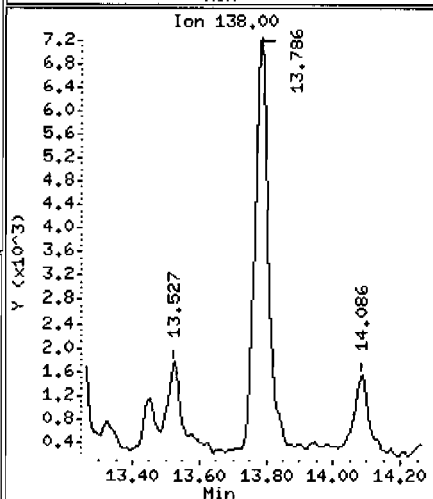
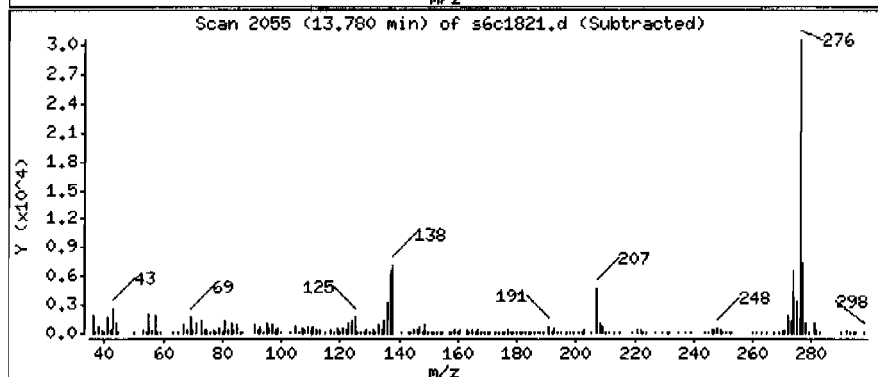
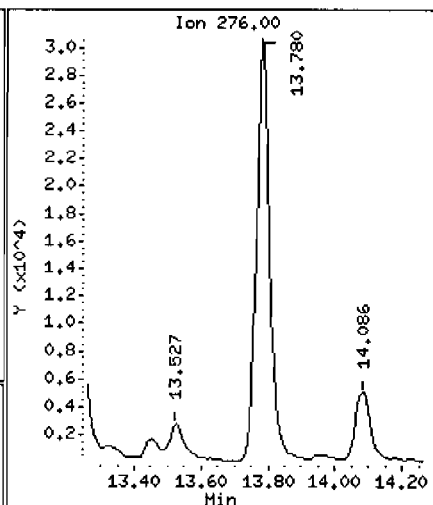
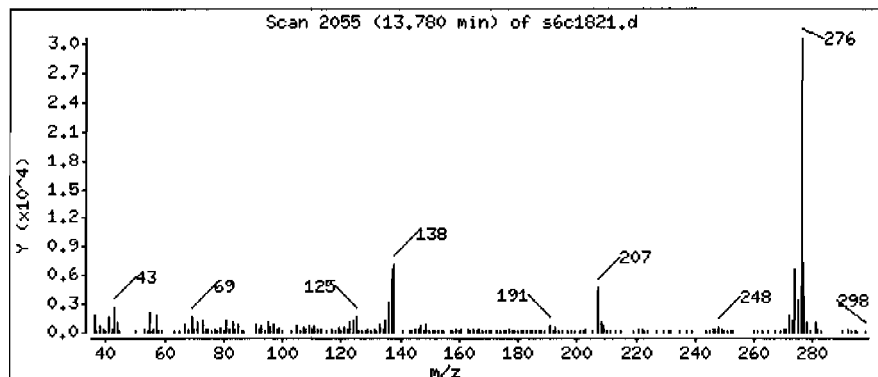
Operator: nag1

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

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 710 ug/Kg



Date : 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 12482490031960971141SVMI11ILANL

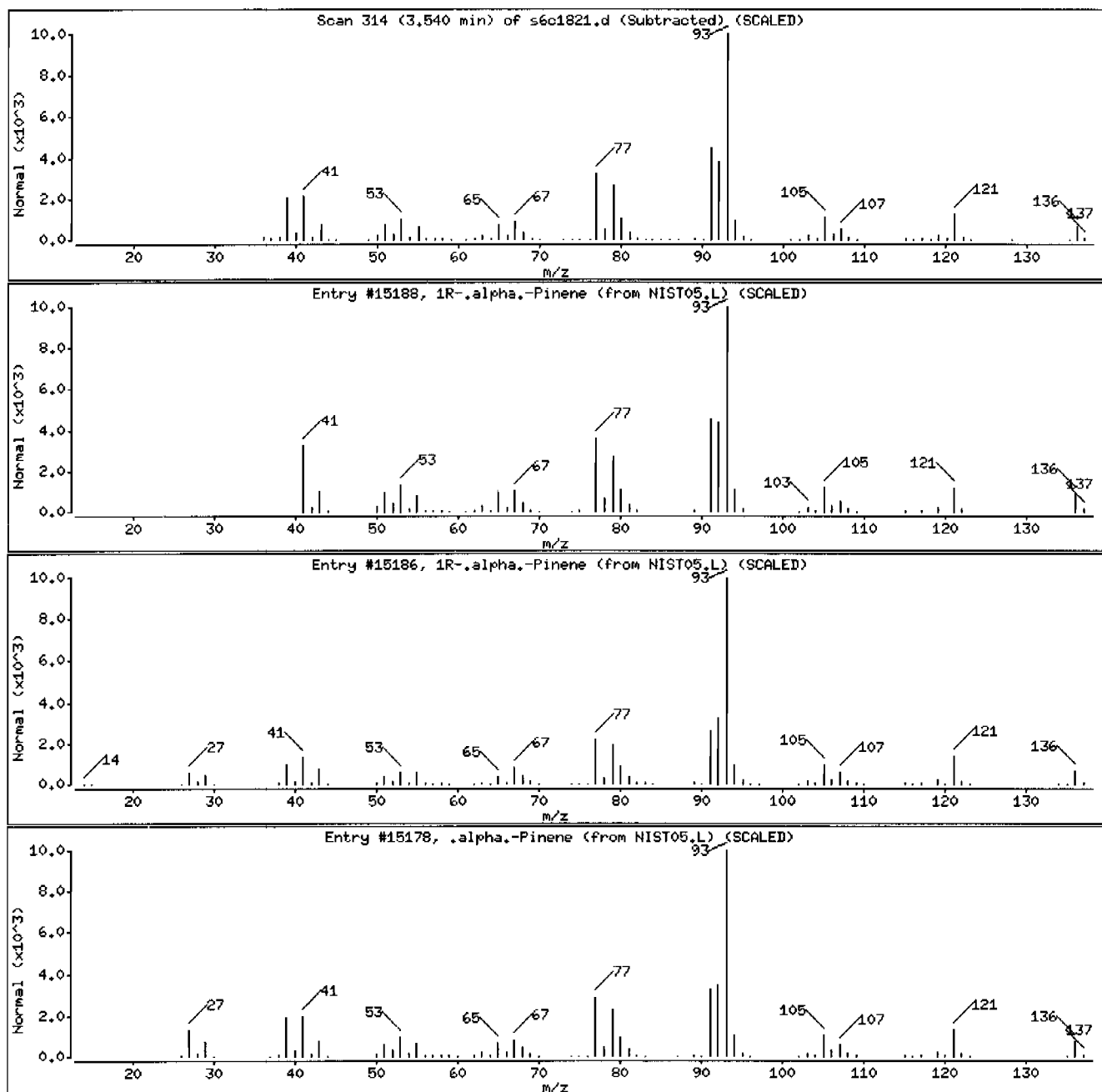
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1R-.alpha.-Pinene	7785-70-8	NIST05.L	15188	97	C10H16	136
1R-.alpha.-Pinene	7785-70-8	NIST05.L	15186	96	C10H16	136
.alpha.-Pinene	80-56-8	NIST05.L	15178	96	C10H16	136



Date: 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: HSD6.i

Sample Info: 12482490031960971141SVMI11LANL

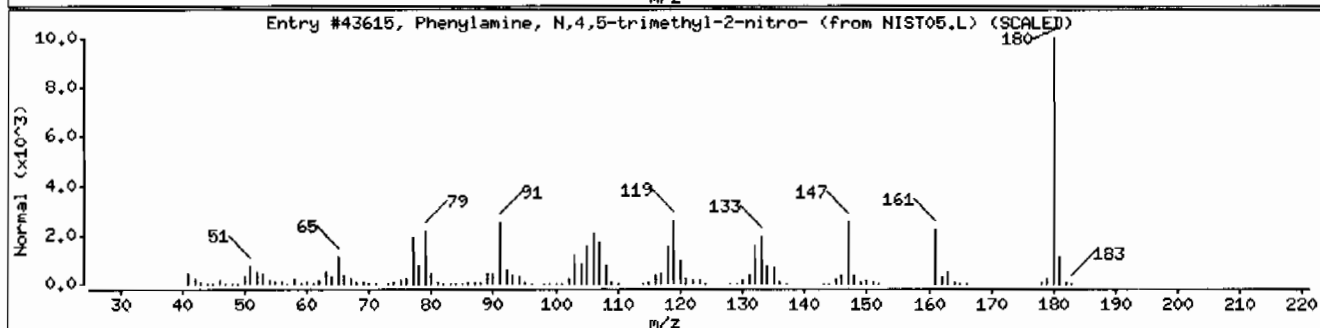
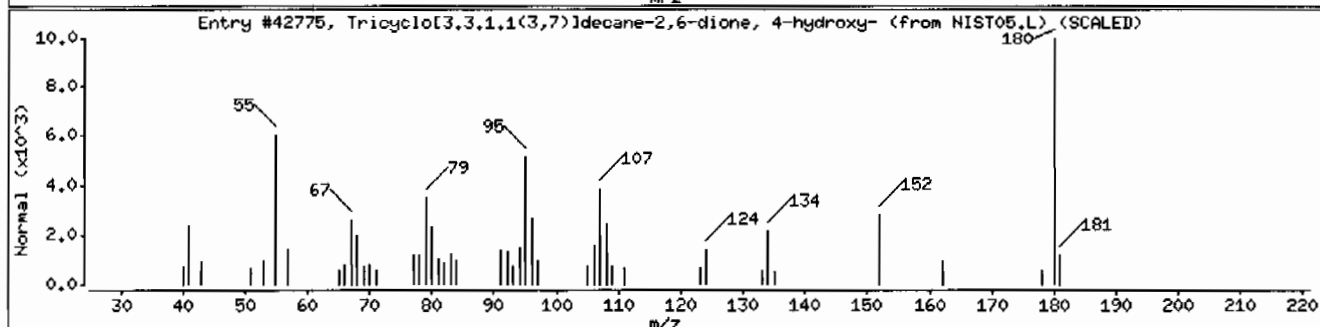
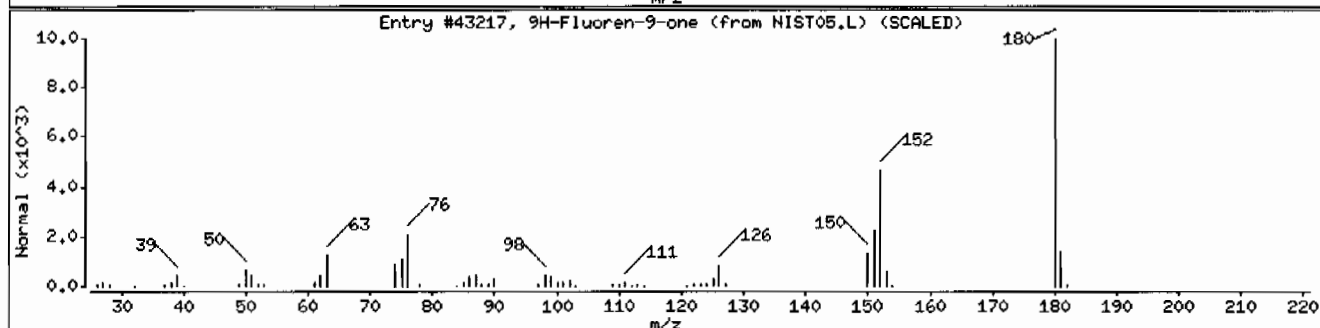
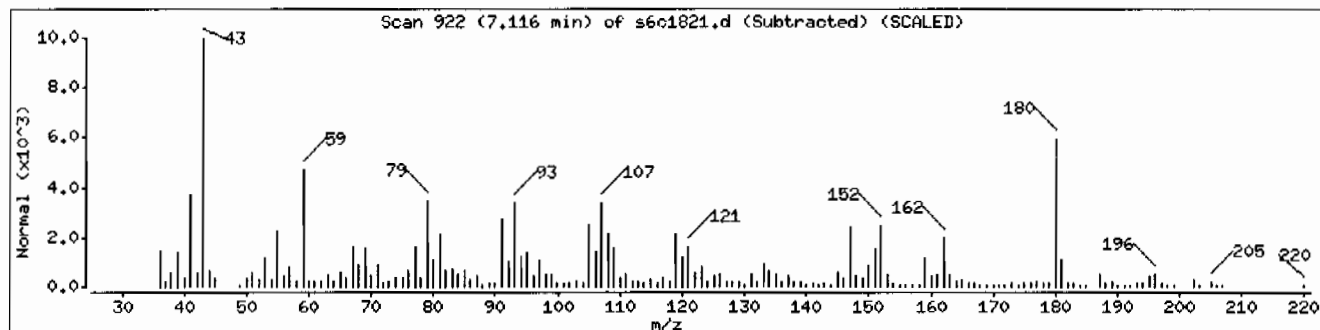
Volume Injected (uL): 0.5

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						
9H-Fluoren-9-one	486-25-9	NIST05.L	43217	44	C13H8O	180
Tricyclo[3.3.1.1(3,7)]decane-2,6-dione,	56781-80-7	NIST05.L	42775	43	C10H12O3	180
Phenylamine, N,4,5-trimethyl-2-nitro-	17978-54-0	NIST05.L	43615	25	C9H12N2O2	180



Date: 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 12482490031960971141SVMI11LANL

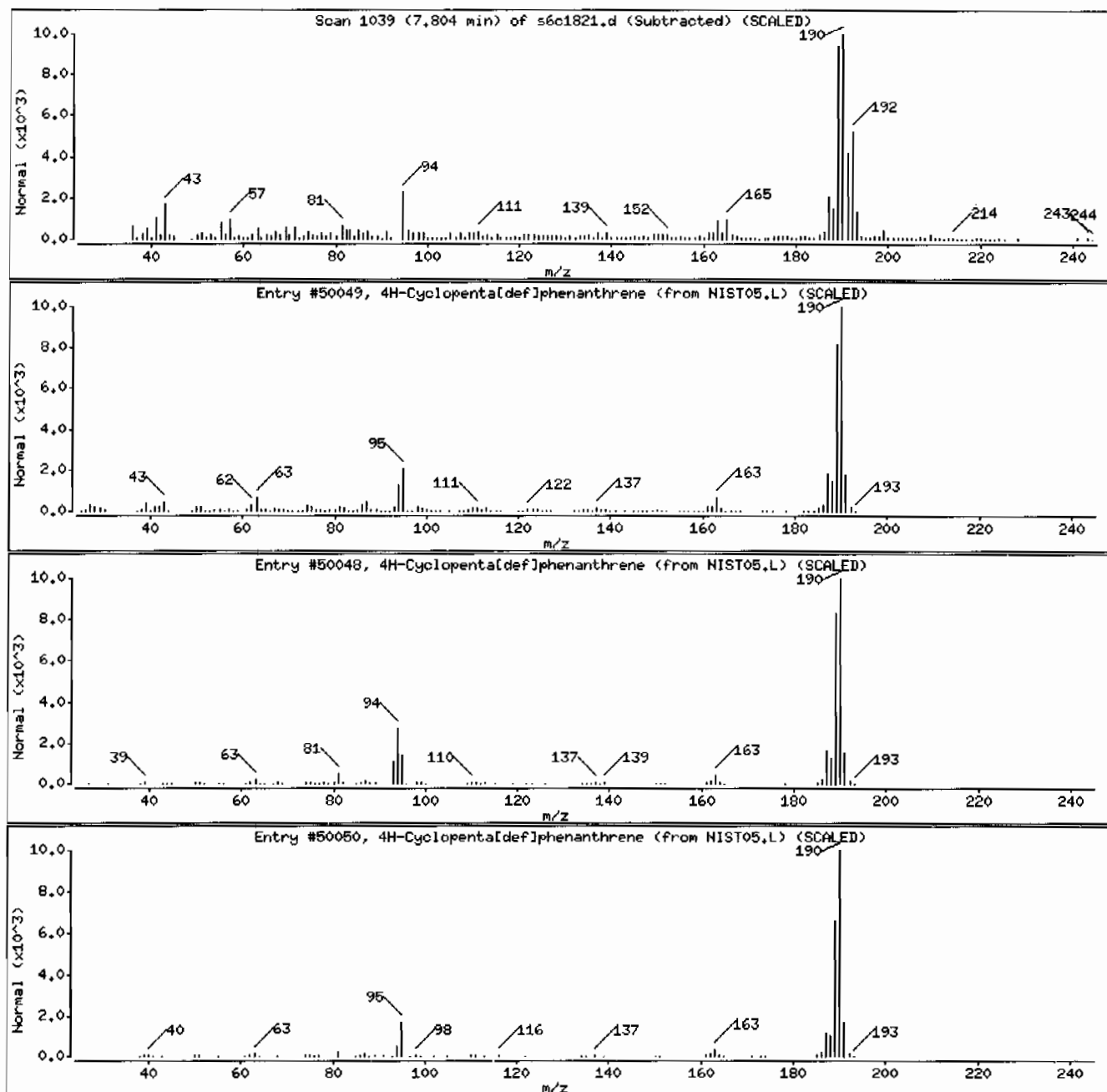
Volume Injected (uL): 0.5

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						
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50049	60	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50048	52	C15H10	190
4H-Cyclopenta[def]phenanthrene	203-64-5	NIST05.L	50050	50	C15H10	190



Date: 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 12482490031960971141SVMI11LANL

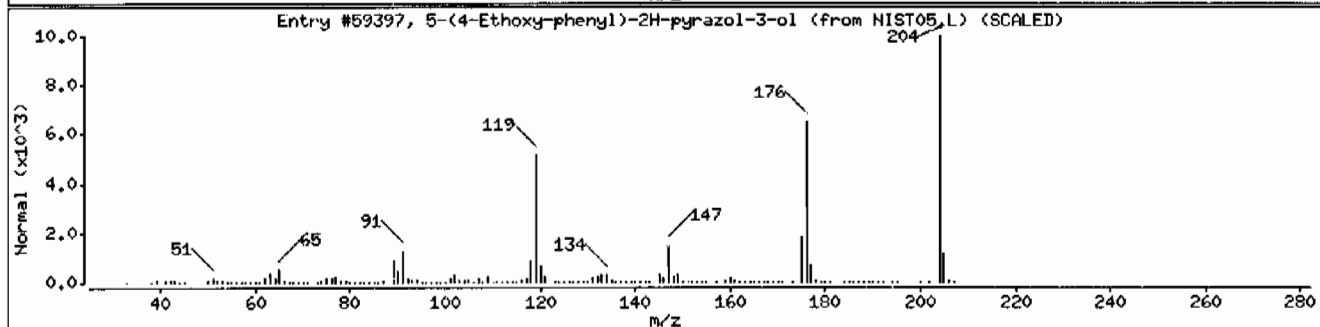
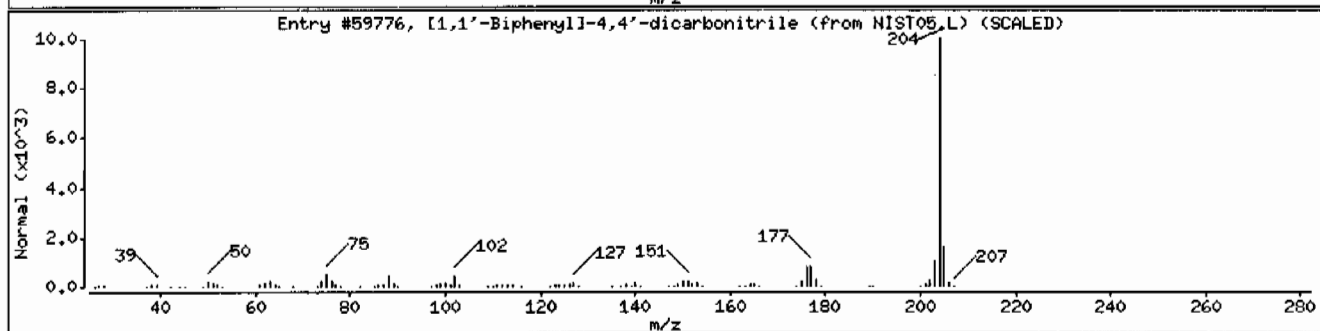
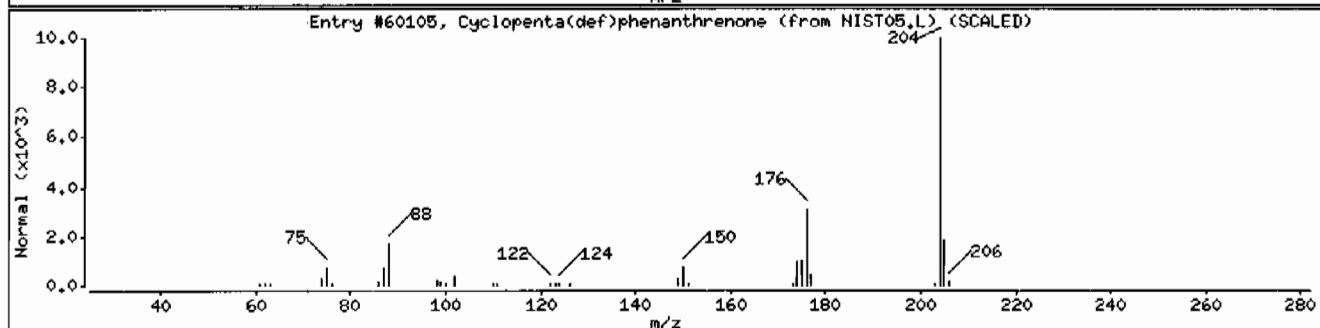
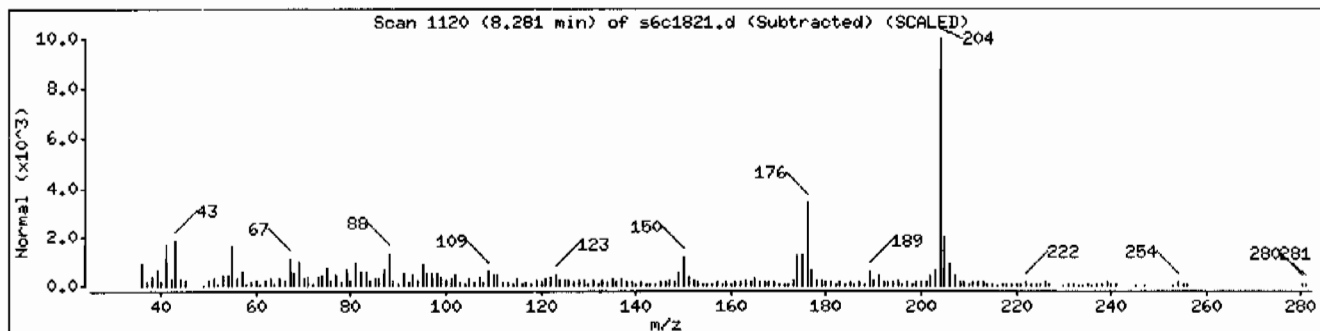
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclopenta(def)phenanthrenone	5737-13-3	NIST05.L	60105	94	C15H8O	204
[1,1'-Biphenyl]-4,4'-dicarbonitrile	1591-30-6	NIST05.L	59776	58	C14H8N2	204
5-(4-Ethoxy-phenyl)-2H-pyrazol-3-ol	1000278-26-8	NIST05.L	59397	53	C11H12N2O2	204



Date : 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: I2482490031960971141SVH111LANL

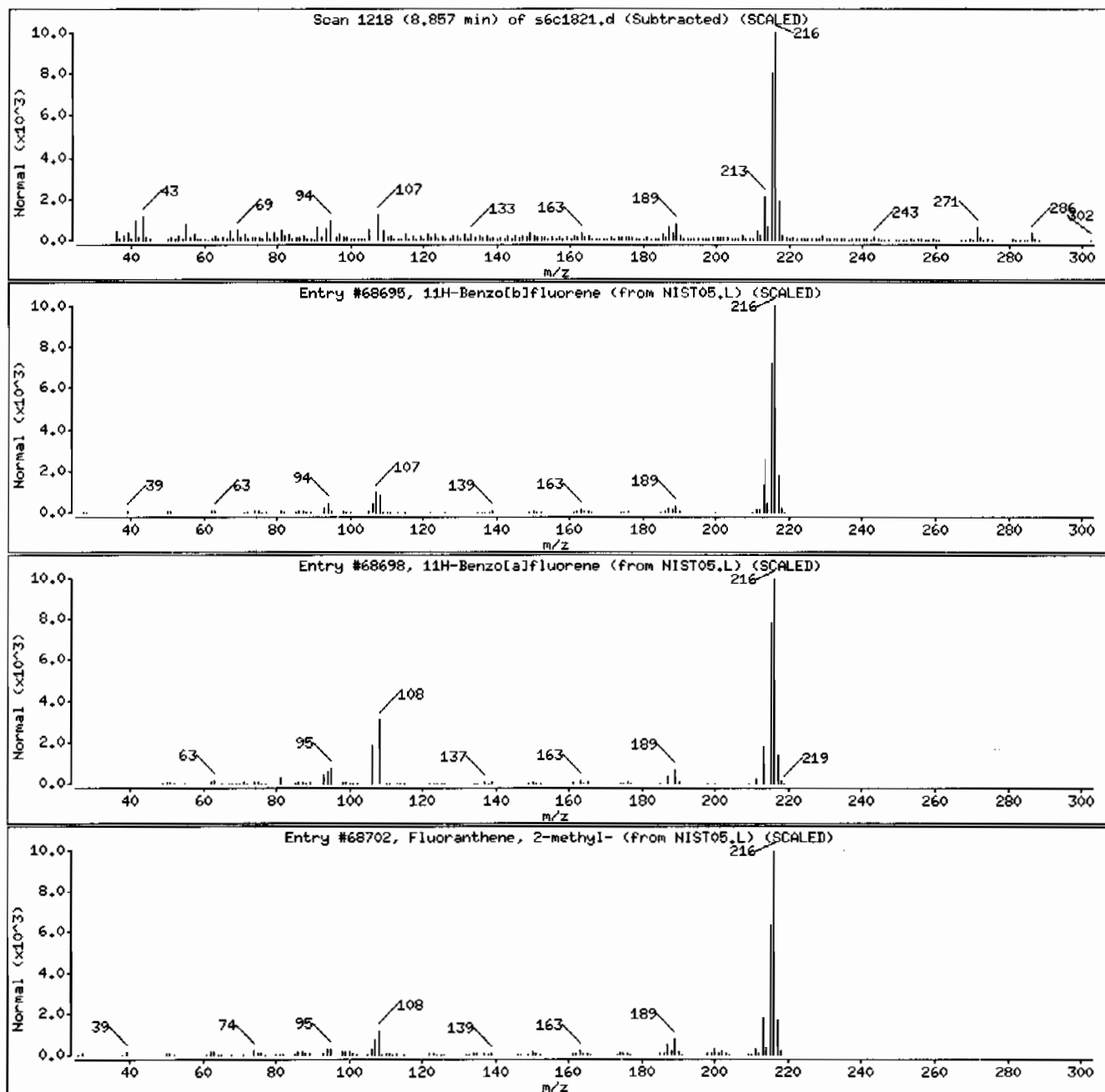
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11H-Benzo[b]fluorene	243-17-4	NIST05.L	68695	95	C17H12	216
11H-Benzo[a]fluorene	238-84-6	NIST05.L	68698	94	C17H12	216
Fluoranthene, 2-methyl-	33543-31-6	NIST05.L	68702	93	C17H12	216





Date: 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 1248249003196097114ISVM11LANL

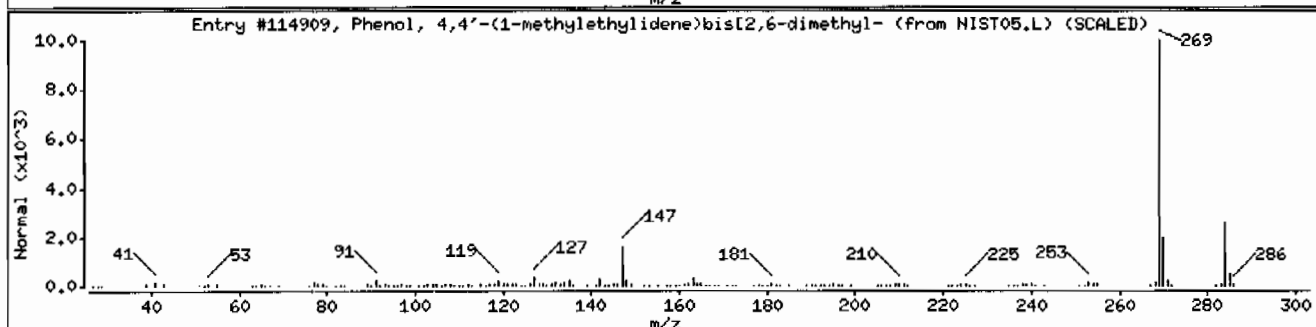
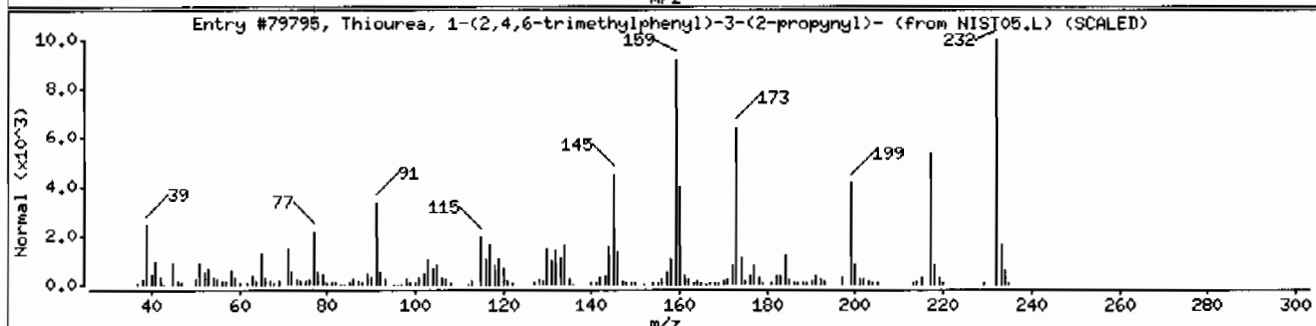
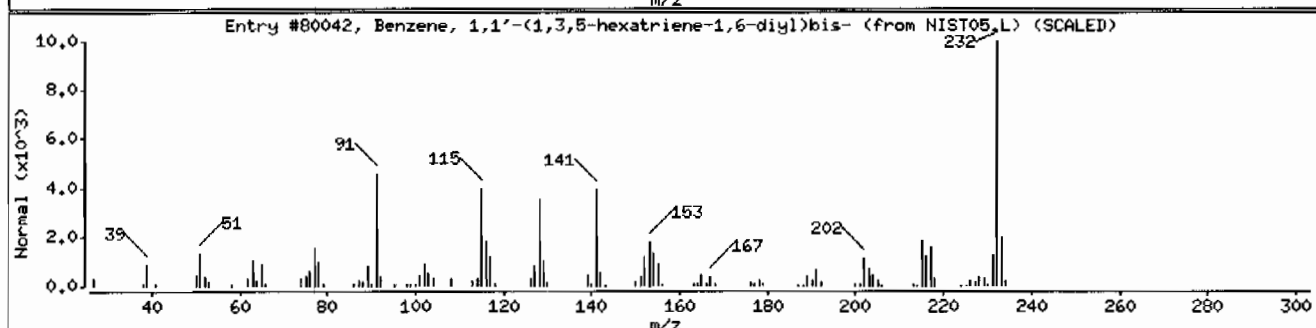
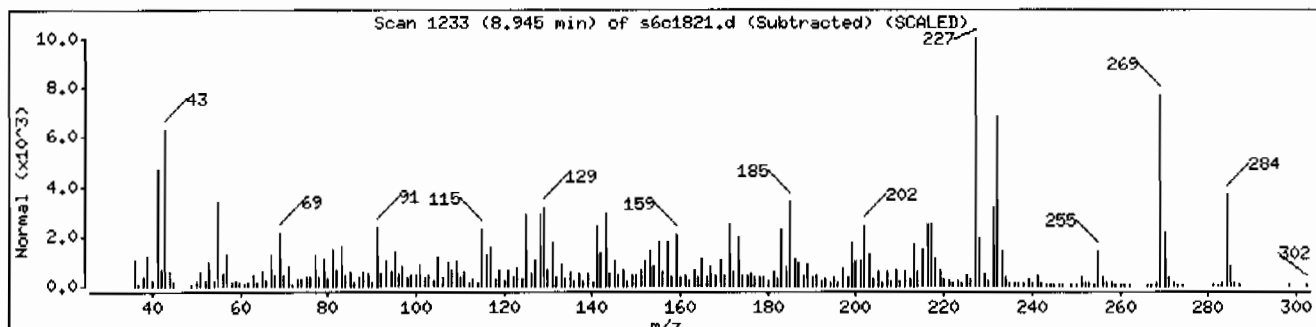
Volume Injected (uL): 0.5

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						
Benzene, 1,1'-(1,3,5-hexatriene-1,6-diyl	1720-32-7	NIST05.L	80042	59	C18H16	232
Thiourea, 1-(2,4,6-trimethylphenyl)-3-(2	1000267-72-7	NIST05.L	79795	40	C13H16N2S	232
Phenol, 4,4'-(1-methylethylidene)bis[2,6	5613-46-7	NIST05.L	114909	38	C19H24O2	284



Date : 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: HSD6.i

Sample Info: I2482490031960971141SVM111LANL

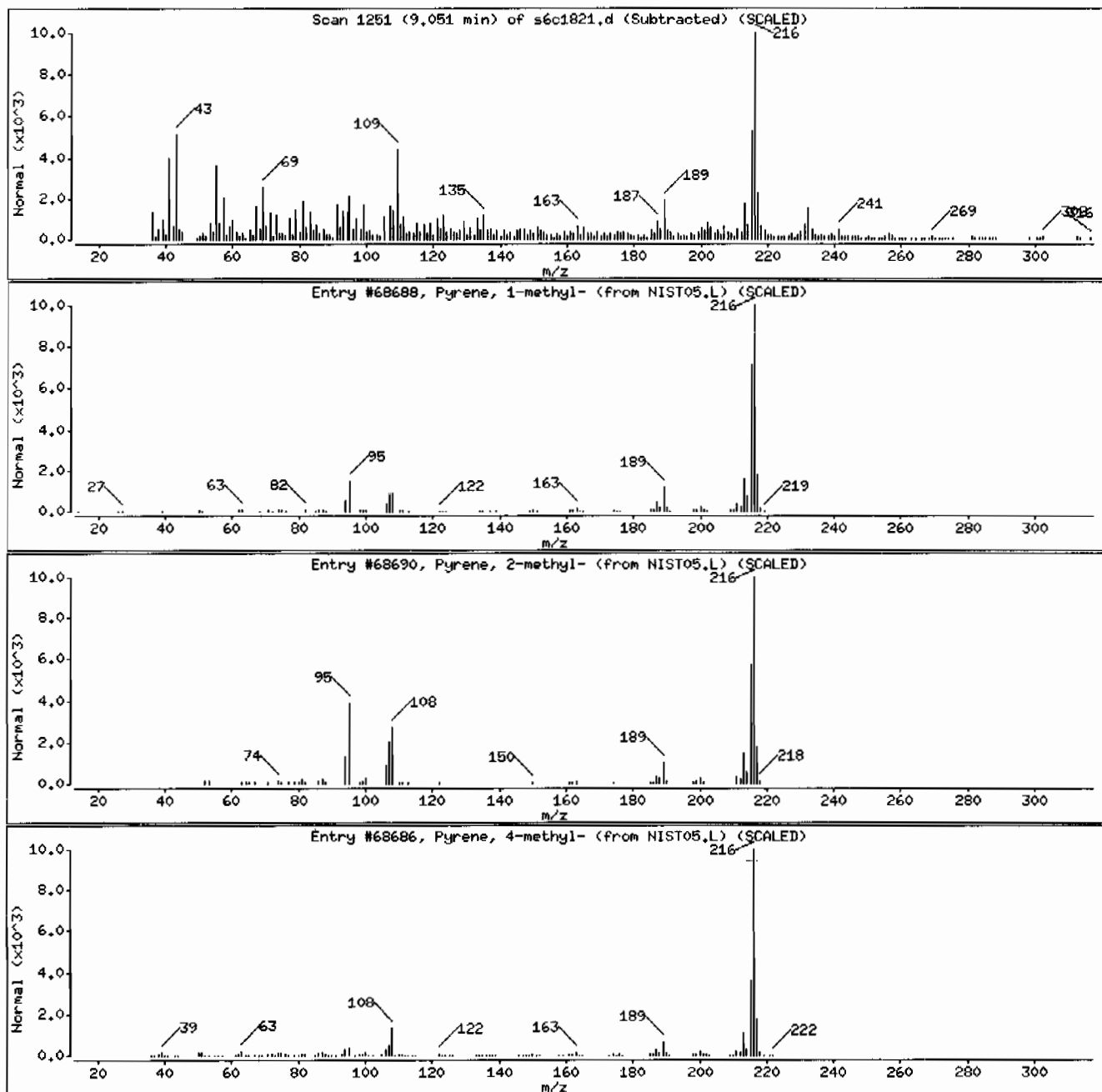
Volume Injected (UL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68688	93	C17H12	216
Pyrene, 2-methyl-	3442-78-2	NIST05.L	68690	89	C17H12	216
Pyrene, 4-methyl-	3353-12-6	NIST05.L	68686	86	C17H12	216



Date: 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: HSD6.i

Sample Info: 12482490031960971141SVH111LANL

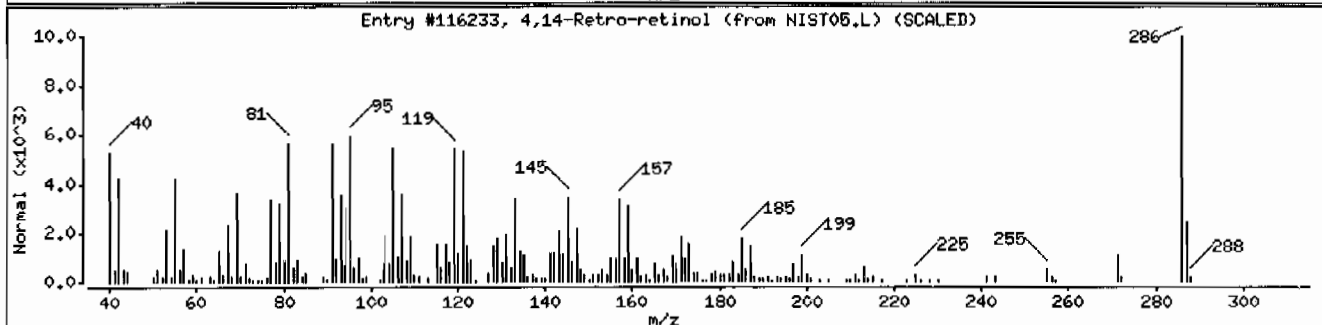
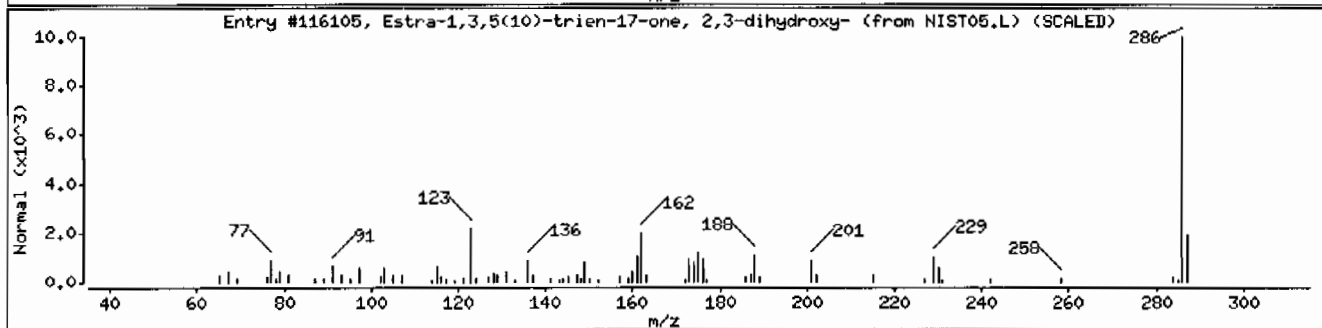
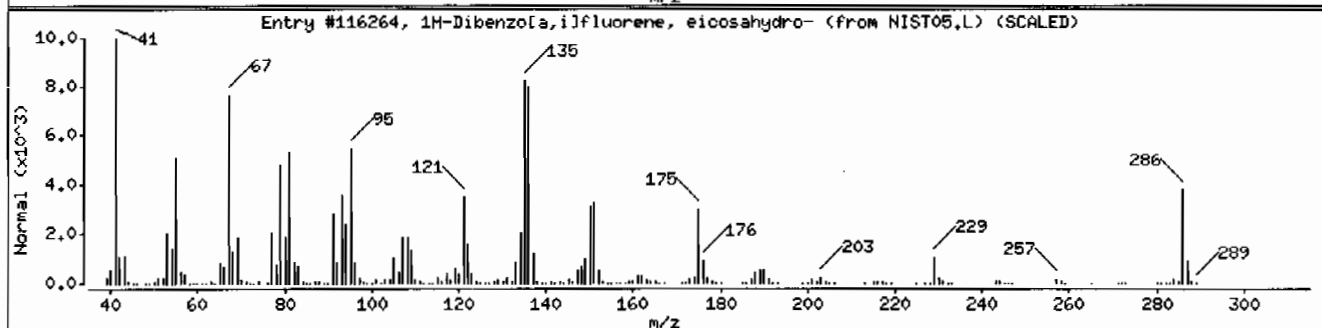
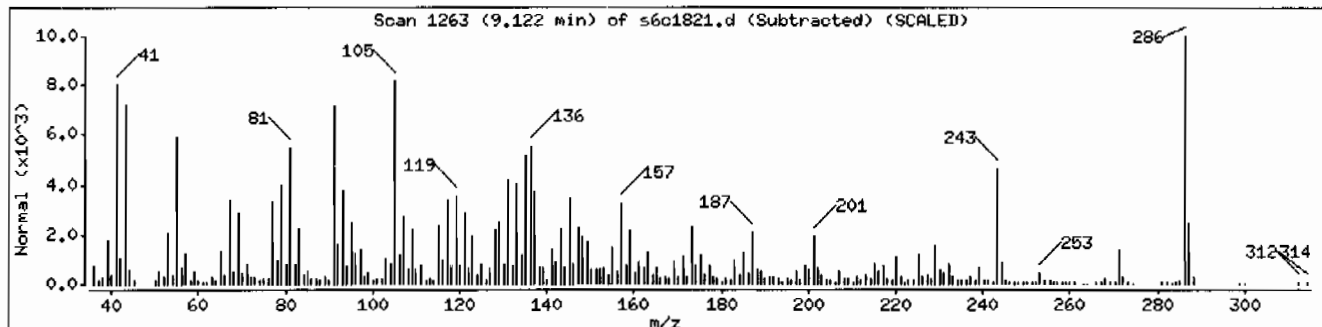
Volume Injected (uL): 0.5

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						
1H-Dibenzo[a,i]fluorene, eicosahydro-	55256-24-1	NIST05.L	116264	45	C21H34	286
Estra-1,3,5(10)-trien-17-one, 2,3-dihydr	362-06-1	NIST05.L	116105	35	C18H22O3	286
4,14-Retro-retinol	16729-22-9	NIST05.L	116233	30	C20H30O	286



Date: 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: HSD6.i

Sample Info: 12482490031960971141SVH111LANL

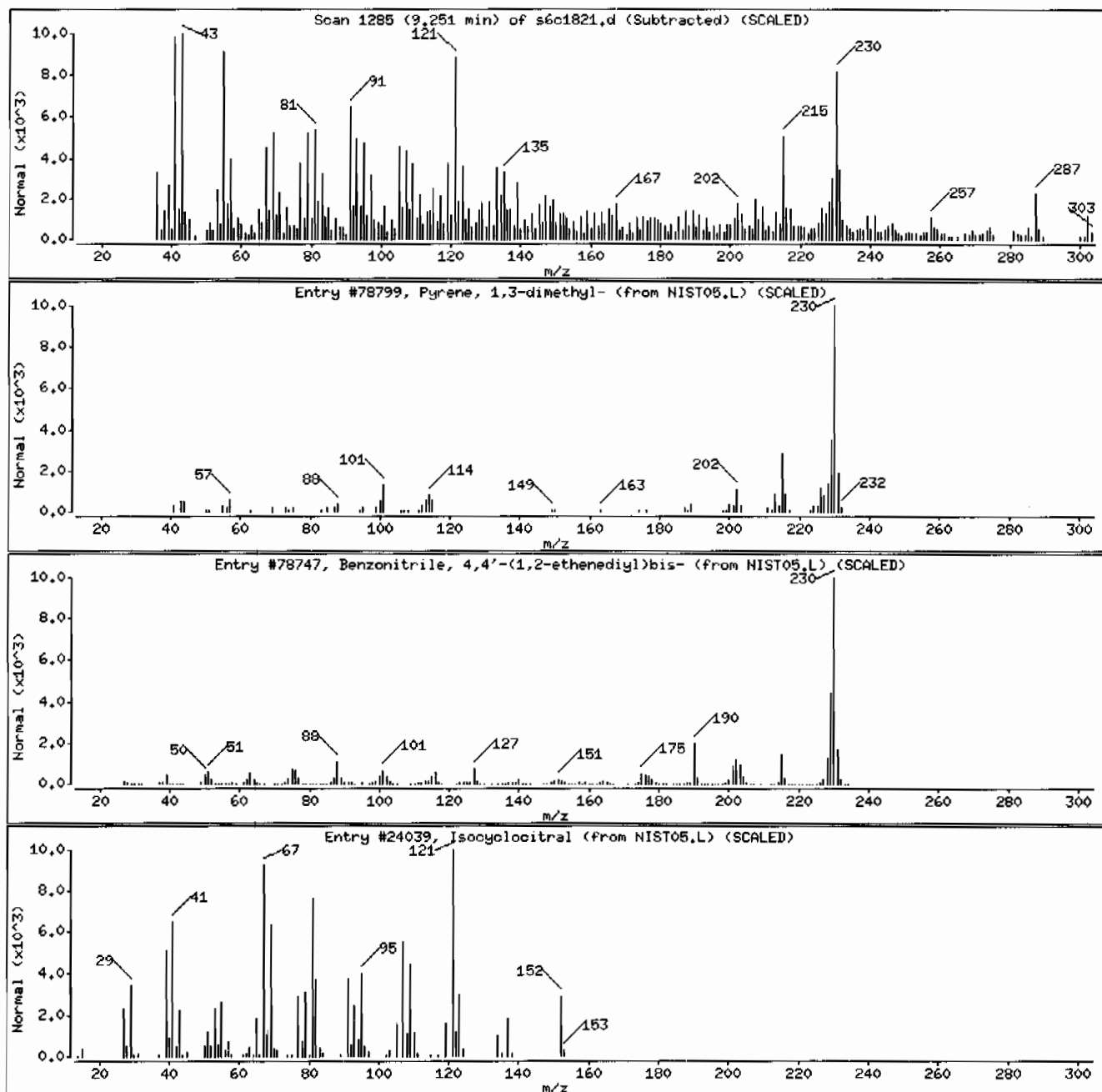
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyrene, 1,3-dimethyl-	64401-21-4	NIST05.L	78799	95	C18H14	230
Benzonitrile, 4,4'-(1,2-ethenediyl)bis-	6292-62-2	NIST05.L	78747	38	C16H10N2	230
Isocyclocitral	1335-66-6	NIST05.L	24039	38	C10H16O	152



Date : 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 12482490031960971141SVMI11LANL

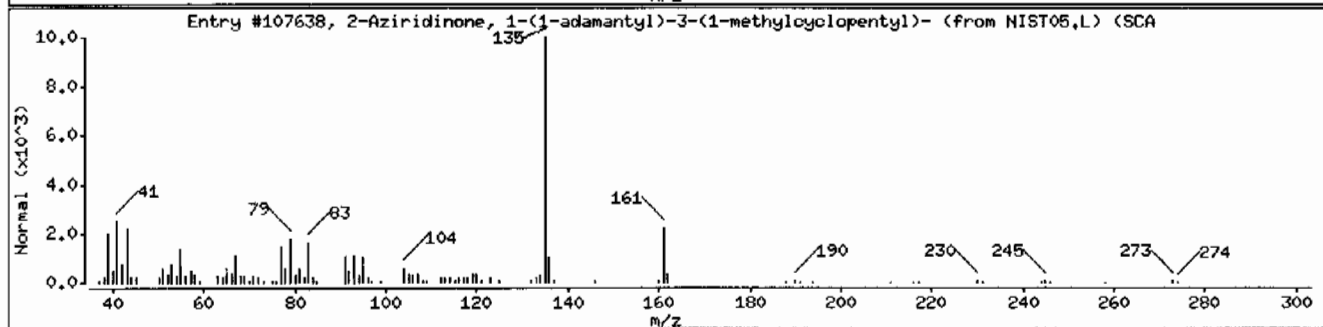
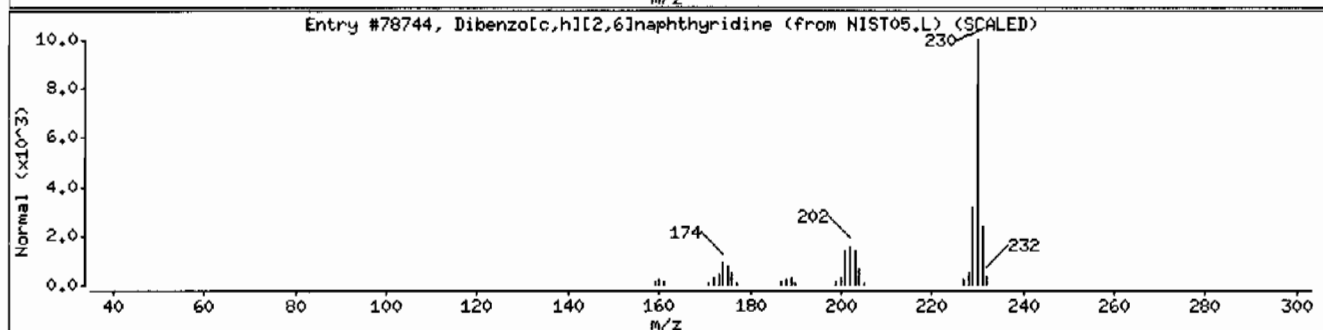
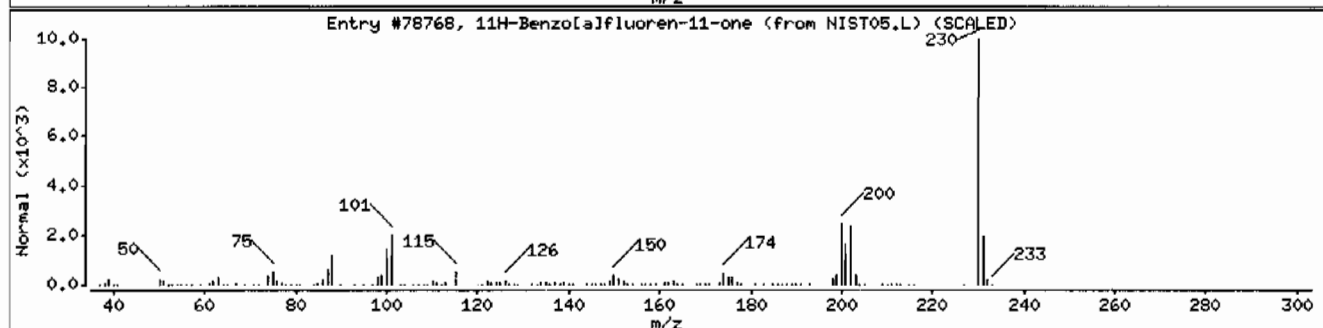
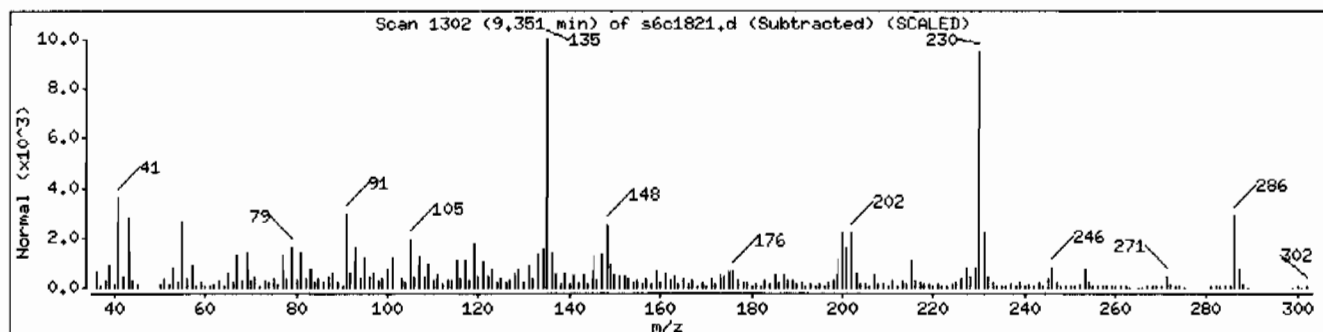
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11H-Benzo[a]fluoren-11-one	479-79-8	NIST05.L	78768	90	C17H10O	230
Dibenzo[c,h][2,6]naphthyridine	218-30-4	NIST05.L	78744	58	C16H10N2	230
2-Aziridinone, 1-(1-adamantyl)-3-(1-meth	26905-18-0	NIST05.L	107638	47	C18H27NO	273



Date: 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 12482490031960971141SVH111LANL

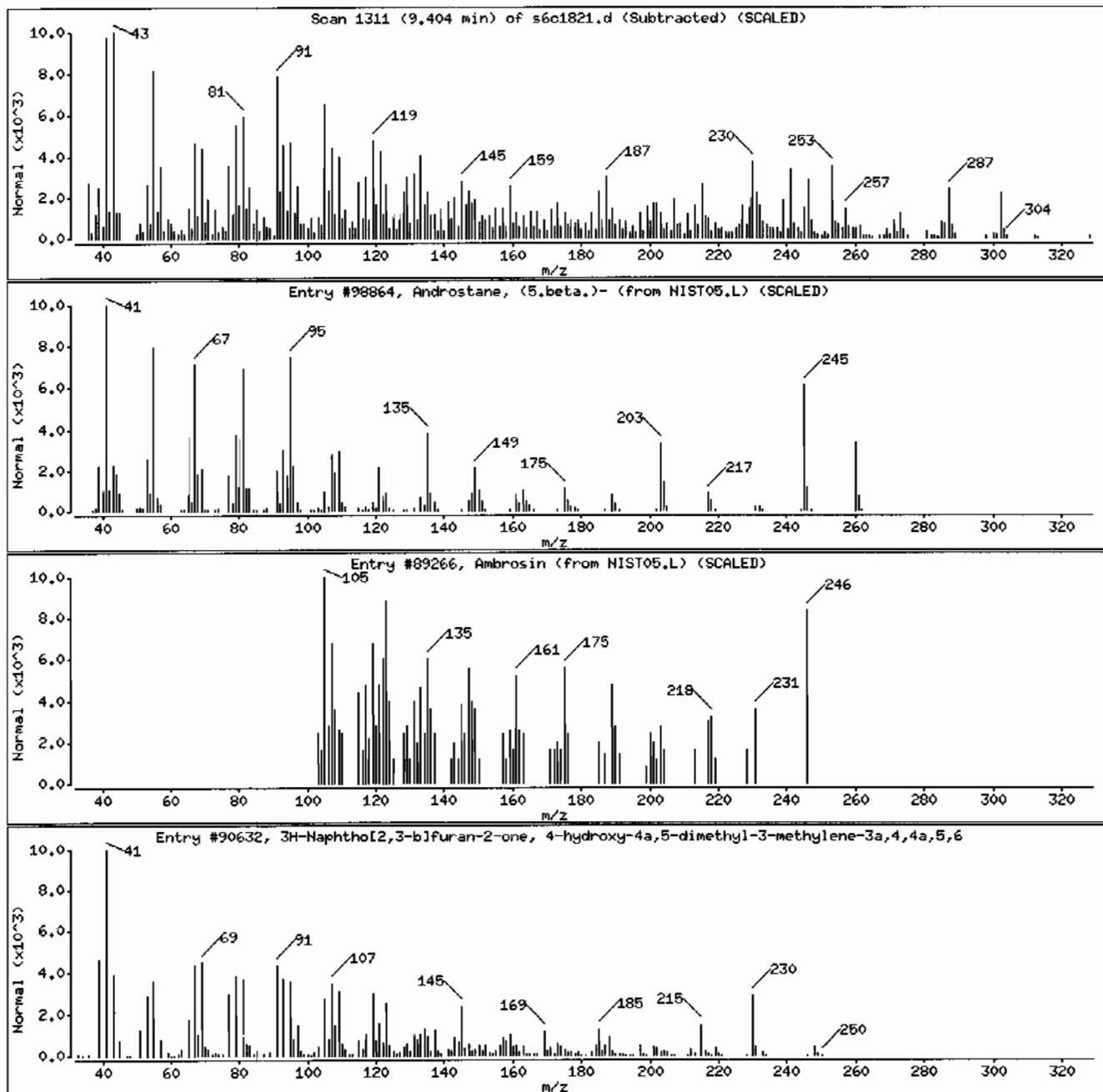
Volume Injected (uL): 0.5

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						
Androstane, (5.beta.)-	438-23-3	NIST05.L	98864	58	C19H32	260
Ambrosin	509-93-3	NIST05.L	89266	50	C15H18O3	246
3H-Naphtho[2,3-b]furan-2-one, 4-hydroxy-	1000310-15-7	NIST05.L	90632	46	C15H20O3	248



Date: 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 12482490031960971141SVH111LANL

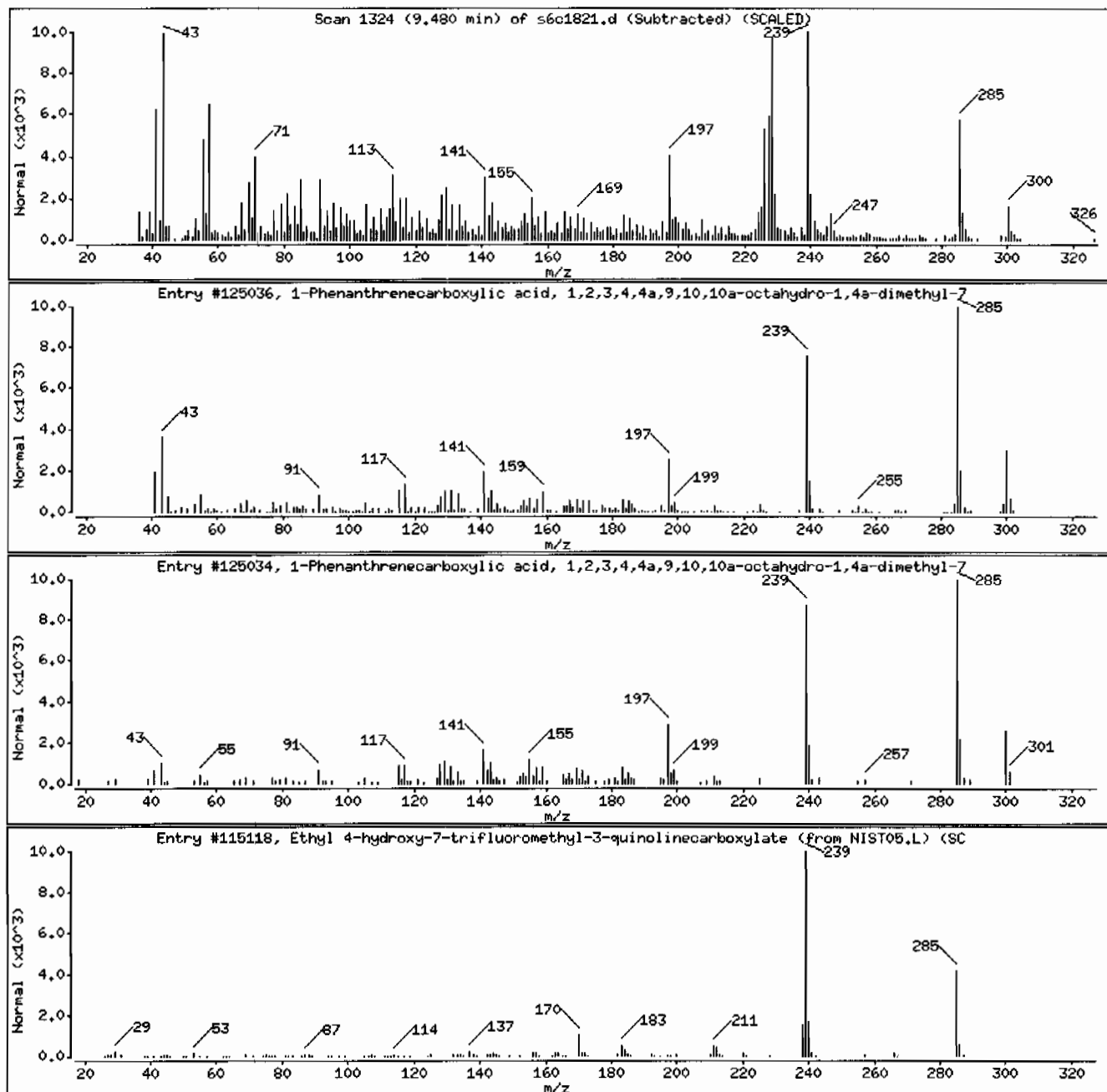
Volume Injected (UL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125036	90	C <sub>20</sub> H <sub>2</sub> O <sub>2</sub>	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125034	70	C <sub>20</sub> H <sub>2</sub> O <sub>2</sub>	300
Ethyl 4-hydroxy-7-trifluoromethyl-3-quin	391-02-6	NIST05.L	115118	38	C <sub>13</sub> H <sub>10</sub> F <sub>3</sub> N <sub>3</sub>	285



Date : 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: HSD6.i

Sample Info: 12482490031960971141SVMI11LANL

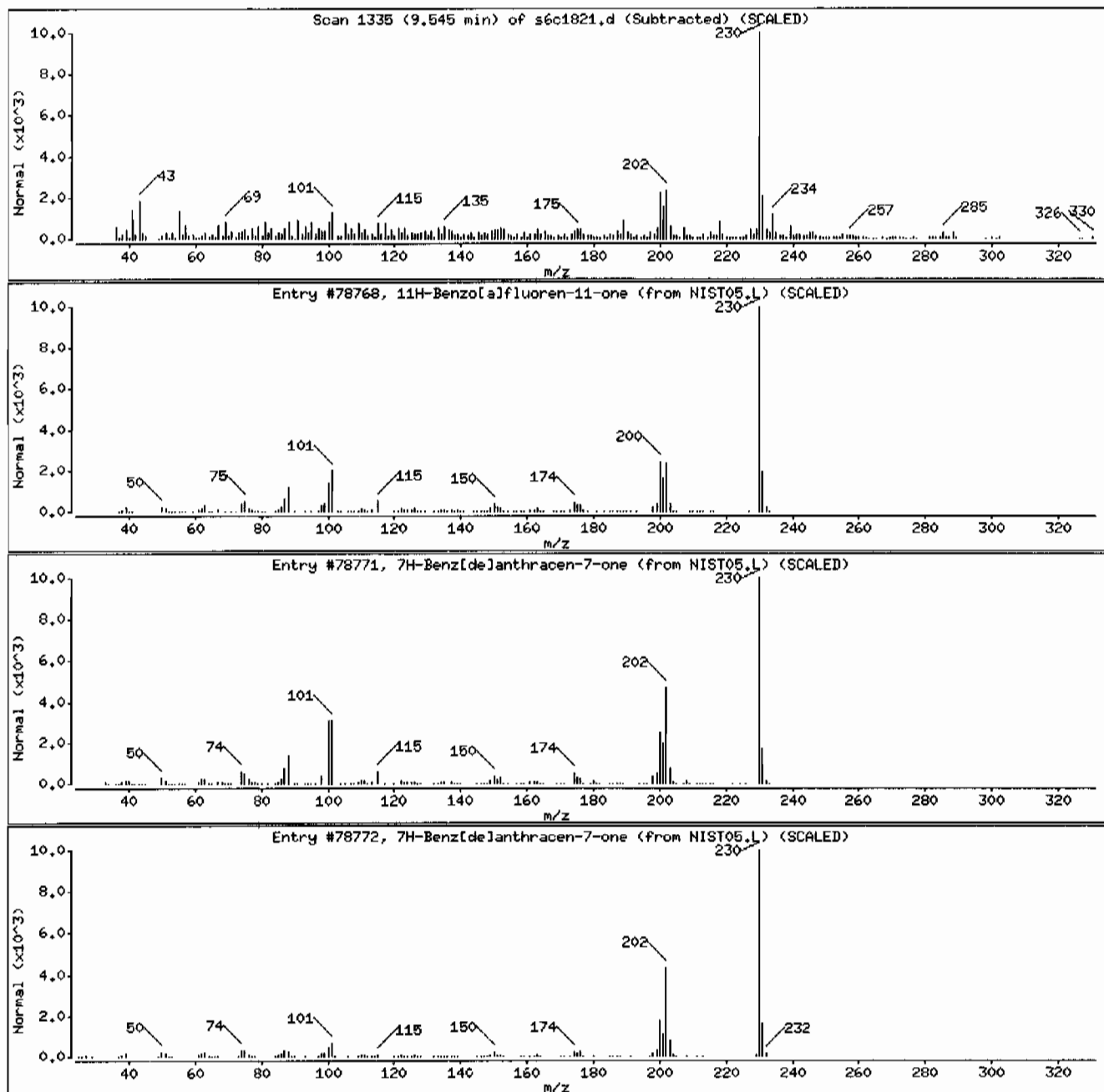
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11H-Benzo[a]fluoren-11-one	479-79-8	NIST05.L	78768	96	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78771	74	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78772	72	C17H10O	230





Date : 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: I2482490031960971141SVH111LANL

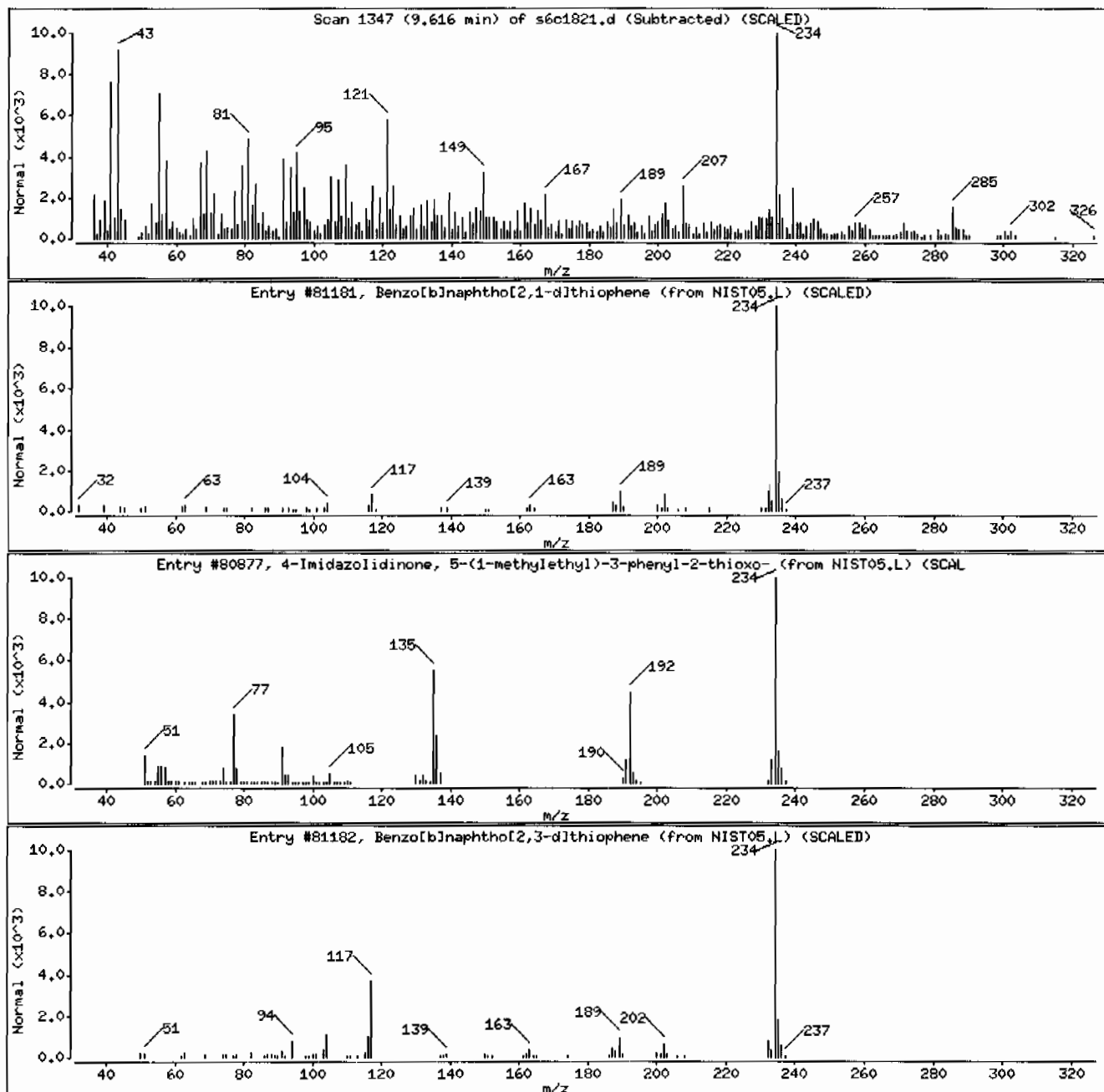
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[b]naphtho[2,1-d]thiophene	239-35-0	NIST05.L	81181	89	C16H10S	234
4-Imidazolidinone, 5-(1-methylethyl)-3-p	4333-20-4	NIST05.L	80877	64	C12H14N2O2	234
Benzo[b]naphtho[2,3-d]thiophene	243-46-9	NIST05.L	81182	55	C16H10S	234



Date : 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 12482490031960971141SVH111LANL

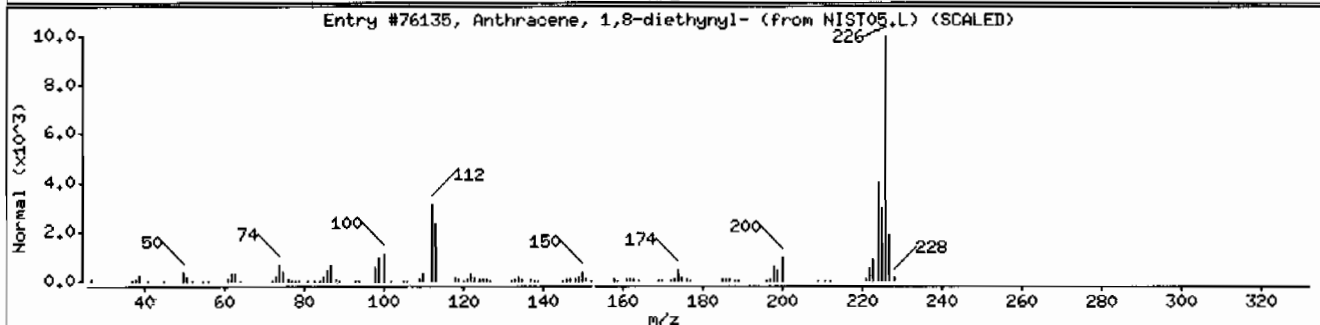
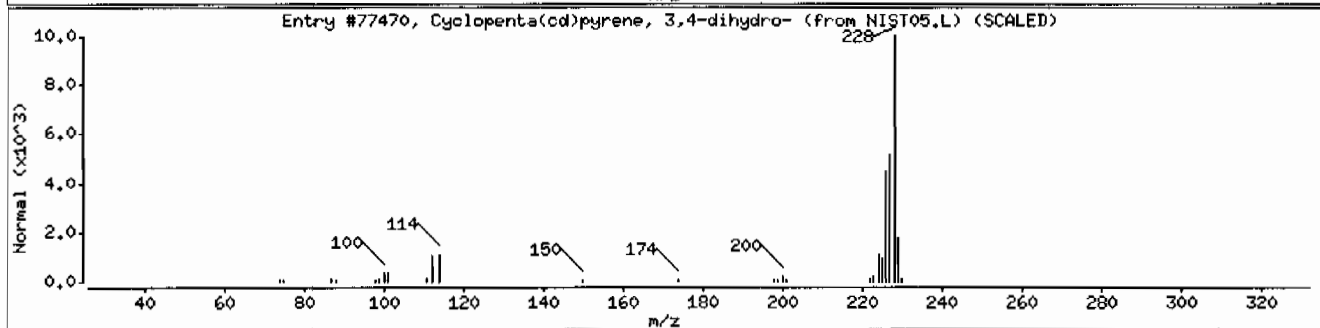
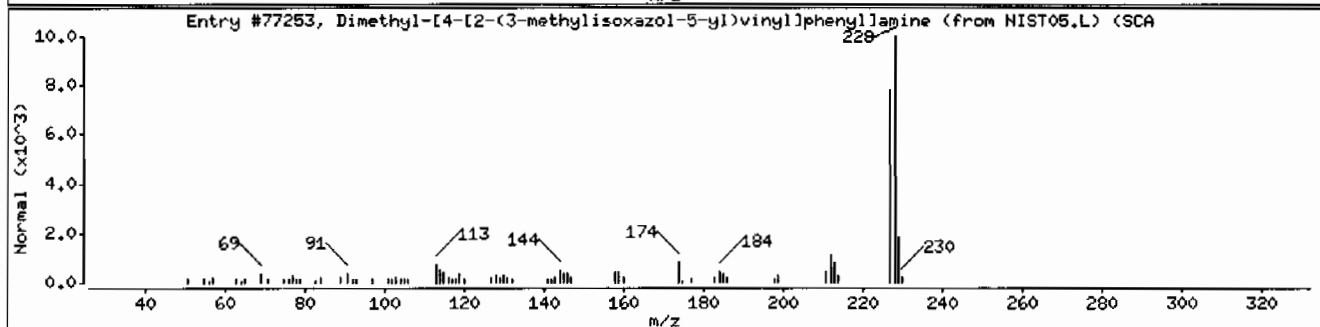
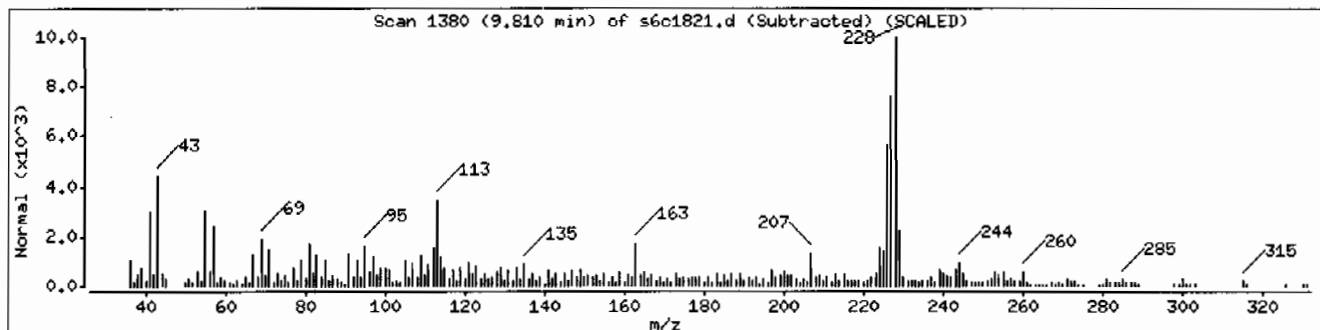
Volume Injected (uL): 0.5

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						
Dimethyl-[4-[2-(3-methylisoxazol-5-yl)vi	1000306-39-6	NIST05.L	77253	64	C14H16N2O	228
Cyclopenta(cd)pyrene, 3,4-dihydro-	25732-74-5	NIST05.L	77470	64	C18H12	228
Anthracene, 1,8-diethynyl-	78053-58-4	NIST05.L	76135	53	C18H10	226



Date: 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: HSD6.i

Sample Info: 12482490031960971141SVH111LANL

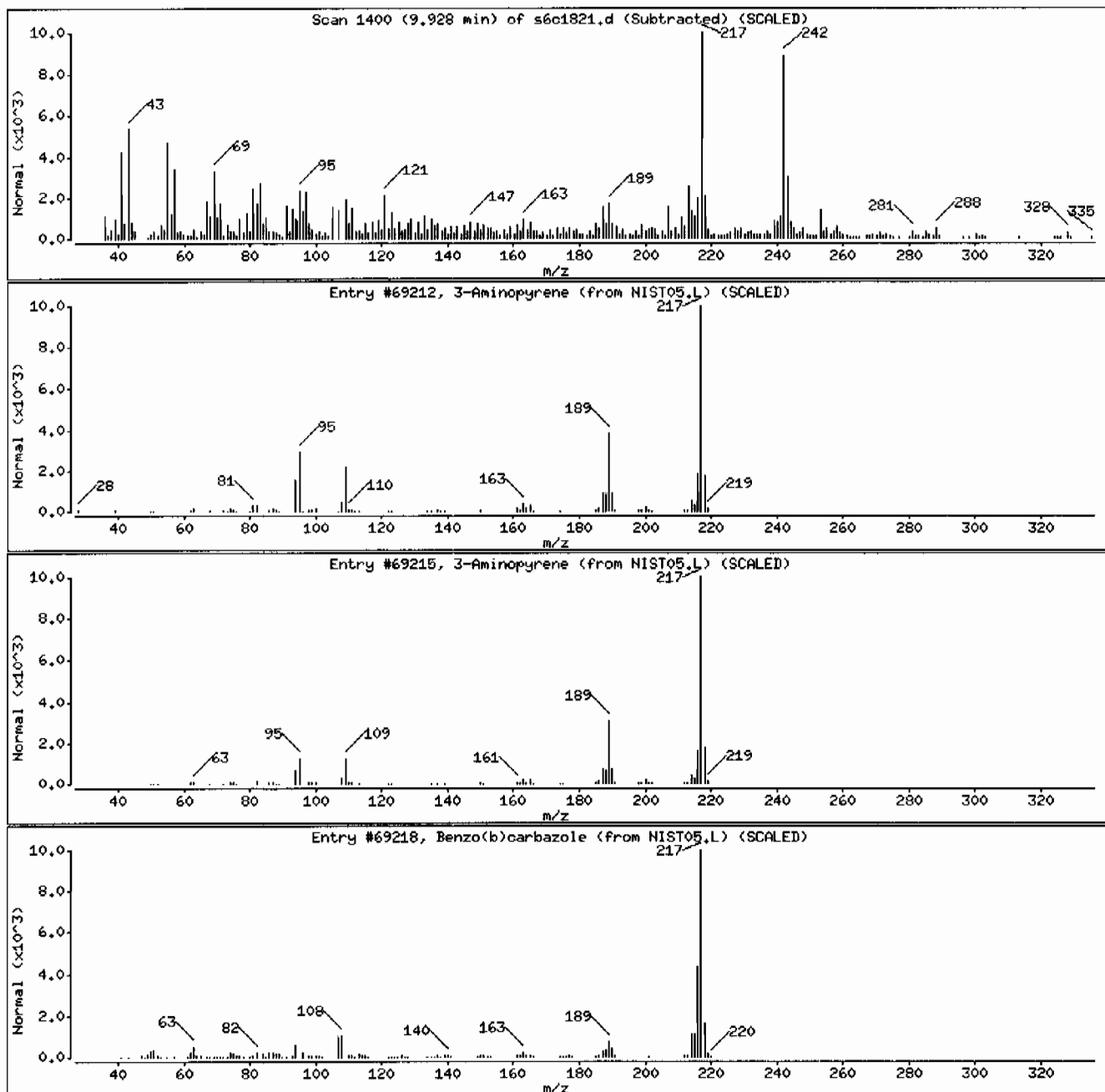
Volume Injected (uL): 0.5

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						
3-Aminopyrene	1606-67-3	NIST05.L	69212	50	C16H11N	217
3-Aminopyrene	1606-67-3	NIST05.L	69215	43	C16H11N	217
Benzo(b)carbazole	243-28-7	NIST05.L	69218	30	C16H11N	217



Date: 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 12482490031960971141SVH111LANL

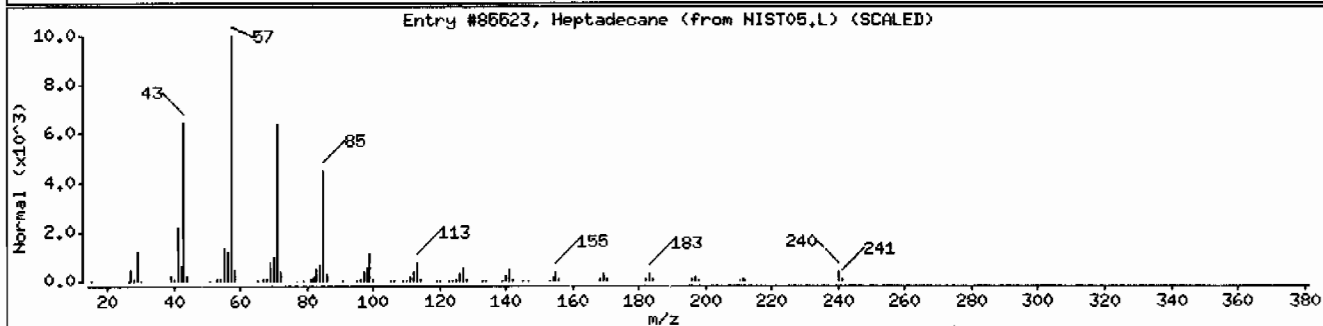
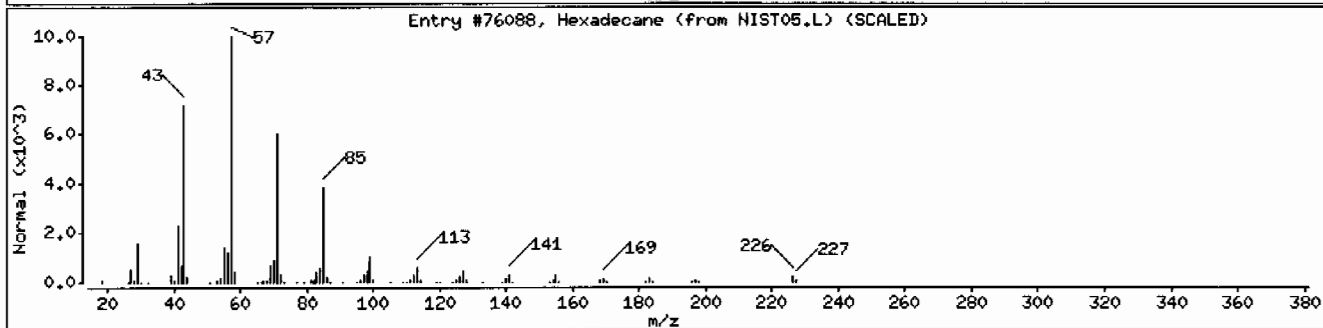
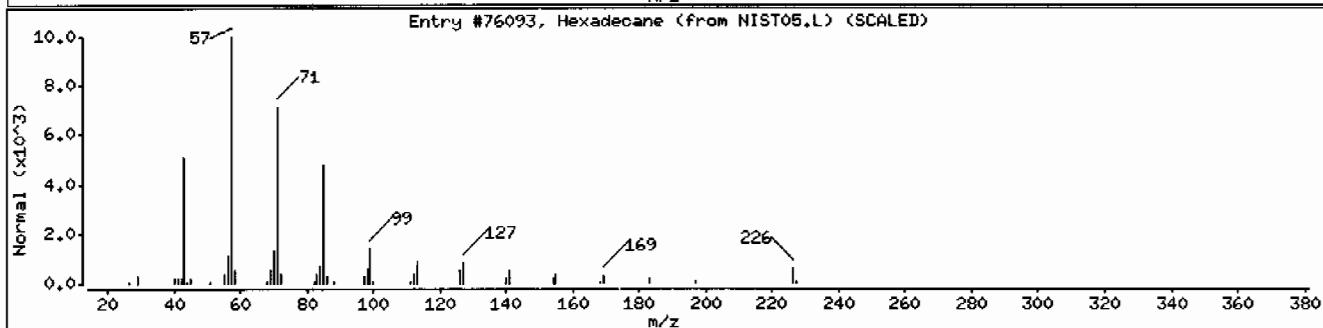
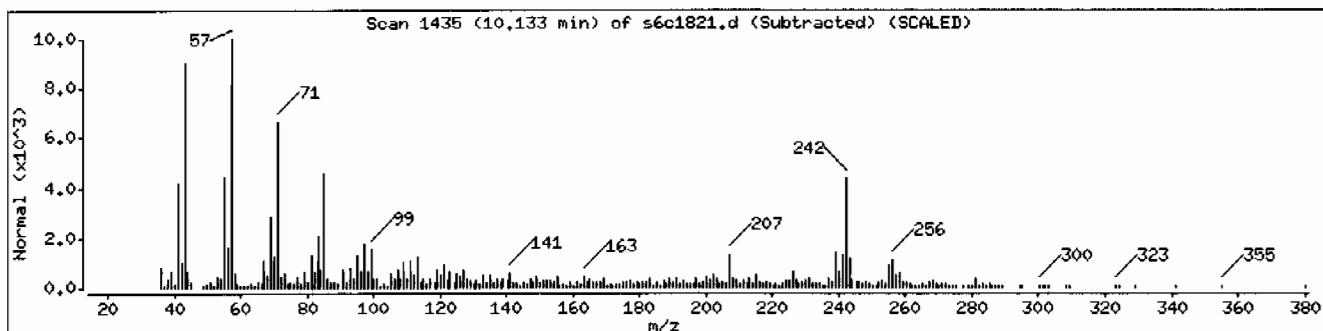
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexadecane	544-76-3	NIST05.L	76093	95	C16H34	226
Hexadecane	544-76-3	NIST05.L	76088	95	C16H34	226
Heptadecane	629-78-7	NIST05.L	85523	95	C17H36	240



Date : 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: HSD6.i

Sample Info: 12482490031960971141SVH111LANL

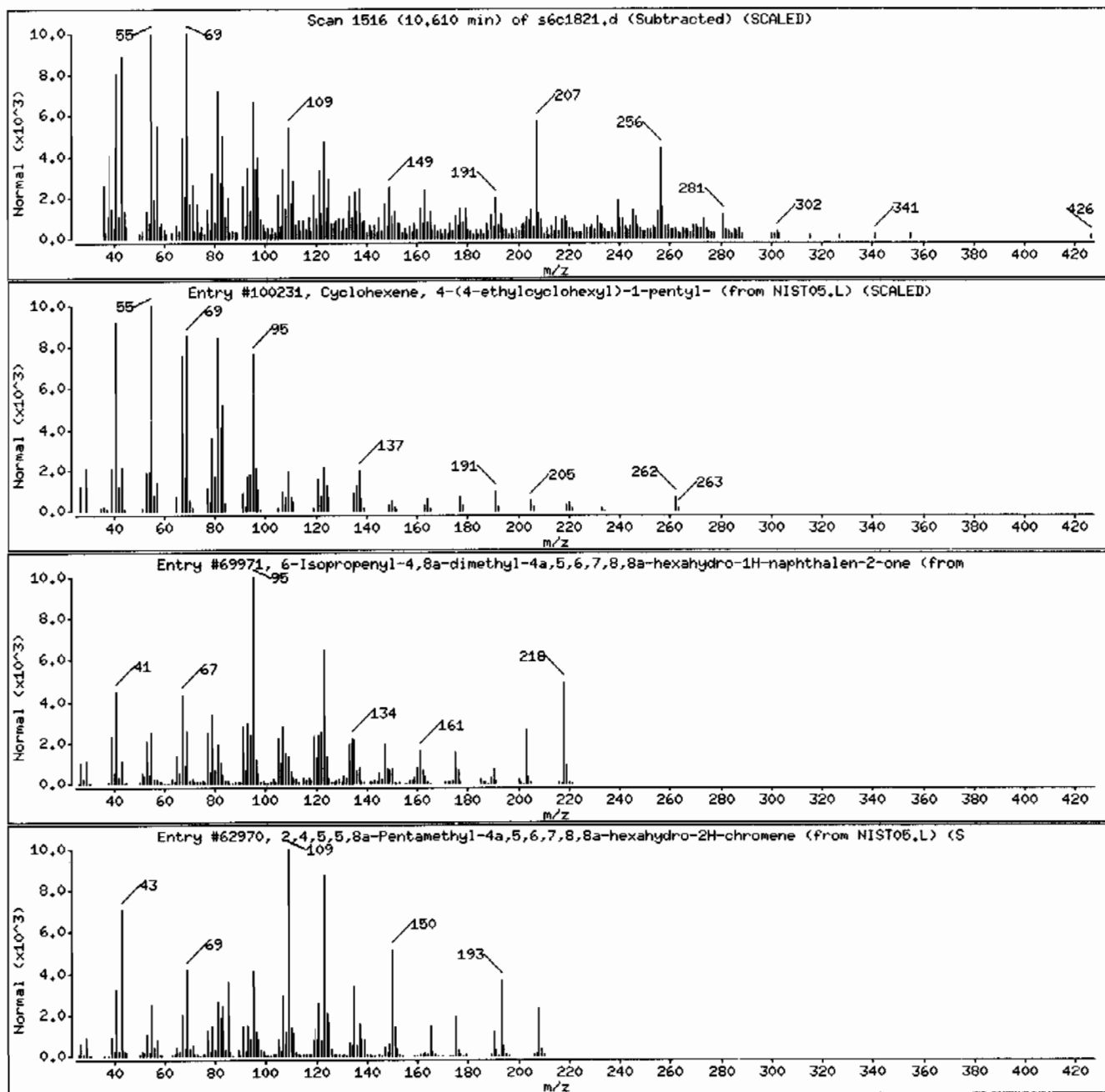
Volume Injected (uL): 0.5

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						
Cyclohexene, 4-(4-ethylcyclohexyl)-1-pen	301643-32-3	NIST05.L	100231	56	C19H34	262
6-Isopropenyl-4,8a-dimethyl-4a,5,6,7,8,8	86917-79-5	NIST05.L	69971	56	C15H22O	218
2,4,5,5,8a-Pentamethyl-4a,5,6,7,8,8a-hex	1000195-30-1	NIST05.L	62970	53	C14H24O	208



Date : 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 12482490031960971141SVH111LANL

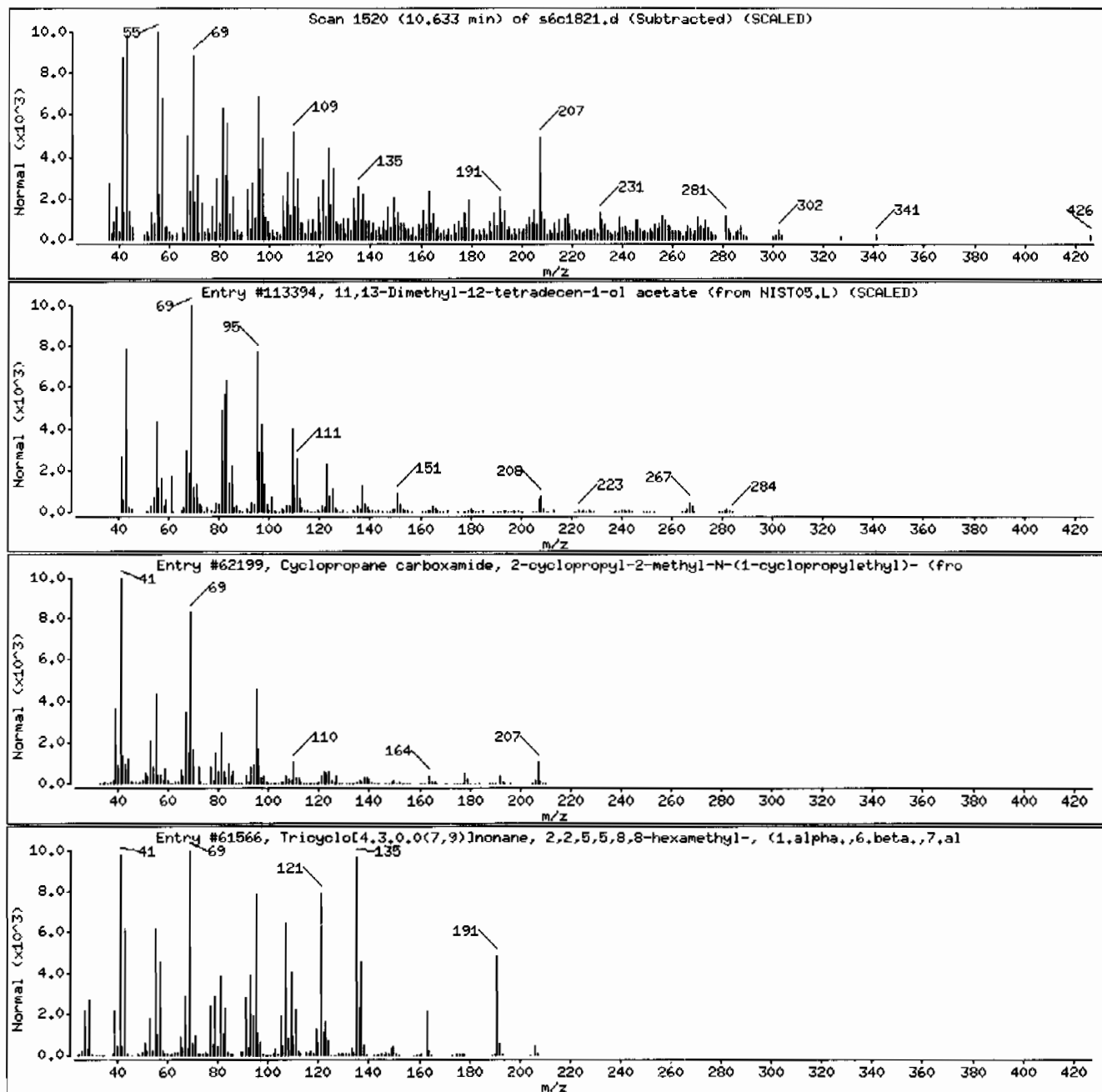
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	83	C18H34O2	282
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	64	C13H21NO	207
Tricyclo[4.3.0.0(7,9)]nonane, 2,2,5,5,8,	54832-82-5	NIST05.L	61566	45	C15H26	206



Date: 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 12482490031960971141SVMI11LANL

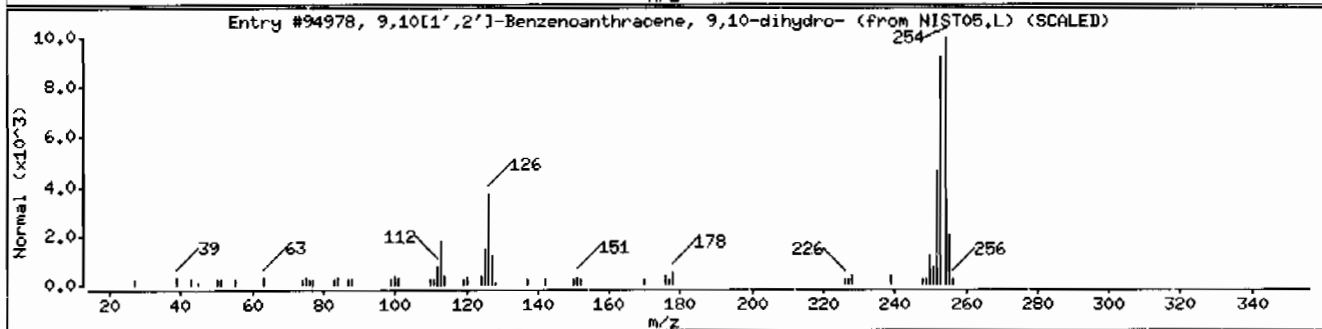
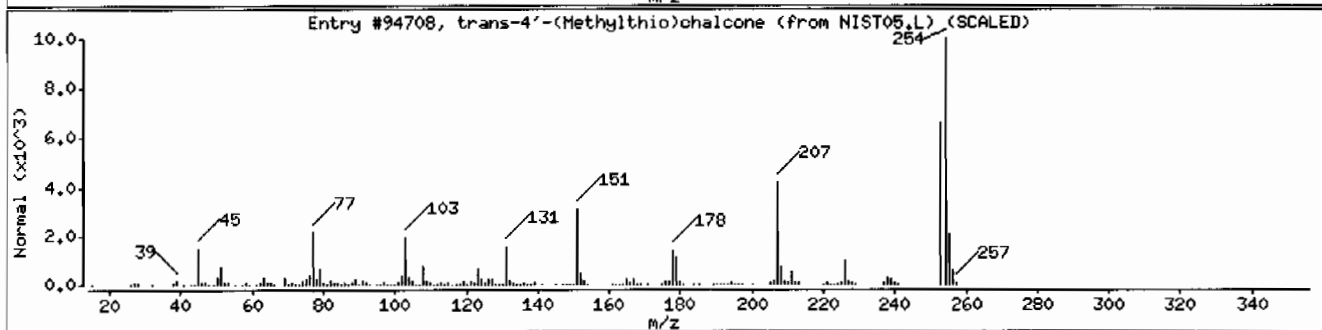
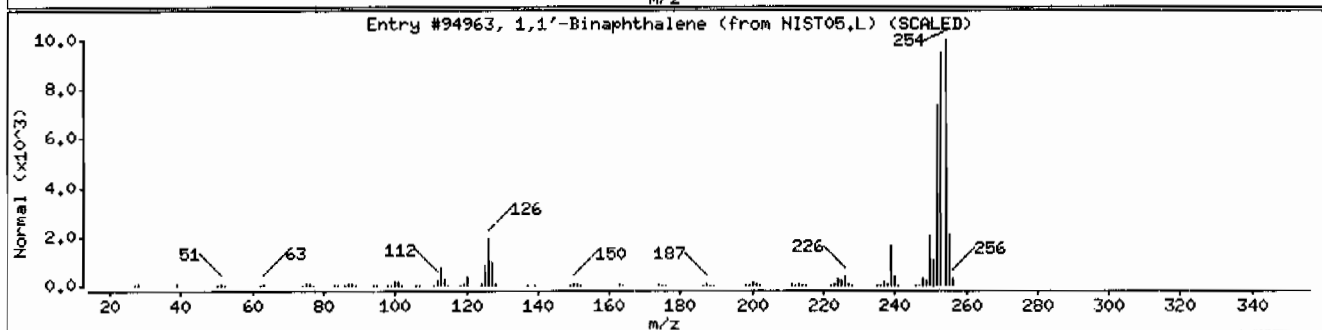
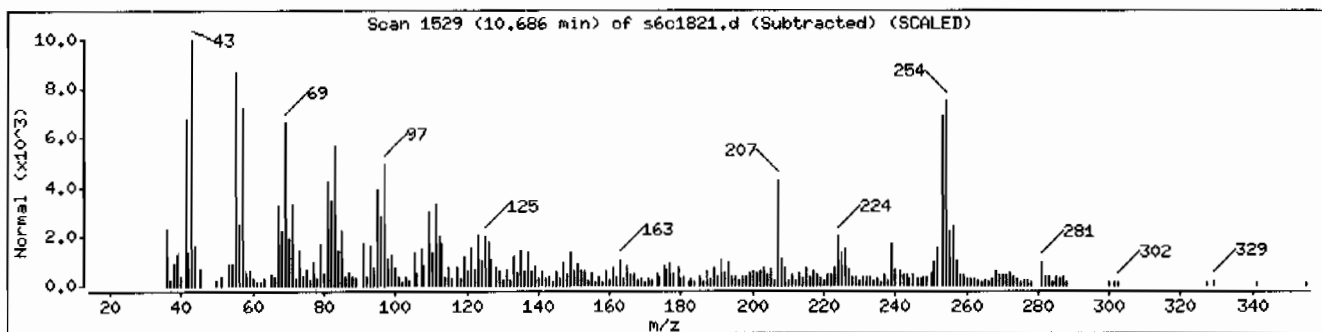
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,1'-Binaphthalene	604-53-5	NIST05.L	94963	86	C20H14	254
trans-4'-(Methylthio)chalcone	17129-07-6	NIST05.L	94708	70	C16H14OS	254
9,10[1',2']-Benzenoanthracene, 9,10-dihy	477-75-8	NIST05.L	94978	56	C20H14	254



Date: 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 12482490031960971141SVH111LANL

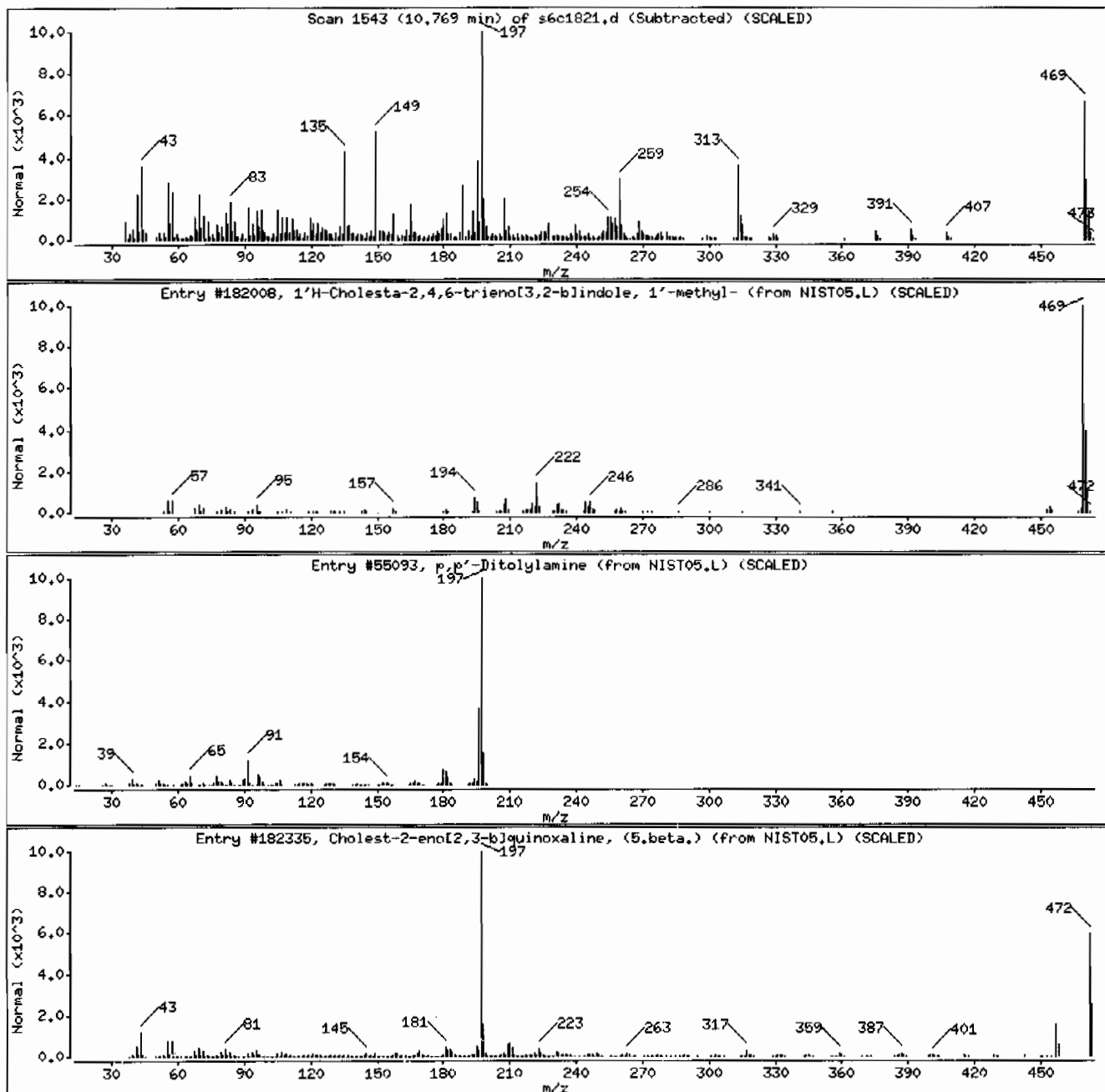
Volume Injected (uL): 0.5

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						
1'H-Cholesta-2,4,6-trieno[3,2-b]indole,	38389-25-2	NIST05.L	182008	44	C34H47N	469
p,p'-Ditolylamine	620-93-9	NIST05.L	55093	35	C14H15N	197
Cholest-2-enol[2,3-b]quinoxaline, (5.beta	24479-67-2	NIST05.L	182335	22	C33H48N2	472





Date: 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 12482490031960971141SVH111LANL

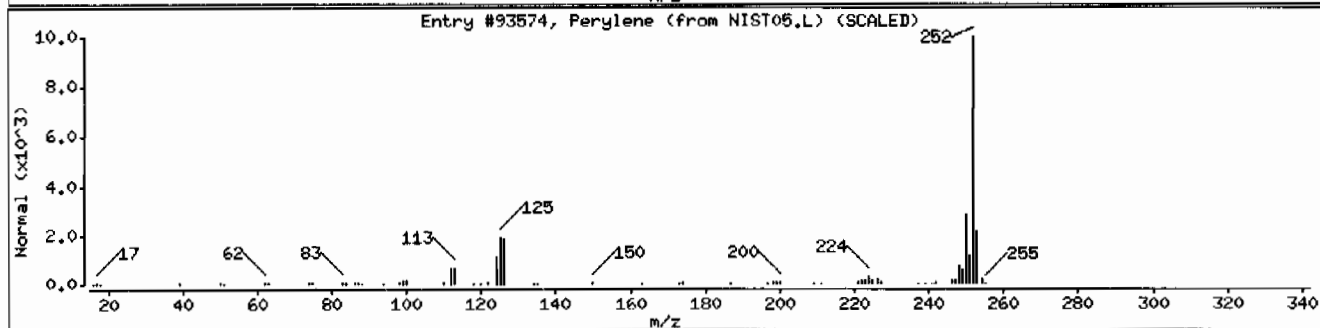
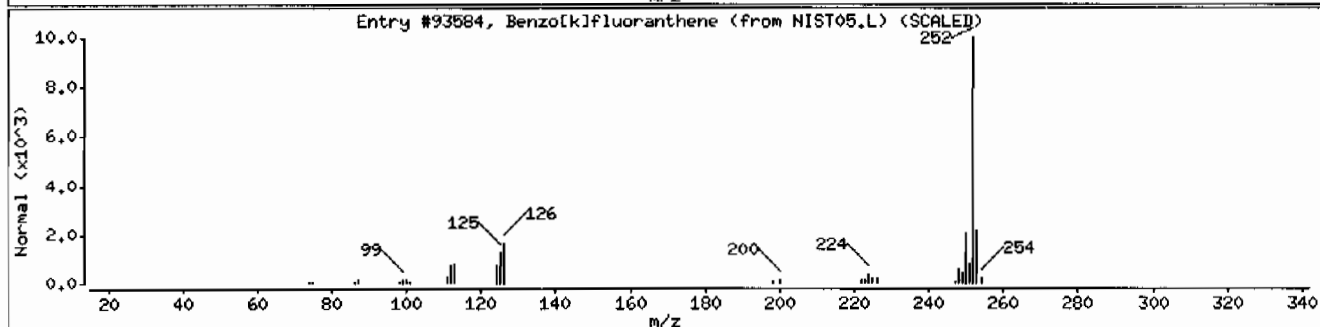
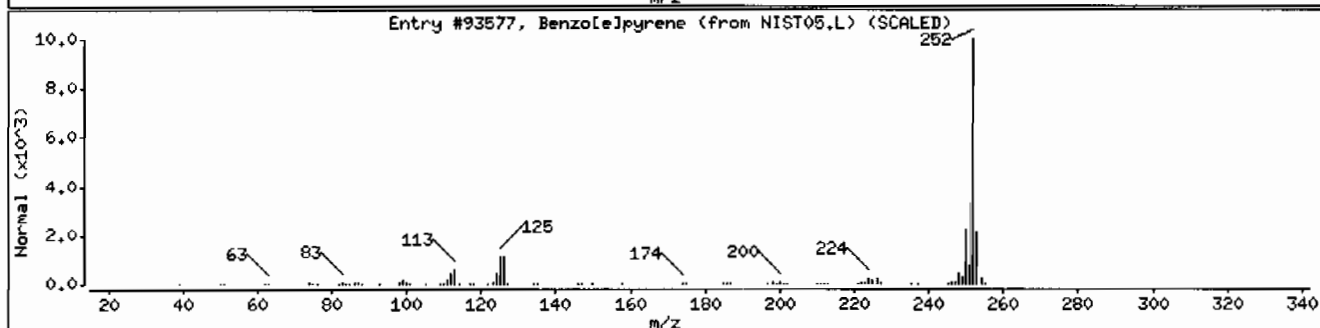
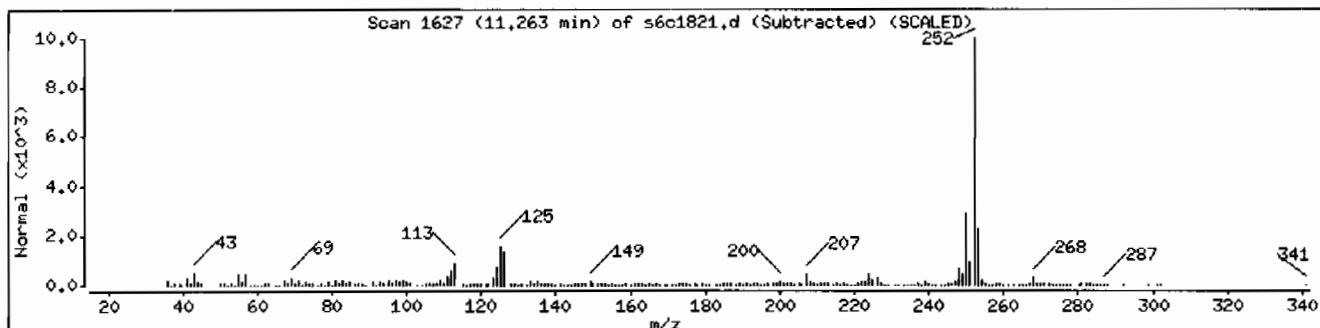
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[e]pyrene	192-97-2	NIST05.L	93577	98	C20H12	252
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	98	C20H12	252
Perylene	198-55-0	NIST05.L	93574	98	C20H12	252



Date: 18-MAR-2010 15:52

Client ID: RE36-10-8283

Instrument: MSD6.i

Sample Info: 12482490031960971141SVMI11LANL

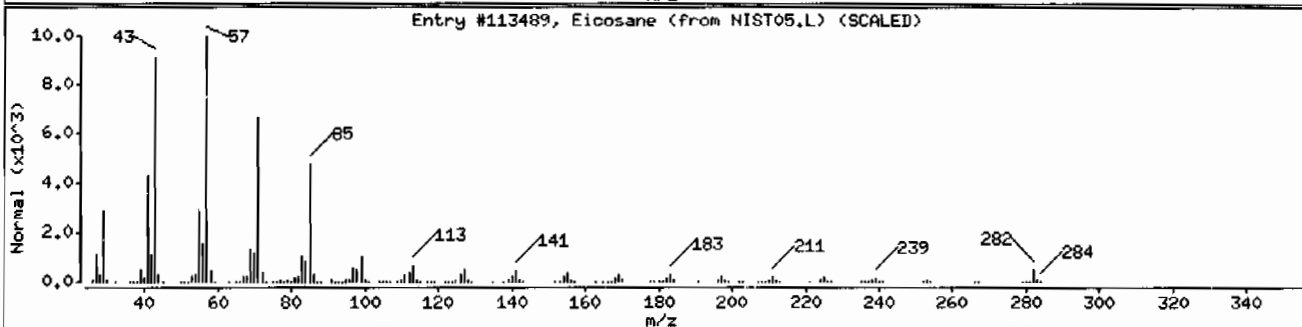
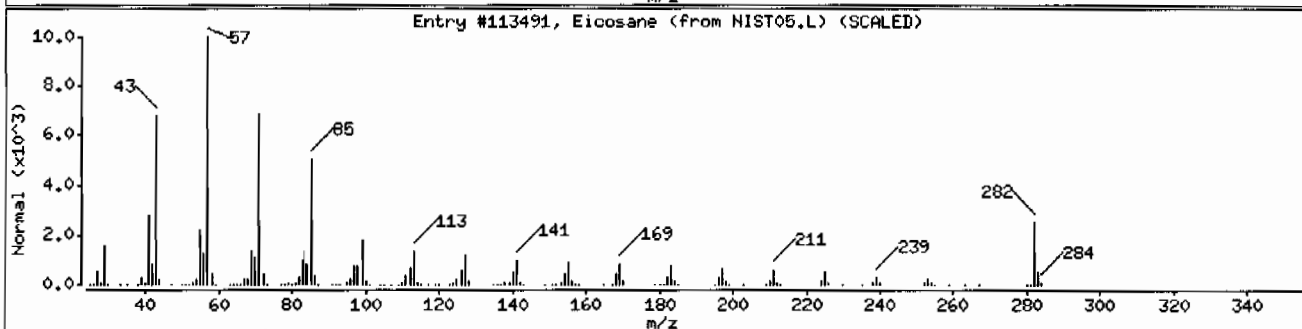
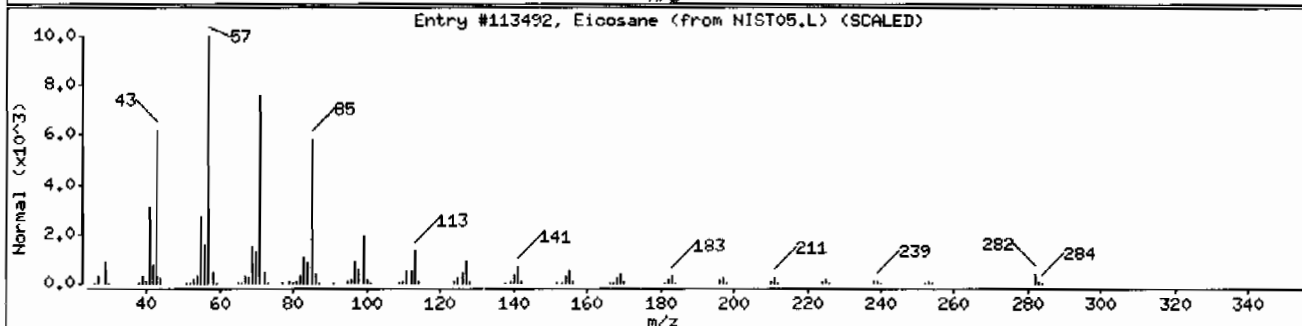
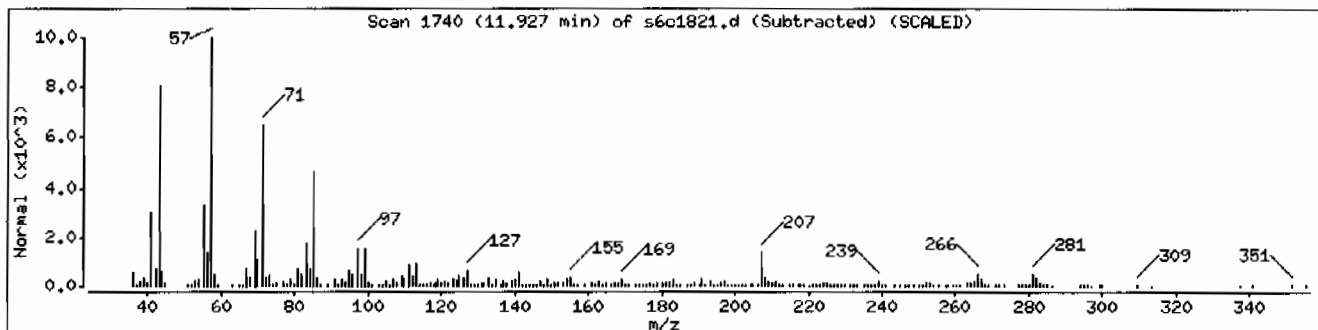
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NIST05.L	113492	98	C <sub>20</sub> H <sub>42</sub>	282
Eicosane	112-95-8	NIST05.L	113491	95	C <sub>20</sub> H <sub>42</sub>	282
Eicosane	112-95-8	NIST05.L	113489	95	C <sub>20</sub> H <sub>42</sub>	282



Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 1 of 3

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249004	Date Received: 02/27/2010 09:10	%Moisture: 5.5
Client ID: RE36-10-8284	Client: LANL010	Project: LANL01004
Batch ID: 960971	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/18/2010 14:40	Inst: MSD6.I	Dilution: 4
Prep Date: 03/04/2010 23:22	Analyst: NAG1	Inj. Vol: .5 uL
Data File: s6c1818.d	Aliquot: 30.01 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	1410	ug/kg	282	1410
108-95-2	Phenol	U	1410	ug/kg	282	1410
95-57-8	2-Chlorophenol	U	1410	ug/kg	282	1410
106-46-7	1,4-Dichlorobenzene	U	1410	ug/kg	282	1410
621-64-7	N-Nitrosodipropylamine	U	1410	ug/kg	282	1410
59-50-7	4-Chloro-3-methylphenol	U	1410	ug/kg	282	1410
83-32-9	Acenaphthene	J	72.5	ug/kg	46.6	141
121-14-2	2,4-Dinitrotoluene	U	1410	ug/kg	141	1410
100-02-7	4-Nitrophenol	U	1410	ug/kg	466	1410
87-86-5	Pentachlorophenol	U	1410	ug/kg	353	1410
129-00-0	Pyrene		1880	ug/kg	42.3	141
110-86-1	Pyridine	U	1410	ug/kg	282	1410
62-53-3	Aniline	U	1410	ug/kg	423	1410
111-44-4	bis(2-Chloroethyl) ether	U	1410	ug/kg	282	1410
541-73-1	1,3-Dichlorobenzene	U	1410	ug/kg	282	1410
100-51-6	Benzyl alcohol	U	1410	ug/kg	423	1410
95-50-1	1,2-Dichlorobenzene	U	1410	ug/kg	282	1410
108-60-1	bis(2-Chloroisopropyl)ether	U	1410	ug/kg	282	1410
95-48-7	o-Cresol	U	1410	ug/kg	282	1410
65794-96-9	m,p-Cresols	U	1410	ug/kg	423	1410
67-72-1	Hexachloroethane	U	1410	ug/kg	282	1410
98-95-3	Nitrobenzene	U	1410	ug/kg	282	1410
78-59-1	Isophorone	U	1410	ug/kg	282	1410
88-75-5	2-Nitrophenol	U	1410	ug/kg	282	1410
105-67-9	2,4-Dimethylphenol	U	1410	ug/kg	494	1410
111-91-1	bis(2-Chloroethoxy)methane	U	1410	ug/kg	282	1410
120-83-2	2,4-Dichlorophenol	U	1410	ug/kg	282	1410
65-85-0	Benzoic acid	U	2820	ug/kg	705	2820
91-20-3	Naphthalene	U	141	ug/kg	42.3	141
106-47-8	4-Chloroaniline	U	1410	ug/kg	282	1410
87-68-3	Hexachlorobutadiene	U	1410	ug/kg	282	1410
91-57-6	2-Methylnaphthalene	U	141	ug/kg	28.2	141
77-47-4	Hexachlorocyclopentadiene	U	1410	ug/kg	282	1410
88-06-2	2,4,6-Trichlorophenol	U	1410	ug/kg	282	1410
95-95-4	2,4,5-Trichlorophenol	U	1410	ug/kg	282	1410
91-58-7	2-Chloronaphthalene	U	141	ug/kg	46.6	141
88-74-4	2-Nitroaniline	U	1410	ug/kg	282	1410
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	1410	ug/kg	282	1410

## Certificate of Analysis

## Sample Summary

SDG Number:	10-2140	Date Collected:	02/24/2010 12:00	Matrix:	R
Lab Sample ID:	248249004	Date Received:	02/27/2010 09:10	%Moisture:	5.5
Client ID:	RE36-10-8284	Client:	LANL010	Project:	LANL01004
Batch ID:	960971	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Run Date:	03/18/2010 14:40	Inst:	MSD6.1	Dilution:	4
Prep Date:	03/04/2010 23:22	Analyst:	NAG1	Inj. Vol:	.5 uL
Data File:	s6c1818.d	Aliquot:	30.01 g	Final Volume:	1 mL
		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	1410	ug/kg	282	1410
606-20-2	2,6-Dinitrotoluene	U	1410	ug/kg	141	1410
208-96-8	Acenaphthylene	U	141	ug/kg	42.3	141
51-28-5	2,4-Dinitrophenol	U	2820	ug/kg	536	2820
132-64-9	Dibenzofuran	U	1410	ug/kg	282	1410
84-66-2	Diethylphthalate	U	1410	ug/kg	282	1410
86-73-7	Fluorene	J	71.9	ug/kg	42.3	141
7005-72-3	4-Chlorophenylphenylether	U	1410	ug/kg	282	1410
534-52-1	2-Methyl-4,6-dinitrophenol	U	1410	ug/kg	282	1410
100-01-6	4-Nitroaniline	U	1410	ug/kg	423	1410
<i>p-Nitroaniline</i>						
122-39-4	Diphenylamine	U	1410	ug/kg	282	1410
122-66-7	Azobenzene	U	1410	ug/kg	282	1410
<i>1,2-Diphenylhydrazine</i>						
101-55-3	4-Bromophenylphenylether	U	1410	ug/kg	282	1410
118-74-1	Hexachlorobenzene	U	1410	ug/kg	282	1410
85-01-8	Phenanthrene		988	ug/kg	42.3	141
120-12-7	Anthracene		191	ug/kg	28.2	141
84-74-2	Di-n-butylphthalate	J	739	ug/kg	282	1410
206-44-0	Fluoranthene		2040	ug/kg	42.3	141
85-68-7	Butylbenzylphthalate	U	1410	ug/kg	282	1410
56-55-3	Benzo(a)anthracene		988	ug/kg	42.3	141
91-94-1	3,3'-Dichlorobenzidine	U	1410	ug/kg	423	1410
218-01-9	Chrysene		1200	ug/kg	42.3	141
117-81-7	bis(2-Ethylhexyl)phthalate	U	1410	ug/kg	282	1410
117-84-0	Di-n-octylphthalate	U	1410	ug/kg	282	1410
205-99-2	Benzo(b)fluoranthene		1960	ug/kg	42.3	141
207-08-9	Benzo(k)fluoranthene	U	141	ug/kg	42.3	141
50-32-8	Benzo(a)pyrene		1080	ug/kg	42.3	141
193-39-5	Indeno(1,2,3-cd)pyrene		502	ug/kg	42.3	141
53-70-3	Dibenzo(a,h)anthracene	U	141	ug/kg	42.3	141
191-24-2	Benzo(ghi)perylene		525	ug/kg	42.3	141
120-82-1	1,2,4-Trichlorobenzene	U	1410	ug/kg	282	1410

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.06	1870	ug/kg		J
1058-61-3	Stigmast-4-en-3-one	9.17	1890	ug/kg	98	NJ

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 3 of 3

SDG Number:	10-2140	Date Collected:	02/24/2010 12:00	Matrix:	R
Lab Sample ID:	248249004	Date Received:	02/27/2010 09:10	%Moisture:	5.5
		Client:	LANL010	Project:	LANL01004
Client ID:	RE36-10-8284	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	960971	Inst:	MSD6.I	Dilution:	4
Run Date:	03/18/2010 14:40	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	03/04/2010 23:22	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	s6c1818.d	Column:	J&W DB-5MS	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
479-79-8	11H-Benzo[a]fluoren-11-one	9.35	652	ug/kg	96	NJ
	Unknown	9.48	925	ug/kg		J
	Unknown	9.62	768	ug/kg		J
	Unknown	9.81	699	ug/kg		J
	Unknown	9.93	574	ug/kg		J
629-78-7	Heptadecane	10.13	646	ug/kg	96	NJ
	Unknown	10.25	792	ug/kg		J
559-74-0	Friedelan-3-one	10.66	10800	ug/kg	98	NJ
	Unknown	10.77	1480	ug/kg		J
198-55-0	Perylene	11.26	1120	ug/kg	99	NJ
	Unknown	11.73	1260	ug/kg		J
	Unknown	12.66	6370	ug/kg		J
	Unknown	13	1700	ug/kg		J
	Unknown	13.43	8200	ug/kg		J
	Unknown	13.56	793	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1818.d  
 Lab Smp Id: 248249004 Client Smp ID: RE36-10-8284  
 Inj Date : 18-MAR-2010 14:40  
 Operator : nagl Inst ID: MSD6.i  
 Smp Info : |248249004|960971|4|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100310-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 18-Mar-2010 16:23 11o00884 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
 Als bottle: 18  
 Dil Factor: 4.00000  
 Integrator: HP RTE Compound Sublist: 10-2140.sub  
 Target Version: 3.50  
 Processing Host: hpc1p1

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

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	5.52520	% 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	3.969	3.963	(1.000)	452664		40.0000	
* 29 Naphthalene-d8	136	4.840	4.834	(1.000)	1640033		40.0000	
* 46 Acenaphthene-d10	164	6.098	6.092	(1.000)	1015475		40.0000	
* 67 Phenanthrene-d10	188	7.281	7.269	(1.000)	1791253		40.0000	
* 91 Chrysene-d12	240	9.710	9.698	(1.000)	1471832		40.0000	
* 98 Perylene-d12	264	11.421	11.404	(1.000)	1017053		40.0000	
\$ 3 2-Fluorophenol	112	3.151	3.140	(0.794)	205822		16.3564	2310
\$ 5 Phenol-d5	99	3.675	3.669	(0.926)	265147		16.5686	2340
\$ 20 Nitrobenzene-d5	82	4.328	4.328	(0.894)	121992		7.78126	1100
\$ 39 2-Fluorobiphenyl	172	5.581	5.575	(0.915)	266037		10.1543	1430
\$ 60 2,4,6-Tribromophenol	329	6.698	6.692	(1.098)	60246		21.1422	2980
\$ 81 p-Terphenyl-d14	244	8.663	8.651	(0.892)	297401		11.5955	1640

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
47 Acenaphthene	154	6.122	6.116	(1.004)	13542	0.51398	72.5(a)
79 Pyrene	202	8.563	8.551	(0.882)	598558	13.3404	1880
53 Fluorene	166	6.510	6.504	(1.067)	14458	0.50949	71.9(a)
68 Phenanthrene	178	7.298	7.286	(1.002)	305634	7.00250	988
69 Anthracene	178	7.339	7.334	(1.008)	59665	1.35693	191
72 Di-n-butylphthalate	149	7.698	7.692	(1.057)	266380	5.23832	739(a)
76 Fluoranthene	202	8.345	8.333	(1.146)	640161	14.4627	2040
89 Benzo(a)anthracene	228	9.692	9.680	(0.998)	269068	7.00119	988
92 Chrysene	228	9.727	9.722	(1.002)	312027	8.50006	1200
95 Benzo(b)fluoranthene	252	10.892	10.874	(0.954)	384479	13.9053	1960
97 Benzo(a)pyrene	252	11.339	11.322	(0.993)	178526	7.62376	1080
99 Indeno(1,2,3-cd)pyrene	276	13.221	13.210	(1.158)	76417	3.55628	502
101 Benzo(ghi)perylene	276	13.780	13.763	(1.206)	68259	3.72030	525

#### QC Flag Legend

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

## ION RATIO REPORT

## SV REPORT

Data file: s6c1818.d

Report Date: 03/18/2010 16:04

Lab. ID: 248249004

SampleType: SAMPLE

Injection Date: 18-MAR-2010 14:40

Operator: nag1

Instrument: MSD6.i

Sample Info: |248249004|960971|4|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m

Dilution Factor= 4.0

Integrator: HP RTE

Compound Sublist: 10-2140

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
22 Isophorone			CAS#: 78-59-1			
82	121992	4.33	4.49	80-120	100	(T)
138	9345	4.84	4.49	0- 49	8	(T)
-----						
40 2-Chloronaphthalene			CAS#: 91-58-7			
162	942472	6.10	5.68	80-120	100	(T)
164	1015475	6.10	5.68	3- 63	108	(QT)
127	587	6.12	5.68	8- 68	0	(QT)
-----						
43 Dimethylphthalate			CAS#: 131-11-3			
163	183744	6.10	5.85	80-120	100	(T)
164	1015475	6.10	5.85	0- 41	553	(QT)
-----						
45 Acenaphthylene			CAS#: 208-96-8			
152	13841	5.58	5.99	80-120	100	(T)
151	13546	5.58	5.99	0- 50	98	(QT)
153	4492	5.58	5.99	0- 44	32	(T)
-----						
47 Acenaphthene			CAS#: 83-32-9			
154	13542	6.12	6.12	80-120	100	( )
153	12986	6.12	6.12	68-128	96	( )
152	5390	6.12	6.12	16- 76	40	( )
-----						
48 2,4-Dinitrophenol			CAS#: 51-28-5			
184	103	6.56	6.11	80-120	100	(T)
154	355	6.56	6.11	682-742	345	(QT)
-----						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	136788	6.10	6.20	80-120	100	(T)
89	1753	6.10	6.20	40-100	1	(QT)
63	1984	6.10	6.20	18- 78	1	(QT)
-----						
53	Fluorene			CAS#: 86-73-7		
166	14458	6.51	6.50	80-120	100	( )
165	12329	6.51	6.50	61-121	85	( )
167	2625	6.51	6.50	0- 44	18	( )
-----						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	183	6.70	6.52	80-120	100	(T)
105	798	6.70	6.52	10- 70	435	(QT)
51	660	6.69	6.52	37- 97	360	(QT)
-----						
68	Phenanthrene			CAS#: 85-01-8		
178	305634	7.30	7.29	80-120	100	( )
179	50417	7.30	7.29	0- 46	16	( )
176	56936	7.30	7.29	0- 49	19	( )
-----						
69	Anthracene			CAS#: 120-12-7		
178	59665	7.34	7.33	80-120	100	( )
179	17587	7.34	7.33	0- 47	29	( )
176	11026	7.34	7.33	0- 48	18	( )
-----						
72	Di-n-butylphthalate			CAS#: 84-74-2		
149	266380	7.70	7.69	80-120	100	( )
150	25216	7.70	7.69	0- 40	9	( )
104	13815	7.70	7.69	0- 35	5	( )
-----						
76	Fluoranthene			CAS#: 206-44-0		
202	640161	8.35	8.33	80-120	100	( )
203	113790	8.35	8.33	0- 48	18	( )
101	70182	8.35	8.33	0- 42	11	( )
-----						
79	Pyrene			CAS#: 129-00-0		
202	598558	8.56	8.55	80-120	100	( )
200	124138	8.56	8.55	0- 51	21	( )
101	80560	8.56	8.55	0- 44	13	( )
-----						
89	Benzo(a)anthracene			CAS#: 56-55-3		
228	269068	9.69	9.68	80-120	100	( )
226	68934	9.69	9.68	0- 56	26	( )
229	72404	9.69	9.68	0- 50	27	( )
-----						
92	Chrysene			CAS#: 218-01-9		
228	312027	9.73	9.72	80-120	100	( )
229	73601	9.73	9.72	0- 50	24	( )
226	88254	9.73	9.72	0- 59	28	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	384479	10.89	10.87	80-120	100	( )
253	86719	10.89	10.87	0- 52	23	( )
125	45500	10.89	10.87	0- 40	12	( )
-----						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	384479	10.89	10.91	80-120	100	( )
253	87686	10.89	10.91	0- 52	23	( )
125	45473	10.89	10.91	0- 42	12	( )
-----						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	178526	11.34	11.32	80-120	100	( )
253	40407	11.34	11.32	0- 52	23	( )
125	20877	11.33	11.32	0- 43	12	( )
-----						
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	76417	13.22	13.21	80-120	100	( )
138	18919	13.22	13.21	0- 60	25	( )
-----						
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	20255	13.23	13.23	80-120	100	( )
139	4631	13.23	13.23	0- 50	23	( )
-----						
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	68259	13.78	13.76	80-120	100	( )
138	17707	13.78	13.76	0- 59	26	( )

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

GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1818.d  
Lab Smp Id: 248249004 Client Smp ID: RE36-10-8284  
Inj Date : 18-MAR-2010 14:40  
Operator : nagl Inst ID: MSD6.i  
Smp Info : |248249004|960971|4|SVM|1|LANL  
Misc Info : |MSD8270 S|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 18-Mar-2010 16:23 llo00884 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 18  
Dil Factor: 4.00000  
Integrator: HP RTE Compound Sublist: 10-2140.sub  
Target Version: 3.50  
Processing Host: hpc1p1

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

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	5.52520	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.969	2795245	40.000
* 91 Chrysene-d12	9.710	6479672	40.000
* 98 Perylene-d12	11.421	3247057	40.000

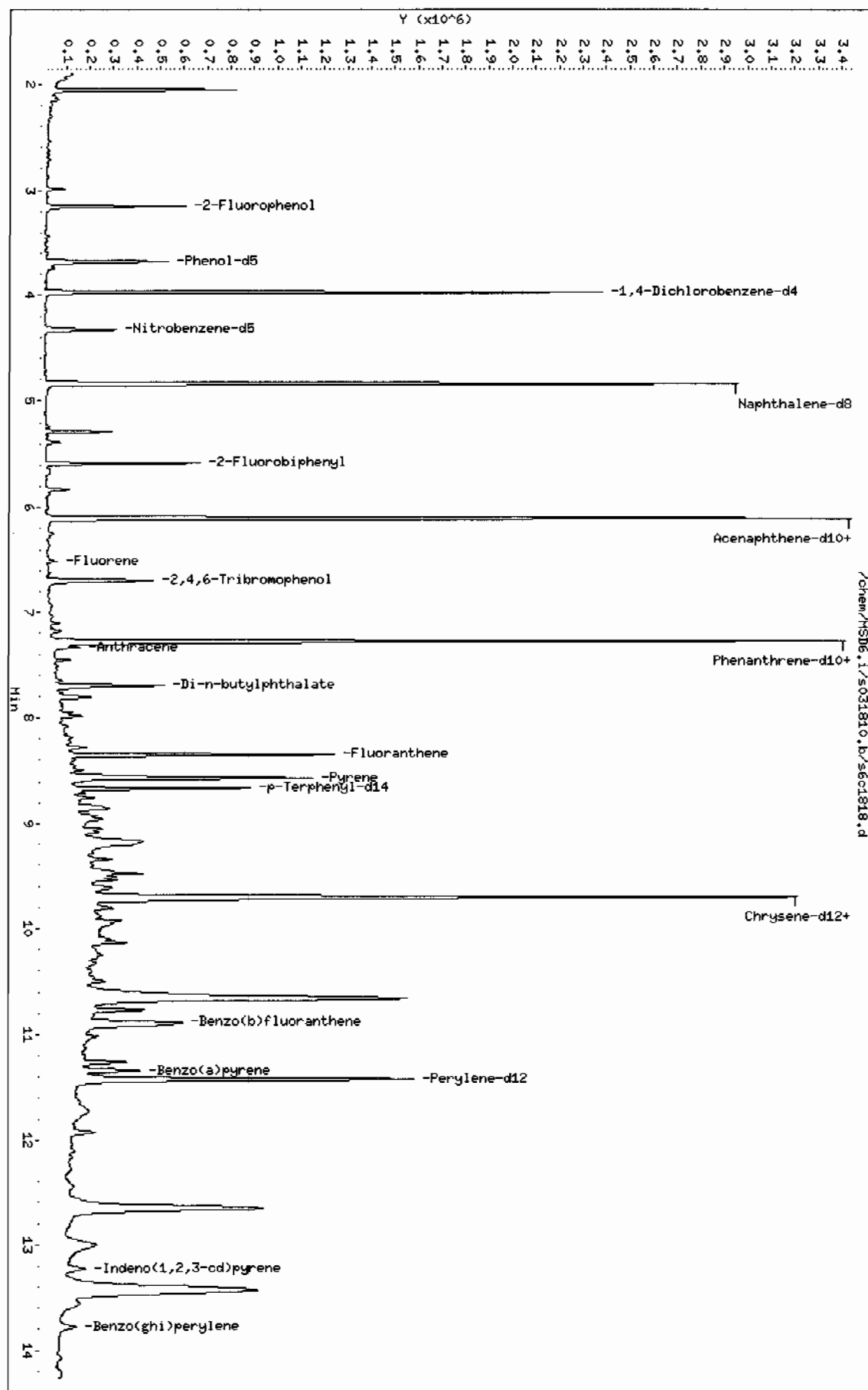
CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
----	----	-----	-----	----	-----	-----	-----

RT	CONCENTRATIONS			QUAL	QUANT		
	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)		LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown					CAS #:		
2.057	927320	13.2699571	1870	0		0	10
Stigmast-4-en-3-one					CAS #: 1058-61-3		
9.169	2165359	13.3670891	1880	98	NIST05.L	173936	91
11H-Benzo[a]fluoren-11-one					CAS #: 479-79-8		
9.345	748263	4.61913809	652	96	NIST05.L	78768	91
Unknown					CAS #:		
9.480	1062210	6.55718454	925	0		0	91
Unknown					CAS #:		
9.616	881369	5.44082674	768	0		0	91
Unknown					CAS #:		
9.810	802111	4.95155334	698	0		0	91
Unknown					CAS #:		
9.927	658555	4.06536023	574	0		0	91
Heptadecane					CAS #: 629-78-7		
10.133	741335	4.57637154	646	96	NIST05.L	85524	91
Unknown					CAS #:		
10.251	909233	5.61283040	792	0		0	91
Friedelan-3-one					CAS #: 559-74-0		
10.663	6229078	76.7350343	10800	98	NIST05.L	176566	98
Unknown					CAS #:		
10.769	852952	10.5073823	1480	0		0	98
Perylene					CAS #: 198-55-0		
11.263	642966	7.92059985	1120	99	NIST05.L	93574	98
Unknown					CAS #:		
11.727	727392	8.96062860	1260	0		0	98
Unknown					CAS #:		
12.657	3665638	45.1564222	6370	0		0	98
Unknown					CAS #:		
13.004	980599	12.0798446	1700	0		0	98

RT	AREA	CONCENTRATIONS		QUAL	QUANT		CPND #
		ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
Unknown					CAS #:		
13.433	4719325	58.1366339	8200	0		0	98
Unknown					CAS #:		
13.557	456188	5.61970817	793	0		0	98

Data File: /chem/MSD6.i/5031810.b/sec1818.d  
 Date: 18-Mar-2010 14:40  
 Client ID: RE36-10-8284  
 Sample Info: 1248249004196097141SVN11LNL  
 Volume Injected (ul): 0.5  
 Column phase: J&W DB-SMS

Instrument: MSD6.i  
 Operator: nag1  
 Column diameter: 0.20



Date: 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: MSD6.i

Sample Info: I2482490041960971141SVMI11LANL

Volume Injected (uL): 0.5

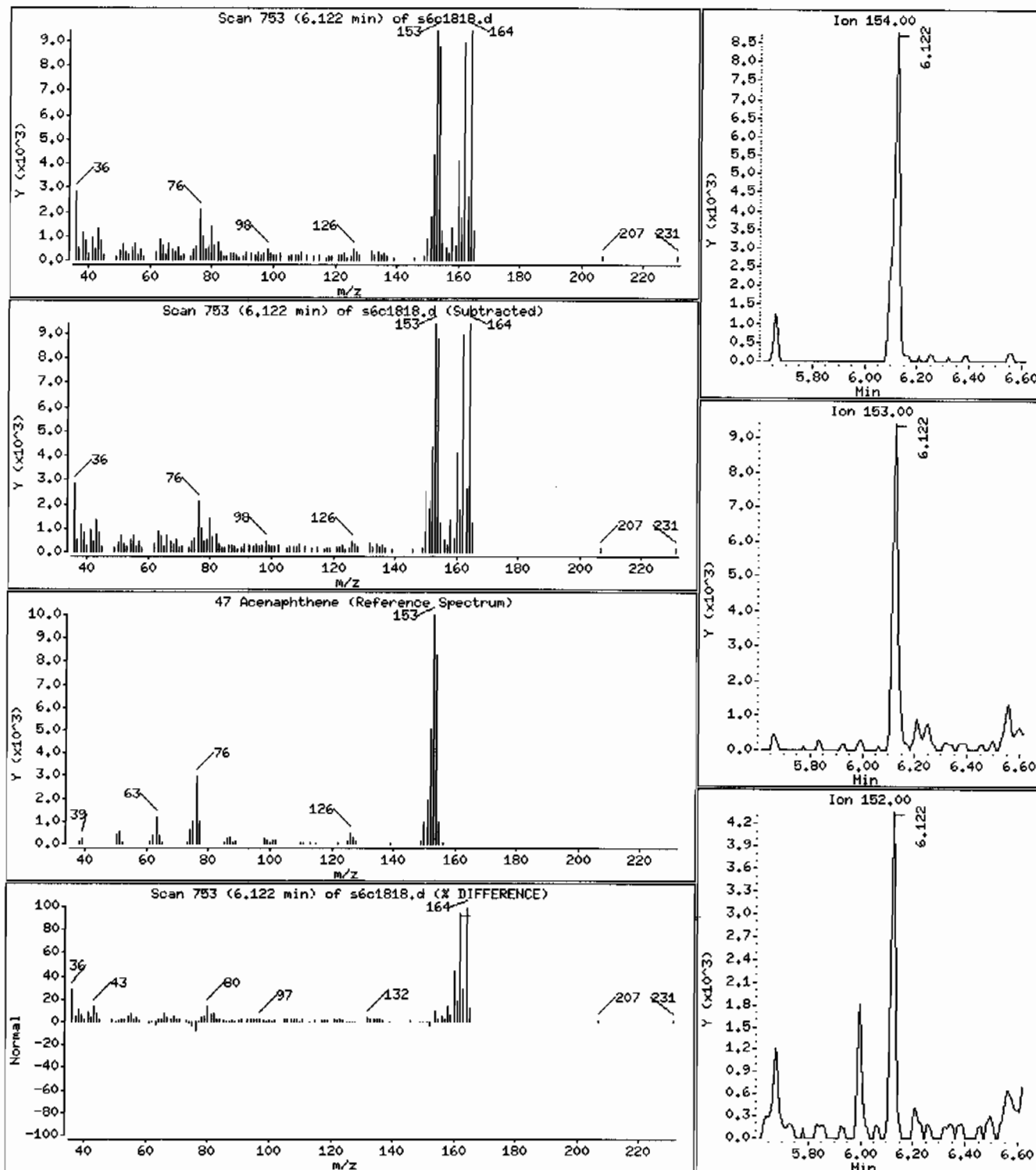
Operator: nag1

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

Column diameter: 0.20

47 Acenaphthene

Concentration: 72.5 ug/Kg



Date: 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: MSD6.i

Sample Info: 1248249004196097114|SVH11|LANL

Volume Injected (uL): 0.5

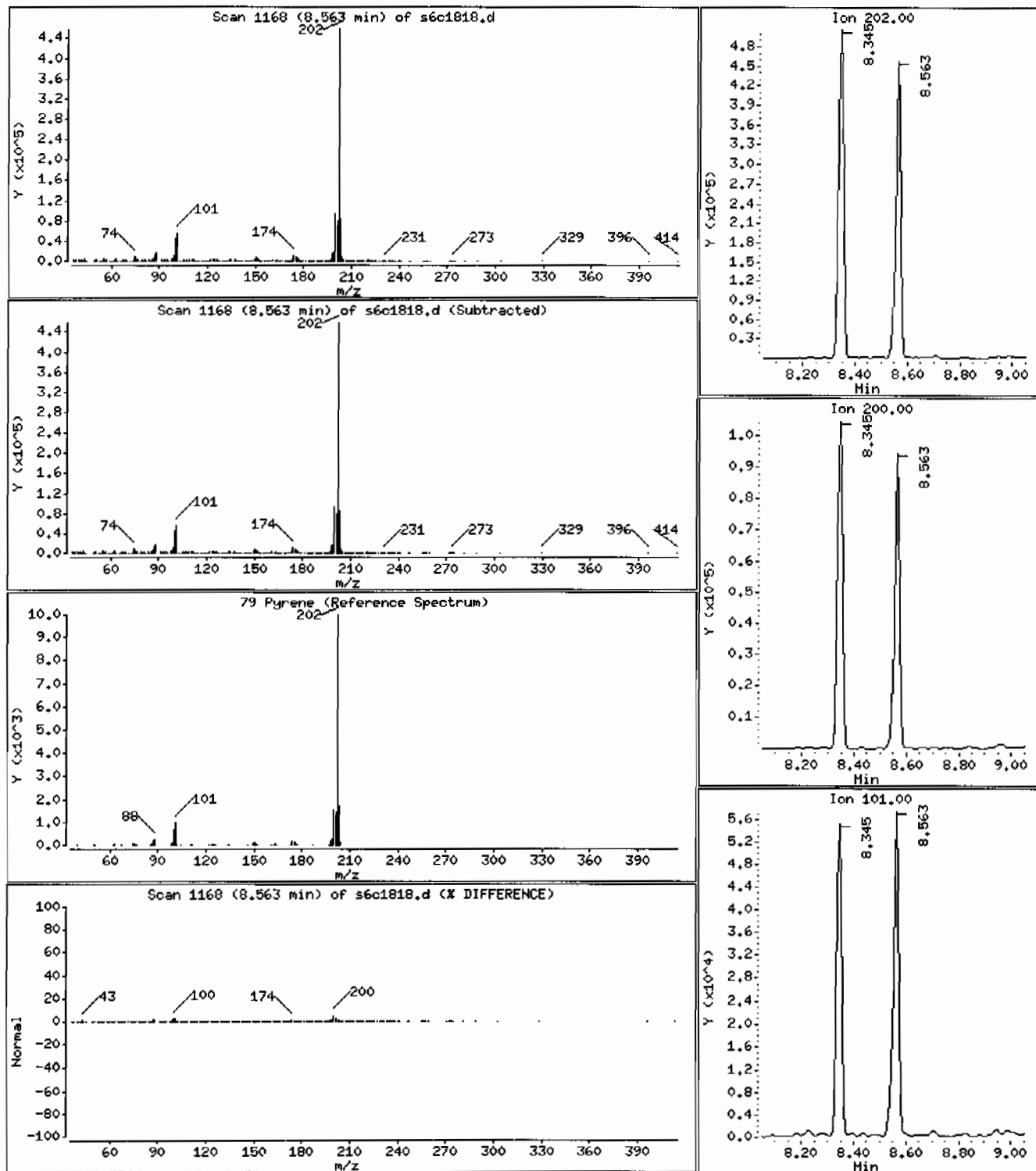
Operator: nag1

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

Column diameter: 0.20

79 Pyrene

Concentration: 1880 ug/Kg





Date : 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: HSD6.i

Sample Info: 12482490041960971141SVH111LANL

Volume Injected (uL): 0.5

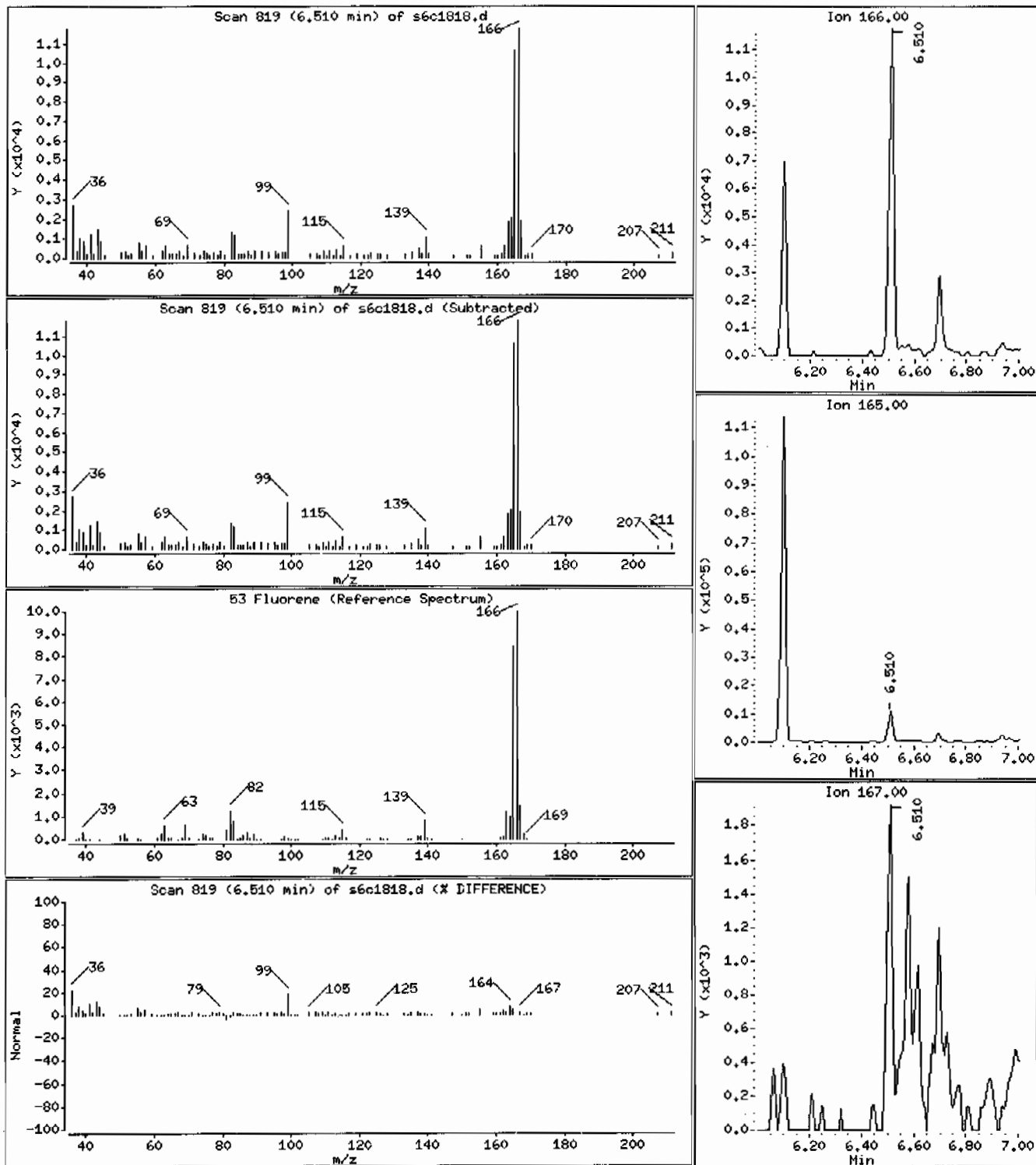
Operator: nag1

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

Column diameter: 0.20

53 Fluorene

Concentration: 71.9 ug/Kg



Date: 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: MSD6.i

Sample Info: 12482490041960971141SVH111LANL

Volume Injected (uL): 0.5

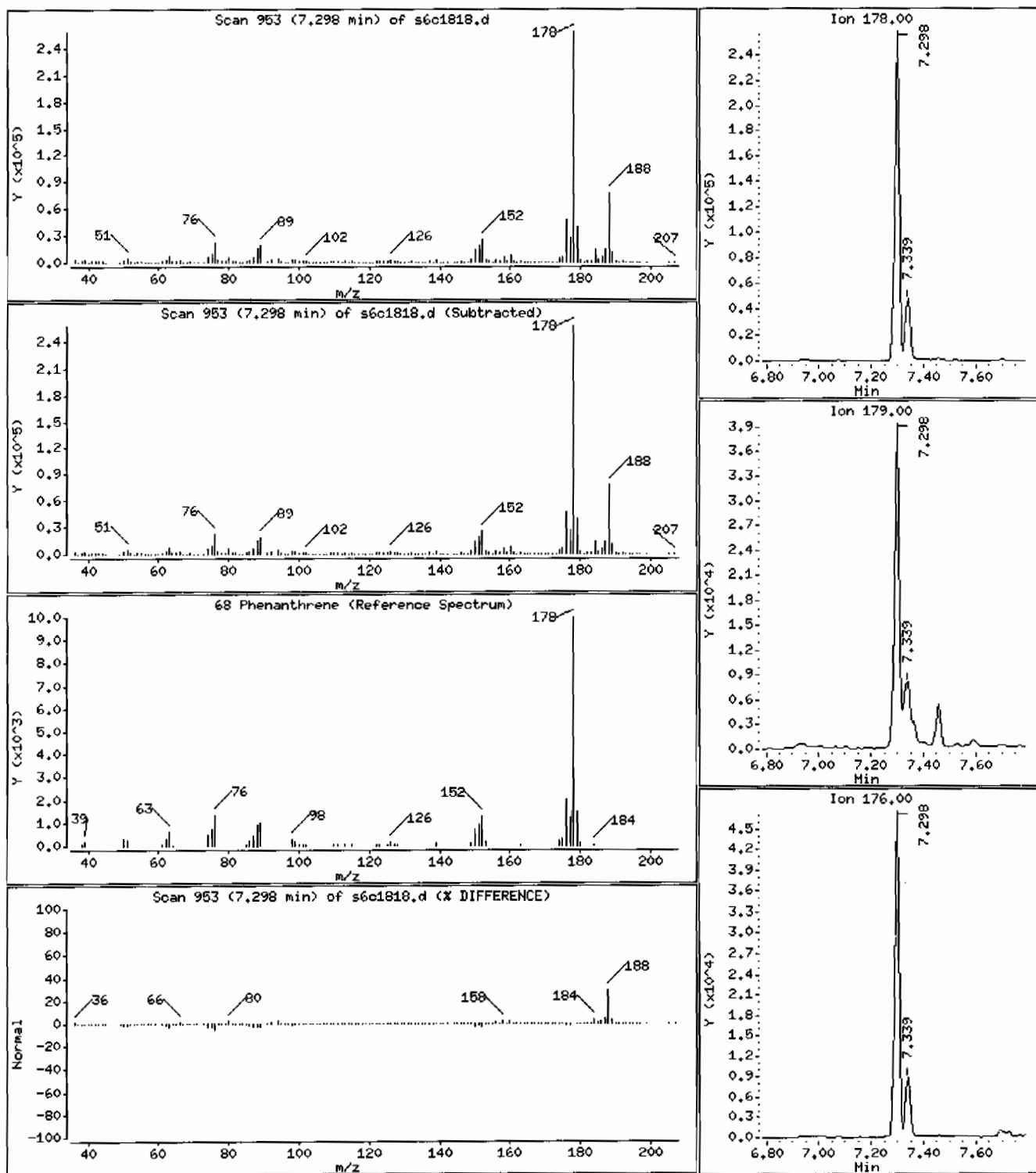
Operator: nag1

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

Column diameter: 0.20

68 Phenanthrene

Concentration: 988 ug/Kg



Date : 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: HSD6.i

Sample Info: 12482490041960971141SVH111LANL

Volume Injected (uL): 0.5

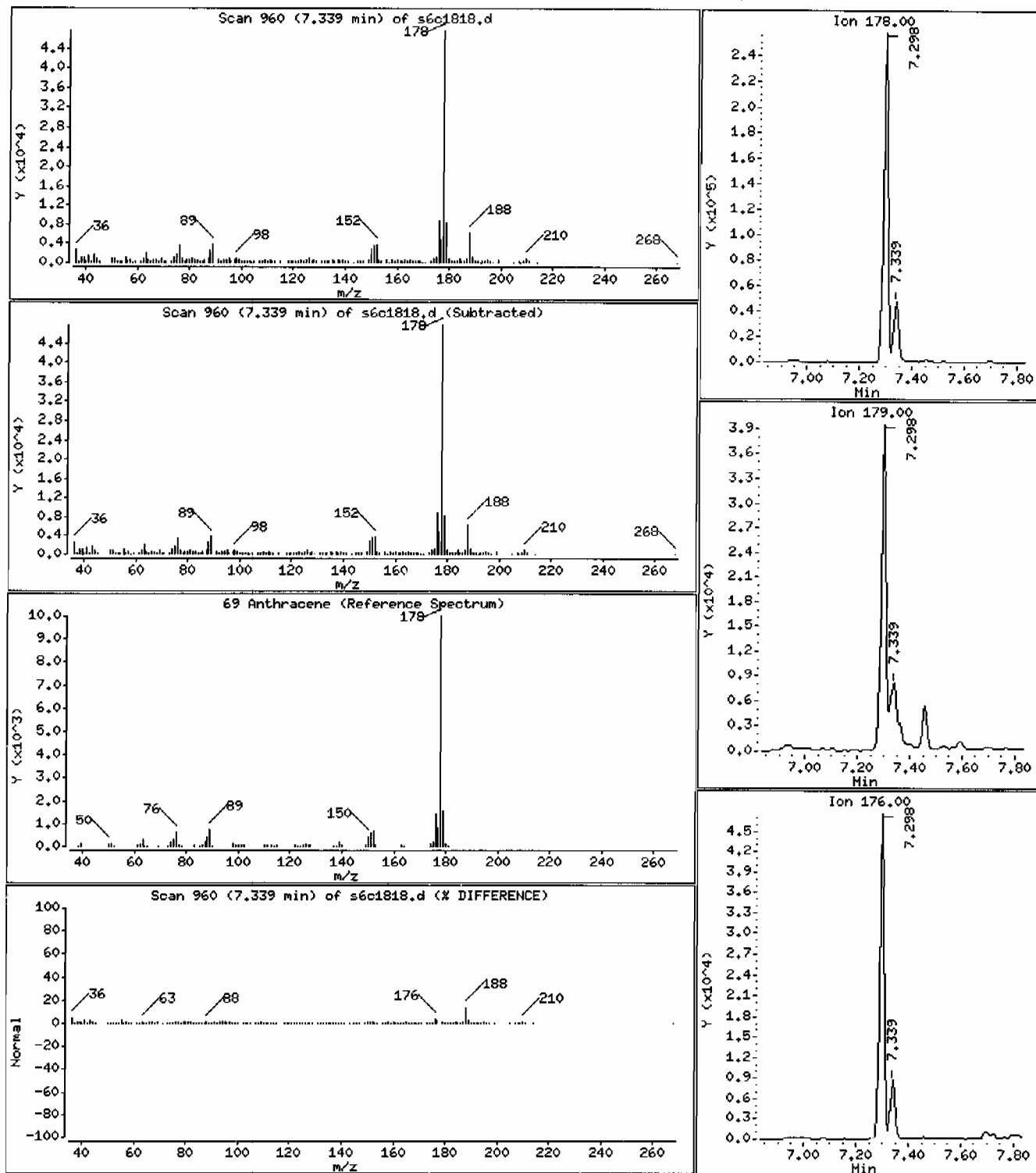
Operator: nag1

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

Column diameter: 0.20

69 Anthracene

Concentration: 191 ug/Kg



Date: 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: HSD6.i

Sample Info: 12482490041960971141SVMI11LANL

Volume Injected (uL): 0.5

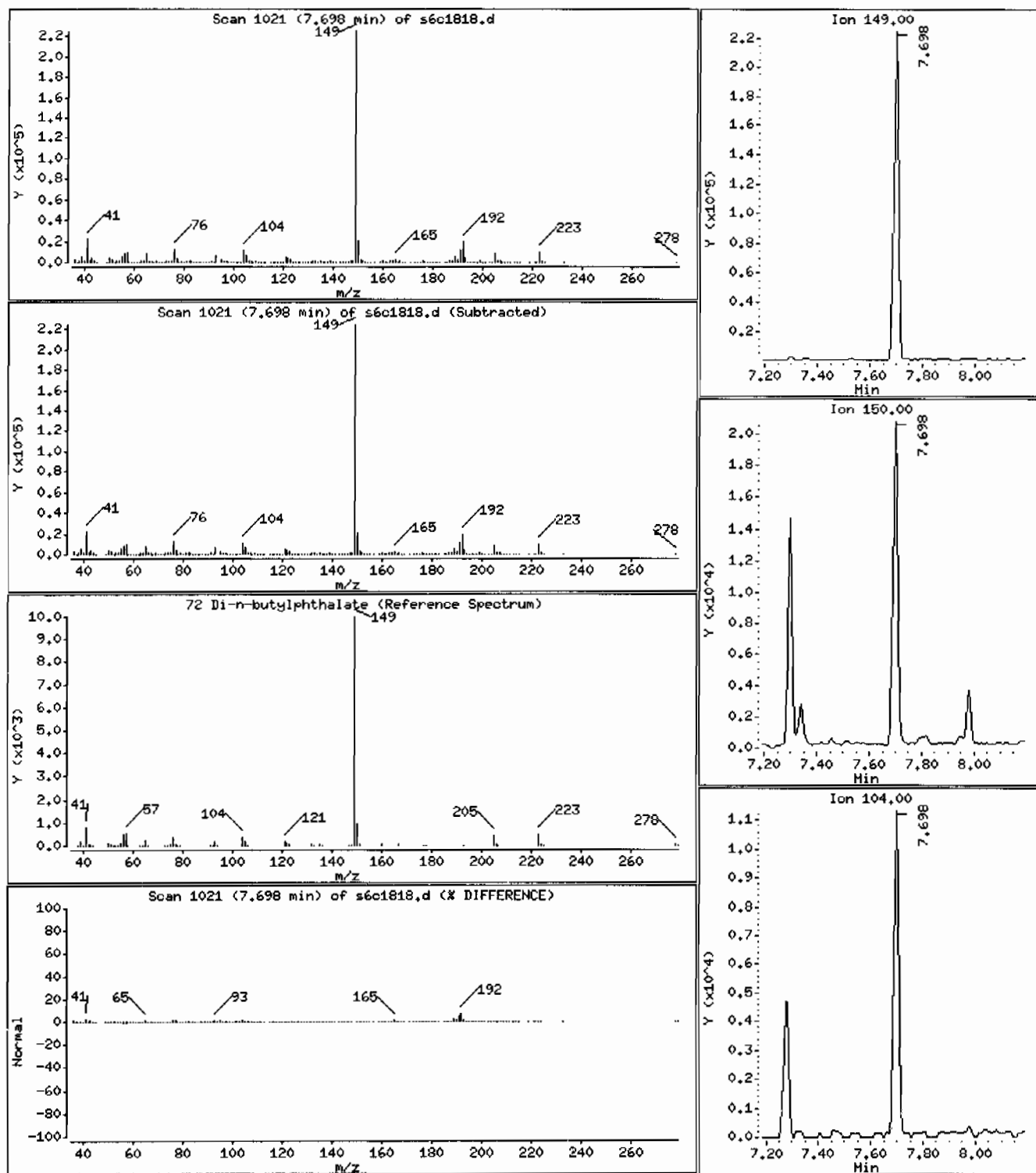
Operator: nag1

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

Column diameter: 0.20

72 Di-n-butylphthalate

Concentration: 739 ug/Kg



Date: 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: MSD6.i

Sample Info: 1248249004196097114ISVH11ILANL

Volume Injected (uL): 0.5

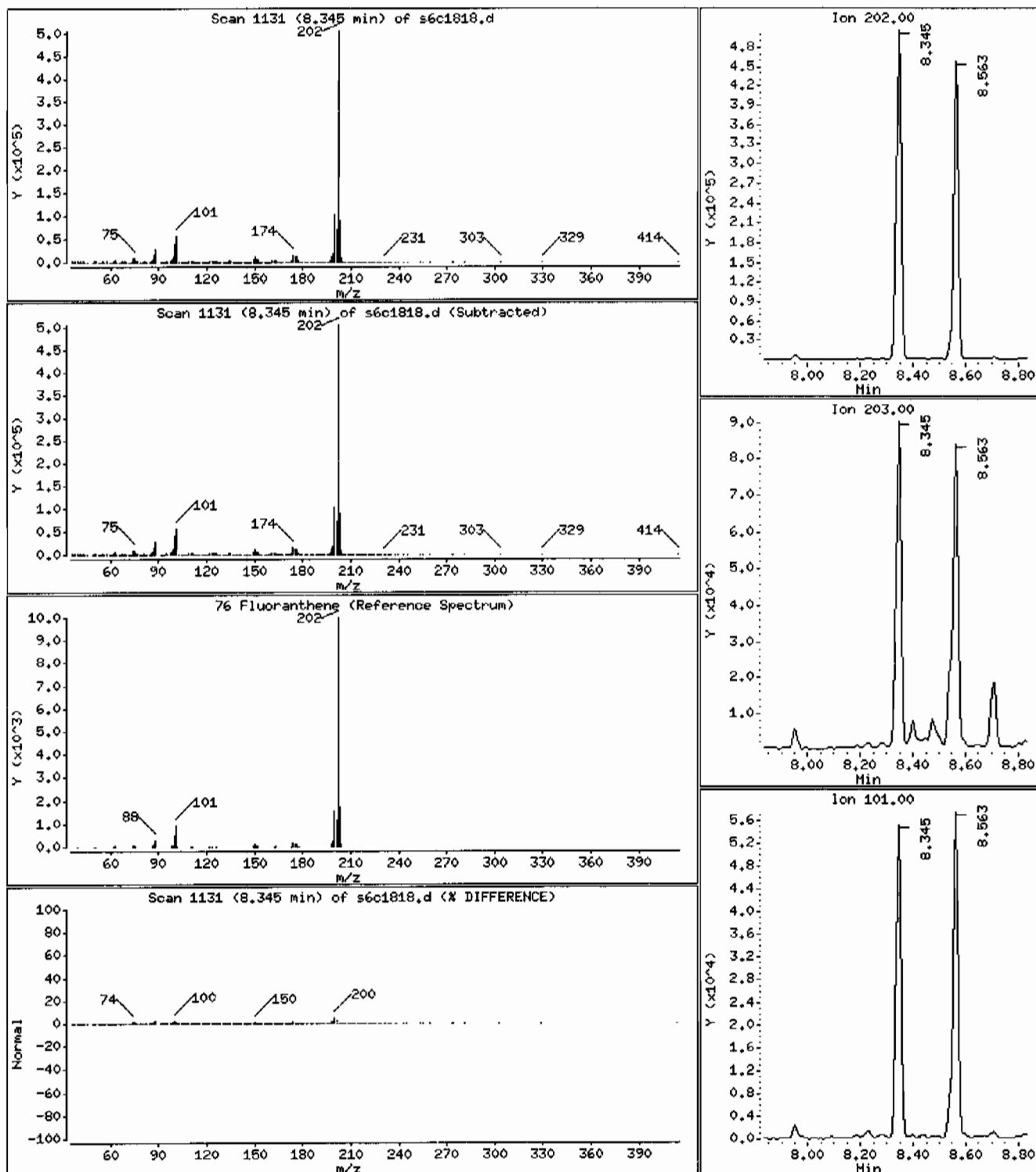
Operator: nag1

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

Column diameter: 0.20

76 Fluoranthene

Concentration: 2040 ug/Kg



Date: 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: MSD6.i

Sample Info: 12482490041960971141SVH111LANL

Volume Injected (uL): 0.5

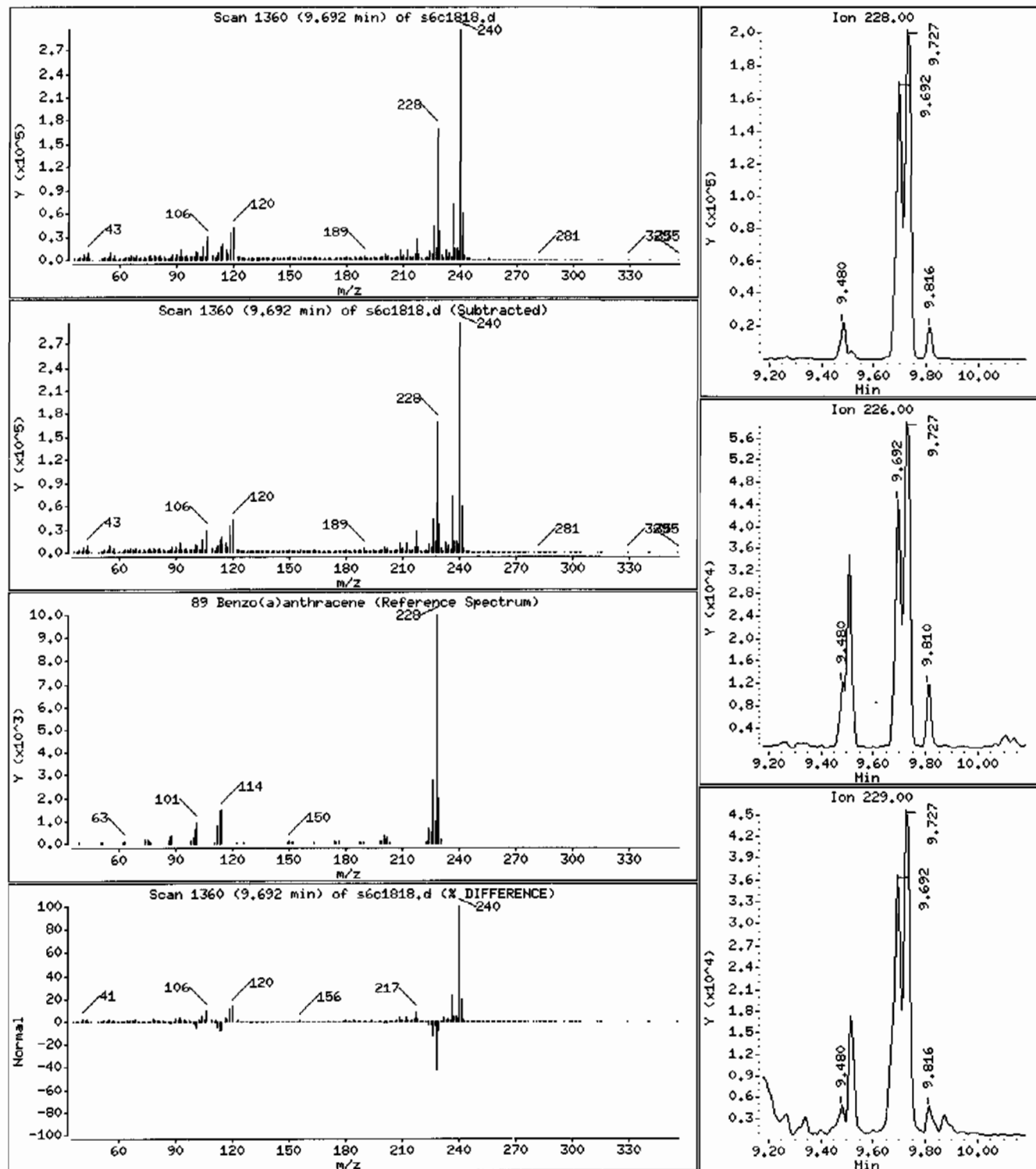
Operator: nag1

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

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 988 ug/Kg



Date : 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: HSD6.i

Sample Info: 12482490041960971141SVH11/LANL

Volume Injected (uL): 0.5

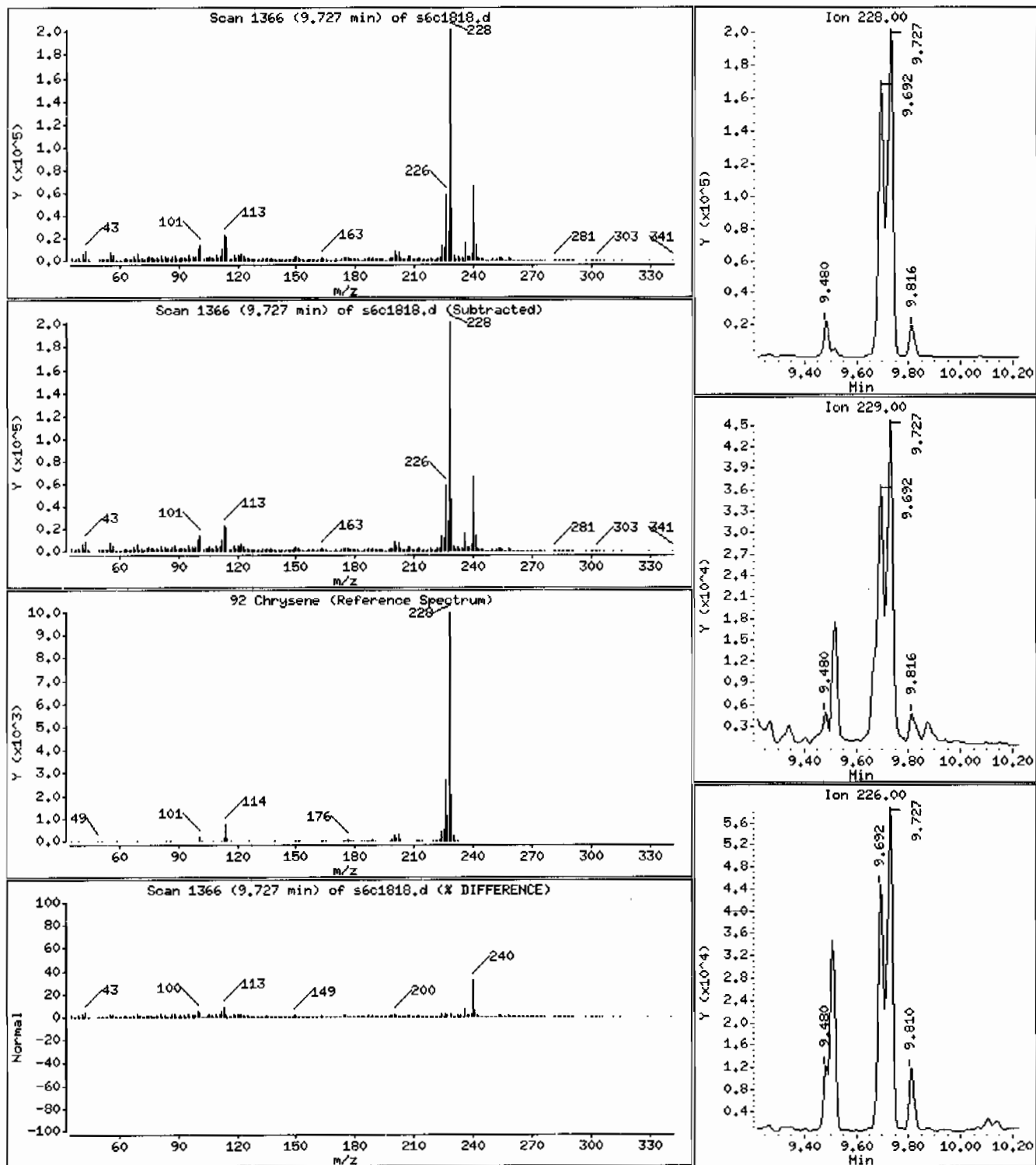
Operator: nag1

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

Column diameter: 0.20

92 Chrysene

Concentration: 1200 ug/Kg



Date : 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: MSD6.i

Sample Info: 12482490041960971141SVH111LANL

Volume Injected (uL): 0.5

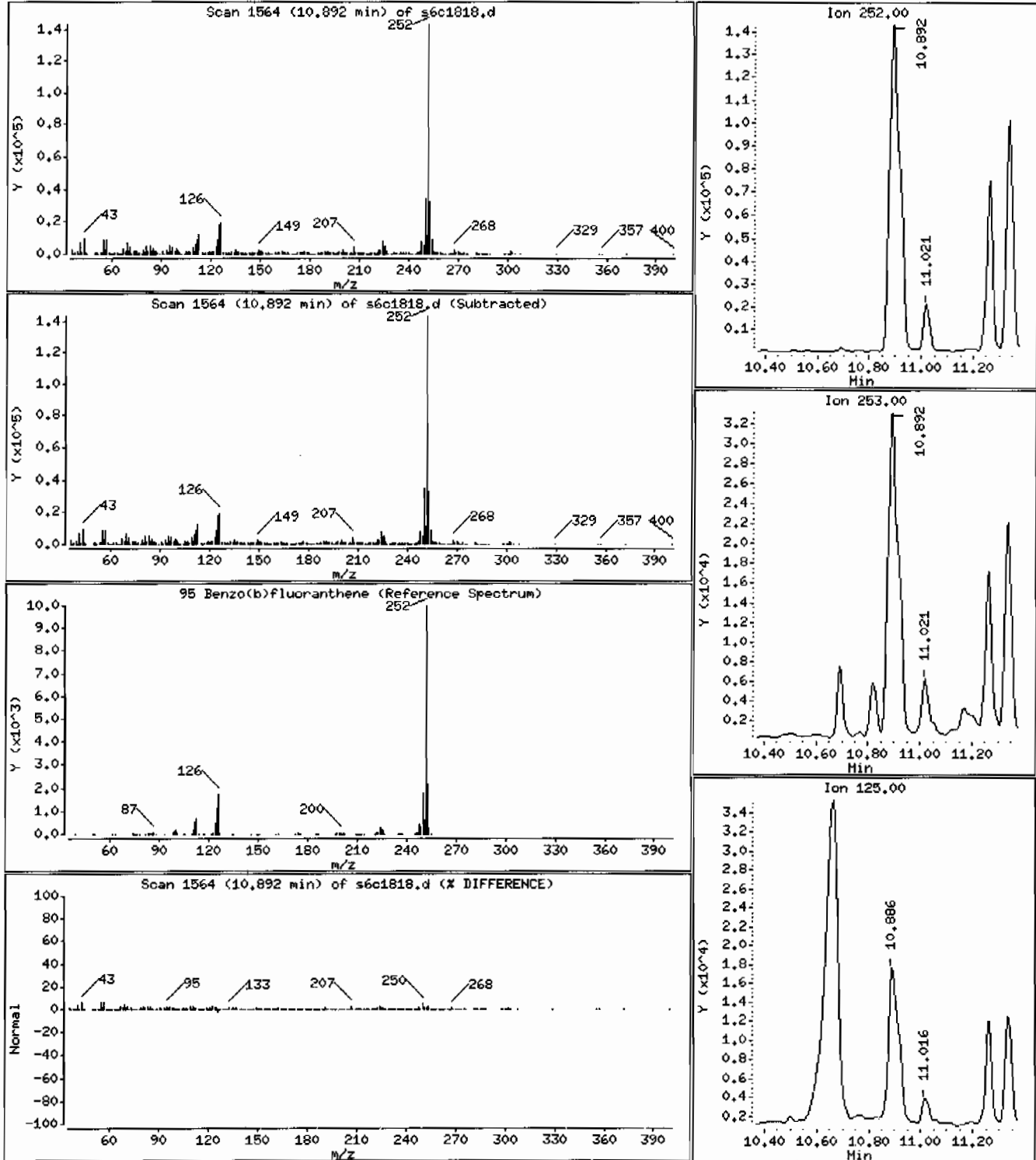
Operator: nag1

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

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 1960 ug/Kg





Data File: /chem/MSD6.i/s031810.b/s6c1818.d

Page 12

Date : 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: MSD6.i

Sample Info: 1248249004196097114ISVH11ILANL

Volume Injected (uL): 0.5

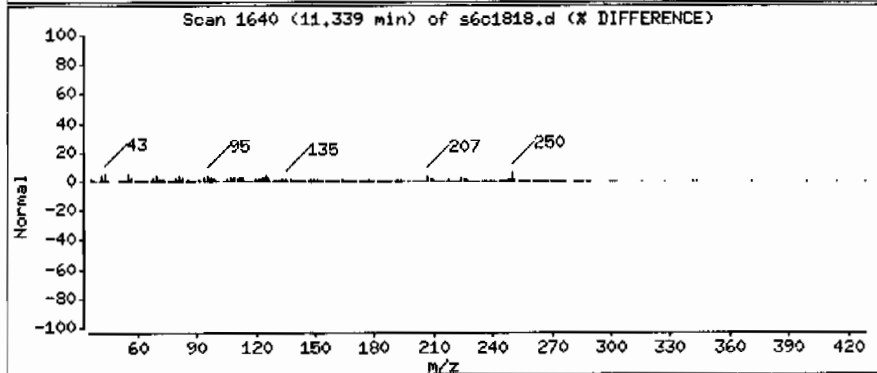
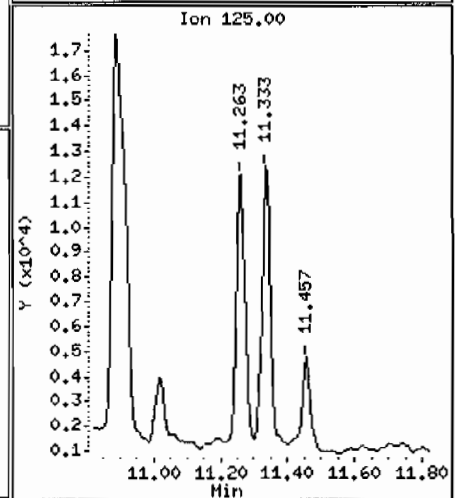
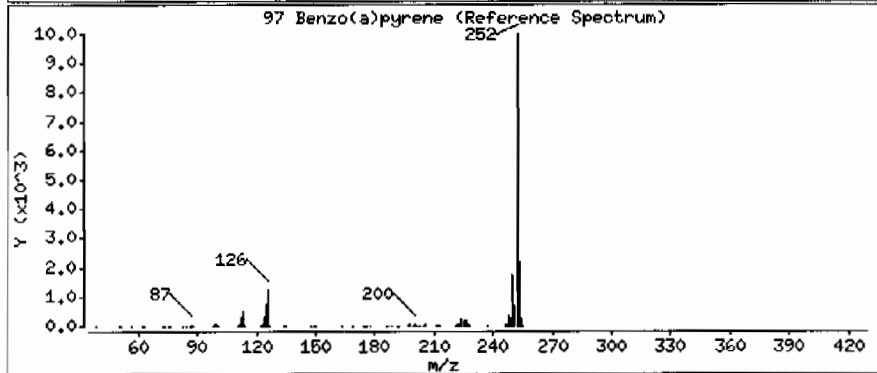
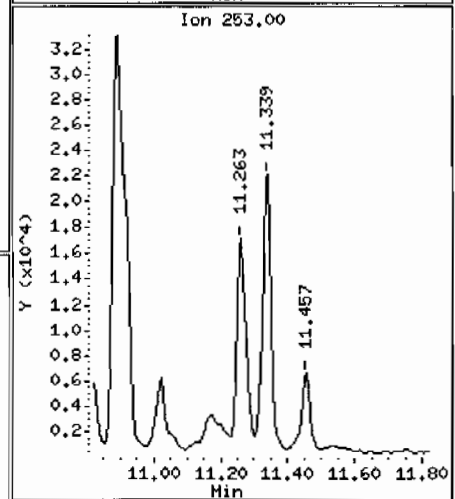
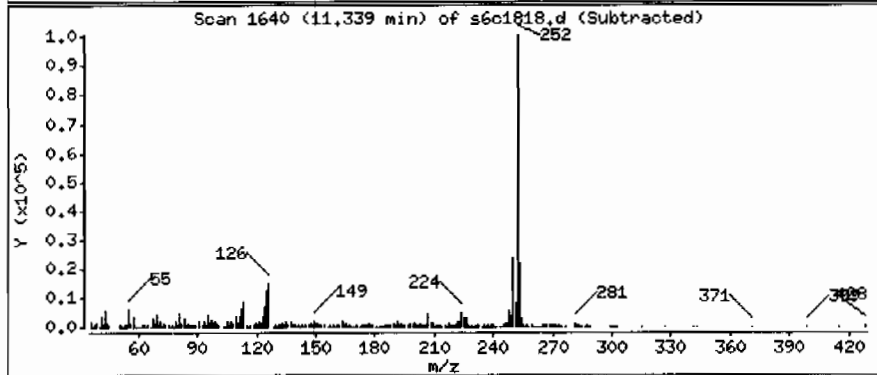
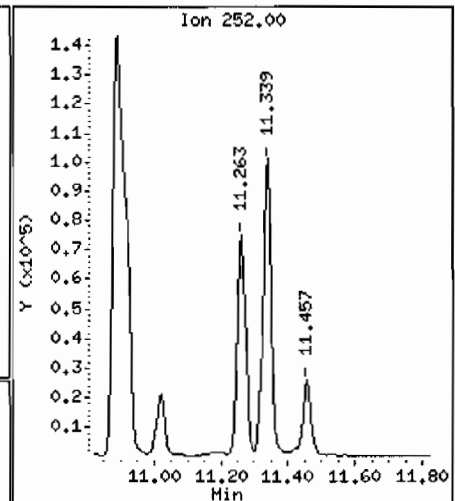
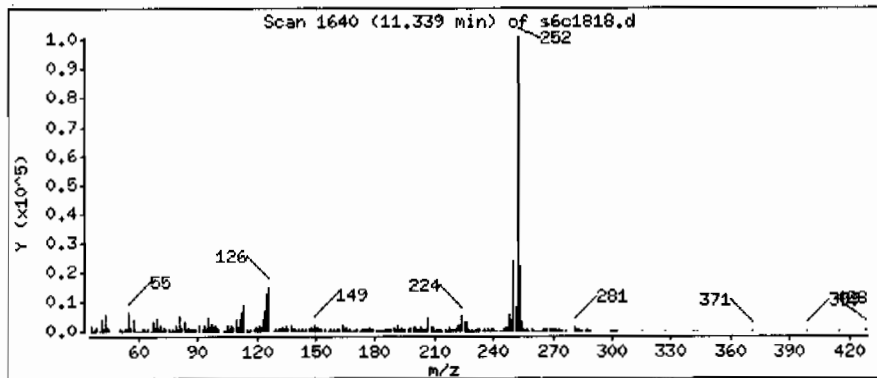
Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 1080 ug/Kg



Date : 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: HSD6.i

Sample Info: 12482490041960971141SVH111LANL

Volume Injected (uL): 0.5

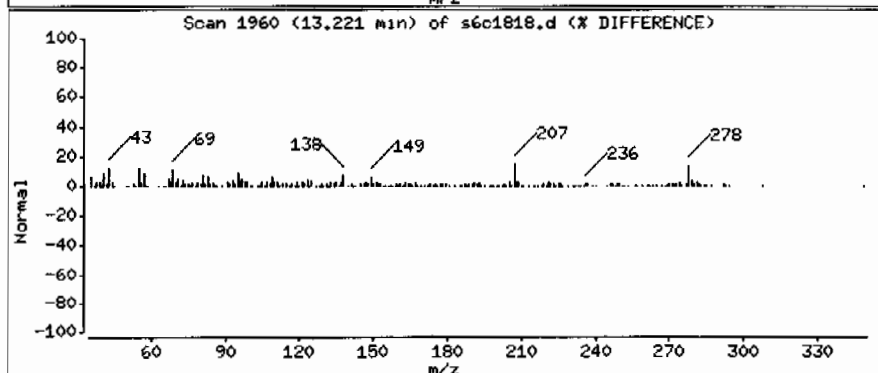
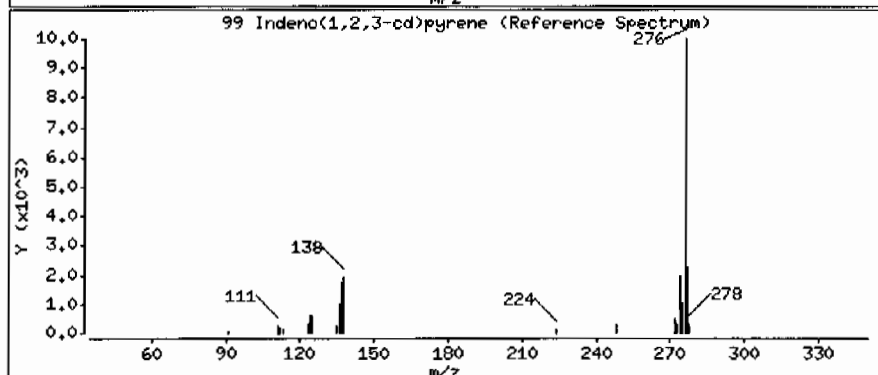
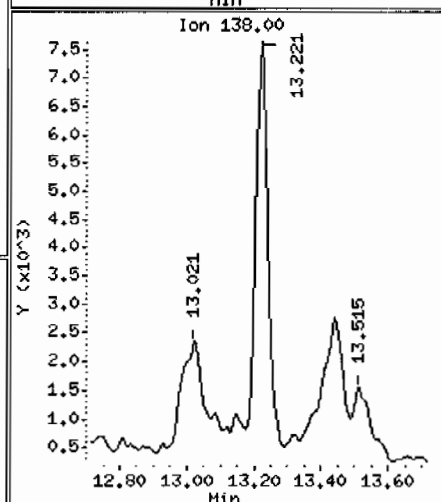
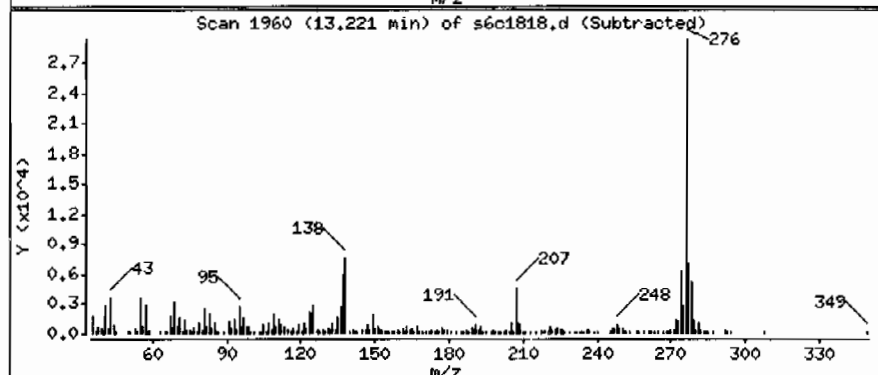
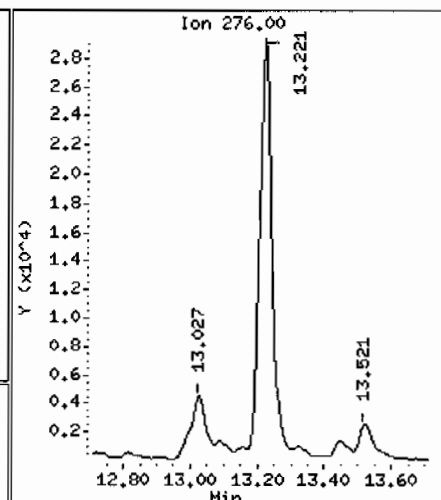
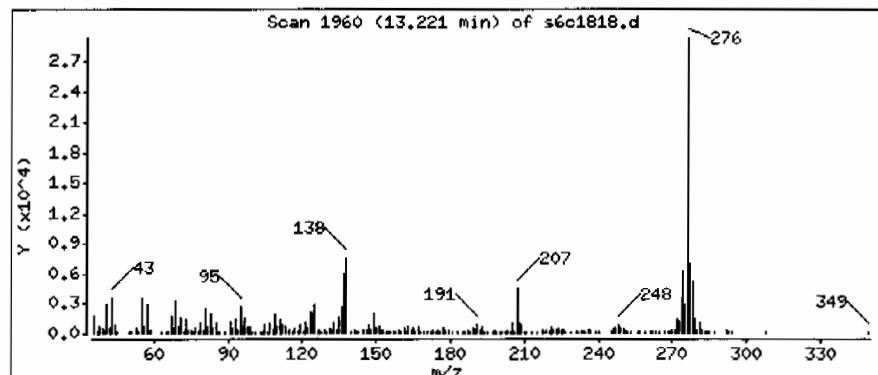
Operator: nag1

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

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 502 ug/Kg



Date: 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: HSD6.i

Sample Info: 12482490041960971141SVH111LANL

Volume Injected (uL): 0.5

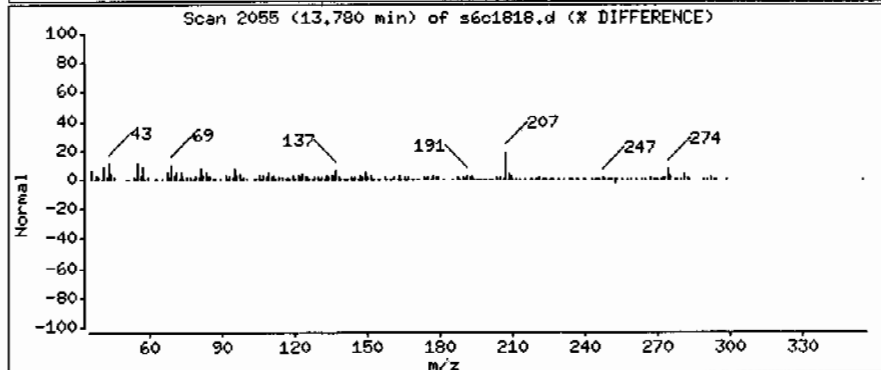
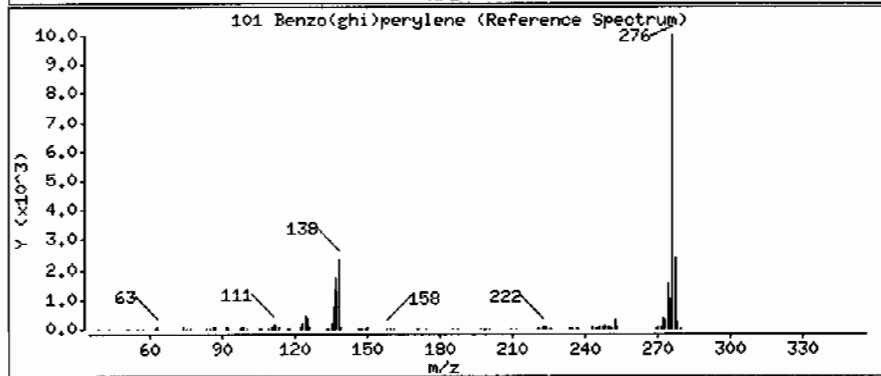
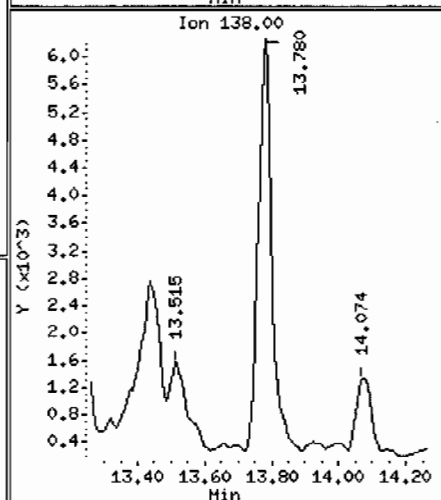
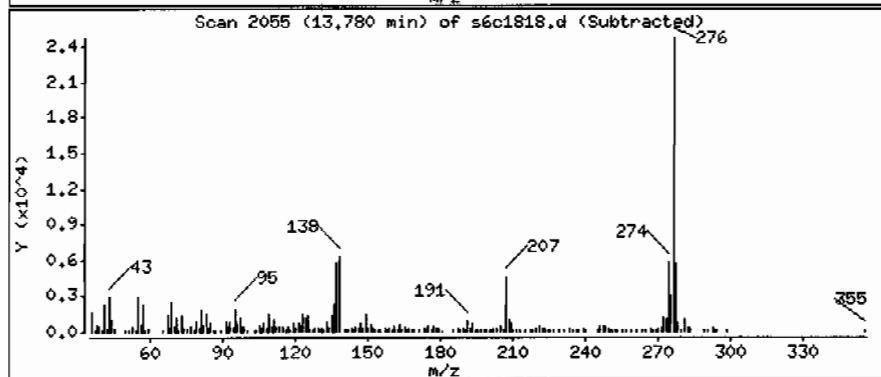
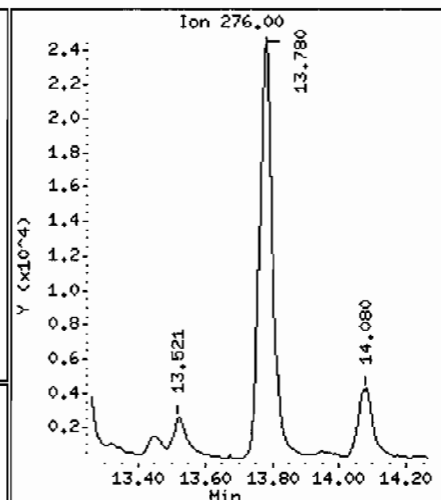
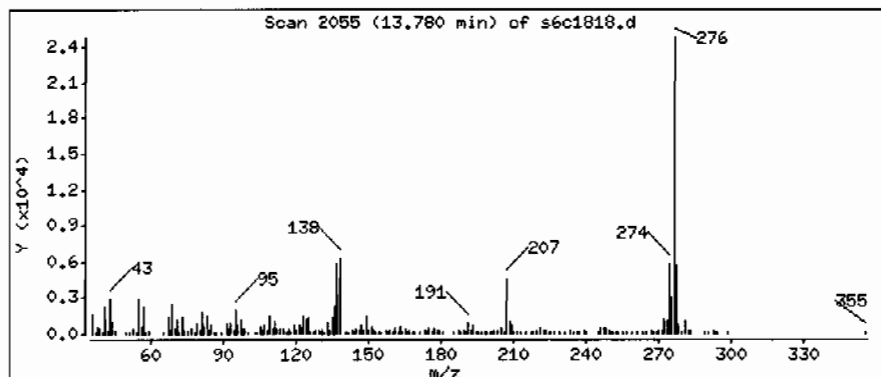
Operator: nag1

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

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 525 ug/Kg



Date : 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: MSD6.i

Sample Info: I2482490041960971141SVM111LANL

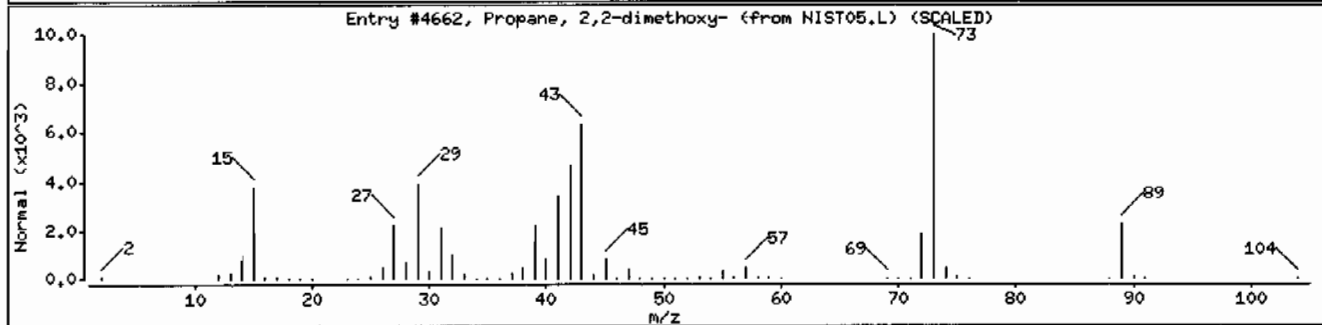
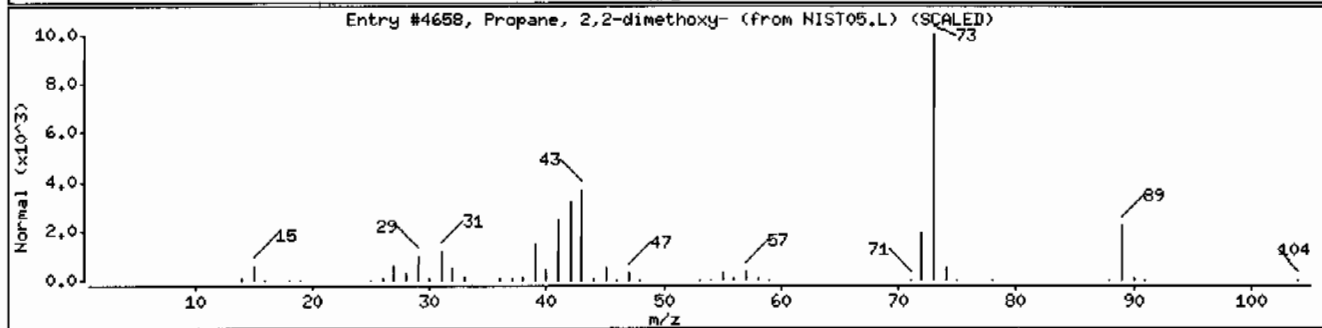
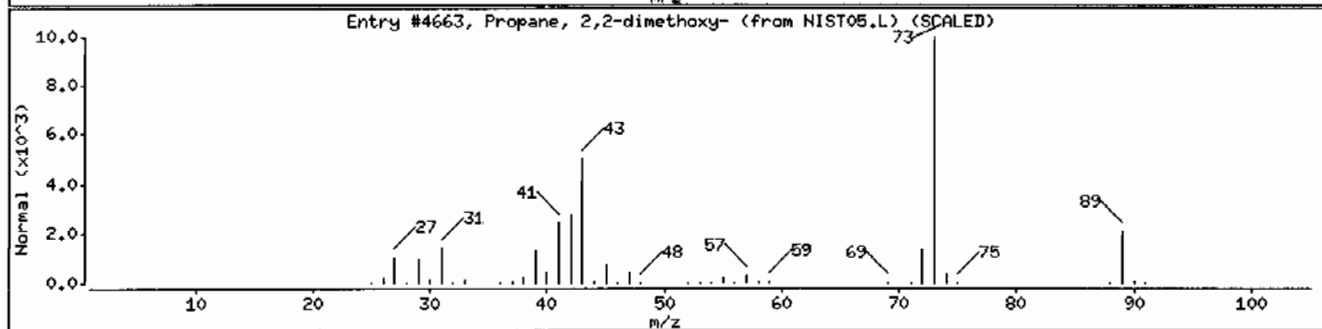
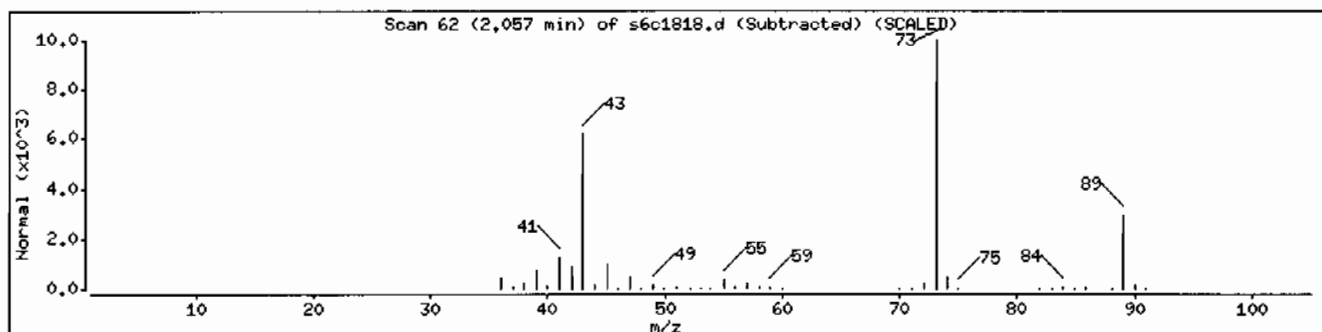
Volume Injected (uL): 0.5

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						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	78	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4658	40	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	40	C5H12O2	104



Date : 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: MSD6.i

Sample Info: 1248249004196097114ISVMI1ILANL

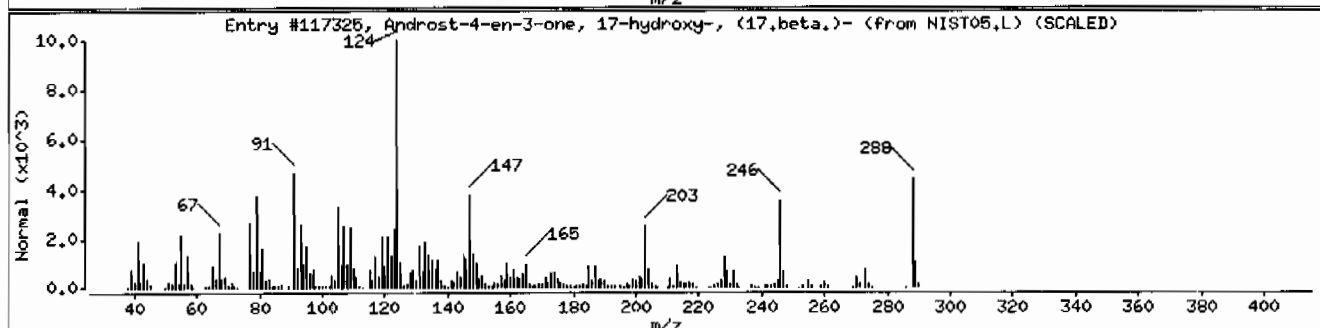
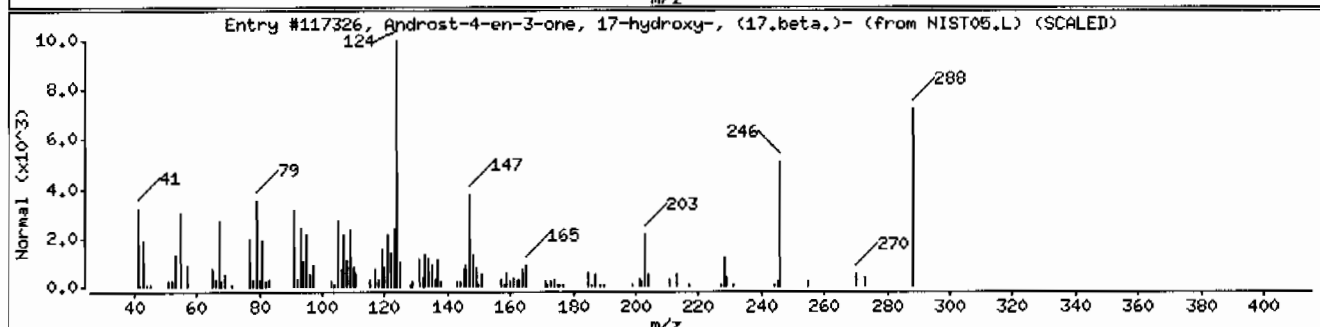
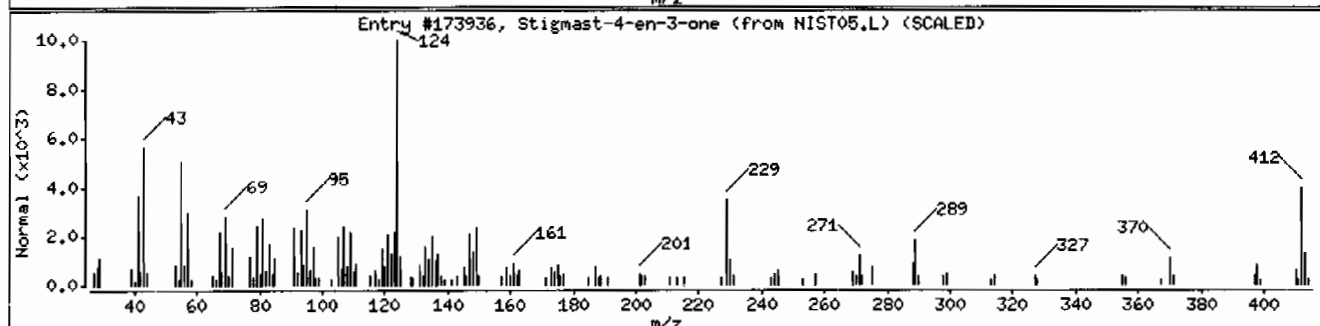
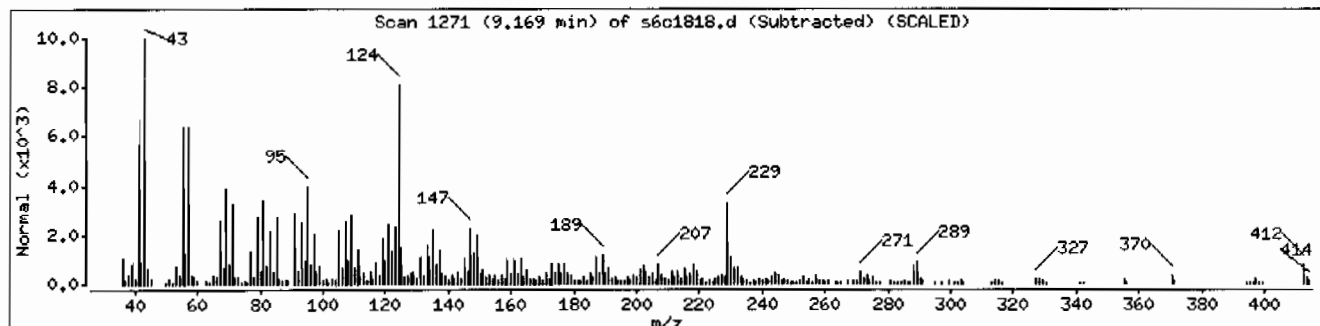
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Stigmast-4-en-3-one	1058-61-3	NIST05.L	173936	98	C29H48O	412
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117326	87	C19H28O2	288
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117325	50	C19H28O2	288



Date: 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: HSD6.i

Sample Info: 12482490041960971141SVMI11LANL

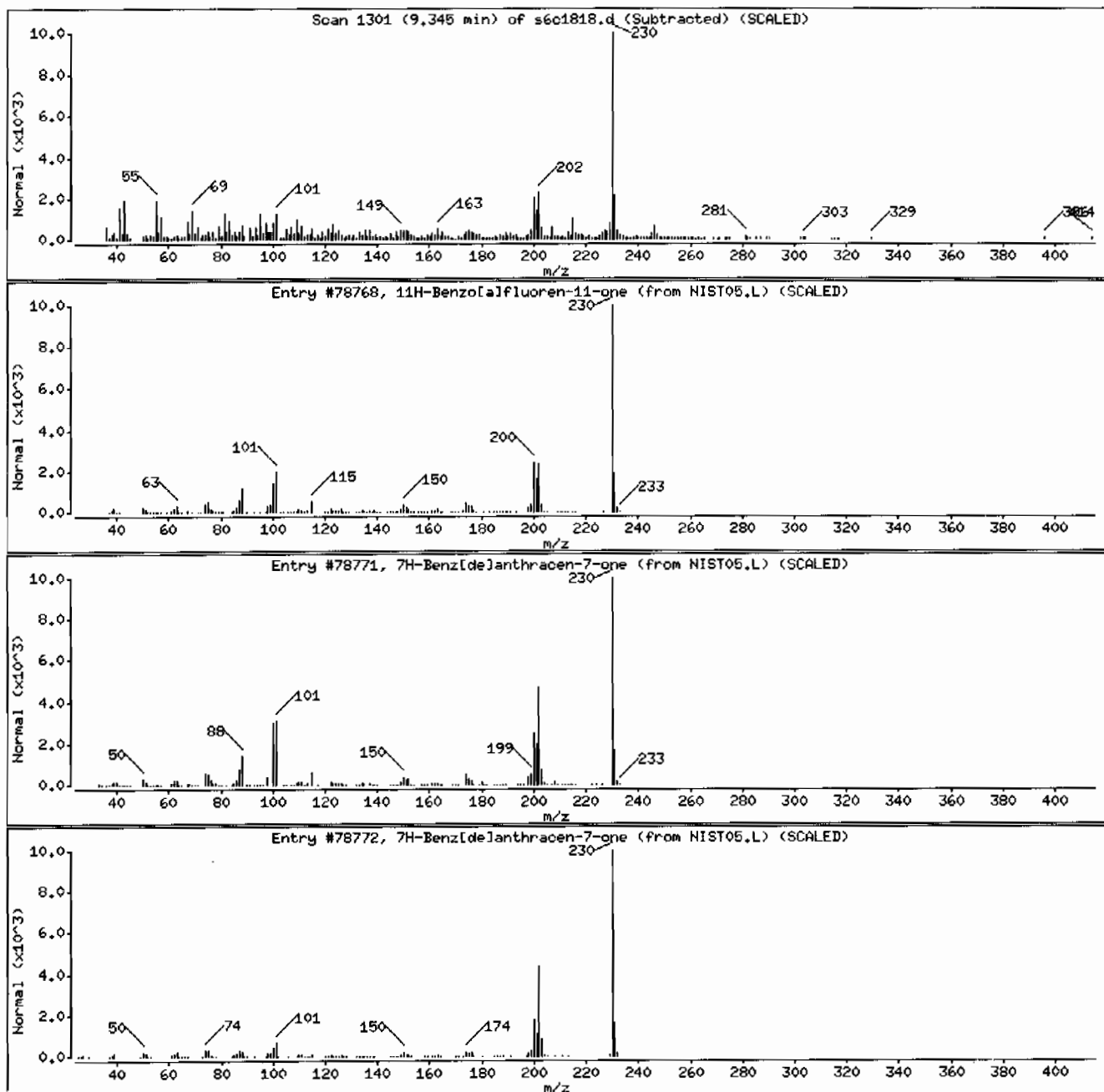
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11H-Benzo[a]fluoren-11-one	479-79-8	NIST05.L	78768	96	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78771	74	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78772	68	C17H10O	230



Date : 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: MSD6.i

Sample Info: I248249004I960971I4ISVM11ILANL

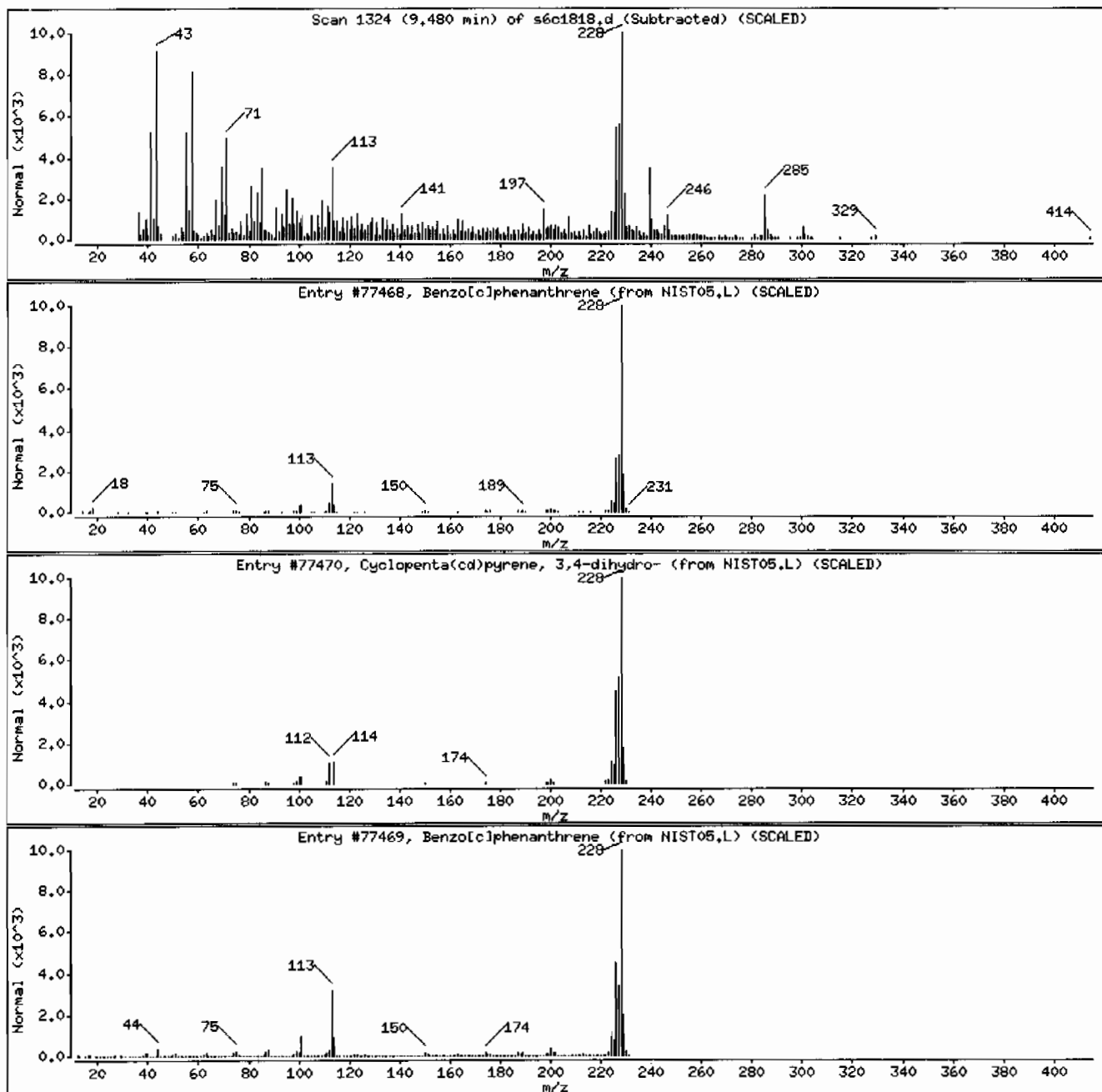
Volume Injected (uL): 0.5

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						
Benzo[ <i>a</i> ]phenanthrene	195-19-7	NIST05.L	77468	49	C <sub>18</sub> H <sub>12</sub>	228
Cyclopenta[ <i>cd</i> ]pyrene, 3,4-dihydro-	25732-74-5	NIST05.L	77470	45	C <sub>18</sub> H <sub>12</sub>	228
Benzo[ <i>a</i> ]phenanthrene	195-19-7	NIST05.L	77469	45	C <sub>18</sub> H <sub>12</sub>	228



Date: 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: MSD6.i

Sample Info: 12482490041960971141SVH111LANL

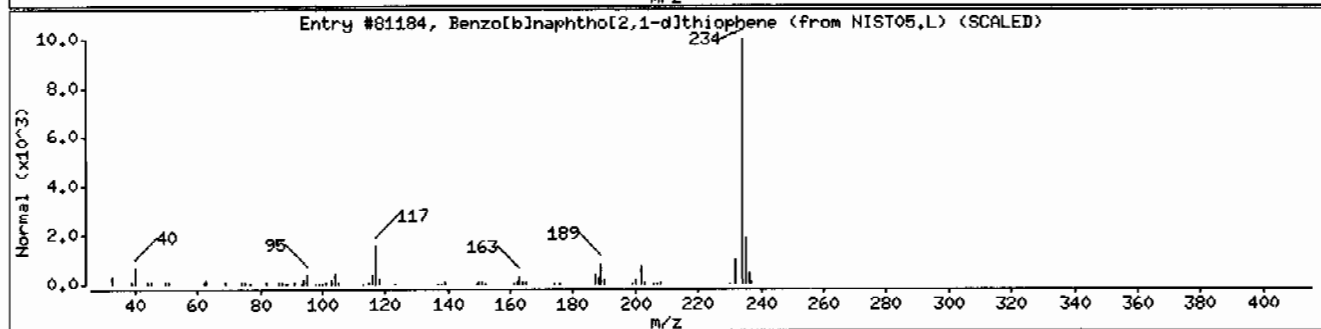
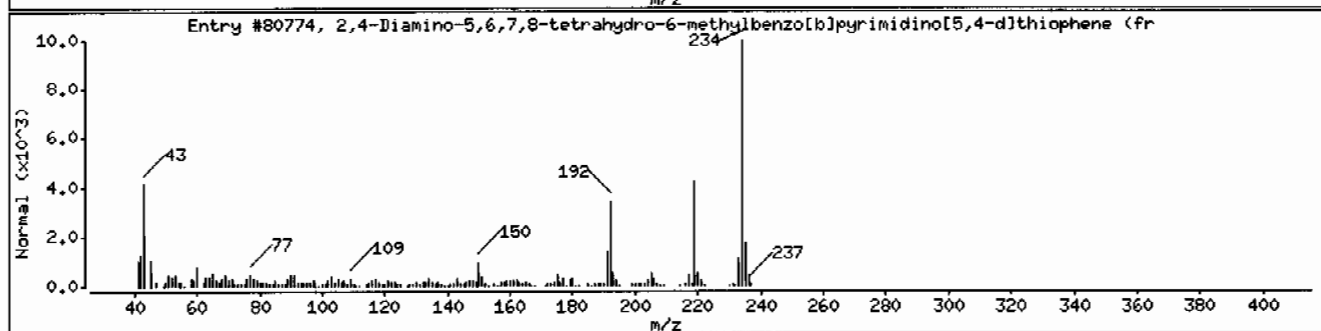
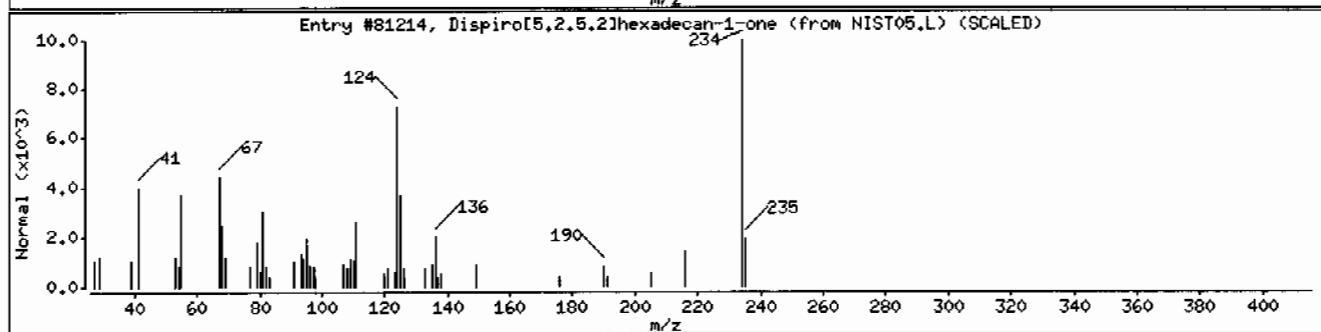
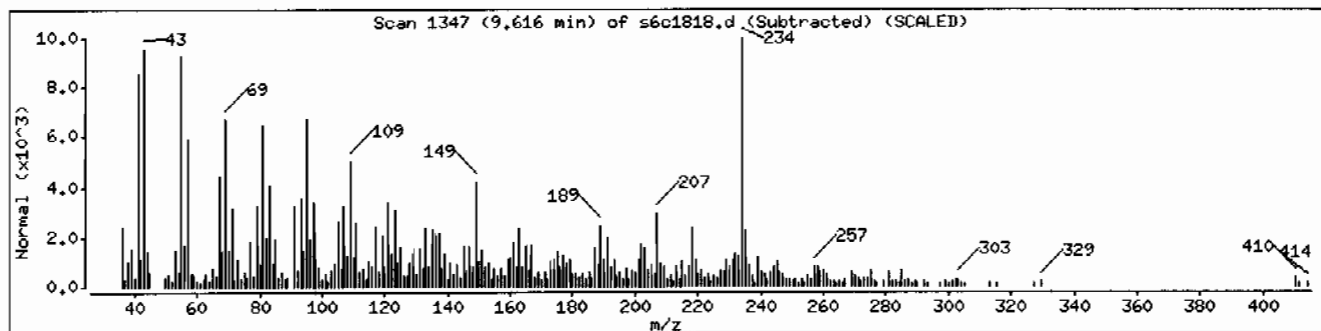
Volume Injected (uL): 0.5

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						
Dispiro[5.2.5.2]hexadecan-1-one	1781-84-6	NIST05.L	81214	62	C16H26O	234
2,4-Diamino-5,6,7,8-tetrahydro-6-methylb	42159-83-1	NIST05.L	80774	55	C11H14N4S	234
Benzo[b]naphtho[2,1-d]thiophene	239-35-0	NIST05.L	81184	49	C16H10S	234





Date : 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: MSD6.1

Sample Info: 12482490041960971141SVH111LANL

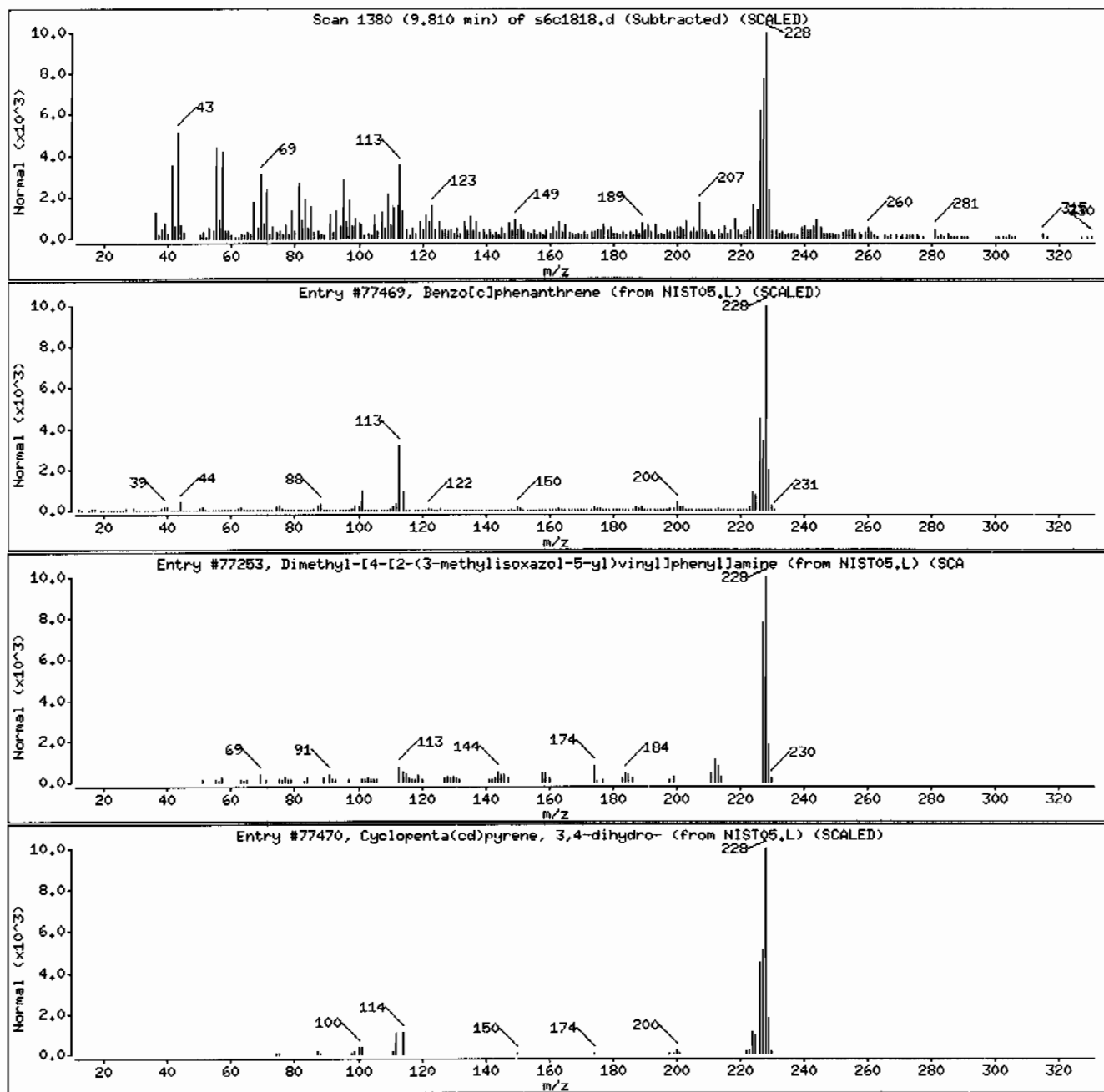
Volume Injected (uL): 0.5

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						
Benzo[c]phenanthrene	195-19-7	NIST05.L	77469	62	C18H12	228
Dimethyl-[4-[2-(3-methylisoxazol-5-yl)vi	1000306-39-6	NIST05.L	77253	60	C14H16N2O	228
Cyclopenta(cd)pyrene, 3,4-dihydro-	25732-74-5	NIST05.L	77470	55	C18H12	228



Date: 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: HSD6.i

Sample Info: I2482490041960971141SVH111LANL

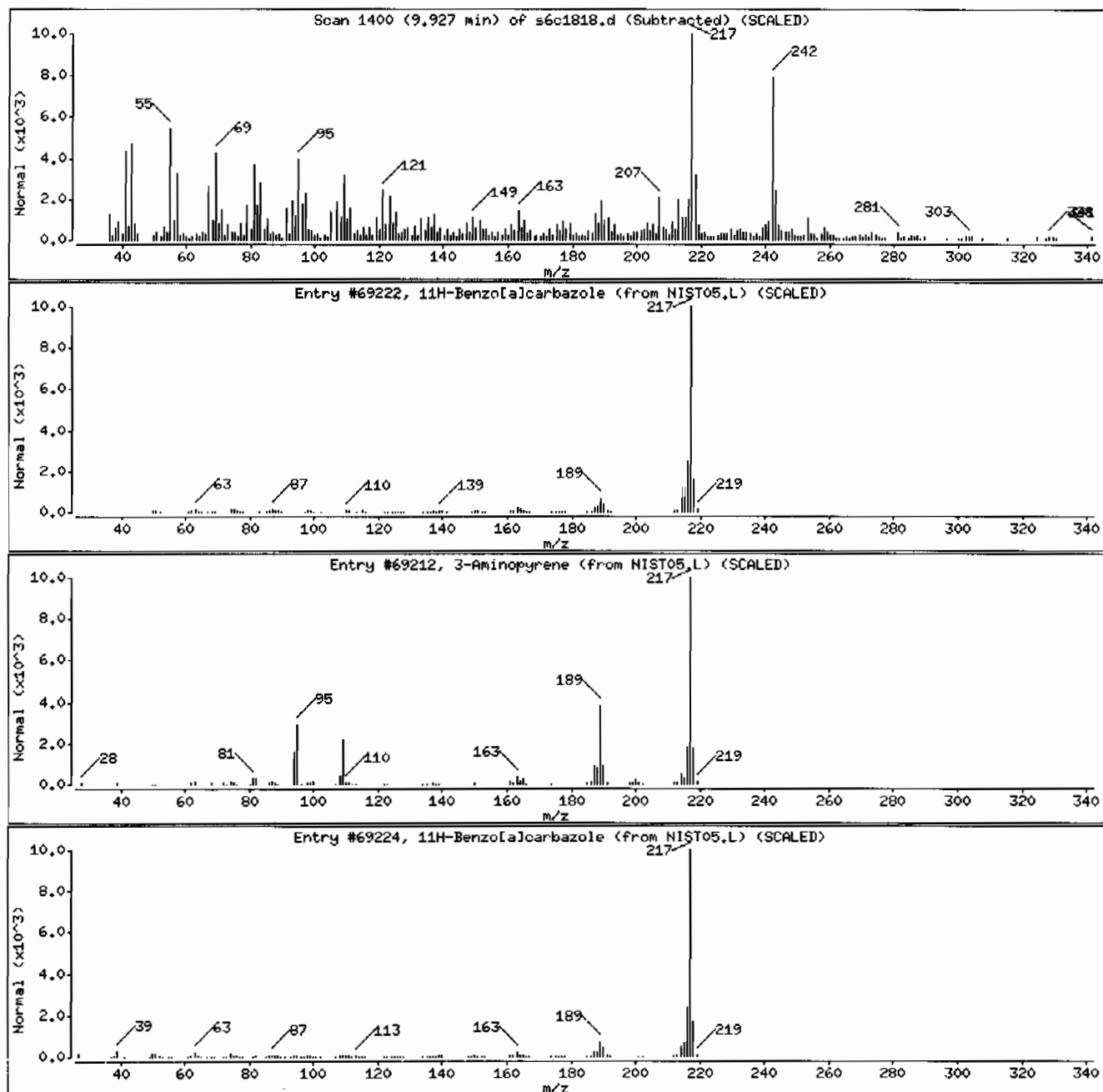
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
11H-Benzo[a]carbazole	239-01-0	NIST05.L	69222	47	C16H11N	217
3-Aminopyrene	1606-67-3	NIST05.L	69212	46	C16H11N	217
11H-Benzo[a]carbazole	239-01-0	NIST05.L	69224	38	C16H11N	217



Date: 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: MSD6.i

Sample Info: 12482490041960971141SVH111LANL

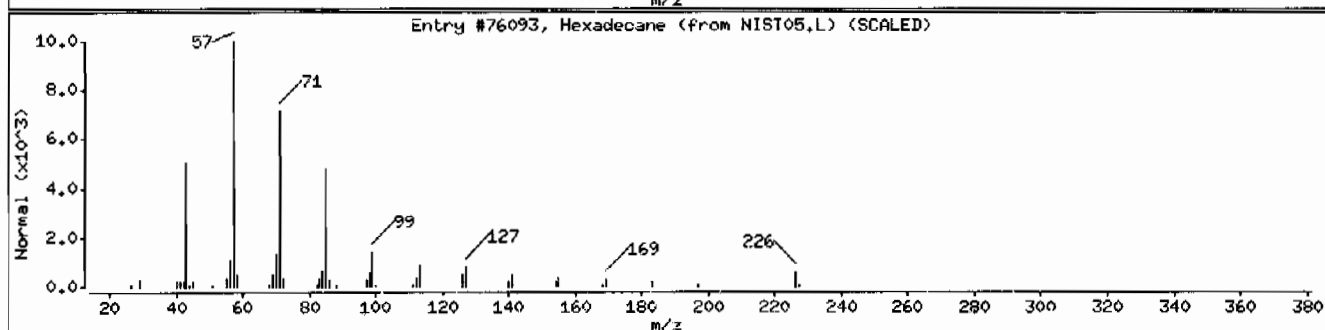
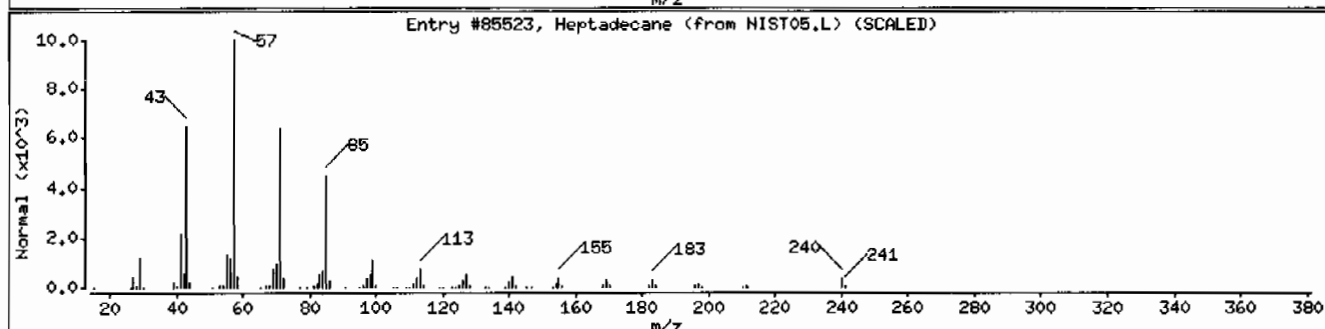
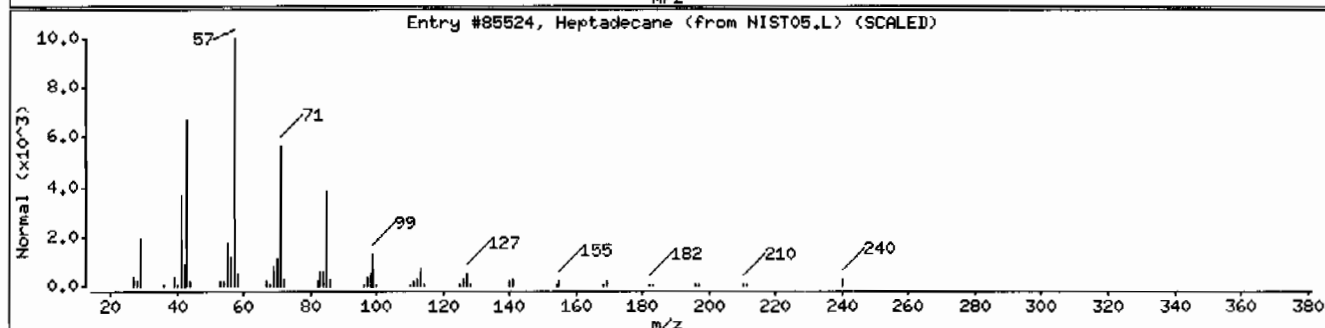
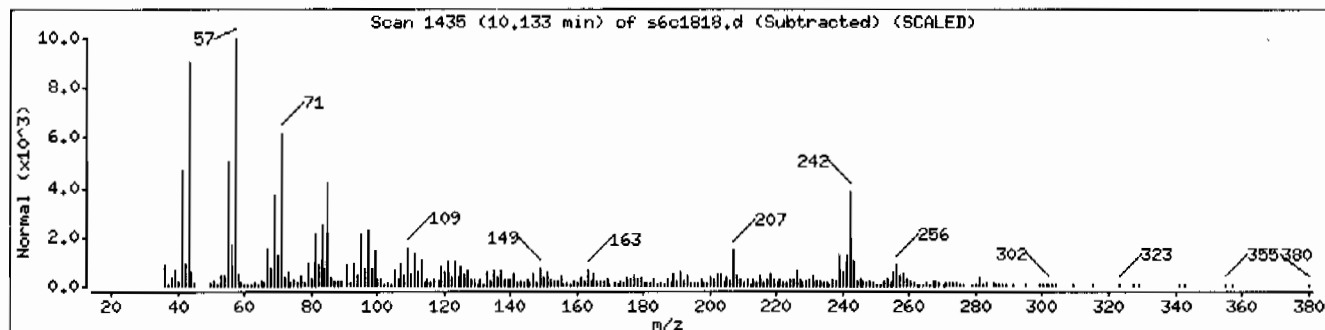
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Heptadecane	629-78-7	NIST05.L	85524	96	C17H36	240
Heptadecane	629-78-7	NIST05.L	85523	95	C17H36	240
Hexadecane	544-76-3	NIST05.L	76093	95	C16H34	226



Date: 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: MSD6.i

Sample Info: 12482490041960971141SVH111LANL

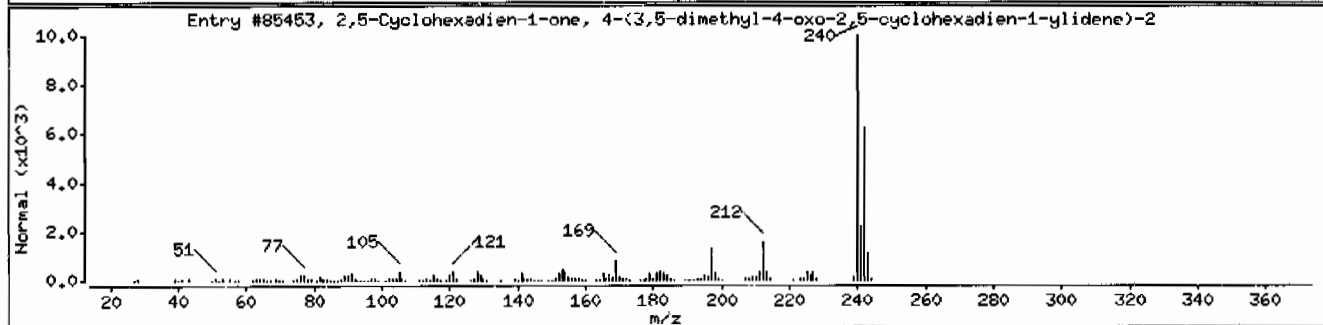
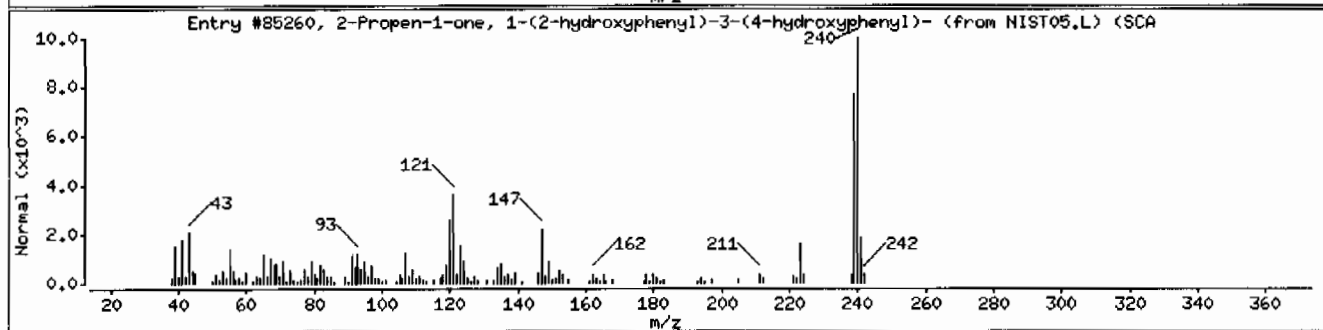
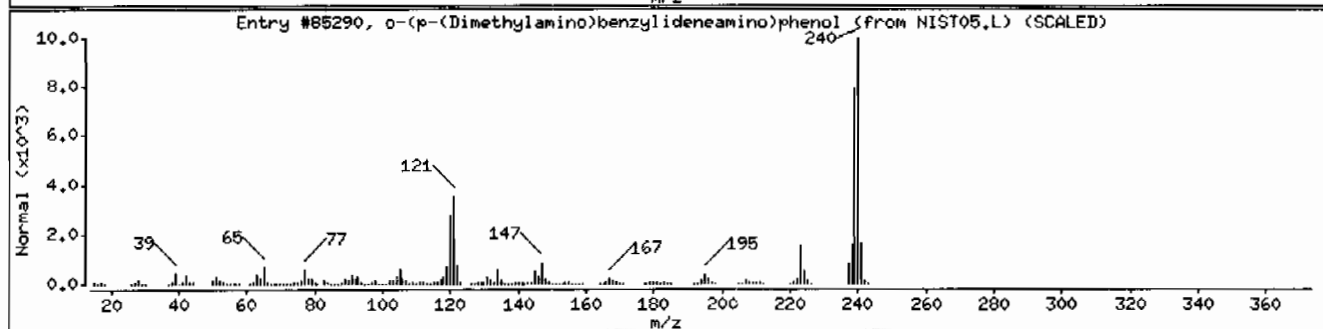
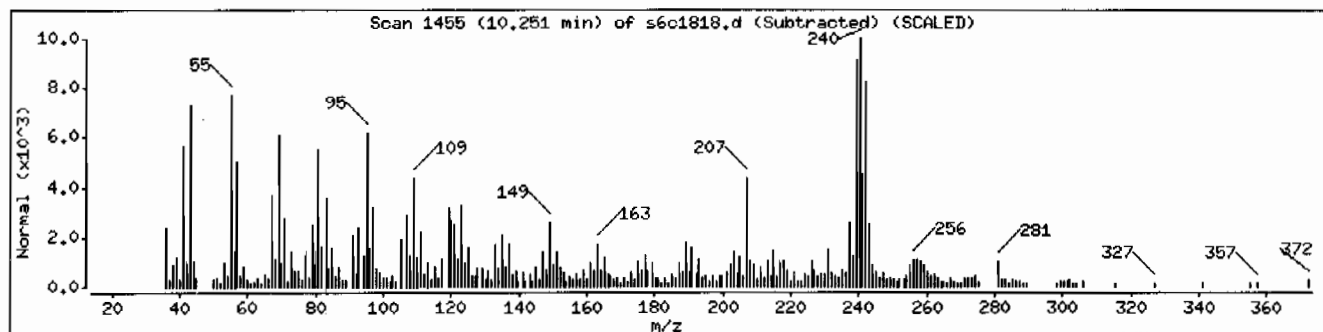
Volume Injected (uL): 0.5

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						
o-(p-(Dimethylamino)benzylideneamino)phe	23837-35-6	NIST05.L	85290	55	C15H16N2O	240
2-Propen-1-one, 1-(2-hydroxyphenyl)-3-(4	13323-66-5	NIST05.L	85260	38	C15H12O3	240
2,5-Cyclohexadien-1-one, 4-(3,5-dimethyl	4906-22-3	NIST05.L	85453	38	C16H16O2	240



Date : 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: HSD6.i

Sample Info: 12482490041960971141SVH111LANL

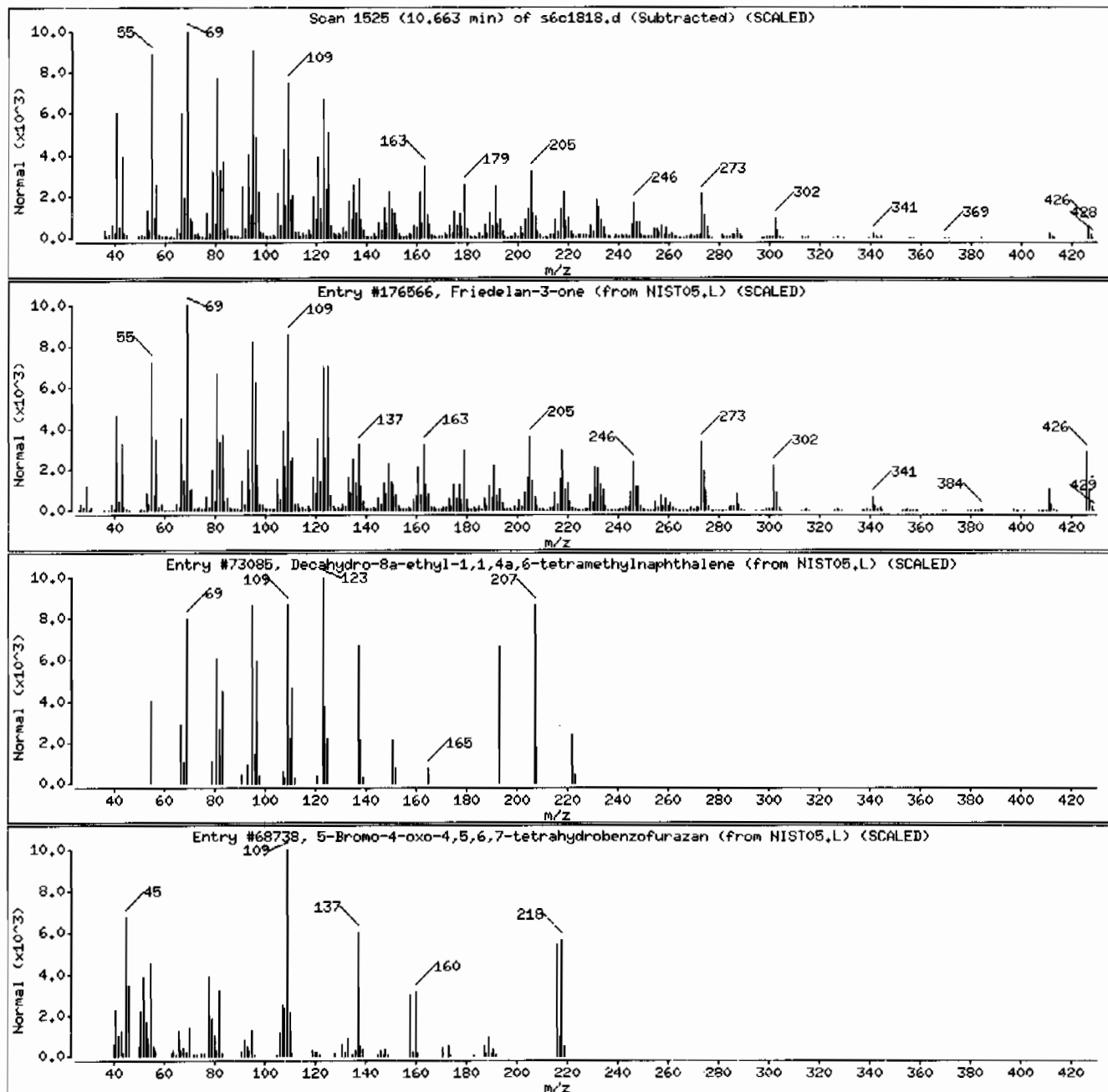
Volume Injected (uL): 0.5

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	98	C30H50O	426
Decahydro-8a-ethyl-1,1,4a,6-tetramethylnaphthalene	1000100-23-6	NIST05.L	73085	78	C16H30	222
5-Bromo-4-oxo-4,5,6,7-tetrahydrobenzofuran	300574-36-1	NIST05.L	68738	59	C6H5BrN2O2	216



Date: 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: MSD6.i

Sample Info: 12482490041960971141SVH111LANL

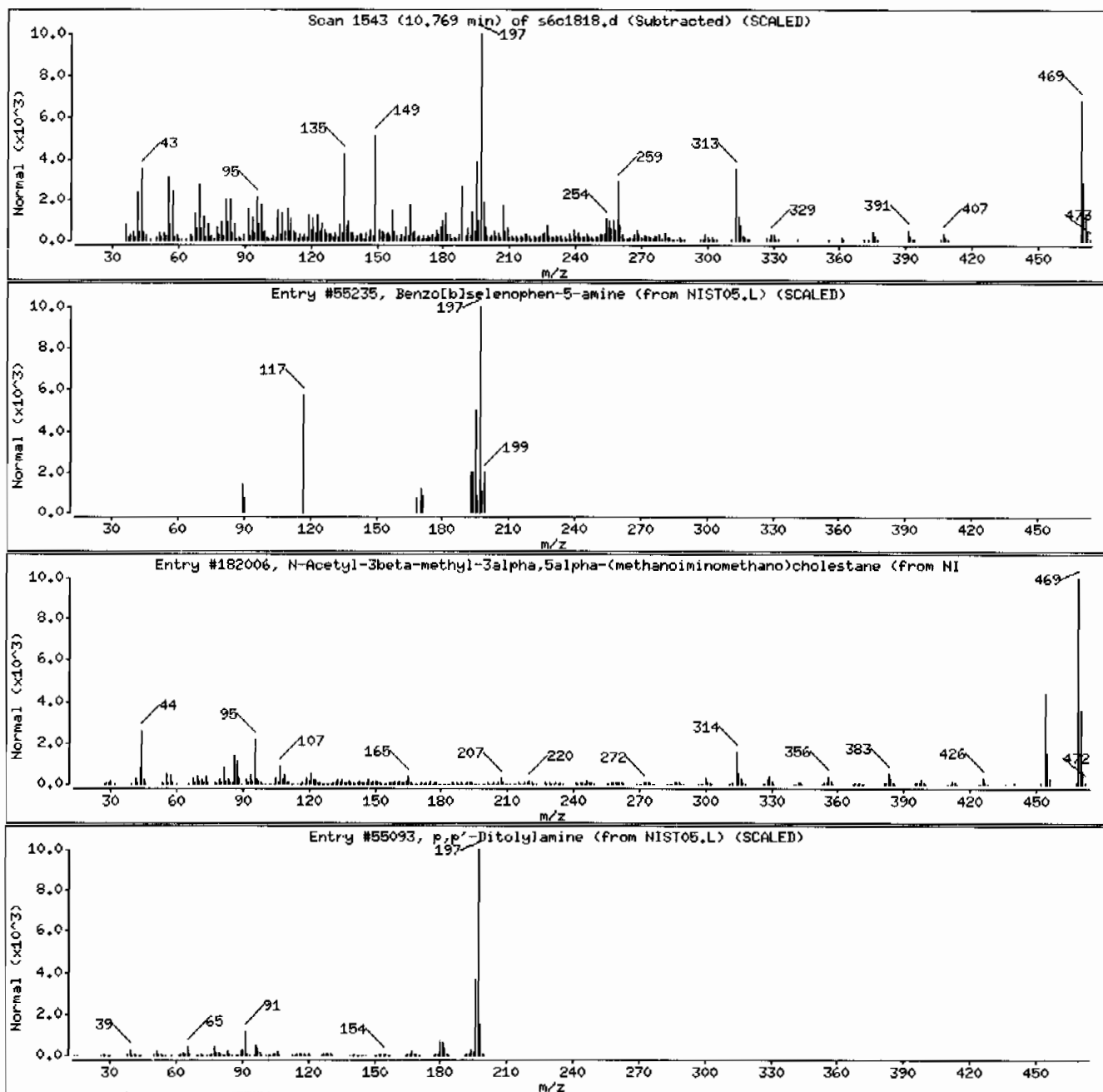
Volume Injected (uL): 0.5

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						
Benzo[b]selenophen-5-amine	30697-16-6	NIST05.L	55235	27	C8H7NSe	197
N-Acetyl-3beta-methyl-3alpha,5alpha-(methanoiminomethano)cholestane	20835-58-9	NIST05.L	182006	25	C32H55NO	469
p,p'-Ditolylamine	620-93-9	NIST05.L	55093	25	C14H15N	197



Date: 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: HSD6.i

Sample Info: 12482490041960971141SVH111LANL

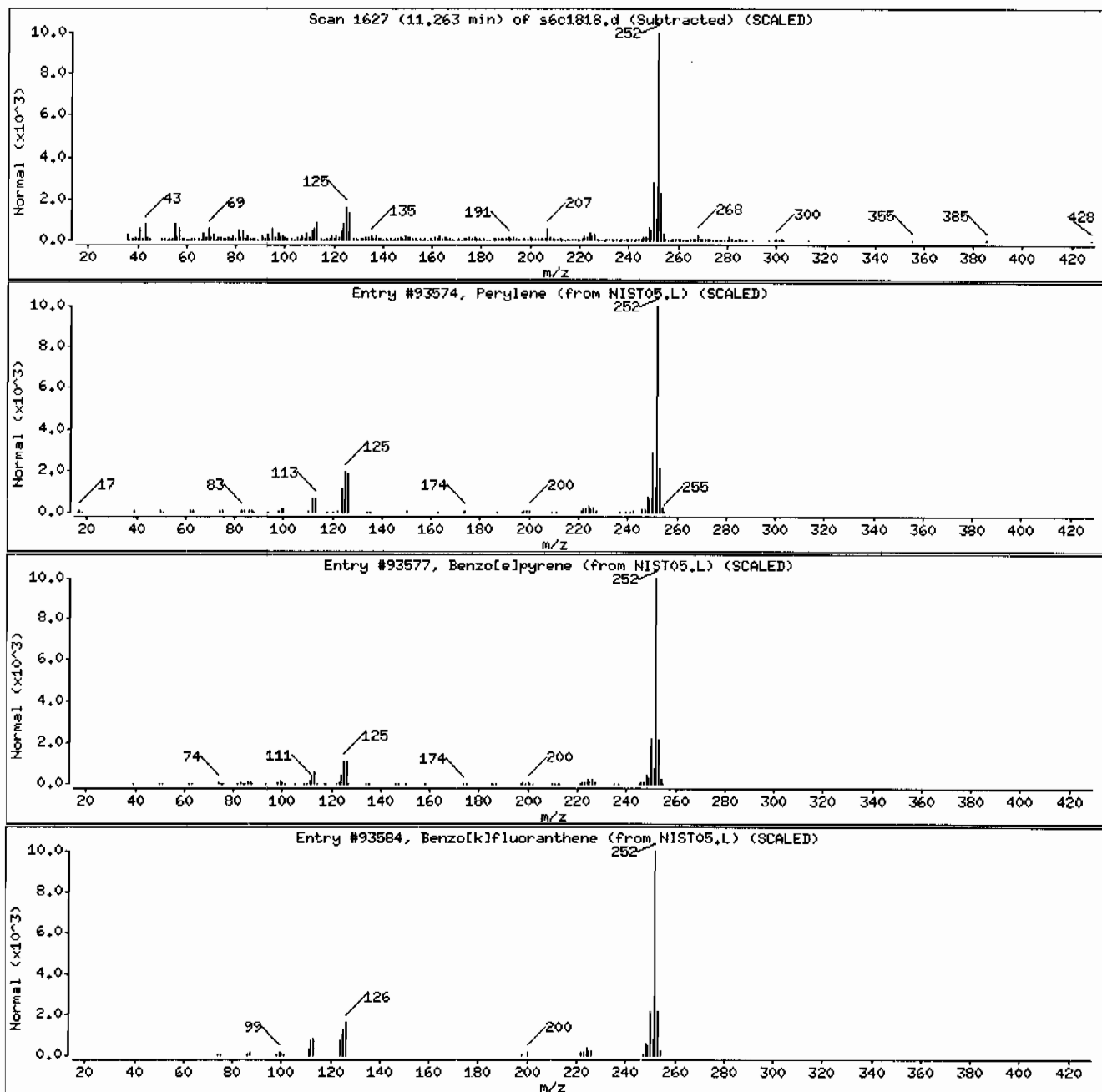
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Perylene	198-55-0	NIST05.L	93574	99	C20H12	252
Benzo[e]pyrene	192-97-2	NIST05.L	93577	98	C20H12	252
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	98	C20H12	252



Date: 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: MSD6.i

Sample Info: 12482490041960971141SVH111LANL

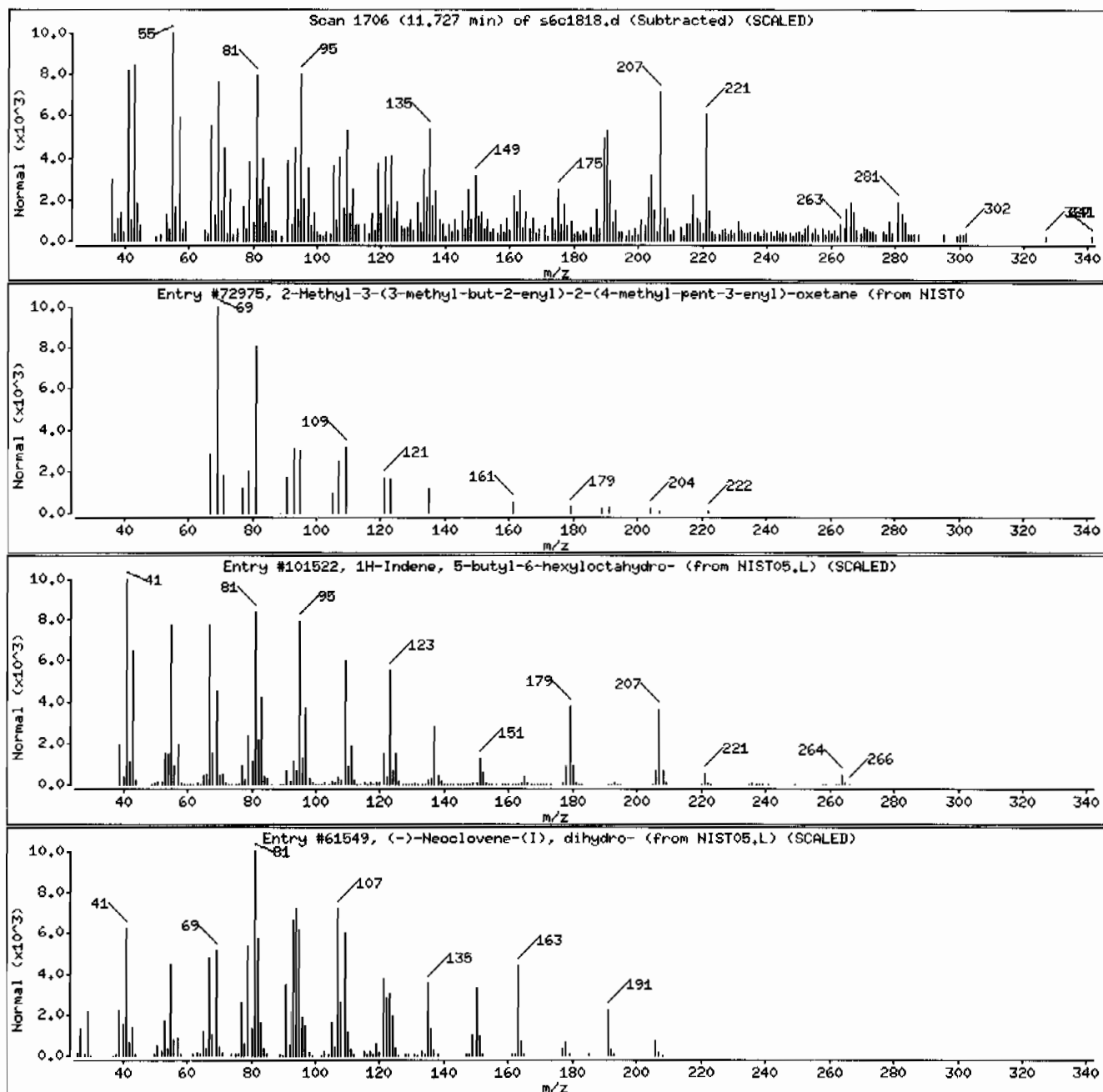
Volume Injected (uL): 0.5

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						
2-Methyl-3-(3-methyl-but-2-enyl)-2-(4-me	1000144-10-2	NIST05.L	72975	72	C15H26O	222
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	55	C19H36	264
(-)-Neoclovene-(1), dihydro-	1000152-82-1	NIST05.L	61549	41	C15H26	206





Date: 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: MSD6.i

Sample Info: 12482490041960971141SVH111LANL

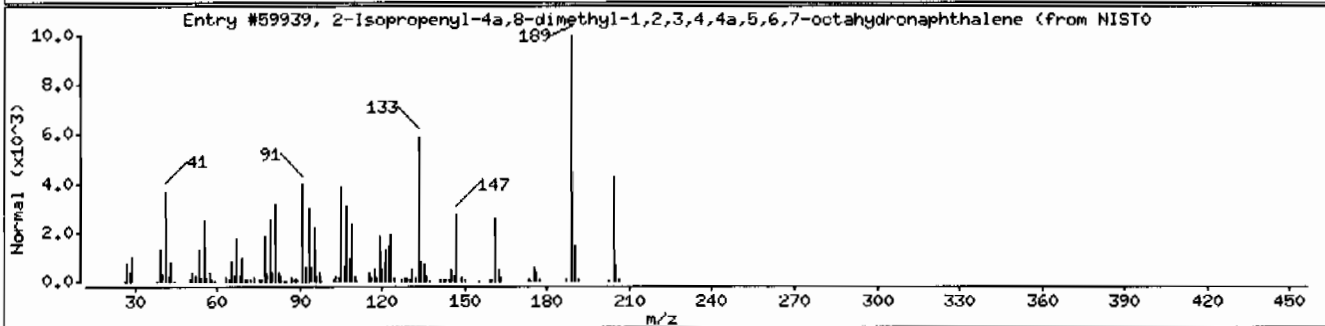
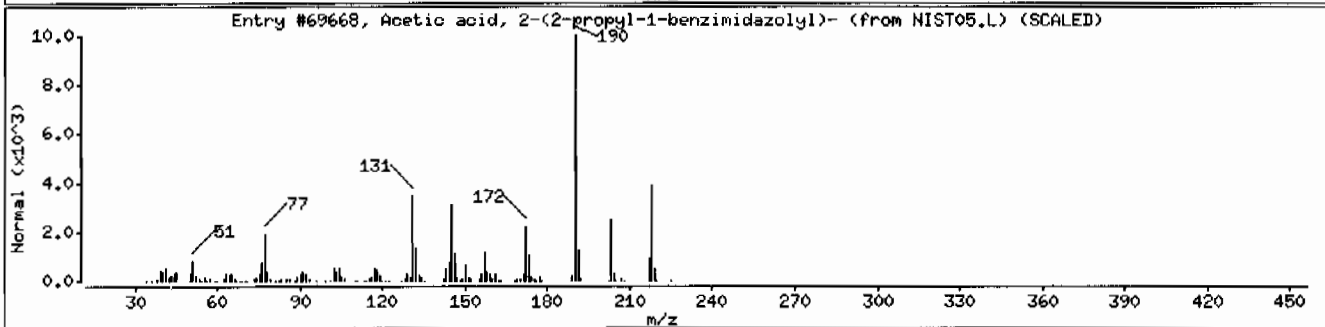
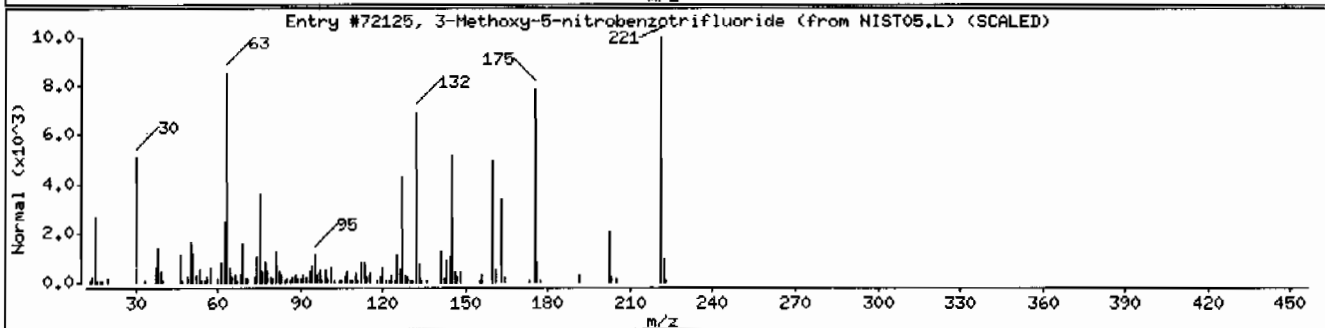
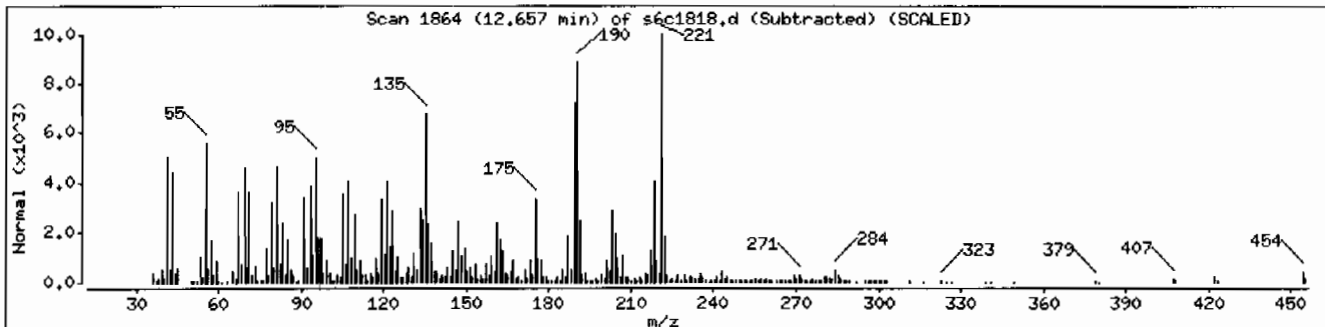
Volume Injected (uL): 0.5

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						
3-Methoxy-5-nitrobenzotrifluoride	328-79-0	NIST05.L	72125	56	C8H6F3NO3	221
Acetic acid, 2-(2-propyl-1-benzimidazolyl)-	331736-92-6	NIST05.L	69668	49	C12H14N2O2	218
2-Isopropenyl-4a,8-dimethyl-1,2,3,4,4a,5,6,7-octahydronaphthalene	1000192-43-5	NIST05.L	59939	35	C15H24	204



Date: 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: MSD6.i

Sample Info: 12482490041960971141SVH111LANL

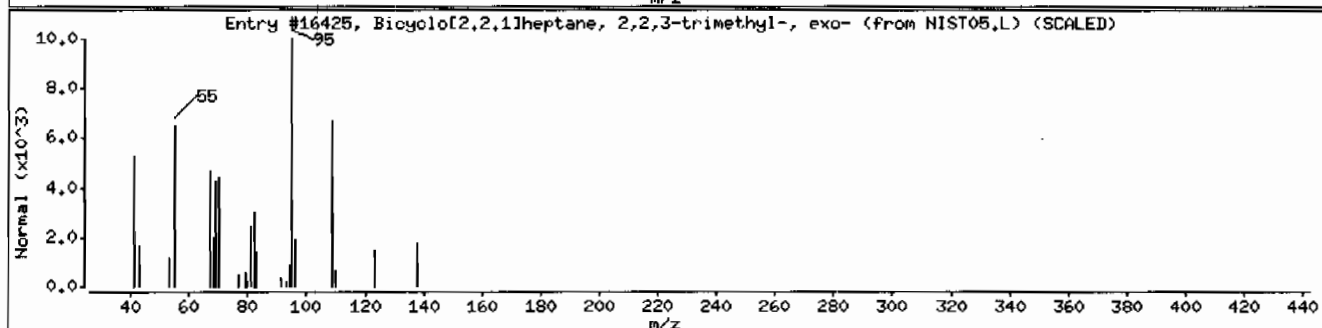
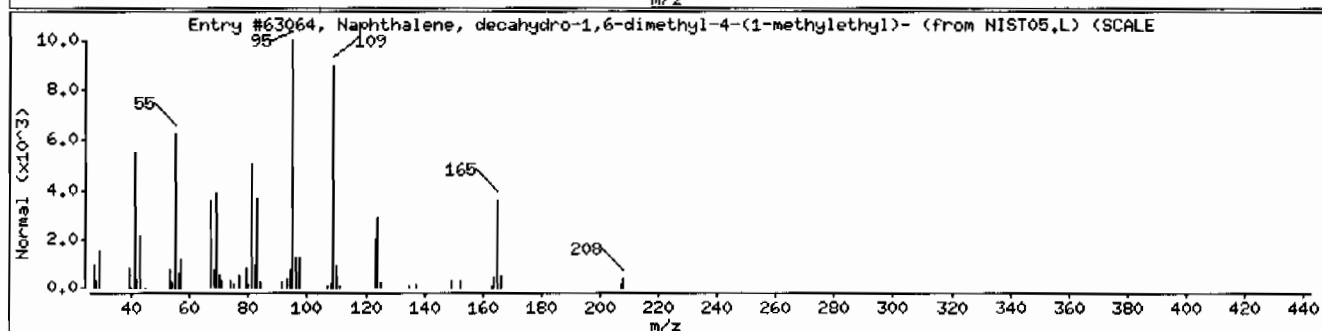
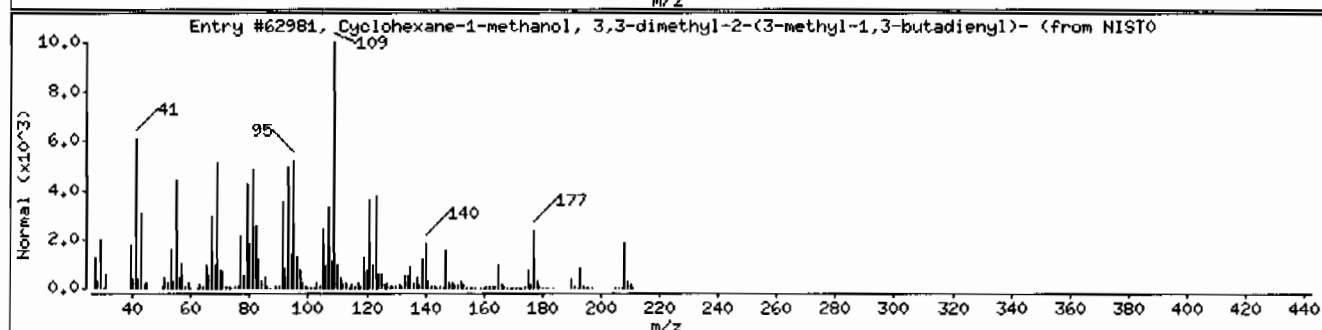
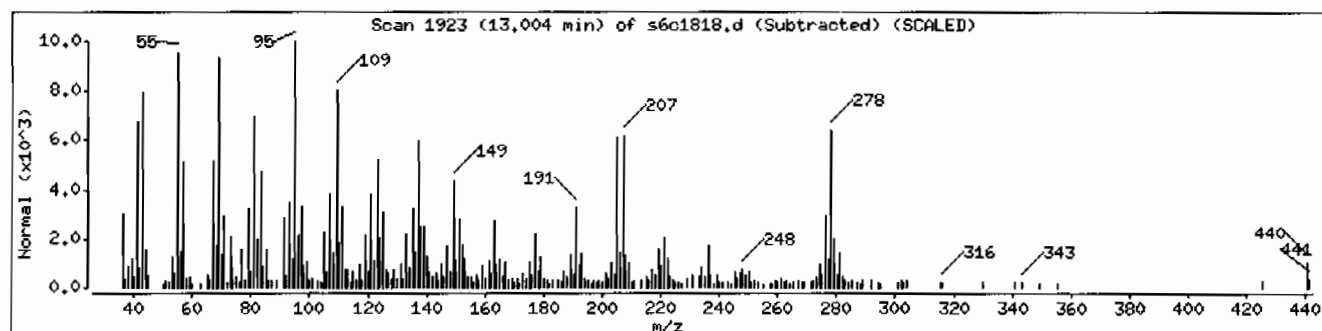
Volume Injected (uL): 0.5

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						
Cyclohexane-1-methanol, 3,3-dimethyl-2-(	1000196-01-5	NIST05.L	62981	56	C14H24O	208
Naphthalene, decahydro-1,6-dimethyl-4-(1	34315-85-0	NIST05.L	63064	42	C15H28	208
Bicyclo[2,2,1]heptane, 2,2,3-trimethyl-,	20536-41-8	NIST05.L	16425	42	C10H18	138



Date: 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: MSD6.i

Sample Info: 12482490041960971141SVM11ILANL

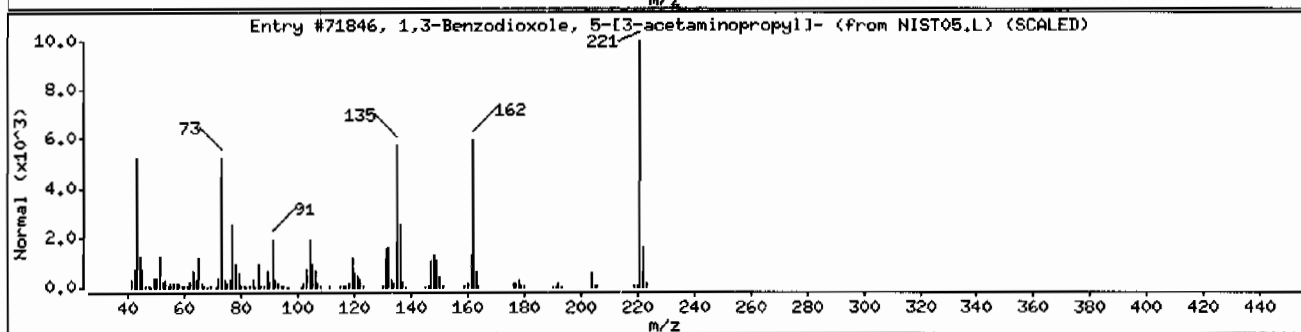
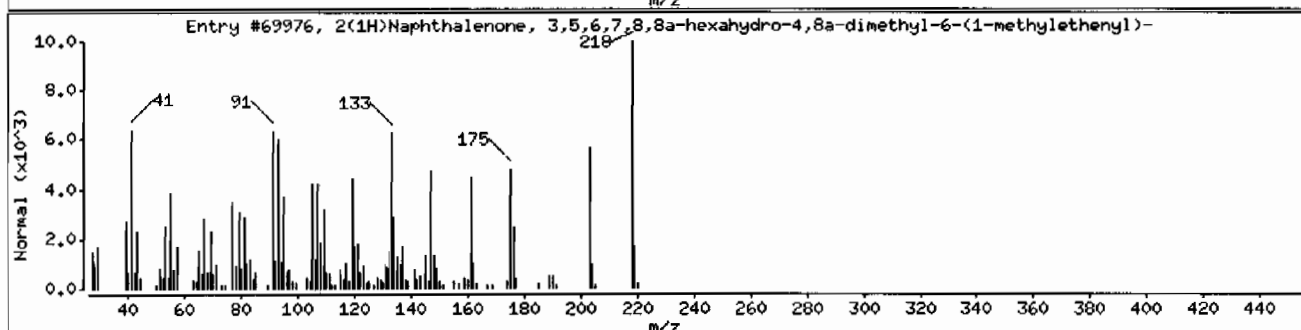
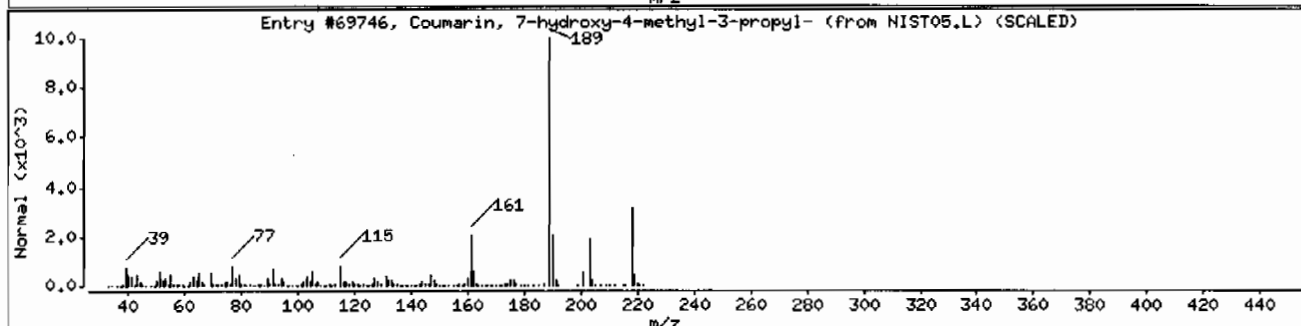
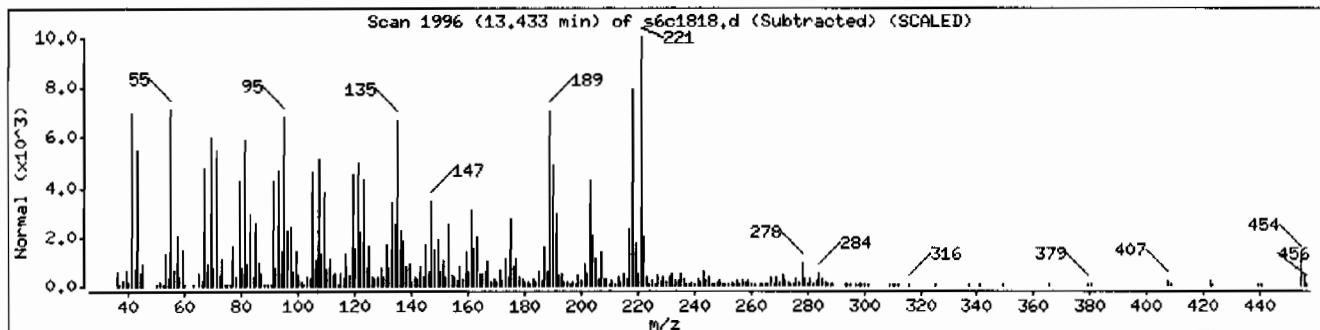
Volume Injected (uL): 0.5

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						
Coumarin, 7-hydroxy-4-methyl-3-propyl-	19491-93-1	NIST05.L	69746	38	C13H14O3	218
2(1H)Naphthalenone, 3,5,6,7,8,8a-hexahyd	1000188-66-5	NIST05.L	69976	35	C15H22O	218
1,3-Benzodioxole, 5-[3-acetaminopropyl]-	1000124-33-0	NIST05.L	71846	30	C12H15NO3	221



Date: 18-MAR-2010 14:40

Client ID: RE36-10-8284

Instrument: MSD6.i

Sample Info: 12482490041960971141SVH111LANL

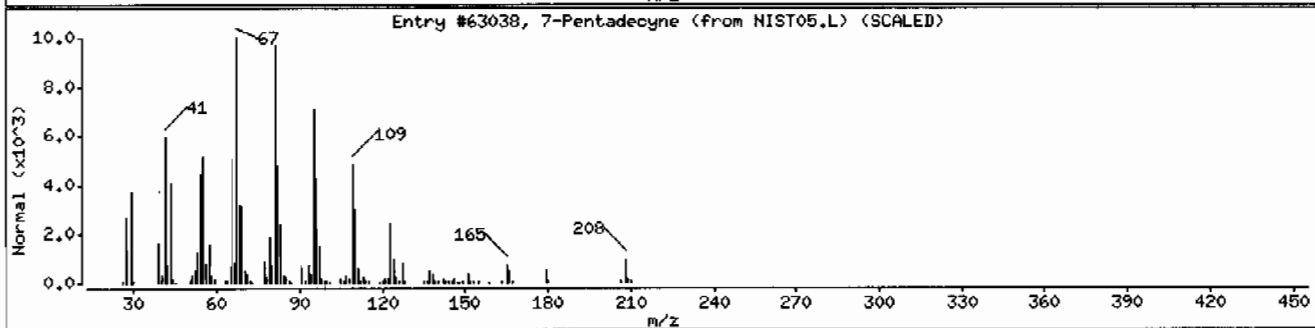
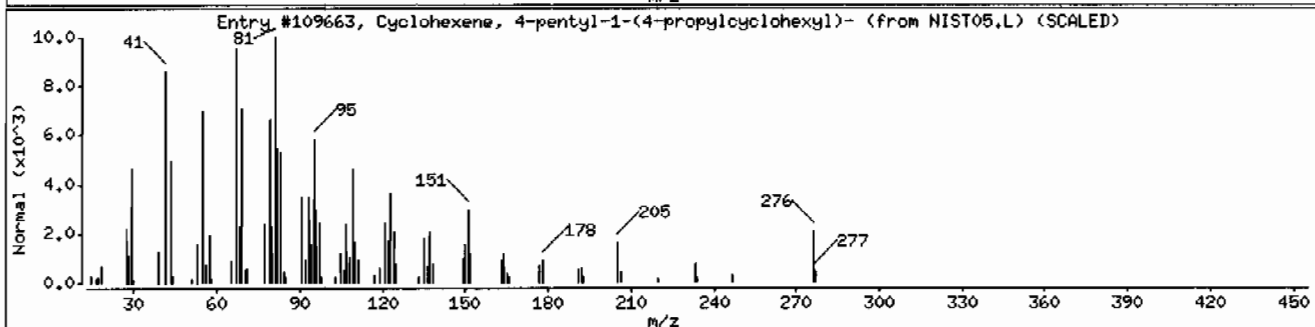
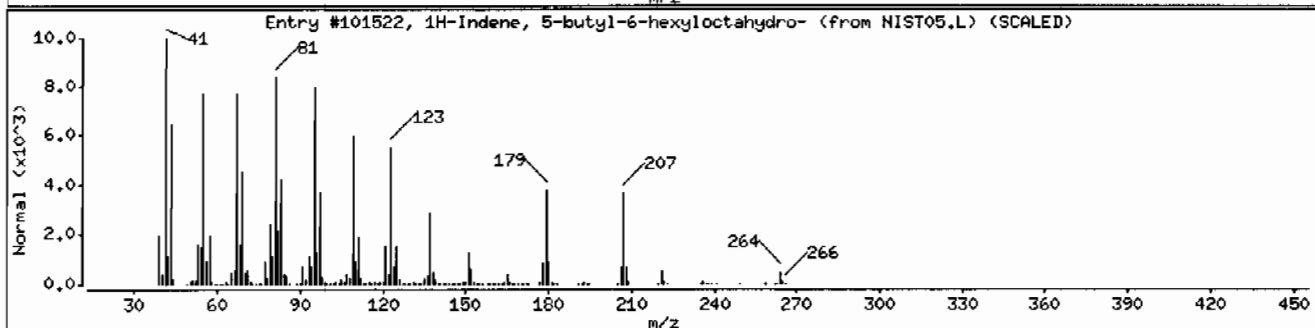
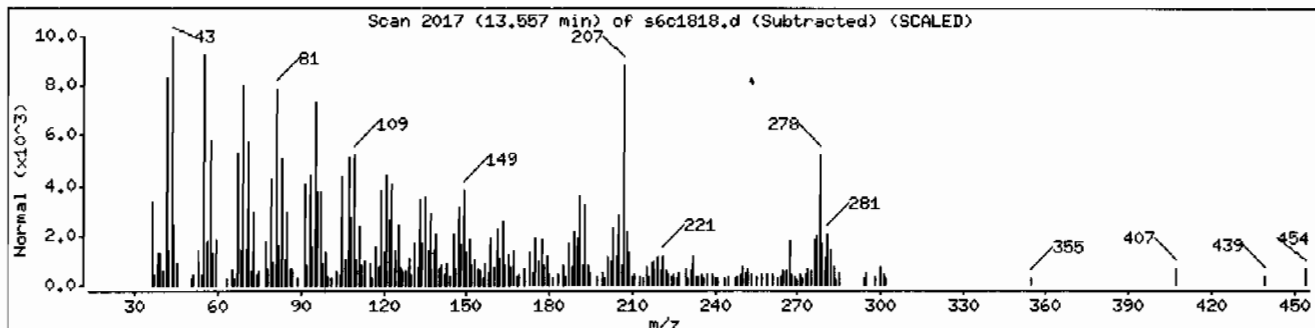
Volume Injected (uL): 0.5

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						
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	56	C19H36	264
Cyclohexene, 4-pentyl-1-(4-propylcyclohexyl)-	108067-17-0	NIST05.L	109663	48	C20H36	276
7-Pentadecyne	22089-89-0	NIST05.L	63038	47	C15H28	208



Semi-volatile  
Certificate of Analysis  
Sample Summary

Page 1 of 2

SDG Number: 10-2140  
Lab Sample ID: 248249001

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD6.I  
Analyst: NAG1  
Aliquot: 30.1 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 27.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 4  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8285  
Batch ID: 960971  
Run Date: 03/18/2010 19:26  
Prep Date: 03/04/2010 23:22  
Data File: s6c1830.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	1840	ug/kg	369	1840
108-95-2	Phenol	U	1840	ug/kg	369	1840
95-57-8	2-Chlorophenol	U	1840	ug/kg	369	1840
106-46-7	1,4-Dichlorobenzene	U	1840	ug/kg	369	1840
621-64-7	N-Nitrosodipropylamine	U	1840	ug/kg	369	1840
59-50-7	4-Chloro-3-methylphenol	U	1840	ug/kg	369	1840
83-32-9	Acenaphthene		244	ug/kg	60.8	184
121-14-2	2,4-Dinitrotoluene	U	1840	ug/kg	184	1840
100-02-7	4-Nitrophenol	U	1840	ug/kg	608	1840
87-86-5	Pentachlorophenol	U	1840	ug/kg	461	1840
129-00-0	Pyrene		9030	ug/kg	55.3	184
110-86-1	Pyridine	U	1840	ug/kg	369	1840
62-53-3	Aniline	U	1840	ug/kg	553	1840
111-44-4	bis(2-Chloroethyl) ether	U	1840	ug/kg	369	1840
541-73-1	1,3-Dichlorobenzene	U	1840	ug/kg	369	1840
100-51-6	Benzyl alcohol	U	1840	ug/kg	553	1840
95-50-1	1,2-Dichlorobenzene	U	1840	ug/kg	369	1840
108-60-1	bis(2-Chloroisopropyl)ether	U	1840	ug/kg	369	1840
95-48-7	o-Cresol	U	1840	ug/kg	369	1840
65794-96-9	m,p-Cresols	U	1840	ug/kg	553	1840
67-72-1	Hexachloroethane	U	1840	ug/kg	369	1840
98-95-3	Nitrobenzene	U	1840	ug/kg	369	1840
78-59-1	Isophorone	U	1840	ug/kg	369	1840
88-75-5	2-Nitrophenol	U	1840	ug/kg	369	1840
105-67-9	2,4-Dimethylphenol	U	1840	ug/kg	645	1840
111-91-1	bis(2-Chloroethoxy)methane	U	1840	ug/kg	369	1840
120-83-2	2,4-Dichlorophenol	U	1840	ug/kg	369	1840
65-85-0	Benzoic acid	U	3690	ug/kg	922	3690
91-20-3	Naphthalene	U	184	ug/kg	55.3	184
106-47-8	4-Chloroaniline	U	1840	ug/kg	369	1840
87-68-3	Hexachlorobutadiene	U	1840	ug/kg	369	1840
91-57-6	2-Methylnaphthalene	U	184	ug/kg	36.9	184
77-47-4	Hexachlorocyclopentadiene	U	1840	ug/kg	369	1840
88-06-2	2,4,6-Trichlorophenol	U	1840	ug/kg	369	1840
95-95-4	2,4,5-Trichlorophenol	U	1840	ug/kg	369	1840
91-58-7	2-Chloronaphthalene	U	184	ug/kg	60.8	184
88-74-4	2-Nitroaniline	U	1840	ug/kg	369	1840
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	1840	ug/kg	369	1840

Semi-Volatile  
Certificate of Analysis  
Sample Summary

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SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249001	Date Received: 02/27/2010 09:10	%Moisture: 27.9
Client ID: RE36-10-8285	Client: LANL010	Project: LANL01004
Batch ID: 960971	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/18/2010 19:26	Inst: MSD6.I	Dilution: 4
Prep Date: 03/04/2010 23:22	Analyst: NAG1	Inj. Vol: .5 uL
Data File: s6c1830.d	Aliquot: 30.1 g	Final Volume: 1 mL
	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	1840	ug/kg	369	1840
606-20-2	2,6-Dinitrotoluene	U	1840	ug/kg	184	1840
208-96-8	Acenaphthylene	U	184	ug/kg	55.3	184
51-28-5	2,4-Dinitrophenol	U	3690	ug/kg	701	3690
132-64-9	Dibenzofuran	U	1840	ug/kg	369	1840
84-66-2	Diethylphthalate	U	1840	ug/kg	369	1840
86-73-7	Fluorene		253	ug/kg	55.3	184
7005-72-3	4-Chlorophenylphenylether	U	1840	ug/kg	369	1840
534-52-1	2-Methyl-4,6-dinitrophenol	U	1840	ug/kg	369	1840
100-01-6	4-Nitroaniline	U	1840	ug/kg	553	1840
<i>p-Nitroaniline</i>						
122-39-4	Diphenylamine	U	1840	ug/kg	369	1840
122-66-7	Azobenzene	U	1840	ug/kg	369	1840
<i>1,2-Diphenylhydrazine</i>						
101-55-3	4-Bromophenylphenylether	U	1840	ug/kg	369	1840
118-74-1	Hexachlorobenzene	U	1840	ug/kg	369	1840
85-01-8	Phenanthrene		3590	ug/kg	55.3	184
120-12-7	Anthracene		787	ug/kg	36.9	184
84-74-2	Di-n-butylphthalate	J	1240	ug/kg	369	1840
206-44-0	Fluoranthene		7630	ug/kg	55.3	184
85-68-7	Butylbenzylphthalate	U	1840	ug/kg	369	1840
56-55-3	Benzo(a)anthracene		4680	ug/kg	55.3	184
91-94-1	3,3'-Dichlorobenzidine	U	1840	ug/kg	553	1840
218-01-9	Chrysene		5700	ug/kg	55.3	184
117-81-7	bis(2-Ethylhexyl)phthalate	U	1840	ug/kg	369	1840
117-84-0	Di-n-octylphthalate	U	1840	ug/kg	369	1840
205-99-2	Benzo(b)fluoranthene		13000	ug/kg	55.3	184
207-08-9	Benzo(k)fluoranthene	U	184	ug/kg	55.3	184
50-32-8	Benzo(a)pyrene		5940	ug/kg	55.3	184
193-39-5	Indeno(1,2,3-cd)pyrene		3010	ug/kg	55.3	184
53-70-3	Dibenzo(a,h)anthracene	U	184	ug/kg	55.3	184
191-24-2	Benzo(ghi)perylene		3130	ug/kg	55.3	184
120-82-1	1,2,4-Trichlorobenzene	U	1840	ug/kg	369	1840

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
2381-21-7	Pyrene, 1-methyl-	8.76	956	ug/kg	95	NJ
33543-31-6	Fluoranthene, 2-methyl-	8.86	1840	ug/kg	97	NJ

Semi-Volatile  
Certificate of Analysis  
Sample Summary

Page 3 of 3

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249001	Date Received: 02/27/2010 09:10	%Moisture: 27.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8285	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 4
Run Date: 03/18/2010 19:26	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30.1 g	Final Volume: 1 mL
Data File: s6c1830.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
	Unknown	8.96	1440	ug/kg		J
	Unknown	9.05	941	ug/kg		J
	Unknown	9.09	1010	ug/kg		J
479-79-8	11H-Benzof[a]fluoren-11-one	9.35	1320	ug/kg	97	NJ
239-35-0	Benzo[b]naphtho[2,1-d]thiophene	9.46	1290	ug/kg	92	NJ
	Unknown	9.49	1530	ug/kg		J
	Unknown	9.52	1160	ug/kg		J
	Unknown	9.55	1610	ug/kg		J
	Unknown	9.62	1510	ug/kg		J
	Unknown	9.82	1660	ug/kg		J
	Unknown	9.93	1130	ug/kg		J
2498-77-3	Benz[a]anthracene, 1-methyl-	10.11	1550	ug/kg	96	NJ
3351-32-4	Chrysene, 2-methyl-	10.15	1320	ug/kg	91	NJ
	Unknown	10.26	1130	ug/kg		J
	Unknown	10.33	1330	ug/kg		J
1090-13-7	5,12-Naphthacenedione	10.47	1130	ug/kg	90	NJ
	Unknown	10.57	1860	ug/kg		J
	Unknown	10.7	4350	ug/kg		J
	Unknown	10.77	5730	ug/kg		J
198-55-0	Perylene	11.27	5670	ug/kg	99	NJ

Data File: /chem/MSD6.i/s031810.b/s6c1830.d  
Report Date: 19-Mar-2010 15:08

Page 1

GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1830.d  
Lab Smp Id: 248249001 Client Smp ID: RE36-10-8285  
Inj Date : 18-MAR-2010 19:26  
Operator : nag1 Inst ID: MSD6.i  
Smp Info : |248249001|960971|4|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 19-Mar-2010 14:59 llo00884 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 30  
Dil Factor: 4.00000  
Integrator: HP RTE Compound Sublist: 10-2140.sub  
Target Version: 3.50  
Processing Host: hpc1p1

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

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.10000	weight of sample
M	27.91310	% 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	3.969	3.963	(1.000)	536610	40.0000	
* 29 Naphthalene-d8		136	4.840	4.834	(1.000)	1898182	40.0000	
* 46 Acenaphthene-d10		164	6.098	6.092	(1.000)	1160051	40.0000	
* 67 Phenanthrene-d10		188	7.281	7.269	(1.000)	1968173	40.0000	
* 91 Chrysene-d12		240	9.710	9.698	(1.000)	1280963	40.0000	
* 98 Perylene-d12		264	11.427	11.404	(1.000)	704184	40.0000	
\$ 3 2-Fluorophenol		112	3.152	3.140	(0.794)	265246	17.7812	3280
\$ 5 Phenol-d5		99	3.675	3.669	(0.926)	338822	17.8602	3290
\$ 20 Nitrobenzene-d5		82	4.328	4.328	(0.894)	154222	8.49924	1570
\$ 39 2-Fluorobiphenyl		172	5.581	5.575	(0.915)	322029	10.7596	1980
\$ 60 2,4,6-Tribromophenol		329	6.698	6.692	(1.098)	71170	21.8630	4030
\$ 81 p-Terphenyl-d14		244	8.669	8.651	(0.893)	319428	14.3101	2640



Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
47 Acenaphthene	154	6.122	6.116	(1.004)	39829	1.32329	244
79 Pyrene	202	8.569	8.551	(0.882)	1911856	48.9600	9020
53 Fluorene	166	6.510	6.504	(1.067)	44467	1.37168	253
68 Phenanthrene	178	7.298	7.286	(1.002)	934263	19.4811	3590
69 Anthracene	178	7.340	7.334	(1.008)	206346	4.27099	787
72 Di-n-butylphthalate	149	7.698	7.692	(1.057)	376836	6.74429	1240 (a)
76 Fluoranthene	202	8.351	8.333	(1.147)	2012474	41.3795	7630
89 Benzo(a)anthracene	228	9.698	9.680	(0.999)	848701	25.3739	4680
92 Chrysene	228	9.733	9.722	(1.002)	987271	30.9021	5700
95 Benzo(b)fluoranthene	252	10.904	10.874	(0.954)	1352937	70.6715	13000
97 Benzo(a)pyrene	252	11.351	11.322	(0.993)	522854	32.2482	5940
99 Indeno(1,2,3-cd)pyrene	276	13.239	13.210	(1.159)	242543	16.3024	3000
101 Benzo(ghi)perylene	276	13.798	13.763	(1.207)	215393	16.9554	3120

#### QC Flag Legend

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

## ION RATIO REPORT

## SV REPORT

Data file: s6c1830.d

Report Date: 03/19/2010 14:59

Lab. ID: 248249001

SampleType: SAMPLE

Injection Date: 18-MAR-2010 19:26

Operator: nag1

Instrument: MSD6.i

Sample Info: |248249001|960971|4|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m

Dilution Factor= 4.0

Integrator: HP RTE

Compound Sublist: 10-2140

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
22	Isophorone		CAS#: 78-59-1			
82	154222	4.33	4.49	80-120	100	(T)
138	10793	4.84	4.49	0- 49	7	(T)
-----						
40	2-Chloronaphthalene		CAS#: 91-58-7			
162	1079217	6.10	5.68	80-120	100	(T)
164	1160051	6.10	5.68	3- 63	107	(QT)
127	1980	6.12	5.68	8- 68	0	(QT)
-----						
43	Dimethylphthalate		CAS#: 131-11-3			
163	213498	6.10	5.85	80-120	100	(T)
164	1160051	6.10	5.85	0- 41	543	(QT)
-----						
45	Acenaphthylene		CAS#: 208-96-8			
152	19351	6.12	5.99	80-120	100	(T)
151	7823	6.12	5.99	0- 50	40	(T)
153	44475	6.12	5.99	0- 44	230	(QT)
-----						
47	Acenaphthene		CAS#: 83-32-9			
154	39829	6.12	6.12	80-120	100	( )
153	44475	6.12	6.12	68-128	112	( )
152	19351	6.12	6.12	16- 76	49	( )
-----						
48	2,4-Dinitrophenol		CAS#: 51-28-5			
184	262	6.45	6.11	80-120	100	(T)
154	405	6.45	6.12	682-742	154	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	155153	6.10	6.20	80-120	100	(T)
89	2061	6.10	6.20	40-100	1	(QT)
63	5661	6.12	6.20	18- 78	4	(QT)
-----						
53 Fluorene		CAS#: 86-73-7				
166	44467	6.51	6.50	80-120	100	( )
165	41439	6.51	6.50	61-121	93	( )
167	8621	6.51	6.50	0- 44	19	( )
-----						
55 2-Methyl-4,6-dinitrophenol		CAS#: 534-52-1				
198	158	6.70	6.52	80-120	100	(T)
105	1061	6.70	6.52	10- 70	671	(QT)
51	1226	6.69	6.51	37- 97	775	(QT)
-----						
68 Phenanthrene		CAS#: 85-01-8				
178	934263	7.30	7.29	80-120	100	( )
179	155431	7.30	7.29	0- 46	17	( )
176	178110	7.30	7.29	0- 49	19	( )
-----						
69 Anthracene		CAS#: 120-12-7				
178	206346	7.34	7.33	80-120	100	( )
179	46554	7.34	7.33	0- 47	23	( )
176	36066	7.34	7.33	0- 48	17	( )
-----						
72 Di-n-butylphthalate		CAS#: 84-74-2				
149	376836	7.70	7.69	80-120	100	( )
150	38407	7.70	7.69	0- 40	10	( )
104	18036	7.70	7.69	0- 35	5	( )
-----						
76 Fluoranthene		CAS#: 206-44-0				
202	2012474	8.35	8.33	80-120	100	( )
203	379330	8.35	8.33	0- 48	19	( )
101	235702	8.35	8.33	0- 42	12	( )
-----						
79 Pyrene		CAS#: 129-00-0				
202	1911856	8.57	8.55	80-120	100	( )
200	404316	8.57	8.55	0- 51	21	( )
101	282746	8.57	8.55	0- 44	15	( )
-----						
89 Benzo(a)anthracene		CAS#: 56-55-3				
228	848701	9.70	9.68	80-120	100	( )
226	229009	9.70	9.68	0- 56	27	( )
229	251676	9.70	9.68	0- 50	30	( )
-----						
92 Chrysene		CAS#: 218-01-9				
228	987271	9.73	9.72	80-120	100	( )
229	241390	9.73	9.72	0- 50	24	( )
226	284737	9.73	9.72	0- 59	29	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	1352937	10.90	10.87	80-120	100	( )
253	307220	10.90	10.87	0- 52	23	( )
125	152056	10.90	10.87	0- 40	11	( )
-----						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	1352937	10.90	10.91	80-120	100	( )
253	307448	10.90	10.91	0- 52	23	( )
125	152056	10.90	10.91	0- 42	11	( )
-----						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	522854	11.35	11.32	80-120	100	( )
253	125103	11.35	11.32	0- 52	24	( )
125	59293	11.35	11.32	0- 43	11	( )
-----						
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	242543	13.24	13.21	80-120	100	( )
138	59938	13.24	13.22	0- 60	25	( )
-----						
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	66015	13.24	13.23	80-120	100	( )
139	8056	13.25	13.23	0- 50	12	( )
-----						
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	215393	13.80	13.76	80-120	100	( )
138	53384	13.80	13.76	0- 59	25	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1830.d  
Lab Smp Id: 248249001 Client Smp ID: RE36-10-8285  
Inj Date : 18-MAR-2010 19:26  
Operator : nag1 Inst ID: MSD6.i  
Smp Info : |248249001|960971|4|SVM|1|LANL  
Misc Info : |MSD8270\_S|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 19-Mar-2010 14:59 llo00884 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 30  
Dil Factor: 4.00000  
Integrator: HP RTE Compound Sublist: 10-2140.sub  
Target Version: 3.50  
Processing Host: hpclpl

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

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.10000	weight of sample
M	27.91310	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 91 Chrysene-d12	9.710	8281863	40.000
* 98 Perylene-d12	11.427	2961089	40.000

