

Tuesday, March 02, 2010

Page 1 of 3  
REQUEST NUMBER: 10-2193

**LOS ALAMOS**  
**NATIONAL LABORATORY**

ATTN: Valerie Davis  
General Engineering Laboratories, Inc., Charleston, SC.  
2040 Savage Rd  
Charleston, SC 29407

These Samples are on:  
LANL Request Number: 10-2193  
Per Agreement Number: 126310011  
Project Cost Code: MR3A05529EE00

Please analyse the enclosed samples  
according to the schedule indicated:

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

RAD SCREENING: Yes, Below Background  
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:8082		1	RE36-10-7407	R	2/25/2010	
		1	RE36-10-7421	R	2/25/2010	
		1	RE36-10-7422	R	2/25/2010	
		1	RE36-10-7407	R	2/25/2010	
		1	RE36-10-7421	R	2/25/2010	
SW-846:8260B		1	RE36-10-7422	R	2/25/2010	
		1	RE36-10-7435	R	2/25/2010	
		1	RE36-10-7436	R	2/25/2010	
		1	RE36-10-7437	R	2/25/2010	
		1	RE36-10-7437	R	2/25/2010	

Tuesday, March 02, 2010

REQUEST NUMBER: 10-2193

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
SW-846:8270C						
1		1	RE36-10-7447	R	2/25/2010	
		1	RE36-10-7448	R	2/25/2010	
		1	RE36-10-7449	R	2/25/2010	
		1	RE36-10-7450	R	2/25/2010	
		1	RE36-10-7451	R	2/25/2010	
		1	RE36-10-7452	R	2/25/2010	
SW-846:8321A_MOD						
1		1	RE36-10-7407	R	2/25/2010	
		1	RE36-10-7421	R	2/25/2010	
		1	RE36-10-7422	R	2/25/2010	
		1	RE36-10-7435	R	2/25/2010	
		1	RE36-10-7436	R	2/25/2010	
		1	RE36-10-7437	R	2/25/2010	
		1	RE36-10-7438	R	2/25/2010	
		1	RE36-10-7439	R	2/25/2010	
		1	RE36-10-7440	R	2/25/2010	
		1	RE36-10-7441	R	2/25/2010	
		1	RE36-10-7442	R	2/25/2010	
		1	RE36-10-7443	R	2/25/2010	
		1	RE36-10-7444	R	2/25/2010	
		1	RE36-10-7445	R	2/25/2010	
		1	RE36-10-7447	R	2/25/2010	
		1	RE36-10-7448	R	2/25/2010	
		1	RE36-10-7449	R	2/25/2010	
		1	RE36-10-7450	R	2/25/2010	
		1	RE36-10-7451	R	2/25/2010	
		1	RE36-10-7452	R	2/25/2010	



Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2193C

LOS ALAMOS

REQUEST NUMBER: 10-2193

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 4/1/2010

General Engineering Laboratories, Inc., Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7407	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-7407	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7421	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-7421	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7422	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-7422	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7451	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7451	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7449	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7449	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7445	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7445	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7450	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7450	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7444	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7444	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7448	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7448	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7447	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7447	1	AMBER GLASS	8270C+NMED Exp	Ice	R

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2193C

LOS ALAMOS

REQUEST NUMBER: 10-2193

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 4/1/2010

General Engineering Laboratories, Inc., Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7443	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7443	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7452	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7452	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7437	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7437	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7440	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7440	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7435	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7435	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7441	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7441	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7442	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7442	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7436	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7436	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7438	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7438	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7439	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7439	1	AMBER GLASS	8270C+NMED Exp	Ice	R

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By: Date

Time

Remarks:

Printed Name

Signature

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7407

WORK ORDER:

AS PLANNED	AS COLLECTED	AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):	02/25/2010	MEDIA:	QBT3
TIME COLLECTED (HH:MM)	1134	SUB-MEDIA:	TUFF 1
PRS ID: 36-008	OK	SAMPLE TECH CODE: HA	OK
LOCATION ID: 36-610576	↓	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 moist silty sand

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-27

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 25 dpm  
Beta/Gamma = 1538 dpm

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

73m 2/25/10

COLLECTED BY (PRINT)

Th McFarlane

REVIEWED BY (PRINT)

J. Branch

RELINQUISHED BY (Printed Name) J. Branch (Signature) <i>J. Branch</i>	Date/Time 2/25/10 1530	RECEIVED BY (Printed Name) <i>Sherrill Sherwood</i> (Signature) <i>Sherrill Sherwood</i>	Date/Time 2/25/10 1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7421

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/25/2010		MEDIA:	QBT3		A114
TIME COLLECTED (HH:MM)		0941		SUB-MEDIA:	TUFF 1		NA
PRS ID:	36-008	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	36-610583	↓		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:	B	3		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: 8-30

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 94 dpm  
Beta/Gamma = 2290 dpm

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

77m 2/25/10

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

J. Branch

RELINQUISHED BY (Printed Name) J. Branch (Signature) <i>J. Branch</i>	Date/Time 2/25/10 1530	RECEIVED BY (Printed Name) <i>Herrington</i> (Signature) <i>Herrington</i>	Date/Time 2/25/10 1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7422

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/25/2010		MEDIA:		QBT3	
TIME COLLECTED (HH:MM)		955		SUB-MEDIA:		TUFF 1	
PRS ID: 36-008		OK		SAMPLE TECH CODE:		HA	
LOCATION ID: 36-610583		↓		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		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

SAMPLE COMMENTS:

NA

LOCATION DESC: 8-30

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  29 dpm  
Beta/Gamma  $\leq$  2160 dpm

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

COLLECTED BY (PRINT)

J. McFarland

REVIEWED BY (PRINT)

J. Branch

RELINQUISHED BY (Printed Name) J. Branch (Signature) <i>J. Branch</i>	Date/Time 2/25/10 1530	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) <i>Sheri Sherwood</i>	Date/Time 2/25/10 1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7435

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/25/2010		MEDIA:	QBT3		SED
TIME COLLECTED (HH:MM)		1100		SUB-MEDIA:	TUFF 1		NA
PRS ID:	36-008	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	36-610590			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	SED		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	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML 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:

Frozen brown silt

SAMPLE COMMENTS:

NA

LOCATION DESC:

8 - 37

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  10 dpm  
Beta/Gamma  $\leq$  1734 dpm

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

73m 2/25/10

COLLECTED BY (PRINT)

Thm C Farlane

REVIEWED BY (PRINT)

J. Branch

RELINQUISHED BY (Printed Name) J. Branch (Signature) <i>[Signature]</i>	Date/Time 2/25/10 1530	RECEIVED BY (Printed Name) (Signature) <i>[Signature]</i>	Date/Time 2/25/10 1550
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7436

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/25/2010		MEDIA: OBT3		Allh	
TIME COLLECTED (HH:MM)		1110		SUB-MEDIA: TUFF 1		NA	
PRS ID: 36-008		ok		SAMPLE TECH CODE: HA		ok	
LOCATION ID: 36-610590		↓		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	Norms!	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML 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:

Frozen black and brown silty sand

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-37

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  47 dpm  
Beta/Gamma  $\leq$  1950 dpm

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

73m 2/25/10

COLLECTED BY (PRINT)

TLMCFarlane

REVIEWED BY (PRINT)

J. Branch

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Branch	2/25/10	(Printed Name) Sherin Sherwood	2/25/10
(Signature) <i>[Signature]</i>	1530	(Signature) <i>[Signature]</i>	1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7437

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/25/2010		MEDIA: QBT3		SED	
TIME COLLECTED (HH:MM)		1115		SUB-MEDIA: TUFF 1		NA	
PRS ID:	36-008	ok		SAMPLE TECH CODE: HA		ok	
LOCATION ID:	36-610591	↓		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	SED		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	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML 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 loamy silt, roots  
 FD RE36-10-7524

SAMPLE COMMENTS:

NA

LOCATION DESC:

8 - 38

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  58 dpm  
 Beta/Gamma  $\leq$  1785 dpm

PID ~~Ambient Reading~~ = ppm

77m 2/25/10

COLLECTED BY (PRINT)

Th. McFarlane

REVIEWED BY (PRINT)

J. Branch

RELINQUISHED BY (Printed Name) J. Branch (Signature) <i>[Signature]</i>	Date/Time 2/25/10 1530	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) <i>[Signature]</i>	Date/Time 2/25/10 1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7438

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/25/2010		MEDIA:		OBT3	
TIME COLLECTED (HH:MM)		1120		SUB-MEDIA:		TUFF 1	
PRS ID: 36-008		ok		SAMPLE TECH CODE: HA		ok	
LOCATION ID: 36-610591		↓		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		R		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	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML 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:

Pinkish gray tuff

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-36

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = <sup>41</sup> 30 dpm 2/25/10  
 Beta/Gamma = 22.10 dpm

PID <sup>Ambient Reading</sup> = ppm

7 nm 2/25/10

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

J. Branch

RELINQUISHED BY (Printed Name) J. Branch (Signature) <i>J. Branch</i>	Date/Time 2/25/10 1530	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) <i>Sheri Sherwood</i>	Date/Time 2/25/10 1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

**SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY**

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7439

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/25/2010		MEDIA:	OBT3		Allh
TIME COLLECTED (HH:MM)		1135		SUB-MEDIA:	TUFF 1		NA
PRS ID:	36-008	ok		SAMPLE TECH CODE:	HA		ok
LOCATION ID:	36-610592			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	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML 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 silt, cobbles, roots

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-39

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 41 dpm  
Beta/Gamma = 1644 dpm

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

7m 2/25/10

COLLECTED BY (PRINT)

Thmcfarlang

REVIEWED BY (PRINT)

J. Branch

RELINQUISHED BY (Printed Name) J. Branch (Signature) <i>J. Branch</i>	Date/Time 2/25/10 1530	RECEIVED BY (Printed Name) <i>Sherris Newwood</i> (Signature) <i>Sherris Newwood</i>	Date/Time 2/25/10 1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7440

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/25/2010		MEDIA:	QBT3		Allh
TIME COLLECTED (HH:MM)		445		SUB-MEDIA:	TUFF 1		NA
PRS ID:	36-008		OK	SAMPLE TECH CODE:	HA		OK
LOCATION ID:	36-610592			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	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML 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:

FR RE36-10-7536

Pinkish gray tuff and brown silty sand, roots

SAMPLE COMMENTS:

NA

LOCATION DESC: 8 - 39

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  72 dpm  
Beta/Gamma  $\leq$  2090 dpm

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

73m 2/25/10

COLLECTED BY (PRINT)

TLMCFarland

REVIEWED BY (PRINT)

J. Branch

RELINQUISHED BY (Printed Name) J. Branch (Signature) <i>J. Branch</i>	Date/Time 2/25/10 1530	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) <i>Sherri Sherwood</i>	Date/Time 2/25/10 1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7441

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/25/2010	MEDIA:	QBT3	Allh
TIME COLLECTED (HH:MM)		1104	SUB-MEDIA:	TUFF 1	NA
PRS ID:	36-008	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	36-610593		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	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML 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 loamy silt

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-25

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  64 dpm  
Beta/Gamma  $\leq$  1834 dpm

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

72m 2/25/10

COLLECTED BY (PRINT)

TLMcFarland

REVIEWED BY (PRINT)

J. Branch

RELINQUISHED BY (Printed Name) J. Branch (Signature) [Signature]	Date/Time 2/25/10 1530	RECEIVED BY (Printed Name) Jennifer Woodward (Signature) [Signature]	Date/Time 2/25/10 1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7442

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/25/2010		MEDIA:	QBT3		Allh
TIME COLLECTED (HH:MM)		1111		SUB-MEDIA:	TUFF 1		NA
PRS ID:	36-008		ok	SAMPLE TECH CODE:	HA		ok
LOCATION ID:	36-610593		↓	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	NO			BOREHOLE DECLINATION:	NA		BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML 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 silt, moist, and pinkish gray till

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-25

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  15 dpm  
 Beta/Gamma  $\leq$  1996 dpm

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

77m 2/25/10

COLLECTED BY (PRINT)

TL McFarland

REVIEWED BY (PRINT)

J. Branch

RELINQUISHED BY (Printed Name) J. Branch (Signature) <i>[Signature]</i>	Date/Time 1530 2/25/10	RECEIVED BY (Printed Name) <i>[Signature]</i> (Signature) <i>[Signature]</i>	Date/Time 2125/10 1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

# SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7443

WORK ORDER:

	<u>AS PLANNED</u>	<u>AS COLLECTED</u>	<u>AS PLANNED</u>	<u>AS COLLECTED</u>
DATE COLLECTED(MM/DD/YYYY):		02/25/2010	MEDIA:	OBT3
TIME COLLECTED (HH:MM)		1150	SUB-MEDIA:	TUFF 1
PRS ID: 36-008		ok	SAMPLE TECH CODE: HA	ok
LOCATION ID: 36-610594		↓	FIELD QC TYPE: NA	↓
LOCATION TYPE: <u>GENERIC</u>		↓	FIELD PREP: NA	↓
TOP DEPTH: 0		0.0	SAMPLE USAGE: <u>INV</u>	↓
BOTTOM DEPTH: 0		0.5	SCREEN/PORT DESC:	NA
FIELD MATRIX: R		S	EXCAVATED: YES <u>NO</u> / NA	
COMPOSITE TYPE: <u>NA</u>		COMPOSITE TIME INTERVAL: <u>NA</u>		WATER FLOWING: YES <u>NO</u> / NA
BOREHOLE: YES / <u>NO</u> NA		BOREHOLE DECLINATION: <u>NA</u>		BOREHOLE DIRECTION: <u>NA</u>

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	y	
1	↓	8270C+NMED Exp	500 ML 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:

moist brown silty sand, roots

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-41

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 41 dpm  
Beta/Gamma = 1805 dpm

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

73m 2/25/10

COLLECTED BY (PRINT)

TL McFarland

REVIEWED BY (PRINT)

J. Branch

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Branch	2/25/10	(Printed Name) Sheri Sherwood	2/25/10
(Signature) <i>[Signature]</i>	1530	(Signature) <i>[Signature]</i>	1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7444

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/25/2010		MEDIA:	QBT3		A11h
TIME COLLECTED (HH:MM)		1157		SUB-MEDIA:	TUFF 1		NA
PRS ID:	36-008		OK	SAMPLE TECH CODE:	HA		OK
LOCATION ID:	36-610594		↓	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:	B		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	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML 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

SAMPLE COMMENTS:

NA

LOCATION DESC:

8-41

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  61 dpm  
 Beta/Gamma  $\leq$  1623 dpm

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

73m 2/25/10

COLLECTED BY (PRINT)

Th McFarland

REVIEWED BY (PRINT)

J. Branch

RELINQUISHED BY (Printed Name) J. Branch (Signature) <i>J. Branch</i>	Date/Time 2/25/10 1530	RECEIVED BY (Printed Name) <i>Shenig Henwood</i> (Signature) <i>Shenig Henwood</i>	Date/Time 2/25/10 1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7445

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/25/2010		MEDIA:	QBT3		Allh
TIME COLLECTED (HH:MM)		1152		SUB-MEDIA:	TUFF 1		NA
PRS ID:	36-008		OK	SAMPLE TECH CODE:	HA		OK
LOCATION ID:	36-610595		↓	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	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML 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:

moist brown silt, some loam, tuff fragments,  
rocks, pine needles

SAMPLE COMMENTS:

NA

LOCATION DESC: 8-28

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq$  25 dpm  
Beta/Gamma  $\leq$  1583 dpm

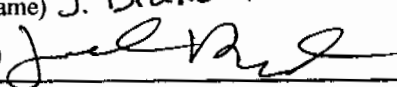
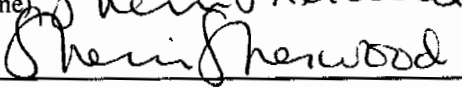
PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$  7m 2/25/10

COLLECTED BY (PRINT)

TLMcFarlane

REVIEWED BY (PRINT)

J. Branch

RELINQUISHED BY (Printed Name) J. Branch (Signature) 	Date/Time 2/25/10 1530	RECEIVED BY (Printed Name) Sherin Sherwood (Signature) 	Date/Time 2/25/10 1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time



## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7447

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/25/2010		MEDIA:	QBT3		A11h
TIME COLLECTED (HH:MM)		1217		SUB-MEDIA:	TUFF 1		N/A
PRS ID:	36-008	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	36-610596	↓		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	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML 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: Dark Brown, moist, silty soil w/ roots + cobbles.

FTB: RE36-10-7543

SAMPLE COMMENTS: N/A

LOCATION DESC: 8-42

## FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq 29$  dpm  
Beta/Gamma  $\leq 1936$  dpm

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

72h 2/25/10

COLLECTED BY (PRINT)

J. Branch

REVIEWED BY (PRINT)

L. Lopez

RELINQUISHED BY (Printed Name) J. Branch (Signature) <i>J. Branch</i>	Date/Time 2/25/10 1530	RECEIVED BY (Printed Name) <i>Henry Sherwood</i> (Signature) <i>Henry Sherwood</i>	Date/Time 2/25/10 1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7448

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/25/2010		MEDIA:	QBT3		A11h
TIME COLLECTED (HH:MM)		1230		SUB-MEDIA:	TUFF 1		N/A
PRS ID:	36-008		ok	SAMPLE TECH CODE:	HA		ok
LOCATION ID:	36-610596		↓	FIELD QC TYPE:	NA		↓
LOCATION TYPE:	GENERIC		↓	FIELD PREP:	NA		↓
TOP DEPTH:	0		2.0	SAMPLE USAGE:	INV		↓
BOTTOM DEPTH:	0		3.0	SCREEN/PORT DESC:			NA
FIELD MATRIX:	R		S	EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	NA			COMPOSITE TIME INTERVAL:	NA		
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	NA		
				BOREHOLE DIRECTION:	NA		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML 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+NO3+pH	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Dark Brown, moist, silty soil w roots

FR: RE36-10-7537

SAMPLE COMMENTS: N/A

LOCATION DESC: 8-42

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha  $\leq 47$  dpm  
Beta/Gamma  $\leq 2000$  dpm

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

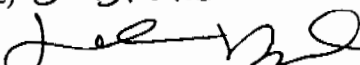

73m 2/25/10

COLLECTED BY (PRINT)

REVIEWED BY (PRINT)

J. Branch

L. Lopez

RELINQUISHED BY (Printed Name) J. Branch (Signature) 	Date/Time 2/25/10 1530	RECEIVED BY (Printed Name) Sheri Sherwood (Signature) 	Date/Time 2/25/10 1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7449

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/25/2010		MEDIA:	QBT3		171h
TIME COLLECTED(HH:MM)		1345		SUB-MEDIA:	TUFF 1		N/A
PRS ID:	36-008		OK	SAMPLE TECH CODE:	HA		OK
LOCATION ID:	36-610597			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:	N/A		
FIELD MATRIX:	R			EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	N/A			COMPOSITE TIME INTERVAL:	N/A		
				WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	N/A		
				BOREHOLE DIRECTION:	N/A		

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

SAMPLE DESC: Brown, moist, silty soil w/roots &amp; organics

FD: RE36-10-7525

SAMPLE COMMENTS:

N/A

LOCATION DESC: 8-40

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 29 dpm  
Beta/Gamma = 1790 dpm

PID <sup>2/25/10</sup> Ambient Reading = ppm

COLLECTED BY (PRINT)

J. Branch

REVIEWED BY (PRINT) L. Lopez

RELINQUISHED BY (Printed Name) J. Branch (Signature) <i>J. Branch</i>	Date/Time 2/25/10 1530	RECEIVED BY (Printed Name) Sherrin Sherwood (Signature) <i>Sherrin Sherwood</i>	Date/Time 2/25/10 1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

**SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY**

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7450

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/25/2010		MEDIA:	QBT3		A116
TIME COLLECTED (HH:MM)		1400		SUB-MEDIA:	TUFF 1		N/A
PRS ID:	36-008		OK	SAMPLE TECH CODE:	HA		OK
LOCATION ID:	36-610597			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:	N/A		
FIELD MATRIX:	R		5	EXCAVATED: YES/NO/NA			
COMPOSITE TYPE:	N/A			COMPOSITE TIME INTERVAL:	N/A		
				WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA				BOREHOLE DECLINATION:	N/A		
				BOREHOLE DIRECTION:	N/A		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML 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	Y	

SAMPLE DESC: Brown, silty, slightly moist soil w/tuff fragments

SAMPLE COMMENTS:

N/A

LOCATION DESC: 8-40

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 51 dpm  
Beta/Gamma = 1996 dpm

28 2/25/10  
PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

COLLECTED BY (PRINT)

J. Branch

REVIEWED BY (PRINT)

L. Lopez

RELINQUISHED BY (Printed Name) J. Branch (Signature) <i>J. Branch</i>	Date/Time 2/25/10 1530	RECEIVED BY (Printed Name) <i>Geoffery</i> (Signature) <i>Geoffery</i>	Date/Time 2/25/10 1550
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7451

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/25/2010		MEDIA:	QBT3		A11h
TIME COLLECTED (HH:MM)		1410		SUB-MEDIA:	TUFF 1		N/A
PRS ID:	36-008	OK		SAMPLE TECH CODE:	HA		OK
LOCATION ID:	36-610598			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:	N/A		
FIELD MATRIX:	R	S		EXCAVATED: YES/NO	NO/NO		2/25/10
COMPOSITE TYPE:	N/A			COMPOSITE TIME INTERVAL:	N/A		
				WATER FLOWING: YES/NO/NA	NO/NA		
BOREHOLE: YES/NO	NO/NA			BOREHOLE DECLINATION:	N/A		
				BOREHOLE DIRECTION:	N/A		

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	✓	
1		8270C+NMED Exp	500 ML 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+NO3+pH	500 ML POLY	Ice		
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	✓	

SAMPLE DESC: Brown, moist silty soil

SAMPLE COMMENTS: N/A

LOCATION DESC: 8-52

## FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 10 dpm  
Beta/Gamma = 1578 dpm

PID <sup>2/25/10</sup> ~~Ambient~~ Reading = ppm

COLLECTED BY (PRINT)

J. Branch

REVIEWED BY (PRINT)

L. Lopez

RELINQUISHED BY (Printed Name) J. Branch (Signature) <i>J. Branch</i>	Date/Time 2/25/10 830	RECEIVED BY (Printed Name) <i>Sherrill Sherwood</i> (Signature) <i>Sherrill Sherwood</i>	Date/Time 2/25/10 1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

## SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2485

EVENT NAME: 4th Qtr. FY09 - AOC 36-008 - Threemile Canyon

SAMPLE ID: RE36-10-7452

WORK ORDER:

AS PLANNED		AS COLLECTED		AS PLANNED		AS COLLECTED	
DATE COLLECTED(MM/DD/YYYY):		02/25/10		MEDIA: QBT3		A11h	
TIME COLLECTED (HH:MM)		1430		SUB-MEDIA: TUFF 1		N/A	
PRS ID: 36-008		OK		SAMPLE TECH CODE: HA		OK	
LOCATION ID: 36-610598		↓		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: N/A			
FIELD MATRIX: R		S		EXCAVATED: YES/NO/NA			
COMPOSITE TYPE: N/A		COMPOSITE TIME INTERVAL: N/A		WATER FLOWING: YES/NO/NA			
BOREHOLE: YES/NO/NA		BOREHOLE DECLINATION: N/A		BOREHOLE DIRECTION: N/A			

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML 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 soil w/roots (moist)

SAMPLE COMMENTS:

N/A

LOCATION DESC: 8-52

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 25 dpm  
Beta/Gamma = 1688 dpm

20-25/10  
PID  $\frac{\text{Ambient Reading}}{\text{Reading}} = \text{ppm}$

COLLECTED BY (PRINT)

J. Branch

REVIEWED BY (PRINT) L. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Branch	2/25/10	(Printed Name) Sheri Sherwood	2/25/10
(Signature) <i>J. Branch</i>	1530	(Signature) <i>Sheri Sherwood</i>	1530
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00076  
 Client Sample ID: RE36-10-7407  
 Sample Collection Date: 02/25/10 11:34  
 Sample Matrix: Soil/Solid

Request or PO Number:  
 ARS Sample ID: ARS2-10-00076-001  
 Date Received: 02/26/10 00:00  
 Report Date: 03/01/10 13:37

Analyte Description	Analyte Results	Analyte Error +/- 2 s	MDC	TPU	Qual	Analyte Units	Analyte Test Method	Analyte Date/Time	Analyte Technician	Tracer/Chem Recovery
GROSS ALPHA	6.98	17.19	34.62	17.21		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	33.86	14.22	18.10	14.80		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	0.08	0.19	0.16	0.19		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	3.07	9.39	4.13	9.39		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.00	0.00	0.16	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	-0.06	68.51	0.19	68.51		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.74	0.41	0.09	0.41		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
EU-152	-0.66	189.40	0.42	189.40		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	1.15	0.55	0.18	0.55		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-228	1.72	0.89	0.41	0.89		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	-0.31	-1.18	0.51	-1.18		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	-0.96	-13.12	1.45	-13.12		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	0.05	0.25	0.14	0.25		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
NOTES: % Moisture: 2.50										

*Matthew A. Edin*  
 Quality Assurance Review

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LELAP Certificate# 30658

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133 State Road 4, White Rock, NM 87544

505-872-2770 FAX 505-872-9534

ARS Sample Delivery Group: ARS2-10-00076

Request or PO Number:

Client Sample ID: RE36-10-7421

ARS Sample ID: ARS2-10-00076-002

Sample Collection Date: 02/25/10 09:41

Date Received: 02/26/10 00:00

Sample Matrix: Soil/Solid

Report Date: 03/01/10 13:37

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	15.09	20.50	33.18	20.58		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	26.04	13.09	17.07	13.47		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	-0.05	92.42	0.17	52.42		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	30.75	11.62	1.81	11.66		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.00	0.00	0.17	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	0.47	0.43	0.16	0.43		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.24	0.24	0.10	0.24		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
EU-152	0.00	-0.01	0.48	-0.01		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	1.87	0.64	0.13	0.64		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-228	2.27	1.01	0.44	1.02		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	1.99	1.99	0.72	1.99		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	5.55	3.60	1.44	3.82		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	0.05	0.18	0.11	0.18		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
NOTES: % Moisture: 1.73										

*Matthew J. Edm*  
Quality Assurance Review

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133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00076

Request or PO Number:

Client Sample ID: RE36-10-7422

ARS Sample ID: ARS2-10-00076-003

Sample Collection Date: 02/25/10 09:55

Date Received: 02/26/10 00:00

Sample Matrix: Soil/Solid

Report Date: 03/01/10 13:37

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	YPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	25.35	23.30	27.35	23.50		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	39.73	18.85	18.59	16.58		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	-0.04	43.78	0.14	43.78		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	31.18	10.70	1.51	10.73		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.00	0.00	0.13	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	0.08	0.17	0.20	0.17		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.80	0.00	0.08	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
EU-152	0.41	0.47	0.38	0.48		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	2.01	0.62	0.14	0.63		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-228	1.90	0.99	0.37	0.99		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	1.29	0.74	0.51	0.74		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	5.37	4.59	1.81	4.75		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	0.04	0.25	0.14	0.25		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
NOTES: % Moisture: 0.75										

*Matthew L. Eden*  
Quality Assurance Review

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NELAP Certificate # E67558



133 State Road 4, White Rock, NM 87544

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ARS Sample Delivery Group: ARS2-10-00076

Request or PO Number:

Client Sample ID: RE36-10-7435

ARS Sample ID: ARS2-10-00076-004

Sample Collection Date: 02/25/10 11:00

Date Received: 02/26/10 00:00

Sample Matrix: Soil/Solid

Report Date: 03/01/10 13:37

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	24.67	25.79	37.84	25.98		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	34.82	14.45	17.33	15.07		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	-0.04	36.99	0.12	36.99		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	22.47	8.35	1.27	8.37		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.11	0.13	0.12	0.13		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	0.19	0.17	0.11	0.17		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.17	0.17	0.07	0.17		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
EU-152	-0.50	153.73	0.34	153.73		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	1.25	0.50	0.16	0.50		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-228	1.82	0.81	0.31	0.82		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	1.41	1.14	0.60	1.15		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	7.40	3.75	1.29	4.11		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	0.16	0.22	0.10	0.22		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
NOTES: % Moisture: 3.88										

*Matthew L. Eder*  
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: ARS2-10-00076  
Client Sample ID: RE36-10-7436  
Sample Collection Date: 02/25/10 11:10  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00076-005  
Date Received: 02/26/10 00:00  
Report Date: 03/01/10 13:37

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	QUAI	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	26.78	25.93	34.62	26.14		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	38.05	15.06	18.10	15.77		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	-0.05	49.28	0.16	49.28		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	20.64	9.23	1.70	9.25		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.09	0.13	0.16	0.13		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	0.23	0.17	0.11	0.17		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.00	0.00	0.09	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
EU-152	0.42	0.50	0.45	0.50		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	2.25	0.76	0.24	0.77		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-228	0.14	0.26	0.41	0.26		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	0.26	0.42	0.58	0.42		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	3.67	3.13	1.46	3.24		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	0.01	0.17	0.12	0.17		pCi/g	EOA 901.1M	2/27/2010	NP	N/A

NOTES: % Moisture: 3.02

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: ARS2-10-00076  
 Client Sample ID: RE36-10-7437  
 Sample Collection Date: 02/25/10 11:15  
 Sample Matrix: Soil/Solid

Request or PO Number:  
 ARS Sample ID: ARS2-10-00076-006  
 Date Received: 02/26/10 00:00  
 Report Date: 03/01/10 13:37

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	1.23	13.18	33.07	13.18		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	41.44	14.57	16.93	15.43		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	-0.05	47.11	0.15	47.11		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	29.61	10.81	1.62	10.84		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.00	0.00	0.16	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	0.51	0.41	0.11	0.41		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.71	0.40	0.09	0.40		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RU-102	-0.63	182.36	0.41	182.36		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	1.60	0.63	0.21	0.64		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-228	2.67	1.11	0.39	1.12		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	1.46	0.87	0.49	0.87		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	2.49	2.85	1.37	2.90		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	0.25	0.24	0.09	0.24		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
NOTES: % Moisture: 3.23										

*Matthew J. Eder*  
 Quality Assurance Review

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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: ARS2-10-00076  
 Client Sample ID: RE36-10-7438  
 Sample Collection Date: 02/25/10 11:20  
 Sample Matrix: Soil/Solid

Request or PO Number:  
 ARS Sample ID: ARS2-10-00076-007  
 Date Received: 02/26/10 00:00  
 Report Date: 03/01/10 13:37

Analysis Description	Analysis Results	Analysis Error +/- 1 s	MDC	YPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Traceor/Chem Recovery
GROSS ALPHA	19.69	19.06	27.35	19.16		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	22.99	13.59	18.59	13.88		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	-0.04	43.78	0.14	43.78		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	4.43	10.18	4.57	10.18		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.00	0.00	0.15	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	0.17	0.19	0.17	0.19		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.31	0.25	0.08	0.25		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
EU-152	0.00	0.00	0.40	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	1.51	0.57	0.17	0.58		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-228	2.54	1.05	0.37	1.06		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	1.19	0.76	0.52	0.76		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	6.70	5.03	1.94	5.26		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	0.02	0.17	0.11	0.17		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
NOTES: % Moisture: 0.67										

*Matthew J. Edler*  
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ARS Sample Delivery Group: ARS2-10-00076

Request or PO Number:

Client Sample ID: RE36-10-7439

ARS Sample ID: ARS2-10-00076-008

Sample Collection Date: 02/25/10 11:38

Date Received: 02/26/10 00:00

Sample Matrix: Soil/Solid

Report Date: 03/01/10 13:37

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	20.07	14.17	37.84	24.29		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	36.07	14.50	17.33	15.15		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	-0.08	53.02	0.17	93.02		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	31.10	11.75	1.83	11.79		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.11	0.21	0.18	0.21		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	0.13	0.16	0.12	0.16		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.43	0.33	0.10	0.33		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
EU-152	0.34	0.60	0.46	0.60		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	1.33	0.60	0.19	0.60		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-228	3.52	1.80	0.44	1.81		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	0.18	0.44	0.61	0.44		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	5.61	2.93	1.03	3.20		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	0.79	0.44	0.12	0.44		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
NOTES: % Moisture: 1.60										

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ARS Sample Delivery Group: ARS2-10-00076

Request or PO Number:

Client Sample ID: RE36-10-7440

ARS Sample ID: ARS2-10-00076-009

Sample Collection Date: 02/25/10 11:45

Date Received: 02/26/10 00:00

Sample Matrix: Soil/Solid

Report Date: 03/01/10 13:37

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	35.63	29.28	34.56	29.62		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	30.97	14.34	17.91	14.83		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	-0.04	43.71	0.14	43.71		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	21.98	8.97	1.51	8.99		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.00	0.00	0.15	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	0.04	0.12	0.10	0.12		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.15	0.18	0.08	0.18		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
EU-152	-0.59	169.21	0.38	169.21		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	1.52	0.61	0.20	0.61		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-228	3.04	1.14	0.37	1.14		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	0.43	0.71	0.56	0.71		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	5.01	4.22	1.72	4.37		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	0.15	0.27	0.13	0.27		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
NOTES: % Moisture: 0.78										

*Matthew L. Eden*  
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ARS Sample Delivery Group: ARS2-10-00076  
Client Sample ID: RES6-10-7441  
Sample Collection Date: 02/25/10 11:04  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00076-010  
Date Received: 02/26/10 00:00  
Report Date: 03/01/10 13:37

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	42.63	30.08	33.07	30.53		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	33.80	14.47	16.93	15.05		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	0.05	0.21	0.17	0.21		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	23.87	10.42	1.87	10.44		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.00	0.00	0.18	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	0.05	0.10	0.12	0.10		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	1.08	0.52	0.10	0.52		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
BU-152	0.01	0.02	0.47	0.02		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	0.74	0.49	0.19	0.49		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-228	2.44	1.31	0.48	1.31		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	0.60	0.57	0.63	0.57		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	9.47	5.61	2.06	6.01		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	-0.02	-0.29	0.14	-0.29		pCi/g	EOA 901.1M	2/27/2010	NP	N/A

NOTES: % Moisture: 2.55

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ARS Sample Delivery Group: ARS2-10-00076  
Client Sample ID: RE36-10-7442  
Sample Collection Date: 02/25/10 11:11  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00076-011  
Date Received: 02/26/10 00:00  
Report Date: 03/01/10 13:37

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	30.16	25.13	27.34	25.40		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	33.12	15.31	18.79	15.84		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	0.05	0.19	0.13	0.19		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	22.31	9.51	1.67	9.54		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.00	0.00	0.16	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	0.21	0.17	0.21	0.17		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.11	0.16	0.09	0.16		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
EU-152	0.14	0.36	0.42	0.36		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	1.85	0.57	0.10	0.57		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-228	1.76	0.94	0.41	0.94		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	-6.64	-3.01	0.53	-3.01		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	7.60	3.80	1.35	4.18		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	0.40	0.38	0.14	0.38		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
NOTES: % Moisture: 1.81										

*Matthew A. Edes*  
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ARS Sample Delivery Group: ARS2-10-00076

Request or PO Number:

Client Sample ID: RE36-10-7443

ARS Sample ID: ARS2-10-00076-012

Sample Collection Date: 02/25/10 11:50

Date Received: 02/26/10 00:00

Sample Matrix: Soil/Solid

Report Date: 03/01/10 13:37

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	38.32	38.04	37.72	30.40		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	32.45	14.34	17.18	14.88		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	-0.04	46.41	0.15	46.41		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	19.44	8.69	1.60	8.71		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.00	0.00	0.15	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	-0.06	45.12	0.11	45.12		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.27	0.24	0.09	0.24		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
EU-152	-0.63	179.63	0.40	179.63		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	0.85	0.45	0.15	0.45		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-228	0.00	173.28	0.39	173.28		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	1.17	0.60	0.48	0.61		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	3.00	3.41	1.56	3.48		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	0.27	0.36	0.17	0.36		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
NOTES: % Moisture: 2.96										

*Matthew L. Edwards*  
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ARS Sample Delivery Group: ARS2-10-00076

Request or PO Number:

Client Sample ID: RE36-10-7444

ARS Sample ID: ARS2-10-00076-013

Sample Collection Date: 02/25/10 11:57

Date Received: 02/26/10 00:00

Sample Matrix: Soil/Solid

Report Date: 03/01/10 13:37

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	46.57	32.40	34.62	32.90		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	45.95	16.21	18.10	17.16		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	-0.05	48.67	0.15	48.67		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	19.37	8.89	1.68	8.91		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.00	0.00	0.16	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	0.14	0.16	0.11	0.16		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.40	0.30	0.09	0.30		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
EU-152	-0.08	-0.15	0.44	-0.15		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	1.26	0.56	0.17	0.56		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-228	0.60	0.49	0.41	0.49		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	1.33	1.25	0.60	1.25		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	1.43	2.50	1.42	2.52		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	0.13	0.40	0.19	0.40		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
NOTES: % Moisture: 2.51										

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ARS Sample Delivery Group: ARS2-10-00076

Request or PO Number:

Client Sample ID: RE36-10-7445

ARS Sample ID: ARS2-10-00076-014

Sample Collection Date: 02/25/10 11:52

Date Received: 02/26/10 00:00

Sample Matrix: Soil/Solid

Report Date: 03/01/10 13:37

Analysis Description	Analysis Results	Analysis Error +/- 3 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer / Chem Recovery
GROSS ALPHA	28.81	28.72	33.07	28.96		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	55.39	16.51	16.93	17.85		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	0.05	0.21	0.17	0.21		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	2.26	8.89	4.16	8.85		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.11	0.22	0.18	0.22		pCi/g	EOA 902.1M	2/27/2010	NP	N/A
CS-134	0.23	0.18	0.16	0.18		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.50	0.36	0.10	0.36		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
EU-152	0.34	0.48	0.47	0.48		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	1.46	0.64	0.21	0.64		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-228	2.56	1.15	0.45	1.15		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	-0.79	249.80	0.56	249.80		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	3.68	3.54	1.61	3.64		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	0.35	0.46	0.19	0.46		pCi/g	EOA 901.1M	2/27/2010	NP	N/A

NOTES: % Moisture: 2.73

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ARS Sample Delivery Group: ARS2-10-00076

Request or PO Number:

Client Sample ID: RE36-10-7447

ARS Sample ID: ARS2-10-00076-015

Sample Collection Date: 02/25/10 12:17

Date Received: 02/26/10 00:00

Sample Matrix: Soil/Solid

Report Date: 03/01/10 13:37

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	YPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	35.01	28.87	27.35	27.21		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	49.98	17.16	18.99	18.22		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	-0.05	49.10	0.16	49.10		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	0.51	1.71	2.07	1.71		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.00	0.00	0.16	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	-0.06	47.74	0.11	47.74		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.06	0.44	0.09	0.44		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
EU-152	-0.36	-1.15	0.43	-1.15		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	0.98	0.62	0.27	0.62		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-228	3.18	1.23	0.41	1.24		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	0.84	1.09	0.61	1.09		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	5.68	3.54	1.37	3.77		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	0.67	0.38	0.11	0.38		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
NOTES: % Moisture: 3.63										

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133 State Road 4, White Rock, NM 87544  
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ARS Sample Delivery Group: ARS2-10-00076  
Client Sample ID: RE36-10-7448  
Sample Collection Date: 02/25/10 12:30  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00076-016  
Date Received: 02/26/10 00:00  
Report Date: 03/01/10 13:37

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	24.58	25.71	37.72	25.88		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	40.43	14.97	17.16	15.77		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	-0.04	44.55	0.14	44.55		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	25.13	9.88	1.54	9.90		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.00	0.00	0.18	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	0.10	0.15	0.10	0.15		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.26	0.23	0.09	0.23		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
EU-152	-0.07	-0.13	0.39	-0.13		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	1.53	0.68	0.27	0.68		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-228	0.64	0.82	0.37	0.82		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	1.43	0.89	0.46	0.90		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	3.76	2.81	1.20	2.94		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	-0.02	-0.18	0.09	-0.18		pCi/g	EOA 901.1M	2/27/2010	NP	N/A

NOTES: % Moisture: 1.70

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: ARS2-10-00076  
Client Sample ID: RE36-10-7449  
Sample Collection Date: 02/25/10 13:45  
Sample Matrix: Soil/Solid

Request or PO Number:  
ARS Sample ID: ARS2-10-00076-017  
Date Received: 02/26/10 00:00  
Report Date: 03/01/10 13:37

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	46.55	32.41	34.62	32.90		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	51.09	18.73	18.10	17.88		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	-0.05	50.25	0.16	50.25		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	24.21	10.10	1.73	10.12		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.00	0.00	0.17	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	0.19	0.19	0.15	0.19		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.29	0.25	0.10	0.26		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
EU-152	0.36	0.36	0.44	0.36		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	1.40	0.62	0.21	0.62		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-226	2.30	1.53	0.42	1.53		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	0.55	0.75	0.52	0.75		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	7.54	4.19	1.58	4.53		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	0.69	0.54	0.18	0.54		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
NOTES: % Moisture: 2.26										

  
Quality Assurance Review

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133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00076  
 Client Sample ID: RE36-10-7450  
 Sample Collection Date: 02/25/10 14:00  
 Sample Matrix: Soil/Solid

Request or PO Number:  
 ARS Sample ID: ARS2-10-00076-018  
 Date Received: 02/26/10 00:00  
 Report Date: 03/01/10 13:37

Analysis Description	Analysis Results	Analysis Error +/- 2s	MDC	YPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	19.69	22.41	33.18	22.54		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	38.88	14.67	17.07	15.41		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	-0.04	43.31	0.14	43.31		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	31.75	10.73	1.49	10.77		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.00	0.00	0.14	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	-0.05	60.81	0.14	60.81		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.06	0.00	0.08	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
SU-152	-0.58	179.99	0.40	179.99		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	1.38	0.59	0.21	0.60		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-228	2.16	1.10	0.36	1.10		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	0.51	0.69	0.45	0.69		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	3.61	3.69	1.62	3.78		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	0.10	0.26	0.14	0.26		pCi/g	EOA 901.1M	2/27/2010	NP	N/A

NOTES: % Moisture: 1.45

  
 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.

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505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00076

Client Sample ID: RE36-10-7451

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

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00076-019

Date Received: 02/26/10 00:00

Report Date: 03/01/10 13:37

Analyte Description	Analyte Results	Analyte Error +/- 2 s	MDC	TPU	Unit	Analyte Units	Analyte Test Method	Analyte Date/Time	Analyte Technician	Trace/Chem Recovery
GROSS ALPHA	19.69	19.06	27.38	19.16		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	42.53	18.98	18.59	16.78		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	0.04	0.16	0.13	0.16		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	0.00	626.74	1.40	626.74		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.00	0.00	0.14	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	0.19	0.19	0.09	0.19		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.66	0.36	0.08	0.36		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
EU-152	0.63	0.64	0.35	0.84		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	1.26	0.45	0.08	0.46		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-228	1.94	0.98	0.34	0.99		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	0.27	0.29	0.44	0.29		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	3.83	3.86	1.48	3.66		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	0.04	0.28	0.14	0.28		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
NOTES: % Moisture: 5.58										

*[Signature]*  
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.

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NELAP Certificate # E87558



133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00076  
 Client Sample ID: RE26-10-7452  
 Sample Collection Date: 02/25/10 14:30  
 Sample Matrix: Soil/Solid

Request or PO Number:  
 ARS Sample ID: ARS2-10-00076-020  
 Date Received: 02/26/10 00:00  
 Report Date: 03/01/10 13:37

Analyte Description	Analyte Results	Analyte Error +/- 2 s	MDC	TPU	Qual	Analyte Units	Analyte Test Method	Analyte Date/Time	Analyte Technician	Tracer/Chem Recovery
GROSS ALPHA	18.48	22.42	37.84	22.50		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
GROSS BETA	33.88	14.16	17.33	14.76		pCi/g	EPA 900.0M	2/27/2010	NP	N/A
NA-22	-0.05	53.98	0.17	53.98		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
K-40	24.86	10.60	1.86	10.62		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CO-60	0.00	0.00	0.18	0.00		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-134	-0.07	52.45	0.12	52.45		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
CS-137	0.06	0.26	0.15	0.26		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
EU-152	-0.73	208.82	0.47	208.82		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
PB-212	1.17	0.60	0.22	0.60		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
RA-226	2.94	1.34	0.45	1.35		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-235	1.27	1.10	0.56	1.10		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
U-238	3.94	2.87	1.26	2.98		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
AM-241	-0.04	30.13	0.07	30.13		pCi/g	EOA 901.1M	2/27/2010	NP	N/A
NOTES: % Moisture: 3.35										

Quality Assurance Review

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

LELAP Certificate# 30658

NELAP Certificate # E87558

## DATA VALIDATION COVER SHEET

5114-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-2193 VALIDATION DATE: 5/11/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

## 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):

- In the CCVs associated with all samples except RE36-10-7438, -7439, -7441, and -7452, the %D was >20% for 1,2-dibromo-3-chloropropane. In the CCVs associated with sample -7439, the %Ds were >20% for dichlorodifluoromethane and acetone. The result for acetone in sample -7439 was a detect and, thus, was qualified J,V7c. All other associated sample results were NDs and, thus, were qualified UJ,V7c.
- The toluene-d8 and bromofluorobenzene surrogate %Rs were > the laboratory UALs in samples -7437, -7447, and -7451. The bromofluorobenzene surrogate %R was > the laboratory UAL in samples -7407, -7421, -7435, -7439 -- -7445, -7448, -7449, and -7452. Thus, the associated sample results that were detects were qualified J+,V3b and those that were NDs were not qualified.
- The MS and MSD %Rs were outside of laboratory acceptance limits for several compounds. It should be noted that trichlorotrifluoroethane was not represented in the MS/MSD analyses. Since an MS/MSD was not required, no sample results were qualified.

Reviewed by: Monica Dymerski Level I Date: 05/13/10

VALIDATOR'S SIGNATURE:

DATE: 5/11/10

DATA VALIDATION COVER SHEET	
<b>5114-1</b>  <b>Data Validation Cover Sheet</b>	Records Use only  <small>..... 1945 .....</small>
Form 5114-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

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


5114-2

## **Volatile Organic Compound (VOC) Analytical Data Validation Checklist**

Records Use only



Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

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

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

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

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: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506001	Date Received: 03/03/2010 08:50	%Moisture: 22.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7407	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.I	Dilution: 1
Run Date: 03/09/2010 20:28	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:06	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4\4B208.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.30	ug/kg	0.441	1.30
74-87-3	Chloromethane	U	1.30	ug/kg	0.389	1.30
75-01-4	Vinyl chloride	U	1.30	ug/kg	0.389	1.30
74-83-9	Bromomethane	U	1.30	ug/kg	0.389	1.30
75-00-3	Chloroethane	U	1.30	ug/kg	0.389	1.30
75-69-4	Trichlorofluoromethane	U	1.30	ug/kg	0.389	1.30
67-64-1	Acetone	U	6.48	ug/kg	2.15	6.48
75-35-4	1,1-Dichloroethylene	U	1.30	ug/kg	0.389	1.30
74-88-4	Iodomethane	U	6.48	ug/kg	2.07	6.48
75-09-2	Methylene chloride	U	6.48	ug/kg	2.59	6.48
75-15-0	Carbon disulfide	U	6.48	ug/kg	1.62	6.48
156-60-5	trans-1,2-Dichloroethylene	U	1.30	ug/kg	0.389	1.30
75-34-3	1,1-Dichloroethane	U	1.30	ug/kg	0.389	1.30
78-93-3	2-Butanone	U	6.48	ug/kg	1.94	6.48
156-59-2	cis-1,2-Dichloroethylene	U	1.30	ug/kg	0.389	1.30
594-20-7	2,2-Dichloropropane	U	1.30	ug/kg	0.389	1.30
67-66-3	Chloroform	U	1.30	ug/kg	0.389	1.30
74-97-5	Bromochloromethane	U	1.30	ug/kg	0.428	1.30
71-55-6	1,1,1-Trichloroethane	U	1.30	ug/kg	0.389	1.30
563-58-6	1,1-Dichloropropene	U	1.30	ug/kg	0.389	1.30
56-23-5	Carbon tetrachloride	U	1.30	ug/kg	0.389	1.30
107-06-2	1,2-Dichloroethane	U	1.30	ug/kg	0.389	1.30
71-43-2	Benzene	U	1.30	ug/kg	0.389	1.30
79-01-6	Trichloroethylene	J	0.661	ug/kg	0.428	1.30 J+,V3b
78-87-5	1,2-Dichloropropane	U	1.30	ug/kg	0.389	1.30
75-27-4	Bromodichloromethane	U	1.30	ug/kg	0.389	1.30
74-95-3	Dibromomethane	U	1.30	ug/kg	0.389	1.30
108-10-1	4-Methyl-2-pentanone	U	6.48	ug/kg	1.62	6.48
10061-01-5	cis-1,3-Dichloropropylene	U	1.30	ug/kg	0.389	1.30
108-88-3	Toluene	U	1.30	ug/kg	0.389	1.30
10061-02-6	trans-1,3-Dichloropropylene	U	1.30	ug/kg	0.389	1.30
79-00-5	1,1,2-Trichloroethane	U	1.30	ug/kg	0.389	1.30
591-78-6	2-Hexanone	U	6.48	ug/kg	1.94	6.48
142-28-9	1,3-Dichloropropane	U	1.30	ug/kg	0.389	1.30
127-18-4	Tetrachloroethylene	U	1.30	ug/kg	0.389	1.30
124-48-1	Dibromochloromethane	U	1.30	ug/kg	0.389	1.30
106-93-4	1,2-Dibromoethane	U	1.30	ug/kg	0.389	1.30
108-90-7	Chlorobenzene	U	1.30	ug/kg	0.389	1.30

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

SDG Number: 10-2193  
 Lab Sample ID: 248506001

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 22.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.30	ug/kg	0.389	1.30
179601-23-1	m,p-Xylenes	J	0.454	ug/kg	0.389	2.59 J+,V3b
95-47-6	o-Xylene	U	1.30	ug/kg	0.389	1.30
100-42-5	Styrene	U	1.30	ug/kg	0.389	1.30
75-25-2	Bromoform	U	1.30	ug/kg	0.389	1.30
79-34-5	1,1,2,2-Tetrachloroethane	U	1.30	ug/kg	0.389	1.30
96-18-4	1,2,3-Trichloropropane	U	1.30	ug/kg	0.389	1.30
108-86-1	Bromobenzene	U	1.30	ug/kg	0.389	1.30
103-65-1	n-Propylbenzene	U	1.30	ug/kg	0.389	1.30
95-49-8	2-Chlorotoluene	U	1.30	ug/kg	0.389	1.30
98-82-8	Isopropylbenzene	U	1.30	ug/kg	0.389	1.30
108-67-8	1,3,5-Trimethylbenzene	U	1.30	ug/kg	0.389	1.30
106-43-4	4-Chlorotoluene	U	1.30	ug/kg	0.389	1.30
98-06-6	tert-Butylbenzene	U	1.30	ug/kg	0.389	1.30
95-63-6	1,2,4-Trimethylbenzene	J	0.454	ug/kg	0.389	1.30 J+,V3b
135-98-8	sec-Butylbenzene	U	1.30	ug/kg	0.389	1.30
99-87-6	4-Isopropyltoluene	U	1.30	ug/kg	0.389	1.30
541-73-1	1,3-Dichlorobenzene	U	1.30	ug/kg	0.389	1.30
106-46-7	1,4-Dichlorobenzene	U	1.30	ug/kg	0.389	1.30
104-51-8	n-Butylbenzene	U	1.30	ug/kg	0.389	1.30
96-12-8	1,2-Dibromo-3-chloropropane	U	1.30	ug/kg	0.389	1.30 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.48	ug/kg	2.07	6.48
630-20-6	1,1,1,2-Tetrachloroethane	U	1.30	ug/kg	0.389	1.30
95-50-1	1,2-Dichlorobenzene	U	1.30	ug/kg	0.389	1.30

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	unknown hydrocarbon	4.48	9.24	ug/kg	0	J
	unknown siloxane	16.79	8.15	ug/kg	0	J

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

SDG Number: 10-2193  
 Lab Sample ID: 248506002

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 15  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7421  
 Batch ID: 963417  
 Run Date: 03/09/2010 20:56  
 Prep Date: 03/09/2010 20:11  
 Data File: 030910V4\4B209.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.18	ug/kg	0.400	1.18
74-87-3	Chloromethane	U	1.18	ug/kg	0.353	1.18
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.353	1.18
74-83-9	Bromomethane	U	1.18	ug/kg	0.353	1.18
75-00-3	Chloroethane	U	1.18	ug/kg	0.353	1.18
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.353	1.18
67-64-1	Acetone	J	4.74	ug/kg	1.95	5.88 J+,V3b
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.353	1.18
74-88-4	Iodomethane	U	5.88	ug/kg	1.88	5.88
75-09-2	Methylene chloride	U	5.88	ug/kg	2.35	5.88
75-15-0	Carbon disulfide	U	5.88	ug/kg	1.47	5.88
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.353	1.18
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.353	1.18
78-93-3	2-Butanone	U	5.88	ug/kg	1.76	5.88
156-59-2	cis-1,2-Dichloroethylene	U	1.18	ug/kg	0.353	1.18
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.353	1.18
67-66-3	Chloroform	U	1.18	ug/kg	0.353	1.18
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.388	1.18
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.353	1.18
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.353	1.18
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.353	1.18
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.353	1.18
71-43-2	Benzene	U	1.18	ug/kg	0.353	1.18
79-01-6	Trichloroethylene	J	0.905	ug/kg	0.388	1.18 J+,V3b
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.353	1.18
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.353	1.18
74-95-3	Dibromomethane	U	1.18	ug/kg	0.353	1.18
108-10-1	4-Methyl-2-pentanone	U	5.88	ug/kg	1.47	5.88
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.353	1.18
108-88-3	Toluene	U	1.18	ug/kg	0.353	1.18
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.353	1.18
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.353	1.18
591-78-6	2-Hexanone	U	5.88	ug/kg	1.76	5.88
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.353	1.18
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.353	1.18
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.353	1.18
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.353	1.18
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.353	1.18

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506002	Date Received: 03/03/2010 08:50	%Moisture: 15
Client ID: RE36-10-7421	Client: LANL010	Project: LANL01004
Batch ID: 963417	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/09/2010 20:56	Inst: VOA4.I	Dilution: 1
Prep Date: 03/09/2010 20:11	Analyst: ACJ	Purge Vol: 5 mL
Data File: 030910V44B209.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	1.18	ug/kg	0.353	1.18
179601-23-1	m,p-Xylenes	U	2.35	ug/kg	0.353	2.35
95-47-6	o-Xylene	U	1.18	ug/kg	0.353	1.18
100-42-5	Styrene	U	1.18	ug/kg	0.353	1.18
75-25-2	Bromoform	U	1.18	ug/kg	0.353	1.18
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.353	1.18
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.353	1.18
108-86-1	Bromobenzene	U	1.18	ug/kg	0.353	1.18
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.353	1.18
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.353	1.18
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.353	1.18
108-67-8	1,3,5-Trimethylbenzene	U	1.18	ug/kg	0.353	1.18
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.353	1.18
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.353	1.18
95-63-6	1,2,4-Trimethylbenzene	U	1.18	ug/kg	0.353	1.18
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.353	1.18
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.353	1.18
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.353	1.18
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.353	1.18
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.353	1.18
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.353	1.18 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.88	ug/kg	1.88	5.88
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.353	1.18
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.353	1.18

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	13.6	ug/kg	0	J
	unknown siloxane	16.79	16	ug/kg	0	J

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

SDG Number: 10-2193  
 Lab Sample ID: 248506003

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 5.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7422  
 Batch ID: 963417  
 Run Date: 03/09/2010 21:23  
 Prep Date: 03/09/2010 20:12  
 Data File: 030910V4V4B210.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.361	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.319	1.06
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.319	1.06
74-83-9	Bromomethane	U	1.06	ug/kg	0.319	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.319	1.06
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.319	1.06
67-64-1	Acetone	J	2.28	ug/kg	1.76	5.31
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.319	1.06
74-88-4	Iodomethane	U	5.31	ug/kg	1.70	5.31
75-09-2	Methylene chloride	U	5.31	ug/kg	2.12	5.31
75-15-0	Carbon disulfide	U	5.31	ug/kg	1.33	5.31
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.319	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.319	1.06
78-93-3	2-Butanone	U	5.31	ug/kg	1.59	5.31
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.319	1.06
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.319	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.319	1.06
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.351	1.06
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.319	1.06
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.319	1.06
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.319	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.319	1.06
71-43-2	Benzene	U	1.06	ug/kg	0.319	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.351	1.06
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.319	1.06
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.319	1.06
74-95-3	Dibromomethane	U	1.06	ug/kg	0.319	1.06
108-10-1	4-Methyl-2-pentanone	U	5.31	ug/kg	1.33	5.31
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.319	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.319	1.06
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.319	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.319	1.06
591-78-6	2-Hexanone	U	5.31	ug/kg	1.59	5.31
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.319	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.319	1.06
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.319	1.06
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.319	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.319	1.06

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

SDG Number: 10-2193  
 Lab Sample ID: 248506003

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 5.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7422  
 Batch ID: 963417  
 Run Date: 03/09/2010 21:23  
 Prep Date: 03/09/2010 20:12  
 Data File: 030910V4\4B210.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.319	1.06
179601-23-1	m,p-Xylenes	J	0.414	ug/kg	0.319	2.12
95-47-6	o-Xylene	U	1.06	ug/kg	0.319	1.06
100-42-5	Styrene	U	1.06	ug/kg	0.319	1.06
75-25-2	Bromoform	U	1.06	ug/kg	0.319	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.319	1.06
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.319	1.06
108-86-1	Bromobenzene	U	1.06	ug/kg	0.319	1.06
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.319	1.06
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.319	1.06
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.319	1.06
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.319	1.06
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.319	1.06
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.319	1.06
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.319	1.06
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.319	1.06
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.319	1.06
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.319	1.06
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.319	1.06
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.319	1.06
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.319	1.06 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.31	ug/kg	1.70	5.31
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.319	1.06
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.319	1.06

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	8.58	ug/kg	0	J
	unknown hydrocarbon	14.79	18.4	ug/kg	0	J
	unknown siloxane	16.79	7.37	ug/kg	0	J

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

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SDG Number: 10-2193  
 Lab Sample ID: 248506004

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 39.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7451  
 Batch ID: 963417  
 Run Date: 03/09/2010 21:50  
 Prep Date: 03/09/2010 20:13  
 Data File: 030910V4\4B211.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.65	ug/kg	0.561	1.65
74-87-3	Chloromethane	U	1.65	ug/kg	0.495	1.65
75-01-4	Vinyl chloride	U	1.65	ug/kg	0.495	1.65
74-83-9	Bromomethane	U	1.65	ug/kg	0.495	1.65
75-00-3	Chloroethane	U	1.65	ug/kg	0.495	1.65
75-69-4	Trichlorofluoromethane	U	1.65	ug/kg	0.495	1.65
67-64-1	Acetone	J	2.86	ug/kg	2.74	8.25 J+,V3b
75-35-4	1,1-Dichloroethylene		2.46	ug/kg	0.495	1.65 J+,V3b
74-88-4	Iodomethane	U	8.25	ug/kg	2.64	8.25
75-09-2	Methylene chloride	U	8.25	ug/kg	3.30	8.25
75-15-0	Carbon disulfide	U	8.25	ug/kg	2.06	8.25
156-60-5	trans-1,2-Dichloroethylene	U	1.65	ug/kg	0.495	1.65
75-34-3	1,1-Dichloroethane	U	1.65	ug/kg	0.495	1.65
78-93-3	2-Butanone	U	8.25	ug/kg	2.48	8.25
156-59-2	cis-1,2-Dichloroethylene	U	1.65	ug/kg	0.495	1.65
594-20-7	2,2-Dichloropropane	U	1.65	ug/kg	0.495	1.65
67-66-3	Chloroform	U	1.65	ug/kg	0.495	1.65
74-97-5	Bromochloromethane	U	1.65	ug/kg	0.545	1.65
71-55-6	1,1,1-Trichloroethane	U	1.65	ug/kg	0.495	1.65
563-58-6	1,1-Dichloropropene	U	1.65	ug/kg	0.495	1.65
56-23-5	Carbon tetrachloride	U	1.65	ug/kg	0.495	1.65
107-06-2	1,2-Dichloroethane	U	1.65	ug/kg	0.495	1.65
71-43-2	Benzene	U	1.65	ug/kg	0.495	1.65
79-01-6	Trichloroethylene	U	1.65	ug/kg	0.545	1.65
78-87-5	1,2-Dichloropropane	U	1.65	ug/kg	0.495	1.65
75-27-4	Bromodichloromethane	U	1.65	ug/kg	0.495	1.65
74-95-3	Dibromomethane	U	1.65	ug/kg	0.495	1.65
108-10-1	4-Methyl-2-pentanone	U	8.25	ug/kg	2.06	8.25
10061-01-5	cis-1,3-Dichloropropylene	U	1.65	ug/kg	0.495	1.65
108-88-3	Toluene		3.20	ug/kg	0.495	1.65 J+,V3b
10061-02-6	trans-1,3-Dichloropropylene	U	1.65	ug/kg	0.495	1.65
79-00-5	1,1,2-Trichloroethane	U	1.65	ug/kg	0.495	1.65
591-78-6	2-Hexanone	U	8.25	ug/kg	2.48	8.25
142-28-9	1,3-Dichloropropane	U	1.65	ug/kg	0.495	1.65
127-18-4	Tetrachloroethylene	U	1.65	ug/kg	0.495	1.65
124-48-1	Dibromochloromethane	U	1.65	ug/kg	0.495	1.65
106-93-4	1,2-Dibromoethane	U	1.65	ug/kg	0.495	1.65
108-90-7	Chlorobenzene	U	1.65	ug/kg	0.495	1.65

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Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2193  
Lab Sample ID: 248506004

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA4.I  
Analyst: ACJ  
Allquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 39.4  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

Client ID: RE36-10-7451  
Batch ID: 963417  
Run Date: 03/09/2010 21:50  
Prep Date: 03/09/2010 20:13  
Data File: 030910V4\4B211.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.65	ug/kg	0.495	1.65
179601-23-1	m,p-Xylenes	J	0.792	ug/kg	0.495	3.30 J+,V3b
95-47-6	o-Xylene	U	1.65	ug/kg	0.495	1.65
100-42-5	Styrene	U	1.65	ug/kg	0.495	1.65
75-25-2	Bromoform	U	1.65	ug/kg	0.495	1.65
79-34-5	1,1,2,2-Tetrachloroethane	U	1.65	ug/kg	0.495	1.65
96-18-4	1,2,3-Trichloropropane	U	1.65	ug/kg	0.495	1.65
108-86-1	Bromobenzene	U	1.65	ug/kg	0.495	1.65
103-65-1	n-Propylbenzene	U	1.65	ug/kg	0.495	1.65
95-49-8	2-Chlorotoluene	U	1.65	ug/kg	0.495	1.65
98-82-8	Isopropylbenzene	U	1.65	ug/kg	0.495	1.65
108-67-8	1,3,5-Trimethylbenzene	U	1.65	ug/kg	0.495	1.65
106-43-4	4-Chlorotoluene	U	1.65	ug/kg	0.495	1.65
98-06-6	tert-Butylbenzene	U	1.65	ug/kg	0.495	1.65
95-63-6	1,2,4-Trimethylbenzene	U	1.65	ug/kg	0.495	1.65
135-98-8	sec-Butylbenzene	U	1.65	ug/kg	0.495	1.65
99-87-6	4-Isopropyltoluene		3.38	ug/kg	0.495	1.65 J+,V3b
541-73-1	1,3-Dichlorobenzene	U	1.65	ug/kg	0.495	1.65
106-46-7	1,4-Dichlorobenzene	U	1.65	ug/kg	0.495	1.65
104-51-8	n-Butylbenzene	U	1.65	ug/kg	0.495	1.65
96-12-8	1,2-Dibromo-3-chloropropane	U	1.65	ug/kg	0.495	1.65 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	8.25	ug/kg	2.64	8.25
630-20-6	1,1,1,2-Tetrachloroethane	U	1.65	ug/kg	0.495	1.65
95-50-1	1,2-Dichlorobenzene	U	1.65	ug/kg	0.495	1.65

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	unknown hydrocarbon	4.48	33.5	ug/kg	0	J
	unknown hydrocarbon	14.79	80.4	ug/kg	0	J
	unknown hydrocarbon	15.11	31.3	ug/kg	0	J
	unknown substituted benzene	15.4	13.7	ug/kg	0	J
	unknown hydrocarbon	15.8	67.4	ug/kg	0	J

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

SDG Number: 10-2193  
 Lab Sample ID: 248506005

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 17.8  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7449  
 Batch ID: 963417  
 Run Date: 03/09/2010 22:17  
 Prep Date: 03/09/2010 20:14  
 Data File: 030910V4\4B212.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.22	ug/kg	0.414	1.22
74-87-3	Chloromethane	U	1.22	ug/kg	0.365	1.22
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.365	1.22
74-83-9	Bromomethane	U	1.22	ug/kg	0.365	1.22
75-00-3	Chloroethane	U	1.22	ug/kg	0.365	1.22
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.365	1.22
67-64-1	Acetone	U	6.08	ug/kg	2.02	6.08
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
74-88-4	Iodomethane	U	6.08	ug/kg	1.95	6.08
75-09-2	Methylene chloride	U	6.08	ug/kg	2.43	6.08
75-15-0	Carbon disulfide	U	6.08	ug/kg	1.52	6.08
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.365	1.22
78-93-3	2-Butanone	U	6.08	ug/kg	1.83	6.08
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.365	1.22
67-66-3	Chloroform	U	1.22	ug/kg	0.365	1.22
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.402	1.22
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.365	1.22
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.365	1.22
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.365	1.22
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.365	1.22
71-43-2	Benzene	U	1.22	ug/kg	0.365	1.22
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.402	1.22
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.365	1.22
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.365	1.22
74-95-3	Dibromomethane	U	1.22	ug/kg	0.365	1.22
108-10-1	4-Methyl-2-pentanone	U	6.08	ug/kg	1.52	6.08
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.365	1.22
108-88-3	Toluene	U	1.22	ug/kg	0.365	1.22
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.365	1.22
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.365	1.22
591-78-6	2-Hexanone	U	6.08	ug/kg	1.83	6.08
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.365	1.22
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.365	1.22
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.365	1.22
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.365	1.22
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.365	1.22

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

SDG Number: 10-2193  
 Lab Sample ID: 248506005

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 17.8  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7449  
 Batch ID: 963417  
 Run Date: 03/09/2010 22:17  
 Prep Date: 03/09/2010 20:14  
 Data File: 030910V4\4B212.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.22	ug/kg	0.365	1.22
179601-23-1	m,p-Xylenes	U	2.43	ug/kg	0.365	2.43
95-47-6	o-Xylene	U	1.22	ug/kg	0.365	1.22
100-42-5	Styrene	U	1.22	ug/kg	0.365	1.22
75-25-2	Bromoform	U	1.22	ug/kg	0.365	1.22
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.365	1.22
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.365	1.22
108-86-1	Bromobenzene	U	1.22	ug/kg	0.365	1.22
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.365	1.22
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.365	1.22
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.365	1.22
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.365	1.22
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.365	1.22
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.365	1.22
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.365	1.22
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.365	1.22
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.365	1.22
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22
106-46-7	1,4-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.365	1.22
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.365	1.22 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.08	ug/kg	1.95	6.08
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.365	1.22
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	13.6	ug/kg	0	J

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

SDG Number: 10-2193  
 Lab Sample ID: 248506006

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 25.6  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7445  
 Batch ID: 963417  
 Run Date: 03/09/2010 22:45  
 Prep Date: 03/09/2010 20:15  
 Data File: 030910V4\4B213.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.34	ug/kg	0.457	1.34	
74-87-3	Chloromethane	U	1.34	ug/kg	0.403	1.34	
75-01-4	Vinyl chloride	U	1.34	ug/kg	0.403	1.34	
74-83-9	Bromomethane	U	1.34	ug/kg	0.403	1.34	
75-00-3	Chloroethane	U	1.34	ug/kg	0.403	1.34	
75-69-4	Trichlorofluoromethane	U	1.34	ug/kg	0.403	1.34	
67-64-1	Acetone	J	3.28	ug/kg	2.23	6.72	J+,V3b
75-35-4	1,1-Dichloroethylene	U	1.34	ug/kg	0.403	1.34	
74-88-4	Iodomethane	U	6.72	ug/kg	2.15	6.72	
75-09-2	Methylene chloride	U	6.72	ug/kg	2.69	6.72	
75-15-0	Carbon disulfide	U	6.72	ug/kg	1.68	6.72	
156-60-5	trans-1,2-Dichloroethylene	U	1.34	ug/kg	0.403	1.34	
75-34-3	1,1-Dichloroethane	U	1.34	ug/kg	0.403	1.34	
78-93-3	2-Butanone	U	6.72	ug/kg	2.02	6.72	
156-59-2	cis-1,2-Dichloroethylene	U	1.34	ug/kg	0.403	1.34	
594-20-7	2,2-Dichloropropane	U	1.34	ug/kg	0.403	1.34	
67-66-3	Chloroform	U	1.34	ug/kg	0.403	1.34	
74-97-5	Bromochloromethane	U	1.34	ug/kg	0.444	1.34	
71-55-6	1,1,1-Trichloroethane	U	1.34	ug/kg	0.403	1.34	
563-58-6	1,1-Dichloropropene	U	1.34	ug/kg	0.403	1.34	
56-23-5	Carbon tetrachloride	U	1.34	ug/kg	0.403	1.34	
107-06-2	1,2-Dichloroethane	U	1.34	ug/kg	0.403	1.34	
71-43-2	Benzene	U	1.34	ug/kg	0.403	1.34	
79-01-6	Trichloroethylene	J	0.632	ug/kg	0.444	1.34	J+,V3b
78-87-5	1,2-Dichloropropane	U	1.34	ug/kg	0.403	1.34	
75-27-4	Bromodichloromethane	U	1.34	ug/kg	0.403	1.34	
74-95-3	Dibromomethane	U	1.34	ug/kg	0.403	1.34	
108-10-1	4-Methyl-2-pentanone	U	6.72	ug/kg	1.68	6.72	
10061-01-5	cis-1,3-Dichloropropylene	U	1.34	ug/kg	0.403	1.34	
108-88-3	Toluene	U	1.34	ug/kg	0.403	1.34	
10061-02-6	trans-1,3-Dichloropropylene	U	1.34	ug/kg	0.403	1.34	
79-00-5	1,1,2-Trichloroethane	U	1.34	ug/kg	0.403	1.34	
591-78-6	2-Hexanone	U	6.72	ug/kg	2.02	6.72	
142-28-9	1,3-Dichloropropane	U	1.34	ug/kg	0.403	1.34	
127-18-4	Tetrachloroethylene	U	1.34	ug/kg	0.403	1.34	
124-48-1	Dibromochloromethane	U	1.34	ug/kg	0.403	1.34	
106-93-4	1,2-Dibromoethane	U	1.34	ug/kg	0.403	1.34	
108-90-7	Chlorobenzene	U	1.34	ug/kg	0.403	1.34	

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

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SDG Number: 10-2193  
 Lab Sample ID: 248506006

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 25.6  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7445  
 Batch ID: 963417  
 Run Date: 03/09/2010 22:45  
 Prep Date: 03/09/2010 20:15  
 Data File: 030910V4\4B213.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.34	ug/kg	0.403	1.34
179601-23-1	m,p-Xylenes	J	0.430	ug/kg	0.403	2.69 J+,V3b
95-47-6	o-Xylene	U	1.34	ug/kg	0.403	1.34
100-42-5	Styrene	U	1.34	ug/kg	0.403	1.34
75-25-2	Bromoform	U	1.34	ug/kg	0.403	1.34
79-34-5	1,1,2,2-Tetrachloroethane	U	1.34	ug/kg	0.403	1.34
96-18-4	1,2,3-Trichloropropane	U	1.34	ug/kg	0.403	1.34
108-86-1	Bromobenzene	U	1.34	ug/kg	0.403	1.34
103-65-1	n-Propylbenzene	U	1.34	ug/kg	0.403	1.34
95-49-8	2-Chlorotoluene	U	1.34	ug/kg	0.403	1.34
98-82-8	Isopropylbenzene	U	1.34	ug/kg	0.403	1.34
108-67-8	1,3,5-Trimethylbenzene	U	1.34	ug/kg	0.403	1.34
106-43-4	4-Chlorotoluene	U	1.34	ug/kg	0.403	1.34
98-06-6	tert-Butylbenzene	U	1.34	ug/kg	0.403	1.34
95-63-6	1,2,4-Trimethylbenzene	U	1.34	ug/kg	0.403	1.34
135-98-8	sec-Butylbenzene	U	1.34	ug/kg	0.403	1.34
99-87-6	4-Isopropyltoluene	U	1.34	ug/kg	0.403	1.34
541-73-1	1,3-Dichlorobenzene	U	1.34	ug/kg	0.403	1.34
106-46-7	1,4-Dichlorobenzene	U	1.34	ug/kg	0.403	1.34
104-51-8	n-Butylbenzene	U	1.34	ug/kg	0.403	1.34
96-12-8	1,2-Dibromo-3-chloropropane	U	1.34	ug/kg	0.403	1.34 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.72	ug/kg	2.15	6.72
630-20-6	1,1,1,2-Tetrachloroethane	U	1.34	ug/kg	0.403	1.34
95-50-1	1,2-Dichlorobenzene	U	1.34	ug/kg	0.403	1.34

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	15.5	ug/kg	0	J
	unknown hydrocarbon	14.79	17	ug/kg	0	J
	unknown hydrocarbon	15.79	21.1	ug/kg	0	J
	unknown siloxane	16.79	23.6	ug/kg	0	J

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

SDG Number: 10-2193  
 Lab Sample ID: 248506007

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 9.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7450  
 Batch ID: 963417  
 Run Date: 03/09/2010 23:12  
 Prep Date: 03/09/2010 20:16  
 Data File: 030910V4\4B214.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.377	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.333	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.333	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.333	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.333	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.333	1.11
67-64-1	Acetone	U	5.55	ug/kg	1.84	5.55
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
74-88-4	Iodomethane	U	5.55	ug/kg	1.78	5.55
75-09-2	Methylene chloride	U	5.55	ug/kg	2.22	5.55
75-15-0	Carbon disulfide	U	5.55	ug/kg	1.39	5.55
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.333	1.11
78-93-3	2-Butanone	U	5.55	ug/kg	1.66	5.55
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.333	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.366	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.333	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.333	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.333	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.333	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.333	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.366	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.333	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.333	1.11
108-10-1	4-Methyl-2-pentanone	U	5.55	ug/kg	1.39	5.55
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.333	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.333	1.11
591-78-6	2-Hexanone	U	5.55	ug/kg	1.66	5.55
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.333	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.333	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.333	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.333	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.333	1.11

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

SDG Number: 10-2193  
 Lab Sample ID: 248506007

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Allquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 9.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7450  
 Batch ID: 963417  
 Run Date: 03/09/2010 23:12  
 Prep Date: 03/09/2010 20:16  
 Data File: 030910V4\4B214.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.333	1.11
179601-23-1	m,p-Xylenes	U	2.22	ug/kg	0.333	2.22
95-47-6	o-Xylene	U	1.11	ug/kg	0.333	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.333	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.333	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.333	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.333	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.333	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.333	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.333	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.333	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.333	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.333	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.333	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.333	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.333	1.11 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.55	ug/kg	1.78	5.55
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	11.9	ug/kg	0	J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506008	Date Received: 03/03/2010 08:50	%Moisture: 20.6
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7444	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.I	Dilution: 1
Run Date: 03/09/2010 23:39	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:17	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4V4B215.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.26	ug/kg	0.428	1.26
74-87-3	Chloromethane	U	1.26	ug/kg	0.378	1.26
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.378	1.26
74-83-9	Bromomethane	U	1.26	ug/kg	0.378	1.26
75-00-3	Chloroethane	U	1.26	ug/kg	0.378	1.26
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.378	1.26
67-64-1	Acetone	U	6.30	ug/kg	2.09	6.30
75-35-4	1,1-Dichloroethylene	U	1.26	ug/kg	0.378	1.26
74-88-4	Iodomethane	U	6.30	ug/kg	2.01	6.30
75-09-2	Methylene chloride	U	6.30	ug/kg	2.52	6.30
75-15-0	Carbon disulfide	U	6.30	ug/kg	1.57	6.30
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.378	1.26
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.378	1.26
78-93-3	2-Butanone	U	6.30	ug/kg	1.89	6.30
156-59-2	cis-1,2-Dichloroethylene	U	1.26	ug/kg	0.378	1.26
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.378	1.26
67-66-3	Chloroform	U	1.26	ug/kg	0.378	1.26
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.415	1.26
71-55-6	1,1,1-Trichloroethane	U	1.26	ug/kg	0.378	1.26
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.378	1.26
56-23-5	Carbon tetrachloride	U	1.26	ug/kg	0.378	1.26
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.378	1.26
71-43-2	Benzene	U	1.26	ug/kg	0.378	1.26
79-01-6	Trichloroethylene	U	1.26	ug/kg	0.415	1.26
78-87-5	1,2-Dichloropropane	U	1.26	ug/kg	0.378	1.26
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.378	1.26
74-95-3	Dibromomethane	U	1.26	ug/kg	0.378	1.26
108-10-1	4-Methyl-2-pentanone	U	6.30	ug/kg	1.57	6.30
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.378	1.26
108-88-3	Toluene	U	1.26	ug/kg	0.378	1.26
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.378	1.26
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.378	1.26
591-78-6	2-Hexanone	U	6.30	ug/kg	1.89	6.30
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.378	1.26
127-18-4	Tetrachloroethylene	U	1.26	ug/kg	0.378	1.26
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.378	1.26
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.378	1.26
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.378	1.26

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506008	Date Received: 03/03/2010 08:50	%Moisture: 20.6
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7444	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.I	Dilution: 1
Run Date: 03/09/2010 23:39	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:17	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4\4B215.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.26	ug/kg	0.378	1.26
179601-23-1	m,p-Xylenes	U	2.52	ug/kg	0.378	2.52
95-47-6	o-Xylene	U	1.26	ug/kg	0.378	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.378	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.378	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.378	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.378	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.378	1.26
103-65-1	n-Propylbenzene	U	1.26	ug/kg	0.378	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.378	1.26
98-82-8	Isopropylbenzene	U	1.26	ug/kg	0.378	1.26
108-67-8	1,3,5-Trimethylbenzene	U	1.26	ug/kg	0.378	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.378	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.378	1.26
95-63-6	1,2,4-Trimethylbenzene	U	1.26	ug/kg	0.378	1.26
135-98-8	sec-Butylbenzene	U	1.26	ug/kg	0.378	1.26
99-87-6	4-Isopropyltoluene	U	1.26	ug/kg	0.378	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26
104-51-8	n-Butylbenzene	U	1.26	ug/kg	0.378	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.378	1.26 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.30	ug/kg	2.01	6.30
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.26	ug/kg	0.378	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	17.5	ug/kg	0	J
	unknown siloxane	16.79	8.46	ug/kg	0	J

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

SDG Number: 10-2193  
 Lab Sample ID: 248506009

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 17.5  
 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	1.21	ug/kg	0.412	1.21
74-87-3	Chloromethane	U	1.21	ug/kg	0.364	1.21
75-01-4	Vinyl chloride	U	1.21	ug/kg	0.364	1.21
74-83-9	Bromomethane	U	1.21	ug/kg	0.364	1.21
75-00-3	Chloroethane	U	1.21	ug/kg	0.364	1.21
75-69-4	Trichlorofluoromethane	U	1.21	ug/kg	0.364	1.21
67-64-1	Acetone	U	6.06	ug/kg	2.01	6.06
75-35-4	1,1-Dichloroethylene	U	1.21	ug/kg	0.364	1.21
74-88-4	Iodomethane	U	6.06	ug/kg	1.94	6.06
75-09-2	Methylene chloride	U	6.06	ug/kg	2.42	6.06
75-15-0	Carbon disulfide	U	6.06	ug/kg	1.52	6.06
156-60-5	trans-1,2-Dichloroethylene	U	1.21	ug/kg	0.364	1.21
75-34-3	1,1-Dichloroethane	U	1.21	ug/kg	0.364	1.21
78-93-3	2-Butanone	U	6.06	ug/kg	1.82	6.06
156-59-2	cis-1,2-Dichloroethylene	U	1.21	ug/kg	0.364	1.21
594-20-7	2,2-Dichloropropane	U	1.21	ug/kg	0.364	1.21
67-66-3	Chloroform	U	1.21	ug/kg	0.364	1.21
74-97-5	Bromochloromethane	U	1.21	ug/kg	0.400	1.21
71-55-6	1,1,1-Trichloroethane	U	1.21	ug/kg	0.364	1.21
563-58-6	1,1-Dichloropropene	U	1.21	ug/kg	0.364	1.21
56-23-5	Carbon tetrachloride	U	1.21	ug/kg	0.364	1.21
107-06-2	1,2-Dichloroethane	U	1.21	ug/kg	0.364	1.21
71-43-2	Benzene	U	1.21	ug/kg	0.364	1.21
79-01-6	Trichloroethylene	U	1.21	ug/kg	0.400	1.21
78-87-5	1,2-Dichloropropane	U	1.21	ug/kg	0.364	1.21
75-27-4	Bromodichloromethane	U	1.21	ug/kg	0.364	1.21
74-95-3	Dibromomethane	U	1.21	ug/kg	0.364	1.21
108-10-1	4-Methyl-2-pentanone	U	6.06	ug/kg	1.52	6.06
10061-01-5	cis-1,3-Dichloropropylene	U	1.21	ug/kg	0.364	1.21
108-88-3	Toluene	U	1.21	ug/kg	0.364	1.21
10061-02-6	trans-1,3-Dichloropropylene	U	1.21	ug/kg	0.364	1.21
79-00-5	1,1,2-Trichloroethane	U	1.21	ug/kg	0.364	1.21
591-78-6	2-Hexanone	U	6.06	ug/kg	1.82	6.06
142-28-9	1,3-Dichloropropane	U	1.21	ug/kg	0.364	1.21
127-18-4	Tetrachloroethylene	U	1.21	ug/kg	0.364	1.21
124-48-1	Dibromochloromethane	U	1.21	ug/kg	0.364	1.21
106-93-4	1,2-Dibromoethane	U	1.21	ug/kg	0.364	1.21
108-90-7	Chlorobenzene	U	1.21	ug/kg	0.364	1.21

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506009	Date Received: 03/03/2010 08:50	%Moisture: 17.5
Client ID: RE36-10-7448	Client: LANL010	Project: LANL01004
Batch ID: 963417	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/10/2010 00:07	Inst: VOA4.I	Dilution: 1
Prep Date: 03/09/2010 20:18	Analyst: ACJ	Purge Vol: 5 mL
Data File: 030910V4\4B216.D	Allquot: 5 g	Final Volume: 5 mL
	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.21	ug/kg	0.364	1.21
179601-23-1	m,p-Xylenes	U	2.42	ug/kg	0.364	2.42
95-47-6	o-Xylene	U	1.21	ug/kg	0.364	1.21
100-42-5	Styrene	U	1.21	ug/kg	0.364	1.21
75-25-2	Bromoform	U	1.21	ug/kg	0.364	1.21
79-34-5	1,1,2,2-Tetrachloroethane	U	1.21	ug/kg	0.364	1.21
96-18-4	1,2,3-Trichloropropane	U	1.21	ug/kg	0.364	1.21
108-86-1	Bromobenzene	U	1.21	ug/kg	0.364	1.21
103-65-1	n-Propylbenzene	U	1.21	ug/kg	0.364	1.21
95-49-8	2-Chlorotoluene	U	1.21	ug/kg	0.364	1.21
98-82-8	Isopropylbenzene	U	1.21	ug/kg	0.364	1.21
108-67-8	1,3,5-Trimethylbenzene	U	1.21	ug/kg	0.364	1.21
106-43-4	4-Chlorotoluene	U	1.21	ug/kg	0.364	1.21
98-06-6	tert-Butylbenzene	U	1.21	ug/kg	0.364	1.21
95-63-6	1,2,4-Trimethylbenzene	U	1.21	ug/kg	0.364	1.21
135-98-8	sec-Butylbenzene	U	1.21	ug/kg	0.364	1.21
99-87-6	4-Isopropyltoluene	U	1.21	ug/kg	0.364	1.21
541-73-1	1,3-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21
106-46-7	1,4-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21
104-51-8	n-Butylbenzene	U	1.21	ug/kg	0.364	1.21
96-12-8	1,2-Dibromo-3-chloropropane	U	1.21	ug/kg	0.364	1.21 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.06	ug/kg	1.94	6.06
630-20-6	1,1,1,2-Tetrachloroethane	U	1.21	ug/kg	0.364	1.21
95-50-1	1,2-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	9.2	ug/kg	0	J
	unknown siloxane	16.79	6.52	ug/kg	0	J

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

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SDG Number: 10-2193  
 Lab Sample ID: 248506010

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 28.5  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7447  
 Batch ID: 963417  
 Run Date: 03/10/2010 00:35  
 Prep Date: 03/09/2010 20:19  
 Data File: 030910V44B217.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.40	ug/kg	0.476	1.40
74-87-3	Chloromethane	U	1.40	ug/kg	0.420	1.40
75-01-4	Vinyl chloride	U	1.40	ug/kg	0.420	1.40
74-83-9	Bromomethane	U	1.40	ug/kg	0.420	1.40
75-00-3	Chloroethane	U	1.40	ug/kg	0.420	1.40
75-69-4	Trichlorofluoromethane	U	1.40	ug/kg	0.420	1.40
67-64-1	Acetone	U	6.99	ug/kg	2.32	6.99
75-35-4	1,1-Dichloroethylene	U	1.40	ug/kg	0.420	1.40
74-88-4	Iodomethane	U	6.99	ug/kg	2.24	6.99
75-09-2	Methylene chloride	U	6.99	ug/kg	2.80	6.99
75-15-0	Carbon disulfide	U	6.99	ug/kg	1.75	6.99
156-60-5	trans-1,2-Dichloroethylene	U	1.40	ug/kg	0.420	1.40
75-34-3	1,1-Dichloroethane	U	1.40	ug/kg	0.420	1.40
78-93-3	2-Butanone	U	6.99	ug/kg	2.10	6.99
156-59-2	cis-1,2-Dichloroethylene	U	1.40	ug/kg	0.420	1.40
594-20-7	2,2-Dichloropropane	U	1.40	ug/kg	0.420	1.40
67-66-3	Chloroform	U	1.40	ug/kg	0.420	1.40
74-97-5	Bromochloromethane	U	1.40	ug/kg	0.462	1.40
71-55-6	1,1,1-Trichloroethane	U	1.40	ug/kg	0.420	1.40
563-58-6	1,1-Dichloropropene	U	1.40	ug/kg	0.420	1.40
56-23-5	Carbon tetrachloride	U	1.40	ug/kg	0.420	1.40
107-06-2	1,2-Dichloroethane	U	1.40	ug/kg	0.420	1.40
71-43-2	Benzene	U	1.40	ug/kg	0.420	1.40
79-01-6	Trichloroethylene	U	1.40	ug/kg	0.462	1.40
78-87-5	1,2-Dichloropropane	U	1.40	ug/kg	0.420	1.40
75-27-4	Bromodichloromethane	U	1.40	ug/kg	0.420	1.40
74-95-3	Dibromomethane	U	1.40	ug/kg	0.420	1.40
108-10-1	4-Methyl-2-pentanone	U	6.99	ug/kg	1.75	6.99
10061-01-5	cis-1,3-Dichloropropylene	U	1.40	ug/kg	0.420	1.40
108-88-3	Toluene	U	1.40	ug/kg	0.420	1.40
10061-02-6	trans-1,3-Dichloropropylene	U	1.40	ug/kg	0.420	1.40
79-00-5	1,1,2-Trichloroethane	U	1.40	ug/kg	0.420	1.40
591-78-6	2-Hexanone	U	6.99	ug/kg	2.10	6.99
142-28-9	1,3-Dichloropropane	U	1.40	ug/kg	0.420	1.40
127-18-4	Tetrachloroethylene	U	1.40	ug/kg	0.420	1.40
124-48-1	Dibromochloromethane	U	1.40	ug/kg	0.420	1.40
106-93-4	1,2-Dibromoethane	U	1.40	ug/kg	0.420	1.40
108-90-7	Chlorobenzene	U	1.40	ug/kg	0.420	1.40

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

SDG Number: 10-2193  
 Lab Sample ID: 248506010

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 28.5  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7447  
 Batch ID: 963417  
 Run Date: 03/10/2010 00:35  
 Prep Date: 03/09/2010 20:19  
 Data File: 030910V4\4B217.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.40	ug/kg	0.420	1.40
179601-23-1	m,p-Xylenes	U	2.80	ug/kg	0.420	2.80
95-47-6	o-Xylene	U	1.40	ug/kg	0.420	1.40
100-42-5	Styrene	U	1.40	ug/kg	0.420	1.40
75-25-2	Bromoform	U	1.40	ug/kg	0.420	1.40
79-34-5	1,1,2,2-Tetrachloroethane	U	1.40	ug/kg	0.420	1.40
96-18-4	1,2,3-Trichloropropane	U	1.40	ug/kg	0.420	1.40
108-86-1	Bromobenzene	U	1.40	ug/kg	0.420	1.40
103-65-1	n-Propylbenzene	U	1.40	ug/kg	0.420	1.40
95-49-8	2-Chlorotoluene	U	1.40	ug/kg	0.420	1.40
98-82-8	Isopropylbenzene	U	1.40	ug/kg	0.420	1.40
108-67-8	1,3,5-Trimethylbenzene	U	1.40	ug/kg	0.420	1.40
106-43-4	4-Chlorotoluene	U	1.40	ug/kg	0.420	1.40
98-06-6	tert-Butylbenzene	U	1.40	ug/kg	0.420	1.40
95-63-6	1,2,4-Trimethylbenzene	U	1.40	ug/kg	0.420	1.40
135-98-8	sec-Butylbenzene	U	1.40	ug/kg	0.420	1.40
99-87-6	4-Isopropyltoluene	U	1.40	ug/kg	0.420	1.40
541-73-1	1,3-Dichlorobenzene	U	1.40	ug/kg	0.420	1.40
106-46-7	1,4-Dichlorobenzene	U	1.40	ug/kg	0.420	1.40
104-51-8	n-Butylbenzene	U	1.40	ug/kg	0.420	1.40
96-12-8	1,2-Dibromo-3-chloropropane	U	1.40	ug/kg	0.420	1.40 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.99	ug/kg	2.24	6.99
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.40	ug/kg	0.420	1.40
95-50-1	1,2-Dichlorobenzene	U	1.40	ug/kg	0.420	1.40

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	12.5	ug/kg	0	J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506011	Date Received: 03/03/2010 08:50	%Moisture: 25.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7443	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.I	Dilution: 1
Run Date: 03/10/2010 01:02	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:20	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4\4B218.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.34	ug/kg	0.454	1.34
74-87-3	Chloromethane	U	1.34	ug/kg	0.401	1.34
75-01-4	Vinyl chloride	U	1.34	ug/kg	0.401	1.34
74-83-9	Bromomethane	U	1.34	ug/kg	0.401	1.34
75-00-3	Chloroethane	U	1.34	ug/kg	0.401	1.34
75-69-4	Trichlorofluoromethane	U	1.34	ug/kg	0.401	1.34
67-64-1	Acetone	U	6.68	ug/kg	2.22	6.68
75-35-4	1,1-Dichloroethylene	U	1.34	ug/kg	0.401	1.34
74-88-4	Iodomethane	U	6.68	ug/kg	2.14	6.68
75-09-2	Methylene chloride	U	6.68	ug/kg	2.67	6.68
75-15-0	Carbon disulfide	U	6.68	ug/kg	1.67	6.68
156-60-5	trans-1,2-Dichloroethylene	U	1.34	ug/kg	0.401	1.34
75-34-3	1,1-Dichloroethane	U	1.34	ug/kg	0.401	1.34
78-93-3	2-Butanone	U	6.68	ug/kg	2.00	6.68
156-59-2	cis-1,2-Dichloroethylene	U	1.34	ug/kg	0.401	1.34
594-20-7	2,2-Dichloropropane	U	1.34	ug/kg	0.401	1.34
67-66-3	Chloroform	U	1.34	ug/kg	0.401	1.34
74-97-5	Bromochloromethane	U	1.34	ug/kg	0.441	1.34
71-55-6	1,1,1-Trichloroethane	U	1.34	ug/kg	0.401	1.34
563-58-6	1,1-Dichloropropene	U	1.34	ug/kg	0.401	1.34
56-23-5	Carbon tetrachloride	U	1.34	ug/kg	0.401	1.34
107-06-2	1,2-Dichloroethane	U	1.34	ug/kg	0.401	1.34
71-43-2	Benzene	U	1.34	ug/kg	0.401	1.34
79-01-6	Trichloroethylene	U	1.34	ug/kg	0.441	1.34
78-87-5	1,2-Dichloropropane	U	1.34	ug/kg	0.401	1.34
75-27-4	Bromodichloromethane	U	1.34	ug/kg	0.401	1.34
74-95-3	Dibromomethane	U	1.34	ug/kg	0.401	1.34
108-10-1	4-Methyl-2-pentanone	U	6.68	ug/kg	1.67	6.68
10061-01-5	cis-1,3-Dichloropropylene	U	1.34	ug/kg	0.401	1.34
108-88-3	Toluene	U	1.34	ug/kg	0.401	1.34
10061-02-6	trans-1,3-Dichloropropylene	U	1.34	ug/kg	0.401	1.34
79-00-5	1,1,2-Trichloroethane	U	1.34	ug/kg	0.401	1.34
591-78-6	2-Hexanone	U	6.68	ug/kg	2.00	6.68
142-28-9	1,3-Dichloropropane	U	1.34	ug/kg	0.401	1.34
127-18-4	Tetrachloroethylene	U	1.34	ug/kg	0.401	1.34
124-48-1	Dibromochloromethane	U	1.34	ug/kg	0.401	1.34
106-93-4	1,2-Dibromoethane	U	1.34	ug/kg	0.401	1.34
108-90-7	Chlorobenzene	U	1.34	ug/kg	0.401	1.34

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506011	Date Received: 03/03/2010 08:50	%Moisture: 25.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7443	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.1	Dilution: 1
Run Date: 03/10/2010 01:02	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:20	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4\4B218.D	Column: DB-624	

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.34	ug/kg	0.401	1.34
179601-23-1	m,p-Xylenes	U	2.67	ug/kg	0.401	2.67
95-47-6	o-Xylene	U	1.34	ug/kg	0.401	1.34
100-42-5	Styrene	U	1.34	ug/kg	0.401	1.34
75-25-2	Bromoform	U	1.34	ug/kg	0.401	1.34
79-34-5	1,1,2,2-Tetrachloroethane	U	1.34	ug/kg	0.401	1.34
96-18-4	1,2,3-Trichloropropane	U	1.34	ug/kg	0.401	1.34
108-86-1	Bromobenzene	U	1.34	ug/kg	0.401	1.34
103-65-1	n-Propylbenzene	U	1.34	ug/kg	0.401	1.34
95-49-8	2-Chlorotoluene	U	1.34	ug/kg	0.401	1.34
98-82-8	Isopropylbenzene	U	1.34	ug/kg	0.401	1.34
108-67-8	1,3,5-Trimethylbenzene	U	1.34	ug/kg	0.401	1.34
106-43-4	4-Chlorotoluene	U	1.34	ug/kg	0.401	1.34
98-06-6	tert-Butylbenzene	U	1.34	ug/kg	0.401	1.34
95-63-6	1,2,4-Trimethylbenzene	U	1.34	ug/kg	0.401	1.34
135-98-8	sec-Butylbenzene	U	1.34	ug/kg	0.401	1.34
99-87-6	4-Isopropyltoluene	U	1.34	ug/kg	0.401	1.34
541-73-1	1,3-Dichlorobenzene	U	1.34	ug/kg	0.401	1.34
106-46-7	1,4-Dichlorobenzene	U	1.34	ug/kg	0.401	1.34
104-51-8	n-Butylbenzene	U	1.34	ug/kg	0.401	1.34
96-12-8	1,2-Dibromo-3-chloropropane	U	1.34	ug/kg	0.401	1.34
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.68	ug/kg	2.14	6.68
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.34	ug/kg	0.401	1.34
95-50-1	1,2-Dichlorobenzene	U	1.34	ug/kg	0.401	1.34

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	19.8	ug/kg	0	J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506012	Date Received: 03/03/2010 08:50	%Moisture: 24.9
Client ID: RE36-10-7452	Client: LANL010	Project: LANL01004
Batch ID: 963417	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/11/2010 11:41	Inst: VOA4.I	Dilution: 1
Prep Date: 03/10/2010 19:53	Analyst: ACJ	Purge Vol: 5 mL
Data File: 031010V4\4B343.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	U	1.33	ug/kg	0.453	1.33
74-87-3	Chloromethane	U	1.33	ug/kg	0.399	1.33
75-01-4	Vinyl chloride	U	1.33	ug/kg	0.399	1.33
74-83-9	Bromomethane	U	1.33	ug/kg	0.399	1.33
75-00-3	Chloroethane	U	1.33	ug/kg	0.399	1.33
75-69-4	Trichlorofluoromethane	U	1.33	ug/kg	0.399	1.33
67-64-1	Acetone	J	6.14	ug/kg	2.21	6.65 J+,V3b
75-35-4	1,1-Dichloroethylene	U	1.33	ug/kg	0.399	1.33
74-88-4	Iodomethane	U	6.65	ug/kg	2.13	6.65
75-09-2	Methylene chloride	U	6.65	ug/kg	2.66	6.65
75-15-0	Carbon disulfide	U	6.65	ug/kg	1.66	6.65
156-60-5	trans-1,2-Dichloroethylene	U	1.33	ug/kg	0.399	1.33
75-34-3	1,1-Dichloroethane	U	1.33	ug/kg	0.399	1.33
78-93-3	2-Butanone	U	6.65	ug/kg	2.00	6.65
156-59-2	cis-1,2-Dichloroethylene	U	1.33	ug/kg	0.399	1.33
594-20-7	2,2-Dichloropropane	U	1.33	ug/kg	0.399	1.33
67-66-3	Chloroform	U	1.33	ug/kg	0.399	1.33
74-97-5	Bromochloromethane	U	1.33	ug/kg	0.439	1.33
71-55-6	1,1,1-Trichloroethane	U	1.33	ug/kg	0.399	1.33
563-58-6	1,1-Dichloropropene	U	1.33	ug/kg	0.399	1.33
56-23-5	Carbon tetrachloride	U	1.33	ug/kg	0.399	1.33
107-06-2	1,2-Dichloroethane	U	1.33	ug/kg	0.399	1.33
71-43-2	Benzene	U	1.33	ug/kg	0.399	1.33
79-01-6	Trichloroethylene	U	1.33	ug/kg	0.439	1.33
78-87-5	1,2-Dichloropropane	U	1.33	ug/kg	0.399	1.33
75-27-4	Bromodichloromethane	U	1.33	ug/kg	0.399	1.33
74-95-3	Dibromomethane	U	1.33	ug/kg	0.399	1.33
108-10-1	4-Methyl-2-pentanone	U	6.65	ug/kg	1.66	6.65
10061-01-5	cis-1,3-Dichloropropylene	U	1.33	ug/kg	0.399	1.33
108-88-3	Toluene		15.0	ug/kg	0.399	1.33 J+,V3b
10061-02-6	trans-1,3-Dichloropropylene	U	1.33	ug/kg	0.399	1.33
79-00-5	1,1,2-Trichloroethane	U	1.33	ug/kg	0.399	1.33
591-78-6	2-Hexanone	U	6.65	ug/kg	2.00	6.65
142-28-9	1,3-Dichloropropane	U	1.33	ug/kg	0.399	1.33
127-18-4	Tetrachloroethylene	U	1.33	ug/kg	0.399	1.33
124-48-1	Dibromochloromethane	U	1.33	ug/kg	0.399	1.33
106-93-4	1,2-Dibromoethane	U	1.33	ug/kg	0.399	1.33
108-90-7	Chlorobenzene	U	1.33	ug/kg	0.399	1.33

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

SDG Number: 10-2193  
 Lab Sample ID: 248506012

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 24.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7452  
 Batch ID: 963417  
 Run Date: 03/11/2010 11:41  
 Prep Date: 03/10/2010 19:53  
 Data File: 031010V4\4B343.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.33	ug/kg	0.399	1.33
179601-23-1	m,p-Xylenes	U	2.66	ug/kg	0.399	2.66
95-47-6	o-Xylene	U	1.33	ug/kg	0.399	1.33
100-42-5	Styrene	U	1.33	ug/kg	0.399	1.33
75-25-2	Bromoform	U	1.33	ug/kg	0.399	1.33
79-34-5	1,1,2,2-Tetrachloroethane	U	1.33	ug/kg	0.399	1.33
96-18-4	1,2,3-Trichloropropane	U	1.33	ug/kg	0.399	1.33
108-86-1	Bromobenzene	U	1.33	ug/kg	0.399	1.33
103-65-1	n-Propylbenzene	U	1.33	ug/kg	0.399	1.33
95-49-8	2-Chlorotoluene	U	1.33	ug/kg	0.399	1.33
98-82-8	Isopropylbenzene	U	1.33	ug/kg	0.399	1.33
108-67-8	1,3,5-Trimethylbenzene	U	1.33	ug/kg	0.399	1.33
106-43-4	4-Chlorotoluene	U	1.33	ug/kg	0.399	1.33
98-06-6	tert-Butylbenzene	U	1.33	ug/kg	0.399	1.33
95-63-6	1,2,4-Trimethylbenzene	U	1.33	ug/kg	0.399	1.33
135-98-8	sec-Butylbenzene	U	1.33	ug/kg	0.399	1.33
99-87-6	4-Isopropyltoluene		12.8	ug/kg	0.399	1.33 J+,V3b
541-73-1	1,3-Dichlorobenzene	U	1.33	ug/kg	0.399	1.33
106-46-7	1,4-Dichlorobenzene	U	1.33	ug/kg	0.399	1.33
104-51-8	n-Butylbenzene	U	1.33	ug/kg	0.399	1.33
96-12-8	1,2-Dibromo-3-chloropropane	U	1.33	ug/kg	0.399	1.33
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.65	ug/kg	2.13	6.65
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.33	ug/kg	0.399	1.33
95-50-1	1,2-Dichlorobenzene	U	1.33	ug/kg	0.399	1.33

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	unknown hydrocarbon	4.48	26.9	ug/kg	0	J
	unknown hydrocarbon	14.79	350	ug/kg	0	J
	unknown hydrocarbon	15.12	27.4	ug/kg	0	J
	unknown substituted benzene	15.41	64.5	ug/kg	0	J
	unknown hydrocarbon	15.5	102	ug/kg	0	J
	unknown hydrocarbon	15.8	152	ug/kg	0	J
	unknown siloxane	16.78	9.04	ug/kg	0	J

LMF  
 5/11/10



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

SDG Number: 10-2193  
 Lab Sample ID: 248506013

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Allquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 16.3  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7437  
 Batch ID: 963417  
 Run Date: 03/10/2010 01:57  
 Prep Date: 03/09/2010 20:22  
 Data File: 030910V4\4B220.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.19	ug/kg	0.406	1.19
74-87-3	Chloromethane	U	1.19	ug/kg	0.358	1.19
75-01-4	Vinyl chloride	U	1.19	ug/kg	0.358	1.19
74-83-9	Bromomethane	U	1.19	ug/kg	0.358	1.19
75-00-3	Chloroethane	U	1.19	ug/kg	0.358	1.19
75-69-4	Trichlorofluoromethane	U	1.19	ug/kg	0.358	1.19
67-64-1	Acetone	U	5.97	ug/kg	1.98	5.97
75-35-4	1,1-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
74-88-4	Iodomethane	U	5.97	ug/kg	1.91	5.97
75-09-2	Methylene chloride	U	5.97	ug/kg	2.39	5.97
75-15-0	Carbon disulfide	U	5.97	ug/kg	1.49	5.97
156-60-5	trans-1,2-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
75-34-3	1,1-Dichloroethane	U	1.19	ug/kg	0.358	1.19
78-93-3	2-Butanone	U	5.97	ug/kg	1.79	5.97
156-59-2	cis-1,2-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
594-20-7	2,2-Dichloropropane	U	1.19	ug/kg	0.358	1.19
67-66-3	Chloroform	U	1.19	ug/kg	0.358	1.19
74-97-5	Bromochloromethane	U	1.19	ug/kg	0.394	1.19
71-55-6	1,1,1-Trichloroethane	U	1.19	ug/kg	0.358	1.19
563-58-6	1,1-Dichloropropene	U	1.19	ug/kg	0.358	1.19
56-23-5	Carbon tetrachloride	U	1.19	ug/kg	0.358	1.19
107-06-2	1,2-Dichloroethane	U	1.19	ug/kg	0.358	1.19
71-43-2	Benzene	U	1.19	ug/kg	0.358	1.19
79-01-6	Trichloroethylene	U	1.19	ug/kg	0.394	1.19
78-87-5	1,2-Dichloropropane	U	1.19	ug/kg	0.358	1.19
75-27-4	Bromodichloromethane	U	1.19	ug/kg	0.358	1.19
74-95-3	Dibromomethane	U	1.19	ug/kg	0.358	1.19
108-10-1	4-Methyl-2-pentanone	U	5.97	ug/kg	1.49	5.97
10061-01-5	cis-1,3-Dichloropropylene	U	1.19	ug/kg	0.358	1.19
108-88-3	Toluene	U	1.19	ug/kg	0.358	1.19
10061-02-6	trans-1,3-Dichloropropylene	U	1.19	ug/kg	0.358	1.19
79-00-5	1,1,2-Trichloroethane	U	1.19	ug/kg	0.358	1.19
591-78-6	2-Hexanone	U	5.97	ug/kg	1.79	5.97
142-28-9	1,3-Dichloropropane	U	1.19	ug/kg	0.358	1.19
127-18-4	Tetrachloroethylene	U	1.19	ug/kg	0.358	1.19
124-48-1	Dibromochloromethane	U	1.19	ug/kg	0.358	1.19
106-93-4	1,2-Dibromoethane	U	1.19	ug/kg	0.358	1.19
108-90-7	Chlorobenzene	U	1.19	ug/kg	0.358	1.19

LMF  
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**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193

Lab Sample ID: 248506013

Date Collected: 02/25/2010 12:00

Date Received: 03/03/2010 08:50

Matrix: R

%Moisture: 16.3

Client: LANL010

Method: SW846 8260B

Project: LANL01004

SOP Ref: GL-OA-E-038

Client ID: RE36-10-7437

Batch ID: 963417

Inst: VOA4.I

Dilution: 1

Run Date: 03/10/2010 01:57

Analyst: ACJ

Purge Vol: 5 mL

Prep Date: 03/09/2010 20:22

Allquot: 5 g

Final Volume: 5 mL

Data File: 030910V4\4B220.D

Column: DB-624

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.19	ug/kg	0.358	1.19
179601-23-1	m,p-Xylenes	U	2.39	ug/kg	0.358	2.39
95-47-6	o-Xylene	U	1.19	ug/kg	0.358	1.19
100-42-5	Styrene	U	1.19	ug/kg	0.358	1.19
75-25-2	Bromoform	U	1.19	ug/kg	0.358	1.19
79-34-5	1,1,2,2-Tetrachloroethane	U	1.19	ug/kg	0.358	1.19
96-18-4	1,2,3-Trichloropropane	U	1.19	ug/kg	0.358	1.19
108-86-1	Bromobenzene	U	1.19	ug/kg	0.358	1.19
103-65-1	n-Propylbenzene	U	1.19	ug/kg	0.358	1.19
95-49-8	2-Chlorotoluene	U	1.19	ug/kg	0.358	1.19
98-82-8	Isopropylbenzene	U	1.19	ug/kg	0.358	1.19
108-67-8	1,3,5-Trimethylbenzene	U	1.19	ug/kg	0.358	1.19
106-43-4	4-Chlorotoluene	U	1.19	ug/kg	0.358	1.19
98-06-6	tert-Butylbenzene	U	1.19	ug/kg	0.358	1.19
95-63-6	1,2,4-Trimethylbenzene	U	1.19	ug/kg	0.358	1.19
135-98-8	sec-Butylbenzene	U	1.19	ug/kg	0.358	1.19
99-87-6	4-Isopropyltoluene	U	1.19	ug/kg	0.358	1.19
541-73-1	1,3-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19
106-46-7	1,4-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19
104-51-8	n-Butylbenzene	U	1.19	ug/kg	0.358	1.19
96-12-8	1,2-Dibromo-3-chloropropane	U	1.19	ug/kg	0.358	1.19
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.97	ug/kg	1.91	5.97
630-20-6	1,1,1,2-Tetrachloroethane	U	1.19	ug/kg	0.358	1.19
95-50-1	1,2-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	32.3	ug/kg	0	J
	unknown siloxane	16.79	8.43	ug/kg	0	J

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

Page 1 of 2

SDG Number: 10-2193

Lab Sample ID: 248506014

Date Collected: 02/25/2010 12:00

Date Received: 03/03/2010 08:50

Matrix: R

%Moisture: 8.1

Client ID: RE36-10-7440

Batch ID: 963417

Run Date: 03/10/2010 02:24

Prep Date: 03/09/2010 20:23

Data File: 030910V4\4B221.D

Client: LANL010

Method: SW846 8260B

Inst: VOA4.I

Analyst: ACJ

Aliquot: 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	1.09	ug/kg	0.370	1.09	
74-87-3	Chloromethane	U	1.09	ug/kg	0.327	1.09	
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.327	1.09	
74-83-9	Bromomethane	U	1.09	ug/kg	0.327	1.09	
75-00-3	Chloroethane	U	1.09	ug/kg	0.327	1.09	
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.327	1.09	
67-64-1	Acetone	J	3.58	ug/kg	1.81	5.44	J+,V3b
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.327	1.09	
74-88-4	Iodomethane	U	5.44	ug/kg	1.74	5.44	
75-09-2	Methylene chloride	U	5.44	ug/kg	2.18	5.44	
75-15-0	Carbon disulfide	U	5.44	ug/kg	1.36	5.44	
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09	
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.327	1.09	
78-93-3	2-Butanone	U	5.44	ug/kg	1.63	5.44	
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09	
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09	
67-66-3	Chloroform	U	1.09	ug/kg	0.327	1.09	
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.359	1.09	
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.327	1.09	
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.327	1.09	
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.327	1.09	
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.327	1.09	
71-43-2	Benzene	U	1.09	ug/kg	0.327	1.09	
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.359	1.09	
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09	
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.327	1.09	
74-95-3	Dibromomethane	U	1.09	ug/kg	0.327	1.09	
108-10-1	4-Methyl-2-pentanone	U	5.44	ug/kg	1.36	5.44	
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09	
108-88-3	Toluene		3.71	ug/kg	0.327	1.09	J+,V3b
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09	
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.327	1.09	
591-78-6	2-Hexanone	U	5.44	ug/kg	1.63	5.44	
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.327	1.09	
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.327	1.09	
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.327	1.09	
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.327	1.09	
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.327	1.09	

LMF  
5/11/10

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506014	Date Received: 03/03/2010 08:50	%Moisture: 8.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7440	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.I	Dilution: 1
Run Date: 03/10/2010 02:24	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:23	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4\4B221.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.327	1.09
179601-23-1	m,p-Xylenes	J	0.370	ug/kg	0.327	2.18 J+,V3b
95-47-6	o-Xylene	U	1.09	ug/kg	0.327	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.327	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.327	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.327	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.327	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.327	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.327	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.327	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.327	1.09
99-87-6	4-Isopropyltoluene		2.33	ug/kg	0.327	1.09 J+,V3b
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.327	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.327	1.09 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.44	ug/kg	1.74	5.44
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	16	ug/kg	0	J
	unknown hydrocarbon	14.79	34.4	ug/kg	0	J
	unknown hydrocarbon	15.12	14.5	ug/kg	0	J
	unknown hydrocarbon	15.79	25.2	ug/kg	0	J
	unknown substituted benzene	15.95	8.57	ug/kg	0	J
	unknown siloxane	16.79	9.26	ug/kg	0	J

LMF  
5/11/10

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506015	Date Received: 03/03/2010 08:50	%Moisture: 30.1
Client ID: RE36-10-7435	Client: LANL010	Project: LANL01004
Batch ID: 963417	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/10/2010 02:52	Inst: VOA4.I	Dilution: 1
Prep Date: 03/09/2010 20:24	Analyst: ACJ	Purge Vol: 5 mL
Data File: 030910V4\4B222.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	U	1.43	ug/kg	0.487	1.43	
74-87-3	Chloromethane	U	1.43	ug/kg	0.429	1.43	
75-01-4	Vinyl chloride	U	1.43	ug/kg	0.429	1.43	
74-83-9	Bromomethane	U	1.43	ug/kg	0.429	1.43	
75-00-3	Chloroethane	U	1.43	ug/kg	0.429	1.43	
75-69-4	Trichlorofluoromethane	U	1.43	ug/kg	0.429	1.43	
67-64-1	Acetone	J	4.29	ug/kg	2.38	7.16	J+,V3b
75-35-4	1,1-Dichloroethylene	U	1.43	ug/kg	0.429	1.43	
74-88-4	Iodomethane	U	7.16	ug/kg	2.29	7.16	
75-09-2	Methylene chloride	U	7.16	ug/kg	2.86	7.16	
75-15-0	Carbon disulfide	U	7.16	ug/kg	1.79	7.16	
156-60-5	trans-1,2-Dichloroethylene	U	1.43	ug/kg	0.429	1.43	
75-34-3	1,1-Dichloroethane	U	1.43	ug/kg	0.429	1.43	
78-93-3	2-Butanone	U	7.16	ug/kg	2.15	7.16	
156-59-2	cis-1,2-Dichloroethylene	U	1.43	ug/kg	0.429	1.43	
594-20-7	2,2-Dichloropropane	U	1.43	ug/kg	0.429	1.43	
67-66-3	Chloroform	U	1.43	ug/kg	0.429	1.43	
74-97-5	Bromochloromethane	U	1.43	ug/kg	0.472	1.43	
71-55-6	1,1,1-Trichloroethane	U	1.43	ug/kg	0.429	1.43	
563-58-6	1,1-Dichloropropene	U	1.43	ug/kg	0.429	1.43	
56-23-5	Carbon tetrachloride	U	1.43	ug/kg	0.429	1.43	
107-06-2	1,2-Dichloroethane	U	1.43	ug/kg	0.429	1.43	
71-43-2	Benzene	U	1.43	ug/kg	0.429	1.43	
79-01-6	Trichloroethylene	J	0.701	ug/kg	0.472	1.43	J+,V3b
78-87-5	1,2-Dichloropropane	U	1.43	ug/kg	0.429	1.43	
75-27-4	Bromodichloromethane	U	1.43	ug/kg	0.429	1.43	
74-95-3	Dibromomethane	U	1.43	ug/kg	0.429	1.43	
108-10-1	4-Methyl-2-pentanone	U	7.16	ug/kg	1.79	7.16	
10061-01-5	cis-1,3-Dichloropropylene	U	1.43	ug/kg	0.429	1.43	
108-88-3	Toluene	J	0.816	ug/kg	0.429	1.43	J+,V3b
10061-02-6	trans-1,3-Dichloropropylene	U	1.43	ug/kg	0.429	1.43	
79-00-5	1,1,2-Trichloroethane	U	1.43	ug/kg	0.429	1.43	
591-78-6	2-Hexanone	U	7.16	ug/kg	2.15	7.16	
142-28-9	1,3-Dichloropropane	U	1.43	ug/kg	0.429	1.43	
127-18-4	Tetrachloroethylene	U	1.43	ug/kg	0.429	1.43	
124-48-1	Dibromochloromethane	U	1.43	ug/kg	0.429	1.43	
106-93-4	1,2-Dibromoethane	U	1.43	ug/kg	0.429	1.43	
108-90-7	Chlorobenzene	U	1.43	ug/kg	0.429	1.43	

LMF  
5/11/10

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506015	Date Received: 03/03/2010 08:50	%Moisture: 30.1
Client ID: RE36-10-7435	Client: LANL010	Project: LANL01004
Batch ID: 963417	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/10/2010 02:52	Inst: VOA4.I	Dilution: 1
Prep Date: 03/09/2010 20:24	Analyst: ACJ	Purge Vol: 5 mL
Data File: 030910V44B222.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	1.43	ug/kg	0.429	1.43
179601-23-1	m,p-Xylenes	U	2.86	ug/kg	0.429	2.86
95-47-6	o-Xylene	J	0.616	ug/kg	0.429	1.43 J+,V3b
100-42-5	Styrene	U	1.43	ug/kg	0.429	1.43
75-25-2	Bromoform	U	1.43	ug/kg	0.429	1.43
79-34-5	1,1,2,2-Tetrachloroethane	U	1.43	ug/kg	0.429	1.43
96-18-4	1,2,3-Trichloropropane	U	1.43	ug/kg	0.429	1.43
108-86-1	Bromobenzene	U	1.43	ug/kg	0.429	1.43
103-65-1	n-Propylbenzene	U	1.43	ug/kg	0.429	1.43
95-49-8	2-Chlorotoluene	U	1.43	ug/kg	0.429	1.43
98-82-8	Isopropylbenzene	U	1.43	ug/kg	0.429	1.43
108-67-8	1,3,5-Trimethylbenzene	U	1.43	ug/kg	0.429	1.43
106-43-4	4-Chlorotoluene	U	1.43	ug/kg	0.429	1.43
98-06-6	tert-Butylbenzene	U	1.43	ug/kg	0.429	1.43
95-63-6	1,2,4-Trimethylbenzene	U	1.43	ug/kg	0.429	1.43
135-98-8	sec-Butylbenzene	U	1.43	ug/kg	0.429	1.43
99-87-6	4-Isopropyltoluene		2.08	ug/kg	0.429	1.43 J+,V3b
541-73-1	1,3-Dichlorobenzene	U	1.43	ug/kg	0.429	1.43
106-46-7	1,4-Dichlorobenzene	U	1.43	ug/kg	0.429	1.43
104-51-8	n-Butylbenzene	U	1.43	ug/kg	0.429	1.43
96-12-8	1,2-Dibromo-3-chloropropane	U	1.43	ug/kg	0.429	1.43 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	7.16	ug/kg	2.29	7.16
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.43	ug/kg	0.429	1.43
95-50-1	1,2-Dichlorobenzene	U	1.43	ug/kg	0.429	1.43

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	unknown hydrocarbon	4.48	17.5	ug/kg	0	J
	unknown hydrocarbon	6.76	13.2	ug/kg	0	J
	unknown hydrocarbon	14.79	114	ug/kg	0	J
	unknown hydrocarbon	15.5	61.8	ug/kg	0	J
	unknown hydrocarbon	15.79	68.7	ug/kg	0	J
	unknown siloxane	16.79	12.5	ug/kg	0	J

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

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SDG Number: 10-2193  
 Lab Sample ID: 248506016

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 22.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7441  
 Batch ID: 963417  
 Run Date: 03/11/2010 13:30  
 Prep Date: 03/10/2010 19:57  
 Data File: 031010V4\4B347.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.29	ug/kg	0.438	1.29	
74-87-3	Chloromethane	U	1.29	ug/kg	0.386	1.29	
75-01-4	Vinyl chloride	U	1.29	ug/kg	0.386	1.29	
74-83-9	Bromomethane	U	1.29	ug/kg	0.386	1.29	
75-00-3	Chloroethane	U	1.29	ug/kg	0.386	1.29	
75-69-4	Trichlorofluoromethane	U	1.29	ug/kg	0.386	1.29	
67-64-1	Acetone	J	4.42	ug/kg	2.14	6.44	J+,V3b
75-35-4	1,1-Dichloroethylene	U	1.29	ug/kg	0.386	1.29	
74-88-4	Iodomethane	U	6.44	ug/kg	2.06	6.44	
75-09-2	Methylene chloride	U	6.44	ug/kg	2.58	6.44	
75-15-0	Carbon disulfide	U	6.44	ug/kg	1.61	6.44	
156-60-5	trans-1,2-Dichloroethylene	U	1.29	ug/kg	0.386	1.29	
75-34-3	1,1-Dichloroethane	U	1.29	ug/kg	0.386	1.29	
78-93-3	2-Butanone	U	6.44	ug/kg	1.93	6.44	
156-59-2	cis-1,2-Dichloroethylene	U	1.29	ug/kg	0.386	1.29	
594-20-7	2,2-Dichloropropane	U	1.29	ug/kg	0.386	1.29	
67-66-3	Chloroform	U	1.29	ug/kg	0.386	1.29	
74-97-5	Bromochloromethane	U	1.29	ug/kg	0.425	1.29	
71-55-6	1,1,1-Trichloroethane	U	1.29	ug/kg	0.386	1.29	
563-58-6	1,1-Dichloropropene	U	1.29	ug/kg	0.386	1.29	
56-23-5	Carbon tetrachloride	U	1.29	ug/kg	0.386	1.29	
107-06-2	1,2-Dichloroethane	U	1.29	ug/kg	0.386	1.29	
71-43-2	Benzene	U	1.29	ug/kg	0.386	1.29	
79-01-6	Trichloroethylene	U	1.29	ug/kg	0.425	1.29	
78-87-5	1,2-Dichloropropane	U	1.29	ug/kg	0.386	1.29	
75-27-4	Bromodichloromethane	U	1.29	ug/kg	0.386	1.29	
74-95-3	Dibromomethane	U	1.29	ug/kg	0.386	1.29	
108-10-1	4-Methyl-2-pentanone	U	6.44	ug/kg	1.61	6.44	
10061-01-5	cis-1,3-Dichloropropylene	U	1.29	ug/kg	0.386	1.29	
108-88-3	Toluene	U	1.29	ug/kg	0.386	1.29	
10061-02-6	trans-1,3-Dichloropropylene	U	1.29	ug/kg	0.386	1.29	
79-00-5	1,1,2-Trichloroethane	U	1.29	ug/kg	0.386	1.29	
591-78-6	2-Hexanone	U	6.44	ug/kg	1.93	6.44	
142-28-9	1,3-Dichloropropane	U	1.29	ug/kg	0.386	1.29	
127-18-4	Tetrachloroethylene	U	1.29	ug/kg	0.386	1.29	
124-48-1	Dibromochloromethane	U	1.29	ug/kg	0.386	1.29	
106-93-4	1,2-Dibromoethane	U	1.29	ug/kg	0.386	1.29	
108-90-7	Chlorobenzene	U	1.29	ug/kg	0.386	1.29	

LMF  
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**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193

Lab Sample ID: 248506016

Client ID: RE36-10-7441

Batch ID: 963417

Run Date: 03/11/2010 13:30

Prep Date: 03/10/2010 19:57

Data File: 031010V4\4B347.D

Date Collected: 02/25/2010 12:00

Date Received: 03/03/2010 08:50

Client: LANL010

Method: SW846 8260B

Inst: VOA4.I

Analyst: ACJ

Aliquot: 5 g

Column: DB-624

Matrix: R

%Moisture: 22.4

Project: LANL01004

SOP Ref: GL-OA-E-038

Dilution: 1

Purge Vol: 5 mL

Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.29	ug/kg	0.386	1.29
179601-23-1	m,p-Xylenes	U	2.58	ug/kg	0.386	2.58
95-47-6	o-Xylene	U	1.29	ug/kg	0.386	1.29
100-42-5	Styrene	U	1.29	ug/kg	0.386	1.29
75-25-2	Bromoform	U	1.29	ug/kg	0.386	1.29
79-34-5	1,1,2,2-Tetrachloroethane	U	1.29	ug/kg	0.386	1.29
96-18-4	1,2,3-Trichloropropane	U	1.29	ug/kg	0.386	1.29
108-86-1	Bromobenzene	U	1.29	ug/kg	0.386	1.29
103-65-1	n-Propylbenzene	U	1.29	ug/kg	0.386	1.29
95-49-8	2-Chlorotoluene	U	1.29	ug/kg	0.386	1.29
98-82-8	Isopropylbenzene	U	1.29	ug/kg	0.386	1.29
108-67-8	1,3,5-Trimethylbenzene	U	1.29	ug/kg	0.386	1.29
106-43-4	4-Chlorotoluene	U	1.29	ug/kg	0.386	1.29
98-06-6	tert-Butylbenzene	U	1.29	ug/kg	0.386	1.29
95-63-6	1,2,4-Trimethylbenzene	U	1.29	ug/kg	0.386	1.29
135-98-8	sec-Butylbenzene	U	1.29	ug/kg	0.386	1.29
99-87-6	4-Isopropyltoluene	J	0.451	ug/kg	0.386	1.29 J+,V3b
541-73-1	1,3-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29
106-46-7	1,4-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29
104-51-8	n-Butylbenzene	U	1.29	ug/kg	0.386	1.29
96-12-8	1,2-Dibromo-3-chloropropane	U	1.29	ug/kg	0.386	1.29
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.44	ug/kg	2.06	6.44
630-20-6	1,1,1,2-Tetrachloroethane	U	1.29	ug/kg	0.386	1.29
95-50-1	1,2-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	23.1	ug/kg	0	J
	unknown hydrocarbon	6.77	6.69	ug/kg	0	J
	unknown hydrocarbon	15.62	17.2	ug/kg	0	J
	unknown siloxane	16.79	12.1	ug/kg	0	J

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

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SDG Number: 10-2193  
 Lab Sample ID: 248506017

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 13.3  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7442  
 Batch ID: 963417  
 Run Date: 03/10/2010 03:47  
 Prep Date: 03/09/2010 20:26  
 Data File: 030910V4\4B224.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.392	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.346	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.346	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.346	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.346	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.346	1.15
67-64-1	Acetone	U	5.76	ug/kg	1.91	5.76
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
74-88-4	Iodomethane	U	5.76	ug/kg	1.84	5.76
75-09-2	Methylene chloride	U	5.76	ug/kg	2.31	5.76
75-15-0	Carbon disulfide	U	5.76	ug/kg	1.44	5.76
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.346	1.15
78-93-3	2-Butanone	U	5.76	ug/kg	1.73	5.76
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.346	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.346	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.380	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.346	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.346	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.346	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.346	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.346	1.15
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.380	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.346	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.346	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.346	1.15
108-10-1	4-Methyl-2-pentanone	U	5.76	ug/kg	1.44	5.76
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.346	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.346	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.346	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.346	1.15
591-78-6	2-Hexanone	U	5.76	ug/kg	1.73	5.76
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.346	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.346	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.346	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.346	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.346	1.15

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

SDG Number: 10-2193

Lab Sample ID: 248506017

Date Collected: 02/25/2010 12:00

Date Received: 03/03/2010 08:50

Matrix: R

%Moisture: 13.3

Client: LANL010

Method: SW846 8260B

Project: LANL01004

SOP Ref: GL-OA-E-038

Client ID: RE36-10-7442

Batch ID: 963417

Inst: VOA4.I

Dilution: 1

Run Date: 03/10/2010 03:47

Analyst: ACJ

Purge Vol: 5 mL

Prep Date: 03/09/2010 20:26

Aliquot: 5 g

Final Volume: 5 mL

Data File: 030910V4\4B224.D

Column: DB-624

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.346	1.15
179601-23-1	m,p-Xylenes	U	2.31	ug/kg	0.346	2.31
95-47-6	o-Xylene	U	1.15	ug/kg	0.346	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.346	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.346	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.346	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.346	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.346	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.346	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.346	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.346	1.15
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.346	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.346	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.346	1.15
95-63-6	1,2,4-Trimethylbenzene	U	1.15	ug/kg	0.346	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.346	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.346	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.346	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.346	1.15 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.76	ug/kg	1.84	5.76
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.346	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	16.79	8.6	ug/kg	0	J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506018	Date Received: 03/03/2010 08:50	%Moisture: 21.4
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7436	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.I	Dilution: 1
Run Date: 03/10/2010 04:14	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:27	Allquot: 5 g	Final Volume: 5 mL
Data File: 030910V4\4B225.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.27	ug/kg	0.432	1.27
74-87-3	Chloromethane	U	1.27	ug/kg	0.381	1.27
75-01-4	Vinyl chloride	U	1.27	ug/kg	0.381	1.27
74-83-9	Bromomethane	U	1.27	ug/kg	0.381	1.27
75-00-3	Chloroethane	U	1.27	ug/kg	0.381	1.27
75-69-4	Trichlorofluoromethane	U	1.27	ug/kg	0.381	1.27
67-64-1	Acetone	J	3.32	ug/kg	2.11	6.36
75-35-4	1,1-Dichloroethylene	U	1.27	ug/kg	0.381	1.27
74-88-4	Iodomethane	U	6.36	ug/kg	2.03	6.36
75-09-2	Methylene chloride	U	6.36	ug/kg	2.54	6.36
75-15-0	Carbon disulfide	U	6.36	ug/kg	1.59	6.36
156-60-5	trans-1,2-Dichloroethylene	U	1.27	ug/kg	0.381	1.27
75-34-3	1,1-Dichloroethane	U	1.27	ug/kg	0.381	1.27
78-93-3	2-Butanone	U	6.36	ug/kg	1.91	6.36
156-59-2	cis-1,2-Dichloroethylene	U	1.27	ug/kg	0.381	1.27
594-20-7	2,2-Dichloropropane	U	1.27	ug/kg	0.381	1.27
67-66-3	Chloroform	U	1.27	ug/kg	0.381	1.27
74-97-5	Bromochloromethane	U	1.27	ug/kg	0.420	1.27
71-55-6	1,1,1-Trichloroethane	U	1.27	ug/kg	0.381	1.27
563-58-6	1,1-Dichloropropene	U	1.27	ug/kg	0.381	1.27
56-23-5	Carbon tetrachloride	U	1.27	ug/kg	0.381	1.27
107-06-2	1,2-Dichloroethane	U	1.27	ug/kg	0.381	1.27
71-43-2	Benzene	U	1.27	ug/kg	0.381	1.27
79-01-6	Trichloroethylene	U	1.27	ug/kg	0.420	1.27
78-87-5	1,2-Dichloropropane	U	1.27	ug/kg	0.381	1.27
75-27-4	Bromodichloromethane	U	1.27	ug/kg	0.381	1.27
74-95-3	Dibromomethane	U	1.27	ug/kg	0.381	1.27
108-10-1	4-Methyl-2-pentanone	U	6.36	ug/kg	1.59	6.36
10061-01-5	cis-1,3-Dichloropropylene	U	1.27	ug/kg	0.381	1.27
108-88-3	Toluene	J	0.559	ug/kg	0.381	1.27
10061-02-6	trans-1,3-Dichloropropylene	U	1.27	ug/kg	0.381	1.27
79-00-5	1,1,2-Trichloroethane	U	1.27	ug/kg	0.381	1.27
591-78-6	2-Hexanone	U	6.36	ug/kg	1.91	6.36
142-28-9	1,3-Dichloropropane	U	1.27	ug/kg	0.381	1.27
127-18-4	Tetrachloroethylene	U	1.27	ug/kg	0.381	1.27
124-48-1	Dibromochloromethane	U	1.27	ug/kg	0.381	1.27
106-93-4	1,2-Dibromoethane	U	1.27	ug/kg	0.381	1.27
108-90-7	Chlorobenzene	U	1.27	ug/kg	0.381	1.27

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506018	Date Received: 03/03/2010 08:50	%Moisture: 21.4
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7436	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.I	Dilution: 1
Run Date: 03/10/2010 04:14	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:27	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4\4B225.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.27	ug/kg	0.381	1.27
179601-23-1	m,p-Xylenes	U	2.54	ug/kg	0.381	2.54
95-47-6	o-Xylene	U	1.27	ug/kg	0.381	1.27
100-42-5	Styrene	U	1.27	ug/kg	0.381	1.27
75-25-2	Bromoform	U	1.27	ug/kg	0.381	1.27
79-34-5	1,1,2,2-Tetrachloroethane	U	1.27	ug/kg	0.381	1.27
96-18-4	1,2,3-Trichloropropane	U	1.27	ug/kg	0.381	1.27
108-86-1	Bromobenzene	U	1.27	ug/kg	0.381	1.27
103-65-1	n-Propylbenzene	U	1.27	ug/kg	0.381	1.27
95-49-8	2-Chlorotoluene	U	1.27	ug/kg	0.381	1.27
98-82-8	Isopropylbenzene	U	1.27	ug/kg	0.381	1.27
108-67-8	1,3,5-Trimethylbenzene	U	1.27	ug/kg	0.381	1.27
106-43-4	4-Chlorotoluene	J	0.496	ug/kg	0.381	1.27
98-06-6	tert-Butylbenzene	U	1.27	ug/kg	0.381	1.27
95-63-6	1,2,4-Trimethylbenzene	U	1.27	ug/kg	0.381	1.27
135-98-8	sec-Butylbenzene	U	1.27	ug/kg	0.381	1.27
99-87-6	4-Isopropyltoluene		2.61	ug/kg	0.381	1.27
541-73-1	1,3-Dichlorobenzene	U	1.27	ug/kg	0.381	1.27
106-46-7	1,4-Dichlorobenzene	U	1.27	ug/kg	0.381	1.27
104-51-8	n-Butylbenzene	U	1.27	ug/kg	0.381	1.27
96-12-8	1,2-Dibromo-3-chloropropane	U	1.27	ug/kg	0.381	1.27 UJ,V7c
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.36	ug/kg	2.03	6.36
630-20-6	1,1,1,2-Tetrachloroethane	U	1.27	ug/kg	0.381	1.27
95-50-1	1,2-Dichlorobenzene	U	1.27	ug/kg	0.381	1.27

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	12.7	ug/kg	0	J
	unknown hydrocarbon	14.79	49.6	ug/kg	0	J
	unknown hydrocarbon	15.11	7.21	ug/kg	0	J
	unknown hydrocarbon	15.5	7.76	ug/kg	0	J
	unknown hydrocarbon	15.79	24	ug/kg	0	J

LMF  
5/11/10

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506019	Date Received: 03/03/2010 08:50	%Moisture: 5.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7438	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.I	Dilution: 1
Run Date: 03/11/2010 14:52	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/10/2010 20:01	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031010V4\4B350.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.359	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.317	1.06
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.317	1.06
74-83-9	Bromomethane	U	1.06	ug/kg	0.317	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.317	1.06
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.317	1.06
67-64-1	Acetone	J	2.61	ug/kg	1.75	5.28
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
74-88-4	Iodomethane	U	5.28	ug/kg	1.69	5.28
75-09-2	Methylene chloride	U	5.28	ug/kg	2.11	5.28
75-15-0	Carbon disulfide	U	5.28	ug/kg	1.32	5.28
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.317	1.06
78-93-3	2-Butanone	U	5.28	ug/kg	1.58	5.28
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.317	1.06
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.349	1.06
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.317	1.06
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.317	1.06
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.317	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.317	1.06
71-43-2	Benzene	U	1.06	ug/kg	0.317	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.349	1.06
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.317	1.06
74-95-3	Dibromomethane	U	1.06	ug/kg	0.317	1.06
108-10-1	4-Methyl-2-pentanone	U	5.28	ug/kg	1.32	5.28
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
108-88-3	Toluene		1.09	ug/kg	0.317	1.06
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.317	1.06
591-78-6	2-Hexanone	U	5.28	ug/kg	1.58	5.28
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.317	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.317	1.06
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.317	1.06
106-93-4	1,2-Dibromomethane	U	1.06	ug/kg	0.317	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.317	1.06

LMF  
5/11/10

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193  
Lab Sample ID: 248506019

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA4.I  
Analyst: ACJ  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 5.3  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

Client ID: RE36-10-7438  
Batch ID: 963417  
Run Date: 03/11/2010 14:52  
Prep Date: 03/10/2010 20:01  
Data File: 031010V4\4B350.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.317	1.06
179601-23-1	m,p-Xylenes	U	2.11	ug/kg	0.317	2.11
95-47-6	o-Xylene	U	1.06	ug/kg	0.317	1.06
100-42-5	Styrene	U	1.06	ug/kg	0.317	1.06
75-25-2	Bromoform	U	1.06	ug/kg	0.317	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.317	1.06
108-86-1	Bromobenzene	U	1.06	ug/kg	0.317	1.06
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.317	1.06
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.317	1.06
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.317	1.06
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.317	1.06
99-87-6	4-Isopropyltoluene		1.87	ug/kg	0.317	1.06
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.317	1.06
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.317	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.28	ug/kg	1.69	5.28
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	unknown hydrocarbon	4.48	16.4	ug/kg	0	J
	unknown hydrocarbon	14.79	56.7	ug/kg	0	J
	unknown hydrocarbon	15.8	47.2	ug/kg	0	J
	unknown siloxane	15.97	6.04	ug/kg	0	J

LMF  
5/11/10

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

SDG Number: 10-2193  
 Lab Sample ID: 248506020

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Allquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 18.1  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7439  
 Batch ID: 963417  
 Run Date: 03/10/2010 09:17  
 Prep Date: 03/09/2010 20:29  
 Data File: 030910V4\4B236.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.22	ug/kg	0.415	1.22 UJ,V7c
74-87-3	Chloromethane	U	1.22	ug/kg	0.366	1.22
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.366	1.22
74-83-9	Bromomethane	U	1.22	ug/kg	0.366	1.22
75-00-3	Chloroethane	U	1.22	ug/kg	0.366	1.22
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.366	1.22
67-64-1	Acetone	J	4.74	ug/kg	2.03	6.10 J,V7c
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
74-88-4	Iodomethane	U	6.10	ug/kg	1.95	6.10
75-09-2	Methylene chloride	U	6.10	ug/kg	2.44	6.10
75-15-0	Carbon disulfide	U	6.10	ug/kg	1.53	6.10
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.366	1.22
78-93-3	2-Butanone	U	6.10	ug/kg	1.83	6.10
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.366	1.22
67-66-3	Chloroform	U	1.22	ug/kg	0.366	1.22
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.403	1.22
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.366	1.22
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.366	1.22
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.366	1.22
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.366	1.22
71-43-2	Benzene	U	1.22	ug/kg	0.366	1.22
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.403	1.22
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.366	1.22
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.366	1.22
74-95-3	Dibromomethane	U	1.22	ug/kg	0.366	1.22
108-10-1	4-Methyl-2-pentanone	U	6.10	ug/kg	1.53	6.10
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.366	1.22
108-88-3	Toluene	U	1.22	ug/kg	0.366	1.22
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.366	1.22
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.366	1.22
591-78-6	2-Hexanone	U	6.10	ug/kg	1.83	6.10
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.366	1.22
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.366	1.22
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.366	1.22
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.366	1.22
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.366	1.22

LMF  
5/11/10

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506020	Date Received: 03/03/2010 08:50	%Moisture: 18.1
Client ID: RE36-10-7439	Client: LANL010	Project: LANL01004
Batch ID: 963417	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/10/2010 09:17	Inst: VOA4.I	Dilution: 1
Prep Date: 03/09/2010 20:29	Analyst: ACJ	Purge Vol: 5 mL
Data File: 030910V4\4B236.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	1.22	ug/kg	0.366	1.22
179601-23-1	m,p-Xylenes	U	2.44	ug/kg	0.366	2.44
95-47-6	o-Xylene	U	1.22	ug/kg	0.366	1.22
100-42-5	Styrene	U	1.22	ug/kg	0.366	1.22
75-25-2	Bromoform	U	1.22	ug/kg	0.366	1.22
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.366	1.22
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.366	1.22
108-86-1	Bromobenzene	U	1.22	ug/kg	0.366	1.22
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.366	1.22
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.366	1.22
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.366	1.22
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.366	1.22
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.366	1.22
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.366	1.22
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.366	1.22
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.366	1.22
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.366	1.22
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22
106-46-7	1,4-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.366	1.22
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.366	1.22
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.10	ug/kg	1.95	6.10
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.366	1.22
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	unknown hydrocarbon	4.48	21.2	ug/kg	0	J
	unknown siloxane	16.79	9.29	ug/kg	0	J

LMF  
5/11/10



## DATA VALIDATION COVER SHEET

5115-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-2193 VALIDATION DATE: 5/11/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

## Section II. Completeness Check

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


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

- The ICV and/or CCV %Ds were >20% for 4-nitrophenol; pyridine; 3-nitroaniline; 2,4-dinitrophenol; bis(2-ethylhexyl)phthalate; indeno(1,2,3-cd)pyrene; dibenzo(a,h)anthracene; and benzo(ghi)perylene. The result for benzo(ghi)perylene in sample RE36-10-7439 was a detect and, thus was qualified J,SV7c. All other associated sample results were NDs and, thus, were qualified UJ,SV7c.
- The MS and MSD %Rs for 3,3'-dichlorobenzidine and the MS/MSD RPD for 4-nitroaniline were outside of laboratory acceptance limits. Since an MS/MSD was not required, no sample results were qualified.