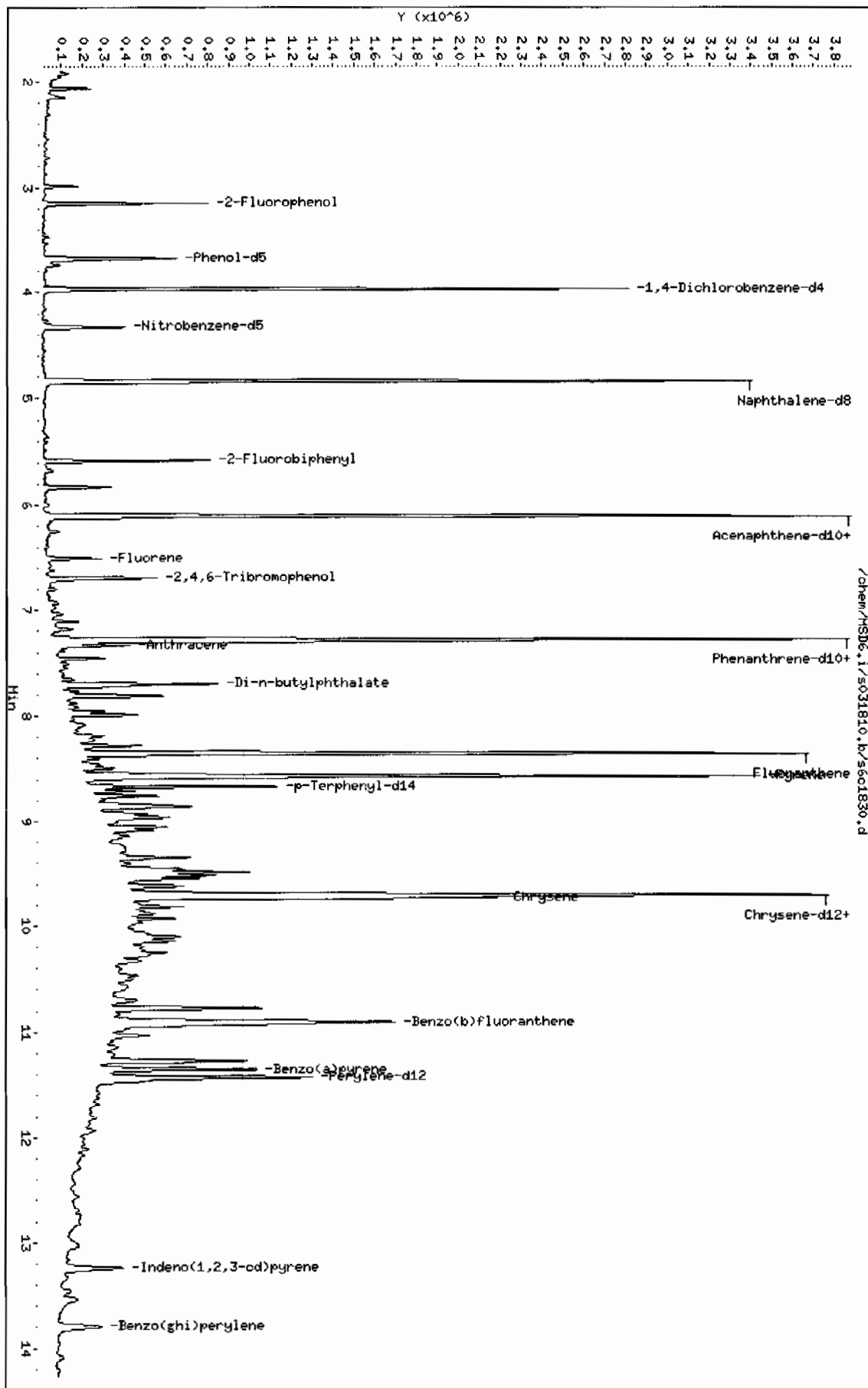
CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Pyrene, 1-methyl-					CAS #: 2381-21-7		
8.757	1073521	5.18492305	956	95	NIST05.L	68688	91

RT	CONCENTRATIONS				QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)			LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====	=====
Fluoranthene, 2-methyl-						CAS #: 33543-31-6		
8.857	2064767	9.97247652	1840	97		NIST05.L	68702	91
Unknown						CAS #:		
8.963	1615204	7.80116293	1440	0			0	91
Unknown						CAS #:		
9.051	1057179	5.10599331	941	0			0	91
Unknown						CAS #:		
9.086	1132876	5.47159968	1010	0			0	91
11H-Benzo[a]fluoren-11-one						CAS #: 479-79-8		
9.345	1479926	7.14779044	1320	97		NIST05.L	78768	91
Benzo[b]naphtho[2,1-d]thiophene						CAS #: 239-35-0		
9.457	1448454	6.99578826	1290	92		NIST05.L	81181	91
Unknown						CAS #:		
9.486	1721719	8.31560974	1530	0			0	91
Unknown						CAS #:		
9.516	1306648	6.31088731	1160	0			0	91
Unknown						CAS #:		
9.545	1805809	8.72175040	1610	0			0	91
Unknown						CAS #:		
9.622	1697974	8.20092846	1510	0			0	91
Unknown						CAS #:		
9.816	1868012	9.02218200	1660	0			0	91
Unknown						CAS #:		
9.933	1269954	6.13366470	1130	0			0	91
Benz[a]anthracene, 1-methyl-						CAS #: 2498-77-3		
10.110	1738730	8.39777225	1550	96		NIST05.L	86917	91
Chrysene, 2-methyl-						CAS #: 3351-32-4		
10.145	1480732	7.15168301	1320	91		NIST05.L	86904	91
Unknown						CAS #:		
10.257	1272868	6.14773832	1130	0			0	91

RT	AREA	CONCENTRATIONS		QUAL	QUANT		CPND #
		ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
Unknown					CAS #:		
10.333	1491412	7.20326870	1330	0		0	91
5,12-Naphthacenedione					CAS #: 1090-13-7		
10.469	1269236	6.13019629	1130	90	NIST05.L	97584	91
Unknown					CAS #:		
10.569	2092841	10.1080675	1860	0		0	91
Unknown					CAS #:		
10.704	1748316	23.6171974	4350	0		0	98
Unknown					CAS #:		
10.775	2302620	31.1050441	5730	0		0	98
Perylene					CAS #: 198-55-0		
11.269	2275563	30.7395360	5670	99	NIST05.L	93574	98

Data File: /chem/HSD6.i/s031810.b/s601830.d  
 Date: 18-MAR-2010 19:26  
 Client ID: RE36-10-8285  
 Sample Info: 1248249001/96097141SVH11.LANL  
 Volume Injected (uL): 0.5  
 Column phase: 3uM DB-5MS

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





Date : 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 12482490011960971141SVH111LANL

Volume Injected (uL): 0.5

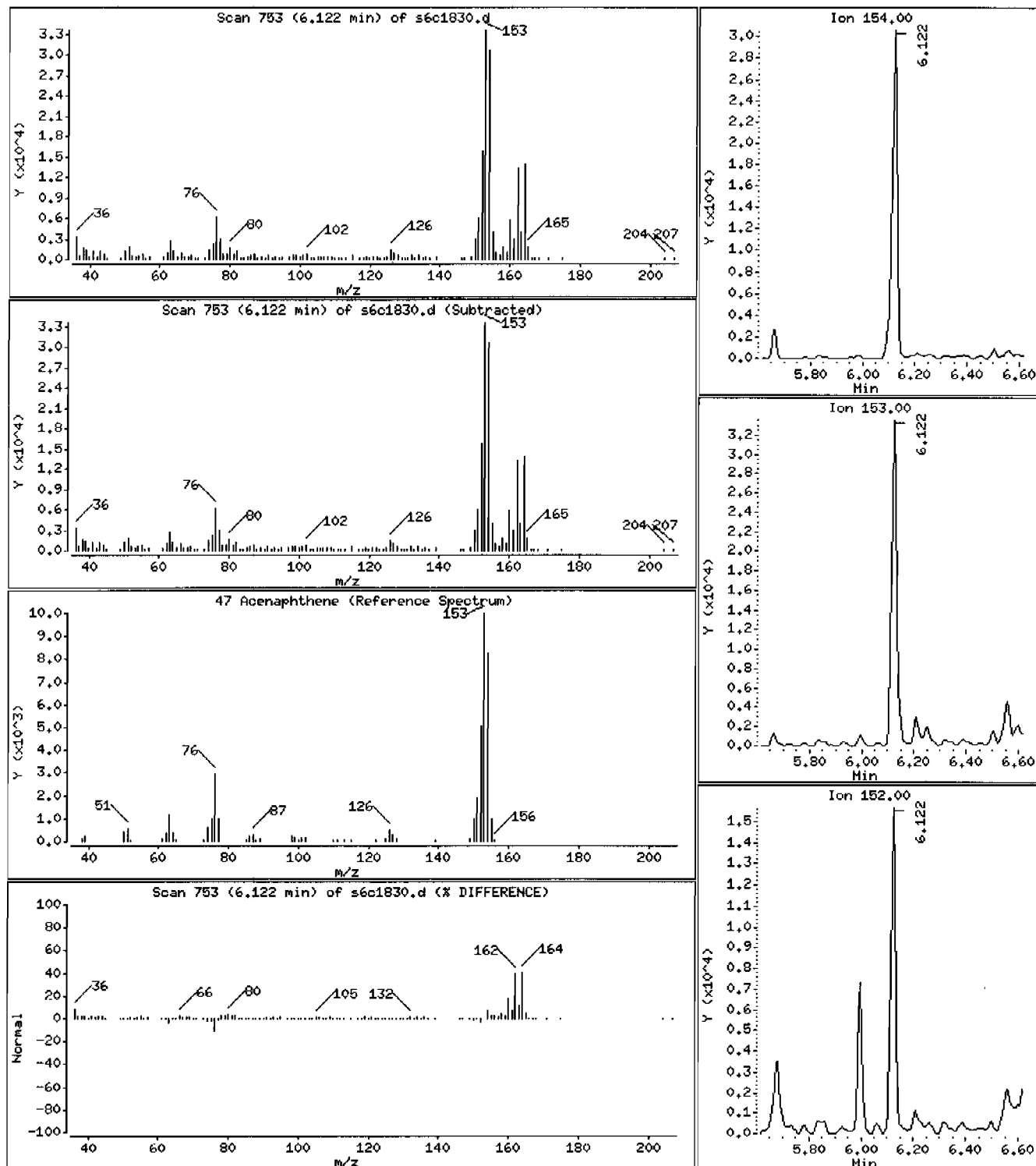
Operator: nag1

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

Column diameter: 0.20

47 Acenaphthene

Concentration: 244 ug/Kg



Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 12482490011960971141SVH111LANL

Volume Injected (uL): 0.5

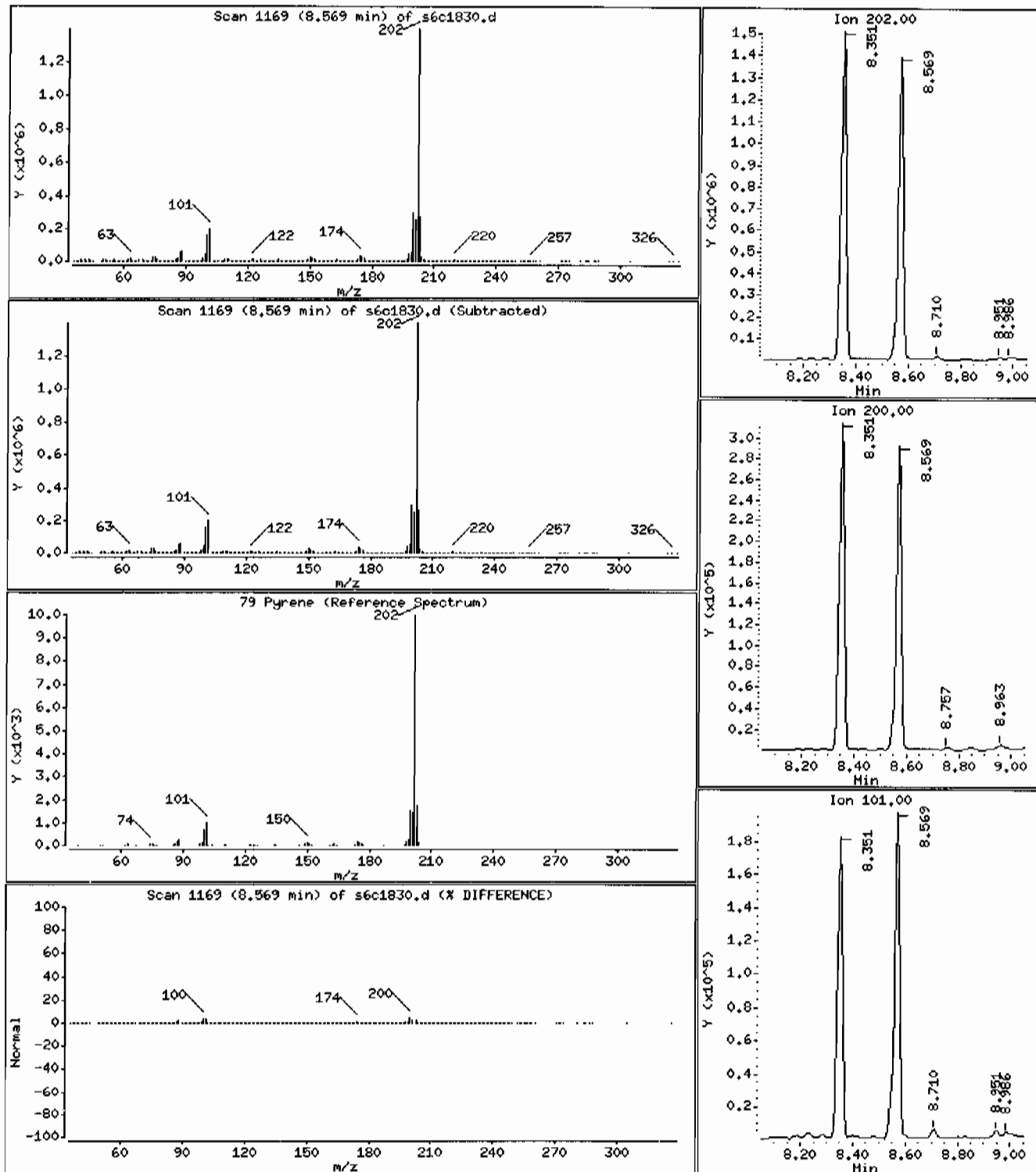
Operator: nag1

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

Column diameter: 0.20

79 Pyrene

Concentration: 9020 ug/Kg



Data File: /chem/MSD6.i/s031810.b/s6c1830.d

Page 4

Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 1248249001196097114ISVM11ILANL

Volume Injected (uL): 0.5

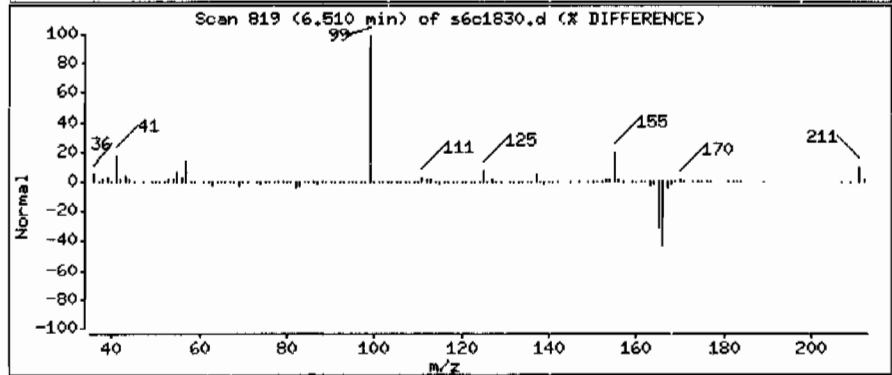
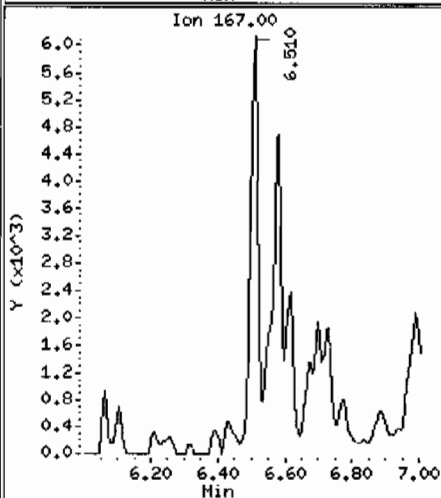
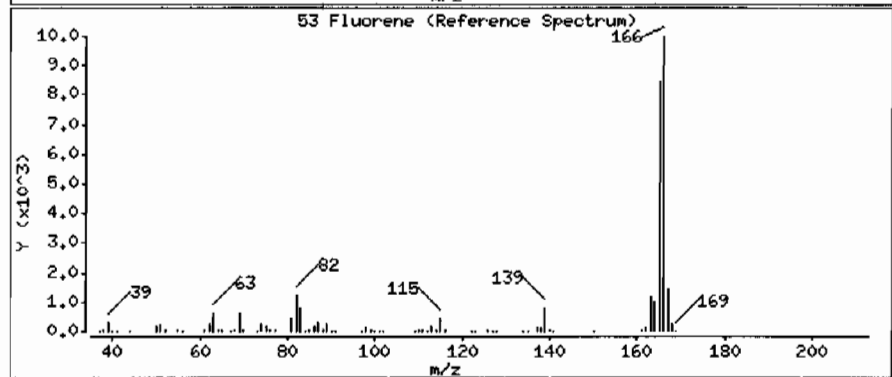
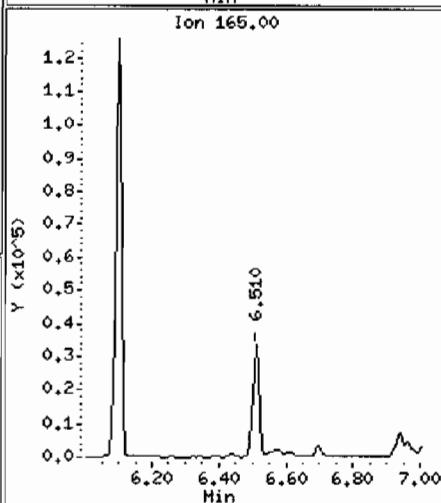
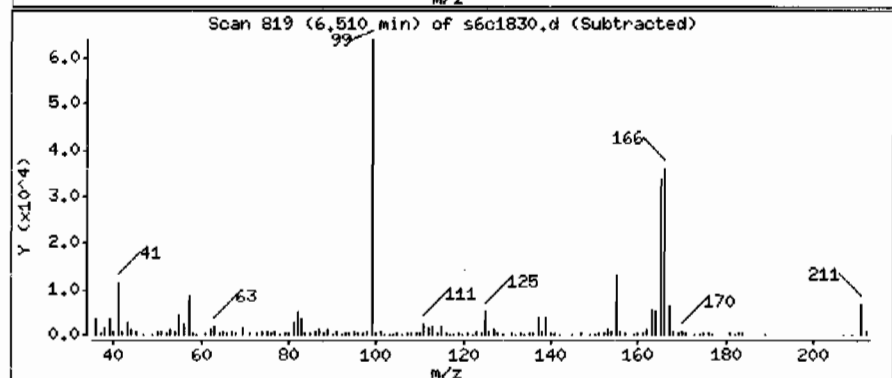
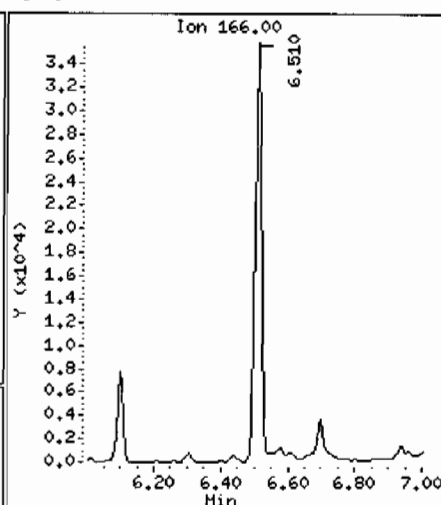
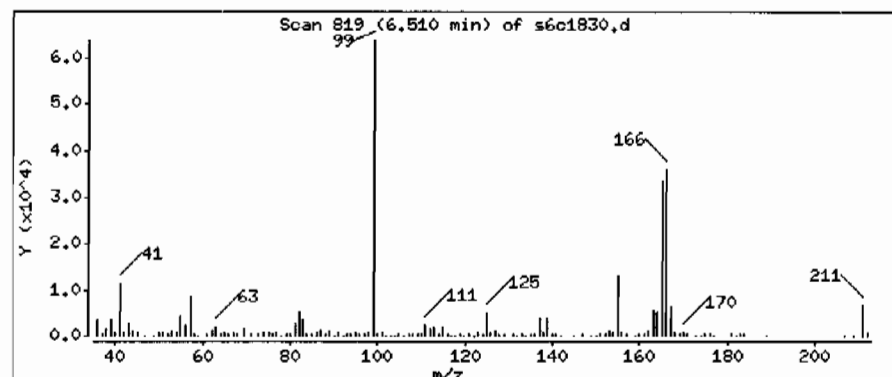
Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

53 Fluorene

Concentration: 253 ug/Kg



Date : 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 1248249001960971141SVH111LANL

Volume Injected (uL): 0.5

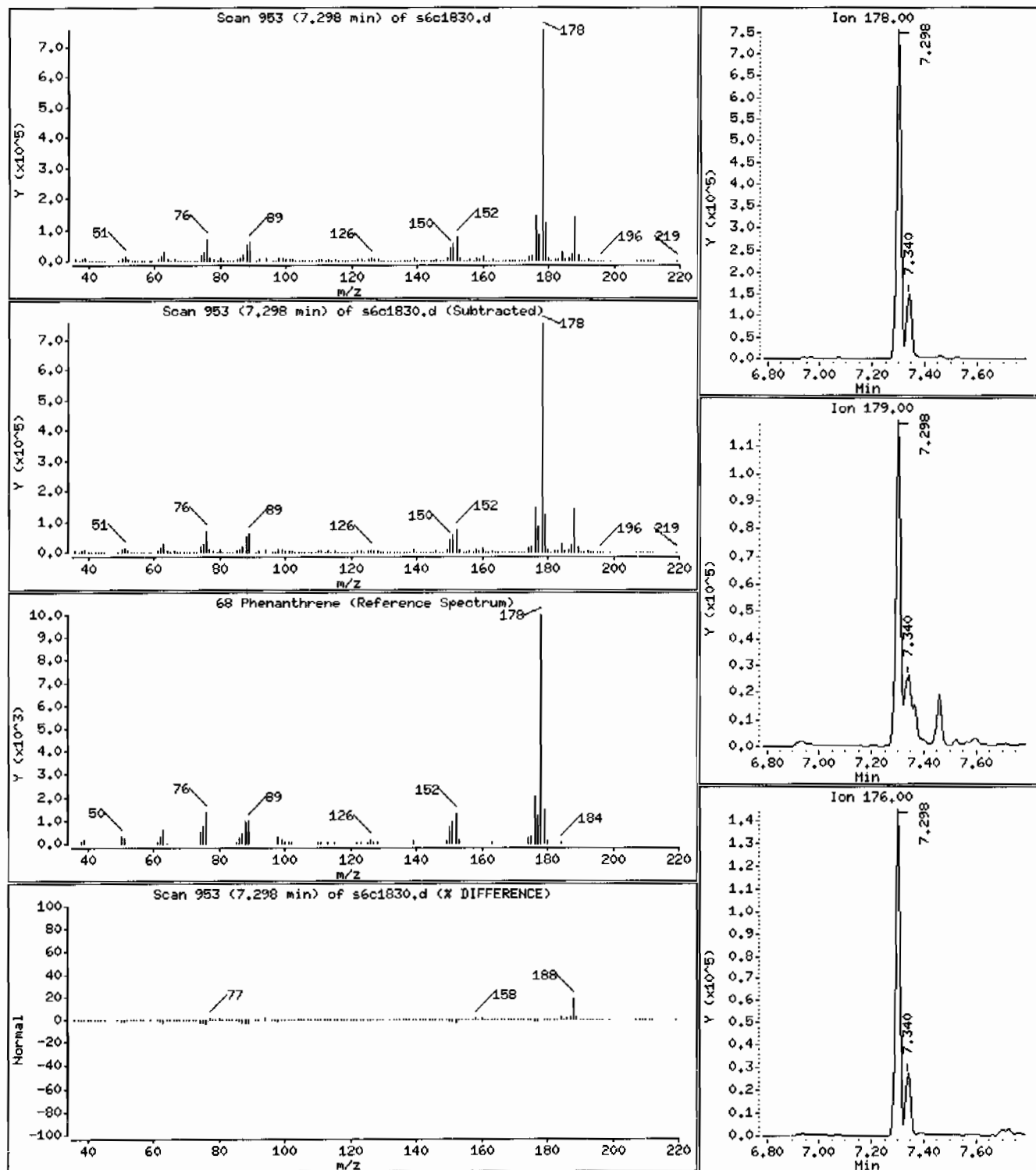
Operator: nag1

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

Column diameter: 0.20

68 Phenanthrene

Concentration: 3590 ug/Kg



Date : 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 1248249001196097114ISVM11ILANL

Volume Injected (uL): 0.5

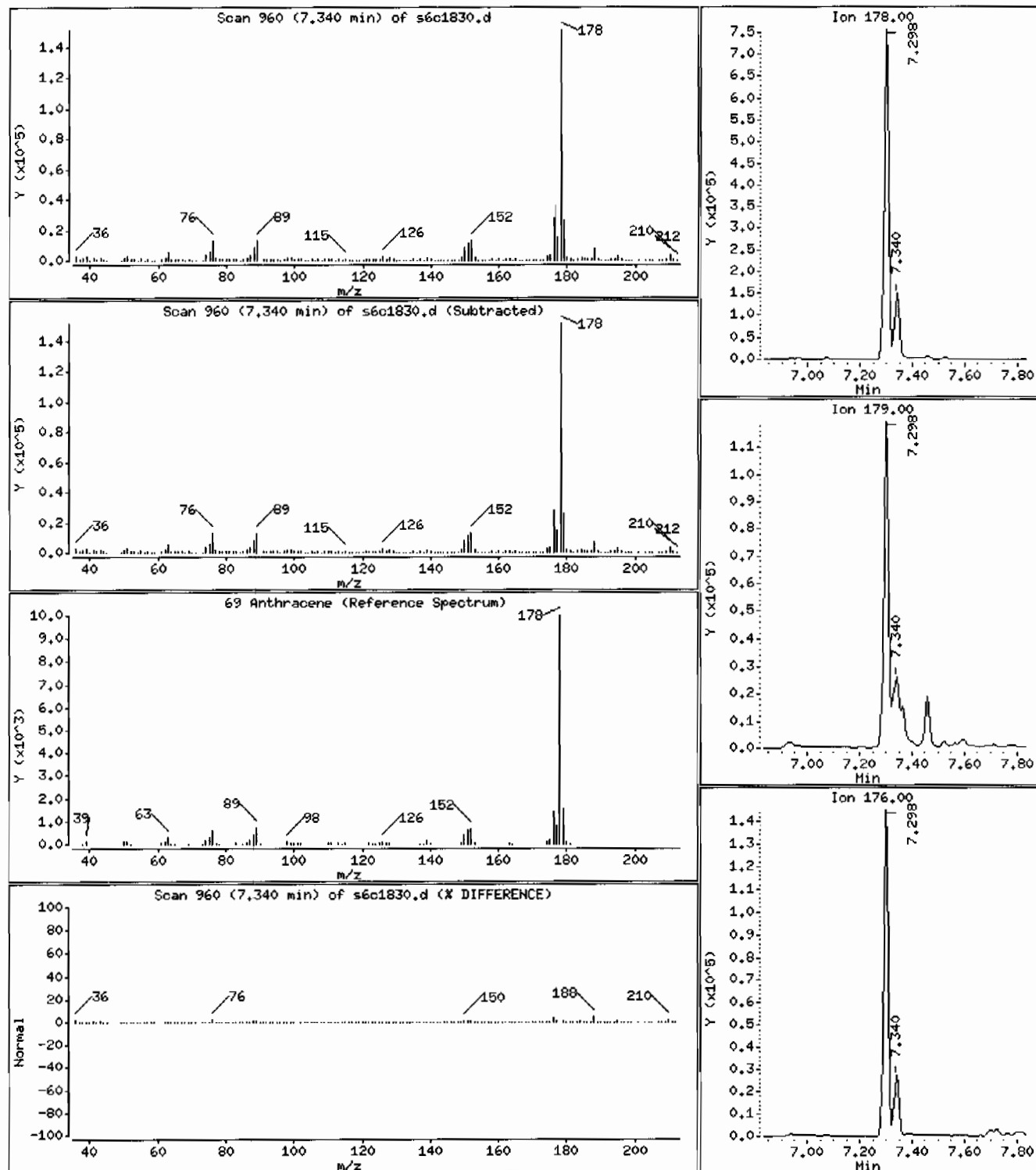
Operator: nag1

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

Column diameter: 0.20

69 Anthracene

Concentration: 787 ug/Kg



Date: 18-MAR-2010 19:26

Client ID: RE36-10-B285

Instrument: MSD6.i

Sample Info: 12482490011960971141SVH111LANL

Volume Injected (uL): 0.5

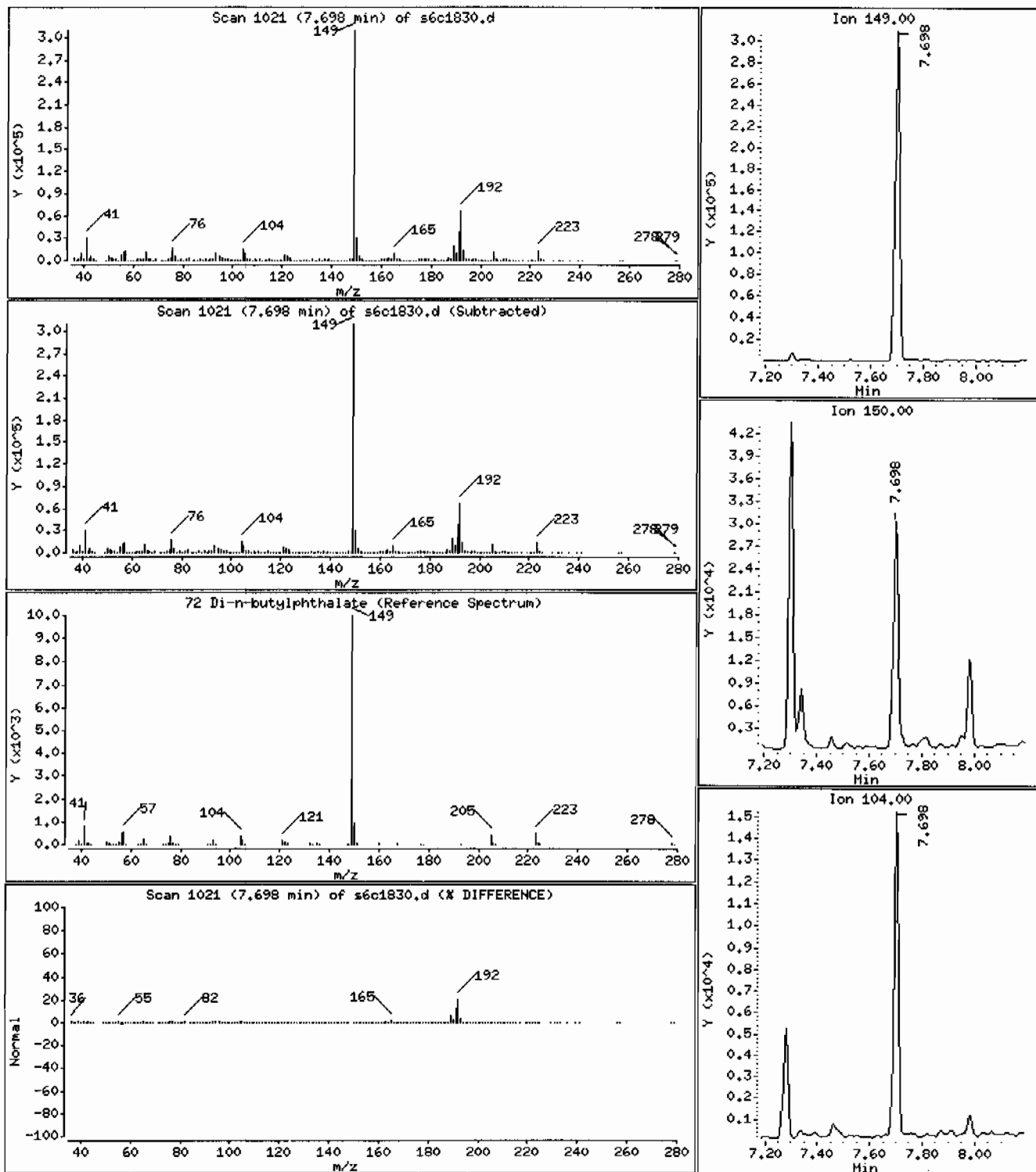
Operator: nag1

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

Column diameter: 0.20

72 Di-n-butylphthalate

Concentration: 1240 ug/Kg



Data File: /chem/MSD6.i/s031810.b/s6c1830.d

Page 8

Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 1248249001960971141SVH111LANL

Volume Injected (uL): 0.5

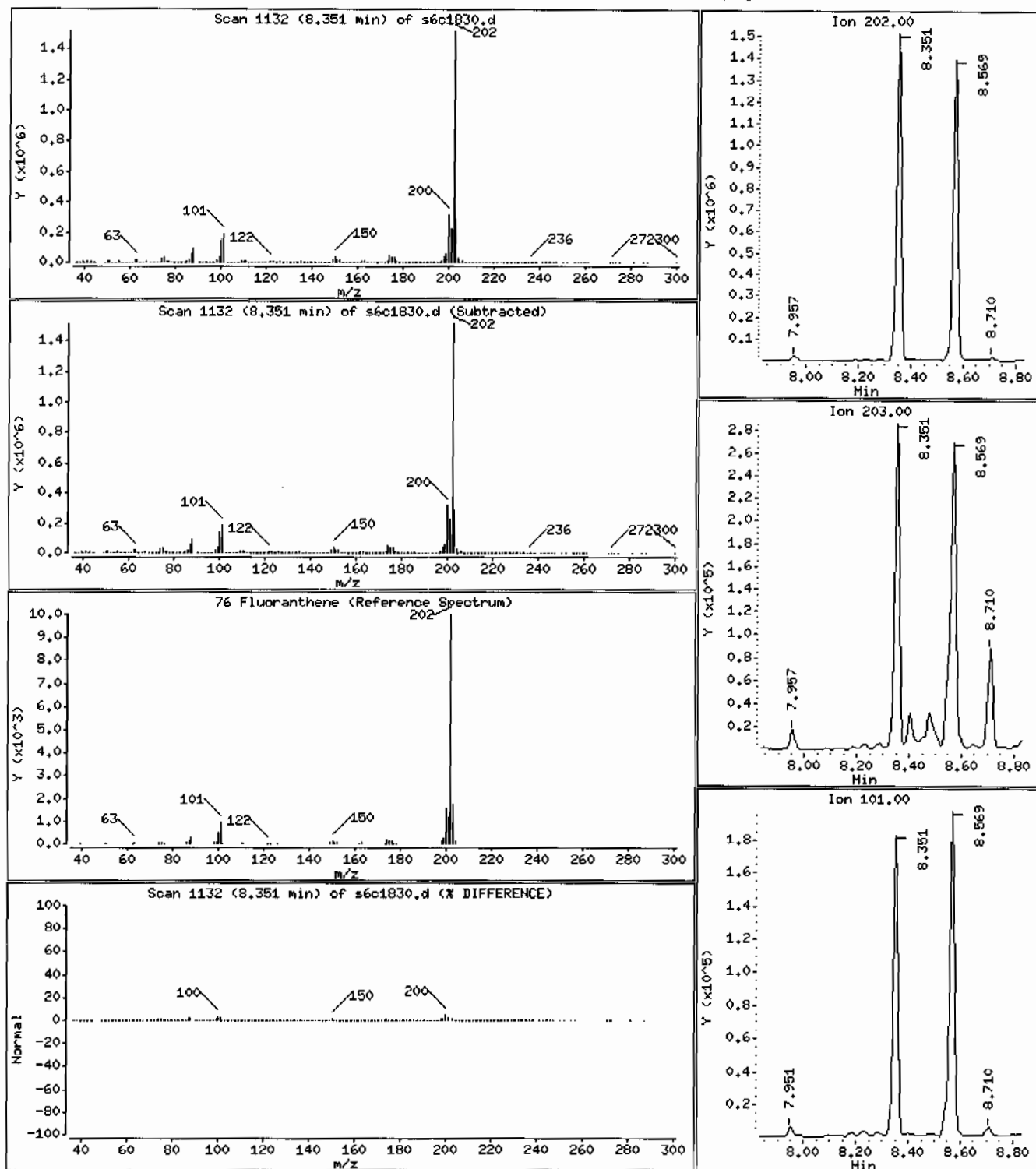
Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 7630 ug/Kg



Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 1248249001960971141SVH111LANL

Volume Injected (uL): 0.5

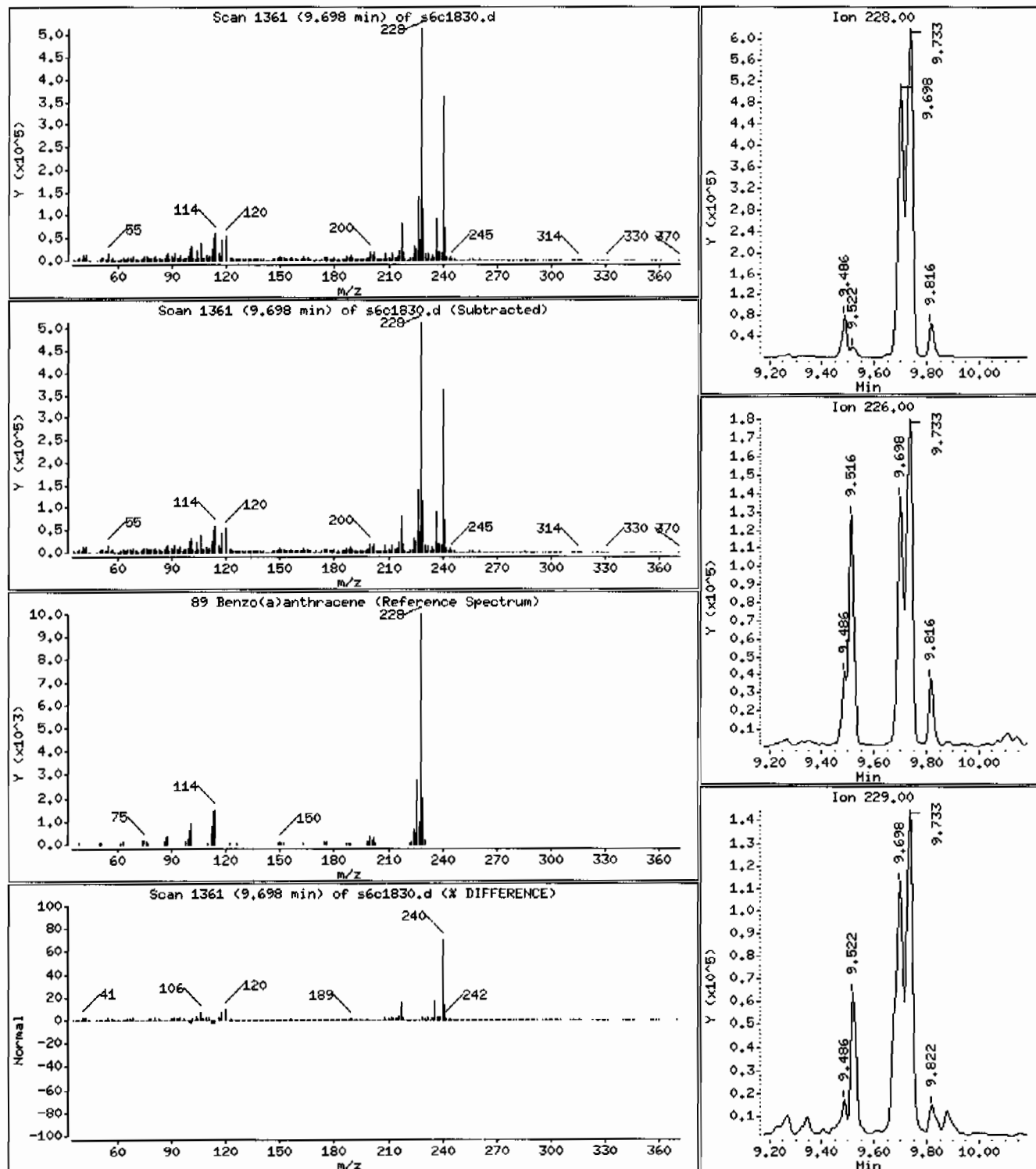
Operator: nag1

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

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 4680 ug/Kg





Date : 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 12482490011960971141SVH11ILANL

Volume Injected (uL): 0.5

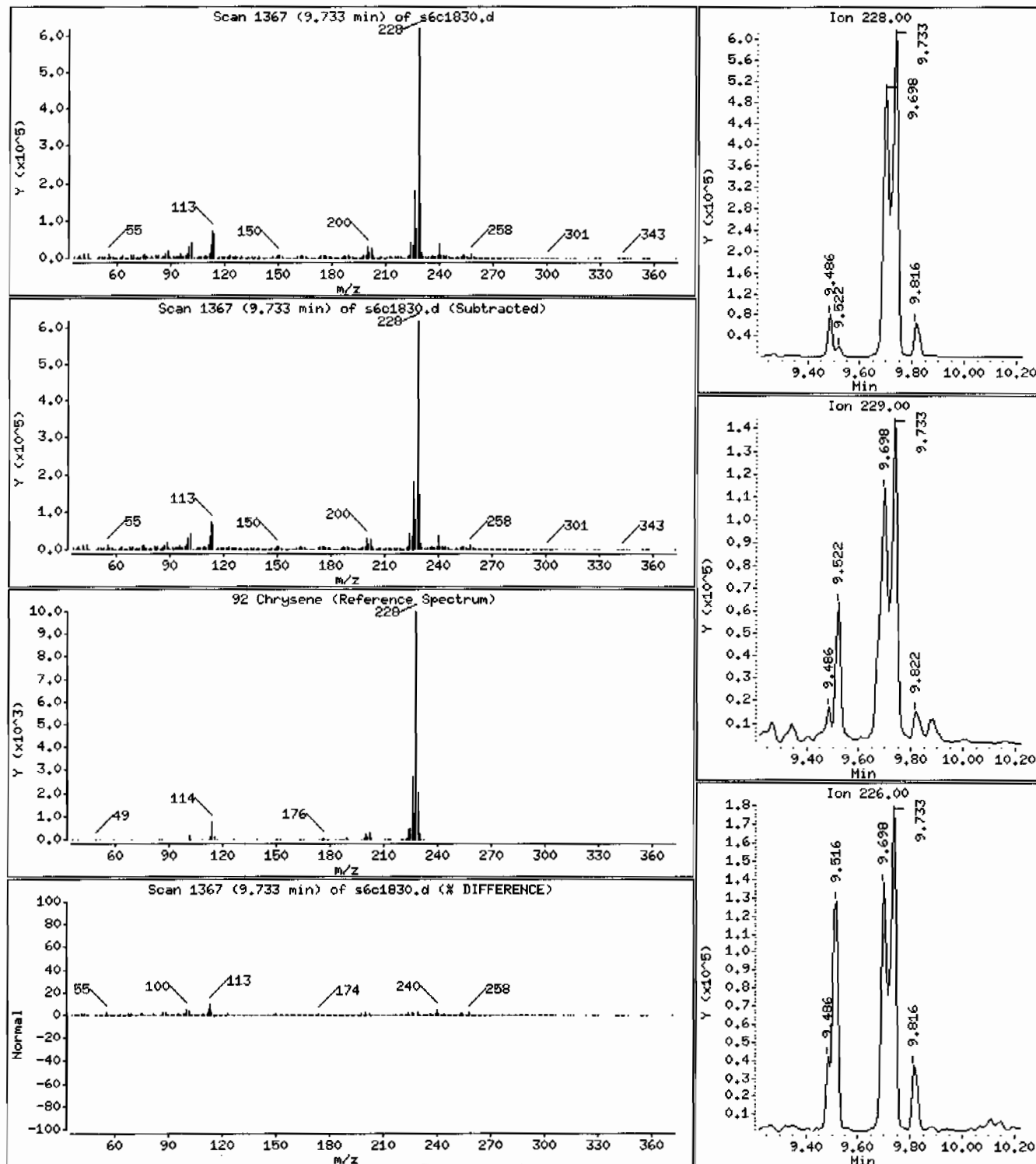
Operator: nag1

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

Column diameter: 0.20

92 Chrysene

Concentration: 5700 ug/Kg



Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 12482490011960971141SVH111LANL

Volume Injected (uL): 0.5

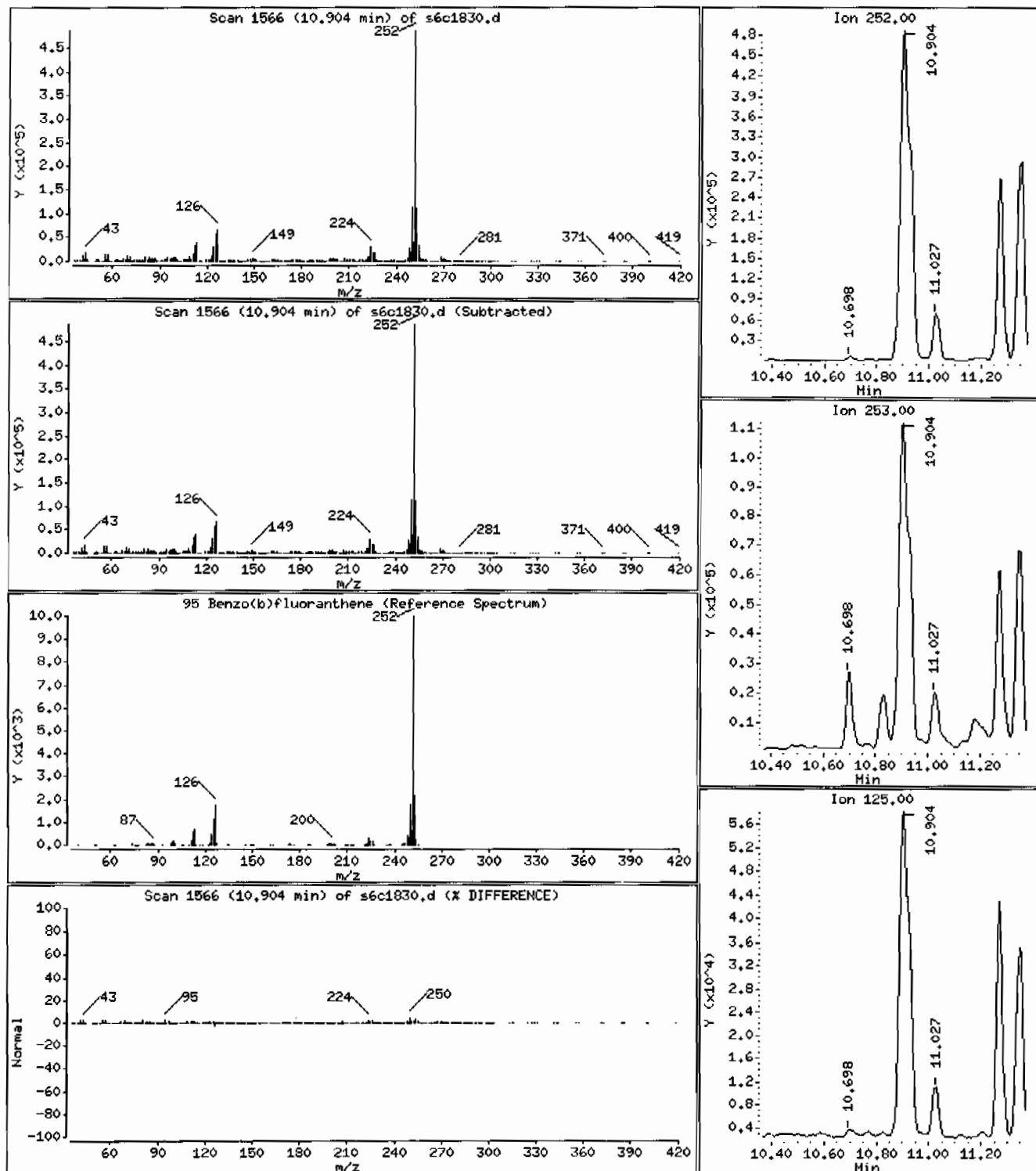
Operator: nag1

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

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 13000 ug/Kg



Date : 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 1248249001/960971141/SVH11/LANL

Volume Injected (uL): 0.5

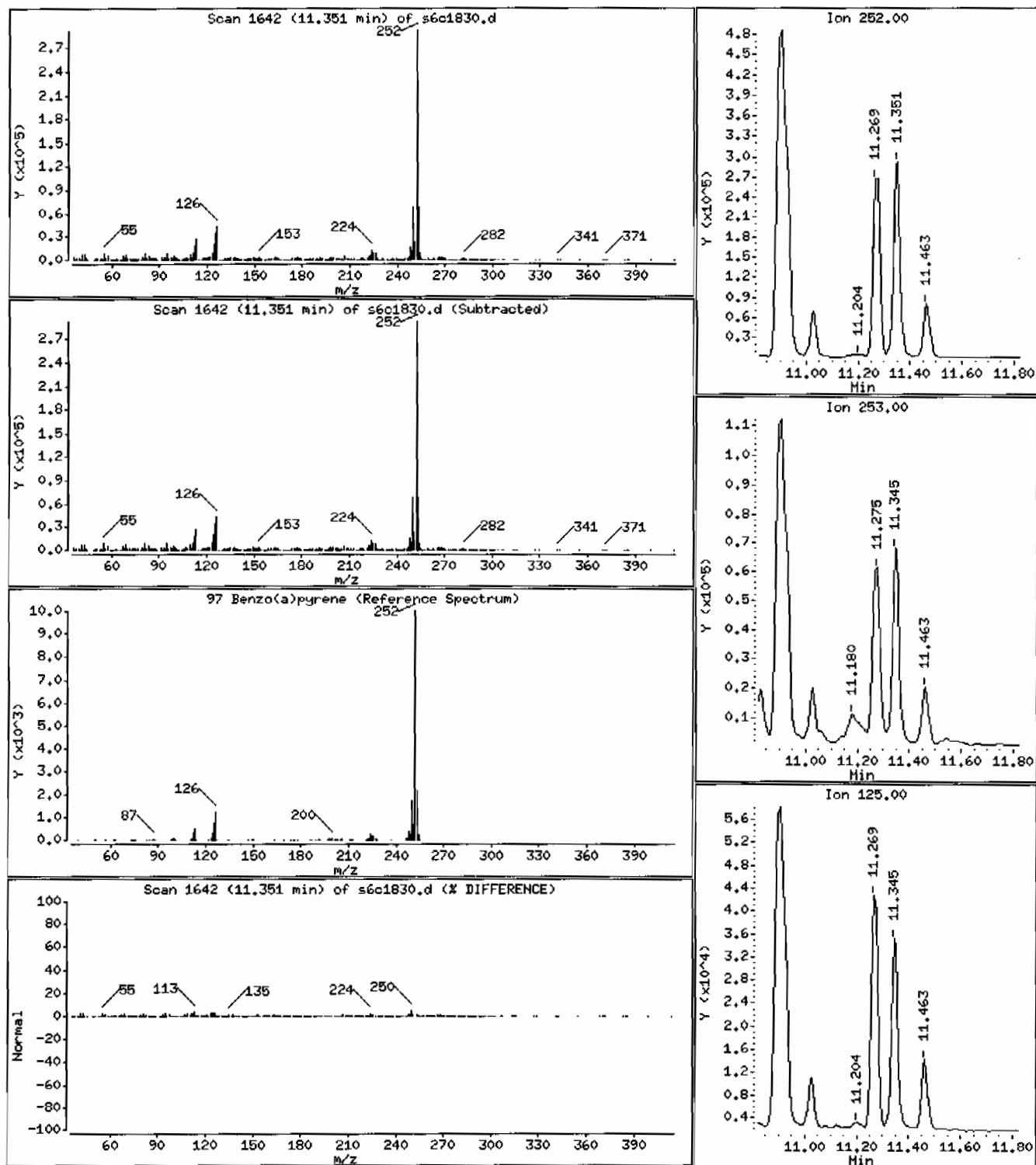
Operator: nag1

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

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 5940 ug/Kg



Date : 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 1248249001196097114ISVH11ILANL

Volume Injected (uL): 0.5

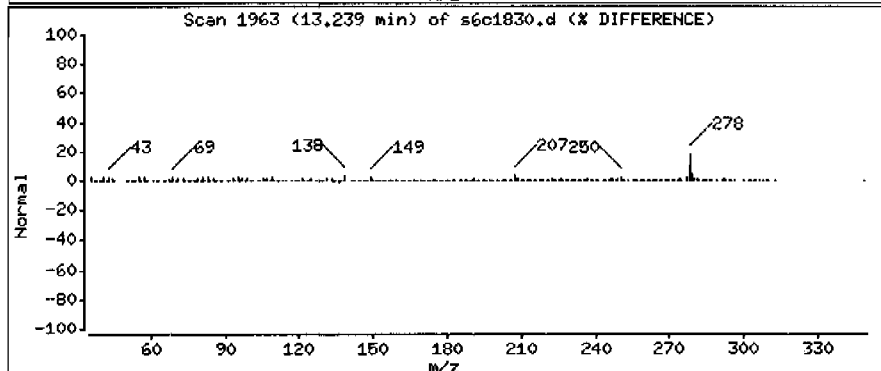
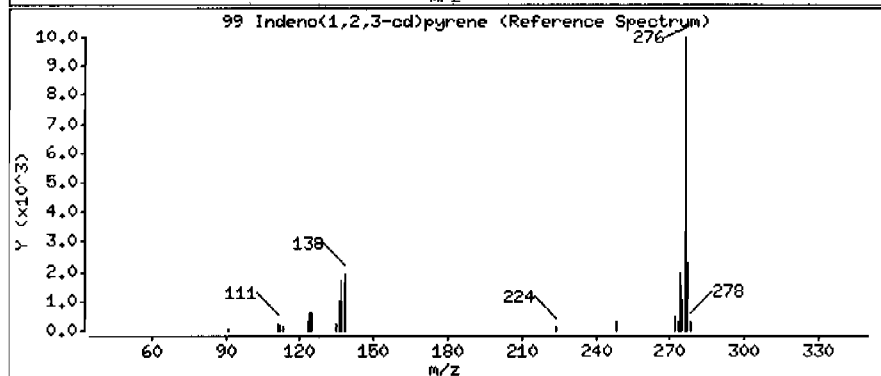
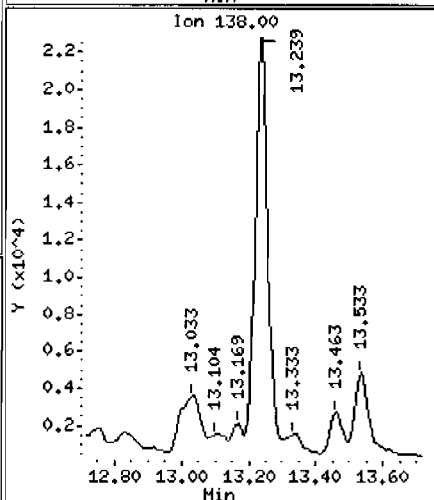
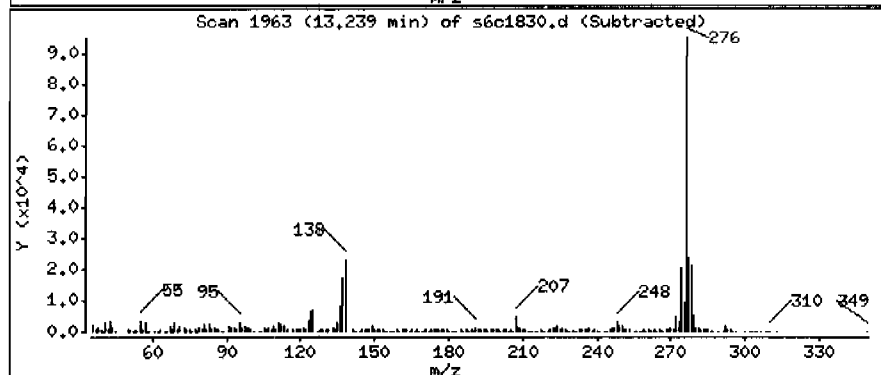
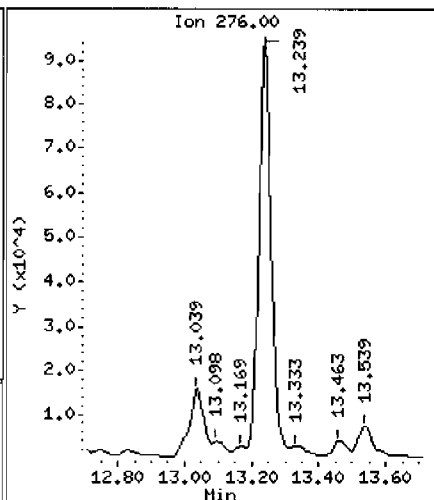
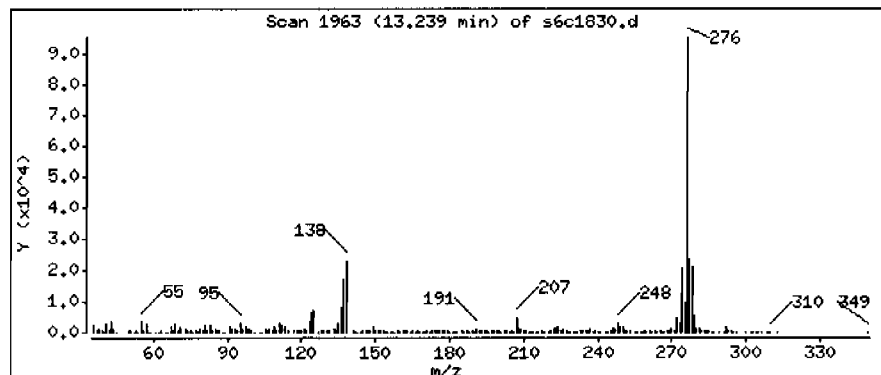
Operator: nag1

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

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 3000 ug/Kg



Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 12482490011960971141SVH111LANL

Volume Injected (uL): 0.5

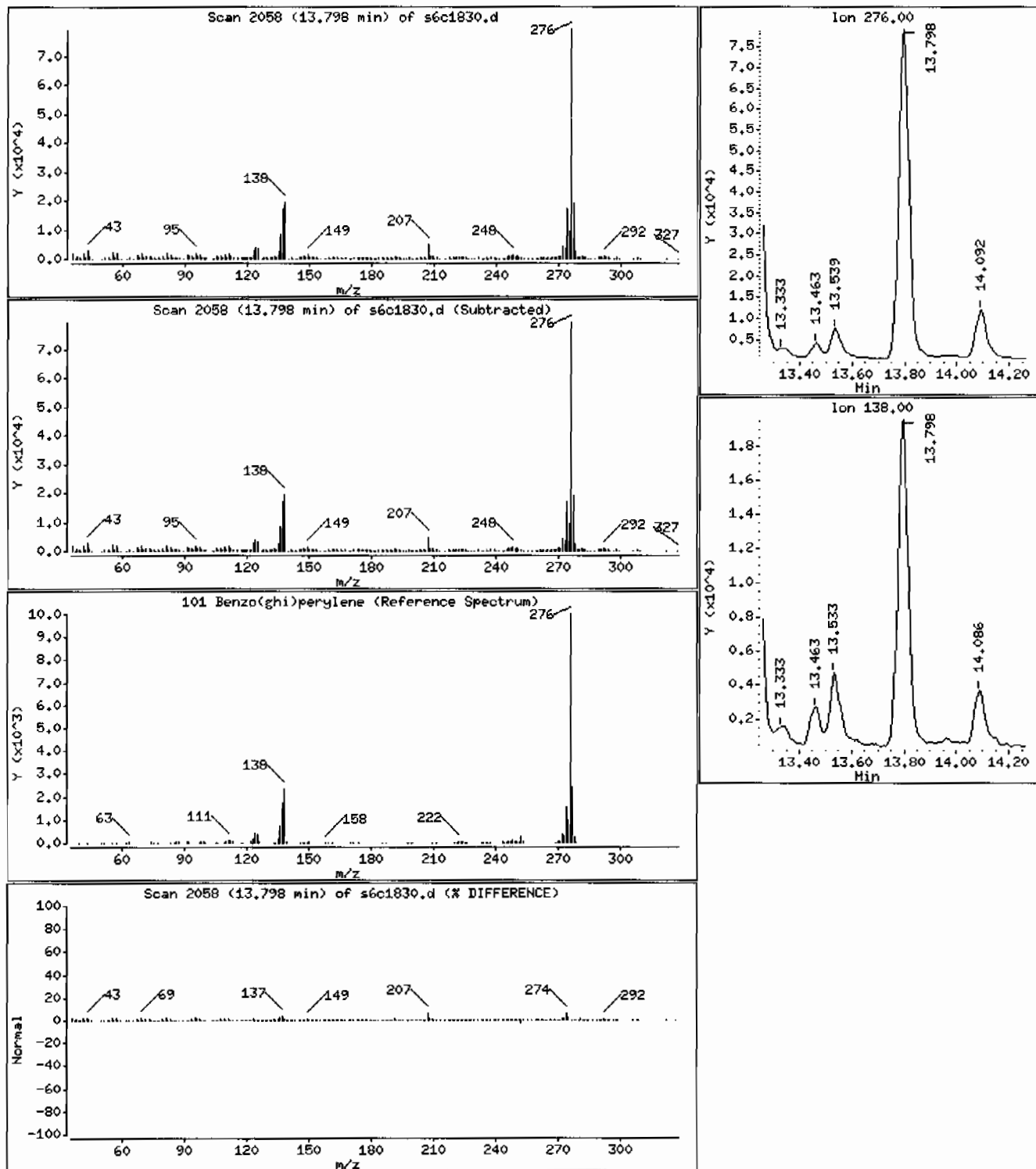
Operator: nag1

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

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 3120 ug/Kg



Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 1248249001960971141SVH111LANL

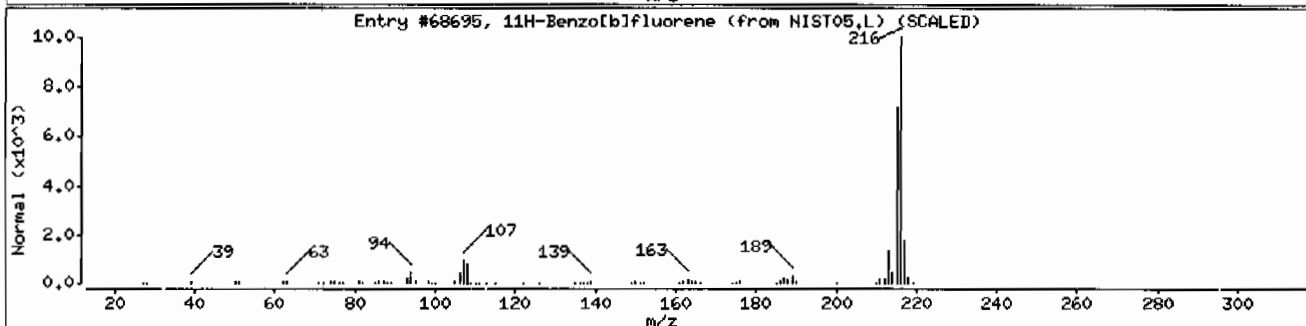
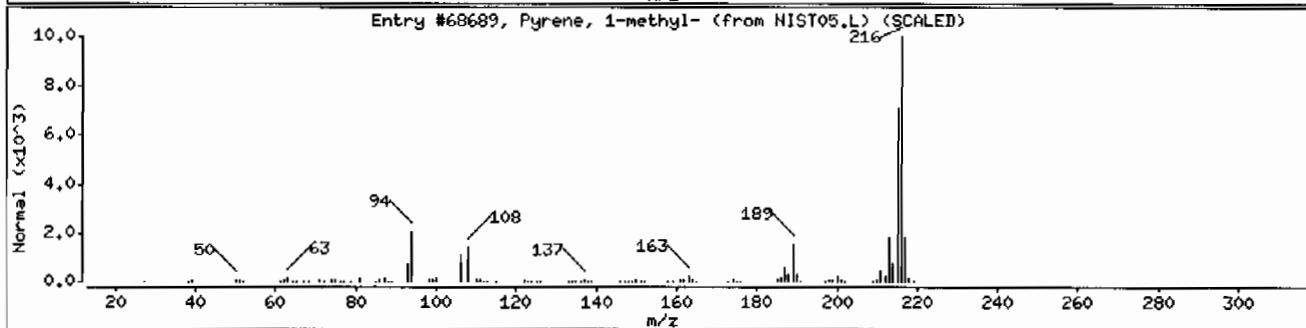
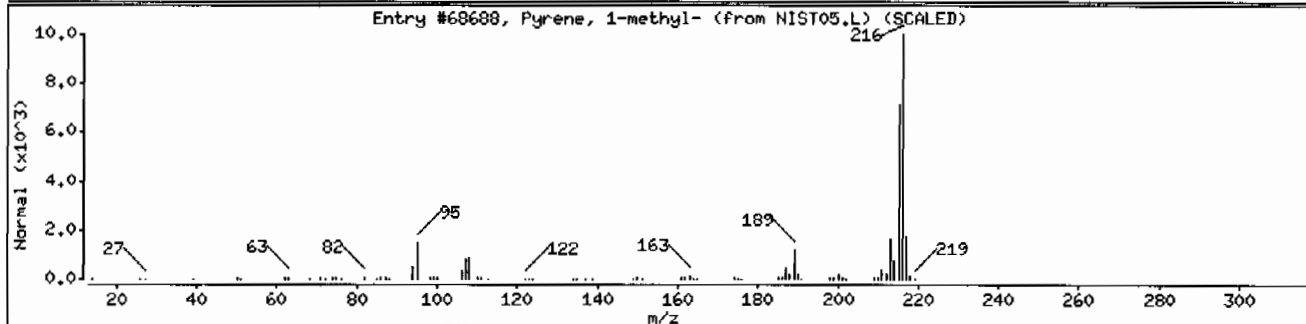
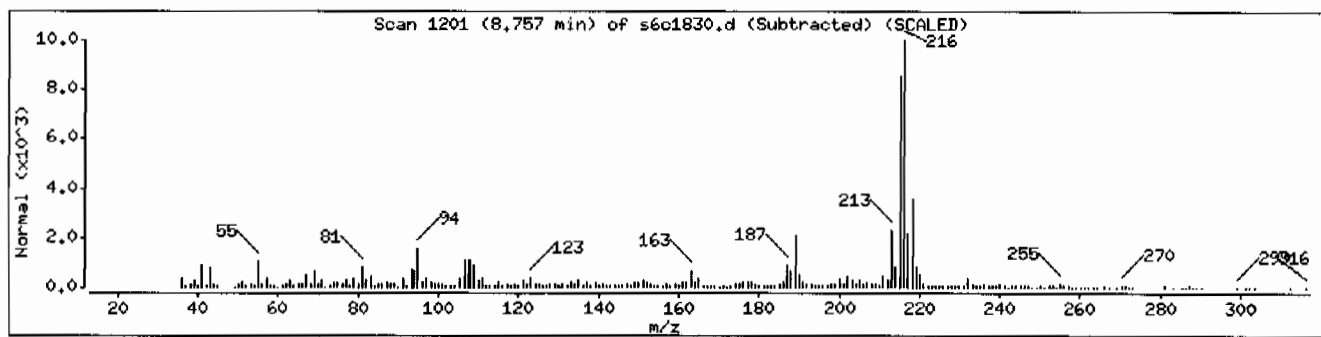
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68688	95	C17H12	216
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68689	94	C17H12	216
11H-Benzo[b]fluorene	243-17-4	NIST05.L	68695	90	C17H12	216



Date : 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 12482490011960971141SVH111LANL

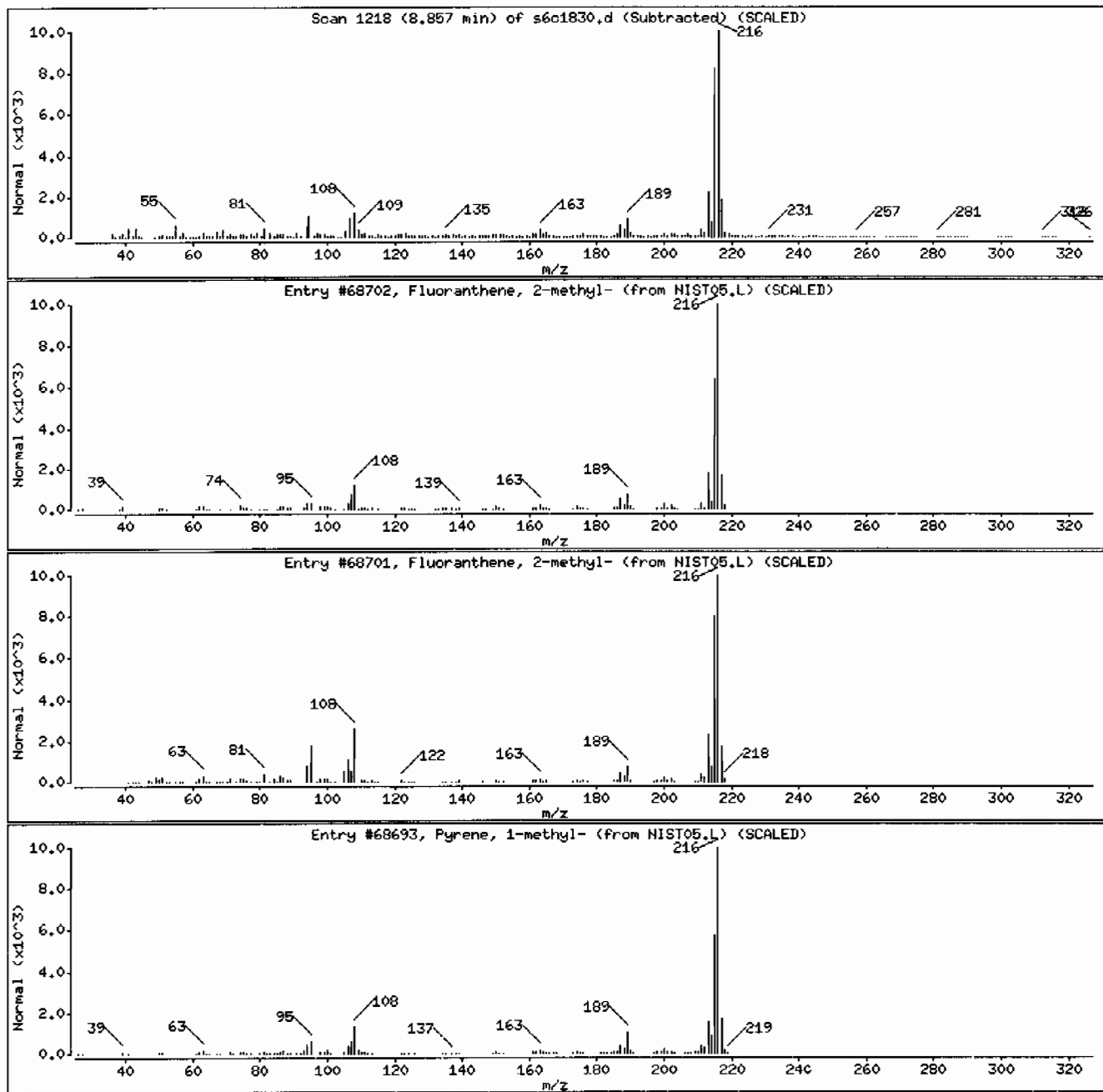
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Fluoranthene, 2-methyl-	33543-31-6	NIST05.L	68702	97	C17H12	216
Fluoranthene, 2-methyl-	33543-31-6	NIST05.L	68701	95	C17H12	216
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68693	94	C17H12	216



Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 12482490011960971141SVH111LANL

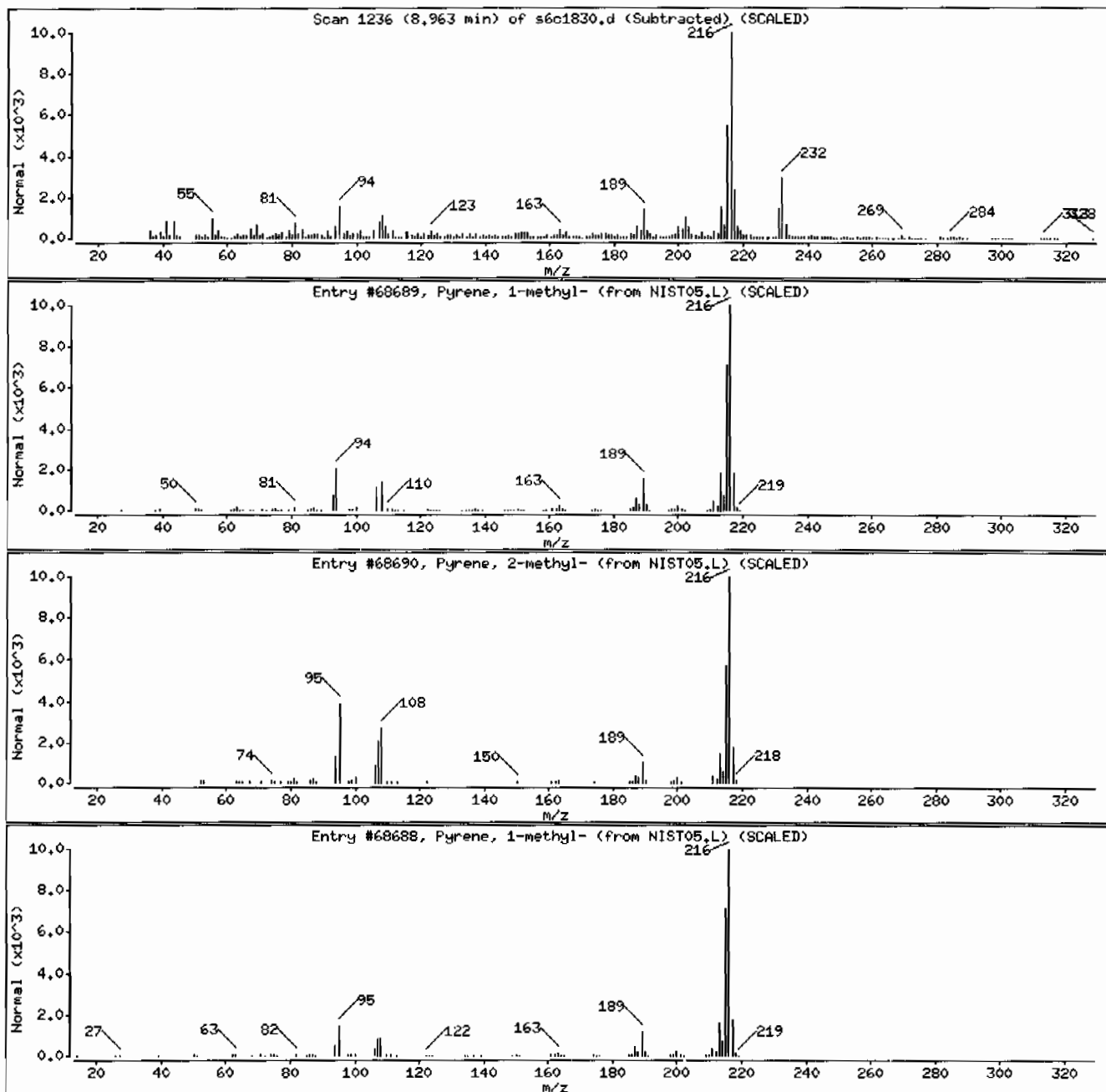
Volume Injected (uL): 0.5

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						
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68689	95	C17H12	216
Pyrene, 2-methyl-	3442-78-2	NIST05.L	68690	93	C17H12	216
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68688	78	C17H12	216





Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 12482490011960971141SVMI11LANL

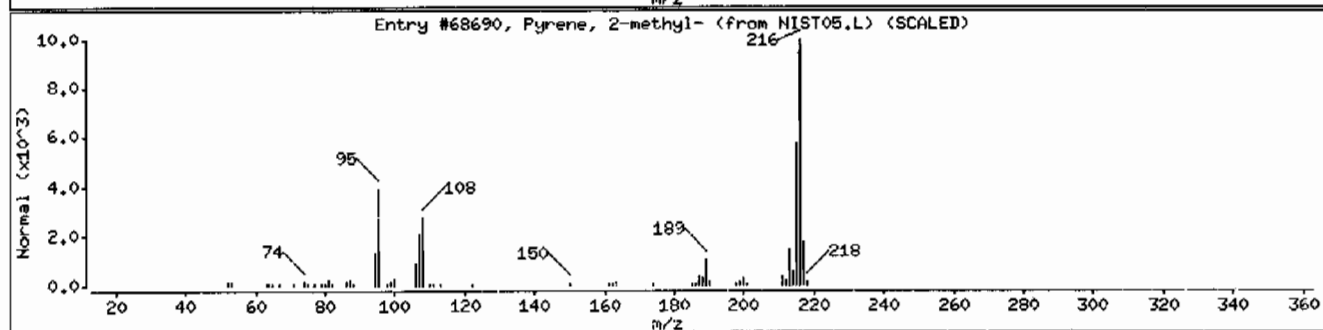
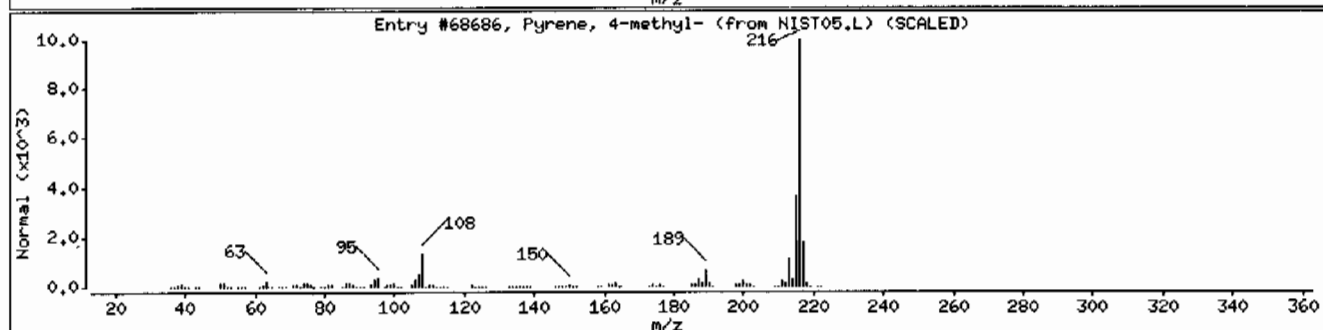
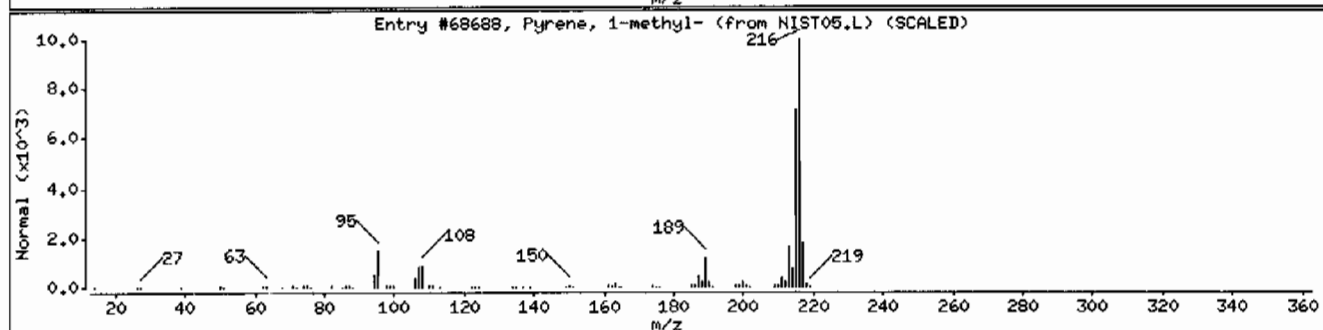
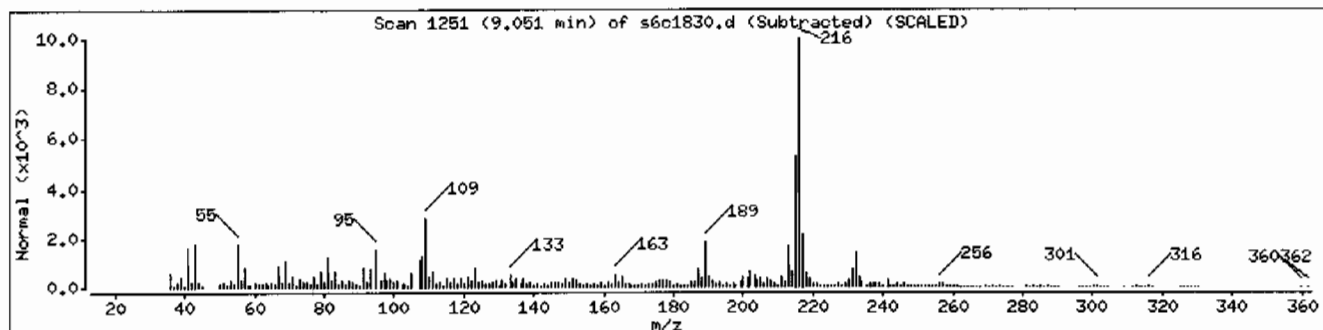
Volume Injected (uL): 0.5

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						
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68688	94	C17H12	216
Pyrene, 4-methyl-	3353-12-6	NIST05.L	68686	93	C17H12	216
Pyrene, 2-methyl-	3442-78-2	NIST05.L	68690	90	C17H12	216



Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 1248249001960971141SVH111LANL

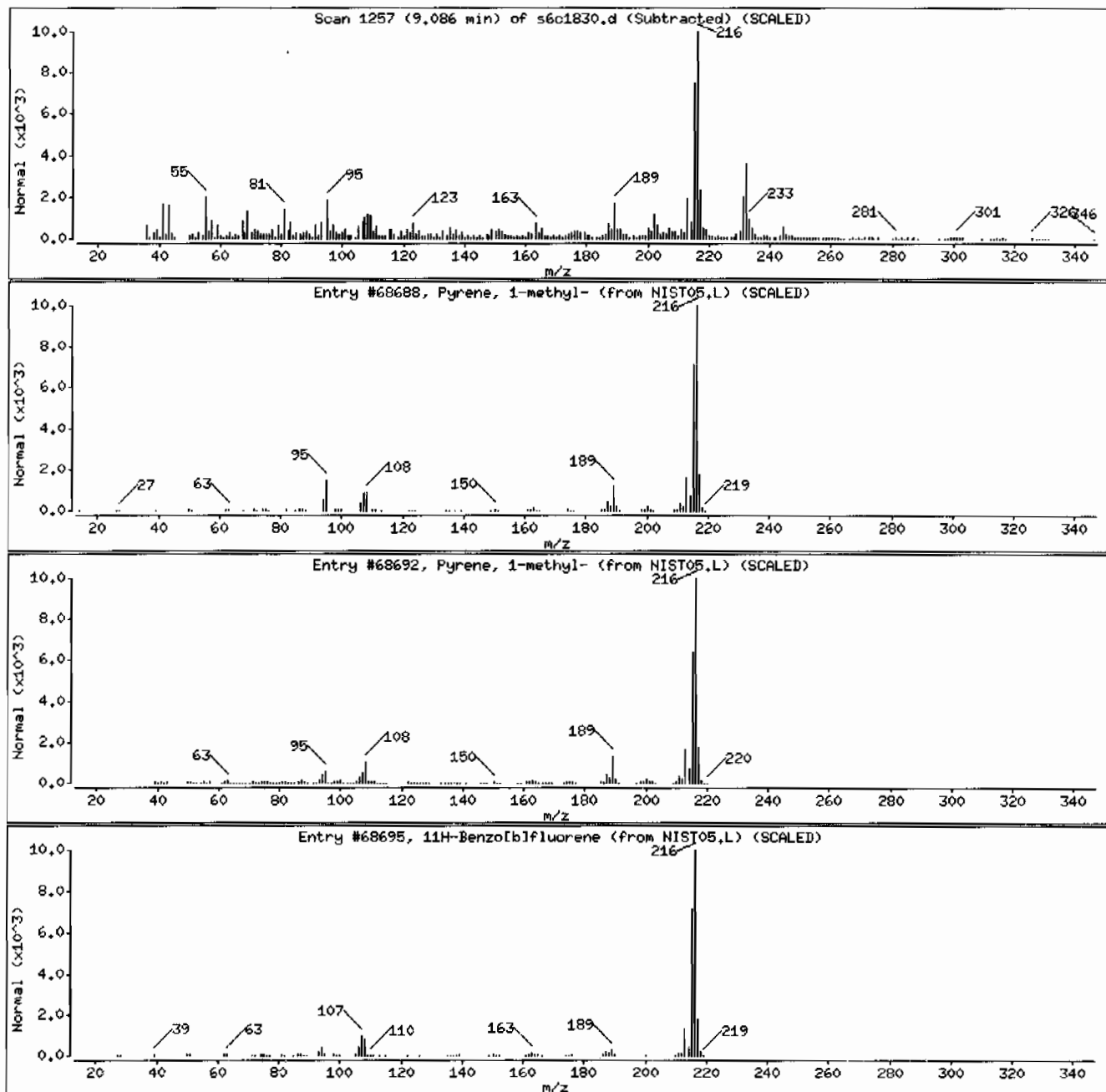
Volume Injected (uL): 0.5

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						
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68688	96	C17H12	216
Pyrene, 1-methyl-	2381-21-7	NIST05.L	68692	91	C17H12	216
11H-Benzo[b]fluorene	243-17-4	NIST05.L	68695	89	C17H12	216



Date : 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: I248249001196097114ISVH111LANL

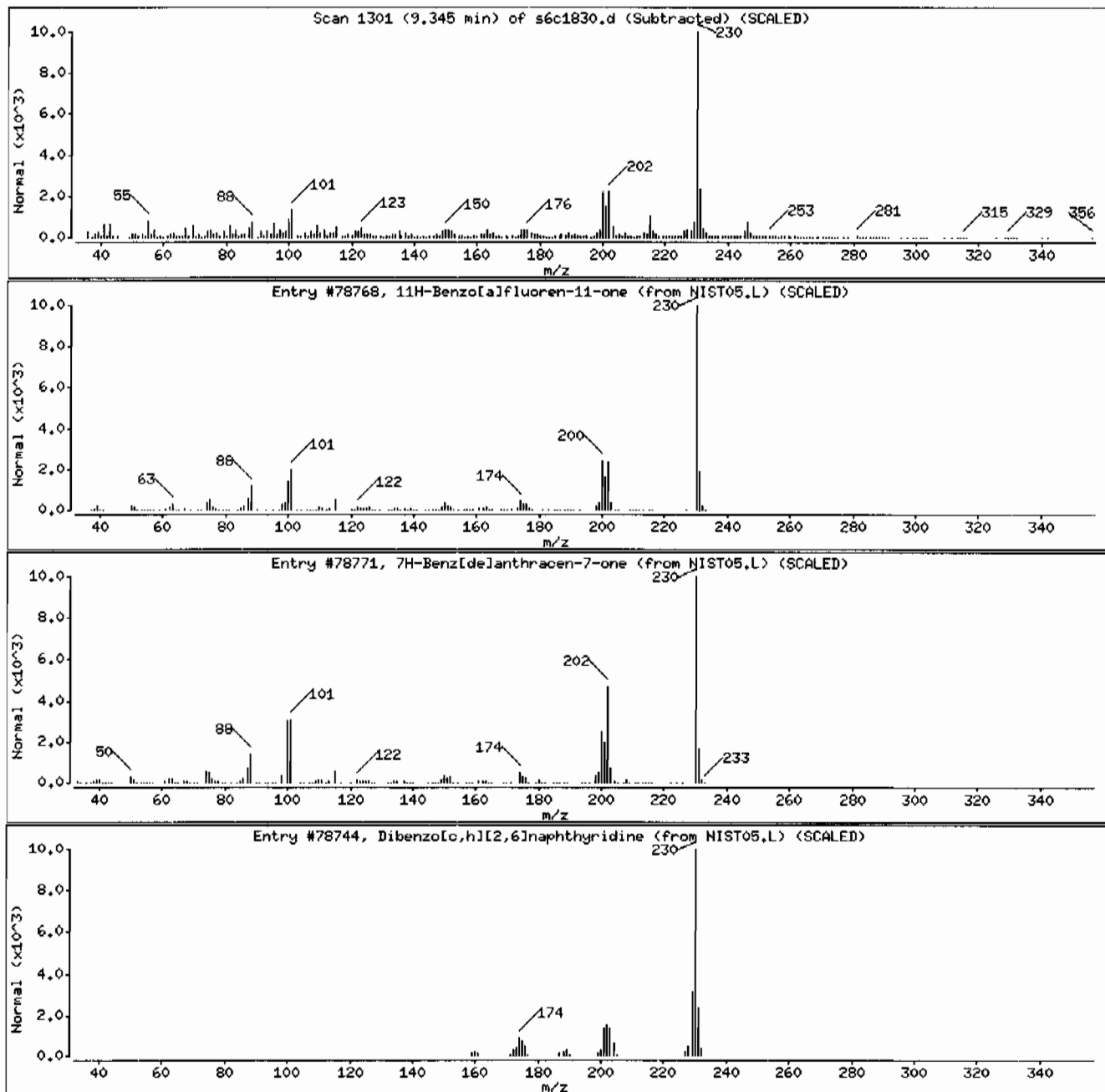
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11H-Benzo[a]fluoren-11-one	479-79-8	NIST05.L	78768	97	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78771	81	C17H10O	230
Dibenzo[c,h]I[2,6]naphthyridine	218-30-4	NIST05.L	78744	72	C16H10N2	230



Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 12482490011960971141SVMI11LANL

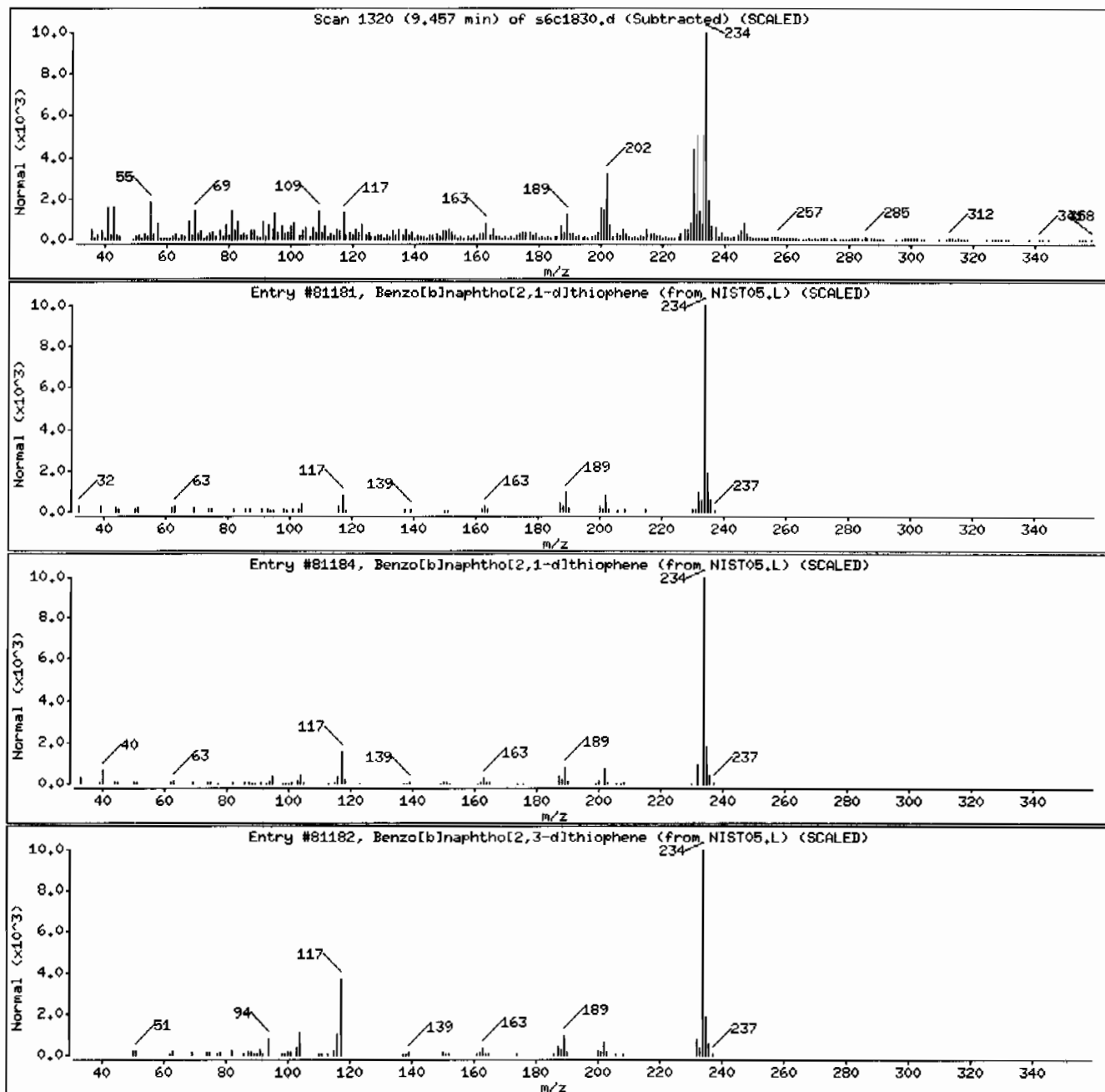
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[b]naphtho[2,1-d]thiophene	239-35-0	NIST05.L	81181	92	C16H10S	234
Benzo[b]naphtho[2,1-d]thiophene	239-35-0	NIST05.L	81184	90	C16H10S	234
Benzo[b]naphtho[2,3-d]thiophene	243-46-9	NIST05.L	81182	64	C16H10S	234



Date : 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 12482490011960971141SVMI11LANL

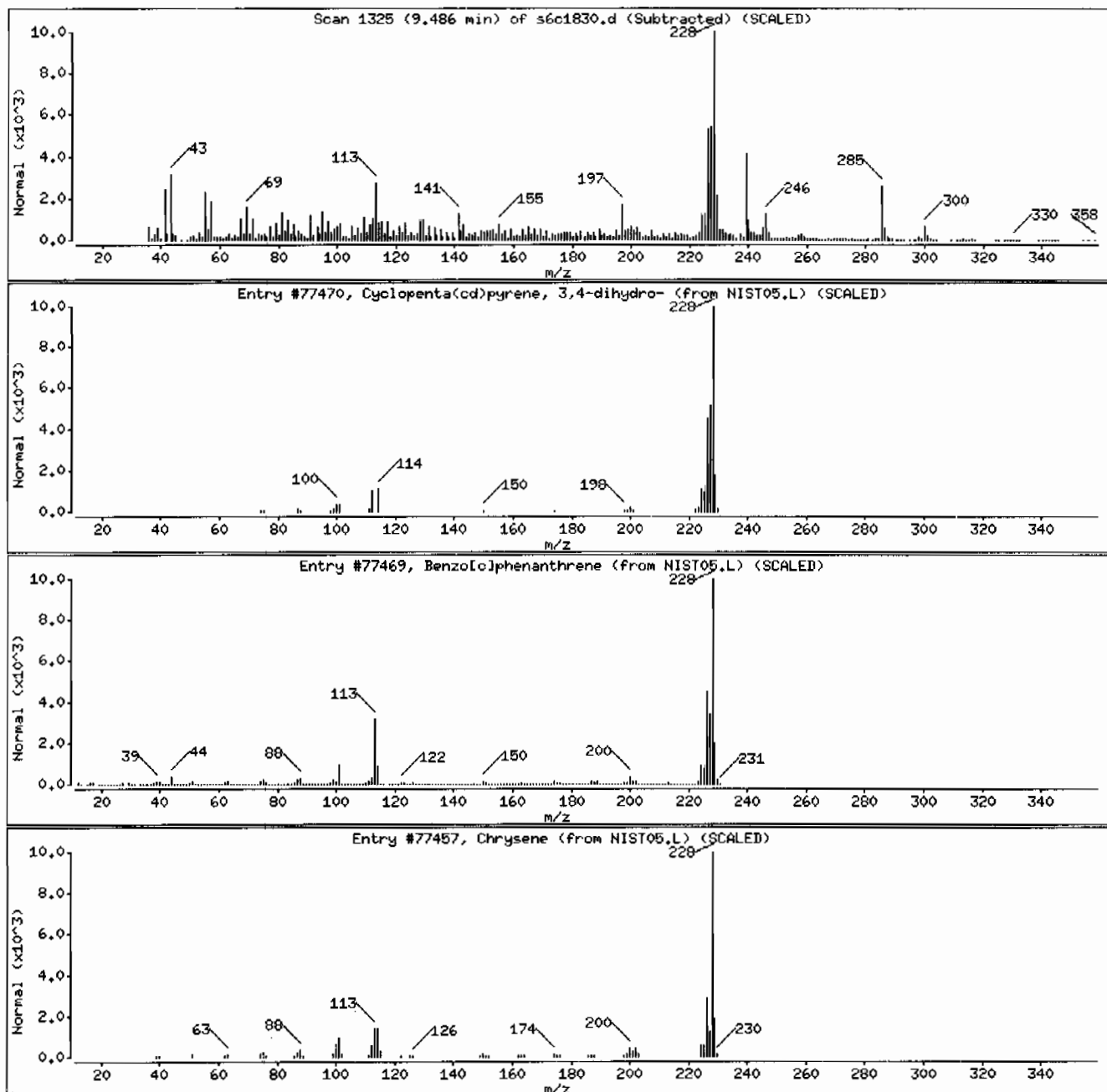
Volume Injected (uL): 0.5

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						
Cyclopenta(cd)pyrene, 3,4-dihydro-	25732-74-5	NIST05.L	77470	46	C18H12	228
Benzo[c]phenanthrene	195-19-7	NIST05.L	77469	46	C18H12	228
Chrysene	218-01-9	NIST05.L	77457	42	C18H12	228



Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 1248249001/960971/41SVMI1/LANL

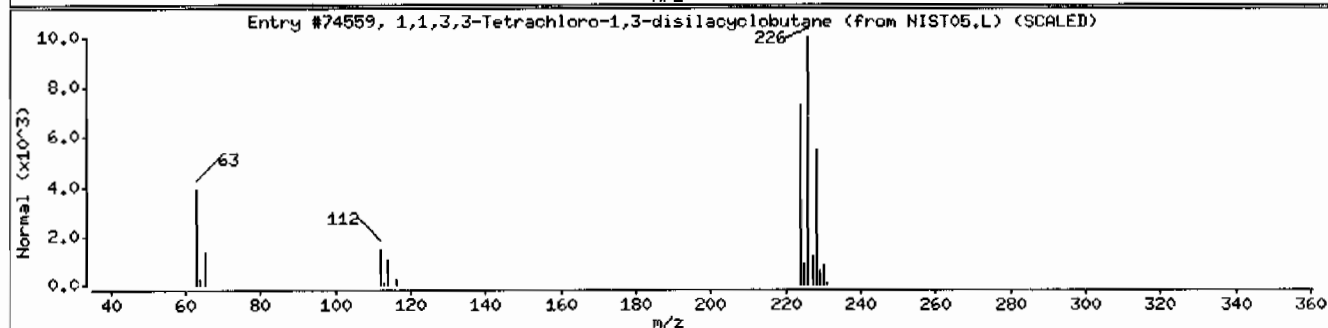
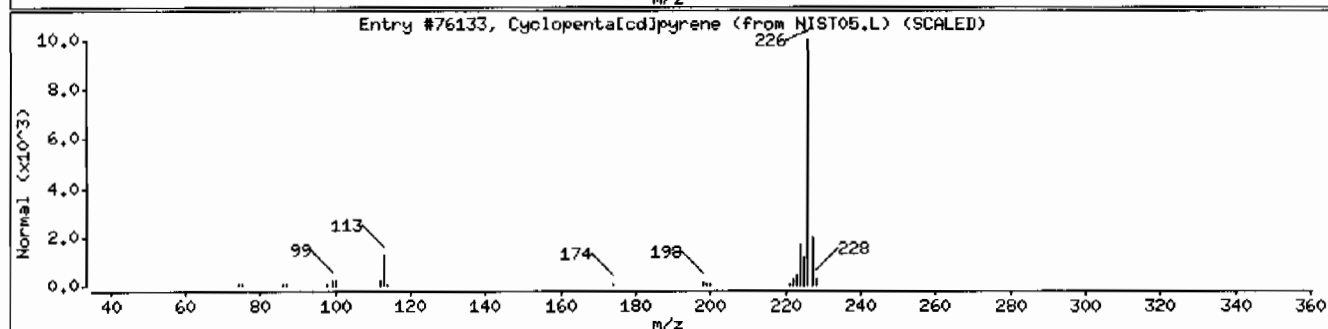
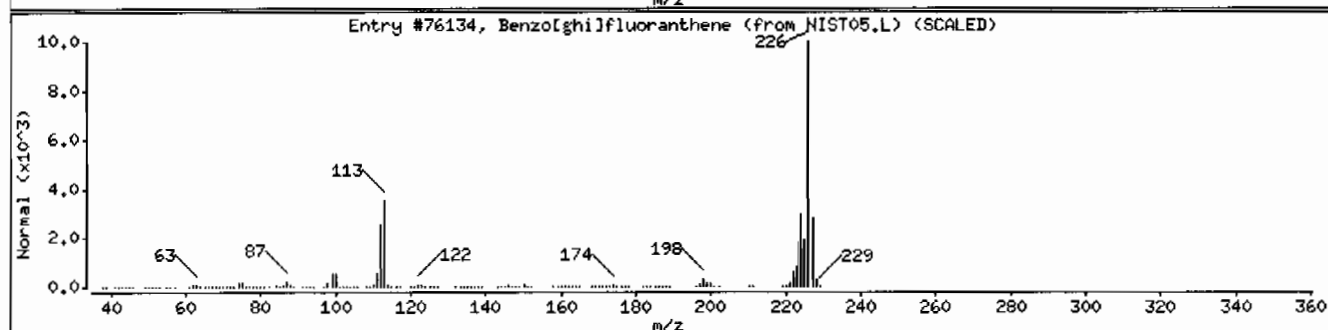
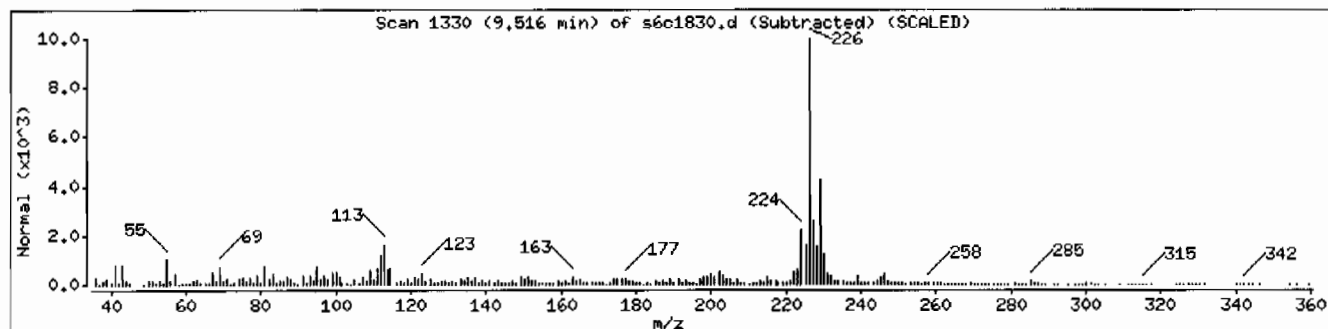
Volume Injected (uL): 0.5

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						
Benzo[ghi]fluoranthene	203-12-3	NIST05.L	76134	45	C18H10	226
Cyclopenta[cd]pyrene	27208-37-3	NIST05.L	76133	43	C18H10	226
1,1,3,3-Tetrachloro-1,3-disilacyclobutan	2146-97-6	NIST05.L	74559	37	C2H4Cl4Si2	224



Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 12482490011960971141SVH111LANL

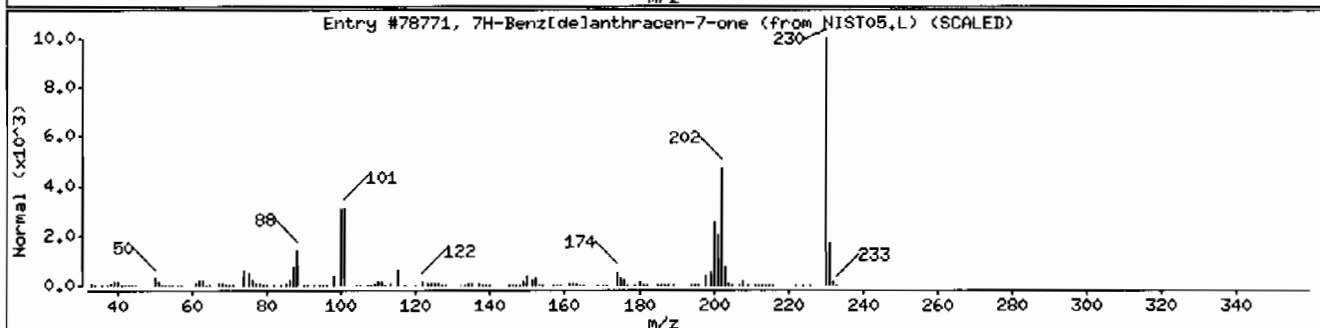
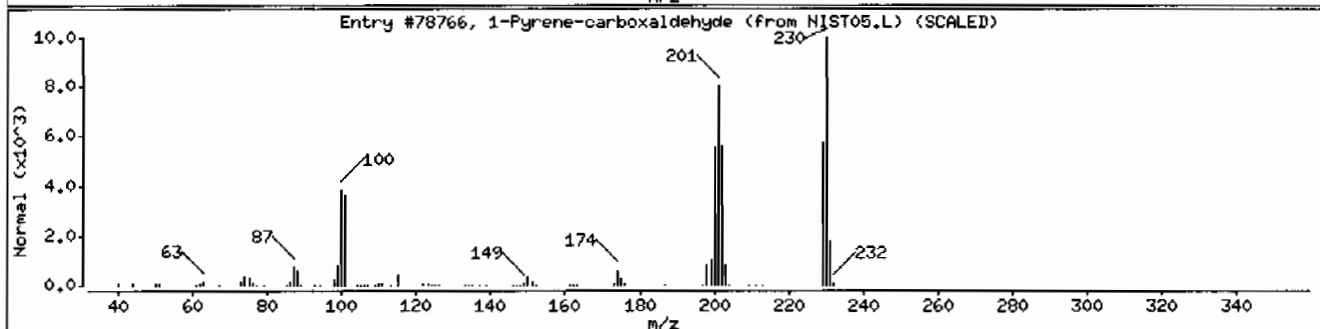
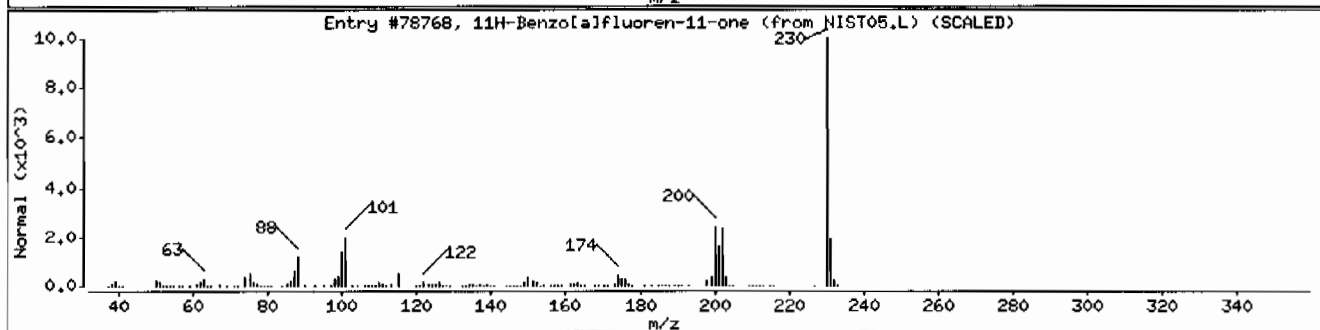
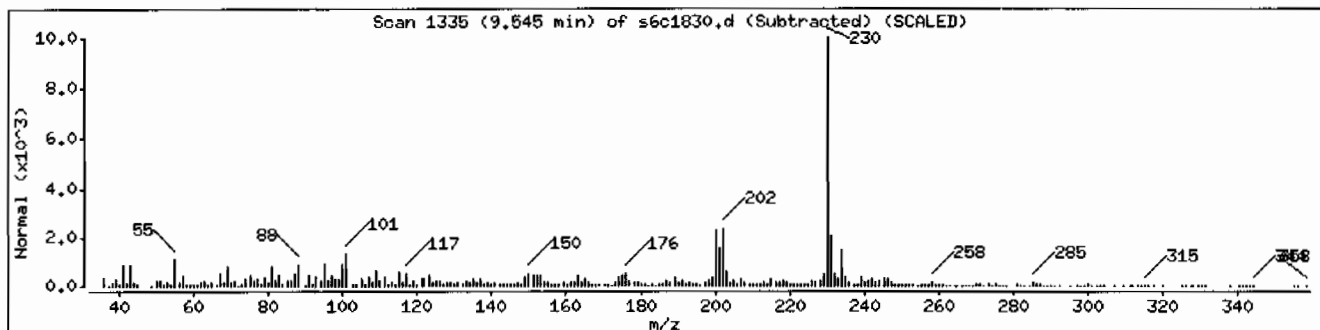
Volume Injected (uL): 0.5

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						
11H-Benzo[a]fluoren-11-one	479-79-8	NIST05.L	78768	96	C17H10O	230
1-Pyrene-carboxaldehyde	3029-19-4	NIST05.L	78766	72	C17H10O	230
7H-Benz[de]anthracen-7-one	82-05-3	NIST05.L	78771	68	C17H10O	230



Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 124824900196097114ISVH11ILANL

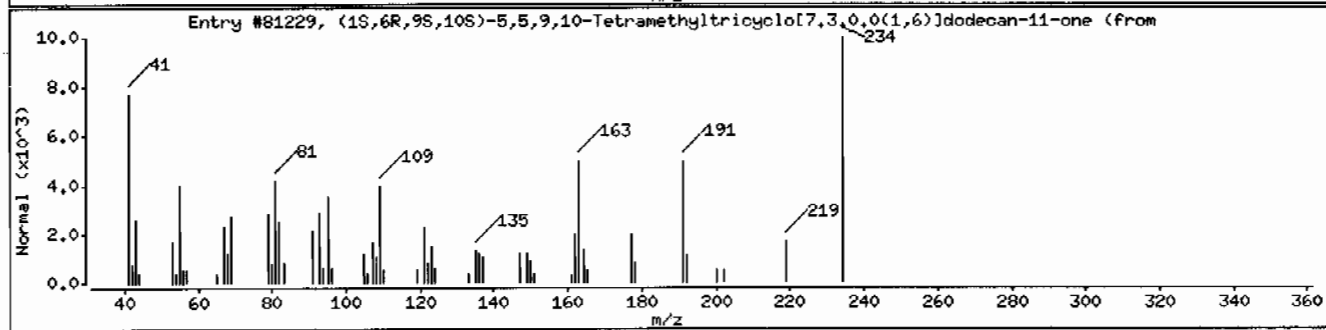
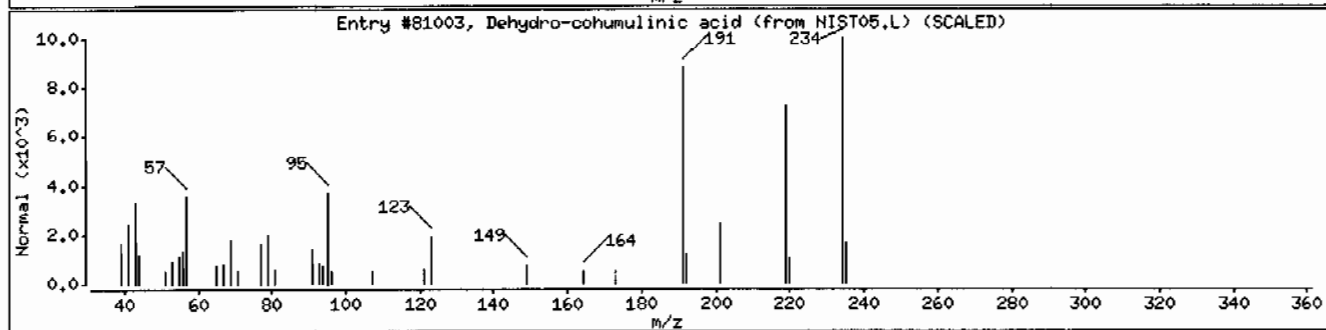
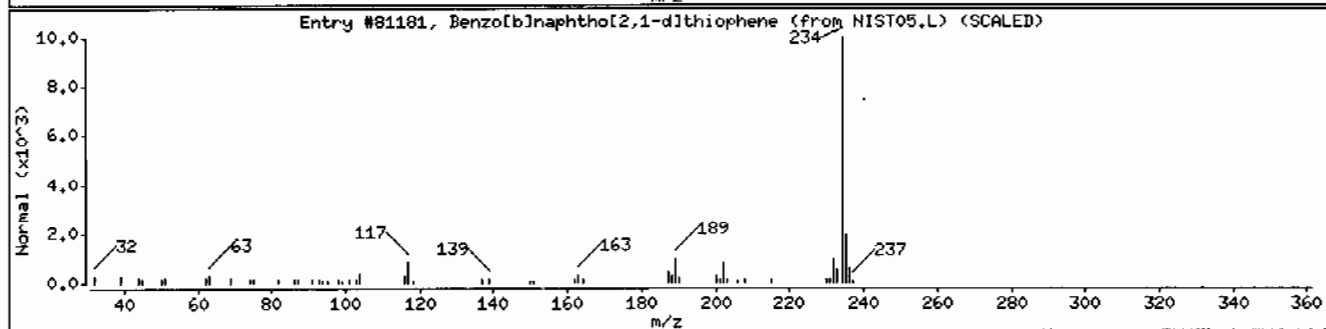
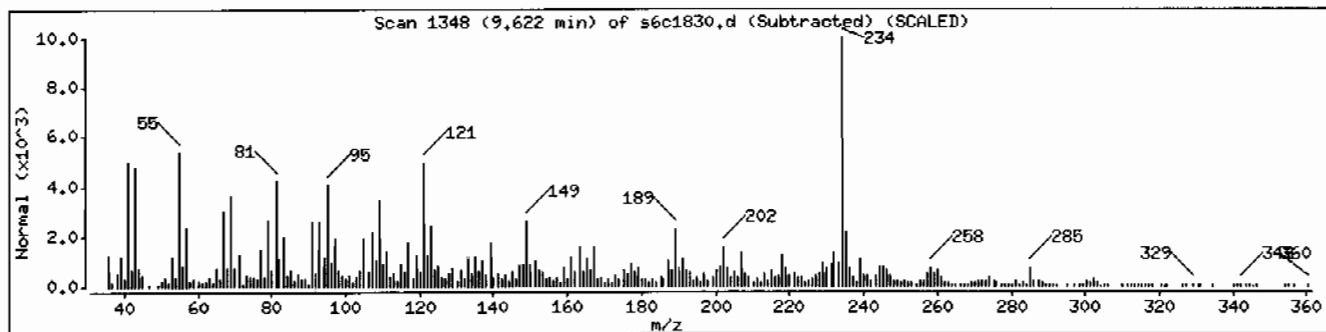
Volume Injected (uL): 0.5

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						
Benzo[b]naphtho[2,1-d]thiophene	239-35-0	NIST05.L	81181	89	C16H10S	234
Dehydro-cohumulinic acid	1000041-27-1	NIST05.L	81003	64	C14H18O3	234
(1S,6R,9S,10S)-5,5,9,10-Tetramethyltricyclo[7.3.0.0(1,6)]dodecan-11-one	1000298-98-1	NIST05.L	81229	60	C16H26O	234





Date : 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 12482490011960971141SVH111LANL

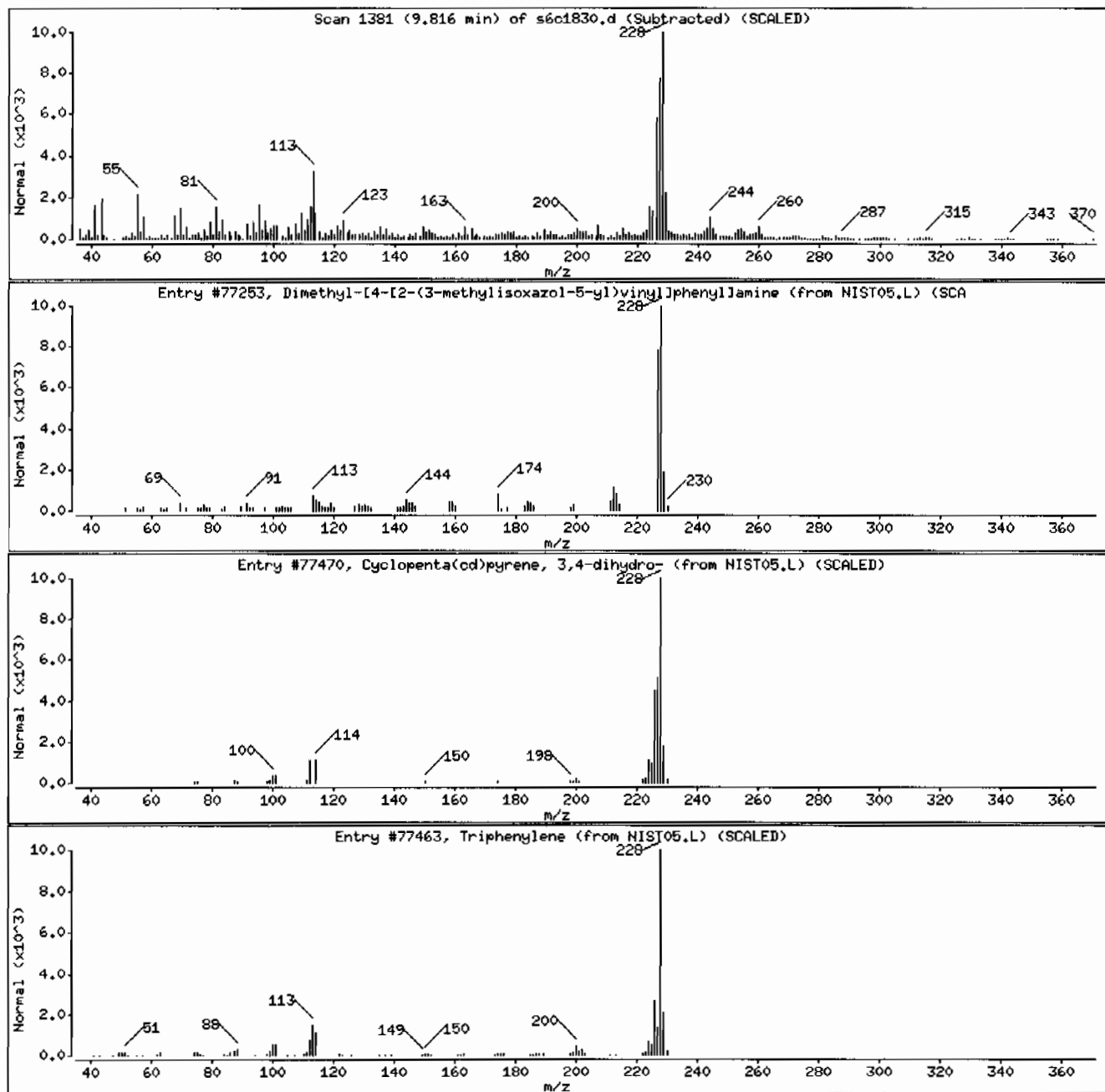
Volume Injected (uL): 0.5

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						
Dimethyl-[4-[2-(3-methylisoxazol-5-yl)vi	1000306-39-6	NIST05.L	77253	58	C14H16N2O	228
Cyclopenta(cd)pyrene, 3,4-dihydro-	25732-74-5	NIST05.L	77470	50	C18H12	228
Triphenylene	217-59-4	NIST05.L	77463	46	C18H12	228



Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 1248249001960971141SVH111LANL

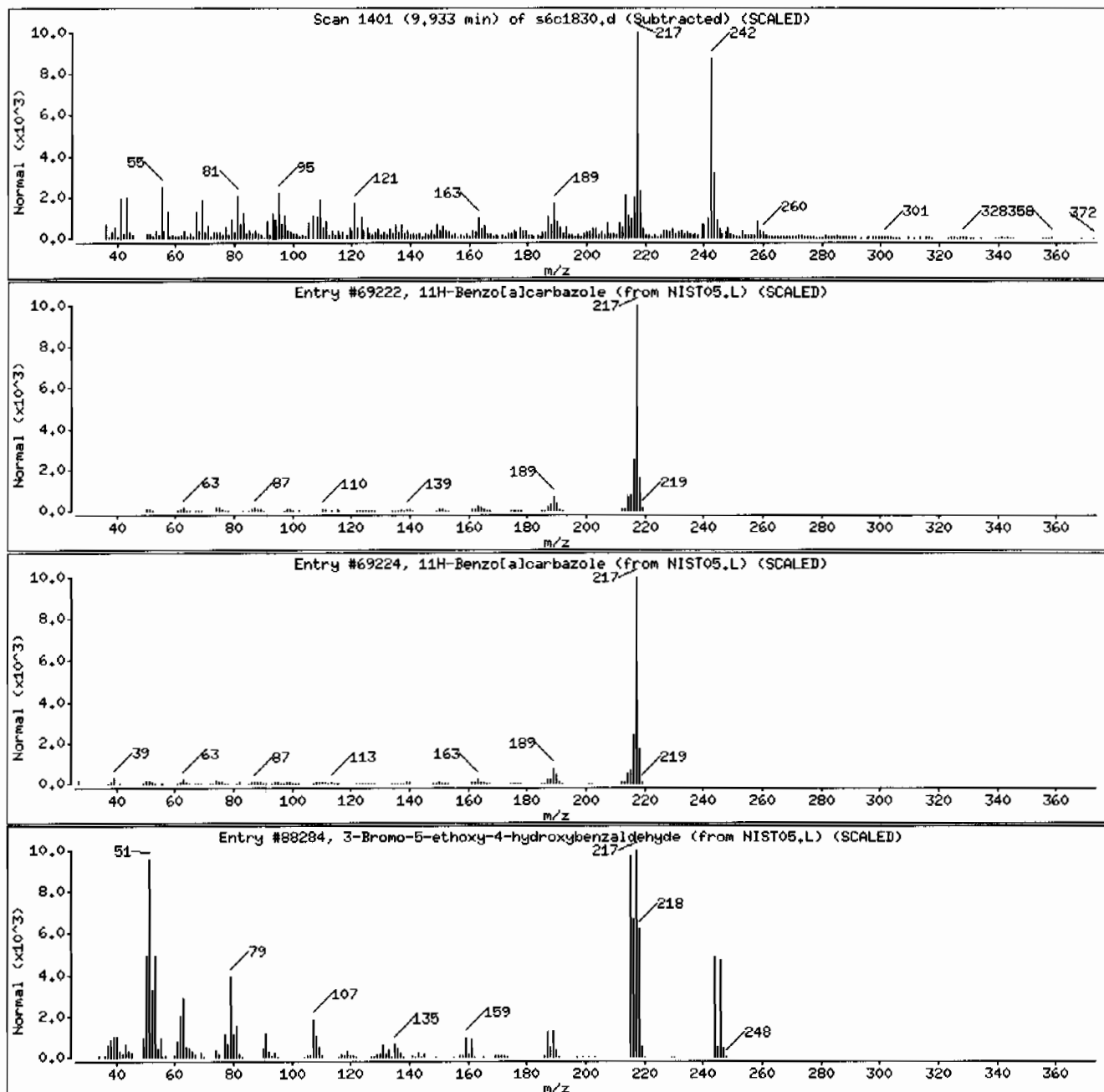
Volume Injected (uL): 0.5

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						
11H-Benzo[a]carbazole	239-01-0	NIST05.L	69222	83	C16H11N	217
11H-Benzo[a]carbazole	239-01-0	NIST05.L	69224	80	C16H11N	217
3-Bromo-5-ethoxy-4-hydroxybenzaldehyde	3111-37-3	NIST05.L	88284	53	C9H9BrO3	244



Date : 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: I24824900196097114ISVH111LANL

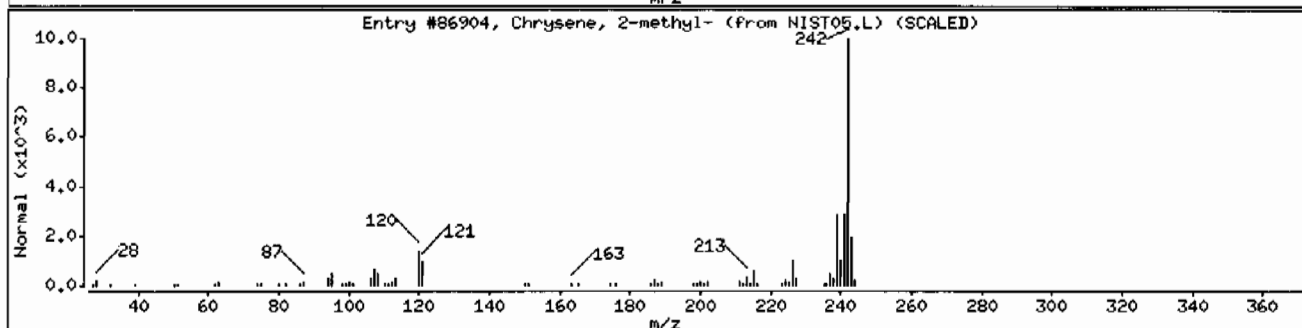
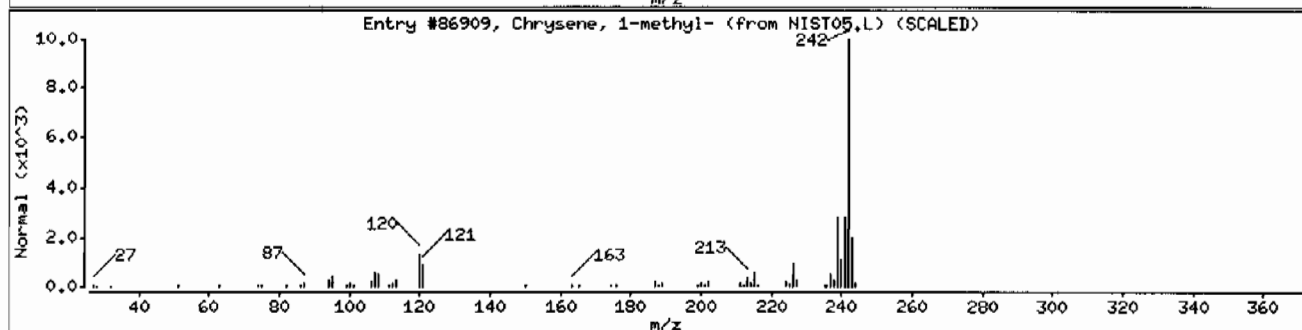
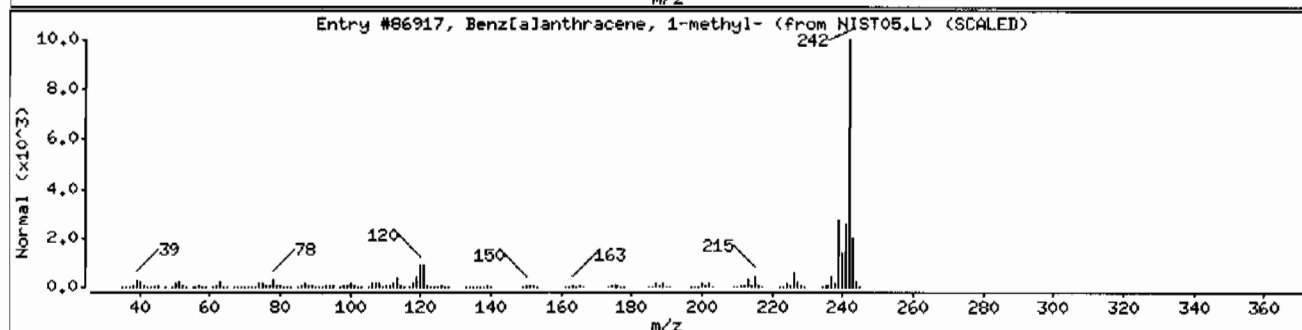
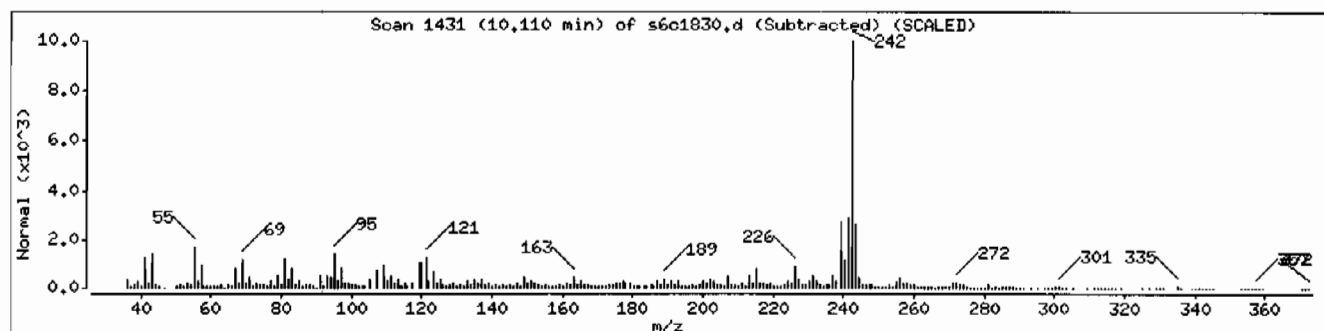
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benz[a]anthracene, 1-methyl-	2498-77-3	NIST05.L	86917	96	C19H14	242
Chrysene, 1-methyl-	3351-28-8	NIST05.L	86909	96	C19H14	242
Chrysene, 2-methyl-	3351-32-4	NIST05.L	86904	96	C19H14	242



Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 12482490011960971141SVM111LANL

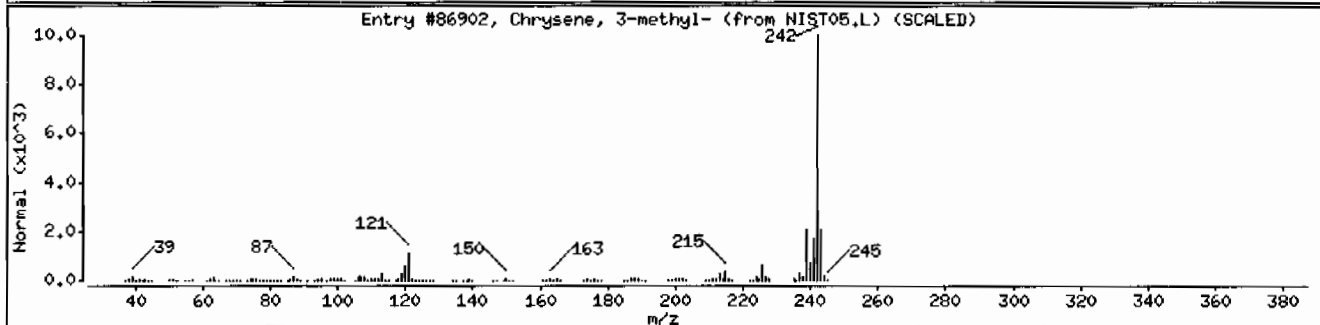
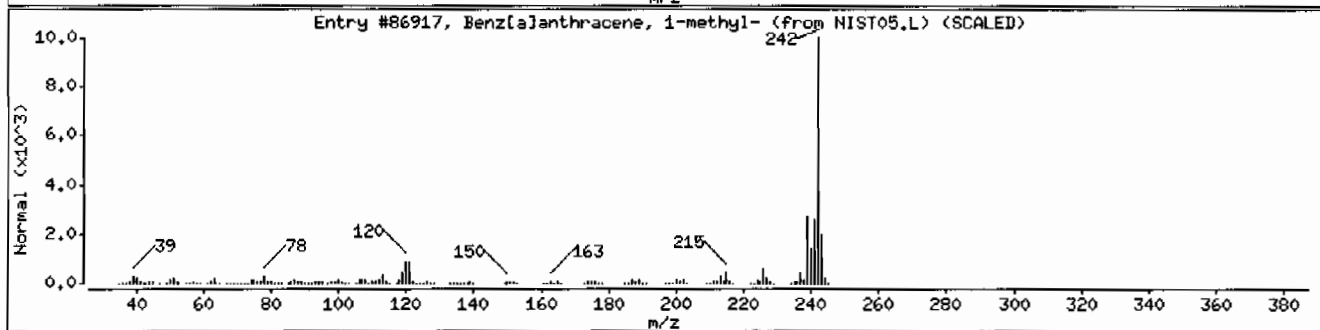
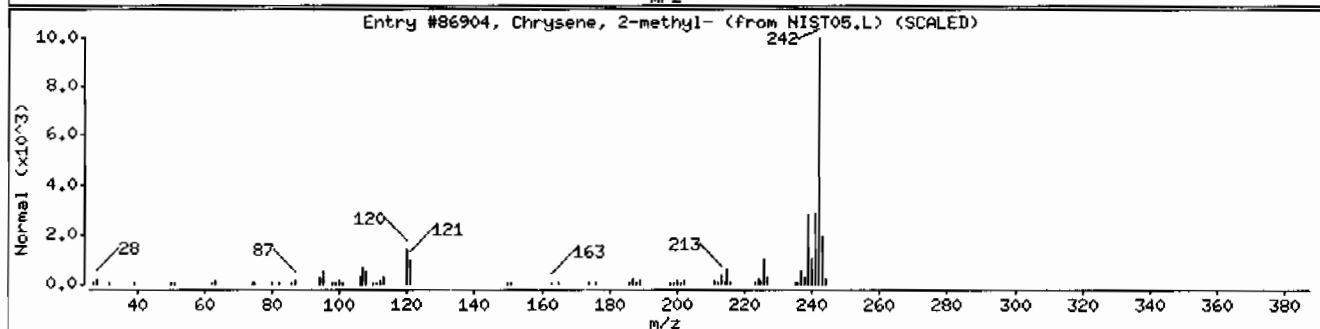
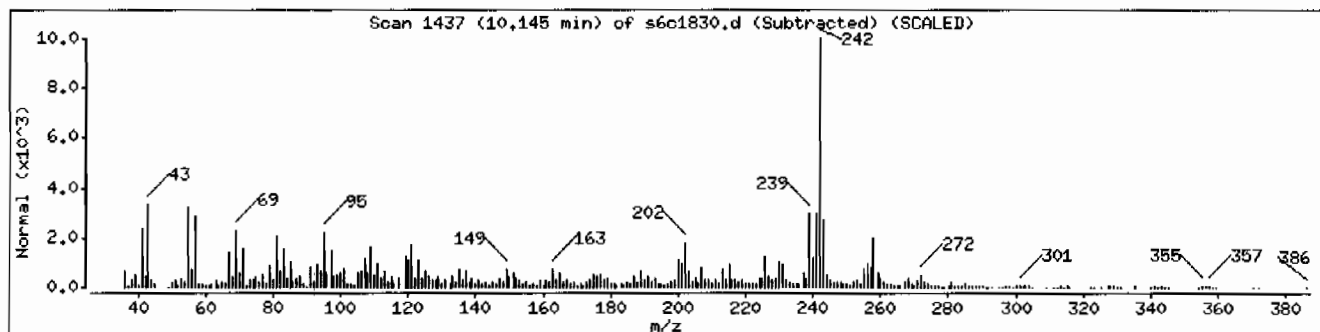
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Chrysene, 2-methyl-	3351-32-4	NIST05.L	86904	91	C19H14	242
Benz[a]anthracene, 1-methyl-	2498-77-3	NIST05.L	86917	89	C19H14	242
Chrysene, 3-methyl-	3351-31-3	NIST05.L	86902	70	C19H14	242



Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: HSD6.i

Sample Info: 1248249001960971141SVH111LANL

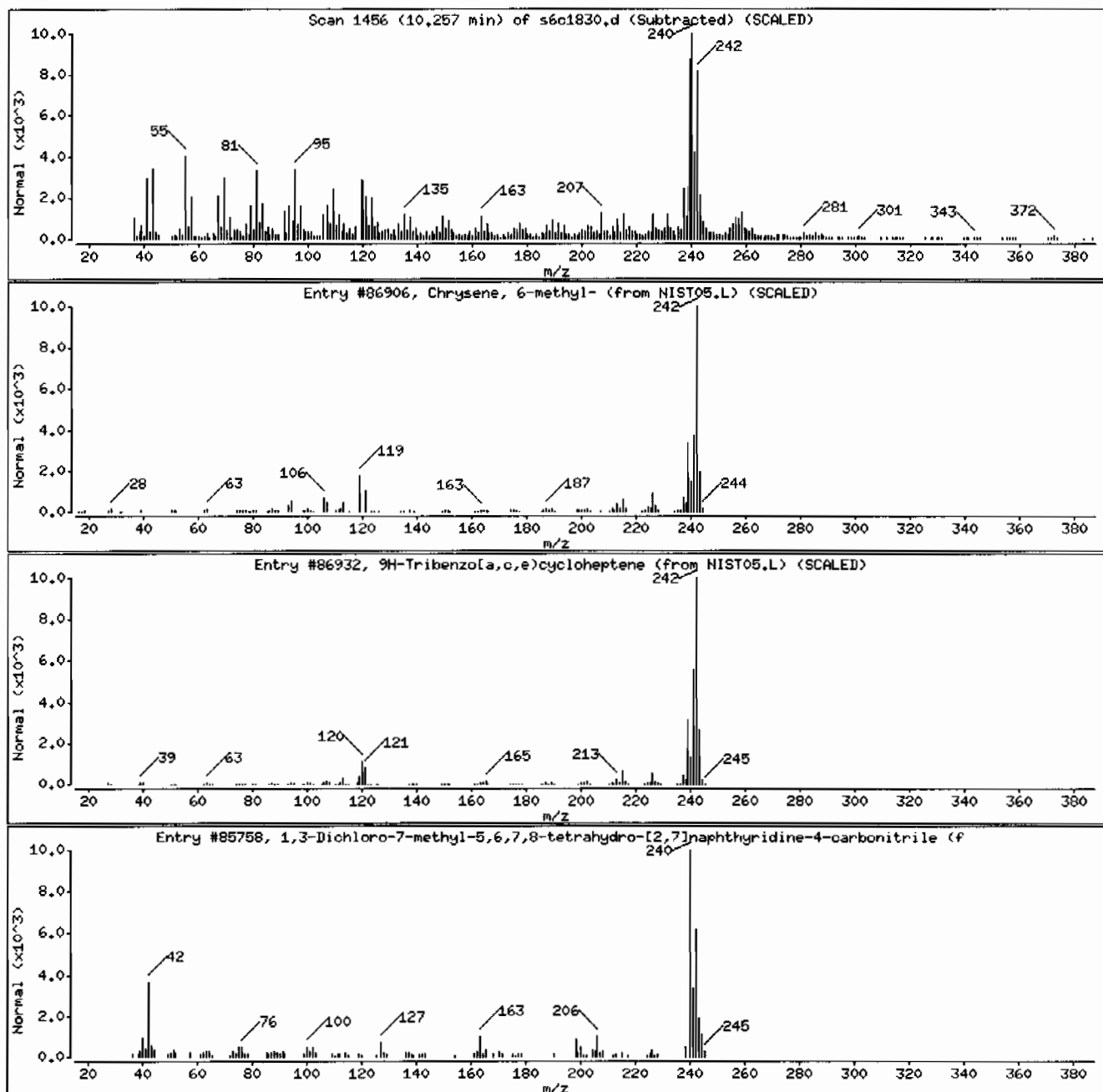
Volume Injected (uL): 0.5

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						
Chrysene, 6-methyl-	1705-85-7	NIST05.L	86906	72	C19H14	242
9H-Tribenzo[a,c,e]cycloheptene	213-10-5	NIST05.L	86932	62	C19H14	242
1,3-Dichloro-7-methyl-5,6,7,8-tetrahydro	1000274-39-1	NIST05.L	85758	53	C10H9Cl2N3	241



Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.1

Sample Info: 12482490011960971141SVH111LANL

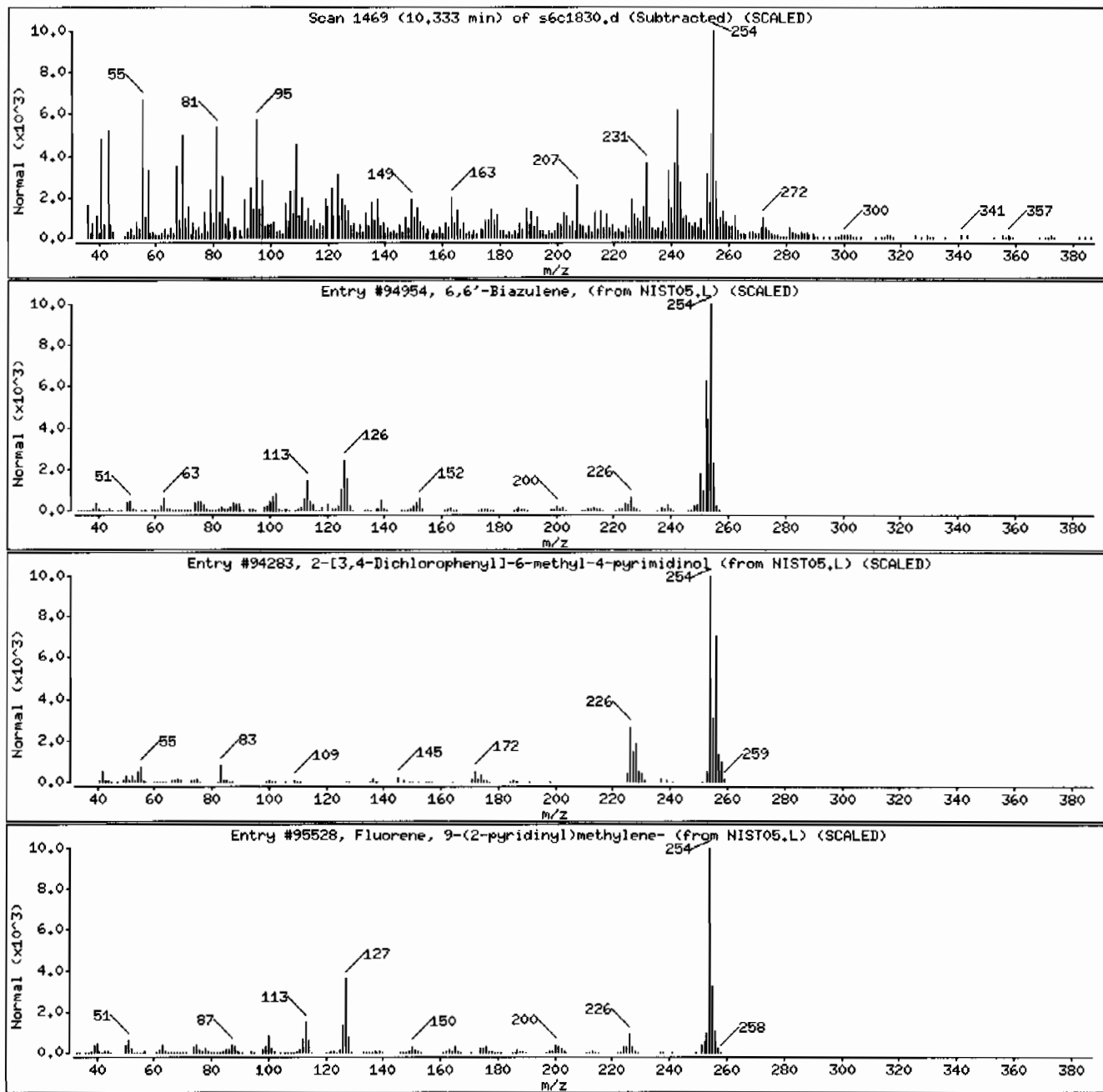
Volume Injected (uL): 0.5

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						
6,6'-Biazulene,	73393-11-0	NIST05.L	94954	51	C20H14	254
2-[3,4-Dichlorophenyl]-6-methyl-4-pyrim	1000253-43-7	NIST05.L	94283	42	C11H8Cl2N2O	254
Fluorene, 9-(2-pyridinyl)methylene-	2871-27-4	NIST05.L	95528	38	C19H13N	255



Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 1248249001196097114ISVH11ILANL

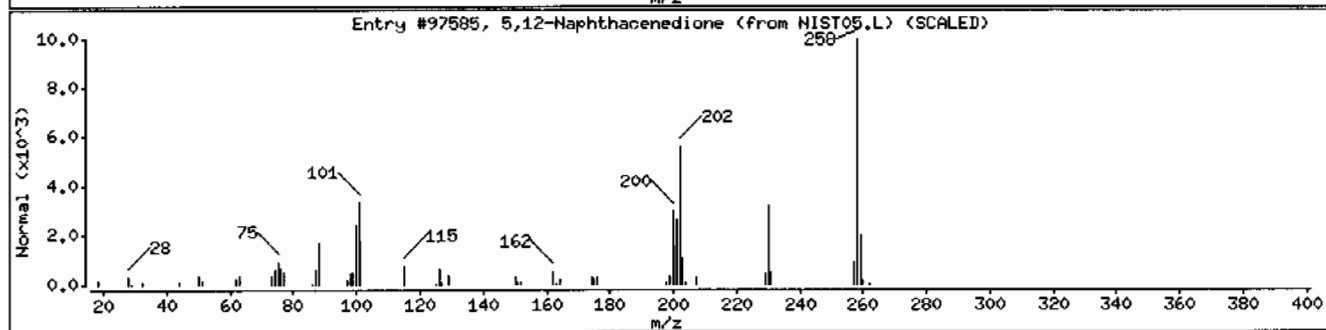
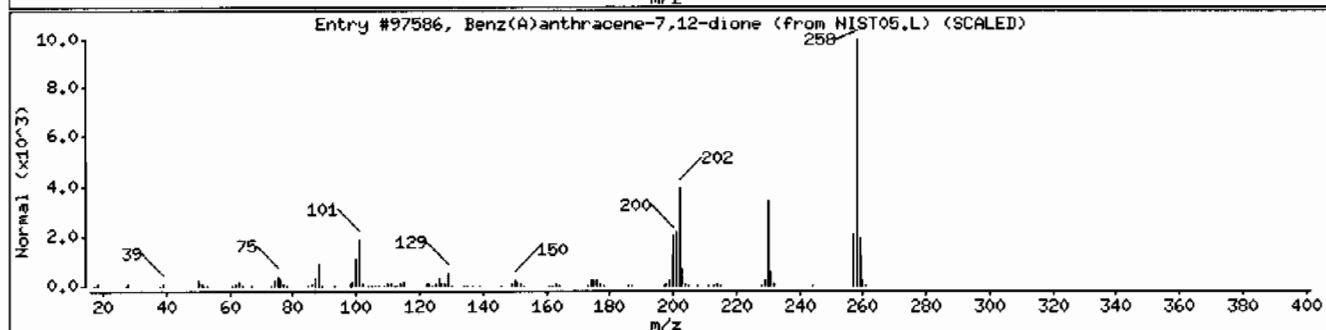
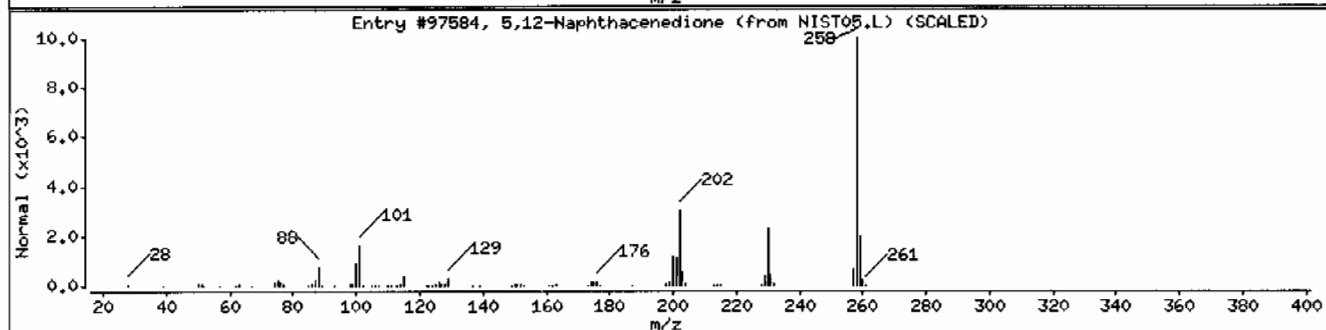
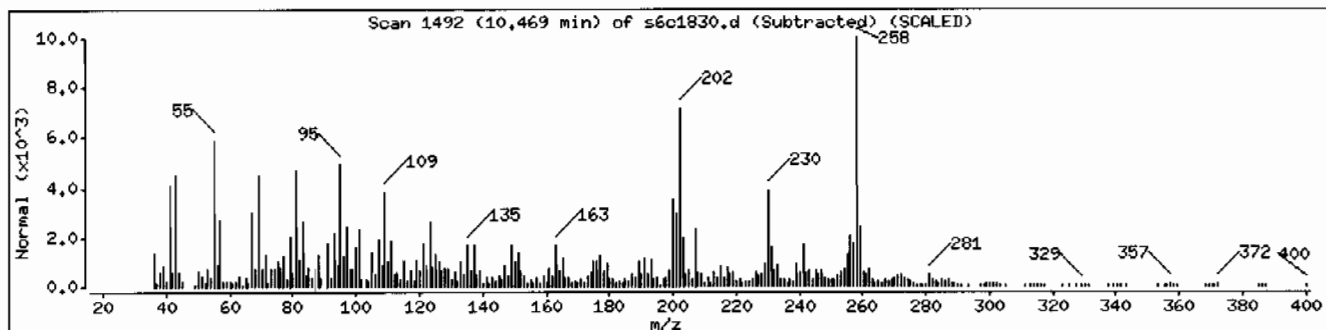
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
5,12-Naphthacenedione	1090-13-7	NIST05.L	97584	90	C18H10O2	258
Benz(A)anthracene-7,12-dione	2498-66-0	NIST05.L	97586	90	C18H10O2	258
5,12-Naphthacenedione	1090-13-7	NIST05.L	97585	78	C18H10O2	258



Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 12482490011960971141SVMI11LANL

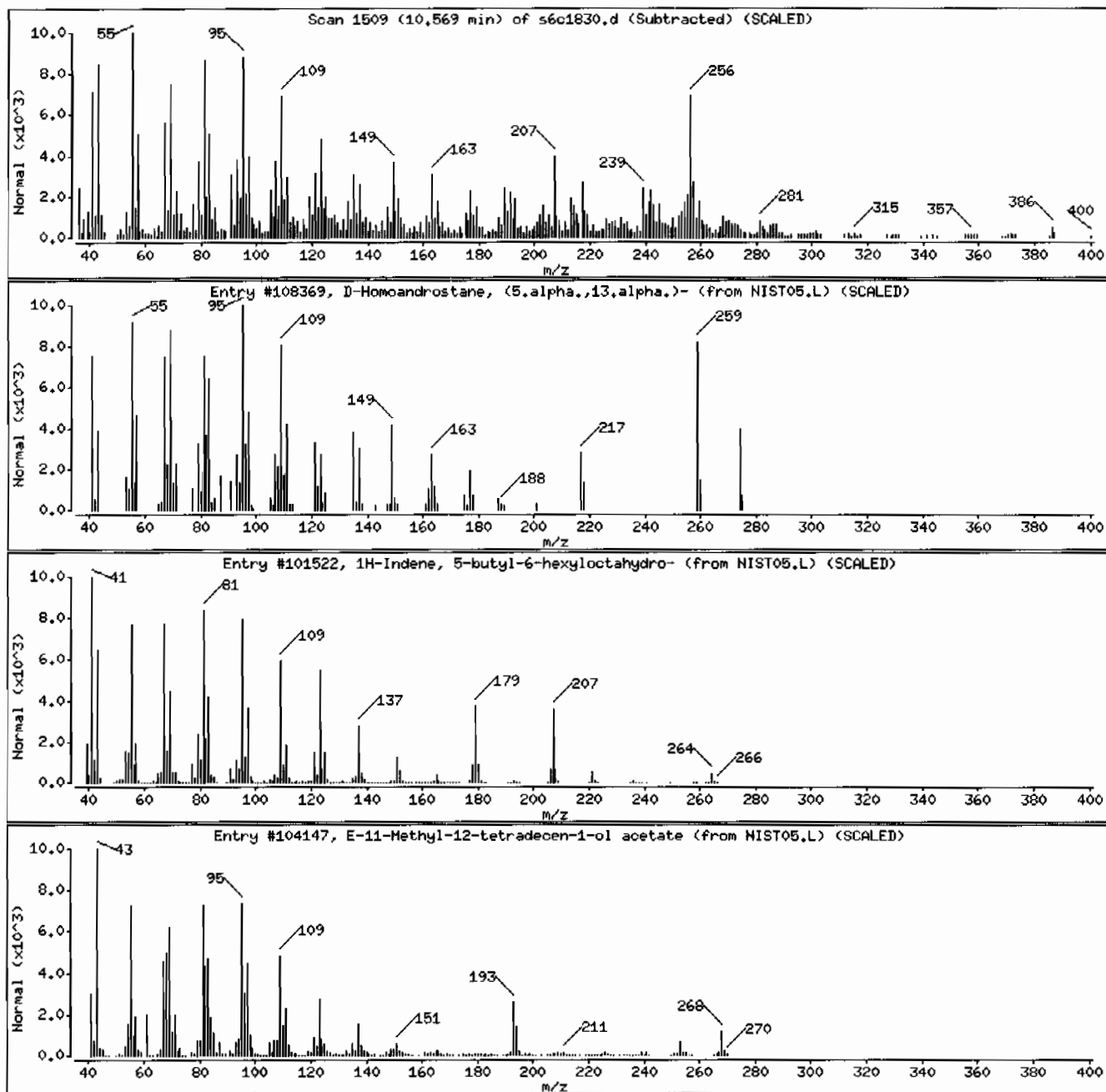
Volume Injected (uL): 0.5

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						
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	96	C20H34	274
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	40	C19H36	264
E-11-Methyl-12-tetradecen-1-ol acetate	1000130-80-7	NIST05.L	104147	25	C17H32O2	268





Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 12482490011960971141SVMI11LANL

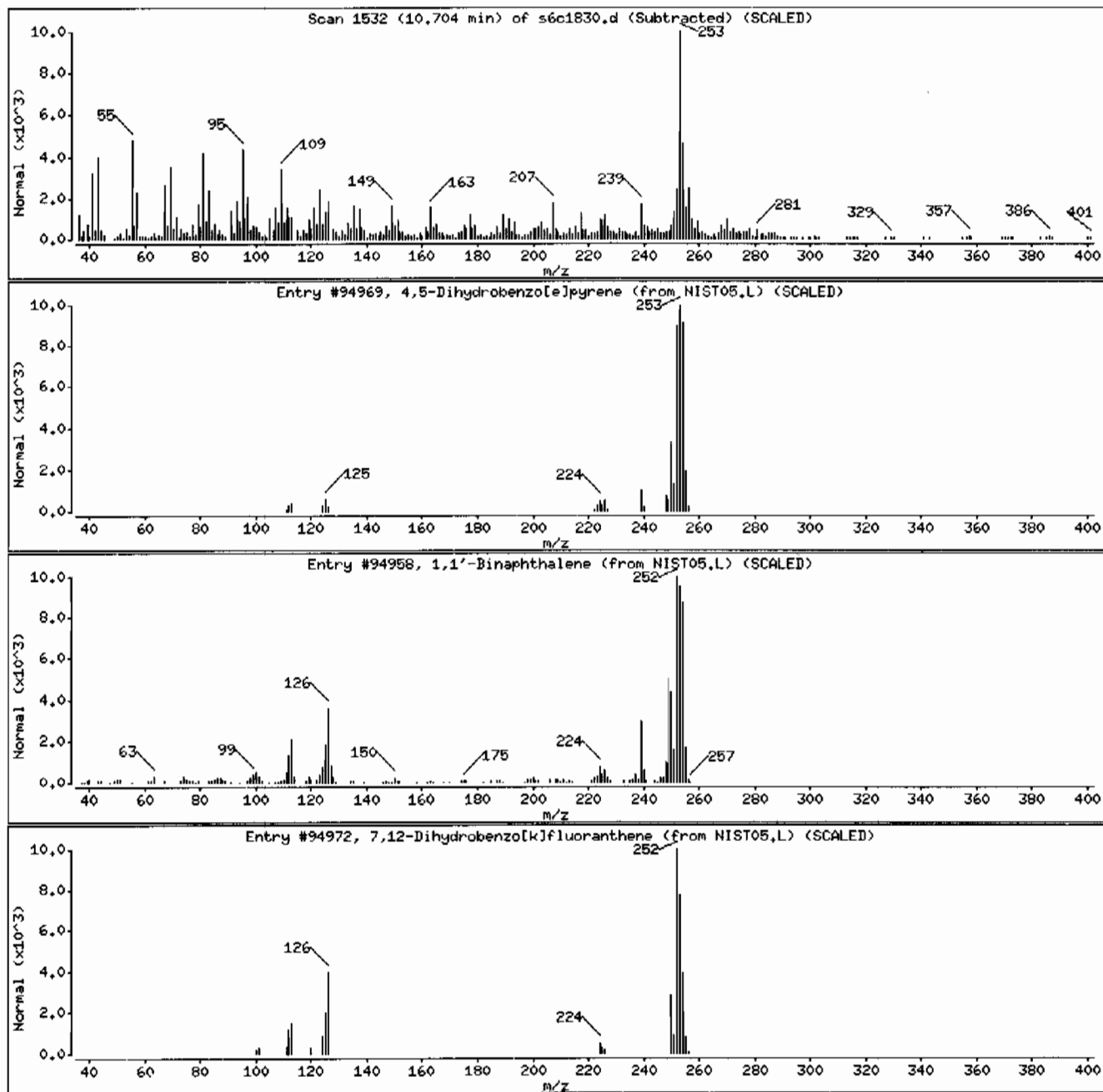
Volume Injected (uL): 0.5

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						
4,5-Dihydrobenzo[e]pyrene	95676-42-9	NIST05.L	94969	64	C20H14	254
1,1'-Binaphthalene	604-53-5	NIST05.L	94958	60	C20H14	254
7,12-Dihydrobenzo[k]fluoranthene	1000080-17-7	NIST05.L	94972	60	C20H14	254



Date : 18-MAR-2010 19:26

Client ID: RE36-10-8205

Instrument: MSD6.i

Sample Info: 12482490011960971141SVM111LANL

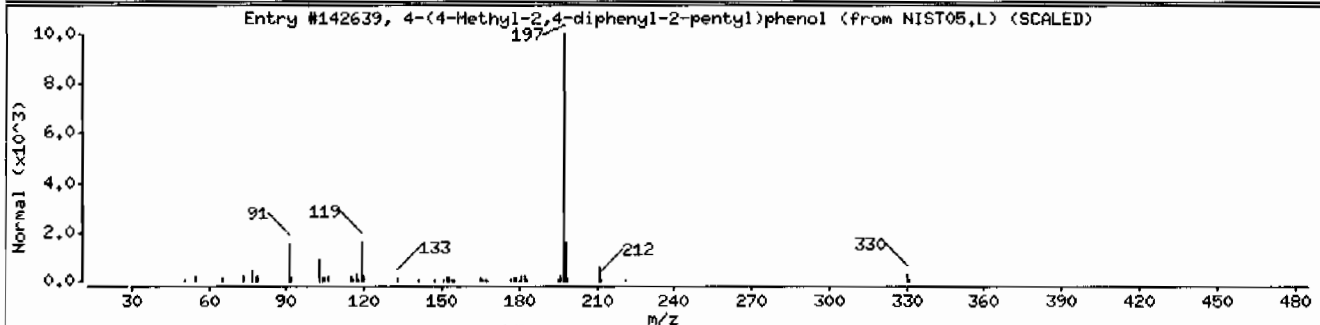
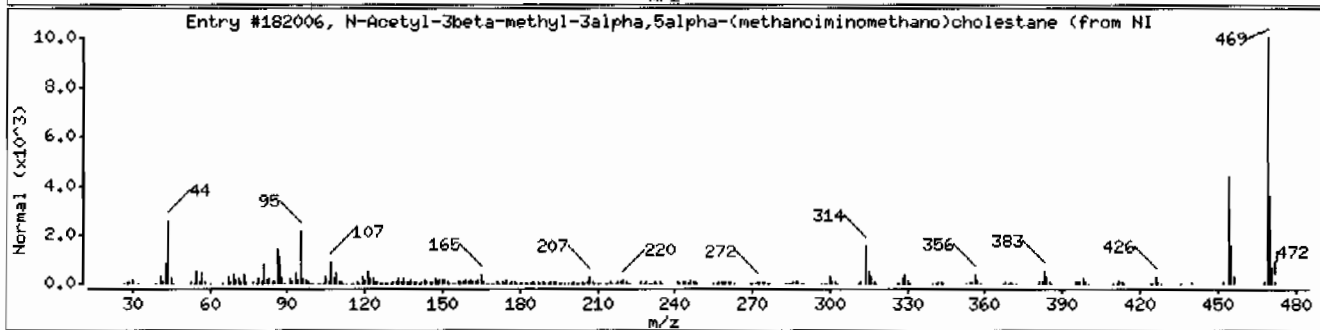
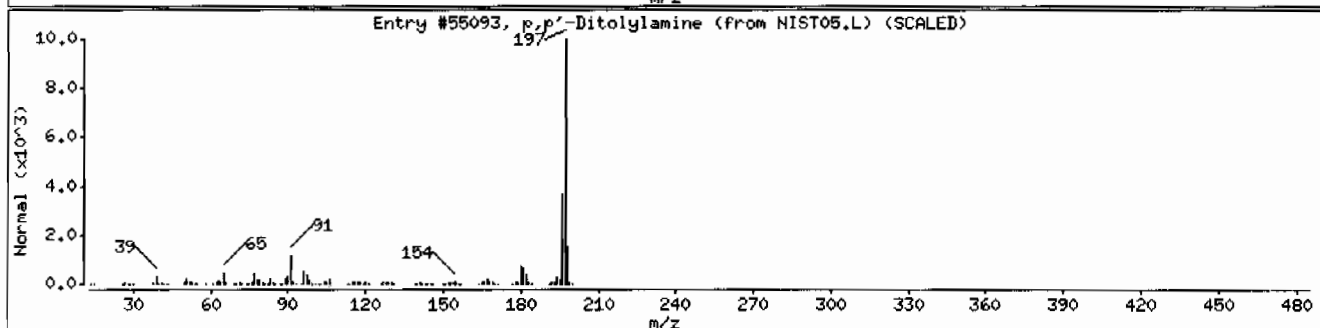
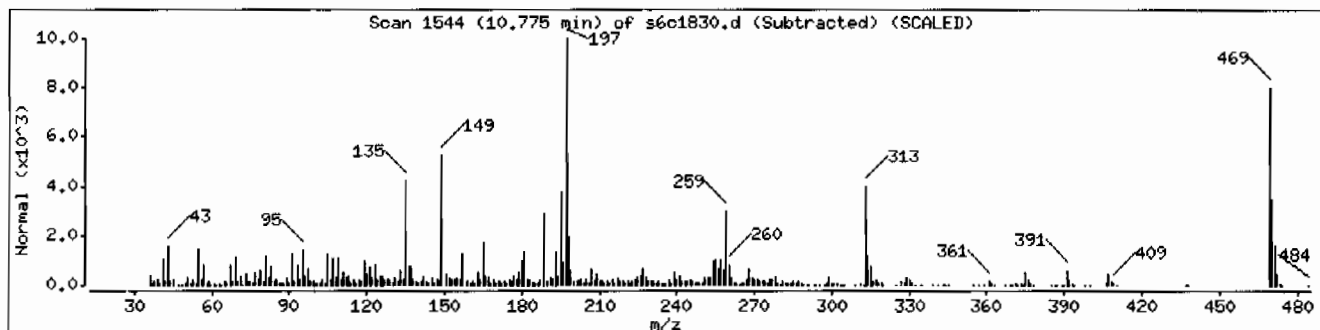
Volume Injected (uL): 0.5

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						
p,p'-Ditolylamine	620-93-9	NIST05.L	55093	25	C14H15N	197
N-Acetyl-3beta-methyl-3alpha,5alpha-(met	20835-58-9	NIST05.L	182006	18	C32H55NO	469
4-(4-Methyl-2,4-diphenyl-2-pentyl)phenol	52379-26-7	NIST05.L	142639	15	C24H26O	330



Date: 18-MAR-2010 19:26

Client ID: RE36-10-8285

Instrument: MSD6.i

Sample Info: 12482490011960971141SVH111LANL

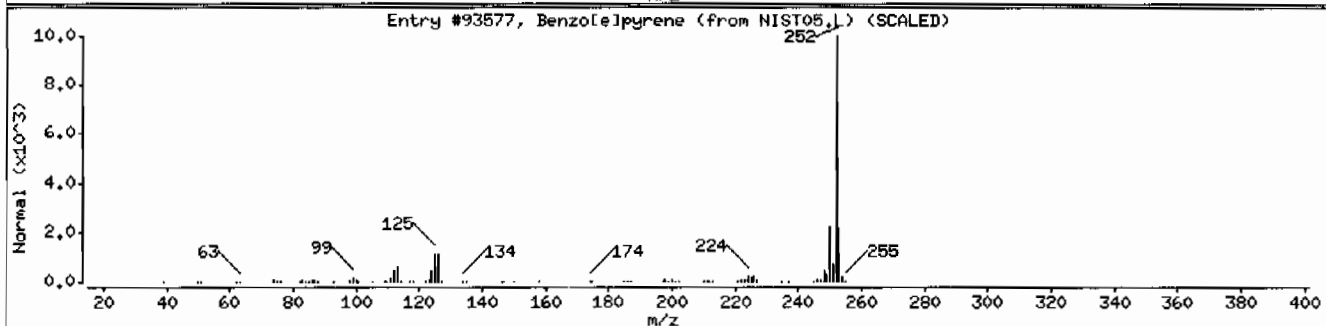
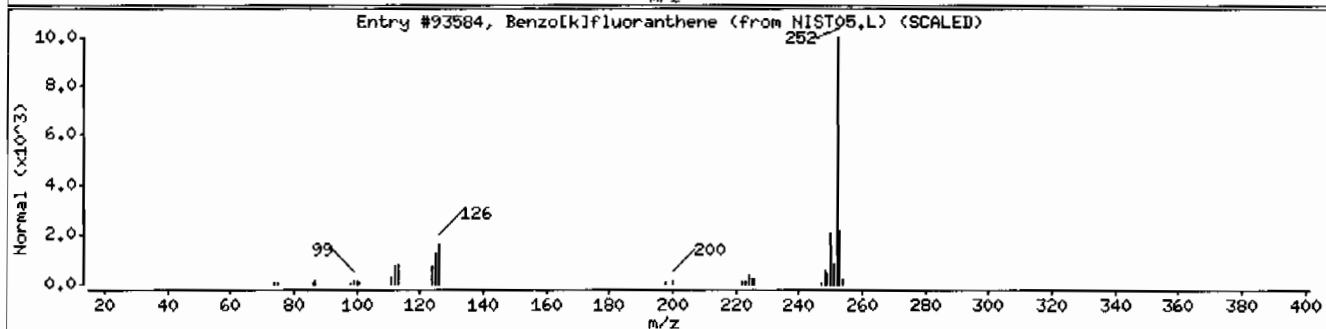
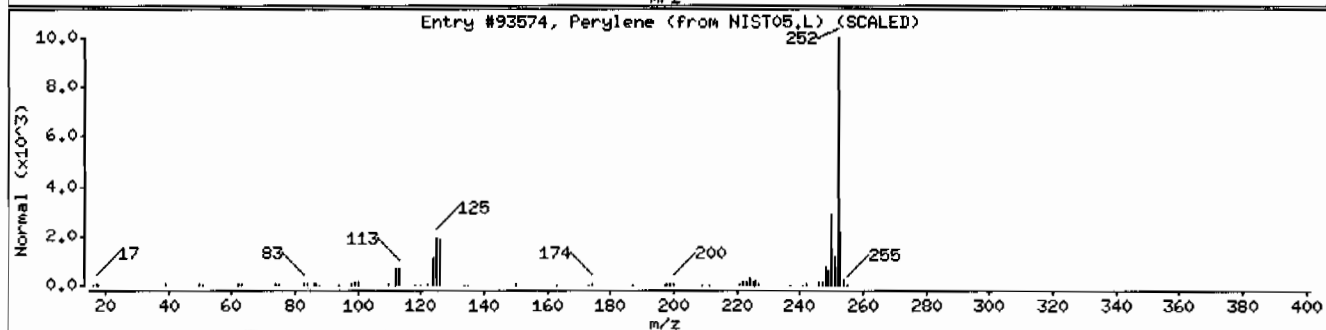
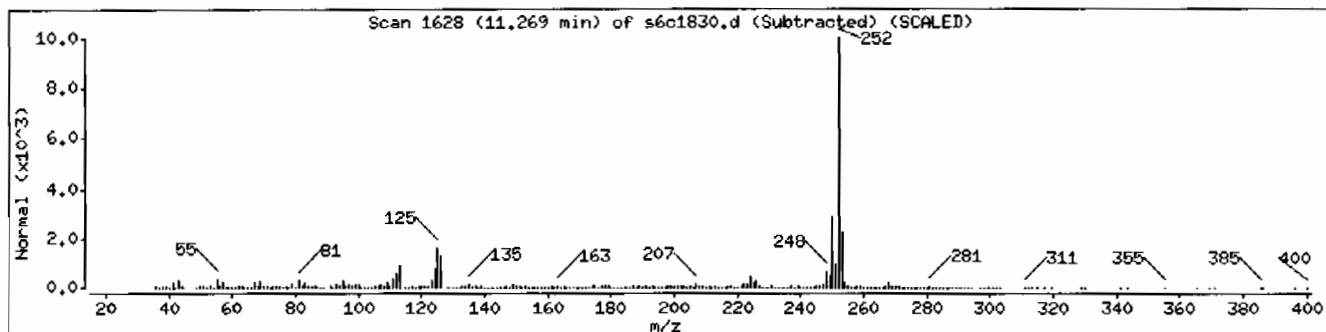
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Perylene	198-55-0	NIST05.L	93574	99	C <sub>20</sub> H <sub>12</sub>	252
Benzo[k]fluoranthene	207-08-9	NIST05.L	93584	98	C <sub>20</sub> H <sub>12</sub>	252
Benzo[e]pyrene	192-97-2	NIST05.L	93577	98	C <sub>20</sub> H <sub>12</sub>	252



Certificate of Analysis  
Sample Summary

Page 1 of 3

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249002	Date Received: 02/27/2010 09:10	%Moisture: 7.5
Client ID: RE36-10-8286	Client: LANL010	Project: LANL01004
Batch ID: 960971	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/18/2010 14:16	Inst: MSD6.I	Dilution: 1
Prep Date: 03/04/2010 23:22	Analyst: NAG1	Inj. Vol: .5 uL
Data File: s6c1817.d	Aliquot: 30.13 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	359	ug/kg	71.8	359
108-95-2	Phenol	U	359	ug/kg	71.8	359
95-57-8	2-Chlorophenol	U	359	ug/kg	71.8	359
106-46-7	1,4-Dichlorobenzene	U	359	ug/kg	71.8	359
621-64-7	N-Nitrosodipropylamine	U	359	ug/kg	71.8	359
59-50-7	4-Chloro-3-methylphenol	U	359	ug/kg	71.8	359
83-32-9	Acenaphthene	J	14.5	ug/kg	11.8	35.9
121-14-2	2,4-Dinitrotoluene	U	359	ug/kg	35.9	359
100-02-7	4-Nitrophenol	U	359	ug/kg	118	359
87-86-5	Pentachlorophenol	U	359	ug/kg	89.7	359
129-00-0	Pyrene		425	ug/kg	10.8	35.9
110-86-1	Pyridine	U	359	ug/kg	71.8	359
62-53-3	Aniline	U	359	ug/kg	108	359
111-44-4	bis(2-Chloroethyl) ether	U	359	ug/kg	71.8	359
541-73-1	1,3-Dichlorobenzene	U	359	ug/kg	71.8	359
100-51-6	Benzyl alcohol	U	359	ug/kg	108	359
95-50-1	1,2-Dichlorobenzene	U	359	ug/kg	71.8	359
108-60-1	bis(2-Chloroisopropyl)ether	U	359	ug/kg	71.8	359
95-48-7	o-Cresol	U	359	ug/kg	71.8	359
65794-96-9	m,p-Cresols	U	359	ug/kg	108	359
67-72-1	Hexachloroethane	U	359	ug/kg	71.8	359
98-95-3	Nitrobenzene	U	359	ug/kg	71.8	359
78-59-1	Isophorone	U	359	ug/kg	71.8	359
88-75-5	2-Nitrophenol	U	359	ug/kg	71.8	359
105-67-9	2,4-Dimethylphenol	U	359	ug/kg	126	359
111-91-1	bis(2-Chloroethoxy)methane	U	359	ug/kg	71.8	359
120-83-2	2,4-Dichlorophenol	U	359	ug/kg	71.8	359
65-85-0	Benzoic acid	U	718	ug/kg	179	718
91-20-3	Naphthalene	U	35.9	ug/kg	10.8	35.9
106-47-8	4-Chloroaniline	U	359	ug/kg	71.8	359
87-68-3	Hexachlorobutadiene	U	359	ug/kg	71.8	359
91-57-6	2-Methylnaphthalene	U	35.9	ug/kg	7.18	35.9
77-47-4	Hexachlorocyclopentadiene	U	359	ug/kg	71.8	359
88-06-2	2,4,6-Trichlorophenol	U	359	ug/kg	71.8	359
95-95-4	2,4,5-Trichlorophenol	U	359	ug/kg	71.8	359
91-58-7	2-Chloronaphthalene	U	35.9	ug/kg	11.8	35.9
88-74-4	2-Nitroaniline	U	359	ug/kg	71.8	359
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	359	ug/kg	71.8	359

Certificate of Analysis  
Sample Summary

Page 2 of 3

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249002	Date Received: 02/27/2010 09:10	%Moisture: 7.5
Client ID: RE36-10-8286	Client: LANL010	Project: LANL01004
Batch ID: 960971	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/18/2010 14:16	Inst: MSD6.I	Dilution: 1
Prep Date: 03/04/2010 23:22	Analyst: NAG1	Inj. Vol: .5 uL
Data File: s6c1817.d	Aliquot: 30.13 g	Final Volume: 1 mL
	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	359	ug/kg	71.8	359
606-20-2	2,6-Dinitrotoluene	U	359	ug/kg	35.9	359
208-96-8	Acenaphthylene	U	35.9	ug/kg	10.8	35.9
51-28-5	2,4-Dinitrophenol	U	718	ug/kg	136	718
132-64-9	Dibenzofuran	U	359	ug/kg	71.8	359
84-66-2	Diethylphthalate	U	359	ug/kg	71.8	359
86-73-7	Fluorene	J	13.4	ug/kg	10.8	35.9
7005-72-3	4-Chlorophenylphenylether	U	359	ug/kg	71.8	359
534-52-1	2-Methyl-4,6-dinitrophenol	U	359	ug/kg	71.8	359
100-01-6	4-Nitroaniline	U	359	ug/kg	108	359
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	359	ug/kg	71.8	359
122-66-7	Azobenzene	U	359	ug/kg	71.8	359
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	359	ug/kg	71.8	359
118-74-1	Hexachlorobenzene	U	359	ug/kg	71.8	359
85-01-8	Phenanthrene		212	ug/kg	10.8	35.9
120-12-7	Anthracene	J	30.4	ug/kg	7.18	35.9
84-74-2	Di-n-butylphthalate	J	258	ug/kg	71.8	359
206-44-0	Fluoranthene		425	ug/kg	10.8	35.9
85-68-7	Butylbenzylphthalate	U	359	ug/kg	71.8	359
56-55-3	Benzo(a)anthracene		171	ug/kg	10.8	35.9
91-94-1	3,3'-Dichlorobenzidine	U	359	ug/kg	108	359
218-01-9	Chrysene		269	ug/kg	10.8	35.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	359	ug/kg	71.8	359
117-84-0	Di-n-octylphthalate	U	359	ug/kg	71.8	359
205-99-2	Benzo(b)fluoranthene		490	ug/kg	10.8	35.9
207-08-9	Benzo(k)fluoranthene	U	35.9	ug/kg	10.8	35.9
50-32-8	Benzo(a)pyrene		220	ug/kg	10.8	35.9
193-39-5	Indeno(1,2,3-cd)pyrene		111	ug/kg	10.8	35.9
53-70-3	Dibenzo(a,h)anthracene	U	35.9	ug/kg	10.8	35.9
191-24-2	Benzo(ghi)perylene		126	ug/kg	10.8	35.9
120-82-1	1,2,4-Trichlorobenzene	U	359	ug/kg	71.8	359

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
506-30-9	Eicosanoic acid	9.06	275	ug/kg	91	NJ
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.14	170	ug/kg	98	NJ

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

Page 3 of 3

<b>SDG Number:</b> 10-2140	<b>Date Collected:</b> 02/24/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248249002	<b>Date Received:</b> 02/27/2010 09:10	<b>%Moisture:</b> 7.5
<b>Client ID:</b> RE36-10-8286	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 960971	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Run Date:</b> 03/18/2010 14:16	<b>Inst:</b> MSD6.I	<b>Dilution:</b> 1
<b>Prep Date:</b> 03/04/2010 23:22	<b>Analyst:</b> NAG1	<b>Inj. Vol:</b> .5 uL
<b>Data File:</b> s6c1817.d	<b>Aliquot:</b> 30.13 g	<b>Final Volume:</b> 1 mL
	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
---------	----------	-----------	--------	-------	---------	---------

Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
	Unknown	9.19	147	ug/kg		J
54482-31-4	D-Homoandrostane, (5.alpha.,13.alpha.)-	9.37	191	ug/kg	95	NJ
	Unknown	9.41	195	ug/kg		J
	Unknown	9.46	210	ug/kg		J
	Unknown	9.5	867	ug/kg		J
	Unknown	9.62	170	ug/kg		J
1599-67-3	1-Docosene	9.8	907	ug/kg	97	NJ
7773-83-3	1-Docosanethiol	9.93	298	ug/kg	87	NJ
1786-12-5	Cyclotetradecane, 1,7,11-trimethyl-4-(1-	9.99	151	ug/kg	94	NJ
930-02-9	Octadecane, 1-(ethenyloxy)-	10.04	190	ug/kg	90	NJ
629-78-7	Heptadecane	10.13	195	ug/kg	92	NJ
	Unknown	10.24	234	ug/kg		J
2433-96-7	Tricosanoic acid	10.41	447	ug/kg	89	NJ
559-74-0	Friedelan-3-one	10.63	2610	ug/kg	93	NJ
	Unknown	10.71	478	ug/kg		J
	Unknown	10.77	965	ug/kg		J
1000130-78-5	11,12-Dibromo-tetradecan-1-ol acetate	11.04	376	ug/kg	84	NJ

Data File: /chem/MSD6.i/s031810.b/s6c1817.d  
 Report Date: 18-Mar-2010 15:38

Page 1

# GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1817.d  
 Lab Smp Id: 248249002 Client Smp ID: RE36-10-8286  
 Inj Date : 18-MAR-2010 14:16  
 Operator : nagl Inst ID: MSD6.i  
 Smp Info : |248249002|960971|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100310-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 18-Mar-2010 14:53 llo00884 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
 Als bottle: 17  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2140.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	30.13000	weight of sample
M	7.51010	% 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	3.969	3.963	(1.000)	467885	40.0000
* 29 Naphthalene-d8	136	4.839	4.834	(1.000)	1718788	40.0000
* 46 Acenaphthene-d10	164	6.098	6.092	(1.000)	1062732	40.0000
* 67 Phenanthrene-d10	186	7.280	7.269	(1.000)	1855330	40.0000
* 91 Chrysene-d12	240	9.710	9.698	(1.000)	1363261	40.0000
* 98 Perylene-d12	264	11.427	11.404	(1.000)	836682	40.0000
\$ 3 2-Fluorophenol	112	3.157	3.140	(0.795)	812154	62.4410 2240
\$ 5 Phenol-d5	99	3.681	3.669	(0.927)	1060659	64.1226 2300
\$ 20 Nitrobenzene-d5	82	4.328	4.328	(0.894)	498734	30.3541 1090
\$ 39 2-Fluorobiphenyl	172	5.581	5.575	(0.915)	1012484	36.9267 1320
\$ 60 2,4,6-Tribromophenol	329	6.698	6.692	(1.098)	260381	87.3125 3130
\$ 81 p-Terphenyl-d14	244	8.669	8.651	(0.893)	1124304	47.3271 1700

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	=====	=====	=====	=====	=====	=====
47 Acenaphthene	154	6.122	6.116	(1.004)	11109	0.40289	14.4(a)
79 Pyrene	202	8.563	8.551	(0.882)	492485	11.8505	425
53 Fluorene	166	6.510	6.504	(1.068)	11114	0.37423	13.4(a)
68 Phenanthrene	178	7.298	7.286	(1.002)	267518	5.91752	212
69 Anthracene	178	7.339	7.334	(1.008)	38603	0.84761	30.4(a)
72 Di-n-butylphthalate	149	7.698	7.692	(1.057)	378969	7.19498	258(a)
76 Fluoranthene	202	8.351	8.333	(1.147)	542366	11.8301	424
89 Benzo(a)anthracene	228	9.698	9.680	(0.999)	170109	4.77877	171
92 Chrysene	228	9.733	9.722	(1.002)	254706	7.49115	269
95 Benzo(b)fluoranthene	252	10.892	10.874	(0.953)	310562	13.6534	490
97 Benzo(a)pyrene	252	11.345	11.322	(0.993)	118048	6.12787	220
99 Indeno(1,2,3-cd)pyrene	276	13.227	13.210	(1.157)	54604	3.08897	111
101 Benzo(ghi)perylene	276	13.786	13.763	(1.206)	53040	3.51403	126(H)

#### QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).
- H - Operator selected an alternate compound hit.



## ION RATIO REPORT

## SV REPORT

Data file: s6c1817.d

Report Date: 03/18/2010 14:59

Lab. ID: 248249002

SampleType: SAMPLE

Injection Date: 18-MAR-2010 14:16

Operator: nagl

Instrument: MSD6.i

Sample Info: |248249002|960971|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2140

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
1 N-Methyl-N-nitrosomethylamine				CAS#: 62-75-9		
74	118842	2.09	2.45	80-120	100	(T)
42	206644	2.09	2.45	76-136	174	(QT)
43	1420729	2.09	2.45	14- 74	1195	(QT)
-----						
4 Aniline				CAS#: 62-53-3		
66	56934	3.68	3.75	80-120	100	(T)
93	1621	3.65	3.75	407-467	3	(QT)
-----						
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	74747	4.33	4.20	80-120	100	(T)
42	45768	4.33	4.20	42-102	61	(T)
-----						
22 Isophorone				CAS#: 78-59-1		
82	498734	4.33	4.49	80-120	100	(T)
138	9667	4.84	4.49	0- 49	2	(T)
-----						
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	12936	5.83	5.68	80-120	100	(T)
164	1193	5.83	5.68	3- 63	9	(T)
127	1154	5.83	5.68	8- 68	9	(T)
-----						
43 Dimethylphthalate				CAS#: 131-11-3		
163	197123	6.10	5.85	80-120	100	(T)
164	1062732	6.10	5.85	0- 41	539	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
45 Acenaphthylene		CAS#: 208-96-8				
152	56500	5.58	5.99	80-120	100	(T)
151	55071	5.58	5.99	0- 50	97	(QT)
153	17260	5.58	5.99	0- 44	31	(T)
-----						
47 Acenaphthene		CAS#: 83-32-9				
154	11109	6.12	6.12	80-120	100	( )
153	10283	6.12	6.12	68-128	93	( )
152	4877	6.12	6.12	16- 76	44	( )
-----						
48 2,4-Dinitrophenol		CAS#: 51-28-5				
184	365	6.45	6.11	80-120	100	(T)
154	238	6.45	6.12	682-742	65	(QT)
-----						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	140892	6.10	6.20	80-120	100	(T)
89	2004	6.10	6.20	40-100	1	(QT)
63	1562	6.10	6.20	18- 78	1	(QT)
-----						
53 Fluorene		CAS#: 86-73-7				
166	11114	6.51	6.50	80-120	100	( )
165	9358	6.51	6.50	61-121	84	( )
167	2657	6.51	6.50	0- 44	24	( )
-----						
55 2-Methyl-4,6-dinitrophenol		CAS#: 534-52-1				
198	822	6.70	6.52	80-120	100	(T)
105	2271	6.70	6.52	10- 70	276	(QT)
51	1807	6.70	6.51	37- 97	220	(QT)
-----						
61 4-Bromophenylphenylether		CAS#: 101-55-3				
248	18732	6.70	6.87	80-120	100	(T)
141	121361	6.70	6.87	46-106	648	(QT)
250	37067	6.70	6.87	66-126	198	(QT)
-----						
68 Phenanthrene		CAS#: 85-01-8				
178	267518	7.30	7.29	80-120	100	( )
179	45277	7.30	7.29	0- 46	17	( )
176	49226	7.30	7.29	0- 49	18	( )
-----						
69 Anthracene		CAS#: 120-12-7				
178	38603	7.34	7.33	80-120	100	( )
179	8241	7.33	7.33	0- 47	21	( )
176	6957	7.34	7.33	0- 48	18	( )
-----						
72 Di-n-butylphthalate		CAS#: 84-74-2				
149	378969	7.70	7.69	80-120	100	( )
150	37147	7.70	7.69	0- 40	10	( )
104	20009	7.70	7.69	0- 35	5	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
76 Fluoranthene		CAS#: 206-44-0				
202	542366	8.35	8.33	80-120	100	( )
203	96567	8.35	8.33	0- 48	18	( )
101	57791	8.35	8.33	0- 42	11	( )
-----						
79 Pyrene		CAS#: 129-00-0				
202	492485	8.56	8.55	80-120	100	( )
200	102419	8.56	8.55	0- 51	21	( )
101	64456	8.56	8.55	0- 44	13	( )
-----						
89 Benzo(a)anthracene		CAS#: 56-55-3				
228	170109	9.70	9.68	80-120	100	( )
226	46126	9.70	9.68	0- 56	27	( )
229	46700	9.70	9.68	0- 50	27	( )
-----						
92 Chrysene		CAS#: 218-01-9				
228	254706	9.73	9.72	80-120	100	( )
229	61067	9.73	9.72	0- 50	24	( )
226	74289	9.73	9.72	0- 59	29	( )
-----						
95 Benzo(b)fluoranthene		CAS#: 205-99-2				
252	310562	10.89	10.87	80-120	100	( )
253	73388	10.89	10.87	0- 52	24	( )
125	39882	10.89	10.87	0- 40	13	( )
-----						
96 Benzo(k)fluoranthene		CAS#: 207-08-9				
252	310562	10.89	10.91	80-120	100	( )
253	73091	10.89	10.91	0- 52	24	( )
125	43202	10.89	10.91	0- 42	14	( )
-----						
97 Benzo(a)pyrene		CAS#: 50-32-8				
252	118048	11.34	11.32	80-120	100	( )
253	26261	11.34	11.32	0- 52	22	( )
125	15610	11.34	11.32	0- 43	13	( )
-----						
99 Indeno(1,2,3-cd)pyrene		CAS#: 193-39-5				
276	54604	13.23	13.21	80-120	100	( )
138	12878	13.23	13.22	0- 60	24	( )
-----						
100 Dibenzo(a,h)anthracene		CAS#: 53-70-3				
278	13352	13.24	13.23	80-120	100	( )
139	4089	13.23	13.23	0- 50	31	( )
-----						
101 Benzo(ghi)perylene		CAS#: 191-24-2				
276	53040	13.79	13.76	80-120	100	( )
138	12774	13.78	13.76	0- 59	24	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1817.d  
 Lab Smp Id: 248249002 Client Smp ID: RE36-10-8286  
 Inj Date : 18-MAR-2010 14:16  
 Operator : nagl Inst ID: MSD6.i  
 Smp Info : |248249002|960971|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100310-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 18-Mar-2010 14:53 llo00884 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
 Als bottle: 17  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2140.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	30.13000	weight of sample
M	7.51010	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 91 Chrysene-d12	9.710	8006534	40.000
* 98 Perylene-d12	11.427	2742273	40.000

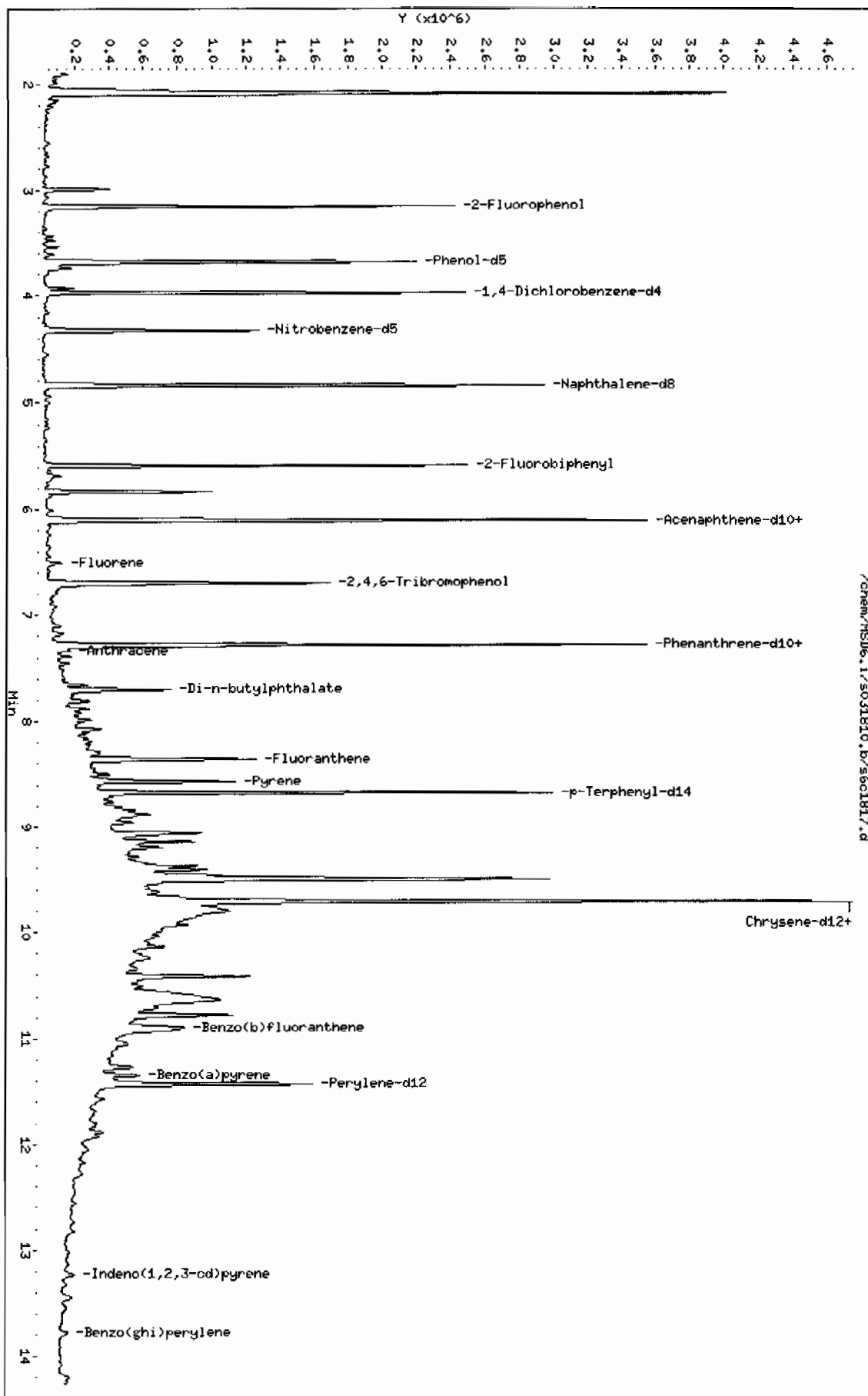
CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Eicosanoic acid					CAS #: 506-30-9		
9.057	1536195	7.67470588	275	91	NIST05.L	132301	91

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 1235-74-1		
9.139	946495	4.72861103	170	98	NIST05.L	133618	91
Unknown					CAS #:		
9.192	817733	4.08532671	146	0		0	91
D-Homoandrostane, (5.alpha.,13.alpha.)-					CAS #: 54482-31-4		
9.374	1064885	5.32008011	191	95	NIST05.L	108369	91
Unknown					CAS #:		
9.410	1086023	5.42568263	195	0		0	91
Unknown					CAS #:		
9.463	1169590	5.84317963	210	0		0	91
Unknown					CAS #:		
9.498	4835757	24.1590498	867	0		0	91
Unknown					CAS #:		
9.621	950727	4.74975786	170	0		0	91
1-Docosene					CAS #: 1599-67-3		
9.798	5057970	25.2692078	907	97	NIST05.L	129888	91
1-Docosanethiol					CAS #: 7773-83-3		
9.933	1660790	8.29717389	298	87	NIST05.L	148955	91
Cyclotetradecane, 1,7,11-trimethyl-4-(1-					CAS #: 1786-12-5		
9.992	842336	4.20824105	151	94	NIST05.L	112115	91
Octadecane, 1-(ethenyl-oxy)-					CAS #: 930-02-9		
10.039	1059772	5.29453426	190	90	NIST05.L	122415	91
Heptadecane					CAS #: 629-78-7		
10.133	1086870	5.42991694	195	92	NIST05.L	85523	91
Unknown					CAS #:		
10.239	1306276	6.52604978	234	0		0	91
Tricosanoic acid					CAS #: 2433-96-7		
10.410	2491204	12.4458558	447	89	NIST05.L	154644	91
Friedelan-3-one					CAS #: 559-74-0		
10.633	4991025	72.8012757	2610	93	NIST05.L	176566	98

RT	CONCENTRATIONS				QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	
====	====	=====	=====	====	=====	=====	=====
Unknown					CAS #:		
10.710	913630	13.3266019	478	0		0	98
Unknown					CAS #:		
10.774	1842687	26.8782357	964	0		0	98
11,12-Dibromo-tetradecan-1-ol acetate					CAS #: 1000130-78-5		
11.045	718902	10.4862167	376	84	NIST05.L	173750	98

Data File: /chem/MSD6.i/s031810.b/s601817.d  
 Date: 18-MAR-2010 14:16  
 Client ID: REC6-10-8286  
 Sample Info: 1248249002|960974111SW11LNL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5HS

Instrument: MSD6.i  
 Operator: nag1  
 Column diameter: 0.20



Date : 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVMI11LANL

Volume Injected (uL): 0.5

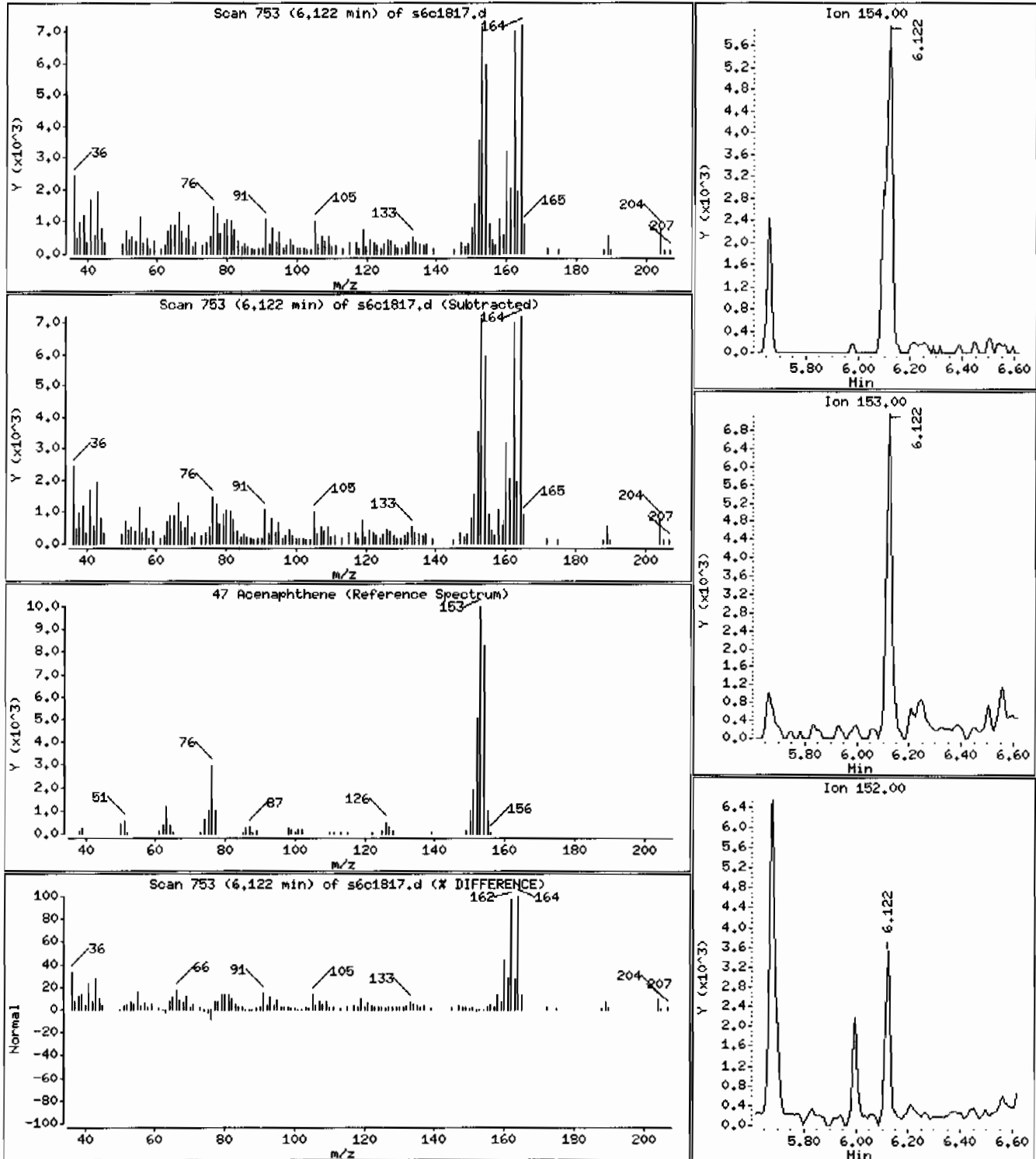
Operator: nag1

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

Column diameter: 0.20

47 Acenaphthene

Concentration: 14.4 ug/Kg





Date : 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: I248249002196097111SVH111LANL

Volume Injected (uL): 0.5

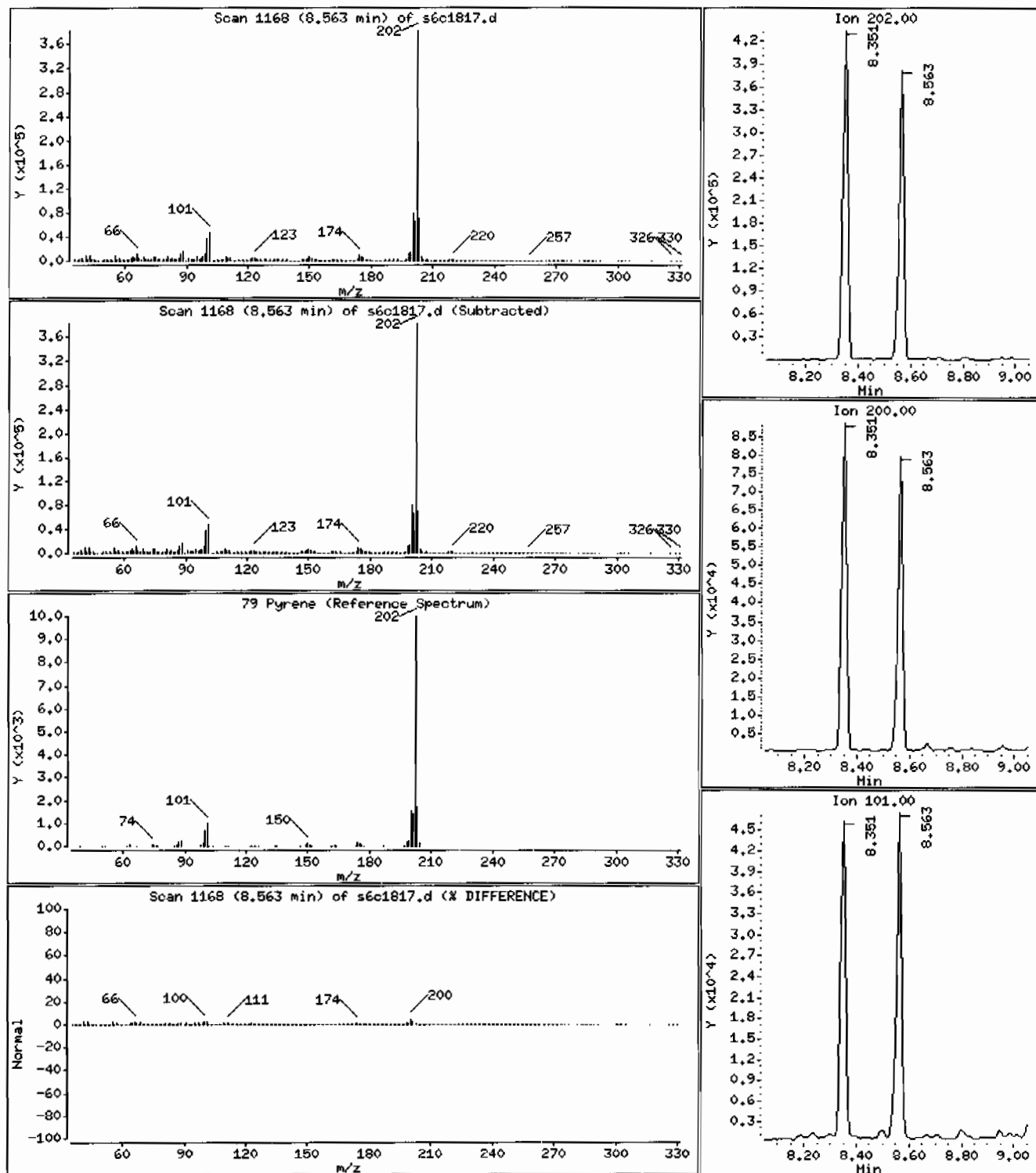
Operator: nag1

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

Column diameter: 0.20

79 Pyrene

Concentration: 425 ug/Kg



Date : 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVH111LANL

Volume Injected (uL): 0.5

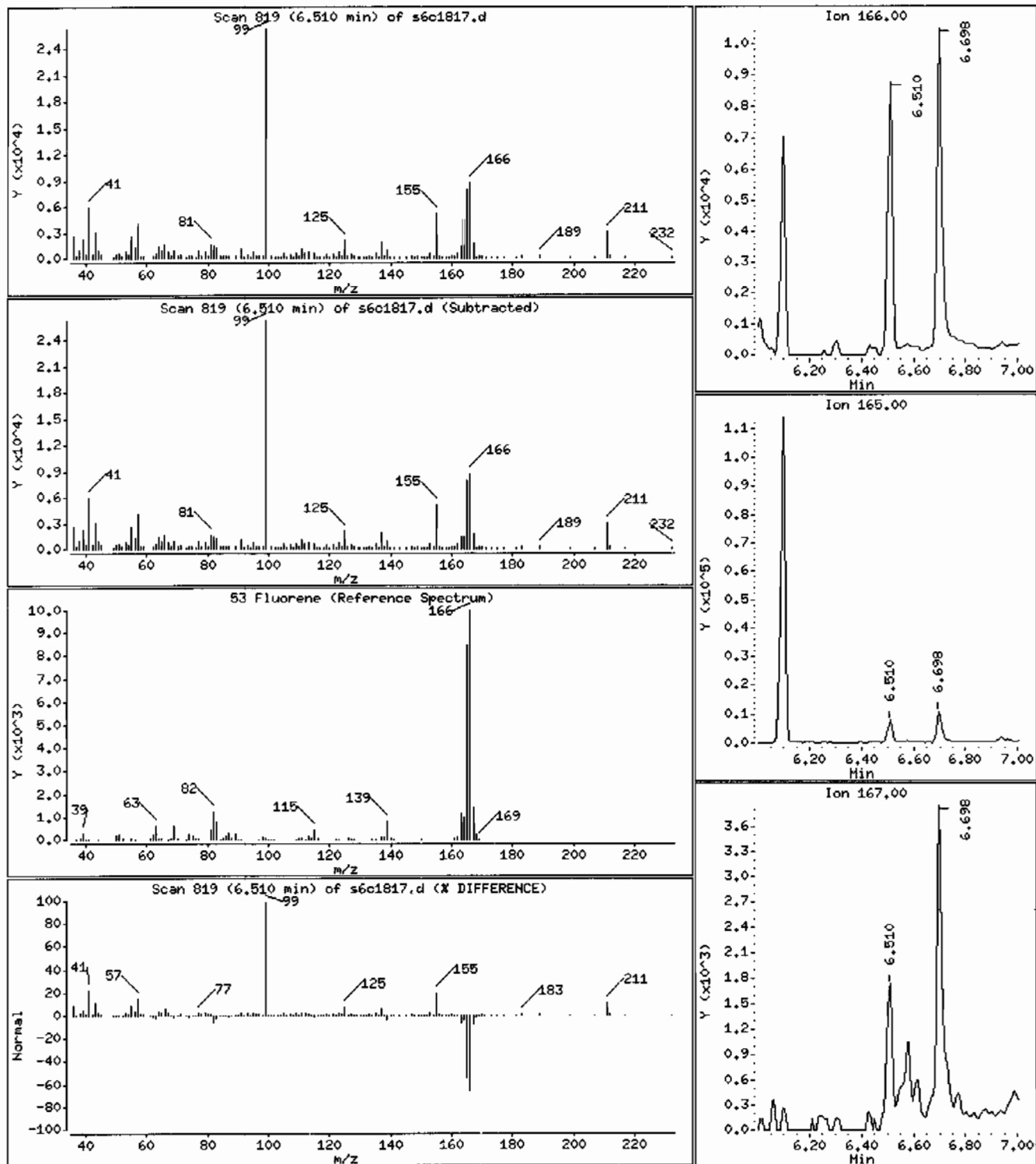
Operator: nag1

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

Column diameter: 0.20

53 Fluorene

Concentration: 13.4 ug/Kg



Date: 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVH111LANL

Volume Injected (uL): 0.5

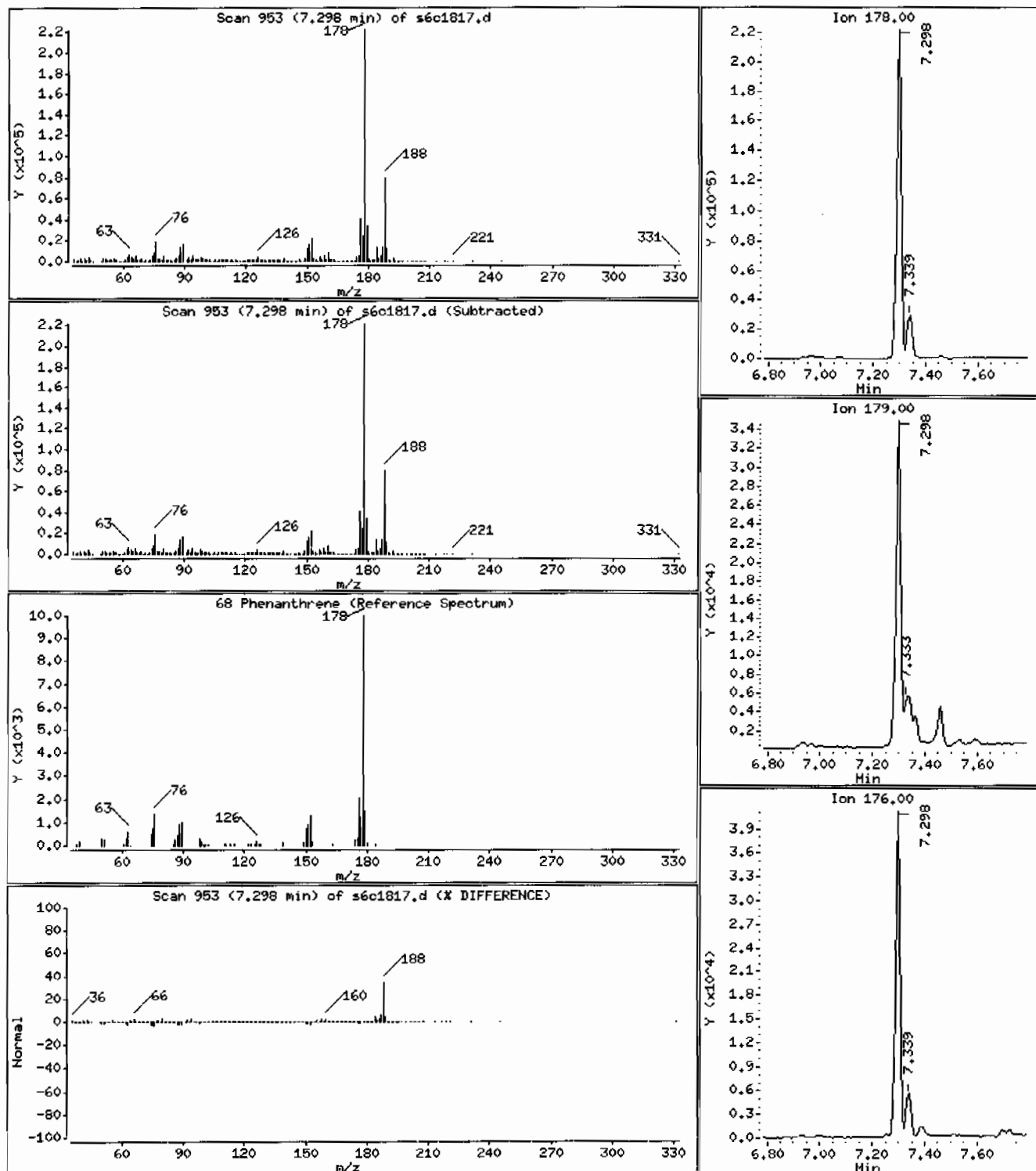
Operator: nag1

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

Column diameter: 0.20

68 Phenanthrene

Concentration: 212 ug/Kg



Date : 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 12482490021960971111SVH111LANL

Volume Injected (uL): 0.5

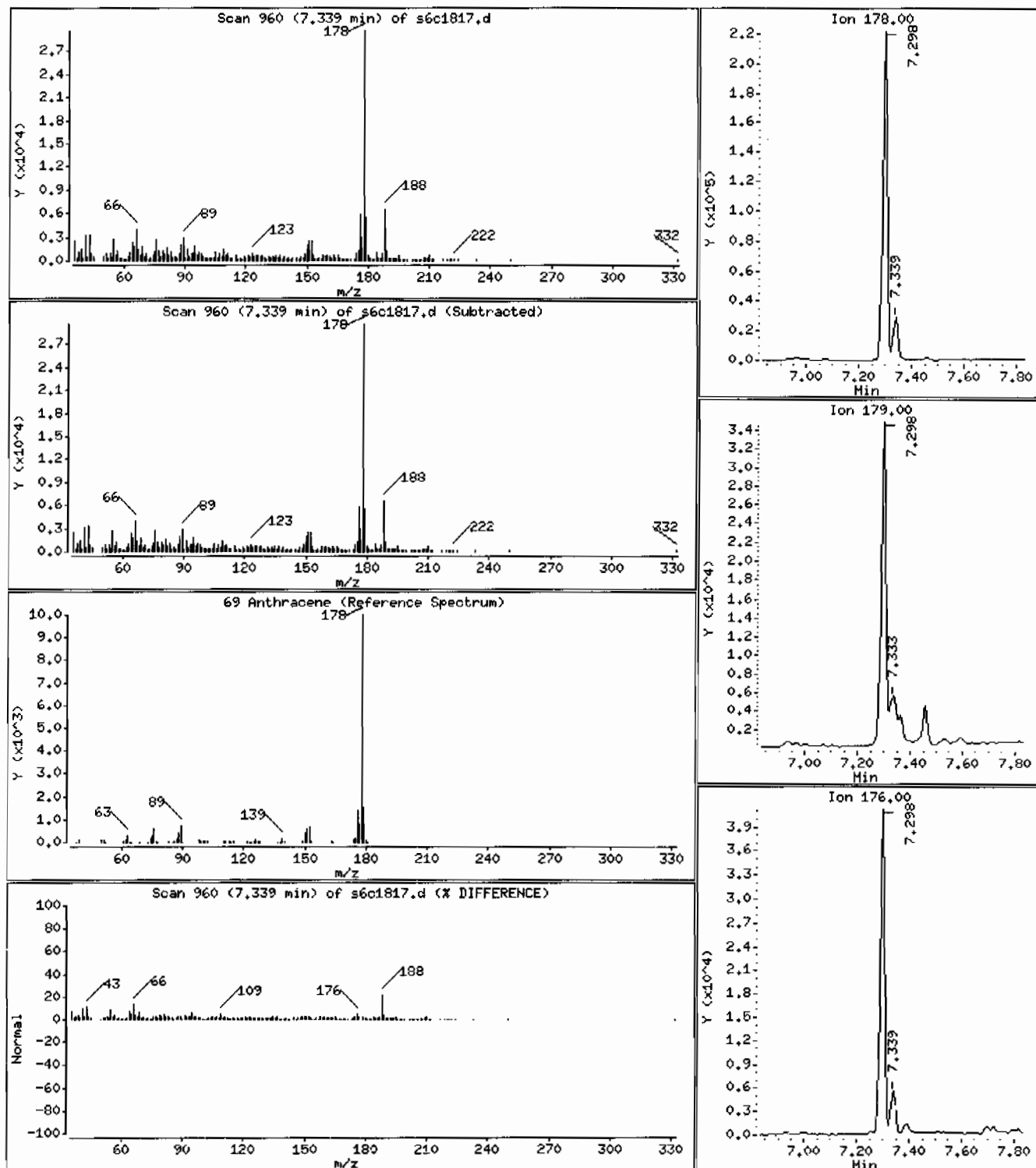
Operator: nag1

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

Column diameter: 0.20

69 Anthracene

Concentration: 30.4 ug/Kg



Date : 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVH111LANL

Volume Injected (uL): 0.5

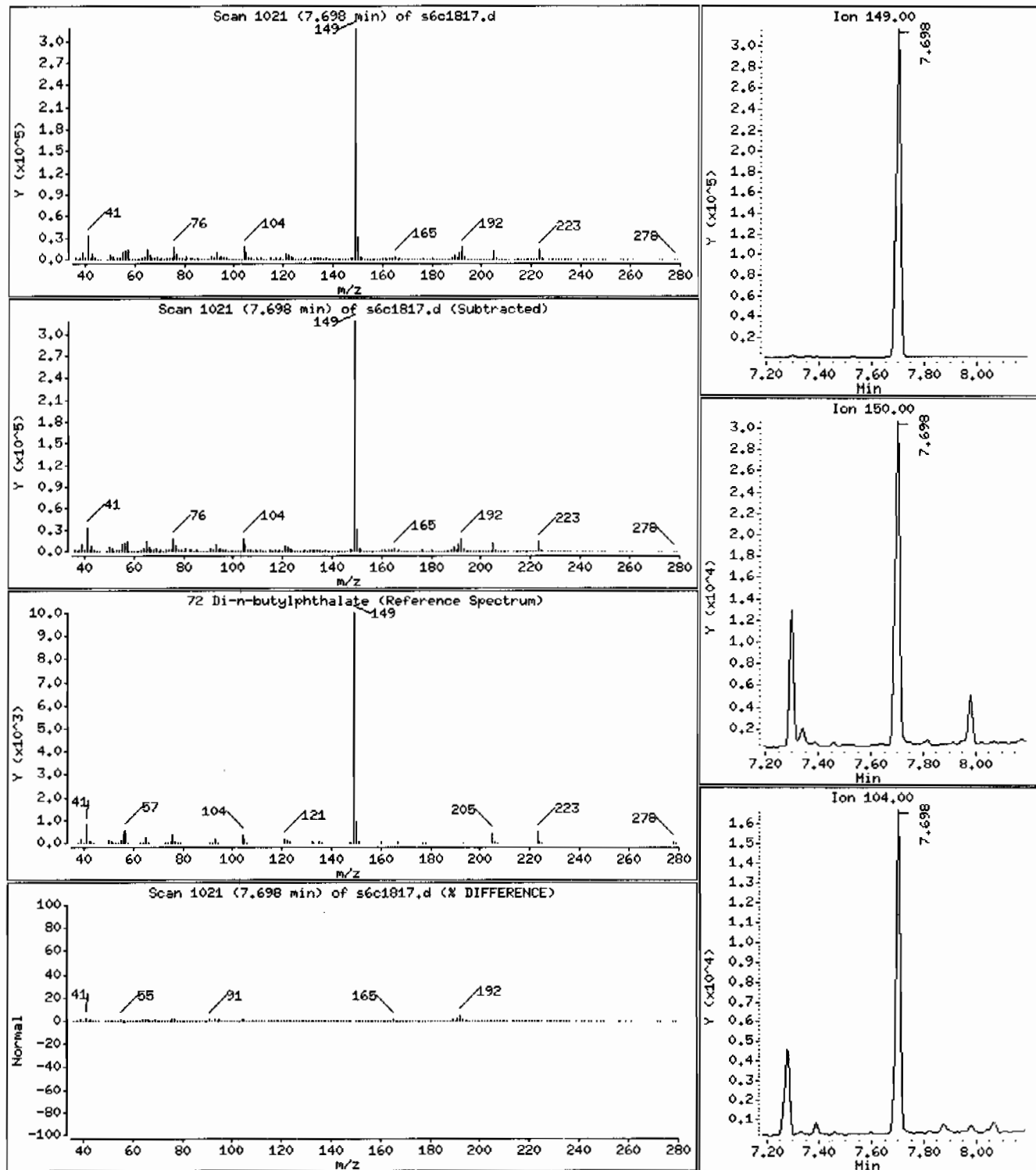
Operator: nag1

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

Column diameter: 0.20

72 Di-n-butylphthalate

Concentration: 258 ug/Kg



Date : 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVMI11LANL

Volume Injected (uL): 0.5

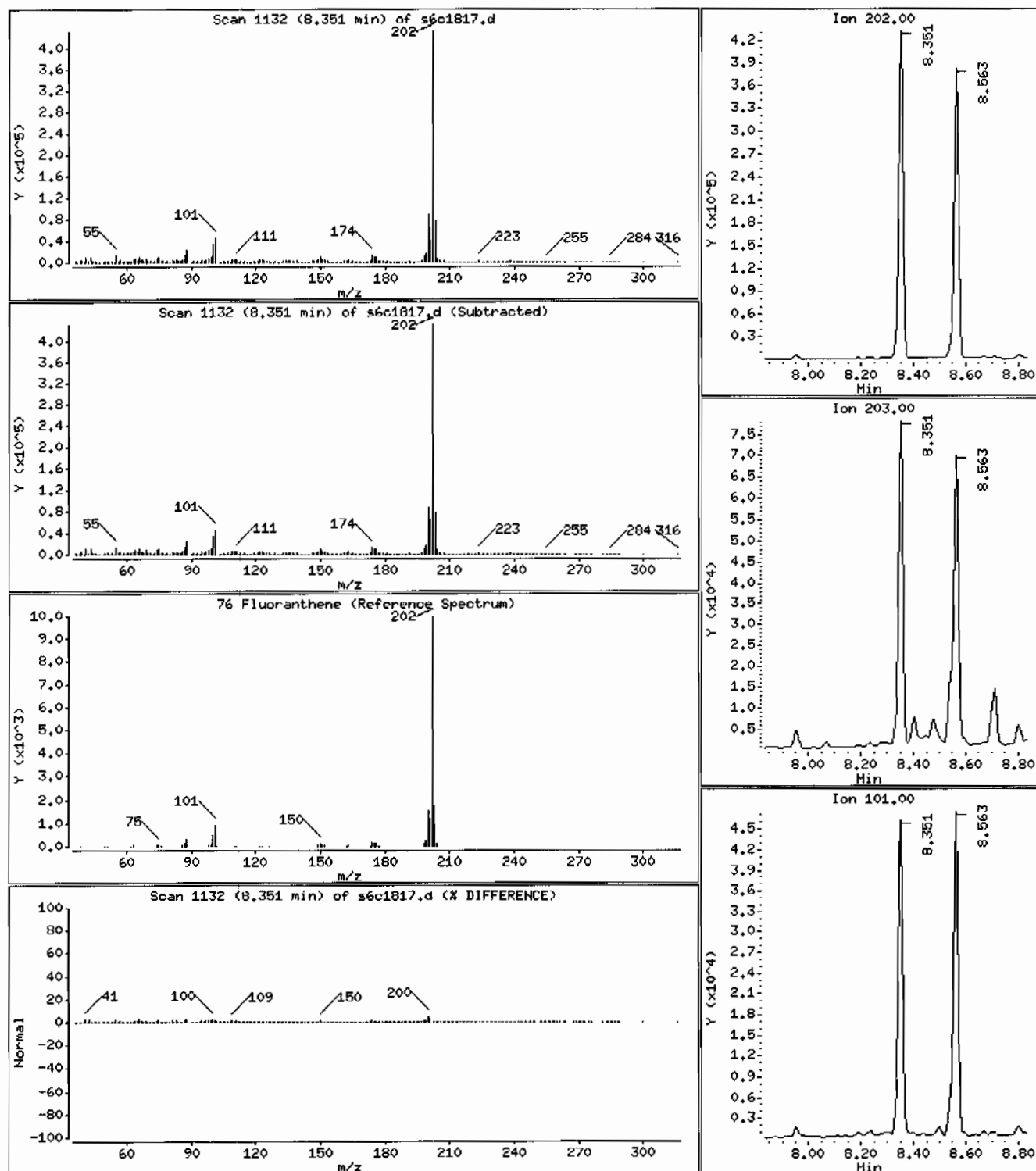
Operator: nag1

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

Column diameter: 0.20

76 Fluoranthene

Concentration: 424 ug/Kg



Date : 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVH11LANL

Volume Injected (uL): 0,5

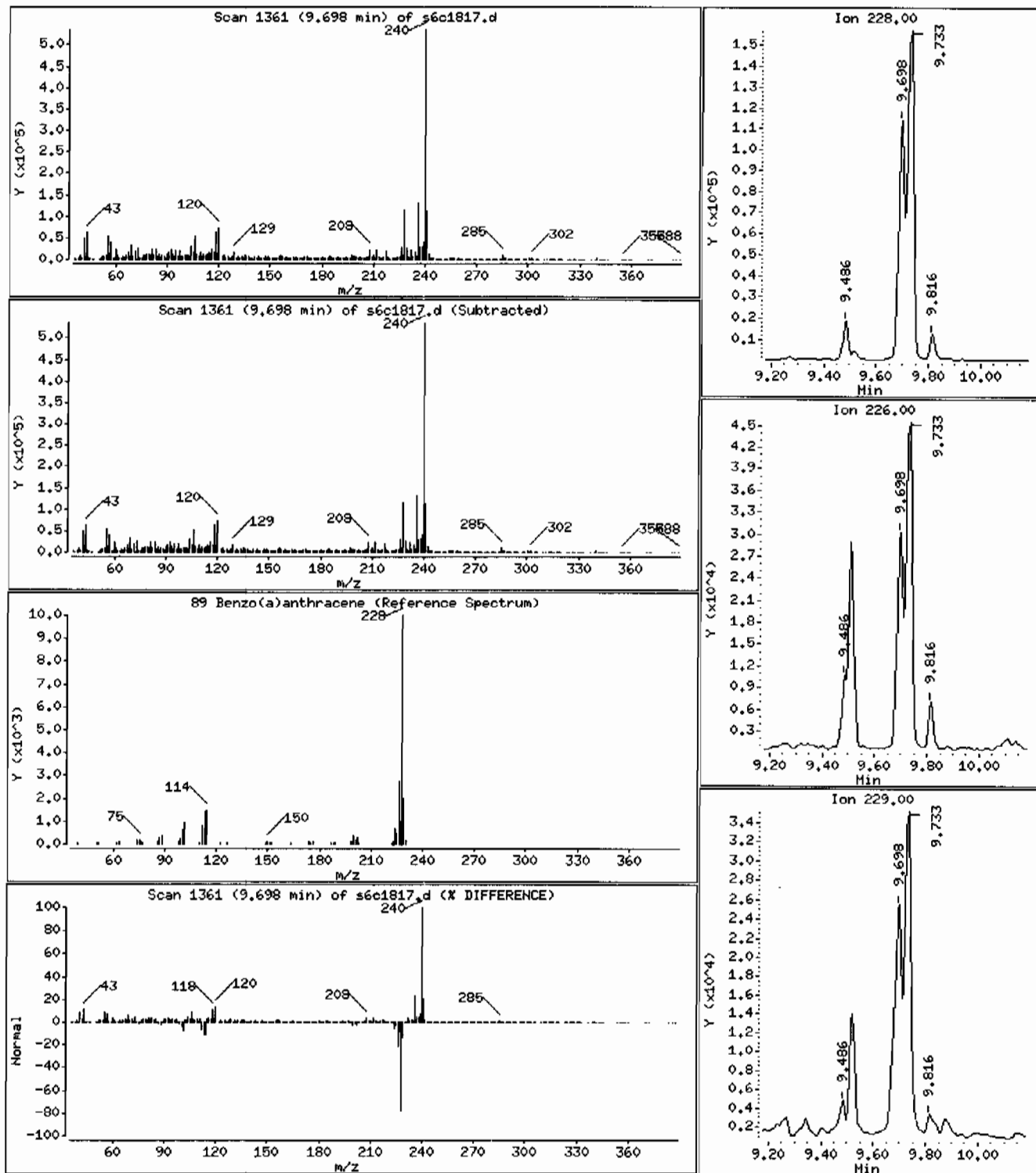
Operator: nag1

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

Column diameter: 0,20

89 Benzo(a)anthracene

Concentration: 171 ug/Kg



Date : 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: I248249002I960971I1ISVMH1ILANL

Volume Injected (uL): 0.5

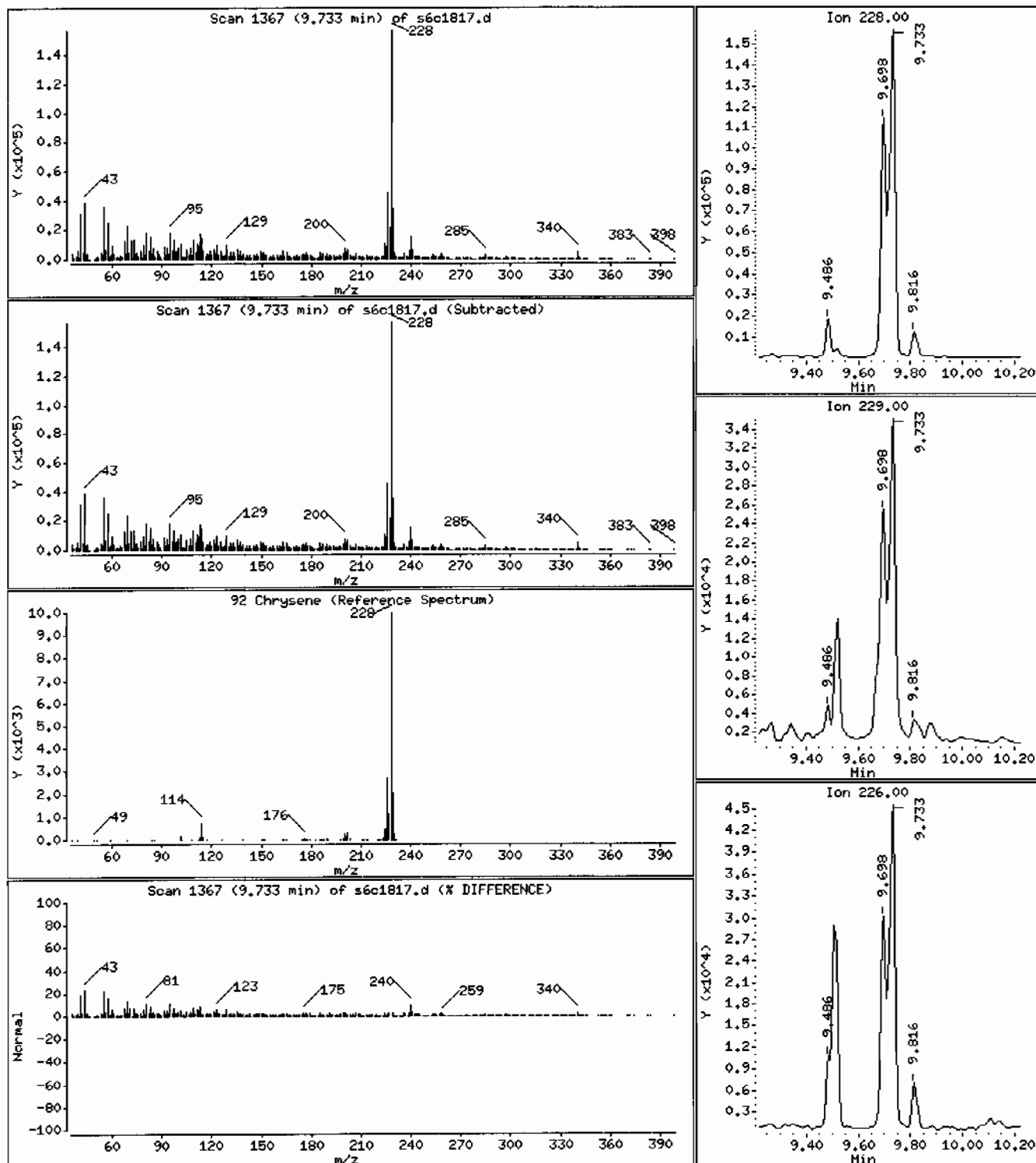
Operator: nag1

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

Column diameter: 0.20

92 Chrysene

Concentration: 269 ug/Kg





Date: 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 12482490021960971111SVH111LANL

Volume Injected (uL): 0.5

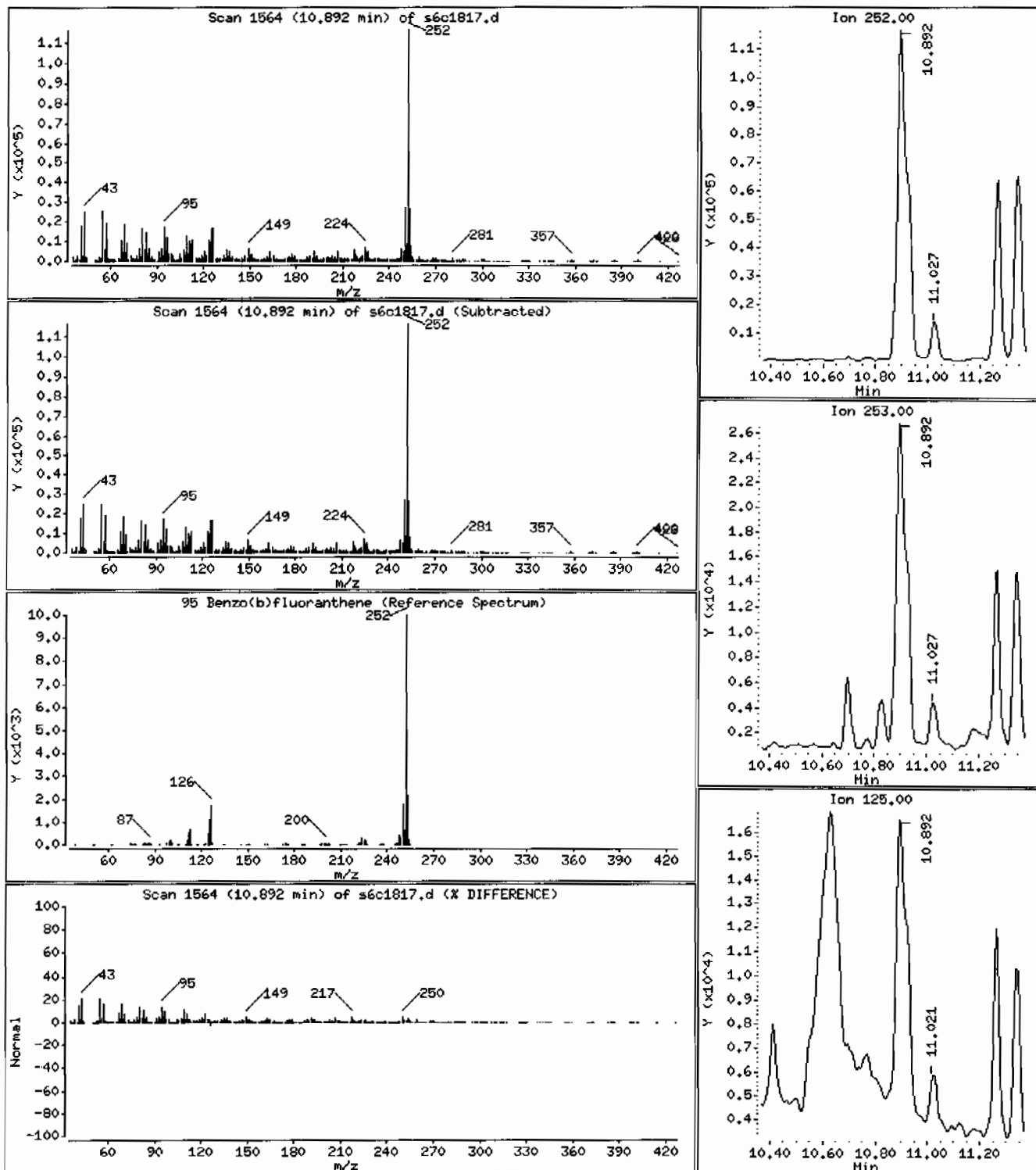
Operator: nag1

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

Column diameter: 0.20

96 Benzo(b)fluoranthene

Concentration: 490 ug/Kg



Date : 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: HSD6.i

Sample Info: 1248249002196097111SVH111LANL

Volume Injected (uL): 0.5

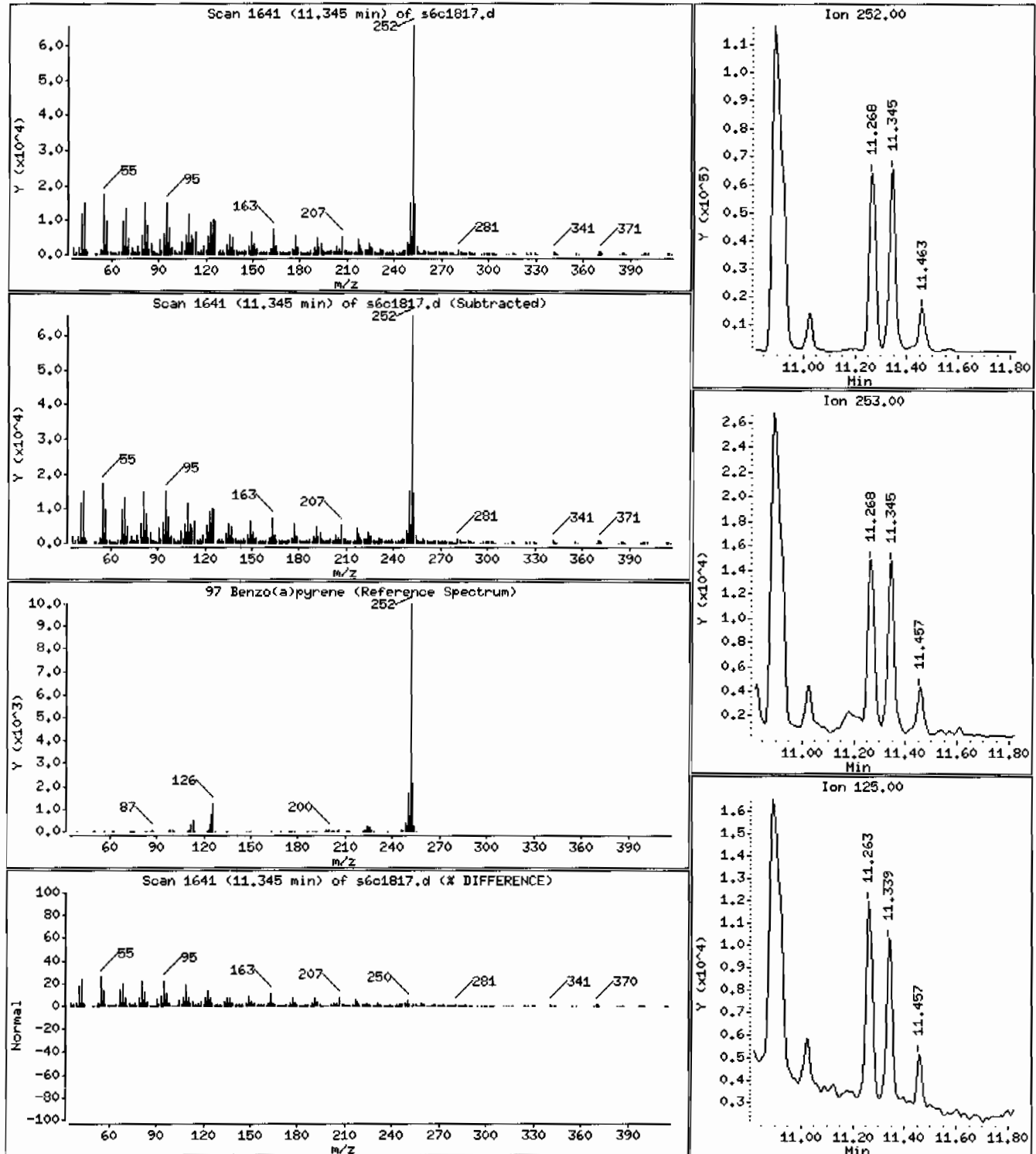
Operator: nag1

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

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 220 ug/Kg



Date: 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVH111LANL

Volume Injected (uL): 0.5

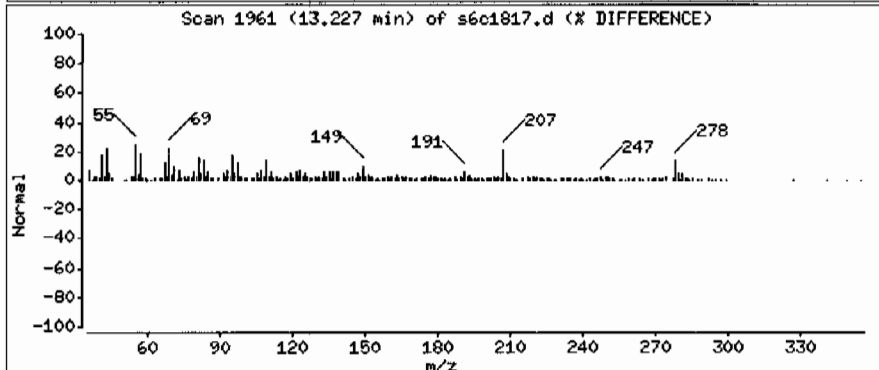
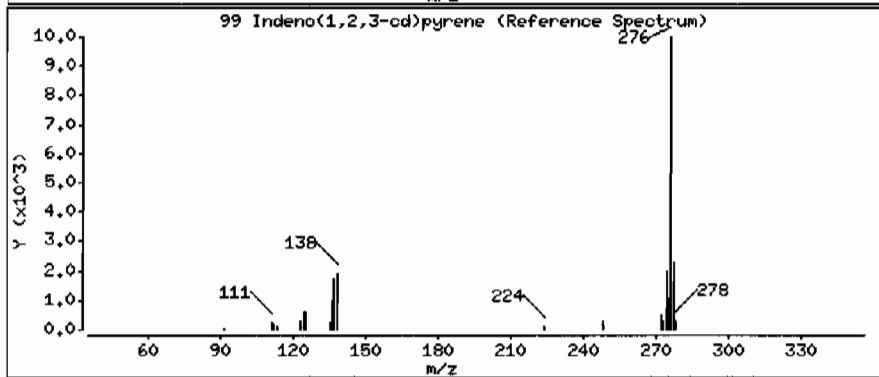
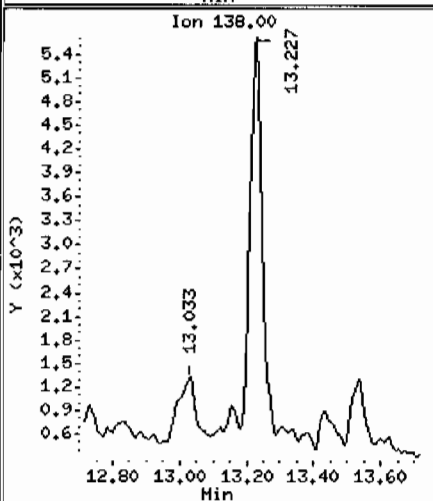
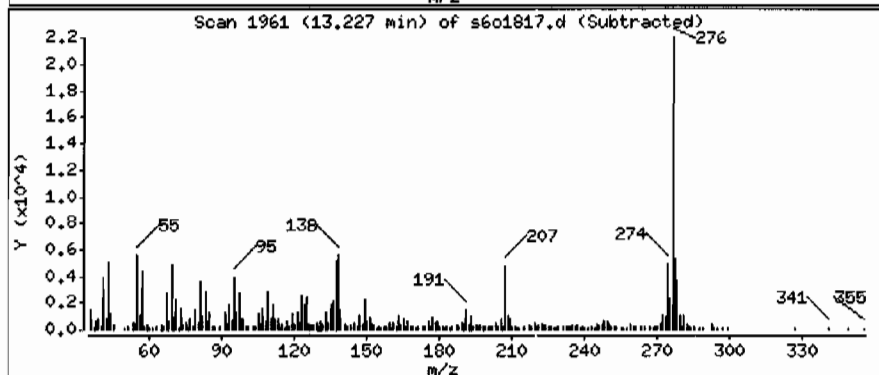
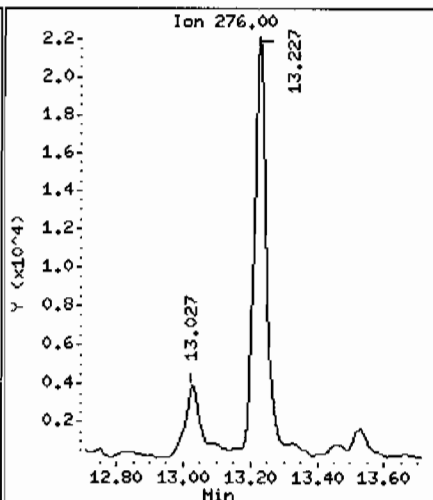
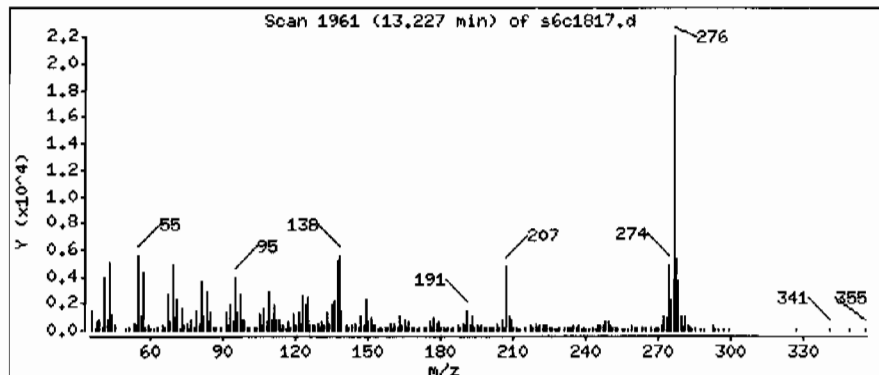
Operator: nag1

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

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 111 ug/Kg



Date: 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVMI11LANL

Volume Injected (uL): 0.5

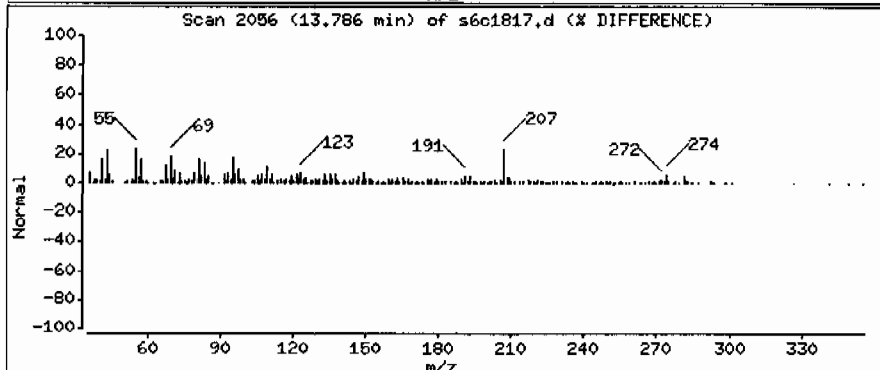
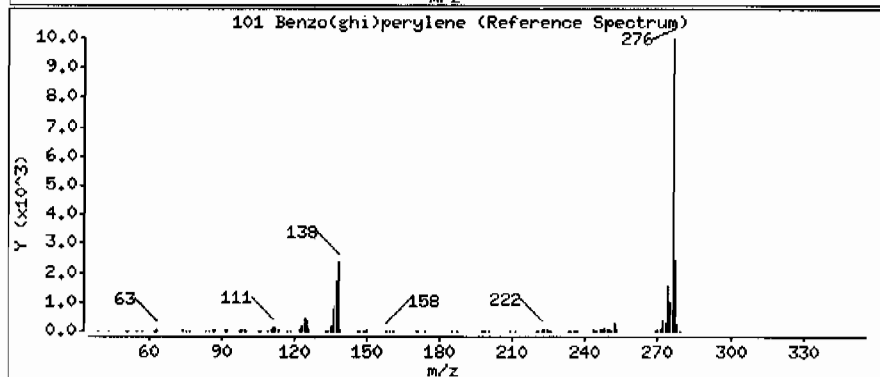
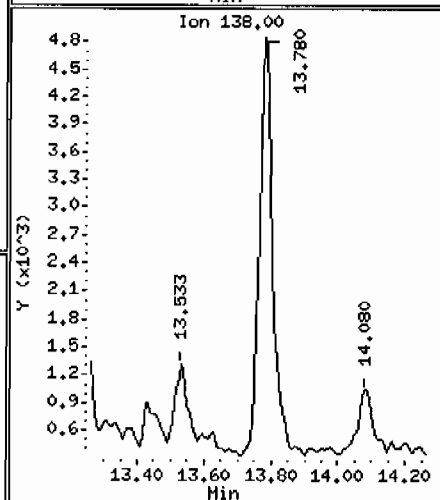
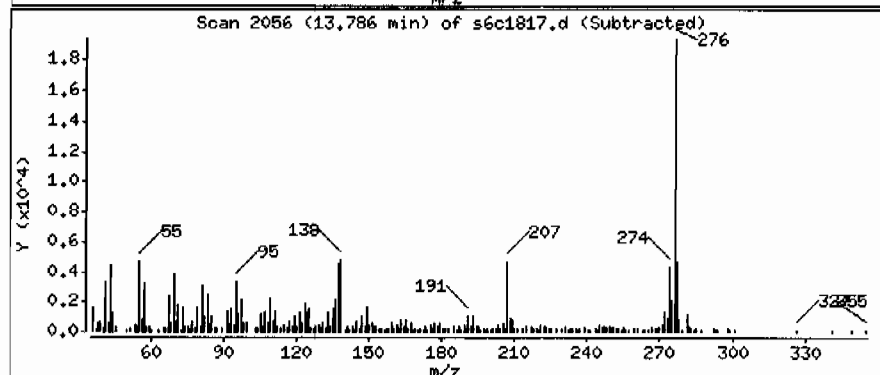
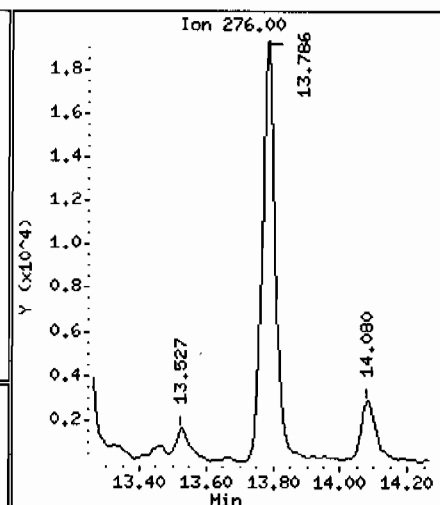
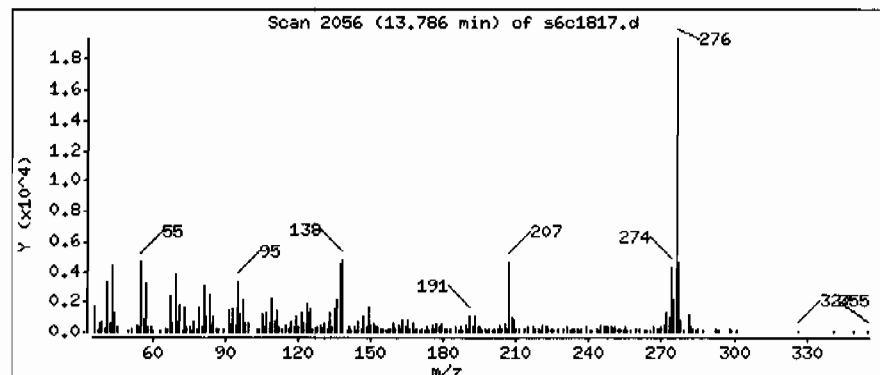
Operator: nag1

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

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 126 ug/Kg



Date : 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVMI11LANL

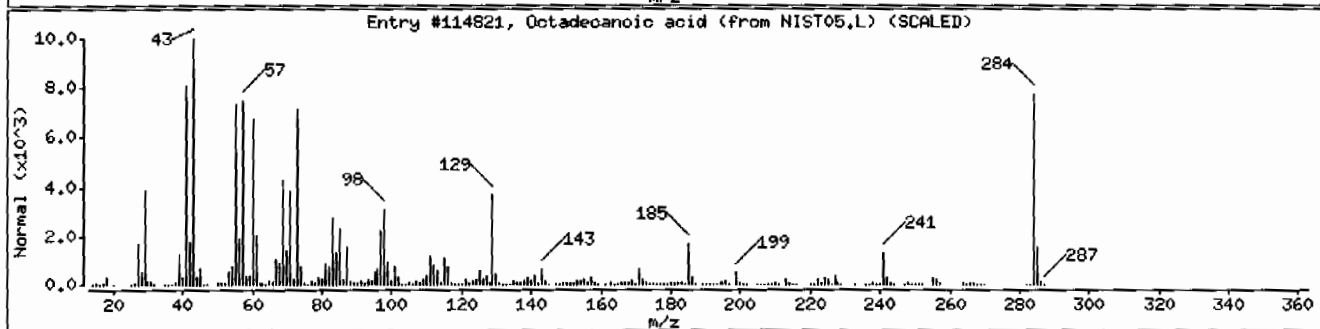
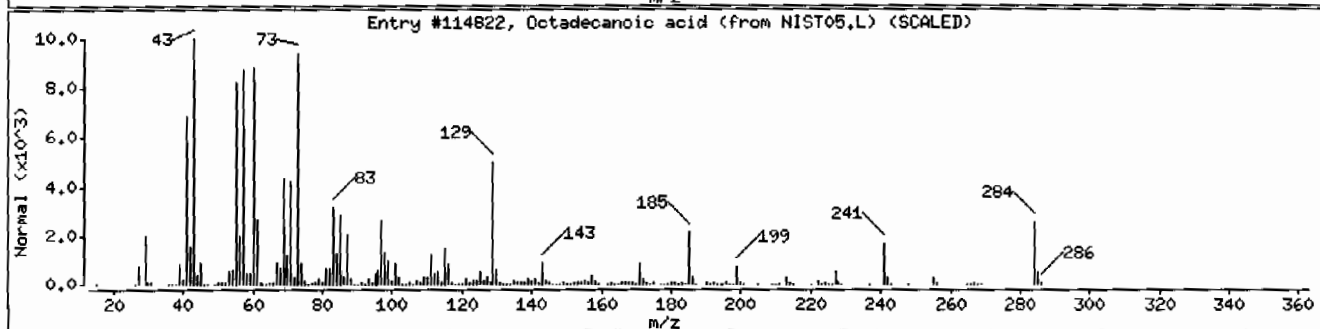
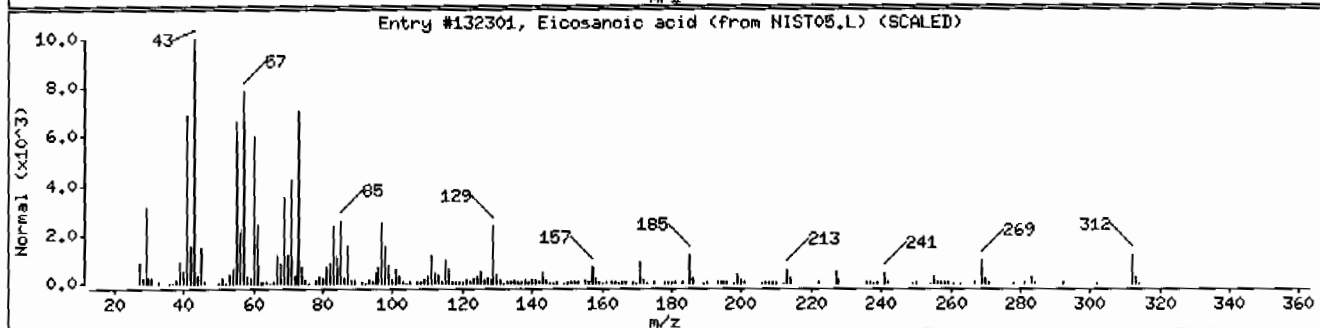
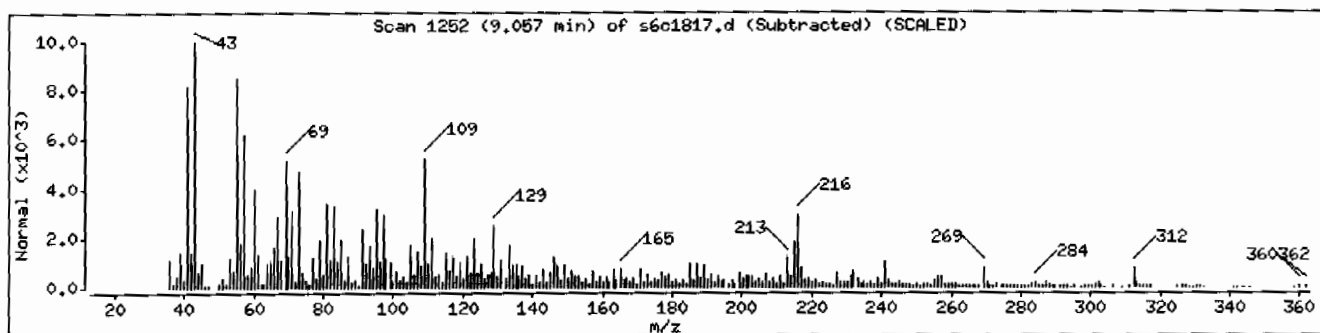
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosanoic acid	506-30-9	NIST05.L	132301	91	C20H40O2	312
Octadecanoic acid	57-11-4	NIST05.L	114822	30	C18H36O2	284
Octadecanoic acid	57-11-4	NIST05.L	114821	30	C18H36O2	284



Date: 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVH111LANL

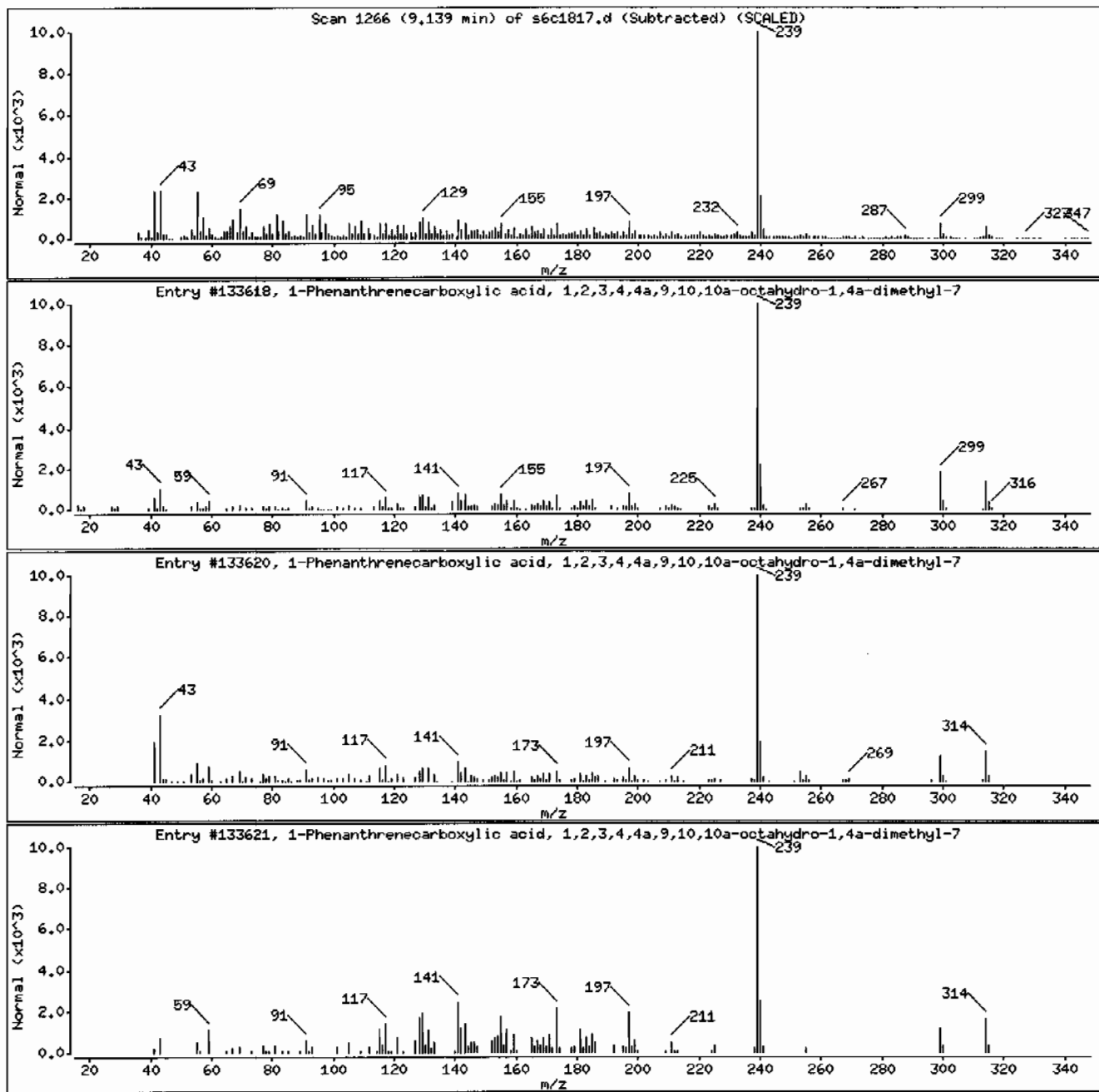
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133618	98	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133620	94	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133621	93	C21H30O2	314



Date : 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVH111LANL

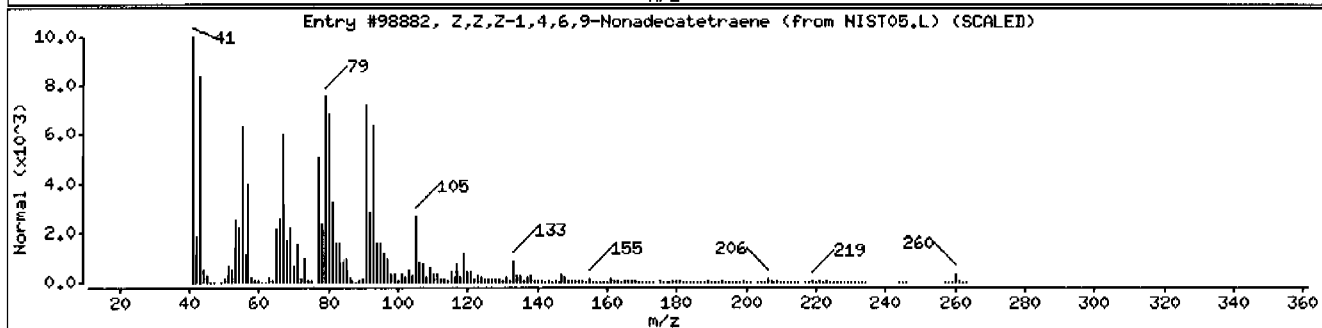
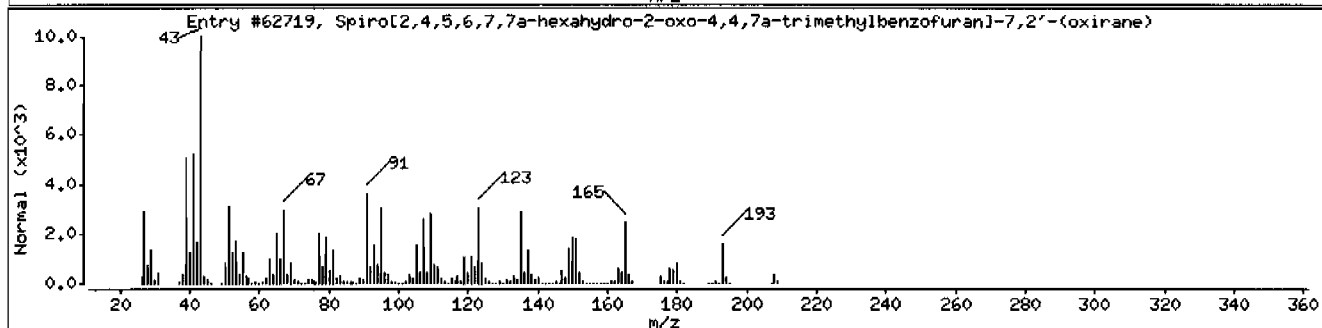
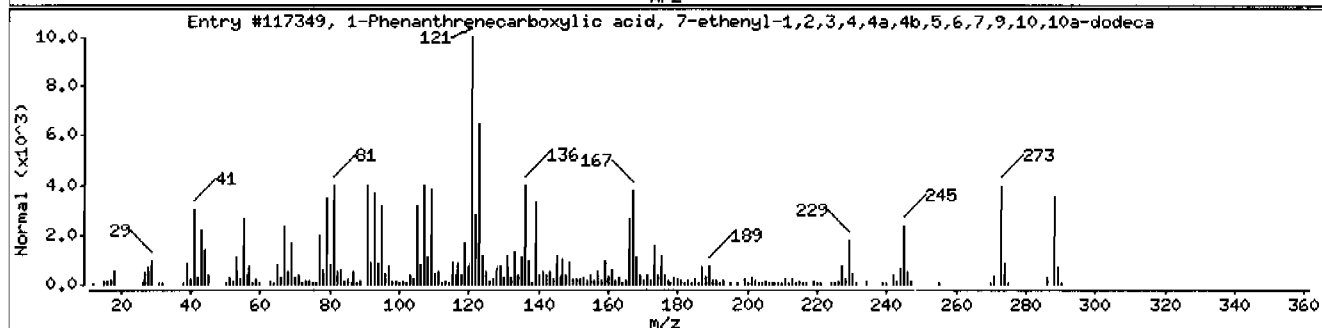
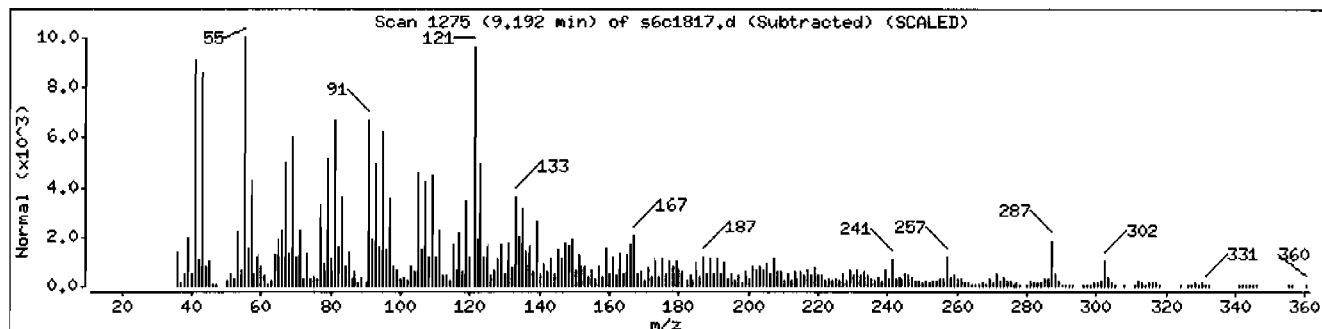
Volume Injected (uL): 0.5

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						
1-Phenanthrenecarboxylic acid, 7-ethenyl	57289-55-1	NIST05.L	117349	78	C19H28O2	288
Spiro[2,4,5,6,7,7a-hexahydro-2-oxo-4,4,7	1000197-10-9	NIST05.L	62719	50	C12H16O3	208
Z,Z,Z-1,4,6,9-Nonadecatetraene	1000131-11-6	NIST05.L	98882	46	C19H32	260



Date: 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVH111LANL

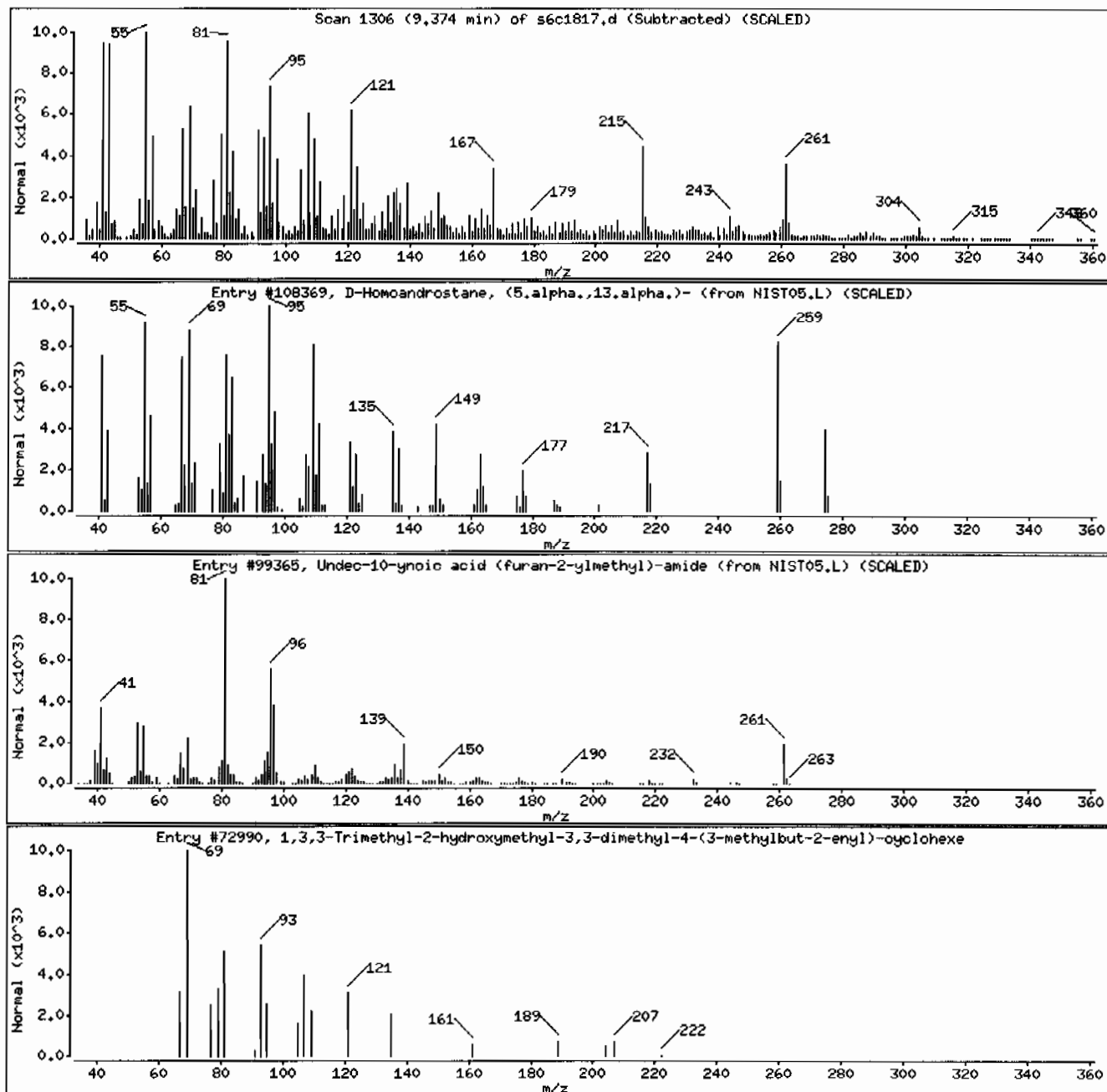
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	95	C20H34	274
Undec-10-ynoic acid (furan-2-ylmethyl)-a	332167-72-3	NIST05.L	99365	56	C16H23NO2	261
1,3,3-Trimethyl-2-hydroxymethyl-3,3-dime	1000144-10-7	NIST05.L	72990	50	C15H26O	222





Date: 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVMI11LANL

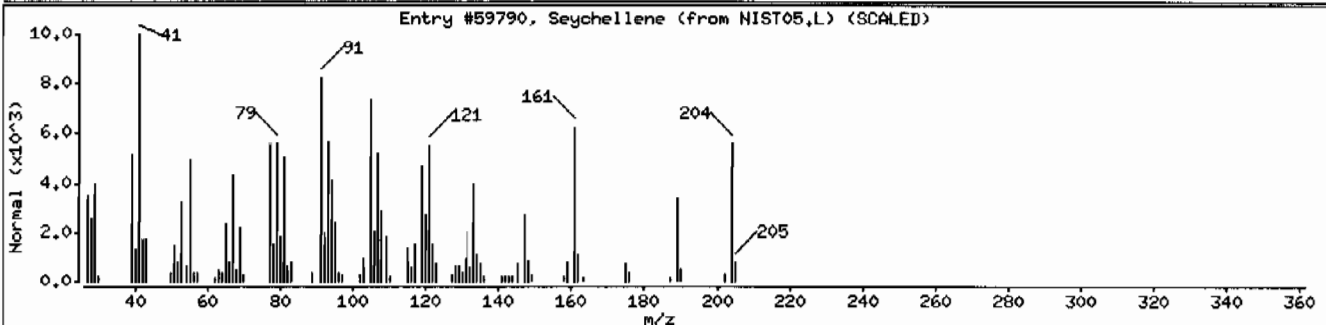
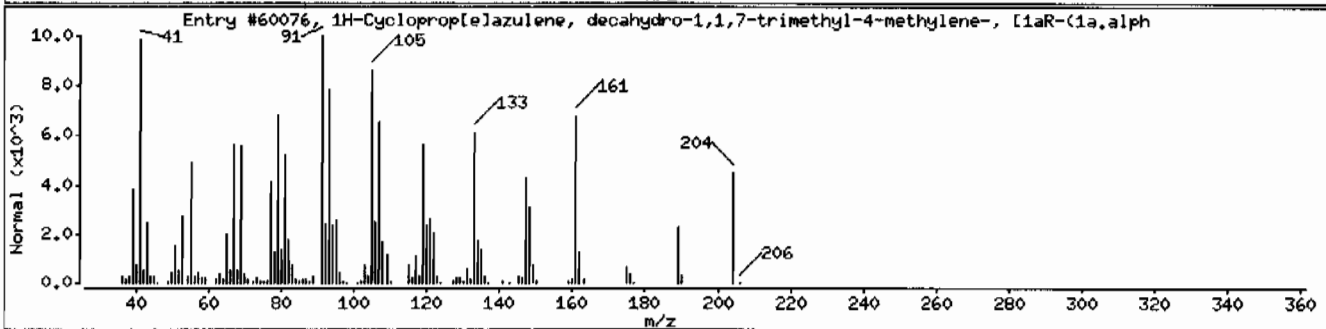
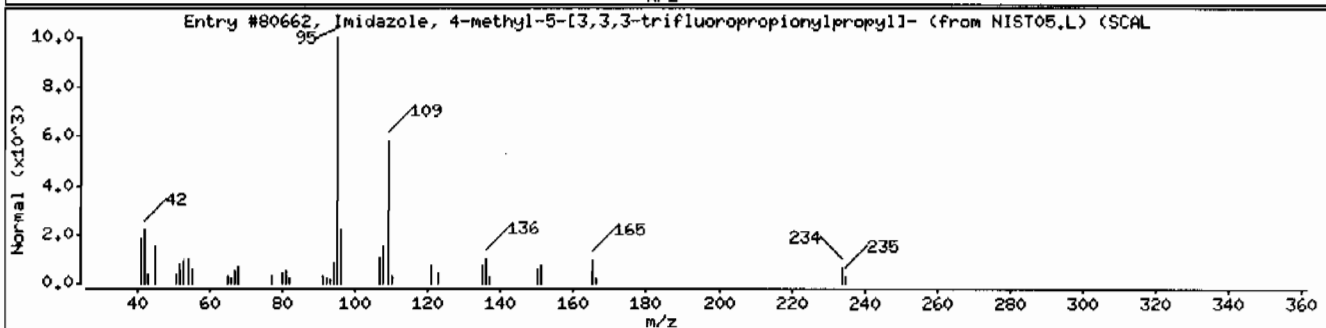
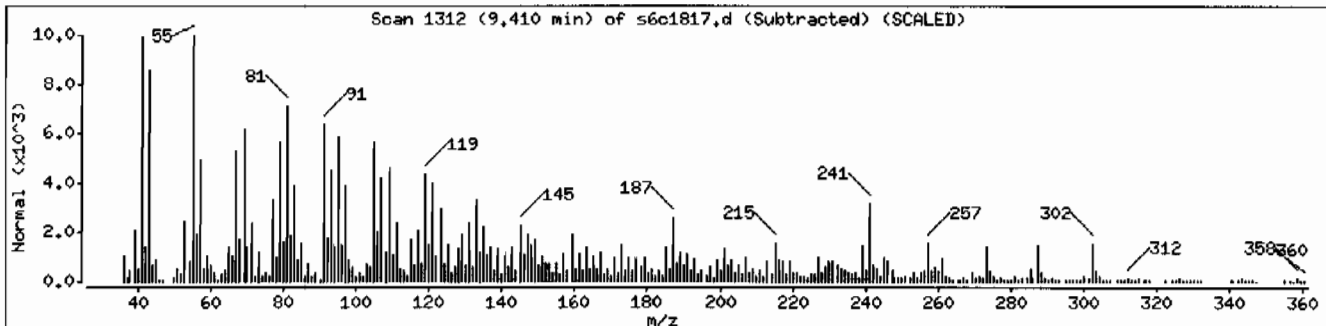
Volume Injected (uL): 0.5

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						
Imidazole, 4-methyl-5-[3,3,3-trifluoropr	1000129-15-8	NIST05.L	80662	68	C10H13F3N2O	234
1H-Cycloprop[elazulene, decahydro-1,1,7-	25246-27-9	NIST05.L	60076	56	C15H24	204
Seychellene	20085-93-2	NIST05.L	59790	49	C15H24	204



Date : 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: HSD6.i

Sample Info: 1248249002196097111SVH111LANL

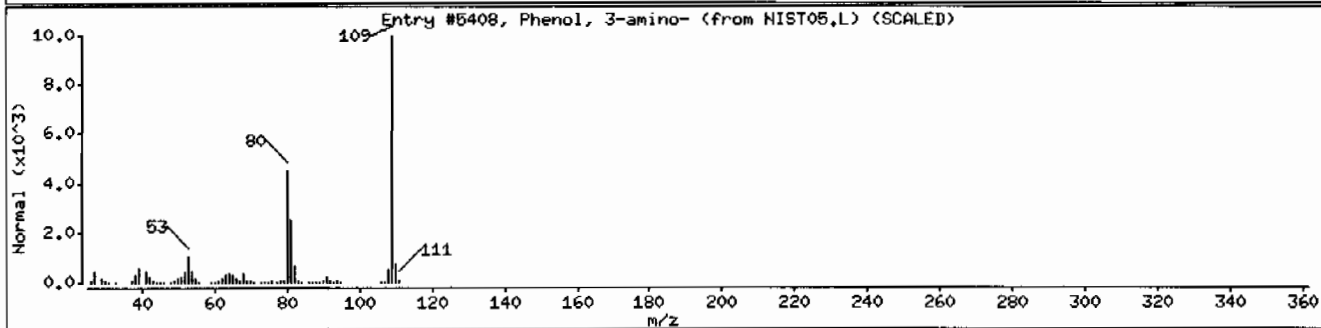
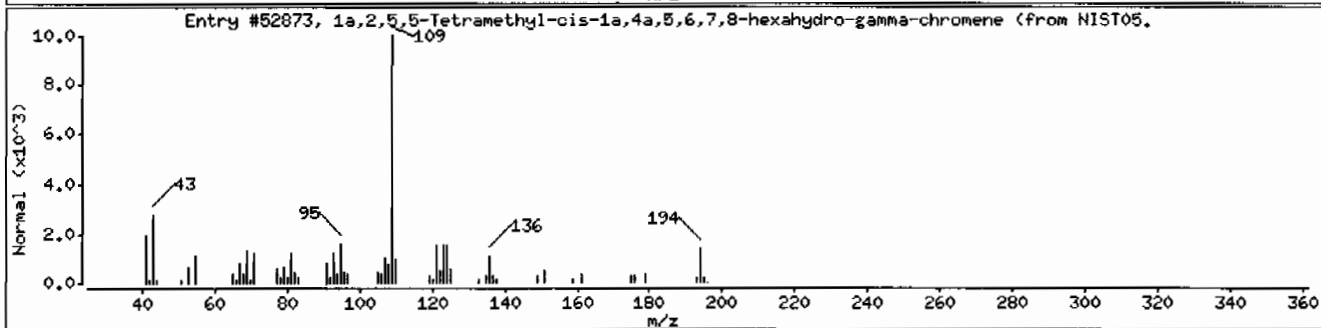
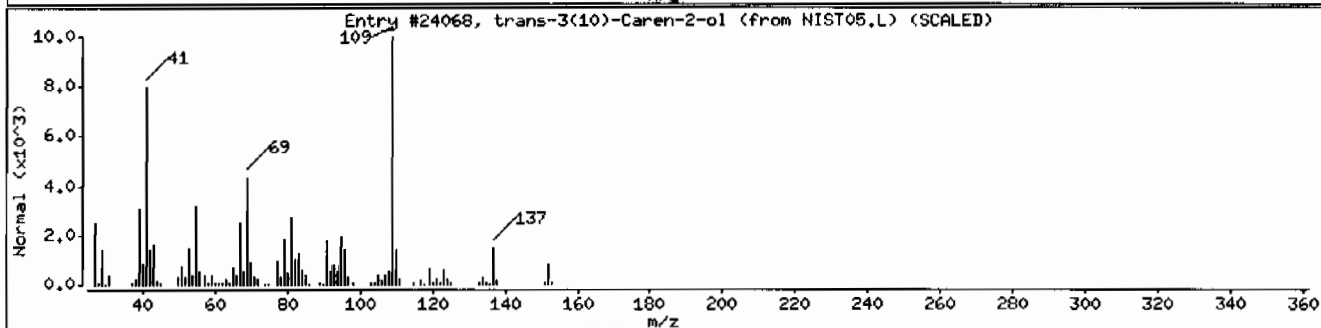
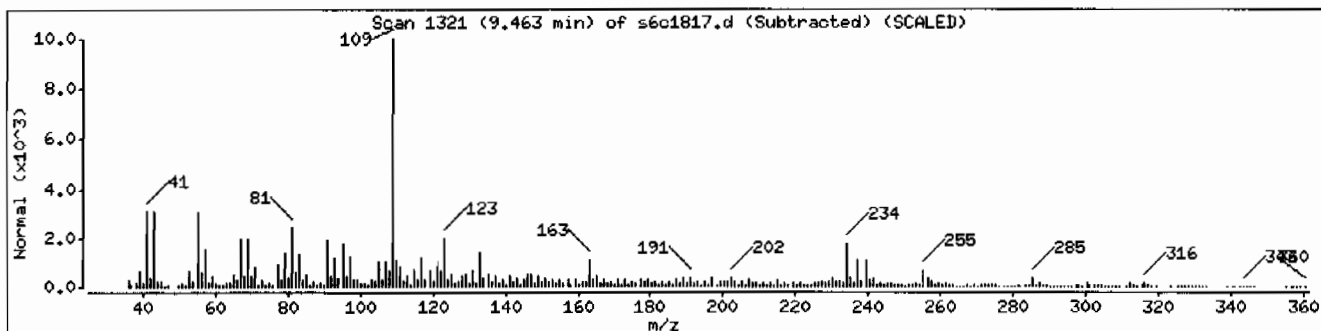
Volume Injected (uL): 0.5

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						
trans-3(10)-Caren-2-ol	1000151-66-5	NIST05.L	24068	45	C10H16O	152
1a,2,5,5-Tetramethyl-cis-1a,4a,5,6,7,8-h	1000215-77-7	NIST05.L	52873	43	C13H22O	194
Phenol, 3-amino-	591-27-5	NIST05.L	5408	38	C6H7NO	109



Date: 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVH111LANL

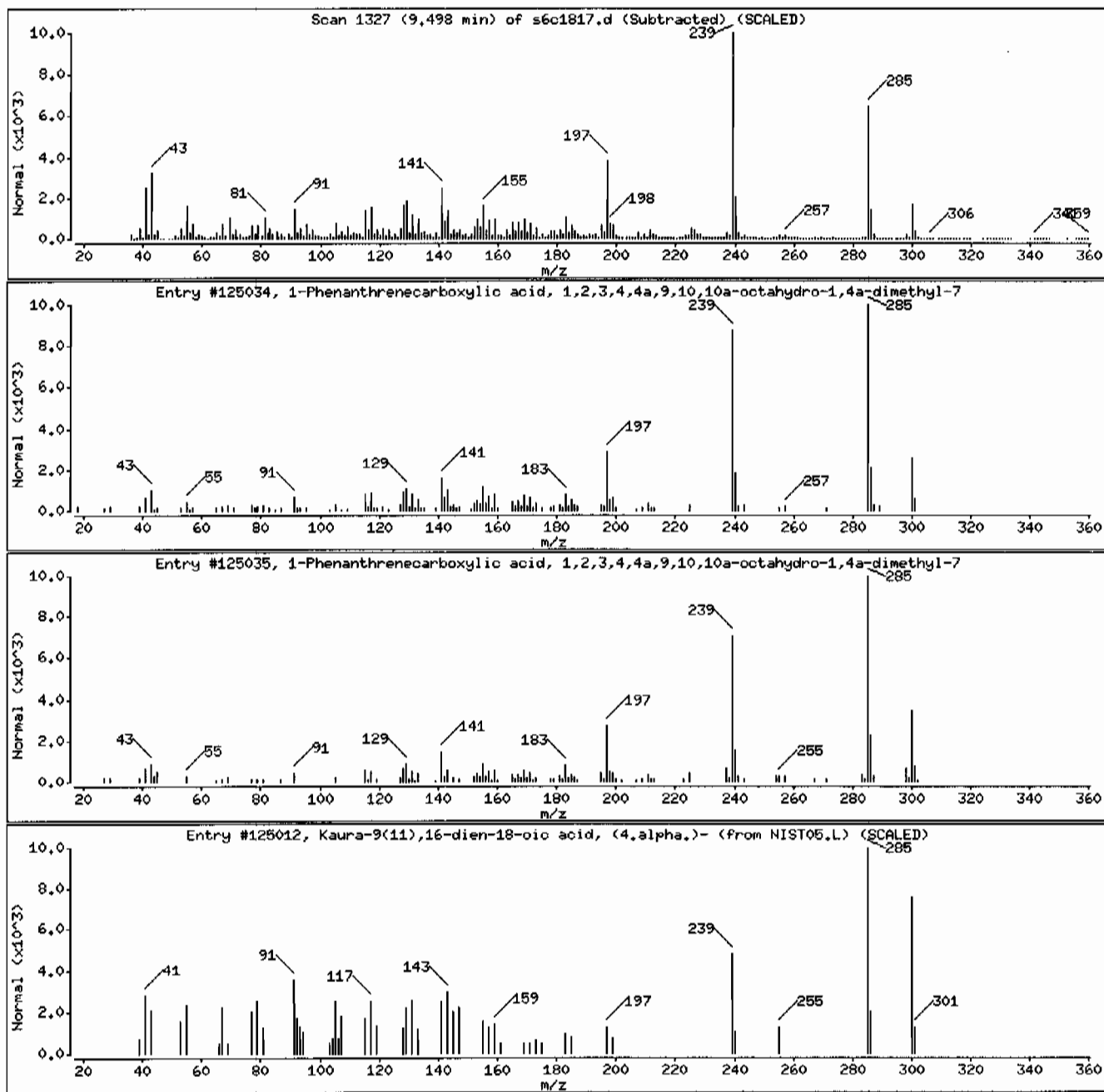
Volume Injected (uL): 0.5

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						
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1740-19-8	NIST05.L	125034	95	C20H28O2	300
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	5155-70-4	NIST05.L	125035	93	C20H28O2	300
Kaura-9(11),16-dien-18-oic acid, (4.alpha	22338-67-6	NIST05.L	125012	72	C20H28O2	300



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Client ID: RE36-10-8286

Instrument: HSD6,i

Sample Info: 1248249002196097111SVMI11LANL

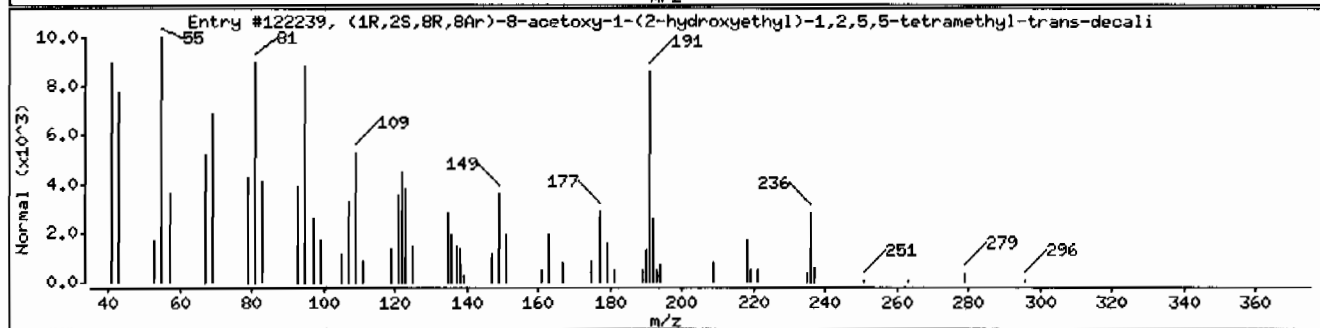
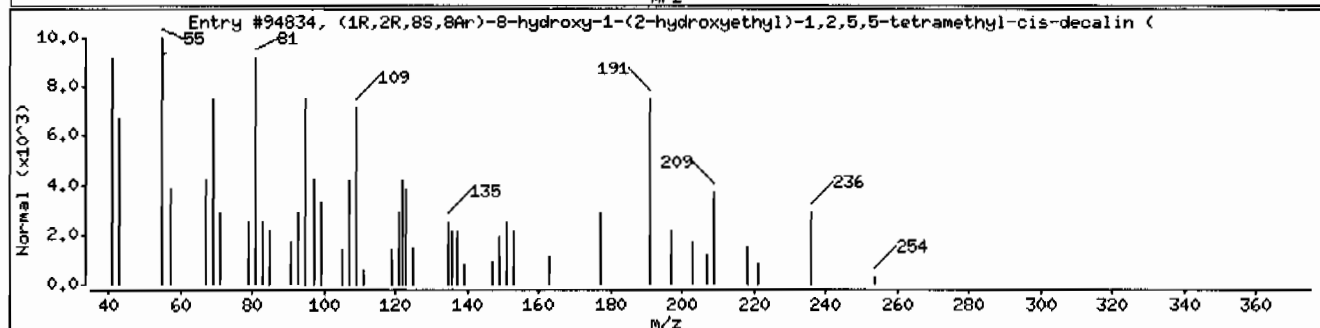
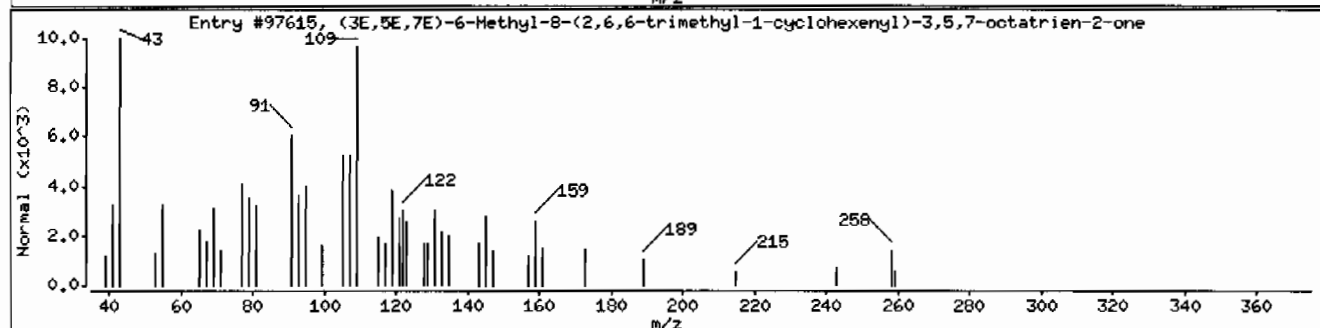
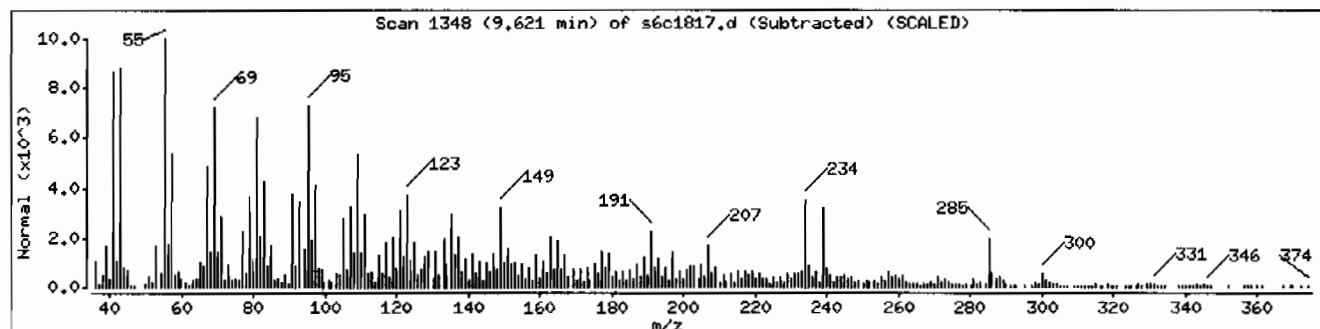
Volume Injected (uL): 0.5

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						
(3E,5E,7E)-6-Methyl-8-(2,6,6-trimethyl-1	17974-57-1	NIST05.L	97615	59	C18H26O	258
(1R,2R,8S,8Ar)-8-hydroxy-1-(2-hydroxyeth	1000298-98-6	NIST05.L	94834	49	C16H30O2	254
(1R,2S,8R,8Ar)-8-acetoxy-1-(2-hydroxyeth	1000298-98-4	NIST05.L	122239	46	C18H32O3	296



Date: 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVH111LANL

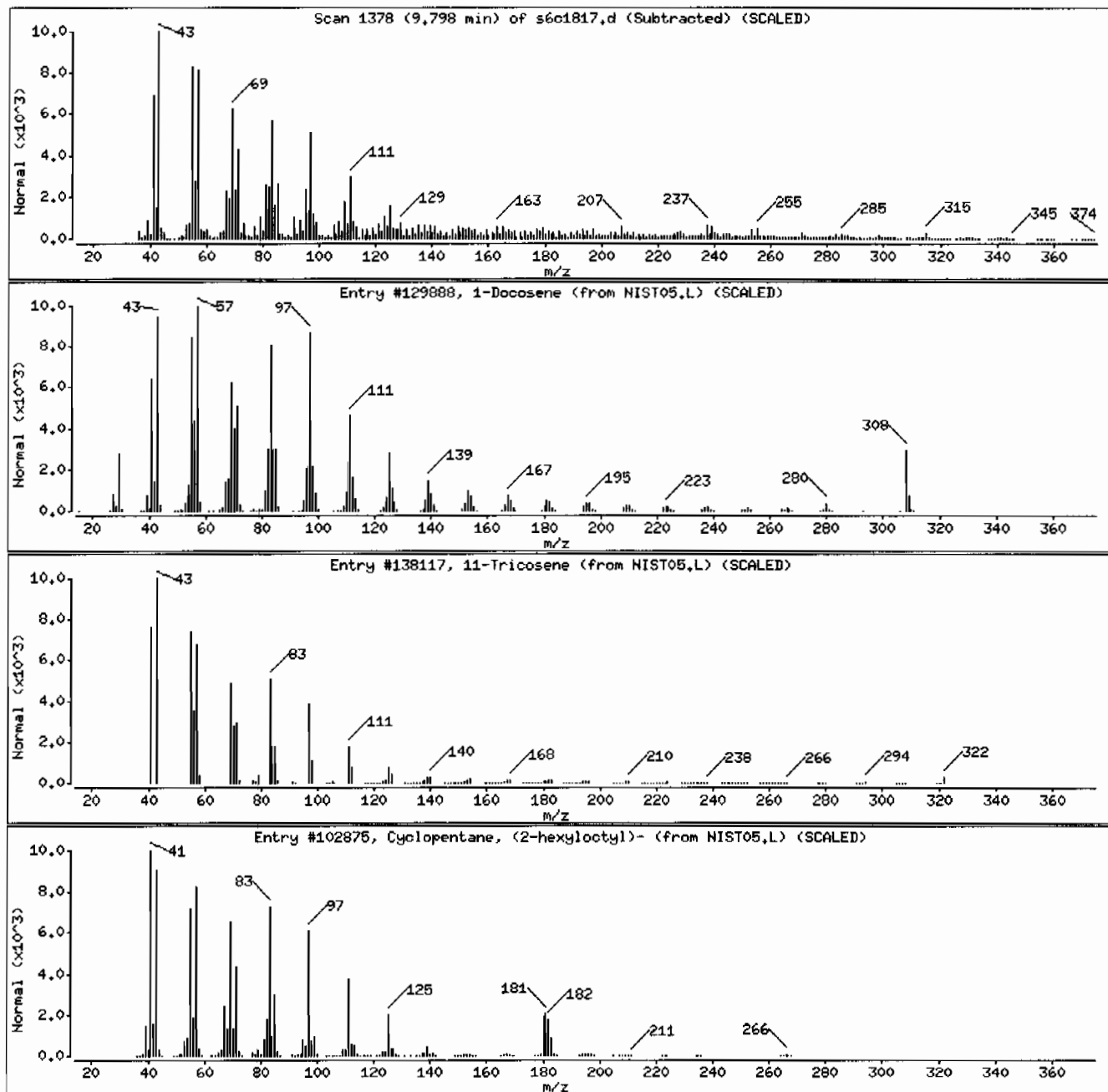
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Docosene	1599-67-3	NIST05.L	129888	97	C22H44	308
11-Tricosene	52078-56-5	NIST05.L	138117	95	C23H46	322
Cyclopentane, (2-hexyloctyl)-	55044-77-4	NIST05.L	102875	93	C19H38	266



Date : 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVH111LANL

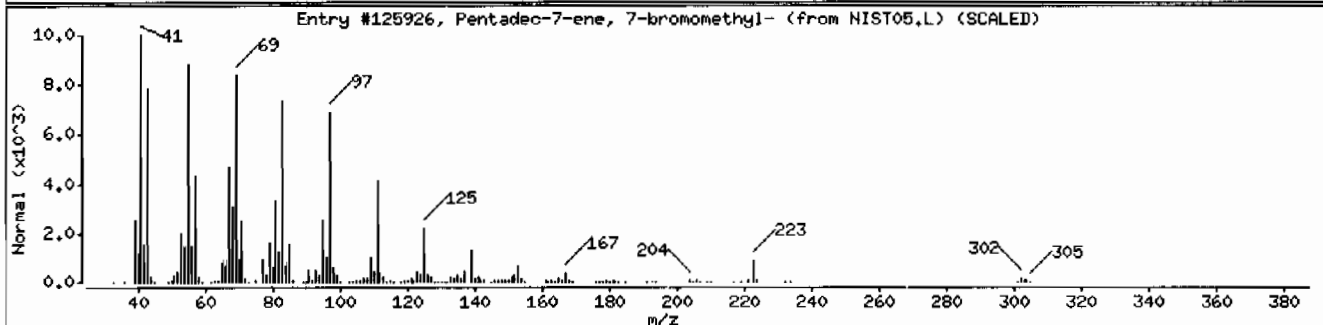
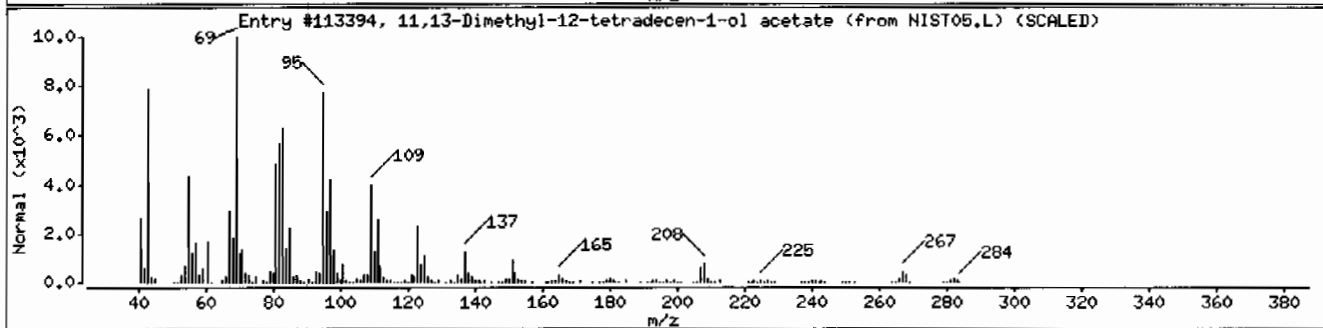
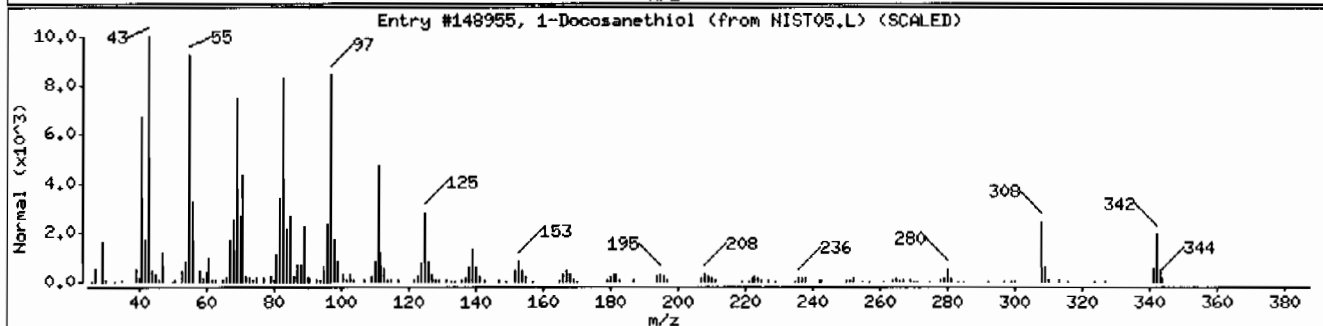
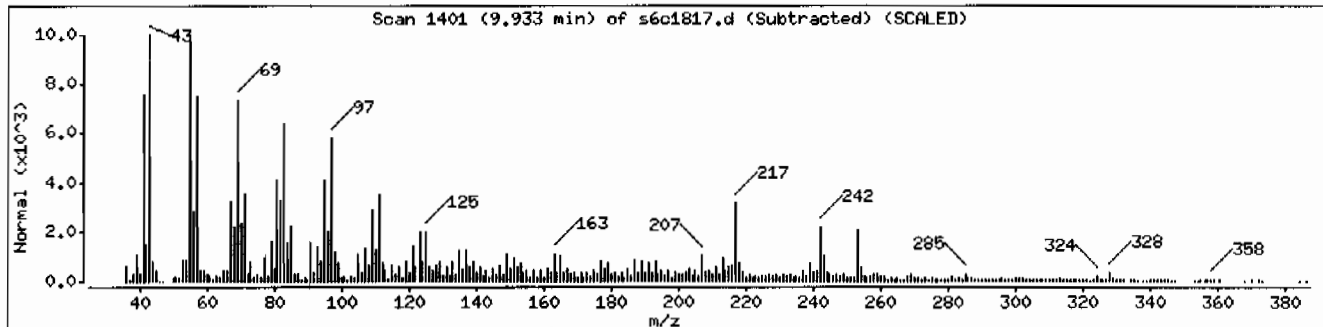
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Docosanethiol	7773-83-3	NIST05.L	148955	87	C22H46S	342
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	78	C18H34O2	282
Pentadec-7-ene, 7-bromomethyl-	1000259-58-5	NIST05.L	125926	70	C16H31Br	302



Date : 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVH111LANL

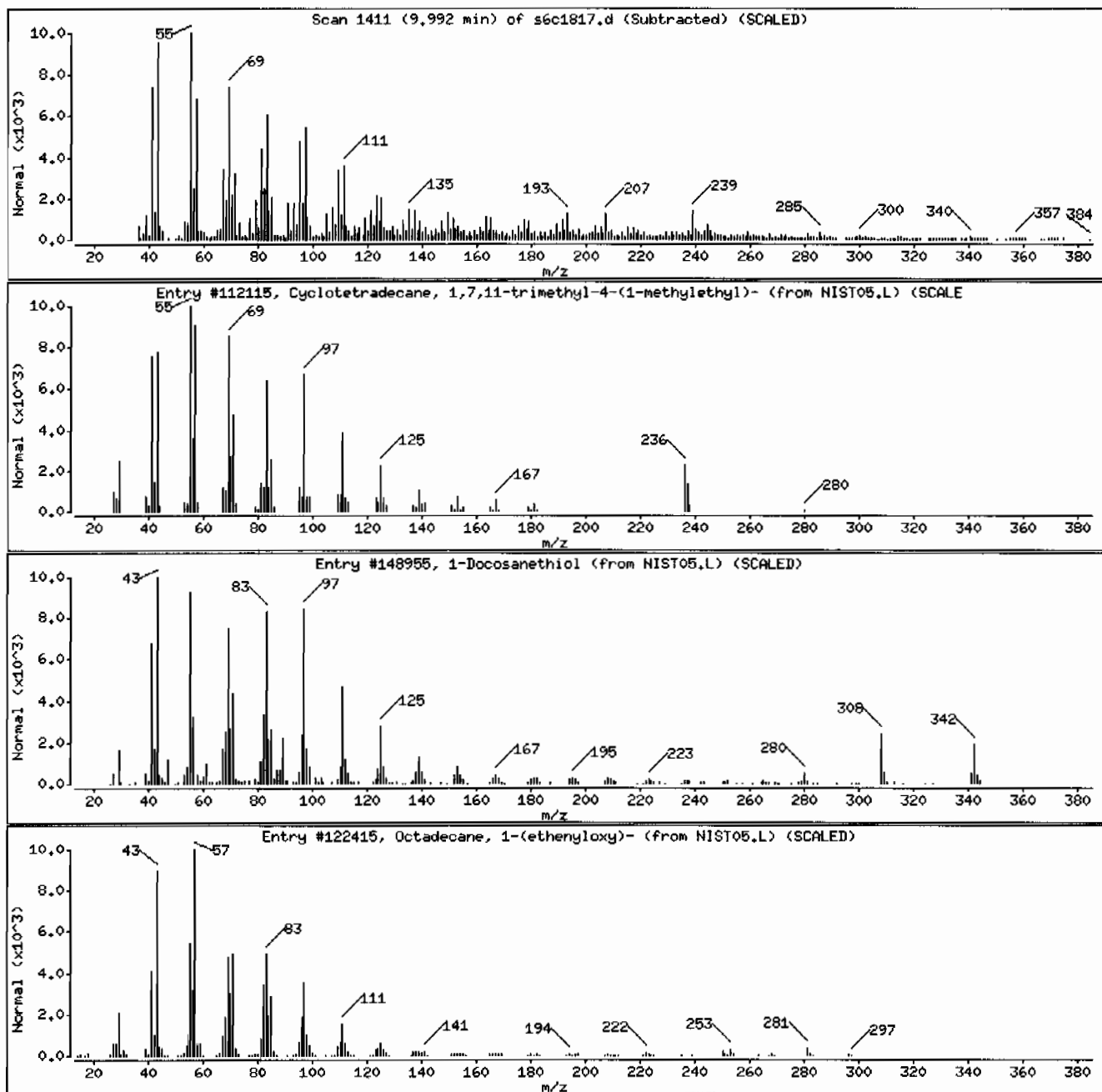
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclotetradecane, 1,7,11-trimethyl-4-(1-	1786-12-5	NIST05.L	112115	94	C20H40	280
1-Docosanethiol	7773-83-3	NIST05.L	148955	93	C22H46S	342
Octadecane, 1-(ethenyl)-	930-02-9	NIST05.L	122415	90	C20H40	296



Date: 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVMI11LANL

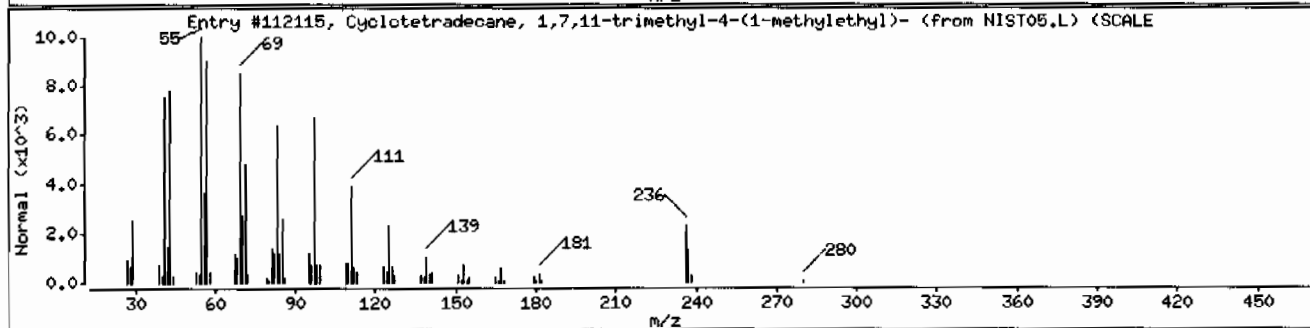
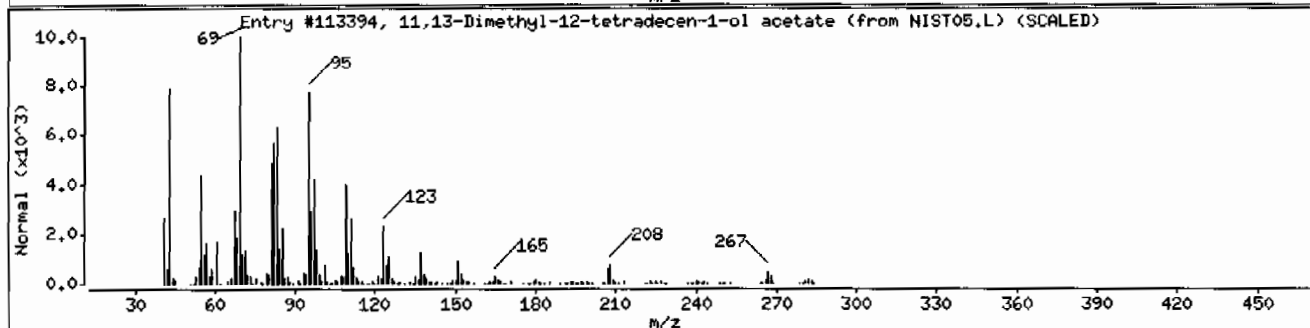
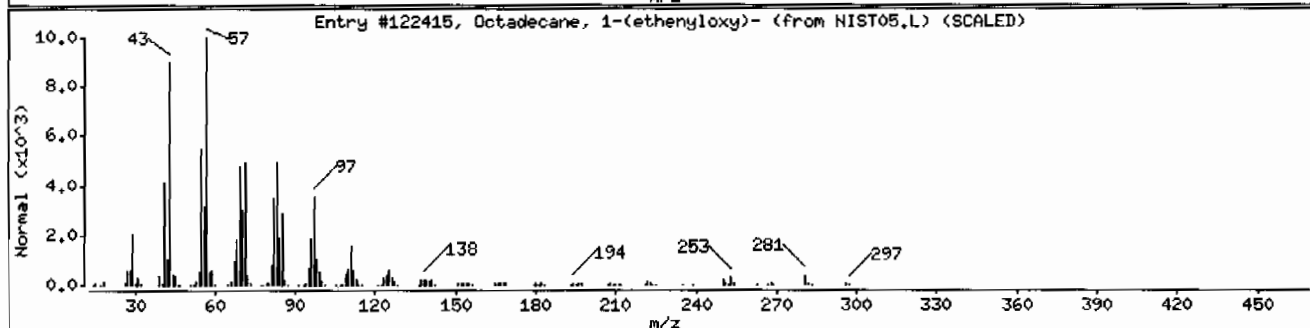
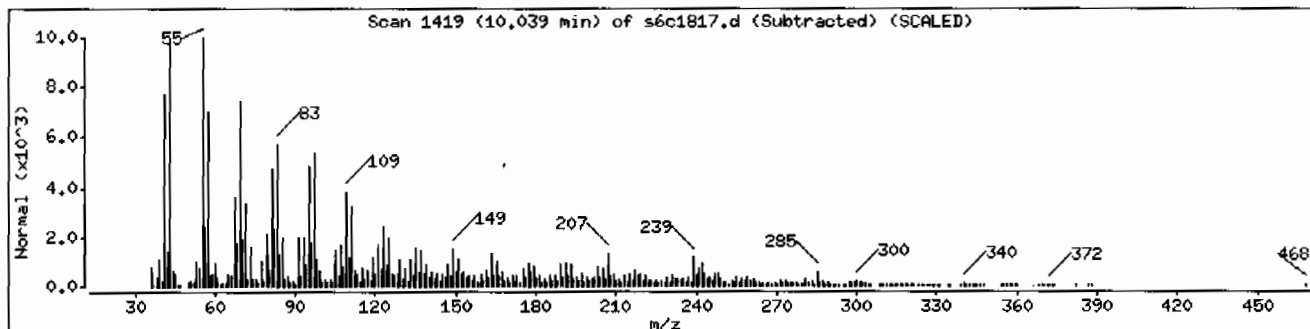
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Octadecane, 1-(ethenyl)-	930-02-9	NIST05.L	122415	90	C <sub>20</sub> H <sub>40</sub>	296
11,13-Dimethyl-12-tetradecen-1-ol acetate	1000130-81-0	NIST05.L	113394	89	C <sub>18</sub> H <sub>34</sub> O <sub>2</sub>	282
Cyclotetradecane, 1,7,11-trimethyl-4-(1-	1786-12-5	NIST05.L	112115	83	C <sub>20</sub> H <sub>40</sub>	280





Date: 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVH111LANL

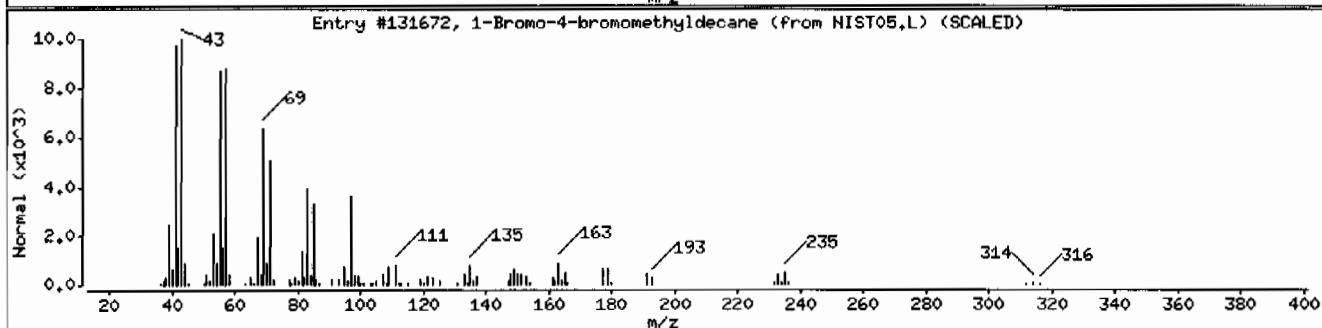
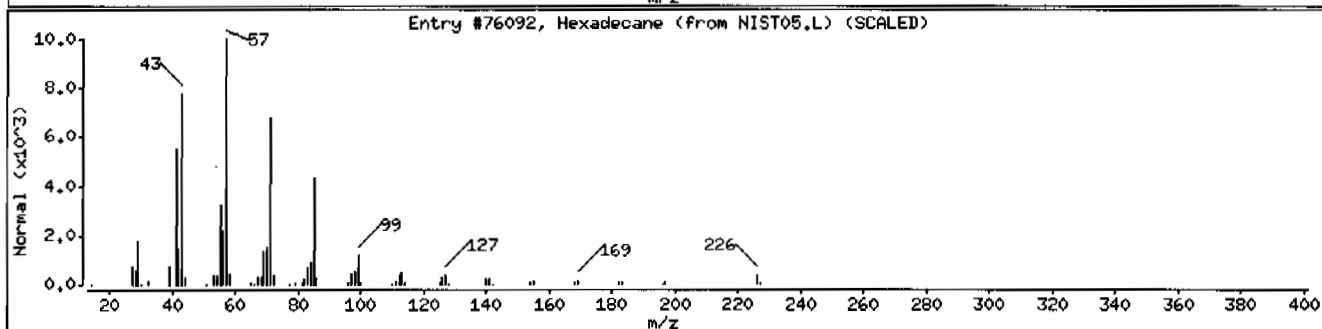
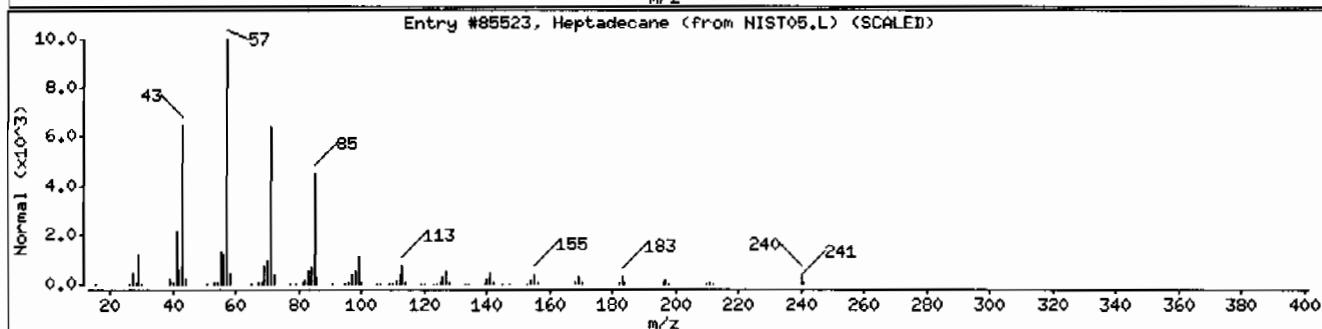
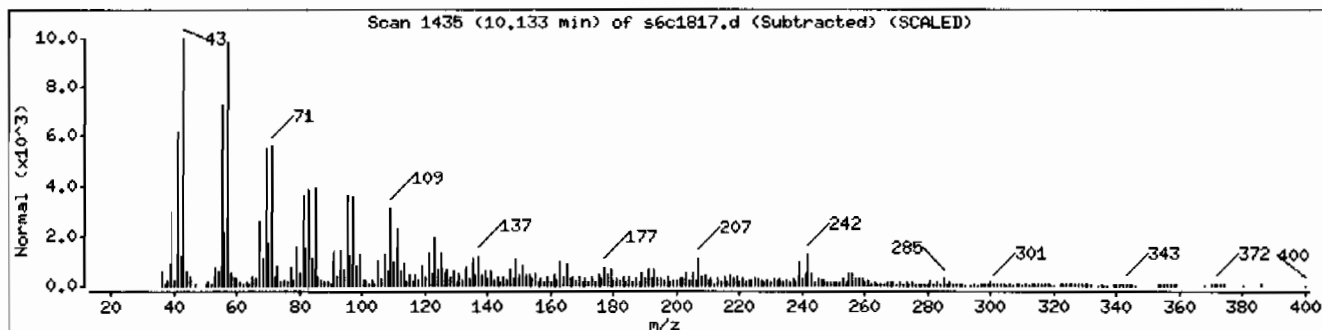
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Heptadecane	629-78-7	NIST05.L	85523	92	C17H36	240
Hexadecane	544-76-3	NIST05.L	76092	92	C16H34	226
1-Bromo-4-bromomethyldecane	61639-11-0	NIST05.L	131672	90	C11H22Br2	312



Date : 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVH111LANL

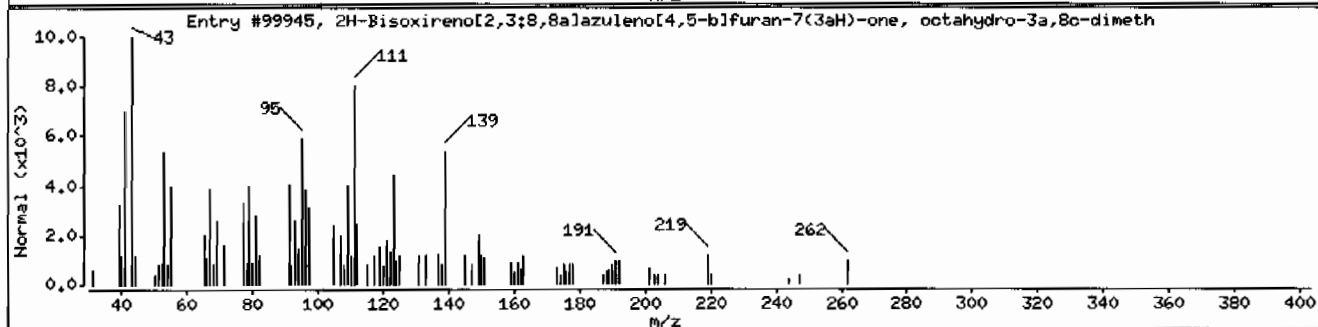
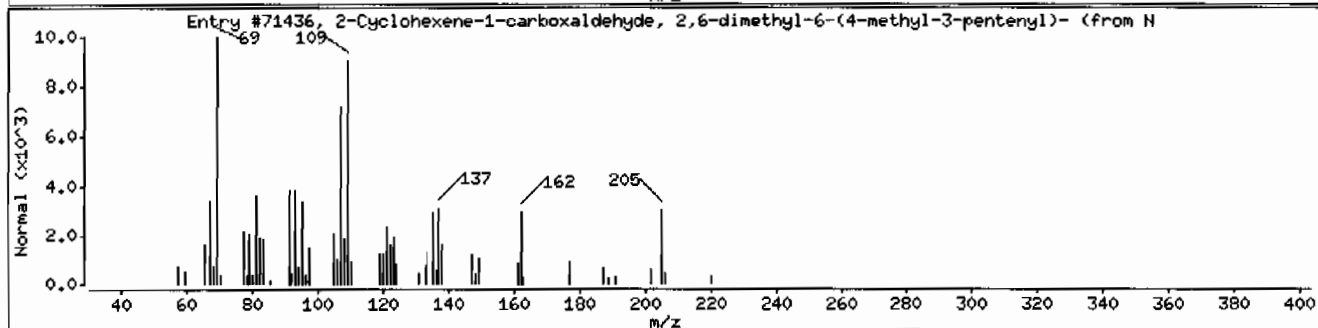
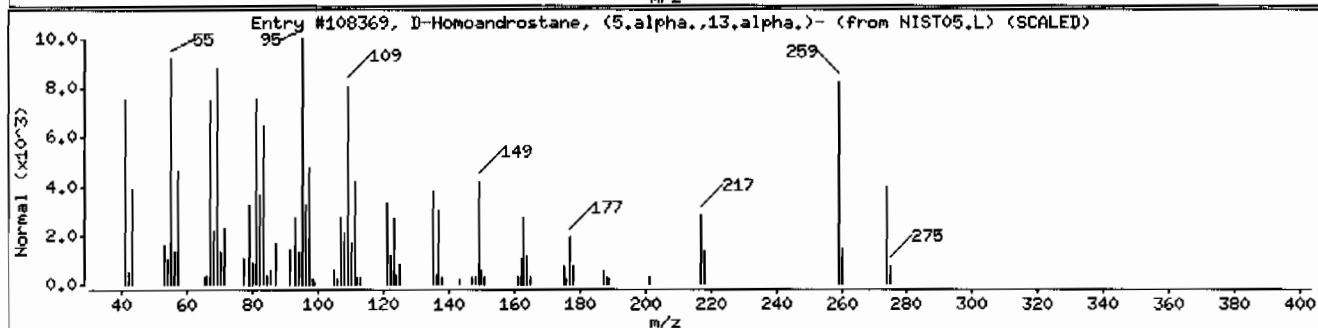
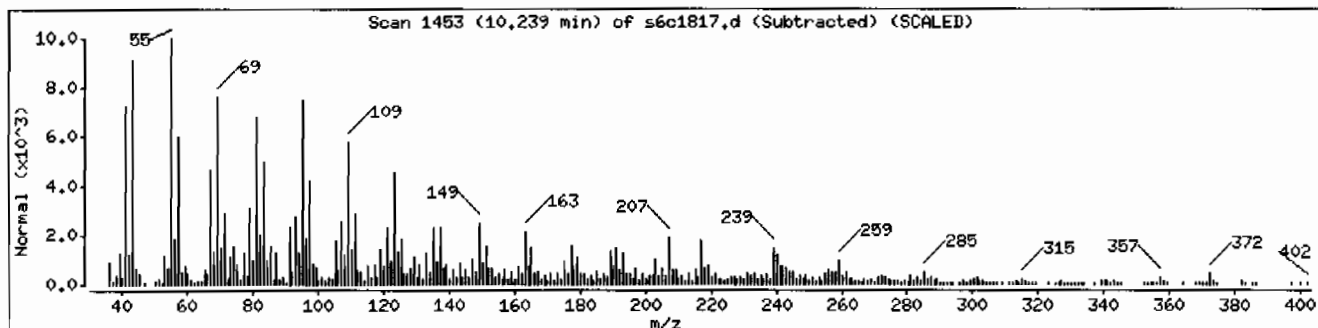
Volume Injected (uL): 0.5

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						
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	60	C20H34	274
2-Cyclohexene-1-carboxaldehyde, 2,6-dime	56772-07-7	NIST05.L	71436	59	C15H24O	220
2H-Bisoxireno[2,3:8,9a]azuleno[4,5-b]fur	36416-50-9	NIST05.L	99945	55	C15H18O4	262



Date: 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVH111LANL

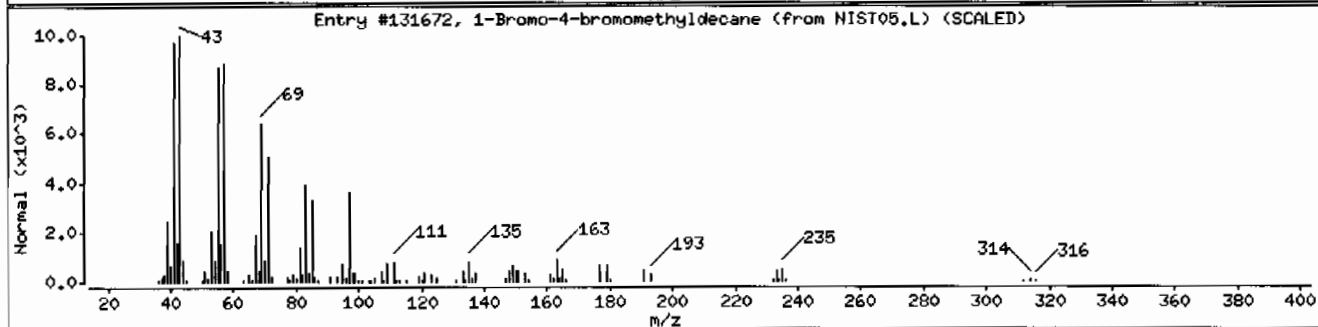
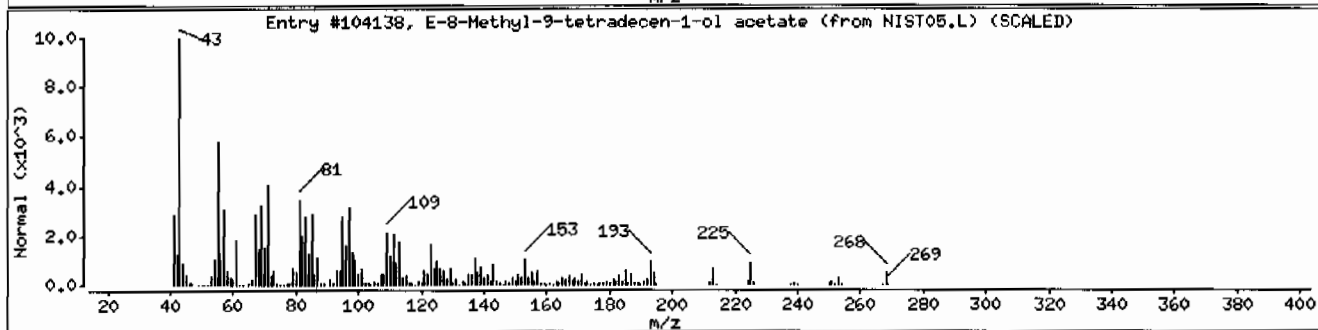
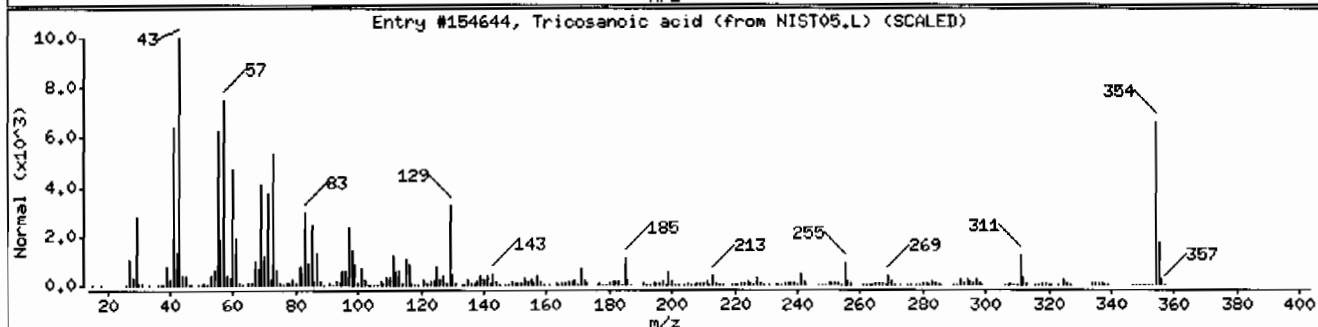
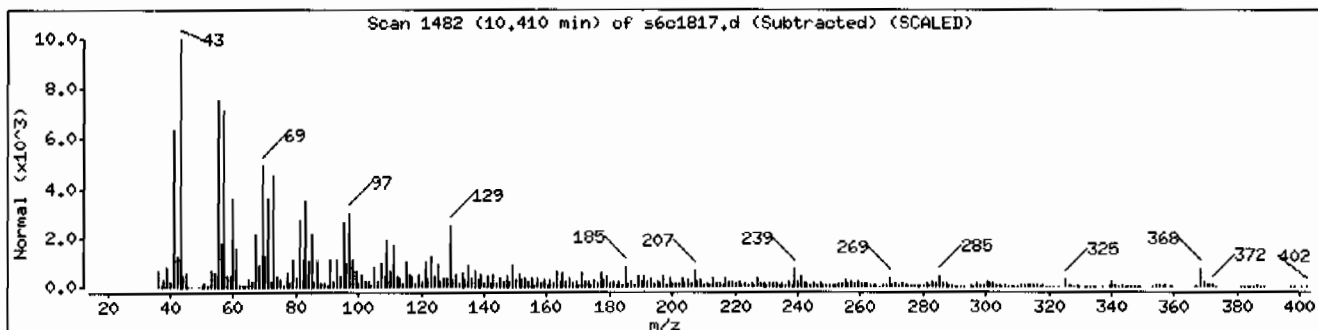
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tricosanoic acid	2433-96-7	NIST05.L	154644	89	C <sub>23</sub> H <sub>46</sub> O <sub>2</sub>	354
E-8-Methyl-9-tetradecen-1-ol acetate	1000130-81-4	NIST05.L	104138	62	C <sub>17</sub> H <sub>32</sub> O <sub>2</sub>	268
1-Bromo-4-bromomethyldecane	61639-11-0	NIST05.L	131672	56	C <sub>11</sub> H <sub>22</sub> Br <sub>2</sub>	312



Date : 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: HSD6.i

Sample Info: 1248249002196097111SVH111LANL

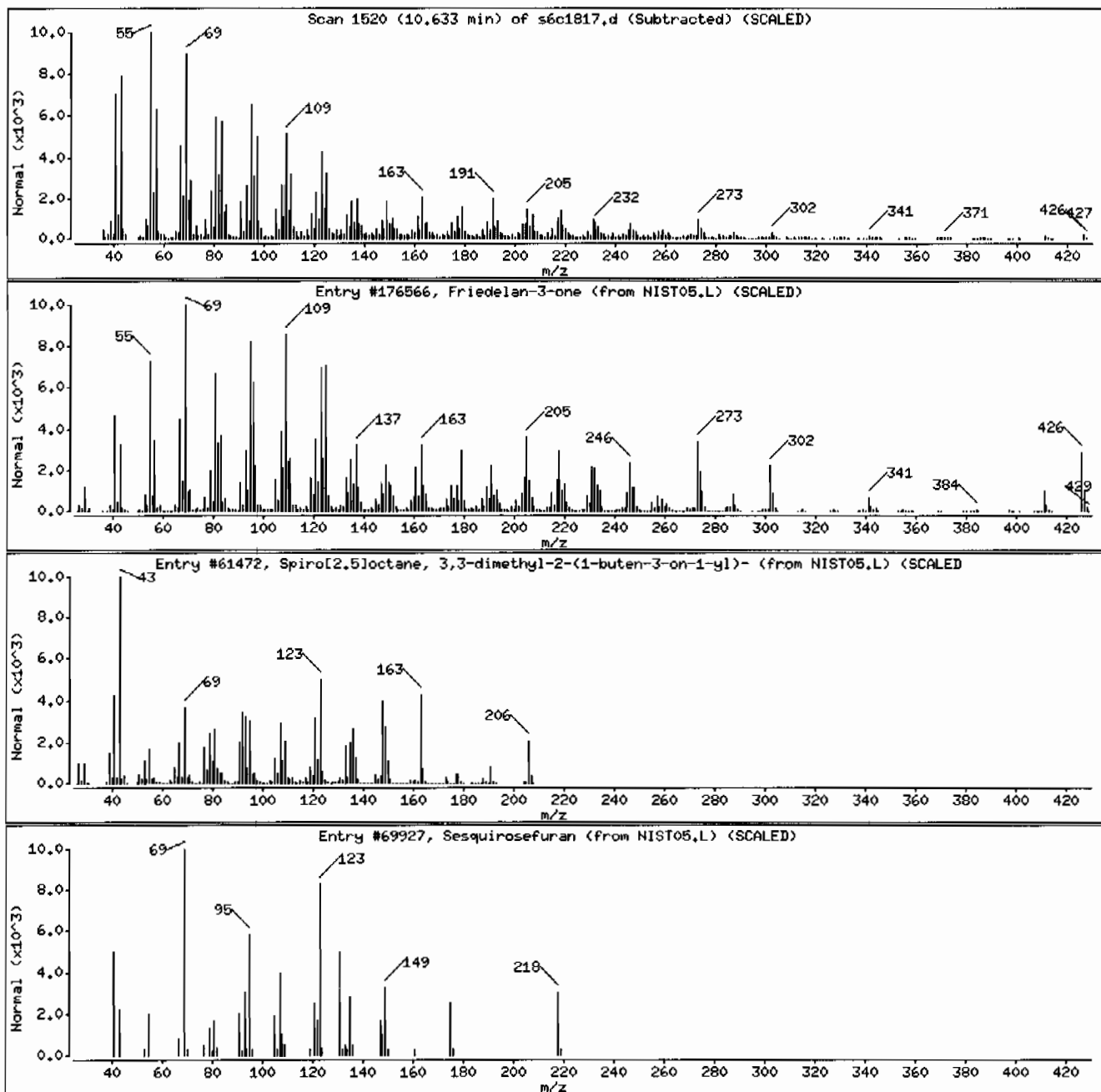
Volume Injected (uL): 0.5

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	93	C30H50O	426
Spiro[2.5]octane, 3,3-dimethyl-2-(1-butyl-3-oxo-1-propyl)-	1000197-07-6	NIST05.L	61472	44	C14H22O	206
Sesquirosefuran	39007-93-7	NIST05.L	69927	42	C15H22O	218



Date : 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVH111LANL

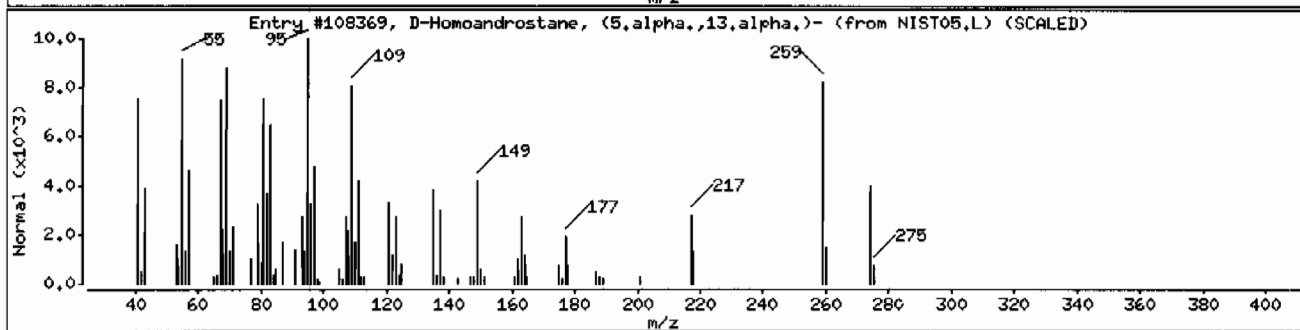
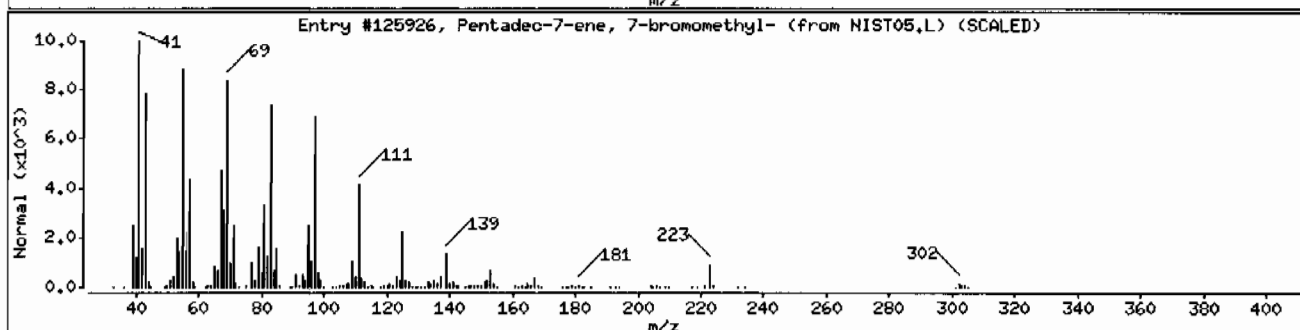
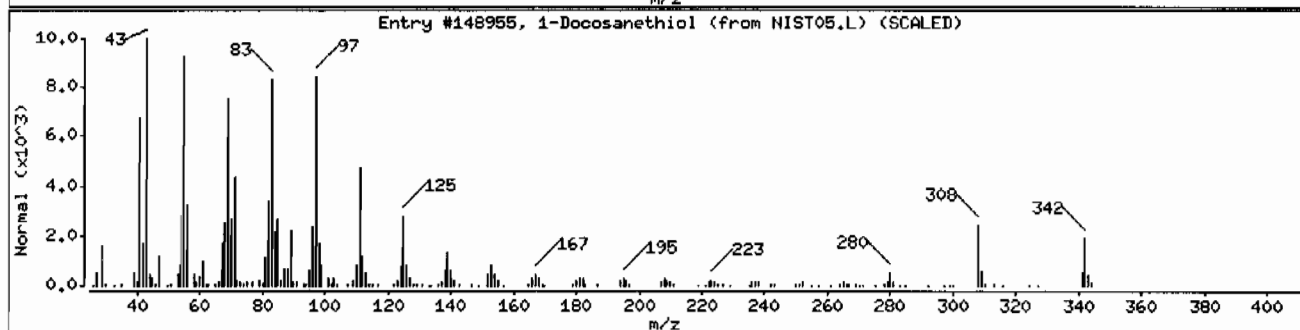
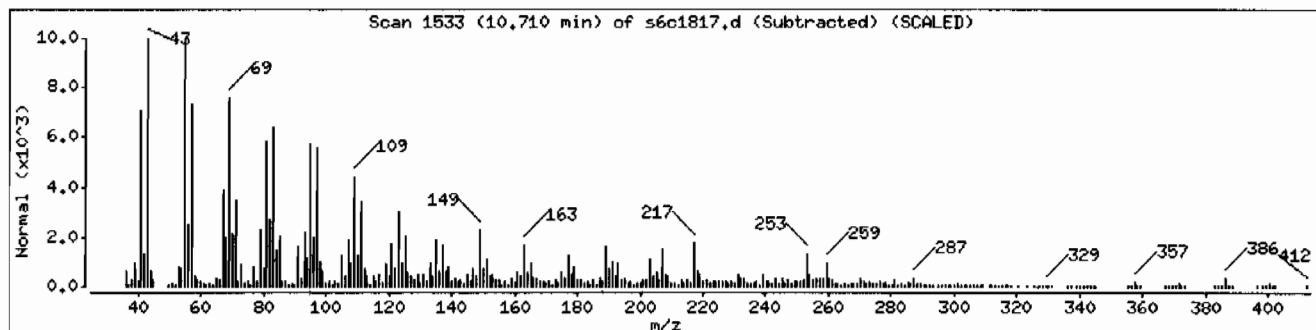
Volume Injected (uL): 0.5

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						
1-Docosanethiol	7773-83-3	NIST05.L	148955	87	C22H46S	342
Pentadec-7-ene, 7-bromomethyl-	1000259-58-5	NIST05.L	125926	64	C16H31Br	302
D-Homoandrostane, (5.alpha.,13.alpha.)-	54482-31-4	NIST05.L	108369	60	C20H34	274



Date: 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: I248249002196097111SVMI11LANL

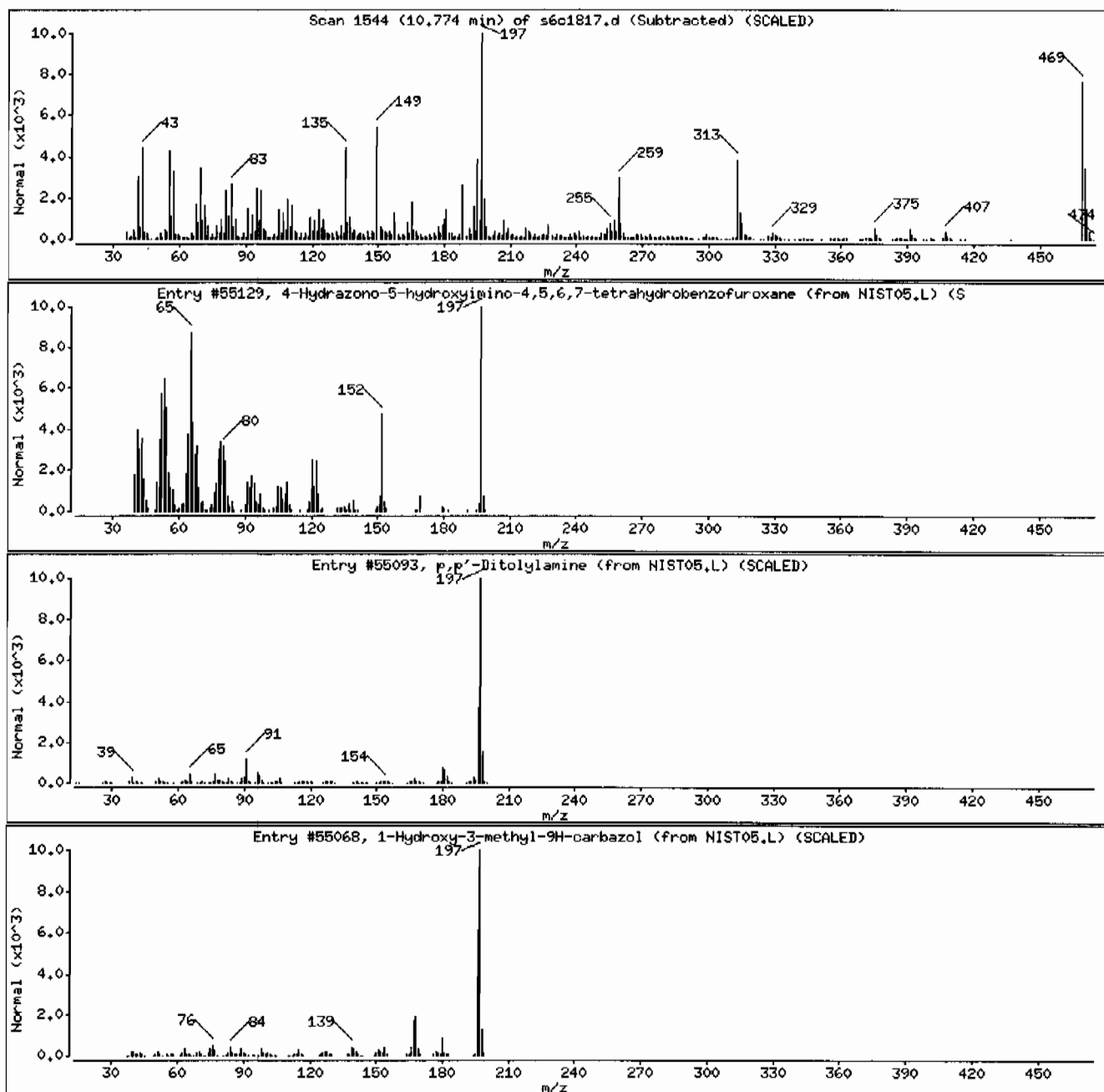
Volume Injected (uL): 0.5

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						
4-Hydrazono-5-hydroxyimino-4,5,6,7-tetra	303194-86-7	NIST05.L	55129	25	C6H7N5O3	197
p,p'-Ditolylamine	620-93-9	NIST05.L	55093	25	C14H15N	197
1-Hydroxy-3-methyl-9H-carbazol	14960-81-7	NIST05.L	55068	25	C13H11NO	197



Date : 18-MAR-2010 14:16

Client ID: RE36-10-8286

Instrument: MSD6.i

Sample Info: 1248249002196097111SVH111LANL

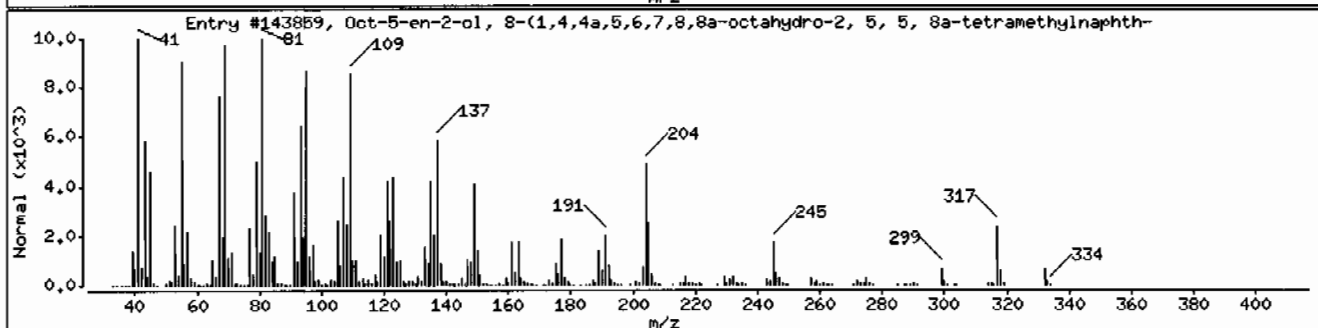
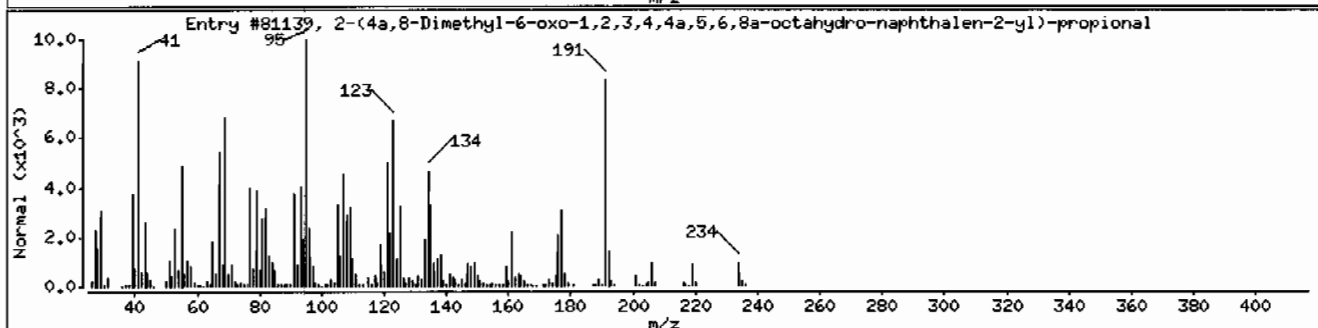
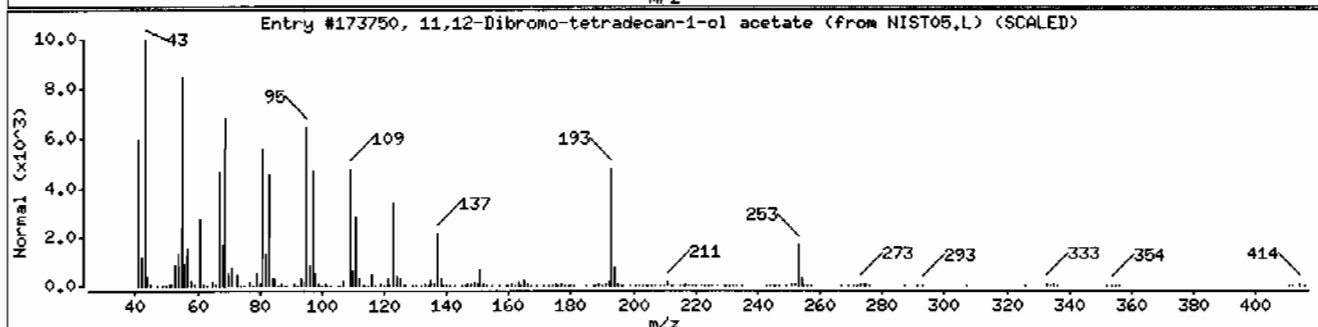
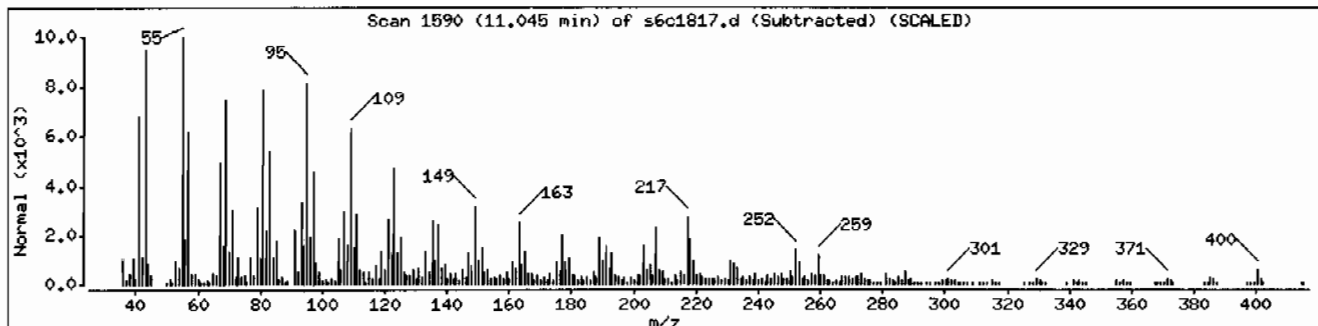
Volume Injected (uL): 0.5

Operator: nag1

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11,12-Dibromo-tetradecan-1-ol acetate	1000130-78-5	NIST05.L	173750	84	C16H30Br2O2	412
2-(4a,8-Dimethyl-6-oxo-1,2,3,4,4a,5,6,8a	1000190-21-8	NIST05.L	81139	60	C15H22O2	234
Oct-5-en-2-ol, 8-(1,4,4a,5,6,7,8,8a-octa	106932-90-5	NIST05.L	143859	53	C23H40O	332



# Standard Data



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

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

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

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

p-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
Safrole		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: 18-Mar-2010 12:34

### Calibration History

Method : /chem/MSD6.i/s031810.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		

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			
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+			
18-MAR-2010 08:42	AP12	/chem/MSD6.i/s031810.b/s6c1803.d	
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+			
Ccal Level: 4 , Ccal Amount: 40.0			
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+			
18-MAR-2010 08:12	MEGA	/chem/MSD6.i/s031810.b/s6c1802.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/s031810.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 18-Mar-2010 12:34 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 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
1 N-Methyl-N-nitrosomethylamine	++++ 0.72590	0.81792 0.72296	0.82056	0.78930	0.79192	0.76046	AVRG		0.77557		5.19380
2 Pyridine	++++ 1.05148	1.11606 1.15602	1.14524	1.09549	1.10183	1.07067	AVRG		1.10526		3.40288
4 Aniline	++++ 0.62930	0.72133 0.62826	0.70476	0.66890	0.68894	0.64499	AVRG		0.66950		5.53075
209 Benzaldehyde	++++ 0.83244	1.13309 0.82430	1.08471	1.00392	0.97767	0.86499	AVRG		0.96016		2.85923
6 Phenol	++++ 1.30346	1.61272 1.28275	1.56254	1.44305	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/s031810.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 18-Mar-2010 12:34 jen00986

Compound	1	10	20	40	50	80	Curve	b	Coefficients m1	m2	%RSD or R^2
7 bis(2-Chloroethyl) ether	Level 1 ++++ 0.95191	Level 2 1.19254 0.93692	Level 3 1.18236	Level 4 1.09028	Level 5 1.09625	Level 6 1.00058	AVRG		1.06440		9.77817
8 2-Chlorophenol	Level 7 ++++ 1.06189	Level 8 1.26962 1.06261	1.28222	1.17814	1.18825	1.10636	AVRG		1.16424		7.83127
203 n-Decane	++++ 1.37227	1.95779 ++++	1.93918	1.70280	1.68456	1.47743	AVRG		1.69067		14.13608
9 1,3-Dichlorobenzene	++++ 1.15341	1.44879 1.11325	1.44947	1.30584	1.30842	1.19897	AVRG		1.28259		10.51030
11 1,4-Dichlorobenzene	++++ 1.09866	1.42133 1.09543	1.40639	1.25708	1.27799	1.16100	AVRG		1.24541		10.83313
12 Benzyl alcohol	++++ 0.79193	0.85394 0.78165	0.86245	0.80492	0.83695	0.79588	AVRG		0.81825		3.95576
13 1,2-Dichlorobenzene	++++ 0.99051	1.34498 0.98974	1.29593	1.11046	1.13364	1.03705	AVRG		1.12890		12.62648
14 bis(2-Chloroisopropyl) ether	++++ 1.96542	2.53022 1.89769	2.53492	2.29878	2.31844	2.11439	AVRG		2.23712		11.38315
15 o-Cresol	++++ 0.81771	1.01324 0.80283	0.99090	0.86659	0.89293	0.83096	AVRG		0.88788		9.44602

# 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/s031810.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 18-Mar-2010 12:34 jen00986

Compound	1	10	20	40	50	80	Curve	b	Coefficients ml	m2	%RSD or R-2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6					
	100	120									
	Level 7	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 0.48860	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	++++ 9662501	128503 ++++	217256	416723	533570	827995	AVRG		0.25299		3.99406
25 bis (2-Chloroethoxy)methane	++++ 0.32172	0.43560 0.39463	0.42444	0.37400	0.37627	0.33980	WLNIR	-0.14975	0.36806		13.49875

# 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/s031810.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 18-Mar-2010 12:34 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
26 2,4-Dichlorophenol	++++ 0.22233	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	14.0214		
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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 Cal Date : 18-Mar-2010 12:34 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
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	0.25218 0.18872	0.25218 ++++	0.24426 ++++	0.26357 ++++	0.23616 ++++	0.19125 ++++	AVRG		0.22936		13.87544
208 1,1'-Biphenyl	1.34441 0.96643	1.27102 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 0.45417	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 0.28219	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 1.19201	0.37129 1.10470	0.37911 1.08122	0.38732 0.97966	0.34179 0.96619	0.35266 0.86532	AVRG		0.35465		8.00704
40 2-Chloronaphthalene	0.80529 0.31294	0.79483 0.36102	0.79483 0.36661	0.79483 0.34980	0.96619 0.35607	0.86532 0.33160	AVRG		0.97365		14.96311
42 o-Nitroaniline	0.31294 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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 Cal Date : 18-Mar-2010 12:34 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
41 m-Nitroaniline	++++ 0.24489	0.23455 0.23973	0.26751 0.26609	0.26609	0.27182	0.25408	AVRG		0.25409		5.81743
43 Dimethylphthalate	++++ 0.99525	1.30419 0.96796	1.28387 1.15700	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	0.27654	0.28158	0.25526	AVRG		0.27058		9.23971
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	23383	83099	110420	178844					
49 Dibenzofuran	++++ 1.08151	1.49805 1.05151	1.45690	1.29929	1.28456	1.15301	LINE	0.14548	0.11086		0.99537
50 2,4-Dinitrotoluene	++++ 0.32724	0.36954 0.33221	0.37982	0.36276	0.37594	0.34784	AVRG		1.26069		13.90416
51 Diethylphthalate	++++ 0.94857	1.30298 0.91864	1.28452	1.13974	1.14323	1.01648	AVRG		0.35648		5.89787
							AVRG		1.10774		13.84255

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

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Compound	1	10	20	40	50	80	Curve	b	Coefficients m1	m2	%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6					
	100	120									
	Level 7	Level 8									
63 Hexachlorobenzene	++++ 0.15325	0.17986 0.15146	0.18314	0.16397	0.16914	0.16087	AVRG		0.6595		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		1.3557		13.23540
76 Fluoranthene	1.20011 C.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	10	20	40	50	80	Curve	b	Coeficients m1	m2	%RSD or R^2
79 Pyrene	Level 1 1.351861 1.081241	Level 2 1.324291 1.076301	Level 3 1.379151	Level 4 1.149421	Level 5 1.198521	Level 6 1.194221	AVRG		1.219381		9.782361
85 Butylbenzylphthalate	++++ 0.536151	0.609421 0.539581	0.684181	0.574191	0.595631	0.590711	AVRG		0.589981		8.466601
89 Benzo(a)anthracene	1.238441 0.982761	1.075861 0.953561	1.089431	0.996351	1.026541	0.992751	AVRG		1.044461		8.716331
90 3,3'-Dichlorobenzidine	++++ 0.285341	0.286341 0.285301	0.340001	0.317371	0.304391	0.293321	AVRG		0.301721		6.849521
92 Chrysene	1.219051 0.832981	1.110521 0.830971	1.092841	0.992931	1.007911	0.893891	AVRG		0.997641		14.002871
93 bis(2-Ethylhexyl)phthalate	++++ 0.699961	0.877921 0.689391	0.941661	0.758431	0.788941	0.763901	AVRG		0.788601		11.647831
94 Di-n-octylphthalate	++++ 1.357101	1.504981 1.546991	1.849961	1.381201	1.534461	1.539651	AVRG		1.530621		10.515681
95 Benzo(b)fluoranthene	1.064531 1.046581	1.042311 1.079461	1.182491	1.055651	1.106841	1.121711	AVRG		1.087441		4.381331
96 Benzo(k)fluoranthene	1.138571 0.917901	1.551451 0.976301	1.132981	1.002151	1.058461	0.968431	AVRG		1.043281		8.615781



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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
97 Benzo(a)pyrene	0.91272 0.87668	0.95091 0.87161	0.96305 0.83742	0.93841 0.89629	0.94477 0.86445	0.90966 0.85264	AVRG AVRG		0.92098 0.84510		3.70068
99 Indeno(1,2,3-cd)pyrene	0.82214 0.81655	0.91774 0.75359	0.83742 0.75359	0.89629 0.75359	0.86445 0.75359	0.85264 0.75359	AVRG AVRG		0.84510 0.75359		6.01764
100 Dibenzo(a,h)anthracene	0.85413 0.85411	0.74504 0.60952	0.67287 0.60952	0.73440 0.60952	0.69759 0.60952	0.67777 0.60952	AVRG AVRG		0.68068 0.60952		6.53700
101 Benzo(ghi)perylene	0.72104 0.68866	0.79945 0.62705	0.72249 0.62705	0.76566 0.62705	0.71838 0.62705	0.73009 0.62705	AVRG AVRG		0.72160 0.62705		7.04885
102 1,4-Dioxane	++++ 0.31161	0.40364 0.30837	0.39108 0.20768	0.35833 0.19444	0.36073 0.19248	0.32452 0.17684	AVRG AVRG		0.35119 0.18979		10.77795
103 Methyl methacrylate	++++ 0.16911	0.21508 0.17292	0.20768 0.17292	0.19444 0.18485	0.19248 0.18517	0.17684 0.17200	AVRG AVRG		0.18979 0.82709		9.29691
104 Ethyl methacrylate	++++ 0.73535	0.94302 0.73626	0.90271 0.73626	0.84859 1.23892	0.85171 1.24366	0.77200 1.11707	AVRG AVRG		0.82709 1.21280		9.86302
105 2-Picoline	++++ 1.05418	1.41751 1.05943	1.35879 1.05943	1.23892 0.54352	1.24366 0.54304	1.11707 0.51432	AVRG AVRG		1.21280 0.53810		11.79135
106 N-Nitrosomethylethylamine	++++ 0.50151	0.59418 0.50138	0.57876 0.50138	0.54352 0.50138	0.54304 0.50138	0.51432 0.50138	AVRG AVRG		0.53810 0.50138		6.38520

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 Cal Date : 18-Mar-2010 12:34 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
107 Methyl methanesulfonate	+++ 0.55158	0.64507 0.54936	0.64908	0.61336	0.60691	0.56546	AVRG		0.59726		7.07556
108 N-Nitrosodiethylamine	+++ 0.50185	0.60002 0.50111	0.55792	0.54460	0.55515	0.50996	AVRG		0.54437		7.84567
109 Ethyl Methanesulfonate	+++ 0.67400	0.77937 0.67651	0.78398	0.73252	0.74517	0.68922	AVRG		0.72583		6.44394
110 Pentachloroethane	+++ 0.30477	0.36537 0.30069	0.35868	0.33978	0.34412	0.31859	AVRG		0.33314		7.67816
111 N-Nitrosopyrrolidine	+++ 0.52363	0.65147 0.52349	0.65118	0.60564	0.59568	0.54014	AVRG		0.58446		9.60255
113 N-Nitrosomorpholine	+++ 0.60862	0.77690 0.59644	0.75720	0.69860	0.69697	0.63076	AVRG		0.68078		10.46970
114 o-Toluidine	+++ 1.51078	2.05374 1.51005	1.96418	1.78212	1.74117	1.58116	AVRG		1.73474		12.47332
115 N-Nitrosopiperidine	+++ 0.14357	0.16517 0.14183	0.16671	0.15400	0.15626	0.14779	AVRG		0.15362		6.43146
116 a,a-Dimethylphenethylamine	+++ 0.84727	0.84998 0.81794	0.91437	0.90226	0.91158	0.87133	AVRG		0.87353		4.25275

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Compound	1	10	20	40	50	80	Curve	b	Coefficients m1	m2	%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6					
	100	120									
	Level 7	Level 8									
117 Triethylphosphorothioate	++++	0.16227	0.15179	0.14508	0.14517	0.13799					
	0.13034	0.12625					AVRG		0.14270		9.68942
118 2,6-Dichlorophenol	++++	0.27261	0.26747	0.24661	0.24973	0.23288					
	0.22683	0.22120					AVRG		0.24533		8.04029
119 Hexachloropropene	++++	0.12422	0.14505	0.13455	0.13486	0.13756					
	0.13062	0.12490					AVRG		0.13311		5.48816
120 p-Phenylenediamine	++++	0.34413	0.36083	0.31398	0.29301	0.26154					
	0.24844	++++					AVRG		0.30365		14.69115
121 N-Nitrosodi-n-butylamine	++++	0.30402	0.30502	0.24131	0.24260	0.22117					
	++++	++++					AVRG		0.26282		14.83811
122 Saffrole	++++	0.24219	0.23822	0.21649	0.21692	0.20189					
	0.19239	0.18963					AVRG		0.21396		9.73528
123 1,2,4,5-Tetrachlorobenzene	++++	0.51062	0.49855	0.44614	0.45393	0.42366					
	0.40150	0.39571					AVRG		0.44716		10.00072
124 Isosafrole	++++	0.39056	0.38828	0.35693	0.35264	0.33685					
	0.32525	0.32217					AVRG		0.35324		7.88298
125 1,4-Naphthoquinone	++++	0.44627	0.42913	0.36710	0.34310	0.27951					
	0.26871	0.26396					AVRG		0.34254		22.12484

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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>
126 m-Dinitrobenzene	++++ 0.17688	0.19457 0.17754	0.20451	0.19900	0.20530	0.18435	AVRG		0.19174		6.33347
127 Pentachlorobenzene	++++ 0.33716	0.43110 0.33489	0.41421	0.37919	0.37551	0.35401	AVRG		0.37515		9.84443
128 1-Naphthylamine	++++ 0.80481	1.01413 0.80092	1.02551	0.91517	0.89074	0.84391	AVRG		0.89931		10.26327
129 2-Naphthylamine	++++ 0.81714	1.08923 0.82229	1.09028	0.96961	0.93134	0.88633	AVRG		0.94089		11.64761
130 2,3,4,6-Tetrachlorophenol	++++ 0.26048	0.28320 0.26802	0.29838	0.27851	0.29220	0.26438	AVRG		0.27788		5.16598
131 5-Nitro-o-toluidine	++++ 0.28937	0.30371 0.29520	0.33910	0.30524	0.30826	0.30565	AVRG		0.30665		5.15108
132 Thionazin	++++ 0.15141	0.18517 0.14819	0.17934	0.16941	0.16728	0.15846	AVRG		0.16561		8.34122
134 Sulfotapp	++++ 0.07503	0.08460 0.07593	0.08173	0.08195	0.08009	0.07824	AVRG		0.07964		4.35673
135 Phorate	++++ 0.35382	0.45146 0.34151	0.42713	0.42213	0.39953	0.37573	AVRG		0.39590		10.25989

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 Integrator : HP RTE  
 Method file : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 18-Mar-2010 12:34 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
136 1,3,5-Trinitrobenzene	++++ 0.15027	0.14215 0.14373	0.17801	0.16278	0.16019	0.15578	AVRG		0.15613		7.94442
137 Phenacetin	++++ 0.27803	0.31318 0.27408	0.31793	0.28873	0.29334	0.28901	AVRG		0.29347		5.64036
138 Diallyate	++++ 0.22095	0.28920 0.21741	0.27813	0.25090	0.24969	0.23408	AVRG		0.24862		10.98494
139 Dimethoate	++++ 0.24705	0.27336 0.24235	0.26946	0.26875	0.26784	0.25717	AVRG		0.26085		4.66441
140 4-Aminobiphenyl	++++ 0.49732	0.55261 0.48294	0.60071	0.58243	0.60084	0.53773	AVRG		0.55066		8.65686
141 Pentachloronitrobenzene	++++ 0.05467	0.07818 ++++	0.07606	0.06875	0.06554	0.05850	AVRG		0.06695		13.96038
142 Pronamide	++++ ++++	0.30552 ++++	0.28970	0.25313	0.24216	0.21416	AVRG		0.26094		14.10331
143 Dinoseb	++++ 550419	26789 666120	59526	194494	260402	434843	AVRG		0.12393		0.99867
144 Disulfoton	++++ 0.26612	0.33440 0.25293	0.31848	0.31065	0.30032	0.28003	AVRG		0.29470		9.99476

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/s031810.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 18-Mar-2010 12:34 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
145 Methyl parathion	++++ 0.20697	0.23174 0.20133	0.22766 0.20133	0.22643 0.20133	0.22704 0.20133	0.21420 0.20133	AVRG		0.21934		5.38336
146 4-Nitroquinoline-1-oxide	++++ 0.02090	0.03620 0.01975	0.04258 0.01975	0.03229 0.01975	0.02624 0.01975	0.02359 0.01975	AVRG		0.02879		29.56738
147 Methapyrilene	++++ 0.37265	0.50709 0.36578	0.51231 0.36578	0.47429 0.36578	0.44273 0.36578	0.38752 0.36578	AVRG		0.43748		14.35658
148 Isodrin	++++ 0.09732	0.12789 0.09486	0.12550 0.09486	0.11252 0.09486	0.11113 0.09486	0.10270 0.09486	AVRG		0.1028		11.76979
149 Aramite	++++ 0.04334	0.04987 0.04247	0.05241 0.04247	0.05098 0.04247	0.04801 0.04247	0.04511 0.04247	AVRG		0.04746		8.18427
150 Kepone	++++ 0.07353	0.08033 0.07232	0.08350 0.07232	0.07854 0.07232	0.07324 0.07232	0.07530 0.07232	AVRG		0.07668		5.48032
151 p-(Dimethylamino)azobenzene	++++ 0.28883	0.35661 0.27624	0.32327 0.29739	0.31849 0.29945	0.32153 0.30335	0.28722 0.27160	AVRG		0.31031		8.98103
152 Chlorobenzilate	++++ 0.27932	0.34601 0.26590	0.29739 0.26590	0.29945 0.26590	0.30335 0.26590	0.27160 0.26590	AVRG		0.29472		9.12242
153 3,3'-Dimethylbenzidine	++++ 0.56416	0.63324 0.54908	0.65171 0.54908	0.60049 0.54908	0.59103 0.54908	0.56476 0.54908	AVRG		0.59350		6.40934

# 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/s031810.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 18-Mar-2010 12:34 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients mi	m2	%RSD or R^2
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 7,7-Dimethylbenz(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

## 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/s031810.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 18-Mar-2010 12:34 jen00986

Compound	1	10	20	40	50	80	Curve	b	Coefficients m1	m2	%RSD or R^2
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		0.66555		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	++++ 1.1608	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  
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/s031810.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 18-Mar-2010 12:34 jen00986

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	Coeficients m1	m2	%RSD or R^2
216 Methylenebis(2-chloroaniline)	++++ 0.16353	0.14670 0.15734	0.14448	0.16081	0.16367	0.16247	AVRG		0.5700		5.16494
229 2,2'-Dichlorobenzil	++++ 0.60843	0.75519 0.58423	0.72438	0.63746	0.67020	0.59613	AVRG		0.65372		10.07446
230 4-Chlorothioanisole	++++ 0.24846	0.25858 0.24389	0.25840	0.25992	0.26979	0.25595	AVRG		0.25643		3.26291
231 4-Chlorothiophenol	++++ 924542	20380 1190062	113799	319351	419370	769215	LINR	0.19822	0.21711		0.99902
232 bis(p-Chlorophenyl)sulfone	++++ 0.35821	0.42993 0.34208	0.41812	0.36485	0.38196	0.34653	AVRG		0.37738		9.15636
233 bis(p-Chlorophenyl)disulfide	++++ 0.13916	0.18867 0.13446	0.16361	0.14247	0.15771	0.13779	AVRG		0.15190		12.87450
234 Diphenyl disulfide	++++ 0.20985	0.25253 0.20621	0.23711	0.22392	0.22770	0.21135	AVRG		0.22409		7.45835
235 Diphenyl sulfide	++++ 0.67031	0.87794 0.65856	0.80171	0.75220	0.72922	0.68472	AVRG		0.73062		8.67809
236 Phenyl sulfone	++++ 0.40374	0.47552 0.40017	0.46096	0.43737	0.43617	0.40614	AVRG		0.43144		6.86139

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/s031810.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 18-Mar-2010 12:34 jen00986

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients ml	m2	%RSD or R^2
237 Hydroxymethyl phthalimide	++++ 0.10388	0.15087 0.10042	0.15581	0.11414	0.10659	0.09117	AVRG		0.11756		21.63821<-
238 Phthalic acid	++++ 603096	19671 ++++	59106	176058	250394	510629	LINR	0.27110	0.14797		0.99247
239 Thiophenol	++++ 1367181	62327 1721186	207465	508832	672604	1133406	LINR	0.08994	1.06635		0.99804
240 bis (Chloromethyl) ether	++++ 0.80538	0.97516 0.76021	0.91313	0.87686	0.87662	0.82499	AVRG		0.86176		8.3248
241 Octachlorostyrene	++++ 0.05689	0.05974 0.05659	0.05913	0.05893	0.06005	0.05647	AVRG		0.05826		2.66684
IM 225 Trichlorophenols	++++ 0.31483	0.37618 0.30425	0.37852	0.35462	0.35443	0.33004	AVRG		0.34470		8.43399
IM 226 Tetrachlorophenols	++++ 0.26048	0.28320 0.26802	0.29838	0.27851	0.29220	0.26438	AVRG		0.27788		5.16598
IM 227 Benzo(b,k)fluoranthene	++++ 1.10155	1.05688 1.02788	1.15773	1.02890	1.08265	1.04507	AVRG		1.06536		5.16433
IM 228 TTO Sum Semivolatile	++++ ++++	++++ ++++	++++	++++	++++	++++	AVRG		0.000e+00		0.000e+00<-

# 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/s031810.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 18-Mar-2010 12:34 jen00986

Compound	1	10	20	40	50	80	Curve	b	Coefficients	m1	m2	%RSD or R^2
3 2-Fluorophenol	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	AVRG			1.11196		7.0.882
	1.02412	1.01478			1.16530	1.06488						
5 Phenol-d5	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	AVRG			1.41412		6.55306
	1.31463	1.30976			1.44854	1.34995						
187 2-Chlorophenol-d4	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	AVRG			0.000e+00		0.000e+00
	++++	++++	++++	++++	++++	++++						
188 1,2-Dichlorobenzene-d4	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	AVRG			0.000e+00		0.000e+00
	++++	++++	++++	++++	++++	++++						
20 Nitrobenzene-d5	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	AVRG			0.38237		11.53560
	0.33590	0.32456	0.43337	0.38834	0.39802	0.36088						
39 2-Fluorobiphenyl	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	AVRG			1.03201		13.55845
	0.89495	0.86381	1.18747	1.05919	1.04982	0.94356						
60 2,4,6-Tribromophenol	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	AVRG			0.11225		2.35114
	0.10877	0.11433	0.11537	0.11089	0.11508	0.11113						
81 p-Terphenyl-d14	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	AVRG			0.69704		6.50888
	0.64309	0.67033	0.77308	0.65971	0.68870	0.71170						

# 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/s031810.b/MSD6-M8270C-AQA-031610.m  
 Cal Date : 18-Mar-2010 12:34 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 : nag1 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: hpc1pl

Compounds	QUANT SIG			AMOUNTS		
	MASS	RT	EXP RT REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.963	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	ON-COL
							(ng/ul)	(ng/ul)
17 N-Nitrosodipropylamine	70	4.204	4.204	(1.061)	431074	40.0000	39.7	
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			REL RT	RESPONSE	AMOUNTS	
	MASS	RT	EXP 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.

Data File: /chem/MSD6,i/s031610,b/s6c1612,c

Date : 16-MAR-2010 13:40

Client ID: MEGACITY

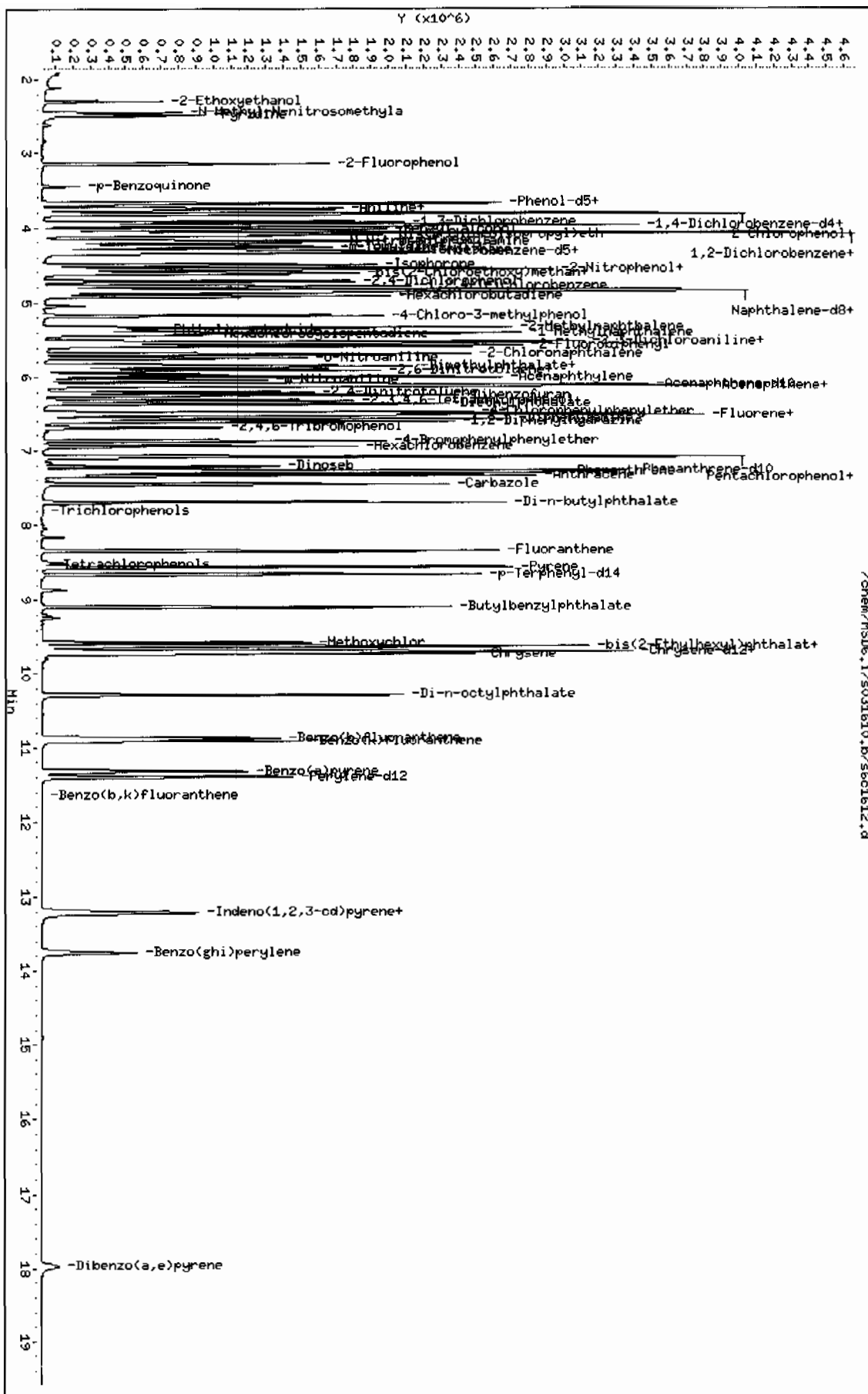
Sample Info: MBN100309-09.1|040 PPM11SVH11MEGAICV

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: 17-MAR-2010 00:41  
Lab File ID: s6c1635-D.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
Analysis Type: Init. Cal. Times: 09:18 00:17  
Lab Sample ID: WBN100312-08.1 Quant Type: ISTD  
Method: /chem/MSD6.i/s031610.b/MSD6-M8270D-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	0.010	-14.72761	30.00000	Averaged
16 Acetophenone	1.24814	1.25263	1.25263	0.010	0.35947	30.00000	Averaged
189 Caprolactam	0.09790	0.10379	0.10379	0.010	6.01713	30.00000	Averaged
208 1,1'-Biphenyl	1.11180	1.18809	1.18809	0.010	6.86162	30.00000	Averaged
207 Atrazine	0.04329	0.04863	0.04863	0.010	12.34119	30.00000	Averaged
77 Benzidine	0.42058	0.38100	0.38100	0.010	-9.41199	30.00000	Averaged
90 3,3'-Dichlorobenzidine	0.30172	0.29115	0.29115	0.010	-3.50494	30.00000	Averaged
102 1,4-Dioxane	0.35119	0.42489	0.42489	0.010	20.98835	30.00000	Averaged
103 Methyl methacrylate	0.18979	0.23586	0.23586	0.010	24.27101	30.00000	Averaged
104 Ethyl methacrylate	0.82709	0.99246	0.99246	0.010	19.99468	30.00000	Averaged
105 2-Picoline	1.21280	1.17717	1.17717	0.010	-2.93779	30.00000	Averaged
106 N-Nitrosomethylethylamine	0.53810	0.51671	0.51671	0.010	-3.97561	30.00000	Averaged
107 Methyl methanesulfonate	0.59726	0.64303	0.64303	0.010	7.66352	30.00000	Averaged
108 N-Nitrosodiethylamine	0.54437	0.51427	0.51427	0.010	-5.53074	30.00000	Averaged
109 Ethyl Methanesulfonate	0.72583	0.86252	0.86252	0.010	18.83349	30.00000	Averaged
110 Pentachloroethane	0.33314	0.46050	0.46050	0.010	38.22991	30.00000	Averaged<-
111 N-Nitrosopyrrolidine	0.58446	0.54601	0.54601	0.010	-6.57949	30.00000	Averaged
113 N-Nitrosomorpholine	0.68078	0.67817	0.67817	0.010	-0.38364	30.00000	Averaged
114 o-Toluidine	1.73474	1.71282	1.71282	0.010	-1.26373	30.00000	Averaged
115 N-Nitrosopiperidine	0.15362	0.15537	0.15537	0.010	1.14048	30.00000	Averaged
116 a,a-Dimethylphenethylamine	0.87353	0.84296	0.84296	0.010	-3.49989	30.00000	Averaged
118 2,6-Dichlorophenol	0.24533	0.25532	0.25532	0.010	4.07128	30.00000	Averaged
119 Hexachloropropene	0.13311	0.21102	0.21102	0.010	58.53040	30.00000	Averaged<-
120 p-Phenylenediamine	0.29557	0.25418	0.25418	0.010	-14.00322	30.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.24827	0.23622	0.23622	0.010	-4.85397	30.00000	Averaged
122 Safrole	0.21396	0.24803	0.24803	0.010	15.92258	30.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44716	0.49965	0.49965	0.010	11.73987	30.00000	Averaged
124 Isosafrole	0.35324	0.46919	0.46919	0.010	32.82296	30.00000	Averaged<-
125 1,4-Naphthoquinone	0.37302	0.36074	0.36074	0.010	-3.29279	30.00000	Averaged
127 Pentachlorobenzene	0.37515	0.39513	0.39513	0.010	5.32511	30.00000	Averaged
128 1-Naphthylamine	0.89931	0.86590	0.86590	0.010	-3.71571	30.00000	Averaged
129 2-Naphthylamine	0.94089	0.95153	0.95153	0.010	1.13110	30.00000	Averaged
131 5-Nitro-o-toluidine	0.30665	0.29799	0.29799	0.010	-2.82387	30.00000	Averaged
136 1,3,5-Trinitrobenzene	0.15613	0.20859	0.20859	0.010	33.60060	30.00000	Averaged<-
137 Phenacetin	0.29347	0.31337	0.31337	0.010	6.77907	30.00000	Averaged
138 Diallate	0.24862	0.23882	0.23882	0.010	-3.94194	30.00000	Averaged

## GEL Laboratories LLC

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 17-MAR-2010 00:41  
 Lab File ID: s6c1635-D.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
 Analysis Type: Init. Cal. Times: 09:18 00:17  
 Lab Sample ID: WBN100312-08.1 Quant Type: ISTD  
 Method: /chem/MSD6.i/s031610.b/MSD6-M8270D-031610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.55066	0.60803	0.60803	0.010	10.41902	30.00000	Averaged
141 Pentachloronitrobenzene	0.06467	0.07174	0.07174	0.010	10.93302	30.00000	Averaged
142 Pronamide	0.24282	0.27195	0.27195	0.010	11.99810	30.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02879	0.02702	0.02702	0.010	-6.14630	30.00000	Averaged
147 Methapyrilene	0.43748	0.36011	0.36011	0.010	-17.68475	30.00000	Averaged
148 Isodrin	0.11028	0.10672	0.10672	0.010	-3.22110	30.00000	Averaged
149 Aramite	0.04746	0.04804	0.04804	0.010	1.23400	30.00000	Averaged
150 Kepone	0.07668	0.07470	0.07470	0.010	-2.58614	30.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31031	0.32655	0.32655	0.010	5.23269	30.00000	Averaged
152 Chlorobenzilate	0.29472	0.31516	0.31516	0.010	6.93640	30.00000	Averaged
153 3,3'-Dimethylbenzidine	0.59350	0.56147	0.56147	0.010	-5.39699	30.00000	Averaged
155 2-Acetylaminofluorene	0.34851	0.33367	0.33367	0.010	-4.25802	30.00000	Averaged
157 7,12Dimethylbenz(a)anthracene	0.48545	0.50464	0.50464	0.010	3.95471	30.00000	Averaged
158 3-Methylcholanthrene	0.40010	0.40383	0.40383	0.010	0.93137	30.00000	Averaged
212 Cis Diallate	0.28918	0.35766	0.35766	0.010	23.68031	30.00000	Averaged
213 Trans Diallate	0.29250	0.28097	0.28097	0.010	-3.94194	30.00000	Averaged

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Data file : /chem/MSD6.i/s031610.b/s6c1635-D.d  
 Lab Smp Id: WBN100312-08.1 Client Smp ID: APICV  
 Inj Date : 17-MAR-2010 00:41  
 Operator : nag1 Inst ID: MSD6.i  
 Smp Info : |WBN100312-08.1|40 PPM|1|SVM|1|APICV  
 Misc Info : |MSD8270|WBN100310-01  
 Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um  
 Method : /chem/MSD6.i/s031610.b/MSD6-M8270D-031610.m  
 Meth Date : 17-Mar-2010 10:51 nat00999 Quant Type: ISTD  
 Cal Date : 16-MAR-2010 23:05 Cal File: s6c1631.d  
 Als bottle: 34 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: AP12.sub  
 Target Version: 3.50  
 Processing Host: hpc1p1

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		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	44.9
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					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	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	34.4
121 N-Nitrosodi-n-butylamine	84	5.087	5.087	(1.051)	363602	40.0000	38.0
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	38.7
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
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	44.4 (Q)
142 Pronamide	173	7.110	7.110	(0.977)	431425	40.0000	44.8
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)
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

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/HSD6.i/s031610.b/s6c1635-D.d

Date: 17-MAR-2010 00:41

Client ID: APICV

Sample Info: IWBH00312-08.1140 PPH111SVN11APICV

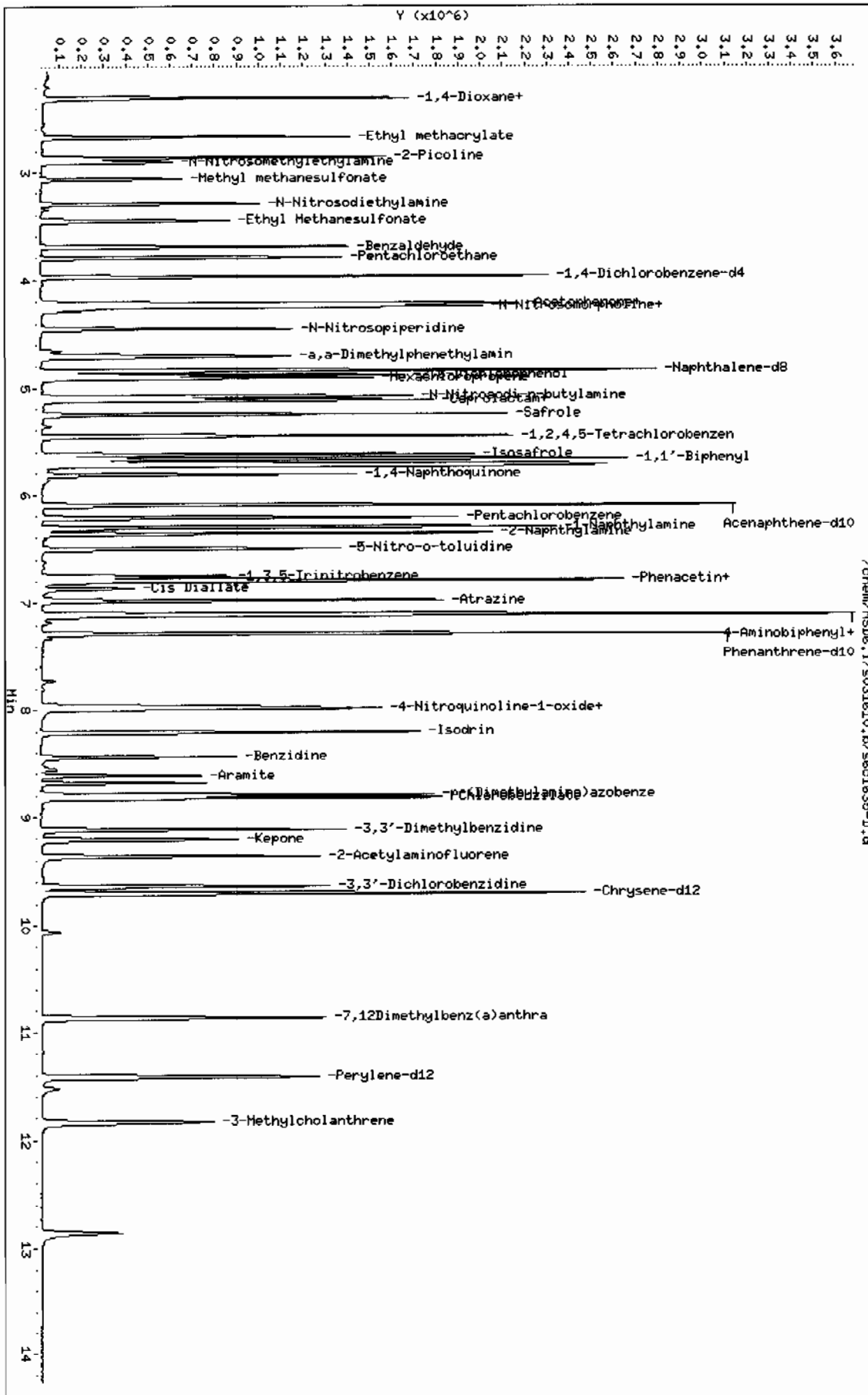
Column phase: 3M DB-SMS

Instrument: HSD6.i

Operator: nag1

Column diameter: 0.20

Page 1





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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 Diallate	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

GEL Laboratories LLC

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: hpc1p1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.969	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 (0)
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	AMOUNTS					
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (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/s6c1635.d

Date: 17-MAR-2010 09:41

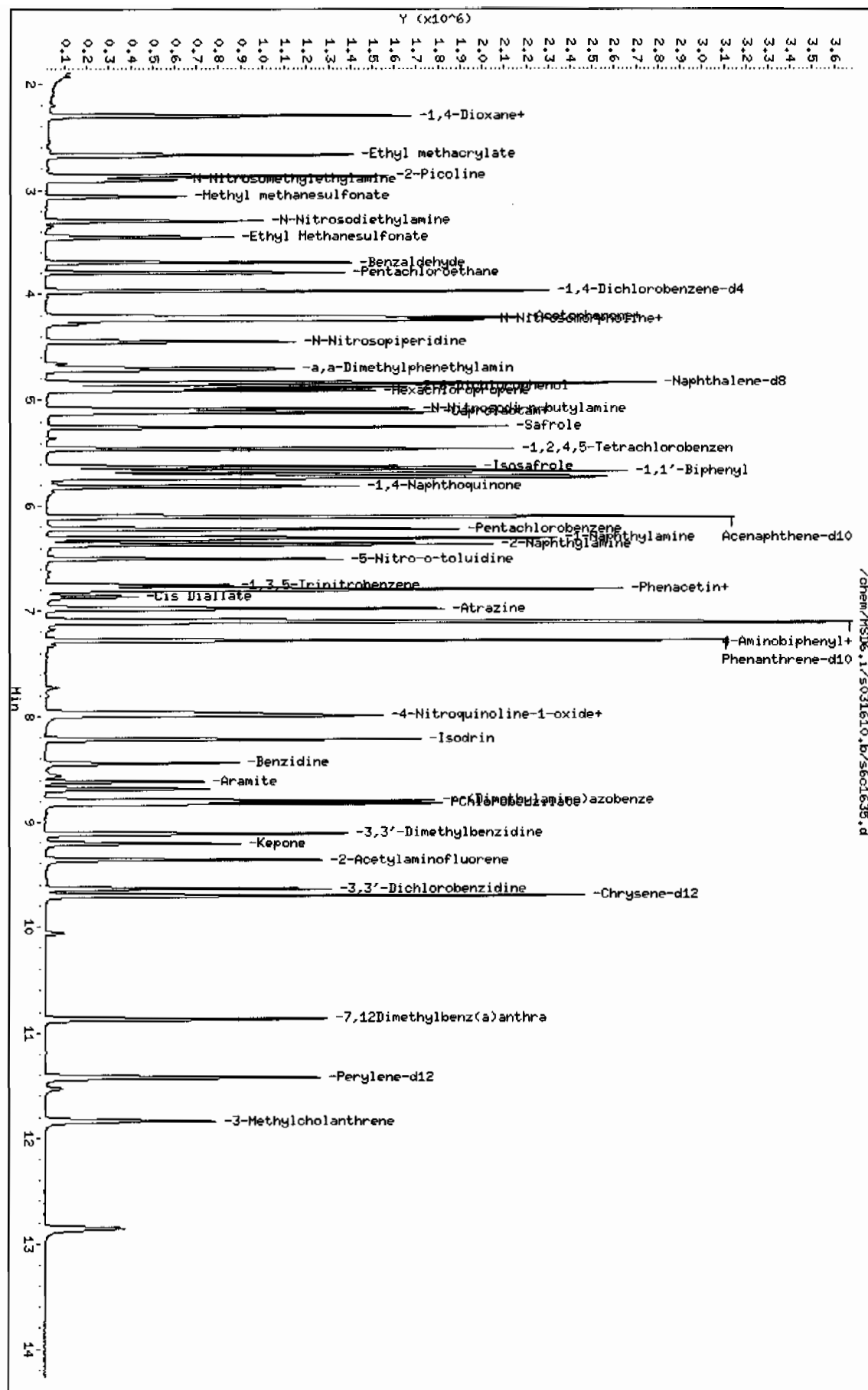
Client ID: APICV

Sample Info: MBN100312-08.1140 PPM111SW11APICV

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: 18-MAR-2010 08:12  
Lab File ID: s6c1802.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/s031810.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	0.99525	0.99525	0.000	-10.49589	60.00000	Averaged
5 Phenol-d5	1.41412	1.23229	1.23229	0.000	-12.85792	60.00000	Averaged
20 Nitrobenzene-d5	0.38237	0.35505	0.35505	0.000	-7.14628	60.00000	Averaged
39 2-Fluorobiphenyl	1.03201	1.01741	1.01741	0.000	-1.41498	60.00000	Averaged
60 2,4,6-Tribromophenol	0.11225	0.09464	0.09464	0.000	-15.68370	60.00000	Averaged
81 p-Terphenyl-d14	0.69704	0.67259	0.67259	0.000	-3.50645	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.77557	0.65578	0.65578	0.000	-15.44616	60.00000	Averaged
2 Pyridine	1.10526	0.92511	0.92511	0.000	-16.29923	60.00000	Averaged
4 Aniline	0.66950	0.56950	0.56950	0.000	-14.93664	60.00000	Averaged
6 Phenol	1.43150	1.25997	1.25997	0.001	-11.98264	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.06440	0.93506	0.93506	0.000	-12.15210	60.00000	Averaged
8 2-Chlorophenol	1.16424	1.06541	1.06541	0.000	-8.48912	60.00000	Averaged
203 n-Decane	1.69067	1.38308	1.38308	0.000	-18.19321	60.00000	Averaged
9 1,3-Dichlorobenzene	1.28259	1.22287	1.22287	0.000	-4.65617	60.00000	Averaged
11 1,4-Dichlorobenzene	1.24541	1.22517	1.22517	0.001	-1.62493	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.12890	1.09742	1.09742	0.000	-2.78867	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.23712	1.87715	1.87715	0.000	-16.09099	60.00000	Averaged
12 Benzyl alcohol	0.81825	0.59983	0.59983	0.000	-26.69260	60.00000	Averaged
15 o-Cresol	0.88788	0.84704	0.84704	0.000	-4.59997	60.00000	Averaged
18 m,p-Cresols	1.27893	1.08261	1.08261	0.000	-15.34997	60.00000	Averaged
17 N-Nitrosodipropylamine	0.97668	0.86359	0.86359	0.050	-11.57886	60.00000	Averaged spcc
19 Hexachloroethane	0.53767	0.50460	0.50460	0.000	-6.14960	60.00000	Averaged
21 Nitrobenzene	0.35281	0.33278	0.33278	0.000	-5.67757	60.00000	Averaged
22 Isophorone	0.67701	0.62786	0.62786	0.000	-7.25965	60.00000	Averaged
23 2-Nitrophenol	0.15292	0.15420	0.15420	0.001	0.83518	20.00000	Averaged ccc
24 2,4-Dimethylphenol	17.69476	40.00000	0.14980	0.000	-55.76309	60.00000	Wt Linear
25 bis(2-Chloroethoxy)methane	0.36806	0.34748	0.34748	0.000	-5.59280	60.00000	Averaged
26 2,4-Dichlorophenol	0.25252	0.21037	0.21037	0.001	-16.69369	20.00000	Averaged ccc
27 Benzoic acid	0.18753	0.19964	0.19964	0.000	6.45420	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.28905	0.29945	0.29945	0.000	3.59791	60.00000	Averaged
30 Naphthalene	0.98486	0.85417	0.85417	0.000	-13.27017	60.00000	Averaged
204 alpha-Terpineol	0.28429	0.20295	0.20295	0.000	-28.61254	60.00000	Averaged
31 4-Chloroaniline	0.43446	0.43455	0.43455	0.000	0.02095	60.00000	Averaged
32 Hexachlorobutadiene	0.16407	0.16975	0.16975	0.001	3.46469	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.27436	0.24999	0.24999	0.001	-8.88366	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.60564	0.54800	0.54800	0.000	-9.51814	60.00000	Averaged

## GEL Laboratories LLC

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 18-MAR-2010 08:12  
 Lab File ID: s6c1802.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/s031810.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	0.54277	0.54277	0.000	-7.86561	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.22936	0.27014	0.27014	0.050	17.78108	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.52459	0.51856	0.51856	0.000	-1.15011	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.33474	0.30500	0.30500	0.001	-8.88488	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.35465	0.34128	0.34128	0.000	-3.77106	60.00000	Averaged
40 2-Chloronaphthalene	0.97365	0.91454	0.91454	0.000	-6.07160	60.00000	Averaged
42 o-Nitroaniline	0.34201	0.29073	0.29073	0.000	-14.99312	60.00000	Averaged
41 m-Nitroaniline	0.25409	0.22700	0.22700	0.000	-10.66373	60.00000	Averaged
43 Dimethylphthalate	1.13004	1.10446	1.10446	0.000	-2.26293	60.00000	Averaged
44 2,6-Dinitrotoluene	0.27058	0.26297	0.26297	0.000	-2.81006	60.00000	Averaged
50 2,4-Dinitrotoluene	0.35648	0.34220	0.34220	0.000	-4.00598	60.00000	Averaged
45 Acenaphthylene	1.54257	1.40961	1.40961	0.000	-8.61940	60.00000	Averaged
47 Acenaphthene	1.03783	0.90042	0.90042	0.001	-13.24061	20.00000	Averaged ccc
48 2,4-Dinitrophenol	51.44294	40.00000	0.12645	0.050	28.60734	60.00000	Linear spcc
49 Dibenzofuran	1.26069	1.22958	1.22958	0.000	-2.46789	60.00000	Averaged
51 Diethylphthalate	1.10774	1.07482	1.07482	0.000	-2.97138	60.00000	Averaged
52 4-Nitrophenol	0.19236	0.12086	0.12086	0.050	-37.16881	60.00000	Averaged spcc
53 Fluorene	1.11781	1.03746	1.03746	0.000	-7.18804	60.00000	Averaged
54 4-Chlorophenylphenylether	0.53621	0.53437	0.53437	0.000	-0.34309	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	47.68589	40.00000	0.11318	0.000	19.21473	60.00000	Linear
56 p-Nitroaniline	0.20835	0.18817	0.18817	0.000	-9.68536	60.00000	Averaged
133 Diphenylamine	0.51902	0.50535	0.50535	0.001	-2.63292	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.69767	0.61466	0.61466	0.000	-11.89844	60.00000	Averaged
61 4-Bromophenylphenylether	0.17368	0.17754	0.17754	0.000	2.22181	60.00000	Averaged
63 Hexachlorobenzene	0.16595	0.17467	0.17467	0.000	5.24981	60.00000	Averaged
65 Pentachlorophenol	0.09397	0.09002	0.09002	0.001	-4.20293	20.00000	Averaged ccc
206 n-Octadecane	0.48063	0.40424	0.40424	0.000	-15.89440	60.00000	Averaged
68 Phenanthrene	0.97466	0.87686	0.87686	0.000	-10.03352	60.00000	Averaged
69 Anthracene	0.98189	0.88149	0.88149	0.000	-10.22585	60.00000	Averaged
72 Di-n-butylphthalate	1.13557	1.03004	1.03004	0.000	-9.29297	60.00000	Averaged
76 Fluoranthene	0.98842	0.93555	0.93555	0.001	-5.34868	20.00000	Averaged ccc
79 Pyrene	1.21938	1.17636	1.17636	0.000	-3.52799	60.00000	Averaged
85 Butylbenzylphthalate	0.58998	0.53439	0.53439	0.000	-9.42304	60.00000	Averaged
89 Benzo(a)anthracene	1.04446	0.98823	0.98823	0.000	-5.38394	60.00000	Averaged
92 Chrysene	0.99764	0.91562	0.91562	0.000	-8.22142	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.78860	0.71017	0.71017	0.000	-9.94508	60.00000	Averaged

## GEL Laboratories LLC

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 18-MAR-2010 08:12  
 Lab File ID: s6c1802.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/s031810.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	1.37317	1.37317	0.001	-10.28678	20.00000	Averaged ccc
95 Benzo(b)fluoranthene	1.08744	1.05239	1.05239	0.000	-3.22345	60.00000	Averaged
96 Benzo(k)fluoranthene	1.04328	1.02270	1.02270	0.000	-1.97233	60.00000	Averaged
97 Benzo(a)pyrene	0.92098	0.89885	0.89885	0.001	-2.40210	20.00000	Averaged ccc
99 Indeno(1,2,3-cd)pyrene	0.84510	0.82137	0.82137	0.000	-2.80868	60.00000	Averaged
100 Dibenzo(a,h)anthracene	0.68068	0.66125	0.66125	0.000	-2.85354	60.00000	Averaged
101 Benzo(ghi)perylene	0.72160	0.69777	0.69777	0.000	-3.30235	60.00000	Averaged
126 m-Dinitrobenzene	0.19174	0.18769	0.18769	0.000	-2.11188	60.00000	Averaged
130 2,3,4,6-Tetrachlorophenol	0.27788	0.21491	0.21491	0.000	-22.66006	60.00000	Averaged
143 Dinoseb	48.63292	40.00000	0.16686	0.000	21.58231	60.00000	Linear
173 Carbazole	0.76672	0.65609	0.65609	0.000	-14.42854	60.00000	Averaged
184 p-Benzoquinone	0.24293	0.12993	0.12993	0.000	-46.51700	60.00000	Averaged
192 Methoxychlor	0.66555	0.66433	0.66433	0.000	-0.18356	60.00000	Averaged
211 p-Toluidine	1.33748	1.34601	1.34601	0.000	0.63825	60.00000	Averaged
210 m-Toluidine	1.85679	1.49724	1.49724	0.000	-19.36389	60.00000	Averaged
215 2-Ethoxyethanol	0.71211	0.53755	0.53755	0.000	-24.51324	60.00000	Averaged
179 Dibenzo(a,e)pyrene	0.32071	0.31077	0.31077	0.000	-3.09745	60.00000	Averaged
26 Phthalic anhydride	33.96866	40.00000	0.11929	0.000	-15.07835	60.00000	Linear
214 1,4-Dinitrobenzene	0.26971	0.22941	0.22941	0.000	-14.94454	60.00000	Averaged
216 Methylencbis(2-chloroanilin	0.15700	0.12733	0.12733	0.000	-18.89628	60.00000	Averaged
M 225 Trichlorophenols	0.34470	0.32314	0.32314	0.000	-6.25412	60.00000	Averaged
M 226 Tetrachlorophenols	0.27788	0.21491	0.21491	0.000	-22.66006	60.00000	Averaged
M 227 Benzo(b,k)fluoranthene	1.06536	1.03755	1.03755	0.000	-2.61086	60.00000	Averaged



Data File: /chem/MSD6.i/s031810.b/s6c1802.d  
Report Date: 19-Mar-2010 16:12

Page 1

GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1802.d  
Lab Smp Id: WBN100309-05.3 Client Smp ID: MEGACVS  
Inj Date : 18-MAR-2010 08:12  
Operator : nag1 Inst ID: MSD6.i  
Smp Info : |WBN100309-05.3|40 PPM|1|SVM|1|MEGACVS  
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/s031810.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 19-Mar-2010 16:12 llo00884 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: hpc1p1

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
							(ng/ul)	(ng/ul)
* 10 1,4-Dichlorobenzene-d4		152	3.963	3.963	(1.000)	395994	40.0000	
* 29 Naphthalene-d8		136	4.834	4.834	(1.000)	1442881	40.0000	
* 46 Acenaphthene-d10		164	6.092	6.092	(1.000)	878105	40.0000	
* 67 Phenanthrene-d10		188	7.269	7.269	(1.000)	1467337	40.0000	
* 91 Chrysene-d12		240	9.698	9.698	(1.000)	1252158	40.0000	
* 98 Perylene-d12		264	11.404	11.404	(1.000)	1051962	40.0000	
\$ 3 2-Fluorophenol		112	3.140	3.140	(0.792)	394113	40.0000	35.8
\$ 5 Phenol-d5		99	3.669	3.669	(0.926)	487980	40.0000	34.8
\$ 20 Nitrobenzene-d5		82	4.328	4.328	(0.895)	512293	40.0000	37.1
\$ 39 2-Fluorobiphenyl		172	5.575	5.575	(0.915)	893390	40.0000	39.4
\$ 60 2,4,6-Tribromophenol		329	6.692	6.692	(1.098)	83105	40.0000	33.7
\$ 81 p-Terphenyl-d14		244	8.651	8.651	(0.892)	842194	40.0000	38.6
1 N-Methyl-N-nitrosomethylamine		74	2.446	2.446	(0.617)	259684	40.0000	33.8
2 Pyridine		79	2.475	2.475	(0.624)	366337	40.0000	33.5
4 Aniline		66	3.746	3.746	(0.945)	225517	40.0000	34.0
6 Phenol		94	3.681	3.681	(0.929)	498941	40.0000	35.2
7 bis(2-Chloroethyl) ether		63	3.757	3.757	(0.948)	370277	40.0000	35.1
8 2-Chlorophenol		128	3.822	3.822	(0.964)	421895	40.0000	36.6
203 n-Decane		43	3.804	3.804	(0.960)	547693	40.0000	32.7
9 1,3-Dichlorobenzene		146	3.928	3.928	(0.991)	484251	40.0000	38.1
11 1,4-Dichlorobenzene		146	3.975	3.975	(1.003)	485161	40.0000	39.4
13 1,2-Dichlorobenzene		146	4.075	4.075	(1.028)	434572	40.0000	38.9
14 bis(2-Chloroisopropyl)ether		45	4.104	4.104	(1.036)	743339	40.0000	33.6
12 Benzyl alcohol		108	4.028	4.028	(1.016)	237531	40.0000	29.3
15 o-Cresol		107	4.075	4.075	(1.028)	335421	40.0000	38.2
18 m,p-Cresols		107	4.175	4.175	(1.053)	428708	40.0000	33.9

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
							(ng/ul)	(ng/ul)
17 N-Nitrosodipropylamine		70	4.198	4.198	(1.059)	341976	40.0000	35.4
19 Hexachloroethane		117	4.310	4.310	(1.088)	199820	40.0000	37.5
21 Nitrobenzene		77	4.340	4.340	(0.898)	480161	40.0000	37.7
22 Isophorone		82	4.493	4.493	(0.929)	905928	40.0000	37.1
23 2-Nitrophenol		139	4.551	4.551	(0.942)	222488	40.0000	40.3
24 2,4-Dimethylphenol		122	4.540	4.540	(0.939)	216143	40.0000	17.7
25 bis(2-Chloroethoxy)methane		93	4.610	4.610	(0.954)	501372	40.0000	37.8
26 2,4-Dichlorophenol		162	4.716	4.716	(0.976)	303535	40.0000	33.3
27 Benzoic acid		105	4.598	4.598	(0.951)	288051	40.0000	42.6
28 1,2,4-Trichlorobenzene		180	4.781	4.781	(0.989)	432069	40.0000	41.4
30 Naphthalene		128	4.845	4.845	(1.002)	1232461	40.0000	34.7
204 alpha-Terpineol		59	4.822	4.822	(0.998)	292828	40.0000	28.6
31 4-Chloroaniline		127	4.857	4.857	(1.005)	627011	40.0000	40.0
32 Hexachlorobutadiene		225	4.910	4.910	(1.016)	244929	40.0000	41.4
33 4-Chloro-3-methylphenol		107	5.169	5.169	(1.069)	360700	40.0000	36.4
34 2-Methylnaphthalene		142	5.328	5.328	(1.102)	790693	40.0000	36.2
35 1-Methylnaphthalene		142	5.404	5.404	(1.118)	783148	40.0000	36.8
36 Hexachlorocyclopentadiene		237	5.428	5.428	(0.891)	237209	40.0000	47.1
205 2,3-Dichloroaniline		161	5.528	5.528	(0.907)	455346	40.0000	39.5
37 2,4,6-Trichlorophenol		196	5.516	5.516	(0.905)	267821	40.0000	36.4
38 2,4,5-Trichlorophenol		196	5.540	5.540	(0.909)	299679	40.0000	38.5
40 2-Chloronaphthalene		162	5.681	5.681	(0.932)	803058	40.0000	37.6
42 o-Nitroaniline		65	5.740	5.740	(0.942)	255295	40.0000	34.0
41 m-Nitroaniline		138	6.040	6.040	(0.991)	199328	40.0000	35.7
43 Dimethylphthalate		163	5.851	5.851	(0.960)	969836	40.0000	39.1
44 2,6-Dinitrotoluene		165	5.904	5.904	(0.969)	230917	40.0000	38.9
50 2,4-Dinitrotoluene		165	6.204	6.204	(1.018)	300484	40.0000	38.4
45 Acenaphthylene		152	5.992	5.992	(0.984)	1237787	40.0000	36.6
47 Acenaphthene		154	6.116	6.116	(1.004)	790660	40.0000	34.7
48 2,4-Dinitrophenol		184	6.110	6.110	(1.003)	111037	40.0000	51.4
49 Dibenzofuran		168	6.239	6.239	(1.024)	1079700	40.0000	39.0
51 Diethylphthalate		149	6.363	6.363	(1.044)	943805	40.0000	38.8
52 4-Nitrophenol		139	6.122	6.122	(1.005)	106130	40.0000	25.1
53 Fluorene		166	6.504	6.504	(1.068)	910997	40.0000	37.1
54 4-Chlorophenylphenylether		204	6.481	6.481	(1.064)	469236	40.0000	39.9
55 2-Methyl-4,6-dinitrophenol		198	6.516	6.516	(0.896)	166073	40.0000	47.7
56 p-Nitroaniline		138	6.498	6.498	(1.067)	165230	40.0000	36.1
133 Diphenylamine		169	6.569	6.569	(0.904)	741521	40.0000	38.9
58 1,2-Diphenylhydrazine		77	6.604	6.604	(0.909)	901911	40.0000	35.2
61 4-Bromophenylphenylether		248	6.869	6.869	(0.945)	260508	40.0000	40.9
63 Hexachlorobenzene		284	6.939	6.939	(0.955)	256295	40.0000	42.1
65 Pentachlorophenol		266	7.086	7.086	(0.975)	132089	40.0000	38.3
206 n-Octadecane		57	7.075	7.075	(0.973)	593151	40.0000	33.6
68 Phenanthrene		178	7.286	7.286	(1.002)	1286656	40.0000	36.0
69 Anthracene		178	7.334	7.334	(1.009)	1293436	40.0000	35.9
72 Di-n-butylphthalate		149	7.692	7.692	(1.058)	1511415	40.0000	36.3
76 Fluoranthene		202	8.333	8.333	(1.146)	1372772	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	8.551	8.551	(0.882)	1472984	40.0000	38.6
85 Butylbenzylphthalate	149	9.086	9.086	(0.937)	669136	40.0000	36.2
89 Benzo(a)anthracene	228	9.680	9.680	(0.998)	1237416	40.0000	37.8
92 Chrysene	228	9.722	9.722	(1.002)	1146495	40.0000	36.7
93 bis(2-Ethylhexyl)phthalate	149	9.616	9.616	(0.992)	889248	40.0000	36.0
94 Di-n-octylphthalate	149	10.280	10.280	(0.901)	1444521	40.0000	35.9
95 Benzo(b)fluoranthene	252	10.874	10.874	(0.954)	1107076	40.0000	38.7
96 Benzo(k)fluoranthene	252	10.910	10.910	(0.957)	1075846	40.0000	39.2
97 Benzo(a)pyrene	252	11.322	11.322	(0.993)	945560	40.0000	39.0
99 Indeno(1,2,3-cd)pyrene	276	13.210	13.210	(1.158)	864047	40.0000	38.9
100 Dibenzo(a,h)anthracene	278	13.227	13.227	(1.160)	695613	40.0000	38.8
101 Benzo(ghi)perylene	276	13.763	13.763	(1.207)	734030	40.0000	38.7
126 m-Dinitrobenzene	168	5.887	5.887	(0.966)	164809	40.0000	39.2
130 2,3,4,6-Tetrachlorophenol	232	6.322	6.322	(1.038)	188715	40.0000	30.9
143 Dinoseb	211	7.210	7.210	(0.992)	244847	40.0000	48.6
173 Carbazole	167	7.451	7.451	(1.025)	962709	40.0000	34.2
184 p-Benzoquinone	54	3.446	3.446	(0.869)	51451	40.0000	21.4
192 Methoxychlor	227	9.563	9.563	(0.986)	831842	40.0000	39.9
211 p-Toluidine	106	4.240	4.240	(1.070)	533013	40.0000	40.2
210 m-Toluidine	106	4.263	4.263	(1.076)	592898	40.0000	32.2
215 2-Ethoxyethanol	59	2.287	2.287	(0.577)	212865	40.0000	30.2
179 Dibenzo(a,e)pyrene	302	17.998	17.998	(1.578)	326920	40.0000	38.8
26 Phthalic anhydride	104	5.363	5.363	(1.110)	172119	40.0000	34.0
214 1,4-Dinitrobenzene	75	5.834	5.834	(0.958)	201442	40.0000	34.0
216 Methylenebis(2-chloroaniline)	231	9.627	9.627	(0.993)	159441	40.0000	32.4
M 225 Trichlorophenols	196				567500	80.0000	75.0
M 226 Tetrachlorophenols	232				188715	40.0000	30.9
M 227 Benzo(b,k)fluoranthene	252				2182922	80.0000	77.9

Data File: /chem/MSD6.i/s031810.k/sec1802.d

Date : 19-MAR-2010 08:12

Client ID: MECACVS

Sample Info: IWBK400309-05.3140 PPM11SV11.MECACVS

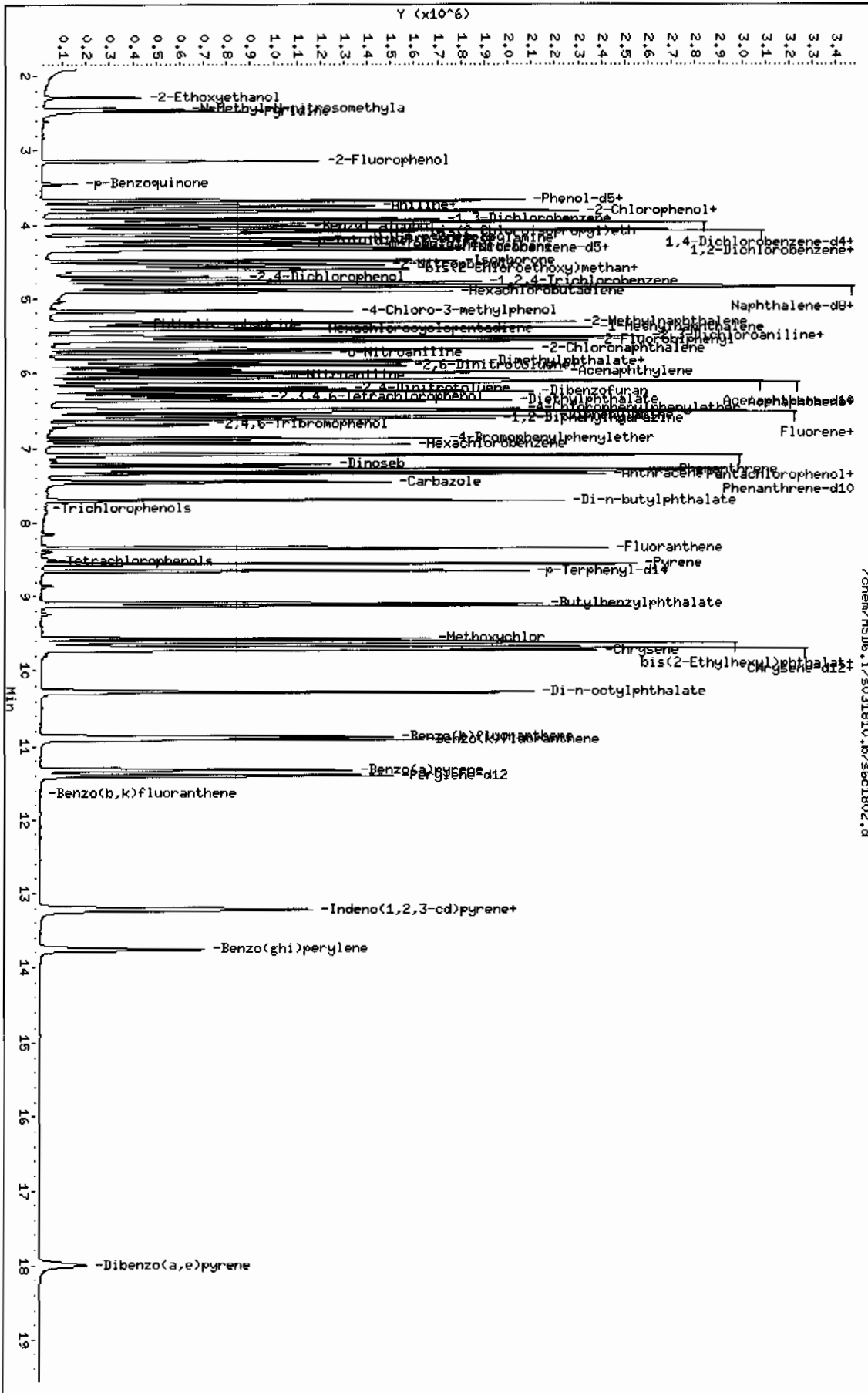
Column phase: J&W DB-SMS

Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20

Page 1



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 18-MAR-2010 08:42  
Lab File ID: s6c1803.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
Analysis Type: Init. Cal. Times: 09:18 04:51  
Lab Sample ID: WBN10031203.3 Quant Type: ISTD  
Method: /chem/MSD6.i/s031810.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	0.89823	0.89823	0.000	-6.45020	60.00000	Averaged
16 Acetophenone	1.24814	1.16834	1.16834	0.000	-6.39408	60.00000	Averaged
189 Caprolactam	0.09790	0.08905	0.08905	0.000	-9.03510	60.00000	Averaged
208 1,1'-Biphenyl	1.11180	1.07340	1.07340	0.000	-3.45414	60.00000	Averaged
207 Atrazine	0.04606	0.04211	0.04211	0.000	-8.57356	60.00000	Averaged
77 Benzidine	0.42058	0.33972	0.33972	0.000	-19.22570	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.30172	0.30238	0.30238	0.000	0.21698	60.00000	Averaged
102 1,4-Dioxane	0.35119	0.31895	0.31895	0.000	-9.17948	60.00000	Averaged
103 Methyl methacrylate	0.18979	0.17869	0.17869	0.000	-5.85035	60.00000	Averaged
104 Ethyl methacrylate	0.82709	0.75194	0.75194	0.000	-9.08644	60.00000	Averaged
105 2-Picoline	1.21280	1.13579	1.13579	0.000	-6.34917	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.53810	0.47629	0.47629	0.000	-11.48715	60.00000	Averaged
107 Methyl methanesulfonate	0.59726	0.54532	0.54532	0.000	-8.69636	60.00000	Averaged
108 N-Nitrosodiethylamine	0.54437	0.49537	0.49537	0.000	-9.00087	60.00000	Averaged
109 Ethyl Methanesulfonate	0.72583	0.64843	0.64843	0.000	-10.66261	60.00000	Averaged
110 Pentachloroethane	0.33314	0.32806	0.32806	0.000	-1.52684	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.58446	0.53918	0.53918	0.000	-7.74767	60.00000	Averaged
113 N-Nitrosomorpholine	0.68078	0.63324	0.63324	0.000	-6.98419	60.00000	Averaged
114 o-Toluidine	1.73474	1.64707	1.64707	0.000	-5.05362	60.00000	Averaged
115 N-Nitrosopiperidine	0.15362	0.13993	0.13993	0.000	-8.90960	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.87353	0.76051	0.76051	0.000	-12.93886	60.00000	Averaged
118 2,6-Dichlorophenol	0.24533	0.21670	0.21670	0.000	-11.66947	60.00000	Averaged
119 Hexachloropropene	0.13311	0.14542	0.14542	0.000	9.24880	60.00000	Averaged
120 p-Phenylenediamine	0.30365	0.25124	0.25124	0.000	-17.25972	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.26282	0.21740	0.21740	0.000	-17.28274	60.00000	Averaged
122 Safrole	0.21396	0.20108	0.20108	0.000	-6.02159	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.44716	0.44455	0.44455	0.000	-0.58332	60.00000	Averaged
124 Isosafrole	0.35324	0.32697	0.32697	0.000	-7.43610	60.00000	Averaged
125 1,4-Naphthoquinone	0.34254	0.32552	0.32552	0.000	-4.96861	60.00000	Averaged
127 Pentachlorobenzene	0.37515	0.37095	0.37095	0.000	-1.12187	60.00000	Averaged
128 1-Naphthylamine	0.89931	0.84300	0.84300	0.000	-6.26170	60.00000	Averaged
129 2-Naphthylamine	0.94089	0.87372	0.87372	0.000	-7.13921	60.00000	Averaged
131 5-Nitro-o-toluidine	0.30665	0.27627	0.27627	0.000	-9.90650	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.15613	0.14977	0.14977	0.000	-4.07729	60.00000	Averaged
137 Phenacetin	0.29347	0.26593	0.26593	0.000	-9.38560	60.00000	Averaged
138 Diallate	0.24862	0.23179	0.23179	0.000	-6.76998	60.00000	Averaged

## GEL Laboratories LLC

## CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 18-MAR-2010 08:42  
 Lab File ID: s6c1803.d Init. Cal. Date(s): 16-MAR-2010 17-MAR-2010  
 Analysis Type: Init. Cal. Times: 09:18 04:51  
 Lab Sample ID: WBN10031203.3 Quant Type: ISTD  
 Method: /chem/MSD6.i/s031810.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	0.25344	0.25344	0.000	-12.36010	60.00000	Averaged
213 Trans Diallate	0.29250	0.27270	0.27270	0.000	-6.76998	60.00000	Averaged
140 4-Aminobiphenyl	0.55066	0.56897	0.56897	0.000	3.32606	60.00000	Averaged
141 Pentachloronitrobenzene	0.06695	0.06765	0.06765	0.000	1.05533	60.00000	Averaged
142 Pronamide	0.26094	0.24780	0.24780	0.000	-5.03232	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02879	0.02791	0.02791	0.000	-3.07853	60.00000	Averaged
147 Methapyrilene	0.43748	0.39633	0.39633	0.000	-9.40497	60.00000	Averaged
148 Isodrin	0.11028	0.11053	0.11053	0.000	0.23125	60.00000	Averaged
149 Aramite	0.04746	0.04568	0.04568	0.000	-3.74014	60.00000	Averaged
150 Kepone	0.07668	0.08182	0.08182	0.000	6.69833	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31031	0.27695	0.27695	0.000	-10.75303	60.00000	Averaged
152 Chlorobenzilate	0.29472	0.25791	0.25791	0.000	-12.49012	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.59350	0.53591	0.53591	0.000	-9.70252	60.00000	Averaged
155 2-Acetylaminofluorene	0.34851	0.34805	0.34805	0.000	-0.13349	60.00000	Averaged
157 7,12Dimethylbenz(a)anthracene	0.48545	0.45305	0.45305	0.000	-6.67250	60.00000	Averaged
158 3-Methylcholanthrene	0.40010	0.39848	0.39848	0.000	-0.40474	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1803.d  
 Lab Smp Id: WBN10031203.3 Client Smp ID: APCVS  
 Inj Date : 18-MAR-2010 08:42  
 Operator : nag1 Inst ID: MSD6.i  
 Smp Info : |WBN10031203.3|40 PPM|1|SVM|1|APCVS  
 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/s031810.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 18-Mar-2010 12:45 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: hpc1p1

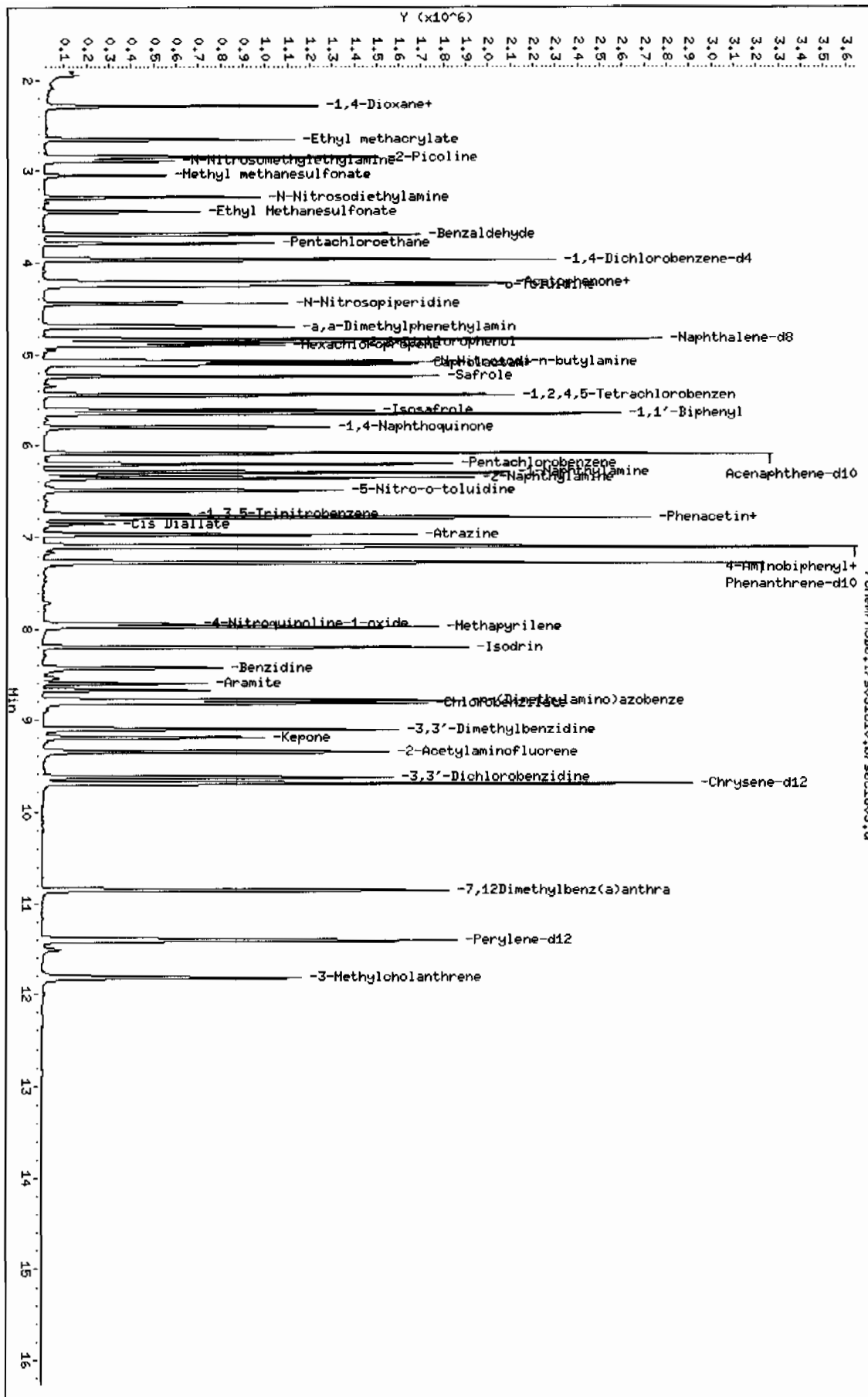
Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	=====	=====	=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	152	3.963	3.963	(1.000)	454898	40.0000	
* 29 Naphthalene-d8	136	4.828	4.828	(1.000)	1611666	40.0000	
* 46 Acenaphthene-d10	164	6.087	6.087	(1.000)	983364	40.0000	
* 67 Phenanthrene-d10	188	7.269	7.269	(1.000)	1658037	40.0000	
* 91 Chrysene-d12	240	9.692	9.692	(1.000)	1531998	40.0000	
* 98 Perylene-d12	264	11.398	11.398	(1.000)	1357095	40.0000	
209 Benzaldehyde	77	3.687	3.687	(0.930)	408602	40.0000	37.4
16 Acetophenone	105	4.210	4.210	(1.062)	531474	40.0000	37.4
189 Caprolactam	113	5.104	5.104	(1.057)	143520	40.0000	36.4
208 1,1'-Biphenyl	154	5.651	5.651	(0.928)	1055544	40.0000	38.6
207 Atrazine	173	6.963	6.963	(0.958)	69817	40.0000	36.6
77 Benzidine	184	8.428	8.428	(0.870)	520454	40.0000	32.3
90 3,3'-Dichlorobenzidine	252	9.628	9.628	(0.993)	463242	40.0000	40.1
102 1,4-Dioxane	88	2.299	2.299	(0.580)	145089	40.0000	36.3
103 Methyl methacrylate	100	2.287	2.287	(0.577)	81286	40.0000	37.6
104 Ethyl methacrylate	69	2.663	2.663	(0.672)	342054	40.0000	36.4
105 2-Picoline	93	2.857	2.857	(0.721)	516670	40.0000	37.5
106 N-Nitrosomethylethylamine	88	2.899	2.899	(0.731)	216663	40.0000	35.4
107 Methyl methanesulfonate	80	3.057	3.057	(0.771)	248065	40.0000	36.5
108 N-Nitrosodiethylamine	102	3.287	3.287	(0.829)	225345	40.0000	36.4
109 Ethyl Methanesulfonate	79	3.446	3.446	(0.869)	294971	40.0000	35.7
110 Pentachloroethane	167	3.787	3.787	(0.955)	149232	40.0000	39.4
111 N-Nitrosopyrrolidine	100	4.204	4.204	(1.061)	245272	40.0000	36.9(Q)
113 N-Nitrosomorpholine	56	4.222	4.222	(1.065)	288058	40.0000	37.2
114 o-Toluidine	106	4.240	4.240	(1.070)	749251	40.0000	38.0
115 N-Nitrosopiperidine	114	4.440	4.440	(0.920)	225523	40.0000	36.4

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
=====	=====	==	=====	=====	=====	=====	=====
116 a,a-Dimethylphenethylamine	58	4.698	4.698	(0.973)	1225685	40.0000	34.8
118 2,6-Dichlorophenol	162	4.869	4.869	(1.009)	349254	40.0000	35.3
119 Hexachloropropene	213	4.898	4.898	(1.015)	234367	40.0000	43.7
120 p-Phenylenediamine	108	5.110	5.110	(1.058)	404921	40.0000	33.1
121 N-Nitrosodi-n-butylamine	84	5.075	5.075	(1.051)	350377	40.0000	33.1 (Q)
122 Safrole	162	5.240	5.240	(1.085)	324070	40.0000	37.6
123 1,2,4,5-Tetrachlorobenzene	216	5.445	5.445	(0.895)	437154	40.0000	39.8
124 Isosafrole	162	5.610	5.610	(0.922)	321535	40.0000	37.0
125 1,4-Naphthoquinone	158	5.804	5.804	(0.954)	320104	40.0000	38.0
127 Pentachlorobenzene	250	6.204	6.204	(1.019)	364774	40.0000	39.6
128 1-Naphthylamine	143	6.298	6.298	(1.035)	828976	40.0000	37.5
129 2-Naphthylamine	143	6.351	6.351	(1.043)	859180	40.0000	37.1
131 5-Nitro-o-toluidine	152	6.492	6.492	(1.067)	271672	40.0000	36.0
136 1,3,5-Trinitrobenzene	75	6.739	6.739	(0.927)	248318	40.0000	38.4
137 Phenacetin	108	6.787	6.787	(0.934)	440916	40.0000	36.2 (Q)
138 Diallate	86	6.775	6.775	(0.932)	384319	40.0000	37.3
212 Cis Diallate	86	6.851	6.851	(0.943)	63031	6.00000	5.2
213 Trans Diallate	86	6.775	6.775	(0.932)	384319	34.0000	31.7
140 4-Aminobiphenyl	169	7.081	7.081	(0.974)	943374	40.0000	41.3
141 Pentachloronitrobenzene	237	7.098	7.098	(0.977)	112174	40.0000	40.4 (Q)
142 Pronamide	173	7.092	7.092	(0.976)	410869	40.0000	38.0
146 4-Nitroquinoline-1-oxide	101	7.939	7.939	(1.092)	46270	40.0000	38.8
147 Methapyrilene	58	7.975	7.975	(1.097)	657138	40.0000	36.2
148 Isodrin	193	8.198	8.198	(1.128)	183263	40.0000	40.1
149 Aramite	185	8.598	8.598	(1.183)	75740	40.0000	38.5
150 Kepone	272	9.192	9.192	(1.265)	135654	40.0000	42.7
151 p-(Dimethylamino)azobenzene	120	8.781	8.781	(0.906)	424281	40.0000	35.7
152 Chlorobenzilate	251	8.810	8.810	(0.909)	395111	40.0000	35.0
153 3,3'-Dimethylbenzidine	212	9.098	9.098	(0.939)	821019	40.0000	36.1
155 2-Acetylaminofluorene	181	9.345	9.345	(0.964)	533206	40.0000	39.9
157 7,12Dimethylbenz(a)anthracene	256	10.845	10.845	(0.951)	614837	40.0000	37.3
158 3-Methylcholanthrene	268	11.816	11.816	(1.037)	540782	40.0000	39.8 (Q)

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.





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 Client ID: APCVS  
 Sample Info: 1MBN10031203.3140 PPH11/SWH11/APCVS  
 Column phase: J&W DB-5MS

Instrument: MSD6.1  
 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

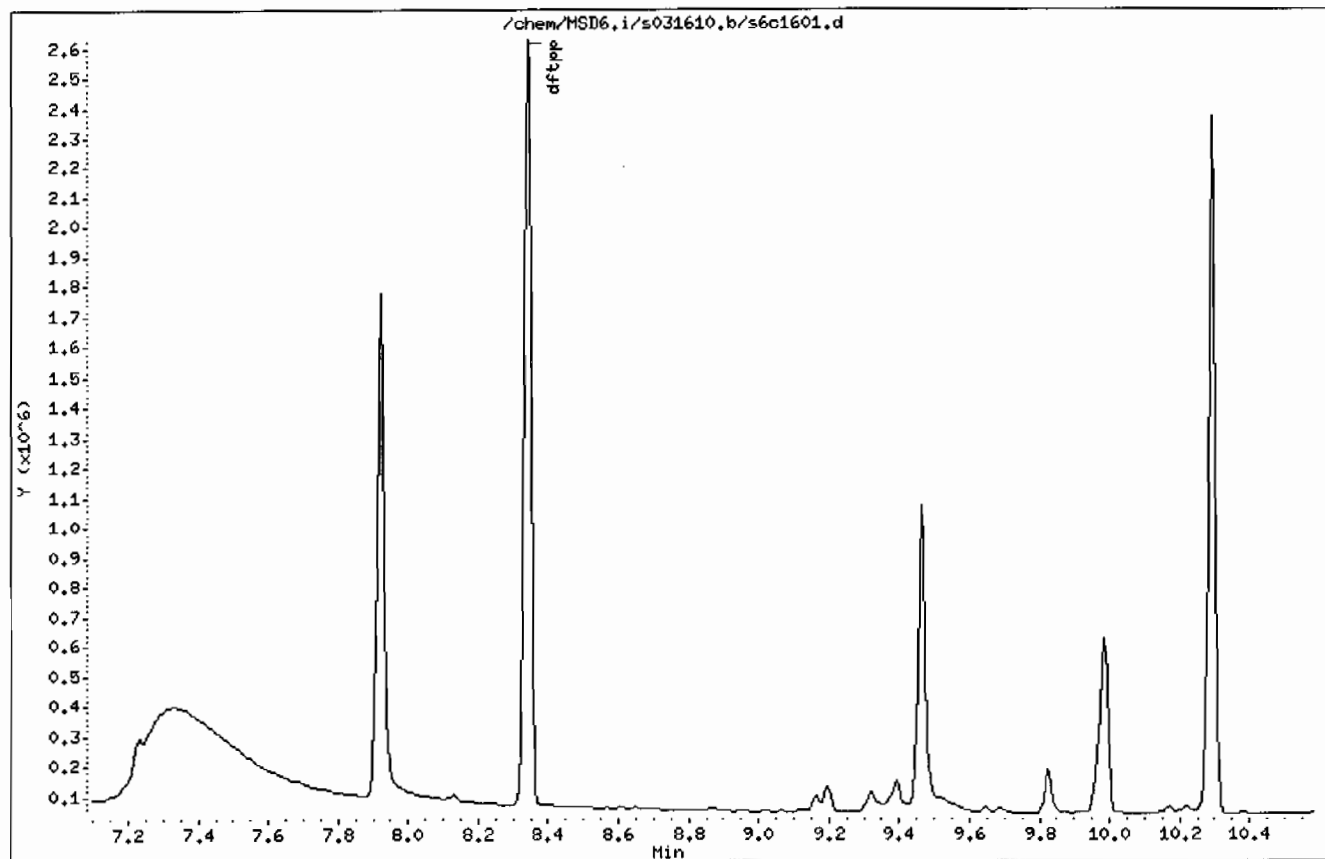
Instrument: MSD6.i

Sample Info: IWBH100306-01.2IDFTPP11SVMF11IDFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20



Date : 16-MAR-2010 08:42

Client ID: DFTPP

Instrument: MSD6.i

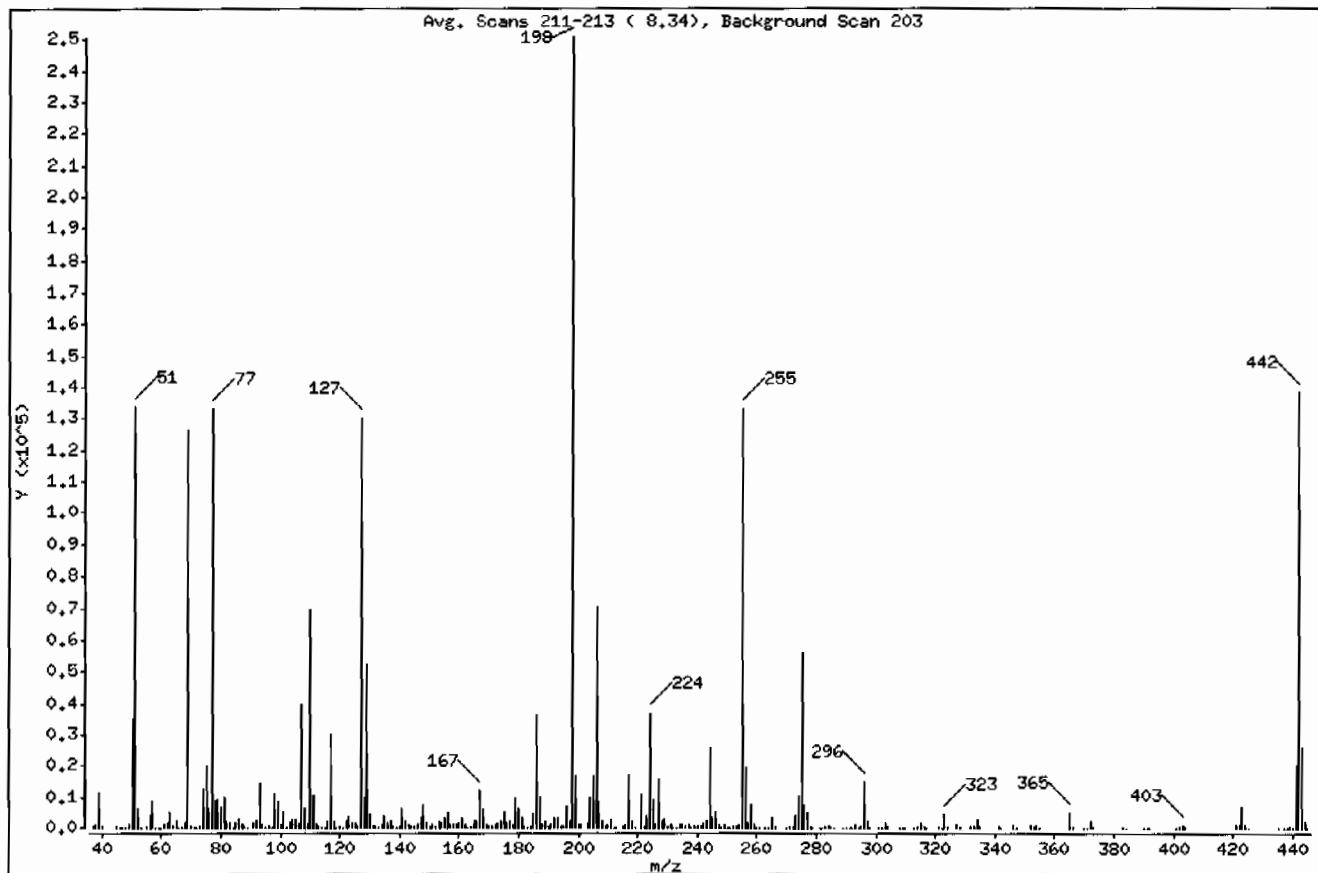
Sample Info: INBN100306-01.2\DFTPP\1\SVHF\1\1\DFTPP

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: IWBNI00306-01.2\DFTPP\1\SVMF11\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
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: IWBH100306-01.2\IDFTPP\1\SVHF\1\IDFTPP

Operator: nag1

Column phase: Phenomenex ZB-SMS

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: IWBH100306-01,2IDFTPP11SVHF11IDFTPP

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/MSD6.i/s031610.b/s6c1613.d

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Date : 16-MAR-2010 16:06

Client ID: DFTPP

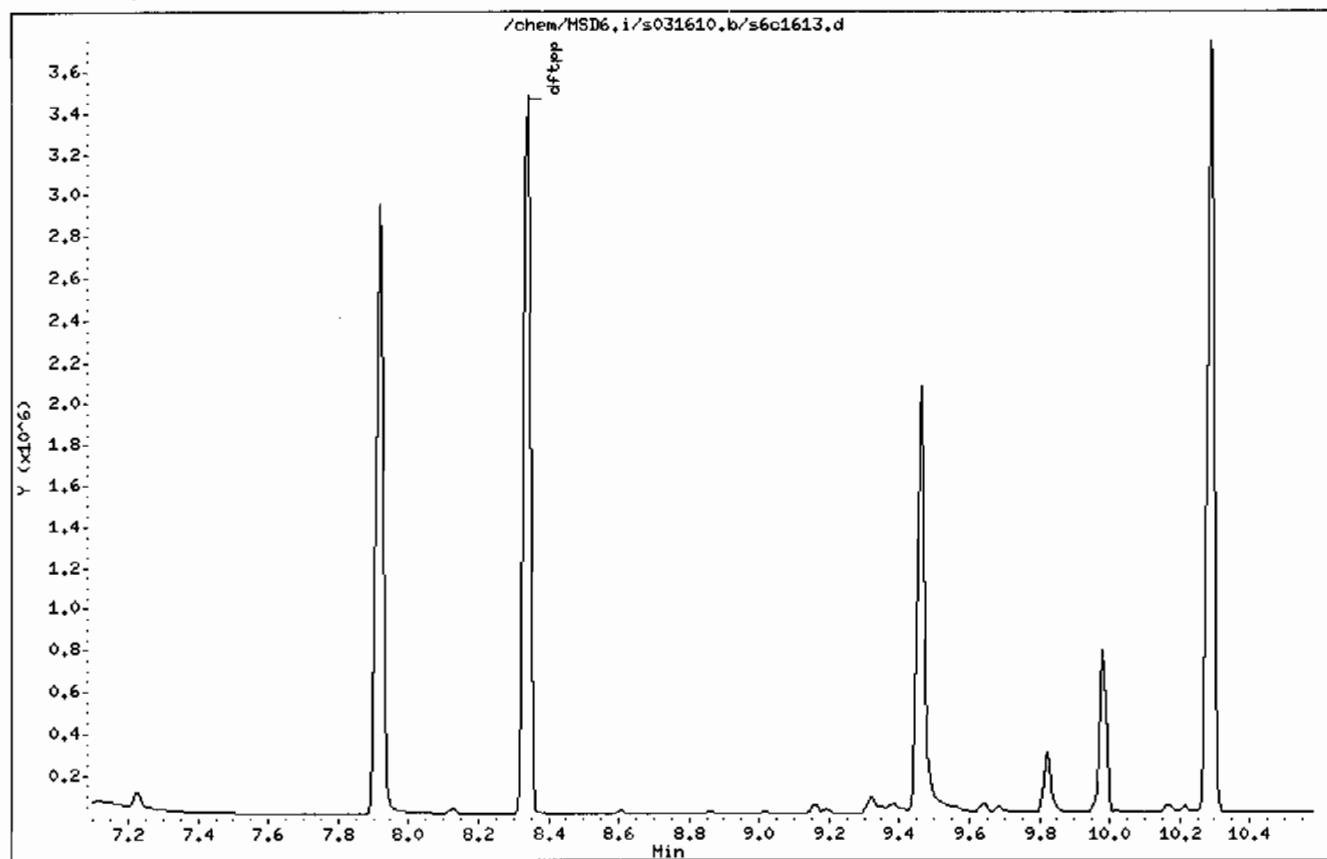
Instrument: MSD6.i

Sample Info: INBN100306-01.2IDFTPP11SVHF11IDFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0,20





Date : 16-MAR-2010 16:06

Client ID: DFTPP

Instrument: MSD6.i

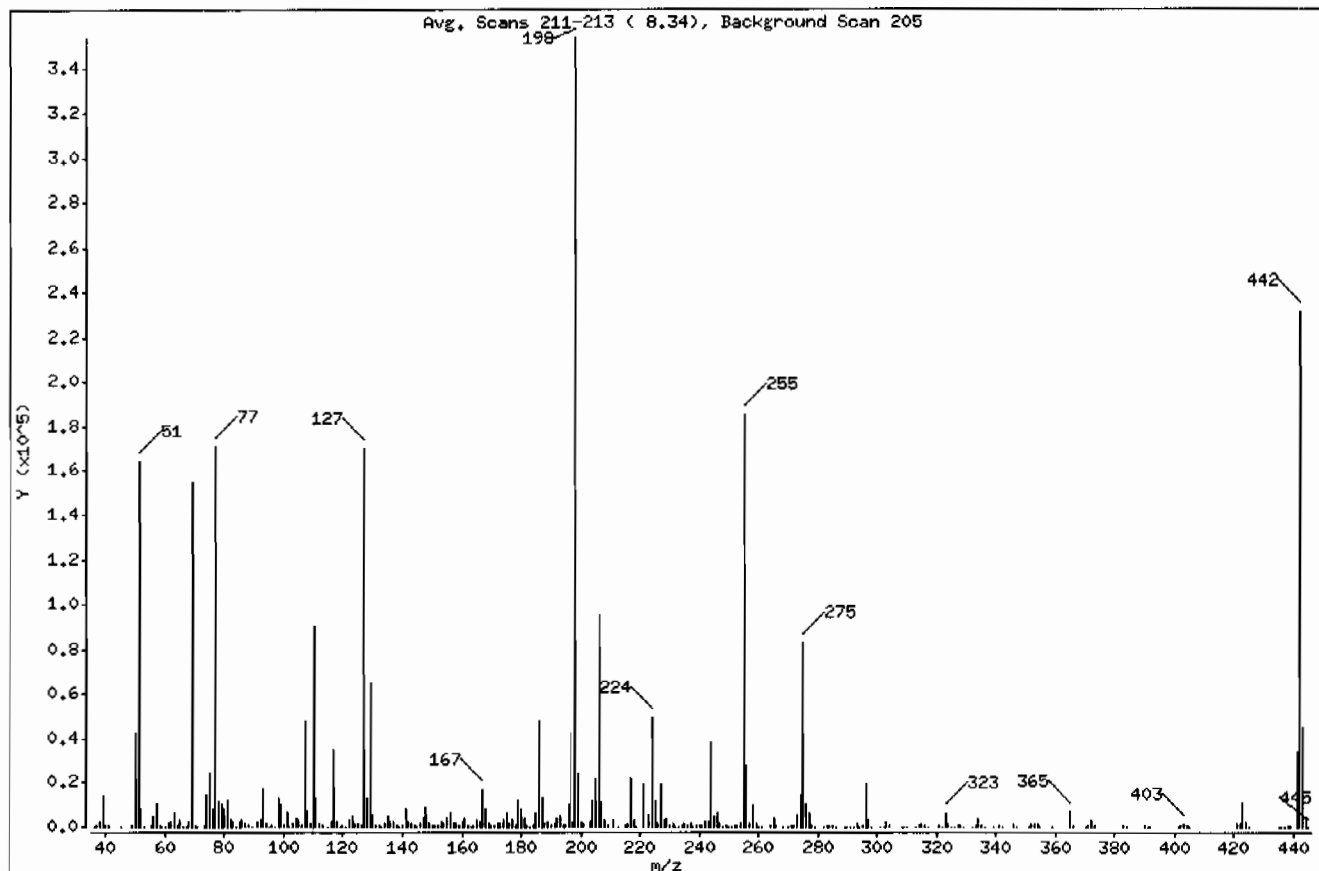
Sample Info: IWBNI00306-01,2IDFTPP11ISVHF11IDFTPP

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: MSD6.i

Sample Info: IWBNI00306-01,2IDFTPP11SVHF11IDFTPP

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
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: |WBN100306-01,2|DFTPP|1|SVMF|1|DFTPP

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
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: INBN100306-01,21DFTPP111SVMF111DFTPP

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	2857	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/MSD6.i/s031810.b/s6c1801.d

Page 1

Date : 18-MAR-2010 07:59

Client ID: DFTPP

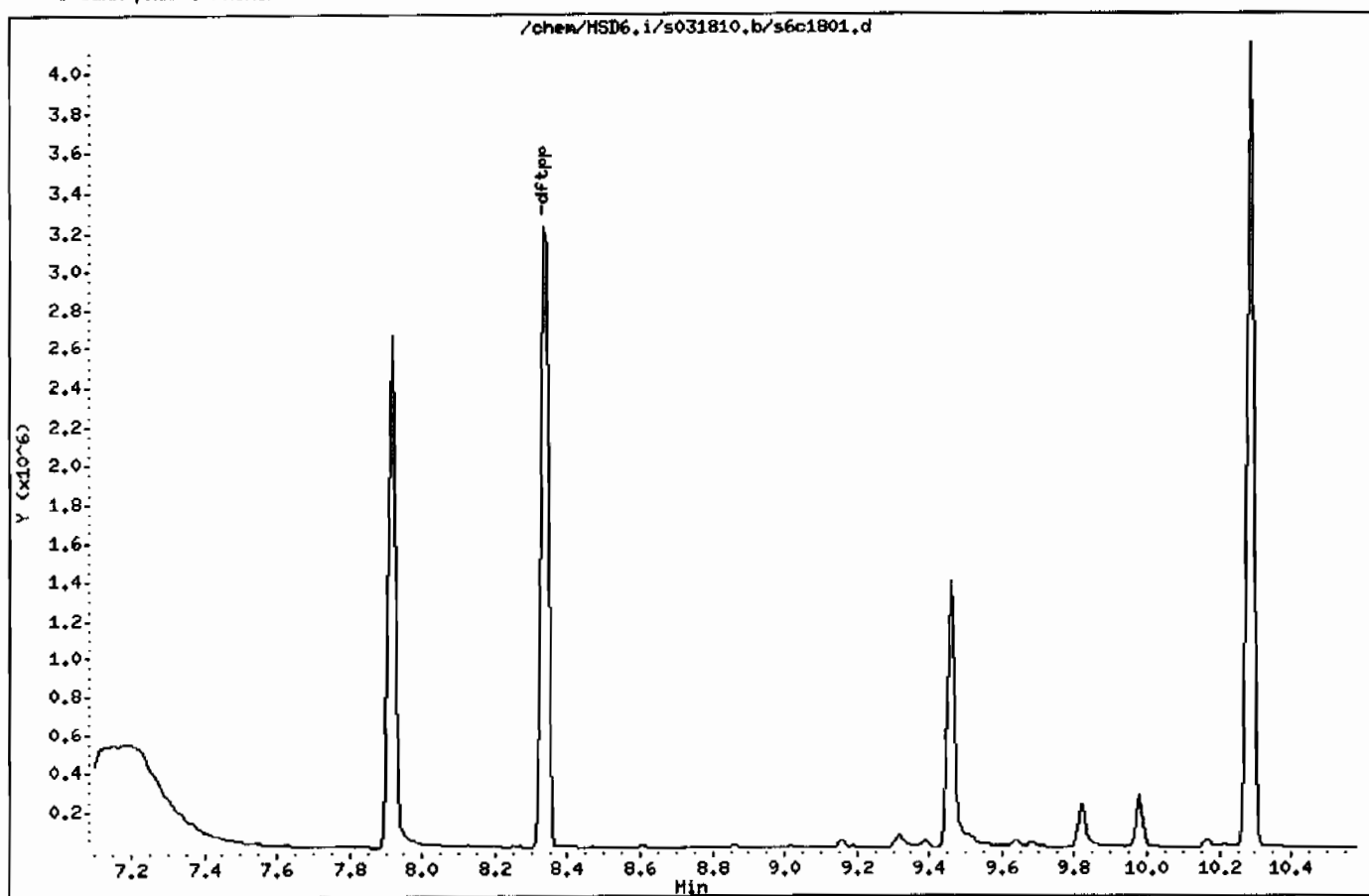
Instrument: MSD6.i

Sample Info: IWBNI00306-01,2IDFTPP11|SVMF11|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0,20



Data File: /chem/MSD6.i/s031810.b/s6c1801.d

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Date : 18-MAR-2010 07:59

Client ID: DFTPP

Instrument: MSD6.i

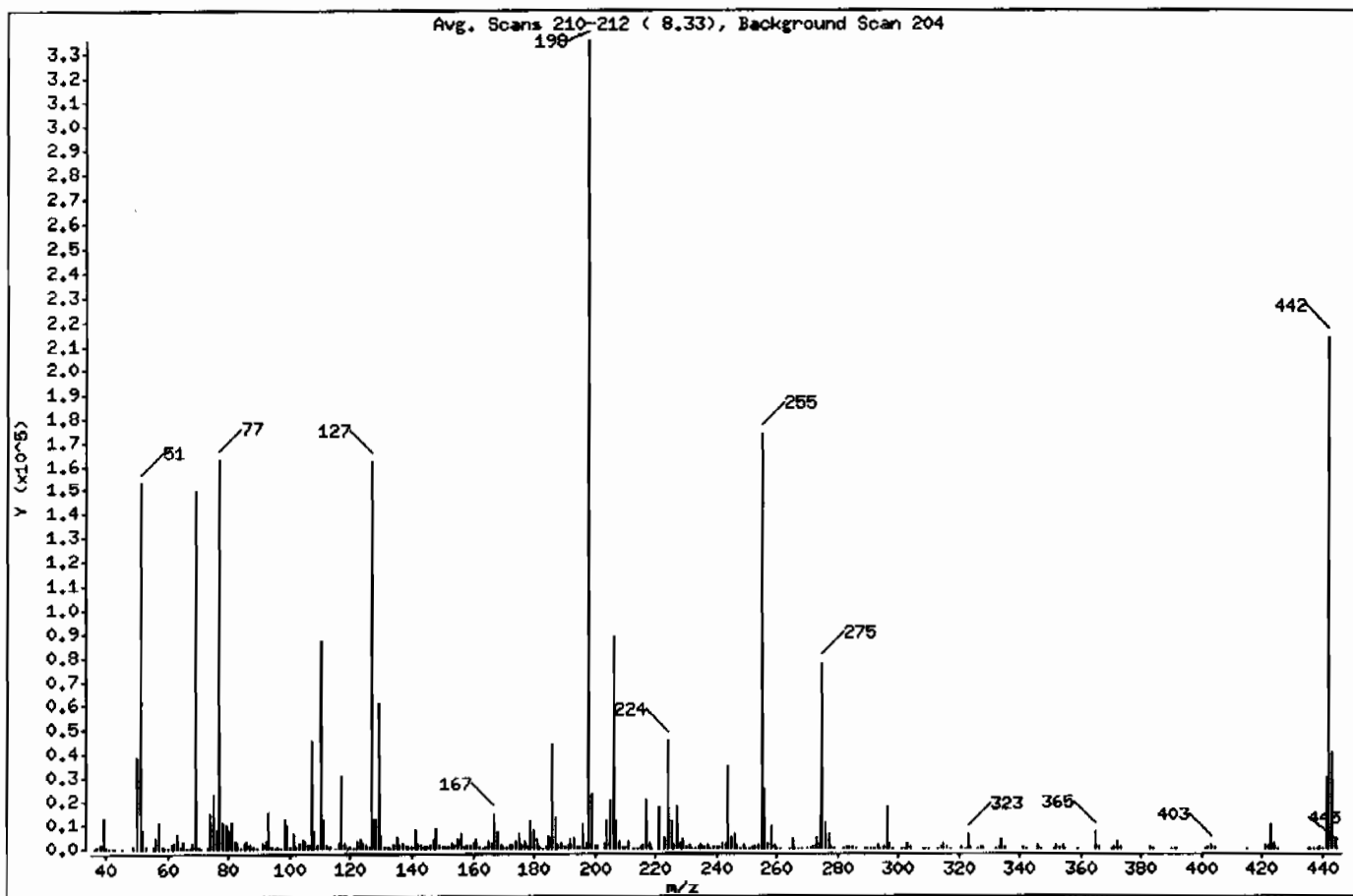
Sample Info: INBN100306-01,2IDFTPP11SVHF11IDFTPP

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	45.67
68	Less than 2.00% of mass 69	0.72 ( 1.63)
69	Mass 69 relative abundance	44.53
70	Less than 2.00% of mass 69	0.24 ( 0.55)
127	40.00 - 60.00% of mass 198	48.45
197	Less than 1.00% of mass 198	0.67
199	5.00 - 9.00% of mass 198	6.88
275	10.00 - 30.00% of mass 198	22.97
365	Greater than 1.00% of mass 198	2.02
441	Present, but less than mass 443	9.08
442	Greater than 40.00% of mass 198	63.52
443	17.00 - 23.00% of mass 442	12.26 ( 19.30)

Data File: /chem/MSD6.i/s031810.b/s6c1801.d

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Date : 18-MAR-2010 07:59

Client ID: DFTPP

Instrument: MSD6.i

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

Operator: nag1

Column phase: Phenomenex ZB-SMS

Column diameter: 0.20

Data File: s6c1801.d

Spectrum: Avg. Scans 210-212 ( 8.33), Background Scan 204

Location of Maximum: 198.00

Number of points: 309

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	272	122.00	2797	200.00	1804	289.00	244
37.00	834	123.00	4252	201.00	1808	290.00	248
38.00	1823	124.00	1991	203.00	2385	291.00	109
39.00	13128	125.00	1842	204.00	11826	292.00	297
40.00	686	126.00	741	205.00	20848	293.00	1295
41.00	268	127.00	162688	206.00	88032	294.00	379
42.00	89	128.00	12274	207.00	11398	295.00	408
43.00	40	129.00	60856	208.00	2852	296.00	17936
45.00	319	130.00	5401	209.00	981	297.00	2435
49.00	1022	131.00	1097	210.00	1159	298.00	128
50.00	39000	132.00	605	211.00	3371	301.00	258
51.00	153344	133.00	280	213.00	226	302.00	316
52.00	7725	134.00	1563	214.00	115	303.00	2057
53.00	398	135.00	4818	215.00	1001	304.00	554
55.00	653	136.00	1851	216.00	1722	308.00	227
56.00	4342	137.00	2315	217.00	20640	309.00	127
57.00	10681	138.00	455	218.00	2666	310.00	202
58.00	510	139.00	425	219.00	254	313.00	131
59.00	149	140.00	650	221.00	18160	314.00	888
60.00	203	141.00	7388	223.00	4552	315.00	1978
61.00	1805	142.00	2638	224.00	46000	316.00	1015
62.00	1981	143.00	1716	225.00	11664	317.00	234
63.00	5888	144.00	474	226.00	1194	321.00	490
64.00	928	145.00	452	227.00	17704	322.00	293
65.00	2897	146.00	1388	228.00	2443	323.00	6132
66.00	116	147.00	3964	229.00	4045	324.00	1140
67.00	238	148.00	8241	230.00	624	326.00	110
68.00	2434	149.00	1746	231.00	1565	327.00	911
69.00	149504	150.00	503	232.00	314	328.00	581
70.00	818	151.00	1093	233.00	365	332.00	352
71.00	182	152.00	744	234.00	1130	333.00	575
73.00	1026	153.00	2455	235.00	1366	334.00	3523
74.00	14472	154.00	1849	236.00	824	335.00	956
75.00	23408	155.00	4103	237.00	1300	341.00	608
76.00	7863	156.00	6418	238.00	174	342.00	126

Data File: /chem/MSD6.i/s031810.b/s6c1801.d

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Date : 18-MAR-2010 07:59

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IMBN100306-01.2IDFTPP11SVHF11IDFTPP

Operator: nag1

Column phase: Phenomenex ZB-SMS

Column diameter: 0.20

Data File: s6c1801.d

Spectrum: Avg. Scans 210-212 ( 8.33), Background Scan 204

Location of Maximum: 198.00

Number of points: 309

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	163200	157.00	1150	239.00	714	346.00	1184
78.00	10985	158.00	1388	240.00	565	347.00	216
79.00	10326	159.00	1188	241.00	901	351.00	102
80.00	8054	160.00	2264	242.00	2443	352.00	1649
81.00	10819	161.00	3698	243.00	2574	353.00	1109
82.00	2858	162.00	1079	244.00	35152	354.00	1625
83.00	2681	163.00	322	245.00	4694	355.00	339
84.00	341	164.00	463	246.00	6207	359.00	118
85.00	2062	165.00	2740	247.00	1313	365.00	6772
86.00	3015	166.00	2204	248.00	338	366.00	836
87.00	1356	167.00	14956	249.00	1213	370.00	108
88.00	472	168.00	7037	250.00	214	371.00	387
89.00	330	169.00	1324	251.00	340	372.00	2837
91.00	2360	170.00	463	252.00	389	373.00	623
92.00	2757	171.00	653	253.00	697	383.00	746
93.00	15636	172.00	1419	254.00	1594	384.00	189
94.00	1129	173.00	1769	255.00	173760	390.00	293
95.00	187	174.00	3250	256.00	25400	391.00	296
96.00	873	175.00	6276	257.00	2055	392.00	171
97.00	330	176.00	1767	258.00	9495	401.00	106
98.00	12118	177.00	2927	259.00	1410	402.00	953
99.00	9842	178.00	921	260.00	249	403.00	1539
100.00	862	179.00	11477	261.00	255	404.00	471
101.00	6148	180.00	7951	264.00	193	415.00	90
102.00	417	181.00	3695	265.00	3497	421.00	1300
103.00	1994	182.00	448	266.00	381	422.00	1392
104.00	3704	183.00	358	267.00	41	423.00	10105
105.00	3447	184.00	957	268.00	25	424.00	2000
106.00	1239	185.00	5523	270.00	258	425.00	153
107.00	45968	186.00	44152	271.00	354	435.00	48
108.00	6939	187.00	13141	272.00	444	436.00	68
109.00	1320	188.00	1349	273.00	5027	437.00	230
110.00	86664	189.00	2462	274.00	13907	438.00	243
111.00	12584	190.00	435	275.00	77128	439.00	449
112.00	1695	191.00	1323	276.00	10909	440.00	348



Data File: /chem/MSD6.i/s031810.b/s6c1801.d

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Date : 18-MAR-2010 07:59

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBNI00306-01.2IDFTPP11ISVMFI1IDFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6c1801.d

Spectrum: Avg. Scans 210-212 ( 8.33), Background Scan 204

Location of Maximum: 198.00

Number of points: 309

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	510	192.00	3627	277.00	6038	441.00	30488
115.00	213	193.00	4367	278.00	1007	442.00	213248
116.00	2524	194.00	920	279.00	194	443.00	41168
117.00	31056	195.00	503	282.00	107	444.00	4290
118.00	2326	196.00	10246	283.00	645	445.00	213
119.00	343	197.00	2254	284.00	472		
120.00	558	198.00	335744	285.00	1009		
121.00	231	199.00	23112	286.00	190		

Semi-Volatile  
Certificate of Analysis  
Sample Summary

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SDG Number: 10-2140		Matrix: SOIL
Lab Sample ID: 1202061168		
Client Sample: QC for batch 960970	Client: LANL010	Project: QC
Client ID: MB for batch 960970	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6J	Dilution: 1
Run Date: 03/18/2010 09:08	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30 g	Final Volume: 1 mL
Data File: s6c1804-1.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	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
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile  
Certificate of Analysis  
Sample Summary

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SDG Number: 10-2140		Matrix: SOIL
Lab Sample ID: 1202061168		
Client Sample: QC for batch 960970	Client: LANL010	Project: QC
Client ID: MB for batch 960970	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 1
Run Date: 03/18/2010 09:08	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30 g	Final Volume: 1 mL
Data File: s6c1804-1.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
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.99	337	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1804-1.d  
 Lab Smp Id: 1202061168 Client Smp ID: SBLK01  
 Inj Date : 18-MAR-2010 09:08  
 Operator : nagl Inst ID: MSD6.i  
 Smp Info : |1202061168|960971|1|SVM|1|SBLK01  
 Misc Info : |MSD8270\_S|WBN100310-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 18-Mar-2010 14:53 llo00884 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
 Als bottle: 4 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2140.sub  
 Target Version: 3.50  
 Processing Host: hpc1p1

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG			RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT REL RT		ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.969	3.963 (1.000)	473345	40.0000	
* 29 Naphthalene-d8	136	4.834	4.834 (1.000)	1702921	40.0000	
* 46 Acenaphthene-d10	164	6.096	6.092 (1.000)	1049987	40.0000	
* 67 Pheranthrene-d10	188	7.275	7.269 (1.000)	1731342	40.0000	
* 91 Chrysene-d12	240	9.704	9.698 (1.000)	1471042	40.0000	
* 98 Perylene-d12	264	11.422	11.404 (1.000)	1195601	40.0000	
\$ 3 2-Fluorophenol	112	3.157	3.140 (0.795)	799713	60.7753	2020
\$ 5 Phenol-d5	99	3.675	3.669 (0.926)	996539	59.5513	1980
\$ 20 Nitrobenzene-d5	82	4.328	4.328 (0.895)	500055	30.7181	1020
\$ 39 2-Fluorobiphenyl	172	5.581	5.575 (0.915)	945159	34.8897	1160
\$ 60 2,4,6-Tribromophenol	329	6.698	6.692 (1.098)	196534	66.7029	2220
\$ 81 p-Terphenyl-d14	244	8.669	8.651 (0.893)	1155451	45.0746	1503

Data File: /chem/MSD6.i/s031810.b/s6c1804-1.d  
 Report Date: 18-Mar-2010 15:13

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GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1804-1.d  
 Lab Smp Id: 1202061168 Client Smp ID: SBLK01  
 Inj Date : 18-MAR-2010 09:08  
 Operator : nagl Inst ID: MSD6.i  
 Smp Info : |1202061168|960971|1|SVM|1|SBLK01  
 Misc Info : |MSD8270\_S|WBN100310-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 18-Mar-2010 14:53 llo00884 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
 Als bottle: 4 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2140.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	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.969	2933952	40.000

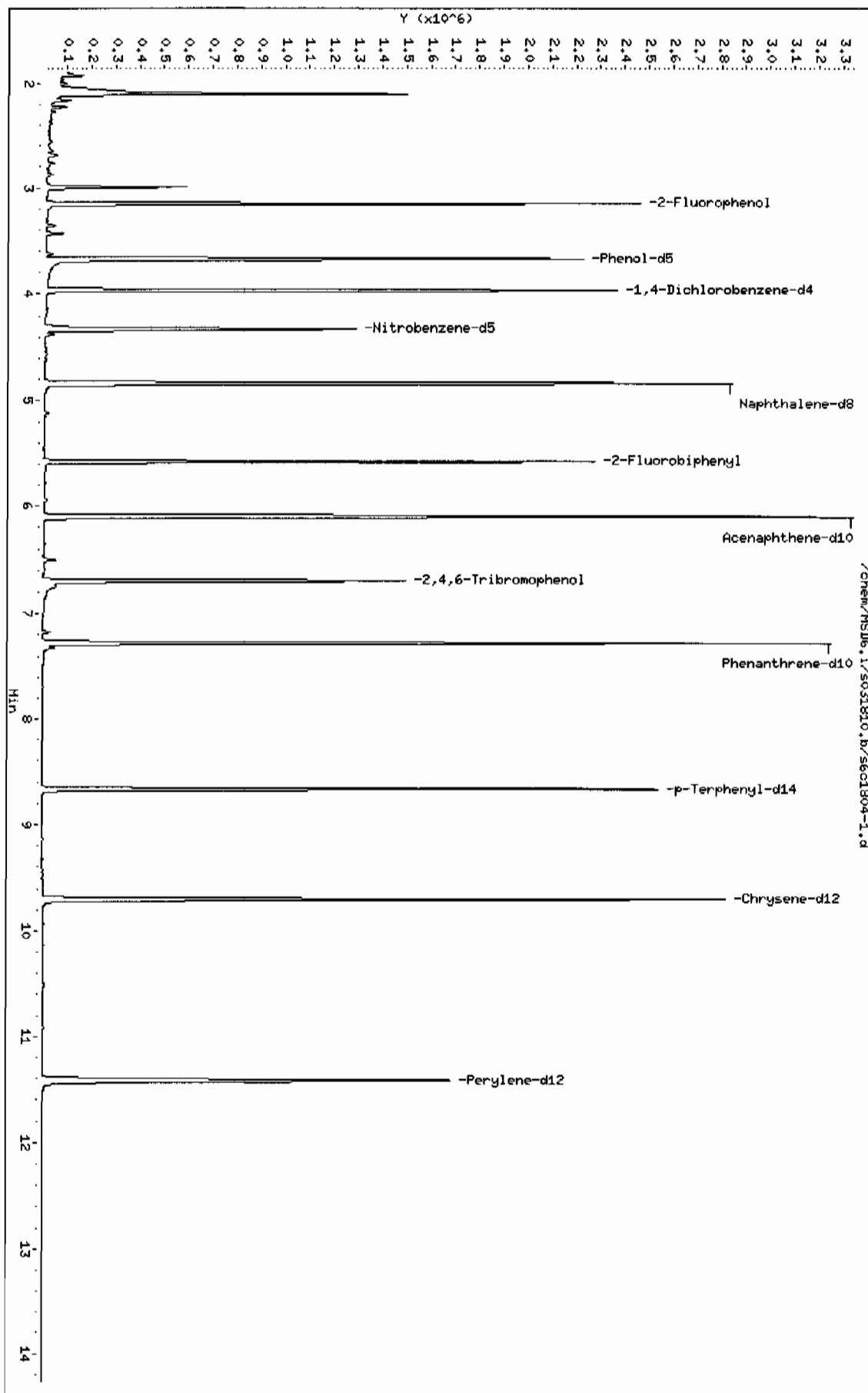
RT	CONCENTRATIONS			QUAL	QUANT		
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	CPND #
2.993	742031	10.1164737	337	0		0	10

Unknown Aldoi Condensate CAS #:

Data File: /chem/MSD6.i/s031810.b/s6c1804-1.d  
Date : 18-MAR-2010 09:08  
Client ID: SBLK01  
Sample Info: 11202061168196097111.SW111.SBLK01  
Volume Injected (uL): 0.5  
Column phase: J&W DB-5MS

Instrument: MSD6.i  
Operator: nag1  
Column diameter: 0.20

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Date: 18-MAR-2010 09:08

Client ID: SBLK01

Instrument: MSD6.i

Sample Info: I1202061168196097111SVH11SBLK01

Volume Injected (uL): 0.5

Operator: nag1

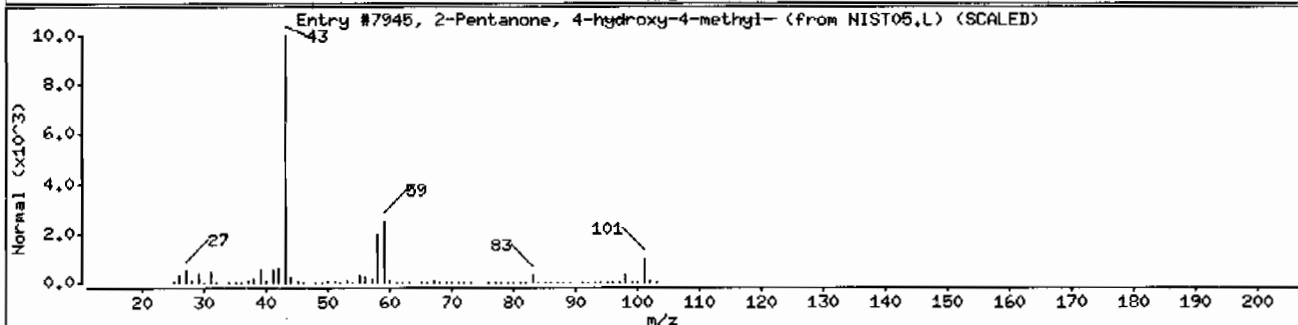
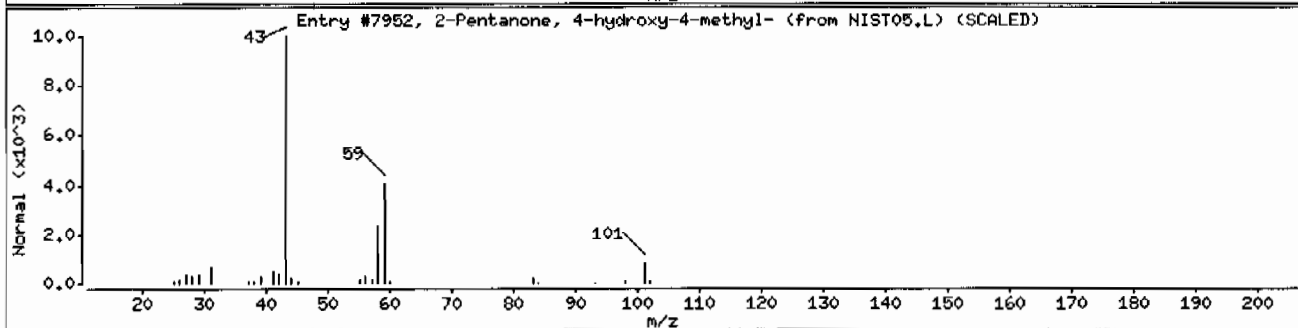
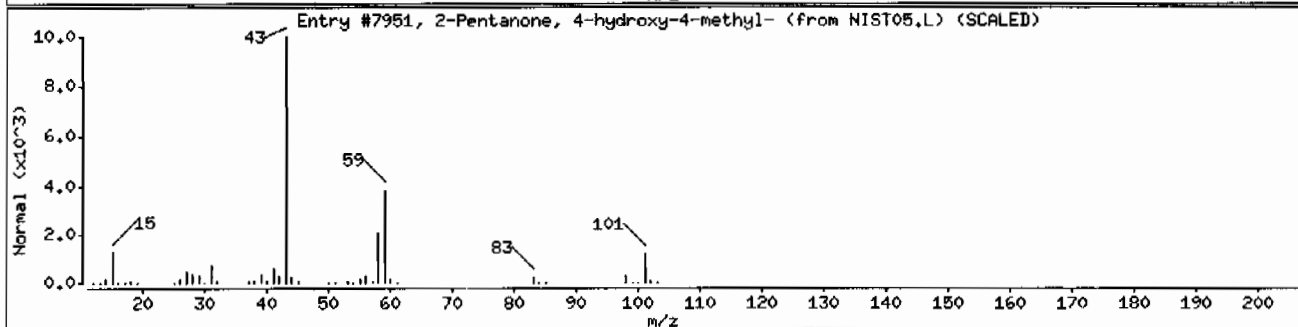
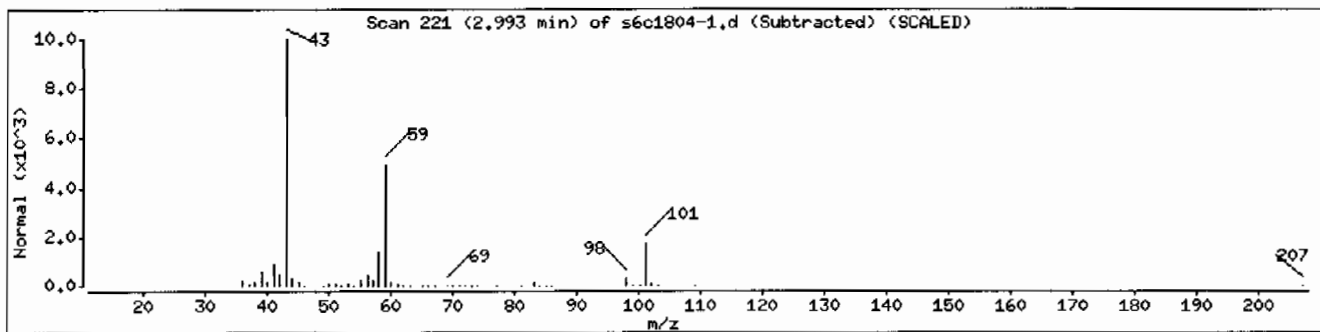
Column phase: J&amp;W DB-5MS

Column diameter: 0.20

## Library Search Compound Match

Unknown Aldol Condensate

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
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	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	50	C6H12O2	116



Certificate of Analysis  
Sample Summary

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SDG Number: 10-2140		Matrix: SOIL
Lab Sample ID: 1202061169		
Client Sample: QC for batch 960970	Client: LANL010	Project: QC
Client ID: LCS for batch 960970	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 1
Run Date: 03/18/2010 09:33	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30 g	Final Volume: 1 mL
Data File: s6c1805-1.d	Column: J&W DB-SMS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		729	ug/kg	66.7	333
108-95-2	Phenol		808	ug/kg	66.7	333
95-57-8	2-Chlorophenol		916	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		876	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		831	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		798	ug/kg	66.7	333
83-32-9	Acenaphthene		867	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1070	ug/kg	33.3	333
100-02-7	4-Nitrophenol	J	297	ug/kg	110	333
87-86-5	Pentachlorophenol		929	ug/kg	83.3	333
129-00-0	Pyrene		1040	ug/kg	10.0	33.3
110-86-1	Pyridine		771	ug/kg	66.7	333
62-53-3	Aniline		678	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		776	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		890	ug/kg	66.7	333
100-51-6	Benzyl alcohol	J	328	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		906	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		807	ug/kg	66.7	333
95-48-7	o-Cresol		897	ug/kg	66.7	333
65794-96-9	m,p-Cresols		954	ug/kg	100	333
67-72-1	Hexachloroethane		828	ug/kg	66.7	333
98-95-3	Nitrobenzene		901	ug/kg	66.7	333
78-59-1	Isophorone		870	ug/kg	66.7	333
88-75-5	2-Nitrophenol		975	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		2040	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		833	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		900	ug/kg	66.7	333
65-85-0	Benzoic acid		2110	ug/kg	167	667
91-20-3	Naphthalene		792	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		782	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		954	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		886	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1140	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		795	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1000	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		925	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		875	ug/kg	66.7	333
99-09-2	o-Nitroaniline					
	3-Nitroaniline		907	ug/kg	66.7	333



Semi-volatile  
Certificate of Analysis  
Sample Summary

Page 4 of 4

SDG Number: 10-2140		Matrix: SOIL
Lab Sample ID: 1202061169		
Client Sample: QC for batch 960970	Client: LANL010	Project: QC
Client ID: LCS for batch 960970	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 960971	Inst: MSD6.I	Dilution: 1
Run Date: 03/18/2010 09:33	Analyst: NAG1	Inj. Vol: .5 uL
Prep Date: 03/04/2010 23:22	Aliquot: 30 g	Final Volume: 1 mL
Data File: s6c1805-1.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		1110	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1070	ug/kg	33.3	333
208-96-8	Acenaphthylene		974	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1260	ug/kg	127	667
132-64-9	Dibenzofuran		1040	ug/kg	66.7	333
84-66-2	Diethylphthalate		1130	ug/kg	66.7	333
86-73-7	Fluorene		924	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1080	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1300	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1090	ug/kg	100	333
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine		1120	ug/kg	66.7	333
122-66-7	Azobenzene		1040	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1150	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1180	ug/kg	66.7	333
85-01-8	Phenanthrene		1000	ug/kg	10.0	33.3
120-12-7	Anthracene		992	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1100	ug/kg	66.7	333
206-44-0	Fluoranthene		1100	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1070	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1040	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		902	ug/kg	100	333
218-01-9	Chrysene		1070	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1050	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		990	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1040	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1120	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1110	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1130	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1120	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1100	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		936	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1805-1.d  
 Lab Smp Id: 1202061169 Client Smp ID: SBLK01LCS  
 Inj Date : 18-MAR-2010 09:33  
 Operator : nagl Inst ID: MSD6.i  
 Smp Info : |1202061169|960971|1|SVM|1|SBLK01LCS  
 Misc Info : |MSD8270\_S|WBN100310-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
 Meth Date : 18-Mar-2010 14:53 llo00884 Quant Type: ISTD  
 Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
 Als bottle: 5 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2140.sub  
 Target Version: 3.50  
 Processing Host: hpc1pl

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.969	3.963	(1.000)	466391	40.0000	
* 29 Naphthalene-d8	136	4.840	4.834	(1.000)	1771443	40.0000	
* 46 Acenaphthene-d10	164	6.098	6.092	(1.000)	1031726	40.0000	
* 67 Phenanthrene-d10	188	7.281	7.269	(1.000)	1706712	40.0000	
* 91 Chrysene-d12	240	9.710	9.698	(1.000)	1509750	40.0000	
* 98 Perylene-d12	264	11.427	11.404	(1.000)	1333922	40.0000	
\$ 3 2-Fluorophenol	112	3.157	3.140	(0.795)	651689	50.2645	1680
\$ 5 Phenol-d5	99	3.681	3.669	(0.927)	786722	47.7140	1590
\$ 20 Nitrobenzene-d5	82	4.334	4.328	(0.895)	423256	24.9947	833
\$ 39 2-Fluorobiphenyl	172	5.581	5.575	(0.915)	748181	28.1073	937
\$ 60 2,4,6-Tribromophenol	329	6.704	6.692	(1.099)	172996	59.7534	1990
\$ 81 p-Terphenyl-d14	244	8.669	8.651	(0.893)	947020	35.9964	1200

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
6 Phenol		94	3.687	3.681	(0.929)	404595	24.2403	808
8 2-Chlorophenol		128	3.834	3.822	(0.966)	373229	27.4943	916
11 1,4-Dichlorobenzene		146	3.981	3.975	(1.003)	381648	26.2821	876
17 N-Nitrosodipropylamine		70	4.204	4.198	(1.059)	283840	24.9248	831 (Q)
28 1,2,4-Trichlorobenzene		180	4.787	4.781	(0.989)	359479	28.0824	936
33 4-Chloro-3-methylphenol		107	5.193	5.169	(1.073)	290939	23.9450	798
47 Acenaphthene		154	6.128	6.116	(1.005)	695925	25.9975	866
50 2,4-Dinitrotoluene		165	6.210	6.204	(1.018)	295524	32.1409	1070
52 4-Nitrophenol		139	6.151	6.122	(1.009)	44250	8.91851	297 (aQR)
65 Pentachlorophenol		266	7.104	7.086	(0.976)	111785	27.8804	929
79 Pyrene		202	8.569	8.551	(0.882)	1441488	31.3205	1040
2 Pyridine		79	2.516	2.475	(0.634)	298225	23.1415	771
4 Aniline		66	3.752	3.746	(0.945)	158856	20.3500	678
7 bis(2-Chloroethyl) ether		63	3.763	3.757	(0.948)	288863	23.2753	776
9 1,3-Dichlorobenzene		146	3.934	3.928	(0.991)	399375	26.7055	890
12 Benzyl alcohol		108	4.046	4.028	(1.019)	93996	9.85225	328 (aR)
13 1,2-Dichlorobenzene		146	4.081	4.075	(1.028)	357771	27.1806	906
14 bis(2-Chloroisopropyl) ether		45	4.110	4.104	(1.036)	631390	24.2057	807
15 o-Cresol		107	4.087	4.075	(1.030)	278577	26.9093	897
18 m,p-Cresols		107	4.181	4.175	(1.053)	426944	28.6309	954
19 Hexachloroethane		117	4.316	4.310	(1.087)	155653	24.8287	828
21 Nitrobenzene		77	4.346	4.340	(0.898)	422390	27.0337	901
22 Isophorone		82	4.499	4.493	(0.930)	782167	26.0878	870
23 2-Nitrophenol		139	4.557	4.551	(0.942)	198125	29.2555	975
24 2,4-Dimethylphenol		122	4.610	4.540	(0.953)	754099	61.3172	2040 (QR)
25 bis(2-Chloroethoxy)methane		93	4.622	4.610	(0.955)	407322	24.9888	833
26 2,4-Dichlorophenol		162	4.734	4.716	(0.978)	301937	26.9991	900
27 Benzoic acid		105	4.616	4.598	(0.954)	525267	63.2466	2110
30 Naphthalene		128	4.857	4.845	(1.004)	1036479	23.7640	792
31 4-Chloroaniline		127	4.869	4.857	(1.006)	451422	23.4618	782
32 Hexachlorobutadiene		225	4.916	4.910	(1.016)	207863	28.6083	954
34 2-Methylnaphthalene		142	5.340	5.328	(1.103)	712613	26.5687	886
36 Hexachlorocyclopentadiene		237	5.440	5.428	(0.892)	203128	34.3365	1140
37 2,4,6-Trichlorophenol		196	5.528	5.516	(0.906)	205878	23.8450	795
38 2,4,5-Trichlorophenol		196	5.563	5.540	(0.912)	274620	30.0209	1000 (H)
40 2-Chloronaphthalene		162	5.693	5.681	(0.933)	696884	27.7493	925
42 o-Nitroaniline		65	5.751	5.740	(0.943)	231669	26.2616	875
41 m-Nitroaniline		138	6.045	6.040	(0.991)	178370	27.2159	907
43 Dimethylphthalate		163	5.857	5.851	(0.960)	968714	33.2352	1110
44 2,6-Dinitrotoluene		165	5.916	5.904	(0.970)	224977	32.2363	1070
45 Acenaphthylene		152	5.998	5.992	(0.984)	1162358	29.2139	974
48 2,4-Dinitrophenol		184	6.116	6.110	(1.003)	91193	37.7101	1260 (Q)
49 Dibenzofuran		168	6.251	6.239	(1.025)	1013439	31.1662	1040
51 Diethylphthalate		149	6.369	6.363	(1.044)	966571	33.8293	1130
53 Fluorene		166	6.516	6.504	(1.068)	799006	27.7127	924
54 4-Chlorophenylphenylether		204	6.487	6.481	(1.064)	449464	32.4977	1080
55 2-Methyl-4,6-dinitrophenol		198	6.528	6.516	(0.897)	153705	38.8528	1300

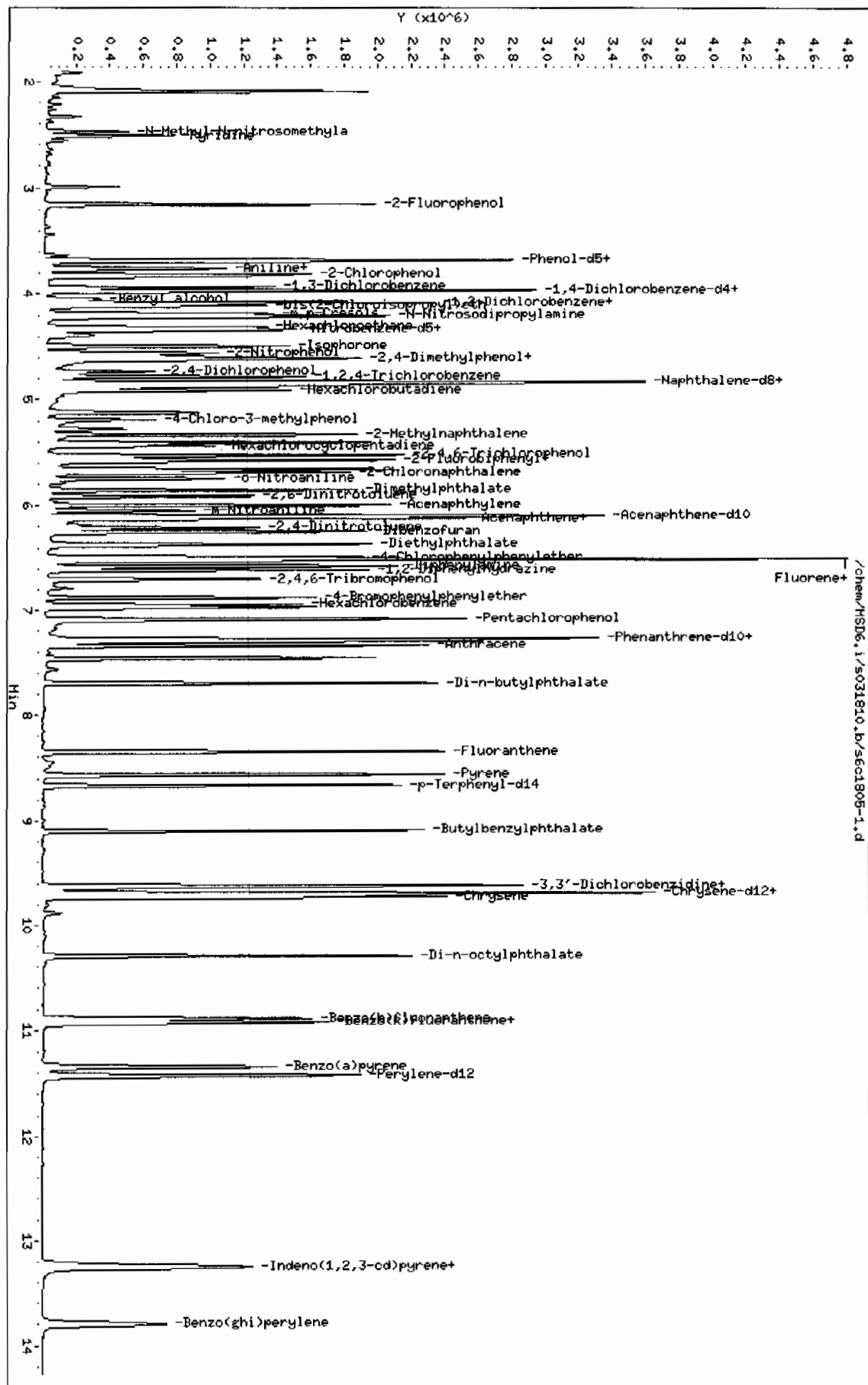
Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	=====	=====	=====	=====	=====	=====
56 p-Nitroaniline	138	6.510	6.498	(1.067)	175484	32.6549	1090
133 Diphenylamine	169	6.581	6.569	(0.904)	742543	33.5305	1120
58 1,2-Diphenylhydrazine	77	6.616	6.604	(0.909)	932311	31.3192	1040
61 4-Bromophenylphenylether	248	6.881	6.869	(0.945)	254806	34.3844	1150
63 Hexachlorobenzene	284	6.951	6.939	(0.955)	250614	35.3929	1180
68 Phenanthrene	178	7.298	7.286	(1.002)	1253024	30.1306	1000
69 Anthracene	178	7.345	7.334	(1.009)	1247425	29.7749	992
72 Di-n-butylphthalate	149	7.704	7.692	(1.058)	1602741	33.0788	1100
76 Fluoranthene	202	8.351	8.333	(1.147)	1397669	33.1407	1100
85 Butylbenzylphthalate	149	9.098	9.086	(0.937)	715176	32.1167	1070
89 Benzo(a)anthracene	228	9.692	9.680	(0.998)	1231938	31.2501	1040
90 3,3'-Dichlorobenzidine	252	9.645	9.628	(0.993)	308215	27.0645	902
92 Chrysene	228	9.733	9.722	(1.002)	1205722	32.0207	1070
93 bis(2-Ethylhexyl)phthalate	149	9.628	9.616	(0.992)	937257	31.4889	1050
94 Di-n-octylphthalate	149	10.298	10.280	(0.901)	1516540	29.7109	990
95 Benzo(b)fluoranthene	252	10.892	10.874	(0.953)	1136154	31.3299	1040
96 Benzo(k)fluoranthene	252	10.928	10.910	(0.956)	1167239	33.5496	1120 (H)
97 Benzo(a)pyrene	252	11.345	11.322	(0.993)	1026236	33.4140	1110
99 Indeno(1,2,3-cd)pyrene	276	13.239	13.210	(1.159)	952352	33.7923	1130
100 Dibenzo(a,h)anthracene	278	13.263	13.227	(1.161)	764566	33.6825	1120
101 Benzo(ghi)perylene	276	13.804	13.763	(1.208)	793965	32.9939	1100
1 N-Methyl-N-nitrosomethylamine	74	2.475	2.446	(0.624)	197805	21.8738	729

#### 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.
- H - Operator selected an alternate compound hit.

Data File: /chem/HSD6.i/s031810.b/s601805-1.d  
 Date: 18-MAR-2010 09:33  
 Client ID: SBLK01LCS  
 Sample Info: 1120206169196097111|SWH11|SBLK01LCS  
 Volume Injected (uL): 0.5  
 Column phase: JSM DB-5MS

Instrument: HSD6.1  
 Operator: nagl  
 Column diameter: 0.20



# Miscellaneous Data

# Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 960970      Verified by: \_\_\_\_\_  
 Analyst: Alberto Velasco  
 Method: SW846 3550B  
 Lab SOP: GL-OA-E-010 REV# 18  
 Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202061168 MB	04-MAR-2010 23:22:00	30	1	0.03333
1202061169 LCS	04-MAR-2010 23:22:00	30	1	0.03333
248244001	04-MAR-2010 23:22:00	30.03	1	0.0333
248244002	04-MAR-2010 23:22:00	30.09	1	0.03323
248244003	04-MAR-2010 23:22:00	30.19	1	0.03312
248244004	04-MAR-2010 23:22:00	30.1	1	0.03322
248244005	04-MAR-2010 23:22:00	30.02	1	0.03331
248244006	04-MAR-2010 23:22:00	30.17	1	0.03315
248244007	04-MAR-2010 23:22:00	30.19	1	0.03312
248244008	04-MAR-2010 23:22:00	30.03	1	0.0333
248249001	04-MAR-2010 23:22:00	30.1	1	0.03322
248249002	04-MAR-2010 23:22:00	30.13	1	0.03319
248249003	04-MAR-2010 23:22:00	30.18	1	0.03313
248249004	04-MAR-2010 23:22:00	30.01	1	0.03332
248255001	04-MAR-2010 23:22:00	30.17	1	0.03315
1202061170 MS (248255001.1)	04-MAR-2010 23:22:00	30.12	1	0.0332
1202061171 MSD (248255001)	04-MAR-2010 23:22:00	30.19	1	0.03312
248255002	04-MAR-2010 23:22:00	30.03	1	0.0333
248255003	04-MAR-2010 23:22:00	30.09	1	0.03323
248255004	04-MAR-2010 23:22:00	30.07	1	0.03326
248255005	04-MAR-2010 23:22:00	30.18	1	0.03313
248255006	04-MAR-2010 23:22:00	30.14	1	0.03318
248255007	04-MAR-2010 23:22:00	30.18	1	0.03313

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments
LCS	1202061169	BNA LCS w/o Benzidine 50ppm	UEI00302-14	1	mL	Verified By: AAW
LCS	1202061169	BENZIDINE LCS	UEI00302-22	1	mL	Final Solvent: CH2Cl2
MS	1202061170	BNA LCS w/o Benzidine 50ppm	UEI00302-14	1	mL	
MS	1202061170	BENZIDINE LCS	UEI00302-22	1	mL	
MSD	1202061171	BNA LCS w/o Benzidine 50ppm	UEI00302-14	1	mL	
MSD	1202061171	BENZIDINE LCS	UEI00302-22	1	mL	
SURR	All	BNA for all Surrogate	UEI00222-10	1	mL	
REGNT	All	Methylene Chloride	100301-D	150	mL	
REGNT	All	Acetone	1273823-BI	150	mL	
SOURC	All	SODIUM SULFATE	1274910	30	g	

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

SOLVENT LOT:1239699-D

No. 1 on pg. 1

HARDWARE CONFIGURATION &amp; METHOD SUMMARY:

Multiplier Voltage: 1576 Emv Extr. Injection Volume: 0.5, 1.0 ul

DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100310-01

CALIBRATION &amp; QC INFORMATION:

Initial Calibration Dates: See Calibration History and Standard Logbook.

Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s031610.b

Data File	GL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
Is6c1601-D.d	WBN100306-01.2	lnag1	16-MAR-2010 08:42	DFTPP	s031610	1.0	DFTPP	MEGA
Is6c1601.d	WBN100306-01.2	lnag1	16-MAR-2010 08:42	DFTPP	s031610	1.0	DFTPP	MEGA
Is6c1602.d	INSTBLK	lnag1	16-MAR-2010 08:55		s031610	1.0		
Is6c1603.d	WBN100309-08	lnag1	16-MAR-2010 09:18	1001 PPM	s031610	1.0	MEGA001	
Is6c1604-RQ.d	WBN100309-07	lnag1	16-MAR-2010 09:47	1010 PPM	s031610	1.0	MEGA010	
Is6c1604.d	WBN100309-07	lnag1	16-MAR-2010 09:47	1010 PPM	s031610	1.0	MEGA010	
Is6c1605.d	WBN100309-06	lnag1	16-MAR-2010 10:17	1020 PPM	s031610	1.0	MEGA020	
Is6c1606.d	WBN100309-05.1	lnag1	16-MAR-2010 10:48	1040 PPM	s031610	1.0	MEGA040	
Is6c1607.d	WBN100309-04	lnag1	16-MAR-2010 11:18	1050 PPM	s031610	1.0	MEGA050	
Is6c1608.d	WBN100309-03	lnag1	16-MAR-2010 11:48	1080 PPM	s031610	1.0	MEGA080	
Is6c1609.d	WBN100309-02	lnag1	16-MAR-2010 12:18	1100 PPM	s031610	1.0	MEGA100	
Is6c1610.d	WBN100309-01	lnag1	16-MAR-2010 12:48	1120 PPM	s031610	1.0	MEGA120	
Is6c1611.d	INSTBLK	lnag1	16-MAR-2010 13:16		s031610	1.0		
Is6c1612-BOE.d	WBN100309-09.1	lnag1	16-MAR-2010 13:40	1040 PPM	s031610	1.0	MEGA1CV	
Is6c1612-D.d	WBN100309-09.1	lnag1	16-MAR-2010 13:40	1040 PPM	s031610	1.0	MEGA1CV	
Is6c1612.d	WBN100309-09.1	lnag1	16-MAR-2010 13:40	1040 PPM	s031610	1.0	MEGA1CV	
Is6c1613.d	WBN100306-01.2	lnag1	16-MAR-2010 16:06	DFTPP	s031610	1.0	DFTPP	IAP/PEST/HEX
Is6c1613.d	WBN100306-01.2	lnag1	16-MAR-2010 16:06	DFTPP	s031610	1.0	DFTPP	IAP/PEST/HEX
Is6c1614.d	INSTBLK	lnag1	16-MAR-2010 16:19		s031610	1.0		



s6c1617.d	WBN100312-03.1	inag1	116-MAR-2010 17:30	140 PPM	s031610	1	1.0 AP040	1
s6c1618.d	WBN100312-04	inag1	116-MAR-2010 17:53	150 PPM	s031610	1	1.0 AP050	1
s6c1619.d	WBN100312-05	inag1	116-MAR-2010 18:16	180 PPM	s031610	1	1.0 AP080	1
s6c1620.d	WBN100312-06	inag1	116-MAR-2010 18:40	1100 PPM	s031610	1	1.0 AP100	1
s6c1621.d	WBN100312-07	inag1	116-MAR-2010 19:04	1120 PPM	s031610	1	1.0 AP120	1
s6c1622.d	WBN100304-25	inag1	116-MAR-2010 19:27	110 PPM	s031610	1	1.0 PEST010	1
s6c1623.d	WBN100304-24	inag1	116-MAR-2010 19:51	120 PPM	s031610	1	1.0 PEST020	1
s6c1624.d	WBN100304-23.1	inag1	116-MAR-2010 20:16	140 PPM	s031610	1	1.0 PEST040	1
s6c1625.d	WBN100304-22	inag1	116-MAR-2010 20:39	150 PPM	s031610	1	1.0 PEST050	1
s6c1626.d	WBN100304-21	inag1	116-MAR-2010 21:04	180 PPM	s031610	1	1.0 PEST080	1
s6c1627.d	WBN100304-20	inag1	116-MAR-2010 21:29	1100 PPM	s031610	1	1.0 PEST100	1
s6c1628.d	WBN100304-19	inag1	116-MAR-2010 21:52	1120 PPM	s031610	1	1.0 PEST120	1
s6c1629.d	WBN100304-16	inag1	116-MAR-2010 22:16	1500 PPM	s031610	1	1.0 HEX500	1
s6c1630.d	WBN100304-15	inag1	116-MAR-2010 22:40	11000 PPM	s031610	1	1.0 HEX1000	1
s6c1631.d	WBN100304-14	inag1	116-MAR-2010 23:05	11250 PPM	s031610	1	1.0 HEX1250	1
s6c1632.d	WBN100304-15	inag1	116-MAR-2010 23:30	11500 PPM	s031610	1	1.0 HEX1500	1
s6c1633.d	WBN100304-16	inag1	116-MAR-2010 23:53	11750 PPM	s031610	1	1.0 HEX1750	1
s6c1634.d	WBN100304-16	inag1	117-MAR-2010 00:17	12000 PPM	s031610	1	1.0 HEX2000	1
s6c1635-D.d	WBN100312-08.1	inag1	117-MAR-2010 00:41	140 PPM	s031710	1	1.0 AP1CV	1
s6c1635.d	WBN100312-08.1	inag1	117-MAR-2010 00:41	140 PPM	s031710	1	1.0 AP1CV	1
s6c1636-D.d	WBN100304-26.1	inag1	117-MAR-2010 01:05	140 PPM	s031710	1	1.0 PEST1CV	1
s6c1636.d	WBN100304-26.1	inag1	117-MAR-2010 01:05	140 PPM	s031710	1	1.0 PEST1CV	1
s6c1637-D.d	WBN100304-14	inag1	117-MAR-2010 01:30	11250 PPM	s031710	1	1.0 HEX1250	1
s6c1637.d	WBN100304-14	inag1	117-MAR-2010 01:30	11250 PPM	s031710	1	1.0 HEX1250	1
s6c1638-D.d	WBN100306-01.2	inag1	117-MAR-2010 01:55	11000 PPM	s031610	1	1.0 DFTPP	NEV

ls6c1640.d	WEN100127-01	lnag1	17-MAR-2010 02:32	10 PPM	s031610	1	1.0 NEV010	1
ls6c1641.d	WEN100127-02	lnag1	17-MAR-2010 02:55	120 PPM	s031610	1	1.0 NEV020	1
ls6c1642.d	WEN100127-03	lnag1	17-MAR-2010 03:19	140 PPM	s031610	1	1.0 NEV040	1
ls6c1643.d	WEN100127-04	lnag1	17-MAR-2010 03:42	150 PPM	s031610	1	1.0 NEV050	1
ls6c1644.d	WEN100127-05	lnag1	17-MAR-2010 04:05	80 PPM	s031610	1	1.0 NEV080	1
ls6c1645.d	WEN100127-06	lnag1	17-MAR-2010 04:28	1100 PPM	s031610	1	1.0 NEV100	1
ls6c1646.d	WEN100127-07	lnag1	17-MAR-2010 04:51	1120 PPM	s031610	1	1.0 NEV120	1
ls6c1647.d	WEN100127-03	lnag1	17-MAR-2010 05:14	140 PPM	s031610	1	1.0 NEVcvs	1

Instrument Batch: /chem/MSD6.i/s031610.b

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

SOLVENT LOT:1239699-D

No. 1 on pg. 1

HARDWARE CONFIGURATION &amp; METHOD SUMMARY:

Multiplier Voltage: 1576 Emv Extr. Injection Volume: 0.5, 1.0 ul

DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100310-01

CALIBRATION &amp; QC INFORMATION:

Initial Calibration Dates: See Calibration History and Standard Logbook.

Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s031810.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
1s6c1801-D.d	WBN100306-01.2	lnag1	18-MAR-2010 07:59	DFTPP	1s031810	1.0	DFTPP	
1s6c1801.d	WBN100306-01.2	lnag1	18-MAR-2010 07:59	DFTPP	1s031810	1.0	DFTPP	
1s6c1802-625.d	WBN100309-05.3	lnag1	18-MAR-2010 08:12	4C PPM	1s031810	1.0	MEGACVS	DOUSE
1s6c1802-D.d	WBN100309-05.3	lnag1	18-MAR-2010 08:12	140 PPM	1s031810	1.0	MEGACVS	
1s6c1802.d	WBN100309-05.3	lnag1	18-MAR-2010 08:12	140 PPM	1s031810	1.0	MEGACVS	pass 395994
1s6c1803-625.d	WBN10031203.3	lnag1	18-MAR-2010 08:42	140 PPM	s031810	1.0	APCVS	
1s6c1803-D.d	WBN10031203.3	lnag1	18-MAR-2010 08:42	140 PPM	s031810	1.0	APCVS	
1s6c1803.d	WBN10031203.3	lnag1	18-MAR-2010 08:42	140 PPM	s031810	1.0	APCVS	
1s6c1804-1.d	1202061168	lnag1	18-MAR-2010 09:08	1960971	10-2140	1.0	SBLK01	
1s6c1804-2.d	1202061168	lnag1	18-MAR-2010 09:08	1960971	10-2145	1.0	SBLK01	
1s6c1804.d	1202061168	lnag1	18-MAR-2010 09:08	1960971	10-2137	1.0	SBLK01	
1s6c1805-1.d	1202061169	lnag1	18-MAR-2010 09:33	1960971	10-2140	1.0	SBLK01LCS	
1s6c1805-2.d	1202061169	lnag1	18-MAR-2010 09:33	1960971	10-2145	1.0	SBLK01LCS	
1s6c1805.d	1202061169	lnag1	18-MAR-2010 09:33	1960971	10-2137	1.0	SBLK01LCS	
1s6c1806.d	1202072826	JMB3	18-MAR-2010 09:56	1965916	1249315	1.0	SBLK01	
1s6c1807.d	1202072827	JMB3	18-MAR-2010 10:20	1965916	1249315	1.0	SBLK01LCS	
1s6c1808.d	1202072830	JMB3	18-MAR-2010 10:44	1965916	1249315	1.0	SBLK01LCS	
1s6c1809.d	1248244002	lnag1	18-MAR-2010 11:08	1960971	10-2137	1.0	LANL	
1s6c1810.d	1248244003	lnag1	18-MAR-2010 11:32	1960971	10-2137	1.0	LANL	

s6c1813.d	248244008	nag1	18-MAR-2010 12:42	960971	10-2137	1.0 LANL	
s6c1814.d	248255002	nag1	18-MAR-2010 13:05	960971	10-2145	1.0 LANL	
s6c1815.d	248255006	nag1	18-MAR-2010 13:29	960971	10-2145	1.0 LANL	
s6c1816.d	248244007	nag1	18-MAR-2010 13:52	960971	10-2137	1.0 LANL	
s6c1817.d	248249002	nag1	18-MAR-2010 14:16	960971	10-2140	1.0 LANL	
s6c1818.d	248249004	nag1	18-MAR-2010 14:40	960971	10-2140	4.0 LANL	
s6c1819.d	248244001	nag1	18-MAR-2010 15:04	960971	10-2137	4.0 LANL	
s6c1820.d	248244004	nag1	18-MAR-2010 15:28	960971	10-2137	4.0 LANL	
s6c1821.d	248249003	nag1	18-MAR-2010 15:52	960971	10-2140	4.0 LANL	
s6c1822.d	248255001	nag1	18-MAR-2010 16:16	960971	10-2145	4.0 LANL	
s6c1823.d	1202061170	nag1	18-MAR-2010 16:40	960971	10-2145	4.0 MS	
s6c1824.d	1202061171	nag1	18-MAR-2010 17:03	D960971	10-2145	4.0 MS	
s6c1825.d	248255003	nag1	18-MAR-2010 17:27	960971	10-2145	4.0 LANL	
s6c1826.d	248255004	nag1	18-MAR-2010 17:50	960971	10-2145	4.0 LANL	
s6c1827.d	248255005	nag1	18-MAR-2010 18:13	960971	10-2145	4.0 LANL	
s6c1828.d	248255007	nag1	18-MAR-2010 18:38	960971	10-2145	4.0 LANL	
s6c1829.d	249315001	nag1	18-MAR-2010 19:03	965916	1249315	1.0 COMM	
s6c1830.d	248249001	nag1	18-MAR-2010 19:26	960971	10-2140	4.0 LANL	

Instrument Batch: /chem/MSD6.i/s031810.b

Page: 1

### DATA EXCEPTION REPORT

<b>Mo.Day Yr.</b> 19-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> 960971	<b>Sample Numbers:</b> See Below		

**Potentially affected work order(s)(SDG): 248244(10-2137),248249(10-2140),248255(10-2145)**

**Application Issues:**

Failed Recovery for MS/PS  
Failed RPD for MS/MSD, or PS/PSD  
Container scanning event for custody missed  
Failed Recovery for LCS/LCSD  
Failed Recovery for MSD/PSD

**Specification and Requirements  
Exception Description:**

1. The LCS (1202061169) recovered 2,4-dimethylphenol at 123%(Limits: 32%-112%), 4-Nitrophenol at 18% (Limits: 24%-113%) and Benzyl alcohol at 20%(limits: 27%-108%).
2. The MS (1202061170)/MSD (1202061171) failed recovery for several analytes. Please the QC Summary for the specific failures.
3. Container scanning event for custody missed:  
  
248244 001,002,003,004,005,006,007,008  
  
248249 001,002,003,004  
  
248255 001,002,003,004,005,006,007

**DER Disposition:**

1. The failures represented less than 5% of the requested spike analyte list. That satisfied the clients acceptance v=criteria and the data were reported.
2. As failures were present in both samples, they were attributed to matrix interference and the data were reported.
3. The analyst did not scan samples into his/her custody. The analyst had physical custody of the sample during the analysis.

**Originator's Name:**

Lloyd O Fox 19-MAR-10

**Data Validator/Group Leader:**

Daniel Beacham 21-MAR-10

GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1823.d  
Lab Smp Id: 1202061170 Client Smp ID: RE46-10-13534MS  
Inj Date : 18-MAR-2010 16:40  
Operator : nag1 Inst ID: MSD6.i  
Smp Info : |1202061170|960971|4|SVM|1|MS  
Misc Info : |MSD8270\_S|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 18-Mar-2010 16:23 llo00884 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 23 QC Sample: MS  
Dil Factor: 4.00000  
Integrator: HP RTE Compound Sublist: 10-2145.sub  
Target Version: 3.50  
Processing Host: hpc1p1

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

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.12000	weight of sample
M	14.07340	% 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		3.969	3.963	(1.000)		511850	40.0000	
* 29 Naphthalene-d8	136		4.839	4.834	(1.000)		1839700	40.0000	
* 46 Acenaphthene-d10	164		6.098	6.092	(1.000)		1130593	40.0000	
* 67 Phenanthrene-d10	188		7.280	7.269	(1.000)		1975125	40.0000	
* 91 Chrysene-d12	240		9.704	9.698	(1.000)		1373003	40.0000	
* 98 Perylene-d12	264		11.421	11.404	(1.000)		860323	40.0000	
\$ 3 2-Fluorophenol	112		3.151	3.140	(0.794)		213220	14.9850	2320
\$ 5 Phenol-d5	99		3.675	3.669	(0.926)		269032	14.8674	2300
\$ 20 Nitrobenzene-d5	82		4.334	4.328	(0.895)		135647	7.71320	1190
\$ 39 2-Fluorobiphenyl	172		5.581	5.575	(0.915)		269232	9.22989	1430
\$ 60 2,4,6-Tribromophenol	329		6.698	6.692	(1.098)		62802	19.7951	3060
\$ 81 p-Terphenyl-d14	244		8.663	8.651	(0.893)		297558	12.4367	1920

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
6 Phenol	94	3.687	3.681	(0.929)	140984	7.69653	1190 (a)
8 2-Chlorophenol	128	3.834	3.822	(0.966)	124183	8.33559	1290 (a)
11 1,4-Dichlorobenzene	146	3.981	3.975	(1.003)	123563	7.75342	1200 (a)
17 N-Nitrosodipropylamine	70	4.198	4.198	(1.058)	95307	7.62590	1180 (aQ)
28 1,2,4-Trichlorobenzene	180	4.787	4.781	(0.989)	120738	9.08208	1400 (a)
33 4-Chloro-3-methylphenol	107	5.187	5.169	(1.072)	124129	9.83710	1520 (a)
47 Acenaphthene	154	6.122	6.116	(1.004)	245317	8.36285	1290
50 2,4-Dinitrotoluene	165	6.210	6.204	(1.018)	88861	8.81930	1360 (a)
52 4-Nitrophenol	139	6.139	6.122	(1.007)	45741	8.41285	1300 (a)
65 Pentachlorophenol	266	7.098	7.086	(0.975)	40437	8.71485	1350 (a)
79 Pyrene	202	8.563	8.551	(0.882)	589320	14.0800	2180
2 Pyridine	79	2.504	2.475	(0.631)	77833	5.50324	850 (a)
4 Aniline	66	3.751	3.746	(0.945)	58930	6.87869	1060 (a)
7 bis(2-Chloroethyl) ether	63	3.763	3.757	(0.948)	92437	6.78666	1050 (a)
9 1,3-Dichlorobenzene	146	3.934	3.928	(0.991)	129848	7.91158	1220 (a)
13 1,2-Dichlorobenzene	146	4.087	4.075	(1.030)	124686	8.63135	1330 (a)
14 bis(2-Chloroisopropyl) ether	45	4.110	4.104	(1.036)	199860	6.98158	1080 (a)
15 o-Cresol	107	4.087	4.075	(1.030)	108755	9.57224	1480 (a)
18 m,p-Cresols	107	4.181	4.175	(1.053)	176017	10.7554	1660
19 Hexachloroethane	117	4.316	4.310	(1.087)	45925	6.67502	1030 (a)
21 Nitrobenzene	77	4.345	4.340	(0.898)	140195	8.63981	1340 (a)
22 Isophorone	82	4.498	4.493	(0.930)	259532	8.33507	1290 (a)
23 2-Nitrophenol	139	4.557	4.551	(0.942)	59894	8.51593	1320 (a)
24 2,4-Dimethylphenol	122	4.575	4.540	(0.945)	217280	12.6837	1960 (Q)
25 bis(2-Chloroethoxy)methane	93	4.616	4.610	(0.954)	139445	8.23743	1270 (a)
26 2,4-Dichlorophenol	162	4.722	4.716	(0.976)	111767	9.62335	1490 (a)
27 Benzoic acid	105	4.587	4.588	(0.948)	133969	15.5325	2400 (a)
30 Naphthalene	128	4.857	4.845	(1.004)	368690	8.13955	1260
31 4-Chloroaniline	127	4.869	4.857	(1.006)	167793	8.39717	1300 (a)
32 Hexachlorobutadiene	225	4.916	4.910	(1.016)	67915	9.00039	1390 (a)
34 2-Methylnaphthalene	142	5.334	5.328	(1.102)	253430	9.09819	1410
36 Hexachlorocyclopentadiene	237	5.439	5.428	(0.892)	32916	5.07752	785 (a)
37 2,4,6-Trichlorophenol	196	5.522	5.516	(0.905)	90548	9.57028	1480 (a)
38 2,4,5-Trichlorophenol	196	5.551	5.540	(0.910)	103220	10.2971	1590
40 2-Chloronaphthalene	162	5.692	5.681	(0.933)	252631	9.17988	1420
42 o-Nitroaniline	65	5.745	5.740	(0.942)	73401	7.59301	1170 (a)
41 m-Nitroaniline	138	6.045	6.040	(0.991)	62189	8.65911	1340 (a)
43 Dimethylphthalate	163	5.851	5.851	(0.959)	327755	10.2615	1580
44 2,6-Dinitrotoluene	165	5.910	5.904	(0.969)	69178	9.04552	1400 (a)
45 Acenaphthylene	152	5.998	5.992	(0.984)	414652	9.51025	1470
48 2,4-Dinitrophenol	184	6.116	6.110	(1.003)	8148	8.41946	1300 (aQ)
49 Dibenzofuran	168	6.251	6.239	(1.025)	380244	10.6710	1650
51 Diethylphthalate	149	6.369	6.363	(1.044)	332762	10.6280	1640
53 Fluorene	166	6.510	6.504	(1.068)	303258	9.59841	1480
54 4-Chlorophenylphenylether	204	6.486	6.481	(1.064)	161223	10.6376	1640
55 2-Methyl-4,6-dinitrophenol	198	6.522	6.516	(0.896)	17291	7.79086	1200 (a)
56 p-Nitroaniline	138	6.504	6.498	(1.067)	57472	9.75946	1510 (a)

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
133 Diphenylamine	169	6.575	6.569	(0.903)	268721	10.4854	1620
58 1,2-Diphenylhydrazine	77	6.610	6.604	(0.908)	338020	9.81200	1520 (a)
61 4-Bromophenylphenylether	248	6.881	6.869	(0.945)	90013	10.4960	1620
63 Hexachlorobenzene	284	6.945	6.939	(0.954)	80699	9.84792	1520 (a)
68 Phenanthrene	178	7.298	7.286	(1.002)	551443	11.4581	1770
69 Anthracene	178	7.339	7.334	(1.008)	473821	9.77273	1510
72 Di-n-butylphthalate	149	7.698	7.692	(1.057)	546857	9.75273	1510 (a)
76 Fluoranthene	202	8.345	8.333	(1.146)	620733	12.7183	1960
85 Butylbenzylphthalate	149	9.098	9.086	(0.938)	209296	10.3350	1600
89 Benzo (a) anthracene	228	9.692	9.680	(0.999)	356011	9.93025	1530
90 3,3'-Dichlorobenzidine	252	9.639	9.628	(0.993)	84284	8.13814	1260 (a)
92 Chrysene	228	9.727	9.722	(1.002)	373226	10.8991	1680
93 bis(2-Ethylhexyl)phthalate	149	9.622	9.616	(0.992)	270360	9.98791	1540 (a)
94 Di-n-octylphthalate	149	10.292	10.280	(0.901)	390336	11.8569	1830
95 Benzo (b) fluoranthene	252	10.886	10.874	(0.953)	265321	11.3439	1750
96 Benzo (k) fluoranthene	252	10.921	10.910	(0.956)	241438	10.7598	1660
97 Benzo (a) pyrene	252	11.339	11.322	(0.993)	204462	10.3220	1600
99 Indeno(1,2,3-cd)pyrene	276	13.227	13.210	(1.158)	152713	8.40165	1300
100 Dibenzo (a,h) anthracene	278	13.245	13.227	(1.160)	120769	8.24923	1270
101 Benzo (ghi) perylene	276	13.780	13.763	(1.206)	117319	7.55908	1170
1 N-Methyl-N-nitrosomethylamine	74	2.463	2.446	(0.621)	58855	5.93031	916 (a)

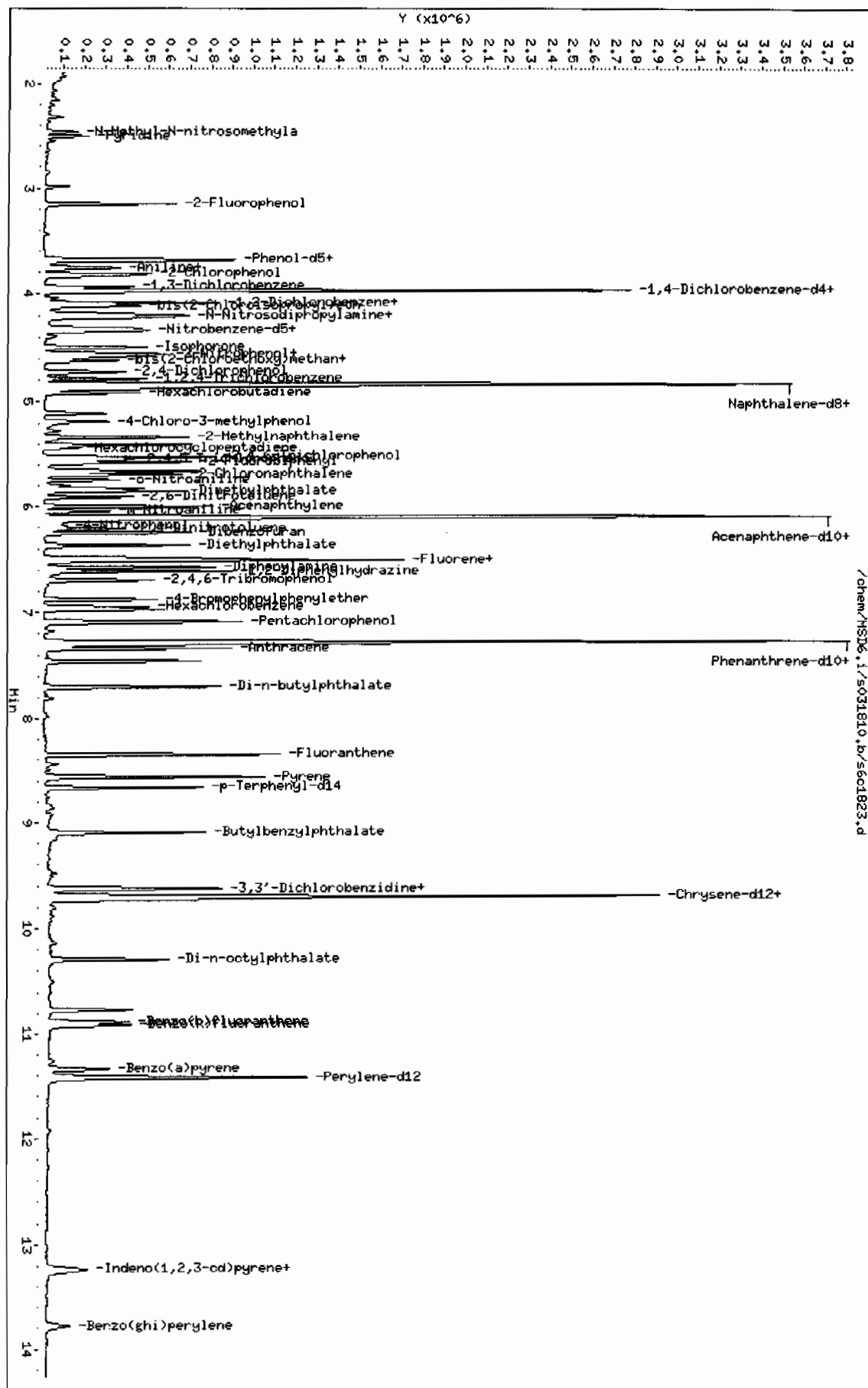
#### QC Flag Legend

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



Data File: /chem/MSD6.i/s031810.b/s601823.d  
 Date: 18-MAR-2010 16:40  
 Client ID: RE46-10-13534HS  
 Sample Info: 112020611701960971.41SVH11HS  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: MSD6.i  
 Operator: nag1  
 Column diameter: 0.20



GEL Laboratories LLC

Data file : /chem/MSD6.i/s031810.b/s6c1824.d  
Lab Smp Id: 1202061171 Client Smp ID: RE46-10-13534MSD  
Inj Date : 18-MAR-2010 17:03  
Operator : nag1 Inst ID: MSD6.i  
Smp Info : |1202061171|960971|4|SVM|1|MSD  
Misc Info : |MSD8270\_S|WBN100310-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD6.i/s031810.b/MSD6-M8270C-AQA-031610.m  
Meth Date : 19-Mar-2010 16:12 llo00884 Quant Type: ISTD  
Cal Date : 17-MAR-2010 04:51 Cal File: s6c1646.d  
Als bottle: 24 QC Sample: MSD  
Dil Factor: 4.00000  
Integrator: HP RTE Compound Sublist: 10-2145.sub  
Target Version: 3.50  
Processing Host: hpc1p1

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

Name	Value	Description
DF	4.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.19000	weight of sample
M	14.07340	% 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	3.969	3.963	(1.000)	491317	40.0000		
* 29 Naphthalene-d8	136	4.840	4.834	(1.000)	1761515	40.0000		
* 46 Acenaphthene-d10	164	6.098	6.092	(1.000)	1100991	40.0000		
* 67 Phenanthrene-d10	188	7.281	7.269	(1.000)	1920709	40.0000		
* 91 Chrysene-d12	240	9.704	9.698	(1.000)	1378580	40.0000		
* 98 Perylene-d12	264	11.422	11.404	(1.000)	889505	40.0000		
\$ 3 2-Fluorophenol	112	3.152	3.140	(0.794)	174433	12.7714	1970	
\$ 5 Phenol-d5	99	3.675	3.669	(0.926)	222114	12.7876	1970	
\$ 20 Nitrobenzene-d5	82	4.334	4.328	(0.895)	108571	6.44761	994	
\$ 39 2-Fluorobiphenyl	172	5.581	5.575	(0.915)	218807	7.70289	1190	
\$ 60 2,4,6-Tribromophenol	329	6.698	6.692	(1.098)	51956	16.8168	2590	
\$ 81 p-Terphenyl-d14	244	8.663	8.651	(0.893)	247417	10.2992	1590	

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
6 Phenol		94	3.687	3.681	(0.929)	115820	6.58703	1020(a)
8 2-Chlorophenol		128	3.834	3.822	(0.966)	98100	6.86000	1060(a)
11 1,4-Dichlorobenzene		146	3.981	3.975	(1.003)	101626	6.64341	1020(a)
17 N-Nitrosodipropylamine		70	4.199	4.198	(1.058)	76106	6.34404	978(aQ)
28 1,2,4-Trichlorobenzene		180	4.787	4.781	(0.989)	97856	7.68758	1180(a)
33 4-Chloro-3-methylphenol		107	5.187	5.169	(1.072)	102663	8.49705	1310(a)
47 Acenaphthene		154	6.122	6.116	(1.004)	205177	7.18254	1110
50 2,4-Dinitrotoluene		165	6.210	6.204	(1.018)	73266	7.46703	1150(a)
52 4-Nitrophenol		139	6.134	6.122	(1.006)	38438	7.25973	1120(a)
65 Pentachlorophenol		266	7.098	7.086	(0.975)	31191	6.91263	1060(a)
79 Pyrene		202	8.563	8.551	(0.882)	537007	12.7782	1970
2 Pyridine		79	2.505	2.475	(0.631)	64224	4.73078	729(a)
4 Aniline		66	3.752	3.746	(0.945)	50357	6.12364	944(a)
7 bis(2-Chloroethyl) ether		63	3.763	3.757	(0.948)	74116	5.66896	874(a)
9 1,3-Dichlorobenzene		146	3.934	3.928	(0.991)	102180	6.48597	1000(a)
13 1,2-Dichlorobenzene		146	4.087	4.075	(1.030)	97486	7.03047	1080(a)
14 bis(2-Chloroisopropyl) ether		45	4.110	4.104	(1.036)	159170	5.79255	893(a)
15 o-Cresol		107	4.087	4.075	(1.030)	85210	7.81332	1200(a)
18 m,p-Cresols		107	4.181	4.175	(1.053)	139012	8.84921	1360(a)
19 Hexachloroethane		117	4.316	4.310	(1.087)	36490	5.52533	852(a)
21 Nitrobenzene		77	4.346	4.340	(0.898)	114129	7.34562	1130(a)
22 Isophorone		82	4.493	4.493	(0.928)	209661	7.03229	1080(a)
23 2-Nitrophenol		139	4.557	4.551	(0.942)	46837	6.95503	1070(a)
24 2,4-Dimethylphenol		122	4.581	4.540	(0.947)	177174	9.91269	1530(aQ)
25 bis(2-Chloroethoxy)methane		93	4.616	4.610	(0.954)	109790	6.77348	1040(a)
26 2,4-Dichlorophenol		162	4.722	4.716	(0.976)	90613	8.14824	1260(a)
27 Benzoic acid		105	4.581	4.598	(0.947)	106670	12.9164	1990(a)
30 Naphthalene		128	4.857	4.845	(1.004)	296443	6.83503	1050
31 4-Chloroaniline		127	4.869	4.857	(1.006)	142822	7.46475	1150(a)
32 Hexachlorobutadiene		225	4.916	4.910	(1.016)	55968	7.74633	1190(a)
34 2-Methylnaphthalene		142	5.334	5.328	(1.102)	200932	7.53368	1160
36 Hexachlorocyclopentadiene		237	5.440	5.428	(0.892)	24665	3.90704	602(a)
37 2,4,6-Trichlorophenol		196	5.522	5.516	(0.905)	73623	7.99065	1230(a)
38 2,4,5-Trichlorophenol		196	5.551	5.540	(0.910)	80520	8.24852	1270(a)
40 2-Chloronaphthalene		162	5.693	5.681	(0.933)	205239	7.65830	1180
42 o-Nitroaniline		65	5.746	5.740	(0.942)	60019	6.37563	983(a)
41 m-Nitroaniline		138	6.040	6.040	(0.990)	52158	7.45767	1150(a)
43 Dimethylphthalate		163	5.851	5.851	(0.959)	266745	8.57591	1320(a)
44 2,6-Dinitrotoluene		165	5.910	5.904	(0.969)	55915	7.50786	1160(a)
45 Acenaphthylene		152	5.998	5.992	(0.984)	336909	7.93494	1220
48 2,4-Dinitrophenol		184	6.116	6.110	(1.003)	6312	7.88770	1220(aQ)
49 Dibenzofuran		168	6.245	6.239	(1.024)	310611	8.95126	1380(a)
51 Diethylphthalate		149	6.369	6.363	(1.044)	272193	8.92724	1380(a)
53 Fluorene		166	6.510	6.504	(1.067)	254817	8.28205	1280
54 4-Chlorophenylphenylether		204	6.487	6.481	(1.064)	132721	8.99246	1390(a)
55 2-Methyl-4,6-dinitrophenol		198	6.522	6.516	(0.896)	13941	7.21927	1110(a)
56 p-Nitroaniline		138	6.504	6.498	(1.067)	50803	8.85893	1360(a)

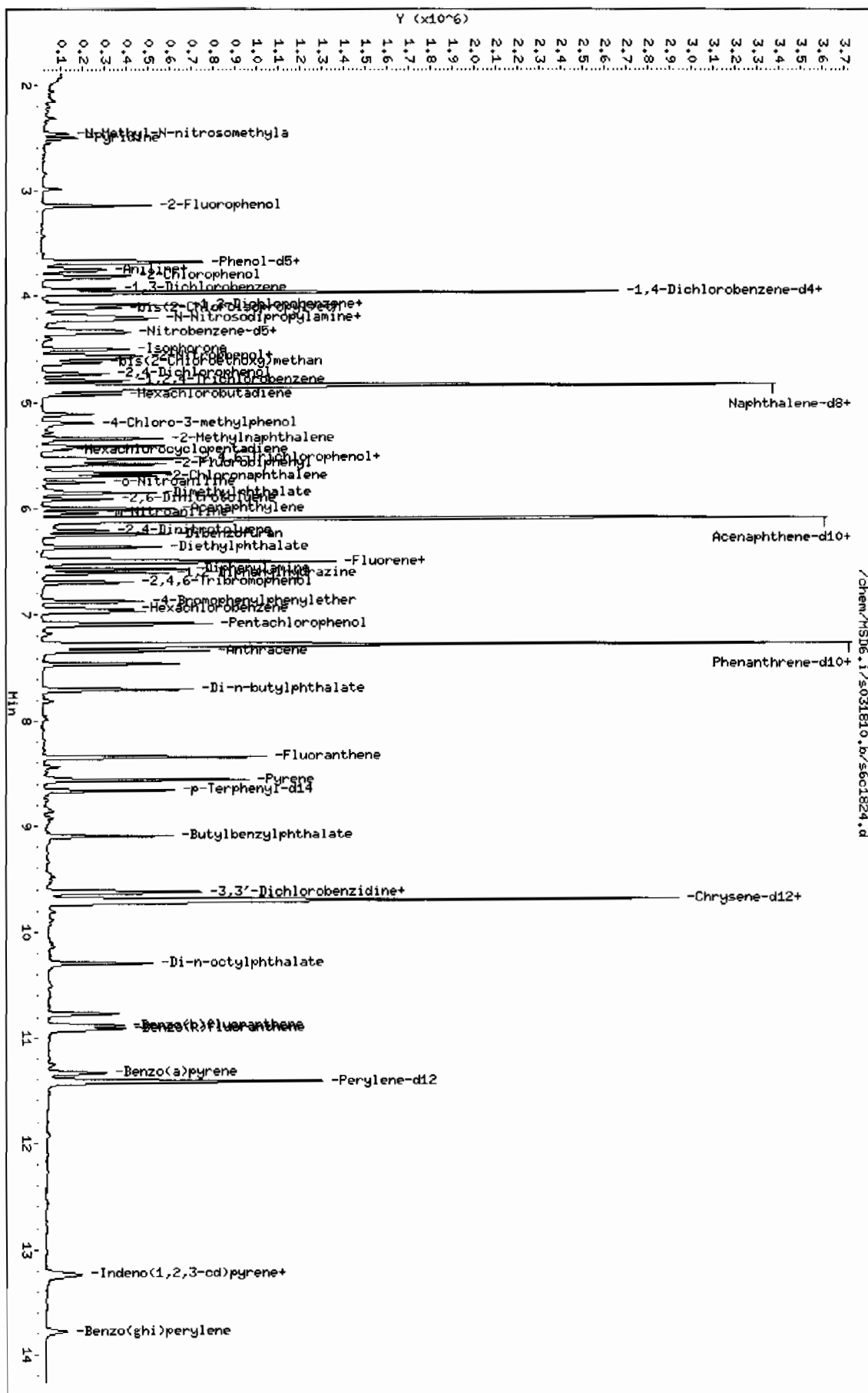
Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
133 Diphenylamine		169	6.575	6.569	(0.903)	222029	8.90895	1370(a)
58 1,2-Diphenylhydrazine		77	6.610	6.604	(0.908)	272015	8.11972	1250(a)
61 4-Bromophenylphenylether		248	6.881	6.869	(0.945)	75294	9.02841	1390(a)
63 Hexachlorobenzene		284	6.945	6.939	(0.954)	67368	8.45402	1300(a)
68 Phenanthrene		178	7.298	7.286	(1.002)	511169	10.9222	1680
69 Anthracene		178	7.340	7.334	(1.008)	411568	8.72924	1350
72 Di-n-butylphthalate		149	7.698	7.692	(1.057)	448225	8.22019	1270(a)
76 Fluoranthene		202	8.345	8.333	(1.146)	578884	12.1969	1880
85 Butylbenzylphthalate		149	9.098	9.086	(0.938)	171848	8.45152	1300(a)
89 Benzo(a)anthracene		228	9.692	9.680	(0.999)	326779	9.07801	1400
90 3,3'-Dichlorobenzidine		252	9.639	9.628	(0.993)	76142	7.32224	1130(a)
92 Chrysene		228	9.728	9.722	(1.002)	335631	9.76154	1500
93 bis(2-Ethylhexyl)phthalate		149	9.622	9.616	(0.992)	233248	8.58202	1320(a)
94 Di-n-octylphthalate		149	10.292	10.280	(0.901)	331011	9.72493	1500(a)
95 Benzo(b)fluoranthene		252	10.886	10.874	(0.953)	248645	10.2822	1580
96 Benzo(k)fluoranthene		252	10.916	10.910	(0.956)	213017	9.18173	1420
97 Benzo(a)pyrene		252	11.333	11.322	(0.992)	187147	9.13789	1410
99 Indeno(1,2,3-cd)pyrene		276	13.222	13.210	(1.158)	131319	6.98762	1080
100 Dibenzo(a,h)anthracene		278	13.245	13.227	(1.160)	105835	6.99198	1080
101 Benzo(ghi)perylene		276	13.780	13.763	(1.206)	105520	6.57580	1010
1 N-Methyl-N-nitrosomethylamine		74	2.463	2.446	(0.621)	48130	5.05232	779(a)

#### QC Flag Legend

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

Data File: /chem/MSD6.i/s031810.b/s6c1824.d  
 Date: 18-MAR-2010 17:03  
 Client ID: RE46-10-13534HSD  
 Sample Info: 11202061171196097141SWH111HSD  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: MSD6.i  
 Operator: nagl  
 Column diameter: 0.20



# LC/MS/MS EXPLOSIVES ANALYSIS

**LC/MS/MS Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2140**

**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:** 959338

**Prep Batch Number:** 959337

**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>
248249001	RE36-10-8285
248249002	RE36-10-8286
248249003	RE36-10-8283
248249004	RE36-10-8284
1202057500	Method Blank (MB)
1202057501	Laboratory Control Sample (LCS)
1202057502	248249001(RE36-10-8285) Matrix Spike (MS)
1202057503	248249001(RE36-10-8285) Matrix Spike Duplicate (MSD)

**Preparation/Analytical Method Verification**

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

**Primary Analyte Analysis**

**Calibration Information**

**Initial Calibration**

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

**Calibration Verification Standard Requirements**

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

**Calibration Blank Requirements**

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

10-2140-EXPLCMS

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**CRI Requirements**

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

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

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

**Surrogate Recoveries**

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

**Laboratory Control Sample (LCS) Recovery**

The LCS recovered Tetra at 20.2%. The recovery limits are 51-112%. Since the spike recovery falls within the DOD QSM limits of 10-150%, and the samples are greater than two times out of hold, the data are reported. Please see data exception report 818320.

**QC Sample Designation**

Sample 248249001 (RE36-10-8285) was chosen for matrix spike and matrix spike duplicate analysis.

**Matrix Spike (MS) Recovery Statement**

The MS recovered Tetra at 19.2%. The recovery limits are 36-124%. Since the spike recovery falls within the DOD QSM limits of 10-150%, and the samples are greater than two times out of hold, the data are reported. Please see data exception report 818320.

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

The MSD recovered Tetra at 18.3%. The recovery limits are 36-124%. Since the spike recovery falls within the DOD QSM limits of 10-150%, and the samples are greater than two times out of hold, the data are reported. Please see data exception report 818320.

**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**

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

**Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

**Sample Dilutions**

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



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

Samples 248249001 (RE36-10-8285) and 248249004 (RE36-10-8284) failed ISTD acceptance criteria. The samples were re-analyzed and passed acceptance criteria. The re-analysis data are 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 248249001 (RE36-10-8285) was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

**Matrix Spike (MS) Recovery Statement**

The MS spike recoveries were within the established acceptance limits.

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

The MSD spike recoveries were within the established acceptance limits.

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

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

**Internal Standard (ISTD) Acceptance**

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

### **Technical Information**

#### **Holding Time Specifications**

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

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

All procedures were performed as stated in the SOP.

#### **Sample Dilutions**

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

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

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

### **Miscellaneous Information**

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

Data exception report 818320 was generated for this SDG.

The LCS recovered Tetryl at 20.2%. The recovery limits are 51-112%. Since the spike recovery falls within the DOD QSM limits of 10-150%, and the samples are greater than two times out of hold, the data are reported.

The MS recovered Tetryl at 19.2%. The MSD recovered Tetryl at 18.3%. The recovery limits are 36-124%. Since the spike recovery falls within the DOD QSM limits of 10-150%, and the samples are greater than two times out of hold, the data are reported.

#### **Manual Integrations**

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

#### **Flagging Convention**

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

#### **Additional Comments**

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

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

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

### System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

### Chromatographic Columns

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

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

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

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

### Certification Statement

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

### Review Validation:

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

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

Reviewer: Hebert M. Mauer Date: 04/19/10

# SAMPLE DATA SUMMARY

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8285

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249001

Sample Amount 2

Moisture: 27.9

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412197a

Date Analyzed: 16-APR-10 16:03

Units: ug/kg

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

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8285

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249001

Sample Amount 2

Moisture: 27.9

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050100.wiff

Date Analyzed: 06-APR-10 14:41

Units: ug/kg

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

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8286

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249002

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412160a

Date Analyzed: 15-APR-10 21:51

Units: ug/kg

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

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8286

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249002

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050103.wiff

Date Analyzed: 06-APR-10 15:28

Units: ug/kg

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

\*Concentration =

Instrument	X	Concentrated Extract Volume	X	Dilution
Value		Sample Amount		Factor



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8283

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249003

Sample Amount 2

Moisture: 6.3

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412161a

Date Analyzed: 15-APR-10 22:21

Units: ug/kg

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

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8283

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249003

Sample Amount 2

Moisture: 6.3

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050104.wiff

Date Analyzed: 06-APR-10 15:43

Units: ug/kg

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

\*Concentration =

Instrument Value	X	$\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$	X	Dilution Factor
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1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8284

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249004

Sample Amount 2

Moisture: 5.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412198a

Date Analyzed: 16-APR-10 16:33

Units: ug/kg

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

\*Concentration =

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8284

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249004

Sample Amount 2

Moisture: 5.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050105.wiff

Date Analyzed: 06-APR-10 15:59

Units: ug/kg

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

\*Concentration =

Instrument	X	Concentrated Extract Volume	X	Dilution
Value		Sample Amoun		Factor

# QUALITY CONTROL SUMMARY

## High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLCGEL Job No (SDG): 10-2140Lab Code: GELHPLC Column: Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
248249001	RE36-10-8285	113	70 - 144	
248249001	RE36-10-8285	112	70 - 144	
248249002	RE36-10-8286	107	70 - 144	
248249002	RE36-10-8286	115	70 - 144	
248249003	RE36-10-8283	105	70 - 144	
248249003	RE36-10-8283	112	70 - 144	
248249004	RE36-10-8284	102	70 - 144	
248249004	RE36-10-8284	110	70 - 144	
1202057500	MB for batch 959337	94.1	70 - 144	
1202057500	MB for batch 959337	98.4	70 - 144	
1202057501	LCS for batch 959337	110	70 - 144	
1202057501	LCS for batch 959337	106	70 - 144	
1202057502	RE36-10-8285(248249001MS)	100	70 - 144	
1202057502	RE36-10-8285(248249001MS)	112	70 - 144	
1202057503	RE36-10-8285(248249001MSD)	101	70 - 144	
1202057503	RE36-10-8285(248249001MSD)	106	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)** 10-2140

**Extract Batch Code:** 959337

**Date Extracted:** 08-MAR-10

**GEL LCS ID:** 1202057501

**GEL LCSDUP ID:**

**Analysis Date/Time:** 15-APR-10 14:29

**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
PETN	5000	5260	105					64 – 137
RDX	5000	5360	107					81 – 137
2,4,6-Trinitrotoluene	5000	5320	106					73 – 149
2,6-Dinitrotoluene	5000	4680	93.7					89 – 120
Nitrobenzene	5000	4620	92.4					71 – 122
HMX	5000	4730	94.6					58 – 138
4-Amino-2,6-dinitrotoluene	5000	5120	102					84 – 130
2-Amino-4,6-dinitrotoluene	5000	5520	110					90 – 130
2,4-Dinitrotoluene	5000	4990	99.8					87 – 137
1,3,5-Trinitrobenzene	5000	3640	72.8					69 – 126
Tetryl	5000	1010	20.2 *					51 – 112
m-Dinitrobenzene	5000	4560	91.2					83 – 122
m-Nitrotoluene	5000	4030	80.7					73 – 118
o-Nitrotoluene	5000	3920	78.4					72 – 119
p-Nitrotoluene	5000	4320	86.5					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)** 10-2140

**Extract Batch Code:** 959337

**Date Extracted:** 08-MAR-10

**GEL LCS ID:** 1202057501

**GEL LCSDUP ID:**

**Analysis Date/Time:** 06-APR-10 11:32

**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	5260	105					52 - 114
2,6-Diamino-4-nitrotoluene	5000	4900	98					64 - 122
3,5-Dinitroaniline	5000	5460	109					70 - 127
tris(o-cresyl) phosphate	5000	4850	97					84 - 119
TATB	5000	6540	131					28 - 162

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

\* Values outside of QC limits



3  
High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE36-10-8285

Lab Code: GEL

GEL Job No (SDG) 10-2140

Extract Batch Code: 959337

Date Extracted: 08-MAR-10

GEL Spike ID: 1202057502

GEL SpikeDup ID: 1202057503

Analysis Date/Time: 15-APR-10 20:52

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	4680	93.5	4980	99.6	6.34	30	50 – 140
2,4,6-Trinitrotoluene	5000	0	4480	89.6	4620	92.3	2.94	30	76 – 144
2,4-Dinitrotoluene	5000	0	5310	106	5330	107	.413	30	86 – 135
2,6-Dinitrotoluene	5000	0	4670	93.4	4700	93.9	.513	30	90 – 118
2-Amino-4,6-dinitrotoluene	5000	0	4870	97.4	5700	114	15.6	30	85 – 137
4-Amino-2,6-dinitrotoluene	5000	0	4650	92.9	4680	93.6	.715	30	72 – 143
HMX	5000	0	4790	95.7	4500	90	6.18	30	51 – 144
Nitrobenzene	5000	0	4140	82.8	3930	78.7	5.05	30	70 – 122
PETN	5000	0	5090	102	5280	106	3.69	30	60 – 140
RDX	5000	0	5670	113	5410	108	4.63	30	59 – 152
Tetryl	5000	0	961	19.2 *	913	18.3 *	5.12	30	36 – 124
m-Dinitrobenzene	5000	0	4700	94.1	4540	90.8	3.49	30	85 – 118
m-Nitrotoluene	5000	0	3650	73.1	3590	71.7	1.86	30	70 – 120
o-Nitrotoluene	5000	0	3600	71.9	3710	74.2	3.14	30	69 – 123
p-Nitrotoluene	5000	0	3930	78.5	3880	77.6	1.2	30	65 – 133

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

## High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLCClient ID: RE36-10-8285Lab Code: GELGEL Job No (SDG) 10-2140Extract Batch Code: 959337Date Extracted: 08-MAR-10GEL Spike ID: 1202057502GEL SpikeDup ID: 1202057503Analysis Date/Time: 06-APR-10 14:56

MSD Analysis Date/Time:

Reporting Units: ug/kgQC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
TATB	5000	0	5560	111	7170	143	25.3	30	29 - 155
tris(o-cresyl) phosphate	5000	0	5090	102	5070	101	.394	30	72 - 127
2,4-Diamino-6-nitrotoluene	5000	0	3510	70.2	3280	65.6	6.78	26	34 - 135
3,5-Dinitroaniline	5000	0	6390	128	5820	116	9.34	30	73 - 129
2,6-Diamino-4-nitrotoluene	5000	0	5190	104	5130	103	1.16	30	55 - 130

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

4  
**Explosives Initial Calibration Blank**

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-2140

**Lab Code:** GEL

**Lab Sample ID:** XIBLK01

**Analysis Date:** 12-APR-10 15:40

**GEL Data File:** EXP0412001a

**Instrument ID:** LCMSMS

**Column:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	440.355
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	475.584
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

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Calibration: Untitled, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412001a

Date: 12-Apr-2010

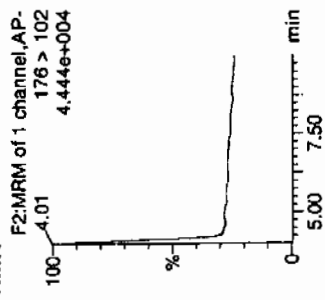
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ID: XIBLK01

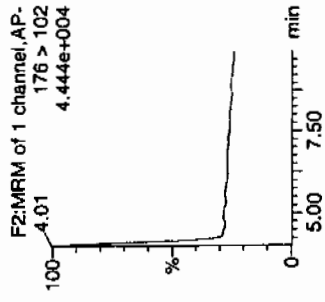
Vial: 1:1,A

MM  
4/13/10

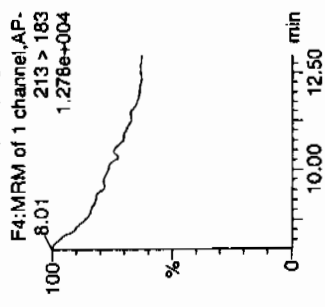
## HMX



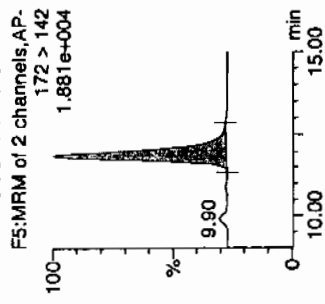
## RDX



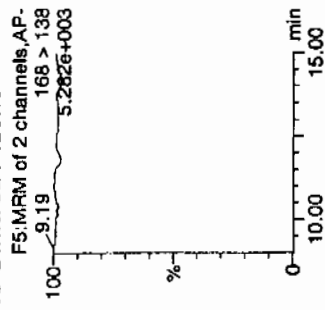
## 135-Trinitrobenzene



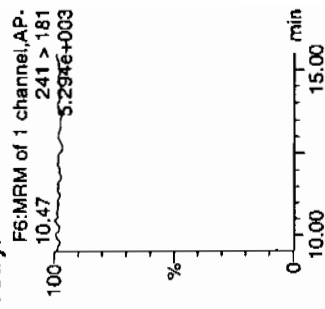
## 13-Dinitrobenzene-d4



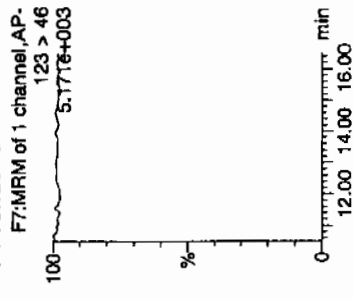
## 13-Dinitrobenzene



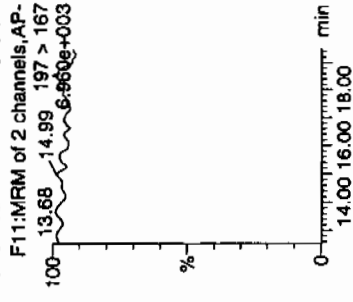
## Tetryl



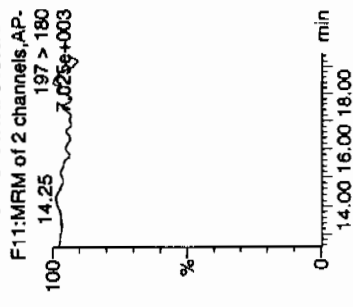
## Nitrobenzene



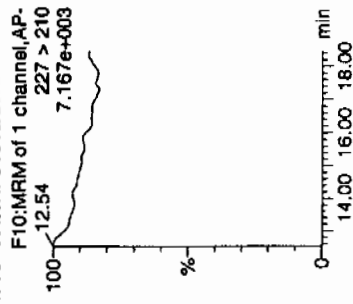
## 4-Amino-26-dinitrotoluene



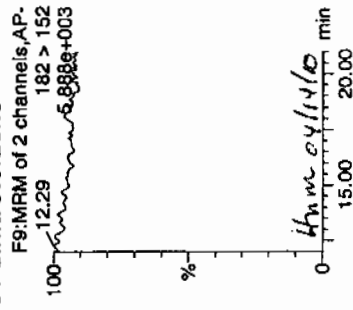
## 2-Amino-46-dinitrotoluene



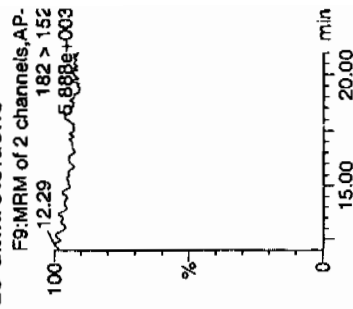
## 246-Trinitrotoluene



## 34-dinitrotoluene

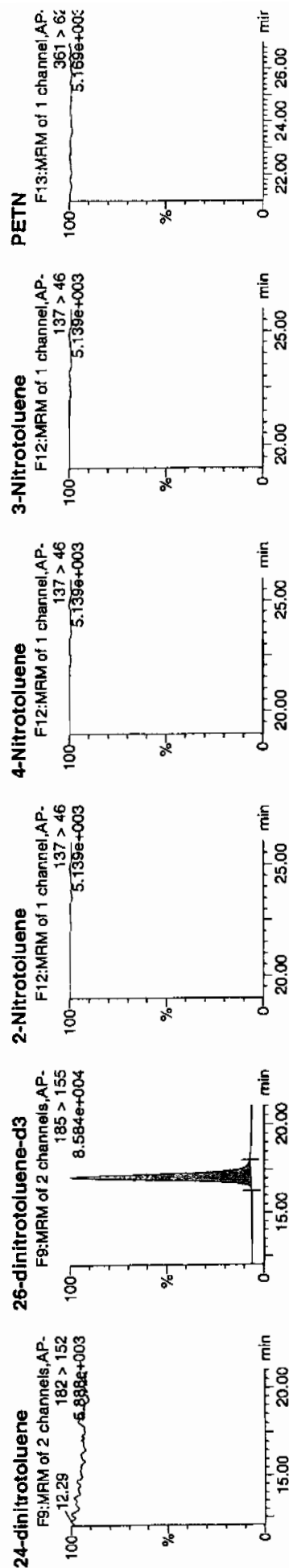


## 26-dinitrotoluene



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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010



Sample	Name	Time	Area	Height	Width	Integration
XIBLK01	HMX	176 > 102	5178.896			
XIBLK01	RDX	176 > 102	5178.896			
XIBLK01	135-Trinitrobenzene	213 > 183	5178.896			
XIBLK01	13-Dinitrobenzene-d4	172 > 142	11.87	5178.896		
XIBLK01	13-Dinitrobenzene	168 > 138	5178.896			
XIBLK01	Tetryl	241 > 181	5178.896			
XIBLK01	Nitrobenzene	123 > 46	5178.896			
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167	33274.848			
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180	33274.848			
XIBLK01	246-Trinitrotoluene	227 > 210	33274.848			
XIBLK01	34-dinitrotoluene	182 > 152	33274.848			
XIBLK01	26-dinitrotoluene	182 > 152	33274.848			
XIBLK01	24-dinitrotoluene	182 > 152	33274.848			
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.06	33274.848		
XIBLK01	2-Nitrotoluene	137 > 46	33274.848			
XIBLK01	4-Nitrotoluene	137 > 46	33274.848			
XIBLK01	3-Nitrotoluene	137 > 46	33274.848			
XIBLK01	PETN	361 > 62	33274.848			

## Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2140

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 12-APR-10 16:10

GEL Data File: EXP0412002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	473.054
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	498.176
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP0412002a

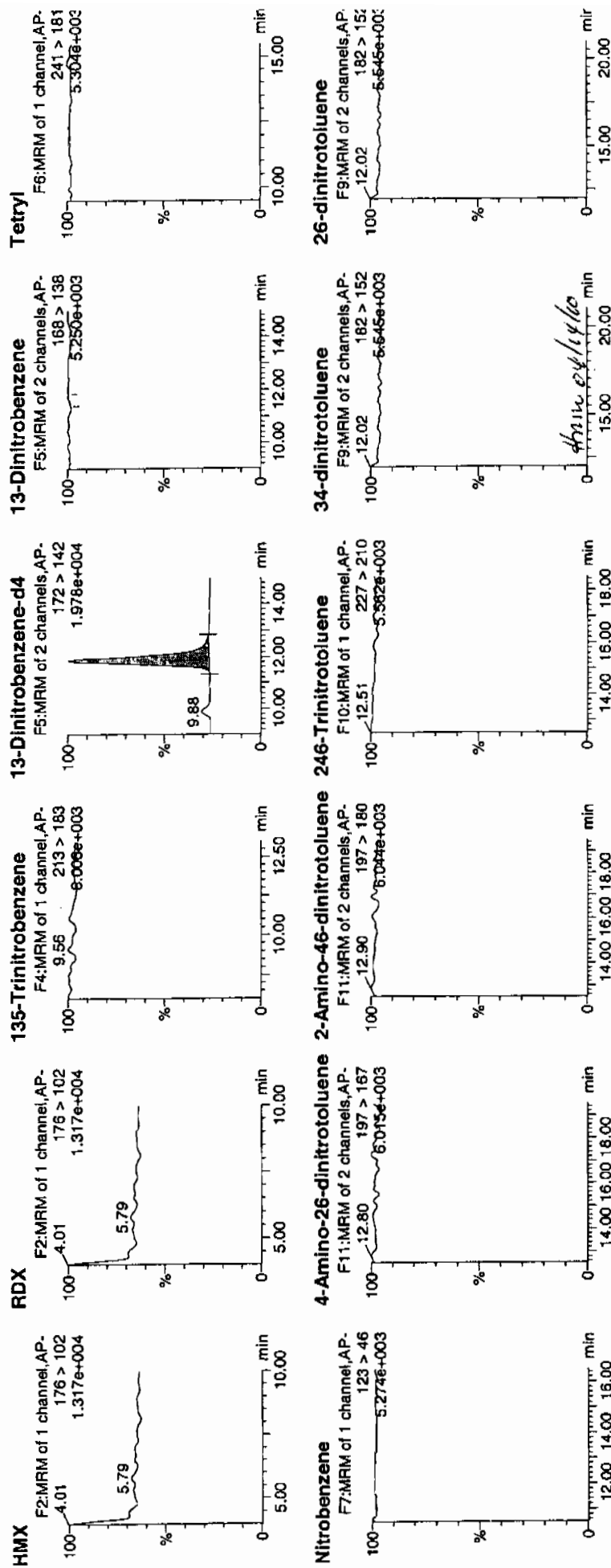
Date: 12-Apr-2010

Time: 16:10:12

ID: XIBLK01

Vial: 1:1,A

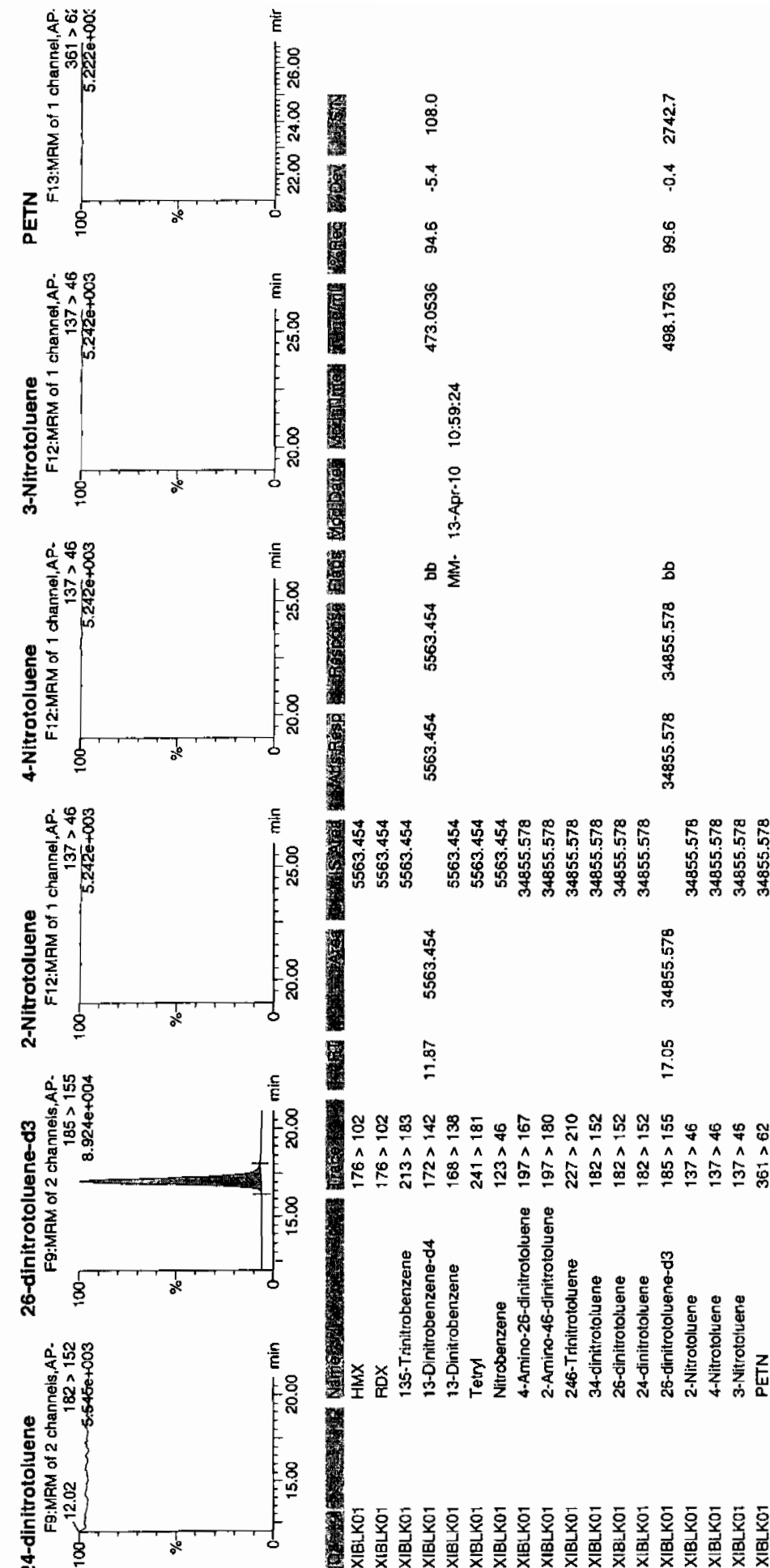
MS  
4/13/10



## Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010





## Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2140Lab Code: GELLab Sample ID: XIBLK02Analysis Date: 12-APR-10 19:36GEL Data File: EXP0412009aInstrument ID: LCMSMSColumn: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	566.025
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	597.817
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

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

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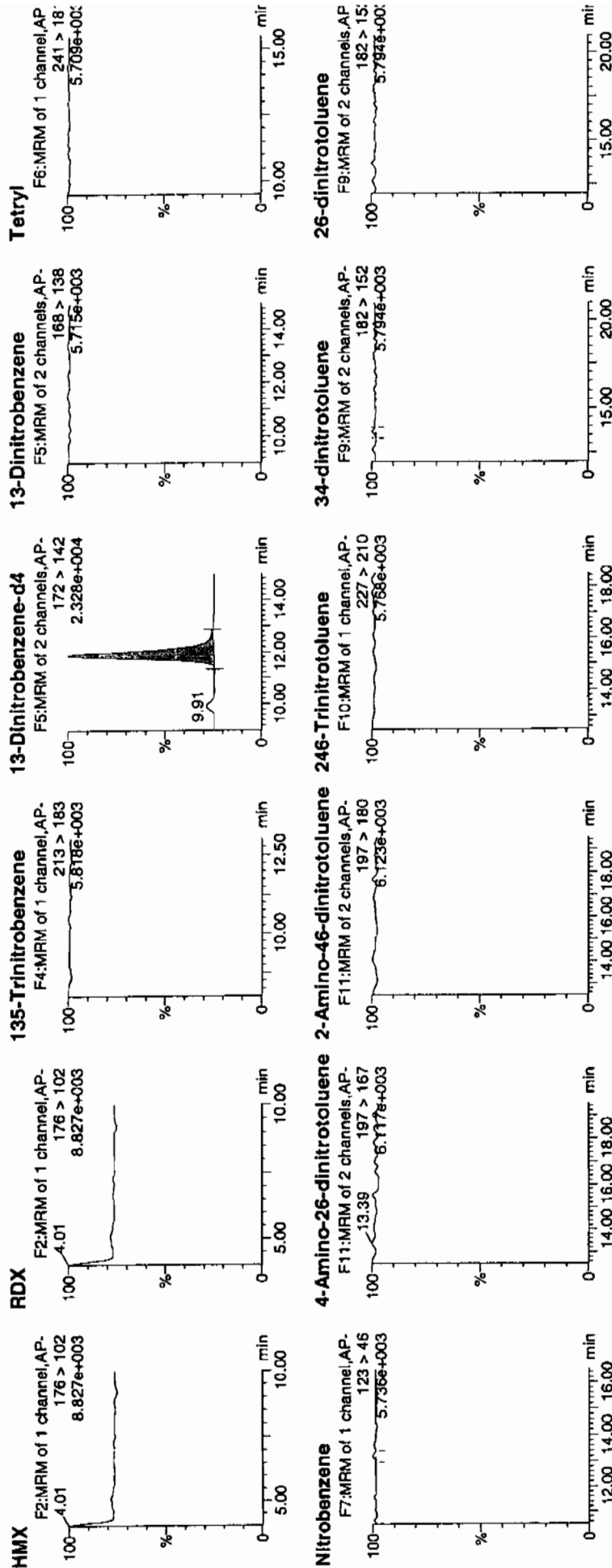
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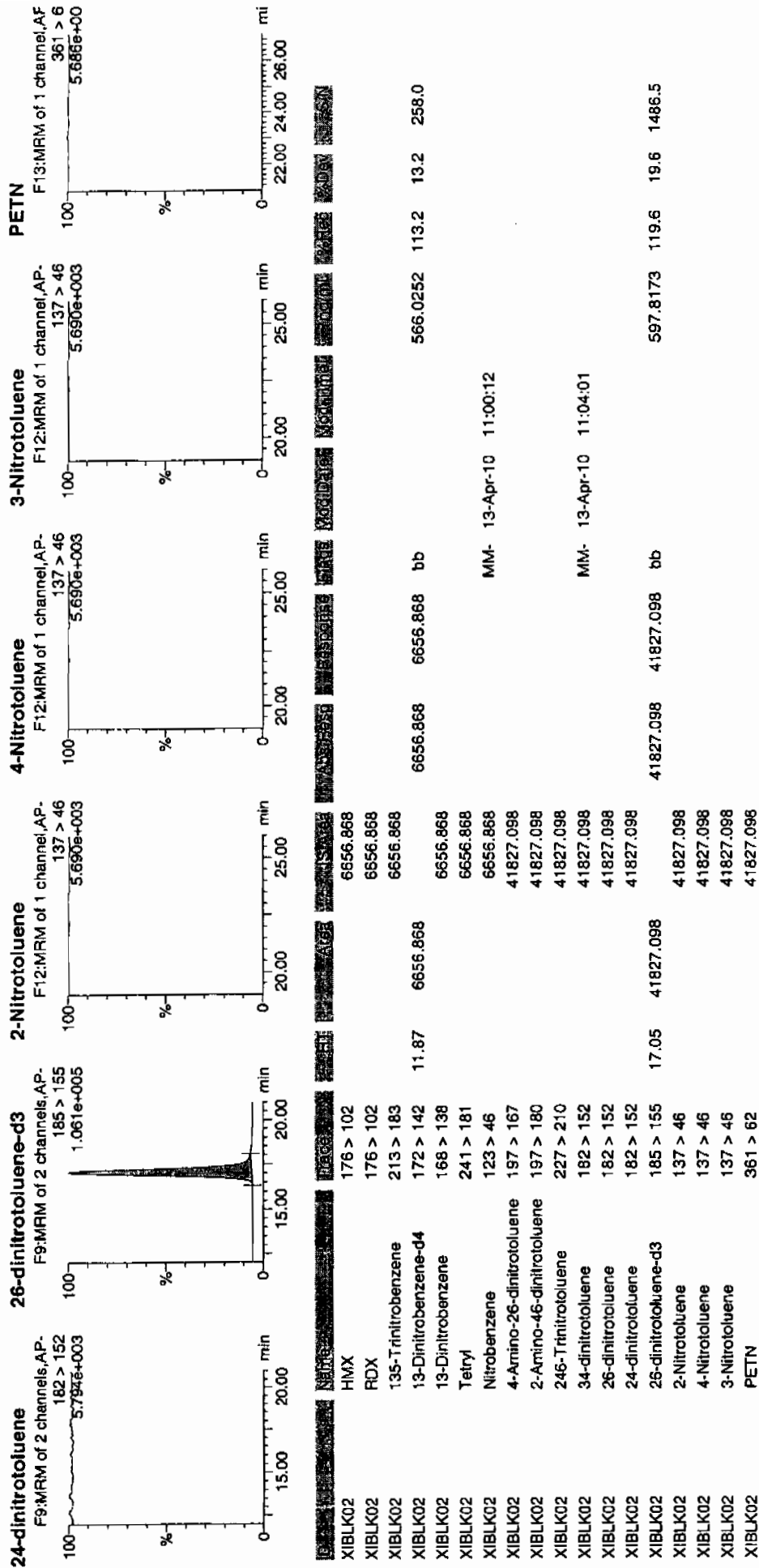
WRT  
4/13/10



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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010



**Explosives Continuing Calibration Blank**

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2140

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 12-APR-10 20:35

GEL Data File: EXP0412011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	547.706
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	578.822
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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

O Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

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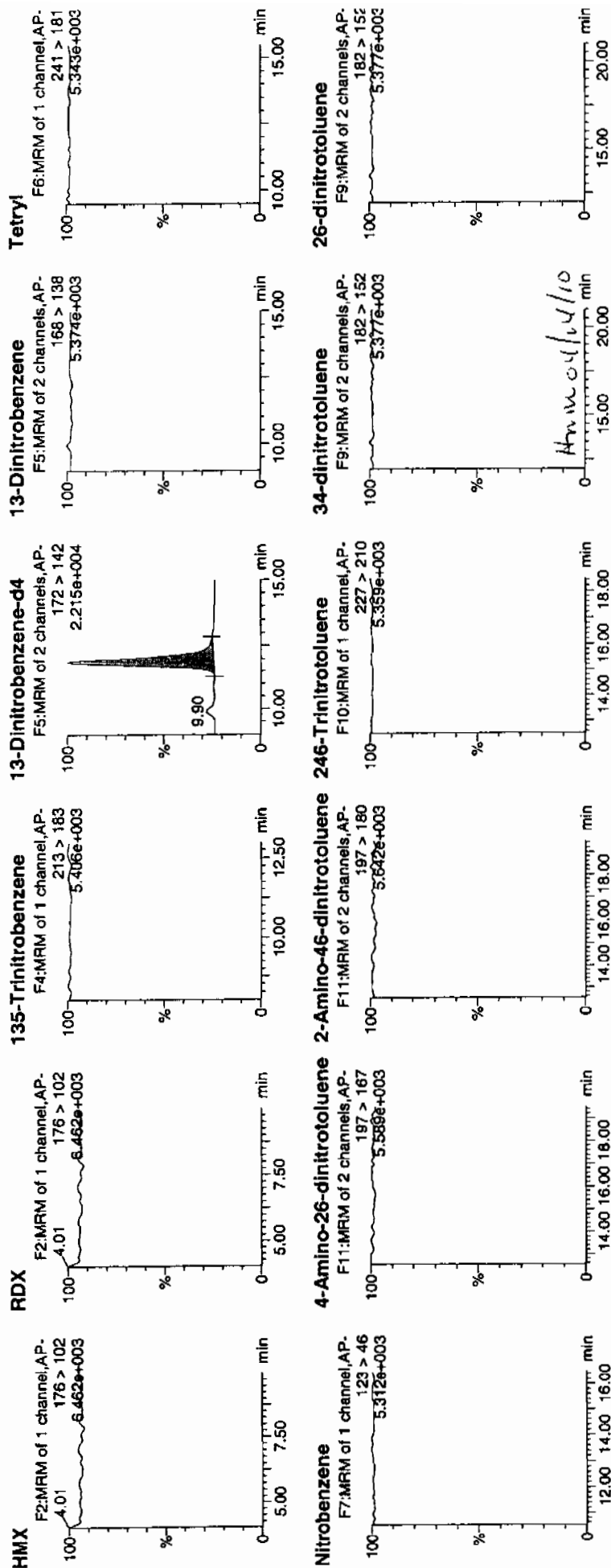
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3 Time: 20:35:28

4 ID: XIBLK03

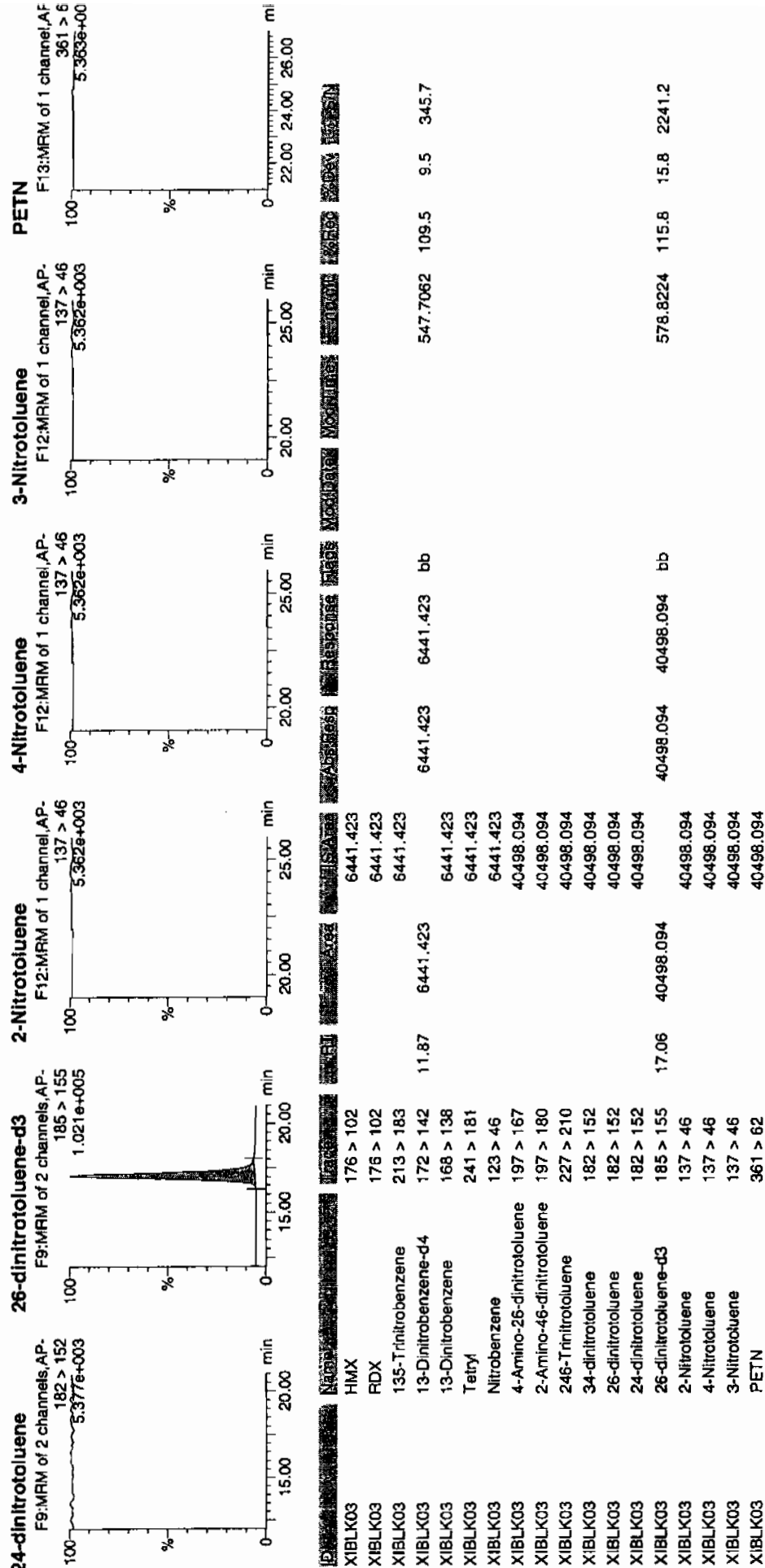
5 Vial: 1:1,A

10/17  
4/13/10



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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010



## Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2140Lab Code: GELLab Sample ID: XIBLK04Analysis Date: 13-APR-10 02:58GEL Data File: EXP0412024aInstrument ID: LCMSMSColumn: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	493.141
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	499.061
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

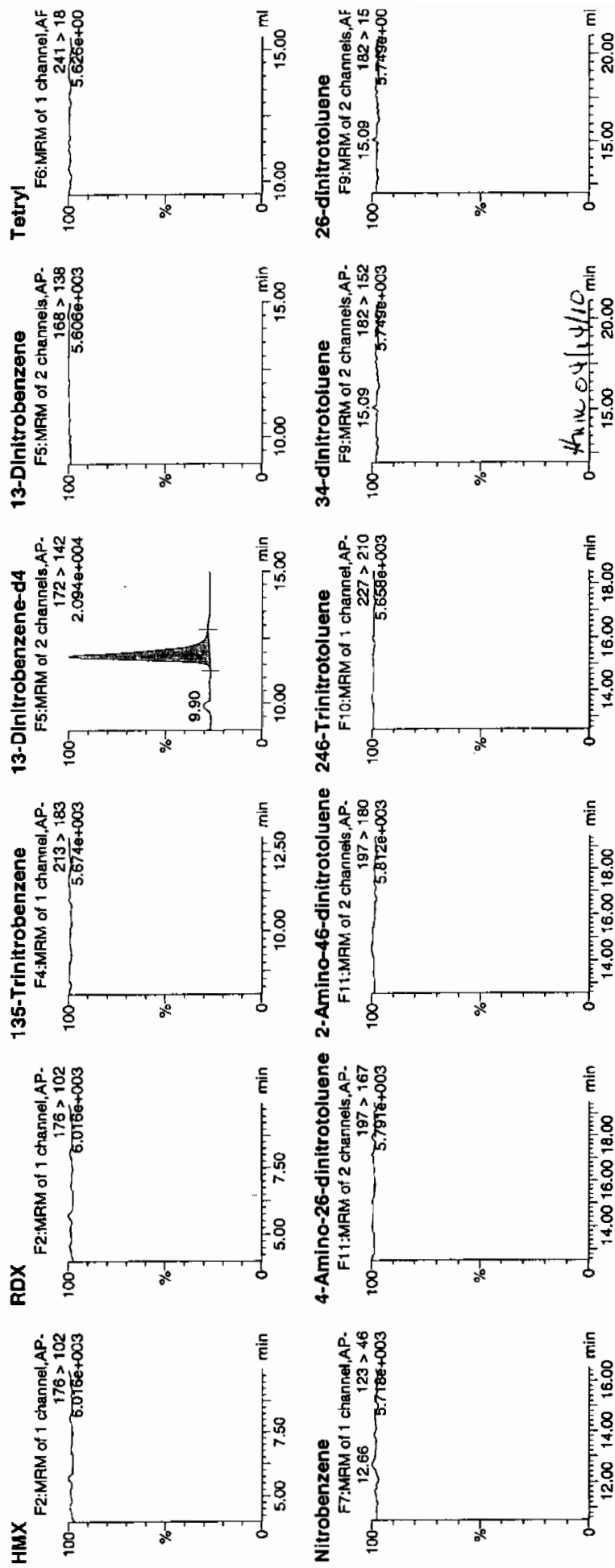
Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412024a

Date: 13-Apr-2010

Time: 02:58:51

ID: XIBLK04

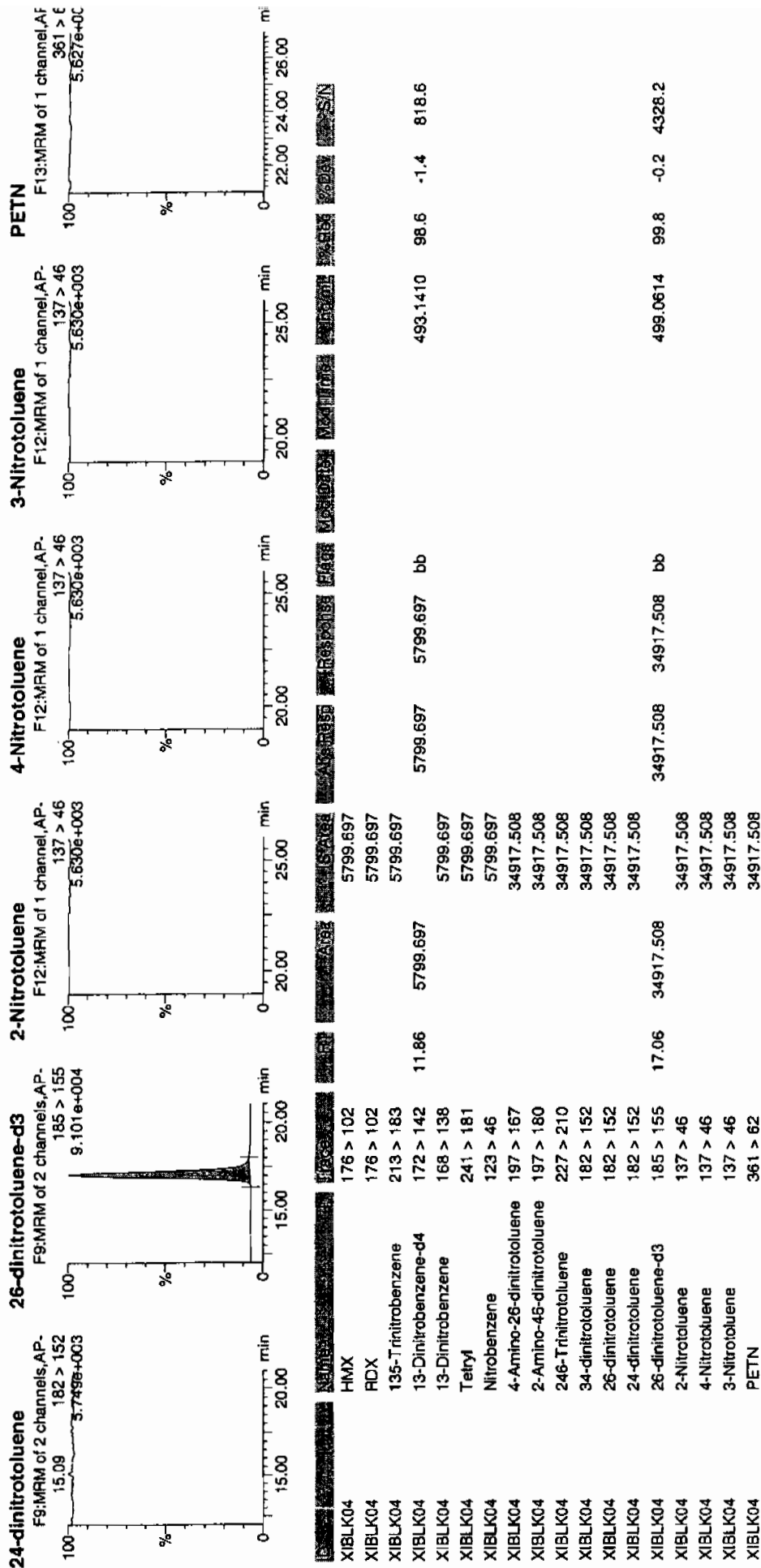
Vial: 1:1,A

4/13/10  
MJP



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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010



## Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2140Lab Code: GELLab Sample ID: XIBLK05Analysis Date: 13-APR-10 09:22GEL Data File: EXP0412037aInstrument ID: LCMSMSColumn: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	510.743
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	501.204
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412037a

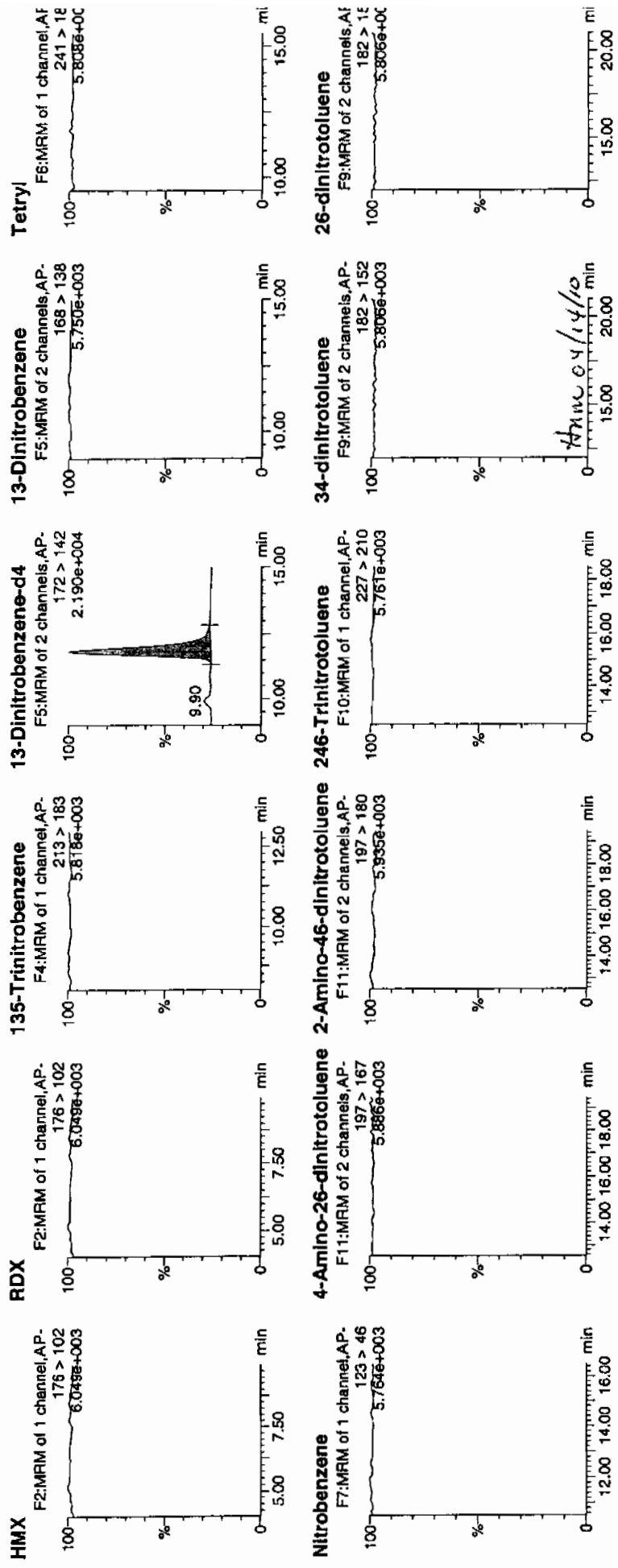
Date: 13-Apr-2010

Time: 09:22:18

ID: XIBLK05

Vial: 1:1,A

177  
11/13/10

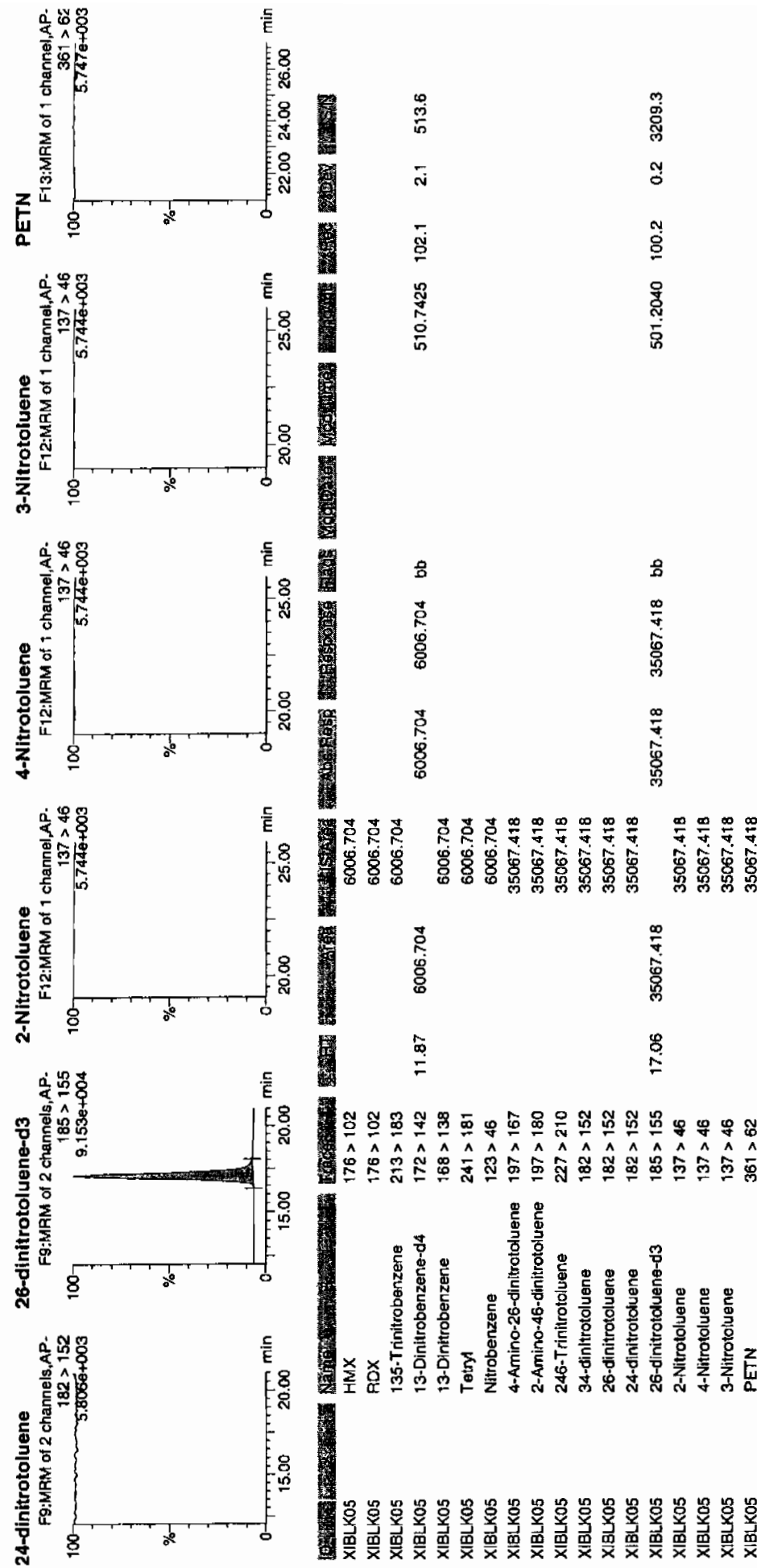


## Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 74 of 77

Dataset: C:\MASSLYNX\New\_Exp\PROV041210expA.qld, Time: Tue Apr 13 11:12:22 2010



\*A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2140

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 13-APR-10 11:20

GEL Data File: EXP0412041a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	648.08
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	519.054
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412041a

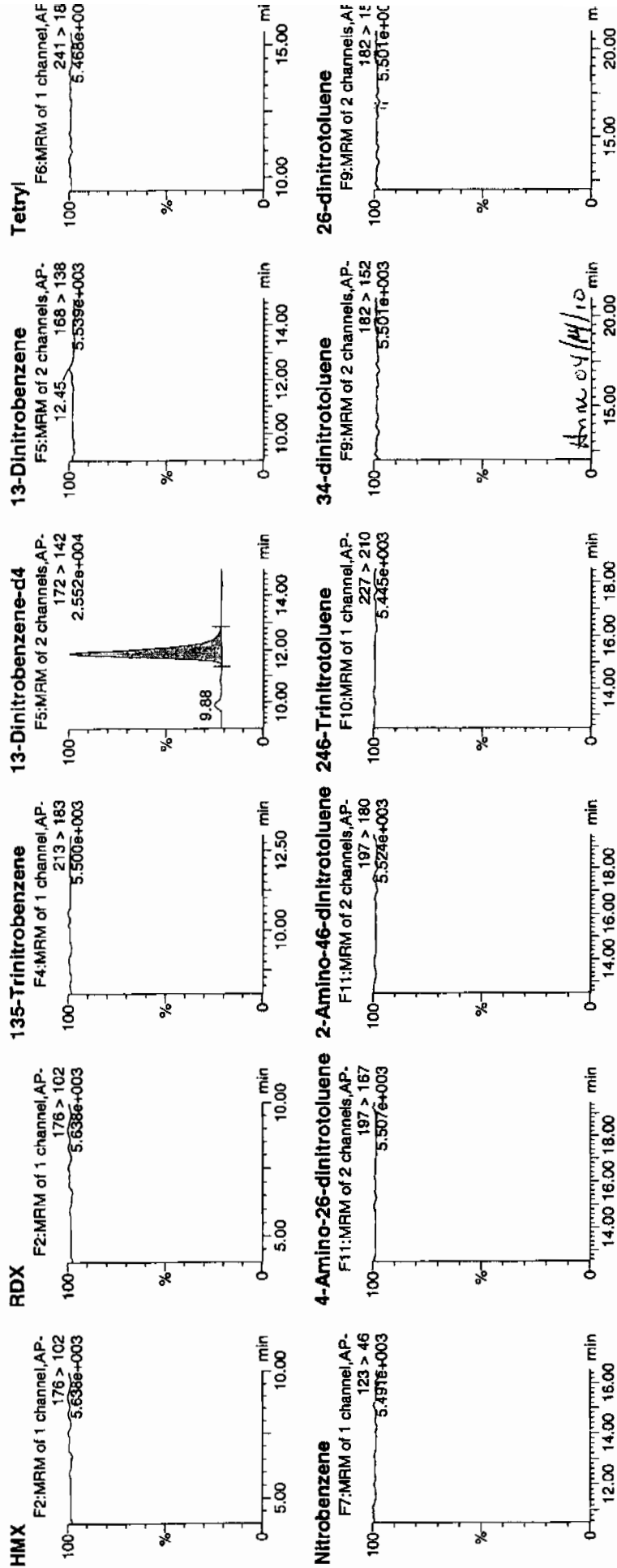
Date: 13-Apr-2010

Time: 11:20:19

ID: XISLK06

Vial: 1:1,A

135-Trinitrobenzene

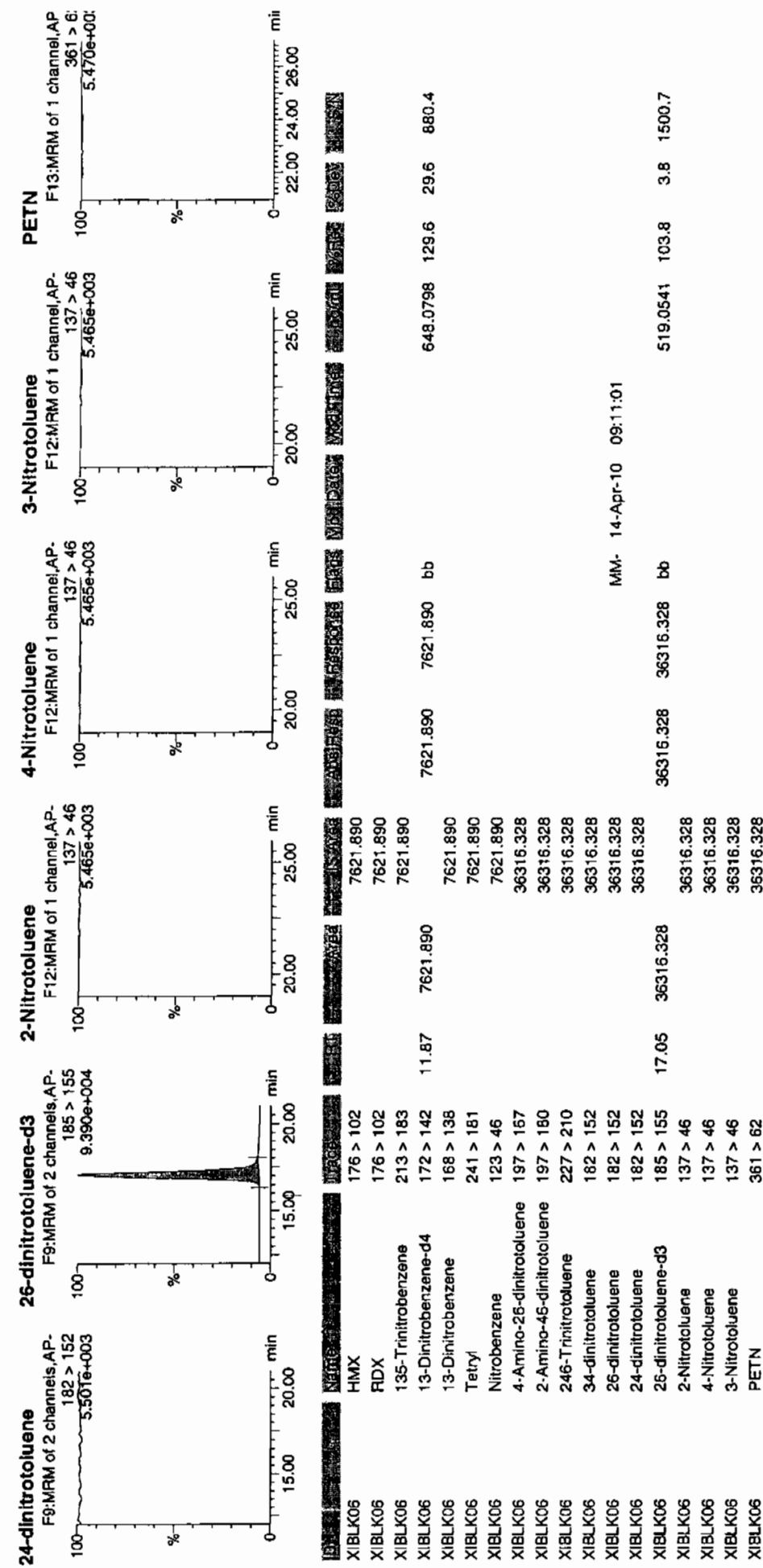


## Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

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Dataset: C:\MASSLYN\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010



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Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2140

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 13-APR-10 15:46

GEL Data File: EXP0412050a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	555.622
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	595.796
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0



## Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Wed Apr 14 09:18:04 2010, Page 23 of 75

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412050a

Date: 13-Apr-2010

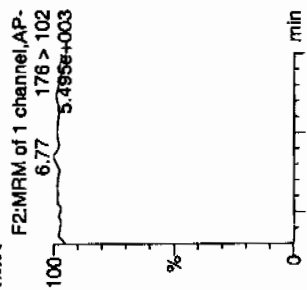
Time: 15:46:11

ID: XIBLK07

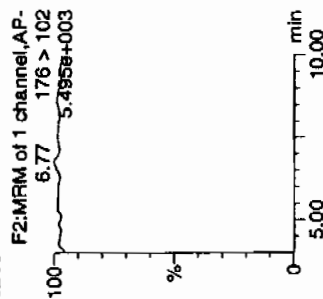
Vial: 1:1,A

MRT  
4/14/10

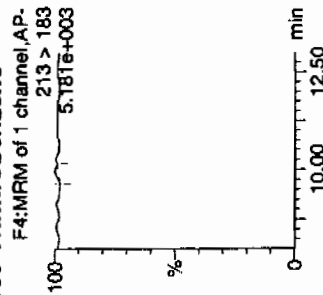
## HMX



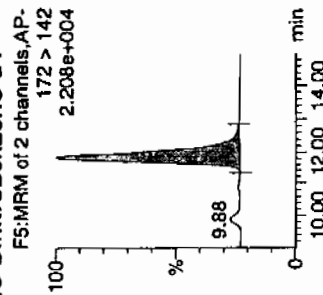
## RDX



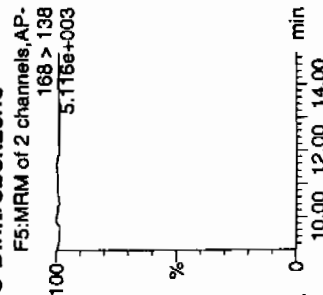
## 135-Trinitrobenzene



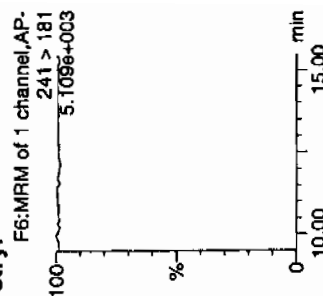
## 13-Dinitrobenzene-d4



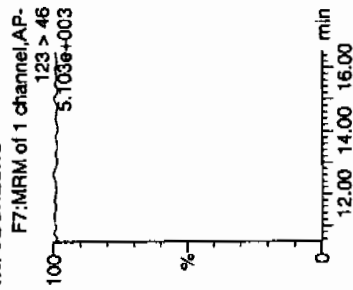
## 13-Dinitrobenzene



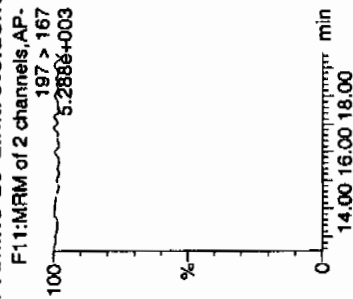
## Tetryl



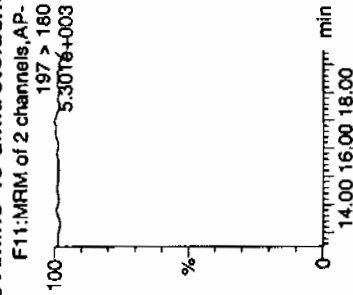
## Nitrobenzene



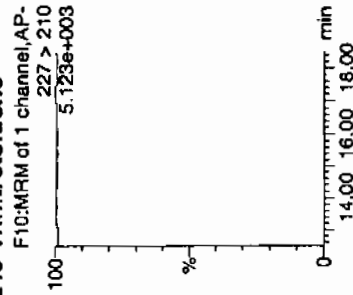
## 4-Amino-26-dinitrotoluene



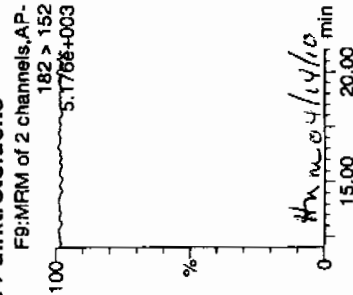
## 2-Amino-46-dinitrotoluene



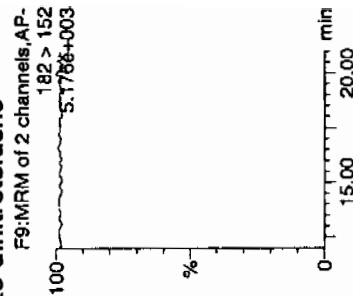
## 246-Trinitrotoluene



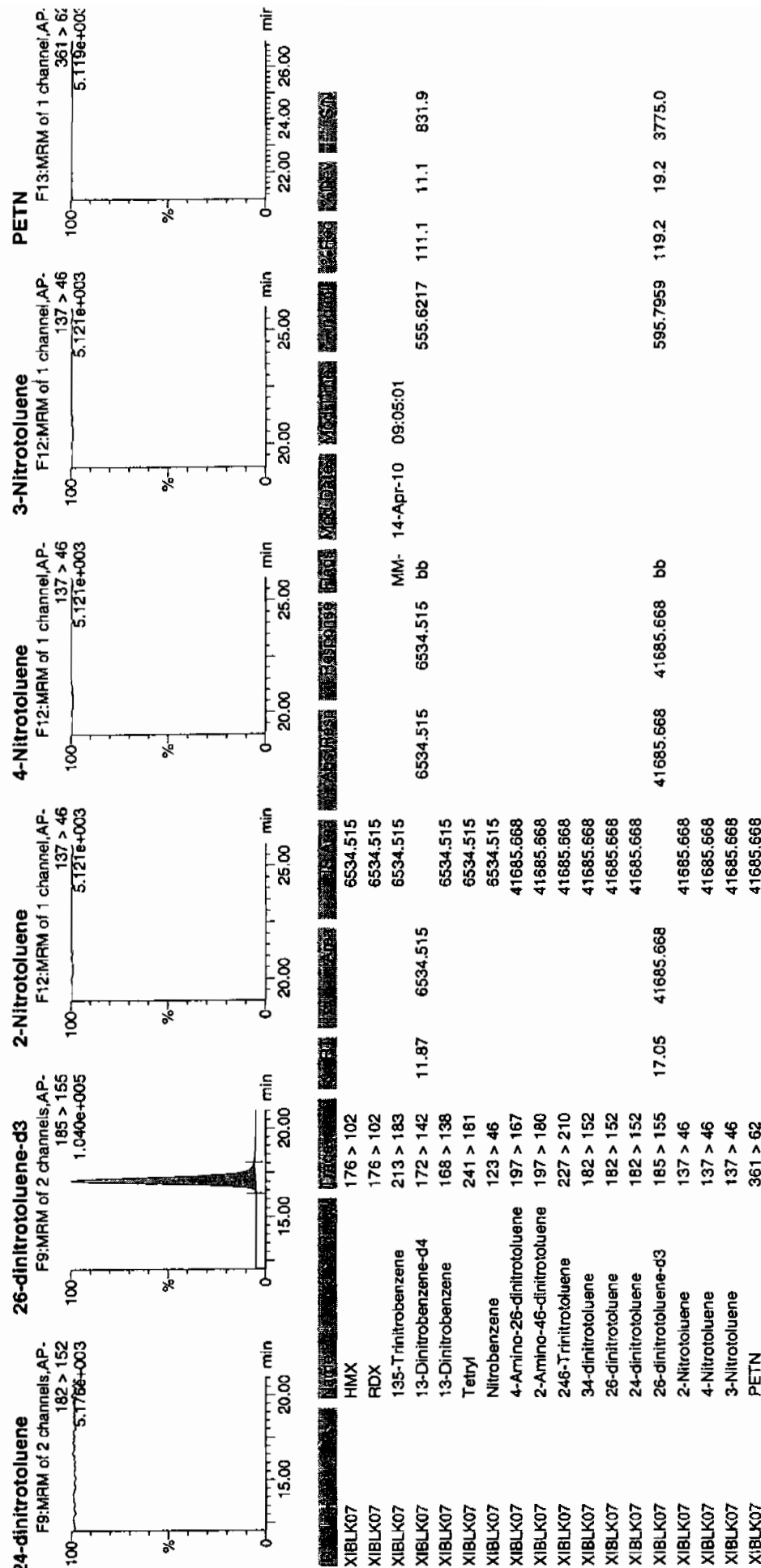
## 34-dinitrotoluene



## 26-dinitrotoluene



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2140

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 13-APR-10 21:10

GEL Data File: EXP0412061a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	531.786
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	563.322
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

## Quantify Sample Report

GL Laboratories, LLC / Analyst: Michael A. Penny

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Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

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Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412061a