Reviewed by: Monica Dymerski Level I Date: 05/13/10

VALIDATOR'S SIGNATURE:


DATE: 5/11/10

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 (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, 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 ≤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 ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

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

Yes No N/A				Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	25. The surrogate is < the Lower Acceptance Level (LAL) but $\geq 10\%R$ . 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

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

SDG Number: 10-2193  
Lab Sample ID: 248506001

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.9  
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	432	ug/kg	86.4	432	
108-95-2	Phenol	U	432	ug/kg	86.4	432	
95-57-8	2-Chlorophenol	U	432	ug/kg	86.4	432	
106-46-7	1,4-Dichlorobenzene	U	432	ug/kg	86.4	432	
621-64-7	N-Nitrosodipropylamine	U	432	ug/kg	86.4	432	
59-50-7	4-Chloro-3-methylphenol	U	432	ug/kg	86.4	432	
83-32-9	Acenaphthene	U	43.2	ug/kg	14.3	43.2	
121-14-2	2,4-Dinitrotoluene	U	432	ug/kg	43.2	432	
100-02-7	4-Nitrophenol	U	432	ug/kg	143	432	UJ,SV7c
87-86-5	Pentachlorophenol	U	432	ug/kg	108	432	
129-00-0	Pyrene	J	35.7	ug/kg	13.0	43.2	
110-86-1	Pyridine	U	432	ug/kg	86.4	432	UJ,SV7c
62-53-3	Aniline	U	432	ug/kg	130	432	
111-44-4	bis(2-Chloroethyl) ether	U	432	ug/kg	86.4	432	
541-73-1	1,3-Dichlorobenzene	U	432	ug/kg	86.4	432	
100-51-6	Benzyl alcohol	U	432	ug/kg	130	432	
95-50-1	1,2-Dichlorobenzene	U	432	ug/kg	86.4	432	
108-60-1	bis(2-Chloroisopropyl)ether	U	432	ug/kg	86.4	432	
95-48-7	o-Cresol	U	432	ug/kg	86.4	432	
65794-96-9	m,p-Cresols	U	432	ug/kg	130	432	
67-72-1	Hexachloroethane	U	432	ug/kg	86.4	432	
98-95-3	Nitrobenzene	U	432	ug/kg	86.4	432	
78-59-1	Isophorone	U	432	ug/kg	86.4	432	
88-75-5	2-Nitrophenol	U	432	ug/kg	86.4	432	
105-67-9	2,4-Dimethylphenol	U	432	ug/kg	151	432	
111-91-1	bis(2-Chloroethoxy)methane	U	432	ug/kg	86.4	432	
120-83-2	2,4-Dichlorophenol	U	432	ug/kg	86.4	432	
65-85-0	Benzoic acid	J	621	ug/kg	216	864	
91-20-3	Naphthalene	U	43.2	ug/kg	13.0	43.2	
106-47-8	4-Chloroaniline	U	432	ug/kg	86.4	432	
87-68-3	Hexachlorobutadiene	U	432	ug/kg	86.4	432	
91-57-6	2-Methylnaphthalene	U	43.2	ug/kg	8.64	43.2	
77-47-4	Hexachlorocyclopentadiene	U	432	ug/kg	86.4	432	
88-06-2	2,4,6-Trichlorophenol	U	432	ug/kg	86.4	432	
95-95-4	2,4,5-Trichlorophenol	U	432	ug/kg	86.4	432	
91-58-7	2-Chloronaphthalene	U	43.2	ug/kg	14.3	43.2	
88-74-4	2-Nitroaniline	U	432	ug/kg	86.4	432	
	<i>o</i> -Nitroaniline						
99-09-2	3-Nitroaniline	U	432	ug/kg	86.4	432	UJ,SV7c

LMF  
5/11/10

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

SDG Number: 10-2193  
Lab Sample ID: 248506001

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.9  
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	432	ug/kg	86.4	432
606-20-2	2,6-Dinitrotoluene	U	432	ug/kg	43.2	432
208-96-8	Acenaphthylene	U	43.2	ug/kg	13.0	43.2
51-28-5	2,4-Dinitrophenol	U	864	ug/kg	164	864 UJ,SV7c
132-64-9	Dibenzofuran	U	432	ug/kg	86.4	432
84-66-2	Diethylphthalate	U	432	ug/kg	86.4	432
86-73-7	Fluorene	U	43.2	ug/kg	13.0	43.2
7005-72-3	4-Chlorophenylphenylether	U	432	ug/kg	86.4	432
534-52-1	2-Methyl-4,6-dinitrophenol	U	432	ug/kg	86.4	432
100-01-6	4-Nitroaniline	U	432	ug/kg	130	432
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	432	ug/kg	86.4	432
122-66-7	Azobenzene	U	432	ug/kg	86.4	432
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	432	ug/kg	86.4	432
118-74-1	Hexachlorobenzene	U	432	ug/kg	86.4	432
85-01-8	Phenanthrene	J	27.3	ug/kg	13.0	43.2
120-12-7	Anthracene	U	43.2	ug/kg	8.64	43.2
84-74-2	Di-n-butylphthalate	U	432	ug/kg	86.4	432
206-44-0	Fluoranthene		44.8	ug/kg	13.0	43.2
85-68-7	Butylbenzylphthalate	U	432	ug/kg	86.4	432
56-55-3	Benzo(a)anthracene	J	27.2	ug/kg	13.0	43.2
91-94-1	3,3'-Dichlorobenzidine	U	432	ug/kg	130	432
218-01-9	Chrysene	J	21.4	ug/kg	13.0	43.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	432	ug/kg	86.4	432 UJ,SV7c
117-84-0	Di-n-octylphthalate	U	432	ug/kg	86.4	432
205-99-2	Benzo(b)fluoranthene	U	43.2	ug/kg	13.0	43.2
207-08-9	Benzo(k)fluoranthene	U	43.2	ug/kg	13.0	43.2
50-32-8	Benzo(a)pyrene	J	20.1	ug/kg	13.0	43.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	43.2	ug/kg	13.0	43.2 UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	43.2	ug/kg	13.0	43.2
191-24-2	Benzo(ghi)perylene	U	43.2	ug/kg	13.0	43.2
120-82-1	1,2,4-Trichlorobenzene	U	432	ug/kg	86.4	432

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
25269-17-4	Thunbergol	8.13	511	ug/kg	83	NJ
1139-30-6	Caryophyllene oxide	8.36	321	ug/kg	90	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506001	Date Received: 03/03/2010 08:50	%Moisture: 22.9
Client ID: RE36-10-7407	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 11:55	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2210.d	Allquot: 30 g	Final Volume: 1 mL
	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	8.68	243	ug/kg		J
4860-03-1	Hexadecane, 1-chloro-	8.8	284	ug/kg	92	NJ
	Unknown	9.01	294	ug/kg		J
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	9.04	207	ug/kg	93	NJ
	Unknown	9.06	246	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.1	177	ug/kg	89	NJ
	Unknown	9.12	348	ug/kg		J
	Unknown	9.25	437	ug/kg		J
74339-54-1	Trichloroacetic acid, hexadecyl ester	9.44	608	ug/kg	93	NJ
	Unknown	9.52	227	ug/kg		J
62016-76-6	Nonadecane, 1-chloro-	9.75	175	ug/kg	94	NJ
	Unknown	9.88	264	ug/kg		J
1599-67-3	1-Docosene	10.1	597	ug/kg	98	NJ
	Unknown	11.91	712	ug/kg		J
	Unknown	12.09	232	ug/kg		J
	Unknown	12.67	414	ug/kg		J
	Unknown	12.97	300	ug/kg		J
83-47-6	.gamma.-Sitosterol	13.85	1300	ug/kg	99	NJ

LMF  
5/11/10



Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2193  
Lab Sample ID: 248506002

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 15  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7421  
Batch ID: 963086  
Run Date: 03/22/2010 13:04  
Prep Date: 03/10/2010 12:33  
Data File: s5c2213.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	391	ug/kg	78.3	391
108-95-2	Phenol	U	391	ug/kg	78.3	391
95-57-8	2-Chlorophenol	U	391	ug/kg	78.3	391
106-46-7	1,4-Dichlorobenzene	U	391	ug/kg	78.3	391
621-64-7	N-Nitrosodipropylamine	U	391	ug/kg	78.3	391
59-50-7	4-Chloro-3-methylphenol	U	391	ug/kg	78.3	391
83-32-9	Acenaphthene	U	39.1	ug/kg	12.9	39.1
121-14-2	2,4-Dinitrotoluene	U	391	ug/kg	39.1	391
100-02-7	4-Nitrophenol	U	391	ug/kg	129	391 UJ,SV7c
87-86-5	Pentachlorophenol	U	391	ug/kg	97.8	391
129-00-0	Pyrene	J	36.0	ug/kg	11.7	39.1
110-86-1	Pyridine	U	391	ug/kg	78.3	391 UJ,SV7c
62-53-3	Aniline	U	391	ug/kg	117	391
111-44-4	bis(2-Chloroethyl) ether	U	391	ug/kg	78.3	391
541-73-1	1,3-Dichlorobenzene	U	391	ug/kg	78.3	391
100-51-6	Benzyl alcohol	U	391	ug/kg	117	391
95-50-1	1,2-Dichlorobenzene	U	391	ug/kg	78.3	391
108-60-1	bis(2-Chloroisopropyl)ether	U	391	ug/kg	78.3	391
95-48-7	o-Cresol	U	391	ug/kg	78.3	391
65794-96-9	m,p-Cresols	U	391	ug/kg	117	391
67-72-1	Hexachloroethane	U	391	ug/kg	78.3	391
98-95-3	Nitrobenzene	U	391	ug/kg	78.3	391
78-59-1	Isophorone	U	391	ug/kg	78.3	391
88-75-5	2-Nitrophenol	U	391	ug/kg	78.3	391
105-67-9	2,4-Dimethylphenol	U	391	ug/kg	137	391
111-91-1	bis(2-Chloroethoxy)methane	U	391	ug/kg	78.3	391
120-83-2	2,4-Dichlorophenol	U	391	ug/kg	78.3	391
65-85-0	Benzoic acid	J	702	ug/kg	196	783
91-20-3	Naphthalene	U	39.1	ug/kg	11.7	39.1
106-47-8	4-Chloroaniline	U	391	ug/kg	78.3	391
87-68-3	Hexachlorobutadiene	U	391	ug/kg	78.3	391
91-57-6	2-Methylnaphthalene	U	39.1	ug/kg	7.83	39.1
77-47-4	Hexachlorocyclopentadiene	U	391	ug/kg	78.3	391
88-06-2	2,4,6-Trichlorophenol	U	391	ug/kg	78.3	391
95-95-4	2,4,5-Trichlorophenol	U	391	ug/kg	78.3	391
91-58-7	2-Chloronaphthalene	U	39.1	ug/kg	12.9	39.1
88-74-4	2-Nitroaniline	U	391	ug/kg	78.3	391
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	391	ug/kg	78.3	391 UJ,SV7c

LMF  
5/11/10

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506002	Date Received: 03/03/2010 08:50	%Moisture: 15
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7421	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 13:04	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s5c2213.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	391	ug/kg	78.3	391
606-20-2	2,6-Dinitrotoluene	U	391	ug/kg	39.1	391
208-96-8	Acenaphthylene	U	39.1	ug/kg	11.7	39.1
51-28-5	2,4-Dinitrophenol	U	783	ug/kg	149	783 UJ,SV7c
132-64-9	Dibenzofuran	U	391	ug/kg	78.3	391
84-66-2	Diethylphthalate	U	391	ug/kg	78.3	391
86-73-7	Fluorene	U	39.1	ug/kg	11.7	39.1
7005-72-3	4-Chlorophenylphenylether	U	391	ug/kg	78.3	391
534-52-1	2-Methyl-4,6-dinitrophenol	U	391	ug/kg	78.3	391
100-01-6	4-Nitroaniline	U	391	ug/kg	117	391
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	391	ug/kg	78.3	391
122-66-7	Azobenzene	U	391	ug/kg	78.3	391
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	391	ug/kg	78.3	391
118-74-1	Hexachlorobenzene	U	391	ug/kg	78.3	391
85-01-8	Phenanthrene	J	22.5	ug/kg	11.7	39.1
120-12-7	Anthracene	U	39.1	ug/kg	7.83	39.1
84-74-2	Di-n-butylphthalate	J	168	ug/kg	78.3	391
206-44-0	Fluoranthene	J	35.7	ug/kg	11.7	39.1
85-68-7	Butylbenzylphthalate	U	391	ug/kg	78.3	391
56-55-3	Benzo(a)anthracene	J	19.9	ug/kg	11.7	39.1
91-94-1	3,3'-Dichlorobenzidine	U	391	ug/kg	117	391
218-01-9	Chrysene	J	20.0	ug/kg	11.7	39.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	391	ug/kg	78.3	391 UJ,SV7c
117-84-0	Di-n-octylphthalate	U	391	ug/kg	78.3	391
205-99-2	Benzo(b)fluoranthene	U	39.1	ug/kg	11.7	39.1
207-08-9	Benzo(k)fluoranthene	U	39.1	ug/kg	11.7	39.1
50-32-8	Benzo(a)pyrene	U	39.1	ug/kg	11.7	39.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.1	ug/kg	11.7	39.1 UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	39.1	ug/kg	11.7	39.1
191-24-2	Benzo(ghi)perylene	U	39.1	ug/kg	11.7	39.1
120-82-1	1,2,4-Trichlorobenzene	U	391	ug/kg	78.3	391

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.71	313	ug/kg		J
309735-29-3	1,2-Benzisothiazole, 3-(hexahydro-1H-aze	8.78	385	ug/kg	91	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506002	Date Received: 03/03/2010 08:50	%Moisture: 15
Client ID: RE36-10-7421	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 13:04	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2213.d	Allquot: 30.05 g	Final Volume: 1 mL
	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	8.93	475	ug/kg		J
	Unknown	9.03	930	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.1	304	ug/kg	96	NJ
	Unknown	9.13	378	ug/kg		J
	Unknown	9.22	292	ug/kg		J
	Unknown	9.24	414	ug/kg		J
	Unknown	9.4	461	ug/kg		J
1599-67-3	1-Docosene	9.44	665	ug/kg	96	NJ
	Unknown	9.72	332	ug/kg		J
	Unknown	9.75	338	ug/kg		J
	Unknown	9.88	565	ug/kg		J
	Unknown	9.98	305	ug/kg		J
3386-33-2	Octadecane, 1-chloro-	10.08	601	ug/kg	90	NJ
	Unknown	10.1	846	ug/kg		J
559-74-0	Friedelan-3-one	10.13	1020	ug/kg	97	NJ
	Unknown	10.25	523	ug/kg		J
1000108-92-4	Farnesol isomer a	10.54	661	ug/kg	93	NJ
	Unknown	11.92	1910	ug/kg		J
	Unknown	12.09	477	ug/kg		J
	Unknown	12.41	541	ug/kg		J
	Unknown	12.68	731	ug/kg		J
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	12.98	822	ug/kg	92	NJ
474-62-4	Campesterol	13.17	505	ug/kg	84	NJ
83-47-6	.gamma.-Sitosterol	13.87	1900	ug/kg	98	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506003	Date Received: 03/03/2010 08:50	%Moisture: 5.9
Client ID: RE36-10-7422	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 13:27	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2214.d	Allquot: 30.02 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	354	ug/kg	70.8	354
108-95-2	Phenol	U	354	ug/kg	70.8	354
95-57-8	2-Chlorophenol	U	354	ug/kg	70.8	354
106-46-7	1,4-Dichlorobenzene	U	354	ug/kg	70.8	354
621-64-7	N-Nitrosodipropylamine	U	354	ug/kg	70.8	354
59-50-7	4-Chloro-3-methylphenol	U	354	ug/kg	70.8	354
83-32-9	Acenaphthene	U	35.4	ug/kg	11.7	35.4
121-14-2	2,4-Dinitrotoluene	U	354	ug/kg	35.4	354
100-02-7	4-Nitrophenol	U	354	ug/kg	117	354 UJ,SV7c
87-86-5	Pentachlorophenol	U	354	ug/kg	88.5	354
129-00-0	Pyrene	U	35.4	ug/kg	10.6	35.4
110-86-1	Pyridine	U	354	ug/kg	70.8	354 UJ,SV7c
62-53-3	Aniline	U	354	ug/kg	106	354
111-44-4	bis(2-Chloroethyl) ether	U	354	ug/kg	70.8	354
541-73-1	1,3-Dichlorobenzene	U	354	ug/kg	70.8	354
100-51-6	Benzyl alcohol	U	354	ug/kg	106	354
95-50-1	1,2-Dichlorobenzene	U	354	ug/kg	70.8	354
108-60-1	bis(2-Chloroisopropyl)ether	U	354	ug/kg	70.8	354
95-48-7	o-Cresol	U	354	ug/kg	70.8	354
65794-96-9	m,p-Cresols	U	354	ug/kg	106	354
67-72-1	Hexachloroethane	U	354	ug/kg	70.8	354
98-95-3	Nitrobenzene	U	354	ug/kg	70.8	354
78-59-1	Isophorone	U	354	ug/kg	70.8	354
88-75-5	2-Nitrophenol	U	354	ug/kg	70.8	354
105-67-9	2,4-Dimethylphenol	U	354	ug/kg	124	354
111-91-1	bis(2-Chloroethoxy)methane	U	354	ug/kg	70.8	354
120-83-2	2,4-Dichlorophenol	U	354	ug/kg	70.8	354
65-85-0	Benzoic acid	J	427	ug/kg	177	708
91-20-3	Naphthalene	U	35.4	ug/kg	10.6	35.4
106-47-8	4-Chloroaniline	U	354	ug/kg	70.8	354
87-68-3	Hexachlorobutadiene	U	354	ug/kg	70.8	354
91-57-6	2-Methylnaphthalene	U	35.4	ug/kg	7.08	35.4
77-47-4	Hexachlorocyclopentadiene	U	354	ug/kg	70.8	354
88-06-2	2,4,6-Trichlorophenol	U	354	ug/kg	70.8	354
95-95-4	2,4,5-Trichlorophenol	U	354	ug/kg	70.8	354
91-58-7	2-Chloronaphthalene	U	35.4	ug/kg	11.7	35.4
88-74-4	2-Nitroaniline	U	354	ug/kg	70.8	354
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	354	ug/kg	70.8	354 UJ,SV7c

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

SDG Number: 10-2193  
Lab Sample ID: 248506003

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.1  
Analyst: RMB  
Allquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 5.9  
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	354	ug/kg	70.8	354
606-20-2	2,6-Dinitrotoluene	U	354	ug/kg	35.4	354
208-96-8	Acenaphthylene	U	35.4	ug/kg	10.6	35.4
51-28-5	2,4-Dinitrophenol	U	708	ug/kg	134	708 UJ,SV7c
132-64-9	Dibenzofuran	U	354	ug/kg	70.8	354
84-66-2	Diethylphthalate	U	354	ug/kg	70.8	354
86-73-7	Fluorene	U	35.4	ug/kg	10.6	35.4
7005-72-3	4-Chlorophenylphenylether	U	354	ug/kg	70.8	354
534-52-1	2-Methyl-4,6-dinitrophenol	U	354	ug/kg	70.8	354
100-01-6	4-Nitroaniline	U	354	ug/kg	106	354
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	354	ug/kg	70.8	354
122-66-7	Azobenzene	U	354	ug/kg	70.8	354
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	354	ug/kg	70.8	354
118-74-1	Hexachlorobenzene	U	354	ug/kg	70.8	354
85-01-8	Phenanthrene	U	35.4	ug/kg	10.6	35.4
120-12-7	Anthracene	U	35.4	ug/kg	7.08	35.4
84-74-2	Di-n-butylphthalate	U	354	ug/kg	70.8	354
206-44-0	Fluoranthene	U	35.4	ug/kg	10.6	35.4
85-68-7	Butylbenzylphthalate	U	354	ug/kg	70.8	354
56-55-3	Benzo(a)anthracene	U	35.4	ug/kg	10.6	35.4
91-94-1	3,3'-Dichlorobenzidine	U	354	ug/kg	106	354
218-01-9	Chrysene	U	35.4	ug/kg	10.6	35.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	354	ug/kg	70.8	354 UJ,SV7c
117-84-0	Di-n-octylphthalate	U	354	ug/kg	70.8	354
205-99-2	Benzo(b)fluoranthene	U	35.4	ug/kg	10.6	35.4
207-08-9	Benzo(k)fluoranthene	U	35.4	ug/kg	10.6	35.4
50-32-8	Benzo(a)pyrene	U	35.4	ug/kg	10.6	35.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.4	ug/kg	10.6	35.4 UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	35.4	ug/kg	10.6	35.4
191-24-2	Benzo(ghi)perylene	U	35.4	ug/kg	10.6	35.4
120-82-1	1,2,4-Trichlorobenzene	U	354	ug/kg	70.8	354

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.1	2350	ug/kg		J
	Unknown Aldol Condensate	2.98	250	ug/kg		JA

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506003	Date Received: 03/03/2010 08:50	%Moisture: 5.9
Client ID: RE36-10-7422	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 13:27	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2214.d	Aliquot: 30.02 g	Final Volume: 1 mL
	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
1058-61-3	Stigmast-4-en-3-one	8.42	796	ug/kg	95	NJ
	Unknown	9.03	155	ug/kg		J
1000131-11-8	Z-5-Nonadecene	9.44	227	ug/kg	96	NJ
	Unknown	10.1	366	ug/kg		J
	Unknown	10.14	698	ug/kg		J
	Unknown	10.54	150	ug/kg		J
	Unknown	12.09	392	ug/kg		J
	Unknown	12.42	212	ug/kg		J
70038-20-9	7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	12.87	335	ug/kg	93	NJ
57-87-4	Ergosterol	12.97	223	ug/kg	90	NJ
83-46-5	.beta.-Sitosterol	13.85	705	ug/kg	90	NJ
	Unknown	14.45	327	ug/kg		J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506015	Date Received: 03/03/2010 08:50	%Moisture: 30.1
Client ID: RE36-10-7435	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 18:02	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2226.d	Aliquot: 30.06 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	476	ug/kg	95.2	476
108-95-2	Phenol	U	476	ug/kg	95.2	476
95-57-8	2-Chlorophenol	U	476	ug/kg	95.2	476
106-46-7	1,4-Dichlorobenzene	U	476	ug/kg	95.2	476
621-64-7	N-Nitrosodipropylamine	U	476	ug/kg	95.2	476
59-50-7	4-Chloro-3-methylphenol	U	476	ug/kg	95.2	476
83-32-9	Acenaphthene	U	47.6	ug/kg	15.7	47.6
121-14-2	2,4-Dinitrotoluene	U	476	ug/kg	47.6	476
100-02-7	4-Nitrophenol	U	476	ug/kg	157	476 UJ,SV7c
87-86-5	Pentachlorophenol	U	476	ug/kg	119	476
129-00-0	Pyrene	U	47.6	ug/kg	14.3	47.6
110-86-1	Pyridine	U	476	ug/kg	95.2	476 UJ,SV7c
62-53-3	Aniline	U	476	ug/kg	143	476
111-44-4	bis(2-Chloroethyl) ether	U	476	ug/kg	95.2	476
541-73-1	1,3-Dichlorobenzene	U	476	ug/kg	95.2	476
100-51-6	Benzyl alcohol	U	476	ug/kg	143	476
95-50-1	1,2-Dichlorobenzene	U	476	ug/kg	95.2	476
108-60-1	bis(2-Chloroisopropyl)ether	U	476	ug/kg	95.2	476
95-48-7	o-Cresol	U	476	ug/kg	95.2	476
65794-96-9	m,p-Cresols	U	476	ug/kg	143	476
67-72-1	Hexachloroethane	U	476	ug/kg	95.2	476
98-95-3	Nitrobenzene	U	476	ug/kg	95.2	476
78-59-1	Isophorone	U	476	ug/kg	95.2	476
88-75-5	2-Nitrophenol	U	476	ug/kg	95.2	476
105-67-9	2,4-Dimethylphenol	U	476	ug/kg	167	476
111-91-1	bis(2-Chloroethoxy)methane	U	476	ug/kg	95.2	476
120-83-2	2,4-Dichlorophenol	U	476	ug/kg	95.2	476
65-85-0	Benzoic acid	U	952	ug/kg	238	952
91-20-3	Naphthalene	U	47.6	ug/kg	14.3	47.6
106-47-8	4-Chloroaniline	U	476	ug/kg	95.2	476
87-68-3	Hexachlorobutadiene	U	476	ug/kg	95.2	476
91-57-6	2-Methylnaphthalene	U	47.6	ug/kg	9.52	47.6
77-47-4	Hexachlorocyclopentadiene	U	476	ug/kg	95.2	476
88-06-2	2,4,6-Trichlorophenol	U	476	ug/kg	95.2	476
95-95-4	2,4,5-Trichlorophenol	U	476	ug/kg	95.2	476
91-58-7	2-Chloronaphthalene	U	47.6	ug/kg	15.7	47.6
88-74-4	2-Nitroaniline	U	476	ug/kg	95.2	476
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	476	ug/kg	95.2	476 UJ,SV7c

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506015	Date Received: 03/03/2010 08:50	%Moisture: 30.1
Client ID: RE36-10-7435	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 18:02	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2226.d	Aliquot: 30.06 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					
606-20-2	Dimethylphthalate	U	476	ug/kg	95.2	476
208-96-8	2,6-Dinitrotoluene	U	476	ug/kg	47.6	476
51-28-5	Acenaphthylene	U	47.6	ug/kg	14.3	47.6
132-64-9	2,4-Dinitrophenol	U	952	ug/kg	181	952 UJ,SV7c
84-66-2	Dibenzofuran	U	476	ug/kg	95.2	476
86-73-7	Diethylphthalate	U	476	ug/kg	95.2	476
7005-72-3	Fluorene	U	47.6	ug/kg	14.3	47.6
534-52-1	4-Chlorophenylphenylether	U	476	ug/kg	95.2	476
100-01-6	2-Methyl-4,6-dinitrophenol	U	476	ug/kg	95.2	476
122-39-4	4-Nitroaniline	U	476	ug/kg	143	476
122-66-7	<i>p</i> -Nitroaniline					
101-55-3	Diphenylamine	U	476	ug/kg	95.2	476
118-74-1	Azobenzene	U	476	ug/kg	95.2	476
85-01-8	<i>1,2</i> -Diphenylhydrazine					
120-12-7	4-Bromophenylphenylether	U	476	ug/kg	95.2	476
84-74-2	Hexachlorobenzene	U	476	ug/kg	95.2	476
206-44-0	Phenanthrene	U	47.6	ug/kg	14.3	47.6
85-68-7	Anthracene	U	47.6	ug/kg	9.52	47.6
56-55-3	Di-n-butylphthalate	U	476	ug/kg	95.2	476
91-94-1	Fluoranthene	U	47.6	ug/kg	14.3	47.6
218-01-9	Butylbenzylphthalate	U	476	ug/kg	95.2	476
117-81-7	Benzo(a)anthracene	U	47.6	ug/kg	14.3	47.6
117-84-0	3,3'-Dichlorobenzidine	U	476	ug/kg	143	476
205-99-2	Chrysene	U	47.6	ug/kg	14.3	47.6
207-08-9	bis(2-Ethylhexyl)phthalate	U	476	ug/kg	95.2	476 UJ,SV7c
50-32-8	Di-n-octylphthalate	U	476	ug/kg	95.2	476
193-39-5	Benzo(b)fluoranthene	U	47.6	ug/kg	14.3	47.6
53-70-3	Benzo(k)fluoranthene	U	47.6	ug/kg	14.3	47.6
191-24-2	Benzo(a)pyrene	U	47.6	ug/kg	14.3	47.6
120-82-1	Indeno(1,2,3-cd)pyrene	U	47.6	ug/kg	14.3	47.6 UJ,SV7c
	Dibenzo(a,h)anthracene	U	47.6	ug/kg	14.3	47.6
	Benzo(ghi)perylene	U	47.6	ug/kg	14.3	47.6
	1,2,4-Trichlorobenzene	U	476	ug/kg	95.2	476

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
7785-70-8	1R- $\alpha$ -Pinene	3.52	552	ug/kg	97	NJ
	Unknown	8.94	303	ug/kg		J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506015	Date Received: 03/03/2010 08:50	%Moisture: 30.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7435	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 18:02	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.06 g	Final Volume: 1 mL
Data File: s5c2226.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	9.07	1090	ug/kg		J
	Unknown	9.14	395	ug/kg		J
6971-40-0	17-Pentatriacontene	9.45	420	ug/kg	93	NJ
	Unknown	9.75	307	ug/kg		J
112-95-8	Eicosane	10.09	419	ug/kg	96	NJ
7773-83-3	1-Docosanethiol	10.11	593	ug/kg	93	NJ
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.18	1710	ug/kg	91	NJ
	Unknown	10.45	357	ug/kg		J
	Unknown	10.85	896	ug/kg		J
2883-08-1	Cyclohexane, 1,1'-(2-methyl-1,3-propaned	11.93	771	ug/kg	89	NJ
	Unknown	12.11	548	ug/kg		J
	Unknown	12.16	919	ug/kg		J
	Unknown	12.48	415	ug/kg		J
	Unknown	12.91	924	ug/kg		J
83-46-5	.beta.-Sitosterol	13.89	618	ug/kg	96	NJ

LMF  
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Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506018	Date Received: 03/03/2010 08:50	%Moisture: 21.4
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7436	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 19:11	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Allquot: 30.09 g	Final Volume: 1 mL
Data File: s5c2229.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	423	ug/kg	84.5	423	
108-95-2	Phenol	U	423	ug/kg	84.5	423	
95-57-8	2-Chlorophenol	U	423	ug/kg	84.5	423	
106-46-7	1,4-Dichlorobenzene	U	423	ug/kg	84.5	423	
621-64-7	N-Nitrosodipropylamine	U	423	ug/kg	84.5	423	
59-50-7	4-Chloro-3-methylphenol	U	423	ug/kg	84.5	423	
83-32-9	Acenaphthene	U	42.3	ug/kg	13.9	42.3	
121-14-2	2,4-Dinitrotoluene	U	423	ug/kg	42.3	423	
100-02-7	4-Nitrophenol	U	423	ug/kg	139	423	UJ,SV7c
87-86-5	Pentachlorophenol	U	423	ug/kg	106	423	
129-00-0	Pyrene	U	42.3	ug/kg	12.7	42.3	
110-86-1	Pyridine	U	423	ug/kg	84.5	423	UJ,SV7c
62-53-3	Aniline	U	423	ug/kg	127	423	
111-44-4	bis(2-Chloroethyl) ether	U	423	ug/kg	84.5	423	
541-73-1	1,3-Dichlorobenzene	U	423	ug/kg	84.5	423	
100-51-6	Benzyl alcohol	U	423	ug/kg	127	423	
95-50-1	1,2-Dichlorobenzene	U	423	ug/kg	84.5	423	
108-60-1	bis(2-Chloroisopropyl)ether	U	423	ug/kg	84.5	423	
95-48-7	o-Cresol	U	423	ug/kg	84.5	423	
65794-96-9	m,p-Cresols	U	423	ug/kg	127	423	
67-72-1	Hexachloroethane	U	423	ug/kg	84.5	423	
98-95-3	Nitrobenzene	U	423	ug/kg	84.5	423	
78-59-1	Isophorone	U	423	ug/kg	84.5	423	
88-75-5	2-Nitrophenol	U	423	ug/kg	84.5	423	
105-67-9	2,4-Dimethylphenol	U	423	ug/kg	148	423	
111-91-1	bis(2-Chloroethoxy)methane	U	423	ug/kg	84.5	423	
120-83-2	2,4-Dichlorophenol	U	423	ug/kg	84.5	423	
65-85-0	Benzoic acid	U	845	ug/kg	211	845	
91-20-3	Naphthalene	U	42.3	ug/kg	12.7	42.3	
106-47-8	4-Chloroaniline	U	423	ug/kg	84.5	423	
87-68-3	Hexachlorobutadiene	U	423	ug/kg	84.5	423	
91-57-6	2-Methylnaphthalene	U	42.3	ug/kg	8.45	42.3	
77-47-4	Hexachlorocyclopentadiene	U	423	ug/kg	84.5	423	
88-06-2	2,4,6-Trichlorophenol	U	423	ug/kg	84.5	423	
95-95-4	2,4,5-Trichlorophenol	U	423	ug/kg	84.5	423	
91-58-7	2-Chloronaphthalene	U	42.3	ug/kg	13.9	42.3	
88-74-4	2-Nitroaniline	U	423	ug/kg	84.5	423	
	<i>o</i> -Nitroaniline						
99-09-2	3-Nitroaniline	U	423	ug/kg	84.5	423	UJ,SV7c

LMF  
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Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506018	Date Received: 03/03/2010 08:50	%Moisture: 21.4
Client ID: RE36-10-7436	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 19:11	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2229.d	Allquot: 30.09 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	423	ug/kg	84.5	423
606-20-2	2,6-Dinitrotoluene	U	423	ug/kg	42.3	423
208-96-8	Acenaphthylene	U	42.3	ug/kg	12.7	42.3
51-28-5	2,4-Dinitrophenol	U	845	ug/kg	161	845 UJ,SV7c
132-64-9	Dibenzofuran	U	423	ug/kg	84.5	423
84-66-2	Diethylphthalate	U	423	ug/kg	84.5	423
86-73-7	Fluorene	U	42.3	ug/kg	12.7	42.3
7005-72-3	4-Chlorophenylphenylether	U	423	ug/kg	84.5	423
534-52-1	2-Methyl-4,6-dinitrophenol	U	423	ug/kg	84.5	423
100-01-6	4-Nitroaniline	U	423	ug/kg	127	423
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	423	ug/kg	84.5	423
122-66-7	Azobenzene	U	423	ug/kg	84.5	423
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	423	ug/kg	84.5	423
118-74-1	Hexachlorobenzene	U	423	ug/kg	84.5	423
85-01-8	Phenanthrene	U	42.3	ug/kg	12.7	42.3
120-12-7	Anthracene	U	42.3	ug/kg	8.45	42.3
84-74-2	Di-n-butylphthalate	U	423	ug/kg	84.5	423
206-44-0	Fluoranthene	U	42.3	ug/kg	12.7	42.3
85-68-7	Butylbenzylphthalate	U	423	ug/kg	84.5	423
56-55-3	Benzo(a)anthracene	U	42.3	ug/kg	12.7	42.3
91-94-1	3,3'-Dichlorobenzidine	U	423	ug/kg	127	423
218-01-9	Chrysene	U	42.3	ug/kg	12.7	42.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	423	ug/kg	84.5	423 UJ,SV7c
117-84-0	Di-n-octylphthalate	U	423	ug/kg	84.5	423
205-99-2	Benzo(b)fluoranthene	U	42.3	ug/kg	12.7	42.3
207-08-9	Benzo(k)fluoranthene	U	42.3	ug/kg	12.7	42.3
50-32-8	Benzo(a)pyrene	U	42.3	ug/kg	12.7	42.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.3	ug/kg	12.7	42.3 UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	42.3	ug/kg	12.7	42.3
191-24-2	Benzo(ghi)perylene	U	42.3	ug/kg	12.7	42.3
120-82-1	1,2,4-Trichlorobenzene	U	423	ug/kg	84.5	423

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.08	466	ug/kg		J
7785-70-8	1R-.alpha.-Pinene	3.52	471	ug/kg	96	NJ

LMF  
5/11/10

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506018	Date Received: 03/03/2010 08:50	%Moisture: 21.4
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7436	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 19:11	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Allquot: 30.09 g	Final Volume: 1 mL
Data File: s5c2229.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	8.45	327	ug/kg		J
	Unknown	8.84	223	ug/kg		J
	Unknown	8.94	317	ug/kg		J
	Unknown	9.14	406	ug/kg		J
	Unknown	9.28	315	ug/kg		J
18435-45-5	I-Nonadecene	9.46	394	ug/kg	90	NJ
	Unknown	9.75	277	ug/kg		J
	Unknown	10.12	423	ug/kg		J
	Unknown	10.45	338	ug/kg		J
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.55	343	ug/kg	93	NJ
112-95-8	Eicosane	10.85	348	ug/kg	95	NJ
	Unknown	12.16	1190	ug/kg		J
	Unknown	12.48	358	ug/kg		J
	Unknown	12.93	1020	ug/kg		J
83-46-5	.beta.-Sitosterol	13.89	430	ug/kg	95	NJ

LMF  
5/11/10

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

SDG Number: 10-2193  
Lab Sample ID: 248506013

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 16.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7437  
Batch ID: 963086  
Run Date: 03/22/2010 17:16  
Prep Date: 03/10/2010 12:33  
Data File: s5c2224.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	397	ug/kg	79.5	397	
108-95-2	Phenol	U	397	ug/kg	79.5	397	
95-57-8	2-Chlorophenol	U	397	ug/kg	79.5	397	
106-46-7	1,4-Dichlorobenzene	U	397	ug/kg	79.5	397	
621-64-7	N-Nitrosodipropylamine	U	397	ug/kg	79.5	397	
59-50-7	4-Chloro-3-methylphenol	U	397	ug/kg	79.5	397	
83-32-9	Acenaphthene	U	39.7	ug/kg	13.1	39.7	
121-14-2	2,4-Dinitrotoluene	U	397	ug/kg	39.7	397	
100-02-7	4-Nitrophenol	U	397	ug/kg	131	397	UJ,SV7c
87-86-5	Pentachlorophenol	U	397	ug/kg	99.4	397	
129-00-0	Pyrene		48.9	ug/kg	11.9	39.7	
110-86-1	Pyridine	U	397	ug/kg	79.5	397	UJ,SV7c
62-53-3	Aniline	U	397	ug/kg	119	397	
111-44-4	bis(2-Chloroethyl) ether	U	397	ug/kg	79.5	397	
541-73-1	1,3-Dichlorobenzene	U	397	ug/kg	79.5	397	
100-51-6	Benzyl alcohol	U	397	ug/kg	119	397	
95-50-1	1,2-Dichlorobenzene	U	397	ug/kg	79.5	397	
108-60-1	bis(2-Chloroisopropyl)ether	U	397	ug/kg	79.5	397	
95-48-7	o-Cresol	U	397	ug/kg	79.5	397	
65794-96-9	m,p-Cresols	U	397	ug/kg	119	397	
67-72-1	Hexachloroethane	U	397	ug/kg	79.5	397	
98-95-3	Nitrobenzene	U	397	ug/kg	79.5	397	
78-59-1	Isophorone	U	397	ug/kg	79.5	397	
88-75-5	2-Nitrophenol	U	397	ug/kg	79.5	397	
105-67-9	2,4-Dimethylphenol	U	397	ug/kg	139	397	
111-91-1	bis(2-Chloroethoxy)methane	U	397	ug/kg	79.5	397	
120-83-2	2,4-Dichlorophenol	U	397	ug/kg	79.5	397	
65-85-0	Benzoic acid	U	795	ug/kg	199	795	
91-20-3	Naphthalene	U	39.7	ug/kg	11.9	39.7	
106-47-8	4-Chloroaniline	U	397	ug/kg	79.5	397	
87-68-3	Hexachlorobutadiene	U	397	ug/kg	79.5	397	
91-57-6	2-Methylnaphthalene	U	39.7	ug/kg	7.95	39.7	
77-47-4	Hexachlorocyclopentadiene	U	397	ug/kg	79.5	397	
88-06-2	2,4,6-Trichlorophenol	U	397	ug/kg	79.5	397	
95-95-4	2,4,5-Trichlorophenol	U	397	ug/kg	79.5	397	
91-58-7	2-Chloronaphthalene	U	39.7	ug/kg	13.1	39.7	
88-74-4	2-Nitroaniline	U	397	ug/kg	79.5	397	
	<i>o</i> -Nitroaniline						
99-09-2	3-Nitroaniline	U	397	ug/kg	79.5	397	UJ,SV7c

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506013	Date Received: 03/03/2010 08:50	%Moisture: 16.3
Client ID: RE36-10-7437	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 17:16	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2224.d	Allquot: 30.05 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	397	ug/kg	79.5	397
606-20-2	2,6-Dinitrotoluene	U	397	ug/kg	39.7	397
208-96-8	Acenaphthylene	U	39.7	ug/kg	11.9	39.7
51-28-5	2,4-Dinitrophenol	U	795	ug/kg	151	795 UJ,SV7c
132-64-9	Dibenzofuran	U	397	ug/kg	79.5	397
84-66-2	Diethylphthalate	U	397	ug/kg	79.5	397
86-73-7	Fluorene	U	39.7	ug/kg	11.9	39.7
7005-72-3	4-Chlorophenylphenylether	U	397	ug/kg	79.5	397
534-52-1	2-Methyl-4,6-dinitrophenol	U	397	ug/kg	79.5	397
100-01-6	4-Nitroaniline	U	397	ug/kg	119	397
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	397	ug/kg	79.5	397
122-66-7	Azobenzene	U	397	ug/kg	79.5	397
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	397	ug/kg	79.5	397
118-74-1	Hexachlorobenzene	U	397	ug/kg	79.5	397
85-01-8	Phenanthrene	J	35.1	ug/kg	11.9	39.7
120-12-7	Anthracene	U	39.7	ug/kg	7.95	39.7
84-74-2	Di-n-butylphthalate	U	397	ug/kg	79.5	397
206-44-0	Fluoranthene		54.5	ug/kg	11.9	39.7
85-68-7	Butylbenzylphthalate	U	397	ug/kg	79.5	397
56-55-3	Benzo(a)anthracene	U	39.7	ug/kg	11.9	39.7
91-94-1	3,3'-Dichlorobenzidine	U	397	ug/kg	119	397
218-01-9	Chrysene	J	29.7	ug/kg	11.9	39.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	397	ug/kg	79.5	397 UJ,SV7c
117-84-0	Di-n-octylphthalate	U	397	ug/kg	79.5	397
205-99-2	Benzo(b)fluoranthene	U	39.7	ug/kg	11.9	39.7
207-08-9	Benzo(k)fluoranthene	U	39.7	ug/kg	11.9	39.7
50-32-8	Benzo(a)pyrene	U	39.7	ug/kg	11.9	39.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.7	ug/kg	11.9	39.7 UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	39.7	ug/kg	11.9	39.7
191-24-2	Benzo(ghi)perylene	U	39.7	ug/kg	11.9	39.7
120-82-1	1,2,4-Trichlorobenzene	U	397	ug/kg	79.5	397

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
103-82-2	Benzeneacetic acid	4.96	684	ug/kg	91	NJ
	Unknown	8.46	329	ug/kg		J

LMF  
5/11/10

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506013	Date Received: 03/03/2010 08:50	%Moisture: 16.3
Client ID: RE36-10-7437	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 17:16	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2224.d	Allquot: 30.05 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
1000130-99-4	9-Methyl-Z-10-tetradecen-1-ol acetate	8.79	663	ug/kg	93	NJ
	Unknown	9.02	374	ug/kg		J
5508-58-7	Andrographolide	9.14	356	ug/kg	81	NJ
1000130-84-8	(S)(+)-Z-13-Methyl-11-pentadecen-1-ol ac	9.25	387	ug/kg	93	NJ
	Unknown	9.45	941	ug/kg		J
629-78-7	Heptadecane	10.09	404	ug/kg	95	NJ
1599-67-3	1-Docosene	10.11	2000	ug/kg	99	NJ
	Unknown	10.26	345	ug/kg		J
4860-03-1	Hexadecane, 1-chloro-	10.45	760	ug/kg	91	NJ
309735-29-3	1,2-Benzisothiazole, 3-(hexahydro-1H-aze	10.49	575	ug/kg	91	NJ
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.55	1060	ug/kg	95	NJ
	Unknown	10.63	853	ug/kg		J
1000131-09-4	Z-12-Pentacosene	10.9	923	ug/kg	96	NJ
	Unknown	11.12	613	ug/kg		J
	Unknown	11.45	548	ug/kg		J
	Unknown	11.51	488	ug/kg		J
	Unknown	11.81	730	ug/kg		J
	Unknown	11.94	3600	ug/kg		J
	Unknown	12.11	1140	ug/kg		J
	Unknown	12.7	979	ug/kg		J
57-87-4	Ergosterol	13.01	975	ug/kg	86	NJ
83-47-6	.gamma.-Sitosterol	13.9	2570	ug/kg	96	NJ
	Unknown	14.01	535	ug/kg		J
	Unknown	14.32	638	ug/kg		J

LMF  
5/11/10

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

SDG Number: 10-2193  
Lab Sample ID: 248506019

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 5.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7438  
Batch ID: 963086  
Run Date: 03/22/2010 19:34  
Prep Date: 03/10/2010 12:33  
Data File: s5c2230.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	352	ug/kg	70.4	352	
108-95-2	Phenol	U	352	ug/kg	70.4	352	
95-57-8	2-Chlorophenol	U	352	ug/kg	70.4	352	
106-46-7	1,4-Dichlorobenzene	U	352	ug/kg	70.4	352	
621-64-7	N-Nitrosodipropylamine	U	352	ug/kg	70.4	352	
59-50-7	4-Chloro-3-methylphenol	U	352	ug/kg	70.4	352	
83-32-9	Acenaphthene	U	35.2	ug/kg	11.6	35.2	
121-14-2	2,4-Dinitrotoluene	U	352	ug/kg	35.2	352	
100-02-7	4-Nitrophenol	U	352	ug/kg	116	352	UJ,SV7c
87-86-5	Pentachlorophenol	U	352	ug/kg	88.0	352	
129-00-0	Pyrene	U	35.2	ug/kg	10.6	35.2	
110-86-1	Pyridine	U	352	ug/kg	70.4	352	UJ,SV7c
62-53-3	Aniline	U	352	ug/kg	106	352	
111-44-4	bis(2-Chloroethyl) ether	U	352	ug/kg	70.4	352	
541-73-1	1,3-Dichlorobenzene	U	352	ug/kg	70.4	352	
100-51-6	Benzyl alcohol	U	352	ug/kg	106	352	
95-50-1	1,2-Dichlorobenzene	U	352	ug/kg	70.4	352	
108-60-1	bis(2-Chloroisopropyl)ether	U	352	ug/kg	70.4	352	
95-48-7	o-Cresol	U	352	ug/kg	70.4	352	
65794-96-9	m,p-Cresols	U	352	ug/kg	106	352	
67-72-1	Hexachloroethane	U	352	ug/kg	70.4	352	
98-95-3	Nitrobenzene	U	352	ug/kg	70.4	352	
78-59-1	Isophorone	U	352	ug/kg	70.4	352	
88-75-5	2-Nitrophenol	U	352	ug/kg	70.4	352	
105-67-9	2,4-Dimethylphenol	U	352	ug/kg	123	352	
111-91-1	bis(2-Chloroethoxy)methane	U	352	ug/kg	70.4	352	
120-83-2	2,4-Dichlorophenol	U	352	ug/kg	70.4	352	
65-85-0	Benzoic acid	U	704	ug/kg	176	704	
91-20-3	Naphthalene	U	35.2	ug/kg	10.6	35.2	
106-47-8	4-Chloroaniline	U	352	ug/kg	70.4	352	
87-68-3	Hexachlorobutadiene	U	352	ug/kg	70.4	352	
91-57-6	2-Methylnaphthalene	U	35.2	ug/kg	7.04	35.2	
77-47-4	Hexachlorocyclopentadiene	U	352	ug/kg	70.4	352	
88-06-2	2,4,6-Trichlorophenol	U	352	ug/kg	70.4	352	
95-95-4	2,4,5-Trichlorophenol	U	352	ug/kg	70.4	352	
91-58-7	2-Chloronaphthalene	U	35.2	ug/kg	11.6	35.2	
88-74-4	2-Nitroaniline	U	352	ug/kg	70.4	352	
	<i>o</i> -Nitroaniline						
99-09-2	3-Nitroaniline	U	352	ug/kg	70.4	352	UJ,SV7c

LMF  
5/11/10



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

SDG Number: 10-2193

Lab Sample ID: 248506019

Date Collected: 02/25/2010 12:00

Date Received: 03/03/2010 08:50

Matrix: R

%Moisture: 5.3

Client: LANL010

Method: SW846 8270C

Project: LANL01004

SOP Ref: GL-OA-E-009

Client ID: RE36-10-7438

Batch ID: 963086

Inst: MSD5.I

Dilution: 1

Run Date: 03/22/2010 19:34

Analyst: RMB

Inj. Vol: .5 uL

Prep Date: 03/10/2010 12:33

Aliquot: 30.02 g

Final Volume: 1 mL

Data File: s5c2230.d

Column: J&amp;W DB-5MS

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	352	ug/kg	70.4	352
606-20-2	2,6-Dinitrotoluene	U	352	ug/kg	35.2	352
208-96-8	Acenaphthylene	U	35.2	ug/kg	10.6	35.2
51-28-5	2,4-Dinitrophenol	U	704	ug/kg	134	704 UJ,SV7c
132-64-9	Dibenzofuran	U	352	ug/kg	70.4	352
84-66-2	Diethylphthalate	U	352	ug/kg	70.4	352
86-73-7	Fluorene	U	35.2	ug/kg	10.6	35.2
7005-72-3	4-Chlorophenylphenylether	U	352	ug/kg	70.4	352
534-52-1	2-Methyl-4,6-dinitrophenol	U	352	ug/kg	70.4	352
100-01-6	4-Nitroaniline	U	352	ug/kg	106	352
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	352	ug/kg	70.4	352
122-66-7	Azobenzene	U	352	ug/kg	70.4	352
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	352	ug/kg	70.4	352
118-74-1	Hexachlorobenzene	U	352	ug/kg	70.4	352
85-01-8	Phenanthrene	U	35.2	ug/kg	10.6	35.2
120-12-7	Anthracene	U	35.2	ug/kg	7.04	35.2
84-74-2	Di-n-butylphthalate	U	352	ug/kg	70.4	352
206-44-0	Fluoranthene	U	35.2	ug/kg	10.6	35.2
85-68-7	Butylbenzylphthalate	U	352	ug/kg	70.4	352
56-55-3	Benzo(a)anthracene	U	35.2	ug/kg	10.6	35.2
91-94-1	3,3'-Dichlorobenzidine	U	352	ug/kg	106	352
218-01-9	Chrysene	U	35.2	ug/kg	10.6	35.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	352	ug/kg	70.4	352 UJ,SV7c
117-84-0	Di-n-octylphthalate	U	352	ug/kg	70.4	352
205-99-2	Benzo(b)fluoranthene	U	35.2	ug/kg	10.6	35.2
207-08-9	Benzo(k)fluoranthene	U	35.2	ug/kg	10.6	35.2
50-32-8	Benzo(a)pyrene	U	35.2	ug/kg	10.6	35.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.2	ug/kg	10.6	35.2 UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	35.2	ug/kg	10.6	35.2
191-24-2	Benzo(ghi)perylene	U	35.2	ug/kg	10.6	35.2
120-82-1	1,2,4-Trichlorobenzene	U	352	ug/kg	70.4	352

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown	2.08	3140	ug/kg		J
13481-95-3	10-Octadecenoic acid, methyl ester	8.14	241	ug/kg	99	NJ

LMF  
5/11/10

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

SDG Number: 10-2193

Lab Sample ID: 248506019

Date Collected: 02/25/2010 12:00

Date Received: 03/03/2010 08:50

Matrix: R

%Moisture: 5.3

Client: LANL010

Project: LANL01004

Method: SW846 8270C

SOP Ref: GL-OA-E-009

Inst: MSD5.I

Dilution: 1

Client ID: RE36-10-7438

Batch ID: 963086

Run Date: 03/22/2010 19:34

Analyst: RMB

Inj. Vol: .5 uL

Prep Date: 03/10/2010 12:33

Allquot: 30.02 g

Final Volume: 1 mL

Data File: s5c2230.d

Column: J&amp;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
	Unknown	9.05	467	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.1	274	ug/kg	93	NJ
	Unknown	9.14	218	ug/kg		J
1000131-09-4	Z-12-Pentacosene	9.46	278	ug/kg	95	NJ
	Unknown	9.57	144	ug/kg		J
	Unknown	9.79	192	ug/kg		J
	Unknown	9.89	150	ug/kg		J
	Unknown	10.09	207	ug/kg		J
7773-83-3	1-Docosanethiol	10.12	460	ug/kg	92	NJ
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.16	1060	ug/kg	91	NJ
	Unknown	10.45	171	ug/kg		J
112-95-8	Eicosane	10.85	210	ug/kg	86	NJ
	Unknown	11.57	200	ug/kg		J
	Unknown	11.93	402	ug/kg		J
	Unknown	12.15	848	ug/kg		J
	Unknown	12.69	194	ug/kg		J
	Unknown	12.86	191	ug/kg		J
	Unknown	12.91	575	ug/kg		J
	Unknown	13.01	378	ug/kg		J
	Unknown	13.2	172	ug/kg		J
83-46-5	.beta.-Sitosterol	13.9	747	ug/kg	90	NJ
	Unknown	14.26	175	ug/kg		J

LMF  
5/11/10

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2193  
Lab Sample ID: 248506020

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Allquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 18.1  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7439  
Batch ID: 963086  
Run Date: 03/22/2010 19:57  
Prep Date: 03/10/2010 12:33  
Data File: s5c2231.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	406	ug/kg	81.2	406	
108-95-2	Phenol	U	406	ug/kg	81.2	406	
95-57-8	2-Chlorophenol	U	406	ug/kg	81.2	406	
106-46-7	1,4-Dichlorobenzene	U	406	ug/kg	81.2	406	
621-64-7	N-Nitrosodipropylamine	U	406	ug/kg	81.2	406	
59-50-7	4-Chloro-3-methylphenol	U	406	ug/kg	81.2	406	
83-32-9	Acenaphthene	U	40.6	ug/kg	13.4	40.6	
121-14-2	2,4-Dinitrotoluene	U	406	ug/kg	40.6	406	
100-02-7	4-Nitrophenol	U	406	ug/kg	134	406	UJ,SV7c
87-86-5	Pentachlorophenol	U	406	ug/kg	102	406	
129-00-0	Pyrene		226	ug/kg	12.2	40.6	
110-86-1	Pyridine	U	406	ug/kg	81.2	406	UJ,SV7c
62-53-3	Aniline	U	406	ug/kg	122	406	
111-44-4	bis(2-Chloroethyl) ether	U	406	ug/kg	81.2	406	
541-73-1	1,3-Dichlorobenzene	U	406	ug/kg	81.2	406	
100-51-6	Benzyl alcohol	U	406	ug/kg	122	406	
95-50-1	1,2-Dichlorobenzene	U	406	ug/kg	81.2	406	
108-60-1	bis(2-Chloroisopropyl)ether	U	406	ug/kg	81.2	406	
95-48-7	o-Cresol	U	406	ug/kg	81.2	406	
65794-96-9	m,p-Cresols	U	406	ug/kg	122	406	
67-72-1	Hexachloroethane	U	406	ug/kg	81.2	406	
98-95-3	Nitrobenzene	U	406	ug/kg	81.2	406	
78-59-1	Isophorone	U	406	ug/kg	81.2	406	
88-75-5	2-Nitrophenol	U	406	ug/kg	81.2	406	
105-67-9	2,4-Dimethylphenol	U	406	ug/kg	142	406	
111-91-1	bis(2-Chloroethoxy)methane	U	406	ug/kg	81.2	406	
120-83-2	2,4-Dichlorophenol	U	406	ug/kg	81.2	406	
65-85-0	Benzoic acid	J	562	ug/kg	203	812	
91-20-3	Naphthalene	U	40.6	ug/kg	12.2	40.6	
106-47-8	4-Chloroaniline	U	406	ug/kg	81.2	406	
87-68-3	Hexachlorobutadiene	U	406	ug/kg	81.2	406	
91-57-6	2-Methylnaphthalene	U	40.6	ug/kg	8.12	40.6	
77-47-4	Hexachlorocyclopentadiene	U	406	ug/kg	81.2	406	
88-06-2	2,4,6-Trichlorophenol	U	406	ug/kg	81.2	406	
95-95-4	2,4,5-Trichlorophenol	U	406	ug/kg	81.2	406	
91-58-7	2-Chloronaphthalene	U	40.6	ug/kg	13.4	40.6	
88-74-4	2-Nitroaniline	U	406	ug/kg	81.2	406	
	<i>o</i> -Nitroaniline						
99-09-2	3-Nitroaniline	U	406	ug/kg	81.2	406	UJ,SV7c

LMF  
5/11/10

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506020	Date Received: 03/03/2010 08:50	%Moisture: 18.1
Client ID: RE36-10-7439	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 19:57	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2231.d	Aliquot: 30.05 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					
606-20-2	Dimethylphthalate	U	406	ug/kg	81.2	406
208-96-8	2,6-Dinitrotoluene	U	406	ug/kg	40.6	406
51-28-5	Acenaphthylene	U	40.6	ug/kg	12.2	40.6
132-64-9	2,4-Dinitrophenol	U	812	ug/kg	154	812 UJ,SV7c
84-66-2	Dibenzofuran	U	406	ug/kg	81.2	406
86-73-7	Diethylphthalate	U	406	ug/kg	81.2	406
7005-72-3	Fluorene	J	14.0	ug/kg	12.2	40.6
534-52-1	4-Chlorophenylphenylether	U	406	ug/kg	81.2	406
100-01-6	2-Methyl-4,6-dinitrophenol	U	406	ug/kg	81.2	406
122-39-4	4-Nitroaniline	U	406	ug/kg	122	406
122-66-7	<i>p</i> -Nitroaniline					
101-55-3	Diphenylamine	U	406	ug/kg	81.2	406
118-74-1	Azobenzene	U	406	ug/kg	81.2	406
85-01-8	1,2-Diphenylhydrazine					
120-12-7	4-Bromophenylphenylether	U	406	ug/kg	81.2	406
84-74-2	Hexachlorobenzene	U	406	ug/kg	81.2	406
206-44-0	Phenanthrene		178	ug/kg	12.2	40.6
85-68-7	Anthracene	J	23.9	ug/kg	8.12	40.6
56-55-3	Di-n-butylphthalate	U	406	ug/kg	81.2	406
91-94-1	Fluoranthene		241	ug/kg	12.2	40.6
218-01-9	Butylbenzylphthalate	U	406	ug/kg	81.2	406
117-81-7	Benzo(a)anthracene		74.9	ug/kg	12.2	40.6
117-84-0	3,3'-Dichlorobenzidine	U	406	ug/kg	122	406
205-99-2	Chrysene		115	ug/kg	12.2	40.6
207-08-9	bis(2-Ethylhexyl)phthalate	U	406	ug/kg	81.2	406 UJ,SV7c
50-32-8	Di-n-octylphthalate	U	406	ug/kg	81.2	406
193-39-5	Benzo(b)fluoranthene		128	ug/kg	12.2	40.6
53-70-3	Benzo(k)fluoranthene		52.8	ug/kg	12.2	40.6
191-24-2	Benzo(a)pyrene		84.5	ug/kg	12.2	40.6
120-82-1	Indeno(1,2,3-cd)pyrene	U	40.6	ug/kg	12.2	40.6 UJ,SV7c
	Dibenzo(a,h)anthracene	U	40.6	ug/kg	12.2	40.6 UJ,SV7c
	Benzo(ghi)perylene		59.6	ug/kg	12.2	40.6 J,SV7c
	1,2,4-Trichlorobenzene	U	406	ug/kg	81.2	406

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
36617-50-2	Heptadecanoic acid, heptadecyl ester	8.8	467	ug/kg	91	NJ
	Unknown	9.02	503	ug/kg		J

LMF  
5/11/10

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506020	Date Received: 03/03/2010 08:50	%Moisture: 18.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7439	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.1	Dilution: 1
Run Date: 03/22/2010 19:57	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s5c2231.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	F/t	Qual
	Unknown	9.05	513	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.1	586	ug/kg	86	NJ
3452-07-1	1-Eicosene	9.45	1110	ug/kg	95	NJ
	Unknown	9.57	574	ug/kg		J
	Unknown	9.75	583	ug/kg		J
	Unknown	9.9	583	ug/kg		J
	Unknown	9.97	514	ug/kg		J
3386-33-2	Octadecane, 1-chloro-	10.09	728	ug/kg	95	NJ
1599-67-3	1-Docosene	10.11	1460	ug/kg	99	NJ
	Unknown	10.16	1170	ug/kg		J
	Unknown	10.25	823	ug/kg		J
62016-76-6	Nonadecane, 1-chloro-	10.45	709	ug/kg	93	NJ
	Unknown	10.49	473	ug/kg		J
	Unknown	10.55	928	ug/kg		J
	Unknown	10.64	751	ug/kg		J
	Unknown	11.16	1930	ug/kg		J
7390-81-0	Oxirane, hexadecyl-	11.58	592	ug/kg	98	NJ
	Unknown	11.94	1860	ug/kg		J
	Unknown	12.11	763	ug/kg		J
	Unknown	12.17	2000	ug/kg		J
	Unknown	12.72	602	ug/kg		J
	Unknown	12.94	1630	ug/kg		J
	Unknown	13.01	725	ug/kg		J
83-47-6	.gamma.-Sitosterol	13.9	1050	ug/kg	92	NJ

LMF  
5/11/10

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506014	Date Received: 03/03/2010 08:50	%Moisture: 8.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7440	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 17:39	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.01 g	Final Volume: 1 mL
Data File: s5c2225.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	363	ug/kg	72.5	363	
108-95-2	Phenol	U	363	ug/kg	72.5	363	
95-57-8	2-Chlorophenol	U	363	ug/kg	72.5	363	
106-46-7	1,4-Dichlorobenzene	U	363	ug/kg	72.5	363	
621-64-7	N-Nitrosodipropylamine	U	363	ug/kg	72.5	363	
59-50-7	4-Chloro-3-methylphenol	U	363	ug/kg	72.5	363	
83-32-9	Accenaphthene	U	36.3	ug/kg	12.0	36.3	
121-14-2	2,4-Dinitrotoluene	U	363	ug/kg	36.3	363	
100-02-7	4-Nitrophenol	U	363	ug/kg	120	363	UJ,SV7c
87-86-5	Pentachlorophenol	U	363	ug/kg	90.7	363	
129-00-0	Pyrene	J	22.3	ug/kg	10.9	36.3	
110-86-1	Pyridine	U	363	ug/kg	72.5	363	UJ,SV7c
62-53-3	Aniline	U	363	ug/kg	109	363	
111-44-4	bis(2-Chloroethyl) ether	U	363	ug/kg	72.5	363	
541-73-1	1,3-Dichlorobenzene	U	363	ug/kg	72.5	363	
100-51-6	Benzyl alcohol	U	363	ug/kg	109	363	
95-50-1	1,2-Dichlorobenzene	U	363	ug/kg	72.5	363	
108-60-1	bis(2-Chloroisopropyl)ether	U	363	ug/kg	72.5	363	
95-48-7	o-Cresol	U	363	ug/kg	72.5	363	
65794-96-9	m,p-Cresols	U	363	ug/kg	109	363	
67-72-1	Hexachloroethane	U	363	ug/kg	72.5	363	
98-95-3	Nitrobenzene	U	363	ug/kg	72.5	363	
78-59-1	Isophorone	U	363	ug/kg	72.5	363	
88-75-5	2-Nitrophenol	U	363	ug/kg	72.5	363	
105-67-9	2,4-Dimethylphenol	U	363	ug/kg	127	363	
111-91-1	bis(2-Chloroethoxy)methane	U	363	ug/kg	72.5	363	
120-83-2	2,4-Dichlorophenol	U	363	ug/kg	72.5	363	
65-85-0	Benzoic acid	U	725	ug/kg	181	725	
91-20-3	Naphthalene	U	36.3	ug/kg	10.9	36.3	
106-47-8	4-Chloroaniline	U	363	ug/kg	72.5	363	
87-68-3	Hexachlorobutadiene	U	363	ug/kg	72.5	363	
91-57-6	2-Methylnaphthalene	U	36.3	ug/kg	7.25	36.3	
77-47-4	Hexachlorocyclopentadiene	U	363	ug/kg	72.5	363	
88-06-2	2,4,6-Trichlorophenol	U	363	ug/kg	72.5	363	
95-95-4	2,4,5-Trichlorophenol	U	363	ug/kg	72.5	363	
91-58-7	2-Chloronaphthalene	U	36.3	ug/kg	12.0	36.3	
88-74-4	2-Nitroaniline	U	363	ug/kg	72.5	363	
	<i>o</i> -Nitroaniline						
99-09-2	3-Nitroaniline	U	363	ug/kg	72.5	363	UJ,SV7c

LMF  
5/11/10

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506014	Date Received: 03/03/2010 08:50	%Moisture: 8.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7440	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 17:39	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.01 g	Final Volume: 1 mL
Data File: s5c2225.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	363	ug/kg	72.5	363
606-20-2	2,6-Dinitrotoluene	U	363	ug/kg	36.3	363
208-96-8	Acenaphthylene	U	36.3	ug/kg	10.9	36.3
51-28-5	2,4-Dinitrophenol	U	725	ug/kg	138	725 UJ,SV7c
132-64-9	Dibenzofuran	U	363	ug/kg	72.5	363
84-66-2	Diethylphthalate	U	363	ug/kg	72.5	363
86-73-7	Fluorene	U	36.3	ug/kg	10.9	36.3
7005-72-3	4-Chlorophenylphenylether	U	363	ug/kg	72.5	363
534-52-1	2-Methyl-4,6-dinitrophenol	U	363	ug/kg	72.5	363
100-01-6	4-Nitroaniline	U	363	ug/kg	109	363
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	363	ug/kg	72.5	363
122-66-7	Azobenzene	U	363	ug/kg	72.5	363
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	363	ug/kg	72.5	363
118-74-1	Hexachlorobenzene	U	363	ug/kg	72.5	363
85-01-8	Phenanthrene	J	15.4	ug/kg	10.9	36.3
120-12-7	Anthracene	U	36.3	ug/kg	7.25	36.3
84-74-2	Di-n-butylphthalate	U	363	ug/kg	72.5	363
206-44-0	Fluoranthene	J	27.0	ug/kg	10.9	36.3
85-68-7	Butylbenzylphthalate	U	363	ug/kg	72.5	363
56-55-3	Benzo(a)anthracene	U	36.3	ug/kg	10.9	36.3
91-94-1	3,3'-Dichlorobenzidine	U	363	ug/kg	109	363
218-01-9	Chrysene	U	36.3	ug/kg	10.9	36.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	363	ug/kg	72.5	363 UJ,SV7c
117-84-0	Di-n-octylphthalate	U	363	ug/kg	72.5	363
205-99-2	Benzo(b)fluoranthene	U	36.3	ug/kg	10.9	36.3
207-08-9	Benzo(k)fluoranthene	U	36.3	ug/kg	10.9	36.3
50-32-8	Benzo(a)pyrene	U	36.3	ug/kg	10.9	36.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.3	ug/kg	10.9	36.3 UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	36.3	ug/kg	10.9	36.3
191-24-2	Benzo(ghi)perylene	U	36.3	ug/kg	10.9	36.3
120-82-1	1,2,4-Trichlorobenzene	U	363	ug/kg	72.5	363

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.07	556	ug/kg		J
7785-70-8	1R-.alpha.-Pinene	3.52	1020	ug/kg	97	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506014	Date Received: 03/03/2010 08:50	%Moisture: 8.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7440	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 17:39	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.01 g	Final Volume: 1 mL
Data File: s5c2225.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
13466-78-9	3-Carene	3.91	877	ug/kg	94	NJ
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.8	1790	ug/kg	99	NJ
1058-61-3	Stigmast-4-en-3-one	8.47	526	ug/kg	93	NJ
	Unknown	8.48	191	ug/kg		J
	Unknown	8.84	152	ug/kg		J
	Unknown	9.02	152	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.1	454	ug/kg	95	NJ
	Unknown	9.14	304	ug/kg		J
	Unknown	9.28	165	ug/kg		J
1599-67-3	1-Docosene	9.45	316	ug/kg	99	NJ
	Unknown	9.51	241	ug/kg		J
62600-05-9	Cedran-diol, 8S,14-	9.75	249	ug/kg	93	NJ
	Unknown	9.96	661	ug/kg		J
	Unknown	10.08	260	ug/kg		J
629-96-9	1-Eicosanol	10.11	329	ug/kg	93	NJ
559-74-0	Friedelan-3-one	10.24	3930	ug/kg	96	NJ
112-95-8	Eicosane	10.85	260	ug/kg	95	NJ
	Unknown	11.64	168	ug/kg		J
	Unknown	11.81	162	ug/kg		J
62016-76-6	Nonadecane, 1-chloro-	11.85	211	ug/kg	95	NJ
	Unknown	11.92	352	ug/kg		J
	Unknown	12.1	200	ug/kg		J
	Unknown	12.15	373	ug/kg		J
	Unknown	12.49	902	ug/kg		J
	Unknown	12.92	241	ug/kg		J
	Unknown	12.99	457	ug/kg		J
	Unknown	13.34	245	ug/kg		J
83-46-5	.beta.-Sitosterol	13.88	638	ug/kg	97	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506016	Date Received: 03/03/2010 08:50	%Moisture: 22.4
Client ID: RE36-10-7441	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 18:25	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2227.d	Aliquot: 30.02 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	429	ug/kg	85.8	429	
108-95-2	Phenol	U	429	ug/kg	85.8	429	
95-57-8	2-Chlorophenol	U	429	ug/kg	85.8	429	
106-46-7	1,4-Dichlorobenzene	U	429	ug/kg	85.8	429	
621-64-7	N-Nitrosodipropylamine	U	429	ug/kg	85.8	429	
59-50-7	4-Chloro-3-methylphenol	U	429	ug/kg	85.8	429	
83-32-9	Acenaphthene	U	42.9	ug/kg	14.2	42.9	
121-14-2	2,4-Dinitrotoluene	U	429	ug/kg	42.9	429	
100-02-7	4-Nitrophenol	U	429	ug/kg	142	429	UJ,SV7c
87-86-5	Pentachlorophenol	U	429	ug/kg	107	429	
129-00-0	Pyrene		58.5	ug/kg	12.9	42.9	
110-86-1	Pyridine	U	429	ug/kg	85.8	429	UJ,SV7c
62-53-3	Aniline	U	429	ug/kg	129	429	
111-44-4	bis(2-Chloroethyl) ether	U	429	ug/kg	85.8	429	
541-73-1	1,3-Dichlorobenzene	U	429	ug/kg	85.8	429	
100-51-6	Benzyl alcohol	U	429	ug/kg	129	429	
95-50-1	1,2-Dichlorobenzene	U	429	ug/kg	85.8	429	
108-60-1	bis(2-Chloroisopropyl)ether	U	429	ug/kg	85.8	429	
95-48-7	o-Cresol	U	429	ug/kg	85.8	429	
65794-96-9	m,p-Cresols	U	429	ug/kg	129	429	
67-72-1	Hexachloroethane	U	429	ug/kg	85.8	429	
98-95-3	Nitrobenzene	U	429	ug/kg	85.8	429	
78-59-1	Isophorone	U	429	ug/kg	85.8	429	
88-75-5	2-Nitrophenol	U	429	ug/kg	85.8	429	
105-67-9	2,4-Dimethylphenol	U	429	ug/kg	150	429	
111-91-1	bis(2-Chloroethoxy)methane	U	429	ug/kg	85.8	429	
120-83-2	2,4-Dichlorophenol	U	429	ug/kg	85.8	429	
65-85-0	Benzoic acid	U	858	ug/kg	215	858	
91-20-3	Naphthalene	U	42.9	ug/kg	12.9	42.9	
106-47-8	4-Chloroaniline	U	429	ug/kg	85.8	429	
87-68-3	Hexachlorobutadiene	U	429	ug/kg	85.8	429	
91-57-6	2-Methylnaphthalene	U	42.9	ug/kg	8.58	42.9	
77-47-4	Hexachlorocyclopentadiene	U	429	ug/kg	85.8	429	
88-06-2	2,4,6-Trichlorophenol	U	429	ug/kg	85.8	429	
95-95-4	2,4,5-Trichlorophenol	U	429	ug/kg	85.8	429	
91-58-7	2-Chloronaphthalene	U	42.9	ug/kg	14.2	42.9	
88-74-4	2-Nitroaniline	U	429	ug/kg	85.8	429	
	<i>o</i> -Nitroaniline						
99-09-2	3-Nitroaniline	U	429	ug/kg	85.8	429	UJ,SV7c

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Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2193  
Lab Sample ID: 248506016

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	429	ug/kg	85.8	429
606-20-2	2,6-Dinitrotoluene	U	429	ug/kg	42.9	429
208-96-8	Acenaphthylene	U	42.9	ug/kg	12.9	42.9
51-28-5	2,4-Dinitrophenol	U	858	ug/kg	163	858 UJ,SV7c
132-64-9	Dibenzofuran	U	429	ug/kg	85.8	429
84-66-2	Diethylphthalate	U	429	ug/kg	85.8	429
86-73-7	Fluorene	U	42.9	ug/kg	12.9	42.9
7005-72-3	4-Chlorophenylphenylether	U	429	ug/kg	85.8	429
534-52-1	2-Methyl-4,6-dinitrophenol	U	429	ug/kg	85.8	429
100-01-6	4-Nitroaniline	U	429	ug/kg	129	429
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	429	ug/kg	85.8	429
122-66-7	Azobenzene	U	429	ug/kg	85.8	429
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	429	ug/kg	85.8	429
118-74-1	Hexachlorobenzene	U	429	ug/kg	85.8	429
85-01-8	Phenanthrene		45.8	ug/kg	12.9	42.9
120-12-7	Anthracene	U	42.9	ug/kg	8.58	42.9
84-74-2	Di-n-butylphthalate	U	429	ug/kg	85.8	429
206-44-0	Fluoranthene		67.3	ug/kg	12.9	42.9
85-68-7	Butylbenzylphthalate	U	429	ug/kg	85.8	429
56-55-3	Benzo(a)anthracene	U	42.9	ug/kg	12.9	42.9
91-94-1	3,3'-Dichlorobenzidine	U	429	ug/kg	129	429
218-01-9	Chrysene	J	32.4	ug/kg	12.9	42.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	429	ug/kg	85.8	429 UJ,SV7c
117-84-0	Di-n-octylphthalate	U	429	ug/kg	85.8	429
205-99-2	Benzo(b)fluoranthene	U	42.9	ug/kg	12.9	42.9
207-08-9	Benzo(k)fluoranthene	U	42.9	ug/kg	12.9	42.9
50-32-8	Benzo(a)pyrene	U	42.9	ug/kg	12.9	42.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.9	ug/kg	12.9	42.9 UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	42.9	ug/kg	12.9	42.9
191-24-2	Benzo(ghi)perylene	U	42.9	ug/kg	12.9	42.9
120-82-1	1,2,4-Trichlorobenzene	U	429	ug/kg	85.8	429

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
103-82-2	Benzeneacetic acid	4.95	494	ug/kg	91	J
52380-33-3	11-Octadecenoic acid, methyl ester	8.14	282	ug/kg	95	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506016	Date Received: 03/03/2010 08:50	%Moisture: 22.4
Client ID: RE36-10-7441	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 18:25	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2227.d	Aliquot: 30.02 g	Final Volume: 1 mL
	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
2885-00-9	1-Octadecanethiol	8.79	337	ug/kg	96	NJ
3779-61-1	1,3,6-Octatriene, 3,7-dimethyl-, (E)-	9.14	447	ug/kg	49	NJ
114614-84-5	1-Cyclohexynonene	9.25	335	ug/kg	78	NJ
3452-07-1	1-Eicosene	9.45	793	ug/kg	93	NJ
	Unknown	9.75	337	ug/kg		J
	Unknown	9.89	291	ug/kg		J
112-95-8	Eicosane	10.08	479	ug/kg	95	NJ
629-96-9	1-Eicosanol	10.11	888	ug/kg	93	NJ
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.15	1220	ug/kg	92	NJ
	Unknown	10.24	528	ug/kg		J
62016-76-6	Nonadecane, 1-chloro-	10.45	362	ug/kg	94	NJ
111-02-4	2,6,10,14,18,22-Tetracosahexaene, 2,6,10	10.55	656	ug/kg	95	NJ
	Unknown	10.63	469	ug/kg		J
	Unknown	10.91	478	ug/kg		J
	Unknown	11.45	452	ug/kg		J
	Unknown	11.81	542	ug/kg		J
	Unknown	11.93	1880	ug/kg		J
	Unknown	12.11	870	ug/kg		J
	Unknown	12.14	562	ug/kg		J
53939-28-9	cis-11-Hexadecenal	12.69	810	ug/kg	83	NJ
	Unknown	12.9	889	ug/kg		J
	Unknown	13	559	ug/kg		J
83-46-5	.beta.-Sitosterol	13.89	1400	ug/kg	96	NJ
	Unknown	14.48	616	ug/kg		J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506017	Date Received: 03/03/2010 08:50	%Moisture: 13.3
Client ID: RE36-10-7442	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 18:48	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2228.d	Aliquot: 30 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	384	ug/kg	76.9	384
108-95-2	Phenol	U	384	ug/kg	76.9	384
95-57-8	2-Chlorophenol	U	384	ug/kg	76.9	384
106-46-7	1,4-Dichlorobenzene	U	384	ug/kg	76.9	384
621-64-7	N-Nitrosodipropylamine	U	384	ug/kg	76.9	384
59-50-7	4-Chloro-3-methylphenol	U	384	ug/kg	76.9	384
83-32-9	Acenaphthene	U	38.4	ug/kg	12.7	38.4
121-14-2	2,4-Dinitrotoluene	U	384	ug/kg	38.4	384
100-02-7	4-Nitrophenol	U	384	ug/kg	127	384 UJ,SV7c
87-86-5	Pentachlorophenol	U	384	ug/kg	96.1	384
129-00-0	Pyrene	U	38.4	ug/kg	11.5	38.4
110-86-1	Pyridine	U	384	ug/kg	76.9	384 UJ,SV7c
62-53-3	Aniline	U	384	ug/kg	115	384
111-44-4	bis(2-Chloroethyl) ether	U	384	ug/kg	76.9	384
541-73-1	1,3-Dichlorobenzene	U	384	ug/kg	76.9	384
100-51-6	Benzyl alcohol	U	384	ug/kg	115	384
95-50-1	1,2-Dichlorobenzene	U	384	ug/kg	76.9	384
108-60-1	bis(2-Chloroisopropyl)ether	U	384	ug/kg	76.9	384
95-48-7	o-Cresol	U	384	ug/kg	76.9	384
65794-96-9	m,p-Cresols	U	384	ug/kg	115	384
67-72-1	Hexachloroethane	U	384	ug/kg	76.9	384
98-95-3	Nitrobenzene	U	384	ug/kg	76.9	384
78-59-1	Isophorone	U	384	ug/kg	76.9	384
88-75-5	2-Nitrophenol	U	384	ug/kg	76.9	384
105-67-9	2,4-Dimethylphenol	U	384	ug/kg	135	384
111-91-1	bis(2-Chloroethoxy)methane	U	384	ug/kg	76.9	384
120-83-2	2,4-Dichlorophenol	U	384	ug/kg	76.9	384
65-85-0	Benzoic acid	U	769	ug/kg	192	769
91-20-3	Naphthalene	U	38.4	ug/kg	11.5	38.4
106-47-8	4-Chloroaniline	U	384	ug/kg	76.9	384
87-68-3	Hexachlorobutadiene	U	384	ug/kg	76.9	384
91-57-6	2-Methylnaphthalene	U	38.4	ug/kg	7.69	38.4
77-47-4	Hexachlorocyclopentadiene	U	384	ug/kg	76.9	384
88-06-2	2,4,6-Trichlorophenol	U	384	ug/kg	76.9	384
95-95-4	2,4,5-Trichlorophenol	U	384	ug/kg	76.9	384
91-58-7	2-Chloronaphthalene	U	38.4	ug/kg	12.7	38.4
88-74-4	2-Nitroaniline	U	384	ug/kg	76.9	384
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	384	ug/kg	76.9	384 UJ,SV7c

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

SDG Number: 10-2193  
Lab Sample ID: 248506017

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 13.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7442  
Batch ID: 963086  
Run Date: 03/22/2010 18:48  
Prep Date: 03/10/2010 12:33  
Data File: s5c2228.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	384	ug/kg	76.9	384
606-20-2	2,6-Dinitrotoluene	U	384	ug/kg	38.4	384
208-96-8	Acenaphthylene	U	38.4	ug/kg	11.5	38.4
51-28-5	2,4-Dinitrophenol	U	769	ug/kg	146	769 UJ,SV7c
132-64-9	Dibenzofuran	U	384	ug/kg	76.9	384
84-66-2	Diethylphthalate	U	384	ug/kg	76.9	384
86-73-7	Fluorene	U	38.4	ug/kg	11.5	38.4
7005-72-3	4-Chlorophenylphenylether	U	384	ug/kg	76.9	384
534-52-1	2-Methyl-4,6-dinitrophenol	U	384	ug/kg	76.9	384
100-01-6	4-Nitroaniline	U	384	ug/kg	115	384
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	384	ug/kg	76.9	384
122-66-7	Azobenzene	U	384	ug/kg	76.9	384
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	384	ug/kg	76.9	384
118-74-1	Hexachlorobenzene	U	384	ug/kg	76.9	384
85-01-8	Phenanthrene	U	38.4	ug/kg	11.5	38.4
120-12-7	Anthracene	U	38.4	ug/kg	7.69	38.4
84-74-2	Di-n-butylphthalate	U	384	ug/kg	76.9	384
206-44-0	Fluoranthene	U	38.4	ug/kg	11.5	38.4
85-68-7	Butylbenzylphthalate	U	384	ug/kg	76.9	384
56-55-3	Benzo(a)anthracene	U	38.4	ug/kg	11.5	38.4
91-94-1	3,3'-Dichlorobenzidine	U	384	ug/kg	115	384
218-01-9	Chrysene	U	38.4	ug/kg	11.5	38.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	384	ug/kg	76.9	384 UJ,SV7c
117-84-0	Di-n-octylphthalate	U	384	ug/kg	76.9	384
205-99-2	Benzo(b)fluoranthene	U	38.4	ug/kg	11.5	38.4
207-08-9	Benzo(k)fluoranthene	U	38.4	ug/kg	11.5	38.4
50-32-8	Benzo(a)pyrene	U	38.4	ug/kg	11.5	38.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.4	ug/kg	11.5	38.4 UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	38.4	ug/kg	11.5	38.4
191-24-2	Benzo(ghi)perylene	U	38.4	ug/kg	11.5	38.4
120-82-1	1,2,4-Trichlorobenzene	U	384	ug/kg	76.9	384

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.08	2040	ug/kg		J
56554-46-2	12-Octadecenoic acid, methyl ester	8.14	382	ug/kg	95	NJ

LMF  
5/11/10

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

SDG Number: 10-2193  
Lab Sample ID: 248506017

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Alliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 13.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.46	412	ug/kg		J
77899-03-7	1-Heneicosyl formate	8.79	308	ug/kg	95	NJ
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.1	326	ug/kg	94	NJ
	Unknown	9.14	342	ug/kg		J
296-56-0	Cycloeoicosane	9.45	842	ug/kg	94	NJ
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	9.79	225	ug/kg	93	NJ
	Unknown	9.89	196	ug/kg		J
	Unknown	9.96	351	ug/kg		J
	Unknown	10.09	359	ug/kg		J
1599-67-3	1-Docosene	10.11	788	ug/kg	95	NJ
	Unknown	10.45	423	ug/kg		J
	Unknown	10.55	346	ug/kg		J
112-95-8	Eicosane	10.85	447	ug/kg	95	NJ
	Unknown	10.91	325	ug/kg		J
	Unknown	11.51	241	ug/kg		J
13360-61-7	1-Pentadecene	11.93	362	ug/kg	89	NJ
	Unknown	12.1	284	ug/kg		J
	Unknown	12.16	422	ug/kg		J
	Unknown	12.44	247	ug/kg		J
	Unknown	12.48	301	ug/kg		J
	Unknown	12.91	483	ug/kg		J
	Unknown	13	298	ug/kg		J
83-47-6	.gamma.-Sitosterol	13.89	976	ug/kg	95	NJ

LMF  
5/11/10

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

SDG Number: 10-2193  
Lab Sample ID: 248506011

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 25.1  
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	444	ug/kg	88.9	444
108-95-2	Phenol	U	444	ug/kg	88.9	444
95-57-8	2-Chlorophenol	U	444	ug/kg	88.9	444
106-46-7	1,4-Dichlorobenzene	U	444	ug/kg	88.9	444
621-64-7	N-Nitrosodipropylamine	U	444	ug/kg	88.9	444
59-50-7	4-Chloro-3-methylphenol	U	444	ug/kg	88.9	444
83-32-9	Acenaphthene	U	44.4	ug/kg	14.7	44.4
121-14-2	2,4-Dinitrotoluene	U	444	ug/kg	44.4	444
100-02-7	4-Nitrophenol	U	444	ug/kg	147	444 UJ,SV7c
87-86-5	Pentachlorophenol	U	444	ug/kg	111	444
129-00-0	Pyrene	U	44.4	ug/kg	13.3	44.4
110-86-1	Pyridine	U	444	ug/kg	88.9	444 UJ,SV7c
62-53-3	Aniline	U	444	ug/kg	133	444
111-44-4	bis(2-Chloroethyl) ether	U	444	ug/kg	88.9	444
541-73-1	1,3-Dichlorobenzene	U	444	ug/kg	88.9	444
100-51-6	Benzyl alcohol	U	444	ug/kg	133	444
95-50-1	1,2-Dichlorobenzene	U	444	ug/kg	88.9	444
108-60-1	bis(2-Chloroisopropyl)ether	U	444	ug/kg	88.9	444
95-48-7	o-Cresol	U	444	ug/kg	88.9	444
65794-96-9	m,p-Cresols	U	444	ug/kg	133	444
67-72-1	Hexachloroethane	U	444	ug/kg	88.9	444
98-95-3	Nitrobenzene	U	444	ug/kg	88.9	444
78-59-1	Isophorone	U	444	ug/kg	88.9	444
88-75-5	2-Nitrophenol	U	444	ug/kg	88.9	444
105-67-9	2,4-Dimethylphenol	U	444	ug/kg	156	444
111-91-1	bis(2-Chloroethoxy)methane	U	444	ug/kg	88.9	444
120-83-2	2,4-Dichlorophenol	U	444	ug/kg	88.9	444
65-85-0	Benzoic acid	U	889	ug/kg	222	889
91-20-3	Naphthalene	U	44.4	ug/kg	13.3	44.4
106-47-8	4-Chloroaniline	U	444	ug/kg	88.9	444
87-68-3	Hexachlorobutadiene	U	444	ug/kg	88.9	444
91-57-6	2-Methylnaphthalene	U	44.4	ug/kg	8.89	44.4
77-47-4	Hexachlorocyclopentadiene	U	444	ug/kg	88.9	444
88-06-2	2,4,6-Trichlorophenol	U	444	ug/kg	88.9	444
95-95-4	2,4,5-Trichlorophenol	U	444	ug/kg	88.9	444
91-58-7	2-Chloronaphthalene	U	44.4	ug/kg	14.7	44.4
88-74-4	2-Nitroaniline	U	444	ug/kg	88.9	444
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	444	ug/kg	88.9	444 UJ,SV7c

LMF  
5/11/10

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506011	Date Received: 03/03/2010 08:50	%Moisture: 25.1
Client ID: RE36-10-7443	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 16:30	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2222.d	Aliquot: 30.05 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	444	ug/kg	88.9	444
606-20-2	2,6-Dinitrotoluene	U	444	ug/kg	44.4	444
208-96-8	Acenaphthylene	U	44.4	ug/kg	13.3	44.4
51-28-5	2,4-Dinitrophenol	U	889	ug/kg	169	889 UJ,SV7c
132-64-9	Dibenzofuran	U	444	ug/kg	88.9	444
84-66-2	Diethylphthalate	U	444	ug/kg	88.9	444
86-73-7	Fluorene	U	44.4	ug/kg	13.3	44.4
7005-72-3	4-Chlorophenylphenylether	U	444	ug/kg	88.9	444
534-52-1	2-Methyl-4,6-dinitrophenol	U	444	ug/kg	88.9	444
100-01-6	4-Nitroaniline	U	444	ug/kg	133	444
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	444	ug/kg	88.9	444
122-66-7	Azobenzene	U	444	ug/kg	88.9	444
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	444	ug/kg	88.9	444
118-74-1	Hexachlorobenzene	U	444	ug/kg	88.9	444
85-01-8	Phenanthrene	U	44.4	ug/kg	13.3	44.4
120-12-7	Anthracene	U	44.4	ug/kg	8.89	44.4
84-74-2	Di-n-butylphthalate	U	444	ug/kg	88.9	444
206-44-0	Fluoranthene	U	44.4	ug/kg	13.3	44.4
85-68-7	Butylbenzylphthalate	U	444	ug/kg	88.9	444
56-55-3	Benzo(a)anthracene	U	44.4	ug/kg	13.3	44.4
91-94-1	3,3'-Dichlorobenzidine	U	444	ug/kg	133	444
218-01-9	Chrysene	U	44.4	ug/kg	13.3	44.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	444	ug/kg	88.9	444 UJ,SV7c
117-84-0	Di-n-octylphthalate	U	444	ug/kg	88.9	444
205-99-2	Benzo(b)fluoranthene	U	44.4	ug/kg	13.3	44.4
207-08-9	Benzo(k)fluoranthene	U	44.4	ug/kg	13.3	44.4
50-32-8	Benzo(a)pyrene	U	44.4	ug/kg	13.3	44.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	44.4	ug/kg	13.3	44.4 UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	44.4	ug/kg	13.3	44.4
191-24-2	Benzo(ghi)perylene	U	44.4	ug/kg	13.3	44.4
120-82-1	1,2,4-Trichlorobenzene	U	444	ug/kg	88.9	444

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
1000131-11-8	Z-5-Nonadecene	9.44	182	ug/kg	95	NJ
112-95-8	Eicosane	10.08	224	ug/kg	98	NJ

LMF  
5/11/10



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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506011	Date Received: 03/03/2010 08:50	%Moisture: 25.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7443	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 16:30	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Allquot: 30.05 g	Final Volume: 1 mL
Data File: s5c2222.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
1599-67-3	1-Docosene	10.11	449	ug/kg	94	NJ
630-03-5	Nonacosane	10.85	447	ug/kg	98	NJ
629-97-0	Docosane	11.85	703	ug/kg	95	NJ
2883-08-1	Cyclohexane, 1,1'-(2-methyl-1,3-propaned	11.92	516	ug/kg	91	NJ
	Unknown	12.09	348	ug/kg		J
	Unknown	12.48	258	ug/kg		J
13183-70-5	Silane, 1,4-phenylenebis(trimethyl-	12.68	273	ug/kg	87	NJ
	Unknown	13.21	415	ug/kg		J
83-46-5	.beta.-Sitosterol	13.87	685	ug/kg	96	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506008	Date Received: 03/03/2010 08:50	%Moisture: 20.6
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7444	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 15:21	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Allquot: 30.05 g	Final Volume: 1 mL
Data File: s5c2219.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	419	ug/kg	83.8	419
108-95-2	Phenol	U	419	ug/kg	83.8	419
95-57-8	2-Chlorophenol	U	419	ug/kg	83.8	419
106-46-7	1,4-Dichlorobenzene	U	419	ug/kg	83.8	419
621-64-7	N-Nitrosodipropylamine	U	419	ug/kg	83.8	419
59-50-7	4-Chloro-3-methylphenol	U	419	ug/kg	83.8	419
83-32-9	Acenaphthene	U	41.9	ug/kg	13.8	41.9
121-14-2	2,4-Dinitrotoluene	U	419	ug/kg	41.9	419
100-02-7	4-Nitrophenol	U	419	ug/kg	138	419 UJ,SV7c
87-86-5	Pentachlorophenol	U	419	ug/kg	105	419
129-00-0	Pyrene	U	41.9	ug/kg	12.6	41.9
110-86-1	Pyridine	U	419	ug/kg	83.8	419 UJ,SV7c
62-53-3	Aniline	U	419	ug/kg	126	419
111-44-4	bis(2-Chloroethyl) ether	U	419	ug/kg	83.8	419
541-73-1	1,3-Dichlorobenzene	U	419	ug/kg	83.8	419
100-51-6	Benzyl alcohol	U	419	ug/kg	126	419
95-50-1	1,2-Dichlorobenzene	U	419	ug/kg	83.8	419
108-60-1	bis(2-Chloroisopropyl)ether	U	419	ug/kg	83.8	419
95-48-7	o-Cresol	U	419	ug/kg	83.8	419
65794-96-9	m,p-Cresols	U	419	ug/kg	126	419
67-72-1	Hexachloroethane	U	419	ug/kg	83.8	419
98-95-3	Nitrobenzene	U	419	ug/kg	83.8	419
78-59-1	Isophorone	U	419	ug/kg	83.8	419
88-75-5	2-Nitrophenol	U	419	ug/kg	83.8	419
105-67-9	2,4-Dimethylphenol	U	419	ug/kg	147	419
111-91-1	bis(2-Chloroethoxy)methane	U	419	ug/kg	83.8	419
120-83-2	2,4-Dichlorophenol	U	419	ug/kg	83.8	419
65-85-0	Benzoic acid	U	838	ug/kg	209	838
91-20-3	Naphthalene	U	41.9	ug/kg	12.6	41.9
106-47-8	4-Chloroaniline	U	419	ug/kg	83.8	419
87-68-3	Hexachlorobutadiene	U	419	ug/kg	83.8	419
91-57-6	2-Methylnaphthalene	U	41.9	ug/kg	8.38	41.9
77-47-4	Hexachlorocyclopentadiene	U	419	ug/kg	83.8	419
88-06-2	2,4,6-Trichlorophenol	U	419	ug/kg	83.8	419
95-95-4	2,4,5-Trichlorophenol	U	419	ug/kg	83.8	419
91-58-7	2-Chloronaphthalene	U	41.9	ug/kg	13.8	41.9
88-74-4	2-Nitroaniline	U	419	ug/kg	83.8	419
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	419	ug/kg	83.8	419 UJ,SV7c

LMF  
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Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506008	Date Received: 03/03/2010 08:50	%Moisture: 20.6
Client ID: RE36-10-7444	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 15:21	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2219.d	Aliquot: 30.05 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	419	ug/kg	83.8	419
606-20-2	2,6-Dinitrotoluene	U	419	ug/kg	41.9	419
208-96-8	Acenaphthylene	U	41.9	ug/kg	12.6	41.9
51-28-5	2,4-Dinitrophenol	U	838	ug/kg	159	838 UJ,SV7c
132-64-9	Dibenzofuran	U	419	ug/kg	83.8	419
84-66-2	Diethylphthalate	U	419	ug/kg	83.8	419
86-73-7	Fluorene	U	41.9	ug/kg	12.6	41.9
7005-72-3	4-Chlorophenylphenylether	U	419	ug/kg	83.8	419
534-52-1	2-Methyl-4,6-dinitrophenol	U	419	ug/kg	83.8	419
100-01-6	4-Nitroaniline	U	419	ug/kg	126	419
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	419	ug/kg	83.8	419
122-66-7	Azobenzene	U	419	ug/kg	83.8	419
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	419	ug/kg	83.8	419
118-74-1	Hexachlorobenzene	U	419	ug/kg	83.8	419
85-01-8	Phenanthrene	U	41.9	ug/kg	12.6	41.9
120-12-7	Anthracene	U	41.9	ug/kg	8.38	41.9
84-74-2	Di-n-butylphthalate	U	419	ug/kg	83.8	419
206-44-0	Fluoranthene	U	41.9	ug/kg	12.6	41.9
85-68-7	Butylbenzylphthalate	U	419	ug/kg	83.8	419
56-55-3	Benzo(a)anthracene	U	41.9	ug/kg	12.6	41.9
91-94-1	3,3'-Dichlorobenzidine	U	419	ug/kg	126	419
218-01-9	Chrysene	U	41.9	ug/kg	12.6	41.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	419	ug/kg	83.8	419 UJ,SV7c
117-84-0	Di-n-octylphthalate	U	419	ug/kg	83.8	419
205-99-2	Benzo(b)fluoranthene	U	41.9	ug/kg	12.6	41.9
207-08-9	Benzo(k)fluoranthene	U	41.9	ug/kg	12.6	41.9
50-32-8	Benzo(a)pyrene	U	41.9	ug/kg	12.6	41.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.9	ug/kg	12.6	41.9 UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	41.9	ug/kg	12.6	41.9
191-24-2	Benzo(ghi)perylene	U	41.9	ug/kg	12.6	41.9
120-82-1	1,2,4-Trichlorobenzene	U	419	ug/kg	83.8	419

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.98	210	ug/kg		JA
7785-70-8	1R-.alpha.-Pinene	3.52	202	ug/kg	97	NJ

LMF  
5/11/10

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506008	Date Received: 03/03/2010 08:50	%Moisture: 20.6
Client ID: RE36-10-7444	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 15:21	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2219.d	Aliquot: 30.05 g	Final Volume: 1 mL
	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
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.8	327	ug/kg	98	NJ
1058-61-3	Stigmast-4-en-3-one	8.42	350	ug/kg	97	NJ
58-22-0	Androst-4-en-3-one, 17-hydroxy-, (17.bet	8.45	223	ug/kg	92	NJ
	Unknown	9.14	181	ug/kg		J
6971-40-0	17-Pentatriacontene	9.44	209	ug/kg	93	NJ
34315-85-0	Naphthalene, decahydro-1,6-dimethyl-4-(1	9.91	464	ug/kg	83	NJ
	Unknown	9.93	239	ug/kg		J
5085-72-3	D:A-Friedooleanan-3-ol, (3.alpha.)-	9.95	539	ug/kg	87	NJ
629-96-9	1-Eicosanol	10.1	494	ug/kg	90	NJ
559-74-0	Friedelan-3-one	10.17	1850	ug/kg	99	NJ
	Unknown	10.85	274	ug/kg		J
56221-91-1	13-Tetradecen-1-ol acetate	10.89	176	ug/kg	96	NJ
112-95-8	Eicosane	11.85	224	ug/kg	96	NJ
2883-08-1	Cyclohexane, 1,1'-(2-methyl-1,3-propaned	11.92	326	ug/kg	86	NJ
	Unknown	12.1	758	ug/kg		J
	Unknown	12.87	287	ug/kg		J
	Unknown	12.99	260	ug/kg		J
	Unknown	13.17	181	ug/kg		J
	Unknown	13.35	256	ug/kg		J
83-46-5	.beta.-Sitosterol	13.87	784	ug/kg	96	NJ

LMF  
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Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506006	Date Received: 03/03/2010 08:50	%Moisture: 25.6
Client ID: RE36-10-7445	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 14:35	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2217.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	448	ug/kg	89.6	448
108-95-2	Phenol	U	448	ug/kg	89.6	448
95-57-8	2-Chlorophenol	U	448	ug/kg	89.6	448
106-46-7	1,4-Dichlorobenzene	U	448	ug/kg	89.6	448
621-64-7	N-Nitrosodipropylamine	U	448	ug/kg	89.6	448
59-50-7	4-Chloro-3-methylphenol	U	448	ug/kg	89.6	448
83-32-9	Acenaphthene	U	44.8	ug/kg	14.8	44.8
121-14-2	2,4-Dinitrotoluene	U	448	ug/kg	44.8	448
100-02-7	4-Nitrophenol	U	448	ug/kg	148	448 UJ,SV7c
87-86-5	Pentachlorophenol	U	448	ug/kg	112	448
129-00-0	Pyrene	J	43.8	ug/kg	13.4	44.8
110-86-1	Pyridine	U	448	ug/kg	89.6	448 UJ,SV7c
62-53-3	Aniline	U	448	ug/kg	134	448
111-44-4	bis(2-Chloroethyl) ether	U	448	ug/kg	89.6	448
541-73-1	1,3-Dichlorobenzene	U	448	ug/kg	89.6	448
100-51-6	Benzyl alcohol	U	448	ug/kg	134	448
95-50-1	1,2-Dichlorobenzene	U	448	ug/kg	89.6	448
108-60-1	bis(2-Chloroisopropyl)ether	U	448	ug/kg	89.6	448
95-48-7	o-Cresol	U	448	ug/kg	89.6	448
65794-96-9	m,p-Cresols	U	448	ug/kg	134	448
67-72-1	Hexachloroethane	U	448	ug/kg	89.6	448
98-95-3	Nitrobenzene	U	448	ug/kg	89.6	448
78-59-1	Isophorone	U	448	ug/kg	89.6	448
88-75-5	2-Nitrophenol	U	448	ug/kg	89.6	448
105-67-9	2,4-Dimethylphenol	U	448	ug/kg	157	448
111-91-1	bis(2-Chloroethoxy)methane	U	448	ug/kg	89.6	448
120-83-2	2,4-Dichlorophenol	U	448	ug/kg	89.6	448
65-85-0	Benzoic acid	J	602	ug/kg	224	896
91-20-3	Naphthalene	U	44.8	ug/kg	13.4	44.8
106-47-8	4-Chloroaniline	U	448	ug/kg	89.6	448
87-68-3	Hexachlorobutadiene	U	448	ug/kg	89.6	448
91-57-6	2-Methylnaphthalene	U	44.8	ug/kg	8.96	44.8
77-47-4	Hexachlorocyclopentadiene	U	448	ug/kg	89.6	448
88-06-2	2,4,6-Trichlorophenol	U	448	ug/kg	89.6	448
95-95-4	2,4,5-Trichlorophenol	U	448	ug/kg	89.6	448
91-58-7	2-Chloronaphthalene	U	44.8	ug/kg	14.8	44.8
88-74-4	2-Nitroaniline	U	448	ug/kg	89.6	448
	<i>o-Nitroaniline</i>					
99-09-2	3-Nitroaniline	U	448	ug/kg	89.6	448 UJ,SV7c

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506006	Date Received: 03/03/2010 08:50	%Moisture: 25.6
Client ID: RE36-10-7445	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 14:35	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2217.d	Allquot: 30.01 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	448	ug/kg	89.6	448
606-20-2	2,6-Dinitrotoluene	U	448	ug/kg	44.8	448
208-96-8	Acenaphthylene	U	44.8	ug/kg	13.4	44.8
51-28-5	2,4-Dinitrophenol	U	896	ug/kg	170	896 UJ,SV7c
132-64-9	Dibenzofuran	U	448	ug/kg	89.6	448
84-66-2	Diethylphthalate	U	448	ug/kg	89.6	448
86-73-7	Fluorene	U	44.8	ug/kg	13.4	44.8
7005-72-3	4-Chlorophenylphenylether	U	448	ug/kg	89.6	448
534-52-1	2-Methyl-4,6-dinitrophenol	U	448	ug/kg	89.6	448
100-01-6	4-Nitroaniline	U	448	ug/kg	134	448
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	448	ug/kg	89.6	448
122-66-7	Azobenzene	U	448	ug/kg	89.6	448
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	448	ug/kg	89.6	448
118-74-1	Hexachlorobenzene	U	448	ug/kg	89.6	448
85-01-8	Phenanthrene	J	32.2	ug/kg	13.4	44.8
120-12-7	Anthracene	U	44.8	ug/kg	8.96	44.8
84-74-2	Di-n-butylphthalate	U	448	ug/kg	89.6	448
206-44-0	Fluoranthene		57.4	ug/kg	13.4	44.8
85-68-7	Butylbenzylphthalate	U	448	ug/kg	89.6	448
56-55-3	Benzo(a)anthracene	J	27.0	ug/kg	13.4	44.8
91-94-1	3,3'-Dichlorobenzidine	U	448	ug/kg	134	448
218-01-9	Chrysene	J	28.8	ug/kg	13.4	44.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	448	ug/kg	89.6	448 UJ,SV7c
117-84-0	Di-n-octylphthalate	U	448	ug/kg	89.6	448
205-99-2	Benzo(b)fluoranthene	U	44.8	ug/kg	13.4	44.8
207-08-9	Benzo(k)fluoranthene	U	44.8	ug/kg	13.4	44.8
50-32-8	Benzo(a)pyrene	U	44.8	ug/kg	13.4	44.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	44.8	ug/kg	13.4	44.8 UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	44.8	ug/kg	13.4	44.8
191-24-2	Benzo(ghi)perylene	U	44.8	ug/kg	13.4	44.8
120-82-1	1,2,4-Trichlorobenzene	U	448	ug/kg	89.6	448

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	3.21	529	ug/kg		J
7785-70-8	1R-.alpha.-Pinene	3.52	507	ug/kg	98	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506006	Date Received: 03/03/2010 08:50	%Moisture: 25.6
Client ID: RE36-10-7445	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 14:35	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2217.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
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
13466-78-9	3-Carene	3.9	477	ug/kg	95	NJ
103-82-2	Benzeneacetic acid	4.94	363	ug/kg	91	NJ
56599-58-7	8,11-Octadecadienoic acid, methyl ester	8.12	301	ug/kg	91	NJ
1000155-85-3	Cyclohexadecane, 1,2-diethyl-	8.78	283	ug/kg	97	NJ
	Unknown	9.04	209	ug/kg		J
3386-33-2	Octadecane, 1-chloro-	9.12	252	ug/kg	80	NJ
638-66-4	Octadecanal	9.24	212	ug/kg	95	NJ
1599-67-3	1-Docosene	9.44	732	ug/kg	98	NJ
	Unknown	9.57	262	ug/kg		J
629-78-7	Heptadecane	9.75	304	ug/kg	94	NJ
1000130-84-8	(S)(+)-Z-13-Methyl-11-pentadecen-1-ol ac	9.89	284	ug/kg	86	NJ
	Unknown	9.95	266	ug/kg		J
27519-02-4	9-Tricosene, (Z)-	10.1	1910	ug/kg	94	NJ
	Unknown	10.24	357	ug/kg		J
	Unknown	10.3	271	ug/kg		J
62016-76-6	Nonadecane, 1-chloro-	10.45	329	ug/kg	86	NJ
	Unknown	10.54	424	ug/kg		J
	Unknown	10.89	418	ug/kg		J
	Unknown	11.8	363	ug/kg		J
112-95-8	Eicosane	11.85	384	ug/kg	92	NJ
	Unknown	11.92	1690	ug/kg		J
	Unknown	12.1	480	ug/kg		J
	Unknown	12.68	544	ug/kg		J
	Unknown	12.98	779	ug/kg		J
83-47-6	.gamma.-Sitosterol	13.88	1960	ug/kg	99	NJ
	Unknown	14.31	775	ug/kg		J
	Unknown	14.46	837	ug/kg		J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506010	Date Received: 03/03/2010 08:50	%Moisture: 28.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7447	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 16:07	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30 g	Final Volume: 1 mL
Data File: s5c2221.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	466	ug/kg	93.2	466
108-95-2	Phenol	U	466	ug/kg	93.2	466
95-57-8	2-Chlorophenol	U	466	ug/kg	93.2	466
106-46-7	1,4-Dichlorobenzene	U	466	ug/kg	93.2	466
621-64-7	N-Nitrosodipropylamine	U	466	ug/kg	93.2	466
59-50-7	4-Chloro-3-methylphenol	U	466	ug/kg	93.2	466
83-32-9	Acenaphthene	U	46.6	ug/kg	15.4	46.6
121-14-2	2,4-Dinitrotoluene	U	466	ug/kg	46.6	466
100-02-7	4-Nitrophenol	U	466	ug/kg	154	466 UJ,SV7c
87-86-5	Pentachlorophenol	U	466	ug/kg	117	466
129-00-0	Pyrene	U	46.6	ug/kg	14.0	46.6
110-86-1	Pyridine	U	466	ug/kg	93.2	466 UJ,SV7c
62-53-3	Aniline	U	466	ug/kg	140	466
111-44-4	bis(2-Chloroethyl) ether	U	466	ug/kg	93.2	466
541-73-1	1,3-Dichlorobenzene	U	466	ug/kg	93.2	466
100-51-6	Benzyl alcohol	U	466	ug/kg	140	466
95-50-1	1,2-Dichlorobenzene	U	466	ug/kg	93.2	466
108-60-1	bis(2-Chloroisopropyl)ether	U	466	ug/kg	93.2	466
95-48-7	o-Cresol	U	466	ug/kg	93.2	466
65794-96-9	m,p-Cresols	U	466	ug/kg	140	466
67-72-1	Hexachloroethane	U	466	ug/kg	93.2	466
98-95-3	Nitrobenzene	U	466	ug/kg	93.2	466
78-59-1	Isophorone	U	466	ug/kg	93.2	466
88-75-5	2-Nitrophenol	U	466	ug/kg	93.2	466
105-67-9	2,4-Dimethylphenol	U	466	ug/kg	163	466
111-91-1	bis(2-Chloroethoxy)methane	U	466	ug/kg	93.2	466
120-83-2	2,4-Dichlorophenol	U	466	ug/kg	93.2	466
65-85-0	Benzoic acid	U	932	ug/kg	233	932
91-20-3	Naphthalene	U	46.6	ug/kg	14.0	46.6
106-47-8	4-Chloroaniline	U	466	ug/kg	93.2	466
87-68-3	Hexachlorobutadiene	U	466	ug/kg	93.2	466
91-57-6	2-Methylnaphthalene	U	46.6	ug/kg	9.32	46.6
77-47-4	Hexachlorocyclopentadiene	U	466	ug/kg	93.2	466
88-06-2	2,4,6-Trichlorophenol	U	466	ug/kg	93.2	466
95-95-4	2,4,5-Trichlorophenol	U	466	ug/kg	93.2	466
91-58-7	2-Chloronaphthalene	U	46.6	ug/kg	15.4	46.6
88-74-4	2-Nitroaniline	U	466	ug/kg	93.2	466
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	466	ug/kg	93.2	466 UJ,SV7c

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

SDG Number: 10-2193

Lab Sample ID: 248506010

Client ID: RE36-10-7447

Batch ID: 963086

Run Date: 03/22/2010 16:07

Prep Date: 03/10/2010 12:33

Data File: s5c2221.d

Date Collected: 02/25/2010 12:00

Date Received: 03/03/2010 08:50

Client: LANL010

Method: SW846 8270C

Inst: MSD5.I

Analyst: RMB

Allquot: 30 g

Column: J&amp;W DB-5MS

Matrix: R

%Moisture: 28.5

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	466	ug/kg	93.2	466
606-20-2	2,6-Dinitrotoluene	U	466	ug/kg	46.6	466
208-96-8	Acenaphthylene	U	46.6	ug/kg	14.0	46.6
51-28-5	2,4-Dinitrophenol	U	932	ug/kg	177	932 UJ,SV7c
132-64-9	Dibenzofuran	U	466	ug/kg	93.2	466
84-66-2	Diethylphthalate	U	466	ug/kg	93.2	466
86-73-7	Fluorene	U	46.6	ug/kg	14.0	46.6
7005-72-3	4-Chlorophenylphenylether	U	466	ug/kg	93.2	466
534-52-1	2-Methyl-4,6-dinitrophenol	U	466	ug/kg	93.2	466
100-01-6	4-Nitroaniline	U	466	ug/kg	140	466
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	466	ug/kg	93.2	466
122-66-7	Azobenzene	U	466	ug/kg	93.2	466
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	466	ug/kg	93.2	466
118-74-1	Hexachlorobenzene	U	466	ug/kg	93.2	466
85-01-8	Phenanthrene	U	46.6	ug/kg	14.0	46.6
120-12-7	Anthracene	U	46.6	ug/kg	9.32	46.6
84-74-2	Di-n-butylphthalate	U	466	ug/kg	93.2	466
206-44-0	Fluoranthene	U	46.6	ug/kg	14.0	46.6
85-68-7	Butylbenzylphthalate	U	466	ug/kg	93.2	466
56-55-3	Benzo(a)anthracene	U	46.6	ug/kg	14.0	46.6
91-94-1	3,3'-Dichlorobenzidine	U	466	ug/kg	140	466
218-01-9	Chrysene	U	46.6	ug/kg	14.0	46.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	466	ug/kg	93.2	466 UJ,SV7c
117-84-0	Di-n-octylphthalate	U	466	ug/kg	93.2	466
205-99-2	Benzo(b)fluoranthene	U	46.6	ug/kg	14.0	46.6
207-08-9	Benzo(k)fluoranthene	U	46.6	ug/kg	14.0	46.6
50-32-8	Benzo(a)pyrene	U	46.6	ug/kg	14.0	46.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	46.6	ug/kg	14.0	46.6 UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	46.6	ug/kg	14.0	46.6
191-24-2	Benzo(ghi)perylene	U	46.6	ug/kg	14.0	46.6
120-82-1	1,2,4-Trichlorobenzene	U	466	ug/kg	93.2	466

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.98	200	ug/kg		JA
	Unknown	3.71	227	ug/kg		J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506010	Date Received: 03/03/2010 08:50	%Moisture: 28.5
Client ID: RE36-10-7447	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 16:07	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2221.d	Aliquot: 30 g	Final Volume: 1 mL
	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	9.44	223	ug/kg		J
559-74-0	Friedelan-3-one	10.15	1630	ug/kg	95	NJ
112-95-8	Eicosane	10.85	188	ug/kg	97	NJ
	Unknown	11.92	573	ug/kg		J
	Unknown	12.42	305	ug/kg		J
	Unknown	12.68	283	ug/kg		J
	Unknown	12.99	242	ug/kg		J
83-46-5	.beta.-Sitosterol	13.87	592	ug/kg	96	NJ

LMF  
5/11/10

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

SDG Number: 10-2193  
Lab Sample ID: 248506009

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.04 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 17.5  
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	403	ug/kg	80.7	403
108-95-2	Phenol	U	403	ug/kg	80.7	403
95-57-8	2-Chlorophenol	U	403	ug/kg	80.7	403
106-46-7	1,4-Dichlorobenzene	U	403	ug/kg	80.7	403
621-64-7	N-Nitrosodipropylamine	U	403	ug/kg	80.7	403
59-50-7	4-Chloro-3-methylphenol	U	403	ug/kg	80.7	403
83-32-9	Acenaphthene	U	40.3	ug/kg	13.3	40.3
121-14-2	2,4-Dinitrotoluene	U	403	ug/kg	40.3	403
100-02-7	4-Nitrophenol	U	403	ug/kg	133	403 UJ,SV7c
87-86-5	Pentachlorophenol	U	403	ug/kg	101	403
129-00-0	Pyrene	U	40.3	ug/kg	12.1	40.3
110-86-1	Pyridine	U	403	ug/kg	80.7	403 UJ,SV7c
62-53-3	Aniline	U	403	ug/kg	121	403
111-44-4	bis(2-Chloroethyl) ether	U	403	ug/kg	80.7	403
541-73-1	1,3-Dichlorobenzene	U	403	ug/kg	80.7	403
100-51-6	Benzyl alcohol	U	403	ug/kg	121	403
95-50-1	1,2-Dichlorobenzene	U	403	ug/kg	80.7	403
108-60-1	bis(2-Chloroisopropyl)ether	U	403	ug/kg	80.7	403
95-48-7	o-Cresol	U	403	ug/kg	80.7	403
65794-96-9	m,p-Cresols	U	403	ug/kg	121	403
67-72-1	Hexachloroethane	U	403	ug/kg	80.7	403
98-95-3	Nitrobenzene	U	403	ug/kg	80.7	403
78-59-1	Isophorone	U	403	ug/kg	80.7	403
88-75-5	2-Nitrophenol	U	403	ug/kg	80.7	403
105-67-9	2,4-Dimethylphenol	U	403	ug/kg	141	403
111-91-1	bis(2-Chloroethoxy)methane	U	403	ug/kg	80.7	403
120-83-2	2,4-Dichlorophenol	U	403	ug/kg	80.7	403
65-85-0	Benzoic acid	U	807	ug/kg	202	807
91-20-3	Naphthalene	U	40.3	ug/kg	12.1	40.3
106-47-8	4-Chloroaniline	U	403	ug/kg	80.7	403
87-68-3	Hexachlorobutadiene	U	403	ug/kg	80.7	403
91-57-6	2-Methylnaphthalene	U	40.3	ug/kg	8.07	40.3
77-47-4	Hexachlorocyclopentadiene	U	403	ug/kg	80.7	403
88-06-2	2,4,6-Trichlorophenol	U	403	ug/kg	80.7	403
95-95-4	2,4,5-Trichlorophenol	U	403	ug/kg	80.7	403
91-58-7	2-Chloronaphthalene	U	40.3	ug/kg	13.3	40.3
88-74-4	2-Nitroaniline	U	403	ug/kg	80.7	403
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	403	ug/kg	80.7	403 UJ,SV7c

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506009	Date Received: 03/03/2010 08:50	%Moisture: 17.5
Client ID: RE36-10-7448	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 15:44	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2220.d	Aliquot: 30.04 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	403	ug/kg	80.7	403
606-20-2	2,6-Dinitrotoluene	U	403	ug/kg	40.3	403
208-96-8	Acenaphthylene	U	40.3	ug/kg	12.1	40.3
51-28-5	2,4-Dinitrophenol	U	807	ug/kg	153	807 UJ,SV7c
132-64-9	Dibenzofuran	U	403	ug/kg	80.7	403
84-66-2	Diethylphthalate	U	403	ug/kg	80.7	403
86-73-7	Fluorene	U	40.3	ug/kg	12.1	40.3
7005-72-3	4-Chlorophenylphenylether	U	403	ug/kg	80.7	403
534-52-1	2-Methyl-4,6-dinitrophenol	U	403	ug/kg	80.7	403
100-01-6	4-Nitroaniline	U	403	ug/kg	121	403
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	403	ug/kg	80.7	403
122-66-7	Azobenzene	U	403	ug/kg	80.7	403
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	403	ug/kg	80.7	403
118-74-1	Hexachlorobenzene	U	403	ug/kg	80.7	403
85-01-8	Phenanthrene	U	40.3	ug/kg	12.1	40.3
120-12-7	Anthracene	U	40.3	ug/kg	8.07	40.3
84-74-2	Di-n-butylphthalate	U	403	ug/kg	80.7	403
206-44-0	Fluoranthene	U	40.3	ug/kg	12.1	40.3
85-68-7	Butylbenzylphthalate	U	403	ug/kg	80.7	403
56-55-3	Benzo(a)anthracene	U	40.3	ug/kg	12.1	40.3
91-94-1	3,3'-Dichlorobenzidine	U	403	ug/kg	121	403
218-01-9	Chrysene	U	40.3	ug/kg	12.1	40.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	403	ug/kg	80.7	403 UJ,SV7c
117-84-0	Di-n-octylphthalate	U	403	ug/kg	80.7	403
205-99-2	Benzo(b)fluoranthene	U	40.3	ug/kg	12.1	40.3
207-08-9	Benzo(k)fluoranthene	U	40.3	ug/kg	12.1	40.3
50-32-8	Benzo(a)pyrene	U	40.3	ug/kg	12.1	40.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.3	ug/kg	12.1	40.3 UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	40.3	ug/kg	12.1	40.3
191-24-2	Benzo(ghi)perylene	U	40.3	ug/kg	12.1	40.3
120-82-1	1,2,4-Trichlorobenzene	U	403	ug/kg	80.7	403

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.98	241	ug/kg		JA
3452-07-1	1-Eicosene	9.44	236	ug/kg	90	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506009	Date Received: 03/03/2010 08:50	%Moisture: 17.5
Client ID: RE36-10-7448	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 15:44	Inst: MSD5.1	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2220.d	Allquot: 30.04 g	Final Volume: 1 mL
	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	Flt	Qual
112-95-8	Eicosane	10.85	167	ug/kg	96	NJ
	Unknown	11.92	175	ug/kg		J
	Unknown	12.09	432	ug/kg		J
	Unknown	12.69	237	ug/kg		J
	Unknown	12.87	454	ug/kg		J
	Unknown	12.98	189	ug/kg		J
4651-51-8	Ergost-5-en-3-ol, (3.beta.)-	13.17	278	ug/kg	90	NJ
83-46-5	.beta.-Sitosterol	13.87	767	ug/kg	96	NJ
	Unknown	14.47	279	ug/kg		J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506005	Date Received: 03/03/2010 08:50	%Moisture: 17.8
Client ID: RE36-10-7449	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 14:13	Inst: MSD5.I	Dilution: 10
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2216.d	Aliquot: 30 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	4060	ug/kg	811	4060
108-95-2	Phenol	U	4060	ug/kg	811	4060
95-57-8	2-Chlorophenol	U	4060	ug/kg	811	4060
106-46-7	1,4-Dichlorobenzene	U	4060	ug/kg	811	4060
621-64-7	N-Nitrosodipropylamine	U	4060	ug/kg	811	4060
59-50-7	4-Chloro-3-methylphenol	U	4060	ug/kg	811	4060
83-32-9	Acenaphthene	U	406	ug/kg	134	406
121-14-2	2,4-Dinitrotoluene	U	4060	ug/kg	406	4060
100-02-7	4-Nitrophenol	U	4060	ug/kg	1340	4060 UJ,SV7c
87-86-5	Pentachlorophenol	U	4060	ug/kg	1010	4060
129-00-0	Pyrene	U	406	ug/kg	122	406
110-86-1	Pyridine	U	4060	ug/kg	811	4060 UJ,SV7c
62-53-3	Aniline	U	4060	ug/kg	1220	4060
111-44-4	bis(2-Chloroethyl) ether	U	4060	ug/kg	811	4060
541-73-1	1,3-Dichlorobenzene	U	4060	ug/kg	811	4060
100-51-6	Benzyl alcohol	U	4060	ug/kg	1220	4060
95-50-1	1,2-Dichlorobenzene	U	4060	ug/kg	811	4060
108-60-1	bis(2-Chloroisopropyl) ether	U	4060	ug/kg	811	4060
95-48-7	o-Cresol	U	4060	ug/kg	811	4060
65794-96-9	m,p-Cresols	U	4060	ug/kg	1220	4060
67-72-1	Hexachloroethane	U	4060	ug/kg	811	4060
98-95-3	Nitrobenzene	U	4060	ug/kg	811	4060
78-59-1	Isophorone	U	4060	ug/kg	811	4060
88-75-5	2-Nitrophenol	U	4060	ug/kg	811	4060
105-67-9	2,4-Dimethylphenol	U	4060	ug/kg	1420	4060
111-91-1	bis(2-Chloroethoxy)methane	U	4060	ug/kg	811	4060
120-83-2	2,4-Dichlorophenol	U	4060	ug/kg	811	4060
65-85-0	Benzoic acid	U	8110	ug/kg	2030	8110
91-20-3	Naphthalene	U	406	ug/kg	122	406
106-47-8	4-Chloroaniline	U	4060	ug/kg	811	4060
87-68-3	Hexachlorobutadiene	U	4060	ug/kg	811	4060
91-57-6	2-Methylnaphthalene	U	406	ug/kg	81.1	406
77-47-4	Hexachlorocyclopentadiene	U	4060	ug/kg	811	4060
88-06-2	2,4,6-Trichlorophenol	U	4060	ug/kg	811	4060
95-95-4	2,4,5-Trichlorophenol	U	4060	ug/kg	811	4060
91-58-7	2-Chloronaphthalene	U	406	ug/kg	134	406
88-74-4	2-Nitroaniline	U	4060	ug/kg	811	4060
	<i>o-Nitroaniline</i>					
99-09-2	3-Nitroaniline	U	4060	ug/kg	811	4060 UJ,SV7c

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Certificate of Analysis  
Sample Summary

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506005	Date Received: 03/03/2010 08:50	%Moisture: 17.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7449	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 10
Run Date: 03/22/2010 14:13	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30 g	Final Volume: 1 mL
Data File: s5c2216.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	4060	ug/kg	811	4060
606-20-2	2,6-Dinitrotoluene	U	4060	ug/kg	406	4060
208-96-8	Acenaphthylene	U	406	ug/kg	122	406
51-28-5	2,4-Dinitrophenol	U	8110	ug/kg	1540	8110 UJ,SV7c
132-64-9	Dibenzofuran	U	4060	ug/kg	811	4060
84-66-2	Diethylphthalate	U	4060	ug/kg	811	4060
86-73-7	Fluorene	U	406	ug/kg	122	406
7005-72-3	4-Chlorophenylphenylether	U	4060	ug/kg	811	4060
534-52-1	2-Methyl-4,6-dinitrophenol	U	4060	ug/kg	811	4060
100-01-6	4-Nitroaniline	U	4060	ug/kg	1220	4060
122-39-4	<i>p</i> -Nitroaniline Diphenylamine	U	4060	ug/kg	811	4060
122-66-7	Azobenzene	U	4060	ug/kg	811	4060
101-55-3	1,2-Diphenylhydrazine 4-Bromophenylphenylether	U	4060	ug/kg	811	4060
118-74-1	Hexachlorobenzene	U	4060	ug/kg	811	4060
85-01-8	Phenanthrene	U	406	ug/kg	122	406
120-12-7	Anthracene	U	406	ug/kg	81.1	406
84-74-2	Di-n-butylphthalate	U	4060	ug/kg	811	4060
206-44-0	Fluoranthene	U	406	ug/kg	122	406
85-68-7	Butylbenzylphthalate	U	4060	ug/kg	811	4060
56-55-3	Benzo(a)anthracene	U	406	ug/kg	122	406
91-94-1	3,3'-Dichlorobenzidine	U	4060	ug/kg	1220	4060
218-01-9	Chrysene	U	406	ug/kg	122	406
117-81-7	bis(2-Ethylhexyl)phthalate	U	4060	ug/kg	811	4060 UJ,SV7c
117-84-0	Di-n-octylphthalate	U	4060	ug/kg	811	4060
205-99-2	Benzo(b)fluoranthene	U	406	ug/kg	122	406
207-08-9	Benzo(k)fluoranthene	U	406	ug/kg	122	406
50-32-8	Benzo(a)pyrene	U	406	ug/kg	122	406
193-39-5	Indeno(1,2,3-cd)pyrene	U	406	ug/kg	122	406 UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	406	ug/kg	122	406
191-24-2	Benzo(ghi)perylene	U	406	ug/kg	122	406
120-82-1	1,2,4-Trichlorobenzene	U	4060	ug/kg	811	4060

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
4358-59-2	2-Butenoic acid, methyl ester, (Z)-	2.3	2790	ug/kg	80	NJ
7785-70-8	IR- $\alpha$ -Pinene	3.52	30300	ug/kg	97	NJ

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

SDG Number: 10-2193  
Lab Sample ID: 248506005

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 17.8  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 10  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
3479-89-8	1,3,5-Cycloheptatriene, 3,7,7-trimethyl-	3.72	3340	ug/kg	95	NJ
7785-26-4	1S-.alpha.-Pinene	3.91	8940	ug/kg	95	NJ
535-77-3	Benzene, 1-methyl-3-(1-methylethyl)-	3.97	1920	ug/kg	95	NJ
	Unknown	4.58	4970	ug/kg		J
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.8	7600	ug/kg	99	NJ
1000197-14-1	4b,8-Dimethyl-2-isopropylphenanthrene, 4	8.04	2330	ug/kg	95	NJ
	Unknown	8.93	2740	ug/kg		J
17974-57-1	(3E,5E,7E)-6-Methyl-8-(2,6,6-trimethyl-1	9.13	2620	ug/kg	83	NJ
	Unknown	10.08	5190	ug/kg		J
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.11	5400	ug/kg	92	NJ
	Unknown	10.14	7900	ug/kg		J
	Unknown	10.25	5380	ug/kg		J
	Unknown	10.85	2030	ug/kg		J
	Unknown	12.1	4470	ug/kg		J
	Unknown	12.86	5240	ug/kg		J
	Unknown	13.87	2280	ug/kg		J

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

SDG Number: 10-2193  
Lab Sample ID: 248506007

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 9.9  
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	370	ug/kg	73.9	370
108-95-2	Phenol	U	370	ug/kg	73.9	370
95-57-8	2-Chlorophenol	U	370	ug/kg	73.9	370
106-46-7	1,4-Dichlorobenzene	U	370	ug/kg	73.9	370
621-64-7	N-Nitrosodipropylamine	U	370	ug/kg	73.9	370
59-50-7	4-Chloro-3-methylphenol	U	370	ug/kg	73.9	370
83-32-9	Acenaphthene	U	37.0	ug/kg	12.2	37.0
121-14-2	2,4-Dinitrotoluene	U	370	ug/kg	37.0	370
100-02-7	4-Nitrophenol	U	370	ug/kg	122	370 UJ,SV7c
87-86-5	Pentachlorophenol	U	370	ug/kg	92.4	370
129-00-0	Pyrene	U	37.0	ug/kg	11.1	37.0
110-86-1	Pyridine	U	370	ug/kg	73.9	370 UJ,SV7c
62-53-3	Aniline	U	370	ug/kg	111	370
111-44-4	bis(2-Chloroethyl) ether	U	370	ug/kg	73.9	370
541-73-1	1,3-Dichlorobenzene	U	370	ug/kg	73.9	370
100-51-6	Benzyl alcohol	U	370	ug/kg	111	370
95-50-1	1,2-Dichlorobenzene	U	370	ug/kg	73.9	370
108-60-1	bis(2-Chloroisopropyl)ether	U	370	ug/kg	73.9	370
95-48-7	o-Cresol	U	370	ug/kg	73.9	370
65794-96-9	m,p-Cresols	U	370	ug/kg	111	370
67-72-1	Hexachloroethane	U	370	ug/kg	73.9	370
98-95-3	Nitrobenzene	U	370	ug/kg	73.9	370
78-59-1	Isophorone	U	370	ug/kg	73.9	370
88-75-5	2-Nitrophenol	U	370	ug/kg	73.9	370
105-67-9	2,4-Dimethylphenol	U	370	ug/kg	129	370
111-91-1	bis(2-Chloroethoxy)methane	U	370	ug/kg	73.9	370
120-83-2	2,4-Dichlorophenol	U	370	ug/kg	73.9	370
65-85-0	Benzoic acid	U	739	ug/kg	185	739
91-20-3	Naphthalene	U	37.0	ug/kg	11.1	37.0
106-47-8	4-Chloroaniline	U	370	ug/kg	73.9	370
87-68-3	Hexachlorobutadiene	U	370	ug/kg	73.9	370
91-57-6	2-Methylnaphthalene	U	37.0	ug/kg	7.39	37.0
77-47-4	Hexachlorocyclopentadiene	U	370	ug/kg	73.9	370
88-06-2	2,4,6-Trichlorophenol	U	370	ug/kg	73.9	370
95-95-4	2,4,5-Trichlorophenol	U	370	ug/kg	73.9	370
91-58-7	2-Chloronaphthalene	U	37.0	ug/kg	12.2	37.0
88-74-4	2-Nitroaniline	U	370	ug/kg	73.9	370
99-09-2	<i>o</i> -Nitroaniline 3-Nitroaniline	U	370	ug/kg	73.9	370 UJ,SV7c

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506007	Date Received: 03/03/2010 08:50	%Moisture: 9.9
Client ID: RE36-10-7450	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 14:58	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2218.d	Aliquot: 30.03 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					
606-20-2	Dimethylphthalate	U	370	ug/kg	73.9	370
208-96-8	2,6-Dinitrotoluene	U	370	ug/kg	37.0	370
51-28-5	Acenaphthylene	U	37.0	ug/kg	11.1	37.0
132-64-9	2,4-Dinitrophenol	U	739	ug/kg	140	739 UJ,SV7c
84-66-2	Dibenzofuran	U	370	ug/kg	73.9	370
86-73-7	Diethylphthalate	U	370	ug/kg	73.9	370
7005-72-3	Fluorene	U	37.0	ug/kg	11.1	37.0
534-52-1	4-Chlorophenylphenylether	U	370	ug/kg	73.9	370
100-01-6	2-Methyl-4,6-dinitrophenol	U	370	ug/kg	73.9	370
122-39-4	4-Nitroaniline	U	370	ug/kg	111	370
122-66-7	<i>p</i> -Nitroaniline					
101-55-3	Diphenylamine	U	370	ug/kg	73.9	370
118-74-1	Azobenzene	U	370	ug/kg	73.9	370
85-01-8	<i>1,2</i> -Diphenylhydrazine					
120-12-7	4-Bromophenylphenylether	U	370	ug/kg	73.9	370
84-74-2	Hexachlorobenzene	U	370	ug/kg	73.9	370
206-44-0	Phenanthrene	U	37.0	ug/kg	11.1	37.0
85-68-7	Anthracene	U	37.0	ug/kg	7.39	37.0
56-55-3	Di-n-butylphthalate	U	370	ug/kg	73.9	370
91-94-1	Fluoranthene	U	37.0	ug/kg	11.1	37.0
218-01-9	Butylbenzylphthalate	U	370	ug/kg	73.9	370
117-81-7	Benzo(a)anthracene	U	37.0	ug/kg	11.1	37.0
117-84-0	3,3'-Dichlorobenzidine	U	370	ug/kg	111	370
205-99-2	Chrysene	U	37.0	ug/kg	11.1	37.0
207-08-9	bis(2-Ethylhexyl)phthalate	U	370	ug/kg	73.9	370 UJ,SV7c
50-32-8	Di-n-octylphthalate	U	370	ug/kg	73.9	370
193-39-5	Benzo(b)fluoranthene	U	37.0	ug/kg	11.1	37.0
53-70-3	Benzo(k)fluoranthene	U	37.0	ug/kg	11.1	37.0
191-24-2	Benzo(a)pyrene	U	37.0	ug/kg	11.1	37.0
120-82-1	Indeno(1,2,3-cd)pyrene	U	37.0	ug/kg	11.1	37.0 UJ,SV7c
	Dibenzo(a,h)anthracene	U	37.0	ug/kg	11.1	37.0
	Benzo(ghi)perylene	U	37.0	ug/kg	11.1	37.0
	1,2,4-Trichlorobenzene	U	370	ug/kg	73.9	370

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.1	827	ug/kg		J
7785-70-8	1R-.alpha.-Pinene	3.52	415	ug/kg	97	NJ

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

SDG Number: 10-2193  
Lab Sample ID: 248506007

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 9.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
58-22-0	Androst-4-en-3-one, 17-hydroxy-, (17.bet	8.43	330	ug/kg	93	NJ
1058-61-3	Stigmast-4-en-3-one	8.44	263	ug/kg	93	NJ
2490-48-4	1-Hexadecanol, 2-methyl-	9.44	372	ug/kg	91	NJ
629-78-7	Heptadecane	9.75	195	ug/kg	94	NJ
14811-95-1	1,19-Eicosadiene	9.89	244	ug/kg	93	NJ
77899-03-7	1-Heneicosyl formate	10.1	1570	ug/kg	95	NJ
559-74-0	Friedelan-3-one	10.17	1740	ug/kg	95	NJ
	Unknown	10.24	280	ug/kg		J
	Unknown	10.44	217	ug/kg		J
111-02-4	2,6,10,14,18,22-Tetracosahexaene, 2,6,10	10.54	282	ug/kg	98	NJ
638-66-4	Octadecanal	10.62	355	ug/kg	95	NJ
	Unknown	10.74	247	ug/kg		J
112-95-8	Eicosane	10.85	862	ug/kg	96	NJ
7390-81-0	Oxirane, hexadecyl-	11.57	319	ug/kg	83	NJ
	Unknown	11.92	1280	ug/kg		J
	Unknown	12.1	433	ug/kg		J
	Unknown	12.14	312	ug/kg		J
	Unknown	12.43	397	ug/kg		J
	Unknown	12.69	269	ug/kg		J
	Unknown	12.85	352	ug/kg		J
57-87-4	Ergosterol	12.98	511	ug/kg	93	NJ
83-46-5	.beta.-Sitosterol	13.88	1640	ug/kg	96	NJ
	Unknown	13.98	291	ug/kg		J
	Unknown	14.16	273	ug/kg		J
	Unknown	14.3	499	ug/kg		J
	Unknown	14.46	295	ug/kg		J

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Semi-Volatile  
Certificate of Analysis  
Sample Summary

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SDG Number: 10-2193  
Lab Sample ID: 248506004

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 39.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7451  
Batch ID: 963086  
Run Date: 03/22/2010 13:49  
Prep Date: 03/10/2010 12:33  
Data File: s5c2215.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	548	ug/kg	110	548	
108-95-2	Phenol	U	548	ug/kg	110	548	
95-57-8	2-Chlorophenol	U	548	ug/kg	110	548	
106-46-7	1,4-Dichlorobenzene	U	548	ug/kg	110	548	
621-64-7	N-Nitrosodipropylamine	U	548	ug/kg	110	548	
59-50-7	4-Chloro-3-methylphenol	U	548	ug/kg	110	548	
83-32-9	Acenaphthene	U	54.8	ug/kg	18.1	54.8	
121-14-2	2,4-Dinitrotoluene	U	548	ug/kg	54.8	548	
100-02-7	4-Nitrophenol	U	548	ug/kg	181	548	UJ,SV7c
87-86-5	Pentachlorophenol	U	548	ug/kg	137	548	
129-00-0	Pyrene	U	54.8	ug/kg	16.5	54.8	
110-86-1	Pyridine	U	548	ug/kg	110	548	UJ,SV7c
62-53-3	Aniline	U	548	ug/kg	165	548	
111-44-4	bis(2-Chloroethyl) ether	U	548	ug/kg	110	548	
541-73-1	1,3-Dichlorobenzene	U	548	ug/kg	110	548	
100-51-6	Benzyl alcohol	U	548	ug/kg	165	548	
95-50-1	1,2-Dichlorobenzene	U	548	ug/kg	110	548	
108-60-1	bis(2-Chloroisopropyl)ether	U	548	ug/kg	110	548	
95-48-7	o-Cresol	U	548	ug/kg	110	548	
65794-96-9	m,p-Cresols	U	548	ug/kg	165	548	
67-72-1	Hexachloroethane	U	548	ug/kg	110	548	
98-95-3	Nitrobenzene	U	548	ug/kg	110	548	
78-59-1	Isophorone	U	548	ug/kg	110	548	
88-75-5	2-Nitrophenol	U	548	ug/kg	110	548	
105-67-9	2,4-Dimethylphenol	U	548	ug/kg	192	548	
111-91-1	bis(2-Chloroethoxy)methane	U	548	ug/kg	110	548	
120-83-2	2,4-Dichlorophenol	U	548	ug/kg	110	548	
65-85-0	Benzoic acid	U	1100	ug/kg	274	1100	
91-20-3	Naphthalene	U	54.8	ug/kg	16.5	54.8	
106-47-8	4-Chloroaniline	U	548	ug/kg	110	548	
87-68-3	Hexachlorobutadiene	U	548	ug/kg	110	548	
91-57-6	2-Methylnaphthalene	U	54.8	ug/kg	11.0	54.8	
77-47-4	Hexachlorocyclopentadiene	U	548	ug/kg	110	548	
88-06-2	2,4,6-Trichlorophenol	U	548	ug/kg	110	548	
95-95-4	2,4,5-Trichlorophenol	U	548	ug/kg	110	548	
91-58-7	2-Chloronaphthalene	U	54.8	ug/kg	18.1	54.8	
88-74-4	2-Nitroaniline	U	548	ug/kg	110	548	
	<i>o</i> -Nitroaniline						
99-09-2	3-Nitroaniline	U	548	ug/kg	110	548	UJ,SV7c

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506004	Date Received: 03/03/2010 08:50	%Moisture: 39.4
Client ID: RE36-10-7451	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 13:49	Inst: MSD5.1	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2215.d	Aliquot: 30.09 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					
606-20-2	Dimethylphthalate	U	548	ug/kg	110	548
208-96-8	2,6-Dinitrotoluene	U	548	ug/kg	54.8	548
51-28-5	Acenaphthylene	U	54.8	ug/kg	16.5	54.8
132-64-9	2,4-Dinitrophenol	U	1100	ug/kg	208	1100 UJ,SV7c
84-66-2	Dibenzofuran	U	548	ug/kg	110	548
86-73-7	Diethylphthalate	U	548	ug/kg	110	548
7005-72-3	Fluorene	U	54.8	ug/kg	16.5	54.8
534-52-1	4-Chlorophenylphenylether	U	548	ug/kg	110	548
100-01-6	2-Methyl-4,6-dinitrophenol	U	548	ug/kg	110	548
122-39-4	4-Nitroaniline	U	548	ug/kg	165	548
122-66-7	<i>p</i> -Nitroaniline					
101-55-3	Diphenylamine	U	548	ug/kg	110	548
118-74-1	Azobenzene	U	548	ug/kg	110	548
85-01-8	1,2-Diphenylhydrazine					
120-12-7	4-Bromophenylphenylether	U	548	ug/kg	110	548
84-74-2	Hexachlorobenzene	U	548	ug/kg	110	548
206-44-0	Phenanthrene	U	54.8	ug/kg	16.5	54.8
85-68-7	Anthracene	U	54.8	ug/kg	11.0	54.8
56-55-3	Di-n-butylphthalate	U	548	ug/kg	110	548
91-94-1	Fluoranthene	U	54.8	ug/kg	16.5	54.8
218-01-9	Butylbenzylphthalate	U	548	ug/kg	110	548
117-81-7	Benzo(a)anthracene	U	54.8	ug/kg	16.5	54.8
117-84-0	3,3'-Dichlorobenzidine	U	548	ug/kg	165	548
205-99-2	Chrysene	U	54.8	ug/kg	16.5	54.8
207-08-9	bis(2-Ethylhexyl)phthalate	U	548	ug/kg	110	548 UJ,SV7c
50-32-8	Di-n-octylphthalate	U	548	ug/kg	110	548
193-39-5	Benzo(b)fluoranthene	U	54.8	ug/kg	16.5	54.8
53-70-3	Benzo(k)fluoranthene	U	54.8	ug/kg	16.5	54.8
191-24-2	Benzo(a)pyrene	U	54.8	ug/kg	16.5	54.8
120-82-1	Indeno(1,2,3-cd)pyrene	U	54.8	ug/kg	16.5	54.8 UJ,SV7c
	Dibenzo(a,h)anthracene	U	54.8	ug/kg	16.5	54.8
	Benzo(ghi)perylene	U	54.8	ug/kg	16.5	54.8
	1,2,4-Trichlorobenzene	U	548	ug/kg	110	548

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.8	355	ug/kg	99	NJ
	Unknown	9.01	234	ug/kg		J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506004	Date Received: 03/03/2010 08:50	%Moisture: 39.4
Client ID: RE36-10-7451	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 13:49	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2215.d	Aliquot: 30.09 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
301-02-0	9-Octadecenamide, (Z)-	9.05	257	ug/kg	89	NJ
	Unknown	9.14	508	ug/kg		J
	Unknown	9.25	224	ug/kg		J
1000309-70-5	Oxalic acid, cyclobutyl pentadecyl ester	9.44	418	ug/kg	90	NJ
629-78-7	Heptadecane	9.75	245	ug/kg	97	NJ
	Unknown	10.08	440	ug/kg		J
559-74-0	Friedelan-3-one	10.11	535	ug/kg	95	NJ
	Unknown	10.14	1460	ug/kg		J
	Unknown	10.24	273	ug/kg		J
	Unknown	10.44	411	ug/kg		J
	Unknown	10.54	322	ug/kg		J
112-95-8	Eicosane	10.85	475	ug/kg	98	NJ
629-96-9	1-Eicosanol	10.89	266	ug/kg	87	NJ
	Unknown	11.85	365	ug/kg		J
	Unknown	11.91	941	ug/kg		J
	Unknown	12.09	715	ug/kg		J
	Unknown	12.21	331	ug/kg		J
	Unknown	12.41	482	ug/kg		J
	Unknown	12.47	252	ug/kg		J
	Unknown	12.68	361	ug/kg		J
	Unknown	12.85	440	ug/kg		J
	Unknown	12.97	405	ug/kg		J
	Unknown	13.2	293	ug/kg		J
83-46-5	.beta.-Sitosterol	13.86	1260	ug/kg	99	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506012	Date Received: 03/03/2010 08:50	%Moisture: 24.9
Client ID: RE36-10-7452	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 16:54	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2223.d	Aliquot: 30.03 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	443	ug/kg	88.6	443
108-95-2	Phenol	U	443	ug/kg	88.6	443
95-57-8	2-Chlorophenol	U	443	ug/kg	88.6	443
106-46-7	1,4-Dichlorobenzene	U	443	ug/kg	88.6	443
621-64-7	N-Nitrosodipropylamine	U	443	ug/kg	88.6	443
59-50-7	4-Chloro-3-methylphenol	U	443	ug/kg	88.6	443
83-32-9	Acenaphthene	U	44.3	ug/kg	14.6	44.3
121-14-2	2,4-Dinitrotoluene	U	443	ug/kg	44.3	443
100-02-7	4-Nitrophenol	U	443	ug/kg	146	443 UJ,SV7c
87-86-5	Pentachlorophenol	U	443	ug/kg	111	443
129-00-0	Pyrene	U	44.3	ug/kg	13.3	44.3
110-86-1	Pyridine	U	443	ug/kg	88.6	443 UJ,SV7c
62-53-3	Aniline	U	443	ug/kg	133	443
111-44-4	bis(2-Chloroethyl) ether	U	443	ug/kg	88.6	443
541-73-1	1,3-Dichlorobenzene	U	443	ug/kg	88.6	443
100-51-6	Benzyl alcohol	U	443	ug/kg	133	443
95-50-1	1,2-Dichlorobenzene	U	443	ug/kg	88.6	443
108-60-1	bis(2-Chloroisopropyl)ether	U	443	ug/kg	88.6	443
95-48-7	o-Cresol	U	443	ug/kg	88.6	443
65794-96-9	m,p-Cresols	U	443	ug/kg	133	443
67-72-1	Hexachloroethane	U	443	ug/kg	88.6	443
98-95-3	Nitrobenzene	U	443	ug/kg	88.6	443
78-59-1	Isophorone	U	443	ug/kg	88.6	443
88-75-5	2-Nitrophenol	U	443	ug/kg	88.6	443
105-67-9	2,4-Dimethylphenol	U	443	ug/kg	155	443
111-91-1	bis(2-Chloroethoxy)methane	U	443	ug/kg	88.6	443
120-83-2	2,4-Dichlorophenol	U	443	ug/kg	88.6	443
65-85-0	Benzoic acid	U	886	ug/kg	222	886
91-20-3	Naphthalene	U	44.3	ug/kg	13.3	44.3
106-47-8	4-Chloroaniline	U	443	ug/kg	88.6	443
87-68-3	Hexachlorobutadiene	U	443	ug/kg	88.6	443
91-57-6	2-Methylnaphthalene	U	44.3	ug/kg	8.86	44.3
77-47-4	Hexachlorocyclopentadiene	U	443	ug/kg	88.6	443
88-06-2	2,4,6-Trichlorophenol	U	443	ug/kg	88.6	443
95-95-4	2,4,5-Trichlorophenol	U	443	ug/kg	88.6	443
91-58-7	2-Chloronaphthalene	U	44.3	ug/kg	14.6	44.3
88-74-4	2-Nitroaniline	U	443	ug/kg	88.6	443
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	443	ug/kg	88.6	443 UJ,SV7c

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

SDG Number: 10-2193  
Lab Sample ID: 248506012

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 24.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7452  
Batch ID: 963086  
Run Date: 03/22/2010 16:54  
Prep Date: 03/10/2010 12:33  
Data File: s5c2223.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	443	ug/kg	88.6	443
606-20-2	2,6-Dinitrotoluene	U	443	ug/kg	44.3	443
208-96-8	Acenaphthylene	U	44.3	ug/kg	13.3	44.3
51-28-5	2,4-Dinitrophenol	U	886	ug/kg	168	886 UJ,SV7c
132-64-9	Dibenzofuran	U	443	ug/kg	88.6	443
84-66-2	Diethylphthalate	U	443	ug/kg	88.6	443
86-73-7	Fluorene	U	44.3	ug/kg	13.3	44.3
7005-72-3	4-Chlorophenylphenylether	U	443	ug/kg	88.6	443
534-52-1	2-Methyl-4,6-dinitrophenol	U	443	ug/kg	88.6	443
100-01-6	4-Nitroaniline	U	443	ug/kg	133	443
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	443	ug/kg	88.6	443
122-66-7	Azobenzene	U	443	ug/kg	88.6	443
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	443	ug/kg	88.6	443
118-74-1	Hexachlorobenzene	U	443	ug/kg	88.6	443
85-01-8	Phenanthrene	U	44.3	ug/kg	13.3	44.3
120-12-7	Anthracene	U	44.3	ug/kg	8.86	44.3
84-74-2	Di-n-butylphthalate	U	443	ug/kg	88.6	443
206-44-0	Fluoranthene	U	44.3	ug/kg	13.3	44.3
85-68-7	Butylbenzylphthalate	U	443	ug/kg	88.6	443
56-55-3	Benzo(a)anthracene	U	44.3	ug/kg	13.3	44.3
91-94-1	3,3'-Dichlorobenzidine	U	443	ug/kg	133	443
218-01-9	Chrysene	U	44.3	ug/kg	13.3	44.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	443	ug/kg	88.6	443 UJ,SV7c
117-84-0	Di-n-octylphthalate	U	443	ug/kg	88.6	443
205-99-2	Benzo(b)fluoranthene	U	44.3	ug/kg	13.3	44.3
207-08-9	Benzo(k)fluoranthene	U	44.3	ug/kg	13.3	44.3
50-32-8	Benzo(a)pyrene	U	44.3	ug/kg	13.3	44.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	44.3	ug/kg	13.3	44.3 UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	44.3	ug/kg	13.3	44.3
191-24-2	Benzo(ghi)perylene	U	44.3	ug/kg	13.3	44.3
120-82-1	1,2,4-Trichlorobenzene	U	443	ug/kg	88.6	443

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
7785-70-8	1R-.alpha.-Pinene	3.52	3270	ug/kg	97	NJ
127-91-3	.beta.-Pinene	3.77	2110	ug/kg	97	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506012	Date Received: 03/03/2010 08:50	%Moisture: 24.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7452	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 16:54	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.03 g	Final Volume: 1 mL
Data File: s5c2223.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
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.8	3710	ug/kg	98	NJ
	Unknown	8.94	911	ug/kg		J
	Unknown	9.02	487	ug/kg		J
17974-57-1	(3E,5E,7E)-6-Methyl-8-(2,6,6-trimethyl-1	9.14	649	ug/kg	89	NJ
	Unknown	9.28	438	ug/kg		J
	Unknown	10.26	479	ug/kg		J
71502-22-2	9-Hexacosene	10.9	1550	ug/kg	99	NJ

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## DATA VALIDATION COVER SHEET

5122-1

## Data Validation Cover Sheet

Records Use only



## Section I.

REQUEST NUMBER: 10-2193 VALIDATION DATE: 5/11/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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


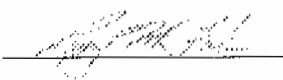
## Section II. Completeness Check

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

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

- The MS and/or MSD %Rs were <10% for tetra. Thus, the associated sample results were qualified R,HE12d. The MS and/or MSD %Rs were < the laboratory LAL but ≥10% for 2,4,6-trinitrotoluene; 4-amino-2,6-dinitrotoluene; 2-amino-4,6-dinitrotoluene; 2,6-dinitrotoluene; and 1,3,5-trinitrobenzene. The associated sample results were NDs and, thus, were qualified UJ,HE12e. The MS/MSD RPD was >30% for 1,3,5-trinitrobenzene. The associated sample results were NDs and, thus, were qualified UJ,HE12g.
- The MS and MSD were re-analyzed beyond the method prescribed HT but within 2X the HT for the primary HE analytes due to multiple failures in the original analysis. These were QC samples and, thus, were not qualified.
- The ICAL RRF was <0.05 but ≥0.01 for 2-amino-4,6-dinitrotoluene. The associated sample results were NDs and, thus, were qualified UJ,HE7b.
- In the ICV and CCVs associated with the samples, the %Ds were >20% with a positive bias for PETN and RDX. The associated sample results were NDs and, thus, were not qualified.
- The LCS %R was < the laboratory LAL but ≥10% for tetra. The associated sample results were NDs and, thus, were qualified UJ,HE12a. The LCS %R was > the laboratory UAL for 2-amino-4,6-dinitrotoluene. The associated sample results were NDs and, thus, were not qualified.
- 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 retention time criteria could not be evaluated. No sample data were qualified as a result.

Reviewed by: Monica Dymerski Level I Date: 05/13/10


DATA VALIDATION COVER SHEET	
5122-1	Records Use only
Data Validation Cover Sheet	 Los Alamos NATIONAL LABORATORY EST. 1943
VALIDATOR'S SIGNATURE:  DATE: 5/11/10	
Form 5122-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

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


Records Use only




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

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

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

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

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

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

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

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7407

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506001

Sample Amount 2

Molsture: 22.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415035.wiff

Date Analyzed: 16-APR-10 00:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE12e	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12e	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene UJ,HE7b	500	U
479-45-8	Tetryl R,HE12d	500	U
606-20-2	2,6-Dinitrotoluene UJ,HE12e	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 UJ,HE12e	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

\*Concentration =

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

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5/11/10



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7407

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506001

Sample Amount 2

Moisture: 22.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 260982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090016.wiff

Date Analyzed: 09-APR-10 11:10

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

LMF  
5/11/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7421

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506002

Sample Amount 2

Moisture: 15.0

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415038.wiff

Date Analyzed: 16-APR-10 02:07

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE12e	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12e	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene UJ,HE7b	500	U
479-45-8	Tetryl R,HE12d	500	U
606-20-2	2,6-Dinitrotoluene UJ,HE12e	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 UJ,HE12e	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

LMF  
5/11/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7421

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506002

Sample Amount 2

Moisture: 15.0

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090019.wiff

Date Analyzed: 09-APR-10 11:57

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

LMF  
5/11/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7422

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506003

Sample Amount 2

Moisture: 5.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415039.wiff

Date Analyzed: 16-APR-10 02:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE12e	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12e	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene UJ,HE7b	500	U
479-45-8	Tetryl R,HE12d	500	U
606-20-2	2,6-Dinitrotoluene UJ,HE12e	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 UJ,HE12e	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

LMF  
5/11/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7422

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506003

Sample Amount 2

Moisture: 5.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090020.wiff

Date Analyzed: 09-APR-10 12:13

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

LMF  
5/11/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7451

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506004

Sample Amount 2

Moisture: 39.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415040.wiff

Date Analyzed: 16-APR-10 02:59

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE12e	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12e	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene UJ,HE7b	500	U
479-45-8	Tetryl R,HE12d	500	U
606-20-2	2,6-Dinitrotoluene UJ,HE12e	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 UJ,HE12e	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

LMF  
5/11/10

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7451

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506004

Sample Amount 2

Moisture: 39.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090021.wiff

Date Analyzed: 09-APR-10 12:29

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

LMF  
5/11/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7449

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506005

Sample Amount 2

Moisture: 17.8

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415041.wiff

Date Analyzed: 16-APR-10 03:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE12e	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12e	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene UJ,HE7b	500	U
479-45-8	Tetryl R,HE12d	500	U
606-20-2	2,6-Dinitrotoluene UJ,HE12e	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 UJ,HE12e	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

LMF  
5/11/10



1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7449

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506005

Sample Amount 2

Molsture: 17.8

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 260982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090022.wiff

Date Analyzed: 09-APR-10 12:44

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

LMF  
5/11/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7445

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506006

Sample Amount 2

Moisture: 25.6

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415042.wiff

Date Analyzed: 16-APR-10 03:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE12e	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12e	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene UJ,HE7b	500	U
479-45-8	Tetryl R,HE12d	500	U
606-20-2	2,6-Dinitrotoluene UJ,HE12e	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 UJ,HE12e	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

LMF  
5/11/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7445

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506006

Sample Amount 2

Moisture: 25.6

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090023.wiff

Date Analyzed: 09-APR-10 13:00

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

LMF  
5/11/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7450

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506007

Sample Amount 2

Moisture: 9.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415046.wiff

Date Analyzed: 16-APR-10 05:35

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE12a	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12a	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene UJ,HE7b	500	U
479-45-8	Tetryl R,HE12d	500	U
606-20-2	2,6-Dinitrotoluene UJ,HE12e	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 UJ,HE12a	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

LMF  
5/11/10

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7450

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506007

Sample Amount 2

Moisture: 9.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090027.wiff

Date Analyzed: 09-APR-10 14:03

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

LMF  
5/11/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7444

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506008

Sample Amount 2

Moisture: 20.6

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415047.wiff

Date Analyzed: 16-APR-10 06:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE12e	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12e	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene UJ,HE7b	500	U
479-45-8	Tetryl R,HE12d	500	U
606-20-2	2,6-Dinitrotoluene UJ,HE12e	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 UJ,HE12e	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

LMF  
5/11/10

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7444

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506008

Sample Amount 2

Moisture: 20.6

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090028.wiff

Date Analyzed: 09-APR-10 14:18

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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5/11/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7448

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506009

Sample Amount 2

Moisture: 17.5

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415048.wiff

Date Analyzed: 16-APR-10 06:27

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE12e	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12e	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene UJ,HE7b	500	U
479-45-8	Tetryl R,HE12d	500	U
606-20-2	2,6-Dinitrotoluene UJ,HE12e	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 UJ,HE12e	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

LMF  
5/11/10



1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7448

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506009

Sample Amount 2

Moisture: 17.5

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090029.wiff

Date Analyzed: 09-APR-10 14:34

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: RE36-10-7447

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506010

Sample Amount 2

Moisture: 28.5

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415049.wiff

Date Analyzed: 16-APR-10 06:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE12e	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12e	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene UJ,HE7b	500	U
479-45-8	Tetryl R,HE12d	500	U
606-20-2	2,6-Dinitrotoluene UJ,HE12e	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 UJ,HE12e	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

LMF  
5/11/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7447

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506010

Sample Amount 2

Moisture: 28.5

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090030.wiff

Date Analyzed: 09-APR-10 14:50

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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5/11/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7443

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506011

Sample Amount 2

Moisture: 25.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415050.wiff

Date Analyzed: 16-APR-10 07:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE12e	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12e	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene UJ,HE7b	500	U
479-45-8	Tetryl R,HE12d	500	U
606-20-2	2,6-Dinitrotoluene UJ,HE12e	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 UJ,HE12e	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

LMF  
5/11/10

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7443

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506011

Sample Amount 2

Moisture: 25.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090031.wiff

Date Analyzed: 09-APR-10 15:06

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

LMF  
5/11/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7452

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506012

Sample Amount 2

Moisture: 24.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415051.wiff

Date Analyzed: 16-APR-10 07:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE12e	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12e	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene UJ,HE7b	500	U
479-45-8	Tetryl R,HE12d	500	U
606-20-2	2,6-Dinitrotoluene UJ,HE12e	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 UJ,HE12e	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

LMF  
5/11/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7452

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506012

Sample Amount 2

Molsture: 24.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090032.wiff

Date Analyzed: 09-APR-10 15:21

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

LMF  
5/11/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7437

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506013

Sample Amount 2

Moisture: 16.3

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415052.wiff

Date Analyzed: 16-APR-10 08:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE12e	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12e	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene UJ,HE7b	500	U
479-45-8	Tetryl R,HE12d	500	U
606-20-2	2,6-Dinitrotoluene UJ,HE12e	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 UJ,HE12e	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

LMF  
5/11/10



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7437

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506013

Sample Amount 2

Moisture: 16.3

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090033.wiff

Date Analyzed: 09-APR-10 15:37

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
		<u>Sample Amount</u>		Factor

LMF  
5/11/10

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7440

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506014

Sample Amount 2

Moisture: 8.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415053.wiff

Date Analyzed: 16-APR-10 08:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE12e	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12e	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene UJ,HE7b	500	U
479-45-8	Tetryl R,HE12d	500	U
606-20-2	2,6-Dinitrotoluene UJ,HE12e	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 UJ,HE12e	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

LMF  
5/11/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7440

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506014

Sample Amount 2

Moisture: 8.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090034.wiff

Date Analyzed: 09-APR-10 15:53

Units: ug/kg

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

\*Concentration =

Instrument Value	X	$\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$	X	Dilution Factor
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5/11/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7435

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506015

Sample Amount 2

Moisture: 30.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415054.wiff

Date Analyzed: 16-APR-10 09:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE12e	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12e	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene UJ,HE7b	500	U
479-45-8	Tetryl R,HE12d	500	U
606-20-2	2,6-Dinitrotoluene UJ,HE12e	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 UJ,HE12e	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

LMF  
5/11/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7435

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506015

Sample Amount 2

Moisture: 30.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090035.wiff

Date Analyzed: 09-APR-10 16:08

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: RE36-10-7441

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506016

Sample Amount 2

Moisture: 22.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415055.wiff

Date Analyzed: 16-APR-10 09:28

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE12e	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12e	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene UJ,HE7b	500	U
479-45-8	Tetryl R,HE12d	500	U
606-20-2	2,6-Dinitrotoluene UJ,HE12e	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 UJ,HE12e	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

LMF  
5/11/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7441

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506016

Sample Amount 2

Moisture: 22.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090036.wiff

Date Analyzed: 09-APR-10 16:24

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: RE36-10-7442

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506017

Sample Amount 2

Moisture: 13.3

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415059.wiff

Date Analyzed: 16-APR-10 11:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE12e	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12e	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene UJ,HE7b	500	U
479-45-8	Tetryl R,HE12d	500	U
606-20-2	2,6-Dinitrotoluene UJ,HE12e	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 UJ,HE12e	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

LMF  
5/11/10



1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7442

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506017

Sample Amount 2

Moisture: 13.3

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090040.wiff

Date Analyzed: 09-APR-10 17:27

Units: ug/kg

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

\*Concentration =

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

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5/11/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7436

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506018

Sample Amount 2

Molsture: 21.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415060.wiff

Date Analyzed: 16-APR-10 11:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE12e	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12e	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene UJ,HE7b	500	U
479-45-8	Tetryl R,HE12d	500	U
606-20-2	2,6-Dinitrotoluene UJ,HE12e	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 UJ,HE12e	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

\*Concentration =

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

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5/11/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7436

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506018

Sample Amount 2

Moisture: 21.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090041.wiff

Date Analyzed: 09-APR-10 17:43

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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5/11/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7438

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506019

Sample Amount 2

Moisture: 5.3

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415061.wiff

Date Analyzed: 16-APR-10 12:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE12e	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12e	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene UJ,HE7b	500	U
479-45-8	Tetryl R,HE12d	500	U
606-20-2	2,6-Dinitrotoluene UJ,HE12e	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 UJ,HE12e	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

\*Concentration =

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

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5/11/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7438

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506019

Sample Amount 2

Moisture: 5.3

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090042.wiff

Date Analyzed: 09-APR-10 17:58

Units: ug/kg

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

\*Concentration =

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

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5/11/10

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7439

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506020

Sample Amount 2

Moisture: 18.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415062.wiff

Date Analyzed: 16-APR-10 12:31

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE12e	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12e	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene UJ,HE7b	500	U
479-45-8	Tetryl R,HE12d	500	U
606-20-2	2,6-Dinitrotoluene UJ,HE12e	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 UJ,HE12e	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

\*Concentration =

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

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5/11/10

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7439

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506020

Sample Amount 2

Moisture: 18.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090043.wiff

Date Analyzed: 09-APR-10 18:14


Units: ug/kg

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

\*Concentration =

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

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

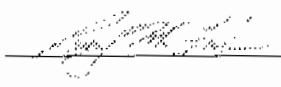
Section I.			
REQUEST NUMBER:	10-2193	VALIDATION DATE:	5/12/10
		LAB CODE:	GEL
CONTRACT LABORATORY NAME: GEL Laboratories LLC			
VALIDATOR:	Larry Fukui	ORGANIZATION:	Analytical Quality Associates, Inc.
ANALYTICAL SUITE (CHECK ALL THAT APPLY):			
<input type="checkbox"/> TPH-GRO	<input type="checkbox"/> HIGH EXPLOSIVES	<input type="checkbox"/> DIOXIN FURANS	<input type="checkbox"/> LCMSMS PERCHLORATES
<input type="checkbox"/> TPH-DRO	<input type="checkbox"/> METALS	<input type="checkbox"/> PCB CONGENERS	<input checked="" type="checkbox"/> ORGANOCHLORINE
<input type="checkbox"/> GENERAL CHEMISTRY	<input type="checkbox"/> RADIOCHEMISTRY	<input type="checkbox"/> LCMSMS HIGH EXPLOSIVES	<input type="checkbox"/> PESTICIDES/POLYCHLORINATED BIPHENYLS
<input type="checkbox"/> OTHER (DESCRIBE): PCBs			

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

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

- It should be noted that the MS and MSD parent sample associated with sample RE36-10-7421 was from another LANL RN and the raw data for the parent sample was not included in the package. Since an MS/MSD was not required, no sample results were qualified.

**Reviewed by:** Monica Dymerski      **Level I**      **Date:** 05/13/10

VALIDATOR'S SIGNATURE: 	DATE: 5/12/10
Form 5116-1, Revision 0.0	
LOS ALAMOS Environmental Restoration Project	



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


5116-2

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

Records Use only



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

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
<b>5116-2</b>  <b>Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist</b>	Records Use only  

Yes No N/A (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				Non-detected Analyte	Detected Analyte
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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 (Check One)				Assign Qualifier Listed Below If Criterion = Yes	
				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: 10-2193  
Lab Sample ID: 248506001

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 22.9  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.32	ug/kg	1.44	4.32	1
11104-28-2	Aroclor-1221	U	4.32	ug/kg	1.44	4.32	1
11141-16-5	Aroclor-1232	U	4.32	ug/kg	1.44	4.32	1
53469-21-9	Aroclor-1242	U	4.32	ug/kg	1.44	4.32	1
12672-29-6	Aroclor-1248	U	4.32	ug/kg	1.44	4.32	1
11097-69-1	Aroclor-1254		18.5	ug/kg	1.44	4.32	1
11096-82-5	Aroclor-1260		13.0	ug/kg	1.44	4.32	1

LMF  
5/12/10

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

SDG Number: 10-2193  
Lab Sample ID: 248506002

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.J  
Analyst: YS1  
Aliquot: 30.18 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 15  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7421  
Batch ID: 967354  
Run Date: 03/22/2010 15:01  
Prep Date: 03/21/2010 11:56  
Data File: 043f4301.d  
043b4301.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.90	ug/kg	1.30	3.90	1
11104-28-2	Aroclor-1221	U	3.90	ug/kg	1.30	3.90	1
11141-16-5	Aroclor-1232	U	3.90	ug/kg	1.30	3.90	1
53469-21-9	Aroclor-1242	U	3.90	ug/kg	1.30	3.90	1
12672-29-6	Aroclor-1248	U	3.90	ug/kg	1.30	3.90	1
11097-69-1	Aroclor-1254		44.4	ug/kg	1.30	3.90	1
11096-82-5	Aroclor-1260		34.0	ug/kg	1.30	3.90	1

LMF  
5/12/10

## PCB

Page 1 of 1

Certificate of Analysis  
Sample Summary

SDG Number:	10-2193	Date Collected:	02/25/2010 12:00	Matrix:	R
Lab Sample ID:	248506003	Date Received:	03/03/2010 08:50	%Moisture:	5.9
Client ID:	RE36-10-7422	Client:	LANL010	Project:	LANL01004
Batch ID:	965975	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Run Date:	03/18/2010 17:45	Inst:	ECD1A.I	Dilution:	1
Prep Date:	03/17/2010 11:22	Analyst:	YS1	Inj. Vol:	1 uL
Data File:	062f6201.d	Allquot:	30 g	Final Volume:	1 mL
	062b6201.d	Column:	1 CLP1	Level:	LOW
			2 CLP2		

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.54	ug/kg	1.18	3.54	1
11104-28-2	Aroclor-1221	U	3.54	ug/kg	1.18	3.54	1
11141-16-5	Aroclor-1232	U	3.54	ug/kg	1.18	3.54	1
53469-21-9	Aroclor-1242	U	3.54	ug/kg	1.18	3.54	1
12672-29-6	Aroclor-1248	U	3.54	ug/kg	1.18	3.54	1
11097-69-1	Aroclor-1254		4.30	ug/kg	1.18	3.54	1
11096-82-5	Aroclor-1260	J	3.10	ug/kg	1.18	3.54	1

LMF  
5/12/10

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2193C

LOS ALAMOS

REQUEST NUMBER: 10-2193

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 4/1/2010

General Engineering Laboratories, Inc., Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

248506

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7407	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-7407	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7421	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-7421	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7422	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-7422	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7451	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7451	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7449	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7449	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7445	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7445	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7450	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7450	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7444	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7444	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7448	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7448	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7447	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7447	1	AMBER GLASS	8270C+NMED Exp	Ice	R



Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2193C

LOS ALAMOS

REQUEST NUMBER: 10-2193

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 4/1/2010

General Engineering Laboratories, Inc., Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7443	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7443	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7452	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7452	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7437	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7437	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7440	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7440	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7435	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7435	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7441	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7441	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7442	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7442	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7436	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7436	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7438	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7438	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7439	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7439	1	AMBER GLASS	8270C+NMED Exp	Ice	R

Relinquished By:

Date

Time

Received By:

Date

Time

Printed Name:

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Received for DISPOSAL By: Date

Time

Remarks:

Printed Name

Signature

REQUEST NUMBER: 10-2193

Tuesday, March 02, 2010

**LOS ALAMOS  
NATIONAL LABORATORY**

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number: 10-2193

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples  
according to the schedule indicated:

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

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


**TURNAROUND REQ'D: 30 Days**

**RAD SCREENING: Yes, Below Background**

**LAB REQUEST COMMENTS:**

LANL ER SMO CONTACT:

Signature:



PRIORITY	METHOD CODE	CNTR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE36-10-7407	R	2/25/2010	
		1	RE36-10-7421	R	2/25/2010	
		1	RE36-10-7422	R	2/25/2010	
		1	RE36-10-7407	R	2/25/2010	
	SW-846:8260B	1	RE36-10-7421	R	2/25/2010	
		1	RE36-10-7422	R	2/25/2010	
		1	RE36-10-7436	R	2/25/2010	
		1	RE36-10-7436	R	2/25/2010	
		1	RE36-10-7437	R	2/25/2010	

Tuesday, March 02, 2010

REQUEST NUMBER: 10-2193

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE36-10-7438	R	2/25/2010	
		1	RE36-10-7439	R	2/25/2010	
		1	RE36-10-7440	R	2/25/2010	
		1	RE36-10-7441	R	2/25/2010	
		1	RE36-10-7442	R	2/25/2010	
		1	RE36-10-7443	R	2/25/2010	
		1	RE36-10-7444	R	2/25/2010	
		1	RE36-10-7445	R	2/25/2010	
		1	RE36-10-7447	R	2/25/2010	
		1	RE36-10-7448	R	2/25/2010	
		1	RE36-10-7449	R	2/25/2010	
		1	RE36-10-7450	R	2/25/2010	
		1	RE36-10-7451	R	2/25/2010	
		1	RE36-10-7452	R	2/25/2010	
	SW-846:8270C	1	RE36-10-7407	R	2/25/2010	
		1	RE36-10-7421	R	2/25/2010	
		1	RE36-10-7422	R	2/25/2010	
		1	RE36-10-7435	R	2/25/2010	
		1	RE36-10-7436	R	2/25/2010	
		1	RE36-10-7437	R	2/25/2010	
		1	RE36-10-7438	R	2/25/2010	
		1	RE36-10-7439	R	2/25/2010	
		1	RE36-10-7440	R	2/25/2010	
		1	RE36-10-7441	R	2/25/2010	
		1	RE36-10-7442	R	2/25/2010	
		1	RE36-10-7443	R	2/25/2010	
		1	RE36-10-7444	R	2/25/2010	
		1	RE36-10-7445	R	2/25/2010	

Tuesday, March 02, 2010

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE36-10-7447	R	2/25/2010	
		1	RE36-10-7448	R	2/25/2010	
		1	RE36-10-7449	R	2/25/2010	
		1	RE36-10-7450	R	2/25/2010	
		1	RE36-10-7451	R	2/25/2010	
		1	RE36-10-7452	R	2/25/2010	
		1	RE36-10-7407	R	2/25/2010	
	SW-846:8321A_MOD	1	RE36-10-7421	R	2/25/2010	
		1	RE36-10-7422	R	2/25/2010	
		1	RE36-10-7435	R	2/25/2010	
		1	RE36-10-7436	R	2/25/2010	
		1	RE36-10-7437	R	2/25/2010	
		1	RE36-10-7438	R	2/25/2010	
		1	RE36-10-7439	R	2/25/2010	
		1	RE36-10-7440	R	2/25/2010	
		1	RE36-10-7441	R	2/25/2010	
		1	RE36-10-7442	R	2/25/2010	
		1	RE36-10-7443	R	2/25/2010	
		1	RE36-10-7444	R	2/25/2010	
		1	RE36-10-7445	R	2/25/2010	
		1	RE36-10-7447	R	2/25/2010	
		1	RE36-10-7448	R	2/25/2010	
		1	RE36-10-7449	R	2/25/2010	
		1	RE36-10-7450	R	2/25/2010	
		1	RE36-10-7451	R	2/25/2010	
		1	RE36-10-7452	R	2/25/2010	



March 10, 2010

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

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

Re: LANL ER Project  
Work Order: 248506  
SDG: 10-2193

Dear Ms. Valdez:

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

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

Sincerely,

Valerie Davis  
Project Manager

Purchase Order: 72733-001-09  
Chain of Custody: 10-2193  
Enclosures

**Los Alamos National Laboratory (72733-001-09)**  
**LANL ER Project**  
**Work Order #: 248506**  
**SDG: 10-2193**

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# Case Narrative

**Case Narrative for  
Los Alamos National Laboratory (72733-001-09)  
LANL ER Project  
Workorder #: 248506  
SDG # : 10-2193**

**March 10, 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 March 03, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. 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>
248506001	RE36-10-7407
248506002	RE36-10-7421
248506003	RE36-10-7422
248506004	RE36-10-7451
248506005	RE36-10-7449
248506006	RE36-10-7445
248506007	RE36-10-7450
248506008	RE36-10-7444
248506009	RE36-10-7448
248506010	RE36-10-7447
248506011	RE36-10-7443
248506012	RE36-10-7452
248506013	RE36-10-7437
248506014	RE36-10-7440
248506015	RE36-10-7435
248506016	RE36-10-7441
248506017	RE36-10-7442
248506018	RE36-10-7436
248506019	RE36-10-7438
248506020	RE36-10-7439

### 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.

*for*  
*for*

Valerie Davis

Project Manager

**List of current GEL Certifications as of 10 March 2010**

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

# **Chain of Custody and Supporting Documentation**

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2193C

LOS ALAMOS

REQUEST NUMBER: 10-2193

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 4/1/2010

General Engineering Laboratories, Inc., Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

248506

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7407	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-7407	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7421	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-7421	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7422	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE36-10-7422	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7451	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7451	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7449	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7449	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7445	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7445	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7450	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7450	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7444	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7444	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7448	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7448	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7447	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7447	1	AMBER GLASS	8270C+NMED Exp	Ice	R

Thursday, March 04, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2193C

LOS ALAMOS

REQUEST NUMBER: 10-2193

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 4/1/2010

General Engineering Laboratories, Inc., Charleston, SC.


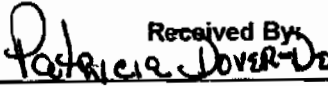
TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE36-10-7443	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7443	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7452	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7452	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7437	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7437	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7440	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7440	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7435	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7435	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7441	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7441	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7442	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7442	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7436	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7436	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7438	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7438	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE36-10-7439	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE36-10-7439	1	AMBER GLASS	8270C+NMED Exp	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
	3/3/10	3:00		3/3/10	08:50
Printed Name	Signature		Printed Name	Signature	

Printed Name	Signature	Printed Name	Signature
--------------	-----------	--------------	-----------

Printed Name	Signature	Printed Name	Signature
--------------	-----------	--------------	-----------

Received for DISPOSAL By: Date Time Remarks:

Printed Name	Signature
--------------	-----------

Tuesday, March 02, 2010

**LOS ALAMOS**  
**NATIONAL LABORATORY**

ATTN: Valerie Davis  
General Engineering Laboratories, Inc., Charleston, SC.  
2040 Savage Rd  
Charleston, SC 29407

Please analyse the enclosed samples  
according to the schedule indicated:

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

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

LANL ER SMO CONTACT:

Signature:



These Samples are on:  
LANL Request Number: 10-2193  
Per Agreement Number: 126310011  
Project Cost Code: MR3A05529E00

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE36-10-7407	R	2/25/2010	
		1	RE36-10-7421	R	2/25/2010	
		1	RE36-10-7422	R	2/25/2010	
	SW-846:8260B	1	RE36-10-7407	R	2/25/2010	
		1	RE36-10-7421	R	2/25/2010	
		1	RE36-10-7422	R	2/25/2010	
		1	RE36-10-7435	R	2/25/2010	
		1	RE36-10-7436	R	2/25/2010	
		1	RE36-10-7437	R	2/25/2010	



Tuesday, March 02, 2010

REQUEST NUMBER: 10-2193

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE36-10-7438	R	2/25/2010	
		1	RE36-10-7439	R	2/25/2010	
		1	RE36-10-7440	R	2/25/2010	
		1	RE36-10-7441	R	2/25/2010	
		1	RE36-10-7442	R	2/25/2010	
		1	RE36-10-7443	R	2/25/2010	
		1	RE36-10-7444	R	2/25/2010	
		1	RE36-10-7445	R	2/25/2010	
		1	RE36-10-7447	R	2/25/2010	
		1	RE36-10-7448	R	2/25/2010	
		1	RE36-10-7449	R	2/25/2010	
		1	RE36-10-7450	R	2/25/2010	
		1	RE36-10-7451	R	2/25/2010	
		1	RE36-10-7452	R	2/25/2010	
	SW-846:8270C	1	RE36-10-7407	R	2/25/2010	
		1	RE36-10-7421	R	2/25/2010	
		1	RE36-10-7422	R	2/25/2010	
		1	RE36-10-7435	R	2/25/2010	
		1	RE36-10-7436	R	2/25/2010	
		1	RE36-10-7437	R	2/25/2010	
		1	RE36-10-7438	R	2/25/2010	
		1	RE36-10-7439	R	2/25/2010	
		1	RE36-10-7440	R	2/25/2010	
		1	RE36-10-7441	R	2/25/2010	
		1	RE36-10-7442	R	2/25/2010	
		1	RE36-10-7443	R	2/25/2010	
		1	RE36-10-7444	R	2/25/2010	
		1	RE36-10-7445	R	2/25/2010	

Tuesday, March 02, 2010

REQUEST NUMBER: 10-2193

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	RE36-10-7447	R	2/25/2010	
		1	RE36-10-7448	R	2/25/2010	
		1	RE36-10-7449	R	2/25/2010	
		1	RE36-10-7450	R	2/25/2010	
		1	RE36-10-7451	R	2/25/2010	
		1	RE36-10-7452	R	2/25/2010	
		1	RE36-10-7407	R	2/25/2010	
	SW-846:8321A_MOD	1	RE36-10-7421	R	2/25/2010	
		1	RE36-10-7422	R	2/25/2010	
		1	RE36-10-7435	R	2/25/2010	
		1	RE36-10-7436	R	2/25/2010	
		1	RE36-10-7437	R	2/25/2010	
		1	RE36-10-7438	R	2/25/2010	
		1	RE36-10-7439	R	2/25/2010	
		1	RE36-10-7440	R	2/25/2010	
		1	RE36-10-7441	R	2/25/2010	
		1	RE36-10-7442	R	2/25/2010	
		1	RE36-10-7443	R	2/25/2010	
		1	RE36-10-7444	R	2/25/2010	
		1	RE36-10-7445	R	2/25/2010	
		1	RE36-10-7447	R	2/25/2010	
		1	RE36-10-7448	R	2/25/2010	
		1	RE36-10-7449	R	2/25/2010	
		1	RE36-10-7450	R	2/25/2010	
		1	RE36-10-7451	R	2/25/2010	
		1	RE36-10-7452	R	2/25/2010	

Final Page of REQUEST NUMBER 10-2193



Laboratories LLC

## SAMPLE RECEIPT &amp; REVIEW FORM

Client: LANL			SDG/ARCOC/Work Order: 10-2193		
Received By: Patricia Dover-Dent			Date Received: 3/3/10		
Suspected Hazard Information		Yes	No	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.	
COC/Samples marked as radioactive?			X	Maximum Counts Observed*: 60cpm	
Classified Radioactive II by RSO?			X		
COC/Samples marked containing PCBs?			X		
Shipped as a DOT Hazardous?			X	Hazard Class Shipped: UN#:	
Samples identified as Foreign Soil?			X		

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	X			Circle Applicable: seals broken    damaged container    leaking container    other (describe)
2 Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags <b>blue ice</b> dry ice    none    other 1-5    14,15,17
3 Chain of custody documents included with shipment?	X			
4 Sample containers intact and sealed?	X			Circle Applicable: seals broken    damaged container    leaking container    other (describe)
5 Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6 VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7 Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8 Samples received within holding time?	X			Id's and tests affected:
9 Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?		X		Sample ID's affected: <b>No time on Chain of Custody.</b>
11 Number of containers received match number indicated on COC?	X			Sample ID's affected:
12 COC form is properly signed in relinquished/received sections?	X			

**Comments:**

**Fed Ex Tracking Numbers:**

7209 7850 3083 1C    7209 7850 3061 2C    7209 7850 3028 17C

7209 7850 3040 1C    7209 7850 3072 3C

7209 7850 3094 1C    7209 7850 3120 4C

7209 7850 3109 2C    7209 7850 3110 5C

7209 7850 3039 2C    7209 7850 3153 5C

7209 7850 3050 2C    7209 7850 3006 14C

7209 7850 3142 2C    7209 7850 2992 14C

7209 7850 3131 2C    7209 7850 3071 15C

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

SHIP DATE: 02MAR10  
ACTWGT: 49.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 02MAR10  
ACTWGT: 47.0 LB MAN  
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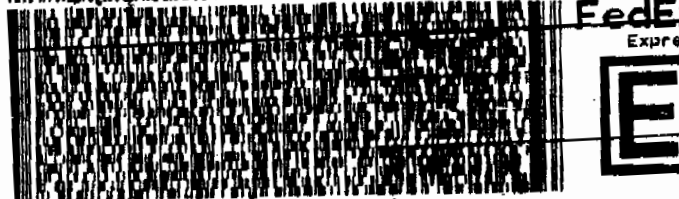
VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

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

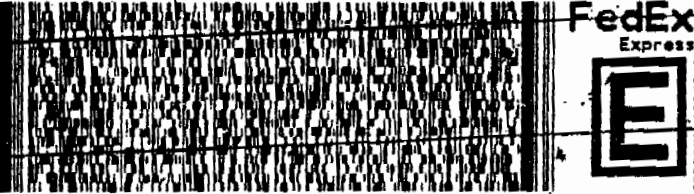
VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

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

1 of 2



1 of 2



WED - 03MAR A1  
1 of 2  
IPSH 7209 7850 3083  
2263  
1strn 7209 7850 3072 0201

XX CHSA



1 of 3  
TRKH 7209 7850 3040  
0201  
NN MASTER NN

XX CHSA



WED - 03MAR A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

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

CAD: 0014176/CAFE2450

BILL SENDER

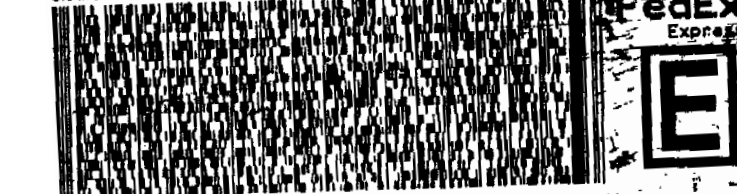
LOS ALAMOS, NM 87545  
UNITED STATES US

BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 556-8171  
REF: 6B010AMR3A05529E00

1 of 3



VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407  
(843) 556-8171  
REF: 6B010AMR3A05529E00

1 of 3



WED - 03MAR A1  
1 of 3  
RKH 7209 7850 3094  
2201  
NN MASTER NN

XX CHSA



WED - 03MAR A1  
1 of 3  
RKH 7209 7850 3109  
2201  
NN MASTER NN

XX CHSA



WED - 03MAR A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS



ORIGIN ID: SAFA (DUB) 000-9908  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 02MAR10  
ACTWGT: 49.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A0532VA00

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FedEx

WED - 03MAR

FedEx

TRK# 7209 7850 3061

WED - 03 MAR A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

(X CHSA



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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 02MAR10  
ACTWGT: 29.0 LB MAN  
CAD: 0014176/CAFE2450

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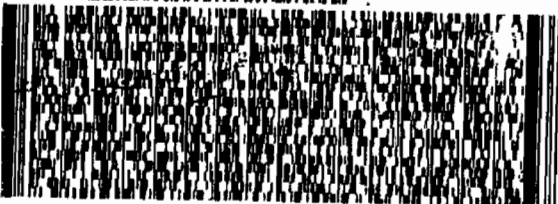
TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A05529E00

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Express



WED - 03MAR A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA

Page 14 of 2886

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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 02MAR10  
ACTWGT: 49.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A0532VA00

0000 0000 0000 0000 0000 0000 0000 0000



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Express



WED - 03MAR A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

1 of 2  
TRK# 7209 7850 3072

MM MASTER MM

XX CHSA



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

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 02MAR10  
ACTWGT: 48.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

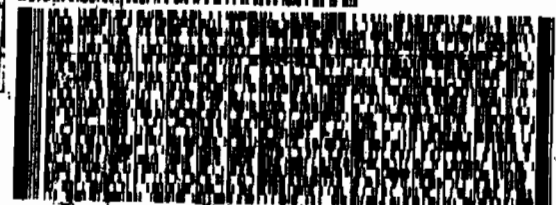
TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A05529E00

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WED - 03MAR A1  
PRIORITY OVERNIGHT

29407  
SC-US  
CHS

3 of 3  
TRK# 7209 7850 3110

Matr# 7209 7850 3094 0201

XX CHSA

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ORIGIN ID: SAFA (505) 885-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 02MAR10  
ACTWGT: 48.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A05529E00

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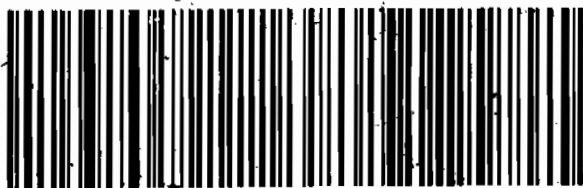


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0201

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PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



ORIGIN ID: SAFA (505) 885-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 48.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

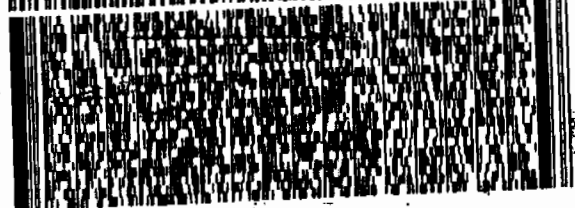
TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A0532VA00

1010 1010 1010 1010 1010 1010 1010 1010 1010 1010



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MPS# 7209 7850 2992  
0203

Matr# 7209 7850 2981 0201

WED - 03MAR  
PRIORITY OVERNIGHT

XX CHSA

Page 15 of 2886

JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 02MAR10  
ACTWGT: 57.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A0532VA00

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TRKH# 7209 7850 3006  
0263

Matr# 7209 7850 2981 0201

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PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

ACTWGT: 54.0 LB MAN  
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS  
GENERAL ENGINEERING LAB  
2040 SAVAGE RD

CHARLESTON SC 29407

(843) 556-8171

REF: 6B010AMR3A0532VA00

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TRKH# 7209 7850 3017  
0201

Matr# 7209 7850 2981 0201

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PRIORITY OVERNIGHT

29407  
SC-US  
CHS

XX CHSA



ORIGIN ID: SAFA (606) 665-9968  
JOYLENE VALDEZ  
LOS ALAMOS NATL LAB  
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545  
UNITED STATES US

SHIP DATE: 02MAR10  
ACTWGT: 21.0 LB MON  
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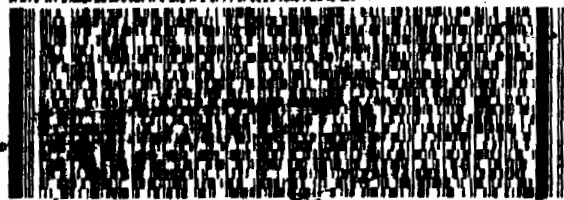
BILL GENDER

TO **VALERIE DAVIS**  
**GENERAL ENGINEERING LAB**  
**2040 SAVAGE RD**

**CHARLESTON SC 29407**

(843) 556-8171

REF: 68010AMR3A0532VA00



FedEx  
Express

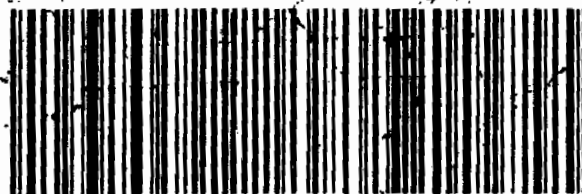


2 of 3  
MPSN 7209 7850 3028  
MatrN 7209 7850 3017 0201

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PRIORITY OVERNIGHT

**XX CHSA**

**29407**  
SC-US  
CHS





# **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 10-2193**

**Method/Analysis Information**

Procedure: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer  
Analytical Method: SW846 8260B  
Prep Method: SW846 5030  
Analytical Batch Number: 963417  
Prep Batch Number: 963416

**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>
248506001	RE36-10-7407
248506002	RE36-10-7421
248506003	RE36-10-7422
248506004	RE36-10-7451
248506005	RE36-10-7449
248506006	RE36-10-7445
248506007	RE36-10-7450
248506008	RE36-10-7444
248506009	RE36-10-7448
248506010	RE36-10-7447
248506011	RE36-10-7443
248506012	RE36-10-7452
248506013	RE36-10-7437
248506014	RE36-10-7440
248506015	RE36-10-7435
248506016	RE36-10-7441
248506017	RE36-10-7442
248506018	RE36-10-7436
248506019	RE36-10-7438
248506020	RE36-10-7439
1202066790	Method Blank (MB)
1202066794	Laboratory Control Sample (LCS)
1202066795	Laboratory Control Sample (LCS)
1202066791	Method Blank (MB)
1202066796	Laboratory Control Sample (LCS)
1202066797	Laboratory Control Sample (LCS)
1202076510	Method Blank (MB)

1202076511	Laboratory Control Sample (LCS)
1202076512	Laboratory Control Sample (LCS)
1202066792	248506001(RE36-10-7407) Post Spike (PS)
1202066793	248506001(RE36-10-7407) Post Spike Duplicate (PSD)

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

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

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

#### **SOP Reference**

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

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

#### **Calibration Information**

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

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

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

#### **Initial Calibration**

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

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

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

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

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

The 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: 248506001 (RE36-10-7407), 248506002 (RE36-10-7421), 248506004

(RE36-10-7451), 248506005 (RE36-10-7449), 248506006 (RE36-10-7445), 248506008 (RE36-10-7444), 248506009 (RE36-10-7448), 248506010 (RE36-10-7447), 248506011 (RE36-10-7443), 248506012 (RE36-10-7452), 248506013 (RE36-10-7437), 248506014 (RE36-10-7440), 248506015 (RE36-10-7435), 248506016 (RE36-10-7441), 248506017 (RE36-10-7442) and 248506020 (RE36-10-7439). See DER# 807233.

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

The LCS spike recoveries met the acceptance limits.

#### **QC Sample Designation**

Sample 248506001 (RE36-10-7407) was designated for spike analysis in this SDG.

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

The spike recoveries were not all within the acceptance limits. See DER# 807233.

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

The spike duplicate recoveries were not all within the acceptance limits. See DER# 807233.

#### **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. 1202066792 (RE36-10-7407), 1202066793 (RE36-10-7407), 248506001 (RE36-10-7407), 248506002 (RE36-10-7421), 248506004 (RE36-10-7451), 248506005 (RE36-10-7449), 248506006 (RE36-10-7445), 248506007 (RE36-10-7450), 248506008 (RE36-10-7444), 248506009 (RE36-10-7448), 248506010 (RE36-10-7447), 248506011 (RE36-10-7443), 248506012 (RE36-10-7452), 248506013 (RE36-10-7437), 248506014 (RE36-10-7440), 248506015 (RE36-10-7435), 248506016 (RE36-10-7441), 248506017 (RE36-10-7442), 248506018 (RE36-10-7436) and 248506020 (RE36-10-7439). See DER# 807233.

#### **Technical Information**

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

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

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

All samples met the sample preservation and integrity requirements.

##### **Sample Dilutions**

The samples in this SDG did not require dilutions.

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

The samples in this SDG were re-analyzed due to unacceptable recoveries in the initial analysis: 248506001 (RE36-10-7407), 248506002 (RE36-10-7421), 248506004 (RE36-10-7451), 248506005 (RE36-10-7449), 248506006 (RE36-10-7445), 248506007 (RE36-10-7450), 248506008 (RE36-10-7444), 248506009 (RE36-10-7448), 248506010 (RE36-10-7447), 248506011 (RE36-10-7443), 248506012 (RE36-10-7452), 248506013 (RE36-10-7437), 248506014 (RE36-10-7440), 248506015 (RE36-10-7435), 248506016 (RE36-10-7441), 248506017 (RE36-10-7442), 248506018 (RE36-10-7436), 248506019 (RE36-10-7438) and 248506020 (RE36-10-7439).

### **Miscellaneous Information**

#### **Electronic Packaging Comment**

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

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

The following DER was generated for this SDG: 807233

#### **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 SDG.

#### **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>
VOA4.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	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: 10-2193 GEL Work Order: 248506

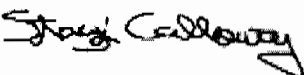
**The Qualifiers in this report are defined as follows:**

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

**Review/Validation**

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

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

Signature: 

Name: Stacy Calloway

Date: 30 MAR 2010

Title: Data Validator

# Sample Data Summary

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193  
Lab Sample ID: 248506001  
  
Client ID: RE36-10-7407  
Batch ID: 963417  
Run Date: 03/09/2010 20:28  
Prep Date: 03/09/2010 20:06  
Data File: 030910V4\B208.D

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA4.I  
Analyst: ACJ  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 22.9  
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	1.30	ug/kg	0.441	1.30
74-87-3	Chloromethane	U	1.30	ug/kg	0.389	1.30
75-01-4	Vinyl chloride	U	1.30	ug/kg	0.389	1.30
74-83-9	Bromomethane	U	1.30	ug/kg	0.389	1.30
75-00-3	Chloroethane	U	1.30	ug/kg	0.389	1.30
75-69-4	Trichlorofluoromethane	U	1.30	ug/kg	0.389	1.30
67-64-1	Acetone	U	6.48	ug/kg	2.15	6.48
75-35-4	1,1-Dichloroethylene	U	1.30	ug/kg	0.389	1.30
74-88-4	Iodomethane	U	6.48	ug/kg	2.07	6.48
75-09-2	Methylene chloride	U	6.48	ug/kg	2.59	6.48
75-15-0	Carbon disulfide	U	6.48	ug/kg	1.62	6.48
156-60-5	trans-1,2-Dichloroethylene	U	1.30	ug/kg	0.389	1.30
75-34-3	1,1-Dichloroethane	U	1.30	ug/kg	0.389	1.30
78-93-3	2-Butanone	U	6.48	ug/kg	1.94	6.48
156-59-2	cis-1,2-Dichloroethylene	U	1.30	ug/kg	0.389	1.30
594-20-7	2,2-Dichloropropane	U	1.30	ug/kg	0.389	1.30
67-66-3	Chloroform	U	1.30	ug/kg	0.389	1.30
74-97-5	Bromochloromethane	U	1.30	ug/kg	0.428	1.30
71-55-6	1,1,1-Trichloroethane	U	1.30	ug/kg	0.389	1.30
563-58-6	1,1-Dichloropropene	U	1.30	ug/kg	0.389	1.30
56-23-5	Carbon tetrachloride	U	1.30	ug/kg	0.389	1.30
107-06-2	1,2-Dichloroethane	U	1.30	ug/kg	0.389	1.30
71-43-2	Benzene	U	1.30	ug/kg	0.389	1.30
79-01-6	Trichloroethylene	J	0.661	ug/kg	0.428	1.30
78-87-5	1,2-Dichloropropane	U	1.30	ug/kg	0.389	1.30
75-27-4	Bromodichloromethane	U	1.30	ug/kg	0.389	1.30
74-95-3	Dibromomethane	U	1.30	ug/kg	0.389	1.30
108-10-1	4-Methyl-2-pentanone	U	6.48	ug/kg	1.62	6.48
10061-01-5	cis-1,3-Dichloropropylene	U	1.30	ug/kg	0.389	1.30
108-88-3	Toluene	U	1.30	ug/kg	0.389	1.30
10061-02-6	trans-1,3-Dichloropropylene	U	1.30	ug/kg	0.389	1.30
79-00-5	1,1,2-Trichloroethane	U	1.30	ug/kg	0.389	1.30
591-78-6	2-Hexanone	U	6.48	ug/kg	1.94	6.48
142-28-9	1,3-Dichloropropane	U	1.30	ug/kg	0.389	1.30
127-18-4	Tetrachloroethylene	U	1.30	ug/kg	0.389	1.30
124-48-1	Dibromochloromethane	U	1.30	ug/kg	0.389	1.30
106-93-4	1,2-Dibromoethane	U	1.30	ug/kg	0.389	1.30
108-90-7	Chlorobenzene	U	1.30	ug/kg	0.389	1.30

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506001	Date Received: 03/03/2010 08:50	%Moisture: 22.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7407	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.1	Dilution: 1
Run Date: 03/09/2010 20:28	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:06	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4\4B208.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.30	ug/kg	0.389	1.30
179601-23-1	m,p-Xylenes	J	0.454	ug/kg	0.389	2.59
95-47-6	o-Xylene	U	1.30	ug/kg	0.389	1.30
100-42-5	Styrene	U	1.30	ug/kg	0.389	1.30
75-25-2	Bromoform	U	1.30	ug/kg	0.389	1.30
79-34-5	1,1,2,2-Tetrachloroethane	U	1.30	ug/kg	0.389	1.30
96-18-4	1,2,3-Trichloropropane	U	1.30	ug/kg	0.389	1.30
108-86-1	Bromobenzene	U	1.30	ug/kg	0.389	1.30
103-65-1	n-Propylbenzene	U	1.30	ug/kg	0.389	1.30
95-49-8	2-Chlorotoluene	U	1.30	ug/kg	0.389	1.30
98-82-8	Isopropylbenzene	U	1.30	ug/kg	0.389	1.30
108-67-8	1,3,5-Trimethylbenzene	U	1.30	ug/kg	0.389	1.30
106-43-4	4-Chlorotoluene	U	1.30	ug/kg	0.389	1.30
98-06-6	tert-Butylbenzene	U	1.30	ug/kg	0.389	1.30
95-63-6	1,2,4-Trimethylbenzene	J	0.454	ug/kg	0.389	1.30
135-98-8	sec-Butylbenzene	U	1.30	ug/kg	0.389	1.30
99-87-6	4-Isopropyltoluene	U	1.30	ug/kg	0.389	1.30
541-73-1	1,3-Dichlorobenzene	U	1.30	ug/kg	0.389	1.30
106-46-7	1,4-Dichlorobenzene	U	1.30	ug/kg	0.389	1.30
104-51-8	n-Butylbenzene	U	1.30	ug/kg	0.389	1.30
96-12-8	1,2-Dibromo-3-chloropropane	U	1.30	ug/kg	0.389	1.30
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.48	ug/kg	2.07	6.48
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.30	ug/kg	0.389	1.30
95-50-1	1,2-Dichlorobenzene	U	1.30	ug/kg	0.389	1.30

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	9.24	ug/kg	0	J
	unknown siloxane	16.79	8.15	ug/kg	0	J

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193  
Lab Sample ID: 248506002  
  
Client ID: RE36-10-7421  
Batch ID: 963417  
Run Date: 03/09/2010 20:56  
Prep Date: 03/09/2010 20:11  
Data File: 030910V44B209.D

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA4.1  
Analyst: ACJ  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 15  
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	1.18	ug/kg	0.400	1.18
74-87-3	Chloromethane	U	1.18	ug/kg	0.353	1.18
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.353	1.18
74-83-9	Bromomethane	U	1.18	ug/kg	0.353	1.18
75-00-3	Chloroethane	U	1.18	ug/kg	0.353	1.18
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.353	1.18
67-64-1	Acetone	J	4.74	ug/kg	1.95	5.88
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.353	1.18
74-88-4	Iodomethane	U	5.88	ug/kg	1.88	5.88
75-09-2	Methylene chloride	U	5.88	ug/kg	2.35	5.88
75-15-0	Carbon disulfide	U	5.88	ug/kg	1.47	5.88
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.353	1.18
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.353	1.18
78-93-3	2-Butanone	U	5.88	ug/kg	1.76	5.88
156-59-2	cis-1,2-Dichloroethylene	U	1.18	ug/kg	0.353	1.18
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.353	1.18
67-66-3	Chloroform	U	1.18	ug/kg	0.353	1.18
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.388	1.18
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.353	1.18
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.353	1.18
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.353	1.18
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.353	1.18
71-43-2	Benzene	U	1.18	ug/kg	0.353	1.18
79-01-6	Trichloroethylene	J	0.905	ug/kg	0.388	1.18
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.353	1.18
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.353	1.18
74-95-3	Dibromomethane	U	1.18	ug/kg	0.353	1.18
108-10-1	4-Methyl-2-pentanone	U	5.88	ug/kg	1.47	5.88
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.353	1.18
108-88-3	Toluene	U	1.18	ug/kg	0.353	1.18
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.353	1.18
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.353	1.18
591-78-6	2-Hexanone	U	5.88	ug/kg	1.76	5.88
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.353	1.18
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.353	1.18
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.353	1.18
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.353	1.18
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.353	1.18

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

SDG Number: 10-2193  
 Lab Sample ID: 248506002  
 Client ID: RE36-10-7421  
 Batch ID: 963417  
 Run Date: 03/09/2010 20:56  
 Prep Date: 03/09/2010 20:11  
 Data File: 030910V4V4B209.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 15  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.18	ug/kg	0.353	1.18
179601-23-1	m,p-Xylenes	U	2.35	ug/kg	0.353	2.35
95-47-6	o-Xylene	U	1.18	ug/kg	0.353	1.18
100-42-5	Styrene	U	1.18	ug/kg	0.353	1.18
75-25-2	Bromoform	U	1.18	ug/kg	0.353	1.18
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.353	1.18
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.353	1.18
108-86-1	Bromobenzene	U	1.18	ug/kg	0.353	1.18
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.353	1.18
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.353	1.18
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.353	1.18
108-67-8	1,3,5-Trimethylbenzene	U	1.18	ug/kg	0.353	1.18
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.353	1.18
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.353	1.18
95-63-6	1,2,4-Trimethylbenzene	U	1.18	ug/kg	0.353	1.18
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.353	1.18
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.353	1.18
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.353	1.18
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.353	1.18
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.353	1.18
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.353	1.18
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.88	ug/kg	1.88	5.88
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.353	1.18
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.353	1.18

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	13.6	ug/kg	0	J
	unknown siloxane	16.79	16	ug/kg	0	J

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506003	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 5.9
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7422	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 963417	<b>Inst:</b> VOA4.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/09/2010 21:23	<b>Analyst:</b> ACJ	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/09/2010 20:12	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 030910V44B210.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.361	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.319	1.06
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.319	1.06
74-83-9	Bromomethane	U	1.06	ug/kg	0.319	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.319	1.06
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.319	1.06
67-64-1	Acetone	J	2.28	ug/kg	1.76	5.31
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.319	1.06
74-88-4	Iodomethane	U	5.31	ug/kg	1.70	5.31
75-09-2	Methylene chloride	U	5.31	ug/kg	2.12	5.31
75-15-0	Carbon disulfide	U	5.31	ug/kg	1.33	5.31
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.319	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.319	1.06
78-93-3	2-Butanone	U	5.31	ug/kg	1.59	5.31
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.319	1.06
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.319	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.319	1.06
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.351	1.06
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.319	1.06
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.319	1.06
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.319	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.319	1.06
71-43-2	Benzene	U	1.06	ug/kg	0.319	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.351	1.06
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.319	1.06
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.319	1.06
74-95-3	Dibromomethane	U	1.06	ug/kg	0.319	1.06
108-10-1	4-Methyl-2-pentanone	U	5.31	ug/kg	1.33	5.31
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.319	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.319	1.06
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.319	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.319	1.06
591-78-6	2-Hexanone	U	5.31	ug/kg	1.59	5.31
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.319	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.319	1.06
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.319	1.06
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.319	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.319	1.06

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

SDG Number: 10-2193  
 Lab Sample ID: 248506003  
 Client ID: RE36-10-7422  
 Batch ID: 963417  
 Run Date: 03/09/2010 21:23  
 Prep Date: 03/09/2010 20:12  
 Data File: 030910V4V4B210.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 5.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.319	1.06
179601-23-1	m,p-Xylenes	J	0.414	ug/kg	0.319	2.12
95-47-6	o-Xylene	U	1.06	ug/kg	0.319	1.06
100-42-5	Styrene	U	1.06	ug/kg	0.319	1.06
75-25-2	Bromoform	U	1.06	ug/kg	0.319	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.319	1.06
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.319	1.06
108-86-1	Bromobenzene	U	1.06	ug/kg	0.319	1.06
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.319	1.06
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.319	1.06
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.319	1.06
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.319	1.06
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.319	1.06
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.319	1.06
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.319	1.06
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.319	1.06
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.319	1.06
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.319	1.06
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.319	1.06
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.319	1.06
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.319	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.31	ug/kg	1.70	5.31
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.319	1.06
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.319	1.06

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	8.58	ug/kg	0	J
	unknown hydrocarbon	14.79	18.4	ug/kg	0	J
	unknown siloxane	16.79	7.37	ug/kg	0	J



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

SDG Number: 10-2193  
 Lab Sample ID: 248506004

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 39.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.65	ug/kg	0.561	1.65
74-87-3	Chloromethane	U	1.65	ug/kg	0.495	1.65
75-01-4	Vinyl chloride	U	1.65	ug/kg	0.495	1.65
74-83-9	Bromomethane	U	1.65	ug/kg	0.495	1.65
75-00-3	Chloroethane	U	1.65	ug/kg	0.495	1.65
75-69-4	Trichlorofluoromethane	U	1.65	ug/kg	0.495	1.65
67-64-1	Acetone	J	2.86	ug/kg	2.74	8.25
75-35-4	1,1-Dichloroethylene		2.46	ug/kg	0.495	1.65
74-88-4	Iodomethane	U	8.25	ug/kg	2.64	8.25
75-09-2	Methylene chloride	U	8.25	ug/kg	3.30	8.25
75-15-0	Carbon disulfide	U	8.25	ug/kg	2.06	8.25
156-60-5	trans-1,2-Dichloroethylene	U	1.65	ug/kg	0.495	1.65
75-34-3	1,1-Dichloroethane	U	1.65	ug/kg	0.495	1.65
78-93-3	2-Butanone	U	8.25	ug/kg	2.48	8.25
156-59-2	cis-1,2-Dichloroethylene	U	1.65	ug/kg	0.495	1.65
594-20-7	2,2-Dichloropropane	U	1.65	ug/kg	0.495	1.65
67-66-3	Chloroform	U	1.65	ug/kg	0.495	1.65
74-97-5	Bromochloromethane	U	1.65	ug/kg	0.545	1.65
71-55-6	1,1,1-Trichloroethane	U	1.65	ug/kg	0.495	1.65
563-58-6	1,1-Dichloropropene	U	1.65	ug/kg	0.495	1.65
56-23-5	Carbon tetrachloride	U	1.65	ug/kg	0.495	1.65
107-06-2	1,2-Dichloroethane	U	1.65	ug/kg	0.495	1.65
71-43-2	Benzene	U	1.65	ug/kg	0.495	1.65
79-01-6	Trichloroethylene	U	1.65	ug/kg	0.545	1.65
78-87-5	1,2-Dichloropropane	U	1.65	ug/kg	0.495	1.65
75-27-4	Bromodichloromethane	U	1.65	ug/kg	0.495	1.65
74-95-3	Dibromomethane	U	1.65	ug/kg	0.495	1.65
108-10-1	4-Methyl-2-pentanone	U	8.25	ug/kg	2.06	8.25
10061-01-5	cis-1,3-Dichloropropylene	U	1.65	ug/kg	0.495	1.65
108-88-3	Toluene		3.20	ug/kg	0.495	1.65
10061-02-6	trans-1,3-Dichloropropylene	U	1.65	ug/kg	0.495	1.65
79-00-5	1,1,2-Trichloroethane	U	1.65	ug/kg	0.495	1.65
591-78-6	2-Hexanone	U	8.25	ug/kg	2.48	8.25
142-28-9	1,3-Dichloropropane	U	1.65	ug/kg	0.495	1.65
127-18-4	Tetrachloroethylene	U	1.65	ug/kg	0.495	1.65
124-48-1	Dibromochloromethane	U	1.65	ug/kg	0.495	1.65
106-93-4	1,2-Dibromoethane	U	1.65	ug/kg	0.495	1.65
108-90-7	Chlorobenzene	U	1.65	ug/kg	0.495	1.65

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

SDG Number: 10-2193  
 Lab Sample ID: 248506004  
 Client ID: RE36-10-7451  
 Batch ID: 963417  
 Run Date: 03/09/2010 21:50  
 Prep Date: 03/09/2010 20:13  
 Data File: 030910V44B211.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 39.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.65	ug/kg	0.495	1.65
179601-23-1	m,p-Xylenes	J	0.792	ug/kg	0.495	3.30
95-47-6	o-Xylene	U	1.65	ug/kg	0.495	1.65
100-42-5	Styrene	U	1.65	ug/kg	0.495	1.65
75-25-2	Bromoform	U	1.65	ug/kg	0.495	1.65
79-34-5	1,1,2,2-Tetrachloroethane	U	1.65	ug/kg	0.495	1.65
96-18-4	1,2,3-Trichloropropane	U	1.65	ug/kg	0.495	1.65
108-86-1	Bromobenzene	U	1.65	ug/kg	0.495	1.65
103-65-1	n-Propylbenzene	U	1.65	ug/kg	0.495	1.65
95-49-8	2-Chlorotoluene	U	1.65	ug/kg	0.495	1.65
98-82-8	Isopropylbenzene	U	1.65	ug/kg	0.495	1.65
108-67-8	1,3,5-Trimethylbenzene	U	1.65	ug/kg	0.495	1.65
106-43-4	4-Chlorotoluene	U	1.65	ug/kg	0.495	1.65
98-06-6	tert-Butylbenzene	U	1.65	ug/kg	0.495	1.65
95-63-6	1,2,4-Trimethylbenzene	U	1.65	ug/kg	0.495	1.65
135-98-8	sec-Butylbenzene	U	1.65	ug/kg	0.495	1.65
99-87-6	4-Isopropyltoluene		3.38	ug/kg	0.495	1.65
541-73-1	1,3-Dichlorobenzene	U	1.65	ug/kg	0.495	1.65
106-46-7	1,4-Dichlorobenzene	U	1.65	ug/kg	0.495	1.65
104-51-8	n-Butylbenzene	U	1.65	ug/kg	0.495	1.65
96-12-8	1,2-Dibromo-3-chloropropane	U	1.65	ug/kg	0.495	1.65
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	8.25	ug/kg	2.64	8.25
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.65	ug/kg	0.495	1.65
95-50-1	1,2-Dichlorobenzene	U	1.65	ug/kg	0.495	1.65

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	33.5	ug/kg	0	J
	unknown hydrocarbon	14.79	80.4	ug/kg	0	J
	unknown hydrocarbon	15.11	31.3	ug/kg	0	J
	unknown substituted benzene	15.4	13.7	ug/kg	0	J
	unknown hydrocarbon	15.8	67.4	ug/kg	0	J

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

SDG Number: 10-2193  
 Lab Sample ID: 248506005  
 Client ID: RE36-10-7449  
 Batch ID: 963417  
 Run Date: 03/09/2010 22:17  
 Prep Date: 03/09/2010 20:14  
 Data File: 030910V44B212.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL.010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 17.8  
 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	1.22	ug/kg	0.414	1.22
74-87-3	Chloromethane	U	1.22	ug/kg	0.365	1.22
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.365	1.22
74-83-9	Bromomethane	U	1.22	ug/kg	0.365	1.22
75-00-3	Chloroethane	U	1.22	ug/kg	0.365	1.22
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.365	1.22
67-64-1	Acetone	U	6.08	ug/kg	2.02	6.08
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
74-88-4	Iodomethane	U	6.08	ug/kg	1.95	6.08
75-09-2	Methylene chloride	U	6.08	ug/kg	2.43	6.08
75-15-0	Carbon disulfide	U	6.08	ug/kg	1.52	6.08
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.365	1.22
78-93-3	2-Butanone	U	6.08	ug/kg	1.83	6.08
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.365	1.22
67-66-3	Chloroform	U	1.22	ug/kg	0.365	1.22
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.402	1.22
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.365	1.22
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.365	1.22
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.365	1.22
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.365	1.22
71-43-2	Benzene	U	1.22	ug/kg	0.365	1.22
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.402	1.22
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.365	1.22
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.365	1.22
74-95-3	Dibromomethane	U	1.22	ug/kg	0.365	1.22
108-10-1	4-Methyl-2-pentanone	U	6.08	ug/kg	1.52	6.08
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.365	1.22
108-88-3	Toluene	U	1.22	ug/kg	0.365	1.22
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.365	1.22
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.365	1.22
591-78-6	2-Hexanone	U	6.08	ug/kg	1.83	6.08
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.365	1.22
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.365	1.22
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.365	1.22
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.365	1.22
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.365	1.22

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

SDG Number: 10-2193  
 Lab Sample ID: 248506005  
 Client ID: RE36-10-7449  
 Batch ID: 963417  
 Run Date: 03/09/2010 22:17  
 Prep Date: 03/09/2010 20:14  
 Data File: 030910V44B212.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.J  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 17.8  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.22	ug/kg	0.365	1.22
179601-23-1	m,p-Xylenes	U	2.43	ug/kg	0.365	2.43
95-47-6	o-Xylene	U	1.22	ug/kg	0.365	1.22
100-42-5	Styrene	U	1.22	ug/kg	0.365	1.22
75-25-2	Bromoform	U	1.22	ug/kg	0.365	1.22
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.365	1.22
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.365	1.22
108-86-1	Bromobenzene	U	1.22	ug/kg	0.365	1.22
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.365	1.22
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.365	1.22
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.365	1.22
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.365	1.22
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.365	1.22
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.365	1.22
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.365	1.22
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.365	1.22
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.365	1.22
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22
106-46-7	1,4-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.365	1.22
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.365	1.22
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.08	ug/kg	1.95	6.08
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.365	1.22
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	13.6	ug/kg	0	J

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506006	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 25.6
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7445	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 963417	<b>Inst:</b> VOA4.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/09/2010 22:45	<b>Analyst:</b> ACJ	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/09/2010 20:15	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 030910V44B213.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.34	ug/kg	0.457	1.34
74-87-3	Chloromethane	U	1.34	ug/kg	0.403	1.34
75-01-4	Vinyl chloride	U	1.34	ug/kg	0.403	1.34
74-83-9	Bromomethane	U	1.34	ug/kg	0.403	1.34
75-00-3	Chloroethane	U	1.34	ug/kg	0.403	1.34
75-69-4	Trichlorofluoromethane	U	1.34	ug/kg	0.403	1.34
67-64-1	Acetone	J	3.28	ug/kg	2.23	6.72
75-35-4	1,1-Dichloroethylene	U	1.34	ug/kg	0.403	1.34
74-88-4	Iodomethane	U	6.72	ug/kg	2.15	6.72
75-09-2	Methylene chloride	U	6.72	ug/kg	2.69	6.72
75-15-0	Carbon disulfide	U	6.72	ug/kg	1.68	6.72
156-60-5	trans-1,2-Dichloroethylene	U	1.34	ug/kg	0.403	1.34
75-34-3	1,1-Dichloroethane	U	1.34	ug/kg	0.403	1.34
78-93-3	2-Butanone	U	6.72	ug/kg	2.02	6.72
156-59-2	cis-1,2-Dichloroethylene	U	1.34	ug/kg	0.403	1.34
594-20-7	2,2-Dichloropropane	U	1.34	ug/kg	0.403	1.34
67-66-3	Chloroform	U	1.34	ug/kg	0.403	1.34
74-97-5	Bromochloromethane	U	1.34	ug/kg	0.444	1.34
71-55-6	1,1,1-Trichloroethane	U	1.34	ug/kg	0.403	1.34
563-58-6	1,1-Dichloropropene	U	1.34	ug/kg	0.403	1.34
56-23-5	Carbon tetrachloride	U	1.34	ug/kg	0.403	1.34
107-06-2	1,2-Dichloroethane	U	1.34	ug/kg	0.403	1.34
71-43-2	Benzene	U	1.34	ug/kg	0.403	1.34
79-01-6	Trichloroethylene	J	0.632	ug/kg	0.444	1.34
78-87-5	1,2-Dichloropropane	U	1.34	ug/kg	0.403	1.34
75-27-4	Bromodichloromethane	U	1.34	ug/kg	0.403	1.34
74-95-3	Dibromomethane	U	1.34	ug/kg	0.403	1.34
108-10-1	4-Methyl-2-pentanone	U	6.72	ug/kg	1.68	6.72
10061-01-5	cis-1,3-Dichloropropylene	U	1.34	ug/kg	0.403	1.34
108-88-3	Toluene	U	1.34	ug/kg	0.403	1.34
10061-02-6	trans-1,3-Dichloropropylene	U	1.34	ug/kg	0.403	1.34
79-00-5	1,1,2-Trichloroethane	U	1.34	ug/kg	0.403	1.34
591-78-6	2-Hexanone	U	6.72	ug/kg	2.02	6.72
142-28-9	1,3-Dichloropropane	U	1.34	ug/kg	0.403	1.34
127-18-4	Tetrachloroethylene	U	1.34	ug/kg	0.403	1.34
124-48-1	Dibromochloromethane	U	1.34	ug/kg	0.403	1.34
106-93-4	1,2-Dibromoethane	U	1.34	ug/kg	0.403	1.34
108-90-7	Chlorobenzene	U	1.34	ug/kg	0.403	1.34

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

SDG Number: 10-2193  
 Lab Sample ID: 248506006  
 Client ID: RE36-10-7445  
 Batch ID: 963417  
 Run Date: 03/09/2010 22:45  
 Prep Date: 03/09/2010 20:15  
 Data File: 030910V44B213.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 25.6  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.34	ug/kg	0.403	1.34
179601-23-1	m,p-Xylenes	J	0.430	ug/kg	0.403	2.69
95-47-6	o-Xylene	U	1.34	ug/kg	0.403	1.34
100-42-5	Styrene	U	1.34	ug/kg	0.403	1.34
75-25-2	Bromoform	U	1.34	ug/kg	0.403	1.34
79-34-5	1,1,2,2-Tetrachloroethane	U	1.34	ug/kg	0.403	1.34
96-18-4	1,2,3-Trichloropropane	U	1.34	ug/kg	0.403	1.34
108-86-1	Bromobenzene	U	1.34	ug/kg	0.403	1.34
103-65-1	n-Propylbenzene	U	1.34	ug/kg	0.403	1.34
95-49-8	2-Chlorotoluene	U	1.34	ug/kg	0.403	1.34
98-82-8	Isopropylbenzene	U	1.34	ug/kg	0.403	1.34
108-67-8	1,3,5-Trimethylbenzene	U	1.34	ug/kg	0.403	1.34
106-43-4	4-Chlorotoluene	U	1.34	ug/kg	0.403	1.34
98-06-6	tert-Butylbenzene	U	1.34	ug/kg	0.403	1.34
95-63-6	1,2,4-Trimethylbenzene	U	1.34	ug/kg	0.403	1.34
135-98-8	sec-Butylbenzene	U	1.34	ug/kg	0.403	1.34
99-87-6	4-Isopropyltoluene	U	1.34	ug/kg	0.403	1.34
541-73-1	1,3-Dichlorobenzene	U	1.34	ug/kg	0.403	1.34
106-46-7	1,4-Dichlorobenzene	U	1.34	ug/kg	0.403	1.34
104-51-8	n-Butylbenzene	U	1.34	ug/kg	0.403	1.34
96-12-8	1,2-Dibromo-3-chloropropane	U	1.34	ug/kg	0.403	1.34
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.72	ug/kg	2.15	6.72
630-20-6	1,1,1,2-Tetrachloroethane	U	1.34	ug/kg	0.403	1.34
95-50-1	1,2-Dichlorobenzene	U	1.34	ug/kg	0.403	1.34

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	15.5	ug/kg	0	J
	unknown hydrocarbon	14.79	17	ug/kg	0	J
	unknown hydrocarbon	15.79	21.1	ug/kg	0	J
	unknown siloxane	16.79	23.6	ug/kg	0	J

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

SDG Number: 10-2193  
 Lab Sample ID: 248506007

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 9.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7450  
 Batch ID: 963417  
 Run Date: 03/09/2010 23:12  
 Prep Date: 03/09/2010 20:16  
 Data File: 030910V4V4B214.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.377	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.333	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.333	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.333	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.333	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.333	1.11
67-64-1	Acetone	U	5.55	ug/kg	1.84	5.55
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
74-88-4	Iodomethane	U	5.55	ug/kg	1.78	5.55
75-09-2	Methylene chloride	U	5.55	ug/kg	2.22	5.55
75-15-0	Carbon disulfide	U	5.55	ug/kg	1.39	5.55
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.333	1.11
78-93-3	2-Butanone	U	5.55	ug/kg	1.66	5.55
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.333	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.366	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.333	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.333	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.333	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.333	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.333	1.11
79-01-6	Trichloroethylene	U	1.11	ug/kg	0.366	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.333	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.333	1.11
108-10-1	4-Methyl-2-pentanone	U	5.55	ug/kg	1.39	5.55
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.333	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.333	1.11
591-78-6	2-Hexanone	U	5.55	ug/kg	1.66	5.55
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.333	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.333	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.333	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.333	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.333	1.11

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193  
Lab Sample ID: 248506007  
  
Client ID: RE36-10-7450  
Batch ID: 963417  
Run Date: 03/09/2010 23:12  
Prep Date: 03/09/2010 20:16  
Data File: 030910V4V4B214.D

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA4.1  
Analyst: ACJ  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 9.9  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.333	1.11
179601-23-1	m,p-Xylenes	U	2.22	ug/kg	0.333	2.22
95-47-6	o-Xylene	U	1.11	ug/kg	0.333	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.333	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.333	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.333	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.333	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.333	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.333	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.333	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.333	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.333	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.333	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.333	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.333	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.333	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.55	ug/kg	1.78	5.55
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	11.9	ug/kg	0	J



**Volatile  
Certificate of Analysis  
Sample Summary**

**SDG Number:** 10-2193  
**Lab Sample ID:** 248506008

**Date Collected:** 02/25/2010 12:00  
**Date Received:** 03/03/2010 08:50  
**Client:** LANL010  
**Method:** SW846 8260B  
**Inst:** VOA4.1  
**Analyst:** ACJ  
**Aliquot:** 5 g  
**Column:** DB-624

**Matrix:** R  
**%Moisture:** 20.6  
**Project:** LANL01004  
**SOP Ref:** GL-OA-E-038  
**Dilution:** 1  
**Purge Vol:** 5 mL  
**Final Volume:** 5 mL

**Client ID:** RE36-10-7444  
**Batch ID:** 963417  
**Run Date:** 03/09/2010 23:39  
**Prep Date:** 03/09/2010 20:17  
**Data File:** 030910V4VB215.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.26	ug/kg	0.428	1.26
74-87-3	Chloromethane	U	1.26	ug/kg	0.378	1.26
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.378	1.26
74-83-9	Bromomethane	U	1.26	ug/kg	0.378	1.26
75-00-3	Chloroethane	U	1.26	ug/kg	0.378	1.26
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.378	1.26
67-64-1	Acetone	U	6.30	ug/kg	2.09	6.30
75-35-4	1,1-Dichloroethylene	U	1.26	ug/kg	0.378	1.26
74-88-4	Iodomethane	U	6.30	ug/kg	2.01	6.30
75-09-2	Methylene chloride	U	6.30	ug/kg	2.52	6.30
75-15-0	Carbon disulfide	U	6.30	ug/kg	1.57	6.30
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.378	1.26
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.378	1.26
78-93-3	2-Butanone	U	6.30	ug/kg	1.89	6.30
156-59-2	cis-1,2-Dichloroethylene	U	1.26	ug/kg	0.378	1.26
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.378	1.26
67-66-3	Chloroform	U	1.26	ug/kg	0.378	1.26
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.415	1.26
71-55-6	1,1,1-Trichloroethane	U	1.26	ug/kg	0.378	1.26
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.378	1.26
56-23-5	Carbon tetrachloride	U	1.26	ug/kg	0.378	1.26
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.378	1.26
71-43-2	Benzene	U	1.26	ug/kg	0.378	1.26
79-01-6	Trichloroethylene	U	1.26	ug/kg	0.415	1.26
78-87-5	1,2-Dichloropropane	U	1.26	ug/kg	0.378	1.26
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.378	1.26
74-95-3	Dibromomethane	U	1.26	ug/kg	0.378	1.26
108-10-1	4-Methyl-2-pentanone	U	6.30	ug/kg	1.57	6.30
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.378	1.26
108-88-3	Toluene	U	1.26	ug/kg	0.378	1.26
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.378	1.26
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.378	1.26
591-78-6	2-Hexanone	U	6.30	ug/kg	1.89	6.30
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.378	1.26
127-18-4	Tetrachloroethylene	U	1.26	ug/kg	0.378	1.26
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.378	1.26
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.378	1.26
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.378	1.26

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506008	Date Received: 03/03/2010 08:50	%Moisture: 20.6
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7444	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.I	Dilution: 1
Run Date: 03/09/2010 23:39	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:17	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4\4B215.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.26	ug/kg	0.378	1.26
179601-23-1	m,p-Xylenes	U	2.52	ug/kg	0.378	2.52
95-47-6	o-Xylene	U	1.26	ug/kg	0.378	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.378	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.378	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.378	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.378	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.378	1.26
103-65-1	n-Propylbenzene	U	1.26	ug/kg	0.378	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.378	1.26
98-82-8	Isopropylbenzene	U	1.26	ug/kg	0.378	1.26
108-67-8	1,3,5-Trimethylbenzene	U	1.26	ug/kg	0.378	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.378	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.378	1.26
95-63-6	1,2,4-Trimethylbenzene	U	1.26	ug/kg	0.378	1.26
135-98-8	sec-Butylbenzene	U	1.26	ug/kg	0.378	1.26
99-87-6	4-Isopropyltoluene	U	1.26	ug/kg	0.378	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26
104-51-8	n-Butylbenzene	U	1.26	ug/kg	0.378	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.378	1.26
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.30	ug/kg	2.01	6.30
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.26	ug/kg	0.378	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	17.5	ug/kg	0	J
	unknown siloxane	16.79	8.46	ug/kg	0	J

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

SDG Number: 10-2193  
 Lab Sample ID: 248S06009  
 Client ID: RE36-10-7448  
 Batch ID: 963417  
 Run Date: 03/10/2010 00:07  
 Prep Date: 03/09/2010 20:18  
 Data File: 030910V44B216.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 17.5  
 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	1.21	ug/kg	0.412	1.21
74-87-3	Chloromethane	U	1.21	ug/kg	0.364	1.21
75-01-4	Vinyl chloride	U	1.21	ug/kg	0.364	1.21
74-83-9	Bromomethane	U	1.21	ug/kg	0.364	1.21
75-00-3	Chloroethane	U	1.21	ug/kg	0.364	1.21
75-69-4	Trichlorofluoromethane	U	1.21	ug/kg	0.364	1.21
67-64-1	Acetone	U	6.06	ug/kg	2.01	6.06
75-35-4	1,1-Dichloroethylene	U	1.21	ug/kg	0.364	1.21
74-88-4	Iodomethane	U	6.06	ug/kg	1.94	6.06
75-09-2	Methylene chloride	U	6.06	ug/kg	2.42	6.06
75-15-0	Carbon disulfide	U	6.06	ug/kg	1.52	6.06
156-60-5	trans-1,2-Dichloroethylene	U	1.21	ug/kg	0.364	1.21
75-34-3	1,1-Dichloroethane	U	1.21	ug/kg	0.364	1.21
78-93-3	2-Butanone	U	6.06	ug/kg	1.82	6.06
156-59-2	cis-1,2-Dichloroethylene	U	1.21	ug/kg	0.364	1.21
594-20-7	2,2-Dichloropropane	U	1.21	ug/kg	0.364	1.21
67-66-3	Chloroform	U	1.21	ug/kg	0.364	1.21
74-97-5	Bromochloromethane	U	1.21	ug/kg	0.400	1.21
71-55-6	1,1,1-Trichloroethane	U	1.21	ug/kg	0.364	1.21
563-58-6	1,1-Dichloropropene	U	1.21	ug/kg	0.364	1.21
56-23-5	Carbon tetrachloride	U	1.21	ug/kg	0.364	1.21
107-06-2	1,2-Dichloroethane	U	1.21	ug/kg	0.364	1.21
71-43-2	Benzene	U	1.21	ug/kg	0.364	1.21
79-01-6	Trichloroethylene	U	1.21	ug/kg	0.400	1.21
78-87-5	1,2-Dichloropropane	U	1.21	ug/kg	0.364	1.21
75-27-4	Bromodichloromethane	U	1.21	ug/kg	0.364	1.21
74-95-3	Dibromomethane	U	1.21	ug/kg	0.364	1.21
108-10-1	4-Methyl-2-pentanone	U	6.06	ug/kg	1.52	6.06
10061-01-5	cis-1,3-Dichloropropylene	U	1.21	ug/kg	0.364	1.21
108-88-3	Toluene	U	1.21	ug/kg	0.364	1.21
10061-02-6	trans-1,3-Dichloropropylene	U	1.21	ug/kg	0.364	1.21
79-00-5	1,1,2-Trichloroethane	U	1.21	ug/kg	0.364	1.21
591-78-6	2-Hexanone	U	6.06	ug/kg	1.82	6.06
142-28-9	1,3-Dichloropropane	U	1.21	ug/kg	0.364	1.21
127-18-4	Tetrachloroethylene	U	1.21	ug/kg	0.364	1.21
124-48-1	Dibromochloromethane	U	1.21	ug/kg	0.364	1.21
106-93-4	1,2-Dibromoethane	U	1.21	ug/kg	0.364	1.21
108-90-7	Chlorobenzene	U	1.21	ug/kg	0.364	1.21

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

SDG Number: 10-2193  
 Lab Sample ID: 248506009  
 Client ID: RE36-10-7448  
 Batch ID: 963417  
 Run Date: 03/10/2010 00:07  
 Prep Date: 03/09/2010 20:18  
 Data File: 030910V44B216.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 17.5  
 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/L.O.D	PQL/L.O.Q
100-41-4	Ethylbenzene	U	1.21	ug/kg	0.364	1.21
179601-23-1	m,p-Xylenes	U	2.42	ug/kg	0.364	2.42
95-47-6	o-Xylene	U	1.21	ug/kg	0.364	1.21
100-42-5	Styrene	U	1.21	ug/kg	0.364	1.21
75-25-2	Bromoform	U	1.21	ug/kg	0.364	1.21
79-34-5	1,1,2,2-Tetrachloroethane	U	1.21	ug/kg	0.364	1.21
96-18-4	1,2,3-Trichloropropane	U	1.21	ug/kg	0.364	1.21
108-86-1	Bromobenzene	U	1.21	ug/kg	0.364	1.21
103-65-1	n-Propylbenzene	U	1.21	ug/kg	0.364	1.21
95-49-8	2-Chlorotoluene	U	1.21	ug/kg	0.364	1.21
98-82-8	Isopropylbenzene	U	1.21	ug/kg	0.364	1.21
108-67-8	1,3,5-Trimethylbenzene	U	1.21	ug/kg	0.364	1.21
106-43-4	4-Chlorotoluene	U	1.21	ug/kg	0.364	1.21
98-06-6	tert-Butylbenzene	U	1.21	ug/kg	0.364	1.21
95-63-6	1,2,4-Trimethylbenzene	U	1.21	ug/kg	0.364	1.21
135-98-8	sec-Butylbenzene	U	1.21	ug/kg	0.364	1.21
99-87-6	4-Isopropyltoluene	U	1.21	ug/kg	0.364	1.21
541-73-1	1,3-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21
106-46-7	1,4-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21
104-51-8	n-Butylbenzene	U	1.21	ug/kg	0.364	1.21
96-12-8	1,2-Dibromo-3-chloropropane	U	1.21	ug/kg	0.364	1.21
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.06	ug/kg	1.94	6.06
630-20-6	1,1,1,2-Tetrachloroethane	U	1.21	ug/kg	0.364	1.21
95-50-1	1,2-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	9.2	ug/kg	0	J
	unknown siloxane	16.79	6.52	ug/kg	0	J

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

SDG Number: 10-2193  
 Lab Sample ID: 248506010  
 Client ID: RE36-10-7447  
 Batch ID: 963417  
 Run Date: 03/10/2010 00:35  
 Prep Date: 03/09/2010 20:19  
 Data File: 030910V44B217.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4J  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 28.5  
 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	1.40	ug/kg	0.476	1.40
74-87-3	Chloromethane	U	1.40	ug/kg	0.420	1.40
75-01-4	Vinyl chloride	U	1.40	ug/kg	0.420	1.40
74-83-9	Bromomethane	U	1.40	ug/kg	0.420	1.40
75-00-3	Chloroethane	U	1.40	ug/kg	0.420	1.40
75-69-4	Trichlorofluoromethane	U	1.40	ug/kg	0.420	1.40
67-64-1	Acetone	U	6.99	ug/kg	2.32	6.99
75-35-4	1,1-Dichloroethylene	U	1.40	ug/kg	0.420	1.40
74-88-4	Iodomethane	U	6.99	ug/kg	2.24	6.99
75-09-2	Methylene chloride	U	6.99	ug/kg	2.80	6.99
75-15-0	Carbon disulfide	U	6.99	ug/kg	1.75	6.99
156-60-5	trans-1,2-Dichloroethylene	U	1.40	ug/kg	0.420	1.40
75-34-3	1,1-Dichloroethane	U	1.40	ug/kg	0.420	1.40
78-93-3	2-Butanone	U	6.99	ug/kg	2.10	6.99
156-59-2	cis-1,2-Dichloroethylene	U	1.40	ug/kg	0.420	1.40
594-20-7	2,2-Dichloropropane	U	1.40	ug/kg	0.420	1.40
67-66-3	Chloroform	U	1.40	ug/kg	0.420	1.40
74-97-5	Bromochloromethane	U	1.40	ug/kg	0.462	1.40
71-55-6	1,1,1-Trichloroethane	U	1.40	ug/kg	0.420	1.40
563-58-6	1,1-Dichloropropene	U	1.40	ug/kg	0.420	1.40
56-23-5	Carbon tetrachloride	U	1.40	ug/kg	0.420	1.40
107-06-2	1,2-Dichloroethane	U	1.40	ug/kg	0.420	1.40
71-43-2	Benzene	U	1.40	ug/kg	0.420	1.40
79-01-6	Trichloroethylene	U	1.40	ug/kg	0.462	1.40
78-87-5	1,2-Dichloropropane	U	1.40	ug/kg	0.420	1.40
75-27-4	Bromodichloromethane	U	1.40	ug/kg	0.420	1.40
74-95-3	Dibromomethane	U	1.40	ug/kg	0.420	1.40
108-10-1	4-Methyl-2-pentanone	U	6.99	ug/kg	1.75	6.99
10061-01-5	cis-1,3-Dichloropropylene	U	1.40	ug/kg	0.420	1.40
108-88-3	Toluene	U	1.40	ug/kg	0.420	1.40
10061-02-6	trans-1,3-Dichloropropylene	U	1.40	ug/kg	0.420	1.40
79-00-5	1,1,2-Trichloroethane	U	1.40	ug/kg	0.420	1.40
591-78-6	2-Hexanone	U	6.99	ug/kg	2.10	6.99
142-28-9	1,3-Dichloropropane	U	1.40	ug/kg	0.420	1.40
127-18-4	Tetrachloroethylene	U	1.40	ug/kg	0.420	1.40
124-48-1	Dibromochloromethane	U	1.40	ug/kg	0.420	1.40
106-93-4	1,2-Dibromoethane	U	1.40	ug/kg	0.420	1.40
108-90-7	Chlorobenzene	U	1.40	ug/kg	0.420	1.40

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

Page 2 of 2

SDG Number: 10-2193  
 Lab Sample ID: 248506010

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 28.5  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7447  
 Batch ID: 963417  
 Run Date: 03/10/2010 00:35  
 Prep Date: 03/09/2010 20:19  
 Data File: 030910V4W4B217.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.40	ug/kg	0.420	1.40
179601-23-1	m,p-Xylenes	U	2.80	ug/kg	0.420	2.80
95-47-6	o-Xylene	U	1.40	ug/kg	0.420	1.40
100-42-5	Styrene	U	1.40	ug/kg	0.420	1.40
75-25-2	Bromoform	U	1.40	ug/kg	0.420	1.40
79-34-5	1,1,2,2-Tetrachloroethane	U	1.40	ug/kg	0.420	1.40
96-18-4	1,2,3-Trichloropropane	U	1.40	ug/kg	0.420	1.40
108-86-1	Bromobenzene	U	1.40	ug/kg	0.420	1.40
103-65-1	n-Propylbenzene	U	1.40	ug/kg	0.420	1.40
95-49-8	2-Chlorotoluene	U	1.40	ug/kg	0.420	1.40
98-82-8	Isopropylbenzene	U	1.40	ug/kg	0.420	1.40
108-67-8	1,3,5-Trimethylbenzene	U	1.40	ug/kg	0.420	1.40
106-43-4	4-Chlorotoluene	U	1.40	ug/kg	0.420	1.40
98-06-6	tert-Butylbenzene	U	1.40	ug/kg	0.420	1.40
95-63-6	1,2,4-Trimethylbenzene	U	1.40	ug/kg	0.420	1.40
135-98-8	sec-Butylbenzene	U	1.40	ug/kg	0.420	1.40
99-87-6	4-Isopropyltoluene	U	1.40	ug/kg	0.420	1.40
541-73-1	1,3-Dichlorobenzene	U	1.40	ug/kg	0.420	1.40
106-46-7	1,4-Dichlorobenzene	U	1.40	ug/kg	0.420	1.40
104-51-8	n-Butylbenzene	U	1.40	ug/kg	0.420	1.40
96-12-8	1,2-Dibromo-3-chloropropane	U	1.40	ug/kg	0.420	1.40
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.99	ug/kg	2.24	6.99
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.40	ug/kg	0.420	1.40
95-50-1	1,2-Dichlorobenzene	U	1.40	ug/kg	0.420	1.40

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	12.5	ug/kg	0	J

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

SDG Number: 10-2193  
 Lab Sample ID: 248506011

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 25.1  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7443  
 Batch ID: 963417  
 Run Date: 03/10/2010 01:02  
 Prep Date: 03/09/2010 20:20  
 Data File: 030910V4VB218.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.34	ug/kg	0.454	1.34
74-87-3	Chloromethane	U	1.34	ug/kg	0.401	1.34
75-01-4	Vinyl chloride	U	1.34	ug/kg	0.401	1.34
74-83-9	Bromomethane	U	1.34	ug/kg	0.401	1.34
75-00-3	Chloroethane	U	1.34	ug/kg	0.401	1.34
75-69-4	Trichlorofluoromethane	U	1.34	ug/kg	0.401	1.34
67-64-1	Acetone	U	6.68	ug/kg	2.22	6.68
75-35-4	1,1-Dichloroethylene	U	1.34	ug/kg	0.401	1.34
74-88-4	Iodomethane	U	6.68	ug/kg	2.14	6.68
75-09-2	Methylene chloride	U	6.68	ug/kg	2.67	6.68
75-15-0	Carbon disulfide	U	6.68	ug/kg	1.67	6.68
156-60-5	trans-1,2-Dichloroethylene	U	1.34	ug/kg	0.401	1.34
75-34-3	1,1-Dichloroethane	U	1.34	ug/kg	0.401	1.34
78-93-3	2-Butanone	U	6.68	ug/kg	2.00	6.68
156-59-2	cis-1,2-Dichloroethylene	U	1.34	ug/kg	0.401	1.34
594-20-7	2,2-Dichloropropane	U	1.34	ug/kg	0.401	1.34
67-66-3	Chloroform	U	1.34	ug/kg	0.401	1.34
74-97-5	Bromochloromethane	U	1.34	ug/kg	0.441	1.34
71-55-6	1,1,1-Trichloroethane	U	1.34	ug/kg	0.401	1.34
563-58-6	1,1-Dichloropropene	U	1.34	ug/kg	0.401	1.34
56-23-5	Carbon tetrachloride	U	1.34	ug/kg	0.401	1.34
107-06-2	1,2-Dichloroethane	U	1.34	ug/kg	0.401	1.34
71-43-2	Benzene	U	1.34	ug/kg	0.401	1.34
79-01-6	Trichloroethylene	U	1.34	ug/kg	0.441	1.34
78-87-5	1,2-Dichloropropane	U	1.34	ug/kg	0.401	1.34
75-27-4	Bromodichloromethane	U	1.34	ug/kg	0.401	1.34
74-95-3	Dibromomethane	U	1.34	ug/kg	0.401	1.34
108-10-1	4-Methyl-2-pentanone	U	6.68	ug/kg	1.67	6.68
10061-01-5	cis-1,3-Dichloropropylene	U	1.34	ug/kg	0.401	1.34
108-88-3	Toluene	U	1.34	ug/kg	0.401	1.34
10061-02-6	trans-1,3-Dichloropropylene	U	1.34	ug/kg	0.401	1.34
79-00-5	1,1,2-Trichloroethane	U	1.34	ug/kg	0.401	1.34
591-78-6	2-Hexanone	U	6.68	ug/kg	2.00	6.68
142-28-9	1,3-Dichloropropane	U	1.34	ug/kg	0.401	1.34
127-18-4	Tetrachloroethylene	U	1.34	ug/kg	0.401	1.34
124-48-1	Dibromochloromethane	U	1.34	ug/kg	0.401	1.34
106-93-4	1,2-Dibromoethane	U	1.34	ug/kg	0.401	1.34
108-90-7	Chlorobenzene	U	1.34	ug/kg	0.401	1.34

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

SDG Number: 10-2193  
 Lab Sample ID: 248506011

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 25.1  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7443  
 Batch ID: 963417  
 Run Date: 03/10/2010 01:02  
 Prep Date: 03/09/2010 20:20  
 Data File: 030910V44B218.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.34	ug/kg	0.401	1.34
179601-23-1	m,p-Xylenes	U	2.67	ug/kg	0.401	2.67
95-47-6	o-Xylene	U	1.34	ug/kg	0.401	1.34
100-42-5	Styrene	U	1.34	ug/kg	0.401	1.34
75-25-2	Bromoform	U	1.34	ug/kg	0.401	1.34
79-34-5	1,1,2,2-Tetrachloroethane	U	1.34	ug/kg	0.401	1.34
96-18-4	1,2,3-Trichloropropane	U	1.34	ug/kg	0.401	1.34
108-86-1	Bromobenzene	U	1.34	ug/kg	0.401	1.34
103-65-1	n-Propylbenzene	U	1.34	ug/kg	0.401	1.34
95-49-8	2-Chlorotoluene	U	1.34	ug/kg	0.401	1.34
98-82-8	Isopropylbenzene	U	1.34	ug/kg	0.401	1.34
108-67-8	1,3,5-Trimethylbenzene	U	1.34	ug/kg	0.401	1.34
106-43-4	4-Chlorotoluene	U	1.34	ug/kg	0.401	1.34
98-06-6	tert-Butylbenzene	U	1.34	ug/kg	0.401	1.34
95-63-6	1,2,4-Trimethylbenzene	U	1.34	ug/kg	0.401	1.34
135-98-8	sec-Butylbenzene	U	1.34	ug/kg	0.401	1.34
99-87-6	4-Isopropyltoluene	U	1.34	ug/kg	0.401	1.34
541-73-1	1,3-Dichlorobenzene	U	1.34	ug/kg	0.401	1.34
106-46-7	1,4-Dichlorobenzene	U	1.34	ug/kg	0.401	1.34
104-51-8	n-Butylbenzene	U	1.34	ug/kg	0.401	1.34
96-12-8	1,2-Dibromo-3-chloropropane	U	1.34	ug/kg	0.401	1.34
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.68	ug/kg	2.14	6.68
630-20-6	1,1,1,2-Tetrachloroethane	U	1.34	ug/kg	0.401	1.34
95-50-1	1,2-Dichlorobenzene	U	1.34	ug/kg	0.401	1.34

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	19.8	ug/kg	0	J



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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506012	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 24.9
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7452	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 963417	<b>Inst:</b> VOA4.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/11/2010 11:41	<b>Analyst:</b> ACJ	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/10/2010 19:53	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 031010V44B343.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.33	ug/kg	0.453	1.33
74-87-3	Chloromethane	U	1.33	ug/kg	0.399	1.33
75-01-4	Vinyl chloride	U	1.33	ug/kg	0.399	1.33
74-83-9	Bromomethane	U	1.33	ug/kg	0.399	1.33
75-00-3	Chloroethane	U	1.33	ug/kg	0.399	1.33
75-69-4	Trichlorofluoromethane	U	1.33	ug/kg	0.399	1.33
67-64-1	Acetone	J	6.14	ug/kg	2.21	6.65
75-35-4	1,1-Dichloroethylene	U	1.33	ug/kg	0.399	1.33
74-88-4	Iodomethane	U	6.65	ug/kg	2.13	6.65
75-09-2	Methylene chloride	U	6.65	ug/kg	2.66	6.65
75-15-0	Carbon disulfide	U	6.65	ug/kg	1.66	6.65
156-60-5	trans-1,2-Dichloroethylene	U	1.33	ug/kg	0.399	1.33
75-34-3	1,1-Dichloroethane	U	1.33	ug/kg	0.399	1.33
78-93-3	2-Butanone	U	6.65	ug/kg	2.00	6.65
156-59-2	cis-1,2-Dichloroethylene	U	1.33	ug/kg	0.399	1.33
594-20-7	2,2-Dichloropropane	U	1.33	ug/kg	0.399	1.33
67-66-3	Chloroform	U	1.33	ug/kg	0.399	1.33
74-97-5	Bromochloromethane	U	1.33	ug/kg	0.439	1.33
71-55-6	1,1,1-Trichloroethane	U	1.33	ug/kg	0.399	1.33
563-58-6	1,1-Dichloropropene	U	1.33	ug/kg	0.399	1.33
56-23-5	Carbon tetrachloride	U	1.33	ug/kg	0.399	1.33
107-06-2	1,2-Dichloroethane	U	1.33	ug/kg	0.399	1.33
71-43-2	Benzene	U	1.33	ug/kg	0.399	1.33
79-01-6	Trichloroethylene	U	1.33	ug/kg	0.439	1.33
78-87-5	1,2-Dichloropropane	U	1.33	ug/kg	0.399	1.33
75-27-4	Bromodichloromethane	U	1.33	ug/kg	0.399	1.33
74-95-3	Dibromomethane	U	1.33	ug/kg	0.399	1.33
108-10-1	4-Methyl-2-pentanone	U	6.65	ug/kg	1.66	6.65
10061-01-5	cis-1,3-Dichloropropylene	U	1.33	ug/kg	0.399	1.33
108-88-3	Toluene		15.0	ug/kg	0.399	1.33
10061-02-6	trans-1,3-Dichloropropylene	U	1.33	ug/kg	0.399	1.33
79-00-5	1,1,2-Trichloroethane	U	1.33	ug/kg	0.399	1.33
591-78-6	2-Hexanone	U	6.65	ug/kg	2.00	6.65
142-28-9	1,3-Dichloropropane	U	1.33	ug/kg	0.399	1.33
127-18-4	Tetrachloroethylene	U	1.33	ug/kg	0.399	1.33
124-48-1	Dibromochloromethane	U	1.33	ug/kg	0.399	1.33
106-93-4	1,2-Dibromoethane	U	1.33	ug/kg	0.399	1.33
108-90-7	Chlorobenzene	U	1.33	ug/kg	0.399	1.33

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193  
Lab Sample ID: 248506012  
  
Client ID: RE36-10-7452  
Batch ID: 963417  
Run Date: 03/11/2010 11:41  
Prep Date: 03/10/2010 19:53  
Data File: 031010V44B343.D

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA4.I  
Analyst: ACJ  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
% Moisture: 24.9  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.33	ug/kg	0.399	1.33
179601-23-1	m,p-Xylenes	U	2.66	ug/kg	0.399	2.66
95-47-6	o-Xylene	U	1.33	ug/kg	0.399	1.33
100-42-5	Styrene	U	1.33	ug/kg	0.399	1.33
75-25-2	Bromoform	U	1.33	ug/kg	0.399	1.33
79-34-5	1,1,2,2-Tetrachloroethane	U	1.33	ug/kg	0.399	1.33
96-18-4	1,2,3-Trichloropropane	U	1.33	ug/kg	0.399	1.33
108-86-1	Bromobenzene	U	1.33	ug/kg	0.399	1.33
103-65-1	n-Propylbenzene	U	1.33	ug/kg	0.399	1.33
95-49-8	2-Chlorotoluene	U	1.33	ug/kg	0.399	1.33
98-82-8	Isopropylbenzene	U	1.33	ug/kg	0.399	1.33
108-67-8	1,3,5-Trimethylbenzene	U	1.33	ug/kg	0.399	1.33
106-43-4	4-Chlorotoluene	U	1.33	ug/kg	0.399	1.33
98-06-6	tert-Butylbenzene	U	1.33	ug/kg	0.399	1.33
95-63-6	1,2,4-Trimethylbenzene	U	1.33	ug/kg	0.399	1.33
135-98-8	sec-Butylbenzene	U	1.33	ug/kg	0.399	1.33
99-87-6	4-Isopropyltoluene		12.8	ug/kg	0.399	1.33
541-73-1	1,3-Dichlorobenzene	U	1.33	ug/kg	0.399	1.33
106-46-7	1,4-Dichlorobenzene	U	1.33	ug/kg	0.399	1.33
104-51-8	n-Butylbenzene	U	1.33	ug/kg	0.399	1.33
96-12-8	1,2-Dibromo-3-chloropropane	U	1.33	ug/kg	0.399	1.33
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.65	ug/kg	2.13	6.65
630-20-6	1,1,1,2-Tetrachloroethane	U	1.33	ug/kg	0.399	1.33
95-50-1	1,2-Dichlorobenzene	U	1.33	ug/kg	0.399	1.33

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	26.9	ug/kg	0	J
	unknown hydrocarbon	14.79	350	ug/kg	0	J
	unknown hydrocarbon	15.12	27.4	ug/kg	0	J
	unknown substituted benzene	15.41	64.5	ug/kg	0	J
	unknown hydrocarbon	15.5	102	ug/kg	0	J
	unknown hydrocarbon	15.8	152	ug/kg	0	J
	unknown siloxane	16.78	9.04	ug/kg	0	J

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506013	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 16.3
	<b>Client:</b> LANL.010	<b>Project:</b> LANL.01004
<b>Client ID:</b> RE36-10-7437	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 963417	<b>Inst:</b> VOA4.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/10/2010 01:57	<b>Analyst:</b> ACJ	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/09/2010 20:22	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 030910V44B220.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.19	ug/kg	0.406	1.19
74-87-3	Chloromethane	U	1.19	ug/kg	0.358	1.19
75-01-4	Vinyl chloride	U	1.19	ug/kg	0.358	1.19
74-83-9	Bromomethane	U	1.19	ug/kg	0.358	1.19
75-00-3	Chloroethane	U	1.19	ug/kg	0.358	1.19
75-69-4	Trichlorofluoromethane	U	1.19	ug/kg	0.358	1.19
67-64-1	Acetone	U	5.97	ug/kg	1.98	5.97
75-35-4	1,1-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
74-88-4	Iodomethane	U	5.97	ug/kg	1.91	5.97
75-09-2	Methylene chloride	U	5.97	ug/kg	2.39	5.97
75-15-0	Carbon disulfide	U	5.97	ug/kg	1.49	5.97
156-60-5	trans-1,2-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
75-34-3	1,1-Dichloroethane	U	1.19	ug/kg	0.358	1.19
78-93-3	2-Butanone	U	5.97	ug/kg	1.79	5.97
156-59-2	cis-1,2-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
594-20-7	2,2-Dichloropropane	U	1.19	ug/kg	0.358	1.19
67-66-3	Chloroform	U	1.19	ug/kg	0.358	1.19
74-97-5	Bromochloromethane	U	1.19	ug/kg	0.394	1.19
71-55-6	1,1,1-Trichloroethane	U	1.19	ug/kg	0.358	1.19
563-58-6	1,1-Dichloropropene	U	1.19	ug/kg	0.358	1.19
56-23-5	Carbon tetrachloride	U	1.19	ug/kg	0.358	1.19
107-06-2	1,2-Dichloroethane	U	1.19	ug/kg	0.358	1.19
71-43-2	Benzene	U	1.19	ug/kg	0.358	1.19
79-01-6	Trichloroethylene	U	1.19	ug/kg	0.394	1.19
78-87-5	1,2-Dichloropropane	U	1.19	ug/kg	0.358	1.19
75-27-4	Bromodichloromethane	U	1.19	ug/kg	0.358	1.19
74-95-3	Dibromomethane	U	1.19	ug/kg	0.358	1.19
108-10-1	4-Methyl-2-pentanone	U	5.97	ug/kg	1.49	5.97
10061-01-5	cis-1,3-Dichloropropylene	U	1.19	ug/kg	0.358	1.19
108-88-3	Toluene	U	1.19	ug/kg	0.358	1.19
10061-02-6	trans-1,3-Dichloropropylene	U	1.19	ug/kg	0.358	1.19
79-00-5	1,1,2-Trichloroethane	U	1.19	ug/kg	0.358	1.19
591-78-6	2-Hexanone	U	5.97	ug/kg	1.79	5.97
142-28-9	1,3-Dichloropropane	U	1.19	ug/kg	0.358	1.19
127-18-4	Tetrachloroethylene	U	1.19	ug/kg	0.358	1.19
124-48-1	Dibromochloromethane	U	1.19	ug/kg	0.358	1.19
106-93-4	1,2-Dibromoethane	U	1.19	ug/kg	0.358	1.19
108-90-7	Chlorobenzene	U	1.19	ug/kg	0.358	1.19

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506013	Date Received: 03/03/2010 08:50	%Moisture: 16.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7437	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4J	Dilution: 1
Run Date: 03/10/2010 01:57	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:22	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V44B220.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.19	ug/kg	0.358	1.19
179601-23-1	m,p-Xylenes	U	2.39	ug/kg	0.358	2.39
95-47-6	o-Xylene	U	1.19	ug/kg	0.358	1.19
100-42-5	Styrene	U	1.19	ug/kg	0.358	1.19
75-25-2	Bromoform	U	1.19	ug/kg	0.358	1.19
79-34-5	1,1,2,2-Tetrachloroethane	U	1.19	ug/kg	0.358	1.19
96-18-4	1,2,3-Trichloropropane	U	1.19	ug/kg	0.358	1.19
108-86-1	Bromobenzene	U	1.19	ug/kg	0.358	1.19
103-65-1	n-Propylbenzene	U	1.19	ug/kg	0.358	1.19
95-49-8	2-Chlorotoluene	U	1.19	ug/kg	0.358	1.19
98-82-8	Isopropylbenzene	U	1.19	ug/kg	0.358	1.19
108-67-8	1,3,5-Trimethylbenzene	U	1.19	ug/kg	0.358	1.19
106-43-4	4-Chlorotoluene	U	1.19	ug/kg	0.358	1.19
98-06-6	tert-Butylbenzene	U	1.19	ug/kg	0.358	1.19
95-63-6	1,2,4-Trimethylbenzene	U	1.19	ug/kg	0.358	1.19
135-98-8	sec-Butylbenzene	U	1.19	ug/kg	0.358	1.19
99-87-6	4-Isopropyltoluene	U	1.19	ug/kg	0.358	1.19
541-73-1	1,3-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19
106-46-7	1,4-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19
104-51-8	n-Butylbenzene	U	1.19	ug/kg	0.358	1.19
96-12-8	1,2-Dibromo-3-chloropropane	U	1.19	ug/kg	0.358	1.19
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.97	ug/kg	1.91	5.97
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.19	ug/kg	0.358	1.19
95-50-1	1,2-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	32.3	ug/kg	0	J
	unknown siloxane	16.79	8.43	ug/kg	0	J

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

SDG Number: 10-2193  
 Lab Sample ID: 248506014  
 Client ID: RE36-10-7440  
 Batch ID: 963417  
 Run Date: 03/10/2010 02:24  
 Prep Date: 03/09/2010 20:23  
 Data File: 030910V4V4B221.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 8.1  
 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	1.09	ug/kg	0.370	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.327	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.327	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.327	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.327	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.327	1.09
67-64-1	Acetone	J	3.58	ug/kg	1.81	5.44
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
74-88-4	Iodomethane	U	5.44	ug/kg	1.74	5.44
75-09-2	Methylene chloride	U	5.44	ug/kg	2.18	5.44
75-15-0	Carbon disulfide	U	5.44	ug/kg	1.36	5.44
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.327	1.09
78-93-3	2-Butanone	U	5.44	ug/kg	1.63	5.44
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.327	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.359	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.327	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.327	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.327	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.327	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.327	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.359	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.327	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.327	1.09
108-10-1	4-Methyl-2-pentanone	U	5.44	ug/kg	1.36	5.44
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
108-88-3	Toluene		3.71	ug/kg	0.327	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.327	1.09
591-78-6	2-Hexanone	U	5.44	ug/kg	1.63	5.44
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.327	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.327	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.327	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.327	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.327	1.09

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506014	Date Received: 03/03/2010 08:50	%Moisture: 8.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7440	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.1	Dilution: 1
Run Date: 03/10/2010 02:24	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:23	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4\4B221.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.327	1.09
179601-23-1	m,p-Xylenes	J	0.370	ug/kg	0.327	2.18
95-47-6	o-Xylene	U	1.09	ug/kg	0.327	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.327	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.327	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.327	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.327	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.327	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.327	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.327	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.327	1.09
99-87-6	4-Isopropyltoluene		2.33	ug/kg	0.327	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.327	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.327	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.44	ug/kg	1.74	5.44
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	16	ug/kg	0	J
	unknown hydrocarbon	14.79	34.4	ug/kg	0	J
	unknown hydrocarbon	15.12	14.5	ug/kg	0	J
	unknown hydrocarbon	15.79	25.2	ug/kg	0	J
	unknown substituted benzene	15.95	8.57	ug/kg	0	J
	unknown siloxane	16.79	9.26	ug/kg	0	J

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506015	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 30.1
	<b>Client:</b> LANI.010	<b>Project:</b> LANI.01004
<b>Client ID:</b> RE36-10-7435	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 963417	<b>Inst:</b> VOA4.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/10/2010 02:52	<b>Analyst:</b> ACJ	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/09/2010 20:24	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 030910V44B222.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.43	ug/kg	0.487	1.43
74-87-3	Chloromethane	U	1.43	ug/kg	0.429	1.43
75-01-4	Vinyl chloride	U	1.43	ug/kg	0.429	1.43
74-83-9	Bromomethane	U	1.43	ug/kg	0.429	1.43
75-00-3	Chloroethane	U	1.43	ug/kg	0.429	1.43
75-69-4	Trichlorofluoromethane	U	1.43	ug/kg	0.429	1.43
67-64-1	Acetone	J	4.29	ug/kg	2.38	7.16
75-35-4	1,1-Dichloroethylene	U	1.43	ug/kg	0.429	1.43
74-88-4	Iodomethane	U	7.16	ug/kg	2.29	7.16
75-09-2	Methylene chloride	U	7.16	ug/kg	2.86	7.16
75-15-0	Carbon disulfide	U	7.16	ug/kg	1.79	7.16
156-60-5	trans-1,2-Dichloroethylene	U	1.43	ug/kg	0.429	1.43
75-34-3	1,1-Dichloroethane	U	1.43	ug/kg	0.429	1.43
78-93-3	2-Butanone	U	7.16	ug/kg	2.15	7.16
156-59-2	cis-1,2-Dichloroethylene	U	1.43	ug/kg	0.429	1.43
594-20-7	2,2-Dichloropropane	U	1.43	ug/kg	0.429	1.43
67-66-3	Chloroform	U	1.43	ug/kg	0.429	1.43
74-97-5	Bromochloromethane	U	1.43	ug/kg	0.472	1.43
71-55-6	1,1,1-Trichloroethane	U	1.43	ug/kg	0.429	1.43
563-58-6	1,1-Dichloropropene	U	1.43	ug/kg	0.429	1.43
56-23-5	Carbon tetrachloride	U	1.43	ug/kg	0.429	1.43
107-06-2	1,2-Dichloroethane	U	1.43	ug/kg	0.429	1.43
71-43-2	Benzene	U	1.43	ug/kg	0.429	1.43
79-01-6	Trichloroethylene	J	0.701	ug/kg	0.472	1.43
78-87-5	1,2-Dichloropropane	U	1.43	ug/kg	0.429	1.43
75-27-4	Bromodichloromethane	U	1.43	ug/kg	0.429	1.43
74-95-3	Dibromomethane	U	1.43	ug/kg	0.429	1.43
108-10-1	4-Methyl-2-pentanone	U	7.16	ug/kg	1.79	7.16
10061-01-5	cis-1,3-Dichloropropylene	U	1.43	ug/kg	0.429	1.43
108-88-3	Toluene	J	0.816	ug/kg	0.429	1.43
10061-02-6	trans-1,3-Dichloropropylene	U	1.43	ug/kg	0.429	1.43
79-00-5	1,1,2-Trichloroethane	U	1.43	ug/kg	0.429	1.43
591-78-6	2-Hexanone	U	7.16	ug/kg	2.15	7.16
142-28-9	1,3-Dichloropropane	U	1.43	ug/kg	0.429	1.43
127-18-4	Tetrachloroethylene	U	1.43	ug/kg	0.429	1.43
124-48-1	Dibromochloromethane	U	1.43	ug/kg	0.429	1.43
106-93-4	1,2-Dibromoethane	U	1.43	ug/kg	0.429	1.43
108-90-7	Chlorobenzene	U	1.43	ug/kg	0.429	1.43

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

SDG Number: 10-2193  
 Lab Sample ID: 248506015  
 Client ID: RE36-10-7435  
 Batch ID: 963417  
 Run Date: 03/10/2010 02:52  
 Prep Date: 03/09/2010 20:24  
 Data File: 030910V4V4B222.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4J  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 30.1  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.43	ug/kg	0.429	1.43
179601-23-1	m,p-Xylenes	U	2.86	ug/kg	0.429	2.86
95-47-6	o-Xylene	J	0.616	ug/kg	0.429	1.43
100-42-5	Styrene	U	1.43	ug/kg	0.429	1.43
75-25-2	Bromoform	U	1.43	ug/kg	0.429	1.43
79-34-5	1,1,2,2-Tetrachloroethane	U	1.43	ug/kg	0.429	1.43
96-18-4	1,2,3-Trichloropropane	U	1.43	ug/kg	0.429	1.43
108-86-1	Bromobenzene	U	1.43	ug/kg	0.429	1.43
103-65-1	n-Propylbenzene	U	1.43	ug/kg	0.429	1.43
95-49-8	2-Chlorotoluene	U	1.43	ug/kg	0.429	1.43
98-82-8	Isopropylbenzene	U	1.43	ug/kg	0.429	1.43
108-67-8	1,3,5-Trimethylbenzene	U	1.43	ug/kg	0.429	1.43
106-43-4	4-Chlorotoluene	U	1.43	ug/kg	0.429	1.43
98-06-6	tert-Butylbenzene	U	1.43	ug/kg	0.429	1.43
95-63-6	1,2,4-Trimethylbenzene	U	1.43	ug/kg	0.429	1.43
135-98-8	sec-Butylbenzene	U	1.43	ug/kg	0.429	1.43
99-87-6	4-Isopropyltoluene		2.08	ug/kg	0.429	1.43
541-73-1	1,3-Dichlorobenzene	U	1.43	ug/kg	0.429	1.43
106-46-7	1,4-Dichlorobenzene	U	1.43	ug/kg	0.429	1.43
104-51-8	n-Butylbenzene	U	1.43	ug/kg	0.429	1.43
96-12-8	1,2-Dibromo-3-chloropropane	U	1.43	ug/kg	0.429	1.43
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	7.16	ug/kg	2.29	7.16
630-20-6	1,1,1,2-Tetrachloroethane	U	1.43	ug/kg	0.429	1.43
95-50-1	1,2-Dichlorobenzene	U	1.43	ug/kg	0.429	1.43

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	17.5	ug/kg	0	J
	unknown hydrocarbon	6.76	13.2	ug/kg	0	J
	unknown hydrocarbon	14.79	114	ug/kg	0	J
	unknown hydrocarbon	15.5	61.8	ug/kg	0	J
	unknown hydrocarbon	15.79	68.7	ug/kg	0	J
	unknown siloxane	16.79	12.5	ug/kg	0	J



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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506016	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 22.4
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7441	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 963417	<b>Inst:</b> VOA4.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/11/2010 13:30	<b>Analyst:</b> ACJ	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/10/2010 19:57	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 031010V4\B347.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.29	ug/kg	0.438	1.29
74-87-3	Chloromethane	U	1.29	ug/kg	0.386	1.29
75-01-4	Vinyl chloride	U	1.29	ug/kg	0.386	1.29
74-83-9	Bromomethane	U	1.29	ug/kg	0.386	1.29
75-00-3	Chloroethane	U	1.29	ug/kg	0.386	1.29
75-69-4	Trichlorofluoromethane	U	1.29	ug/kg	0.386	1.29
67-64-1	Acetone	J	4.42	ug/kg	2.14	6.44
75-35-4	1,1-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
74-88-4	Iodomethane	U	6.44	ug/kg	2.06	6.44
75-09-2	Methylene chloride	U	6.44	ug/kg	2.58	6.44
75-15-0	Carbon disulfide	U	6.44	ug/kg	1.61	6.44
156-60-5	trans-1,2-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
75-34-3	1,1-Dichloroethane	U	1.29	ug/kg	0.386	1.29
78-93-3	2-Butanone	U	6.44	ug/kg	1.93	6.44
156-59-2	cis-1,2-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
594-20-7	2,2-Dichloropropane	U	1.29	ug/kg	0.386	1.29
67-66-3	Chloroform	U	1.29	ug/kg	0.386	1.29
74-97-5	Bromochloromethane	U	1.29	ug/kg	0.425	1.29
71-55-6	1,1,1-Trichloroethane	U	1.29	ug/kg	0.386	1.29
563-58-6	1,1-Dichloropropene	U	1.29	ug/kg	0.386	1.29
56-23-5	Carbon tetrachloride	U	1.29	ug/kg	0.386	1.29
107-06-2	1,2-Dichloroethane	U	1.29	ug/kg	0.386	1.29
71-43-2	Benzene	U	1.29	ug/kg	0.386	1.29
79-01-6	Trichloroethylene	U	1.29	ug/kg	0.425	1.29
78-87-5	1,2-Dichloropropane	U	1.29	ug/kg	0.386	1.29
75-27-4	Bromodichloromethane	U	1.29	ug/kg	0.386	1.29
74-95-3	Dibromomethane	U	1.29	ug/kg	0.386	1.29
108-10-1	4-Methyl-2-pentanone	U	6.44	ug/kg	1.61	6.44
10061-01-5	cis-1,3-Dichloropropylene	U	1.29	ug/kg	0.386	1.29
108-88-3	Toluene	U	1.29	ug/kg	0.386	1.29
10061-02-6	trans-1,3-Dichloropropylene	U	1.29	ug/kg	0.386	1.29
79-00-5	1,1,2-Trichloroethane	U	1.29	ug/kg	0.386	1.29
591-78-6	2-Hexanone	U	6.44	ug/kg	1.93	6.44
142-28-9	1,3-Dichloropropane	U	1.29	ug/kg	0.386	1.29
127-18-4	Tetrachloroethylene	U	1.29	ug/kg	0.386	1.29
124-48-1	Dibromochloromethane	U	1.29	ug/kg	0.386	1.29
106-93-4	1,2-Dibromoethane	U	1.29	ug/kg	0.386	1.29
108-90-7	Chlorobenzene	U	1.29	ug/kg	0.386	1.29

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506016	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 22.4
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7441	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 963417	<b>Inst:</b> VOA4.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/11/2010 13:30	<b>Analyst:</b> ACJ	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/10/2010 19:57	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 031010V4\4B347.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.29	ug/kg	0.386	1.29
179601-23-1	m,p-Xylenes	U	2.58	ug/kg	0.386	2.58
95-47-6	o-Xylene	U	1.29	ug/kg	0.386	1.29
100-42-5	Styrene	U	1.29	ug/kg	0.386	1.29
75-25-2	Bromoform	U	1.29	ug/kg	0.386	1.29
79-34-5	1,1,2,2-Tetrachloroethane	U	1.29	ug/kg	0.386	1.29
96-18-4	1,2,3-Trichloropropane	U	1.29	ug/kg	0.386	1.29
108-86-1	Bromobenzene	U	1.29	ug/kg	0.386	1.29
103-65-1	n-Propylbenzene	U	1.29	ug/kg	0.386	1.29
95-49-8	2-Chlorotoluene	U	1.29	ug/kg	0.386	1.29
98-82-8	Isopropylbenzene	U	1.29	ug/kg	0.386	1.29
108-67-8	1,3,5-Trimethylbenzene	U	1.29	ug/kg	0.386	1.29
106-43-4	4-Chlorotoluene	U	1.29	ug/kg	0.386	1.29
98-06-6	tert-Butylbenzene	U	1.29	ug/kg	0.386	1.29
95-63-6	1,2,4-Trimethylbenzene	U	1.29	ug/kg	0.386	1.29
135-98-8	sec-Butylbenzene	U	1.29	ug/kg	0.386	1.29
99-87-6	4-Isopropyltoluene	J	0.451	ug/kg	0.386	1.29
541-73-1	1,3-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29
106-46-7	1,4-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29
104-51-8	n-Butylbenzene	U	1.29	ug/kg	0.386	1.29
96-12-8	1,2-Dibromo-3-chloropropane	U	1.29	ug/kg	0.386	1.29
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.44	ug/kg	2.06	6.44
630-20-6	1,1,1,2-Tetrachloroethane	U	1.29	ug/kg	0.386	1.29
95-50-1	1,2-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	23.1	ug/kg	0	J
	unknown hydrocarbon	6.77	6.69	ug/kg	0	J
	unknown hydrocarbon	15.62	17.2	ug/kg	0	J
	unknown siloxane	16.79	12.1	ug/kg	0	J

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

SDG Number: 10-2193  
 Lab Sample ID: 248506017  
 Client ID: RE36-10-7442  
 Batch ID: 963417  
 Run Date: 03/10/2010 03:47  
 Prep Date: 03/09/2010 20:26  
 Data File: 030910V4\4B224.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 13.3  
 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
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.392	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.346	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.346	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.346	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.346	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.346	1.15
67-64-1	Acetone	U	5.76	ug/kg	1.91	5.76
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
74-88-4	Iodomethane	U	5.76	ug/kg	1.84	5.76
75-09-2	Methylene chloride	U	5.76	ug/kg	2.31	5.76
75-15-0	Carbon disulfide	U	5.76	ug/kg	1.44	5.76
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.346	1.15
78-93-3	2-Butanone	U	5.76	ug/kg	1.73	5.76
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.346	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.346	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.380	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.346	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.346	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.346	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.346	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.346	1.15
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.380	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.346	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.346	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.346	1.15
108-10-1	4-Methyl-2-pentanone	U	5.76	ug/kg	1.44	5.76
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.346	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.346	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.346	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.346	1.15
591-78-6	2-Hexanone	U	5.76	ug/kg	1.73	5.76
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.346	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.346	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.346	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.346	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.346	1.15

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

SDG Number: 10-2193  
 Lab Sample ID: 248506017  
 Client ID: RE36-10-7442  
 Batch ID: 963417  
 Run Date: 03/10/2010 03:47  
 Prep Date: 03/09/2010 20:26  
 Data File: 030910V4V4B224.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 13.3  
 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	U	1.15	ug/kg	0.346	1.15
179601-23-1	m,p-Xylenes	U	2.31	ug/kg	0.346	2.31
95-47-6	o-Xylene	U	1.15	ug/kg	0.346	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.346	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.346	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.346	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.346	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.346	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.346	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.346	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.346	1.15
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.346	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.346	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.346	1.15
95-63-6	1,2,4-Trimethylbenzene	U	1.15	ug/kg	0.346	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.346	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.346	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.346	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.346	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.76	ug/kg	1.84	5.76
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.346	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	16.79	8.6	ug/kg	0	J

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

SDG Number: 10-2193  
 Lab Sample ID: 248506018  
 Client ID: RE36-10-7436  
 Batch ID: 963417  
 Run Date: 03/10/2010 04:14  
 Prep Date: 03/09/2010 20:27  
 Data File: 030910V44B225.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 21.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.27	ug/kg	0.432	1.27
74-87-3	Chloromethane	U	1.27	ug/kg	0.381	1.27
75-01-4	Vinyl chloride	U	1.27	ug/kg	0.381	1.27
74-83-9	Bromomethane	U	1.27	ug/kg	0.381	1.27
75-00-3	Chloroethane	U	1.27	ug/kg	0.381	1.27
75-69-4	Trichlorofluoromethane	U	1.27	ug/kg	0.381	1.27
67-64-1	Acetone	J	3.32	ug/kg	2.11	6.36
75-35-4	1,1-Dichloroethylene	U	1.27	ug/kg	0.381	1.27
74-88-4	Iodomethane	U	6.36	ug/kg	2.03	6.36
75-09-2	Methylene chloride	U	6.36	ug/kg	2.54	6.36
75-15-0	Carbon disulfide	U	6.36	ug/kg	1.59	6.36
156-60-5	trans-1,2-Dichloroethylene	U	1.27	ug/kg	0.381	1.27
75-34-3	1,1-Dichloroethane	U	1.27	ug/kg	0.381	1.27
78-93-3	2-Butanone	U	6.36	ug/kg	1.91	6.36
156-59-2	cis-1,2-Dichloroethylene	U	1.27	ug/kg	0.381	1.27
594-20-7	2,2-Dichloropropane	U	1.27	ug/kg	0.381	1.27
67-66-3	Chloroform	U	1.27	ug/kg	0.381	1.27
74-97-5	Bromochloromethane	U	1.27	ug/kg	0.420	1.27
71-55-6	1,1,1-Trichloroethane	U	1.27	ug/kg	0.381	1.27
563-58-6	1,1-Dichloropropene	U	1.27	ug/kg	0.381	1.27
56-23-5	Carbon tetrachloride	U	1.27	ug/kg	0.381	1.27
107-06-2	1,2-Dichloroethane	U	1.27	ug/kg	0.381	1.27
71-43-2	Benzene	U	1.27	ug/kg	0.381	1.27
79-01-6	Trichloroethylene	U	1.27	ug/kg	0.420	1.27
78-87-5	1,2-Dichloropropane	U	1.27	ug/kg	0.381	1.27
75-27-4	Bromodichloromethane	U	1.27	ug/kg	0.381	1.27
74-95-3	Dibromomethane	U	1.27	ug/kg	0.381	1.27
108-10-1	4-Methyl-2-pentanone	U	6.36	ug/kg	1.59	6.36
10061-01-5	cis-1,3-Dichloropropylene	U	1.27	ug/kg	0.381	1.27
108-88-3	Toluene	J	0.559	ug/kg	0.381	1.27
10061-02-6	trans-1,3-Dichloropropylene	U	1.27	ug/kg	0.381	1.27
79-00-5	1,1,2-Trichloroethane	U	1.27	ug/kg	0.381	1.27
591-78-6	2-Hexanone	U	6.36	ug/kg	1.91	6.36
142-28-9	1,3-Dichloropropane	U	1.27	ug/kg	0.381	1.27
127-18-4	Tetrachloroethylene	U	1.27	ug/kg	0.381	1.27
124-48-1	Dibromochloromethane	U	1.27	ug/kg	0.381	1.27
106-93-4	1,2-Dibromoethane	U	1.27	ug/kg	0.381	1.27
108-90-7	Chlorobenzene	U	1.27	ug/kg	0.381	1.27

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193  
Lab Sample ID: 248506018

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA4.1  
Analyst: ACJ  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 21.4  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

Client ID: RE36-10-7436  
Batch ID: 963417  
Run Date: 03/10/2010 04:14  
Prep Date: 03/09/2010 20:27  
Data File: 030910V4\4B225.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.27	ug/kg	0.381	1.27
179601-23-1	m,p-Xylenes	U	2.54	ug/kg	0.381	2.54
95-47-6	o-Xylene	U	1.27	ug/kg	0.381	1.27
100-42-5	Styrene	U	1.27	ug/kg	0.381	1.27
75-25-2	Bromoform	U	1.27	ug/kg	0.381	1.27
79-34-5	1,1,2,2-Tetrachloroethane	U	1.27	ug/kg	0.381	1.27
96-18-4	1,2,3-Trichloropropane	U	1.27	ug/kg	0.381	1.27
108-86-1	Bromobenzene	U	1.27	ug/kg	0.381	1.27
103-65-1	n-Propylbenzene	U	1.27	ug/kg	0.381	1.27
95-49-8	2-Chlorotoluene	U	1.27	ug/kg	0.381	1.27
98-82-8	Isopropylbenzene	U	1.27	ug/kg	0.381	1.27
108-67-8	1,3,5-Trimethylbenzene	U	1.27	ug/kg	0.381	1.27
106-43-4	4-Chlorotoluene	J	0.496	ug/kg	0.381	1.27
98-06-6	tert-Butylbenzene	U	1.27	ug/kg	0.381	1.27
95-63-6	1,2,4-Trimethylbenzene	U	1.27	ug/kg	0.381	1.27
135-98-8	sec-Butylbenzene	U	1.27	ug/kg	0.381	1.27
99-87-6	4-Isopropyltoluene		2.61	ug/kg	0.381	1.27
541-73-1	1,3-Dichlorobenzene	U	1.27	ug/kg	0.381	1.27
106-46-7	1,4-Dichlorobenzene	U	1.27	ug/kg	0.381	1.27
104-51-8	n-Butylbenzene	U	1.27	ug/kg	0.381	1.27
96-12-8	1,2-Dibromo-3-chloropropane	U	1.27	ug/kg	0.381	1.27
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.36	ug/kg	2.03	6.36
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.27	ug/kg	0.381	1.27
95-50-1	1,2-Dichlorobenzene	U	1.27	ug/kg	0.381	1.27

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	12.7	ug/kg	0	J
	unknown hydrocarbon	14.79	49.6	ug/kg	0	J
	unknown hydrocarbon	15.11	7.21	ug/kg	0	J
	unknown hydrocarbon	15.5	7.76	ug/kg	0	J
	unknown hydrocarbon	15.79	24	ug/kg	0	J

**Volatile  
Certificate of Analysis  
Sample Summary**

**SDG Number:** 10-2193  
**Lab Sample ID:** 248506019  
  
**Client ID:** RE36-10-7438  
**Batch ID:** 963417  
**Run Date:** 03/11/2010 14:52  
**Prep Date:** 03/10/2010 20:01  
**Data File:** 031010V4VB350.D

**Date Collected:** 02/25/2010 12:00  
**Date Received:** 03/03/2010 08:50  
**Client:** LANL010  
**Method:** SW846 8260B  
**Inst:** VOA4.I  
**Analyst:** ACJ  
**Aliquot:** 5 g  
**Column:** DB-624

**Matrix:** R  
**%Moisture:** 5.3  
**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
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.359	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.317	1.06
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.317	1.06
74-83-9	Bromomethane	U	1.06	ug/kg	0.317	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.317	1.06
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.317	1.06
67-64-1	Acetone	J	2.61	ug/kg	1.75	5.28
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
74-88-4	Iodomethane	U	5.28	ug/kg	1.69	5.28
75-09-2	Methylene chloride	U	5.28	ug/kg	2.11	5.28
75-15-0	Carbon disulfide	U	5.28	ug/kg	1.32	5.28
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.317	1.06
78-93-3	2-Butanone	U	5.28	ug/kg	1.58	5.28
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.317	1.06
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.349	1.06
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.317	1.06
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.317	1.06
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.317	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.317	1.06
71-43-2	Benzene	U	1.06	ug/kg	0.317	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.349	1.06
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.317	1.06
74-95-3	Dibromomethane	U	1.06	ug/kg	0.317	1.06
108-10-1	4-Methyl-2-pentanone	U	5.28	ug/kg	1.32	5.28
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
108-88-3	Toluene		1.09	ug/kg	0.317	1.06
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.317	1.06
591-78-6	2-Hexanone	U	5.28	ug/kg	1.58	5.28
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.317	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.317	1.06
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.317	1.06
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.317	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.317	1.06

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506019	Date Received: 03/03/2010 08:50	%Moisture: 5.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7438	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.I	Dilution: 1
Run Date: 03/11/2010 14:52	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/10/2010 20:01	Aliquot: 5 g	Final Volume: 5 mL
Data File: 031010V4\4B350.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.317	1.06
179601-23-1	m,p-Xylenes	U	2.11	ug/kg	0.317	2.11
95-47-6	o-Xylene	U	1.06	ug/kg	0.317	1.06
100-42-5	Styrene	U	1.06	ug/kg	0.317	1.06
75-25-2	Bromoform	U	1.06	ug/kg	0.317	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.317	1.06
108-86-1	Bromobenzene	U	1.06	ug/kg	0.317	1.06
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.317	1.06
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.317	1.06
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.317	1.06
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.317	1.06
99-87-6	4-Isopropyltoluene		1.87	ug/kg	0.317	1.06
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.317	1.06
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.317	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.28	ug/kg	1.69	5.28
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	16.4	ug/kg	0	J
	unknown hydrocarbon	14.79	56.7	ug/kg	0	J
	unknown hydrocarbon	15.8	47.2	ug/kg	0	J
	unknown siloxane	15.97	6.04	ug/kg	0	J



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

SDG Number: 10-2193  
 Lab Sample ID: 248506020

Client ID: RE36-10-7439  
 Batch ID: 963417  
 Run Date: 03/10/2010 09:17  
 Prep Date: 03/09/2010 20:29  
 Data File: 030910V4V4B236.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 18.1  
 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	1.22	ug/kg	0.415	1.22
74-87-3	Chloromethane	U	1.22	ug/kg	0.366	1.22
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.366	1.22
74-83-9	Bromomethane	U	1.22	ug/kg	0.366	1.22
75-00-3	Chloroethane	U	1.22	ug/kg	0.366	1.22
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.366	1.22
67-64-1	Acetone	J	4.74	ug/kg	2.03	6.10
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
74-88-4	Iodomethane	U	6.10	ug/kg	1.95	6.10
75-09-2	Methylene chloride	U	6.10	ug/kg	2.44	6.10
75-15-0	Carbon disulfide	U	6.10	ug/kg	1.53	6.10
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.366	1.22
78-93-3	2-Butanone	U	6.10	ug/kg	1.83	6.10
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.366	1.22
67-66-3	Chloroform	U	1.22	ug/kg	0.366	1.22
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.403	1.22
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.366	1.22
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.366	1.22
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.366	1.22
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.366	1.22
71-43-2	Benzene	U	1.22	ug/kg	0.366	1.22
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.403	1.22
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.366	1.22
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.366	1.22
74-95-3	Dibromomethane	U	1.22	ug/kg	0.366	1.22
108-10-1	4-Methyl-2-pentanone	U	6.10	ug/kg	1.53	6.10
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.366	1.22
108-88-3	Toluene	U	1.22	ug/kg	0.366	1.22
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.366	1.22
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.366	1.22
591-78-6	2-Hexanone	U	6.10	ug/kg	1.83	6.10
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.366	1.22
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.366	1.22
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.366	1.22
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.366	1.22
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.366	1.22

**Volatile  
Certificate of Analysis  
Sample Summary**

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SDG Number: 10-2193  
Lab Sample ID: 248506020

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA4.I  
Analyst: ACJ  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 18.1  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

Client ID: RE36-10-7439  
Batch ID: 963417  
Run Date: 03/10/2010 09:17  
Prep Date: 03/09/2010 20:29  
Data File: 030910V44B236.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.22	ug/kg	0.366	1.22
179601-23-1	m,p-Xylenes	U	2.44	ug/kg	0.366	2.44
95-47-6	o-Xylene	U	1.22	ug/kg	0.366	1.22
100-42-5	Styrene	U	1.22	ug/kg	0.366	1.22
75-25-2	Bromoform	U	1.22	ug/kg	0.366	1.22
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.366	1.22
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.366	1.22
108-86-1	Bromobenzene	U	1.22	ug/kg	0.366	1.22
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.366	1.22
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.366	1.22
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.366	1.22
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.366	1.22
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.366	1.22
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.366	1.22
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.366	1.22
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.366	1.22
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.366	1.22
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22
106-46-7	1,4-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.366	1.22
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.366	1.22
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.10	ug/kg	1.95	6.10
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.366	1.22
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	21.2	ug/kg	0	J
	unknown siloxane	16.79	9.29	ug/kg	0	J

# **Quality Control Summary**

**Volatile**  
**Surrogate Recovery Report**

Page 1 of 2

SDG Number: 10-2193

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202066794	LCS for batch 963416	94	93	97
1202066795	LCS for batch 963416	99	95	102
1202066790	MB for batch 963416	95	99	108
248506001	RE36-10-7407	95	117	149 *
248506002	RE36-10-7421	96	113	151 *
248506003	RE36-10-7422	96	99	117
248506004	RE36-10-7451	96	138 *	175 *
248506005	RE36-10-7449	97	112	145 *
248506006	RE36-10-7445	97	117	155 *
248506007	RE36-10-7450	97	101	123
248506008	RE36-10-7444	95	106	135 *
248506009	RE36-10-7448	96	115	150 *
248506010	RE36-10-7447	97	129 *	163 *
248506011	RE36-10-7443	93	117	151 *
248506013	RE36-10-7437	98	134 *	184 *
248506014	RE36-10-7440	94	110	132 *
248506015	RE36-10-7435	96	122	156 *
248506017	RE36-10-7442	95	113	155 *
248506018	RE36-10-7436	95	102	117
1202066796	LCS for batch 963416	93	94	98
1202066797	LCS for batch 963416	94	93	104
1202066791	MB for batch 963416	96	99	109
248506020	RE36-10-7439	97	121	149 *
1202066792	RE36-10-7407PS	91	110	123

DCED4 = 1,2-Dichloroethane-d4 (66%-134%)

TOL = Toluene-d8 (71%-128%)

BFB = Bromofluorobenzene (65%-130%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted

Volatile  
Surrogate Recovery Report

Page 2 of 2

SDG Number: 10-2193

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202066793	RE36-10-7407PSD	92	107	123
1202076511	LCS for batch 963416	90	93	100
1202076512	LCS for batch 963416	92	93	103
1202076510	MB for batch 963416	93	97	111
248506012	RE36-10-7452	90	120	145 *
248506016	RE36-10-7441	94	120	160 *
248506019	RE36-10-7438	89	103	122

## Surrogate

## Acceptance Limits

DCED4 = 1,2-Dichloroethane-d4

(66%-134%)

TOL = Toluene-d8

(71%-128%)

BFB = Bromofluorobenzene

(65%-130%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted

## Volatile

Page 1 of 6

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2193

Sample Type: Post Spike

Client ID: RE36-10-7407PS

Matrix: R

Lab Sample ID: 1202066792

%Moisture: 22.9

Instrument: VOA4.I

Analysis Date: 03/10/2010 13:53

Dilution: 1

Analyst: ACJ

Preo Batch II 963416

Purge Vol: 5 mL

Batch ID: 963417

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	35.4	71	39-148
74-87-3	PS Chloromethane	50.0	0.00 U	36.8	74	42-131
75-01-4	PS Vinyl chloride	50.0	0.00 U	46.4	93	50-127
74-83-9	PS Bromomethane	50.0	0.00 U	25.4	51	26-135
75-00-3	PS Chloroethane	50.0	0.00 U	46.2	92	54-128
75-69-4	PS Trichlorofluoromethane	50.0	0.00 U	46.3	93	55-138
67-64-1	PS Acetone	250	0.00 U	56.5	23	20-144
75-35-4	PS 1,1-Dichloroethylene	50.0	0.00 U	40.3	81	55-128
74-88-4	PS Iodomethane	250	0.00 U	94.2	38 *	47-132
75-09-2	PS Methylene chloride	50.0	0.00 U	45.5	91	56-123
75-15-0	PS Carbon disulfide	250	0.00 U	186	75	53-133
156-60-5	PS trans-1,2-Dichloroethylene	50.0	0.00 U	37.6	75	57-119
75-34-3	PS 1,1-Dichloroethane	50.0	0.00 U	43.9	88	62-125
78-93-3	PS 2-Butanone	250	0.00 U	37.8	15 *	30-150
156-59-2	PS cis-1,2-Dichloroethylene	50.0	0.00 U	38.4	77	60-124
594-20-7	PS 2,2-Dichloropropane	50.0	0.00 U	40.2	80	56-129
67-66-3	PS Chloroform	50.0	0.00 U	41.7	83	62-120
74-97-5	PS Bromochloromethane	50.0	0.00 U	40.8	82	51-135
71-55-6	PS 1,1,1-Trichloroethane	50.0	0.00 U	44.4	89	58-129
563-58-6	PS 1,1-Dichloropropene	50.0	0.00 U	38.2	76	59-126
56-23-5	PS Carbon tetrachloride	50.0	0.00 U	42.2	84	55-132
107-06-2	PS 1,2-Dichloroethane	50.0	0.00 U	39.0	78	54-121

## Volatile

Page 2 of 6

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2193

Sample Type: Post Spike

Client ID: RE36-10-7407PS

Matrix: R

Lab Sample ID: 1202066792

%Moisture: 22.9

Instrument: VOA4.I

Analysis Date: 03/10/2010 13:53

Dilution: 1

Analyst: ACJ

Prep Batch ID: 963416

Purge Vol: 5 mL

Batch ID: 963417

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	39.2	78 58-120
79-01-6	PS Trichloroethylene	50.0	0.510	J	35.3	70 54-130
78-87-5	PS 1,2-Dichloropropane	50.0	0.00	U	41.1	82 59-121
75-27-4	PS Bromodichloromethane	50.0	0.00	U	39.1	78 57-130
74-95-3	PS Dibromomethane	50.0	0.00	U	36.4	73 57-124
108-10-1	PS 4-Methyl-2-pentanone	250	0.00	U	150	60 40-137
10061-01-5	PS cis-1,3-Dichloropropylene	50.0	0.00	U	15.0	30 * 50-131
108-88-3	PS Toluene	50.0	0.00	U	46.4	93 54-119
10061-02-6	PS trans-1,3-Dichloropropylene	50.0	0.00	U	20.3	41 * 47-133
79-00-5	PS 1,1,2-Trichloroethane	50.0	0.00	U	43.9	88 60-130
591-78-6	PS 2-Hexanone	250	0.00	U	31.6	13 * 30-139
142-28-9	PS 1,3-Dichloropropane	50.0	0.00	U	40.3	81 59-125
127-18-4	PS Tetrachloroethylene	50.0	0.00	U	39.6	79 50-126
124-48-1	PS Dibromochloromethane	50.0	0.00	U	39.6	79 54-131
106-93-4	PS 1,2-Dibromoethane	50.0	0.00	U	32.0	64 55-127
108-90-7	PS Chlorobenzene	50.0	0.00	U	31.0	62 50-130
100-41-4	PS Ethylbenzene	50.0	0.00	U	37.5	75 50-121
179601-23-1	PS m,p-Xylenes	100	0.350	J	70.3	70 47-125
95-47-6	PS o-Xylene	50.0	0.00	U	36.2	72 51-127
100-42-5	PS Styrene	50.0	0.00	U	22.1	44 41-136
75-25-2	PS Bromoform	50.0	0.00	U	45.1	90 48-143
79-34-5	PS 1,1,2,2-Tetrachloroethane	50.0	0.00	U	50.5	101 52-129

## Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2193

Sample Type: Post Spike

Client ID: RE36-10-7407PS

Matrix: R

Lab Sample ID: 1202066792

% Moisture: 22.9

Instrument: VOA4.I

Analysis Date: 03/10/2010 13:53

Dilution: 1

Analyst: ACJ

Prep Batch ID: 963416

Purge Vol: 5 mL

Batch ID: 963417

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	51.5	103 56-139
108-86-1	PS Bromobenzene	50.0	0.00	U	34.0	68 54-125
103-65-1	PS n-Propylbenzene	50.0	0.00	U	40.9	82 46-127
95-49-8	PS 2-Chlorotoluene	50.0	0.00	U	40.2	80 47-130
98-82-8	PS Isopropylbenzene	50.0	0.00	U	50.2	100 42-126
108-67-8	PS 1,3,5-Trimethylbenzene	50.0	0.00	U	44.2	88 44-132
106-43-4	PS 4-Chlorotoluene	50.0	0.00	U	32.9	66 46-127
98-06-6	PS tert-Butylbenzene	50.0	0.00	U	50.0	100 48-136
95-63-6	PS 1,2,4-Trimethylbenzene	50.0	0.350	J	39.2	78 42-132
135-98-8	PS sec-Butylbenzene	50.0	0.00	U	40.2	80 47-130
99-87-6	PS 4-Isopropyltoluene	50.0	0.00	U	27.7	55 36-142
541-73-1	PS 1,3-Dichlorobenzene	50.0	0.00	U	25.9	52 41-130
106-46-7	PS 1,4-Dichlorobenzene	50.0	0.00	U	24.2	48 41-126
104-51-8	PS n-Butylbenzene	50.0	0.00	U	28.0	56 37-136
96-12-8	PS 1,2-Dibromo-3-chloropropane	50.0	0.00	U	36.5	73 42-143
630-20-6	PS 1,1,1,2-Tetrachloroethane	50.0	0.00	U	42.0	84 58-127
95-50-1	PS 1,2-Dichlorobenzene	50.0	0.00	U	25.7	51 42-128



## Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2193

Sample Type: Post Spike Duplicate

Client ID: RE36-10-7407PSD

Matrix: R

Lab Sample ID: 1202066793

%Moisture: 22.9

Instrument: VOA4.I

Analysis Date: 03/10/2010 14:21

Dilution: 1

Analyst: ACJ

Pre Batch ID: 963416

Purge Vol: 5 mL

Batch ID: 963417

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 35.9	72	39-148	1	0-19
74-87-3	PSD Chloromethane	50.0	0.00	U 35.8	72	42-131	3	0-23
75-01-4	PSD Vinyl chloride	50.0	0.00	U 44.6	89	50-127	4	0-23
74-83-9	PSD Bromomethane	50.0	0.00	U 24.6	49	26-135	3	0-22
75-00-3	PSD Chloroethane	50.0	0.00	U 44.0	88	54-128	5	0-25
75-69-4	PSD Trichlorofluoromethane	50.0	0.00	U 45.6	91	55-138	2	0-21
67-64-1	PSD Acetone	250	0.00	U 55.0	22	20-144	3	0-22
75-35-4	PSD 1,1-Dichloroethylene	50.0	0.00	U 38.3	77	55-128	5	0-20
74-88-4	PSD Iodomethane	250	0.00	U 97.3	39 *	47-132	3	0-20
75-09-2	PSD Methylene chloride	50.0	0.00	U 43.3	87	56-123	5	0-20
75-15-0	PSD Carbon disulfide	250	0.00	U 176	70	53-133	6	0-22
156-60-5	PSD trans-1,2-Dichloroethylene	50.0	0.00	U 35.8	72	57-119	5	0-20
75-34-3	PSD 1,1-Dichloroethane	50.0	0.00	U 42.7	85	62-125	3	0-20
78-93-3	PSD 2-Butanone	250	0.00	U 40.3	16 *	30-150	6	0-21
156-59-2	PSD cis-1,2-Dichloroethylene	50.0	0.00	U 37.7	75	60-124	2	0-20
594-20-7	PSD 2,2-Dichloropropane	50.0	0.00	U 41.9	84	56-129	4	0-20
67-66-3	PSD Chloroform	50.0	0.00	U 40.7	81	62-120	2	0-25
74-97-5	PSD Bromochloromethane	50.0	0.00	U 41.4	83	51-135	1	0-20
71-55-6	PSD 1,1,1-Trichloroethane	50.0	0.00	U 43.1	86	58-129	3	0-20
563-58-6	PSD 1,1-Dichloropropene	50.0	0.00	U 36.8	74	59-126	4	0-20
56-23-5	PSD Carbon tetrachloride	50.0	0.00	U 41.1	82	55-132	3	0-20
107-06-2	PSD 1,2-Dichloroethane	50.0	0.00	U 38.2	76	54-121	2	0-20