Date: 13-Apr-2010

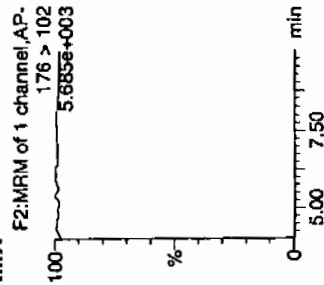
Time: 21:10:49

ID: XIBLK08

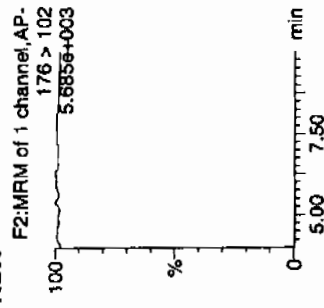
Vial: 1:1.A

1007  
4/14/10

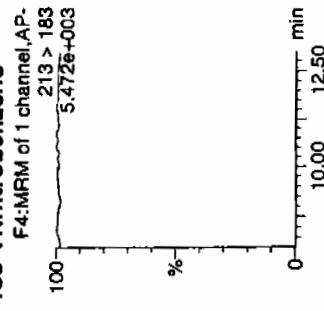
## HMX



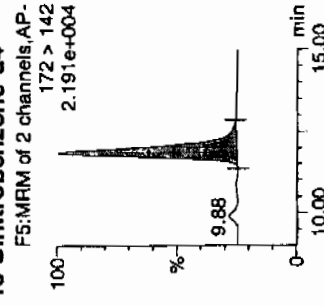
## RDX



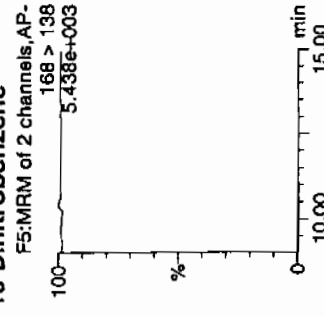
## 135-Trinitrobenzene



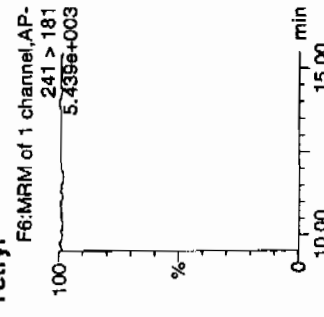
## 13-Dinitrobenzene-d4



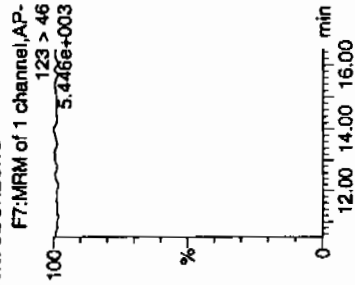
## 13-Dinitrobenzene



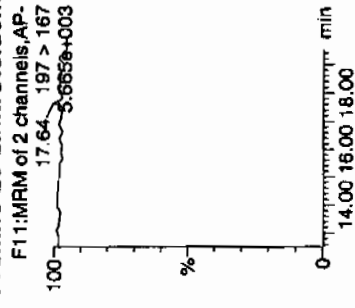
## Tetryl



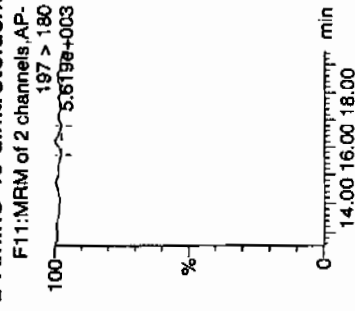
## Nitrobenzene



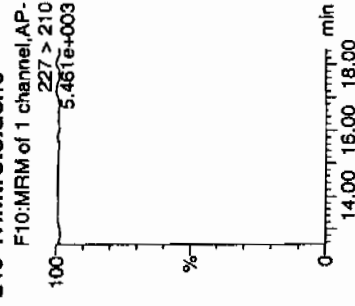
## 4-Amino-26-dinitrotoluene



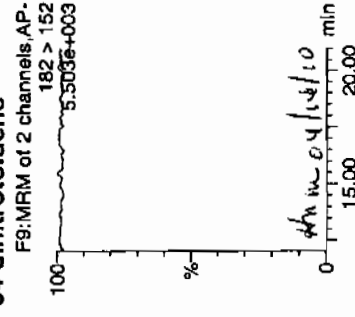
## 2-Amino-46-dinitrotoluene



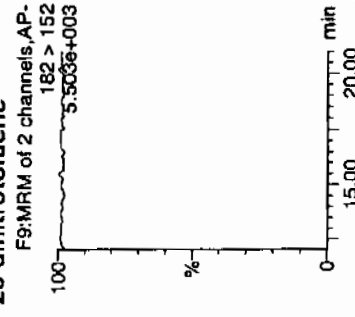
## 246-Trinitrotoluene

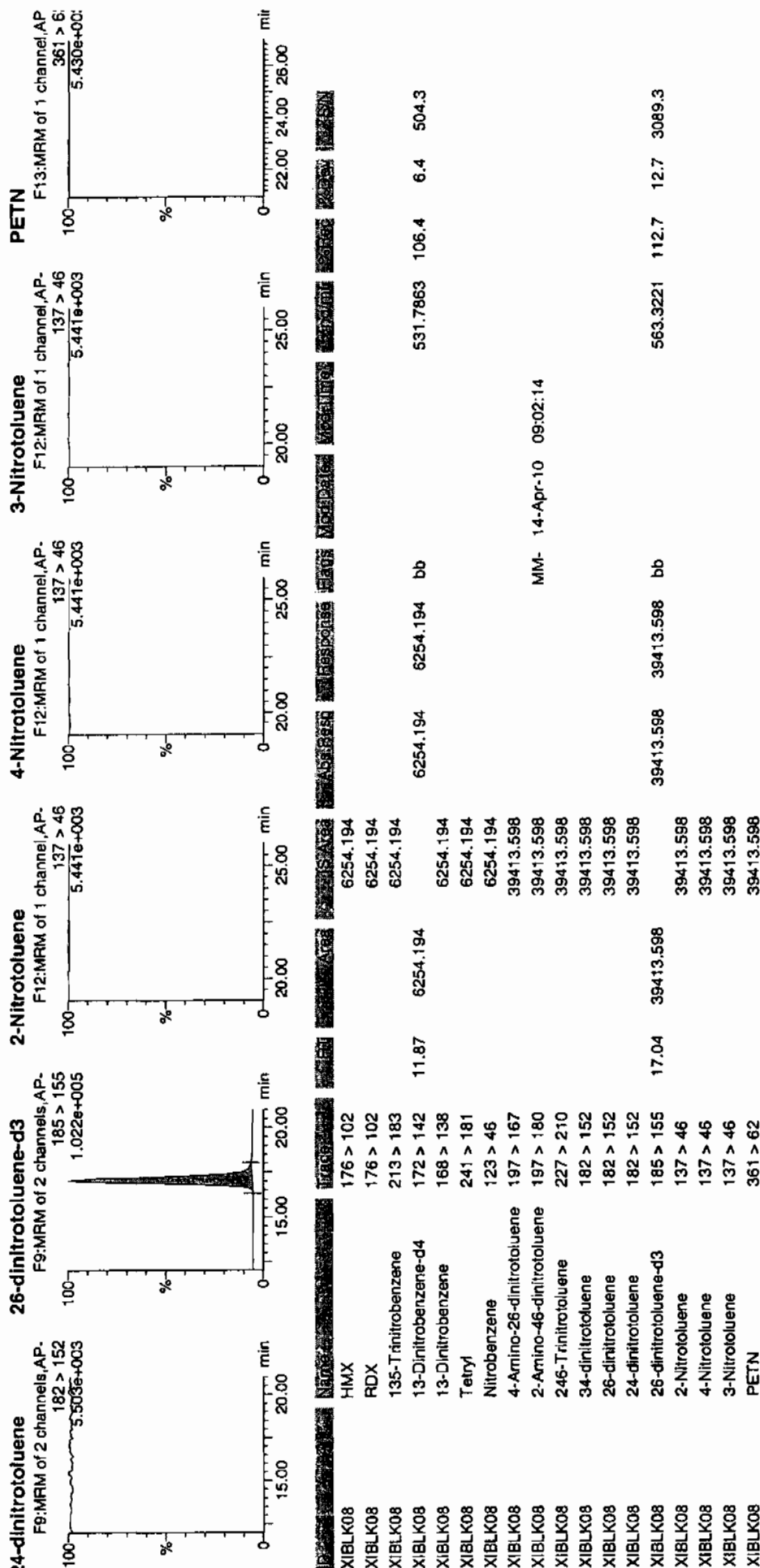


## 34-dinitrotoluene



## 26-dinitrotoluene





**4A**  
**Explosives Continuing Calibration Blank**

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-2140

**Lab Code:** GEL

**Lab Sample ID:** XIBLK09

**Analysis Date:** 14-APR-10 03:34

**GEL Data File:** EXP0412074a

**Instrument ID:** LCMSMS

**Column:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	496.797
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	587.81
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

## Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

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Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

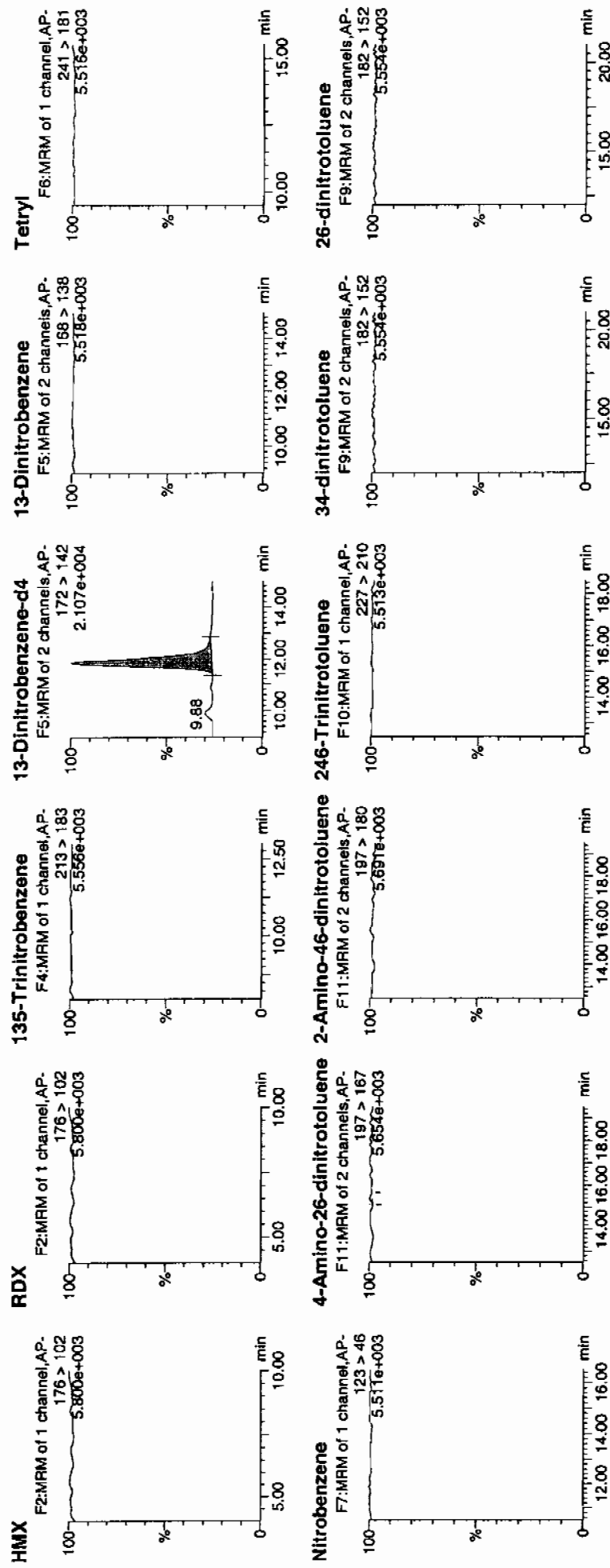
Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412074a

Date: 14-Apr-2010

Time: 03:34:13

ID: XIBLK09

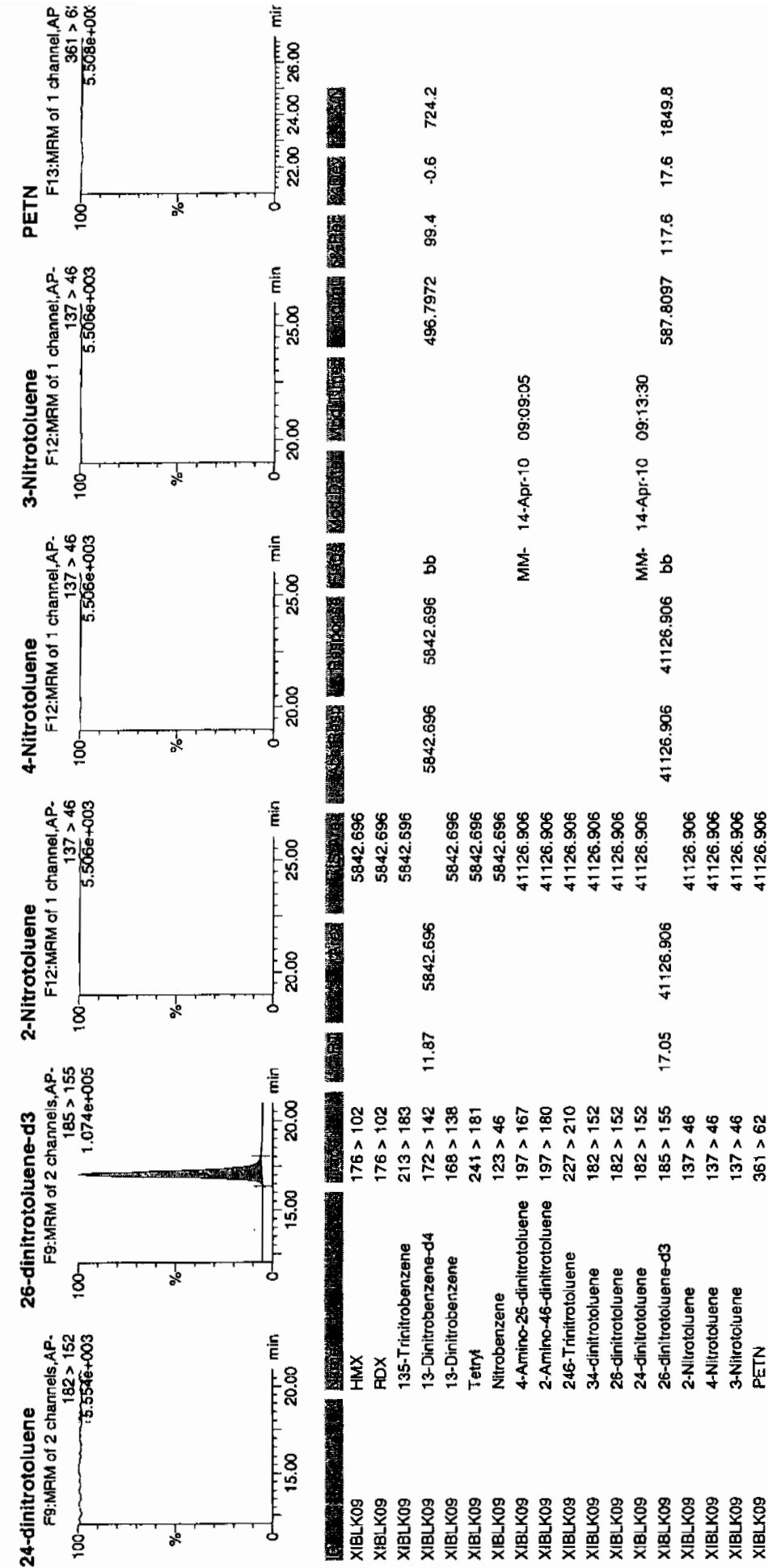
Vial: 1:1,A

WAT  
4/14/10

Hmw 04/14/10

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

Dataset: C:\MASSLYNX\New\_Exp\PRO1041210expA1.qld, Time: Wed Apr 14 09:16:31 2010





## Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2140Lab Code: GELLab Sample ID: XIBLK10Analysis Date: 14-APR-10 07:30GEL Data File: EXP0412082aInstrument ID: LCMSMSColumn: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	517.729
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	520.204
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412082a

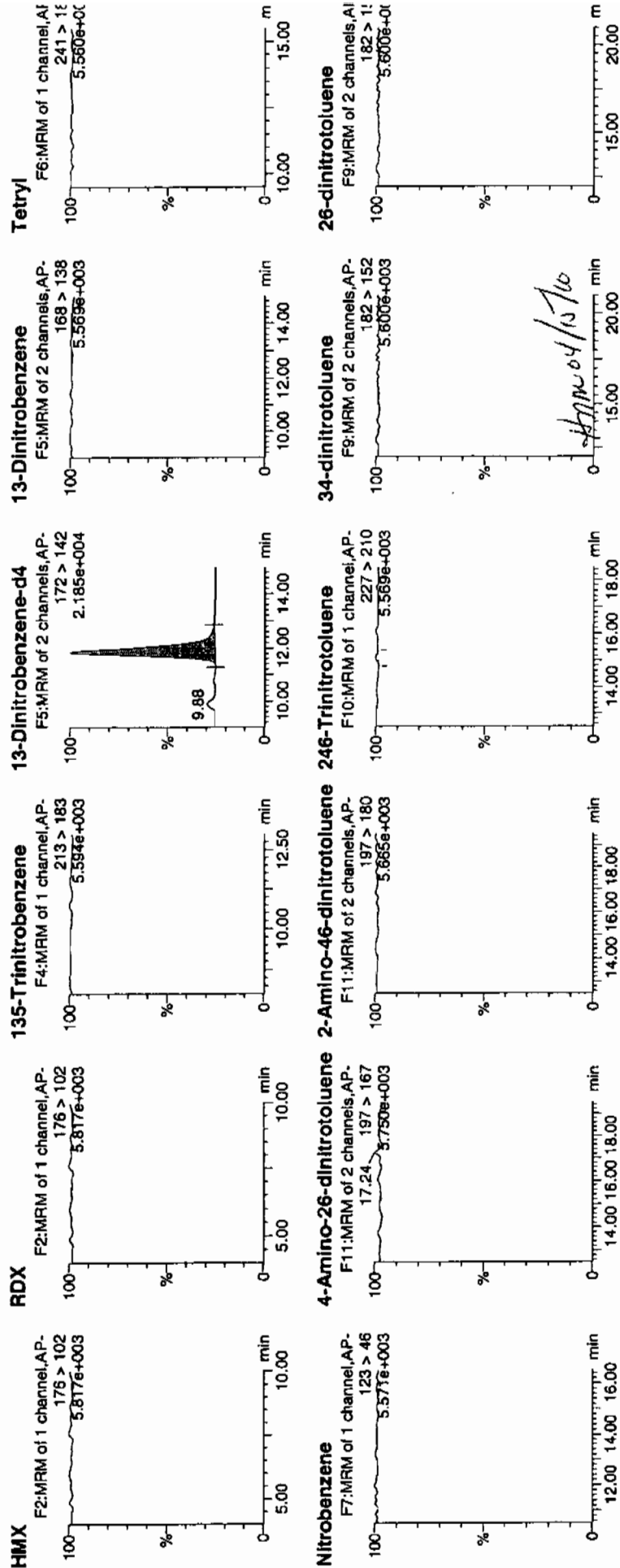
Date: 14-Apr-2010

Time: 07:30:08

ID: XIBLK10

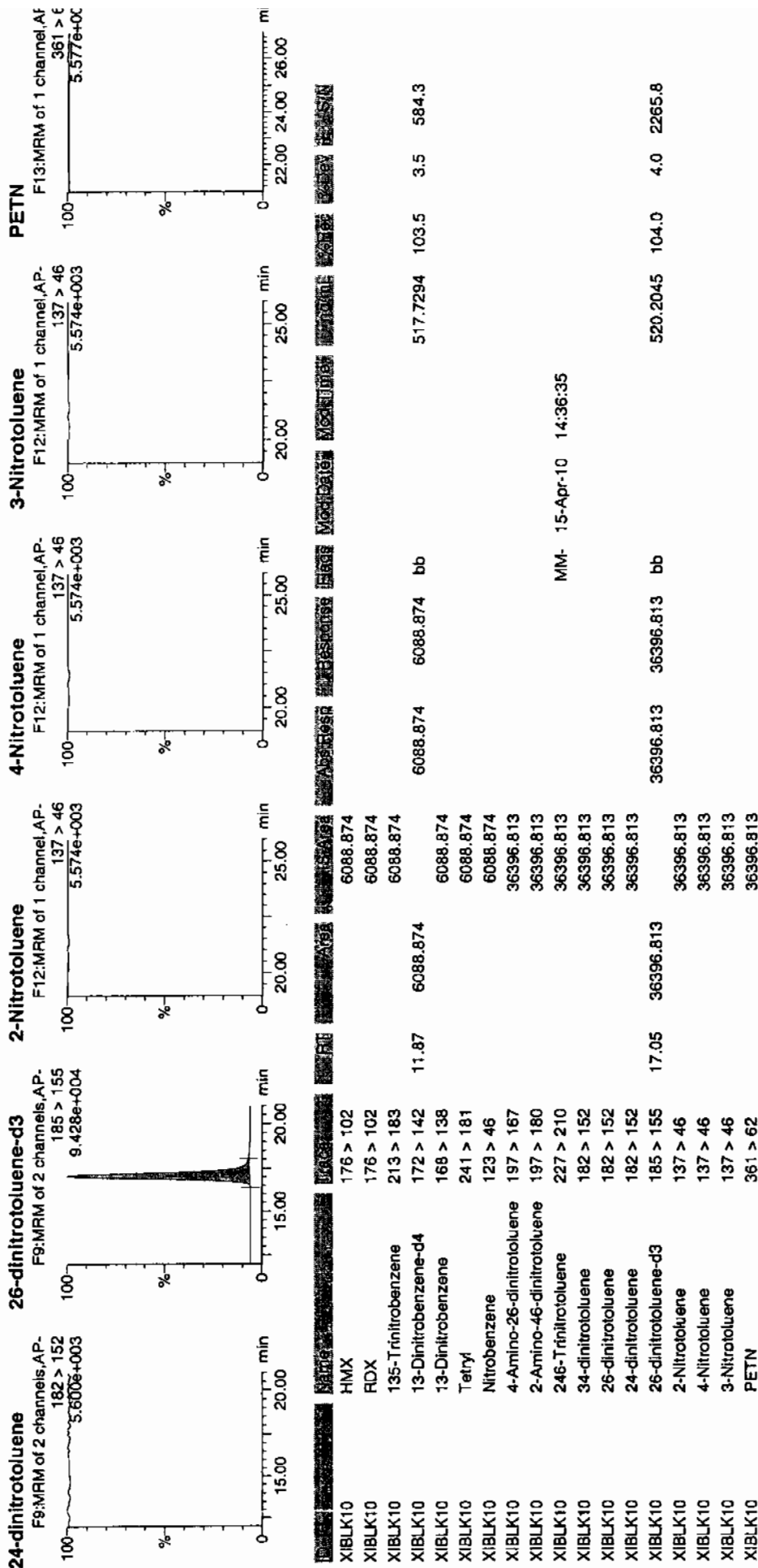
Vial: 1:1,F

*MTT*  
*4/15/10*



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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



## Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2140Lab Code: GELLab Sample ID: XIBLK11Analysis Date: 14-APR-10 08:58GEL Data File: EXP0412085aInstrument ID: LCMSMSColumn: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	553.174
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	549.729
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

# Quantify Sample Report

GL Laboratories, LLC / Analyst: Michael A. Penny

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Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412085a

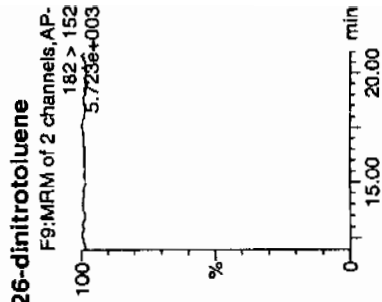
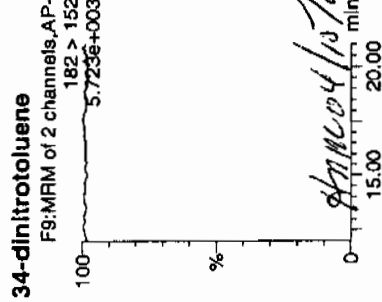
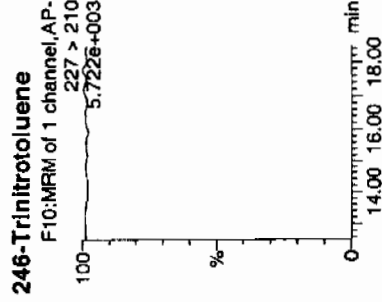
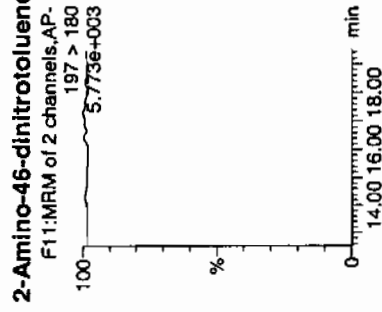
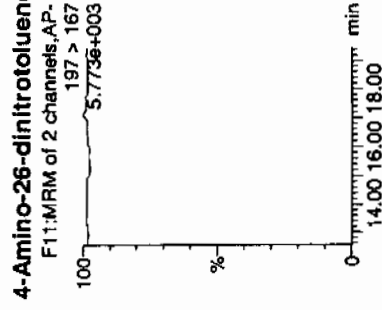
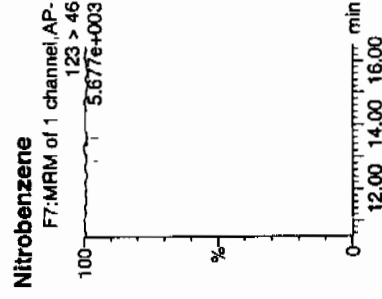
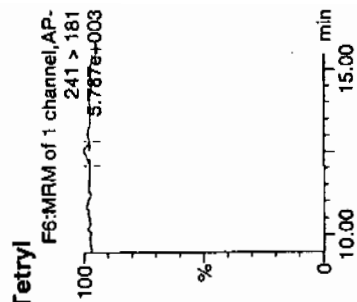
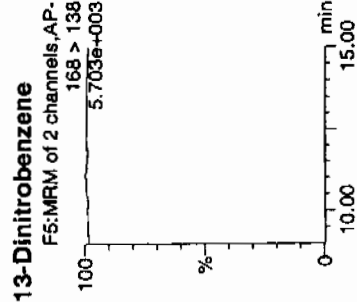
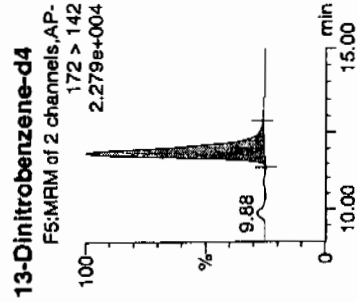
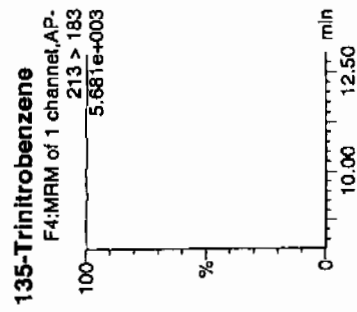
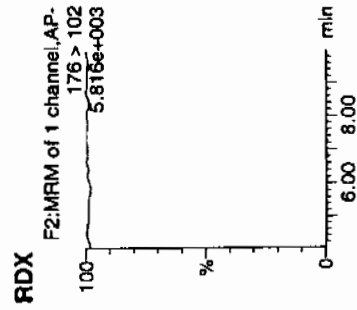
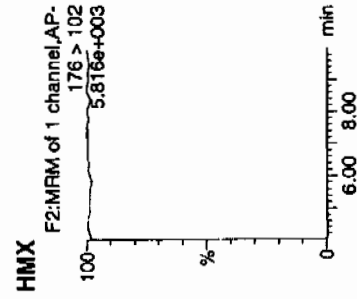
Date: 14-Apr-2010

Time: 08:58:45

ID: XIBLK11

Vial: 1:1,F

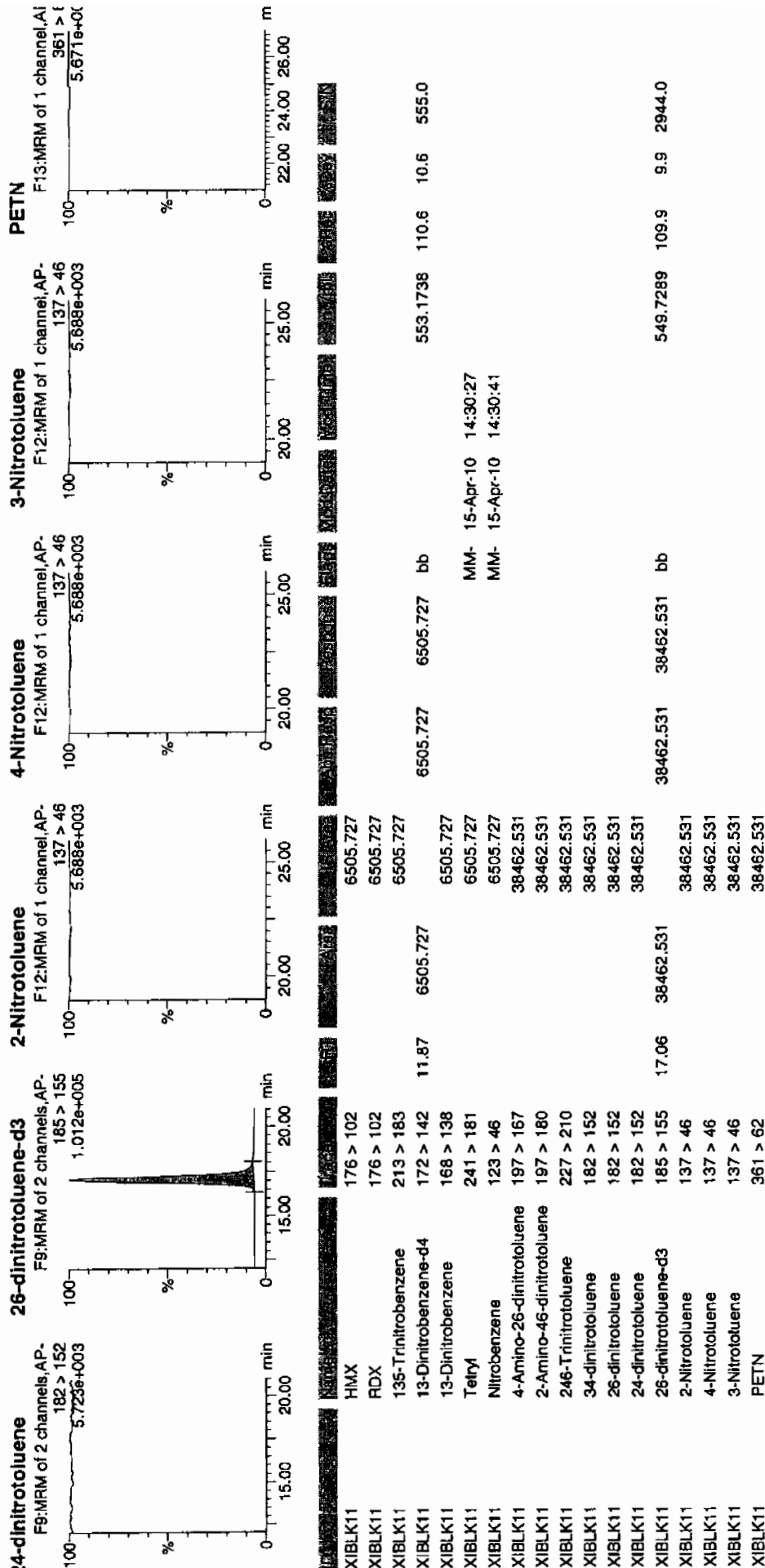
177  
4/15/10



4/15/10

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2140

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 14-APR-10 09:57

GEL Data File: EXP0412087a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	561.908
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	512.757
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

## Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412087a

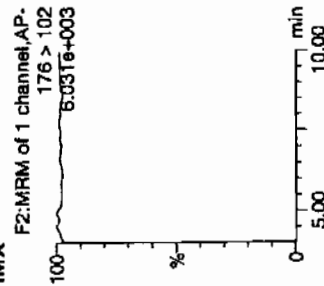
Date: 14-Apr-2010

Time: 09:57:47

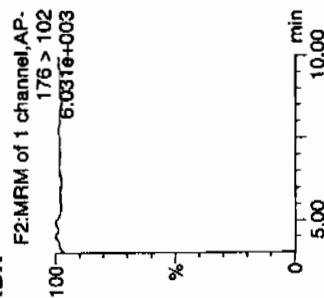
ID: XIBLK12

Vial: 1:1,A

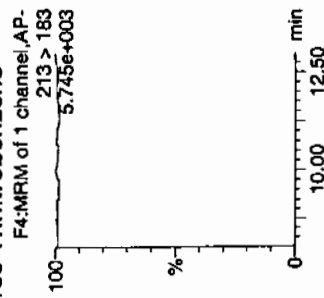
## HMX



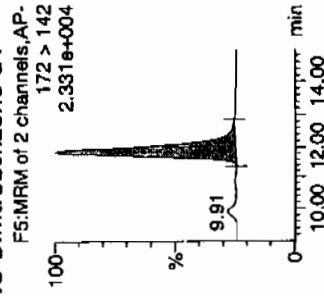
## RDX



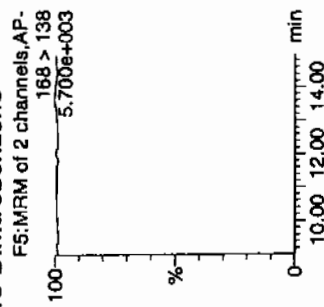
## 135-Trinitrobenzene



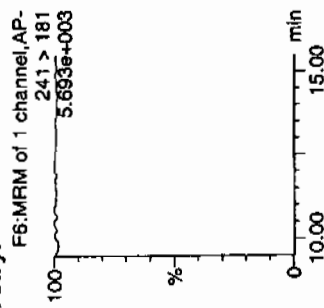
## 13-Dinitrobenzene-d4



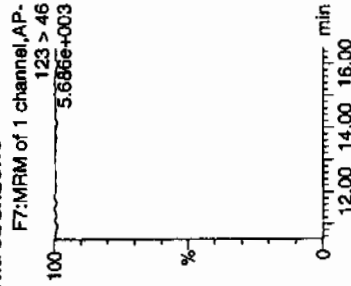
## 13-Dinitrobenzene



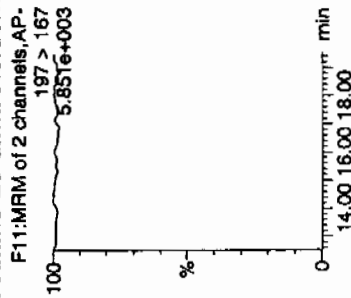
## Tetryl



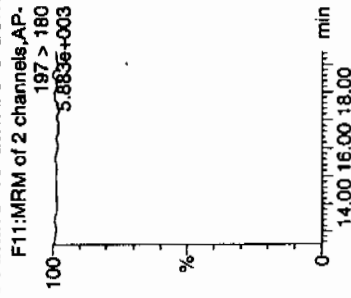
## Nitrobenzene



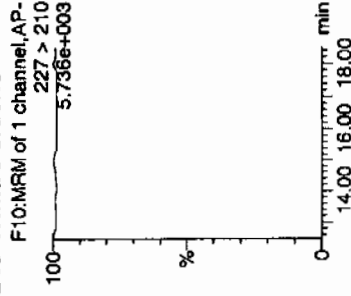
## 4-Amino-26-dinitrotoluene



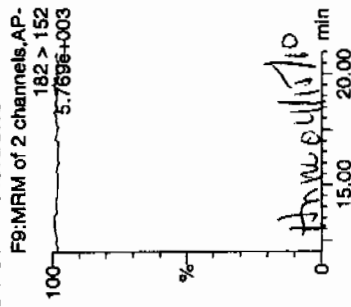
## 2-Amino-46-dinitrotoluene



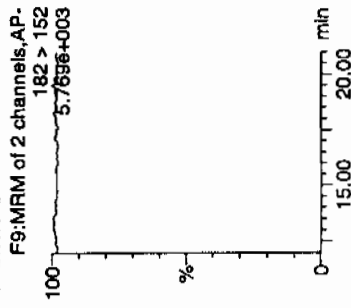
## 246-Trinitrotoluene



## 34-dinitrotoluene

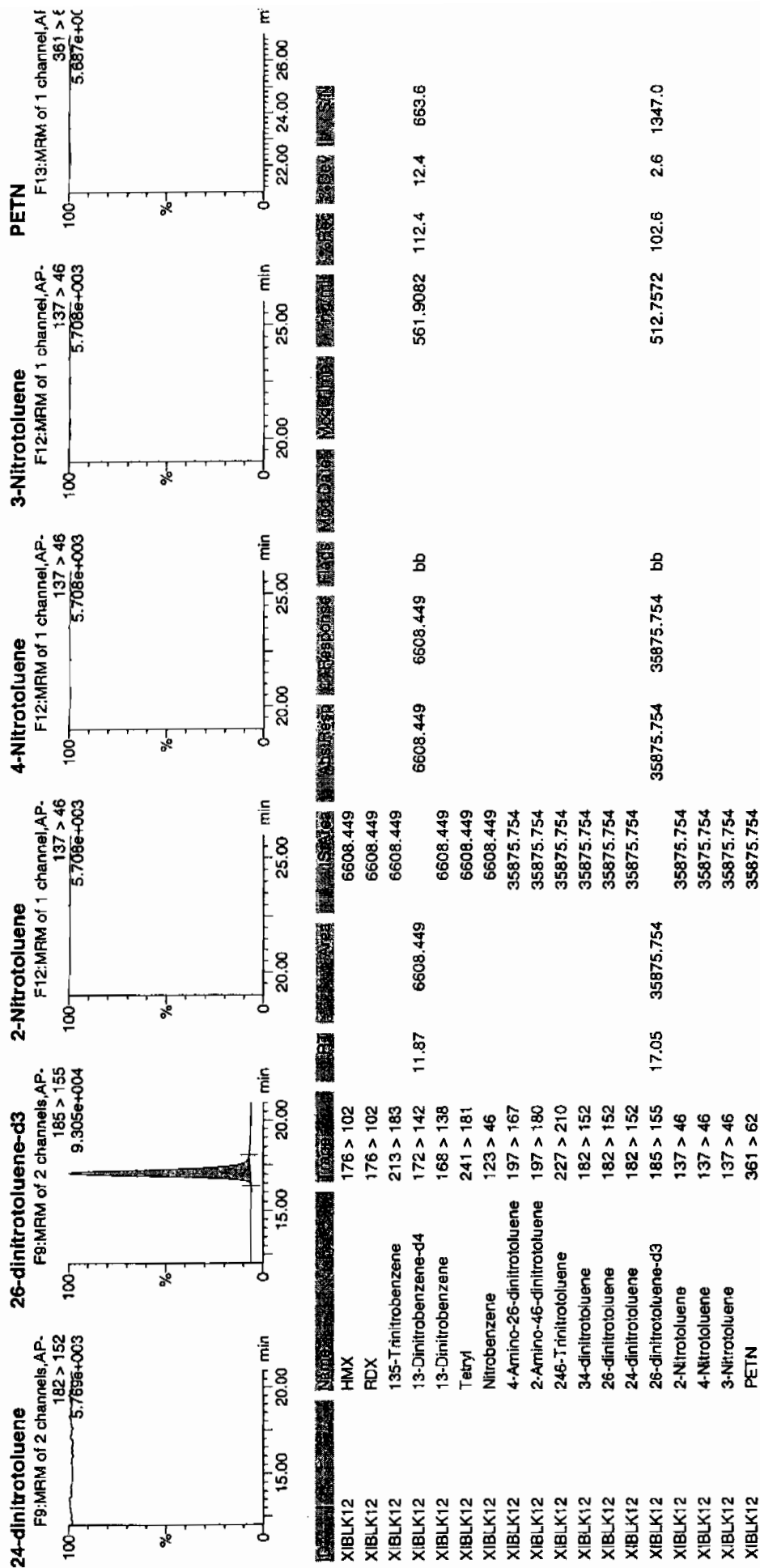


## 26-dinitrotoluene





Dataset: C:\MASSLYN\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



4/1  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2140

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 14-APR-10 11:55

GEL Data File: EXP0412091a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	597.515
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	554.34
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qid, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP0412091a

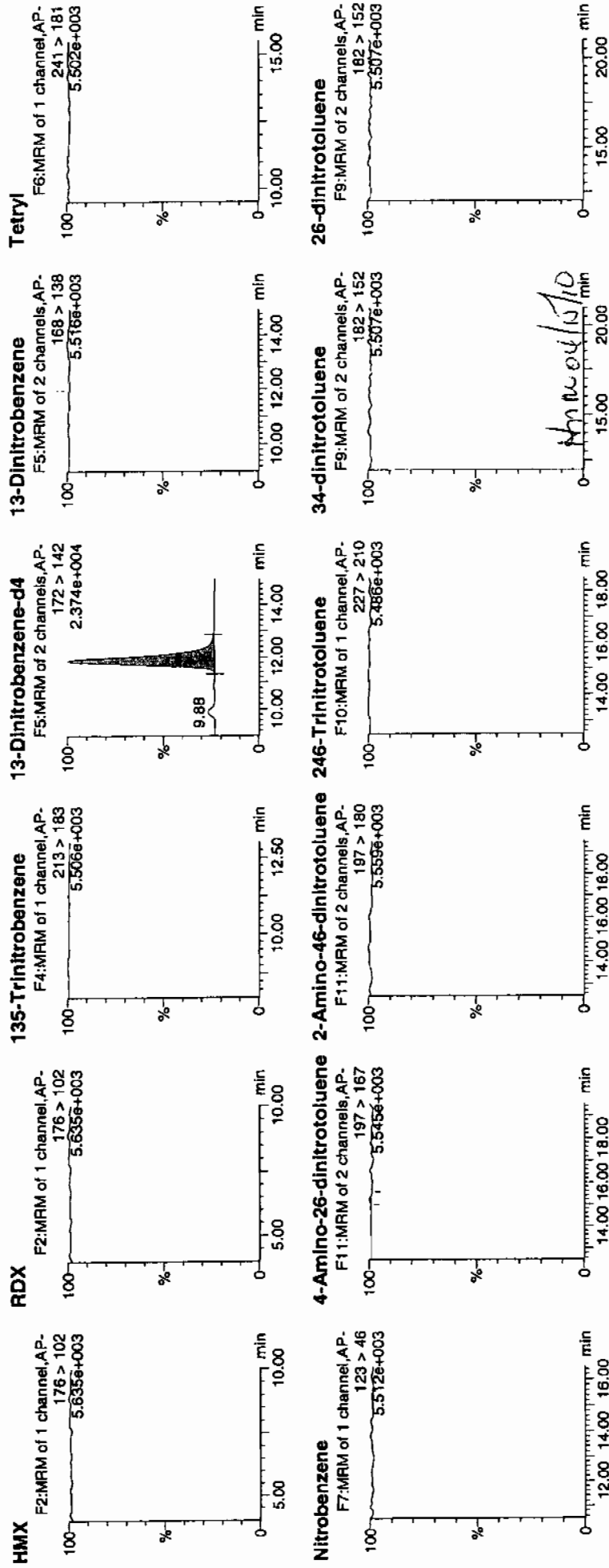
Date: 14-Apr-2010

Time: 11:55:46

ID: XIBLK13

Vial: 1:1,F

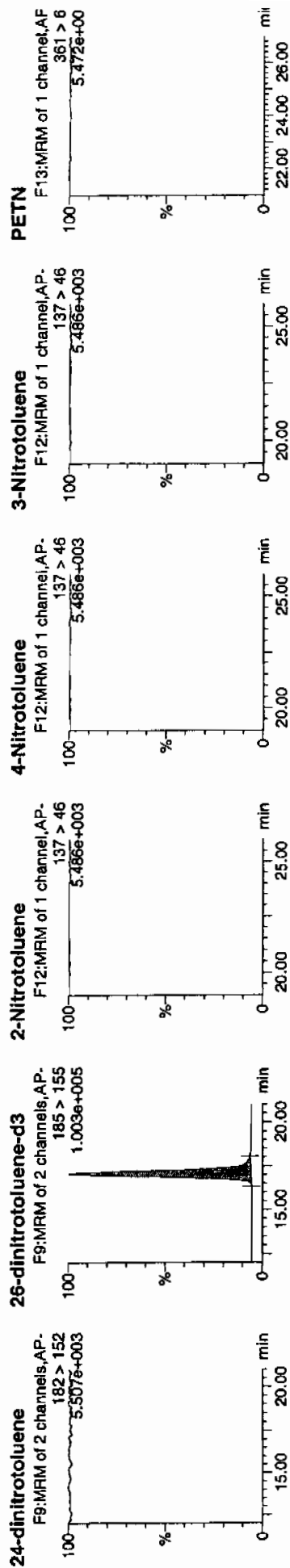
10/15/10



## Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



Name	Formula	MW	Boiling Point	Density	Flash Point	Vapor Pressure	Log P	Ref.
HMX	XIBLK13	176 > 102	7027.215					
RDX	XIBLK13	176 > 102	7027.215					
135-Trinitrobenzene	XIBLK13	213 > 183	7027.215					
13-Dinitrobenzene-d4	XIBLK13	172 > 142	7027.215	11.87	bb	7027.215	597.5153	1130.1
13-Dinitrobenzene	XIBLK13	168 > 138	7027.215					
Tetryl	XIBLK13	241 > 181	7027.215					
Nitrobenzene	XIBLK13	123 > 46	7027.215					
4-Amino-26-dinitrotoluene	XIBLK13	197 > 167	38785.121		MM-	15-Apr-10	14:33:07	
2-Amino-46-dinitrotoluene	XIBLK13	197 > 180	38785.121					
246-Trinitrotoluene	XIBLK13	227 > 210	38785.121					
34-dinitrotoluene	XIBLK13	182 > 152	38785.121					
26-dinitrotoluene	XIBLK13	182 > 152	38785.121					
24-dinitrotoluene	XIBLK13	182 > 152	38785.121					
26-dinitrotoluene-d3	XIBLK13	185 > 155	38785.121	17.05	bb	38785.121	554.3396	2744.7
2-Nitrotoluene	XIBLK13	137 > 46	38785.121					
4-Nitrotoluene	XIBLK13	137 > 46	38785.121					
3-Nitrotoluene	XIBLK13	137 > 46	38785.121					
PETN	XIBLK13	361 > 62	38785.121					

## Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2140Lab Code: GELLab Sample ID: XIBLK14Analysis Date: 14-APR-10 15:22GEL Data File: EXP0412098aInstrument ID: LCMSMSColumn: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	482.542
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	530.198
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

## Quantify Sample Report

GL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 45 of 137

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412098a

Date: 14-Apr-2010

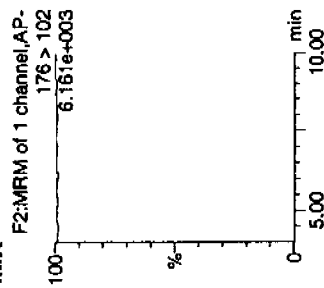
Time: 15:22:16

ID: XIBLK14

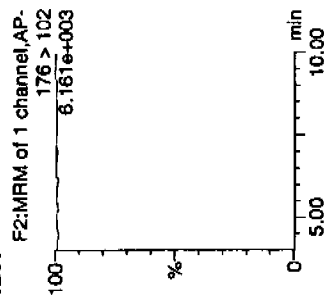
Vial: 1:1,F

11/5/10

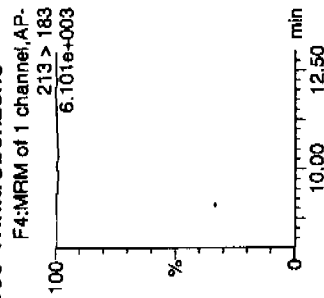
## HMX



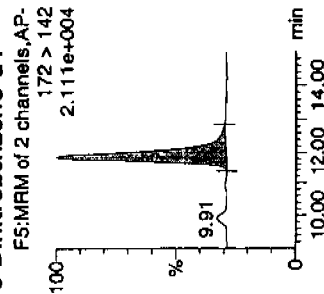
## RDX



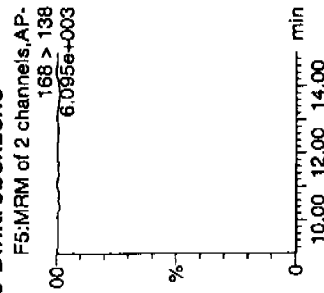
## 135-Trinitrobenzene



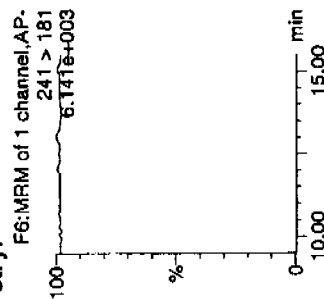
## 13-Dinitrobenzene-d4



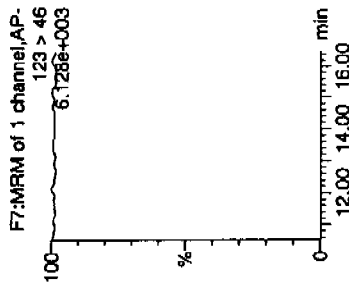
## 13-Dinitrobenzene



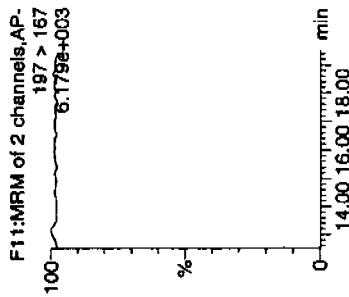
## Tetryl



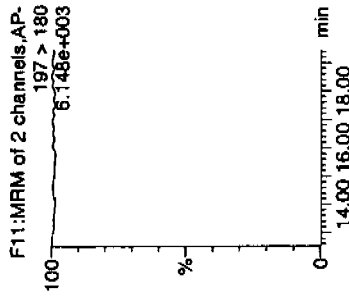
## Nitrobenzene



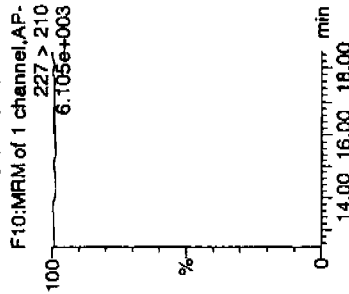
## 4-Amino-26-dinitrotoluene



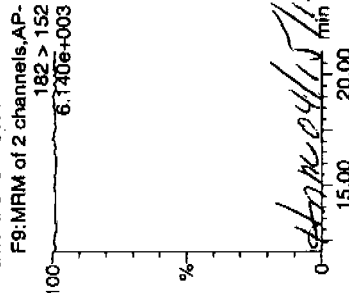
## 2-Amino-46-dinitrotoluene



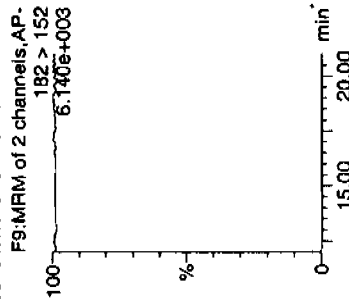
## 246-Trinitrotoluene



## 34-dinitrotoluene

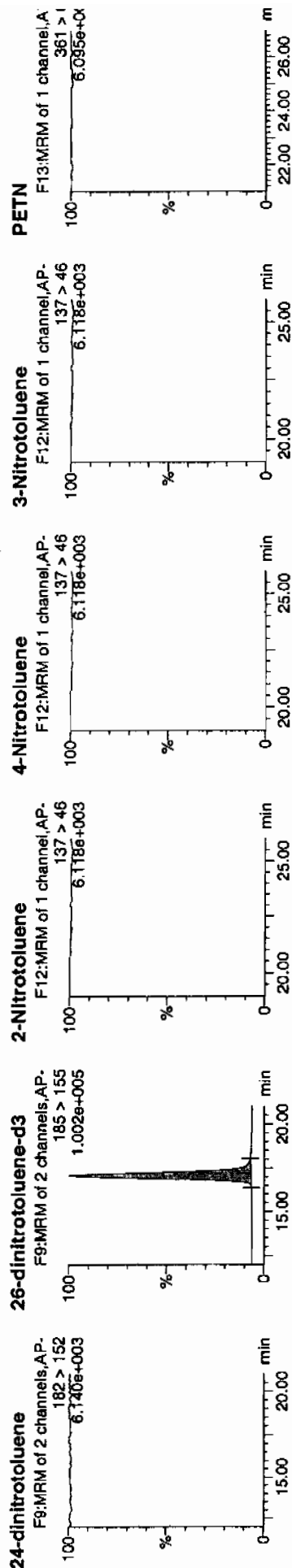


## 26-dinitrotoluene



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

Dataset: C:\MASSLYN\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



Peak #	Retention Time (min)	Mass (m/z)	Abundance (%)	Identification
1	176.00	102	100	HM-X
2	176.00	102	100	ROX
3	213.00	183	100	135-Trinitrobenzene
4	172.00	142	100	13-Dinitrobenzene-d4
5	168.00	138	100	13-Dinitrobenzene
6	241.00	181	100	Tetryl
7	123.00	46	100	Nitrobenzene
8	197.00	167	100	4-Amino-26-dinitrotoluene
9	197.00	180	100	2-Amino-46-dinitrotoluene
10	227.00	210	100	246-Trinitrotoluene
11	182.00	152	100	34-dinitrotoluene
12	182.00	152	100	26-dinitrotoluene
13	182.00	152	100	24-dinitrotoluene
14	185.00	155	100	26-dinitrotoluene-d3
15	137.00	46	100	2-Nitrotoluene
16	137.00	46	100	4-Nitrotoluene
17	137.00	46	100	3-Nitrotoluene
18	361.00	62	100	PETN

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2140

Lab Code: GEL

Lab Sample ID: XIBLK15

Analysis Date: 14-APR-10 16:21

GEL Data File: EXP0412100a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	528.222
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	547.698
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



## Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

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Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

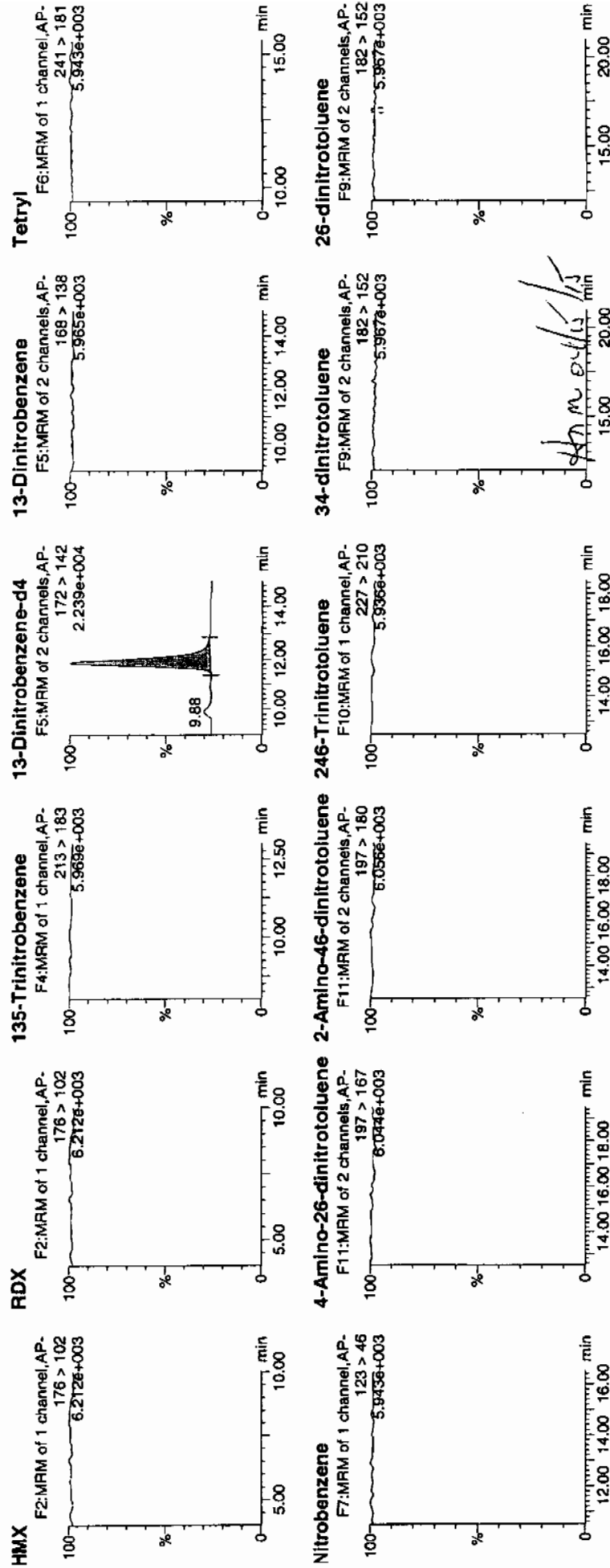
Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412100a

Date: 14-Apr-2010

Time: 16:21:17

ID: XIBLK15

Vial: 1:1,A

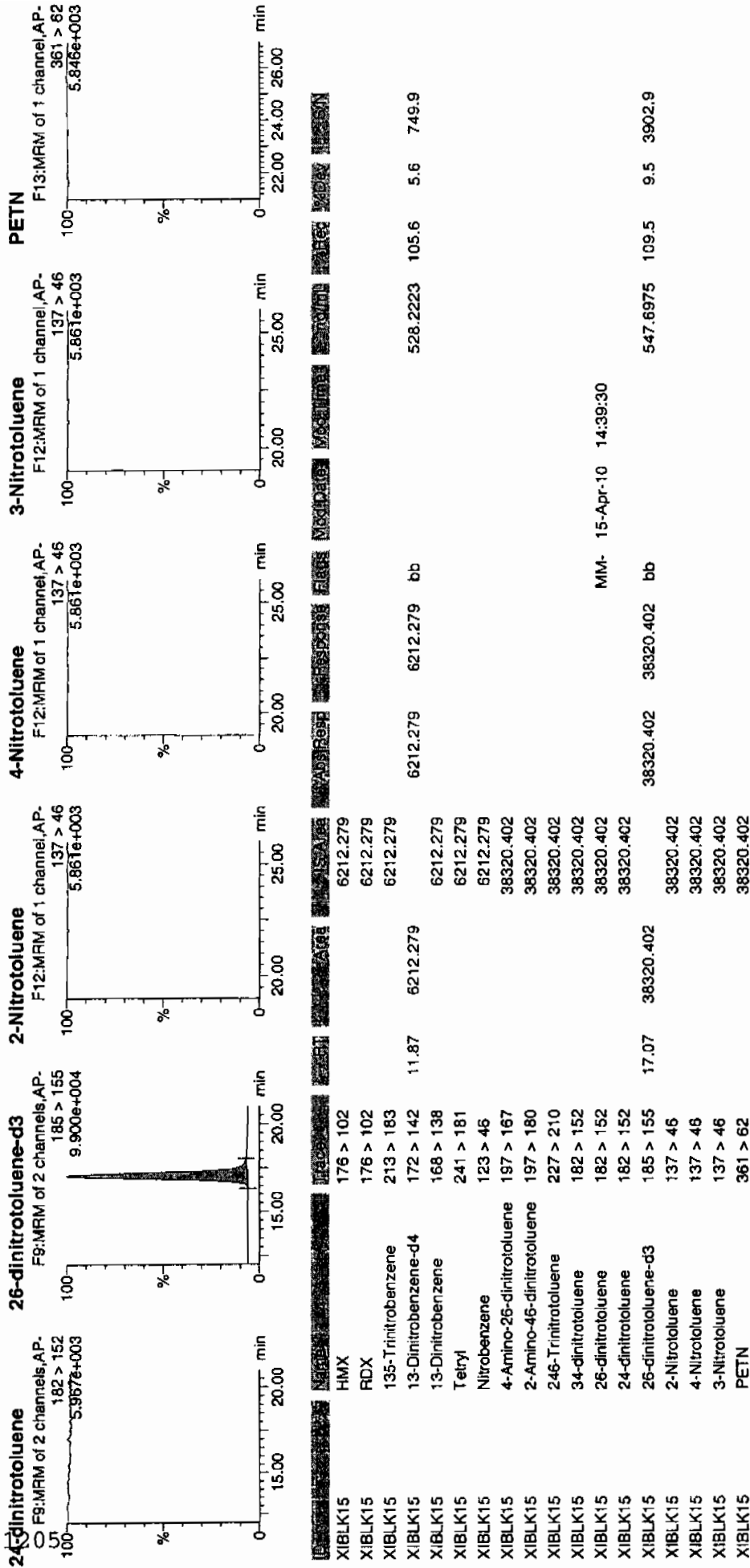
F5:177  
4/15/10

# Quantify Sample Report

GL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 50 of 137

Dataset: C:\MASSL\YX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



**4A**  
**Explosives Continuing Calibration Blank**

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-2140

**Lab Code:** GEL

**Lab Sample ID:** XIBLK16

**Analysis Date:** 14-APR-10 21:45

**GEL Data File:** EXP0412111a

**Instrument ID:** LCMSMS

**Column:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	578.061
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	585.843
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

## Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 71 of 137

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412111a

Date: 14-Apr-2010

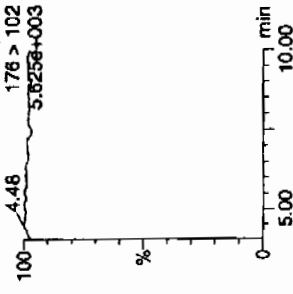
Time: 21:45:50

ID: XIBLK16

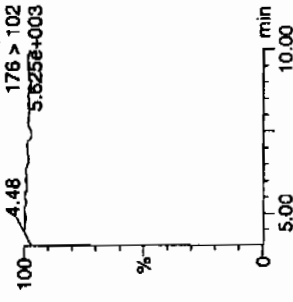
Vial: 1:1,A

100%  
4/15/10

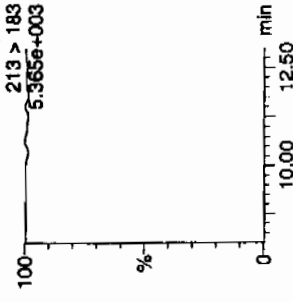
## HMX

F2:MRM of 1 channel,AP-  
176 > 102  
5.6258+003

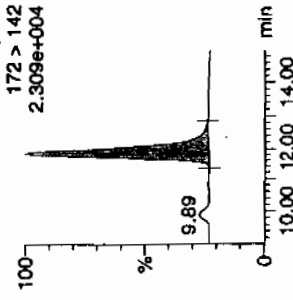
## RDX

F2:MRM of 1 channel,AP-  
176 > 102  
5.6258+003

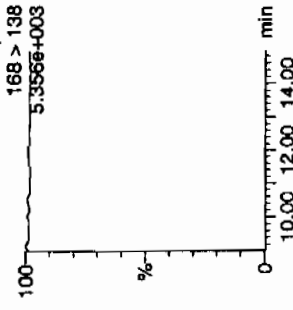
## 135-Trinitrobenzene

F4:MRM of 1 channel,AP-  
213 > 183  
5.3656+003

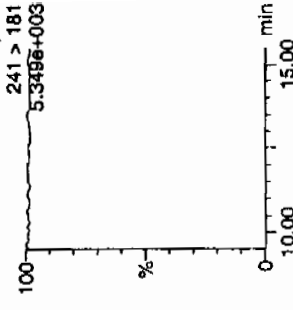
## 13-Dinitrobenzene-d4

F5:MRM of 2 channels,AP-  
172 > 142  
2.309e+004

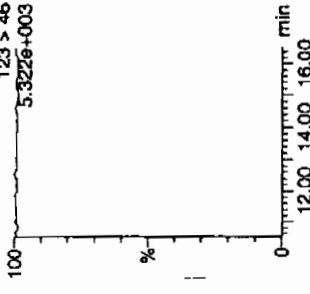
## 13-Dinitrobenzene

F5:MRM of 2 channels,AP-  
168 > 138  
5.3566+003

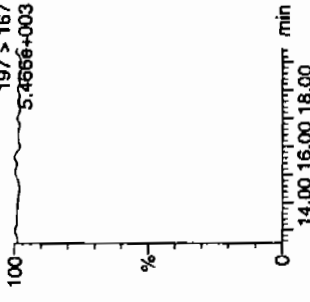
## Tetryl

F6:MRM of 1 channel,AP-  
241 > 181  
5.3496+003

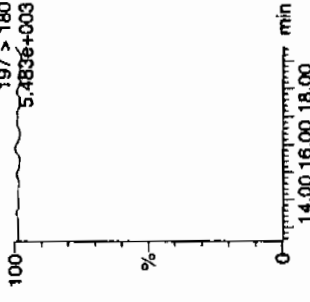
## Nitrobenzene

F7:MRM of 1 channel,AP-  
123 > 46  
5.3228+003

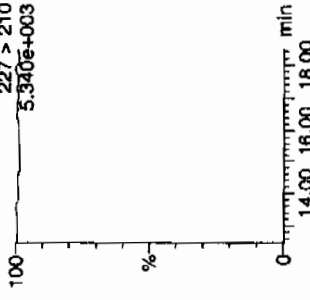
## 4-Amino-26-dinitrotoluene

F11:MRM of 2 channels,AP-  
197 > 167  
5.4666+003

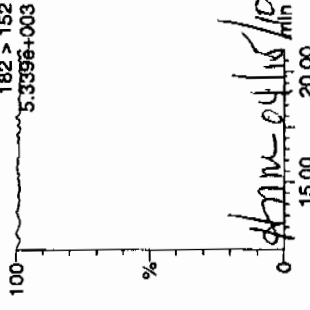
## 2-Amino-46-dinitrotoluene

F11:MRM of 2 channels,AP-  
197 > 180  
5.4836+003

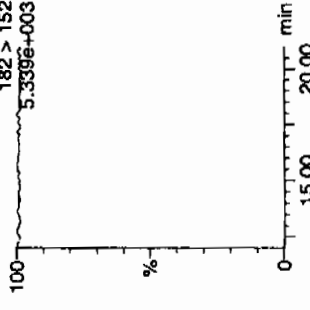
## 246-Trinitrotoluene

F10:MRM of 1 channel,AP-  
227 > 210  
5.340e+003

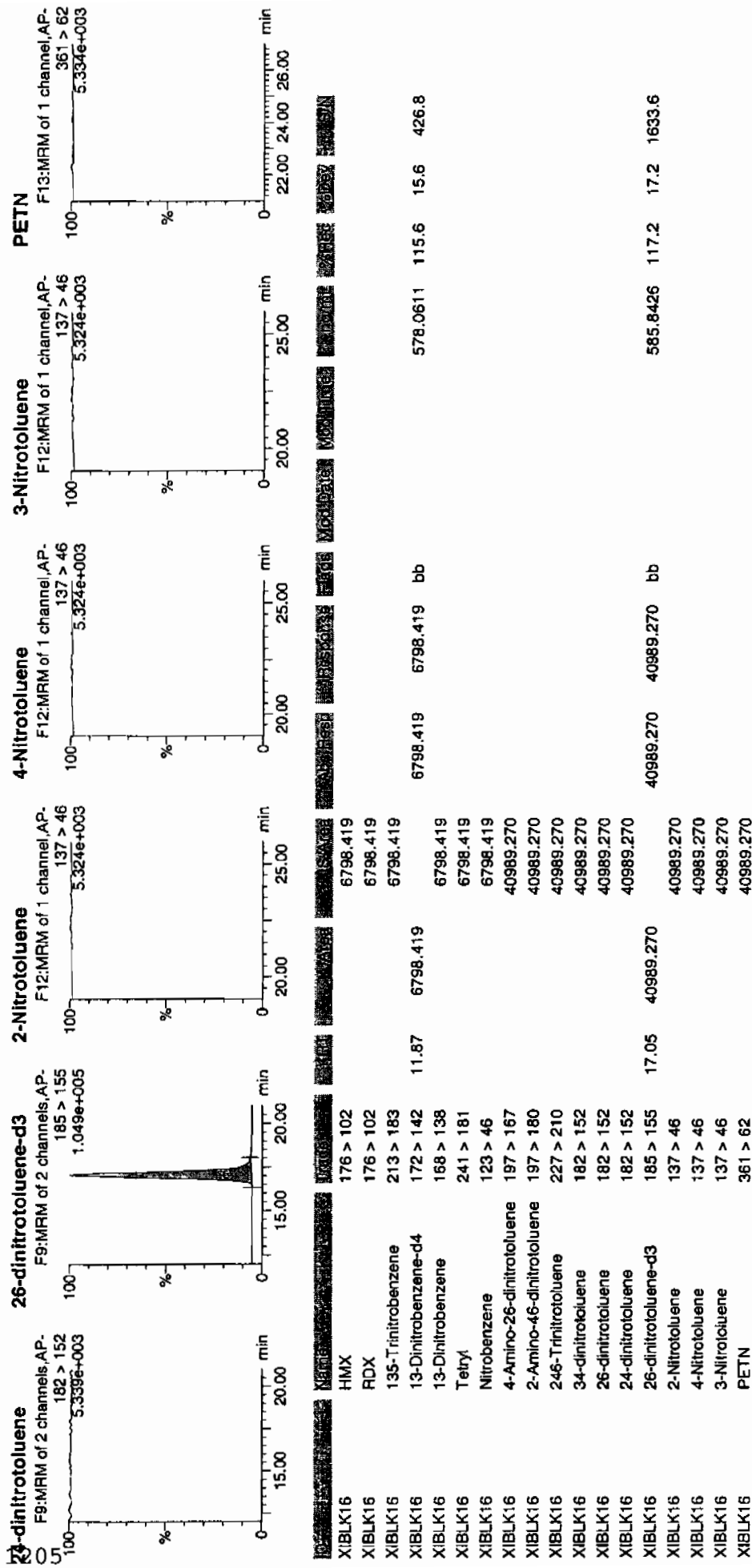
## 34-dinitrotoluene

F9:MRM of 2 channels,AP-  
182 > 152  
5.3396+003

## 26-dinitrotoluene

F9:MRM of 2 channels,AP-  
182 > 152  
5.3396+003

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



**4A**  
**Explosives Continuing Calibration Blank**

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-2140

**Lab Code:** GEL

**Lab Sample ID:** XIBLK17

**Analysis Date:** 15-APR-10 04:09

**GEL Data File:** EXP0412124a

**Instrument ID:** LCMSMS

**Column:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	558.188
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	556.693
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

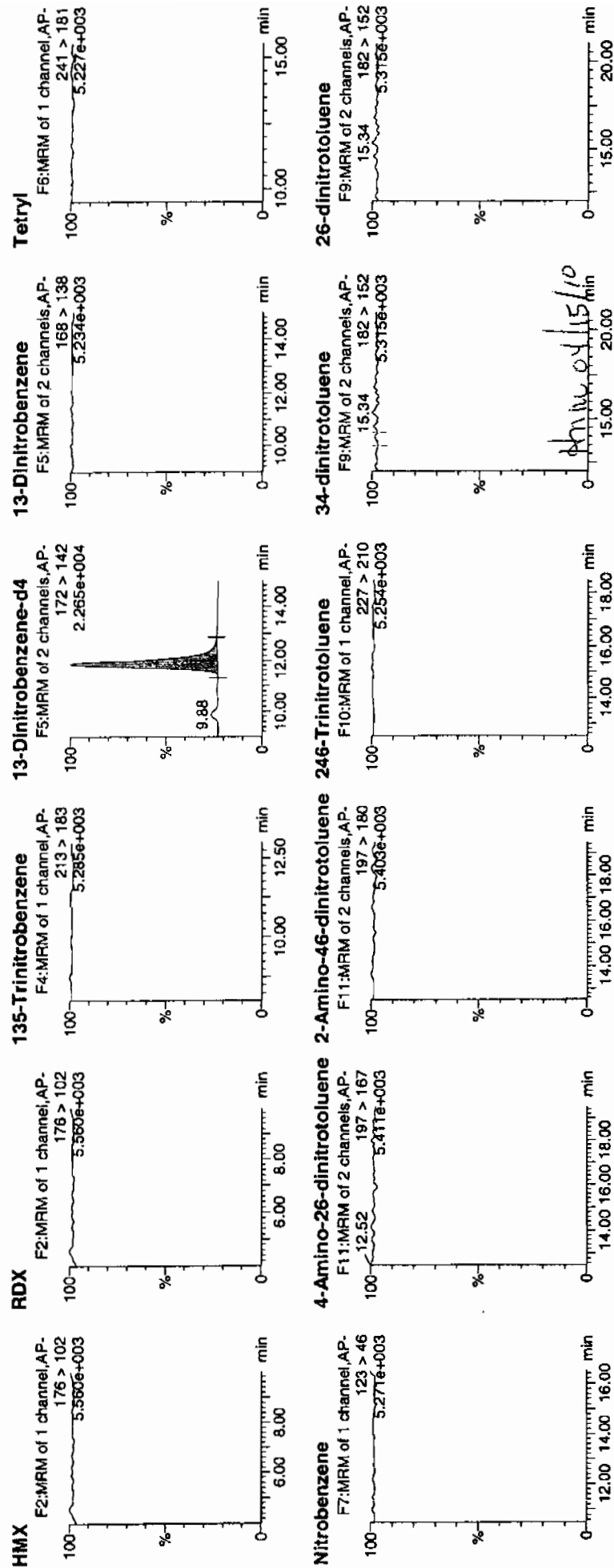
1  
Name: C:\MASSLYN\NEW EXP.PRO\DATA\EXP0412124a

Date: 15-Apr-2010

Time: 04:09:26

ID: X1BLK17

Vial: 1:1,A

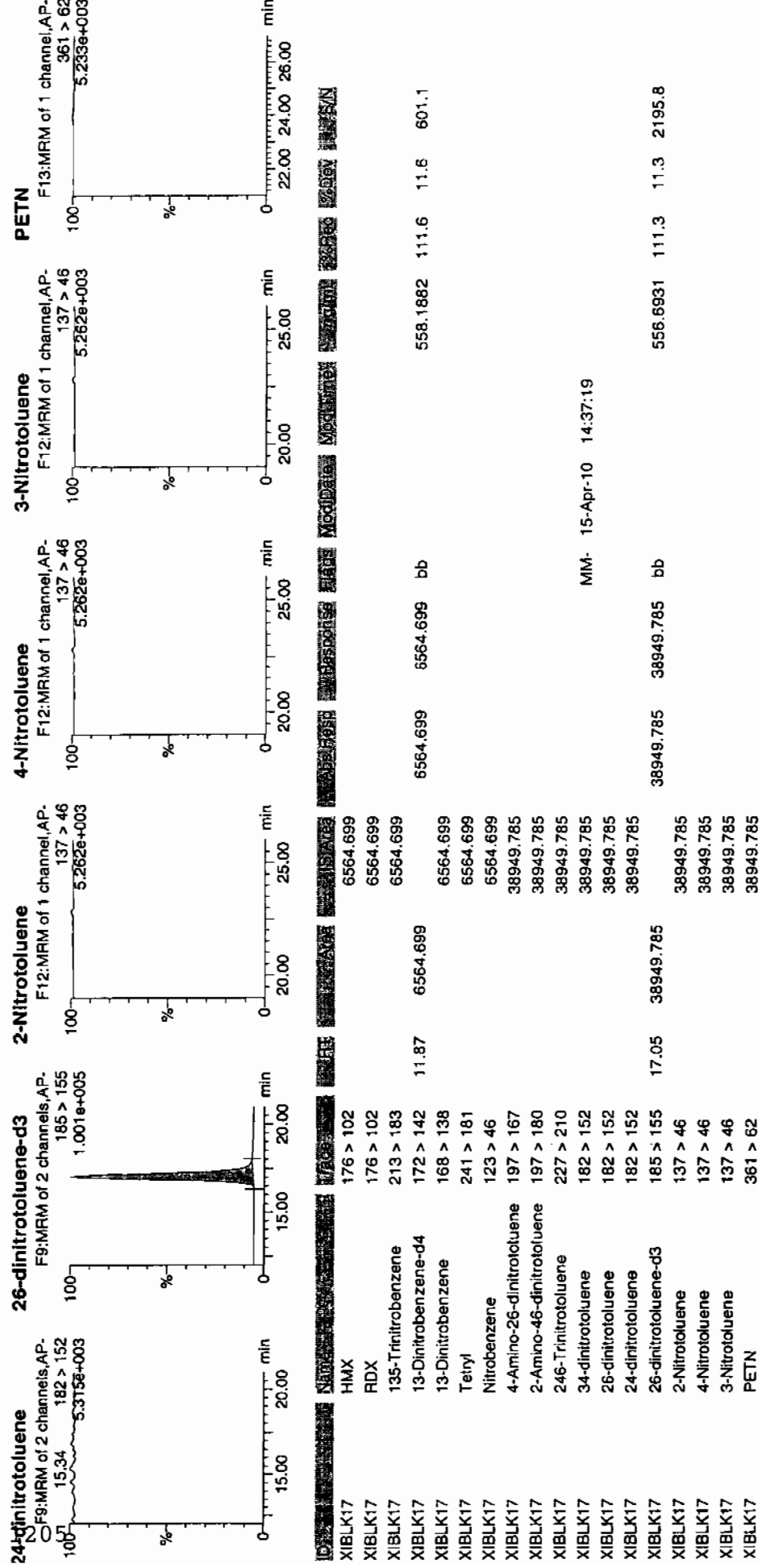


# Quantify Sample Report

GLC Laboratories, LLC / Analyst : Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 98 of 137

Dataset: C:\MASSLYN\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010





## Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2140Lab Code: GELLab Sample ID: XIBLK18Analysis Date: 15-APR-10 10:03GEL Data File: EXP0412136aInstrument ID: LCMSMSColumn: 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	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	541.68
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	563.838

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qtd, Time: Thu Apr 15 14:49:38 2010

File: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412136a

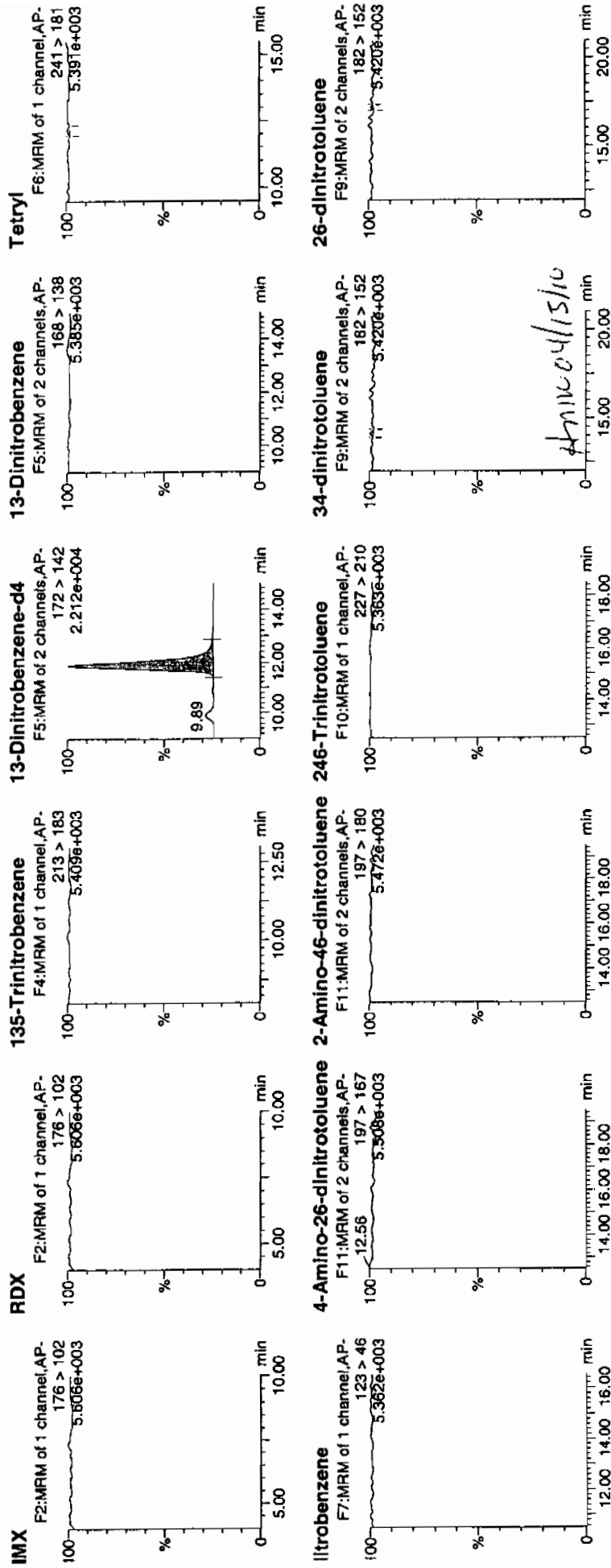
Date: 15-Apr-2010

Time: 10:03:32

ID: XIBLK18

Val: 1:1,A

10/15/10

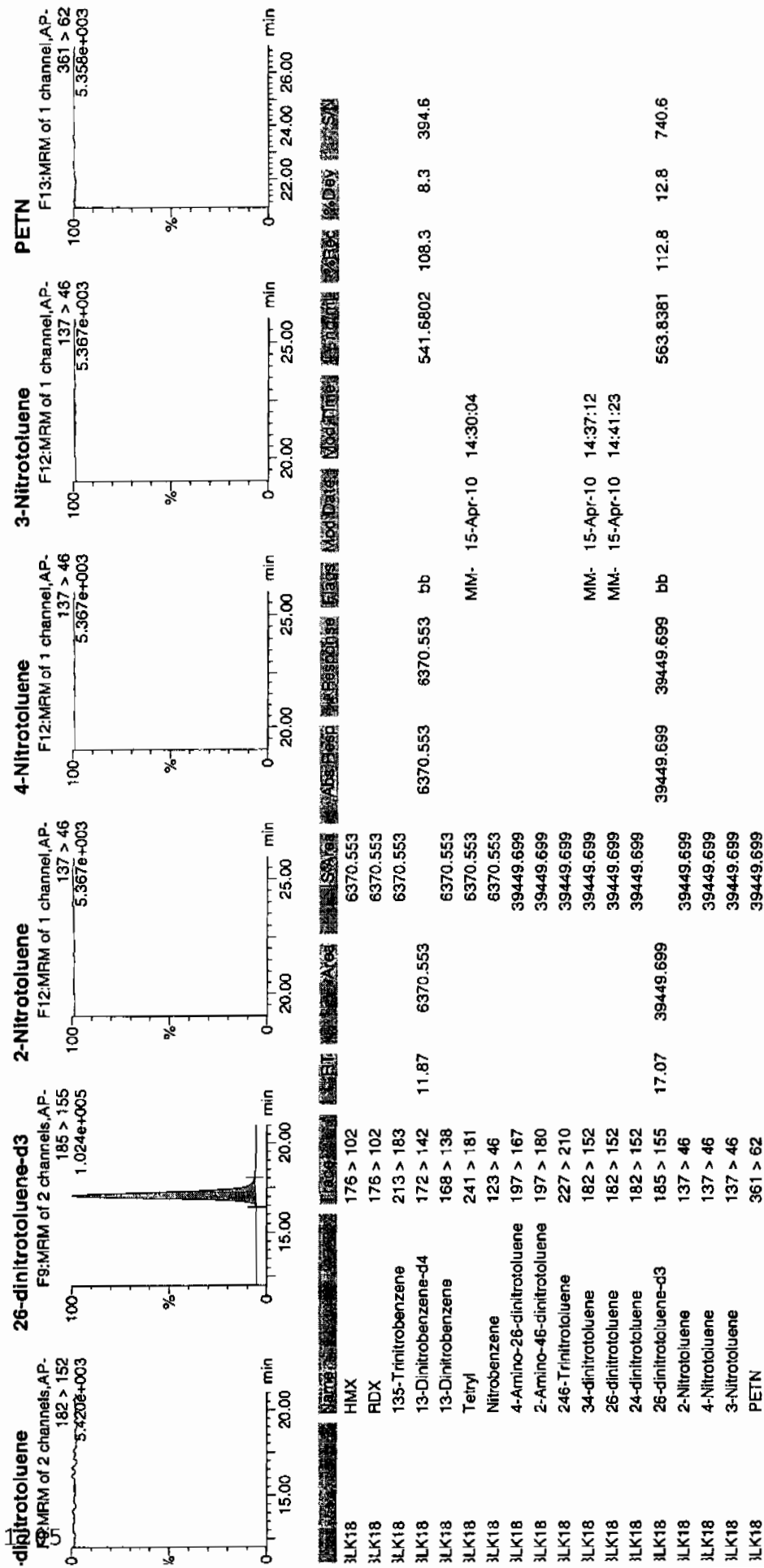


# Identify Sample Report

LABORATORIES, LLC / Analyst : Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 122 of 137

File: C:\MASSLYNX\New\_Exp\PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2140

Lab Code: GEL

Lab Sample ID: XIBLK19

Analysis Date: 15-APR-10 13:00

GEL Data File: EXP0412142a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	473.748
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	449.474
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412142a

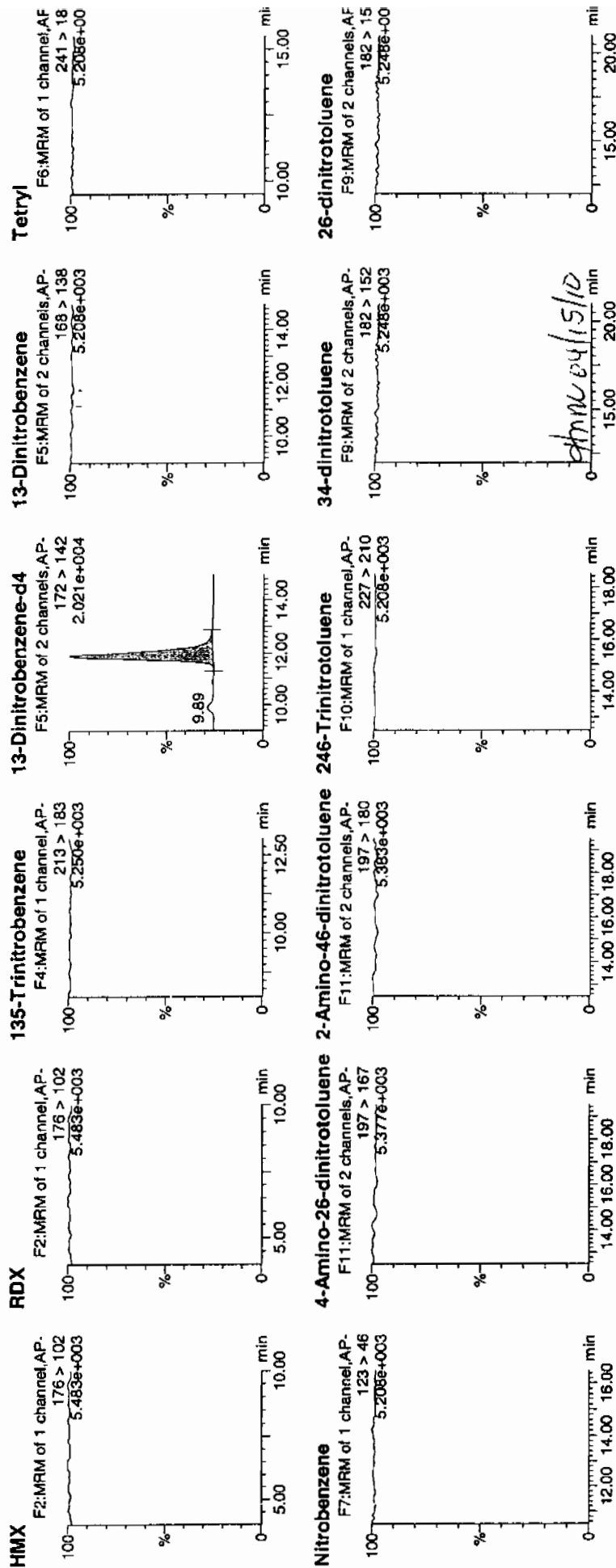
Date: 15-Apr-2010

Time: 13:00:42

ID: XIBLK19

Vial: 1:1,A

*10/11/10*

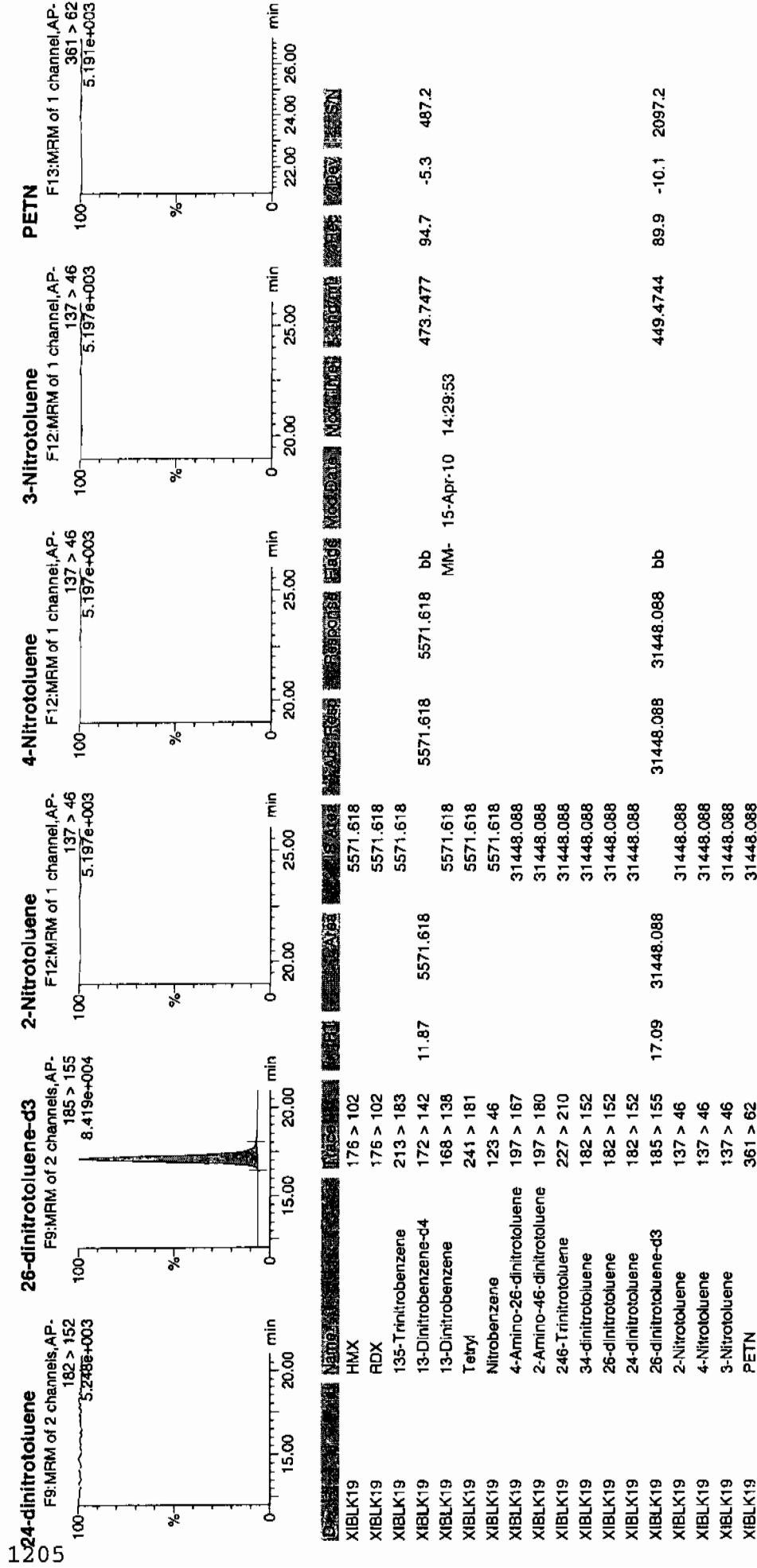


# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 134 of 137

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2140

Lab Code: GEL

Lab Sample ID: XIBLK20

Analysis Date: 15-APR-10 19:24

GEL Data File: EXP0412155a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	526.718
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	604.661
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412155a

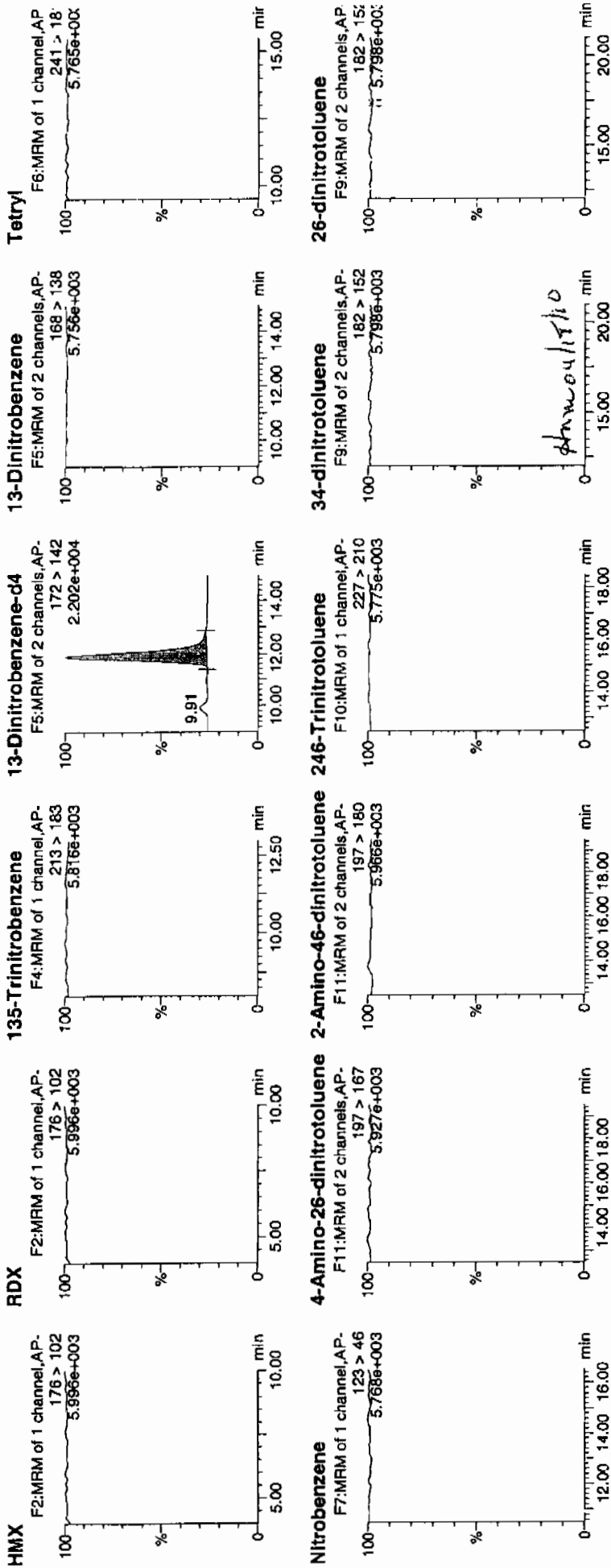
Date: 15-Apr-2010

Time: 19:24:15

ID: XIBLK20

Vial: 1:1,A

*Handwritten:* 100%  
11/10/10



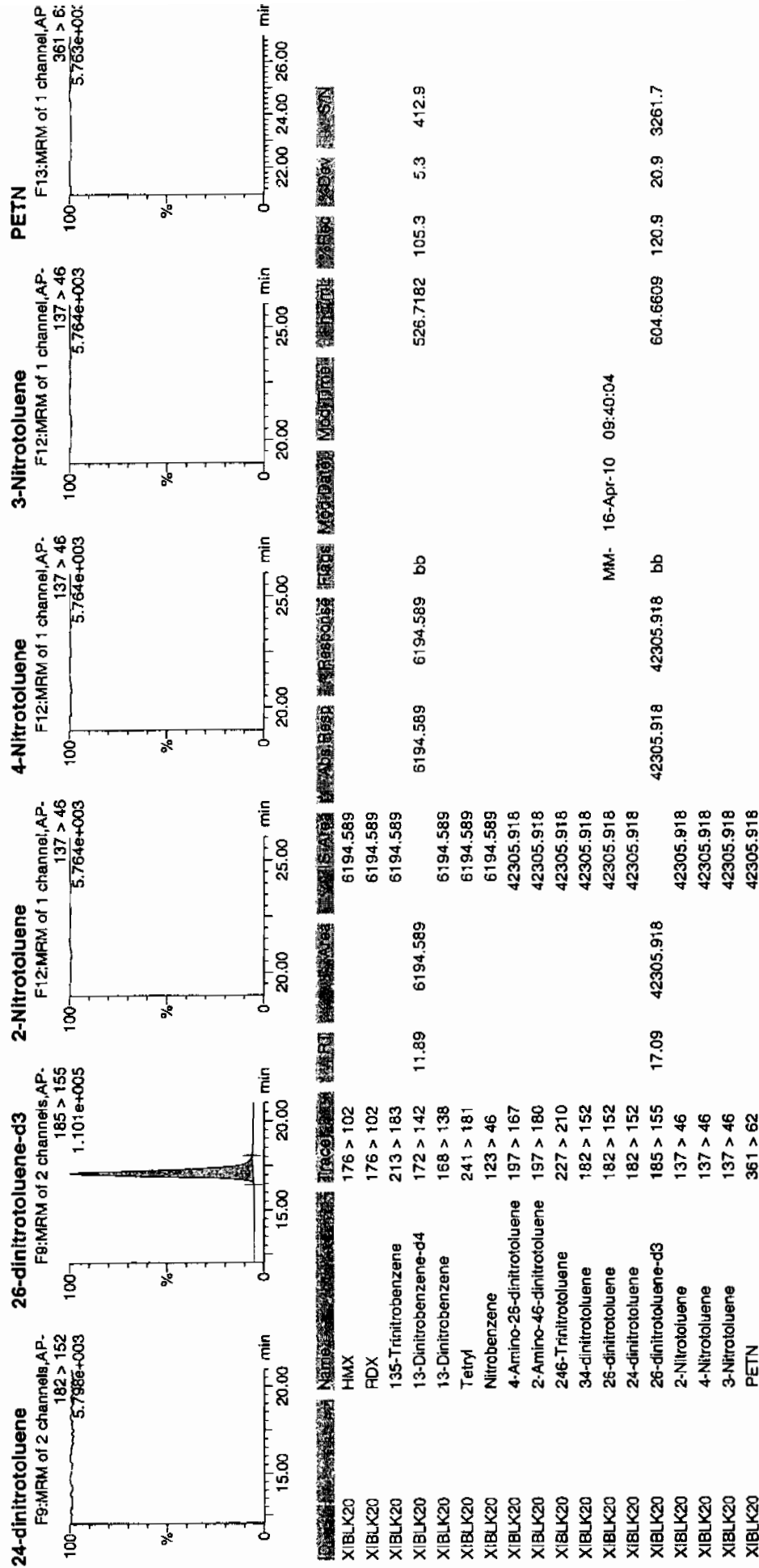


# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

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Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2140

Lab Code: GEL

Lab Sample ID: XIBLK21

Analysis Date: 15-APR-10 23:49

GEL Data File: EXP0412164a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
1,3-Dinitrobenzene-d4	500	552.7
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	545.776
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP041216a

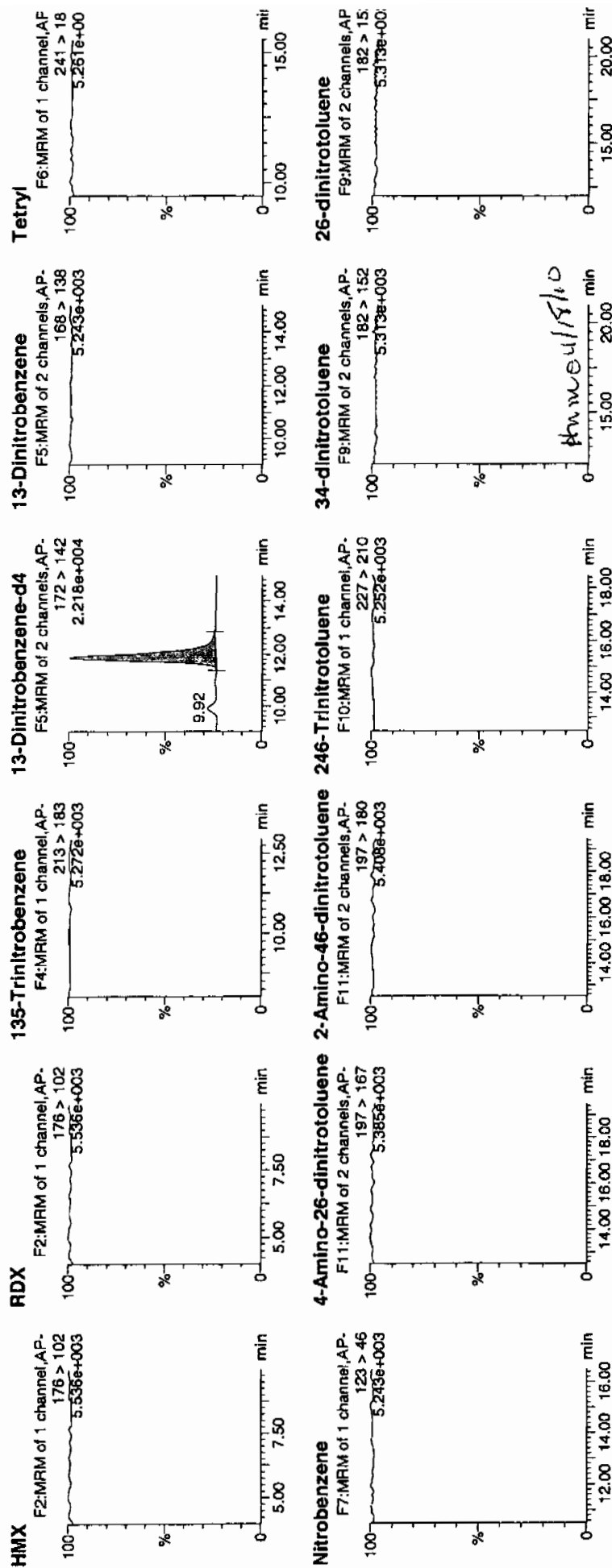
Date: 15-Apr-2010

Time: 23:49:43

ID: XIBLK21

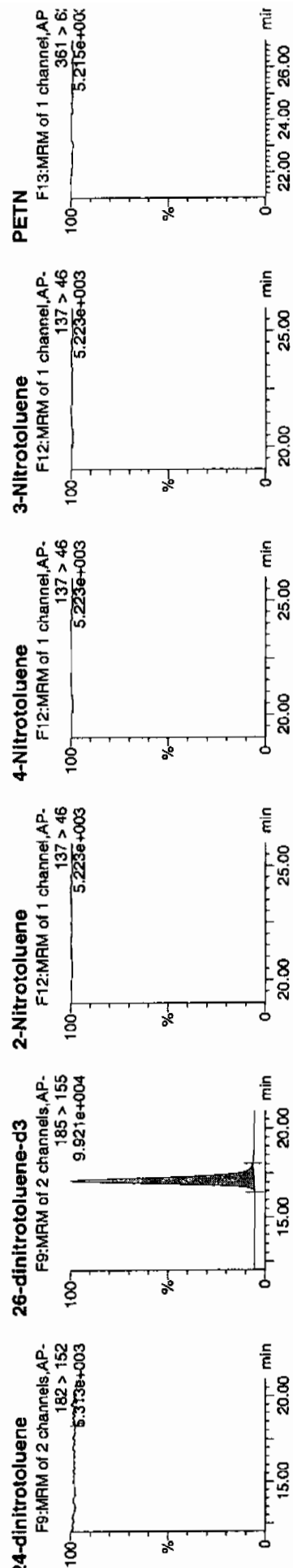
Vial: 1:1,A

MR  
11/10/10



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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010



Library	Library	Library	Library	Library	Library
XIBLK21	HMZ	176 > 102	6500.154	6500.154	6500.154
XIBLK21	RDX	176 > 102	6500.154	6500.154	6500.154
XIBLK21	135-Trinitrobenzene	213 > 183	6500.154	6500.154	6500.154
XIBLK21	13-Dinitrobenzene-d4	172 > 142	11.87	6500.154	6500.154
XIBLK21	13-Dinitrobenzene	168 > 138	6500.154	6500.154	6500.154
XIBLK21	Tetryl	241 > 181	6500.154	6500.154	6500.154
XIBLK21	Nitrobenzene	123 > 46	38185.949	38185.949	38185.949
XIBLK21	4-Amino-26-dinitrotoluene	197 > 167	38185.949	38185.949	38185.949
XIBLK21	2-Amino-46-dinitrotoluene	197 > 180	38185.949	38185.949	38185.949
XIBLK21	246-Trinitrotoluene	227 > 210	38185.949	38185.949	38185.949
XIBLK21	34-dinitrotoluene	182 > 152	38185.949	38185.949	38185.949
XIBLK21	26-dinitrotoluene	182 > 152	38185.949	38185.949	38185.949
XIBLK21	24-dinitrotoluene	182 > 152	38185.949	38185.949	38185.949
XIBLK21	26-dinitrotoluene-d3	185 > 155	17.09	38185.949	38185.949
XIBLK21	2-Nitrotoluene	137 > 46	38185.949	38185.949	38185.949
XIBLK21	4-Nitrotoluene	137 > 46	38185.949	38185.949	38185.949
XIBLK21	3-Nitrotoluene	137 > 46	38185.949	38185.949	38185.949
XIBLK21	PETN	361 > 62	38185.949	38185.949	38185.949

## Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2140Lab Code: GELLab Sample ID: XIBLK22Analysis Date: 16-APR-10 06:13GEL Data File: EXP0412177aInstrument ID: LCMSMSColumn: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	535.916
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	541.912
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

# Quantify Sample Report

GL Laboratories, LLC / Analyst: Michael A. Penny

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Dataset: C:\MASSLYN\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Name: C:\MASSLYN\NEW\_EXP.PRO\Data\EXP0412177a

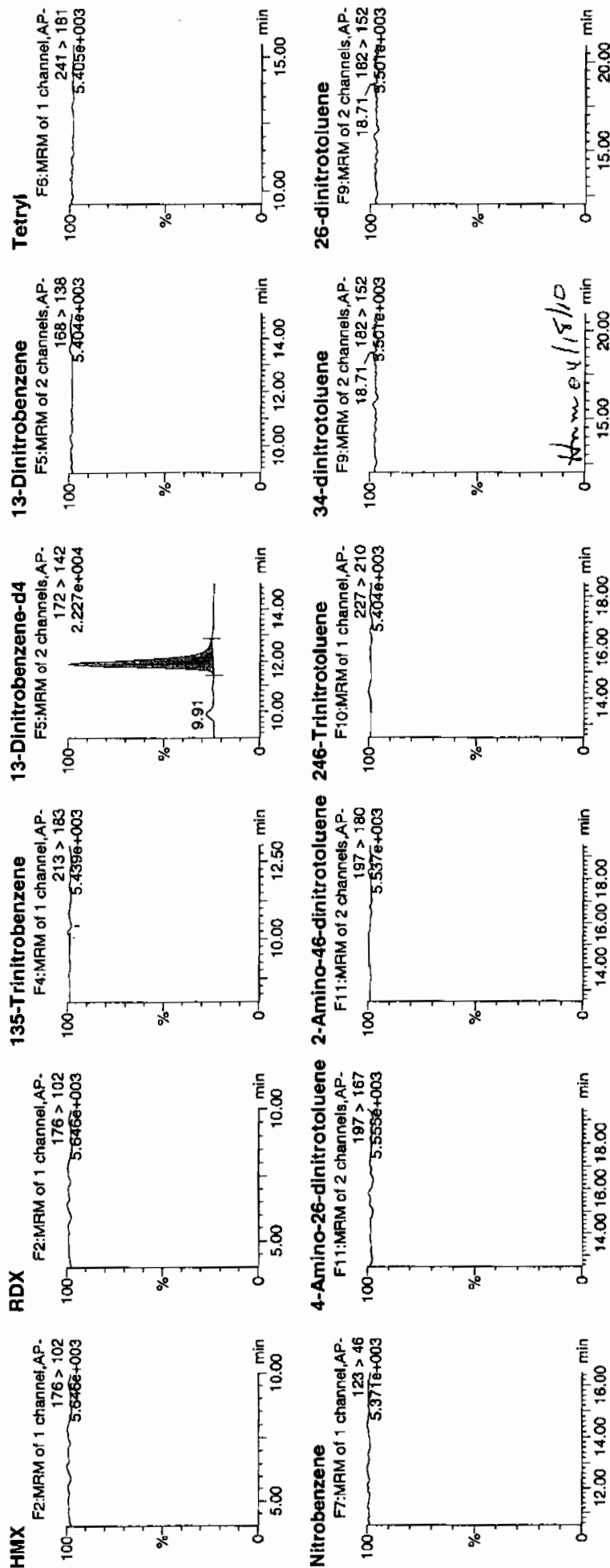
Date: 16-Apr-2010

Time: 06:13:19

ID: XIBLK22

Vial: 1:1,A

4/16/10

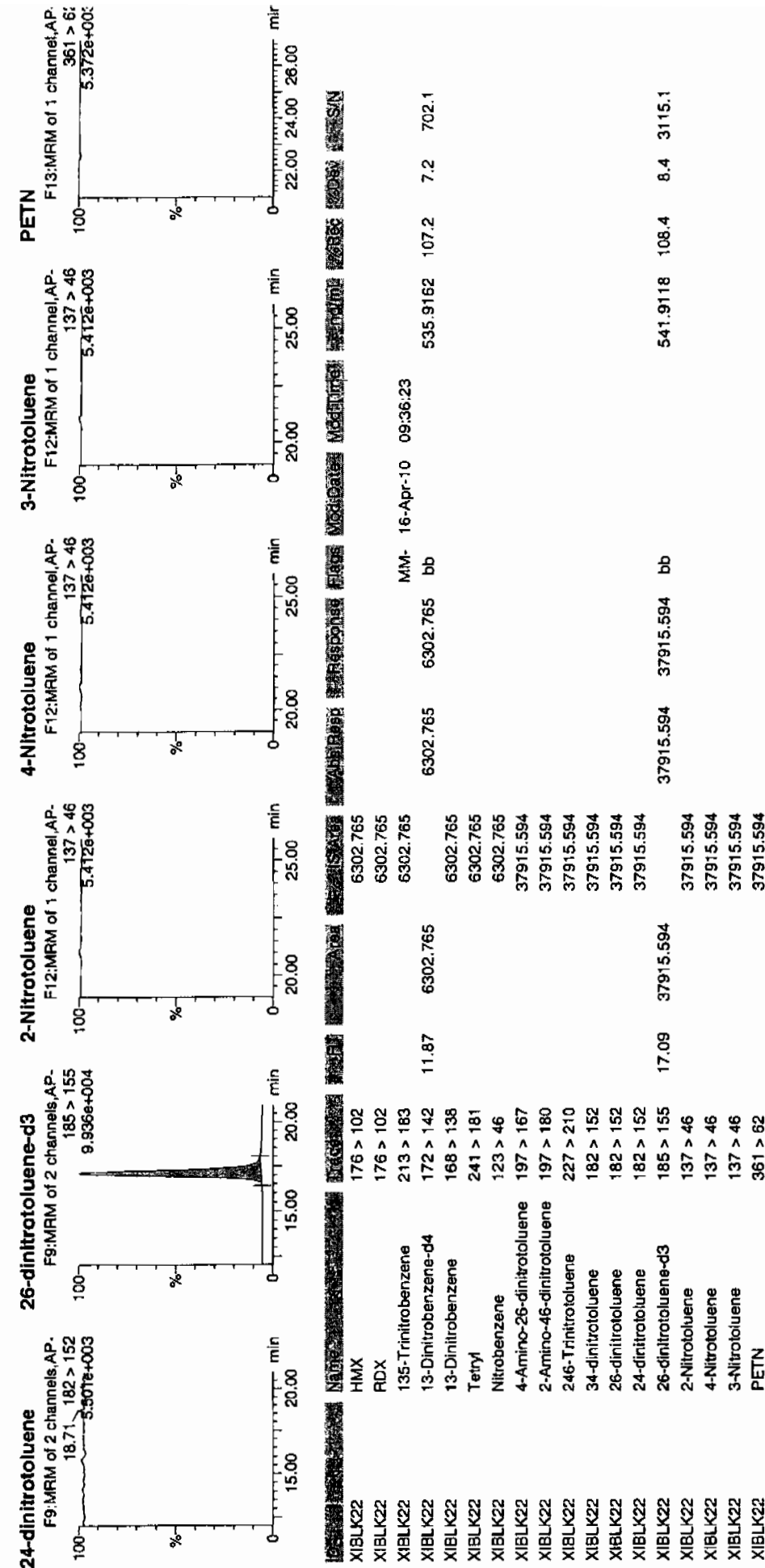


# Quantify Sample Report

42 GEL Laboratories, LLC / Analyst: Michael A. Penny

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O Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qtd, Time: Fri Apr 16 09:45:39 2010



\*\*\*  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2140

Lab Code: GEL

Lab Sample ID: XIBLK23

Analysis Date: 16-APR-10 12:36

GEL Data File: EXP0412190a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	574.526
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	581.418
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0



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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412190a

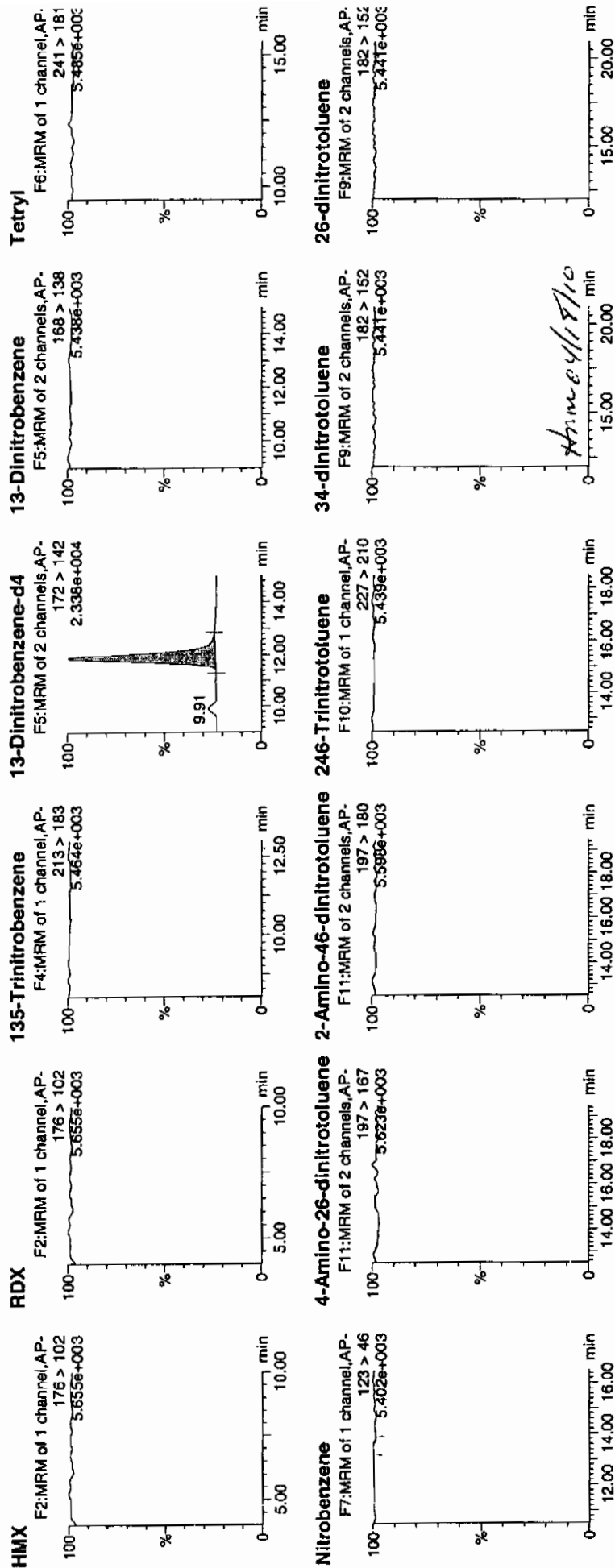
Date: 16-Apr-2010

Time: 12:36:57

ID: XIBLK23

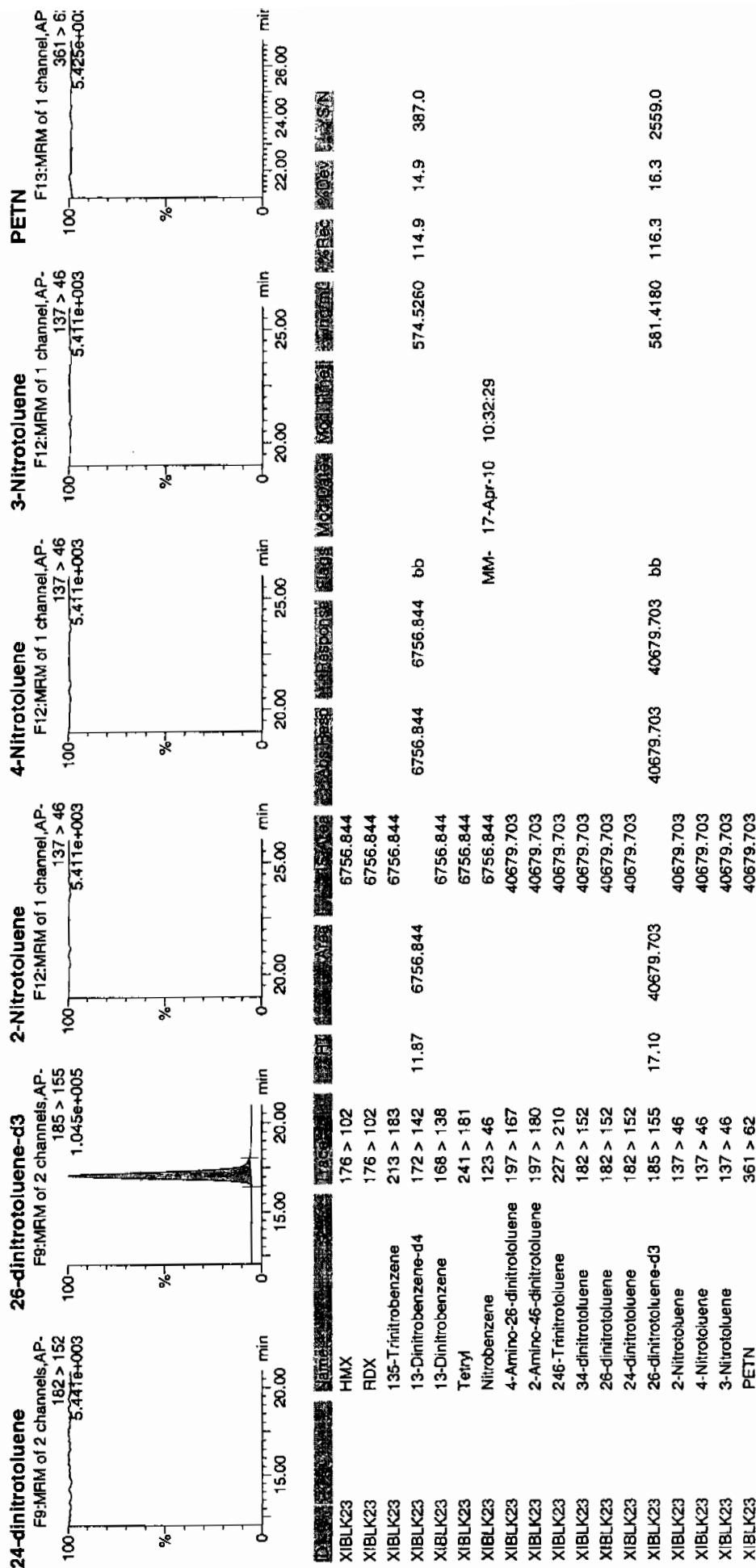
Vial: 1:1,A

MRP  
4/17/10



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

Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010



4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2140

Lab Code: GEL

Lab Sample ID: XIBLK24

Analysis Date: 16-APR-10 18:31

GEL Data File: EXP0412202a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	536.291
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	570.22
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412202a

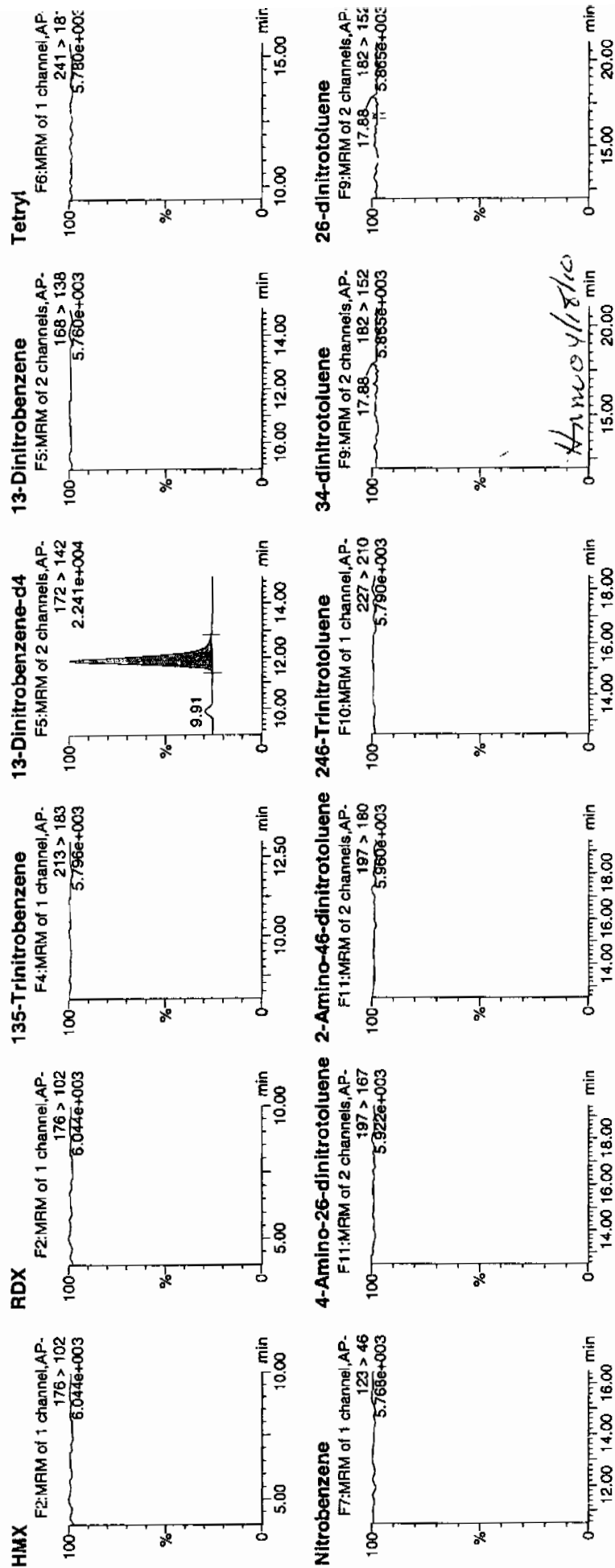
Date: 16-Apr-2010

Time: 18:31:06

ID: XIBLK24

Vial: 1:1,A

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17  
11/11/10

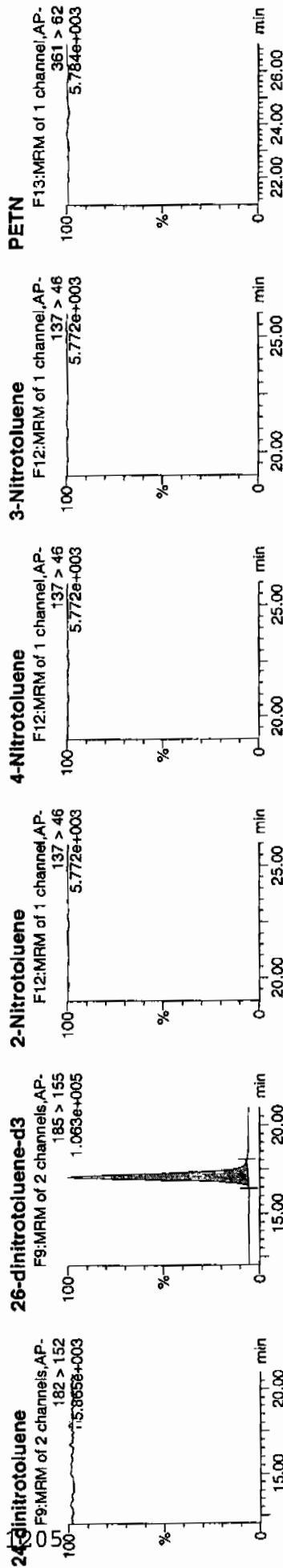


# Quantify Sample Report

GL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sat Apr 17 10:45:10 2010, Page 48 of 97

Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA4.q.d, Time: Sat Apr 17 10:42:19 2010



Library Name	Mass	Time	Mass	Time	Mass	Time	Mass	Time	Mass	Time
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XIBLK24	178 > 102	6307.174	XIBLK24	178 > 102	6307.174	XIBLK24	178 > 102	6307.174	XIBLK24	178 > 102
XIBLK24	135-Trinitrobenzene	213 > 183	XIBLK24	135-Trinitrobenzene	213 > 183	XIBLK24	135-Trinitrobenzene	213 > 183	XIBLK24	135-Trinitrobenzene
XIBLK24	13-Dinitrobenzene-d4	172 > 142	XIBLK24	13-Dinitrobenzene-d4	172 > 142	XIBLK24	13-Dinitrobenzene-d4	172 > 142	XIBLK24	13-Dinitrobenzene-d4
XIBLK24	13-Dinitrobenzene	168 > 138	XIBLK24	13-Dinitrobenzene	168 > 138	XIBLK24	13-Dinitrobenzene	168 > 138	XIBLK24	13-Dinitrobenzene
XIBLK24	Tetryl	241 > 181	XIBLK24	Tetryl	241 > 181	XIBLK24	Tetryl	241 > 181	XIBLK24	Tetryl
XIBLK24	Nitrobenzene	123 > 46	XIBLK24	Nitrobenzene	123 > 46	XIBLK24	Nitrobenzene	123 > 46	XIBLK24	Nitrobenzene
XIBLK24	4-Amino-26-dinitrotoluene	197 > 167	XIBLK24	4-Amino-26-dinitrotoluene	197 > 167	XIBLK24	4-Amino-26-dinitrotoluene	197 > 167	XIBLK24	4-Amino-26-dinitrotoluene
XIBLK24	2-Amino-46-dinitrotoluene	197 > 180	XIBLK24	2-Amino-46-dinitrotoluene	197 > 180	XIBLK24	2-Amino-46-dinitrotoluene	197 > 180	XIBLK24	2-Amino-46-dinitrotoluene
XIBLK24	246-Trinitrotoluene	227 > 210	XIBLK24	246-Trinitrotoluene	227 > 210	XIBLK24	246-Trinitrotoluene	227 > 210	XIBLK24	246-Trinitrotoluene
XIBLK24	34-dinitrotoluene	182 > 152	XIBLK24	34-dinitrotoluene	182 > 152	XIBLK24	34-dinitrotoluene	182 > 152	XIBLK24	34-dinitrotoluene
XIBLK24	26-dinitrotoluene	182 > 152	XIBLK24	26-dinitrotoluene	182 > 152	XIBLK24	26-dinitrotoluene	182 > 152	XIBLK24	26-dinitrotoluene
XIBLK24	24-dinitrotoluene	182 > 152	XIBLK24	24-dinitrotoluene	182 > 152	XIBLK24	24-dinitrotoluene	182 > 152	XIBLK24	24-dinitrotoluene
XIBLK24	26-dinitrotoluene-d3	185 > 155	XIBLK24	26-dinitrotoluene-d3	185 > 155	XIBLK24	26-dinitrotoluene-d3	185 > 155	XIBLK24	26-dinitrotoluene-d3
XIBLK24	2-Nitrotoluene	137 > 46	XIBLK24	2-Nitrotoluene	137 > 46	XIBLK24	2-Nitrotoluene	137 > 46	XIBLK24	2-Nitrotoluene
XIBLK24	4-Nitrotoluene	137 > 46	XIBLK24	4-Nitrotoluene	137 > 46	XIBLK24	4-Nitrotoluene	137 > 46	XIBLK24	4-Nitrotoluene
XIBLK24	3-Nitrotoluene	137 > 46	XIBLK24	3-Nitrotoluene	137 > 46	XIBLK24	3-Nitrotoluene	137 > 46	XIBLK24	3-Nitrotoluene
XIBLK24	PETN	361 > 62	XIBLK24	PETN	361 > 62	XIBLK24	PETN	361 > 62	XIBLK24	PETN

## Explosives Initial Calibration Blank

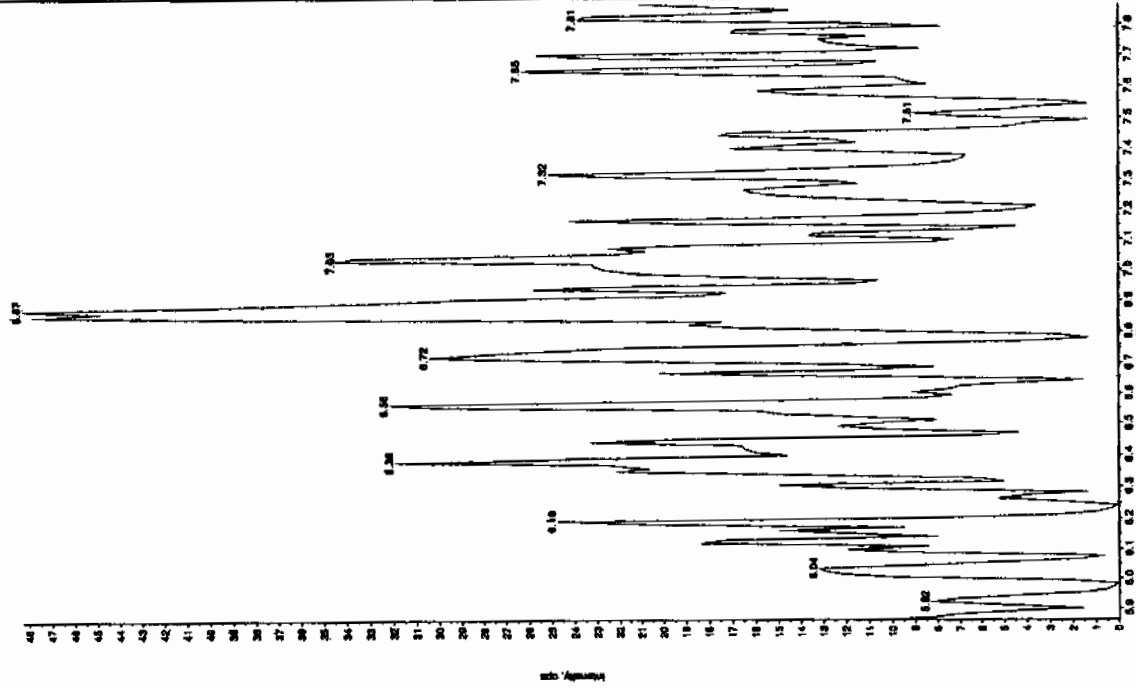
Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2140Lab Code: GELLab Sample ID: XIBLK01Analysis Date: 05-APR-10 12:43GEL Data File: EXS04050001.wiffInstrument ID: LCMSMSColumn: Phenomenex Ultracarb 5u ODS(20)

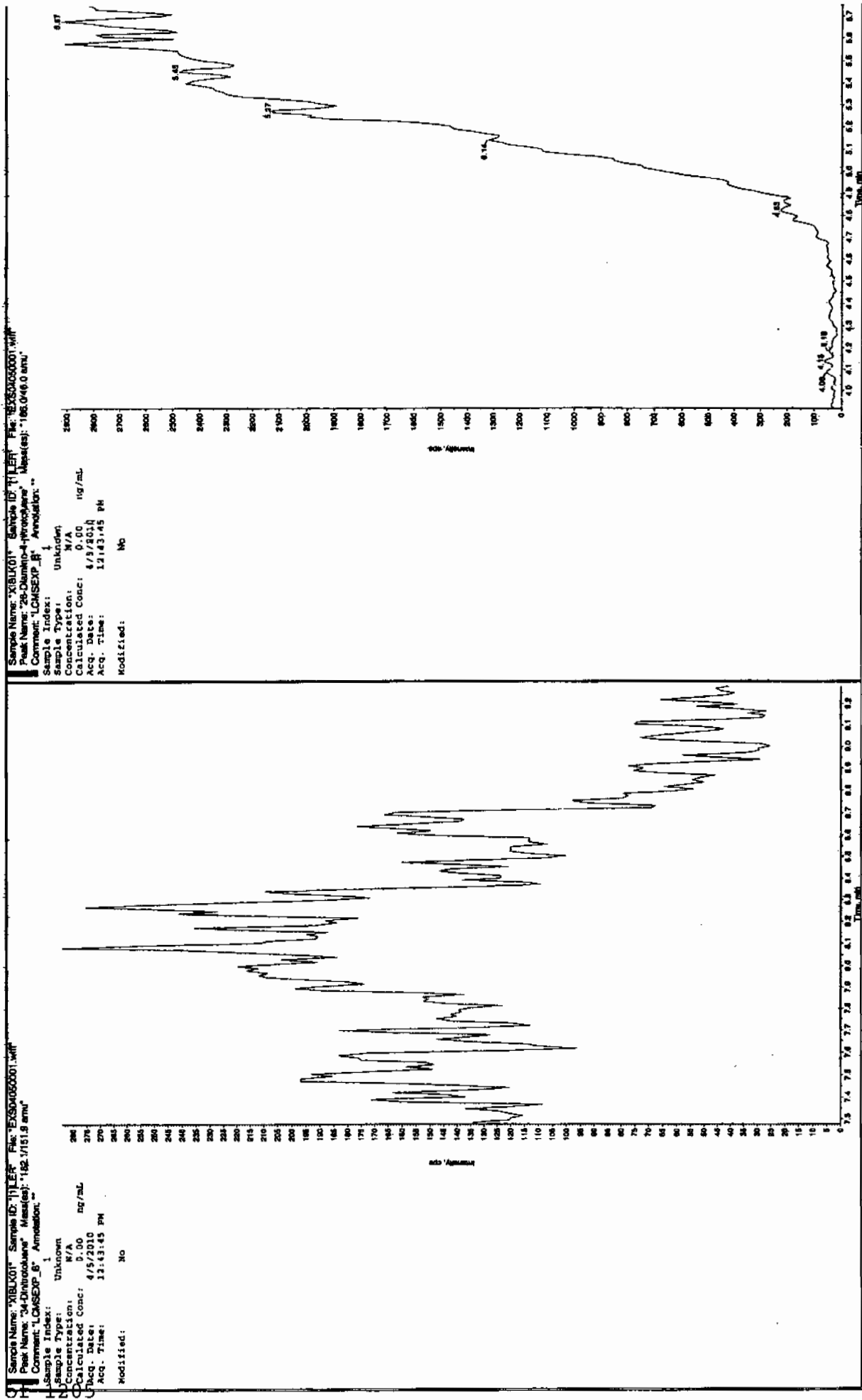
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	2.85
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	27.2
2,6-Diamino-4-nitrotoluene	0	0

for 4/7/10

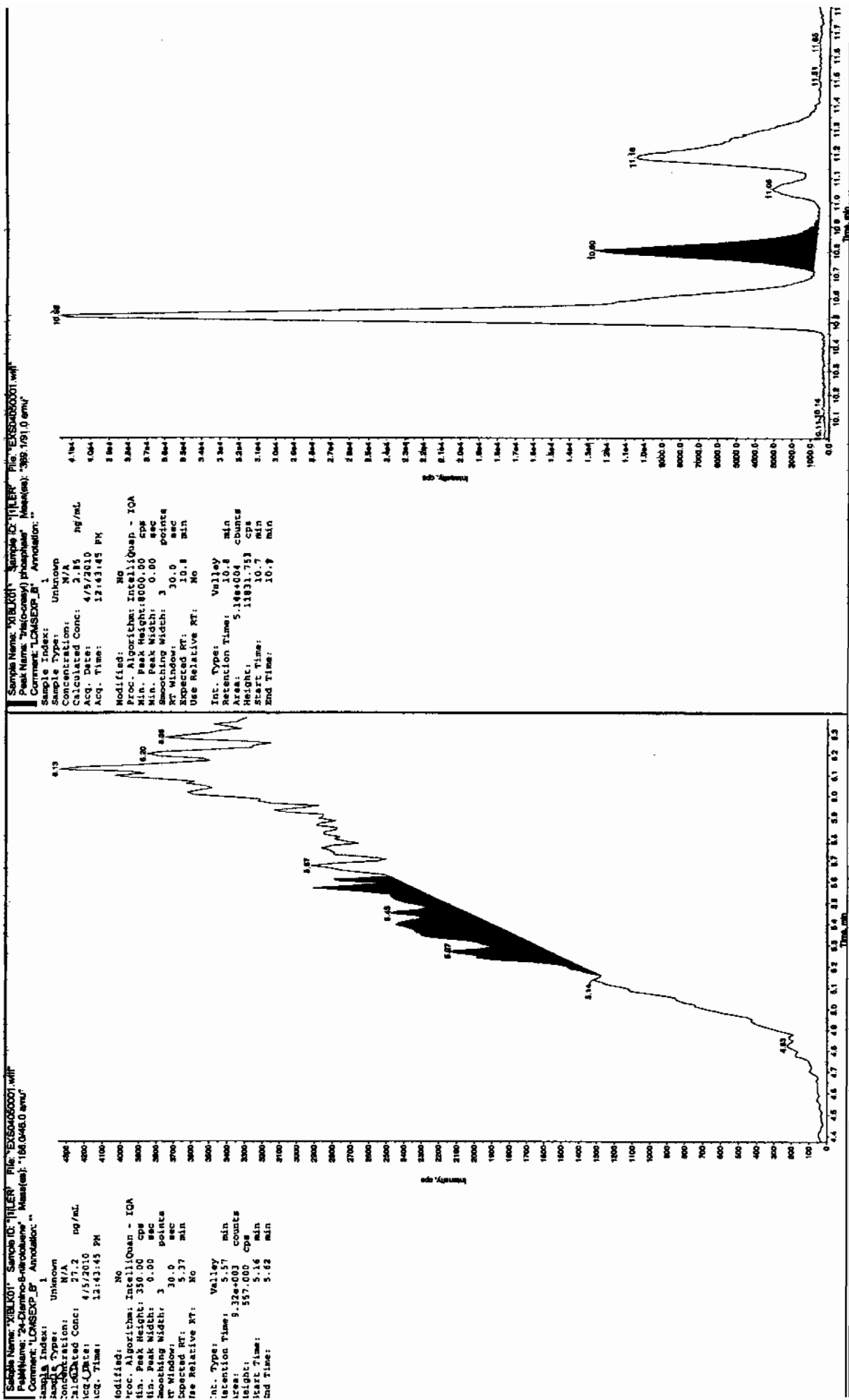
Sample Name: "XBLU01" Sample ID: "T1L01" File: "EX0504050001.wif"  
 Peak Name: "TATB" Mass(es): 257.2204.9 amu  
 Comment: "LCMSXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/5/2010  
 Acq. Time: 12:43:45 PM  
 Modified: No





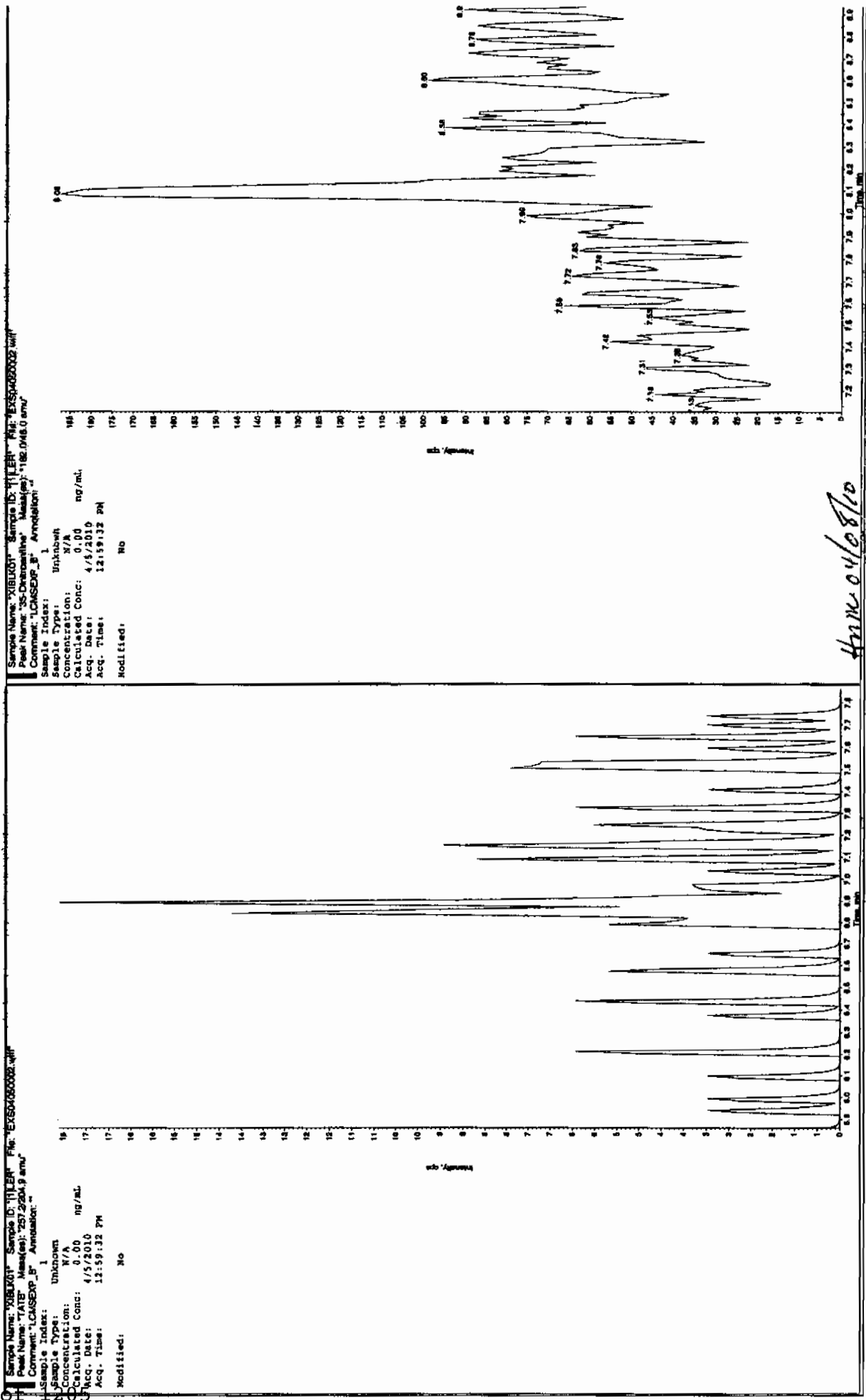




**Explosives Initial Calibration Blank****Lab Name:** GEL Laboratories LLC**GEL Job No(SDG):** 10-2140**Lab Code:** GEL**Lab Sample ID:** XIBLK01**Analysis Date:** 05-APR-10 12:59**GEL Data File:** EXS04050002.wiff**Instrument ID:** LCMSMS**Column:** Phenomenex Ultracarb 5u ODS(20)

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

2004 4/2/10

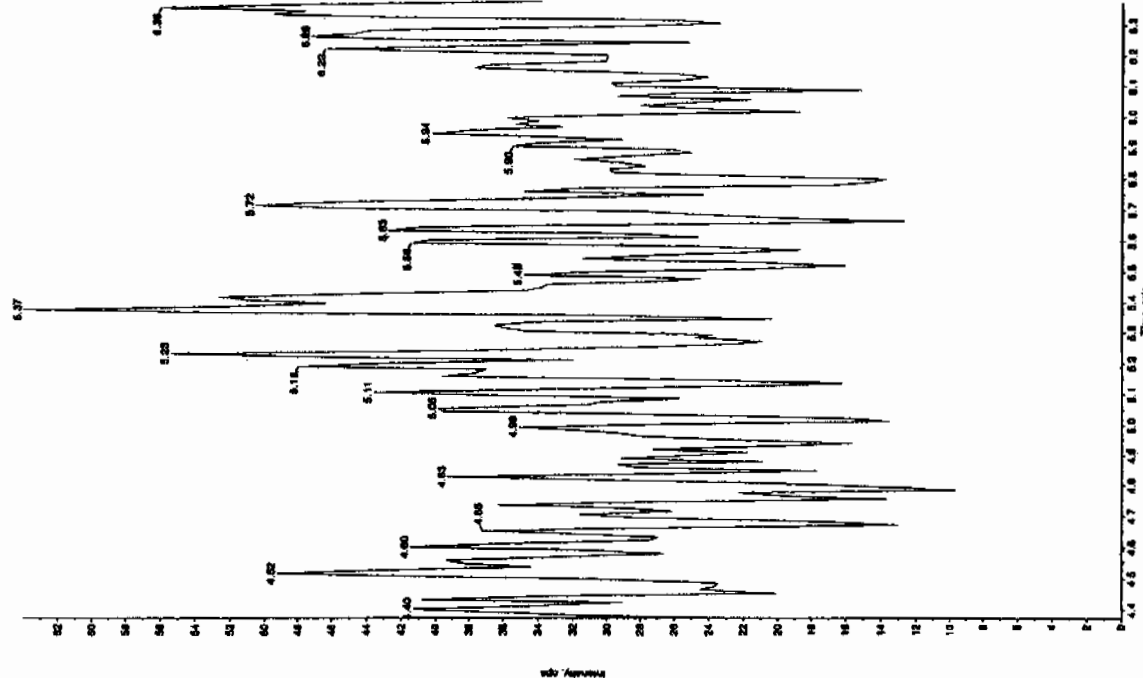


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

4/10/08/10

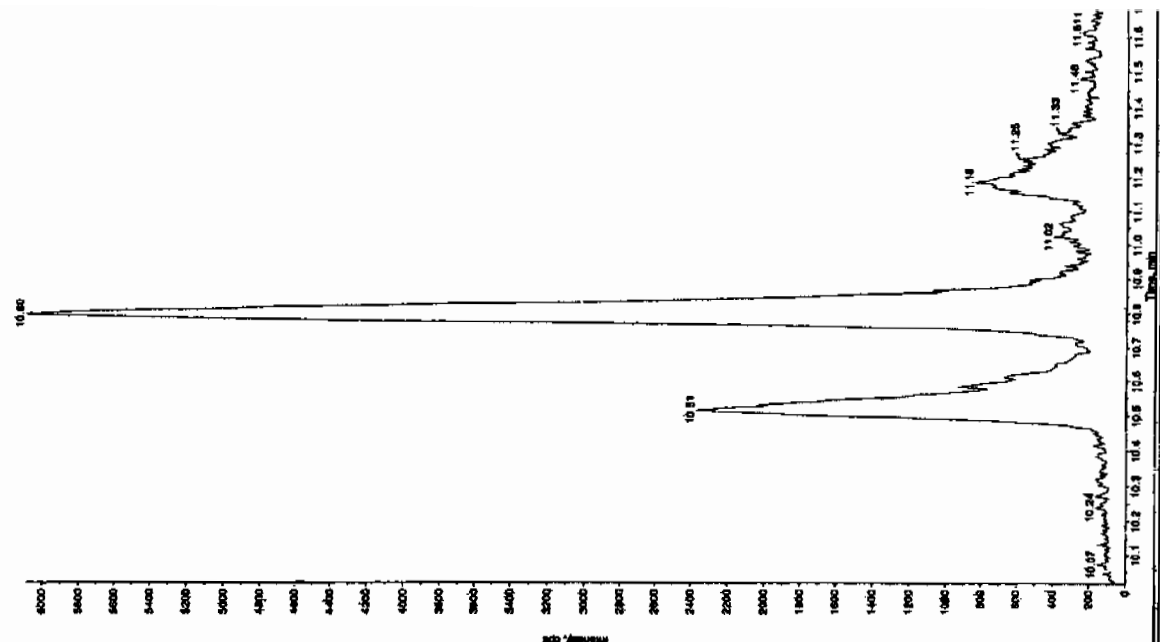


Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00
ng/mL	
Req. Date:	4/5/2010
Acq. Time:	13:59:32 PM
Modified:	NO



Sample Name: "XIBLK01" Sample ID: "11ER" File: "EX604050002.wiff"  
Peak Name: "tris(o-cresyl) phosphine" Mass(es): "369.191.0 amu"  
Comment: "LCMSEXP B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	4/5/2010
Acq. Time:	12:59:32 PM
Modified:	No



## Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2140Lab Code: GELLab Sample ID: XIBLK02Analysis Date: 05-APR-10 15:07GEL Data File: EXS04050010.wiffInstrument ID: LCMSMSColumn: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	11.1
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Sen 4/7/10

Sample Name: "XIBU02" Sample ID: "HLEP" File: "EXS04050010.wif"

Peak Name: "1ATB" Mass(es): "237.2204.9 amu"

Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1

Sample Type: Unknown

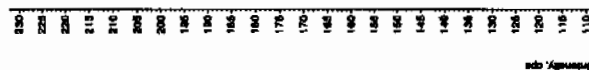
Concentration: N/A

Calculated Conc: 5.00 ng/mL

Acq. Date: 4/5/2010

Acq. Time: 3:07:10 PM

Modified: No



Sample Name: "XIBU02" Sample ID: "HLEP" File: "EXS04050010.wif"

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

Comment: "LCMSEXP\_B" Annotation: "

Sample Index: 1

Sample Type: Unknown

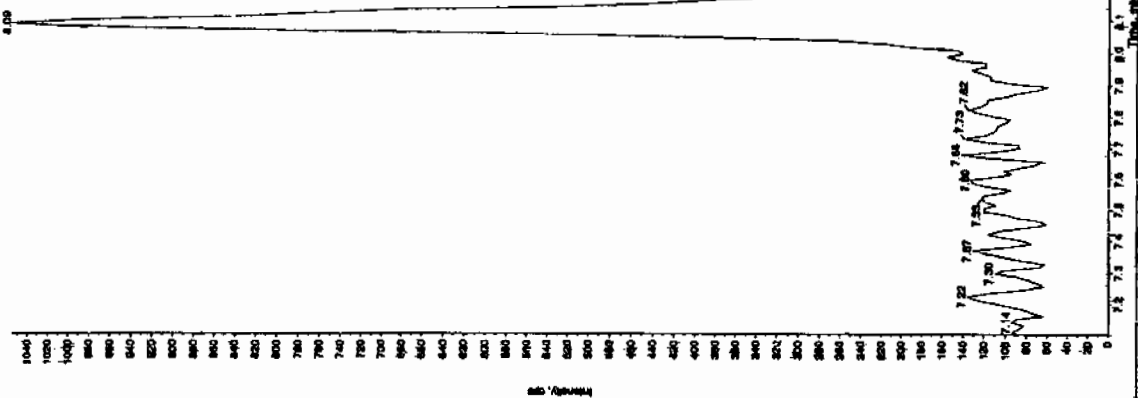
Concentration: N/A

Calculated Conc: 5.00 ng/mL

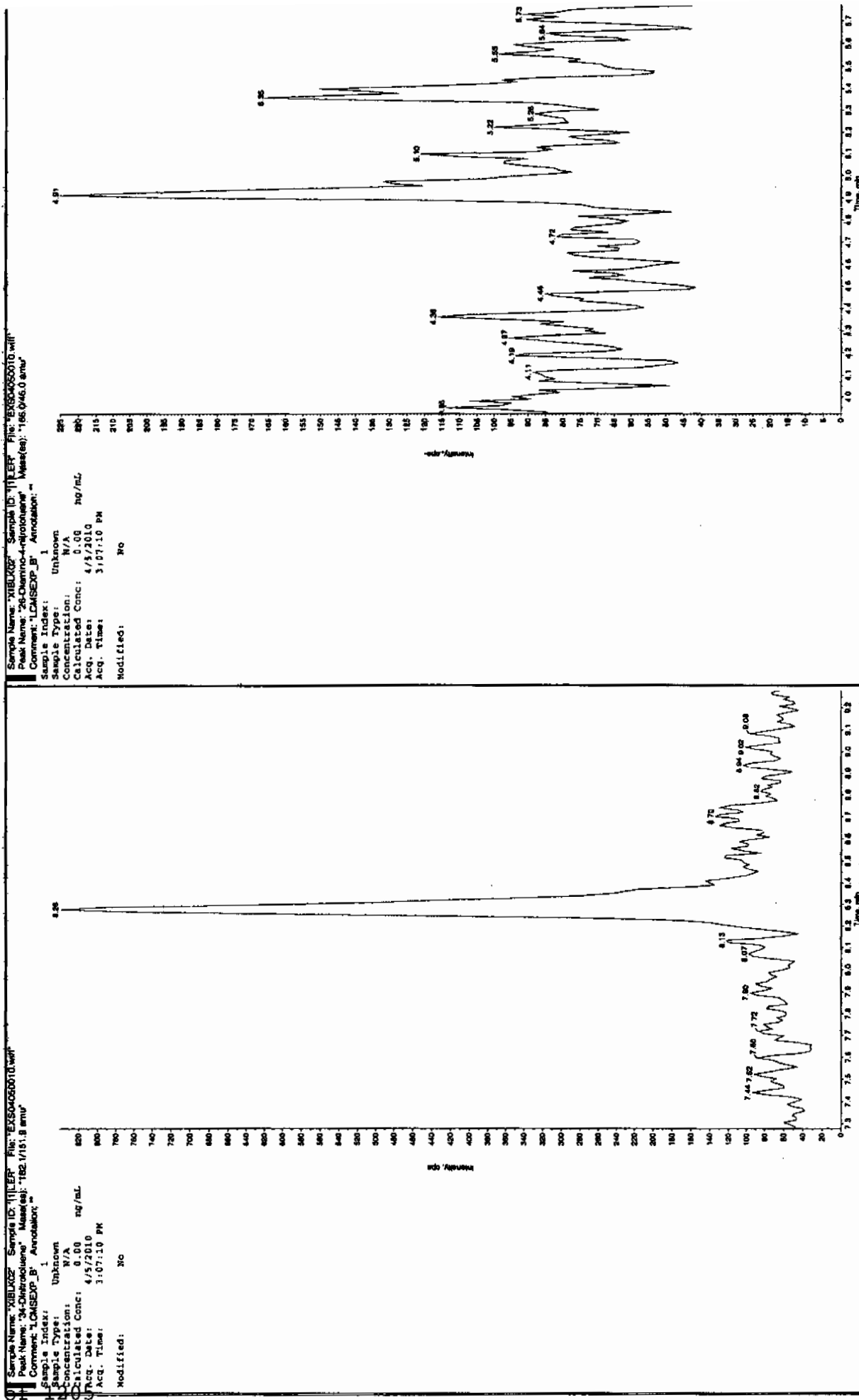
Acq. Date: 4/5/2010

Acq. Time: 3:07:10 PM

Modified: No

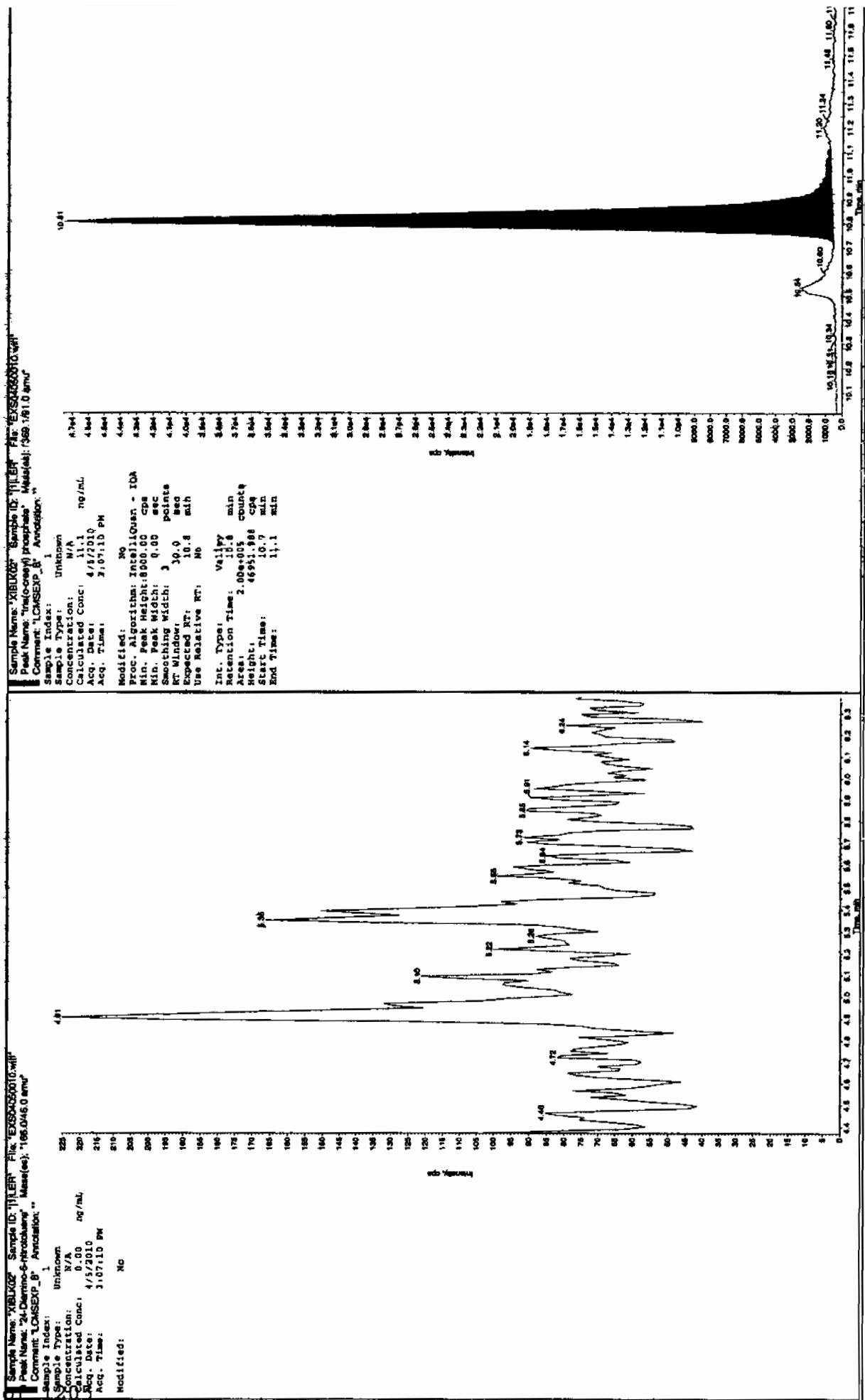


Sen 4/7/10



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





Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2140

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 05-APR-10 15:38

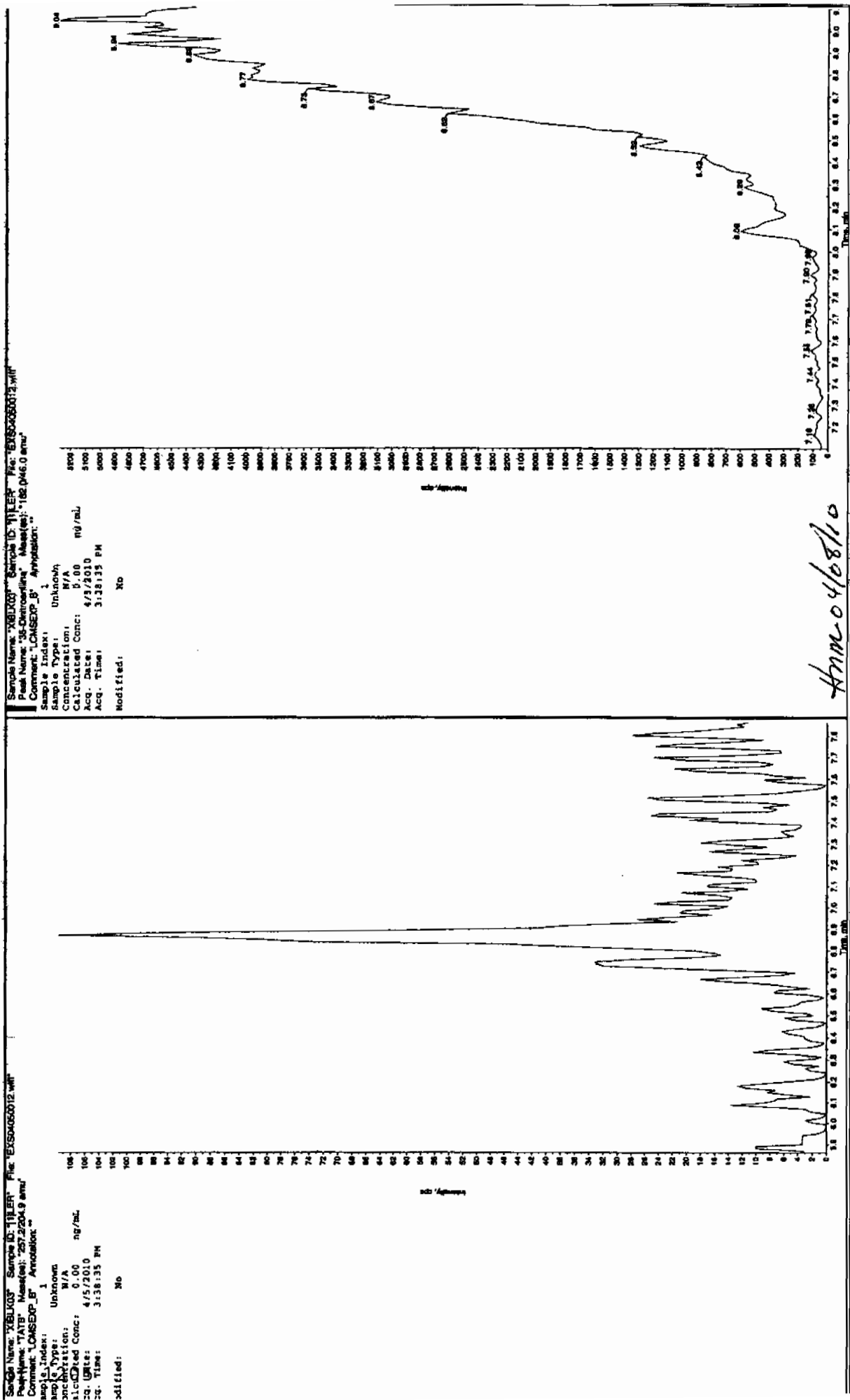
GEL Data File: EXS04050012.wiff

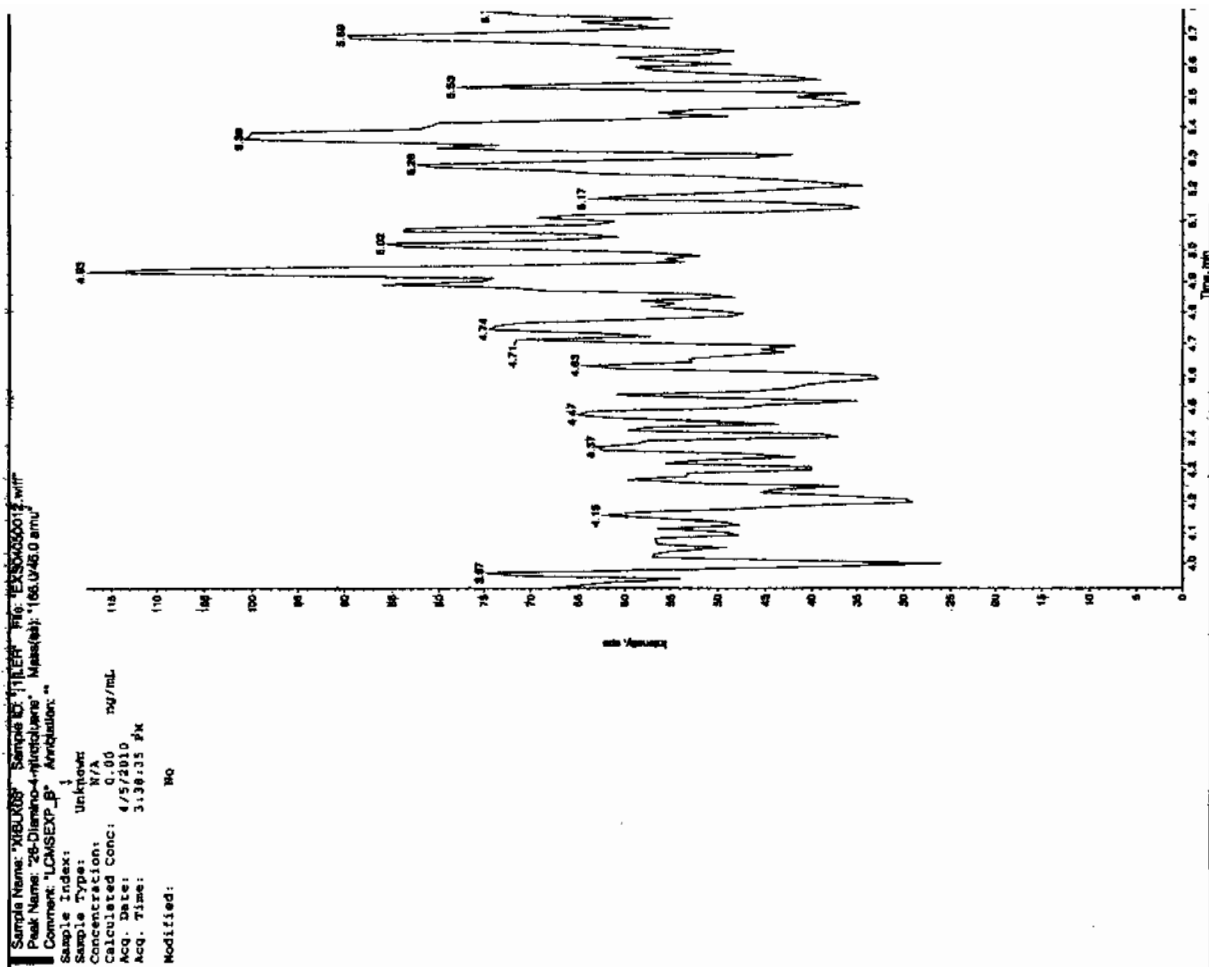
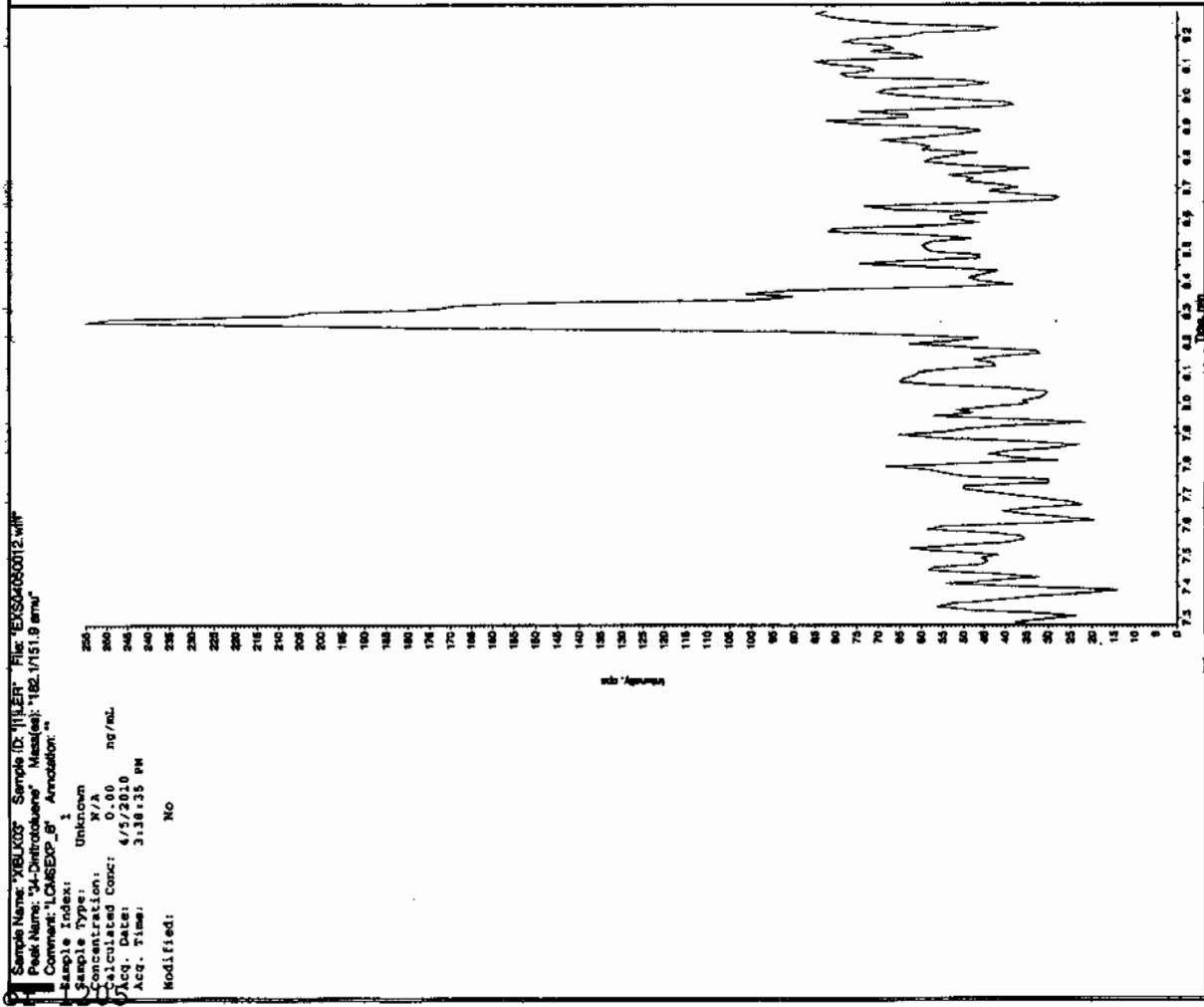
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

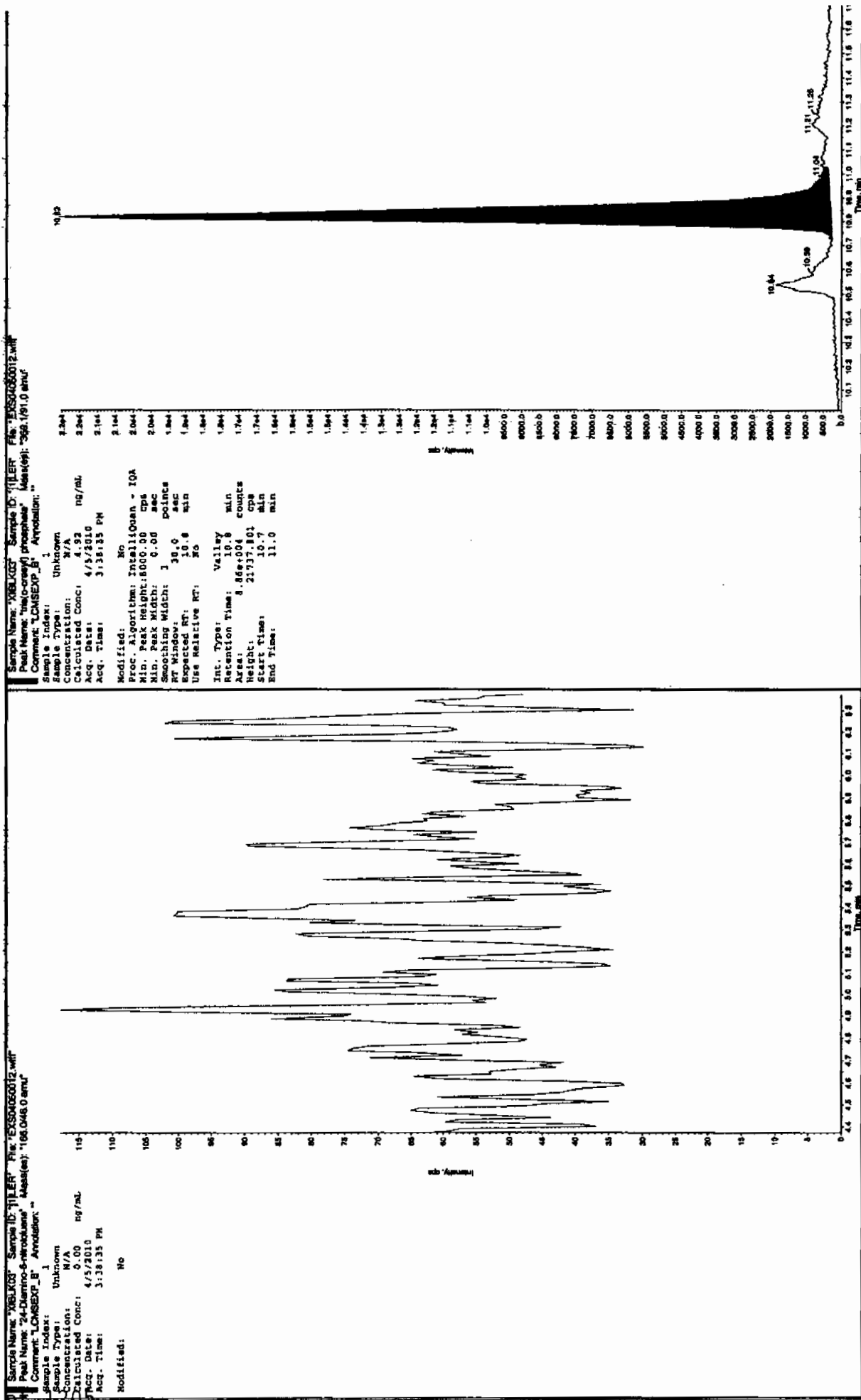
Compound	True	Found (ug/L)
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	4.92
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0

Jan 4/17/10





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



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

**Explosives Continuing Calibration Blank**

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-2140

**Lab Code:** GEL

**Lab Sample ID:** XIBLK04

**Analysis Date:** 05-APR-10 19:02

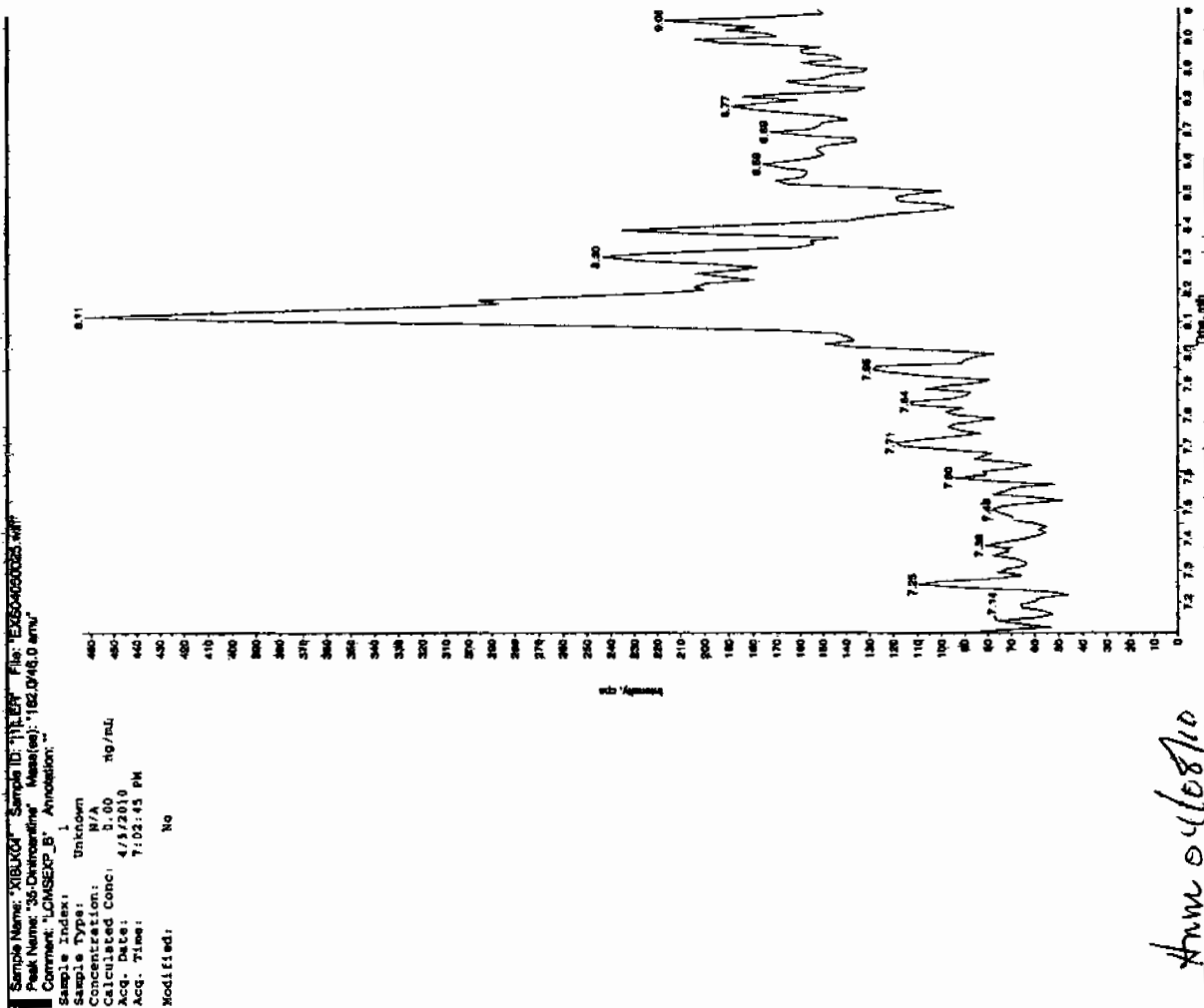
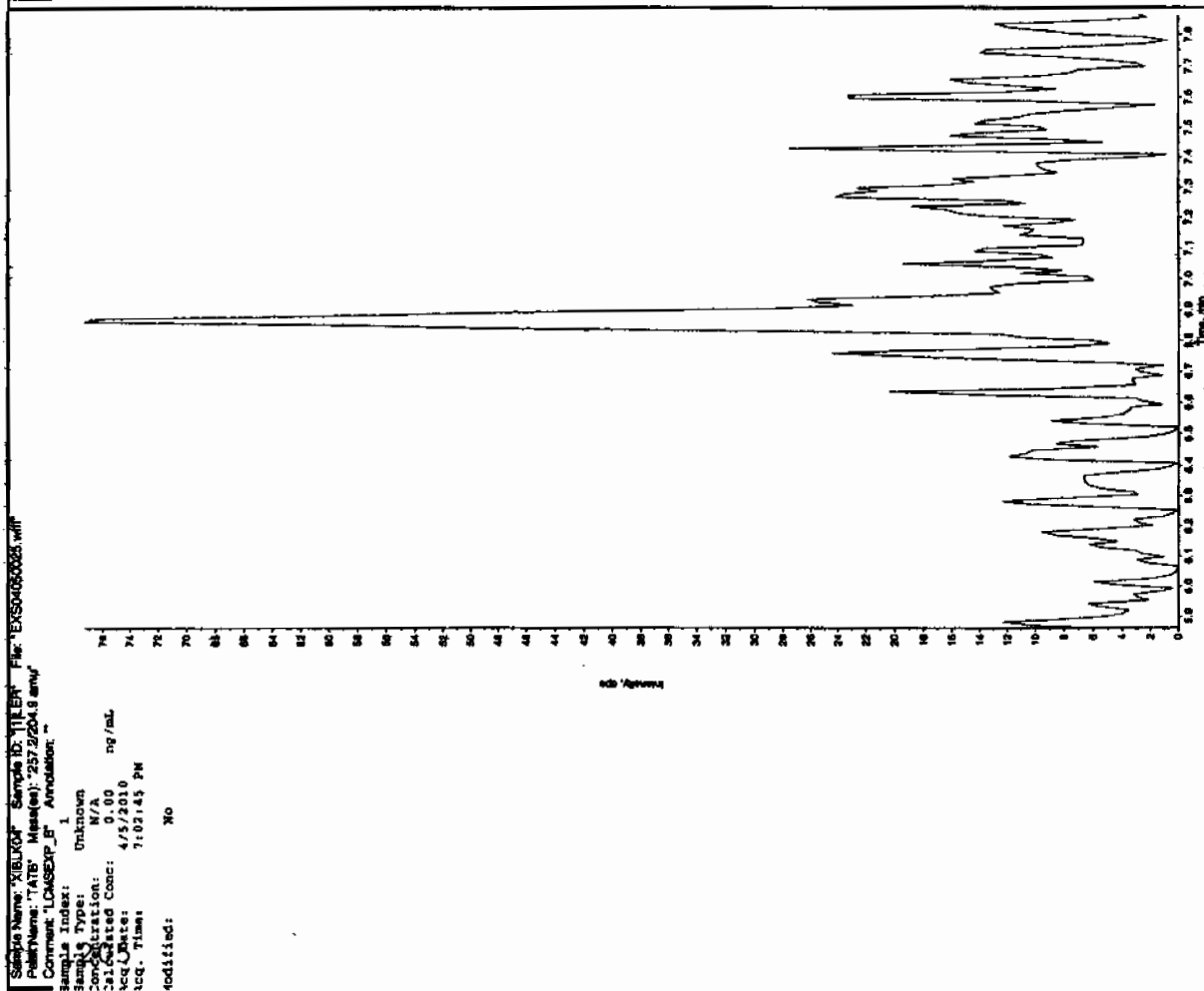
**GEL Data File:** EXS04050025.wiff

**Instrument ID:** LCMSMS

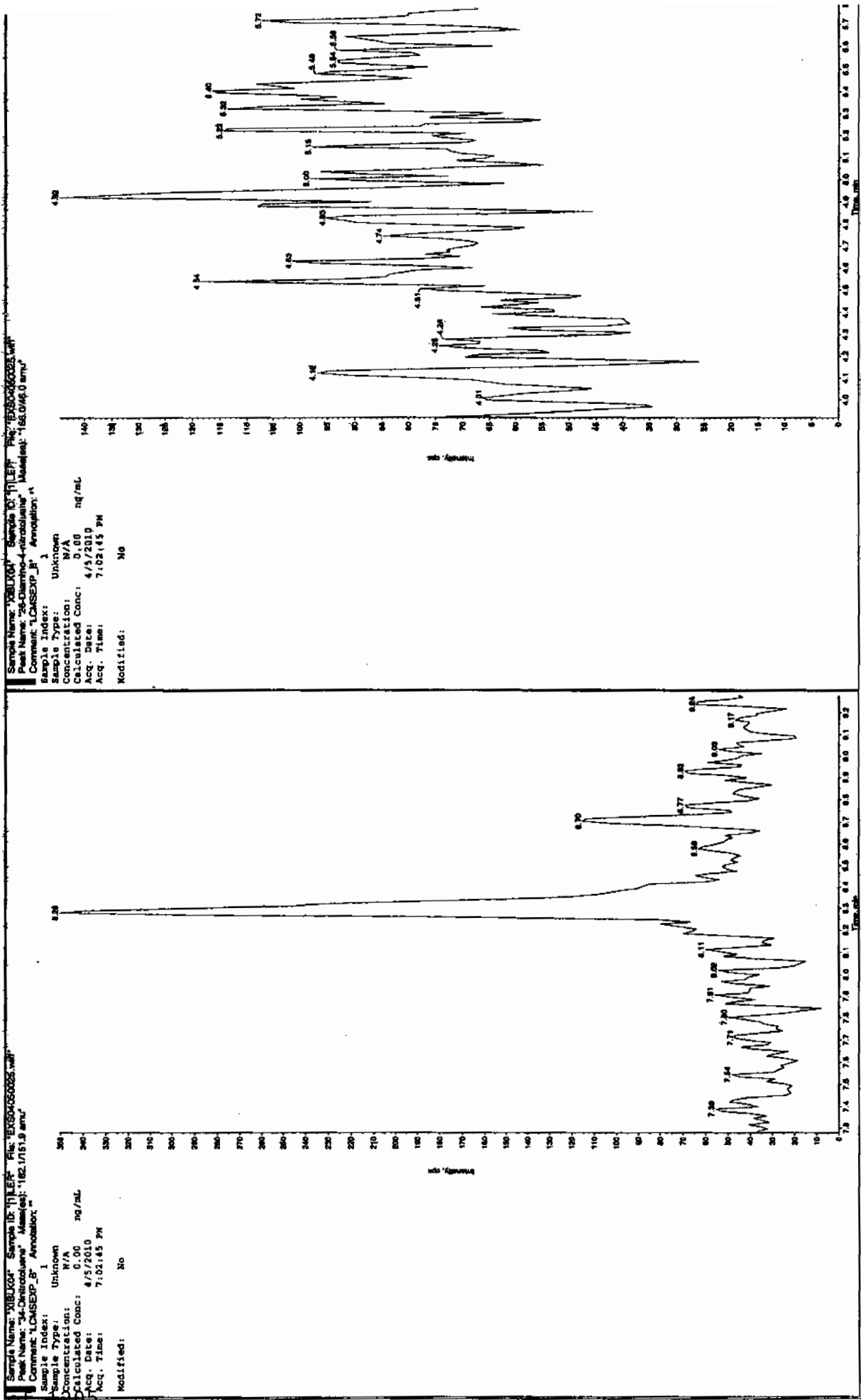
**Column:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	4.08
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

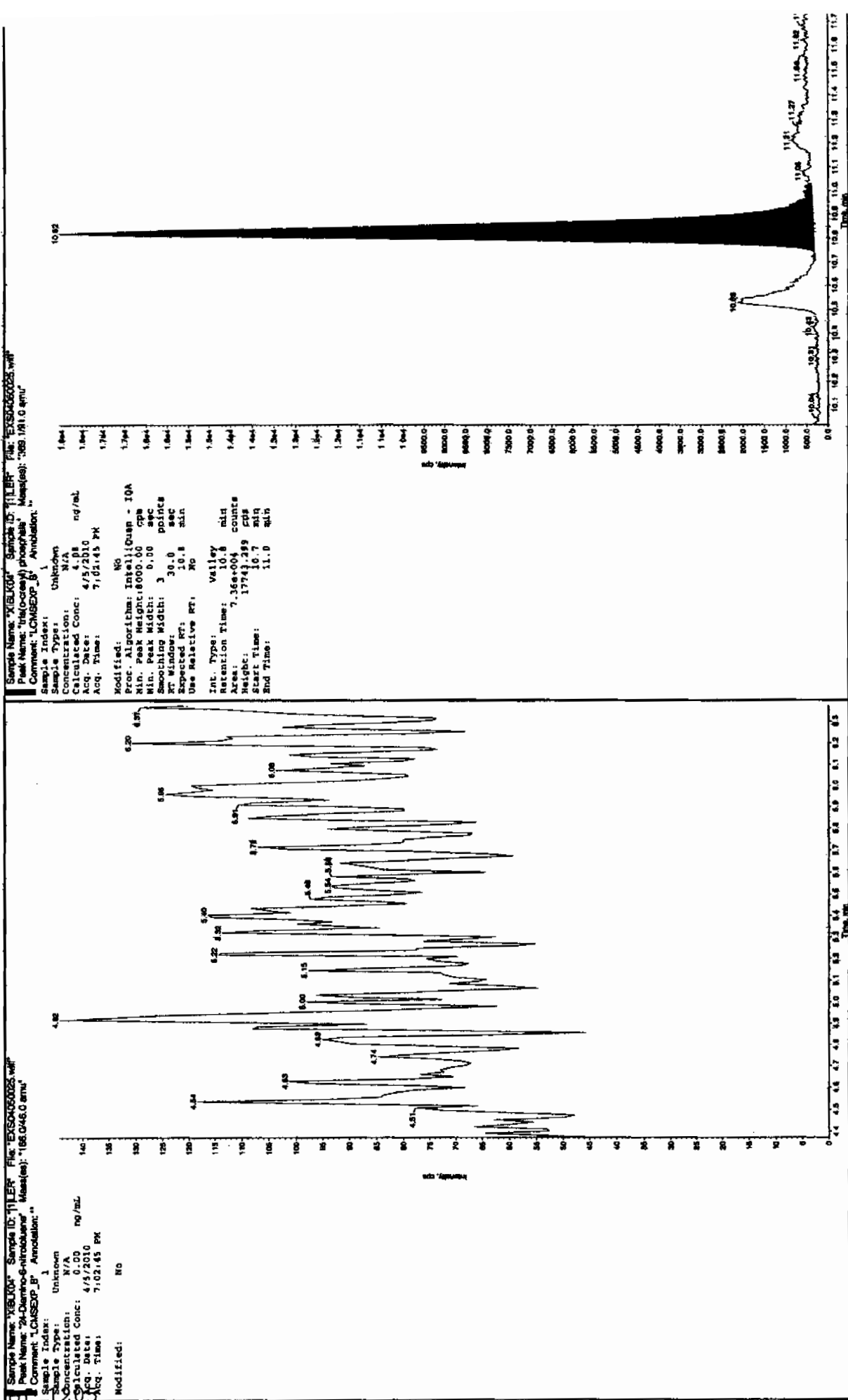
Jan 4/10



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\*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):** 10-2140

**Lab Code:** GEL

**Lab Sample ID:** XIBLK05

**Analysis Date:** 05-APR-10 22:27

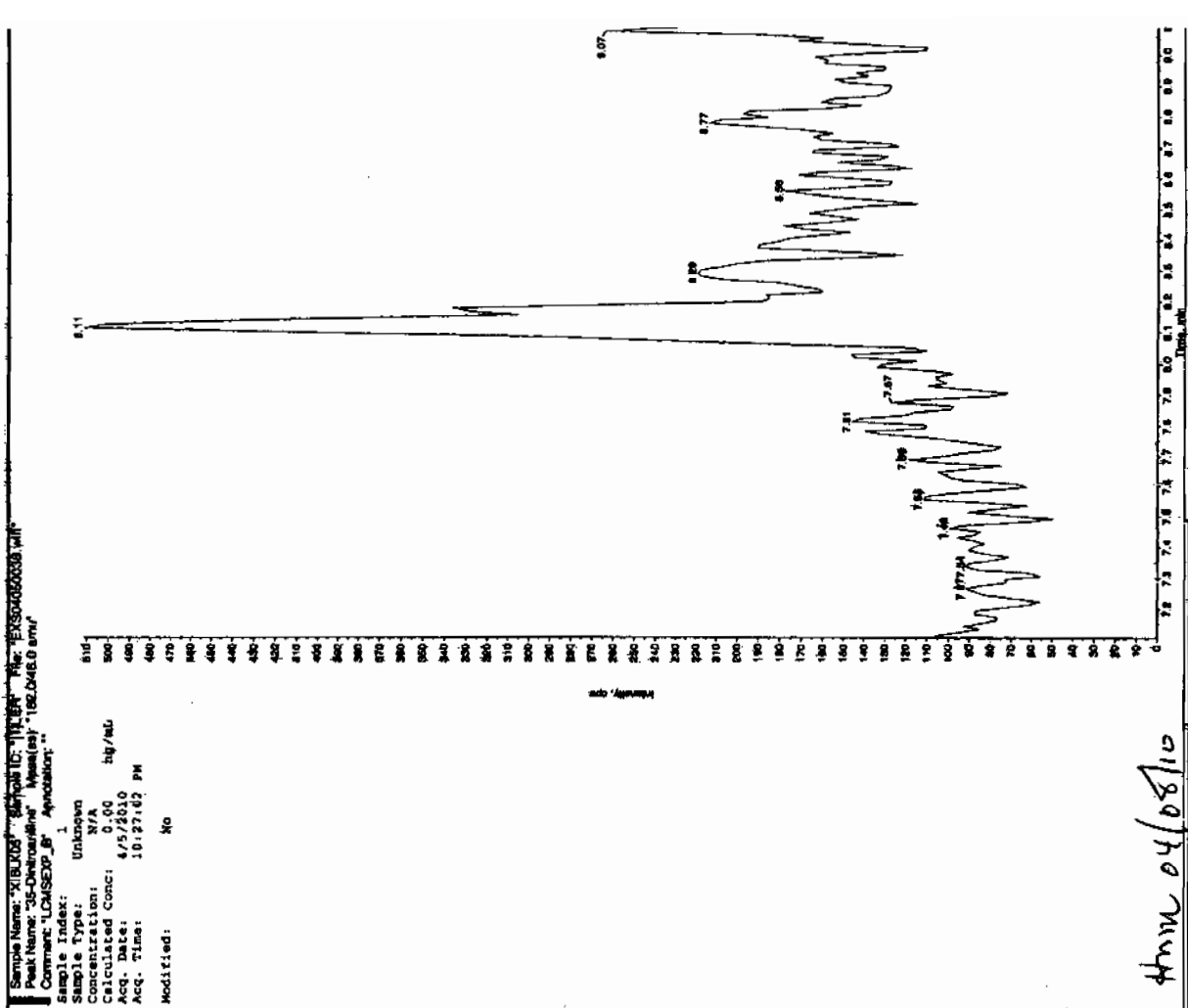
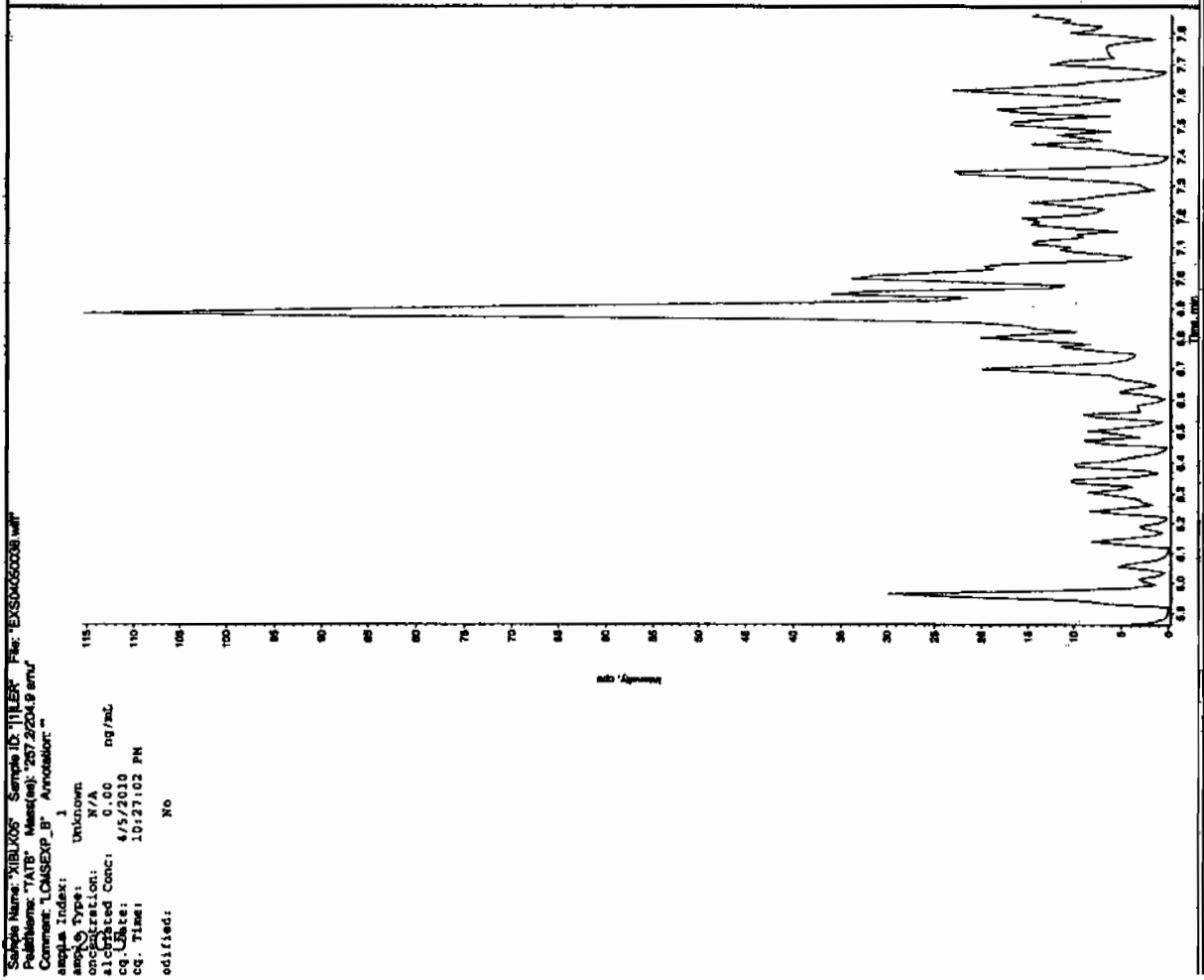
**GEL Data File:** EXS04050038.wiff

**Instrument ID:** LCMSMS

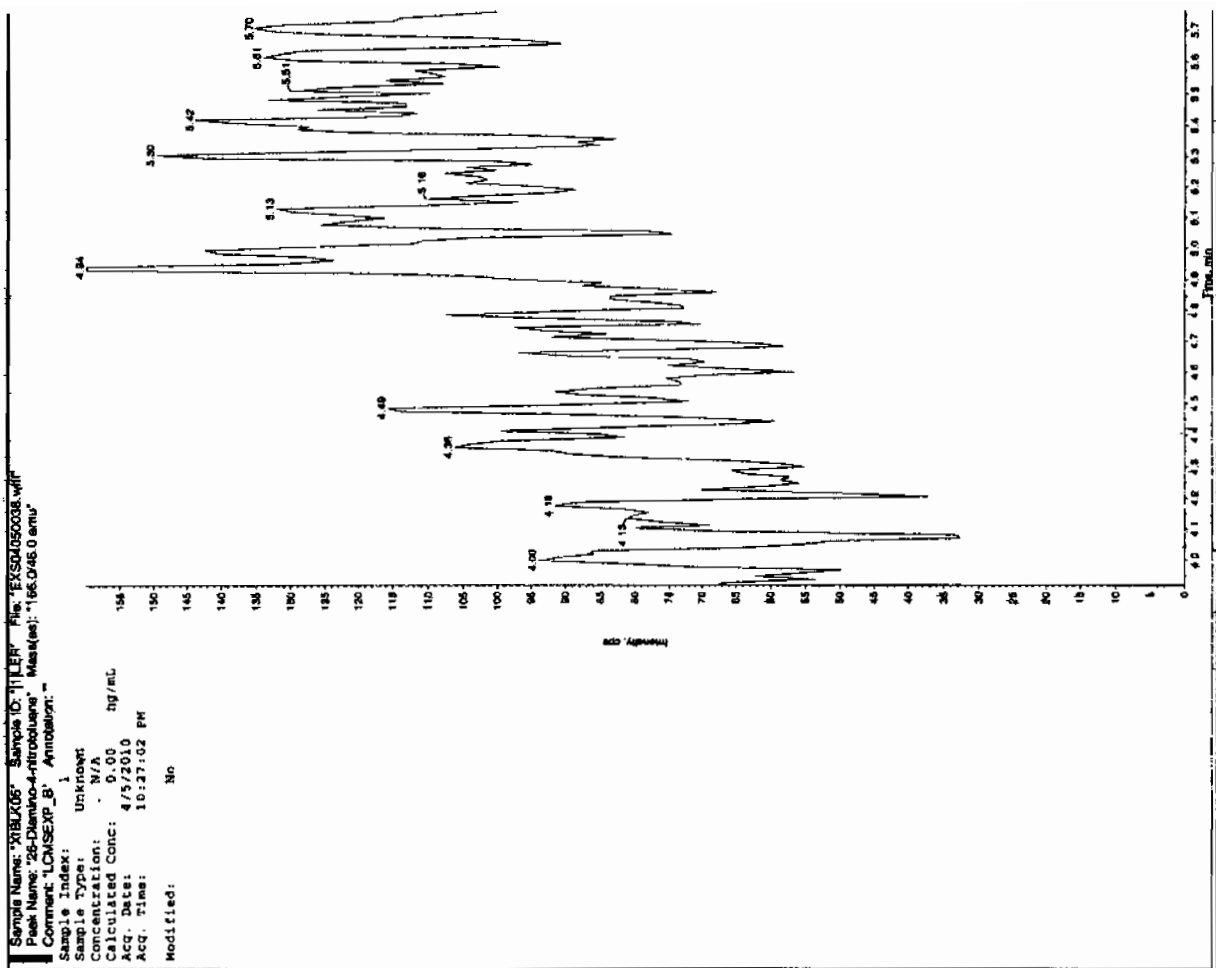
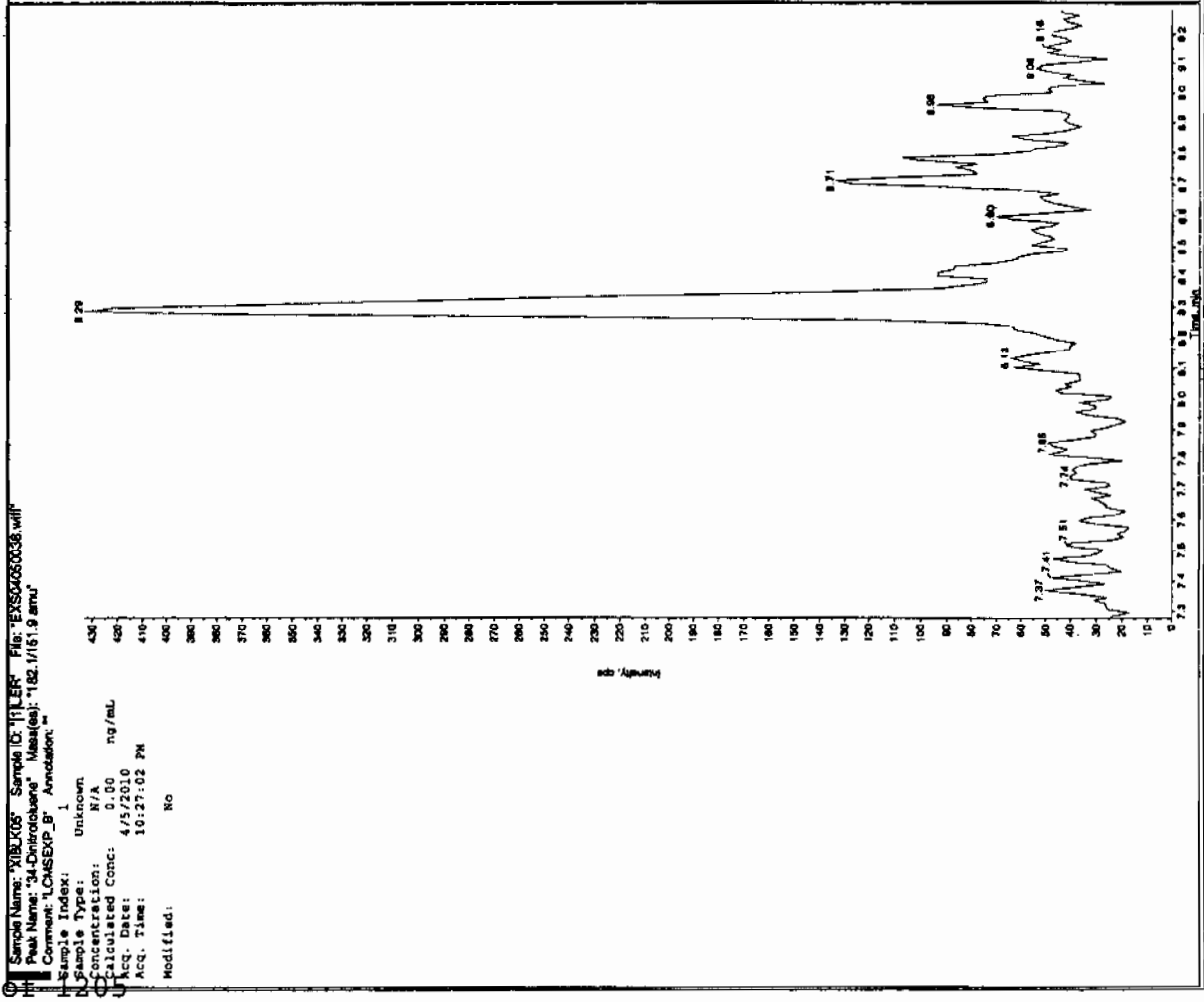
**Column:** Phenomenex Ultracarb 5u ODS(20)

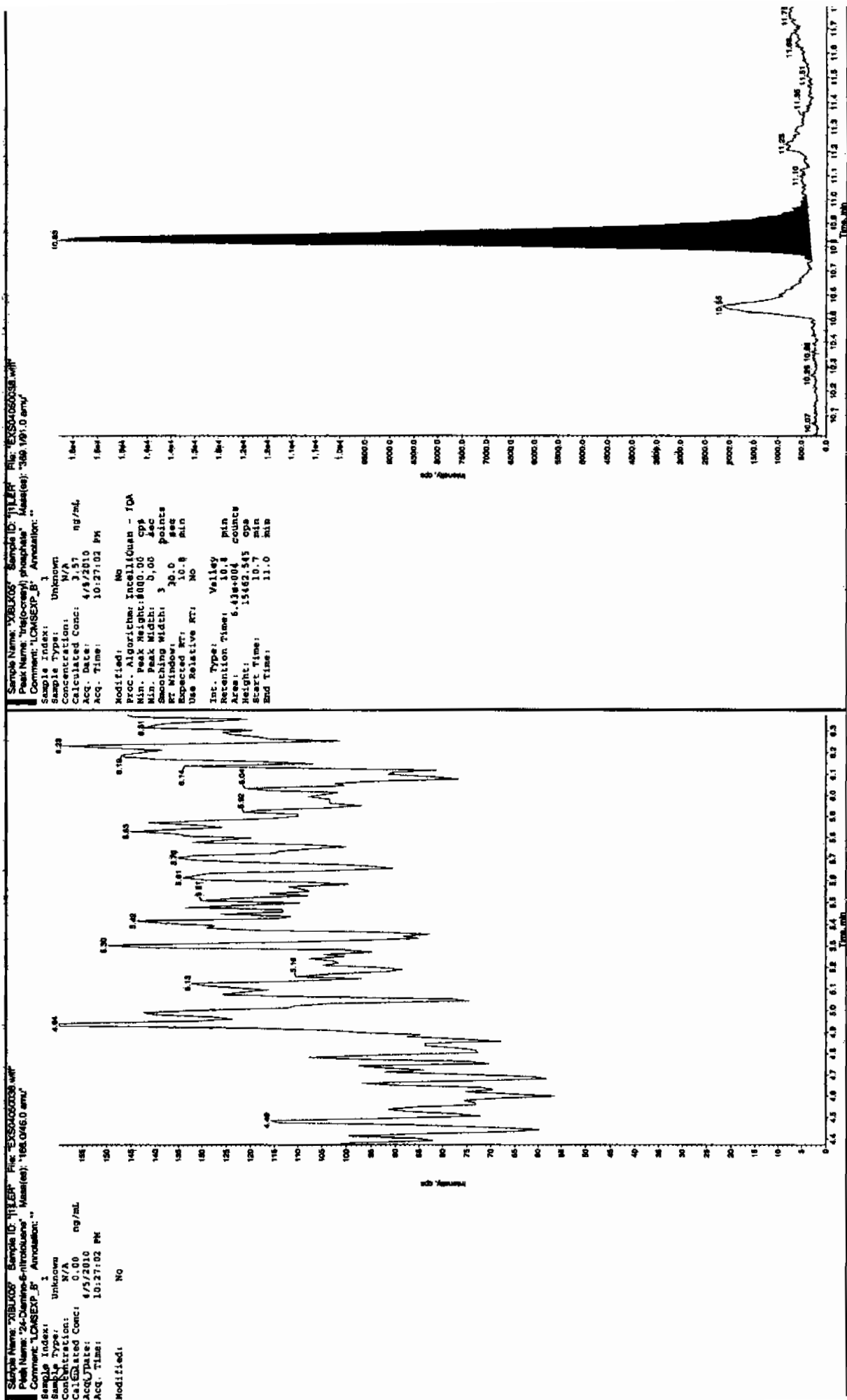
Compound	True	Found (ug/L)
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.57
TATB	0	0
3,5-Dinitroaniline	0	0

Jan 4/10



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4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2140

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 06-APR-10 00:01

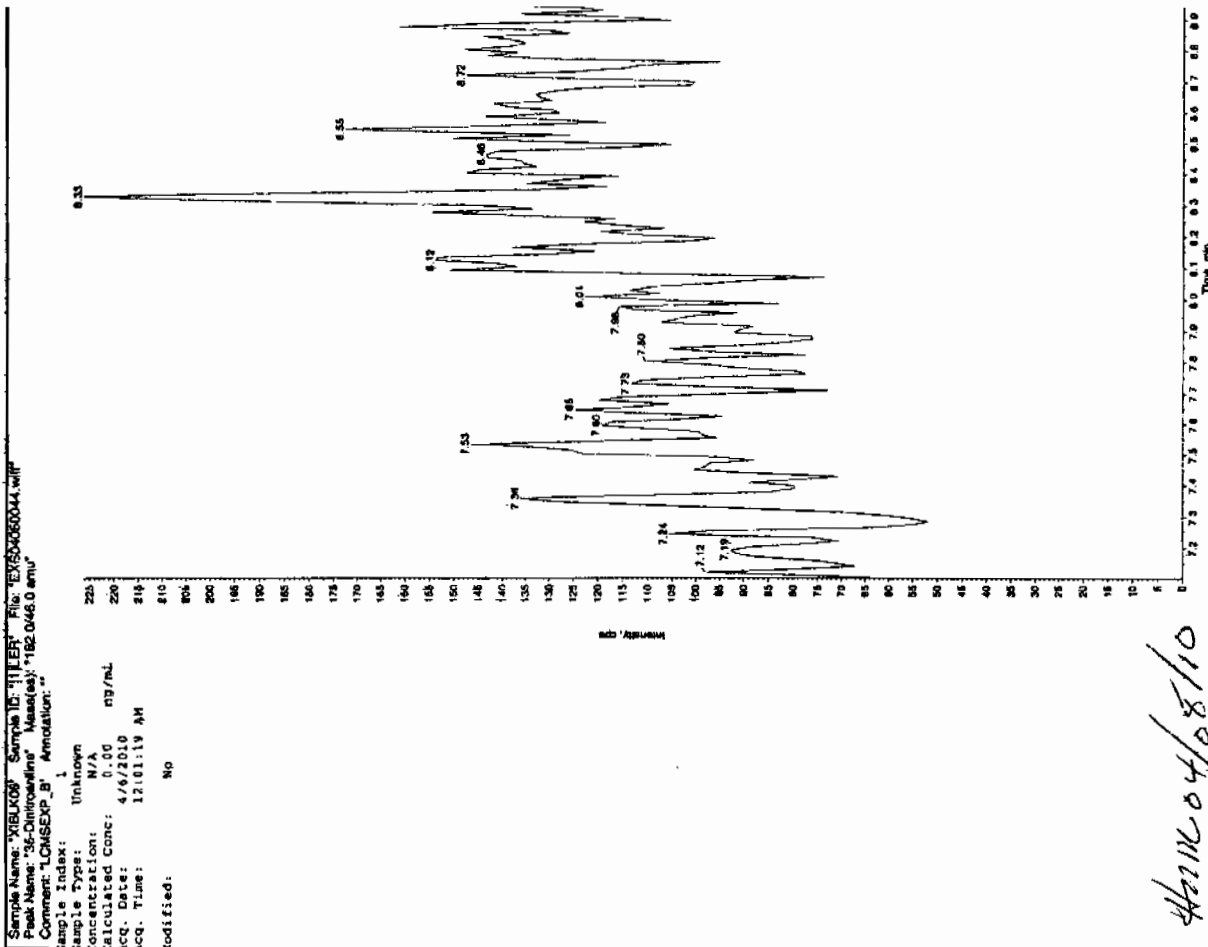
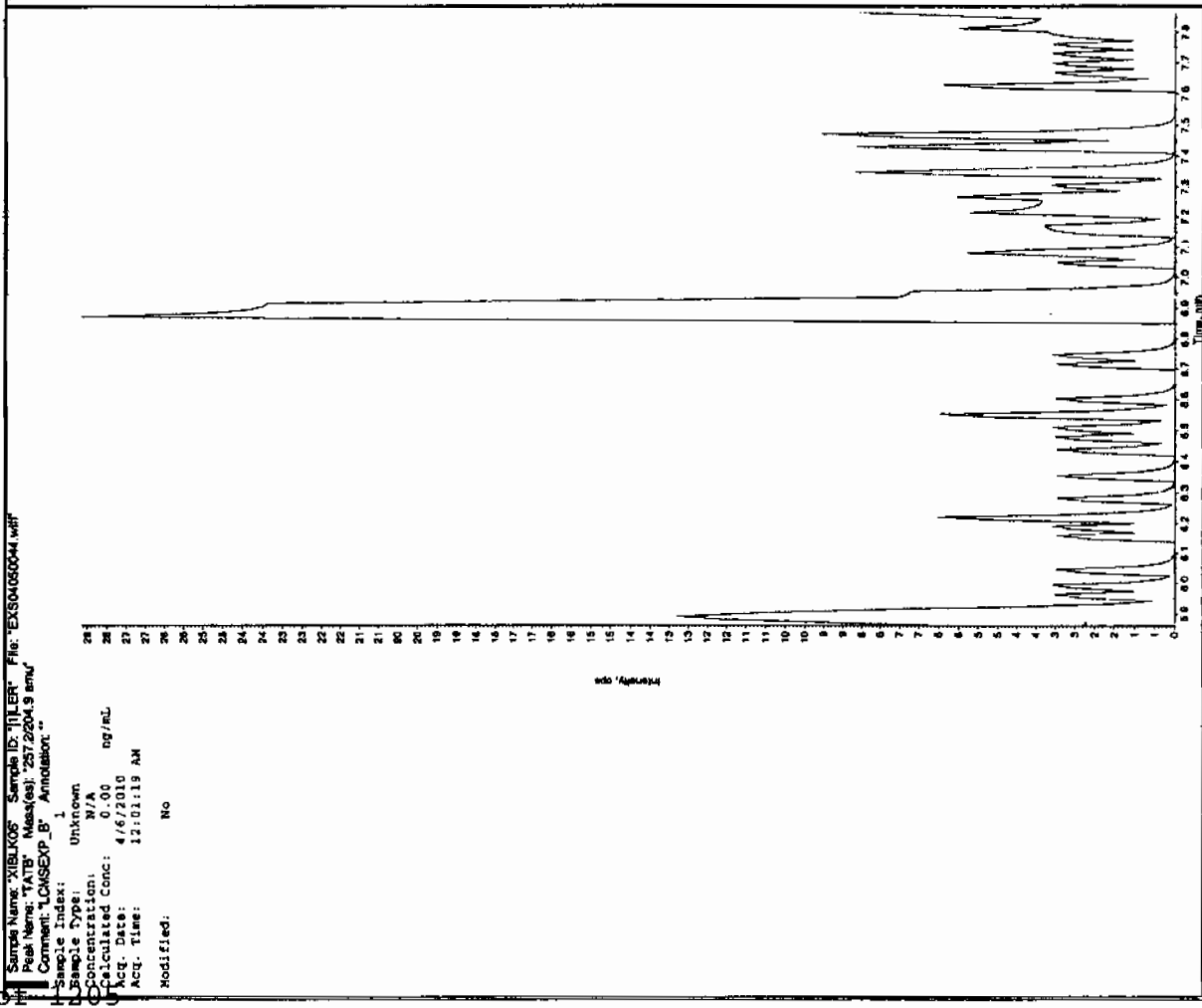
GEL Data File: EXS04050044.wiff

Instrument ID: LCMSMS

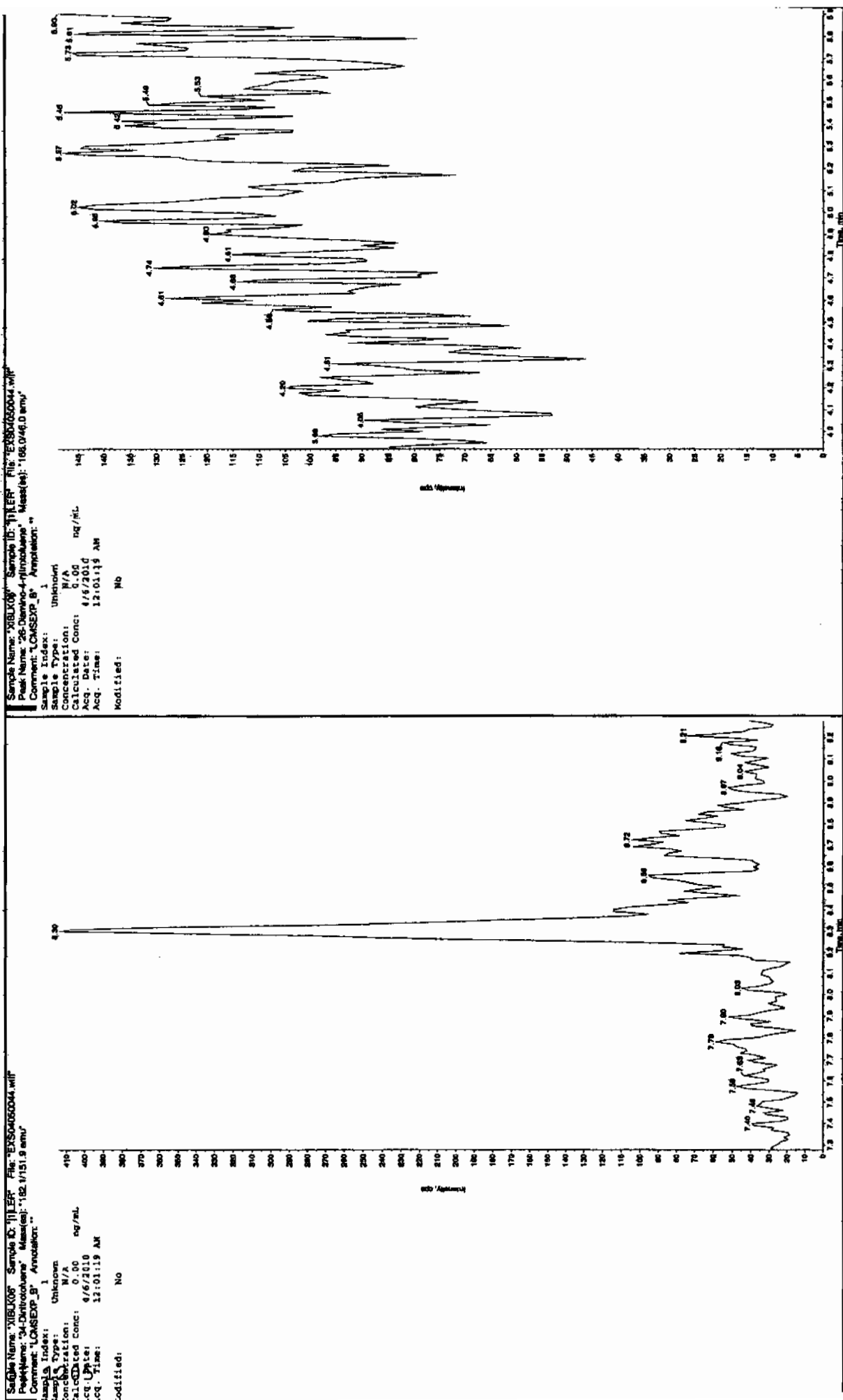
Column: Phenomenex Ultracarb 5u ODS(20)

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

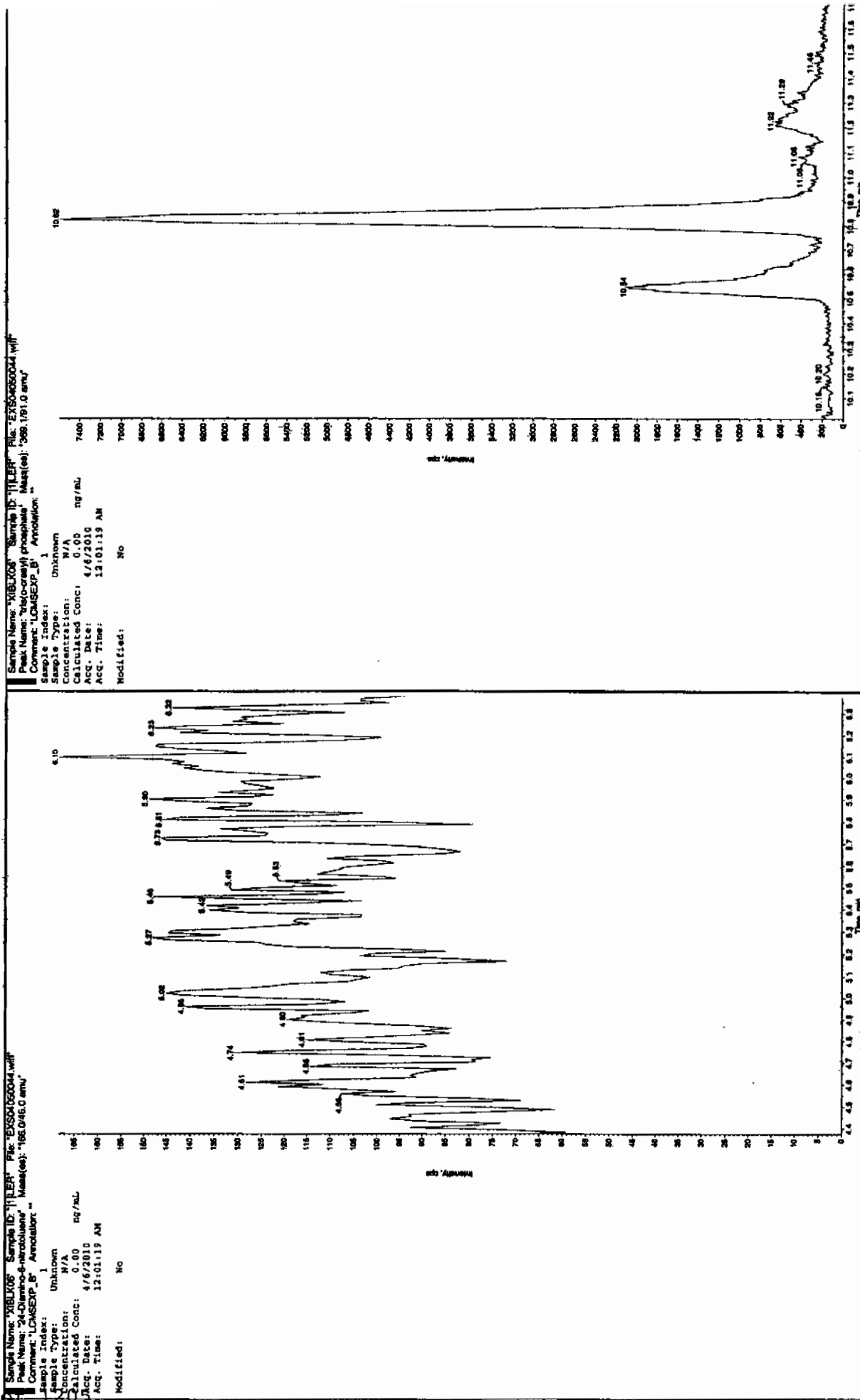
Scan 41710



Scan 04/08/10







\*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):** 10-2140

**Lab Code:** GEL

**Lab Sample ID:** XIBLK07

**Analysis Date:** 06-APR-10 01:51

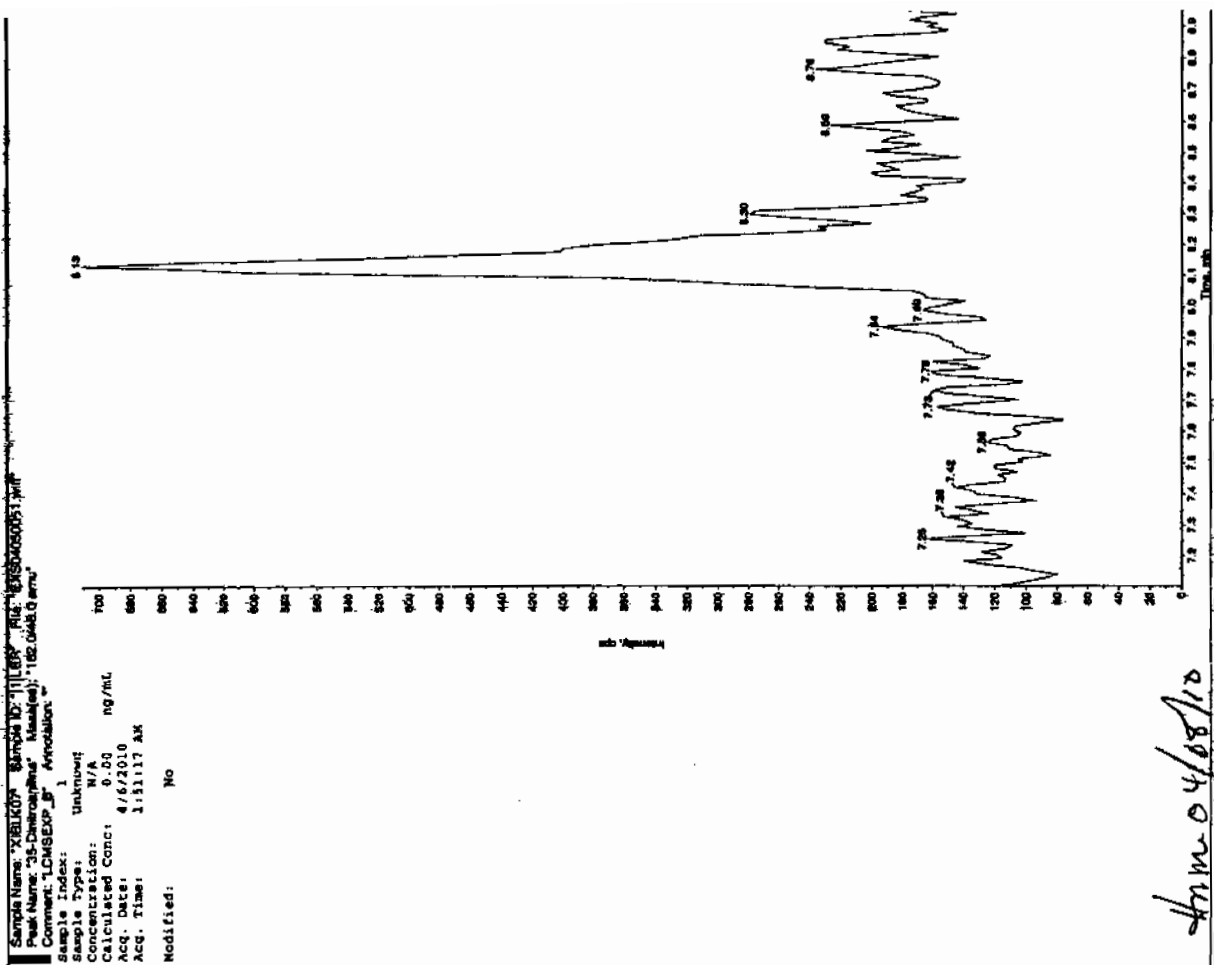
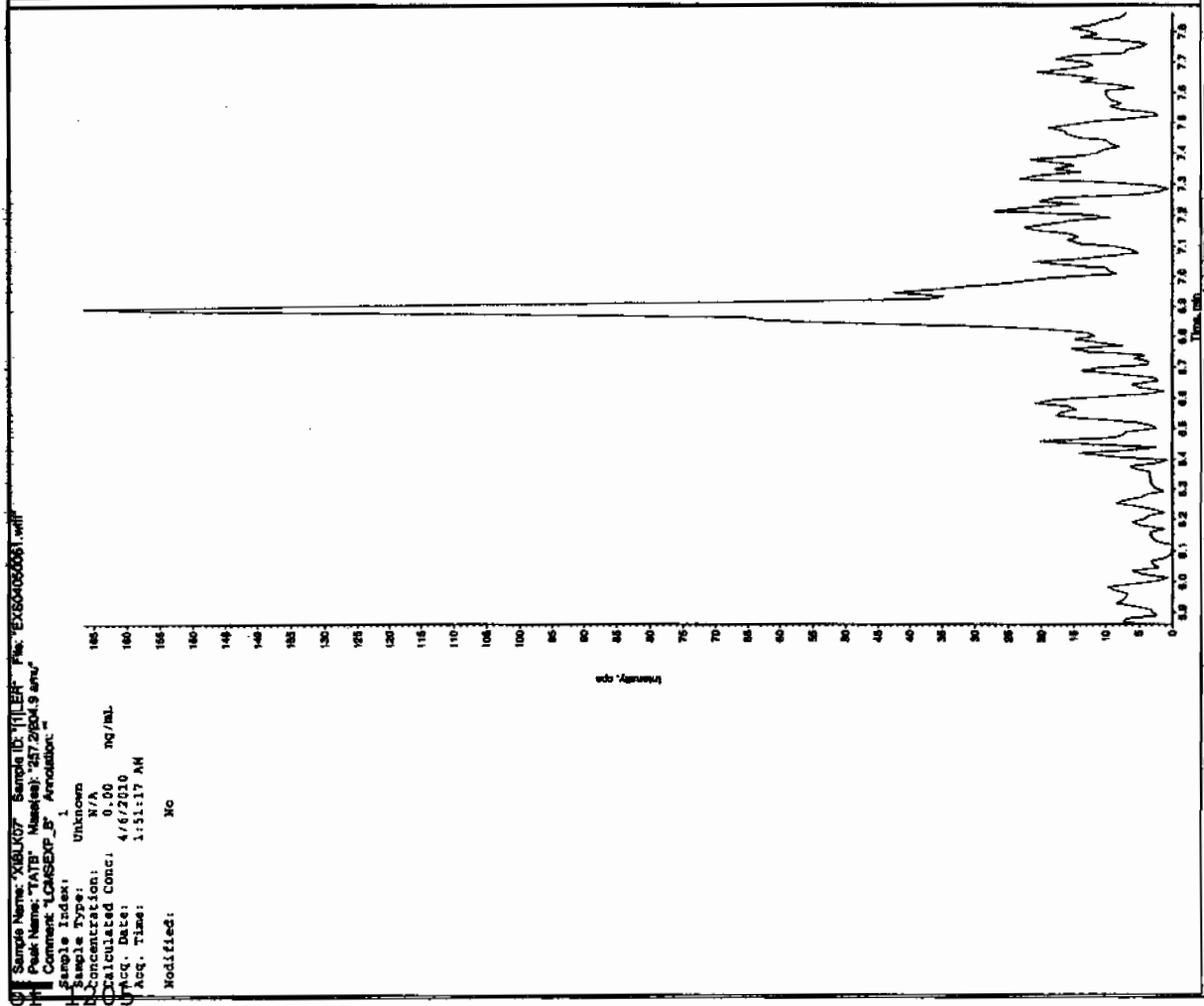
**GEL Data File:** EXS04050051.wiff

**Instrument ID:** LCMSMS

**Column:** Phenomenex Ultracarb 5u ODS(20)

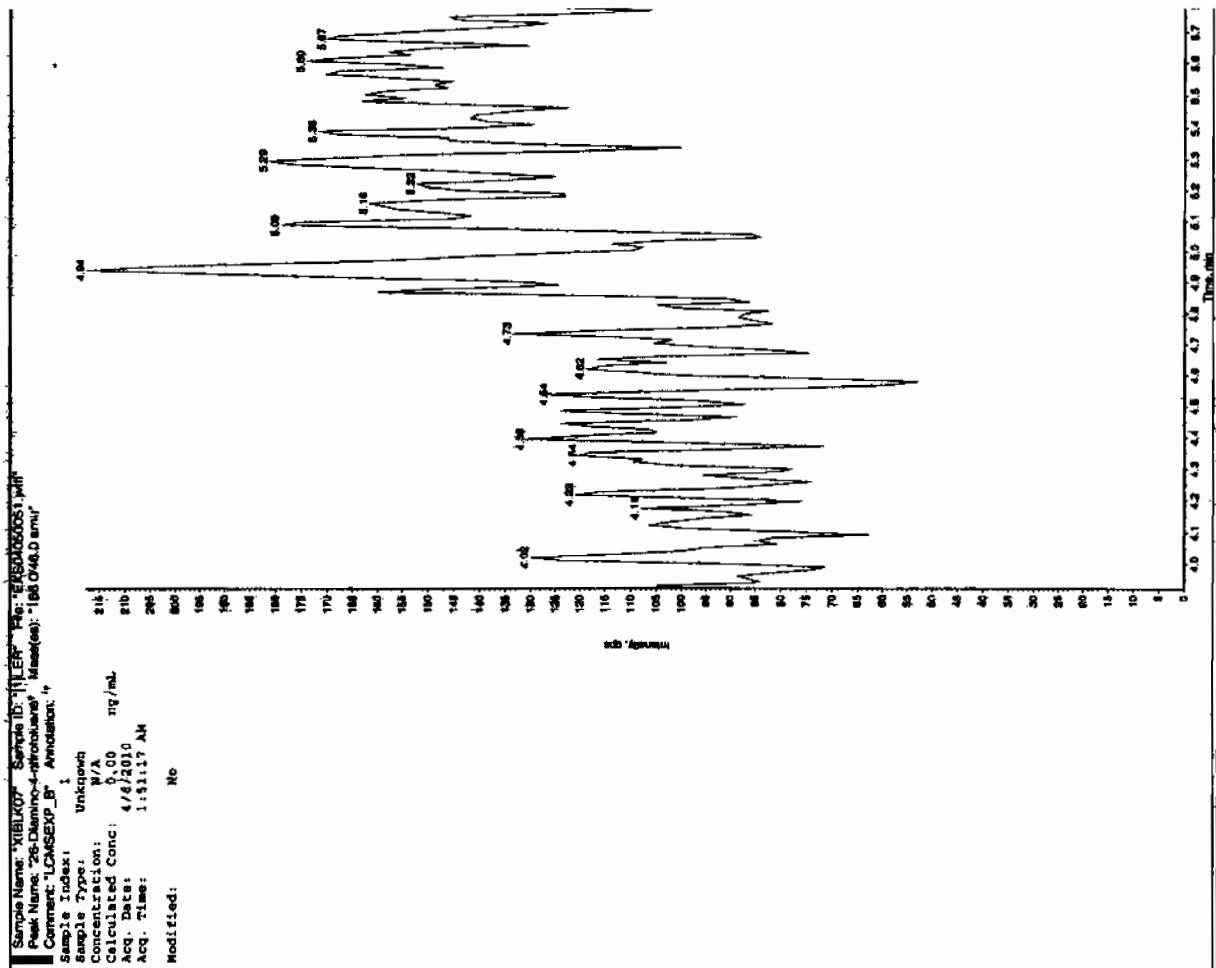
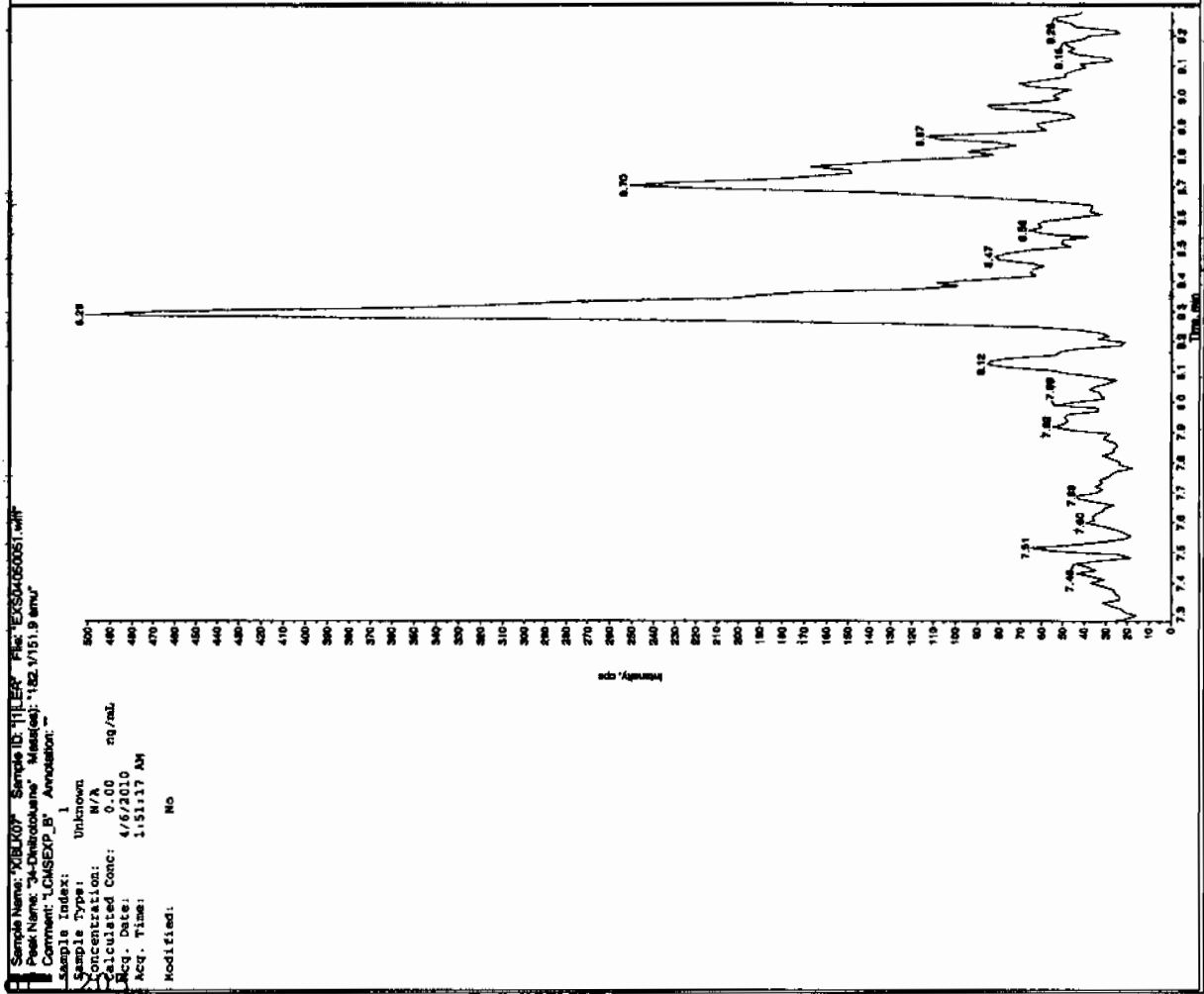
Compound	True	Found (ug/L)
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	5.78
TATB	0	0

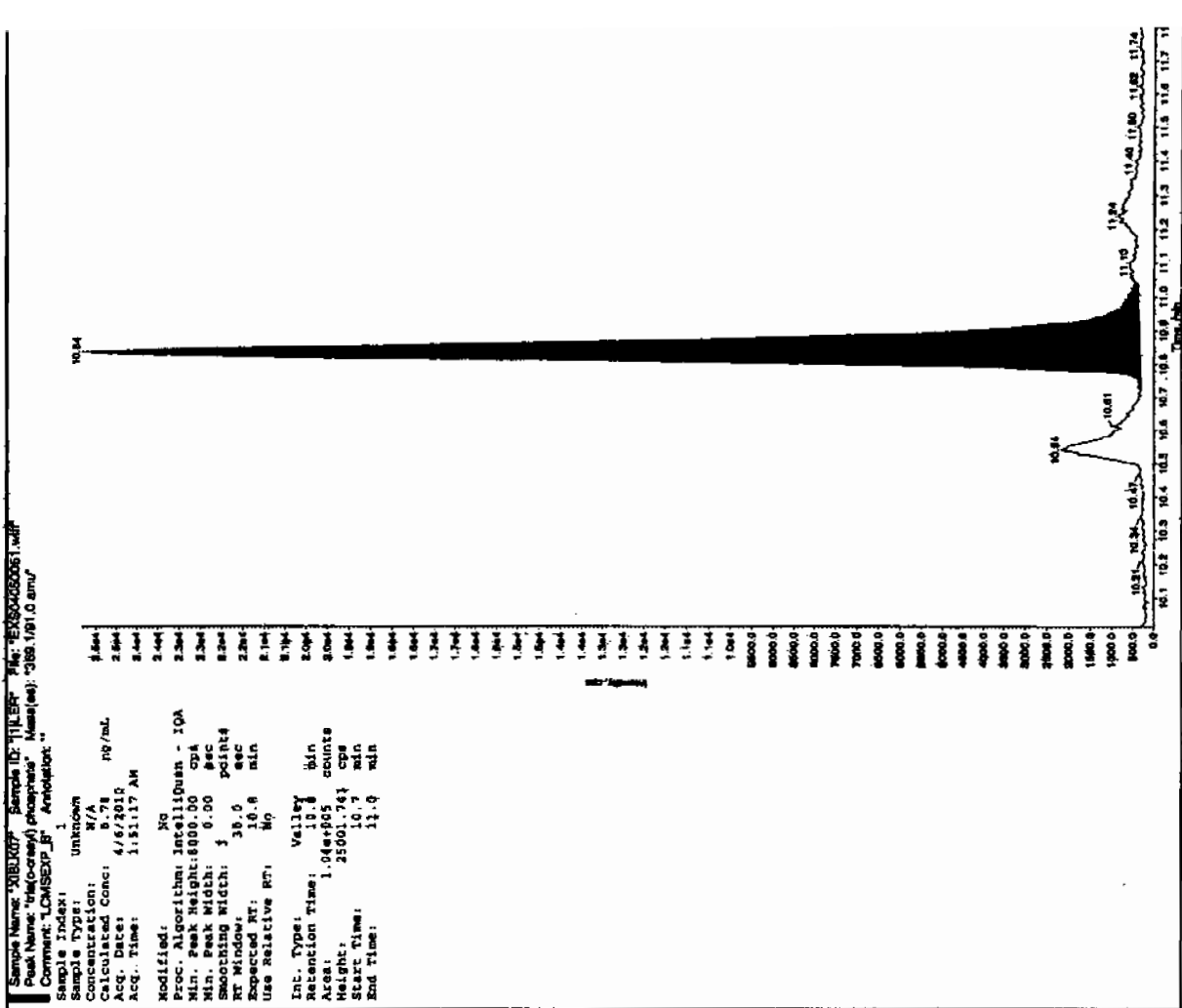
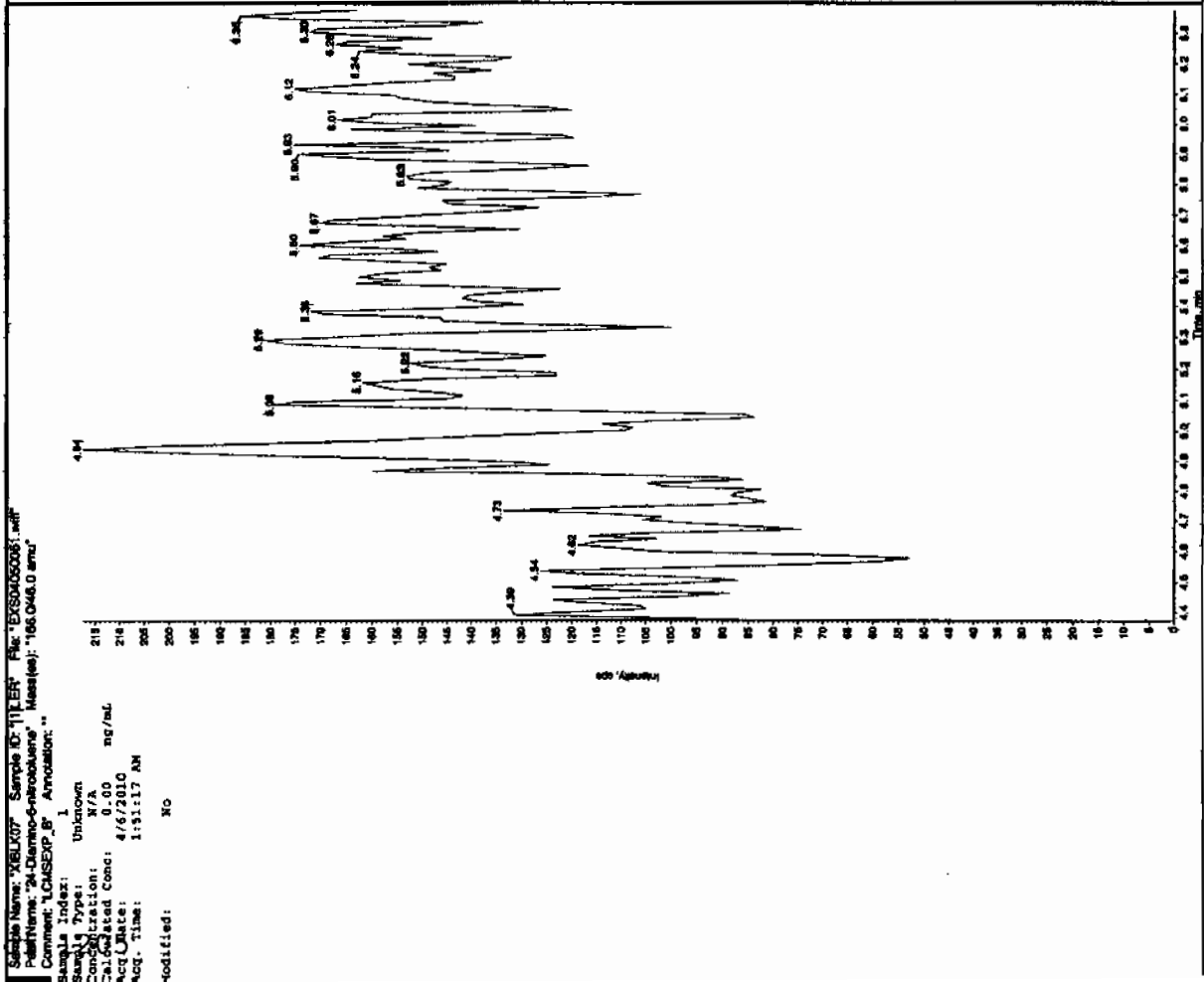
Dec 4/17/10



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

Am 04/08/10





## Explosives Continuing Calibration Blank

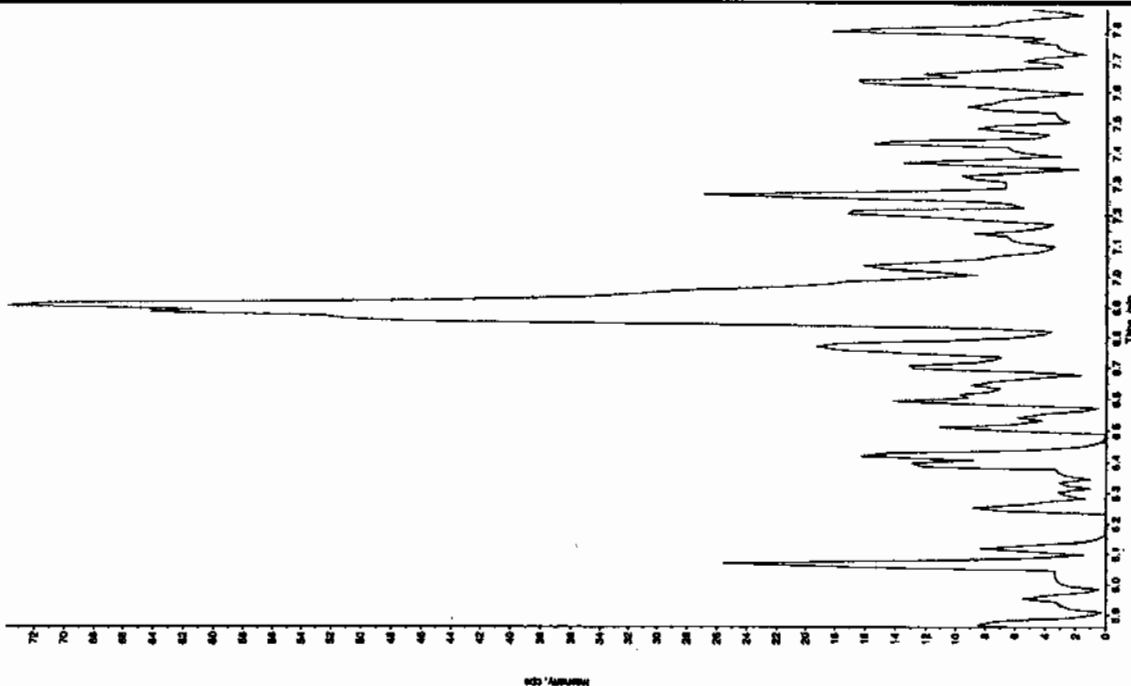
Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2140Lab Code: GELLab Sample ID: XIBLK08Analysis Date: 06-APR-10 05:15GEL Data File: EXS04050064.wiffInstrument ID: LCMSMSColumn: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	4.46
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

San 4/27/10

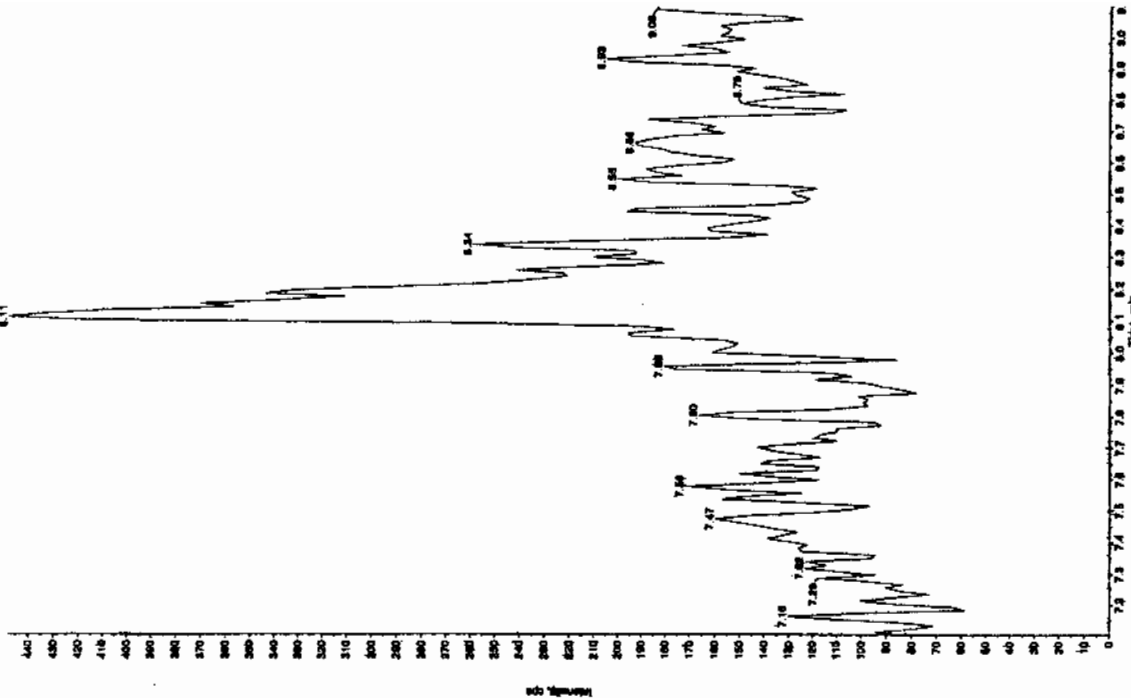
Sample Name: XIBU09 Sample ID: T11EY File: EX504050384.wi  
Peak Name: T11EY Mass(es): 257.2204.9 amu  
Comment: LCMSEXP\_B Annotation: 1

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 4/6/2010  
Acq. Time: 5:15:36 AM  
Modified: No



Sample Name: XIBU09 Sample ID: T11EY File: EX504050384.wi  
Peak Name: T11EY Mass(es): 257.2204.9 amu  
Comment: LCMSEXP\_B Annotation: 1

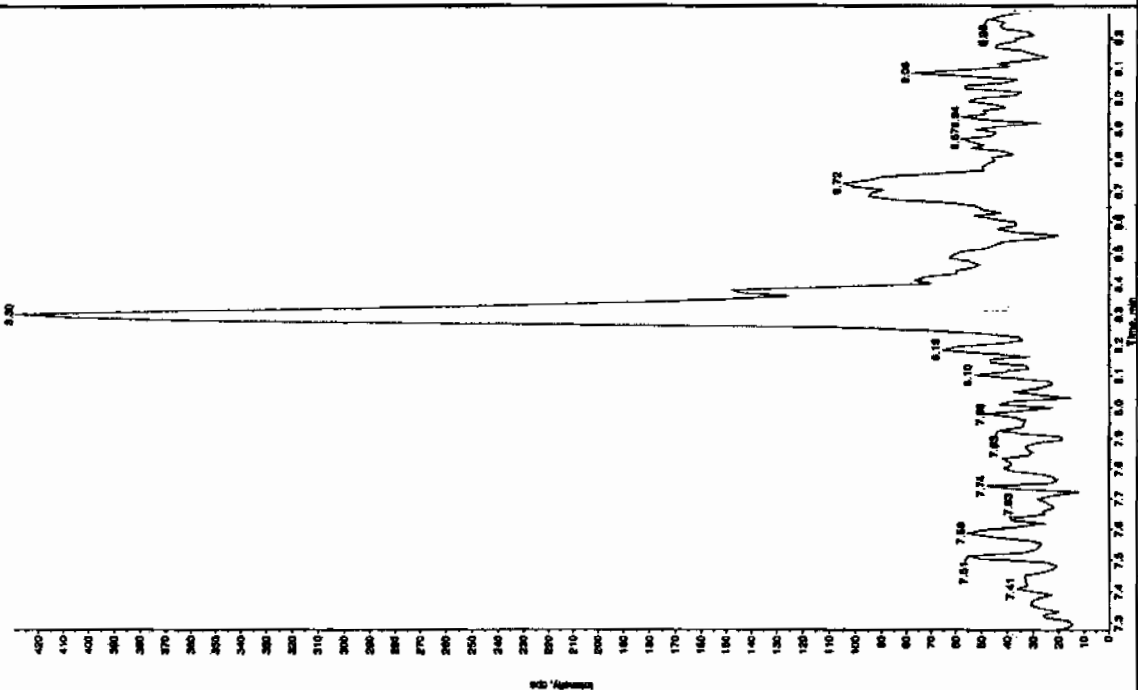
Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 4/6/2010  
Acq. Time: 5:16:36 AM  
Modified: No



San 04/08/10

Sample Name: "XIELK08" Sample ID: "XIELK" File: "EXS04"  
PeakName: "34-Oxitotoluene" Mass(es): "182.1/151.9 amu"

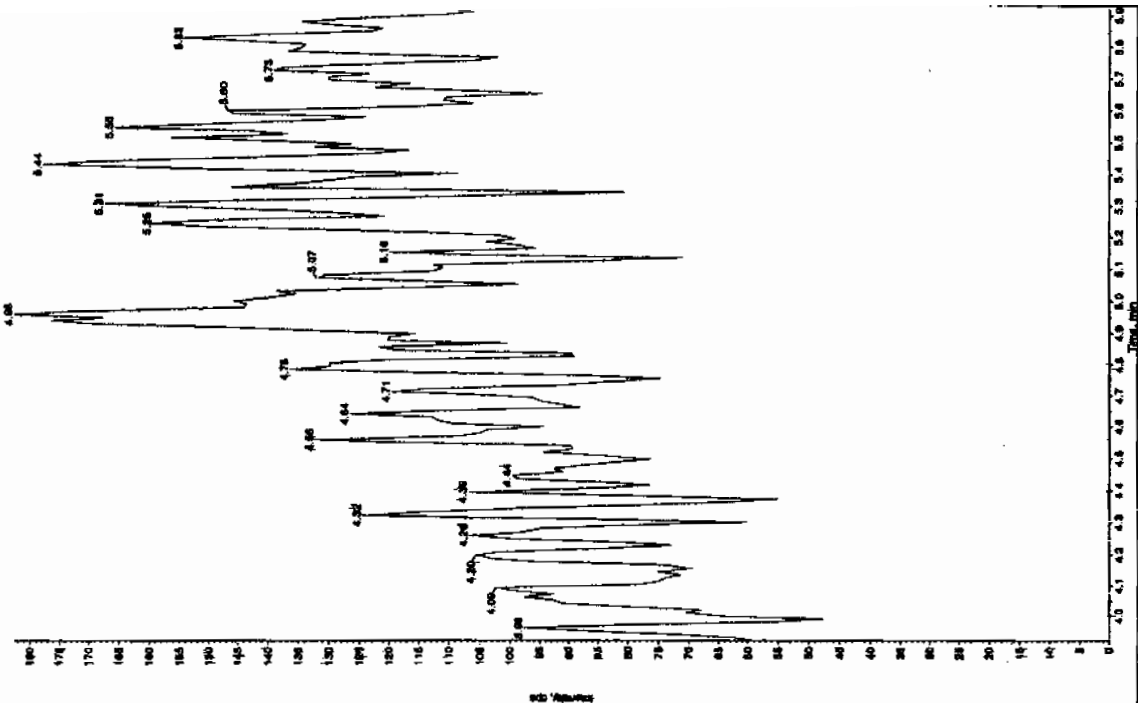
Comment: "LMSXP_B"	Annotation: "
Sample Index: 1	
Sample Type: Unknown	
Concentration: N/A	ng/mL
Calculated Conc: 0.00	
Acq. Date: 4/6/2010	
Acq. Time: 5:15:36 AM	
Modified:	No



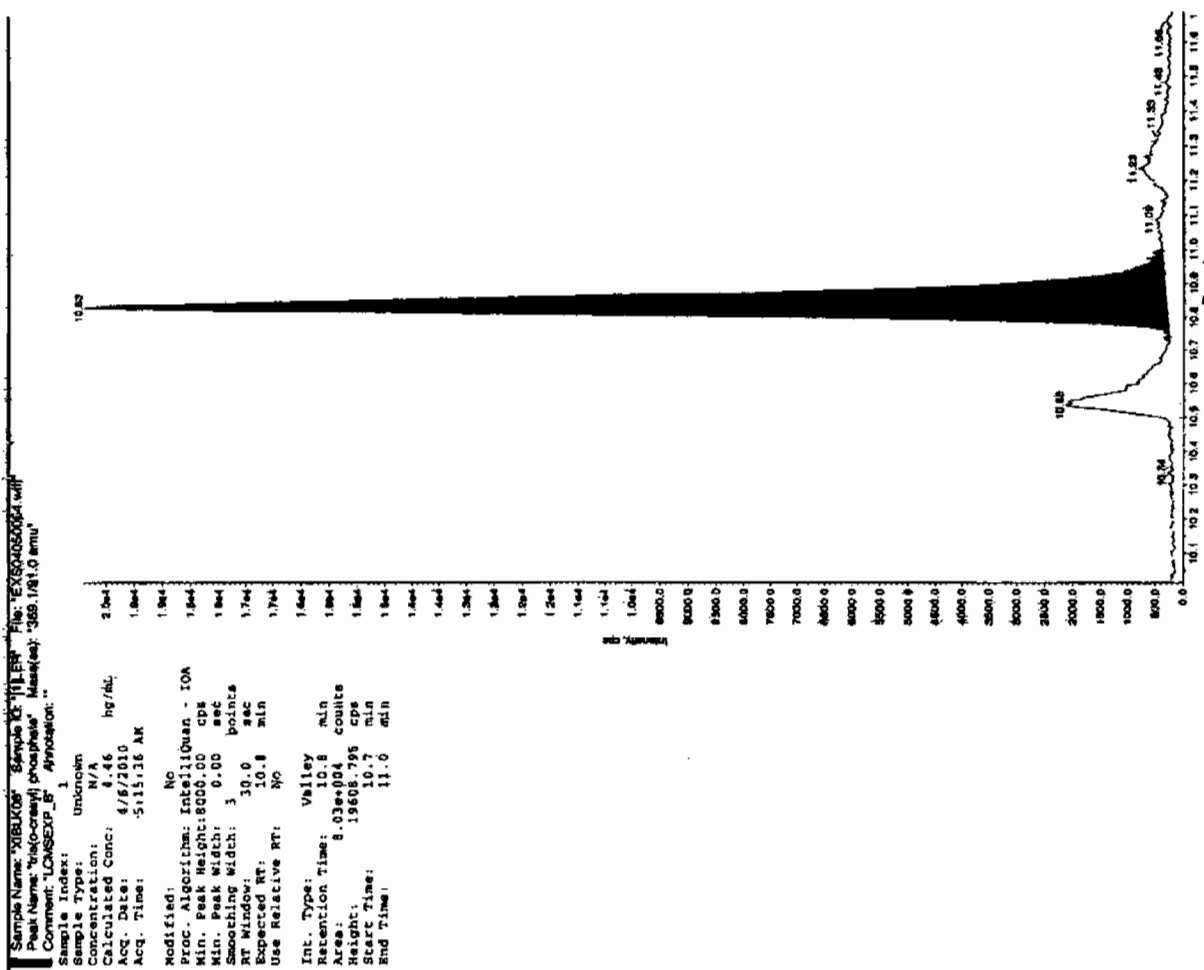
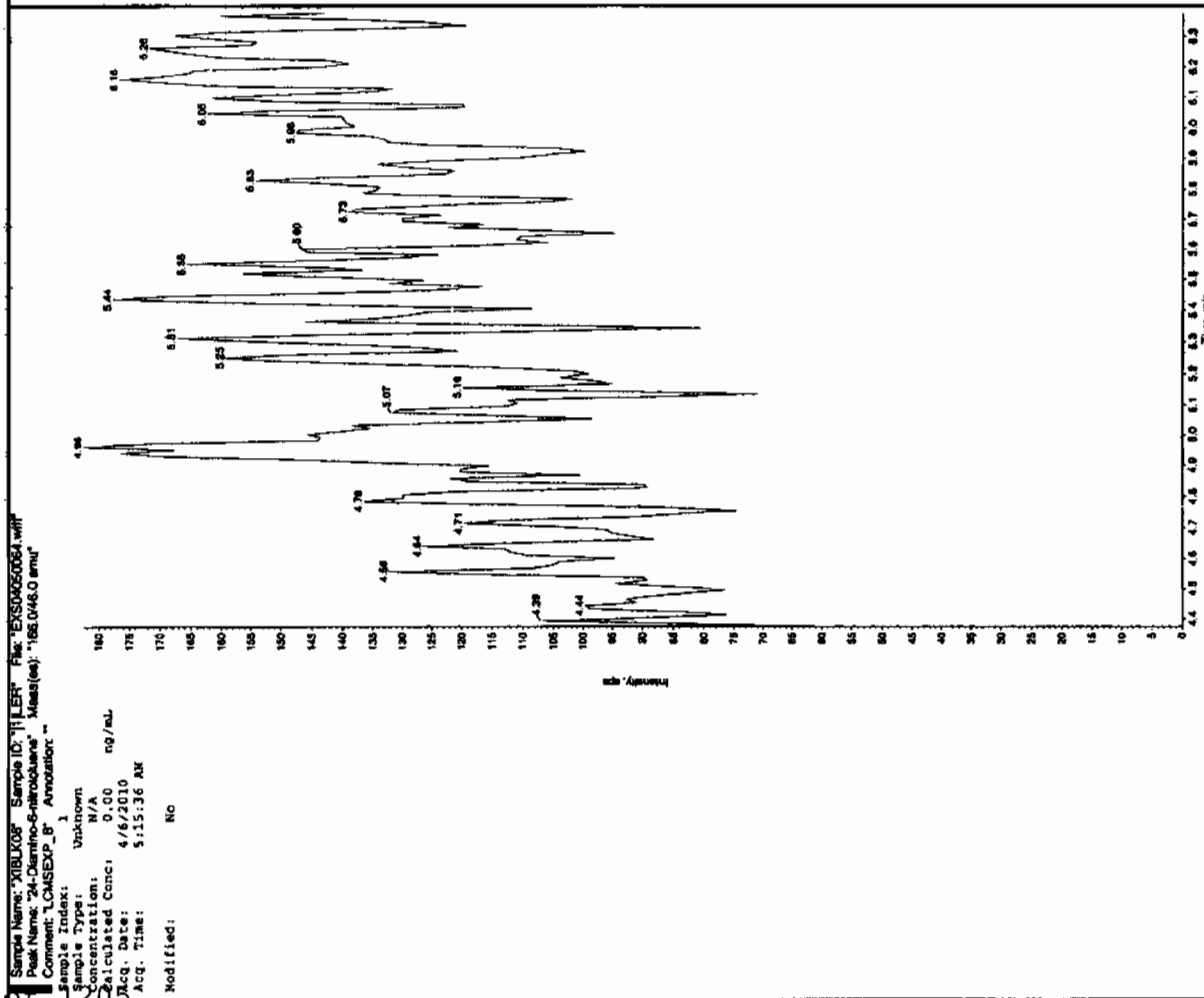
Sample Name: "XIBLK08" Sample ID: "11ER" File: "EXT050084.mlf"

Peak Name: "26-Diamino-4-nitrofluorene" Mass(es): "193.0746.0 amu"

Sample Index:	1	Unknown
Sample Type:		
Concentration:	N/A	
Calculated Conc:	0.00	
Acq. Date:	4/6/2010	
Acq. Time:	5:15:38 AM	
Modified:		NA





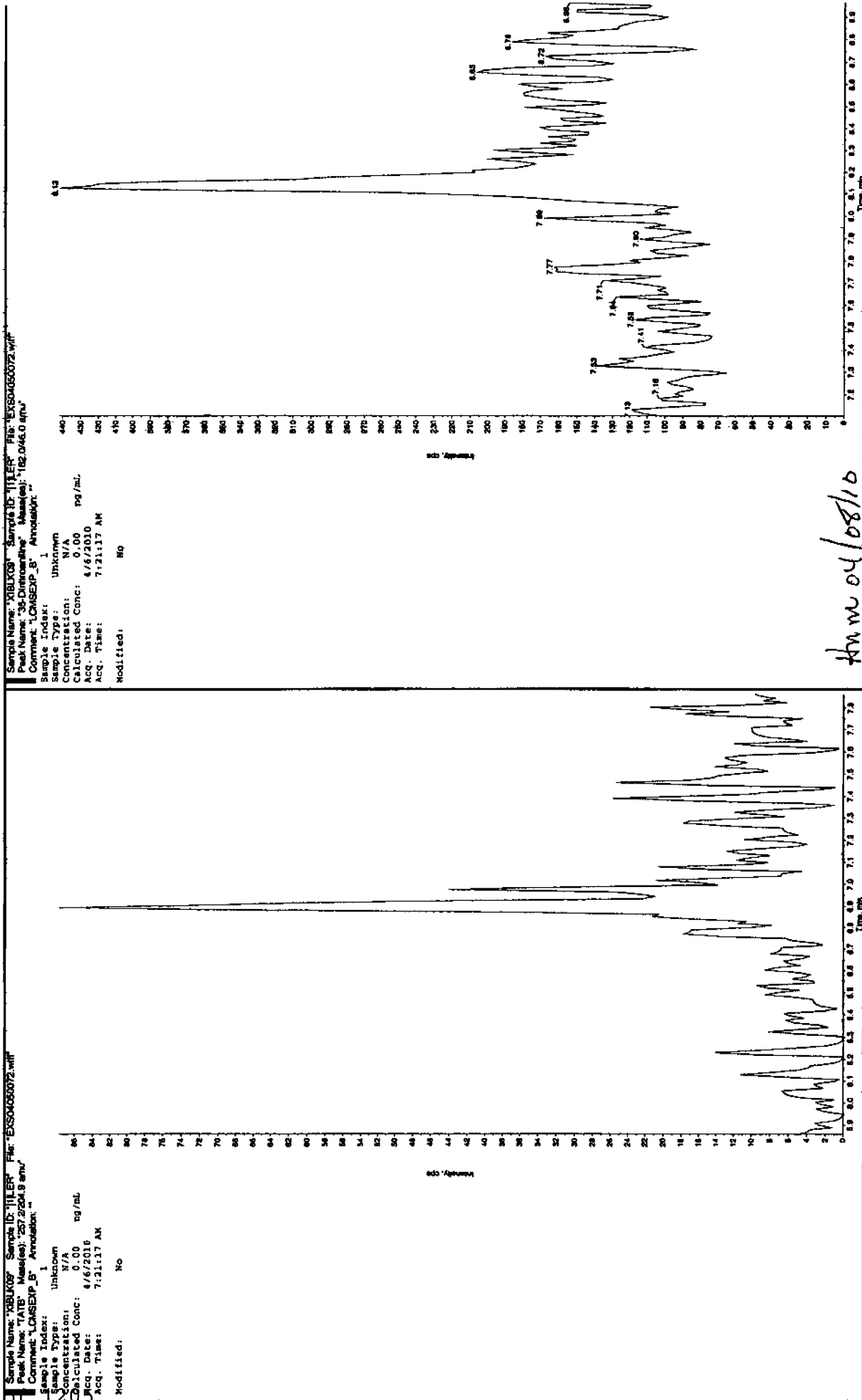


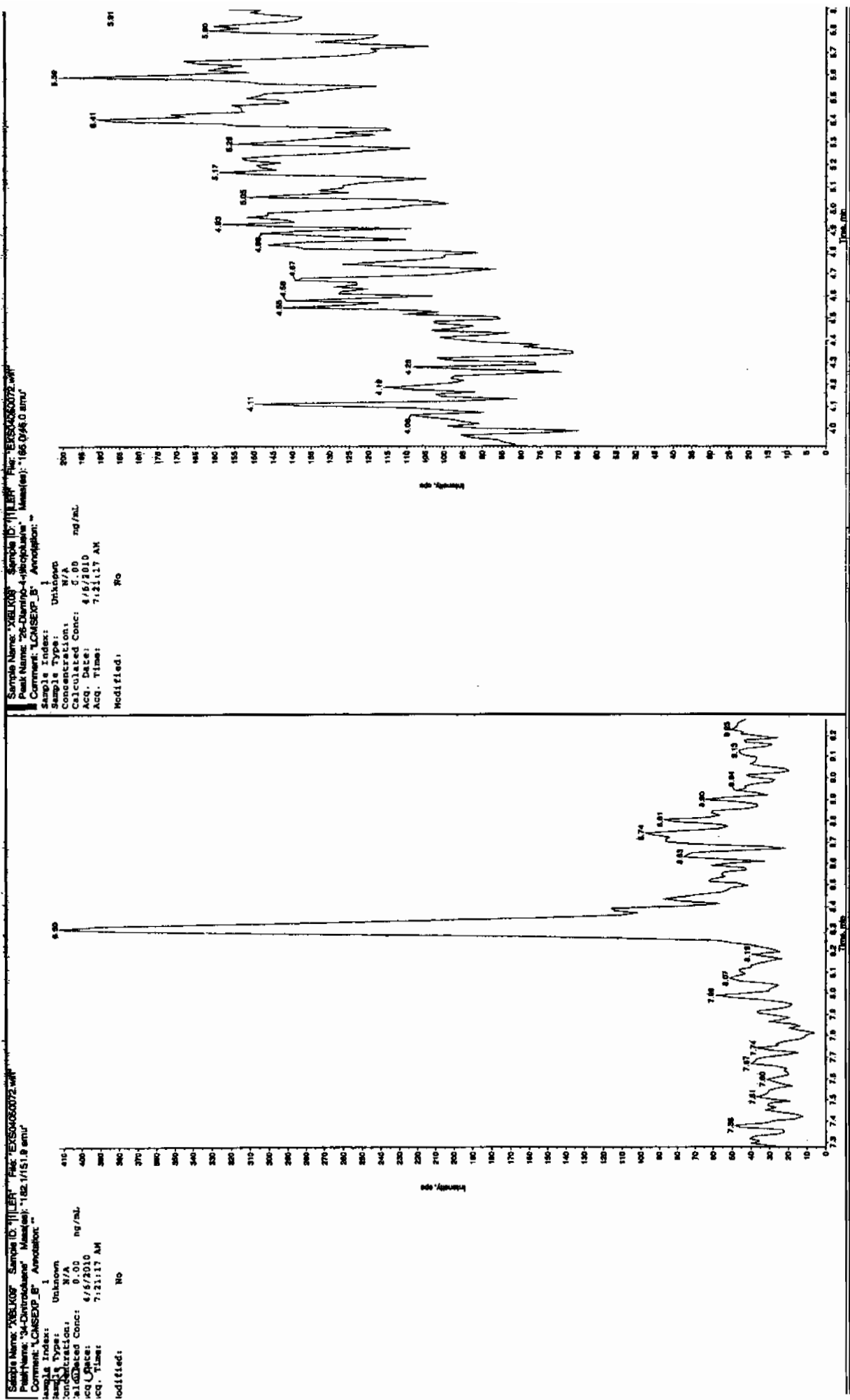
## Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2140Lab Code: GELLab Sample ID: XIBLK09Analysis Date: 06-APR-10 07:21GEL Data File: EXS04050072.wiffInstrument ID: LCMSMSColumn: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	4.38

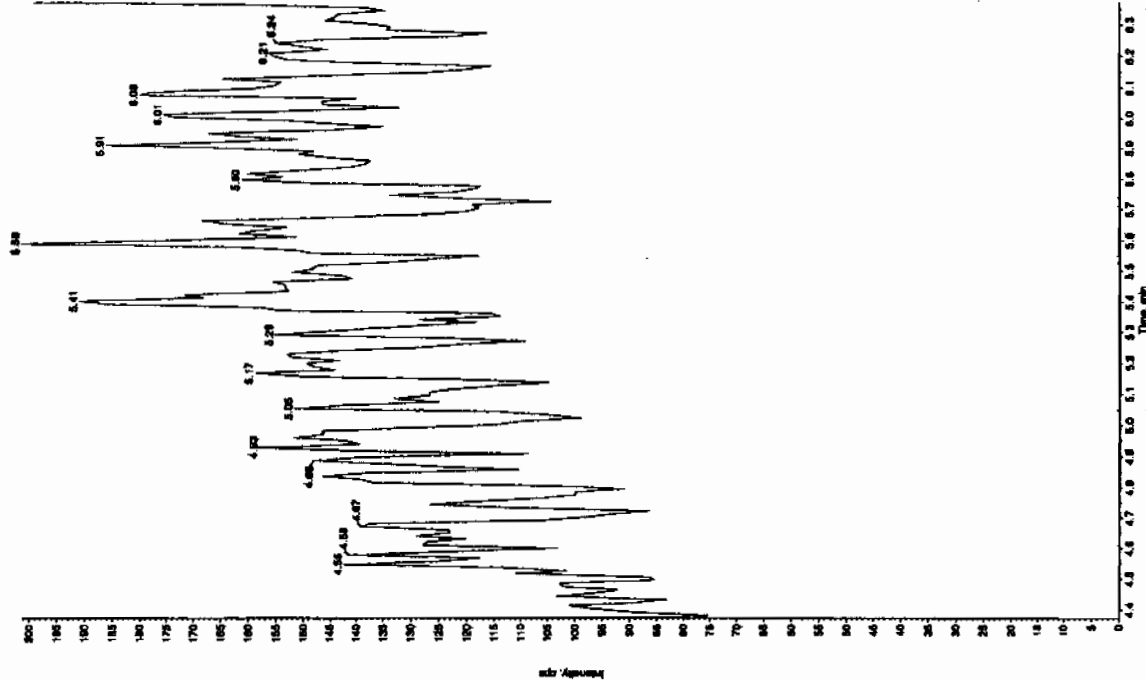
OK 4/21/10





Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00
Jacq. Date:	4/6/2010
Acq. Time:	7:21:17 AM
Modified:	No

**Modified:** **No**



Sample Name: "XIBL008" Sample ID: "ILR" File: "EX8504060072.wif"  
Peak Name: "tri(o-cresyl) phosphite" Mass(es): "369.17910 amu"  
Comment: "CMSEXP B" Annotation: "