Volatile  
Quality Control Summary  
Spike Recovery Report

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SDG Number: 10-2193

Sample Type: Post Spike Duplicate

Client ID: RE36-10-7407PSD

Matrix: R

Lab Sample ID: 1202066793

%Moisture: 22.9

Instrument: VOA4.I

Analysis Date: 03/10/2010 14:21

Dilution: 1

Analyst: ACJ

Prep Batch II 963416

Purge Vol: 5 mL

Batch ID: 963417

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	38.0	76	58-120	3 0-20
79-01-6	PSD Trichloroethylene	50.0	0.510	J	34.0	67	54-130	4 0-23
78-87-5	PSD 1,2-Dichloropropane	50.0	0.00	U	39.0	78	59-121	5 0-20
75-27-4	PSD Bromodichloromethane	50.0	0.00	U	37.5	75	57-130	4 0-20
74-95-3	PSD Dibromomethane	50.0	0.00	U	36.4	73	57-124	0 0-20
108-10-1	PSD 4-Methyl-2-pentanone	250	0.00	U	145	58	40-137	3 0-25
10061-01-5	PSD cis-1,3-Dichloropropylene	50.0	0.00	U	15.6	31 *	50-131	4 0-20
108-88-3	PSD Toluene	50.0	0.00	U	42.8	86	54-119	8 0-23
10061-02-6	PSD trans-1,3-Dichloropropylene	50.0	0.00	U	20.5	41 *	47-133	1 0-24
79-00-5	PSD 1,1,2-Trichloroethane	50.0	0.00	U	41.3	83	60-130	6 0-20
591-78-6	PSD 2-Hexanone	250	0.00	U	32.8	13 *	30-139	4 0-21
142-28-9	PSD 1,3-Dichloropropane	50.0	0.00	U	38.6	77	59-125	4 0-20
127-18-4	PSD Tetrachloroethylene	50.0	0.00	U	36.6	73	50-126	8 0-20
124-48-1	PSD Dibromochloromethane	50.0	0.00	U	37.6	75	54-131	5 0-23
106-93-4	PSD 1,2-Dibromoethane	50.0	0.00	U	30.7	61	55-127	4 0-23
108-90-7	PSD Chlorobenzene	50.0	0.00	U	29.5	59	50-130	5 0-24
100-41-4	PSD Ethylbenzene	50.0	0.00	U	34.7	69	50-121	8 0-24
179601-23-1	PSD m,p-Xylenes	100	0.350	J	65.8	65	47-125	7 0-25
95-47-6	PSD o-Xylene	50.0	0.00	U	33.6	67	51-127	7 0-24
100-42-5	PSD Styrene	50.0	0.00	U	21.3	43	41-136	4 0-24
75-25-2	PSD Bromoform	50.0	0.00	U	44.2	88	48-143	2 0-20
79-34-5	PSD 1,1,2,2-Tetrachloroethane	50.0	0.00	U	48.4	97	52-129	4 0-20

## Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2193

Sample Type: Post Spike Duplicate

Client ID: RE36-10-7407PSD

Matrix: R

Lab Sample ID: 1202066793

% Moisture: 22.9

Instrument: VOA4.J

Analysis Date: 03/10/2010 14:21

Dilution: 1

Analyst: ACJ

Prep Batch ID: 963416

Purge Vol: 5 mL

Batch ID: 963417

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	47.1	94	56-139	9 0-34
108-86-1	PSD Bromobenzene	50.0	0.00	U	32.6	65	54-125	4 0-22
103-65-1	PSD n-Propylbenzene	50.0	0.00	U	37.9	76	46-127	8 0-25
95-49-8	PSD 2-Chlorotoluene	50.0	0.00	U	38.5	77	47-130	4 0-24
98-82-8	PSD Isopropylbenzene	50.0	0.00	U	46.8	94	42-126	7 0-22
108-67-8	PSD 1,3,5-Trimethylbenzene	50.0	0.00	U	42.0	84	44-132	5 0-25
106-43-4	PSD 4-Chlorotoluene	50.0	0.00	U	31.9	64	46-127	3 0-26
98-06-6	PSD tert-Butylbenzene	50.0	0.00	U	46.2	92	48-136	8 0-24
95-63-6	PSD 1,2,4-Trimethylbenzene	50.0	0.350	J	37.3	74	42-132	5 0-26
135-98-8	PSD sec-Butylbenzene	50.0	0.00	U	36.9	74	47-130	9 0-27
99-87-6	PSD 4-Isopropyltoluene	50.0	0.00	U	23.3	47	36-142	17 0-27
541-73-1	PSD 1,3-Dichlorobenzene	50.0	0.00	U	24.8	50	41-130	4 0-25
106-46-7	PSD 1,4-Dichlorobenzene	50.0	0.00	U	23.5	47	41-126	3 0-25
104-51-8	PSD n-Butylbenzene	50.0	0.00	U	25.8	52	37-136	8 0-29
96-12-8	PSD 1,2-Dibromo-3-chloropropane	50.0	0.00	U	36.4	73	42-143	0 0-21
630-20-6	PSD 1,1,1,2-Tetrachloroethane	50.0	0.00	U	38.6	77	58-127	8 0-20
95-50-1	PSD 1,2-Dichlorobenzene	50.0	0.00	U	25.2	50	42-128	2 0-24

Volatile  
Quality Control Summary  
Spike Recovery Report

Page 1 of 3

SDG Number: 10-2193

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963416

Matrix: SOIL

Lab Sample ID: 1202066794

Instrument: VOA4.I

Analysis Date: 03/09/2010 18:11

Dilution: 1

Analyst: ACJ

Pre Batch II 963416

Purge Vol: 5 mL

Batch ID: 963417

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS Dichlorodifluoromethane	50.0	0.0	46.5	93	52-151
74-87-3	LCS Chloromethane	50.0	0.0	43.2	86	56-130
75-01-4	LCS Vinyl chloride	50.0	0.0	51.5	103	66-130
74-83-9	LCS Bromomethane	50.0	0.0	49.8	100	70-126
75-00-3	LCS Chloroethane	50.0	0.0	52.2	104	67-129
75-69-4	LCS Trichlorofluoromethane	50.0	0.0	58.0	116	73-143
67-64-1	LCS Acetone	250	0.0	214	86	30-140
75-35-4	LCS 1,1-Dichloroethylene	50.0	0.0	50.7	101	71-129
74-88-4	LCS Iodomethane	250	0.0	274	110	72-125
75-09-2	LCS Methylene chloride	50.0	0.0	49.7	99	64-121
75-15-0	LCS Carbon disulfide	250	0.0	275	110	70-133
156-60-5	LCS trans-1,2-Dichloroethylene	50.0	0.0	50.2	100	73-120
75-34-3	LCS 1,1-Dichloroethane	50.0	0.0	50.6	101	73-120
78-93-3	LCS 2-Butanone	250	0.0	221	88	32-145
156-59-2	LCS cis-1,2-Dichloroethylene	50.0	0.0	50.2	100	74-124
594-20-7	LCS 2,2-Dichloropropane	50.0	0.0	56.0	112	73-134
67-66-3	LCS Chloroform	50.0	0.0	49.5	99	74-120
74-97-5	LCS Bromochloromethane	50.0	0.0	50.1	100	73-122
71-55-6	LCS 1,1,1-Trichloroethane	50.0	0.0	55.3	111	74-132
563-58-6	LCS 1,1-Dichloropropene	50.0	0.0	53.2	106	79-128
56-23-5	LCS Carbon tetrachloride	50.0	0.0	56.4	113	75-135
107-06-2	LCS 1,2-Dichloroethane	50.0	0.0	48.2	96	65-120

Volatile  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2193

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963416

Matrix: SOIL

Lab Sample ID: 1202066794

Instrument: VOA4.I

Analysis Date: 03/09/2010 18:11

Dilution: 1

Analyst: ACJ

Pren Batch II 963416

Purge Vol: 5 mL

Batch ID: 963417

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	49.5	99	74-120
79-01-6	LCS Trichloroethylene	50.0	0.0	52.2	104	77-124
78-87-5	LCS 1,2-Dichloropropane	50.0	0.0	50.2	100	73-120
75-27-4	LCS Bromodichloromethane	50.0	0.0	53.4	107	75-128
74-95-3	LCS Dibromomethane	50.0	0.0	49.8	100	75-120
108-10-1	LCS 4-Methyl-2-pentanone	250	0.0	267	107	63-133
10061-01-5	LCS cis-1,3-Dichloropropylene	50.0	0.0	53.6	107	78-127
108-88-3	LCS Toluene	50.0	0.0	54.1	108	74-120
10061-02-6	LCS trans-1,3-Dichloropropylene	50.0	0.0	52.8	106	70-125
79-00-5	LCS 1,1,2-Trichloroethane	50.0	0.0	49.6	99	75-120
591-78-6	LCS 2-Hexanone	250	0.0	230	92	40-153
142-28-9	LCS 1,3-Dichloropropane	50.0	0.0	49.4	99	73-120
127-18-4	LCS Tetrachloroethylene	50.0	0.0	52.6	105	72-126
124-48-1	LCS Dibromochloromethane	50.0	0.0	55.4	111	74-126
106-93-4	LCS 1,2-Dibromoethane	50.0	0.0	51.8	104	79-120
108-90-7	LCS Chlorobenzene	50.0	0.0	49.6	99	76-120
100-41-4	LCS Ethylbenzene	50.0	0.0	50.5	101	74-120
179601-23-1	LCS m,p-Xylenes	100	0.0	105	105	76-120
95-47-6	LCS o-Xylene	50.0	0.0	53.4	107	76-122
100-42-5	LCS Styrene	50.0	0.0	55.8	112	75-125
75-25-2	LCS Bromoform	50.0	0.0	57.0	114	68-135
79-34-5	LCS 1,1,2,2-Tetrachloroethane	50.0	0.0	49.4	99	72-122

Volatile  
Quality Control Summary  
Spike Recovery Report

Page 3 of 3

SDG Number: 10-2193

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963416

Matrix: SOIL

Lab Sample ID: 1202066794

Instrument: VOA4.I

Analysis Date: 03/09/2010 18:11

Dilution: 1

Analyst: ACJ

Pre Batch II 963416

Purge Vol: 5 mL

Batch ID: 963417

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	48.7	97	72-129
108-86-1	LCS Bromobenzene	50.0	0.0	49.2	98	74-120
103-65-1	LCS n-Propylbenzene	50.0	0.0	49.3	99	70-120
95-49-8	LCS 2-Chlorotoluene	50.0	0.0	51.7	103	70-120
98-82-8	LCS Isopropylbenzene	50.0	0.0	49.2	98	60-121
108-67-8	LCS 1,3,5-Trimethylbenzene	50.0	0.0	51.3	103	71-121
106-43-4	LCS 4-Chlorotoluene	50.0	0.0	49.1	98	71-120
98-06-6	LCS tert-Butylbenzene	50.0	0.0	51.3	103	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	50.2	100	74-123
99-87-6	LCS 4-Isopropyltoluene	50.0	0.0	51.7	103	76-127
541-73-1	LCS 1,3-Dichlorobenzene	50.0	0.0	49.7	99	75-120
106-46-7	LCS 1,4-Dichlorobenzene	50.0	0.0	49.5	99	73-120
104-51-8	LCS n-Butylbenzene	50.0	0.0	51.9	104	73-128
96-12-8	LCS 1,2-Dibromo-3-chloropropane	50.0	0.0	62.2	124	69-136
630-20-6	LCS 1,1,1,2-Tetrachloroethane	50.0	0.0	52.7	105	75-124
95-50-1	LCS 1,2-Dichlorobenzene	50.0	0.0	49.0	98	75-120

Volatile  
Quality Control Summary  
Spike Recovery Report

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SDG Number: 10-2193

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963416

Matrix: SOIL

Lab Sample ID: 1202066795

Instrument: VOA4.1

Analysis Date: 03/09/2010 19:06

Dilution: 1

Analyst: ACJ

Prep Batch ID: 963416

Purge Vol: 5 mL

Batch ID: 963417

CAS No	Paramname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS 1,1,2-Trichloro-1,2,2-Trifluor Trichlorotrifluoroethane	250	0.0	262	105	67-140

Volatile  
Quality Control Summary  
Spike Recovery Report

Page 1 of 3

SDG Number: 10-2193

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963416

Matrix: SOIL

Lab Sample ID: 1202066796

Instrument: VOA4.I

Analysis Date: 03/10/2010 06:05

Dilution: 1

Analyst: ACJ

Pren Batch ID: 963416

Purge Vol: 5 mL

Batch ID: 963417

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	38.2	76	52-151
74-87-3	LCS Chloromethane	50.0	0.0	41.1	82	56-130
75-01-4	LCS Vinyl chloride	50.0	0.0	47.0	94	66-130
74-83-9	LCS Bromomethane	50.0	0.0	47.4	95	70-126
75-00-3	LCS Chloroethane	50.0	0.0	47.9	96	67-129
75-69-4	LCS Trichlorofluoromethane	50.0	0.0	51.3	103	73-143
67-64-1	LCS Acetone	250	0.0	195	78	30-140
75-35-4	LCS 1,1-Dichloroethylene	50.0	0.0	47.3	95	71-129
74-88-4	LCS Iodomethane	250	0.0	253	101	72-125
75-09-2	LCS Methylene chloride	50.0	0.0	50.1	100	64-121
75-15-0	LCS Carbon disulfide	250	0.0	257	103	70-133
156-60-5	LCS trans-1,2-Dichloroethylene	50.0	0.0	47.5	95	73-120
75-34-3	LCS 1,1-Dichloroethane	50.0	0.0	48.9	98	73-120
78-93-3	LCS 2-Butanone	250	0.0	203	81	32-145
156-59-2	LCS cis-1,2-Dichloroethylene	50.0	0.0	48.5	97	74-124
594-20-7	LCS 2,2-Dichloropropane	50.0	0.0	45.9	92	73-134
67-66-3	LCS Chloroform	50.0	0.0	48.1	96	74-120
74-97-5	LCS Bromochloromethane	50.0	0.0	49.7	99	73-122
71-55-6	LCS 1,1,1-Trichloroethane	50.0	0.0	49.4	99	74-132
563-58-6	LCS 1,1-Dichloropropene	50.0	0.0	49.0	98	79-128
56-23-5	LCS Carbon tetrachloride	50.0	0.0	50.4	101	75-135
107-06-2	LCS 1,2-Dichloroethane	50.0	0.0	48.3	97	65-120



Volatile  
Quality Control Summary  
Spike Recovery Report

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SDG Number: 10-2193

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963416

Matrix: SOIL

Lab Sample ID: J202066796

Instrument: VOA4.I

Analysis Date: 03/10/2010 06:05

Dilution: 1

Analyst: ACJ

Pren Batch II 963416

Purge Vol: 5 mL

Batch ID: 963417

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	48.2	96	74-120
79-01-6	LCS Trichloroethylene	50.0	0.0	48.8	98	77-124
78-87-5	LCS 1,2-Dichloropropane	50.0	0.0	49.6	99	73-120
75-27-4	LCS Bromodichloromethane	50.0	0.0	52.1	104	75-128
74-95-3	LCS Dibromomethane	50.0	0.0	49.2	98	75-120
108-10-1	LCS 4-Methyl-2-pentanone	250	0.0	253	101	63-133
10061-01-5	LCS cis-1,3-Dichloropropylene	50.0	0.0	50.5	101	78-127
108-88-3	LCS Toluene	50.0	0.0	51.7	103	74-120
10061-02-6	LCS trans-1,3-Dichloropropylene	50.0	0.0	50.9	102	70-125
79-00-5	LCS 1,1,2-Trichloroethane	50.0	0.0	48.8	98	75-120
591-78-6	LCS 2-Hexanone	250	0.0	215	86	40-153
142-28-9	LCS 1,3-Dichloropropane	50.0	0.0	49.5	99	73-120
127-18-4	LCS Tetrachloroethylene	50.0	0.0	46.9	94	72-126
124-48-1	LCS Dibromochloromethane	50.0	0.0	53.9	108	74-126
106-93-4	LCS 1,2-Dibromoethane	50.0	0.0	50.7	101	79-120
108-90-7	LCS Chlorobenzene	50.0	0.0	47.2	94	76-120
100-41-4	LCS Ethylbenzene	50.0	0.0	47.1	94	74-120
179601-23-1	LCS m,p-Xylenes	100	0.0	95.6	96	76-120
95-47-6	LCS o-Xylene	50.0	0.0	49.6	99	76-122
100-42-5	LCS Styrene	50.0	0.0	51.8	104	75-125
75-25-2	LCS Bromoform	50.0	0.0	52.7	105	68-135
79-34-5	LCS 1,1,2,2-Tetrachloroethane	50.0	0.0	46.3	93	72-122

Volatile  
Quality Control Summary  
Spike Recovery Report

Page 3 of 3

SDG Number: 10-2193

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963416

Matrix: SOIL

Lab Sample ID: 1202066796

Instrument: VOA4.I

Analysis Date: 03/10/2010 06:05

Dilution: 1

Analyst: ACJ

Prep Batch ID: 963416

Purge Vol: 5 mL

Batch ID: 963417

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	47.0	94	72-129
108-86-1	LCS Bromobenzene	50.0	0.0	45.6	91	74-120
103-65-1	LCS n-Propylbenzene	50.0	0.0	43.7	87	70-120
95-49-8	LCS 2-Chlorotoluene	50.0	0.0	46.3	93	70-120
98-82-8	LCS Isopropylbenzene	50.0	0.0	44.1	88	60-121
108-67-8	LCS 1,3,5-Trimethylbenzene	50.0	0.0	45.2	90	71-121
106-43-4	LCS 4-Chlorotoluene	50.0	0.0	43.7	87	71-120
98-06-6	LCS tert-Butylbenzene	50.0	0.0	44.7	89	75-123
95-63-6	LCS 1,2,4-Trimethylbenzene	50.0	0.0	44.2	88	73-120
135-98-8	LCS sec-Butylbenzene	50.0	0.0	43.9	88	74-123
99-87-6	LCS 4-Isopropyltoluene	50.0	0.0	44.3	89	76-127
541-73-1	LCS 1,3-Dichlorobenzene	50.0	0.0	44.3	89	75-120
106-46-7	LCS 1,4-Dichlorobenzene	50.0	0.0	43.4	87	73-120
104-51-8	LCS n-Butylbenzene	50.0	0.0	42.8	86	73-128
96-12-8	LCS 1,2-Dibromo-3-chloropropane	50.0	0.0	54.9	110	69-136
630-20-6	LCS 1,1,1,2-Tetrachloroethane	50.0	0.0	50.5	101	75-124
95-50-1	LCS 1,2-Dichlorobenzene	50.0	0.0	45.1	90	75-120

## Volatile

Page 1 of 1

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2193

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963416

Matrix: SOIL

Lab Sample ID: 1202066797

Instrument: VOA4.I

Analysis Date: 03/10/2010 07:00

Dilution: 1

Analyst: ACJ

Prep Batch ID: 963416

Purge Vol: 5 mL

Batch ID: 963417

CAS No	Paramname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS 1,1,2-Trichloro-1,2,2-Trifluor Trichlorotrifluoroethane	250	0.0	253	101	67-140

Volatile  
Quality Control Summary  
Spike Recovery Report

Page 1 of 3

SDG Number: 10-2193

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963416

Matrix: SOIL

Lab Sample ID: 1202076511

Instrument: VOA4.I

Analysis Date: 03/11/2010 05:45

Dilution: 1

Analyst: ACJ

Pre Batch ID: 963416

Purge Vol: 5 mL

Batch ID: 963417

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	27.6	55	52-151
74-87-3	LCS Chloromethane	50.0	0.0	33.7	67	56-130
75-01-4	LCS Vinyl chloride	50.0	0.0	40.4	81	66-130
74-83-9	LCS Bromomethane	50.0	0.0	39.9	80	70-126
75-00-3	LCS Chloroethane	50.0	0.0	41.2	82	67-129
75-69-4	LCS Trichlorofluoromethane	50.0	0.0	45.3	91	73-143
67-64-1	LCS Acetone	250	0.0	178	71	30-140
75-35-4	LCS 1,1-Dichloroethylene	50.0	0.0	39.9	80	71-129
74-88-4	LCS Iodomethane	250	0.0	221	88	72-125
75-09-2	LCS Methylene chloride	50.0	0.0	41.7	83	64-121
75-15-0	LCS Carbon disulfide	250	0.0	217	87	70-133
156-60-5	LCS trans-1,2-Dichloroethylene	50.0	0.0	42.4	85	73-120
75-34-3	LCS 1,1-Dichloroethane	50.0	0.0	44.1	88	73-120
78-93-3	LCS 2-Butanone	250	0.0	187	75	32-145
156-59-2	LCS cis-1,2-Dichloroethylene	50.0	0.0	42.9	86	74-124
594-20-7	LCS 2,2-Dichloropropane	50.0	0.0	44.0	88	73-134
67-66-3	LCS Chloroform	50.0	0.0	42.6	85	74-120
74-97-5	LCS Bromochloromethane	50.0	0.0	44.5	89	73-122
71-55-6	LCS 1,1,1-Trichloroethane	50.0	0.0	45.2	90	74-132
563-58-6	LCS 1,1-Dichloropropene	50.0	0.0	44.0	88	79-128
56-23-5	LCS Carbon tetrachloride	50.0	0.0	45.9	92	75-135
107-06-2	LCS 1,2-Dichloroethane	50.0	0.0	42.4	85	65-120

Volatile  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2193

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963416

Matrix: SOIL

Lab Sample ID: 1202076511

Instrument: VOA4.I

Analysis Date: 03/11/2010 05:45

Dilution: 1

Analyst: ACJ

Prep Batch ID: 963416

Purge Vol: 5 mL

Batch ID: 963417

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	42.8	86	74-120
79-01-6	LCS Trichloroethylene	50.0	0.0	44.3	89	77-124
78-87-5	LCS 1,2-Dichloropropane	50.0	0.0	44.5	89	73-120
75-27-4	LCS Bromodichloromethane	50.0	0.0	46.2	92	75-128
74-95-3	LCS Dibromomethane	50.0	0.0	43.6	87	75-120
108-10-1	LCS 4-Methyl-2-pentanone	250	0.0	231	92	63-133
10061-01-5	LCS cis-1,3-Dichloropropylene	50.0	0.0	44.5	89	78-127
108-88-3	LCS Toluene	50.0	0.0	46.6	93	74-120
10061-02-6	LCS trans-1,3-Dichloropropylene	50.0	0.0	44.8	90	70-125
79-00-5	LCS 1,1,2-Trichloroethane	50.0	0.0	44.1	88	75-120
591-78-6	LCS 2-Hexanone	250	0.0	188	75	40-153
142-28-9	LCS 1,3-Dichloropropane	50.0	0.0	44.4	89	73-120
127-18-4	LCS Tetrachloroethylene	50.0	0.0	42.7	85	72-126
124-48-1	LCS Dibromochloromethane	50.0	0.0	47.2	94	74-126
106-93-4	LCS 1,2-Dibromoethane	50.0	0.0	44.7	89	79-120
108-90-7	LCS Chlorobenzene	50.0	0.0	42.0	84	76-120
100-41-4	LCS Ethylbenzene	50.0	0.0	42.5	85	74-120
179601-23-1	LCS m,p-Xylenes	100	0.0	86.8	87	76-120
95-47-6	LCS o-Xylene	50.0	0.0	43.6	87	76-122
100-42-5	LCS Styrene	50.0	0.0	45.9	92	75-125
75-25-2	LCS Bromoform	50.0	0.0	46.5	93	68-135
79-34-5	LCS 1,1,2,2-Tetrachloroethane	50.0	0.0	42.2	84	72-122

Volatile  
Quality Control Summary  
Spike Recovery Report

Page 3 of 3

SDG Number: 10-2193

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963416

Matrix: SOIL

Lab Sample ID: 1202076511

Instrument: VOA4.I

Analysis Date: 03/11/2010 05:45

Dilution: 1

Analyst: ACJ

Preb Batch II 963416

Purge Vol: 5 mL

Batch ID: 963417

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	42.7	85	72-129
108-86-1	LCS Bromobenzene	50.0	0.0	41.1	82	74-120
103-65-1	LCS n-Propylbenzene	50.0	0.0	41.1	82	70-120
95-49-8	LCS 2-Chlorotoluene	50.0	0.0	42.3	85	70-120
98-82-8	LCS Isopropylbenzene	50.0	0.0	40.5	81	60-121
108-67-8	LCS 1,3,5-Trimethylbenzene	50.0	0.0	42.0	84	71-121
106-43-4	LCS 4-Chlorotoluene	50.0	0.0	41.2	82	71-120
98-06-6	LCS tert-Butylbenzene	50.0	0.0	41.4	83	75-123
95-63-6	LCS 1,2,4-Trimethylbenzene	50.0	0.0	41.6	83	73-120
135-98-8	LCS sec-Butylbenzene	50.0	0.0	41.4	83	74-123
99-87-6	LCS 4-Isopropyltoluene	50.0	0.0	42.1	84	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	40.8	82	73-120
104-51-8	LCS n-Butylbenzene	50.0	0.0	42.1	84	73-128
96-12-8	LCS 1,2-Dibromo-3-chloropropane	50.0	0.0	52.8	106	69-136
630-20-6	LCS 1,1,1,2-Tetrachloroethane	50.0	0.0	44.5	89	75-124
95-50-1	LCS 1,2-Dichlorobenzene	50.0	0.0	42.0	84	75-120

Volatile  
Quality Control Summary  
Spike Recovery Report

Page 1 of 1

SDG Number: 10-2193

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963416

Matrix: SOIL

Lab Sample ID: 1202076512

Instrument: VOA4.I

Analysis Date: 03/11/2010 06:40

Dilution: 1

Analyst: ACJ

Prep Batch ID: 963416

Purge Vol: 5 mL

Batch ID: 963417

CAS No	Paramname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS 1,1,2-Trichloro-1,2,2-Trifluor Trichlorotrifluoroethane	250	0.0	301	120	67-140

## Method Blank Summary

Page 1 of 1

SDG Number:	10-2193	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 963416	Instrument ID:	VOA4.I	Data File:	030910V4\4B206b.D
Lab Sample ID:	1202066790	Prep Date:	03/09/2010 17:00	Analyzed:	03/09/10 19:33
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 963416	1202066794	030910V4\4B203b.D	03/09/10	1811
02 LCS for batch 963416	1202066795	030910V4\4B205b.D	03/09/10	1906
03 RE36-10-7407	248506001	030910V4\4B208.D	03/09/10	2028
04 RE36-10-7421	248506002	030910V4\4B209.D	03/09/10	2056
05 RE36-10-7422	248506003	030910V4\4B210.D	03/09/10	2123
06 RE36-10-7451	248506004	030910V4\4B211.D	03/09/10	2150
07 RE36-10-7449	248506005	030910V4\4B212.D	03/09/10	2217
08 RE36-10-7445	248506006	030910V4\4B213.D	03/09/10	2245
09 RE36-10-7450	248506007	030910V4\4B214.D	03/09/10	2312
10 RE36-10-7444	248506008	030910V4\4B215.D	03/09/10	2339
11 RE36-10-7448	248506009	030910V4\4B216.D	03/10/10	0007
12 RE36-10-7447	248506010	030910V4\4B217.D	03/10/10	0035
13 RE36-10-7443	248506011	030910V4\4B218.D	03/10/10	0102
14 RE36-10-7437	248506013	030910V4\4B220.D	03/10/10	0157
15 RE36-10-7440	248506014	030910V4\4B221.D	03/10/10	0224
16 RE36-10-7435	248506015	030910V4\4B222.D	03/10/10	0252
17 RE36-10-7442	248506017	030910V4\4B224.D	03/10/10	0347
18 RE36-10-7436	248506018	030910V4\4B225.D	03/10/10	0414



## Method Blank Summary

Page 1 of 1

SDG Number:	10-2193	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 963416	Instrument ID:	VOA4.I	Data File:	030910V4\4B232ba.D
Lab Sample ID:	1202066791	Prep Date:	03/09/2010 22:30	Analyzed:	03/10/10 07:27
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 963416	1202066796	030910V4\4B2291a.D	03/10/10	0605
02 LCS for batch 963416	1202066797	030910V4\4B231sa.D	03/10/10	0700
03 RE36-10-7439	248506020	030910V4\4B236.D	03/10/10	0917
04 RE36-10-7407PS	1202066792	030910V4\4B246.D	03/10/10	1353
05 RE36-10-7407PSD	1202066793	030910V4\4B247.D	03/10/10	1421

## Method Blank Summary

Page 1 of 1

SDG Number:	10-2193	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 963416	Instrument ID:	VOA4.I	Data File:	031010V4\4B333b1.D
Lab Sample ID:	1202076510	Prep Date:	03/10/2010 22:30	Analyzed:	03/11/10 07:07
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 963416	1202076511	031010V4\4B330b1.D	03/11/10	0545
02 LCS for batch 963416	1202076512	031010V4\4B332s1.D	03/11/10	0640
03 RE36-10-7452	248506012	031010V4\4B343.D	03/11/10	1141
04 RE36-10-7441	248506016	031010V4\4B347.D	03/11/10	1330
05 RE36-10-7438	248506019	031010V4\4B350.D	03/11/10	1452

## Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2193

Instrument ID: VOA4.1

Injection Date/Time: 07-MAR-10 19:02

Column Description: DB-624

Lab File ID 030710V4\4A701.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	51.3
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	81.9
175	5.0 - 9.0% of mass 174	6.8
176	95.0 - 101.0% of mass 174	96.2
177	5.0 - 9.0% of mass 176	6.5

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W4VM100307-01	030710V4\4A703.D	07-MAR-10 19:57
ICALMIX[A]	W4VM100307-02	030710V4\4A704.D	07-MAR-10 20:24
ICALMIX[A]	W4VM100307-04	030710V4\4A706.D	07-MAR-10 21:20
ICALMIX[A]	W4VM100307-05	030710V4\4A707.D	07-MAR-10 21:47
ICALMIX[A]	W4VM100307-06	030710V4\4A708.D	07-MAR-10 22:14
ICALMIX[A]	W4VM100307-07	030710V4\4A709.D	07-MAR-10 22:41
ICALMIX[A]	W4VM100307-08	030710V4\4A710.D	07-MAR-10 23:09
ICALMIX[A]	W4VM100307-09	030710V4\4A711.D	07-MAR-10 23:36
ICALMIX[B]	W4VM100307-10	030710V4\4A713.D	08-MAR-10 00:32
ICALMIX[B]	W4VM100307-11	030710V4\4A714.D	08-MAR-10 00:59
ICALMIX[B]	W4VM100307-12	030710V4\4A715.D	08-MAR-10 01:26
ICALMIX[B]	W4VM100307-13	030710V4\4A716.D	08-MAR-10 01:53
ICALMIX[B]	W4VM100307-14	030710V4\4A717.D	08-MAR-10 02:20
ICALMIX[B]	W4VM100307-16	030710V4\4A719.D	08-MAR-10 03:16
ICVMIX[B]01	W4VM100307-18	030710V4\4A722.D	08-MAR-10 04:38

## Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2193

Instrument ID: VOA4.I

Injection Date/Time: 08-MAR-10 15:51

Column Description: DB-624

Lab File ID 030810V4\4B101.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	50.8
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	82
175	5.0 - 9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	96.2
177	5.0 - 9.0% of mass 176	6.4

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICVMIX[A]02	W4VM100308-01	030810V4\4B102.D	08-MAR-10 16:19

## Instrument Performance Check

## BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2193

Instrument ID: VOA4.I

Injection Date/Time: 09-MAR-10 17:16

Column Description: DB-624

Lab File ID 030910V4\4B201.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.9
75	30.0 - 60.0% of mass 95	51.8
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.7
174	50.0 - 100.0% of mass 95	76.7
175	5.0 - 9.0% of mass 174	7.5
176	95.0 - 101.0% of mass 174	96.3
177	5.0 - 9.0% of mass 176	6.5

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]02	W4VM100309-01	030910V4\4B202.D	09-MAR-10 17:43
BLK01LCS	1202066794	030910V4\4B203II.D	09-MAR-10 18:11
CCVMIX[B]03	W4VM100309-03	030910V4\4B204.D	09-MAR-10 18:38
BLK01SLCS	1202066795	030910V4\4B205sl.D	09-MAR-10 19:06
BLK01	1202066790	030910V4\4B206bl.D	09-MAR-10 19:33
RE36-10-7407	248506001	030910V4\4B208.D	09-MAR-10 20:28
RE36-10-7421	248506002	030910V4\4B209.D	09-MAR-10 20:56
RE36-10-7422	248506003	030910V4\4B210.D	09-MAR-10 21:23
RE36-10-7451	248506004	030910V4\4B211.D	09-MAR-10 21:50
RE36-10-7449	248506005	030910V4\4B212.D	09-MAR-10 22:17
RE36-10-7445	248506006	030910V4\4B213.D	09-MAR-10 22:45
RE36-10-7450	248506007	030910V4\4B214.D	09-MAR-10 23:12
RE36-10-7444	248506008	030910V4\4B215.D	09-MAR-10 23:39
RE36-10-7448	248506009	030910V4\4B216.D	10-MAR-10 00:07
RE36-10-7447	248506010	030910V4\4B217.D	10-MAR-10 00:35
RE36-10-7443	248506011	030910V4\4B218.D	10-MAR-10 01:02
RE36-10-7437	248506013	030910V4\4B220.D	10-MAR-10 01:57
RE36-10-7440	248506014	030910V4\4B221.D	10-MAR-10 02:24
RE36-10-7435	248506015	030910V4\4B222.D	10-MAR-10 02:52

## Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2193

Instrument ID: VOA4.1

Injection Date/Time: 09-MAR-10 17:16

Column Description: DB-624

Lab File ID 030910V4\4B201.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.9
75	30.0 - 60.0% of mass 95	51.8
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.7
174	50.0 - 100.0% of mass 95	76.7
175	5.0 - 9.0% of mass 174	7.5
176	95.0 - 101.0% of mass 174	96.3
177	5.0 - 9.0% of mass 176	6.5

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
RE36-10-7442	248506017	030910V4\4B224.D	10-MAR-10 03:47
RE36-10-7436	248506018	030910V4\4B225.D	10-MAR-10 04:14

## Instrument Performance Check

## BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2193

Instrument ID: VOA4.I

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

Column Description: DB-624

Lab File ID 030910V4\4B227.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	21.1
75	30.0 - 60.0% of mass 95	52.2
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	78.6
175	5.0 - 9.0% of mass 174	7
176	95.0 - 101.0% of mass 174	96.7
177	5.0 - 9.0% of mass 176	6.8

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]04	W4VM100309-05	030910V4\4B228.D	10-MAR-10 05:37
BLK02LCS	1202066796	030910V4\4B229la.D	10-MAR-10 06:05
CCVMIX[B]05	W4VM100309-07	030910V4\4B230.D	10-MAR-10 06:33
BLK02SLCS	1202066797	030910V4\4B231sa.D	10-MAR-10 07:00
BLK02	1202066791	030910V4\4B232ba.D	10-MAR-10 07:27
RE36-10-7439	248506020	030910V4\4B236.D	10-MAR-10 09:17
RE36-10-7407MS	1202066792	030910V4\4B246.D	10-MAR-10 13:53
RE36-10-7407MSD	1202066793	030910V4\4B247.D	10-MAR-10 14:21

## Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC

Client SDG: 10-2193

Instrument ID: VOA4.1

Injection Date/Time: 11-MAR-10 04:23

Column Description: DB-624

Lab File ID 031010V4\4B327.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	24.2
75	30.0 - 60.0% of mass 95	56.4
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	1
174	50.0 - 100.0% of mass 95	61.2
175	5.0 - 9.0% of mass 174	7.3
176	95.0 - 101.0% of mass 174	98.3
177	5.0 - 9.0% of mass 176	6.8

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]06	W4VM100310-05	031010V4\4B328.D	11-MAR-10 04:50
BLK03LCS	1202076511	031010V4\4B3301.D	11-MAR-10 05:45
CCVMIX[B]08	W4VM100310-08	031010V4\4B331.D	11-MAR-10 06:12
BLK03SLCS	1202076512	031010V4\4B332sl.D	11-MAR-10 06:40
BLK03	1202076510	031010V4\4B333bl.D	11-MAR-10 07:07
RE36-10-7452	248506012	031010V4\4B343.D	11-MAR-10 11:41
RE36-10-7441	248506016	031010V4\4B347.D	11-MAR-10 13:30
RE36-10-7438	248506019	031010V4\4B350.D	11-MAR-10 14:52



### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2193

Instrument: VOA4.1

STD Analysis Time: 09-MAR-10 17:43

GC Column: DB-624

Data File: C:\msdchem\1\DATA\030910V4\4B202.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT	Area	#	RT	Area	#	RT
12 Hour STD	1588578		10.6	1244594		13.8	848839		16.2
Upper Limit	3177156		11.1	2489188		14.3	1697678		16.7
Lower Limit	794289		10.1	622297		13.3	424420		15.7
Sample ID									
BLK01LCS	1564305		10.6	1240562		13.8	844984		16.2
BLK01SLCS	1634171		10.6	1264997		13.8	815458		16.2
BLK01	1602595		10.6	1170429		13.8	663937		16.2
RE36-10-7407	1424550		10.6	833960		13.8	256774	*	16.2
RE36-10-7421	1375245		10.6	810622		13.8	250587	*	16.2
RE36-10-7422	1385077		10.6	977789		13.8	500988		16.2
RE36-10-7451	1156744		10.6	527023	*	13.8	116441	*	16.2
RE36-10-7449	1249268		10.6	758177		13.8	258404	*	16.2
RE36-10-7445	1241191		10.6	714979		13.8	211961	*	16.2
RE36-10-7450	1284460		10.6	908777		13.8	409306	*	16.2
RE36-10-7444	1131359		10.6	741201		13.8	282734	*	16.2
RE36-10-7448	1191273		10.6	716746		13.8	219497	*	16.2
RE36-10-7447	1029368		10.6	517223	*	13.8	128739	*	16.2
RE36-10-7443	1172580		10.6	677863		13.8	203806	*	16.2
RE36-10-7437	965131		10.6	440746	*	13.8	89351	*	16.2
RE36-10-7440	1136454		10.6	712775		13.8	276425	*	16.2
RE36-10-7435	1133431		10.6	616907	*	13.8	179703	*	16.2
RE36-10-7442	1131917		10.6	684607		13.8	210483	*	16.2
RE36-10-7436	1186884		10.6	821661		13.8	405694	*	16.2

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: 10-2193

Instrument: VOA4.1

STD Analysis Time: 10-MAR-10 05:37

GC Column: DB-624

Data File: C:\msdchem\1\DATA\030910V4\4B228.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT	Area	#	RT	Area	#	RT
12 Hour STD	1305178		10.6	1040715		13.8	723782		16.2
Upper Limit	2610356		11.1	2081430		14.3	1447564		16.7
Lower Limit	652589		10.1	520358		13.3	361891		15.7
Sample ID									
BLK02LCS	1400650		10.6	1088686		13.8	750116		16.2
BLK02SLCS	1459458		10.6	1120486		13.8	694701		16.2
BLK02	1355693		10.6	995092		13.8	563782		16.2
RE36-10-7439	1086130		10.6	596092		13.8	186381	*	16.2
RE36-10-7407MS	1090084		10.6	692415		13.8	304836	*	16.2
RE36-10-7407MSD	1148067		10.6	749115		13.8	323677	*	16.2

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: 10-2193

Instrument: VOA4.1

STD Analysis Time: 11-MAR-10 04:50

GC Column: DB-624

Data File: C:\msdchem\1\DATA\031010V4\4B328.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1098138		10.6	874299		13.8	622153		16.2
Upper Limit	2196276		11.1	1748598		14.3	1244306		16.7
Lower Limit	549069		10.1	437150		13.3	311077		15.7
Sample ID									
BLK03LCS	1297724		10.6	1013729		13.8	679958		16.2
BLK03SLCS	1270189		10.6	971269		13.8	640173		16.2
BLK03	1218641		10.6	904749		13.8	514179		16.2
RE36-10-7452	925215		10.6	504828		13.8	162567	*	16.2
RE36-10-7441	912563		10.6	497893		13.8	135491	*	16.2
RE36-10-7438	968970		10.6	647067		13.8	312600		16.2

Area Upper Limit = +100% of internal standard area

Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT

RT Lower Limit = - 0.50 minutes of internal standard RT

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

\* Value outside of QC Limits

# Sample Data

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506001	Date Received: 03/03/2010 08:50	%Moisture: 22.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7407	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4J	Dilution: 1
Run Date: 03/09/2010 20:28	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:06	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V44B208.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.30	ug/kg	0.441	1.30
74-87-3	Chloromethane	U	1.30	ug/kg	0.389	1.30
75-01-4	Vinyl chloride	U	1.30	ug/kg	0.389	1.30
74-83-9	Bromomethane	U	1.30	ug/kg	0.389	1.30
75-00-3	Chloroethane	U	1.30	ug/kg	0.389	1.30
75-69-4	Trichlorofluoromethane	U	1.30	ug/kg	0.389	1.30
67-64-1	Acetone	U	6.48	ug/kg	2.15	6.48
75-35-4	1,1-Dichloroethylene	U	1.30	ug/kg	0.389	1.30
74-88-4	Iodomethane	U	6.48	ug/kg	2.07	6.48
75-09-2	Methylene chloride	U	6.48	ug/kg	2.59	6.48
75-15-0	Carbon disulfide	U	6.48	ug/kg	1.62	6.48
156-60-5	trans-1,2-Dichloroethylene	U	1.30	ug/kg	0.389	1.30
75-34-3	1,1-Dichloroethane	U	1.30	ug/kg	0.389	1.30
78-93-3	2-Butanone	U	6.48	ug/kg	1.94	6.48
156-59-2	cis-1,2-Dichloroethylene	U	1.30	ug/kg	0.389	1.30
594-20-7	2,2-Dichloropropane	U	1.30	ug/kg	0.389	1.30
67-66-3	Chloroform	U	1.30	ug/kg	0.389	1.30
74-97-5	Bromochloromethane	U	1.30	ug/kg	0.428	1.30
71-55-6	1,1,1-Trichloroethane	U	1.30	ug/kg	0.389	1.30
563-58-6	1,1-Dichloropropene	U	1.30	ug/kg	0.389	1.30
56-23-5	Carbon tetrachloride	U	1.30	ug/kg	0.389	1.30
107-06-2	1,2-Dichloroethane	U	1.30	ug/kg	0.389	1.30
71-43-2	Benzene	U	1.30	ug/kg	0.389	1.30
79-01-6	Trichloroethylene	J	0.661	ug/kg	0.428	1.30
78-87-5	1,2-Dichloropropane	U	1.30	ug/kg	0.389	1.30
75-27-4	Bromodichloromethane	U	1.30	ug/kg	0.389	1.30
74-95-3	Dibromomethane	U	1.30	ug/kg	0.389	1.30
108-10-1	4-Methyl-2-pentanone	U	6.48	ug/kg	1.62	6.48
10061-01-5	cis-1,3-Dichloropropylene	U	1.30	ug/kg	0.389	1.30
108-88-3	Toluene	U	1.30	ug/kg	0.389	1.30
10061-02-6	trans-1,3-Dichloropropylene	U	1.30	ug/kg	0.389	1.30
79-00-5	1,1,2-Trichloroethane	U	1.30	ug/kg	0.389	1.30
591-78-6	2-Hexanone	U	6.48	ug/kg	1.94	6.48
142-28-9	1,3-Dichloropropane	U	1.30	ug/kg	0.389	1.30
127-18-4	Tetrachloroethylene	U	1.30	ug/kg	0.389	1.30
124-48-1	Dibromochloromethane	U	1.30	ug/kg	0.389	1.30
106-93-4	1,2-Dibromoethane	U	1.30	ug/kg	0.389	1.30
108-90-7	Chlorobenzene	U	1.30	ug/kg	0.389	1.30

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506001	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 22.9
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7407	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 963417	<b>Inst:</b> VOA4.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/09/2010 20:28	<b>Analyst:</b> ACJ	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/09/2010 20:06	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 030910V44B208.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.30	ug/kg	0.389	1.30
179601-23-1	m,p-Xylenes	J	0.454	ug/kg	0.389	2.59
95-47-6	o-Xylene	U	1.30	ug/kg	0.389	1.30
100-42-5	Styrene	U	1.30	ug/kg	0.389	1.30
75-25-2	Bromoform	U	1.30	ug/kg	0.389	1.30
79-34-5	1,1,2,2-Tetrachloroethane	U	1.30	ug/kg	0.389	1.30
96-18-4	1,2,3-Trichloropropane	U	1.30	ug/kg	0.389	1.30
108-86-1	Bromobenzene	U	1.30	ug/kg	0.389	1.30
103-65-1	n-Propylbenzene	U	1.30	ug/kg	0.389	1.30
95-49-8	2-Chlorotoluene	U	1.30	ug/kg	0.389	1.30
98-82-8	Isopropylbenzene	U	1.30	ug/kg	0.389	1.30
108-67-8	1,3,5-Trimethylbenzene	U	1.30	ug/kg	0.389	1.30
106-43-4	4-Chlorotoluene	U	1.30	ug/kg	0.389	1.30
98-06-6	tert-Butylbenzene	U	1.30	ug/kg	0.389	1.30
95-63-6	1,2,4-Trimethylbenzene	J	0.454	ug/kg	0.389	1.30
135-98-8	sec-Butylbenzene	U	1.30	ug/kg	0.389	1.30
99-87-6	4-Isopropyltoluene	U	1.30	ug/kg	0.389	1.30
541-73-1	1,3-Dichlorobenzene	U	1.30	ug/kg	0.389	1.30
106-46-7	1,4-Dichlorobenzene	U	1.30	ug/kg	0.389	1.30
104-51-8	n-Butylbenzene	U	1.30	ug/kg	0.389	1.30
96-12-8	1,2-Dibromo-3-chloropropane	U	1.30	ug/kg	0.389	1.30
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.48	ug/kg	2.07	6.48
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.30	ug/kg	0.389	1.30
95-50-1	1,2-Dichlorobenzene	U	1.30	ug/kg	0.389	1.30

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	9.24	ug/kg	0	J
	unknown siloxane	16.79	8.15	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B208.D  
Acq On : 9 Mar 2010 8:28 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506001|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 19 20:36:05 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.613	10.613	1.000	96	1424617	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	833960	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	256767	50.00	ug/L	0.00
82) B Fluorobenzene	10.613	10.613	1.000	96	1424550	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	833960	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	256774	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	10.260	10.259	0.967	65	366867	47.69	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	=	95.38%		
43) Toluene-d8	12.253	12.247	0.890	98	1106393	58.27	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	=	116.54%		
61) Bromofluorobenzene	14.954	14.947	0.924	95	369901	74.29	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	=	148.58%#		
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.313	5.299	0.501	50	112	N.D.		
4) Vinyl chloride	5.528	5.521	0.521	62	1087	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	6.998	6.991	0.659	59	1564	N.D.		
9) Acetone	7.358	7.351	0.693	43	6046	N.D.		
10) 1,1-Dichloroethylene	7.401	7.394	0.697	61	305	N.D.		
11) Iodomethane	0.000	7.662	0.000		0	N.D.		
12) Acetonitrile	7.645	7.693	0.720	41	281	N.D.		
13) Methyl acetate	7.754	7.747	0.731	43	1852	N.D.		
14) Carbon disulfide	7.766	7.778	0.732	76	4335	N.D.		
15) Methylene chloride	7.937	7.967	0.748	84	28260	N.D.		
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.693	8.705	0.819	43	499	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.327	9.320	0.879	43	1534	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.687	9.686	0.913	83	598	N.D.		
25) 1,1,1-Trichloroethane	9.973	9.973	0.940	97	956	N.D.		
26) Cyclohexane	10.095	10.076	0.951	56	890	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.339	10.338	0.974	62	255	N.D.		
31) Benzene	10.370	10.369	0.977	78	1235	N.D.		
32) Cyclohexene	10.607	10.491	0.999	67	366	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	11.010	11.003	1.037	95	4739	0.51	ug/L	91
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	11.254	11.259	1.060	83	194	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B208.D  
Acq On : 9 Mar 2010 8:28 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506001|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 19 20:36:05 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.		
42) 4-Methyl-2-pentanone	12.028	12.015	0.873	58	270	N.D.		
44) Toluene	12.320	12.320	0.895	91	5827	Below Cal		98
45) trans-1,3-Dichloroprop...	12.467	12.460	0.905	75	686	N.D.		
46) 1,1,2-Trichloroethane	12.656	12.679	0.919	83	118	N.D.		
47) 2-Hexanone	12.857	12.856	0.934	43	876	N.D.		
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.		
49) Tetrachloroethylene	12.918	12.917	0.938	164	571	N.D.		
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.		
52) Chlorobenzene	13.796	13.801	1.002	112	942	N.D.		
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.		
54) Ethylbenzene	13.863	13.862	1.007	91	5704	N.D.		
55) m,p-Xylenes	13.967	13.966	1.014	106	4576	0.35 ug/L #		79
56) o-Xylene	14.405	14.399	1.046	106	3356	N.D.		
57) Styrene	14.393	14.399	1.045	104	962	N.D.		
59) Bromoform	0.000	14.655	0.000		0	N.D.		
60) Isopropylbenzene	14.759	14.758	0.912	105	1720	N.D.		
62) 1,1,2,2-Tetrachloroethane	15.027	15.014	0.929	83	236	N.D.		
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.		
64) Bromobenzene	15.167	15.167	0.937	156	126	N.D.		
65) n-Propylbenzene	15.174	15.179	0.938	91	2643	N.D.		
66) 1,3,5-Trimethylbenzene	15.326	15.325	0.947	105	3014	N.D.		
67) 2-Chlorotoluene	15.430	15.331	0.954	126	497	N.D.		
68) 4-Chlorotoluene	15.436	15.429	0.954	91	1467	N.D.		
69) tert-Butylbenzene	15.698	15.703	0.970	134	205	N.D.		
70) 1,2,4-Trimethylbenzene	15.741	15.740	0.973	105	5795	0.35 ug/L		89
71) sec-Butylbenzene	0.000	15.929	0.000		0m	N.D. d		
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	1747	N.D.		
73) 1,3-Dichlorobenzene	16.119	16.118	0.996	146	762	N.D.		
74) 1,4-Dichlorobenzene	16.204	16.203	1.002	146	1214	N.D.		
75) n-Butylbenzene	16.503	16.502	1.020	91	1382	N.D.		
76) 1,2-Dichlorobenzene	16.643	16.642	1.029	146	966	N.D.		
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	18.618	18.629	1.151	180	723	N.D.		
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.		
80) Naphthalene	19.033	19.026	1.176	128	2869	N.D.		
81) 1,2,3-Trichlorobenzene	19.374	19.385	1.197	180	386	N.D.		
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	0.000	7.174	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.		
87) Isopropyl Alcohol	7.523	7.430	0.709	45	171	N.D.		
88) Allyl chloride	7.840	7.796	0.739	41	293	N.D.		
89) tert-Butyl Alcohol	7.925	7.924	0.747	59	820	N.D.		
90) Acrylonitrile	0.000	8.168	0.000		0	N.D.		
91) Isopropyl ether	0.000	8.735	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.		
94) Ethyl acetate	9.327	9.339	0.879	43	1534	N.D.		
95) Propionitrile	0.000	9.387	0.000		0	N.D.		
96) Methacrylonitrile	9.577	9.570	0.902	41	452	N.D.		
97) Tetrahydrofuran	9.717	9.710	0.916	42	1864	N.D.		
98) Isobutyl alcohol	10.022	10.003	0.944	41	551	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B208.D  
Acq On : 9 Mar 2010 8:28 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506001|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 19 20:36:05 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

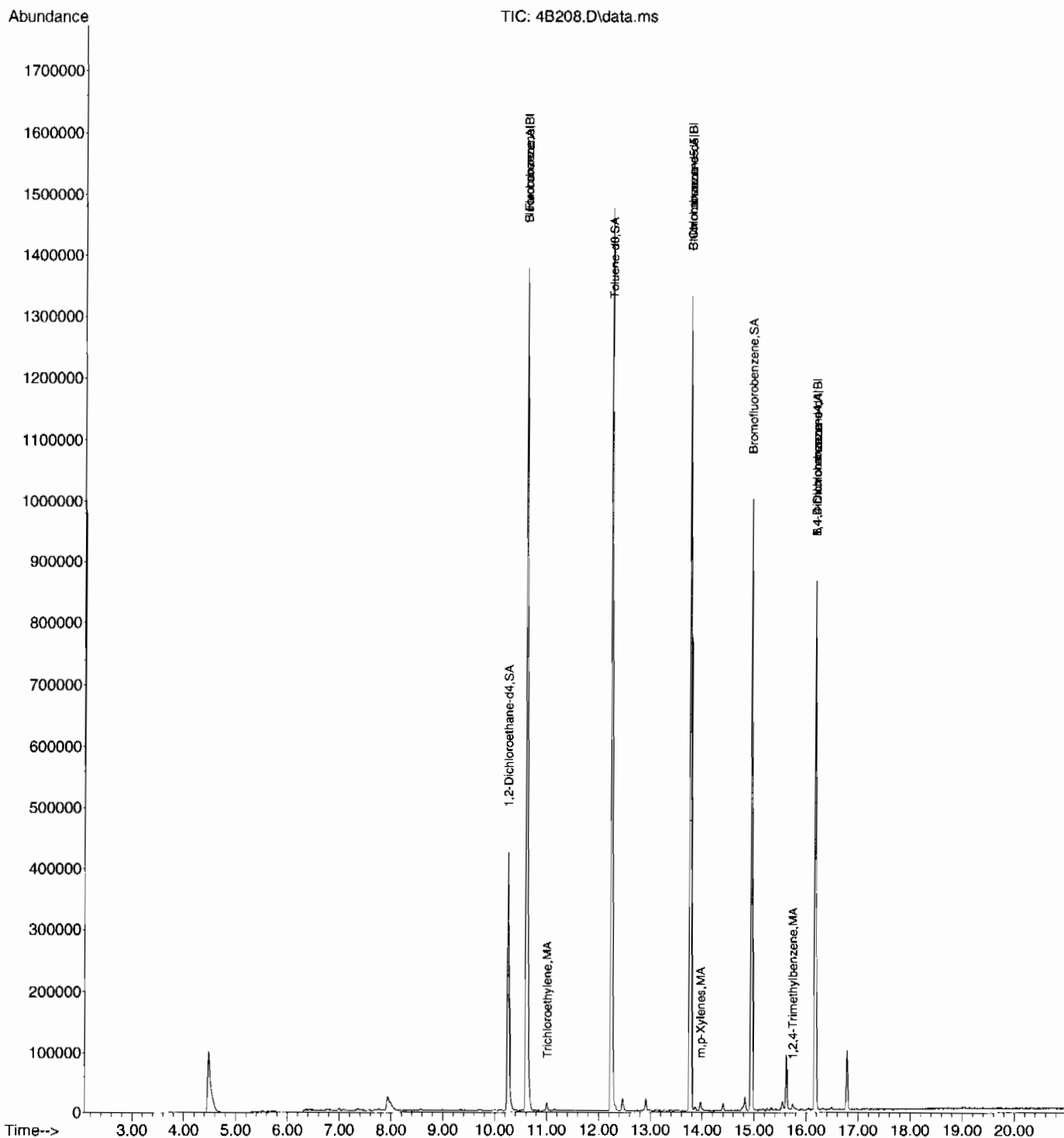
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	10.406	10.381	0.980	73	285	N.D.	
100) Methyl methacrylate	11.229	11.204	1.058	69	191	N.D.	
101) 1,4-Dioxane	11.327	11.326	1.067	88	225	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0m	N.D.	d
104) Ethyl methacrylate	12.461	12.460	0.905	69	703	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.790	14.783	0.914	53	555	N.D.	
108) Cyclohexanone	14.911	14.905	0.922	42	131	N.D.	
109) trans-1,4-Dichloro-2-b...	15.064	15.063	0.931	53	384	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0m	N.D.	d
111) Benzyl chloride	16.320	16.319	1.009	91	2864	N.D.	
112) bis(2-Chloroisopropyl)...	16.716	16.715	1.033	45	1219	N.D.	

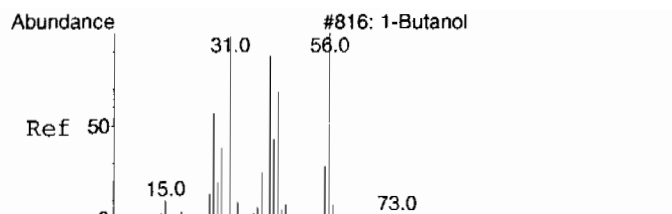
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

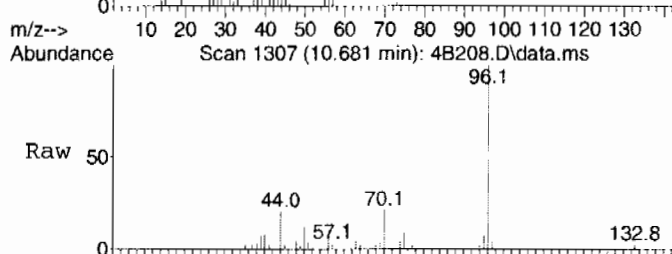
Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B208.D  
Acq On : 9 Mar 2010 8:28 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506001|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 19 20:36:05 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

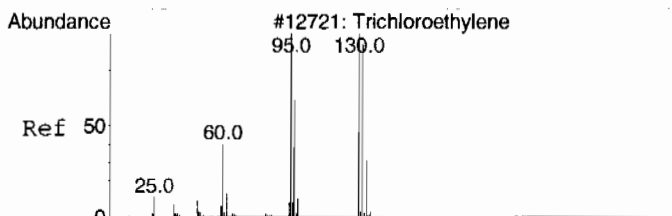
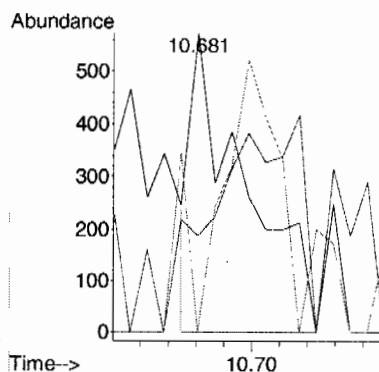
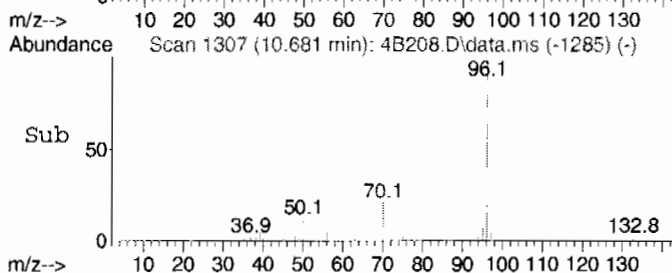




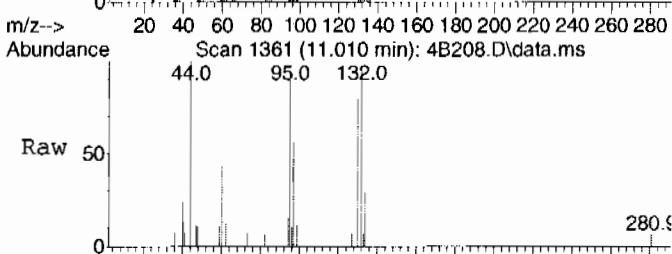
#33 BEFORE analyst DELETION  
n-Butyl alcohol  
Concen: 182.88 ug/L  
RT: 10.681 min Scan# 1307  
Delta R.T. -0.005 min  
Lab File: 4B208.D  
Acq: 9 Mar 2010 8:28 pm



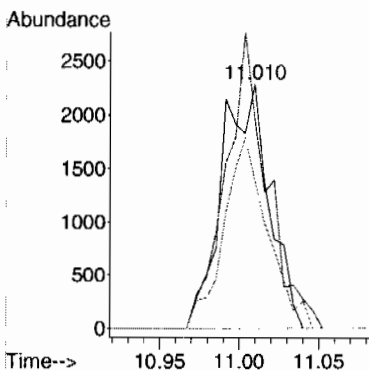
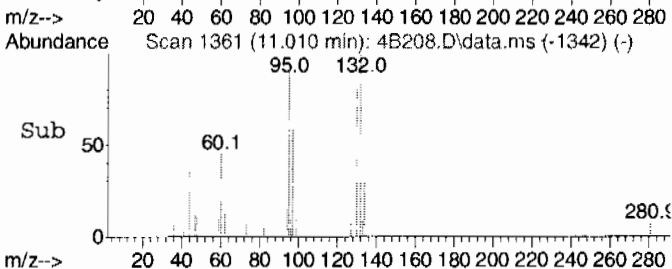
Tgt Ion: 56 Resp: 775  
Ion Ratio Lower Upper  
56 100  
41 19.2 49.2 109.2#  
43 16.4 30.5 90.5#

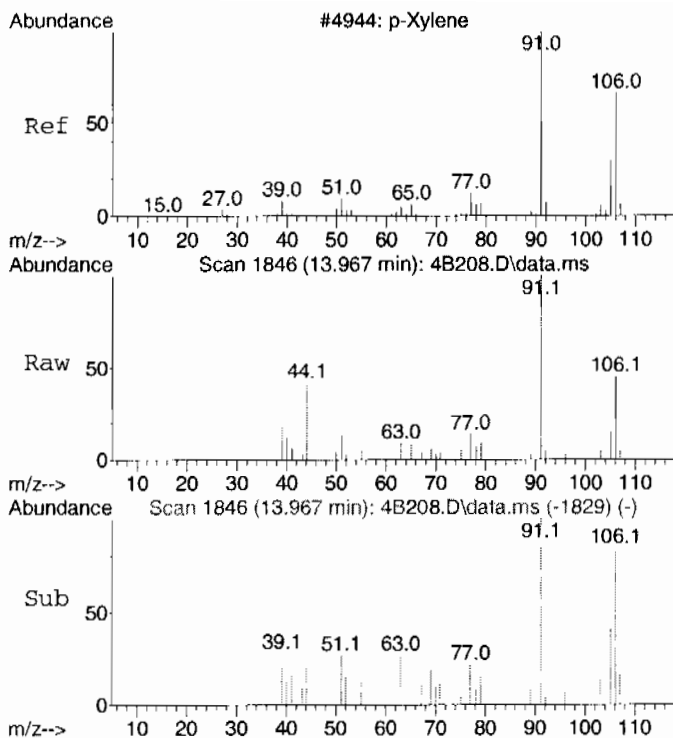


#34  
Trichloroethylene  
Concen: 0.51 ug/L  
RT: 11.010 min Scan# 1361  
Delta R.T. 0.007 min  
Lab File: 4B208.D  
Acq: 9 Mar 2010 8:28 pm



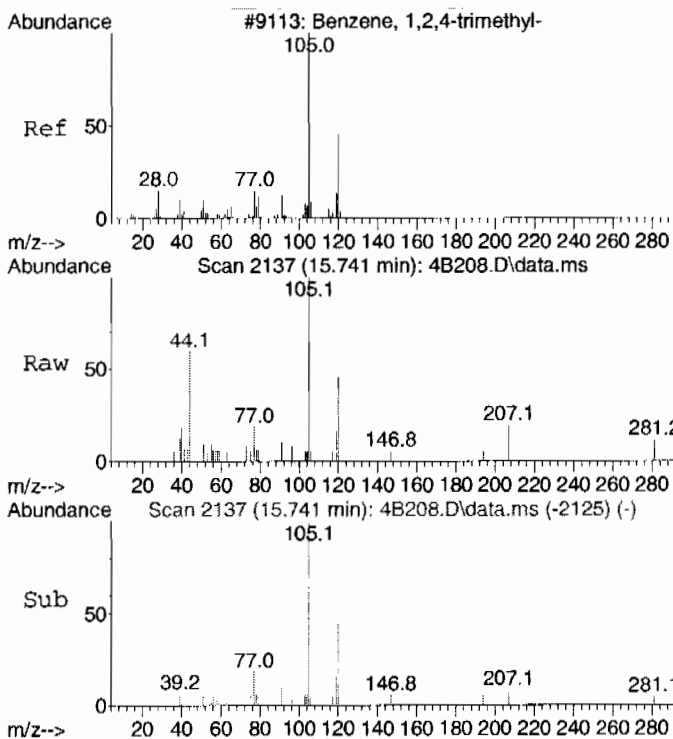
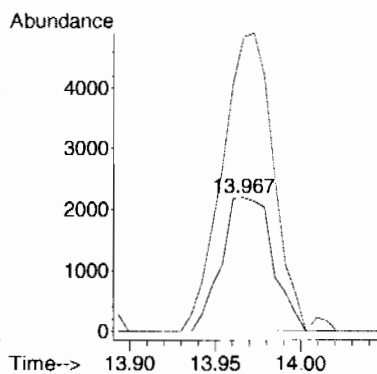
Tgt Ion: 95 Resp: 4739  
Ion Ratio Lower Upper  
95 100  
130 106.0 67.8 127.8  
97 72.7 34.4 94.4





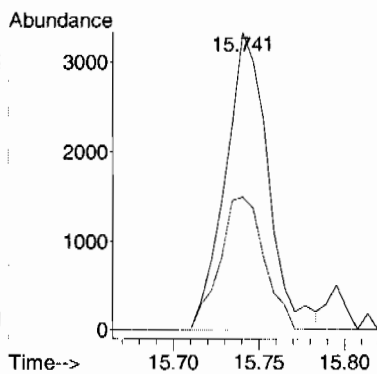
#55  
m,p-Xylenes  
Concen: 0.35 ug/L  
RT: 13.967 min Scan# 1846  
Delta R.T. 0.001 min  
Lab File: 4B208.D  
Acq: 9 Mar 2010 8:28 pm

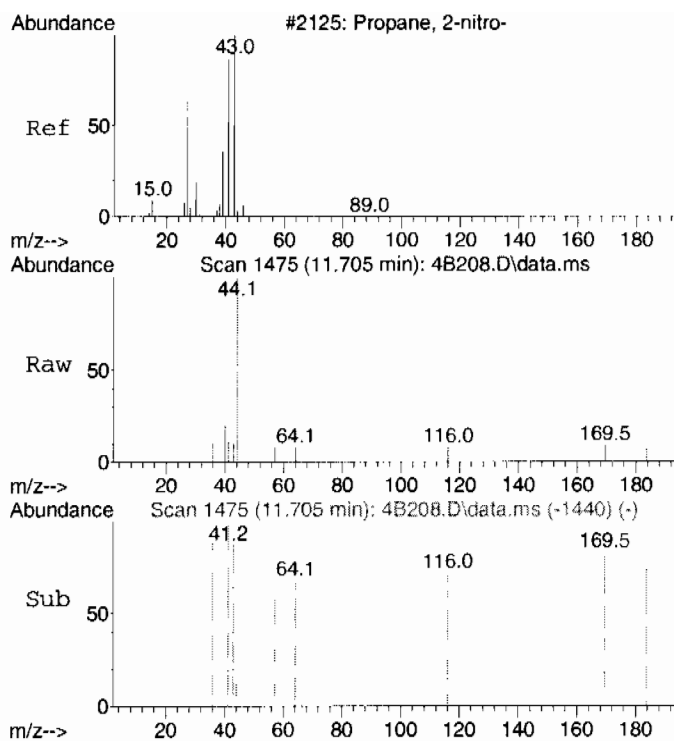
Tgt Ion:106 Resp: 4576  
Ion Ratio Lower Upper  
106 100  
91 225.5 163.6 223.6#



#70  
1,2,4-Trimethylbenzene  
Concen: 0.35 ug/L  
RT: 15.741 min Scan# 2137  
Delta R.T. 0.001 min  
Lab File: 4B208.D  
Acq: 9 Mar 2010 8:28 pm

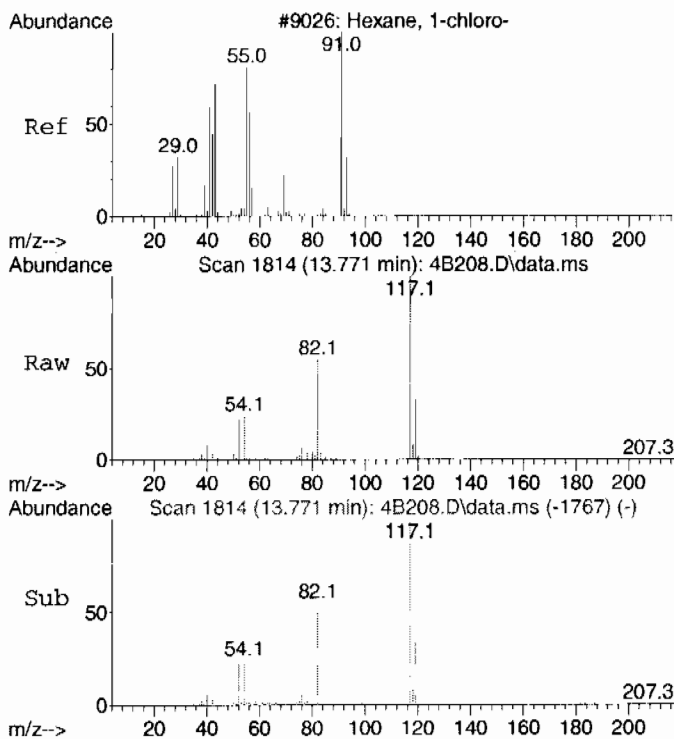
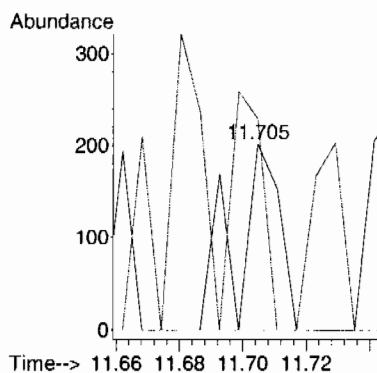
Tgt Ion:105 Resp: 5795  
Ion Ratio Lower Upper  
105 100  
120 46.8 25.1 85.1





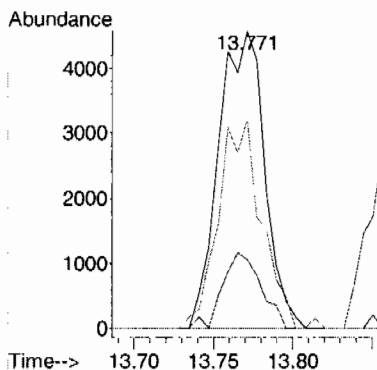
#102 BEFORE analyst DELETION  
2-Nitropropane  
Concen: 6.27 ug/L  
RT: 11.705 min Scan# 1475  
Delta R.T. 0.038 min  
Lab File: 4B208.D  
Acq: 9 Mar 2010 8:28 pm

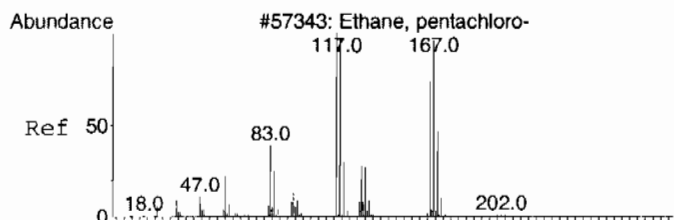
Tgt Ion	Ratio	Lower	Upper
43	100		
41	106.3	57.4	117.4



#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 2.93 ug/L  
RT: 13.771 min Scan# 1814  
Delta R.T. 0.110 min  
Lab File: 4B208.D  
Acq: 9 Mar 2010 8:28 pm

Tgt Ion	Ratio	Lower	Upper
55	100		
91	21.4	108.1	168.1#
56	65.9	27.8	87.8

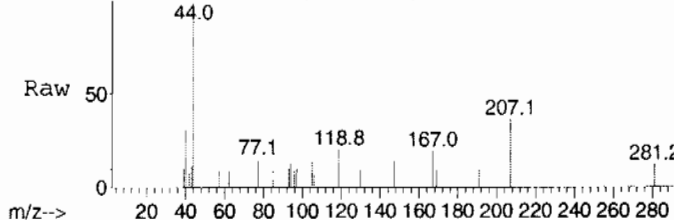




#110 BEFORE analyst DELETION  
 Pentachloroethane  
 Concen: 2.68 ug/L  
 RT: 15.777 min Scan# 2143  
 Delta R.T. 0.007 min  
 Lab File: 4B208.D  
 Acq: 9 Mar 2010 8:28 pm

Abundance

Scan 2143 (15.777 min): 4B208.D\data.ms

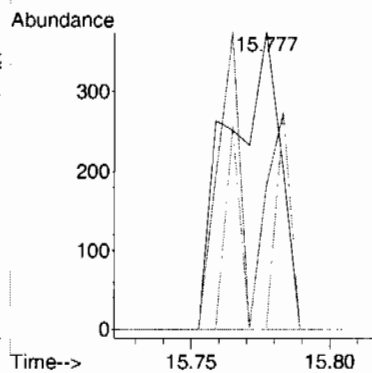
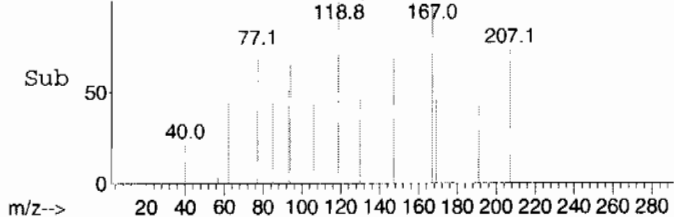


Tgt Ion:167 Resp: 483

Ion	Ratio	Lower	Upper
167	100		
130	42.9	11.5	71.5
132	0.0	9.9	69.9#

Abundance

Scan 2143 (15.777 min): 4B208.D\data.ms (-2107) (-)



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B208.D  
Acq On : 9 Mar 2010 8:28 pm  
Operator : ACJ  
Sample : |248506001|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 8 Sample Multiplier: 1

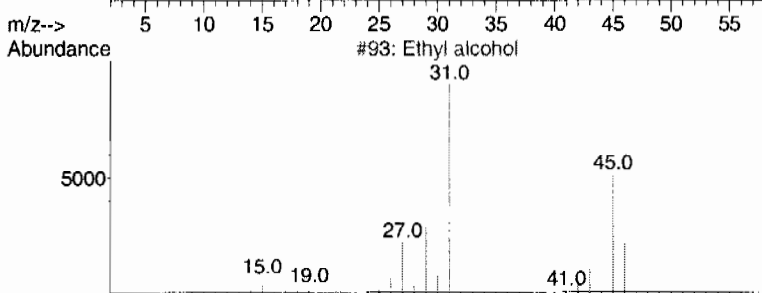
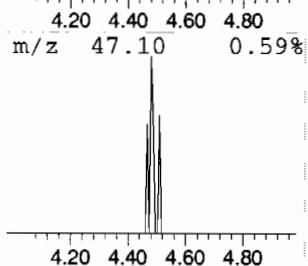
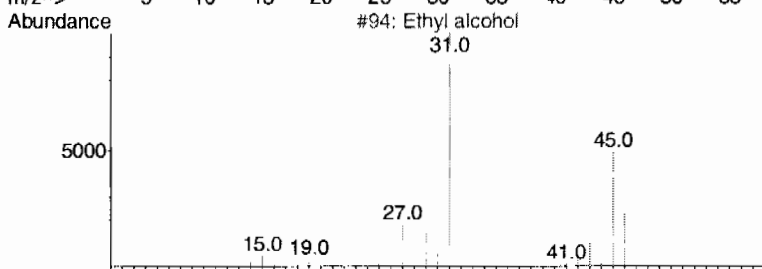
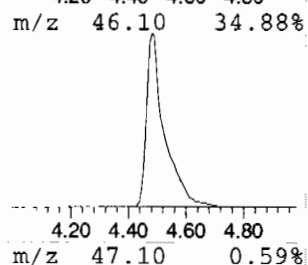
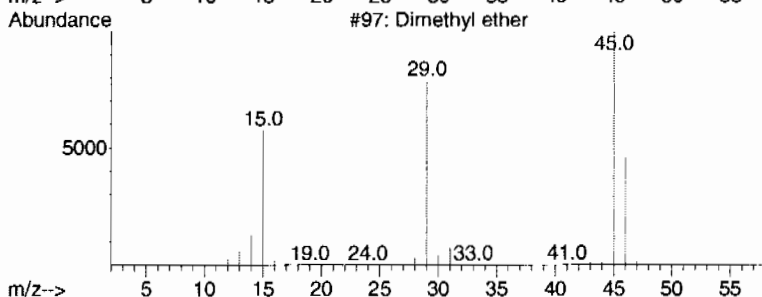
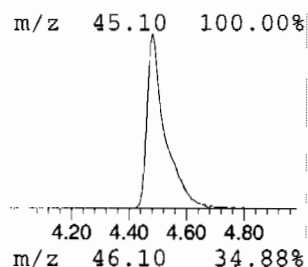
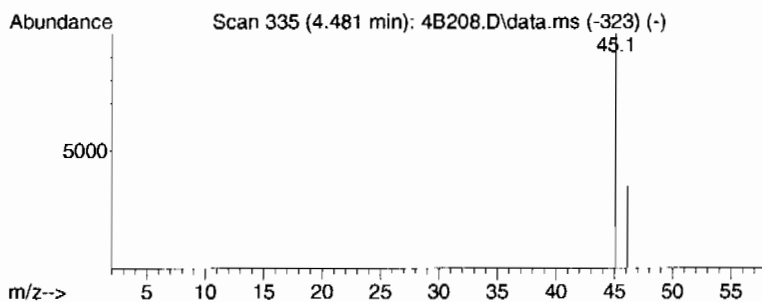
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

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

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	7.13 ug/L	438895	Fluorobenzene	10.614

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Dimethyl ether	46	C2H6O	000115-10-6	5
2			Ethyl alcohol	46	C2H6O	000064-17-5	4
3			Ethyl alcohol	46	C2H6O	000064-17-5	4
4			Ethyl alcohol	46	C2H6O	000064-17-5	4
5			Formic acid	46	CH2O2	000064-18-6	4



Library Search Compound Report  
GEL Laboratories, LLC

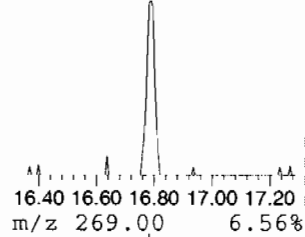
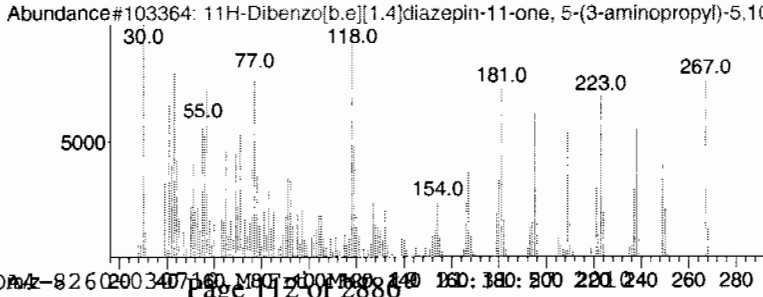
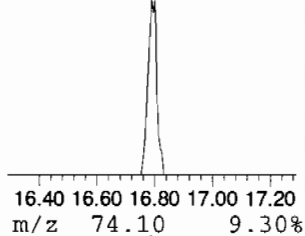
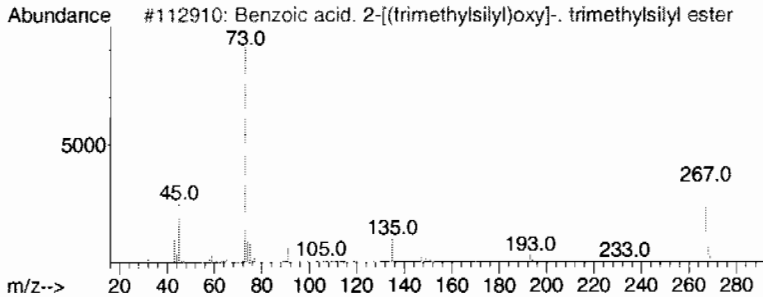
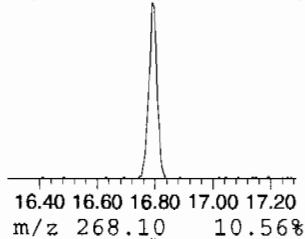
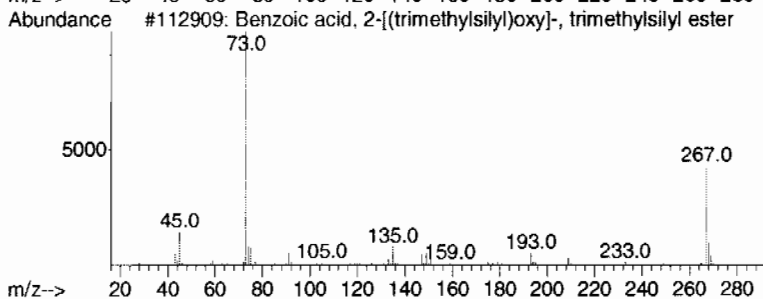
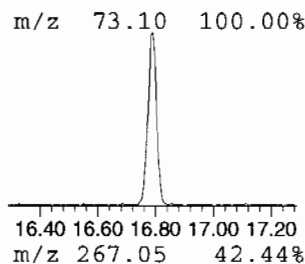
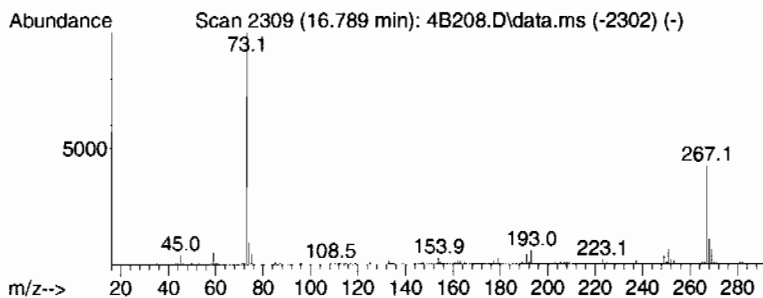
Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B208.D  
Acq On : 9 Mar 2010 8:28 pm  
Operator : ACJ  
Sample : |248506001|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 2 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.	
16.789	6.29 ug/L	203635	B 1,4-Dichlorobenzene-d4	16.180	
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	282	C13H22O3Si2	003789-85-3	56
2	Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	282	C13H22O3Si2	003789-85-3	56
3	11H-Dibenzo[b,e][1,4]diazepin-11-one, 5-(3-aminopropyl)-5,10-dihydro-11-oxo-11H-dibenzo[b,e][1,4]diazepin-11-one	267	C16H17N3O	013450-73-2	43
4	Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	282	C13H22O3Si2	003789-85-3	40
5	Tetrasiloxane, 1,1,3,3,5,5,7,7-octa-	282	C8H26O3Si4	001000-05-1	40





Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B208.D  
Acq On : 9 Mar 2010 8:28 pm  
Operator : ACJ  
Sample : |248506001|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.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...	4.481	7.1	ug/L	438895	1	10.614	3077110	50.0
unknown siloxane	16.789	6.3	ug/L	203635	6	16.180	1617440	50.0

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506002	Date Received: 03/03/2010 08:50	%Moisture: 15
Client ID: RE36-10-7421	Client: LANL010	Project: LANL01004
Batch ID: 963417	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/09/2010 20:56	Inst: VOA4.1	Dilution: 1
Prep Date: 03/09/2010 20:11	Analyst: ACJ	Purge Vol: 5 mL
Data File: 030910V4V4B209.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	U	1.18	ug/kg	0.400	1.18
74-87-3	Chloromethane	U	1.18	ug/kg	0.353	1.18
75-01-4	Vinyl chloride	U	1.18	ug/kg	0.353	1.18
74-83-9	Bromomethane	U	1.18	ug/kg	0.353	1.18
75-00-3	Chloroethane	U	1.18	ug/kg	0.353	1.18
75-69-4	Trichlorofluoromethane	U	1.18	ug/kg	0.353	1.18
67-64-1	Acetone	J	4.74	ug/kg	1.95	5.88
75-35-4	1,1-Dichloroethylene	U	1.18	ug/kg	0.353	1.18
74-88-4	Iodomethane	U	5.88	ug/kg	1.88	5.88
75-09-2	Methylene chloride	U	5.88	ug/kg	2.35	5.88
75-15-0	Carbon disulfide	U	5.88	ug/kg	1.47	5.88
156-60-5	trans-1,2-Dichloroethylene	U	1.18	ug/kg	0.353	1.18
75-34-3	1,1-Dichloroethane	U	1.18	ug/kg	0.353	1.18
78-93-3	2-Butanone	U	5.88	ug/kg	1.76	5.88
156-59-2	cis-1,2-Dichloroethylene	U	1.18	ug/kg	0.353	1.18
594-20-7	2,2-Dichloropropane	U	1.18	ug/kg	0.353	1.18
67-66-3	Chloroform	U	1.18	ug/kg	0.353	1.18
74-97-5	Bromochloromethane	U	1.18	ug/kg	0.388	1.18
71-55-6	1,1,1-Trichloroethane	U	1.18	ug/kg	0.353	1.18
563-58-6	1,1-Dichloropropene	U	1.18	ug/kg	0.353	1.18
56-23-5	Carbon tetrachloride	U	1.18	ug/kg	0.353	1.18
107-06-2	1,2-Dichloroethane	U	1.18	ug/kg	0.353	1.18
71-43-2	Benzene	U	1.18	ug/kg	0.353	1.18
79-01-6	Trichloroethylene	J	0.905	ug/kg	0.388	1.18
78-87-5	1,2-Dichloropropane	U	1.18	ug/kg	0.353	1.18
75-27-4	Bromodichloromethane	U	1.18	ug/kg	0.353	1.18
74-95-3	Dibromomethane	U	1.18	ug/kg	0.353	1.18
108-10-1	4-Methyl-2-pentanone	U	5.88	ug/kg	1.47	5.88
10061-01-5	cis-1,3-Dichloropropylene	U	1.18	ug/kg	0.353	1.18
108-88-3	Toluene	U	1.18	ug/kg	0.353	1.18
10061-02-6	trans-1,3-Dichloropropylene	U	1.18	ug/kg	0.353	1.18
79-00-5	1,1,2-Trichloroethane	U	1.18	ug/kg	0.353	1.18
591-78-6	2-Hexanone	U	5.88	ug/kg	1.76	5.88
142-28-9	1,3-Dichloropropane	U	1.18	ug/kg	0.353	1.18
127-18-4	Tetrachloroethylene	U	1.18	ug/kg	0.353	1.18
124-48-1	Dibromochloromethane	U	1.18	ug/kg	0.353	1.18
106-93-4	1,2-Dibromoethane	U	1.18	ug/kg	0.353	1.18
108-90-7	Chlorobenzene	U	1.18	ug/kg	0.353	1.18

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506002	Date Received: 03/03/2010 08:50	%Moisture: 15
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7421	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.I	Dilution: 1
Run Date: 03/09/2010 20:56	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:11	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4V4B209.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.18	ug/kg	0.353	1.18
179601-23-1	m,p-Xylenes	U	2.35	ug/kg	0.353	2.35
95-47-6	o-Xylene	U	1.18	ug/kg	0.353	1.18
100-42-5	Styrene	U	1.18	ug/kg	0.353	1.18
75-25-2	Bromoform	U	1.18	ug/kg	0.353	1.18
79-34-5	1,1,2,2-Tetrachloroethane	U	1.18	ug/kg	0.353	1.18
96-18-4	1,2,3-Trichloropropane	U	1.18	ug/kg	0.353	1.18
108-86-1	Bromobenzene	U	1.18	ug/kg	0.353	1.18
103-65-1	n-Propylbenzene	U	1.18	ug/kg	0.353	1.18
95-49-8	2-Chlorotoluene	U	1.18	ug/kg	0.353	1.18
98-82-8	Isopropylbenzene	U	1.18	ug/kg	0.353	1.18
108-67-8	1,3,5-Trimethylbenzene	U	1.18	ug/kg	0.353	1.18
106-43-4	4-Chlorotoluene	U	1.18	ug/kg	0.353	1.18
98-06-6	tert-Butylbenzene	U	1.18	ug/kg	0.353	1.18
95-63-6	1,2,4-Trimethylbenzene	U	1.18	ug/kg	0.353	1.18
135-98-8	sec-Butylbenzene	U	1.18	ug/kg	0.353	1.18
99-87-6	4-Isopropyltoluene	U	1.18	ug/kg	0.353	1.18
541-73-1	1,3-Dichlorobenzene	U	1.18	ug/kg	0.353	1.18
106-46-7	1,4-Dichlorobenzene	U	1.18	ug/kg	0.353	1.18
104-51-8	n-Butylbenzene	U	1.18	ug/kg	0.353	1.18
96-12-8	1,2-Dibromo-3-chloropropane	U	1.18	ug/kg	0.353	1.18
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.88	ug/kg	1.88	5.88
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.18	ug/kg	0.353	1.18
95-50-1	1,2-Dichlorobenzene	U	1.18	ug/kg	0.353	1.18

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	13.6	ug/kg	0	J
	unknown siloxane	16.79	16	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B209.D  
Acq On : 9 Mar 2010 8:56 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506002|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 19 20:36:46 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.620	10.613	1.000	96	1375832	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	810622	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	250612	50.00	ug/L	0.00
82) B Fluorobenzene	10.620	10.613	1.000	96	1375245	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	810622	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	250587	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.260	10.259	0.966	65	357013	48.06	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 96.12%			
43) Toluene-d8	12.253	12.247	0.890	98	1046869	56.73	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 113.46%			
61) Bromofluorobenzene	14.954	14.947	0.924	95	366764	75.47	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 150.94%#			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.291	5.299	0.498	50	1567	N.D.		
4) Vinyl chloride	5.528	5.521	0.521	62	721	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	6.986	6.991	0.658	59	630	N.D.		
9) Acetone	7.370	7.351	0.694	43	33913	4.03	ug/L	100
10) 1,1-Dichloroethylene	7.462	7.394	0.703	61	100	N.D.		
11) Iodomethane	7.626	7.662	0.718	142	112	N.D.		
12) Acetonitrile	7.730	7.693	0.728	41	552	N.D.		
13) Methyl acetate	7.742	7.747	0.729	43	1004	N.D.		
14) Carbon disulfide	7.773	7.778	0.732	76	4212	N.D.		
15) Methylene chloride	7.937	7.967	0.747	84	25430	N.D.		
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.705	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.345	9.320	0.880	43	2490	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.699	9.686	0.913	83	1094	N.D.		
25) 1,1,1-Trichloroethane	9.967	9.973	0.939	97	1015	N.D.		
26) Cyclohexane	10.077	10.076	0.949	56	1107	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.327	10.338	0.972	62	217	N.D.		
31) Benzene	10.376	10.369	0.977	78	1276	N.D.		
32) Cyclohexene	10.626	10.491	1.001	67	606	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	11.004	11.003	1.036	95	6869	0.77	ug/L	95
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	11.278	11.259	1.062	83	109	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B209.D  
Acq On : 9 Mar 2010 8:56 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506002|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 19 20:36:46 2010

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Mar 08 17:08:49 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.015	0.000		0	N.D.	
44) Toluene	12.327	12.320	0.895	91	6582	Below Cal	95
45) trans-1,3-Dichloroprop...	12.455	12.460	0.904	75	153	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.	
47) 2-Hexanone	12.863	12.856	0.934	43	291	N.D.	
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.	
49) Tetrachloroethylene	12.912	12.917	0.938	164	787	N.D.	
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.	
52) Chlorobenzene	13.796	13.801	1.002	112	828	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.	
54) Ethylbenzene	13.863	13.862	1.007	91	3548	N.D.	
55) m,p-Xylenes	13.960	13.966	1.014	106	3524	N.D.	
56) o-Xylene	14.399	14.399	1.046	106	3157	N.D.	
57) Styrene	14.412	14.399	1.046	104	733	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.765	14.758	0.913	105	1371	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.014	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	15.180	15.167	0.938	156	147	N.D.	
65) n-Propylbenzene	15.180	15.179	0.938	91	2305	N.D.	
66) 1,3,5-Trimethylbenzene	15.326	15.325	0.947	105	2734	N.D.	
67) 2-Chlorotoluene	0.000	15.331	0.000		0	N.D.	
68) 4-Chlorotoluene	15.393	15.429	0.951	91	272	N.D.	
69) tert-Butylbenzene	15.716	15.703	0.971	134	101	N.D.	
70) 1,2,4-Trimethylbenzene	15.741	15.740	0.973	105	3397	N.D.	
71) sec-Butylbenzene	15.923	15.929	0.984	105	873	N.D.	
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	1126	N.D.	
73) 1,3-Dichlorobenzene	16.131	16.118	0.997	146	570	N.D.	
74) 1,4-Dichlorobenzene	16.204	16.203	1.002	146	1151	N.D.	
75) n-Butylbenzene	16.497	16.502	1.020	91	926	N.D.	
76) 1,2-Dichlorobenzene	16.637	16.642	1.028	146	626	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.624	18.629	1.151	180	395	N.D.	
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.	
80) Naphthalene	19.020	19.026	1.176	128	2261	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.385	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	7.248	7.174	0.683	56	230	N.D.	
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.	
87) Isopropyl Alcohol	7.443	7.430	0.701	45	1384	N.D.	
88) Allyl chloride	7.791	7.796	0.734	41	397	N.D.	
89) tert-Butyl Alcohol	7.919	7.924	0.746	59	480	N.D.	
90) Acrylonitrile	0.000	8.168	0.000		0	N.D.	
91) Isopropyl ether	8.626	8.735	0.812	45	121	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.345	9.339	0.880	43	2490	N.D.	
95) Propionitrile	0.000	9.387	0.000		0	N.D.	
96) Methacrylonitrile	9.571	9.570	0.901	41	256	N.D.	
97) Tetrahydrofuran	9.730	9.710	0.916	42	1742	N.D.	
98) Isobutyl alcohol	10.004	10.003	0.942	41	184	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B209.D  
Acq On : 9 Mar 2010 8:56 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506002|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 19 20:36:46 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

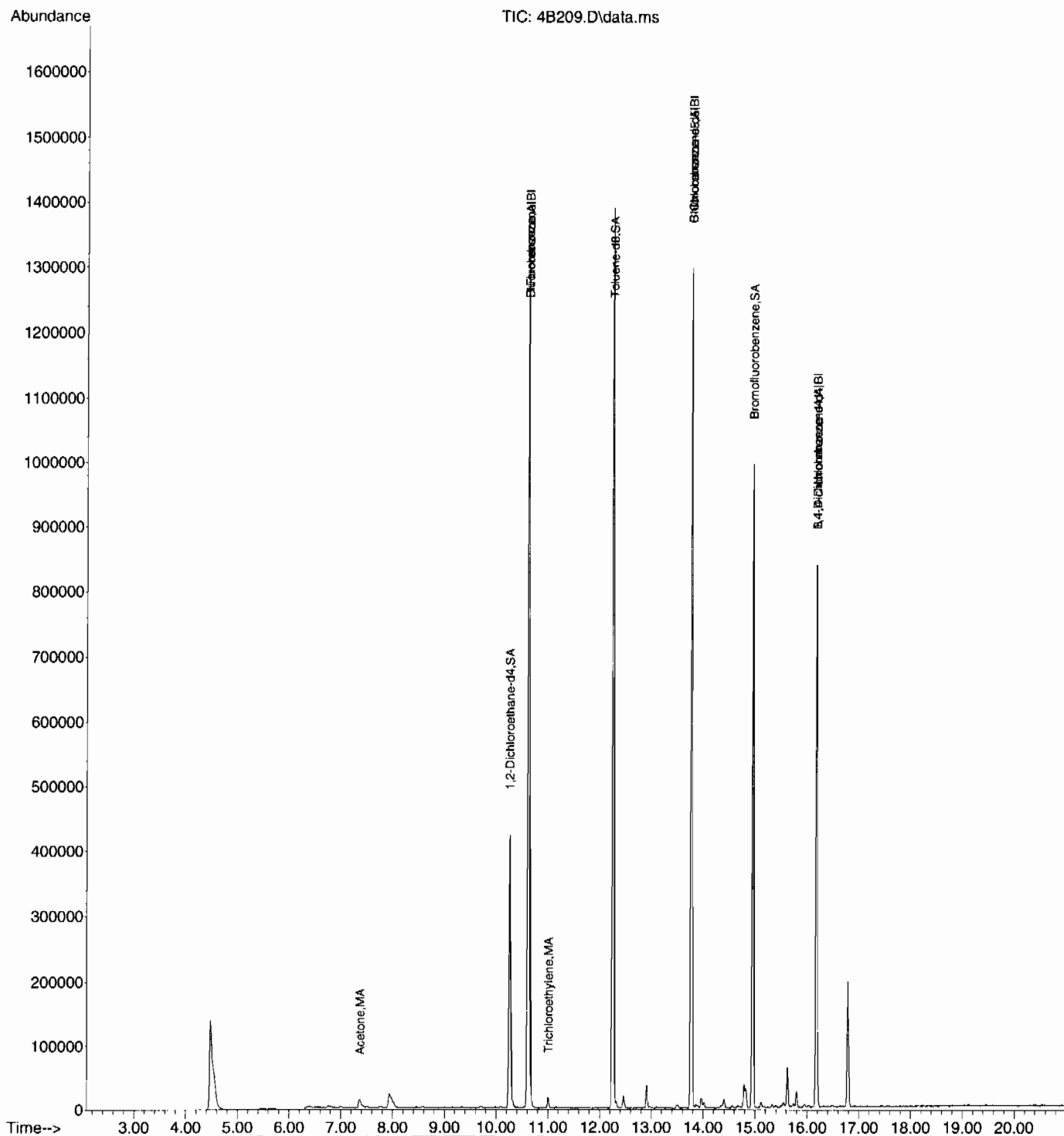
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	10.412	10.381	0.980	73	121	N.D.	
100) Methyl methacrylate	11.217	11.204	1.056	69	223	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0m	N.D.	d
104) Ethyl methacrylate	12.467	12.460	0.905	69	477	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0m	N.D.	d
108) Cyclohexanone	14.918	14.905	0.922	42	384	N.D.	
109) trans-1,4-Dichloro-2-b...	15.058	15.063	0.931	53	367	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.320	16.319	1.009	91	1871	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.715	0.000		0m	N.D.	d

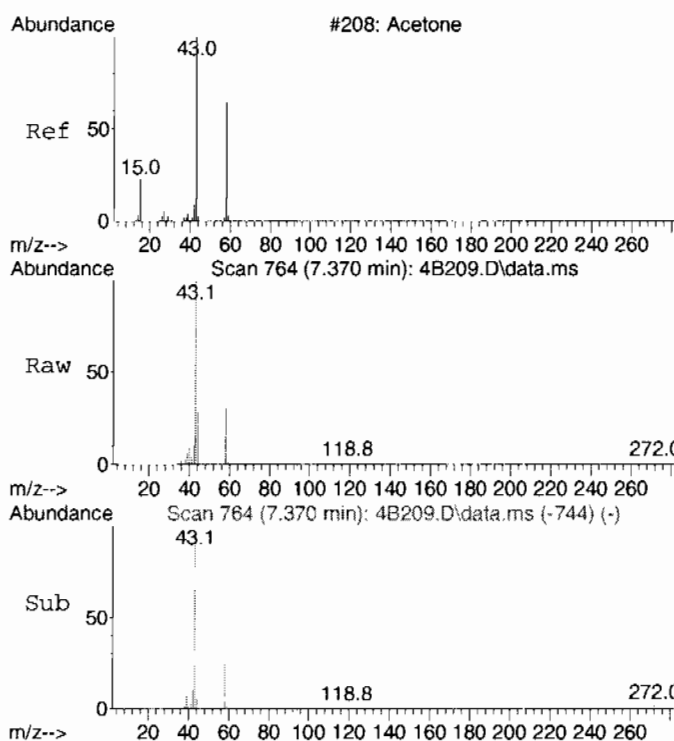
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B209.D  
Acq On : 9 Mar 2010 8:56 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506002|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 9 Sample Multiplier: 1

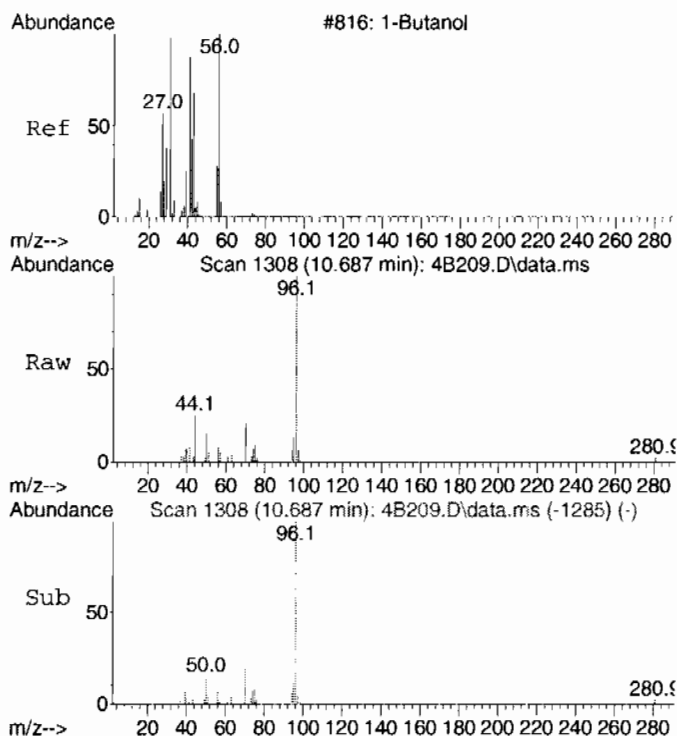
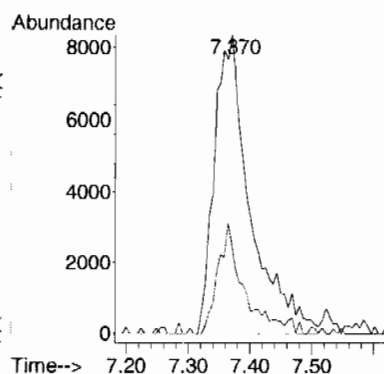
Quant Time: Mar 19 20:36:46 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE





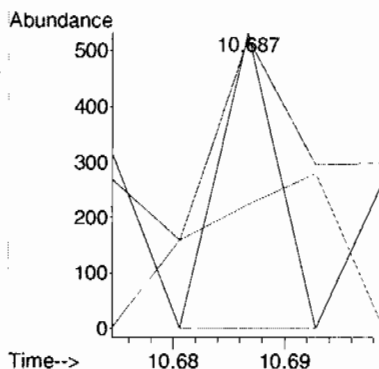
#9  
Acetone  
Concen: 4.03 ug/L  
RT: 7.370 min Scan# 764  
Delta R.T. 0.019 min  
Lab File: 4B209.D  
Acq: 9 Mar 2010 8:56 pm

Tgt Ion	Ratio	Lower	Upper
43	100		
58	27.4	0.0	57.5

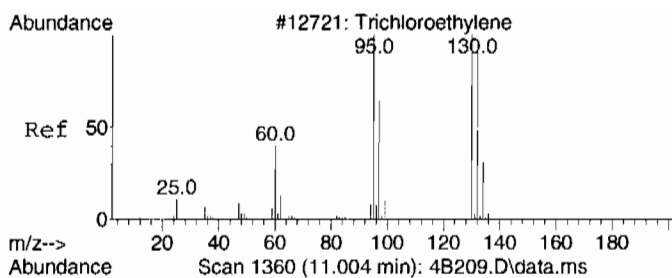


#33 BEFORE analyst DELETION  
n-Butyl alcohol  
Concen: 181.23 ug/L  
RT: 10.687 min Scan# 1308  
Delta R.T. 0.001 min  
Lab File: 4B209.D  
Acq: 9 Mar 2010 8:56 pm

Tgt Ion	Ratio	Lower	Upper
56	100		
41	145.4	49.2	109.2#
43	125.3	30.5	90.5#

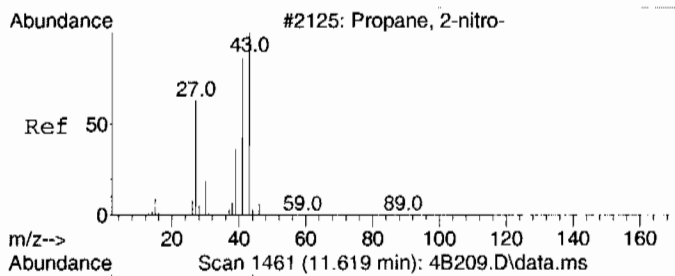
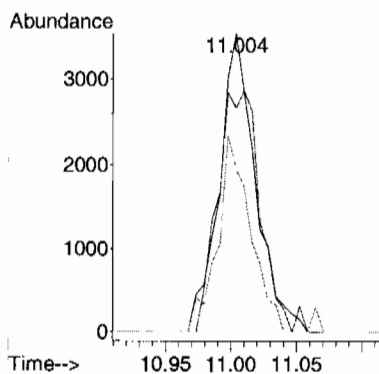






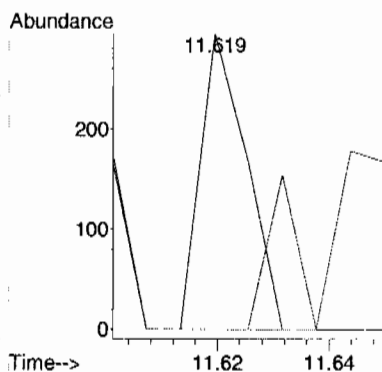
#34  
Trichloroethylene  
Concen: 0.77 ug/L  
RT: 11.004 min Scan# 1360  
Delta R.T. 0.001 min  
Lab File: 4B209.D  
Acq: 9 Mar 2010 8:56 pm

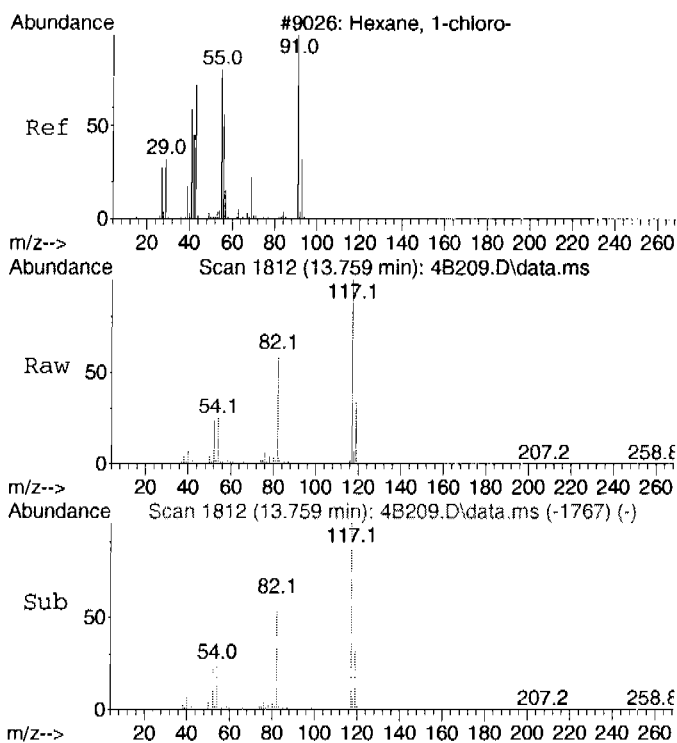
Tgt Ion: 95 Resp: 6869  
Ion Ratio Lower Upper  
95 100  
130 93.2 67.8 127.8  
97 60.0 34.4 94.4



#102 BEFORE analyst DELETION  
2-Nitropropane  
Concen: 6.27 ug/L  
RT: 11.619 min Scan# 1461  
Delta R.T. -0.048 min  
Lab File: 4B209.D  
Acq: 9 Mar 2010 8:56 pm

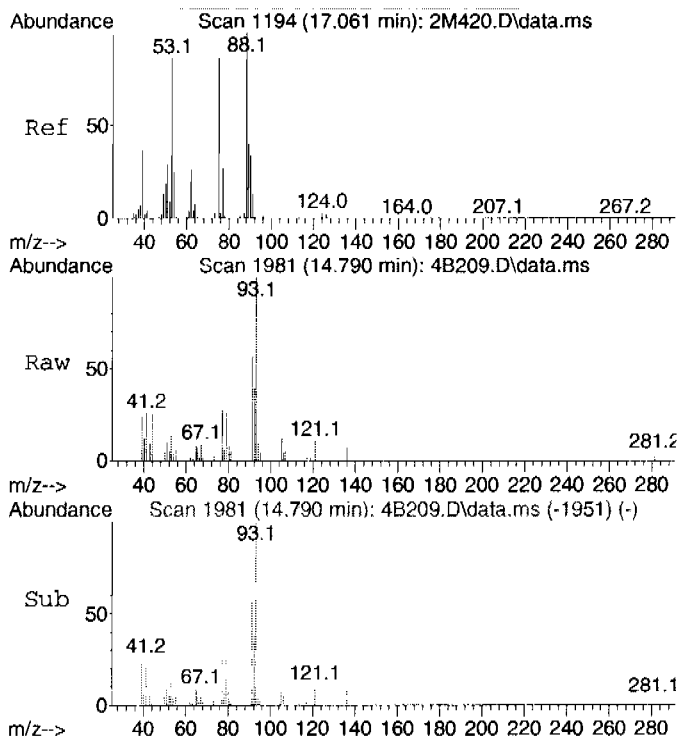
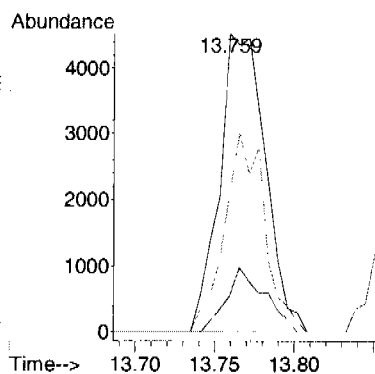
Tgt Ion: 43 Resp: 169  
Ion Ratio Lower Upper  
43 100  
41 108.9 57.4 117.4





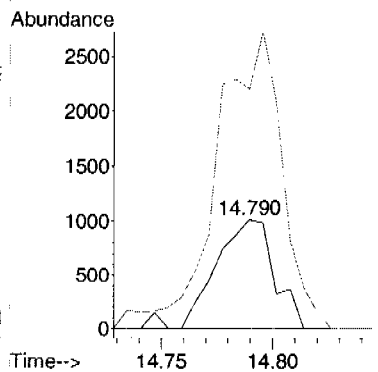
#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 2.95 ug/L  
RT: 13.759 min Scan# 1812  
Delta R.T. 0.098 min  
Lab File: 4B209.D  
Acq: 9 Mar 2010 8:56 pm

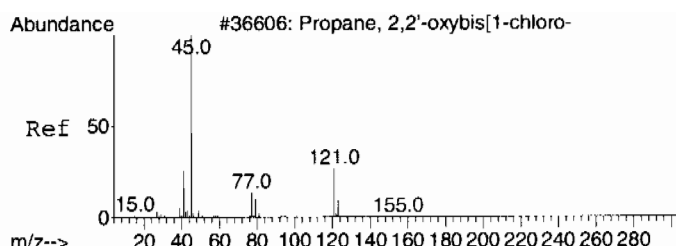
Tgt Ion: 55 Resp: 9050  
Ion Ratio Lower Upper  
55 100  
91 18.4 108.1 168.1#  
56 58.5 27.8 87.8



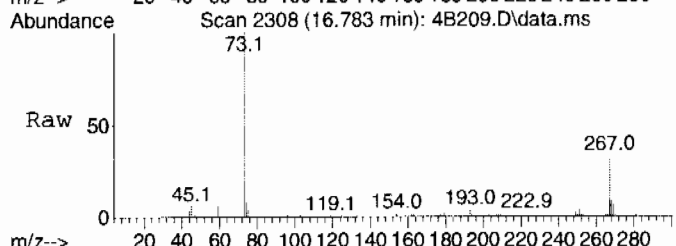
#107 BEFORE analyst DELETION  
cis-1,4-Dichloro-2-butene  
Concen: 1.40 ug/L  
RT: 14.790 min Scan# 1981  
Delta R.T. 0.007 min  
Lab File: 4B209.D  
Acq: 9 Mar 2010 8:56 pm

Tgt Ion: 53 Resp: 1831  
Ion Ratio Lower Upper  
53 100  
88 0.0 83.6 143.6#  
77 305.8 3.2 63.2#

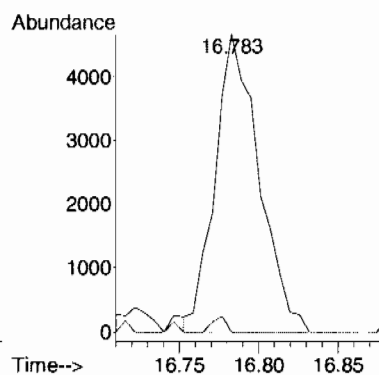
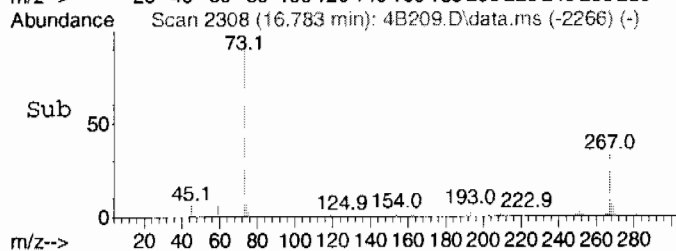




#112 BEFORE analyst DELETION  
 bis(2-Chloroisopropyl)ether  
 Concen: 4.92 ug/L  
 RT: 16.783 min Scan# 2308  
 Delta R.T. 0.068 min  
 Lab File: 4B209.D  
 Acq: 9 Mar 2010 8:56 pm



Tgt Ion: 45 Resp: 8978  
 Ion Ratio Lower Upper  
 45 100  
 121 1.7 0.0 54.6



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B209.D  
Acq On : 9 Mar 2010 8:56 pm  
Operator : ACJ  
Sample : |248506002|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 9 Sample Multiplier: 1

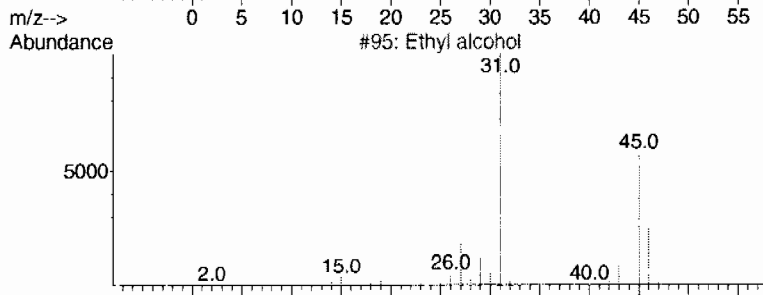
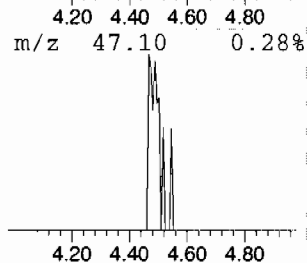
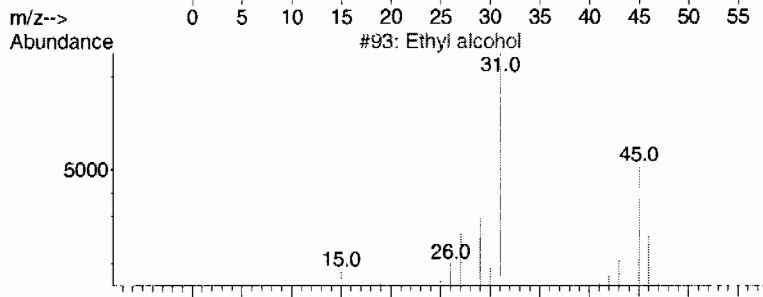
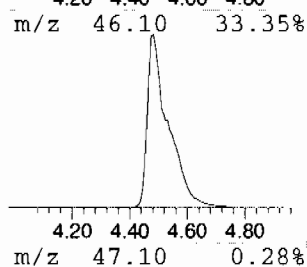
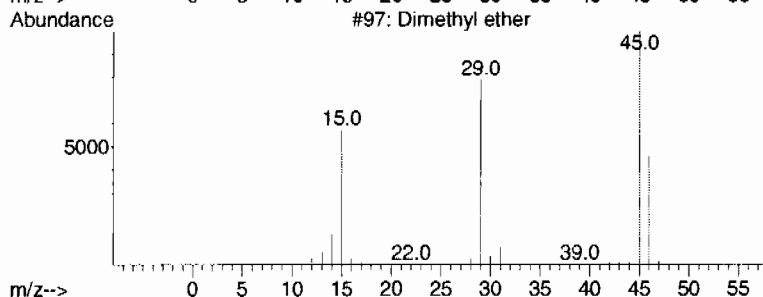
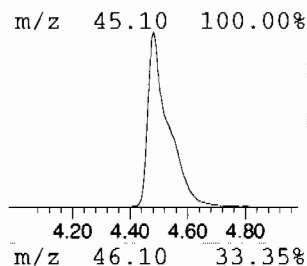
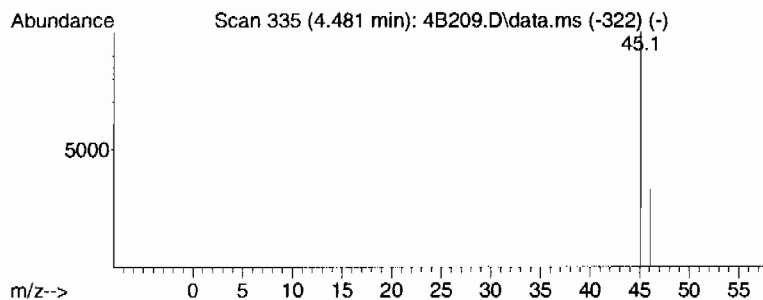
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 1 unknown hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	11.59 ug/L	694616	Fluorobenzene	10.620

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	2



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B209.D  
Acq On : 9 Mar 2010 8:56 pm  
Operator : ACJ  
Sample : |248506002|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 9 Sample Multiplier: 1

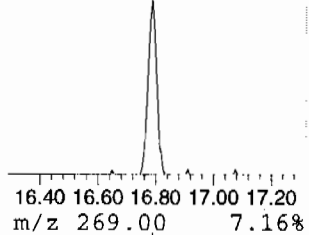
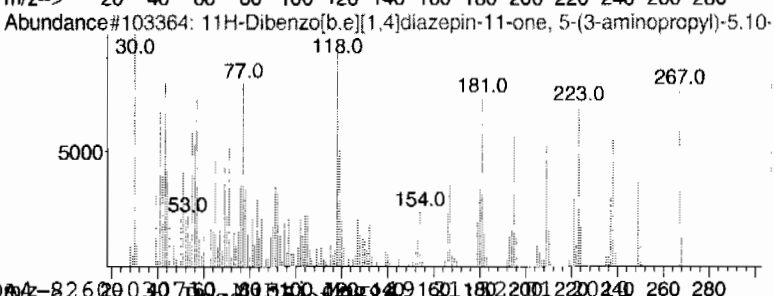
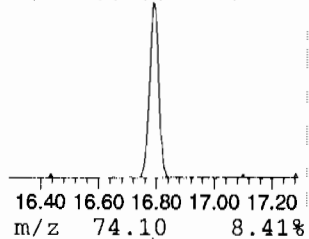
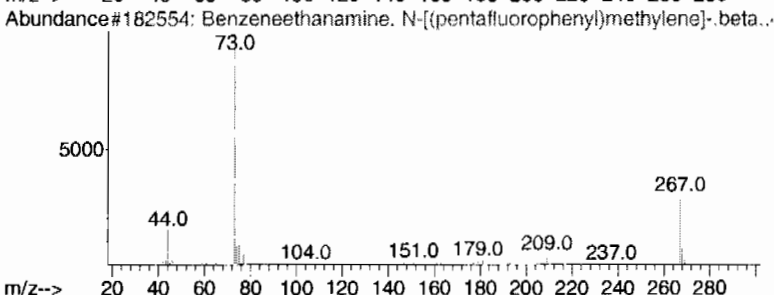
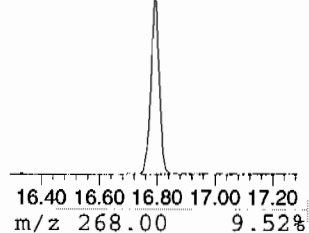
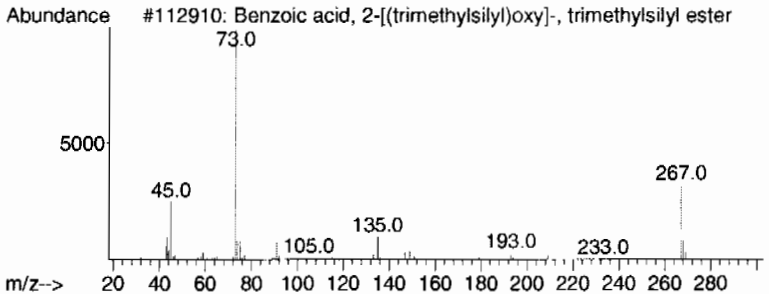
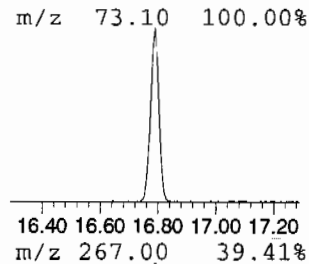
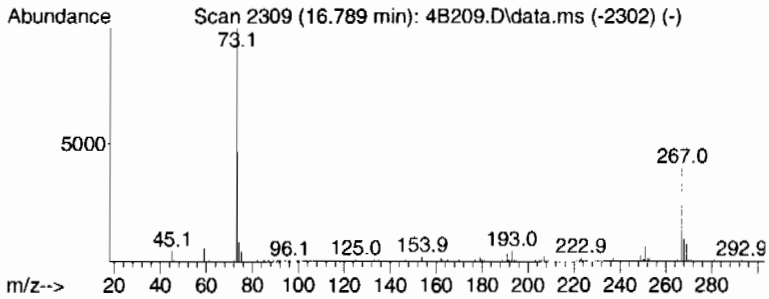
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 2 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.789	13.63 ug/L	429569	B 1,4-Dichlorobenzene-d4	16.180

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	282	C13H22O3Si2	003789-85-3	56
2			Benzenethanamine, N-[(pentafluorophenyl)methylene]-, beta...	475	C21H26F5NO2Si2	055429-85-1	37
3			11H-Dibenzo[b,e][1,4]diazepin-11-one, 5-(3-aminopropyl)-5,10...	267	C16H17N3O	013450-73-2	9
4			Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	282	C13H22O3Si2	003789-85-3	9
5			Silane, 9H-fluoren-9-yltrimethyl-	238	C16H18Si	007385-10-6	9



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B209.D  
Acq On : 9 Mar 2010 8:56 pm  
Operator : ACJ  
Sample : |248506002|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.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...	4.481	11.6	ug/L	694616	1	10.620	2995950	50.0
unknown siloxane	16.789	13.6	ug/L	429569	6	16.180	1575960	50.0

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506003	Date Received: 03/03/2010 08:50	%Moisture: 5.9
Client ID: RE36-10-7422	Client: LANL010	Project: LANL01004
Batch ID: 963417	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Run Date: 03/09/2010 21:23	Inst: VOA4.1	Dilution: 1
Prep Date: 03/09/2010 20:12	Analyst: ACJ	Purge Vol: 5 mL
Data File: 030910V4\4B210.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	U	1.06	ug/kg	0.361	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.319	1.06
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.319	1.06
74-83-9	Bromomethane	U	1.06	ug/kg	0.319	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.319	1.06
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.319	1.06
67-64-1	Acetone	J	2.28	ug/kg	1.76	5.31
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.319	1.06
74-88-4	Iodomethane	U	5.31	ug/kg	1.70	5.31
75-09-2	Methylene chloride	U	5.31	ug/kg	2.12	5.31
75-15-0	Carbon disulfide	U	5.31	ug/kg	1.33	5.31
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.319	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.319	1.06
78-93-3	2-Butanone	U	5.31	ug/kg	1.59	5.31
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.319	1.06
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.319	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.319	1.06
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.351	1.06
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.319	1.06
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.319	1.06
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.319	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.319	1.06
71-43-2	Benzene	U	1.06	ug/kg	0.319	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.351	1.06
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.319	1.06
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.319	1.06
74-95-3	Dibromomethane	U	1.06	ug/kg	0.319	1.06
108-10-1	4-Methyl-2-pentanone	U	5.31	ug/kg	1.33	5.31
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.319	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.319	1.06
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.319	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.319	1.06
591-78-6	2-Hexanone	U	5.31	ug/kg	1.59	5.31
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.319	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.319	1.06
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.319	1.06
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.319	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.319	1.06

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506003	Date Received: 03/03/2010 08:50	%Moisture: 5.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7422	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.I	Dilution: 1
Run Date: 03/09/2010 21:23	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:12	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4\4B210.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.319	1.06
179601-23-1	m,p-Xylenes	J	0.414	ug/kg	0.319	2.12
95-47-6	o-Xylene	U	1.06	ug/kg	0.319	1.06
100-42-5	Styrene	U	1.06	ug/kg	0.319	1.06
75-25-2	Bromoform	U	1.06	ug/kg	0.319	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.319	1.06
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.319	1.06
108-86-1	Bromobenzene	U	1.06	ug/kg	0.319	1.06
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.319	1.06
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.319	1.06
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.319	1.06
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.319	1.06
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.319	1.06
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.319	1.06
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.319	1.06
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.319	1.06
99-87-6	4-Isopropyltoluene	U	1.06	ug/kg	0.319	1.06
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.319	1.06
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.319	1.06
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.319	1.06
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.319	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.31	ug/kg	1.70	5.31
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.319	1.06
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.319	1.06

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	8.58	ug/kg	0	J
	unknown hydrocarbon	14.79	18.4	ug/kg	0	J
	unknown siloxane	16.79	7.37	ug/kg	0	J



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B210.D  
Acq On : 9 Mar 2010 9:23 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506003|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 20:37:24 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.614	10.613	1.000	96	1385632	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.765	13.765	1.000	117	977789	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.174	16.179	1.000	152	500852	50.00	ug/L	0.00
82) B Fluorobenzene	10.614	10.613	1.000	96	1385077	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.765	13.764	1.000	117	977789	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.174	16.179	1.000	152	500988	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.260	10.259	0.967	65	357697	47.81	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	95.62%			
43) Toluene-d8	12.247	12.247	0.890	98	1099477	49.39	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	98.78%			
61) Bromofluorobenzene	14.948	14.947	0.924	95	566127	58.29	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	116.58%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	0.000	5.299	0.000		0	N.D.		
4) Vinyl chloride	5.528	5.521	0.521	62	1043	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	7.005	6.991	0.660	59	942	N.D.		
9) Acetone	7.364	7.351	0.694	43	18252	2.15	ug/L	95
10) 1,1-Dichloroethylene	0.000	7.394	0.000		0	N.D.		
11) Iodomethane	0.000	7.662	0.000		0	N.D.		
12) Acetonitrile	7.706	7.693	0.726	41	630	N.D.		
13) Methyl acetate	7.748	7.747	0.730	43	338	N.D.		
14) Carbon disulfide	7.767	7.778	0.732	76	1614	N.D.		
15) Methylene chloride	7.968	7.967	0.751	84	17250	Below Cal		97
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.693	8.705	0.819	43	142	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.333	9.320	0.879	43	1134	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.681	9.686	0.912	83	373	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.973	0.000		0	N.D.		
26) Cyclohexane	10.083	10.076	0.950	56	132	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.338	0.000		0	N.D.		
31) Benzene	10.376	10.369	0.978	78	672	N.D.		
32) Cyclohexene	10.504	10.491	0.990	67	148	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	10.998	11.003	1.036	95	2428	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.259	0.000		0	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B210.D  
Acq On : 9 Mar 2010 9:23 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506003|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 20:37:24 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.015	0.000		0	N.D.	
44) Toluene	12.321	12.320	0.895	91	6742	Below Cal	93
45) trans-1,3-Dichloroprop...	12.467	12.460	0.906	75	370	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.	
47) 2-Hexanone	12.851	12.856	0.934	43	364	N.D.	
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.	
49) Tetrachloroethylene	12.912	12.917	0.938	164	319	N.D.	
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.	
52) Chlorobenzene	13.802	13.801	1.003	112	756	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.	
54) Ethylbenzene	13.869	13.862	1.008	91	7144	N.D.	
55) m,p-Xylenes	13.967	13.966	1.015	106	6002	0.39 ug/L	88
56) o-Xylene	14.406	14.399	1.047	106	3486	N.D.	
57) Styrene	14.406	14.399	1.047	104	808	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.758	0.000		0m	N.D. d	
62) 1,1,2,2-Tetrachloroethane	0.000	15.014	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	0.000	15.167	0.000		0	N.D.	
65) n-Propylbenzene	15.180	15.179	0.939	91	2754	N.D.	
66) 1,3,5-Trimethylbenzene	15.332	15.325	0.948	105	4484	N.D.	
67) 2-Chlorotoluene	15.424	15.331	0.954	126	153	N.D.	
68) 4-Chlorotoluene	15.430	15.429	0.954	91	950	N.D.	
69) tert-Butylbenzene	15.796	15.703	0.977	134	151	N.D.	
70) 1,2,4-Trimethylbenzene	15.747	15.740	0.974	105	9422	N.D.	
71) sec-Butylbenzene	15.936	15.929	0.985	105	986	N.D.	
72) 4-Isopropyltoluene	16.046	16.051	0.992	119	1364	N.D.	
73) 1,3-Dichlorobenzene	16.113	16.118	0.996	146	592	N.D.	
74) 1,4-Dichlorobenzene	16.204	16.203	1.002	146	1341	N.D.	
75) n-Butylbenzene	16.491	16.502	1.020	91	1799	N.D.	
76) 1,2-Dichlorobenzene	16.637	16.642	1.029	146	636	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.649	18.629	1.153	180	276	N.D.	
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.	
80) Naphthalene	19.027	19.026	1.176	128	3747	N.D.	
81) 1,2,3-Trichlorobenzene	19.398	19.385	1.199	180	327	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.174	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.	
87) Isopropyl Alcohol	7.419	7.430	0.699	45	347	N.D.	
88) Allyl chloride	7.797	7.796	0.735	41	233	N.D.	
89) tert-Butyl Alcohol	7.919	7.924	0.746	59	960	N.D.	
90) Acrylonitrile	0.000	8.168	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.735	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.333	9.339	0.879	43	1134	N.D.	
95) Propionitrile	0.000	9.387	0.000		0	N.D.	
96) Methacrylonitrile	9.522	9.570	0.897	41	193	N.D.	
97) Tetrahydrofuran	9.711	9.710	0.915	42	1306	N.D.	
98) Isobutyl alcohol	10.132	10.003	0.955	41	123	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B210.D  
Acq On : 9 Mar 2010 9:23 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506003|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 20:37:24 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

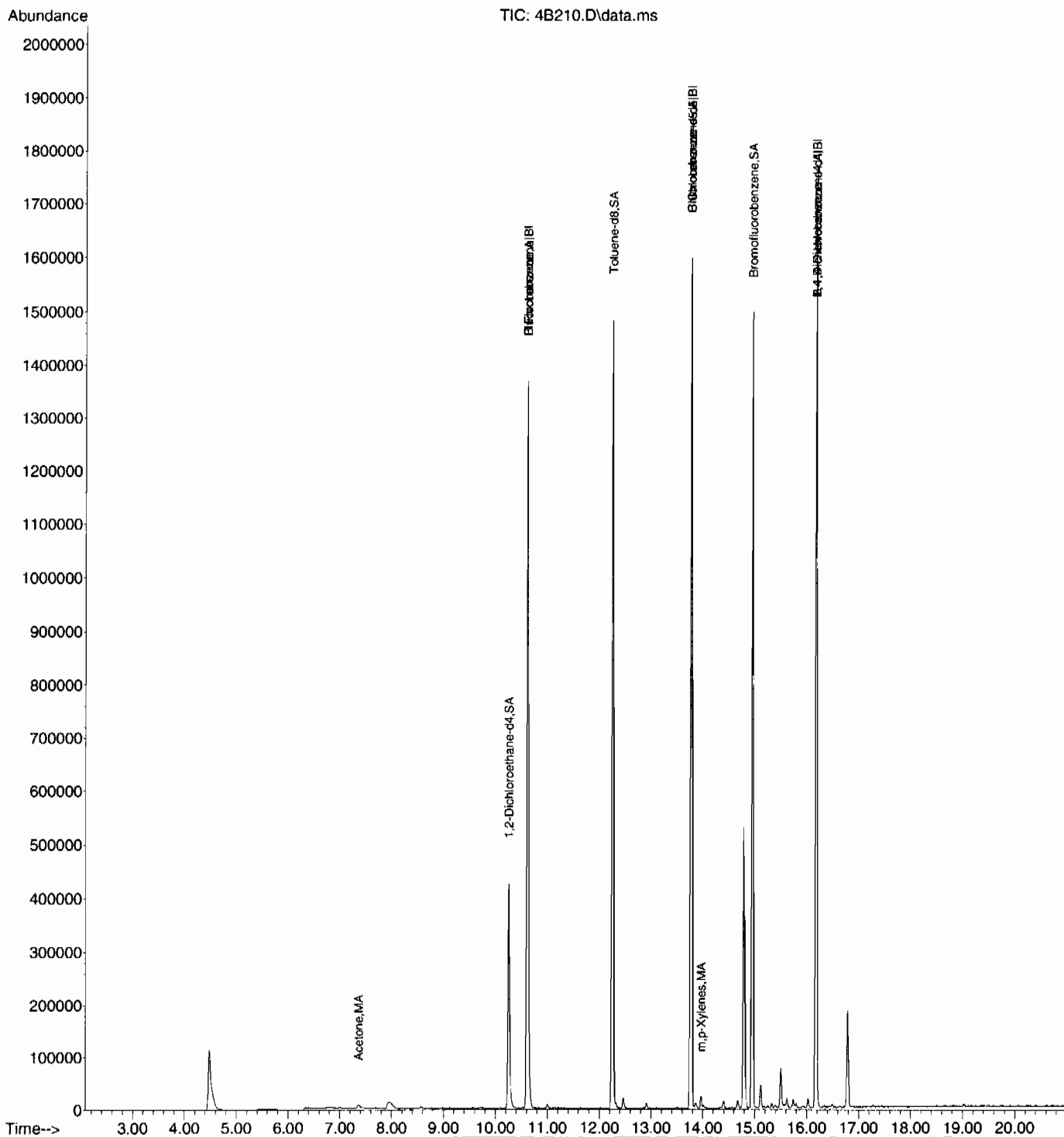
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.381	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101) 1,4-Dioxane	11.345	11.326	1.069	88	146	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0m	N.D.	d
104) Ethyl methacrylate	0.000	12.460	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0m	N.D.	d
108) Cyclohexanone	14.899	14.905	0.921	42	177	N.D.	
109) trans-1,4-Dichloro-2-b...	15.058	15.063	0.931	53	414	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.308	16.319	1.008	91	1887	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.715	0.000		0m	N.D.	d

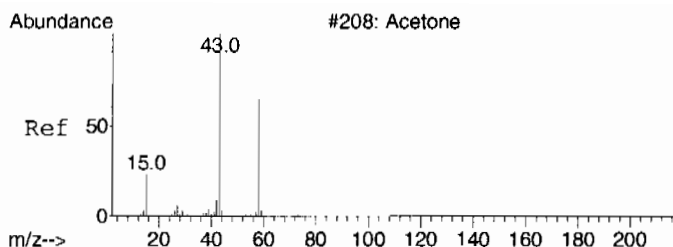
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

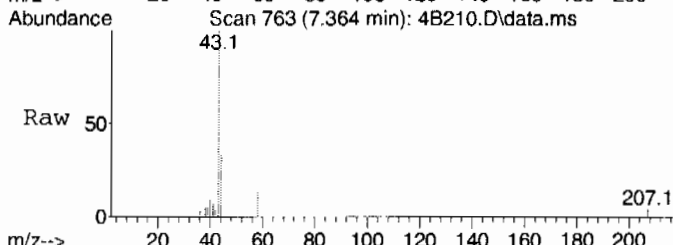
Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B210.D  
Acq On : 9 Mar 2010 9:23 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506003|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 19 20:37:24 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

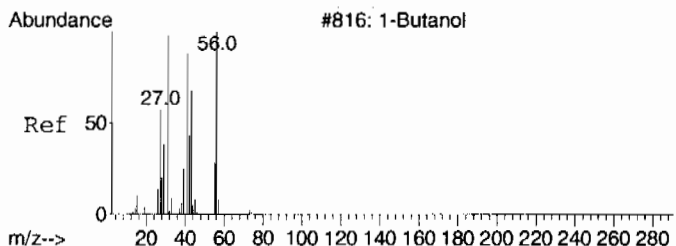
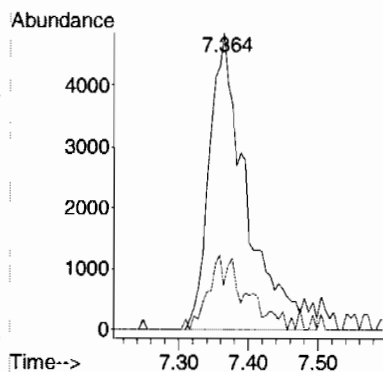
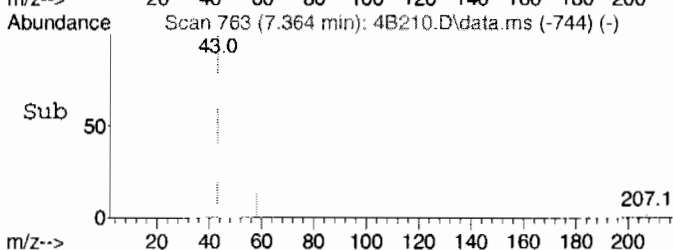




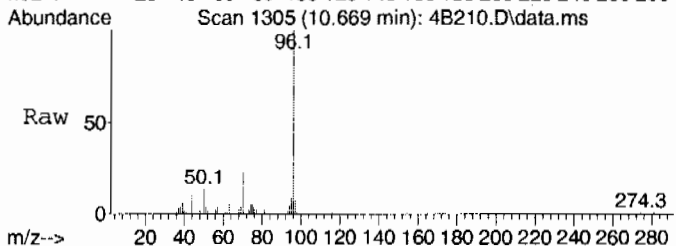
#9  
Acetone  
Concen: 2.15 ug/L  
RT: 7.364 min Scan# 763  
Delta R.T. 0.013 min  
Lab File: 4B210.D  
Acq: 9 Mar 2010 9:23 pm



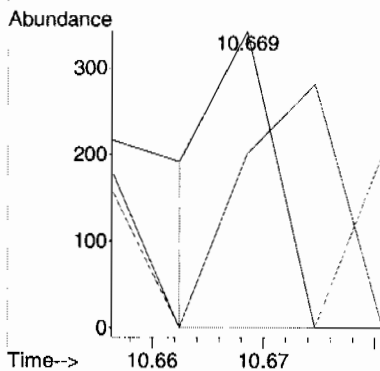
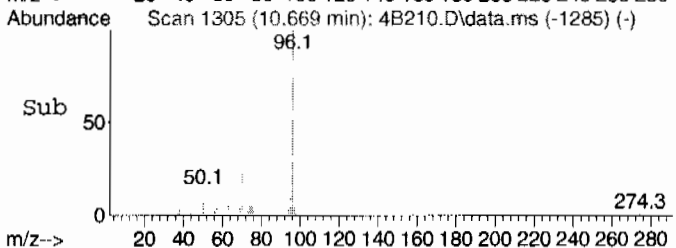
Tgt Ion: 43 Resp: 18252  
Ion Ratio Lower Upper  
43 100  
58 24.7 0.0 57.5

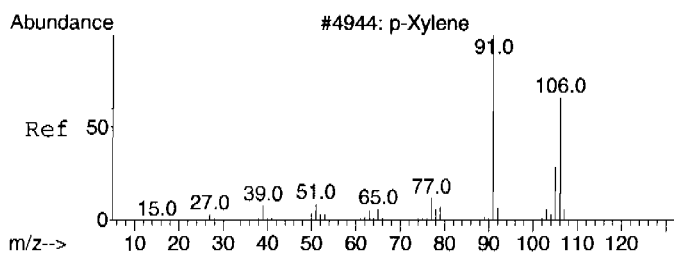


#33 BEFORE analyst DELETION  
n-Butyl alcohol  
Concen: 181.02 ug/L  
RT: 10.669 min Scan# 1305  
Delta R.T. -0.017 min  
Lab File: 4B210.D  
Acq: 9 Mar 2010 9:23 pm



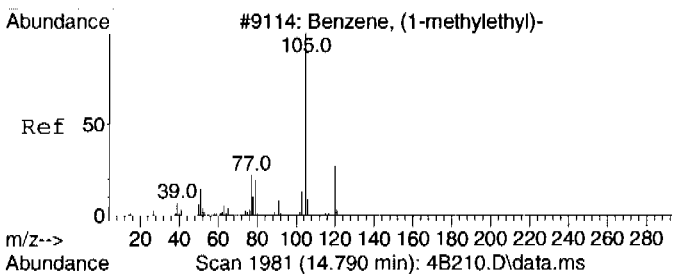
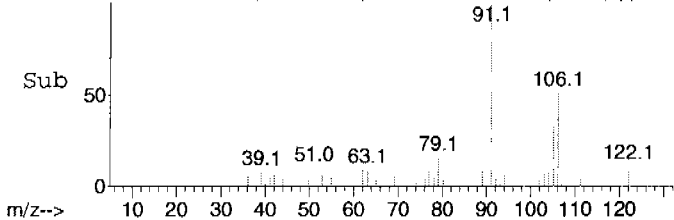
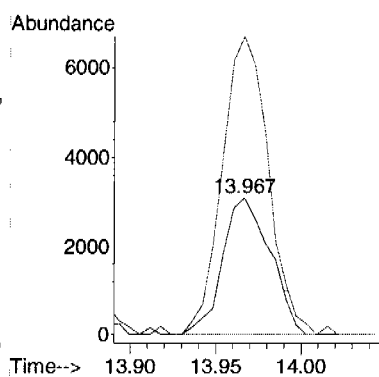
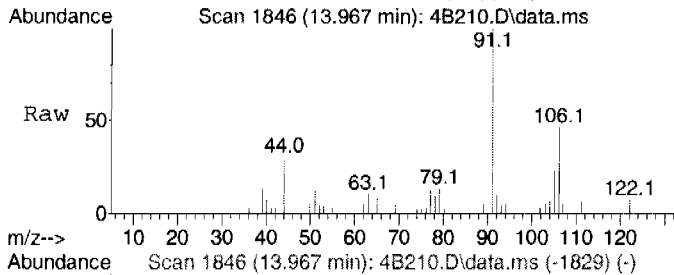
Tgt Ion: 56 Resp: 126  
Ion Ratio Lower Upper  
56 100  
41 139.7 49.2 109.2#  
43 0.0 30.5 90.5#





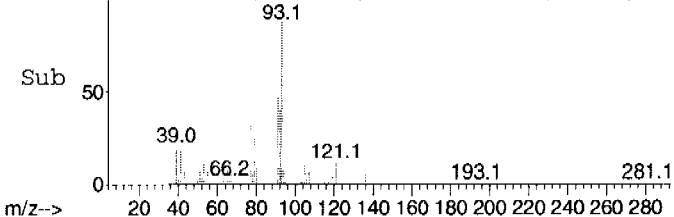
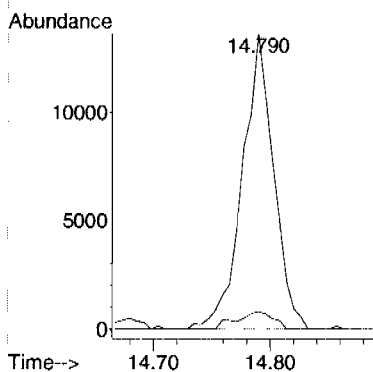
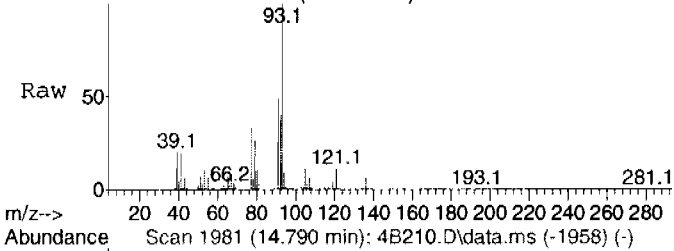
#55  
m,p-Xylenes  
Concen: 0.39 ug/L  
RT: 13.967 min Scan# 1846  
Delta R.T. 0.001 min  
Lab File: 4B210.D  
Acq: 9 Mar 2010 9:23 pm

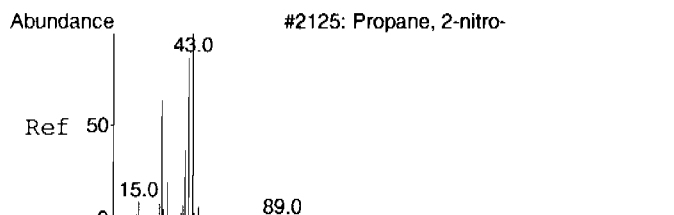
Tgt Ion:106 Resp: 6002  
Ion Ratio Lower Upper  
106 100  
91 211.4 163.6 223.6



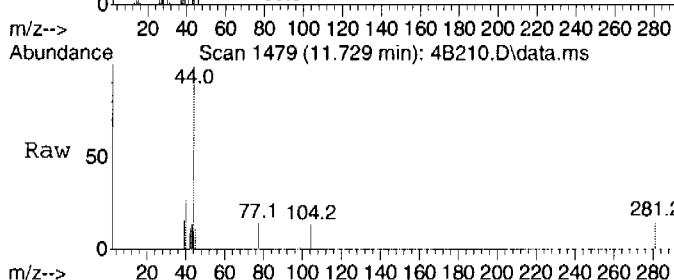
#60 BEFORE analyst DELETION  
Isopropylbenzene  
Concen: 0.75 ug/L  
RT: 14.790 min Scan# 1981  
Delta R.T. 0.031 min  
Lab File: 4B210.D  
Acq: 9 Mar 2010 9:23 pm

Tgt Ion:105 Resp: 25336  
Ion Ratio Lower Upper  
105 100  
120 6.8 0.0 57.3

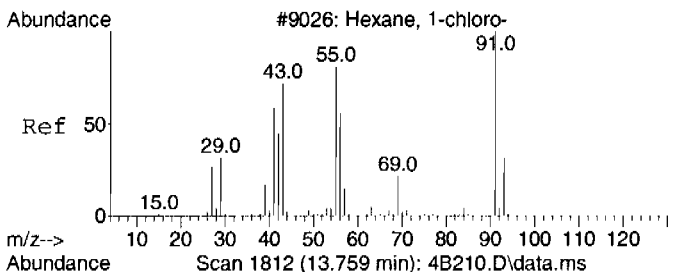
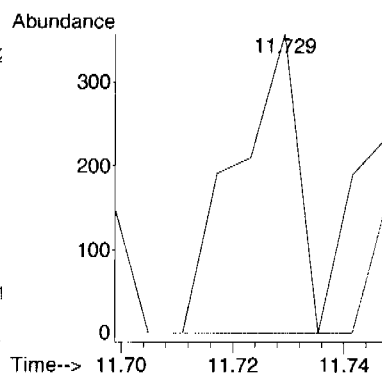
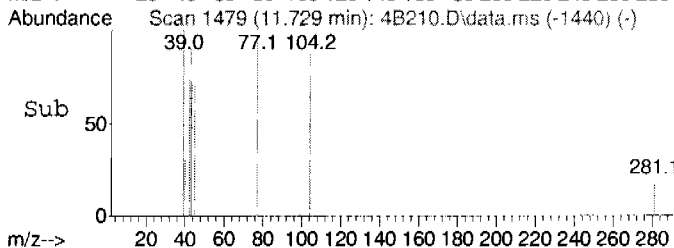




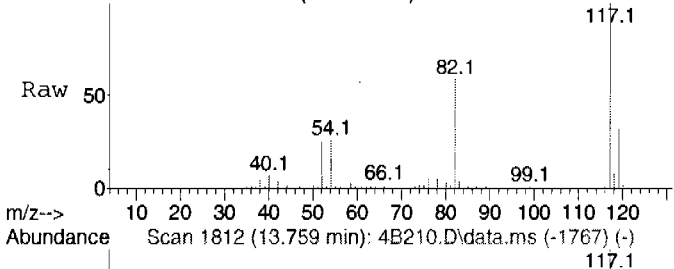
#102 BEFORE analyst DELETION  
2-Nitropropane  
Concen: 6.30 ug/L  
RT: 11.729 min Scan# 1479  
Delta R.T. 0.062 min  
Lab File: 4B210.D  
Acq: 9 Mar 2010 9:23 pm



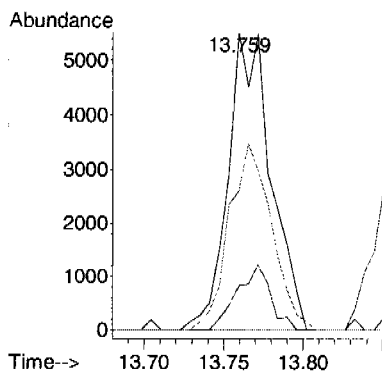
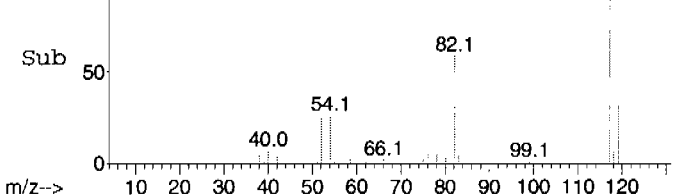
Tgt Ion: 43 Resp: 278  
Ion Ratio Lower Upper  
43 100  
41 71.9 57.4 117.4

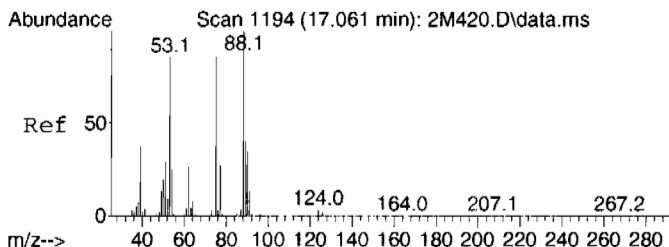


#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 1.69 ug/L  
RT: 13.759 min Scan# 1812  
Delta R.T. 0.098 min  
Lab File: 4B210.D  
Acq: 9 Mar 2010 9:23 pm

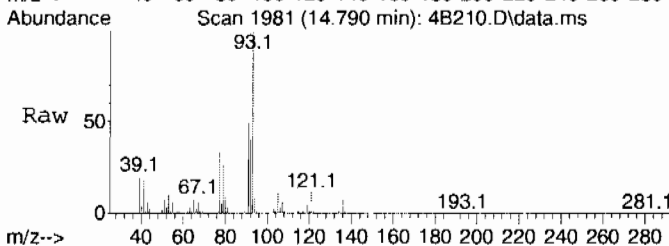


Tgt Ion: 55 Resp: 10394  
Ion Ratio Lower Upper  
55 100  
91 17.3 108.1 168.1#  
56 62.5 27.8 87.8

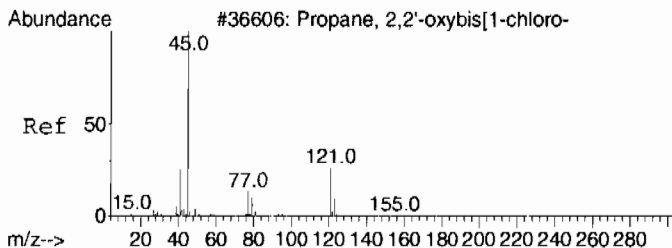
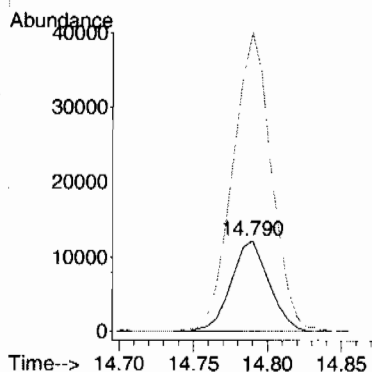
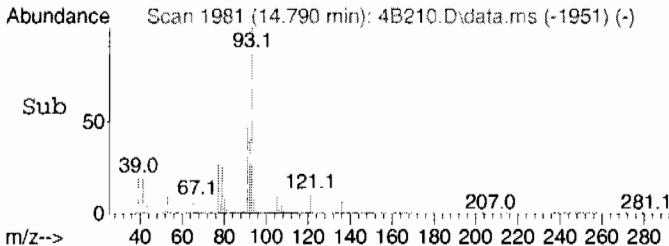




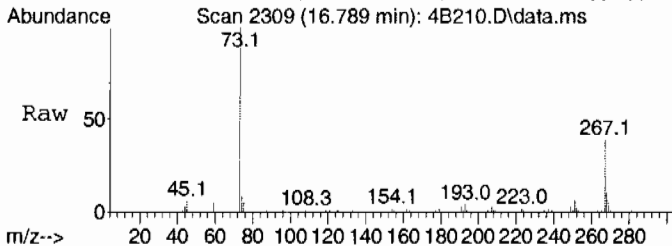
#107 BEFORE analyst DELETION  
 cis-1,4-Dichloro-2-butene  
 Concen: 8.36 ug/L  
 RT: 14.790 min Scan# 1981  
 Delta R.T. 0.007 min  
 Lab File: 4B210.D  
 Acq: 9 Mar 2010 9:23 pm



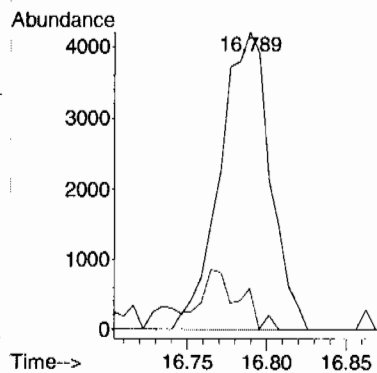
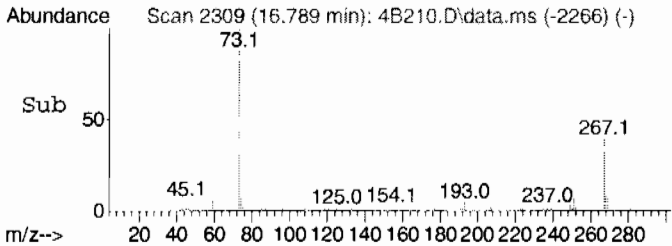
Tgt Ion: 53 Resp: 21922  
 Ion Ratio Lower Upper  
 53 100  
 88 0.0 83.6 143.6#  
 77 334.9 3.2 63.2#



#112 BEFORE analyst DELETION  
 bis(2-Chloroisopropyl)ether  
 Concen: 2.53 ug/L  
 RT: 16.789 min Scan# 2309  
 Delta R.T. 0.074 min  
 Lab File: 4B210.D  
 Acq: 9 Mar 2010 9:23 pm



Tgt Ion: 45 Resp: 9216  
 Ion Ratio Lower Upper  
 45 100  
 121 16.3 0.0 54.6





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B210.D  
Acq On : 9 Mar 2010 9:23 pm  
Operator : ACJ  
Sample : |248506003|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 10 Sample Multiplier: 1

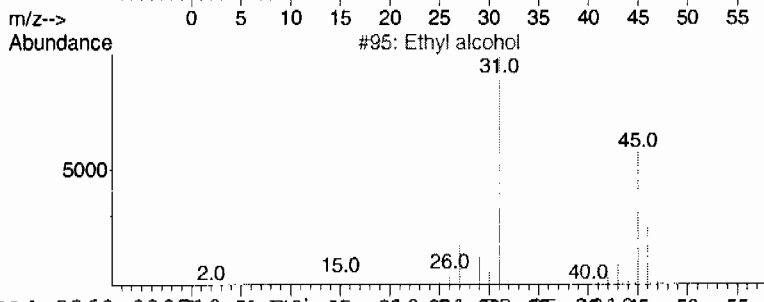
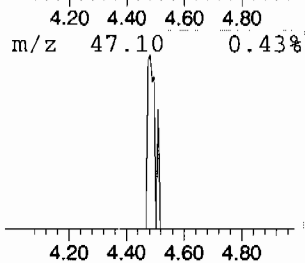
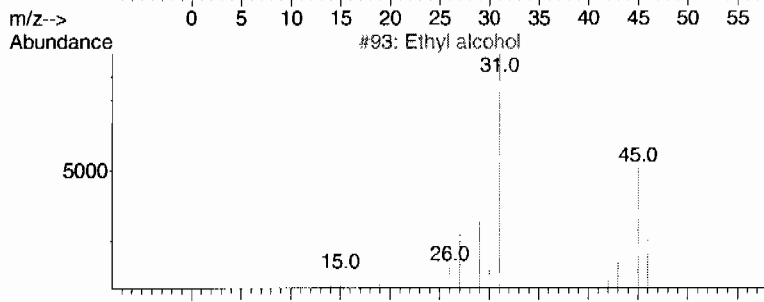
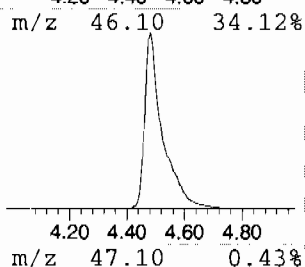
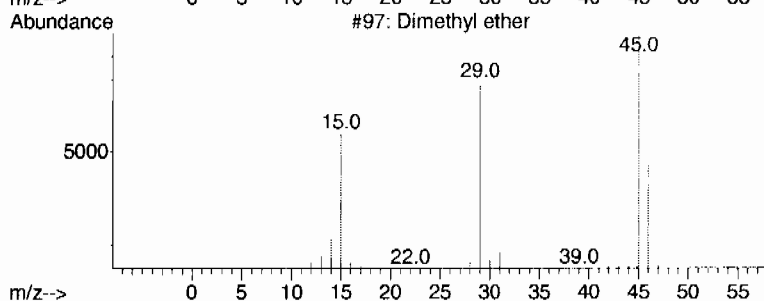
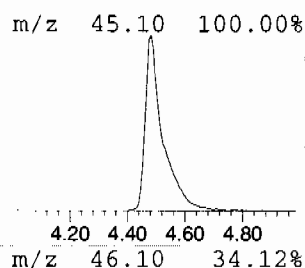
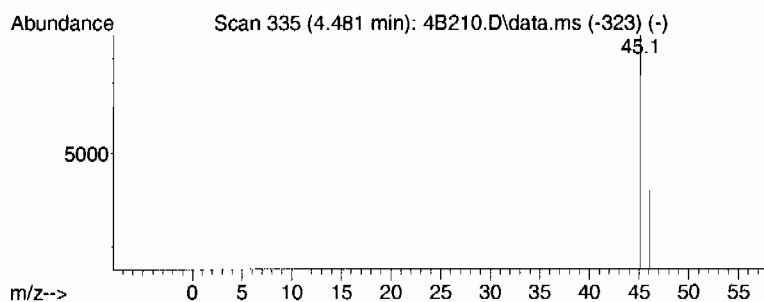
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 1 unknown hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	8.08 ug/L	484453	Fluorobenzene	10.614

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Dimethyl ether	46	C2H6O	000115-10-6	5
2		Ethyl alcohol	46	C2H6O	000064-17-5	4
3		Ethyl alcohol	46	C2H6O	000064-17-5	4
4		Ethyl alcohol	46	C2H6O	000064-17-5	4
5		Formic acid	46	CH2O2	000064-18-6	3



## Page: 2

Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B210.D  
Acq On : 9 Mar 2010 9:23 pm  
Operator : ACJ  
Sample : |248506003|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 10 Sample Multiplier: 1

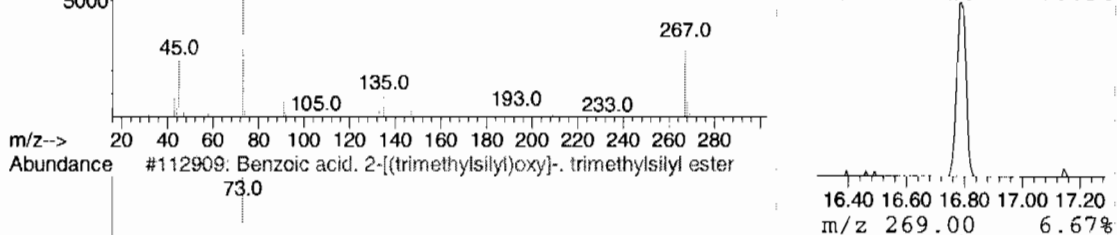
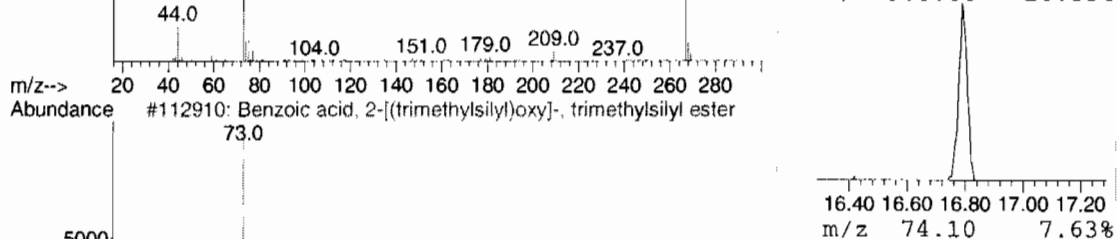
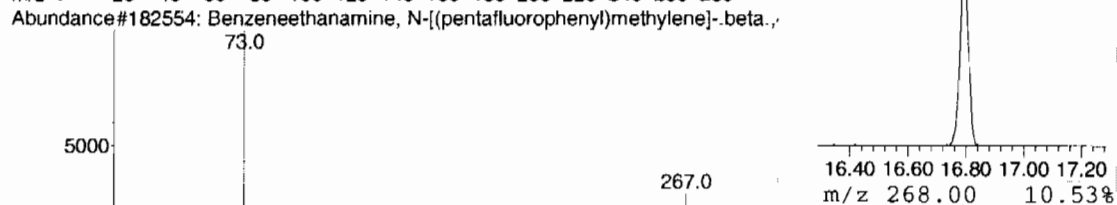
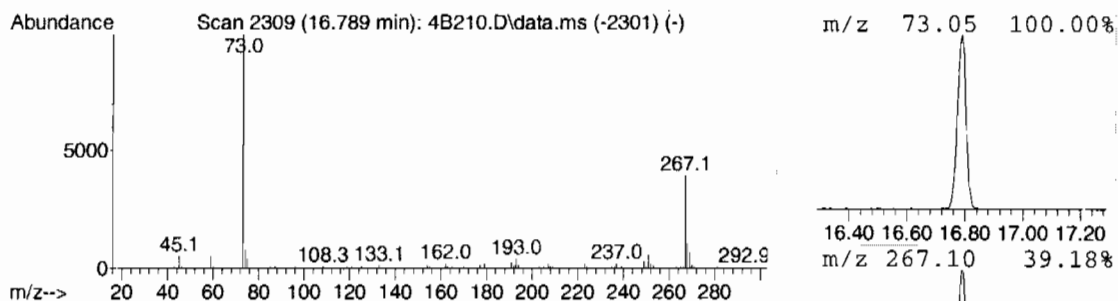
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 3 unknown siloxane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.789	6.94 ug/L	442585	B 1,4-Dichlorobenzene-d4	16.174

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzenethanamine, N-[(pentafluorophenyl)methylene]-	475	C21H26F5NO2Si2	055429-85-1	72
2		Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	282	C13H22O3Si2	003789-85-3	50
3		Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	282	C13H22O3Si2	003789-85-3	39
4		Benzenecacetic acid, 3-methoxy-4-...	268	C13H20O4Si	015964-84-8	9
5		Benzenecacetic acid, trimethylsilyl...	208	C11H16O2Si	002078-18-4	9



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B210.D  
Acq On : 9 Mar 2010 9:23 pm  
Operator : ACJ  
Sample : |248506003|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.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...	4.481	8.1	ug/L	484453	1	10.614	2996380	50.0
unknown hydroca...	14.790	17.3	ug/L	1071460	4	13.765	3100330	50.0
unknown siloxane	16.789	6.9	ug/L	442585	6	16.174	3189960	50.0

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506004	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 39.4
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7451	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 963417	<b>Inst:</b> VOA4.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/09/2010 21:50	<b>Analyst:</b> ACJ	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/09/2010 20:13	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 030910V4V4B211.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.65	ug/kg	0.561	1.65
74-87-3	Chloromethane	U	1.65	ug/kg	0.495	1.65
75-01-4	Vinyl chloride	U	1.65	ug/kg	0.495	1.65
74-83-9	Bromomethane	U	1.65	ug/kg	0.495	1.65
75-00-3	Chloroethane	U	1.65	ug/kg	0.495	1.65
75-69-4	Trichlorofluoromethane	U	1.65	ug/kg	0.495	1.65
67-64-1	Acetone	J	2.86	ug/kg	2.74	8.25
75-35-4	1,1-Dichloroethylene		2.46	ug/kg	0.495	1.65
74-88-4	Iodomethane	U	8.25	ug/kg	2.64	8.25
75-09-2	Methylene chloride	U	8.25	ug/kg	3.30	8.25
75-15-0	Carbon disulfide	U	8.25	ug/kg	2.06	8.25
156-60-5	trans-1,2-Dichloroethylene	U	1.65	ug/kg	0.495	1.65
75-34-3	1,1-Dichloroethane	U	1.65	ug/kg	0.495	1.65
78-93-3	2-Butanone	U	8.25	ug/kg	2.48	8.25
156-59-2	cis-1,2-Dichloroethylene	U	1.65	ug/kg	0.495	1.65
594-20-7	2,2-Dichloropropane	U	1.65	ug/kg	0.495	1.65
67-66-3	Chloroform	U	1.65	ug/kg	0.495	1.65
74-97-5	Bromochloromethane	U	1.65	ug/kg	0.545	1.65
71-55-6	1,1,1-Trichloroethane	U	1.65	ug/kg	0.495	1.65
563-58-6	1,1-Dichloropropene	U	1.65	ug/kg	0.495	1.65
56-23-5	Carbon tetrachloride	U	1.65	ug/kg	0.495	1.65
107-06-2	1,2-Dichloroethane	U	1.65	ug/kg	0.495	1.65
71-43-2	Benzene	U	1.65	ug/kg	0.495	1.65
79-01-6	Trichloroethylene	U	1.65	ug/kg	0.545	1.65
78-87-5	1,2-Dichloropropane	U	1.65	ug/kg	0.495	1.65
75-27-4	Bromodichloromethane	U	1.65	ug/kg	0.495	1.65
74-95-3	Dibromomethane	U	1.65	ug/kg	0.495	1.65
108-10-1	4-Methyl-2-pentanone	U	8.25	ug/kg	2.06	8.25
10061-01-5	cis-1,3-Dichloropropylene	U	1.65	ug/kg	0.495	1.65
108-88-3	Toluene		3.20	ug/kg	0.495	1.65
10061-02-6	trans-1,3-Dichloropropylene	U	1.65	ug/kg	0.495	1.65
79-00-5	1,1,2-Trichloroethane	U	1.65	ug/kg	0.495	1.65
591-78-6	2-Hexanone	U	8.25	ug/kg	2.48	8.25
142-28-9	1,3-Dichloropropane	U	1.65	ug/kg	0.495	1.65
127-18-4	Tetrachloroethylene	U	1.65	ug/kg	0.495	1.65
124-48-1	Dibromochloromethane	U	1.65	ug/kg	0.495	1.65
106-93-4	1,2-Dibromoethane	U	1.65	ug/kg	0.495	1.65
108-90-7	Chlorobenzene	U	1.65	ug/kg	0.495	1.65

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506004	Date Received: 03/03/2010 08:50	%Moisture: 39.4
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7451	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4J	Dilution: 1
Run Date: 03/09/2010 21:50	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:13	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V44B211.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.65	ug/kg	0.495	1.65
179601-23-1	m,p-Xylenes	J	0.792	ug/kg	0.495	3.30
95-47-6	o-Xylene	U	1.65	ug/kg	0.495	1.65
100-42-5	Styrene	U	1.65	ug/kg	0.495	1.65
75-25-2	Bromoform	U	1.65	ug/kg	0.495	1.65
79-34-5	1,1,2,2-Tetrachloroethane	U	1.65	ug/kg	0.495	1.65
96-18-4	1,2,3-Trichloropropane	U	1.65	ug/kg	0.495	1.65
108-86-1	Bromobenzene	U	1.65	ug/kg	0.495	1.65
103-65-1	n-Propylbenzene	U	1.65	ug/kg	0.495	1.65
95-49-8	2-Chlorotoluene	U	1.65	ug/kg	0.495	1.65
98-82-8	Isopropylbenzene	U	1.65	ug/kg	0.495	1.65
108-67-8	1,3,5-Trimethylbenzene	U	1.65	ug/kg	0.495	1.65
106-43-4	4-Chlorotoluene	U	1.65	ug/kg	0.495	1.65
98-06-6	tert-Butylbenzene	U	1.65	ug/kg	0.495	1.65
95-63-6	1,2,4-Trimethylbenzene	U	1.65	ug/kg	0.495	1.65
135-98-8	sec-Butylbenzene	U	1.65	ug/kg	0.495	1.65
99-87-6	4-Isopropyltoluene		3.38	ug/kg	0.495	1.65
541-73-1	1,3-Dichlorobenzene	U	1.65	ug/kg	0.495	1.65
106-46-7	1,4-Dichlorobenzene	U	1.65	ug/kg	0.495	1.65
104-51-8	n-Butylbenzene	U	1.65	ug/kg	0.495	1.65
96-12-8	1,2-Dibromo-3-chloropropane	U	1.65	ug/kg	0.495	1.65
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	8.25	ug/kg	2.64	8.25
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.65	ug/kg	0.495	1.65
95-50-1	1,2-Dichlorobenzene	U	1.65	ug/kg	0.495	1.65

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	33.5	ug/kg	0	J
	unknown hydrocarbon	14.79	80.4	ug/kg	0	J
	unknown hydrocarbon	15.11	31.3	ug/kg	0	J
	unknown substituted benzene	15.4	13.7	ug/kg	0	J
	unknown hydrocarbon	15.8	67.4	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B211.D  
Acq On : 9 Mar 2010 9:50 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506004|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 19 20:38:41 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.614	10.613	1.000	96	1157186	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.765	13.765	1.000	117	527023	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	116437	50.00	ug/L	0.00
82) B Fluorobenzene	10.614	10.613	1.000	96	1156744	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.765	13.764	1.000	117	527023	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	116441	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.260	10.259	0.967	65	300722	48.13	ug/L	0.00
Spiked Amount	50.000	Range 66	- 134	Recovery	= 96.26%			
43) Toluene-d8	12.247	12.247	0.890	98	827680	68.98	ug/L	0.00
Spiked Amount	50.000	Range 71	- 128	Recovery	= 137.96%#			
61) Bromofluorobenzene	14.948	14.947	0.924	95	197509	87.47	ug/L	0.00
Spiked Amount	50.000	Range 65	- 130	Recovery	= 174.94%#			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.284	5.299	0.498	50	259	N.D.		
4) Vinyl chloride	5.528	5.521	0.521	62	822	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	6.986	6.991	0.658	59	686	N.D.		
9) Acetone	7.358	7.351	0.693	43	12242	1.73	ug/L	97
10) 1,1-Dichloroethylene	7.419	7.394	0.699	61	20120	1.49	ug/L	80
11) Iodomethane	0.000	7.662	0.000		0	N.D.		
12) Acetonitrile	7.699	7.693	0.725	41	204	N.D.		
13) Methyl acetate	7.736	7.747	0.729	43	936	N.D.		
14) Carbon disulfide	7.760	7.778	0.731	76	2019	N.D.		
15) Methylene chloride	7.937	7.967	0.748	84	13320	Below Cal		98
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.705	8.705	0.820	43	147	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.333	9.320	0.879	43	1897	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.687	9.686	0.913	83	589	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.973	0.000		0	N.D.		
26) Cyclohexane	10.077	10.076	0.949	56	11659	1.03	ug/L	86
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.338	0.000		0	N.D.		
31) Benzene	10.364	10.369	0.976	78	1881	N.D.		
32) Cyclohexene	10.601	10.491	0.999	67	230	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	0.000	11.003	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	11.260	11.259	1.061	83	195	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B211.D  
Acq On : 9 Mar 2010 9:50 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506004|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 19 20:38:41 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.		
42) 4-Methyl-2-pentanone	0.000	12.015	0.000		0	N.D.		
44) Toluene	12.327	12.320	0.895	91	51420	1.94 ug/L		98
45) trans-1,3-Dichloroprop...	12.455	12.460	0.905	75	350	N.D.		
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.		
47) 2-Hexanone	12.851	12.856	0.934	43	676	N.D.		
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.		
49) Tetrachloroethylene	12.912	12.917	0.938	164	162	N.D.		
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.		
52) Chlorobenzene	13.790	13.801	1.002	112	441	N.D.		
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.		
54) Ethylbenzene	13.863	13.862	1.007	91	4838	N.D.		
55) m,p-Xylenes	13.967	13.966	1.015	106	3971	0.48 ug/L		82
56) o-Xylene	14.405	14.399	1.047	106	1902	N.D.		
57) Styrene	14.393	14.399	1.046	104	778	N.D.		
59) Bromoform	0.000	14.655	0.000		0	N.D.		
60) Isopropylbenzene	0.000	14.758	0.000		0m	N.D. d		
62) 1,1,2,2-Tetrachloroethane	0.000	15.014	0.000		0	N.D.		
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.		
64) Bromobenzene	0.000	15.167	0.000		0	N.D.		
65) n-Propylbenzene	15.332	15.179	0.948	91	935	N.D.		
66) 1,3,5-Trimethylbenzene	15.332	15.325	0.948	105	1517	N.D.		
67) 2-Chlorotoluene	15.424	15.331	0.953	126	159	N.D.		
68) 4-Chlorotoluene	0.000	15.429	0.000		0m	N.D. d		
69) tert-Butylbenzene	0.000	15.703	0.000		0m	N.D. d		
70) 1,2,4-Trimethylbenzene	0.000	15.740	0.000		0m	N.D. d		
71) sec-Butylbenzene	15.930	15.929	0.985	105	763	N.D.		
72) 4-Isopropyltoluene	16.052	16.051	0.992	119	15867	2.05 ug/L #		58
73) 1,3-Dichlorobenzene	16.125	16.118	0.997	146	401	N.D.		
74) 1,4-Dichlorobenzene	16.186	16.203	1.000	146	562	N.D.		
75) n-Butylbenzene	16.497	16.502	1.020	91	710	N.D.		
76) 1,2-Dichlorobenzene	16.637	16.642	1.028	146	374	N.D.		
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	18.630	18.629	1.151	180	138	N.D.		
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.		
80) Naphthalene	19.020	19.026	1.176	128	1405	0.32 ug/L #		70
81) 1,2,3-Trichlorobenzene	19.398	19.385	1.199	180	170	N.D.		
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	0.000	7.174	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.		
87) Isopropyl Alcohol	7.419	7.430	0.699	45	274	N.D.		
88) Allyl chloride	7.785	7.796	0.733	41	462	N.D.		
89) tert-Butyl Alcohol	7.919	7.924	0.746	59	1811	N.D.		
90) Acrylonitrile	0.000	8.168	0.000		0	N.D.		
91) Isopropyl ether	0.000	8.735	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.		
94) Ethyl acetate	9.333	9.339	0.879	43	1897	N.D.		
95) Propionitrile	0.000	9.387	0.000		0	N.D.		
96) Methacrylonitrile	9.583	9.570	0.903	41	247	N.D.		
97) Tetrahydrofuran	9.723	9.710	0.916	42	1405	N.D.		
98) Isobutyl alcohol	10.010	10.003	0.943	41	167	N.D.		



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B211.D  
Acq On : 9 Mar 2010 9:50 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506004|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 19 20:38:41 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

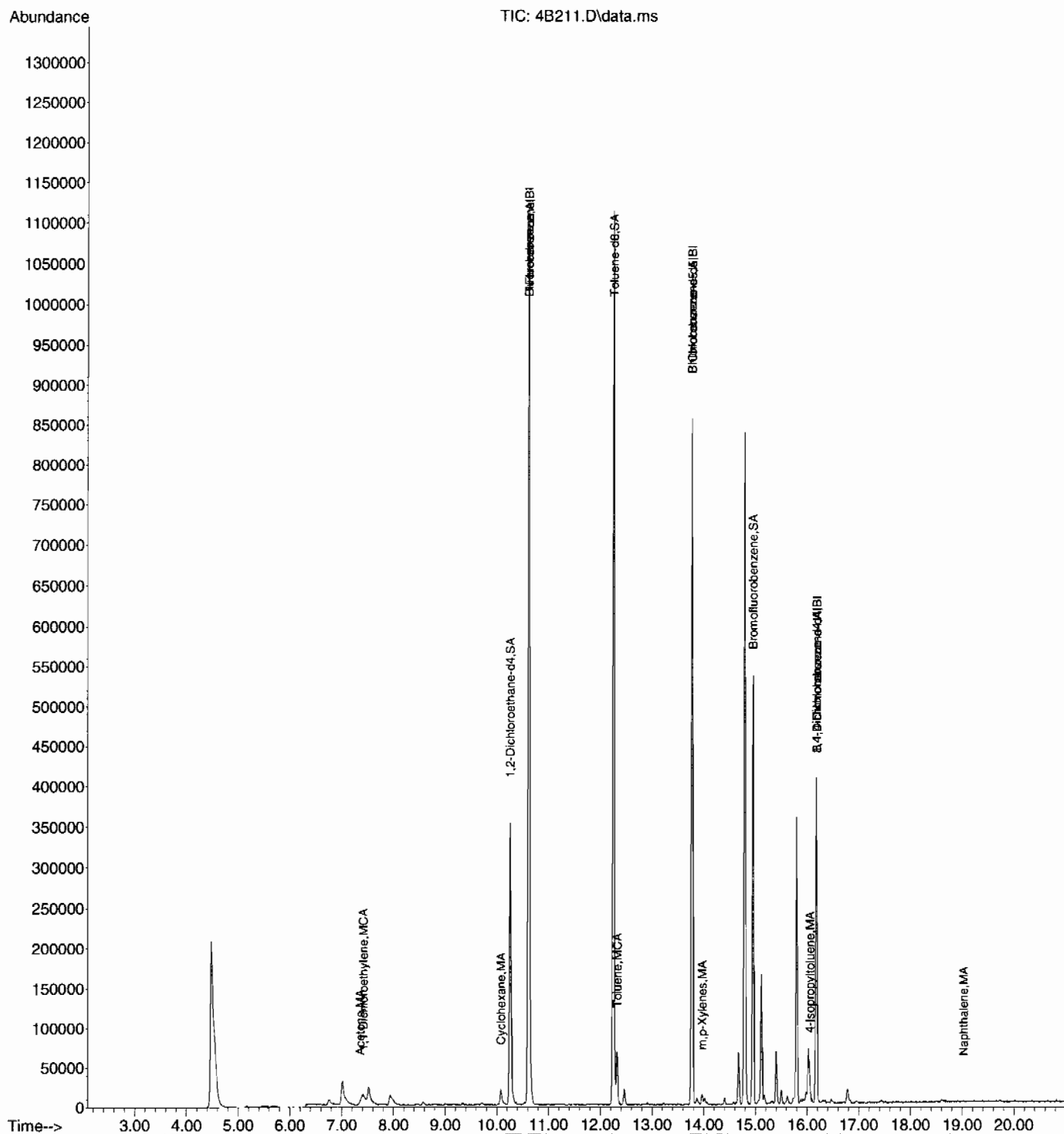
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.381	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0m	N.D.	d
104) Ethyl methacrylate	0.000	12.460	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0m	N.D.	d
108) Cyclohexanone	0.000	14.905	0.000		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.058	15.063	0.931	53	299	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.308	16.319	1.008	91	1501	N.D.	
112) bis(2-Chloroisopropyl)...	16.698	16.715	1.032	45	120	N.D.	

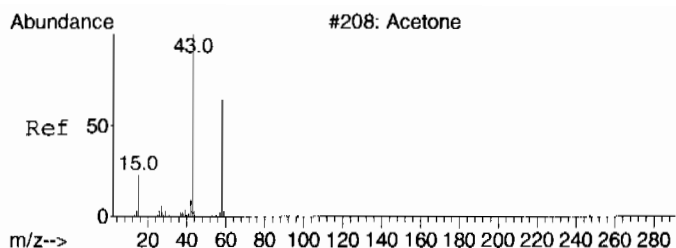
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

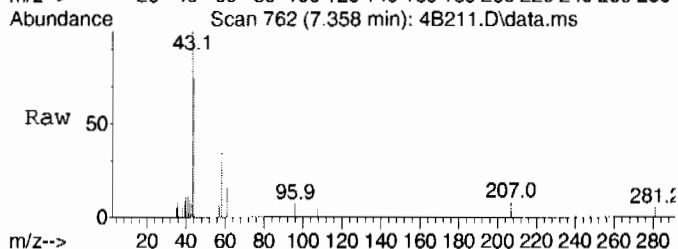
Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B211.D  
Acq On : 9 Mar 2010 9:50 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506004|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 19 20:38:41 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

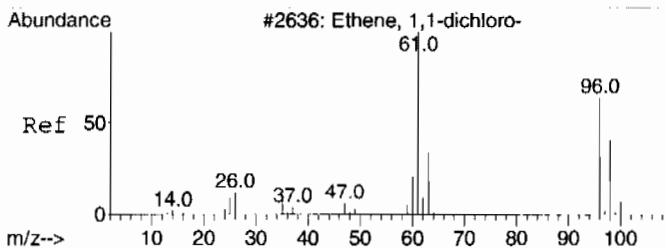
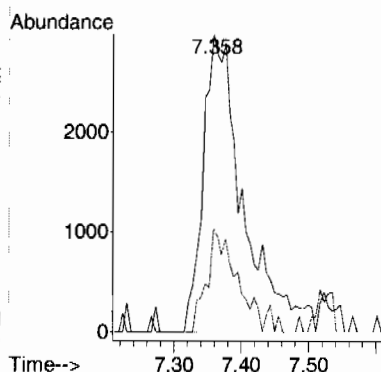
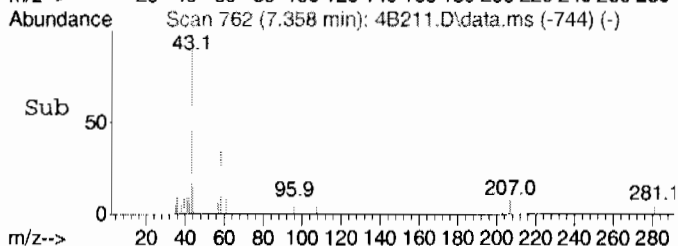




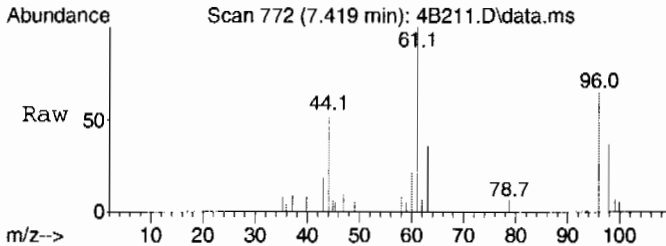
#9  
Acetone  
Concen: 1.73 ug/L  
RT: 7.358 min Scan# 762  
Delta R.T. 0.007 min  
Lab File: 4B211.D  
Acq: 9 Mar 2010 9:50 pm



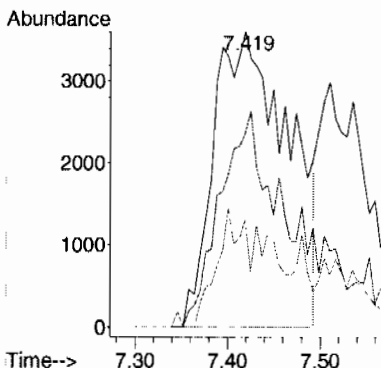
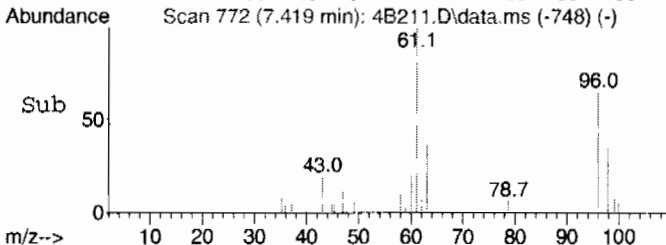
Tgt Ion: 43 Resp: 12242  
Ion Ratio Lower Upper  
43 100  
58 25.7 0.0 57.5

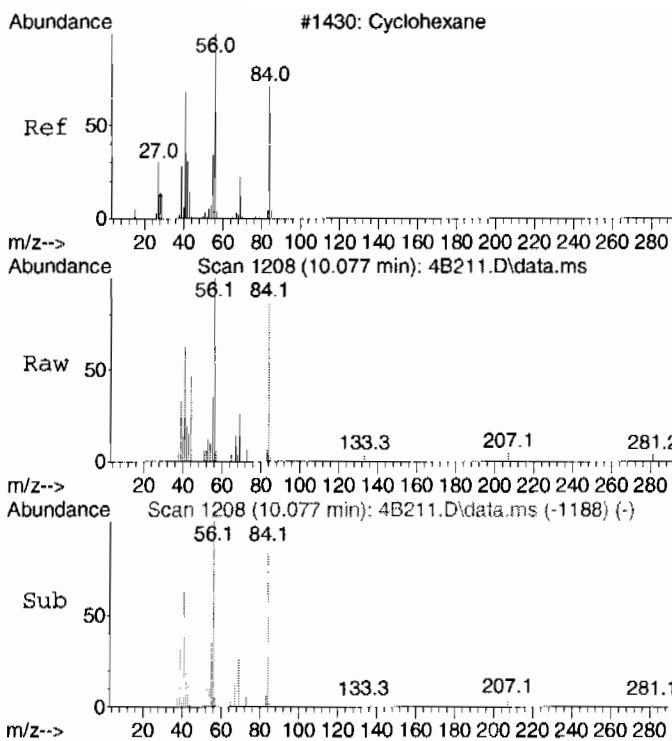


#10  
1,1-Dichloroethylene  
Concen: 1.49 ug/L  
RT: 7.419 min Scan# 772  
Delta R.T. 0.025 min  
Lab File: 4B211.D  
Acq: 9 Mar 2010 9:50 pm



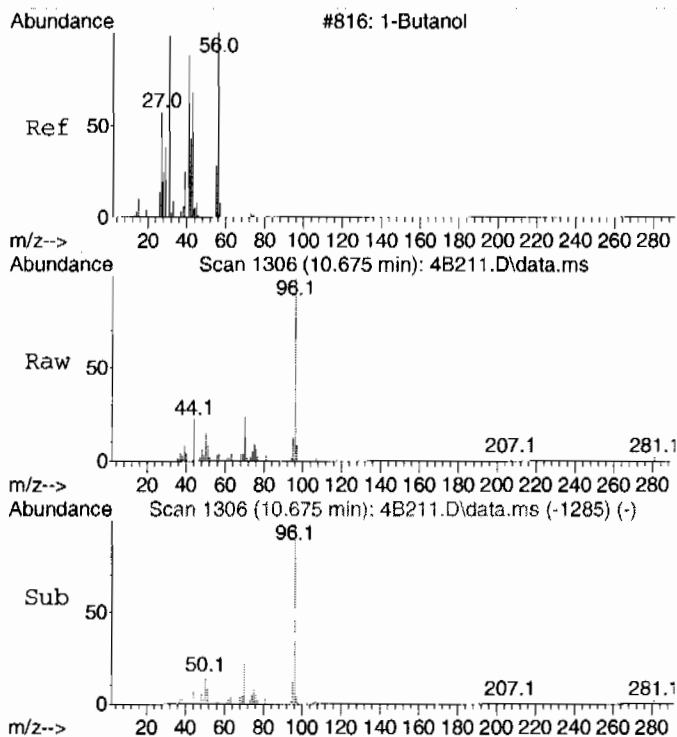
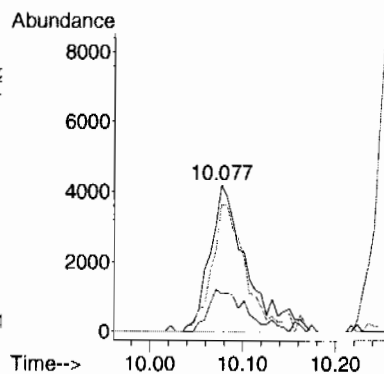
Tgt Ion: 61 Resp: 20120  
Ion Ratio Lower Upper  
61 100  
96 78.0 29.0 89.0  
63 27.0 2.3 62.3





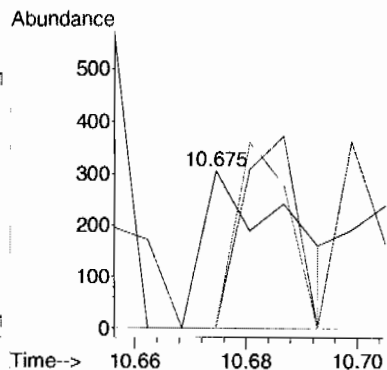
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Cyclohexane  
Concen: 1.03 ug/L  
RT: 10.077 min Scan# 1208  
Delta R.T. 0.001 min  
Lab File: 4B211.D  
Acq: 9 Mar 2010 9:50 pm

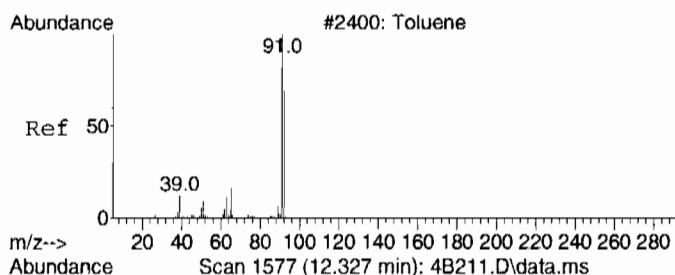
Tgt Ion	Ratio	Lower	Upper
56	100		
69	29.9	0.4	60.4
84	80.6	68.0	128.0



#33 BEFORE analyst DELETION  
n-Butyl alcohol  
Concen: 181.81 ug/L  
RT: 10.675 min Scan# 1306  
Delta R.T. -0.011 min  
Lab File: 4B211.D  
Acq: 9 Mar 2010 9:50 pm

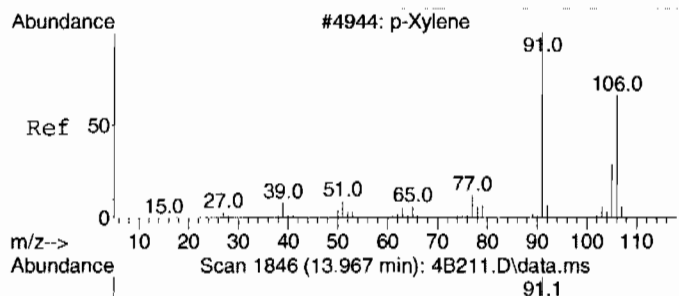
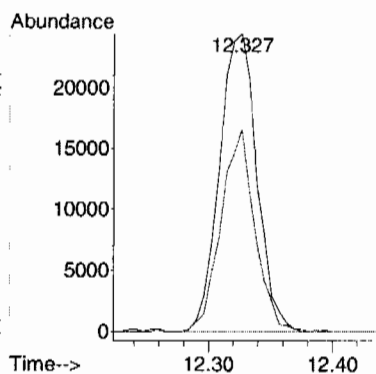
Tgt Ion	Ratio	Lower	Upper
56	100		
41	76.1	49.2	109.2
43	71.6	30.5	90.5





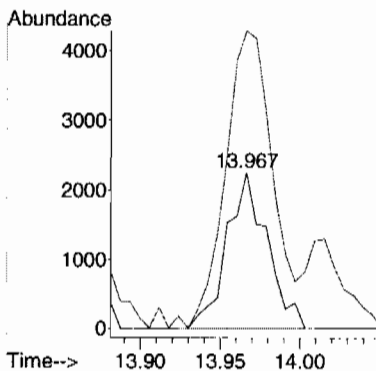
#44  
Toluene  
Concen: 1.94 ug/L  
RT: 12.327 min Scan# 1577  
Delta R.T. 0.007 min  
Lab File: 4B211.D  
Acq: 9 Mar 2010 9:50 pm

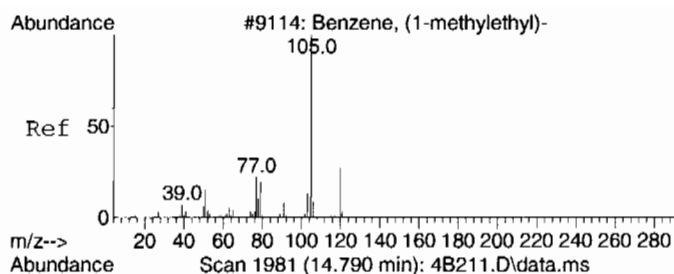
Tgt Ion	Ratio	Lower	Upper
91	100		
92	61.4	29.8	89.8



#55  
m,p-Xylenes  
Concen: 0.48 ug/L  
RT: 13.967 min Scan# 1846  
Delta R.T. 0.001 min  
Lab File: 4B211.D  
Acq: 9 Mar 2010 9:50 pm

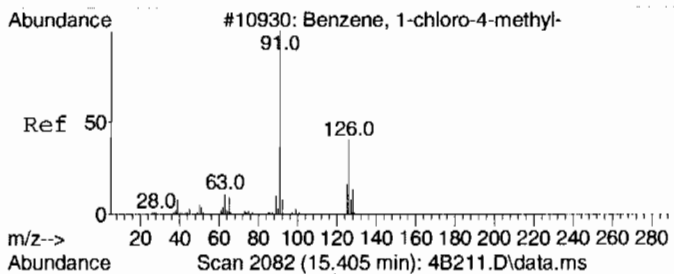
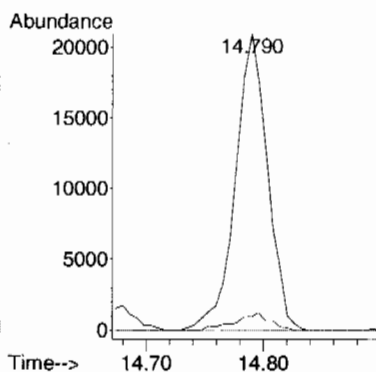
Tgt Ion	Ratio	Lower	Upper
106	100		
91	220.9	163.6	223.6





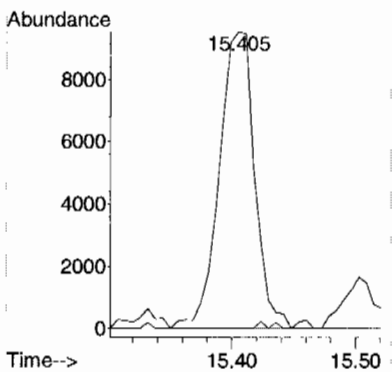
#60 BEFORE analyst DELETION  
Isopropylbenzene  
Concen: 5.06 ug/L  
RT: 14.790 min Scan# 1981  
Delta R.T. 0.031 min  
Lab File: 4B211.D  
Acq: 9 Mar 2010 9:50 pm

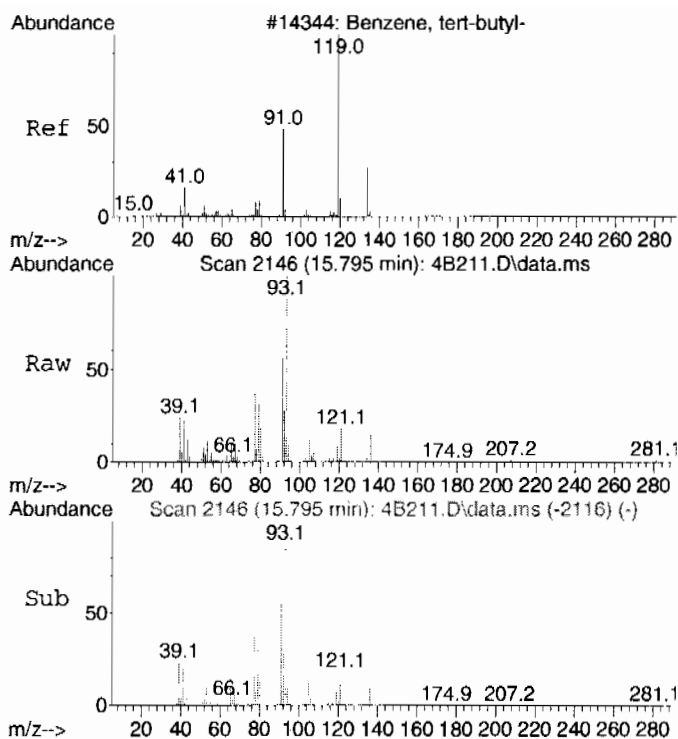
Tgt Ion: 105 Resp: 39930  
Ion Ratio Lower Upper  
105 100  
120 6.3 0.0 57.3



#68 BEFORE analyst DELETION  
4-Chlorotoluene  
Concen: 3.16 ug/L  
RT: 15.405 min Scan# 2082  
Delta R.T. -0.024 min  
Lab File: 4B211.D  
Acq: 9 Mar 2010 9:50 pm

Tgt Ion: 91 Resp: 19179  
Ion Ratio Lower Upper  
91 100  
126 0.8 4.6 64.6#

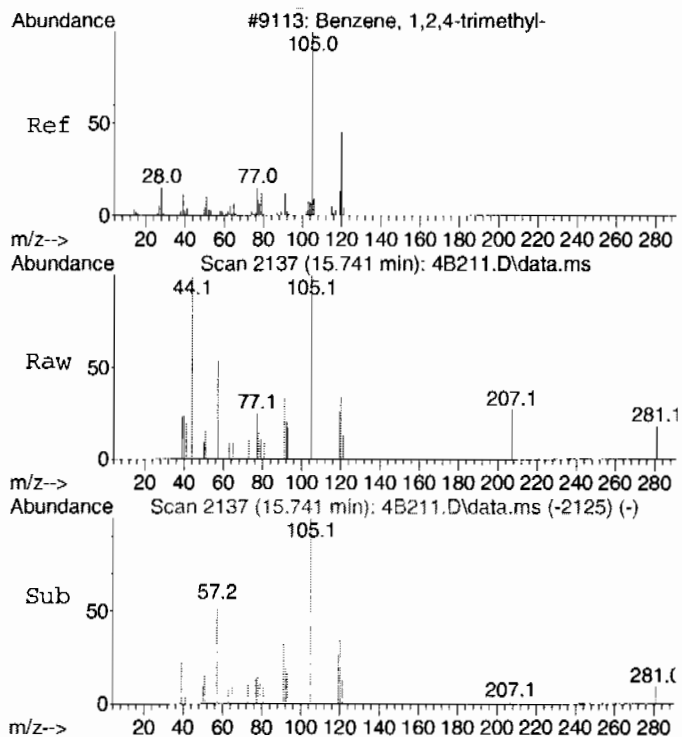
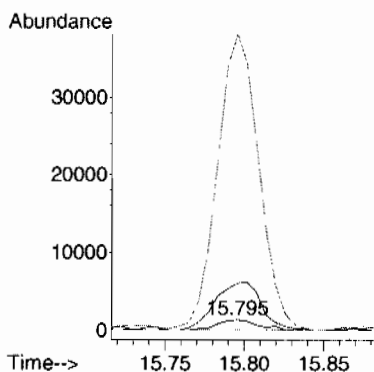




#69 BEFORE analyst DELETION  
tert-Butylbenzene

Concen: 1.66 ug/L  
RT: 15.795 min Scan# 2146  
Delta R.T. 0.092 min  
Lab File: 4B211.D  
Acq: 9 Mar 2010 9:50 pm

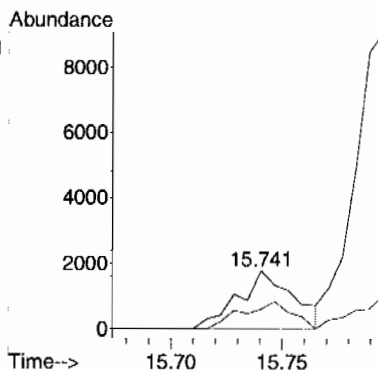
Tgt Ion	Ratio	Lower	Upper
134	100		
119	494.7	433.4	493.4#
91	2709.7	307.5	367.5#

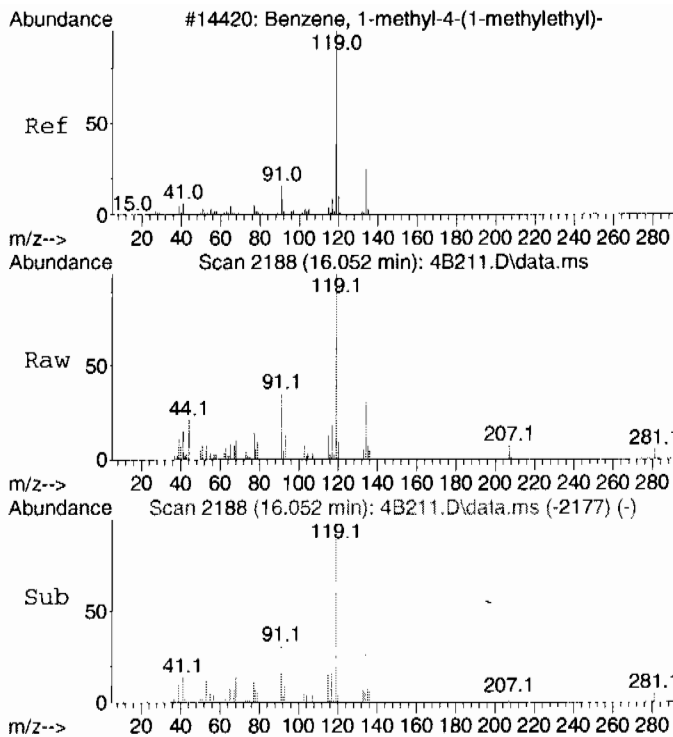


#70 BEFORE analyst DELETION  
1,2,4-Trimethylbenzene

Concen: 0.42 ug/L  
RT: 15.741 min Scan# 2137  
Delta R.T. 0.001 min  
Lab File: 4B211.D  
Acq: 9 Mar 2010 9:50 pm

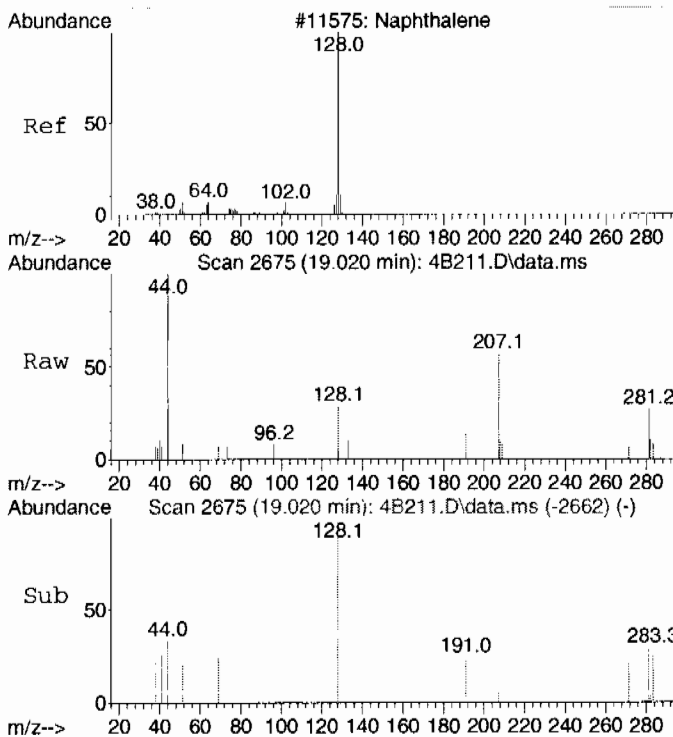
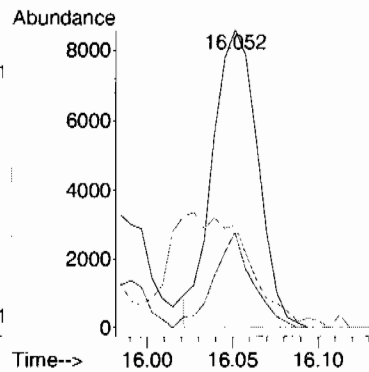
Tgt Ion	Ratio	Lower	Upper
105	100		
120	43.1	25.1	85.1





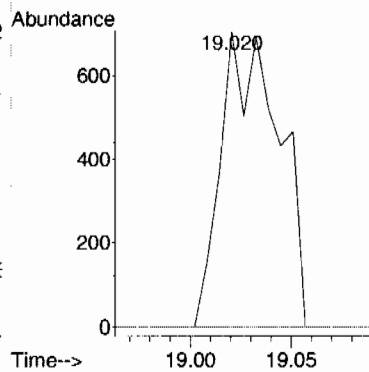
#72  
4-Isopropyltoluene  
Concen: 2.05 ug/L  
RT: 16.052 min Scan# 2188  
Delta R.T. 0.001 min  
Lab File: 4B211.D  
Acq: 9 Mar 2010 9:50 pm

Tgt Ion	Ratio	Lower	Upper
119	100		
134	27.4	0.0	57.0
91	68.7	0.0	55.4#

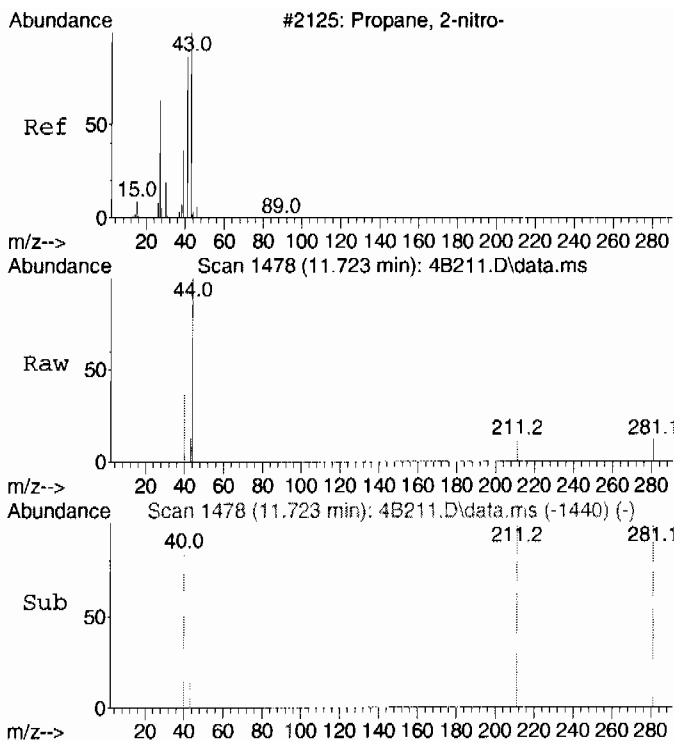


#80  
Naphthalene  
Concen: 0.32 ug/L  
RT: 19.020 min Scan# 2675  
Delta R.T. -0.005 min  
Lab File: 4B211.D  
Acq: 9 Mar 2010 9:50 pm

Tgt Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.4
129	0.0	0.0	41.0



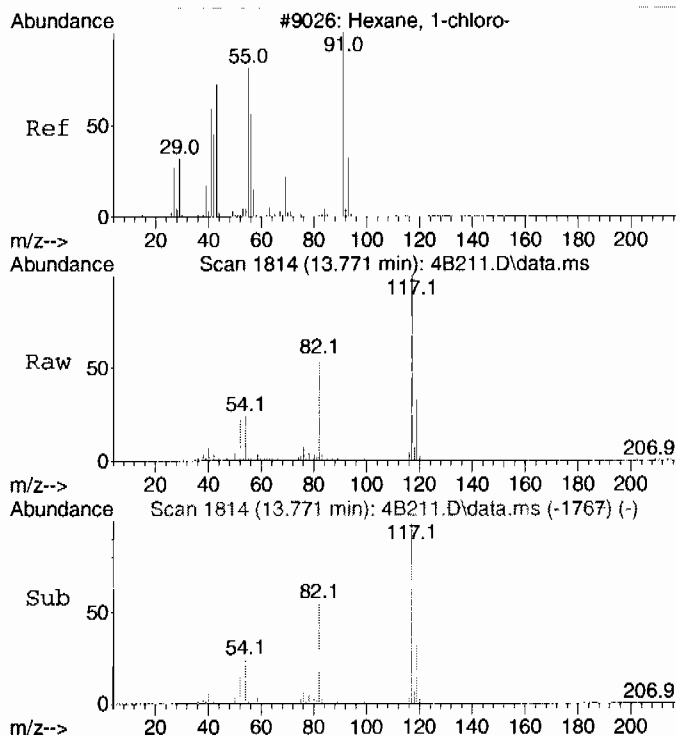
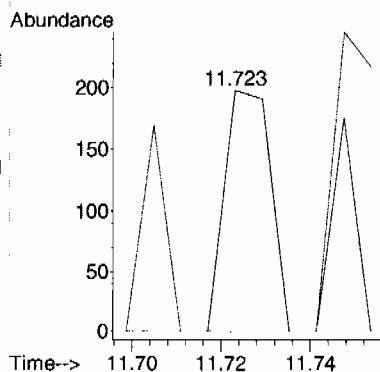




#102 BEFORE analyst DELETION  
2-Nitropropane

Concen: 6.27 ug/L  
RT: 11.723 min Scan# 1478  
Delta R.T. 0.056 min  
Lab File: 4B211.D  
Acq: 9 Mar 2010 9:50 pm

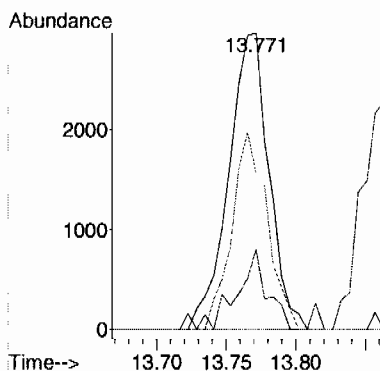
Tgt Ion	Ratio	Lower	Upper
43	100		
41	181.0	57.4	117.4#

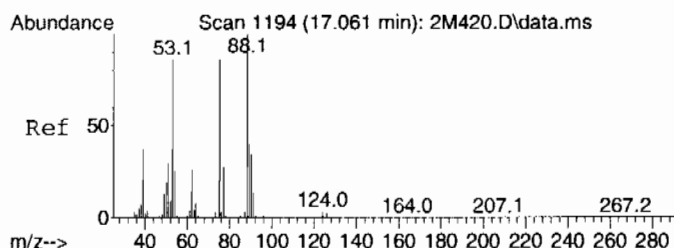


#106 BEFORE analyst DELETION  
1-Chlorohexane

Concen: 4.17 ug/L  
RT: 13.771 min Scan# 1814  
Delta R.T. 0.110 min  
Lab File: 4B211.D  
Acq: 9 Mar 2010 9:50 pm

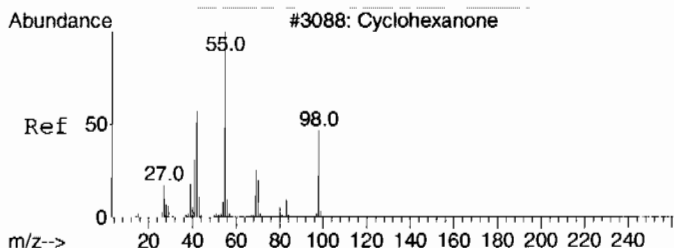
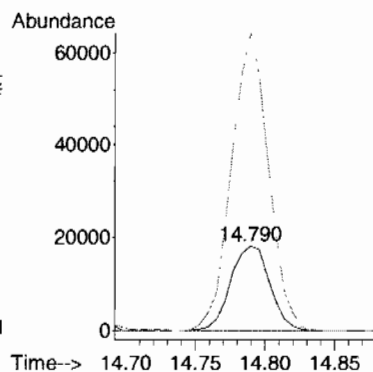
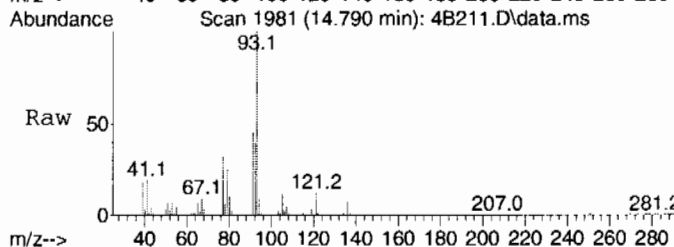
Tgt Ion	Ratio	Lower	Upper
55	100		
91	19.4	108.1	168.1#
56	58.7	27.8	87.8





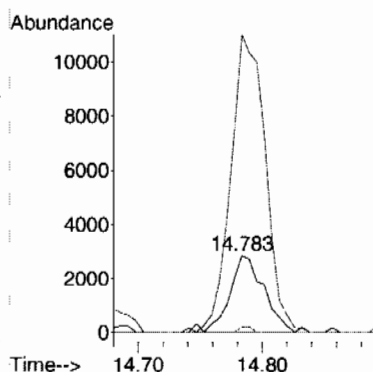
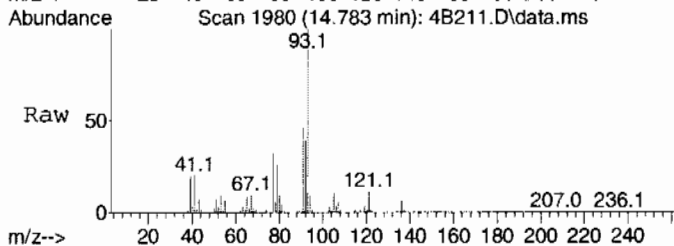
#107 BEFORE analyst DELETION  
 cis-1,4-Dichloro-2-butene  
 Concen: 58.29 ug/L  
 RT: 14.790 min Scan# 1981  
 Delta R.T. 0.007 min  
 Lab File: 4B211.D  
 Acq: 9 Mar 2010 9:50 pm

Tgt Ion: 53 Resp: 35506  
 Ion Ratio Lower Upper  
 53 100  
 88 0.0 83.6 143.6#  
 77 331.9 3.2 63.2#



#108 BEFORE analyst DELETION  
 Cyclohexanone  
 Concen: 81.15 ug/L  
 RT: 14.783 min Scan# 1980  
 Delta R.T. -0.122 min  
 Lab File: 4B211.D  
 Acq: 9 Mar 2010 9:50 pm

Tgt Ion: 42 Resp: 5606  
 Ion Ratio Lower Upper  
 42 100  
 55 383.3 99.9 159.9#  
 98 2.7 28.4 88.4#



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B211.D  
Acq On : 9 Mar 2010 9:50 pm  
Operator : ACJ  
Sample : |248506004|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 11 Sample Multiplier: 1

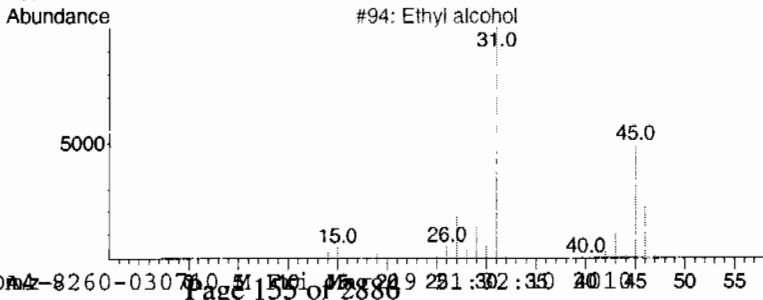
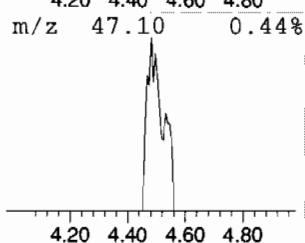
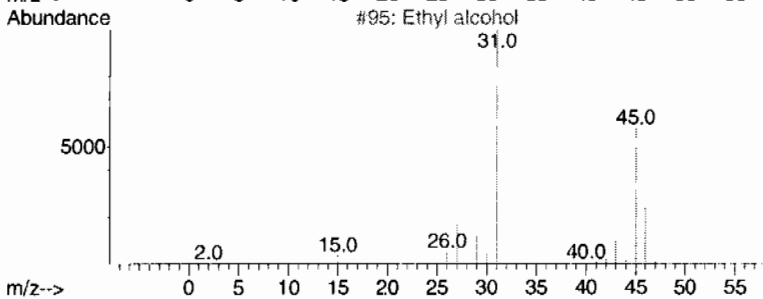
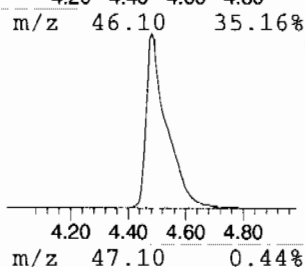
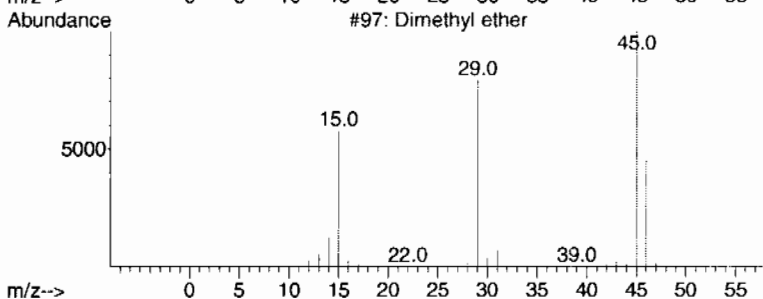
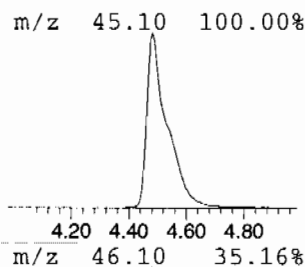
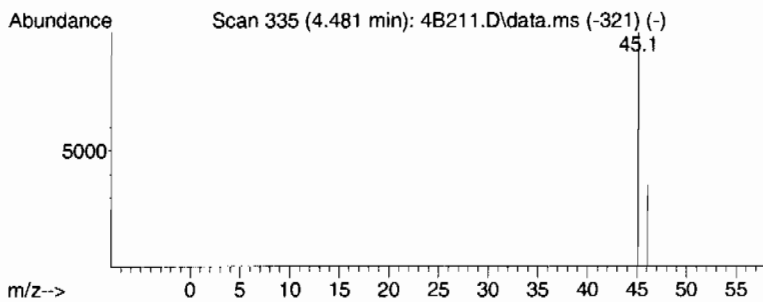
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 1 unknown hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	20.28 ug/L	1027960	Fluorobenzene	10.614

Hit#	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Dimethyl ether	46	C2H6O	000115-10-6	5
2		Ethyl alcohol	46	C2H6O	000064-17-5	4
3		Ethyl alcohol	46	C2H6O	000064-17-5	4
4		Ethyl alcohol	46	C2H6O	000064-17-5	4
5		Formic acid	46	CH2O2	000064-18-6	3



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B211.D  
Acq On : 9 Mar 2010 9:50 pm  
Operator : ACJ  
Sample : |248506004|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

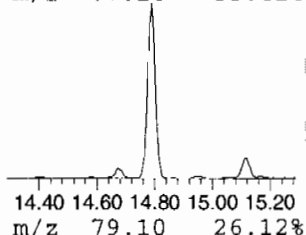
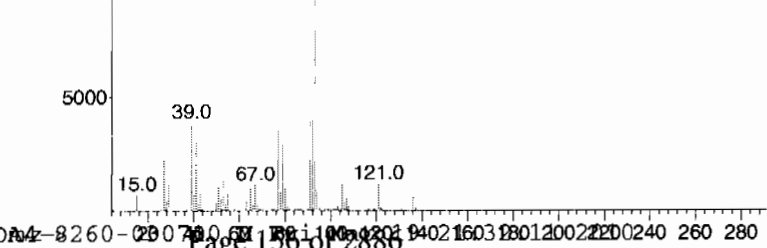
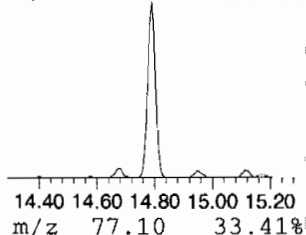
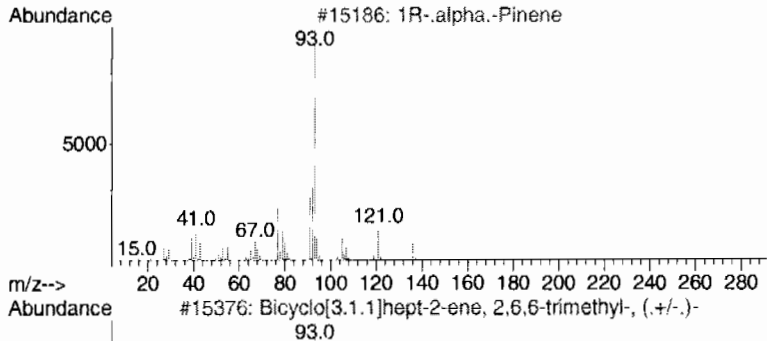
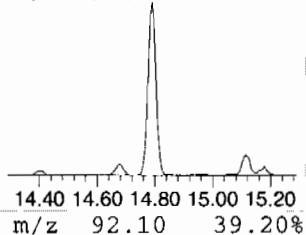
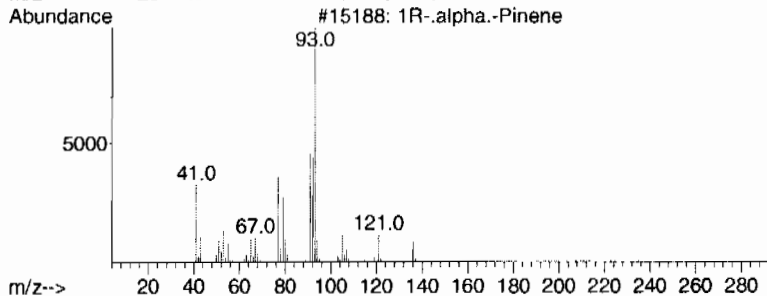
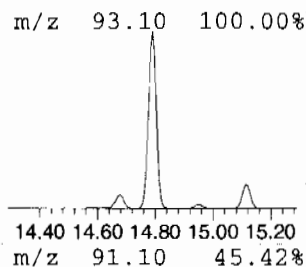
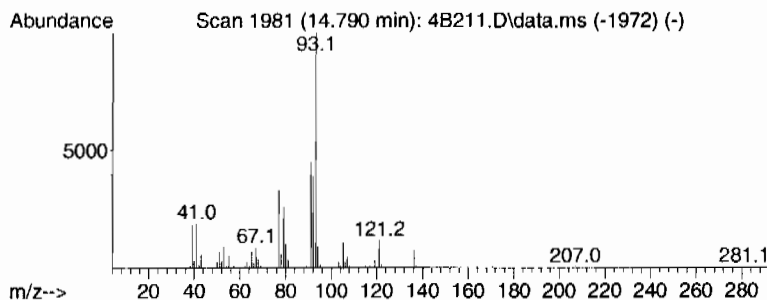
TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 2 unknown hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.790	48.69 ug/L	1620030	B Chlorobenzene-d5	13.765

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	96
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			1,4-Cyclohexadiene, 1-methyl-4-(...	136	C10H16	000099-85-4	93



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B211.D  
Acq On : 9 Mar 2010 9:50 pm  
Operator : ACJ  
Sample : |248506004|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

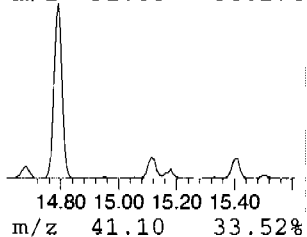
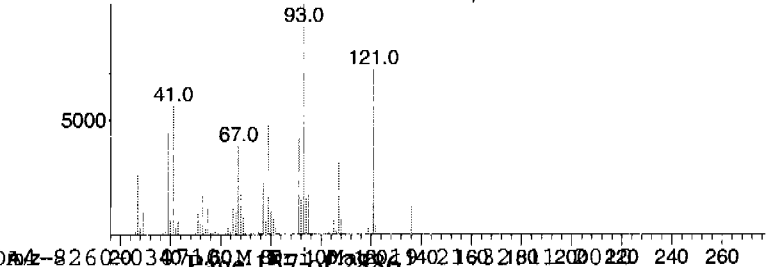
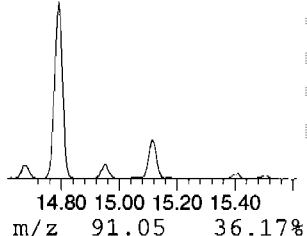
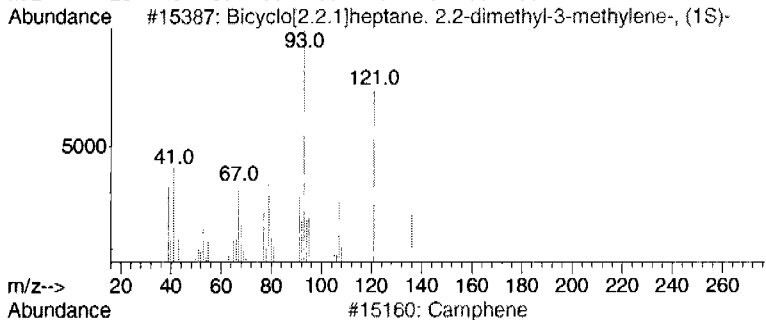
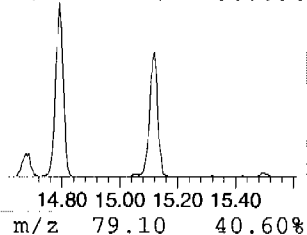
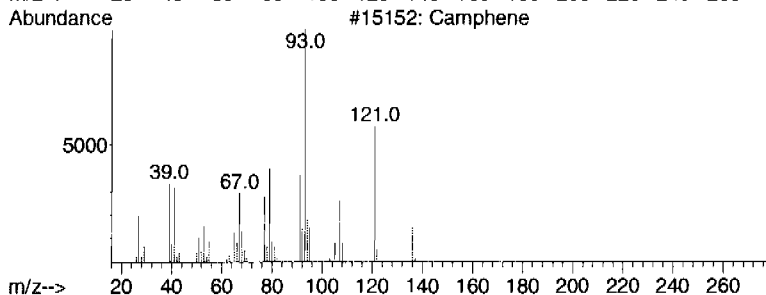
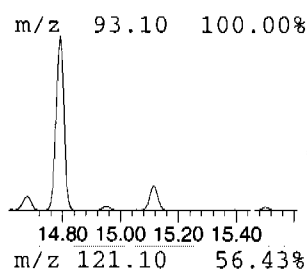
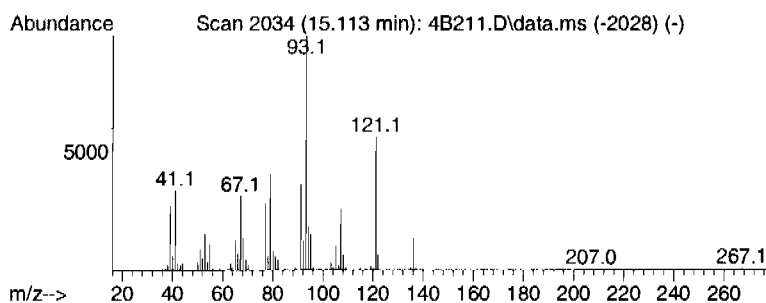
TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 3 unknown hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.113	18.99 ug/L	297003	1,4-Dichlorobenzene-d4	16.180

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Camphene	136	C10H16	000079-92-5	97
2	Bicyclo[2.2.1]heptane, 2,2-dimet...	136	C10H16	005794-04-7	95
3	Camphene	136	C10H16	000079-92-5	94
4	Camphene	136	C10H16	000079-92-5	93
5	Cyclohexene, 1-methyl-3-(1-methy...	136	C10H16	000499-03-6	80



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B211.D  
Acq On : 9 Mar 2010 9:50 pm  
Operator : ACJ  
Sample : |248506004|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 11 Sample Multiplier: 1

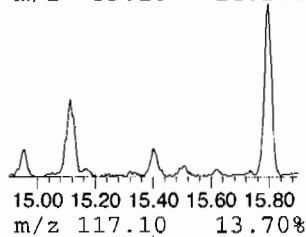
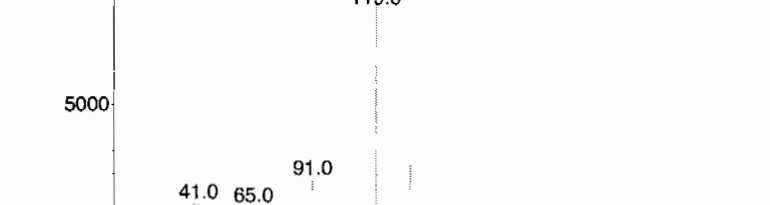
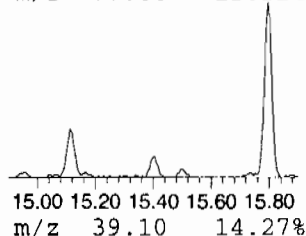
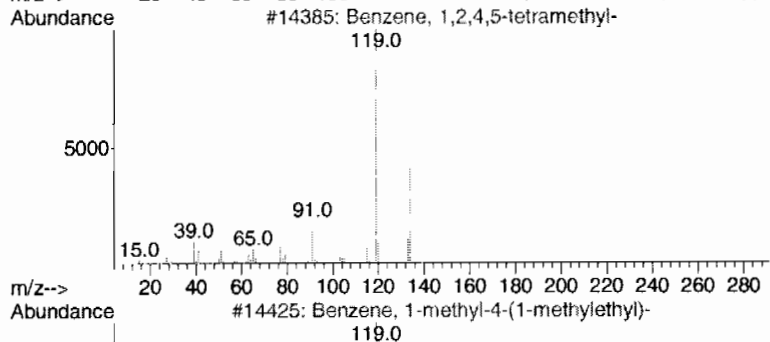
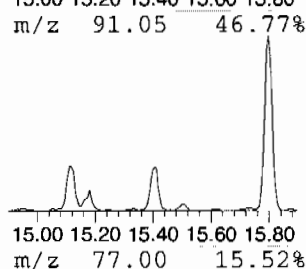
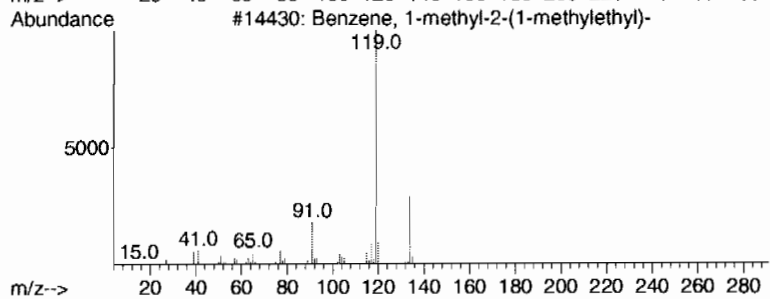
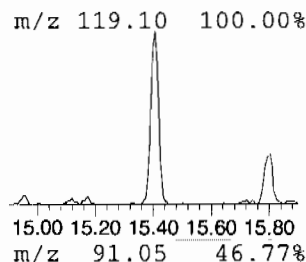
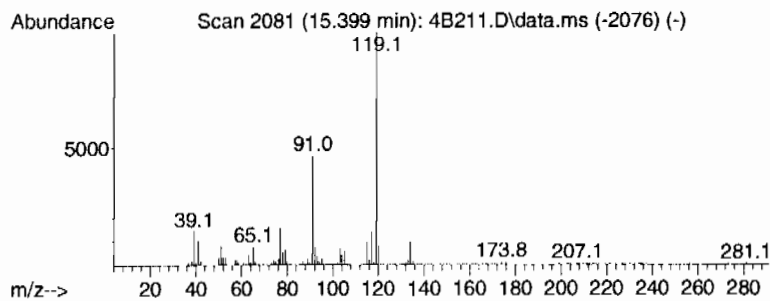
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 4 unknown substituted benzene Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.399	8.29 ug/L	129738	1,4-Dichlorobenzene-d4	16.180

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Benzene, 1-methyl-2-(1-methylethyl)-	134	C10H14	000527-84-4	91
2		Benzene, 1,2,4,5-tetramethyl-	134	C10H14	000095-93-2	91
3		Benzene, 1-methyl-4-(1-methylethyl)-	134	C10H14	000099-87-6	91
4		Benzene, 1-methyl-3-(1-methylethyl)-	134	C10H14	000535-77-3	91
5		Benzene, 1-methyl-3-(1-methylethyl)-	134	C10H14	000535-77-3	91



## Page: 5

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B211.D  
Acq On : 9 Mar 2010 9:50 pm  
Operator : ACJ  
Sample : |248506004|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.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...	4.481	20.3	ug/L	1027960	1	10.614	2534240	50.0
unknown hydroca...	14.790	48.7	ug/L	1620030	4	13.765	1663460	50.0
unknown hydroca...	15.113	19.0	ug/L	297003	5	16.180	782144	50.0
unknown substit...	15.399	8.3	ug/L	129738	5	16.180	782144	50.0
unknown hydroca...	15.796	40.8	ug/L	638656	5	16.180	782144	50.0



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

SDG Number: 10-2193  
 Lab Sample ID: 248506005  
 Client ID: RE36-10-7449  
 Batch ID: 963417  
 Run Date: 03/09/2010 22:17  
 Prep Date: 03/09/2010 20:14  
 Data File: 030910V44B212.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 17.8  
 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	1.22	ug/kg	0.414	1.22
74-87-3	Chloromethane	U	1.22	ug/kg	0.365	1.22
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.365	1.22
74-83-9	Bromomethane	U	1.22	ug/kg	0.365	1.22
75-00-3	Chloroethane	U	1.22	ug/kg	0.365	1.22
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.365	1.22
67-64-1	Acetone	U	6.08	ug/kg	2.02	6.08
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
74-88-4	Iodomethane	U	6.08	ug/kg	1.95	6.08
75-09-2	Methylene chloride	U	6.08	ug/kg	2.43	6.08
75-15-0	Carbon disulfide	U	6.08	ug/kg	1.52	6.08
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.365	1.22
78-93-3	2-Butanone	U	6.08	ug/kg	1.83	6.08
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.365	1.22
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.365	1.22
67-66-3	Chloroform	U	1.22	ug/kg	0.365	1.22
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.402	1.22
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.365	1.22
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.365	1.22
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.365	1.22
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.365	1.22
71-43-2	Benzene	U	1.22	ug/kg	0.365	1.22
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.402	1.22
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.365	1.22
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.365	1.22
74-95-3	Dibromomethane	U	1.22	ug/kg	0.365	1.22
108-10-1	4-Methyl-2-pentanone	U	6.08	ug/kg	1.52	6.08
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.365	1.22
108-88-3	Toluene	U	1.22	ug/kg	0.365	1.22
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.365	1.22
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.365	1.22
591-78-6	2-Hexanone	U	6.08	ug/kg	1.83	6.08
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.365	1.22
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.365	1.22
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.365	1.22
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.365	1.22
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.365	1.22

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193  
Lab Sample ID: 248506005

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA4J  
Analyst: ACJ  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 17.8  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

Client ID: RE36-10-7449  
Batch ID: 963417  
Run Date: 03/09/2010 22:17  
Prep Date: 03/09/2010 20:14  
Data File: 030910V4\4B212.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.22	ug/kg	0.365	1.22
179601-23-1	m,p-Xylenes	U	2.43	ug/kg	0.365	2.43
95-47-6	o-Xylene	U	1.22	ug/kg	0.365	1.22
100-42-5	Styrene	U	1.22	ug/kg	0.365	1.22
75-25-2	Bromoform	U	1.22	ug/kg	0.365	1.22
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.365	1.22
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.365	1.22
108-86-1	Bromobenzene	U	1.22	ug/kg	0.365	1.22
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.365	1.22
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.365	1.22
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.365	1.22
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.365	1.22
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.365	1.22
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.365	1.22
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.365	1.22
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.365	1.22
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.365	1.22
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22
106-46-7	1,4-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.365	1.22
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.365	1.22
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.08	ug/kg	1.95	6.08
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.365	1.22
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.365	1.22

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	13.6	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B212.D  
Acq On : 9 Mar 2010 10:17 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506005|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 19 20:39:28 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.614	10.613	1.000	96	1249632	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.766	13.765	1.000	117	757582	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	258423	50.00	ug/L	0.00
82) B Fluorobenzene	10.614	10.613	1.000	96	1249268	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.766	13.764	1.000	117	758177	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	258404	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.259	0.967	65	325567	48.25	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 96.50%			
43) Toluene-d8	12.248	12.247	0.890	98	969113	56.19	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 112.38%			
61) Bromofluorobenzene	14.948	14.947	0.924	95	363708	72.58	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 145.16%#			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.299	5.299	0.499	50	228	N.D.		
4) Vinyl chloride	5.500	5.521	0.518	62	423	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	7.011	6.991	0.661	59	661	N.D.		
9) Acetone	7.377	7.351	0.695	43	4730	N.D.		
10) 1,1-Dichloroethylene	7.511	7.394	0.708	61	163	N.D.		
11) Iodomethane	0.000	7.662	0.000		0	N.D.		
12) Acetonitrile	7.724	7.693	0.728	41	278	N.D.		
13) Methyl acetate	7.761	7.747	0.731	43	723	N.D.		
14) Carbon disulfide	7.755	7.778	0.731	76	762	N.D.		
15) Methylene chloride	7.944	7.967	0.748	84	2568	Below Cal	#	1
16) tert-Butyl methyl ether	8.297	8.235	0.782	73	123	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.639	8.705	0.814	43	157	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.352	9.320	0.881	43	934	N.D.		
21) cis-1,2-Dichloroethylene	9.376	9.381	0.883	61	127	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.675	9.686	0.912	83	503	N.D.		
25) 1,1,1-Trichloroethane	9.961	9.973	0.939	97	564	N.D.		
26) Cyclohexane	10.071	10.076	0.949	56	2475	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.338	0.000		0	N.D.		
31) Benzene	10.364	10.369	0.976	78	594	N.D.		
32) Cyclohexene	10.449	10.491	0.984	67	162	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	11.004	11.003	1.037	95	1972	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	11.254	11.259	1.060	83	242	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B212.D  
Acq On : 9 Mar 2010 10:17 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506005|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 19 20:39:28 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.015	0.000		0	N.D.	
44) Toluene	12.321	12.320	0.895	91	4841	Below Cal	78
45) trans-1,3-Dichloroprop...	12.473	12.460	0.906	75	417	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.	
47) 2-Hexanone	12.845	12.856	0.933	43	156	N.D.	
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.	
49) Tetrachloroethylene	12.918	12.917	0.938	164	172	N.D.	
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.	
52) Chlorobenzene	13.808	13.801	1.003	112	479	N.D.	
53) 1,1,1,2-Tetrachloroethane	13.851	13.850	1.006	131	161	N.D.	
54) Ethylbenzene	13.875	13.862	1.008	91	7971	N.D.	
55) m,p-Xylenes	0.000	13.966	0.000		0	N.D.	
56) o-Xylene	14.400	14.399	1.046	106	589	N.D.	
57) Styrene	14.406	14.399	1.047	104	312	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.796	14.758	0.914	105	4939	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.014	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	0.000	15.167	0.000		0	N.D.	
65) n-Propylbenzene	15.186	15.179	0.939	91	1250	N.D.	
66) 1,3,5-Trimethylbenzene	15.326	15.325	0.947	105	891	N.D.	
67) 2-Chlorotoluene	0.000	15.331	0.000		0	N.D.	
68) 4-Chlorotoluene	15.405	15.429	0.952	91	2177	N.D.	
69) tert-Butylbenzene	15.796	15.703	0.976	134	845	N.D.	
70) 1,2,4-Trimethylbenzene	15.735	15.740	0.972	105	732	N.D.	
71) sec-Butylbenzene	15.930	15.929	0.985	105	582	N.D.	
72) 4-Isopropyltoluene	16.052	16.051	0.992	119	1221	N.D.	
73) 1,3-Dichlorobenzene	16.125	16.118	0.997	146	201	N.D.	
74) 1,4-Dichlorobenzene	16.204	16.203	1.002	146	673	N.D.	
75) n-Butylbenzene	16.497	16.502	1.020	91	261	N.D.	
76) 1,2-Dichlorobenzene	16.631	16.642	1.028	146	132	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.629	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.	
80) Naphthalene	19.039	19.026	1.177	128	1275	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.385	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.174	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.	
87) Isopropyl Alcohol	7.431	7.430	0.700	45	236	N.D.	
88) Allyl chloride	7.791	7.796	0.734	41	183	N.D.	
89) tert-Butyl Alcohol	7.937	7.924	0.748	59	955	N.D.	
90) Acrylonitrile	0.000	8.168	0.000		0	N.D.	
91) Isopropyl ether	8.724	8.735	0.822	45	115	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.352	9.339	0.881	43	934	N.D.	
95) Propionitrile	0.000	9.387	0.000		0	N.D.	
96) Methacrylonitrile	9.596	9.570	0.904	41	201	N.D.	
97) Tetrahydrofuran	9.736	9.710	0.917	42	1630	N.D.	
98) Isobutyl alcohol	10.035	10.003	0.945	41	456	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B212.D  
Acq On : 9 Mar 2010 10:17 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506005|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 19 20:39:28 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

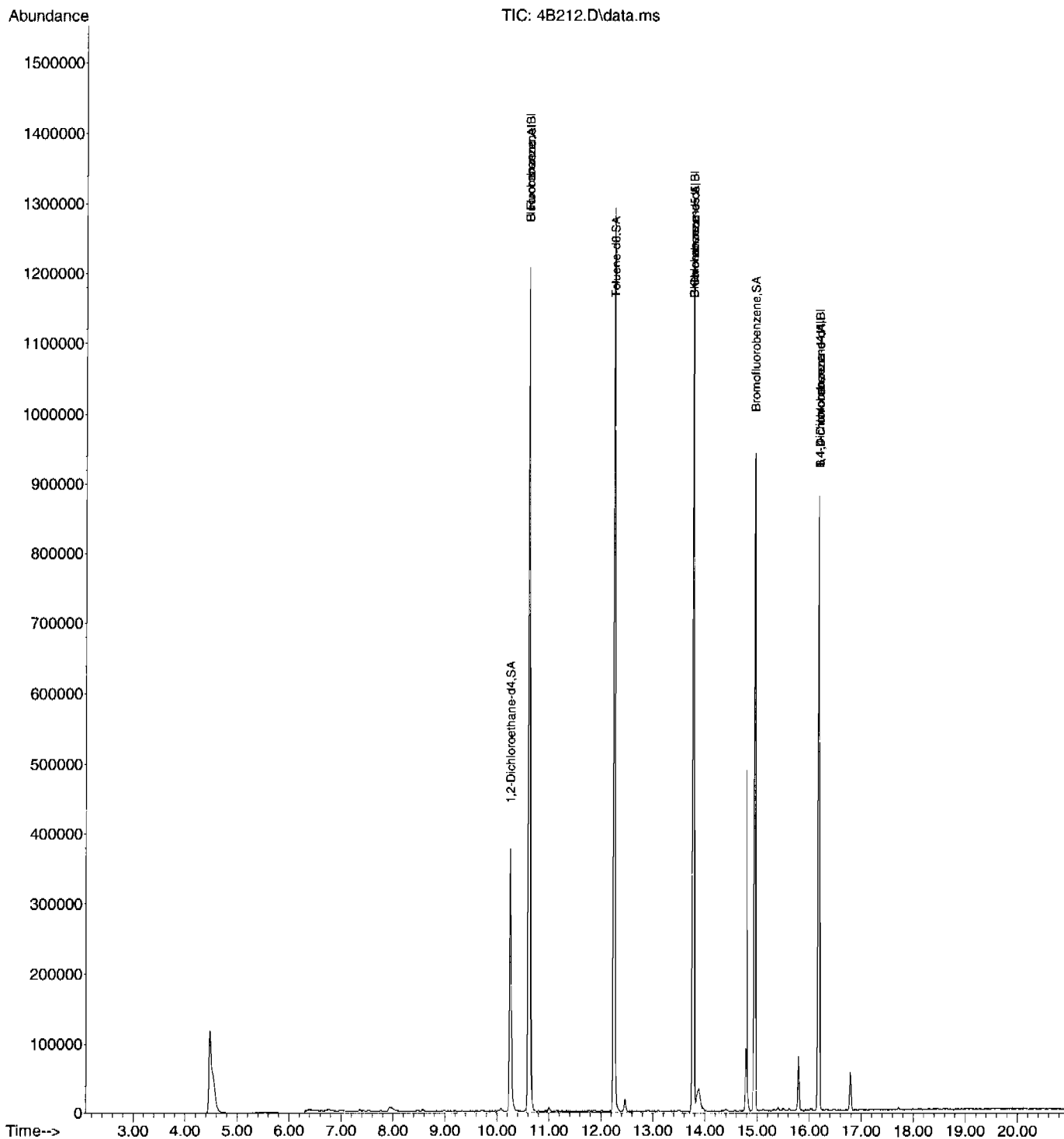
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.381	0.000		0	N.D.	
100) Methyl methacrylate	11.223	11.204	1.057	69	160	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0m	N.D.	d
104) Ethyl methacrylate	12.461	12.460	0.905	69	157	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0m	N.D.	d
108) Cyclohexanone	14.899	14.905	0.921	42	395	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.320	16.319	1.009	91	879	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.715	0.000		0m	N.D.	d

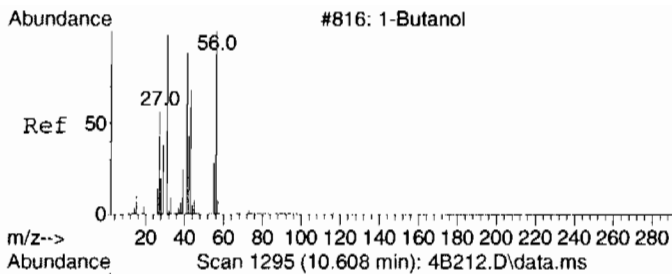
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B212.D  
Acq On : 9 Mar 2010 10:17 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506005|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 12 Sample Multiplier: 1

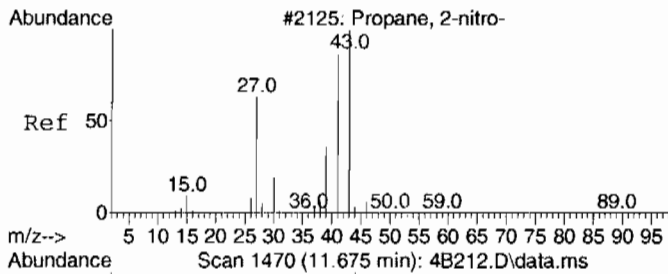
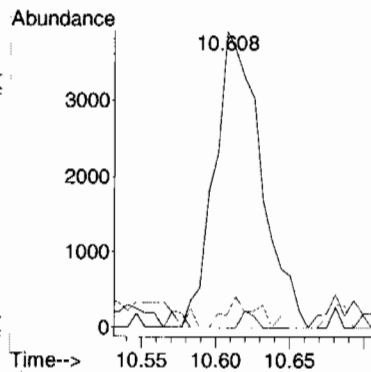
Quant Time: Mar 19 20:39:28 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE





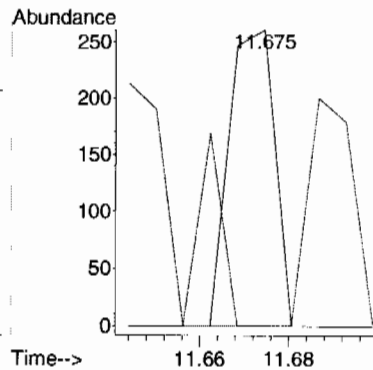
#33 BEFORE analyst DELETION  
n-Butyl alcohol  
Concen: 208.64 ug/L  
RT: 10.608 min Scan# 1295  
Delta R.T. -0.078 min  
Lab File: 4B212.D  
Acq: 9 Mar 2010 10:17 pm

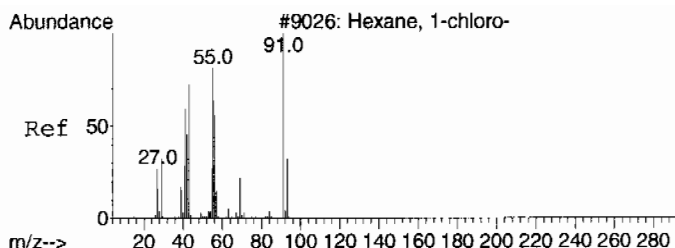
Tgt Ion: 56 Resp: 8549  
Ion Ratio Lower Upper  
56 100  
41 1.6 49.2 109.2#  
43 4.1 30.5 90.5#



#102 BEFORE analyst DELETION  
2-Nitropropane  
Concen: 6.28 ug/L  
RT: 11.675 min Scan# 1470  
Delta R.T. 0.008 min  
Lab File: 4B212.D  
Acq: 9 Mar 2010 10:17 pm

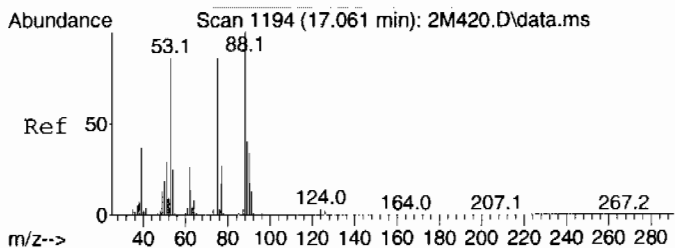
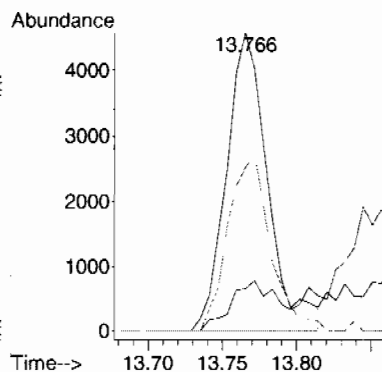
Tgt Ion: 43 Resp: 186  
Ion Ratio Lower Upper  
43 100  
41 74.7 57.4 117.4





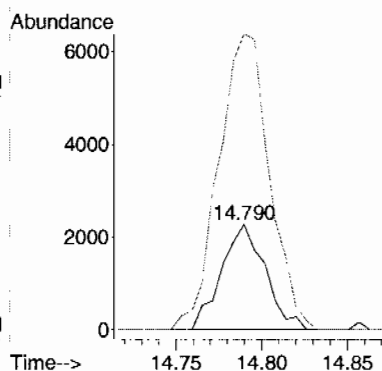
#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 2.81 ug/L  
RT: 13.766 min Scan# 1813  
Delta R.T. 0.105 min  
Lab File: 4B212.D  
Acq: 9 Mar 2010 10:17 pm

Tgt Ion	Ratio	Lower	Upper
55	100		
91	19.0	108.1	168.1#
56	60.6	27.8	87.8

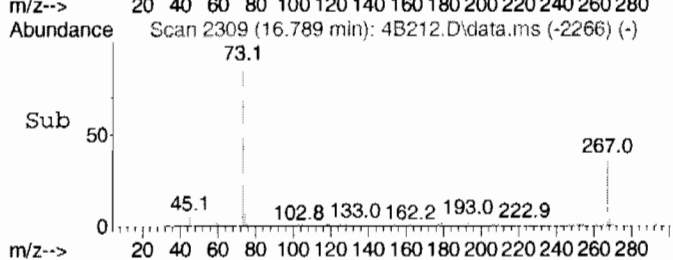
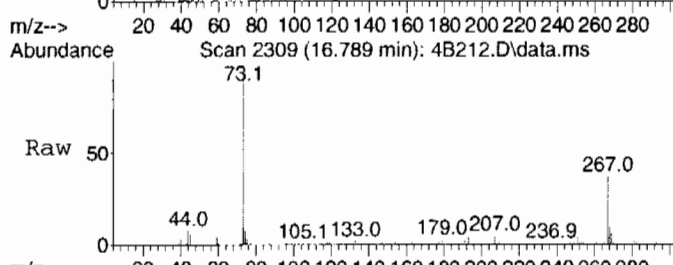
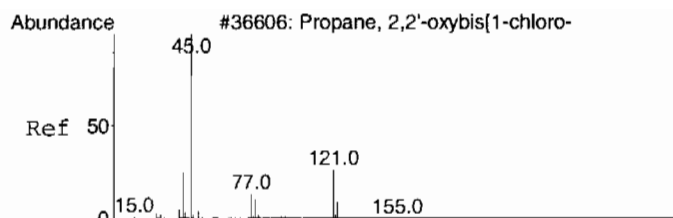


#107 BEFORE analyst DELETION  
cis-1,4-Dichloro-2-butene  
Concen: 2.98 ug/L  
RT: 14.790 min Scan# 1981  
Delta R.T. 0.007 min  
Lab File: 4B212.D  
Acq: 9 Mar 2010 10:17 pm

Tgt Ion	Ratio	Lower	Upper
53	100		
88	0.0	83.6	143.6#
77	326.2	3.2	63.2#

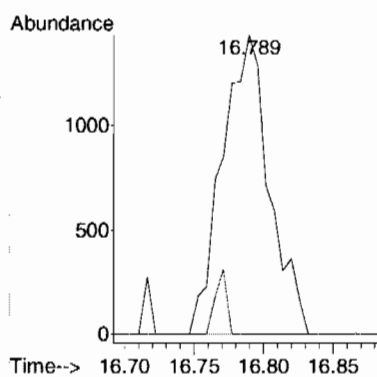






#112 BEFORE analyst DELETION  
bis(2-Chloroisopropyl)ether  
Concen: 1.80 ug/L  
RT: 16.789 min Scan# 2309  
Delta R.T. 0.074 min  
Lab File: 4B212.D  
Acq: 9 Mar 2010 10:17 pm

Tgt Ion: 45 Resp: 3391  
Ion Ratio Lower Upper  
45 100  
121 5.3 0.0 54.6



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B212.D  
Acq On : 9 Mar 2010 10:17 pm  
Operator : ACJ  
Sample : |248506005|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 12 Sample Multiplier: 1

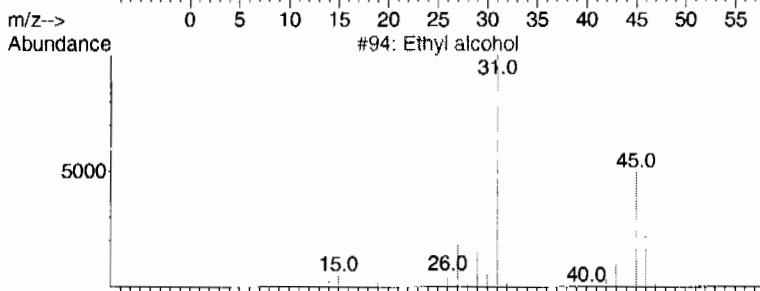
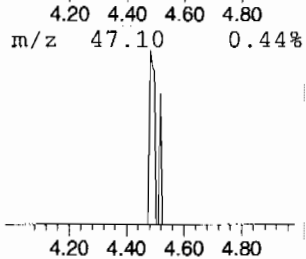
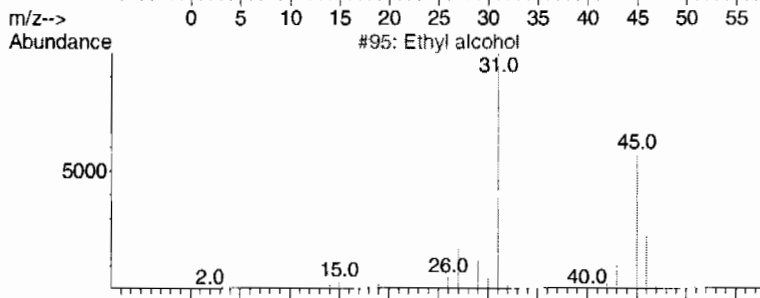
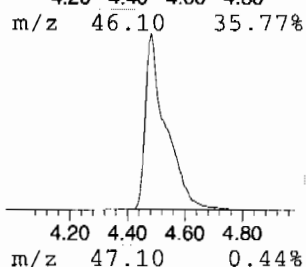
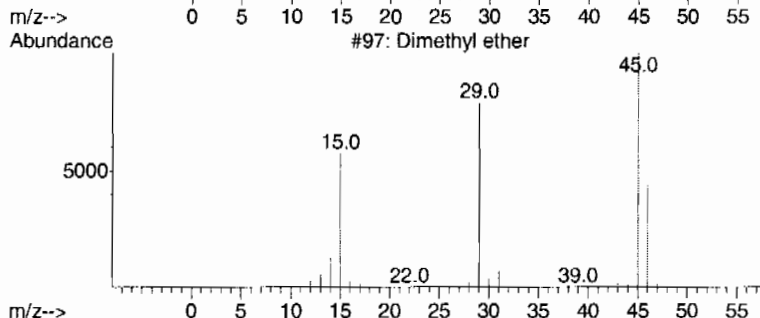
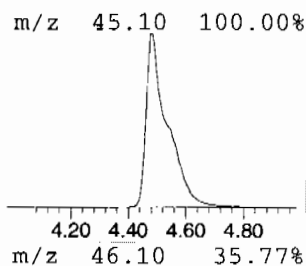
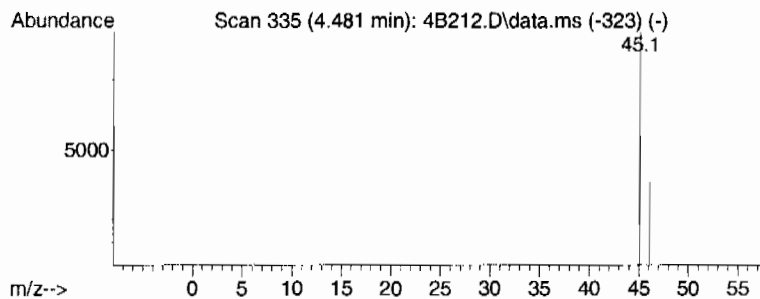
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

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

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	11.15 ug/L	608560	Fluorobenzene	10.614

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Dimethyl ether	46	C2H6O	000115-10-6	5
2			Ethyl alcohol	46	C2H6O	000064-17-5	4
3			Ethyl alcohol	46	C2H6O	000064-17-5	4
4			Ethyl alcohol	46	C2H6O	000064-17-5	4
5			Formic acid	46	CH2O2	000064-18-6	3



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B212.D  
Acq On : 9 Mar 2010 10:17 pm  
Operator : ACJ  
Sample : |248506005|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.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...	4.481	11.2	ug/L	608560	1	10.614	2729910	50.0

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506006	Date Received: 03/03/2010 08:50	%Moisture: 25.6
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7445	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.1	Dilution: 1
Run Date: 03/09/2010 22:45	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:15	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V44B213.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.34	ug/kg	0.457	1.34
74-87-3	Chloromethane	U	1.34	ug/kg	0.403	1.34
75-01-4	Vinyl chloride	U	1.34	ug/kg	0.403	1.34
74-83-9	Bromomethane	U	1.34	ug/kg	0.403	1.34
75-00-3	Chloroethane	U	1.34	ug/kg	0.403	1.34
75-69-4	Trichlorofluoromethane	U	1.34	ug/kg	0.403	1.34
67-64-1	Acetone	J	3.28	ug/kg	2.23	6.72
75-35-4	1,1-Dichloroethylene	U	1.34	ug/kg	0.403	1.34
74-88-4	Iodomethane	U	6.72	ug/kg	2.15	6.72
75-09-2	Methylene chloride	U	6.72	ug/kg	2.69	6.72
75-15-0	Carbon disulfide	U	6.72	ug/kg	1.68	6.72
156-60-5	trans-1,2-Dichloroethylene	U	1.34	ug/kg	0.403	1.34
75-34-3	1,1-Dichloroethane	U	1.34	ug/kg	0.403	1.34
78-93-3	2-Butanone	U	6.72	ug/kg	2.02	6.72
156-59-2	cis-1,2-Dichloroethylene	U	1.34	ug/kg	0.403	1.34
594-20-7	2,2-Dichloropropane	U	1.34	ug/kg	0.403	1.34
67-66-3	Chloroform	U	1.34	ug/kg	0.403	1.34
74-97-5	Bromochloromethane	U	1.34	ug/kg	0.444	1.34
71-55-6	1,1,1-Trichloroethane	U	1.34	ug/kg	0.403	1.34
563-58-6	1,1-Dichloropropene	U	1.34	ug/kg	0.403	1.34
56-23-5	Carbon tetrachloride	U	1.34	ug/kg	0.403	1.34
107-06-2	1,2-Dichloroethane	U	1.34	ug/kg	0.403	1.34
71-43-2	Benzene	U	1.34	ug/kg	0.403	1.34
79-01-6	Trichloroethylene	J	0.632	ng/kg	0.444	1.34
78-87-5	1,2-Dichloropropane	U	1.34	ug/kg	0.403	1.34
75-27-4	Bromodichloromethane	U	1.34	ug/kg	0.403	1.34
74-95-3	Dibromomethane	U	1.34	ug/kg	0.403	1.34
108-10-1	4-Methyl-2-pentanone	U	6.72	ug/kg	1.68	6.72
10061-01-5	cis-1,3-Dichloropropylene	U	1.34	ug/kg	0.403	1.34
108-88-3	Toluene	U	1.34	ug/kg	0.403	1.34
10061-02-6	trans-1,3-Dichloropropylene	U	1.34	ug/kg	0.403	1.34
79-00-5	1,1,2-Trichloroethane	U	1.34	ug/kg	0.403	1.34
591-78-6	2-Hexanone	U	6.72	ug/kg	2.02	6.72
142-28-9	1,3-Dichloropropane	U	1.34	ug/kg	0.403	1.34
127-18-4	Tetrachloroethylene	U	1.34	ug/kg	0.403	1.34
124-48-1	Dibromochloromethane	U	1.34	ug/kg	0.403	1.34
106-93-4	1,2-Dibromoethane	U	1.34	ug/kg	0.403	1.34
108-90-7	Chlorobenzene	U	1.34	ug/kg	0.403	1.34

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

SDG Number: 10-2193  
 Lab Sample ID: 248506006  
 Client ID: RE36-10-7445  
 Batch ID: 963417  
 Run Date: 03/09/2010 22:45  
 Prep Date: 03/09/2010 20:15  
 Data File: 030910V4\4B213.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 25.6  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.34	ug/kg	0.403	1.34
179601-23-1	m,p-Xylenes	J	0.430	ug/kg	0.403	2.69
95-47-6	o-Xylene	U	1.34	ug/kg	0.403	1.34
100-42-5	Styrene	U	1.34	ug/kg	0.403	1.34
75-25-2	Bromoform	U	1.34	ug/kg	0.403	1.34
79-34-5	1,1,2,2-Tetrachloroethane	U	1.34	ug/kg	0.403	1.34
96-18-4	1,2,3-Trichloropropane	U	1.34	ug/kg	0.403	1.34
108-86-1	Bromobenzene	U	1.34	ug/kg	0.403	1.34
103-65-1	n-Propylbenzene	U	1.34	ug/kg	0.403	1.34
95-49-8	2-Chlorotoluene	U	1.34	ug/kg	0.403	1.34
98-82-8	Isopropylbenzene	U	1.34	ug/kg	0.403	1.34
108-67-8	1,3,5-Trimethylbenzene	U	1.34	ug/kg	0.403	1.34
106-43-4	4-Chlorotoluene	U	1.34	ug/kg	0.403	1.34
98-06-6	tert-Butylbenzene	U	1.34	ug/kg	0.403	1.34
95-63-6	1,2,4-Trimethylbenzene	U	1.34	ug/kg	0.403	1.34
135-98-8	sec-Butylbenzene	U	1.34	ug/kg	0.403	1.34
99-87-6	4-Isopropyltoluene	U	1.34	ug/kg	0.403	1.34
541-73-1	1,3-Dichlorobenzene	U	1.34	ug/kg	0.403	1.34
106-46-7	1,4-Dichlorobenzene	U	1.34	ug/kg	0.403	1.34
104-51-8	n-Butylbenzene	U	1.34	ug/kg	0.403	1.34
96-12-8	1,2-Dibromo-3-chloropropane	U	1.34	ug/kg	0.403	1.34
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.72	ug/kg	2.15	6.72
630-20-6	1,1,1,2-Tetrachloroethane	U	1.34	ug/kg	0.403	1.34
95-50-1	1,2-Dichlorobenzene	U	1.34	ug/kg	0.403	1.34

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	15.5	ug/kg	0	J
	unknown hydrocarbon	14.79	17	ug/kg	0	J
	unknown hydrocarbon	15.79	21.1	ug/kg	0	J
	unknown siloxane	16.79	23.6	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B213.D  
Acq On : 9 Mar 2010 10:45 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506006|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 19 20:40:09 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
-----								
Internal Standards								Dev(Min)
1) Fluorobenzene	10.619	10.613	1.000	96	1241747	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	714963	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	211953	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.613	1.000	96	1241191	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	714979	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	211961	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.966	65	326511	48.70	ug/L	0.00
Spiked Amount	50.000	Range 66	- 134	Recovery	= 97.40%			
43) Toluene-d8	12.253	12.247	0.890	98	954292	58.63	ug/L	0.00
Spiked Amount	50.000	Range 71	- 128	Recovery	= 117.26%			
61) Bromofluorobenzene	14.953	14.947	0.924	95	317516	77.25	ug/L	0.00
Spiked Amount	50.000	Range 65	- 130	Recovery	= 154.50%#			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.335	5.299	0.502	50	111	N.D.		
4) Vinyl chloride	5.528	5.521	0.521	62	896	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	7.004	6.991	0.660	59	1688	N.D.		
9) Acetone	7.363	7.351	0.693	43	18544	2.44	ug/L	88
10) 1,1-Dichloroethylene	7.534	7.394	0.709	61	180	N.D.		
11) Iodomethane	0.000	7.662	0.000		0	N.D.		
12) Acetonitrile	7.711	7.693	0.726	41	314	N.D.		
13) Methyl acetate	7.747	7.747	0.730	43	1291	N.D.		
14) Carbon disulfide	7.766	7.778	0.731	76	841	N.D.		
15) Methylene chloride	7.942	7.967	0.748	84	21299	N.D.		
16) tert-Butyl methyl ether	8.235	8.235	0.776	73	149	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.704	8.705	0.820	43	139	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.332	9.320	0.879	43	1669	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.686	9.686	0.912	83	587	N.D.		
25) 1,1,1-Trichloroethane	9.954	9.973	0.937	97	128	N.D.		
26) Cyclohexane	10.076	10.076	0.949	56	1000	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.271	10.338	0.967	62	231	N.D.		
31) Benzene	10.375	10.369	0.977	78	975	N.D.		
32) Cyclohexene	10.607	10.491	0.999	67	586	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	11.003	11.003	1.036	95	3752	0.47	ug/L	92
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	11.265	11.259	1.061	83	123	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B213.D  
Acq On : 9 Mar 2010 10:45 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506006|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 19 20:40:09 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	12.009	12.015	0.872	58	101	N.D.	
44) Toluene	12.326	12.320	0.895	91	7288	Below Cal	91
45) trans-1,3-Dichloroprop...	12.460	12.460	0.905	75	259	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.	
47) 2-Hexanone	12.862	12.856	0.934	43	541	N.D.	
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.	
49) Tetrachloroethylene	12.917	12.917	0.938	164	386	N.D.	
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.	
52) Chlorobenzene	13.801	13.801	1.002	112	308	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.	
54) Ethylbenzene	13.862	13.862	1.007	91	4161	N.D.	
55) m,p-Xylenes	13.966	13.966	1.014	106	3659	0.32 ug/L	94
56) o-Xylene	14.398	14.399	1.046	106	2812	N.D.	
57) Styrene	14.398	14.399	1.046	104	644	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.758	0.000		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	0.000	15.014	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	15.173	15.167	0.938	156	272	N.D.	
65) n-Propylbenzene	15.173	15.179	0.938	91	1456	N.D.	
66) 1,3,5-Trimethylbenzene	15.337	15.325	0.948	105	2448	N.D.	
67) 2-Chlorotoluene	0.000	15.331	0.000		0	N.D.	
68) 4-Chlorotoluene	15.429	15.429	0.954	91	1595	N.D.	
69) tert-Butylbenzene	0.000	15.703	0.000		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	15.746	15.740	0.973	105	3774	N.D.	
71) sec-Butylbenzene	15.935	15.929	0.985	105	684	N.D.	
72) 4-Isopropyltoluene	16.044	16.051	0.992	119	2035	N.D.	
73) 1,3-Dichlorobenzene	16.118	16.118	0.996	146	317	N.D.	
74) 1,4-Dichlorobenzene	16.203	16.203	1.002	146	617	N.D.	
75) n-Butylbenzene	16.502	16.502	1.020	91	959	N.D.	
76) 1,2-Dichlorobenzene	16.648	16.642	1.029	146	260	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.629	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.	
80) Naphthalene	19.044	19.026	1.177	128	1336	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.385	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.174	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.	
87) Isopropyl Alcohol	7.528	7.430	0.709	45	808	N.D.	
88) Allyl chloride	7.711	7.796	0.726	41	314	N.D.	
89) tert-Butyl Alcohol	7.924	7.924	0.746	59	545	N.D.	
90) Acrylonitrile	0.000	8.168	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.735	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.332	9.339	0.879	43	1669	N.D.	
95) Propionitrile	0.000	9.387	0.000		0	N.D.	
96) Methacrylonitrile	9.521	9.570	0.897	41	189	N.D.	
97) Tetrahydrofuran	9.710	9.710	0.914	42	1692	N.D.	
98) Isobutyl alcohol	10.015	10.003	0.943	41	143	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B213.D  
Acq On : 9 Mar 2010 10:45 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506006|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 19 20:40:09 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.381	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101) 1,4-Dioxane	11.320	11.326	1.066	88	139	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0m	N.D.	d
104) Ethyl methacrylate	0.000	12.460	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0m	N.D.	d
108) Cyclohexanone	14.898	14.905	0.921	42	148	N.D.	
109) trans-1,4-Dichloro-2-b...	15.069	15.063	0.931	53	116	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.325	16.319	1.009	91	865	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.715	0.000		0m	N.D.	d

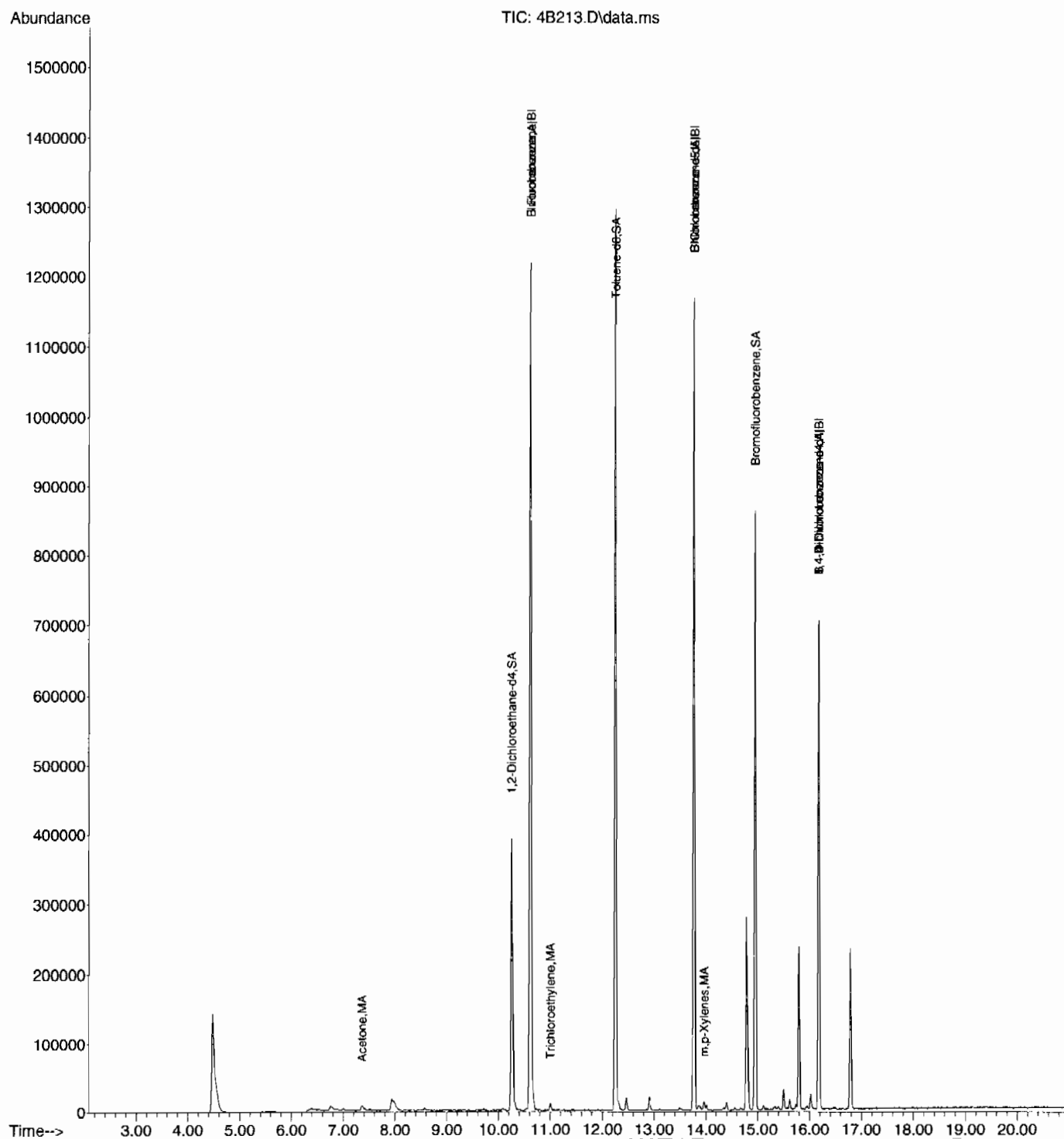
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

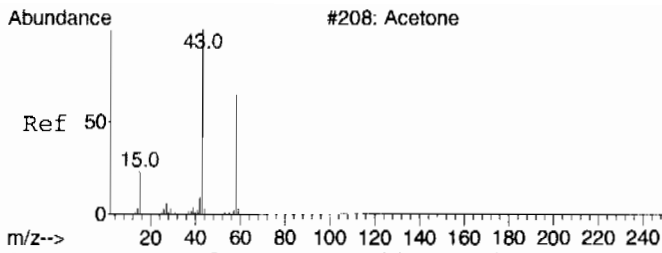


Quantitation Report  
GEL Laboratories, LLC

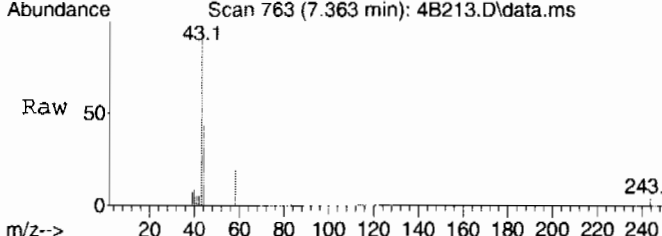
Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B213.D  
Acq On : 9 Mar 2010 10:45 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506006|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 19 20:40:09 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

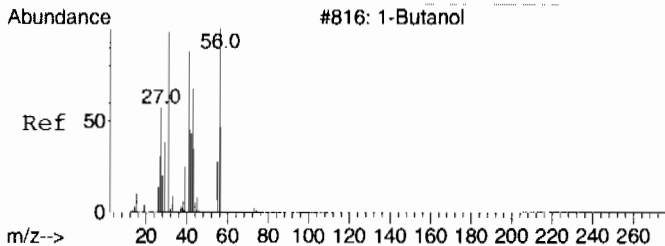
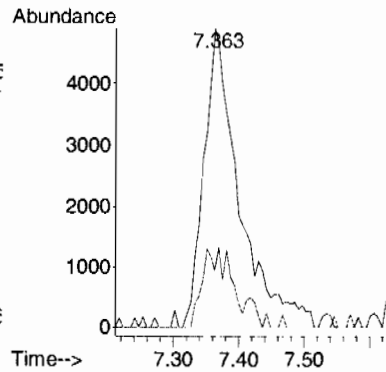
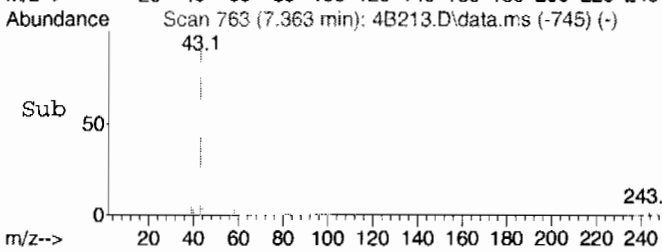




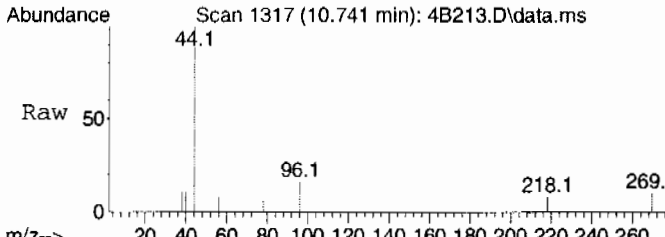
#9  
Acetone  
Concen: 2.44 ug/L  
RT: 7.363 min Scan# 763  
Delta R.T. 0.012 min  
Lab File: 4B213.D  
Acq: 9 Mar 2010 10:45 pm



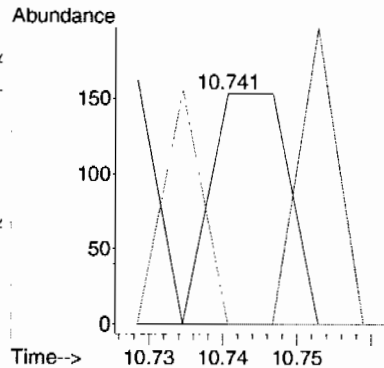
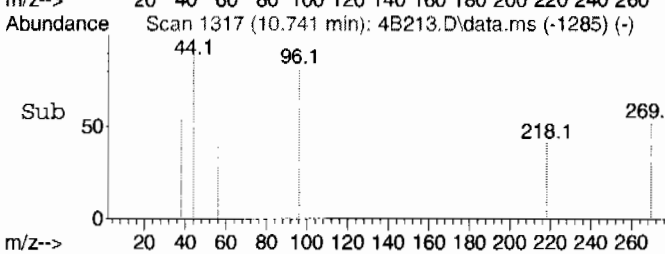
Tgt Ion: 43 Resp: 18544  
Ion Ratio Lower Upper  
43 100  
58 21.0 0.0 57.5

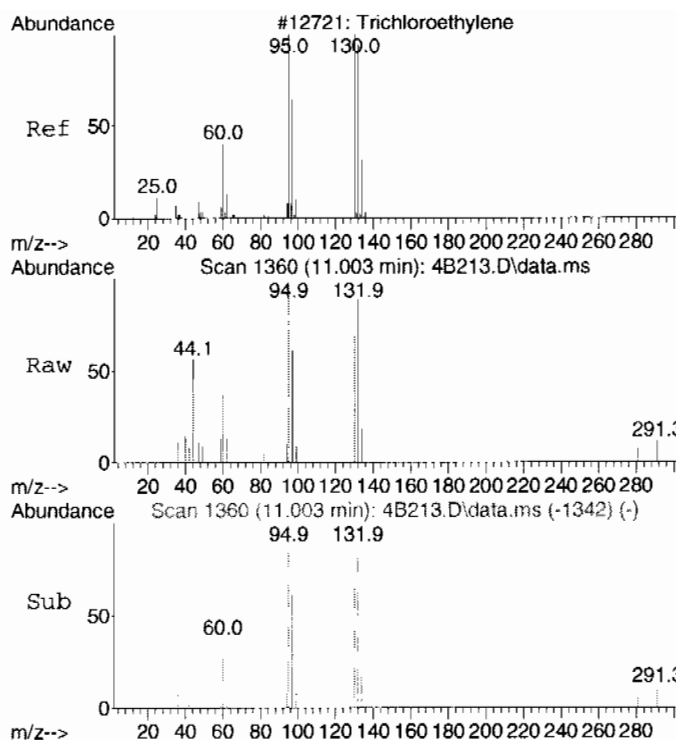


#33 BEFORE analyst DELETION  
n-Butyl alcohol  
Concen: 181.02 ug/L  
RT: 10.741 min Scan# 1317  
Delta R.T. 0.055 min  
Lab File: 4B213.D  
Acq: 9 Mar 2010 10:45 pm



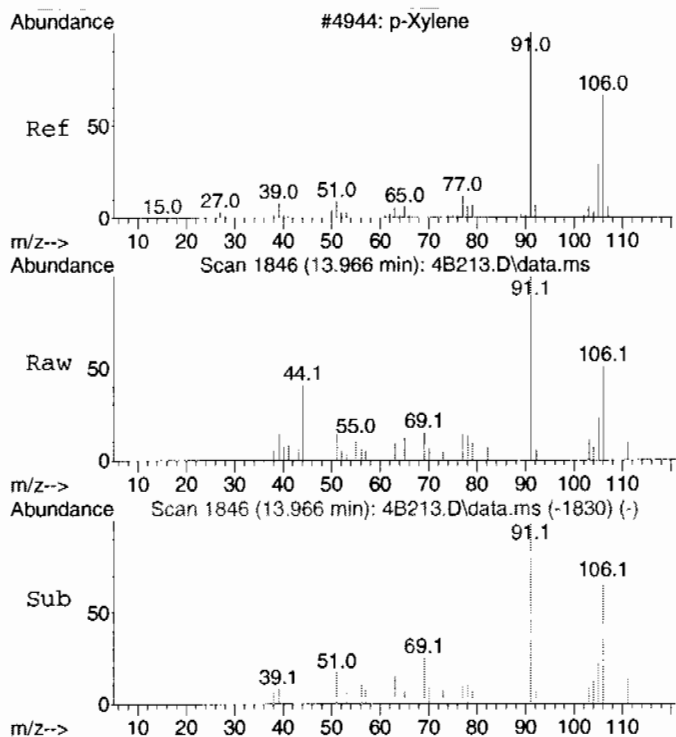
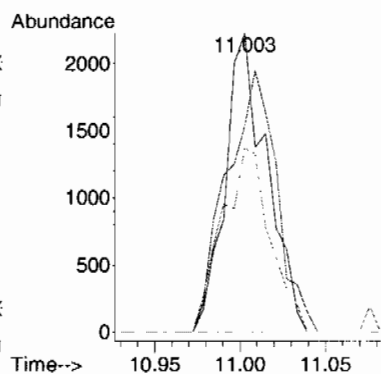
Tgt Ion: 56 Resp: 112  
Ion Ratio Lower Upper  
56 100  
41 231.3 49.2 109.2#  
43 0.0 30.5 90.5#





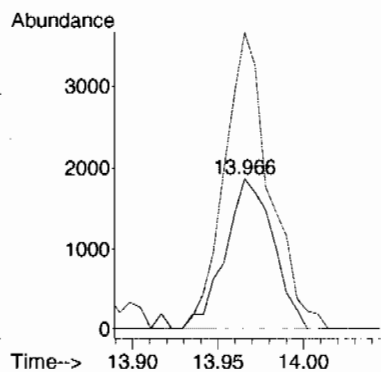
#34  
Trichloroethylene  
Concen: 0.47 ug/L  
RT: 11.003 min Scan# 1360  
Delta R.T. -0.000 min  
Lab File: 4B213.D  
Acq: 9 Mar 2010 10:45 pm

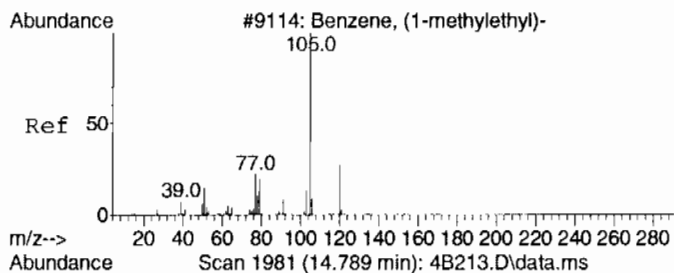
Tgt Ion: 95 Resp: 3752  
Ion Ratio Lower Upper  
95 100  
130 104.8 67.8 127.8  
97 71.6 34.4 94.4



#55  
m,p-Xylenes  
Concen: 0.32 ug/L  
RT: 13.966 min Scan# 1846  
Delta R.T. -0.000 min  
Lab File: 4B213.D  
Acq: 9 Mar 2010 10:45 pm

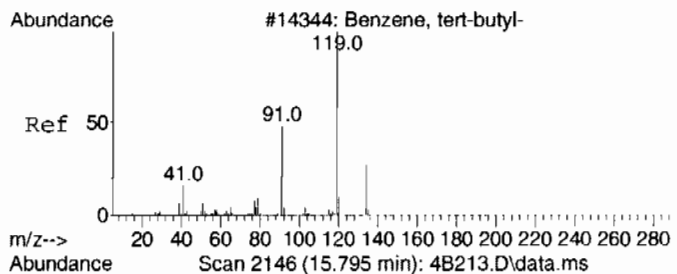
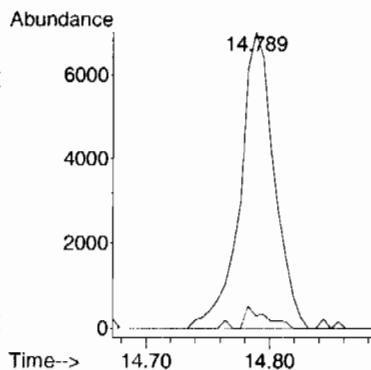
Tgt Ion: 106 Resp: 3659  
Ion Ratio Lower Upper  
106 100  
91 185.2 163.6 223.6





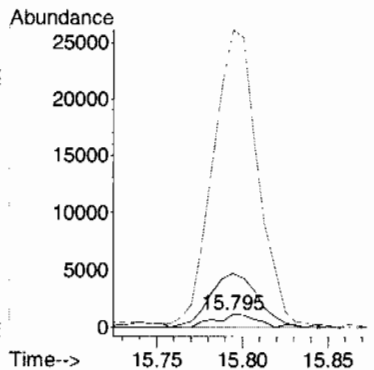
#60 BEFORE analyst DELETION  
Isopropylbenzene  
Concen: 0.93 ug/L  
RT: 14.789 min Scan# 1981  
Delta R.T. 0.030 min  
Lab File: 4B213.D  
Acq: 9 Mar 2010 10:45 pm

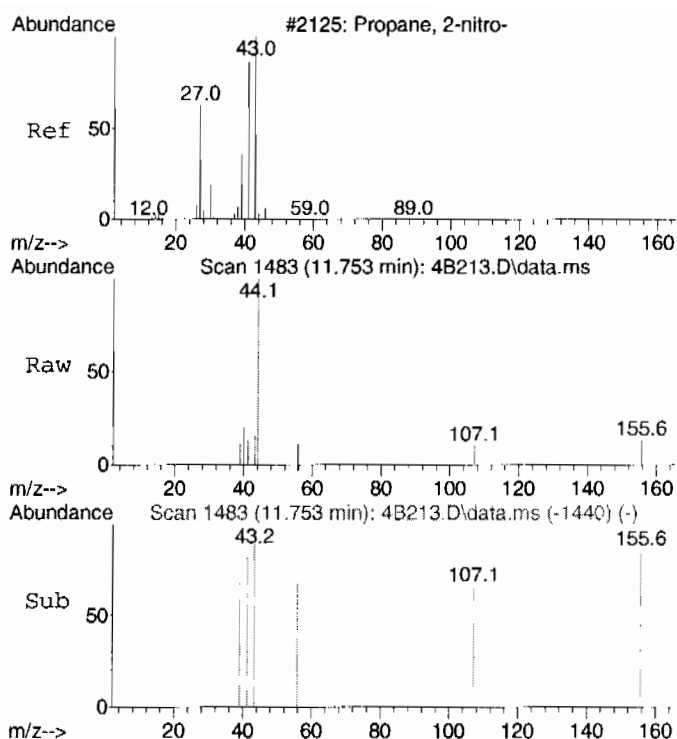
Tgt Ion:105 Resp: 13426  
Ion Ratio Lower Upper  
105 100  
120 5.1 0.0 57.3



#69 BEFORE analyst DELETION  
tert-Butylbenzene  
Concen: 0.73 ug/L  
RT: 15.795 min Scan# 2146  
Delta R.T. 0.091 min  
Lab File: 4B213.D  
Acq: 9 Mar 2010 10:45 pm

Tgt Ion:134 Resp: 2051  
Ion Ratio Lower Upper  
134 100  
119 453.2 433.4 493.4  
91 2327.0 307.5 367.5#

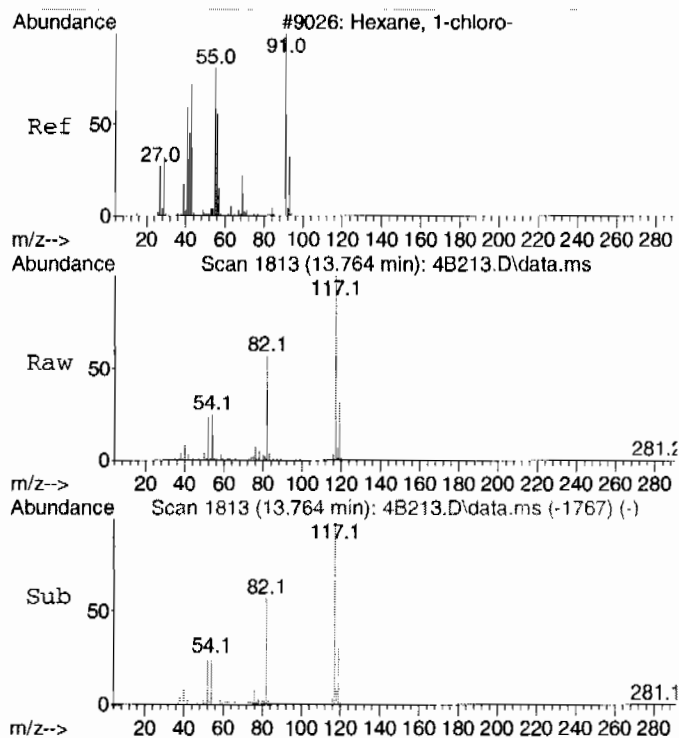
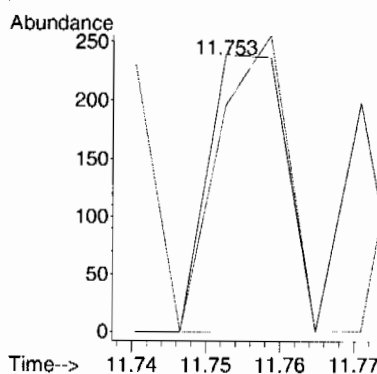