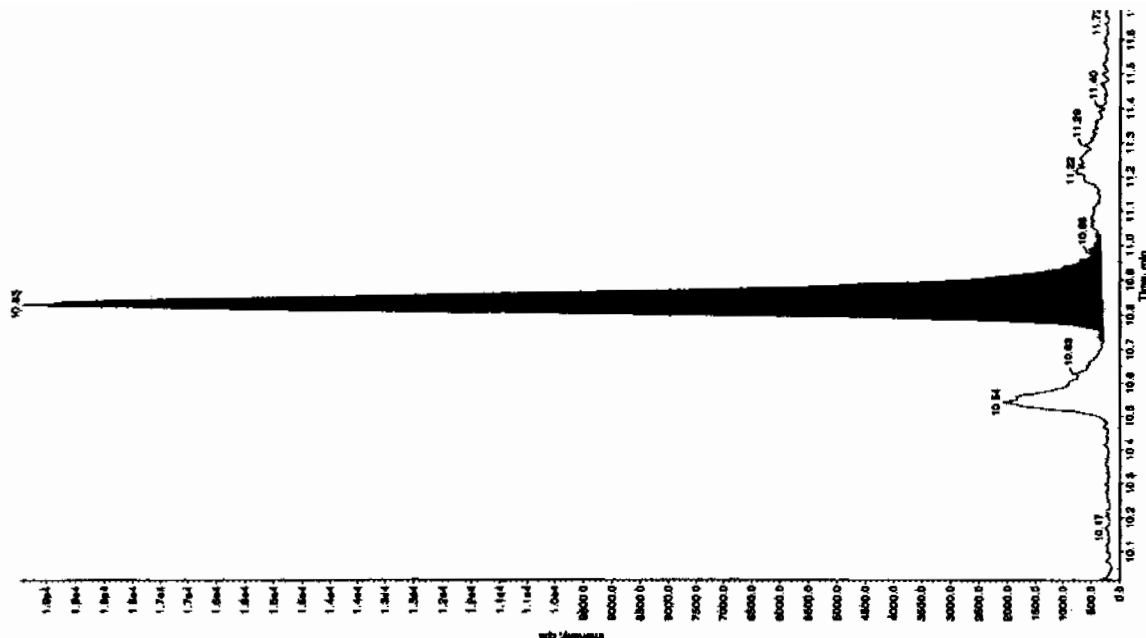
Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	4.38	ng/mL
Acq. Date:	4/6/2010	
Acq. Time:	7:21:17 AM	

```

Modified:
Proc. Algorithm: Intelligant - IOA
Min. Peak Height: 0000.00 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:	10.8 min
Area:	7.89e+004 counts
Height:	19134.485 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): 10-2140

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 06-APR-10 10:45

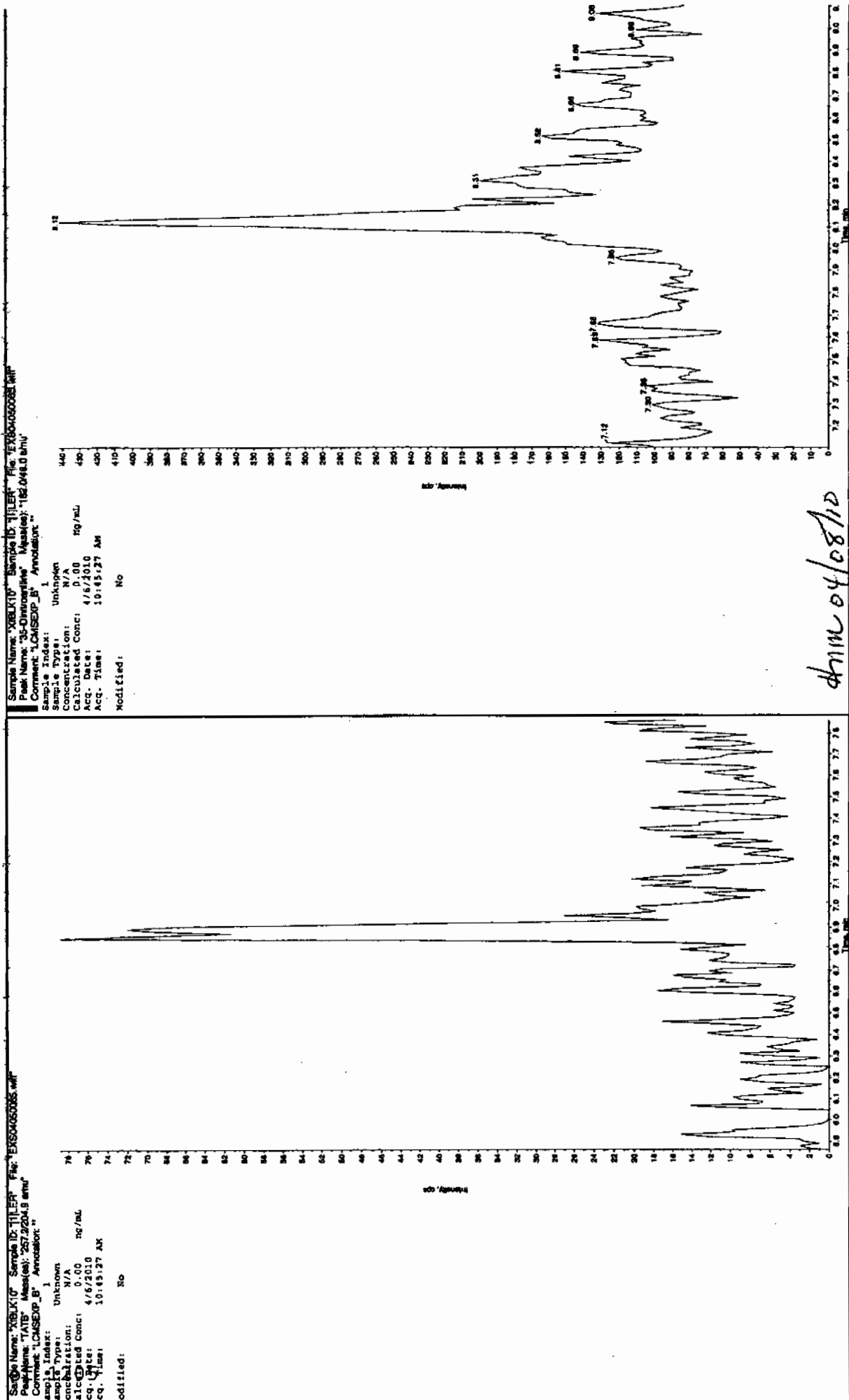
GEL Data File: EXS04050085.wiff

Instrument ID: LCMSMS

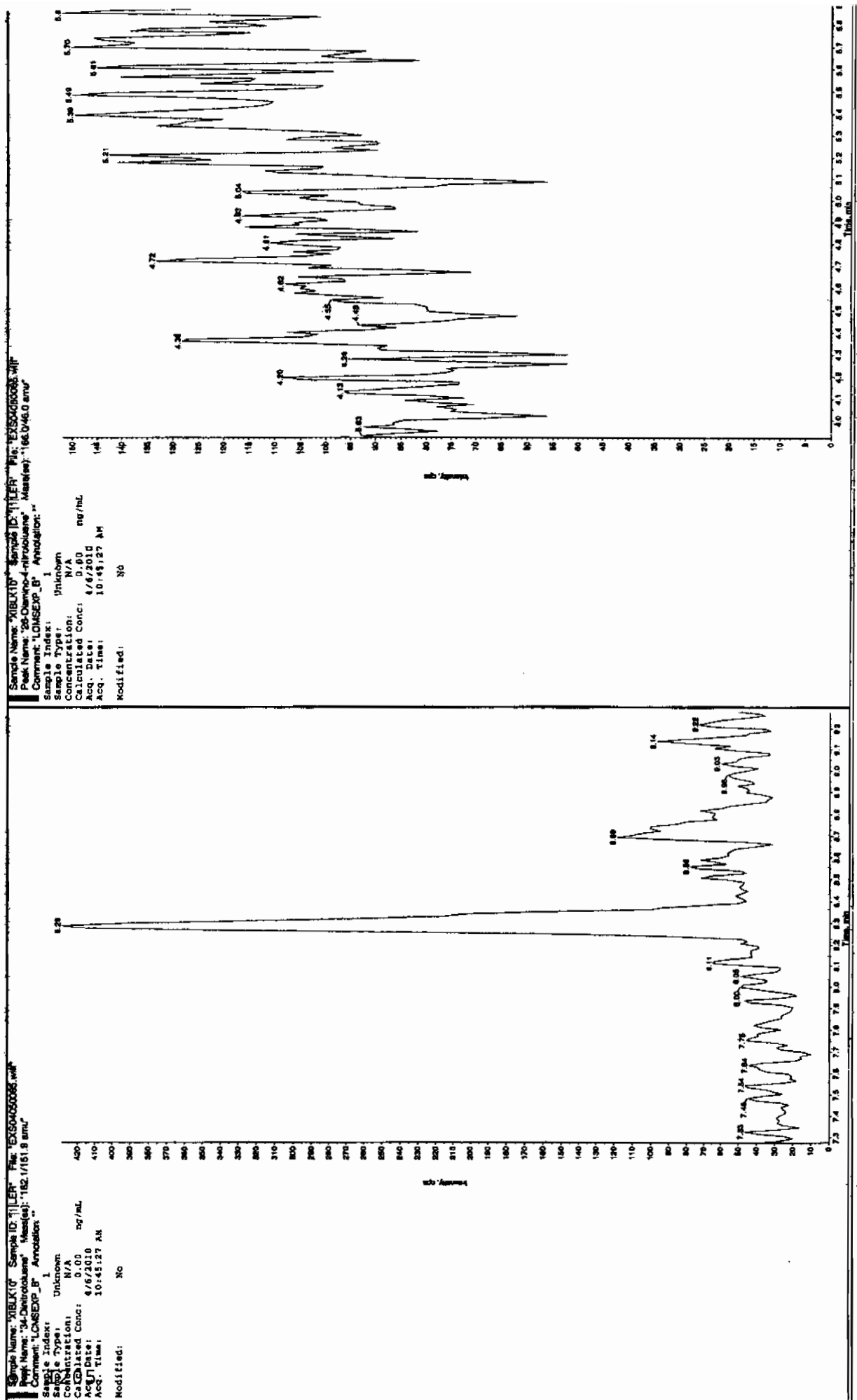
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	4.12
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

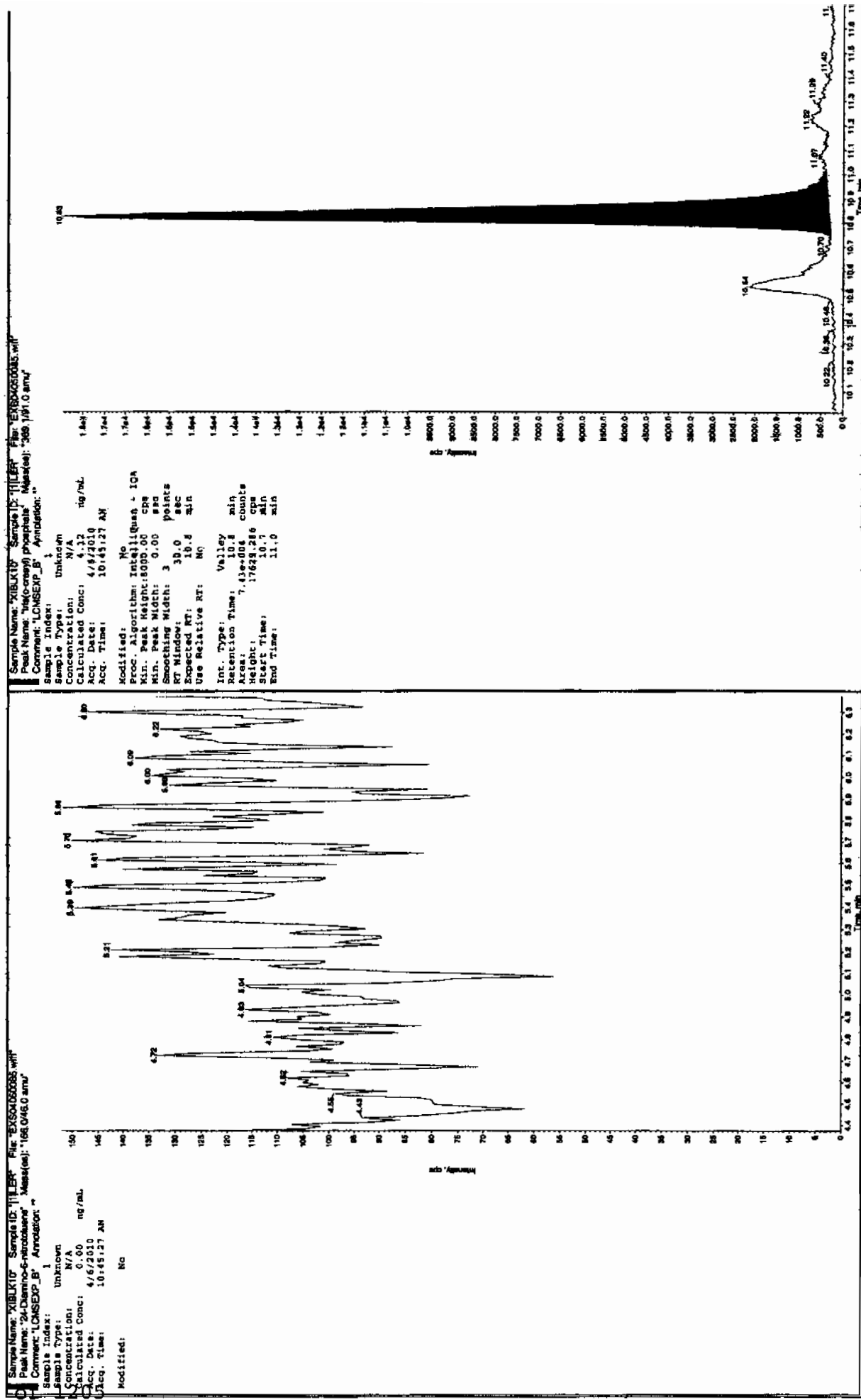
See 4/7/10



4/11/10 04/08/10







**4A**  
**Explosives Continuing Calibration Blank**

**Lab Name:** GEL Laboratories LLC

**GEL Job No(SDG):** 10-2140

**Lab Code:** GEL

**Lab Sample ID:** XIBLK11

**Analysis Date:** 06-APR-10 14:09

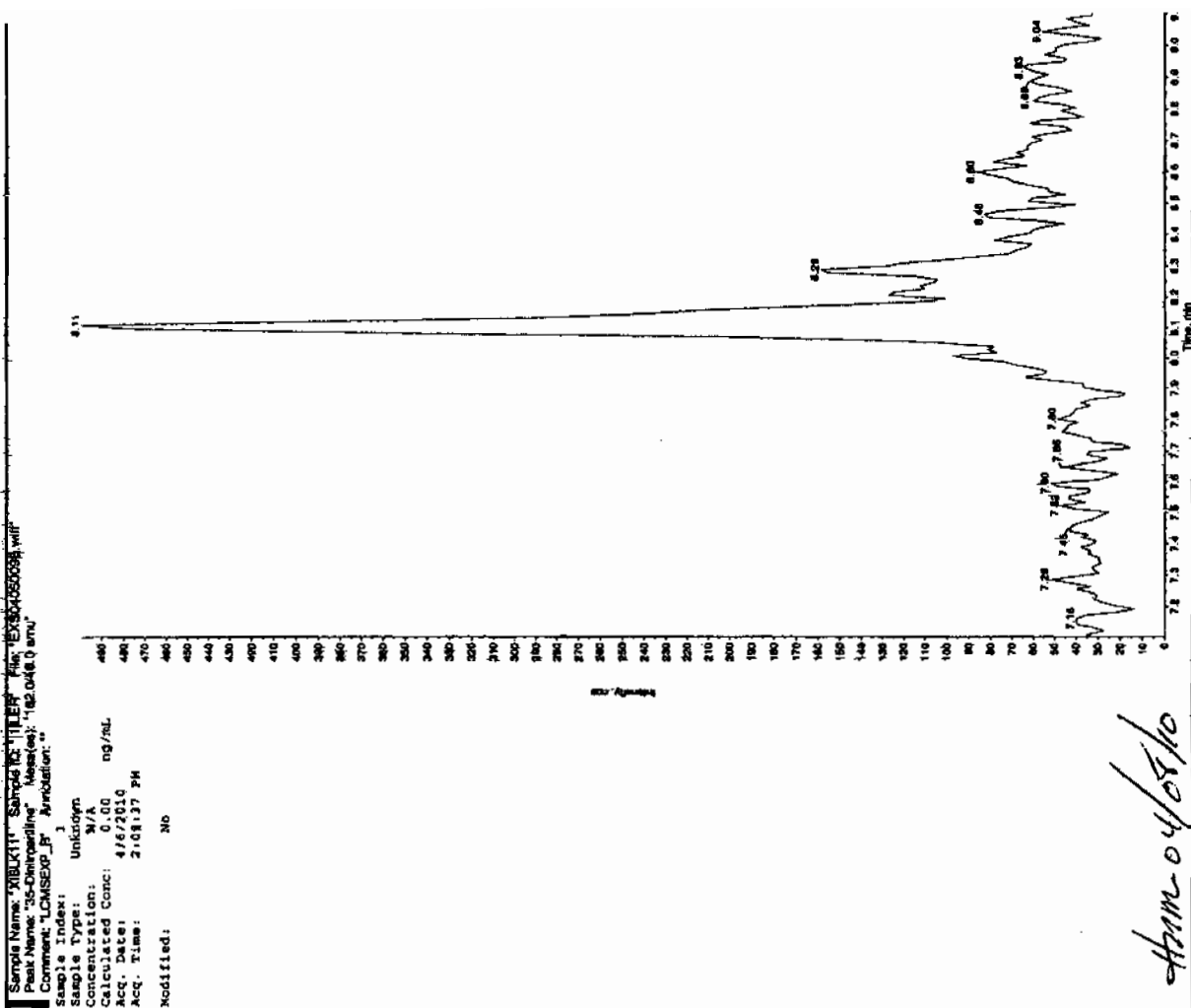
**GEL Data File:** EXS04050098.wiff

**Instrument ID:** LCMSMS

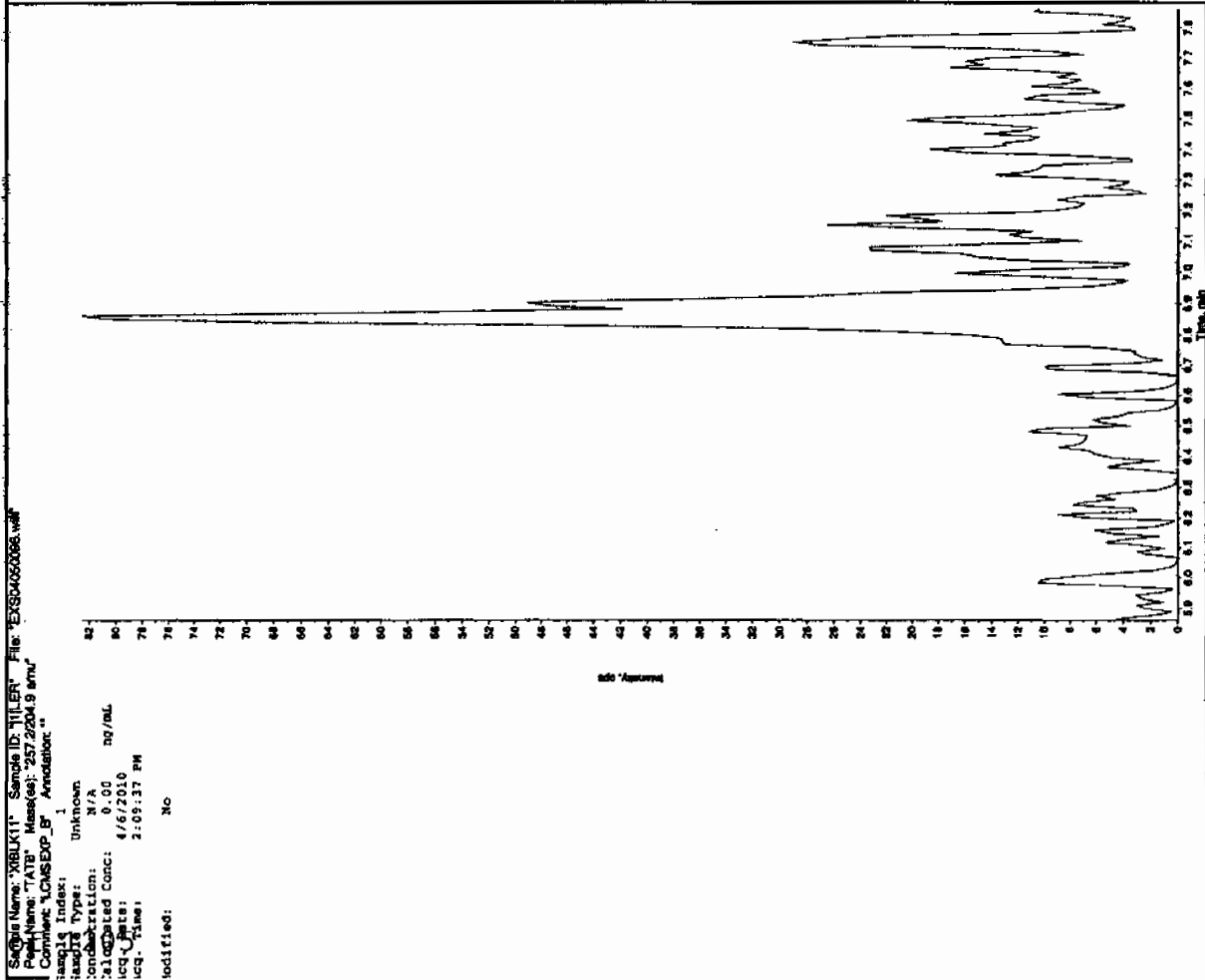
**Column:** Phenomenex Ultracarb 5u ODS(20)

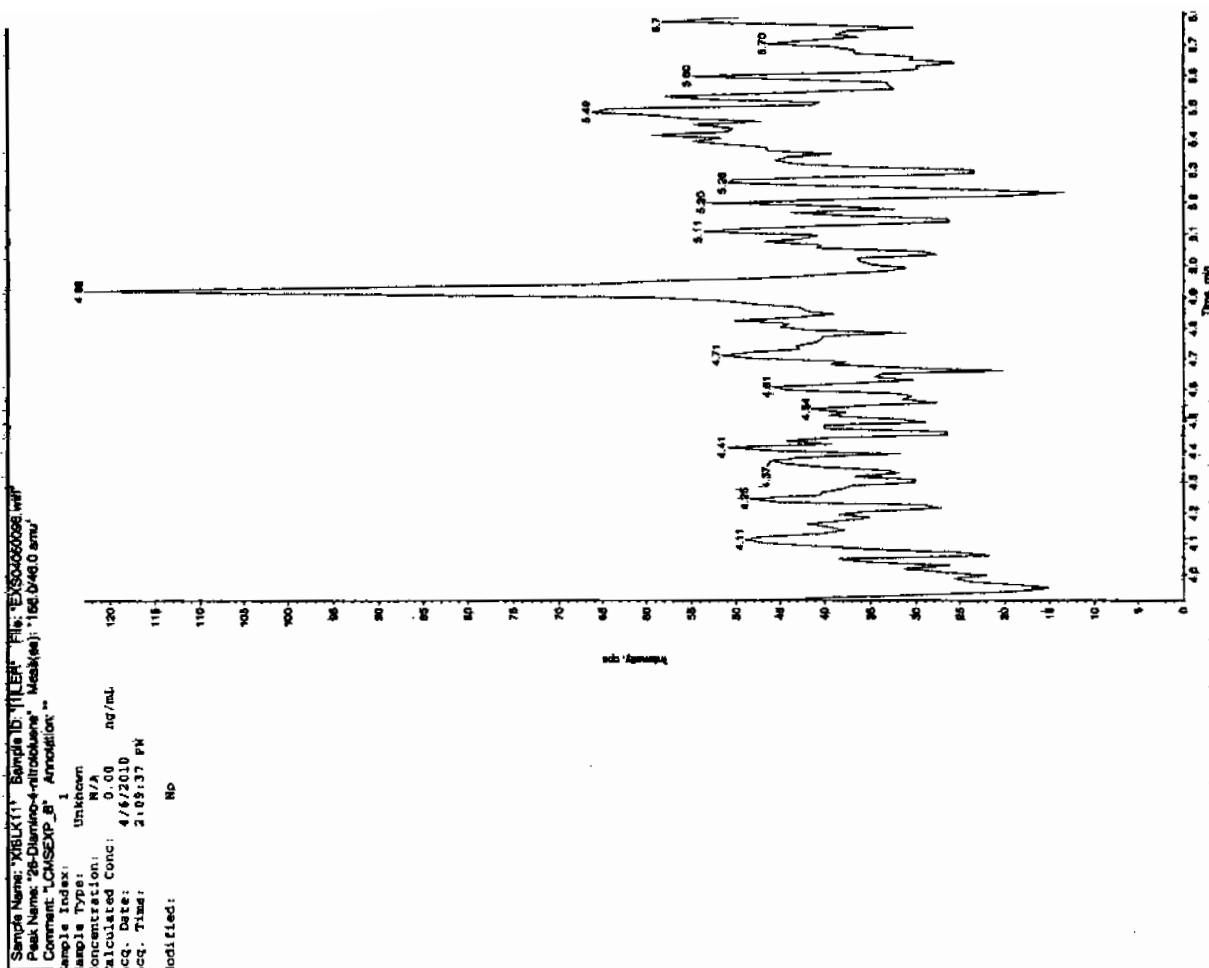
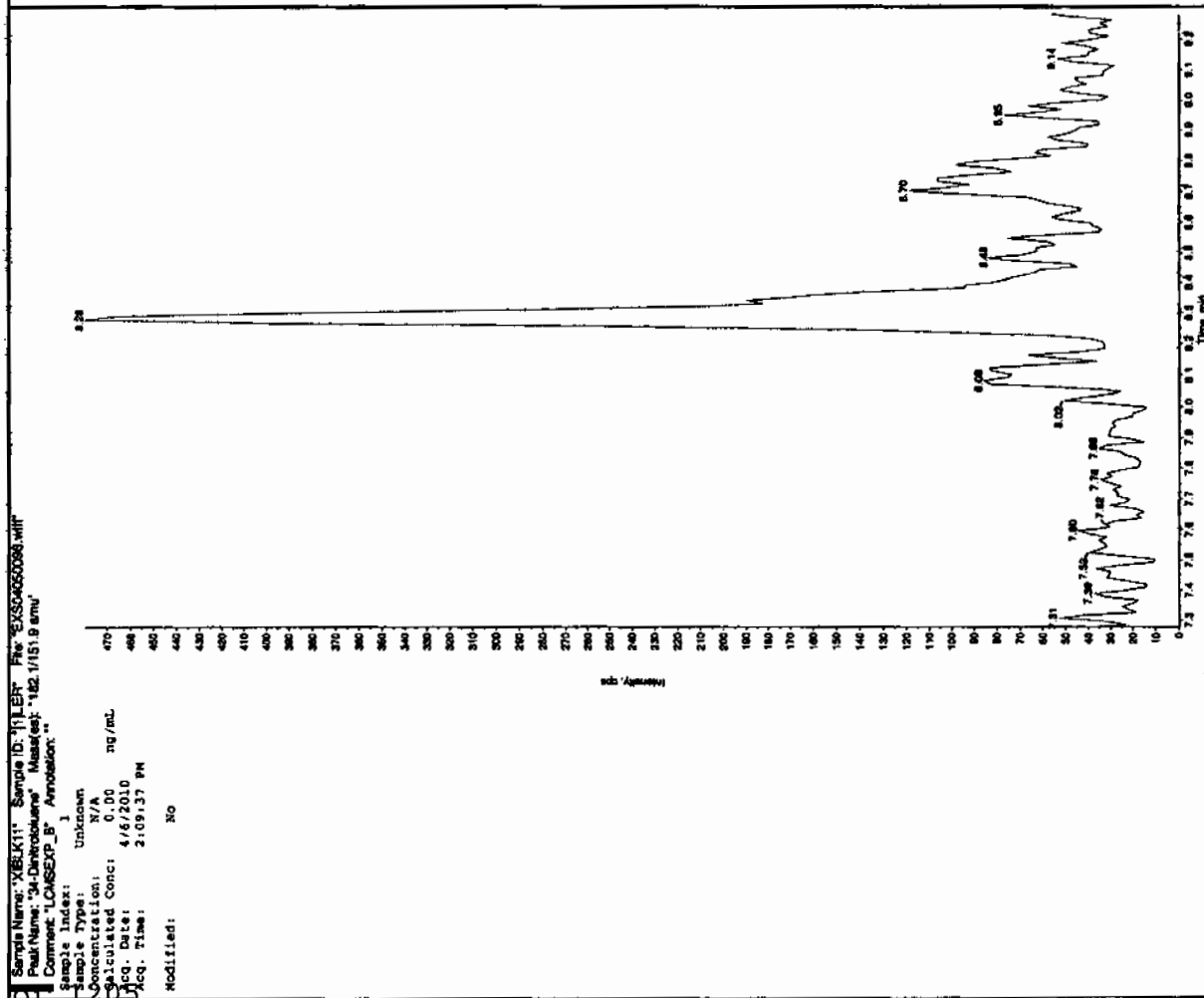
Compound	True	Found (ug/L)
tris(o-cresyl) phosphate	0	4.12
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	0

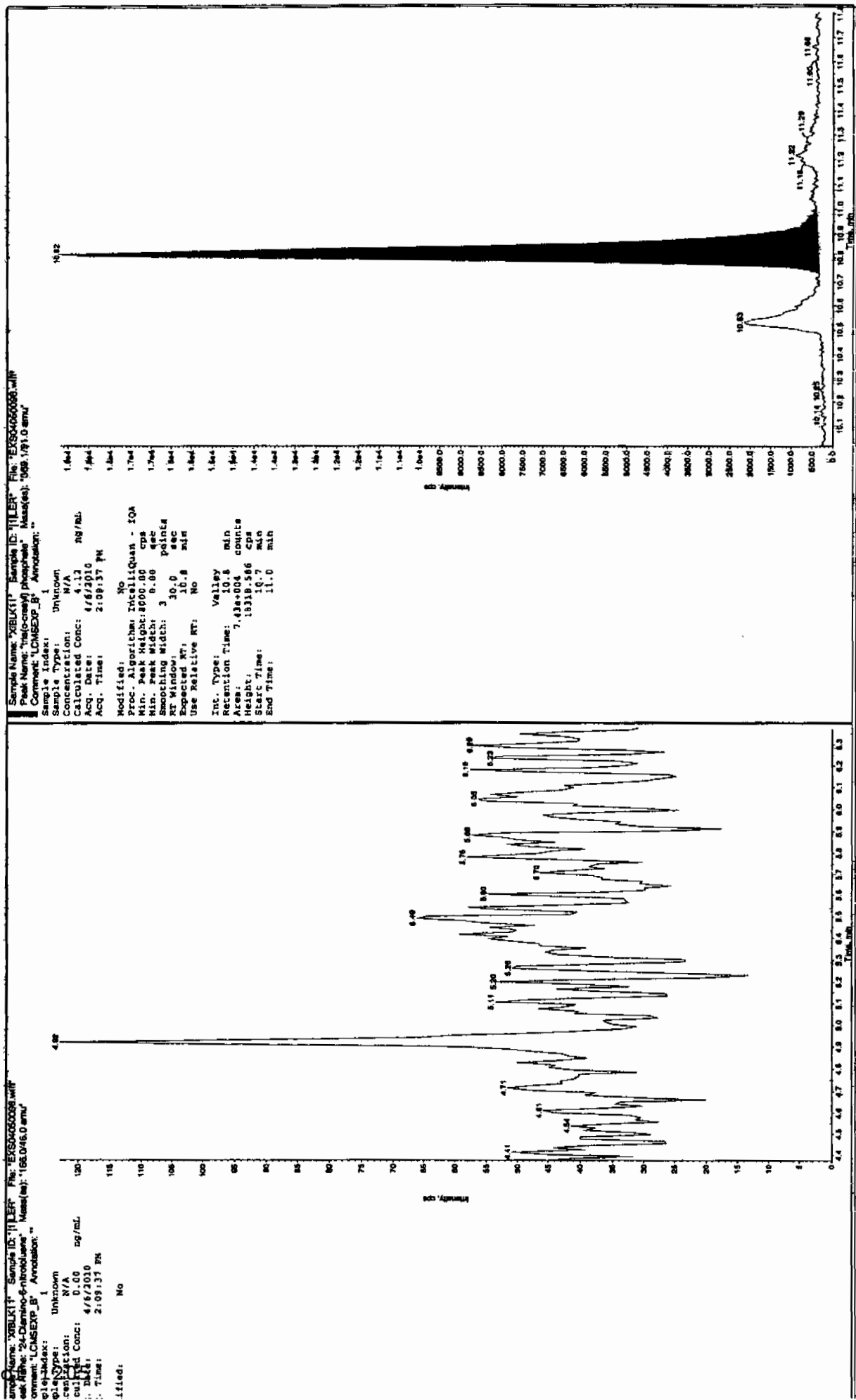
Scan 4/7/10



Am 04/08/10





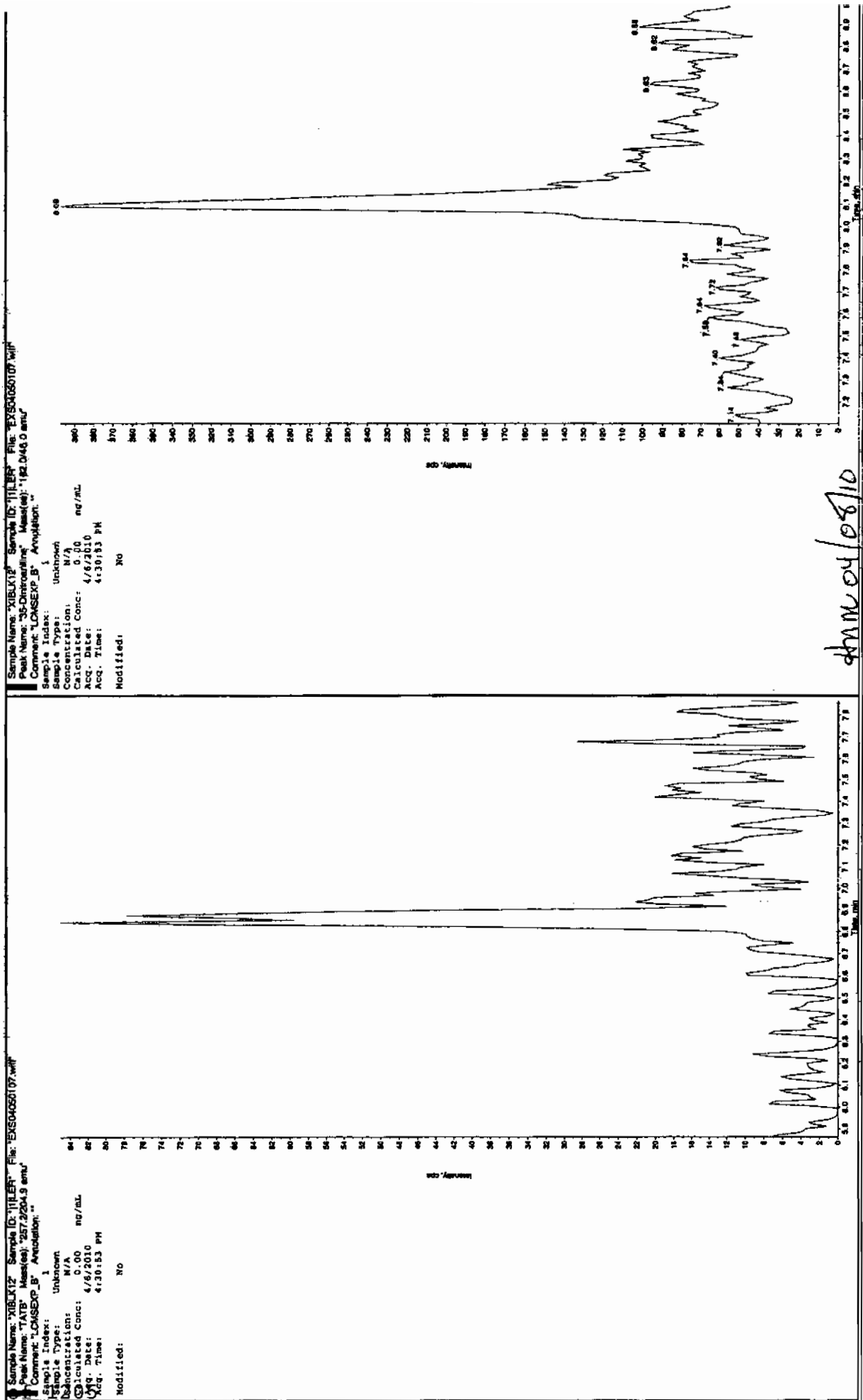


## Explosives Continuing Calibration Blank

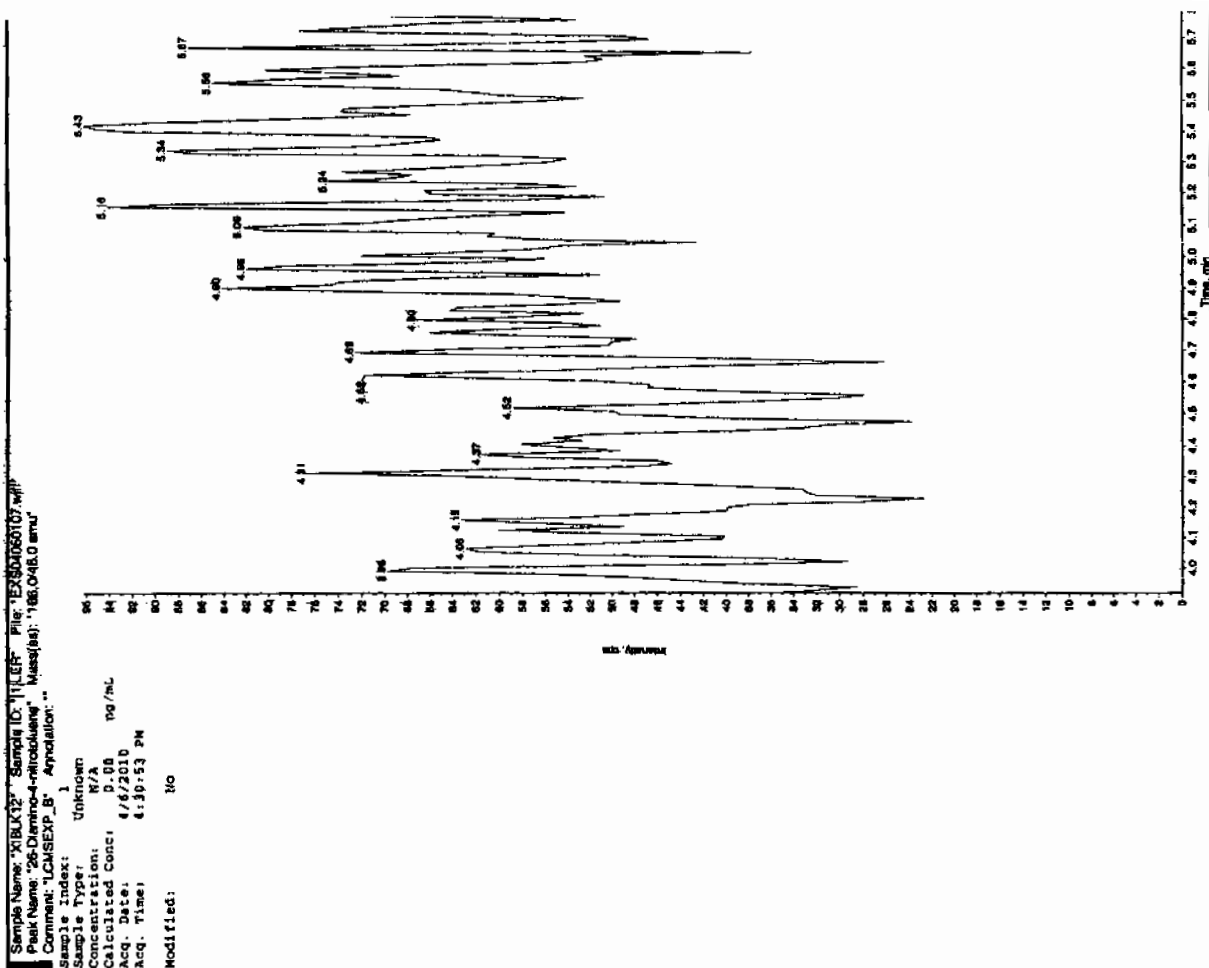
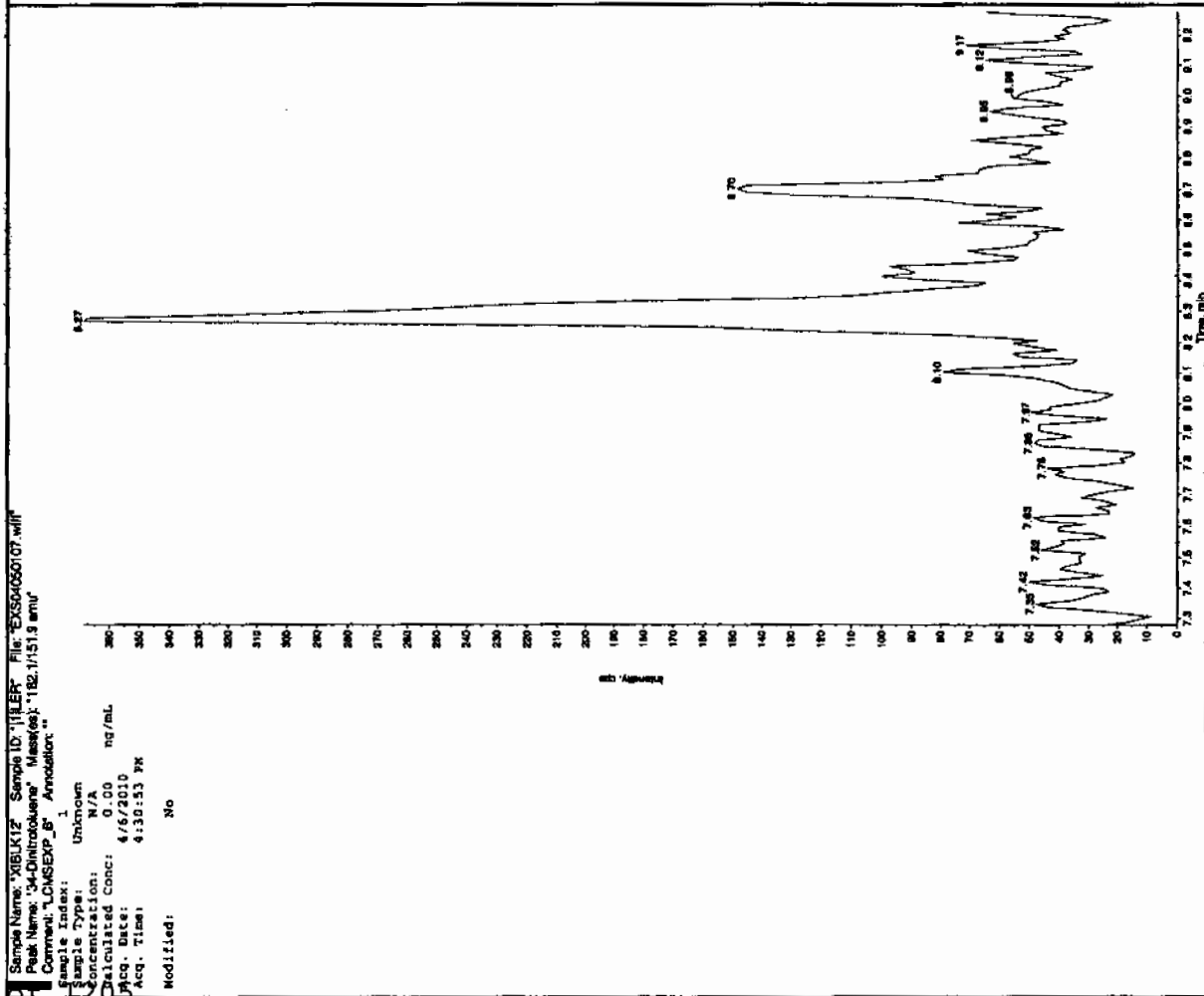
Lab Name: GEL Laboratories LLCGEL Job No(SDG): 10-2140Lab Code: GELLab Sample ID: XIBLK12Analysis Date: 06-APR-10 16:30GEL Data File: EXS04050107.wiffInstrument ID: LCMSMSColumn: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.9
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

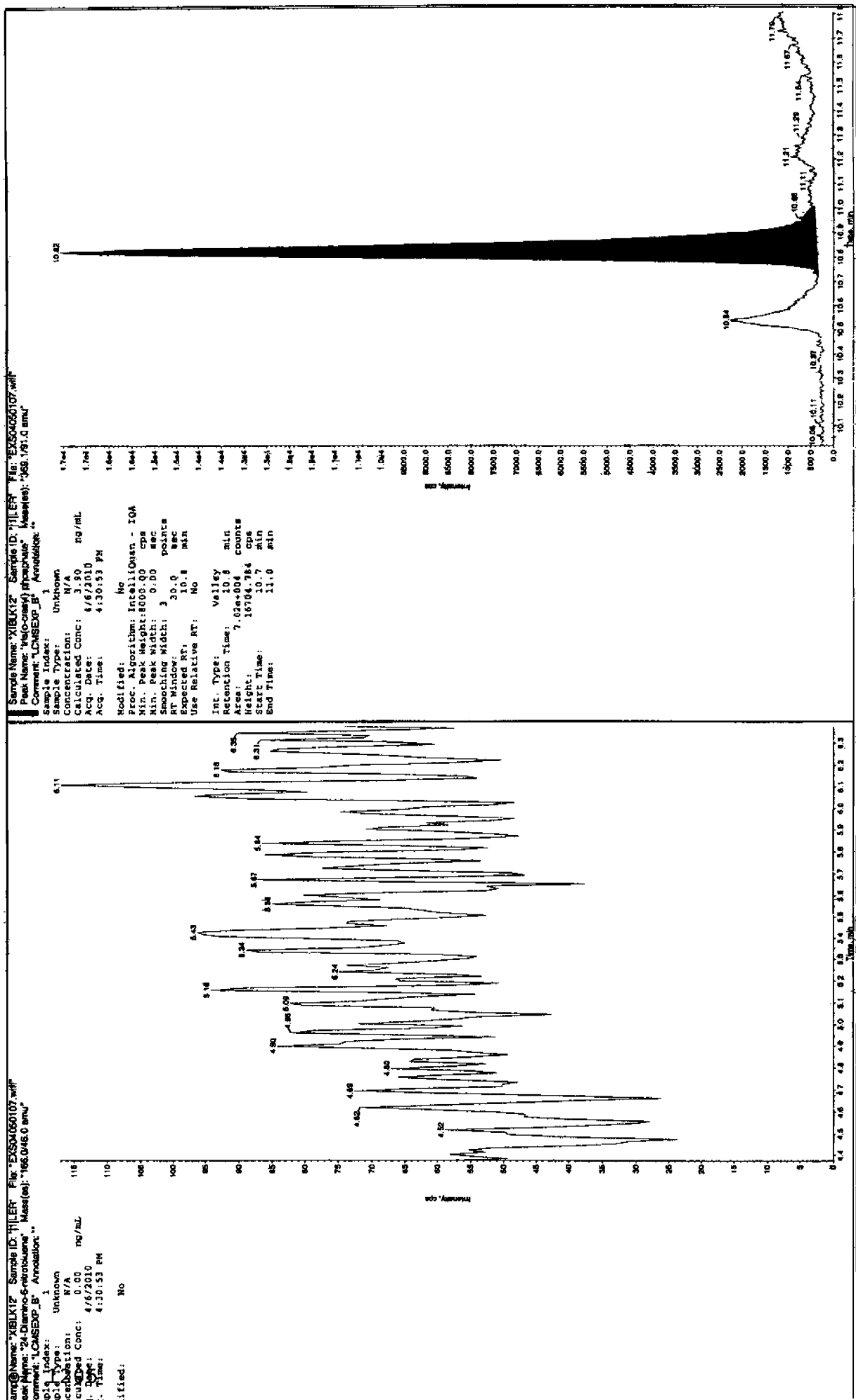
San 4710



San 04/08/10







Nairb.ref

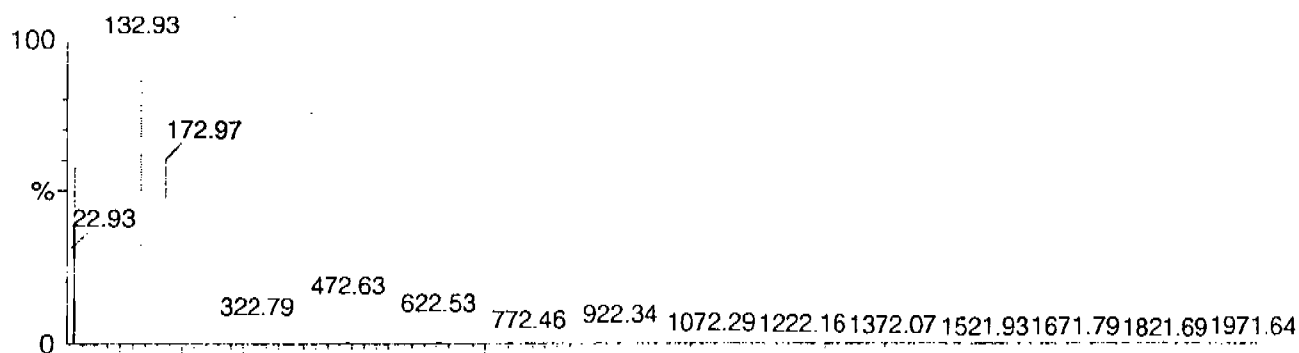
;Positive ion monoisotopic and average masses from solution  
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H<sub>2</sub>O.  
;Most useful general purpose calibrant for all low  
;MW applications, including MS/MS work.  
;At high resolution, readily covers from m/z 50-2000.  
;At reduced resolution,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

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

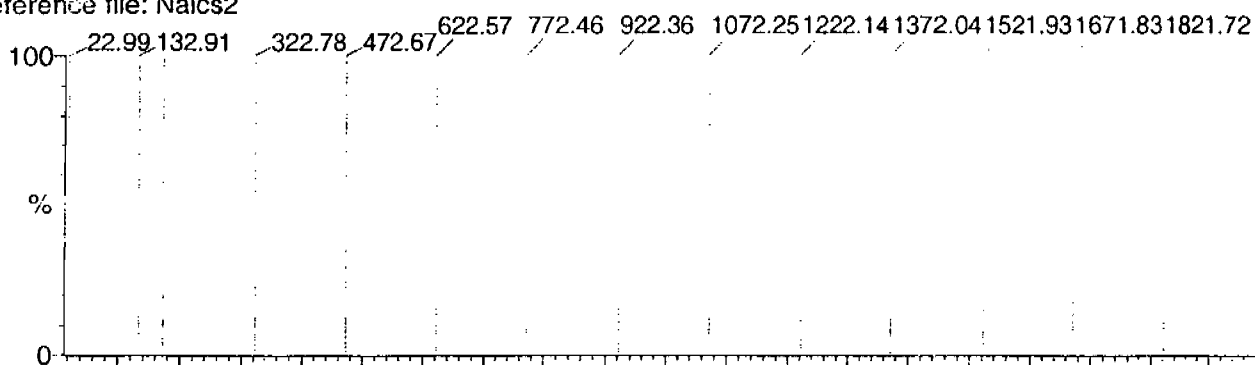
Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

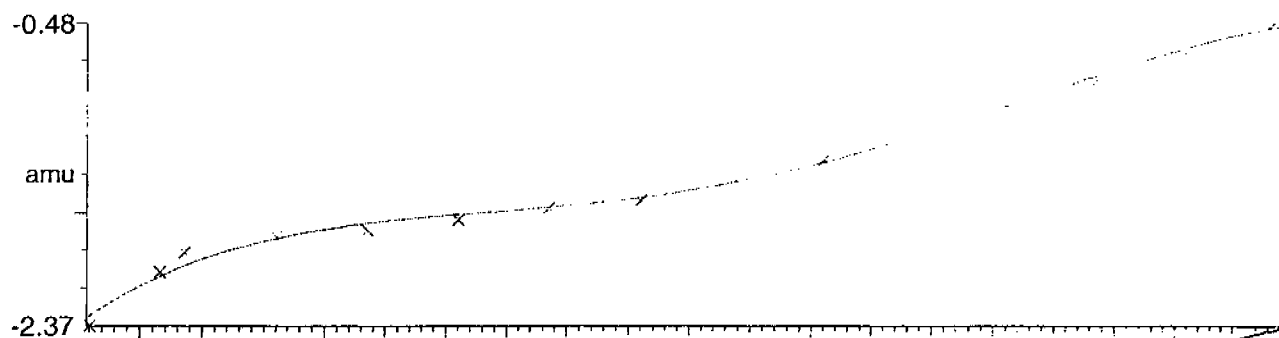
15 matches of 15 tested references



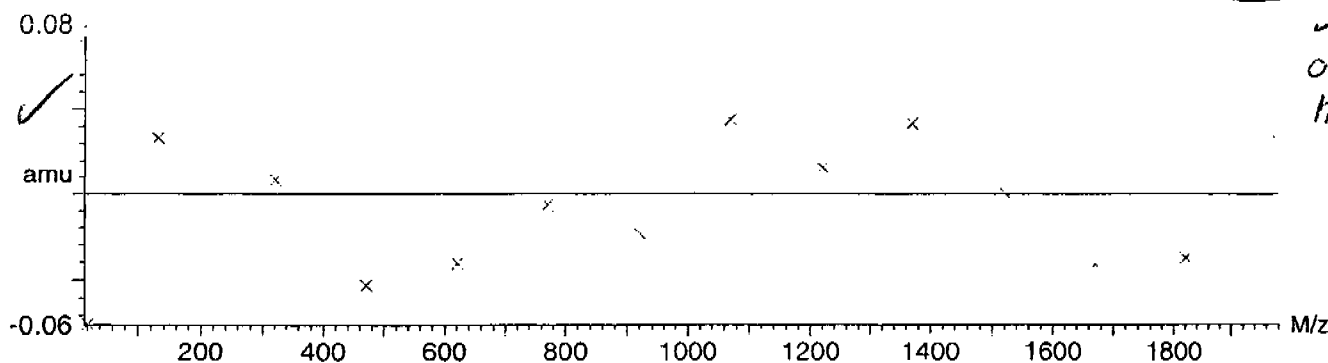
Reference file: Naics2



Mass difference (Raw - Ref mass)



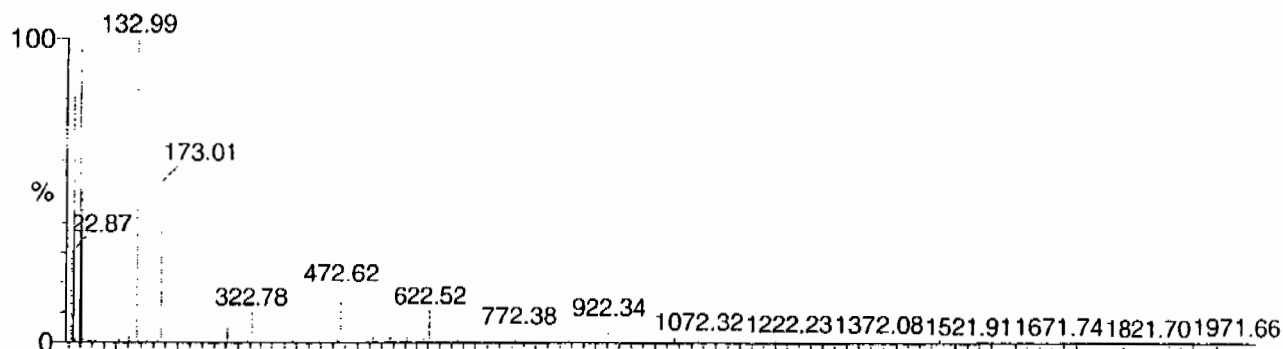
Residuals

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

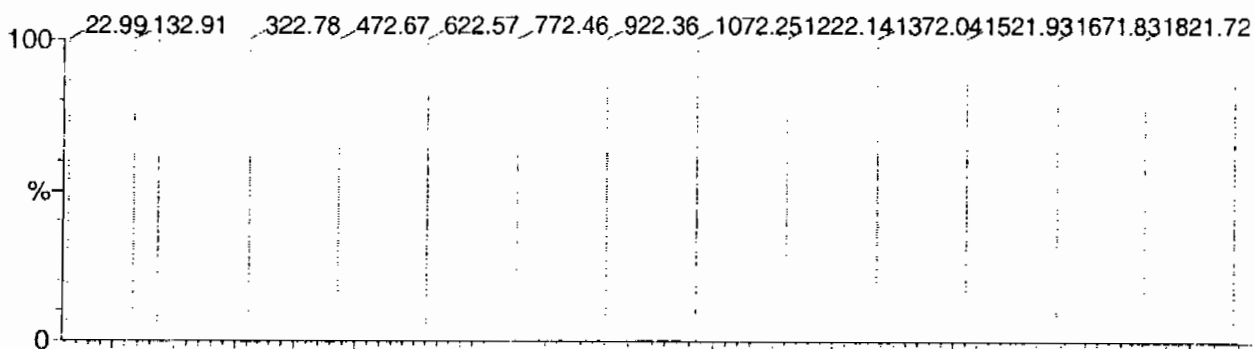
Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

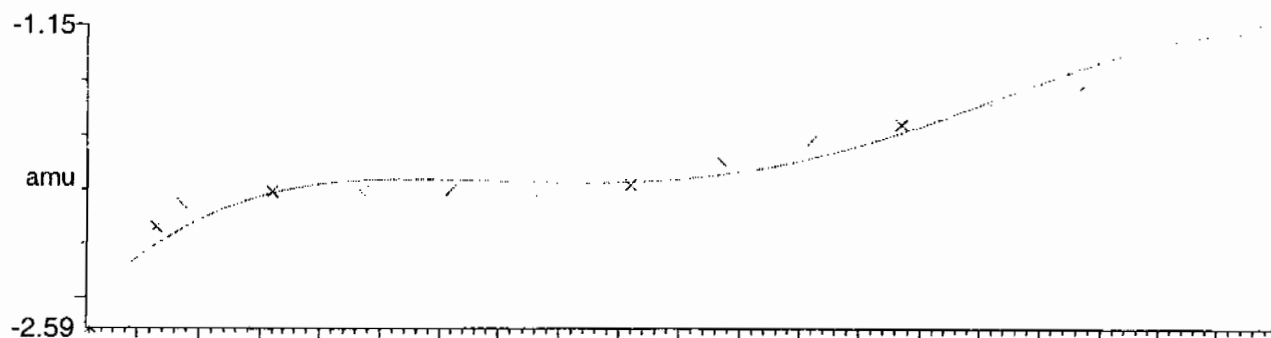
15 matches of 15 tested references



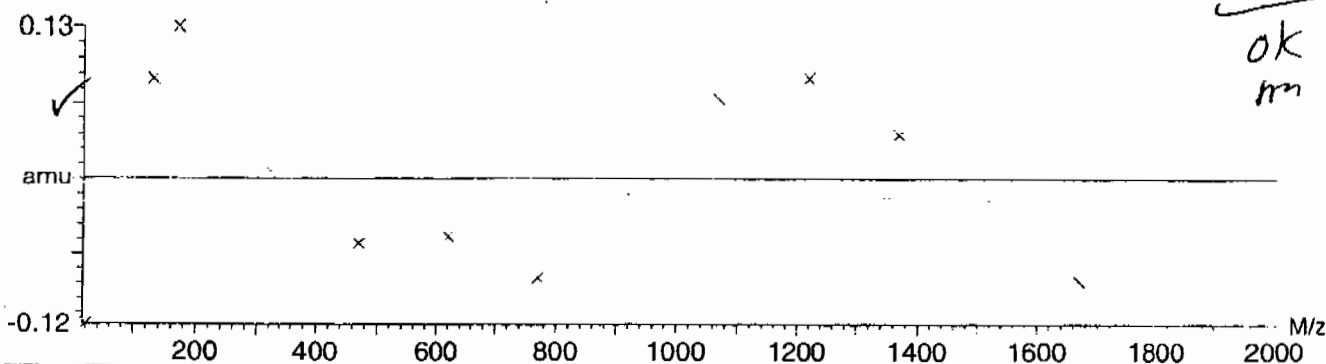
Reference file: Naics2



Mass difference (Raw - Ref mass)



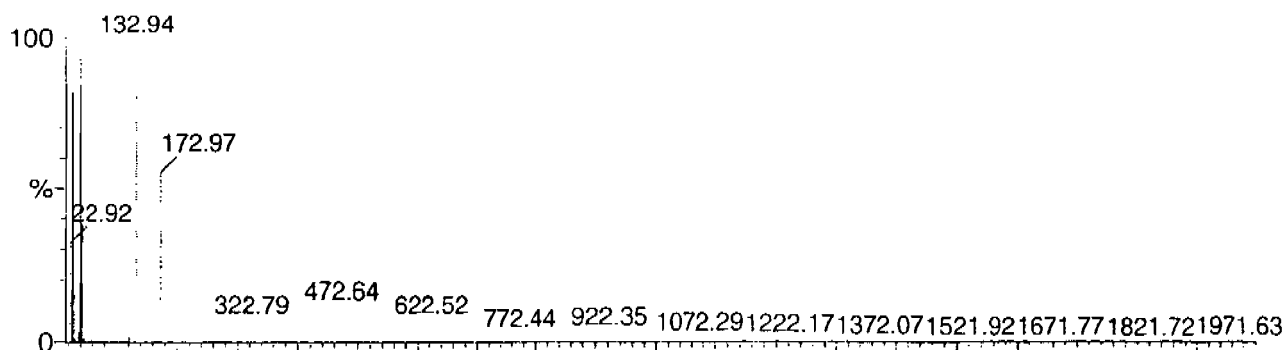
Residuals

Mean residual =  $-5.432715e-9 \pm 0.069858$ ok  
m

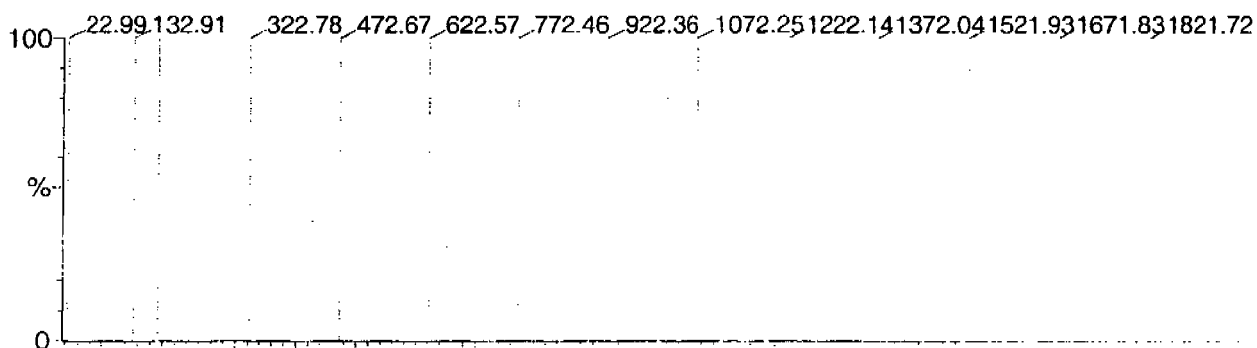
Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

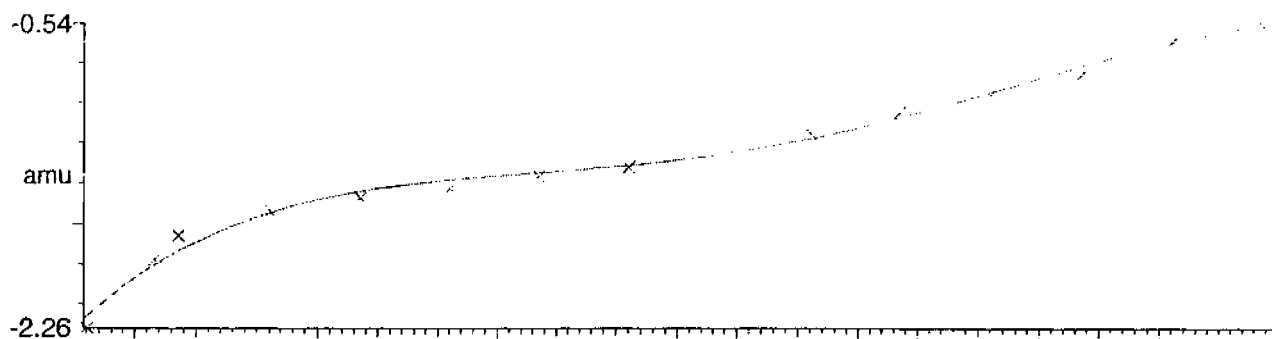
15 matches of 15 tested references



Reference file: Naics2

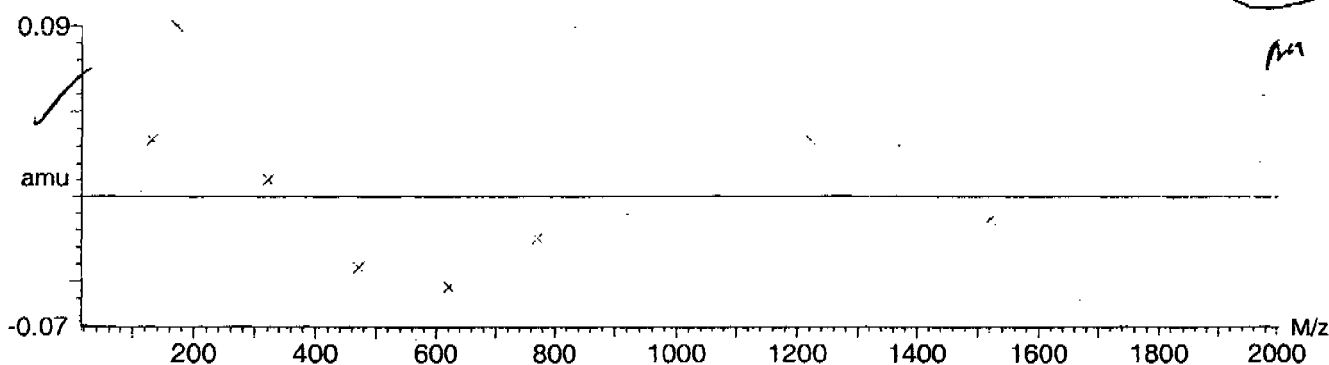


Mass difference (Raw - Ref mass)



Residuals

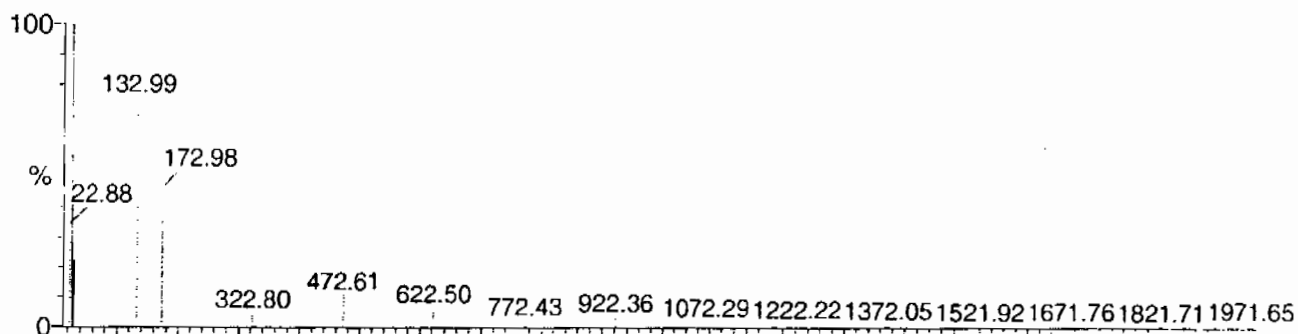
Mean residual =  $3.486639 \times 10^{-9} \pm 0.040487$



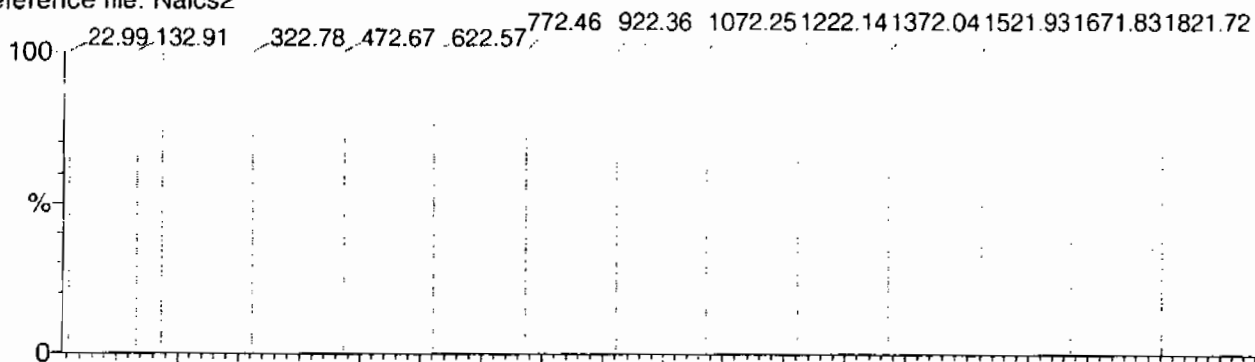
Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

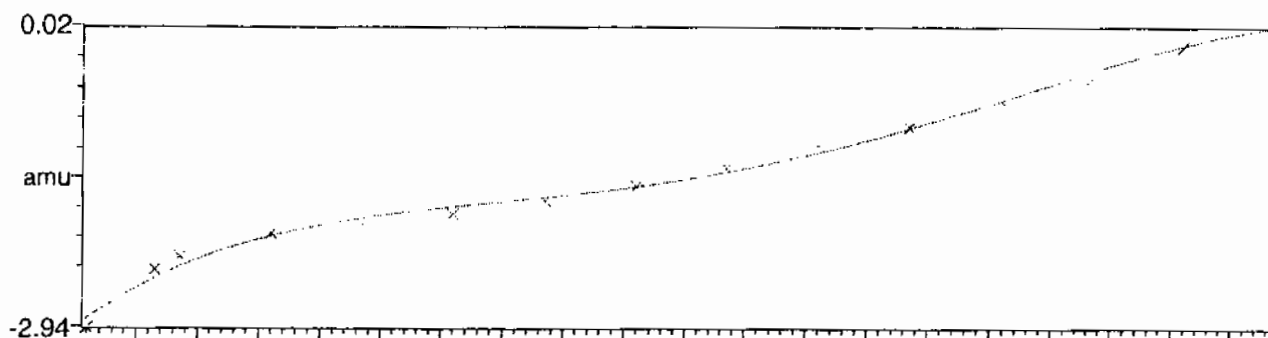
15 matches of 15 tested references



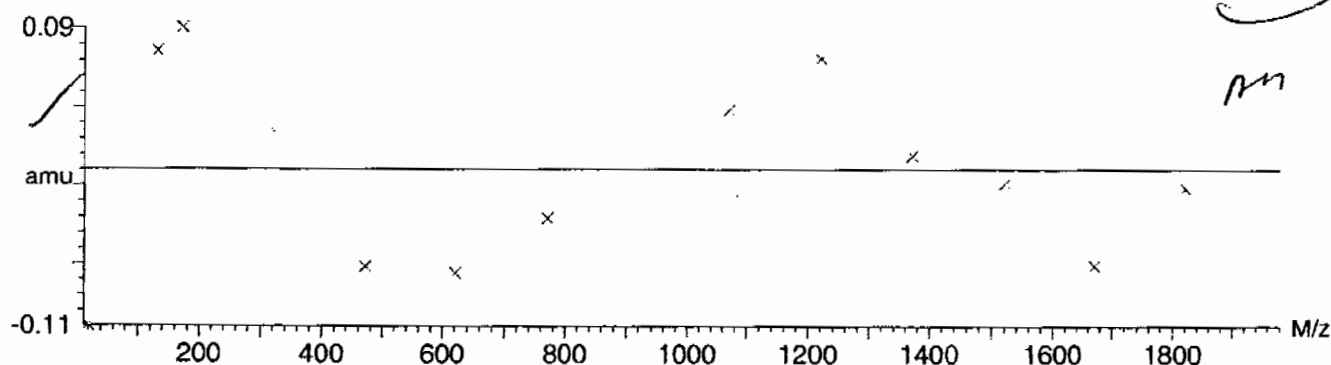
Reference file: Naics2



Mass difference (Raw - Ref mass)



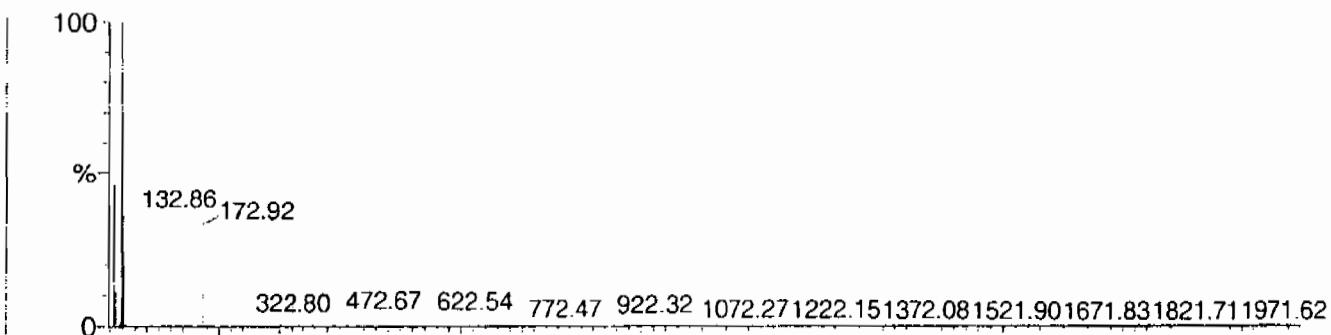
Residuals

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

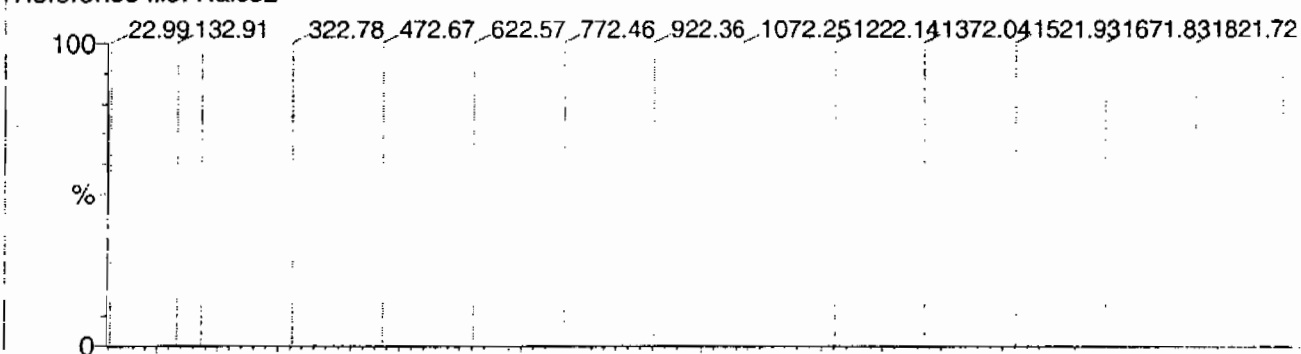
Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

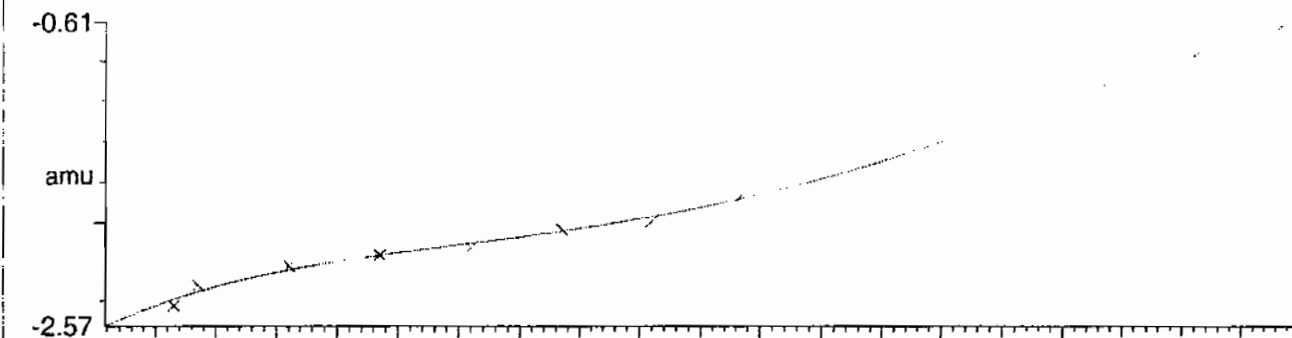
14 matches of 15 tested references



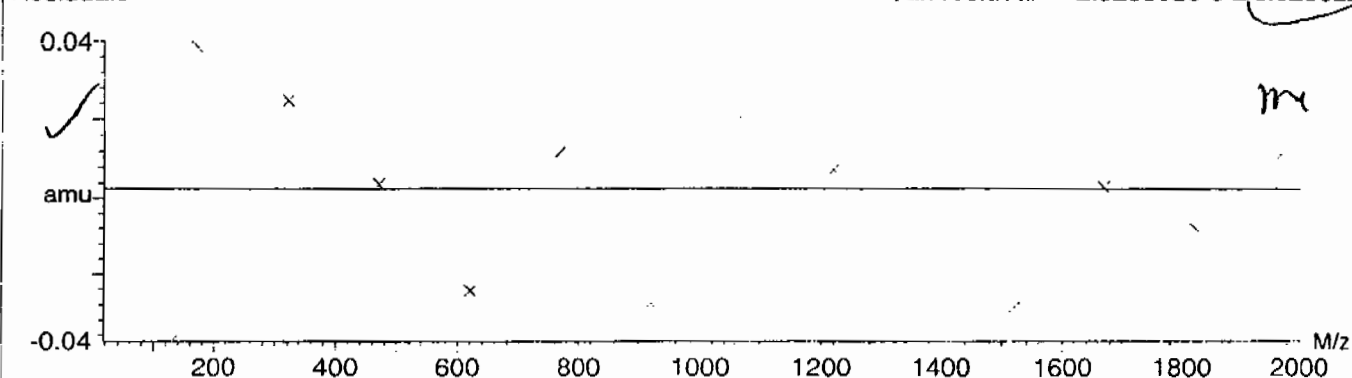
Reference file: Naics2



Mass difference (Raw - Ref mass)



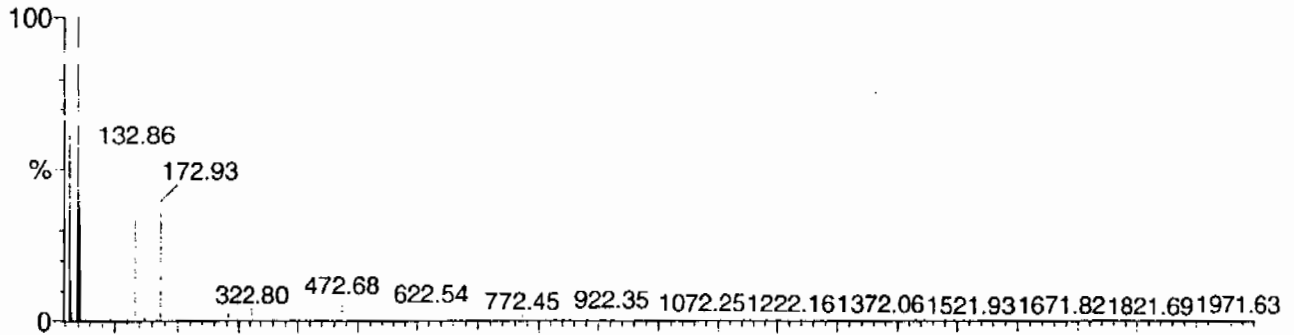
Residuals

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

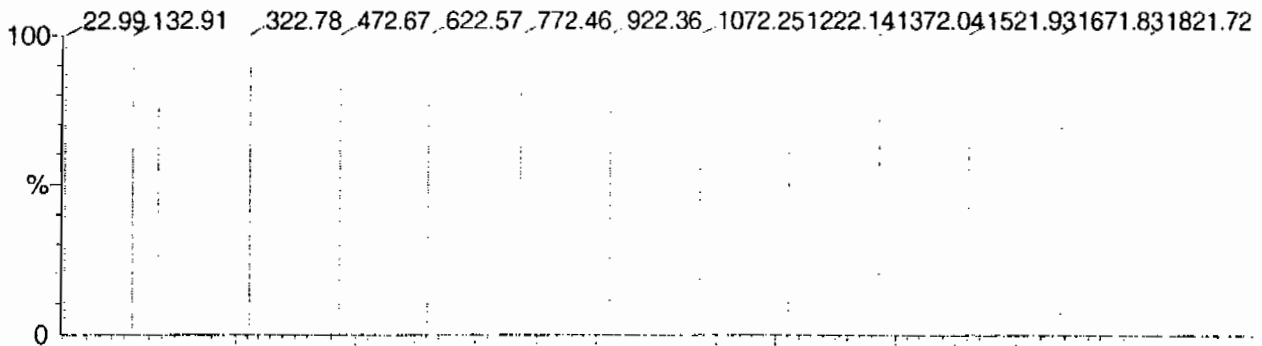
Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

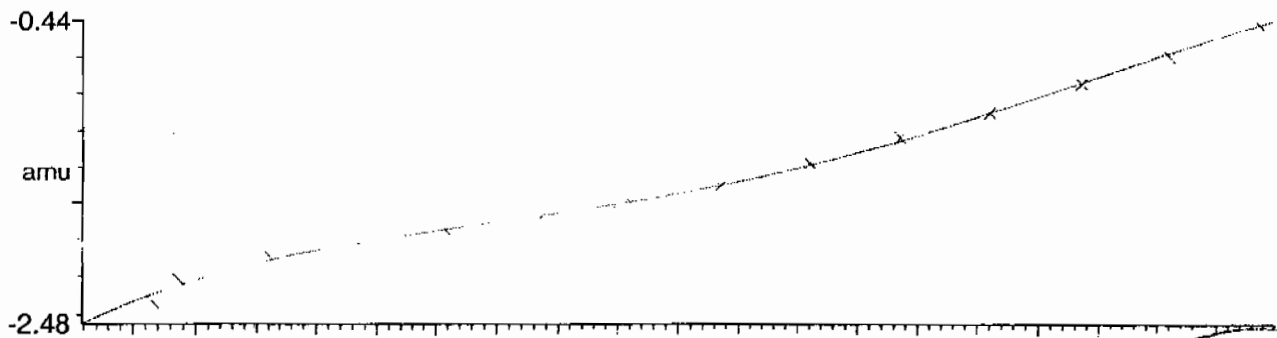
14 matches of 15 tested references



Reference file: Naics2

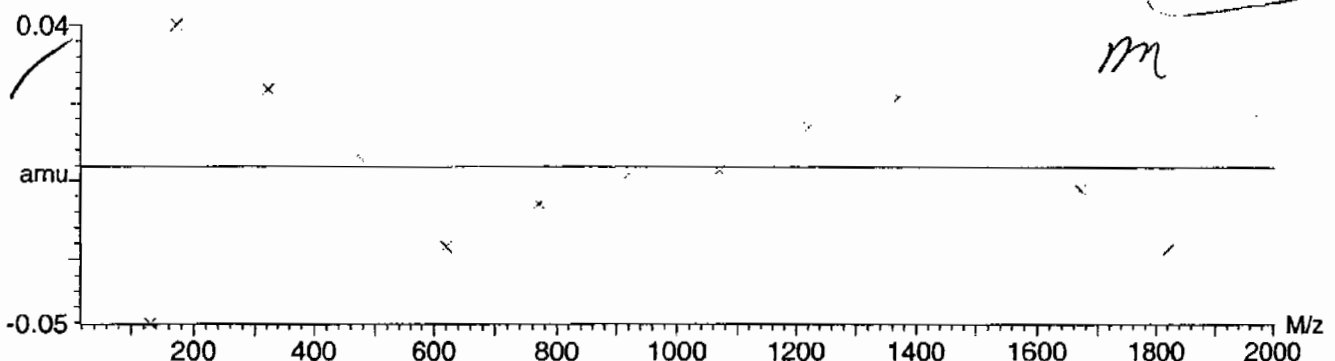


Mass difference (Raw - Ref mass)



Residuals

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

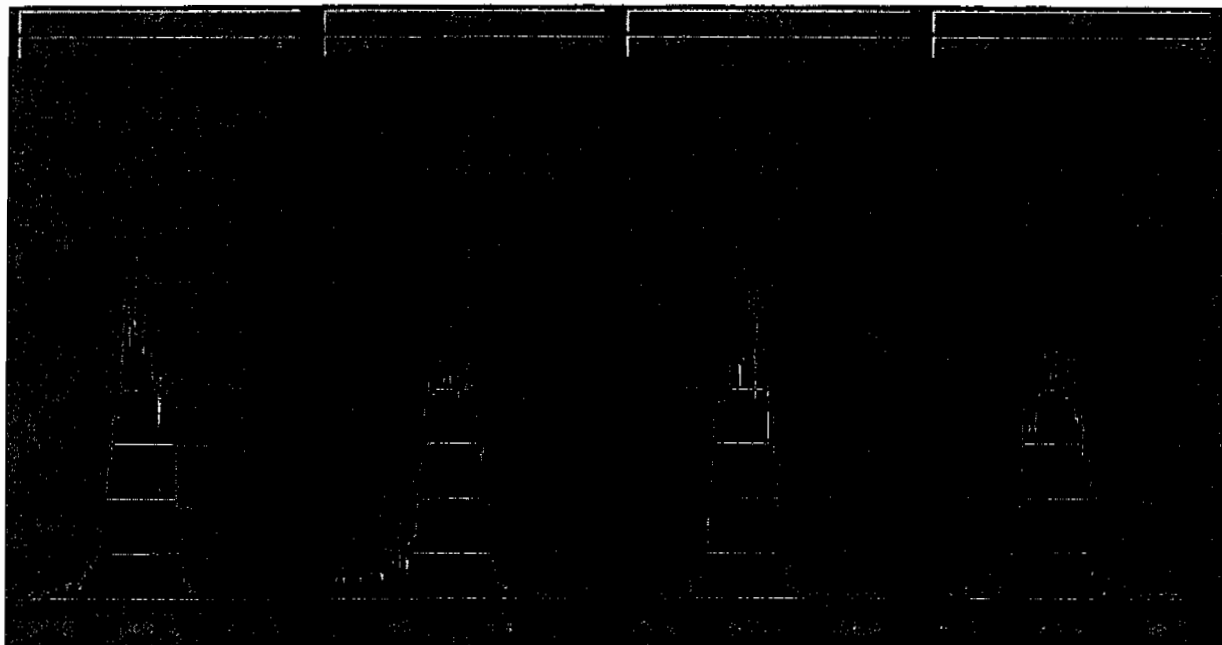




Parameter File: C:\MASSLYNX\NEW\_EXP.PRO\ACQUDB\explosives04.IPR

Printed : Mon Apr 12 14:40:37 2010

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## High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLCGEL Job No (SDG): 10-2140Lab Code: GELHPLC Column: Phenomenex Ultracarb 5u ODS(20)Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			5880.363	11.868	34983.183	17.054
Upper Limit			7644.4719	12.368	45478.1379	17.554
Lower Limit			4116.2541	11.368	24488.2281	16.554
MB for batch 959337	15-apr-10 13:59	EXP0412144a	6428.24	11.868	40694.2	17.093
LCS for batch 959337	15-apr-10 14:29	EXP0412145a	6831.29	11.869	39683.1	17.094
RE36-10-8285(248249001MS)	15-apr-10 20:52	EXP0412158a	7176.65	11.871	43107.7	17.092
RE36-10-8285(248249001MSD)	15-apr-10 21:22	EXP0412159a	7599.44	11.874	42772	17.092
RE36-10-8286	15-apr-10 21:51	EXP0412160a	6658.13	11.879	39655.4	17.088
RE36-10-8283	15-apr-10 22:21	EXP0412161a	6578.47	11.891	43200.7	17.108
RE36-10-8285	16-apr-10 16:03	EXP0412197a	7282.6	11.894	44778.9	17.094
RE36-10-8284	16-apr-10 16:33	EXP0412198a	6451.1	11.868	38583.1	17.094

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

IS2 (DNT) = 2,6-Dinitrotoluene-d2

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: RE36-10-8285

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249001

Sample Amount 2

Moisture: 27.9

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412197a

Date Analyzed: 16-APR-10 16:03

Units: ug/kg

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

\*Concentration =

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

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412197a

Date: 16-Apr-2010

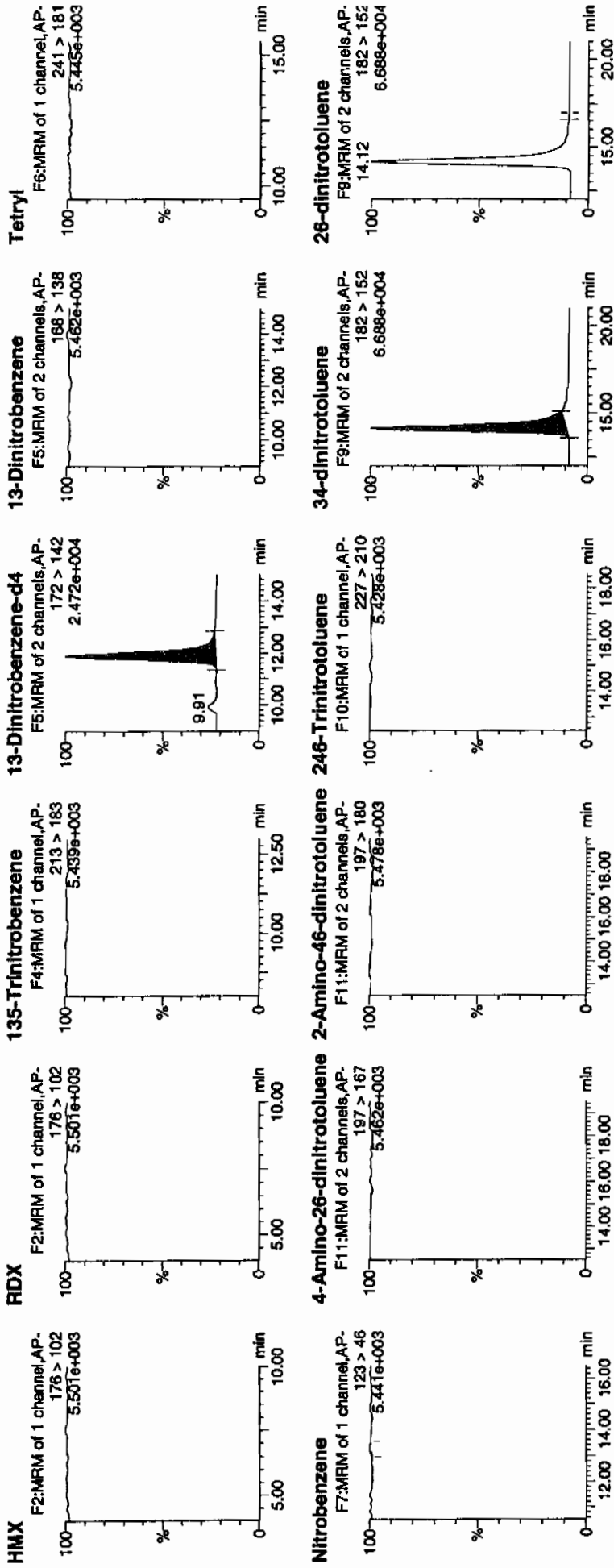
Time: 16:03:35

ID: 248249001

Vial: 4:2,E

1677  
4/17/10

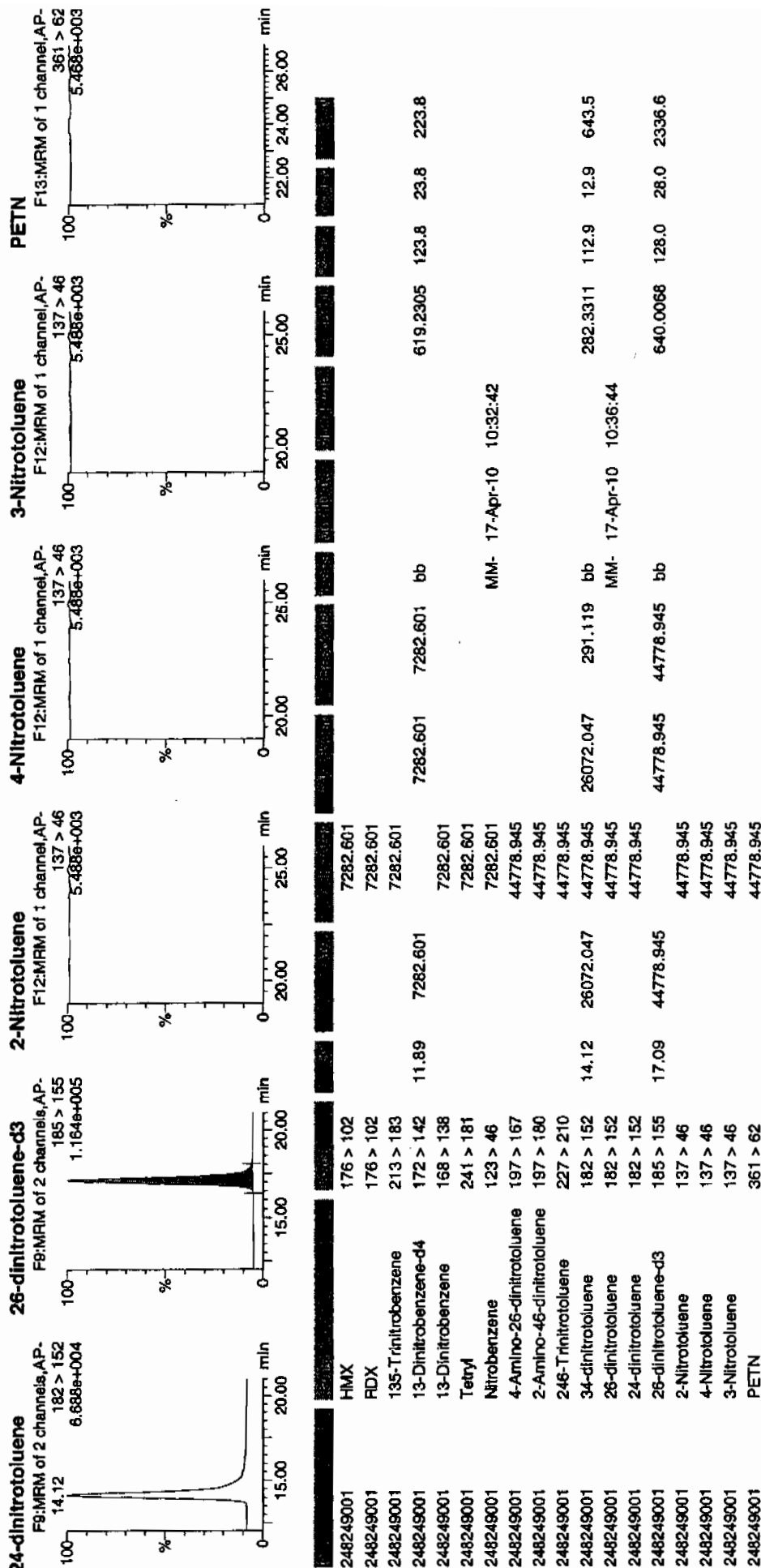
121  
121  
121



11/11/10  
04/18/10

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8285

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249001

Sample Amount 2

Moisture: 27.9

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050100.wiff

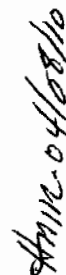
Date Analyzed: 06-APR-10 14:41

Units: ug/kg

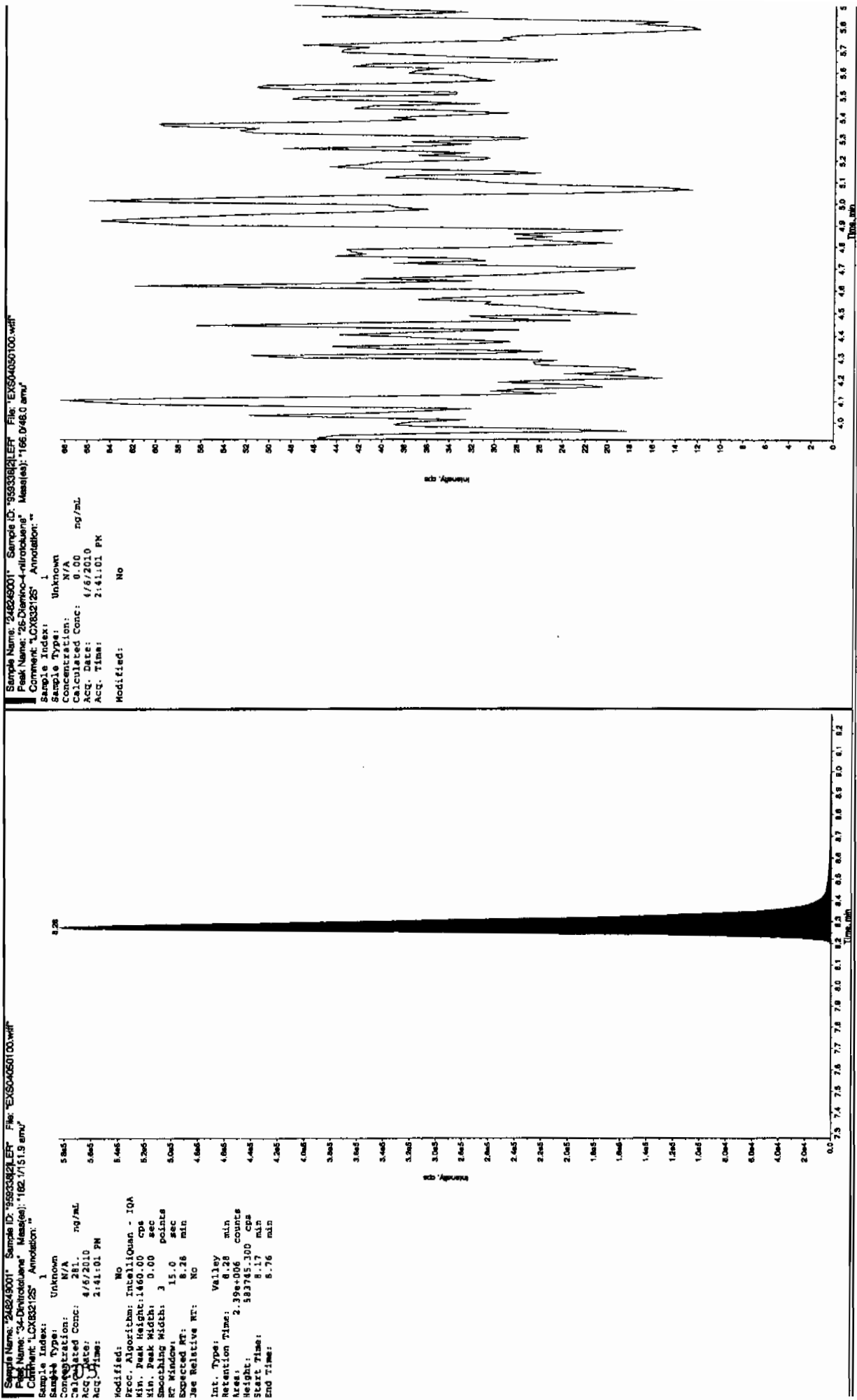
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

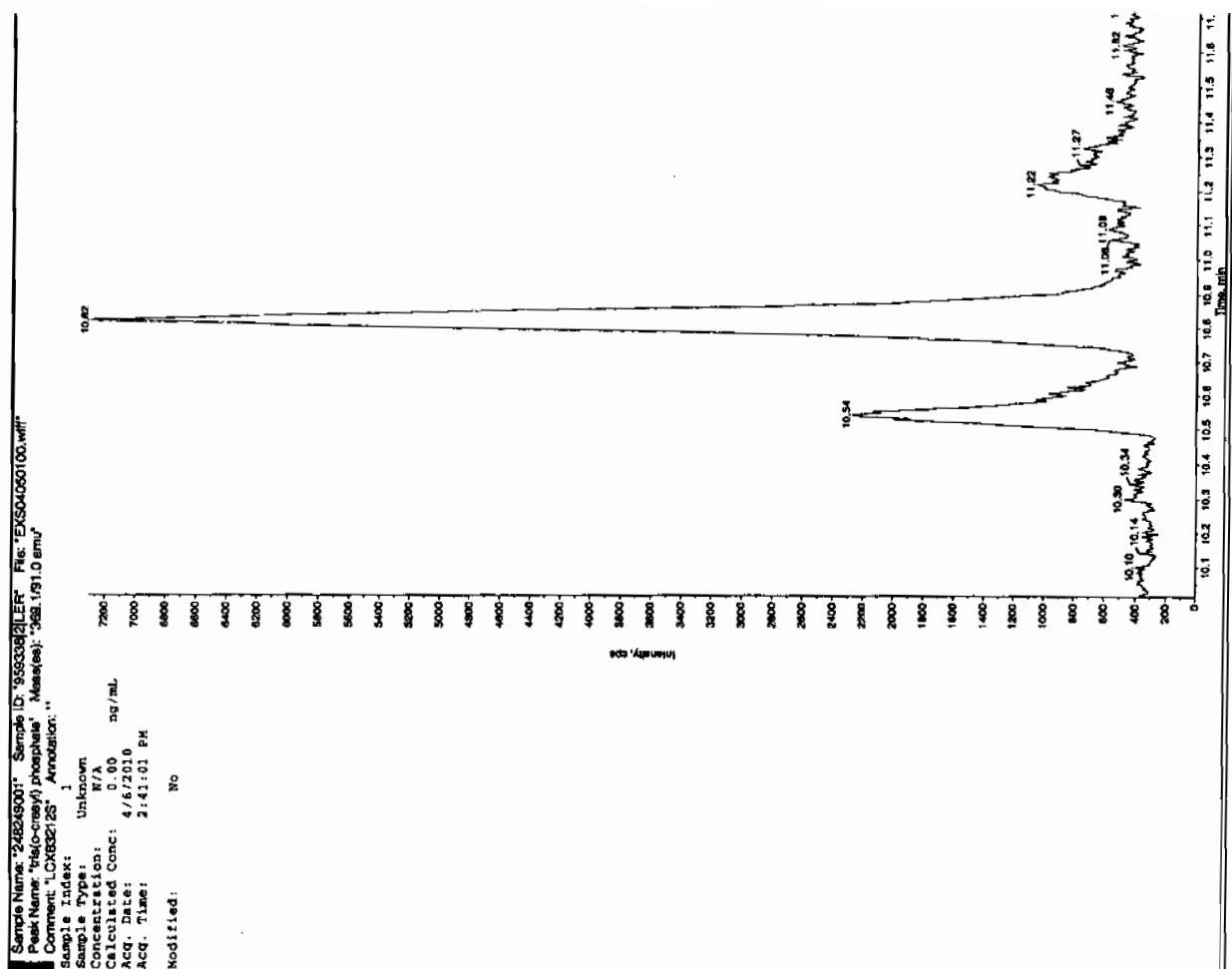
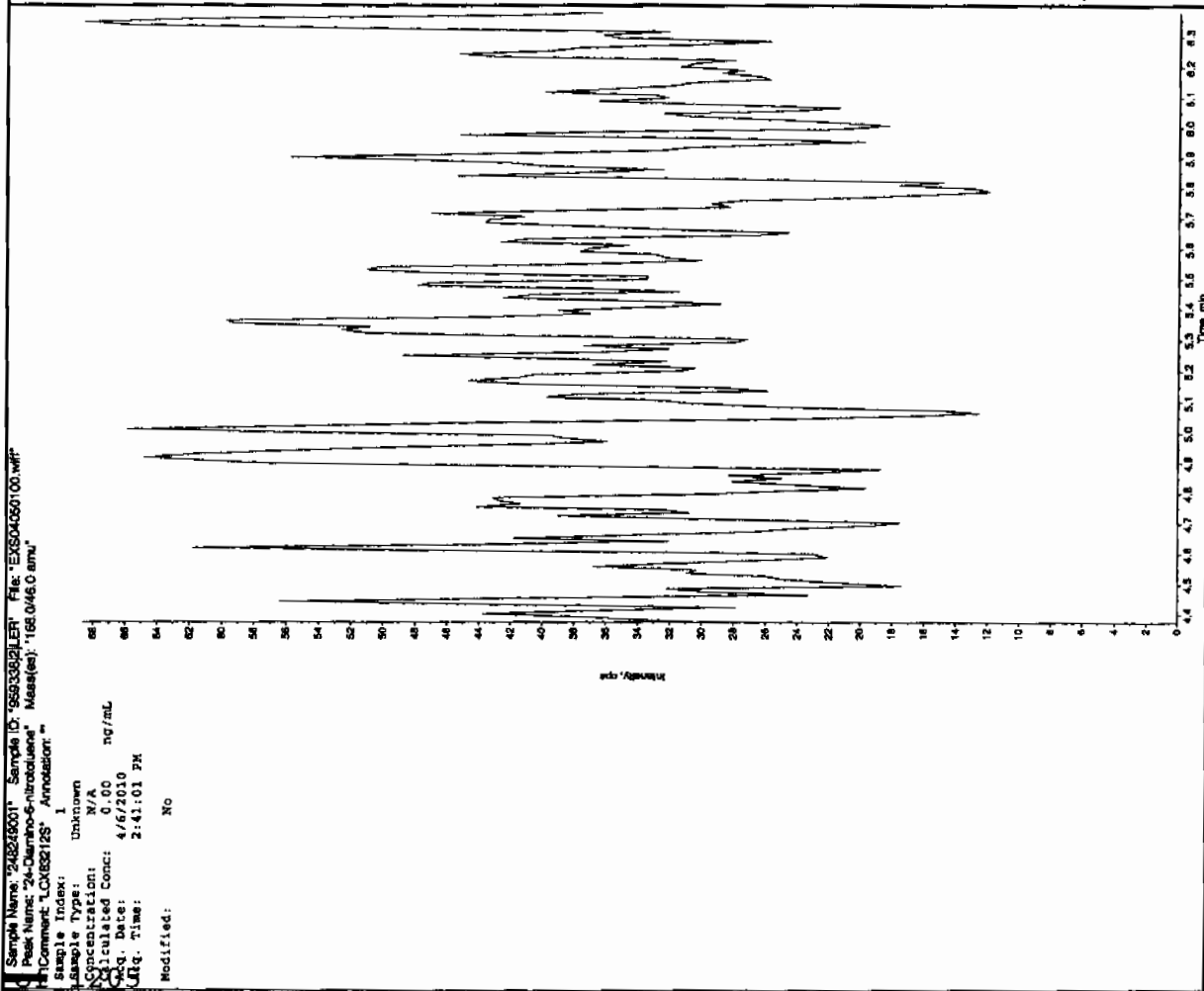
\*Concentration =

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









1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8286

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249002

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412160a

Date Analyzed: 15-APR-10 21:51

Units: ug/kg

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

\*Concentration =

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

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412160a

Date: 15-Apr-2010

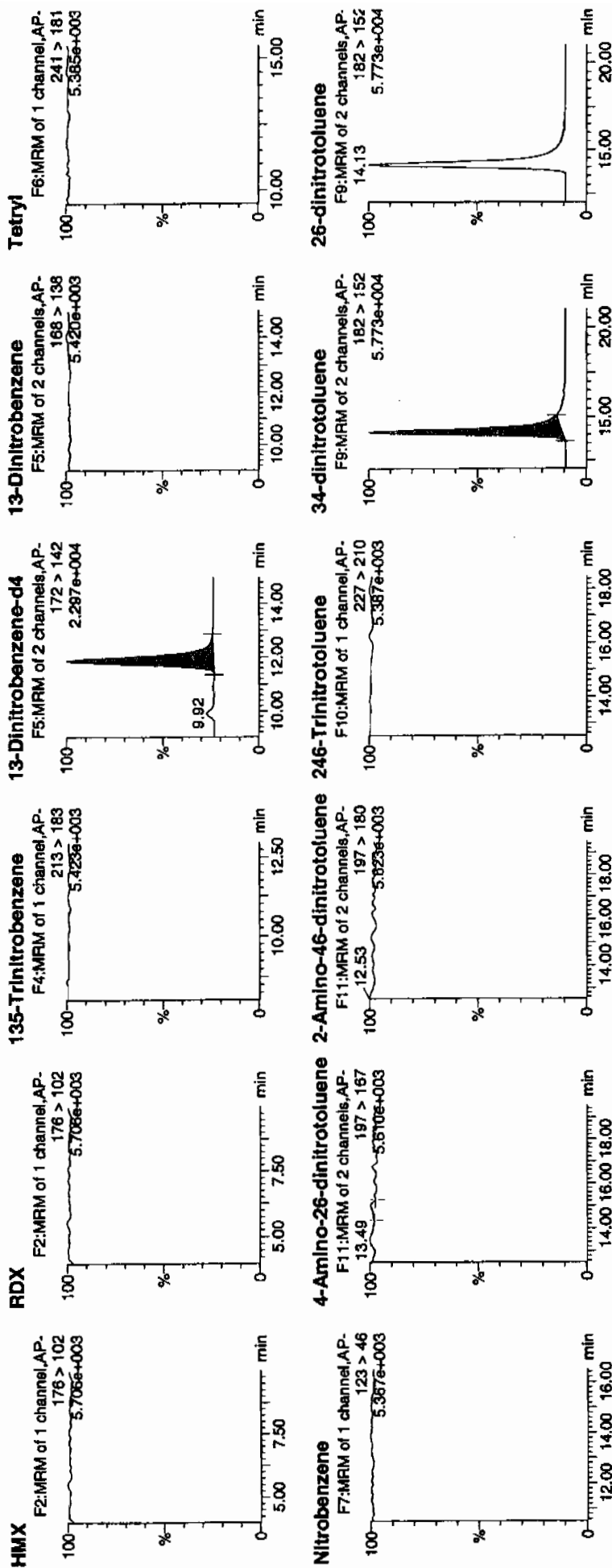
Time: 21:51:45

ID: 248249002

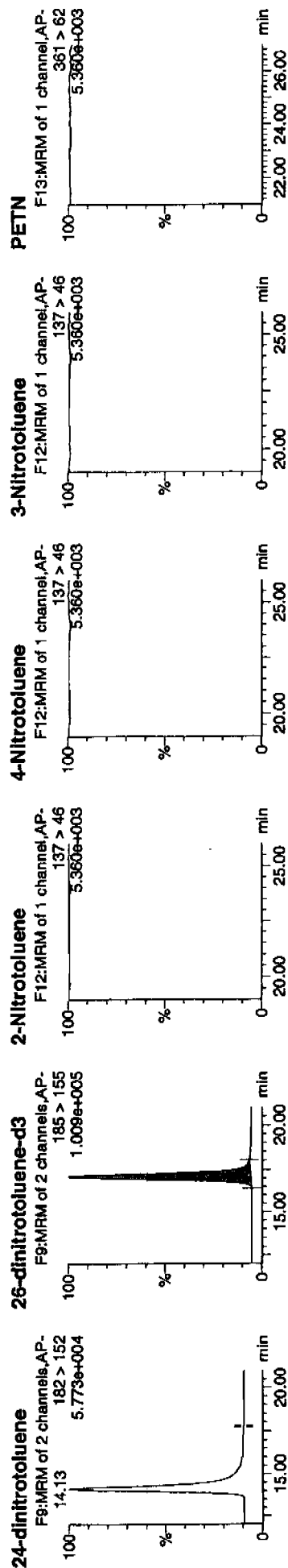
Vial: 4:3,B

NOT  
 4/16/10

LAU 959338 / 8000 / 21



Time  
 04/18/10

[illegible]

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8286

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249002

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050103.wiff

Date Analyzed: 06-APR-10 15:28

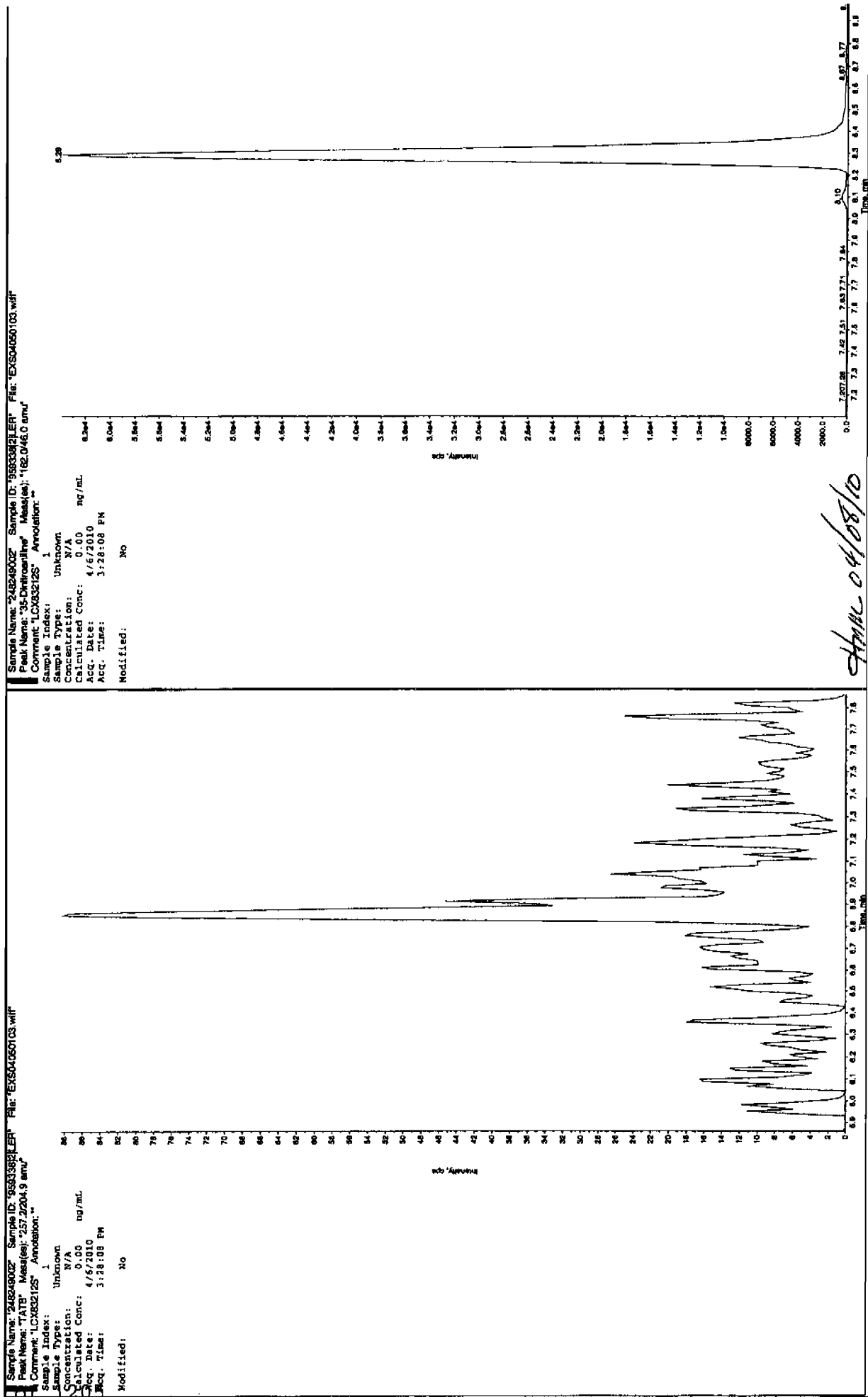
Units: ug/kg

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 =

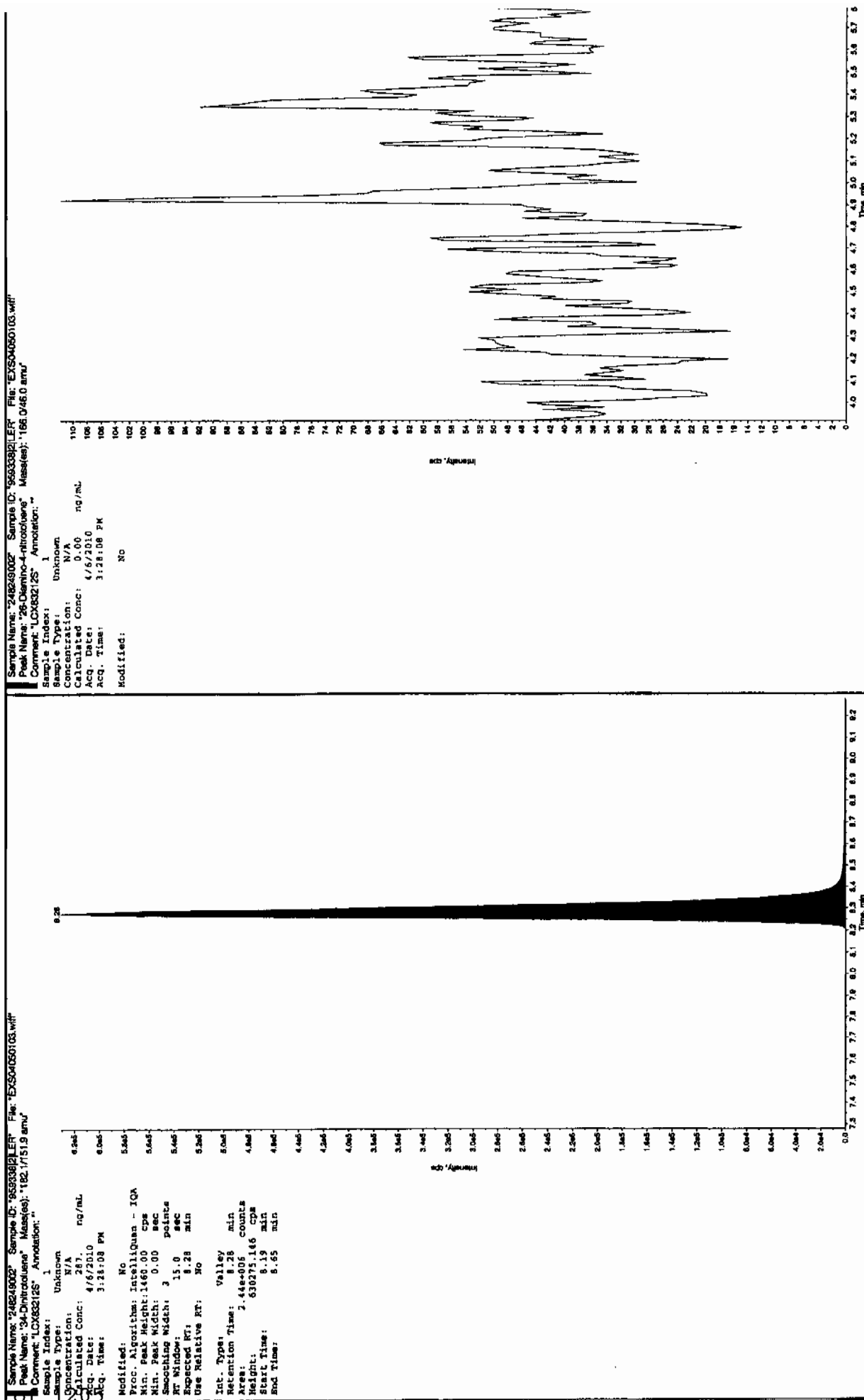
Instrument	X	<u>Concentrated Extract Volume</u>	X	Dilution
Value		<u>Sample Amount</u>		Factor

San 4/10

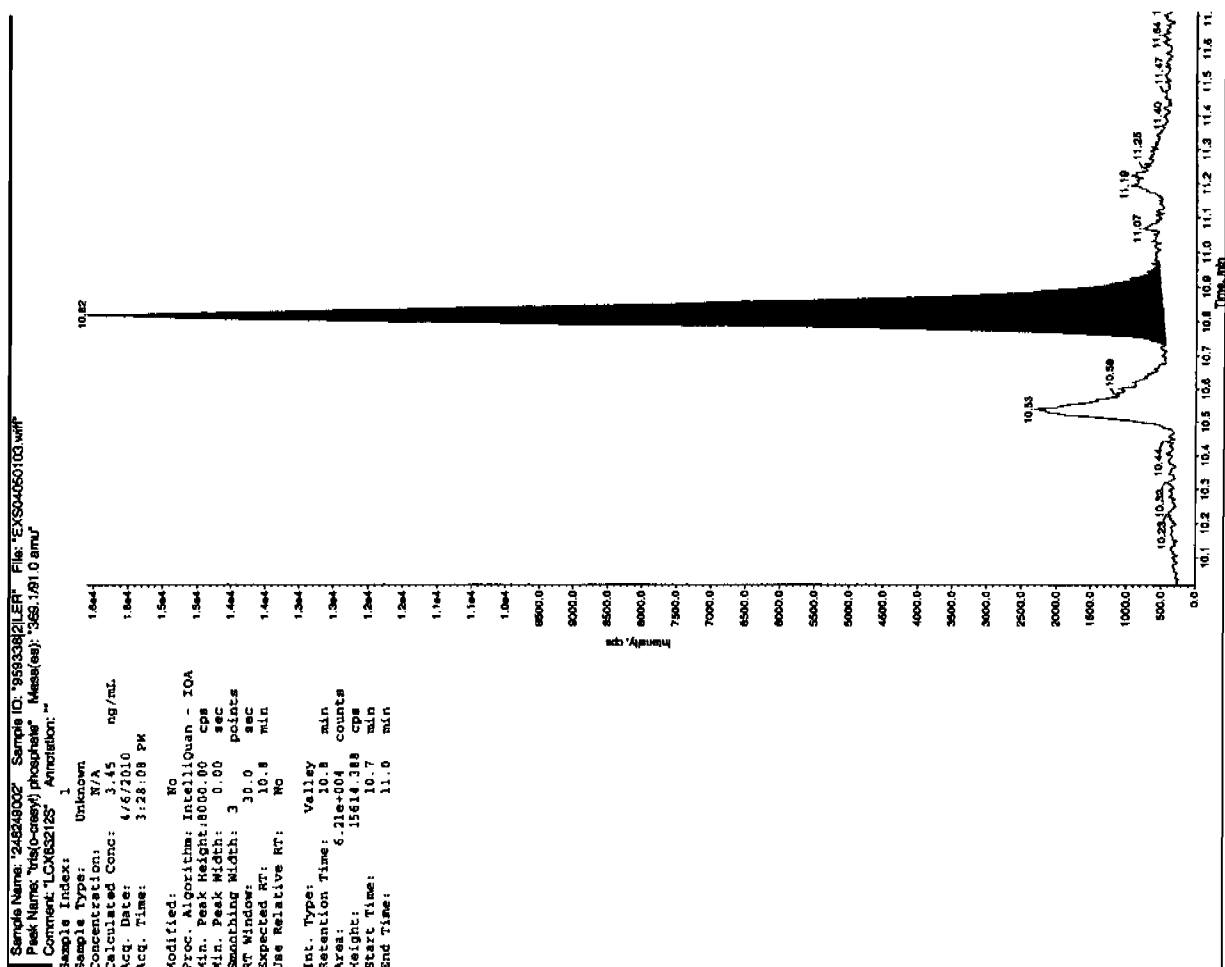
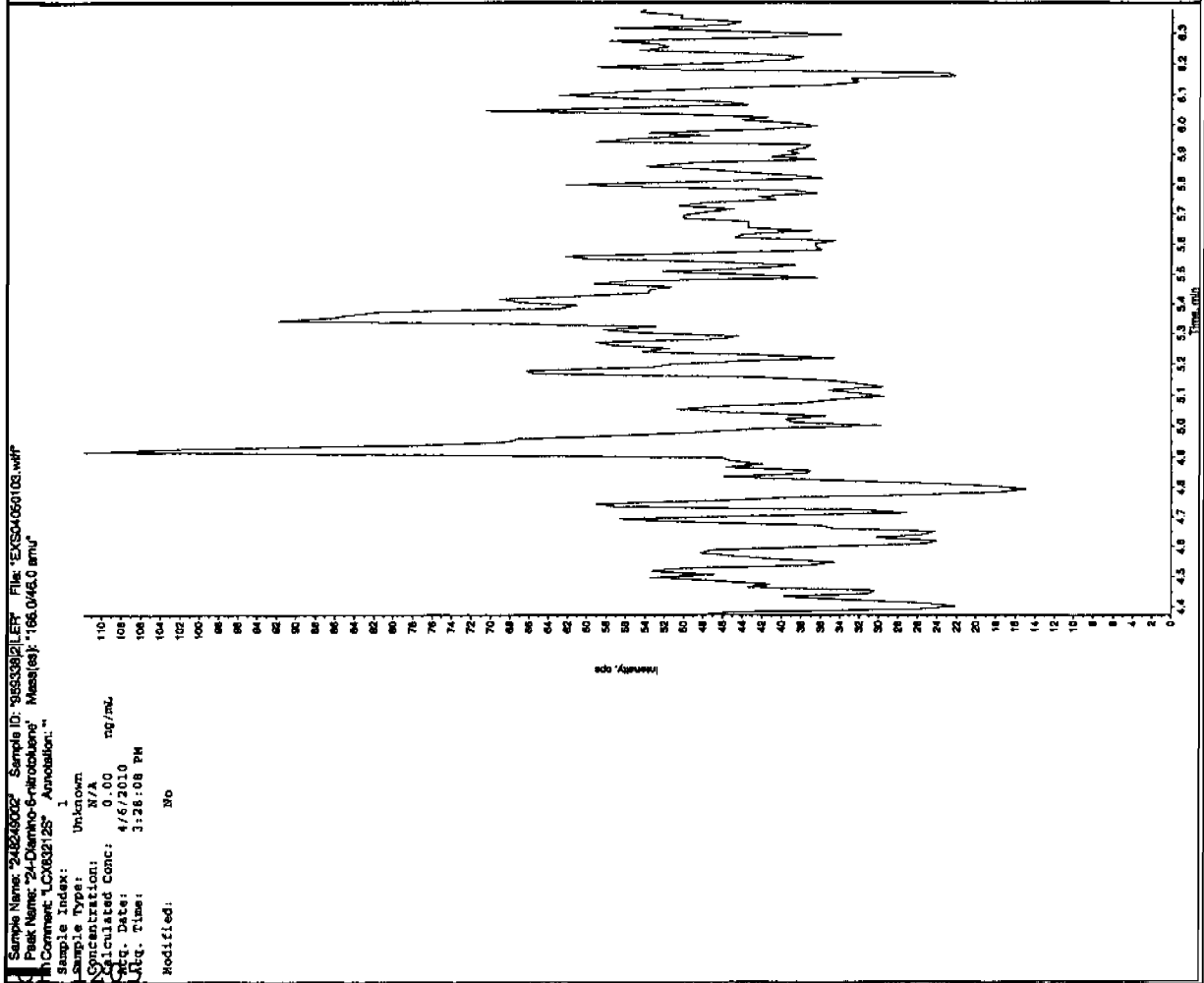


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Amc 04/08/10







1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8283

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249003

Sample Amount 2

Moisture: 6.3

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412161a

Date Analyzed: 15-APR-10 22:21

Units: ug/kg

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

\*Concentration =

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

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412161a

Date: 15-Apr-2010

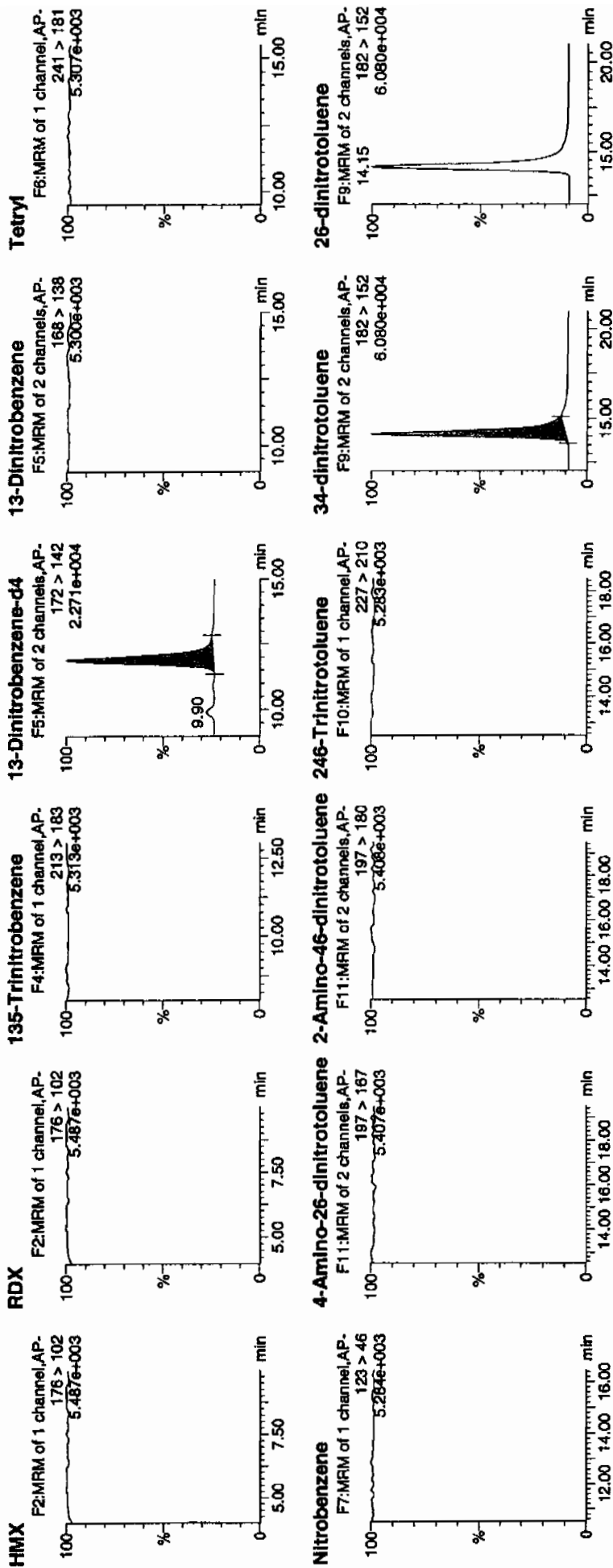
Time: 22:21:14

ID: 248249003

Vial: 4:3,C

100%  
4/16/10

100%  
4/16/10



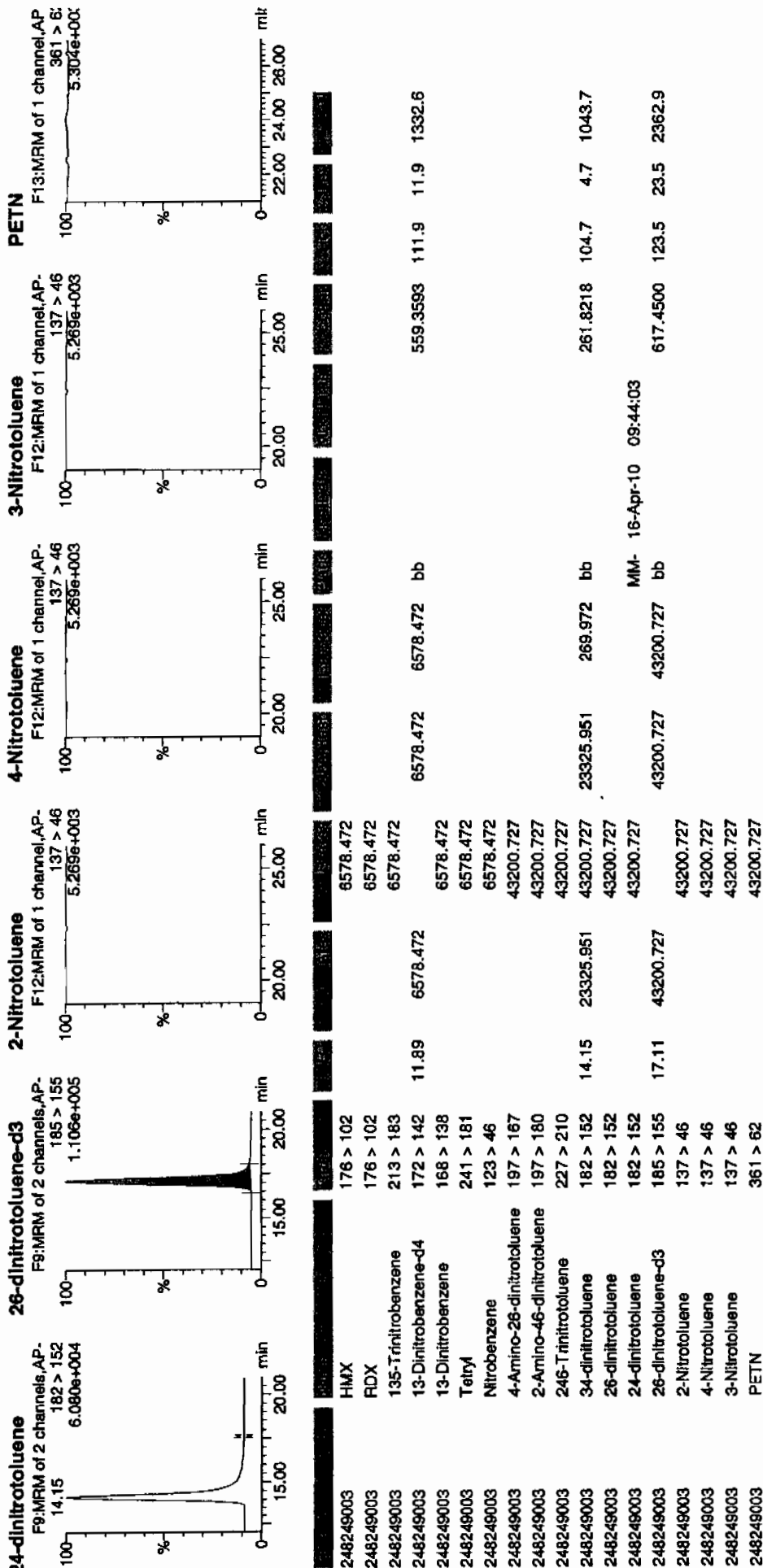
100%  
4/16/10

# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Printed: Fri Apr 16 09:46:23 2010, Page 36 of 71



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8283

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249003

Sample Amount 2

Moisture: 6.3

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050104.wiff

Date Analyzed: 06-APR-10 15:43

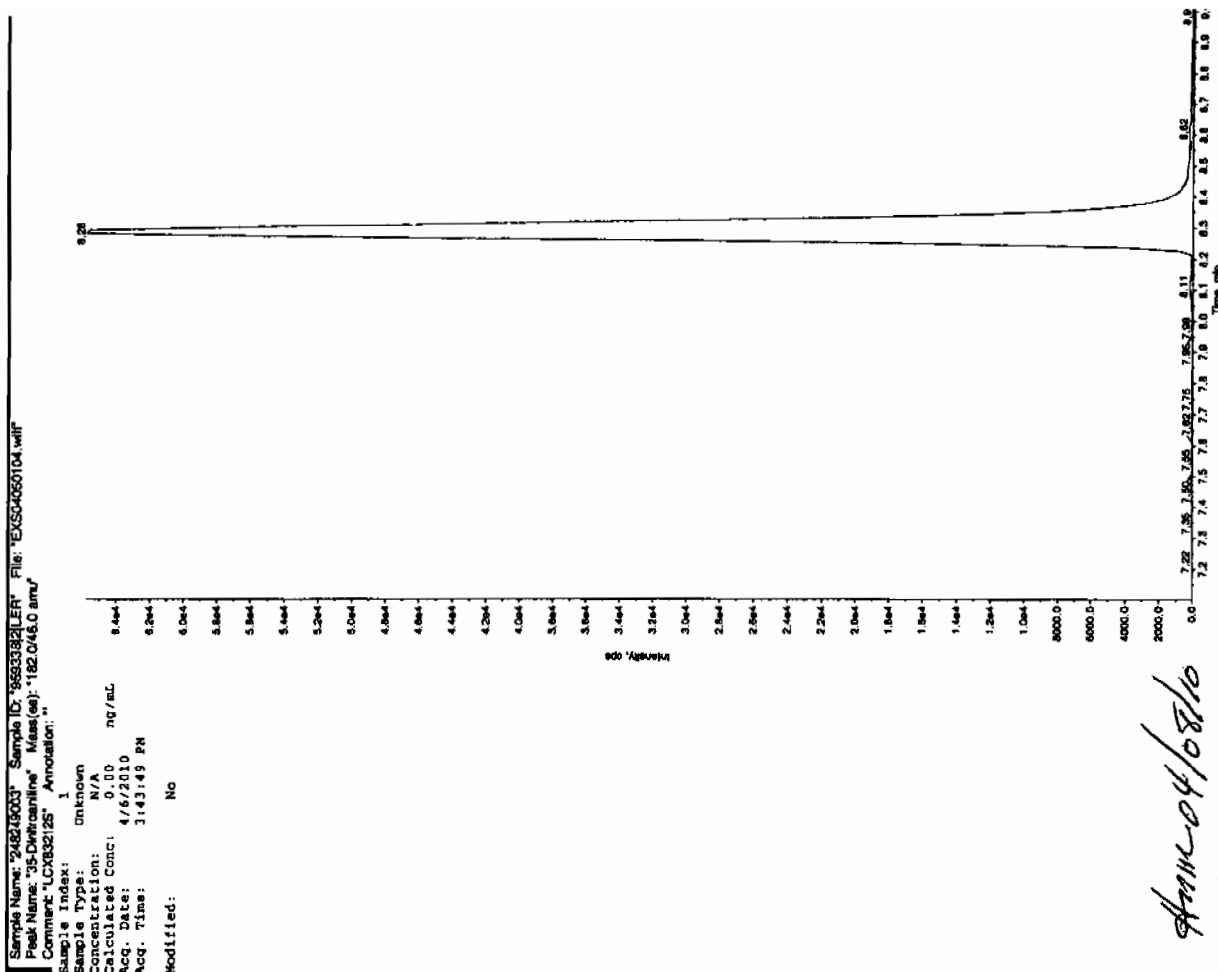
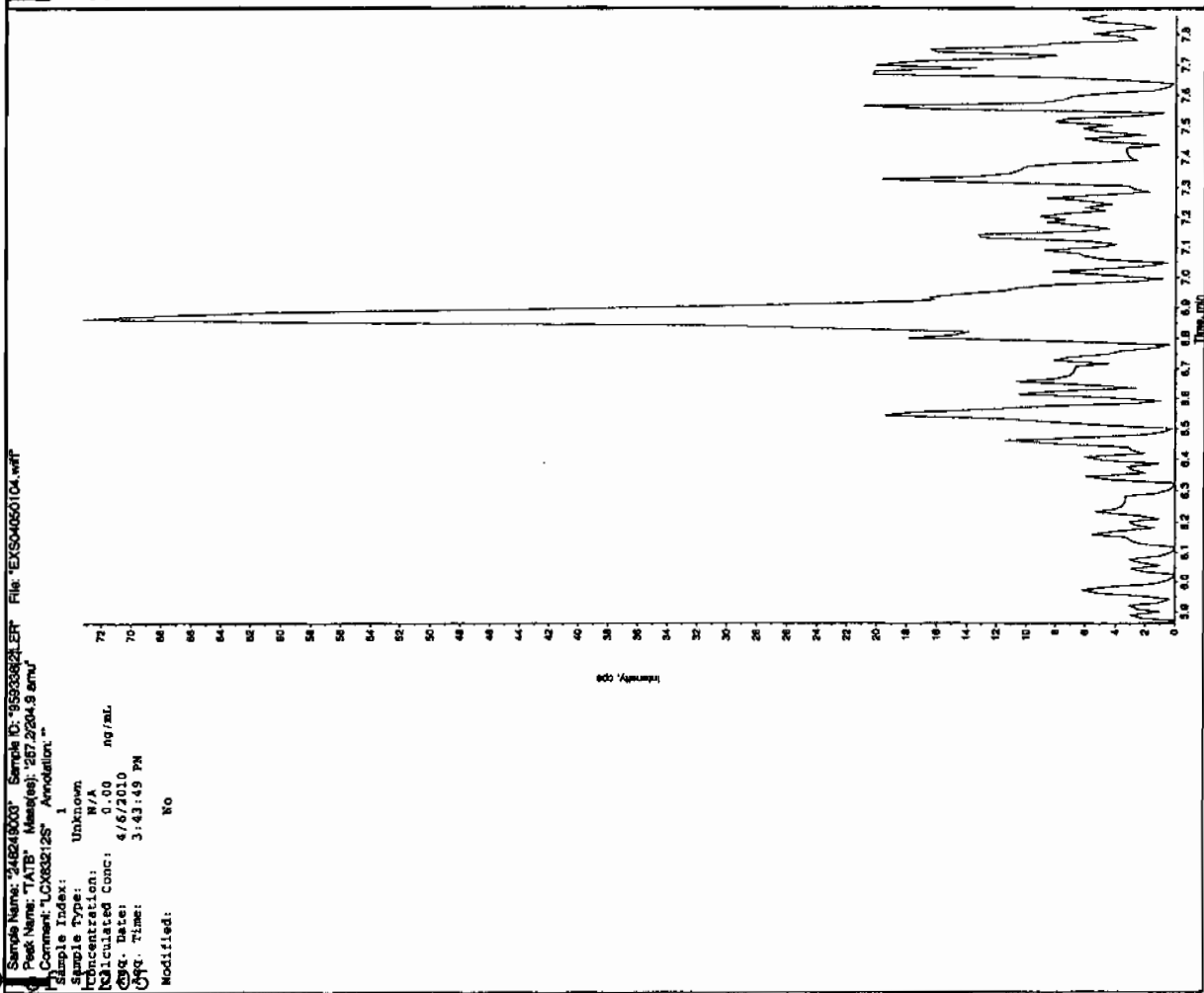
Units: ug/kg

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

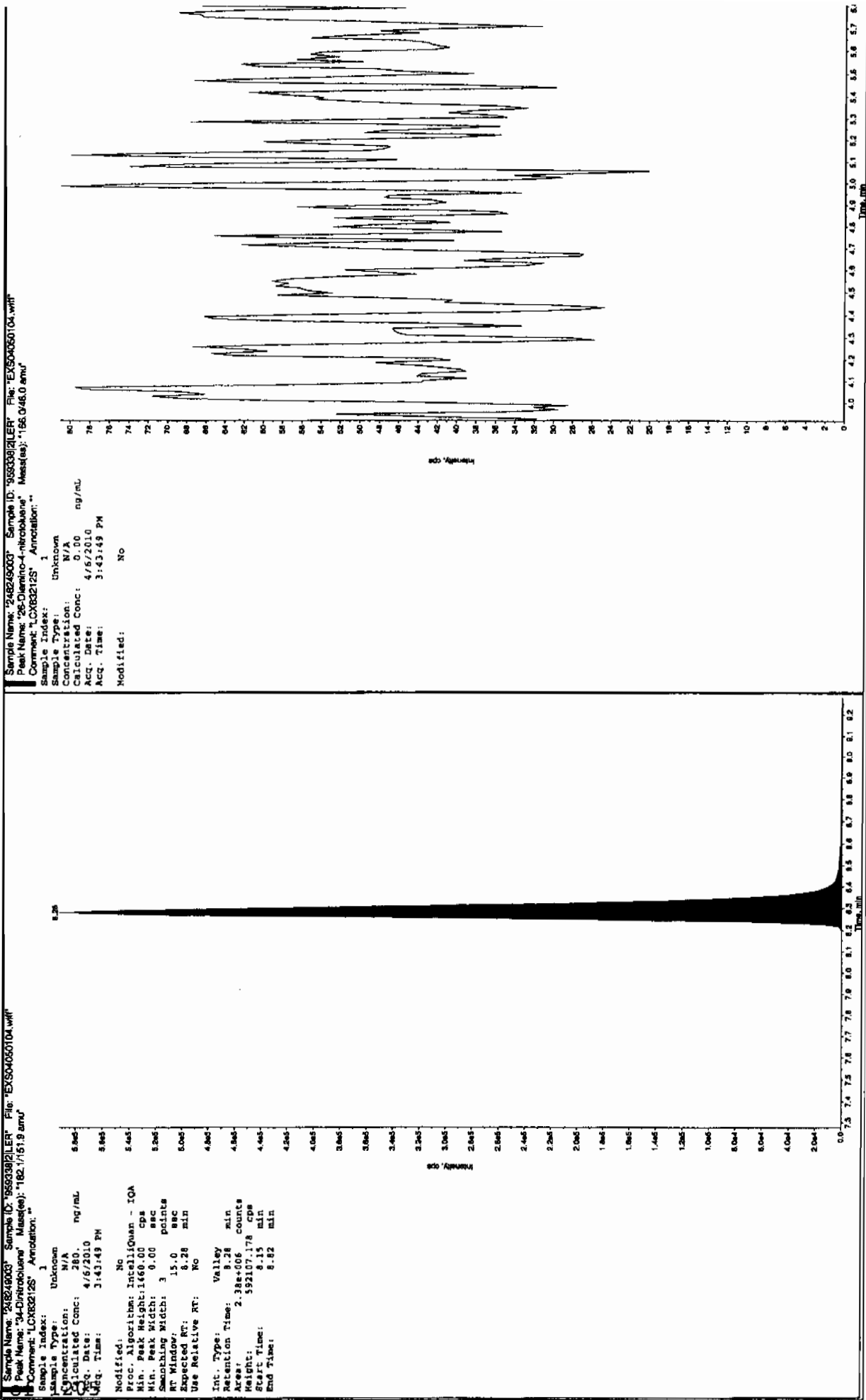
\*Concentration =

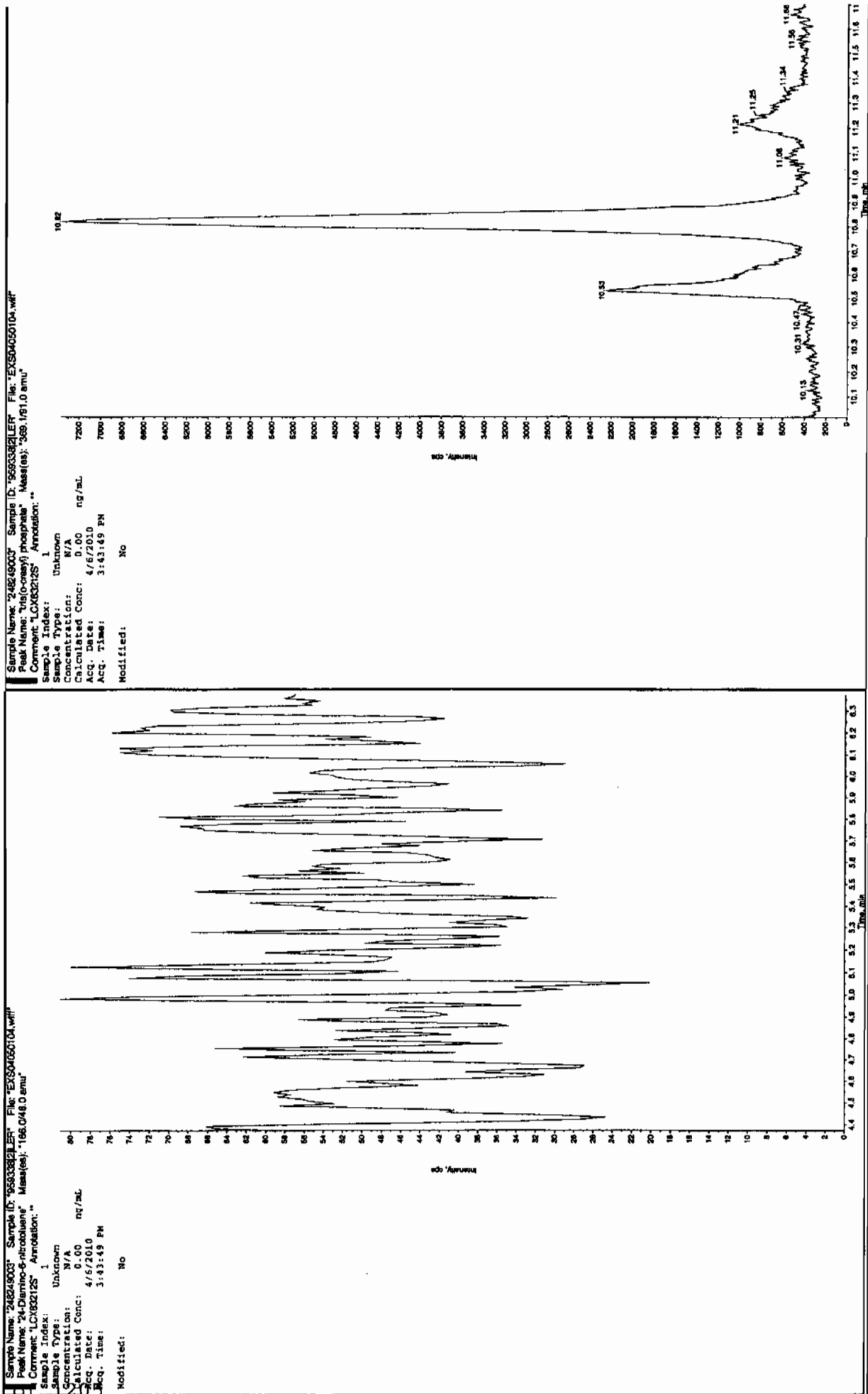
Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Scan 4710



Amc 04/08/10







1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8284

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249004

Sample Amount 2

Moisture: 5.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412198a

Date Analyzed: 16-APR-10 16:33

Units: ug/kg

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

\*Concentration =

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

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412198a

Date: 16-Apr-2010

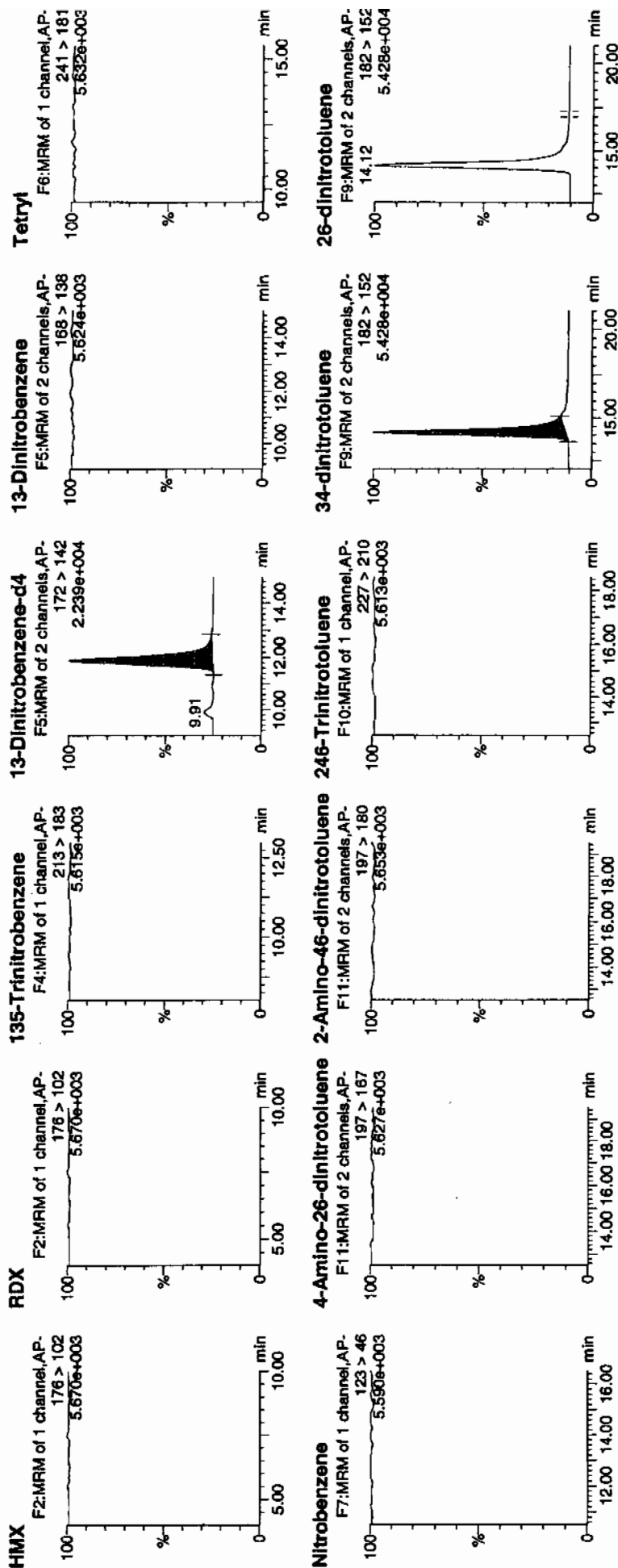
Time: 16:33:07

ID: 248249004

Vial: 4:3,D

4/17/10

WAW 959338 / 8022 / 21



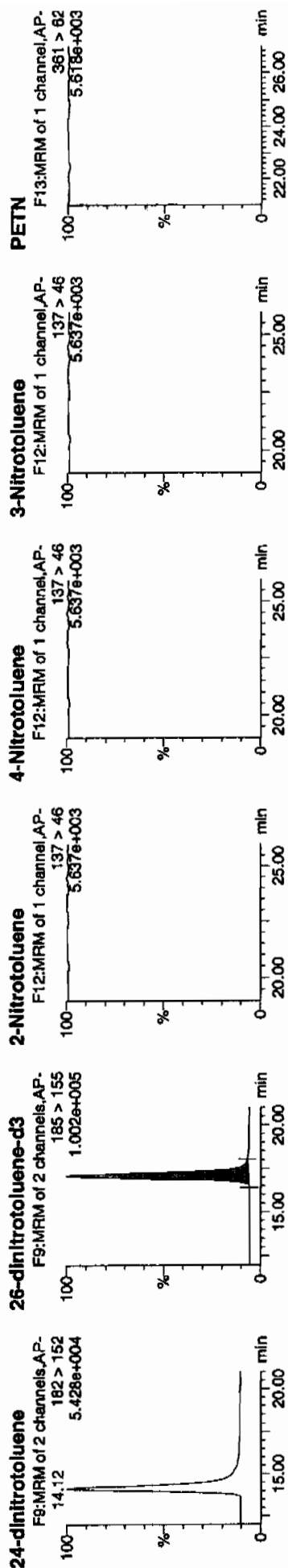
4/17/10

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Sat Apr 17 10:45:10 2010, Page 40 of 97

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010



248249004	HMx	176 > 102	6451.095		
248249004	RDX	176 > 102	6451.095		
248249004	135-Trinitrobenzene	213 > 183	6451.095		
248249004	13-Dinitrobenzene-d4	172 > 142	11.87	6451.095	
248249004	13-Dinitrobenzene	168 > 138			
248249004	Tetryl	241 > 181			
248249004	Nitrobenzene	123 > 46			
248249004	4-Amino-26-dinitrotoluene	197 > 167			
248249004	2-Amino-46-dinitrotoluene	197 > 180			
248249004	246-Trinitrotoluene	227 > 210			
248249004	34-dinitrotoluene	182 > 152	14.12	20204.484	
248249004	26-dinitrotoluene	182 > 152			
248249004	24-dinitrotoluene	182 > 152			
248249004	26-dinitrotoluene-d3	185 > 155	17.09	38583.148	
248249004	2-Nitrotoluene	137 > 46			
248249004	4-Nitrotoluene	137 > 46			
248249004	3-Nitrotoluene	137 > 46			
248249004	PETN	361 > 62			

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8284

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 248249004

Sample Amount 2

Moisture: 5.5

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050105.wiff

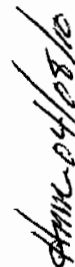
Date Analyzed: 06-APR-10 15:59

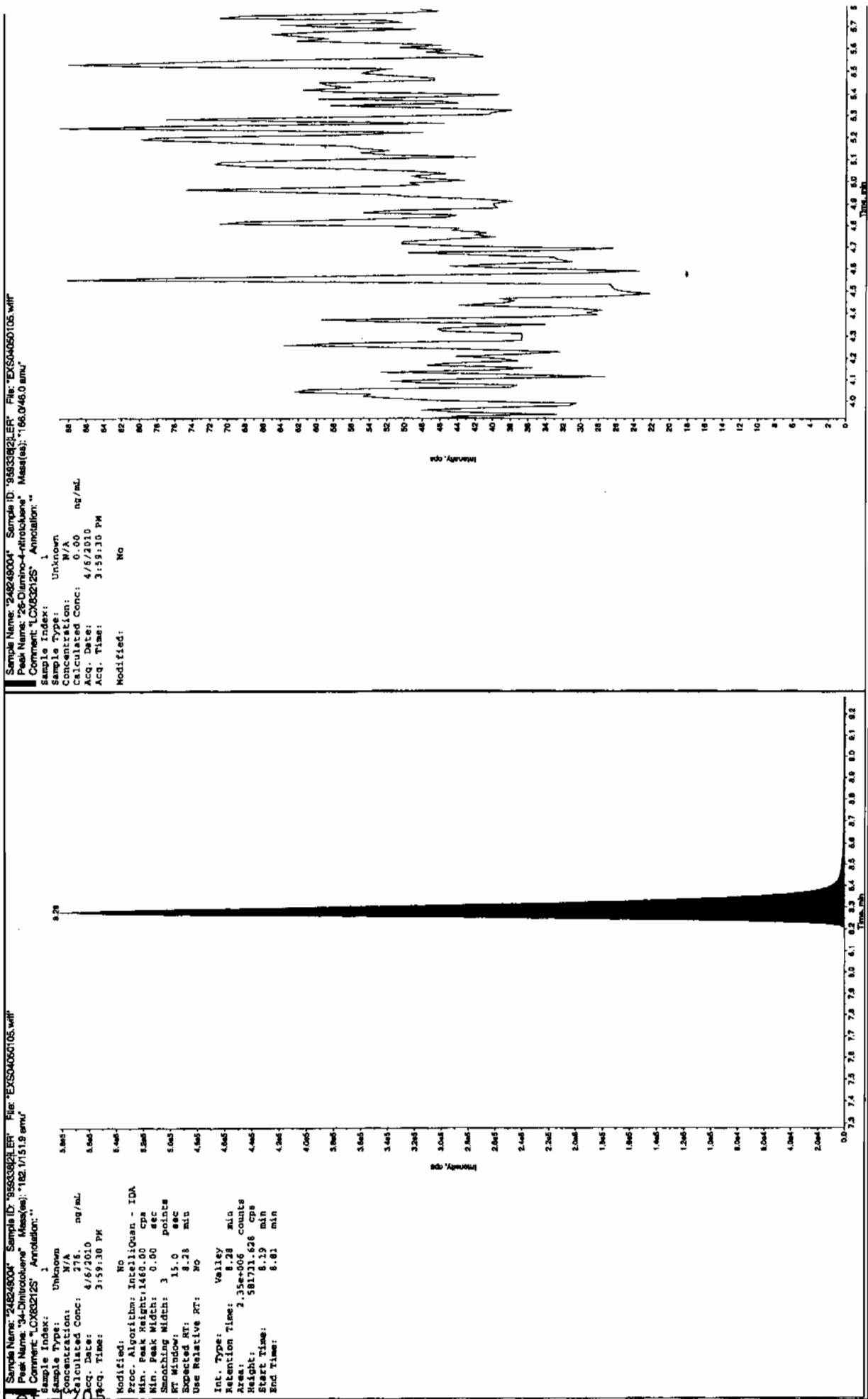
Units: ug/kg

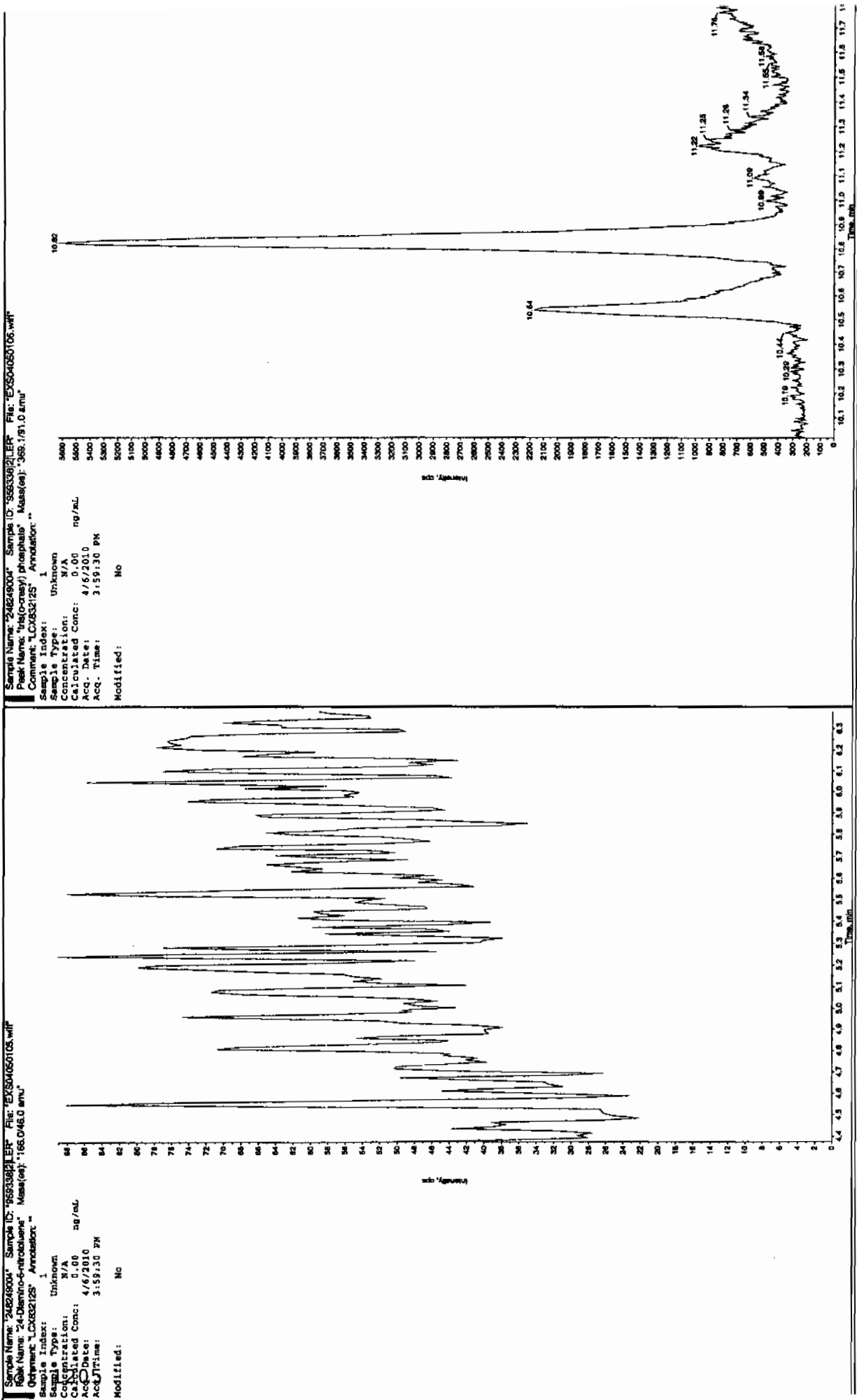
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

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







# 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

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2140

Lab Code: GEL

Run Date: 05-APR-10.12-APR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Parname	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0412003a	EXP0412004a	EXP0412005a	EXP0412006a	EXP0412007a	EXP0412008a			
1,3,5-Trinitrobenzene	4.711	4.33	4.184	4.118	4.135	4.46	4.323	5.342	
1,3-Dinitrobenzene-d4	11.467	12.345	11.86	12.536	12.341	10.015	11.761	7.996	
2,4,6-Trinitrotoluene	.41	.394	.427	.449	.461	.469	0.435	6.752	
2,4-Dinitrotoluene	.262	.241	.266	.256	.262	.279	0.261	4.785	
2,6-Dinitrotoluene	1.228	1.123	1.137	1.19	1.203	1.22	1.184	3.683	
2,6-Dinitrotoluene-d3	63.991	74.817	73.595	74.921	70.943	61.531	69.966	8.311	
2-Amino-4,6-dinitrotoluene	.484	.481	.503	.515	.535	.556	0.512	5.686	
3,4-Dinitrotoluene	1.117	.974	.984	1.041	1.027	1.044	1.031	4.983	
4-Amino-2,6-dinitrotoluene	.361	.326	.32	.335	.34	.344	0.338	4.22	
HMX	3.896	4.064	4.283	4.375	4.325	4.489	4.239	5.149	
Nitrobenzene	.565	.604	.633	.662	.625	.674	0.627	6.339	
RDX	2.18	2.427	3.051	3.081	3.073	3.36	2.862	15.868	
Tetryl	1.226	1.243	1.421	1.278	1.24	1.37	1.296	6.198	
m-Dinitrobenzene	1.304	1.349	1.33	1.336	1.312	1.391	1.337	2.342	
m-Nitrotoluene	.055	.071	.054	.053	.061	.056	0.058	11.551	
o-Nitrotoluene	.105	.086	.078	.084	.079	.088	0.087	11.254	
p-Nitrotoluene	.042	.041	.038	.043	.042	.044	0.042	5.194	

Q column used to flag RSD values outside of Limit (&gt;20%)

\* Values outside of QC Limit

## Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2140

Lab Code: GEL

Run Date: 05-APR-10.12-APR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0412003a	EXP0412004a	EXP0412005a	EXP0412006a	EXP0412007a	EXP0412008a					
Parname:											
PETN	2009.76	4470.27	14910.6	28870.8	46927.1	49397.1	1.007	-0.00022	9.637	.9994	

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

COD is Coefficient of Determination

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

\* Values outside of QC Limit

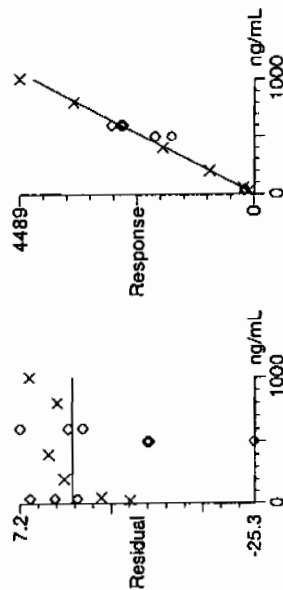
# Quantify Calibration Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

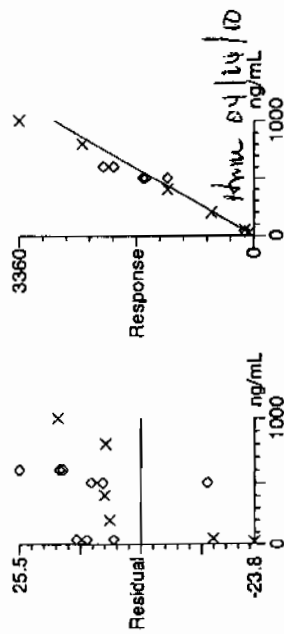
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Calibration: Untitled, Time: Tue Apr 13 11:12:22 2010

Compound name: HMX  
Response Factor: 4.23867  
RRF SD: 0.218263, % Relative SD: 5.14933  
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



4/13/10

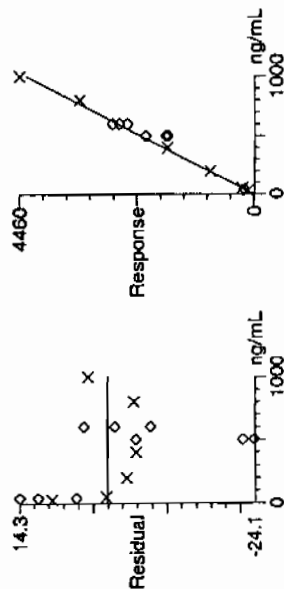
Compound name: RDX  
Response Factor: 2.8622  
RRF SD: 0.454164, % Relative SD: 15.8676  
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



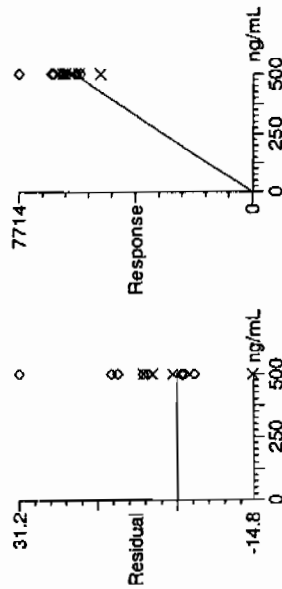
# Quantify Calibration Report GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Compound name: 135-Trinitrobenzene  
Response Factor: 4.32298  
RRF SD: 0.230915, % Relative SD: 5.34157  
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



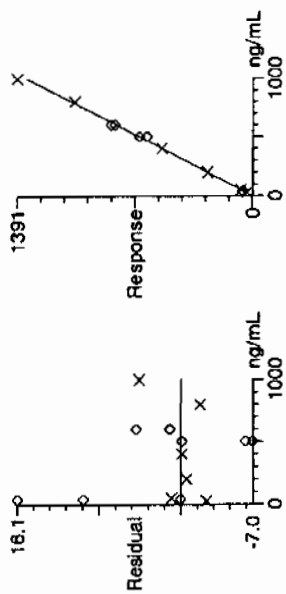
Compound name: 13-Dinitrobenzene-d4  
Response Factor: 11.7607  
RRF SD: 0.940441, % Relative SD: 7.99645  
Response type: External Std, Area  
Curve type: RF



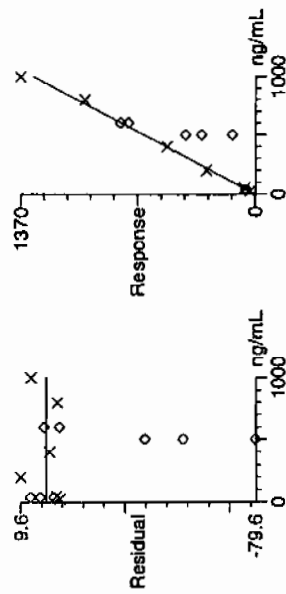
# Quantify Calibration Report GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Compound name: 13-Dinitrobenzene  
Response Factor: 1.33707  
RRF SD: 0.0313205, % Relative SD: 2.34247  
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



Compound name: Tetraol  
Response Factor: 1.29627  
RRF SD: 0.0803478, % Relative SD: 6.19837  
Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



# Quantify Calibration Report

GL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 4 of 9

Dataset: C:\MASSLYNX\New\_Exp\PRO1041210expA.qld, Time: Tue Apr 13 11:12:22 2010

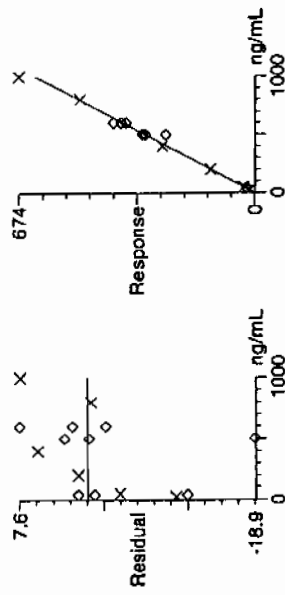
Compound name: Nitrobenzene

Response Factor: 0.627297

RRF SD: 0.0397666, % Relative SD: 6.33936

Response type: Internal Std ( Ref 4 ), Area \* ( IS Conc. / IS Area )

Curve type: RF



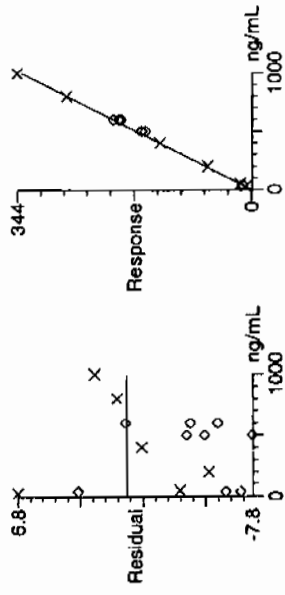
Compound name: 4-Amino-26-dinitrotoluene

Response Factor: 0.337763

RRF SD: 0.014254, % Relative SD: 4.22013

Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )

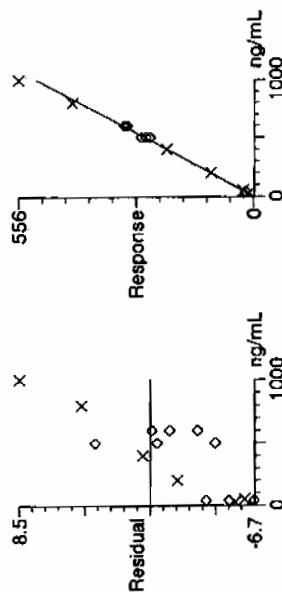
Curve type: RF



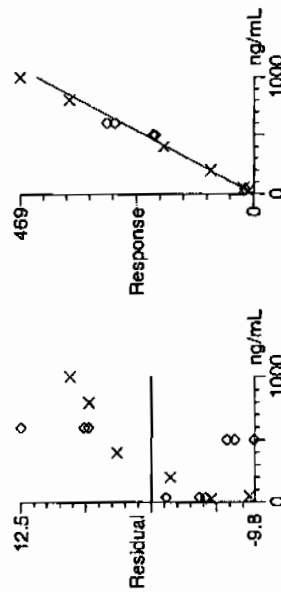
# Quantify Calibration Report GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Compound name: 2-Amino-46-dinitrotoluene  
Response Factor: 0.512197  
RRF SD: 0.0291218, % Relative SD: 5.68567  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



Compound name: 246-Trinitrotoluene  
Response Factor: 0.435033  
RRF SD: 0.0293746, % Relative SD: 6.75226  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



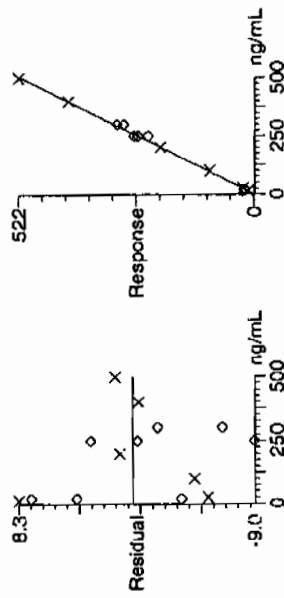


Quantify Calibration Report

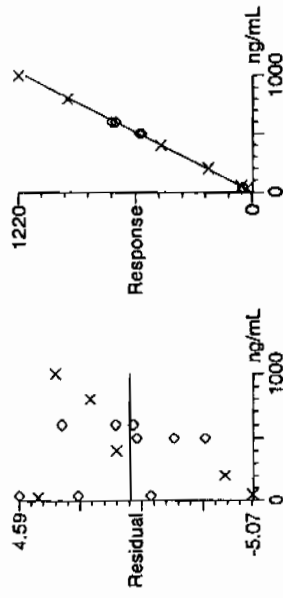
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\PRO1041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Compound name: 34-dinitrotoluene  
Response Factor: 1.03113  
RRF SD: 0.0513762, % Relative SD: 4.98253  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



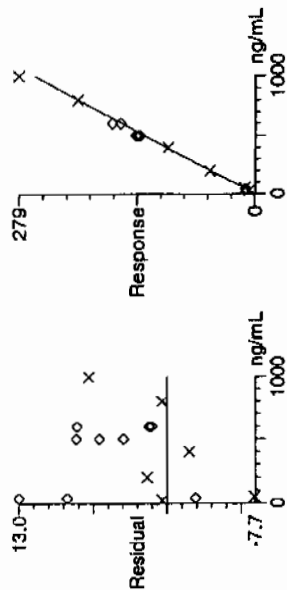
Compound name: 26-dinitrotoluene  
Response Factor: 1.18354  
RRF SD: 0.0435946, % Relative SD: 3.68342  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



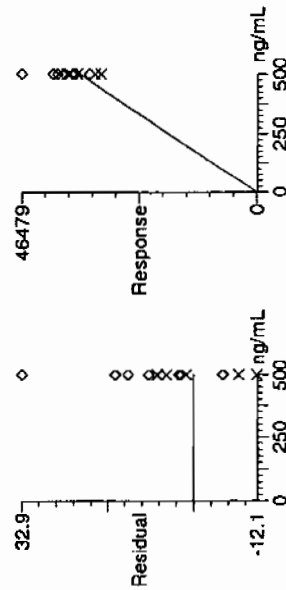
**Quantify Calibration Report**  
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYN\New\_Exp\PRO1041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Compound name: 24-dinitrotoluene  
Response Factor: 0.261004  
RRF SD: 0.0124888, % Relative SD: 4.7849  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



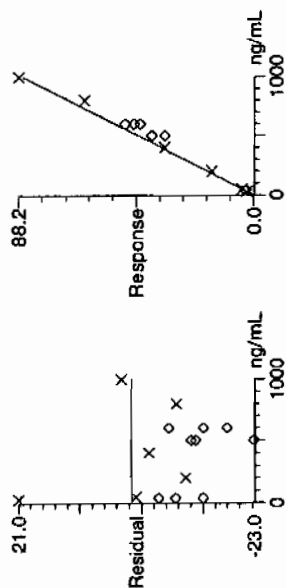
Compound name: 26-dinitrotoluene-d3  
Response Factor: 69.9664  
RRF SD: 5.81467, % Relative SD: 8.31066  
Response type: External Std, Area  
Curve type: RF



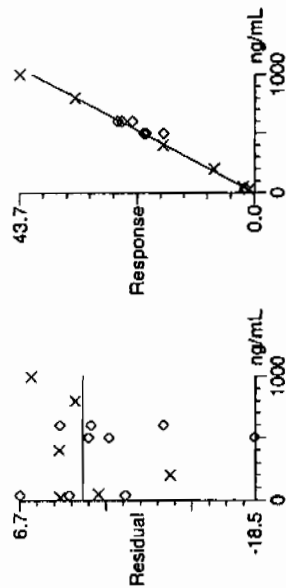
# Quantify Calibration Report GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Compound name: 2-Nitrotoluene  
Response Factor: 0.0865882  
RRF SD: 0.00974436, % Relative SD: 11.2537  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



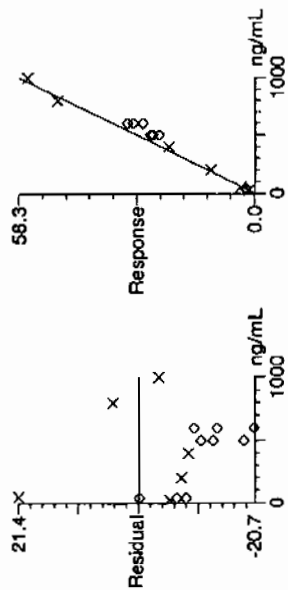
Compound name: 4-Nitrotoluene  
Response Factor: 0.0414794  
RRF SD: 0.00215463, % Relative SD: 5.19445  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



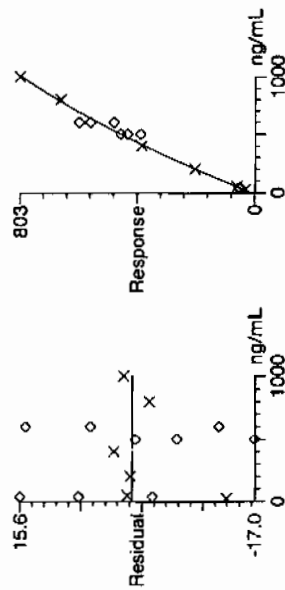
# Quantify Calibration Report GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Compound name: 3-Nitrotoluene  
Response Factor: 0.058302  
RRF SD: 0.00673426, % Relative SD: 11.5507  
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: RF



Compound name: PETN  
Coefficient of Determination: 0.999447  
Calibration curve:  $-0.000220026 \cdot x^2 + 1.0065 \cdot x + 9.6373$   
Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )  
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None



## Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLCGEL Job No (SDG): 10-2140Lab Code: GELGEL Sample ID: WXXICVGEL Data File EXP0412010aAnalysis Date: 12-APR-10 20:06LCMSMS ID: 903Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	593.013	99	
1,3-Dinitrobenzene-d4	500	528.009	106	
2,4,6-Trinitrotoluene	600	674.734	112	
2,4-Dinitrotoluene	600	608.204	101	
2,6-Dinitrotoluene	600	599.148	100	
2,6-Dinitrotoluene-d3	500	574.331	115	
2-Amino-4,6-dinitrotoluene	600	592.511	99	
3,4-Dinitrotoluene	300	280.228	93	
4-Amino-2,6-dinitrotoluene	600	600.345	100	
HMX	600	642.971	107	
Nitrobenzene	600	610.074	102	
PETN	600	527.609	88	
RDX	600	753.124	126	*
Tetryl	600	604.19	101	
m-Dinitrobenzene	600	606.979	101	
m-Nitrotoluene	600	475.553	79	*
o-Nitrotoluene	600	492.414	82	
p-Nitrotoluene	600	547.628	91	

## Recovery Limits:

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

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp\PROJ041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW\_EXP\PROJData\EXP0412010a

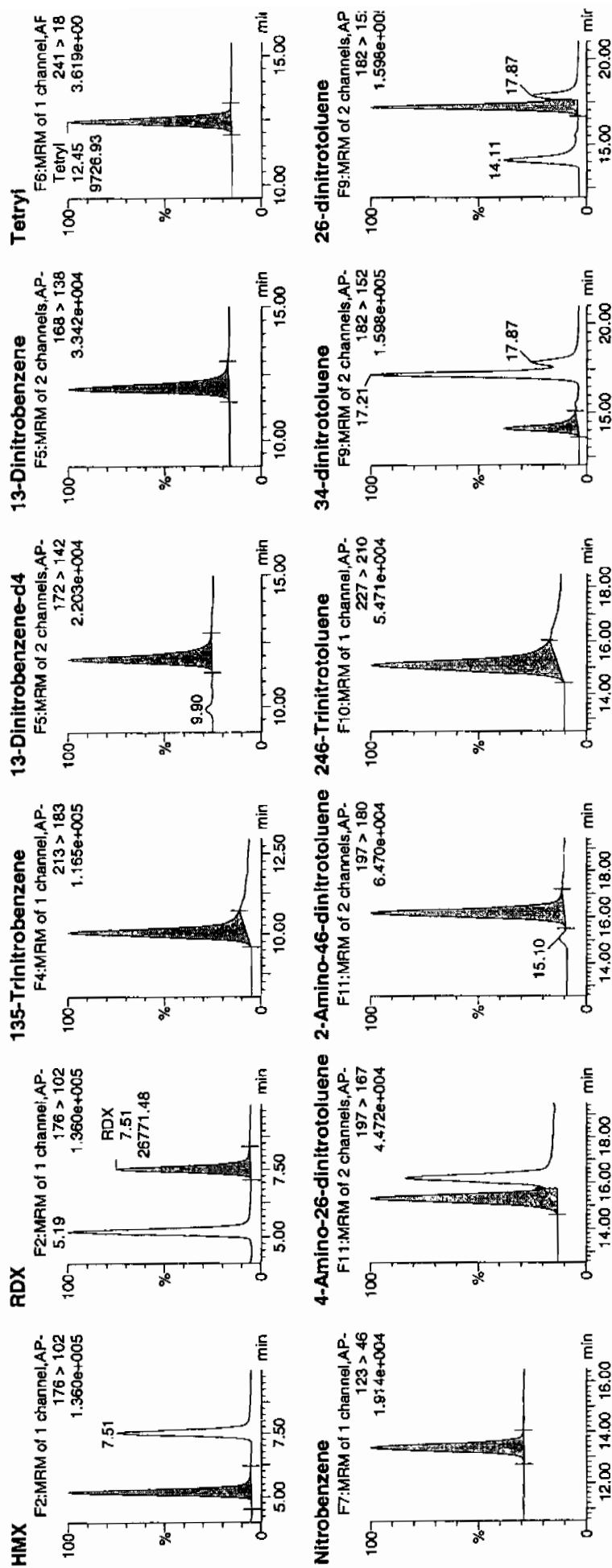
Date: 12-Apr-2010

Time: 20:06:00

ID: WXX100412-07ICV

Vial: 1:1,B

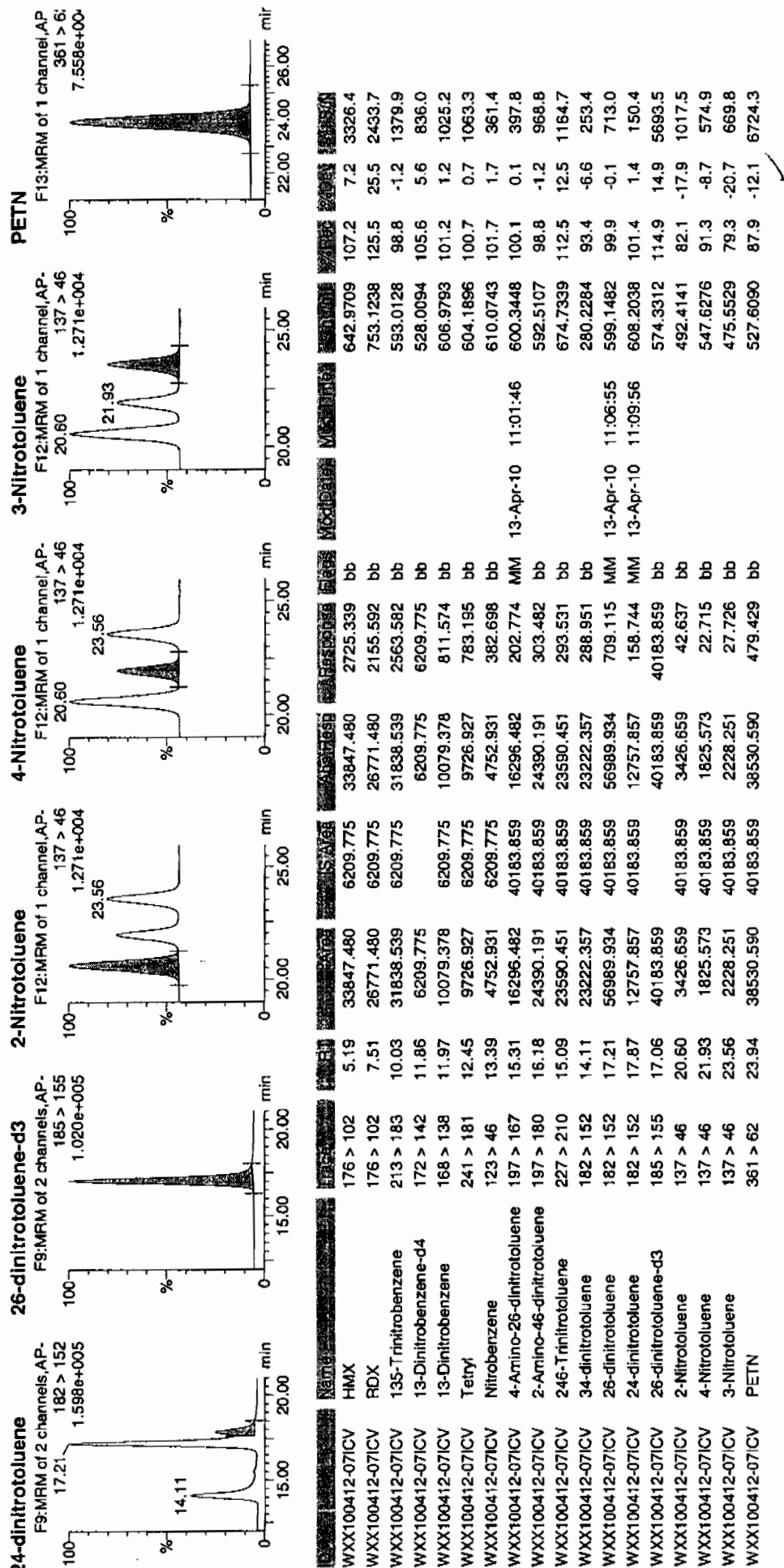
*u1312*



*4/13/10*

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

Dataset: C:\MASSLYNX\New\_Exp\PRO041210expA.qld, Time: Tue Apr 13 11:12:22 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/12/10  
 Time of Injection: 2006  
 Standard Number: WXX100412-07ICV  
 Data File: EXP0412010a

HMX	107.2
RDX	125.5
135-TNB	98.8
13-DNB	101.2
Tetryl	100.7
Nitrobenzene	101.7
4A-26-DNT	100.1
2A-46-DNT	98.8
246-TNT	112.5
34-DNT(surr)	93.4
26-DNT	99.9
24-DNT	101.4
2-NT	82.1
4-NT	91.3
3-NT	79.3
PETN	87.9

*MTT  
4/13/10*

Total 1581.8

Average 98.9

*Amc 04/14/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%



## Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2140

Lab Code: GEL

Run Date: 05-APR-10.12-APR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8Q

Calibration Type: Average RF

Calibration Level:	19	20	21	22	23	24	25	Ave RF	RSD	Q
Data File:	EXS04050003.W	EXS04050004.W	EXS04050005.W	EXS04050006.W	EXS04050007.W	EXS04050008.W	EXS04050009.W			
Parname										
tris(o-cresyl) phosphate	20900	20400	18800	18100	17100	17000	13900	18028.571	13	

Q column used to flag RSD values outside of Limit (&gt;20%)

\* Values outside of QC Limit

## Explosives Initial Calibration

Lab Name: GEL Laboratories LLCGEL Job No: 10-2140Lab Code: GELRun Date: 05-APR-10.12-APR-10LCMSMS Instrument ID: LCMSMS4Method: 8321A ModifiedHPLC 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:	EXS04050003.wif	EXS04050004.wif	EXS04050005.wif	EXS04050006.wif	EXS04050007.wif	EXS04050008.wif	EXS04050009.wif					
Parname:												
2,4-Diamino-6-nitrotoluene	107000	194000	514000	984000	1450000	2300000	3930000	-53800	2320	-1.159	.9969	
2,6-Diamino-4-nitrotoluene	135000	256000	636000	1310000	1840000	3070000	4880000	-99700	3190	-1.339	.9946	
3,4-Dinitrotoluene	217000	415000	947000	1910000	2920000	4200000	7540000	-91400	9310	-1.66	.9988	
3,5-Dinitroaniline	375000	679000	1590000	3210000	4580000	6550000	10500000	-89200	7310	-1.01	.9987	
TATB	35600	73300	184000	399000	594000	809000	1570000	-12100	830	-0.019	.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 (&lt;0.990)

\* Values outside of QC Limit

040510ICAL

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

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.21e+004			
a1	830			
a2	-0.0188			
Correlation coefficient 0.9999				
Use Area				

Peak Name: 35-Dinitroaniline  
No Internal Standard  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-8.92e+004			
a1	7.31e+003			
a2	-1.01			
Correlation coefficient 0.9987				
Use Area				

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

Fit	Quadratic	Weighting	None	Iterate No
a0	-9.14e+004			
a1	9.31e+003			
a2	-1.66			
Correlation coefficient 0.9988				
Use Area				

Peak Name: 26-Diamino-4-nitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-9.97e+004			
a1	3.19e+003			
a2	-0.339			
Correlation coefficient 0.9946				
Use Area				

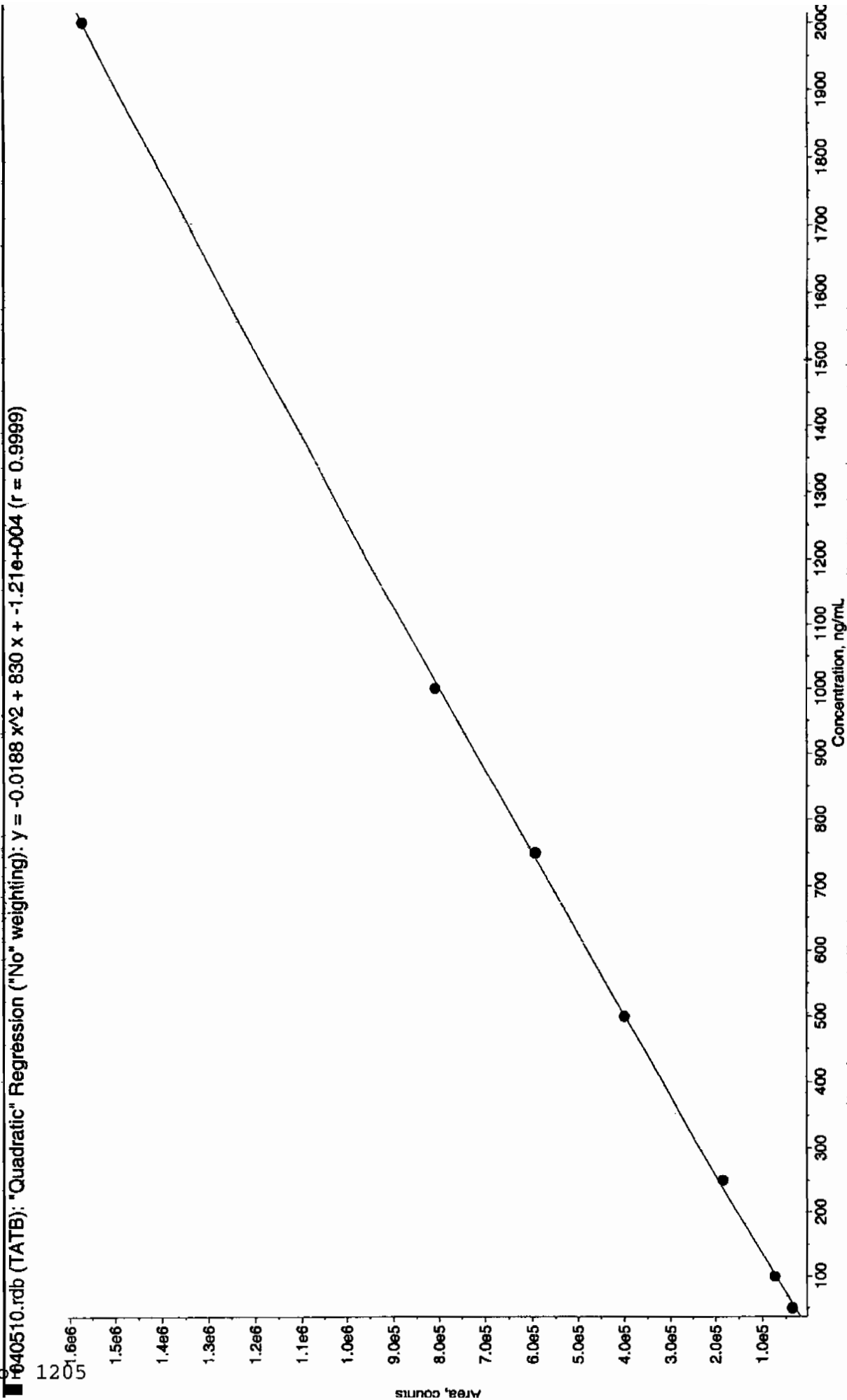
Peak Name: 24-Diamino-6-nitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 165.97/46.00 amu

Paul  
4/2/10

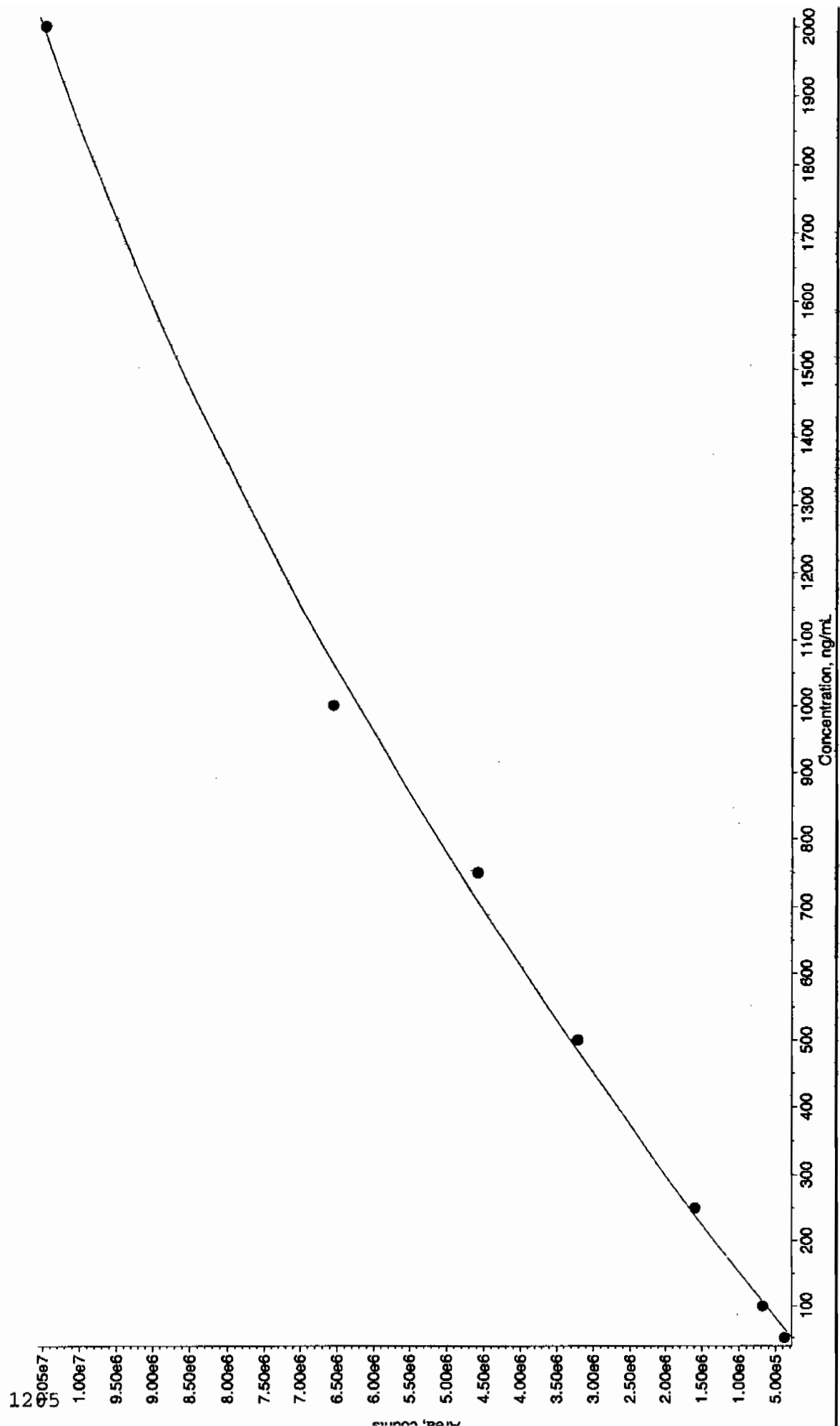
Wm 4/8/10

040510ICAL

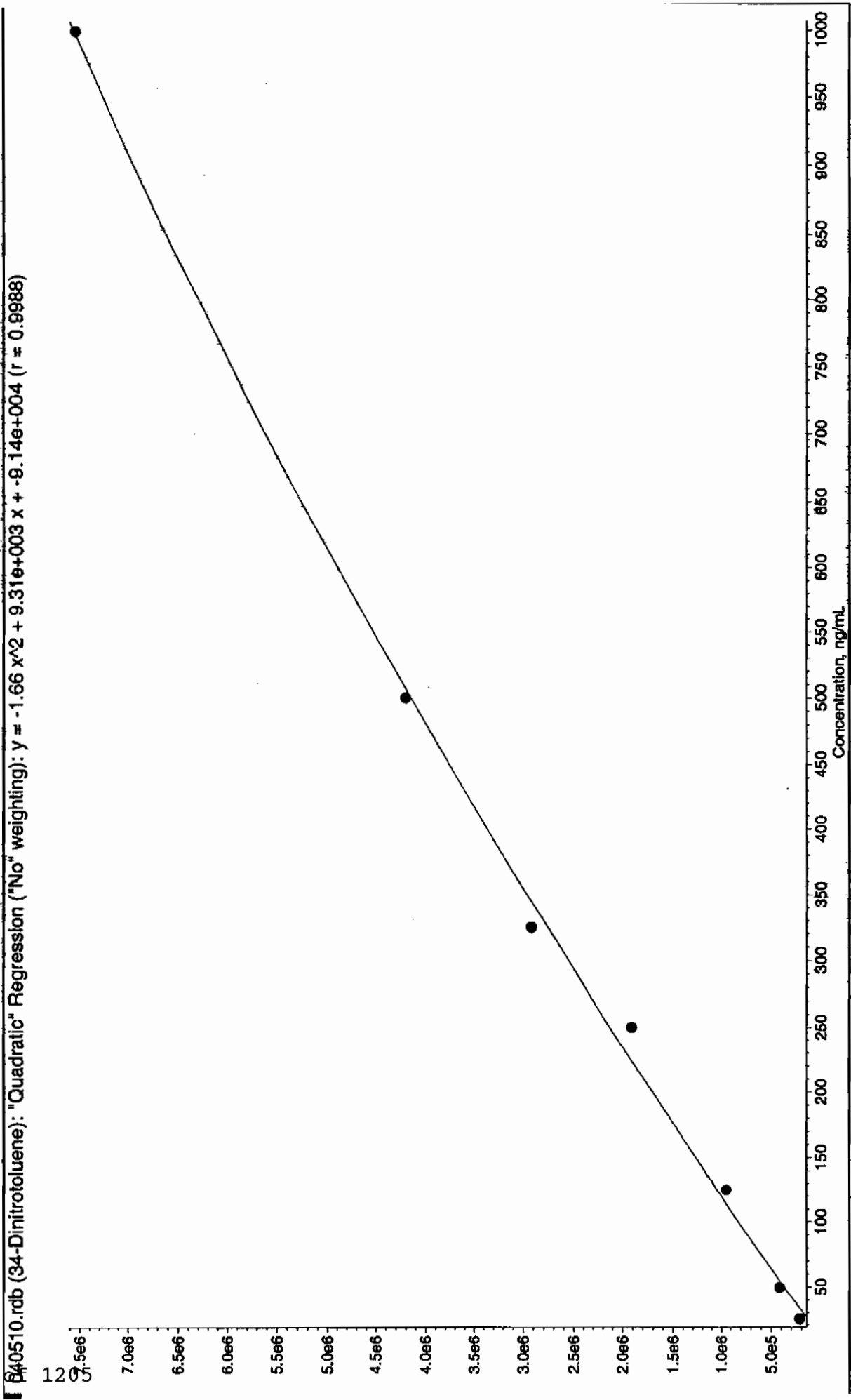
Fit	Quadratic	Weighting	None	Iterate No
a0	-5.38e+004			
a1	2.32e+003			
a2	-0.159			
Correlation coefficient 0.9969				
Use Area				
Peak Name: tris(o-cresyl) phosphate				
No Internal Standard				
Q1/Q3 Masses: 369.15/91.00 amu				
Fit	Mean Response Factor	Weighting	None	Iterate No
Factor	1.8e+004			
Standard deviation	2.35e+003			
%RSD	13			
Use Area				

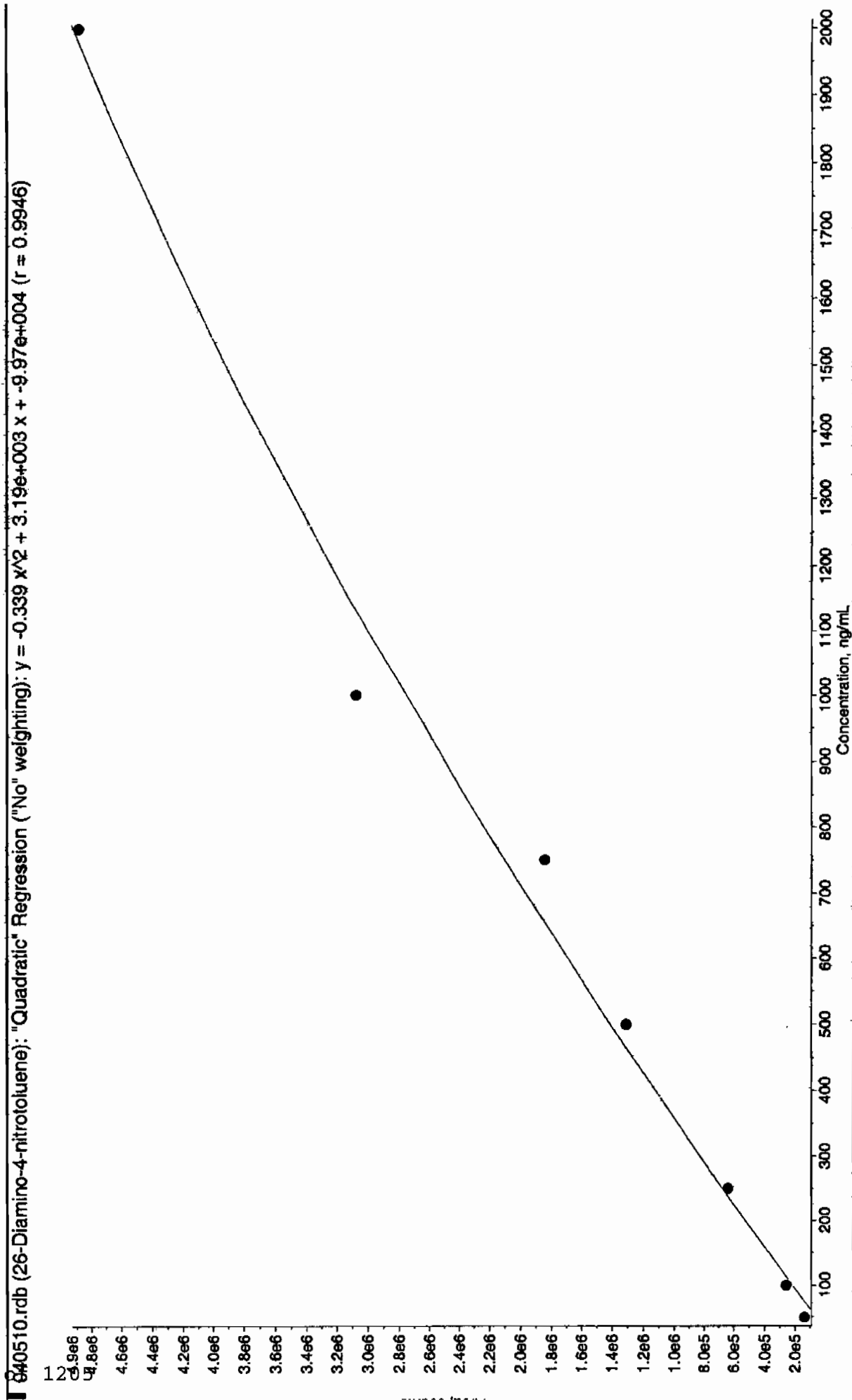


840510.rdb (35-Dinitroaniline): "Quadratic" Regression ("No" weighting):  $y = -1.01 x^2 + 7.31e+003 x + -8.92e+004$  ( $r = 0.9987$ )

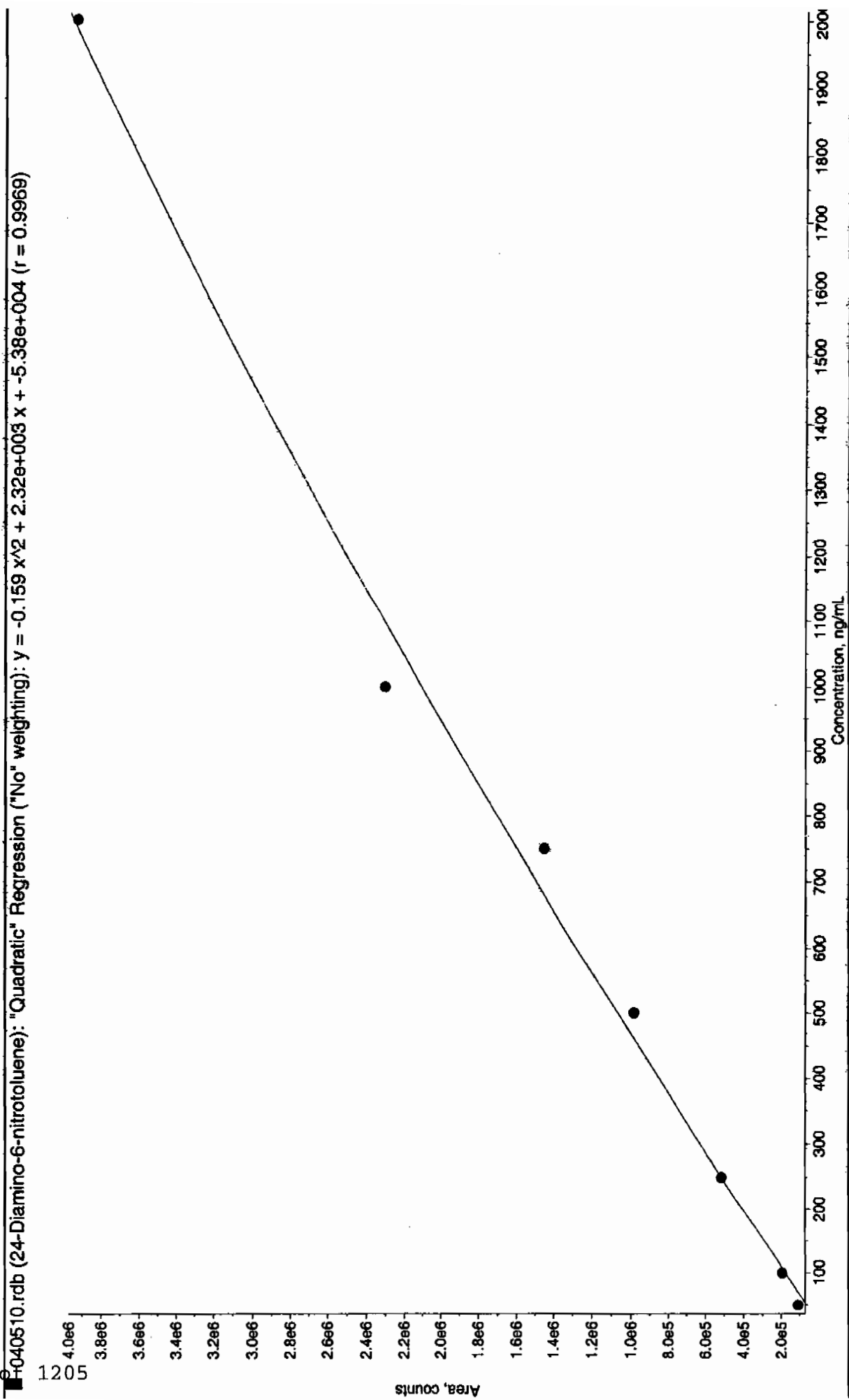


GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

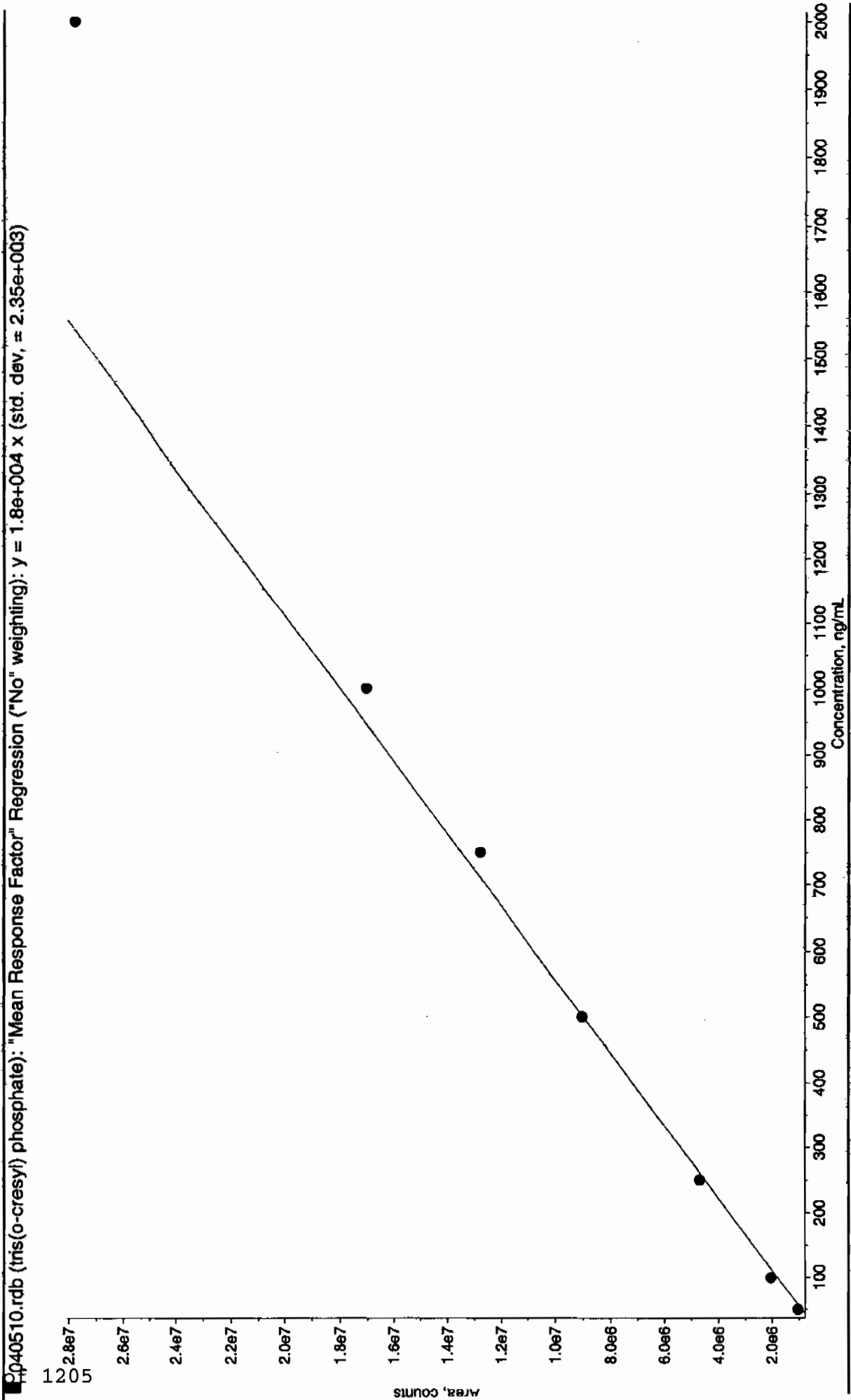








\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4



## Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLCGEL Job No (SDG): 10-2140Lab Code: GELGEL Sample ID: WXXICVGEL Data File EXS04050011.wiffAnalysis Date: 05-APR-10 15:22LCMSMS ID: 1358Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	461	92	
2,6-Diamino-4-nitrotoluene	500	436	87	
3,4-Dinitrotoluene	250	235	94	
3,5-Dinitroaniline	500	445	89	
TATB	500	483	97	
tris(o-cresyl) phosphate	500	502	100	

## Recovery Limits:

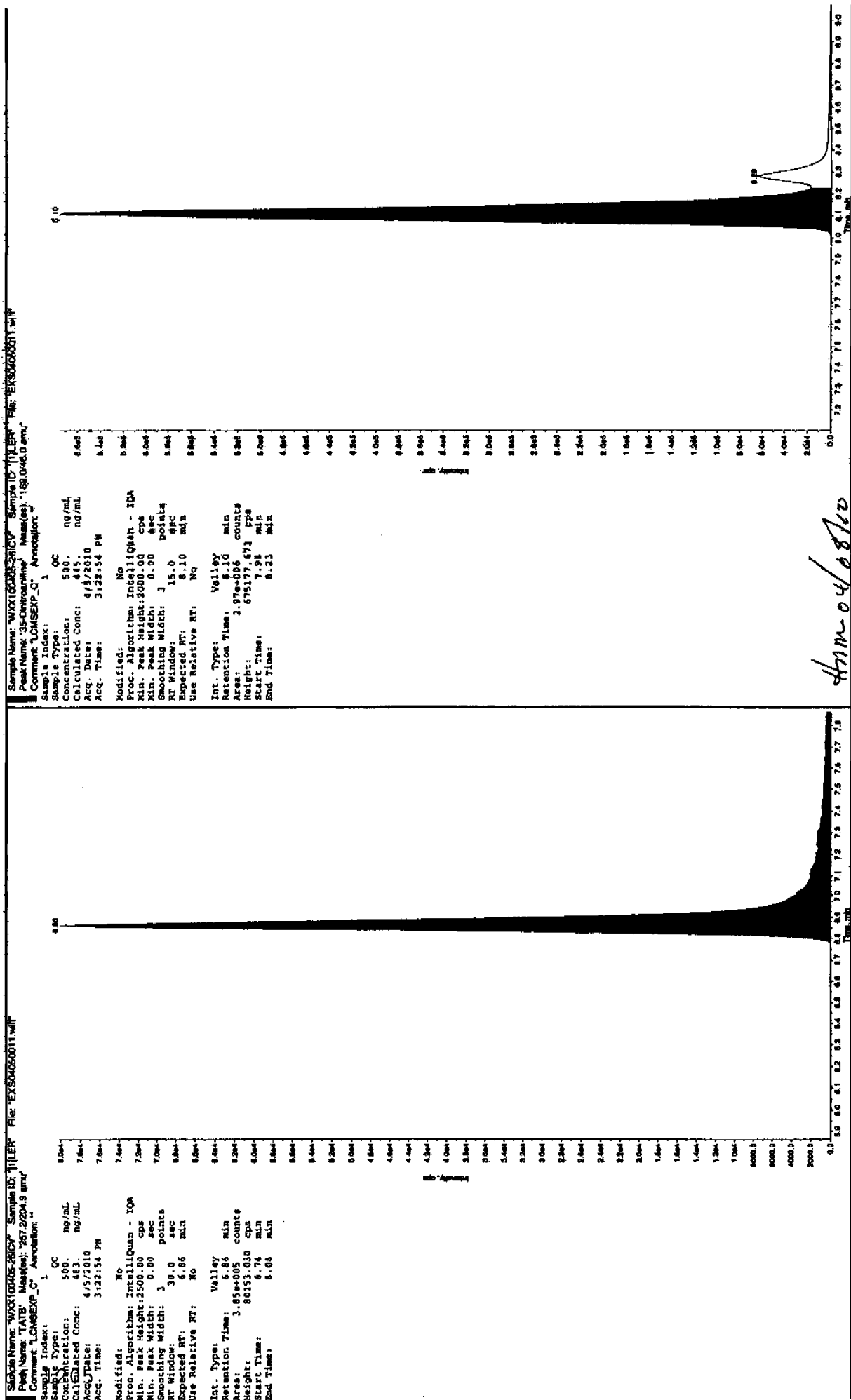
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

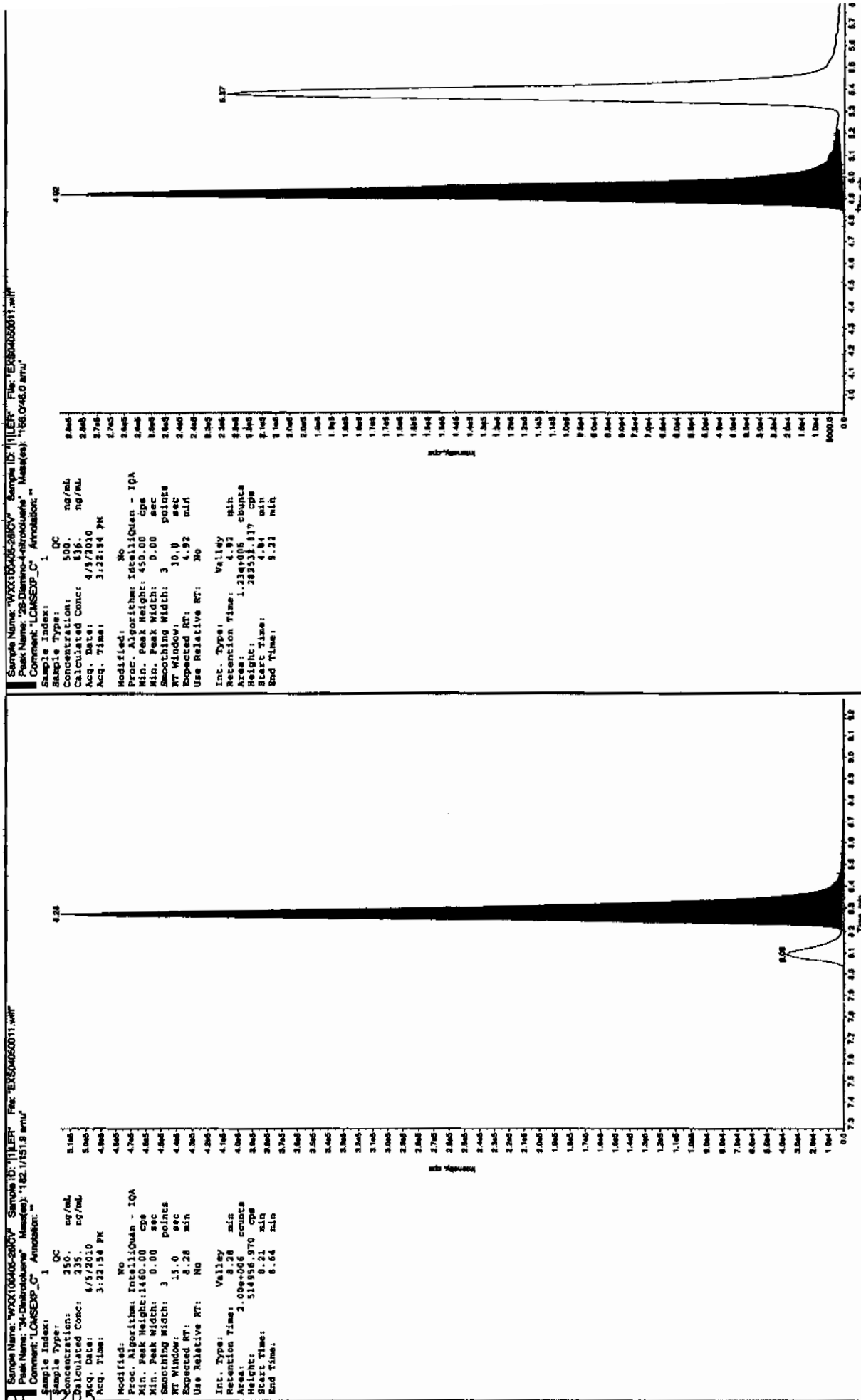
# Column used to flag Recovery outside of Limits

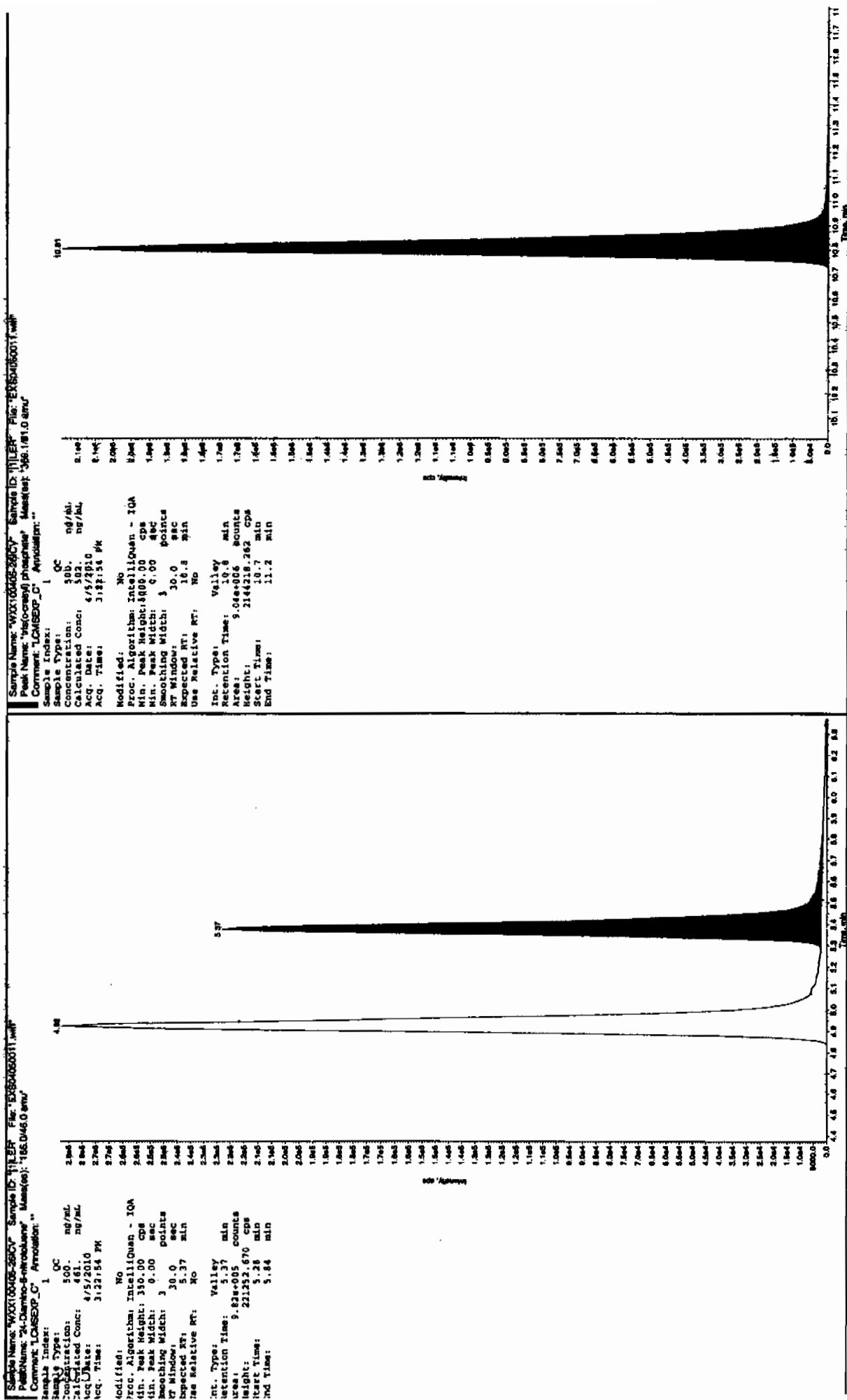
\* Value outside of Recovery Limits

Jan 4/7/10



Ham 04/08/10





**7B**  
**Explosives CRI Standard**

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-2140

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXP0412012a

**Analysis Date:** 12-APR-10 21:04

**LCMSMS ID:** 903

**Column ID** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	42.014	105	
1,3-Dinitrobenzene-d4	500	533.484	107	
2,4,6-Trinitrotoluene	40	37.92	95	
2,4-Dinitrotoluene	40	39.009	98	
2,6-Dinitrotoluene	40	41.835	105	
2,6-Dinitrotoluene-d3	500	543.299	109	
2-Amino-4,6-dinitrotoluene	40	37.957	95	
3,4-Dinitrotoluene	20	20.822	104	
4-Amino-2,6-dinitrotoluene	40	41.22	103	
HMX	40	40.936	102	
Nitrobenzene	40	40.412	101	
PETN	40	38.904	97	
RDX	40	42.279	106	
Tetryl	40	38.735	97	
m-Dinitrobenzene	40	40.013	100	
m-Nitrotoluene	40	37.251	93	
o-Nitrotoluene	40	34.615	87	
p-Nitrotoluene	40	40.573	101	

**Recovery Limits:**

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

2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\data\EXP0412012a

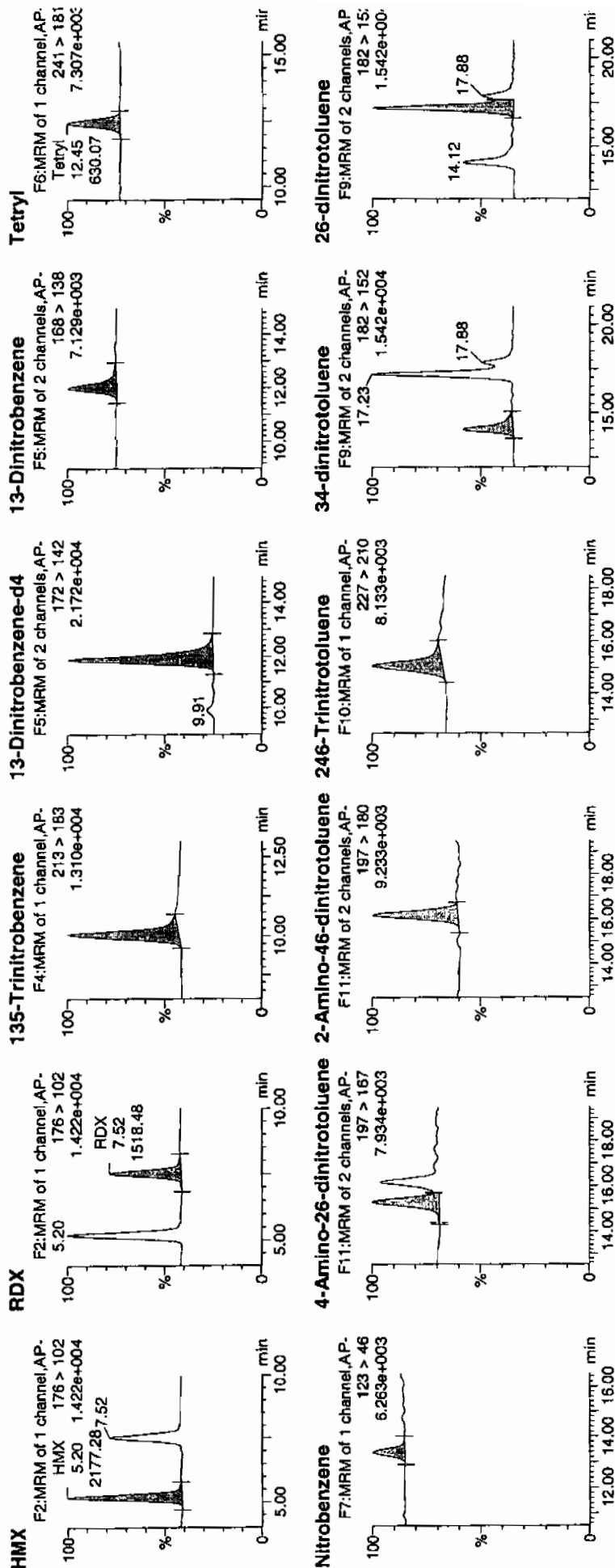
Date: 12-Apr-2010

Time: 21:04:58

ID: WXX100412-08CRI

Vial: 1:1,C

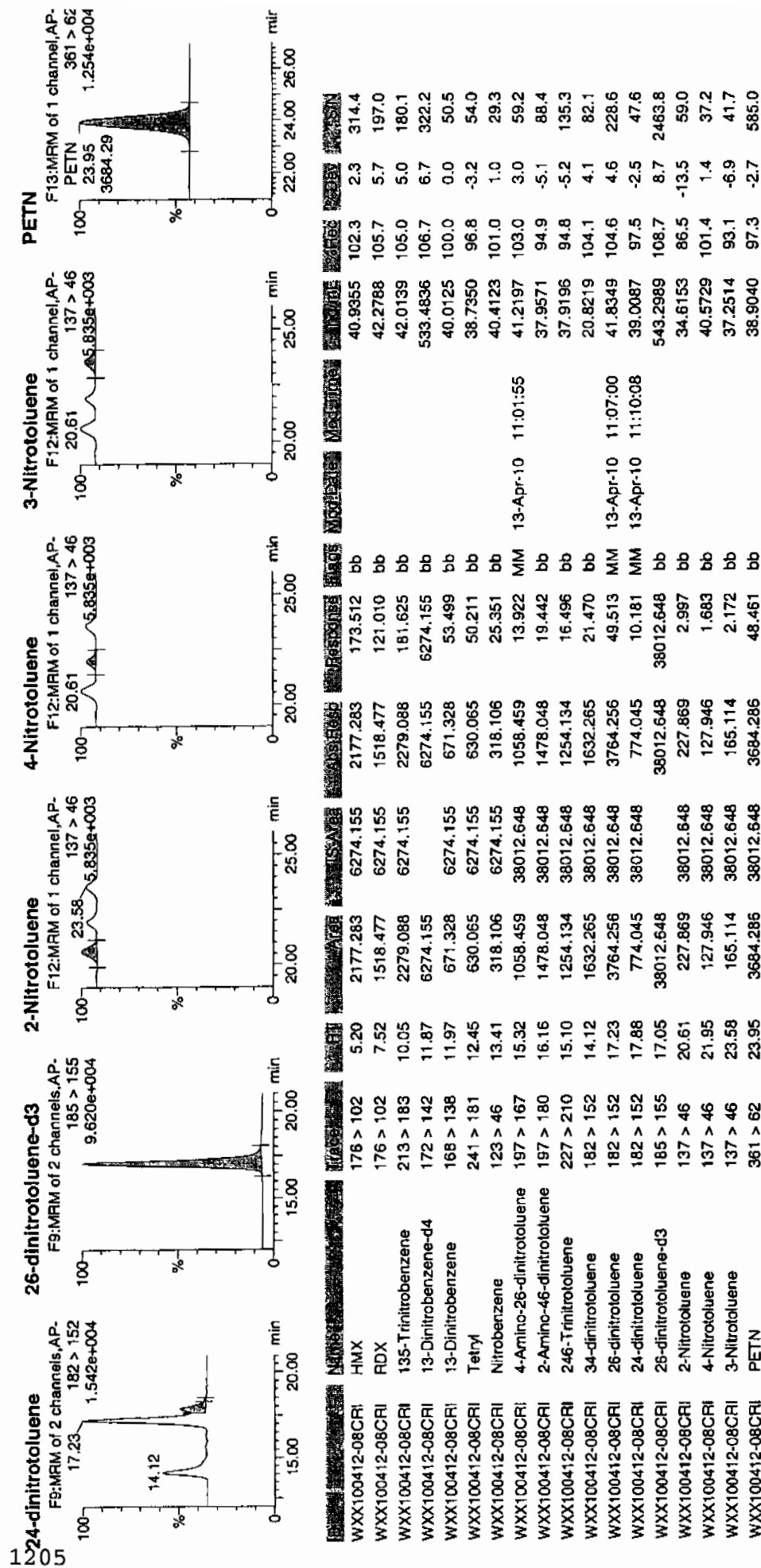
pur  
4/13/10



thru 4/14/10



Dataset: C:\MASSLYNX\New\_Exp\_PRO1041210expA.qld, Time: Tue Apr 13 11:12:22 2010



# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/12/10  
 Time of Injection 2104  
 Standard Number WXX100412-08CRI  
 Data File EXP0412012a

HMX	102.3
RDX	105.7
135-TNB	105.0
13-DNB	100.0
Tetryl	96.8
Nitrobenzene	101.0
4A-26-DNT	103.0
2A-46-DNT	94.9
246-TNT	94.8
34-DNT(surr)	104.1
26-DNT	104.6
24-DNT	97.5
2-NT	86.5
4-NT	101.4
3-NT	93.1
PETN	97.3

*4/13/10*

Total 1588.0

*Amme 04/14/10*

Average 99.3

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412023a

Analysis Date: 13-APR-10 02:29

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Tetryl	600	569.67	95	
m-Dinitrobenzene	600	606.197	101	
m-Nitrotoluene	600	540.313	90	
o-Nitrotoluene	600	558.159	93	
p-Nitrotoluene	600	614.491	102	
1,3,5-Trinitrobenzene	600	557.713	93	
1,3-Dinitrobenzene-d4	500	483.478	97	
2,4,6-Trinitrotoluene	600	638.191	106	
2,4-Dinitrotoluene	600	647.757	108	
2,6-Dinitrotoluene	600	603.464	101	
2,6-Dinitrotoluene-d3	500	472.429	94	
2-Amino-4,6-dinitrotoluene	600	581.719	97	
3,4-Dinitrotoluene	300	294.567	98	
4-Amino-2,6-dinitrotoluene	600	565.953	94	
HMX	600	591.074	99	
Nitrobenzene	600	587.411	98	
PETN	600	688.871	115	
RDX	600	698.421	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

# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412023a

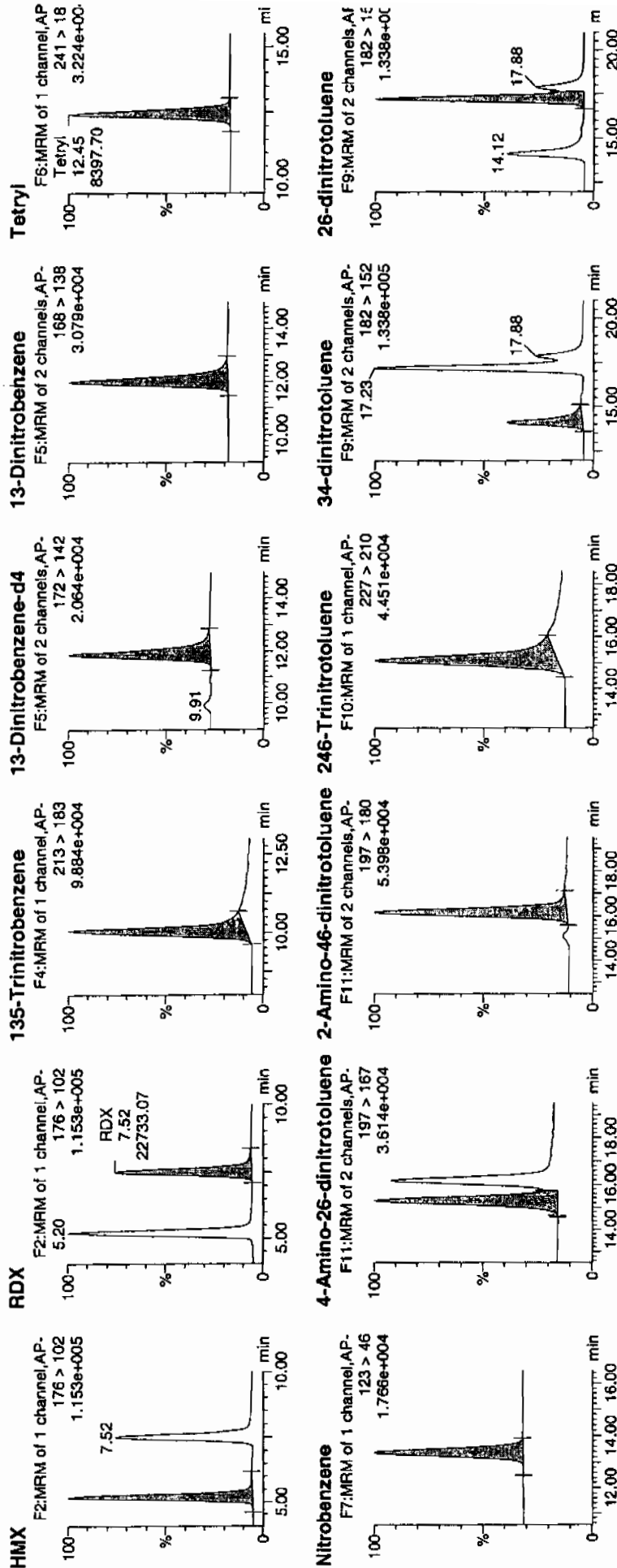
Date: 13-Apr-2010

Time: 02:29:16

ID: WXX100412-07CCV

Vial: 1:1,B

purified  
4/13/10



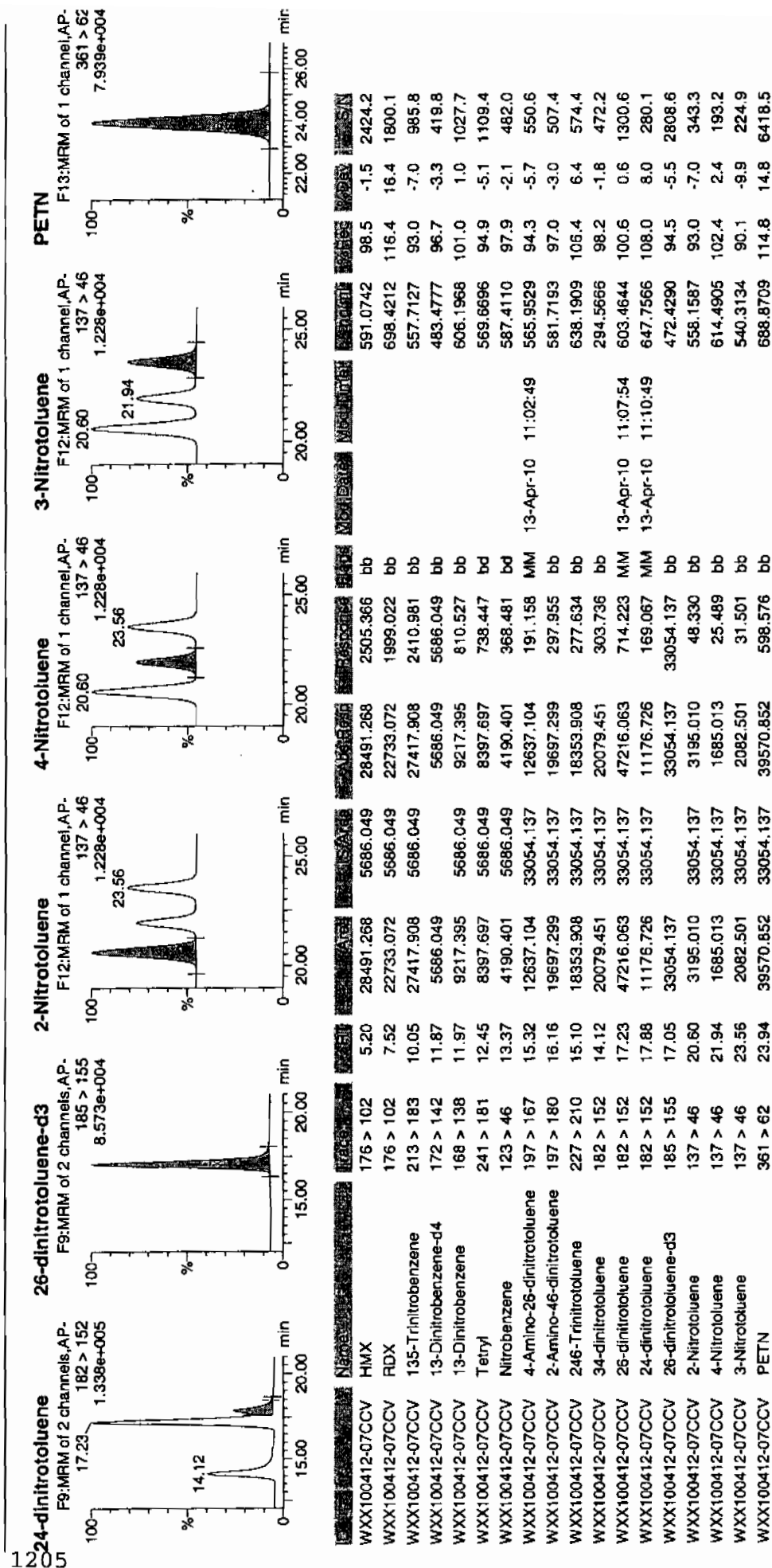
4/14/10

## Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Tue Apr 13 11:14:26 2010, Page 46 of 77

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/13/10  
 Time of Injection: 0229  
 Standard Number: WXX100412-07CCV  
 Data File: EXP0412023a

HMX	98.5
RDY	116.4
135-TNB	93.0
13-DNB	101.0
Tetryl	94.9
Nitrobenzene	97.9
4A-26-DNT	94.3
2A-46-DNT	97.0
246-TNT	106.4
34-DNT(surr)	98.2
26-DNT	100.6
24-DNT	108.0
2-NT	93.0
4-NT	102.4
3-NT	90.1
PETN	114.8

*MTT  
4/13/10*

Total 1606.5

*Hand 04/14/10*

Average 100.4

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412025a

Analysis Date: 13-APR-10 03:28

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	44.517	111	
1,3-Dinitrobenzene-d4	500	492.919	99	
2,4,6-Trinitrotoluene	40	39.436	99	
2,4-Dinitrotoluene	40	43.525	109	
2,6-Dinitrotoluene	40	39.656	99	
2,6-Dinitrotoluene-d3	500	514.01	103	
2-Amino-4,6-dinitrotoluene	40	37.309	93	
3,4-Dinitrotoluene	20	19.281	96	
4-Amino-2,6-dinitrotoluene	40	37.529	94	
HMX	40	42.31	106	
Nitrobenzene	40	35.496	89	
PETN	40	42.974	107	
RDX	40	45.439	114	
Tetryl	40	42.386	106	
m-Dinitrobenzene	40	46.427	116	
m-Nitrotoluene	40	39.933	100	
o-Nitrotoluene	40	37.946	95	
p-Nitrotoluene	40	42.692	107	

**Recovery Limits:**

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

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

11

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412025a

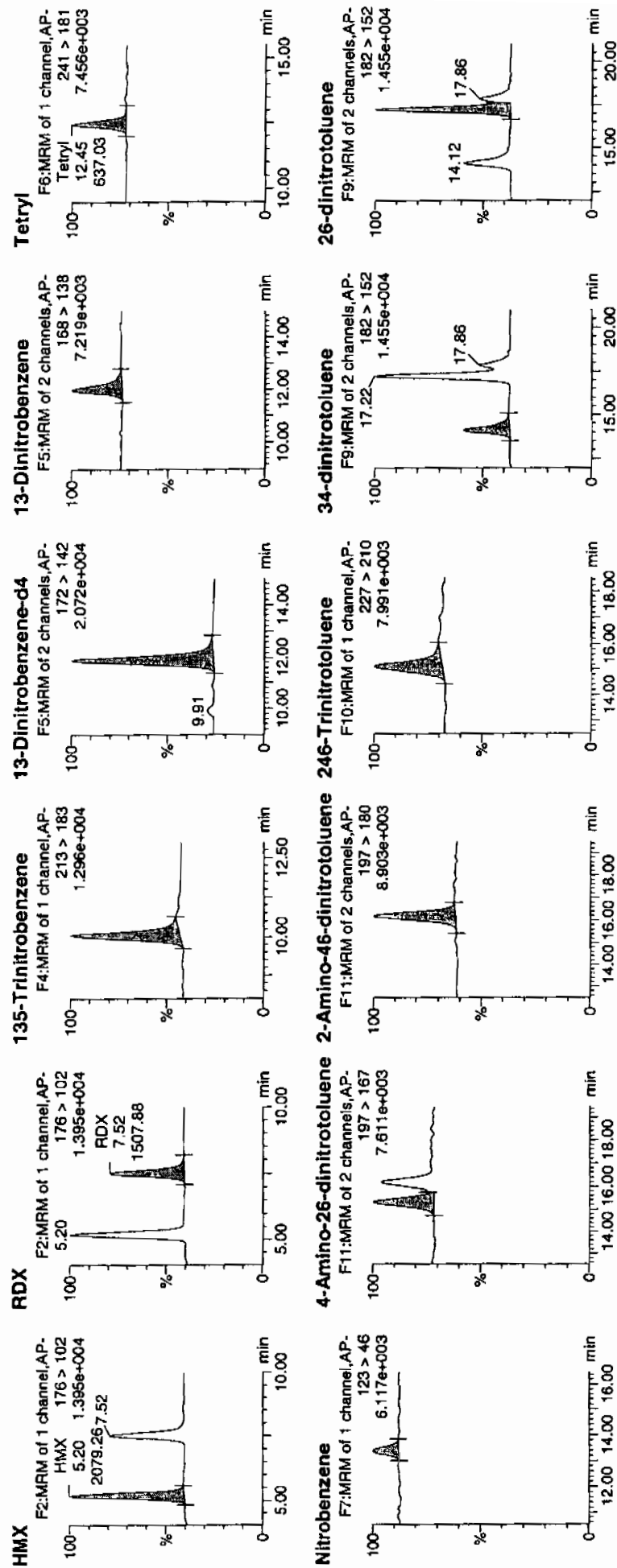
Date: 13-Apr-2010

Time: 03:28:21

ID: WXX100412-08CRI

Vial: 1:1,C

10/17  
4/13/10



HW  
4/14/10



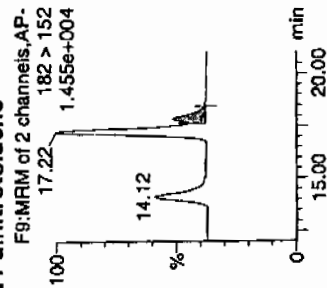
## Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

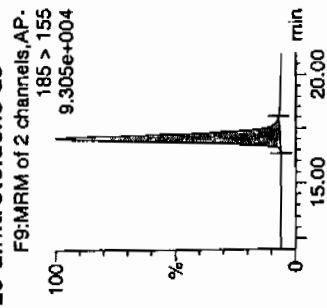
Printed: Tue Apr 13 11:14:26 2010, Page 50 of 77

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

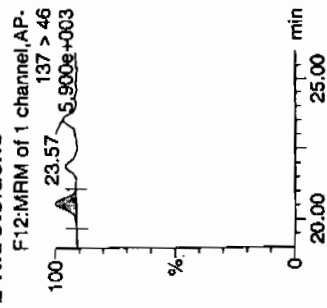
## 24-dinitrotoluene



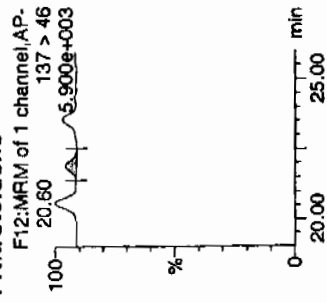
## 26-dinitrotoluene-d3



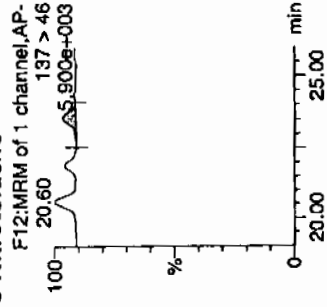
## 2-Nitrotoluene



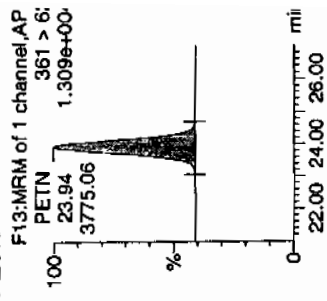
## 4-Nitrotoluene



## 3-Nitrotoluene



## PETN



WXX100412-08CRI	HMX	176 > 102	5.20	2079.264	5797.090	179.337	bb	42.3097	105.8	5.8	348.3
WXX100412-08CRI	RDX	176 > 102	7.52	1507.880	5797.090	130.055	bb	45.4388	113.6	13.6	225.5
WXX100412-08CRI	135-Trinitrobenzene	213 > 183	10.05	2231.265	5797.090	192.447	bb	44.5172	111.3	11.3	130.5
WXX100412-08CRI	13-Dinitrobenzene	172 > 142	11.87	5797.090	5797.090	5797.090	bb	492.9193	98.6	-1.4	771.9
WXX100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	719.725	5797.090	52.076	bb	46.4272	116.1	16.1	67.2
WXX100412-08CRI	Tetryl	241 > 181	12.45	637.032	5797.090	54.944	bb	42.3862	106.0	6.0	45.1
WXX100412-08CRI	Nitrobenzene	123 > 46	13.41	258.161	5797.090	22.266	bb	35.4959	88.7	-11.3	32.0
WXX100412-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.32	911.734	35963.441	12.676	MM	37.5289	93.8	-6.2	44.8
WXX100412-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.19	1374.488	35963.441	19.110	bb	37.3089	93.3	-6.7	102.4
WXX100412-08CRI	246-Trinitrotoluene	227 > 210	15.10	1233.959	35963.441	17.156	bb	39.4355	98.6	-1.4	52.3
WXX100412-08CRI	34-dinitrotoluene	182 > 152	14.12	1430.000	35963.441	1430.000	bb	19.2811	96.4	-3.6	68.9
WXX100412-08CRI	26-dinitrotoluene	182 > 152	17.22	3375.872	35963.441	46.935	MM	39.6563	99.1	-0.9	196.4
WXX100412-08CRI	24-dinitrotoluene	182 > 152	17.86	817.109	35963.441	11.360	MM	43.5253	108.8	8.8	43.1
WXX100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.05	35963.441	35963.441	35963.441	bb	514.0105	102.8	2.8	1763.8
WXX100412-08CRI	2-Nitrotoluene	137 > 46	20.60	236.329	35963.441	3.286	bb	37.9461	94.9	-5.1	26.8
WXX100412-08CRI	4-Nitrotoluene	137 > 46	21.92	127.371	35963.441	1.771	bb	42.5921	106.7	6.7	14.4
WXX100412-08CRI	3-Nitrotoluene	137 > 46	23.57	167.459	35963.441	2.328	bb	39.9332	99.8	-0.2	17.3
WXX100412-08CRI	PETN	361 > 62	23.94	3775.057	35963.441	52.485	bb	42.9742	107.4	7.4	1684.5

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/13/10  
 Time of Injection 0328  
 Standard Number WXX100412-08CRI  
 Data File EXP0412025a

HMX	105.8
RDX	113.6
135-TNB	111.3
13-DNB	116.1
Tetryl	106.0
Nitrobenzene	88.7
4A-26-DNT	93.8
2A-46-DNT	93.3
246-TNT	98.6
34-DNT(surr)	96.4
26-DNT	99.1
24-DNT	108.8
2-NT	94.9
4-NT	106.7
3-NT	99.8
PETN	107.4

WFF  
4/13/10

Total 1640.3

Average 102.5

WFF 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412036a

Analysis Date: 13-APR-10 08:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	622.986	104	
1,3-Dinitrobenzene-d4	500	495.434	99	
2,4,6-Trinitrotoluene	600	635.68	106	
2,4-Dinitrotoluene	600	609.665	102	
2,6-Dinitrotoluene	600	616.741	103	
2,6-Dinitrotoluene-d3	500	514.162	103	
2-Amino-4,6-dinitrotoluene	600	599.331	100	
3,4-Dinitrotoluene	300	294.405	98	
4-Amino-2,6-dinitrotoluene	600	576.117	96	
HMX	600	602.928	100	
Nitrobenzene	600	645.578	108	
PETN	600	634.783	106	
RDX	600	702.566	117	
Tetryl	600	604.875	101	
m-Dinitrobenzene	600	626.308	104	
m-Nitrotoluene	600	515.069	86	
o-Nitrotoluene	600	519.467	87	
p-Nitrotoluene	600	594.454	99	

Recovery Limits:

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

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

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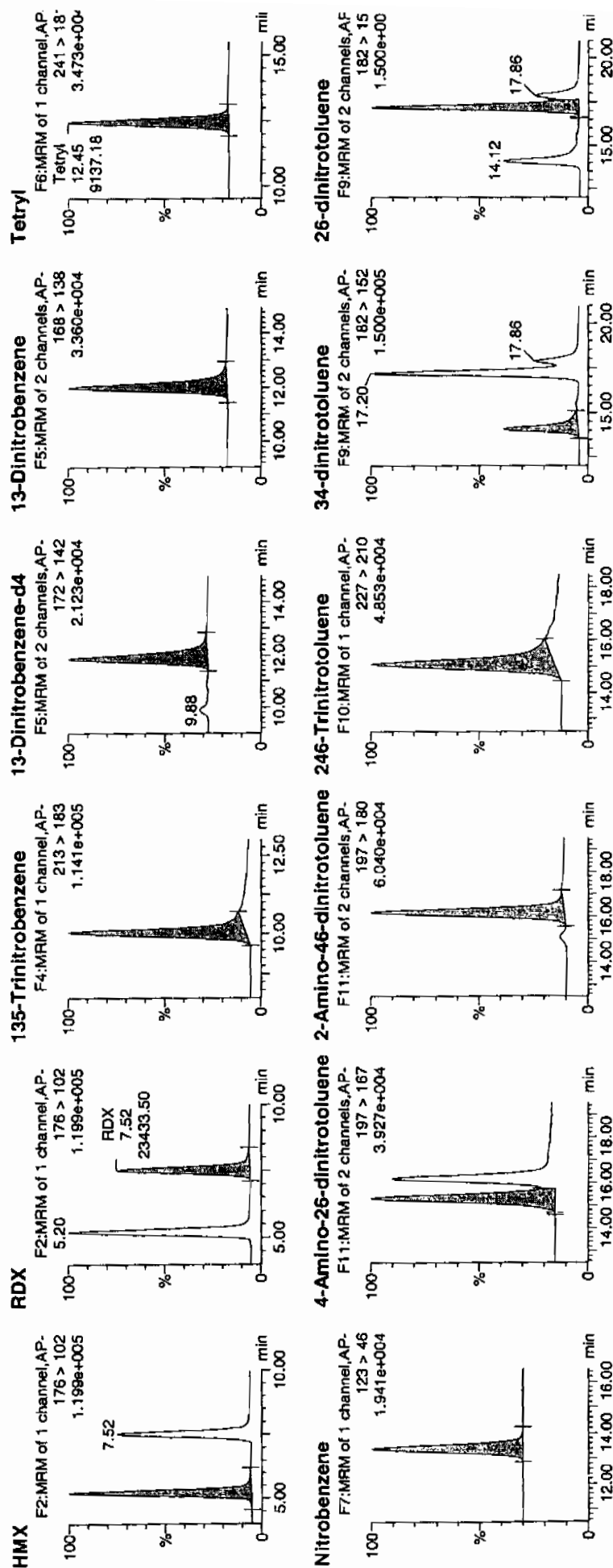
Date: 13-Apr-2010

Time: 08:52:42

ID: WXX100408-07CCV

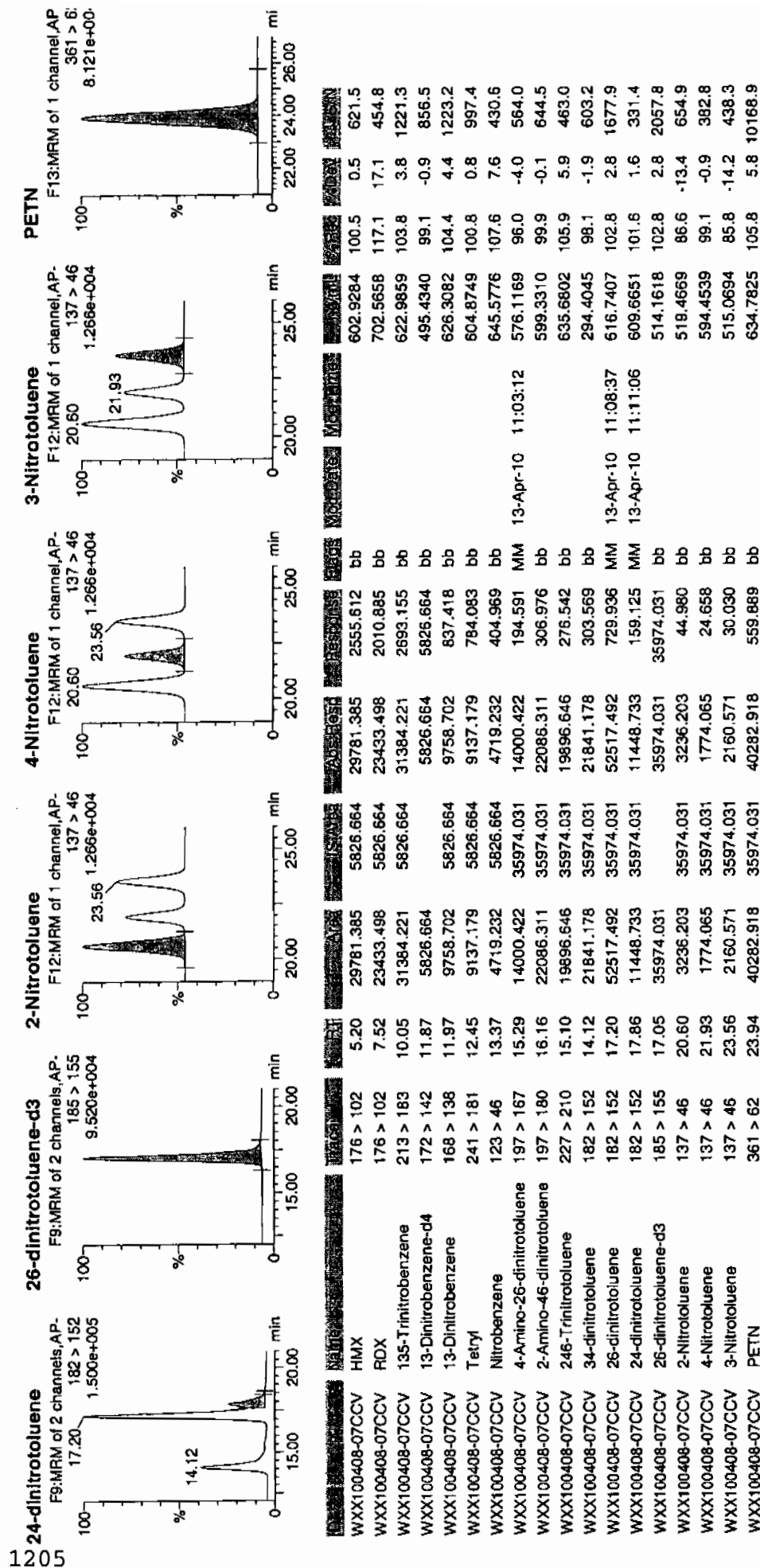
Vial: 1:1,B

WXX  
4/13/10



WXX  
4/13/10

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/13/10  
 Time of Injection: 0852  
 Standard Number: WXX100412-07CCV  
 Data File: EXP0412036a

HMX	100.5
RDX	117.1
135-TNB	103.8
13-DNB	104.4
Tetryl	100.8
Nitrobenzene	107.6
4A-26-DNT	96.0
2A-46-DNT	99.9
246-TNT	105.9
34-DNT(surr)	98.1
26-DNT	102.8
24-DNT	101.6
2-NT	86.6
4-NT	99.1
3-NT	85.8
PETN	105.8

*WTF  
4/13/10*

Total 1615.8

*Home 04/14/10*

Average 101.0

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

**7B**  
**Explosives CRI Standard**

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-2140

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXP0412038a

**Analysis Date:** 13-APR-10 09:51

**LCMSMS ID:** 903

**Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	45.739	114	
1,3-Dinitrobenzene-d4	500	533	107	
2,4,6-Trinitrotoluene	40	38.169	95	
2,4-Dinitrotoluene	40	45.21	113	
2,6-Dinitrotoluene	40	40.851	102	
2,6-Dinitrotoluene-d3	500	511.74	102	
2-Amino-4,6-dinitrotoluene	40	38.558	96	
3,4-Dinitrotoluene	20	21.488	107	
4-Amino-2,6-dinitrotoluene	40	37.158	93	
HMX	40	39.698	99	
Nitrobenzene	40	39.676	99	
PETN	40	46.251	116	
RDX	40	44.563	111	
Tetryl	40	40.879	102	
m-Dinitrobenzene	40	43.824	110	
m-Nitrotoluene	40	36.581	91	
o-Nitrotoluene	40	36.682	92	
p-Nitrotoluene	40	38.153	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 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

# Quantify Sample Report

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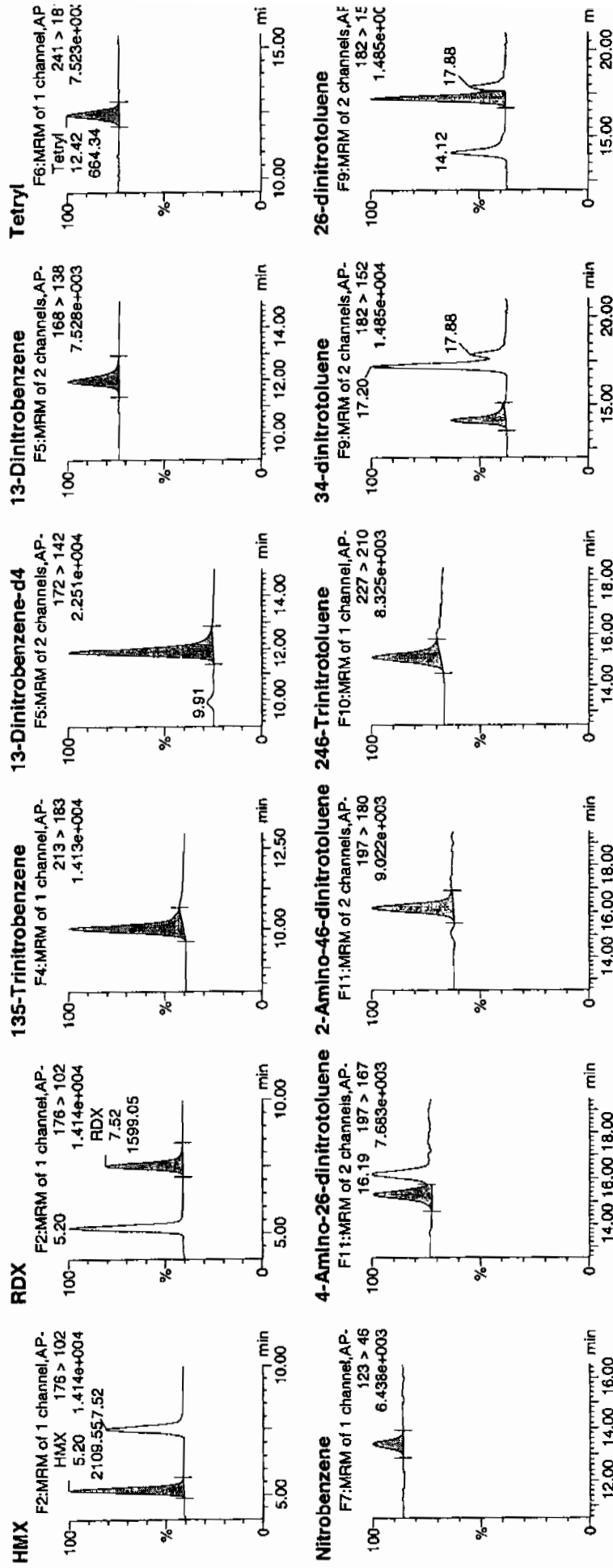
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Time: 09:51:47

ID: WXX100408-08CRI

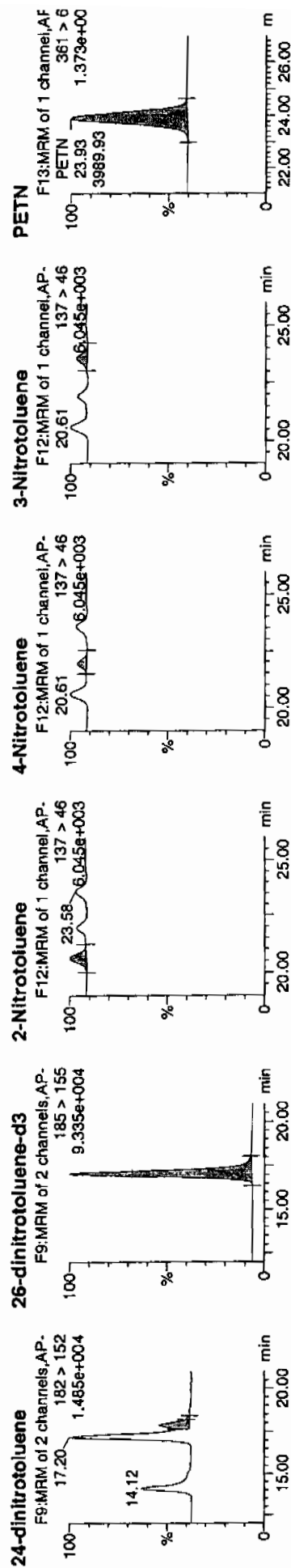
Vial: 1:1,C

4/13/10  
MPT



4/13/10  
MPT





Name	MW	Yield	GC-MS	IR	NMR	Mass Spec	Purity	Ref.
HMX	176 > 102	5.20	2109.553	6268.472	2109.553	168.267	bb	39.6981 99.2 -0.8 344.7
RDX	176 > 102	7.52	1599.046	6268.472	1599.046	127.547	bb	44.5625 111.4 11.4 232.6
1,3,5-Trinitrobenzene	213 > 183	10.05	2478.890	6268.472	2478.890	197.727	bb	45.7385 114.3 14.3 445.4
13-Dinitrobenzene-d4	172 > 142	11.87	6268.472	6268.472	6268.472	6268.472	bb	533.0004 106.6 6.6 316.8
13-Dinitrobenzene	168 > 138	11.97	734.612	6268.472	734.612	58.596	bb	43.8240 109.6 9.6 56.6
Tetryl	241 > 181	12.42	664.339	6268.472	664.339	52.991	bb	40.8791 102.2 2.2 77.0
Nitrobenzene	123 > 46	13.37	312.027	6268.472	312.027	24.889	bb	39.6760 99.2 -0.8 26.2
4-Amino-2,6-dinitrotoluene	197 > 167	15.32	898.733	35804.613	898.733	12.551	MM	37.1578 92.9 -7.1 46.5
2-Amino-4,6-dinitrotoluene	197 > 180	16.16	1414.235	35804.613	1414.235	19.749	bb	38.5581 96.4 -3.6 64.1
2,4,6-Trinitrotoluene	227 > 210	15.10	1189.063	35804.613	1189.063	16.605	bb	38.1693 95.4 -4.6 105.0
34-dinitrotoluene	182 > 152	14.12	1586.630	35804.613	1586.630	22.157	bb	21.4879 107.4 7.4 45.9
26-dinitrotoluene	182 > 152	17.20	3462.203	35804.613	3462.203	48.349	MM	40.8509 102.1 2.1 112.8
24-dinitrotoluene	182 > 152	17.88	844.986	35804.613	844.986	11.800	MM	45.2099 113.0 13.0 28.2
26-dinitrotoluene-d3	185 > 155	17.05	35804.613	35804.613	35804.613	35804.613	bb	511.7404 102.3 2.3 2742.4
2-Nitrotoluene	137 > 46	20.61	227.450	35804.613	227.450	3.176	bb	36.6824 91.7 -8.3 42.8
4-Nitrotoluene	137 > 46	21.94	113.326	35804.613	113.326	1.583	bb	38.1530 95.4 -4.6 23.5
3-Nitrotoluene	137 > 46	23.58	152.725	35804.613	152.725	2.133	bb	36.5812 91.5 -8.5 27.1
PETN	361 > 62	23.93	3989.934	35804.613	3989.934	55.718	bb	46.2507 115.6 15.6 239.5

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/13/10  
 Time of Injection 0951  
 Standard Number WXX100412-08CRI  
 Data File EXP0412038a

HMX	99.2
RDX	111.4
135-TNB	114.3
13-DNB	109.6
Tetryl	102.2
Nitrobenzene	99.2
4A-26-DNT	92.9
2A-46-DNT	96.4
246-TNT	95.4
34-DNT(surr)	107.4
26-DNT	102.1
24-DNT	113.0
2-NT	91.7
4-NT	95.4
3-NT	91.5
PETN	115.6

*μm  
4/13/10*

Total 1637.3

Average 102.3

*time 04/14/10*  
 ICV Limits 85-115%  
 CRI Limits 70-130%  
 CCV Limits 85-115%

No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412049a

Analysis Date: 13-APR-10 15:16

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene-d3	500	498.886	100	
2-Amino-4,6-dinitrotoluene	600	607.095	101	
3,4-Dinitrotoluene	300	303.099	101	
4-Amino-2,6-dinitrotoluene	600	604.473	101	
HMX	600	617.414	103	
Nitrobenzene	600	582.952	97	
PETN	600	664.135	111	
RDX	600	727.871	121	*
Tetryl	600	602.021	100	
m-Dinitrobenzene	600	604.378	101	
m-Nitrotoluene	600	551.203	92	
o-Nitrotoluene	600	525.761	88	
p-Nitrotoluene	600	663.98	111	
1,3,5-Trinitrobenzene	600	571.573	95	
1,3-Dinitrobenzene-d4	500	506.928	101	
2,4,6-Trinitrotoluene	600	673.095	112	
2,4-Dinitrotoluene	600	690.861	115	
2,6-Dinitrotoluene	600	617.582	103	

Recovery Limits:

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

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Printed: Wed Apr 14 09:18:04 2010, Page 21 of 75

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

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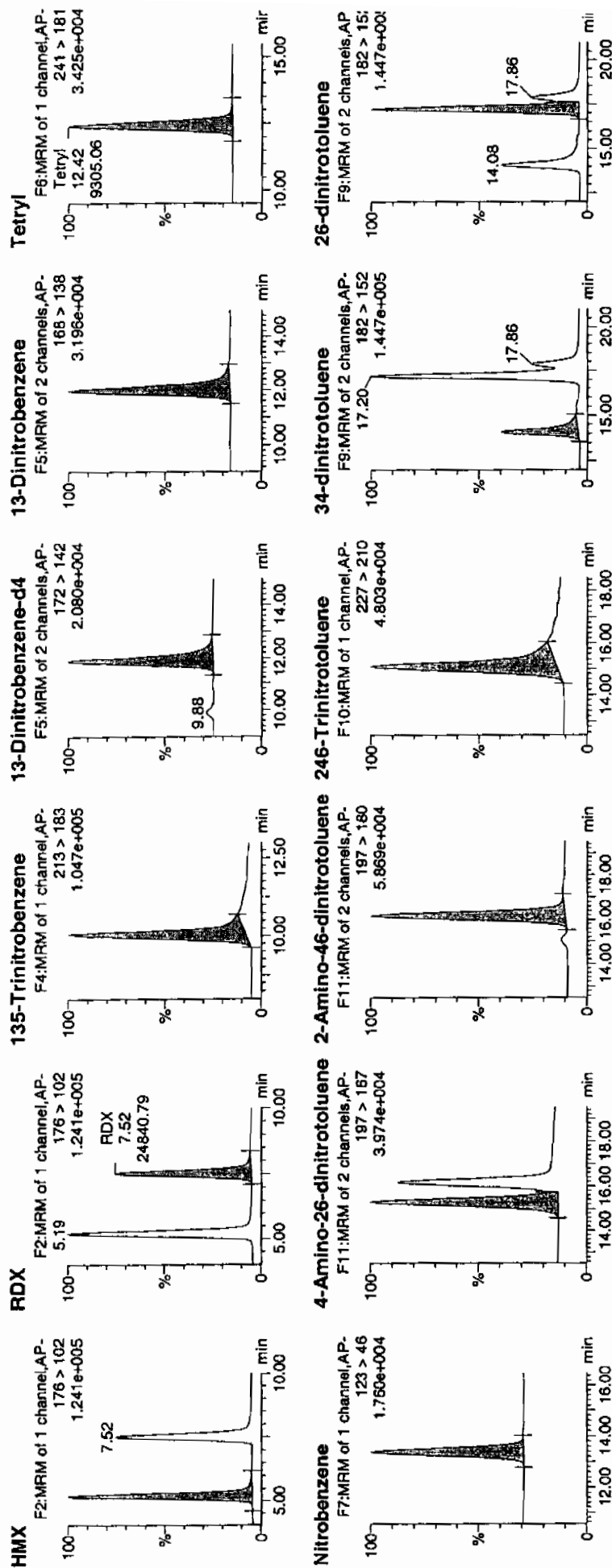
Date: 13-Apr-2010

Time: 15:16:35

ID: WXX100412-07CCV

Vial: 11,B

11/1/10



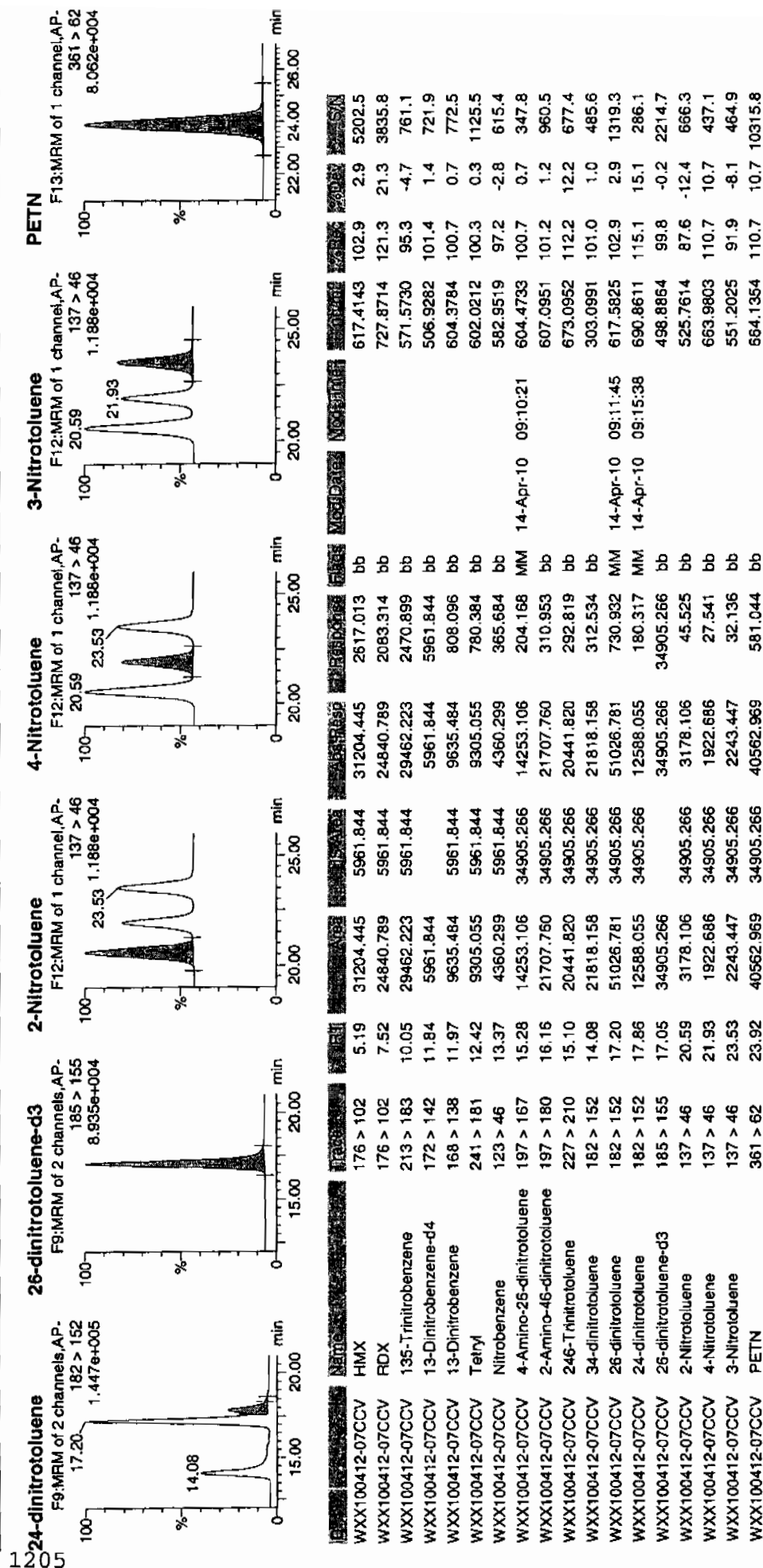
11/1/10

## Quantify Sample Report

NGEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Wed Apr 14 09:18:04 2010, Page 22 of 75

Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/13/10  
 Time of Injection: 1516  
 Standard Number: WXX100412-07CCV  
 Data File: EXP0412049a

HMX	102.9
RDX	121.3
135-TNB	95.3
13-DNB	100.7
Tetryl	100.3
Nitrobenzene	97.2
4A-26-DNT	100.7
2A-46-DNT	101.2
246-TNT	112.2
34-DNT(surr)	101.0
26-DNT	102.9
24-DNT	115.1
2-NT	87.6
4-NT	110.7
3-NT	91.9
PETN	110.7

*not  
4/14/10*

Total 1651.7

*sum 04/14/10*

Average 103.2

ICV Limits 85-115%  
 CRI Limits 70-130%  
 CCV Limits 85-115%

No single analyte > +/- 60%

**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412051a

Analysis Date: 13-APR-10 16:15

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	43.445	109	
1,3-Dinitrobenzene-d4	500	578.682	116	
2,4,6-Trinitrotoluene	40	41.977	105	
2,4-Dinitrotoluene	40	41.352	103	
2,6-Dinitrotoluene	40	41.013	103	
2,6-Dinitrotoluene-d3	500	540.214	108	
2-Amino-4,6-dinitrotoluene	40	38.681	97	
3,4-Dinitrotoluene	20	22.076	110	
4-Amino-2,6-dinitrotoluene	40	40.59	101	
HMX	40	38.797	97	
Nitrobenzene	40	39.951	100	
PETN	40	48.006	120	
RDX	40	40.505	101	
Tetryl	40	40.745	102	
m-Dinitrobenzene	40	41.507	104	
m-Nitrotoluene	40	38.882	97	
o-Nitrotoluene	40	38.71	97	
p-Nitrotoluene	40	41.261	103	

**Recovery Limits:**

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

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

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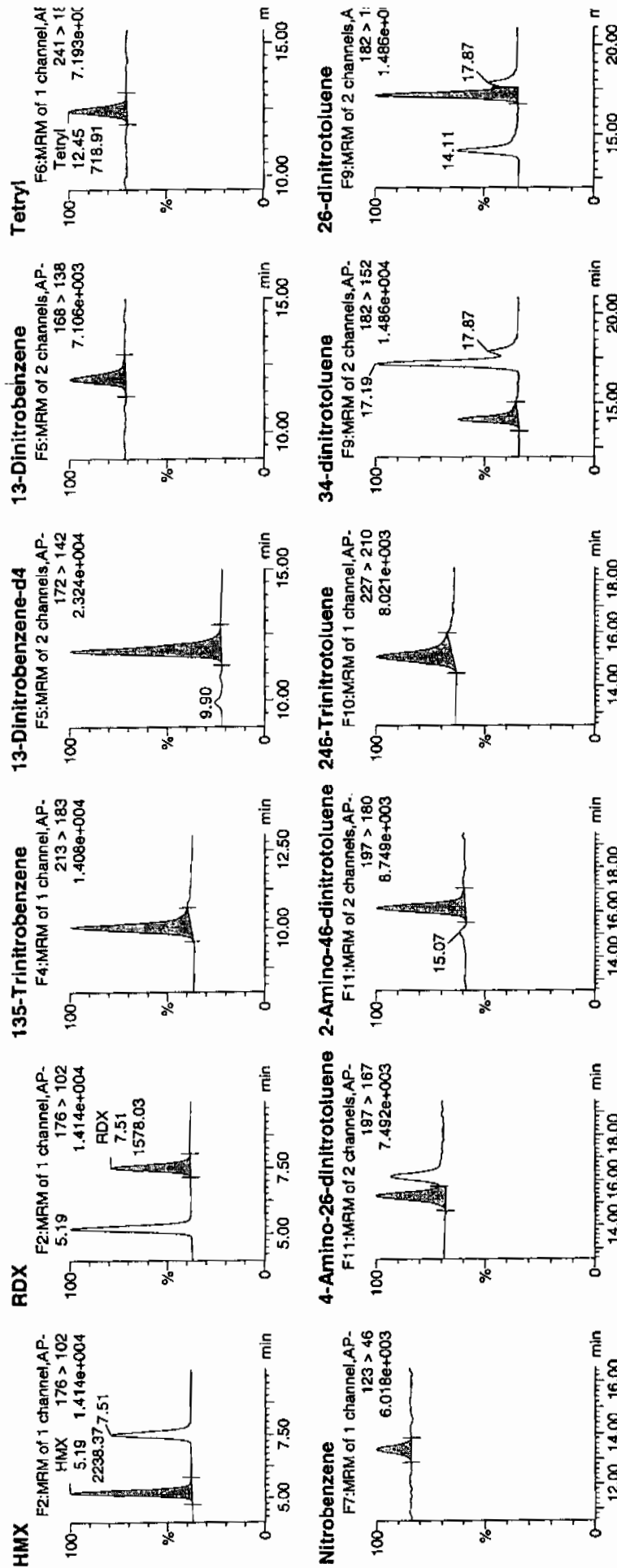
Date: 13-Apr-2010

Time: 16:15:40

ID: WXX100412-08CRI

Vial: 1:1,C

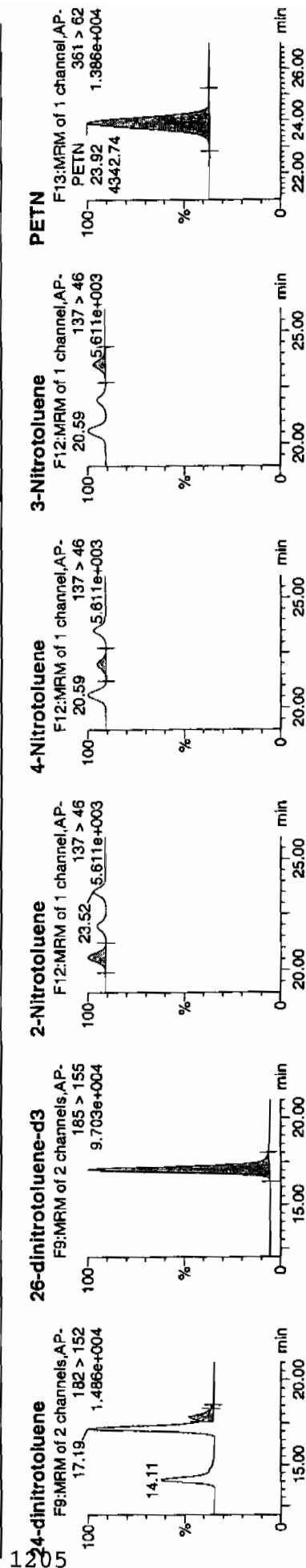
135  
4/14/10



135  
4/14/10



Dataset: C:\MASSLYNX\New\_Exp.\PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010



Library	Name	Wavelength	Conc.	Area	Integration	Response	Height	Volume	Conc.	Volume	Conc.	
WXX100412-08CRI	HMX	176 > 102	5.19	2238.372	6805.720	2238.372	164.448	bb	38.7971	97.0	-3.0	208.5
WXX100412-08CRI	ROX	176 > 102	7.51	1578.030	6805.720	1578.030	115.934	bb	40.5052	101.3	1.3	135.6
WXX100412-08CRI	135-Trinitrobenzene	213 > 183	10.03	2556.376	6805.720	2556.376	187.811	bb	43.4448	108.6	8.6	179.0
WXX100412-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6805.720		6805.720	6805.720	bb	578.6819	115.7	15.7	507.4
WXX100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	755.409	6805.720	755.409	55.498	bb	41.5073	103.8	3.8	74.5
WXX100412-08CRI	Tetryl	243 > 181	12.45	718.910	6805.720	718.910	52.817	bb	40.7450	101.9	1.9	73.1
WXX100412-08CRI	Nitrobenzene	121 > 46	13.35	341.116	6805.720	341.116	25.061	bb	39.9508	99.9	-0.1	27.5
WXX100412-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.27	1036.367	37796.773	1036.367	13.710	MM	40.5898	101.5	1.5	59.1
WXX100412-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.15	1497.691	37796.773	1497.691	19.812	bb	38.6812	96.7	-3.3	67.3
WXX100412-08CRI	246-Trinitrotoluene	227 > 210	15.09	1380.441	37796.773	1380.441	18.261	bb	41.9770	104.9	4.9	85.1
WXX100412-08CRI	34-dinitrotoluene	182 > 152	14.11	1720.770	37796.773	1720.770	22.763	bb	22.0763	110.4	10.4	91.2
WXX100412-08CRI	26-dinitrotoluene	182 > 152	17.19	3669.359	37796.773	3669.359	48.541	MM	41.0132	102.5	2.5	216.3
WXX100412-08CRI	24-dinitrotoluene	182 > 152	17.87	815.884	37796.773	815.884	10.793	MM	41.3520	103.4	3.4	43.1
WXX100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.04	37796.773		37796.773	37796.773	bb	540.2135	108.0	8.0	1682.3
WXX100412-08CRI	2-Nitrotoluene	137 > 46	20.59	253.376	37796.773	253.376	3.352	bb	38.7099	96.8	-3.2	70.2
WXX100412-08CRI	4-Nitrotoluene	137 > 46	21.96	129.377	37796.773	129.377	1.711	bb	41.2610	103.2	3.2	35.2
WXX100412-08CRI	3-Nitrotoluene	137 > 46	23.52	171.362	37796.773	171.362	2.267	bb	38.8818	97.2	-2.8	48.1
WXX100412-08CRI	PETN	361 > 62	23.92	4342.742	37796.773	4342.742	57.449	bb	48.0061	120.0	20.0	1612.5

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/13/10  
 Time of Injection 1615  
 Standard Number WXX100412-08CRI  
 Data File EXP0412051a

HMX	97.0
RDX	101.3
135-TNB	108.6
13-DNB	103.8
Tetryl	101.9
Nitrobenzene	99.9
4A-26-DNT	101.5
2A-46-DNT	96.7
246-TNT	104.9
34-DNT(surr)	110.4
26-DNT	102.5
24-DNT	103.4
2-NT	96.8
4-NT	103.2
3-NT	97.2
PETN	120.0

MTT  
4/14/10

Total 1649.1

HTM 04/14/10

Average 103.1

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCY

GEL Data File EXP0412060a

Analysis Date: 13-APR-10 20:41

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Nitrotoluene	600	514.808	86	
o-Nitrotoluene	600	527.178	88	
p-Nitrotoluene	600	571.151	95	
1,3,5-Trinitrobenzene	600	599.334	100	
1,3-Dinitrobenzene-d4	500	499.969	100	
2,4,6-Trinitrotoluene	600	660.453	110	
2,4-Dinitrotoluene	600	684.197	114	
2,6-Dinitrotoluene	600	612.271	102	
2,6-Dinitrotoluene-d3	500	510.451	102	
2-Amino-4,6-dinitrotoluene	600	614.276	102	
3,4-Dinitrotoluene	300	313.494	104	
4-Amino-2,6-dinitrotoluene	600	595.541	99	
HMX	600	611.301	102	
Nitrobenzene	600	608.894	101	
PETN	600	646.401	108	
RDX	600	735.804	123	*
Tetryl	600	668.888	111	
m-Dinitrobenzene	600	610.208	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

## Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Apr 14 09:18:04 2010, Page 43 of 75

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

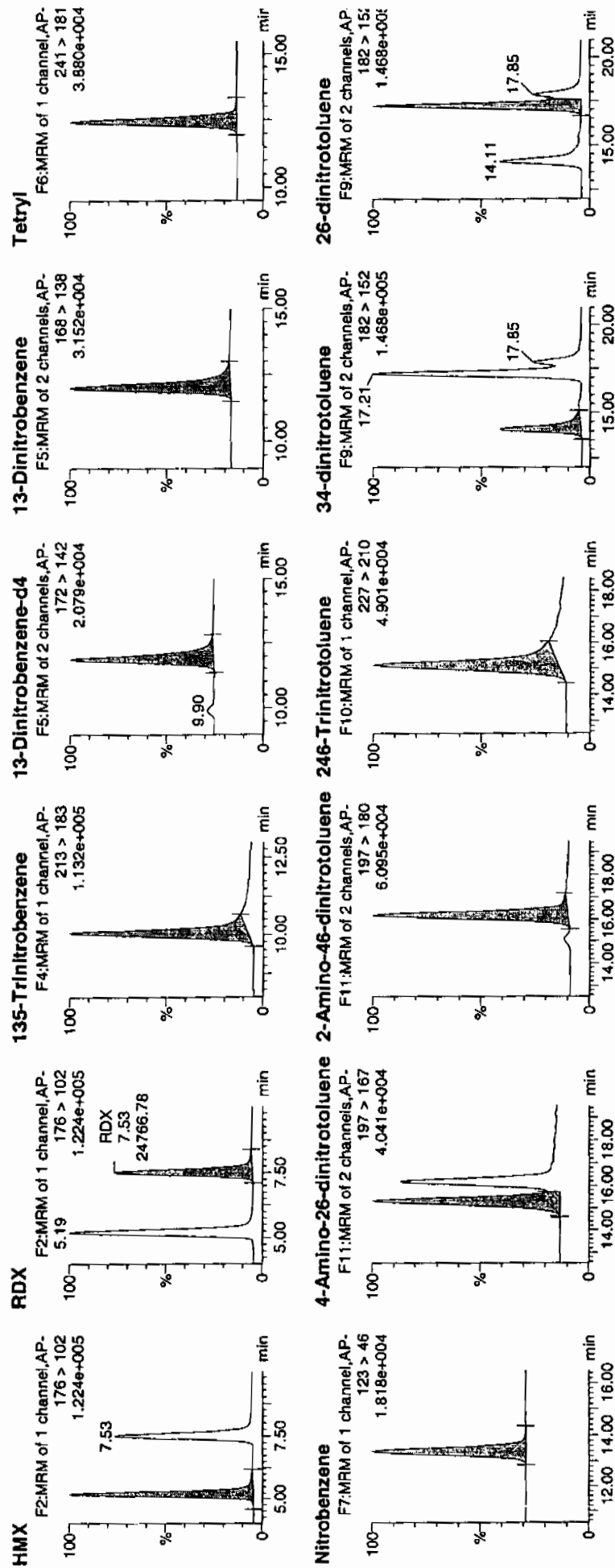
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Date: 13-Apr-2010

Time: 20:41:14

ID: WXX100412-07CCV

Vial: 1:1,B

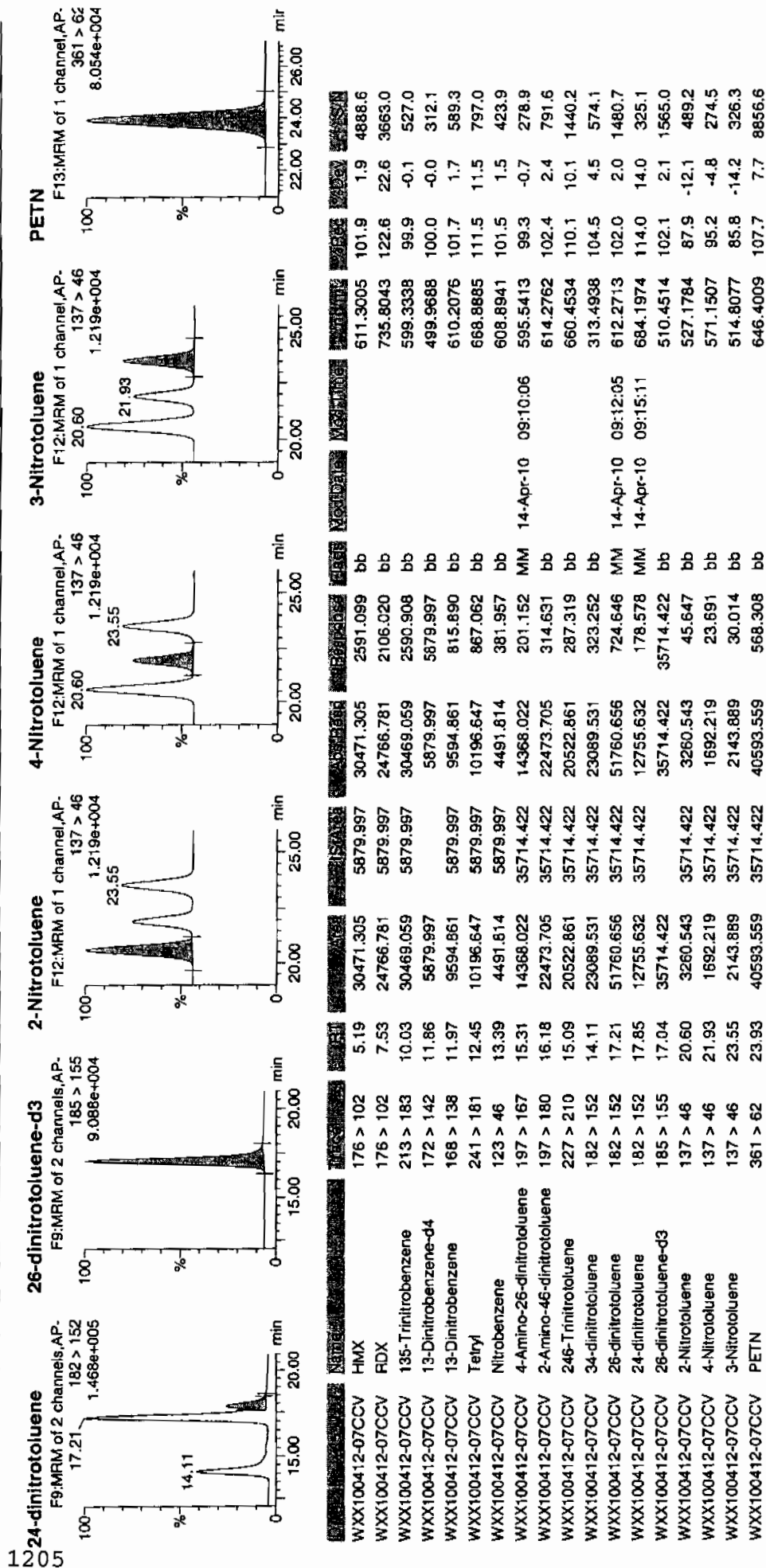


## Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Wed Apr 14 09:18:04 2010, Page 44 of 75

Dataset: C:\MASSLYN\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/13/10  
 Time of Injection: 2041  
 Standard Number: WXX100412-07CCV  
 Data File: EXP0412060a

HMX	101.9
RDX	122.6
135-TNB	99.9
13-DNB	101.7
Tetryl	111.5
Nitrobenzene	101.5
4A-26-DNT	99.3
2A-46-DNT	102.4
246-TNT	110.1
34-DNT(surr)	104.5
26-DNT	102.0
24-DNT	114.0
2-NT	87.9
4-NT	95.2
3-NT	85.8
PETN	107.7

*WAT  
4/14/10*

Total 1648.0

Average 103.0

*HMX 04/14/10*

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412062a

Analysis Date: 13-APR-10 21:40

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	44.068	110	
1,3-Dinitrobenzene-d4	500	557.026	111	
2,4,6-Trinitrotoluene	40	47.263	118	
2,4-Dinitrotoluene	40	43.24	108	
2,6-Dinitrotoluene	40	42.432	106	
2,6-Dinitrotoluene-d3	500	543.492	109	
2-Amino-4,6-dinitrotoluene	40	41.373	103	
3,4-Dinitrotoluene	20	20.458	102	
4-Amino-2,6-dinitrotoluene	40	42.964	107	
HMX	40	45.559	114	
Nitrobenzene	40	43.255	108	
PETN	40	44.881	112	
RDX	40	44.011	110	
Tetryl	40	38.121	95	
m-Dinitrobenzene	40	42.827	107	
m-Nitrotoluene	40	31.848	80	
o-Nitrotoluene	40	44.099	110	
p-Nitrotoluene	40	40.569	101	

**Recovery Limits:**

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

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412062a

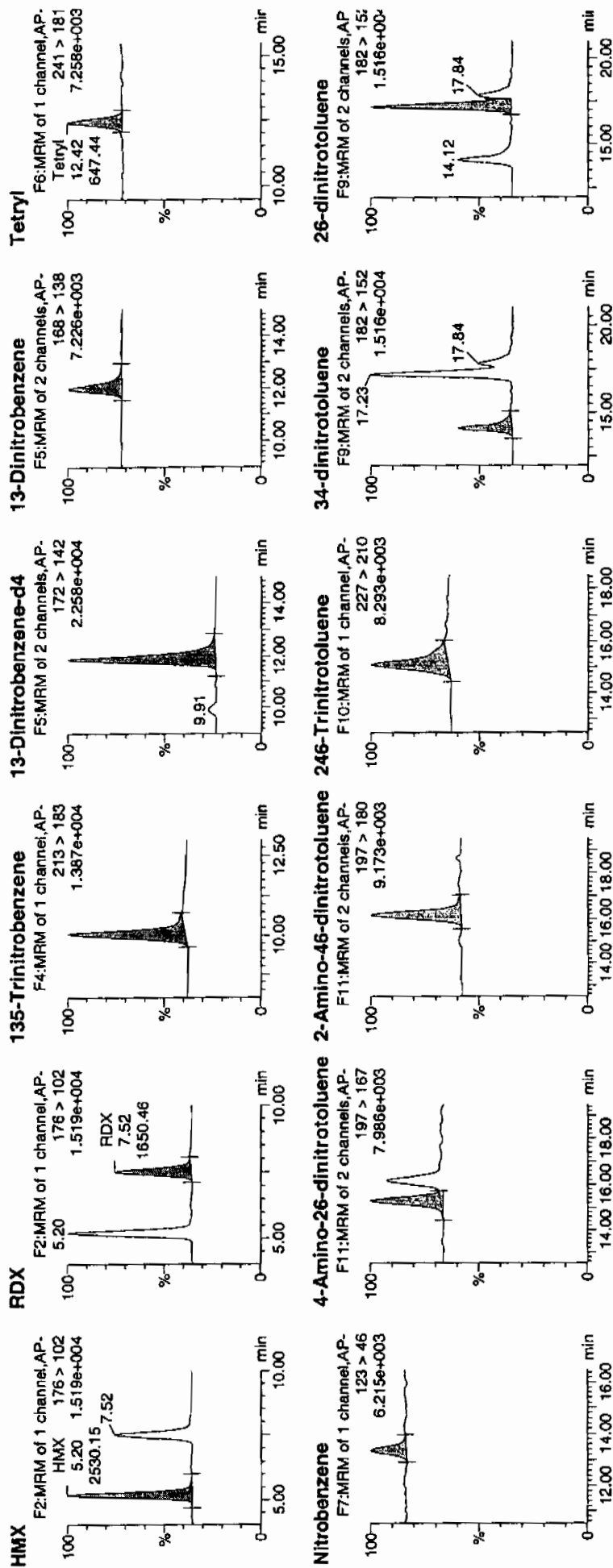
Date: 13-Apr-2010

Time: 21:40:18

ID: WXX100412-08CRI

Vial: 1:1,C

WXX  
4/14/10



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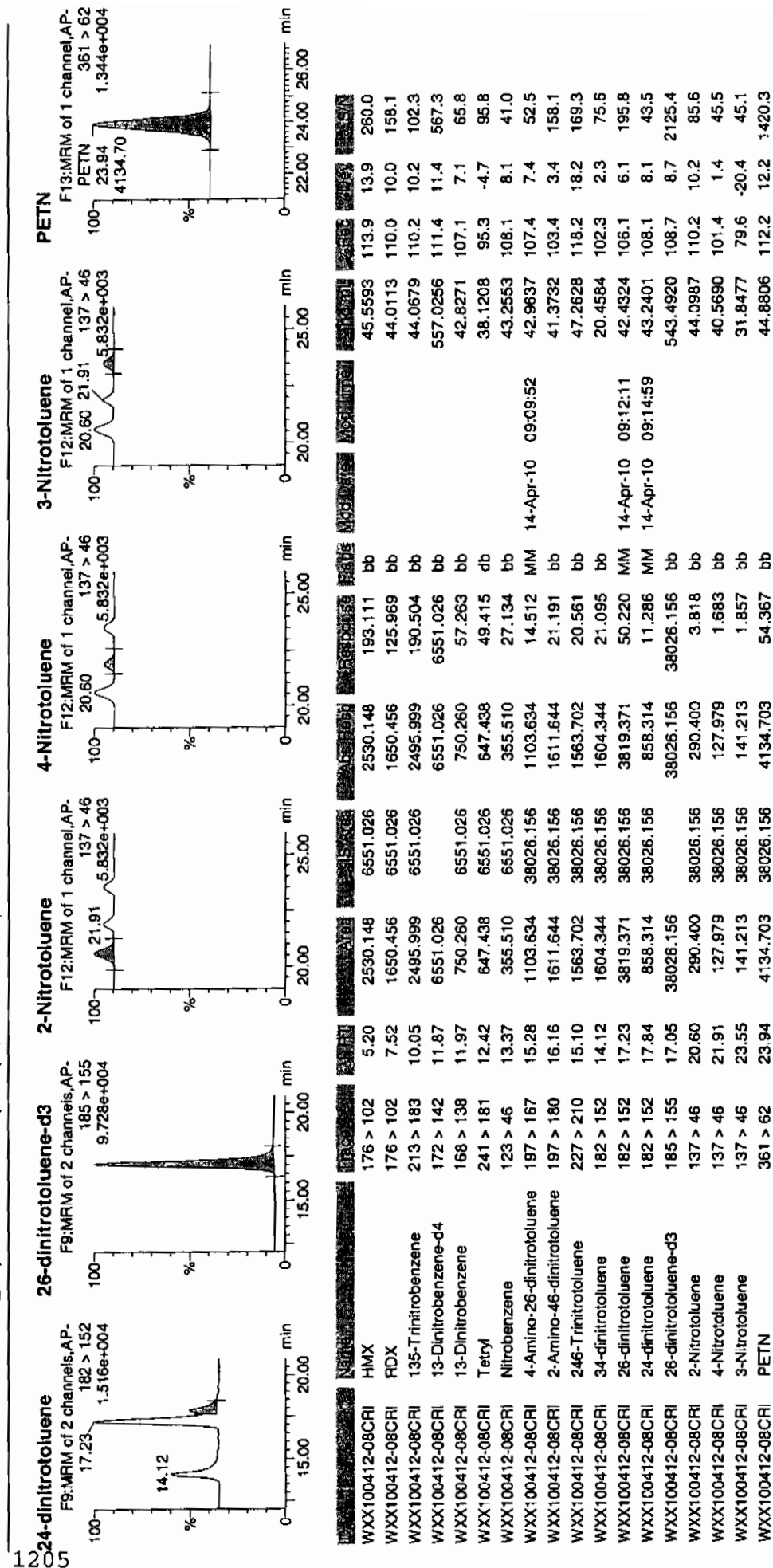


## Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Wed Apr 14 09:18:04 2010, Page 48 of 75

Dataset: C:\MASSLYN\New\_Exp\PRO1041210expA1.qld, Time: Wed Apr 14 09:16:31 2010



# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/13/10  
 Time of Injection 2140  
 Standard Number WXX100412-08CRI  
 Data File EXP0412062a

HMX	113.9
RDX	110.0
135-TNB	100.2
13-DNB	107.1
Tetryl	95.3
Nitrobenzene	108.1
4A-26-DNT	107.4
2A-46-DNT	103.4
246-TNT	118.2
34-DNT(surr)	102.3
26-DNT	106.1
24-DNT	108.1
2-NT	110.2
4-NT	101.4
3-NT	79.6
PETN	112.2

WXX  
4/14/10

Total 1683.5

Average 105.2

Handwritten: 4/14/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412073a

Analysis Date: 14-APR-10 03:04

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	472.089	79	*
1,3-Dinitrobenzene-d4	500	626.494	125	*
2,4,6-Trinitrotoluene	600	708.507	118	
2,4-Dinitrotoluene	600	663.973	111	
2,6-Dinitrotoluene	600	597.091	100	
2,6-Dinitrotoluene-d3	500	580.114	116	
2-Amino-4,6-dinitrotoluene	600	639.825	107	
3,4-Dinitrotoluene	300	311.029	104	
4-Amino-2,6-dinitrotoluene	600	618.565	103	
HMX	600	509.641	85	
Nitrobenzene	600	538.682	90	
PETN	600	487.21	81	
RDX	600	549.332	92	
Tetryl	600	547.985	91	
m-Dinitrobenzene	600	597.924	100	
m-Nitrotoluene	600	459.65	77	*
o-Nitrotoluene	600	486.57	81	
p-Nitrotoluene	600	543.675	91	

Recovery Limits:

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

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412073a

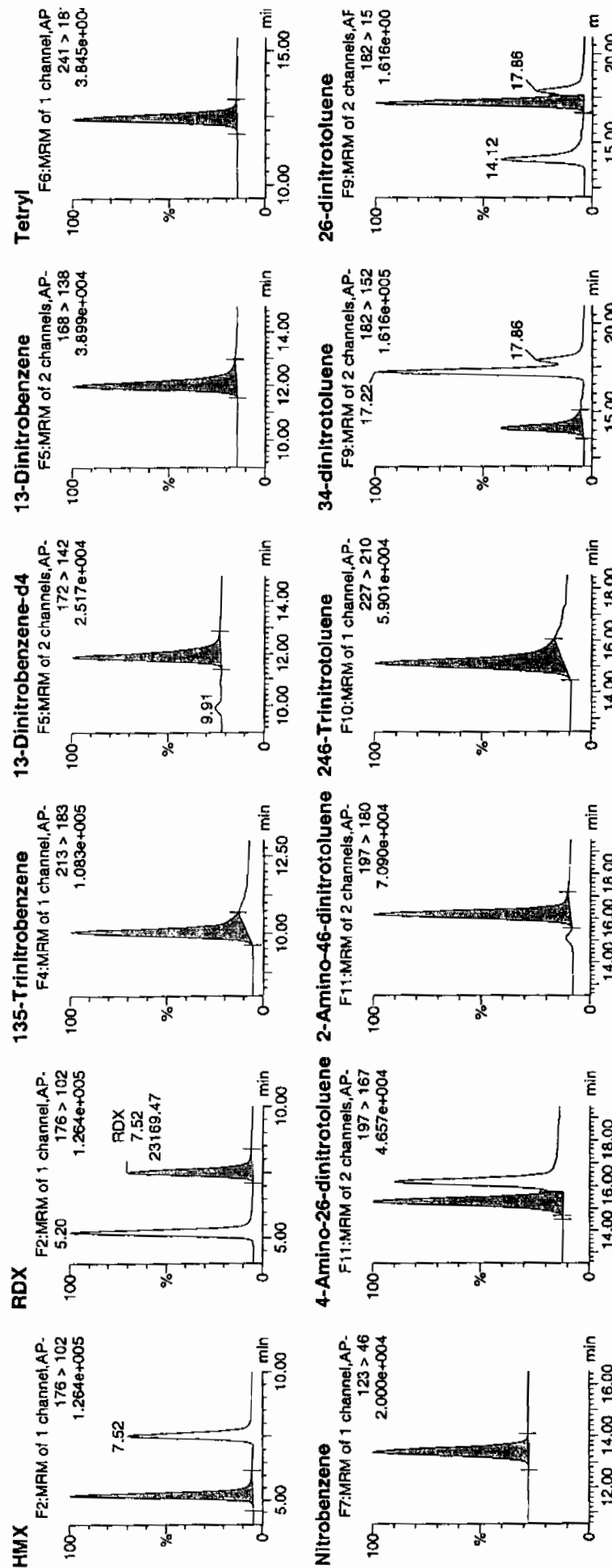
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Time: 03:04:45

ID: WXX100412-07CCV

Vial: 1:1,B

4/14/10



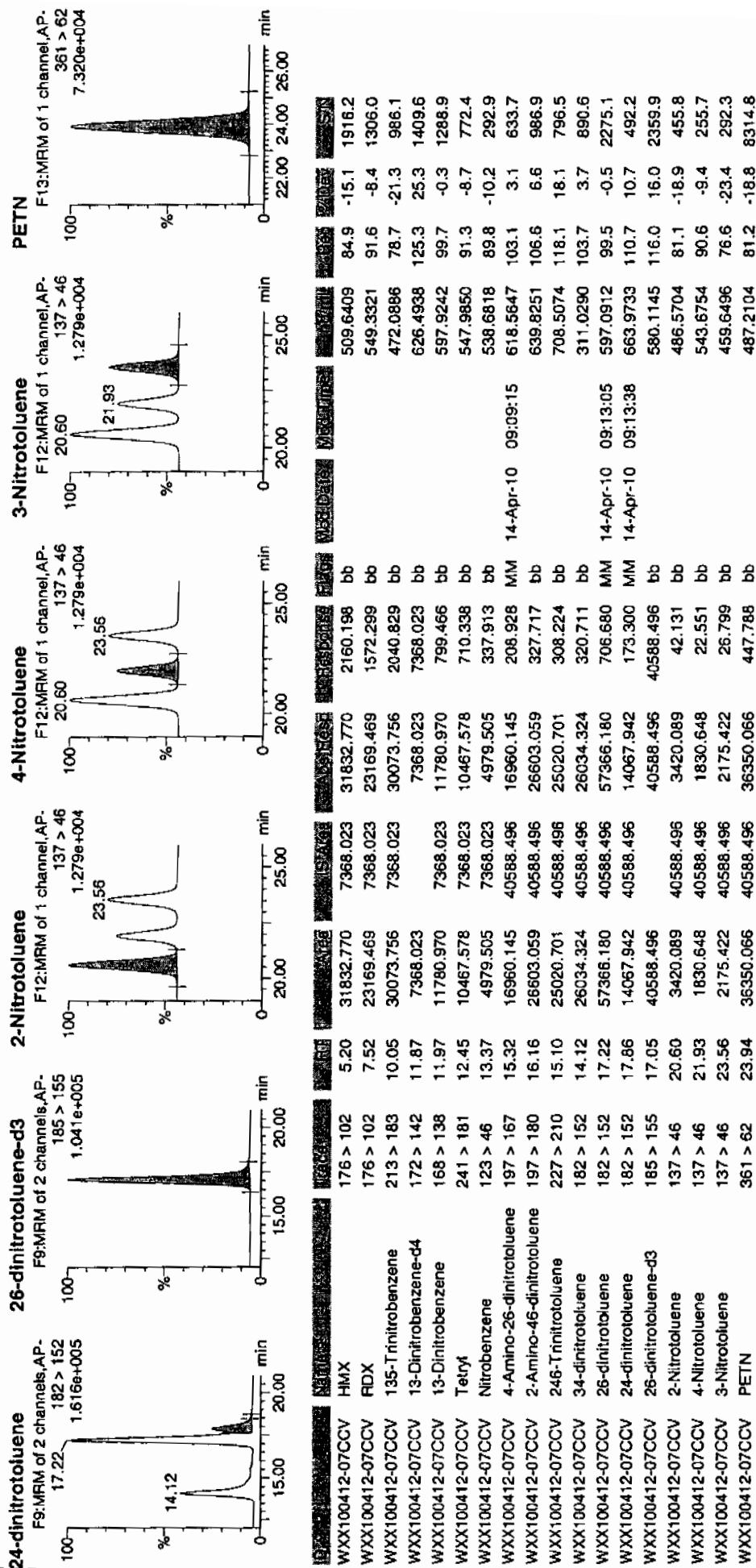
4/14/10

## Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Wed Apr 14 09:18:04 2010, Page 70 of 75

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA1.qtd, Time: Wed Apr 14 09:16:31 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/14/10  
 Time of Injection: 0304  
 Standard Number: WXX100412-07CCV  
 Data File: EXP0412073a

HMX	84.9
RDX	91.6
135-TNB	78.7
13-DNB	99.7
Tetryl	91.3
Nitrobenzene	89.8
4A-26-DNT	103.1
2A-46-DNT	106.6
246-TNT	118.1
34-DNT(surr)	103.7
26-DNT	99.5
24-DNT	110.7
2-NT	81.1
4-NT	90.6
3-NT	76.6
PETN	81.2

*Handwritten:*  
 1477  
 4/14/10

Total 1507.2

Average 94.2

*Handwritten:* 4/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412075a

Analysis Date: 14-APR-10 04:03

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	45.32	113	
1,3-Dinitrobenzene-d4	500	496.282	99	
2,4,6-Trinitrotoluene	40	44.024	110	
2,4-Dinitrotoluene	40	41.479	104	
2,6-Dinitrotoluene	40	42.183	105	
2,6-Dinitrotoluene-d3	500	507.877	102	
2-Amino-4,6-dinitrotoluene	40	34.458	86	
3,4-Dinitrotoluene	20	20.138	101	
4-Amino-2,6-dinitrotoluene	40	39.725	99	
HMX	40	43.75	109	
Nitrobenzene	40	38.532	96	
PETN	40	44.475	111	
RDX	40	45.796	114	
Tetryl	40	45.012	113	
m-Dinitrobenzene	40	43.704	109	
m-Nitrotoluene	40	41.256	103	
o-Nitrotoluene	40	41.975	105	
p-Nitrotoluene	40	32.405	81	

**Recovery Limits:**

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

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Printed: Wed Apr 14 09:18:04 2010, Page 73 of 75

Dataset: C:\MASSLYNX\New\_Exp\PRO041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

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Date: 14-Apr-2010

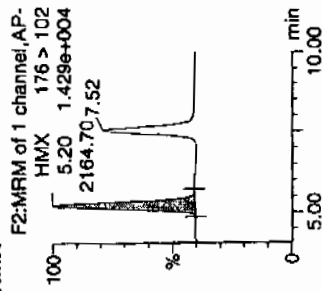
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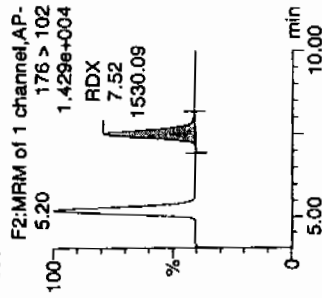
Vial: 1:1,C

Handwritten: 100% 4/14/10

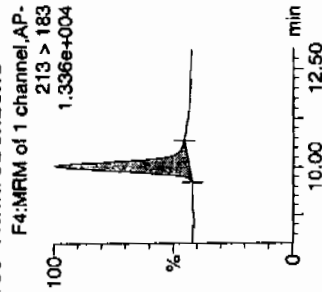
**HMX**



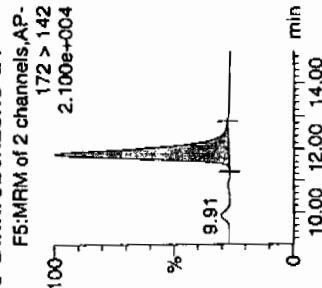
**RDX**



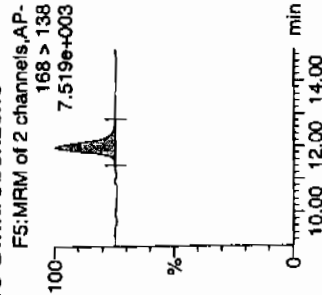
**135-Trinitrobenzene**



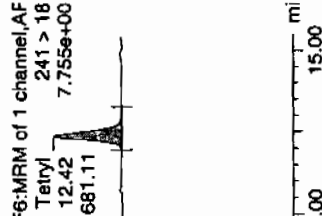
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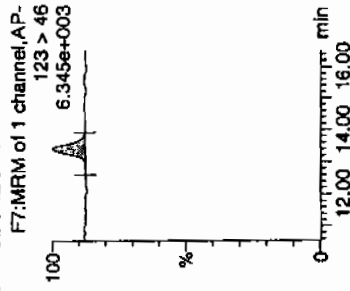
**13-Dinitrobenzene**



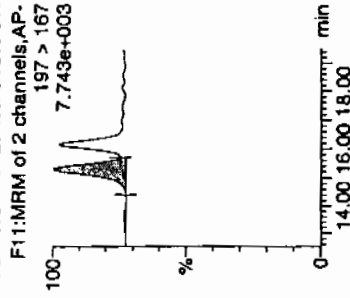
**Tetryl**



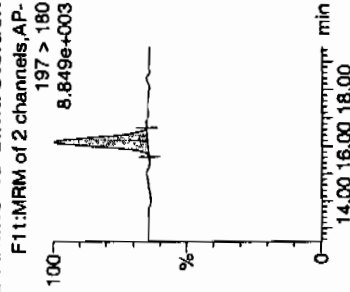
**Nitrobenzene**



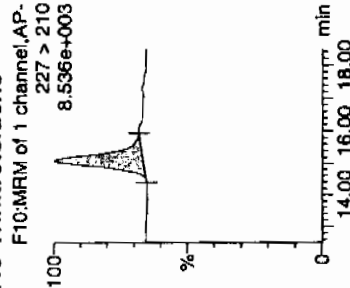
**4-Amino-26-dinitrotoluene**



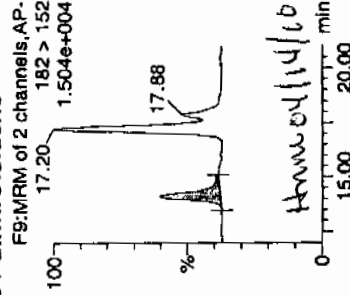
**2-Amino-46-dinitrotoluene**



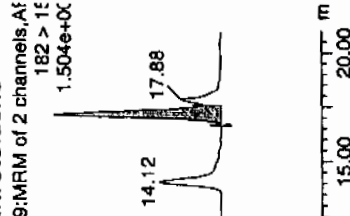
**246-Trinitrotoluene**



**34-dinitrotoluene**



**26-dinitrotoluene**





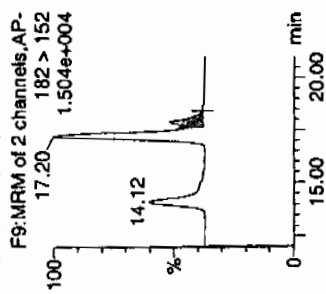
## Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

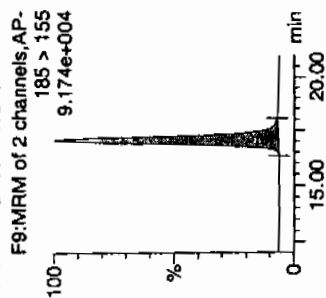
Printed: Wed Apr 14 09:18:04 2010, Page 74 of 75

Dataset: C:\MASSLYNX\New\_Exp\PRO1041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

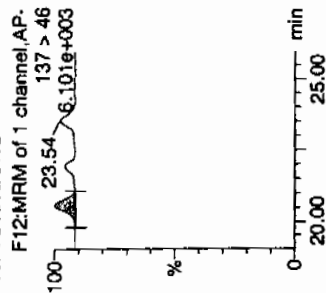
## 24-dinitrotoluene



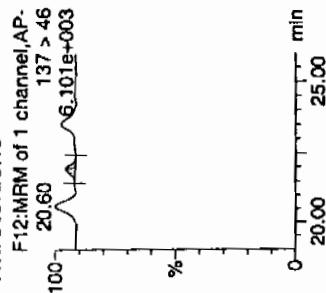
## 26-dinitrotoluene-d3



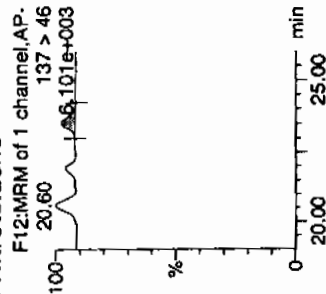
## 2-Nitrotoluene



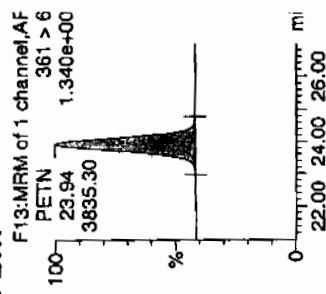
## 4-Nitrotoluene



## 3-Nitrotoluene



## PETN



WXX100412-08CRI	HMZ	176 > 102	5.20	2164.698	5836.638	2164.698	185.440	bb	43.7497	109.4	9.4	227.3
WXX100412-08CRI	RDX	176 > 102	7.52	1530.086	5836.638	1530.086	131.076	bb	45.7955	114.5	14.5	146.7
WXX100412-08CRI	135-Trinitrobenzene	213 > 183	10.05	2287.016	5836.638	2287.016	195.919	bb	45.3204	113.3	13.3	203.2
WXX100412-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	5836.638		5836.638	5836.638	bb	496.2820	99.3	-0.7	961.4
WXX100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	682.124	5836.638	682.124	58.435	bb	43.7035	109.3	9.3	83.6
WXX100412-08CRI	Tetryl	241 > 181	12.42	681.107	5836.638	681.107	58.348	bb	45.0118	112.5	12.5	100.8
WXX100412-08CRI	Nitrobenzene	123 > 46	13.37	282.153	5836.638	282.153	24.171	bb	38.5318	96.3	-3.7	23.5
WXX100412-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.32	953.577	35534.277	953.577	13.418	MM	39.7253	99.3	-0.7	57.5
WXX100412-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.16	1254.325	35534.277	1254.325	17.650	bb	34.4584	86.1	-13.9	90.0
WXX100412-08CRI	246-Trinitrotoluene	227 > 210	15.10	1361.084	35534.277	1361.084	19.152	bb	44.0236	110.1	10.1	47.0
WXX100412-08CRI	34-dinitrotoluene	182 > 152	14.12	1475.733	35534.277	1475.733	20.765	bb	20.1381	100.7	0.7	71.1
WXX100412-08CRI	26-dinitrotoluene	182 > 152	17.20	3548.120	35534.277	3548.120	49.925	MM	42.1831	105.5	5.5	195.5
WXX100412-08CRI	24-dinitrotoluene	182 > 152	17.88	769.393	35534.277	769.393	10.826	MM	41.4786	103.7	3.7	43.1
WXX100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.05	35534.277		35534.277	35534.277	bb	507.8766	101.6	1.6	2476.2
WXX100412-08CRI	2-Nitrotoluene	137 > 46	20.60	258.301	35534.277	258.301	3.635	bb	41.9749	104.9	4.9	51.8
WXX100412-08CRI	4-Nitrotoluene	137 > 46	21.97	95.525	35534.277	95.525	1.344	bb	32.4046	81.0	-19.0	24.9
WXX100412-08CRI	3-Nitrotoluene	137 > 46	23.54	170.943	35534.277	170.943	2.405	bb	41.2563	103.1	3.1	35.7
WXX100412-08CRI	PETN	361 > 62	23.94	3835.305	35534.277	3835.305	53.966	bb	44.4749	111.2	11.2	290.1

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/14/10  
 Time of Injection 0403  
 Standard Number WXX100412-08CRI  
 Data File EXP0412075a

HMX	109.4
RDX	114.5
135-TNB	113.3
13-DNB	109.3
Tetryl	112.5
Nitrobenzene	96.3
4A-26-DNT	99.3
2A-46-DNT	86.1
246-TNT	110.1
34-DNT(surr)	100.7
26-DNT	105.5
24-DNT	103.7
2-NT	104.9
4-NT	81.0
3-NT	103.1
PETN	111.2

*Handwritten:* 4/14/10

Total 1660.9

Average 103.8

*Handwritten:* 4/14/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412086a

Analysis Date: 14-APR-10 09:28

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	300	338.999	113	
4-Amino-2,6-dinitrotoluene	600	625.449	104	
HMX	600	728.534	121	*
Nitrobenzene	600	648.848	108	
PETN	600	598.437	100	
RDX	600	758.439	126	*
Tetryl	600	659.961	110	
m-Dinitrobenzene	600	630.18	105	
m-Nitrotoluene	600	494.168	82	
o-Nitrotoluene	600	509.293	85	
p-Nitrotoluene	600	568.664	95	
1,3,5-Trinitrobenzene	600	640.11	107	
1,3-Dinitrobenzene-d4	500	503.847	101	
2,4,6-Trinitrotoluene	600	719.661	120	
2,4-Dinitrotoluene	600	682.456	114	
2,6-Dinitrotoluene	600	634.981	106	
2,6-Dinitrotoluene-d3	500	526.626	105	
2-Amino-4,6-dinitrotoluene	600	583.91	97	

Recovery Limits:

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

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

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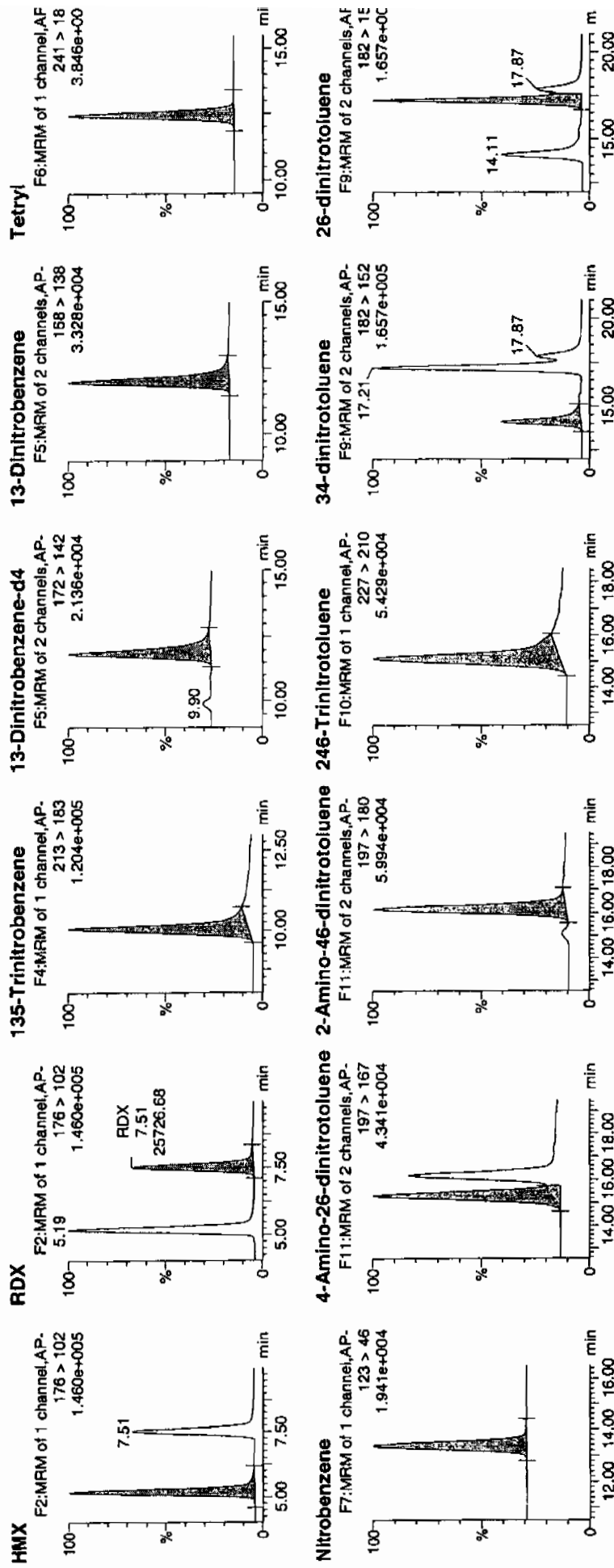
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Time: 09:28:18

ID: WXX100412-07CCV

Vial: 1:1,B

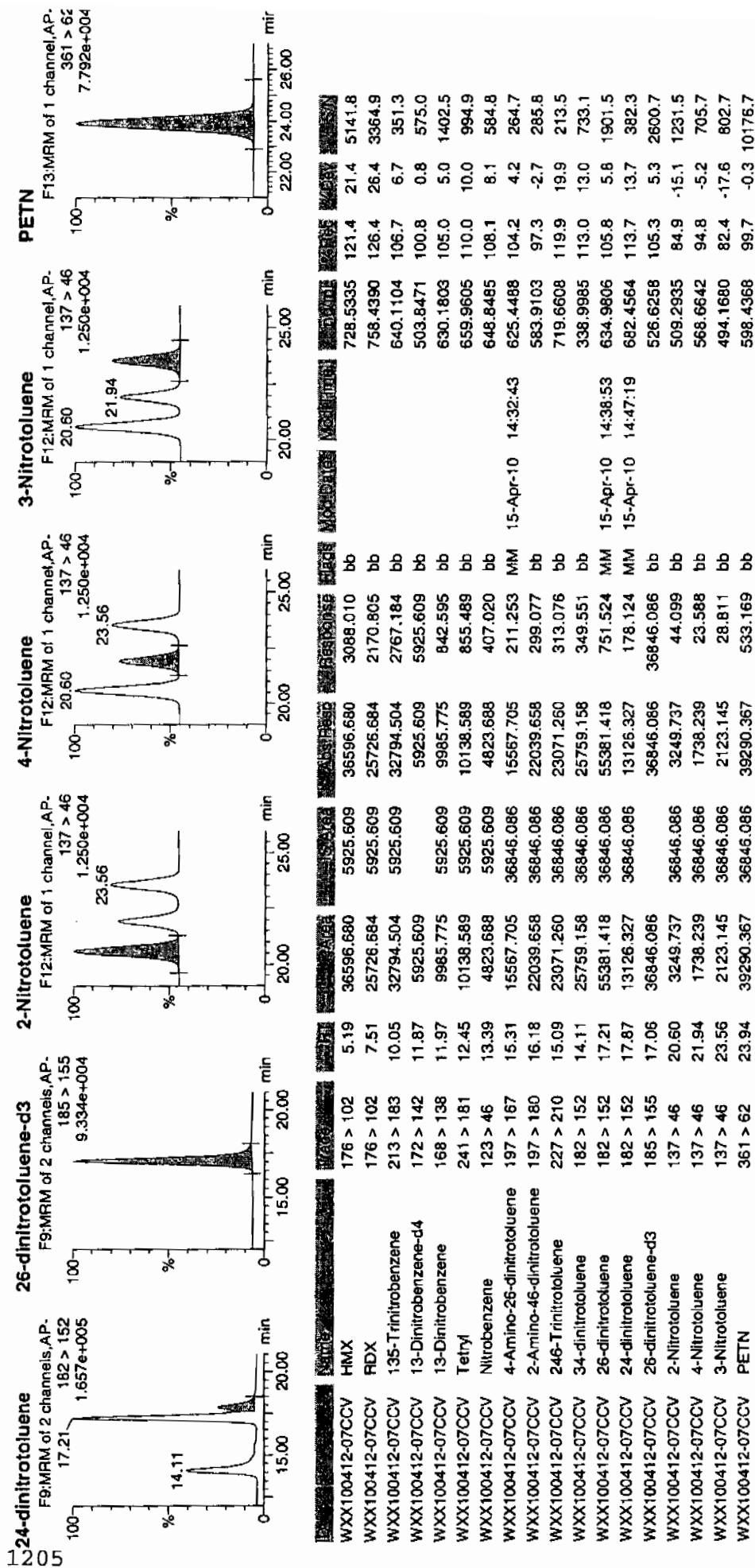
10/15/10



10/15/10

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

O Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/14/10  
 Time of Injection: 0928  
 Standard Number: WXX100412-07CCV  
 Data File: EXP0412086a

HMX	121.4
RDX	126.4
135-TNB	106.7
13-DNB	105.0
Tetryl	110.0
Nitrobenzene	108.1
4A-26-DNT	104.2
2A-46-DNT	97.3
246-TNT	119.9
34-DNT(surr)	113.0
26-DNT	105.8
24-DNT	113.7
2-NT	84.9
4-NT	94.8
3-NT	82.4
PETN	99.7

4/15/10

Total 1693.3

4/15/10

Average 105.8

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412088a

Analysis Date: 14-APR-10 10:27

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	45.309	113	
1,3-Dinitrobenzene-d4	500	561.881	112	
2,4,6-Trinitrotoluene	40	39.504	99	
2,4-Dinitrotoluene	40	44.534	111	
2,6-Dinitrotoluene	40	41.071	103	
2,6-Dinitrotoluene-d3	500	564.12	113	
2-Amino-4,6-dinitrotoluene	40	40.361	101	
3,4-Dinitrotoluene	20	19.605	98	
4-Amino-2,6-dinitrotoluene	40	41.914	105	
HMX	40	44.962	112	
Nitrobenzene	40	41.366	103	
PETN	40	43.945	110	
RDX	40	46.716	117	
Tetryl	40	42.195	105	
m-Dinitrobenzene	40	43.864	110	
m-Nitrotoluene	40	39.461	99	
o-Nitrotoluene	40	36.318	91	
p-Nitrotoluene	40	34.986	87	

**Recovery Limits:**

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

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

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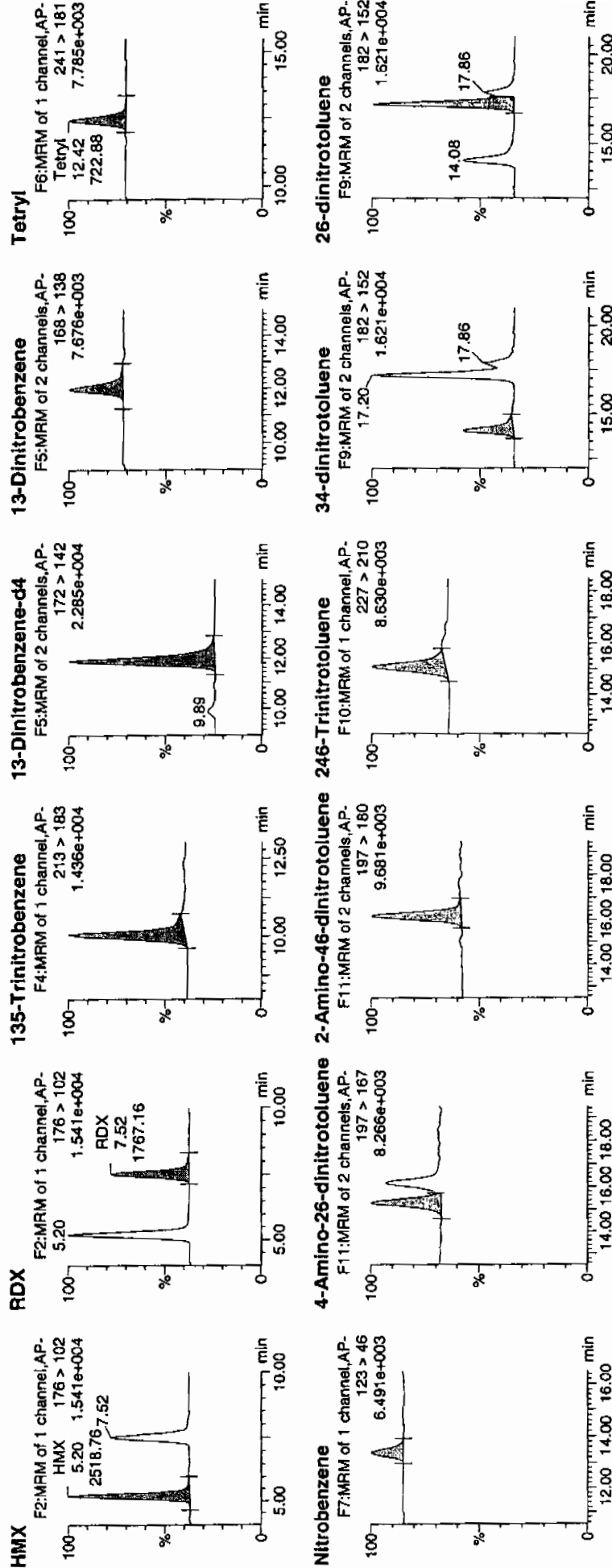
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ID: WXX100412-08CRI

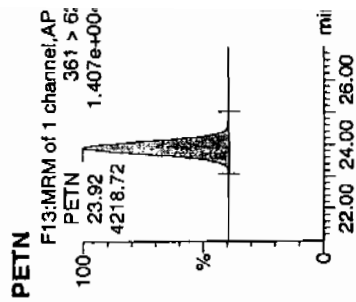
Vial: 1:1,C

10/17  
4/15/10



4/15/10





# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/14/10  
 Time of Injection 1027  
 Standard Number WXX100412-08CRI  
 Data File EXP0412088a

HMX	112.4
RDX	116.8
135-TNB	113.3
13-DNB	109.7
Tetryl	105.5
Nitrobenzene	103.4
4A-26-DNT	104.8
2A-46-DNT	100.9
246-TNT	98.8
34-DNT(surr)	98.0
26-DNT	102.7
24-DNT	111.3
2-NT	90.8
4-NT	87.5
3-NT	98.7
PETN	109.9

*Handwritten:* 1117  
4/15/10

Total 1664.5

Average 104.0

*Handwritten:* Hama 4/15/10

ICV Limits 85-115%  
 CRI Limits 70-130%  
 CCV Limits 85-115%

No single analyte > +/- 60%

**7A**  
**Explosives Continuing Calibration Verification**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412099a

Analysis Date: 14-APR-10 15:51

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p-Nitrotoluene	600	537.354	90	
1,3,5-Trinitrobenzene	600	587.126	98	
1,3-Dinitrobenzene-d4	500	491.595	98	
2,4,6-Trinitrotoluene	600	674.619	112	
2,4-Dinitrotoluene	600	626.903	104	
2,6-Dinitrotoluene	600	553.103	92	
2,6-Dinitrotoluene-d3	500	536.906	107	
2-Amino-4,6-dinitrotoluene	600	667.633	111	
3,4-Dinitrotoluene	300	312.147	104	
4-Amino-2,6-dinitrotoluene	600	540.22	90	
HMX	600	594.344	99	
Nitrobenzene	600	585.337	98	
PETN	600	591.137	99	
RDX	600	696.633	116	
Tetryl	600	580.157	97	
m-Dinitrobenzene	600	589.943	98	
m-Nitrotoluene	600	455.366	76	*
o-Nitrotoluene	600	473.586	79	*

**Recovery Limits:**

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

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

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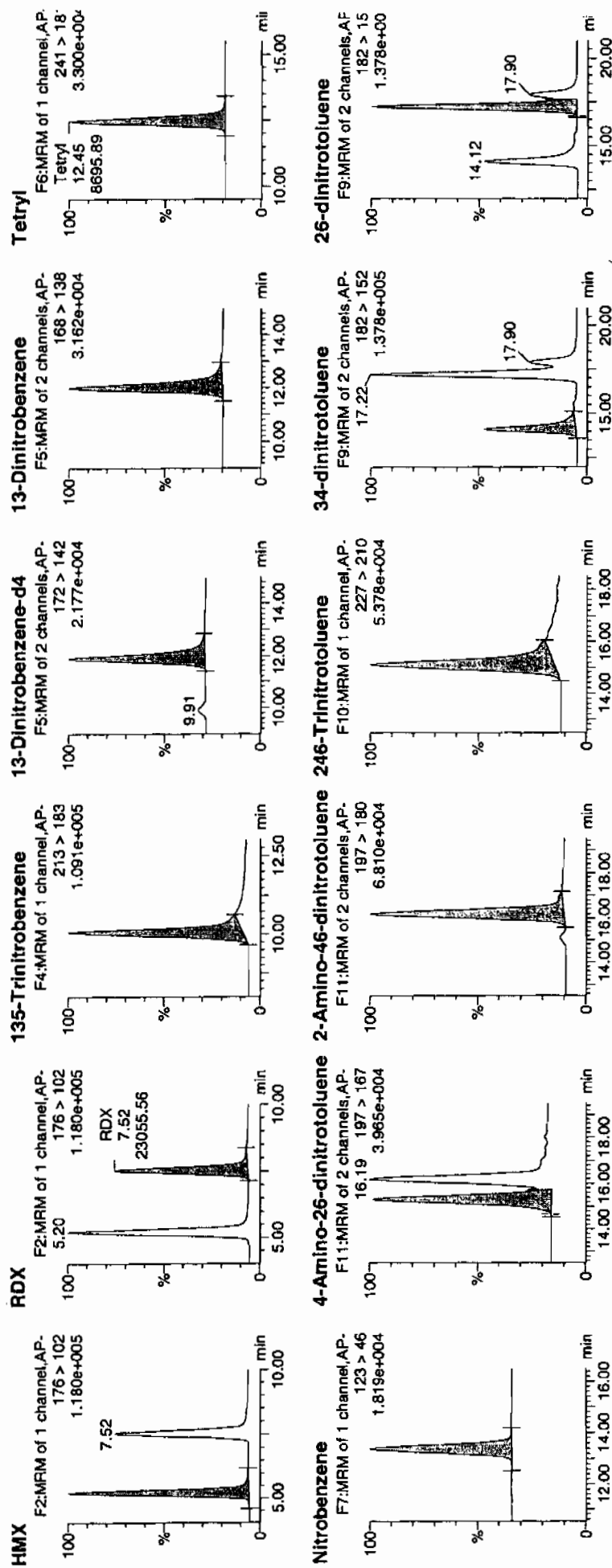
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ID: WXX100412-07CCV

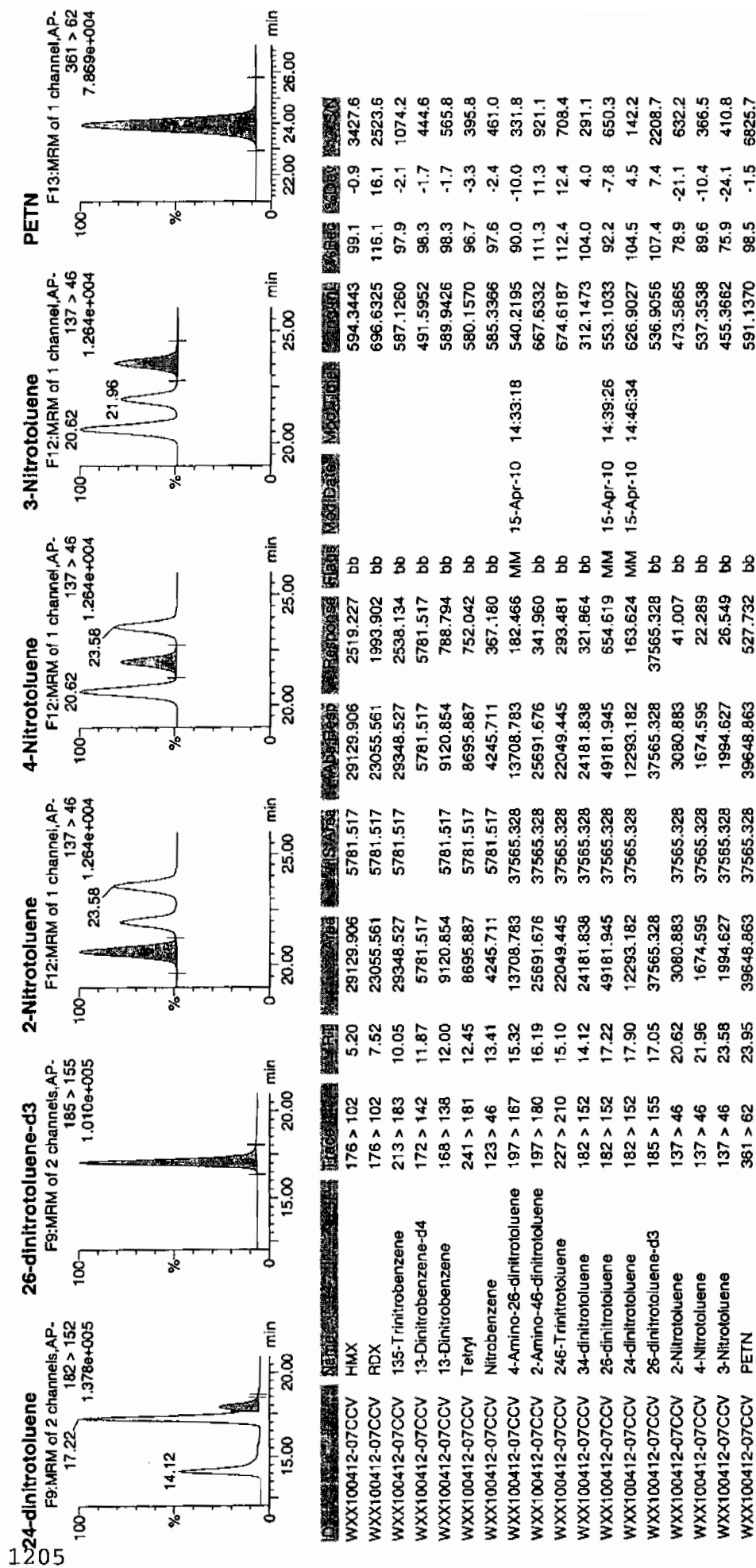
Vial: 1:1,B

1/15/10



24/11/10

Dataset: C:\MASSLYNX\New\_Exp\_PROV041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/14/10  
 Time of Injection: 1551  
 Standard Number: WXX100412-07CCV  
 Data File: EXP0412099a

HMX	99.1
RDX	116.1
135-TNB	97.9
13-DNB	98.3
Tetryl	96.7
Nitrobenzene	97.6
4A-26-DNT	90.0
2A-46-DNT	111.3
246-TNT	112.4
34-DNT(surr)	104.0
26-DNT	92.2
24-DNT	104.5
2-NT	78.9
4-NT	89.6
3-NT	75.9
PETN	98.5

*Handwritten:* 11/15/10

Total 1563.0

*Handwritten:* Done 04/15/10

Average 97.7

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412101a

Analysis Date: 14-APR-10 16:50

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	44.986	112	
1,3-Dinitrobenzene-d4	500	543.053	109	
2,4,6-Trinitrotoluene	40	43.225	108	
2,4-Dinitrotoluene	40	42.315	106	
2,6-Dinitrotoluene	40	41.752	104	
2,6-Dinitrotoluene-d3	500	539.814	108	
2-Amino-4,6-dinitrotoluene	40	41.883	105	
3,4-Dinitrotoluene	20	22.167	111	
4-Amino-2,6-dinitrotoluene	40	43.721	109	
HMX	40	42.86	107	
Nitrobenzene	40	41.08	103	
PETN	40	51.56	129	
RDX	40	45.378	113	
Tetryl	40	42.124	105	
m-Dinitrobenzene	40	42.925	107	
m-Nitrotoluene	40	44.02	110	
o-Nitrotoluene	40	38.263	96	
p-Nitrotoluene	40	43.808	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 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

**Quantify Sample Report**

GEL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

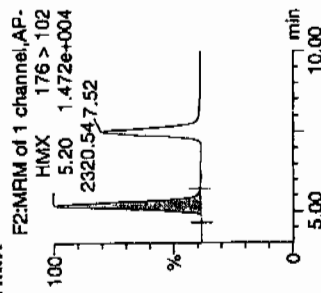
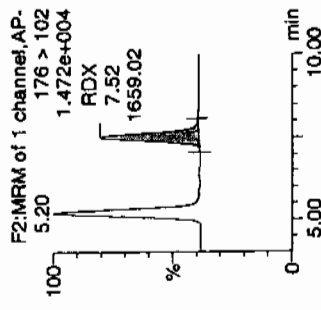
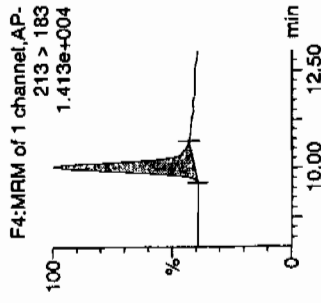
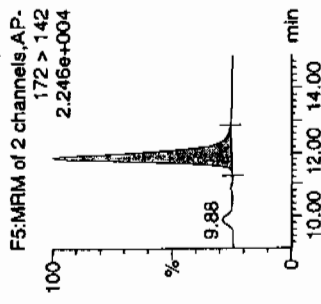
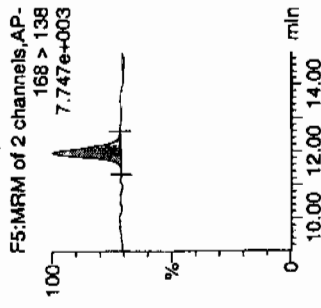
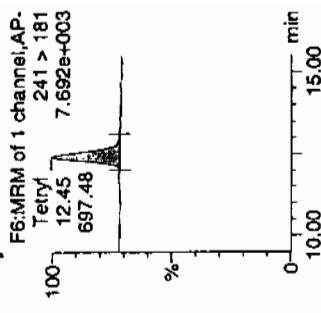
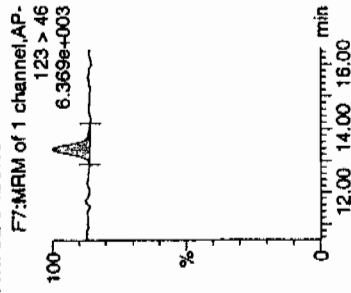
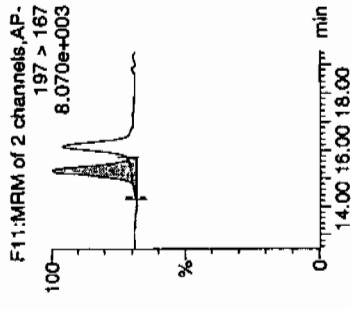
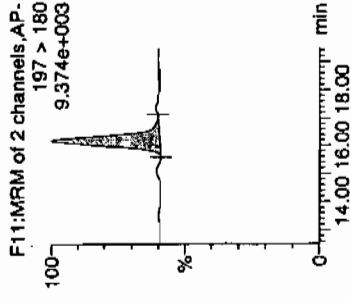
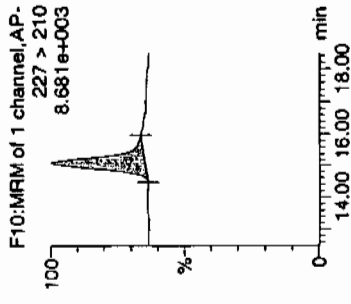
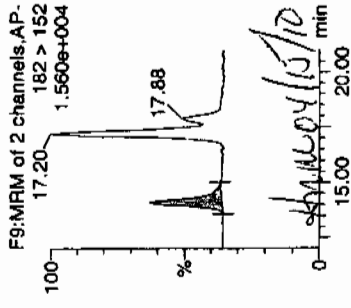
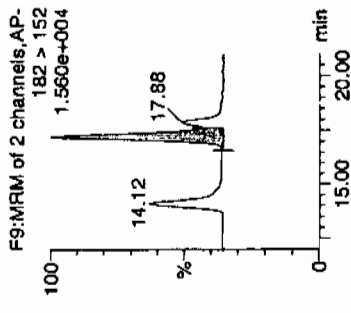
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Date: 14-Apr-2010

Time: 16:50:52

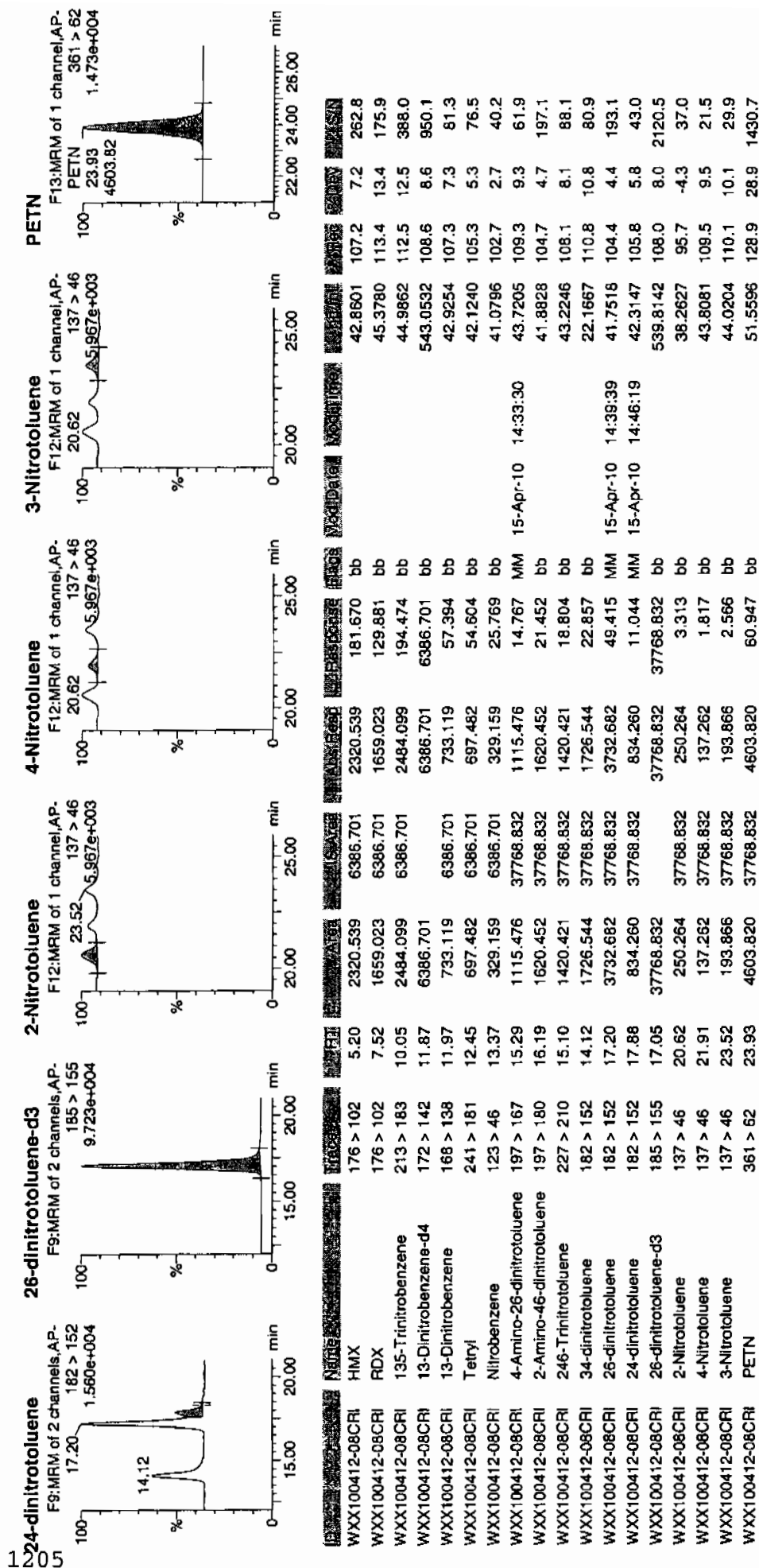
ID: WXX100412-08CRI

Vial: 1:1,C

4/15/10  
MPT**HMX****RDX****135-Trinitrobenzene****13-Dinitrobenzene-d4****13-Dinitrobenzene****Tetryl****Nitrobenzene****4-Amino-26-dinitrotoluene****2-Amino-46-dinitrotoluene****246-Trinitrotoluene****34-dinitrotoluene****26-dinitrotoluene**



Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/14/10  
 Time of Injection 1650  
 Standard Number WXX100412-08CRI  
 Data File EXP0412101a

HMX	107.2
RDX	113.4
135-TNB	112.5
13-DNB	107.3
Tetryl	105.3
Nitrobenzene	102.7
4A-26-DNT	109.3
2A-46-DNT	104.7
246-TNT	108.1
34-DNT(surr)	110.8
26-DNT	104.4
24-DNT	105.8
2-NT	95.7
4-NT	109.5
3-NT	110.1
PETN	128.9

*MTT  
4/14/10*

Total 1735.7

Average 108.5

*Handwritten: 108.5 4/14/10*

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412110a

Analysis Date: 14-APR-10 21:16

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	622.706	104	
1,3-Dinitrobenzene-d4	500	590.309	118	
2,4,6-Trinitrotoluene	600	734.878	122	*
2,4-Dinitrotoluene	600	625.592	104	
2,6-Dinitrotoluene	600	616.066	103	
2,6-Dinitrotoluene-d3	500	623.79	125	*
2-Amino-4,6-dinitrotoluene	600	702.949	117	
3,4-Dinitrotoluene	300	328.505	110	
4-Amino-2,6-dinitrotoluene	600	656.808	109	
HMX	600	703.603	117	
Nitrobenzene	600	604.039	101	
PETN	600	560.884	93	
RDX	600	812.713	135	*
Tetryl	600	586.004	98	
m-Dinitrobenzene	600	583.764	97	
m-Nitrotoluene	600	456.606	76	*
o-Nitrotoluene	600	533.736	89	
p-Nitrotoluene	600	563.245	94	

Recovery Limits:

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

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

# Identify Sample Report

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

Printed: Thu Apr 15 14:53:43 2010, Page 69 of 137

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

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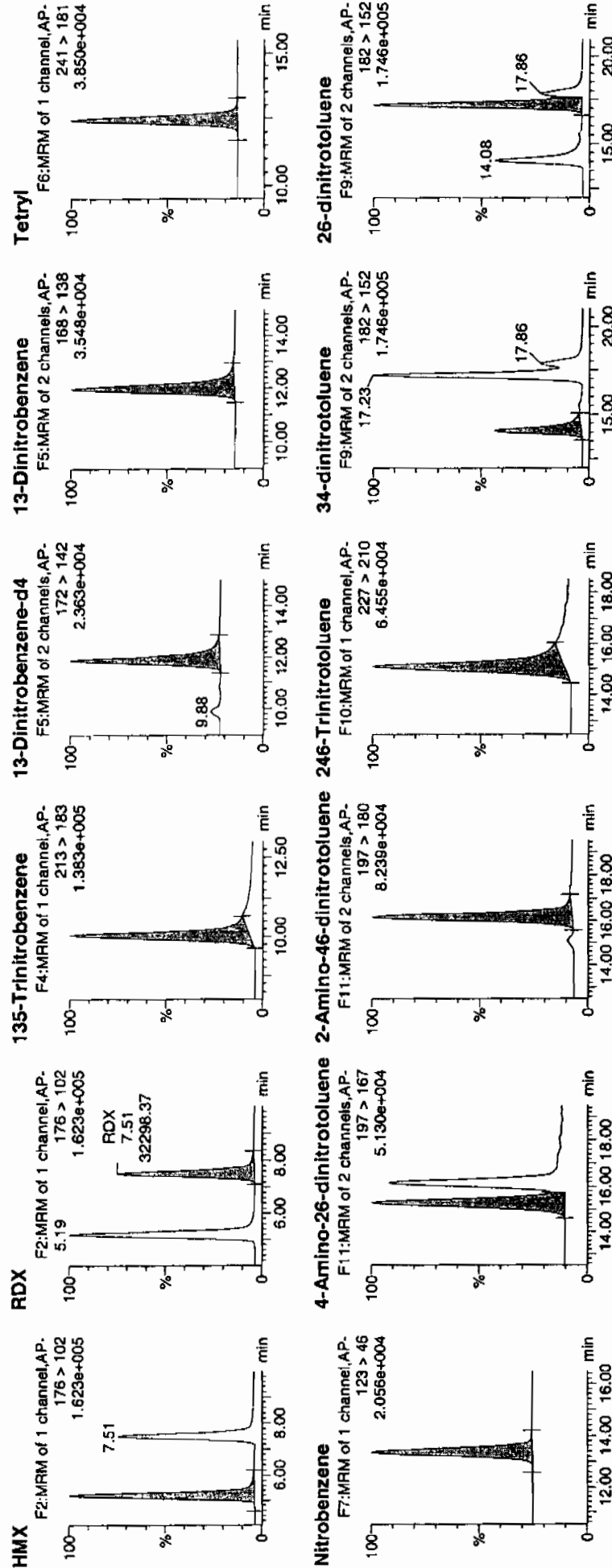
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Time: 21:16:17

ID: WXX100412-07CCV

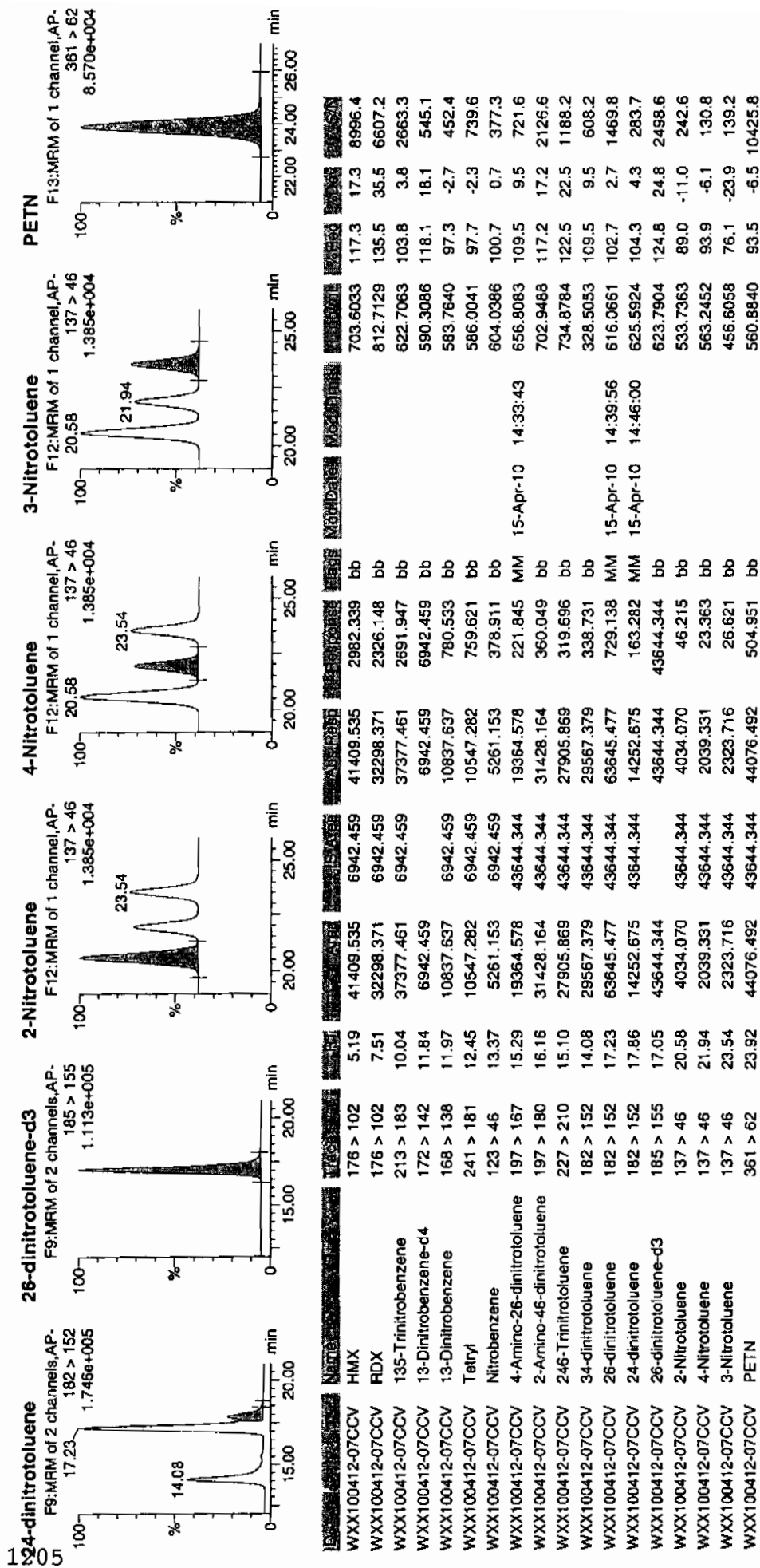
Vial: 1:1,B

*Handwritten:* 1/1/10



*Handwritten:* 4/1/10

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/14/10  
 Time of Injection: 2116  
 Standard Number: WXX100412-07CCV  
 Data File: EXP0412110a

HMX	117.3
RDX	135.5
135-TNB	103.8
13-DNB	97.3
Tetryl	97.7
Nitrobenzene	100.7
4A-26-DNT	109.5
2A-46-DNT	117.2
246-TNT	122.5
34-DNT(surr)	109.5
26-DNT	102.7
24-DNT	104.3
2-NT	89.0
4-NT	93.9
3-NT	76.1
PETN	93.5

*100.7  
+1.0/1.5*

Total 1670.5

Average 104.4

*HMM 02 4/15/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412112a

Analysis Date: 14-APR-10 22:15

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	50.545	126	
1,3-Dinitrobenzene-d4	500	569.204	114	
2,4,6-Trinitrotoluene	40	41.909	105	
2,4-Dinitrotoluene	40	39.806	100	
2,6-Dinitrotoluene	40	41.957	105	
2,6-Dinitrotoluene-d3	500	594.929	119	
2-Amino-4,6-dinitrotoluene	40	38.529	96	
3,4-Dinitrotoluene	20	23.661	118	
4-Amino-2,6-dinitrotoluene	40	40.463	101	
HMX	40	53.023	133	*
Nitrobenzene	40	40.392	101	
PETN	40	47.454	119	
RDX	40	44.101	110	
Tetryl	40	46.996	117	
m-Dinitrobenzene	40	43.619	109	
m-Nitrotoluene	40	40.451	101	
o-Nitrotoluene	40	32.28	81	
p-Nitrotoluene	40	35.73	89	

**Recovery Limits:**

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

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412112a

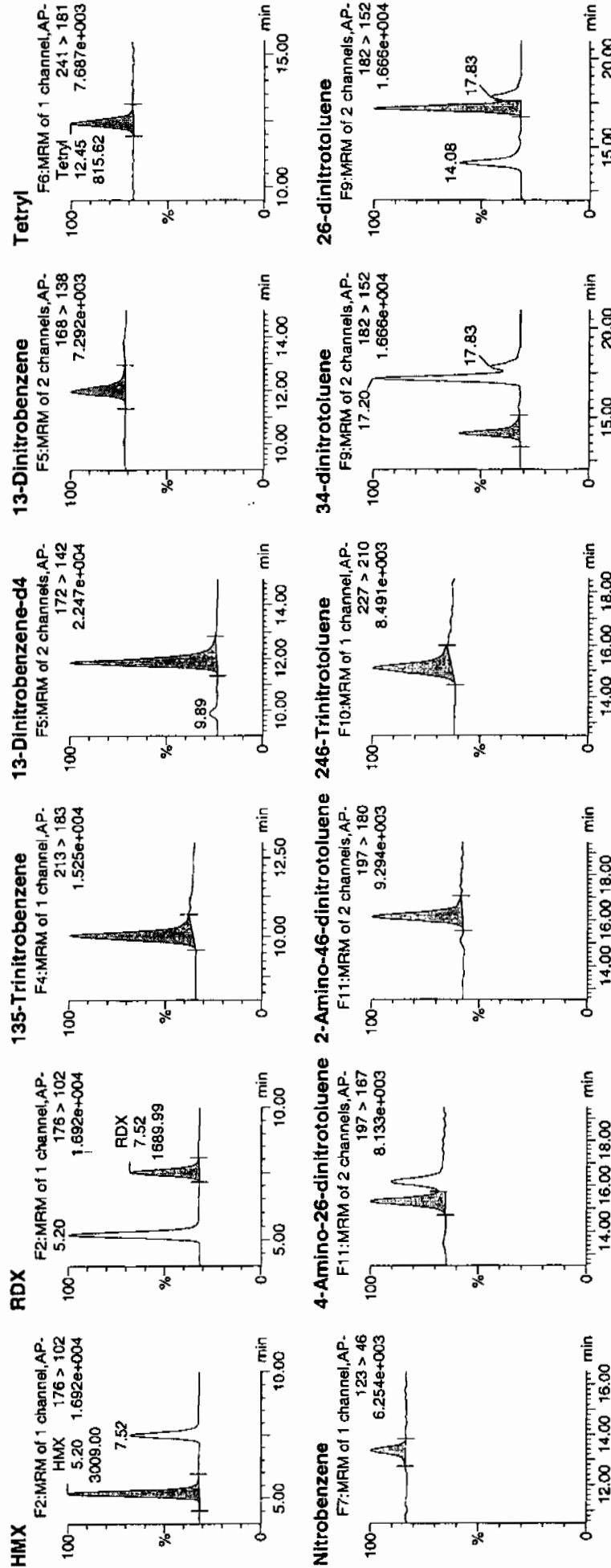
Date: 14-Apr-2010

Time: 22:15:20

ID: WXX100412-08CRI

Vial: 1:1,C

WXX  
4/15/10

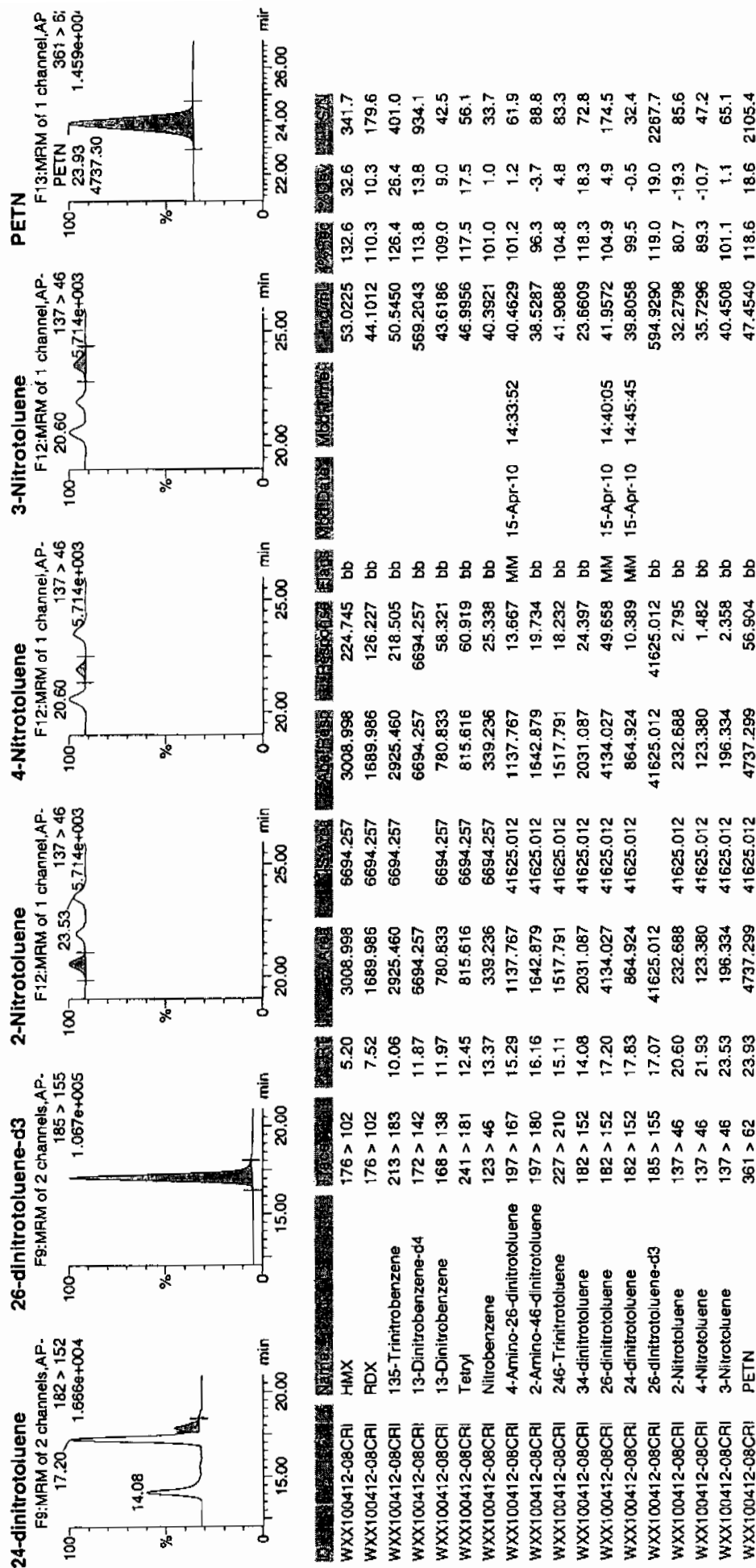


4/15/10



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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/14/10  
 Time of Injection 2215  
 Standard Number WXX100412-08CRI  
 Data File EXP0412112a

HMX	132.6
RDX	110.3
135-TNB	126.4
13-DNB	109.0
Tetryl	117.5
Nitrobenzene	101.0
4A-26-DNT	101.2
2A-46-DNT	96.3
246-TNT	104.8
34-DNT(surr)	118.3
26-DNT	104.9
24-DNT	99.5
2-NT	80.7
4-NT	89.3
3-NT	101.1
PETN	118.6

*Handwritten:* 11/17  
4/15/10

Total 1711.5

Average 107.0

*Handwritten:* HMM 04/15/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412123a

Analysis Date: 15-APR-10 03:39

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	600	655.933	109	
Nitrobenzene	600	586.609	98	
PETN	600	677.162	113	
RDX	600	767.694	128	*
Tetryl	600	610.361	102	
m-Dinitrobenzene	600	620.601	103	
m-Nitrotoluene	600	525.023	88	
o-Nitrotoluene	600	538.018	90	
p-Nitrotoluene	600	583.964	97	
1,3,5-Trinitrobenzene	600	608.031	101	
1,3-Dinitrobenzene-d4	500	550.38	110	
2,4,6-Trinitrotoluene	600	708.613	118	
2,4-Dinitrotoluene	600	665.37	111	
2,6-Dinitrotoluene	600	586.777	98	
2,6-Dinitrotoluene-d3	500	551.957	110	
2-Amino-4,6-dinitrotoluene	600	641.691	107	
3,4-Dinitrotoluene	300	300.233	100	
4-Amino-2,6-dinitrotoluene	600	616.042	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

Dataset: C:\MASSLYNX\New\_Exp\PRO1041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

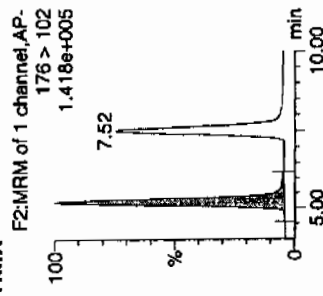
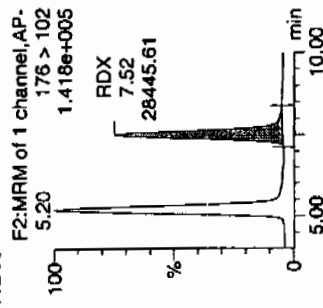
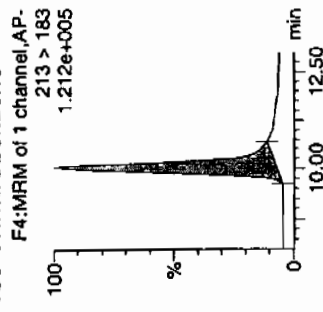
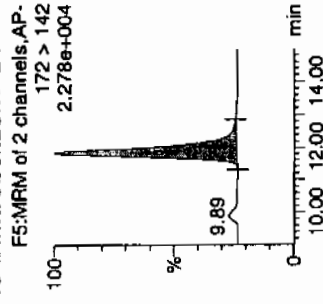
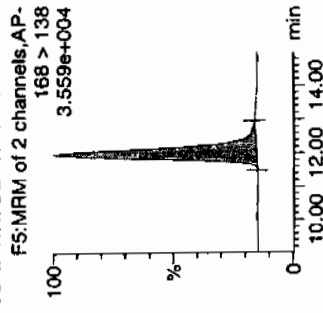
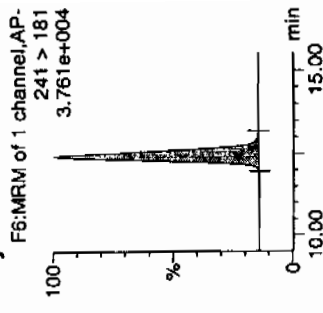
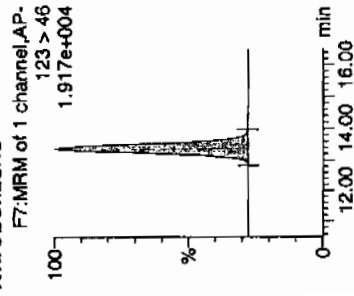
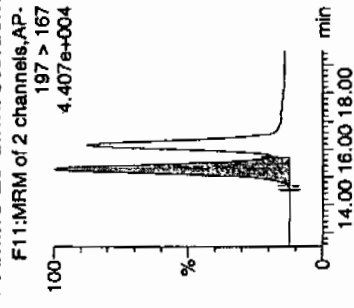
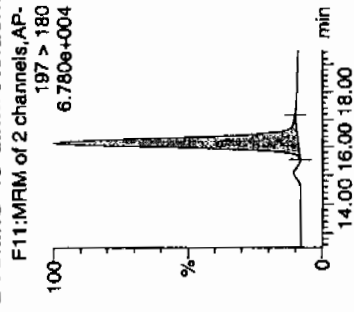
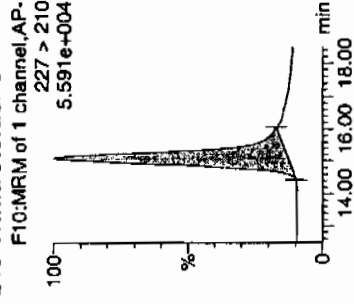
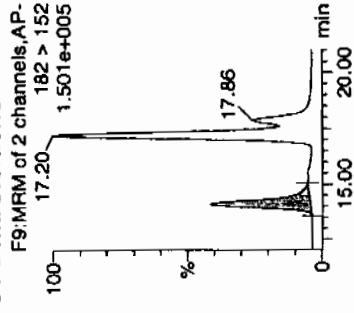
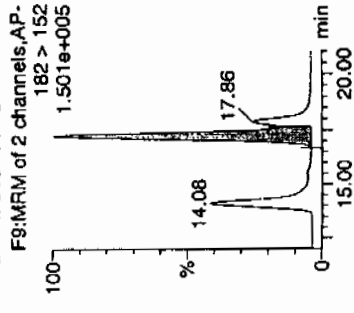
Name: C:\MASSLYNX\NEW\_EXP\PRO1Data\EXP0412123a

Date: 15-Apr-2010

Time: 03:39:53

ID: WXX100412-07CCV

Vial: 1:1,B

15/10  
4/15/10**HMX****RDX****135-Trinitrobenzene****13-Dinitrobenzene-d4****13-Dinitrobenzene****Tetryl****Nitrobenzene****4-Amino-26-dinitrotoluene****2-Amino-46-dinitrotoluene****246-Trinitrotoluene****34-dinitrotoluene****26-dinitrotoluene**

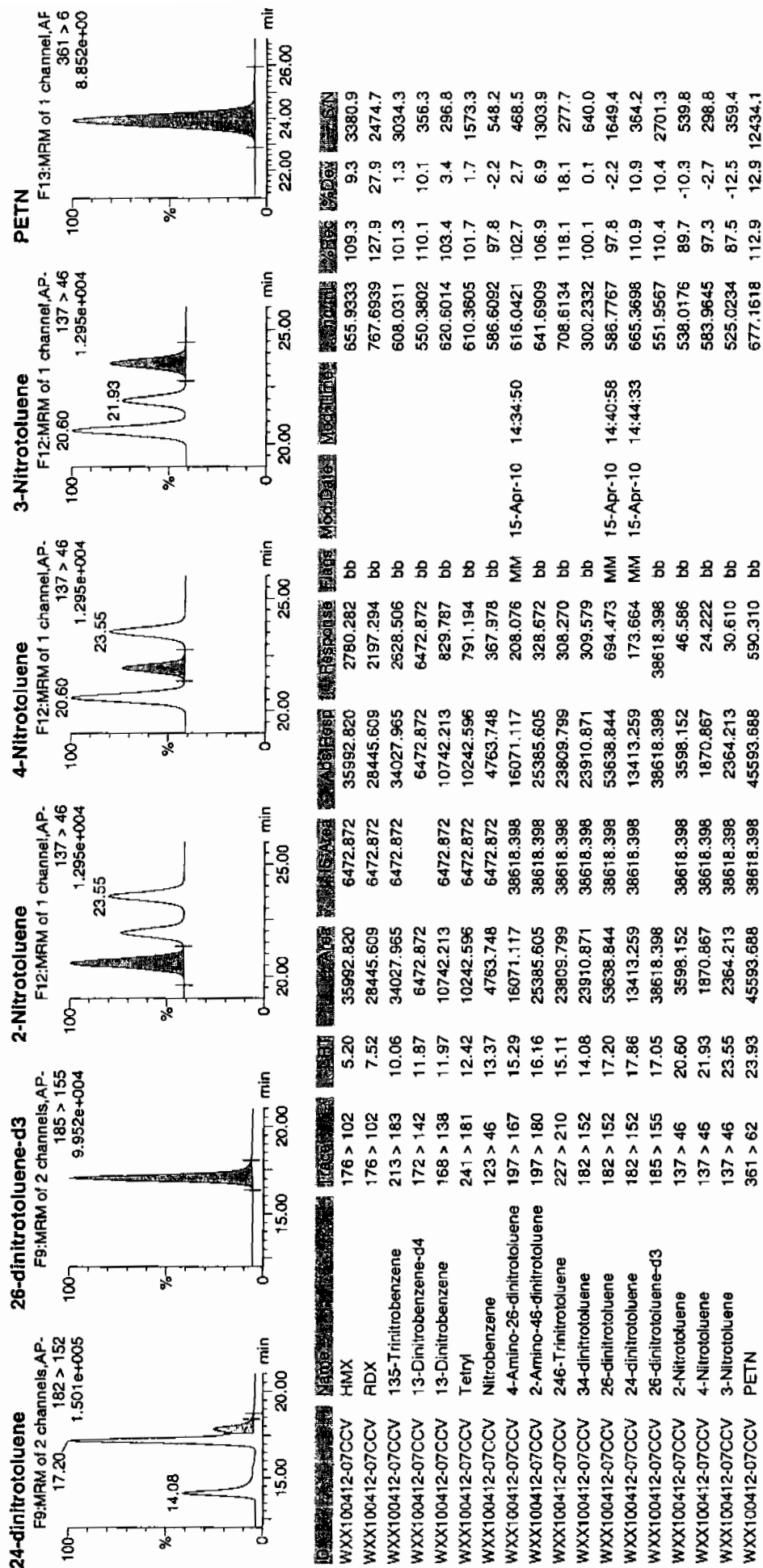
4/15/10

## Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 96 of 137

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/15/10  
 Time of Injection: 0339  
 Standard Number: WXX100412-07CCV  
 Data File: EXP0412123a

HMX	109.3
RDX	127.9
135-TNB	101.3
13-DNB	103.4
Tetryl	101.7
Nitrobenzene	97.8
4A-26-DNT	102.7
2A-46-DNT	106.9
246-TNT	118.1
34-DNT(surr)	100.1
26-DNT	97.8
24-DNT	110.9
2-NT	89.7
4-NT	97.3
3-NT	87.5
PETN	112.9

*Handwritten:* 107.7  
4/15/10

Total 1665.3

Average 104.1

*Handwritten:* HMM 04/15/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412125a

Analysis Date: 15-APR-10 04:38

LCMSMS ID: 203

Column ID: Phenomenex Ultra<sup>®</sup>carb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	43.213	108	
1,3-Dinitrobenzene-d4	500	564.409	113	
2,4,6-Trinitrotoluene	40	45.284	113	
2,4-Dinitrotoluene	40	46.283	116	
2,6-Dinitrotoluene	40	40.418	101	
2,6-Dinitrotoluene-d3	500	573.452	115	
2-Amino-4,6-dinitrotoluene	40	39.776	99	
3,4-Dinitrotoluene	20	20.678	103	
4-Amino-2,6-dinitrotoluene	40	39.446	99	
HMX	40	48.201	121	
Nitrobenzene	40	40.808	102	
PETN	40	53.641	134	*
RDX	40	49.515	124	
Tetryl	40	39.748	99	
m-Dinitrobenzene	40	40.378	101	
m-Nitrotoluene	40	41.837	105	
o-Nitrotoluene	40	40.859	102	
p-Nitrotoluene	40	46.373	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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

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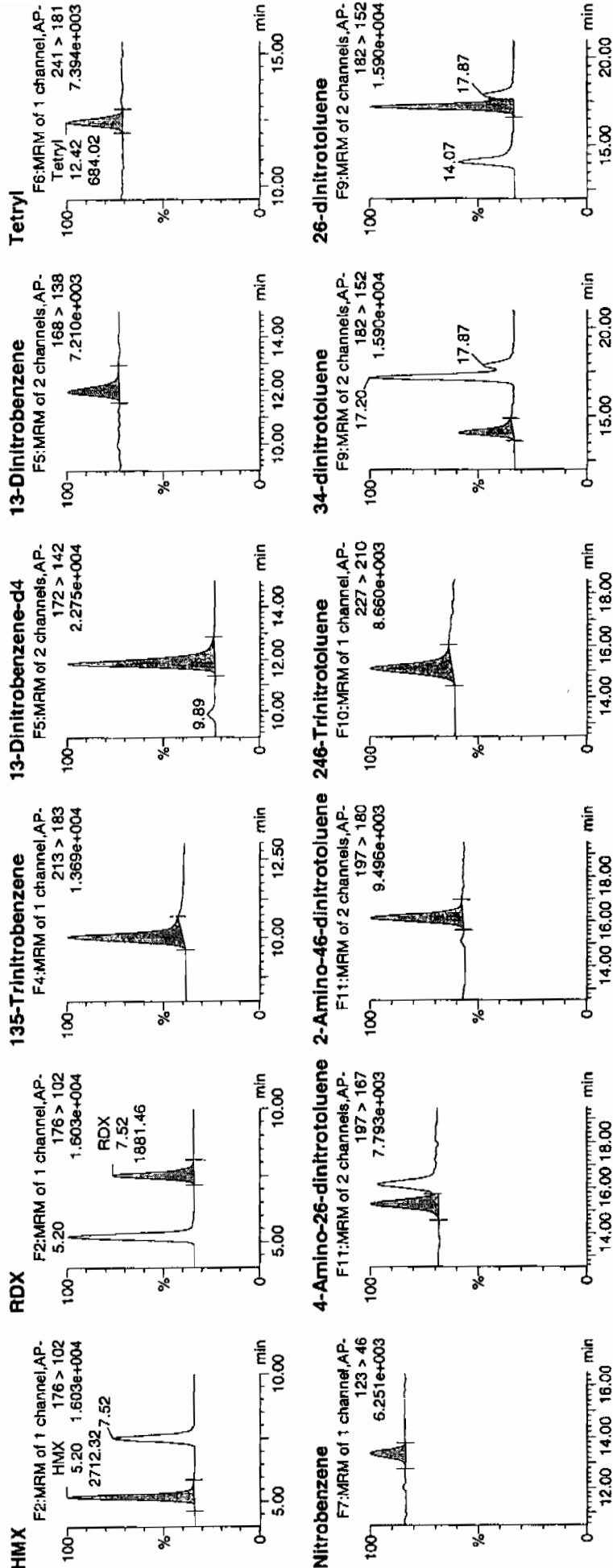
Date: 15-Apr-2010

Time: 04:38:55

ID: WXX100412-08CRI

Vial: 1:1,C

15/10



15/10

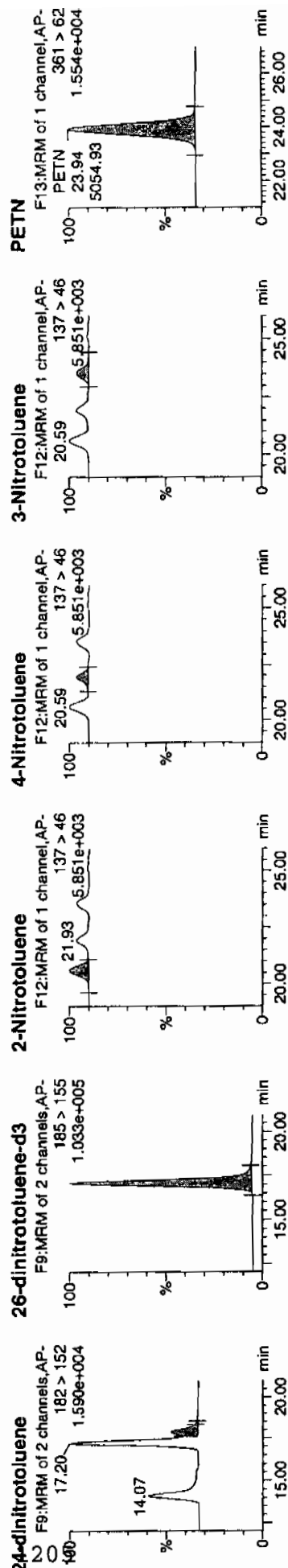


Quantify Sample Report

CEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 100 of 137

Dataset: C:\MASSLYNX\New\_Exp\PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



Sample	Retention Time (min)	Mass (amu)	Abundance	Identification
WXX100412-08CRI	176 > 102	5.20	2712.320	6637.863
WXX100412-08CRI	176 > 102	7.52	1881.459	6637.863
WXX100412-08CRI	213 > 183	10.06	2480.006	6637.863
WXX100412-08CRI	172 > 142	11.87	6637.863	6637.863
WXX100412-08CRI	168 > 138	11.97	716.740	6637.863
WXX100412-08CRI	241 > 181	12.42	684.017	6637.863
WXX100412-08CRI	123 > 46	13.40	339.842	6637.863
WXX100412-08CRI	197 > 167	15.31	1069.130	40122.352
WXX100412-08CRI	197 > 180	16.15	1634.844	40122.352
WXX100412-08CRI	227 > 210	15.10	1580.818	40122.352
WXX100412-08CRI	182 > 152	14.07	1710.958	40122.352
WXX100412-08CRI	182 > 152	17.20	3838.616	40122.352
WXX100412-08CRI	182 > 152	17.87	969.351	40122.352
WXX100412-08CRI	185 > 155	17.04	40122.352	40122.352
WXX100412-08CRI	137 > 46	20.59	283.899	40122.352
WXX100412-08CRI	137 > 46	21.93	154.352	40122.352
WXX100412-08CRI	137 > 46	23.57	195.733	40122.352
WXX100412-08CRI	361 > 62	23.94	5054.932	40122.352
WXX100412-08CRI	48.2007	120.5	20.5	522.9
WXX100412-08CRI	49.5149	123.8	23.8	334.7
WXX100412-08CRI	43.2127	108.0	8.0	276.9
WXX100412-08CRI	564.4092	112.9	12.9	521.3
WXX100412-08CRI	40.3784	100.9	0.9	73.2
WXX100412-08CRI	39.7477	99.4	-0.6	81.6
WXX100412-08CRI	40.8080	102.0	2.0	40.0
WXX100412-08CRI	39.4460	98.6	-1.4	34.8
WXX100412-08CRI	39.7761	99.4	-0.6	97.1
WXX100412-08CRI	45.2839	113.2	13.2	112.4
WXX100412-08CRI	20.6781	103.4	3.4	45.5
WXX100412-08CRI	40.4181	101.0	1.0	119.0
WXX100412-08CRI	46.2826	115.7	15.7	24.8
WXX100412-08CRI	573.4521	114.7	14.7	3832.5
WXX100412-08CRI	40.8591	102.1	2.1	47.0
WXX100412-08CRI	46.3728	115.9	15.9	28.5
WXX100412-08CRI	41.8373	104.6	4.6	30.6
WXX100412-08CRI	53.6409	134.1	34.1	237.2

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/15/10  
 Time of Injection 0438  
 Standard Number WXX100412-08CRI  
 Data File EXP0412125a

HMX	120.5
RDX	123.8
135-TNB	108.0
13-DNB	100.9
Tetryl	99.4
Nitrobenzene	102.0
4A-26-DNT	98.6
2A-46-DNT	99.4
246-TNT	113.2
34-DNT(surr)	103.4
26-DNT	101.0
24-DNT	115.7
2-NT	102.1
4-NT	115.9
3-NT	104.6
PETN	134.1
Total	1742.6

Average

108.9

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412135a

Analysis Date: 15-APR-10 09:33

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	616.486	103	
1,3-Dinitrobenzene-d4	500	520.494	104	
2,4,6-Trinitrotoluene	600	719.64	120	
2,4-Dinitrotoluene	600	646.864	108	
2,6-Dinitrotoluene	600	604.45	101	
2,6-Dinitrotoluene-d3	500	525.317	105	
2-Amino-4,6-dinitrotoluene	600	629.05	105	
3,4-Dinitrotoluene	300	298.104	99	
4-Amino-2,6-dinitrotoluene	600	610.274	102	
HMX	600	685.286	114	
Nitrobenzene	600	598.926	100	
PETN	600	756.299	126	*
RDX	600	771.167	129	*
Tetryl	600	580.474	97	
m-Dinitrobenzene	600	616.334	103	
m-Nitrotoluene	600	526.908	88	
o-Nitrotoluene	600	559.377	93	
p-Nitrotoluene	600	606.103	101	

Recovery Limits:

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

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

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

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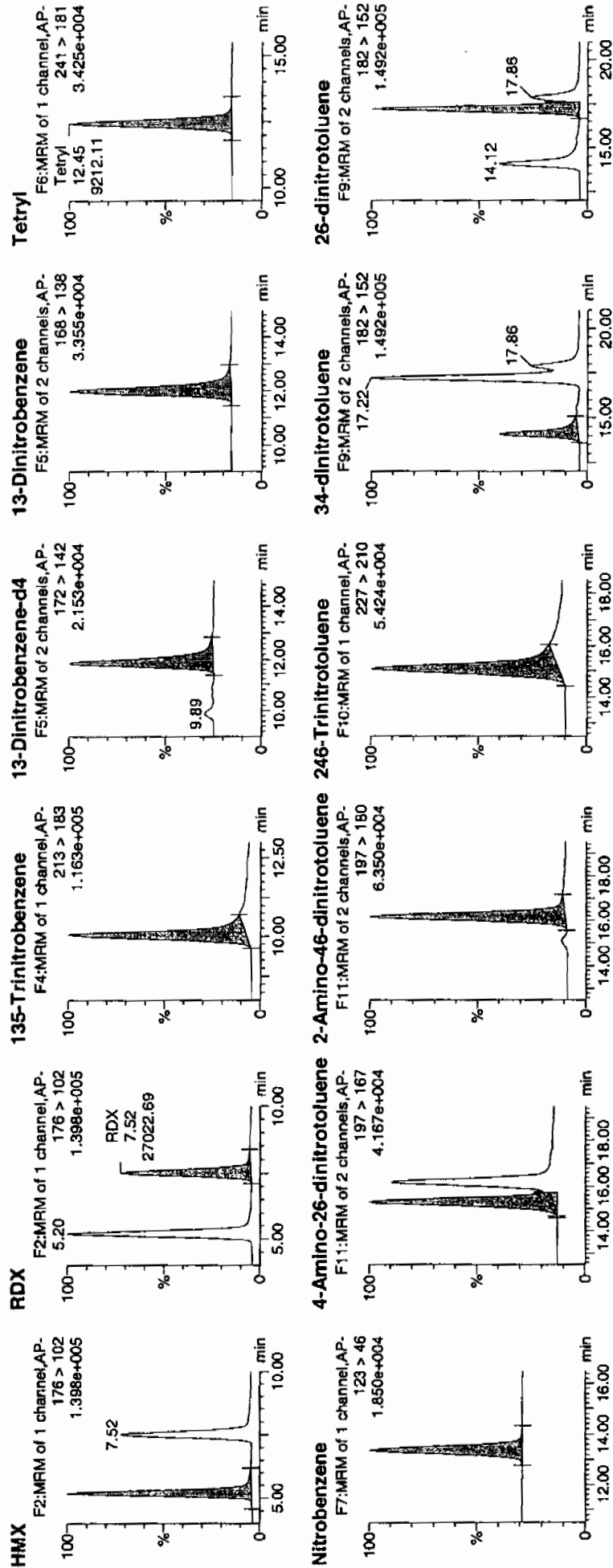
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Time: 09:33:59

ID: WXX100412-07CCV

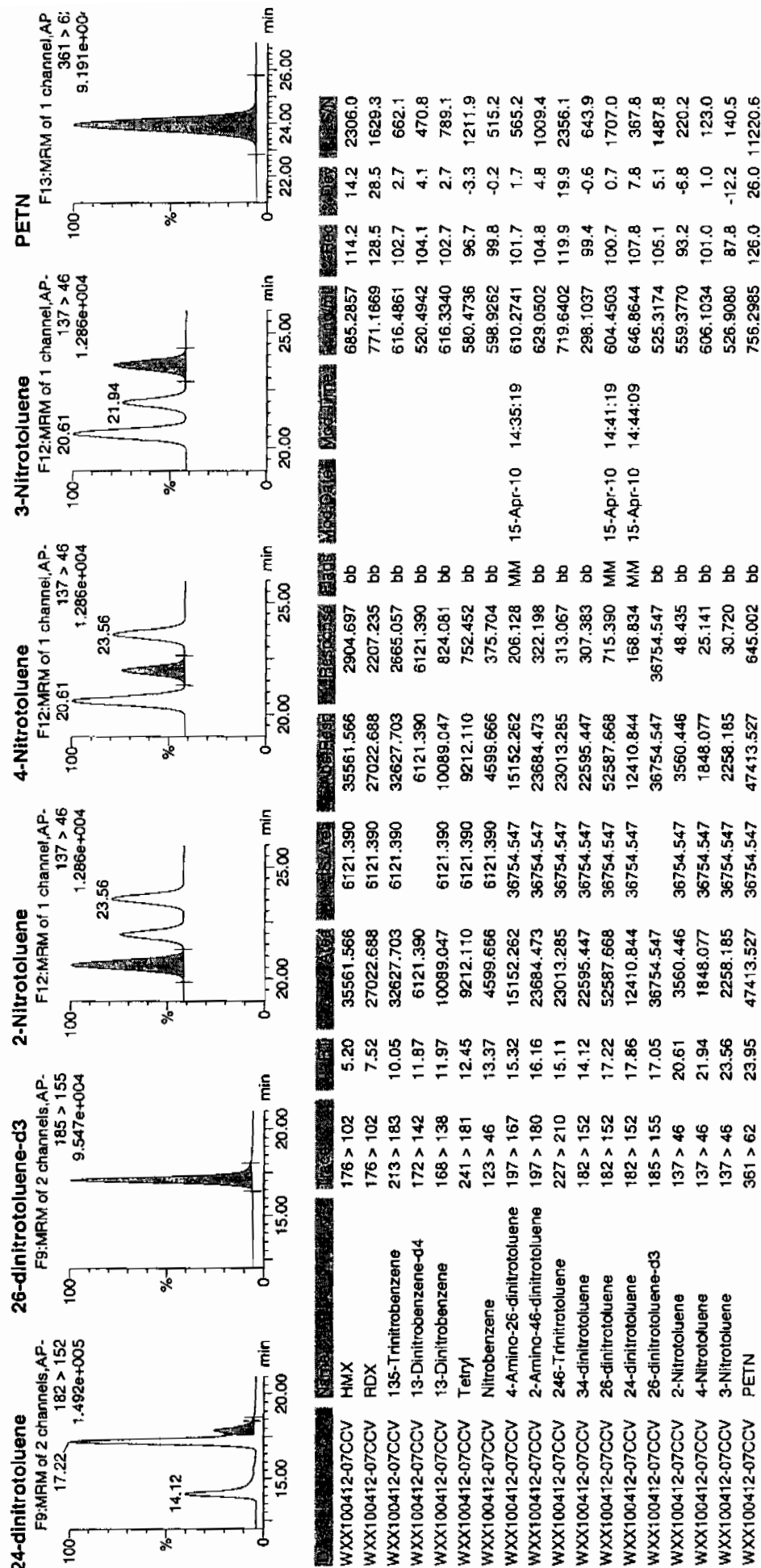
Vial: 1:1,B

*Handwritten:* 4/15/10



*Handwritten:* 4/15/10

Dataset: C:\MASSL\YX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/15/10  
 Time of Injection: 0933  
 Standard Number: WXX100412-07CCV  
 Data File: EXP0412135a

HMX	114.2
RDX	128.5
135-TNB	102.7
13-DNB	102.7
Tetryl	96.7
Nitrobenzene	99.8
4A-26-DNT	101.7
2A-46-DNT	104.8
246-TNT	119.9
34-DNT(surr)	99.4
26-DNT	100.7
24-DNT	107.8
2-NT	93.2
4-NT	101.0
3-NT	87.8
PETN	126.0

*Left  
4/15/10*

Total 1686.9

Average 105.4

*Handwritten: 4/15/10*  
 ICV Limits 85-115%  
 CRI Limits 70-130%  
 CCV Limits 85-115%

No single analyte > +/- 60%

**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412137a

Analysis Date: 15-APR-10 10:33

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	44.831	112	
1,3-Dinitrobenzene-d4	500	564.306	113	
2,4,6-Trinitrotoluene	40	45.122	113	
2,4-Dinitrotoluene	40	42.425	106	
2,6-Dinitrotoluene	40	41.26	103	
2,6-Dinitrotoluene-d3	500	570.792	114	
2-Amino-4,6-dinitrotoluene	40	41.382	103	
3,4-Dinitrotoluene	20	22.164	111	
4-Amino-2,6-dinitrotoluene	40	38.604	97	
HMX	40	48.451	121	
Nitrobenzene	40	42.762	107	
PETN	40	54.612	137	*
RDX	40	48.712	122	
Tetryl	40	36.564	91	
m-Dinitrobenzene	40	41.195	103	
m-Nitrotoluene	40	32.225	81	
o-Nitrotoluene	40	41.864	105	
p-Nitrotoluene	40	40.289	101	

**Recovery Limits:**

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

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP0412137a

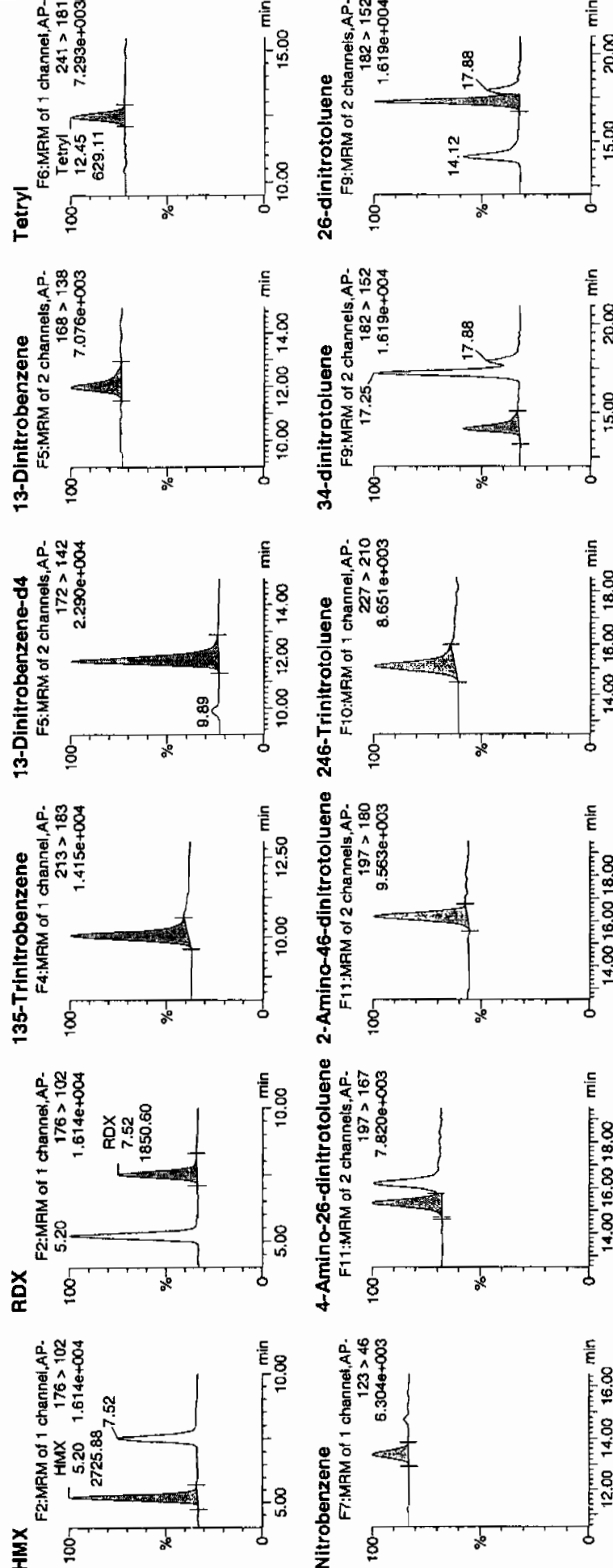
Date: 15-Apr-2010

Time: 10:33:01

ID: WXX100412-08CRI

Vial: 1:1,C

AP  
4/15/10



AP  
4/15/10

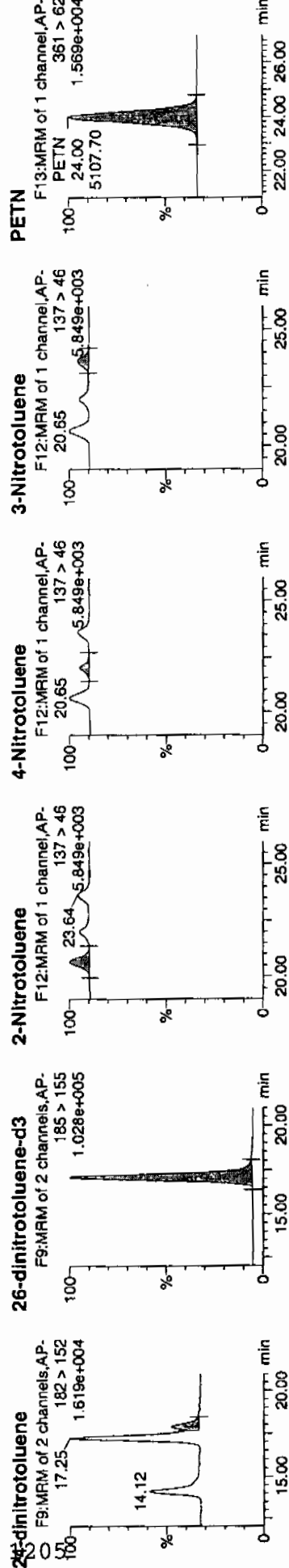


# Quantify Sample Report

GL Laboratories, LLC / Analyst: Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Printed: Thu Apr 15 14:53:43 2010, Page 124 of 137



ID	Name	Area	Height	Width	Area%	Height%	Width%	Area	Height	Width	Area%	Height%	Width%
WXX100412-08CRI	HMX	176 > 102	5.20	2725.878	6636.648	2725.878	205.366	bb	48.4505	121.1	21.1	288.6	
WXX100412-08CRI	RDX	176 > 102	7.52	1850.595	6636.648	1850.595	139.422	bb	48.7116	121.8	21.8	177.2	
WXX100412-08CRI	135-Trinitrobenzene	213 > 183	10.05	2572.424	6636.648	2572.424	193.804	bb	44.8312	112.1	12.1	55.1	
WXX100412-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	5636.648	6636.648	5636.648	564.3059	bb	564.3059	112.9	12.9	507.2	
WXX100412-08CRI	13-Dinitrobenzene	168 > 138	12.00	731.096	6636.648	731.096	55.080	bb	41.1947	103.0	3.0	42.3	
WXX100412-08CRI	Tetryl	241 > 181	12.45	629.112	6636.648	629.112	47.397	bb	36.5639	91.4	-8.6	67.4	
WXX100412-08CRI	Nitrobenzene	123 > 46	13.37	356.051	6636.648	356.051	26.825	bb	42.7622	106.9	6.9	29.8	
WXX100412-08CRI	4-Amino-26-dinitrotoluene	197 > 157	15.32	1041.444	39936.227	1041.444	13.039	MM	38.6036	96.5	-3.5	61.7	
WXX100412-08CRI	2-Amino-48-dinitrotoluene	197 > 180	16.19	1692.963	39936.227	1692.963	21.196	bb	41.3822	103.5	3.5	83.9	
WXX100412-08CRI	246-Trinitrotoluene	227 > 210	15.11	1567.852	39936.227	1567.852	19.629	bb	45.1217	112.8	12.8	116.8	
WXX100412-08CRI	34-dinitrotoluene	182 > 152	14.12	1825.399	39936.227	1825.399	22.854	bb	22.1640	110.8	10.8	60.4	
WXX100412-08CRI	26-dinitrotoluene	182 > 152	17.25	3900.405	39936.227	3900.405	48.833	MM	41.2601	103.2	3.2	155.3	
WXX100412-08CRI	24-dinitrotoluene	182 > 152	17.88	884.425	39936.227	884.425	11.073	MM	42.4245	106.1	6.1	32.8	
WXX100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.09	39936.227	39936.227	39936.227	39936.227	bb	570.7919	114.2	14.2	3666.8	
WXX100412-08CRI	2-Nitrotoluene	137 > 46	20.65	289.533	39936.227	289.533	3.625	bb	41.8642	104.7	4.7	22.9	
WXX100412-08CRI	4-Nitrotoluene	137 > 46	22.00	133.481	39936.227	133.481	1.671	bb	40.2893	100.7	0.7	10.8	
WXX100412-08CRI	3-Nitrotoluene	137 > 46	23.64	150.063	39936.227	150.063	1.879	bb	32.2250	80.6	-19.4	12.6	
WXX100412-08CRI	PETN	361 > 62	24.00	5107.696	39936.227	5107.696	63.948	bb	54.6119	136.5	36.5	1627.1	

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/15/10  
 Time of Injection 1033  
 Standard Number WXX100412-08CRI  
 Data File EXP0412137a

HMX	121.1
RDX	121.8
135-TNB	112.1
13-DNB	103.0
Tetryl	91.4
Nitrobenzene	106.9
4A-26-DNT	96.5
2A-46-DNT	103.5
246-TNT	112.8
34-DNT(surr)	110.8
26-DNT	103.2
24-DNT	106.1
2-NT	104.7
4-NT	100.7
3-NT	80.6
PETN	136.5

*4/15/10*

Total 1711.7

Average 107.0

*Sum 04/15/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412141a

Analysis Date: 15-APR-10 12:31

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3-Dinitrobenzene-d4	500	548.523	110	
2,4,6-Trinitrotoluene	600	671.418	112	
2,4-Dinitrotoluene	600	681.875	114	
2,6-Dinitrotoluene	600	582.15	97	
2,6-Dinitrotoluene-d3	500	517.845	104	
2-Amino-4,6-dinitrotoluene	600	620.832	103	
3,4-Dinitrotoluene	300	295.616	99	
4-Amino-2,6-dinitrotoluene	600	603.436	101	
HMX	600	656.436	109	
Nitrobenzene	600	554.89	92	
PETN	600	656.88	109	
RDX	600	783.263	131	*
Tetryl	600	575.56	96	
m-Dinitrobenzene	600	568.157	95	
m-Nitrotoluene	600	472.105	79	*
o-Nitrotoluene	600	520.007	87	
p-Nitrotoluene	600	554.035	92	
1,3,5-Trinitrobenzene	600	600.513	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

# Quantify Sample Report

GL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 131 of 137

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412141a

Date: 15-Apr-2010

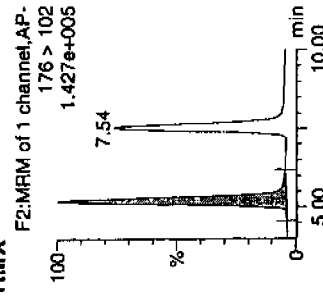
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ID: WXX100415-07CCV

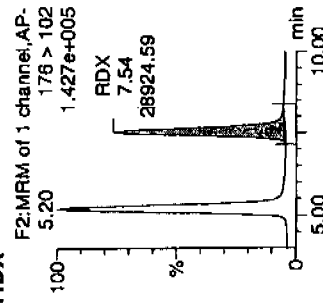
Vial: 1:1,B

4/15/10

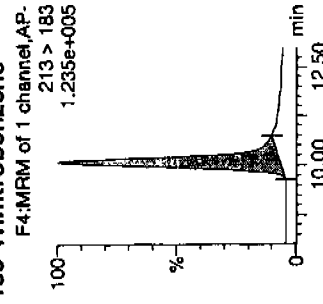
## HMX



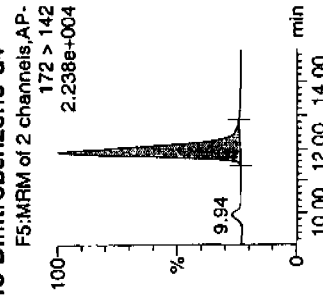
## RDX



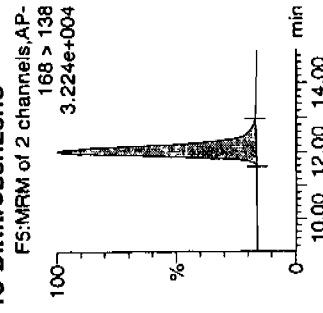
## 135-Trinitrobenzene



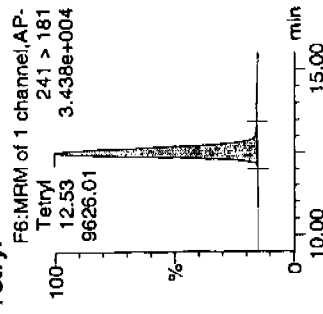
## 13-Dinitrobenzene-d4



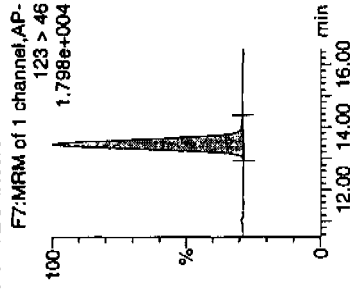
## 13-Dinitrobenzene



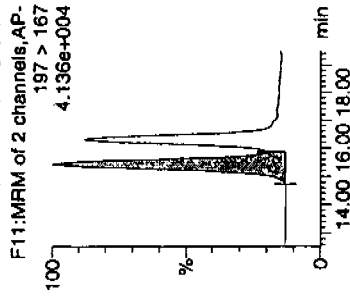
## Tetryl



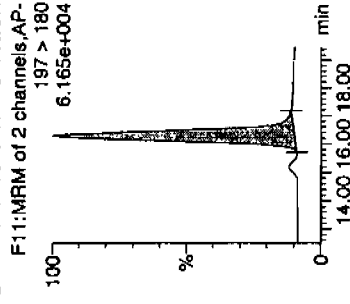
## Nitrobenzene



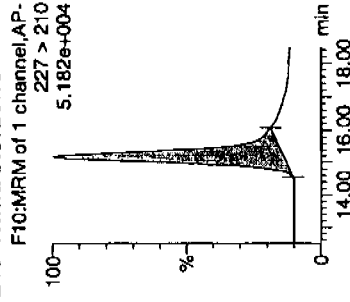
## 4-Amino-26-dinitrotoluene



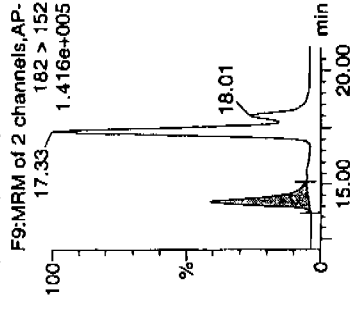
## 2-Amino-46-dinitrotoluene



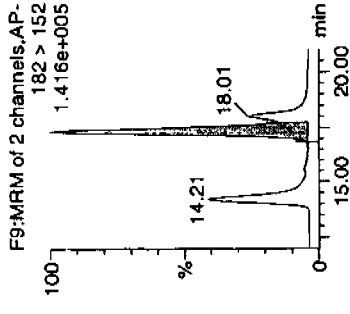
## 246-Trinitrotoluene



## 34-dinitrotoluene



## 26-dinitrotoluene



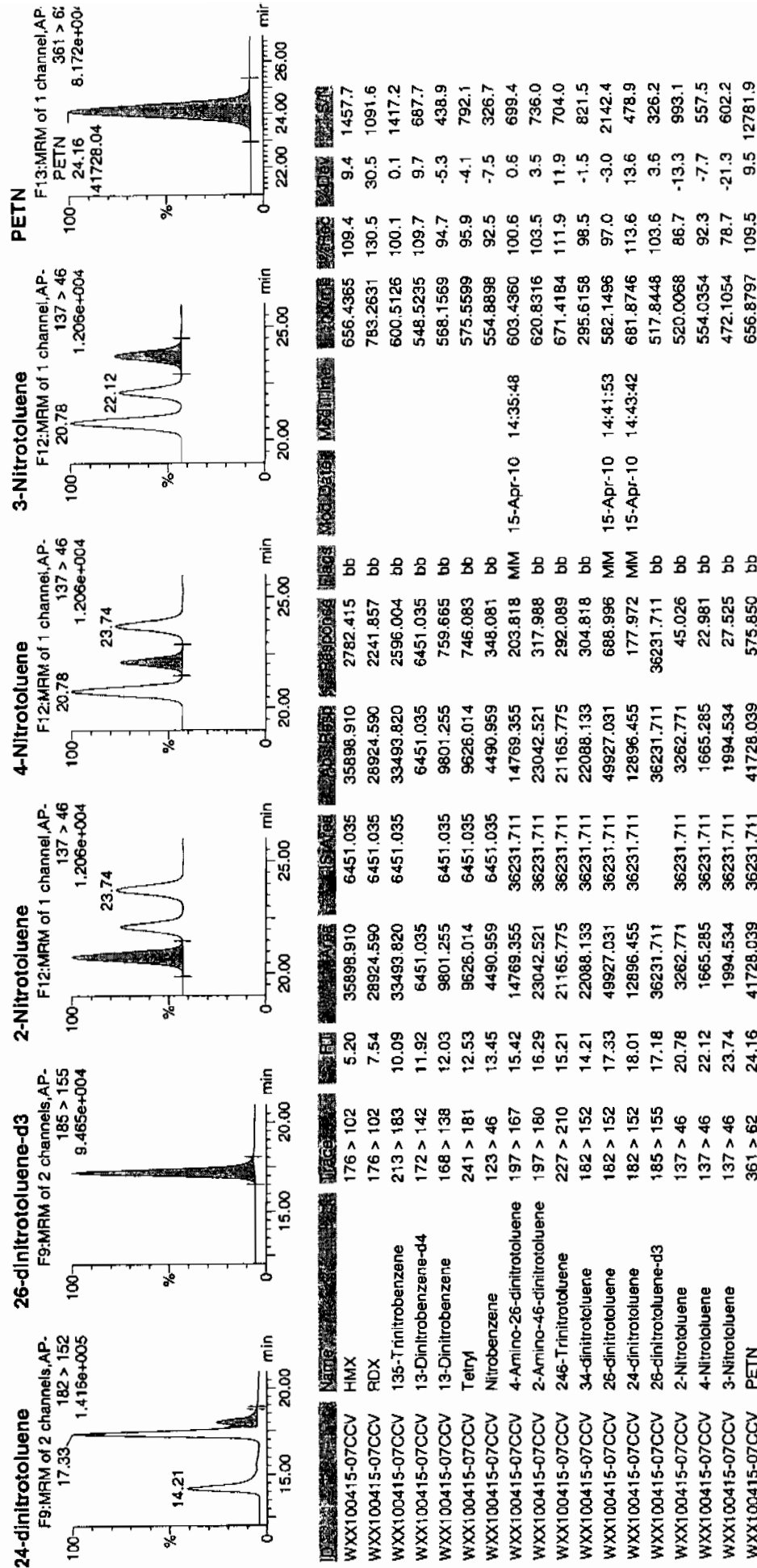
4/15/10

# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Thu Apr 15 14:53:43 2010, Page 132 of 137

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/15/10  
 Time of Injection: 1231  
 Standard Number: WXX100415-07CCV  
 Data File: EXP0412141a

HMX	109.4
RDX	130.5
135-TNB	100.1
13-DNB	94.7
Tetryl	95.9
Nitrobenzene	92.5
4A-26-DNT	100.6
2A-46-DNT	103.5
246-TNT	111.9
34-DNT(surr)	98.5
26-DNT	97.0
24-DNT	113.6
2-NT	86.7
4-NT	92.3
3-NT	78.7
PETN	109.5

*MAP 4/15/10*

Total 1615.4

*Handwritten signature*

Average 101.0

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412143a

Analysis Date: 15-APR-10 13:30

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	45.257	113	
1,3-Dinitrobenzene-d4	500	536.662	107	
2,4,6-Trinitrotoluene	40	45.682	114	
2,4-Dinitrotoluene	40	45.008	113	
2,6-Dinitrotoluene	40	38.476	96	
2,6-Dinitrotoluene-d3	500	533.5	107	
2-Amino-4,6-dinitrotoluene	40	39.37	98	
3,4-Dinitrotoluene	20	20.83	104	
4-Amino-2,6-dinitrotoluene	40	42.325	106	
HMX	40	47.44	119	
Nitrobenzene	40	39.473	99	
PETN	40	51.284	128	
RDX	40	48.05	120	
Tetryl	40	51.38	128	
m-Dinitrobenzene	40	39.893	100	
m-Nitrotoluene	40	33.98	85	
o-Nitrotoluene	40	30.284	76	
p-Nitrotoluene	40	44.578	111	

**Recovery Limits:**

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

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

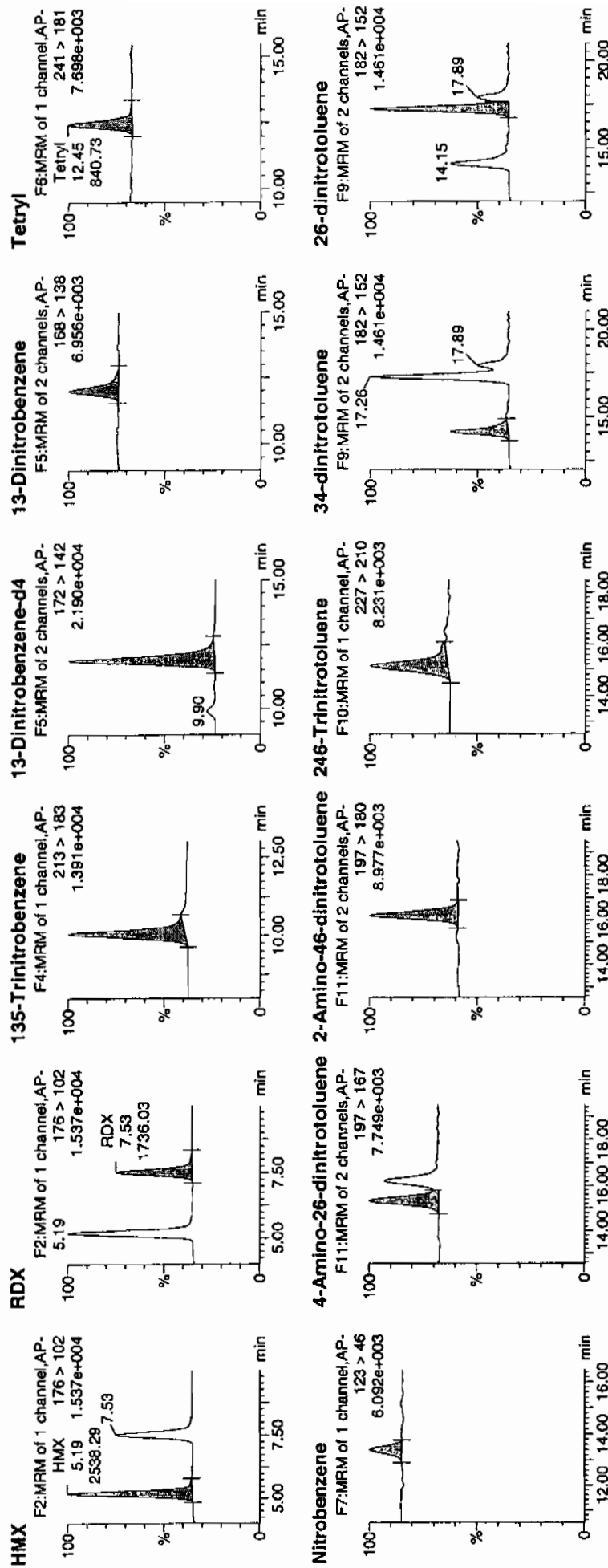
\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA2.qld, Time: Thu Apr 15 14:49:38 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412143a  
Date: 15-Apr-2010  
Time: 13:30:11  
ID: WXX100415-08CRI  
Vial: 1:1,C

11/1/10  
4/15/10

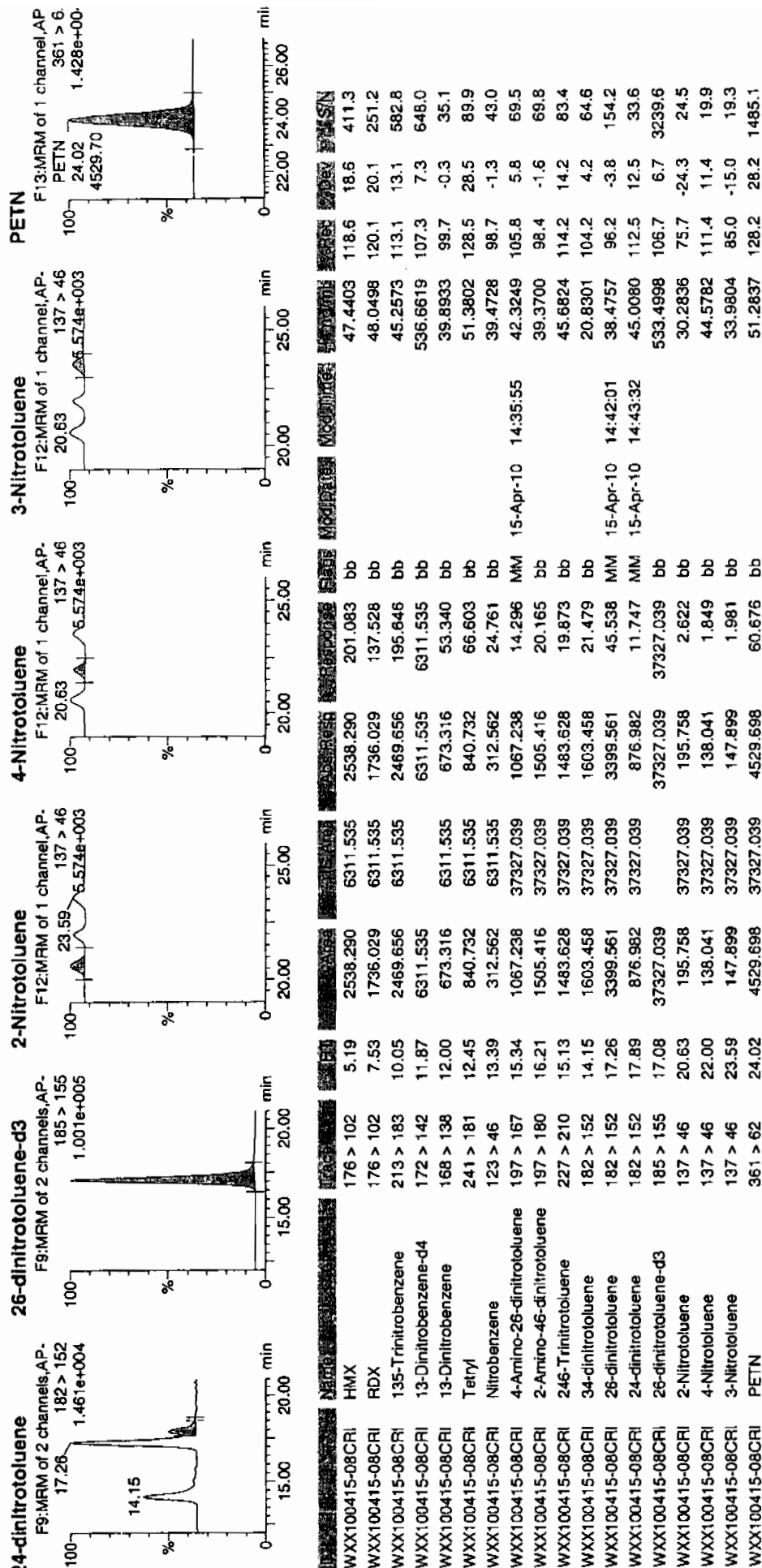


for NW 4/15/10



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

Dataset: C:\MASSLYNX\New\_Exp\PRO1041210expA2.qld, Time: Thu Apr 15 14:49:38 2010



# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/15/10  
 Time of Injection 1330  
 Standard Number WXX100415-08CRI  
 Data File EXP0412143a

HMX	118.6
RDX	120.1
135-TNB	113.1
13-DNB	99.7
Tetryl	128.5
Nitrobenzene	98.7
4A-26-DNT	105.8
2A-46-DNT	98.4
246-TNT	114.2
34-DNT(surr)	104.2
26-DNT	96.2
24-DNT	112.5
2-NT	75.7
4-NT	111.4
3-NT	85.0
PETN	128.2

*not  
4/15/10*

Total 1710.3

Average 106.9

*HMM-04/15/10*

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412154a

Analysis Date: 15-APR-10 18:54

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
PETN	600	659.267	110	
RDX	600	834.012	139	*
Tetryl	600	608.585	101	
m-Dinitrobenzene	600	599.64	100	
m-Nitrotoluene	600	471.246	79	*
o-Nitrotoluene	600	459.486	77	*
p-Nitrotoluene	600	519.824	87	
1,3,5-Trinitrobenzene	600	622.031	104	
1,3-Dinitrobenzene-d4	500	482.209	96	
2,4,6-Trinitrotoluene	600	688.009	115	
2,4-Dinitrotoluene	600	646.547	108	
2,6-Dinitrotoluene	600	591.24	99	
2,6-Dinitrotoluene-d3	500	492.34	98	
2-Amino-4,6-dinitrotoluene	600	618.715	103	
3,4-Dinitrotoluene	300	299.256	100	
4-Amino-2,6-dinitrotoluene	600	584.477	97	
HMX	600	639.699	107	
Nitrobenzene	600	535.275	89	

Recovery Limits:

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

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412154a

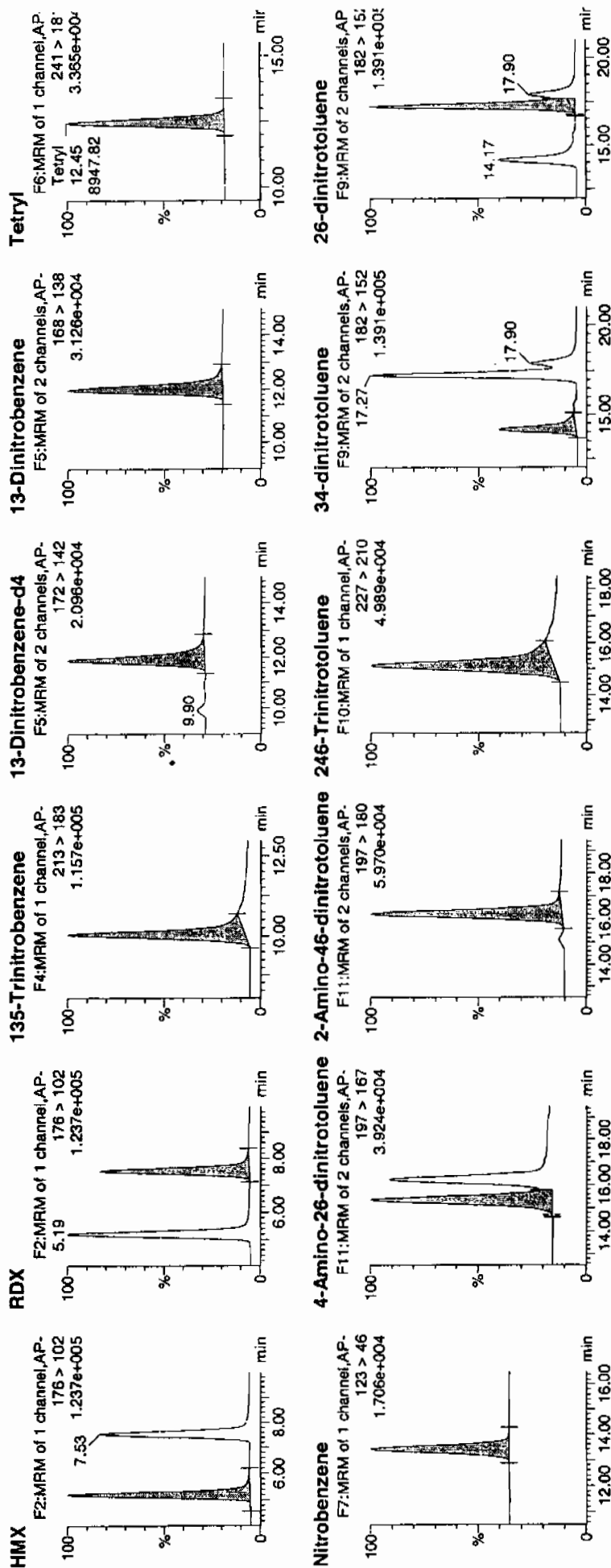
Date: 15-Apr-2010

Time: 18:54:43

ID: WXX100415-07CCV

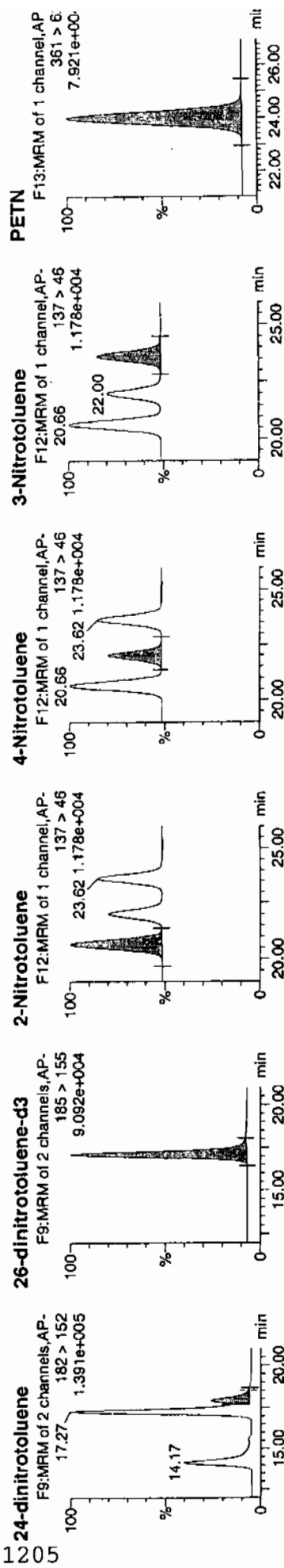
Vial: 1:1\_B

4/16/10



4/18/10

Q Dataset: C:\MASSLYN\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010



Name	Loc	Conc	Depth	Latitude	Longitude	Altitude	Mod Date	Mod Time	Access	Depth	Loc
HMx	WXX100415-07CCV	176 > 102	5.19	30754.143	5671.123	30754.143	2711.469	bb	639.6986	106.6	6.6
RDx	WXX100415-07CCV	176 > 102	7.53	27075.178	5671.123	27075.178	2387.109	bb	834.0116	139.0	39.0
135-Trinitrobenzene	WXX100415-07CCV	213 > 183	10.05	30499.633	5671.123	30499.633	2689.029	bb	622.0315	103.7	3.7
13-Dinitrobenzene-d4	WXX100415-07CCV	172 > 142	11.89	5671.123	5671.123	5671.123	5671.123	bb	482.2085	96.4	-3.6
13-Dinitrobenzene	WXX100415-07CCV	168 > 138	12.00	9093.758	5671.123	9093.758	801.760	bb	599.6397	99.9	-0.1
Tetryl	WXX100415-07CCV	241 > 181	12.45	8947.817	5671.123	8947.817	788.893	bb	608.5853	101.4	1.4
Nitrobenzene	WXX100415-07CCV	123 > 46	13.41	3808.455	5671.123	3808.455	335.776	bb	535.2748	89.2	-10.8
4-Amino-26-dinitrotoluene	WXX100415-07CCV	197 > 167	15.36	13600.771	34447.270	13600.771	197.414	MM	584.4768	97.4	-2.6
2-Amino-46-dinitrotoluene	WXX100415-07CCV	197 > 180	16.22	21832.984	34447.270	21832.984	316.904	bb	618.7154	103.1	3.1
246-Trinitrotoluene	WXX100415-07CCV	227 > 210	15.14	20620.600	34447.270	20620.600	299.307	bb	688.0094	114.7	14.7
34-dinitrotoluene	WXX100415-07CCV	182 > 152	14.17	21258.887	34447.270	21258.887	308.571	bb	689.2562	99.8	-0.2
26-dinitrotoluene	WXX100415-07CCV	182 > 152	17.27	48209.313	34447.270	48209.313	599.755	MM	591.2401	98.5	-1.5
24-dinitrotoluene	WXX100415-07CCV	182 > 152	17.90	11626.044	34447.270	11626.044	168.751	MM	646.5471	107.8	7.8
26-dinitrotoluene-d3	WXX100415-07CCV	185 > 155	17.09	34447.270	34447.270	34447.270	34447.270	bb	492.3405	98.5	-1.5
2-Nitrotoluene	WXX100415-07CCV	137 > 46	20.66	2741.042	34447.270	2741.042	39.786	bb	459.4859	76.6	-23.4
4-Nitrotoluene	WXX100415-07CCV	137 > 46	22.00	1485.503	34447.270	1485.503	21.562	bb	519.8242	86.6	-13.4
3-Nitrotoluene	WXX100415-07CCV	137 > 46	23.62	1892.848	34447.270	1892.848	27.475	bb	471.2455	78.5	-21.5
PETN	WXX100415-07CCV	361 > 62	24.02	39790.801	34447.270	39790.801	577.561	bb	659.2667	109.9	9.9

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/15/10  
 Time of Injection: 1854  
 Standard Number: WXX100415-07CCV  
 Data File: EXP0412154a

HMX	106.6
RDX	139.0
135-TNB	103.7
13-DNB	99.9
Tetryl	101.4
Nitrobenzene	89.4
4A-26-DNT	97.4
2A-46-DNT	103.1
246-TNT	114.7
34-DNT(surr)	99.8
26-DNT	98.5
24-DNT	107.8
2-NT	76.6
4-NT	86.6
3-NT	78.5
PETN	109.9

Total 1612.9

Average 100.8

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Handwritten:* 100.8  
4/16/10

*Handwritten:* Anne 04/15/10

**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412156a

Analysis Date: 15-APR-10 19:53

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	49.576	124	
1,3-Dinitrobenzene-d4	500	577.189	115	
2,4,6-Trinitrotoluene	40	53.889	135	*
2,4-Dinitrotoluene	40	42.732	107	
2,6-Dinitrotoluene	40	42.479	106	
2,6-Dinitrotoluene-d3	500	591.283	118	
2-Amino-4,6-dinitrotoluene	40	46.888	117	
3,4-Dinitrotoluene	20	26.443	132	*
4-Amino-2,6-dinitrotoluene	40	51.546	129	
HMX	40	43.601	109	
Nitrobenzene	40	47.518	119	
PETN	40	45.529	114	
RDX	40	47.308	118	
Tetryl	40	42.163	105	
m-Dinitrobenzene	40	37.522	94	
m-Nitrotoluene	40	28.998	72	
o-Nitrotoluene	40	35.664	89	
p-Nitrotoluene	40	34.471	86	

**Recovery Limits:**

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

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412156a

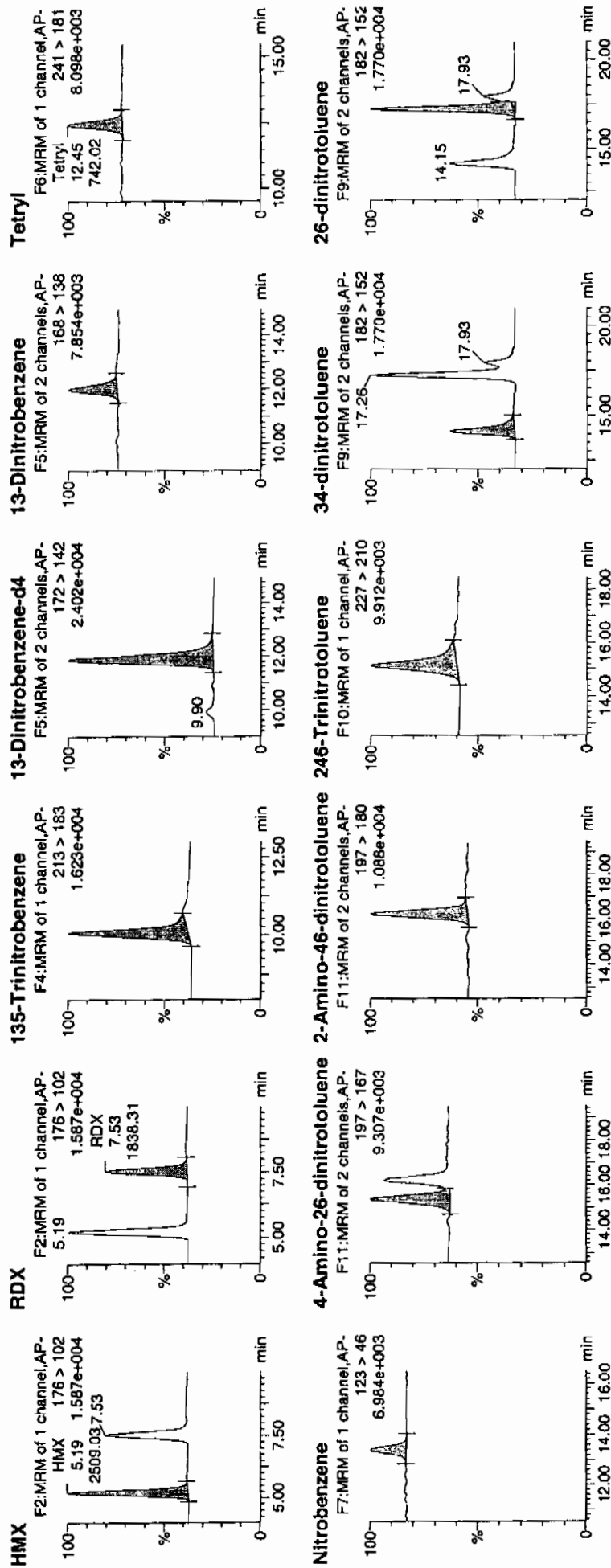
Date: 15-Apr-2010

Time: 19:53:44

ID: WXX100415-08CRI

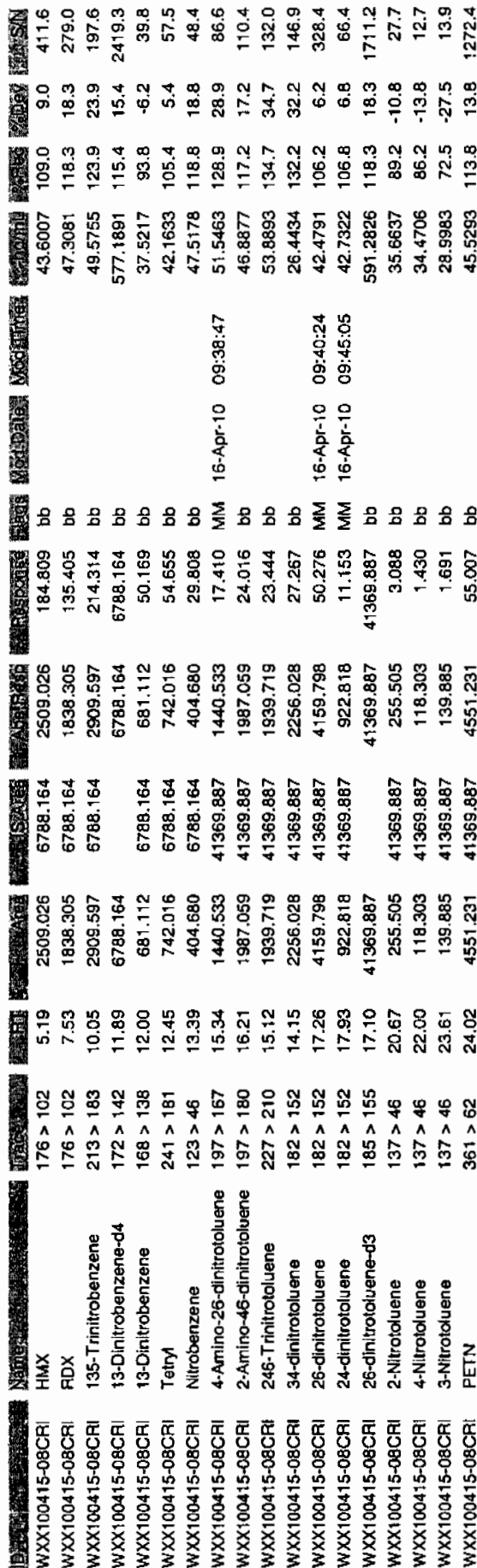
Vial: 1:1,C

WIT  
4/16/10



Ham  
04/16/10





# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/15/10  
 Time of Injection 1953  
 Standard Number WXX100415-08CRI  
 Data File EXP0412156a

HMX	109.0
RDX	118.3
135-TNB	123.9
13-DNB	93.8
Tetryl	105.4
Nitrobenzene	118.8
4A-26-DNT	128.9
2A-46-DNT	117.2
246-TNT	134.7
34-DNT(surr)	132.2
26-DNT	106.2
24-DNT	106.8
2-NT	89.2
4-NT	86.2
3-NT	72.5
PETN	113.8

WXX  
4/15/10

Total 1756.9

Average 109.8

WXX 04/15/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412163a

Analysis Date: 15-APR-10 23:20

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	579.712	97	
1,3-Dinitrobenzene-d4	500	553.483	111	
2,4,6-Trinitrotoluene	600	651.215	109	
2,4-Dinitrotoluene	600	599.098	100	
2,6-Dinitrotoluene	600	585.441	98	
2,6-Dinitrotoluene-d3	500	535.557	107	
2-Amino-4,6-dinitrotoluene	600	610.969	102	
3,4-Dinitrotoluene	300	292.991	98	
4-Amino-2,6-dinitrotoluene	600	562.866	94	
HMX	600	678.203	113	
Nitrobenzene	600	510.803	85	
PETN	600	600.382	100	
RDX	600	757.906	126	*
Tetryl	600	567.854	95	
m-Dinitrobenzene	600	595.705	99	
m-Nitrotoluene	600	425.74	71	*
o-Nitrotoluene	600	455.835	76	*
p-Nitrotoluene	600	482.872	80	

Recovery Limits:

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

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412163a

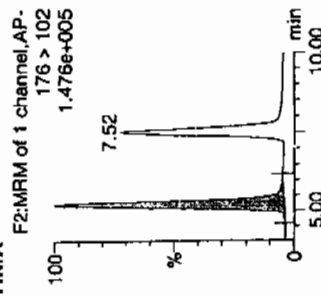
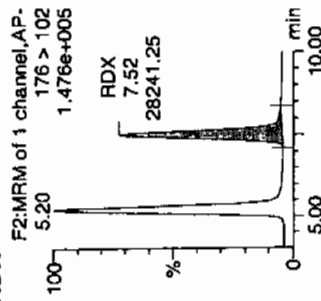
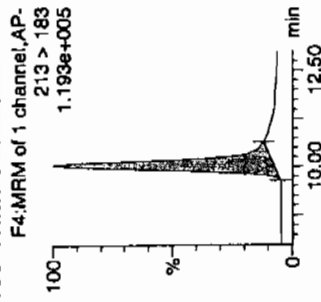
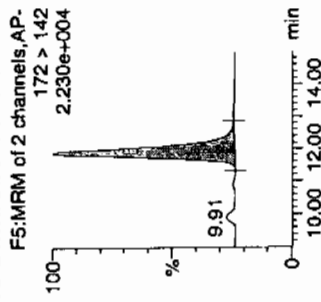
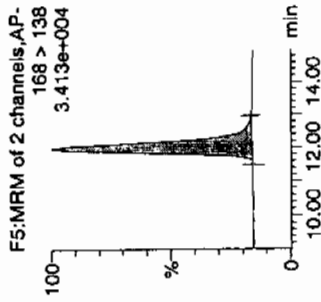
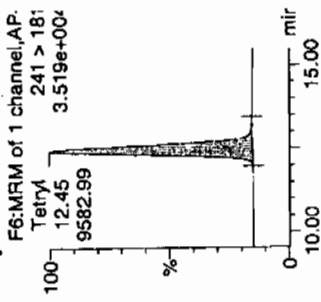
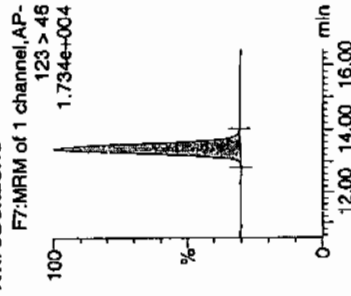
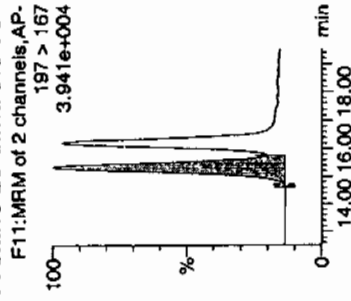
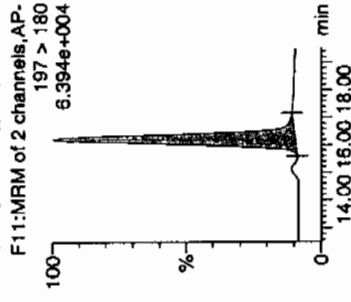
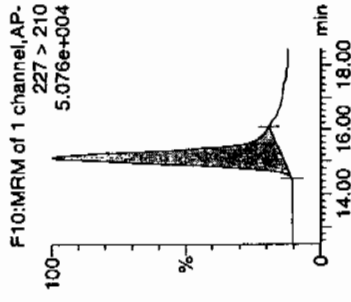
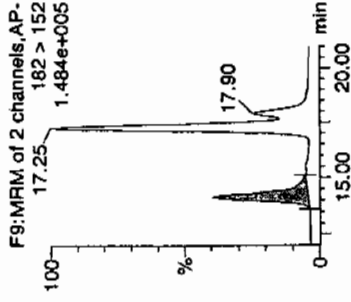
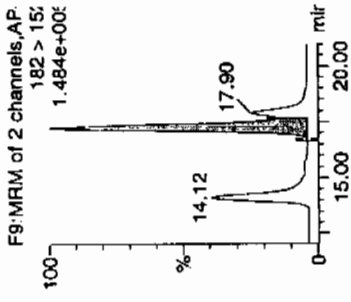
Date: 15-Apr-2010

Time: 23:20:11

ID: WXX100415-07CCV

Vial: 1:1,B

11/6/10  
MJP

**HMX****RDX****135-Trinitrobenzene****13-Dinitrobenzene-d4****13-Dinitrobenzene****Tetryl****Nitrobenzene****4-Amino-26-dinitrotoluene****2-Amino-46-dinitrotoluene****246-Trinitrotoluene****34-dinitrotoluene****26-dinitrotoluene**

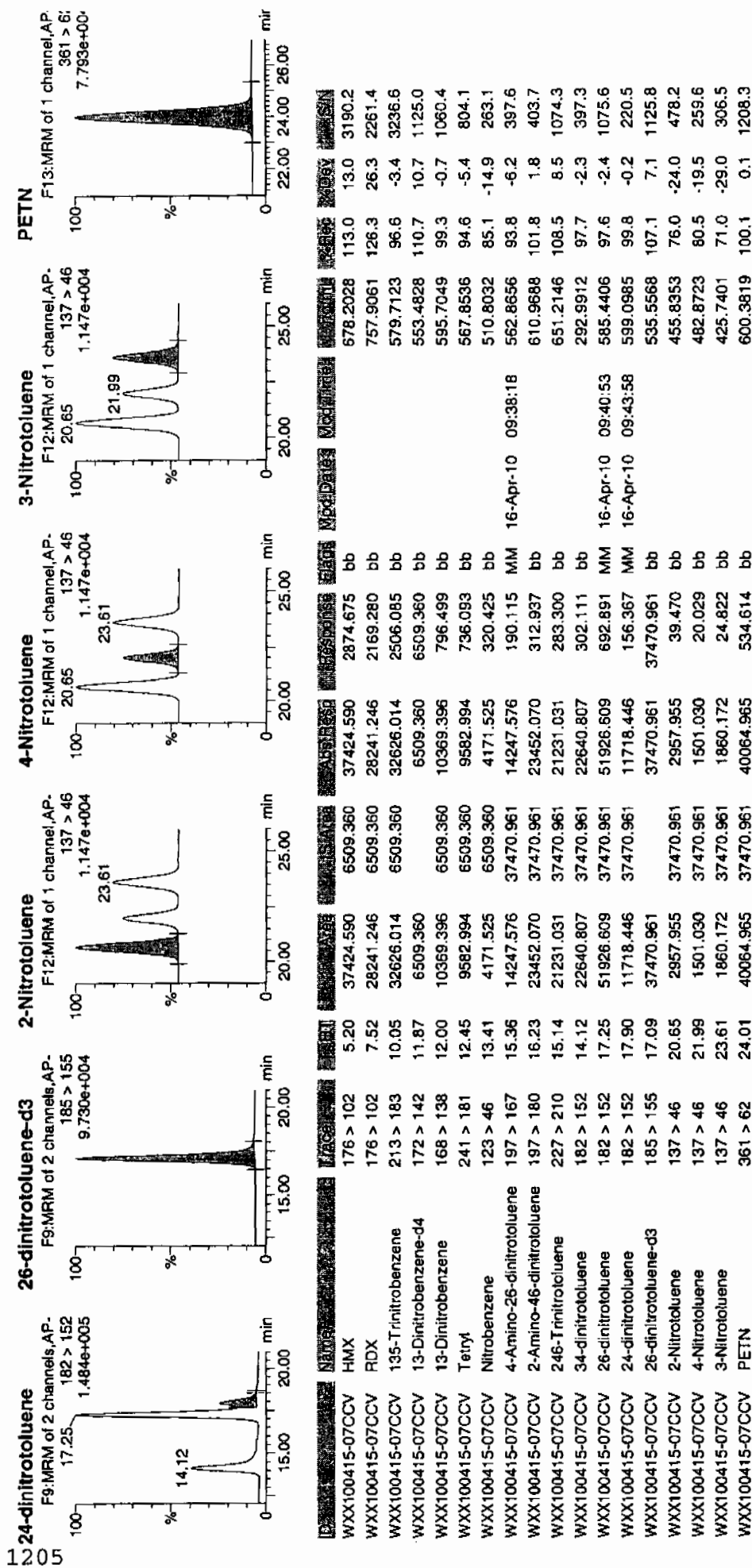
show 18/10

## Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Apr 16 09:46:23 2010, Page 40 of 71

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/15/10  
 Time of Injection: 2320  
 Standard Number: WXX100415-07CCV  
 Data File: EXP0412163a

HMX	113.0
RDX	126.3
135-TNB	96.6
13-DNB	99.3
Tetryl	94.6
Nitrobenzene	85.1
4A-26-DNT	93.8
2A-46-DNT	101.8
246-TNT	108.5
34-DNT(surr)	97.7
26-DNT	97.6
24-DNT	99.8
2-NT	76.0
4-NT	80.5
3-NT	71.0
PETN	100.1

Total 1541.7

Average 96.4

*Handwritten:* 100%  
4/16/10

*Handwritten:* HMM 04/15/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0412165a

Analysis Date: 16-APR-10 00:19

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	50.062	125	
1,3-Dinitrobenzene-d4	500	605.441	121	
2,4,6-Trinitrotoluene	40	46.388	116	
2,4-Dinitrotoluene	40	46.587	116	
2,6-Dinitrotoluene	40	41.89	105	
2,6-Dinitrotoluene-d3	500	552.799	111	
2-Amino-4,6-dinitrotoluene	40	40.251	101	
3,4-Dinitrotoluene	20	21.003	105	
4-Amino-2,6-dinitrotoluene	40	34.553	86	
HMX	40	54.973	137	*
Nitrobenzene	40	33.701	84	
PETN	40	53.483	134	*
RDX	40	56.813	142	*
Tetryl	40	39.601	99	
m-Dinitrobenzene	40	43.11	108	
m-Nitrotoluene	40	32.11	80	
o-Nitrotoluene	40	32.239	81	
p-Nitrotoluene	40	37.87	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 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

## Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Apr 16 09:46:23 2010, Page 43 of 71

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

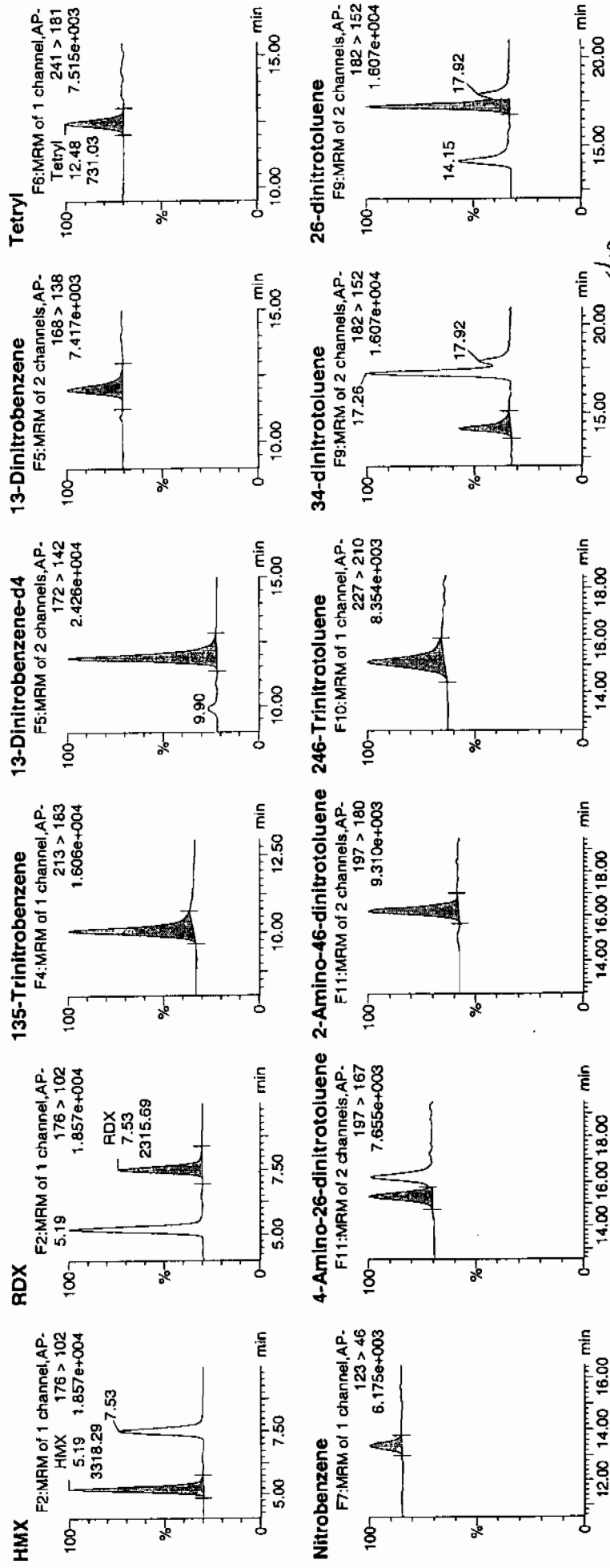
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Date: 16-Apr-2010

Time: 00:19:13

ID: WXX100415-08CRI

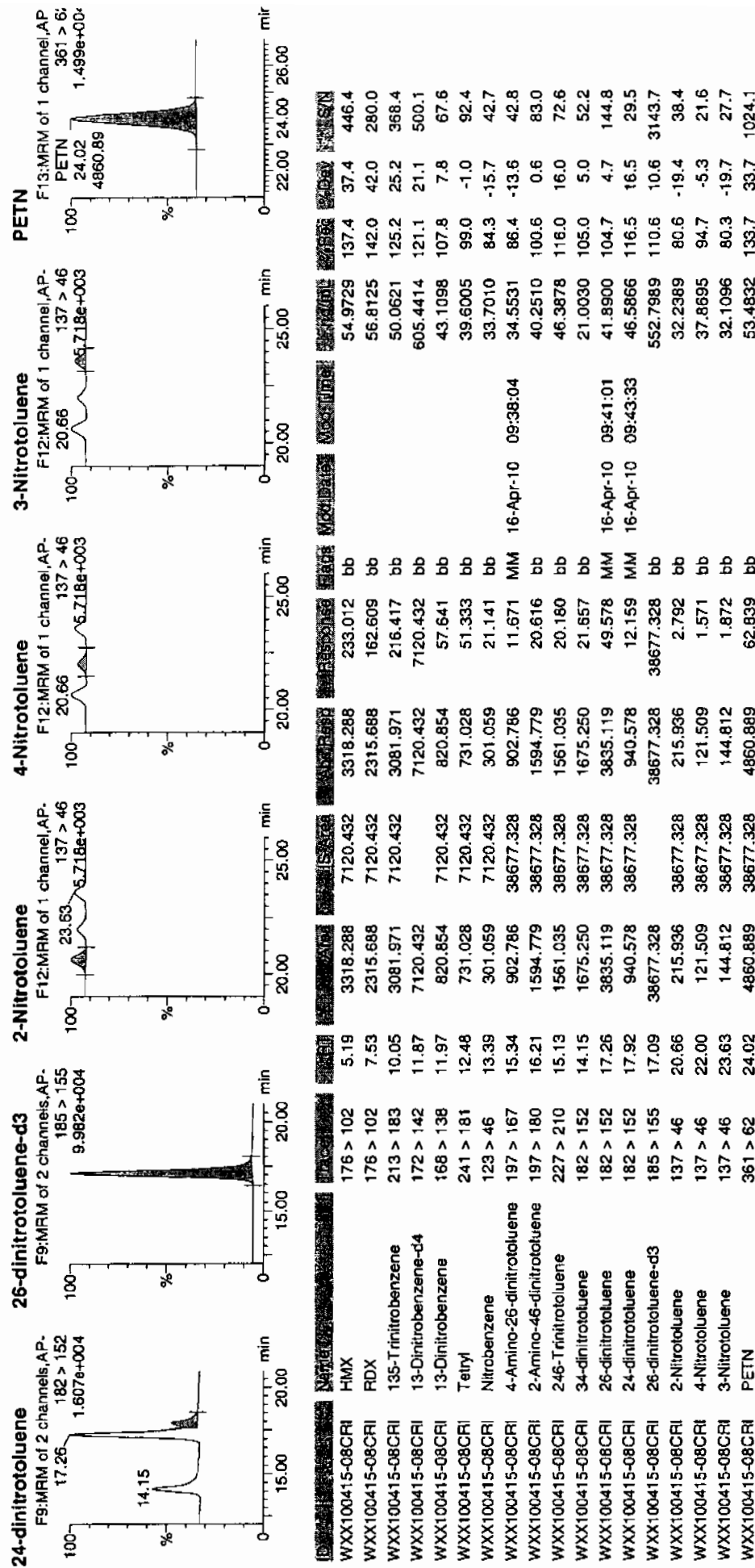
Vial: 1:1,C

M  
11/16/10



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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010



# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/16/10  
 Time of Injection 0019  
 Standard Number WXX100415-08CRI  
 Data File EXP0412165a

HMX	137.4
RDX	142.0
135-TNB	125.2
13-DNB	107.8
Tetryl	99.0
Nitrobenzene	84.3
4A-26-DNT	86.4
2A-46-DNT	100.6
246-TNT	116.0
34-DNT(surr)	105.0
26-DNT	104.7
24-DNT	116.5
2-NT	80.6
4-NT	94.7
3-NT	80.3
PETN	133.7

*107.1  
4/16/10*

Total 1714.2

Average 107.1

*4/16/10*

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412176a

Analysis Date: 16-APR-10 05:43

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4-Dinitrotoluene	600	643.829	107	
2,6-Dinitrotoluene	600	591.674	99	
2,6-Dinitrotoluene-d3	500	472.742	95	
2-Amino-4,6-dinitrotoluene	600	618.059	103	
3,4-Dinitrotoluene	300	299.863	100	
4-Amino-2,6-dinitrotoluene	600	596.024	99	
HMX	600	662.319	110	
Nitrobenzene	600	529.758	88	
PETN	600	736.789	123	*
RDX	600	768.839	128	*
Tetryl	600	598.943	100	
m-Dinitrobenzene	600	616.623	103	
m-Nitrotoluene	600	476.64	79	*
o-Nitrotoluene	600	478.487	80	*
p-Nitrotoluene	600	539.18	90	
1,3,5-Trinitrobenzene	600	598.513	100	
1,3-Dinitrobenzene-d4	500	468.403	94	
2,4,6-Trinitrotoluene	600	689.221	115	

Recovery Limits:

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

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412176a

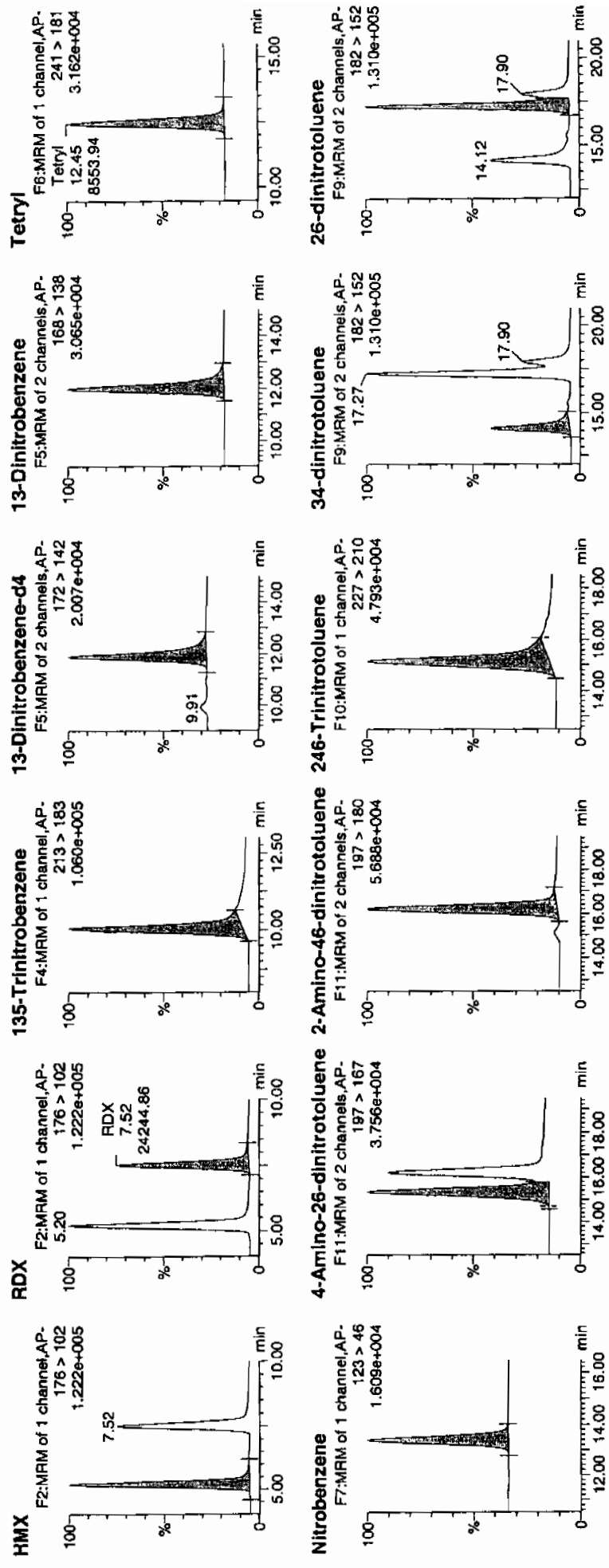
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Time: 05:43:47

ID: WXX100415-07CCV

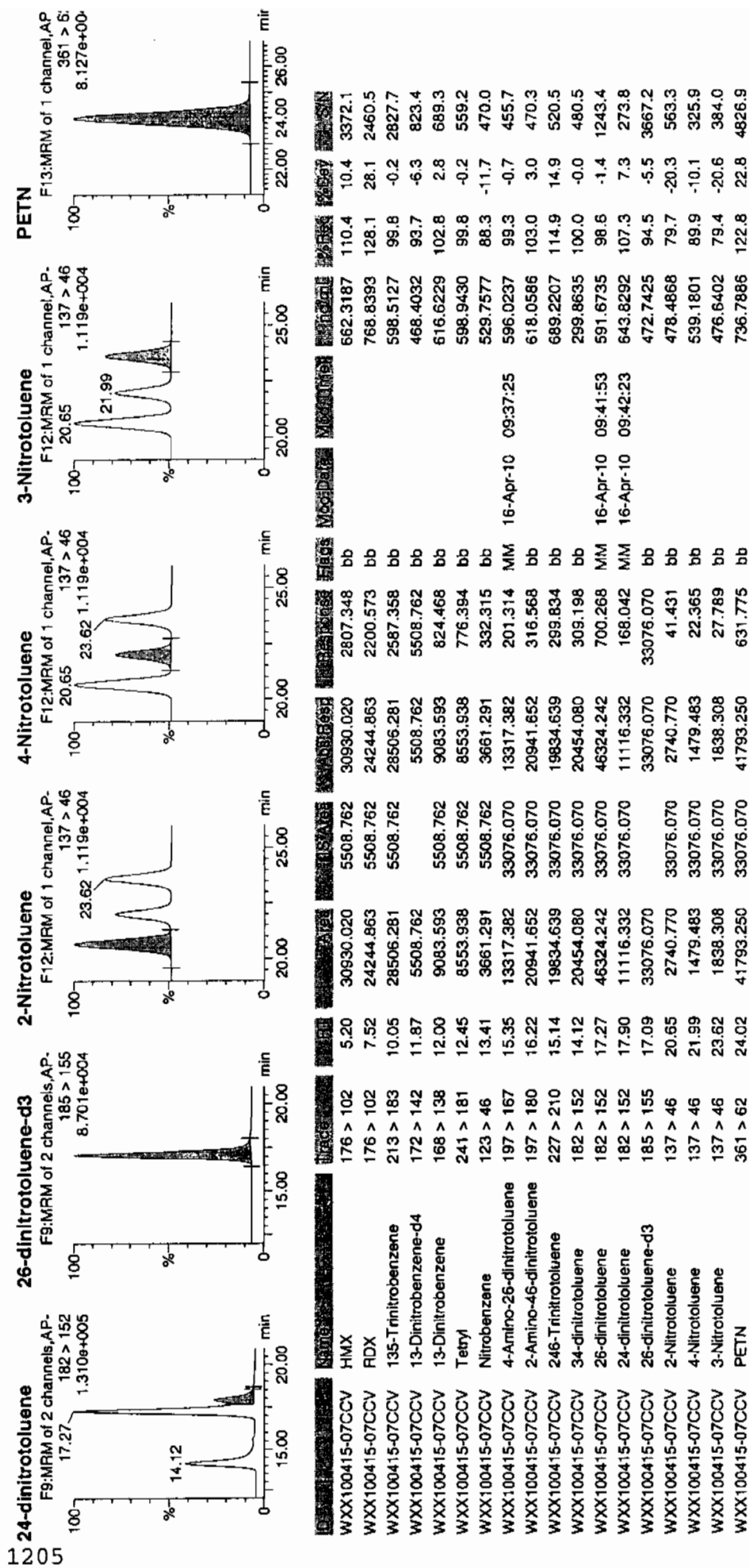
Vial: 1:1,B

11/10/10



Amw 4/18/10

Dataset: C:\WASSLYN\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/16/10  
 Time of Injection: 0543  
 Standard Number: WXX100415-07CCV  
 Data File: EXP0412176a

HMX	110.4
RDX	128.1
135-TNB	99.8
13-DNB	102.8
Tetryl	99.8
Nitrobenzene	88.3
4A-26-DNT	99.3
2A-46-DNT	103.0
246-TNT	114.9
34-DNT(surr)	100.0
26-DNT	98.6
24-DNT	107.3
2-NT	79.7
4-NT	89.9
3-NT	79.4
PETN	122.8

4/16/10

Total 1624.1

4/16/10

Average 101.5

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412178a

Analysis Date: 16-APR-10 06:42

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	48.611	122	
1,3-Dinitrobenzene-d4	500	507.923	102	
2,4,6-Trinitrotoluene	40	45.832	115	
2,4-Dinitrotoluene	40	44.52	111	
2,6-Dinitrotoluene	40	40.668	102	
2,6-Dinitrotoluene-d3	500	533.943	107	
2-Amino-4,6-dinitrotoluene	40	42.838	107	
3,4-Dinitrotoluene	20	21.251	106	
4-Amino-2,6-dinitrotoluene	40	42.982	107	
HMX	40	46.716	117	
Nitrobenzene	40	34.698	87	
PETN	40	52.564	131	*
RDX	40	56.146	140	*
Tetryl	40	46.059	115	
m-Dinitrobenzene	40	44.37	111	
m-Nitrotoluene	40	35.332	88	
o-Nitrotoluene	40	30.954	77	
p-Nitrotoluene	40	45.51	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

# Identify Sample Report

GL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Apr 16 09:46:23 2010, Page 69 of 71

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

1

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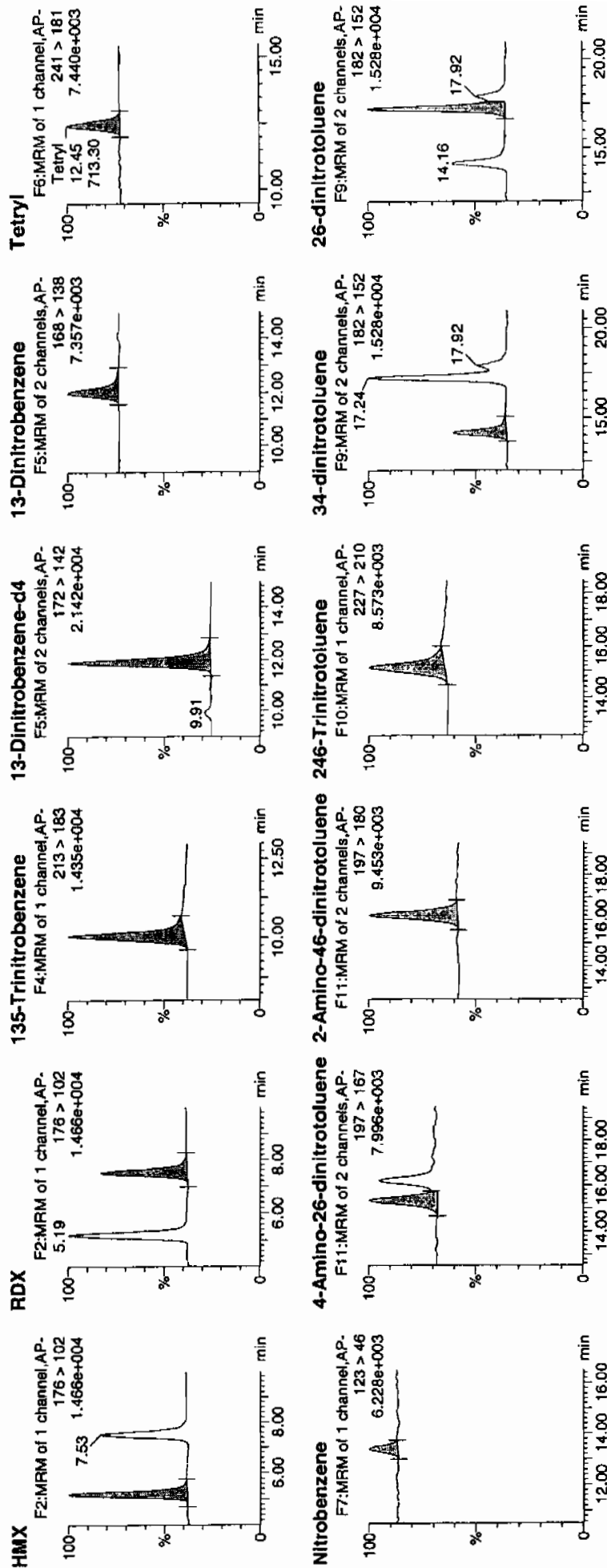
Date: 16-Apr-2010

Time: 06:42:49

ID: WXX100415-08CRI

Vial: 1:1,C

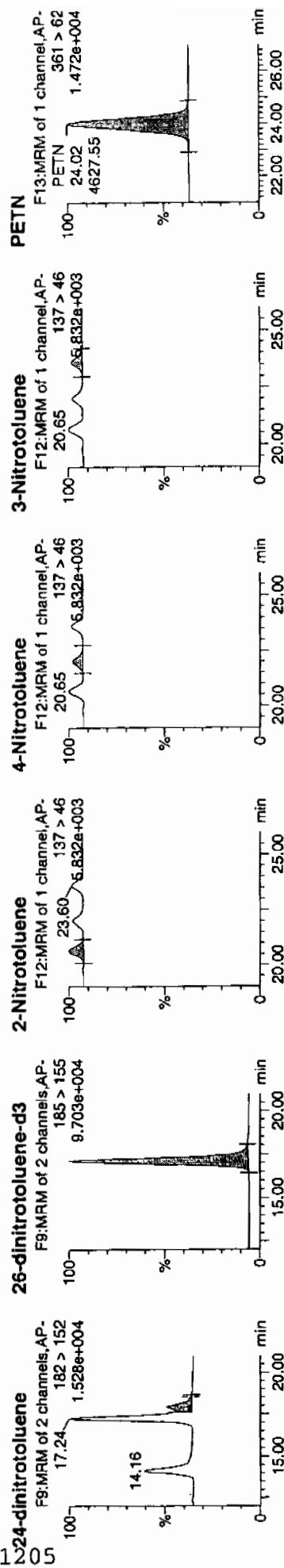
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177  
178  
179



*Handwritten:*  
from 04/18/10



Dataset: C:\MASSLYNX\New\_Exp\PRO1041210expA3.qld, Time: Fri Apr 16 09:45:39 2010



Compound	Retention Time (min)	Mass (amu)	Area	Height	Width	Signal-to-Noise	Integration	Identification
WXX100415-08CRI	176 > 102	5.19	2365.695	5973.542	198.014	bb	46.7162	116.8
WXX100415-08CRI	176 > 102	7.53	1919.902	5973.542	160.700	bb	56.1458	140.4
WXX100415-08CRI	213 > 183	10.05	2510.623	5973.542	210.145	bb	48.6112	121.5
WXX100415-08CRI	172 > 142	11.87	5973.542	5973.542	5973.542	bb	507.9228	101.6
WXX100415-08CRI	168 > 138	12.00	708.768	5973.542	59.326	bb	44.3699	110.9
WXX100415-08CRI	241 > 181	12.45	713.297	5973.542	59.705	bb	46.0587	115.1
WXX100415-08CRI	123 > 46	13.40	260.036	5973.542	21.766	bb	34.8975	86.7
WXX100415-08CRI	197 > 167	15.35	1084.712	37358.078	14.518	MM	42.9822	107.5
WXX100415-08CRI	197 > 180	16.22	1639.381	37358.078	21.941	bb	42.8379	107.1
WXX100415-08CRI	227 > 210	15.13	1489.709	37358.078	19.938	bb	45.8316	114.6
WXX100415-08CRI	182 > 152	14.16	1637.202	37358.078	21.912	bb	21.2508	106.3
WXX100415-08CRI	182 > 152	17.24	3596.208	37358.078	48.132	MM	40.6675	101.7
WXX100415-08CRI	182 > 152	17.92	868.188	37358.078	11.620	MM	44.5197	111.3
WXX100415-08CRI	185 > 155	17.09	37358.078	37358.078	37358.078	bb	533.9434	106.8
WXX100415-08CRI	137 > 46	20.65	200.255	37358.078	2.680	bb	30.9535	77.4
WXX100415-08CRI	137 > 46	22.00	141.043	37358.078	1.888	bb	45.5098	113.8
WXX100415-08CRI	137 > 46	23.60	153.909	37358.078	2.060	bb	35.3318	88.3
WXX100415-08CRI	361 > 62	24.02	4627.550	37358.078	61.935	bb	52.5638	131.4

# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/16/10  
 Time of Injection 0642  
 Standard Number WXX100415-08CRI  
 Data File EXP0412178a

HMX	116.8
RDX	140.4
135-TNB	121.5
13-DNB	110.9
Tetryl	115.1
Nitrobenzene	86.7
4A-26-DNT	107.5
2A-46-DNT	107.1
246-TNT	114.6
34-DNT(surr)	106.3
26-DNT	101.7
24-DNT	111.3
2-NT	77.4
4-NT	113.8
3-NT	88.3
PETN	131.4

*WAP  
4/16/10*

Total 1750.8

*Amir 04/18/10*

Average 109.4

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412189a

Analysis Date: 16-APR-10 12:07

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Tetryl	600	569.427	95	
m-Dinitrobenzene	600	577.006	96	
m-Nitrotoluene	600	474.743	79	*
o-Nitrotoluene	600	440.848	73	*
p-Nitrotoluene	600	477.383	80	*
1,3,5-Trinitrobenzene	600	594.161	99	
1,3-Dinitrobenzene-d4	500	526.245	105	
2,4,6-Trinitrotoluene	600	696.001	116	
2,4-Dinitrotoluene	600	686.989	114	
2,6-Dinitrotoluene	600	582.08	97	
2,6-Dinitrotoluene-d3	500	530.172	106	
2-Amino-4,6-dinitrotoluene	600	624.722	104	
3,4-Dinitrotoluene	300	294.835	98	
4-Amino-2,6-dinitrotoluene	600	602.218	100	
HMX	600	608.688	101	
Nitrobenzene	600	477.361	80	*
PETN	600	646.883	108	
RDX	600	716.933	119	

Recovery Limits:

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

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

# Quantify Sample Report

GLP Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sat Apr 17 10:45:10 2010, Page 21 of 97

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010

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Date: 16-Apr-2010

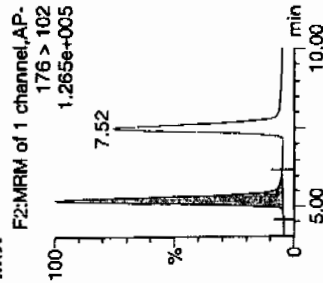
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ID: WXX100415-07CCV

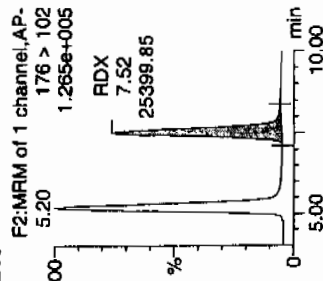
Vial: 1:1,B

*MTF*  
*4/17/10*

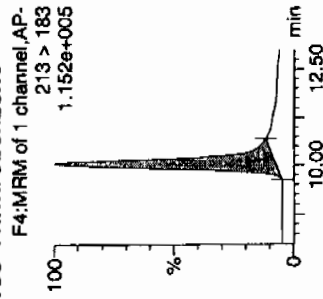
## HMX



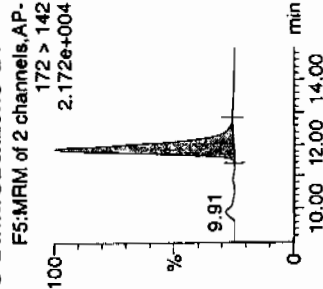
## RDX



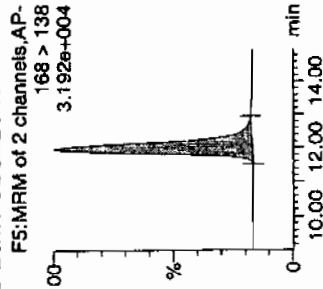
## 135-Trinitrobenzene



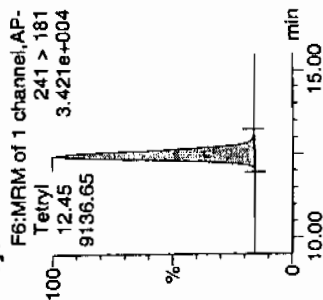
## 13-Dinitrobenzene-d4



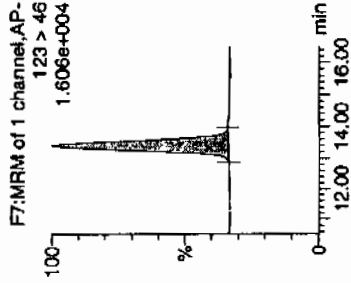
## 13-Dinitrobenzene



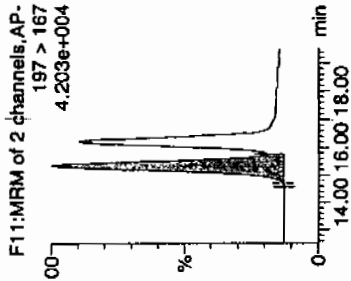
## Tetryl



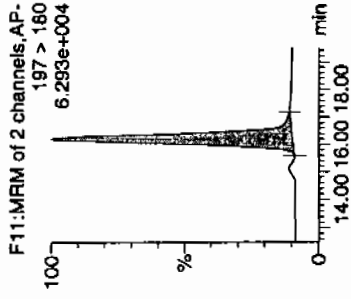
## Nitrobenzene



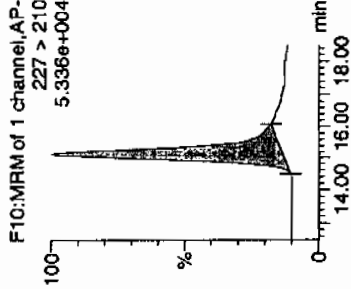
## 4-Amino-26-dinitrotoluene



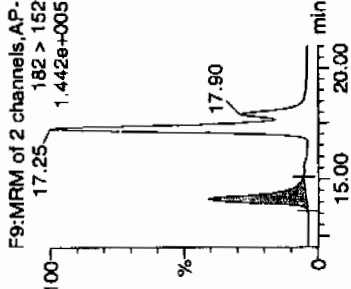
## 2-Amino-46-dinitrotoluene



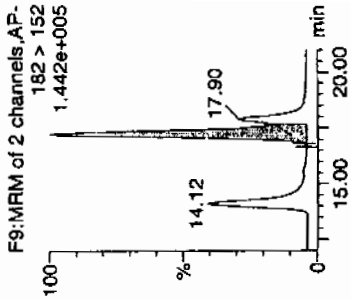
## 246-Trinitrotoluene



## 34-dinitrotoluene



## 26-dinitrotoluene



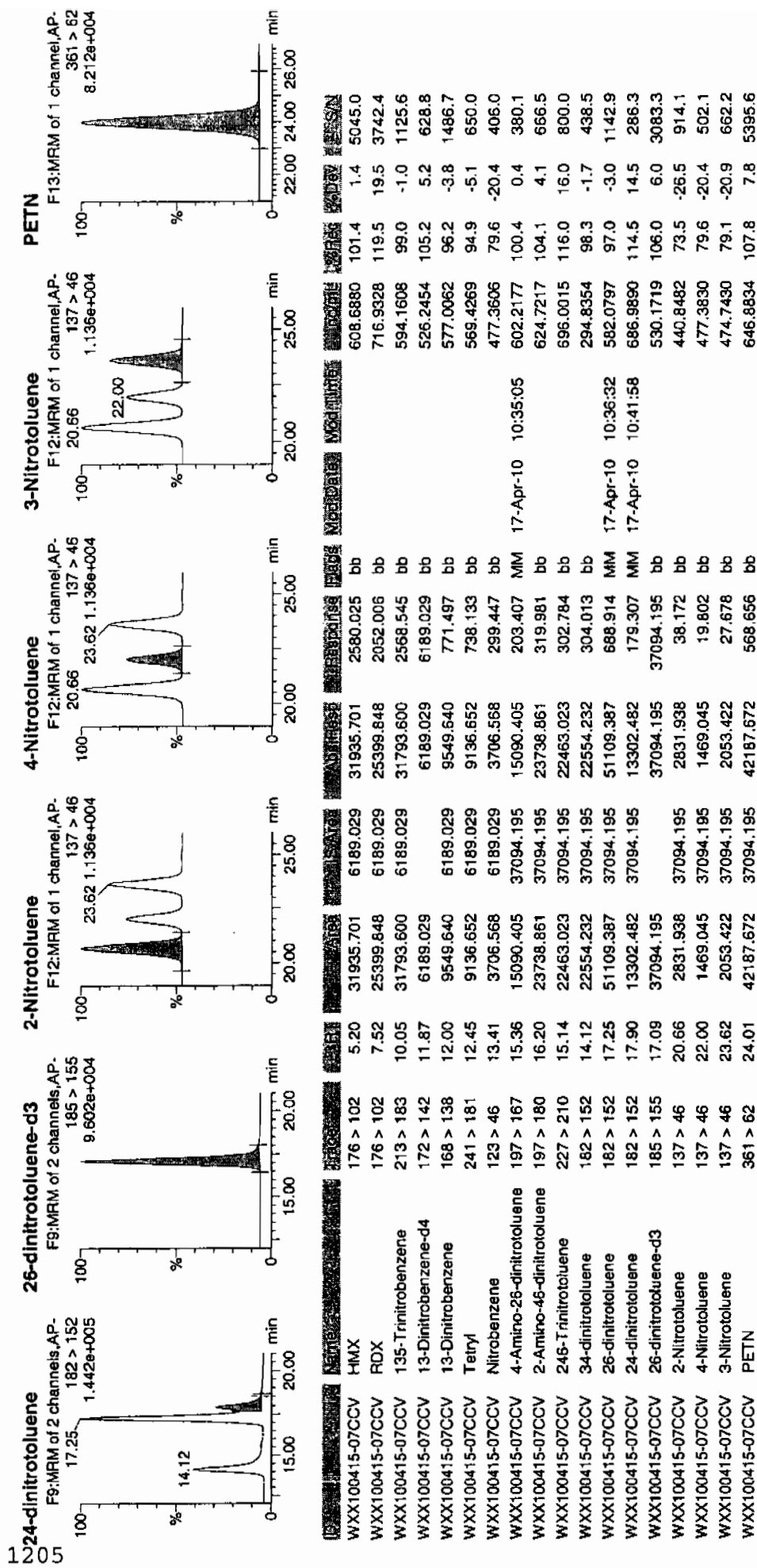
*done by 4/16/10*

## Quantity Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sat Apr 17 10:45:10 2010, Page 22 of 97

Dataset: C:\MASSLYNX\New\_Exp\PRO1041210expA4.qld, Time: Sat Apr 17 10:42:19 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/16/10  
 Time of Injection: 1207  
 Standard Number: WXX100415-07CCV  
 Data File: EXP0412189a

HMX	101.4	✓
RDX	119.5	✓
135-TNB	99.0	✓
13-DNB	96.2	
Tetryl	94.9	
Nitrobenzene	79.6	
4A-26-DNT	100.4	
2A-46-DNT	104.1	
246-TNT	116.0	
34-DNT(surr)	98.3	
26-DNT	97.0	
24-DNT	114.5	
2-NT	73.5	
4-NT	79.6	
3-NT	79.1	
PETN	107.8	

*Handwritten:* 100.4  
114.5

Total 1560.9

*Handwritten:* 4/16/10

Average 97.6

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412191a

Analysis Date: 16-APR-10 13:06

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	46.372	116	
1,3-Dinitrobenzene-d4	500	558.99	112	
2,4,6-Trinitrotoluene	40	48.911	122	
2,4-Dinitrotoluene	40	42.024	105	
2,6-Dinitrotoluene	40	41.491	104	
2,6-Dinitrotoluene-d3	500	540.276	108	
2-Amino-4,6-dinitrotoluene	40	50.953	127	
3,4-Dinitrotoluene	20	21.209	106	
4-Amino-2,6-dinitrotoluene	40	46.62	117	
HMX	40	43.604	109	
Nitrobenzene	40	38.159	95	
PETN	40	56.911	142	*
RDX	40	46.041	115	
Tetryl	40	41.108	103	
m-Dinitrobenzene	40	41.719	104	
m-Nitrotoluene	40	36.968	92	
o-Nitrotoluene	40	30.379	76	
p-Nitrotoluene	40	35.109	88	

**Recovery Limits:**

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

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

## Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sat Apr 17 10:45:10 2010, Page 25 of 97

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010

Name: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP0412191a

Date: 16-Apr-2010

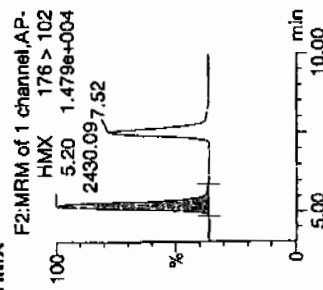
Time: 13:06:33

ID: WXX100415-08CRI

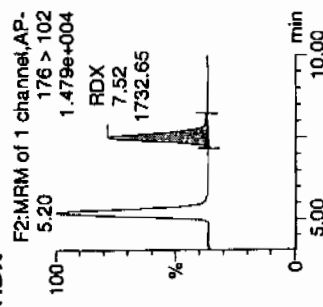
Vial: 1:1,C

107  
4/17/10

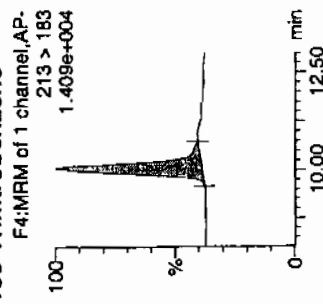
## HMX



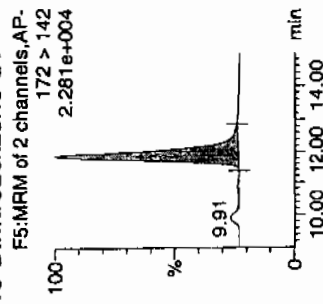
## RDX



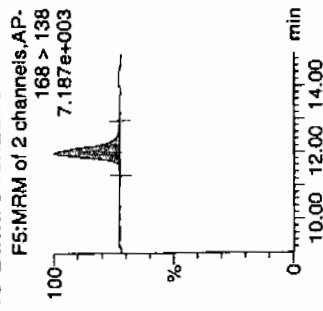
## 135-Trinitrobenzene



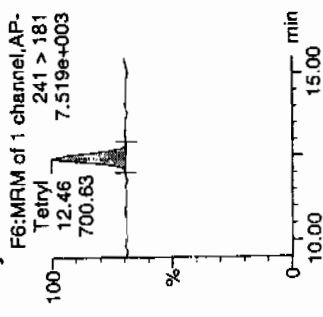
## 13-Dinitrobenzene-d4



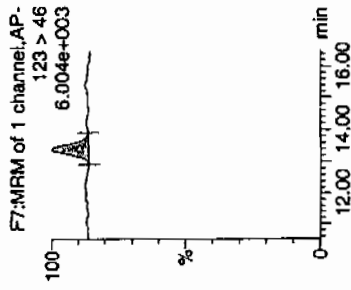
## 13-Dinitrobenzene



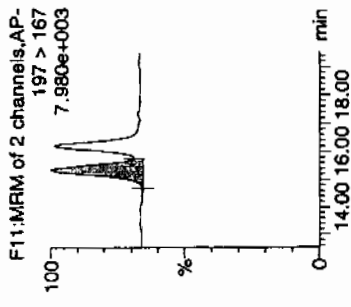
## Tetryl



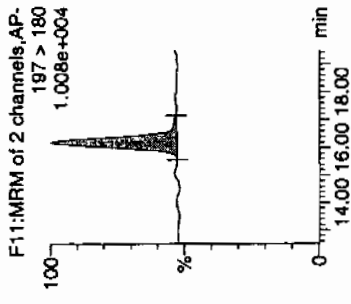
## Nitrobenzene



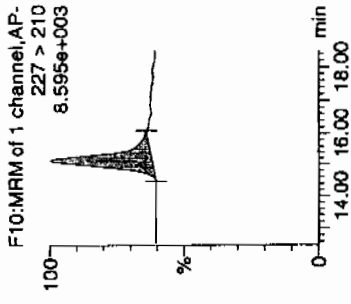
## 4-Amino-26-dinitrotoluene



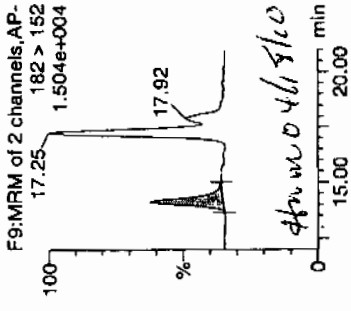
## 2-Amino-46-dinitrotoluene



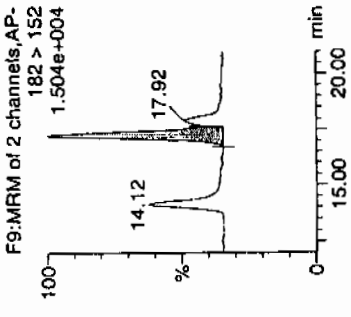
## 246-Trinitrotoluene



## 34-dinitrotoluene

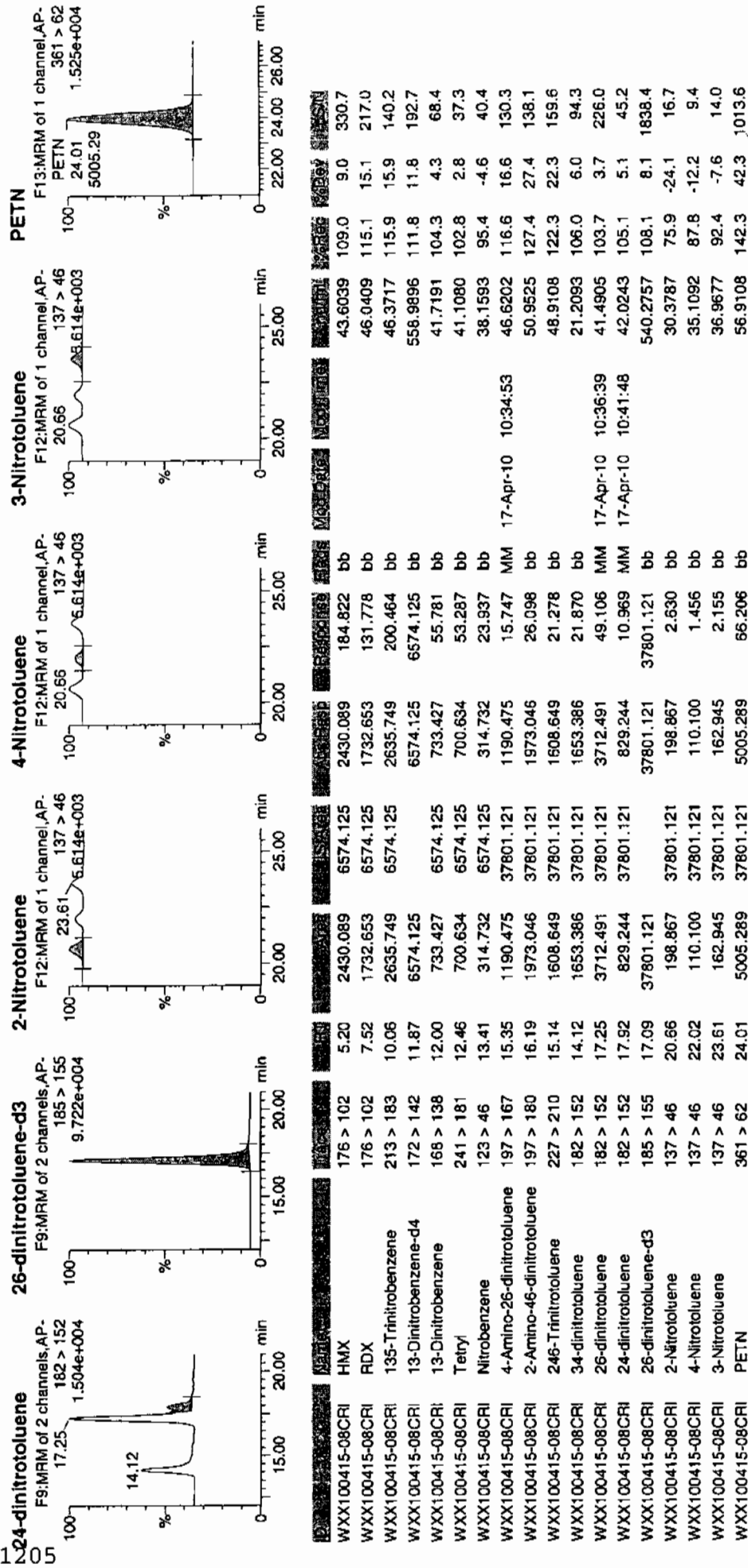


## 26-dinitrotoluene





Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010



# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/16/10  
 Time of Injection 1306  
 Standard Number WXX100415-08CRI  
 Data File EXP0412191a

HMX	109.0	✓
RDX	115.1	✓
135-TNB	115.9	✓
13-DNB	104.3	
Tetryl	102.8	
Nitrobenzene	95.4	
4A-26-DNT	116.6	
2A-46-DNT	127.4	
246-TNT	122.3	
34-DNT(surr)	106.0	
26-DNT	103.7	
24-DNT	105.1	
2-NT	75.9	
4-NT	87.8	
3-NT	92.4	
PETN	142.3	✓

*Handwritten:*  
 4/17/10

Total 1722.0

Average 107.6

*Handwritten:*  
 4/16/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412201a

Analysis Date: 16-APR-10 18:01

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	587.578	98	
1,3-Dinitrobenzene-d4	500	504.505	101	
2,4,6-Trinitrotoluene	600	644.055	107	
2,4-Dinitrotoluene	600	617.761	103	
2,6-Dinitrotoluene	600	553.71	92	
2,6-Dinitrotoluene-d3	500	523.209	105	
2-Amino-4,6-dinitrotoluene	600	592.725	99	
3,4-Dinitrotoluene	300	280.462	93	
4-Amino-2,6-dinitrotoluene	600	558.591	93	
HMX	600	646.479	108	
Nitrobenzene	600	519.544	87	
PETN	600	628.387	105	
RDX	600	680.578	113	
Tetryl	600	547.905	91	
m-Dinitrobenzene	600	577.419	96	
m-Nitrotoluene	600	461.5	77	*
o-Nitrotoluene	600	426.861	71	*
p-Nitrotoluene	600	468.599	78	*

Recovery Limits:

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

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

# Quantify Sample Report

GLP Laboratories, LLC / Analyst: Michael A. Penny

Printed: Sat Apr 17 10:45:10 2010, Page 45 of 97

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412201a

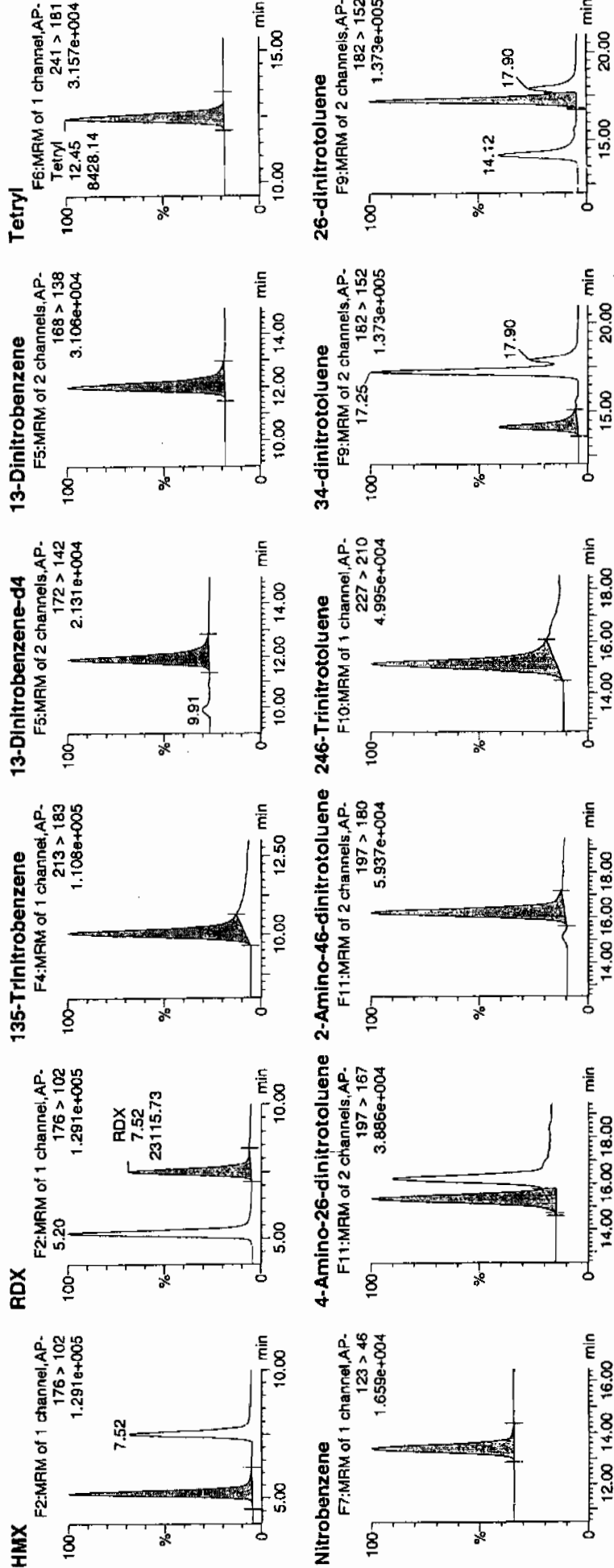
Date: 16-Apr-2010

Time: 18:01:34

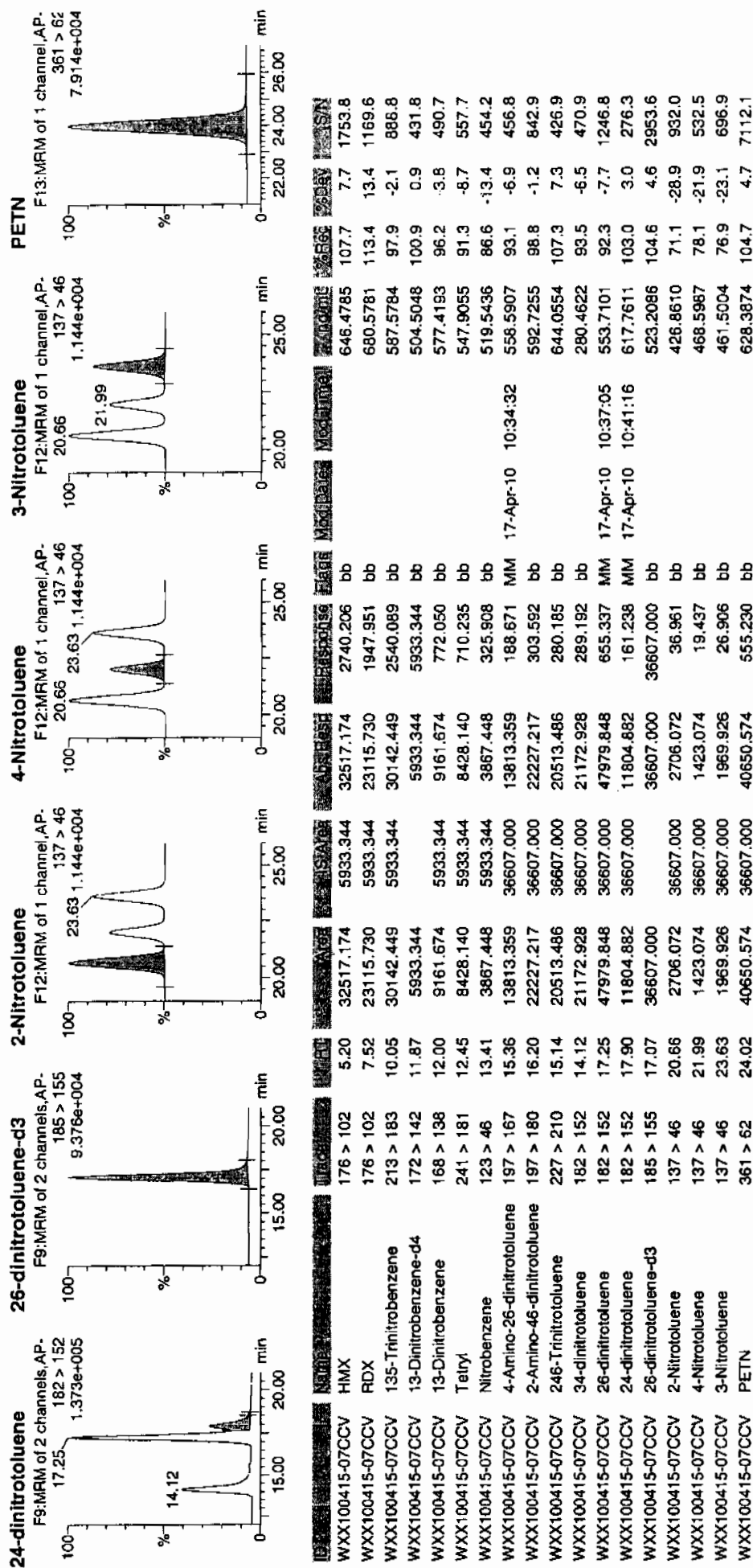
ID: WXX100415-07CCV

Vial: 1:1,B

4/17/10



Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis: 04/16/10  
 Time of Injection: 1801  
 Standard Number: WXX100415-07CCV  
 Data File: EXP0412201a

HMX	107.7
RDX	113.4
135-TNB	97.9
13-DNB	96.2
Tetryl	91.3
Nitrobenzene	86.6
4A-26-DNT	93.1
2A-46-DNT	98.8
246-TNT	107.3
34-DNT(surr)	93.5
26-DNT	92.3
24-DNT	103.0
2-NT	71.1
4-NT	78.1
3-NT	76.9
PETN	104.7

Total 1511.9

Average 94.5

ICV Limits 85-115%  
 CRI Limits 70-130%  
 CCV Limits 85-115%

No single analyte > +/- 60%

WHT  
4/17/10

Ann 04/18/10

**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412203a

Analysis Date: 16-APR-10 19:00

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	49.947	125	
1,3-Dinitrobenzene-d4	500	512.579	103	
2,4,6-Trinitrotoluene	40	38.989	97	
2,4-Dinitrotoluene	40	41.706	104	
2,6-Dinitrotoluene	40	40.891	102	
2,6-Dinitrotoluene-d3	500	575.067	115	
2-Amino-4,6-dinitrotoluene	40	46.944	117	
3,4-Dinitrotoluene	20	20.231	101	
4-Amino-2,6-dinitrotoluene	40	32.371	81	
HMX	40	50.356	126	
Nitrobenzene	40	43.303	108	
PETN	40	47.143	118	
RDX	40	51.133	128	
Tetryl	40	43.462	109	
m-Dinitrobenzene	40	41.14	103	
m-Nitrotoluene	40	32.606	82	
o-Nitrotoluene	40	35.3	88	
p-Nitrotoluene	40	33.454	84	

**Recovery Limits:**

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

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010

Name: C:\MASSLYNX\NEW\_EXP\_PRO\Data\EXP0412203a

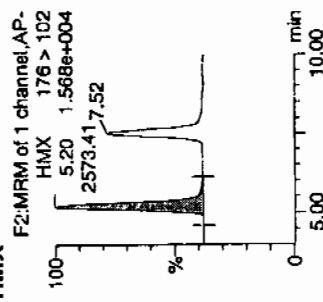
Date: 16-Apr-2010

Time: 19:00:36

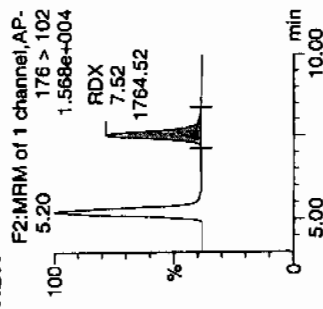
ID: WXX100415-08CRI

Vial: 1:1,C

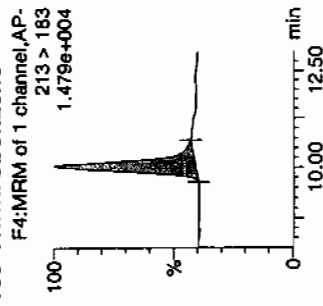
### HMX



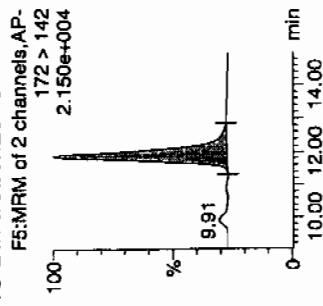
### RDX



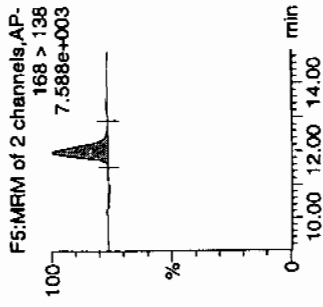
### 135-Trinitrobenzene



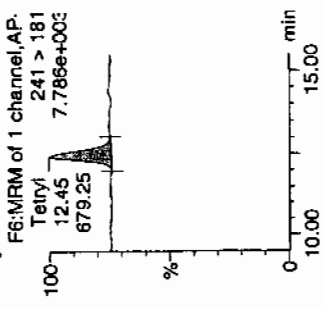
### 13-Dinitrobenzene-d4



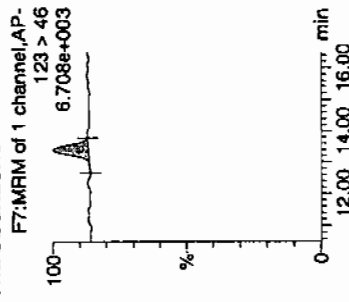
### 13-Dinitrobenzene



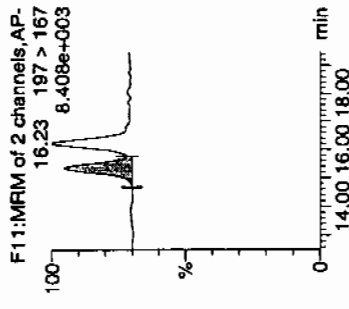
### Tetryl



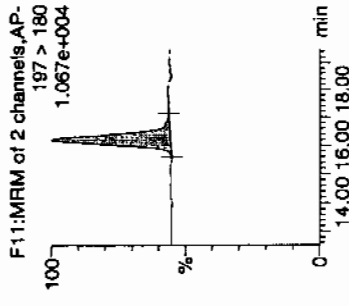
### Nitrobenzene



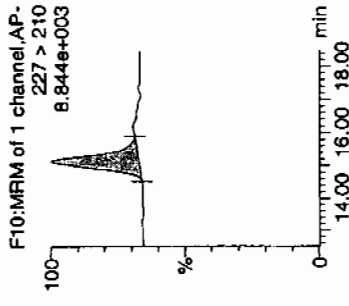
### 4-Amino-26-dinitrotoluene



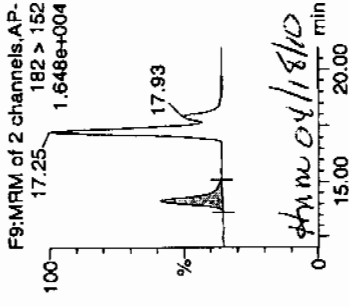
### 2-Amino-46-dinitrotoluene



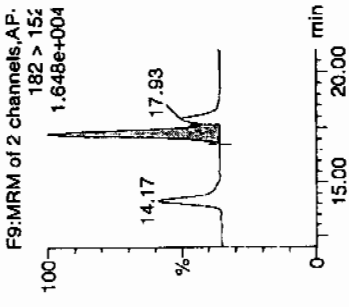
### 246-Trinitrotoluene



### 34-dinitrotoluene



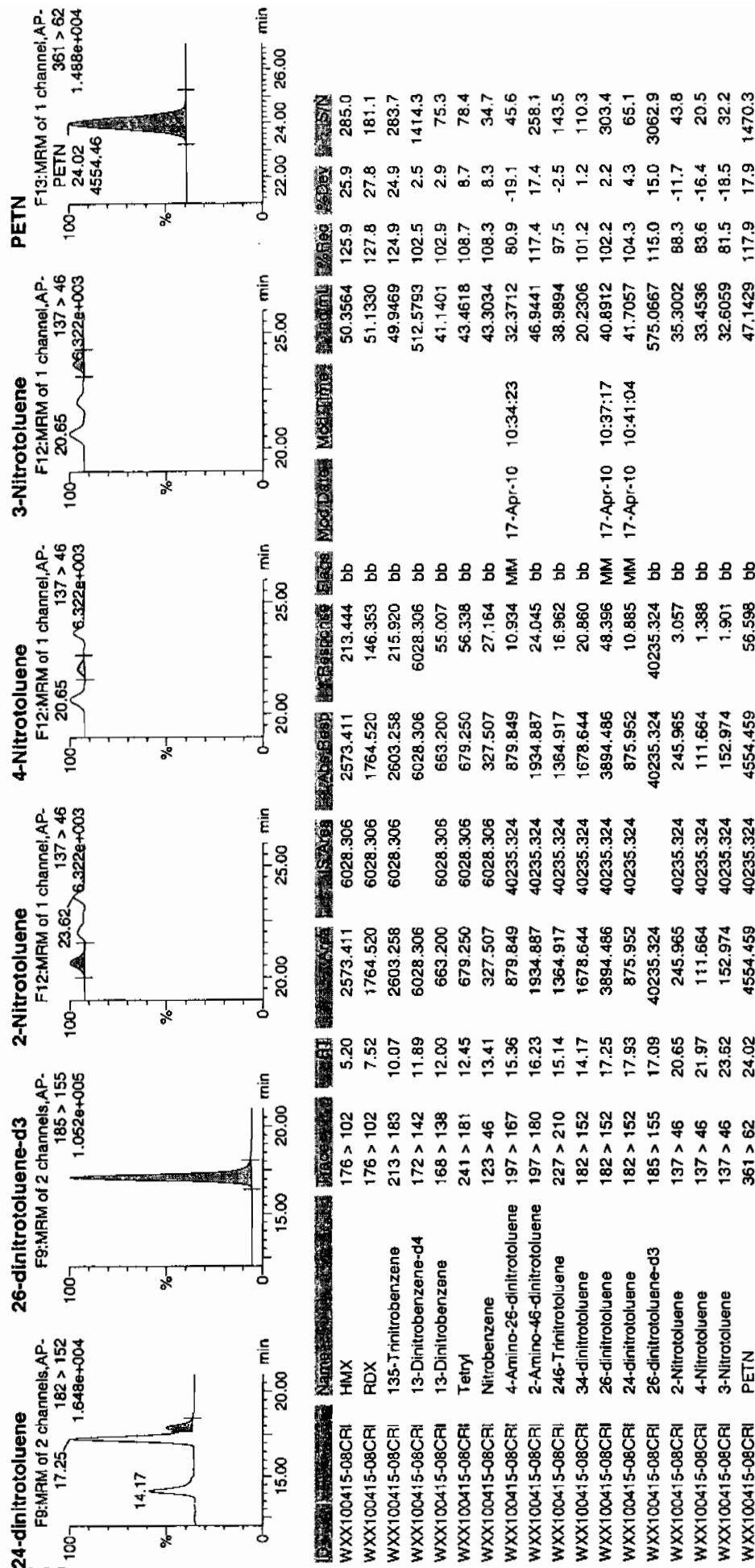
### 26-dinitrotoluene





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

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA4.qld, Time: Sat Apr 17 10:42:19 2010



# GRAND MEAN AVERAGE

Vendor: UltraScientific  
 Date of Analysis 04/16/10  
 Time of Injection 1900  
 Standard Number WXX100415-08CRI  
 Data File EXP0412203a

HMX	125.9
RDX	127.8
135-TNB	124.9
13-DNB	102.9
Tetryl	108.7
Nitrobenzene	108.3
4A-26-DNT	80.9
2A-46-DNT	117.4
246-TNT	97.5
34-DNT(surr)	101.2
26-DNT	102.2
24-DNT	104.3
2-NT	88.3
4-NT	83.6
3-NT	81.5
PETN	117.9

4.77  
4/17/10

Total 1673.3

Average 104.6

4.77  
4/17/10

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

**7B**  
**Explosives CRI Standard**

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-2140

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXS04050013.wiff

**Analysis Date:** 05-APR-10 15:54

**LCMSMS ID:** 1358

**Column ID:** Sphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	121	121	
2,6-Diamino-4-nitrotoluene	100	128	128	
3,4-Dinitrotoluene	50	58.4	117	
3,5-Dinitroaniline	100	118	118	
TATB	100	103	103	
tris(o-cresyl) phosphate	100	116	116	

**Recovery Limits:**

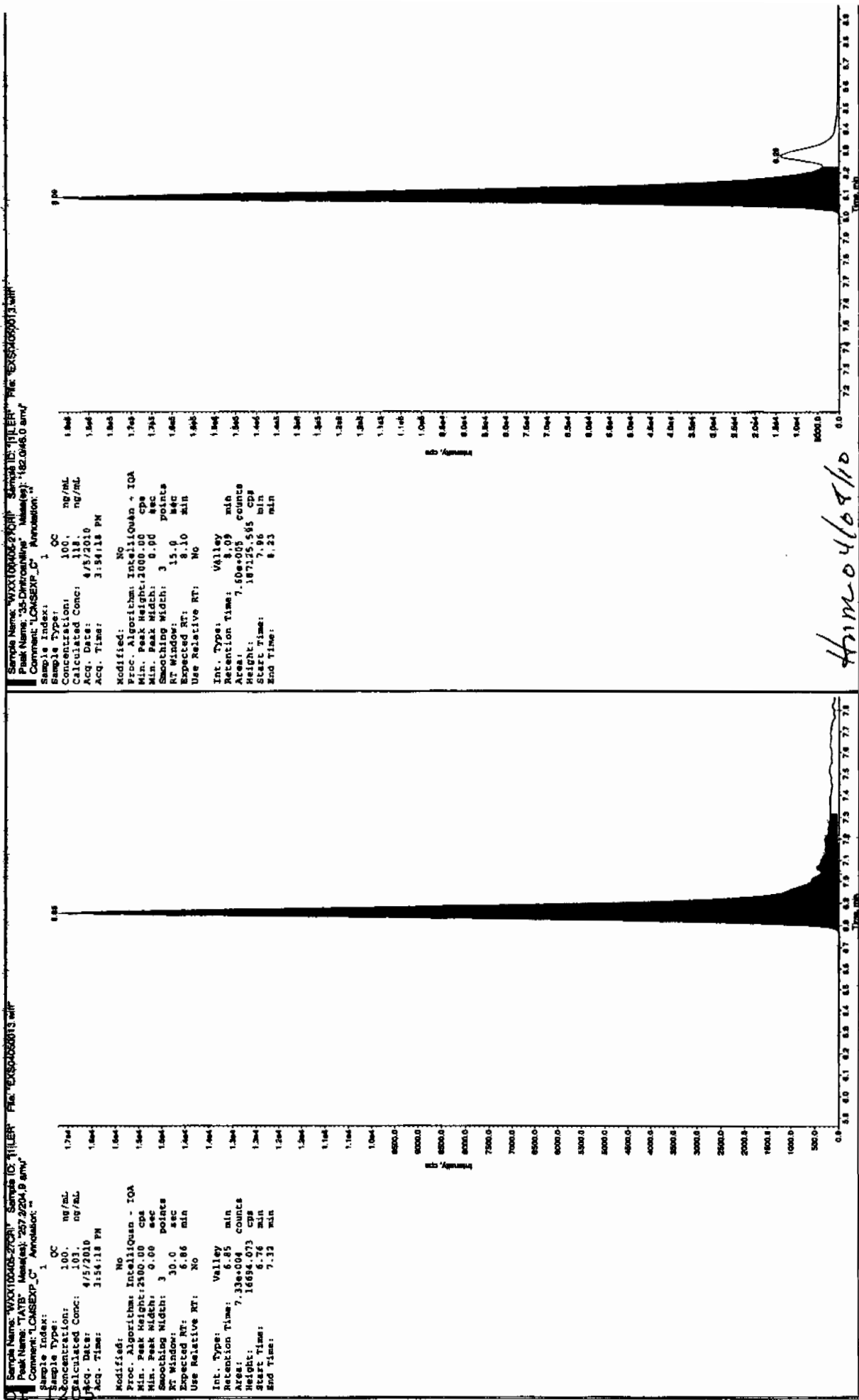
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

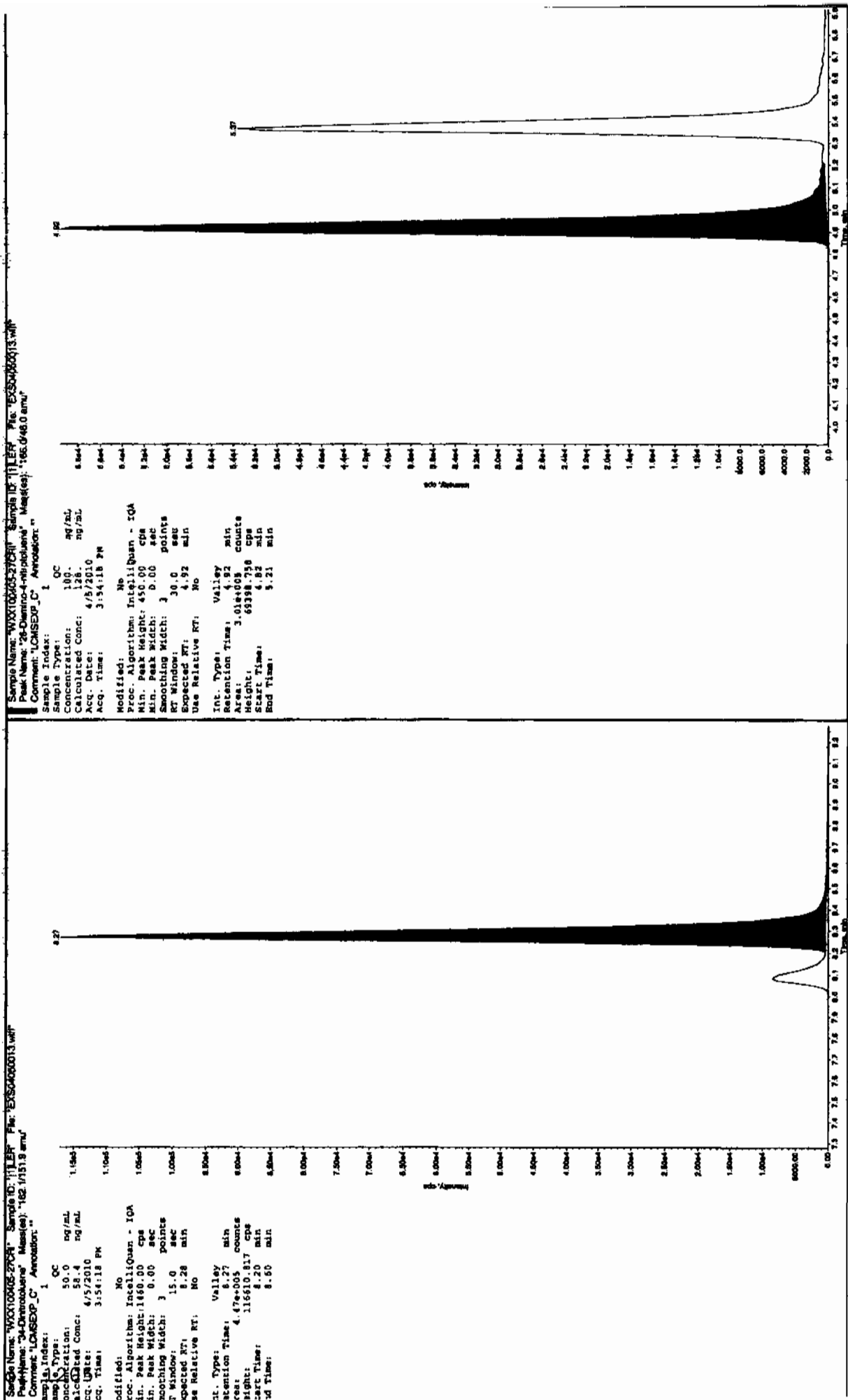
# Column used to flag Recovery outside of Limits

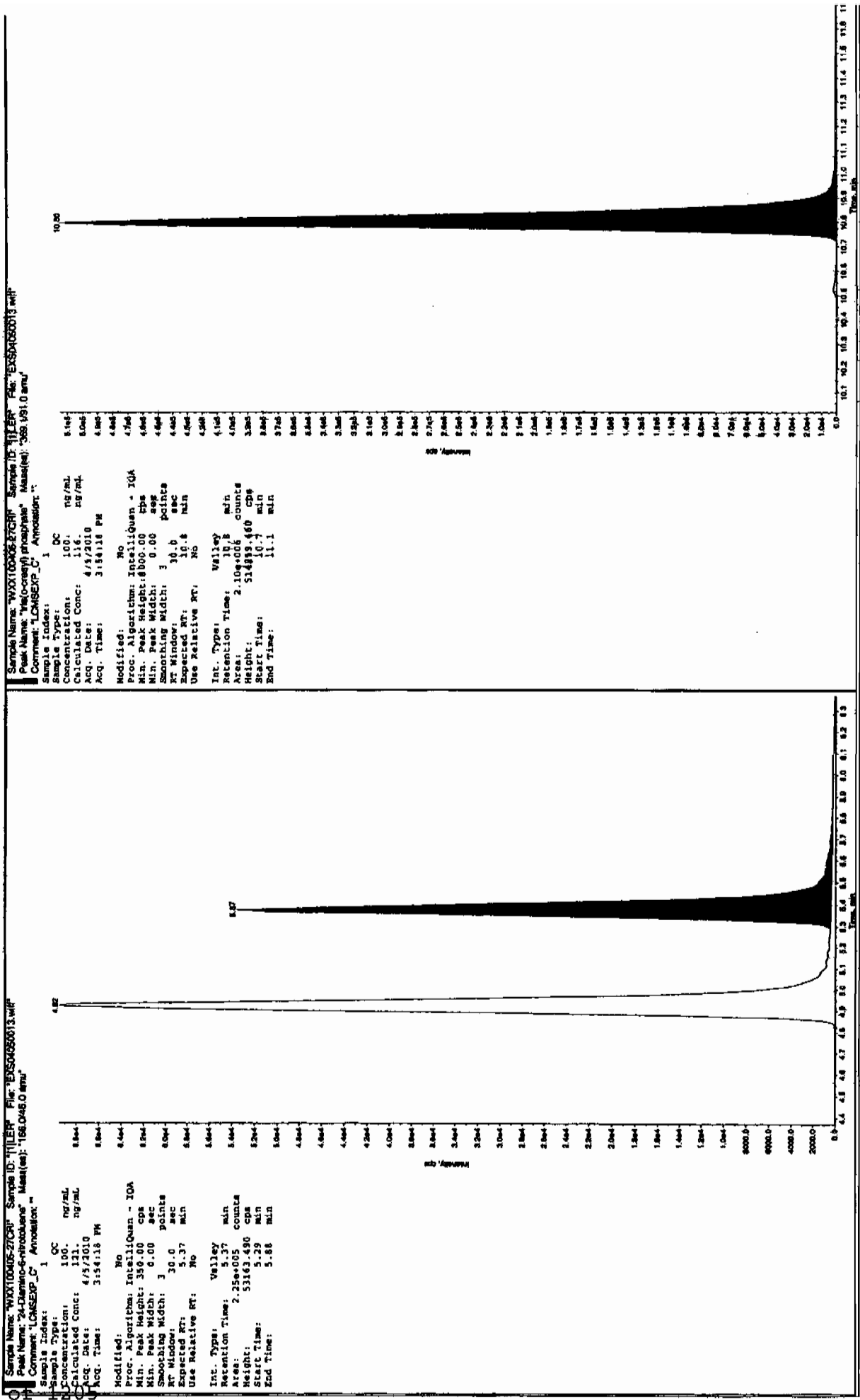
\* Value outside of Recovery Limits

Run 4/17/10



Run 04/08/10





7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050024.wiff

Analysis Date: 05-APR-10 18:47

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	468	94	
3,4-Dinitrotoluene	250	233	93	
3,5-Dinitroaniline	500	503	101	
TATB	500	470	94	
tris(o-cresyl) phosphate	500	487	97	

Recovery Limits:

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

Other Target Analytes 80-120%

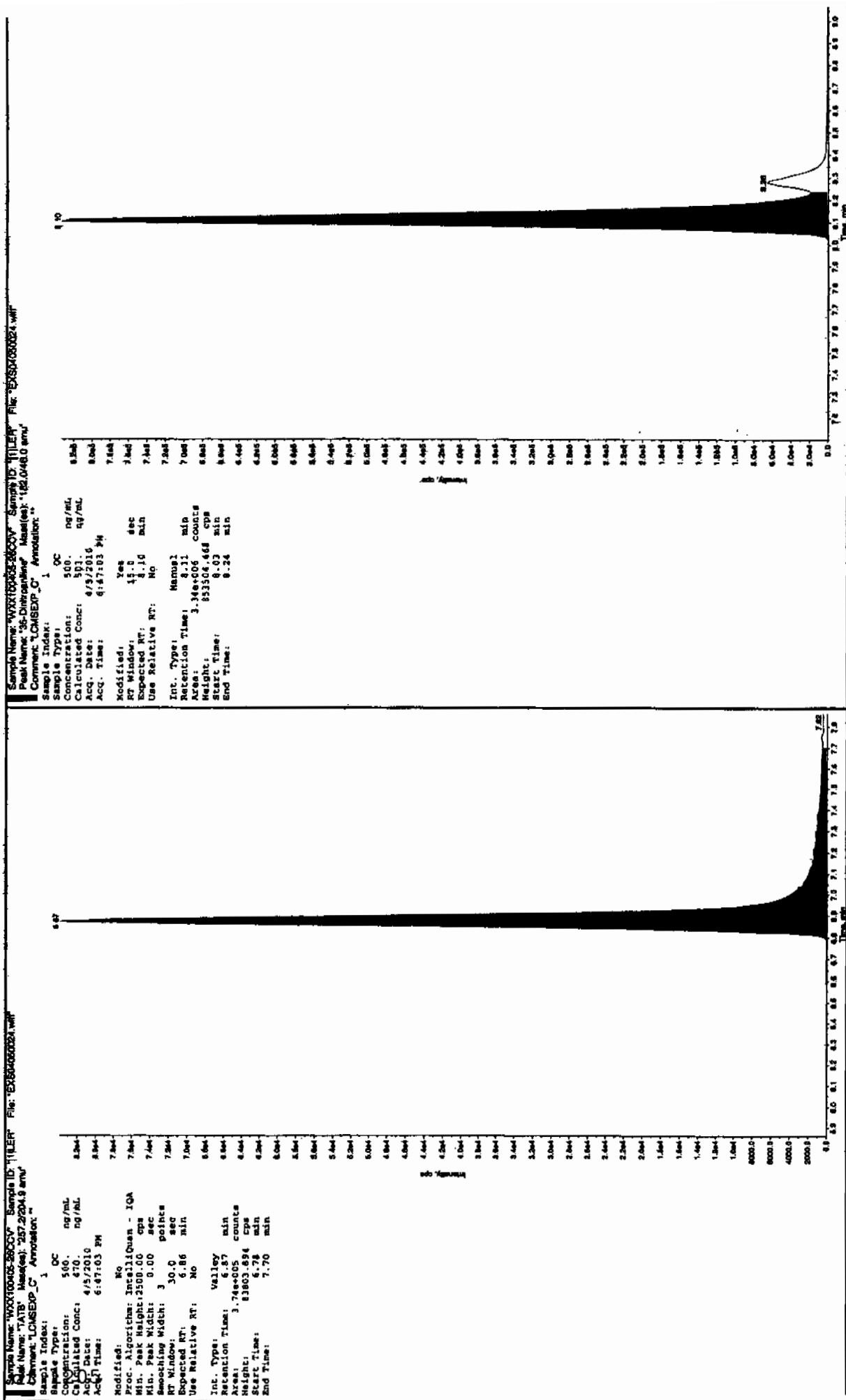
# Column used to flag Recovery outside of Limits

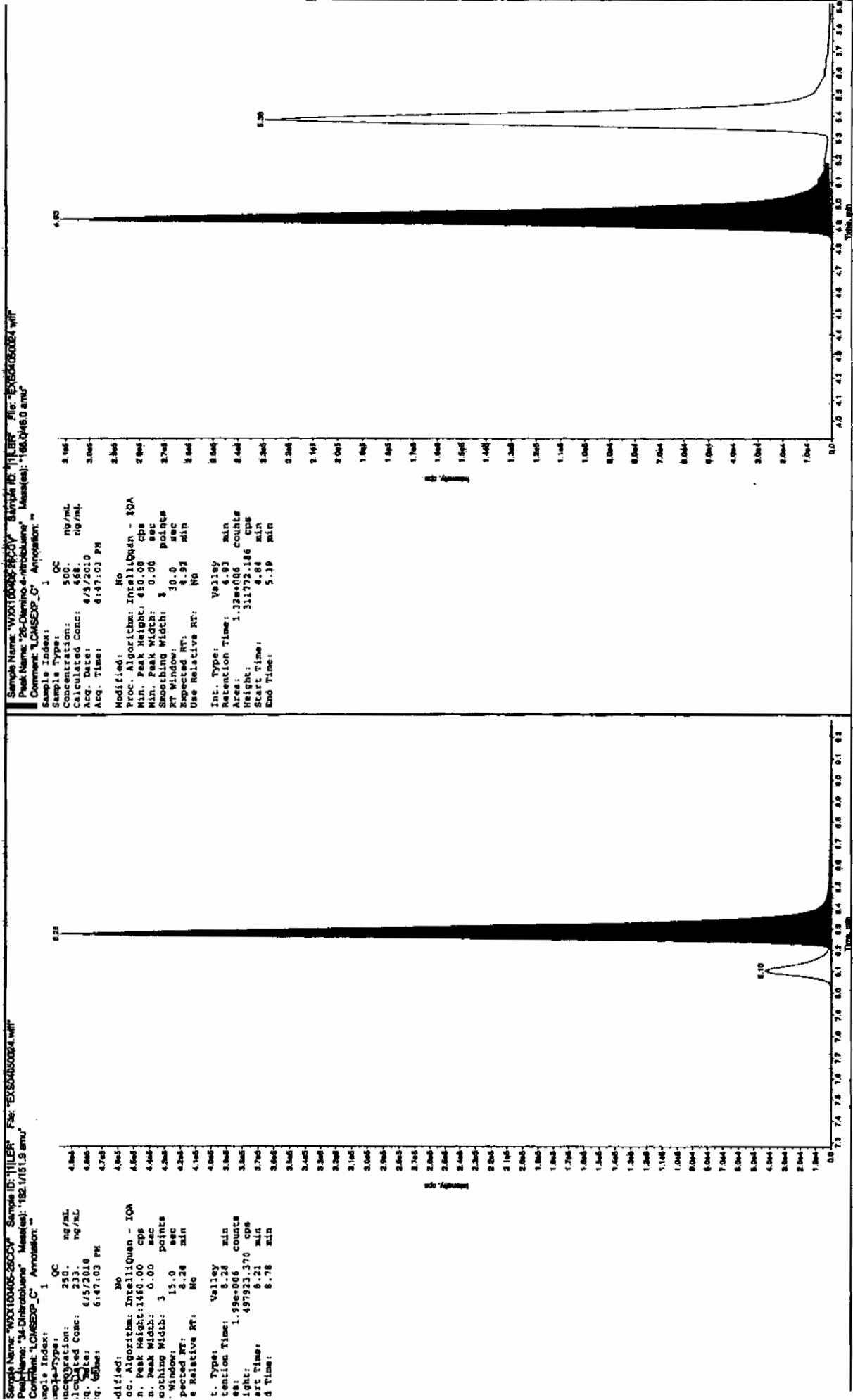
\* Value outside of Recovery Limits





after Jan 4/17/10





Sample Name: "WXX10005-280CV" Sample ID: "11LER" File: "EXSD100024.wht"  
Peak Name: "tri(n-octyl) phosphate" Mass(es): "369.1791.0 amu"

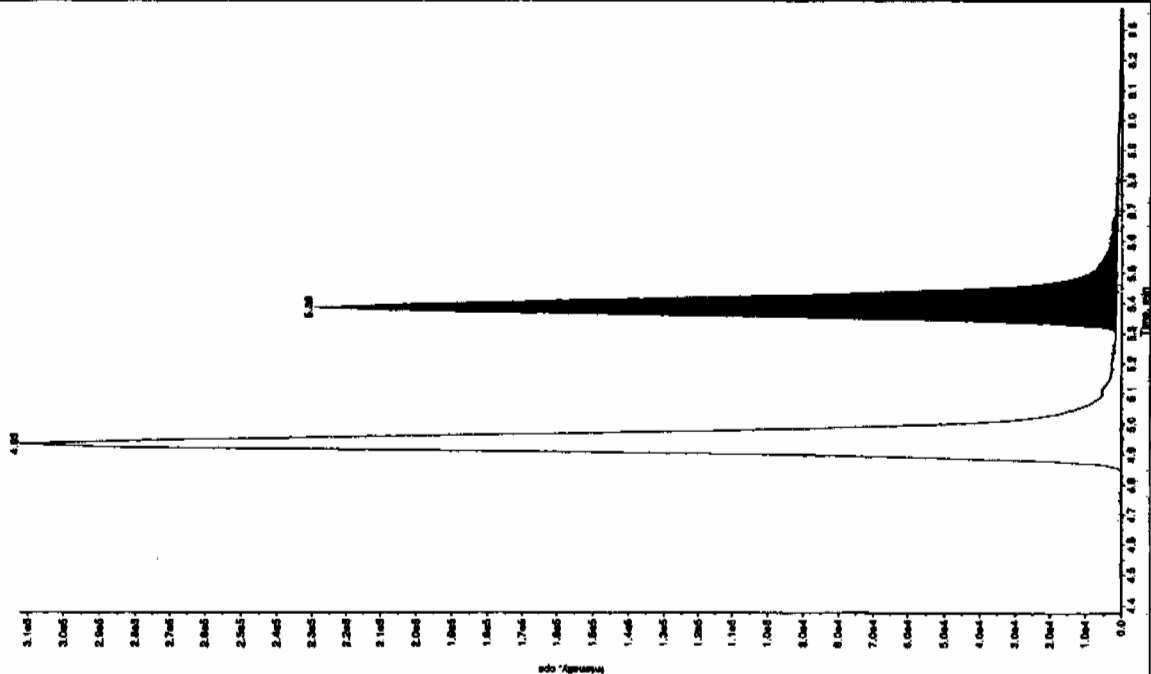
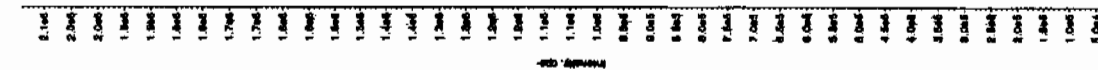
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** Comment: "LASEXP.C" Annotation: "
Sample Index: 1
Sample Type: OC
Concentration: 300. ng/mL
Calculated Conc: 487. ng/mL
Acq. Date: 4/3/2010
Acq. Time: 5:47:03 PM

Modified: No
Proc. Algorithm: IntellScan - IQ
Min. Peak Height: 1000.00 cps
Min. Peak Width: 3.00 sec
Min. Peak Width: 30.0 sec
RT Window: 10.8 min
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 8.77e+005 counts
Height: 2090334.961 cps
Start Time: 10.7 min
End Time: 11.2 min