#102 BEFORE analyst DELETION  
2-Nitropropane

Concen: 6.28 ug/L  
RT: 11.753 min Scan# 1483  
Delta R.T. 0.086 min  
Lab File: 4B213.D  
Acq: 9 Mar 2010 10:45 pm

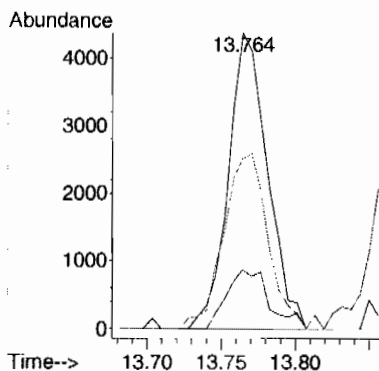
Tgt Ion: 43 Resp: 174  
Ion Ratio Lower Upper  
43 100  
41 143.7 57.4 117.4#

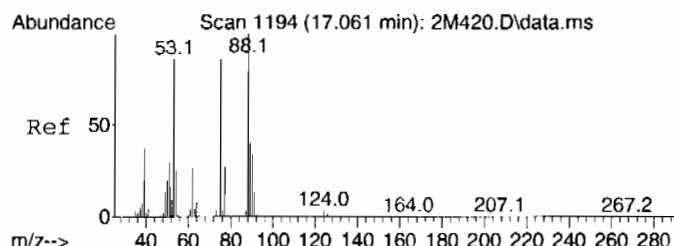


#106 BEFORE analyst DELETION  
1-Chlorohexane

Concen: 3.08 ug/L  
RT: 13.764 min Scan# 1813  
Delta R.T. 0.103 min  
Lab File: 4B213.D  
Acq: 9 Mar 2010 10:45 pm

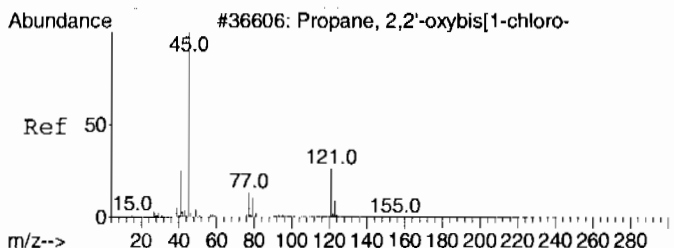
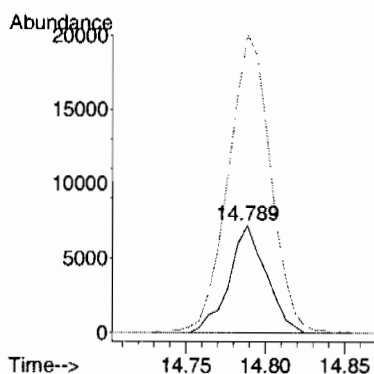
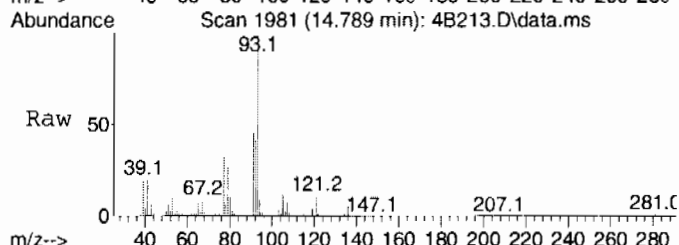
Tgt Ion: 55 Resp: 8011  
Ion Ratio Lower Upper  
55 100  
91 21.6 108.1 168.1#  
56 67.7 27.8 87.8





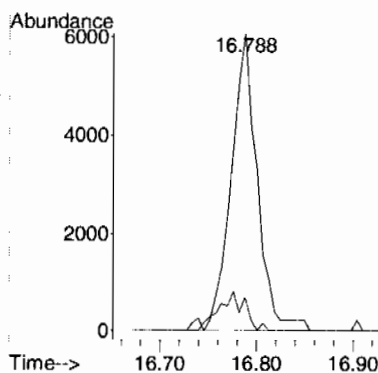
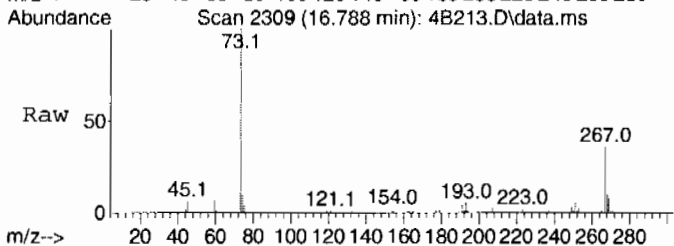
#107 BEFORE analyst DELETION  
 cis-1,4-Dichloro-2-butene  
 Concen: 10.64 ug/L  
 RT: 14.789 min Scan# 1981  
 Delta R.T. 0.006 min  
 Lab File: 4B213.D  
 Acq: 9 Mar 2010 10:45 pm

Tgt Ion: 53 Resp: 11803  
 Ion Ratio Lower Upper  
 53 100  
 88 0.0 83.6 143.6#  
 77 316.3 3.2 63.2#



#112 BEFORE analyst DELETION  
 bis(2-Chloroisopropyl)ether  
 Concen: 7.48 ug/L  
 RT: 16.788 min Scan# 2309  
 Delta R.T. 0.073 min  
 Lab File: 4B213.D  
 Acq: 9 Mar 2010 10:45 pm

Tgt Ion: 45 Resp: 11546  
 Ion Ratio Lower Upper  
 45 100  
 121 13.1 0.0 54.6



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B213.D  
Acq On : 9 Mar 2010 10:45 pm  
Operator : ACJ  
Sample : |248506006|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 13 Sample Multiplier: 1

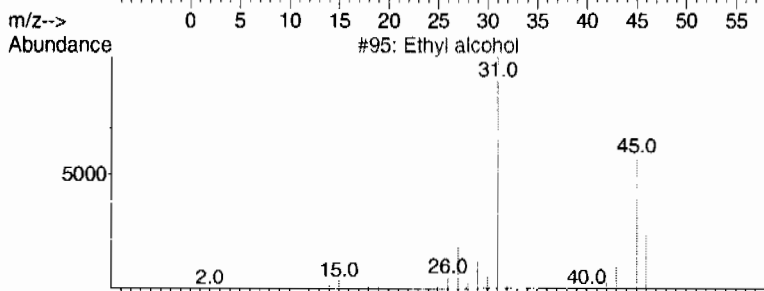
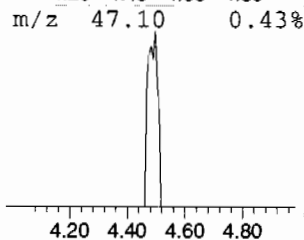
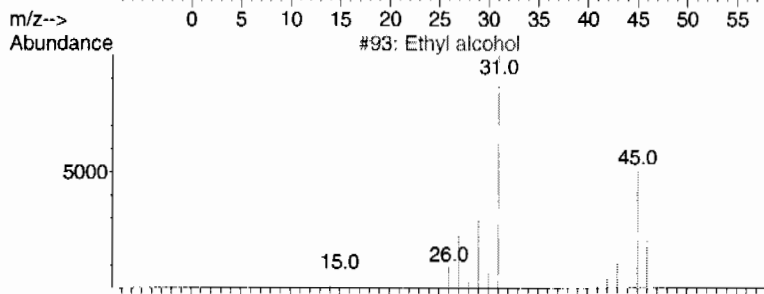
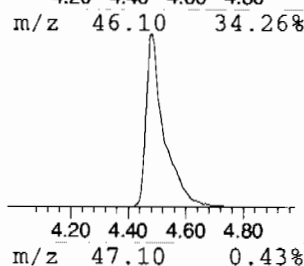
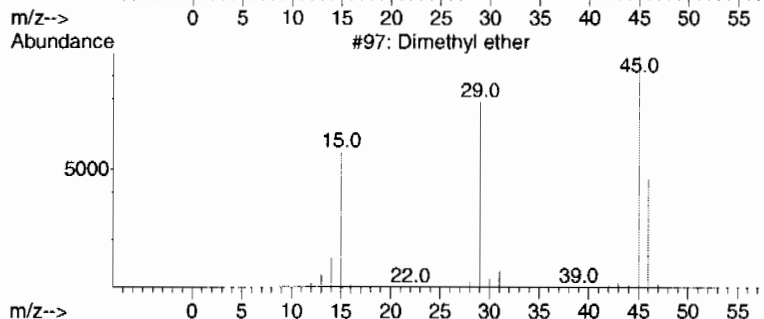
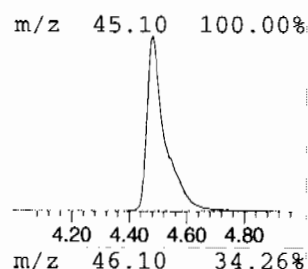
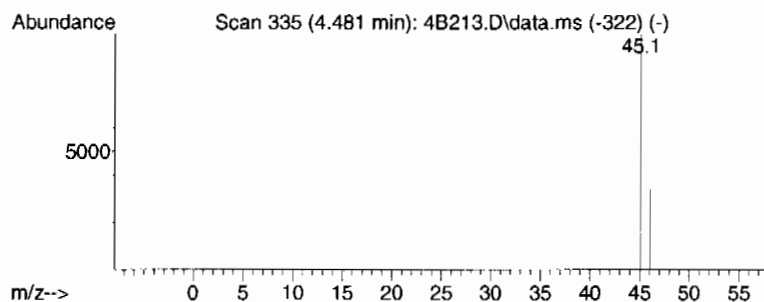
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 1 unknown hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	11.55 ug/L	627721	Fluorobenzene	10.619

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Dimethyl ether	46	C2H6O	000115-10-6	5
2			Ethyl alcohol	46	C2H6O	000064-17-5	4
3			Ethyl alcohol	46	C2H6O	000064-17-5	4
4			Ethyl alcohol	46	C2H6O	000064-17-5	4
5			Formic acid	46	CH2O2	000064-18-6	3









Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B213.D  
Acq On : 9 Mar 2010 10:45 pm  
Operator : ACJ  
Sample : |248506006|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 13 Sample Multiplier: 1

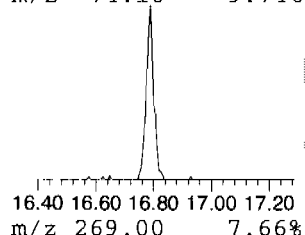
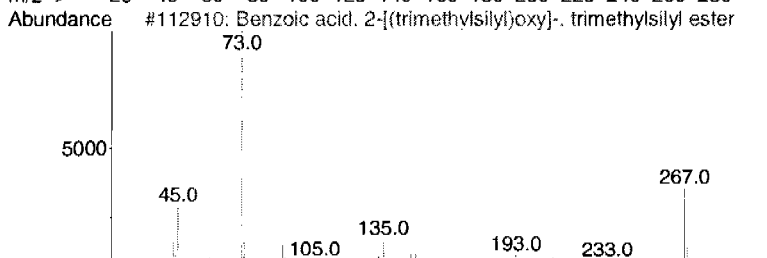
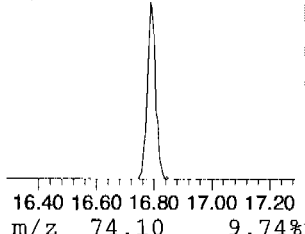
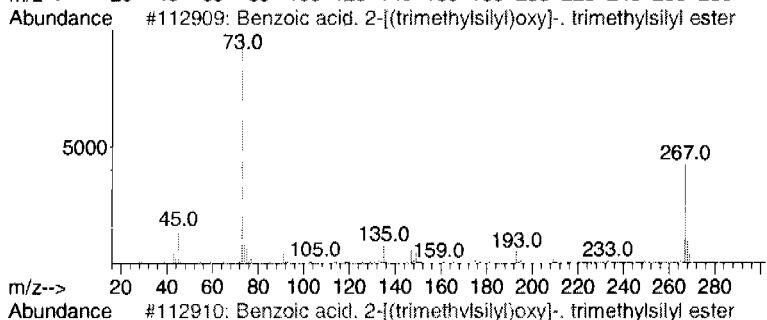
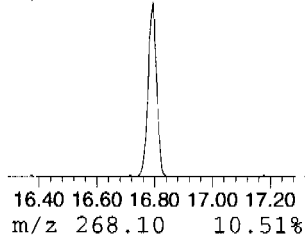
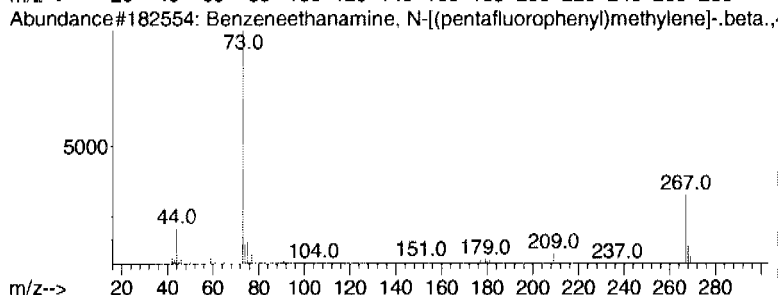
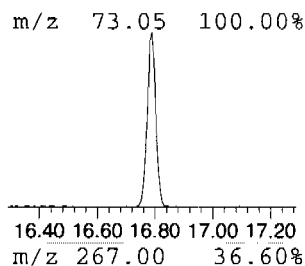
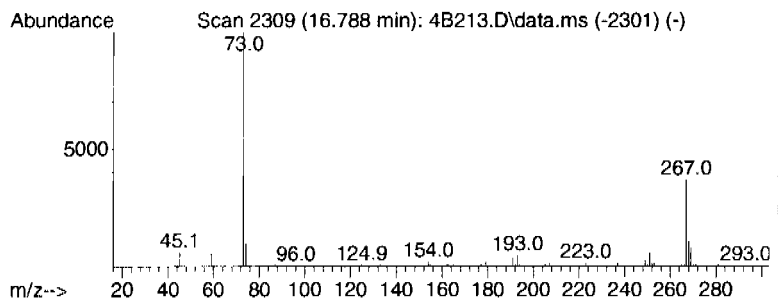
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 4 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.788	17.57 ug/L	486878	B 1,4-Dichlorobenzene-d4	16.179

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Benzenethanamine, N-[(pentafluorophenyl)methylene]-.beta.,	475	C21H26F5NO2Si2	055429-85-1	40
2		Benzoic acid, 2-[(trimethylsilyl)oxy]-.trimethylsilyl ester	282	C13H22O3Si2	003789-85-3	38
3		Benzoic acid, 2-[(trimethylsilyl)oxy]-.trimethylsilyl ester	282	C13H22O3Si2	003789-85-3	38
4		Benzoic acid, 4-[(trimethylsilyl)oxy]-.trimethylsilyl ester	282	C13H22O3Si2	002078-13-9	33
5		Tetrasiloxane, 1,1,3,3,5,5,7,7-octa-	282	C8H26O3Si4	001000-05-1	25



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B213.D  
Acq On : 9 Mar 2010 10:45 pm  
Operator : ACJ  
Sample : |248506006|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.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...	4.481	11.6	ug/L	627721	1	10.619	2717890	50.0
unknown hydroca...	14.789	12.7	ug/L	573881	4	13.771	2267700	50.0
unknown hydroca...	15.794	15.7	ug/L	434261	5	16.179	1385700	50.0
unknown siloxane	16.788	17.6	ug/L	486878	6	16.179	1385700	50.0

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506007	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 9.9
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7450	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 963417	<b>Inst:</b> VOA4.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/09/2010 23:12	<b>Analyst:</b> ACJ	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/09/2010 20:16	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 030910V4V4B214.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.11	ug/kg	0.377	1.11
74-87-3	Chloromethane	U	1.11	ug/kg	0.333	1.11
75-01-4	Vinyl chloride	U	1.11	ug/kg	0.333	1.11
74-83-9	Bromomethane	U	1.11	ug/kg	0.333	1.11
75-00-3	Chloroethane	U	1.11	ug/kg	0.333	1.11
75-69-4	Trichlorofluoromethane	U	1.11	ug/kg	0.333	1.11
67-64-1	Acetone	U	5.55	ug/kg	1.84	5.55
75-35-4	1,1-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
74-88-4	Iodomethane	U	5.55	ug/kg	1.78	5.55
75-09-2	Methylene chloride	U	5.55	ug/kg	2.22	5.55
75-15-0	Carbon disulfide	U	5.55	ug/kg	1.39	5.55
156-60-5	trans-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
75-34-3	1,1-Dichloroethane	U	1.11	ug/kg	0.333	1.11
78-93-3	2-Butanone	U	5.55	ug/kg	1.66	5.55
156-59-2	cis-1,2-Dichloroethylene	U	1.11	ug/kg	0.333	1.11
594-20-7	2,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11
67-66-3	Chloroform	U	1.11	ug/kg	0.333	1.11
74-97-5	Bromochloromethane	U	1.11	ug/kg	0.366	1.11
71-55-6	1,1,1-Trichloroethane	U	1.11	ug/kg	0.333	1.11
563-58-6	1,1-Dichloropropene	U	1.11	ug/kg	0.333	1.11
56-23-5	Carbon tetrachloride	U	1.11	ug/kg	0.333	1.11
107-06-2	1,2-Dichloroethane	U	1.11	ug/kg	0.333	1.11
71-43-2	Benzene	U	1.11	ug/kg	0.333	1.11
79-01-6	Trichloroethylen	U	1.11	ug/kg	0.366	1.11
78-87-5	1,2-Dichloropropane	U	1.11	ug/kg	0.333	1.11
75-27-4	Bromodichloromethane	U	1.11	ug/kg	0.333	1.11
74-95-3	Dibromomethane	U	1.11	ug/kg	0.333	1.11
108-10-1	4-Methyl-2-pentanone	U	5.55	ug/kg	1.39	5.55
10061-01-5	cis-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11
108-88-3	Toluene	U	1.11	ug/kg	0.333	1.11
10061-02-6	trans-1,3-Dichloropropylene	U	1.11	ug/kg	0.333	1.11
79-00-5	1,1,2-Trichloroethane	U	1.11	ug/kg	0.333	1.11
591-78-6	2-Hexanone	U	5.55	ug/kg	1.66	5.55
142-28-9	1,3-Dichloropropane	U	1.11	ug/kg	0.333	1.11
127-18-4	Tetrachloroethylene	U	1.11	ug/kg	0.333	1.11
124-48-1	Dibromochloromethane	U	1.11	ug/kg	0.333	1.11
106-93-4	1,2-Dibromoethane	U	1.11	ug/kg	0.333	1.11
108-90-7	Chlorobenzene	U	1.11	ug/kg	0.333	1.11

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506007	Date Received: 03/03/2010 08:50	%Moisture: 9.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-J0-7450	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.1	Dilution: 1
Run Date: 03/09/2010 23:12	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:16	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4V4B214.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.11	ug/kg	0.333	1.11
179601-23-1	m,p-Xylenes	U	2.22	ug/kg	0.333	2.22
95-47-6	o-Xylene	U	1.11	ug/kg	0.333	1.11
100-42-5	Styrene	U	1.11	ug/kg	0.333	1.11
75-25-2	Bromoform	U	1.11	ug/kg	0.333	1.11
79-34-5	1,1,2,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11
96-18-4	1,2,3-Trichloropropane	U	1.11	ug/kg	0.333	1.11
108-86-1	Bromobenzene	U	1.11	ug/kg	0.333	1.11
103-65-1	n-Propylbenzene	U	1.11	ug/kg	0.333	1.11
95-49-8	2-Chlorotoluene	U	1.11	ug/kg	0.333	1.11
98-82-8	Isopropylbenzene	U	1.11	ug/kg	0.333	1.11
108-67-8	1,3,5-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11
106-43-4	4-Chlorotoluene	U	1.11	ug/kg	0.333	1.11
98-06-6	tert-Butylbenzene	U	1.11	ug/kg	0.333	1.11
95-63-6	1,2,4-Trimethylbenzene	U	1.11	ug/kg	0.333	1.11
135-98-8	sec-Butylbenzene	U	1.11	ug/kg	0.333	1.11
99-87-6	4-Isopropyltoluene	U	1.11	ug/kg	0.333	1.11
541-73-1	1,3-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11
106-46-7	1,4-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11
104-51-8	n-Butylbenzene	U	1.11	ug/kg	0.333	1.11
96-12-8	1,2-Dibromo-3-chloropropane	U	1.11	ug/kg	0.333	1.11
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.55	ug/kg	1.78	5.55
630-20-6	1,1,1,2-Tetrachloroethane	U	1.11	ug/kg	0.333	1.11
95-50-1	1,2-Dichlorobenzene	U	1.11	ug/kg	0.333	1.11

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	11.9	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B214.D  
Acq On : 9 Mar 2010 11:12 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506007|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 19 20:41:04 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.613	10.613	1.000	96	1284973	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.770	13.765	1.000	117	908777	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	409294	50.00	ug/L	0.00
82) B Fluorobenzene	10.613	10.613	1.000	96	1284460	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.770	13.764	1.000	117	908777	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	409306	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.967	65	336317	48.47	ug/L	0.00
Spiked Amount	50.000	Range 66 - 134	Recovery	=	96.94%			
43) Toluene-d8	12.253	12.247	0.890	98	1046436	50.58	ug/L	0.00
Spiked Amount	50.000	Range 71 - 128	Recovery	=	101.16%			
61) Bromofluorobenzene	14.953	14.947	0.924	95	487626	61.44	ug/L	0.00
Spiked Amount	50.000	Range 65 - 130	Recovery	=	122.88%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.284	5.299	0.498	50	118	N.D.		
4) Vinyl chloride	5.507	5.521	0.519	62	864	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	6.991	6.991	0.659	59	773	N.D.		
9) Acetone	7.363	7.351	0.694	43	4342	N.D.		
10) 1,1-Dichloroethylene	7.510	7.394	0.708	61	119	N.D.		
11) Iodomethane	0.000	7.662	0.000		0	N.D.		
12) Acetonitrile	7.674	7.693	0.723	41	160	N.D.		
13) Methyl acetate	7.753	7.747	0.731	43	226	N.D.		
14) Carbon disulfide	7.766	7.778	0.732	76	1169	N.D.		
15) Methylene chloride	7.955	7.967	0.750	84	9997	Below Cal		92
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.729	8.705	0.822	43	157	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.332	9.320	0.879	43	851	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.692	9.686	0.913	83	339	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.973	0.000		0	N.D.		
26) Cyclohexane	10.070	10.076	0.949	56	123	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.289	10.338	0.970	62	198	N.D.		
31) Benzene	10.338	10.369	0.974	78	159	N.D.		
32) Cyclohexene	10.625	10.491	1.001	67	645	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	11.003	11.003	1.037	95	1757	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.259	0.000		0	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B214.D  
Acq On : 9 Mar 2010 11:12 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506007|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 19 20:41:04 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.015	0.000		0	N.D.	
44) Toluene	12.320	12.320	0.895	91	3298	Below Cal	99
45) trans-1,3-Dichloroprop...	12.563	12.460	0.912	75	100	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.	
47) 2-Hexanone	12.868	12.856	0.934	43	418	N.D.	
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.	
49) Tetrachloroethylene	12.911	12.917	0.938	164	205	N.D.	
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.	
52) Chlorobenzene	13.807	13.801	1.003	112	508	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.	
54) Ethylbenzene	13.862	13.862	1.007	91	4377	N.D.	
55) m,p-Xylenes	13.966	13.966	1.014	106	3574	N.D.	
56) o-Xylene	14.411	14.399	1.046	106	2196	N.D.	
57) Styrene	14.392	14.399	1.045	104	637	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.758	14.758	0.912	105	791	N.D.	
62) 1,1,2,2-Tetrachloroethane	14.959	15.014	0.925	83	251	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	15.179	15.167	0.938	156	247	N.D.	
65) n-Propylbenzene	15.179	15.179	0.938	91	1033	N.D.	
66) 1,3,5-Trimethylbenzene	15.337	15.325	0.948	105	1612	N.D.	
67) 2-Chlorotoluene	0.000	15.331	0.000		0	N.D.	
68) 4-Chlorotoluene	15.423	15.429	0.953	91	926	N.D.	
69) tert-Butylbenzene	15.697	15.703	0.970	134	102	N.D.	
70) 1,2,4-Trimethylbenzene	15.740	15.740	0.973	105	2019	N.D.	
71) sec-Butylbenzene	15.929	15.929	0.985	105	184	N.D.	
72) 4-Isopropyltoluene	16.063	16.051	0.993	119	560	N.D.	
73) 1,3-Dichlorobenzene	16.118	16.118	0.996	146	155	N.D.	
74) 1,4-Dichlorobenzene	16.209	16.203	1.002	146	557	N.D.	
75) n-Butylbenzene	16.502	16.502	1.020	91	648	N.D.	
76) 1,2-Dichlorobenzene	16.642	16.642	1.029	146	450	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.629	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.	
80) Naphthalene	19.038	19.026	1.177	128	1550	N.D.	
81) 1,2,3-Trichlorobenzene	19.385	19.385	1.198	180	125	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.174	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.	
87) Isopropyl Alcohol	7.442	7.430	0.701	45	260	N.D.	
88) Allyl chloride	7.814	7.796	0.736	41	170	N.D.	
89) tert-Butyl Alcohol	7.930	7.924	0.747	59	793	N.D.	
90) Acrylonitrile	0.000	8.168	0.000		0	N.D.	
91) Isopropyl ether	8.747	8.735	0.824	45	114	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.332	9.339	0.879	43	851	N.D.	
95) Propionitrile	0.000	9.387	0.000		0	N.D.	
96) Methacrylonitrile	9.546	9.570	0.899	41	149	N.D.	
97) Tetrahydrofuran	9.723	9.710	0.916	42	1733	N.D.	
98) Isobutyl alcohol	10.009	10.003	0.943	41	194	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B214.D  
Acq On : 9 Mar 2010 11:12 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506007|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 19 20:41:04 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.381	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.460	0.000		0	N.D.	
106) 1-Chlorohexane	13.575	13.661	0.839	55	124	N.D.	
107) cis-1,4-Dichloro-2-butene	14.795	14.783	0.914	53	914	N.D.	
108) Cyclohexanone	14.789	14.905	0.914	42	137	N.D.	
109) trans-1,4-Dichloro-2-b...	15.124	15.063	0.935	53	129	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.313	16.319	1.008	91	324	N.D.	
112) bis(2-Chloroisopropyl)...	16.715	16.715	1.033	45	423	N.D.	

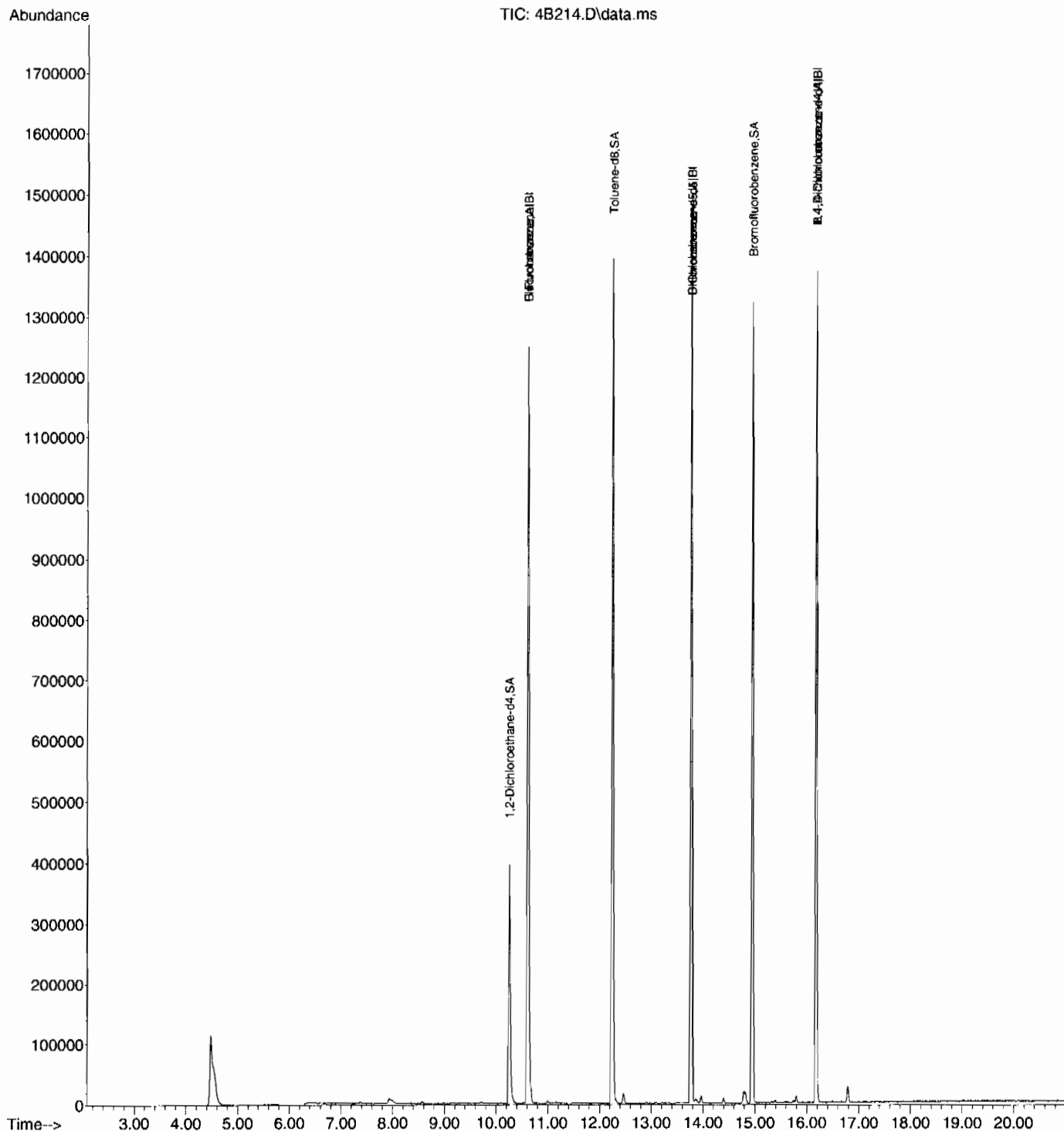
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

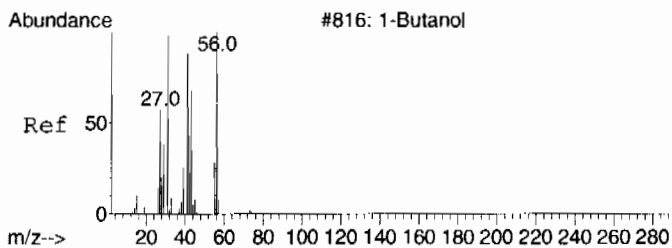


Quantitation Report  
GEL Laboratories, LLC

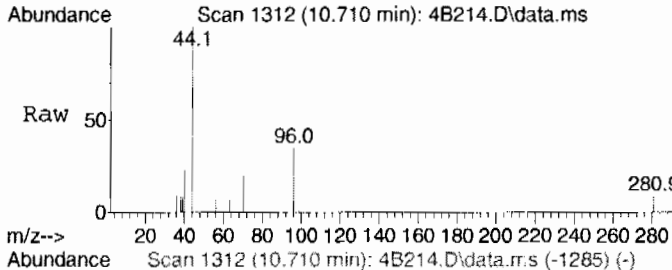
Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B214.D  
Acq On : 9 Mar 2010 11:12 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506007|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 19 20:41:04 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

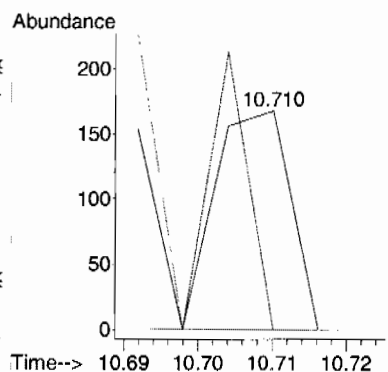
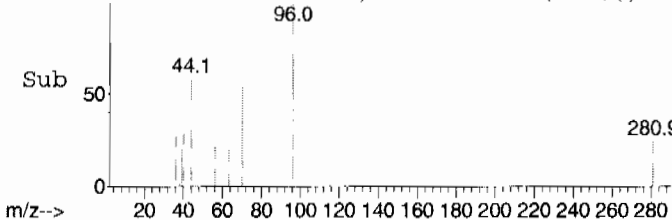




#33 BEFORE analyst DELETION  
 n-Butyl alcohol  
 Concen: 181.03 ug/L  
 RT: 10.710 min Scan# 1312  
 Delta R.T. 0.024 min  
 Lab File: 4B214.D  
 Acq: 9 Mar 2010 11:12 pm



Tgt Ion: 56 Resp: 118  
 Ion Ratio Lower Upper  
 56 100  
 41 179.7 49.2 109.2#  
 43 0.0 30.5 90.5#



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B214.D  
Acq On : 9 Mar 2010 11:12 pm  
Operator : ACJ  
Sample : |248506007|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

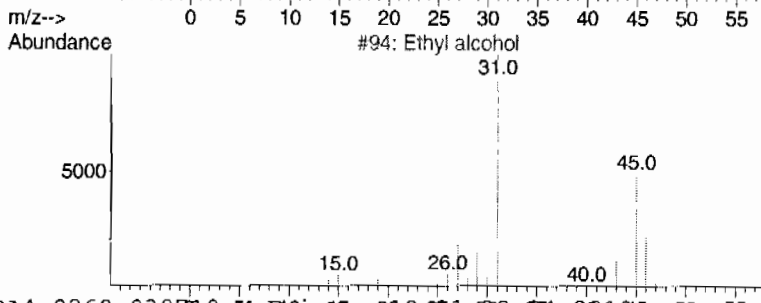
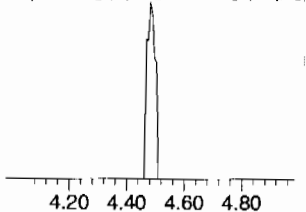
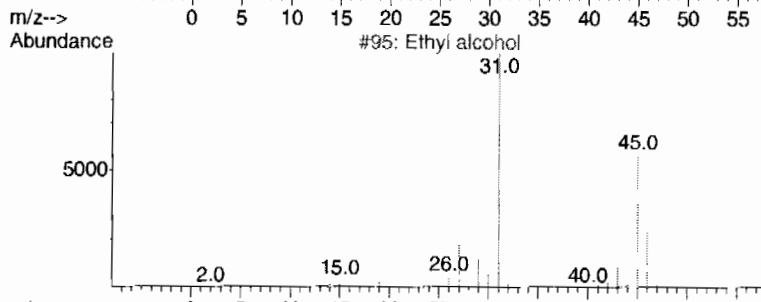
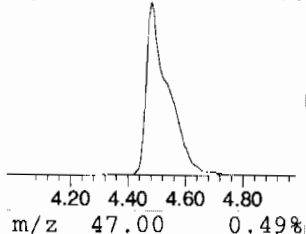
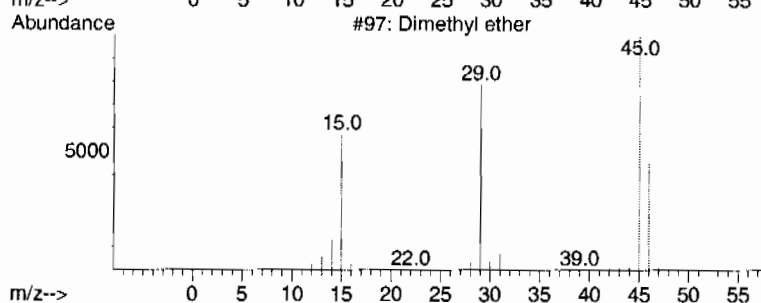
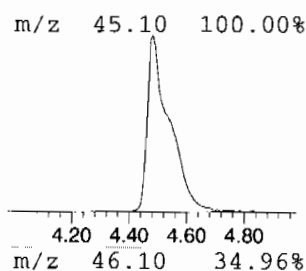
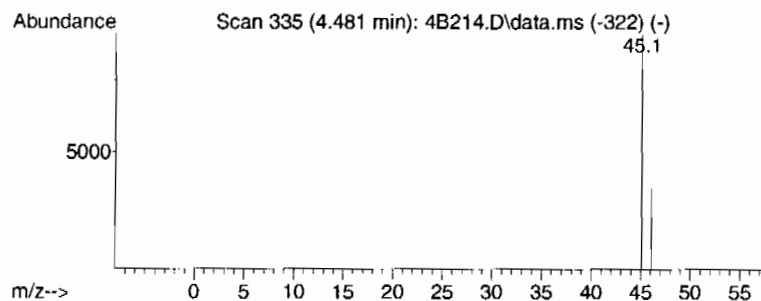
TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

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

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	10.76 ug/L	607383	Fluorobenzene	10.613

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Dimethyl ether	46	C2H6O	000115-10-6	5
2		Ethyl alcohol	46	C2H6O	000064-17-5	4
3		Ethyl alcohol	46	C2H6O	000064-17-5	4
4		Ethyl alcohol	46	C2H6O	000064-17-5	4
5		Formic acid	46	CH2O2	000064-18-6	3



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B214.D  
Acq On : 9 Mar 2010 11:12 pm  
Operator : ACJ  
Sample : |248506007|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.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...	4.481	10.8	ug/L	607383	1	10.613	2821700	50.0

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

SDG Number: 10-2193  
 Lab Sample ID: 248506008

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 20.6  
 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	1.26	ug/kg	0.428	1.26
74-87-3	Chloromethane	U	1.26	ug/kg	0.378	1.26
75-01-4	Vinyl chloride	U	1.26	ug/kg	0.378	1.26
74-83-9	Bromomethane	U	1.26	ug/kg	0.378	1.26
75-00-3	Chloroethane	U	1.26	ug/kg	0.378	1.26
75-69-4	Trichlorofluoromethane	U	1.26	ug/kg	0.378	1.26
67-64-1	Acetone	U	6.30	ug/kg	2.09	6.30
75-35-4	1,1-Dichloroethylene	U	1.26	ug/kg	0.378	1.26
74-88-4	Iodomethane	U	6.30	ug/kg	2.01	6.30
75-09-2	Methylene chloride	U	6.30	ug/kg	2.52	6.30
75-15-0	Carbon disulfide	U	6.30	ug/kg	1.57	6.30
156-60-5	trans-1,2-Dichloroethylene	U	1.26	ug/kg	0.378	1.26
75-34-3	1,1-Dichloroethane	U	1.26	ug/kg	0.378	1.26
78-93-3	2-Butanone	U	6.30	ug/kg	1.89	6.30
156-59-2	cis-1,2-Dichloroethylene	U	1.26	ug/kg	0.378	1.26
594-20-7	2,2-Dichloropropane	U	1.26	ug/kg	0.378	1.26
67-66-3	Chloroform	U	1.26	ug/kg	0.378	1.26
74-97-5	Bromochloromethane	U	1.26	ug/kg	0.415	1.26
71-55-6	1,1,1-Trichloroethane	U	1.26	ug/kg	0.378	1.26
563-58-6	1,1-Dichloropropene	U	1.26	ug/kg	0.378	1.26
56-23-5	Carbon tetrachloride	U	1.26	ug/kg	0.378	1.26
107-06-2	1,2-Dichloroethane	U	1.26	ug/kg	0.378	1.26
71-43-2	Benzene	U	1.26	ug/kg	0.378	1.26
79-01-6	Trichloroethylene	U	1.26	ug/kg	0.415	1.26
78-87-5	1,2-Dichloropropane	U	1.26	ug/kg	0.378	1.26
75-27-4	Bromodichloromethane	U	1.26	ug/kg	0.378	1.26
74-95-3	Dibromomethane	U	1.26	ug/kg	0.378	1.26
108-10-1	4-Methyl-2-pentanone	U	6.30	ug/kg	1.57	6.30
10061-01-5	cis-1,3-Dichloropropylene	U	1.26	ug/kg	0.378	1.26
108-88-3	Toluene	U	1.26	ug/kg	0.378	1.26
10061-02-6	trans-1,3-Dichloropropylene	U	1.26	ug/kg	0.378	1.26
79-00-5	1,1,2-Trichloroethane	U	1.26	ug/kg	0.378	1.26
591-78-6	2-Hexanone	U	6.30	ug/kg	1.89	6.30
142-28-9	1,3-Dichloropropane	U	1.26	ug/kg	0.378	1.26
127-18-4	Tetrachloroethylene	U	1.26	ug/kg	0.378	1.26
124-48-1	Dibromochloromethane	U	1.26	ug/kg	0.378	1.26
106-93-4	1,2-Dibromoethane	U	1.26	ug/kg	0.378	1.26
108-90-7	Chlorobenzene	U	1.26	ug/kg	0.378	1.26

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506008	Date Received: 03/03/2010 08:50	%Moisture: 20.6
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7444	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.I	Dilution: 1
Run Date: 03/09/2010 23:39	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:17	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4V4B215.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.26	ug/kg	0.378	1.26
179601-23-1	m,p-Xylenes	U	2.52	ug/kg	0.378	2.52
95-47-6	o-Xylene	U	1.26	ug/kg	0.378	1.26
100-42-5	Styrene	U	1.26	ug/kg	0.378	1.26
75-25-2	Bromoform	U	1.26	ug/kg	0.378	1.26
79-34-5	1,1,2,2-Tetrachloroethane	U	1.26	ug/kg	0.378	1.26
96-18-4	1,2,3-Trichloropropane	U	1.26	ug/kg	0.378	1.26
108-86-1	Bromobenzene	U	1.26	ug/kg	0.378	1.26
103-65-1	n-Propylbenzene	U	1.26	ug/kg	0.378	1.26
95-49-8	2-Chlorotoluene	U	1.26	ug/kg	0.378	1.26
98-82-8	Isopropylbenzene	U	1.26	ug/kg	0.378	1.26
108-67-8	1,3,5-Trimethylbenzene	U	1.26	ug/kg	0.378	1.26
106-43-4	4-Chlorotoluene	U	1.26	ug/kg	0.378	1.26
98-06-6	tert-Butylbenzene	U	1.26	ug/kg	0.378	1.26
95-63-6	1,2,4-Trimethylbenzene	U	1.26	ug/kg	0.378	1.26
135-98-8	sec-Butylbenzene	U	1.26	ug/kg	0.378	1.26
99-87-6	4-Isopropyltoluene	U	1.26	ug/kg	0.378	1.26
541-73-1	1,3-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26
106-46-7	1,4-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26
104-51-8	n-Butylbenzene	U	1.26	ug/kg	0.378	1.26
96-12-8	1,2-Dibromo-3-chloropropane	U	1.26	ug/kg	0.378	1.26
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.30	ug/kg	2.01	6.30
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.26	ug/kg	0.378	1.26
95-50-1	1,2-Dichlorobenzene	U	1.26	ug/kg	0.378	1.26

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	17.5	ug/kg	0	J
	unknown siloxane	16.79	8.46	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B215.D  
Acq On : 9 Mar 2010 11:39 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506008|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 19 20:41:35 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.614	10.613	1.000	96	1131537	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	741187	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	282725	50.00	ug/L	0.00
82) B Fluorobenzene	10.614	10.613	1.000	96	1131359	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	741201	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	282734	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.259	0.967	65	290163	47.49	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 94.98%			
43) Toluene-d8	12.247	12.247	0.889	98	895739	53.08	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 106.16%			
61) Bromofluorobenzene	14.954	14.947	0.924	95	370619	67.60	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 135.20%#			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	0.000	5.299	0.000		0	N.D.		
4) Vinyl chloride	5.514	5.521	0.519	62	745	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	7.004	6.991	0.660	59	1023	N.D.		
9) Acetone	7.364	7.351	0.694	43	4959	N.D.		
10) 1,1-Dichloroethylene	7.498	7.394	0.706	61	140	N.D.		
11) Iodomethane	0.000	7.662	0.000		0	N.D.		
12) Acetonitrile	7.693	7.693	0.725	41	105	N.D.		
13) Methyl acetate	7.748	7.747	0.730	43	277	N.D.		
14) Carbon disulfide	7.779	7.778	0.733	76	1179	N.D.		
15) Methylene chloride	7.943	7.967	0.748	84	15735	N.D.		
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.705	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.339	9.320	0.880	43	881	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.699	9.686	0.914	83	368	N.D.		
25) 1,1,1-Trichloroethane	9.979	9.973	0.940	97	136	N.D.		
26) Cyclohexane	10.077	10.076	0.949	56	828	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.338	0.000		0	N.D.		
31) Benzene	10.364	10.369	0.976	78	924	N.D.		
32) Cyclohexene	10.614	10.491	1.000	67	624	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	11.004	11.003	1.037	95	1692	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.259	0.000		0	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B215.D  
Acq On : 9 Mar 2010 11:39 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506008|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 19 20:41:35 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.015	0.000		0	N.D.	
44) Toluene	12.327	12.320	0.895	91	9129	Below Cal	97
45) trans-1,3-Dichloroprop...	0.000	12.460	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.	
47) 2-Hexanone	12.863	12.856	0.934	43	225	N.D.	
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.	
49) Tetrachloroethylene	12.936	12.917	0.939	164	272	N.D.	
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.	
52) Chlorobenzene	13.790	13.801	1.001	112	305	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.	
54) Ethylbenzene	13.863	13.862	1.007	91	5991	N.D.	
55) m,p-Xylenes	13.967	13.966	1.014	106	3157	N.D.	
56) o-Xylene	14.399	14.399	1.046	106	3022	N.D.	
57) Styrene	14.405	14.399	1.046	104	396	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.796	14.758	0.914	105	4465	N.D.	
62) 1,1,2,2-Tetrachloroethane	14.954	15.014	0.924	83	115	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	0.000	15.167	0.000		0	N.D.	
65) n-Propylbenzene	15.174	15.179	0.938	91	1320	N.D.	
66) 1,3,5-Trimethylbenzene	15.326	15.325	0.947	105	1471	N.D.	
67) 2-Chlorotoluene	0.000	15.331	0.000		0	N.D.	
68) 4-Chlorotoluene	15.399	15.429	0.952	91	175	N.D.	
69) tert-Butylbenzene	0.000	15.703	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.734	15.740	0.972	105	1456	N.D.	
71) sec-Butylbenzene	15.936	15.929	0.985	105	702	N.D.	
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	1364	N.D.	
73) 1,3-Dichlorobenzene	16.112	16.118	0.996	146	356	N.D.	
74) 1,4-Dichlorobenzene	16.204	16.203	1.002	146	279	N.D.	
75) n-Butylbenzene	16.490	16.502	1.019	91	734	N.D.	
76) 1,2-Dichlorobenzene	16.637	16.642	1.028	146	146	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.629	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.	
80) Naphthalene	19.033	19.026	1.176	128	1248	N.D.	
81) 1,2,3-Trichlorobenzene	19.356	19.385	1.196	180	123	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.174	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.	
87) Isopropyl Alcohol	7.535	7.430	0.710	45	1098	N.D.	
88) Allyl chloride	7.785	7.796	0.733	41	133	N.D.	
89) tert-Butyl Alcohol	7.913	7.924	0.746	59	134	N.D.	
90) Acrylonitrile	0.000	8.168	0.000		0	N.D.	
91) Isopropyl ether	8.870	8.735	0.836	45	142	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.339	9.339	0.880	43	881	N.D.	
95) Propionitrile	0.000	9.387	0.000		0	N.D.	
96) Methacrylonitrile	9.571	9.570	0.902	41	177	N.D.	
97) Tetrahydrofuran	9.723	9.710	0.916	42	1261	N.D.	
98) Isobutyl alcohol	10.040	10.003	0.946	41	146	N.D.	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B215.D  
Acq On : 9 Mar 2010 11:39 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506008|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 19 20:41:35 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

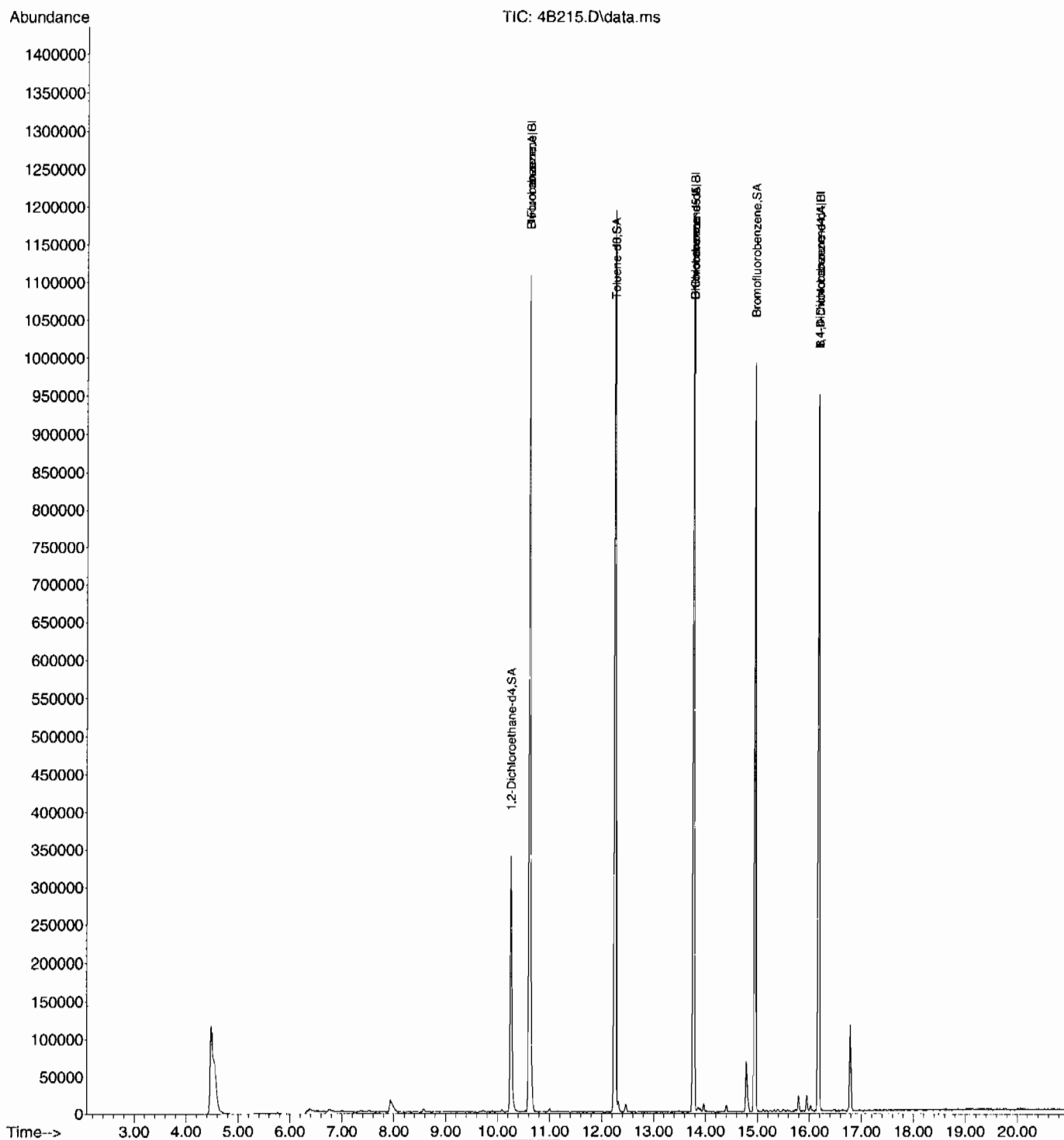
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.381	0.000		0	N.D.	
100) Methyl methacrylate	11.284	11.204	1.063	69	170	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0m	N.D.	d
104) Ethyl methacrylate	0.000	12.460	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0m	N.D.	d
108) Cyclohexanone	14.790	14.905	0.914	42	386	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.301	16.319	1.008	91	191	N.D.	
112) bis(2-Chloroisopropyl)...	16.710	16.715	1.033	45	211	N.D.	

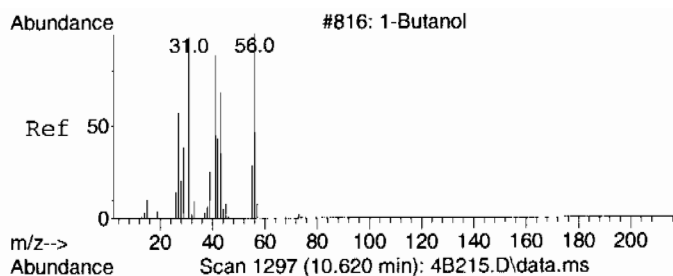
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B215.D  
Acq On : 9 Mar 2010 11:39 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506008|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 15 Sample Multiplier: 1

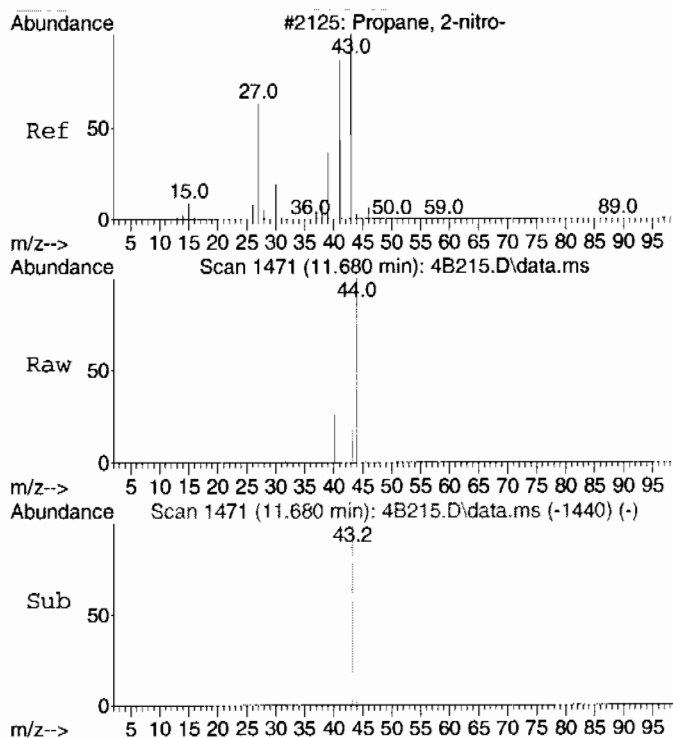
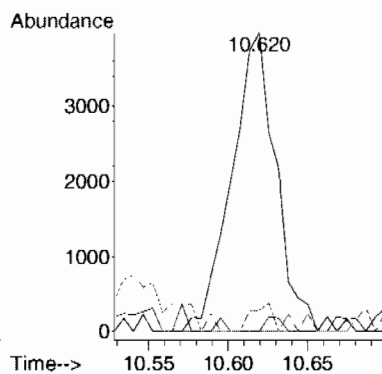
Quant Time: Mar 19 20:41:35 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE





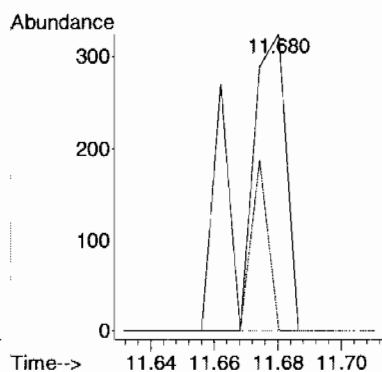
#33 BEFORE analyst DELETION  
n-Butyl alcohol  
Concen: 208.50 ug/L  
RT: 10.620 min Scan# 1297  
Delta R.T. -0.066 min  
Lab File: 4B215.D  
Acq: 9 Mar 2010 11:39 pm

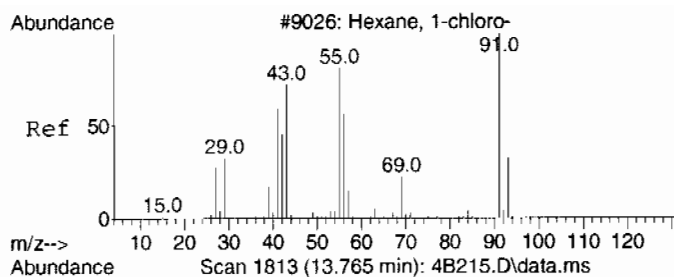
Tgt Ion	Ratio	Lower	Upper
56	100		
41	1.8	49.2	109.2#
43	4.4	30.5	90.5#



#102 BEFORE analyst DELETION  
2-Nitropropane  
Concen: 6.34 ug/L  
RT: 11.680 min Scan# 1471  
Delta R.T. 0.013 min  
Lab File: 4B215.D  
Acq: 9 Mar 2010 11:39 pm

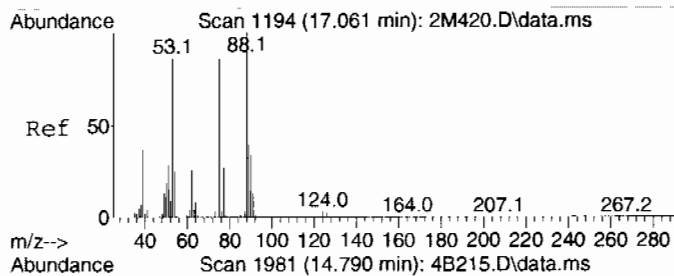
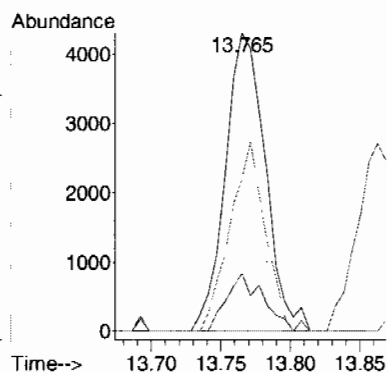
Tgt Ion	Ratio	Lower	Upper
43	100		
41	0.0	57.4	117.4#





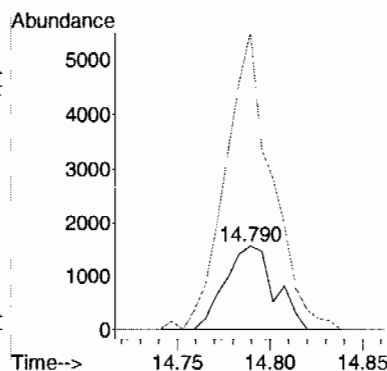
#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 2.49 ug/L  
RT: 13.765 min Scan# 1813  
Delta R.T. 0.104 min  
Lab File: 4B215.D  
Acq: 9 Mar 2010 11:39 pm

Tgt Ion	Ratio	Lower	Upper
55	100		
91	17.8	108.1	168.1#
56	56.5	27.8	87.8



#107 BEFORE analyst DELETION  
cis-1,4-Dichloro-2-butene  
Concen: 1.96 ug/L  
RT: 14.790 min Scan# 1981  
Delta R.T. 0.007 min  
Lab File: 4B215.D  
Acq: 9 Mar 2010 11:39 pm

Tgt Ion	Ratio	Lower	Upper
53	100		
88	0.0	83.6	143.6#
77	332.5	3.2	63.2#



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B215.D  
Acq On : 9 Mar 2010 11:39 pm  
Operator : ACJ  
Sample : |248506008|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 15 Sample Multiplier: 1

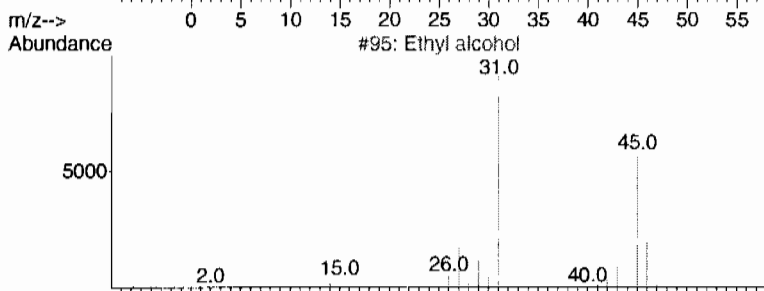
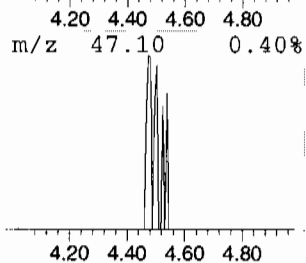
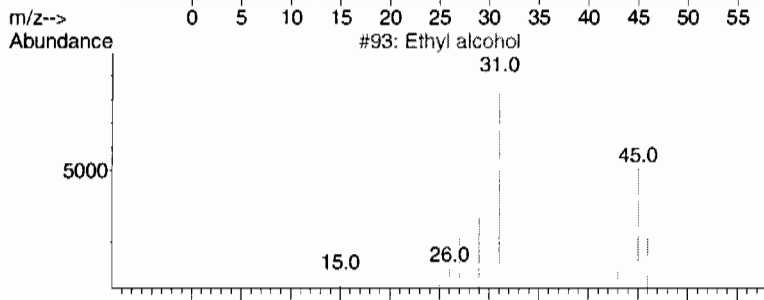
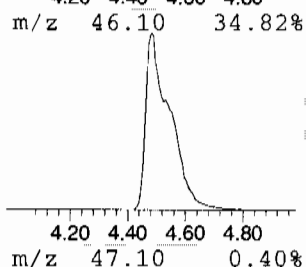
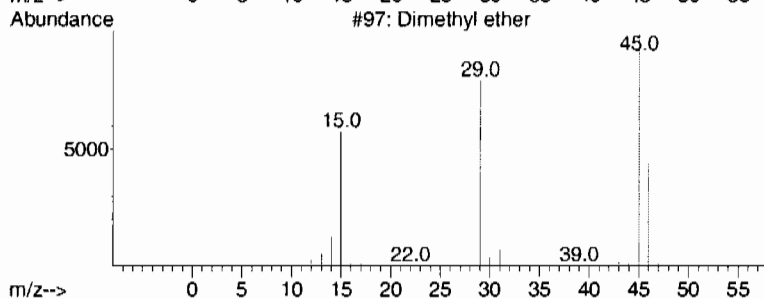
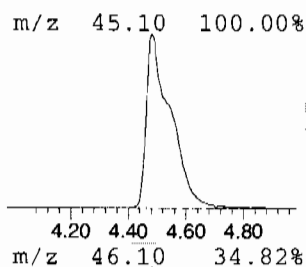
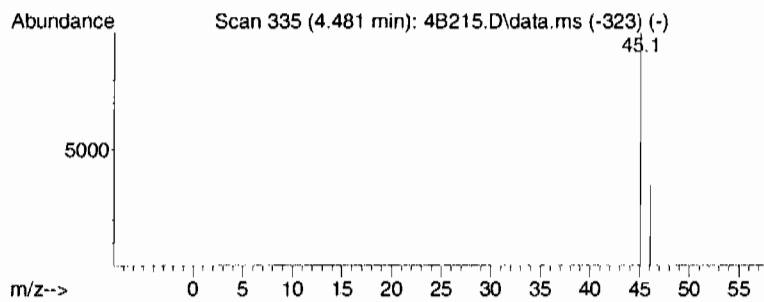
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

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

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	13.88 ug/L	689610	Fluorobenzene	10.614

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Dimethyl ether	46	C2H6O	000115-10-6	5
2		Ethyl alcohol	46	C2H6O	000064-17-5	4
3		Ethyl alcohol	46	C2H6O	000064-17-5	4
4		Ethyl alcohol	46	C2H6O	000064-17-5	4
5		Formic acid	46	CH2O2	000064-18-6	3



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B215.D  
Acq On : 9 Mar 2010 11:39 pm  
Operator : ACJ  
Sample : |248506008|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 15 Sample Multiplier: 1

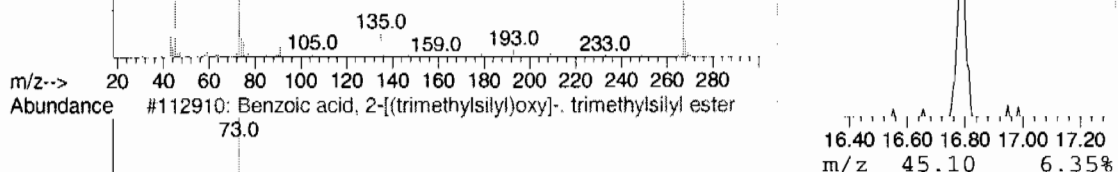
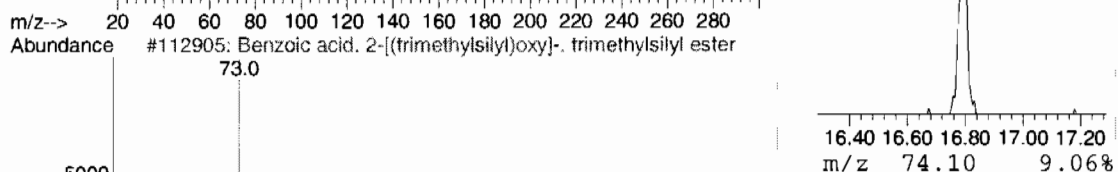
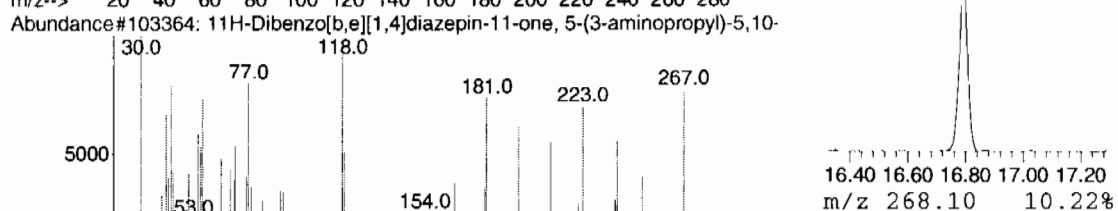
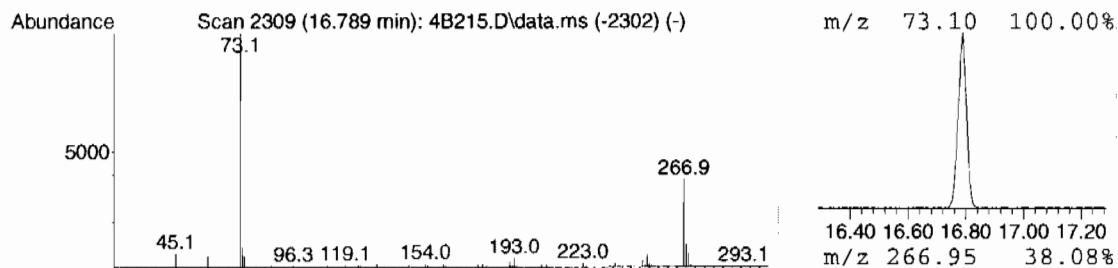
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 2 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.789	6.72 ug/L	243094	B 1,4-Dichlorobenzene-d4	16.180

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		11H-Dibenzo[b,e][1,4]diazepin-11...	267	C16H17N3O	013450-73-2	43
2		Benzoic acid, 2-[(trimethylsilyl)...	282	C13H22O3Si2	003789-85-3	39
3		Benzoic acid, 2-[(trimethylsilyl)...	282	C13H22O3Si2	003789-85-3	39
4		Benzoic acid, 2-[(trimethylsilyl)...	282	C13H22O3Si2	003789-85-3	39
5		Benzeneethanamine, N-[(pentaflu...	475	C21H26F5NO2Si2	055429-85-1	37



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B215.D  
Acq On : 9 Mar 2010 11:39 pm  
Operator : ACJ  
Sample : |248506008|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.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...	4.481	13.9	ug/L	689610	1	10.614	2483430	50.0
unknown siloxane	16.789	6.7	ug/L	243094	6	16.180	1807460	50.0

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506009	<b>Date Received:</b> 03/03/2010 08:50	<b>% Moisture:</b> 17.5
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7448	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 963417	<b>Inst:</b> VOA4.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/10/2010 00:07	<b>Analyst:</b> ACJ	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/09/2010 20:18	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 030910V4V4B216.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.21	ug/kg	0.412	1.21
74-87-3	Chloromethane	U	1.21	ug/kg	0.364	1.21
75-01-4	Vinyl chloride	U	1.21	ug/kg	0.364	1.21
74-83-9	Bromomethane	U	1.21	ug/kg	0.364	1.21
75-00-3	Chloroethane	U	1.21	ug/kg	0.364	1.21
75-69-4	Trichlorofluoromethane	U	1.21	ug/kg	0.364	1.21
67-64-1	Acetone	U	6.06	ug/kg	2.01	6.06
75-35-4	1,1-Dichloroethylene	U	1.21	ug/kg	0.364	1.21
74-88-4	Iodomethane	U	6.06	ug/kg	1.94	6.06
75-09-2	Methylene chloride	U	6.06	ug/kg	2.42	6.06
75-15-0	Carbon disulfide	U	6.06	ug/kg	1.52	6.06
156-60-5	trans-1,2-Dichloroethylene	U	1.21	ug/kg	0.364	1.21
75-34-3	1,1-Dichloroethane	U	1.21	ug/kg	0.364	1.21
78-93-3	2-Butanone	U	6.06	ug/kg	1.82	6.06
156-59-2	cis-1,2-Dichloroethylene	U	1.21	ug/kg	0.364	1.21
594-20-7	2,2-Dichloropropane	U	1.21	ug/kg	0.364	1.21
67-66-3	Chloroform	U	1.21	ug/kg	0.364	1.21
74-97-5	Bromochloromethane	U	1.21	ug/kg	0.400	1.21
71-55-6	1,1,1-Trichloroethane	U	1.21	ug/kg	0.364	1.21
563-58-6	1,1-Dichloropropene	U	1.21	ug/kg	0.364	1.21
56-23-5	Carbon tetrachloride	U	1.21	ug/kg	0.364	1.21
107-06-2	1,2-Dichloroethane	U	1.21	ug/kg	0.364	1.21
71-43-2	Benzene	U	1.21	ug/kg	0.364	1.21
79-01-6	Trichloroethylene	U	1.21	ug/kg	0.400	1.21
78-87-5	1,2-Dichloropropane	U	1.21	ug/kg	0.364	1.21
75-27-4	Bromodichloromethane	U	1.21	ug/kg	0.364	1.21
74-95-3	Dibromomethane	U	1.21	ug/kg	0.364	1.21
108-10-1	4-Methyl-2-pentanone	U	6.06	ug/kg	1.52	6.06
10061-01-5	cis-1,3-Dichloropropylene	U	1.21	ug/kg	0.364	1.21
108-88-3	Toluene	U	1.21	ug/kg	0.364	1.21
10061-02-6	trans-1,3-Dichloropropylene	U	1.21	ug/kg	0.364	1.21
79-00-5	1,1,2-Trichloroethane	U	1.21	ug/kg	0.364	1.21
591-78-6	2-Hexanone	U	6.06	ug/kg	1.82	6.06
142-28-9	1,3-Dichloropropane	U	1.21	ug/kg	0.364	1.21
127-18-4	Tetrachloroethylene	U	1.21	ug/kg	0.364	1.21
124-48-1	Dibromochloromethane	U	1.21	ug/kg	0.364	1.21
106-93-4	1,2-Dibromoethane	U	1.21	ug/kg	0.364	1.21
108-90-7	Chlorobenzene	U	1.21	ug/kg	0.364	1.21



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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506009	Date Received: 03/03/2010 08:50	%Moisture: 17.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7448	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.I	Dilution: 1
Run Date: 03/10/2010 00:07	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:18	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4V4B216.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.21	ug/kg	0.364	1.21
179601-23-1	m,p-Xylenes	U	2.42	ug/kg	0.364	2.42
95-47-6	o-Xylene	U	1.21	ug/kg	0.364	1.21
100-42-5	Styrene	U	1.21	ug/kg	0.364	1.21
75-25-2	Bromoform	U	1.21	ug/kg	0.364	1.21
79-34-5	1,1,2,2-Tetrachloroethane	U	1.21	ug/kg	0.364	1.21
96-18-4	1,2,3-Trichloropropane	U	1.21	ug/kg	0.364	1.21
108-86-1	Bromobenzene	U	1.21	ug/kg	0.364	1.21
103-65-1	n-Propylbenzene	U	1.21	ug/kg	0.364	1.21
95-49-8	2-Chlorotoluene	U	1.21	ug/kg	0.364	1.21
98-82-8	Isopropylbenzene	U	1.21	ug/kg	0.364	1.21
108-67-8	1,3,5-Trimethylbenzene	U	1.21	ug/kg	0.364	1.21
106-43-4	4-Chlorotoluene	U	1.21	ug/kg	0.364	1.21
98-06-6	tert-Butylbenzene	U	1.21	ug/kg	0.364	1.21
95-63-6	1,2,4-Trimethylbenzene	U	1.21	ug/kg	0.364	1.21
135-98-8	sec-Butylbenzene	U	1.21	ug/kg	0.364	1.21
99-87-6	4-Isopropyltoluene	U	1.21	ug/kg	0.364	1.21
541-73-1	1,3-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21
106-46-7	1,4-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21
104-51-8	n-Butylbenzene	U	1.21	ug/kg	0.364	1.21
96-12-8	1,2-Dibromo-3-chloropropane	U	1.21	ug/kg	0.364	1.21
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.06	ug/kg	1.94	6.06
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.21	ug/kg	0.364	1.21
95-50-1	1,2-Dichlorobenzene	U	1.21	ug/kg	0.364	1.21

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	9.2	ug/kg	0	J
	unknown siloxane	16.79	6.52	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B216.D  
Acq On : 10 Mar 2010 12:07 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506009|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 19 20:42:04 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.614	10.613	1.000	96	1192026	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.765	13.765	1.000	117	716512	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	219490	50.00	ug/L	0.00
82) B Fluorobenzene	10.614	10.613	1.000	96	1191273	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.765	13.764	1.000	117	716746	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	219497	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.259	0.967	65	309193	48.04	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	=	96.08%		
43) Toluene-d8	12.247	12.247	0.890	98	935571	57.35	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	=	114.70%		
61) Bromofluorobenzene	14.954	14.947	0.924	95	320163	75.22	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	=	150.44%#		
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.284	5.299	0.498	50	660	N.D.		
4) Vinyl chloride	5.514	5.521	0.519	62	783	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	6.992	6.991	0.659	59	1513	N.D.		
9) Acetone	7.376	7.351	0.695	43	10488	N.D.		
10) 1,1-Dichloroethylene	7.510	7.394	0.708	61	1453	N.D.		
11) Iodomethane	0.000	7.662	0.000		0	N.D.		
12) Acetonitrile	7.773	7.693	0.732	41	284	N.D.		
13) Methyl acetate	7.754	7.747	0.731	43	906	N.D.		
14) Carbon disulfide	7.773	7.778	0.732	76	4249	N.D.		
15) Methylene chloride	7.937	7.967	0.748	84	24365	N.D.		
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.626	8.705	0.813	43	213	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.327	9.320	0.879	43	1339	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.687	9.686	0.913	83	357	N.D.		
25) 1,1,1-Trichloroethane	9.986	9.973	0.941	97	349	N.D.		
26) Cyclohexane	10.077	10.076	0.949	56	888	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.338	0.000		0	N.D.		
31) Benzene	10.370	10.369	0.977	78	2745	N.D.		
32) Cyclohexene	10.614	10.491	1.000	67	530	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	10.998	11.003	1.036	95	2275	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	11.254	11.259	1.060	83	100	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B216.D  
Acq On : 10 Mar 2010 12:07 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506009|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 19 20:42:04 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.015	0.000		0	N.D.	
44) Toluene	12.321	12.320	0.895	91	8545	Below Cal	96
45) trans-1,3-Dichloroprop...	12.473	12.460	0.906	75	390	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.	
47) 2-Hexanone	12.863	12.856	0.934	43	357	N.D.	
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.917	0.000		0	N.D.	
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.	
52) Chlorobenzene	13.790	13.801	1.002	112	357	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.	
54) Ethylbenzene	13.863	13.862	1.007	91	3419	N.D.	
55) m,p-Xylenes	13.973	13.966	1.015	106	3329	N.D.	
56) o-Xylene	14.393	14.399	1.046	106	2066	N.D.	
57) Styrene	0.000	14.399	0.000		0	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.747	14.758	0.911	105	620	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.014	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	0.000	15.167	0.000		0	N.D.	
65) n-Propylbenzene	15.180	15.179	0.938	91	1273	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.325	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.331	0.000		0	N.D.	
68) 4-Chlorotoluene	15.417	15.429	0.953	91	694	N.D.	
69) tert-Butylbenzene	0.000	15.703	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.741	15.740	0.973	105	3482	N.D.	
71) sec-Butylbenzene	15.930	15.929	0.985	105	299	N.D.	
72) 4-Isopropyltoluene	16.052	16.051	0.992	119	1301	N.D.	
73) 1,3-Dichlorobenzene	16.125	16.118	0.997	146	149	N.D.	
74) 1,4-Dichlorobenzene	16.216	16.203	1.002	146	458	N.D.	
75) n-Butylbenzene	16.497	16.502	1.020	91	362	N.D.	
76) 1,2-Dichlorobenzene	16.631	16.642	1.028	146	227	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.624	18.629	1.151	180	233	N.D.	
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.	
80) Naphthalene	19.027	19.026	1.176	128	1287	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.385	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.174	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.	
87) Isopropyl Alcohol	7.389	7.430	0.696	45	123	N.D.	
88) Allyl chloride	7.773	7.796	0.732	41	284	N.D.	
89) tert-Butyl Alcohol	7.919	7.924	0.746	59	642	N.D.	
90) Acrylonitrile	0.000	8.168	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.735	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.327	9.339	0.879	43	1339	N.D.	
95) Propionitrile	0.000	9.387	0.000		0	N.D.	
96) Methacrylonitrile	9.656	9.570	0.910	41	141	N.D.	
97) Tetrahydrofuran	9.723	9.710	0.916	42	1763	N.D.	
98) Isobutyl alcohol	10.138	10.003	0.955	41	158	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B216.D  
Acq On : 10 Mar 2010 12:07 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506009|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 19 20:42:04 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

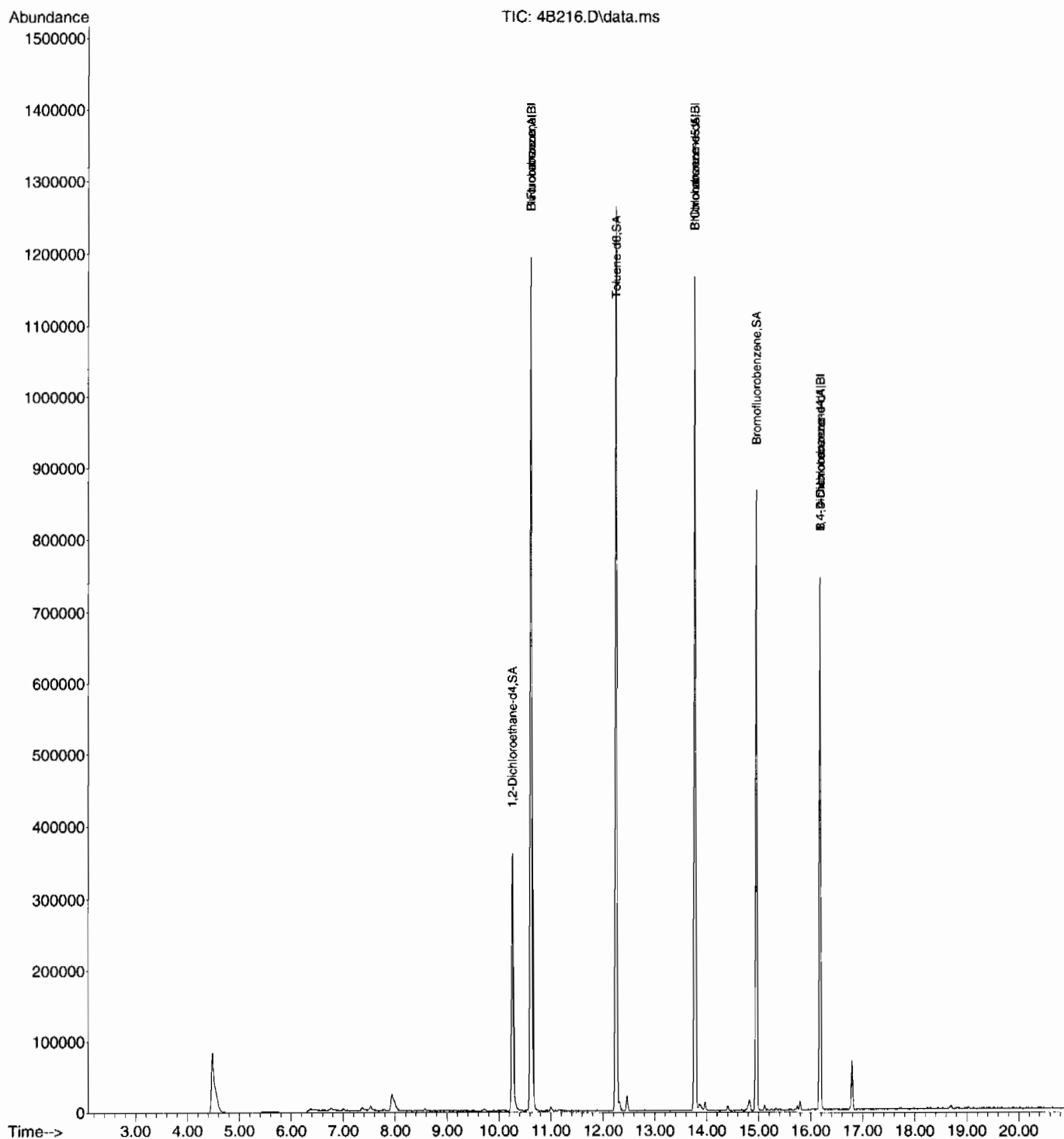
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.381	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0m	N.D.	d
104) Ethyl methacrylate	0.000	12.460	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0	N.D.	
108) Cyclohexanone	14.948	14.905	0.924	42	152	N.D.	
109) trans-1,4-Dichloro-2-b...	15.107	15.063	0.934	53	187	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.289	16.319	1.007	91	137	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.715	0.000		0m	N.D.	d

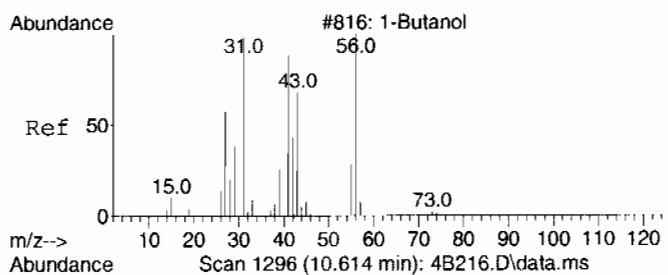
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B216.D  
Acq On : 10 Mar 2010 12:07 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506009|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 16 Sample Multiplier: 1

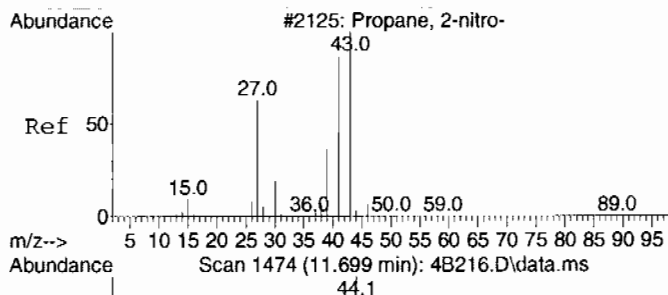
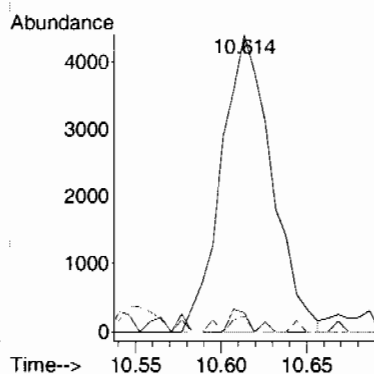
Quant Time: Mar 19 20:42:04 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE





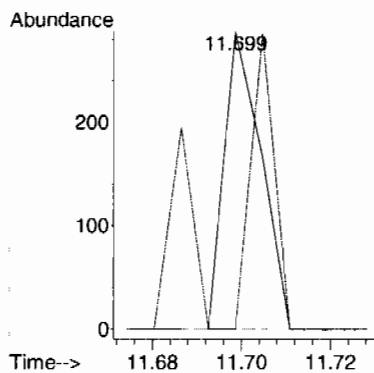
#33 BEFORE analyst DELETION  
n-Butyl alcohol  
Concen: 211.35 ug/L  
RT: 10.614 min Scan# 1296  
Delta R.T. -0.072 min  
Lab File: 4B216.D  
Acq: 10 Mar 2010 12:07 am

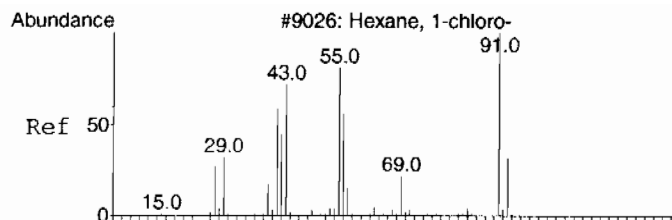
Tgt Ion	Ratio	Lower	Upper
56	100		
41	2.5	49.2	109.2#
43	1.7	30.5	90.5#



#102 BEFORE analyst DELETION  
2-Nitropropane  
Concen: 6.28 ug/L  
RT: 11.699 min Scan# 1474  
Delta R.T. 0.032 min  
Lab File: 4B216.D  
Acq: 10 Mar 2010 12:07 am

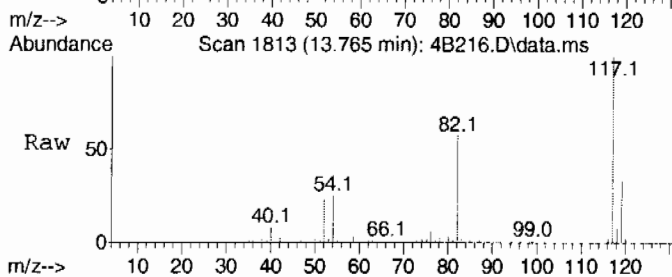
Tgt Ion	Ratio	Lower	Upper
43	100		
41	63.3	57.4	117.4



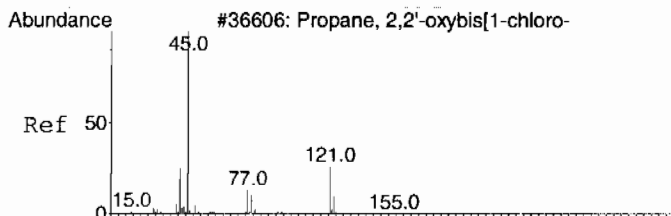
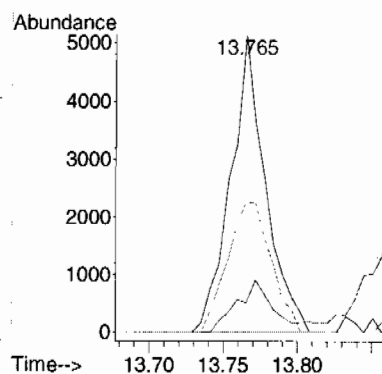
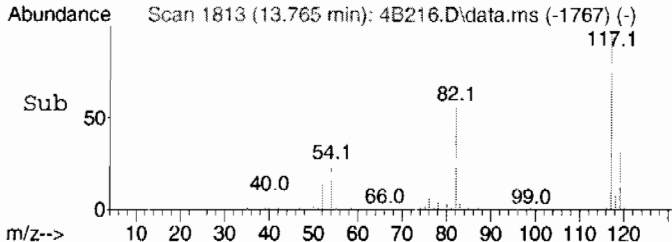


#106 BEFORE analyst DELETION  
1-Chlorohexane

Concen: 3.13 ug/L  
RT: 13.765 min Scan# 1813  
Delta R.T. 0.104 min  
Lab File: 4B216.D  
Acq: 10 Mar 2010 12:07 am

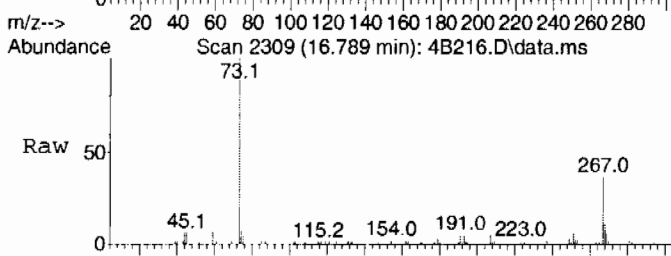


Tgt Ion: 55 Resp: 8412  
Ion Ratio Lower Upper  
55 100  
91 19.8 108.1 168.1#  
56 55.3 27.8 87.8

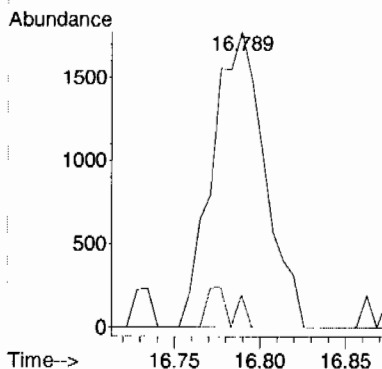
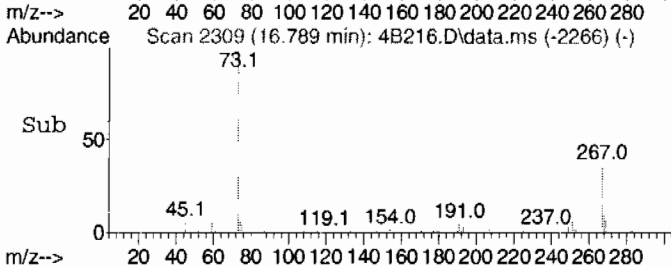


#112 BEFORE analyst DELETION  
bis(2-Chloroisopropyl) ether

Concen: 2.37 ug/L  
RT: 16.789 min Scan# 2309  
Delta R.T. 0.074 min  
Lab File: 4B216.D  
Acq: 10 Mar 2010 12:07 am



Tgt Ion: 45 Resp: 3780  
Ion Ratio Lower Upper  
45 100  
121 6.5 0.0 54.6



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B216.D  
Acq On : 10 Mar 2010 12:07 am  
Operator : ACJ  
Sample : |248506009|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 16 Sample Multiplier: 1

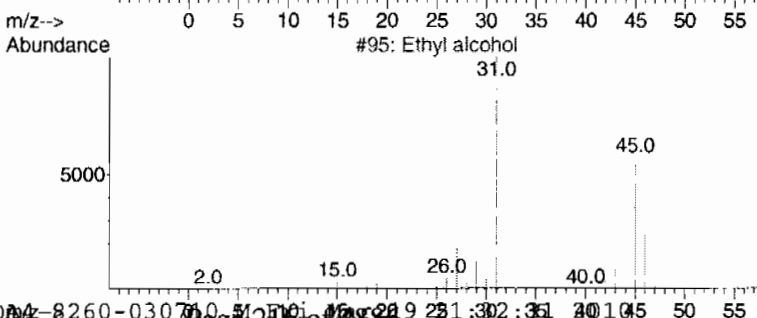
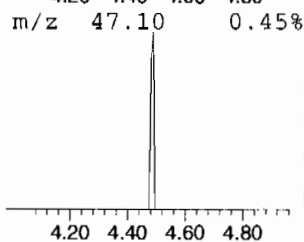
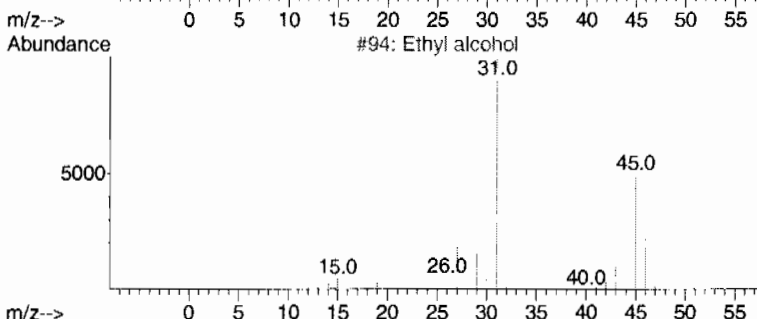
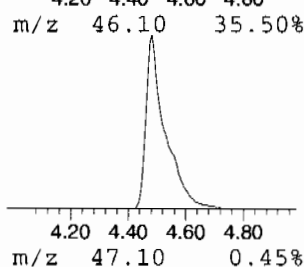
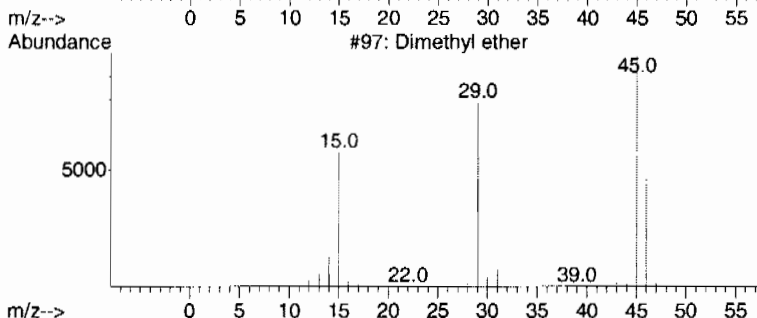
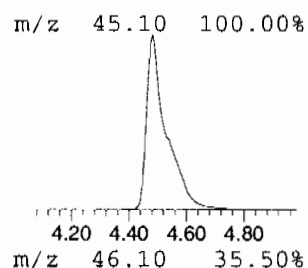
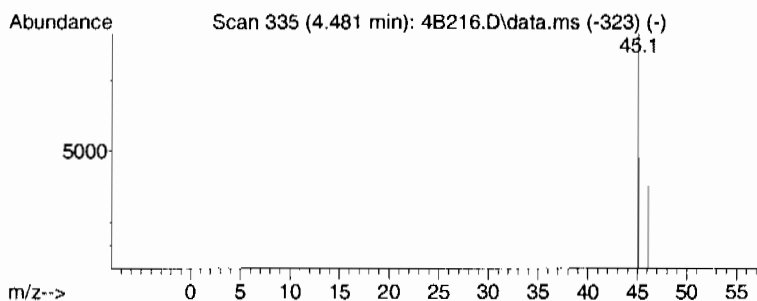
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

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

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	7.59 ug/L	396656	Fluorobenzene	10.614

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Dimethyl ether	46	C2H6O	000115-10-6	5
2			Ethyl alcohol	46	C2H6O	000064-17-5	4
3			Ethyl alcohol	46	C2H6O	000064-17-5	4
4			Ethyl alcohol	46	C2H6O	000064-17-5	4
5			Formic acid	46	CH2O2	000064-18-6	3





Library Search Compound Report  
GEL Laboratories, LLC

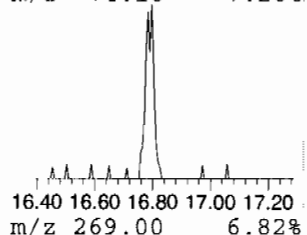
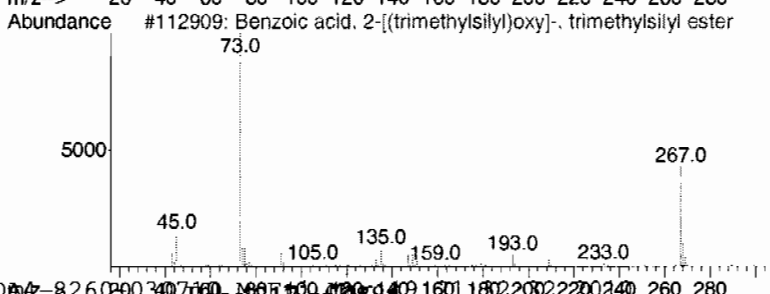
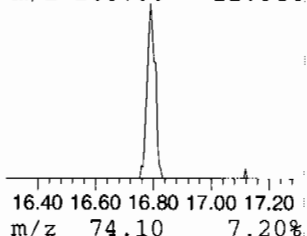
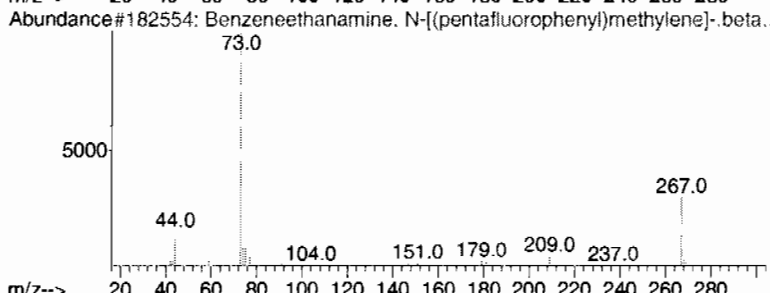
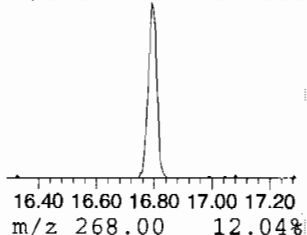
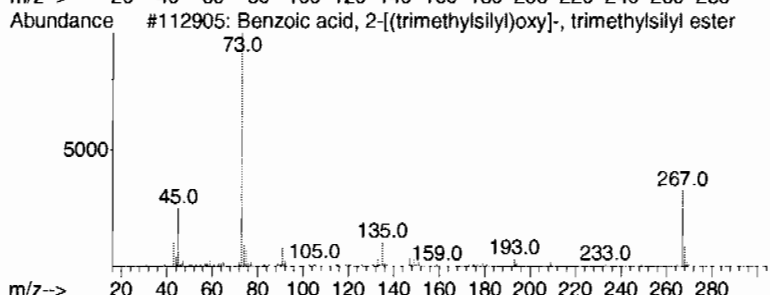
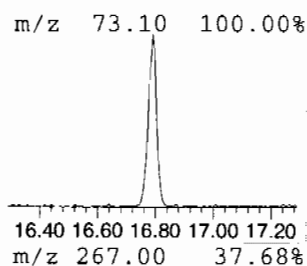
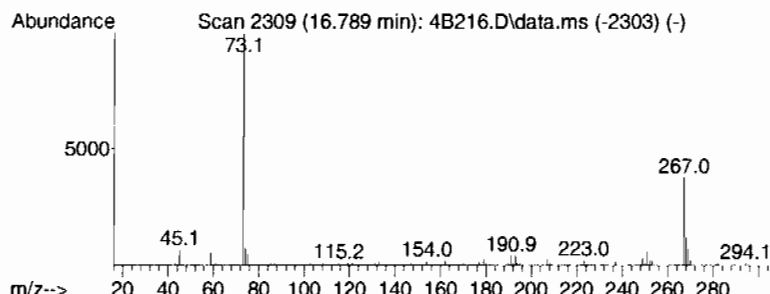
Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B216.D  
Acq On : 10 Mar 2010 12:07 am  
Operator : ACJ  
Sample : |248506009|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 2 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.		
16.789	5.38 ug/L	151832	B 1,4-Dichlorobenzene-d4	16.180		
Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	50
2		Benzenethanamine, N-[(pentafluor...	475	C21H26F5NO2Si2	055429-85-1	50
3		Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	39
4		Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	38
5		3,5-Dimethoxyphenylacetic acid, ...	268	C13H20O4Si	1000071-82-4	35



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B216.D  
Acq On : 10 Mar 2010 12:07 am  
Operator : ACJ  
Sample : |248506009|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.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...	4.481	7.6	ug/L	396656	1	10.614	2613570	50.0
unknown siloxane	16.789	5.4	ug/L	151832	6	16.180	1409850	50.0

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506010	Date Received: 03/03/2010 08:50	%Moisture: 28.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7447	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.I	Dilution: 1
Run Date: 03/10/2010 00:35	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:19	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V44B217.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.40	ug/kg	0.476	1.40
74-87-3	Chloromethane	U	1.40	ug/kg	0.420	1.40
75-01-4	Vinyl chloride	U	1.40	ug/kg	0.420	1.40
74-83-9	Bromomethane	U	1.40	ug/kg	0.420	1.40
75-00-3	Chloroethane	U	1.40	ug/kg	0.420	1.40
75-69-4	Trichlorofluoromethane	U	1.40	ug/kg	0.420	1.40
67-64-1	Acetone	U	6.99	ug/kg	2.32	6.99
75-35-4	1,1-Dichloroethylene	U	1.40	ug/kg	0.420	1.40
74-88-4	Iodomethane	U	6.99	ug/kg	2.24	6.99
75-09-2	Methylene chloride	U	6.99	ug/kg	2.80	6.99
75-15-0	Carbon disulfide	U	6.99	ug/kg	1.75	6.99
156-60-5	trans-1,2-Dichloroethylene	U	1.40	ug/kg	0.420	1.40
75-34-3	1,1-Dichloroethane	U	1.40	ug/kg	0.420	1.40
78-93-3	2-Butanone	U	6.99	ug/kg	2.10	6.99
156-59-2	cis-1,2-Dichloroethylene	U	1.40	ug/kg	0.420	1.40
594-20-7	2,2-Dichloropropane	U	1.40	ug/kg	0.420	1.40
67-66-3	Chloroform	U	1.40	ug/kg	0.420	1.40
74-97-5	Bromochloromethane	U	1.40	ug/kg	0.462	1.40
71-55-6	1,1,1-Trichloroethane	U	1.40	ug/kg	0.420	1.40
563-58-6	1,1-Dichloropropene	U	1.40	ug/kg	0.420	1.40
56-23-5	Carbon tetrachloride	U	1.40	ug/kg	0.420	1.40
107-06-2	1,2-Dichloroethane	U	1.40	ug/kg	0.420	1.40
71-43-2	Benzene	U	1.40	ug/kg	0.420	1.40
79-01-6	Trichloroethylene	U	1.40	ug/kg	0.462	1.40
78-87-5	1,2-Dichloropropane	U	1.40	ug/kg	0.420	1.40
75-27-4	Bromodichloromethane	U	1.40	ug/kg	0.420	1.40
74-95-3	Dibromomethane	U	1.40	ug/kg	0.420	1.40
108-10-1	4-Methyl-2-pentanone	U	6.99	ug/kg	1.75	6.99
10061-01-5	cis-1,3-Dichloropropylene	U	1.40	ug/kg	0.420	1.40
108-88-3	Toluene	U	1.40	ug/kg	0.420	1.40
10061-02-6	trans-1,3-Dichloropropylene	U	1.40	ug/kg	0.420	1.40
79-00-5	1,1,2-Trichloroethane	U	1.40	ug/kg	0.420	1.40
591-78-6	2-Hexanone	U	6.99	ug/kg	2.10	6.99
142-28-9	1,3-Dichloropropane	U	1.40	ug/kg	0.420	1.40
127-18-4	Tetrachloroethylene	U	1.40	ug/kg	0.420	1.40
124-48-1	Dibromochloromethane	U	1.40	ug/kg	0.420	1.40
106-93-4	1,2-Dibromoethane	U	1.40	ug/kg	0.420	1.40
108-90-7	Chlorobenzene	U	1.40	ug/kg	0.420	1.40

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

SDG Number: 10-2193  
 Lab Sample ID: 248506010  
 Client ID: RE36-10-7447  
 Batch ID: 963417  
 Run Date: 03/10/2010 00:35  
 Prep Date: 03/09/2010 20:19  
 Data File: 030910V4\4B217.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 % Moisture: 28.5  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.40	ug/kg	0.420	1.40
179601-23-1	m,p-Xylenes	U	2.80	ug/kg	0.420	2.80
95-47-6	o-Xylene	U	1.40	ug/kg	0.420	1.40
100-42-5	Styrene	U	1.40	ug/kg	0.420	1.40
75-25-2	Bromoform	U	1.40	ug/kg	0.420	1.40
79-34-5	1,1,2,2-Tetrachloroethane	U	1.40	ug/kg	0.420	1.40
96-18-4	1,2,3-Trichloropropane	U	1.40	ug/kg	0.420	1.40
108-86-1	Bromobenzene	U	1.40	ug/kg	0.420	1.40
103-65-1	n-Propylbenzene	U	1.40	ug/kg	0.420	1.40
95-49-8	2-Chlorotoluene	U	1.40	ug/kg	0.420	1.40
98-82-8	Isopropylbenzene	U	1.40	ug/kg	0.420	1.40
108-67-8	1,3,5-Trimethylbenzene	U	1.40	ug/kg	0.420	1.40
106-43-4	4-Chlorotoluene	U	1.40	ug/kg	0.420	1.40
98-06-6	tert-Butylbenzene	U	1.40	ug/kg	0.420	1.40
95-63-6	1,2,4-Trimethylbenzene	U	1.40	ug/kg	0.420	1.40
135-98-8	sec-Butylbenzene	U	1.40	ug/kg	0.420	1.40
99-87-6	4-Isopropyltoluene	U	1.40	ug/kg	0.420	1.40
541-73-1	1,3-Dichlorobenzene	U	1.40	ug/kg	0.420	1.40
106-46-7	1,4-Dichlorobenzene	U	1.40	ug/kg	0.420	1.40
104-51-8	n-Butylbenzene	U	1.40	ug/kg	0.420	1.40
96-12-8	1,2-Dibromo-3-chloropropane	U	1.40	ug/kg	0.420	1.40
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.99	ug/kg	2.24	6.99
630-20-6	1,1,1,2-Tetrachloroethane	U	1.40	ug/kg	0.420	1.40
95-50-1	1,2-Dichlorobenzene	U	1.40	ug/kg	0.420	1.40

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	12.5	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B217.D  
Acq On : 10 Mar 2010 12:35 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506010|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 19 20:42:29 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.619	10.613	1.000	96	1029589	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.770	13.765	1.000	117	517211	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.178	16.179	1.000	152	128734	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.613	1.000	96	1029368	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.770	13.764	1.000	117	517223	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.178	16.179	1.000	152	128739	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.966	65	268445	48.29	ug/L	0.00
Spiked Amount	50.000	Range 66	- 134	Recovery	=	96.58%		
43) Toluene-d8	12.252	12.247	0.890	98	758509	64.42	ug/L	0.00
Spiked Amount	50.000	Range 71	- 128	Recovery	=	128.84%#		
61) Bromofluorobenzene	14.953	14.947	0.924	95	203751	81.62	ug/L	0.00
Spiked Amount	50.000	Range 65	- 130	Recovery	=	163.24%#		
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	0.000	5.299	0.000		0	N.D.		
4) Vinyl chloride	5.542	5.521	0.522	62	849	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	6.997	6.991	0.659	59	606	N.D.		
9) Acetone	7.357	7.351	0.693	43	5323	N.D.		
10) 1,1-Dichloroethylene	7.424	7.394	0.699	61	1136	N.D.		
11) Iodomethane	0.000	7.662	0.000		0	N.D.		
12) Acetonitrile	7.698	7.693	0.725	41	191	N.D.		
13) Methyl acetate	7.729	7.747	0.728	43	138	N.D.		
14) Carbon disulfide	7.759	7.778	0.731	76	1154	N.D.		
15) Methylene chloride	7.936	7.967	0.747	84	15215	N.D.		
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.808	8.705	0.829	43	142	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.326	9.320	0.878	43	924	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.686	9.686	0.912	83	504	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.973	0.000		0	N.D.		
26) Cyclohexane	10.076	10.076	0.949	56	1404	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.338	0.000		0	N.D.		
31) Benzene	10.375	10.369	0.977	78	803	N.D.		
32) Cyclohexene	10.606	10.491	0.999	67	139	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	11.015	11.003	1.037	95	1250	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.259	0.000		0	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B217.D  
Acq On : 10 Mar 2010 12:35 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506010|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 19 20:42:29 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.015	0.000		0	N.D.	
44) Toluene	12.326	12.320	0.895	91	2356	Below Cal	92
45) trans-1,3-Dichloroprop...	12.472	12.460	0.906	75	611	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.	
47) 2-Hexanone	12.856	12.856	0.934	43	228	N.D.	
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.917	0.000		0	N.D.	
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.	
52) Chlorobenzene	13.795	13.801	1.002	112	244	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.	
54) Ethylbenzene	13.862	13.862	1.007	91	1123	N.D.	
55) m,p-Xylenes	13.978	13.966	1.015	106	1015	N.D.	
56) o-Xylene	14.398	14.399	1.046	106	178	N.D.	
57) Styrene	0.000	14.399	0.000		0	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.776	14.758	0.913	105	519	N.D.	
62) 1,1,2,2-Tetrachloroethane	14.953	15.014	0.924	83	136	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	0.000	15.167	0.000		0	N.D.	
65) n-Propylbenzene	15.173	15.179	0.938	91	829	N.D.	
66) 1,3,5-Trimethylbenzene	15.337	15.325	0.948	105	402	N.D.	
67) 2-Chlorotoluene	0.000	15.331	0.000		0	N.D.	
68) 4-Chlorotoluene	15.416	15.429	0.953	91	806	N.D.	
69) tert-Butylbenzene	0.000	15.703	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.752	15.740	0.974	105	747	N.D.	
71) sec-Butylbenzene	15.935	15.929	0.985	105	261	N.D.	
72) 4-Isopropyltoluene	16.050	16.051	0.992	119	1677	N.D.	
73) 1,3-Dichlorobenzene	16.105	16.118	0.995	146	225	N.D.	
74) 1,4-Dichlorobenzene	16.209	16.203	1.002	146	137	N.D.	
75) n-Butylbenzene	16.502	16.502	1.020	91	299	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.642	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.629	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.	
80) Naphthalene	19.032	19.026	1.176	128	404	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.385	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.174	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.	
87) Isopropyl Alcohol	7.436	7.430	0.700	45	260	N.D.	
88) Allyl chloride	7.796	7.796	0.734	41	229	N.D.	
89) tert-Butyl Alcohol	7.936	7.924	0.747	59	130	N.D.	
90) Acrylonitrile	0.000	8.168	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.735	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.326	9.339	0.878	43	924	N.D.	
95) Propionitrile	0.000	9.387	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.570	0.000		0	N.D.	
97) Tetrahydrofuran	9.729	9.710	0.916	42	799	N.D.	
98) Isobutyl alcohol	10.076	10.003	0.949	41	1056	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B217.D  
Acq On : 10 Mar 2010 12:35 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506010|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 19 20:42:29 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

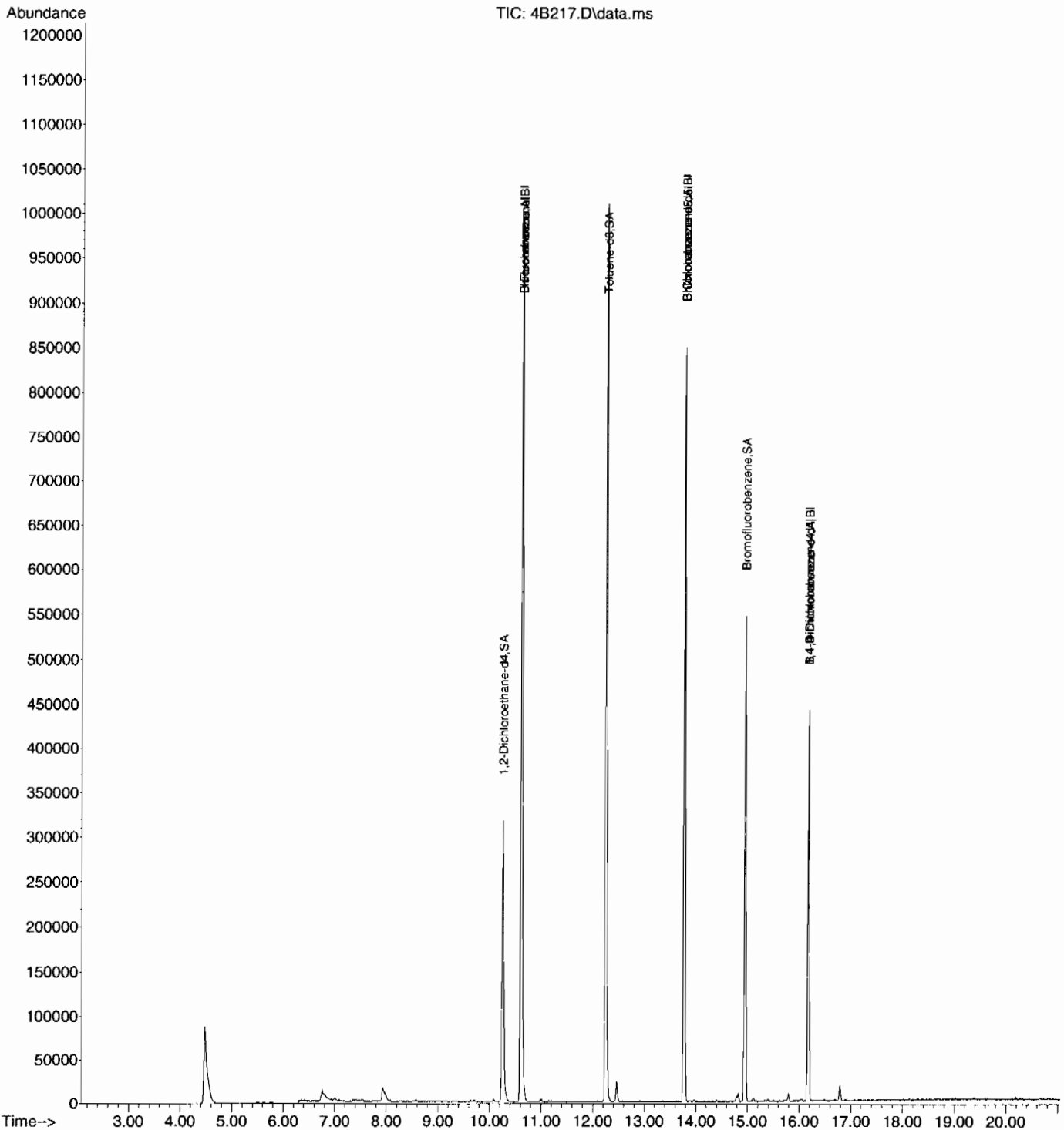
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	10.484	10.381	0.987	73	127	N.D.	
100) Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0m	N.D.	d
104) Ethyl methacrylate	0.000	12.460	0.000		0	N.D.	
106) 1-Chlorohexane	13.649	13.661	0.844	55	100	N.D.	
107) cis-1,4-Dichloro-2-butene	14.789	14.783	0.914	53	270	N.D.	
108) Cyclohexanone	0.000	14.905	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.313	16.319	1.008	91	673	N.D.	
112) bis(2-Chloroisopropyl)...	16.788	16.715	1.038	45	1271	N.D.	

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

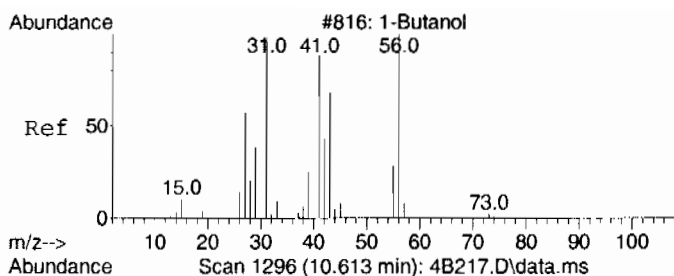
Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B217.D  
Acq On : 10 Mar 2010 12:35 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506010|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 19 20:42:29 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

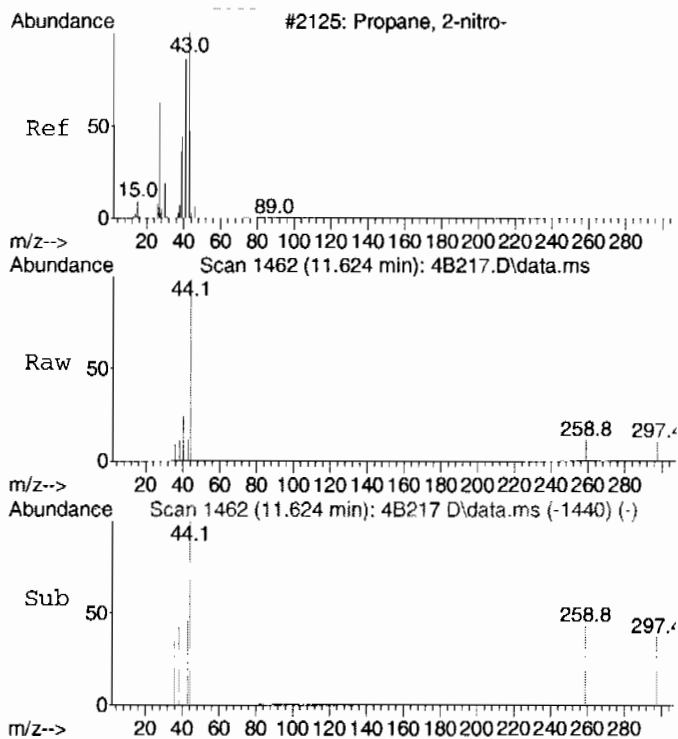
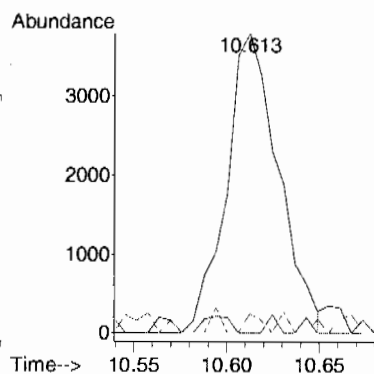






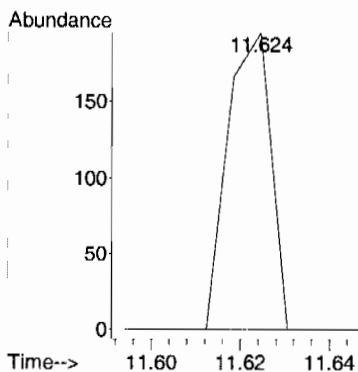
#33 BEFORE analyst DELETION  
n-Butyl alcohol  
Concen: 210.07 ug/L  
RT: 10.613 min Scan# 1296  
Delta R.T. -0.073 min  
Lab File: 4B217.D  
Acq: 10 Mar 2010 12:35 am

Tgt Ion	Ratio	Lower	Upper
56	100		
41	2.9	49.2	109.2#
43	2.0	30.5	90.5#



#102 BEFORE analyst DELETION  
2-Nitropropane  
Concen: 6.27 ug/L  
RT: 11.624 min Scan# 1462  
Delta R.T. -0.043 min  
Lab File: 4B217.D  
Acq: 10 Mar 2010 12:35 am

Tgt Ion	Ratio	Lower	Upper
43	100		
41	0.0	57.4	117.4#





Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B217.D  
Acq On : 10 Mar 2010 12:35 am  
Operator : ACJ  
Sample : |248506010|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.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...	4.481	8.9	ug/L	402304	1	10.619	2248870	50.0

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506011	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 25.1
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7443	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 963417	<b>Inst:</b> VOA4.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/10/2010 01:02	<b>Analyst:</b> ACJ	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/09/2010 20:20	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 030910V4V4B218.D	<b>Column:</b> DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.34	ug/kg	0.454	1.34
74-87-3	Chloromethane	U	1.34	ug/kg	0.401	1.34
75-01-4	Vinyl chloride	U	1.34	ug/kg	0.401	1.34
74-83-9	Bromomethane	U	1.34	ug/kg	0.401	1.34
75-00-3	Chloroethane	U	1.34	ug/kg	0.401	1.34
75-69-4	Trichlorofluoromethane	U	1.34	ug/kg	0.401	1.34
67-64-1	Acetone	U	6.68	ug/kg	2.22	6.68
75-35-4	1,1-Dichloroethylene	U	1.34	ug/kg	0.401	1.34
74-88-4	Iodomethane	U	6.68	ug/kg	2.14	6.68
75-09-2	Methylene chloride	U	6.68	ug/kg	2.67	6.68
75-15-0	Carbon disulfide	U	6.68	ug/kg	1.67	6.68
156-60-5	trans-1,2-Dichloroethylene	U	1.34	ug/kg	0.401	1.34
75-34-3	1,1-Dichloroethane	U	1.34	ug/kg	0.401	1.34
78-93-3	2-Butanone	U	6.68	ug/kg	2.00	6.68
156-59-2	cis-1,2-Dichloroethylene	U	1.34	ug/kg	0.401	1.34
594-20-7	2,2-Dichloropropane	U	1.34	ug/kg	0.401	1.34
67-66-3	Chloroform	U	1.34	ug/kg	0.401	1.34
74-97-5	Bromochloromethane	U	1.34	ug/kg	0.441	1.34
71-55-6	1,1,1-Trichloroethane	U	1.34	ug/kg	0.401	1.34
563-58-6	1,1-Dichloropropene	U	1.34	ug/kg	0.401	1.34
56-23-5	Carbon tetrachloride	U	1.34	ug/kg	0.401	1.34
107-06-2	1,2-Dichloroethane	U	1.34	ug/kg	0.401	1.34
71-43-2	Benzene	U	1.34	ug/kg	0.401	1.34
79-01-6	Trichloroethylene	U	1.34	ug/kg	0.441	1.34
78-87-5	1,2-Dichloropropane	U	1.34	ug/kg	0.401	1.34
75-27-4	Bromodichloromethane	U	1.34	ug/kg	0.401	1.34
74-95-3	Dibromomethane	U	1.34	ug/kg	0.401	1.34
108-10-1	4-Methyl-2-pentanone	U	6.68	ug/kg	1.67	6.68
10061-01-5	cis-1,3-Dichloropropylene	U	1.34	ug/kg	0.401	1.34
108-88-3	Toluene	U	1.34	ug/kg	0.401	1.34
10061-02-6	trans-1,3-Dichloropropylene	U	1.34	ug/kg	0.401	1.34
79-00-5	1,1,2-Trichloroethane	U	1.34	ug/kg	0.401	1.34
591-78-6	2-Hexanone	U	6.68	ug/kg	2.00	6.68
142-28-9	1,3-Dichloropropane	U	1.34	ug/kg	0.401	1.34
127-18-4	Tetrachloroethylene	U	1.34	ug/kg	0.401	1.34
124-48-1	Dibromochloromethane	U	1.34	ug/kg	0.401	1.34
106-93-4	1,2-Dibromoethane	U	1.34	ug/kg	0.401	1.34
108-90-7	Chlorobenzene	U	1.34	ug/kg	0.401	1.34

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

SDG Number: 10-2193  
 Lab Sample ID: 248506011  
 Client ID: RE36-10-7443  
 Batch ID: 963417  
 Run Date: 03/10/2010 01:02  
 Prep Date: 03/09/2010 20:20  
 Data File: 030910V4V4B218.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 25.1  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.34	ug/kg	0.401	1.34
179601-23-1	m,p-Xylenes	U	2.67	ug/kg	0.401	2.67
95-47-6	o-Xylene	U	1.34	ug/kg	0.401	1.34
100-42-5	Styrene	U	1.34	ug/kg	0.401	1.34
75-25-2	Bromoform	U	1.34	ug/kg	0.401	1.34
79-34-5	1,1,2,2-Tetrachloroethane	U	1.34	ug/kg	0.401	1.34
96-18-4	1,2,3-Trichloropropane	U	1.34	ug/kg	0.401	1.34
108-86-1	Bromobenzene	U	1.34	ug/kg	0.401	1.34
103-65-1	n-Propylbenzene	U	1.34	ug/kg	0.401	1.34
95-49-8	2-Chlorotoluene	U	1.34	ug/kg	0.401	1.34
98-82-8	Isopropylbenzene	U	1.34	ug/kg	0.401	1.34
108-67-8	1,3,5-Trimethylbenzene	U	1.34	ug/kg	0.401	1.34
106-43-4	4-Chlorotoluene	U	1.34	ug/kg	0.401	1.34
98-06-6	tert-Butylbenzene	U	1.34	ug/kg	0.401	1.34
95-63-6	1,2,4-Trimethylbenzene	U	1.34	ug/kg	0.401	1.34
135-98-8	sec-Butylbenzene	U	1.34	ug/kg	0.401	1.34
99-87-6	4-Isopropyltoluene	U	1.34	ug/kg	0.401	1.34
541-73-1	1,3-Dichlorobenzene	U	1.34	ug/kg	0.401	1.34
106-46-7	1,4-Dichlorobenzene	U	1.34	ug/kg	0.401	1.34
104-51-8	n-Butylbenzene	U	1.34	ug/kg	0.401	1.34
96-12-8	1,2-Dibromo-3-chloropropane	U	1.34	ug/kg	0.401	1.34
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.68	ug/kg	2.14	6.68
630-20-6	1,1,1,2-Tetrachloroethane	U	1.34	ug/kg	0.401	1.34
95-50-1	1,2-Dichlorobenzene	U	1.34	ug/kg	0.401	1.34

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	19.8	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B218.D  
Acq On : 10 Mar 2010 1:02 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506011|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 19 20:42:57 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.613	10.613	1.000	96	1172989	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	677919	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	203800	50.00	ug/L	0.00
82) B Fluorobenzene	10.613	10.613	1.000	96	1172580	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	677863	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	203806	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.967	65	293092	46.28	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	=	92.56%		
43) Toluene-d8	12.253	12.247	0.890	98	899184	58.26	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	=	116.52%		
61) Bromofluorobenzene	14.953	14.947	0.924	95	299308	75.73	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	=	151.46%#		
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	0.000	5.299	0.000		0	N.D.		
4) Vinyl chloride	5.514	5.521	0.520	62	859	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	6.991	6.991	0.659	59	127	N.D.		
9) Acetone	7.369	7.351	0.694	43	4554	N.D.		
10) 1,1-Dichloroethylene	0.000	7.394	0.000		0	N.D.		
11) Iodomethane	0.000	7.662	0.000		0	N.D.		
12) Acetonitrile	7.686	7.693	0.724	41	152	N.D.		
13) Methyl acetate	7.723	7.747	0.728	43	122	N.D.		
14) Carbon disulfide	7.766	7.778	0.732	76	358	N.D.		
15) Methylene chloride	7.936	7.967	0.748	84	6749	Below Cal		82
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.711	8.705	0.821	43	196	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.326	9.320	0.879	43	827	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.686	9.686	0.913	83	969	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.973	0.000		0	N.D.		
26) Cyclohexane	10.088	10.076	0.951	56	529	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.338	0.000		0	N.D.		
31) Benzene	10.369	10.369	0.977	78	292	N.D.		
32) Cyclohexene	10.613	10.491	1.000	67	383	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	11.015	11.003	1.038	95	642	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.259	0.000		0	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B218.D  
Acq On : 10 Mar 2010 1:02 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506011|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 19 20:42:57 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.015	0.000		0	N.D.	
44) Toluene	12.326	12.320	0.895	91	824	Below Cal	# 39
45) trans-1,3-Dichloroprop...	12.460	12.460	0.905	75	351	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.	
47) 2-Hexanone	12.850	12.856	0.933	43	271	N.D.	
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.	
49) Tetrachloroethylene	12.990	12.917	0.943	164	124	N.D.	
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.	
52) Chlorobenzene	13.807	13.801	1.003	112	401	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.	
54) Ethylbenzene	13.862	13.862	1.007	91	1149	N.D.	
55) m,p-Xylenes	13.972	13.966	1.015	106	518	N.D.	
56) o-Xylene	14.405	14.399	1.046	106	245	N.D.	
57) Styrene	14.399	14.399	1.046	104	191	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.777	14.758	0.913	105	652	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.014	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	0.000	15.167	0.000		0	N.D.	
65) n-Propylbenzene	15.179	15.179	0.938	91	507	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	15.325	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	15.331	0.000		0	N.D.	
68) 4-Chlorotoluene	15.435	15.429	0.954	91	471	N.D.	
69) tert-Butylbenzene	0.000	15.703	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.734	15.740	0.972	105	124	N.D.	
71) sec-Butylbenzene	0.000	15.929	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	16.051	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	16.124	16.118	0.997	146	236	N.D.	
74) 1,4-Dichlorobenzene	16.203	16.203	1.002	146	227	N.D.	
75) n-Butylbenzene	16.502	16.502	1.020	91	131	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.642	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.629	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.	
80) Naphthalene	19.026	19.026	1.176	128	645	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.385	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.174	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.	
87) Isopropyl Alcohol	7.449	7.430	0.702	45	139	N.D.	
88) Allyl chloride	7.741	7.796	0.729	41	263	N.D.	
89) tert-Butyl Alcohol	0.000	7.924	0.000		0	N.D.	
90) Acrylonitrile	0.000	8.168	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.735	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.326	9.339	0.879	43	827	N.D.	
95) Propionitrile	0.000	9.387	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.570	0.000		0	N.D.	
97) Tetrahydrofuran	9.704	9.710	0.914	42	688	N.D.	
98) Isobutyl alcohol	10.082	10.003	0.950	41	215	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B218.D  
Acq On : 10 Mar 2010 1:02 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506011|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 19 20:42:57 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.381	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0m	N.D.	d
104) Ethyl methacrylate	12.460	12.460	0.905	69	125	N.D.	
106) 1-Chlorohexane	13.649	13.661	0.844	55	118	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0	N.D.	
108) Cyclohexanone	15.008	14.905	0.928	42	115	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.325	16.319	1.009	91	140	N.D.	
112) bis(2-Chloroisopropyl)...	16.788	16.715	1.038	45	1686	N.D.	

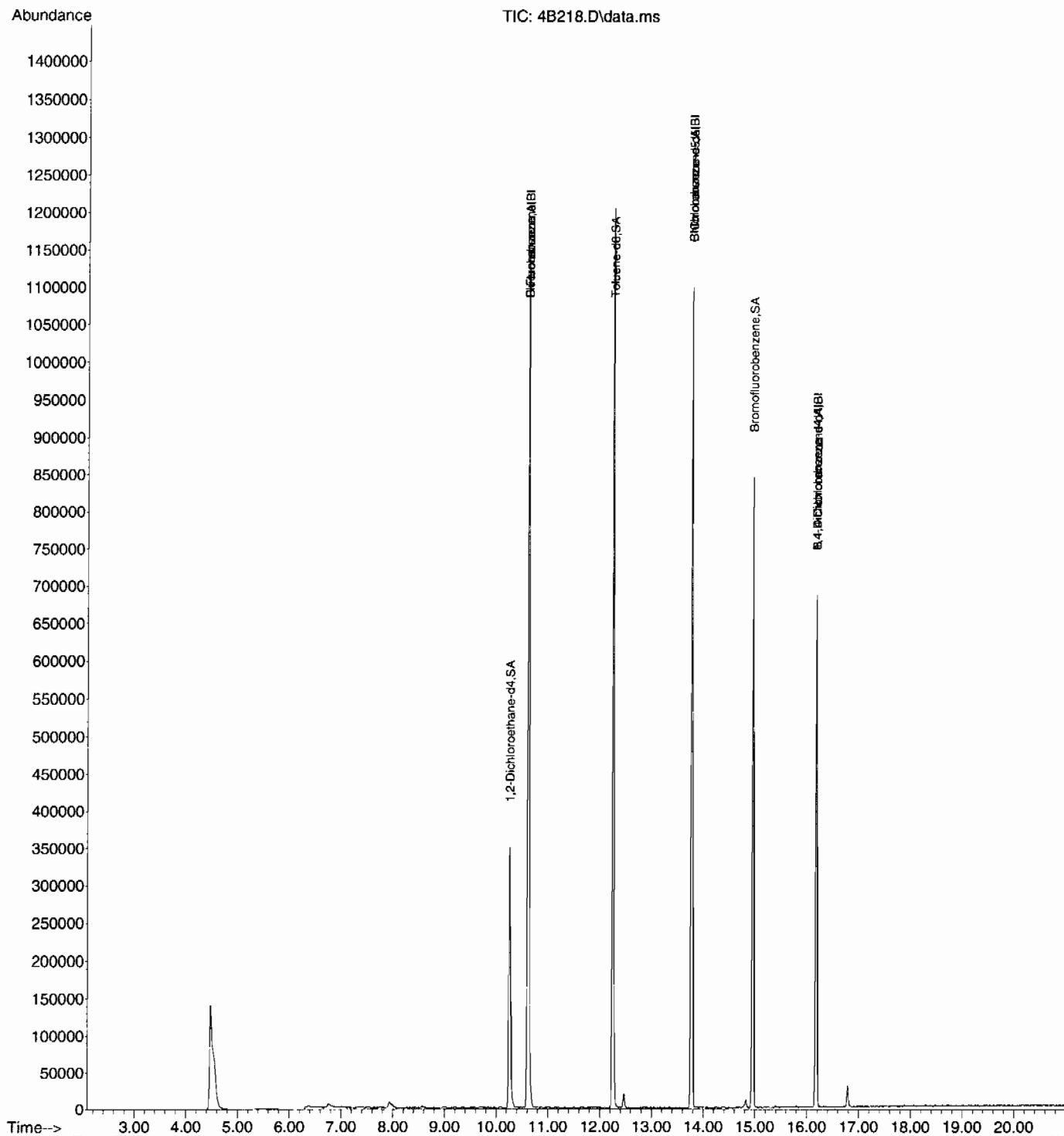
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

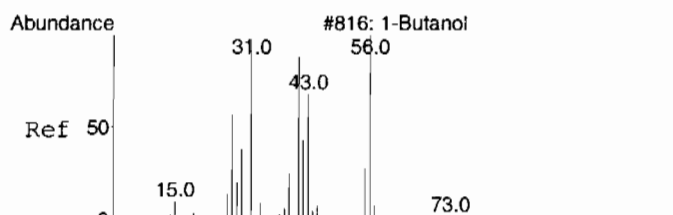


Quantitation Report  
GEL Laboratories, LLC

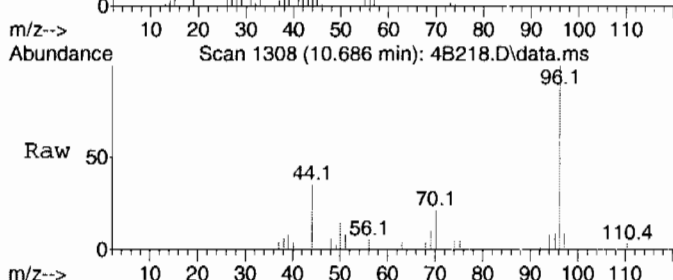
Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B218.D  
Acq On : 10 Mar 2010 1:02 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506011|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 19 20:42:57 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

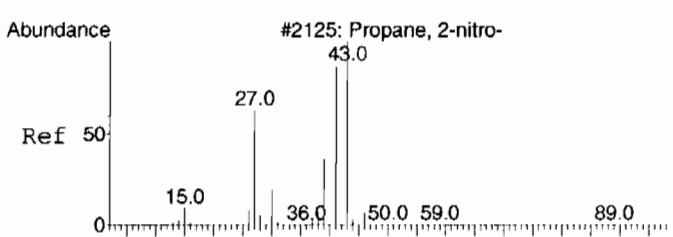
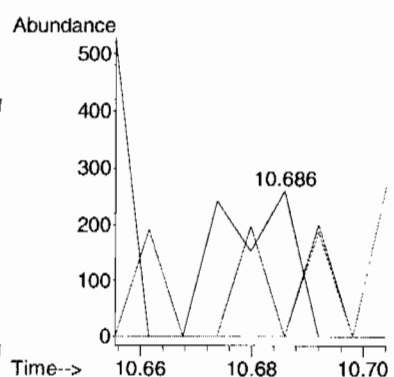
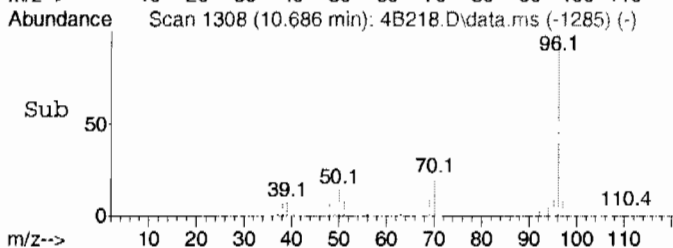




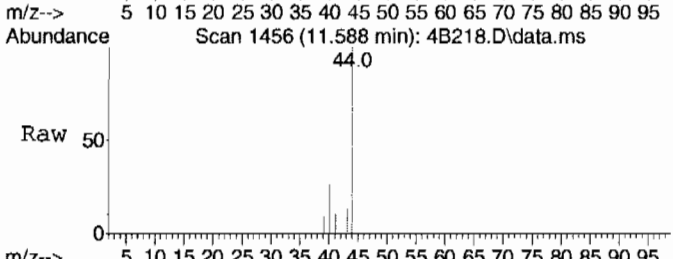
#33 BEFORE analyst DELETION  
 n-Butyl alcohol  
 Concen: 181.49 ug/L  
 RT: 10.686 min Scan# 1308  
 Delta R.T. 0.000 min  
 Lab File: 4B218.D  
 Acq: 10 Mar 2010 1:02 am



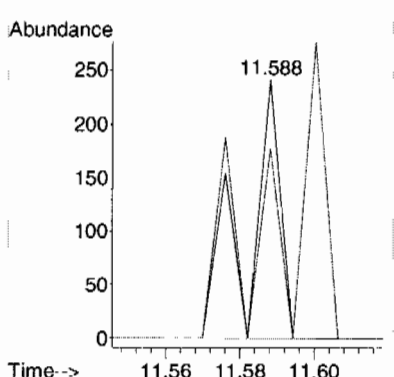
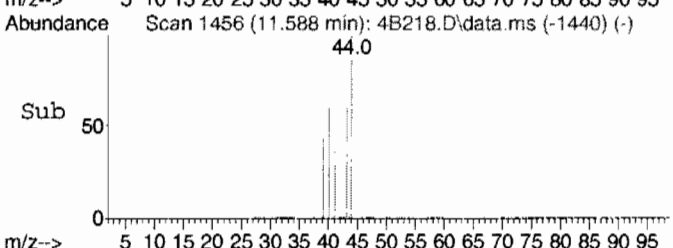
Tgt Ion:	56	Resp:	240
Ion Ratio	100	Lower	Upper
41	0.0	49.2	109.2#
43	0.0	30.5	90.5#



#102 BEFORE analyst DELETION  
 2-Nitropropane  
 Concen: 6.27 ug/L  
 RT: 11.588 min Scan# 1456  
 Delta R.T. -0.079 min  
 Lab File: 4B218.D  
 Acq: 10 Mar 2010 1:02 am



Tgt Ion:	43	Resp:	145
Ion Ratio	100	Lower	Upper
41	69.7	57.4	117.4





Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B218.D  
Acq On : 10 Mar 2010 1:02 am  
Operator : ACJ  
Sample : |248506011|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.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...	4.482	14.9	ug/L	760259	1	10.613	2557310	50.0

**Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506013	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 16.3
<b>Client ID:</b> RE36-10-7437	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 963417	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Run Date:</b> 03/10/2010 01:57	<b>Inst:</b> VOA4J	<b>Dilution:</b> 1
<b>Prep Date:</b> 03/09/2010 20:22	<b>Analyst:</b> ACJ	<b>Purge Vol:</b> 5 mL
<b>Data File:</b> 030910V44B220.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	1.19	ug/kg	0.406	1.19
74-87-3	Chloromethane	U	1.19	ug/kg	0.358	1.19
75-01-4	Vinyl chloride	U	1.19	ug/kg	0.358	1.19
74-83-9	Bromomethane	U	1.19	ug/kg	0.358	1.19
75-00-3	Chloroethane	U	1.19	ug/kg	0.358	1.19
75-69-4	Trichlorofluoromethane	U	1.19	ug/kg	0.358	1.19
67-64-1	Acetone	U	5.97	ug/kg	1.98	5.97
75-35-4	1,1-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
74-88-4	Iodomethane	U	5.97	ug/kg	1.91	5.97
75-09-2	Methylene chloride	U	5.97	ug/kg	2.39	5.97
75-15-0	Carbon disulfide	U	5.97	ug/kg	1.49	5.97
156-60-5	trans-1,2-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
75-34-3	1,1-Dichloroethane	U	1.19	ug/kg	0.358	1.19
78-93-3	2-Butanone	U	5.97	ug/kg	1.79	5.97
156-59-2	cis-1,2-Dichloroethylene	U	1.19	ug/kg	0.358	1.19
594-20-7	2,2-Dichloropropane	U	1.19	ug/kg	0.358	1.19
67-66-3	Chloroform	U	1.19	ug/kg	0.358	1.19
74-97-5	Bromochloromethane	U	1.19	ug/kg	0.394	1.19
71-55-6	1,1,1-Trichloroethane	U	1.19	ug/kg	0.358	1.19
563-58-6	1,1-Dichloropropene	U	1.19	ug/kg	0.358	1.19
56-23-5	Carbon tetrachloride	U	1.19	ug/kg	0.358	1.19
107-06-2	1,2-Dichloroethane	U	1.19	ug/kg	0.358	1.19
71-43-2	Benzene	U	1.19	ug/kg	0.358	1.19
79-01-6	Trichloroethylene	U	1.19	ug/kg	0.394	1.19
78-87-5	1,2-Dichloropropane	U	1.19	ug/kg	0.358	1.19
75-27-4	Bromodichloromethane	U	1.19	ug/kg	0.358	1.19
74-95-3	Dibromomethane	U	1.19	ug/kg	0.358	1.19
108-10-1	4-Methyl-2-pentanone	U	5.97	ug/kg	1.49	5.97
10061-01-5	cis-1,3-Dichloropropylene	U	1.19	ug/kg	0.358	1.19
108-88-3	Toluene	U	1.19	ug/kg	0.358	1.19
10061-02-6	trans-1,3-Dichloropropylene	U	1.19	ug/kg	0.358	1.19
79-00-5	1,1,2-Trichloroethane	U	1.19	ug/kg	0.358	1.19
591-78-6	2-Hexanone	U	5.97	ug/kg	1.79	5.97
142-28-9	1,3-Dichloropropane	U	1.19	ug/kg	0.358	1.19
127-18-4	Tetrachloroethylene	U	1.19	ug/kg	0.358	1.19
124-48-1	Dibromochloromethane	U	1.19	ug/kg	0.358	1.19
106-93-4	1,2-Dibromoethane	U	1.19	ug/kg	0.358	1.19
108-90-7	Chlorobenzene	U	1.19	ug/kg	0.358	1.19

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193  
Lab Sample ID: 248506013  
  
Client ID: RE36-10-7437  
Batch ID: 963417  
Run Date: 03/10/2010 01:57  
Prep Date: 03/09/2010 20:22  
Data File: 030910V4V4B220.D

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA4.I  
Analyst: ACJ  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 16.3  
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	U	1.19	ug/kg	0.358	1.19
179601-23-1	m,p-Xylenes	U	2.39	ug/kg	0.358	2.39
95-47-6	o-Xylene	U	1.19	ug/kg	0.358	1.19
100-42-5	Styrene	U	1.19	ug/kg	0.358	1.19
75-25-2	Bromoform	U	1.19	ug/kg	0.358	1.19
79-34-5	1,1,2,2-Tetrachloroethane	U	1.19	ug/kg	0.358	1.19
96-18-4	1,2,3-Trichloropropane	U	1.19	ug/kg	0.358	1.19
108-86-1	Bromobenzene	U	1.19	ug/kg	0.358	1.19
103-65-1	n-Propylbenzene	U	1.19	ug/kg	0.358	1.19
95-49-8	2-Chlorotoluene	U	1.19	ug/kg	0.358	1.19
98-82-8	Isopropylbenzene	U	1.19	ug/kg	0.358	1.19
108-67-8	1,3,5-Trimethylbenzene	U	1.19	ug/kg	0.358	1.19
106-43-4	4-Chlorotoluene	U	1.19	ug/kg	0.358	1.19
98-06-6	tert-Butylbenzene	U	1.19	ug/kg	0.358	1.19
95-63-6	1,2,4-Trimethylbenzene	U	1.19	ug/kg	0.358	1.19
135-98-8	sec-Butylbenzene	U	1.19	ug/kg	0.358	1.19
99-87-6	4-Isopropyltoluene	U	1.19	ug/kg	0.358	1.19
541-73-1	1,3-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19
106-46-7	1,4-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19
104-51-8	n-Butylbenzene	U	1.19	ug/kg	0.358	1.19
96-12-8	1,2-Dibromo-3-chloropropane	U	1.19	ug/kg	0.358	1.19
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.97	ug/kg	1.91	5.97
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.19	ug/kg	0.358	1.19
95-50-1	1,2-Dichlorobenzene	U	1.19	ug/kg	0.358	1.19

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	32.3	ug/kg	0	J
	unknown siloxane	16.79	8.43	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B220.D  
Acq On : 10 Mar 2010 1:57 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506013|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 19 20:44:39 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev (Min)
Internal Standards								
1) Fluorobenzene	10.619	10.613	1.000	96	965515	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	440746	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	89348	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.613	1.000	96	965131	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	440746	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	89351	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	10.259	10.259	0.966	65	256008	49.11	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery =	98.22%				
43) Toluene-d8	12.253	12.247	0.890	98	670959	66.87	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery =	133.74%#				
61) Bromofluorobenzene	14.953	14.947	0.924	95	159607	92.12	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery =	184.24%#				
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	0.000	5.299	0.000		0	N.D.		
4) Vinyl chloride	5.550	5.521	0.523	62	473	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	0.000	6.991	0.000		0	N.D.		
9) Acetone	7.363	7.351	0.693	43	6737	N.D.		
10) 1,1-Dichloroethylene	7.400	7.394	0.697	61	708	N.D.		
11) Iodomethane	0.000	7.662	0.000		0	N.D.		
12) Acetonitrile	7.680	7.693	0.723	41	151	N.D.		
13) Methyl acetate	7.747	7.747	0.730	43	404	N.D.		
14) Carbon disulfide	7.747	7.778	0.730	76	232	N.D.		
15) Methylene chloride	7.930	7.967	0.747	84	2598	Below Cal	#	39
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.625	8.705	0.812	43	147	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.332	9.320	0.879	43	1286	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.674	9.686	0.911	83	794	N.D.		
25) 1,1,1-Trichloroethane	9.979	9.973	0.940	97	631	N.D.		
26) Cyclohexane	10.082	10.076	0.949	56	625	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.338	0.000		0	N.D.		
31) Benzene	10.363	10.369	0.976	78	519	N.D.		
32) Cyclohexene	10.607	10.491	0.999	67	158	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	11.009	11.003	1.037	95	1557	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.259	0.000		0	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B220.D  
Acq On : 10 Mar 2010 1:57 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506013|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 19 20:44:39 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.015	0.000		0	N.D.	
44) Toluene	12.326	12.320	0.895	91	1681	Below Cal	87
45) trans-1,3-Dichloroprop...	12.478	12.460	0.906	75	555	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.	
47) 2-Hexanone	12.856	12.856	0.934	43	101	N.D.	
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.	
49) Tetrachloroethylene	12.911	12.917	0.938	164	151	N.D.	
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.	
52) Chlorobenzene	13.807	13.801	1.003	112	161	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0m	N.D.	d
54) Ethylbenzene	0.000	13.862	0.000		0	N.D.	
55) m,p-Xylenes	0.000	13.966	0.000		0	N.D.	
56) o-Xylene	14.417	14.399	1.047	106	269	N.D.	
57) Styrene	14.405	14.399	1.046	104	158	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.752	14.758	0.912	105	348	N.D.	
62) 1,1,2,2-Tetrachloroethane	14.959	15.014	0.925	83	129	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	15.167	15.167	0.937	156	175	N.D.	
65) n-Propylbenzene	15.337	15.179	0.948	91	246	N.D.	
66) 1,3,5-Trimethylbenzene	15.325	15.325	0.947	105	452	N.D.	
67) 2-Chlorotoluene	0.000	15.331	0.000		0	N.D.	
68) 4-Chlorotoluene	15.423	15.429	0.953	91	400	N.D.	
69) tert-Butylbenzene	0.000	15.703	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.740	15.740	0.973	105	663	N.D.	
71) sec-Butylbenzene	0.000	15.929	0.000		0	N.D.	
72) 4-Isopropyltoluene	16.057	16.051	0.992	119	636	N.D.	
73) 1,3-Dichlorobenzene	0.000	16.118	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	16.203	16.203	1.002	146	393	N.D.	
75) n-Butylbenzene	0.000	16.502	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.642	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.629	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.	
80) Naphthalene	19.026	19.026	1.176	128	380	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.385	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.174	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.	
87) Isopropyl Alcohol	7.552	7.430	0.711	45	266	N.D.	
88) Allyl chloride	7.711	7.796	0.726	41	154	N.D.	
89) tert-Butyl Alcohol	7.912	7.924	0.745	59	262	N.D.	
90) Acrylonitrile	0.000	8.168	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.735	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.332	9.339	0.879	43	1286	N.D.	
95) Propionitrile	0.000	9.387	0.000		0	N.D.	
96) Methacrylonitrile	9.448	9.570	0.890	41	119	N.D.	
97) Tetrahydrofuran	9.704	9.710	0.914	42	540	N.D.	
98) Isobutyl alcohol	10.046	10.003	0.946	41	290	N.D.	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B220.D  
Acq On : 10 Mar 2010 1:57 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506013|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 19 20:44:39 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

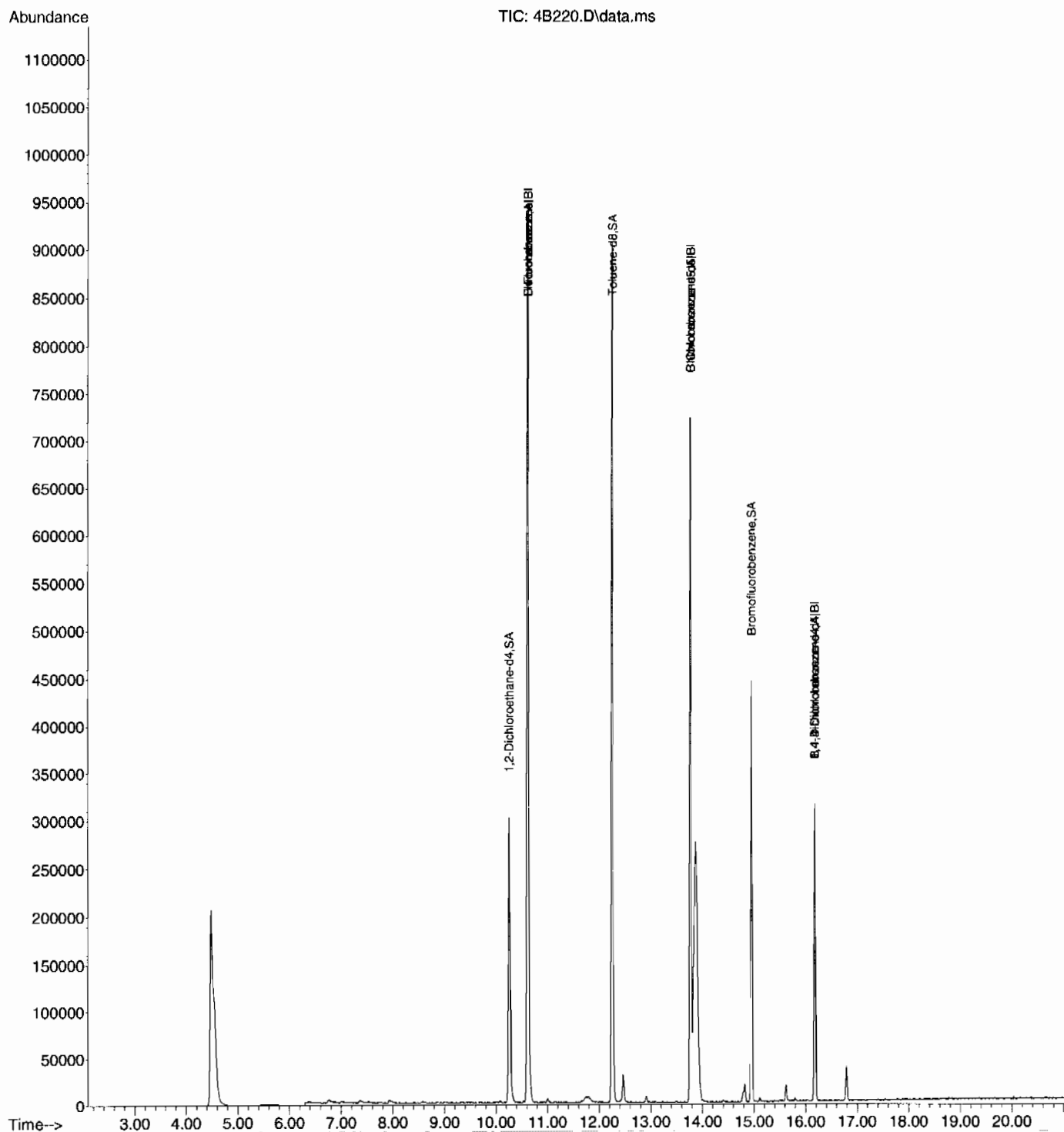
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.381	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0m	N.D.	d
104) Ethyl methacrylate	12.307	12.460	0.894	69	102	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.795	14.783	0.914	53	364	N.D.	
108) Cyclohexanone	0.000	14.905	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0m	N.D.	d
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.325	16.319	1.009	91	289	N.D.	
112) bis(2-Chloroisopropyl)...	16.746	16.715	1.035	45	102	N.D.	

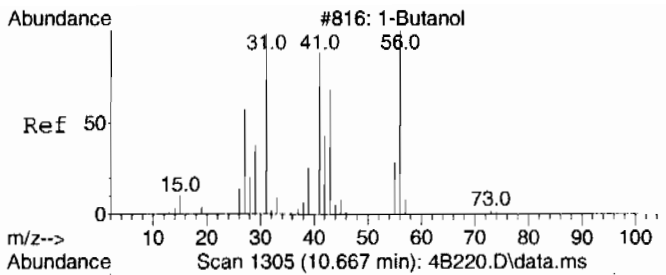
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B220.D  
Acq On : 10 Mar 2010 1:57 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506013|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 20 Sample Multiplier: 1

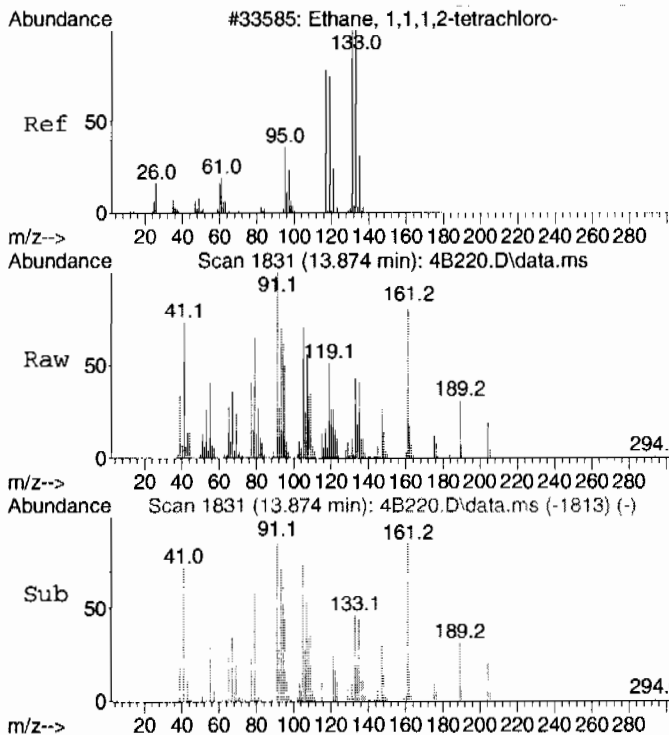
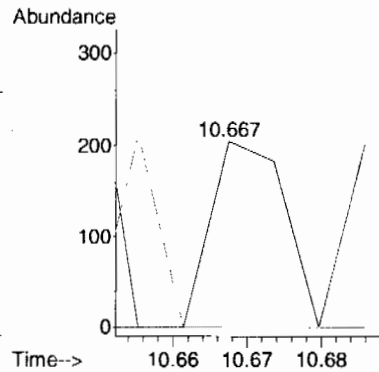
Quant Time: Mar 19 20:44:39 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE





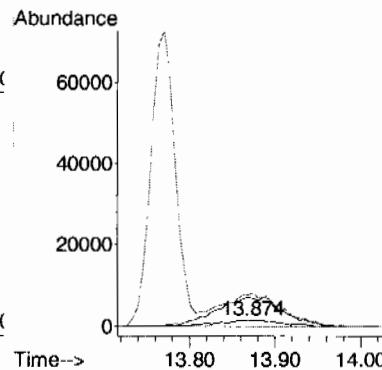
#33 BEFORE analyst DELETION  
n-Butyl alcohol  
Concen: 181.25 ug/L  
RT: 10.667 min Scan# 1305  
Delta R.T. -0.018 min  
Lab File: 4B220.D  
Acq: 10 Mar 2010 1:57 am

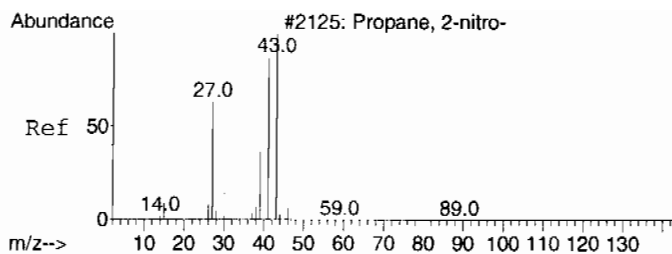
Tgt Ion	Ratio	Lower	Upper
56	100		
41	157.7	49.2	109.2#
43	0.0	30.5	90.5#



#53 BEFORE analyst DELETION  
1,1,1,2-Tetrachloroethane  
Concen: 1.96 ug/L  
RT: 13.874 min Scan# 1831  
Delta R.T. 0.024 min  
Lab File: 4B220.D  
Acq: 10 Mar 2010 1:57 am

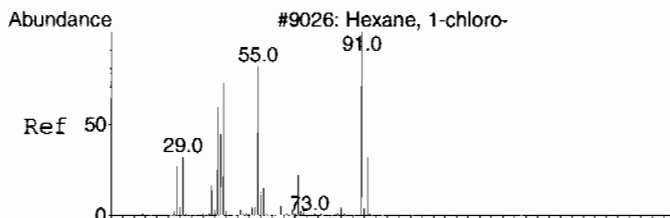
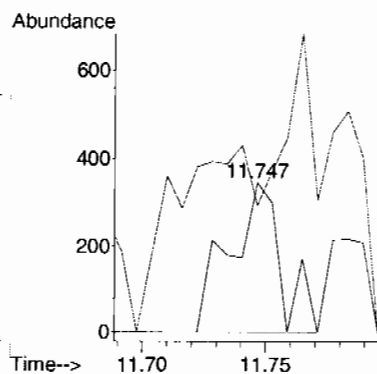
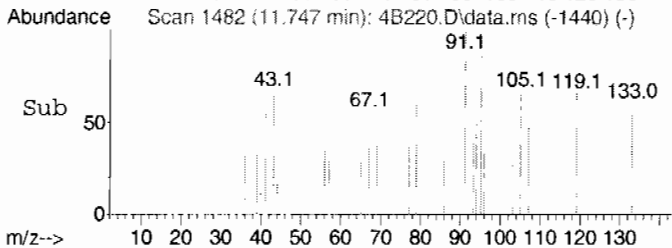
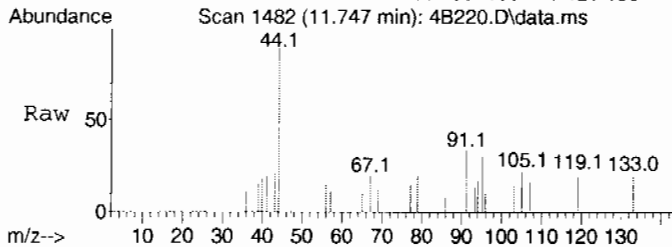
Tgt Ion	Ratio	Lower	Upper
131	100		
133	0.0	65.4	125.4#
119	0.0	34.0	94.0#





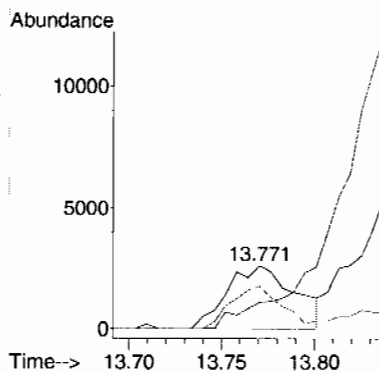
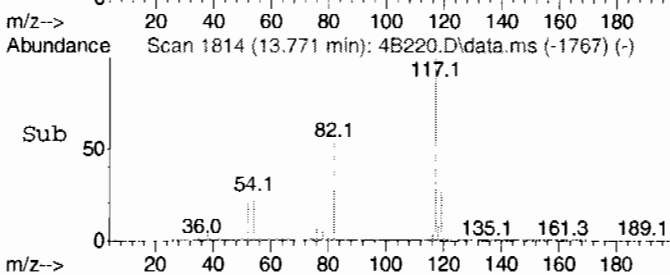
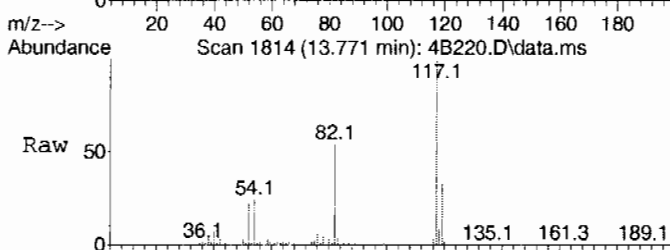
#102 BEFORE analyst DELETION  
2-Nitropropane  
Concen: 6.44 ug/L  
RT: 11.747 min Scan# 1482  
Delta R.T. 0.080 min  
Lab File: 4B220.D  
Acq: 10 Mar 2010 1:57 am

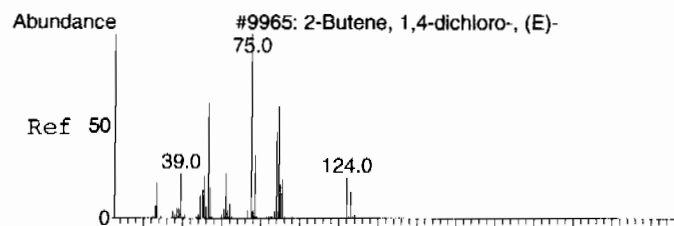
Tgt Ion: 43 Resp: 507  
Ion Ratio Lower Upper  
43 100  
41 196.3 57.4 117.4#



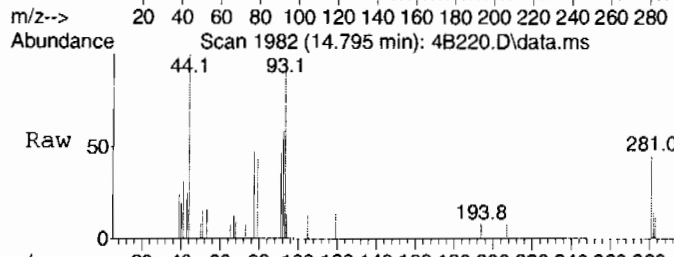
#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 6.04 ug/L  
RT: 13.771 min Scan# 1814  
Delta R.T. 0.110 min  
Lab File: 4B220.D  
Acq: 10 Mar 2010 1:57 am

Tgt Ion: 55 Resp: 6619  
Ion Ratio Lower Upper  
55 100  
91 0.0 108.1 168.1#  
56 52.2 27.8 87.8

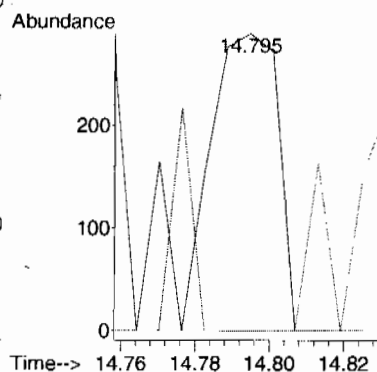
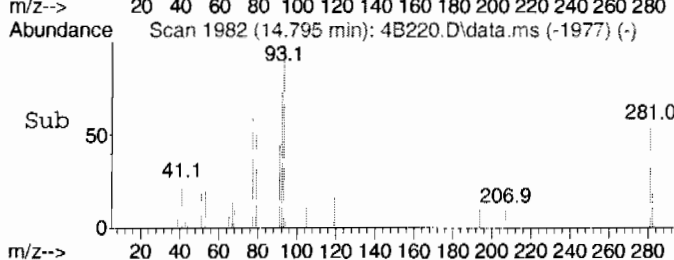




#109 BEFORE analyst DELETION  
trans-1,4-Dichloro-2-butene  
Concen: 0.82 ug/L  
RT: 14.795 min Scan# 1982  
Delta R.T. -0.268 min  
Lab File: 4B220.D  
Acq: 10 Mar 2010 1:57 am



Tgt Ion: 53 Resp: 364  
Ion Ratio Lower Upper  
53 100  
88 0.0 24.1 84.1#  
75 53.3 97.3 157.3#



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B220.D  
Acq On : 10 Mar 2010 1:57 am  
Operator : ACJ  
Sample : |248506013|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

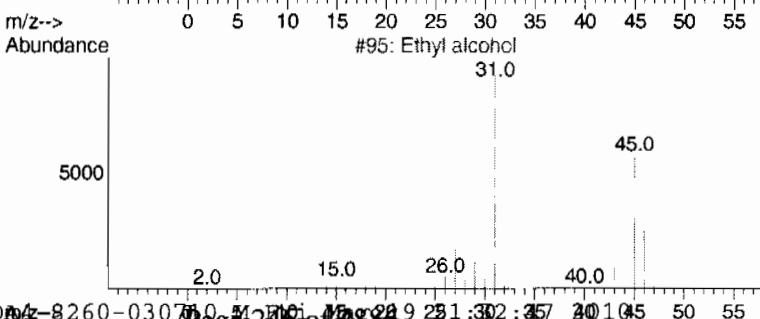
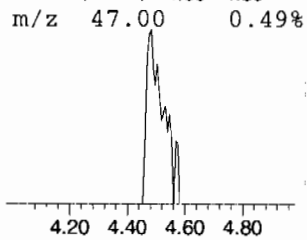
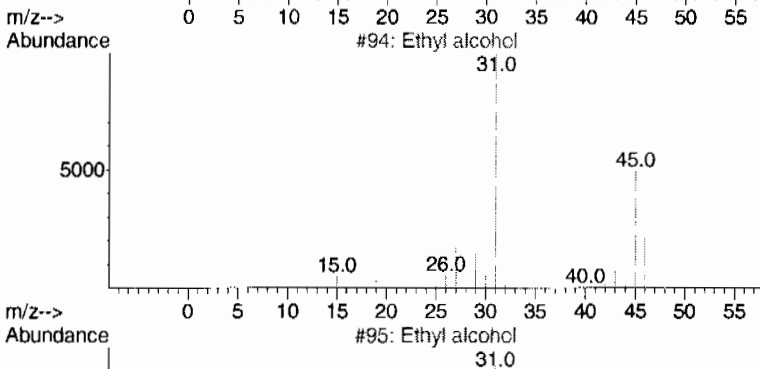
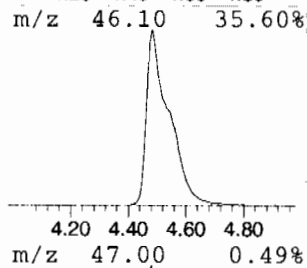
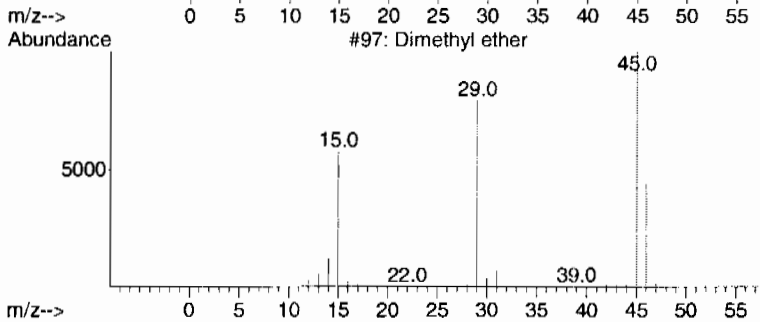
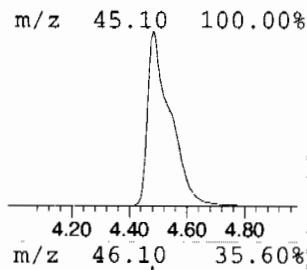
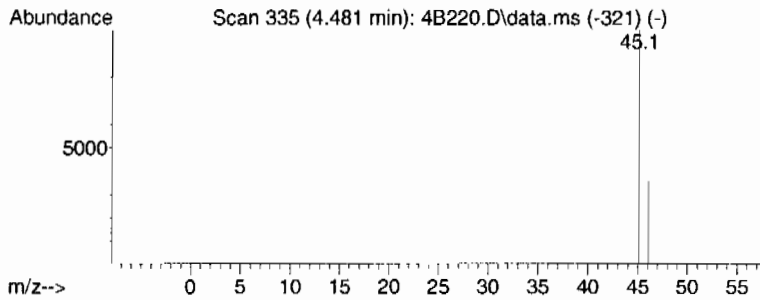
TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

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

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	27.03 ug/L	1136600	Fluorobenzene	10.619

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Dimethyl ether	46	C2H6O	000115-10-6	5
2		Ethyl alcohol	46	C2H6O	000064-17-5	4
3		Ethyl alcohol	46	C2H6O	000064-17-5	4
4		Ethyl alcohol	46	C2H6O	000064-17-5	4
5		Formic acid	46	CH2O2	000064-18-6	3



## Page: 2

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B220.D  
Acq On : 10 Mar 2010 1:57 am  
Operator : ACJ  
Sample : |248506013|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.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...	4.481	27.0	ug/L	1136600	1	10.619	2102330	50.0
unknown siloxane	16.788	7.1	ug/L	84935	6	16.179	601716	50.0



**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193  
Lab Sample ID: 248506014

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA4.I  
Analyst: ACJ  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 8.1  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

Client ID: RE36-10-7440  
Batch ID: 963417  
Run Date: 03/10/2010 02:24  
Prep Date: 03/09/2010 20:23  
Data File: 030910V44B221.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.370	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.327	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.327	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.327	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.327	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.327	1.09
67-64-1	Acetone	J	3.58	ug/kg	1.81	5.44
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
74-88-4	Iodomethane	U	5.44	ug/kg	1.74	5.44
75-09-2	Methylene chloride	U	5.44	ug/kg	2.18	5.44
75-15-0	Carbon disulfide	U	5.44	ug/kg	1.36	5.44
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.327	1.09
78-93-3	2-Butanone	U	5.44	ug/kg	1.63	5.44
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.327	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.327	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.359	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.327	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.327	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.327	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.327	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.327	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.359	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.327	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.327	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.327	1.09
108-10-1	4-Methyl-2-pentanone	U	5.44	ug/kg	1.36	5.44
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
108-88-3	Toluene		3.71	ug/kg	0.327	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.327	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.327	1.09
591-78-6	2-Hexanone	U	5.44	ug/kg	1.63	5.44
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.327	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.327	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.327	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.327	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.327	1.09

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506014	Date Received: 03/03/2010 08:50	%Moisture: 8.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7440	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.1	Dilution: 1
Run Date: 03/10/2010 02:24	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:23	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4V4B221.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.327	1.09
179601-23-1	m,p-Xylenes	J	0.370	ug/kg	0.327	2.18
95-47-6	o-Xylene	U	1.09	ug/kg	0.327	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.327	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.327	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.327	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.327	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.327	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.327	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.327	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.327	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.327	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.327	1.09
99-87-6	4-Isopropyltoluene		2.33	ug/kg	0.327	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.327	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.327	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.44	ug/kg	1.74	5.44
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.327	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.327	1.09

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	16	ug/kg	0	J
	unknown hydrocarbon	14.79	34.4	ug/kg	0	J
	unknown hydrocarbon	15.12	14.5	ug/kg	0	J
	unknown hydrocarbon	15.79	25.2	ug/kg	0	J
	unknown substituted benzene	15.95	8.57	ug/kg	0	J
	unknown siloxane	16.79	9.26	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B221.D  
Acq On : 10 Mar 2010 2:24 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506014|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 19 20:45:26 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.619	10.613	1.000	96	1136723	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	712733	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	276417	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.613	1.000	96	1136454	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	712775	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	276425	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.966	65	289070	47.10	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	= 94.20%			
43) Toluene-d8	12.253	12.247	0.890	98	890970	54.91	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	= 109.82%			
61) Bromofluorobenzene	14.953	14.947	0.924	95	354687	66.17	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	= 132.34%#			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	0.000	5.299	0.000		0	N.D.		
4) Vinyl chloride	5.521	5.521	0.520	62	1000	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	6.991	6.991	0.658	59	702	N.D.		
9) Acetone	7.369	7.351	0.694	43	22910	3.29	ug/L	91
10) 1,1-Dichloroethylene	0.000	7.394	0.000		0	N.D.		
11) Iodomethane	0.000	7.662	0.000		0	N.D.		
12) Acetonitrile	7.692	7.693	0.724	41	120	N.D.		
13) Methyl acetate	7.747	7.747	0.730	43	434	N.D.		
14) Carbon disulfide	7.760	7.778	0.731	76	1063	N.D.		
15) Methylene chloride	7.936	7.967	0.747	84	12066	Below Cal		96
16) tert-Butyl methyl ether	8.229	8.235	0.775	73	129	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.680	8.705	0.817	43	110	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.332	9.320	0.879	43	1371	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.692	9.686	0.913	83	384	N.D.		
25) 1,1,1-Trichloroethane	9.966	9.973	0.939	97	170	N.D.		
26) Cyclohexane	10.082	10.076	0.949	56	372	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.271	10.338	0.967	62	129	N.D.		
31) Benzene	10.381	10.369	0.978	78	1159	N.D.		
32) Cyclohexene	10.619	10.491	1.000	67	303	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	11.009	11.003	1.037	95	1774	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	11.259	11.259	1.060	83	131	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B221.D  
Acq On : 10 Mar 2010 2:24 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506014|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 19 20:45:26 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.		
42) 4-Methyl-2-pentanone	0.000	12.015	0.000		0	N.D.		
44) Toluene	12.320	12.320	0.895	91	101187	3.41 ug/L		99
45) trans-1,3-Dichloroprop...	12.454	12.460	0.904	75	118	N.D.		
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.		
47) 2-Hexanone	12.868	12.856	0.934	43	308	N.D.		
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.		
49) Tetrachloroethylene	12.935	12.917	0.939	164	127	N.D.		
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.		
52) Chlorobenzene	13.801	13.801	1.002	112	135	N.D.		
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.		
54) Ethylbenzene	13.862	13.862	1.007	91	7961	N.D.		
55) m,p-Xylenes	13.966	13.966	1.014	106	3869	0.34 ug/L		97
56) o-Xylene	14.398	14.399	1.046	106	2037	N.D.		
57) Styrene	14.392	14.399	1.045	104	1348	N.D.		
59) Bromoform	0.000	14.655	0.000		0	N.D.		
60) Isopropylbenzene	0.000	14.758	0.000		0m	N.D. d		
62) 1,1,2,2-Tetrachloroethane	14.947	15.014	0.924	83	240	N.D.		
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.		
64) Bromobenzene	0.000	15.167	0.000		0	N.D.		
65) n-Propylbenzene	15.246	15.179	0.942	91	412	N.D.		
66) 1,3,5-Trimethylbenzene	15.331	15.325	0.948	105	1954	N.D.		
67) 2-Chlorotoluene	0.000	15.331	0.000		0	N.D.		
68) 4-Chlorotoluene	0.000	15.429	0.000		0m	N.D. d		
69) tert-Butylbenzene	15.727	15.703	0.972	134	401	N.D.		
70) 1,2,4-Trimethylbenzene	15.746	15.740	0.973	105	2402	N.D.		
71) sec-Butylbenzene	15.874	15.929	0.981	105	701	N.D.		
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	39419	2.14 ug/L #		49
73) 1,3-Dichlorobenzene	0.000	16.118	0.000		0	N.D.		
74) 1,4-Dichlorobenzene	16.215	16.203	1.002	146	210	N.D.		
75) n-Butylbenzene	16.502	16.502	1.020	91	466	N.D.		
76) 1,2-Dichlorobenzene	16.654	16.642	1.029	146	136	N.D.		
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	0.000	18.629	0.000		0	N.D.		
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.		
80) Naphthalene	19.038	19.026	1.177	128	1128	N.D.		
81) 1,2,3-Trichlorobenzene	0.000	19.385	0.000		0	N.D.		
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	0.000	7.174	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.		
87) Isopropyl Alcohol	7.424	7.430	0.699	45	959	N.D.		
88) Allyl chloride	7.814	7.796	0.736	41	248	N.D.		
89) tert-Butyl Alcohol	7.948	7.924	0.749	59	1679	N.D.		
90) Acrylonitrile	0.000	8.168	0.000		0	N.D.		
91) Isopropyl ether	0.000	8.735	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.		
94) Ethyl acetate	9.332	9.339	0.879	43	1371	N.D.		
95) Propionitrile	0.000	9.387	0.000		0	N.D.		
96) Methacrylonitrile	0.000	9.570	0.000		0	N.D.		
97) Tetrahydrofuran	9.716	9.710	0.915	42	1372	N.D.		
98) Isobutyl alcohol	10.033	10.003	0.945	41	255	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B221.D  
Acq On : 10 Mar 2010 2:24 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506014|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 19 20:45:26 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

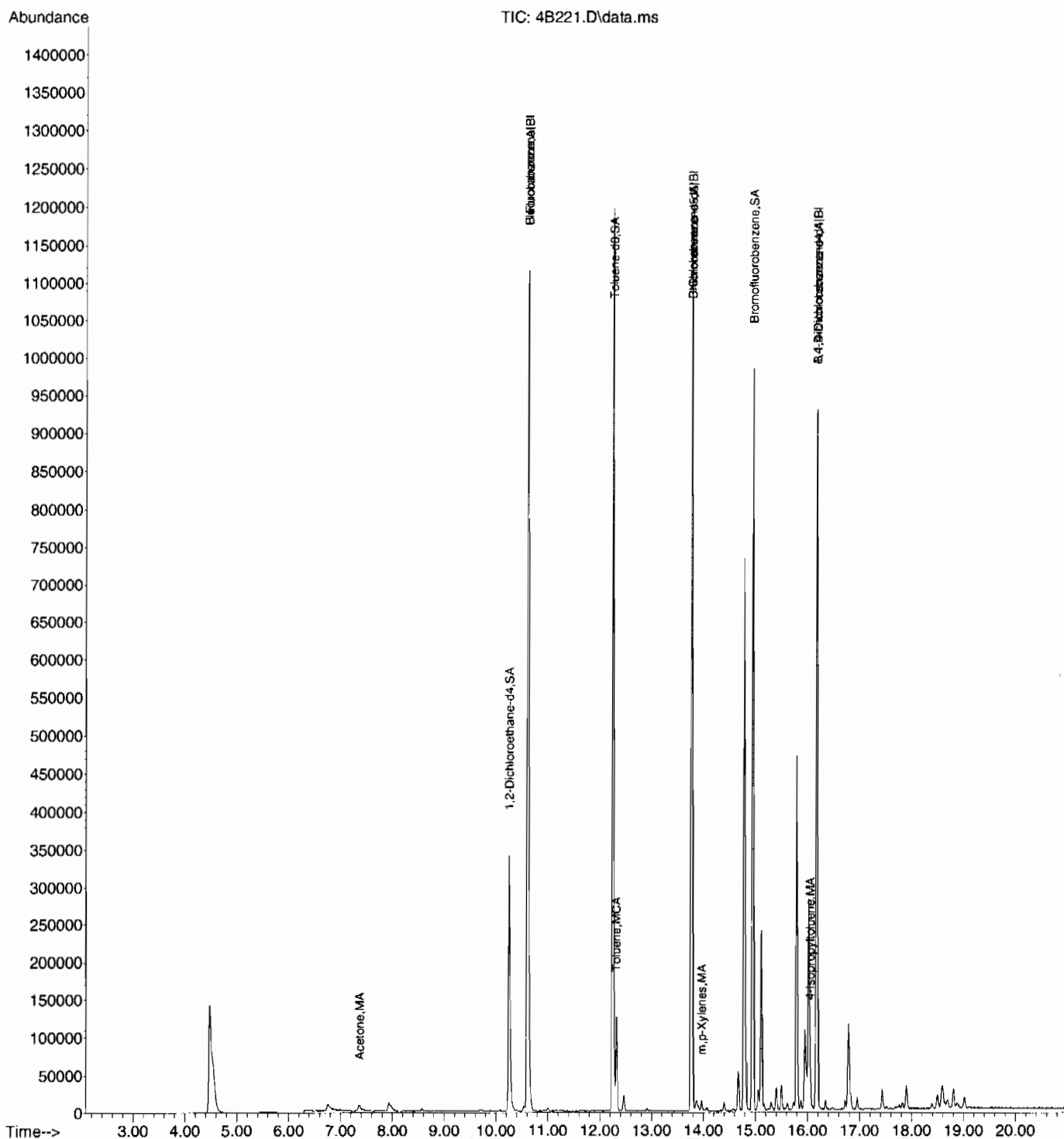
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.381	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0m	N.D.	d
104) Ethyl methacrylate	0.000	12.460	0.000		0	N.D.	
106) 1-Chlorohexane	13.649	13.661	0.844	55	117	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0m	N.D.	d
108) Cyclohexanone	0.000	14.905	0.000		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0m	N.D.	d
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.343	16.319	1.010	91	2494	N.D.	
112) bis(2-Chloroisopropyl)...	16.721	16.715	1.034	45	165	N.D.	

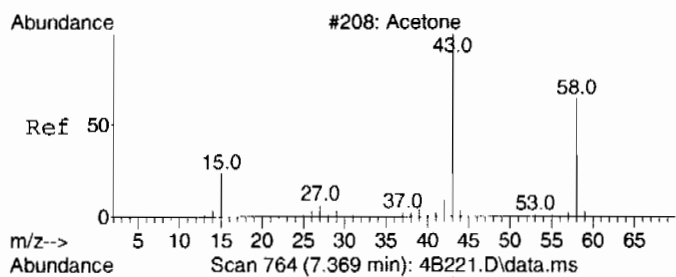
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B221.D  
Acq On : 10 Mar 2010 2:24 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506014|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 21 Sample Multiplier: 1

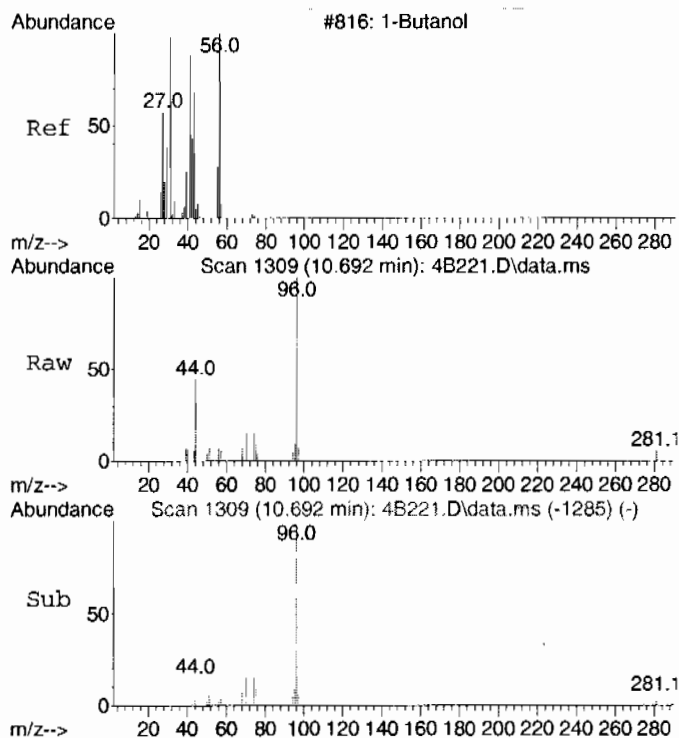
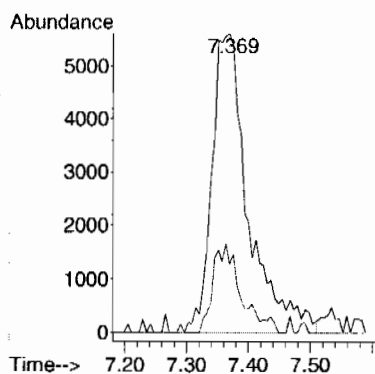
Quant Time: Mar 19 20:45:26 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE





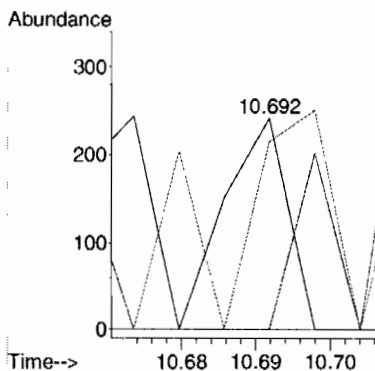
#9  
Acetone  
Concen: 3.29 ug/L  
RT: 7.369 min Scan# 764  
Delta R.T. 0.018 min  
Lab File: 4B221.D  
Acq: 10 Mar 2010 2:24 am

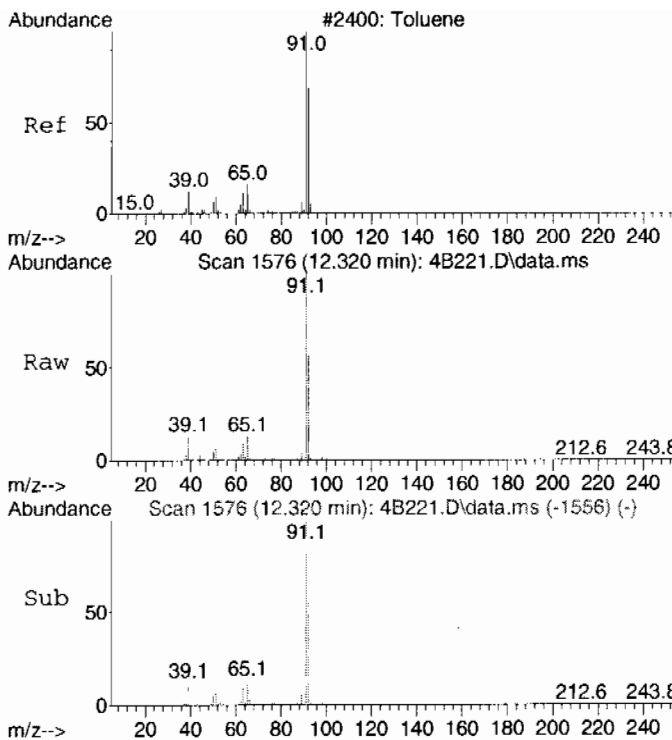
Tgt Ion: 43 Resp: 22910  
Ion Ratio Lower Upper  
43 100  
58 22.8 0.0 57.5



#33 BEFORE analyst DELETION  
n-Butyl alcohol  
Concen: 181.17 ug/L  
RT: 10.692 min Scan# 1309  
Delta R.T. 0.006 min  
Lab File: 4B221.D  
Acq: 10 Mar 2010 2:24 am

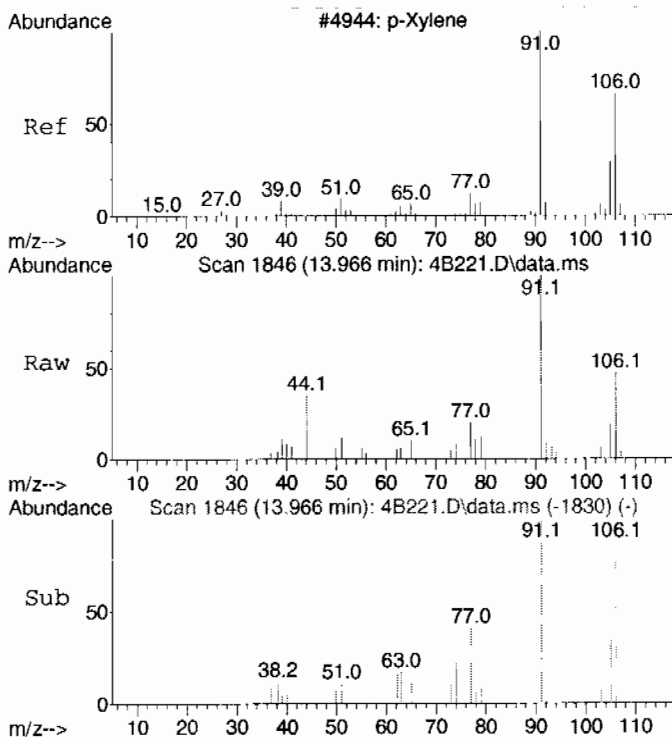
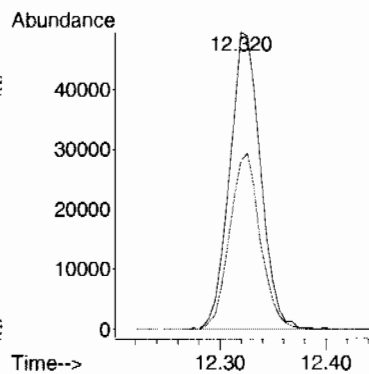
Tgt Ion: 56 Resp: 144  
Ion Ratio Lower Upper  
56 100  
41 131.3 49.2 109.2#  
43 118.1 30.5 90.5#





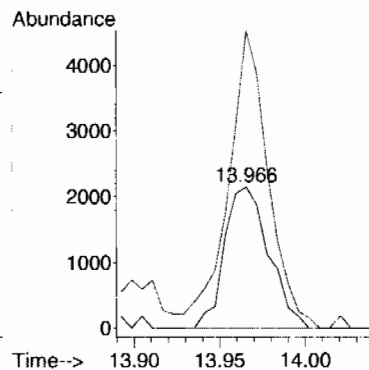
#44  
Toluene  
Concen: 3.41 ug/L  
RT: 12.320 min Scan# 1576  
Delta R.T. -0.000 min  
Lab File: 4B221.D  
Acq: 10 Mar 2010 2:24 am

Tgt Ion: 91 Resp: 101187  
Ion Ratio Lower Upper  
91 100  
92 58.7 29.8 89.8

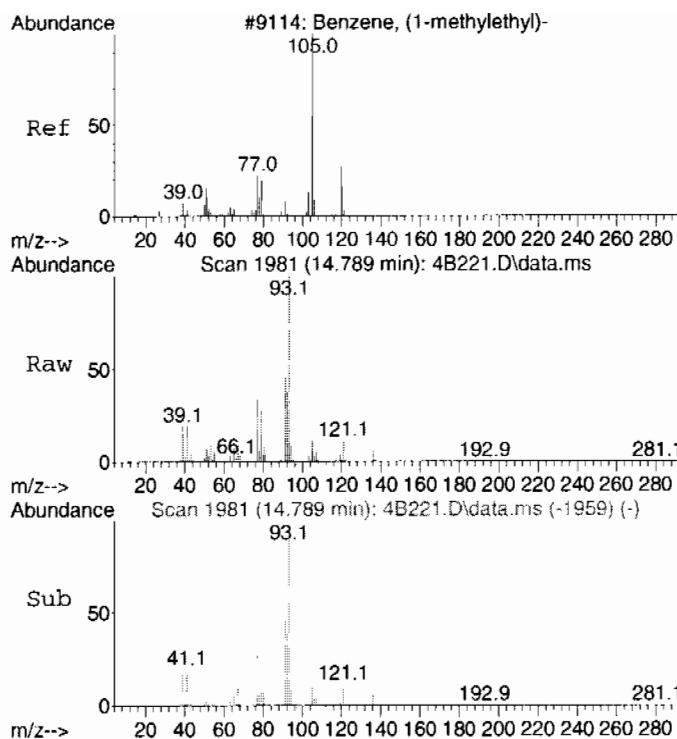


#55  
m,p-Xylenes  
Concen: 0.34 ug/L  
RT: 13.966 min Scan# 1846  
Delta R.T. -0.000 min  
Lab File: 4B221.D  
Acq: 10 Mar 2010 2:24 am

Tgt Ion: 106 Resp: 3869  
Ion Ratio Lower Upper  
106 100  
91 188.7 163.6 223.6

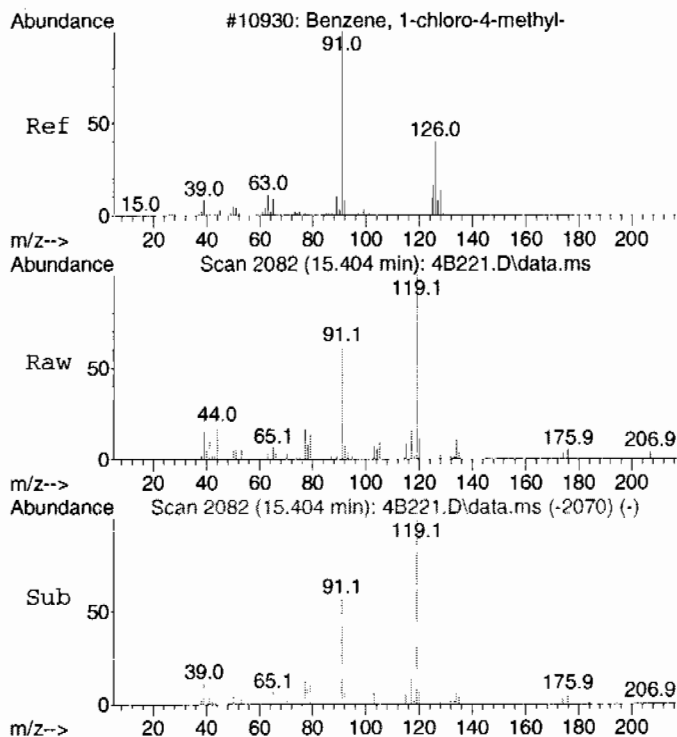
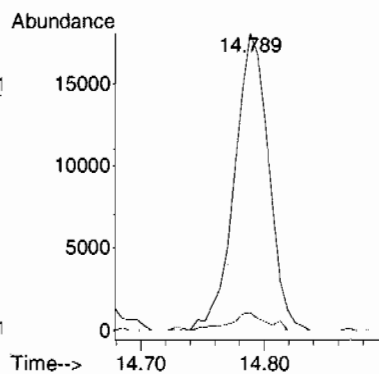






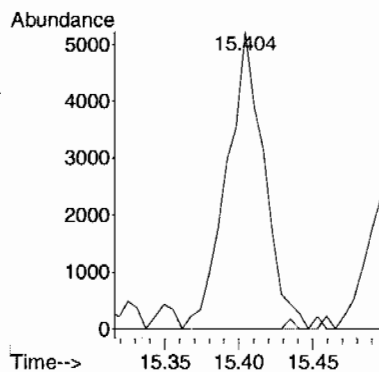
#60 BEFORE analyst DELETION  
Isopropylbenzene  
Concen: 1.85 ug/L  
RT: 14.789 min Scan# 1981  
Delta R.T. 0.030 min  
Lab File: 4B221.D  
Acq: 10 Mar 2010 2:24 am

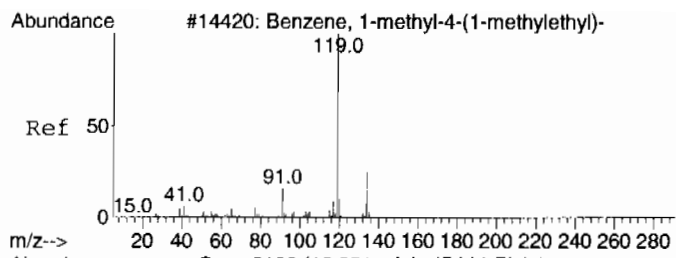
Tgt Ion: 105 Resp: 34668  
Ion Ratio Lower Upper  
105 100  
120 5.0 0.0 57.3



#68 BEFORE analyst DELETION  
4-Chlorotoluene  
Concen: 0.64 ug/L  
RT: 15.404 min Scan# 2082  
Delta R.T. -0.024 min  
Lab File: 4B221.D  
Acq: 10 Mar 2010 2:24 am

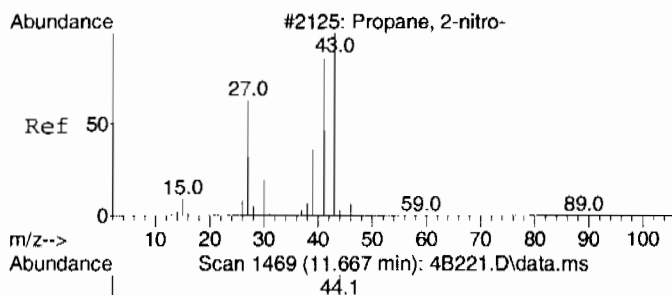
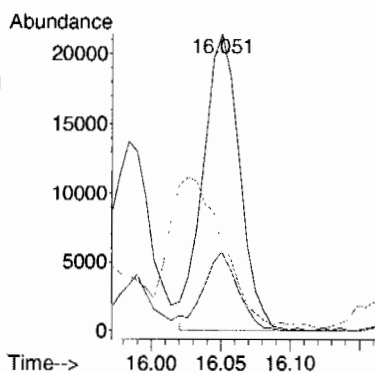
Tgt Ion: 91 Resp: 9215  
Ion Ratio Lower Upper  
91 100  
126 0.0 4.6 64.6#





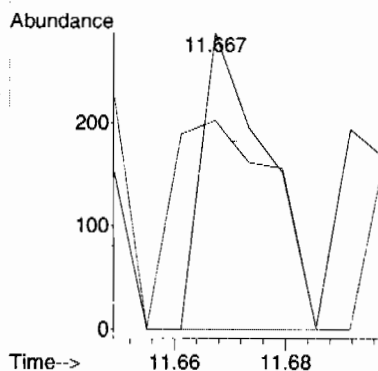
#72  
4-Isopropyltoluene  
Concen: 2.14 ug/L  
RT: 16.051 min Scan# 2188  
Delta R.T. -0.000 min  
Lab File: 4B221.D  
Acq: 10 Mar 2010 2:24 am

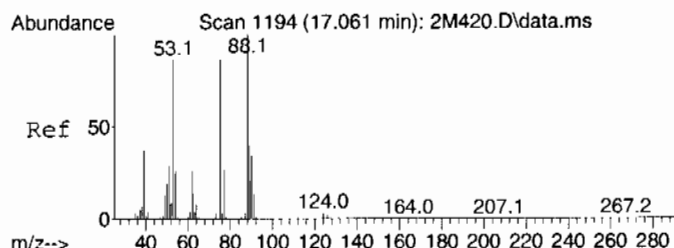
Tgt Ion	Ratio	Lower	Upper
119	100		
134	24.0	0.0	57.0
91	75.0	0.0	55.4#



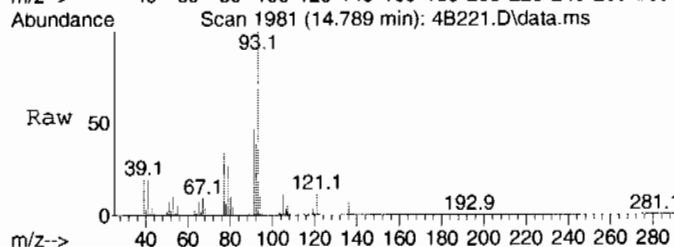
#102 BEFORE analyst DELETION  
2-Nitropropane  
Concen: 6.30 ug/L  
RT: 11.667 min Scan# 1469  
Delta R.T. 0.000 min  
Lab File: 4B221.D  
Acq: 10 Mar 2010 2:24 am

Tgt Ion	Ratio	Lower	Upper
43	100		
41	0.0	57.4	117.4#

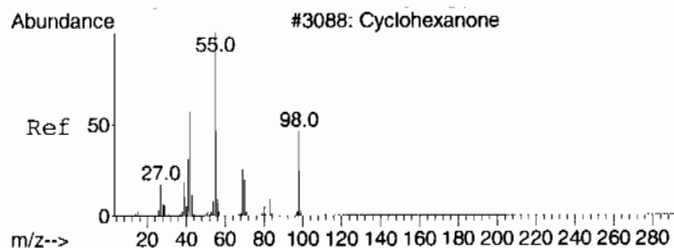
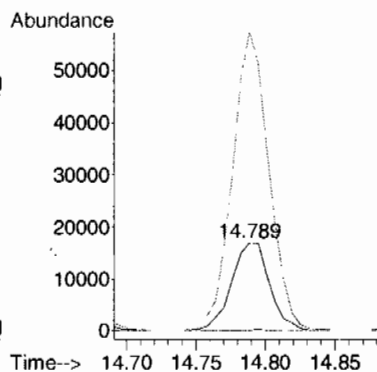
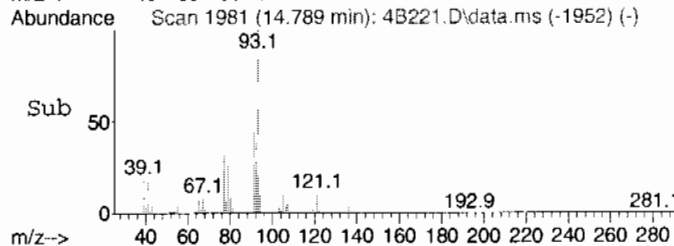




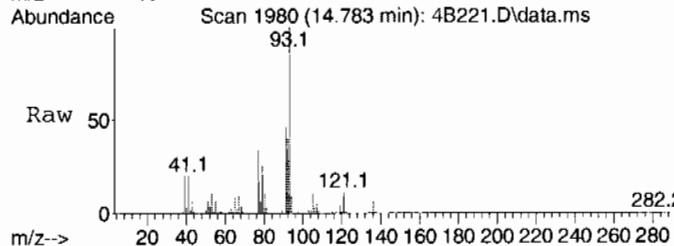
#107 BEFORE analyst DELETION  
 cis-1,4-Dichloro-2-butene  
 Concen: 22.30 ug/L  
 RT: 14.789 min Scan# 1981  
 Delta R.T. 0.006 min  
 Lab File: 4B221.D  
 Acq: 10 Mar 2010 2:24 am



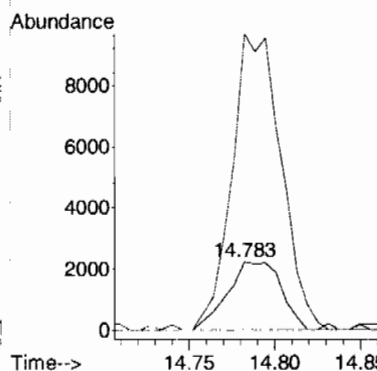
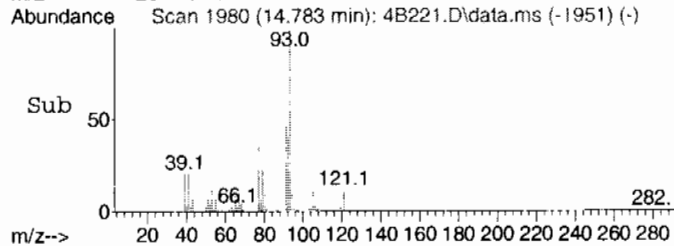
Tgt Ion	Ratio	Lower	Upper
53	100		
88	0.0	83.6	143.6#
77	323.6	3.2	63.2#

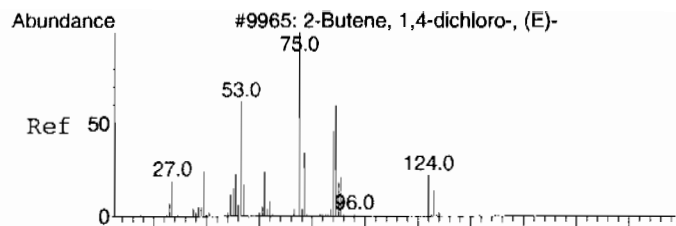


#108 BEFORE analyst DELETION  
 Cyclohexanone  
 Concen: 29.10 ug/L  
 RT: 14.783 min Scan# 1980  
 Delta R.T. -0.122 min  
 Lab File: 4B221.D  
 Acq: 10 Mar 2010 2:24 am

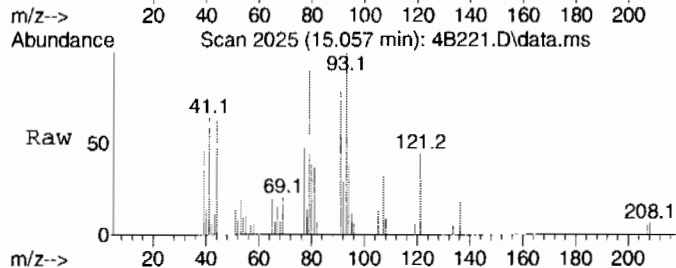


Tgt Ion	Ratio	Lower	Upper
42	100		
55	404.0	99.9	159.9#
98	0.0	28.4	88.4#

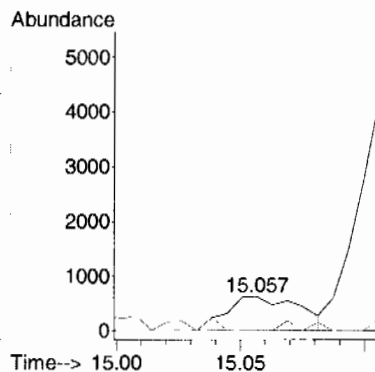
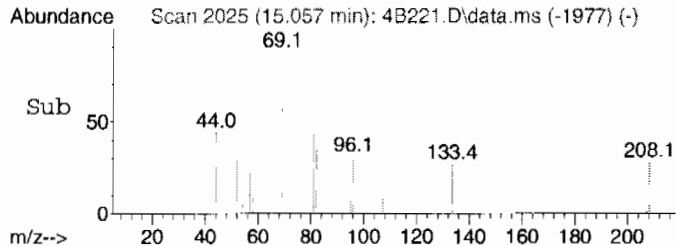




#109 BEFORE analyst DELETION  
 trans-1,4-Dichloro-2-butene  
 Concen: 0.95 ug/L  
 RT: 15.057 min Scan# 2025  
 Delta R.T. -0.006 min  
 Lab File: 4B221.D  
 Acq: 10 Mar 2010 2:24 am



Tgt Ion: 53 Resp: 1310  
 Ion Ratio Lower Upper  
 53 100  
 88 0.0 24.1 84.1#  
 75 9.7 97.3 157.3#



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B221.D  
Acq On : 10 Mar 2010 2:24 am  
Operator : ACJ  
Sample : |248506014|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

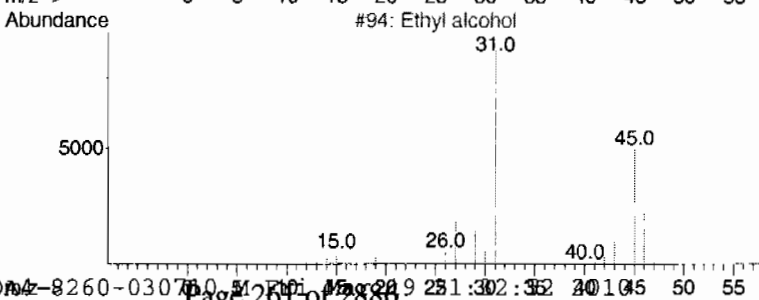
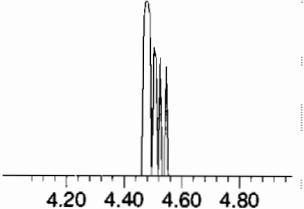
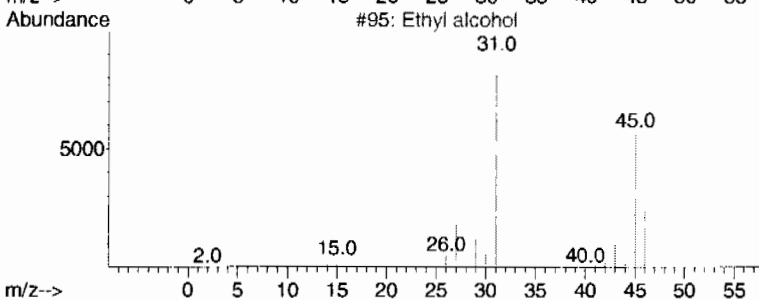
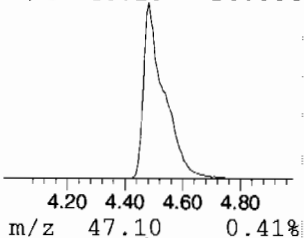
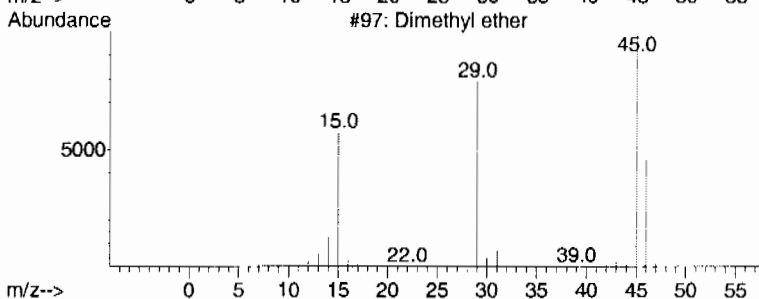
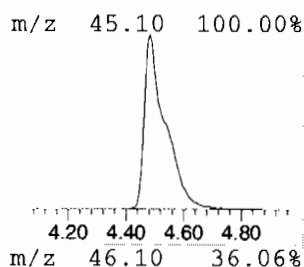
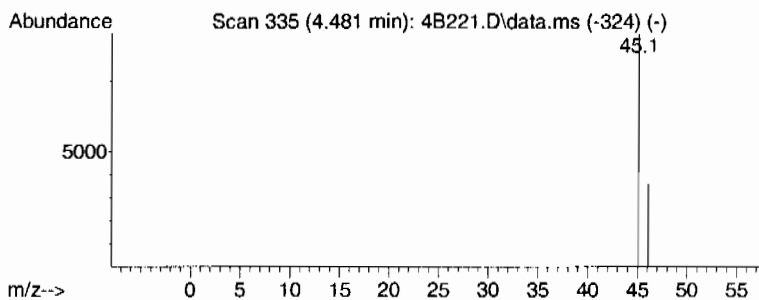
TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 1 unknown hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	14.67 ug/L	725978	Fluorobenzene	10.619

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Dimethyl ether	46	C2H6O	000115-10-6	5
2		Ethyl alcohol	46	C2H6O	000064-17-5	4
3		Ethyl alcohol	46	C2H6O	000064-17-5	4
4		Ethyl alcohol	46	C2H6O	000064-17-5	4
5		Formic acid	46	CH2O2	000064-18-6	3



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B221.D  
Acq On : 10 Mar 2010 2:24 am  
Operator : ACJ  
Sample : |248506014|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 21 Sample Multiplier: 1

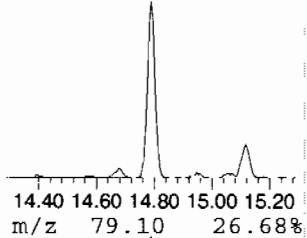
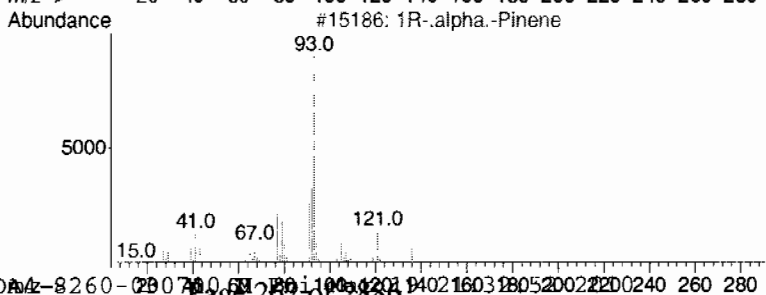
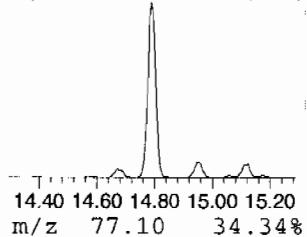
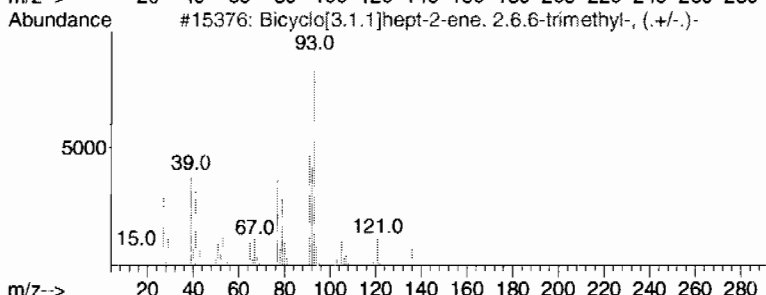
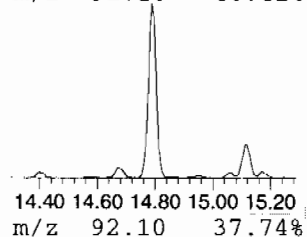
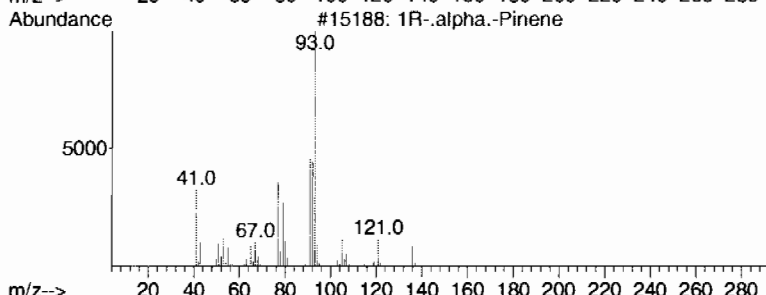
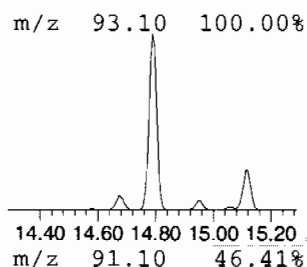
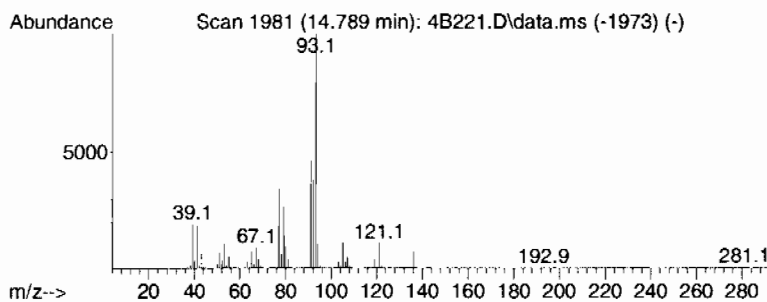
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 2 unknown hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.789	31.62 ug/L	1437890	B Chlorobenzene-d5	13.771

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			1R-.alpha.-Pinene	136	C10H16	007785-70-8	96
2			Bicyclo[3.1.1]hept-2-ene, 2,6,6-...	136	C10H16	002437-95-8	95
3			1R-.alpha.-Pinene	136	C10H16	007785-70-8	94
4			1,4-Cyclohexadiene, 1-methyl-4-(...	136	C10H16	000099-85-4	94
5			.alpha.-Pinene	136	C10H16	000080-56-8	93



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B221.D  
Acq On : 10 Mar 2010 2:24 am  
Operator : ACJ  
Sample : |248506014|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 21 Sample Multiplier: 1

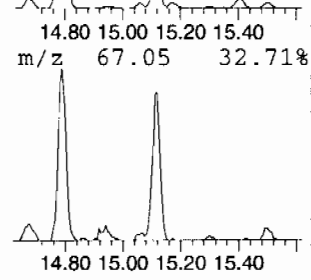
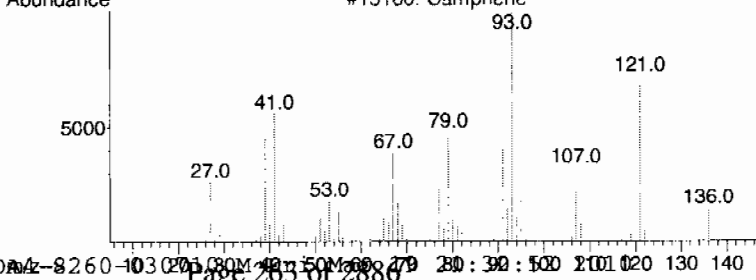
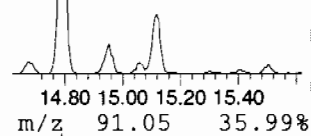
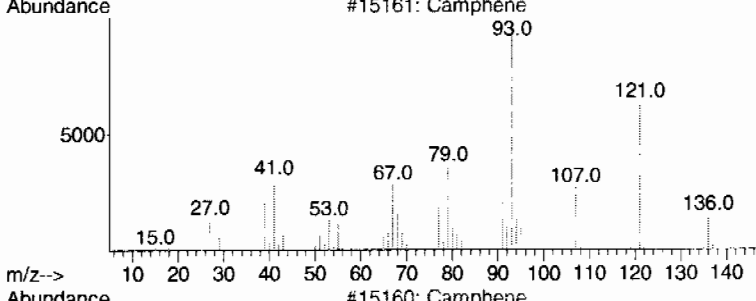
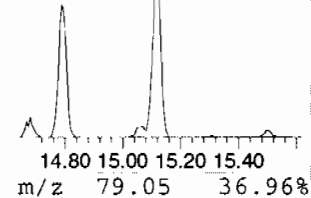
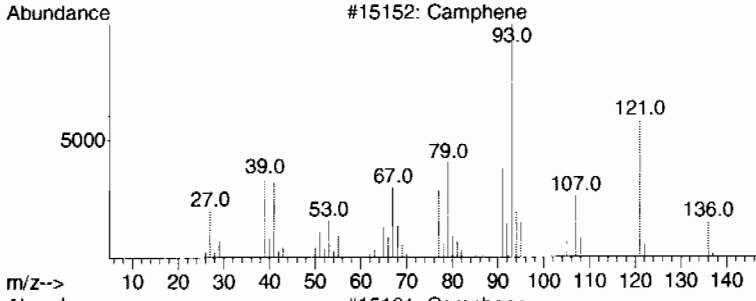
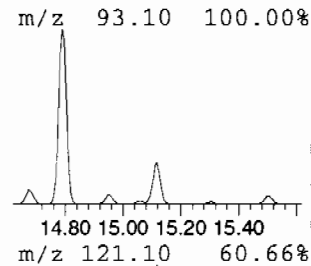
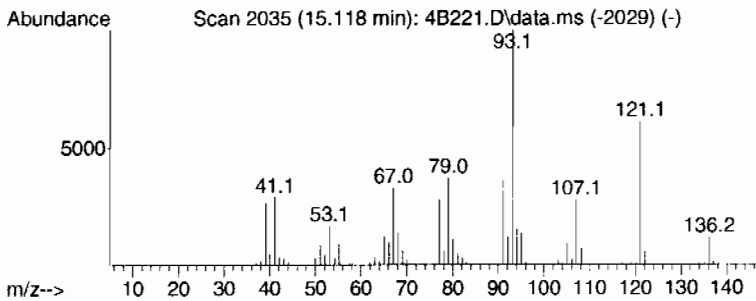
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Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 3 unknown hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.118	13.36 ug/L	476215	1,4-Dichlorobenzene-d4	16.179

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Camphene	136	C10H16	000079-92-5	97
2			Camphene	136	C10H16	000079-92-5	96
3			Camphene	136	C10H16	000079-92-5	94
4			1,3,6-Heptatriene, 2,5,5-trimethyl-	136	C10H16	029548-02-5	91
5			1,5,5-Trimethyl-6-methylene-cycl...	136	C10H16	000514-95-4	90







Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B221.D  
Acq On : 10 Mar 2010 2:24 am  
Operator : ACJ  
Sample : |248506014|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 21 Sample Multiplier: 1

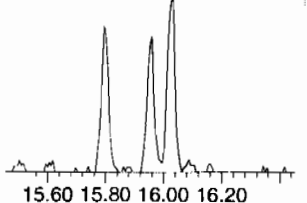
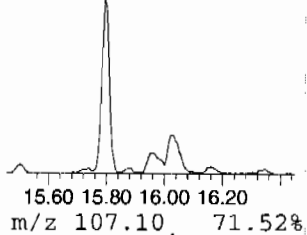
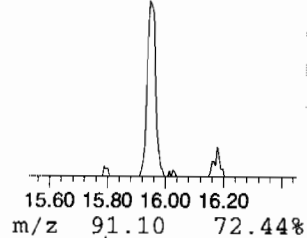
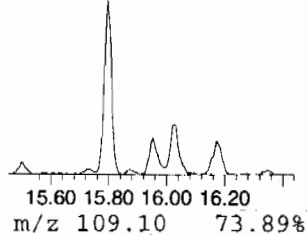
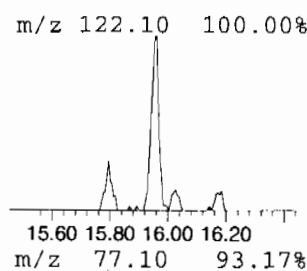
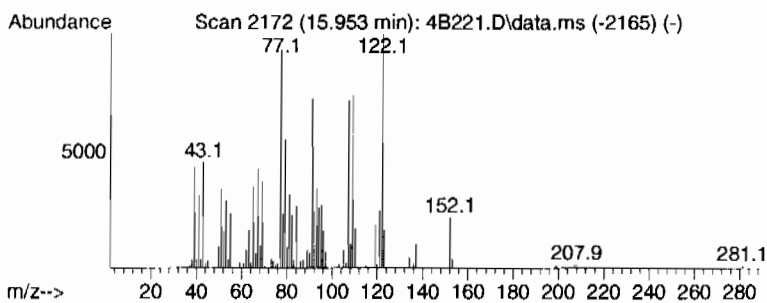
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 5 unknown substituted benzene Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.953	7.87 ug/L	280561	1,4-Dichlorobenzene-d4	16.179

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Benzene, 1-methoxy-4-methyl-	122	C8H10O	000104-93-8	70
2		Benzene, 1-methoxy-2-methyl-	122	C8H10O	000578-58-5	70
3		Benzene, 1-methoxy-4-methyl-	122	C8H10O	000104-93-8	55
4		Benzene, 1-methoxy-2-methyl-	122	C8H10O	000578-58-5	55
5		Benzene, 1-methoxy-2-methyl-	122	C8H10O	000578-58-5	50



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B221.D  
Acq On : 10 Mar 2010 2:24 am  
Operator : ACJ  
Sample : |248506014|963417|1|VOAF|1|VOA8260BS|  
Misc : LANTL 5G N/A SOIL  
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

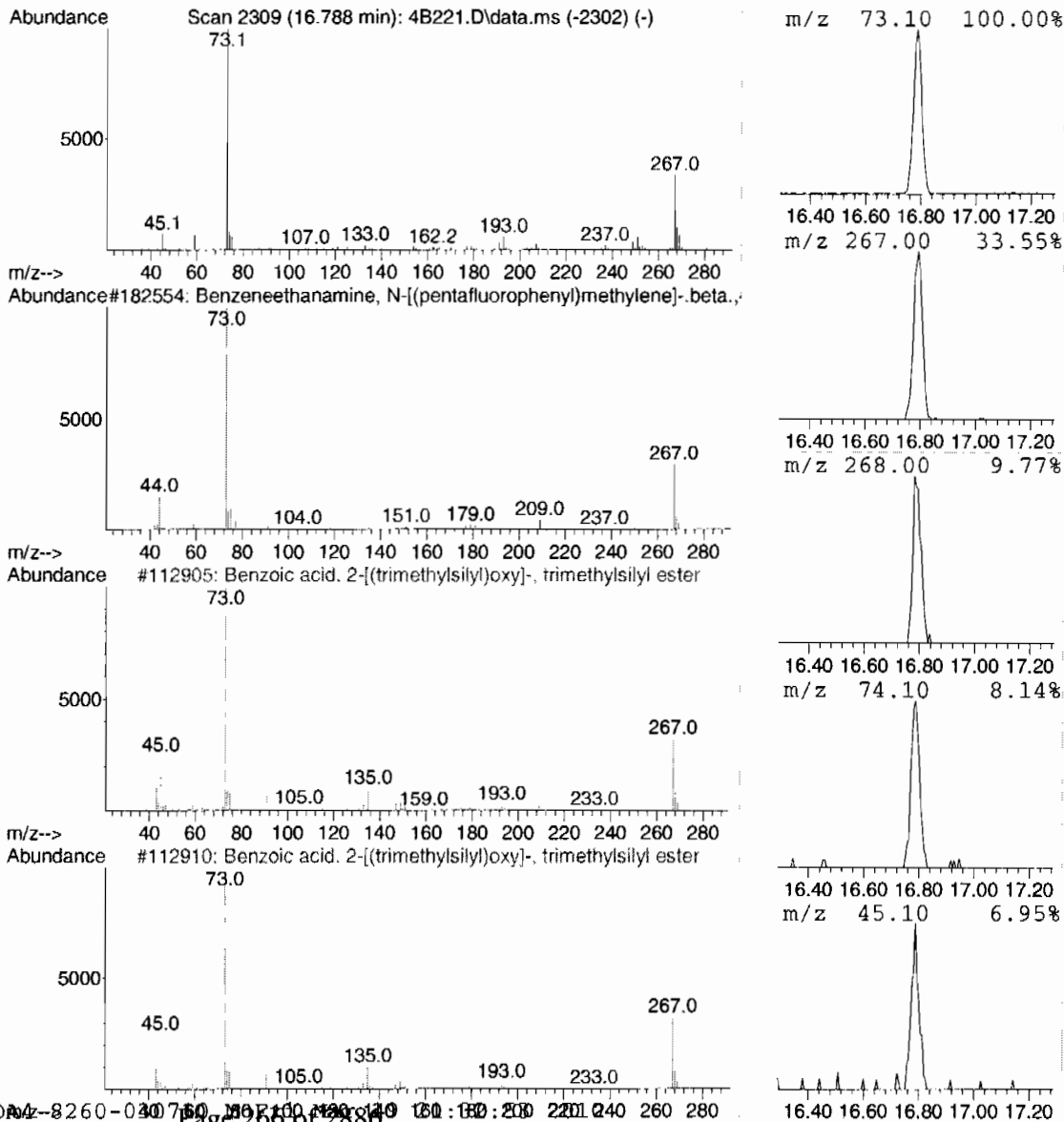
TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 6 unknown siloxane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.788	8.51 ug/L	303282	B 1,4-Dichlorobenzene-d4	16.179

Hit#	of	Tentative ID	MW	MolForm	CAS#	Qual
1	5	Benzeneethanamine, N-[(pentafluoro...	475	C21H26F5NO2Si2	055429-85-1	45
2		Benzoic acid, 2-[(trimethylsilyl)...	282	C13H22O3Si2	003789-85-3	42
3		Benzoic acid, 2-[(trimethylsilyl)...	282	C13H22O3Si2	003789-85-3	42
4		Benzoic acid, 2-[(trimethylsilyl)...	282	C13H22O3Si2	003789-85-3	42
5		11H-Dibenzo[b,e][1,4]diazepin-11...	267	C16H17N3O	013450-73-2	27



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B221.D  
Acq On : 10 Mar 2010 2:24 am  
Operator : ACJ  
Sample : |248506014|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.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...	4.481	14.7	ug/L	725978	1	10.619	2474630	50.0
unknown hydroca...	14.789	31.6	ug/L	1437890	4	13.771	2273600	50.0
unknown hydroca...	15.118	13.4	ug/L	476215	5	16.179	1782050	50.0
unknown hydroca...	15.794	23.1	ug/L	825086	5	16.179	1782050	50.0
unknown substit...	15.953	7.9	ug/L	280561	5	16.179	1782050	50.0
unknown siloxane	16.788	8.5	ug/L	303282	6	16.179	1782050	50.0

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

SDG Number: 10-2193  
 Lab Sample ID: 248506015  
 Client ID: RE36-10-7435  
 Batch ID: 963417  
 Run Date: 03/10/2010 02:52  
 Prep Date: 03/09/2010 20:24  
 Data File: 030910V4V4B222.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 30.1  
 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	1.43	ug/kg	0.487	1.43
74-87-3	Chloromethane	U	1.43	ug/kg	0.429	1.43
75-01-4	Vinyl chloride	U	1.43	ug/kg	0.429	1.43
74-83-9	Bromomethane	U	1.43	ug/kg	0.429	1.43
75-00-3	Chloroethane	U	1.43	ug/kg	0.429	1.43
75-69-4	Trichlorofluoromethane	U	1.43	ug/kg	0.429	1.43
67-64-1	Acetone	J	4.29	ug/kg	2.38	7.16
75-35-4	1,1-Dichloroethylene	U	1.43	ug/kg	0.429	1.43
74-88-4	Iodomethane	U	7.16	ug/kg	2.29	7.16
75-09-2	Methylene chloride	U	7.16	ug/kg	2.86	7.16
75-15-0	Carbon disulfide	U	7.16	ug/kg	1.79	7.16
156-60-5	trans-1,2-Dichloroethylene	U	1.43	ug/kg	0.429	1.43
75-34-3	1,1-Dichloroethane	U	1.43	ug/kg	0.429	1.43
78-93-3	2-Butanone	U	7.16	ug/kg	2.15	7.16
156-59-2	cis-1,2-Dichloroethylene	U	1.43	ug/kg	0.429	1.43
594-20-7	2,2-Dichloropropane	U	1.43	ug/kg	0.429	1.43
67-66-3	Chloroform	U	1.43	ug/kg	0.429	1.43
74-97-5	Bromochloromethane	U	1.43	ug/kg	0.472	1.43
71-55-6	1,1,1-Trichloroethane	U	1.43	ug/kg	0.429	1.43
563-58-6	1,1-Dichloropropene	U	1.43	ug/kg	0.429	1.43
56-23-5	Carbon tetrachloride	U	1.43	ug/kg	0.429	1.43
107-06-2	1,2-Dichloroethane	U	1.43	ug/kg	0.429	1.43
71-43-2	Benzene	U	1.43	ug/kg	0.429	1.43
79-01-6	Trichloroethylene	J	0.701	ug/kg	0.472	1.43
78-87-5	1,2-Dichloropropane	U	1.43	ug/kg	0.429	1.43
75-27-4	Bromodichloromethane	U	1.43	ug/kg	0.429	1.43
74-95-3	Dibromomethane	U	1.43	ug/kg	0.429	1.43
108-10-1	4-Methyl-2-pentanone	U	7.16	ug/kg	1.79	7.16
10061-01-5	cis-1,3-Dichloropropylene	U	1.43	ug/kg	0.429	1.43
108-88-3	Toluene	J	0.816	ug/kg	0.429	1.43
10061-02-6	trans-1,3-Dichloropropylene	U	1.43	ug/kg	0.429	1.43
79-00-5	1,1,2-Trichloroethane	U	1.43	ug/kg	0.429	1.43
591-78-6	2-Hexanone	U	7.16	ug/kg	2.15	7.16
142-28-9	1,3-Dichloropropane	U	1.43	ug/kg	0.429	1.43
127-18-4	Tetrachloroethylene	U	1.43	ug/kg	0.429	1.43
124-48-1	Dibromochloromethane	U	1.43	ug/kg	0.429	1.43
106-93-4	1,2-Dibromoethane	U	1.43	ug/kg	0.429	1.43
108-90-7	Chlorobenzene	U	1.43	ug/kg	0.429	1.43

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

SDG Number: 10-2193  
 Lab Sample ID: 248506015  
 Client ID: RE36-10-7435  
 Batch ID: 963417  
 Run Date: 03/10/2010 02:52  
 Prep Date: 03/09/2010 20:24  
 Data File: 030910V44B222.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 30.1  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.43	ug/kg	0.429	1.43
179601-23-1	m,p-Xylenes	U	2.86	ug/kg	0.429	2.86
95-47-6	o-Xylene	J	0.616	ug/kg	0.429	1.43
100-42-5	Styrene	U	1.43	ug/kg	0.429	1.43
75-25-2	Bromoform	U	1.43	ug/kg	0.429	1.43
79-34-5	1,1,2,2-Tetrachloroethane	U	1.43	ug/kg	0.429	1.43
96-18-4	1,2,3-Trichloropropane	U	1.43	ug/kg	0.429	1.43
108-86-1	Bromobenzene	U	1.43	ug/kg	0.429	1.43
103-65-1	n-Propylbenzene	U	1.43	ug/kg	0.429	1.43
95-49-8	2-Chlorotoluene	U	1.43	ug/kg	0.429	1.43
98-82-8	Isopropylbenzene	U	1.43	ug/kg	0.429	1.43
108-67-8	1,3,5-Trimethylbenzene	U	1.43	ug/kg	0.429	1.43
106-43-4	4-Chlorotoluene	U	1.43	ug/kg	0.429	1.43
98-06-6	tert-Butylbenzene	U	1.43	ug/kg	0.429	1.43
95-63-6	1,2,4-Trimethylbenzene	U	1.43	ug/kg	0.429	1.43
135-98-8	sec-Butylbenzene	U	1.43	ug/kg	0.429	1.43
99-87-6	4-Isopropyltoluene		2.08	ug/kg	0.429	1.43
541-73-1	1,3-Dichlorobenzene	U	1.43	ug/kg	0.429	1.43
106-46-7	1,4-Dichlorobenzene	U	1.43	ug/kg	0.429	1.43
104-51-8	n-Butylbenzene	U	1.43	ug/kg	0.429	1.43
96-12-8	1,2-Dibromo-3-chloropropane	U	1.43	ug/kg	0.429	1.43
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane Trichlorotrifluoroethane	U	7.16	ug/kg	2.29	7.16
630-20-6	1,1,1,2-Tetrachloroethane	U	1.43	ug/kg	0.429	1.43
95-50-1	1,2-Dichlorobenzene	U	1.43	ug/kg	0.429	1.43

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	17.5	ug/kg	0	J
	unknown hydrocarbon	6.76	13.2	ug/kg	0	J
	unknown hydrocarbon	14.79	114	ug/kg	0	J
	unknown hydrocarbon	15.5	61.8	ug/kg	0	J
	unknown hydrocarbon	15.79	68.7	ug/kg	0	J
	unknown siloxane	16.79	12.5	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B222.D  
Acq On : 10 Mar 2010 2:52 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506015|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 19 21:04:23 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.613	10.613	1.000	96	1133801	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	616907	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	179697	50.00	ug/L	0.00
82) B Fluorobenzene	10.613	10.613	1.000	96	1133431	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	616907	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	179703	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.967	65	292430	47.77	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	=	95.54%		
43) Toluene-d8	12.246	12.247	0.889	98	853572	60.78	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	=	121.56%		
61) Bromofluorobenzene	14.953	14.947	0.924	95	271726	77.98	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	=	155.96%#		
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	0.000	5.299	0.000		0	N.D.		
4) Vinyl chloride	5.521	5.521	0.520	62	499	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	6.997	6.991	0.659	59	620	N.D.		
9) Acetone	7.357	7.351	0.693	43	20779	3.00	ug/L	91
10) 1,1-Dichloroethylene	7.394	7.394	0.697	61	174	N.D.		
11) Iodomethane	0.000	7.662	0.000		0	N.D.		
12) Acetonitrile	7.674	7.693	0.723	41	137	N.D.		
13) Methyl acetate	7.747	7.747	0.730	43	1001	N.D.		
14) Carbon disulfide	7.778	7.778	0.733	76	1612	N.D.		
15) Methylene chloride	7.936	7.967	0.748	84	13661	Below Cal		95
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.705	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.332	9.320	0.879	43	1592	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.698	9.686	0.914	83	728	N.D.		
25) 1,1,1-Trichloroethane	9.979	9.973	0.940	97	738	N.D.		
26) Cyclohexane	10.076	10.076	0.949	56	1354	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.271	10.338	0.968	62	129	N.D.		
31) Benzene	10.381	10.369	0.978	78	1005	N.D.		
32) Cyclohexene	10.600	10.491	0.999	67	153	N.D.		
33) n-Butyl alcohol	10.686	10.686	1.007	56	134	181.14	ug/L #	1
34) Trichloroethylene	11.009	11.003	1.037	95	3611	0.49	ug/L	97
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	11.247	11.259	1.060	83	180	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B222.D  
Acq On : 10 Mar 2010 2:52 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506015|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 19 21:04:23 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.015	0.000		0	N.D.	
44) Toluene	12.320	12.320	0.895	91	34609	0.57 ug/L	92
45) trans-1,3-Dichloroprop...	12.478	12.460	0.906	75	839	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.	
47) 2-Hexanone	12.874	12.856	0.935	43	505	N.D.	
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.	
49) Tetrachloroethylene	12.917	12.917	0.938	164	252	N.D.	
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.	
52) Chlorobenzene	13.795	13.801	1.002	112	374	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.	
54) Ethylbenzene	0.000	13.862	0.000		0m	N.D. d	
55) m,p-Xylenes	0.000	13.966	0.000		0	N.D.	
56) o-Xylene	14.411	14.399	1.046	106	4287	0.43 ug/L	93
57) Styrene	14.398	14.399	1.046	104	712	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.758	0.000		0m	N.D. d	
62) 1,1,2,2-Tetrachloroethane	0.000	15.014	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	15.160	15.167	0.937	156	119	N.D.	
65) n-Propylbenzene	15.252	15.179	0.943	91	452	N.D.	
66) 1,3,5-Trimethylbenzene	15.331	15.325	0.948	105	3297	N.D.	
67) 2-Chlorotoluene	0.000	15.331	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	15.429	0.000		0m	N.D. d	
69) tert-Butylbenzene	15.727	15.703	0.972	134	218	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	15.740	0.000		0m	N.D. d	
71) sec-Butylbenzene	15.929	15.929	0.985	105	410	N.D.	
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	17384	1.45 ug/L #	31
73) 1,3-Dichlorobenzene	16.118	16.118	0.996	146	291	N.D.	
74) 1,4-Dichlorobenzene	16.209	16.203	1.002	146	584	N.D.	
75) n-Butylbenzene	16.490	16.502	1.019	91	733	N.D.	
76) 1,2-Dichlorobenzene	16.648	16.642	1.029	146	188	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.629	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.	
80) Naphthalene	19.032	19.026	1.176	128	979	N.D.	
81) 1,2,3-Trichlorobenzene	19.373	19.385	1.197	180	160	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	7.040	7.174	0.663	56	132	N.D.	
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.	
87) Isopropyl Alcohol	7.491	7.430	0.706	45	1047	N.D.	
88) Allyl chloride	7.796	7.796	0.735	41	173	N.D.	
89) tert-Butyl Alcohol	7.924	7.924	0.747	59	729	N.D.	
90) Acrylonitrile	0.000	8.168	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.735	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.332	9.339	0.879	43	1592	N.D.	
95) Propionitrile	0.000	9.387	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.570	0.000		0	N.D.	
97) Tetrahydrofuran	9.710	9.710	0.915	42	1196	N.D.	
98) Isobutyl alcohol	9.960	10.003	0.939	41	153	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B222.D  
Acq On : 10 Mar 2010 2:52 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506015|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 19 21:04:23 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.381	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0m	N.D. d	
104) Ethyl methacrylate	0.000	12.460	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D. d	
107) cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0m	N.D. d	
108) Cyclohexanone	14.892	14.905	0.920	42	134	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0m	N.D. d	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.337	16.319	1.010	91	2275	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.715	0.000		0m	N.D. d	

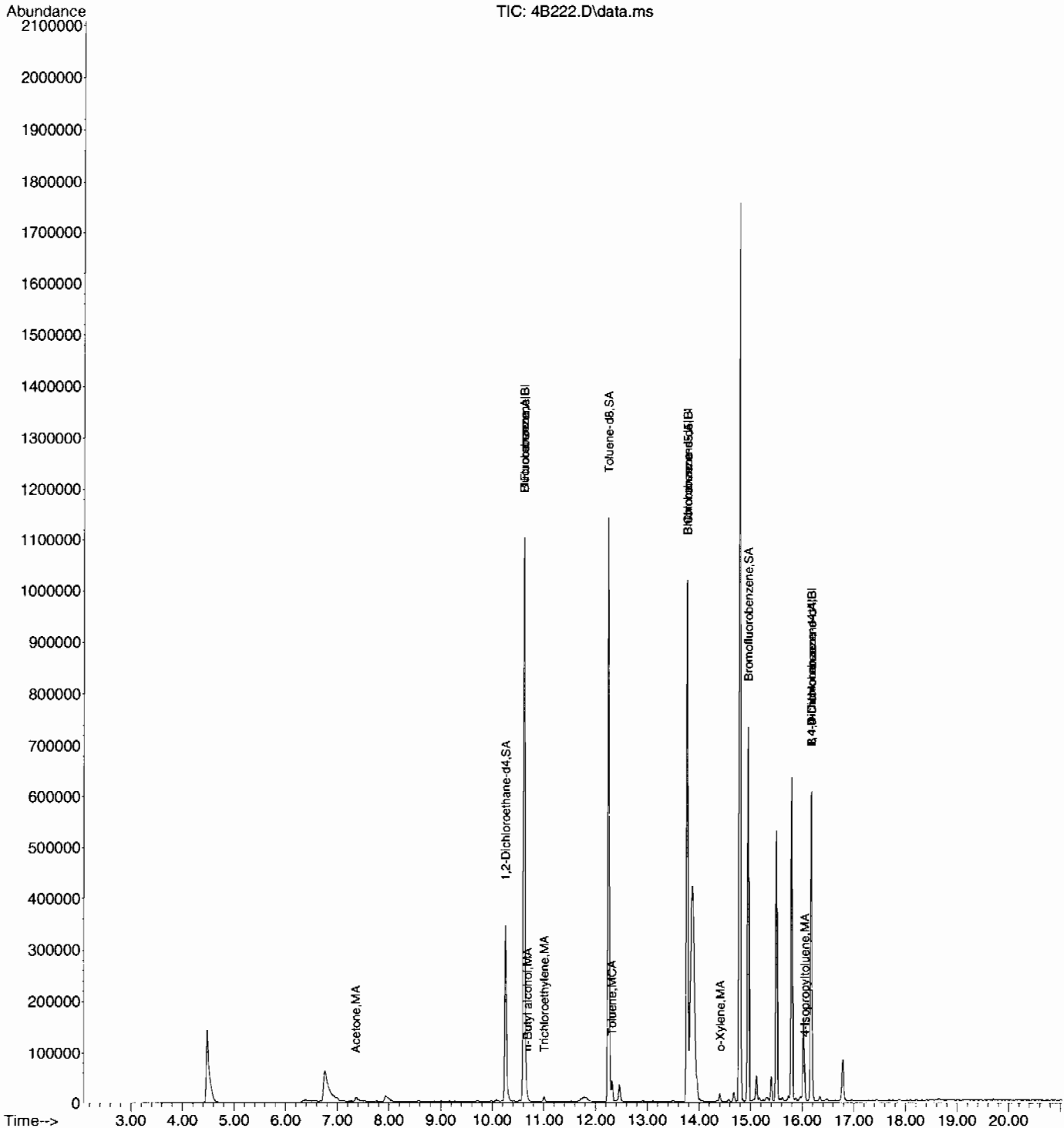
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

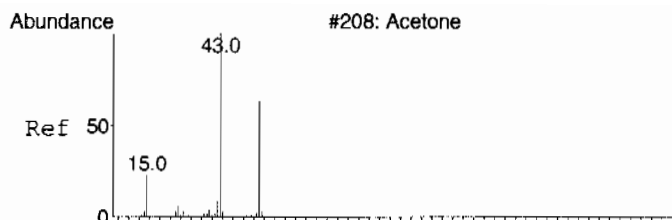


Quantitation Report  
GEL Laboratories, LLC

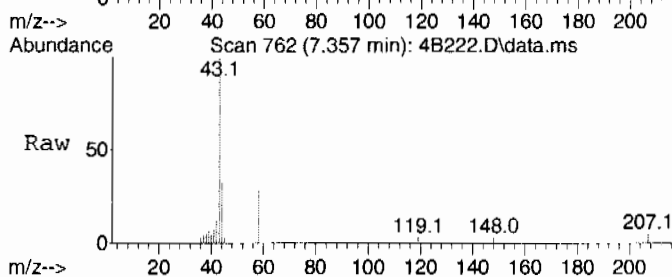
Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B222.D  
Acq On : 10 Mar 2010 2:52 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506015|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 19 21:04:23 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

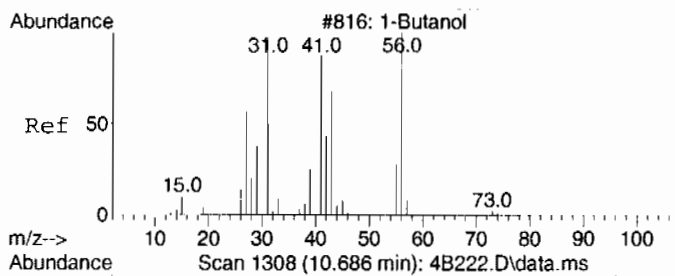
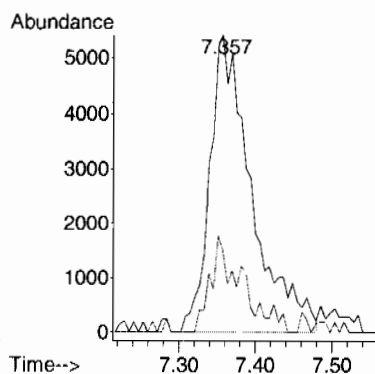
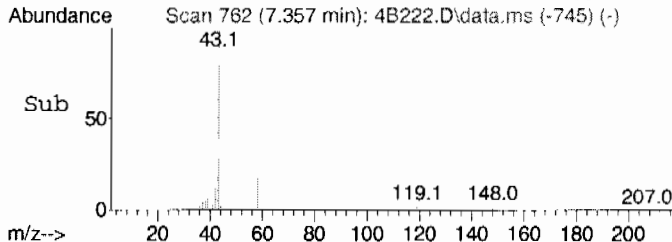




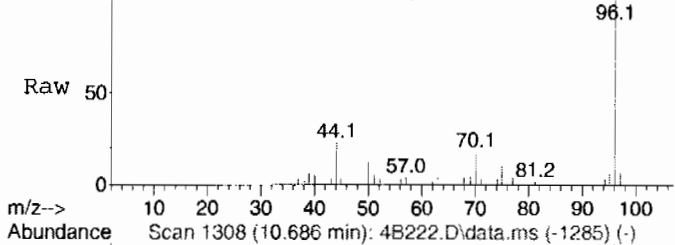
#9  
Acetone  
Concen: 3.00 ug/L  
RT: 7.357 min Scan# 762  
Delta R.T. 0.006 min  
Lab File: 4B222.D  
Acq: 10 Mar 2010 2:52 am



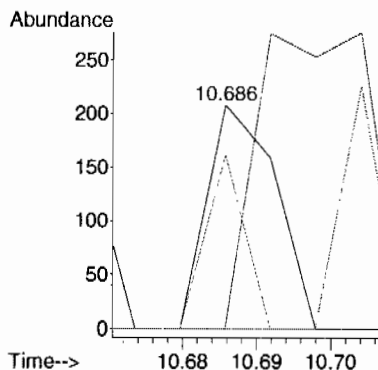
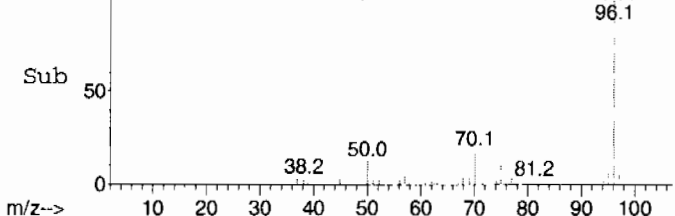
Tgt Ion: 43 Resp: 20779  
Ion Ratio Lower Upper  
43 100  
58 22.8 0.0 57.5

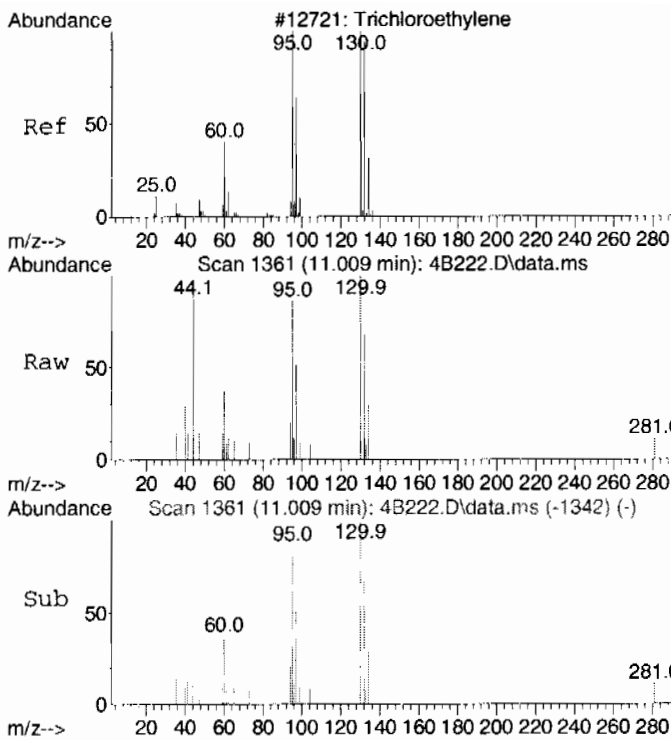


#33  
n-Butyl alcohol  
Concen: 181.14 ug/L  
RT: 10.686 min Scan# 1308  
Delta R.T. -0.000 min  
Lab File: 4B222.D  
Acq: 10 Mar 2010 2:52 am



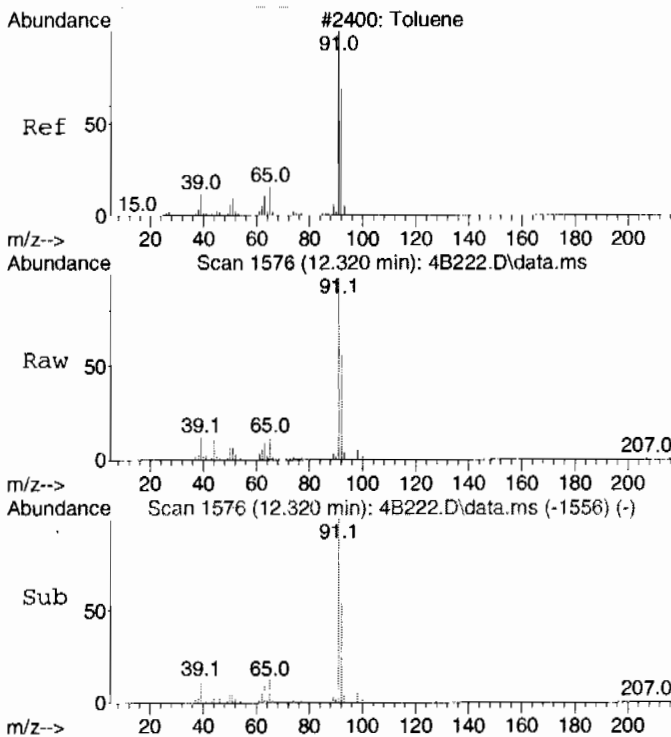
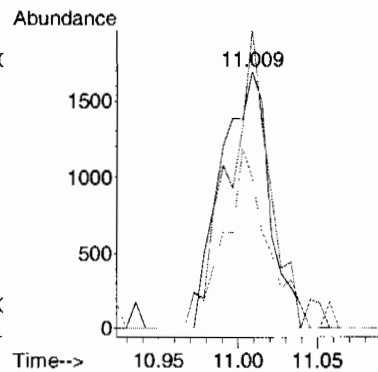
Tgt Ion: 56 Resp: 134  
Ion Ratio Lower Upper  
56 100  
41 219.4 49.2 109.2#  
43 0.0 30.5 90.5#





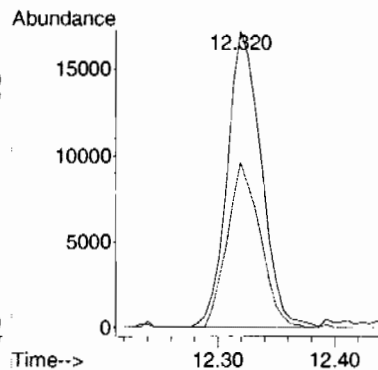
#34  
Trichloroethylene  
Concen: 0.49 ug/L  
RT: 11.009 min Scan# 1361  
Delta R.T. 0.006 min  
Lab File: 4B222.D  
Acq: 10 Mar 2010 2:52 am

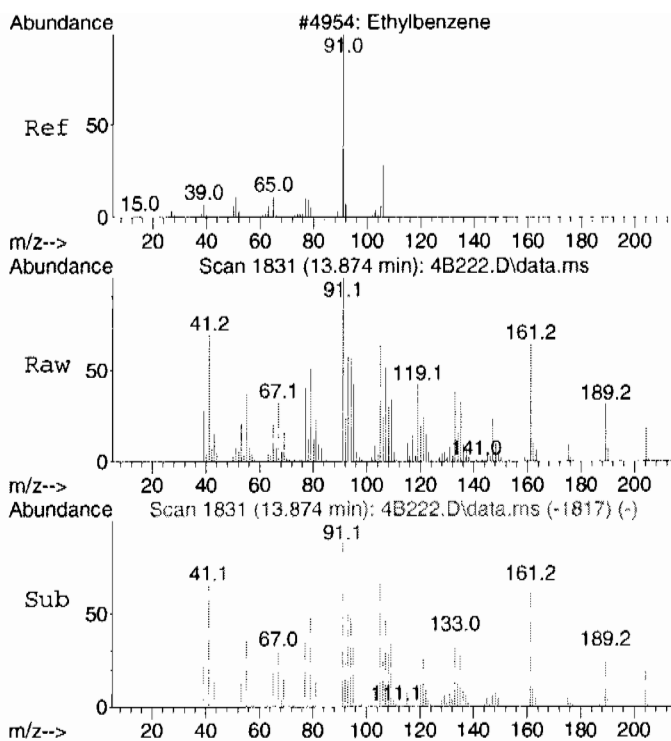
Tgt Ion	Resp	Lower	Upper
95	100		
130	101.2	67.8	127.8
97	62.8	34.4	94.4



#44  
Toluene  
Concen: 0.57 ug/L  
RT: 12.320 min Scan# 1576  
Delta R.T. -0.000 min  
Lab File: 4B222.D  
Acq: 10 Mar 2010 2:52 am

Tgt Ion	Resp	Lower	Upper
91	100		
92	54.0	29.8	89.8

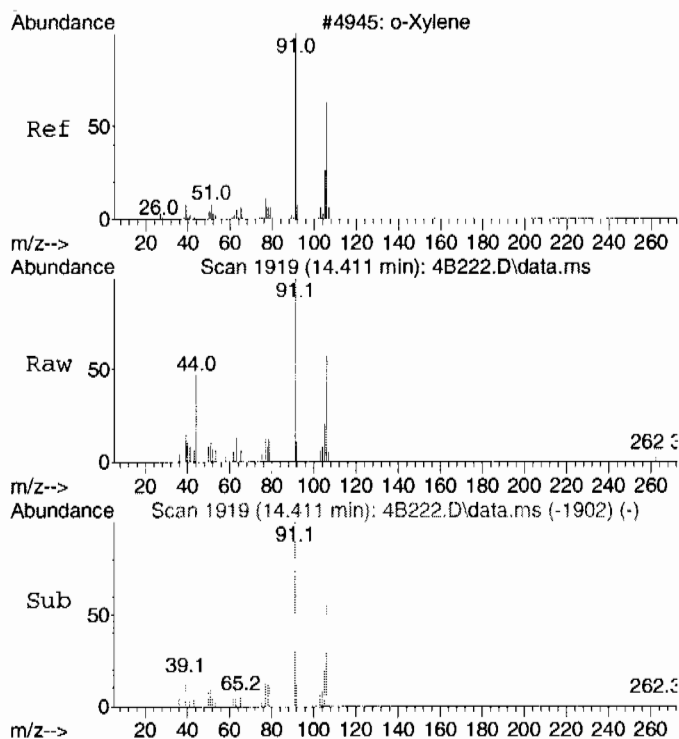
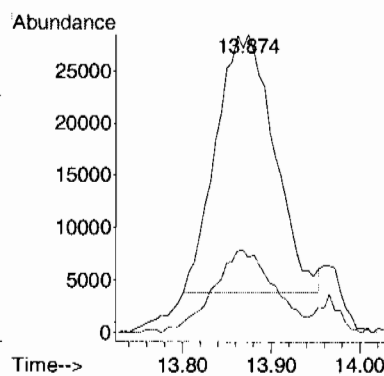




#54 BEFORE analyst DELETION  
Ethylbenzene

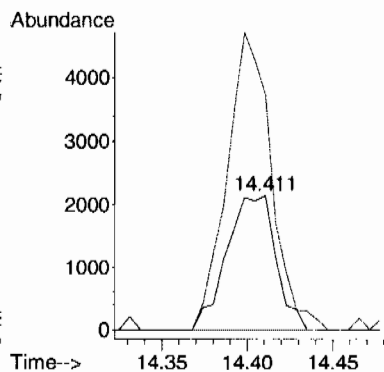
Concen: 4.49 ug/L  
RT: 13.874 min Scan# 1831  
Delta R.T. 0.012 min  
Lab File: 4B222.D  
Acq: 10 Mar 2010 2:52 am

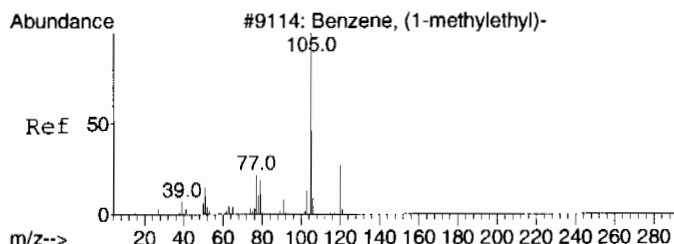
Tgt Ion: 91 Resp: 111975  
Ion Ratio Lower Upper  
91 100  
106 25.4 2.3 62.3



#56  
o-Xylene  
Concen: 0.43 ug/L  
RT: 14.411 min Scan# 1919  
Delta R.T. 0.012 min  
Lab File: 4B222.D  
Acq: 10 Mar 2010 2:52 am

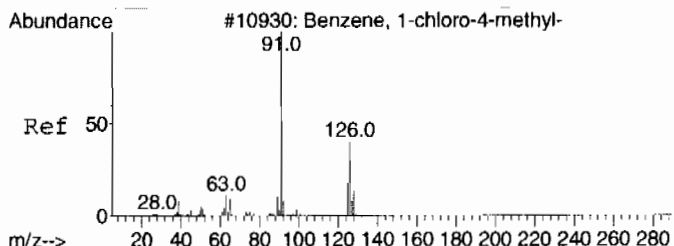
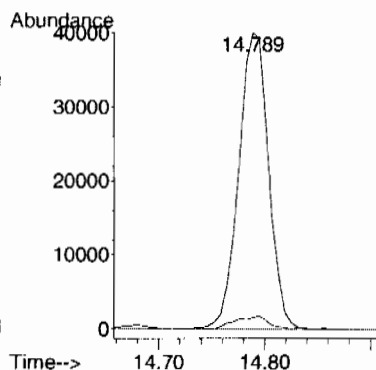
Tgt Ion: 106 Resp: 4287  
Ion Ratio Lower Upper  
106 100  
91 198.3 178.7 238.7





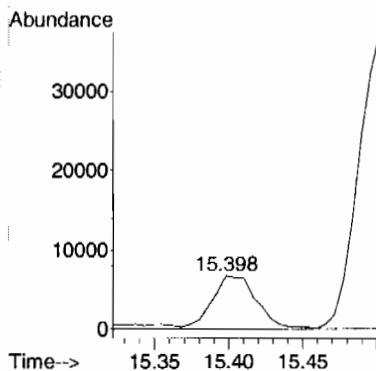
#60 BEFORE analyst DELETION  
Isopropylbenzene  
Concen: 6.48 ug/L  
RT: 14.789 min Scan# 1981  
Delta R.T. 0.030 min  
Lab File: 4B222.D  
Acq: 10 Mar 2010 2:52 am

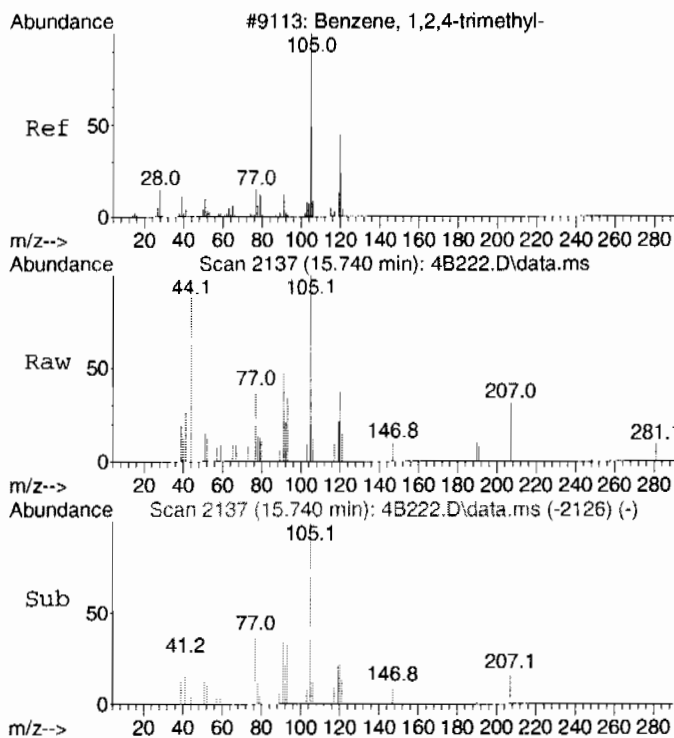
Tgt Ion: 105 Resp: 78924  
Ion Ratio Lower Upper  
105 100  
120 5.0 0.0 57.3



#68 BEFORE analyst DELETION  
4-Chlorotoluene  
Concen: 1.49 ug/L  
RT: 15.398 min Scan# 2081  
Delta R.T. -0.031 min  
Lab File: 4B222.D  
Acq: 10 Mar 2010 2:52 am

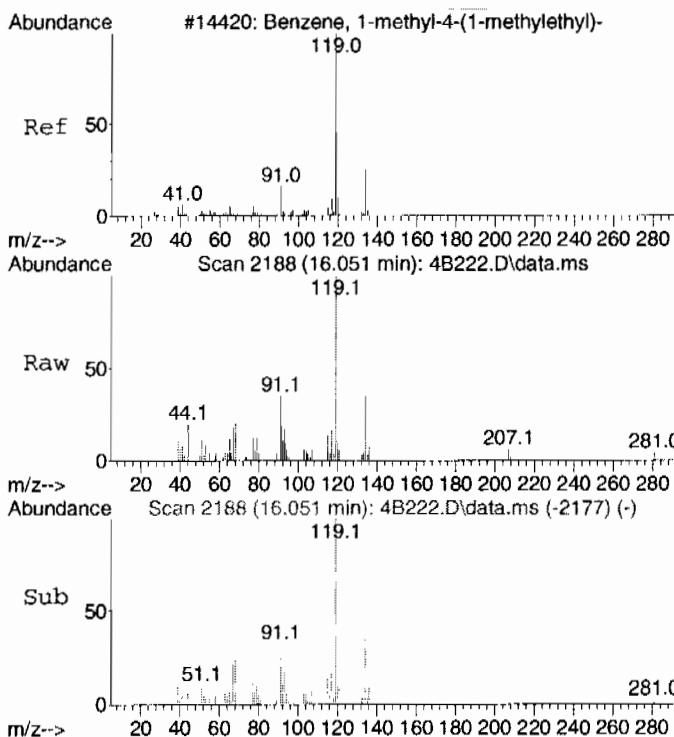
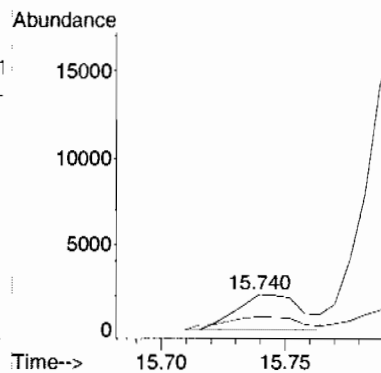
Tgt Ion: 91 Resp: 13912  
Ion Ratio Lower Upper  
91 100  
126 0.0 4.6 64.6#





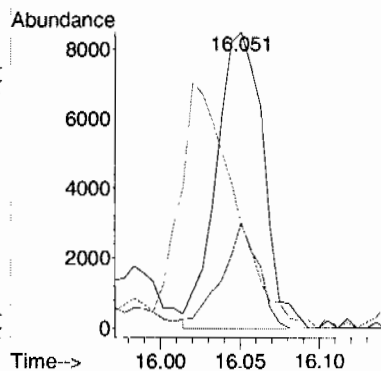
#70 BEFORE analyst DELETION  
1,2,4-Trimethylbenzene  
Concen: 0.34 ug/L  
RT: 15.740 min Scan# 2137  
Delta R.T. -0.000 min  
Lab File: 4B222.D  
Acq: 10 Mar 2010 2:52 am

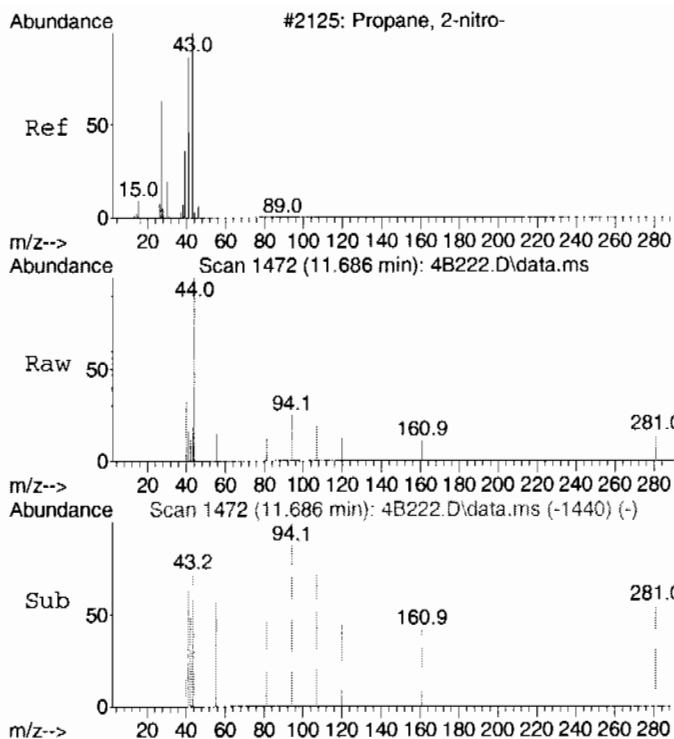
Tgt Ion:105 Resp: 3878  
Ion Ratio Lower Upper  
105 100  
120 42.7 25.1 85.1



#72  
4-Isopropyltoluene  
Concen: 1.45 ug/L  
RT: 16.051 min Scan# 2188  
Delta R.T. -0.000 min  
Lab File: 4B222.D  
Acq: 10 Mar 2010 2:52 am

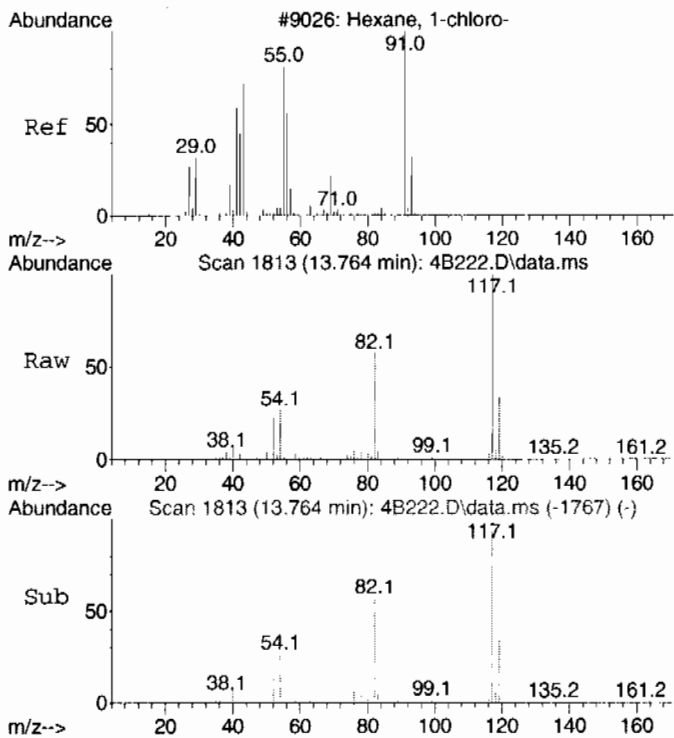
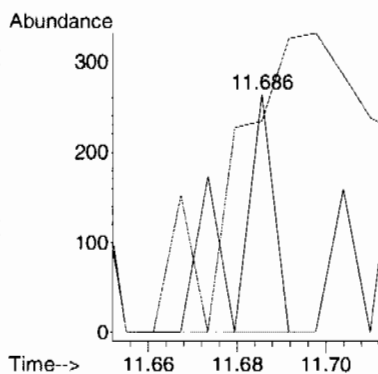
Tgt Ion:119 Resp: 17384  
Ion Ratio Lower Upper  
119 100  
134 27.6 0.0 57.0  
91 96.6 0.0 55.4#





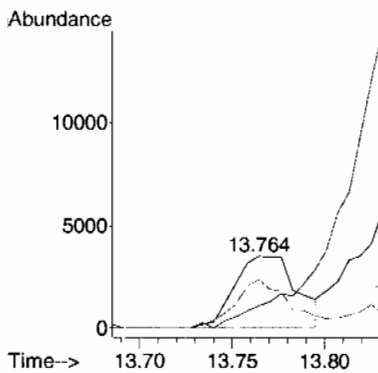
#102 BEFORE analyst DELETION  
2-Nitropropane  
Concen: 6.28 ug/L  
RT: 11.686 min Scan# 1472  
Delta R.T. 0.019 min  
Lab File: 4B222.D  
Acq: 10 Mar 2010 2:52 am

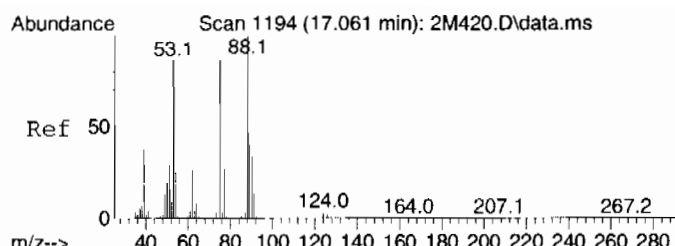
Tgt Ion: 43 Resp: 160  
Ion Ratio Lower Upper  
43 100  
41 426.9 57.4 117.4#



#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 3.71 ug/L  
RT: 13.764 min Scan# 1813  
Delta R.T. 0.103 min  
Lab File: 4B222.D  
Acq: 10 Mar 2010 2:52 am

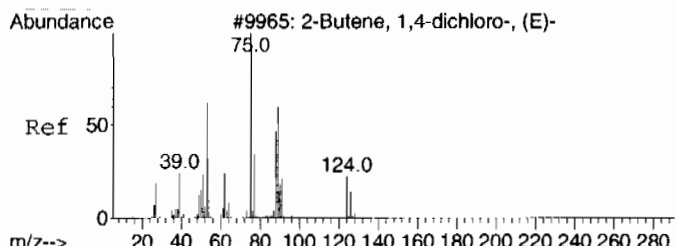
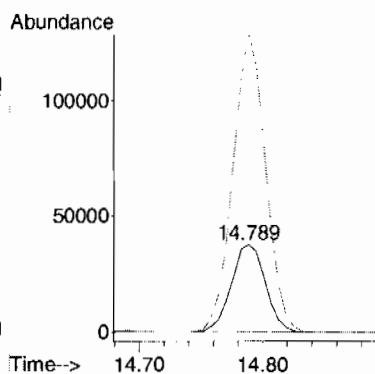
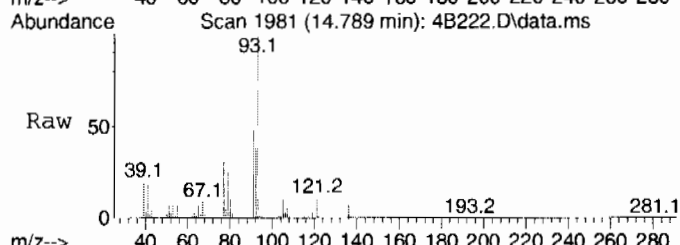
Tgt Ion: 55 Resp: 8175  
Ion Ratio Lower Upper  
55 100  
91 0.0 108.1 168.1#  
56 61.9 27.8 87.8





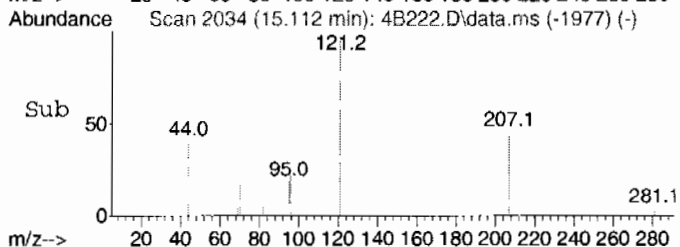
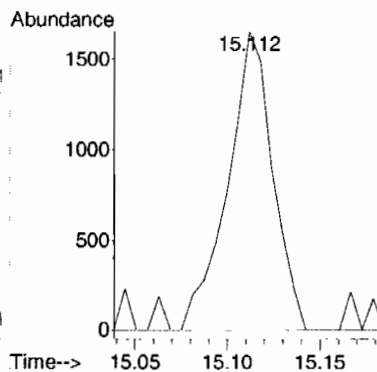
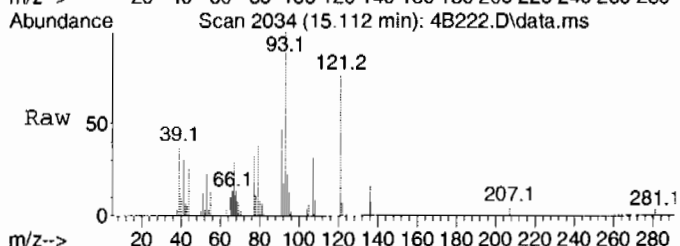
#107 BEFORE analyst DELETION  
 cis-1,4-Dichloro-2-butene  
 Concen: 77.59 ug/L  
 RT: 14.789 min Scan# 1981  
 Delta R.T. 0.006 min  
 Lab File: 4B222.D  
 Acq: 10 Mar 2010 2:52 am

Tgt Ion	Ratio	Lower	Upper
53	100		
88	0.0	83.6	143.6#
77	326.5	3.2	63.2#

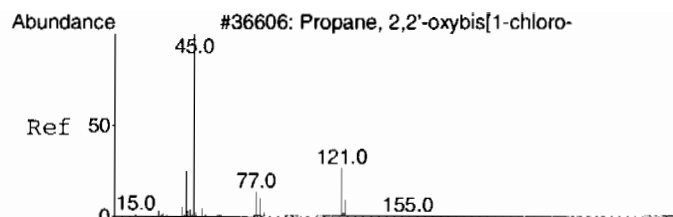


#109 BEFORE analyst DELETION  
 trans-1,4-Dichloro-2-butene  
 Concen: 3.12 ug/L  
 RT: 15.112 min Scan# 2034  
 Delta R.T. 0.049 min  
 Lab File: 4B222.D  
 Acq: 10 Mar 2010 2:52 am

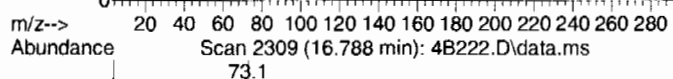
Tgt Ion	Ratio	Lower	Upper
53	100		
88	0.0	24.1	84.1#
75	0.0	97.3	157.3#



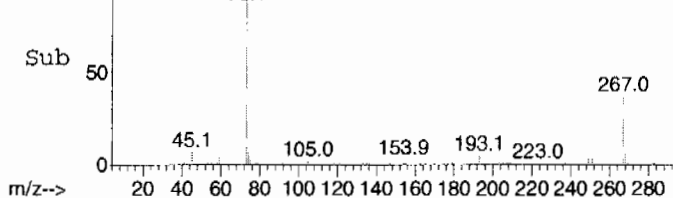
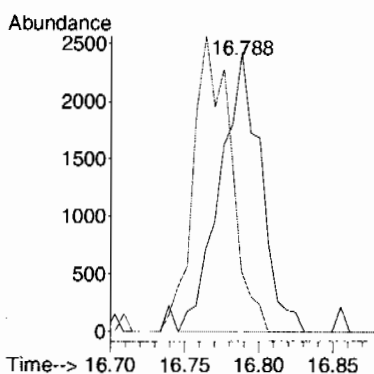
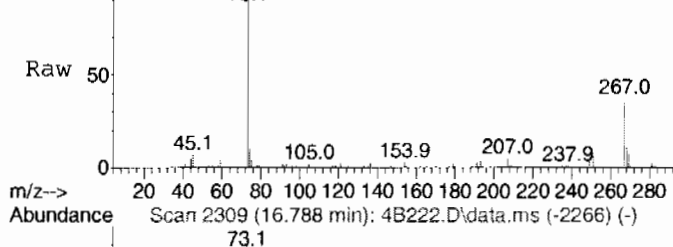




#112 BEFORE analyst DELETION  
 bis(2-Chloroisopropyl)ether  
 Concen: 3.56 ug/L  
 RT: 16.788 min Scan# 2309  
 Delta R.T. 0.073 min  
 Lab File: 4B222.D  
 Acq: 10 Mar 2010 2:52 am



Tgt Ion: 45 Resp: 4656  
 Ion Ratio Lower Upper  
 45 100  
 121 97.2 0.0 54.6#



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B222.D  
Acq On : 10 Mar 2010 2:52 am  
Operator : ACJ  
Sample : |248506015|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 22 Sample Multiplier: 1

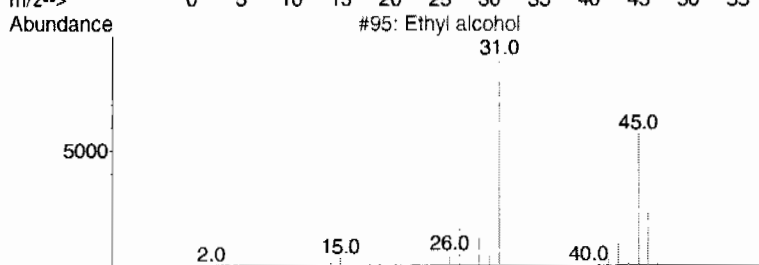
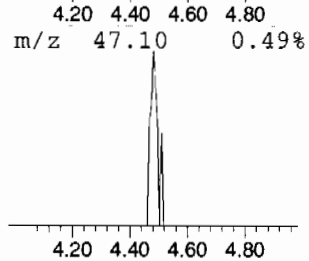
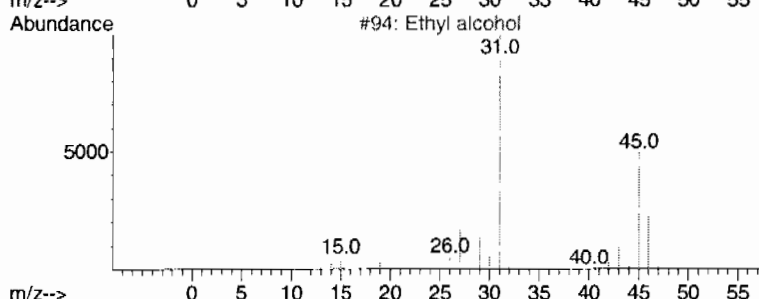
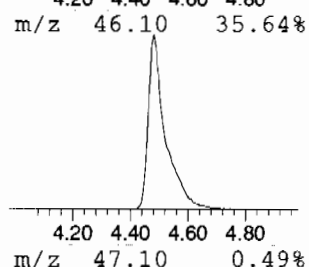
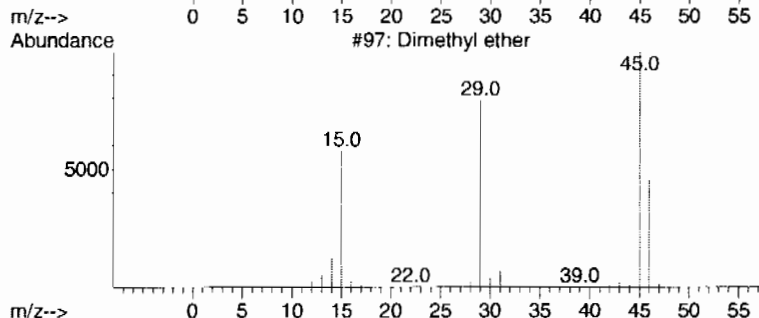
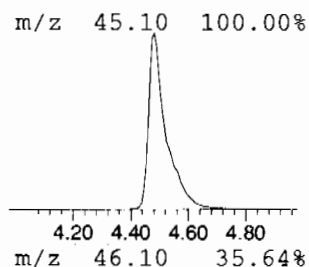
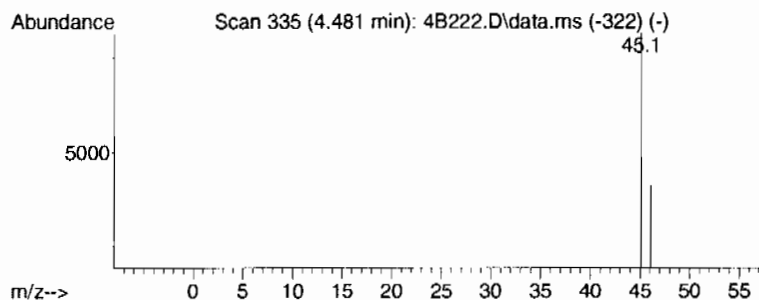
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Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 1 unknown hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	12.22 ug/L	605850	Fluorobenzene	10.613

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1		Dimethyl ether	46	C2H6O	000115-10-6	5
2		Ethyl alcohol	46	C2H6O	000064-17-5	4
3		Ethyl alcohol	46	C2H6O	000064-17-5	4
4		Ethyl alcohol	46	C2H6O	000064-17-5	4
5		Formic acid	46	CH2O2	000064-18-6	3



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B222.D  
Acq On : 10 Mar 2010 2:52 am  
Operator : ACJ  
Sample : |248506015|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

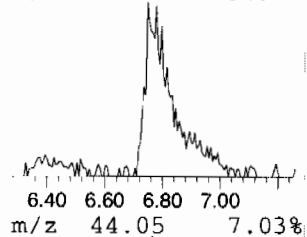
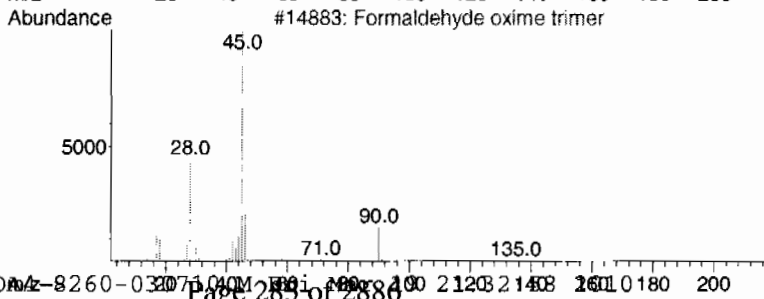
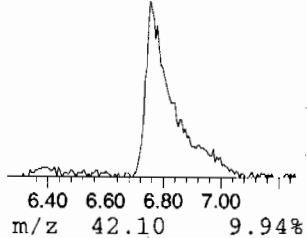
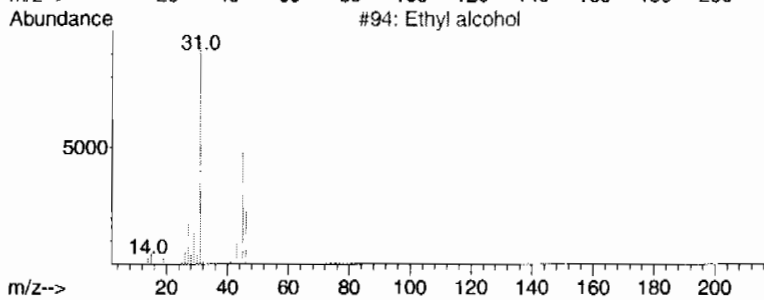
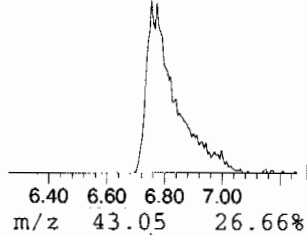
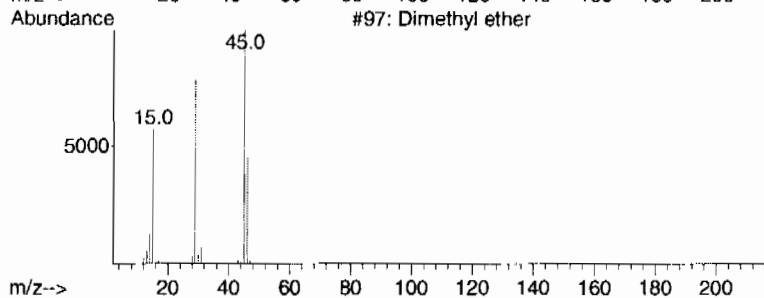
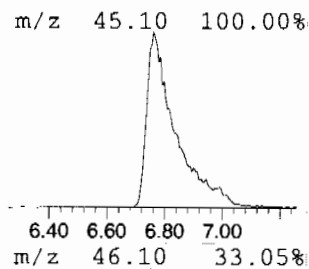
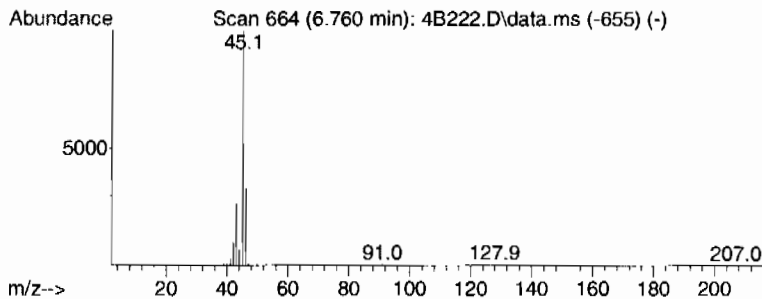
TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 2 unknown hydrocarbon Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.760	9.25 ug/L	458475	Fluorobenzene	10.613

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	9
2	Ethyl alcohol	46	C2H6O	000064-17-5	9
3	Formaldehyde oxime trimer	135	C3H9N3O3	1000234-87-0	9
4	Ethyl alcohol	46	C2H6O	000064-17-5	7
5	Formic acid	46	CH2O2	000064-18-6	5



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B222.D  
Acq On : 10 Mar 2010 2:52 am  
Operator : ACJ  
Sample : |248506015|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

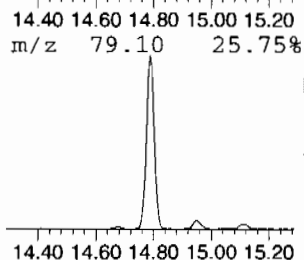
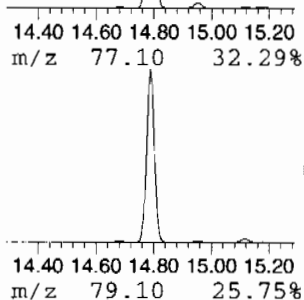
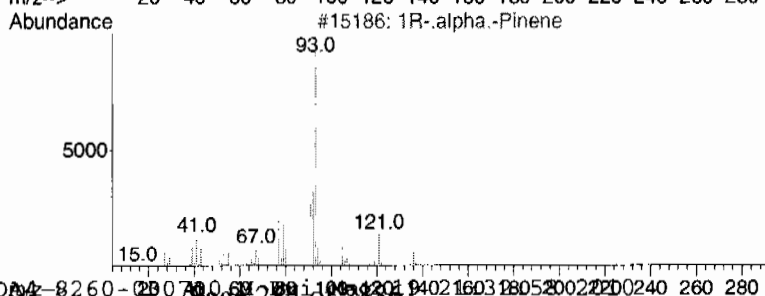
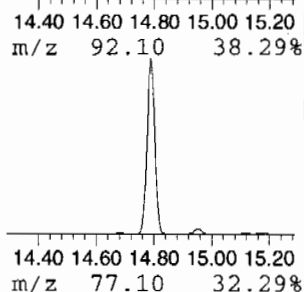
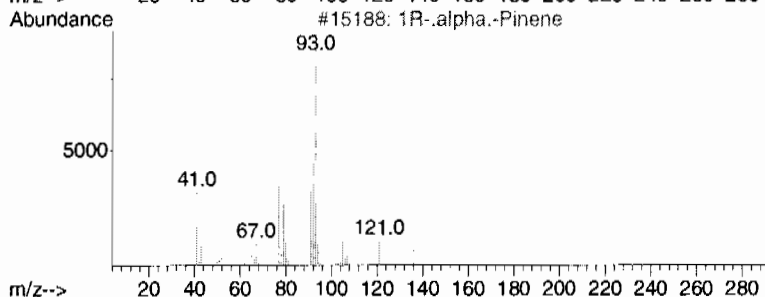
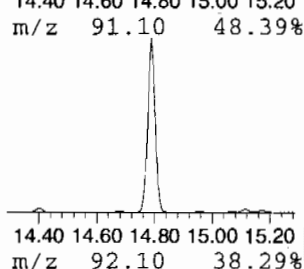
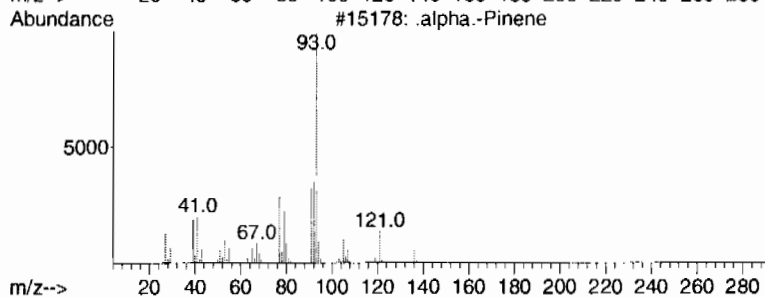
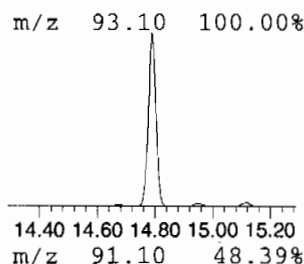
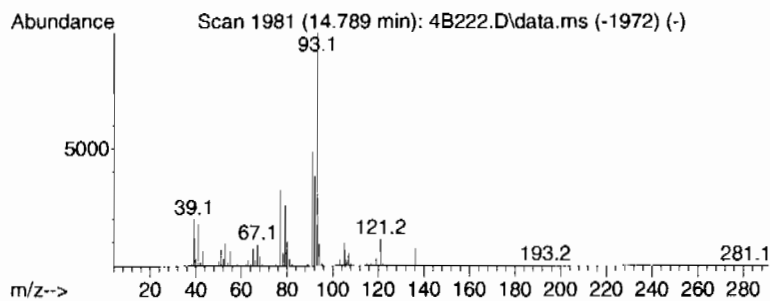
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TIC Integration Parameters: default.P