```



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

**7B**  
**Explosives CRI Standard**

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-2140

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXS04050026.wiff

**Analysis Date:** 05-APR-10 19:18

**LCMSMS ID:** 1358

**Column ID:** JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	116	116	
2,6-Diamino-4-nitrotoluene	100	114	114	
3,4-Dinitrotoluene	50	54.3	109	
3,5-Dinitroaniline	100	109	109	
TATB	100	101	101	
tris(o-cresyl) phosphate	100	112	112	

**Recovery Limits:**

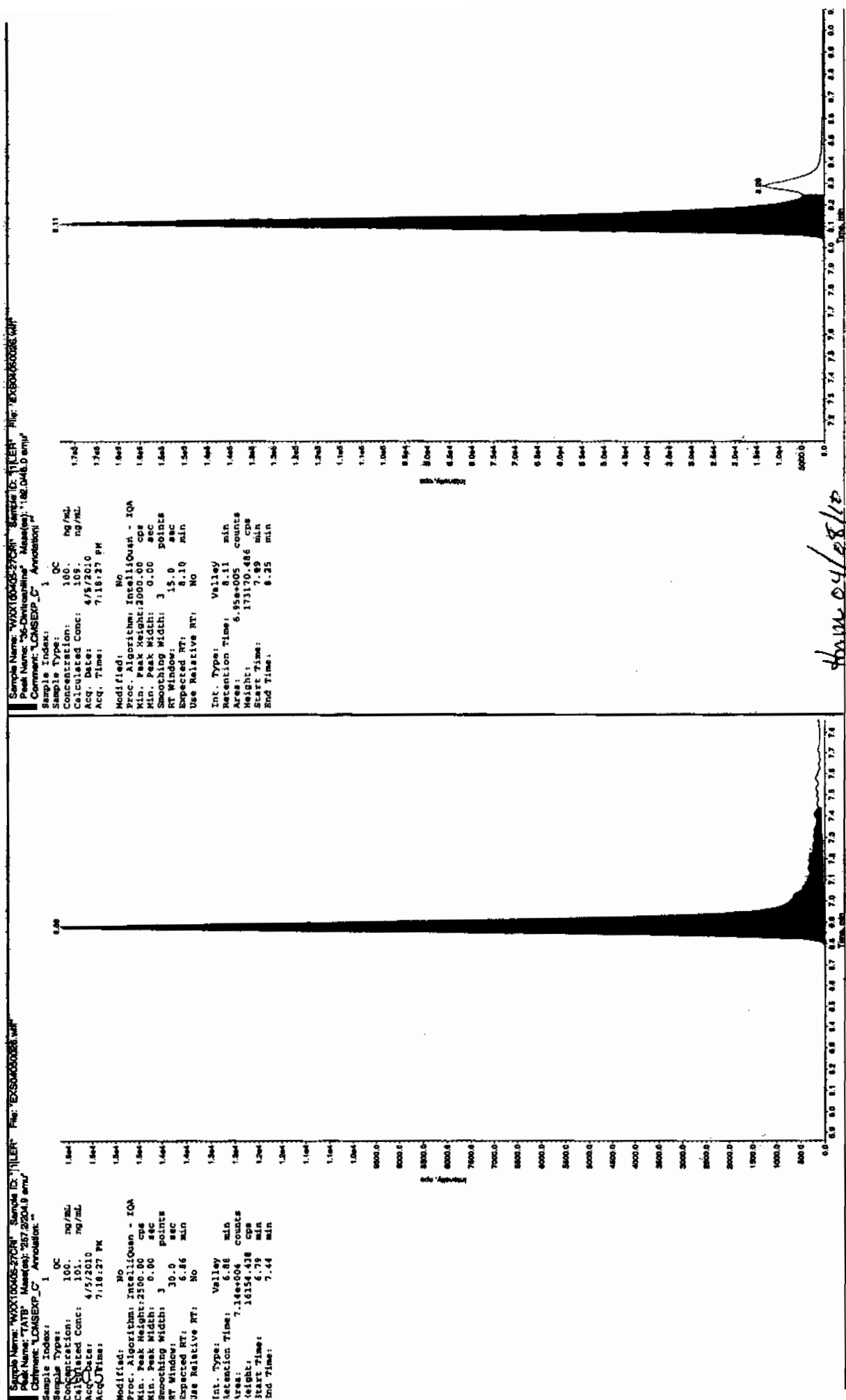
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

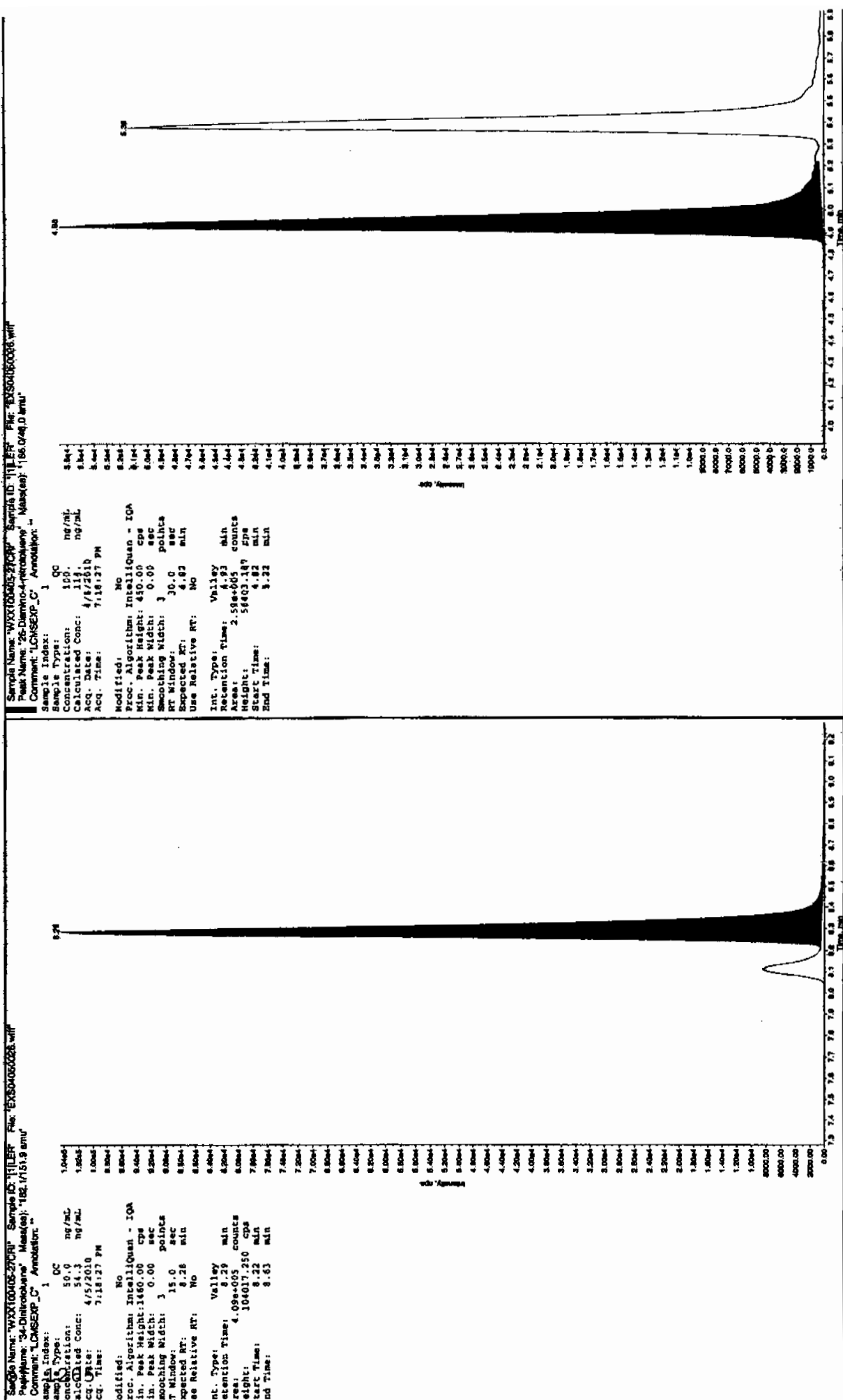
# Column used to flag Recovery outside of Limits

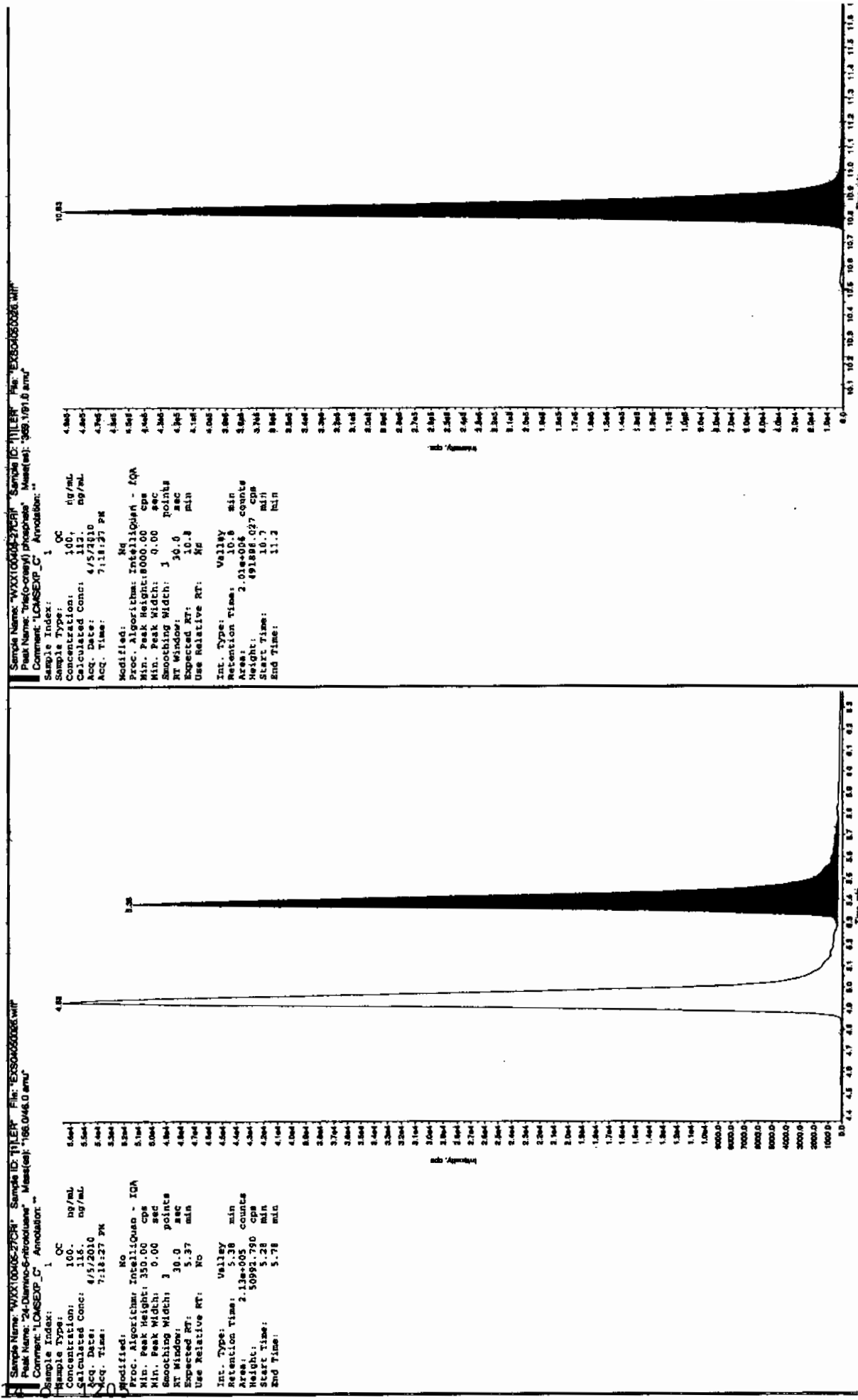
\* Value outside of Recovery Limits

Scan 4/7/10



Scan 4/8/10





7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050037.wiff

Analysis Date: 05-APR-10 22:11

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	545	109	
2,6-Diamino-4-nitrotoluene	500	513	103	
3,4-Dinitrotoluene	250	238	95	
3,5-Dinitroaniline	500	533	107	
TATB	500	511	102	
tris(o-cresyl) phosphate	500	496	99	

Recovery Limits:

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

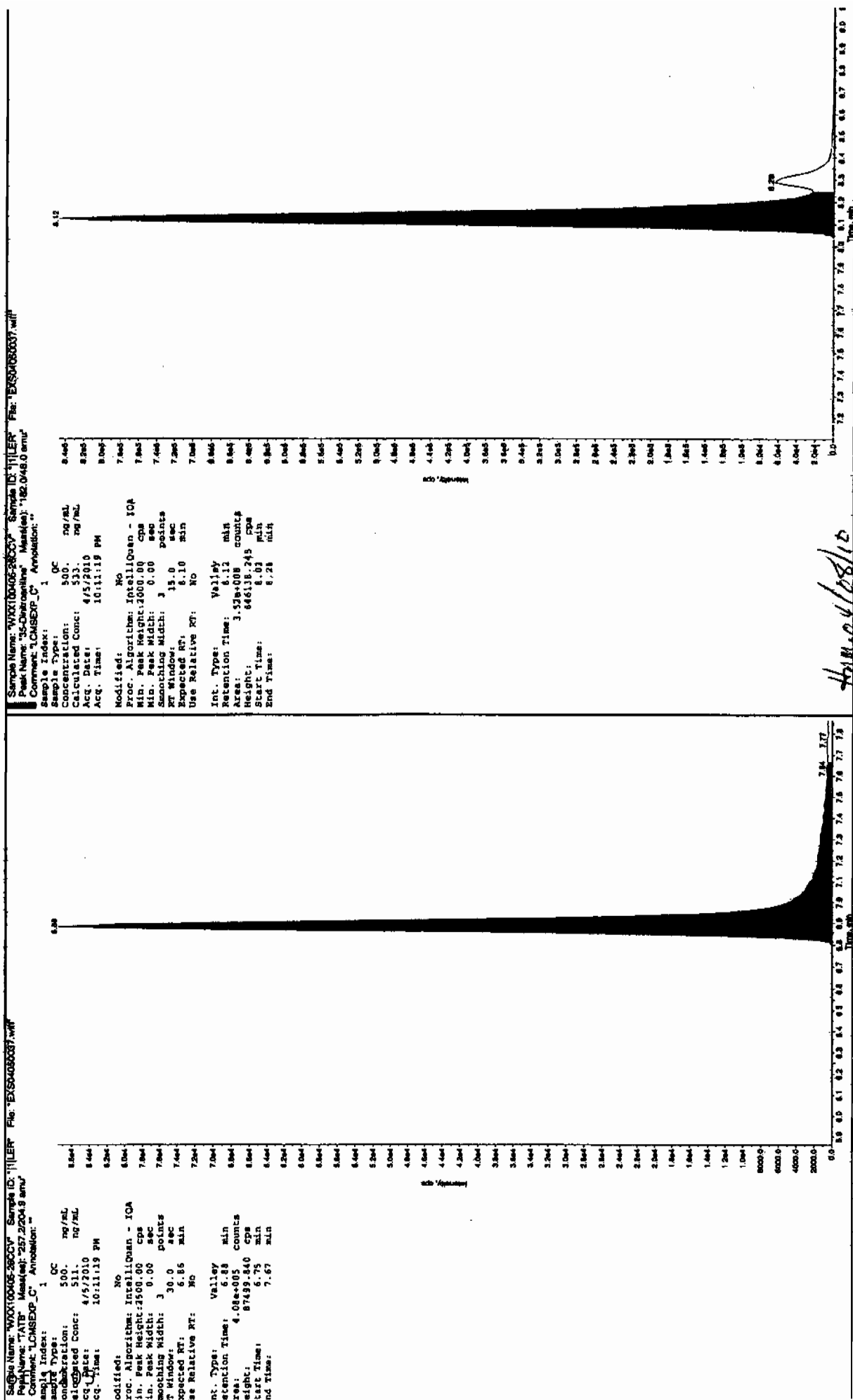
Other Target Analytes 80-120%

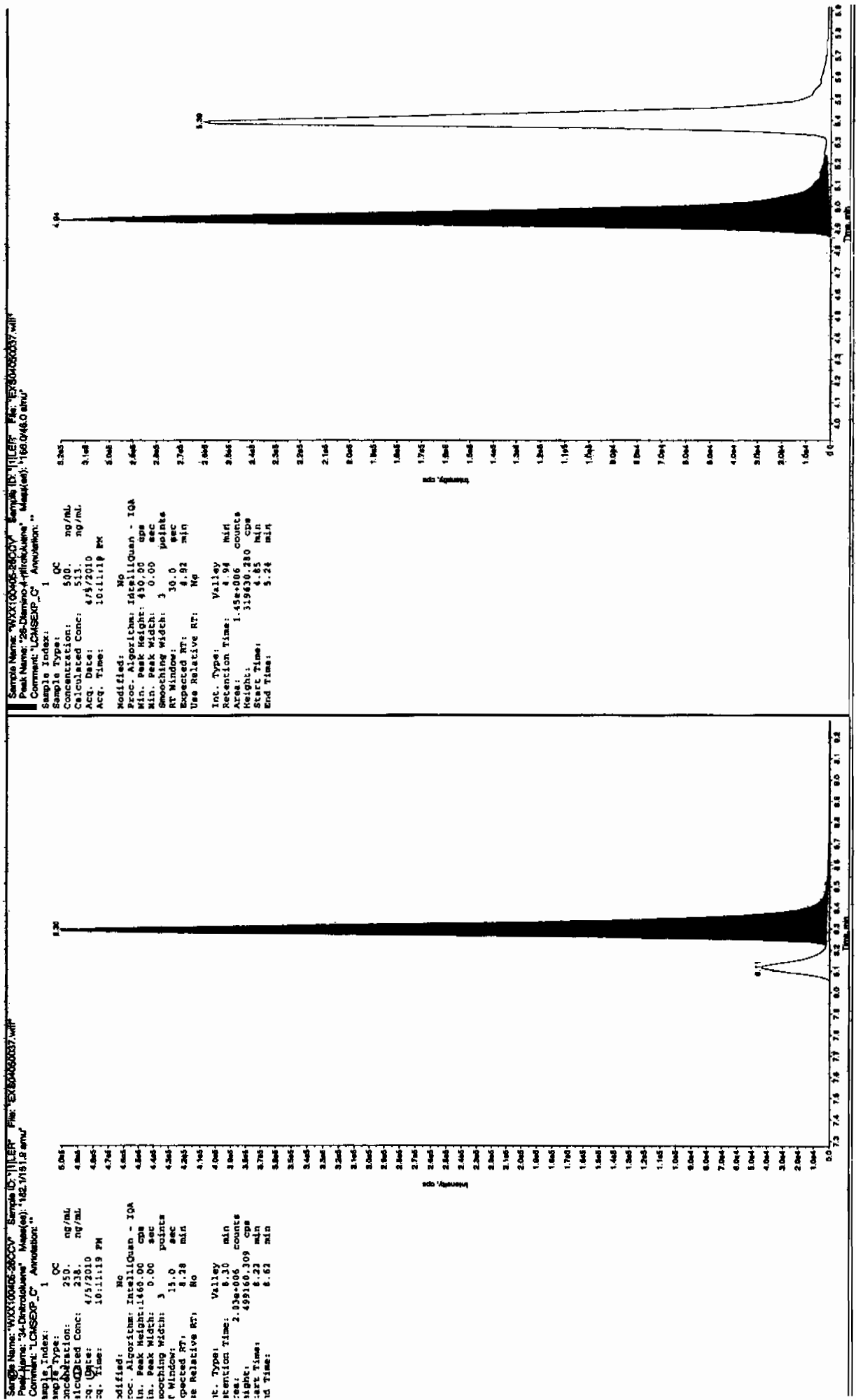
# Column used to flag Recovery outside of Limits

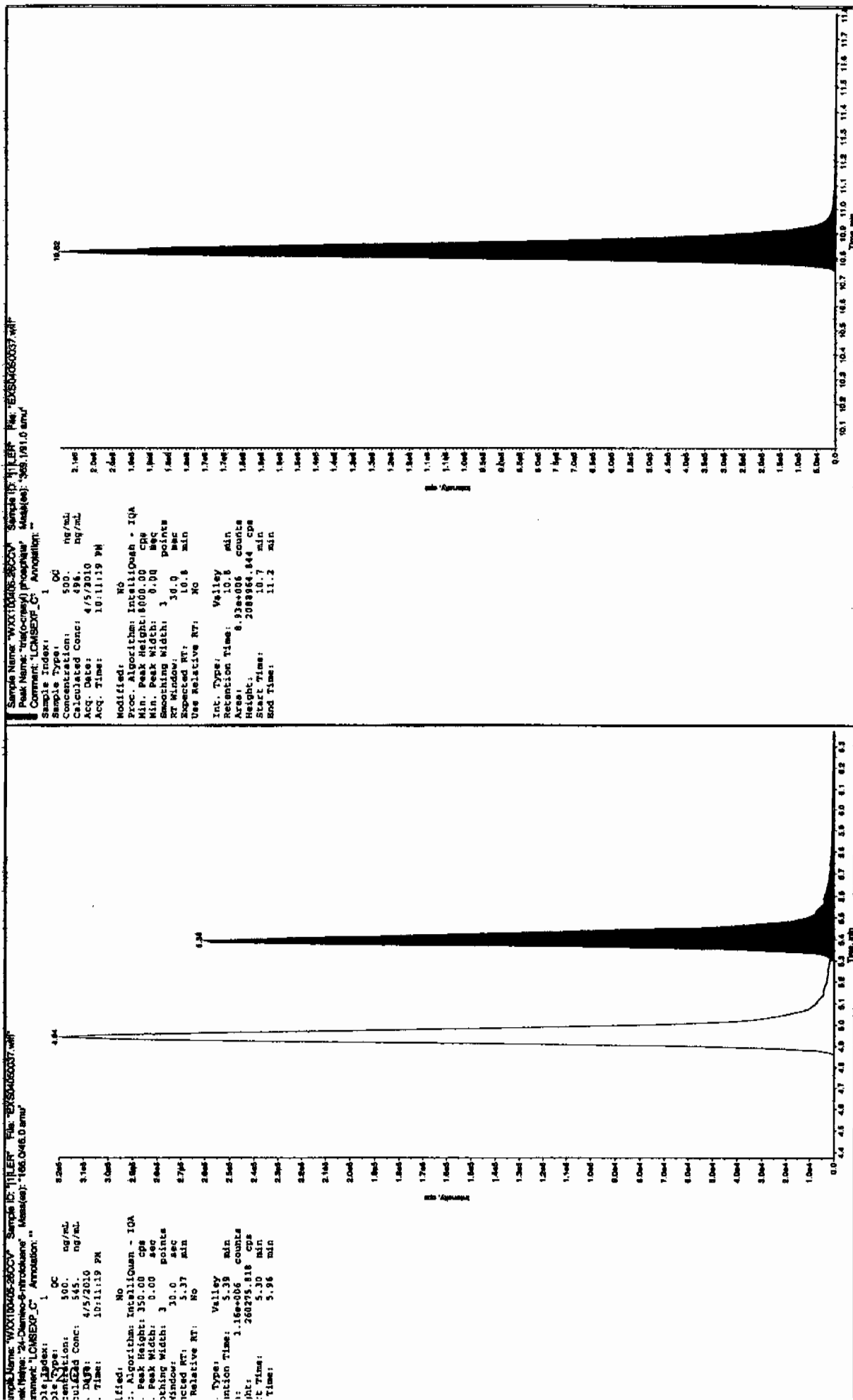
\* Value outside of Recovery Limits



Gen 4/7/10







**7B**  
**Explosives CRI Standard**

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-2140

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXS04050039.wiff

**Analysis Date:** 05-APR-10 22:42

**LCMSMS ID:** 1358

**Column ID:** JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	137	137	
2,6-Diamino-4-nitrotoluene	100	129	129	
3,4-Dinitrotoluene	50	55.5	111	
3,5-Dinitroaniline	100	122	122	
TATB	100	108	108	
tris(o-cresyl) phosphate	100	113	113	

**Recovery Limits:**

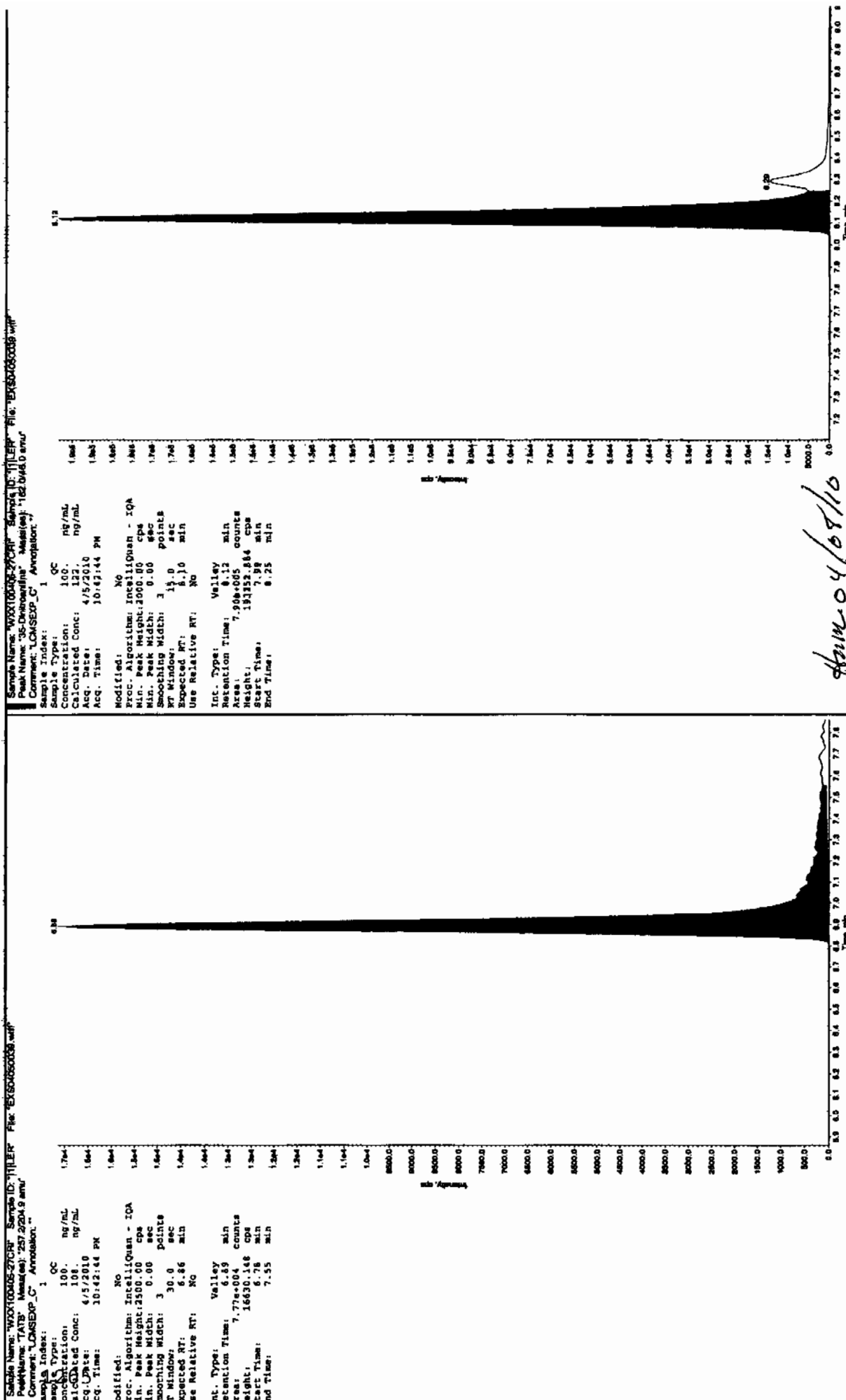
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

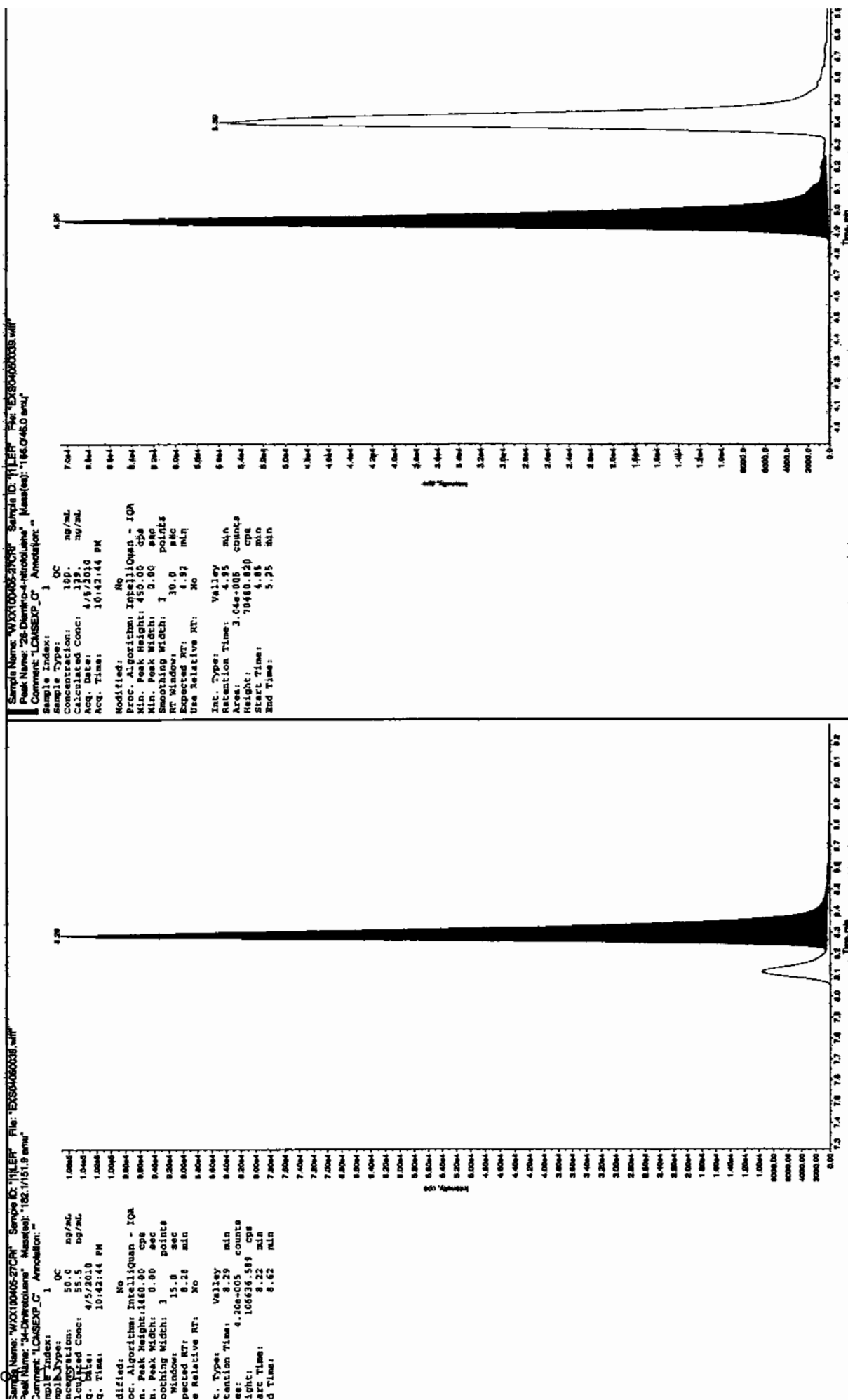
# Column used to flag Recovery outside of Limits

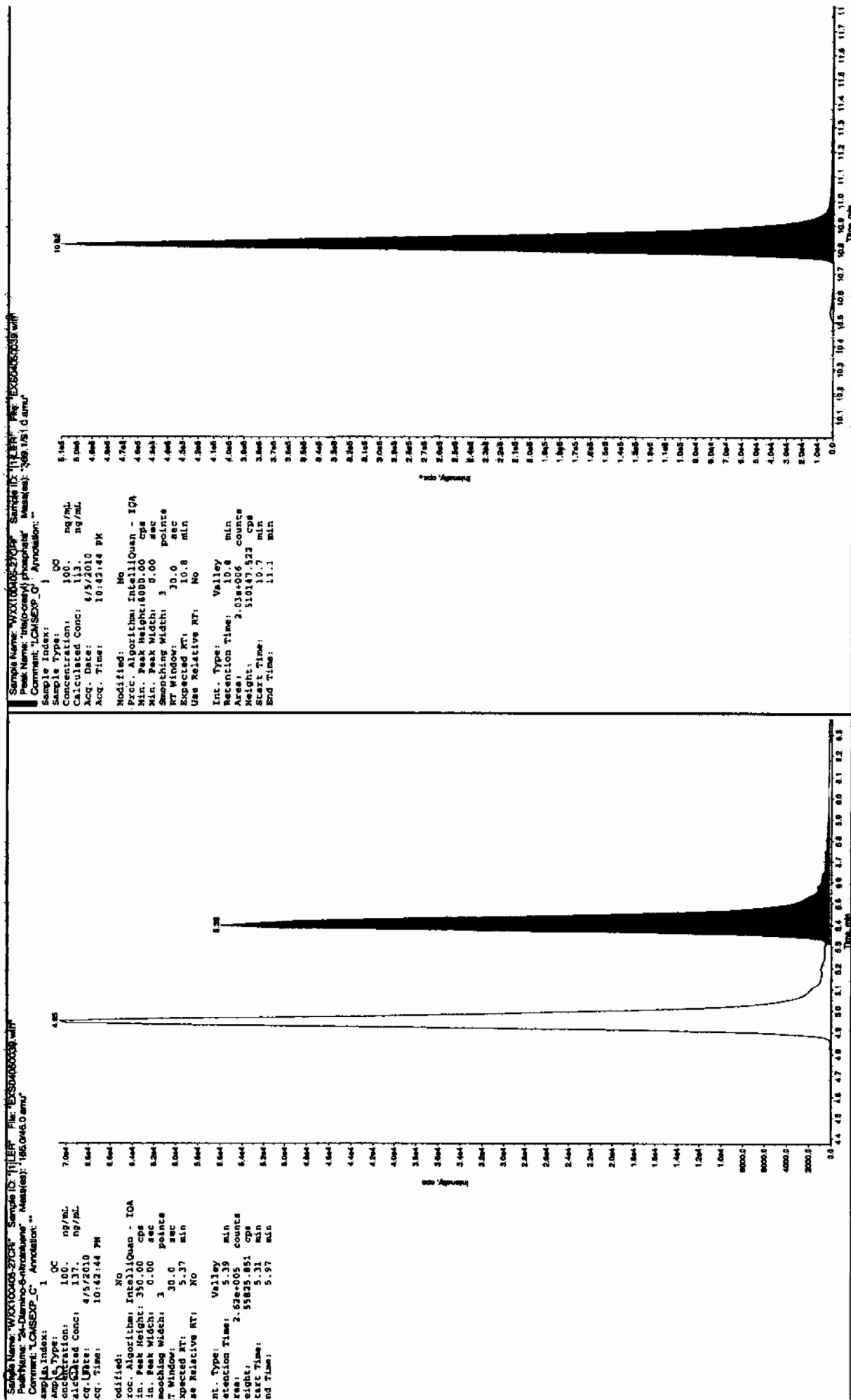
\* Value outside of Recovery Limits

See 4/7/10



See 4/6/10





7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050050.wiff

Analysis Date: 06-APR-10 01:35

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	615	123	
2,6-Diamino-4-nitrotoluene	500	532	106	
3,4-Dinitrotoluene	250	248	99	
3,5-Dinitroaniline	500	555	111	
TATB	500	515	103	
tris(o-cresyl) phosphate	500	498	100	

Recovery Limits:

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

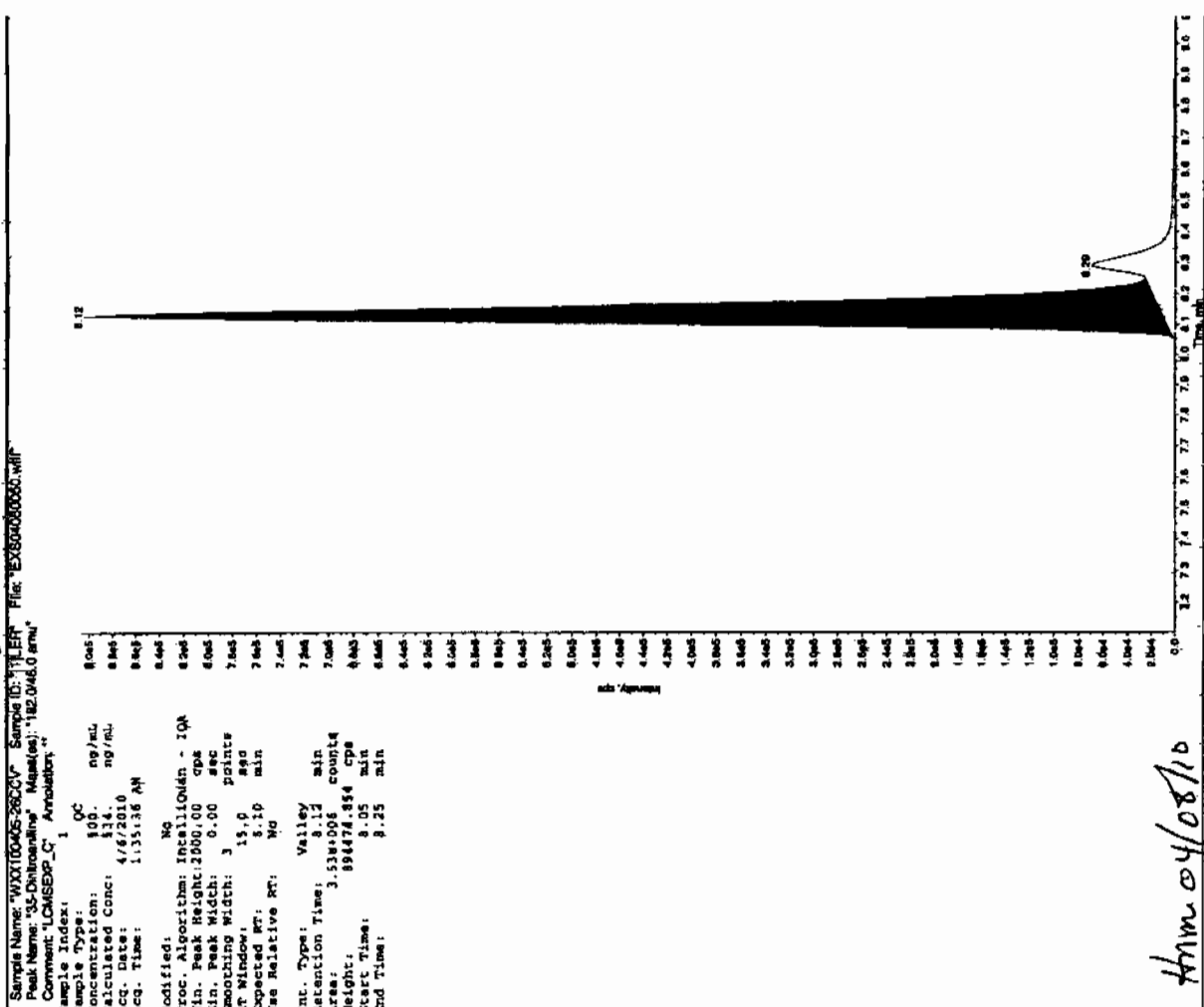
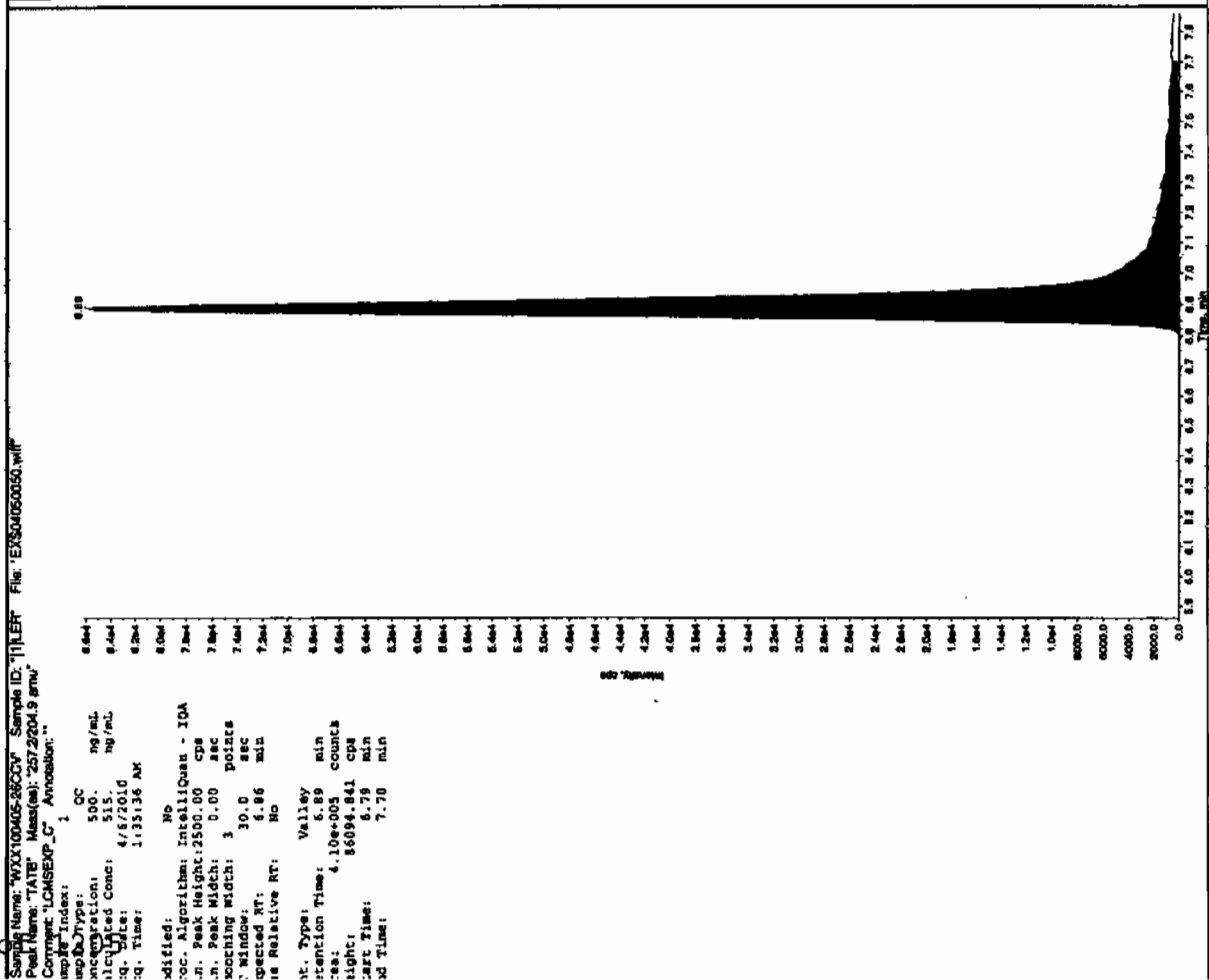
Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

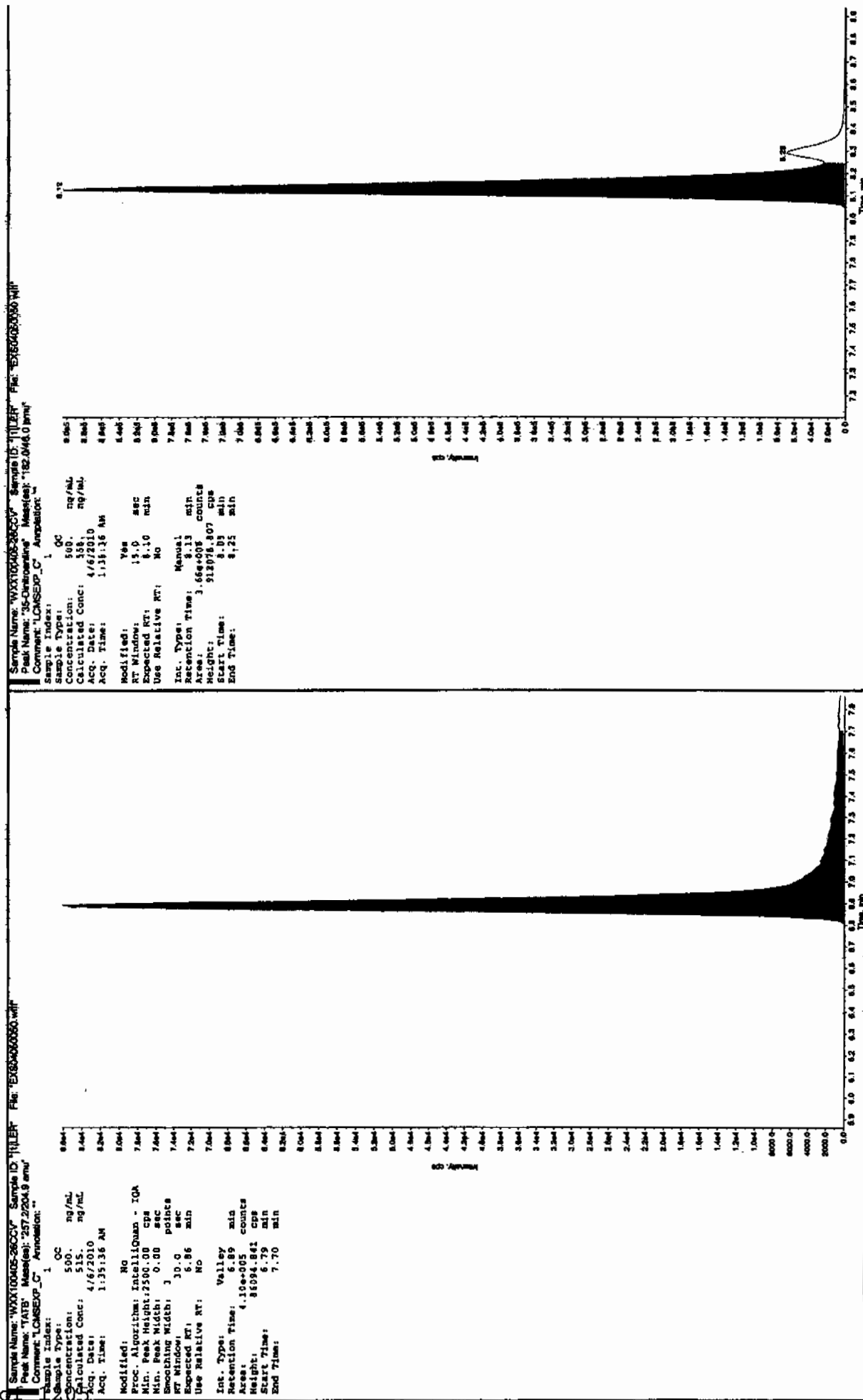


Before Jan 4/7/10

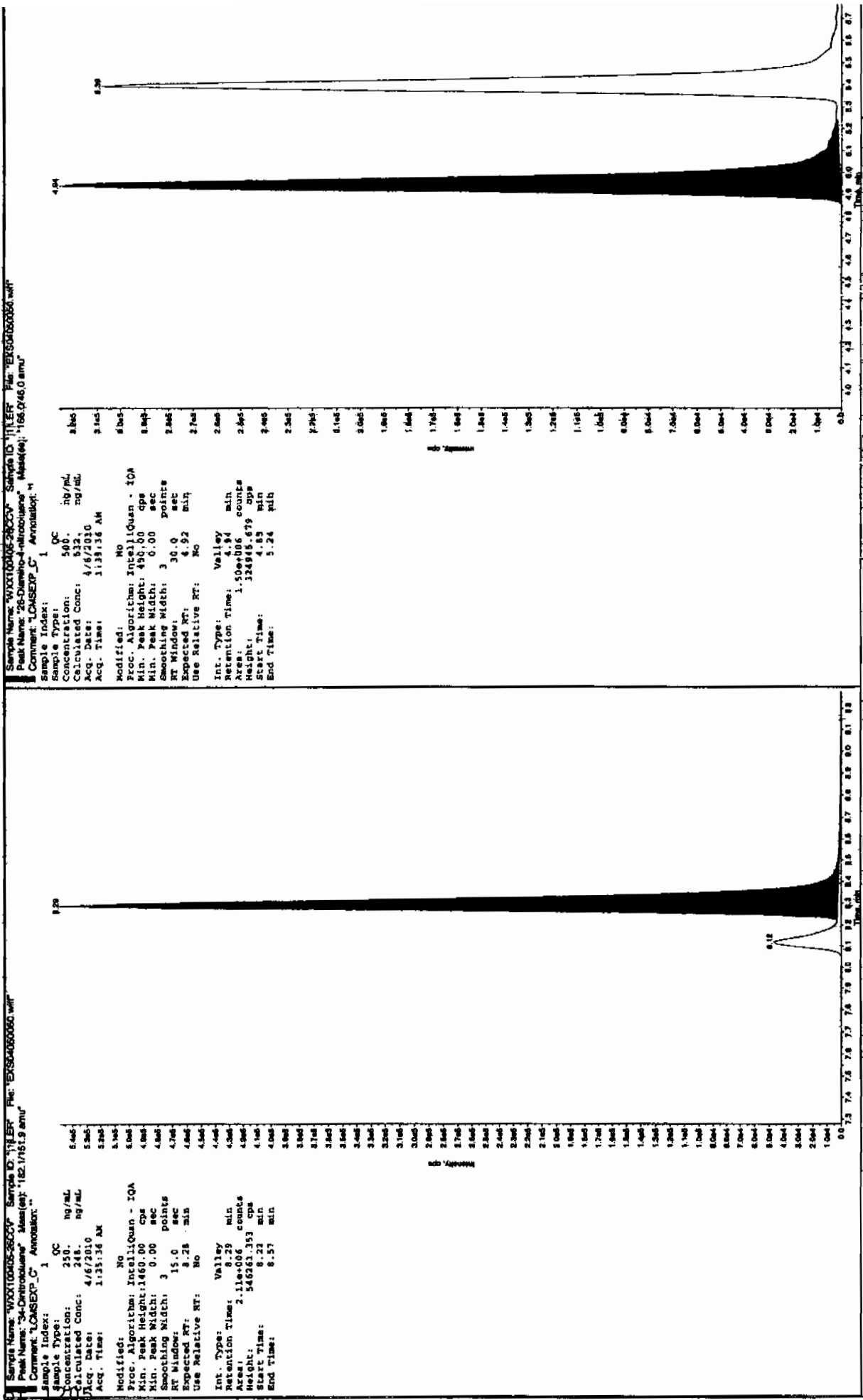


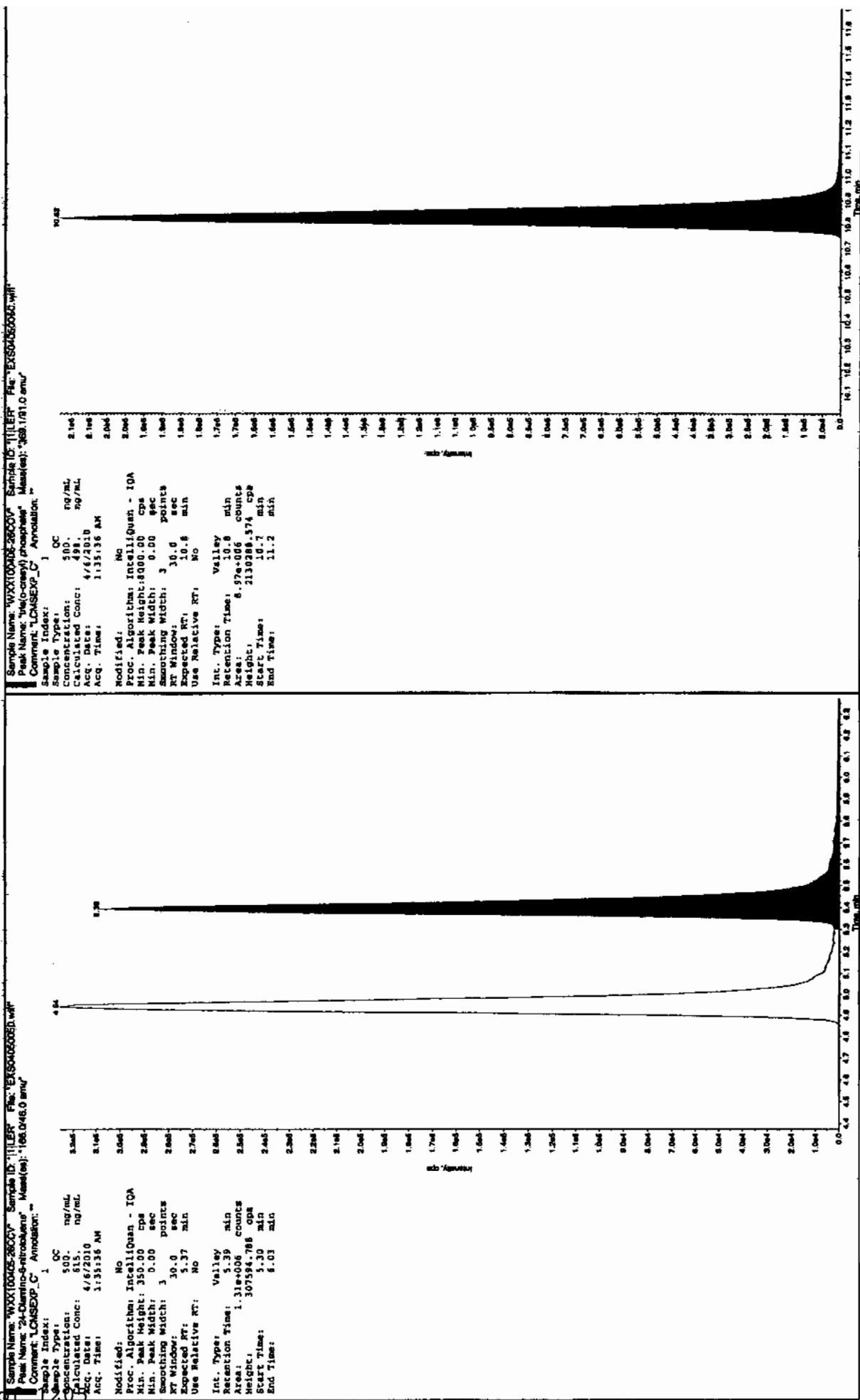
Ann 04/08/10

after Jan 4/7/10



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





\*GEL SOP GL-0A-E-056, Method 8321A-Modified LCMSMS#4

**7B**  
**Explosives CRI Standard**

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-2140

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXS04050052.wiff

**Analysis Date:** 06-APR-10 02:06

**LCMSMS ID:** 1358

**Column ID:** JSphere ODS-H80

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	50	57.7	115	
3,5-Dinitroaniline	100	125	125	
TATB	100	110	110	
tris(o-cresyl) phosphate	100	113	113	
2,4-Diamino-6-nitrotoluene	100	129	129	
2,6-Diamino-4-nitrotoluene	100	130	130	

**Recovery Limits:**

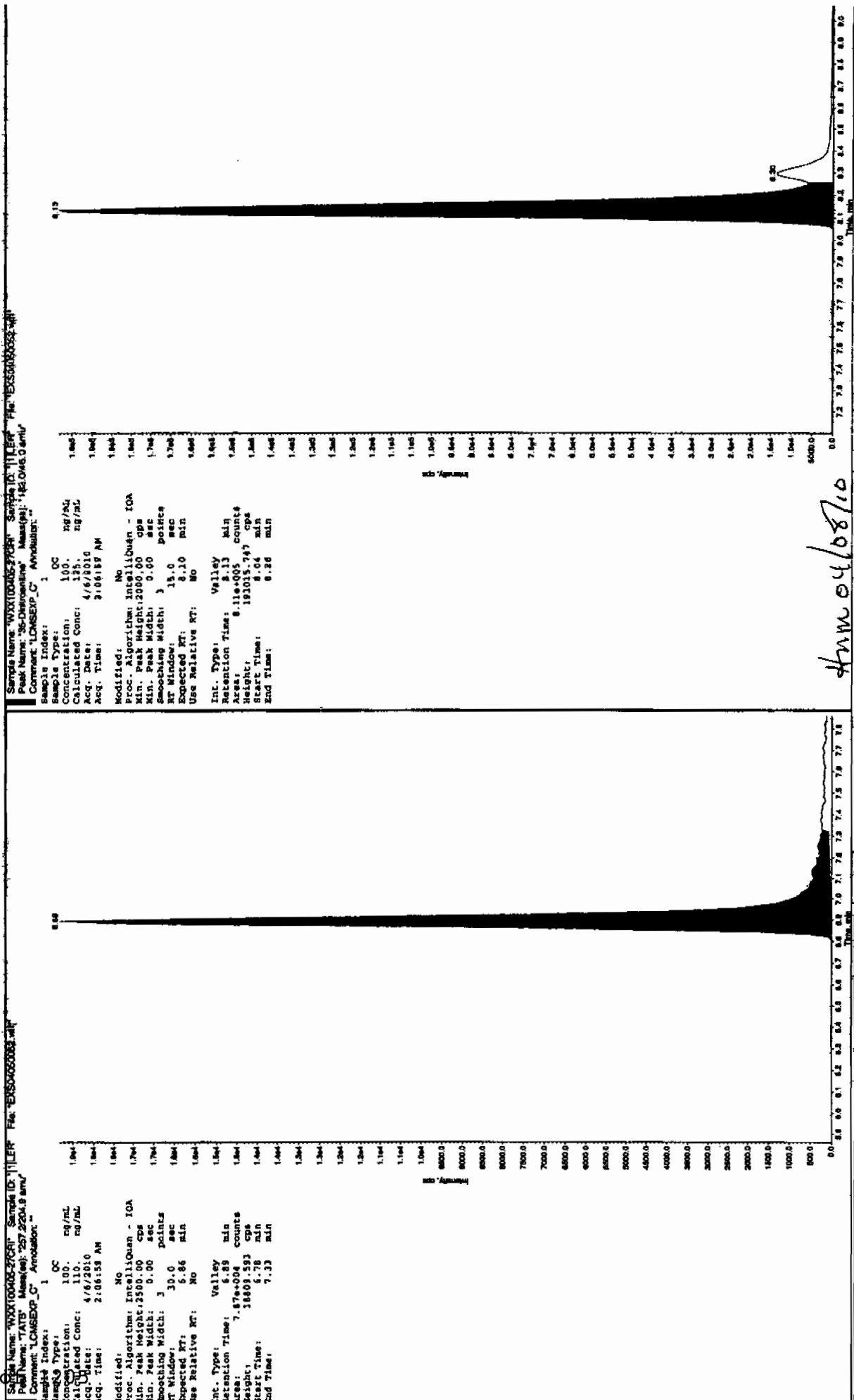
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

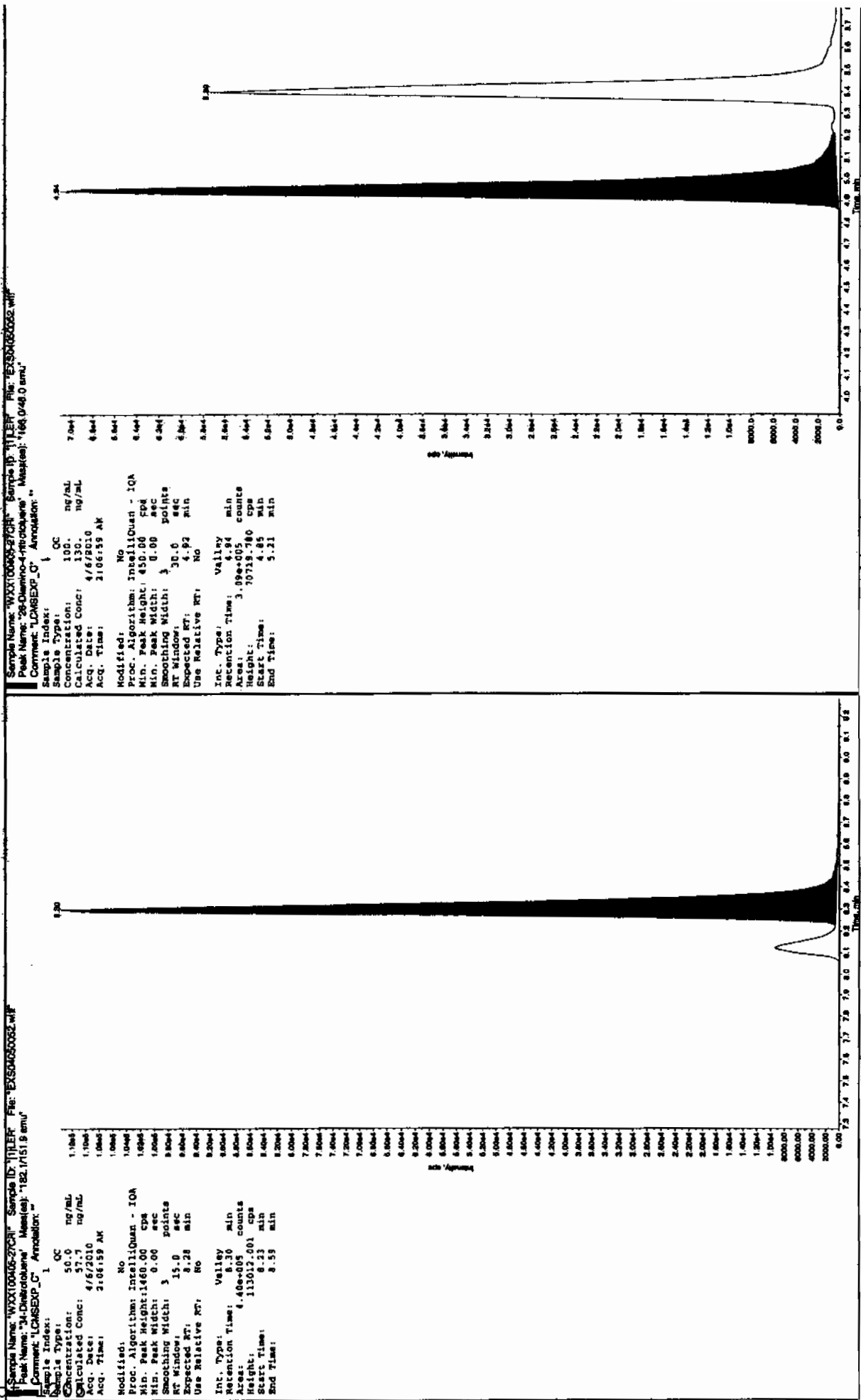
Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

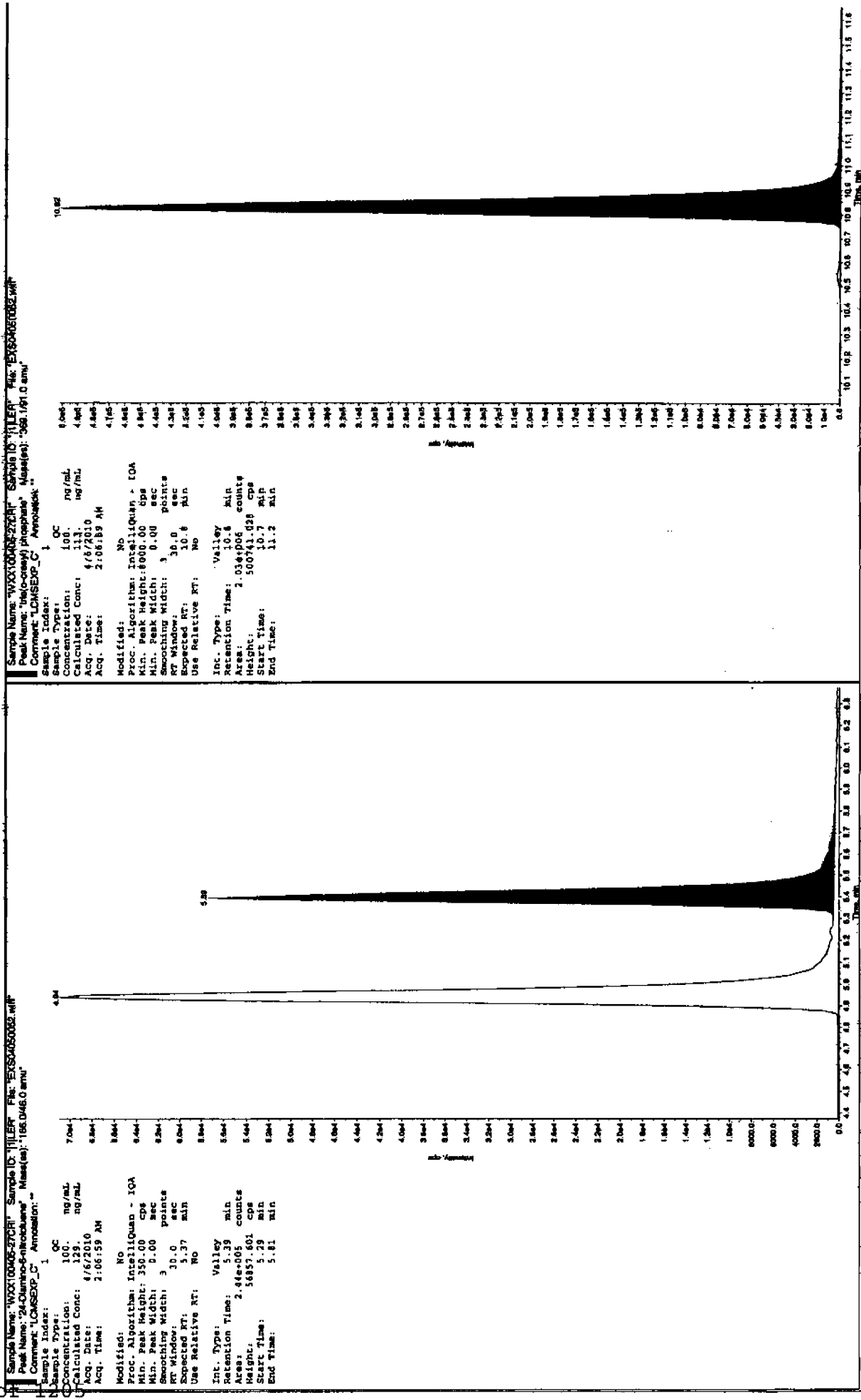
\* Value outside of Recovery Limits

Scan 4/11/10





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



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



7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050063.wiff

Analysis Date: 06-APR-10 04:59

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	545	109	
2,6-Diamino-4-nitrotoluene	500	510	102	
3,4-Dinitrotoluene	250	245	98	
3,5-Dinitroaniline	500	513	103	
TATB	500	511	102	
tris(o-cresyl) phosphate	500	500	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%

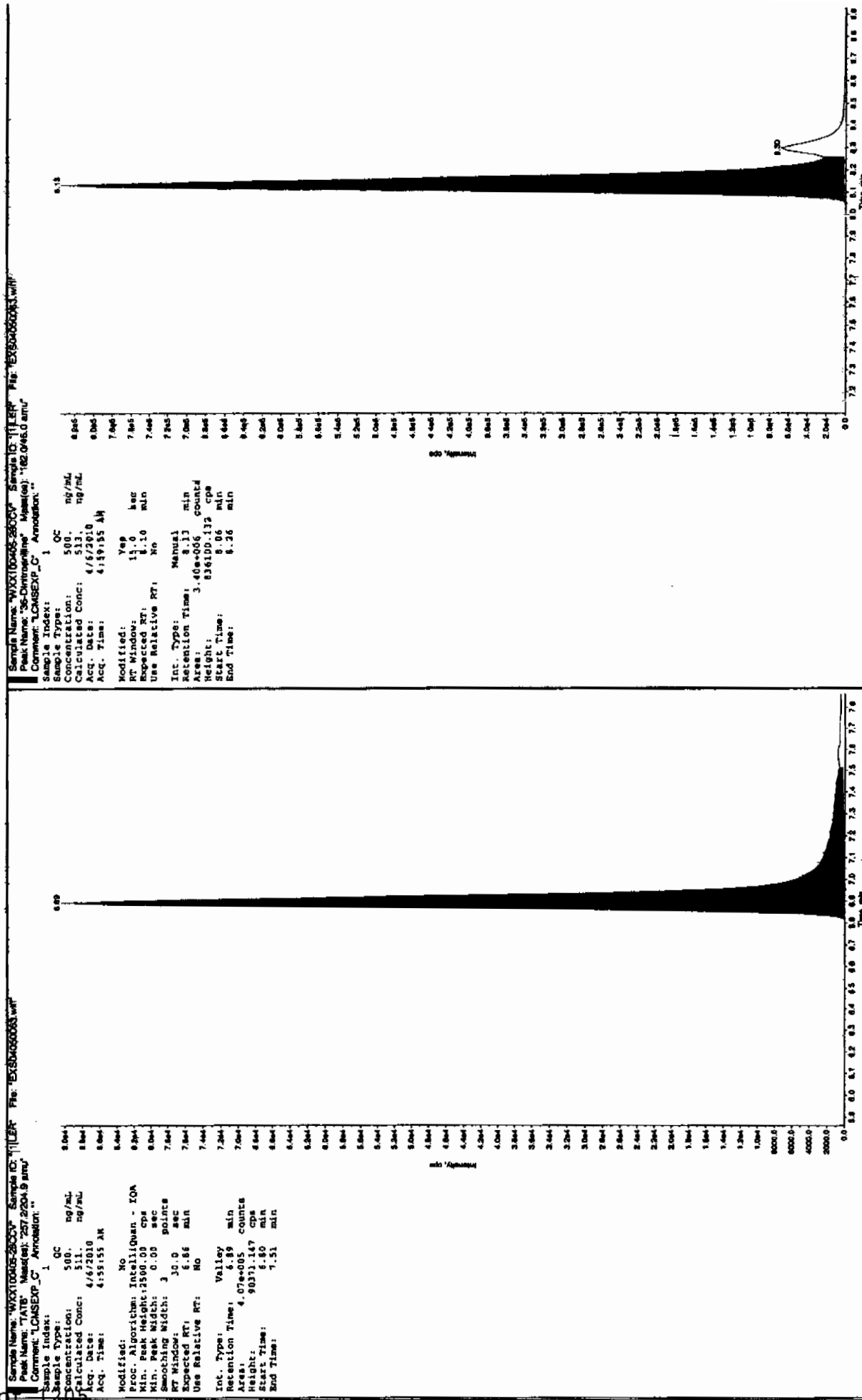
Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

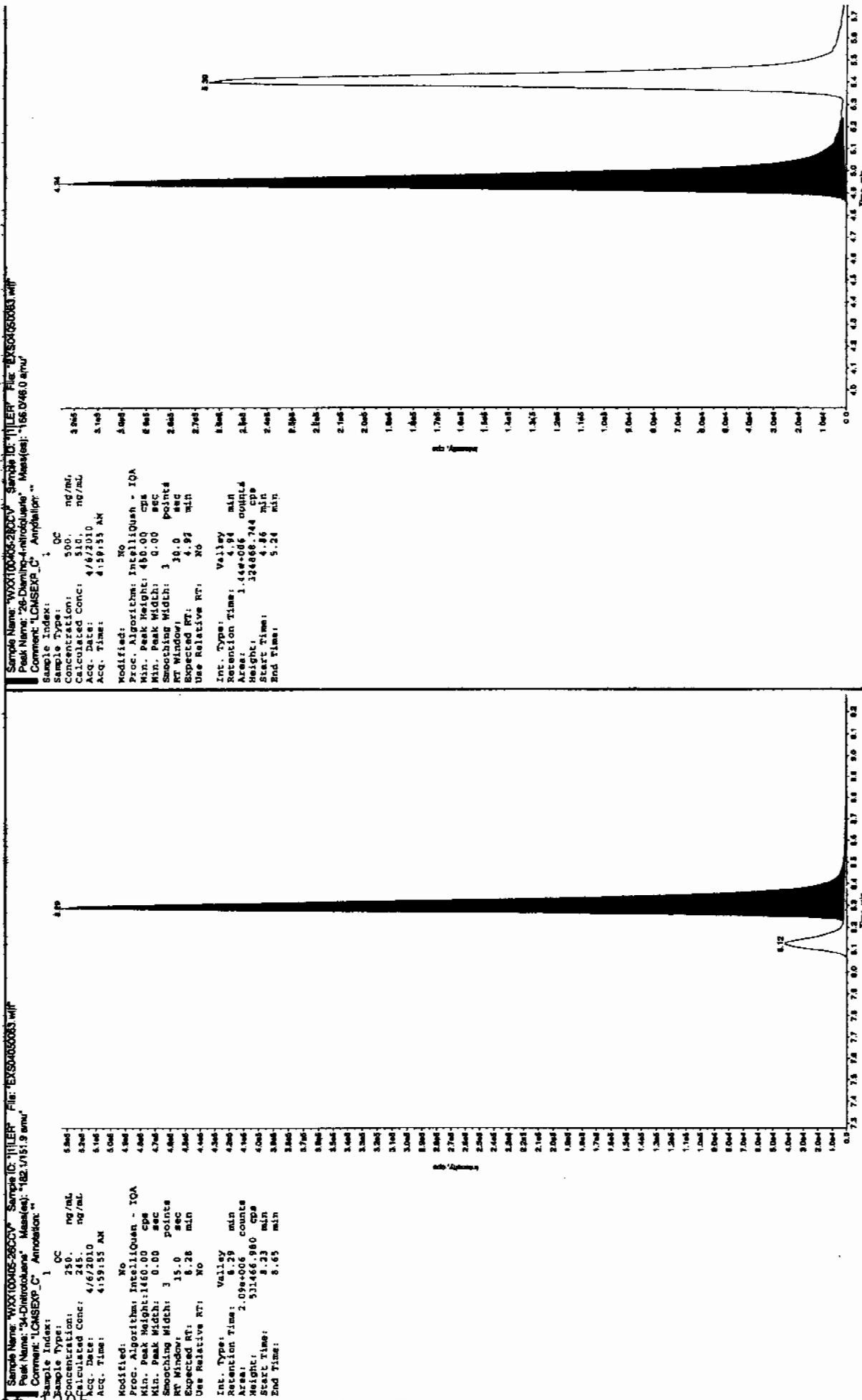
\* Value outside of Recovery Limits



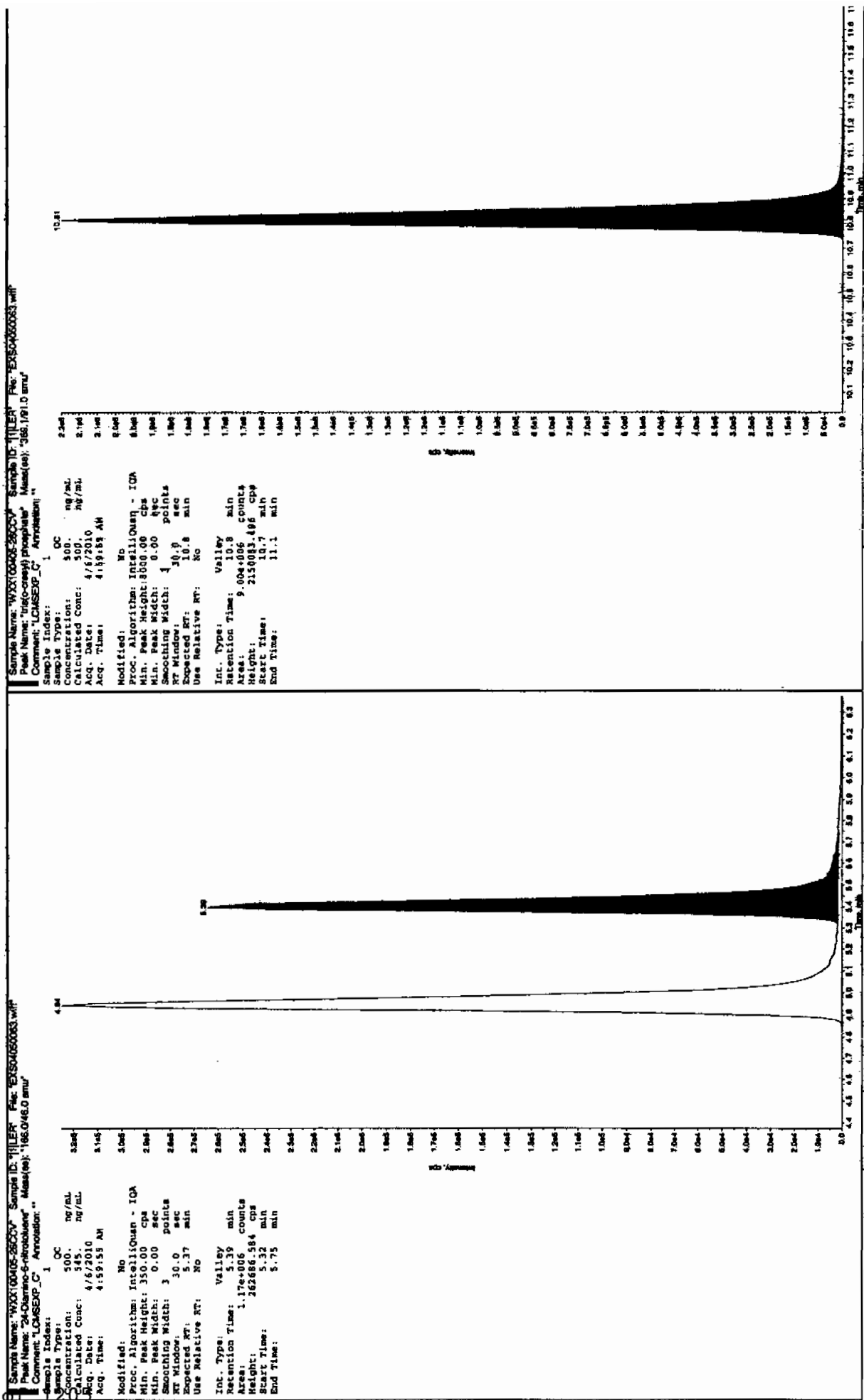
after den 4/7/10



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



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



**7B**  
**Explosives CRI Standard**

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-2140

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXS04050065.wiff

**Analysis Date:** 06-APR-10 05:31

**LCMSMS ID:** 1358

**Column ID:** JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	127	127	
2,6-Diamino-4-nitrotoluene	100	120	120	
3,4-Dinitrotoluene	50	55.5	111	
3,5-Dinitroaniline	100	115	115	
TATB	100	102	102	
tris(o-cresyl) phosphate	100	112	112	

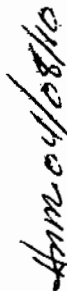
**Recovery Limits:**

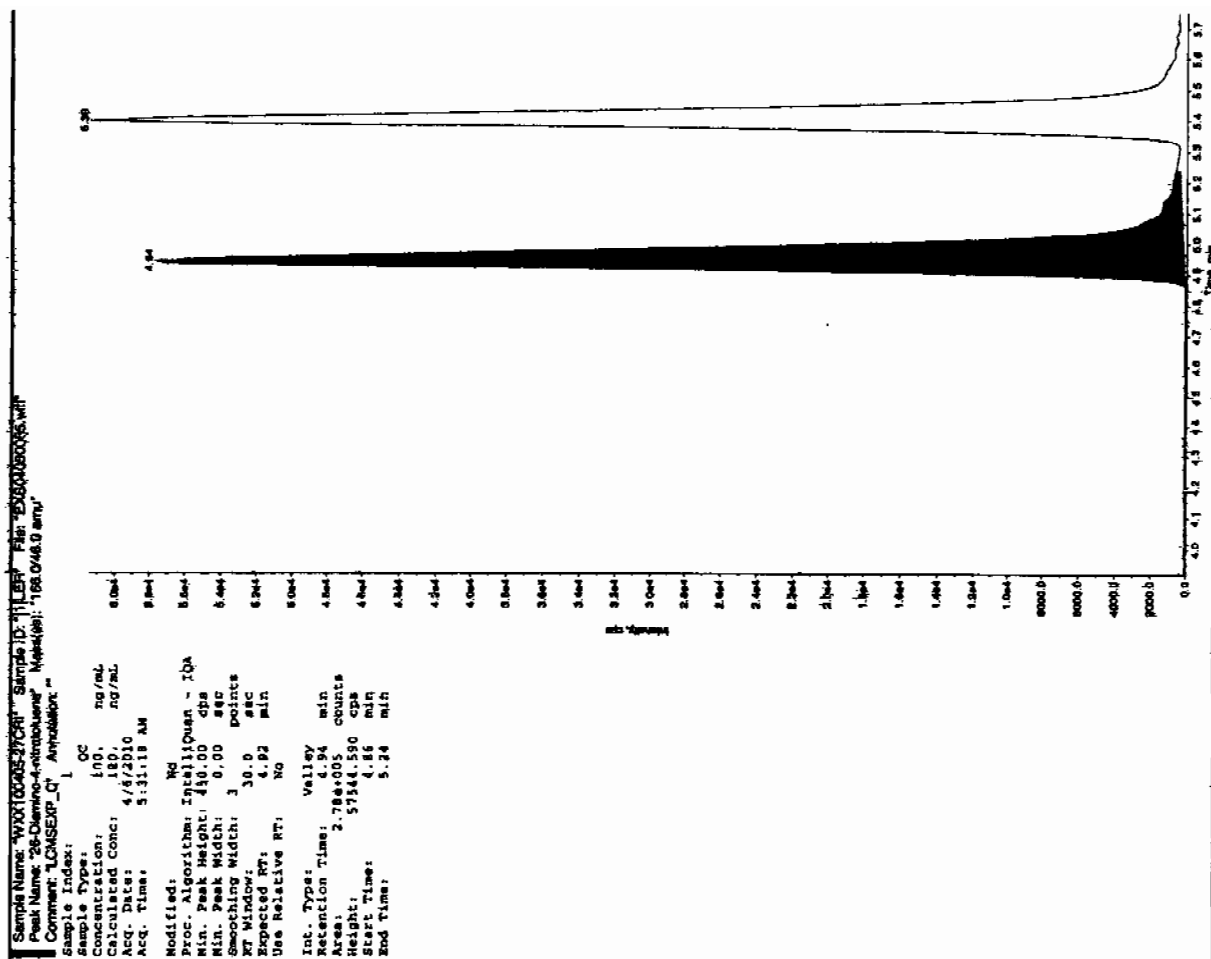
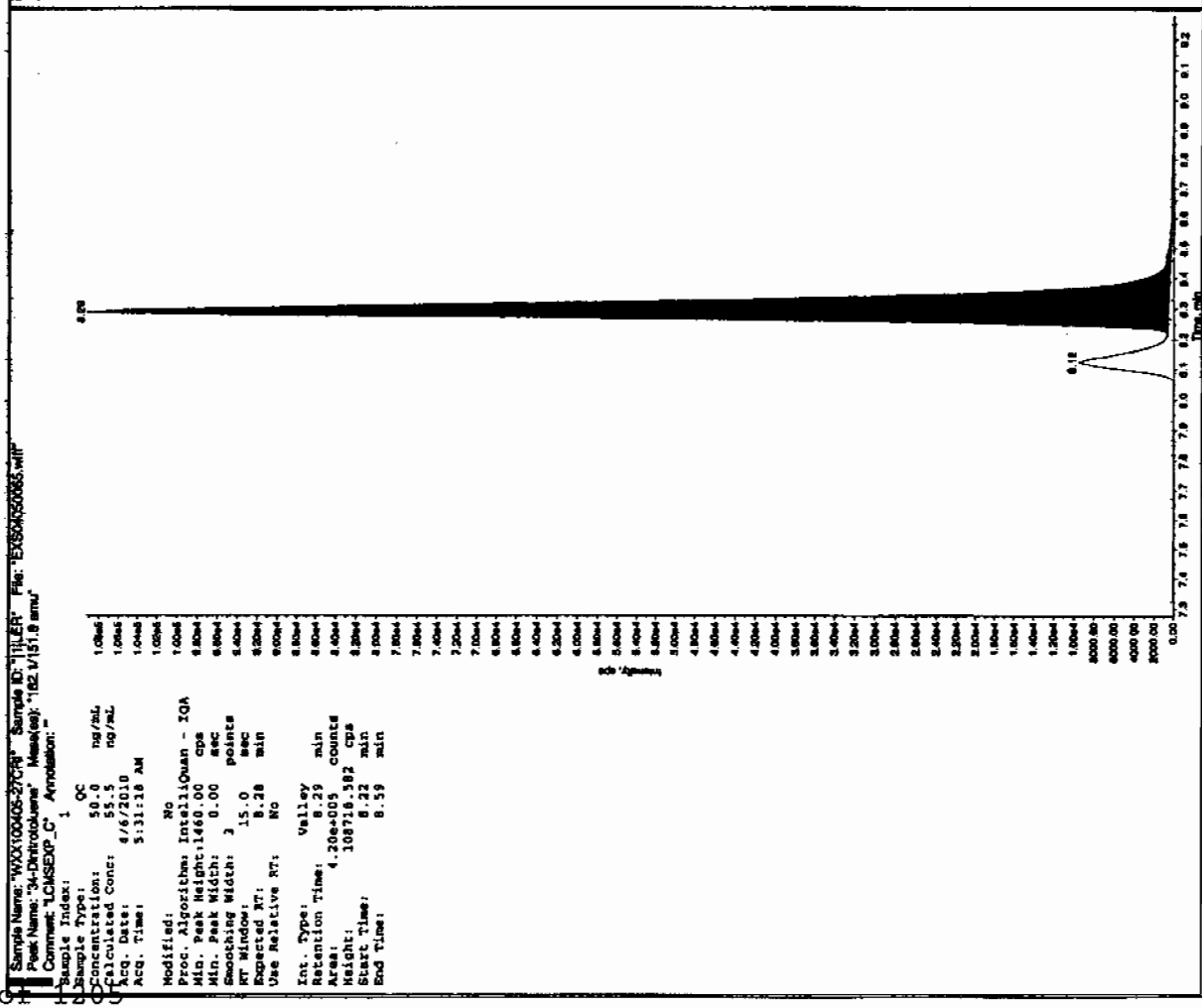
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

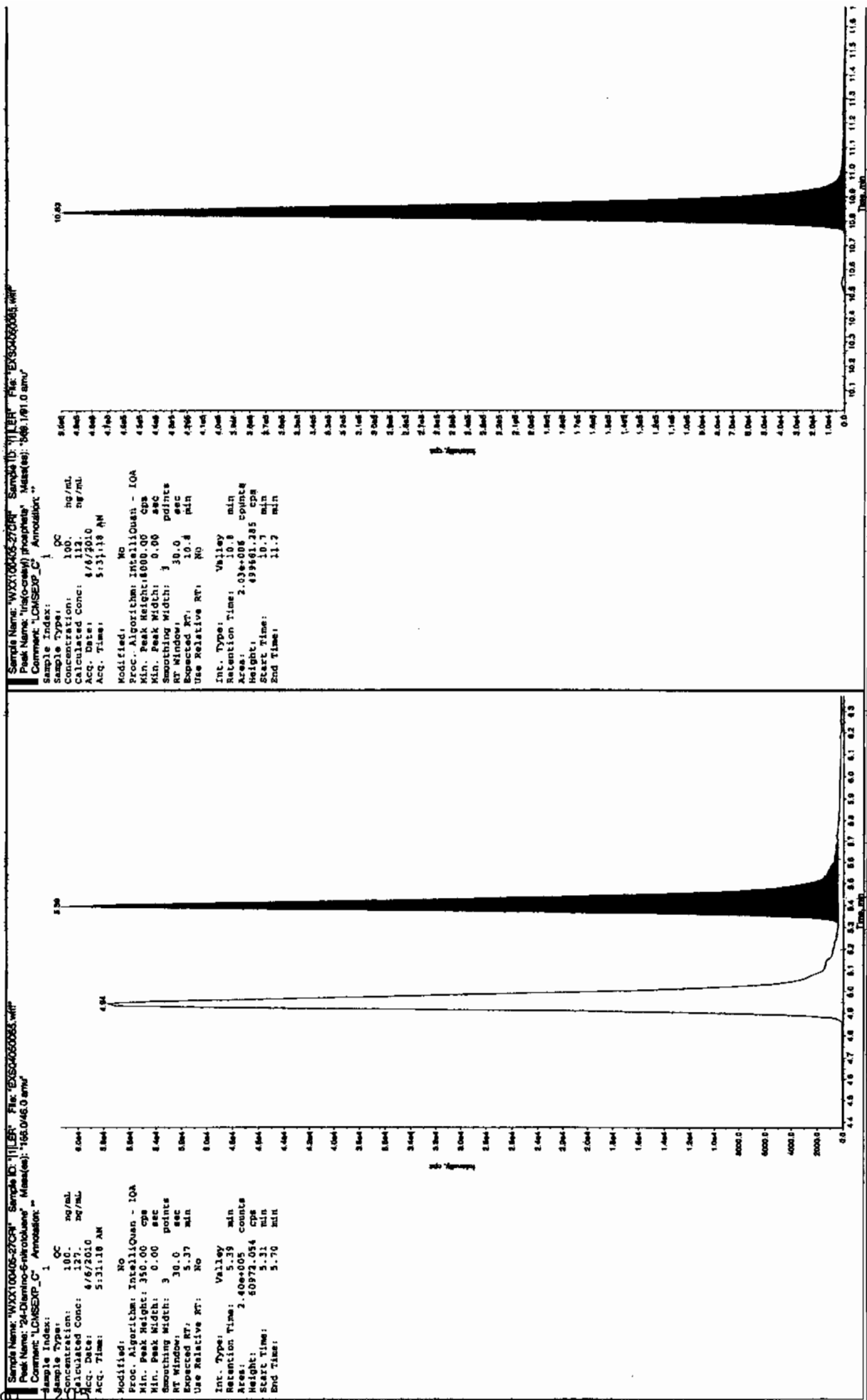
\* Value outside of Recovery Limits





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





7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050071.wiff

Analysis Date: 06-APR-10 07:05

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	529	106	
2,6-Diamino-4-nitrotoluene	500	498	100	
3,4-Dinitrotoluene	250	232	93	
3,5-Dinitroaniline	500	508	102	
TATB	500	485	97	
tris(o-cresyl) phosphate	500	500	100	

Recovery Limits:

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

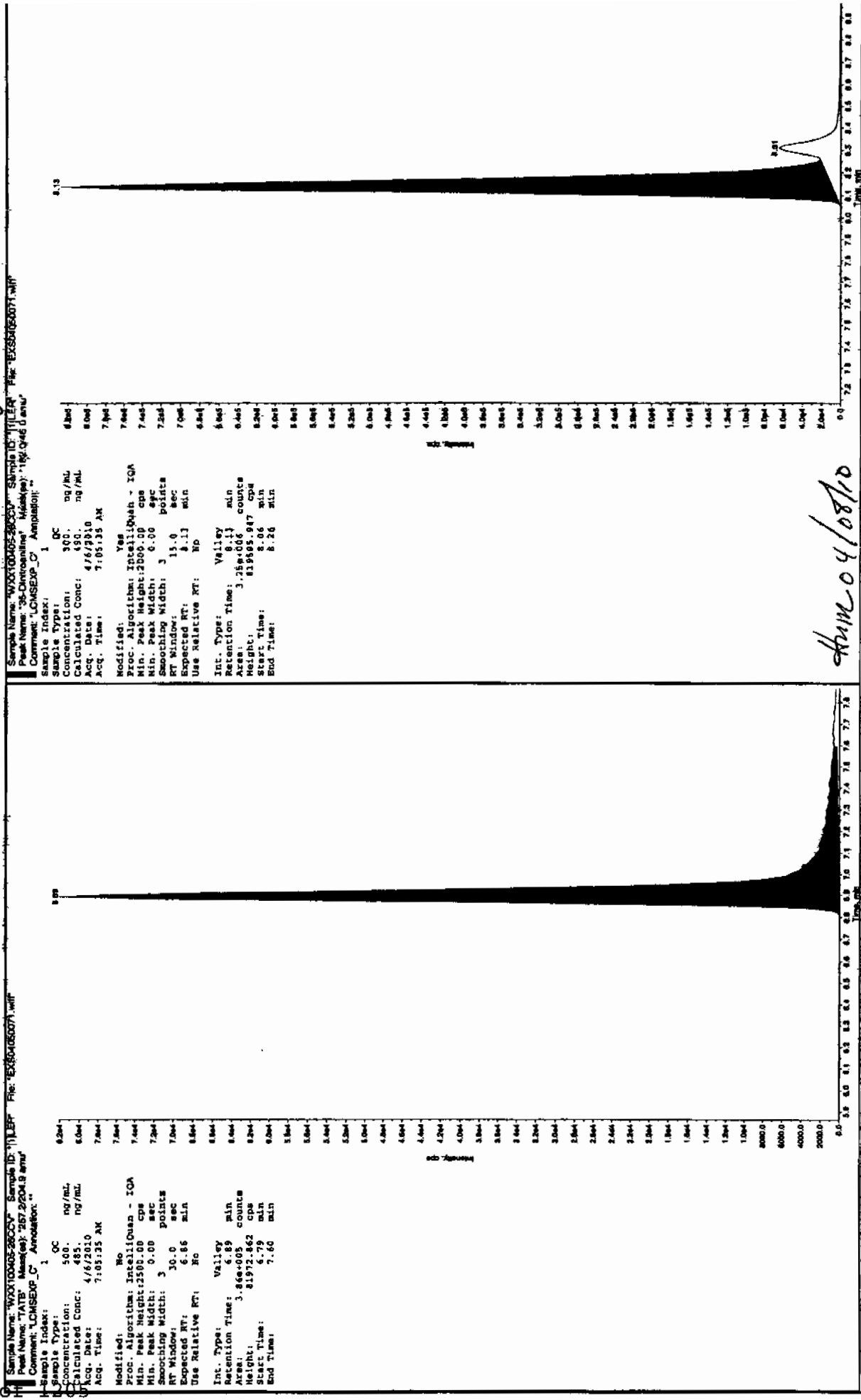
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

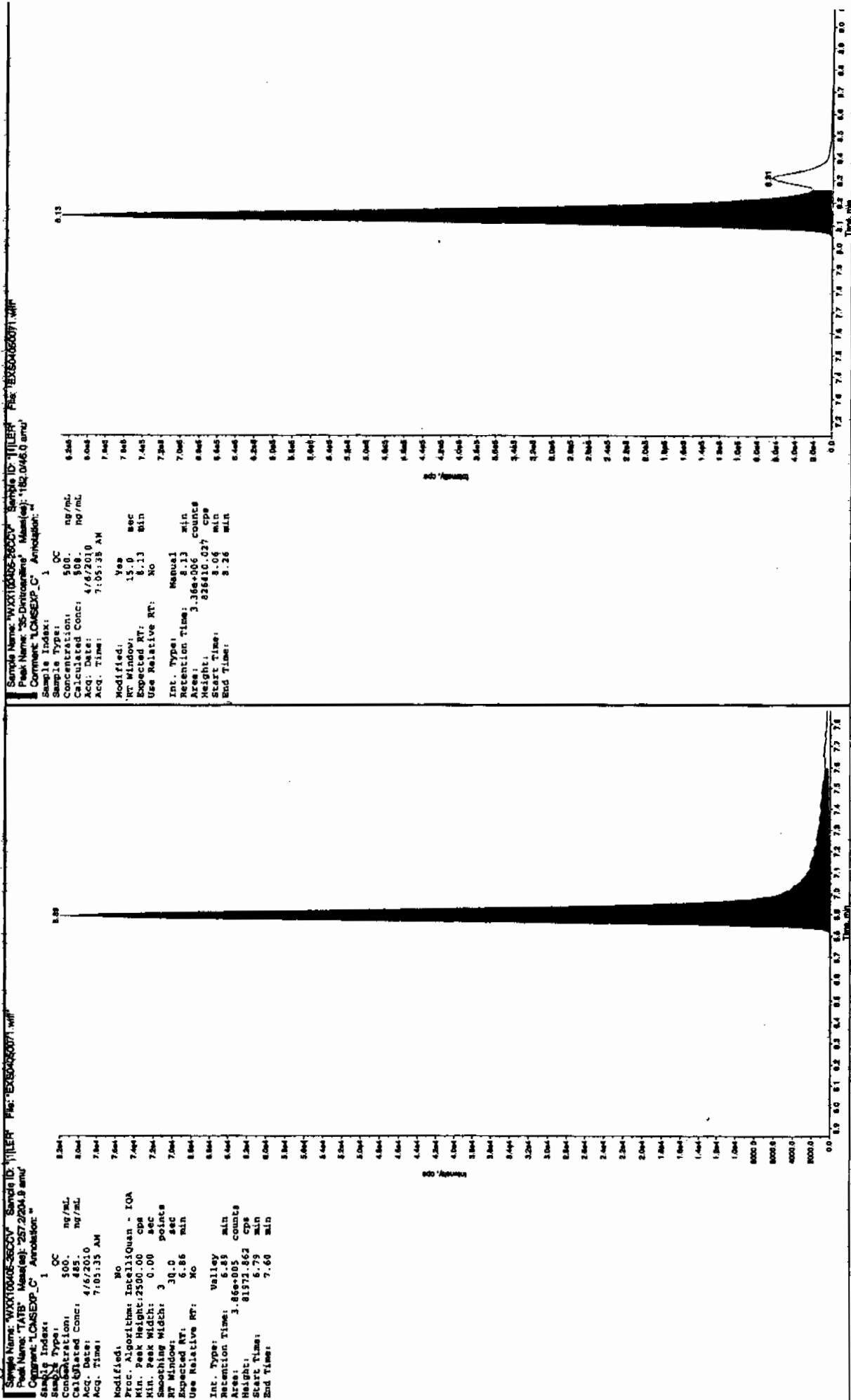
\* Value outside of Recovery Limits

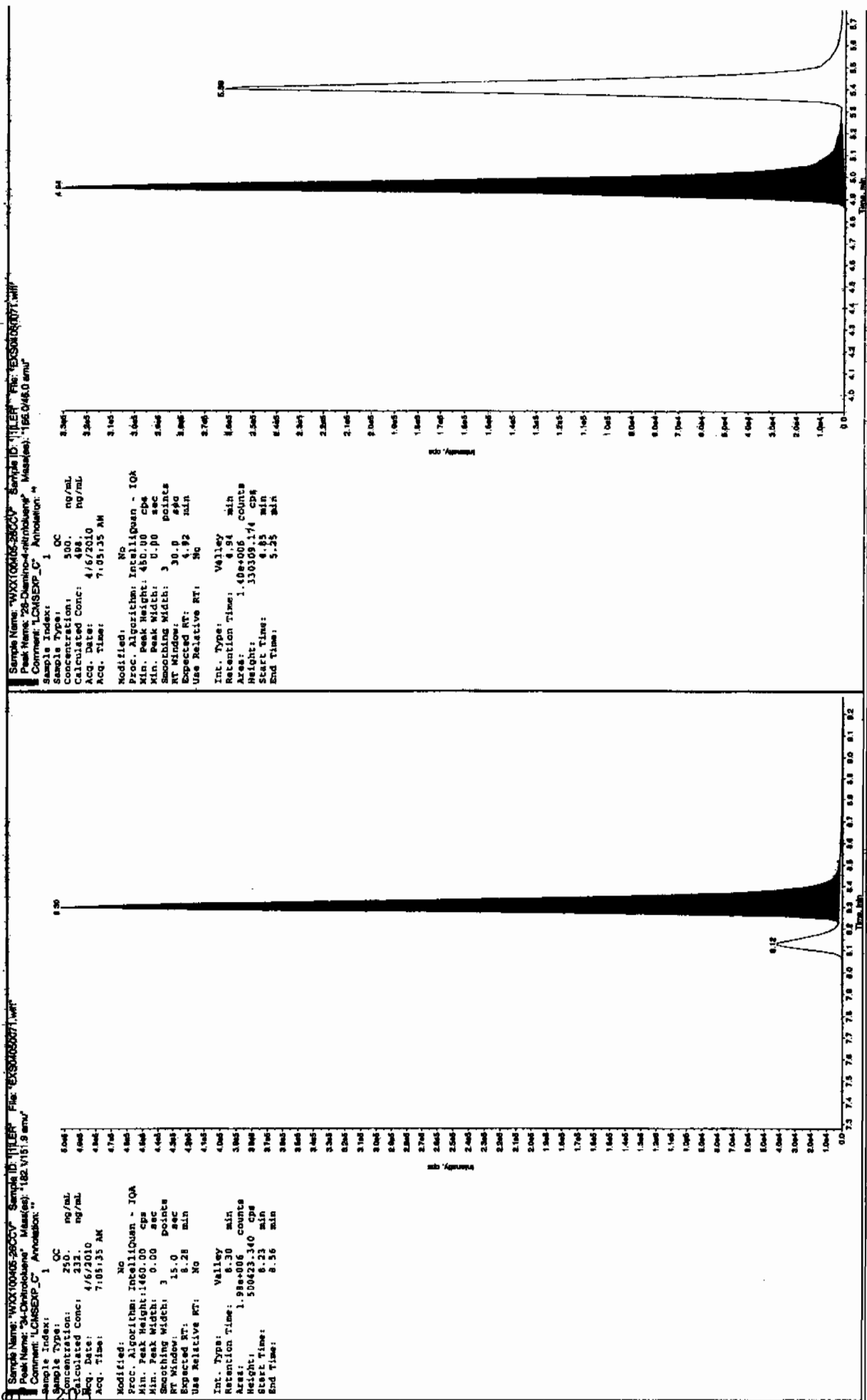
Before Run 4/17/10



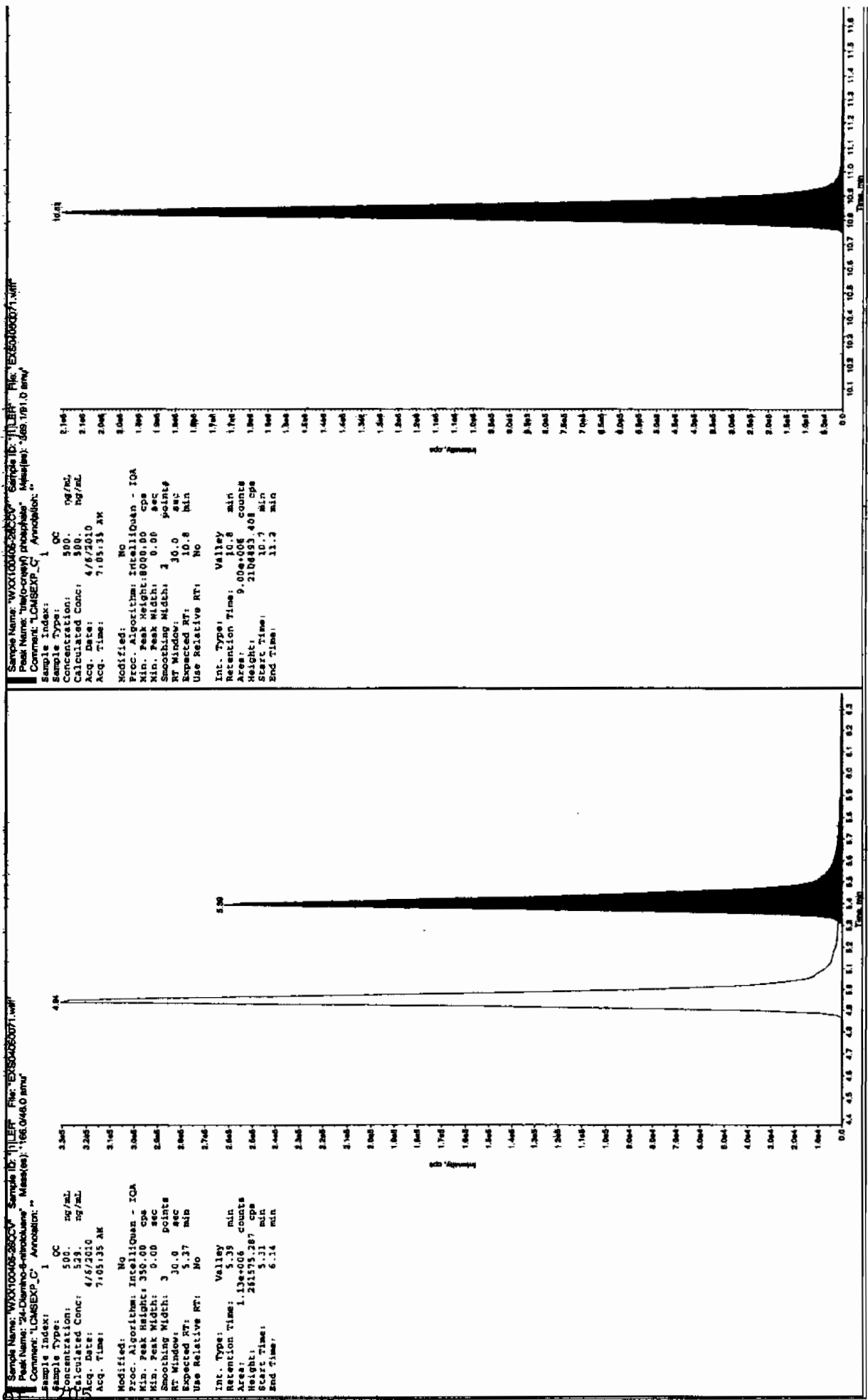
Run 04/08/10

*after Jan 4/2010*





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



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

**7B**  
**Explosives CRI Standard**

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050073.wiff

Analysis Date: 06-APR-10 07:37

LCMSMS ID: 1358

Column ID: Sphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	131	131	
2,6-Diamino-4-nitrotoluene	100	124	124	
3,4-Dinitrotoluene	50	54.8	110	
3,5-Dinitroaniline	100	119	119	
TATB	100	109	109	
tris(o-cresyl) phosphate	100	113	113	

**Recovery Limits:**

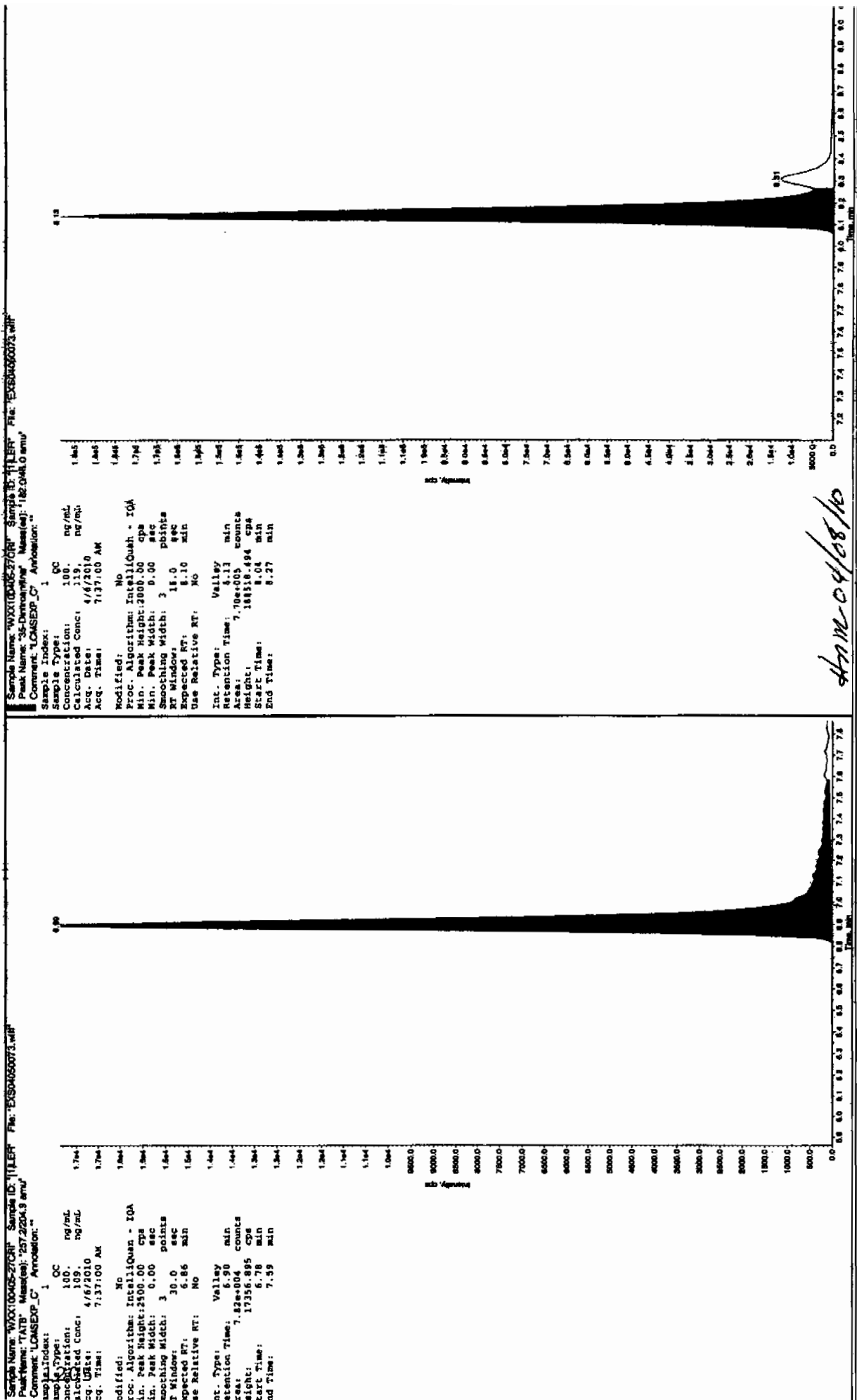
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

*See 4/24/10*

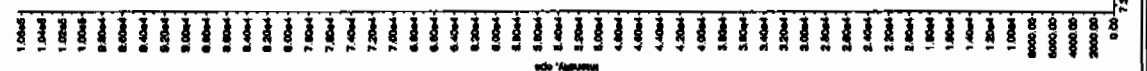


*See 04/08/10*



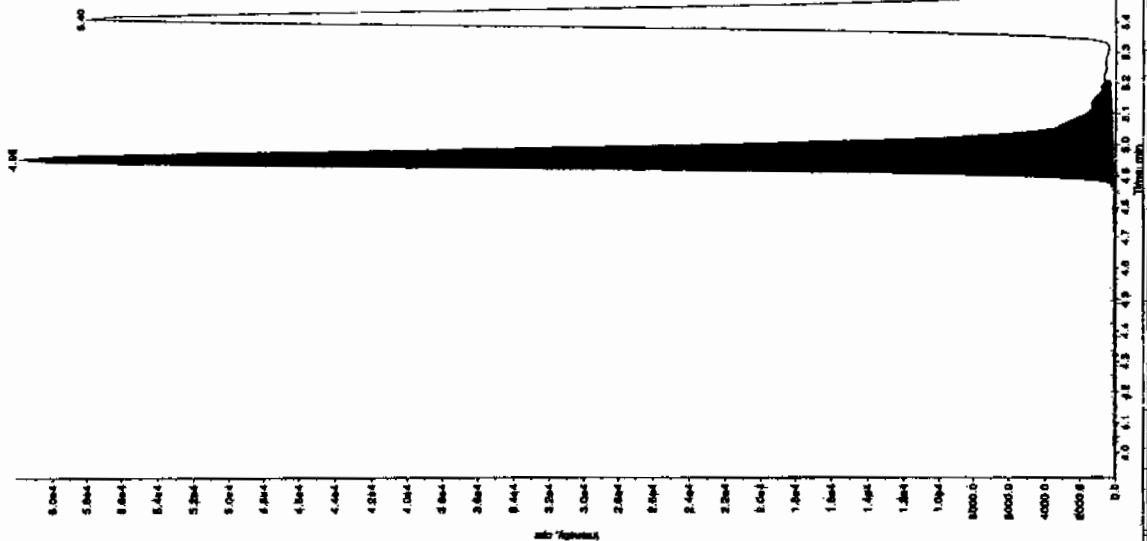
Sample Name: "WXX100405-2701" Sample ID: "111111" File: "EXS04050073.wif"  
 Peak Name: "3,4-Dinitrofluorene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

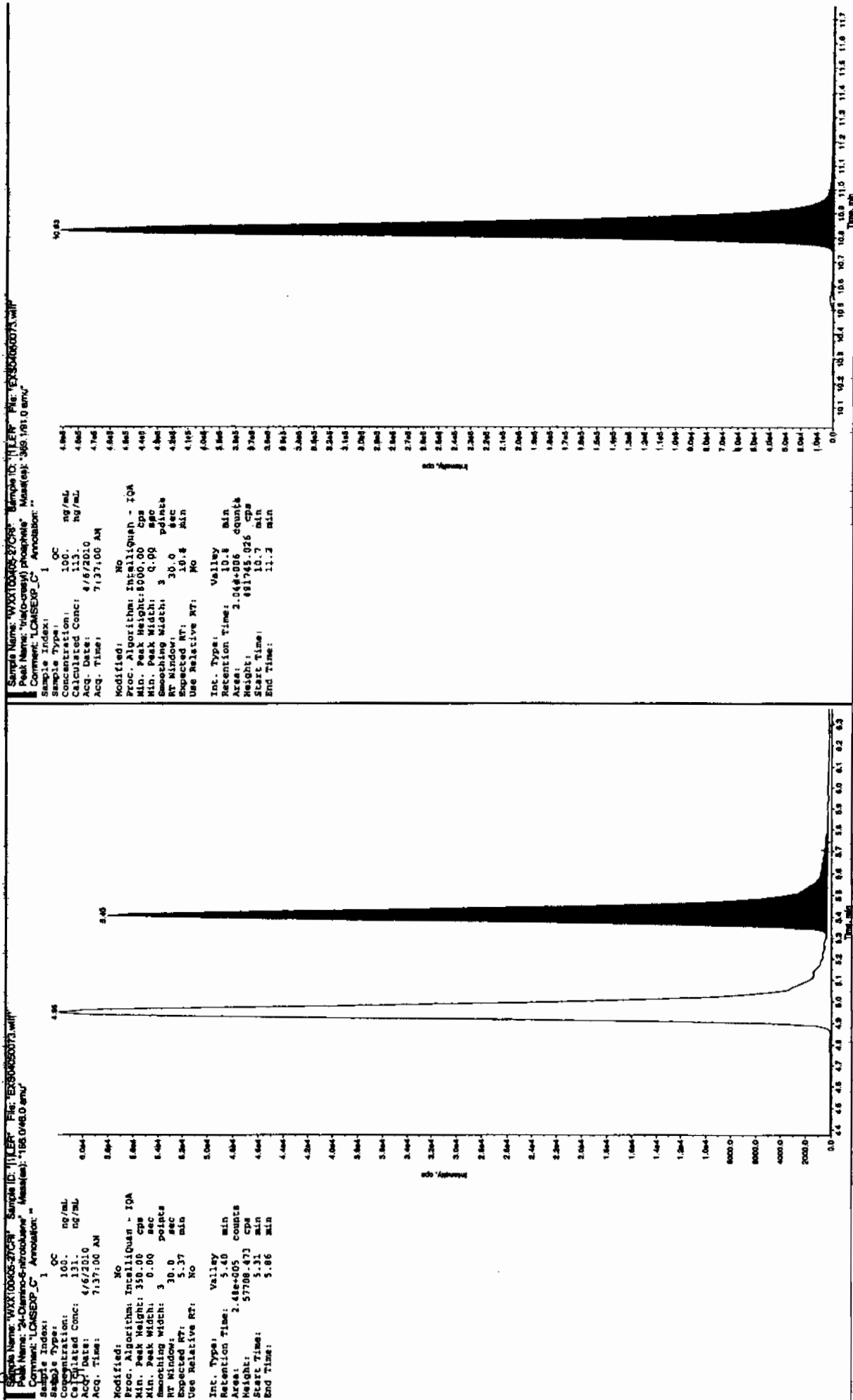
Sample Index: 1  
 Sample Type: QC  
 Concentration: 100.0 ng/mL  
 Calculated Conc: 124.0 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 7:17:00 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 4.92 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.95 min  
 Area: 2.92e+005 counts  
 Height: 61837.967 cps  
 Start Time: 4.85 min  
 End Time: 5.21 min



Sample Name: "WXX100405-2701" Sample ID: "111111" File: "EXS04050073.wif"  
 Peak Name: "3,4-Dinitrofluorene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100.0 ng/mL  
 Calculated Conc: 124.0 ng/mL  
 Acq. Date: 4/6/2010  
 Acq. Time: 7:17:00 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 4.92 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.95 min  
 Area: 2.92e+005 counts  
 Height: 61837.967 cps  
 Start Time: 4.85 min  
 End Time: 5.21 min





7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050084.wiff

Analysis Date: 06-APR--10 10:29

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,6-Diamino-4-nitrotoluene	500	502	100	
3,4-Dinitrotoluene	250	227	91	
3,5-Dinitroaniline	500	526	105	
TATB	500	521	104	
tris(o-cresyl) phosphate	500	491	98	
2,4-Diamino-6-nitrotoluene	500	566	113	

Recovery Limits:

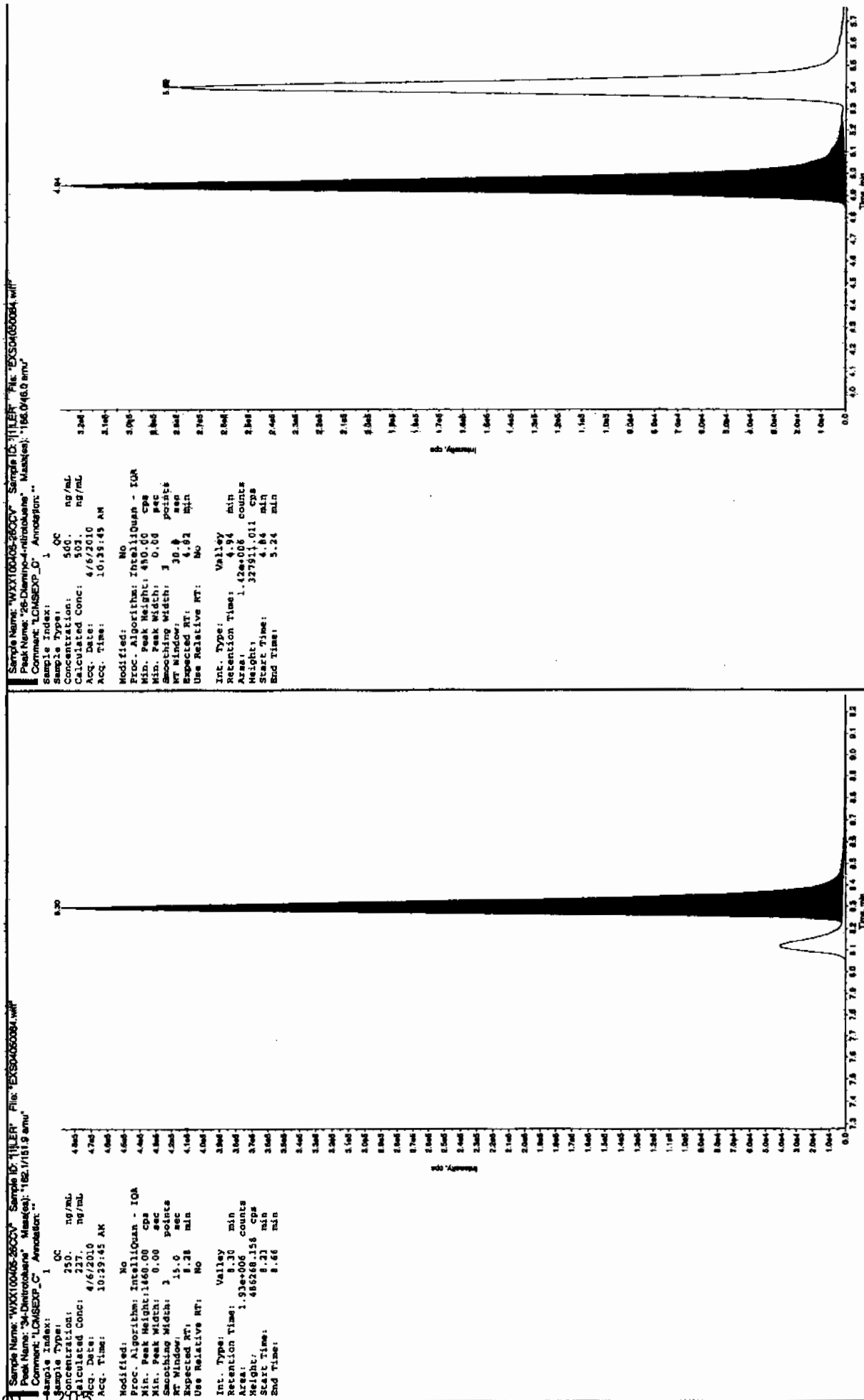
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

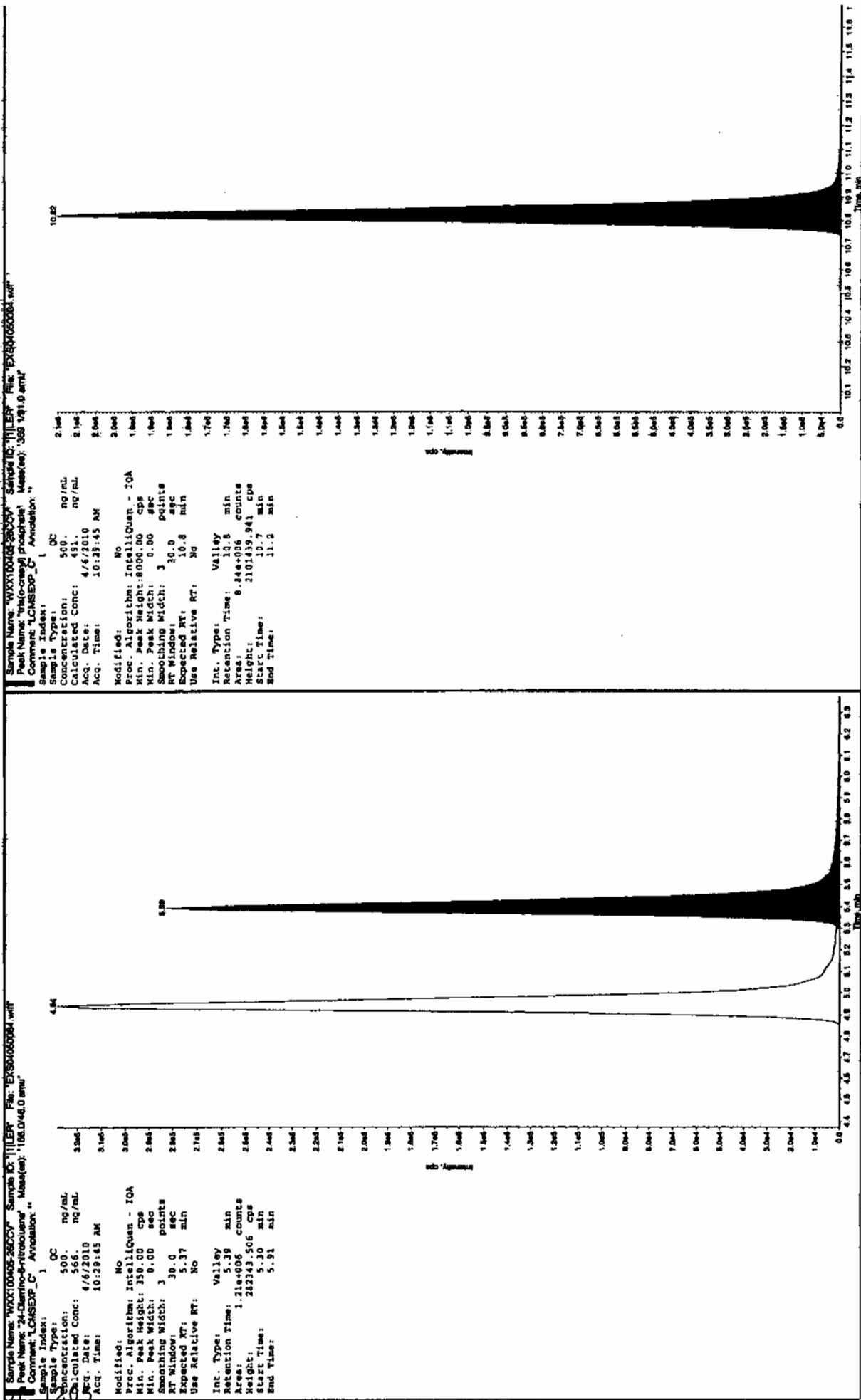
Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits







**7B**  
**Explosives CRI Standard**

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-2140

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXS04050086.wiff

**Analysis Date:** 06-APR-10 11:01

**LCMSMS ID:** 1358

**Column ID:** Sphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	121	121	
2,6-Diamino-4-nitrotoluene	100	122	122	
3,4-Dinitrotoluene	50	54.1	108	
3,5-Dinitroaniline	100	114	114	
TATB	100	98.7	99	
tris(o-cresyl) phosphate	100	109	109	

**Recovery Limits:**

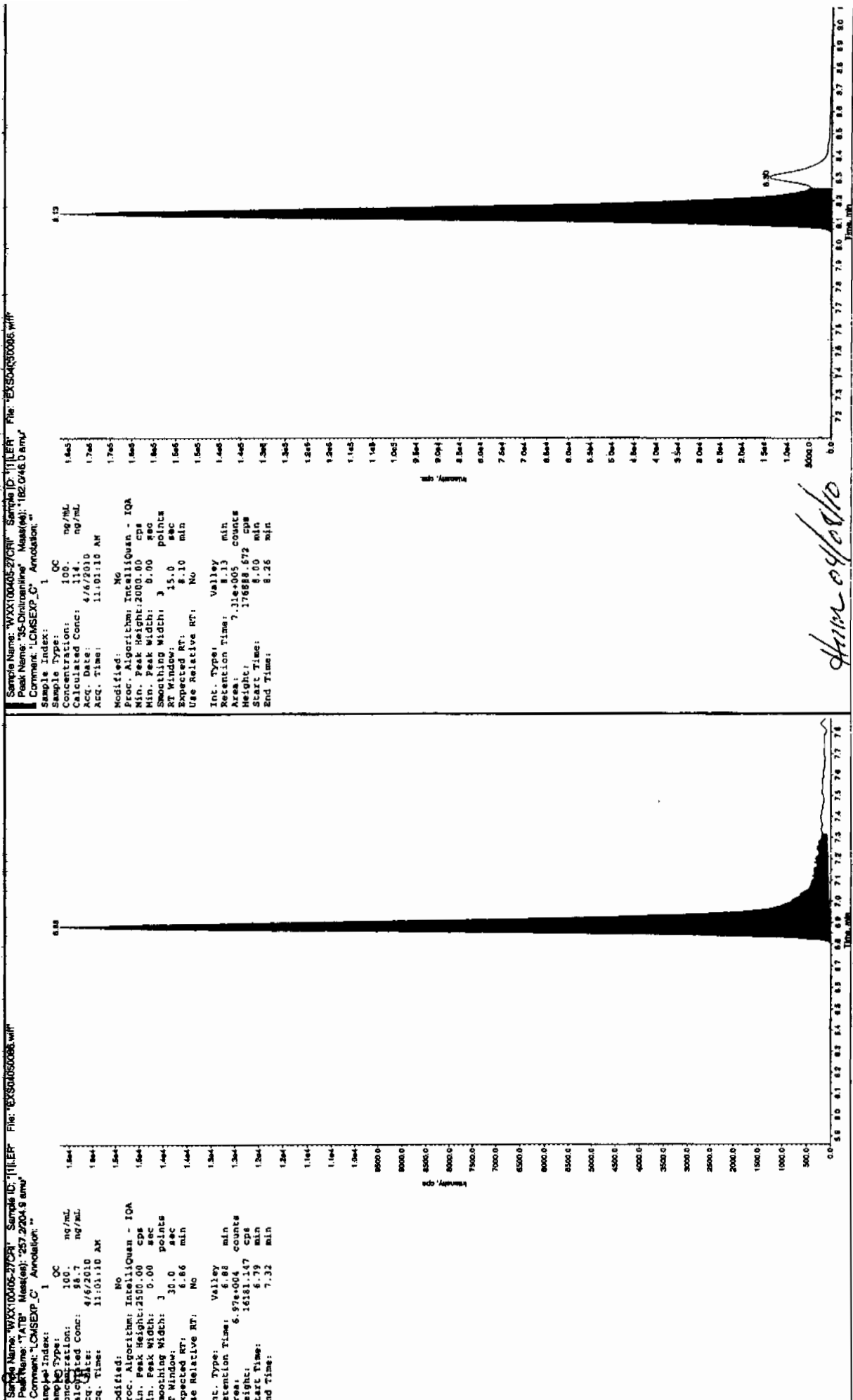
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

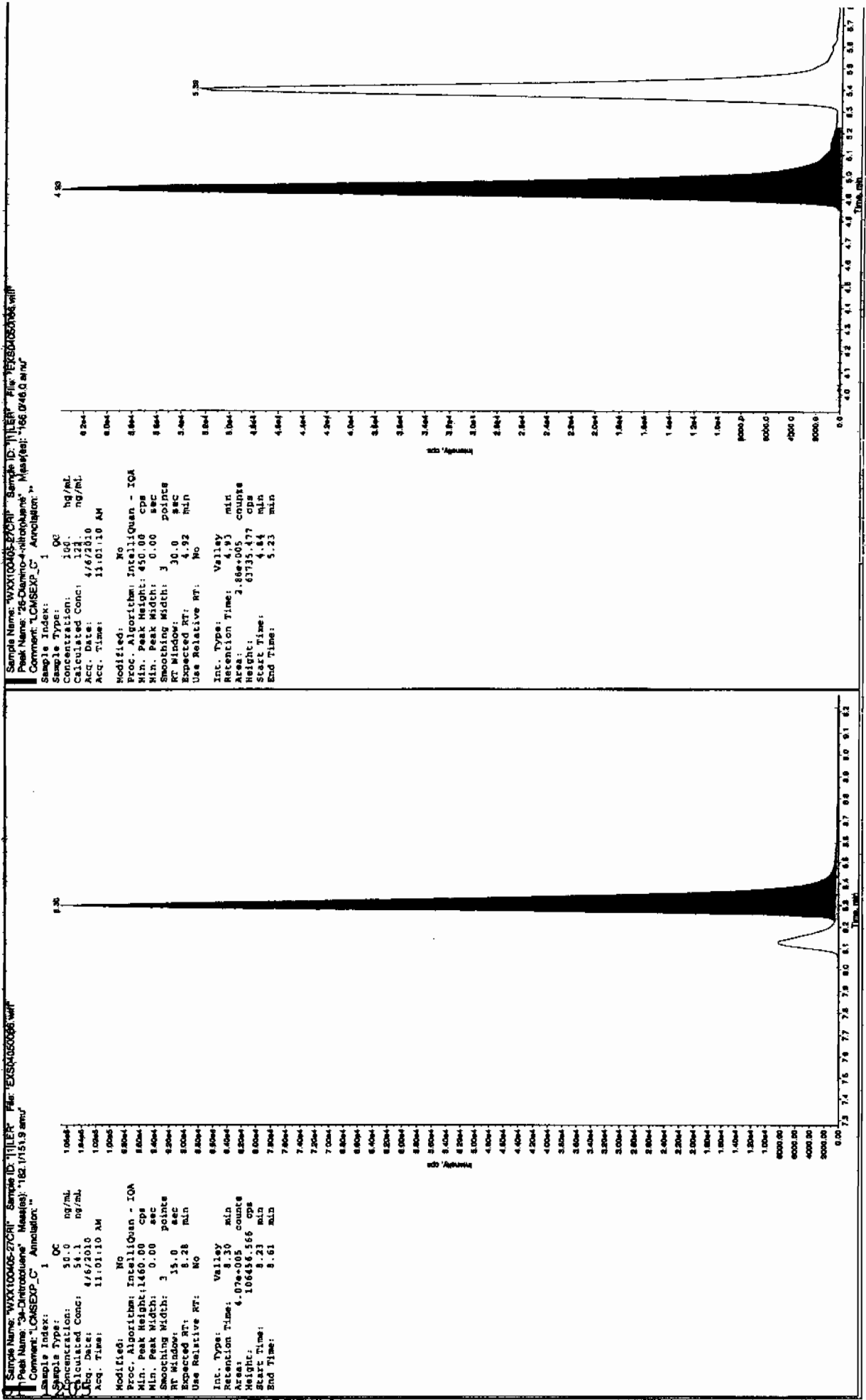
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

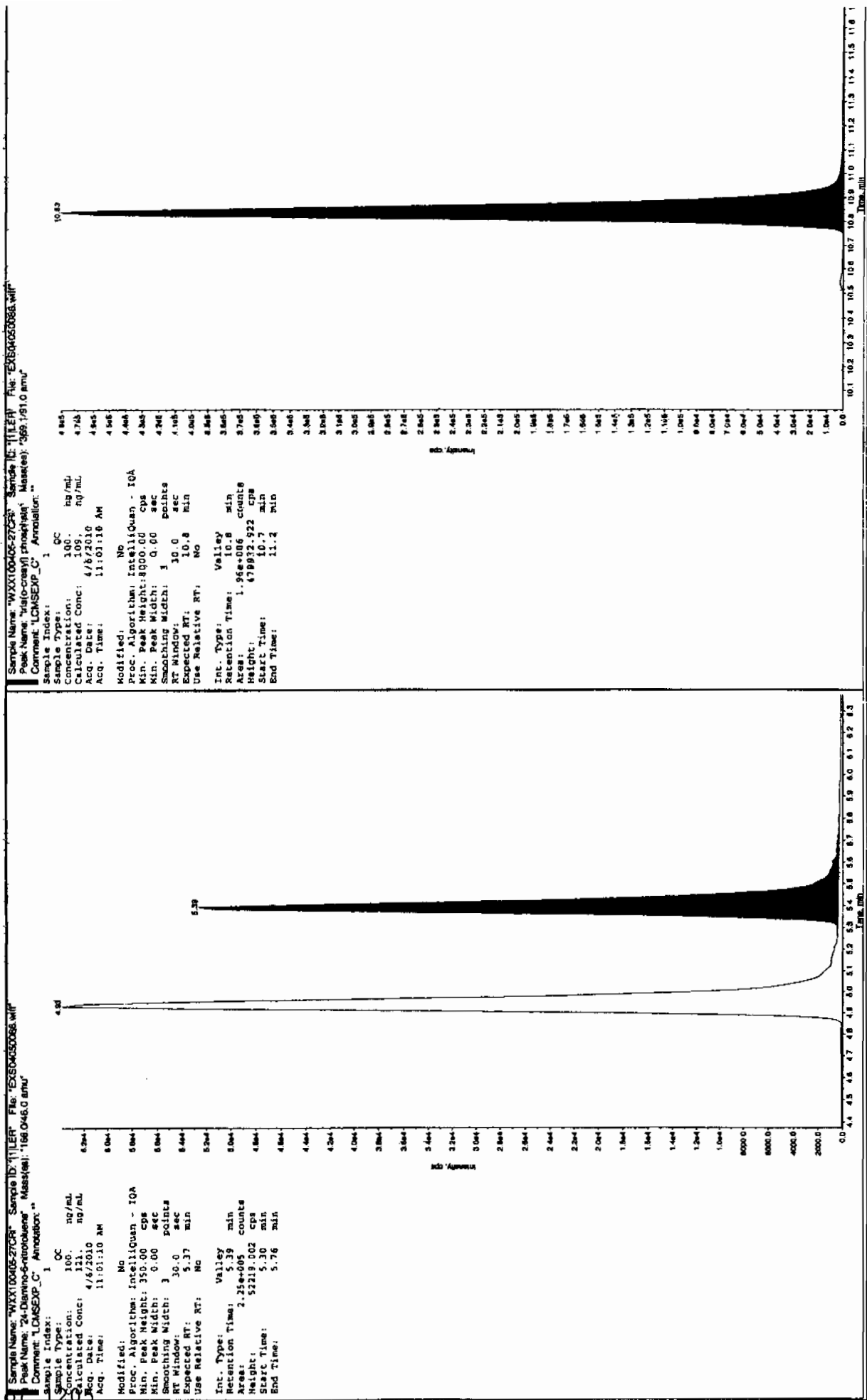
Sen 4/11/10







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



7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050097.wiff

Analysis Date: 06-APR-10 13:53

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	615	123	
2,6-Diamino-4-nitrotoluene	500	592	118	
3,4-Dinitrotoluene	250	263	105	
3,5-Dinitroaniline	500	621	124	
TATB	500	549	110	
tris(o-cresyl) phosphate	500	486	97	

Recovery Limits:

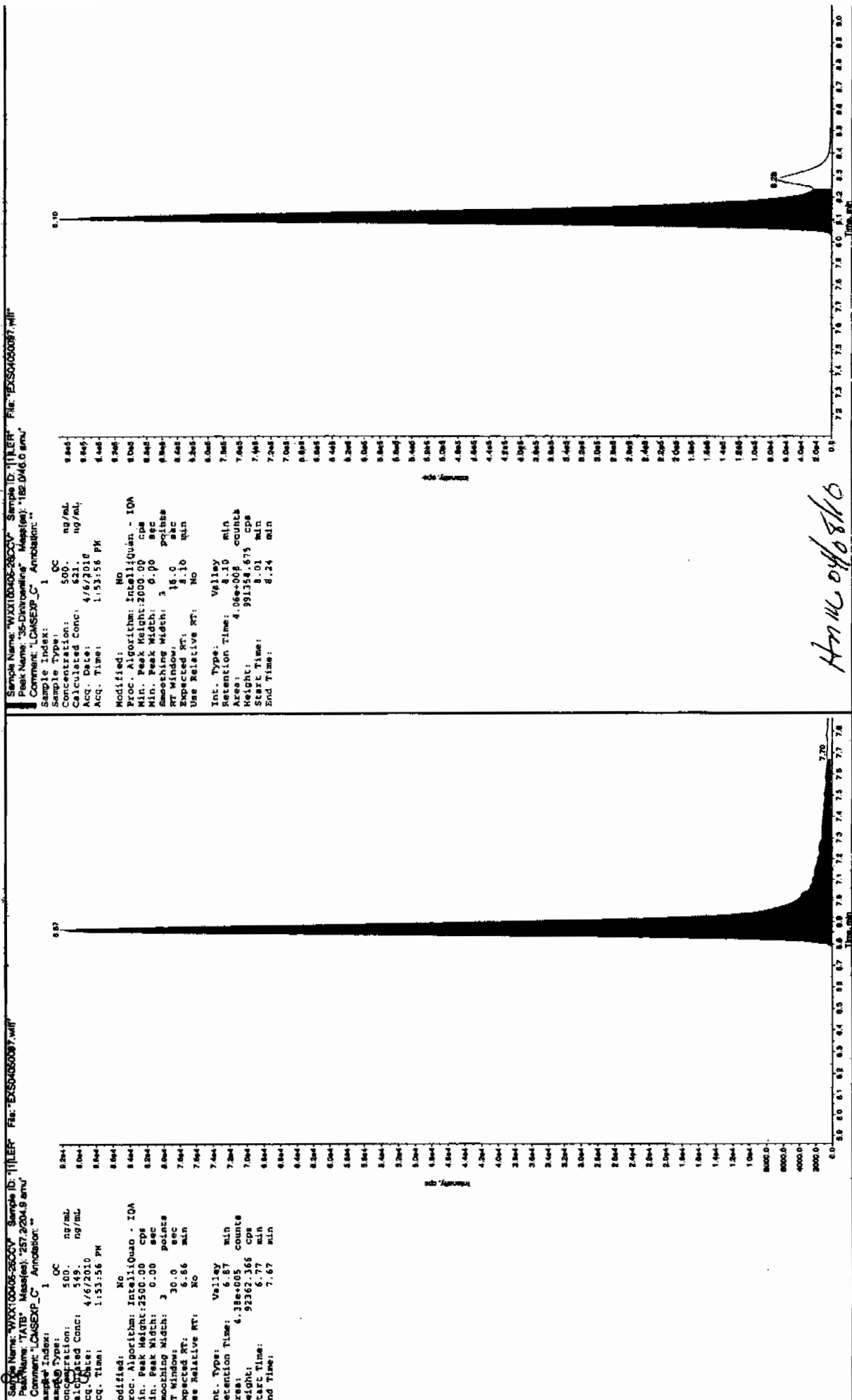
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

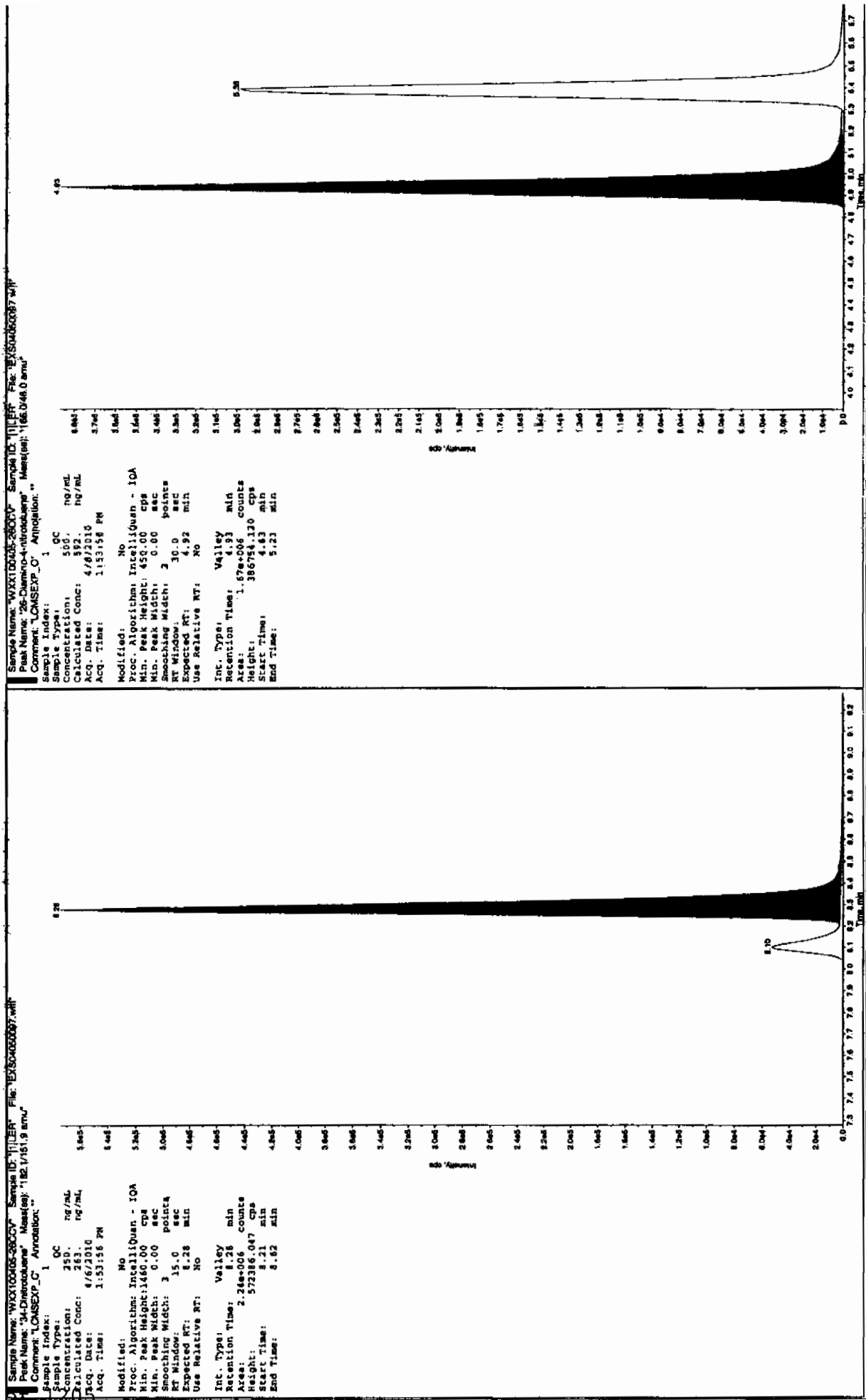
Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

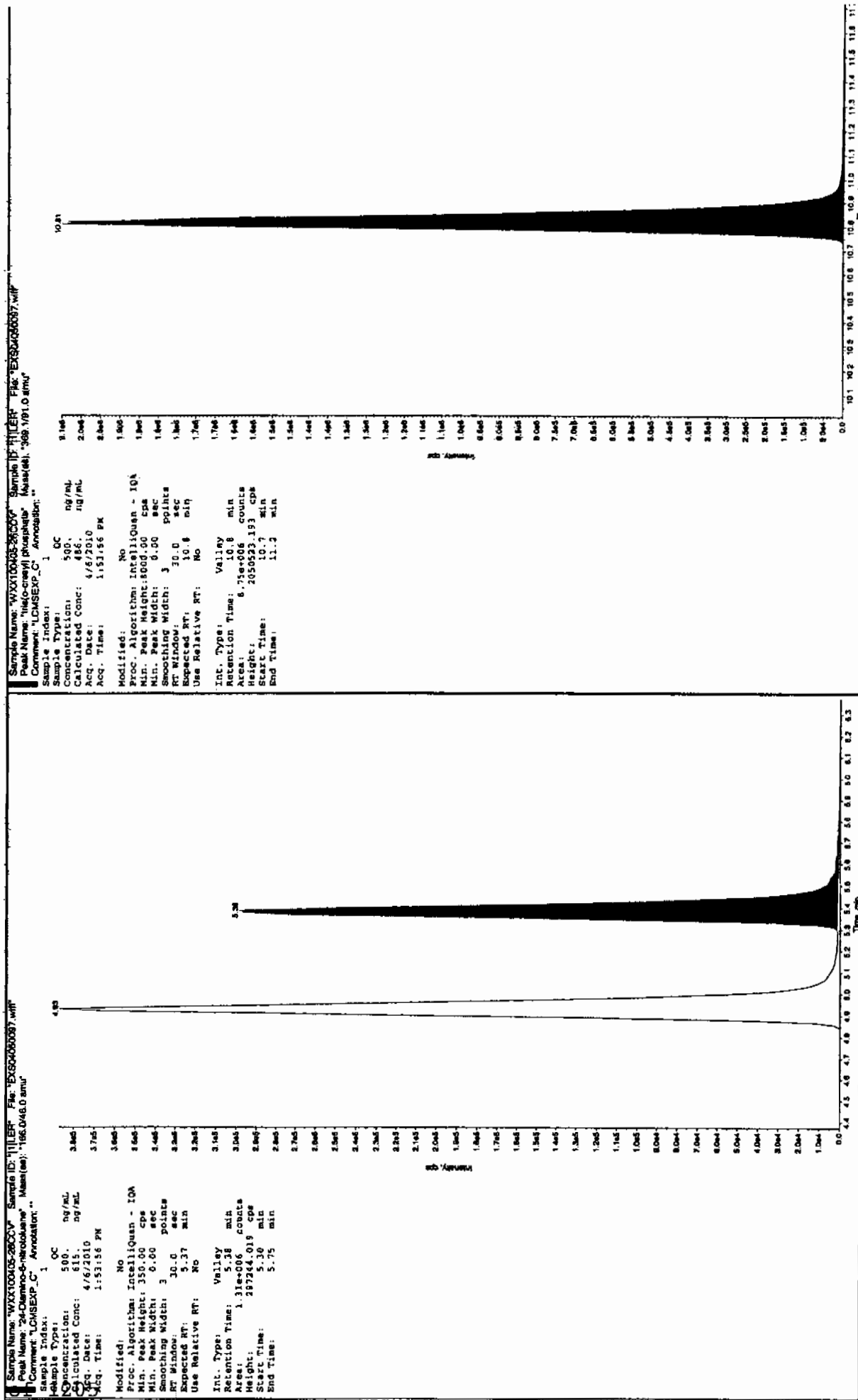
\* Value outside of Recovery Limits

Ren 4/7/10





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



**7B**  
**Explosives CRI Standard**

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-2140

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXS04050099.wiff

**Analysis Date:** 06-APR-10 14:25

**LCMSMS ID:** 1358

**Column ID:** JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	80.7	81	
2,6-Diamino-4-nitrotoluene	100	52.5	53	
3,4-Dinitrotoluene	50	60.3	121	
3,5-Dinitroaniline	100	136	136	
TATB	100	106	106	
tris(o-cresyl) phosphate	100	108	108	

**Recovery Limits:**

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

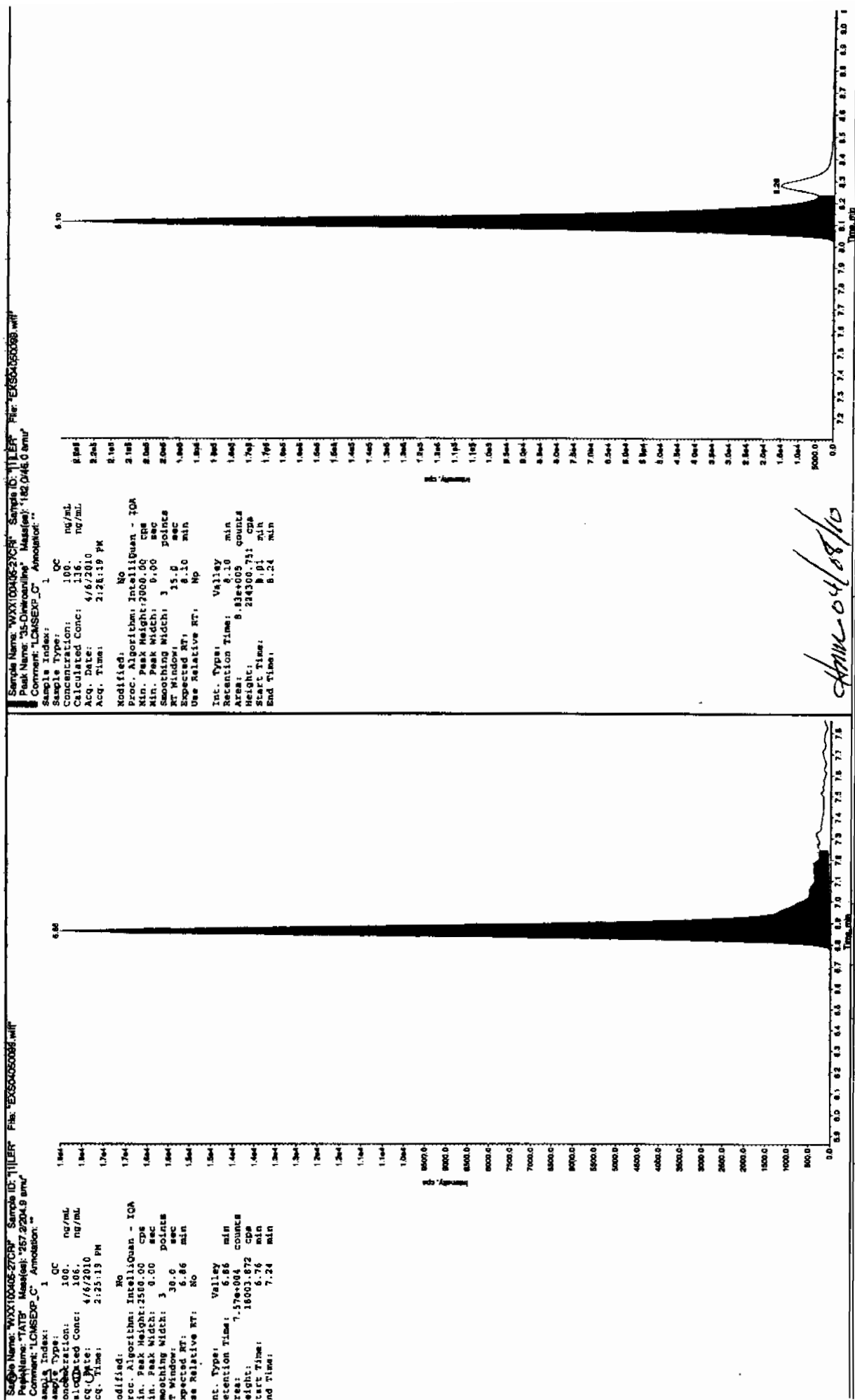
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

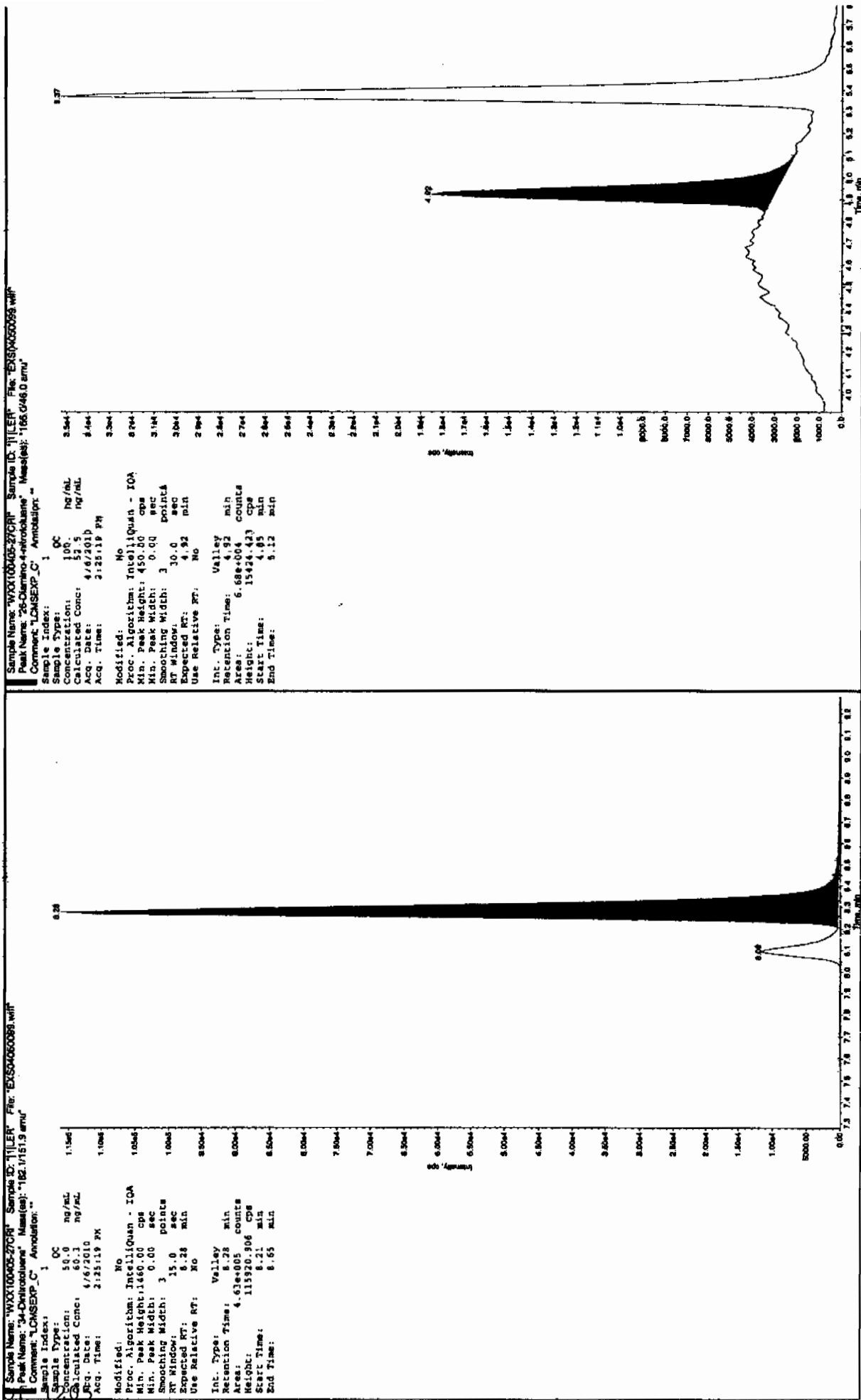
\* Value outside of Recovery Limits

See 4/7/10

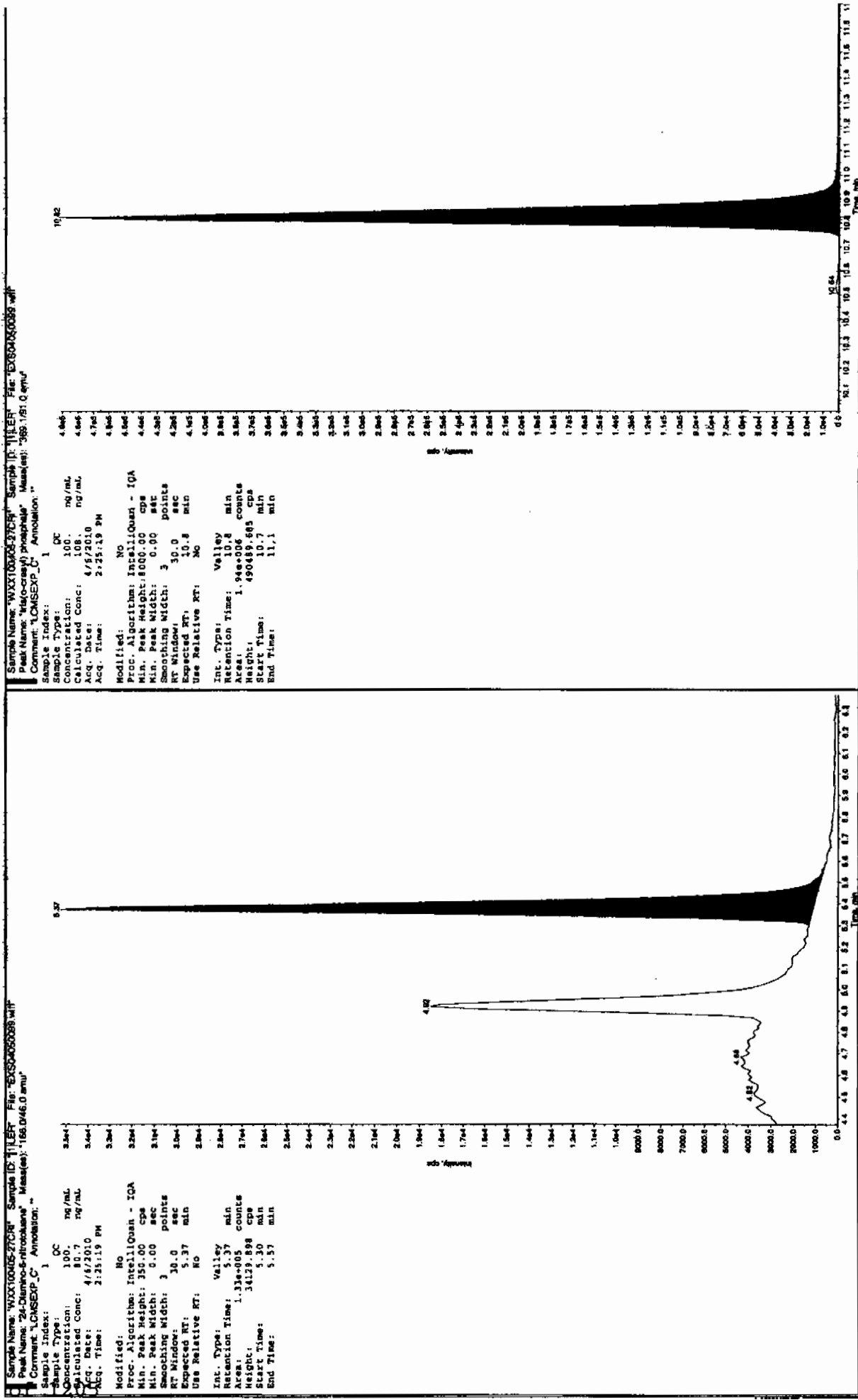


See 04/08/10





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



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

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2140

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050106.wiff

Analysis Date: 06-APR-10 16:15

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	546	109	
2,6-Diamino-4-nitrotoluene	500	531	106	
3,4-Dinitrotoluene	250	238	95	
3,5-Dinitroaniline	500	543	109	
TATB	500	558	112	
tris(o-cresyl) phosphate	500	484	97	

Recovery Limits:

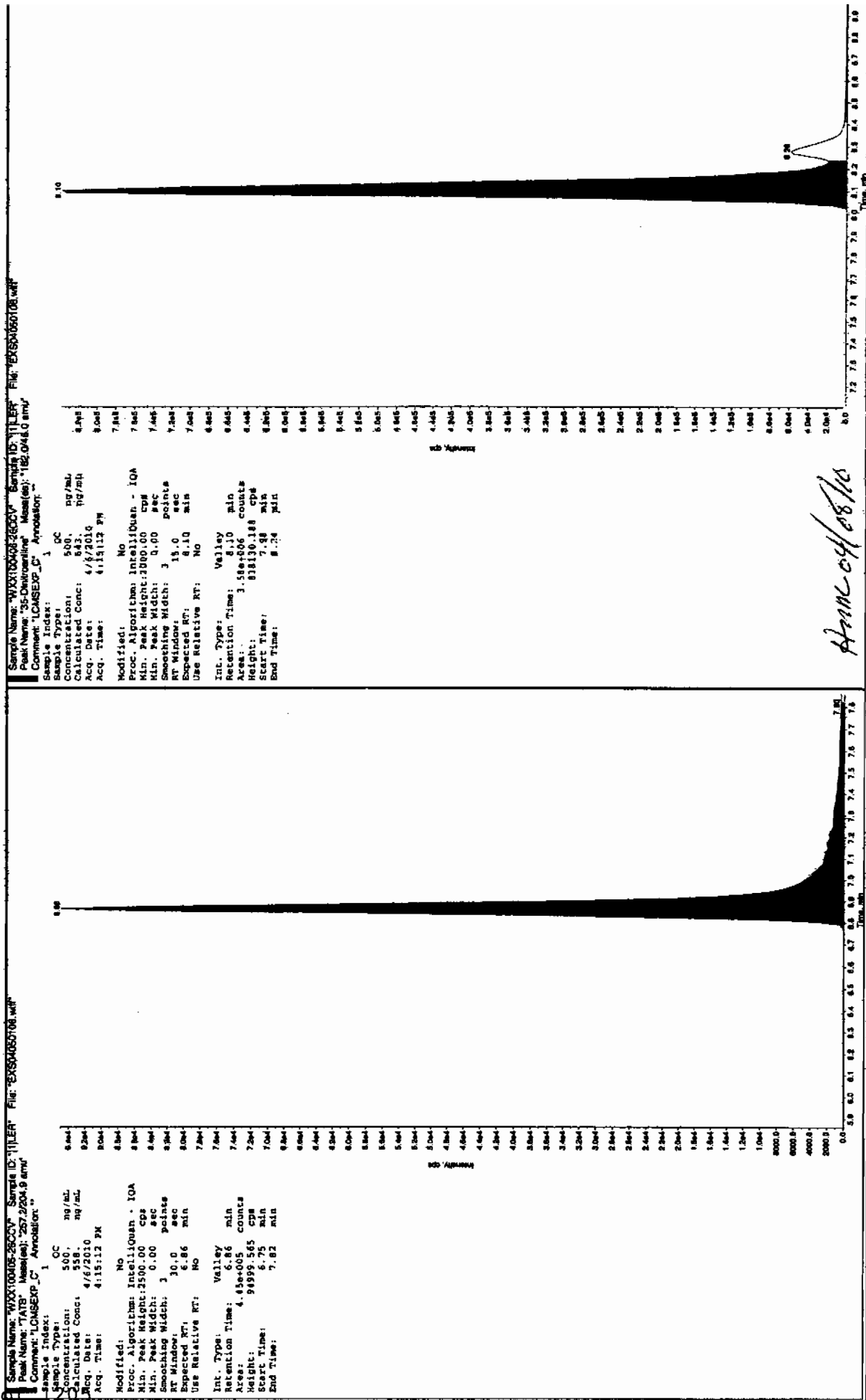
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

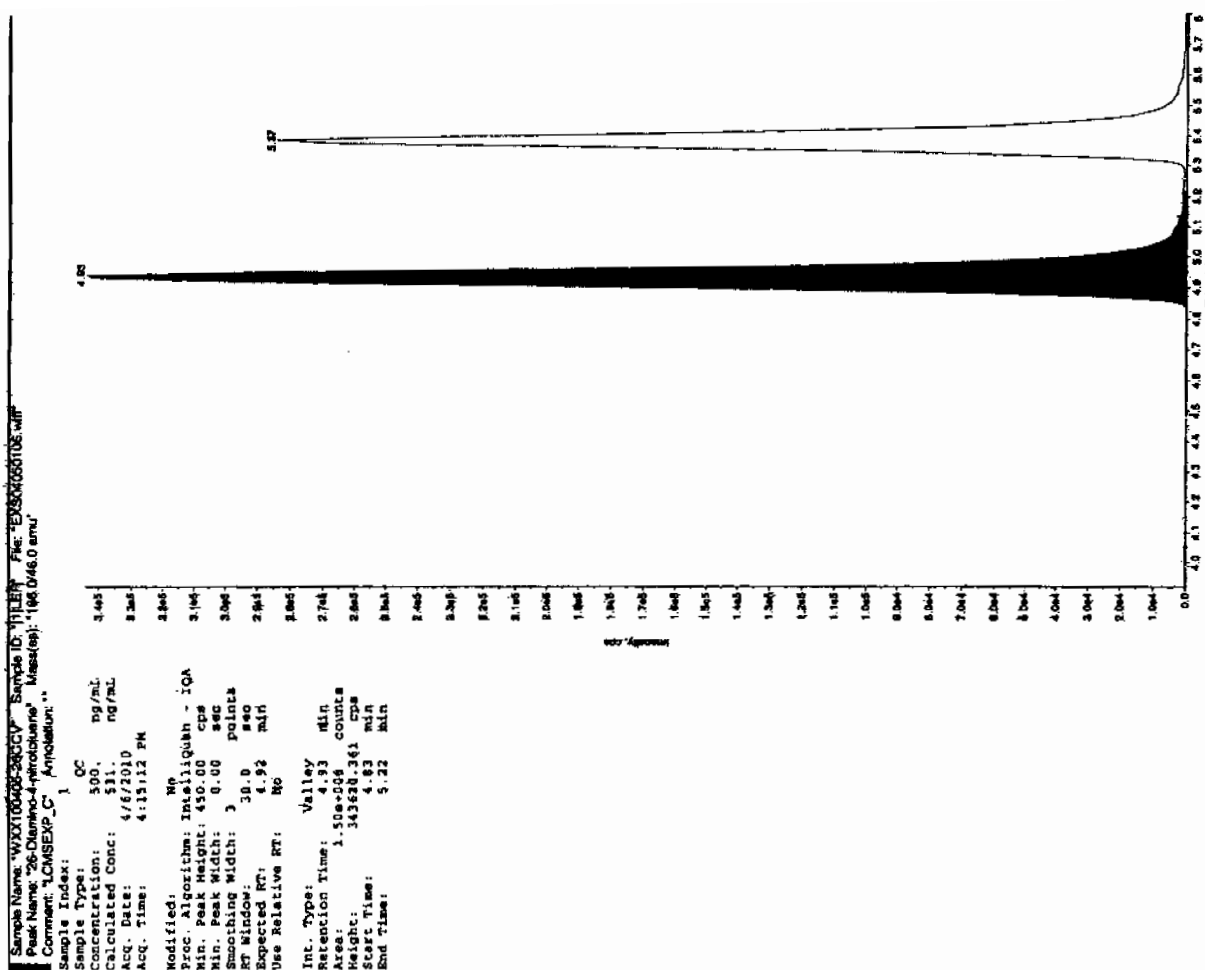
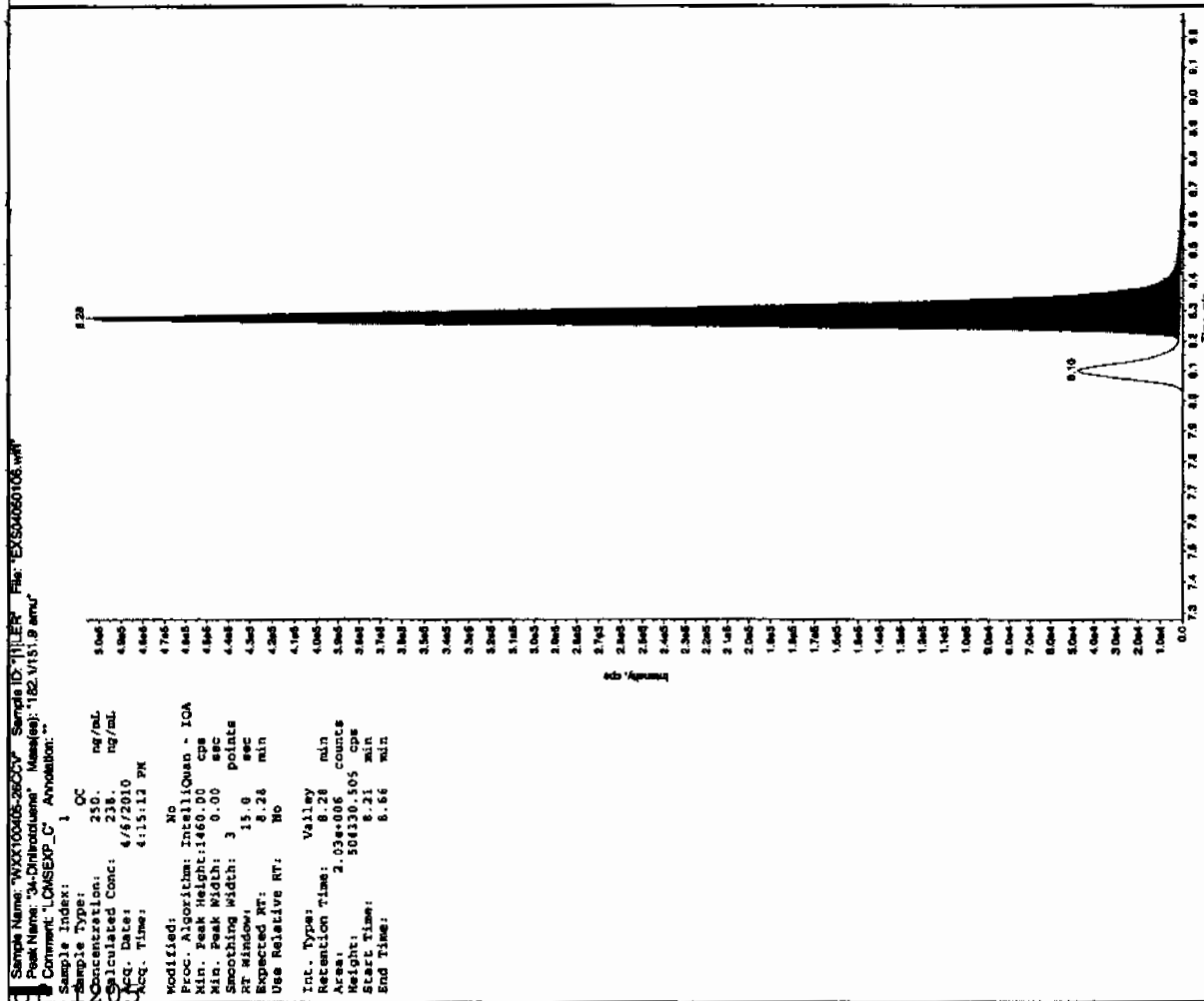
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Scan 4/7/10



AME 04/08/10





**7B**  
**Explosives CRI Standard**

**Lab Name:** GEL Laboratories LLC

**GEL Job No (SDG):** 10-2140

**Lab Code:** GEL

**GEL Sample ID:** WXXCRI

**GEL Data File** EXS04050108.wiff

**Analysis Date:** 06-APR-10 16:46

**LCMSMS ID:** 1358

**Column ID:** JSphere ODS-H80

Compound	True	Found	Recovery	Q
3,5-Dinitroaniline	100	120	120	
TATB	100	116	116	
tris(o-cresyl) phosphate	100	110	110	
2,4-Diamino-6-nitrotoluene	100	131	131	
2,6-Diamino-4-nitrotoluene	100	133	133	
3,4-Dinitrotoluene	50	57.2	114	

**Recovery Limits:**

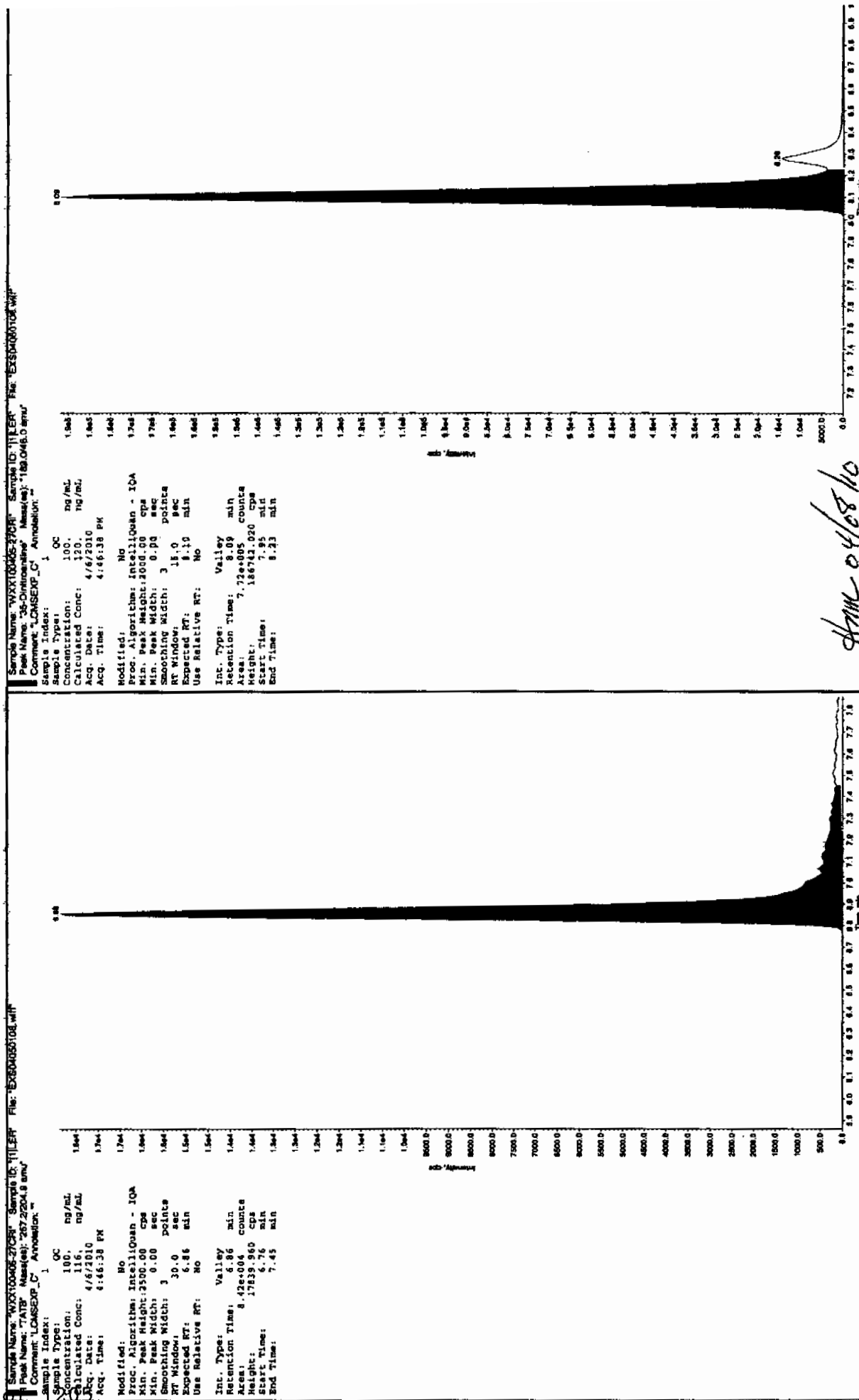
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

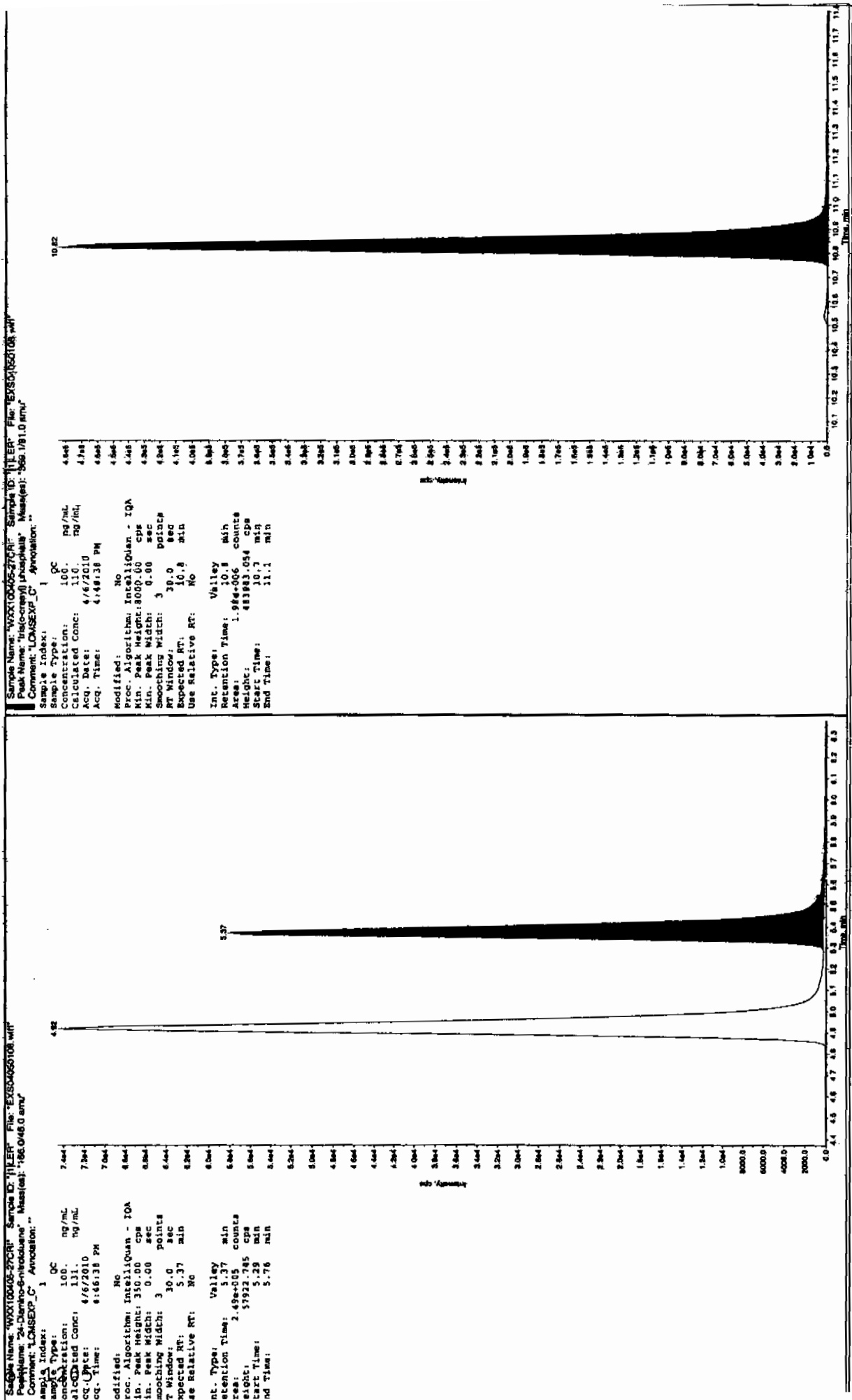
\* Value outside of Recovery Limits

San 4710





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



# QUALITY CONTROL DATA

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 959337

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 1202057500

Sample Amount 2

Moisture:

Amount Units g

Date Received: 01-MAR-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412144a

Date Analyzed: 15-APR-10 13:59

Units: ug/kg

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

\*Concentration =

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

Quantify Sample Report

CEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Apr 16 09:46:23 2010, Page 1 of 71

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Method: C:\MASSLYNX\New\_Exp.PRO\MethDB\041210expa.mdb, Time: Tue Apr 13 09:03:30 2010

Calibration: C:\MASSLYNX\New\_Exp.PRO\CurveDB\041210expa.cdb, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP041214a

Date: 15-Apr-2010

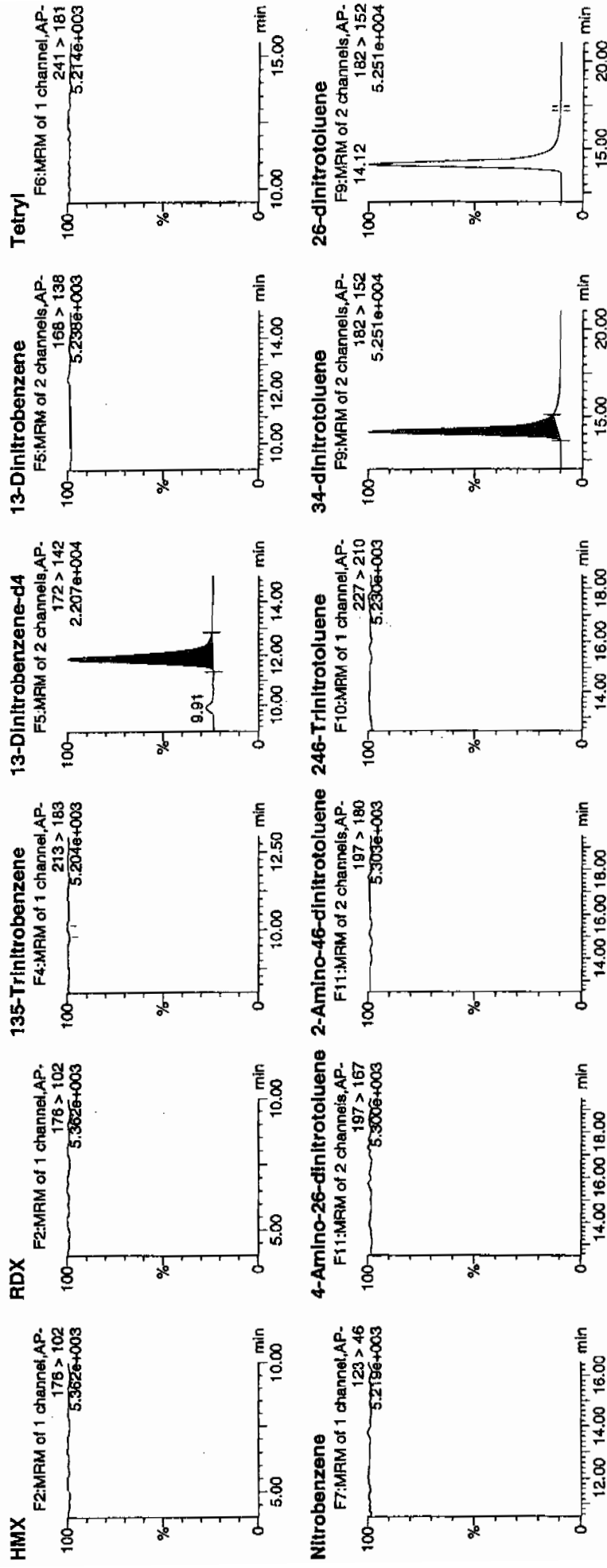
Time: 13:59:40

ID: 1202057500

Vial: 4:1,A

1077  
4/16/10

Law 959338 / 8000 / MB / 21



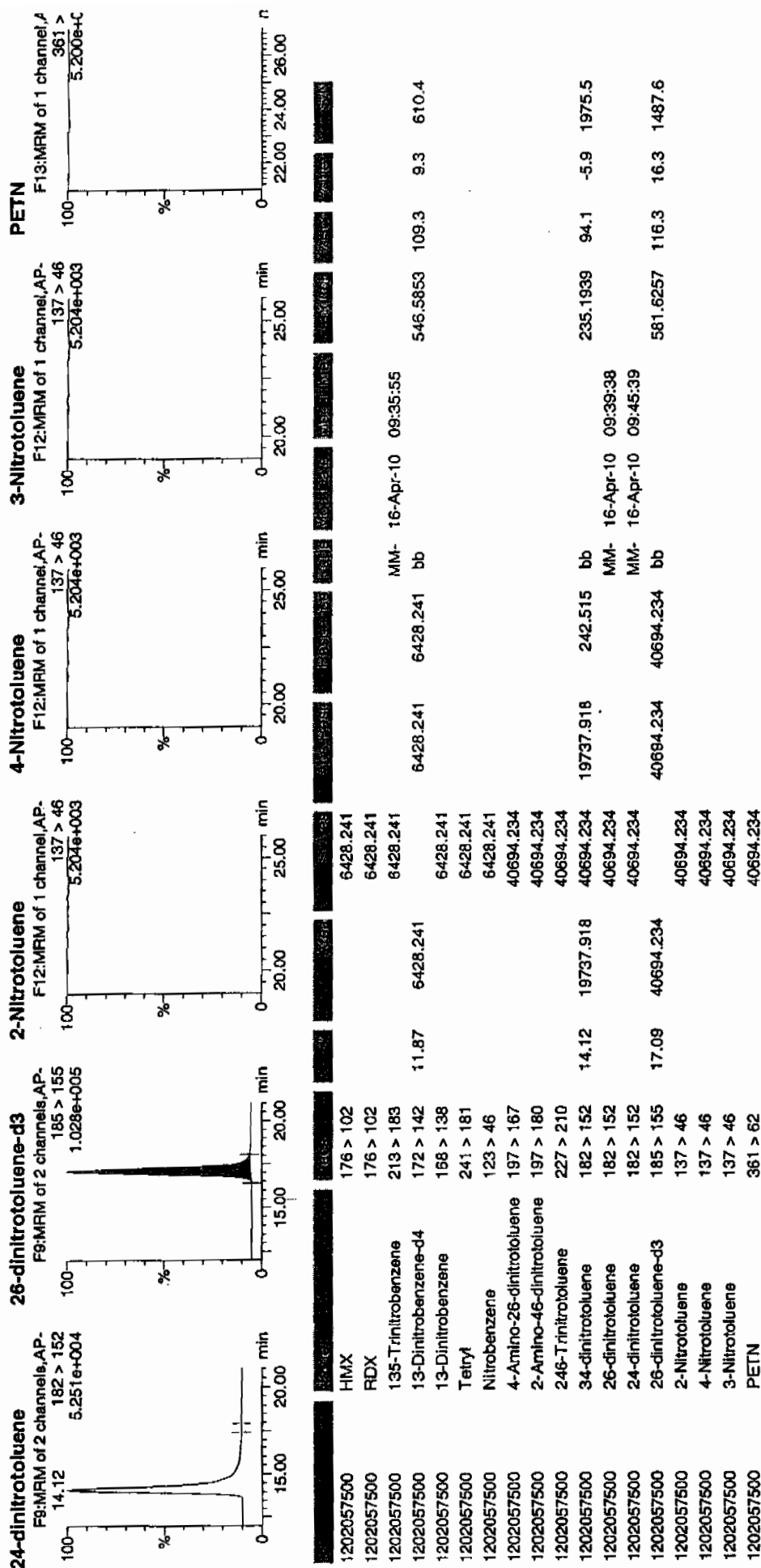
Handwritten signature and date: 04/18/10

## Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Apr 16 09:46:23 2010, Page 2 of 71

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 959337

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 1202057500

Sample Amount 2

Moisture:

Amount Units g

Date Received: 01-MAR-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050087.wiff

Date Analyzed: 06-APR-10 11:16

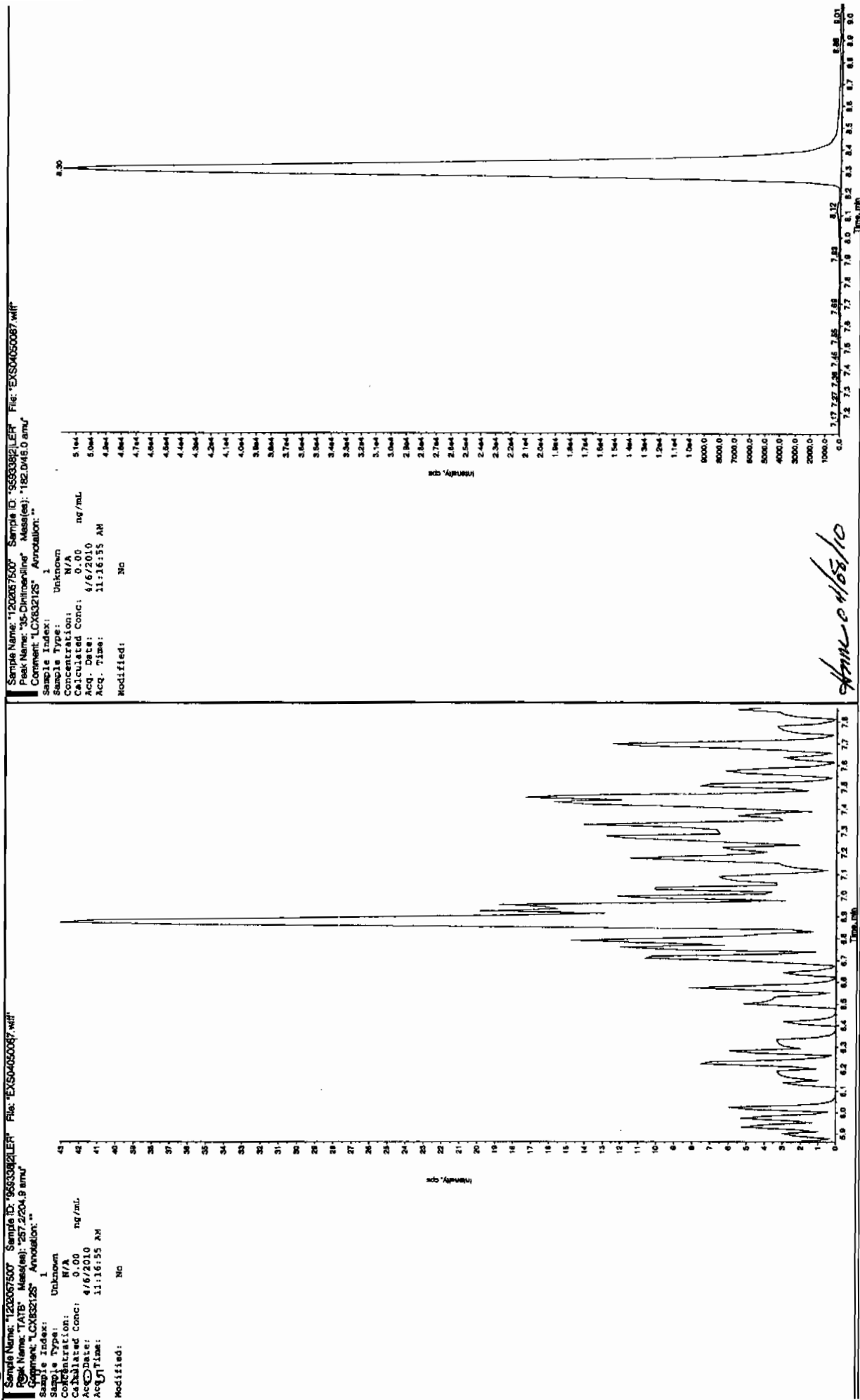
Units: ug/kg

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

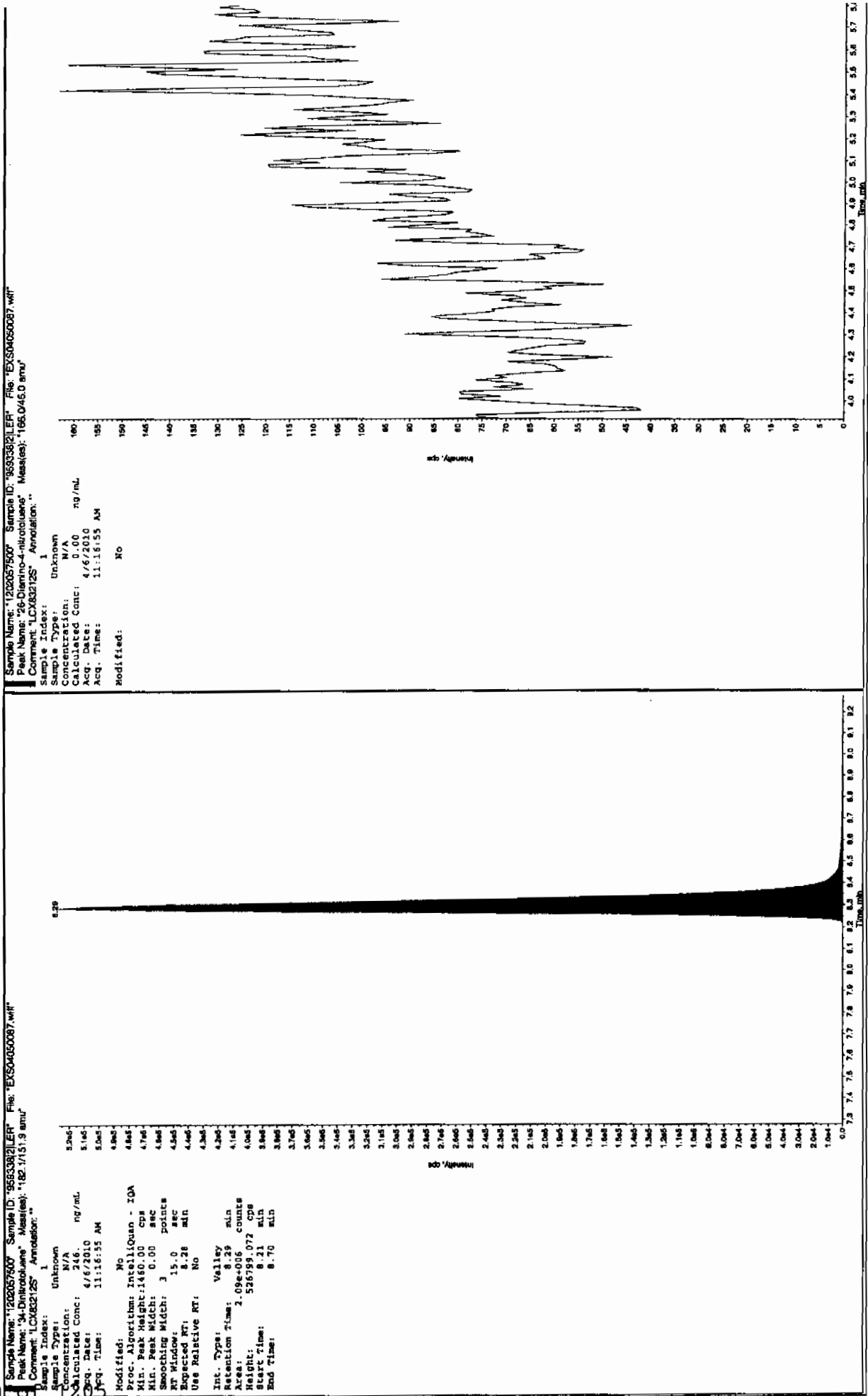
\*Concentration =

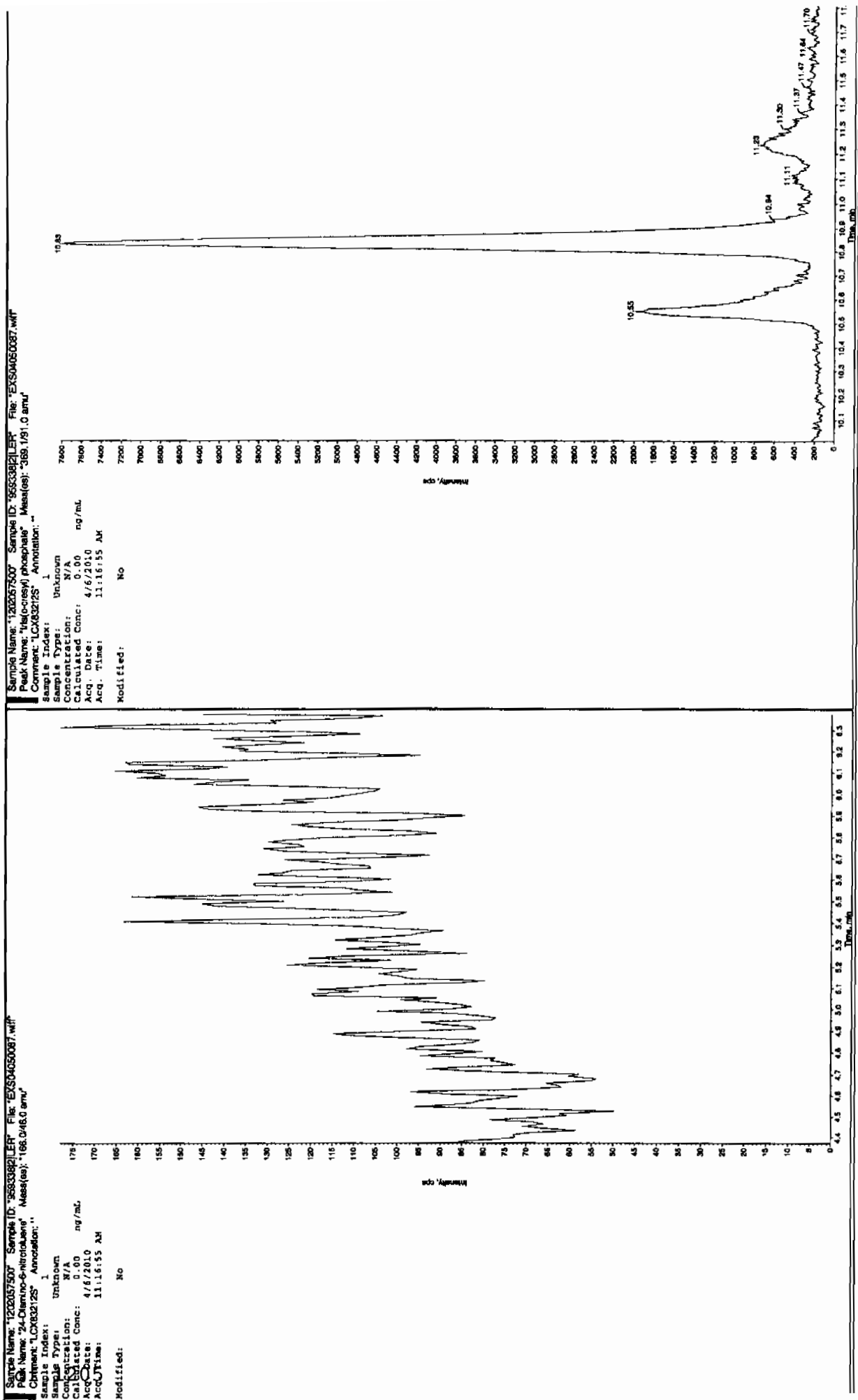
Instrument Value	X	<u>Concentrated Extract Volume</u>	X	Dilution Factor
		Sample Amount		

Jan 4/17/10









1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 959337

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 1202057501

Sample Amount 2

Moisture:

Amount Units g

Date Received: 01-MAR-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412145a

Date Analyzed: 15-APR-10 14:29

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5320	
121-14-2	2,4-Dinitrotoluene	4990	
121-82-4	RDX	5360	
19406-51-0	4-Amino-2,6-dinitrotoluene	5120	
2691-41-0	HMX	4730	
35572-78-2	2-Amino-4,6-dinitrotoluene	5520	
479-45-8	Tetryl	1010	
606-20-2	2,6-Dinitrotoluene	4680	
78-11-5	PETN	5260	
88-72-2	o-Nitrotoluene	3920	
98-95-3	Nitrobenzene	4620	
99-08-1	m-Nitrotoluene	4030	
99-35-4	1,3,5-Trinitrobenzene	3640	
99-65-0	m-Dinitrobenzene	4560	
99-99-0	p-Nitrotoluene	4320	

\*Concentration =

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

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

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412145a

Date: 15-Apr-2010

Time: 14:29:17

ID: 1202057501

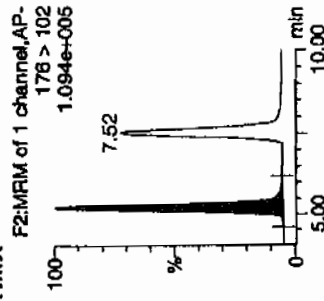
Vial: 4:1,B

4/16/10

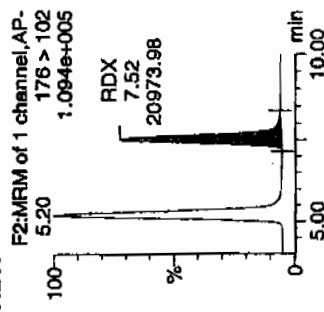
LAUW 959338 / 8022 / 108 / 21

↓ Tetra

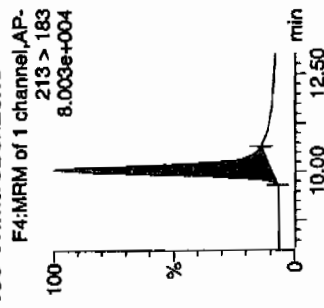
# HMX



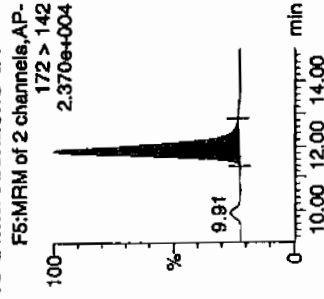
# RDX



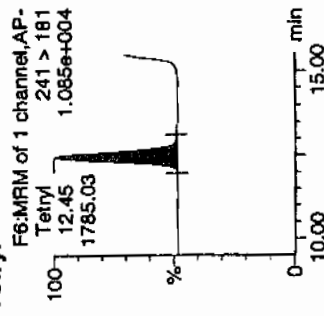
# 135-Trinitrobenzene



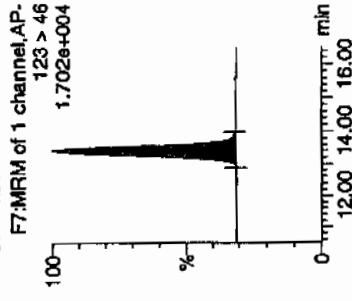
# 13-Dinitrobenzene-d4



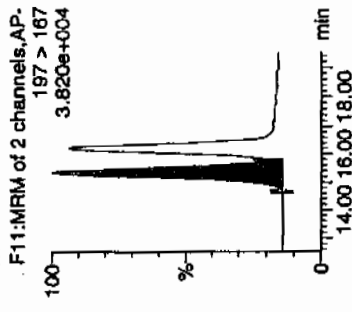
# Tetryl



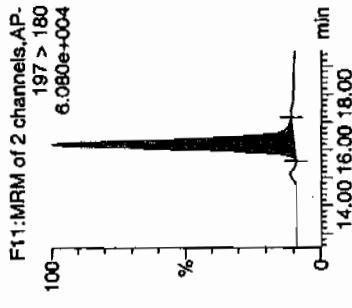
# Nitrobenzene



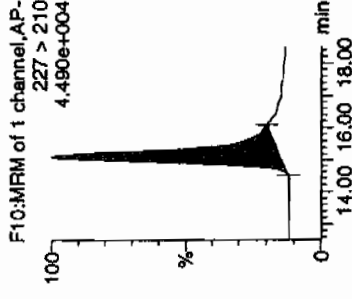
# 4-Amino-26-dinitrotoluene



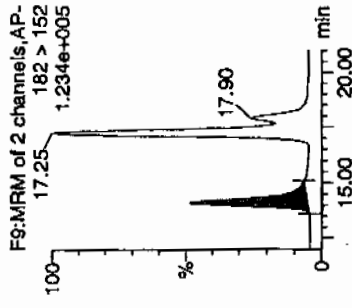
# 2-Amino-46-dinitrotoluene



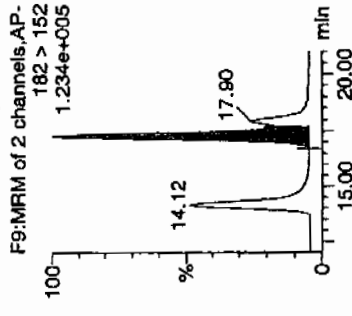
# 246-Trinitrotoluene



# 34-dinitrotoluene



# 26-dinitrotoluene

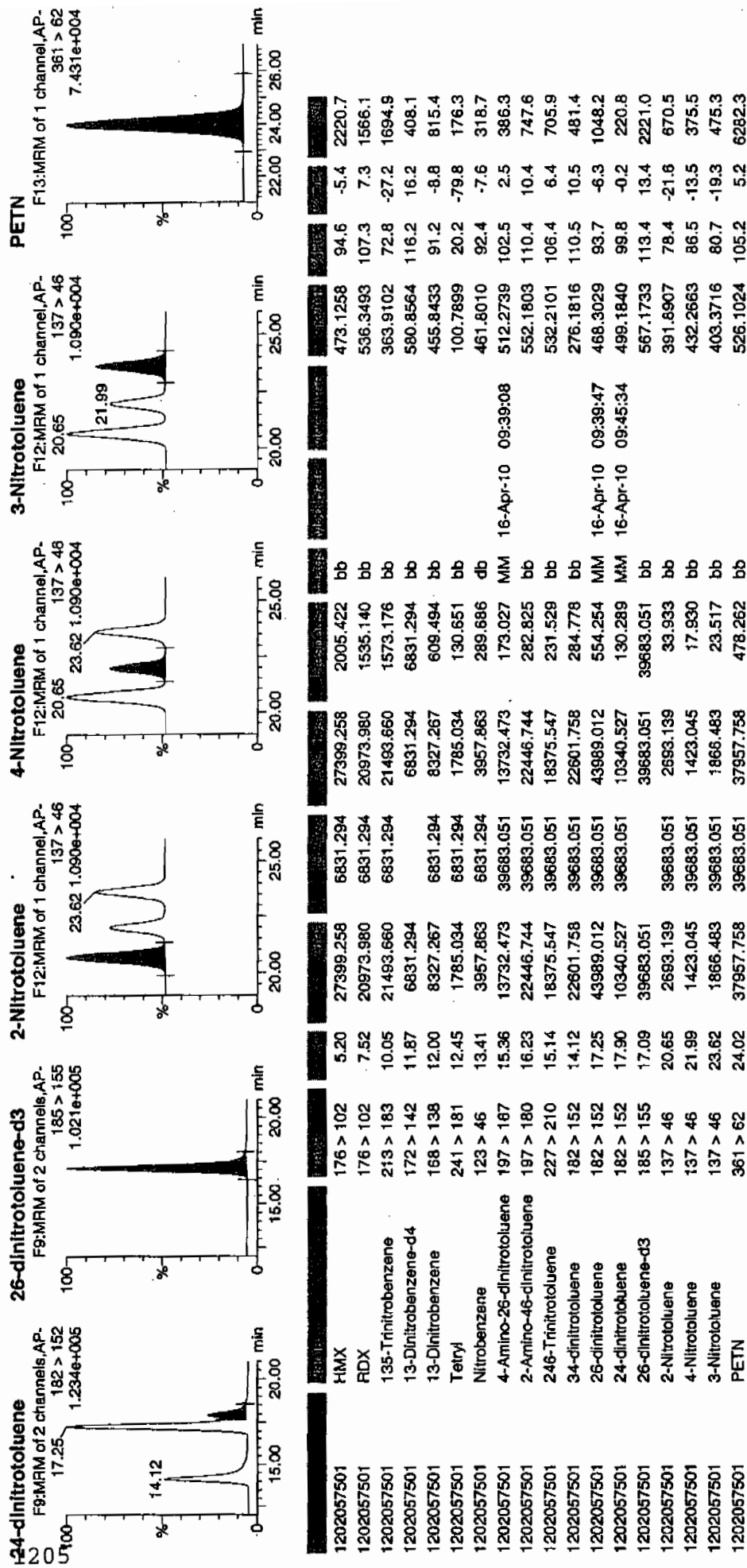


4/16/10

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 959337

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 1202057501

Sample Amount 2

Moisture:

Amount Units g

Date Received: 01-MAR-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050088.wiff

Date Analyzed: 06-APR-10 11:32

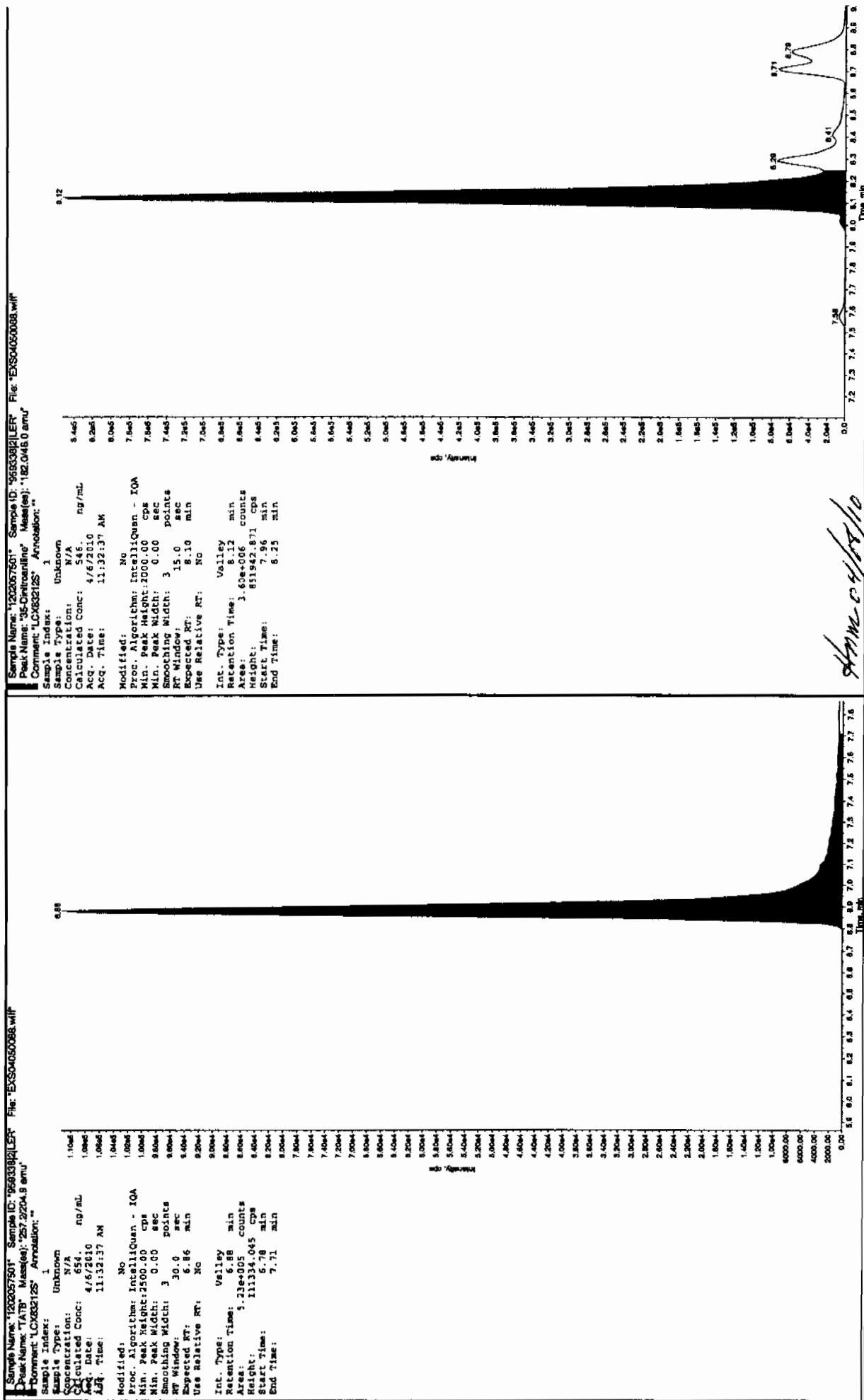
Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	6540	
59229-75-3	2,6-Diamino-4-nitrotoluene	4900	
618-87-1	3,5-Dinitroaniline	5460	
6629-29-4	2,4-Diamino-6-nitrotoluene	5260	
78-30-8	tris(o-cresyl) phosphate	4850	

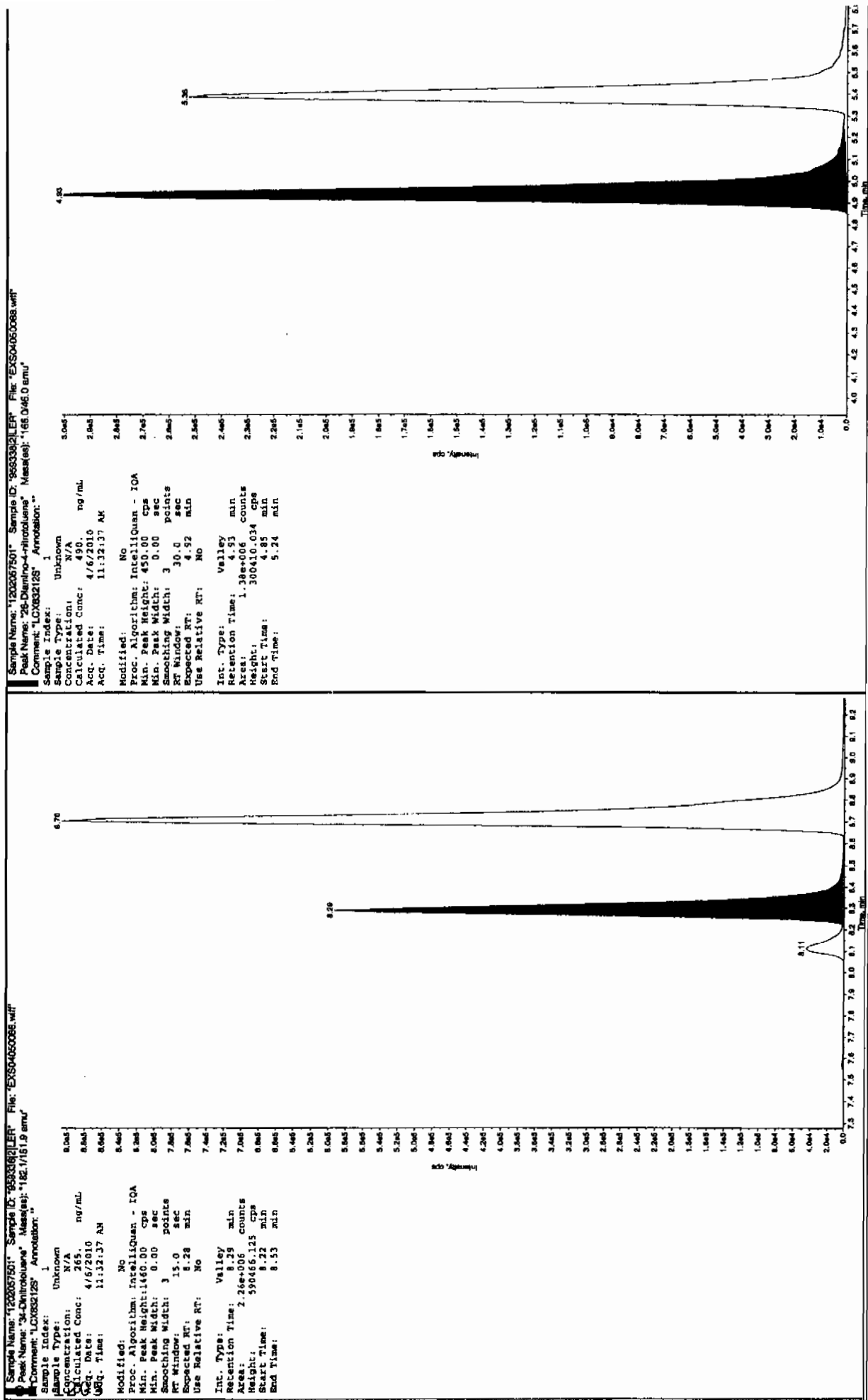
\*Concentration =

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

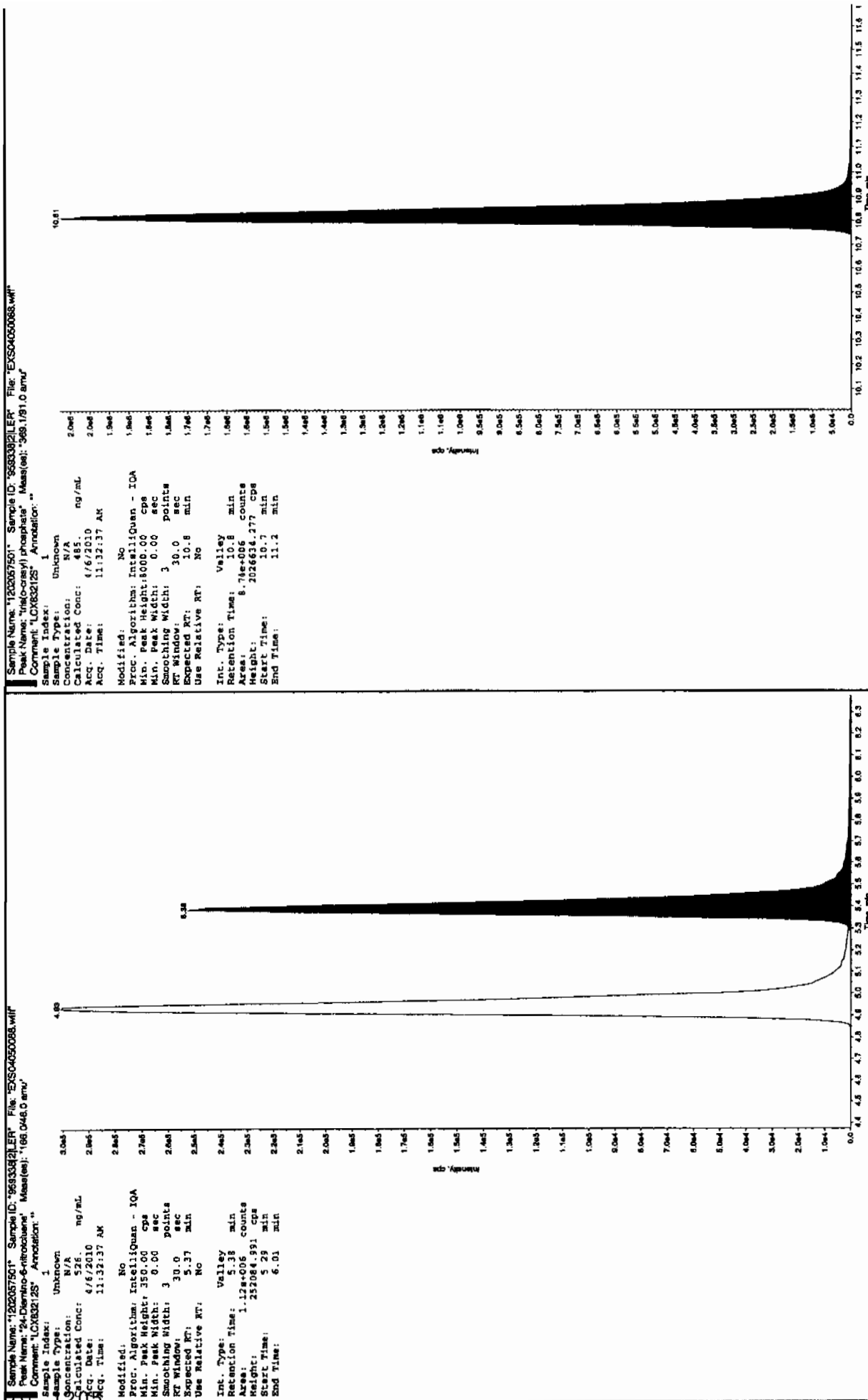
Dec 4/7/10



Dec 4/7/10







1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8285(248249001MS)

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 1202057502

Sample Amount 2

Moisture: 27.9

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412158a

Date Analyzed: 15-APR-10 20:52

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4480	
121-14-2	2,4-Dinitrotoluene	5310	
121-82-4	RDX	5670	
19406-51-0	4-Amino-2,6-dinitrotoluene	4650	
2691-41-0	HMX	4790	
35572-78-2	2-Amino-4,6-dinitrotoluene	4870	
479-45-8	Tetryl	961	
606-20-2	2,6-Dinitrotoluene	4670	
78-11-5	PETN	5090	
88-72-2	o-Nitrotoluene	3600	
98-95-3	Nitrobenzene	4140	
99-08-1	m-Nitrotoluene	3650	
99-35-4	1,3,5-Trinitrobenzene	4680	
99-65-0	m-Dinitrobenzene	4700	
99-99-0	p-Nitrotoluene	3930	

\*Concentration =

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

# Quantify Sample Report

GEL Laboratories, LLC / Analyst: Michael A. Penny

Printed: Fri Apr 16 09:46:23 2010, Page 29 of 71

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412158a

Date: 15-Apr-2010

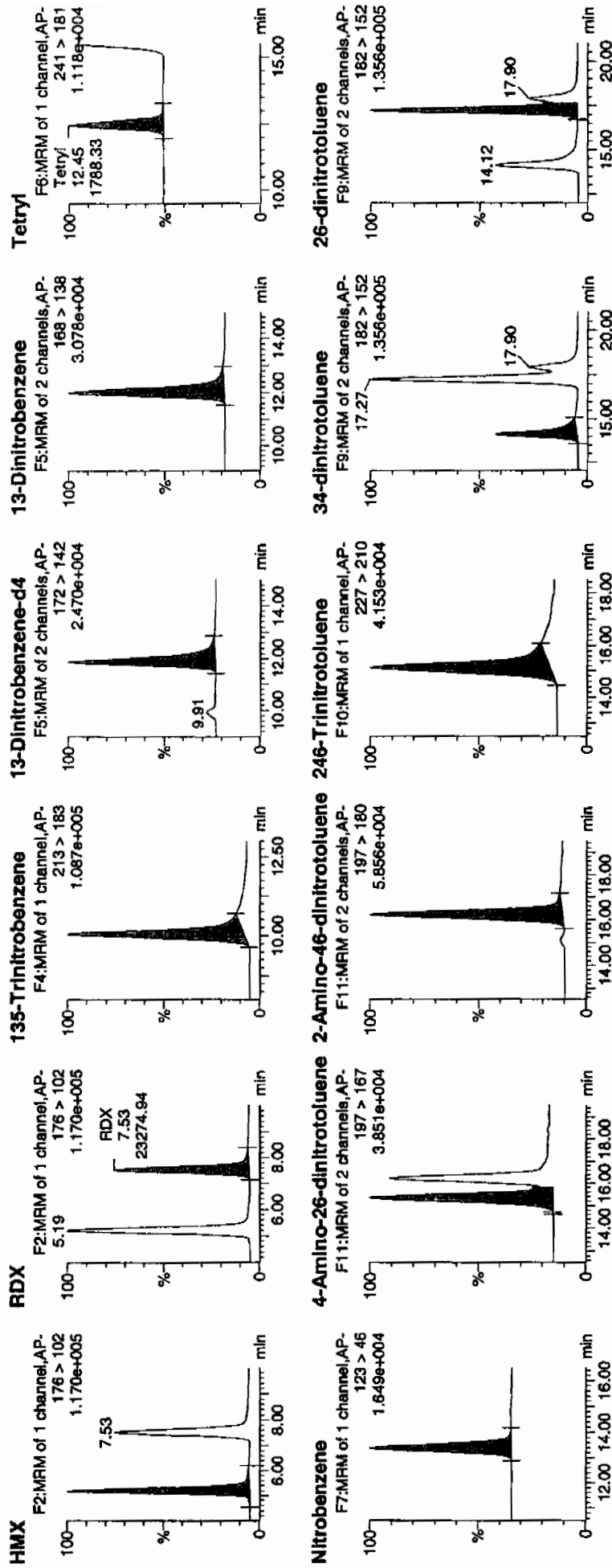
Time: 20:52:48

ID: 1202057502

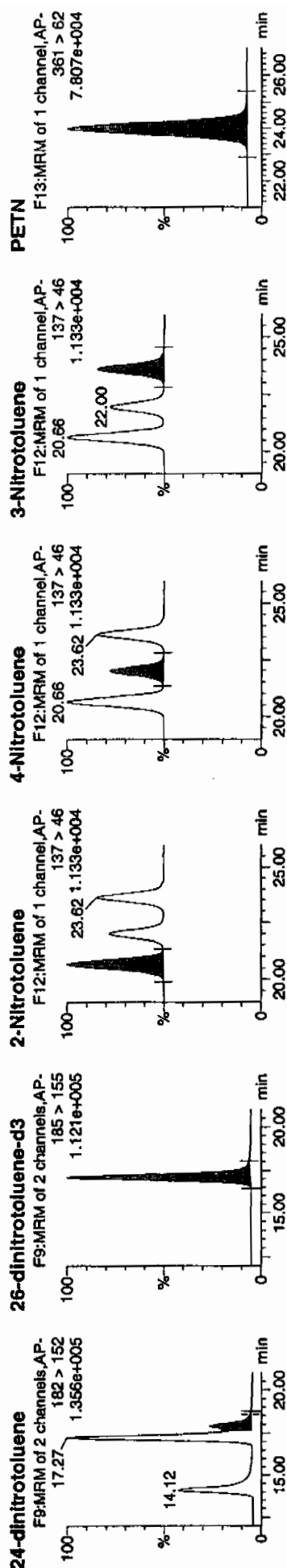
Vial: 4:2,F

1477  
4/16/10

248249001ms / 21



471 MC  
04/18/10

[illegible]

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8285(248249001MS)

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 1202057502

Sample Amount 2

Moisture: 27.9

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050101.wiff

Date Analyzed: 06-APR-10 14:56

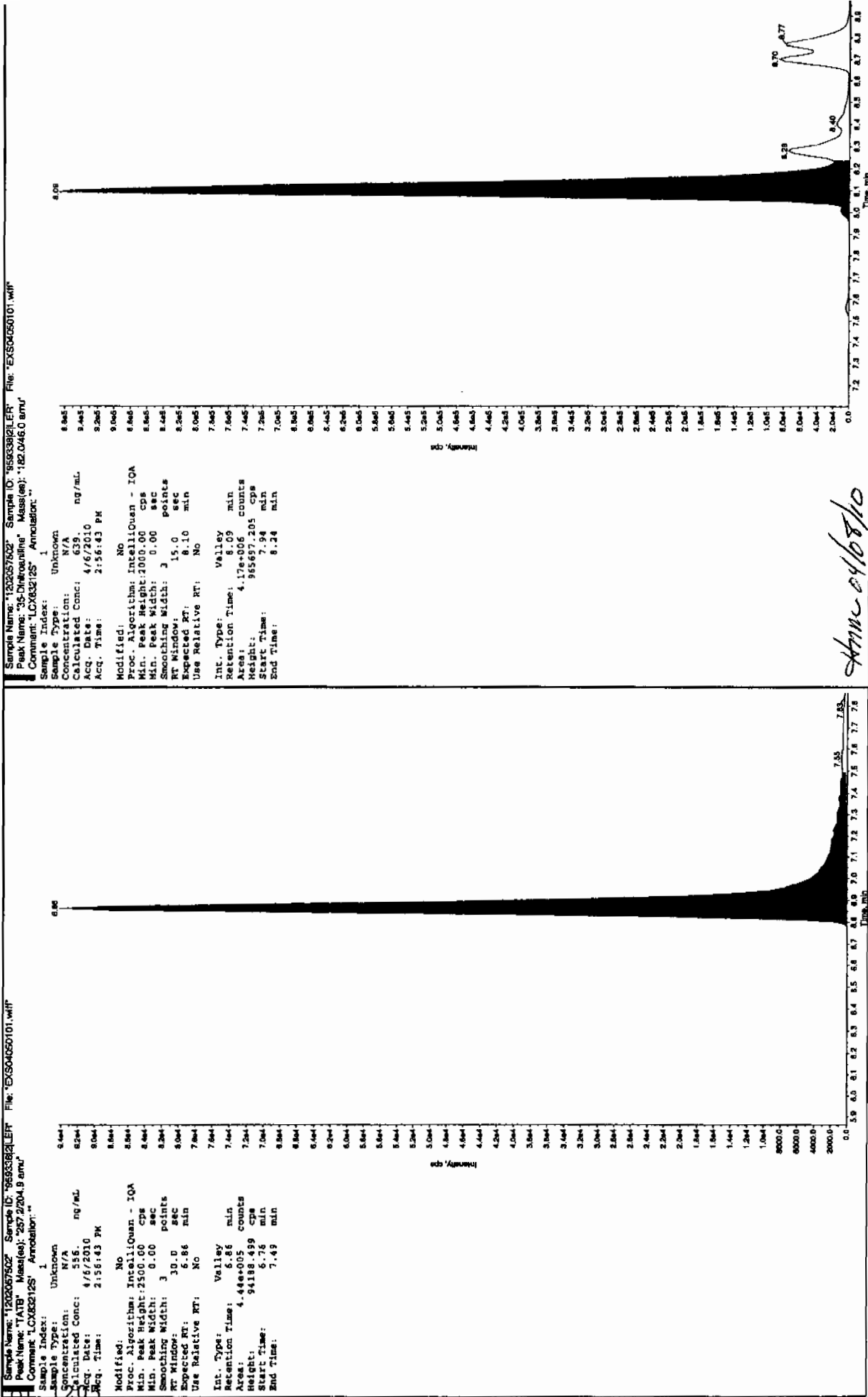
Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5560	
59229-75-3	2,6-Diamino-4-nitrotoluene	5190	
618-87-1	3,5-Dinitroaniline	6390	
6629-29-4	2,4-Diamino-6-nitrotoluene	3510	
78-30-8	tris(o-cresyl) phosphate	5090	

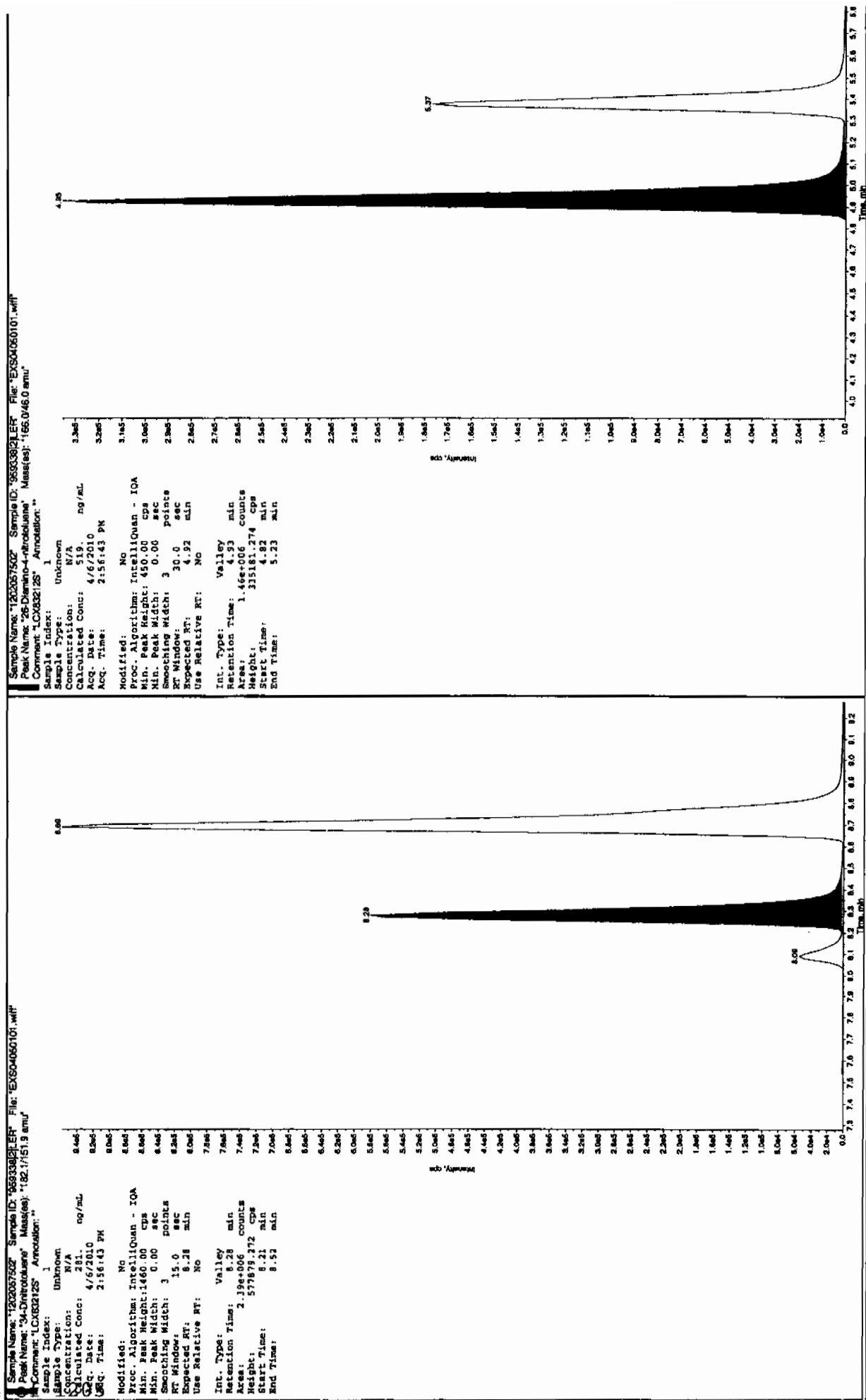
\*Concentration =

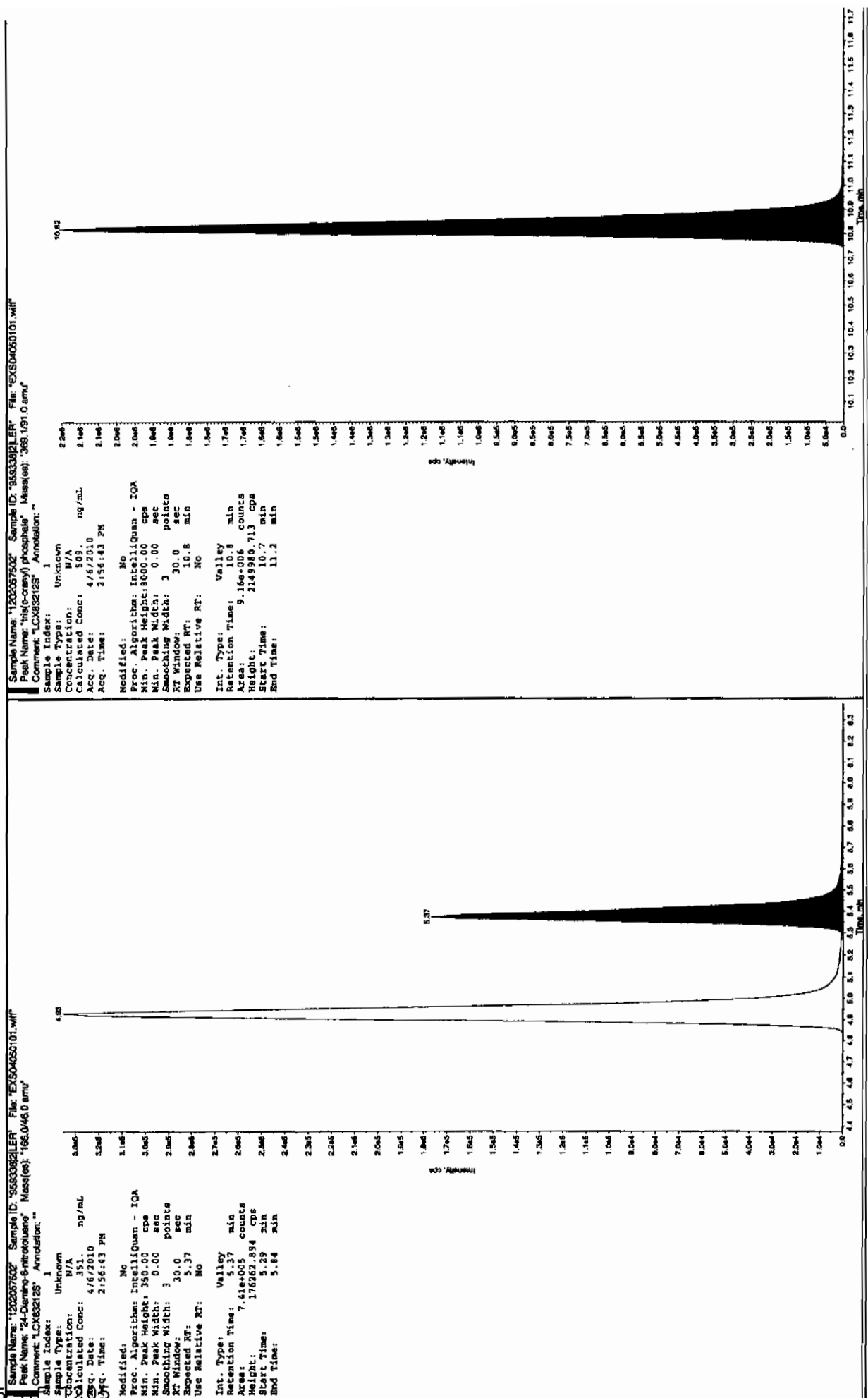
Instrument	X	Concentrated Extract Volume	X	Dilution
Value		Sample Amount		Factor

Jan 4/17/10



Annex 04/10/810





\*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: RE36-10-8285(248249001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 1202057503

Sample Amount 2

Moisture: 27.9

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412159a

Date Analyzed: 15-APR-10 21:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4620	
121-14-2	2,4-Dinitrotoluene	5330	
121-82-4	RDX	5410	
19406-51-0	4-Amino-2,6-dinitrotoluene	4680	
2691-41-0	HMX	4500	
35572-78-2	2-Amino-4,6-dinitrotoluene	5700	
479-45-8	Tetryl	913	
606-20-2	2,6-Dinitrotoluene	4700	
78-11-5	PETN	5280	
88-72-2	o-Nitrotoluene	3710	
98-95-3	Nitrobenzene	3930	
99-08-1	m-Nitrotoluene	3590	
99-35-4	1,3,5-Trinitrobenzene	4980	
99-65-0	m-Dinitrobenzene	4540	
99-99-0	p-Nitrotoluene	3880	

\*Concentration =

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

# Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Apr 16 09:46:23 2010, Page 31 of 71

Dataset: C:\MASSLYNX\New\_Exp.PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010

Name: C:\MASSLYNX\NEW\_EXP.PRO\Data\EXP0412159a

Date: 15-Apr-2010

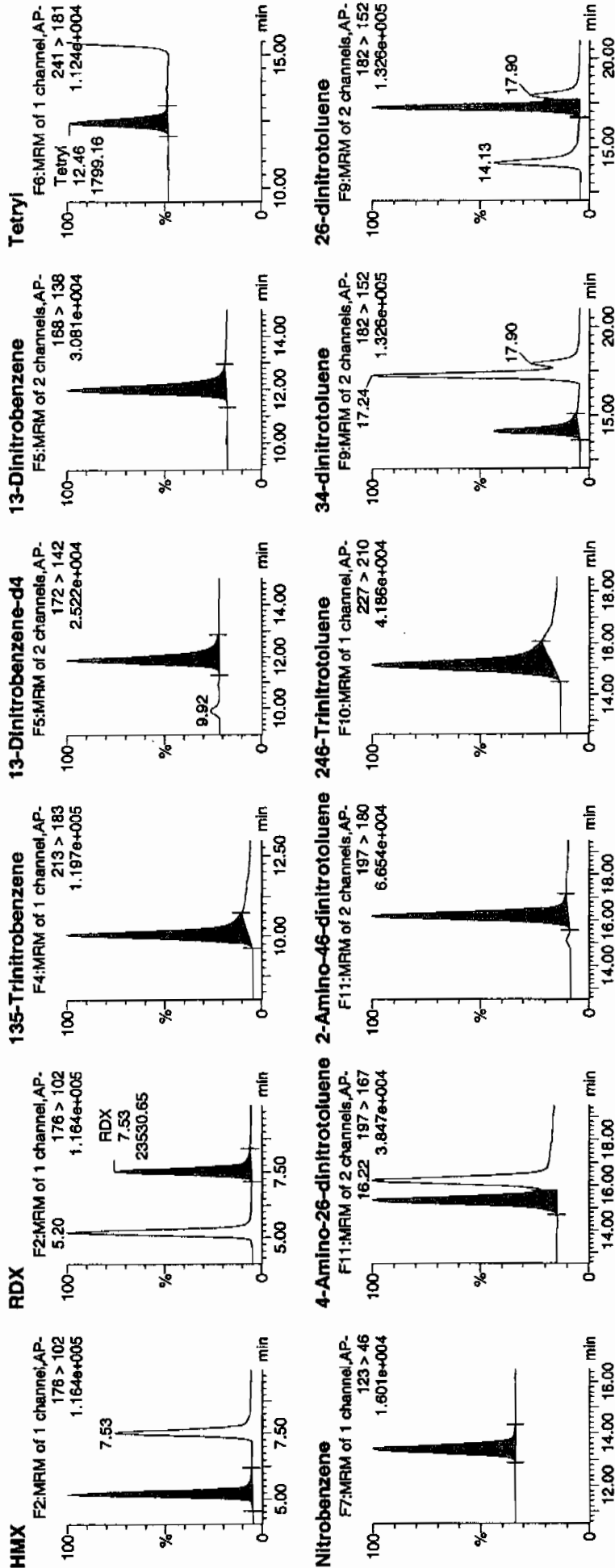
Time: 21:22:15

ID: 1202057503

Vial: 4:3,A

447  
4/16/10

AW 959338 / 5000 / 248249001MMS / 21



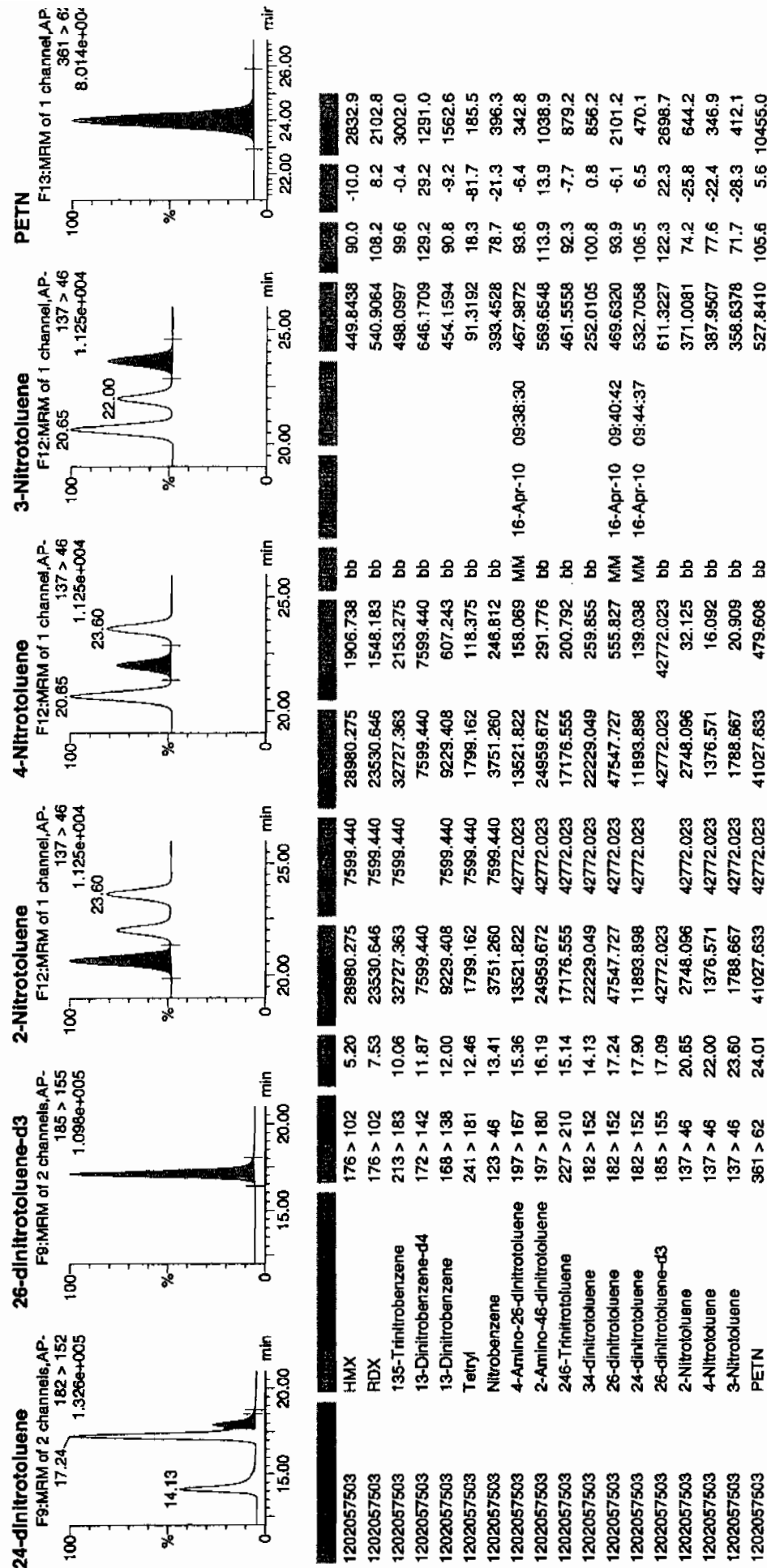
4/16/10 18:10

## Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Fri Apr 16 09:46:23 2010, Page 32 of 71

Dataset: C:\MASSLYNX\New\_Exp\_PRO\041210expA3.qld, Time: Fri Apr 16 09:45:39 2010



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-8285(248249001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-2140

Matrix: SOIL

GEL Sample ID: 1202057503

Sample Amount 2

Moisture: 27.9

Amount Units g

Date Received: 27-FEB-10

Extraction Type Sonication

Extraction Batch ID: 959337

Concentrated Extract Volume (mL) 10

Date Extracted: 08-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050102.wiff

Date Analyzed: 06-APR-10 15:12

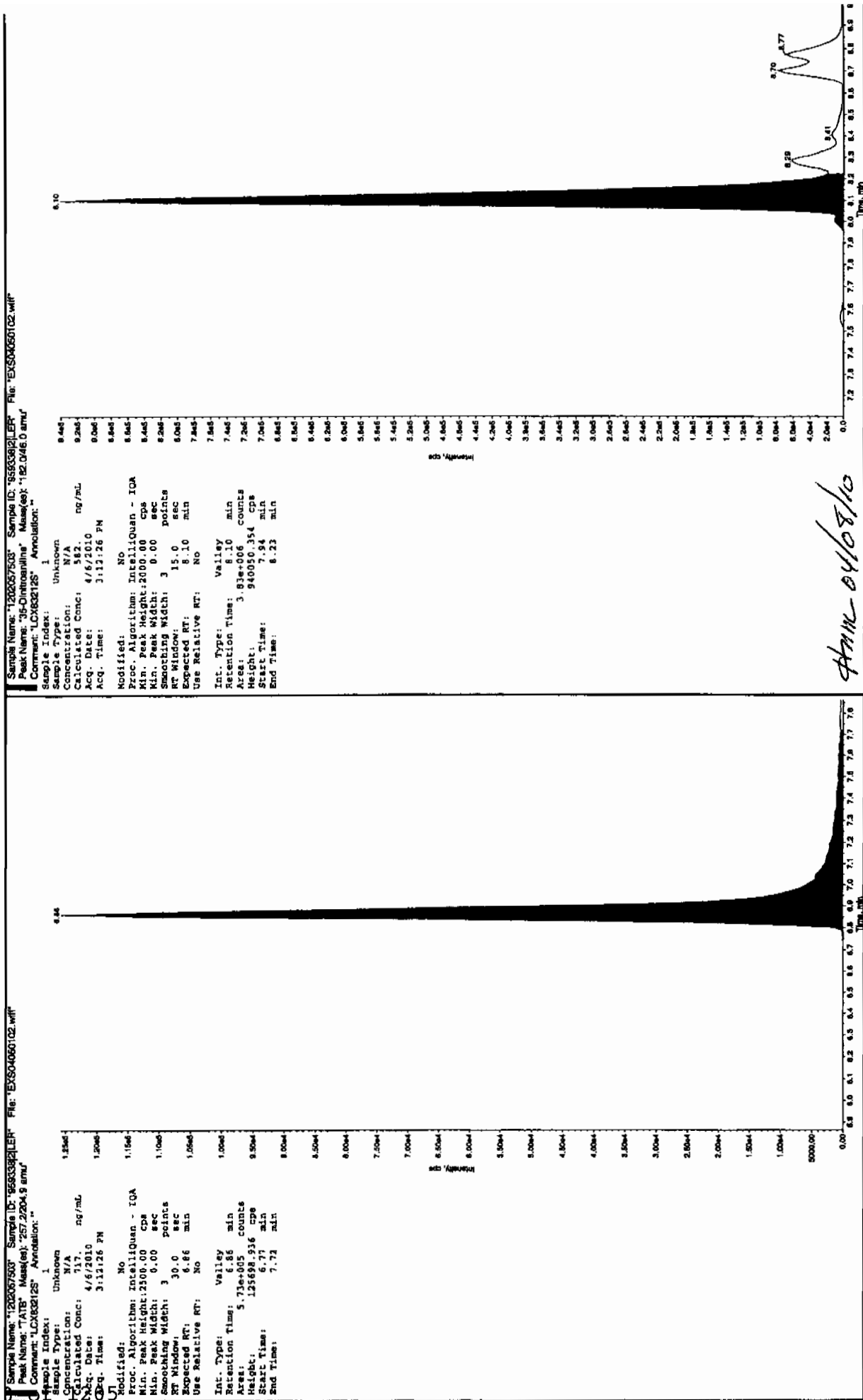
Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	7170	
59229-75-3	2,6-Diamino-4-nitrotoluene	5130	
618-87-1	3,5-Dinitroaniline	5820	
6629-29-4	2,4-Diamino-6-nitrotoluene	3280	
78-30-8	tris(o-cresyl) phosphate	5070	

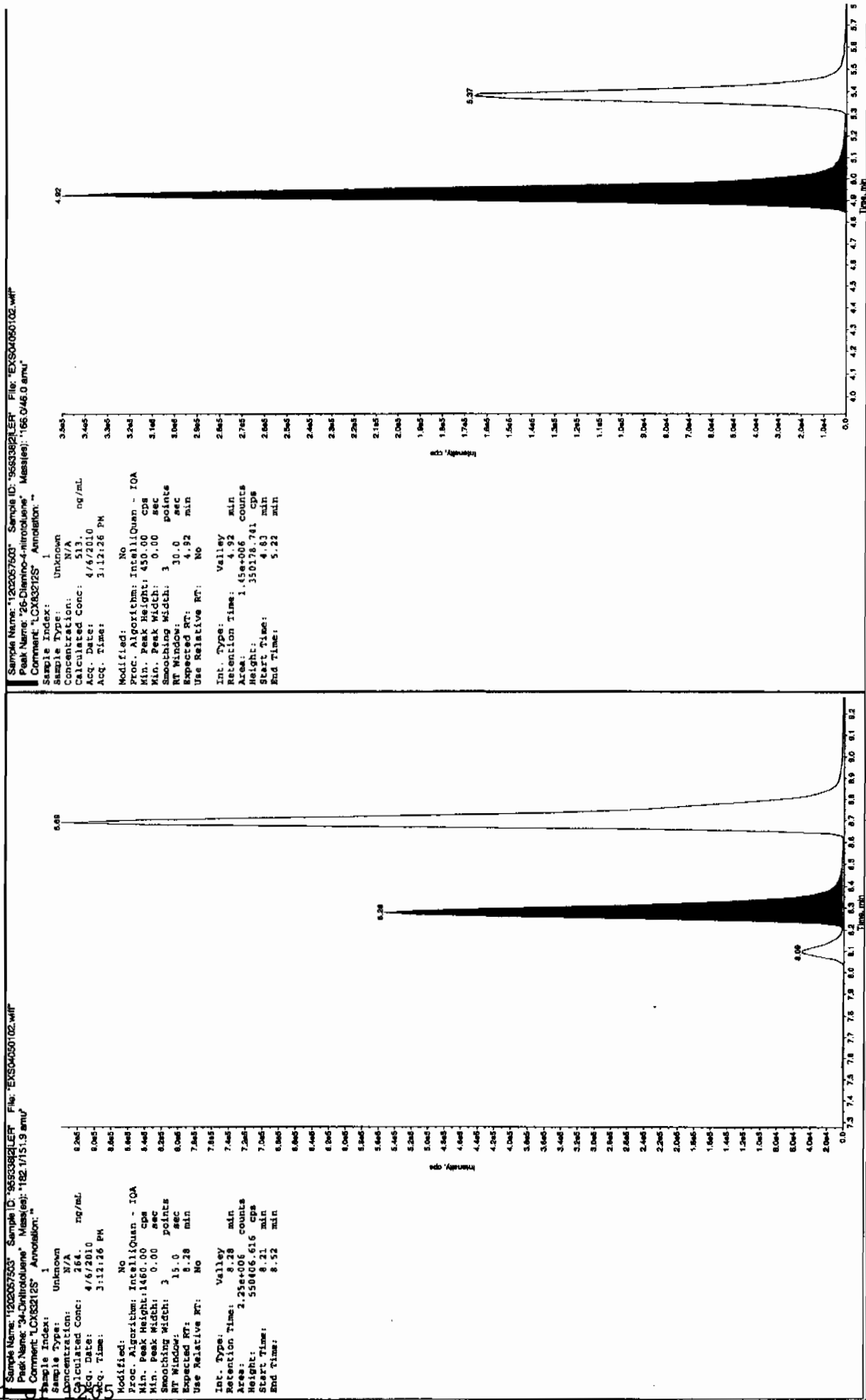
\*Concentration =

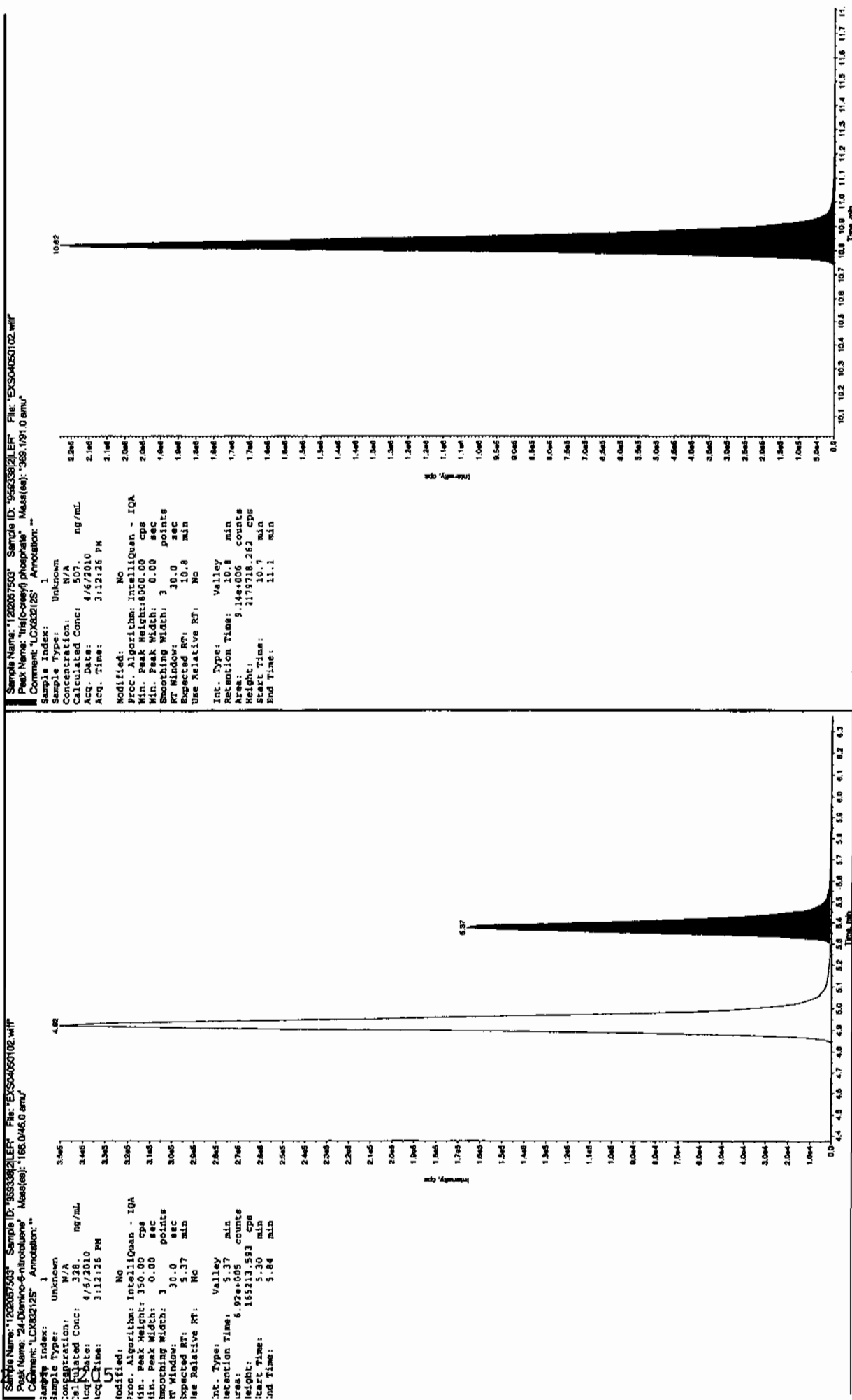
Instrument Value	X	$\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$	X	Dilution Factor
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Scan 8/17/10



Scan 04/08/10





# MISCELLANEOUS DATA



## Prep Logbook

## Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 959337 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)
1202057500 MB	08-MAR-2010 17:52:00	2	10	5
1202057501 LCS	08-MAR-2010 17:52:00	2	10	5
248244001	08-MAR-2010 17:52:00	2	10	5
248244002	08-MAR-2010 17:52:00	2	10	5
248244003	08-MAR-2010 17:52:00	2	10	5
248244004	08-MAR-2010 17:52:00	2	10	5
248244005	08-MAR-2010 17:52:00	2	10	5
248244006	08-MAR-2010 17:52:00	2	10	5
248244007	08-MAR-2010 17:52:00	2	10	5
248244008	08-MAR-2010 17:52:00	2	10	5
248249001	08-MAR-2010 17:52:00	2	10	5
1202057502 MS (248249001)	08-MAR-2010 17:52:00	2	10	5
1202057503 MSD (248249001)	08-MAR-2010 17:52:00	2	10	5
248249002	08-MAR-2010 17:52:00	2	10	5
248249003	08-MAR-2010 17:52:00	2	10	5
248249004	08-MAR-2010 17:52:00	2	10	5

## Comments:

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments
LCS	1202057501	8321 Explosives LCS	IXX100225-03	.1	mL	Final Solvent: ACN
LCS	1202057501	8321 LANL Explosives Mix 10mg/L	UXX100223-02.02	.1	mL	
MS	1202057502	8321 Explosives LCS	IXX100225-03	.1	mL	
MS	1202057502	8321 LANL Explosives Mix 10mg/L	UXX100223-02.02	.1	mL	
MSD	1202057503	8321 Explosives LCS	IXX100225-03	.1	mL	
MSD	1202057503	8321 LANL Explosives Mix 10mg/L	UXX100223-02.02	.1	mL	
SURR	All	3,4-Dinitrofluorene (8330 Sur.) 100ppm	IXP100304-02	.05	mL	

## GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 04/12/10

Extr. Injection Volume: 50ul

Sequence Number: 041210expA

Initial Calibration Date: 04/12/10

Method: SW846 8321A-Modified

Int. Std.: UXX100324-02.3

Mobile Phase Lot#: 1296548, 1289686

Standard-Samp Reagent Lot#: 1299881, 1284736

Reviewed BY: *haim*  
Date: 04/18/10

SOP: GL-OA-E-056 Rev.12

Alt Check Std. ID: WXX100412-07 &  
WXX100415-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0412001a	XIBLK01	MAP	4/12/10 15:40			1		USE	B
EXP0412002a	XIBLK01	MAP	4/12/10 16:10			1		USE	B
EXP0412003a	WXXICAL-01	MAP	4/12/10 16:39			1		USE	I
EXP0412004a	WXXICAL-02	MAP	4/12/10 17:09			1		USE	I
EXP0412005a	WXXICAL-03	MAP	4/12/10 17:38			1		USE	I
EXP0412006a	WXXICAL-04	MAP	4/12/10 18:08			1		USE	I
EXP0412007a	WXXICAL-05	MAP	4/12/10 18:37			1		USE	I
EXP0412008a	WXXICAL-06	MAP	4/12/10 19:07			1		USE	I
EXP0412009a	XIBLK02	MAP	4/12/10 19:36			1		USE	B
EXP0412010a	WXXICV	MAP	4/12/10 20:06			1		USE	C
EXP0412011a	XIBLK03	MAP	4/12/10 20:35			1		USE	B
EXP0412012a	WXXCRI	MAP	4/12/10 21:04			1		USE	C
EXP0412013a	1202047525	MAP	4/12/10 21:34	955063	Various	2	LANL	USE	S
EXP0412014a	1202047526	MAP	4/12/10 22:04	955063	Various	2	LANL	USE	S
EXP0412015a	247332002	MAP	4/12/10 22:33	955063	10-1905	2	LANL	USE	S
EXP0412016a	1202047527	MAP	4/12/10 23:02	955063	10-1905	2	LANL	USE	S
EXP0412017a	1202047528	MAP	4/12/10 23:32	955063	10-1905	2	LANL	USE	S
EXP0412018a	247332003	MAP	4/13/10 0:01	955063	10-1905	2	LANL	USE	S
EXP0412019a	247332004	MAP	4/13/10 0:31	955063	10-1905	2	LANL	USE	S
EXP0412020a	247332005	MAP	4/13/10 1:00	955063	10-1905	2	LANL	USE	S
EXP0412021a	247332006	MAP	4/13/10 1:30	955063	10-1905	2	LANL	USE	S
EXP0412022a	247332007	MAP	4/13/10 1:59	955063	10-1905	2	LANL	USE	S
EXP0412023a	WXXCCV	MAP	4/13/10 2:29	955063	10-1905	2	LANL	USE	S
EXP0412024a	XIBLK04	MAP	4/13/10 2:58			1		USE	C
EXP0412025a	WXXCRI	MAP	4/13/10 3:28			1		USE	B
EXP0412026a	247332008	MAP	4/13/10 3:57	955063	10-1905	2	LANL	USE	C
EXP0412027a	247343001	MAP	4/13/10 4:27	955063	10-1908	2	LANL	USE	S
EXP0412028a	247343002	MAP	4/13/10 4:56	955063	10-1908	2	LANL	USE	S
EXP0412029a	247343003	MAP	4/13/10 5:26	955063	10-1908	2	LANL	USE	S

EXP0412030a	247343004	MAP	4/13/10 5:55	955063	10-1908	2	LANL	USE	S
EXP0412031a	247343005	MAP	4/13/10 6:25	955063	10-1908	2	LANL	USE	S
EXP0412032a	247343006	MAP	4/13/10 6:54	955063	10-1908	2	LANL	USE	S
EXP0412033a	247343007	MAP	4/13/10 7:24	955063	10-1908	2	LANL	USE	S
EXP0412034a	247343008	MAP	4/13/10 7:53	955063	10-1908	2	LANL	USE	S
EXP0412035a	247343009	MAP	4/13/10 8:23	955063	10-1908	2	LANL	USE	S
EXP0412036a	WXXCCV	MAP	4/13/10 8:52			1		USE	C
EXP0412037a	XIBLK05	MAP	4/13/10 9:22			1		USE	B
EXP0412038a	WXXCRI	MAP	4/13/10 9:51			1		USE	C
EXP0412039a	247343010	MAP	4/13/10 10:21			2	LANL	USE	S
EXP0412040a	247343011	MAP	4/13/10 10:50	955063	10-1908	2	LANL	USE	S
EXP0412041a	XIBLK06	MAP	4/13/10 11:20			1		USE	B
EXP0412042a	1202052398	MAP	4/13/10 11:50	957196	10-1972	2	LANL	USE	S
EXP0412043a	1202052399	MAP	4/13/10 12:19	957196	10-1972	2	LANL	USE	S
EXP0412044a	247767001	MAP	4/13/10 12:49	957196	10-1972	2	LANL	USE	S
EXP0412045a	1202052400	MAP	4/13/10 13:18	957196	10-1972	2	LANL	USE	S
EXP0412046a	1202052401	MAP	4/13/10 13:48	957196	10-1972	2	LANL	USE	S
EXP0412047a	247767002	MAP	4/13/10 14:17	957196	10-1972	2	LANL	USE	S
EXP0412048a	247767003	MAP	4/13/10 14:47	957196	10-1972	2	LANL	USE	S
EXP0412049a	WXXCCV	MAP	4/13/10 15:16			1		USE	C
EXP0412050a	XIBLK07	MAP	4/13/10 15:46			1		USE	B
EXP0412051a	WXXCRI	MAP	4/13/10 16:15			1		USE	C
EXP0412052a	247767004	MAP	4/13/10 16:45	957196	10-1972	2	LANL	USE	S
EXP0412053a	247767005	MAP	4/13/10 17:14	957196	10-1972	2	LANL	USE	S
EXP0412054a	247767006	MAP	4/13/10 17:44	957196	10-1972	2	LANL	USE	S
EXP0412055a	247767007	MAP	4/13/10 18:13	957196	10-1972	2	LANL	USE	S
EXP0412056a	247767008	MAP	4/13/10 18:43	957196	10-1972	2	LANL	USE	S
EXP0412057a	247767009	MAP	4/13/10 19:12	957196	10-1972	2	LANL	USE	S
EXP0412058a	247767010	MAP	4/13/10 19:42	957196	10-1972	2	LANL	USE	S
EXP0412059a	247767011	MAP	4/13/10 20:11	957196	10-1972	2	LANL	USE	S
EXP0412060a	WXXCCV	MAP	4/13/10 20:41			1		USE	C
EXP0412061a	XIBLK08	MAP	4/13/10 21:10			1		USE	B
EXP0412062a	WXXCRI	MAP	4/13/10 21:40			1		USE	C
EXP0412063a	1202055078	MAP	4/13/10 22:09	958282	Various	2	LANL	USE	S
EXP0412064a	1202055079	MAP	4/13/10 22:39	958282	Various	2	LANL	DUSE	S
EXP0412065a	248017003	MAP	4/13/10 23:08	958282	10-2039	2	LANL	USE	S
EXP0412066a	1202055080	MAP	4/13/10 23:38	958282	10-2039	2	LANL	DUSE	S

EXP0412067a	1202055081	MAP	4/14/10 0:07	958282	10-2039	2	LANL	USE	S
EXP0412068a	248042002	MAP	4/14/10 0:37	958282	10-2057	2	LANL	USE	S
EXP0412069a	248042008	MAP	4/14/10 1:06	958282	10-2057	2	LANL	USE	S
EXP0412070a	248042010	MAP	4/14/10 1:36	958282	10-2057	2	LANL	DUSE	S
EXP0412071a	248047003	MAP	4/14/10 2:05	958282	10-2045	2	LANL	USE	S
EXP0412072a	248047007	MAP	4/14/10 2:35	958282	10-2045	2	LANL	USE	S
EXP0412073a	WXXCCV	MAP	4/14/10 3:04			1		USE	C
EXP0412074a	XIBLK09	MAP	4/14/10 3:34			1		USE	B
EXP0412075a	WXXCRI	MAP	4/14/10 4:03			1		USE	C
EXP0412076a	1202055034	MAP	4/14/10 4:33	958262	10-2074	2	LANL	USE	S
EXP0412077a	1202055035	MAP	4/14/10 5:02	958262	10-2074	2	LANL	USE	S
EXP0412078a	248043001	MAP	4/14/10 5:32	958262	10-2074	2	LANL	USE	S
EXP0412079a	1202055036	MAP	4/14/10 6:01	958262	10-2074	2	LANL	USE	S
EXP0412080a	1202055037	MAP	4/14/10 6:31	958262	10-2074	2	LANL	USE	S
EXP0412081a	248043002	MAP	4/14/10 7:00	958262	10-2074	2	LANL	USE	S
EXP0412082a	XIBLK10	MAP	4/14/10 7:30			1		USE	B
EXP0412083a	248043003	MAP	4/14/10 7:59	958262	10-2074	2	LANL	USE	S
EXP0412084a	248043004	MAP	4/14/10 8:29	958262	10-2074	2	LANL	USE	S
EXP0412085a	XIBLK11	MAP	4/14/10 8:58			1		USE	B
EXP0412086a	WXXCCV	MAP	4/14/10 9:28			1		USE	C
EXP0412087a	XIBLK12	MAP	4/14/10 9:57			1		USE	B
EXP0412088a	WXXCRI	MAP	4/14/10 10:27			1		USE	C
EXP0412089a	248043005	MAP	4/14/10 10:56	958262	10-2074	2	LANL	USE	S
EXP0412090a	248043006	MAP	4/14/10 11:26	958262	10-2074	2	LANL	DUSE-RA	S
EXP0412091a	XIBLK13	MAP	4/14/10 11:55			1		USE	B
EXP0412092a	248043007	MAP	4/14/10 12:25	958262	10-2074	2	LANL	USE	S
EXP0412093a	248043008	MAP	4/14/10 12:54	958262	10-2074	2	LANL	DUSE-RA	S
EXP0412094a	248043009	MAP	4/14/10 13:24	958262	10-2074	2	LANL	USE	S
EXP0412095a	248043010	MAP	4/14/10 13:53	958262	10-2074	2	LANL	USE	S
EXP0412096a	248043011	MAP	4/14/10 14:23	958262	10-2074	2	LANL	USE	S
EXP0412097a	248043012	MAP	4/14/10 14:52	958262	10-2074	2	LANL	USE	S
EXP0412098a	XIBLK14	MAP	4/14/10 15:22			1		USE	B
EXP0412099a	WXXCCV	MAP	4/14/10 15:51			1		USE	C
EXP0412100a	XIBLK15	MAP	4/14/10 16:21			1		USE	B
EXP0412101a	WXXCRI	MAP	4/14/10 16:50			1		USE	C
EXP0412102a	248043013	MAP	4/14/10 17:20	958262	10-2074	2	LANL	USE	S
EXP0412103a	248043014	MAP	4/14/10 17:49	958262	10-2074	2	LANL	USE	S

EXP0412104a	248043015	MAP	4/14/10 18:19	958262	10-2074	2	LANL	USE	S
EXP0412105a	248043016	MAP	4/14/10 18:48	958262	10-2074	2	LANL	DUSE-RA	S
EXP0412106a	248043017	MAP	4/14/10 19:18	958262	10-2074	2	LANL	USE	S
EXP0412107a	248043018	MAP	4/14/10 19:47	958262	10-2074	2	LANL	USE	S
EXP0412108a	248043006	MAP	4/14/10 20:17	958262	10-2074	2	LANL	USE	S
EXP0412109a	248043008	MAP	4/14/10 20:46	958262	10-2074	2	LANL	USE	S
EXP0412110a	WXXCCV	MAP	4/14/10 21:16			1		USE	C
EXP0412111a	XIBLK16	MAP	4/14/10 21:45			1		USE	B
EXP0412112a	WXXCRI	MAP	4/14/10 22:15			1		USE	C
EXP0412113a	1202055877	MAP	4/14/10 22:44	958603	Various	2	LANL	USE	S
EXP0412114a	1202055878	MAP	4/14/10 23:14	958603	Various	2	LANL	DUSE-RA	S
EXP0412115a	248102001	MAP	4/14/10 23:43	958603	10-2089	2	LANL	USE	S
EXP0412116a	1202055879	MAP	4/15/10 0:13	958603	10-2089	2	LANL	USE	S
EXP0412117a	1202055880	MAP	4/15/10 0:42	958603	10-2089	2	LANL	USE	S
EXP0412118a	248102002	MAP	4/15/10 1:12	958603	10-2089	2	LANL	USE	S
EXP0412119a	248102003	MAP	4/15/10 1:41	958603	10-2089	2	LANL	USE	S
EXP0412120a	248102004	MAP	4/15/10 2:11	958603	10-2089	2	LANL	USE	S
EXP0412121a	248102005	MAP	4/15/10 2:40	958603	10-2089	2	LANL	USE	S
EXP0412122a	248102006	MAP	4/15/10 3:10	958603	10-2089	2	LANL	USE	S
EXP0412123a	WXXCCV	MAP	4/15/10 3:39			1		USE	C
EXP0412124a	XIBLK17	MAP	4/15/10 4:09			1		USE	B
EXP0412125a	WXXCRI	MAP	4/15/10 4:38			1		USE	C
EXP0412126a	248102007	MAP	4/15/10 5:08	958603	10-2089	2	LANL	USE	S
EXP0412127a	248102008	MAP	4/15/10 5:37	958603	10-2089	2	LANL	USE	S
EXP0412128a	248114002	MAP	4/15/10 6:07	958603	10-2092	2	LANL	USE	S
EXP0412129a	248114003	MAP	4/15/10 6:36	958603	10-2092	2	LANL	USE	S
EXP0412130a	248114004	MAP	4/15/10 7:06	958603	10-2092	2	LANL	USE	S
EXP0412131a	248114005	MAP	4/15/10 7:35	958603	10-2092	2	LANL	USE	S
EXP0412132a	248114006	MAP	4/15/10 8:05	958603	10-2092	2	LANL	USE	S
EXP0412133a	248114007	MAP	4/15/10 8:34	958603	10-2092	2	LANL	USE	S
EXP0412134a	248114008	MAP	4/15/10 9:04	958603	10-2092	2	LANL	USE	S
EXP0412135a	WXXCCV	MAP	4/15/10 9:33			1		USE	C
EXP0412136a	XIBLK18	MAP	4/15/10 10:03			1		USE	B
EXP0412137a	WXXCRI	MAP	4/15/10 10:33			1		USE	C
EXP0412138a	248043016	MAP	4/15/10 11:02	958262	10-2074	2	LANL	USE	S
EXP0412139a	1202055878	MAP	4/15/10 11:32	958603	Various	2	LANL	USE	S
EXP0412140a	248102003	MAP	4/15/10 12:01	958603	10-2089	2	LANL	DUSE	S

EXP0412141a	WXXCCV	MAP	4/15/10 12:31				1	USE	C
EXP0412142a	XIBLK19	MAP	4/15/10 13:00				1	USE	B
EXP0412143a	WXXCRI	MAP	4/15/10 13:30				1	USE	C
EXP0412144a	1202057500	MAP	4/15/10 13:59	959338	Various	LANL	2	USE	S
EXP0412145a	1202057501	MAP	4/15/10 14:29	959338	Various	LANL	2	USE	S
EXP0412146a	248244001	MAP	4/15/10 14:58	959338	10-2137	LANL	2	USE	S
EXP0412147a	248244002	MAP	4/15/10 15:28	959338	10-2137	LANL	2	USE	S
EXP0412148a	248244003	MAP	4/15/10 15:57	959338	10-2137	LANL	2	USE	S
EXP0412149a	248244004	MAP	4/15/10 16:27	959338	10-2137	LANL	2	USE-RA	S
EXP0412150a	248244005	MAP	4/15/10 16:56	959338	10-2137	LANL	2	USE	S
EXP0412151a	248244006	MAP	4/15/10 17:26	959338	10-2137	LANL	2	USE	S
EXP0412152a	248244007	MAP	4/15/10 17:55	959338	10-2137	LANL	2	USE	S
EXP0412153a	248244008	MAP	4/15/10 18:25	959338	10-2137	LANL	2	USE	S
EXP0412154a	WXXCCV	MAP	4/15/10 18:54				1	USE	C
EXP0412155a	XIBLK20	MAP	4/15/10 19:24				1	USE	B
EXP0412156a	WXXCRI	MAP	4/15/10 19:53				1	USE	C
EXP0412157a	248249001	MAP	4/15/10 20:23	959338	10-2140	LANL	2	USE-RA	S
EXP0412158a	1202057502	MAP	4/15/10 20:52	959338	10-2140	LANL	2	USE	S
EXP0412159a	1202057503	MAP	4/15/10 21:22	959338	10-2140	LANL	2	USE	S
EXP0412160a	248249002	MAP	4/15/10 21:51	959338	10-2140	LANL	2	USE	S
EXP0412161a	248249003	MAP	4/15/10 22:21	959338	10-2140	LANL	2	USE	S
EXP0412162a	248249004	MAP	4/15/10 22:50	959338	10-2140	LANL	2	USE-RA	S
EXP0412163a	WXXCCV	MAP	4/15/10 23:20				1	USE	C
EXP0412164a	XIBLK21	MAP	4/15/10 23:49				1	USE	B
EXP0412165a	WXXCRI	MAP	4/16/10 0:19				1	USE	C
EXP0412166a	1202059808	MAP	4/16/10 0:48	960305	10-2150	LANL	2	USE	S
EXP0412167a	1202059809	MAP	4/16/10 1:18	960305	10-2150	LANL	2	USE	S
EXP0412168a	248370001	MAP	4/16/10 1:47	960305	10-2150	LANL	2	USE	S
EXP0412169a	1202059810	MAP	4/16/10 2:17	960305	10-2150	LANL	2	USE	S
EXP0412170a	1202059811	MAP	4/16/10 2:46	960305	10-2150	LANL	2	USE	S
EXP0412171a	248370002	MAP	4/16/10 3:16	960305	10-2150	LANL	2	USE	S
EXP0412172a	248370003	MAP	4/16/10 3:45	960305	10-2150	LANL	2	USE	S
EXP0412173a	248370004	MAP	4/16/10 4:15	960305	10-2150	LANL	2	USE	S
EXP0412174a	248370005	MAP	4/16/10 4:44	960305	10-2150	LANL	2	USE	S
EXP0412175a	248370006	MAP	4/16/10 5:14	960305	10-2150	LANL	2	USE	S
EXP0412176a	WXXCCV	MAP	4/16/10 5:43				1	USE	C
EXP0412177a	XIBLK22	MAP	4/16/10 6:13				1	USE	B

EXP0412178a	WXXCRI	MAP	4/16/10 6:42	960305	10-2150	1	LANL	USE	C
EXP0412179a	248370007	MAP	4/16/10 7:12	960305	10-2150	2	LANL	USE	S
EXP0412180a	248370008	MAP	4/16/10 7:41	960305	10-2150	2	LANL	USE	S
EXP0412181a	248370009	MAP	4/16/10 8:11	960305	10-2150	2	LANL	USE	S
EXP0412182a	248370010	MAP	4/16/10 8:40	960305	10-2150	2	LANL	USE	S
EXP0412183a	248370011	MAP	4/16/10 9:10	960305	10-2150	2	LANL	USE	S
EXP0412184a	248370012	MAP	4/16/10 9:39	960305	10-2150	2	LANL	USE	S
EXP0412185a	248370013	MAP	4/16/10 10:09	960305	10-2150	2	LANL	USE	S
EXP0412186a	248370014	MAP	4/16/10 10:38	960305	10-2150	2	LANL	USE	S
EXP0412187a	248370015	MAP	4/16/10 11:08	960305	10-2150	2	LANL	USE	S
EXP0412188a	248370016	MAP	4/16/10 11:37	960305	10-2150	2	LANL	USE	S
EXP0412189a	WXXCCV	MAP	4/16/10 12:07			1		USE	C
EXP0412190a	XIBLK23	MAP	4/16/10 12:36			1		USE	B
EXP0412191a	WXXCRI	MAP	4/16/10 13:06			1		USE	C
EXP0412192a	248370017	MAP	4/16/10 13:36	960305	10-2150	2	LANL	USE	S
EXP0412193a	248370018	MAP	4/16/10 14:05	960305	10-2150	2	LANL	USE	S
EXP0412194a	248370019	MAP	4/16/10 14:35	960305	10-2150	2	LANL	DUSE-RA	S
EXP0412195a	248370020	MAP	4/16/10 15:04	960305	10-2150	2	LANL	USE	S
EXP0412196a	248244004	MAP	4/16/10 15:34	959338	10-2137	2	LANL	USE	S
EXP0412197a	248249001	MAP	4/16/10 16:03	959338	10-2140	2	LANL	USE	S
EXP0412198a	248249004	MAP	4/16/10 16:33	959338	10-2140	2	LANL	USE	S
EXP0412199a	1202059811	MAP	4/16/10 17:02	960305	10-2150	2	LANL	DUSE	S
EXP0412200a	248370019	MAP	4/16/10 17:32	960305	10-2150	2	LANL	USE	S
EXP0412201a	WXXCCV	MAP	4/16/10 18:01			1		USE	C
EXP0412202a	XIBLK24	MAP	4/16/10 18:31			1		USE	B
EXP0412203a	WXXCRI	MAP	4/16/10 19:00			1		USE	C
EXP0412204a	1202059812	MAP	4/16/10 19:30	960307	10-2154	2	LANL	USE	S
EXP0412205a	1202059813	MAP	4/16/10 19:59	960307	10-2154	2	LANL	USE	S
EXP0412206a	248373001	MAP	4/16/10 20:29	960307	10-2154	2	LANL	USE	S
EXP0412207a	1202059814	MAP	4/16/10 20:58	960307	10-2154	2	LANL	USE	S
EXP0412208a	1202059815	MAP	4/16/10 21:28	960307	10-2154	2	LANL	USE	S
EXP0412209a	248373002	MAP	4/16/10 21:57	960307	10-2154	2	LANL	USE	S
EXP0412210a	248373003	MAP	4/16/10 22:27	960307	10-2154	2	LANL	USE	S
EXP0412211a	248373004	MAP	4/16/10 22:56	960307	10-2154	2	LANL	DUSE-RA	S
EXP0412212a	248373005	MAP	4/16/10 23:26	960307	10-2154	2	LANL	USE	S
EXP0412213a	248373006	MAP	4/16/10 23:55	960307	10-2154	2	LANL	USE	S
EXP0412214a	WXXCCV	MAP	4/17/10 0:25			1		USE	C

EXP0412215a	XIBLK25	MAP	4/17/10 0:54				1		USE	B
EXP0412216a	WXXCRI	MAP	4/17/10 1:24				1		USE	C
EXP0412217a	248373007	MAP	4/17/10 1:53	960307	10-2154		2	LANL	USE	S
EXP0412218a	248373008	MAP	4/17/10 2:23	960307	10-2154		2	LANL	USE	S
EXP0412219a	248373009	MAP	4/17/10 2:52	960307	10-2154		2	LANL	USE	S
EXP0412220a	248373010	MAP	4/17/10 3:22	960307	10-2154		2	LANL	USE	S
EXP0412221a	248373011	MAP	4/17/10 3:51	960307	10-2154		2	LANL	USE	S
EXP0412222a	248373014	MAP	4/17/10 4:21	960307	10-2154		2	LANL	USE	S
EXP0412223a	248373015	MAP	4/17/10 4:50	960307	10-2154		2	LANL	DUSE-RA	S
EXP0412224a	WXXCCV	MAP	4/17/10 5:20				1		USE	C
EXP0412225a	XIBLK26	MAP	4/17/10 5:49				1		USE	B
EXP0412226a	WXXCRI	MAP	4/17/10 6:19				1		USE	C



## GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 04/05/10

Extr. Injection Volume: 10µL

Sequence Number: 040510exs

Initial Calibration Date: 040510

Method: 8321A-Modified

Int. Std.: N/A

Mobile Phase Lot#: 1268566, 1268568

Standard-Samp Reagent Lot#: 1292884, 1284736

Reviewed By: *[Signature]*

Date: 04/08/10

SOP: GL-OA-E-056 Rev.12

Alt Check Std. ID: WXX100405-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS04050001.wiff	XIBLK01	LER	4/5/2010 12:43			1		USE	B
EXS04050002.wiff	XIBLK01	LER	4/5/2010 12:59			1		USE	B
EXS04050003.wiff	WXXICAL-19	LER	4/5/2010 13:15			1		USE	I
EXS04050004.wiff	WXXICAL-20	LER	4/5/2010 13:30			1		USE	I
EXS04050005.wiff	WXXICAL-21	LER	4/5/2010 13:46			1		USE	I
EXS04050006.wiff	WXXICAL-22	LER	4/5/2010 14:02			1		USE	I
EXS04050007.wiff	WXXICAL-23	LER	4/5/2010 14:18			1		USE	I
EXS04050008.wiff	WXXICAL-24	LER	4/5/2010 14:33			1		USE	I
EXS04050009.wiff	WXXICAL-25	LER	4/5/2010 14:51			1		USE	I
EXS04050010.wiff	XIBLK02	LER	4/5/2010 15:07			1		USE	B
EXS04050011.wiff	WXXICV	LER	4/5/2010 15:22			1		USE	C
EXS04050012.wiff	XIBLK03	LER	4/5/2010 15:38			1		USE	B
EXS04050013.wiff	WXXCRI	LER	4/5/2010 15:54			1		USE	C
EXS04050014.wiff	1202059808	LER	4/5/2010 16:09	960305	10-2150	2	LANL	USE	S
EXS04050015.wiff	1202059809	LER	4/5/2010 16:25	960305	10-2150	2	LANL	USE	S
EXS04050016.wiff	248370001	LER	4/5/2010 16:41	960305	10-2150	2	LANL	USE	S
EXS04050017.wiff	1202059810	LER	4/5/2010 16:57	960305	10-2150	2	LANL	USE	S
EXS04050018.wiff	1202059811	LER	4/5/2010 17:12	960305	10-2150	2	LANL	USE	S
EXS04050019.wiff	248370002	LER	4/5/2010 17:28	960305	10-2150	2	LANL	USE	S
EXS04050020.wiff	248370003	LER	4/5/2010 17:44	960305	10-2150	2	LANL	USE	S
EXS04050021.wiff	248370004	LER	4/5/2010 17:59	960305	10-2150	2	LANL	USE	S
EXS04050022.wiff	248370005	LER	4/5/2010 18:15	960305	10-2150	2	LANL	USE	S
EXS04050023.wiff	248370006	LER	4/5/2010 18:31	960305	10-2150	2	LANL	USE	S
EXS04050024.wiff	WXXCCV	LER	4/5/2010 18:47			1		USE	C
EXS04050025.wiff	XIBLK04	LER	4/5/2010 19:02			1		USE	B
EXS04050026.wiff	WXXCRI	LER	4/5/2010 19:18			1		USE	C
EXS04050027.wiff	248370007	LER	4/5/2010 19:34	960305	10-2150	2	LANL	USE	S
EXS04050028.wiff	248370008	LER	4/5/2010 19:49	960305	10-2150	2	LANL	USE	S
EXS04050029.wiff	248370009	LER	4/5/2010 20:05	960305	10-2150	2	LANL	USE	S
EXS04050030.wiff	248370010	LER	4/5/2010 20:21	960305	10-2150	2	LANL	USE	S

EXS04050031.wiff	248370011	LER	4/5/2010 20:37	960305	10-2150	2	LANL	USE	S
EXS04050032.wiff	248370012	LER	4/5/2010 20:52	960305	10-2150	2	LANL	USE	S
EXS04050033.wiff	248370013	LER	4/5/2010 21:08	960305	10-2150	2	LANL	USE	S
EXS04050034.wiff	248370014	LER	4/5/2010 21:24	960305	10-2150	2	LANL	USE	S
EXS04050035.wiff	248370015	LER	4/5/2010 21:39	960305	10-2150	2	LANL	USE	S
EXS04050036.wiff	248370016	LER	4/5/2010 21:55	960305	10-2150	2	LANL	USE	S
EXS04050037.wiff	WXXCCV	LER	4/5/2010 22:11			1		USE	C
EXS04050038.wiff	XIBLK05	LER	4/5/2010 22:27			1		USE	B
EXS04050039.wiff	WXXCRI	LER	4/5/2010 22:42			1		USE	C
EXS04050040.wiff	248370017	LER	4/5/2010 22:58	960305	10-2150	2	LANL	USE	S
EXS04050041.wiff	248370018	LER	4/5/2010 23:14	960305	10-2150	2	LANL	USE	S
EXS04050042.wiff	248370019	LER	4/5/2010 23:29	960305	10-2150	2	LANL	USE	S
EXS04050043.wiff	248370020	LER	4/5/2010 23:45	960305	10-2150	2	LANL	USE	S
EXS04050044.wiff	XIBLK06	LER	4/6/2010 0:01			1		USE	B
EXS04050045.wiff	1202064670	LER	4/6/2010 0:17	962462	VARIOUS	2	LANL	USE	S
EXS04050046.wiff	1202064671	LER	4/6/2010 0:32	962462	VARIOUS	2	LANL	USE	S
EXS04050047.wiff	248790001	LER	4/6/2010 0:48	962462	10-2286-1	2	LANL	USE	S
EXS04050048.wiff	1202064672	LER	4/6/2010 1:04	962462	10-2286-1	2	LANL	USE	S
EXS04050049.wiff	1202064673	LER	4/6/2010 1:19	962462	10-2286-1	2	LANL	USE	S
EXS04050050.wiff	WXXCCV	LER	4/6/2010 1:35			1		USE	C
EXS04050051.wiff	XIBLK07	LER	4/6/2010 1:51			1		USE	B
EXS04050052.wiff	WXXCRI	LER	4/6/2010 2:06			1		USE	C
EXS04050053.wiff	248790002	LER	4/6/2010 2:22	962462	10-2286-1	2	LANL	USE	S
EXS04050054.wiff	248790003	LER	4/6/2010 2:38	962462	10-2286-1	2	LANL	USE	S
EXS04050055.wiff	248790004	LER	4/6/2010 2:54	962462	10-2286-1	2	LANL	USE	S
EXS04050056.wiff	248794002	LER	4/6/2010 3:09	962462	10-2288	2	LANL	USE	S
EXS04050057.wiff	248794003	LER	4/6/2010 3:25	962462	10-2288	2	LANL	USE	S
EXS04050058.wiff	248794004	LER	4/6/2010 3:41	962462	10-2288	2	LANL	USE	S
EXS04050059.wiff	248794005	LER	4/6/2010 3:57	962462	10-2288	2	LANL	USE	S
EXS04050060.wiff	248794006	LER	4/6/2010 4:12	962462	10-2288	2	LANL	USE	S
EXS04050061.wiff	248794007	LER	4/6/2010 4:28	962462	10-2288	2	LANL	USE	S
EXS04050062.wiff	248794008	LER	4/6/2010 4:44	962462	10-2288	2	LANL	USE	S
EXS04050063.wiff	WXXCCV	LER	4/6/2010 4:59			1		USE	C
EXS04050064.wiff	XIBLK08	LER	4/6/2010 5:15			1		USE	B
EXS04050065.wiff	WXXCRI	LER	4/6/2010 5:31			1		USE	C
EXS04050066.wiff	248794009	LER	4/6/2010 5:47	962462	10-2288	2	LANL	USE	S
EXS04050067.wiff	248794010	LER	4/6/2010 6:02	962462	10-2288	2	LANL	USE	S

EXS04050068.wiff	248794011	LER	4/6/2010 6:18	962462	10-2288	2	LANL	USE	S
EXS04050069.wiff	248794012	LER	4/6/2010 6:34	962462	10-2288	2	LANL	USE	S
EXS04050070.wiff	248794013	LER	4/6/2010 6:49	962462	10-2288	2	LANL	USE	S
EXS04050071.wiff	WXXCCV	LER	4/6/2010 7:05			1		USE	C
EXS04050072.wiff	XIBLK09	LER	4/6/2010 7:21			1		USE	B
EXS04050073.wiff	WXXCRI	LER	4/6/2010 7:37			1		USE	C
EXS04050074.wiff	1202055078	LER	4/6/2010 7:52	958282	VARIOUS	2	LANL	USE	S
EXS04050075.wiff	1202055079	LER	4/6/2010 8:08	958282	VARIOUS	2	LANL	USE	S
EXS04050076.wiff	248017003	LER	4/6/2010 8:24	958282	10-2039	2	LANL	USE	S
EXS04050077.wiff	1202055080	LER	4/6/2010 8:39	958282	10-2039	2	LANL	USE	S
EXS04050078.wiff	1202055081	LER	4/6/2010 8:55	958282	10-2039	2	LANL	USE	S
EXS04050079.wiff	248042002	LER	4/6/2010 9:11	958282	10-2057	2	LANL	USE	S
EXS04050080.wiff	248042008	LER	4/6/2010 9:26	958282	10-2057	2	LANL	USE	S
EXS04050081.wiff	248042010	LER	4/6/2010 9:42	958282	10-2057	2	LANL	USE	S
EXS04050082.wiff	248047003	LER	4/6/2010 9:58	958282	10-2045	2	LANL	USE	S
EXS04050083.wiff	248047007	LER	4/6/2010 10:14	958282	10-2045	2	LANL	USE	S
EXS04050084.wiff	WXXCCV	LER	4/6/2010 10:29			1		USE	C
EXS04050085.wiff	XIBLK10	LER	4/6/2010 10:45			1		USE	B
EXS04050086.wiff	WXXCRI	LER	4/6/2010 11:01			1		USE	C
EXS04050087.wiff	1202057500	LER	4/6/2010 11:16	959338	VARIOUS	2	LANL	USE	S
EXS04050088.wiff	1202057501	LER	4/6/2010 11:32	959338	VARIOUS	2	LANL	USE	S
EXS04050089.wiff	248244001	LER	4/6/2010 11:48	959338	10-2137	2	LANL	USE	S
EXS04050090.wiff	248244002	LER	4/6/2010 12:04	959338	10-2137	2	LANL	USE	S
EXS04050091.wiff	248244003	LER	4/6/2010 12:19	959338	10-2137	2	LANL	USE	S
EXS04050092.wiff	248244004	LER	4/6/2010 12:35	959338	10-2137	2	LANL	USE	S
EXS04050093.wiff	248244005	LER	4/6/2010 12:51	959338	10-2137	2	LANL	USE	S
EXS04050094.wiff	248244006	LER	4/6/2010 13:06	959338	10-2137	2	LANL	USE	S
EXS04050095.wiff	248244007	LER	4/6/2010 13:22	959338	10-2137	2	LANL	USE	S
EXS04050096.wiff	248244008	LER	4/6/2010 13:38	959338	10-2137	2	LANL	USE	S
EXS04050097.wiff	WXXCCV	LER	4/6/2010 13:53			1		DUSE-RA	S
EXS04050098.wiff	XIBLK11	LER	4/6/2010 14:09			1		USE	C
EXS04050099.wiff	WXXCRI	LER	4/6/2010 14:25			1		USE	B
EXS04050100.wiff	248249001	LER	4/6/2010 14:41	959338	10-2140	2	LANL	USE	C
EXS04050101.wiff	1202057502	LER	4/6/2010 14:56	959338	10-2140	2	LANL	USE	S
EXS04050102.wiff	1202057503	LER	4/6/2010 15:12	959338	10-2140	2	LANL	USE	S
EXS04050103.wiff	248249002	LER	4/6/2010 15:28	959338	10-2140	2	LANL	USE	S
EXS04050104.wiff	248249003	LER	4/6/2010 15:43	959338	10-2140	2	LANL	USE	S

EXS04050105.wiff	248249004	LER	4/6/2010 15:59	959338	10-2140	2	LANL	USE	S
EXS04050106.wiff	WXXCCV	LER	4/6/2010 16:15			1		USE	C
EXS04050107.wiff	XIBLK12	LER	4/6/2010 16:30			1		USE	B
EXS04050108.wiff	WXXCRI	LER	4/6/2010 16:46			1		USE	C

DATA EXCEPTION REPORT			
Mo. Day Yr. 17-APR-10	Division: Federal	Quality Criteria: Specifications	Type: Process
Instrument Type: LC-MS/MS	Test / Method: SW846 8321A Modified	Matrix Type: Solid	Client Code: LANL
Batch ID: 959338	Sample Numbers: 1202057501, 1202057502, 1202057503		
<p>Potentially affected work order(s)(SDG): 248244(10-2137), 248249(10-2140)</p> <p>Application Issues:</p> <p>Failed Recovery for MSD/PSD</p> <p>Failed Recovery for LCS/LCSD</p> <p>Failed Recovery for MS/PS</p>			
Specification and Requirements Exception Description:		DER Disposition:	
<p>1. The LCS (1202057501) did not meet spike recovery limits for Tetra at 20.2%. The recovery limits are 51-112%.</p> <p>2. The MS (1202057502) did not meet spike recovery limits for Tetra at 19.2%. The recovery limits are 36-124%.</p> <p>3. The MSD (1202057503) did not meet spike recovery limits for Tetra at 18.3%. The recovery limits are 36-124%.</p>		<p>1., 2., &amp; 3. Since the recoveries fall within the DOD QSM limits of 10-150%, and the samples are greater than two times out of hold, the data are reported with the appropriate DER. The discrepancies are noted in the case narrative.</p>	

Originator's Name:

Michael Penny 17-APR-10

Data Validator/Group Leader:

Herbert Maier 18-APR-10

GC  
SEMIVOLATILE  
PCB  
ANALYSIS

**PCB Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2140**

**Method/Analysis Information**

**Procedure:** Analysis of Polychlorinated Biphenyls by ECD  
**Analytical Method:** SW846 8082  
**Prep Method:** SW846 3550B  
**Analytical Batch Number:** 965805  
**Prep Batch Number:** 965798

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 8082:

<b>Sample ID</b>	<b>Client ID</b>
248249001	RE36-10-8285
248249002	RE36-10-8286
248249003	RE36-10-8283
248249004	RE36-10-8284
1202072502	Method Blank (MB)
1202072503	Laboratory Control Sample (LCS)
1202072504	248389002(WST16-10-13296) Matrix Spike (MS)
1202072505	248389002(WST16-10-13296) Matrix Spike Duplicate (MSD)

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

**Preparation/Analytical Method Verification**

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

**Calibration Information**

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

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

**Initial Calibration**

All initial calibration requirements have been met for this sample delivery group (SDG).

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

independently verified to produce valid results.

**Continuing Calibration Verification (CCV) Requirements**

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

**Quality Control (QC) Information**

**Method Blank (MB) Statement**

The MB analyzed with this SDG met the acceptance criteria.

**Surrogate Recoveries**

All surrogate recoveries were within the established acceptance criteria for this SDG.

**Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

**QC Sample Designation**

A LANL sample of similar matrix associated with another SDG (#10-2165) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

**Matrix Spike (MS) Recovery Statement**

The MS recoveries 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 between the MS and MSD met the acceptance limits.

**Technical Information**

**Holding Time Specifications**

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

**Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

**Sample Dilutions**

Samples 248249001 (RE36-10-8285), 248249002 (RE36-10-8286), 248249003 (RE36-10-8283) and 248249004 (RE36-10-8284) were diluted at 1:5 due to the presence of high sulfur content.

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

Re-extractions were not required in this SDG.

**Miscellaneous Information**

**Electronic Package Comment**

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



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

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

Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

#### **Manual Integration**

Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

#### **Additional Comments**

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported 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 VII's 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>
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

#### **Certification Statement**

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

**Review Validation**

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

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

Reviewer: Jimmy Cao

Date: 3/26/10

## Roadmap for LANL 10-2140 PCB

This roadmap was analyzed by yip00818 on 03-18-2010, 10:19.

This roadmap was packaged by yml on 03-26-2010, 09:41.

This roadmap was validated by jim01140 on 03-26-2010, 14:15.

Front Sample Column

exclude	manual	datafile	smid	sampletype	injdte	injtme	sublist	chemid	dilution	prebatchid	comment
<input checked="" type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/024f2401.d	248249001	sample	17-MAR-2010	10:13	10-2140.sub	RE36-10-8285	1.00000	965805	DOSE RR 5X AFTER MORE SULFUR CLEANED
<input type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/047f4701.d	248249001	sample	17-MAR-2010	14:57	10-2140.sub	RE36-10-8285	5.00000	965805	UPLOAD BOTH COLUMNS, USE HIGHER
<input checked="" type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/025f2501.d	248249002	sample	17-MAR-2010	10:26	10-2140.sub	RE36-10-8286	1.00000	965805	DOSE RR 5X AFTER MORE SULFUR CLEANED
<input type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/048f4801.d	248249002	sample	17-MAR-2010	15:09	10-2140.sub	RE36-10-8286	5.00000	965805	UPLOAD BOTH COLUMNS, USE HIGHER
<input checked="" type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/026f2601.d	248249003	sample	17-MAR-2010	10:38	10-2140.sub	RE36-10-8283	1.00000	965805	DOSE RR 5X AFTER MORE SULFUR CLEANED
<input type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/049f4901.d	248249003	sample	17-MAR-2010	15:22	10-2140.sub	RE36-10-8283	5.00000	965805	UPLOAD BOTH COLUMNS, USE HIGHER
<input checked="" type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/027f2701.d	248249004	sample	17-MAR-2010	10:51	10-2140.sub	RE36-10-8284	1.00000	965805	DOSE RR 5X AFTER MORE SULFUR CLEANED
<input type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/050f5001.d	248249004	sample	17-MAR-2010	15:35	10-2140.sub	RE36-10-8284	5.00000	965805	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smid	sampletype	injdte	injtme	sublist	chemid	dilution	prebatchid	comment
<input checked="" type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/024b2401.d	248249001	sample	17-MAR-2010	10:13	10-2140.sub	RE36-10-8285	1.00000	965805	DOSE RR 5X AFTER MORE SULFUR CLEANED
<input type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/047b4701.d	248249001	sample	17-MAR-2010	14:57	10-2140.sub	RE36-10-8285	5.00000	965805	UPLOAD BOTH COLUMNS, USE HIGHER
<input checked="" type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/025b2501.d	248249002	sample	17-MAR-2010	10:26	10-2140.sub	RE36-10-8286	1.00000	965805	DOSE RR 5X AFTER MORE SULFUR CLEANED
<input type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/048b4801.d	248249002	sample	17-MAR-2010	15:09	10-2140.sub	RE36-10-8286	5.00000	965805	UPLOAD BOTH COLUMNS, USE HIGHER
<input checked="" type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/026b2601.d	248249003	sample	17-MAR-2010	10:38	10-2140.sub	RE36-10-8283	1.00000	965805	DOSE RR 5X AFTER MORE SULFUR CLEANED
<input type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/049b4901.d	248249003	sample	17-MAR-2010	15:22	10-2140.sub	RE36-10-8283	5.00000	965805	UPLOAD BOTH COLUMNS, USE HIGHER
<input checked="" type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/027b2701.d	248249004	sample	17-MAR-2010	10:51	10-2140.sub	RE36-10-8284	1.00000	965805	DOSE RR 5X AFTER MORE SULFUR CLEANED
<input type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/050b5001.d	248249004	sample	17-MAR-2010	15:35	10-2140.sub	RE36-10-8284	5.00000	965805	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smid	sampletype	injdte	injtme	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/019f1901-2.d	1202072502	mb	17-MAR-2010	09:14	10-2140.sub	PBLK01	1.00000	965805	
<input type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/020f2001-2.d	1202072503	lcs	17-MAR-2010	09:25	10-2140.sub	PBLK011.CS	1.00000	965805	

Back QC Sample Column

exclude	manual	datafile	smid	sampletype	injdte	injtme	sublist	clientid	dilution	prebatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i/0317107.b/019b1901-2.d	1202072502	mb	17-MAR-2010	09:14	10-2140.sub	PBLK01	1.00000	965805	

<input type="checkbox"/>	N	/chem/ecdl1a.i/0317107.b/020b2001-2.d	1202072503	lcs	17-MAR-2010	09:25	10-2140.sub	PBLK01LCS	1.00000	965805	<input type="checkbox"/>
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# SAMPLE DATA SUMMARY

PCB

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Certificate of Analysis

Sample Summary

SDG Number: 10-2140  
Lab Sample ID: 248249003

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10

Matrix: R  
%Moisture: 6.3  
Project: LANL01004  
SOP Ref: GL-OA-E-040

Client ID: RE36-10-8283  
Batch ID: 965805  
Run Date: 03/17/2010 15:22  
Prep Date: 03/16/2010 21:02  
Data File: 049f4901.d  
049b4901.d

Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.04 g  
Column: 1 CLP1  
2 CLP2

Dilution: 5  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	17.8	ug/kg	5.92	17.8	1
11104-28-2	Aroclor-1221	U	17.8	ug/kg	5.92	17.8	1
11141-16-5	Aroclor-1232	U	17.8	ug/kg	5.92	17.8	1
53469-21-9	Aroclor-1242	U	17.8	ug/kg	5.92	17.8	1
12672-29-6	Aroclor-1248	U	17.8	ug/kg	5.92	17.8	1
11097-69-1	Aroclor-1254		67.8	ug/kg	5.92	17.8	1
11096-82-5	Aroclor-1260		47.3	ug/kg	5.92	17.8	1

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

Page 1 of 1

**SDG Number:** 10-2140  
**Lab Sample ID:** 248249004

**Date Collected:** 02/24/2010 12:00  
**Date Received:** 02/27/2010 09:10  
**Client:** LANL010  
**Method:** SW846 8082  
**Inst:** ECD1A.1  
**Analyst:** YS1  
**Aliquot:** 30.02 g  
**Column:** 1 CLP1  
2 CLP2

**Matrix:** R  
**% Moisture:** 5.5  
**Project:** LANL01004  
**SOP Ref:** GL-OA-E-040  
**Dilution:** 5  
**Inj. Vol:** 1 uL  
**Final Volume:** 1 mL  
**Level:** LOW

**Client ID:** RE36-J0-8284  
**Batch ID:** 965805  
**Run Date:** 03/17/2010 15:35  
**Prep Date:** 03/16/2010 21:02  
**Data File:** 050f5001.d  
050b5001.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	17.6	ug/kg	5.87	17.6	1
11104-28-2	Aroclor-1221	U	17.6	ug/kg	5.87	17.6	1
11141-16-5	Aroclor-1232	U	17.6	ug/kg	5.87	17.6	1
53469-21-9	Aroclor-1242	U	17.6	ug/kg	5.87	17.6	1
12672-29-6	Aroclor-1248	U	17.6	ug/kg	5.87	17.6	1
11097-69-1	Aroclor-1254		64.1	ug/kg	5.87	17.6	1
11096-82-5	Aroclor-1260		43.0	ug/kg	5.87	17.6	1

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

Page 1 of 1

<b>SDG Number:</b> 10-2140 <b>Lab Sample ID:</b> 248249001  <b>Client ID:</b> RE36-10-8285 <b>Batch ID:</b> 965805 <b>Run Date:</b> 03/17/2010 14:57 <b>Prep Date:</b> 03/16/2010 21:02 <b>Data File:</b> 047f4701.d 047b4701.d	<b>Date Collected:</b> 02/24/2010 12:00 <b>Date Received:</b> 02/27/2010 09:10 <b>Client:</b> LANL010 <b>Method:</b> SW846 8082 <b>Inst:</b> ECD1A.I <b>Analyst:</b> YS1 <b>Aliquot:</b> 30.03 g <b>Column:</b> 1 CLP1 2 CLP2	<b>Matrix:</b> R <b>%Moisture:</b> 27.9 <b>Project:</b> LANL01004 <b>SOP Ref:</b> GL-OA-E-040 <b>Dilution:</b> 5 <b>Inj. Vol:</b> 1 uL <b>Final Volume:</b> 1 mL <b>Level:</b> LOW
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CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	23.1	ug/kg	7.69	23.1	1
11104-28-2	Aroclor-1221	U	23.1	ug/kg	7.69	23.1	1
11141-16-5	Aroclor-1232	U	23.1	ug/kg	7.69	23.1	1
53469-21-9	Aroclor-1242	U	23.1	ug/kg	7.69	23.1	1
12672-29-6	Aroclor-1248	U	23.1	ug/kg	7.69	23.1	1
11097-69-1	Aroclor-1254		137	ug/kg	7.69	23.1	1
11096-82-5	Aroclor-1260		101	ug/kg	7.69	23.1	1



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

SDG Number: 10-2140  
Lab Sample ID: 248249002

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.J  
Analyst: YS1  
Aliquot: 30.18 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
% Moisture: 7.5  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 5  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	17.9	ug/kg	5.96	17.9	1
11104-28-2	Aroclor-1221	U	17.9	ug/kg	5.96	17.9	1
11141-16-5	Aroclor-1232	U	17.9	ug/kg	5.96	17.9	1
53469-21-9	Aroclor-1242	U	17.9	ug/kg	5.96	17.9	1
12672-29-6	Aroclor-1248	U	17.9	ug/kg	5.96	17.9	1
11097-69-1	Aroclor-1254		79.1	ug/kg	5.96	17.9	1
11096-82-5	Aroclor-1260		55.6	ug/kg	5.96	17.9	1

# QUALITY CONTROL SUMMARY

**PCB**  
**Surrogate Recovery Report**

Page 1 of 1

SDG Number: 10-2140

Matrix Type: SOLID

CAP Column (1) : CLP1

CAP Column (2) : CLP2

Sample ID	Client ID	4CMX 1	4CMX 2	DCB 1	DCB 2
		%REC #	%REC #	%REC #	%REC #
1202072502	MB for batch 965798	64	64	64	65
1202072503	LCS for batch 965798	64	63	63	66
248249001	RE36-10-8285	36 D	35 D	43 D	44 D
248249002	RE36-10-8286	64 D	65 D	66 D	74 D
248249003	RE36-10-8283	57 D	55 D	56 D	75 D
248249004	RE36-10-8284	65 D	65 D	67 D	83 D

**Surrogate****Acceptance Limits**

4CMX = 4cmx

(32%-120%)

DCB = Decachlorobiphenyl

(30%-116%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2140

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 965798

Matrix: SOIL

Lab Sample ID: 1202072503

Instrument: ECD1A.I

Analysis Date: 03/17/2010 09:25

Dilution: 1

Analyst: YS1

Pre Batch II 965798

Inj. Vol: 1 uL

Batch ID: 965805

CAS No	Paramname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS Aroclor-1016	33.3	0.0	19.6	59	39-102
11096-82-5	LCS Aroclor-1260	33.3	0.0	21.6	65	45-118

PCB

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2165  
Client ID: WST16-10-13296MS  
Lab Sample ID:1202072504  
Instrument: ECD1A.I  
Analyst: YS1  
Inj. Vol: 1 uL

Sample Type: Matrix Spike  
Matrix: R  
%Moisture: 17  
Analysis Date: 03/17/2010 14:19  
Dilution: 1  
Pre Batch ID: 965798  
Batch ID: 965805

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS Aroclor-1016	40.1	0.00 U	24.3	61	23-119
11096-82-5	MS Aroclor-1260	40.1	0.00 U	30.2	75	28-124

PCB

Page 2 of 2

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2165

Client ID: WST16-10-13296MSD

Lab Sample ID:1202072505

Instrument: ECD1A.I

Analyst: YS1

Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate

Matrix: R

%Moisture: 17

Analysis Date: 03/17/2010 14:32

Dilution: 1

Pre Batch ID: 965798

Batch ID: 965805

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	40.1	0.00	U	23.2	58	23-119	5	0-28
11096-82-5	MSD Aroclor-1260	40.1	0.00	U	30.5	76	28-124	1	0-30

Method Blank Summary

Page 1 of 1

SDG Number:	10-2140	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965798	Instrument ID:	ECD1A.I_2	Data File:	019b1901-1.d
Lab Sample ID:	1202072502		ECD1A.I_1		019f1901-1.d
Column:	CLP2	Prep Date:	03/16/2010 21:02	Analyzed:	03/17/10 09:14
	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 965798	1202072503	020f2001-1.d 020b2001-1.d	03/17/10	0925
04 RE36-10-8285	248249001	047f4701.d 047b4701.d	03/17/10	1457
05 RE36-10-8286	248249002	048f4801.d 048b4801.d	03/17/10	1509
06 RE36-10-8283	248249003	049f4901.d 049b4901.d	03/17/10	1522
07 RE36-10-8284	248249004	050f5001.d 050b5001.d	03/17/10	1535

**SAMPLE  
DATA**



**PCB  
Certificate of Analysis  
Sample Summary**

**SDG Number:** 10-2140  
**Lab Sample ID:** 248249003

**Date Collected:** 02/24/2010 12:00  
**Date Received:** 02/27/2010 09:10  
**Client:** LANL010  
**Method:** SW846 8082  
**Inst:** ECD1A.J  
**Analyst:** YS1  
**Aliquot:** 30.04 g  
**Column:** 1 CLP1  
2 CLP2

**Matrix:** R  
**% Moisture:** 6.3  
**Project:** LANL01004  
**SOP Ref:** GL-OA-E-040  
**Dilution:** 5  
**Inj. Vol:** 1 uL  
**Final Volume:** 1 mL  
**Level:** LOW

**Client ID:** RE36-10-8283  
**Batch ID:** 965805  
**Run Date:** 03/17/2010 15:22  
**Prep Date:** 03/16/2010 21:02  
**Data File:** 049f4901.d  
049b4901.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	17.8	ug/kg	5.92	17.8	1
11104-28-2	Aroclor-1221	U	17.8	ug/kg	5.92	17.8	1
11141-16-5	Aroclor-1232	U	17.8	ug/kg	5.92	17.8	1
53469-21-9	Aroclor-1242	U	17.8	ug/kg	5.92	17.8	1
12672-29-6	Aroclor-1248	U	17.8	ug/kg	5.92	17.8	1
11097-69-1	Aroclor-1254		67.8	ug/kg	5.92	17.8	1
11096-82-5	Aroclor-1260		47.3	ug/kg	5.92	17.8	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/049f4901.d

Lab Smp Id: 248249003

Client Smp ID: RE36-10-8283

Inj Date : 17-MAR-2010 15:22

Operator : YS1

Inst ID: ecdla.i

Smp Info : |248249003|5|

Misc Info : |ECD82P\_1S|965805|SVA|LANL|SOIL|RE36-10-8283|

Comment :

Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m

Meth Date : 18-Mar-2010 06:38 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 49

Dil Factor: 5.00000

Integrator: Falcon

Compound Sublist: 10-2140.sub

Target Version: 3.50

Sample Matrix: Soil

Processing Host: hpc1p1

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

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	6.33300	% Moisture

Cpnd Variable

Local Compound Variable

CONCENTRATIONS

RT	EXP RT	DLT RT	ON-COL	FINAL	TARGET RANGE	RATIO
==	=====	=====	RESPONSE ( ug/L)	(ug/Kg)	=====	=====
\$ 11 4cmx			CAS #: 877-09-8			
1.911	1.913	-0.002	8803266 22.6001	4.0	80.00- 120.00	100.00
\$ 12 Decachlorobiphenyl			CAS #: 2051-24-3			
5.214	5.216	-0.002	6596275 22.2149	3.9	80.00- 120.00	100.00
6 Aroclor-1254			CAS #: 11097-69-1			
3.207	3.209	-0.002	2954285 222.764	39.6	80.00- 120.00	100.00 (M)
3.361	3.364	-0.003	4917477 275.747	49.0	85.35- 125.35	166.45
3.595	3.598	-0.003	7452221 333.115	59.2	28.56- 68.56	252.25
3.757	3.760	-0.003	7552553 458.007	81.4	8.11- 48.11	255.65

CONCENTRATIONS								
			ON-COL	FINAL				
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	
6 Aroclor-1254 (continued)								
3.866	3.869	-0.003	9904262	620.396	110	409.62- 449.62	346.00	
Average of Peak Concentrations =					67.8			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.703	3.703	0.000	5023292	274.046	48.7	80.00- 120.00	100.00 (M)	
3.866	3.866	0.000	9904262	368.327	65.4	126.78- 166.78	203.49	
4.028	4.028	0.000	15185924	536.315	95.3	136.47- 176.47	350.07	
4.096	4.096	0.000	1301445	80.5456	14.3	68.15- 108.15	25.91	
4.237	4.238	-0.001	1209143	71.9186	12.8	71.85- 111.85	24.07	
Average of Peak Concentrations =					47.3			

#### QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdda.i/0317107.b/049f4901.d

Date: 17-MAR-2010 15:22

Client ID: RE36-10-8283

Sample Info: 1248249003151

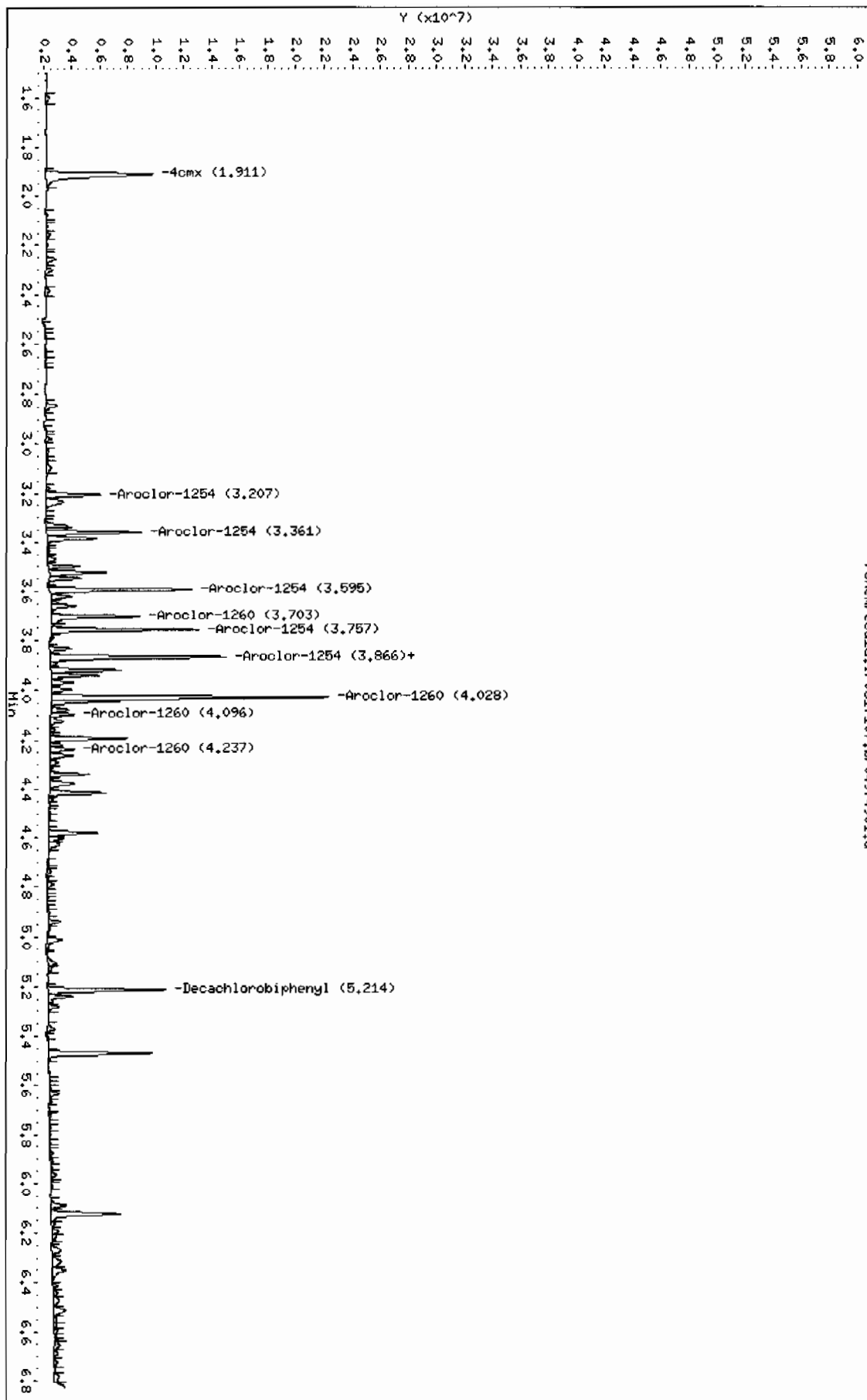
Volume Injected (uL): 1.0

Column phase: CLP1

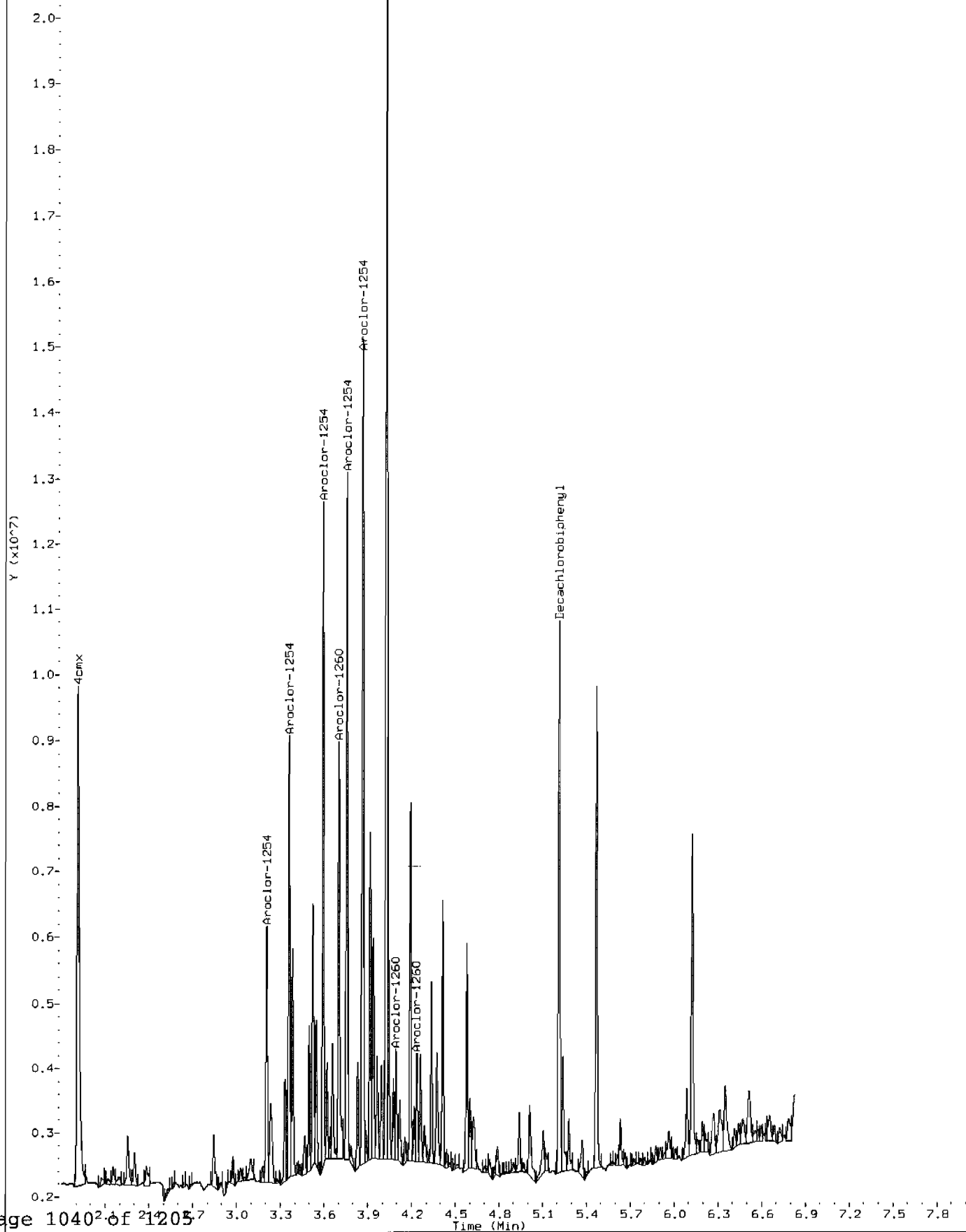
Page 1

/chem/ecdda.i/0317107.b/049f4901.d

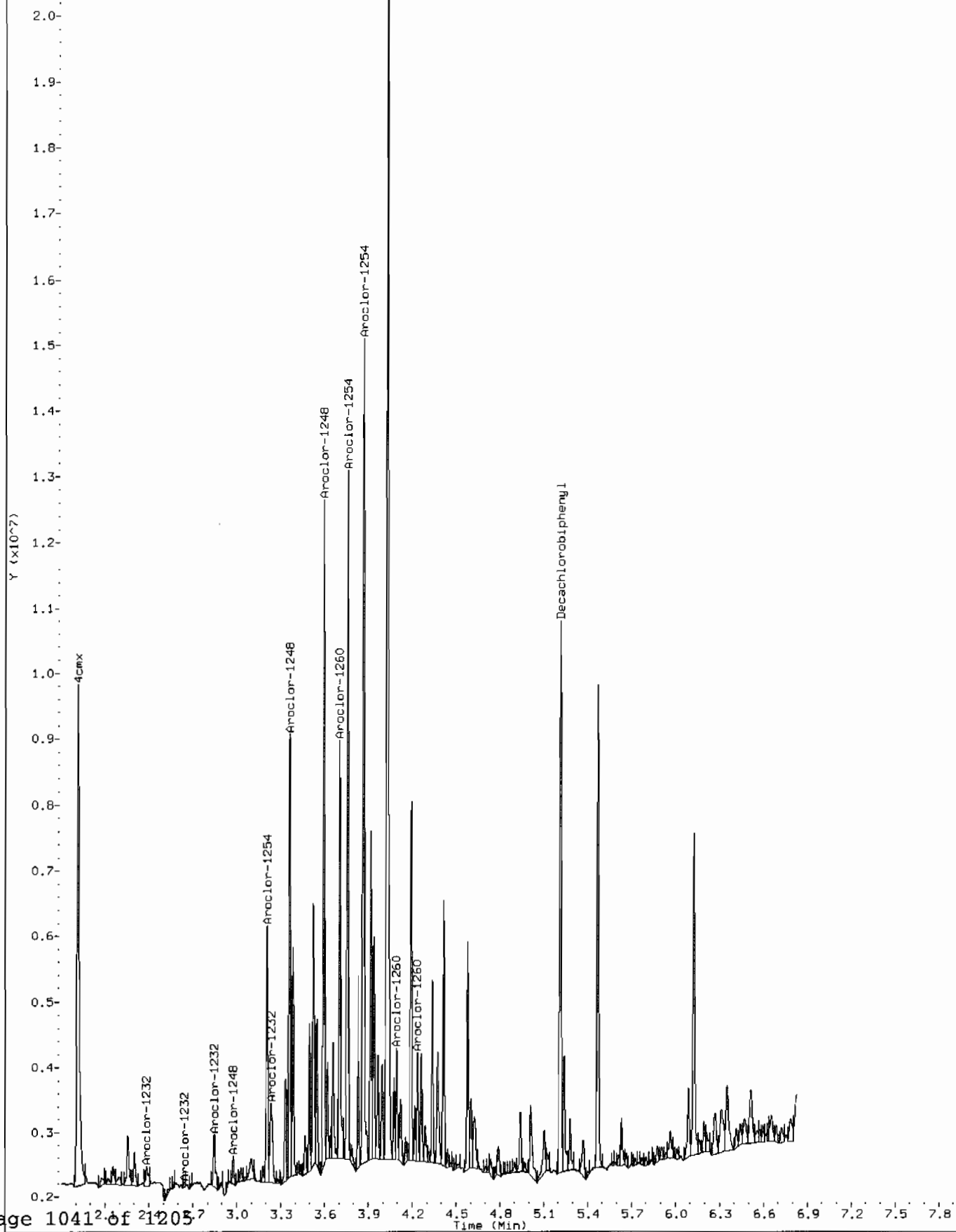
Instrument: ecdda.i  
Operator: YSL  
Column diameter: 0.25



Comment: Manually Integrated  
Data File: /chem/ecdl1.i/0317107.b/049f4901.d  
Operator: YS1  
Injection Date: 17-MAR-2010 15:22  
Instrument: ecd1a.i  
Client Sample ID: RE36-10-8283



Comment: Before manual integration  
Data File: /chem/ecdl1.i/0317107.b/orig-049f4901.d  
Operator: YS1  
Injection Date: 17-MAR-2010 15:22  
Instrument: ecdl1.i  
Client Sample ID: RE36-10-8283



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
 Data file : /chem/ecdl1a.i/0317107.b/049b4901.d  
 Lab Smp Id: 248249003 Client Smp ID: RE36-10-8283  
 Inj Date : 17-MAR-2010 15:22  
 Operator : YSl Inst ID: ecdl1a.i  
 Smp Info : |248249003|5|  
 Misc Info : |ECD82P\_1S|965805|SVA|LANL|SOIL|RE36-10-8283|||  
 Comment :  
 Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
 Meth Date : 18-Mar-2010 06:38 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
 Als bottle: 49  
 Dil Factor: 5.00000  
 Integrator: Falcon Compound Sublist: 10-2140.sub  
 Target Version: 3.50 Sample Matrix: Soil  
 Processing Host: hpc1p1

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

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	6.33300	% 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							
2.270	2.271	-0.001	5756826	21.9448	3.9	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3							
5.912	5.913	-0.001	5631354	30.0863	5.3	80.00- 120.00	100.00
-----							
6 Aroclor-1254 CAS #: 11097-69-1							
3.375	3.375	0.000	591292	98.2014	17.4	80.00- 120.00	100.00
3.796	3.797	-0.001	2261578	209.022	37.1	162.61- 202.61	382.48
3.913	3.914	-0.001	3904720	327.203	58.1	178.69- 218.69	660.37
4.188	4.189	-0.001	5975041	363.406	64.6	256.82- 296.82	1010.50

CONCENTRATIONS							
			ON-COI,		FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====		=====	=====	=====
6 Aroclor-1254 (continued)							
4.324	4.325	-0.001	4537619	374.530	66.6	188.70- 228.70	767.41
Average of Peak Concentrations =					48.8		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
4.304	4.304	0.000	4350329	332.588	59.1	80.00- 120.00	100.00
4.429	4.429	0.000	5075559	326.423	58.0	101.64- 141.64	116.67
4.697	4.695	0.002	1595135	134.089	23.8	71.55- 111.55	36.67
4.867	4.868	-0.001	1080288	87.9054	15.6	75.46- 115.46	24.83
5.016	5.015	0.001	2522989	95.5872	17.0	190.29- 230.29	58.00
Average of Peak Concentrations =					34.7		
-----							



Data File: /chem/ecda.i/0317107.b/049b4901.d

Date: 17-MAR-2010 15:22

Client ID: RE36-10-8283

Sample Info: 1248249003151

Volume Injected (uL): 1.0

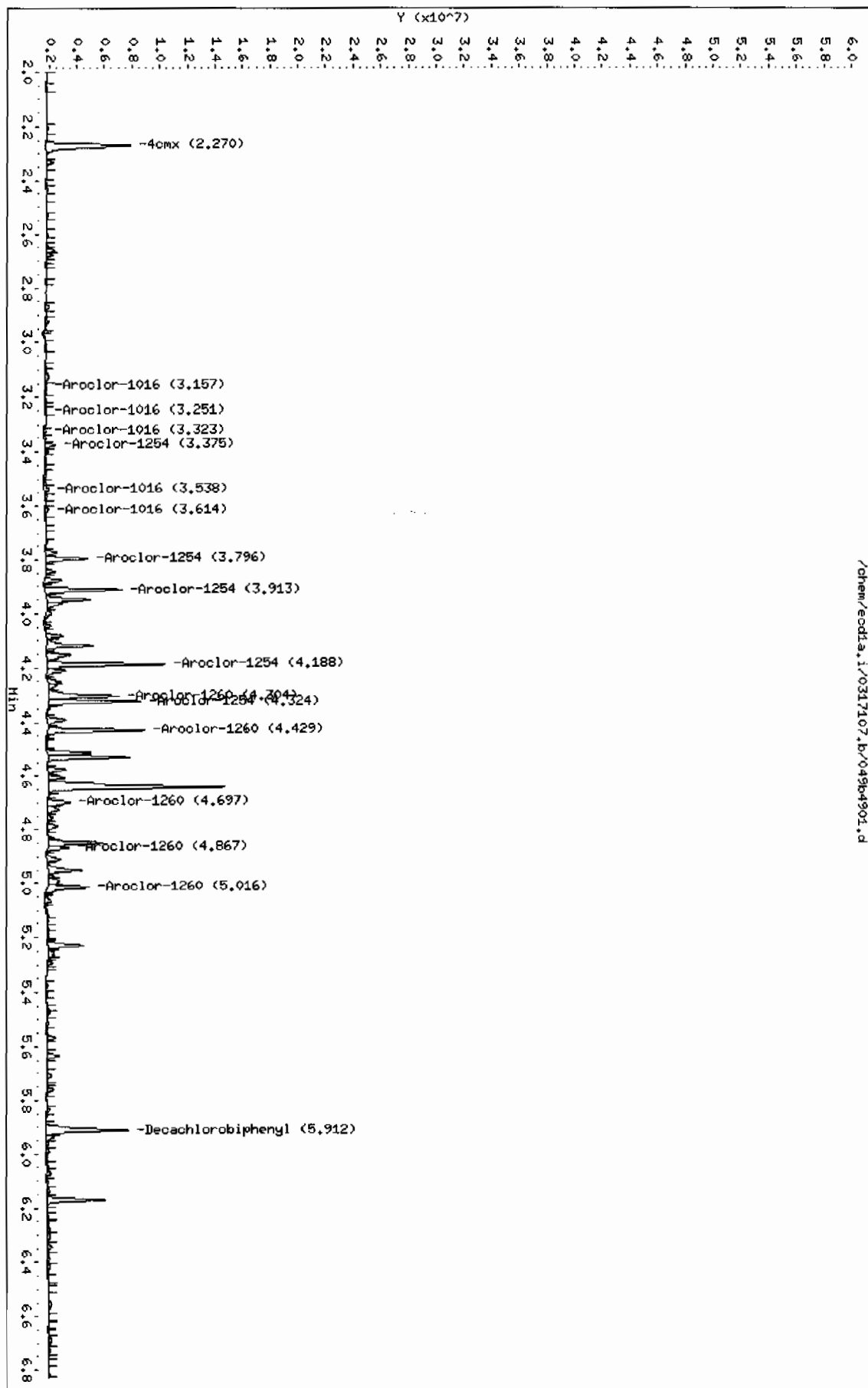
Column phase: CLP2

Instrument: ecda.i

Operator: YSL

Column diameter: 0.25

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## PCB

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Certificate of Analysis  
Sample Summary

SDG Number: 10-2140	Date Collected: 02/24/2010 12:00	Matrix: R
Lab Sample ID: 248249004	Date Received: 02/27/2010 09:10	%Moisture: 5.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-8284	Method: SW846 8082	SOP Ref: GL-OA-E-040
Batch ID: 965805	Inst: ECD1A.I	Dilution: 5
Run Date: 03/17/2010 15:35	Analyst: YS1	Inj. Vol: 1 uL
Prep Date: 03/16/2010 21:02	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: 050f5001.d	Column: 1 CLP1	Level: LOW
050b5001.d	2 CLP2	

CAS No.	Parmname	Qualifier	Result	Units	MDI/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	17.6	ug/kg	5.87	17.6	1
11104-28-2	Aroclor-1221	U	17.6	ug/kg	5.87	17.6	1
11141-16-5	Aroclor-1232	U	17.6	ug/kg	5.87	17.6	1
53469-21-9	Aroclor-1242	U	17.6	ug/kg	5.87	17.6	1
12672-29-6	Aroclor-1248	U	17.6	ug/kg	5.87	17.6	1
11097-69-1	Aroclor-1254		64.1	ug/kg	5.87	17.6	1
11096-82-5	Aroclor-1260		43.0	ug/kg	5.87	17.6	1

Data File: /chem/ecdla.i/0317107.b/050f5001.d  
Report Date: 18-Mar-2010 06:42

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/050f5001.d  
Lab Smp Id: 248249004 Client Smp ID: RE36-10-8284  
Inj Date : 17-MAR-2010 15:35  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |248249004|5|  
Misc Info : |ECD82P\_1S|965805|SVA|LANL|SOIL|RE36-10-8284|||  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 18-Mar-2010 06:41 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 50  
Dil Factor: 5.00000  
Integrator: Falcon Compound Sublist: 10-2140.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpclp1

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

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	5.52520	% 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					
1.912	1.913	-0.001	10117501 25.9741	4.6	80.00- 120.00	100.00
12	Decachlorobiphenyl					
5.214	5.216	-0.002	7998351 26.9368	4.7	80.00- 120.00	100.00
6	Aroclor-1254					
3.207	3.209	-0.002	2682894 202.300	35.7	80.00- 120.00	100.00 (M)
3.361	3.364	-0.003	4640993 260.243	45.9	85.35- 125.35	172.98
3.594	3.598	-0.004	7073985 316.208	55.7	28.56- 68.56	263.67
3.757	3.760	-0.003	7518871 455.964	80.4	8.11- 48.11	280.25

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO
==	=====	=====	=====	=====	=====	=====		=====
6 Aroclor-1254 (continued)								
3.865	3.869	-0.004	9296379	582.319	103	409.62-	449.62	357.22
Average of Peak Concentrations =					64.1			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.703	3.703	0.000	4437475	242.087	42.7	80.00-	120.00	100.00 (M)
3.865	3.866	-0.001	9296379	345.721	60.9	128.32-	168.32	215.97
4.027	4.028	-0.001	13950936	492.700	86.9	138.73-	178.73	367.59
4.095	4.096	-0.001	1203232	74.4672	13.1	69.60-	109.60	27.12
4.237	4.238	-0.001	1101898	65.5397	11.6	72.91-	112.91	24.83
Average of Peak Concentrations =					43.0			
-----								

#### QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdia.i/0317107.b/050f5001.d

Date: 17-MAR-2010 15:35

Client ID: RE36-10-8284

Sample Info: 1248249004151

Volume Injected (uL): 1.0

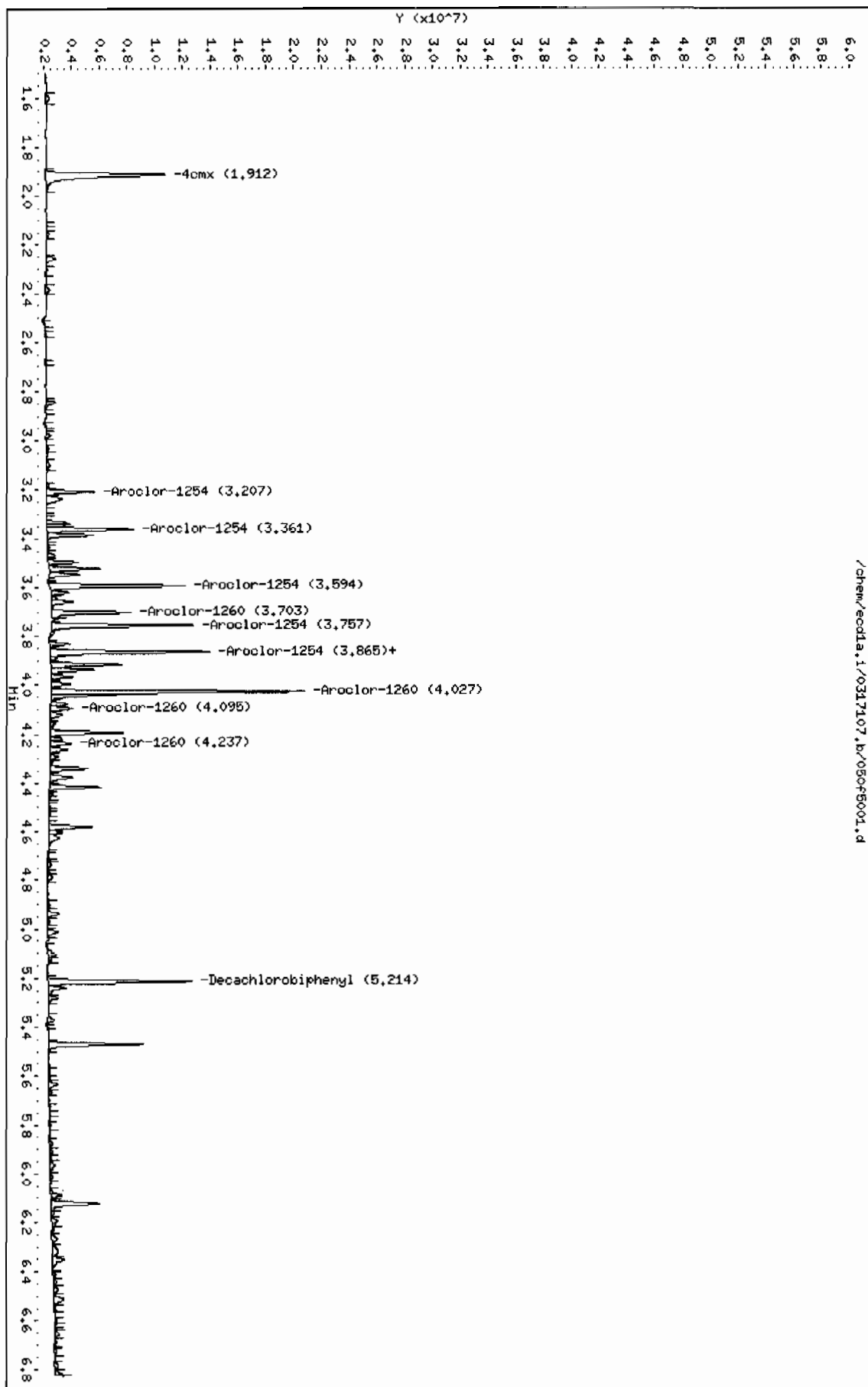
Column phase: CLP1

Instrument: ecdia.i

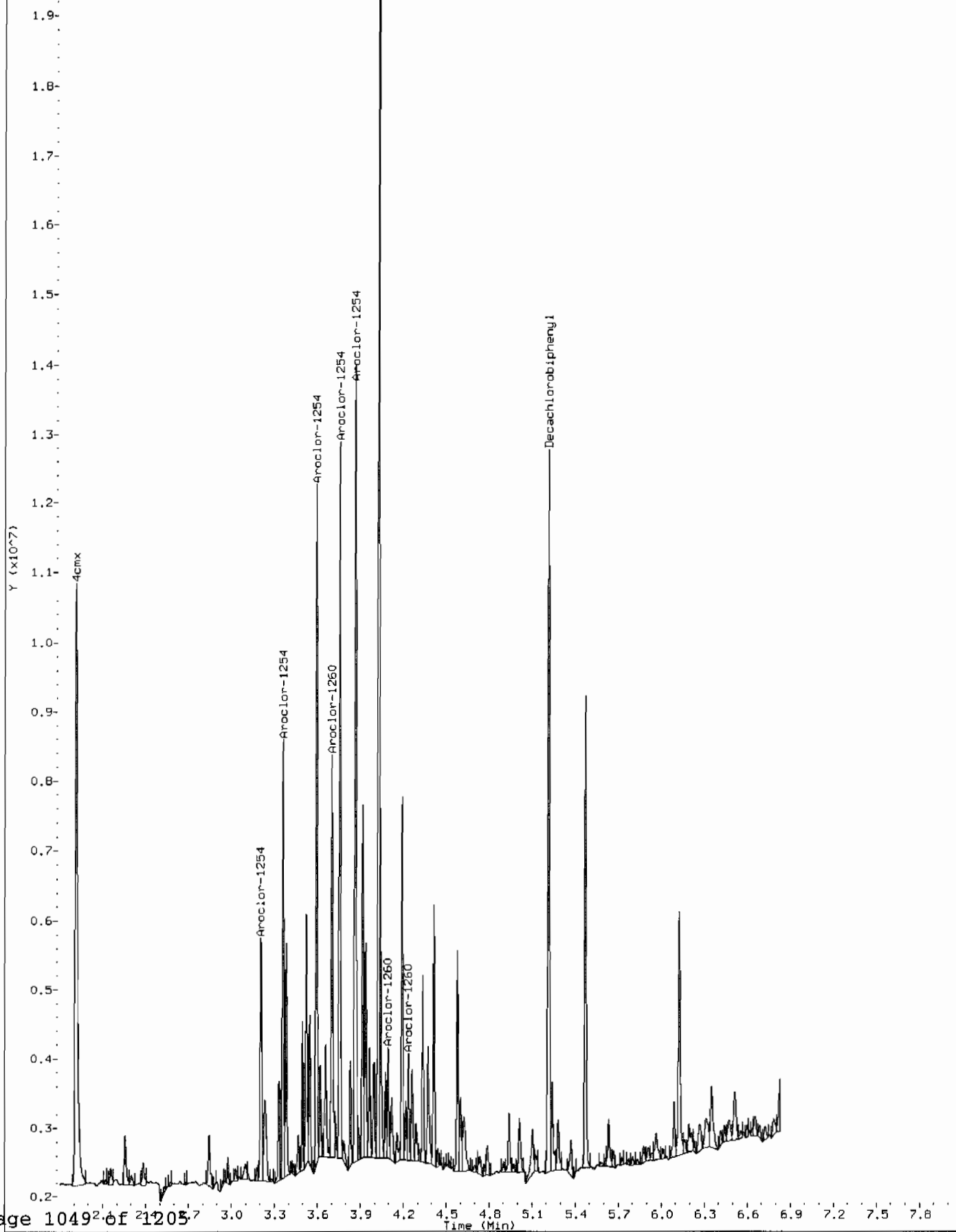
Operator: YSL

Column diameter: 0.25

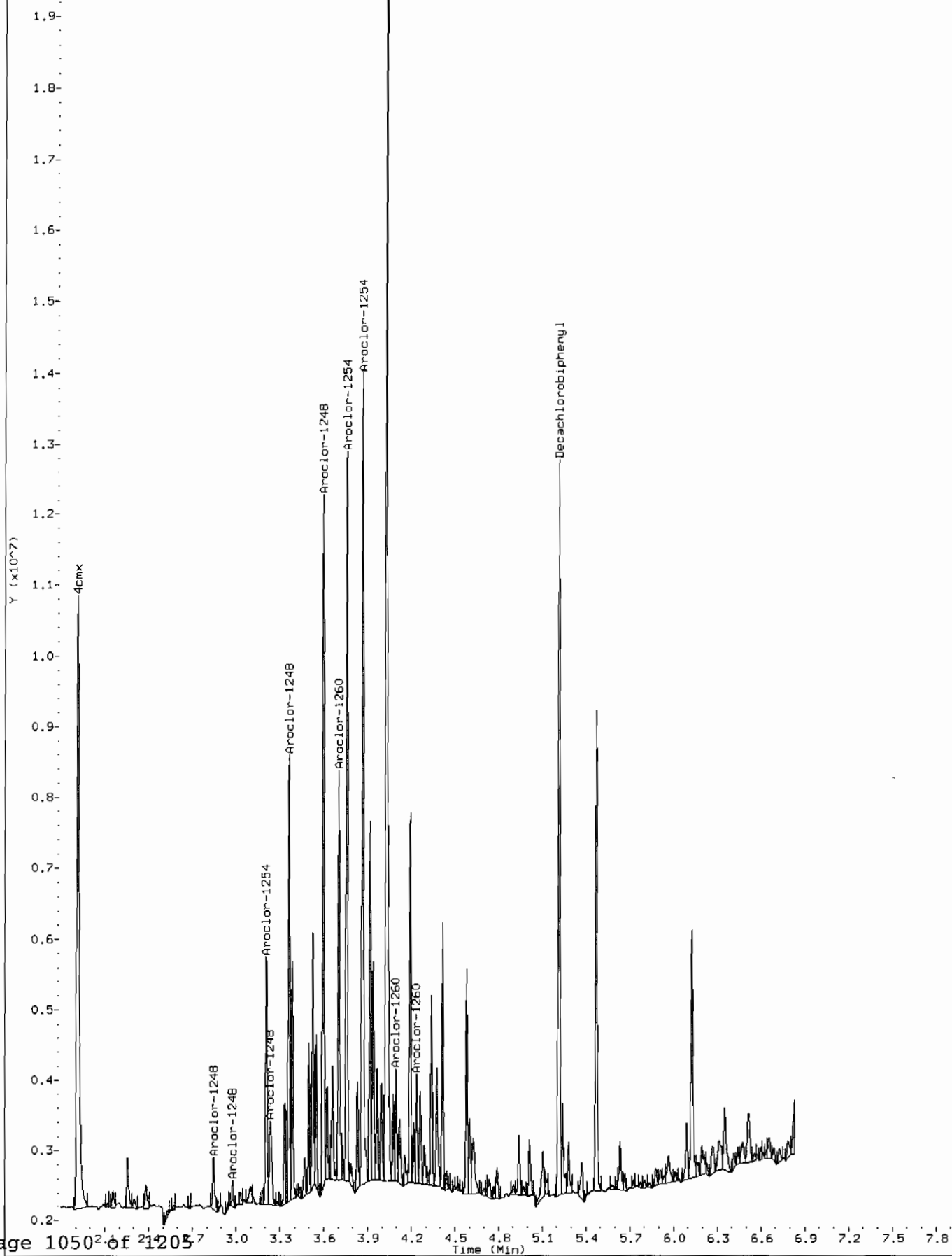
/chem/ecdia.i/0317107.b/050f5001.d



Comment: Manually Integrated  
Data File: /chem/ecdlai/0317107.b/050f5001.d  
Operator: YS1  
Injection Date: 17-MAR-2010 15:35  
Instrument: ecdla.i  
Client Sample ID: RE36-10-8284



Comment: Before manual integration  
Data File: /chem/ecdlai/0317107.b/orig-050f5001.d  
Operator: YS1  
Injection Date: 17-MAR-2010 15:35  
Instrument: ecdla.i  
Client Sample ID: RE36-10-8284



Data File: /chem/ecdla.i/0317107.b/050b5001.d  
Report Date: 18-Mar-2010 06:41

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecdla.i/0317107.b/050b5001.d  
Lab Smp Id: 248249004 Client Smp ID: RE36-10-8284  
Inj Date : 17-MAR-2010 15:35  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |248249004|5|  
Misc Info : |ECD82P\_1S|965805|SVA|LANL|SOIL|RE36-10-8284|||  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 18-Mar-2010 06:41 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 50  
Dil Factor: 5.00000  
Integrator: Falcon Compound Sublist: 10-2140.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpc1p1

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

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	5.52520	% 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			
2.270	2.271	-0.001	6789300 25.8805	4.6	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl			CAS #: 2051-24-3			
5.912	5.913	-0.001	6222880 33.2466	5.9	80.00- 120.00	100.00
-----						
6 Aroclor-1254			CAS #: 11097-69-1			
3.374	3.375	-0.001	543113 90.1999	15.9	80.00- 120.00	100.00
3.795	3.797	-0.002	2223869 205.537	36.2	162.61- 202.61	409.47
3.912	3.914	-0.002	3961968 332.000	58.5	178.69- 218.69	729.49
4.187	4.189	-0.002	5909832 359.440	63.4	256.82- 296.82	1088.14



CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
---	-----	-----	-----	-----	-----	-----
6 Aroclor-1254 (continued)						
4.324	4.325	-0.001	4891439	403.733	71.2 188.70- 228.70	900.63
Average of Peak Concentrations =				49.0		
-----						
7 Aroclor-1260				CAS #: 11096-82-5		
4.304	4.304	0.000	4327045	330.808	58.3 80.00- 120.00	100.00
4.429	4.429	0.000	5075314	326.407	57.5 101.71- 141.71	117.29
4.697	4.695	0.002	1481956	124.575	22.0 71.10- 111.10	34.25
4.867	4.868	-0.001	962542	78.3241	13.8 74.28- 114.28	22.24
5.014	5.015	-0.001	2314322	87.6815	15.4 188.77- 228.77	53.49
Average of Peak Concentrations =				33.4		
-----						

Data File: /chem/ecdda.i/0317107.b/050b5001.d

Date: 17-MAR-2010 15:35

Client ID: RE36-10-8284

Sample Info: 1248249004151

Volume Injected (uL): 1.0

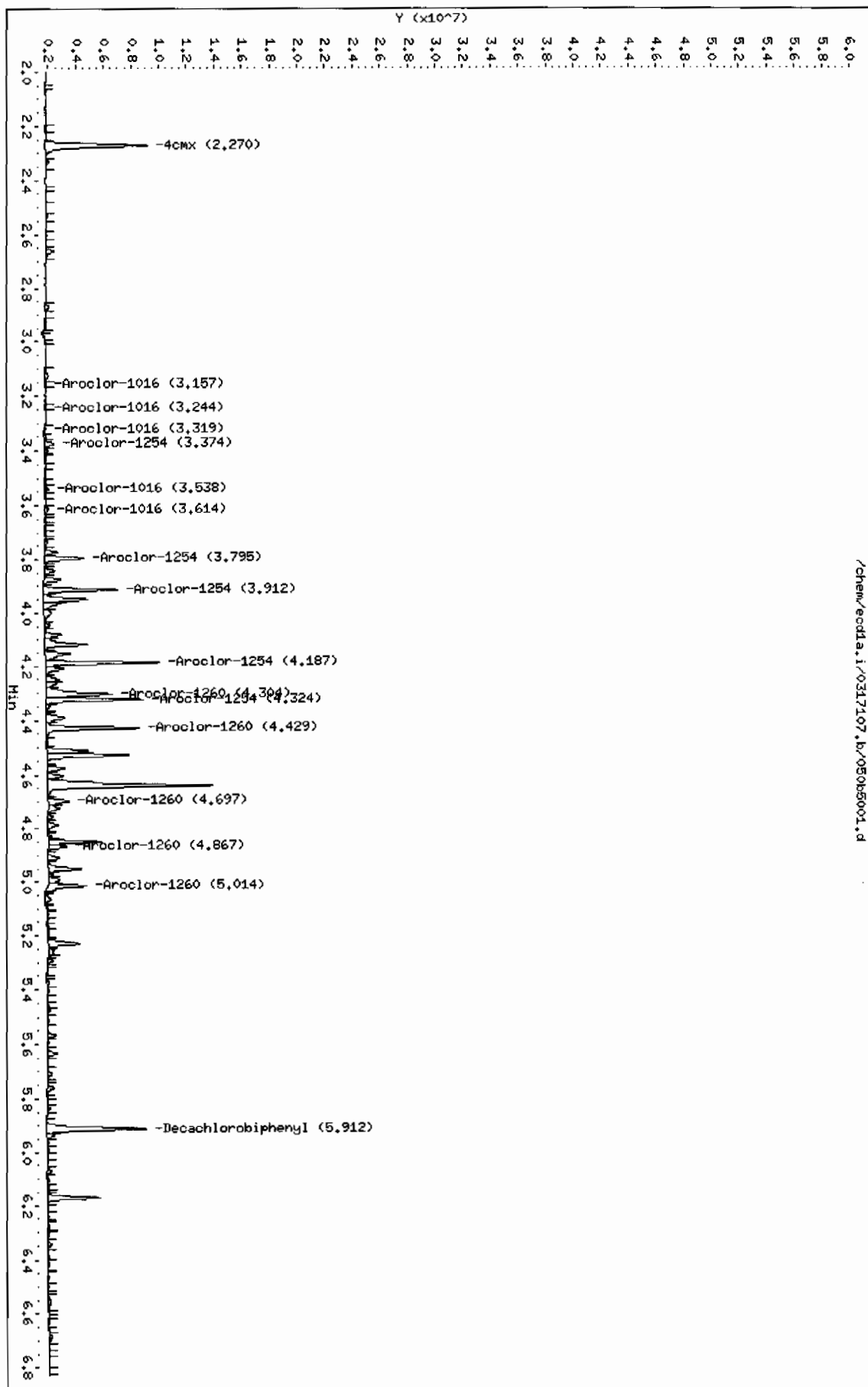
Column phase: CLP2

Instrument: ecdda.i

Operator: YSL

Column diameter: 0.25

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

Page 1 of 1

SDG Number: 10-2140  
Lab Sample ID: 248249001

Date Collected: 02/24/2010 12:00  
Date Received: 02/27/2010 09:10  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.03 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
% Moisture: 27.9  
Project: LANL01004  
SOP Ref: GI.-OA-E-040  
Dilution: 5  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-8285  
Batch ID: 965805  
Run Date: 03/17/2010 14:57  
Prep Date: 03/16/2010 21:02  
Data File: 047f4701.d  
047b4701.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	23.1	ug/kg	7.69	23.1	1
11104-28-2	Aroclor-1221	U	23.1	ug/kg	7.69	23.1	1
11141-16-5	Aroclor-1232	U	23.1	ug/kg	7.69	23.1	1
53469-21-9	Aroclor-1242	U	23.1	ug/kg	7.69	23.1	1
12672-29-6	Aroclor-1248	U	23.1	ug/kg	7.69	23.1	1
11097-69-1	Aroclor-1254		137	ug/kg	7.69	23.1	1
11096-82-5	Aroclor-1260		101	ug/kg	7.69	23.1	1

Data File: /chem/ecdla.i/0317107.b/047f4701.d  
Report Date: 18-Mar-2010 06:36

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecdla.i/0317107.b/047f4701.d  
Lab Smp Id: 248249001 Client Smp ID: RE36-10-8285  
Inj Date : 17-MAR-2010 14:57  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |248249001|5|  
Misc Info : |ECD82P\_1S|965805|SVA|LANL|SOIL|RE36-10-8285|||  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 18-Mar-2010 06:36 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 47  
Dil Factor: 5.00000  
Integrator: Falcon Compound Sublist: 10-2140.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpc1p1

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

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	27.91310	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS							
			ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	
\$ 11 4cmx					CAS #: 877-09-8		
1.913	1.913	0.000	5609259 14.4003	3.3	80.00- 120.00	100.00	
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.213	5.216	-0.003	5103332 17.1870	4.0	80.00- 120.00	100.00	
6 Aroclor-1254					CAS #: 11097-69-1		
3.207	3.209	-0.002	4846971 365.479	84.4	80.00- 120.00	100.00 (M)	
3.361	3.364	-0.003	7855878 440.517	102	85.35- 125.35	162.08	
3.594	3.598	-0.004	12163508 543.710	126	28.56- 68.56	250.95	
3.757	3.760	-0.003	10342048 627.169	145	8.11- 48.11	213.37	

CONCENTRATIONS							
			ON-COL		FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
6 Aroclor-1254 (continued)							
3.865	3.869	-0.004	15875416	994.425	230	409.62- 449.62	327.53
Average of Peak Concentrations =					137		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.703	0.000	8895041	485.270	112	80.00- 120.00	100.00 (M)
3.865	3.866	-0.001	15875416	590.387	136	127.26- 167.26	178.47
4.027	4.028	-0.001	24070951	850.104	196	135.90- 175.90	270.61
4.094	4.096	-0.002	2239540	138.604	32.0	68.61- 108.61	25.18
4.237	4.238	-0.001	2132318	126.828	29.3	72.09- 112.09	23.97
Average of Peak Concentrations =					101		
-----							

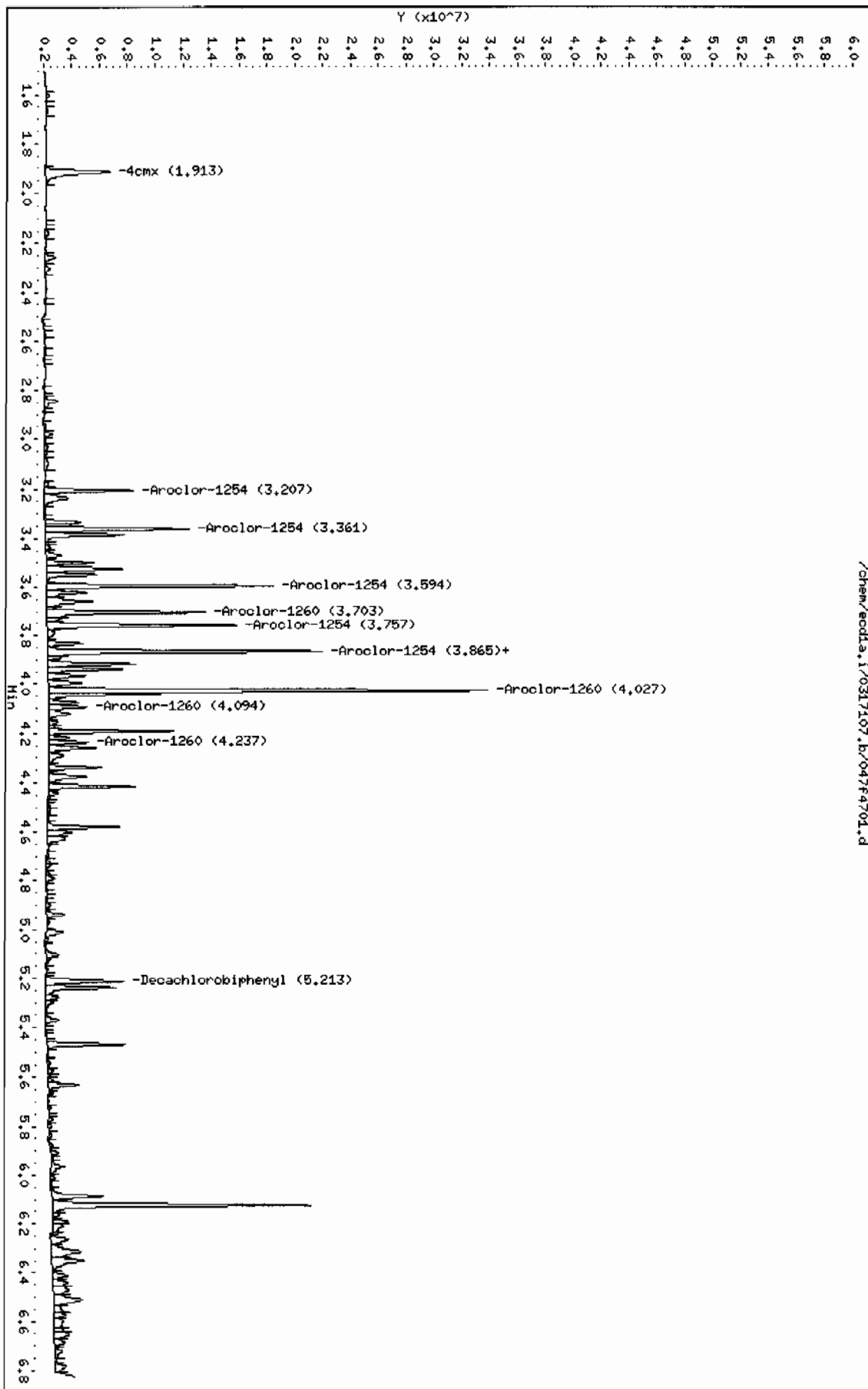
#### QC Flag Legend

M - Compound response manually integrated.

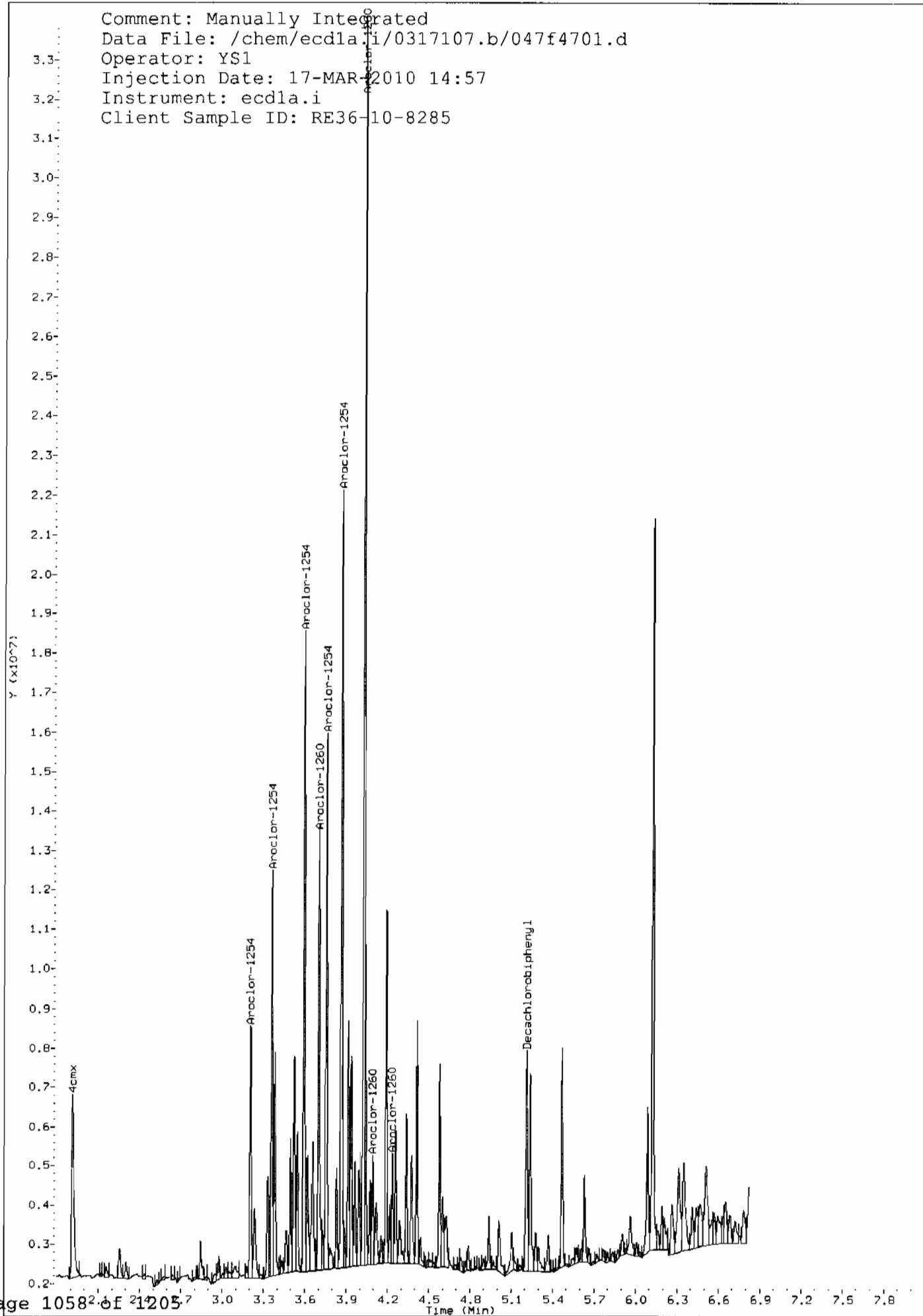
Data File: /chem/eodla.i/0317107.b/047f4701.d  
Date: 17-MAR-2010 14:57  
Client ID: RE36-10-8285  
Sample Info: 1248249004151  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: eodla.i  
Operator: YSL  
Column diameter: 0.25

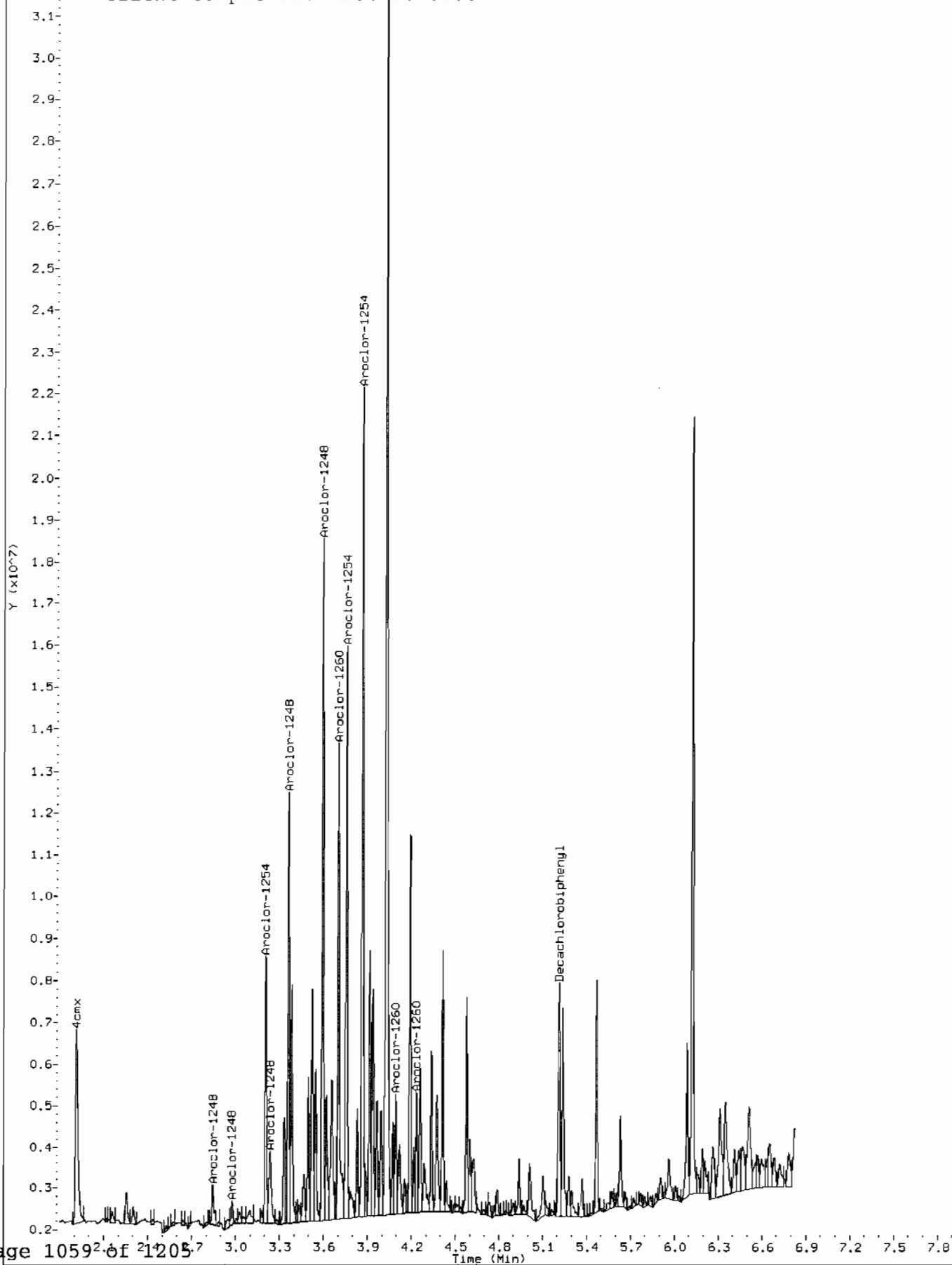
/chem/eodla.i/0317107.b/047f4701.d



Comment: Manually Integrated  
Data File: /chem/ecdla.i/0317107.b/047f4701.d  
Operator: YS1  
Injection Date: 17-MAR-2010 14:57  
Instrument: ecdla.i  
Client Sample ID: RE36-10-8285



Comment: Before manual integration  
Data File: /chem/ecdla.i/0317107.b/orig-047f4701.d  
Operator: YS1  
Injection Date: 17-MAR-2010 14:57  
Instrument: ecdla.i  
Client Sample ID: RE36-10-8285





Data File: /chem/ecdl1a.i/0317107.b/047b4701.d  
Report Date: 18-Mar-2010 06:35

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecdl1a.i/0317107.b/047b4701.d  
Lab Smp Id: 248249001 Client Smp ID: RE36-10-8285  
Inj Date : 17-MAR-2010 14:57  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |248249001|5|  
Misc Info : |ECD82P\_1S|965805|SVA|LANL|SOIL|RE36-10-8285|  
Comment :  
Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 18-Mar-2010 06:26 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 47  
Dil Factor: 5.00000  
Integrator: Falcon Compound Sublist: 10-2140.sub  
Target Version: 3.50 Sample Matrix: Soil

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

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	27.91310	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
--	-----	-----	=====	=====	-----	=====
\$ 11 4cmx CAS #: 877-09-8						
2.272	2.271	0.001	3707008 14.1309	3.3	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3						
5.911	5.913	-0.002	3296004 17.6094	4.1	80.00- 120.00	100.00
-----						
6 Aroclor-1254 CAS #: 11097-69-1						
3.375	3.375	0.000	643526 106.876	24.7	80.00- 120.00	100.00(M)
3.795	3.797	-0.002	3596908 332.438	76.8	162.61- 202.61	558.94
3.913	3.914	-0.001	5910542 495.285	114	178.69- 218.69	918.46
4.188	4.189	-0.001	9723181 591.370	136	256.82- 296.82	1510.92
4.323	4.325	-0.002	5795286 478.336	110	188.70- 228.70	900.55
Average of Peak Concentrations				92.3		
-----						

CONCENTRATIONS						
			ON-COL		FINAL	
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
7 Aroclor-1260			CAS #: 11096-82-5			
4.303	4.304	-0.001	7318238	559.488	129 80.00- 120.00	100.00 (M)
4.428	4.429	-0.001	7992599	514.026	119 101.81- 141.81	109.21
4.697	4.695	0.002	2543114	213.778	49.4 71.40- 111.40	34.75
4.867	4.868	-0.001	1817617	147.903	34.2 75.24- 115.24	24.84
5.015	5.015	0.000	3816915	144.610	33.4 190.06- 230.06	52.16
Average of Peak Concentrations =				73.0		

#### QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdda.i/0317107.b/047b4701.d

Date: 17-MAR-2010 14:57

Client ID: RE36-10-8285

Sample Info: 124824900151

Volume Injected (uL): 1.0

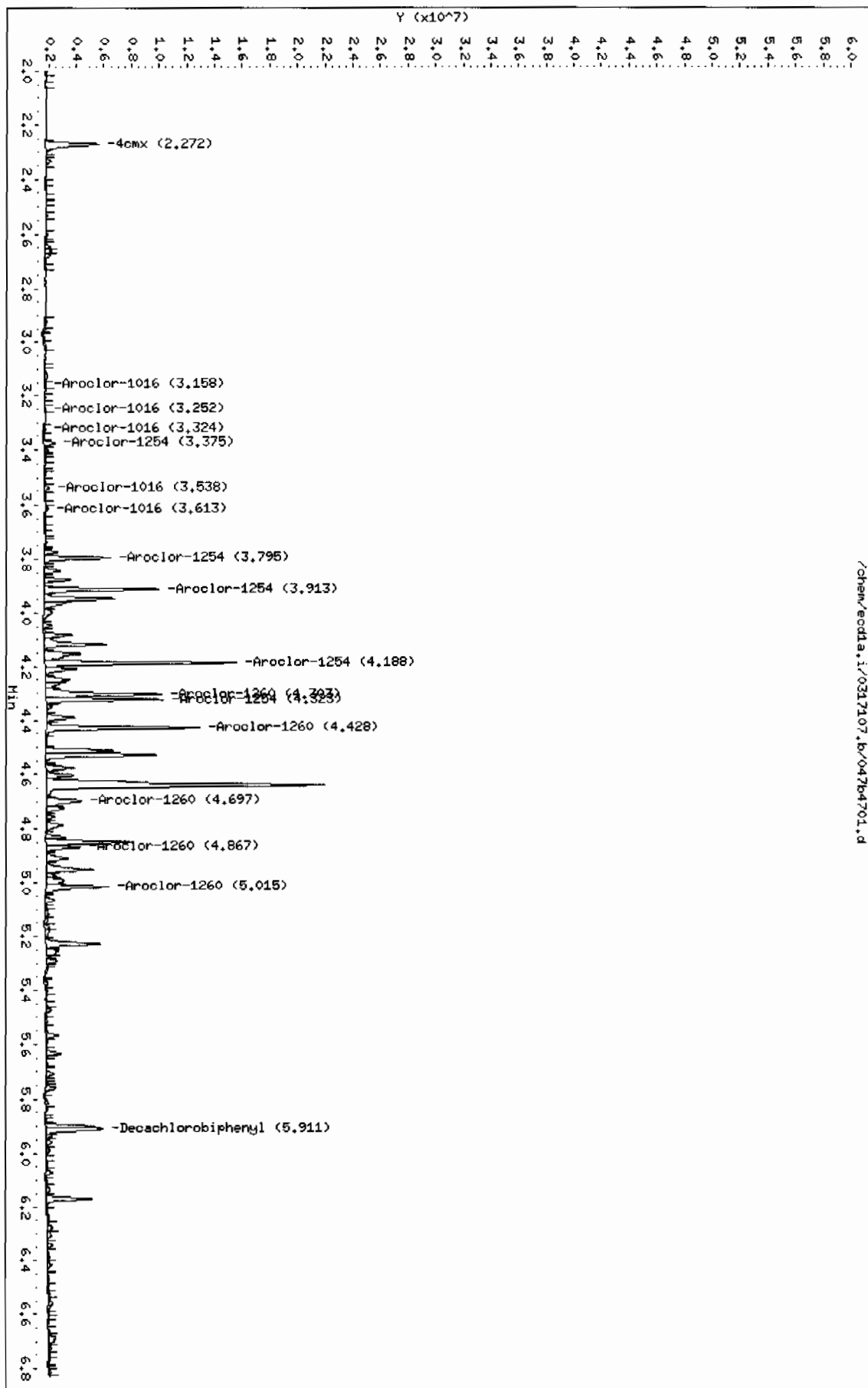
Column phase: CLP2

Instrument: ecdda.i

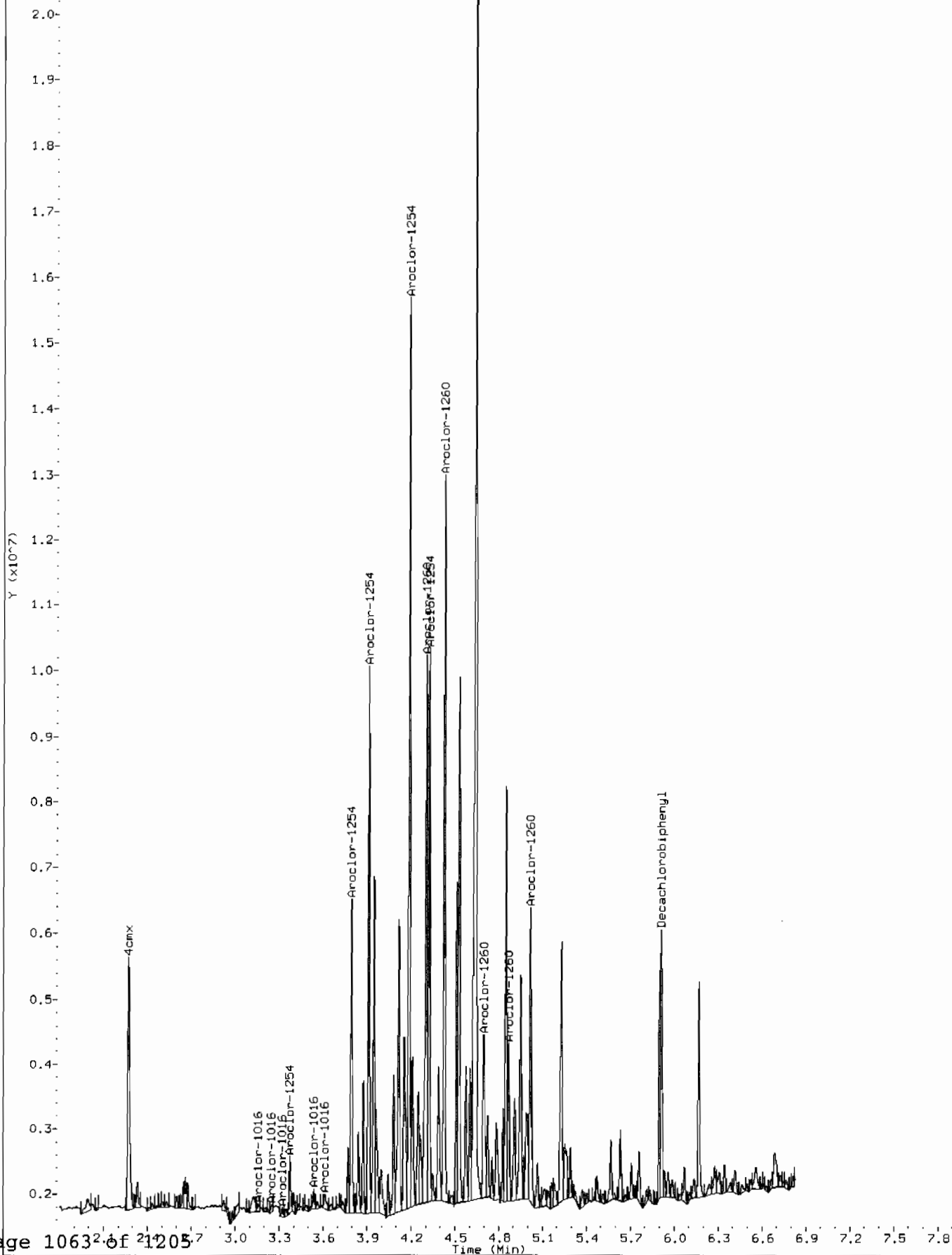
Operator: YSA

Column diameter: 0.25

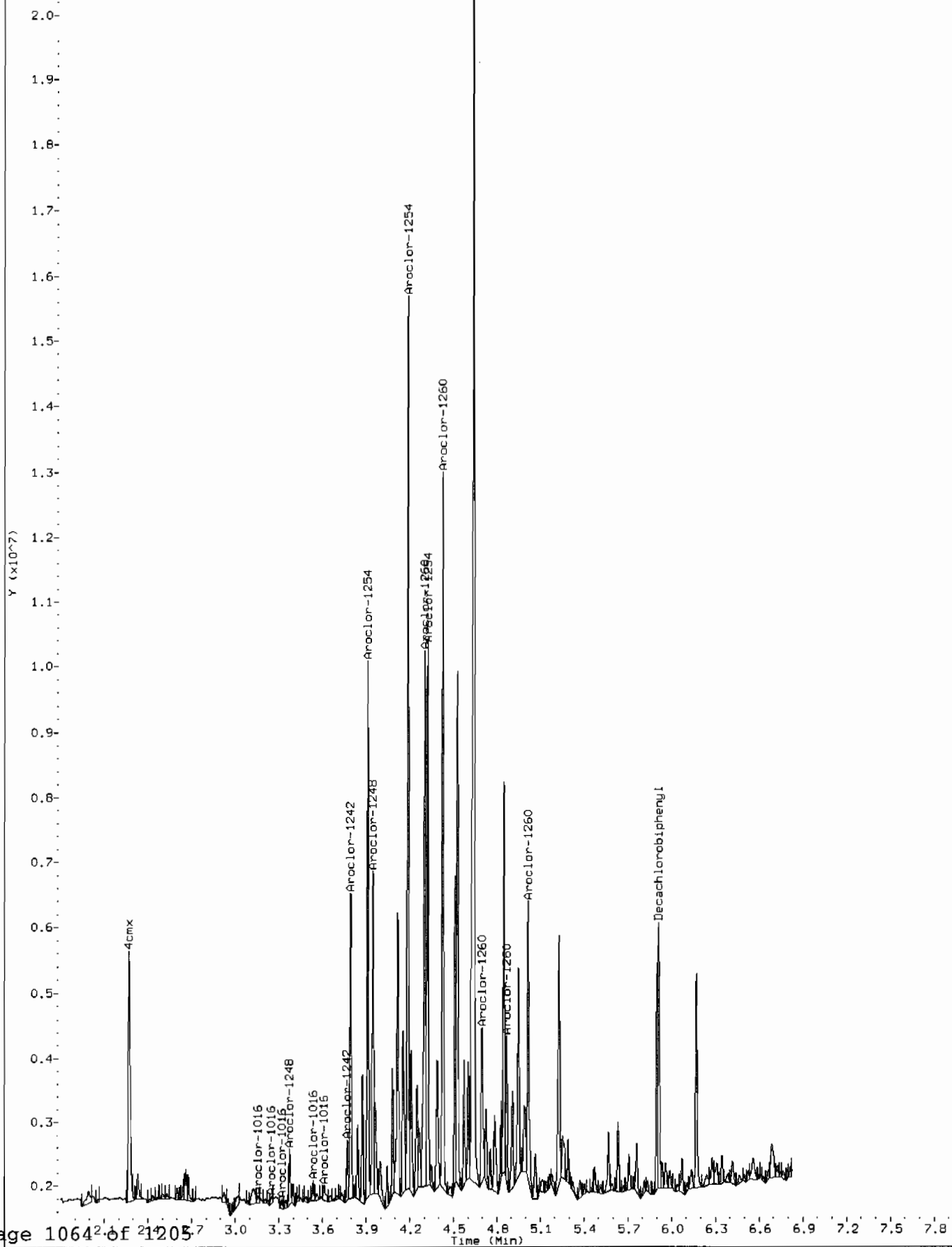
Page 1



2.2- Comment: Manually Integrated  
Data File: /chem/ecdla.i/0317107.b/047b4701.d  
Operator: YS1  
2.1- Injection Date: 17-MAR-2010 14:57  
Instrument: ecdla.i  
Client Sample ID: RE36-10-8285



Comment: Before manual integration  
Data File: /chem/ecdla.i/0317107.b/orig-047b4701.d  
Operator: YS1  
Injection Date: 17-MAR-2010 14:57  
Instrument: ecdla.i  
Client Sample ID: RE36-10-8285



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

Page 1 of 1

<b>SDG Number:</b> 10-2140	<b>Date Collected:</b> 02/24/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248249002	<b>Date Received:</b> 02/27/2010 09:10	<b>%Moisture:</b> 7.5
<b>Client ID:</b> RE36-10-8286	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 965805	<b>Method:</b> SW846 8082	<b>SOP Ref:</b> GL-OA-E-040
<b>Run Date:</b> 03/17/2010 15:09	<b>Inst:</b> ECD1A.1	<b>Dilution:</b> 5
<b>Prep Date:</b> 03/16/2010 21:02	<b>Analyst:</b> YS1	<b>Inj. Vol:</b> 1 uL
<b>Data File:</b> 048f4801.d	<b>Aliquot:</b> 30.18 g	<b>Final Volume:</b> 1 mL
	<b>Column:</b> 1 CLP1	<b>Level:</b> LOW
	2 CLP2	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	17.9	ug/kg	5.96	17.9	1
11104-28-2	Aroclor-1221	U	17.9	ug/kg	5.96	17.9	1
11141-16-5	Aroclor-1232	U	17.9	ug/kg	5.96	17.9	1
53469-21-9	Aroclor-1242	U	17.9	ug/kg	5.96	17.9	1
12672-29-6	Aroclor-1248	U	17.9	ug/kg	5.96	17.9	1
11097-69-1	Aroclor-1254		79.1	ug/kg	5.96	17.9	1
11096-82-5	Aroclor-1260		55.6	ug/kg	5.96	17.9	1

Data File: /chem/ecdl1a.i/0317107.b/048f4801.d  
Report Date: 18-Mar-2010 06:38

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/048f4801.d  
Lab Smp Id: 248249002 Client Smp ID: RE36-10-8286  
Inj Date : 17-MAR-2010 15:09  
Operator : YSl Inst ID: ecd1a.i  
Smp Info : |248249002|5|  
Misc Info : |ECD82P\_1S|965805|SVA|LANL|SOIL|RE36-10-8286|||  
Comment :  
Method : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 18-Mar-2010 06:38 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 48  
Dil Factor: 5.00000  
Integrator: Falcon Compound Sublist: 10-2140.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpclp1

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

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	7.51010	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS

ON-COL FINAL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
11	1.913	1.913	0.000	9936576 25.5096	4.6 80.00- 120.00	100.00
-----						
12	5.214	5.216	-0.002	7873005 26.5147	4.7 80.00- 120.00	100.00
-----						
6 Aroclor-1254			CAS #: 11097-69-1			
3.207	3.209	-0.002	2514506 189.603	34.0	80.00- 120.00	100.00 (M)
3.361	3.364	-0.003	6006816 336.831	60.3	85.35- 125.35	238.89
3.595	3.598	-0.003	9227107 412.453	73.9	28.56- 68.56	366.96
3.758	3.760	-0.002	8030198 486.972	87.2	8.11- 48.11	319.35

			CONCENTRATIONS				
			ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	
6 Aroclor-1254 (continued)							
3.866	3.869	-0.003	12442020	779.359	140 409.62- 449.62	494.81	
Average of Peak Concentrations -				79.1			
-----							
7 Aroclor-1260				CAS #: 11096-82-5			
3.703	3.703	0.000	5880966	320.837	57.5 80.00- 120.00	100.00 (M)	
3.866	3.866	0.000	12442020	462.704	82.9 126.78- 166.78	211.56	
4.028	4.028	0.000	17318084	611.616	110 136.47- 176.47	338.58	
4.095	4.096	-0.001	1262156	78.1140	14.0 68.15- 108.15	21.46	
4.238	4.238	0.000	1293684	76.9470	13.8 71.85- 111.85	22.00	
Average of Peak Concentrations =				55.6			
-----							

#### QC Flag Legend

M - Compound response manually integrated.



Data File: /chem/ecdda.i/0317107.b/048f4801.d

Date: 17-MAR-2010 15:09

Client ID: RE36-10-8286

Sample Info: 1246249002151

Volume Injected (uL): 1.0

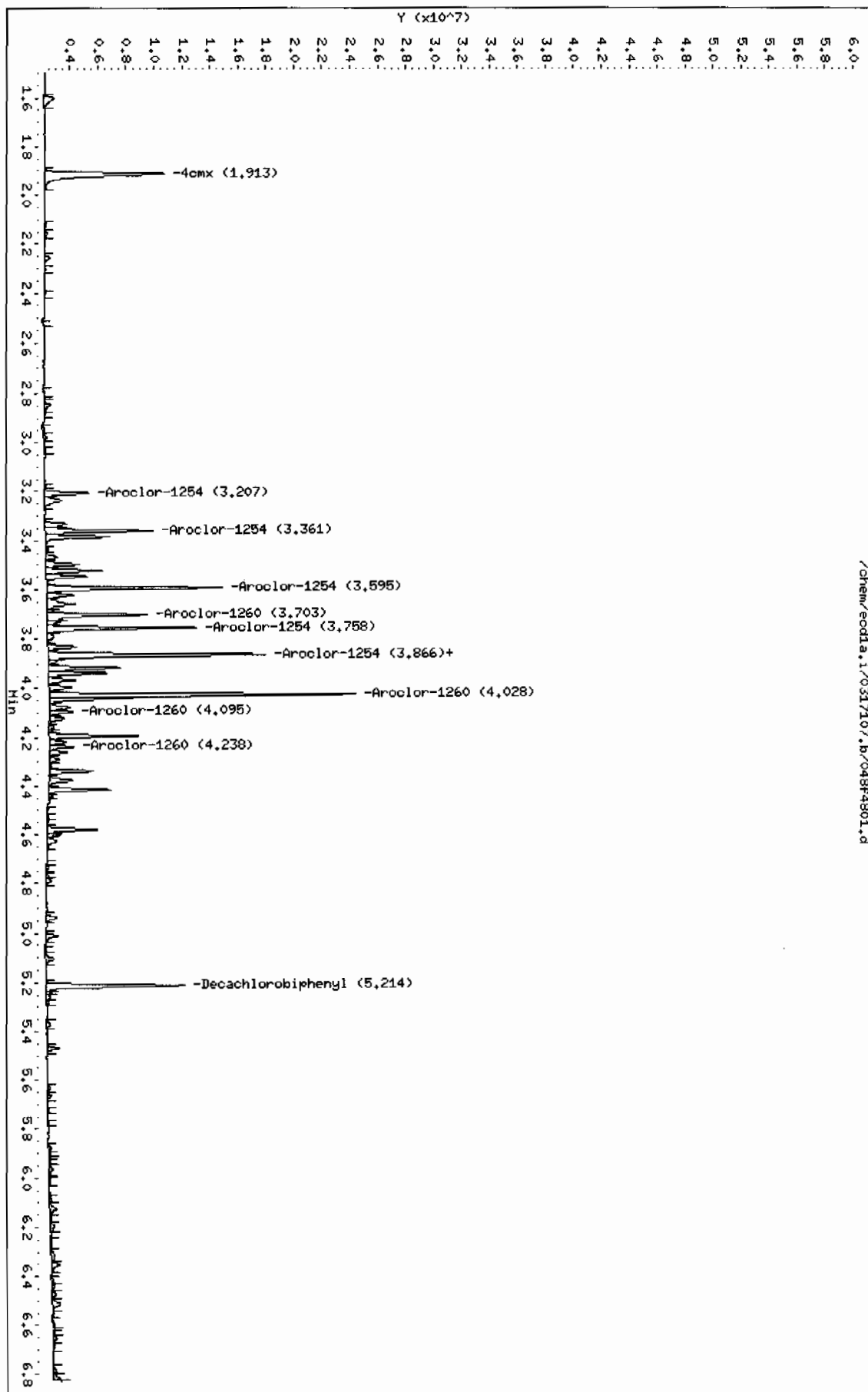
Column phase: CLP1

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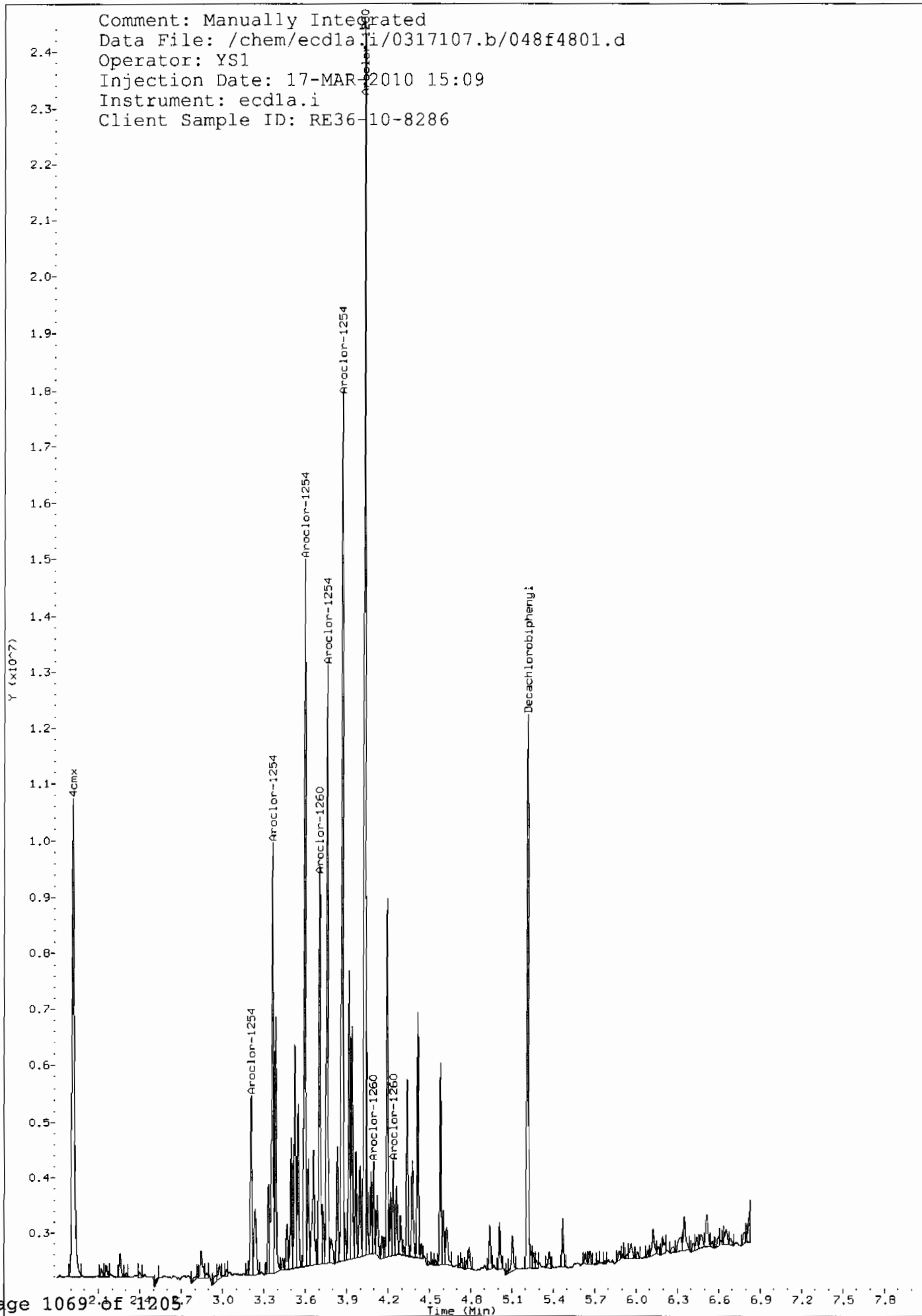
Instrument: ecdda.i

Operator: YSL

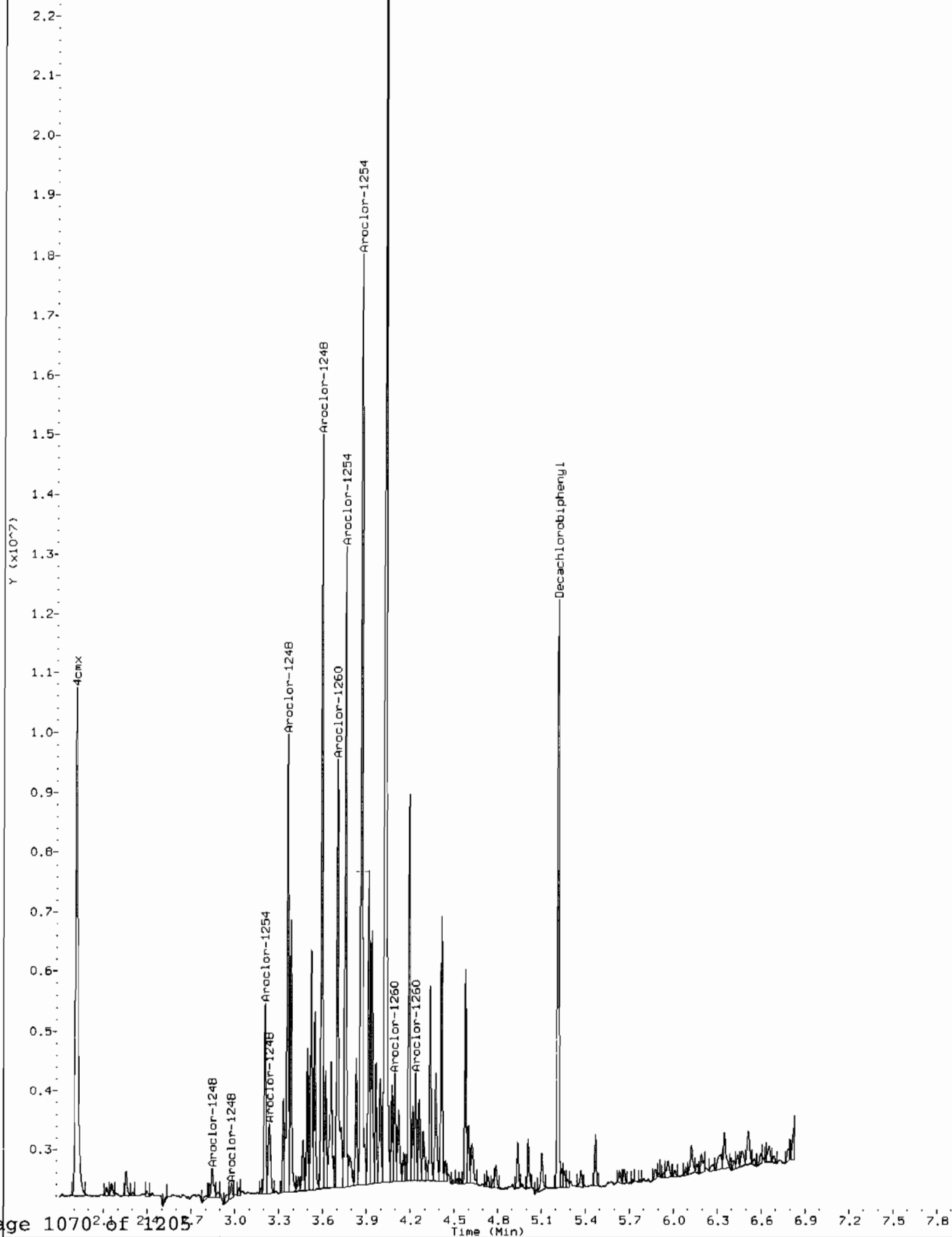
Column diameter: 0.25



Comment: Manually Integrated  
Data File: /chem/ecdla.i/0317107.b/048f4801.d  
Operator: YS1  
Injection Date: 17-MAR-2010 15:09  
Instrument: ecdla.i  
Client Sample ID: RE36-10-8286



Comment: Before manual integration  
Data File: /chem/ecdlai/0317107.b/orig-048f4801.d  
Operator: YS1  
Injection Date: 17-MAR-2010 15:09  
Instrument: ecdla.i  
Client Sample ID: RE36-10-8286



Data File: /chem/ecdla.i/0317107.b/048b4801.d  
Report Date: 18-Mar-2010 06:37

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/048b4801.d  
Lab Smp Id: 248249002 Client Smp ID: RE36-10-8286  
Inj Date : 17-MAR-2010 15:09  
Operator : YSI Inst ID: ecdla.i  
Smp Info : |248249002|5|  
Misc Info : |ECD82P\_1S|965805|SVA|LANL|SOIL|RE36-10-8286|||  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 18-Mar-2010 06:36 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 48  
Dil Factor: 5.00000  
Integrator: Falcon Compound Sublist: 10-2140.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpclp1

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

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	7.51010	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS

RT	EXP RT	DLT RT	ON-COL	FINAL	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
=====								
CAS #: 877-09-8								
2.271	2.271	0.000	6839763	26.0729	4.7	80.00- 120.00	100.00	
-----								
CAS #: 2051-24-3								
5.911	5.913	-0.002	5517265	29.4766	5.3	80.00- 120.00	100.00	
-----								
CAS #: 11097-69-1								
3.375	3.375	0.000	379977	63.1063	11.3	80.00- 120.00	100.00	
3.795	3.797	-0.002	1921616	177.602	31.8	162.61- 202.61	505.72	
3.912	3.914	-0.002	4435708	371.698	66.6	178.69- 218.69	1167.36	
4.187	4.189	-0.002	6980941	424.585	76.0	256.82- 296.82	1837.20	

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO	
=====									
6 Aroclor-1254 (continued)									
4.323	4.325	-0.002	5515189	455.217	81.5	188.70-	228.70	1451.45	
Average of Peak Concentrations =					53.4				
-----									
7 Aroclor-1260					CAS #: 11096-82-5				
4.304	4.304	0.000	5097823	389.735	69.8	80.00-	120.00	100.00	
4.428	4.429	-0.001	6950350	446.996	80.1	101.70-	141.70	136.34	
4.696	4.695	0.001	1930945	162.318	29.1	71.59-	111.59	37.88	
4.867	4.868	-0.001	1238734	100.798	18.0	75.39-	115.39	24.30	
5.014	5.015	-0.001	2828075	107.146	19.2	191.19-	231.19	55.48	
Average of Peak Concentrations =					43.2				
-----									

Data File: /chem/ecdda.i/0317107.b/048b4801.d

Date: 17-MAR-2010 15:09

Client ID: RE36-10-8286

Sample Info: 1248249002151

Volume Injected (uL): 1.0

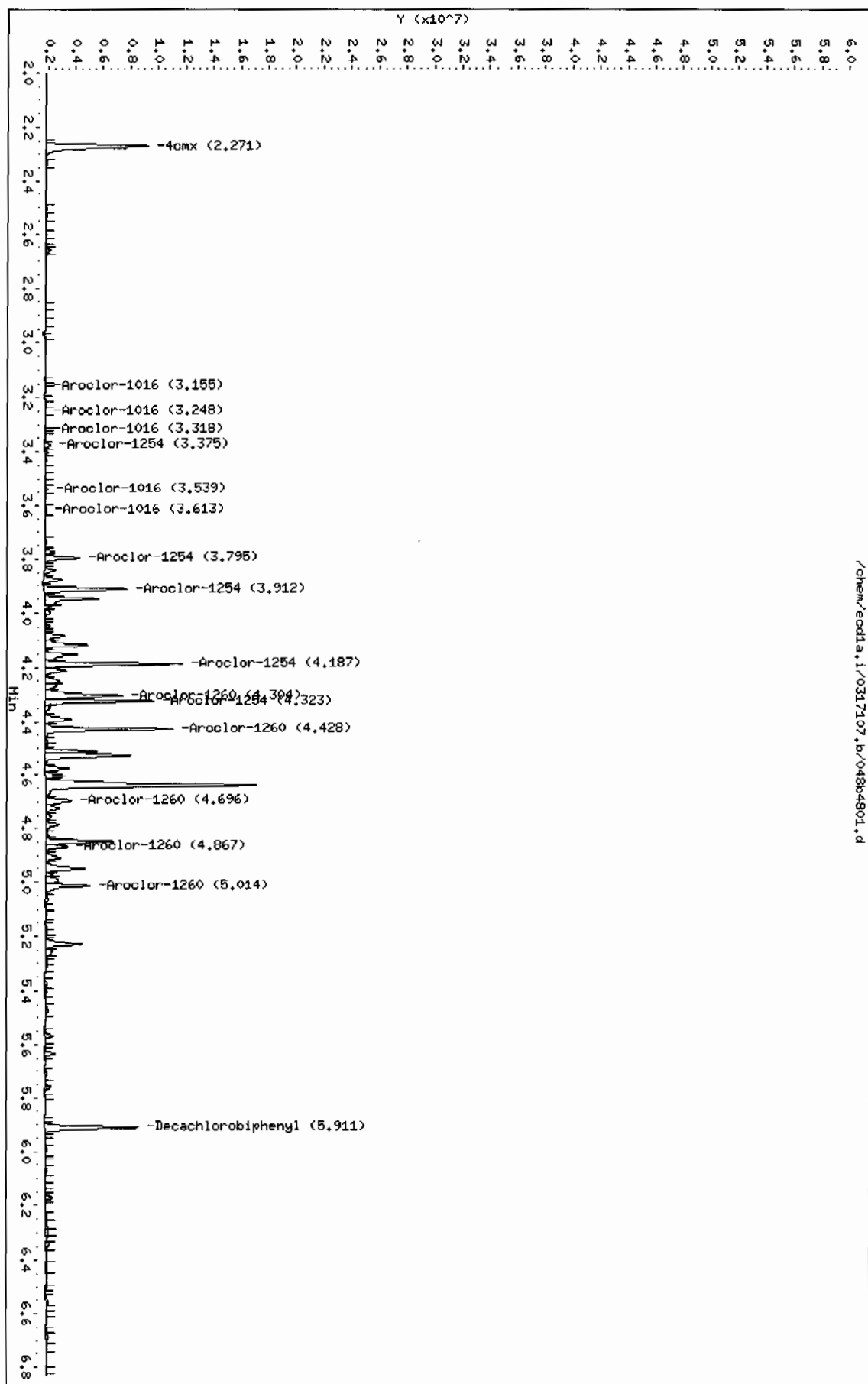
Column phase: CLP2

Instrument: ecdda.i

Operator: YS1

Column diameter: 0.25

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# STANDARDS DATA

Report Date: 18-Mar-2010 09:29

### Calibration History

Method : /chem/ecd1a.i/0317107.b/ECD1-F-8082-031110b.m  
Start Cal Date: 22-FEB-2010 06:31  
End Cal Date : 11-MAR-2010 20:22

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032f3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029f2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023f2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017f1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033f3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030f3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024f2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018f1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034f3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031f3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025f2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019f1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035f3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032f3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026f2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020f2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014f1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009f0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008f0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007f0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010f1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036f3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033f3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027f2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021f2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015f1501.d



Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000
17-MAR-2010 21:49  AR1660  /chem/ecdl1a.i/0317107.b/080f8001.d
Ccal Level: 4 , Ccal Amount: 1000
17-MAR-2010 20:08  AR1660  /chem/ecdl1a.i/0317107.b/072f7201.d
Ccal Level: 4 , Ccal Amount: 1000
17-MAR-2010 17:49  AR1660  /chem/ecdl1a.i/0317107.b/061f6101.d
Ccal Level: 4 , Ccal Amount: 1000
17-MAR-2010 16:00  AR1660  /chem/ecdl1a.i/0317107.b/052f5201.d
Ccal Level: 4 , Ccal Amount: 1000
17-MAR-2010 13:45  AR1660  /chem/ecdl1a.i/0317107.b/041f4101.d
Ccal Level: 4 , Ccal Amount: 1000
17-MAR-2010 11:16  AR1660  /chem/ecdl1a.i/0317107.b/029f2901.d
Ccal Level: 4 , Ccal Amount: 1000
17-MAR-2010 08:53  AR1660  /chem/ecdl1a.i/0317107.b/017f1701.d
Ccal Level: 4 , Ccal Amount: 1000
17-MAR-2010 07:22  AR1262  /chem/ecdl1a.i/0317107.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000
17-MAR-2010 07:11  AR1221  /chem/ecdl1a.i/0317107.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000
17-MAR-2010 07:01  AR1232  /chem/ecdl1a.i/0317107.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000
17-MAR-2010 06:50  AR1268  /chem/ecdl1a.i/0317107.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000
17-MAR-2010 06:39  AR1248  /chem/ecdl1a.i/0317107.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000
17-MAR-2010 06:29  AR1242  /chem/ecdl1a.i/0317107.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000
17-MAR-2010 06:18  AR1254  /chem/ecdl1a.i/0317107.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000
17-MAR-2010 06:08  AR1660  /chem/ecdl1a.i/0317107.b/002f0201.d

Report Date: 18-Mar-2010 09:29

### Calibration History

Method : /chem/ecd1a.i/0317107.b/ECD1-B-8082-031110b.m  
Start Cal Date: 22-FEB-2010 06:31  
End Cal Date : 11-MAR-2010 20:22

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032b3201.d
11-MAR-2010 19:40	AR1248	/chem/ecd1a.i/031110b.b/029b2901.d
11-MAR-2010 18:37	AR1242	/chem/ecd1a.i/031110b.b/023b2301.d
11-MAR-2010 17:34	AR1254	/chem/ecd1a.i/031110b.b/017b1701.d
11-MAR-2010 16:31	AR1660	/chem/ecd1a.i/031110b.b/011b1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033b3301.d
11-MAR-2010 19:51	AR1248	/chem/ecd1a.i/031110b.b/030b3001.d
11-MAR-2010 18:48	AR1242	/chem/ecd1a.i/031110b.b/024b2401.d
11-MAR-2010 17:45	AR1254	/chem/ecd1a.i/031110b.b/018b1801.d
11-MAR-2010 16:41	AR1660	/chem/ecd1a.i/031110b.b/012b1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034b3401.d
11-MAR-2010 20:01	AR1248	/chem/ecd1a.i/031110b.b/031b3101.d
11-MAR-2010 18:58	AR1242	/chem/ecd1a.i/031110b.b/025b2501.d
11-MAR-2010 17:55	AR1254	/chem/ecd1a.i/031110b.b/019b1901.d
11-MAR-2010 16:52	AR1660	/chem/ecd1a.i/031110b.b/013b1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035b3501.d
11-MAR-2010 20:12	AR1248	/chem/ecd1a.i/031110b.b/032b3201.d
11-MAR-2010 19:09	AR1242	/chem/ecd1a.i/031110b.b/026b2601.d
11-MAR-2010 18:06	AR1254	/chem/ecd1a.i/031110b.b/020b2001.d
11-MAR-2010 17:02	AR1660	/chem/ecd1a.i/031110b.b/014b1401.d
11-MAR-2010 16:10	AR1262	/chem/ecd1a.i/031110b.b/009b0901.d
11-MAR-2010 15:59	AR1221	/chem/ecd1a.i/031110b.b/008b0801.d
11-MAR-2010 15:49	AR1232	/chem/ecd1a.i/031110b.b/007b0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecd1a.i/031110b.b/010b1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036b3601.d
11-MAR-2010 20:22	AR1248	/chem/ecd1a.i/031110b.b/033b3301.d
11-MAR-2010 19:19	AR1242	/chem/ecd1a.i/031110b.b/027b2701.d
11-MAR-2010 18:16	AR1254	/chem/ecd1a.i/031110b.b/021b2101.d
11-MAR-2010 17:13	AR1660	/chem/ecd1a.i/031110b.b/015b1501.d

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 20:08	AR1660	/chem/ecdla.i/0317107.b/072b7201.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 17:49	AR1660	/chem/ecdla.i/0317107.b/061b6101.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 16:00	AR1660	/chem/ecdla.i/0317107.b/052b5201.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 13:45	AR1660	/chem/ecdla.i/0317107.b/041b4101.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 11:16	AR1660	/chem/ecdla.i/0317107.b/029b2901.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 08:53	AR1660	/chem/ecdla.i/0317107.b/017b1701.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 07:22	AR1262	/chem/ecdla.i/0317107.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 07:11	AR1221	/chem/ecdla.i/0317107.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 07:01	AR1232	/chem/ecdla.i/0317107.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 06:50	AR1268	/chem/ecdla.i/0317107.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 06:39	AR1248	/chem/ecdla.i/0317107.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 06:29	AR1242	/chem/ecdla.i/0317107.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 06:18	AR1254	/chem/ecdla.i/0317107.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
17-MAR-2010 06:08	AR1660	/chem/ecdla.i/0317107.b/002b0201.d

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m  
 Quant Method : ESTD Target Version : 3.50  
 Last Update : 18-Mar-2010 06:43 Number of Cpnds : 15  
 Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events

Values

```

-----
Initial:Start Threshold 12031.000000
Initial:End Threshold   6015.500000
Initial:Area Threshold  15489.000000
Initial:P-P Resolution  1.000000
Initial:Bunch Factor    2.000000
Initial:Negative Peaks  OFF
Initial:Tension         0.500000
  
```

Compound	RT	RT Window	RF
1 Aroclor-1016	2.366	2.336-2.396	1.518e+04
	2.651	2.621-2.681	1.894e+04
	2.732	2.702-2.762	1.244e+04
	2.768	2.738-2.798	7.348e+03
	2.978	2.948-3.008	9.518e+03
63 4,4-DDD	3.888	3.868-3.908	3.140e+05
64 4,4-DDE	3.539	3.519-3.559	3.727e+05
62 4,4-DDT	4.052	4.032-4.072	2.363e+05
2 Aroclor-1221	2.026	1.996-2.056	4.466e+03
	2.118	2.088-2.148	2.447e+03
	2.144	2.114-2.174	1.083e+04
3 Aroclor-1232	2.365	2.335-2.395	6.667e+03
	2.652	2.622-2.682	8.344e+03
	2.732	2.702-2.762	5.531e+03
	2.847	2.817-2.877	2.649e+03
	3.234	3.204-3.264	3.555e+03
4 Aroclor-1242	2.365	2.335-2.395	1.233e+04
	2.652	2.622-2.682	1.490e+04
	2.769	2.739-2.799	5.896e+03
	2.980	2.950-3.010	7.735e+03
	3.233	3.203-3.263	7.285e+03

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	2.846	2.816-2.876	1.000e+04
	2.981	2.951-3.011	1.314e+04
	3.234	3.204-3.264	1.430e+04
	3.366	3.336-3.396	1.190e+04
	3.598	3.568-3.628	8.005e+03
6 Aroclor-1254	3.209	3.179-3.239	1.326e+04
	3.364	3.334-3.394	1.783e+04
	3.598	3.568-3.628	2.237e+04
	3.760	3.730-3.790	1.649e+04
	3.869	3.839-3.899	1.596e+04
7 Aroclor-1260	3.703	3.673-3.733	1.833e+04
	3.866	3.836-3.896	2.689e+04
	4.028	3.998-4.058	2.832e+04
	4.096	4.066-4.126	1.616e+04
	4.238	4.208-4.268	1.681e+04
8 Aroclor-1262	3.706	3.676-3.736	1.423e+04
	3.868	3.838-3.898	1.874e+04
	4.099	4.069-4.129	2.315e+04
	4.241	4.211-4.271	2.110e+04
	4.421	4.391-4.451	4.350e+04
9 Aroclor-1268	4.606	4.576-4.636	4.848e+04
	4.628	4.598-4.658	5.448e+04
	4.741	4.711-4.771	3.862e+04
	4.943	4.913-4.973	1.635e+04
	5.108	5.078-5.138	1.121e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
\$ 11 4cmx	1.913	1.883-1.943	3.895e+05
\$ 12 Decachlorobiphenyl	5.216	5.186-5.246	2.969e+05

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
Quant Method : ESTD Target Version : 3.50  
Last Update : 18-Mar-2010 06:43 Number of Cpnds : 15  
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events Values

-----  
Initial:Start Threshold 7222.000000  
Initial:End Threshold 3611.000000  
Initial:Area Threshold 6833.000000  
Initial:P-P Resolution 0.000000  
Initial:Bunch Factor 2.000000  
Initial:Negative Peaks OFF  
Initial:Tension 0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.166	3.136-3.196	1.258e+04
	3.248	3.218-3.278	8.634e+03
	3.312	3.282-3.342	5.287e+03
	3.538	3.508-3.568	6.893e+03
	3.614	3.584-3.644	6.423e+03
62 4,4-DDT	4.642	4.622-4.662	7.489e+04
63 4,4-DDE	4.111	4.091-4.131	2.469e+05
64 4,4-DDD	4.455	4.435-4.475	1.989e+05
2 Aroclor-1221	2.468	2.438-2.498	3.250e+03
	2.562	2.532-2.592	2.084e+03
	2.603	2.573-2.633	7.320e+03
3 Aroclor-1232	2.869	2.839-2.899	5.054e+03
	3.166	3.136-3.196	5.712e+03
	3.250	3.220-3.280	3.888e+03
	3.540	3.510-3.570	2.840e+03
4 Aroclor-1242	3.774	3.744-3.804	2.821e+03
	3.167	3.137-3.197	1.014e+04
	3.249	3.219-3.279	7.097e+03
	3.540	3.510-3.570	5.514e+03
	3.773	3.743-3.803	5.722e+03
	3.802	3.772-3.832	6.370e+03

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecd1a.i/0317107.b/ECD1-B-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.376	3.346-3.406	7.604e+03
	3.541	3.511-3.571	9.470e+03
	3.774	3.744-3.804	1.093e+04
	3.801	3.771-3.831	1.216e+04
	3.938	3.908-3.968	1.181e+04
6 Aroclor-1254	3.375	3.345-3.405	6.021e+03
	3.797	3.767-3.827	1.082e+04
	3.914	3.884-3.944	1.193e+04
	4.189	4.159-4.219	1.644e+04
	4.325	4.295-4.355	1.212e+04
7 Aroclor-1260	4.304	4.274-4.334	1.308e+04
	4.429	4.399-4.459	1.555e+04
	4.695	4.665-4.725	1.190e+04
	4.868	4.838-4.898	1.229e+04
	5.015	4.985-5.045	2.639e+04
8 Aroclor-1262	4.431	4.401-4.461	1.160e+04
	4.696	4.666-4.726	1.620e+04
	4.869	4.839-4.899	1.484e+04
	5.016	4.986-5.046	2.937e+04
	5.229	5.199-5.259	2.065e+04
9 Aroclor-1268	5.228	5.198-5.258	3.730e+04
	5.256	5.226-5.286	3.492e+04
	5.405	5.375-5.435	2.658e+04
	5.570	5.540-5.600	1.223e+04
	5.763	5.733-5.793	7.433e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
\$ 11 4cmx	2.271	2.241-2.301	2.623e+05
\$ 12 Decachlorobiphenyl	5.913	5.883-5.943	1.872e+05

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
End Cal Date : 11-MAR-2010 20:22  
Quant Method : ESTD  
Origin : Disabled  
Target Version : 3.50  
Integrator : Falcon  
Method file : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
Cal Date : 18-Mar-2010 06:43 yip00818  
Curve Type : Average

## Calibration File Names:

Level 1: /chem/ecdla.i/022210.b/032f3201.d  
Level 2: /chem/ecdla.i/022210.b/033f3301.d  
Level 3: /chem/ecdla.i/022210.b/034f3401.d  
Level 4: /chem/ecdla.i/022210.b/035f3501.d  
Level 5: /chem/ecdla.i/022210.b/036f3601.d

Compound	100.000	250.000	500.000	1000.000	4000.000	RRF	% RSD
Level 1	Level 2	Level 3	Level 4	Level 5			
1 Aroclor-1016(1)	17517	15916	14941	14342	13168	15177	10.833
(2)	20378	19291	18809	18310	17891	18936	5.082
(3)	13830	13020	12255	11836	11271	12442	8.071
(4)	7957	7573	7201	7091	6919	7348	5.665
(5)	10680	9850	9332	8998	8729	9518	8.119
63 4,4-DDD	++++	++++	++++	313980	++++	313980	0.000
64 4,4-DDE	++++	++++	++++	372684	++++	372684	0.000
62 4,4-DDT	++++	++++	++++	236265	++++	236265	0.000
2 Aroclor-1221(1)	++++	++++	++++	4466	++++	4466	0.000
(2)	++++	++++	++++	2447	++++	2447	0.000
(3)	++++	++++	++++	10828	++++	10828	0.000
3 Aroclor-1232(1)	++++	++++	++++	6667	++++	6667	0.000
(2)	++++	++++	++++	8344	++++	8344	0.000
(3)	++++	++++	++++	5531	++++	5531	0.000
(4)	++++	++++	++++	2649	++++	2649	0.000
(5)	++++	++++	++++	3555	++++	3555	0.000
4 Aroclor-1242(1)	14179	12973	12200	11692	10617	12332	10.871
(2)	16141	15119	14927	14559	13766	14903	5.801
(3)	6352	6182	5816	5703	5424	5896	6.324
(4)	8823	8005	7582	7293	6975	7735	9.260
(5)	7955	7511	7149	7022	6787	7285	6.273
5 Aroclor-1248(1)	11183	10572	9738	9526	8980	10000	8.748
(2)	14876	13683	12753	12517	11873	13140	8.885
(3)	15448	14508	14083	13911	13564	14303	5.068
(4)	13161	12385	11501	11480	10960	11898	7.335
(5)	8649	8385	7955	7608	7427	8005	6.411



GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 11-MAR-2010 20:22  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m  
 Cal Date : 18-Mar-2010 06:43 yip00818  
 Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	14000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	15079	13757	12872	12576	12027	13262	8.998
(2)	20126	18408	17163	17147	16322	17833	8.313
(3)	24516	23104	21642	21571	21024	22371	6.372
(4)	18056	17097	15691	15840	15766	16490	6.365
(5)	18024	16683	15151	15091	14874	15964	8.504
7 Aroclor-1260(1)	20231	18737	18018	17739	16925	18330	6.792
(2)	29345	27114	26401	26314	25275	26890	5.656
(3)	30716	28501	27786	27176	27398	28315	5.062
(4)	17775	16311	15776	15627	15300	16158	6.034
(5)	18203	16850	16463	16434	16114	16813	4.876
8 Aroclor-1262(1)	++++	++++	++++	14232	++++	14232	0.000
(2)	++++	++++	++++	18742	++++	18742	0.000
(3)	++++	++++	++++	23151	++++	23151	0.000
(4)	++++	++++	++++	21098	++++	21098	0.000
(5)	++++	++++	++++	43500	++++	43500	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	++++	++++	++++	++++	++++	++++	++++
11 4cmx	407603	391717	384007	385362	378927	389523	2.846
12 Decachlorobiphenyl	324859	292709	291687	292552	282844	296930	5.438

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 11-MAR-2010 20:22  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
 Cal Date : 18-Mar-2010 06:43 yip00818  
 Curve Type : Average

## Calibration File Names:

Level 1: /chem/ecdl1a.i/022210.b/032b3201.d  
 Level 2: /chem/ecdl1a.i/022210.b/033b3301.d  
 Level 3: /chem/ecdl1a.i/022210.b/034b3401.d  
 Level 4: /chem/ecdl1a.i/022210.b/035b3501.d  
 Level 5: /chem/ecdl1a.i/022210.b/036b3601.d

Compound	100.000	250.000	500.000	1000.000	4000.000	RRF	% RSD
Level 1	Level 2	Level 3	Level 4	Level 5			
1 Aroclor-1016(1)	14376	12782	12025	12307	11436	12585	8.846
(2)	10090	9074	8445	8099	7462	8634	11.594
(3)	6137	5472	5151	4973	4701	5287	10.435
(4)	7962	7103	6817	6522	6060	6893	10.318
(5)	7497	6686	6263	5965	5703	6423	10.948
62 4,4-DDT	++++	++++	++++	74891	++++	74891	0.000
63 4,4-DDE	++++	++++	++++	246875	++++	246875	0.000
64 4,4-DDD	++++	++++	++++	198885	++++	198885	0.000
2 Aroclor-1221(1)	++++	++++	++++	3250	++++	3250	0.000
(2)	++++	++++	++++	2084	++++	2084	0.000
(3)	++++	++++	++++	7320	++++	7320	0.000
3 Aroclor-1232(1)	++++	++++	++++	5054	++++	5054	0.000
(2)	++++	++++	++++	5712	++++	5712	0.000
(3)	++++	++++	++++	3888	++++	3888	0.000
(4)	++++	++++	++++	2840	++++	2840	0.000
(5)	++++	++++	++++	2821	++++	2821	0.000
4 Aroclor-1242(1)	11230	10514	10117	9526	9309	10139	7.634
(2)	8350	7546	6909	6642	6036	7097	12.487
(3)	6442	5836	5387	5177	4727	5514	11.868
(4)	6626	6011	5573	5400	4999	5722	10.877
(5)	7365	6655	6241	6005	5582	6370	10.658
5 Aroclor-1248(1)	9056	8166	7435	6980	6383	7604	13.684
(2)	11093	10088	9257	8814	8097	9470	12.242
(3)	12505	11602	10677	10284	9581	10930	10.466
(4)	13890	12873	11986	11379	10657	12157	10.405
(5)	13590	12468	11541	11009	10453	11812	10.502

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
End Cal Date : 11-MAR-2010 20:22  
Quant Method : ESTD  
Origin : Disabled  
Target Version : 3.50  
Integrator : Falcon  
Method file : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
Cal Date : 18-Mar-2010 06:43 yip00818  
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7300	6493	5824	5480	5009	6021	14.886
(2)	12825	11548	10490	9974	9262	10820	12.909
(3)	14182	12643	11550	11031	10262	11934	12.788
(4)	19027	17317	15983	15442	14439	16442	10.826
(5)	14064	13049	11651	11174	10640	12116	11.634
7 Aroclor-1260(1)	15189	13569	12744	12369	11530	13080	10.610
(2)	17885	16016	15152	14853	13838	15549	9.776
(3)	13812	12250	11562	11271	10585	11896	10.311
(4)	14218	12635	11954	11625	11015	12289	9.981
(5)	29595	26825	25949	25629	23976	26395	7.824
8 Aroclor-1262(1)	++++	++++	++++	11597	++++	11597	0.000
(2)	++++	++++	++++	16200	++++	16200	0.000
(3)	++++	++++	++++	14838	++++	14838	0.000
(4)	++++	++++	++++	29366	++++	29366	0.000
(5)	++++	++++	++++	20651	++++	20651	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
M 10 Aroclor-Total	++++	++++	++++	++++	++++	++++	++++
11 4cmx	286554	267083	258607	255362	244057	262333	6.044
12 Decachlorobiphenyl	217815	191410	181026	177515	168101	187173	10.178

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2140  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 0608  
 Lab File ID: 002F0201 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Aroclor-1016	15176.803	13679.245	0.01	-9.9	15.0
(2)	18935.774	17352.542	0.01	-8.4	15.0
(3)	12442.153	10865.667	0.01	-12.7	15.0
(4)	7348.319	6489.606	0.01	-11.7	15.0
(5)	9517.775	8337.119	0.01	-12.4	15.0
Aroclor-1260	18330.091	17103.795	0.01	-6.7	15.0
(2)	26889.831	24999.856	0.01	-7.0	15.0
(3)	28315.304	26757.729	0.01	-5.5	15.0
(4)	16157.873	15105.144	0.01	-6.5	15.0
(5)	16812.669	15681.925	0.01	-6.7	15.0
=====	=====	=====	=====	=====	=====
4cmx	389523.02	384270.94	0.01	-1.3	15.0
Decachlorobiphenyl	296930.38	280327.80	0.01	-5.6	15.0
=====	=====	=====	=====	=====	=====

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2140  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 0608  
 Lab File ID: 002B0201 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11257.869	0.01	-10.5	15.0
(2)	8634.207	7602.660	0.01	-11.9	15.0
(3)	5286.637	4622.469	0.01	-12.6	15.0
(4)	6892.719	6158.940	0.01	-10.6	15.0
(5)	6422.564	5755.354	0.01	-10.4	15.0
Aroclor-1260	13080.231	12494.202	0.01	-4.5	15.0
(2)	15549.023	15069.938	0.01	-3.1	15.0
(3)	11896.069	11423.166	0.01	-4.0	15.0
(4)	12289.216	11829.647	0.01	-3.7	15.0
(5)	26394.638	26003.137	0.01	-1.5	15.0
4cmx	262332.66	257488.80	0.01	-1.8	15.0
Decachlorobiphenyl	187173.38	178998.77	0.01	-4.4	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2140  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 0618  
 Lab File ID: 003F0301 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	13261.954	11804.928	0.01	-11.0	15.0
(2)	17833.306	15624.759	0.01	-12.4	15.0
(3)	22371.301	20223.062	0.01	-9.6	15.0
(4)	16490.050	14731.608	0.01	-10.7	15.0
(5)	15964.418	14915.377	0.01	-6.6	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2140  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 0618  
 Lab File ID: 003B0301 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1734 1816  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6021.217	5433.555	0.01	-9.8	15.0
(2)	10819.790	9922.138	0.01	-8.3	15.0
(3)	11933.626	10795.731	0.01	-9.5	15.0
(4)	16441.788	15040.936	0.01	-8.5	15.0
(5)	12115.517	11339.611	0.01	-6.4	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2140  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 0853  
 Lab File ID: 017F1701 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	13072.214	0.01	-13.9	15.0
(2)	18935.774	16743.348	0.01	-11.6	15.0
(3)	12442.153	10753.369	0.01	-13.6	15.0
(4)	7348.319	6446.442	0.01	-12.3	15.0
(5)	9517.775	8110.441	0.01	-14.8	15.0
Aroclor-1260	18330.091	16962.461	0.01	-7.5	15.0
(2)	26889.831	24950.358	0.01	-7.2	15.0
(3)	28315.304	26635.100	0.01	-5.9	15.0
(4)	16157.873	14960.531	0.01	-7.4	15.0
(5)	16812.669	15562.577	0.01	-7.4	15.0
4cmx	389523.02	378611.37	0.01	-2.8	15.0
Decachlorobiphenyl	296930.38	274816.37	0.01	-7.4	15.0

FORM VII PEST



FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2140  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 0853  
 Lab File ID: 017B1701 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	11589.187	0.01	-7.9	15.0
(2)	8634.207	7549.847	0.01	-12.6	15.0
(3)	5286.637	4630.370	0.01	-12.4	15.0
(4)	6892.719	6092.955	0.01	-11.6	15.0
(5)	6422.564	5704.793	0.01	-11.2	15.0
Aroclor-1260	13080.231	12259.396	0.01	-6.3	15.0
(2)	15549.023	14795.087	0.01	-4.8	15.0
(3)	11896.069	11161.788	0.01	-6.2	15.0
(4)	12289.216	11576.871	0.01	-5.8	15.0
(5)	26394.638	25583.684	0.01	-3.1	15.0
4cmx	262332.66	254467.07	0.01	-3.0	15.0
Decachlorobiphenyl	187173.38	175017.13	0.01	-6.5	15.0

FORM VII PEST

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.: 10-2140  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 1116  
 Lab File ID: 029F2901 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	13459.448	0.01	-11.3	15.0
(2)	18935.774	17913.772	0.01	-5.4	15.0
(3)	12442.153	11186.273	0.01	-10.1	15.0
(4)	7348.319	6757.155	0.01	-8.0	15.0
(5)	9517.775	8551.705	0.01	-10.2	15.0
Aroclor-1260	18330.091	17641.116	0.01	-3.8	15.0
(2)	26889.831	26151.299	0.01	-2.7	15.0
(3)	28315.304	28122.089	0.01	-0.7	15.0
(4)	16157.873	15875.614	0.01	-1.7	15.0
(5)	16812.669	16480.192	0.01	-2.0	15.0
4cmx	389523.02	390929.60	0.01	0.4	15.0
Decachlorobiphenyl	296930.38	291264.44	0.01	-1.9	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2140  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 1116  
 Lab File ID: 029B2901 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Aroclor-1016	12584.978	11451.255	0.01	-9.0	15.0
(2)	8634.207	7723.504	0.01	-10.5	15.0
(3)	5286.637	4799.447	0.01	-9.2	15.0
(4)	6892.719	6302.422	0.01	-8.6	15.0
(5)	6422.564	5927.749	0.01	-7.7	15.0
Aroclor-1260	13080.231	12518.850	0.01	-4.3	15.0
(2)	15549.023	15297.014	0.01	-1.6	15.0
(3)	11896.069	11499.757	0.01	-3.3	15.0
(4)	12289.216	11961.723	0.01	-2.7	15.0
(5)	26394.638	26522.429	0.01	0.5	15.0
=====	=====	=====	=====	=====	=====
4cmx	262332.66	259596.09	0.01	-1.0	15.0
Decachlorobiphenyl	187173.38	181439.93	0.01	-3.1	15.0
=====	=====	=====	=====	=====	=====

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2140  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 1345  
 Lab File ID: 041F4101 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15176.803	13740.657	0.01	-9.5	15.0
(2)	18935.774	17708.818	0.01	-6.5	15.0
(3)	12442.153	11345.501	0.01	-8.8	15.0
(4)	7348.319	6882.554	0.01	-6.3	15.0
(5)	9517.775	8830.871	0.01	-7.2	15.0
Aroclor-1260	18330.091	18503.233	0.01	0.9	15.0
(2)	26889.831	27155.414	0.01	1.0	15.0
(3)	28315.304	29180.860	0.01	3.0	15.0
(4)	16157.873	16467.549	0.01	1.9	15.0
(5)	16812.669	17157.620	0.01	2.0	15.0
4cmx	389523.02	399086.43	0.01	2.4	15.0
Decachlorobiphenyl	296930.38	295161.55	0.01	-0.6	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2140  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 1345  
 Lab File ID: 041B4101 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12584.978	12114.864	0.01	-3.7	15.0
(2)	8634.207	7846.163	0.01	-9.1	15.0
(3)	5286.637	4874.001	0.01	-7.8	15.0
(4)	6892.719	6333.688	0.01	-8.1	15.0
(5)	6422.564	5813.034	0.01	-9.5	15.0
Aroclor-1260	13080.231	12801.946	0.01	-2.1	15.0
(2)	15549.023	15573.032	0.01	0.2	15.0
(3)	11896.069	11664.978	0.01	-1.9	15.0
(4)	12289.216	12135.049	0.01	-1.2	15.0
(5)	26394.638	26859.913	0.01	1.8	15.0
4cmx	262332.66	265274.04	0.01	1.1	15.0
Decachlorobiphenyl	187173.38	183690.27	0.01	-1.9	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2140  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 1600  
 Lab File ID: 052F5201 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Aroclor-1016	15176.803	13700.349	0.01	-9.7	15.0
(2)	18935.774	17707.918	0.01	-6.5	15.0
(3)	12442.153	11332.823	0.01	-8.9	15.0
(4)	7348.319	6871.249	0.01	-6.5	15.0
(5)	9517.775	8758.452	0.01	-8.0	15.0
Aroclor-1260	18330.091	18483.384	0.01	0.8	15.0
(2)	26889.831	27217.753	0.01	1.2	15.0
(3)	28315.304	28815.051	0.01	1.8	15.0
(4)	16157.873	16377.639	0.01	1.4	15.0
(5)	16812.669	17021.980	0.01	1.2	15.0
=====	=====	=====	=====	=====	=====
4cmx	389523.02	398508.36	0.01	2.3	15.0
Decachlorobiphenyl	296930.38	289193.31	0.01	-2.6	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2140  
 Instrument ID: ECD1A Calibration Date: 03/17/10 Time: 1600  
 Lab File ID: 052B5201 Init. Calib. Date(s): 03/11/10 03/11/10  
 Heated Purge: (Y/N) N Init. Calib. Times: 1631 1713  
 GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
=====	=====	=====	=====	=====	=====
Aroclor-1016	12584.978	11613.648	0.01	-7.7	15.0
(2)	8634.207	7831.181	0.01	-9.3	15.0
(3)	5286.637	4850.641	0.01	-8.2	15.0
(4)	6892.719	6410.309	0.01	-7.0	15.0
(5)	6422.564	5990.862	0.01	-6.7	15.0
Aroclor-1260	13080.231	12808.377	0.01	-2.1	15.0
(2)	15549.023	15587.772	0.01	0.2	15.0
(3)	11896.069	11731.682	0.01	-1.4	15.0
(4)	12289.216	12217.603	0.01	-0.6	15.0
(5)	26394.638	27050.584	0.01	2.5	15.0
=====	=====	=====	=====	=====	=====
4cmx	262332.66	263428.74	0.01	0.4	15.0
Decachlorobiphenyl	187173.38	184709.44	0.01	-1.3	15.0
=====	=====	=====	=====	=====	=====

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/002f0201.d  
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001  
Inj Date : 17-MAR-2010 06:08  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |WAR100222-60 01  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 17-Mar-2010 08:52 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 2 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1660.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpc1pl

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8	
1.913	1.913	0.000	38427094 100.000	98.6	80.00- 120.00	100.00
-----						
12 Decachlorobiphenyl					CAS #: 2051-24-3	
5.216	5.216	0.000	28032780 100.000	94.4	80.00- 120.00	100.00
-----						
1 Aroclor-1016					CAS #: 12674-11-2	
2.366	2.366	0.000	13679245 1000.00	901	80.00- 120.00	100.00
2.651	2.651	0.000	17352542 1000.00	916	106.85- 146.85	126.85
2.732	2.732	0.000	10865667 1000.00	873	59.43- 99.43	79.43
2.768	2.768	0.000	6489606 1000.00	883	27.44- 67.44	47.44
2.978	2.978	0.000	8337119 1000.00	876	40.95- 80.95	60.95
Average of Peak Amounts =				890		
-----						
7 Aroclor-1260					CAS #: 11096-82-5	
3.703	3.703	0.000	17103795 1000.00	933	80.00- 120.00	100.00
3.866	3.866	0.000	24999856 1000.00	930	126.17- 166.17	146.17
4.028	4.028	0.000	26757729 1000.00	945	136.44- 176.44	156.44
4.096	4.096	0.000	15105144 1000.00	935	68.31- 108.31	88.31
4.238	4.238	0.000	15681925 1000.00	933	71.69- 111.69	91.69
Average of Peak Amounts =				935		
-----						



Data File: /chem/eod1a.i/0317107.b/002f0201.d

Date: 17-MAR-2010 06:08

Client ID: AR166004

Sample Info: 1MAR100222-60 01

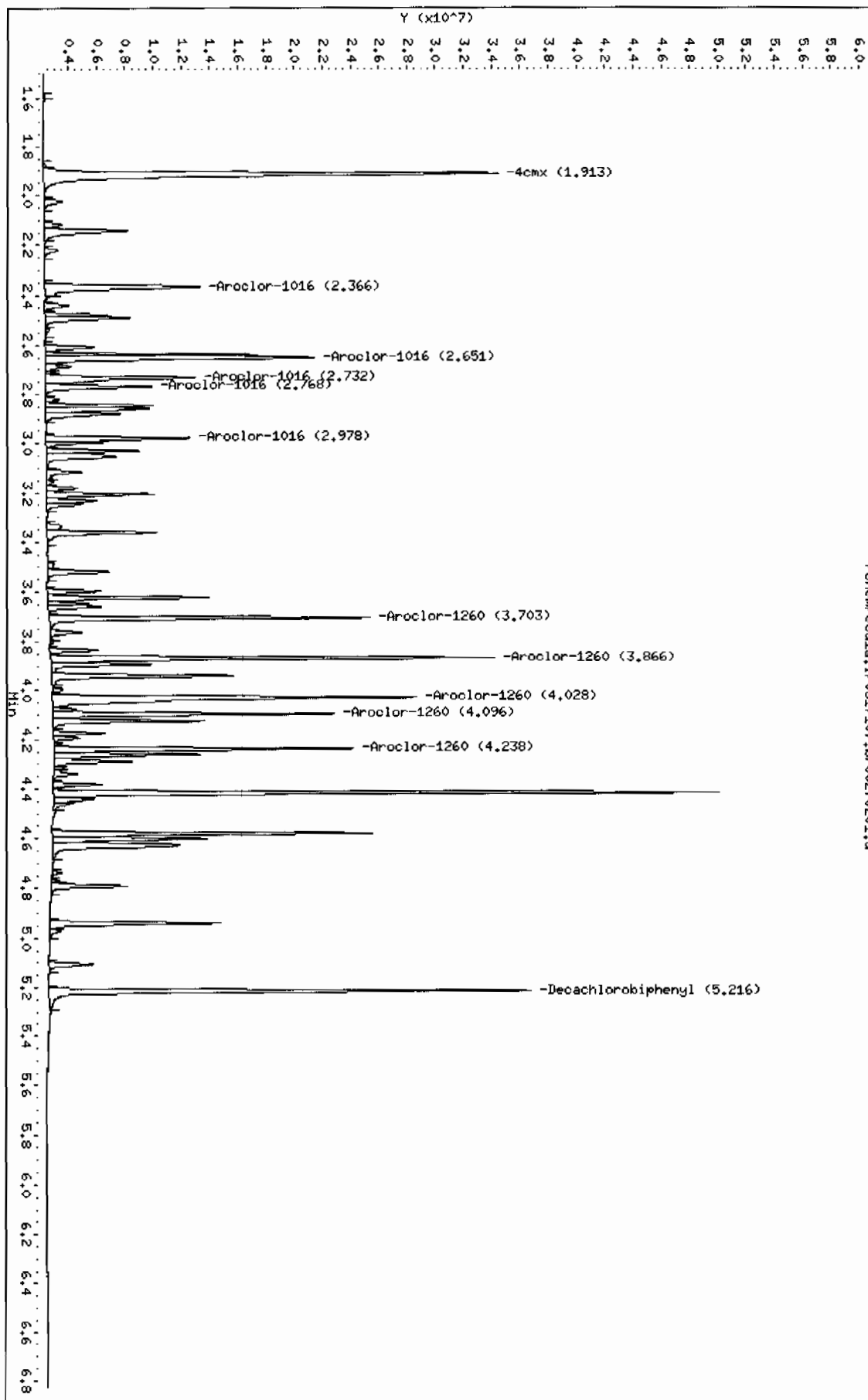
Column phase: CLP1

Instrument: eod1a.i

Operator: YSL

Column diameter: 0.25

/chem/eod1a.i/0317107.b/002f0201.d



Data File: /chem/ecdla.i/0317107.b/002b0201.d  
Report Date: 17-Mar-2010 08:52

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/002b0201.d  
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001  
Inj Date : 17-MAR-2010 06:08  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |WAR100222-60 01  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 17-Mar-2010 08:52 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 2 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1660.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpc1pl

AMOUNTS							
			CAL-AMT		ON-COL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
11 4cmx					CAS #: 877-09-8		
2.271	2.271	0.000	25748880	100.000	98.2	80.00- 120.00	100.00
-----							
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.913	5.913	0.000	17899877	100.000	95.6	80.00- 120.00	100.00
-----							
1 Aroclor-1016					CAS #: 12674-11-2		
3.166	3.166	0.000	11257869	1000.00	894	80.00- 120.00	100.00 (M)
3.248	3.248	0.000	7602660	1000.00	880	47.53- 87.53	67.53
3.312	3.312	0.000	4622469	1000.00	874	21.06- 61.06	41.06
3.538	3.538	0.000	6158940	1000.00	894	34.71- 74.71	54.71
3.614	3.614	0.000	5755354	1000.00	896	31.12- 71.12	51.12
Average of Peak Amounts =					888		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
4.304	4.304	0.000	12494202	1000.00	955	80.00- 120.00	100.00
4.429	4.429	0.000	15069938	1000.00	969	100.62- 140.62	120.62
4.695	4.695	0.000	11423166	1000.00	960	71.43- 111.43	91.43
4.868	4.868	0.000	11329647	1000.00	963	74.68- 114.68	94.68
5.015	5.015	0.000	26003137	1000.00	985	188.12- 228.12	208.12
Average of Peak Amounts =					966		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/eodla.i/0317107.b/002b0201.d

Date: 17-MAR-2010 06:08

Client ID: AR166001

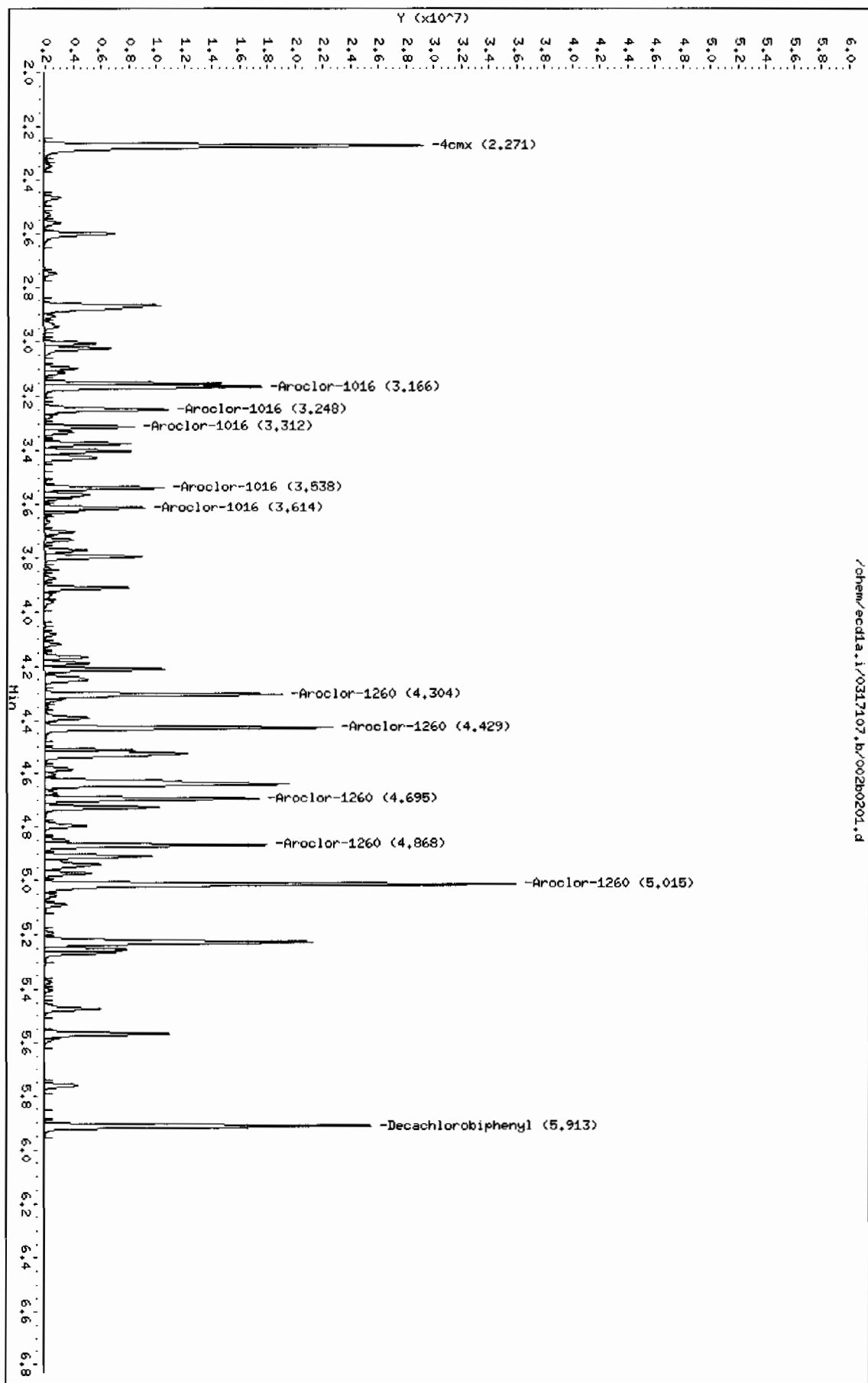
Sample Info: 1MAR100222-60 01

Column phase: CLP2

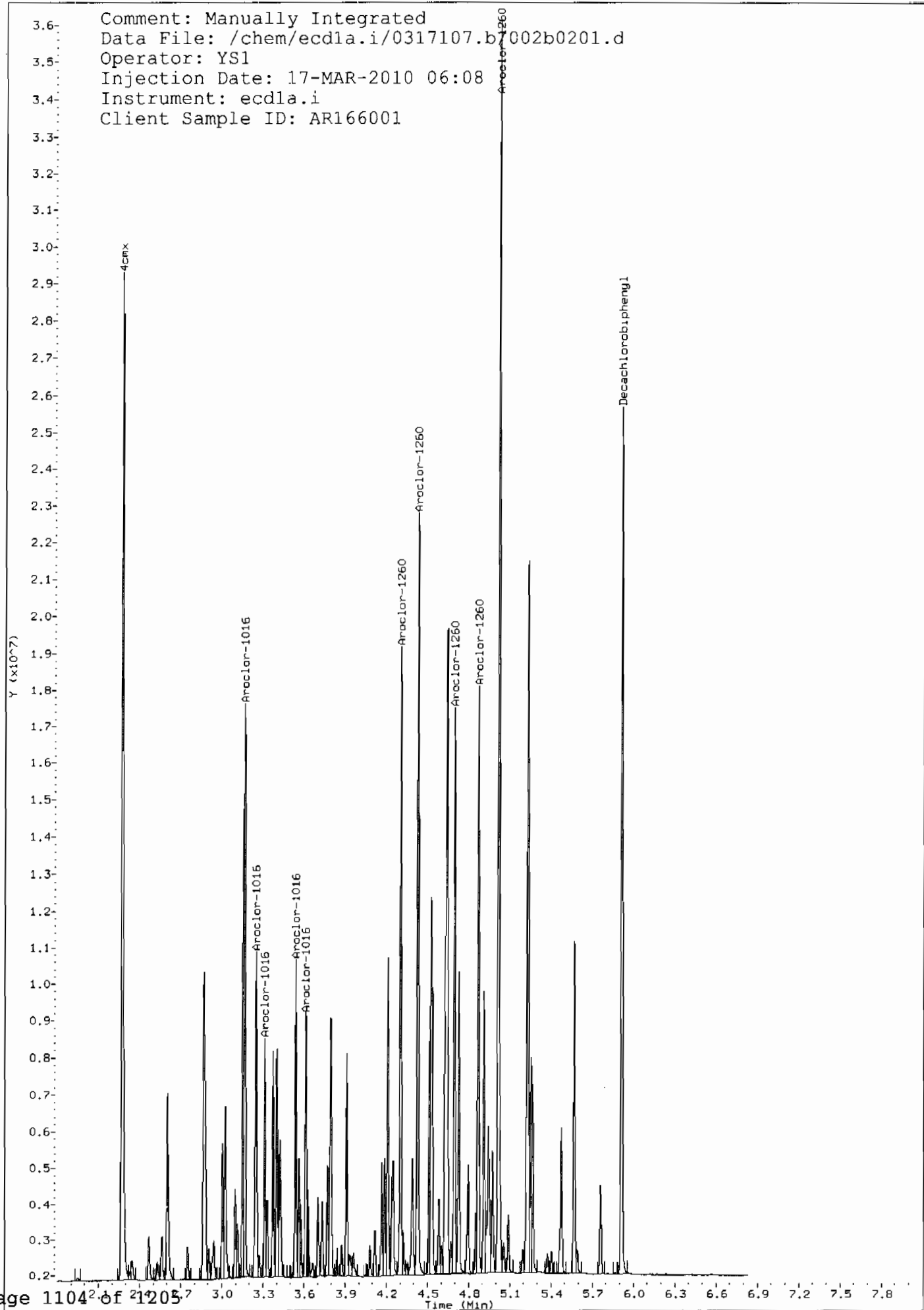
Instrument: eodla.i

Operator: YSL

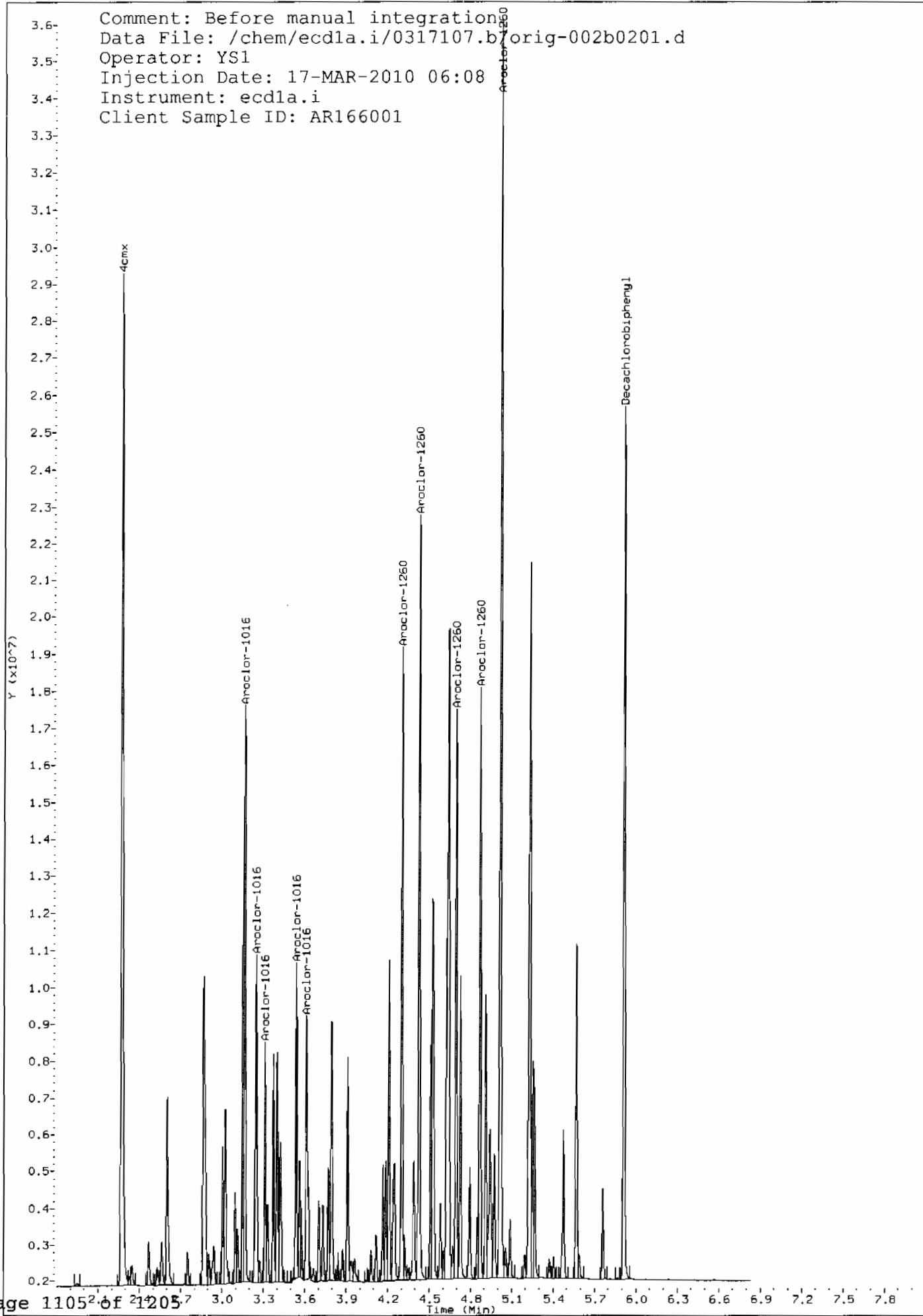
Column diameter: 0.25



Comment: Manually Integrated  
Data File: /chem/ecdl.a.i/0317107.b 002b0201.d  
Operator: YS1  
Injection Date: 17-MAR-2010 06:08  
Instrument: ecdl.a.i  
Client Sample ID: AR166001



Comment: Before manual integration  
Data File: /chem/ecdl1a.i/0317107.b orig-002b0201.d  
Operator: YS1  
Injection Date: 17-MAR-2010 06:08  
Instrument: ecd1a.i  
Client Sample ID: AR166001



Data File: /chem/ecd1a.i/0317107.b/003f0301.d  
Report Date: 17-Mar-2010 08:52

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/0317107.b/003f0301.d  
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401  
Inj Date : 17-MAR-2010 06:18  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |WAR100219-54  
Misc Info :  
Comment :  
Method : /chem/ecd1a.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 17-Mar-2010 08:52 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 3 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1254.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpclp1

AMOUNTS

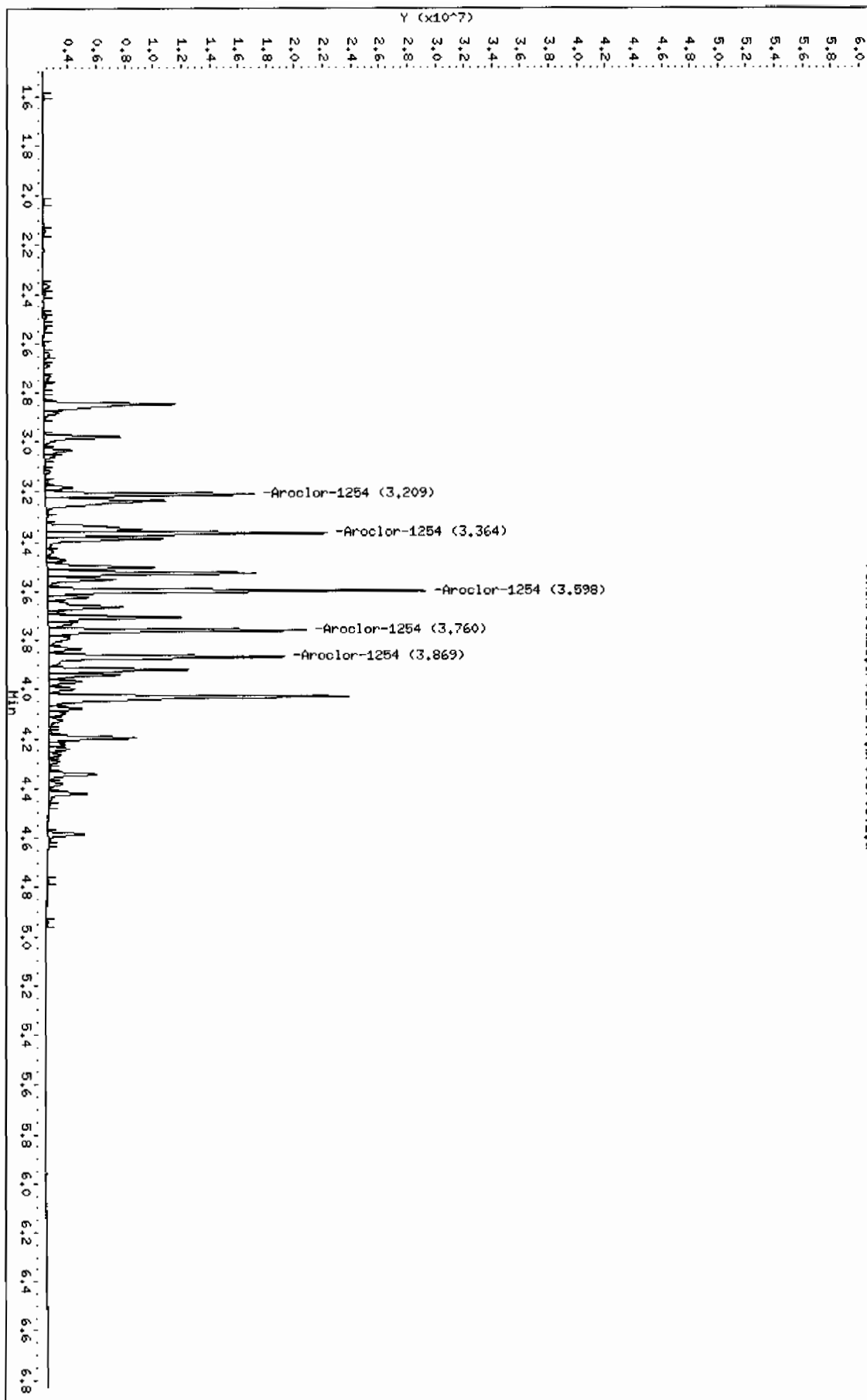
RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
3.209	3.209	0.000	11804928 1000.00	890 80.00- 120.00	100.00	
3.364	3.364	0.000	15624759 1000.00	876 112.36- 152.36	132.36	
3.598	3.598	0.000	20223062 1000.00	904 151.31- 191.31	171.31	
3.760	3.760	0.000	14731608 1000.00	893 104.79- 144.79	124.79	
3.869	3.869	0.000	14915377 1000.00	934 106.35- 146.35	126.35	
Average of Peak Amounts -				900		

Data File: /chem/eodla.i/0317107.b/003f0301.d  
Date: 17-MAR-2010 06:18  
Client ID: AR126401  
Sample Info: I4MR100219-54

Column phase: CLP1

Instrument: eodla.i  
Operator: YSL  
Column diameter: 0.25

/chem/eodla.i/0317107.b/003f0301.d





Data File: /chem/ecdl1a.i/0317107.b/003b0301.d  
Report Date: 17-Mar-2010 08:52

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/003b0301.d  
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401  
Inj Date : 17-MAR-2010 06:18  
Operator : YSl Inst ID: ecd1a.i  
Smp Info : |WAR100219-54  
Misc Info :  
Comment :  
Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 17-Mar-2010 08:52 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 3 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1254.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1	
3.375	3.375	0.000	5433555 1000.00	902 80.00-	120.00	100.00
3.797	3.797	0.000	9922138 1000.00	917 162.61-	202.61	182.61
3.914	3.914	0.000	10795731 1000.00	905 178.69-	218.69	198.69
4.189	4.189	0.000	15040936 1000.00	915 256.82-	296.82	276.82
4.325	4.325	0.000	11339611 1000.00	936 188.70-	228.70	208.70
Average of Peak Amounts =				915		

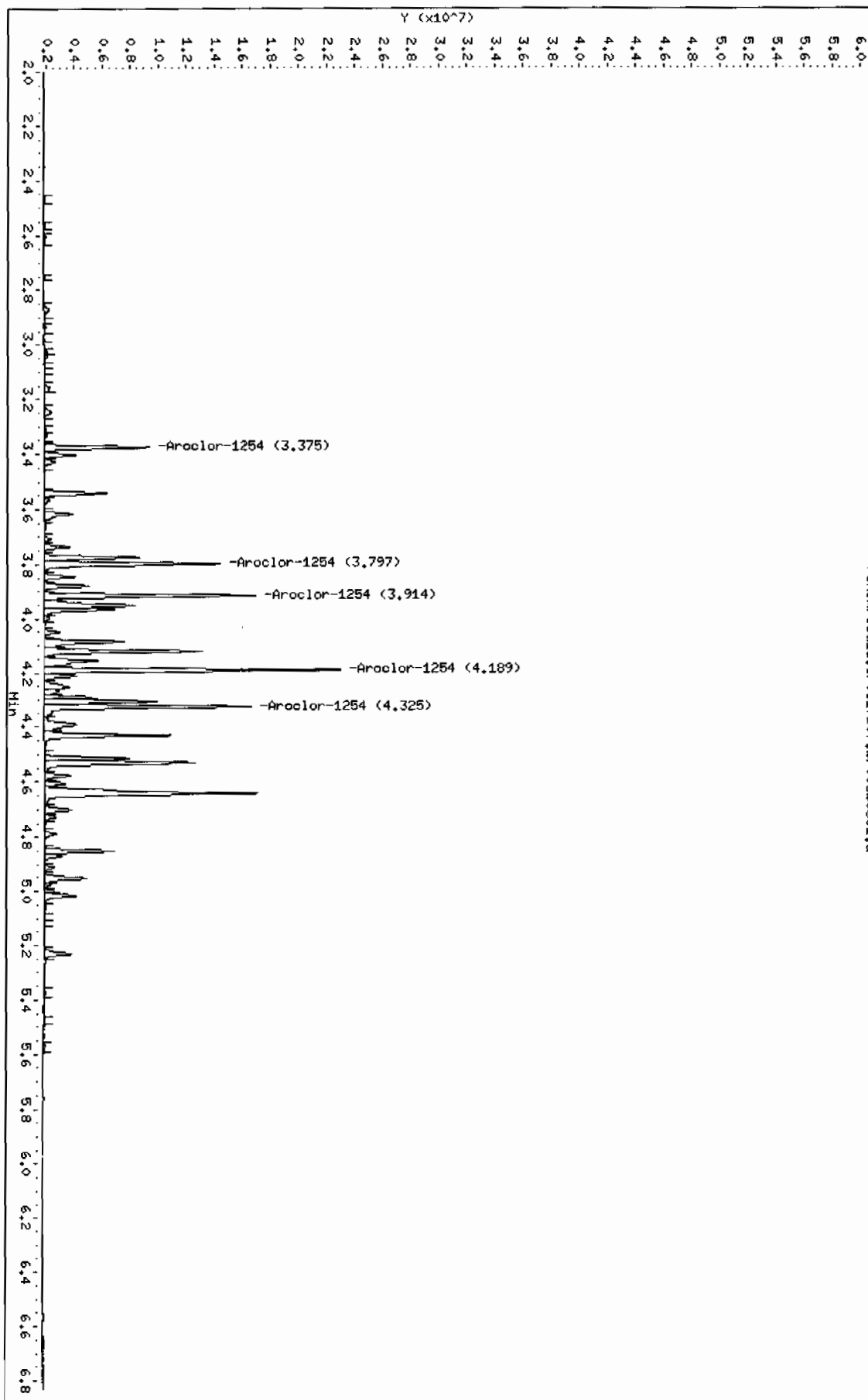
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Date: 17-MAR-2010 06:18  
Client ID: AR128401  
Sample Info: IMR100219-54

Column phase: CLP2

Instrument: ecda.i  
Operator: YSL  
Column diameter: 0.25

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/chem/ecda.i/0317107.b/003b0301.d



Data File: /chem/ecdla.i/0317107.b/004f0401.d  
Report Date: 17-Mar-2010 08:53

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/004f0401.d  
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201  
Inj Date : 17-MAR-2010 06:29  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |WAR100219-42  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 17-Mar-2010 08:53 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 4 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1242.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
2.365	2.365	0.000	11593290	1000.00	940 80.00- 120.00	100.00
2.652	2.652	0.000	14537144	1000.00	975 105.39- 145.39	125.39
2.769	2.769	0.000	5553924	1000.00	942 27.91- 67.91	47.91
2.980	2.980	0.000	7095279	1000.00	917 41.20- 81.20	61.20
3.233	3.233	0.000	6386220	1000.00	877 35.09- 75.09	55.09
Average of Peak Amounts =				930		

Data File: /chem/ecdl1a.i/0317107.b/004f0401.d

Date: 17-MAR-2010 06:29

Client ID: AR124201

Sample Info: IMR100219-42

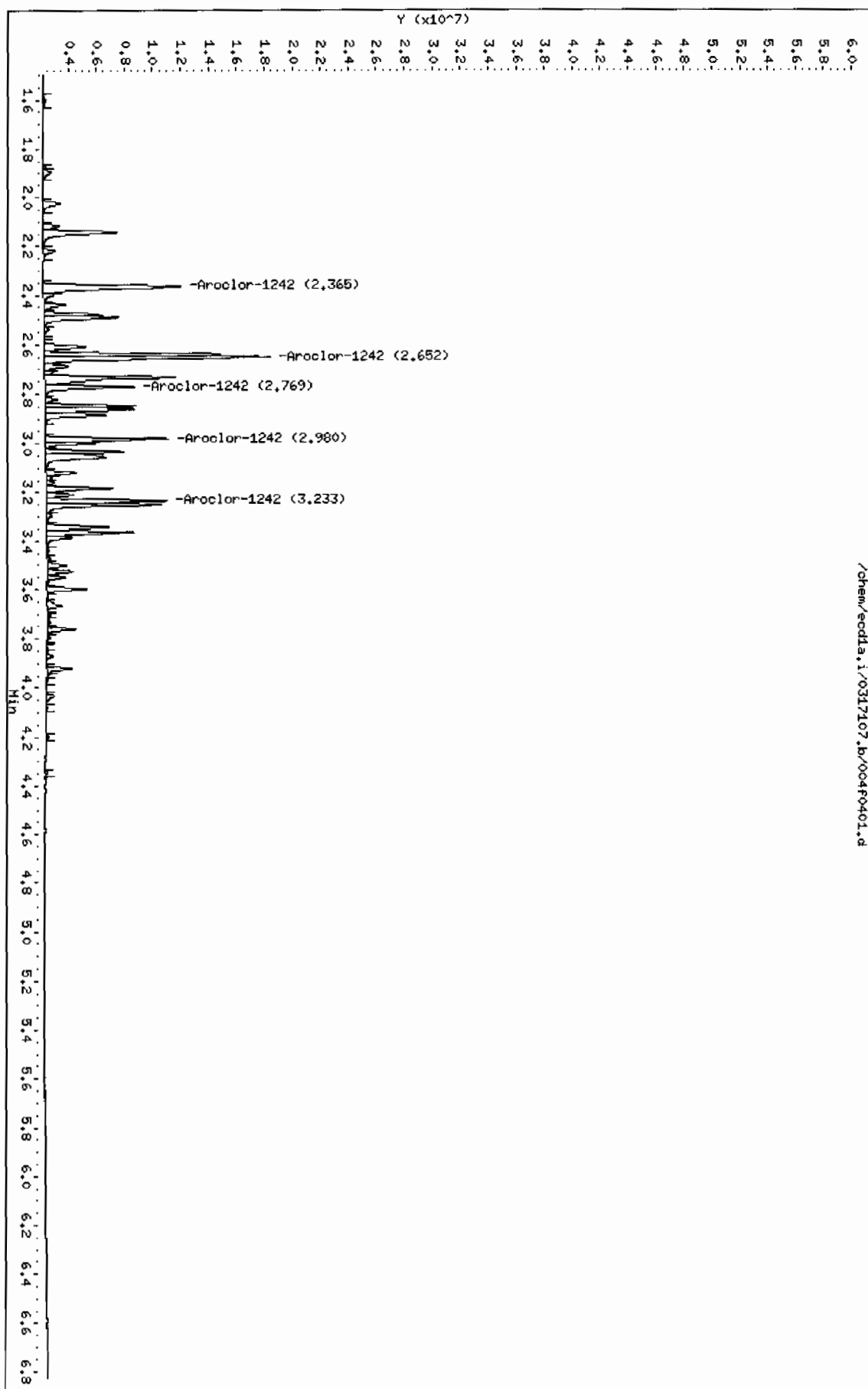
Column phase: CLP1

Instrument: ecdl1a.i

Operator: YSL

Column diameter: 0.25

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Data File: /chem/ecdl1a.i/0317107.b/004b0401.d  
Report Date: 17-Mar-2010 08:52

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/004b0401.d  
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201  
Inj Date : 17-MAR-2010 06:29  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |WAR100219-42  
Misc Info :  
Comment :  
Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 17-Mar-2010 08:52 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 4 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1242.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
4	Aroclor-1242			CAS #: 53469-21-9		
3.167	3.167	0.000	9708362 1000.00	958	80.00- 120.00	100.00
3.249	3.249	0.000	6621849 1000.00	933	48.21- 88.21	68.21
3.540	3.540	0.000	5140297 1000.00	932	32.95- 72.95	52.95
3.773	3.773	0.000	5254316 1000.00	918	34.12- 74.12	54.12
3.802	3.802	0.000	5963672 1000.00	936	41.43- 81.43	61.43
Average of Peak Amounts =				935		

Data File: /chem/eod1a.i/0317107.b/004b0401.d

Date: 17-MAR-2010 06:29

Client ID: AR124201

Sample Info: 1MAR100219-42

Column phase: CLP2

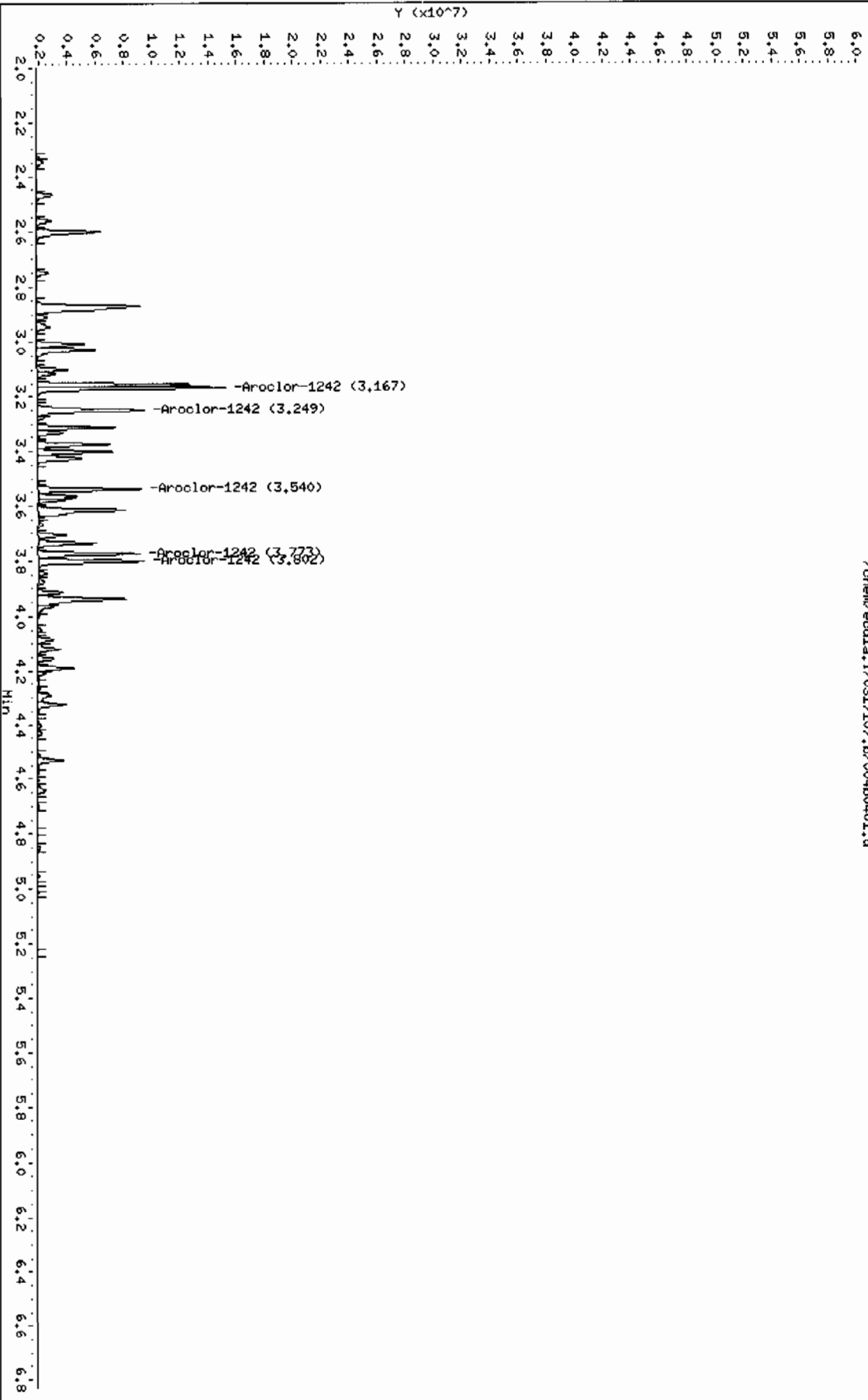
Page 1

Instrument: eod1a.i

Operator: YSI

Column diameter: 0.25

/chem/eod1a.i/0317107.b/004b0401.d



Data File: /chem/ecdla.i/0317107.b/005f0501.d  
Report Date: 17-Mar-2010 08:53

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/005f0501.d  
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801  
Inj Date : 17-MAR-2010 06:39  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |WAR100223-48  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 17-Mar-2010 08:53 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 5 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1248.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpc1p1

AMOUNTS						
			CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
5 Aroclor-1248			CAS #: 12672-29-6			
2.846	2.846	0.000	9510059 1000.00	951	80.00- 120.00	100.00 (M)
2.981	2.981	0.000	12717454 1000.00	968	113.73- 153.73	133.73
3.234	3.234	0.000	13366114 1000.00	934	120.55- 160.55	140.55
3.366	3.366	0.000	10901124 1000.00	916	94.63- 134.63	114.63
3.598	3.598	0.000	7582151 1000.00	947	59.73- 99.73	79.73
Average of Peak Amounts			943			

QC Flag Legend

M - Compound response manually integrated.

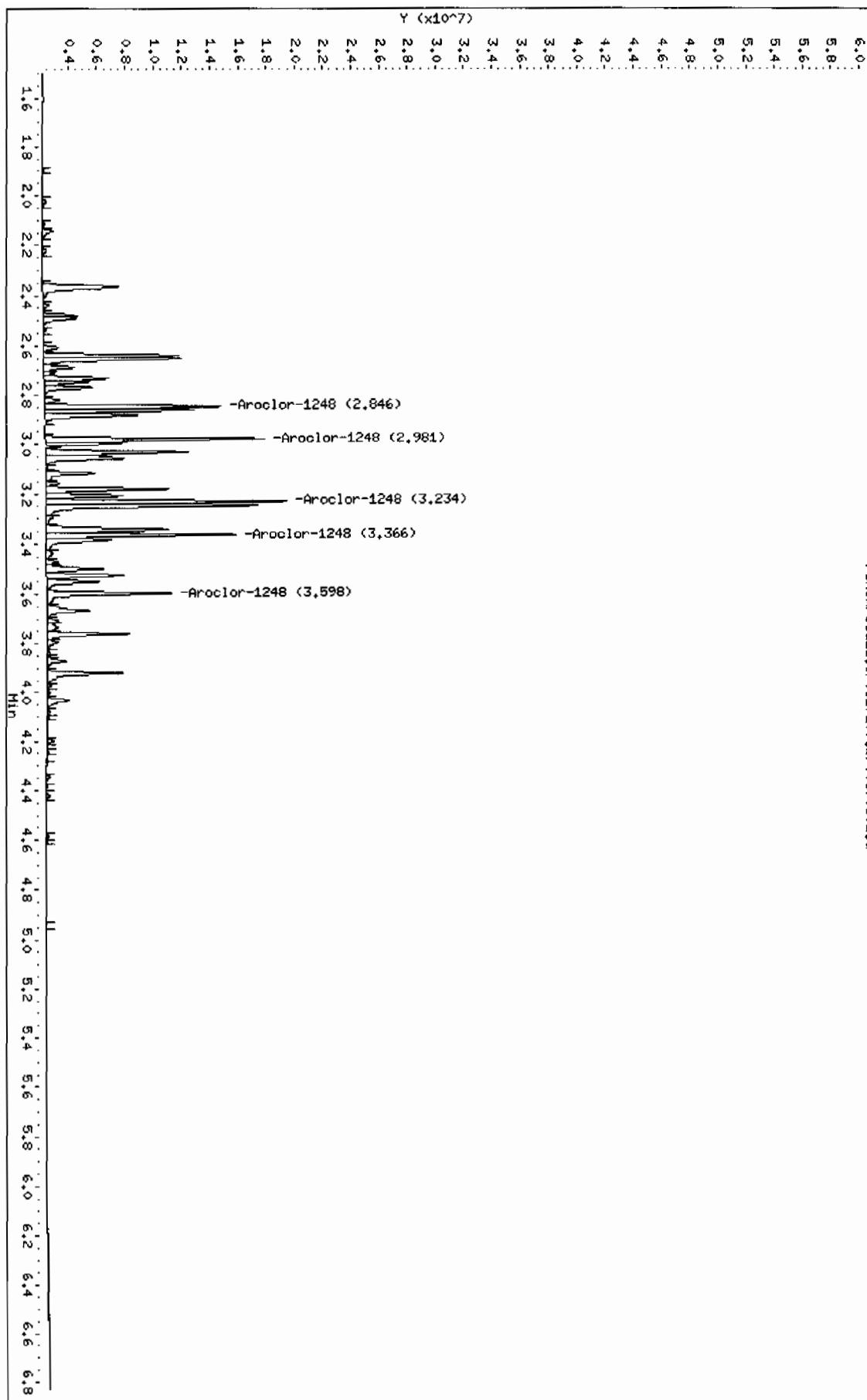
Data File: /chem/ecdda.i/0317107.k/005f0501.d  
Date: 17-Mar-2010 06:39  
Client ID: AR124801  
Sample Info: IMR100223-48

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Column phase: CLP1

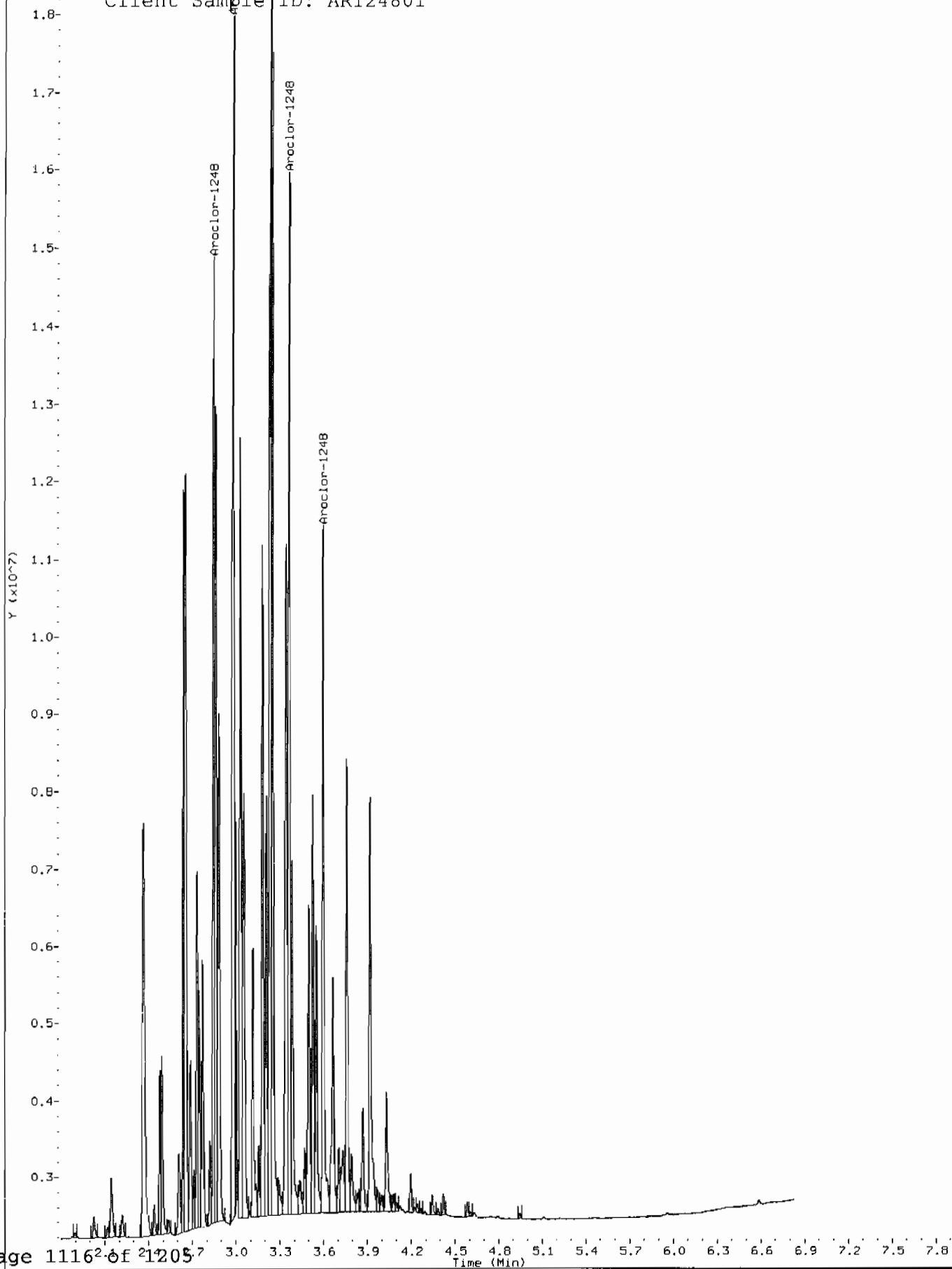
Instrument: ecdda.i  
Operator: YSL  
Column diameter: 0.25

/chem/ecdda.i/0317107.k/005f0501.d

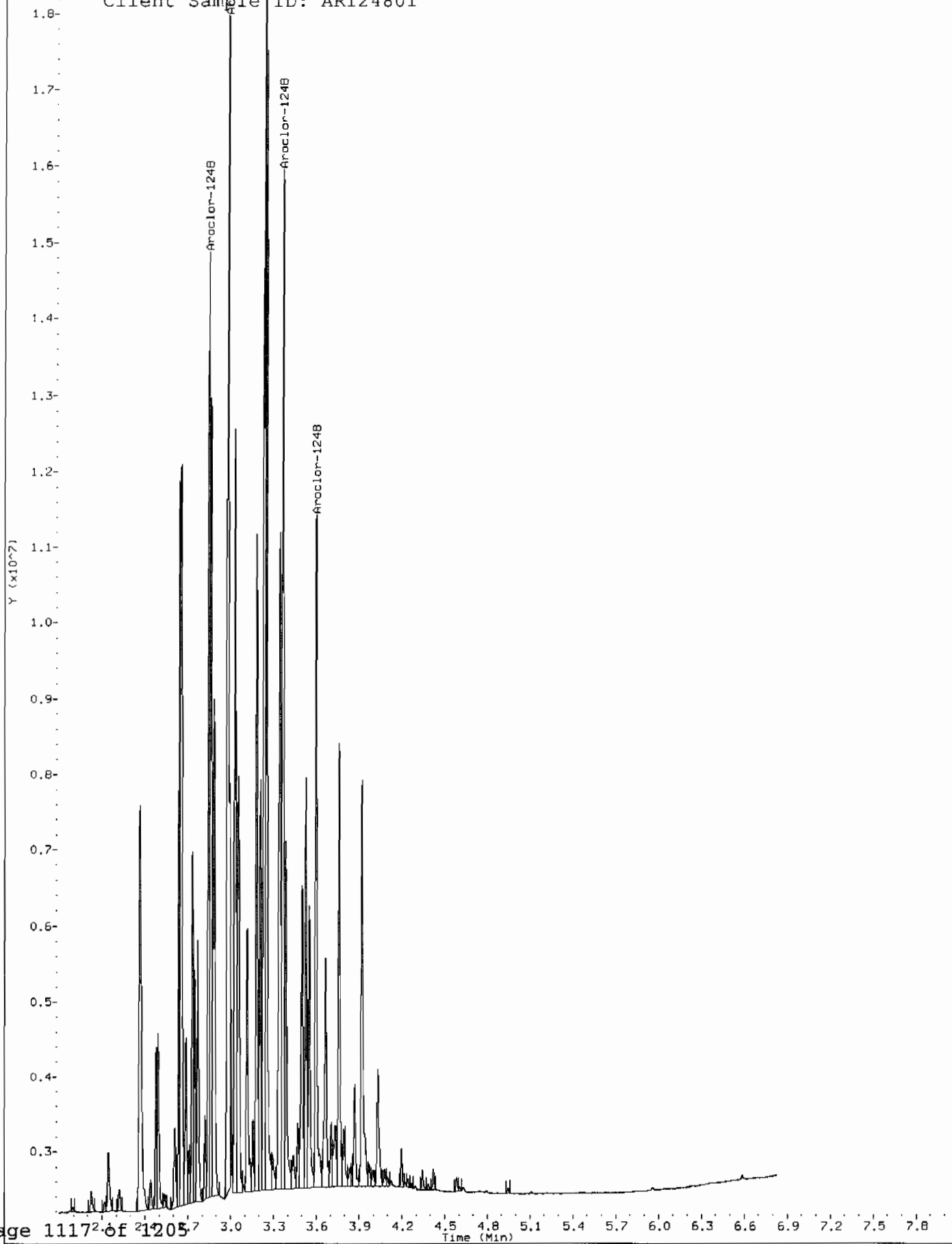




Comment: Manually Integrated  
Data File: /chem/ecdla.i/0317107.b/005f0501.d  
Operator: SLS  
Injection Date: 17-MAR-2010 06:39  
Instrument: ecdla.i  
Client Sample ID: AR124801



Comment: Before manual integration  
Data File: /chem/ecdla.i/0317107.b/orig-005f0501.d  
Operator: S1  
Injection Date: 17-MAR-2010 06:39  
Instrument: ecdla.i  
Client Sample ID: AR124801



Data File: /chem/ecd1a.i/0317107.b/005b0501.d  
Report Date: 17-Mar-2010 08:53

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/0317107.b/005b0501.d  
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801  
Inj Date : 17-MAR-2010 06:39  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |WAR100223-48  
Misc Info :  
Comment :  
Method : /chem/ecd1a.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 17-Mar-2010 08:53 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 5 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1248.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
5 Aroclor-1248			CAS #: 12672-29-6			
3.376	3.376	0.000	7236477 1000.00	952	80.00- 120.00	100.00
3.541	3.541	0.000	9076536 1000.00	958	105.43- 145.43	125.43
3.774	3.774	0.000	10292916 1000.00	942	122.24- 162.24	142.24
3.801	3.801	0.000	11574901 1000.00	952	139.95- 179.95	159.95
3.938	3.938	0.000	11003666 1000.00	932	132.06- 172.06	152.06
Average of Peak Amounts -			947			

Data File: /chem/ecdl1a.i/0317107.b/00500501.d

Date: 17-MAR-2010 06:39

Client ID: AR124801

Sample Info: 1MR100223-48

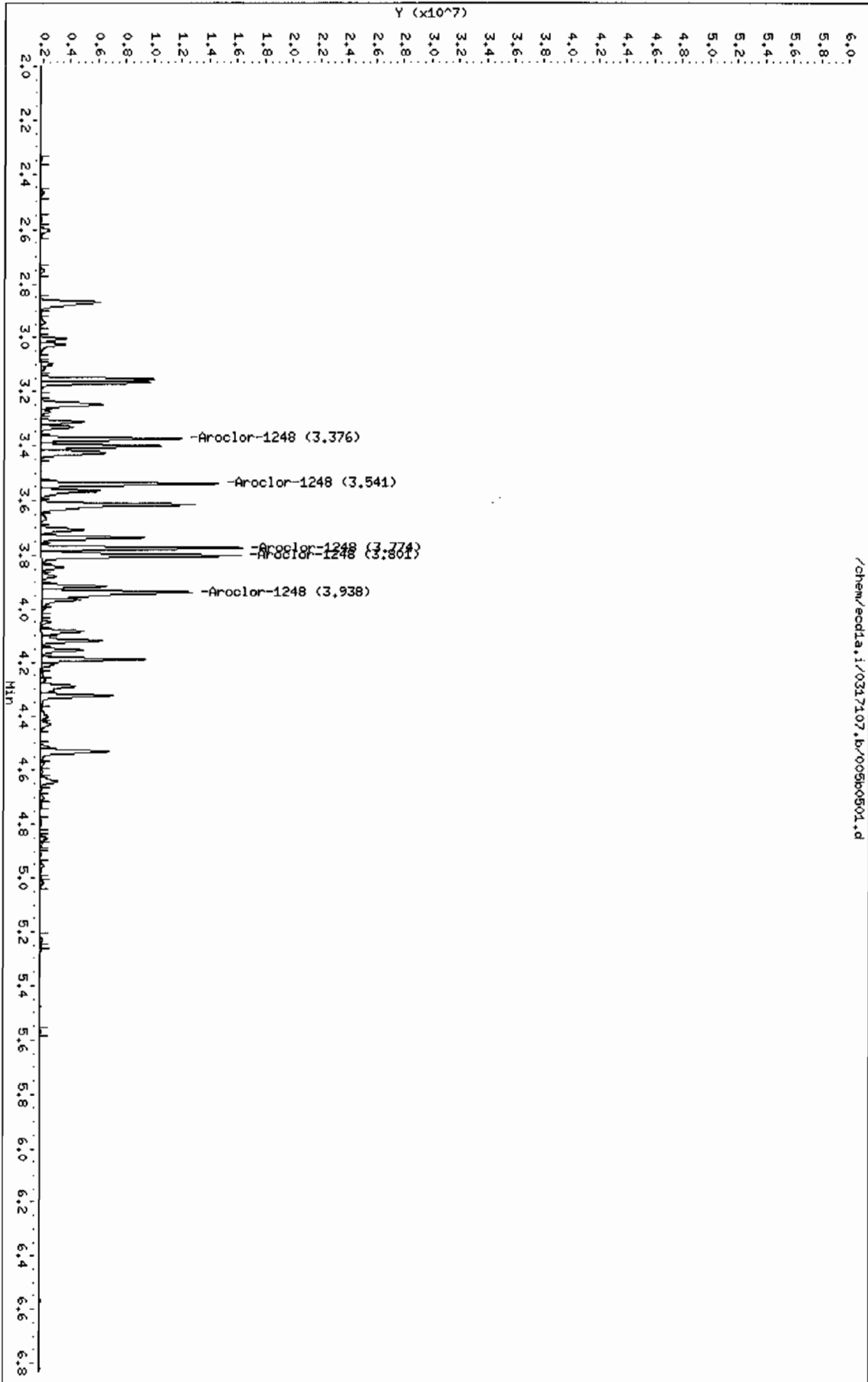
Page 1

Column phase: CLP2

Instrument: ecdl1a.i

Operator: YSL

Column diameter: 0.25



Data File: /chem/ecdla.i/0317107.b/007f0701.d  
Report Date: 17-Mar-2010 08:54

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/007f0701.d  
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201  
Inj Date : 17-MAR-2010 07:01  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |WAR100104-32  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 17-Mar-2010 08:54 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 7 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1232.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpc1pl

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
3	2.365	0.000	6445549	967	80.00- 120.00	100.00
2.652	2.652	0.000	8203940	983	107.28- 147.28	127.28
2.732	2.732	0.000	5266309	952	61.70- 101.70	81.70
2.847	2.847	0.000	2540896	959	19.42- 59.42	39.42
3.234	3.234	0.000	3243941	912	30.33- 70.33	50.33
Average of Peak Amounts =				955		

Data File: /chem/eodla.i/0317107.b/007f0701.d

Date: 17-MAR-2010 07:01

Client ID: AR423201

Sample Info: 1MAR00104-32

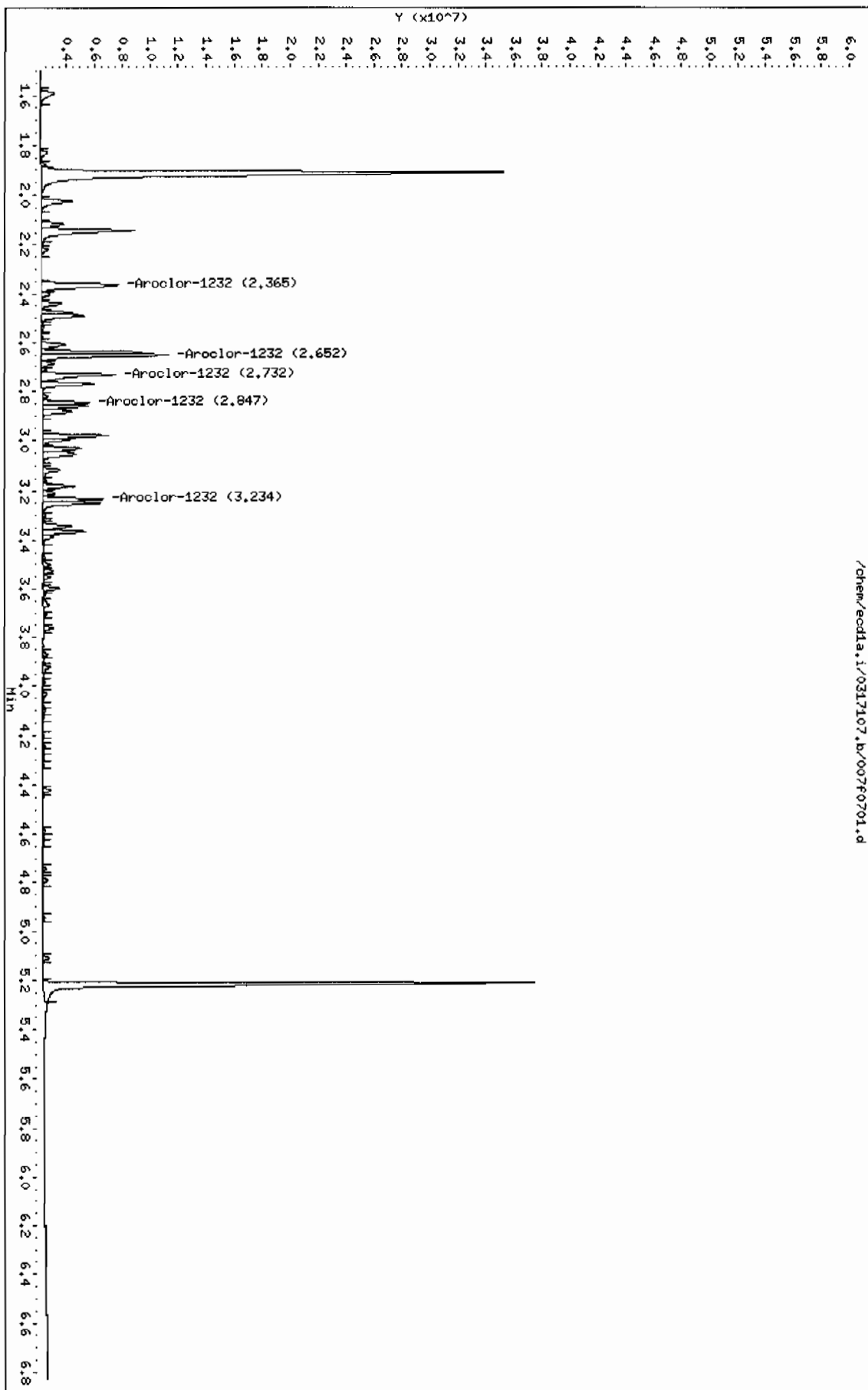
Column phase: CLP1

Instrument: eodla.i

Operator: YSL

Column diameter: 0.25

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Data File: /chem/ecdla.i/0317107.b/007b0701.d  
Report Date: 17-Mar-2010 08:54

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/007b0701.d  
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201  
Inj Date : 17-MAR-2010 07:01  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |WAR100104-32  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 17-Mar-2010 08:54 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 7 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1232.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpc1p1

AMOUNTS

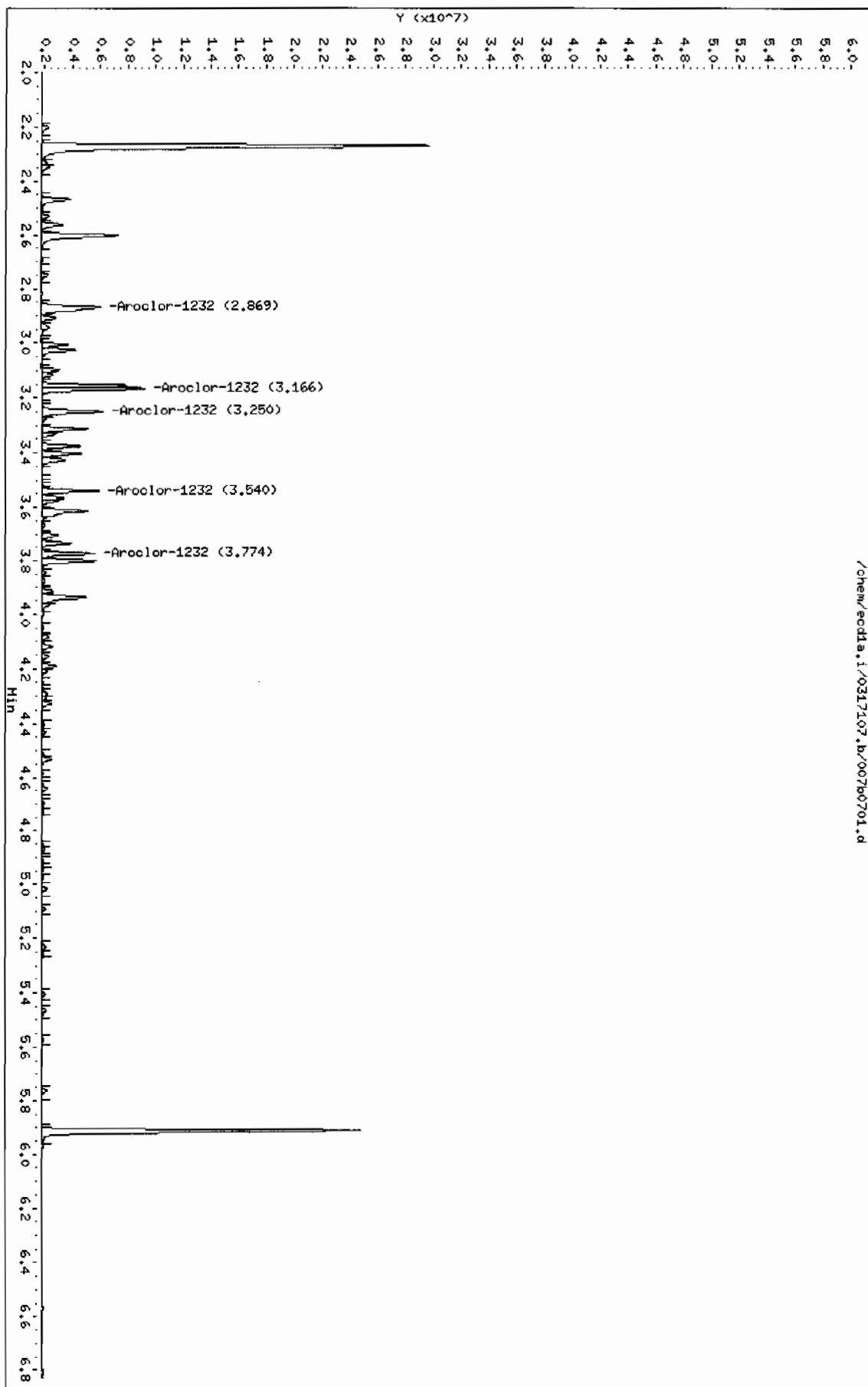
RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5	
2.869	2.869	0.000	5036995 1000.00	997	80.00- 120.00	100.00
3.166	3.166	0.000	5500554 1000.00	963	89.20- 129.20	109.20
3.250	3.250	0.000	3863614 1000.00	994	56.70- 96.70	76.70
3.540	3.540	0.000	2837390 1000.00	999	36.33- 76.33	56.33
3.774	3.774	0.000	2755344 1000.00	977	34.70- 74.70	54.70
Average of Peak Amounts =				986		

Data File: /chem/ecdda.i/0317107.b/007b0701.d  
Date : 17-MAR-2010 07:01  
Client ID: AR123201  
Sample Info: IMR100104-32

Column Phase: CLP2

Instrument: ecdda.i  
Operator: YSL  
Column diameter: 0.25

/chem/ecdda.i/0317107.b/007b0701.d





Data File: /chem/ecdl1a.i/0317107.b/008f0801.d  
Report Date: 17-Mar-2010 08:54

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/008f0801.d  
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101  
Inj Date : 17-MAR-2010 07:11  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |WAR100104-21  
Misc Info :  
Comment :  
Method : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 17-Mar-2010 08:54 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 8 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1221.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
2.026	2.026	0.000	4337779 1000.00	971	80.00- 120.00	100.00
2.118	2.118	0.000	2415598 1000.00	987	35.69- 75.69	55.69
2.144	2.144	0.000	10371015 1000.00	958	219.09- 259.09	239.09
Average of Peak Amounts				972		

Data File: /chem/ecdl1a.i/0317107.b/008f0801.d

Date: 17-MAR-2010 07:11

Client ID: AR122101

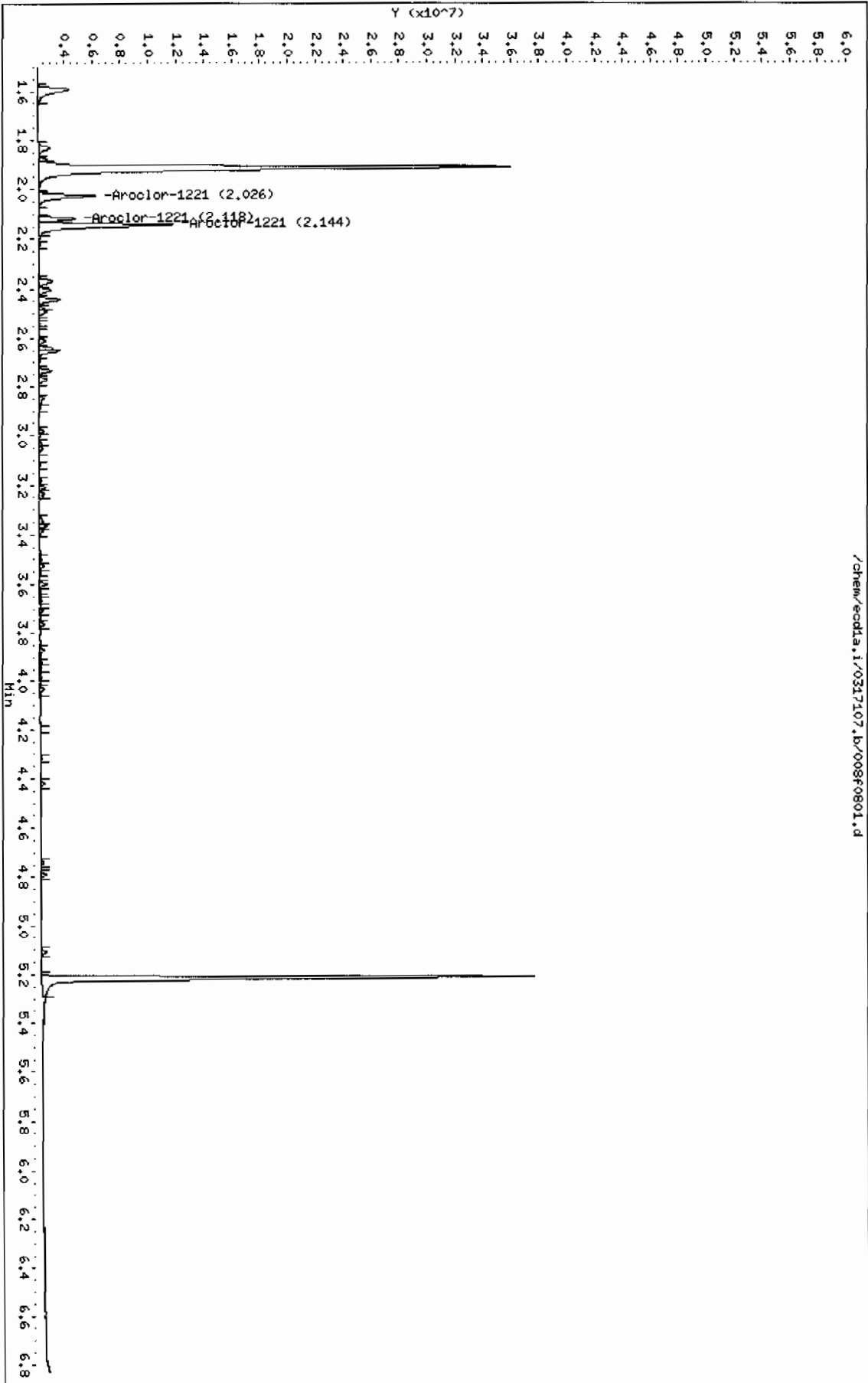
Sample Info: WARR00104-21

Column phase: CLP1

Instrument: ecdl1a.i

Operator: YSL

Column diameter: 0.25



Data File: /chem/ecd1a.i/0317107.b/008b0801.d  
Report Date: 17-Mar-2010 08:54

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/0317107.b/008b0801.d  
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101  
Inj Date : 17-MAR-2010 07:11  
Operator : YSl Inst ID: ecd1a.i  
Smp Info : |WAR100104-21  
Misc Info :  
Comment :  
Method : /chem/ecd1a.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 17-Mar-2010 08:54 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 8 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1221.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
2 Aroclor-1221			CAS #: 11104-28-2			
2.468	2.468	0.000	3218980 1000.00	990	80.00- 120.00	100.00
2.562	2.562	0.000	2068793 1000.00	993	44.27- 84.27	64.27
2.603	2.603	0.000	7132830 1000.00	974	201.59- 241.59	221.59
Average of Peak Amounts -			986			

Data File: /chem/eodla,i/0317107.b/008b0801.d

Date : 17-MAR-2010 07:11

Client ID: AR122101

Sample Info: 14MR100104-21

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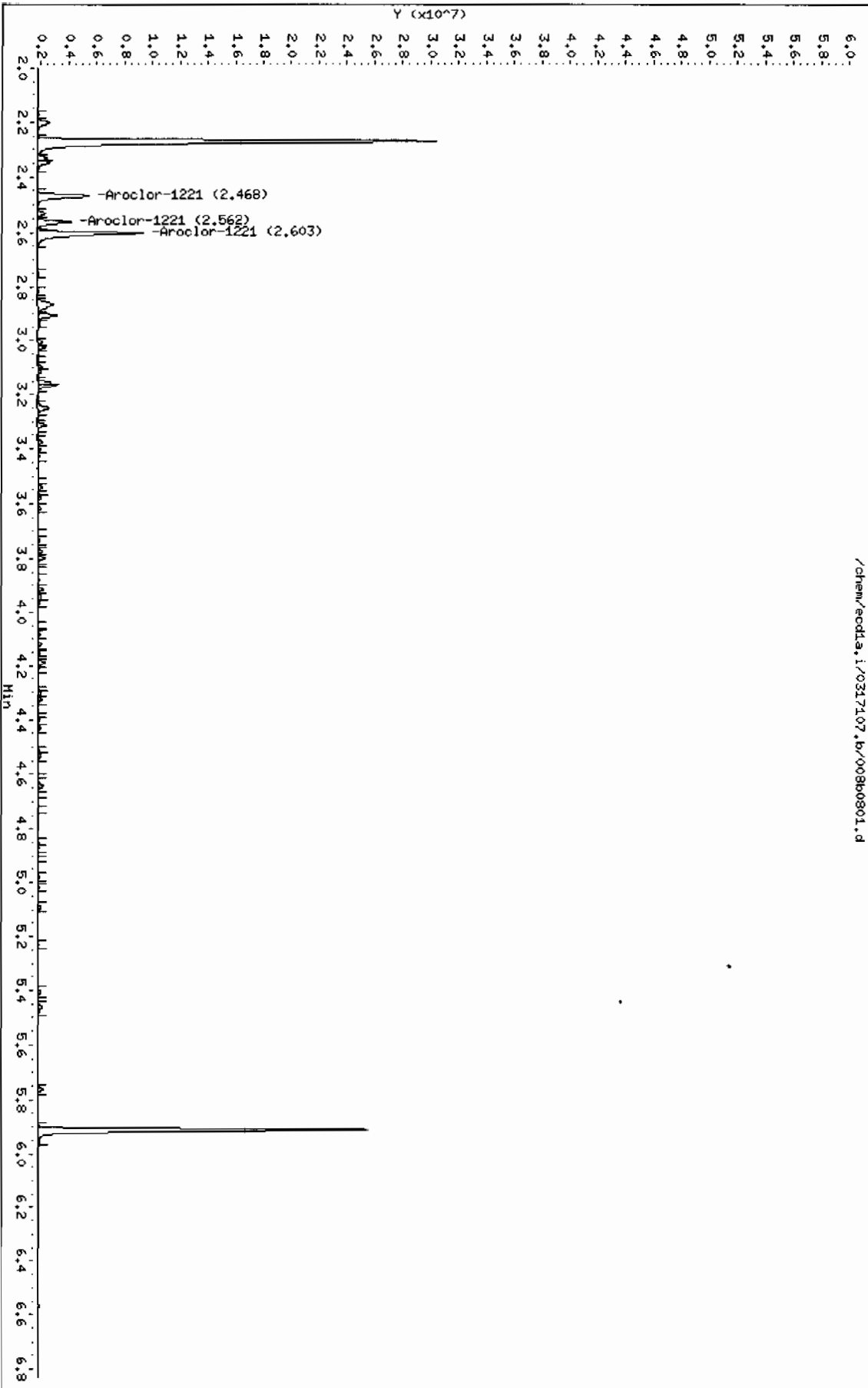
Instrument: eodla,i

Operator: YSL

Column diameter: 0.25

Column phase: CLP2

/chem/eodla,i/0317107.b/008b0801.d



Data File: /chem/ecdla.i/0317107.b/017f1701.d  
Report Date: 17-Mar-2010 10:10

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/017f1701.d  
Lab Smp Id: WAR100222-60 02 Client Smp ID: AR166002  
Inj Date : 17-MAR-2010 08:53  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |WAR100222-60 02  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 17-Mar-2010 09:56 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 17 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1660.sub  
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
-----						
\$ 11 4cmx			CAS #: 817-09-8			
1.912	1.913	-0.001	37861137 100.000	97.2	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl			CAS #: 2051-24-3			
5.217	5.216	0.001	27481637 100.000	92.6	80.00- 120.00	100.00
-----						
1 Aroclor-1016			CAS #: 12674-11-2			
2.365	2.366	-0.001	13072214 1000.00	861	80.00- 120.00	100.00
2.652	2.651	0.001	16743348 1000.00	884	108.08- 148.08	128.08
2.732	2.732	0.000	10753369 1000.00	864	62.26- 102.26	82.26
2.769	2.768	0.001	6446442 1000.00	877	29.31- 69.31	49.31
2.979	2.978	0.001	8110441 1000.00	852	42.04- 82.04	62.04
Average of Peak Amounts =			868			
-----						
7 Aroclor-1260			CAS #: 11096-82-5			
3.705	3.703	0.002	16962461 1000.00	925	80.00- 120.00	100.00
3.867	3.866	0.001	24950358 1000.00	928	127.09- 167.09	147.09
4.029	4.028	0.001	26635100 1000.00	941	137.02- 177.02	157.02
4.097	4.096	0.001	14960531 1000.00	926	68.20- 108.20	88.20
4.241	4.238	0.003	15562577 1000.00	926	71.75- 111.75	91.75
Average of Peak Amounts =			929			
-----						

Data File: /chem/ecdl1a.i/0317107.b/017f1701.d

Date: 17-MAR-2010 08:53

Client ID: AR160002

Sample Info: IWR100222-60 02

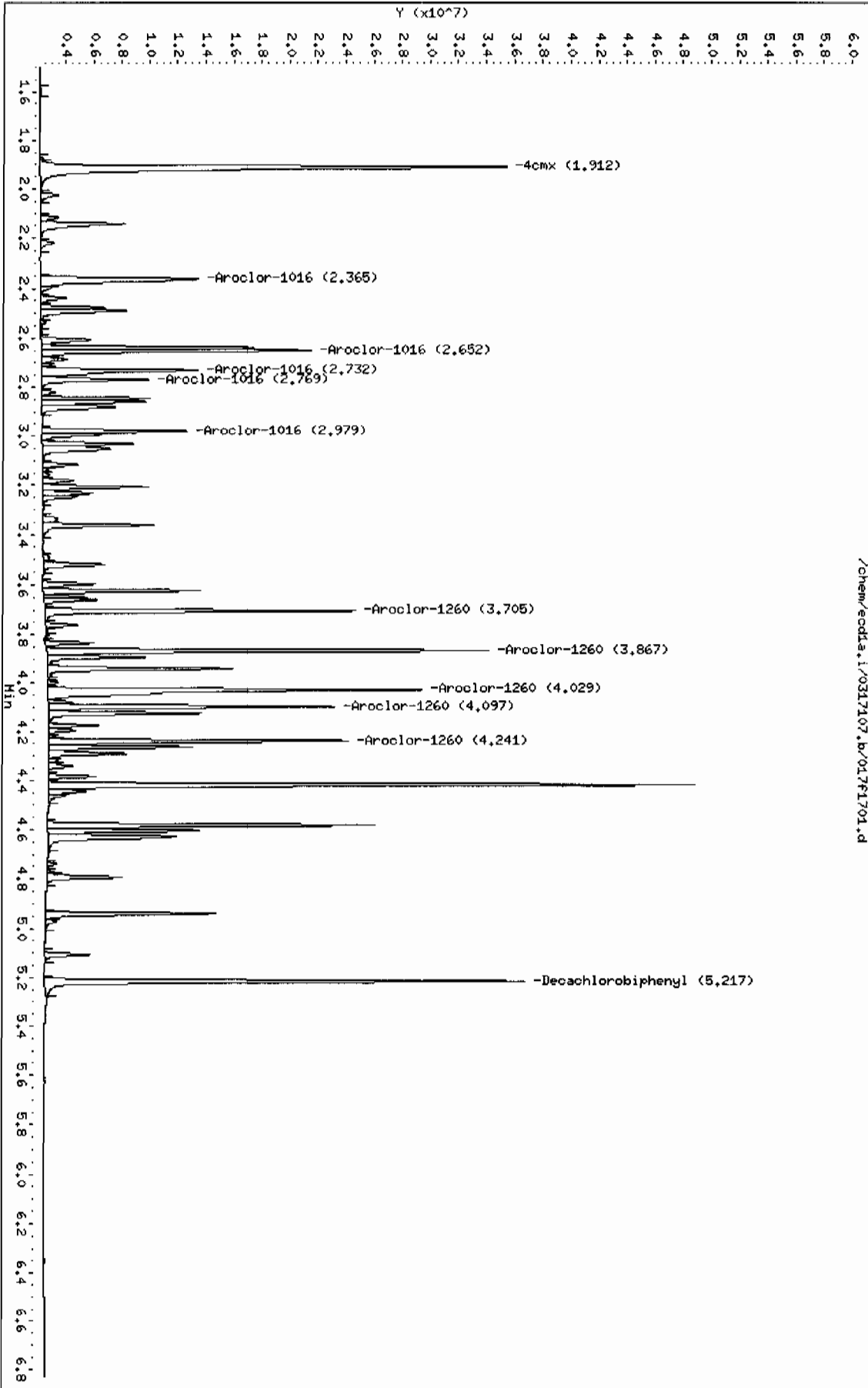
Column phase: CLP1

Instrument: ecdl1a.i

Operator: YSL

Column diameter: 0.25

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Data File: /chem/ecdla.i/0317107.b/017b1701.d  
Report Date: 17-Mar-2010 09:56

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/017b1701.d  
Lab Smp Id: WAR100222-60 02 Client Smp ID: AR166002  
Inj Date : 17-MAR-2010 08:53  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |WAR100222-60 02  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 17-Mar-2010 09:56 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 17 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1660.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpc1p1

AMOUNTS								
			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		( ug/L)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	
-----								
\$ 11 4cmx					CAS #: 877-09-8			
2.271	2.271	0.000	25446707	100.000	97.0	80.00-	120.00	100.00
-----								
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.913	5.913	0.000	17501713	100.000	93.5	80.00-	120.00	100.00
-----								
1 Aroclor-1016					CAS #: 12674-11-2			
3.166	3.166	0.000	11589187	1000.00	921	80.00-	120.00	100.00(M)
3.249	3.248	0.001	7549847	1000.00	874	45.15-	85.15	65.15
3.312	3.312	0.000	4630370	1000.00	876	19.95-	59.95	39.95
3.539	3.538	0.001	6092955	1000.00	884	32.57-	72.57	52.57
3.615	3.614	0.001	5704793	1000.00	888	29.23-	69.23	49.23
Average of Peak Amounts =					889			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
4.305	4.304	0.001	12259396	1000.00	937	80.00-	120.00	100.00
4.430	4.429	0.001	14795087	1000.00	952	100.68-	140.68	120.68
4.696	4.695	0.001	11161788	1000.00	938	71.05-	111.05	91.05
4.869	4.868	0.001	11576871	1000.00	942	74.43-	114.43	94.43
5.016	5.015	0.001	25583684	1000.00	969	188.69-	228.69	208.69
Average of Peak Amounts =					948			

QC Flag Legend

M - Compound response manually integrated.



Data File: /chem/ecda.i/0317107.b/017b1701.d

Date: 17-MAR-2010 08:53

Client ID: AR166002

Sample Info: 1MAR100222-60 02

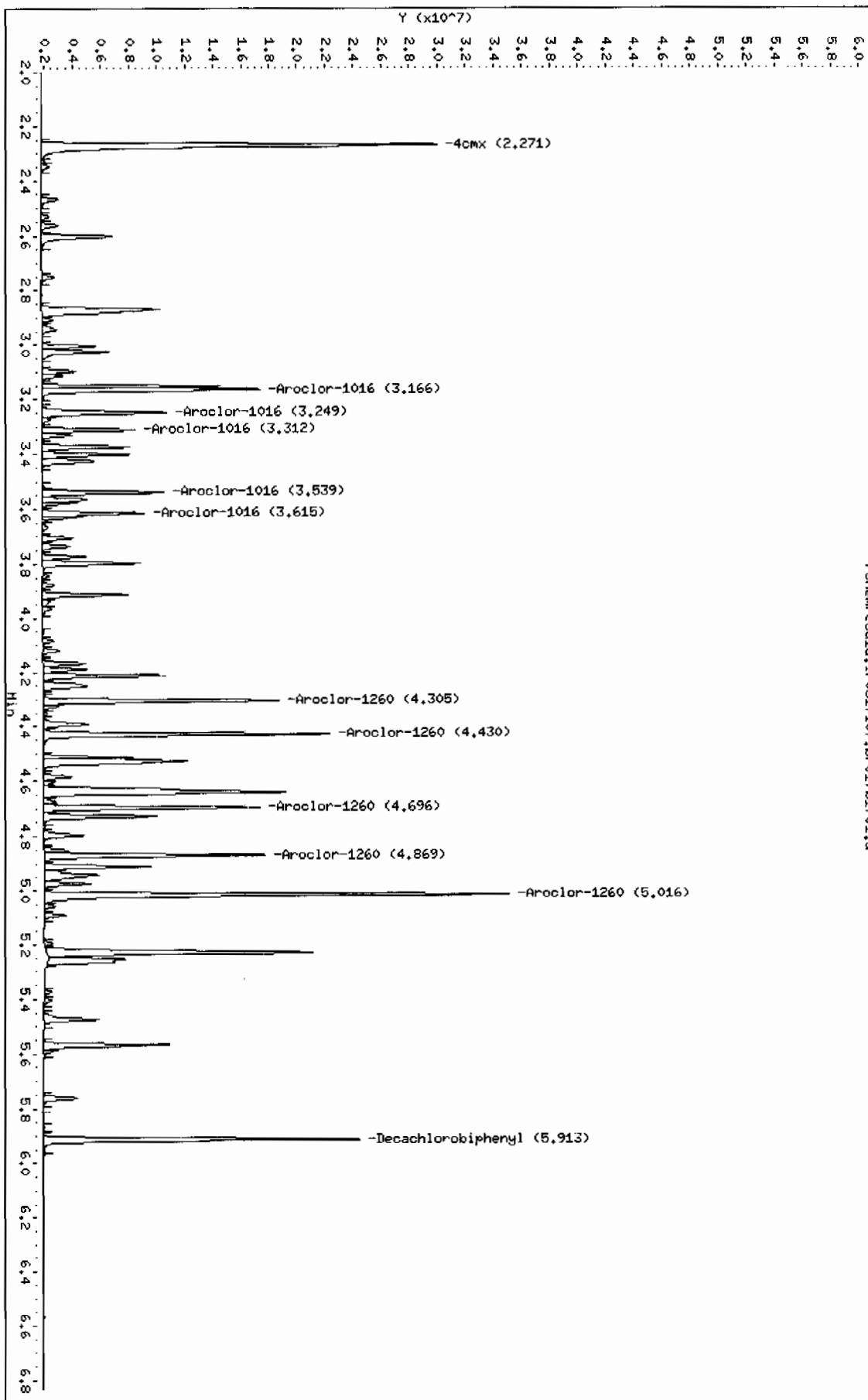
Column phase: CLP2

Instrument: ecda.i

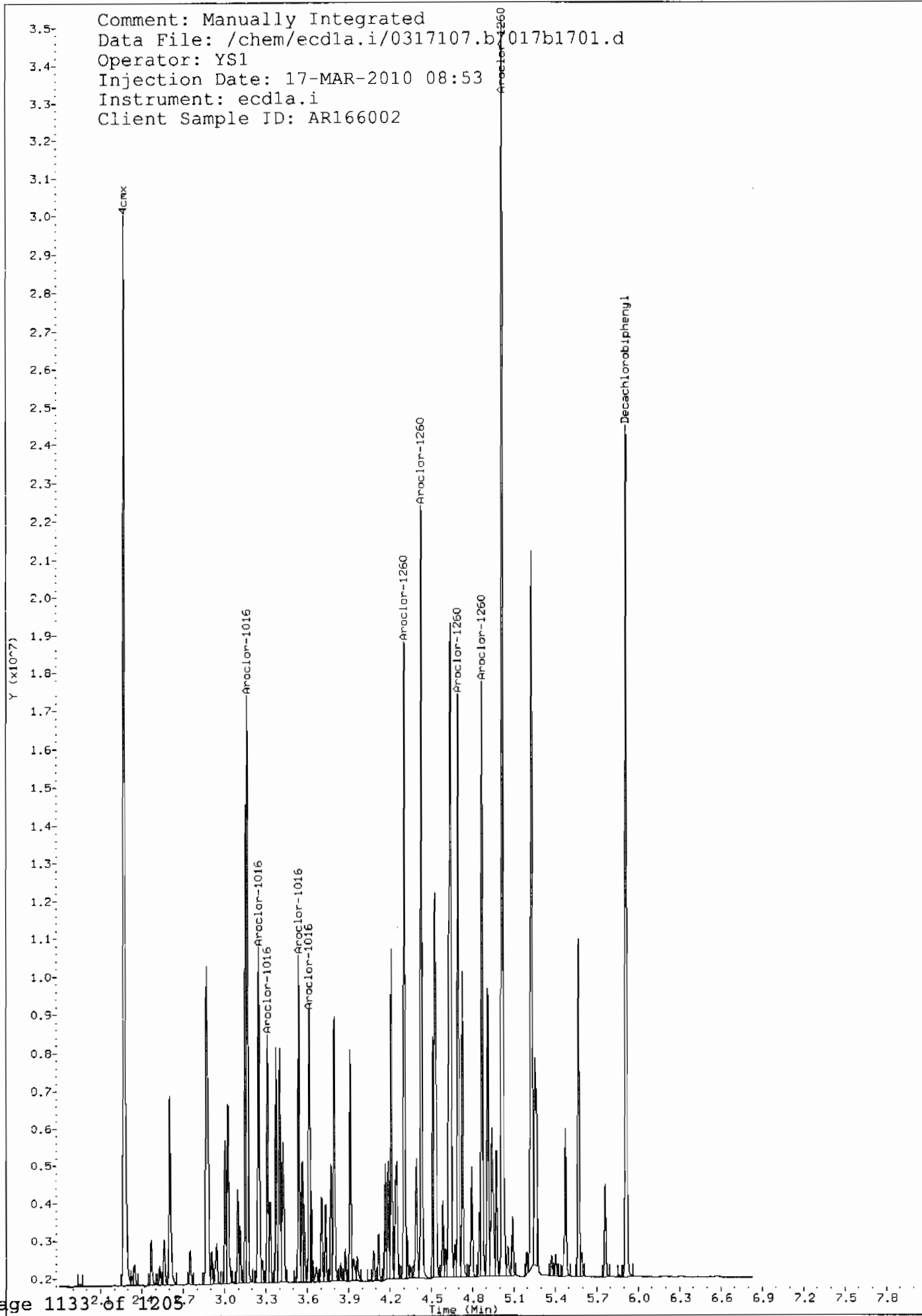
Operator: YSL

Column diameter: 0.25

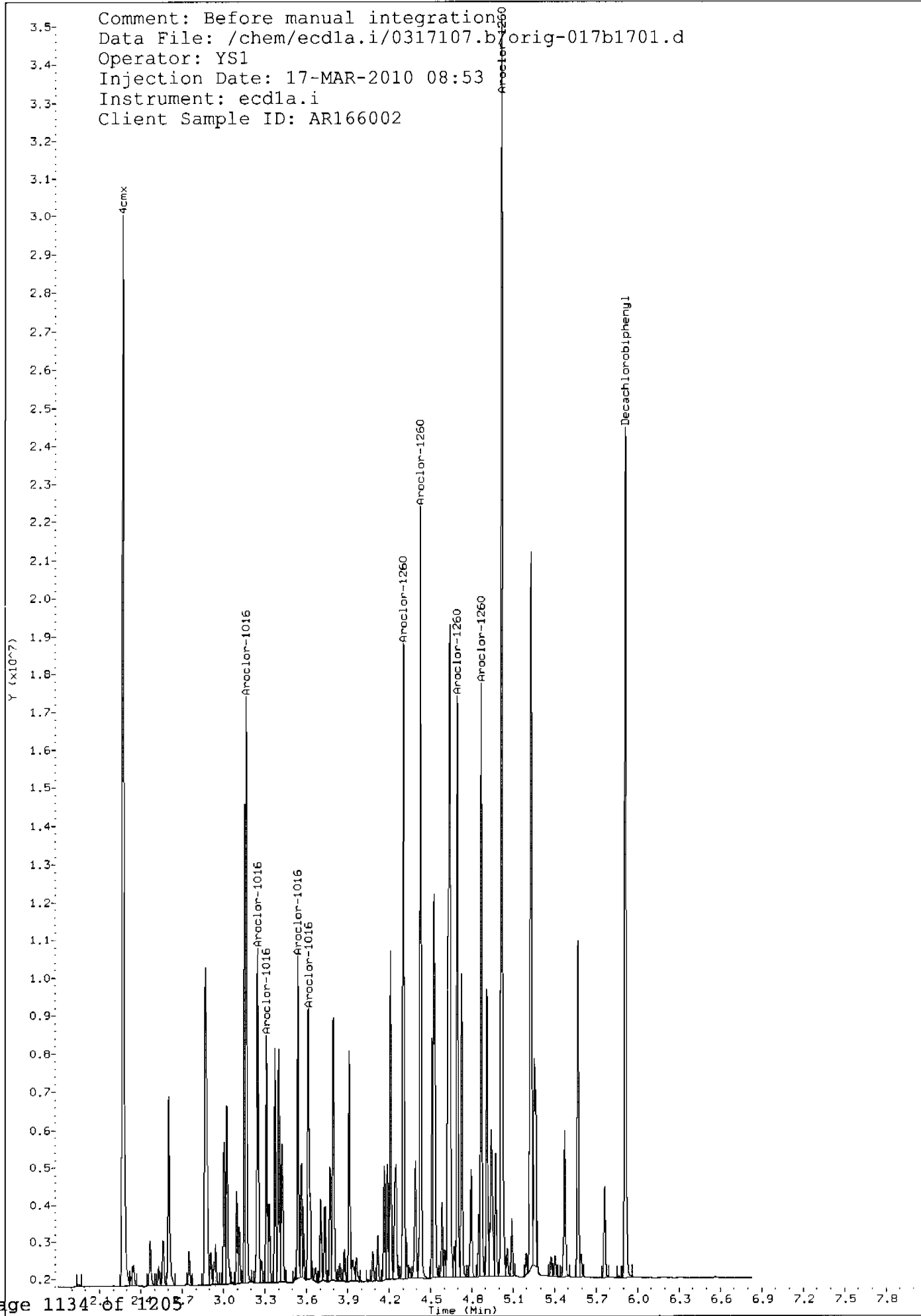
/chem/ecda.i/0317107.b/017b1701.d



Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/0317107.b/017b1701.d  
Operator: YS1  
Injection Date: 17-MAR-2010 08:53  
Instrument: ecd1a.i  
Client Sample ID: AR166002



Comment: Before manual integration  
Data File: /chem/ecdl1a.i/0317107.b orig-017b1701.d  
Operator: YS1  
Injection Date: 17-MAR-2010 08:53  
Instrument: ecd1a.i  
Client Sample ID: AR166002



Data File: /chem/ecdl1a.i/0317107.b/029f2901.d  
 Report Date: 17-Mar-2010 12:03

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/029f2901.d  
 Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003  
 Inj Date : 17-MAR-2010 11:16  
 Operator : YS1 Inst ID: ecd1a.i  
 Smp Info : |WAR100222-60 03  
 Misc Info :  
 Comment :  
 Method : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m  
 Meth Date : 17-Mar-2010 12:02 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
 Als bottle: 29 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: AR1660.sub  
 Target Version: 3.50 Sample Matrix: None  
 Processing Host: hpc1p1

AMOUNTS						
RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
-----						
\$ 11 4cmx				CAS #: 877-09-8		
1.911	1.913	-0.002	39092960 100.000	100	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.216	5.216	0.000	29126444 100.000	98.1	80.00- 120.00	100.00
-----						
1 Aroclor-1016				CAS #: 12674-11-2		
2.364	2.366	-0.002	13459448 1000.00	887	80.00- 120.00	100.00
2.650	2.651	-0.001	17913772 1000.00	946	113.09- 153.09	133.09
2.731	2.732	-0.001	11186272 1000.00	899	63.11- 103.11	83.11
2.769	2.768	0.001	6757155 1000.00	920	30.20- 70.20	50.20
2.979	2.978	0.001	8551705 1000.00	898	43.54- 83.54	63.54
Average of Peak Amounts =				910		
-----						
7 Aroclor-1260				CAS #: 11096-82-5		
3.704	3.703	0.001	17641116 1000.00	962	80.00- 120.00	100.00
3.867	3.866	0.001	26151299 1000.00	972	128.24- 168.24	148.24
4.029	4.028	0.001	28122088 1000.00	993	139.41- 179.41	159.41
4.097	4.096	0.001	15875613 1000.00	982	69.99- 109.99	89.99
4.239	4.238	0.001	16480191 1000.00	980	73.42- 113.42	93.42
Average of Peak Amounts =				978		
-----						

Data File: /chem/ecdt1a.i/0317107.b/029f2901.d

Date: 17-MAR-2010 11:16

Client ID: AR166003

Sample Info: IMA100222-60 03

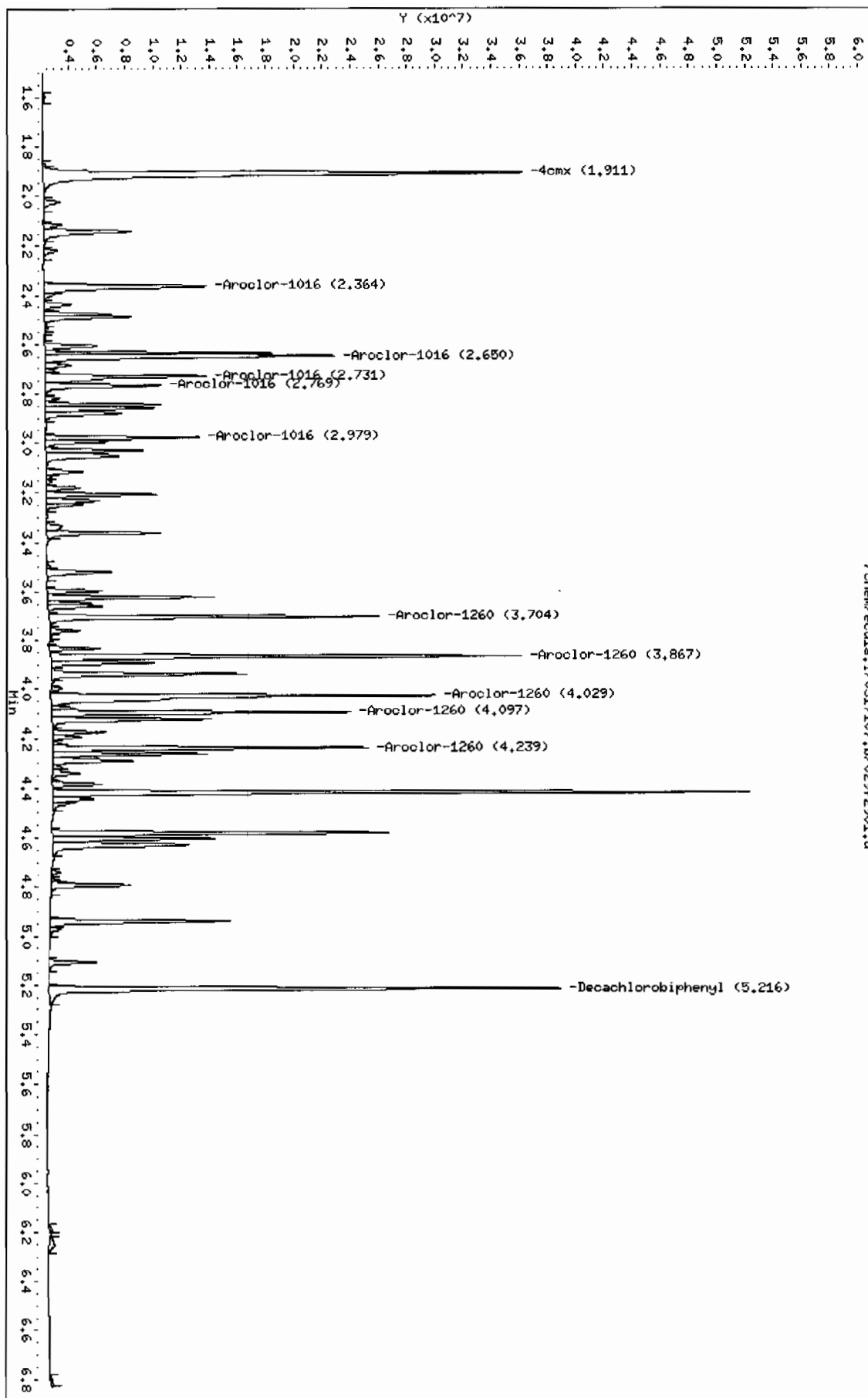
Column phase: CLP1

Instrument: ecdt1a.i

Operator: YSA

Column diameter: 0.25

/chem/ecdt1a.i/0317107.b/029f2901.d



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/029b2901.d  
 Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003  
 Inj Date : 17-MAR-2010 11:16  
 Operator : YS1 Inst ID: ecdla.i  
 Smp Info : |WAR100222-60 03  
 Misc Info :  
 Comment :  
 Method : /chem/ecdla.i/0317107.b/ECD1-B-8082-031110b.m  
 Meth Date : 17-Mar-2010 11:59 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
 Als bottle: 29 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: AR1660.sub  
 Target Version: 3.50 Sample Matrix: None  
 Processing Host: hpc1pl

AMOUNTS							
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	CAL-AMT ( ug/L)	ON-COL	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx					CAS #: 877-09-8		
2.270	2.271	-0.001	25959609 100.000	99.0	80.00-	120.00	100.00
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.913	5.913	0.000	18143993 100.000	96.9	80.00-	120.00	100.00
-----							
1 Aroclor-1016					CAS #: 12674-11-2		
3.165	3.166	-0.001	11451255 1000.00	910	80.00-	120.00	100.00 (M)
3.249	3.248	0.001	7723504 1000.00	894	47.45-	87.45	67.45
3.312	3.312	0.000	4799447 1000.00	908	21.91-	61.91	41.91
3.539	3.538	0.001	6302421 1000.00	914	32.85-	72.85	55.04
3.614	3.614	0.000	5927748 1000.00	923	39.54-	79.54	61.54
Average of Peak Amounts =					910		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
4.304	4.304	0.000	12518850 1000.00	957	80.00-	120.00	100.00
4.429	4.429	0.000	15297014 1000.00	984	102.19-	142.19	122.19
4.694	4.695	-0.001	11499757 1000.00	967	71.86-	111.86	91.86
4.869	4.868	0.001	11961723 1000.00	973	75.55-	115.55	95.55
5.015	5.015	0.000	26522429 1000.00	1000	191.86-	231.86	211.86
Average of Peak Amounts =					977		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdda.i/0317107.b/029b2901.d

Date: 17-MAR-2010 11:16

Client ID: AR166003

Sample Info: 1MAR100222-60 03

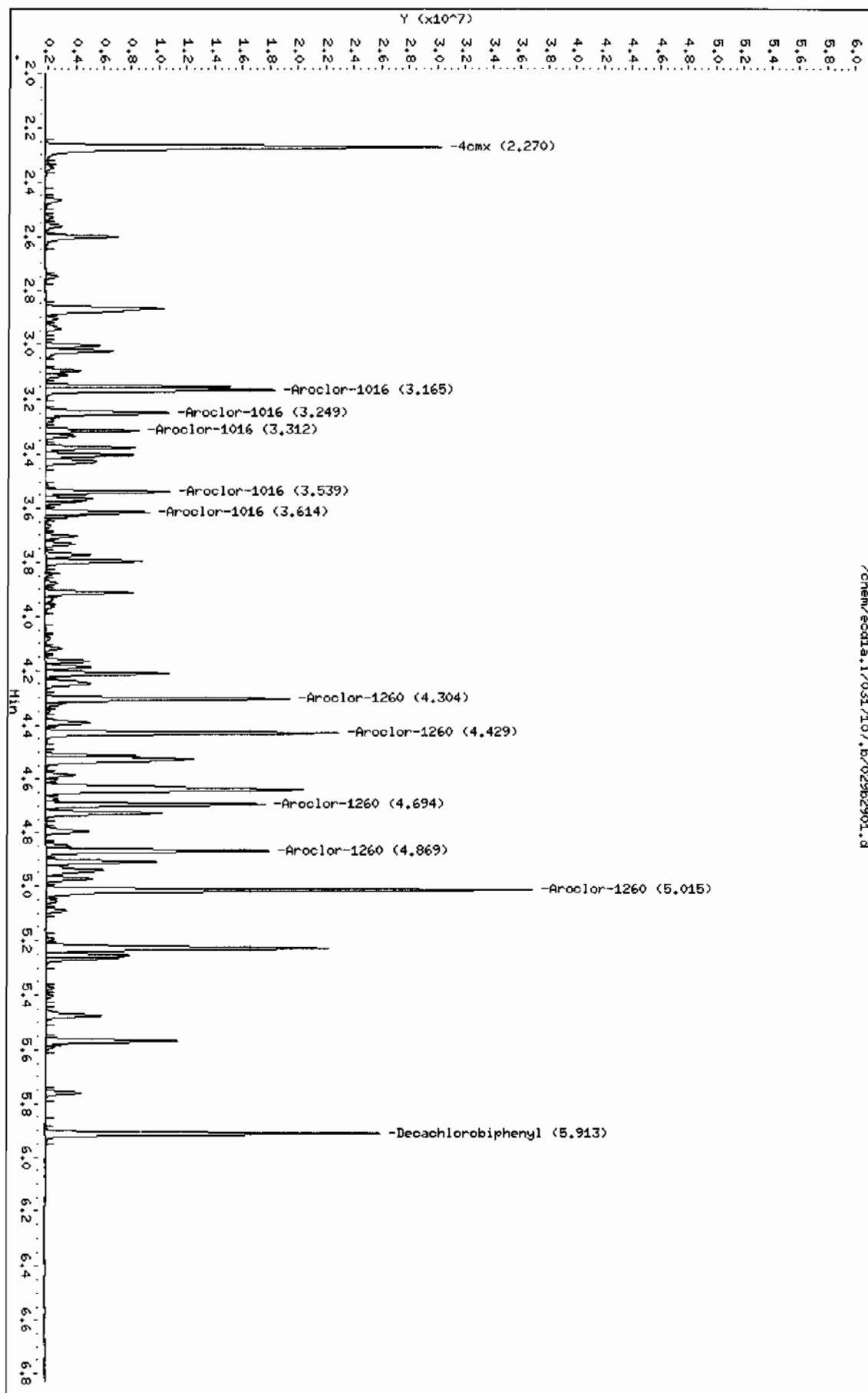
Column phase: CLP2

Instrument: ecdda.i

Operator: YSL

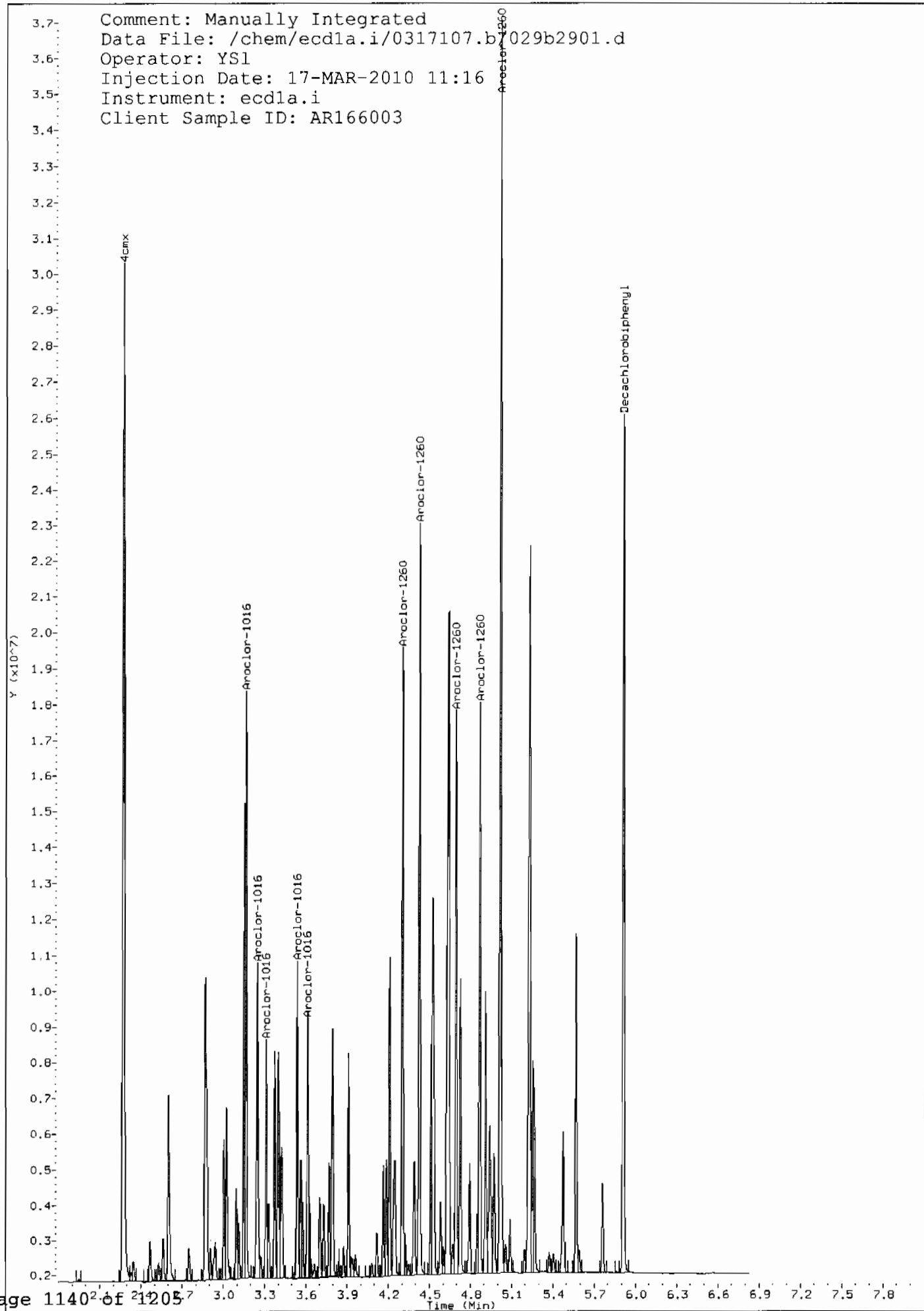
Column diameter: 0.25

/chem/ecdda.i/0317107.b/029b2901.d

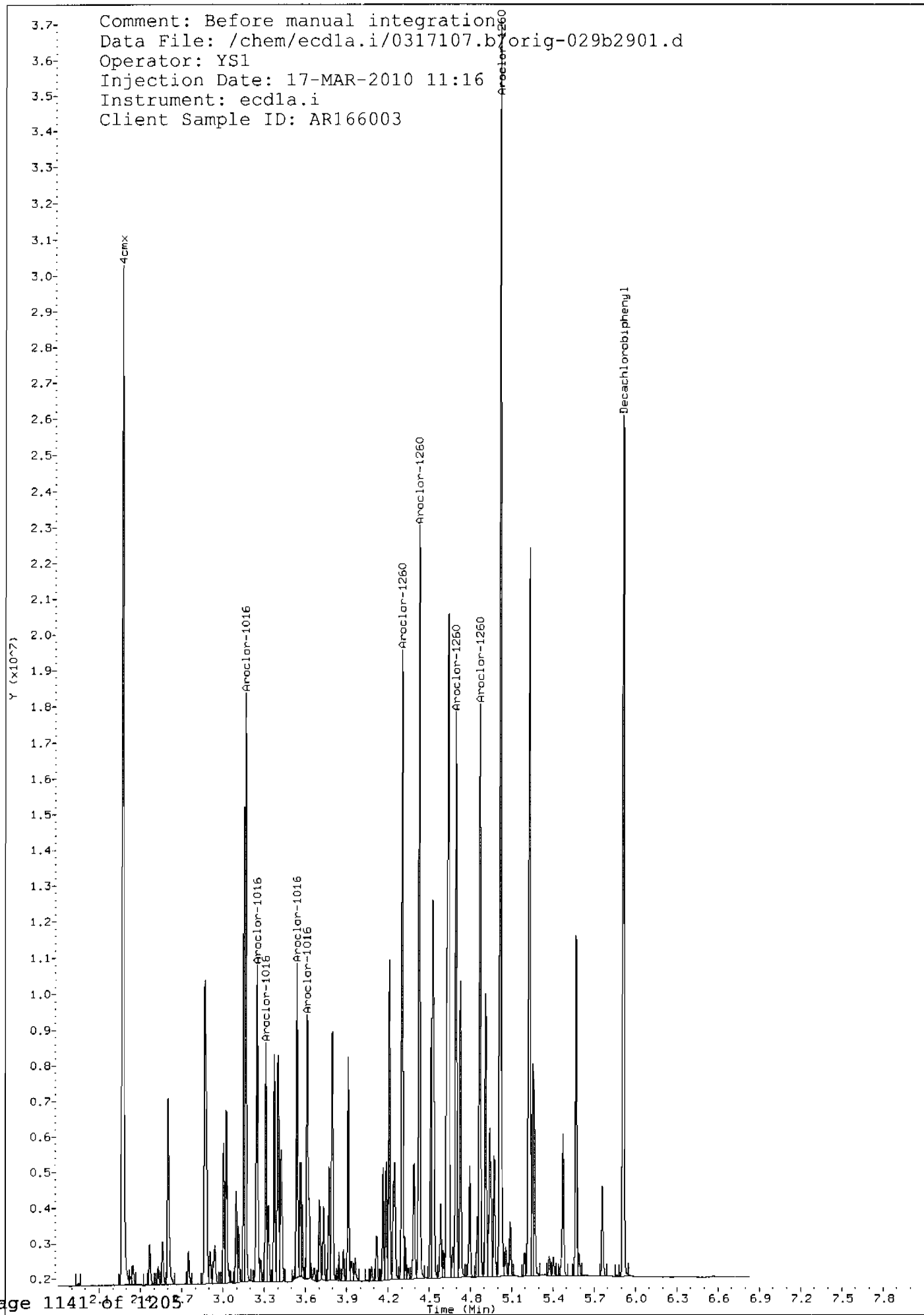




Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/0317107.b 029b2901.d  
Operator: YSl  
Injection Date: 17-MAR-2010 11:16  
Instrument: ecd1a.i  
Client Sample ID: AR166003



Comment: Before manual integration  
Data File: /chem/ecdl1.i/0317107.b orig-029b2901.d  
Operator: YS1  
Injection Date: 17-MAR-2010 11:16  
Instrument: ecd1a.i  
Client Sample ID: AR166003



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/041f4101.d  
 Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003  
 Inj Date : 17-MAR-2010 13:45  
 Operator : YS1 Inst ID: ecdl1a.i  
 Smp Info : |WAR100222-60 03  
 Misc Info :  
 Comment :  
 Method : /chem/ecdl1a.i/0317107.b/ECD1-F-8082-031110b.m  
 Meth Date : 17-Mar-2010 14:02 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
 Als bottle: 41 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: AR1660.sub  
 Target Version: 3.50 Sample Matrix: None  
 Processing Host: hpclp1

AMOUNTS

			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		( ug/L)	TARGET RANGE		RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx					CAS #: 877-09-8			
1.913	1.913	0.000	39908643	100.000	102	80.00-	120.00	100.00
-----								
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.215	5.216	-0.001	29516155	100.000	99.4	80.00-	120.00	100.00
-----								
1 Aroclor-1016					CAS #: 12674-11-2			
2.364	2.366	-0.002	13740656	1000.00	905	80.00-	120.00	100.00
2.650	2.651	-0.001	17708818	1000.00	935	108.88-	148.88	128.88
2.730	2.732	-0.002	11345501	1000.00	912	62.57-	102.57	82.57
2.769	2.768	0.001	6882553	1000.00	937	30.09-	70.09	50.09
2.979	2.978	0.001	8830871	1000.00	928	44.27-	84.27	64.27
Average of Peak Amounts =					923			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.704	3.703	0.001	18503233	1000.00	1010	80.00-	120.00	100.00
3.867	3.866	0.001	27155414	1000.00	1010	126.76-	166.76	146.76
4.028	4.028	0.000	29180859	1000.00	1030	137.71-	177.71	157.71
4.097	4.096	0.001	16467548	1000.00	1020	69.00-	109.00	89.00
4.239	4.238	0.001	17157619	1000.00	1020	72.73-	112.73	92.73
Average of Peak Amounts =					1.02e+03			
-----								

Data File: /chem/eod1a.i/0317107.b/041f4101.d

Date: 17-MAR-2010 13:45

Client ID: AR166003

Sample Info: IARR100222-60 03

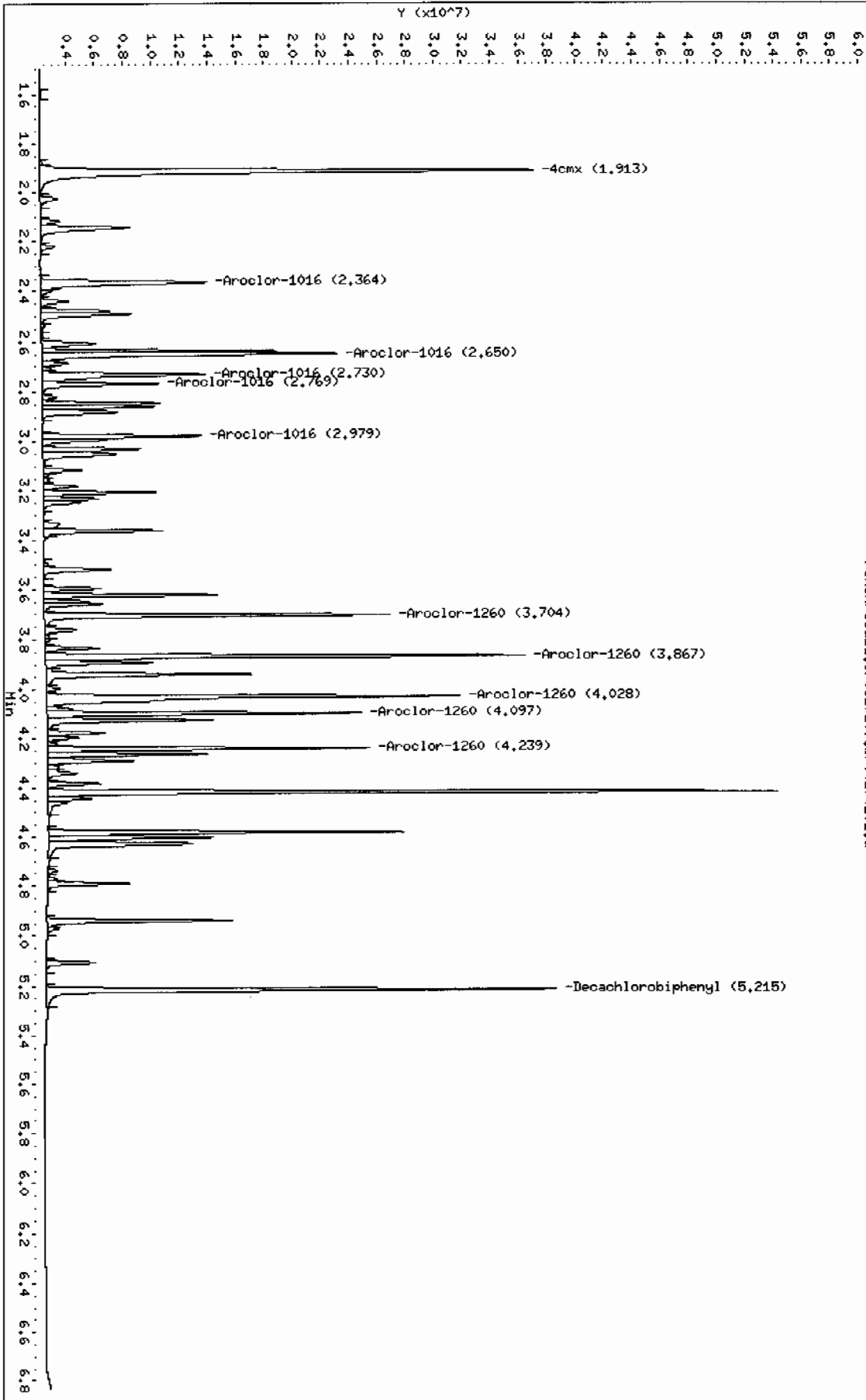
Column phase: CLP1

Instrument: eod1a.i

Operator: YSL

Column diameter: 0.25

/chem/eod1a.i/0317107.b/041f4101.d



Data File: /chem/ecdla.i/0317107.b/041b4101.d  
Report Date: 17-Mar-2010 14:03

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/041b4101.d  
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003  
Inj Date : 17-MAR-2010 13:45  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |WAR100222-60 03  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 17-Mar-2010 14:02 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 41 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1660.sub  
Target Version: 3.50 Sample Matrix: None  
Processing Host: hpc1p1

AMOUNTS							
			CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO	
=====	=====		=====	=====	=====	=====	
\$ 11 4cmx				CAS #: 877-09-8			
2.271	2.271	0.000	26527404 100.000	101	80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.912	5.913	-0.001	18369027 100.000	98.1	80.00- 120.00	100.00	
-----							
1 Aroclor-1016				CAS #: 12674-11-2			
3.165	3.166	-0.001	12114864 1000.00	963	80.00- 120.00	100.00 (M)	
3.249	3.248	0.001	7846163 1000.00	909	44.76- 84.76	64.76	
3.312	3.312	0.000	4874001 1000.00	922	20.23- 60.23	40.23	
3.539	3.538	0.001	6333687 1000.00	919	30.77- 70.77	52.28	
3.614	3.614	0.000	5813033 1000.00	905	37.01- 77.01	58.30	
Average of Peak Amounts =				923			
-----							
7 Aroclor-1260				CAS #: 11096-82-5			
4.304	4.304	0.000	12801946 1000.00	979	80.00- 120.00	100.00	
4.429	4.429	0.000	15573032 1000.00	1000	101.65- 141.65	121.65	
4.694	4.695	-0.001	11664978 1000.00	980	71.12- 111.12	91.12	
4.867	4.868	-0.001	12135049 1000.00	987	74.79- 114.79	94.79	
5.014	5.015	-0.001	26859913 1000.00	1020	189.81- 229.81	209.81	
Average of Peak Amounts =				993			

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/eodla.i/0317107.b/041b4101.d

Date: 17-Mar-2010 13:45

Client ID: AR166003

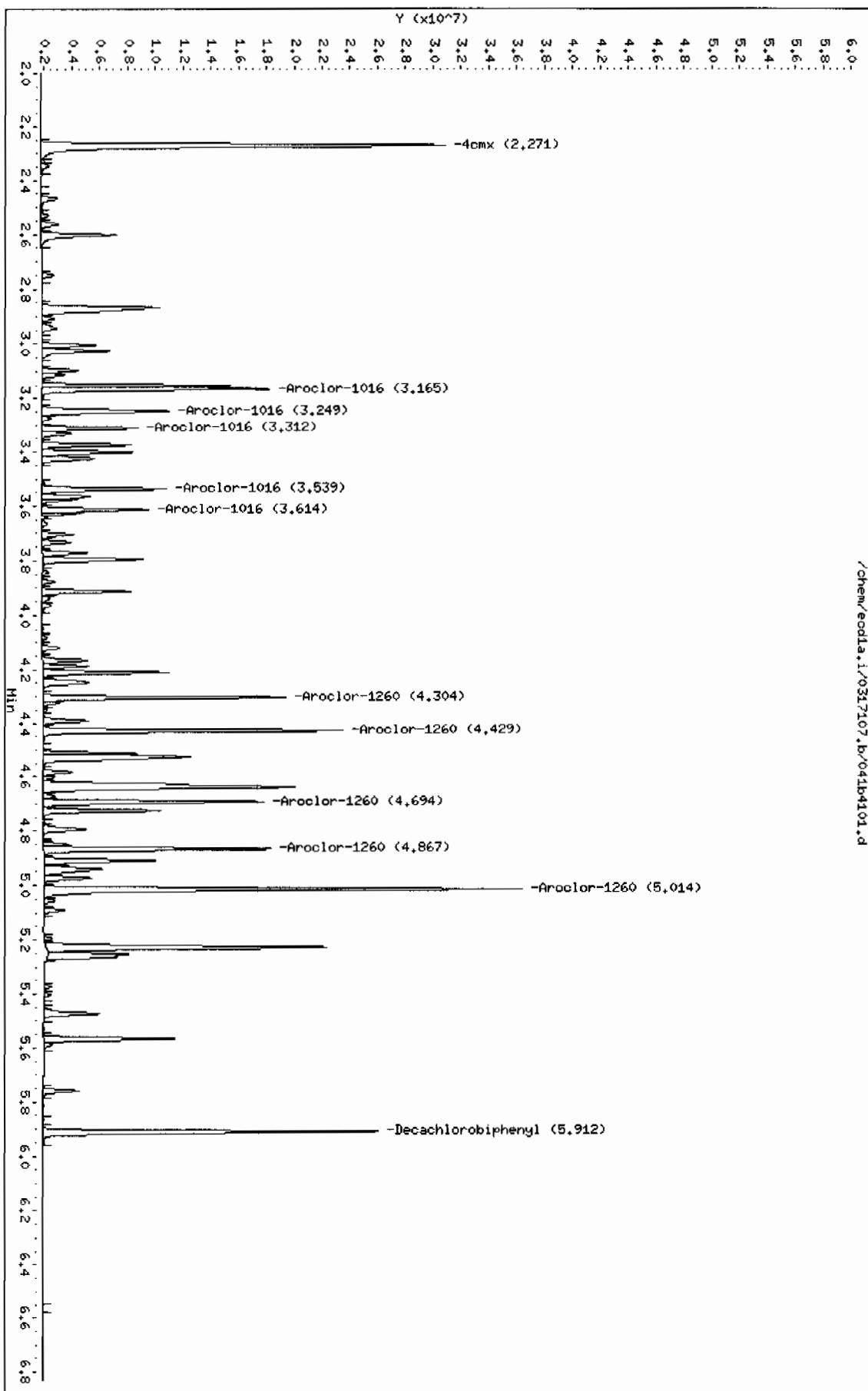
Sample Info: IMR100222-60 03

Column phase: CLP2

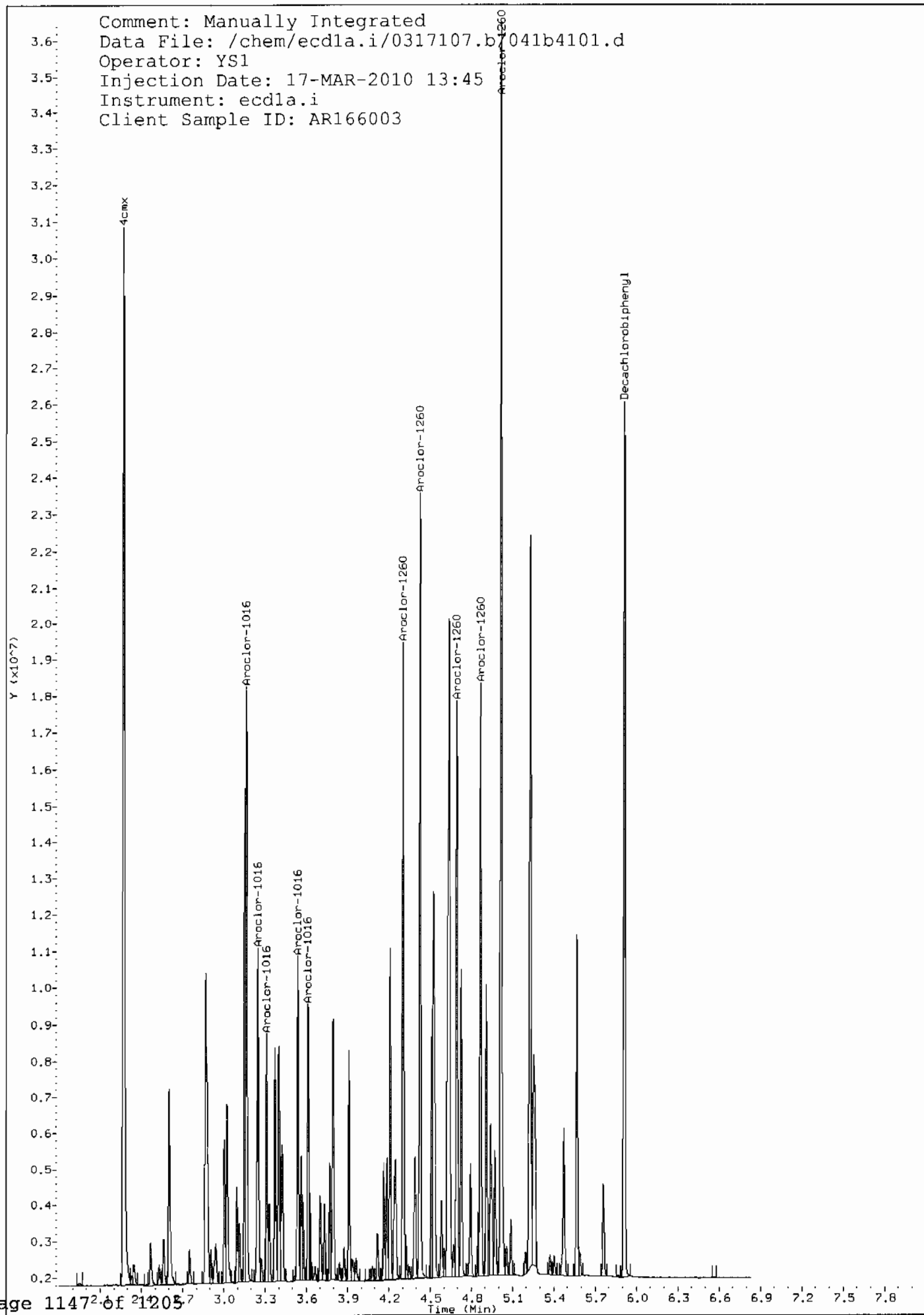
Instrument: eodla.i

Operator: YSL

Column diameter: 0.25

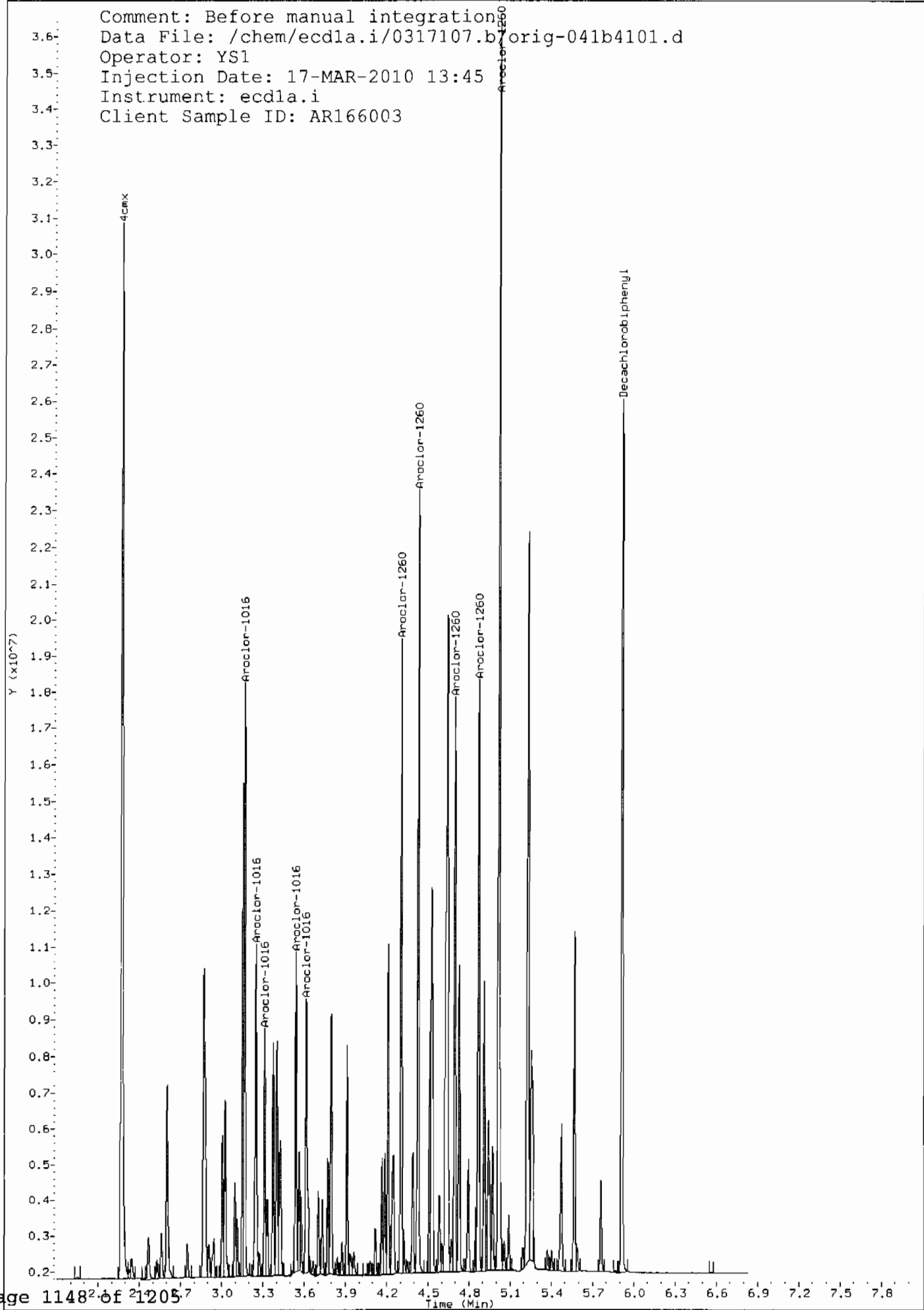


Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/0317107.b\041b4101.d  
Operator: YSl  
Injection Date: 17-MAR-2010 13:45  
Instrument: ecd1a.i  
Client Sample ID: AR166003





Comment: Before manual integration  
Data File: /chem/ecdl1.i/0317107.b7 orig-041b4101.d  
Operator: YS1  
Injection Date: 17-MAR-2010 13:45  
Instrument: ecd1a.i  
Client Sample ID: AR166003



Data File: /chem/ecdla.i/0317107.b/052f5201.d  
Report Date: 18-Mar-2010 06:51

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/052f5201.d  
Lab Smp Id: WAR100222-60 05 Client Smp ID: AR166005  
Inj Date : 17-MAR-2010 16:00  
Operator : YSl Inst ID: ecdla.i  
Smp Info : |WAR100222-60 05  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 18-Mar-2010 06:43 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 52 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1660.sub  
Target Version: 3.50 Sample Matrix: None

AMOUNTS						
			CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx				CAS #: 877-09-8		
1.912	1.913	+0.001	39850836	100.000	102 80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.216	5.216	0.000	28919331	100.000	97.4 80.00- 120.00	100.00
-----						
1 Aroclor-1016				CAS #: 12674-11-2		
2.365	2.366	-0.001	13700349	1000.00	903 80.00- 120.00	100.00
2.651	2.651	0.000	17707917	1000.00	935 104.05- 144.05	129.25
2.731	2.732	-0.001	11332822	1000.00	911 60.07- 100.07	82.72
2.769	2.768	0.001	6871248	1000.00	935 28.15- 68.15	50.15
2.979	2.978	0.001	8758451	1000.00	920 42.07- 82.07	63.93
Average of Peak Amounts =				921		
-----						
7 Aroclor-1260				CAS #: 11096-82-5		
3.704	3.703	0.001	18483383	1000.00	1010 80.00- 120.00	100.00
3.867	3.866	0.001	27217752	1000.00	1010 127.01- 167.01	147.26
4.029	4.028	0.001	28815051	1000.00	1020 137.08- 177.08	155.90
4.097	4.096	0.001	16377638	1000.00	1010 68.58- 108.58	88.61
4.240	4.238	0.002	17021980	1000.00	1010 71.80- 111.80	92.09
Average of Peak Amounts =				1.01e+03		
-----						

Data File: /chem/eodla.i/0317107.b/052F5201.d

Date: 17-Mar-2010 16:00

Client ID: AR166005

Sample Info: IWAR100222-60 05

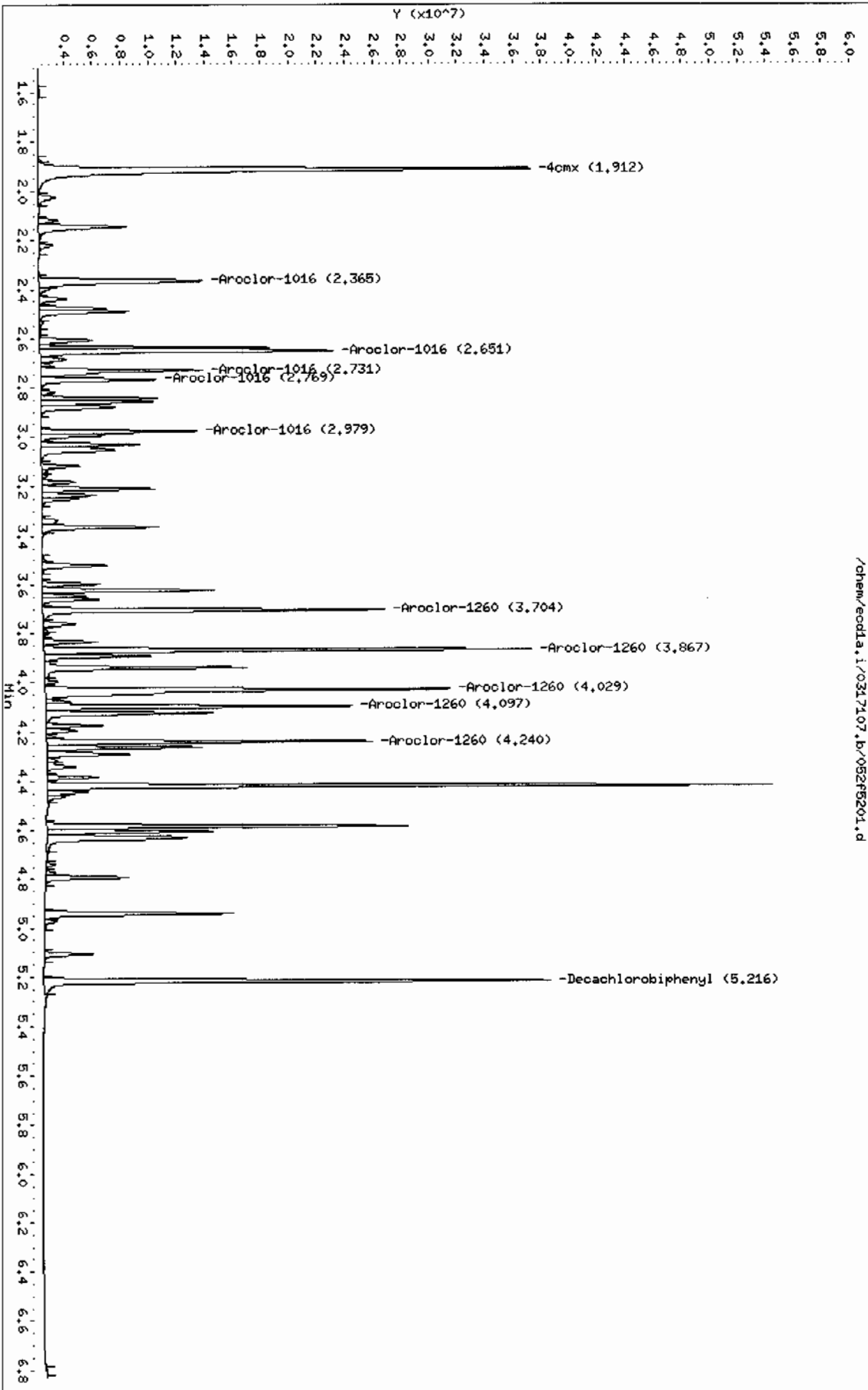
Column phase: CLP1

Instrument: eodla.i

Operator: YSI

Column diameter: 0.25

Page 1



Data File: /chem/ecdl1a.i/0317107.b/052b5201.d  
 Report Date: 18-Mar-2010 06:51

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/0317107.b/052b5201.d  
 Lab Smp Id: WAR100222-60 05 Client Smp ID: AR166005  
 Inj Date : 17-MAR-2010 16:00  
 Operator : YS1 Inst ID: ecd1a.i  
 Smp Info : |WAR100222-60 05  
 Misc Info :  
 Comment :  
 Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
 Meth Date : 18-Mar-2010 06:43 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
 Als bottle: 52 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: AR1660.sub  
 Target Version: 3.50 Sample Matrix: None

AMOUNTS							
			CAL-AMT		ON-COL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		( ug/L)		TARGET RANGE
==	=====	=====	=====	=====	=====	=====	=====
-----							
\$ 11 4cmx					CAS #:	877-09-8	
2.270	2.271	-0.001	26342874	100.000	100	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl					CAS #:	2051-24-3	
5.913	5.913	0.000	18470944	100.000	98.7	80.00- 120.00	100.00
-----							
1 Aroclor-1016					CAS #:	12674-11-2	
3.166	3.166	0.000	11613648	1000.00	923	80.00- 120.00	100.00 (M)
3.249	3.248	0.001	7831181	1000.00	907	47.43- 87.43	67.43
3.312	3.312	0.000	4850641	1000.00	918	21.77- 61.77	41.77
3.539	3.538	0.001	6410309	1000.00	930	35.20- 75.20	55.20
3.614	3.614	0.000	5990861	1000.00	933	31.58- 71.58	61.54
Average of Peak Amounts =					922		
-----							
7 Aroclor-1260					CAS #:	11096-82-5	
4.304	4.304	0.000	12808377	1000.00	979	80.00- 120.00	100.00
4.429	4.429	0.000	15587772	1000.00	1000	101.70- 141.70	121.70
4.695	4.695	0.000	11731682	1000.00	986	71.59- 111.59	91.59
4.869	4.868	0.001	12217603	1000.00	994	75.39- 115.39	95.39
5.015	5.015	0.000	27050584	1000.00	1020	191.19- 231.19	211.19
Average of Peak Amounts =					997		
-----							

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdl1.i/0317107.b/05265201.d

Date: 17-MAR-2010 16:00

Client ID: AR16005

Sample Info: IWR100222-60 05

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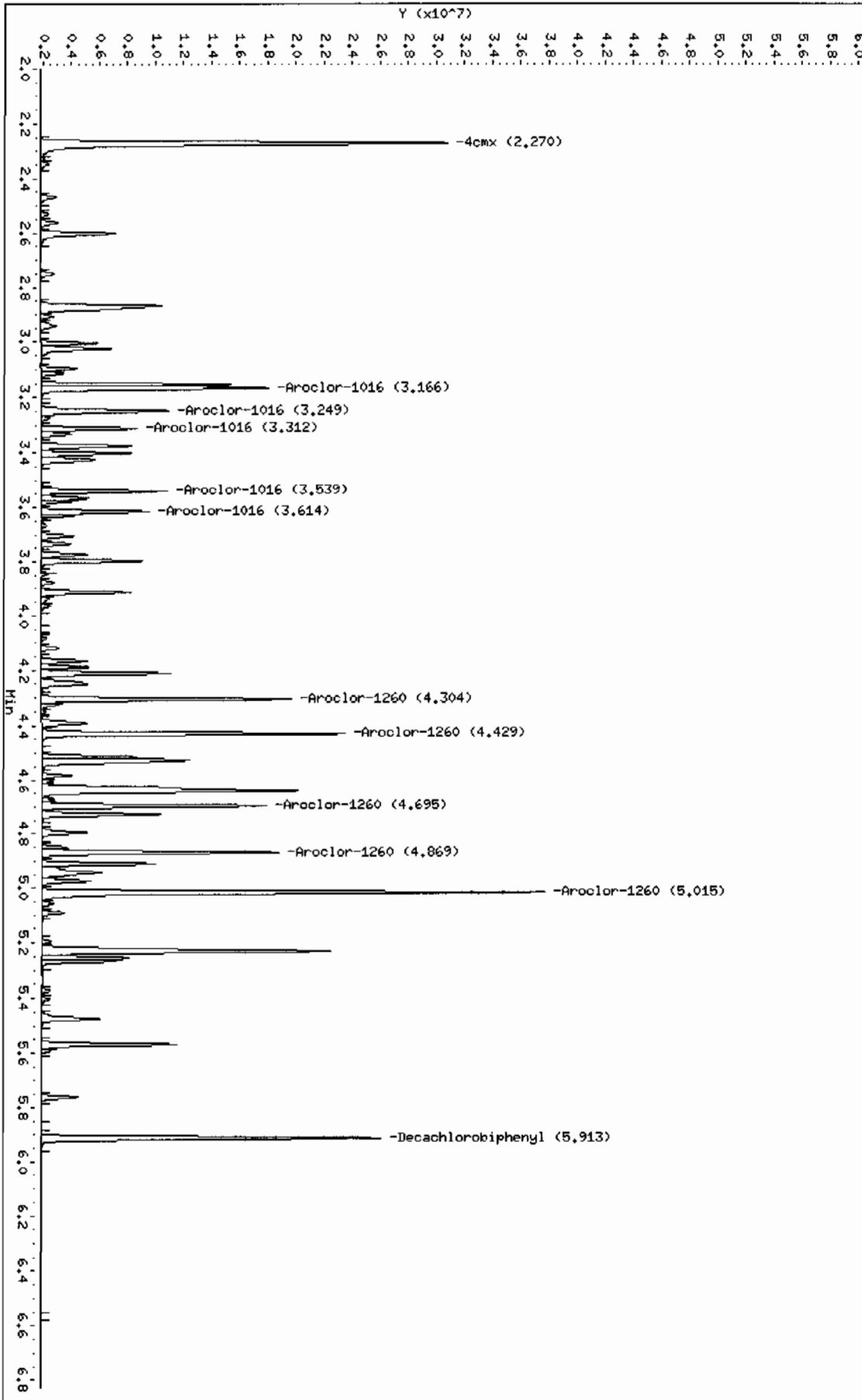
Instrument: ecdl1.i

Operator: YSI

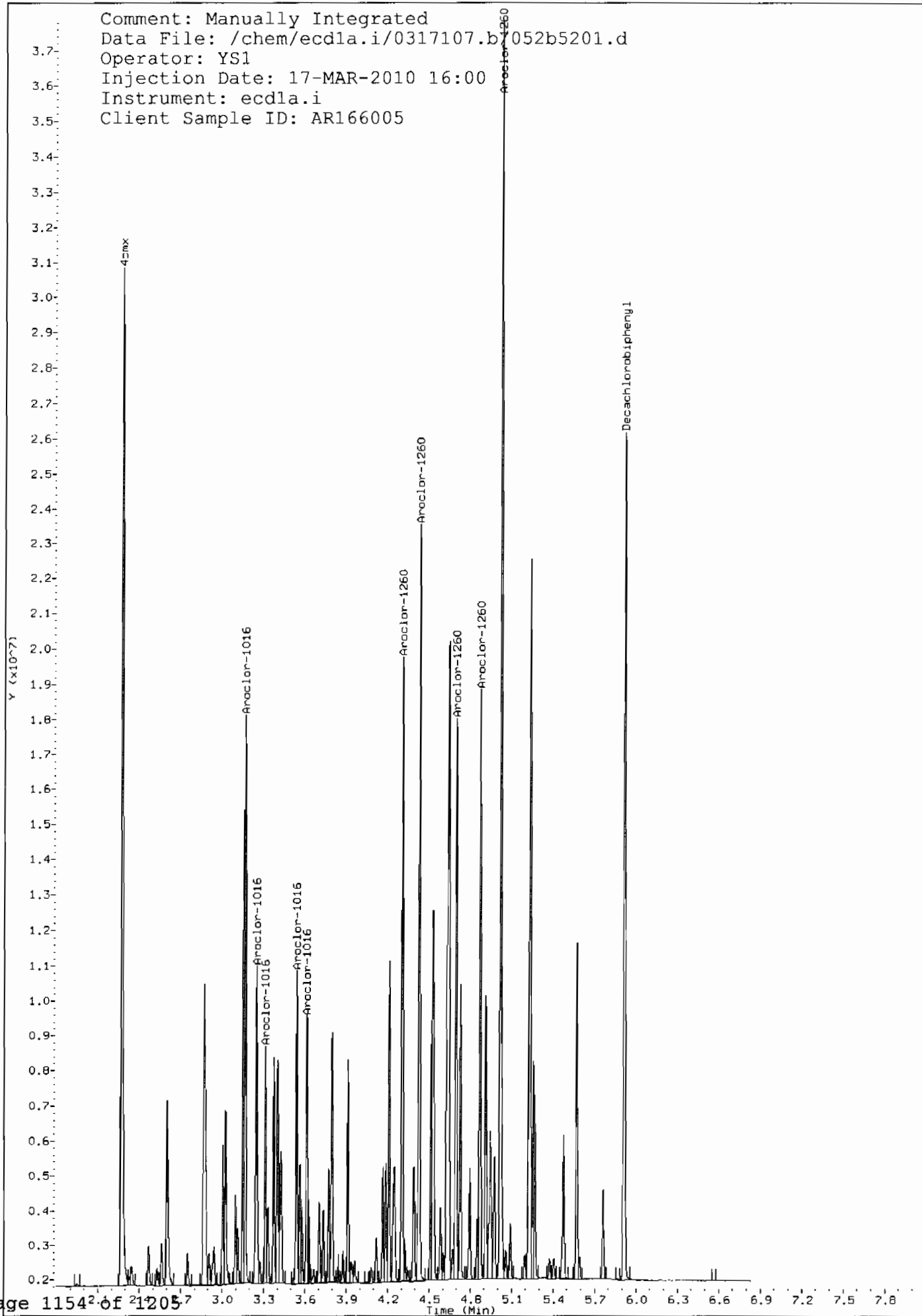
Column diameter: 0.25

Column phase: CLP2

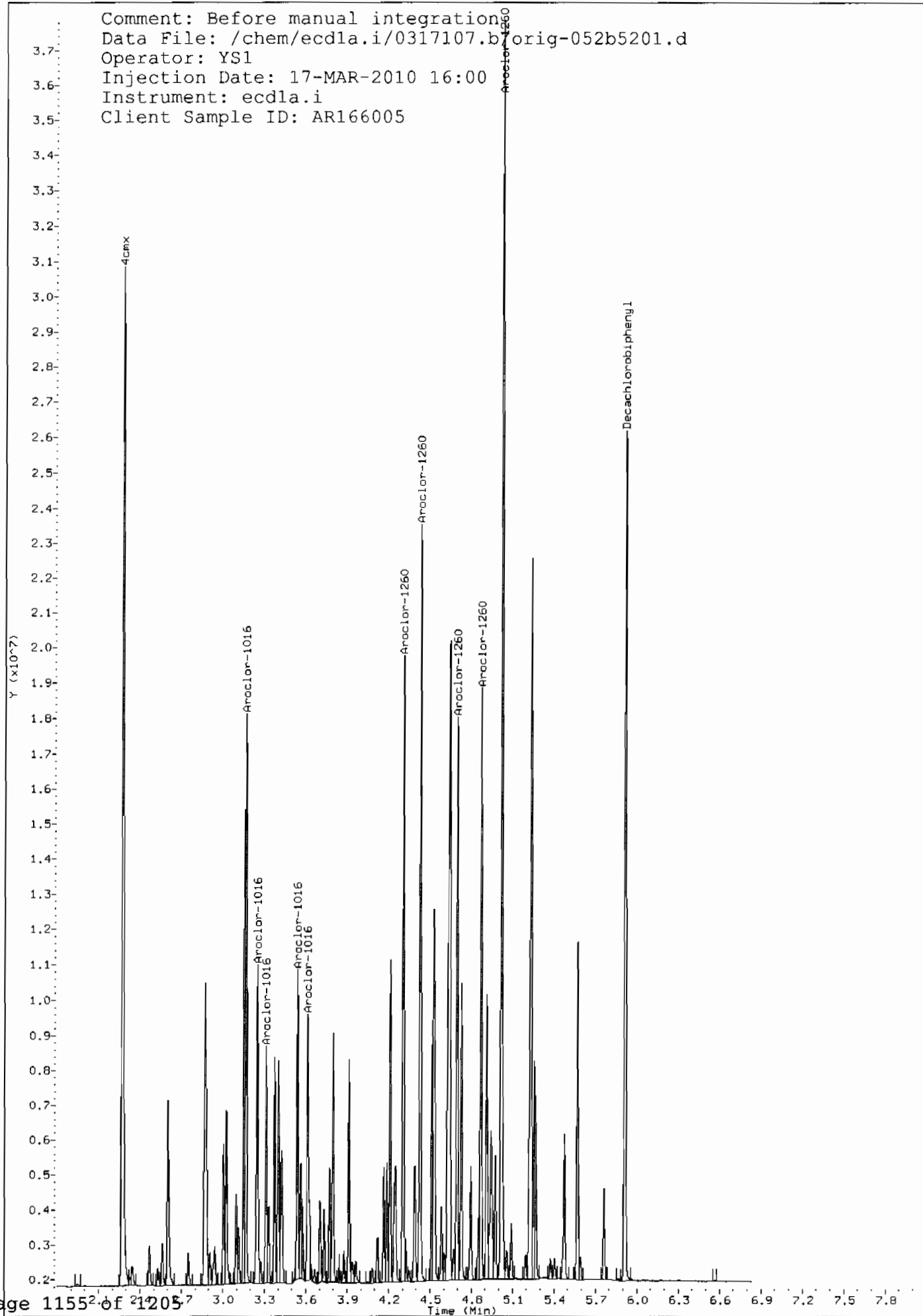
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Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/0317107.b\052b5201.d  
Operator: YS1  
Injection Date: 17-MAR-2010 16:00  
Instrument: ecd1a.i  
Client Sample ID: AR166005



Comment: Before manual integration  
Data File: /chem/ecdl1a.i/0317107.b7orig-052b5201.d  
Operator: YS1  
Injection Date: 17-MAR-2010 16:00  
Instrument: ecd1a.i  
Client Sample ID: AR166005





8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2140

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 1.91		DCB: 5.22			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10 1446	1.91	5.23
02	ZZZZZ	ZZZZZ	03/11/10 1456	1.92	5.22
03	ZZZZZ	ZZZZZ	03/11/10 1507		
04	ZZZZZ	ZZZZZ	03/11/10 1517		
05	ZZZZZ	ZZZZZ	03/11/10 1528		
06	AR126801	WAR100107-68	03/11/10 1538		
07	AR123201	WAR100104-32	03/11/10 1549		
08	AR122101	WAR100104-21	03/11/10 1559		
09	AR126201	WAR100104-62	03/11/10 1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10 1621		
11	AR166001	WAR100311-01	03/11/10 1631	1.92	5.22
12	AR166002	WAR100311-02	03/11/10 1641	1.92	5.22
13	AR166003	WAR100311-03	03/11/10 1652	1.92	5.22
14	AR166004	WAR100311-04	03/11/10 1702	1.91	5.22
15	AR166005	IAR100311-01	03/11/10 1713	1.92	5.22
16	AR166001	WAR100222-60	03/11/10 1724	1.91	5.22
17	AR125401	WAR100311-05	03/11/10 1734		
18	AR125402	WAR100311-06	03/11/10 1745		
19	AR125403	WAR100311-07	03/11/10 1755		
20	AR125404	WAR100311-08	03/11/10 1806		
21	AR125405	IAR100219-02	03/11/10 1816		
22	AR125401	WAR100219-54	03/11/10 1827		
23	AR124201	WAR100311-09	03/11/10 1837		
24	AR124202	WAR100311-10	03/11/10 1848		
25	AR124203	WAR100311-11	03/11/10 1858		
26	AR124204	WAR100311-12	03/11/10 1909		
27	AR124205	IAR100219-01	03/11/10 1919		
28	AR124201	WAR100219-42	03/11/10 1930		
29	AR124801	WAR100311-13	03/11/10 1940		
30	AR124802	WAR100311-14	03/11/10 1951		
31	AR124803	WAR100311-15	03/11/10 2001		
32	AR124804	WAR100311-16	03/11/10 2012		

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)

DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2140

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 1.91			DCB: 5.22		
EPA	LAB	DATE	TIME	S1	DCB
SAMPLE NO.	SAMPLE ID	ANALYZED	ANALYZED	RT #	RT #
01	AR124805	IAR100211-01	03/11/10	2022	
02	AR124801	WAR100223-48	03/11/10	2033	
03	PIBLK02	WAR100219-99	03/11/10	2044	1.91 5.22
04	ZZZZZ	ZZZZZ	03/11/10	2054	1.92 5.22
05	ZZZZZ	ZZZZZ	03/11/10	2105	1.92 5.22
06	ZZZZZ	ZZZZZ	03/11/10	2115	1.92 5.22
07	ZZZZZ	ZZZZZ	03/11/10	2126	1.92 5.22
08	ZZZZZ	ZZZZZ	03/11/10	2136	1.92 5.22
09	ZZZZZ	ZZZZZ	03/11/10	2147	1.92 5.22
10	ZZZZZ	ZZZZZ	03/11/10	2157	1.92 5.22
11	ZZZZZ	ZZZZZ	03/11/10	2208	1.92 5.22
12	ZZZZZ	ZZZZZ	03/11/10	2218	1.92 5.22
13	ZZZZZ	ZZZZZ	03/11/10	2229	1.92 5.22
14	AR166002	WAR100222-60	03/11/10	2239	1.91 5.22
15	PIBLK03	WAR100219-99	03/11/10	2250	1.91 5.22
16	ZZZZZ	ZZZZZ	03/11/10	2300	1.90 5.23
17	ZZZZZ	ZZZZZ	03/11/10	2311	1.92 5.22
18	ZZZZZ	ZZZZZ	03/11/10	2321	1.91 5.22
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					

QC LIMITS  
S1 = 4cmx (+/- 0.03 MINUTES)  
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2140

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 2.27			DCB: 5.92		
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	SI RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/11/10 1446	2.27	5.92
02	ZZZZZ	ZZZZZ	03/11/10 1456	2.27	5.92
03	ZZZZZ	ZZZZZ	03/11/10 1507		
04	ZZZZZ	ZZZZZ	03/11/10 1517		
05	ZZZZZ	ZZZZZ	03/11/10 1528		
06	AR126801	WAR100107-68	03/11/10 1538		
07	AR123201	WAR100104-32	03/11/10 1549		
08	AR122101	WAR100104-21	03/11/10 1559		
09	AR126201	WAR100104-62	03/11/10 1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10 1621		
11	AR166001	WAR100311-01	03/11/10 1631	2.27	5.92
12	AR166002	WAR100311-02	03/11/10 1641	2.27	5.92
13	AR166003	WAR100311-03	03/11/10 1652	2.27	5.92
14	AR166004	WAR100311-04	03/11/10 1702	2.27	5.92
15	AR166005	IAR100311-01	03/11/10 1713	2.27	5.92
16	AR166001	WAR100222-60	03/11/10 1724	2.27	5.92
17	AR125401	WAR100311-05	03/11/10 1734		
18	AR125402	WAR100311-06	03/11/10 1745		
19	AR125403	WAR100311-07	03/11/10 1755		
20	AR125404	WAR100311-08	03/11/10 1806		
21	AR125405	IAR100219-02	03/11/10 1816		
22	AR125401	WAR100219-54	03/11/10 1827		
23	AR124201	WAR100311-09	03/11/10 1837		
24	AR124202	WAR100311-10	03/11/10 1848		
25	AR124203	WAR100311-11	03/11/10 1858		
26	AR124204	WAR100311-12	03/11/10 1909		
27	AR124205	IAR100219-01	03/11/10 1919		
28	AR124201	WAR100219-42	03/11/10 1930		
29	AR124801	WAR100311-13	03/11/10 1940		
30	AR124802	WAR100311-14	03/11/10 1951		
31	AR124803	WAR100311-15	03/11/10 2001		
32	AR124804	WAR100311-16	03/11/10 2012		

QC LIMITS  
S1 = 4cmx (+/- 0.03 MINUTES)  
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2140

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION							
S1 : 2.27				DCB: 5.92			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #	
01	AR124805	IAR100211-01	03/11/10	2022			
02	AR124801	WAR100223-48	03/11/10	2033			
03	PIBLK02	WAR100219-99	03/11/10	2044	2.27	5.92	
04	ZZZZZ	ZZZZZ	03/11/10	2054	2.28	5.92	
05	ZZZZZ	ZZZZZ	03/11/10	2105	2.28	5.92	
06	ZZZZZ	ZZZZZ	03/11/10	2115	2.28	5.92	
07	ZZZZZ	ZZZZZ	03/11/10	2126	2.28	5.92	
08	ZZZZZ	ZZZZZ	03/11/10	2136	2.28	5.92	
09	ZZZZZ	ZZZZZ	03/11/10	2147	2.28	5.92	
10	ZZZZZ	ZZZZZ	03/11/10	2157	2.28	5.92	
11	ZZZZZ	ZZZZZ	03/11/10	2208	2.28	5.92	
12	ZZZZZ	ZZZZZ	03/11/10	2218	2.28	5.92	
13	ZZZZZ	ZZZZZ	03/11/10	2229	2.28	5.92	
14	AR166002	WAR100222-60	03/11/10	2239	2.27	5.92	
15	PIBLK03	WAR100219-99	03/11/10	2250	2.27	5.92	
16	ZZZZZ	ZZZZZ	03/11/10	2300		5.92	
17	ZZZZZ	ZZZZZ	03/11/10	2311		5.23*	
18	ZZZZZ	ZZZZZ	03/11/10	2321			
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							

QC LIMITS  
S1 = 4cmx (+/- 0.03 MINUTES)  
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2140

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
S1 : 1.91			DCB: 5.22		
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/17/10	1.91	5.21
02	AR166001	WAR100222-60	03/17/10	1.91	5.22
03	AR125401	WAR100219-54	03/17/10		
04	AR124201	WAR100219-42	03/17/10		
05	AR124801	WAR100223-48	03/17/10		
06	AR126801	WAR100107-68	03/17/10		
07	AR123201	WAR100104-32	03/17/10		
08	AR122101	WAR100104-21	03/17/10		
09	AR126201	WAR100104-62	03/17/10		
10	DDTANALOGSTD	WAR091219-DD	03/17/10		
11	PIBLK02	WAR100219-99	03/17/10	1.91	5.22
12	ZZZZZ	ZZZZZ	03/17/10	1.91	5.22
13	ZZZZZ	ZZZZZ	03/17/10	1.91	5.22
14	ZZZZZ	ZZZZZ	03/17/10	1.91	5.22
15	ZZZZZ	ZZZZZ	03/17/10	1.91	5.22
16	ZZZZZ	ZZZZZ	03/17/10	1.91	5.22
17	AR166002	WAR100222-60	03/17/10	1.91	5.22
18	PIBLK03	WAR100219-99	03/17/10	1.91	5.22
19	PBLK01	1202072502	03/17/10	1.91	5.22
20	PBLK01LCS	1202072503	03/17/10	1.91	5.22
21	ZZZZZ	ZZZZZ	03/17/10	1.91	5.22
22	ZZZZZ	ZZZZZ	03/17/10	1.91	5.22
23	ZZZZZ	ZZZZZ	03/17/10	1.91	5.22
24	ZZZZZ	ZZZZZ	03/17/10	1.91	5.22
25	ZZZZZ	ZZZZZ	03/17/10	1.91	5.21
26	ZZZZZ	ZZZZZ	03/17/10	1.91	5.21
27	ZZZZZ	ZZZZZ	03/17/10	1.91	5.21
28	ZZZZZ	ZZZZZ	03/17/10	1.91	5.21
29	AR166003	WAR100222-60	03/17/10	1.91	5.22
30	PIBLK04	WAR100219-99	03/17/10	1.91	5.22
31	ZZZZZ	ZZZZZ	03/17/10	1.91	5.21
32	ZZZZZ	ZZZZZ	03/17/10	1.91	5.22

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)

DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2140

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION							
S1 : 1.91				DCB: 5.22			
	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #	
01	ZZZZZ	ZZZZZ	03/17/10	1205	1.91	5.22	
02	ZZZZZ	ZZZZZ	03/17/10	1217	1.91	5.21	
03	ZZZZZ	ZZZZZ	03/17/10	1230	1.91	5.21	
04	ZZZZZ	ZZZZZ	03/17/10	1242	1.91	5.22	
05	ZZZZZ	ZZZZZ	03/17/10	1255	1.91	5.21	
06	ZZZZZ	ZZZZZ	03/17/10	1308	1.91	5.22	
07	ZZZZZ	ZZZZZ	03/17/10	1320	1.91	5.22	
08	ZZZZZ	ZZZZZ	03/17/10	1333	1.91	5.21	
09	AR166003	WAR100222-60	03/17/10	1345	1.91	5.22	
10	PIBLK04	WAR100219-99	03/17/10	1356	1.91	5.22	
11	ZZZZZ	ZZZZZ	03/17/10	1406	1.91	5.22	
12	ZZZZZ	ZZZZZ	03/17/10	1419	1.91	5.22	
13	ZZZZZ	ZZZZZ	03/17/10	1432	1.91	5.22	
14	ZZZZZ	ZZZZZ	03/17/10	1444	1.91	5.21	
15	RE36-10-8285	248249001	03/17/10	1457	1.91	5.21	
16	RE36-10-8286	248249002	03/17/10	1509	1.91	5.21	
17	RE36-10-8283	248249003	03/17/10	1522	1.91	5.21	
18	RE36-10-8284	248249004	03/17/10	1535	1.91	5.21	
19	ZZZZZ	ZZZZZ	03/17/10	1547	1.91	5.21	
20	AR166005	WAR100222-60	03/17/10	1600	1.91	5.22	
21	PIBLK06	WAR100219-99	03/17/10	1610	1.91	5.22	
22	ZZZZZ	ZZZZZ	03/17/10	1621	1.91	5.22	
23	ZZZZZ	ZZZZZ	03/17/10	1634	1.91	5.22	
24	ZZZZZ	ZZZZZ	03/17/10	1646	1.91	5.21	
25	ZZZZZ	ZZZZZ	03/17/10	1659	1.91	5.22	
26	ZZZZZ	ZZZZZ	03/17/10	1711	1.91	5.21	
27	ZZZZZ	ZZZZZ	03/17/10	1724	1.91	5.22	
28	ZZZZZ	ZZZZZ	03/17/10	1737	1.91	5.21	
29	AR166006	WAR100222-60	03/17/10	1749	1.91	5.22	
30	PIBLK07	WAR100219-99	03/17/10	1802	1.91	5.22	
31	ZZZZZ	ZZZZZ	03/17/10	1815	1.91		
32	ZZZZZ	ZZZZZ	03/17/10	1827	1.91	5.22	

S1 = 4cmx (+/- 0.03 MINUTES)  
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

page 2 of 2

FORM VIII PEST

OLM03.0

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2140

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 2.27			DCB: 5.91			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #	
01	PIBLK01	WAR100219-99	03/17/10	0557	2.27	5.91
02	AR166001	WAR100222-60	03/17/10	0608	2.27	5.91
03	AR125401	WAR100219-54	03/17/10	0618		
04	AR124201	WAR100219-42	03/17/10	0629		
05	AR124801	WAR100223-48	03/17/10	0639		
06	AR126801	WAR100107-68	03/17/10	0650		
07	AR123201	WAR100104-32	03/17/10	0701		
08	AR122101	WAR100104-21	03/17/10	0711		
09	AR126201	WAR100104-62	03/17/10	0722		
10	DDTANALOGSTD	WAR091219-DD	03/17/10	0736		
11	PIBLK02	WAR100219-99	03/17/10	0746	2.27	5.91
12	ZZZZZ	ZZZZZ	03/17/10	0757	2.27	5.91
13	ZZZZZ	ZZZZZ	03/17/10	0807	2.27	5.91
14	ZZZZZ	ZZZZZ	03/17/10	0818	2.27	5.91
15	ZZZZZ	ZZZZZ	03/17/10	0828	2.27	5.91
16	ZZZZZ	ZZZZZ	03/17/10	0841	2.27	5.91
17	AR166002	WAR100222-60	03/17/10	0853	2.27	5.91
18	PIBLK03	WAR100219-99	03/17/10	0904	2.27	5.91
19	PBLK01	1202072502	03/17/10	0914	2.27	5.91
20	PBLK01LCS	1202072503	03/17/10	0925	2.27	5.91
21	ZZZZZ	ZZZZZ	03/17/10	0935	2.27	5.91
22	ZZZZZ	ZZZZZ	03/17/10	0948	2.27	5.91
23	ZZZZZ	ZZZZZ	03/17/10	1001	2.27	5.91
24	ZZZZZ	ZZZZZ	03/17/10	1013	2.27	5.91
25	ZZZZZ	ZZZZZ	03/17/10	1026	2.27	5.91
26	ZZZZZ	ZZZZZ	03/17/10	1038	2.27	5.91
27	ZZZZZ	ZZZZZ	03/17/10	1051	2.27	5.91
28	ZZZZZ	ZZZZZ	03/17/10	1104	2.27	5.91
29	AR166003	WAR100222-60	03/17/10	1116	2.27	5.91
30	PIBLK04	WAR100219-99	03/17/10	1129	2.27	5.91
31	ZZZZZ	ZZZZZ	03/17/10	1141	2.27	5.91
32	ZZZZZ	ZZZZZ	03/17/10	1152	2.27	5.91

QC LIMITS  
S1 = 4cmx (+/- 0.03 MINUTES)  
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2140

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 2.27			DCB: 5.91			
EPA	LAB	DATE	TIME	S1	DCB	
SAMPLE NO.	SAMPLE ID	ANALYZED	ANALYZED	RT	RT	#
01	ZZZZZ	03/17/10	1205	2.27	5.91	
02	ZZZZZ	03/17/10	1217	2.27	5.91	
03	ZZZZZ	03/17/10	1230	2.27	5.91	
04	ZZZZZ	03/17/10	1242	2.27	5.91	
05	ZZZZZ	03/17/10	1255	2.27	5.91	
06	ZZZZZ	03/17/10	1308	2.27	5.91	
07	ZZZZZ	03/17/10	1320	2.27	5.91	
08	ZZZZZ	03/17/10	1333	2.27	5.91	
09	AR166003	03/17/10	1345	2.27	5.91	
10	PIBLK04	03/17/10	1356	2.27	5.91	
11	ZZZZZ	03/17/10	1406	2.27	5.91	
12	ZZZZZ	03/17/10	1419	2.27	5.91	
13	ZZZZZ	03/17/10	1432	2.27	5.91	
14	ZZZZZ	03/17/10	1444	2.27	5.91	
15	RE36-10-8285	03/17/10	1457	2.27	5.91	
16	RE36-10-8286	03/17/10	1509	2.27	5.91	
17	RE36-10-8283	03/17/10	1522	2.27	5.91	
18	RE36-10-8284	03/17/10	1535	2.27	5.91	
19	ZZZZZ	03/17/10	1547	2.27	5.91	
20	AR166005	03/17/10	1600	2.27	5.91	
21	PIBLK06	03/17/10	1610	2.27	5.91	
22	ZZZZZ	03/17/10	1621	2.27	5.91	
23	ZZZZZ	03/17/10	1634	2.27	5.91	
24	ZZZZZ	03/17/10	1646	2.27	5.91	
25	ZZZZZ	03/17/10	1659	2.27	5.91	
26	ZZZZZ	03/17/10	1711	2.27	5.91	
27	ZZZZZ	03/17/10	1724	2.27	5.91	
28	ZZZZZ	03/17/10	1737	2.27	5.91	
29	AR166006	03/17/10	1749	2.27	5.91	
30	PIBLK07	03/17/10	1802	2.27	5.91	
31	ZZZZZ	03/17/10	1815	2.27	5.91	
32	ZZZZZ	03/17/10	1827	2.27	5.91	

QC LIMITS  
S1 = 4cmx (+/- 0.03 MINUTES)  
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

page 2 of 2

FORM VIII PEST

OLM03.0



Identification Summary

Page 1 of 1

SDG Number: 10-2140  
Lab Sample ID: 1202072503

Client ID: LCS for batch 965798

Data File: 020f2001.d  
Inst: ECD1A.I\_1  
Column: CLP1  
Analyzed: 17-MAR-10 09:25

Data File: 020b2001.d  
Inst: ECD1A.I\_2  
Column: CLP2  
Analyzed: 17-MAR-10 09:25

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							1.56
Column 1	1	2.37	2.34 - 2.4	19.8		ug/kg	
	2	2.65	2.62 - 2.68	19.1		ug/kg	
	3	2.73	2.7 - 2.76	19.1		ug/kg	
	4	2.77	2.74 - 2.8	19.3		ug/kg	
	5	2.98	2.95 - 3.01	19.3		ug/kg	
					19.3		
Column 2	1	3.17	3.14 - 3.2	19.8		ug/kg	
	2	3.25	3.22 - 3.28	19.5		ug/kg	
	3	3.31	3.28 - 3.34	19.2		ug/kg	
	4	3.54	3.51 - 3.57	19.6		ug/kg	
	5	3.62	3.58 - 3.64	20.1		ug/kg	
					19.6		
Aroclor-1260							1.26
Column 1	1	3.71	3.67 - 3.73	21		ug/kg	
	2	3.87	3.84 - 3.9	21.2		ug/kg	
	3	4.03	4 - 4.06	21.6		ug/kg	
	4	4.1	4.07 - 4.13	21.4		ug/kg	
	5	4.24	4.21 - 4.27	21.5		ug/kg	
					21.3		
Column 2	1	4.31	4.27 - 4.33	21		ug/kg	
	2	4.43	4.4 - 4.46	21.4		ug/kg	
	3	4.7	4.67 - 4.73	21.4		ug/kg	
	4	4.87	4.84 - 4.9	21.7		ug/kg	
	5	5.02	4.99 - 5.05	22.5		ug/kg	
					21.6		

Identification Summary

Page 1 of 1

SDG Number: 10-2140

Client ID: RE36-10-8283

Lab Sample ID: 248249003

Data File: 049f4901.d

Data File: 049b4901.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 17-MAR-10 15:22

Analyzed: 17-MAR-10 15:22

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							32.8
Column 1	1	3.21	3.18 – 3.24	39.6	67.9	ug/kg	
	2	3.36	3.33 – 3.39	49		ug/kg	
	3	3.59	3.57 – 3.63	59.2		ug/kg	
	4	3.76	3.73 – 3.79	81.4		ug/kg	
	5	3.87	3.84 – 3.9	110		ug/kg	
Column 2	1	3.37	3.35 – 3.41	17.5	48.8	ug/kg	
	2	3.8	3.77 – 3.83	37.1		ug/kg	
	3	3.91	3.88 – 3.94	58.1		ug/kg	
	4	4.19	4.16 – 4.22	64.6		ug/kg	
	5	4.32	4.3 – 4.36	66.6		ug/kg	
Aroclor-1260							30.7
Column 1	1	3.7	3.67 – 3.73	48.7	47.3	ug/kg	
	2	3.87	3.84 – 3.9	65.5		ug/kg	
	3	4.03	4 – 4.06	95.3		ug/kg	
	4	4.1	4.07 – 4.13	14.3		ug/kg	
	5	4.24	4.21 – 4.27	12.8		ug/kg	
Column 2	1	4.3	4.27 – 4.33	59.1	34.7	ug/kg	
	2	4.43	4.4 – 4.46	58		ug/kg	
	3	4.7	4.67 – 4.73	23.8		ug/kg	
	4	4.87	4.84 – 4.9	15.6		ug/kg	
	5	5.02	4.99 – 5.05	17		ug/kg	

Identification Summary

Page 1 of 1

SDG Number: 10-2140

Client ID: RE36-10-8284

Lab Sample ID: 248249004

Data File: 050f5001.d

Data File: 050b5001.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 17-MAR-10 15:35

Analyzed: 17-MAR-10 15:35

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							26.6
Column 1	1	3.21	3.18 – 3.24	35.7	64.1	ug/kg	
	2	3.36	3.33 – 3.39	45.9		ug/kg	
	3	3.59	3.57 – 3.63	55.7		ug/kg	
	4	3.76	3.73 – 3.79	80.4		ug/kg	
	5	3.87	3.84 – 3.9	103		ug/kg	
Column 2	1	3.37	3.35 – 3.41	15.9	49	ug/kg	
	2	3.8	3.77 – 3.83	36.2		ug/kg	
	3	3.91	3.88 – 3.94	58.5		ug/kg	
	4	4.19	4.16 – 4.22	63.4		ug/kg	
	5	4.32	4.3 – 4.36	71.2		ug/kg	
Aroclor-1260							25.2
Column 1	1	3.7	3.67 – 3.73	42.7	43	ug/kg	
	2	3.87	3.84 – 3.9	60.9		ug/kg	
	3	4.03	4 – 4.06	86.9		ug/kg	
	4	4.1	4.07 – 4.13	13.1		ug/kg	
	5	4.24	4.21 – 4.27	11.6		ug/kg	
Column 2	1	4.3	4.27 – 4.33	58.3	33.4	ug/kg	
	2	4.43	4.4 – 4.46	57.5		ug/kg	
	3	4.7	4.67 – 4.73	22		ug/kg	
	4	4.87	4.84 – 4.9	13.8		ug/kg	
	5	5.01	4.99 – 5.05	15.5		ug/kg	

Identification Summary

Page 1 of 1

SDG Number: 10-2140

Client ID: RE36-10-8285

Lab Sample ID: 248249001

Data File: 047f4701.d

Data File: 047b4701.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 17-MAR-10 14:57

Analyzed: 17-MAR-10 14:57

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							38.9
Column 1	1	3.21	3.18 - 3.24	84.4	137	ug/kg	
	2	3.36	3.33 - 3.39	102		ug/kg	
	3	3.59	3.57 - 3.63	126		ug/kg	
	4	3.76	3.73 - 3.79	145		ug/kg	
	5	3.87	3.84 - 3.9	230		ug/kg	
Column 2	1	3.38	3.35 - 3.41	24.7	92.6	ug/kg	
	2	3.8	3.77 - 3.83	76.8		ug/kg	
	3	3.91	3.88 - 3.94	114		ug/kg	
	4	4.19	4.16 - 4.22	137		ug/kg	
	5	4.32	4.3 - 4.36	110		ug/kg	
Aroclor-1260							32.4
Column 1	1	3.7	3.67 - 3.73	112	101	ug/kg	
	2	3.87	3.84 - 3.9	136		ug/kg	
	3	4.03	4 - 4.06	196		ug/kg	
	4	4.09	4.07 - 4.13	32		ug/kg	
	5	4.24	4.21 - 4.27	29.3		ug/kg	
Column 2	1	4.3	4.27 - 4.33	129	73	ug/kg	
	2	4.43	4.4 - 4.46	119		ug/kg	
	3	4.7	4.67 - 4.73	49.4		ug/kg	
	4	4.87	4.84 - 4.9	34.2		ug/kg	
	5	5.02	4.99 - 5.05	33.4		ug/kg	

## Identification Summary

Page 1 of 1

SDG Number: 10-2140

Client ID: RE36-10-8286

Lab Sample ID: 248249002

Data File: 048f4801.d

Data File: 048b4801.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 17-MAR-10 15:09

Analyzed: 17-MAR-10 15:09

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							38.6
Column 1	1	3.21	3.18 – 3.24	34	79	ug/kg	
	2	3.36	3.33 – 3.39	60.3		ug/kg	
	3	3.59	3.57 – 3.63	73.9		ug/kg	
	4	3.76	3.73 – 3.79	87.2		ug/kg	
	5	3.87	3.84 – 3.9	140		ug/kg	
Column 2	1	3.37	3.35 – 3.41	11.3	53.5	ug/kg	
	2	3.8	3.77 – 3.83	31.8		ug/kg	
	3	3.91	3.88 – 3.94	66.6		ug/kg	
	4	4.19	4.16 – 4.22	76		ug/kg	
	5	4.32	4.3 – 4.36	81.5		ug/kg	
Aroclor-1260							24.9
Column 1	1	3.7	3.67 – 3.73	57.5	55.5	ug/kg	
	2	3.87	3.84 – 3.9	82.9		ug/kg	
	3	4.03	4 – 4.06	110		ug/kg	
	4	4.1	4.07 – 4.13	14		ug/kg	
	5	4.24	4.21 – 4.27	13.8		ug/kg	
Column 2	1	4.3	4.27 – 4.33	69.8	43.2	ug/kg	
	2	4.43	4.4 – 4.46	80.1		ug/kg	
	3	4.7	4.67 – 4.73	29.1		ug/kg	
	4	4.87	4.84 – 4.9	18.1		ug/kg	
	5	5.01	4.99 – 5.05	19.2		ug/kg	

# QUALITY CONTROL DATA

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

Page 1 of 1

<b>SDG Number:</b> 10-2140 <b>Lab Sample ID:</b> 1202072502 <b>Client Sample:</b> QC for batch 965798 <b>Client ID:</b> MB for batch 965798 <b>Batch ID:</b> 965805 <b>Run Date:</b> 03/17/2010 09:14 <b>Prep Date:</b> 03/16/2010 21:02 <b>Data File:</b> 019f1901-1.d 019b1901-1.d	<b>Client:</b> LANL010 <b>Method:</b> SW846 8082 <b>Inst:</b> ECD1A.I <b>Analyst:</b> YS1 <b>Aliquot:</b> 30 g <b>Column:</b> 1 CLP1 2 CLP2	<b>Matrix:</b> SOIL  <b>Project:</b> QC <b>SOP Ref:</b> GL-OA-E-040 <b>Dilution:</b> 1 <b>Inj. Vol:</b> 1 uL <b>Final Volume:</b> 1 mL <b>Level:</b> LOW
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CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

Data File: /chem/ecdla.i/0317107.b/019f1901-2.d  
Report Date: 17-Mar-2010 13:51

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecdla.i/0317107.b/019f1901-2.d  
Lab Smp Id: 1202072502 Client Smp ID: PBLK01  
Inj Date : 17-MAR-2010 09:14  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |1202072502|1|  
Misc Info : |ECD82P\_1S|965805|SVA|QC A|SOIL|MB|||  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 17-Mar-2010 12:03 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 19 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2140.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpc1pl

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS

RT	EXP RT	DLT RT	ON-COL	FINAL	TARGET RANGE	RATIO
			RESPONSE ( ug/L)	(ug/Kg)		
\$ 11 4cmx					CAS #: 877-09-8	
1.913	1.913	0.000	49954676 128.246	4.3	80.00- 120.00	100.00
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3	
5.218	5.216	0.002	38276751 128.908	4.3	80.00- 120.00	100.00



Data File: /chem/eod1a.i/0317107.b/019f1901-2.d

Date: 17-MAR-2010 09:14

Client ID: PBLK01

Sample Info: 11202072502111

Volume Injected (uL): 1.0

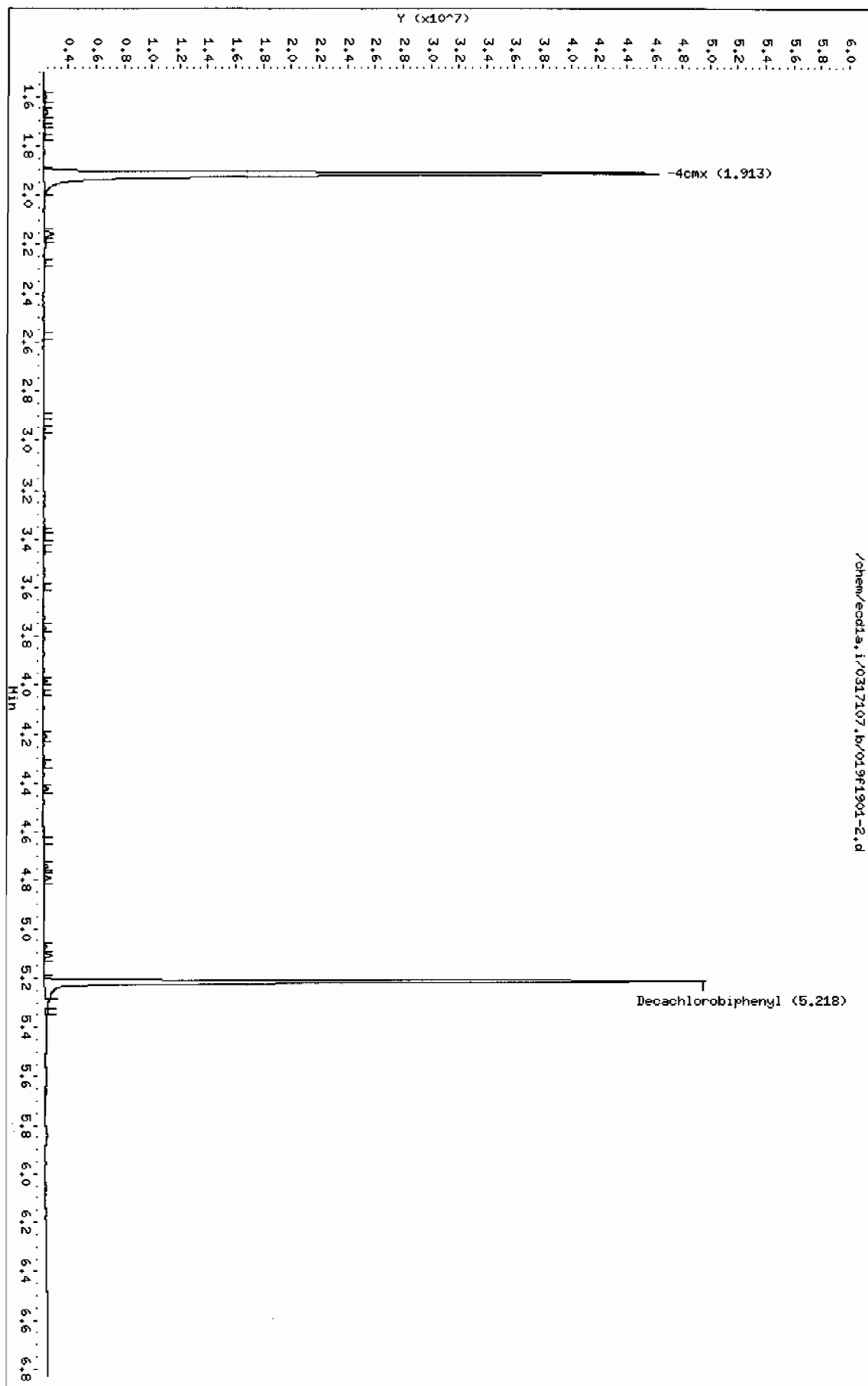
Column phase: CLP1

Instrument: eod1a.i

Operator: YSL

Column diameter: 0.25

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Data File: /chem/ecdla.i/0317107.b/019b1901-2.d  
 Report Date: 17-Mar-2010 13:51

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
 Data file : /chem/ecdla.i/0317107.b/019b1901-2.d  
 Lab Smp Id: 1202072502 Client Smp ID: PBLK01  
 Inj Date : 17-MAR-2010 09:14  
 Operator : YS1 Inst ID: ecdla.i  
 Smp Info : |1202072502|1|  
 Misc Info : |ECD82P\_1S|965805|SVA|QC A|SOIL|MB|||  
 Comment :  
 Method : /chem/ecdla.i/0317107.b/ECD1-B-8082-031110b.m  
 Meth Date : 17-Mar-2010 11:59 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
 Als bottle: 19 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 10-2140.sub  
 Target Version: 3.50 Sample Matrix: Soil  
 Processing Host: hpc1p1

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS								
			ON-COL	FINAL				
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO		
==	=====	=====	=====	=====	=====	=====		
\$ 11 4cmx					CAS #: 877-09-8			
2.271	2.271	0.000	33641968	128.242	4.3	80.00- 120.00	100.00	
-----								
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.914	5.913	0.001	24504990	130.921	4.4	80.00- 120.00	100.00	
-----								

Data File: /chem/eod1a.i/0317107.b/01901901-2.d

Date: 17-MAR-2010 09:14

Client ID: PBLK01

Sample Info: 1120207250211

Volume Injected (uL): 1.0

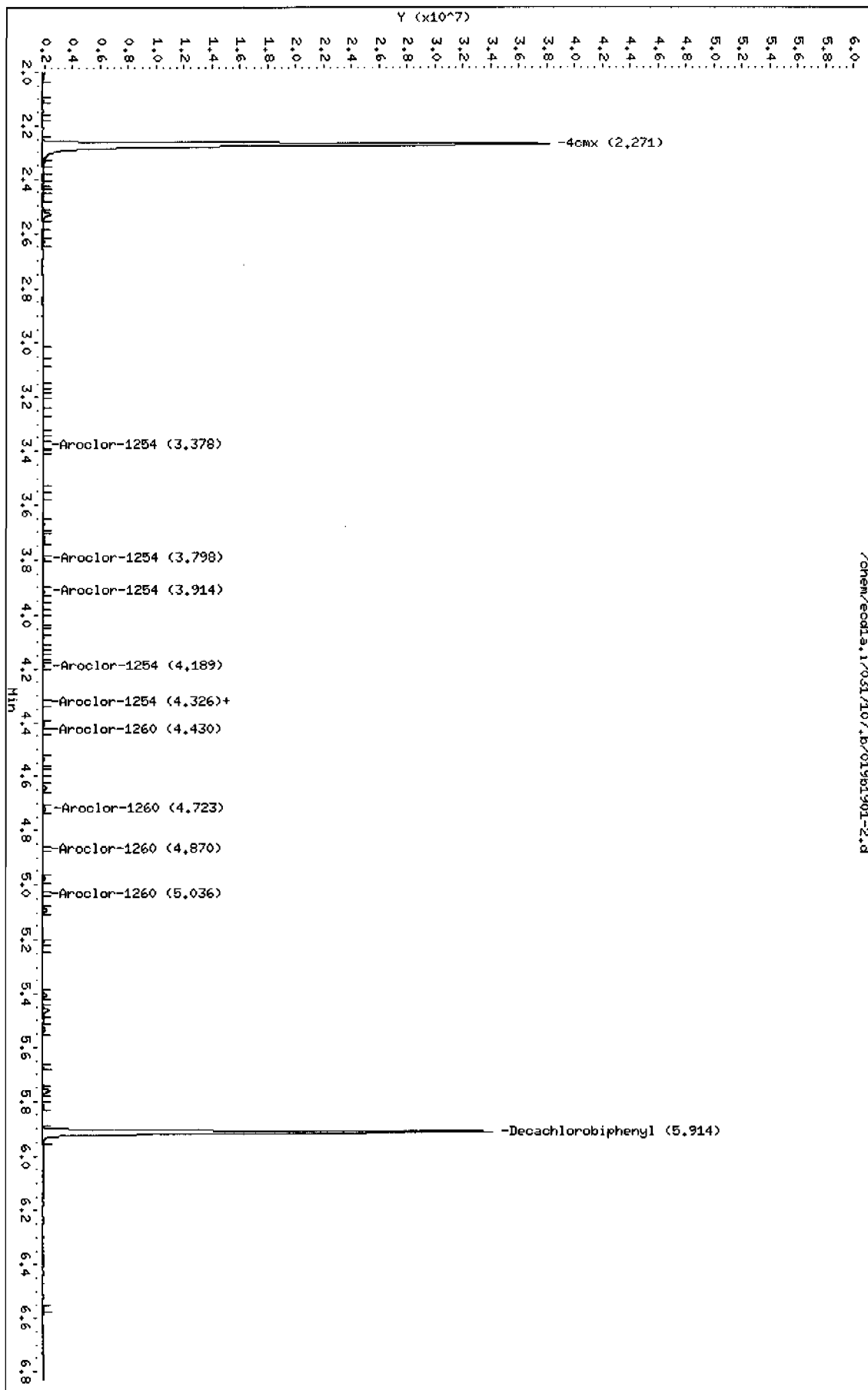
Column phase: CLP2

Instrument: eod1a.i

Operator: YSI

Column diameter: 0.25

/chem/eod1a.i/0317107.b/01901901-2.d



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

Page 1 of 1

SDG Number: 10-2140

Lab Sample ID: 1202072503

Client Sample: QC for batch 965798

Client ID: LCS for batch 965798

Batch ID: 965805

Run Date: 03/17/2010 09:25

Prep Date: 03/16/2010 21:02

Data File: 020f2001-1.d

020b2001-1.d

Client: LANL010  
Method: SW846 8082  
Inst: ECDIA.I  
Analyst: YSI  
Aliquot: 30 g  
Column: 1 CLP1  
2 CLP2

Matrix: SOIL

Project: QC

SOP Ref: GL-OA-E-040

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		19.6	ug/kg	1.11	3.33	2
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		21.6	ug/kg	1.11	3.33	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/020f2001-2.d  
 Lab Smp Id: 1202072503 Client Smp ID: PBLK01LCS  
 Inj Date : 17-MAR-2010 09:25  
 Operator : YS1 Inst ID: ecdla.i  
 Smp Info : |1202072503|1|  
 Misc Info : |ECD82P\_1S|965805|SVA|QC A|SOIL|LCS|||  
 Comment :  
 Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
 Meth Date : 17-Mar-2010 12:03 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
 Als bottle: 20 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 10-2140.sub  
 Target Version: 3.50 Sample Matrix: Soil  
 Processing Host: hpc1p1

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

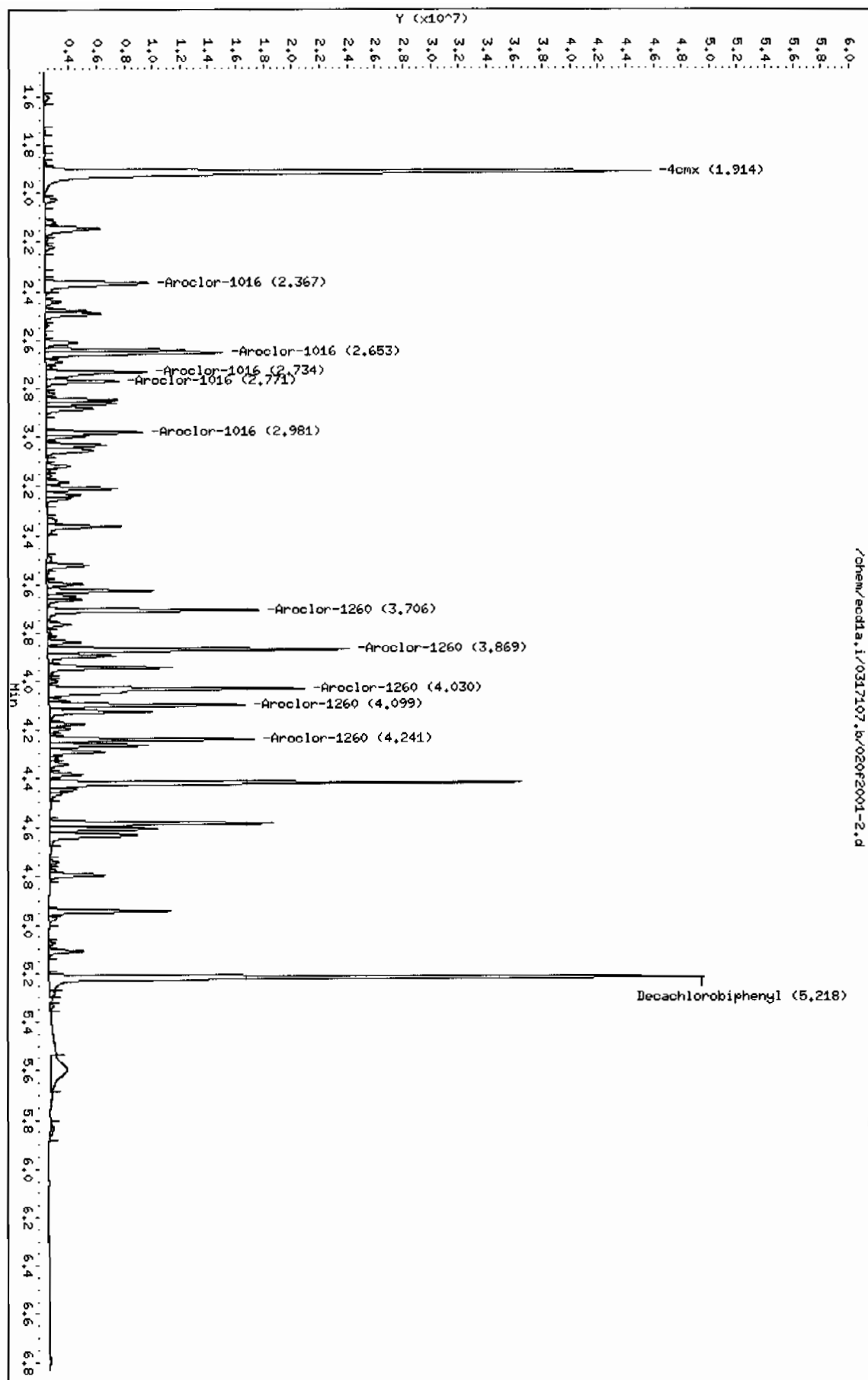
CONCENTRATIONS

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	ON-COL	FINAL	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx				CAS #: 877-09-8			
1.914	1.913	0.001	49554639 127.219	4.2	80.00-	120.00	100.00
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.218	5.216	0.002	37446239 126.111	4.2	80.00-	120.00	100.00
1 Aroclor-1016				CAS #: 12674-11-2			
2.367	2.366	0.001	8997695 592.858	19.8	80.00-	120.00	100.00
2.653	2.651	0.002	10841864 572.560	19.1	113.09-	153.09	120.50
2.734	2.732	0.002	7136270 573.556	19.1	63.11-	103.11	79.31
2.771	2.768	0.003	4248605 578.174	19.3	30.20-	70.20	47.22

CONCENTRATIONS								
RT	EXP RT	DLT RT	ON-COL		FINAL	TARGET RANGE	RATIO	
			RESPONSE	( ug/L)	(ug/Kg)			
==	=====	=====	=====	=====	=====	=====	=====	
1 Aroclor-1016 (continued)								
2.981	2.978	0.003	5516490	579.599	19.3	43.54- 83.54	61.31	
Average of Peak Concentrations =					19.3			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.706	3.703	0.003	11541540	629.650	21.0	80.00- 120.00	100.00	
3.869	3.866	0.003	17098736	635.881	21.2	128.24- 168.24	148.15	
4.030	4.028	0.002	18362288	648.493	21.6	139.41- 179.41	159.10	
4.099	4.096	0.003	10373752	642.025	21.4	69.99- 109.99	89.88	
4.241	4.238	0.003	10862707	646.102	21.5	73.42- 113.42	94.12	
Average of Peak Concentrations =					21.3			

Data File: /chem/eodla.i/0317107.b/020f2001-2.d  
Date: 17-MAR-2010 09:25  
Client ID: PBLKOLCS  
Sample Info: 11202072503111  
Volume Injected (uL): 1.0  
Column phase: CLP4

Instrument: eodla.i  
Operator: YS1  
Column diameter: 0.25



Data File: /chem/ecdl1a.i/0317107.b/020b2001-2.d  
Report Date: 17-Mar-2010 13:51

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecdl1a.i/0317107.b/020b2001-2.d  
Lab Smp Id: 1202072503 Client Smp ID: PBLK01LCS  
Inj Date : 17-MAR-2010 09:25  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |1202072503|1|  
Misc Info : |ECD82P\_1S|965805|SVA|QC A|SOIL|LCS|||  
Comment :  
Method : /chem/ecdl1a.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 17-Mar-2010 11:59 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 20 QC Sample: LCS  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2140.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpc1p1

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS						
ON-COL		FINAL				
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx CAS #: 877-09-8						
2.272	2.271	0.001	33156462 126.391	4.2	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3						
5.914	5.913	0.001	24557073 131.200	4.4	80.00- 120.00	100.00
-----						
1 Aroclor-1016 CAS #: 12674-11-2						
3.167	3.166	0.001	7458425 592.645	19.8	80.00- 120.00	100.00 (M)
3.249	3.248	0.001	5041193 583.863	19.5	47.45- 87.45	67.59
3.314	3.312	0.002	3038818 574.811	19.2	21.91- 61.91	40.74
3.540	3.538	0.002	4059566 588.964	19.6	35.04- 75.04	54.43



CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(ug/Kg)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)								
3.615	3.614	0.001	3866323	601.991	20.1	31.77-	71.77	51.84
Average of Peak Concentrations =					19.6			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
4.305	4.304	0.001	8255324	631.130	21.0	80.00-	120.00	100.00(H)
4.430	4.429	0.001	10005162	643.459	21.4	102.19-	142.19	121.20
4.696	4.695	0.001	7653246	643.342	21.4	71.86-	111.86	92.71
4.869	4.868	0.001	7993649	650.460	21.7	75.55-	115.55	96.83
5.017	5.015	0.002	17803224	674.502	22.5	191.86-	231.86	215.66
Average of Peak Concentrations =					21.6			
-----								

#### QC Flag Legend

M - Compound response manually integrated.  
 H - Operator selected an alternate compound hit.

Data File: /chem/ecdd1a.i/0317107.bv/020b2001-2.d

Date: 17-MAR-2010 09:25

Client ID: PBLK01LCS

Sample Info: 1120207250311

Volume Injected (uL): 1.0

Column phase: CLP2

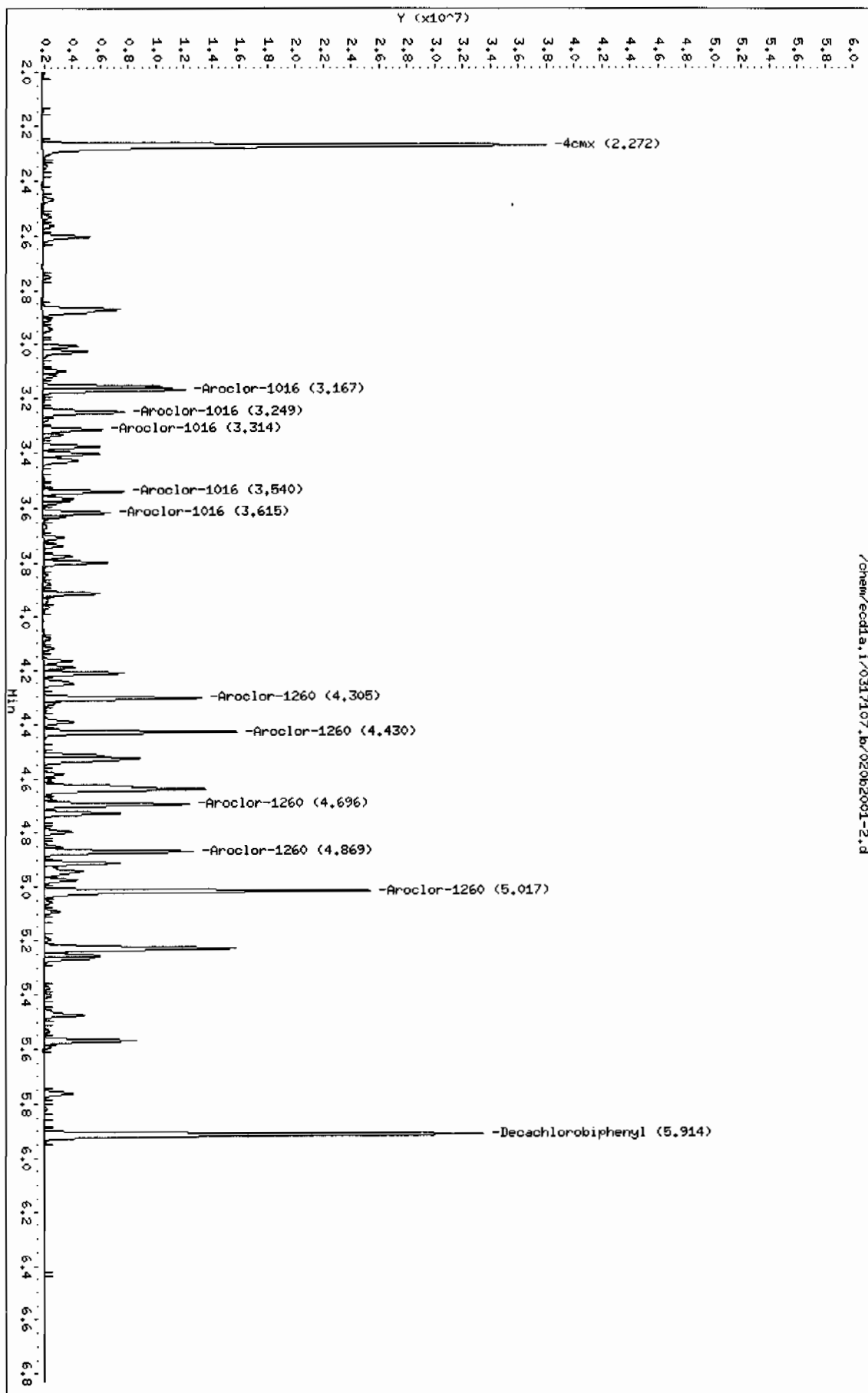
Instrument: ecdd1a.i

Operator: YSL

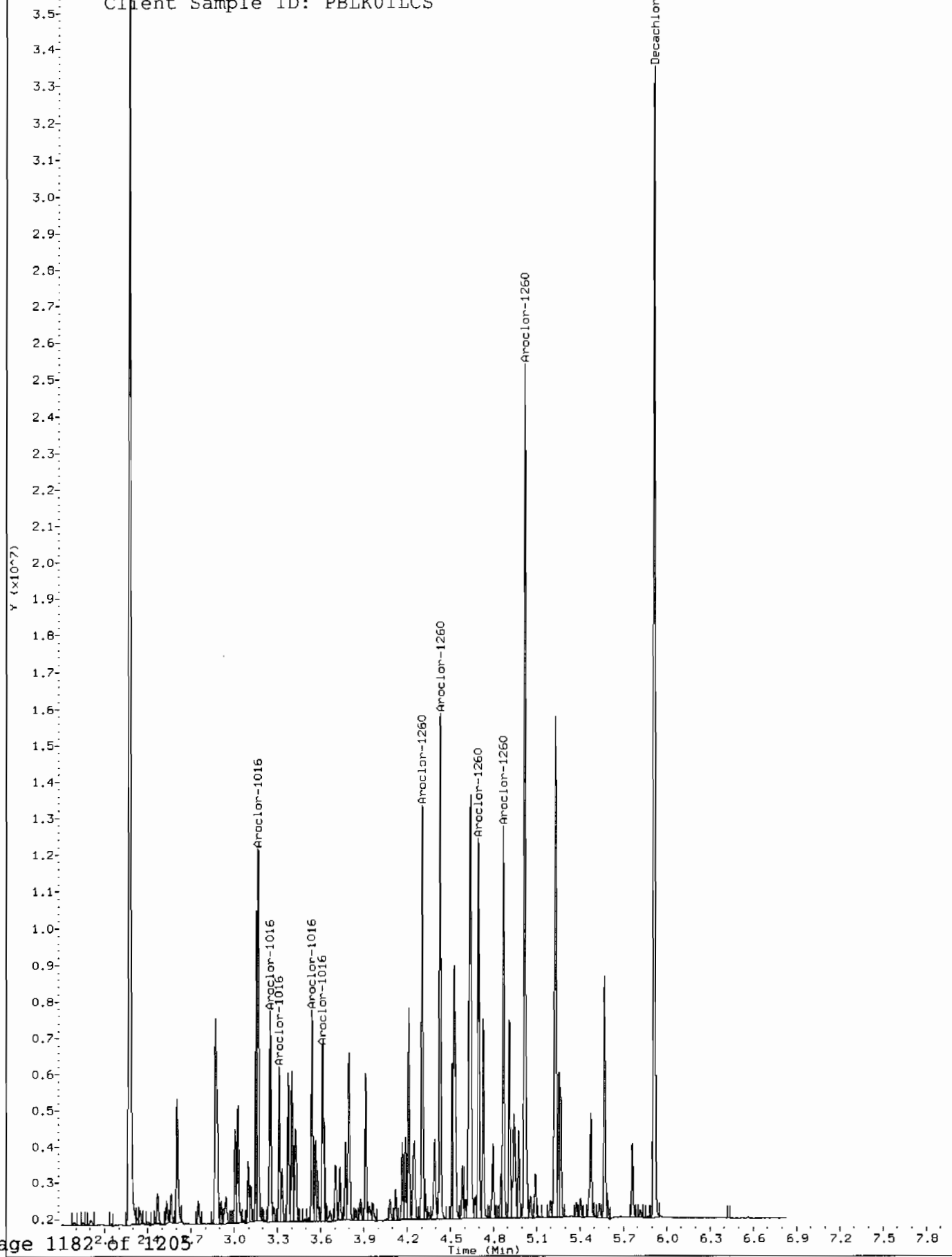
Column diameter: 0.25

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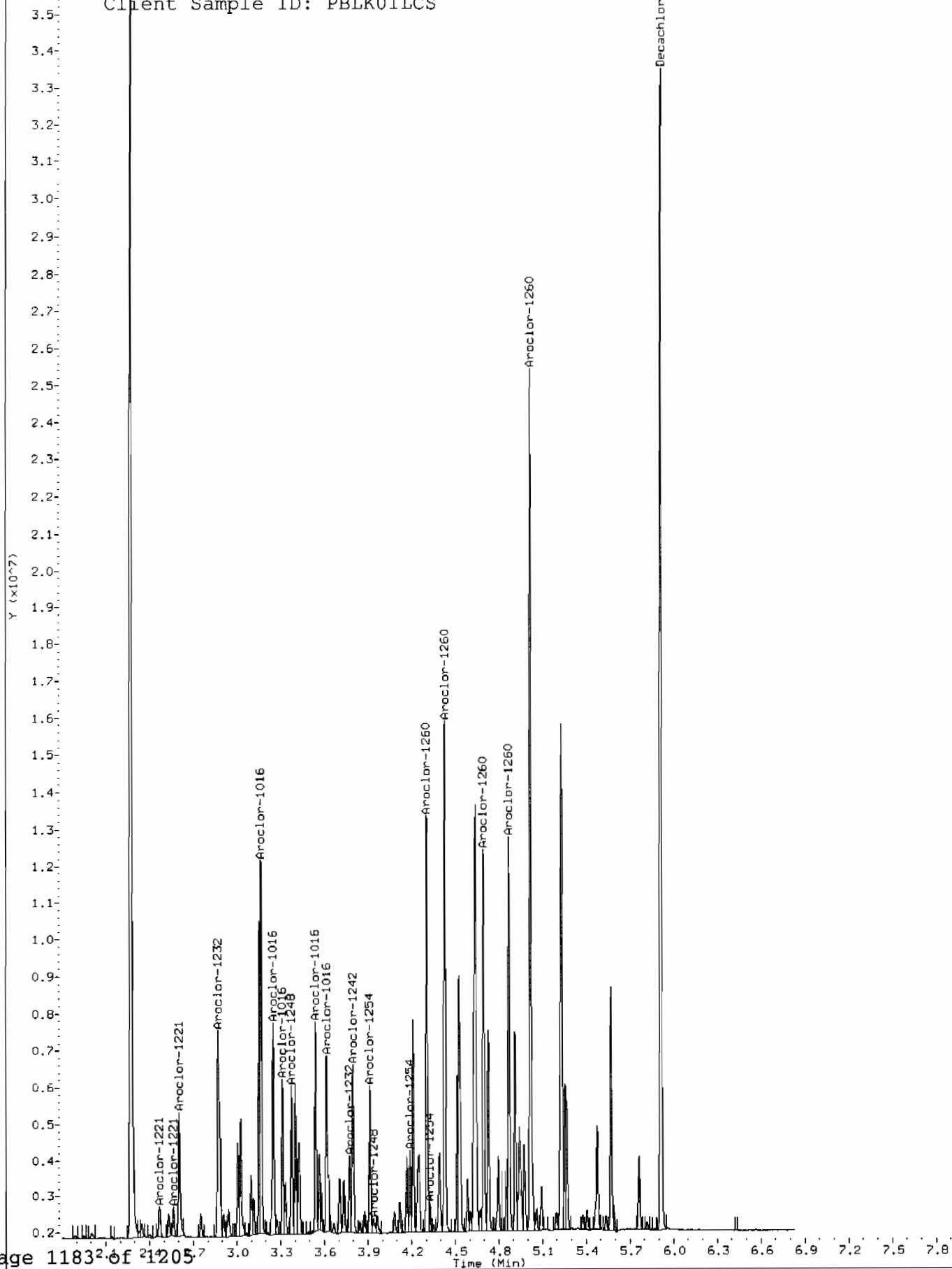
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Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/0317107.b/020b2001-2.d  
Operator: YS1  
Injection Date: 17-MAR-2010 09:25  
Instrument: ecd1a.i  
Client Sample ID: PBLK01LCS



Comment: Before manual integration  
Data File: /chem/ecdl1a.i/0317107.b/orig-020b2001-2.d  
Operator: YSl  
Injection Date: 17-MAR-2010 09:25  
Instrument: ecd1a.i  
Client Sample ID: PBLK01LCS



# MISCELLANEOUS DATA

# HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

DATE: \_\_\_\_\_  
 SOLVENT LOT DA936  
 ALUMINA LOT 1281992-A  
 COPPER LOT 1249397-A

Calibration & QC Information  
 Initial Calibration Dates: See Calibration History and Standard Logbook.  
 Initial Calibration Std ID's: See Calibration History and Standard Logbook.  
 GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082  
 Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,  
 DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,  
 BF-Before, AF-After.

Sequence Number: /chem/ecdl1a.i/031110b.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	11-MAR-2010 14:46		031110b	1.01	CLEAN	
002f0201.d	WAR100222-60 01	YS1	11-MAR-2010 14:56		031110b	1.01	DOSE RE-ICAL	
003f0301.d	WAR100219-54	YS1	11-MAR-2010 15:07		031110b	1.01	DOSE RE-ICAL	
004f0401.d	WAR100219-42	YS1	11-MAR-2010 15:17		031110b	1.01	DOSE RE-ICAL	
005f0501.d	WAR100223-48	YS1	11-MAR-2010 15:28		031110b	1.01	DOSE RE-ICAL	
006f0601.d	WAR100107-68	YS1	11-MAR-2010 15:38		031110b	1.01	PASSED ON BOTH COLUMNS	
007f0701.d	WAR100104-32	YS1	11-MAR-2010 15:49		031110b	1.01	PATTERN ONLY	
008f0801.d	WAR100104-21	YS1	11-MAR-2010 15:59		031110b	1.01	PATTERN ONLY	
009f0901.d	WAR100104-62	YS1	11-MAR-2010 16:10		031110b	1.01	PATTERN ONLY	
010f1001.d	WAR091219-DCT	YS1	11-MAR-2010 16:21		031110b	1.01	DET ANALOG STANDARD	
011f1101.d	WAR100311-01	YS1	11-MAR-2010 16:31		031110b	1.01	ARI660 I-CAL LEVEL 1	
012f1201.d	WAR100311-02	YS1	11-MAR-2010 16:41		031110b	1.01	ARI660 I-CAL LEVEL 2	
013f1301.d	WAR100311-03	YS1	11-MAR-2010 16:52		031110b	1.01	ARI660 I-CAL LEVEL 3	
014f1401.d	WAR100311-04	YS1	11-MAR-2010 17:02		031110b	1.01	ARI660 I-CAL LEVEL 4	
015f1501.d	WAR100311-01	YS1	11-MAR-2010 17:13		031110b	1.01	ARI660 I-CAL LEVEL 5	

Instrument Batch: /chem/ecdl1a.i/031110b.b

Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
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018f1801.d	WAR100311-06	YS1	11-MAR-2010 17:45	1031110b	1.01	ARI254 I-CAL LEVEL 2
019f1901.d	WAR100311-07	YS1	11-MAR-2010 17:55	1031110b	1.01	ARI254 I-CAL LEVEL 3
020f2001.d	WAR100311-08	YS1	11-MAR-2010 18:06	1031110b	1.01	ARI254 I-CAL LEVEL 4
021f2101.d	WAR100219-02	YS1	11-MAR-2010 18:16	1031110b	1.01	ARI254 I-CAL LEVEL 5
022f2201.d	WAR100219-54	YS1	11-MAR-2010 18:27	1031110b	1.01	PASSED ON BOTH COLUMNS
023f2301.d	WAR100311-09	YS1	11-MAR-2010 18:37	1031110b	1.01	ARI242 I-CAL LEVEL 1
024f2401.d	WAR100311-10	YS1	11-MAR-2010 18:48	1031110b	1.01	ARI242 I-CAL LEVEL 2
025f2501.d	WAR100311-11	YS1	11-MAR-2010 18:58	1031110b	1.01	ARI242 I-CAL LEVEL 3
026f2601.d	WAR100311-12	YS1	11-MAR-2010 19:09	1031110b	1.01	ARI242 I-CAL LEVEL 4
027f2701.d	WAR100219-01	YS1	11-MAR-2010 19:19	1031110b	1.01	ARI242 I-CAL LEVEL 5
028f2801.d	WAR100219-42	YS1	11-MAR-2010 19:30	1031110b	1.01	PASSED ON BOTH COLUMNS
029f2901.d	WAR100311-13	YS1	11-MAR-2010 19:40	1031110b	1.01	ARI248 I-CAL LEVEL 1
030f3001.d	WAR100311-14	YS1	11-MAR-2010 19:51	1031110b	1.01	ARI248 I-CAL LEVEL 2
031f3101.d	WAR100311-15	YS1	11-MAR-2010 20:01	1031110b	1.01	ARI248 I-CAL LEVEL 3
032f3201.d	WAR100311-16	YS1	11-MAR-2010 20:12	1031110b	1.01	ARI248 I-CAL LEVEL 4
033f3301.d	WAR100211-01	YS1	11-MAR-2010 20:22	1031110b	1.01	ARI248 I-CAL LEVEL 5
034f3401.d	WAR100223-48	YS1	11-MAR-2010 20:33	1031110b	1.01	PASSED ON BOTH COLUMNS
035f3501.d	WAR100219-99 02	YS1	11-MAR-2010 20:44	1031110b	1.01	CLEAN

Instrument Batch: /chem/ecdl1a.i/0311110b.b Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202067743	YS1	11-MAR-2010 20:54	1963869	1246954	1.01MB		DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
037f3701.d	1202067744	YS2	11-MAR-2010 21:05	1963869	1246954	1.01LCS		DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
038f3801.d	1246954003	YS1	11-MAR-2010 21:15	1963869	1246954	1.01BBES		DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
039f3901.d	1202067745	YS1	11-MAR-2010 21:26	1963869	1246954	1.01MS		DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
040f4001.d	1202067746	YS1	11-MAR-2010 21:36	1963869	1246954	1.01MSS		DUSE CON FIRMATION FOR THE SAMPLES HAD HIT

042f4201.d	246954007	YS1	11-MAR-2010 21:57	1963869	246954	1	1.0	BBS	DOSE CON FIRMATION FOR THE SAMPLES HAD HIT
043f4301.d	246954009	YS1	11-MAR-2010 22:08	1963869	246954	1	1.0	BBS	DOSE CON FIRMATION FOR THE SAMPLES HAD HIT
044f4401.d	246954012	YS1	11-MAR-2010 22:18	1963869	246954	1	1.0	BBS	DOSE CON FIRMATION FOR THE SAMPLES HAD HIT
045f4501.d	246954014	YS1	11-MAR-2010 22:29	1963869	246954	1	1.0	BBS	DOSE CON FIRMATION FOR THE SAMPLES HAD HIT
046f4601.d	WAR100222-60 02	YS1	11-MAR-2010 22:39		031110b	1	1.0		PASSED ON BOTH COLUMNS
046f4901.d	WAR100222-60 03	YS1	11-MAR-2010 23:11	1	031110b	1	1.0		CLEAN
047f4701.d	WAR100219-99 03	YS1	11-MAR-2010 22:50	1	031210	1	1.0		1
047f5001.d	WAR100219-99 04	YS1	11-MAR-2010 23:21	1	031110b	1	1.0		1
048f4801.d	WE100311-07SCR	YS1	11-MAR-2010 23:00	1	031110b	1	1.0		ECS CSREIN FOR PREP

Instrument Batch: /chem/ecdl1a.1/031110b.b

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HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

DATE: \_\_\_\_\_  
SOLVENT LOT DA936  
ALUMINA LOT 1281992-A  
COPPER LOT 1249397-A

Calibration & QC Information  
Initial Calibration Dates: See Calibration History and Standard Logbook.  
Initial Calibration Std ID's: See Calibration History and Standard Logbook.  
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082  
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,  
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,  
BF-Before, AF-After.

Sequence Number: /chem/ecdla.i/0317107.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
1001f01.d	WAR100219-99 01	YS1	17-MAR-2010 05:57		0317107	1.01		CLEAN
1002f0201.d	WAR100222-60 01	YS1	17-MAR-2010 06:08		0317107	1.01		PASSED ON BOTH COLUMNS
003f0301.d	WAR100219-54	YS1	17-MAR-2010 06:18		0317107	1.01		PASSED ON BOTH COLUMNS
004f0401.d	WAR100219-42	YS1	17-MAR-2010 06:29		0317107	1.01		PASSED ON BOTH COLUMNS
1003f0501.d	WAR100223-48	YS1	17-MAR-2010 06:39		0317107	1.01		PASSED ON BOTH COLUMNS
1006f0601.d	WAR100107-68	YS1	17-MAR-2010 06:50		0317107	1.01		PASSED ON BOTH COLUMNS
1007f0701.d	WAR100104-32	YS1	17-MAR-2010 07:01		0317107	1.01		PATTERN ONLY
1008f0801.d	WAR100104-21	YS1	17-MAR-2010 07:11		0317107	1.01		PATTERN ONLY
1009f0901.d	WAR100104-62	YS1	17-MAR-2010 07:22		0317107	1.01		PATTERN ONLY
1010f1001.d	WAR091219-CDT	YS1	17-MAR-2010 07:36		0317107	1.01		DDT ANALOG STANDARD
1011f1101.d	WAR100219-99 02	YS1	17-MAR-2010 07:46		0317107	1.01		CLEAN
1012f1201.d	1202071118	YS1	17-MAR-2010 07:57	965286	0317107	1.01	QC A	DOSE
1013f1301.d	1202071119	YS1	17-MAR-2010 08:07	965286	0317107	1.01	QC A	DOSE
1014f1401.d	1202071120	YS1	17-MAR-2010 08:18	965286	15	1.01	QC A	DOSE
1015f1501.d	1248998005	YS1	17-MAR-2010 08:28	965286	1248998	1.01	GEEL	DOSE CONFIRMATION FOR DCB LOW

Instrument Batch: /chem/ecdla.i/0317107.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
-----------	-------------------	---------	---------------------	-------	-----	----------	--------	----------

1018f1801.d	WAR100219-99 03	YS1	17-MAR-2010 09:04	0317107	1.01	CLEAN
1019f1901.d	1202072502	YS1	17-MAR-2010 09:14	965805	10-2134	UPLOAD BOTH COLUMNS, USE HIGHER
1020f2001.d	1202072503	YS1	17-MAR-2010 09:25	965805	10-2134	UPLOAD BOTH COLUMNS, USE HIGHER
1021f2101.d	248240009	YS1	17-MAR-2010 09:35	965805	10-2134	UPLOAD BOTH COLUMNS, USE HIGHER
1022f2201.d	248240010	YS1	17-MAR-2010 09:48	965805	10-2134	UPLOAD BOTH COLUMNS, USE HIGHER
1023f2301.d	248244001	YS1	17-MAR-2010 10:01	965805	10-2137	UPLOAD BOTH COLUMNS, USE HIGHER
1024f2401.d	248249001	YS1	17-MAR-2010 10:13	965805	10-2140	UPLOAD BOTH COLUMNS, USE HIGHER
1025f2501.d	248249002	YS1	17-MAR-2010 10:26	965805	10-2140	UPLOAD BOTH COLUMNS, USE HIGHER
1026f2601.d	248249003	YS1	17-MAR-2010 10:38	965805	10-2140	UPLOAD BOTH COLUMNS, USE HIGHER
1027f2701.d	248249004	YS1	17-MAR-2010 10:51	965805	10-2140	UPLOAD BOTH COLUMNS, USE HIGHER
1028f2801.d	248373011	YS1	17-MAR-2010 11:04	965805	10-2154	UPLOAD BOTH COLUMNS, USE HIGHER
1029f2901.d	WAR100222-60 03	YS1	17-MAR-2010 11:16	0317107	1.01	PASSED ON BOTH COLUMNS
1030f3001.d	WAR100219-99 04	YS1	17-MAR-2010 11:29	0317107	1.01	CLEAN
1031f3101.d	248373014	YS1	17-MAR-2010 11:41	965805	10-2154	UPLOAD BOTH COLUMNS, USE HIGHER
1032f3201.d	248373015	YS1	17-MAR-2010 11:52	965805	10-2154	UPLOAD BOTH COLUMNS, USE HIGHER
1033f3301.d	248377002	YS1	17-MAR-2010 12:05	965805	10-2157	UPLOAD BOTH COLUMNS, USE HIGHER
1034f3401.d	248377003	YS1	17-MAR-2010 12:17	965805	10-2157	UPLOAD BOTH COLUMNS, USE HIGHER
1035f3501.d	248377004	YS1	17-MAR-2010 12:30	965805	10-2157	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecdl1.i/0317107.b

1036f3601.d	248377005	YS1	17-MAR-2010 12:42	965805	10-2157	UPLOAD BOTH COLUMNS, USE HIGHER
1037f3701.d	248377006	YS1	17-MAR-2010 12:55	965805	10-2157	UPLOAD BOTH COLUMNS, USE HIGHER
1038f3801.d	248377007	YS1	17-MAR-2010 13:08	965805	10-2157	UPLOAD BOTH COLUMNS, USE HIGHER
1039f3901.d	248386003	YS1	17-MAR-2010 13:20	965805	10-2164	UPLOAD BOTH COLUMNS, USE HIGHER
1040f4001.d	248386004	YS1	17-MAR-2010 13:33	965805	10-2164	UPLOAD BOTH COLUMNS, USE HIGHER

1042f42c1.d	17-MAR-2010 13:56	YS1	10317107	1.0	CLEAN
1043f4301.d	17-MAR-2010 14:06	YS1	10-2:65	1.0	LANL
1044f4401.d	17-MAR-2010 14:19	YS1	10-2165	1.0	QC A
1045f4501.d	17-MAR-2010 14:32	YS1	10-2165	1.0	QC A
1046f4601.d	17-MAR-2010 14:44	YS1	10-2165	5.0	LANL
1047f4701.d	17-MAR-2010 14:57	YS1	10-2140	5.0	LANL
1048f4801.d	17-MAR-2010 15:09	YS1	10-2140	5.0	LANL
1049f4901.d	17-MAR-2010 15:22	YS1	10-2140	5.0	LANL
1050f5001.d	17-MAR-2010 15:35	YS1	10-2:40	5.0	LANL
1051f5101.d	17-MAR-2010 15:47	YS1	10-2:57	10.0	LANL
1052f5201.d	17-MAR-2010 16:00	YS1	10317107	1.0	PASSED ON BOTH COLUMNS
1053f5301.d	17-MAR-2010 16:10	YS1	10317107	1.0	CLEAN
1054f5401.d	17-MAR-2010 16:21	YS1	249169	1.0	QC A
1055f5501.d	17-MAR-2010 16:34	YS1	249169	1.0	QC A

Instrument Batch: /chem/ecd1a.i/0317107.b

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1056f5601.d	17-MAR-2010 16:46	YS1	249169	1.0	CDMF
1057f5701.d	17-MAR-2010 16:59	YS1	249169	5.0	CDMF
1058f5801.d	17-MAR-2010 17:11	YS1	249169	10.0	CDMF
1059f5901.d	17-MAR-2010 17:24	YS1	249169	10.0	CDMF
1060f6001.d	17-MAR-2010 17:37	YS1	249169	10.0	CDMF
1061f6101.d	17-MAR-2010 17:49	YS1	10317107	1.0	PASSED ON BOTH COLUMNS
1062f6201.d	17-MAR-2010 18:02	YS1	10317107	1.0	CLEAN
1063f6301.d	17-MAR-2010 18:15	YS1	248480	5.0	ENRG
1064f6401.d	17-MAR-2010 18:27	YS1	249106	5.0	COMM

067f6701.d	249181001	YS1	17-MAR-2010 19:05	965431	249181	5.0 COMM	UPLOAD BOTH COLUMNS, USE FRONT
068f6801.d	249181002	YS1	17-MAR-2010 19:18	965431	249181	10.0 COMM	UPLOAD BOTH COLUMNS, USE FRONT
069f6901.d	249181004	YS1	17-MAR-2010 19:30	965431	249181	10.0 COMM	UPLOAD BOTH COLUMNS, USE FRONT
070f7001.d	249196001	YS1	17-MAR-2010 19:43	965431	249196	5.0 ENRG	UPLOAD BOTH COLUMNS, USE FRONT
071f7101.d	249231003	YS1	17-MAR-2010 19:56	965431	249231	5.0 PCGE	UPLOAD BOTH COLUMNS, USE FRONT
072f7201.d	1WAR100222-60 07	YS1	17-MAR-2010 20:08		0317107	1.0	PASSED ON BOTH COLUMNS
073f7301.d	1WAR100219-99 08	YS1	17-MAR-2010 20:21		0317107	1.0	CLEAN
074f7401.d	249293001	YS1	17-MAR-2010 20:33	965431	249293	20.0 LLNL	UPLOAD BOTH COLUMNS, USE FRONT
075f7501.d	1202071507	YS1	17-MAR-2010 20:46	965431	249293	20.0 QC A	UPLOAD BOTH COLUMNS, USE FRONT

Instrument Batch: /chem/ecdl1a.i/0317107.b

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076f7601.d	1202071508	YS1	17-MAR-2010 20:59	965431	249293	20.0 QC A	UPLOAD BOTH COLUMNS, USE FRONT
077f7701.d	249293002	YS1	17-MAR-2010 21:11	965431	249293	20.0 LLNL	UPLOAD BOTH COLUMNS, USE FRONT
078f7801.d	249293003	YS1	17-MAR-2010 21:24	965431	249293	10.0 LLNL	UPLOAD BOTH COLUMNS, USE FRONT
079f7901.d	249293004	YS1	17-MAR-2010 21:37	965431	249293	10.0 LLNL	UPLOAD BOTH COLUMNS, USE FRONT
080f8001.d	1WAR100222-60 08	YS1	17-MAR-2010 21:49		0317107	1.0	PASSED ON BOTH COLUMNS
081f8101.d	1WAR100219-99 09	YS1	17-MAR-2010 22:02		0317107	1.0	CLEAN



Data File: /chem/ecdla.i/0317107.b/044b4401.d  
Report Date: 17-Mar-2010 14:40

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecdla.i/0317107.b/044b4401.d  
Lab Smp Id: 1202072504 Client Smp ID: WST16-10-13296MS  
Inj Date : 17-MAR-2010 14:19  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |1202072504|1|  
Misc Info : |ECD82P\_1S|965805|SVA|QC A|SOIL|MS|||  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-B-8082-031110b.m  
Meth Date : 17-Mar-2010 14:02 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 44 QC Sample: MS  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2165.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpclpl

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weight of sample extracted (g)
M	17.02150	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS							
			ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	
-----							
\$ 11 4cmx			CAS #: 877-09-8				
2.271	2.271	0.000	36298126	138.367	5.5	80.00-	120.00 100.00
-----							
\$ 12 Decachlorobiphenyl			CAS #: 2051-24-3				
5.913	5.913	0.000	28834864	154.054	6.2	80.00-	120.00 100.00
-----							
1 Aroclor-1016			CAS #: 12674-11-2				
3.166	3.166	0.000	8003781	635.979	25.5	80.00-	120.00 100.00(M)
3.249	3.248	0.001	5261600	609.390	24.4	44.76-	84.76 65.74
3.312	3.312	0.000	3205339	606.310	24.3	20.23-	60.23 40.05
3.540	3.538	0.002	4368811	633.830	25.4	32.28-	72.28 54.58

			CONCENTRATIONS						
			ON-COL		FINAL				
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE	RATIO		
==	=====	=====	=====	=====	=====	=====	=====	=====	
1 Aroclor-1016 (continued)									
3.615	3.614	0.001	4094510	637.520	25.5	27.98-	67.98	51.16	
Average of Peak Concentrations =					25.0				
-----									
7 Aroclor-1260					CAS #: 11096-82-5				
4.305	4.304	0.001	9465177	723.625	29.0	80.00-	120.00	100.00	
4.429	4.429	0.000	11828092	760.697	30.5	101.65-	141.65	124.96	
4.696	4.695	0.001	9153955	769.494	30.8	71.12-	111.12	96.71	
4.868	4.868	0.000	8993680	731.835	29.3	74.79-	114.79	95.02	
5.016	5.015	0.001	20781563	787.340	31.5	189.81-	229.81	219.56	
Average of Peak Concentrations =					30.2				

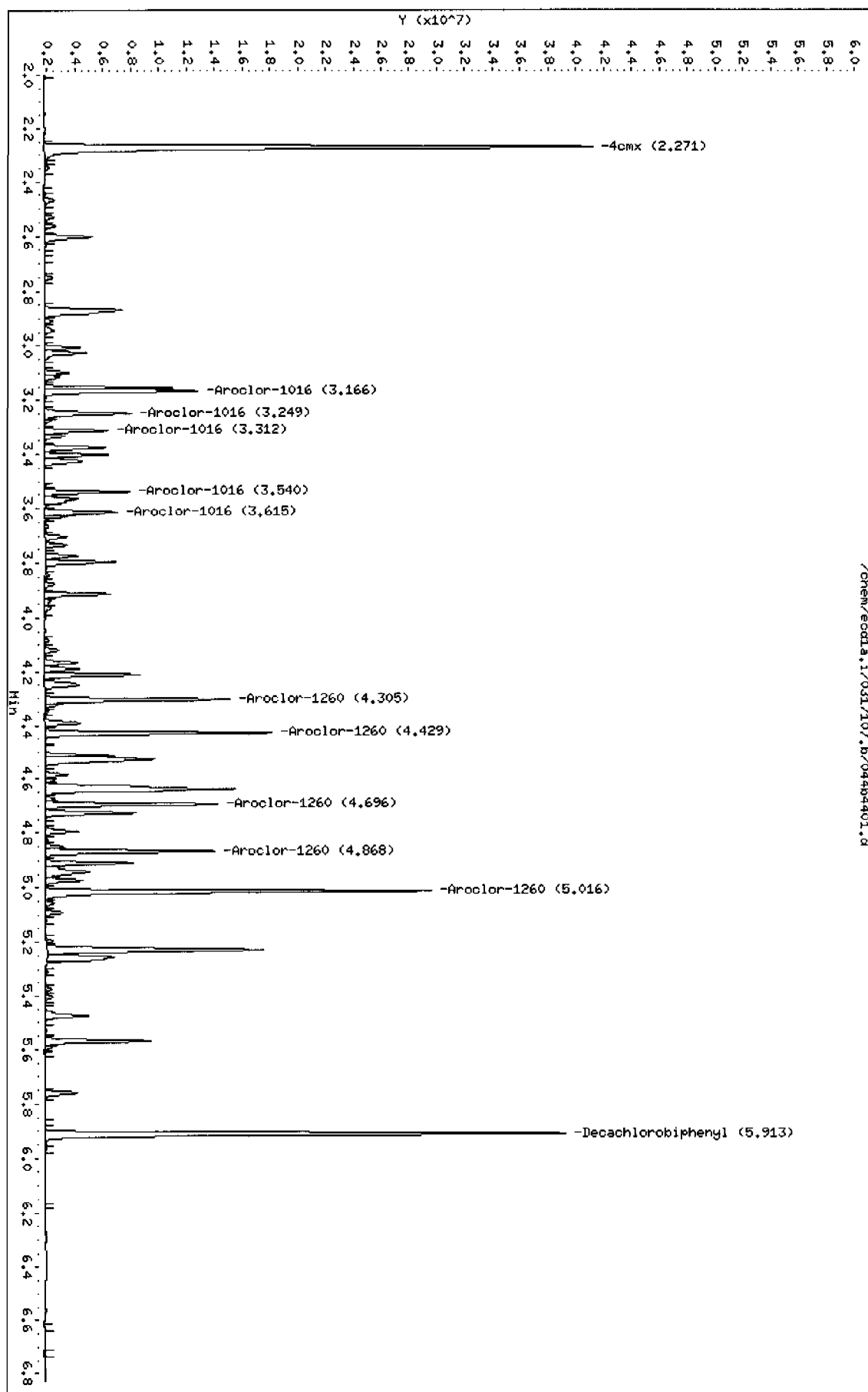
#### QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/eod1a.i/0317107.b/044b4401.d  
Date: 17-MAR-2010 14:19  
Client ID: MST16-10-13296MS  
Sample Info: 11202072504111  
Volume Injected (uL): 1.0  
Column phase: QLP2

Instrument: eod1a.i  
Operator: YSL  
Column diameter: 0.25

/chem/eod1a.i/0317107.b/044b4401.d





Data File: /chem/ecdla.i/0317107.b/044f4401.d  
Report Date: 17-Mar-2010 14:40

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/044f4401.d  
Lab Smp Id: 1202072504 Client Smp ID: WST16-10-13296MS  
Inj Date : 17-MAR-2010 14:19  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |1202072504|1|  
Misc Info : |ECD82P\_1S|965805|SVA|QC A|SOIL|MS|||  
Comment :  
Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
Meth Date : 17-Mar-2010 14:02 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 44 QC Sample: MS  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2165.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpc1p1

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weight of sample extracted (g)
M	17.02150	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS						
ON-COL		FINAL				
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx CAS #: 877-09-8						
1.913	1.913	0.000	54506059	139.930	5.6 80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3						
5.216	5.216	0.000	44165345	148.740	6.0 80.00- 120.00	100.00
-----						
1 Aroclor-1016 CAS #: 12674-11-2						
2.365	2.366	-0.001	9061065	597.034	23.9 80.00- 120.00	100.00
2.651	2.651	0.000	11572641	611.152	24.5 108.88- 148.88	127.72
2.731	2.732	-0.001	7405104	595.163	23.8 62.57- 102.57	81.72
2.770	2.768	0.002	4427709	602.547	24.1 30.09- 70.09	48.87

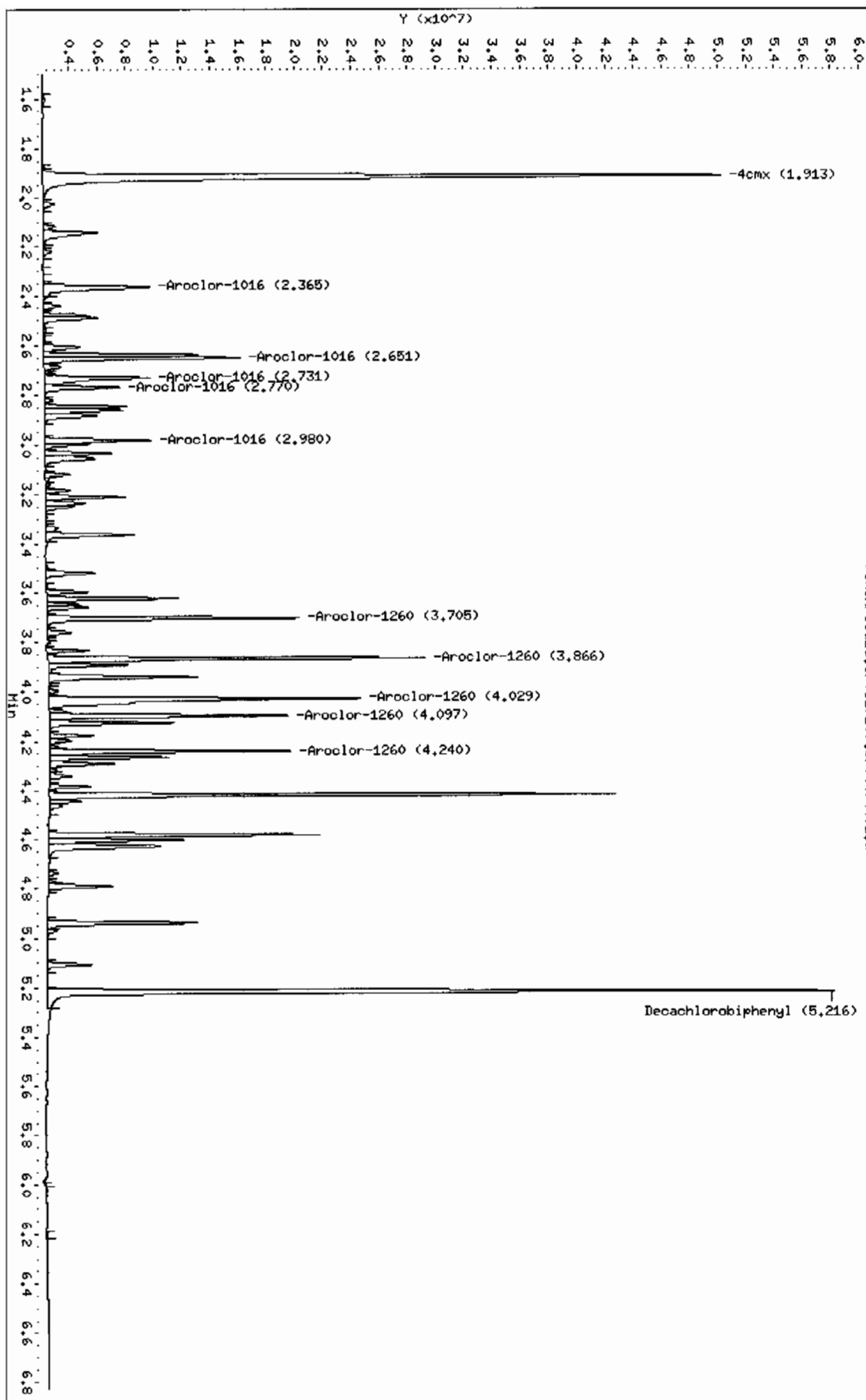
CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	
1 Aroclor-1016 (continued)								
2.980	2.978	0.002	5935425	623.615	25.0	44.27-	84.27	65.50
Average of Peak Concentrations =					24.3			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.705	3.703	0.002	13298576	725.505	29.1	80.00-	120.00	100.00
3.866	3.866	0.000	20495470	762.202	30.5	126.76-	166.76	154.12
4.029	4.028	0.001	21502407	759.392	30.4	137.71-	177.71	161.69
4.097	4.096	0.001	12508443	774.139	31.0	69.00-	109.00	94.06
4.240	4.238	0.002	12671124	753.665	30.2	72.73-	112.73	95.28
Average of Peak Concentrations =					30.2			

Data File: /chem/ecdda.i/0317107.b/044f4401.d  
Date: 17-MAR-2010 14:19  
Client ID: MST16-10-13296MS  
Sample Info: 1120207250411  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: ecdda.i  
Operator: YSL  
Column diameter: 0.25

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/chem/ecdda.i/0317107.b/044f4401.d



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/045b4501.d  
 Lab Smp Id: 1202072505 Client Smp ID: WST16-10-13296MSD  
 Inj Date : 17-MAR-2010 14:32  
 Operator : YS1 Inst ID: ecdla.i  
 Smp Info : |1202072505|1|  
 Misc Info : |ECD82P\_1S|965805|SVA|QC A|SOIL|MSD|1|  
 Comment :  
 Method : /chem/ecdla.i/0317107.b/ECD1-B-8082-031110b.m  
 Meth Date : 17-Mar-2010 14:02 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
 Als bottle: 45 QC Sample: MSD  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 10-2165.sub  
 Target Version: 3.50 Sample Matrix: Soil  
 Processing Host: hpc1p1

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	17.02150	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS						
RT	EXP RT	DLT RT	ON-COL RESPONSE ( ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
-----						
\$ 11 4cmx				CAS #: 877-09-8		
2.271	2.271	0.000	37294616	142.165	5.7 80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.912	5.913	-0.001	29153594	155.757	6.2 80.00- 120.00	100.00
-----						
1 Aroclor-1016				CAS #: 12674-11-2		
3.166	3.166	0.000	7669613	609.426	24.5 80.00- 120.00	100.00 (M)
3.248	3.248	0.000	5018513	581.236	23.3 44.76- 84.76	65.43
3.312	3.312	0.000	3010073	569.374	22.8 20.23- 60.23	39.25
3.538	3.538	0.000	4172869	605.403	24.3 32.28- 72.28	54.41

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)									
3.614	3.614	0.000	3888666	605.470	24.3	27.98-	67.98	50.70	
Average of Peak Concentrations =					23.8				
-----									
7 Aroclor-1260					CAS #: 11096-82-5				
4.304	4.304	0.000	9272696	708.909	28.4	80.00-	120.00	100.00	
4.429	4.429	0.000	11716957	753.549	30.2	101.65-	141.65	126.36	
4.695	4.695	0.000	9295199	781.367	31.4	71.12-	111.12	100.24	
4.868	4.868	0.000	8801108	716.165	28.7	74.79-	114.79	94.91	
5.015	5.015	0.000	20936611	793.215	31.8	189.81-	229.81	225.79	
Average of Peak Concentrations =					30.1				
-----									

#### QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/eodla.i/0317107.b/045b4501.d

Date : 17-MAR-2010 14:32

Client ID: MST16-10-13296HSD

Sample Info: 1120207250511

Volume Injected (uL): 1.0

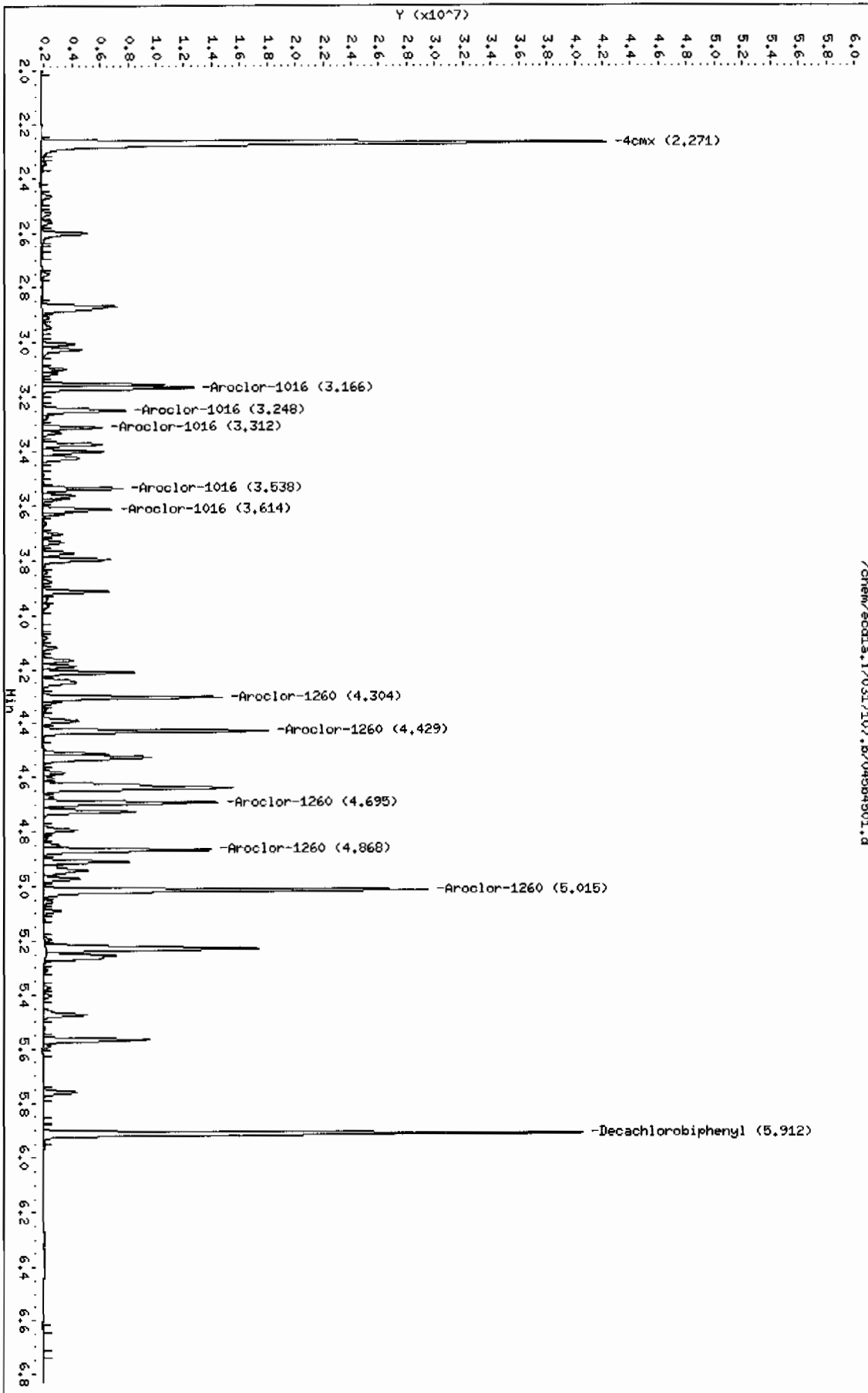
Column phase: CLP2

Instrument: eodla.i

Operator: YSL

Column diameter: 0.25

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/0317107.b/045f4501.d  
 Lab Smp Id: 1202072505 Client Smp ID: WST16-10-13296MSD  
 Inj Date : 17-MAR-2010 14:32  
 Operator : YS1 Inst ID: ecdla.i  
 Smp Info : |1202072505|1|  
 Misc Info : |ECD82P\_1S|965805|SVA|QC A|SOIL|MSD|||  
 Comment :  
 Method : /chem/ecdla.i/0317107.b/ECD1-F-8082-031110b.m  
 Meth Date : 17-Mar-2010 14:02 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
 Als bottle: 45 QC Sample: MSD  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 10-2165.sub  
 Target Version: 3.50 Sample Matrix: Soil  
 Processing Host: hpc1p1

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	17.02150	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
-----						
\$ 11 4cmx				CAS #: 877-09-8		
1.913	1.913	0.000	55803151 143.260	5.8	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.216	5.216	0.000	44069366 148.416	6.0	80.00- 120.00	100.00
-----						
1 Aroclor-1016				CAS #: 12674-11-2		
2.365	2.366	-0.001	8633253 568.845	22.8	80.00- 120.00	100.00
2.651	2.651	0.000	11708779 618.342	24.8	108.88- 148.88	135.62
2.731	2.732	-0.001	6935672 557.433	22.4	62.57- 102.57	80.34
2.769	2.768	0.001	4152301 565.068	22.7	30.09- 70.09	48.10

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO
==	=====	==	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)								
2.979	2.978	0.001	5513261	579.259	23.2	44.27-	84.27	63.86
Average of Peak Concentrations =					23.2			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.703	3.703	0.000	13184981	719.308	28.9	80.00-	120.00	100.00
3.866	3.866	0.000	20548456	764.172	30.7	126.76-	166.76	155.85
4.028	4.028	0.000	21920213	774.147	31.1	137.71-	177.71	166.25
4.096	4.096	0.000	12695880	785.740	31.5	69.00-	109.00	96.29
4.239	4.238	0.001	12590927	748.895	30.1	72.73-	112.73	95.49
Average of Peak Concentrations =					30.5			
-----								

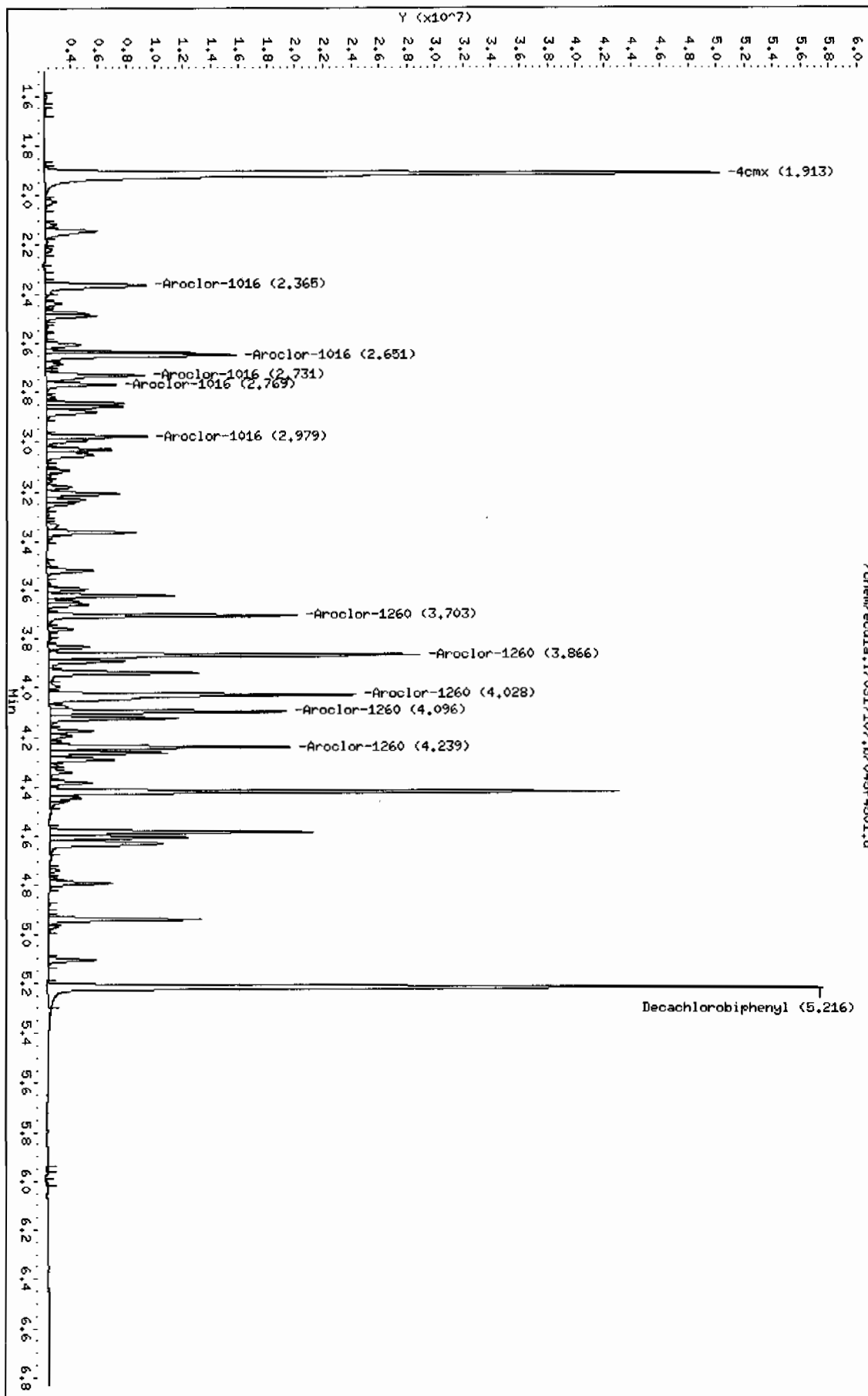


Data File: /chem/ecdl1.i/0317107.b/045F4501.d  
Date: 17-MAR-2010 14:32  
Client ID: MST16-10-13296MSD  
Sample Info: 1120207250511  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: ecdl1.i  
Operator: YSI  
Column diameter: 0.25

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/chem/ecdl1.i/0317107.b/045F4501.d



# Prep Logbook Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 965798      Verified by: \_\_\_\_\_

Analyst: Andrew Schwenin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202072502 MB	16-MAR-2010 21:02:00	30	H2SO4/KM12	2	9	1	0.03333	
1202072503 LCS	16-MAR-2010 21:02:00	30	H2SO4/KM12	2	9	1	0.03333	
24824009	16-MAR-2010 21:02:00	30.14	H2SO4/KM12	2	9	1	0.03318	
248240010	16-MAR-2010 21:02:00	30.17	H2SO4/KM12	2	9	1	0.03315	
248244001	16-MAR-2010 21:02:00	30.18	H2SO4/KM12	2	9	1	0.03313	
248249001	16-MAR-2010 21:02:00	30.03	H2SO4/KM12	2	9	1	0.0333	
248249002	16-MAR-2010 21:02:00	30.18	H2SO4/KM12	2	9	1	0.03313	
248249003	16-MAR-2010 21:02:00	30.04	H2SO4/KM12	2	9	1	0.03329	
248249004	16-MAR-2010 21:02:00	30.02	H2SO4/KM12	2	9	1	0.03331	
248373011	16-MAR-2010 21:02:00	30.19	H2SO4/KM12	2	9	1	0.03312	
248373014	16-MAR-2010 21:02:00	30.14	H2SO4/KM12	2	9	1	0.03318	
248373015	16-MAR-2010 21:02:00	30.01	H2SO4/KM12	2	9	1	0.03332	
248377002	16-MAR-2010 21:02:00	30.08	H2SO4/KM12	2	9	1	0.03324	
248377003	16-MAR-2010 21:02:00	30.08	H2SO4/KM12	2	9	1	0.03324	
248377004	16-MAR-2010 21:02:00	30.16	H2SO4/KM12	2	9	1	0.03316	
248377005	16-MAR-2010 21:02:00	30.07	H2SO4/KM12	2	9	1	0.03326	
248377006	16-MAR-2010 21:02:00	30.03	H2SO4/KM12	2	9	1	0.0333	
248377007	16-MAR-2010 21:02:00	30.01	H2SO4/KM12	2	9	1	0.03332	
248386003	16-MAR-2010 21:02:00	30.19	H2SO4/KM12	2	9	1	0.03312	
248386004	16-MAR-2010 21:02:00	30.12	H2SO4/KM12	2	9	1	0.0332	
248389002	16-MAR-2010 21:02:00	30.01	H2SO4/KM12	2	9	1	0.03332	
1202072504 MS (248389002)	16-MAR-2010 21:02:00	30.08	H2SO4/KM12	2	9	1	0.03324	
1202072505 MSD (248389002)	16-MAR-2010 21:02:00	30.02	H2SO4/KM12	2	9	1	0.03331	
248389003	16-MAR-2010 21:02:00	30.07	H2SO4/KM12	2	9	1	0.03326	

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202072503	PCB Laboratory Control	WE100224-07	1	mL	Clean up Date: 3/16/10
MS	1202072504	PCB Laboratory Control	WE100224-07	1	mL	Clean up Initials: AIS
MSD	1202072505	PCB Laboratory Control	WE100224-07	1	mL	Verified By: AAW
SUR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100302-16	1	mL	Final Solvent: Hexane
REGNT	All	1:1 sulfuric acid	1260695a	5	mL	Clean Up SOP: GL-OA-E-037
REGNT	All	Acetone	1273823-B1	150	mL	
REGNT	All	Hexane	1279345-B2	150	mL	
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL	
SOURC	All	SODIUM SULFATE	1274910	30	g	