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Peak Number 3 unknown hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.789	79.76 ug/L	3279930	B Chlorobenzene-d5	13.771

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	.alpha.-Pinene	136	C10H16	000080-56-8	96
2	1R-.alpha.-Pinene	136	C10H16	007785-70-8	96
3	1R-.alpha.-Pinene	136	C10H16	007785-70-8	94
4	Bicyclo[3.1.1]hept-2-ene, 2,6,6-...	136	C10H16	002437-95-8	94
5	.alpha.-Pinene	136	C10H16	000080-56-8	91



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B222.D  
Acq On : 10 Mar 2010 2:52 am  
Operator : ACJ  
Sample : |248506015|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

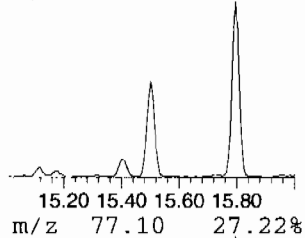
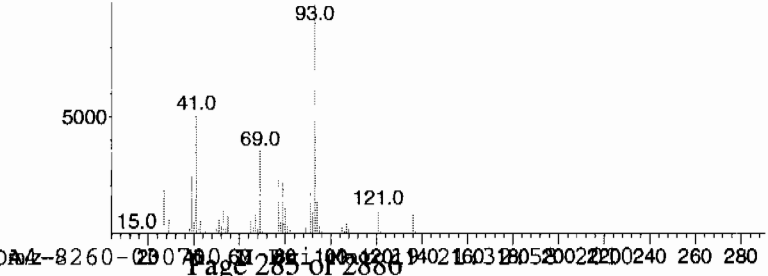
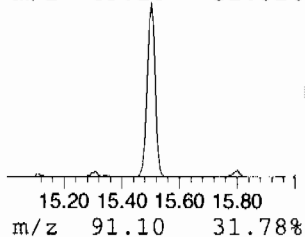
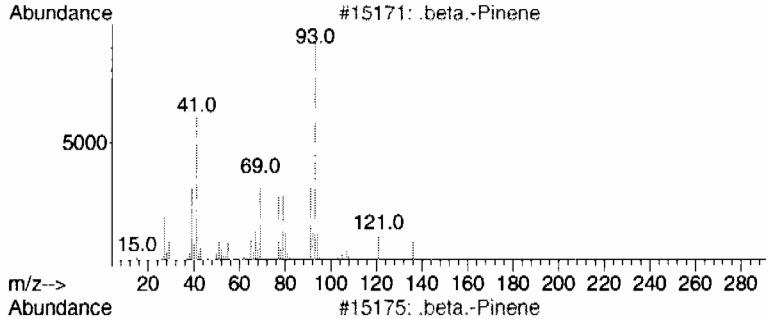
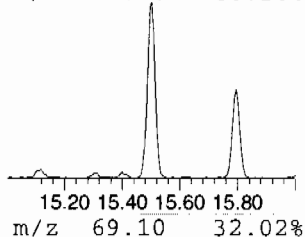
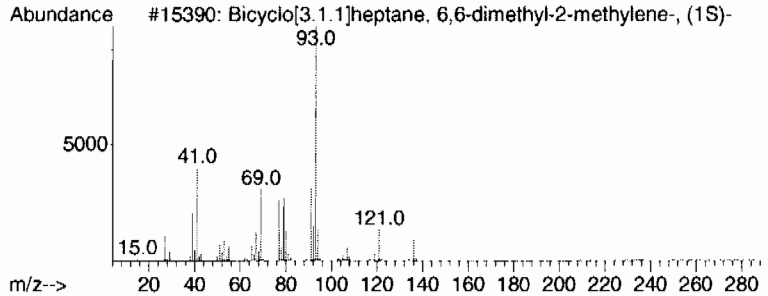
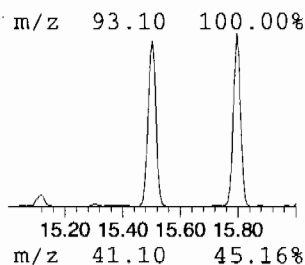
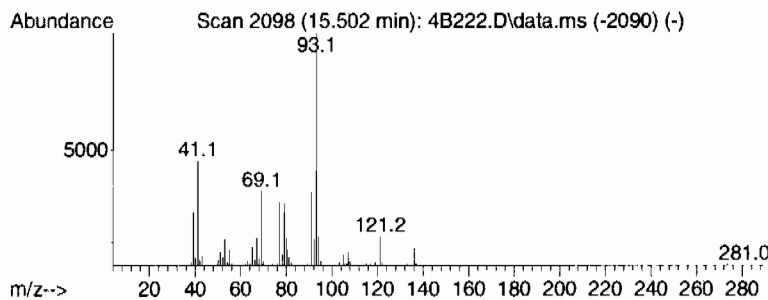
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TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 4 unknown hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.502	43.16 ug/L	1013950	1,4-Dichlorobenzene-d4	16.179

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Bicyclo[3.1.1]heptane, 6,6-dimet...	136	C10H16	018172-67-3	97
2			.beta.-Pinene	136	C10H16	000127-91-3	96
3			.beta.-Pinene	136	C10H16	000127-91-3	91
4			Bicyclo[3.1.1]hept-2-ene, 2,6,6-...	136	C10H16	002437-95-8	90
5			1R-.alpha.-Pinene	136	C10H16	007785-70-8	87



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B222.D  
Acq On : 10 Mar 2010 2:52 am  
Operator : ACJ  
Sample : |248506015|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 22 Sample Multiplier: 1

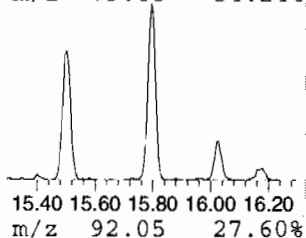
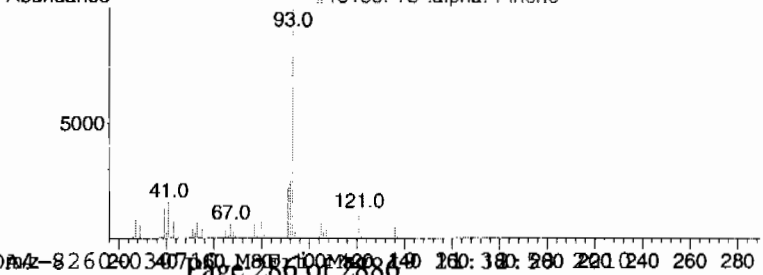
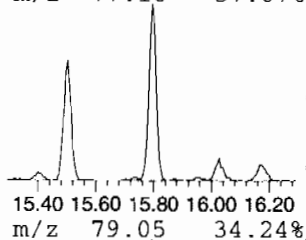
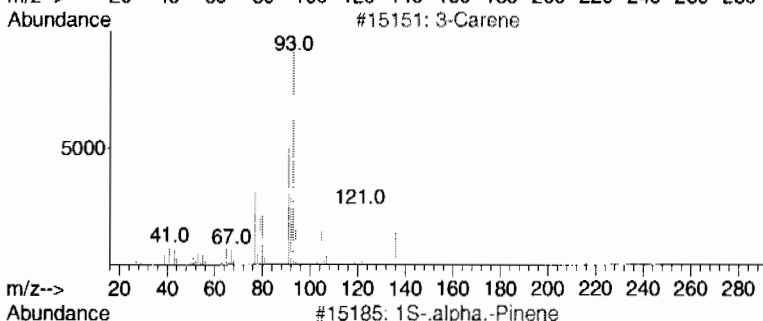
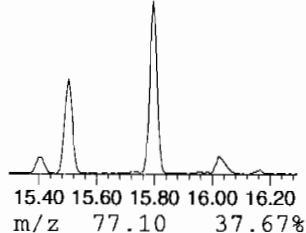
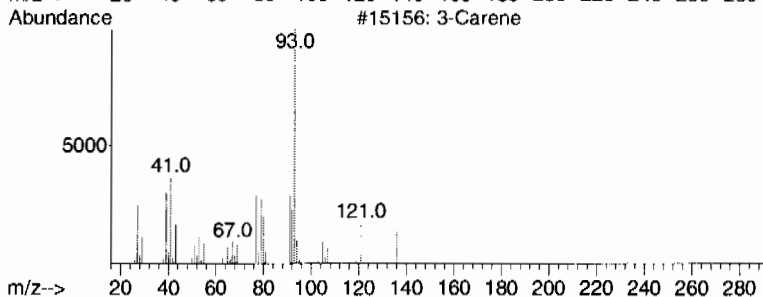
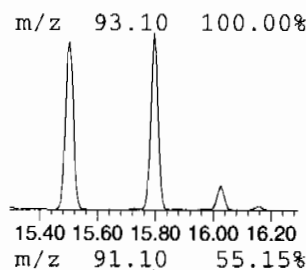
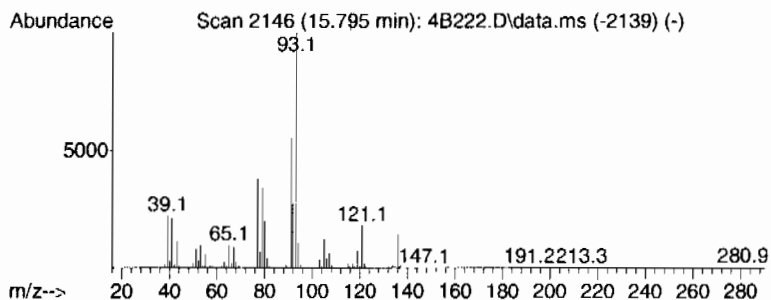
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Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 5 unknown hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.794	48.00 ug/L	1127640	1,4-Dichlorobenzene-d4	16.179

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Carene	136	C10H16	013466-78-9	95
2	3-Carene	136	C10H16	013466-78-9	95
3	1S-.alpha.-Pinene	136	C10H16	007785-26-4	95
4	3-Carene	136	C10H16	013466-78-9	95
5	4-Carene	136	C10H16	1000150-36-1	93



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B222.D  
Acq On : 10 Mar 2010 2:52 am  
Operator : ACJ  
Sample : |248506015|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 22 Sample Multiplier: 1

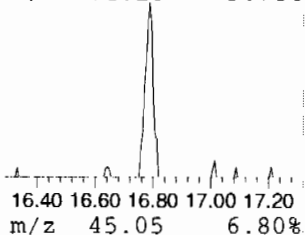
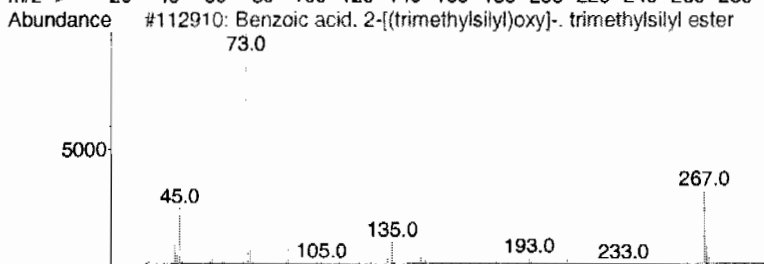
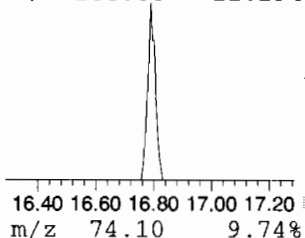
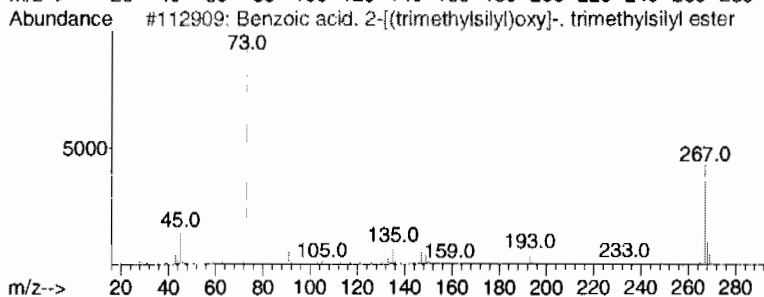
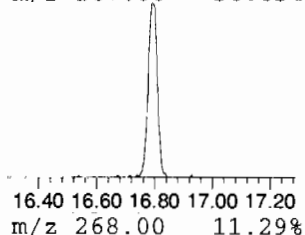
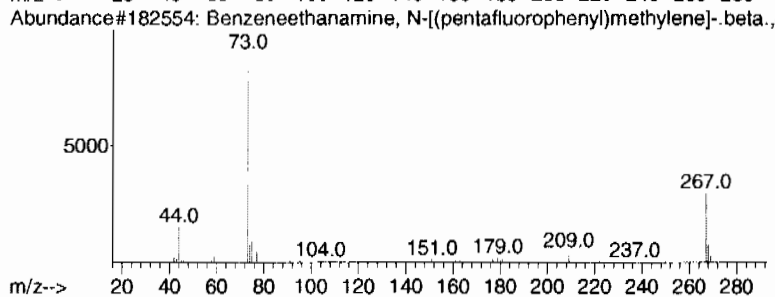
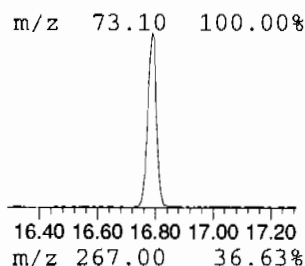
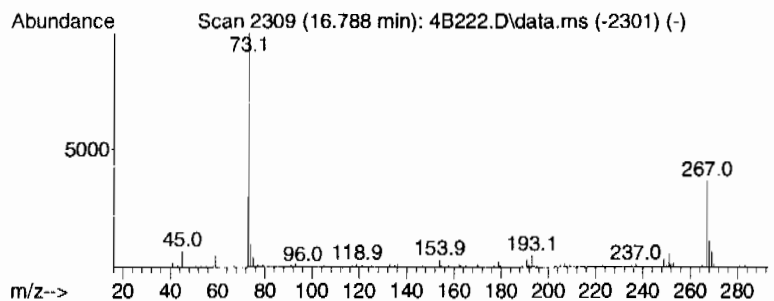
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Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 6 unknown siloxane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.788	8.76 ug/L	205815	B 1,4-Dichlorobenzene-d4	16.179

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Benzenethanamine, N-[(pentafluoro...]	475	C21H26F5NO2Si2	055429-85-1	53
2		Benzoic acid, 2-[(trimethylsilyl)oxy]-	282	C13H22O3Si2	003789-85-3	50
3		Benzoic acid, 2-[(trimethylsilyl)oxy]-	282	C13H22O3Si2	003789-85-3	50
4		Tetrasiloxane, 1,1,3,3,5,5,7,7-o...	282	C8H26O3Si4	001000-05-1	38
5		11H-Dibenzo[b,e][1,4]diazepin-11...	267	C16H17N3O	013450-73-2	27



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B222.D  
Acq On : 10 Mar 2010 2:52 am  
Operator : ACJ  
Sample : |248506015|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.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...	4.481	12.2	ug/L	605850	1	10.613	2479030	50.0
unknown hydroca...	6.760	9.3	ug/L	458475	1	10.613	2479030	50.0
unknown hydroca...	14.789	79.8	ug/L	3279930	4	13.771	2056050	50.0
unknown hydroca...	15.502	43.2	ug/L	1013950	5	16.179	1174670	50.0
unknown hydroca...	15.794	48.0	ug/L	1127640	5	16.179	1174670	50.0
unknown siloxane	16.788	8.8	ug/L	205815	6	16.179	1174670	50.0



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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506017	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 13.3
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7442	<b>Method:</b> SW846 8260B	<b>SOP Ref:</b> GL-OA-E-038
<b>Batch ID:</b> 963417	<b>Inst:</b> VOA4.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/10/2010 03:47	<b>Analyst:</b> ACJ	<b>Purge Vol:</b> 5 mL
<b>Prep Date:</b> 03/09/2010 20:26	<b>Aliquot:</b> 5 g	<b>Final Volume:</b> 5 mL
<b>Data File:</b> 030910V4V4B224.D	<b>Column:</b> DB-624	

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.15	ug/kg	0.392	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.346	1.15
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.346	1.15
74-83-9	Bromomethane	U	1.15	ug/kg	0.346	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.346	1.15
75-69-4	Trichlorofluoromethane	U	1.15	ug/kg	0.346	1.15
67-64-1	Acetone	U	5.76	ug/kg	1.91	5.76
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
74-88-4	Iodomethane	U	5.76	ug/kg	1.84	5.76
75-09-2	Methylene chloride	U	5.76	ug/kg	2.31	5.76
75-15-0	Carbon disulfide	U	5.76	ug/kg	1.44	5.76
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.346	1.15
78-93-3	2-Butanone	U	5.76	ug/kg	1.73	5.76
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.346	1.15
594-20-7	2,2-Dichloropropane	U	1.15	ug/kg	0.346	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.346	1.15
74-97-5	Bromochloromethane	U	1.15	ug/kg	0.380	1.15
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.346	1.15
563-58-6	1,1-Dichloropropene	U	1.15	ug/kg	0.346	1.15
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.346	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.346	1.15
71-43-2	Benzene	U	1.15	ug/kg	0.346	1.15
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.380	1.15
78-87-5	1,2-Dichloropropane	U	1.15	ug/kg	0.346	1.15
75-27-4	Bromodichloromethane	U	1.15	ug/kg	0.346	1.15
74-95-3	Dibromomethane	U	1.15	ug/kg	0.346	1.15
108-10-1	4-Methyl-2-pentanone	U	5.76	ug/kg	1.44	5.76
10061-01-5	cis-1,3-Dichloropropylene	U	1.15	ug/kg	0.346	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.346	1.15
10061-02-6	trans-1,3-Dichloropropylene	U	1.15	ug/kg	0.346	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.346	1.15
591-78-6	2-Hexanone	U	5.76	ug/kg	1.73	5.76
142-28-9	1,3-Dichloropropane	U	1.15	ug/kg	0.346	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.346	1.15
124-48-1	Dibromochloromethane	U	1.15	ug/kg	0.346	1.15
106-93-4	1,2-Dibromoethane	U	1.15	ug/kg	0.346	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.346	1.15

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193  
Lab Sample ID: 248506017  
  
Client ID: RE36-10-7442  
Batch ID: 963417  
Run Date: 03/10/2010 03:47  
Prep Date: 03/09/2010 20:26  
Data File: 030910V4V4B224.D

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA4.1  
Analyst: ACJ  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 13.3  
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	U	1.15	ug/kg	0.346	1.15
179601-23-1	m,p-Xylenes	U	2.31	ug/kg	0.346	2.31
95-47-6	o-Xylene	U	1.15	ug/kg	0.346	1.15
100-42-5	Styrene	U	1.15	ug/kg	0.346	1.15
75-25-2	Bromoform	U	1.15	ug/kg	0.346	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.346	1.15
96-18-4	1,2,3-Trichloropropane	U	1.15	ug/kg	0.346	1.15
108-86-1	Bromobenzene	U	1.15	ug/kg	0.346	1.15
103-65-1	n-Propylbenzene	U	1.15	ug/kg	0.346	1.15
95-49-8	2-Chlorotoluene	U	1.15	ug/kg	0.346	1.15
98-82-8	Isopropylbenzene	U	1.15	ug/kg	0.346	1.15
108-67-8	1,3,5-Trimethylbenzene	U	1.15	ug/kg	0.346	1.15
106-43-4	4-Chlorotoluene	U	1.15	ug/kg	0.346	1.15
98-06-6	tert-Butylbenzene	U	1.15	ug/kg	0.346	1.15
95-63-6	1,2,4-Trimethylbenzene	U	1.15	ug/kg	0.346	1.15
135-98-8	sec-Butylbenzene	U	1.15	ug/kg	0.346	1.15
99-87-6	4-Isopropyltoluene	U	1.15	ug/kg	0.346	1.15
541-73-1	1,3-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15
106-46-7	1,4-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15
104-51-8	n-Butylbenzene	U	1.15	ug/kg	0.346	1.15
96-12-8	1,2-Dibromo-3-chloropropane	U	1.15	ug/kg	0.346	1.15
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.76	ug/kg	1.84	5.76
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.15	ug/kg	0.346	1.15
95-50-1	1,2-Dichlorobenzene	U	1.15	ug/kg	0.346	1.15

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	16.79	8.6	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B224.D  
Acq On : 10 Mar 2010 3:47 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506017|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 19 21:28:05 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev (Min)
Internal Standards								
1) Fluorobenzene	10.614	10.613	1.000	96	1132647	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	684607	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	210478	50.00	ug/L	0.00
82) B Fluorobenzene	10.614	10.613	1.000	96	1131917	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	684607	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	210483	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	10.260	10.259	0.967	65	290686	47.53	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	95.06%			
43) Toluene-d8	12.247	12.247	0.889	98	877088	56.27	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	112.54%			
61) Bromofluorobenzene	14.954	14.947	0.924	95	316048	77.43	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	154.86%#			
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	0.000	5.299	0.000		0	N.D.		
4) Vinyl chloride	5.499	5.521	0.518	62	152	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	0.000	6.991	0.000		0	N.D.		
9) Acetone	7.370	7.351	0.694	43	5841	N.D.		
10) 1,1-Dichloroethylene	7.419	7.394	0.699	61	345	N.D.		
11) Iodomethane	0.000	7.662	0.000		0	N.D.		
12) Acetonitrile	7.693	7.693	0.725	41	244	N.D.		
13) Methyl acetate	7.766	7.747	0.732	43	752	N.D.		
14) Carbon disulfide	7.773	7.778	0.732	76	306	N.D.		
15) Methylene chloride	7.931	7.967	0.747	84	3332	Below Cal	#	59
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.852	8.705	0.834	43	125	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.339	9.320	0.880	43	634	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.675	9.686	0.912	83	398	N.D.		
25) 1,1,1-Trichloroethane	9.961	9.973	0.939	97	570	N.D.		
26) Cyclohexane	10.077	10.076	0.949	56	560	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.338	0.000		0	N.D.		
31) Benzene	0.000	10.369	0.000		0	N.D.		
32) Cyclohexene	10.601	10.491	0.999	67	370	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	11.004	11.003	1.037	95	1791	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	11.266	11.259	1.061	83	119	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B224.D  
Acq On : 10 Mar 2010 3:47 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506017|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 19 21:28:05 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.015	0.000		0	N.D.	
44) Toluene	12.327	12.320	0.895	91	1163	Below Cal	91
45) trans-1,3-Dichloroprop...	12.473	12.460	0.906	75	229	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.856	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.	
49) Tetrachloroethylene	12.924	12.917	0.938	164	140	N.D.	
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.801	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.	
54) Ethylbenzene	13.857	13.862	1.006	91	1077	N.D.	
55) m,p-Xylenes	13.973	13.966	1.015	106	915	N.D.	
56) o-Xylene	14.405	14.399	1.046	106	960	N.D.	
57) Styrene	14.399	14.399	1.046	104	600	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.753	14.758	0.912	105	557	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.014	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	0.000	15.167	0.000		0	N.D.	
65) n-Propylbenzene	15.192	15.179	0.939	91	435	N.D.	
66) 1,3,5-Trimethylbenzene	15.326	15.325	0.947	105	1279	N.D.	
67) 2-Chlorotoluene	0.000	15.331	0.000		0	N.D.	
68) 4-Chlorotoluene	15.430	15.429	0.954	91	362	N.D.	
69) tert-Butylbenzene	0.000	15.703	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.747	15.740	0.973	105	1104	N.D.	
71) sec-Butylbenzene	15.911	15.929	0.983	105	136	N.D.	
72) 4-Isopropyltoluene	16.039	16.051	0.991	119	452	N.D.	
73) 1,3-Dichlorobenzene	16.119	16.118	0.996	146	238	N.D.	
74) 1,4-Dichlorobenzene	16.198	16.203	1.001	146	172	N.D.	
75) n-Butylbenzene	16.497	16.502	1.020	91	181	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.642	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.629	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.	
80) Naphthalene	19.039	19.026	1.177	128	775	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.385	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.174	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.	
87) Isopropyl Alcohol	7.449	7.430	0.702	45	150	N.D.	
88) Allyl chloride	7.693	7.796	0.725	41	244	N.D.	
89) tert-Butyl Alcohol	7.925	7.924	0.747	59	417	N.D.	
90) Acrylonitrile	0.000	8.168	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.735	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.339	9.339	0.880	43	634	N.D.	
95) Propionitrile	0.000	9.387	0.000		0	N.D.	
96) Methacrylonitrile	9.644	9.570	0.909	41	172	N.D.	
97) Tetrahydrofuran	9.723	9.710	0.916	42	1148	N.D.	
98) Isobutyl alcohol	10.010	10.003	0.943	41	168	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B224.D  
Acq On : 10 Mar 2010 3:47 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506017|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 19 21:28:05 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

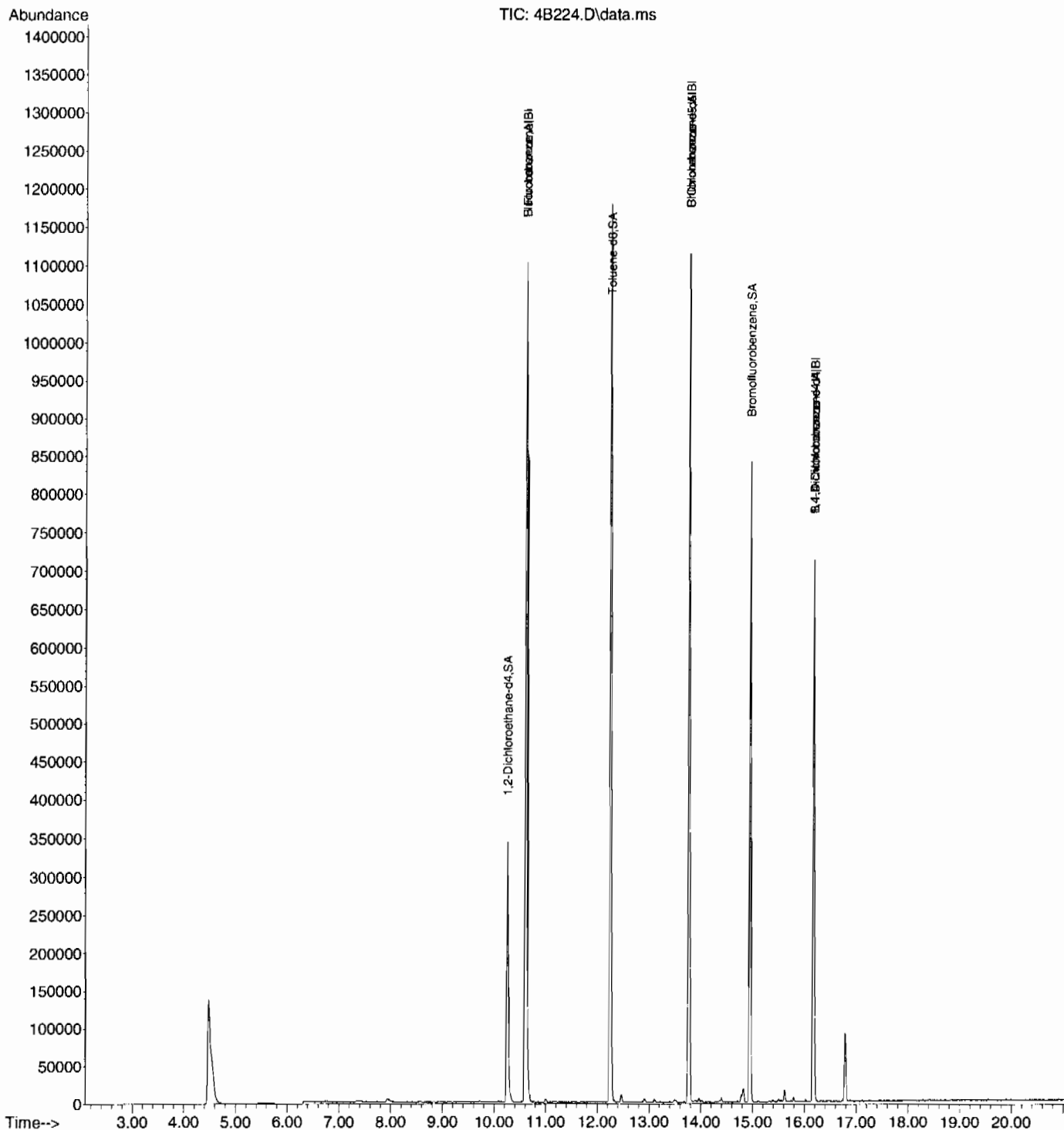
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.381	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0m	N.D.	d
104) Ethyl methacrylate	0.000	12.460	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.796	14.783	0.914	53	275	N.D.	
108) Cyclohexanone	0.000	14.905	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.210	16.319	1.002	91	179	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.715	0.000		0m	N.D.	d

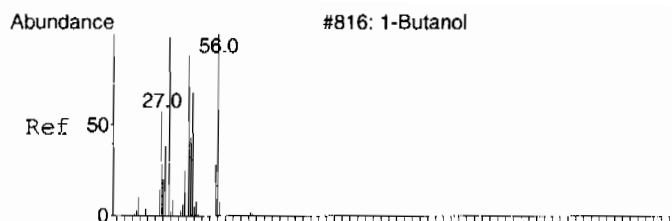
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

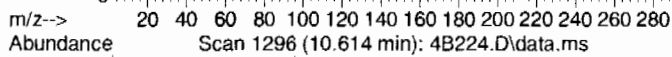
Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B224.D  
Acq On : 10 Mar 2010 3:47 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506017|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 19 21:28:05 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

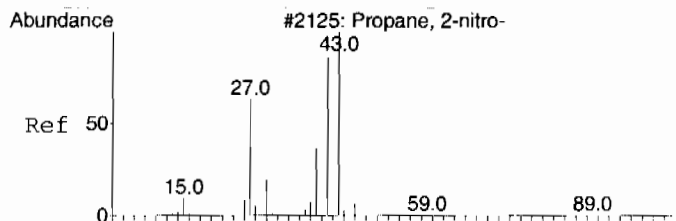
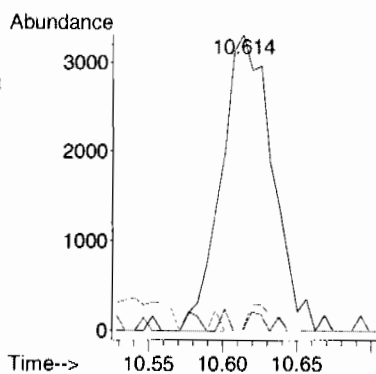
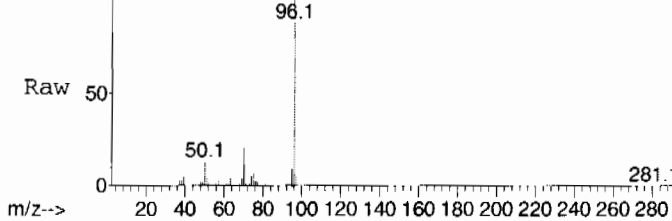




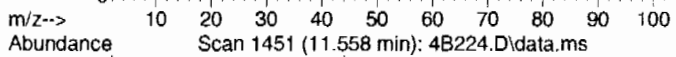
#33 BEFORE analyst DELETION  
n-Butyl alcohol  
Concen: 209.16 ug/L  
RT: 10.614 min Scan# 1296  
Delta R.T. -0.072 min  
Lab File: 4B224.D  
Acq: 10 Mar 2010 3:47 am



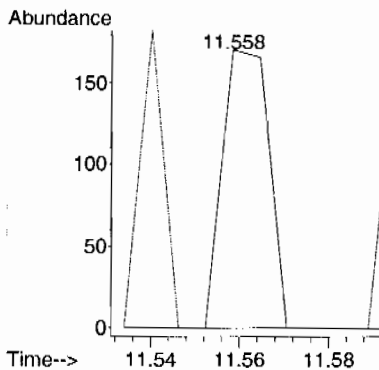
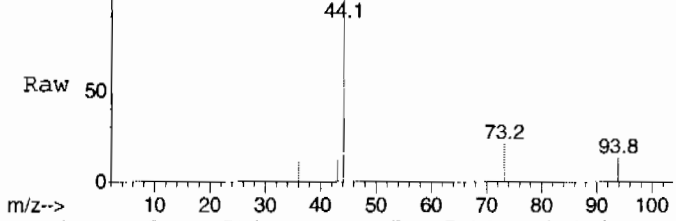
Tgt Ion: 56 Resp: 7892  
Ion Ratio Lower Upper  
56 100  
41 1.8 49.2 109.2#  
43 4.3 30.5 90.5#

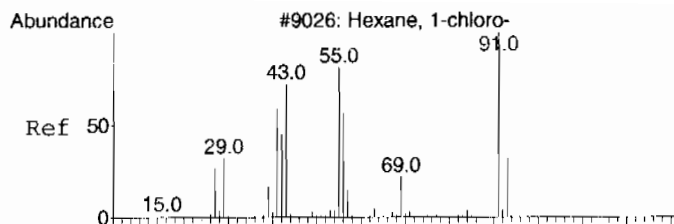


#102 BEFORE analyst DELETION  
2-Nitropropane  
Concen: 6.26 ug/L  
RT: 11.558 min Scan# 1451  
Delta R.T. -0.109 min  
Lab File: 4B224.D  
Acq: 10 Mar 2010 3:47 am

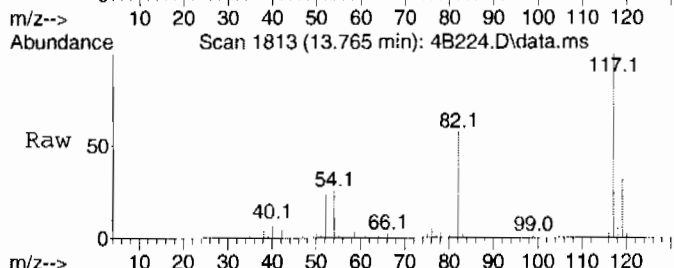


Tgt Ion: 43 Resp: 123  
Ion Ratio Lower Upper  
43 100  
41 0.0 57.4 117.4#

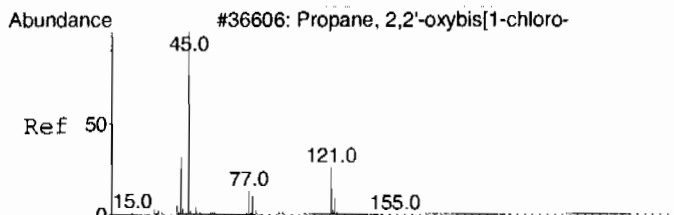
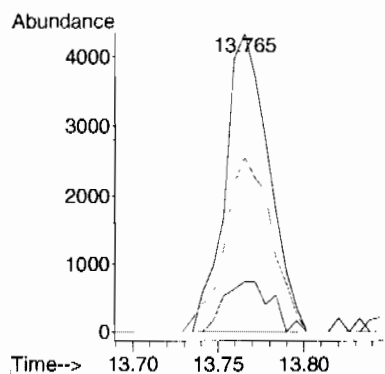
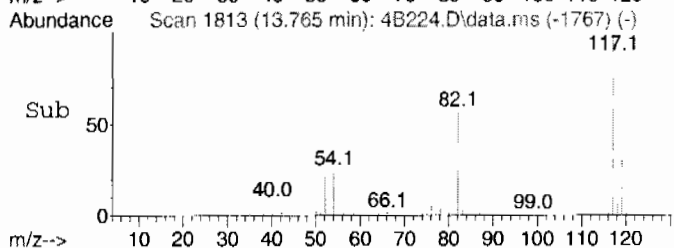




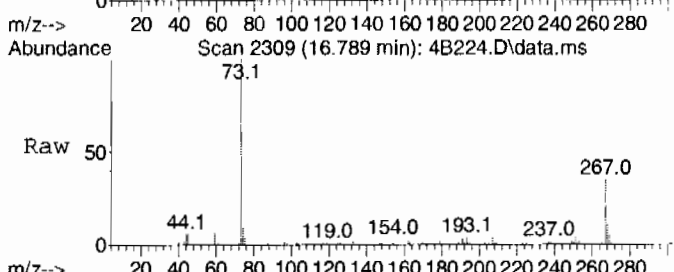
#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 2.99 ug/L  
RT: 13.765 min Scan# 1813  
Delta R.T. 0.104 min  
Lab File: 4B224.D  
Acq: 10 Mar 2010 3:47 am



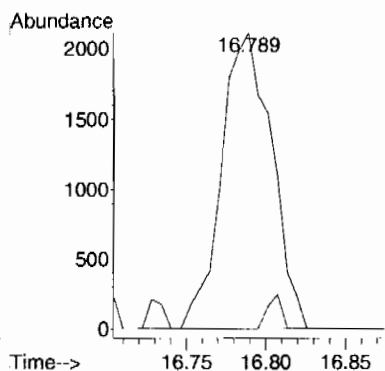
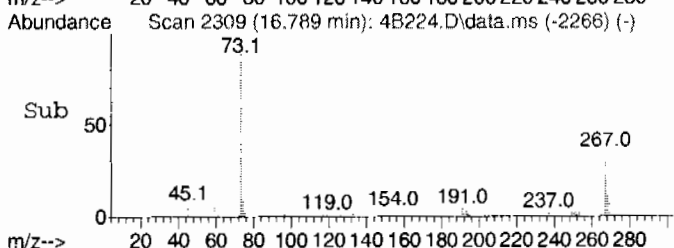
Tgt Ion: 55 Resp: 7722  
Ion Ratio Lower Upper  
55 100  
91 18.7 108.1 168.1#  
56 64.0 27.8 87.8



#112 BEFORE analyst DELETION  
bis(2-Chloroisopropyl)ether  
Concen: 3.03 ug/L  
RT: 16.789 min Scan# 2309  
Delta R.T. 0.074 min  
Lab File: 4B224.D  
Acq: 10 Mar 2010 3:47 am



Tgt Ion: 45 Resp: 4649  
Ion Ratio Lower Upper  
45 100  
121 3.2 0.0 54.6





## Page: 1

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B224.D  
Acq On : 10 Mar 2010 3:47 am  
Operator : ACJ  
Sample : |248506017|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc
unknown hydroca...	16.789	7.5	ug/L	200271	6	16.180	1343030	50.0

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506018	Date Received: 03/03/2010 08:50	%Moisture: 21.4
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7436	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4J	Dilution: 1
Run Date: 03/10/2010 04:14	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:27	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4\4B225.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.27	ug/kg	0.432	1.27
74-87-3	Chloromethane	U	1.27	ug/kg	0.381	1.27
75-01-4	Vinyl chloride	U	1.27	ug/kg	0.381	1.27
74-83-9	Bromomethane	U	1.27	ug/kg	0.381	1.27
75-00-3	Chloroethane	U	1.27	ug/kg	0.381	1.27
75-69-4	Trichlorofluoromethane	U	1.27	ug/kg	0.381	1.27
67-64-1	Acetone	J	3.32	ug/kg	2.11	6.36
75-35-4	1,1-Dichloroethylene	U	1.27	ug/kg	0.381	1.27
74-88-4	Iodomethane	U	6.36	ug/kg	2.03	6.36
75-09-2	Methylene chloride	U	6.36	ug/kg	2.54	6.36
75-15-0	Carbon disulfide	U	6.36	ug/kg	1.59	6.36
156-60-5	trans-1,2-Dichloroethylene	U	1.27	ug/kg	0.381	1.27
75-34-3	1,1-Dichloroethane	U	1.27	ug/kg	0.381	1.27
78-93-3	2-Butanone	U	6.36	ug/kg	1.91	6.36
156-59-2	cis-1,2-Dichloroethylene	U	1.27	ug/kg	0.381	1.27
594-20-7	2,2-Dichloropropane	U	1.27	ug/kg	0.381	1.27
67-66-3	Chloroform	U	1.27	ug/kg	0.381	1.27
74-97-5	Bromochloromethane	U	1.27	ug/kg	0.420	1.27
71-55-6	1,1,1-Trichloroethane	U	1.27	ug/kg	0.381	1.27
563-58-6	1,1-Dichloropropene	U	1.27	ug/kg	0.381	1.27
56-23-5	Carbon tetrachloride	U	1.27	ug/kg	0.381	1.27
107-06-2	1,2-Dichloroethane	U	1.27	ug/kg	0.381	1.27
71-43-2	Benzene	U	1.27	ug/kg	0.381	1.27
79-01-6	Trichloroethylene	U	1.27	ug/kg	0.420	1.27
78-87-5	1,2-Dichloropropane	U	1.27	ug/kg	0.381	1.27
75-27-4	Bromodichloromethane	U	1.27	ug/kg	0.381	1.27
74-95-3	Dibromomethane	U	1.27	ug/kg	0.381	1.27
108-10-1	4-Methyl-2-pentanone	U	6.36	ug/kg	1.59	6.36
10061-01-5	cis-1,3-Dichloropropylene	U	1.27	ug/kg	0.381	1.27
108-88-3	Toluene	J	0.559	ug/kg	0.381	1.27
10061-02-6	trans-1,3-Dichloropropylene	U	1.27	ug/kg	0.381	1.27
79-00-5	1,1,2-Trichloroethane	U	1.27	ug/kg	0.381	1.27
591-78-6	2-Hexanone	U	6.36	ug/kg	1.91	6.36
142-28-9	1,3-Dichloropropane	U	1.27	ug/kg	0.381	1.27
127-18-4	Tetrachloroethylene	U	1.27	ug/kg	0.381	1.27
124-48-1	Dibromochloromethane	U	1.27	ug/kg	0.381	1.27
106-93-4	1,2-Dibromoethane	U	1.27	ug/kg	0.381	1.27
108-90-7	Chlorobenzene	U	1.27	ug/kg	0.381	1.27

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506018	Date Received: 03/03/2010 08:50	%Moisture: 21.4
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7436	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.I	Dilution: 1
Run Date: 03/10/2010 04:14	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:27	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4\4B225.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.27	ug/kg	0.381	1.27
179601-23-1	m,p-Xylenes	U	2.54	ug/kg	0.381	2.54
95-47-6	o-Xylene	U	1.27	ug/kg	0.381	1.27
100-42-5	Styrene	U	1.27	ug/kg	0.381	1.27
75-25-2	Bromoform	U	1.27	ug/kg	0.381	1.27
79-34-5	1,1,2,2-Tetrachloroethane	U	1.27	ug/kg	0.381	1.27
96-18-4	1,2,3-Trichloropropane	U	1.27	ug/kg	0.381	1.27
108-86-1	Bromobenzene	U	1.27	ug/kg	0.381	1.27
103-65-1	n-Propylbenzene	U	1.27	ug/kg	0.381	1.27
95-49-8	2-Chlorotoluene	U	1.27	ug/kg	0.381	1.27
98-82-8	Isopropylbenzene	U	1.27	ug/kg	0.381	1.27
108-67-8	1,3,5-Trimethylbenzene	U	1.27	ug/kg	0.381	1.27
106-43-4	4-Chlorotoluene	J	0.496	ug/kg	0.381	1.27
98-06-6	tert-Butylbenzene	U	1.27	ug/kg	0.381	1.27
95-63-6	1,2,4-Trimethylbenzene	U	1.27	ug/kg	0.381	1.27
135-98-8	sec-Butylbenzene	U	1.27	ug/kg	0.381	1.27
99-87-6	4-Isopropyltoluene		2.61	ug/kg	0.381	1.27
541-73-1	1,3-Dichlorobenzene	U	1.27	ug/kg	0.381	1.27
106-46-7	1,4-Dichlorobenzene	U	1.27	ug/kg	0.381	1.27
104-51-8	n-Butylbenzene	U	1.27	ug/kg	0.381	1.27
96-12-8	1,2-Dibromo-3-chloropropane	U	1.27	ug/kg	0.381	1.27
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.36	ug/kg	2.03	6.36
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.27	ug/kg	0.381	1.27
95-50-1	1,2-Dichlorobenzene	U	1.27	ug/kg	0.381	1.27

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	12.7	ug/kg	0	J
	unknown hydrocarbon	14.79	49.6	ug/kg	0	J
	unknown hydrocarbon	15.11	7.21	ug/kg	0	J
	unknown hydrocarbon	15.5	7.76	ug/kg	0	J
	unknown hydrocarbon	15.79	24	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B225.D  
Acq On : 10 Mar 2010 4:14 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506018|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 19 21:29:11 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.613	10.613	1.000	96	1187328	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.770	13.765	1.000	117	821497	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	405681	50.00	ug/L	0.00
82) B Fluorobenzene	10.613	10.613	1.000	96	1186884	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.770	13.764	1.000	117	821661	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	405694	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.967	65	305225	47.61	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	95.22%			
43) Toluene-d8	12.252	12.247	0.890	98	954251	51.02	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	102.04%			
61) Bromofluorobenzene	14.953	14.947	0.924	95	460167	58.49	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	116.98%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	0.000	5.299	0.000		0	N.D.		
4) Vinyl chloride	5.514	5.521	0.520	62	116	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	7.016	6.991	0.661	59	645	N.D.		
9) Acetone	7.357	7.351	0.693	43	18965	2.61	ug/L	95
10) 1,1-Dichloroethylene	0.000	7.394	0.000		0	N.D.		
11) Iodomethane	0.000	7.662	0.000		0	N.D.		
12) Acetonitrile	7.686	7.693	0.724	41	263	N.D.		
13) Methyl acetate	7.747	7.747	0.730	43	265	N.D.		
14) Carbon disulfide	7.759	7.778	0.731	76	379	N.D.		
15) Methylene chloride	7.961	7.967	0.750	84	9167	Below Cal		90
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.717	8.705	0.821	43	114	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.326	9.320	0.879	43	1448	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.692	9.686	0.913	83	253	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.973	0.000		0	N.D.		
26) Cyclohexane	10.070	10.076	0.949	56	126	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.338	0.000		0	N.D.		
31) Benzene	10.375	10.369	0.978	78	662	N.D.		
32) Cyclohexene	10.539	10.491	0.993	67	106	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	11.003	11.003	1.037	95	866	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.259	0.000		0	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B225.D  
Acq On : 10 Mar 2010 4:14 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506018|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 19 21:29:11 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.015	0.000		0	N.D.	
44) Toluene	12.326	12.320	0.895	91	42925	0.44 ug/L	96
45) trans-1,3-Dichloroprop...	12.460	12.460	0.905	75	220	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.	
47) 2-Hexanone	12.862	12.856	0.934	43	277	N.D.	
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.	
49) Tetrachloroethylene	12.917	12.917	0.938	164	149	N.D.	
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.	
52) Chlorobenzene	13.801	13.801	1.002	112	148	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.	
54) Ethylbenzene	13.856	13.862	1.006	91	2789	N.D.	
55) m,p-Xylenes	13.959	13.966	1.014	106	1854	N.D.	
56) o-Xylene	14.398	14.399	1.046	106	1059	N.D.	
57) Styrene	14.404	14.399	1.046	104	760	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.758	0.000		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	0.000	15.014	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	0.000	15.167	0.000		0	N.D.	
65) n-Propylbenzene	15.307	15.179	0.946	91	1971	N.D.	
66) 1,3,5-Trimethylbenzene	15.325	15.325	0.947	105	1512	N.D.	
67) 2-Chlorotoluene	0.000	15.331	0.000		0	N.D.	
68) 4-Chlorotoluene	15.398	15.429	0.952	91	8330	0.39 ug/L #	40
69) tert-Butylbenzene	15.740	15.703	0.973	134	197	N.D.	
70) 1,2,4-Trimethylbenzene	15.746	15.740	0.973	105	1535	N.D.	
71) sec-Butylbenzene	15.922	15.929	0.984	105	853	N.D.	
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	55471	2.05 ug/L #	28
73) 1,3-Dichlorobenzene	0.000	16.118	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	16.209	16.203	1.002	146	189	N.D.	
75) n-Butylbenzene	16.483	16.502	1.019	91	160	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.642	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.629	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.	
80) Naphthalene	19.038	19.026	1.177	128	1144	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.385	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.174	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.	
87) Isopropyl Alcohol	7.436	7.430	0.701	45	7407	N.D.	
88) Allyl chloride	7.784	7.796	0.733	41	193	N.D.	
89) tert-Butyl Alcohol	7.918	7.924	0.746	59	373	N.D.	
90) Acrylonitrile	0.000	8.168	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.735	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.326	9.339	0.879	43	1448	N.D.	
95) Propionitrile	0.000	9.387	0.000		0	N.D.	
96) Methacrylonitrile	9.582	9.570	0.903	41	118	N.D.	
97) Tetrahydrofuran	9.716	9.710	0.916	42	1195	N.D.	
98) Isobutyl alcohol	10.113	10.003	0.953	41	109	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B225.D  
Acq On : 10 Mar 2010 4:14 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506018|963417|1|VOAF|1|VOA8260BS|  
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ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 19 21:29:11 2010  
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Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

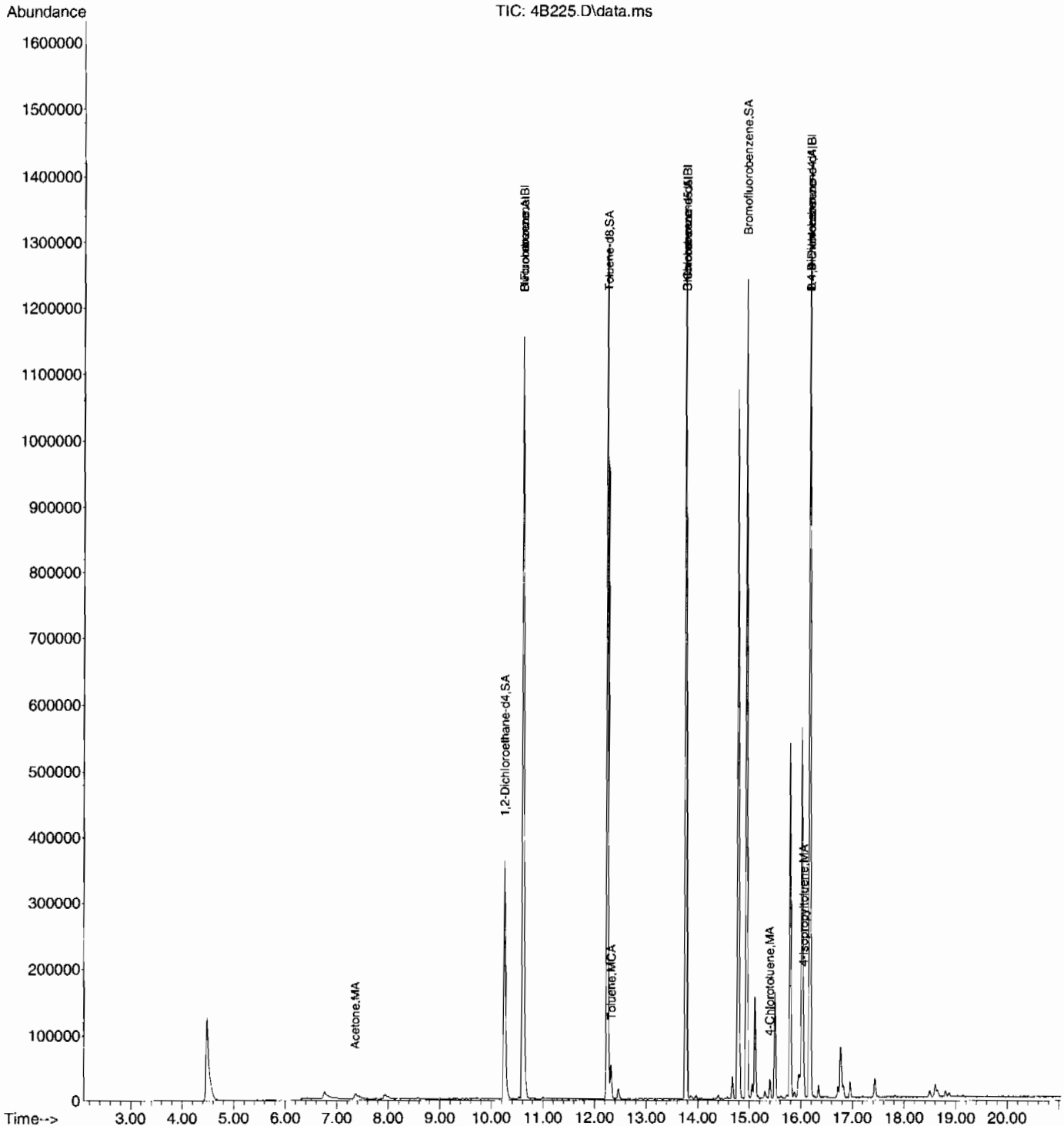
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.381	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0m	N.D.	d
104) Ethyl methacrylate	0.000	12.460	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0m	N.D.	d
108) Cyclohexanone	0.000	14.905	0.000		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.051	15.063	0.930	53	704	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.343	16.319	1.010	91	4835	N.D.	
112) bis(2-Chloroisopropyl)...	16.788	16.715	1.038	45	2207	N.D.	

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

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B225.D  
Acq On : 10 Mar 2010 4:14 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506018|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 19 21:29:11 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B225.D  
Acq On : 10 Mar 2010 4:14 am  
Operator : ACJ  
Sample : |248506018|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

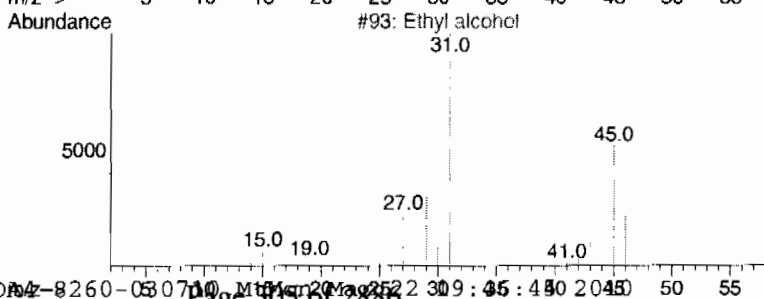
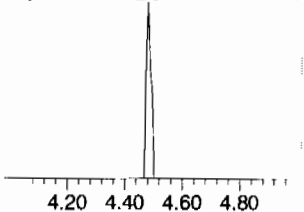
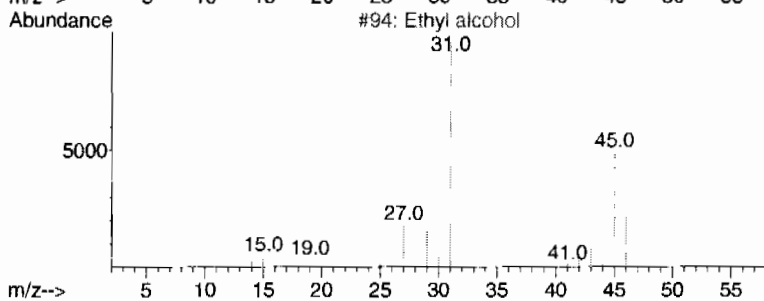
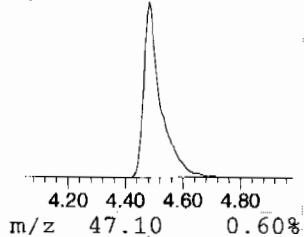
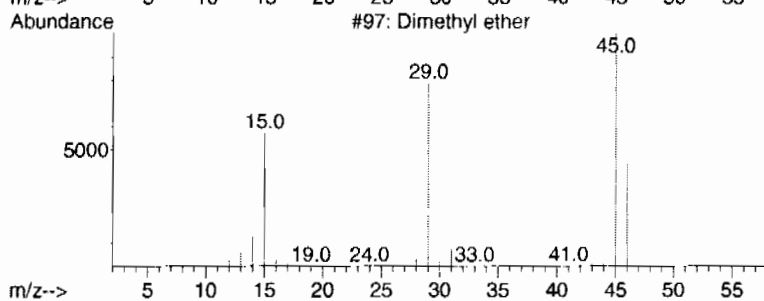
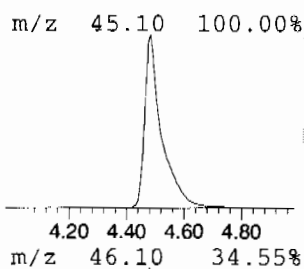
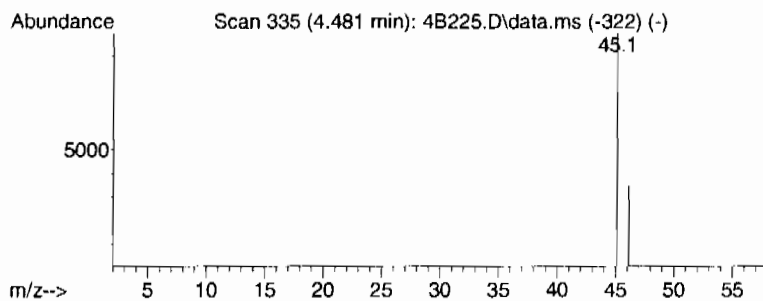
TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 1 unknown hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	9.99 ug/L	517483	Fluorobenzene	10.613

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Dimethyl ether	46	C2H6O	000115-10-6	5
2		Ethyl alcohol	46	C2H6O	000064-17-5	4
3		Ethyl alcohol	46	C2H6O	000064-17-5	4
4		Ethyl alcohol	46	C2H6O	000064-17-5	4
5		Formic acid	46	CH2O2	000064-18-6	4



## Page: 2

Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B225.D  
Acq On : 10 Mar 2010 4:14 am  
Operator : ACJ  
Sample : |248506018|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

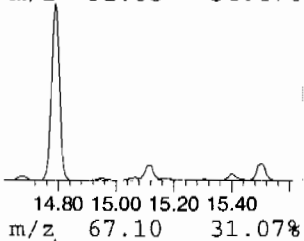
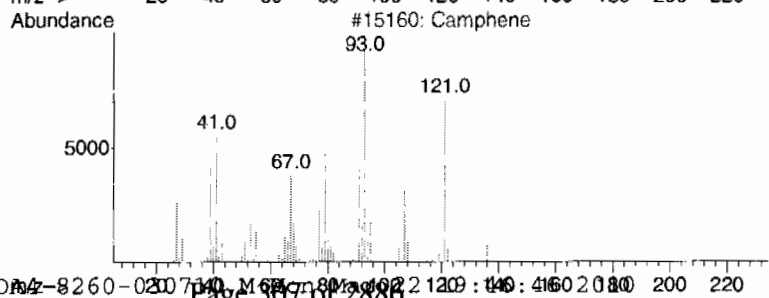
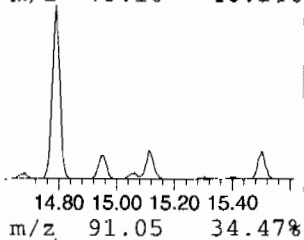
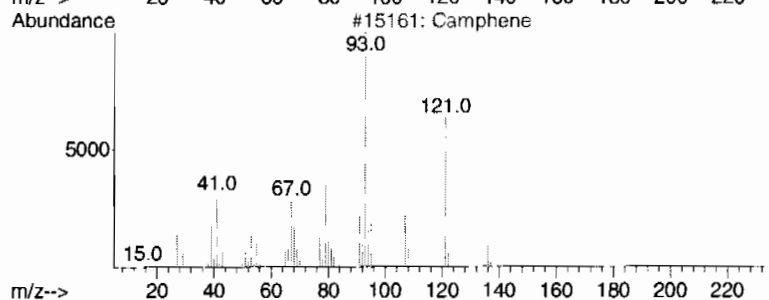
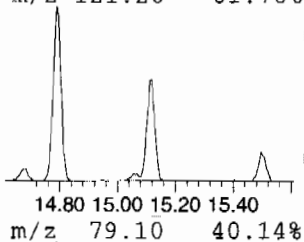
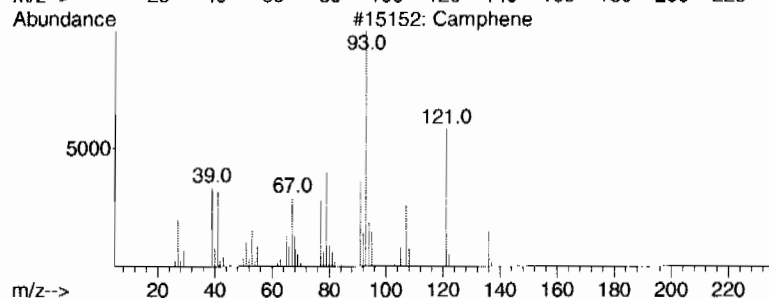
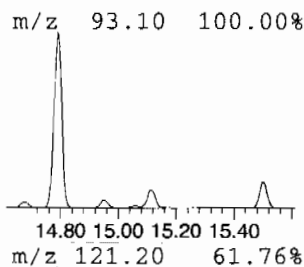
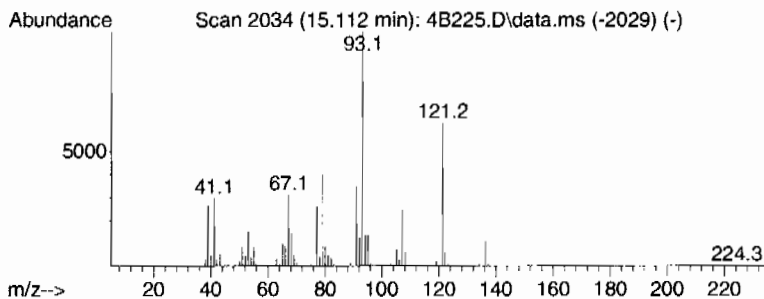
TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 3 unknown hydrocarbon Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.112	5.67 ug/L	291066	1,4-Dichlorobenzene-d4	16.179

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Camphene	136	C10H16	000079-92-5	97
2	Camphene	136	C10H16	000079-92-5	96
3	Camphene	136	C10H16	000079-92-5	95
4	Santolina triene	136	C10H16	002153-66-4	91
5	Bicyclo[2.2.1]heptane, 2,2-dimet...	136	C10H16	005794-04-7	87



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B225.D  
Acq On : 10 Mar 2010 4:14 am  
Operator : ACJ  
Sample : |248506018|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 25 Sample Multiplier: 1

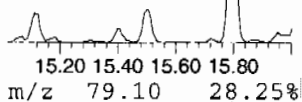
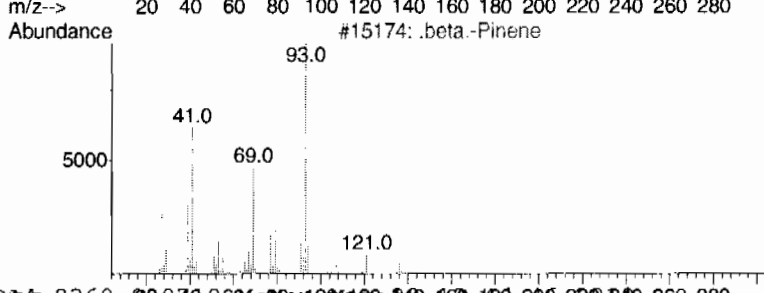
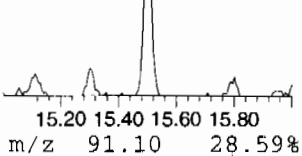
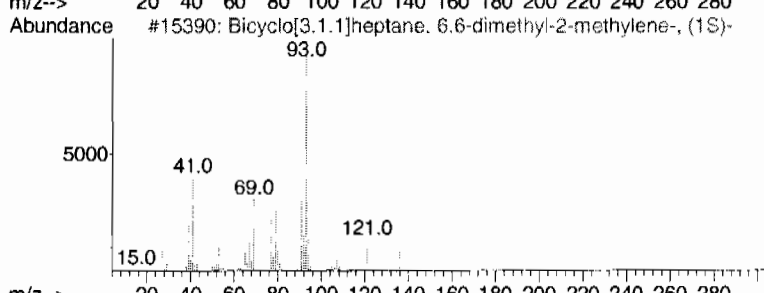
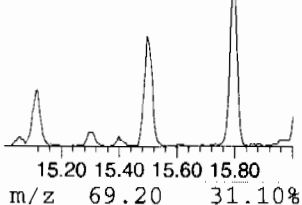
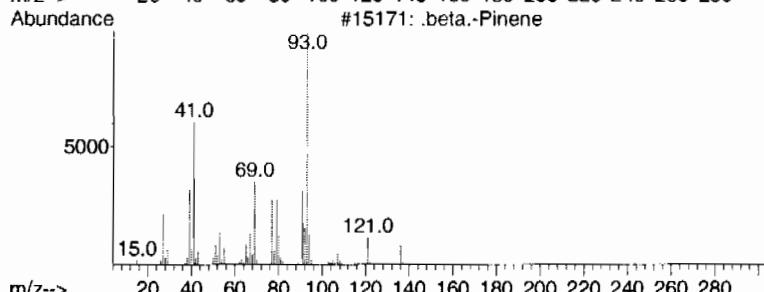
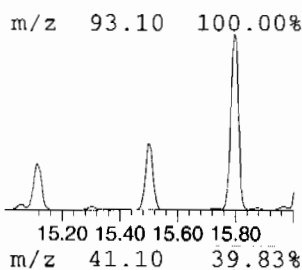
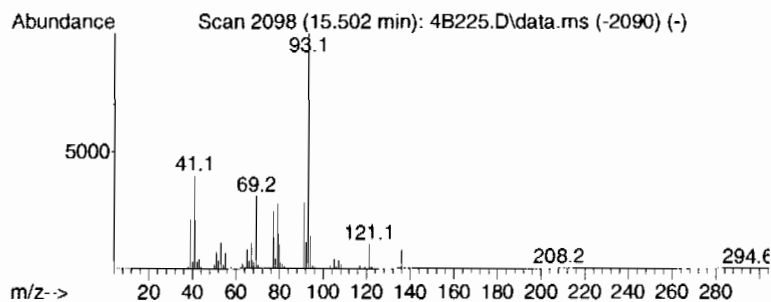
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 4 unknown hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.502	6.10 ug/L	313232	1,4-Dichlorobenzene-d4	16.179

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1	.	beta.-Pinene	136	C10H16	000127-91-3	96	
2	Bicyclo[3.1.1]heptane, 6,6-dimet...	136	C10H16	018172-67-3	94		
3	.	beta.-Pinene	136	C10H16	000127-91-3	91	
4	Cyclohexene, 4-methylene-1-(1-me...	136	C10H16	000099-84-3	91		
5	.	beta.-Pinene	136	C10H16	000127-91-3	90	



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B225.D  
Acq On : 10 Mar 2010 4:14 am  
Operator : ACJ  
Sample : |248506018|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

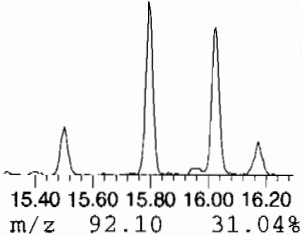
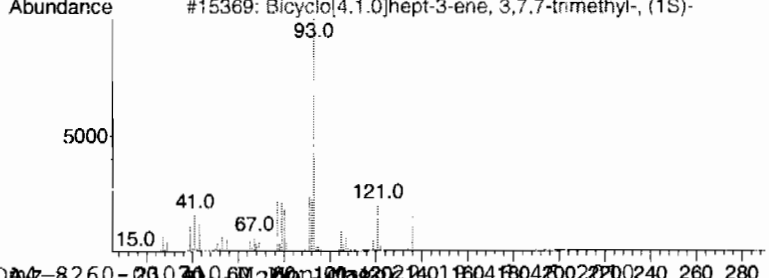
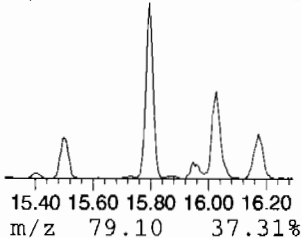
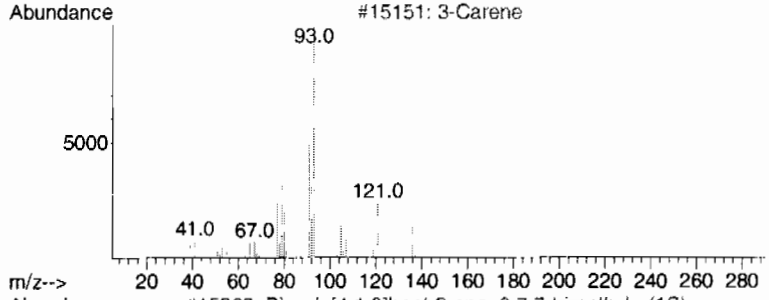
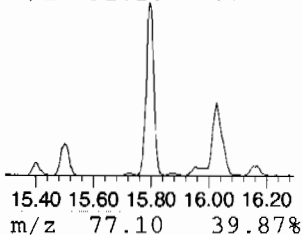
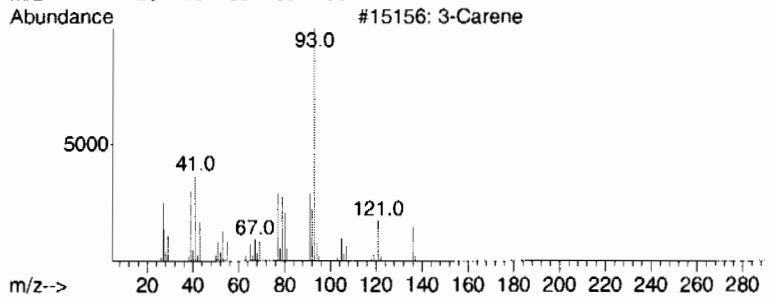
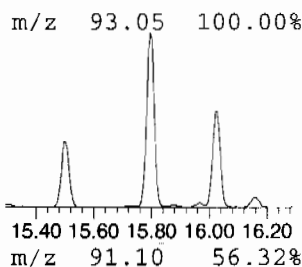
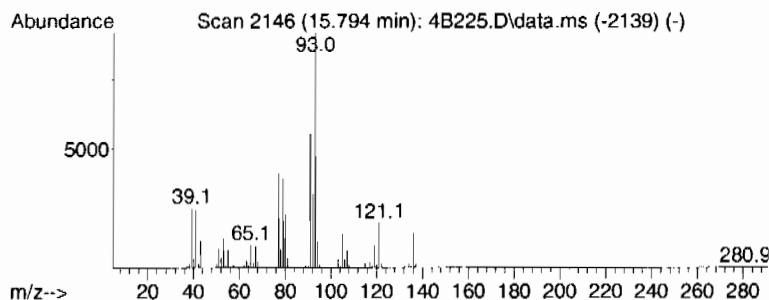
TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 5 unknown hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.794	18.84 ug/L	967272	1,4-Dichlorobenzene-d4	16.179

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Carene	136	C10H16	013466-78-9	96
2	3-Carene	136	C10H16	013466-78-9	95
3	Bicyclo[4.1.0]hept-3-ene, 3,7,7-...	136	C10H16	000498-15-7	91
4	3-Carene	136	C10H16	013466-78-9	90
5	Cyclopropane, 1,1-dimethyl-2-(3-...	136	C10H16	068998-21-0	90



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B225.D  
Acq On : 10 Mar 2010 4:14 am  
Operator : ACJ  
Sample : |248506018|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.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...	4.481	10.0	ug/L	517483	1	10.613	2590030	50.0
unknown hydroca...	14.789	39.0	ug/L	2042340	4	13.771	2618720	50.0
unknown hydroca...	15.112	5.7	ug/L	291066	5	16.179	2567520	50.0
unknown hydroca...	15.502	6.1	ug/L	313232	5	16.179	2567520	50.0
unknown hydroca...	15.794	18.8	ug/L	967272	5	16.179	2567520	50.0

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506020	Date Received: 03/03/2010 08:50	%Moisture: 18.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7439	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.1	Dilution: 1
Run Date: 03/10/2010 09:17	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:29	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V44B236.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.22	ug/kg	0.415	1.22
74-87-3	Chloromethane	U	1.22	ug/kg	0.366	1.22
75-01-4	Vinyl chloride	U	1.22	ug/kg	0.366	1.22
74-83-9	Bromomethane	U	1.22	ug/kg	0.366	1.22
75-00-3	Chloroethane	U	1.22	ug/kg	0.366	1.22
75-69-4	Trichlorofluoromethane	U	1.22	ug/kg	0.366	1.22
67-64-1	Acetone	J	4.74	ug/kg	2.03	6.10
75-35-4	1,1-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
74-88-4	Iodomethane	U	6.10	ug/kg	1.95	6.10
75-09-2	Methylene chloride	U	6.10	ug/kg	2.44	6.10
75-15-0	Carbon disulfide	U	6.10	ug/kg	1.53	6.10
156-60-5	trans-1,2-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
75-34-3	1,1-Dichloroethane	U	1.22	ug/kg	0.366	1.22
78-93-3	2-Butanone	U	6.10	ug/kg	1.83	6.10
156-59-2	cis-1,2-Dichloroethylene	U	1.22	ug/kg	0.366	1.22
594-20-7	2,2-Dichloropropane	U	1.22	ug/kg	0.366	1.22
67-66-3	Chloroform	U	1.22	ug/kg	0.366	1.22
74-97-5	Bromochloromethane	U	1.22	ug/kg	0.403	1.22
71-55-6	1,1,1-Trichloroethane	U	1.22	ug/kg	0.366	1.22
563-58-6	1,1-Dichloropropene	U	1.22	ug/kg	0.366	1.22
56-23-5	Carbon tetrachloride	U	1.22	ug/kg	0.366	1.22
107-06-2	1,2-Dichloroethane	U	1.22	ug/kg	0.366	1.22
71-43-2	Benzene	U	1.22	ug/kg	0.366	1.22
79-01-6	Trichloroethylene	U	1.22	ug/kg	0.403	1.22
78-87-5	1,2-Dichloropropane	U	1.22	ug/kg	0.366	1.22
75-27-4	Bromodichloromethane	U	1.22	ug/kg	0.366	1.22
74-95-3	Dibromomethane	U	1.22	ug/kg	0.366	1.22
108-10-1	4-Methyl-2-pentanone	U	6.10	ug/kg	1.53	6.10
10061-01-5	cis-1,3-Dichloropropylene	U	1.22	ug/kg	0.366	1.22
108-88-3	Toluene	U	1.22	ug/kg	0.366	1.22
10061-02-6	trans-1,3-Dichloropropylene	U	1.22	ug/kg	0.366	1.22
79-00-5	1,1,2-Trichloroethane	U	1.22	ug/kg	0.366	1.22
591-78-6	2-Hexanone	U	6.10	ug/kg	1.83	6.10
142-28-9	1,3-Dichloropropane	U	1.22	ug/kg	0.366	1.22
127-18-4	Tetrachloroethylene	U	1.22	ug/kg	0.366	1.22
124-48-1	Dibromochloromethane	U	1.22	ug/kg	0.366	1.22
106-93-4	1,2-Dibromoethane	U	1.22	ug/kg	0.366	1.22
108-90-7	Chlorobenzene	U	1.22	ug/kg	0.366	1.22

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

SDG Number: 10-2193  
 Lab Sample ID: 248506020  
 Client ID: RE36-10-7439  
 Batch ID: 963417  
 Run Date: 03/10/2010 09:17  
 Prep Date: 03/09/2010 20:29  
 Data File: 030910V44B236.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 18.1  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.22	ug/kg	0.366	1.22
179601-23-1	m,p-Xylenes	U	2.44	ug/kg	0.366	2.44
95-47-6	o-Xylene	U	1.22	ug/kg	0.366	1.22
100-42-5	Styrene	U	1.22	ug/kg	0.366	1.22
75-25-2	Bromoform	U	1.22	ug/kg	0.366	1.22
79-34-5	1,1,2,2-Tetrachloroethane	U	1.22	ug/kg	0.366	1.22
96-18-4	1,2,3-Trichloropropane	U	1.22	ug/kg	0.366	1.22
108-86-1	Bromobenzene	U	1.22	ug/kg	0.366	1.22
103-65-1	n-Propylbenzene	U	1.22	ug/kg	0.366	1.22
95-49-8	2-Chlorotoluene	U	1.22	ug/kg	0.366	1.22
98-82-8	Isopropylbenzene	U	1.22	ug/kg	0.366	1.22
108-67-8	1,3,5-Trimethylbenzene	U	1.22	ug/kg	0.366	1.22
106-43-4	4-Chlorotoluene	U	1.22	ug/kg	0.366	1.22
98-06-6	tert-Butylbenzene	U	1.22	ug/kg	0.366	1.22
95-63-6	1,2,4-Trimethylbenzene	U	1.22	ug/kg	0.366	1.22
135-98-8	sec-Butylbenzene	U	1.22	ug/kg	0.366	1.22
99-87-6	4-Isopropyltoluene	U	1.22	ug/kg	0.366	1.22
541-73-1	1,3-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22
106-46-7	1,4-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22
104-51-8	n-Butylbenzene	U	1.22	ug/kg	0.366	1.22
96-12-8	1,2-Dibromo-3-chloropropane	U	1.22	ug/kg	0.366	1.22
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.10	ug/kg	1.95	6.10
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.22	ug/kg	0.366	1.22
95-50-1	1,2-Dichlorobenzene	U	1.22	ug/kg	0.366	1.22

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	21.2	ug/kg	0	J
	unknown siloxane	16.79	9.29	ug/kg	0	J



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B236.D  
Acq On : 10 Mar 2010 9:17 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506020|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 16 16:24:59 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.614	10.613	1.000	96	1086511	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	596092	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	186375	50.00	ug/L	0.00
82) B Fluorobenzene	10.614	10.613	1.000	96	1086130	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	596092	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	186381	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.259	0.967	65	283397	48.31	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	96.62%			
43) Toluene-d8	12.247	12.247	0.889	98	819767	60.41	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	120.82%			
61) Bromofluorobenzene	14.954	14.947	0.924	95	269135	74.47	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	148.94%#			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.306	5.299	0.500	50	110	N.D.		
4) Vinyl chloride	5.521	5.521	0.520	62	127	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	0.000	6.991	0.000		0	N.D.		
9) Acetone	7.364	7.351	0.694	43	25780	3.88	ug/L	91
10) 1,1-Dichloroethylene	7.431	7.394	0.700	61	791	N.D.		
11) Iodomethane	0.000	7.662	0.000		0	N.D.		
12) Acetonitrile	7.699	7.693	0.725	41	207	N.D.		
13) Methyl acetate	7.712	7.747	0.727	43	217	N.D.		
14) Carbon disulfide	7.748	7.778	0.730	76	579	N.D.		
15) Methylene chloride	7.937	7.967	0.748	84	3299	Below Cal		93
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.705	8.705	0.820	43	267	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.327	9.320	0.879	43	2809	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	9.455	9.412	0.891	77	155	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.687	9.686	0.913	83	1855	N.D.		
25) 1,1,1-Trichloroethane	9.979	9.973	0.940	97	672	N.D.		
26) Cyclohexane	10.083	10.076	0.950	56	935	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.290	10.338	0.970	62	336	N.D.		
31) Benzene	10.364	10.369	0.976	78	329	N.D.		
32) Cyclohexene	10.620	10.491	1.001	67	573	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	10.998	11.003	1.036	95	1168	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.259	0.000		0	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B236.D  
Acq On : 10 Mar 2010 9:17 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506020|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 16 16:24:59 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.015	0.000		0	N.D.	
44) Toluene	12.320	12.320	0.895	91	9426	Below Cal	94
45) trans-1,3-Dichloroprop...	12.479	12.460	0.906	75	308	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.	
47) 2-Hexanone	12.857	12.856	0.934	43	458	N.D.	
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.	
49) Tetrachloroethylene	12.924	12.917	0.938	164	284	N.D.	
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.	
52) Chlorobenzene	13.784	13.801	1.001	112	242	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.	
54) Ethylbenzene	13.863	13.862	1.007	91	1094	N.D.	
55) m,p-Xylenes	13.973	13.966	1.015	106	1059	N.D.	
56) o-Xylene	14.405	14.399	1.046	106	690	N.D.	
57) Styrene	14.405	14.399	1.046	104	624	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.758	0.000		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	0.000	15.014	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	0.000	15.167	0.000		0	N.D.	
65) n-Propylbenzene	15.180	15.179	0.938	91	1254	N.D.	
66) 1,3,5-Trimethylbenzene	15.320	15.325	0.947	105	1139	N.D.	
67) 2-Chlorotoluene	0.000	15.331	0.000		0	N.D.	
68) 4-Chlorotoluene	15.405	15.429	0.952	91	2414	N.D.	
69) tert-Butylbenzene	15.795	15.703	0.976	134	660	N.D.	
70) 1,2,4-Trimethylbenzene	15.741	15.740	0.973	105	1394	N.D.	
71) sec-Butylbenzene	15.948	15.929	0.986	105	582	N.D.	
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	2639	N.D.	
73) 1,3-Dichlorobenzene	16.125	16.118	0.997	146	323	N.D.	
74) 1,4-Dichlorobenzene	16.210	16.203	1.002	146	481	N.D.	
75) n-Butylbenzene	16.509	16.502	1.020	91	583	N.D.	
76) 1,2-Dichlorobenzene	16.649	16.642	1.029	146	196	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.629	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.	
80) Naphthalene	19.039	19.026	1.177	128	1575	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.385	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.174	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.	
87) Isopropyl Alcohol	7.425	7.430	0.700	45	2280	N.D.	
88) Allyl chloride	7.773	7.796	0.732	41	274	N.D.	
89) tert-Butyl Alcohol	7.925	7.924	0.747	59	342	N.D.	
90) Acrylonitrile	0.000	8.168	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.735	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.327	9.339	0.879	43	2809	N.D.	
95) Propionitrile	9.284	9.387	0.875	54	129	N.D.	
96) Methacrylonitrile	9.583	9.570	0.903	41	105	N.D.	
97) Tetrahydrofuran	9.723	9.710	0.916	42	646	N.D.	
98) Isobutyl alcohol	10.010	10.003	0.943	41	378	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B236.D  
Acq On : 10 Mar 2010 9:17 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506020|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 16 16:24:59 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

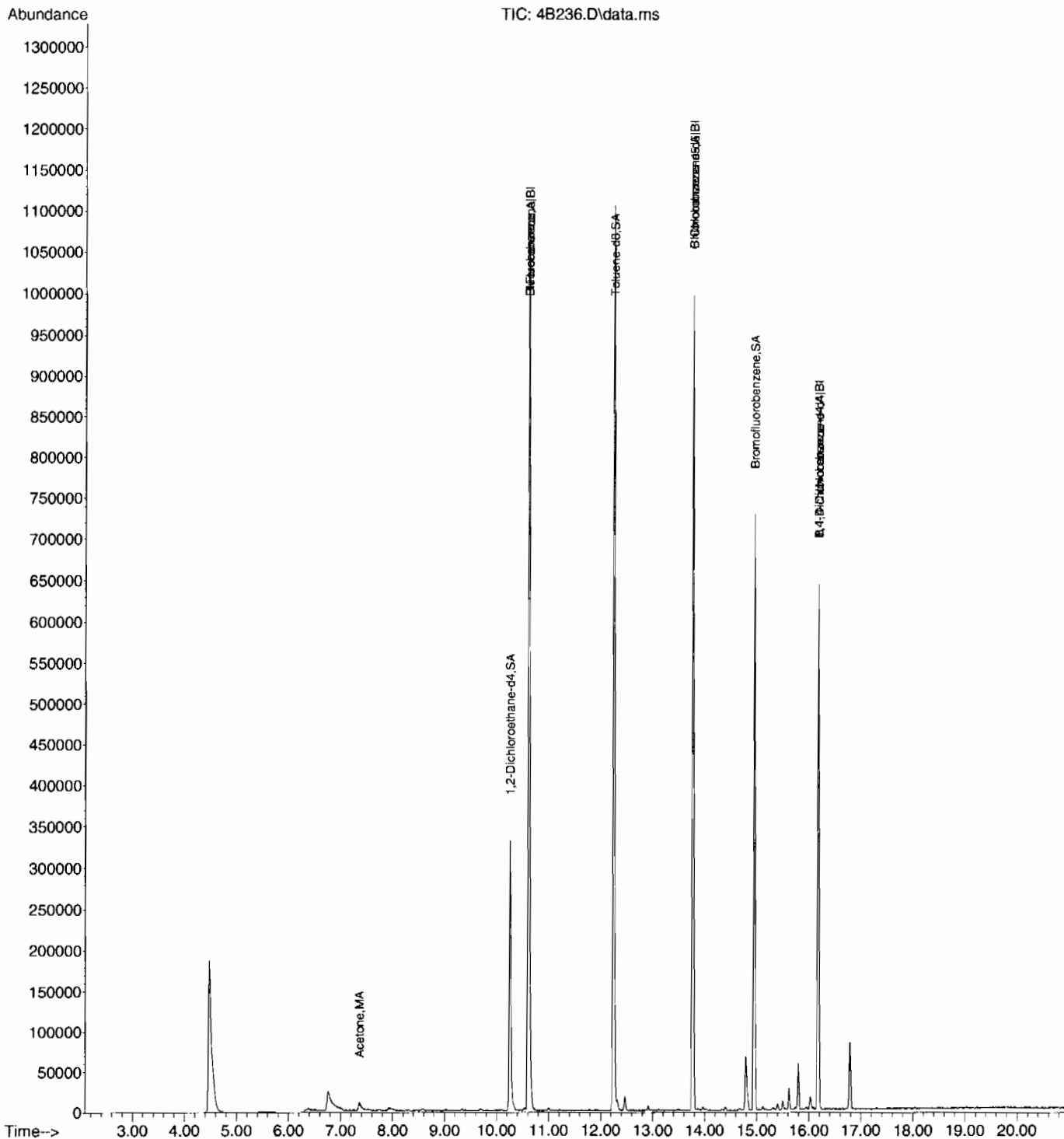
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.381	0.000		0	N.D.	
100) Methyl methacrylate	11.199	11.204	1.055	69	116	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0m	N.D.	d
104) Ethyl methacrylate	12.467	12.460	0.905	69	237	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0m	N.D.	d
108) Cyclohexanone	14.796	14.905	0.914	42	435	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.308	16.319	1.008	91	1201	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.715	0.000		0m	N.D.	d

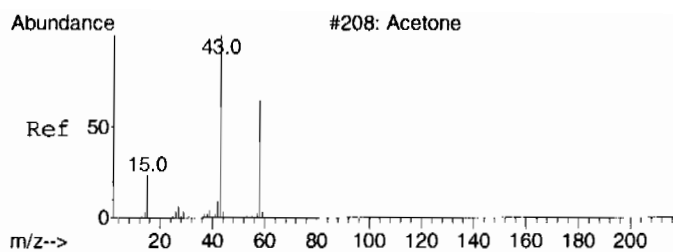
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

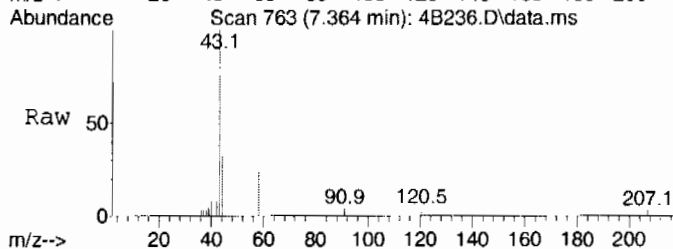
Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B236.D  
Acq On : 10 Mar 2010 9:17 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506020|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 16 16:24:59 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

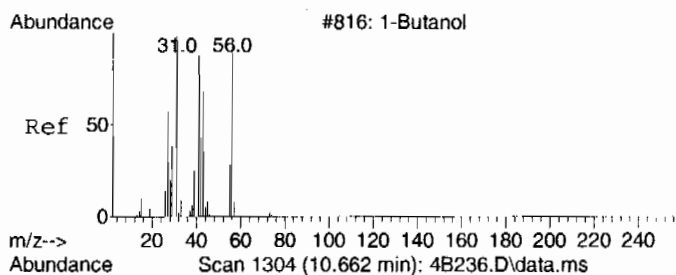
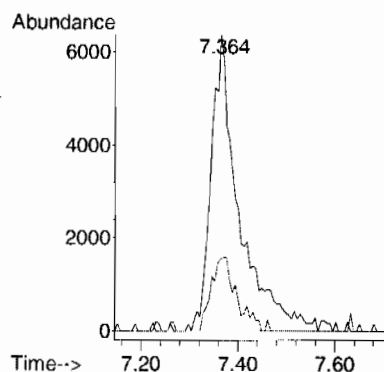
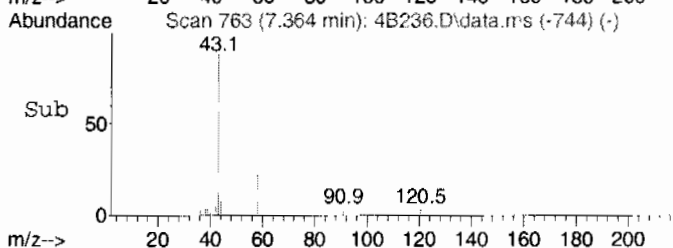




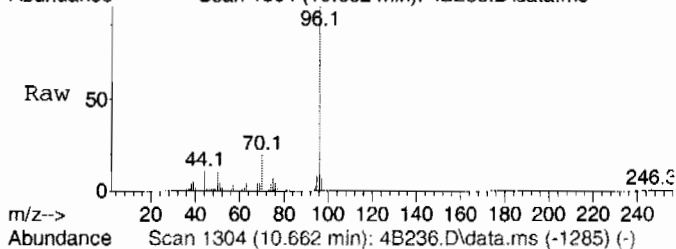
#9  
Acetone  
Concen: 3.88 ug/L  
RT: 7.364 min Scan# 763  
Delta R.T. 0.013 min  
Lab File: 4B236.D  
Acq: 10 Mar 2010 9:17 am



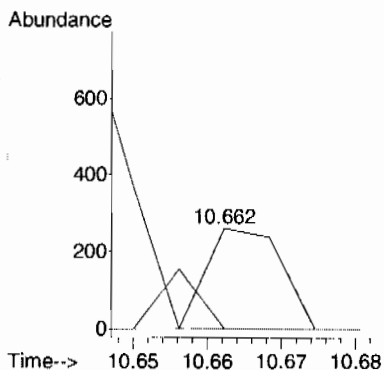
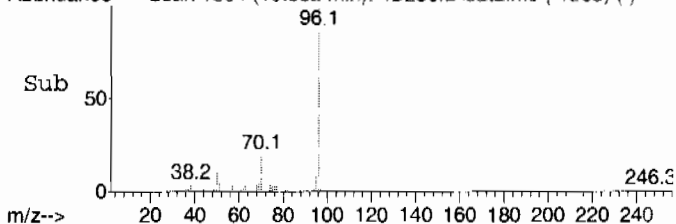
Tgt Ion: 43 Resp: 25780  
Ion Ratio Lower Upper  
43 100  
58 22.6 0.0 57.5

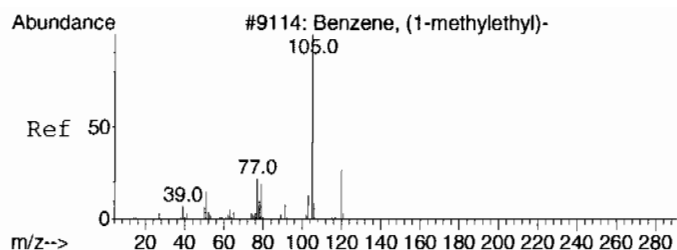


#33 BEFORE analyst DELETION  
n-Butyl alcohol  
Concen: 181.33 ug/L  
RT: 10.662 min Scan# 1304  
Delta R.T. -0.024 min  
Lab File: 4B236.D  
Acq: 10 Mar 2010 9:17 am



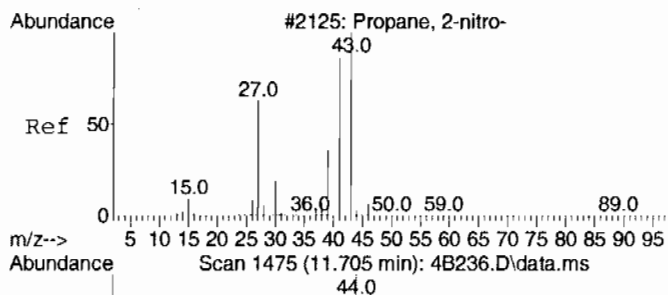
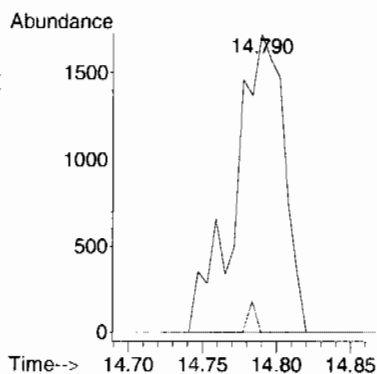
Tgt Ion: 56 Resp: 181  
Ion Ratio Lower Upper  
56 100  
41 68.5 49.2 109.2  
43 0.0 30.5 90.5#





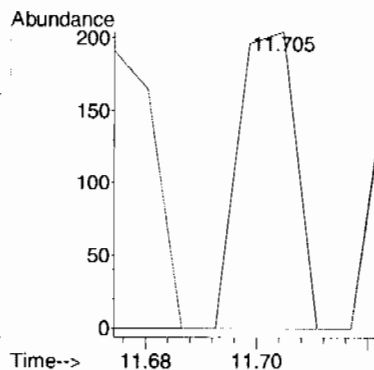
#60 BEFORE analyst DELETION  
Isopropylbenzene  
Concen: 0.31 ug/L  
RT: 14.790 min Scan# 1981  
Delta R.T. 0.031 min  
Lab File: 4B236.D  
Acq: 10 Mar 2010 9:17 am

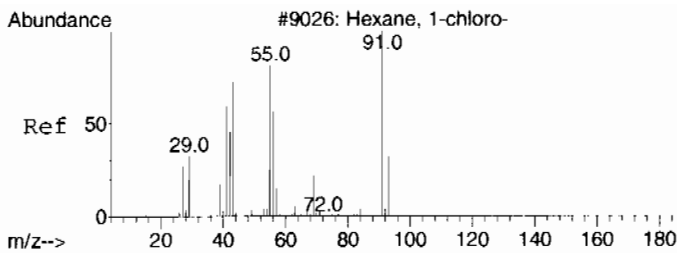
Tgt Ion: 105 Resp: 3965  
Ion Ratio Lower Upper  
105 100  
120 0.0 0.0 57.3



#102 BEFORE analyst DELETION  
2-Nitropropane  
Concen: 6.27 ug/L  
RT: 11.705 min Scan# 1475  
Delta R.T. 0.038 min  
Lab File: 4B236.D  
Acq: 10 Mar 2010 9:17 am

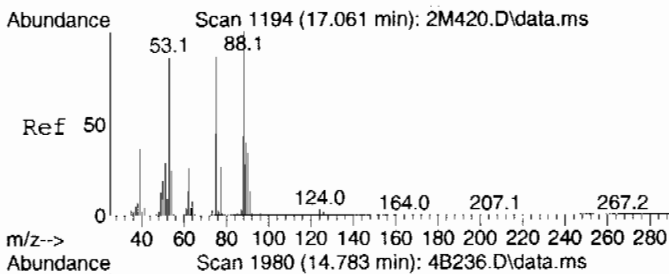
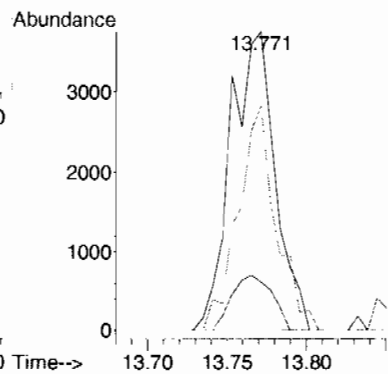
Tgt Ion: 43 Resp: 146  
Ion Ratio Lower Upper  
43 100  
41 89.7 57.4 117.4





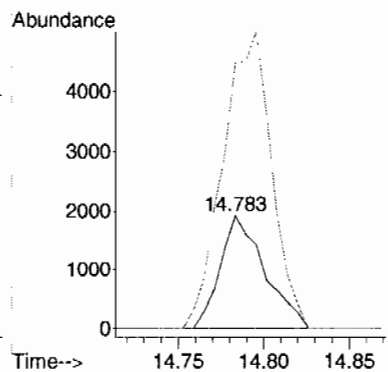
#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 3.23 ug/L  
RT: 13.771 min Scan# 1814  
Delta R.T. 0.110 min  
Lab File: 4B236.D  
Acq: 10 Mar 2010 9:17 am

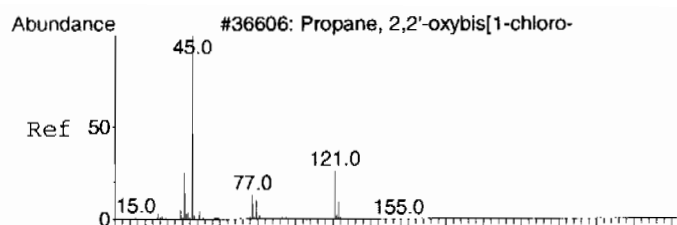
Tgt Ion	Ratio	Lower	Upper
55	100		
91	17.0	108.1	168.1#
56	64.5	27.8	87.8



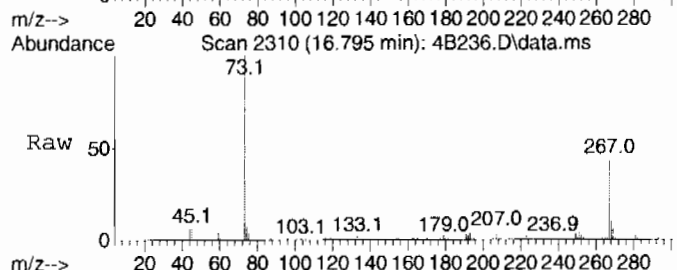
#107 BEFORE analyst DELETION  
cis-1,4-Dichloro-2-butene  
Concen: 3.53 ug/L  
RT: 14.783 min Scan# 1980  
Delta R.T. 0.000 min  
Lab File: 4B236.D  
Acq: 10 Mar 2010 9:17 am

Tgt Ion	Ratio	Lower	Upper
53	100		
88	0.0	83.6	143.6#
77	287.3	3.2	63.2#

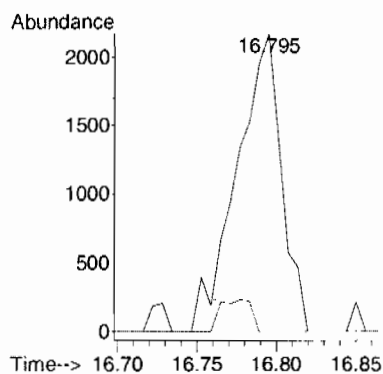
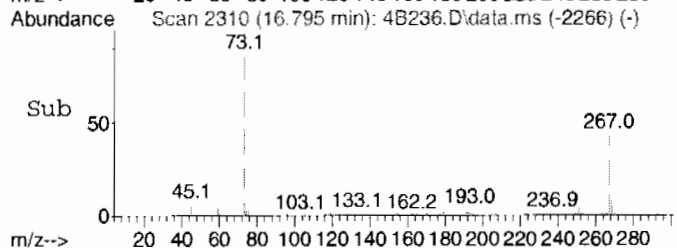




#112 BEFORE analyst DELETION  
 bis(2-Chloroisopropyl)ether  
 Concen: 3.13 ug/L  
 RT: 16.795 min Scan# 2310  
 Delta R.T. 0.080 min  
 Lab File: 4B236.D  
 Acq: 10 Mar 2010 9:17 am



Tgt Ion: 45 Resp: 4246  
 Ion Ratio Lower Upper  
 45 100  
 121 7.4 0.0 54.6





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B236.D  
Acq On : 10 Mar 2010 9:17 am  
Operator : ACJ  
Sample : |248506020|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 36 Sample Multiplier: 1

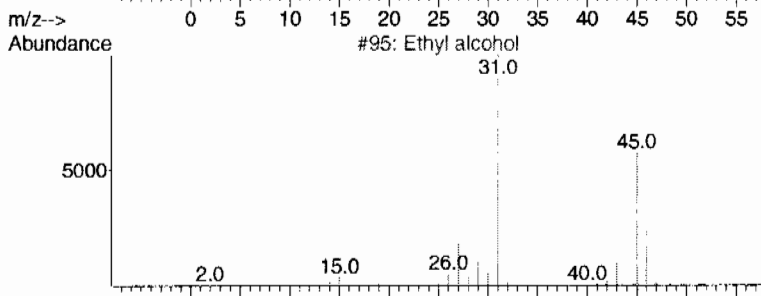
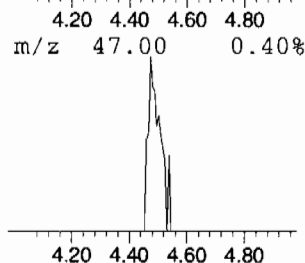
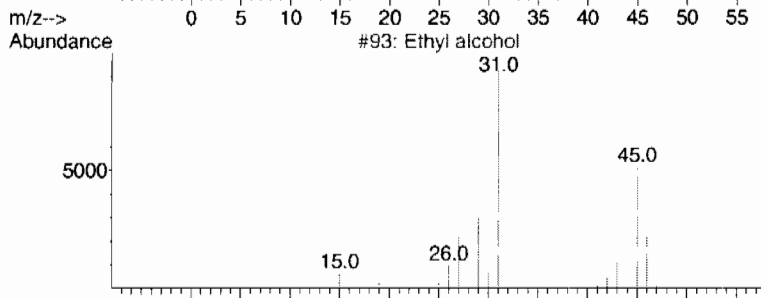
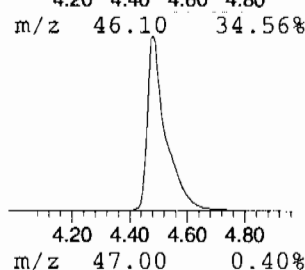
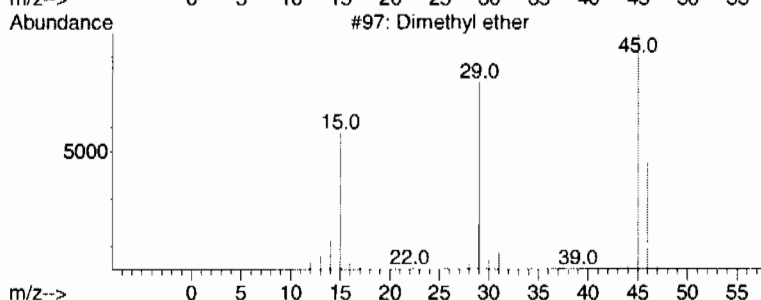
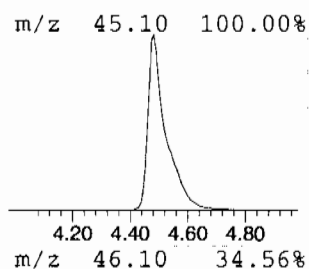
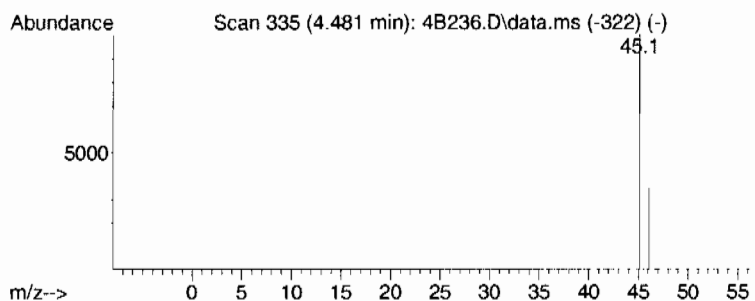
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

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

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	17.40 ug/L	831430	Fluorobenzene	10.614

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Dimethyl ether	46	C2H6O	000115-10-6	5
2			Ethyl alcohol	46	C2H6O	000064-17-5	4
3			Ethyl alcohol	46	C2H6O	000064-17-5	4
4			Ethyl alcohol	46	C2H6O	000064-17-5	4
5			Formic acid	46	CH2O2	000064-18-6	3



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B236.D  
Acq On : 10 Mar 2010 9:17 am  
Operator : ACJ  
Sample : |248506020|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 36 Sample Multiplier: 1

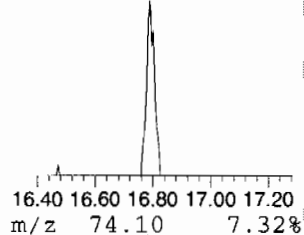
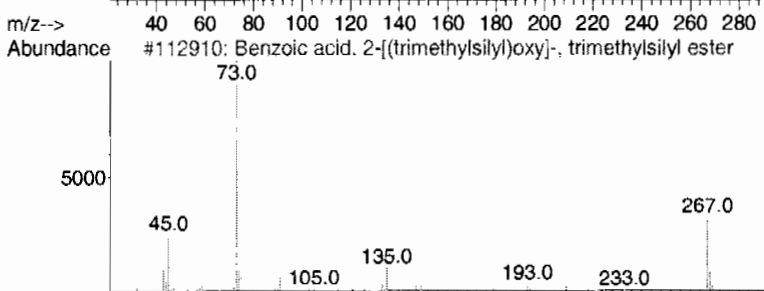
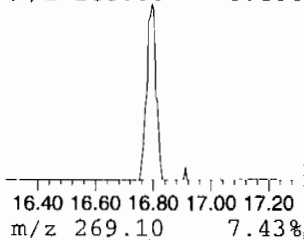
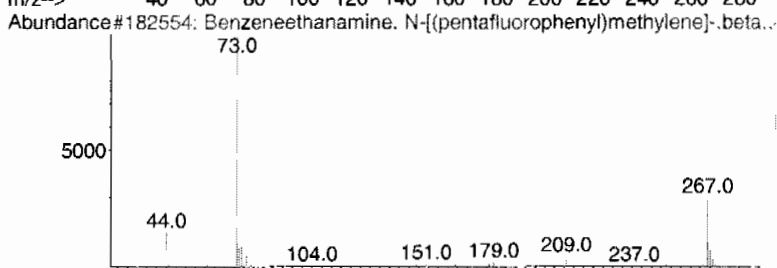
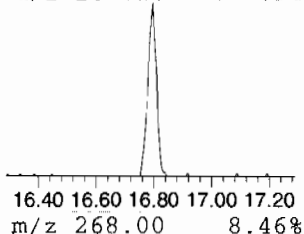
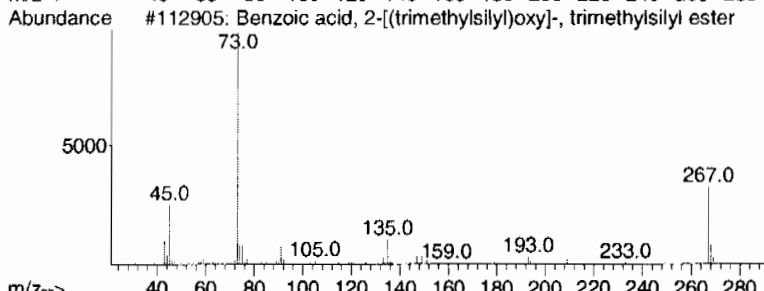
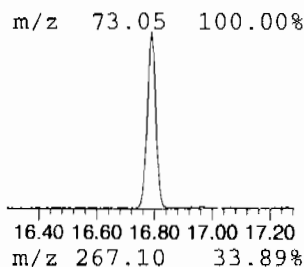
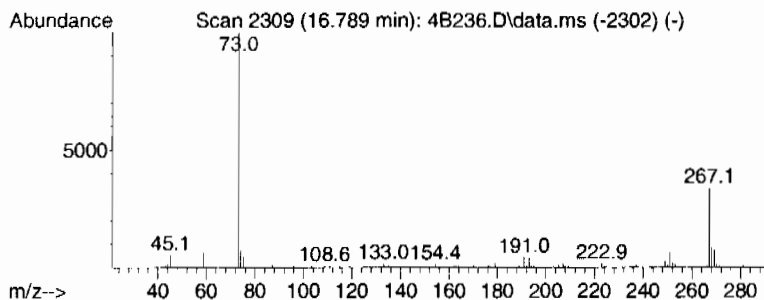
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 2 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.789	7.61 ug/L	181488	B 1,4-Dichlorobenzene-d4	16.180

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	282	C13H22O3Si2	003789-85-3	42
2			Benzenethanamine, N-[(pentafluorophenyl)methylene]-, beta...	475	C21H26F5NO2Si2	055429-85-1	40
3			Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	282	C13H22O3Si2	003789-85-3	36
4			Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	282	C13H22O3Si2	003789-85-3	36
5			3,5-Dimethoxyphenylacetic acid, ...	268	C13H20O4Si	1000071-82-4	22



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B236.D  
Acq On : 10 Mar 2010 9:17 am  
Operator : ACJ  
Sample : |248506020|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.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...	4.481	17.4	ug/L	831430	1	10.614	2388660	50.0
unknown siloxane	16.789	7.6	ug/L	181488	6	16.180	1192180	50.0

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193  
Lab Sample ID: 248506012  
  
Client ID: RE36-10-7452  
Batch ID: 963417  
Run Date: 03/11/2010 11:41  
Prep Date: 03/10/2010 19:53  
Data File: 031010V4V4B343.D

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8260B  
Inst: VOA4.J  
Analyst: ACJ  
Aliquot: 5 g  
Column: DB-624

Matrix: R  
%Moisture: 24.9  
Project: LANL01004  
SOP Ref: GL-OA-E-038  
Dilution: 1  
Purge Vol: 5 mL  
Final Volume: 5 mL

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.33	ug/kg	0.453	1.33
74-87-3	Chloromethane	U	1.33	ug/kg	0.399	1.33
75-01-4	Vinyl chloride	U	1.33	ug/kg	0.399	1.33
74-83-9	Bromomethane	U	1.33	ug/kg	0.399	1.33
75-00-3	Chloroethane	U	1.33	ug/kg	0.399	1.33
75-69-4	Trichlorofluoromethane	U	1.33	ug/kg	0.399	1.33
67-64-1	Acetone	J	6.14	ug/kg	2.21	6.65
75-35-4	1,1-Dichloroethylene	U	1.33	ug/kg	0.399	1.33
74-88-4	Iodomethane	U	6.65	ug/kg	2.13	6.65
75-09-2	Methylene chloride	U	6.65	ug/kg	2.66	6.65
75-15-0	Carbon disulfide	U	6.65	ug/kg	1.66	6.65
156-60-5	trans-1,2-Dichloroethylene	U	1.33	ug/kg	0.399	1.33
75-34-3	1,1-Dichloroethane	U	1.33	ug/kg	0.399	1.33
78-93-3	2-Butanone	U	6.65	ug/kg	2.00	6.65
156-59-2	cis-1,2-Dichloroethylene	U	1.33	ug/kg	0.399	1.33
594-20-7	2,2-Dichloropropane	U	1.33	ug/kg	0.399	1.33
67-66-3	Chloroform	U	1.33	ug/kg	0.399	1.33
74-97-5	Bromochloromethane	U	1.33	ug/kg	0.439	1.33
71-55-6	1,1,1-Trichloroethane	U	1.33	ug/kg	0.399	1.33
563-58-6	1,1-Dichloropropene	U	1.33	ug/kg	0.399	1.33
56-23-5	Carbon tetrachloride	U	1.33	ug/kg	0.399	1.33
107-06-2	1,2-Dichloroethane	U	1.33	ug/kg	0.399	1.33
71-43-2	Benzene	U	1.33	ug/kg	0.399	1.33
79-01-6	Trichloroethylene	U	1.33	ug/kg	0.439	1.33
78-87-5	1,2-Dichloropropane	U	1.33	ug/kg	0.399	1.33
75-27-4	Bromodichloromethane	U	1.33	ug/kg	0.399	1.33
74-95-3	Dibromomethane	U	1.33	ug/kg	0.399	1.33
108-10-1	4-Methyl-2-pentanone	U	6.65	ug/kg	1.66	6.65
10061-01-5	cis-1,3-Dichloropropylene	U	1.33	ug/kg	0.399	1.33
108-88-3	Toluene		15.0	ug/kg	0.399	1.33
10061-02-6	trans-1,3-Dichloropropylene	U	1.33	ug/kg	0.399	1.33
79-00-5	1,1,2-Trichloroethane	U	1.33	ug/kg	0.399	1.33
591-78-6	2-Hexanone	U	6.65	ug/kg	2.00	6.65
142-28-9	1,3-Dichloropropane	U	1.33	ug/kg	0.399	1.33
127-18-4	Tetrachloroethylene	U	1.33	ug/kg	0.399	1.33
124-48-1	Dibromochloromethane	U	1.33	ug/kg	0.399	1.33
106-93-4	1,2-Dibromoethane	U	1.33	ug/kg	0.399	1.33
108-90-7	Chlorobenzene	U	1.33	ug/kg	0.399	1.33

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

SDG Number: 10-2193  
 Lab Sample ID: 248506012  
  
 Client ID: RE36-10-7452  
 Batch ID: 963417  
 Run Date: 03/11/2010 11:41  
 Prep Date: 03/10/2010 19:53  
 Data File: 031010V4V4B343.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 24.9  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.33	ug/kg	0.399	1.33
179601-23-1	m,p-Xylenes	U	2.66	ug/kg	0.399	2.66
95-47-6	o-Xylene	U	1.33	ug/kg	0.399	1.33
100-42-5	Styrene	U	1.33	ug/kg	0.399	1.33
75-25-2	Bromoform	U	1.33	ug/kg	0.399	1.33
79-34-5	1,1,2,2-Tetrachloroethane	U	1.33	ug/kg	0.399	1.33
96-18-4	1,2,3-Trichloropropane	U	1.33	ug/kg	0.399	1.33
108-86-1	Bromobenzene	U	1.33	ug/kg	0.399	1.33
103-65-1	n-Propylbenzene	U	1.33	ug/kg	0.399	1.33
95-49-8	2-Chlorotoluene	U	1.33	ug/kg	0.399	1.33
98-82-8	Isopropylbenzene	U	1.33	ug/kg	0.399	1.33
108-67-8	1,3,5-Trimethylbenzene	U	1.33	ug/kg	0.399	1.33
106-43-4	4-Chlorotoluene	U	1.33	ug/kg	0.399	1.33
98-06-6	tert-Butylbenzene	U	1.33	ug/kg	0.399	1.33
95-63-6	1,2,4-Trimethylbenzene	U	1.33	ug/kg	0.399	1.33
135-98-8	sec-Butylbenzene	U	1.33	ug/kg	0.399	1.33
99-87-6	4-Isopropyltoluene		12.8	ug/kg	0.399	1.33
541-73-1	1,3-Dichlorobenzene	U	1.33	ug/kg	0.399	1.33
106-46-7	1,4-Dichlorobenzene	U	1.33	ug/kg	0.399	1.33
104-51-8	n-Butylbenzene	U	1.33	ug/kg	0.399	1.33
96-12-8	1,2-Dibromo-3-chloropropane	U	1.33	ug/kg	0.399	1.33
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.65	ug/kg	2.13	6.65
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.33	ug/kg	0.399	1.33
95-50-1	1,2-Dichlorobenzene	U	1.33	ug/kg	0.399	1.33

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	26.9	ug/kg	0	J
	unknown hydrocarbon	14.79	350	ug/kg	0	J
	unknown hydrocarbon	15.12	27.4	ug/kg	0	J
	unknown substituted benzene	15.41	64.5	ug/kg	0	J
	unknown hydrocarbon	15.5	102	ug/kg	0	J
	unknown hydrocarbon	15.8	152	ug/kg	0	J
	unknown siloxane	16.78	9.04	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B343.D  
Acq On : 11 Mar 2010 11:41 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506012|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Mar 19 21:48:43 2010  
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.620	10.613	1.000	96	925425	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.772	13.765	1.000	117	504828	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	162584	50.00	ug/L	0.00
82) B Fluorobenzene	10.620	10.613	1.000	96	925215	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.772	13.764	1.000	117	504828	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	162567	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.260	10.259	0.966	65	224016	44.83	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	89.66%			
43) Toluene-d8	12.254	12.247	0.890	98	688242	59.88	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	119.76%			
61) Bromofluorobenzene	14.954	14.947	0.924	95	227998	72.31	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	144.62%#			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	0.000	5.299	0.000		0	N.D.		
4) Vinyl chloride	5.542	5.521	0.522	62	110	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	6.992	6.991	0.658	59	314	N.D.		
9) Acetone	7.370	7.351	0.694	43	26120	4.61	ug/L	94
10) 1,1-Dichloroethylene	7.401	7.394	0.697	61	352	N.D.		
11) Iodomethane	0.000	7.662	0.000		0	N.D.		
12) Acetonitrile	7.767	7.693	0.731	41	188	N.D.		
13) Methyl acetate	7.760	7.747	0.731	43	618	N.D.		
14) Carbon disulfide	7.742	7.778	0.729	76	137	N.D.		
15) Methylene chloride	7.937	7.967	0.747	84	15261	N.D.		
16) tert-Butyl methyl ether	8.236	8.235	0.776	73	118	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.705	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.327	9.320	0.878	43	1465	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.687	9.686	0.912	83	954	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.973	0.000		0	N.D.		
26) Cyclohexane	10.077	10.076	0.949	56	913	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.338	0.000		0	N.D.		
31) Benzene	10.370	10.369	0.976	78	1361	N.D.		
32) Cyclohexene	10.638	10.491	1.002	67	248	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	11.010	11.003	1.037	95	1015	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	11.266	11.259	1.061	83	162	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B343.D  
Acq On : 11 Mar 2010 11:41 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506012|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Mar 19 21:48:43 2010  
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	12.010	12.015	0.872	58	308	N.D.	
44) Toluene	12.321	12.320	0.895	91	191263	11.25 ug/L	99
45) trans-1,3-Dichloroprop...	12.485	12.460	0.907	75	421	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.	
47) 2-Hexanone	12.863	12.856	0.934	43	117	N.D.	
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.917	0.000		0	N.D.	
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.801	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.	
54) Ethylbenzene	13.869	13.862	1.007	91	1760	N.D.	
55) m,p-Xylenes	13.973	13.966	1.015	106	1965	N.D.	
56) o-Xylene	14.406	14.399	1.046	106	1367	N.D.	
57) Styrene	14.406	14.399	1.046	104	191	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.758	0.000		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	14.960	15.014	0.925	83	214	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	0.000	15.167	0.000		0	N.D.	
65) n-Propylbenzene	0.000	15.179	0.000		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	15.283	15.325	0.945	105	141	N.D.	
67) 2-Chlorotoluene	0.000	15.331	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	15.429	0.000		0m	N.D.	d
69) tert-Butylbenzene	15.716	15.703	0.971	134	326	N.D.	
70) 1,2,4-Trimethylbenzene	15.747	15.740	0.973	105	2443	N.D.	
71) sec-Butylbenzene	15.930	15.929	0.985	105	232	N.D.	
72) 4-Isopropyltoluene	16.052	16.051	0.992	119	104523	9.65 ug/L	71
73) 1,3-Dichlorobenzene	0.000	16.118	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	16.198	16.203	1.001	146	293	N.D.	
75) n-Butylbenzene	16.484	16.502	1.019	91	186	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.642	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.629	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.	
80) Naphthalene	19.014	19.026	1.175	128	635	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.385	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.174	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.	
87) Isopropyl Alcohol	7.407	7.430	0.697	45	771	N.D.	
88) Allyl chloride	7.767	7.796	0.731	41	188	N.D.	
89) tert-Butyl Alcohol	7.919	7.924	0.746	59	302	N.D.	
90) Acrylonitrile	0.000	8.168	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.735	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.327	9.339	0.878	43	1465	N.D.	
95) Propionitrile	0.000	9.387	0.000		0	N.D.	
96) Methacrylonitrile	0.000	9.570	0.000		0	N.D.	
97) Tetrahydrofuran	9.711	9.710	0.914	42	1020	N.D.	
98) Isobutyl alcohol	10.010	10.003	0.943	41	511	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B343.D  
Acq On : 11 Mar 2010 11:41 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506012|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Mar 19 21:48:43 2010  
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.381	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.460	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0m	N.D.	d
108) Cyclohexanone	14.924	14.905	0.922	42	166	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0m	N.D.	d
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.295	16.319	1.007	91	3997	N.D.	
112) bis(2-Chloroisopropyl)...	16.716	16.715	1.033	45	167	N.D.	

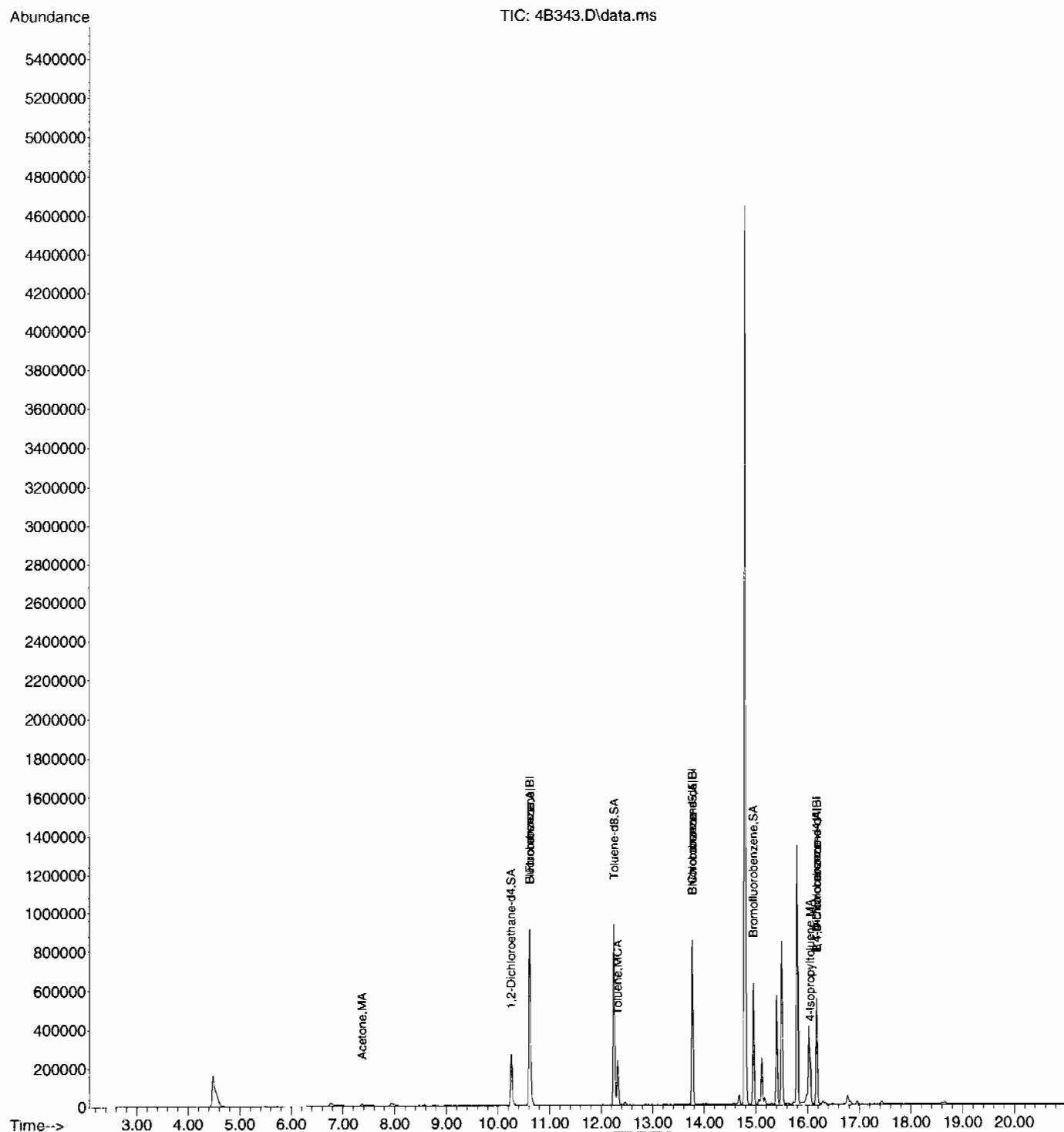
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

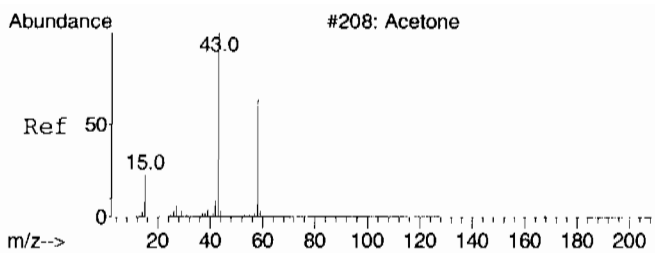


Quantitation Report  
GEL Laboratories, LLC

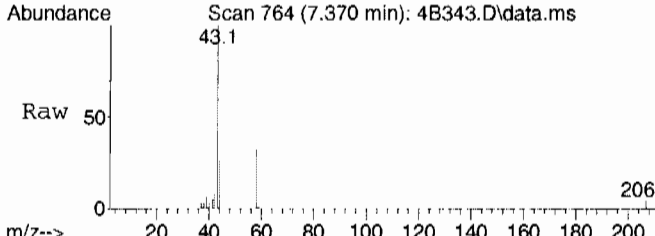
Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B343.D  
Acq On : 11 Mar 2010 11:41 am  
Operator : ACJ  
InstName : VOA4  
Sample : |248506012|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Mar 19 21:48:43 2010  
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

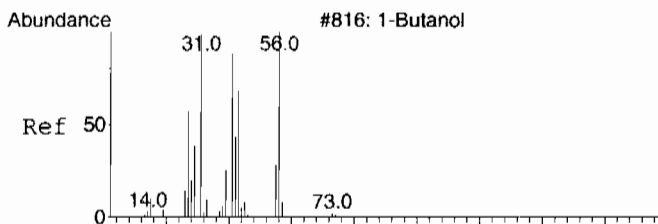
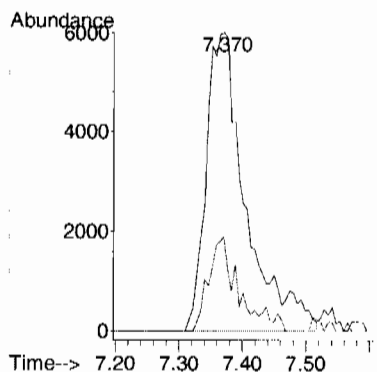
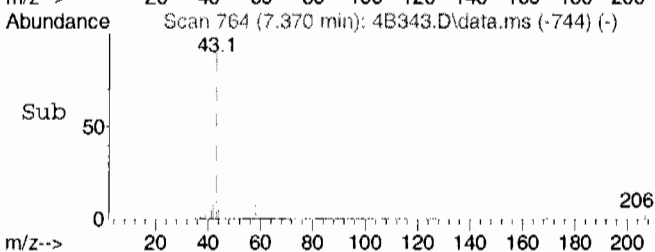




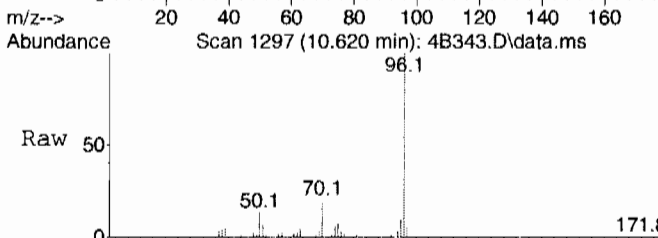
#9  
Acetone  
Concen: 4.61 ug/L  
RT: 7.370 min Scan# 764  
Delta R.T. 0.019 min  
Lab File: 4B343.D  
Acq: 11 Mar 2010 11:41 am



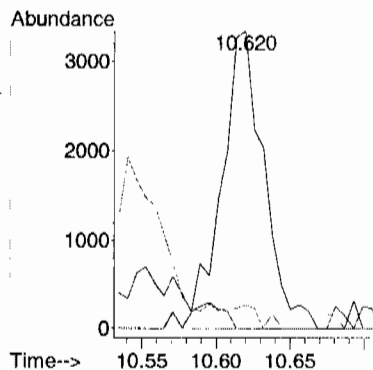
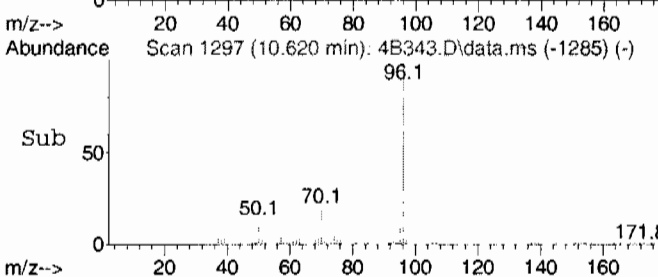
Tgt Ion: 43 Resp: 26120  
Ion Ratio Lower Upper  
43 100  
58 24.2 0.0 57.5

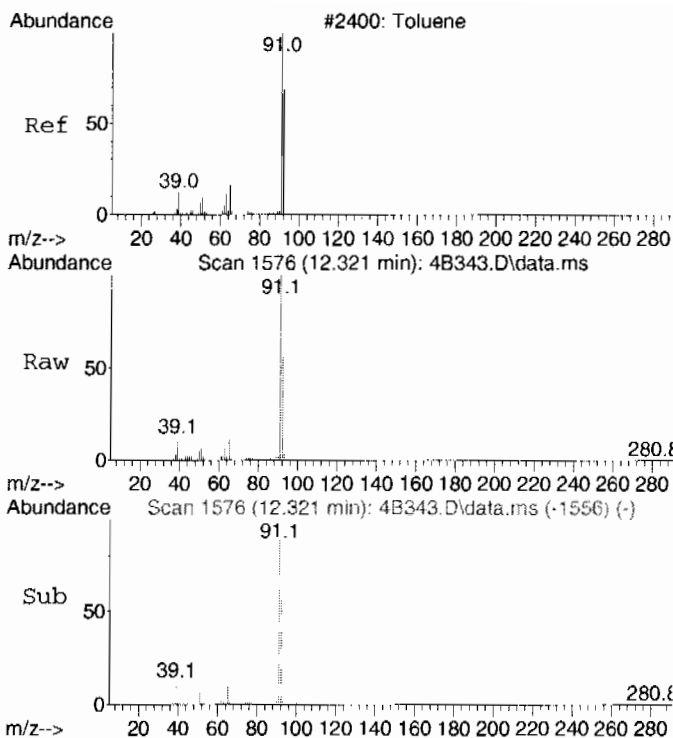


#33 BEFORE analyst DELETION  
n-Butyl alcohol  
Concen: 209.94 ug/L  
RT: 10.620 min Scan# 1297  
Delta R.T. -0.066 min  
Lab File: 4B343.D  
Acq: 11 Mar 2010 11:41 am



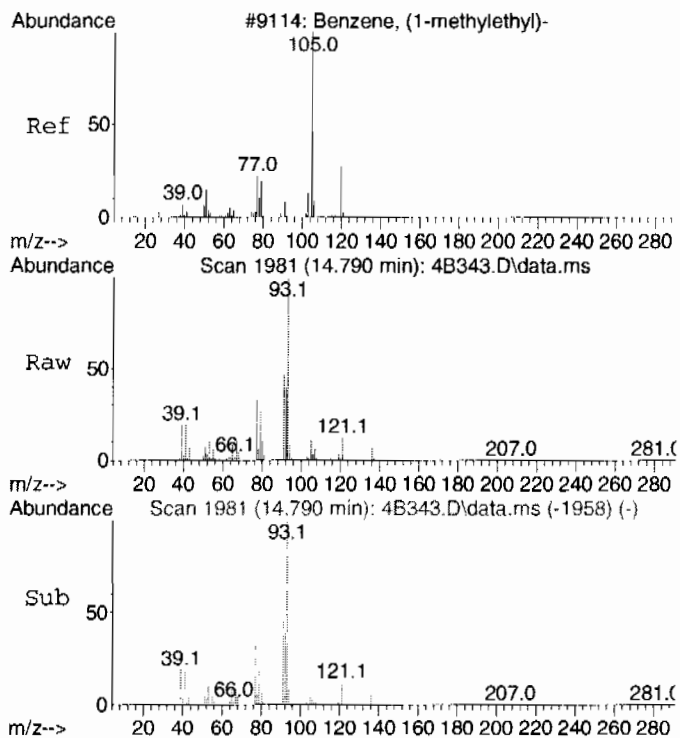
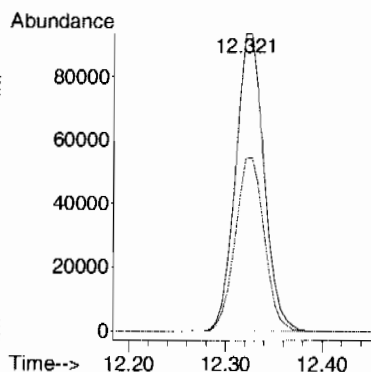
Tgt Ion: 56 Resp: 6626  
Ion Ratio Lower Upper  
56 100  
41 0.0 49.2 109.2#  
43 0.0 30.5 90.5#





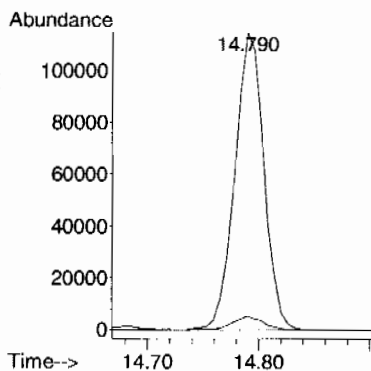
#44  
Toluene  
Concen: 11.25 ug/L  
RT: 12.321 min Scan# 1576  
Delta R.T. 0.001 min  
Lab File: 4B343.D  
Acq: 11 Mar 2010 11:41 am

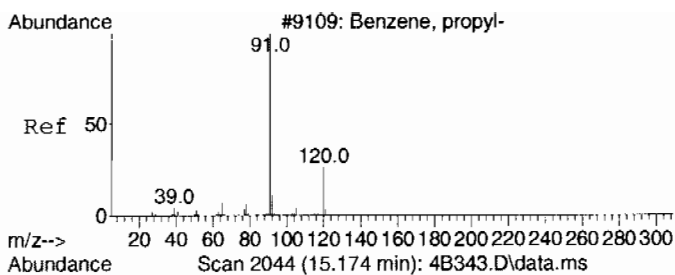
Tgt Ion: 91 Resp: 191263  
Ion Ratio Lower Upper  
91 100  
92 59.2 29.8 89.8



#60 BEFORE analyst DELETION  
Isopropylbenzene  
Concen: 18.97 ug/L  
RT: 14.790 min Scan# 1981  
Delta R.T. 0.031 min  
Lab File: 4B343.D  
Acq: 11 Mar 2010 11:41 am

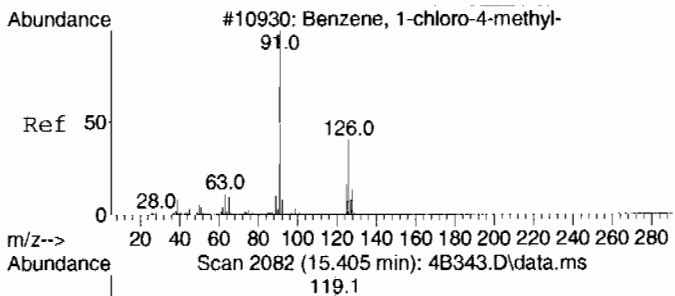
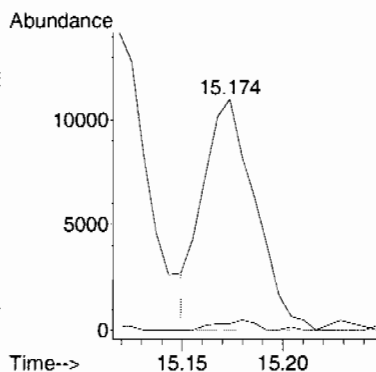
Tgt Ion: 105 Resp: 208993  
Ion Ratio Lower Upper  
105 100  
120 4.8 0.0 57.3





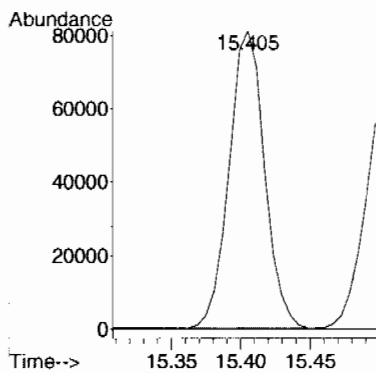
#65 BEFORE analyst DELETION  
n-Propylbenzene  
Concen: 1.44 ug/L  
RT: 15.174 min Scan# 2044  
Delta R.T. -0.005 min  
Lab File: 4B343.D  
Acq: 11 Mar 2010 11:41 am

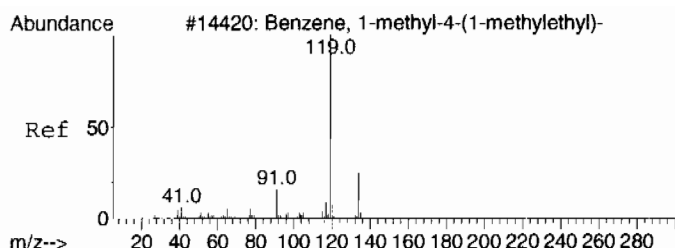
Tgt Ion: 91 Resp: 19860  
Ion Ratio Lower Upper  
91 100  
120 3.1 0.0 53.8



#68 BEFORE analyst DELETION  
4-Chlorotoluene  
Concen: 16.90 ug/L  
RT: 15.405 min Scan# 2082  
Delta R.T. -0.023 min  
Lab File: 4B343.D  
Acq: 11 Mar 2010 11:41 am

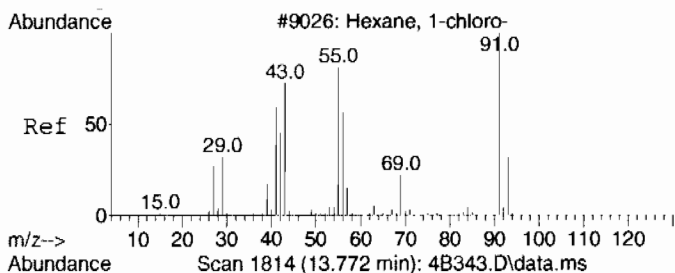
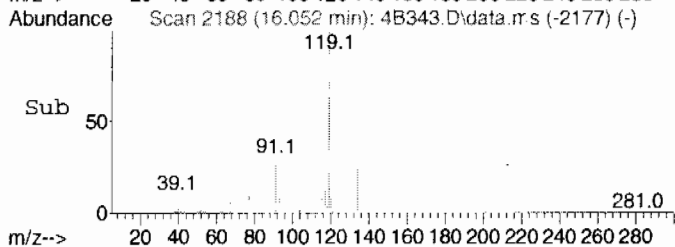
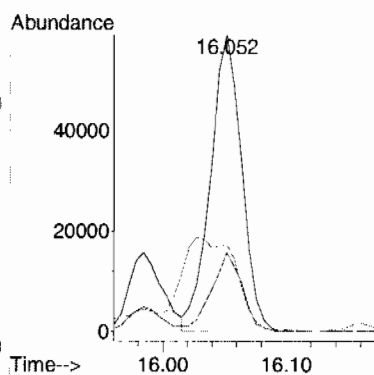
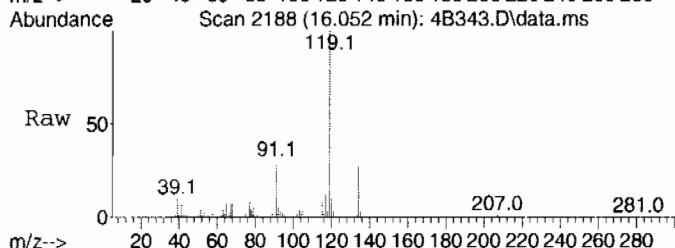
Tgt Ion: 91 Resp: 143047  
Ion Ratio Lower Upper  
91 100  
126 0.0 4.6 64.6#





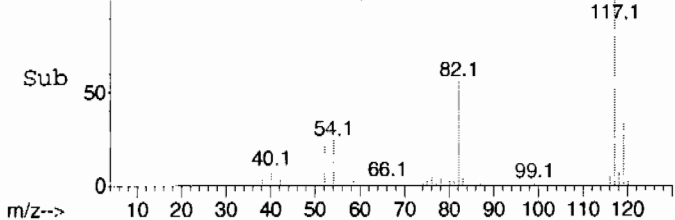
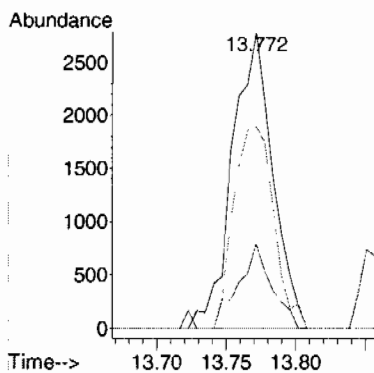
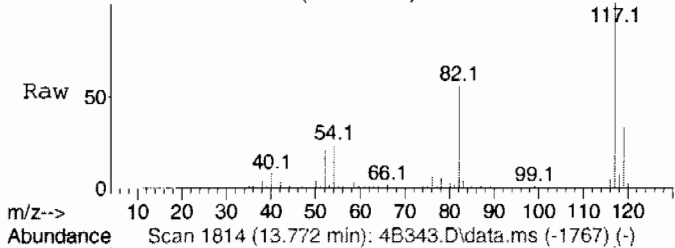
#72  
4-Isopropyltoluene  
Concen: 9.65 ug/L  
RT: 16.052 min Scan# 2188  
Delta R.T. 0.001 min  
Lab File: 4B343.D  
Acq: 11 Mar 2010 11:41 am

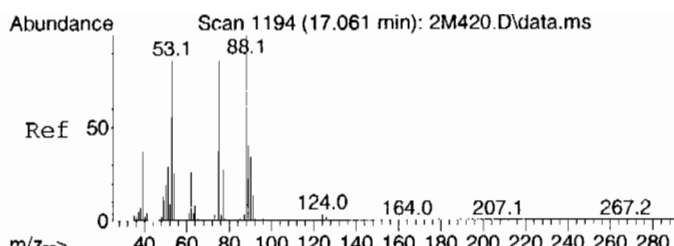
Tgt Ion	Ratio	Lower	Upper
119	100		
134	26.3	0.0	57.0
91	54.4	0.0	55.4



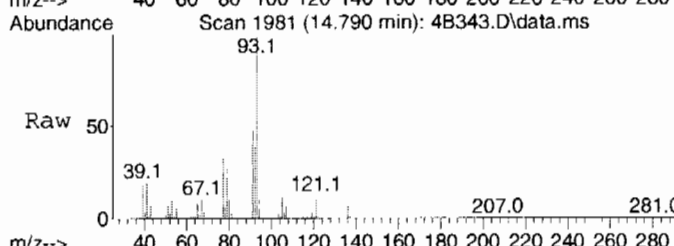
#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 2.81 ug/L  
RT: 13.772 min Scan# 1814  
Delta R.T. 0.111 min  
Lab File: 4B343.D  
Acq: 11 Mar 2010 11:41 am

Tgt Ion	Ratio	Lower	Upper
55	100		
91	23.5	108.1	168.1#
56	67.8	27.8	87.8

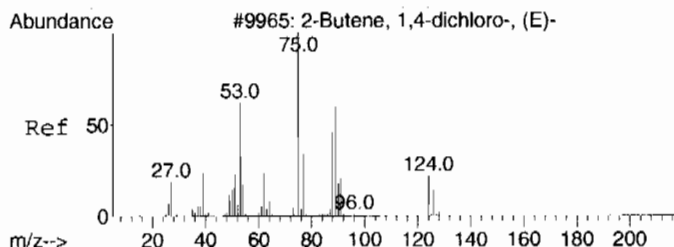
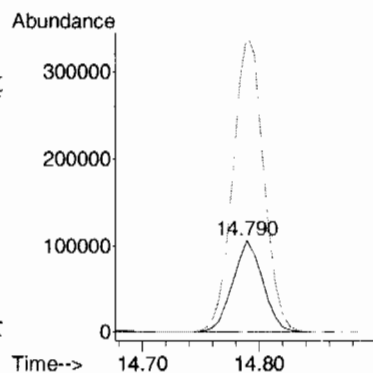
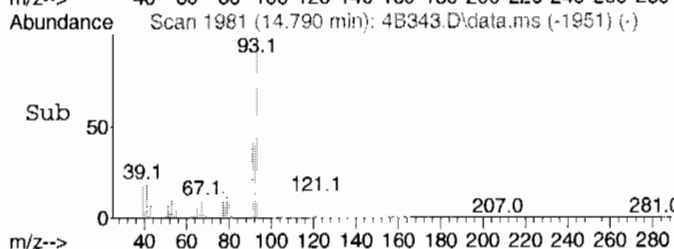




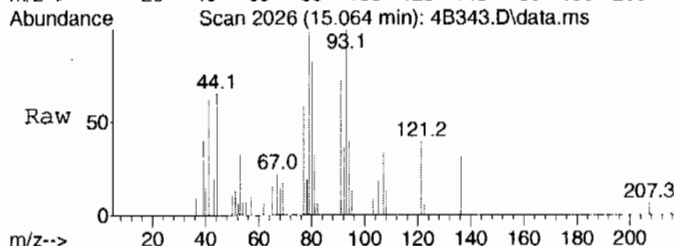
#107 BEFORE analyst DELETION  
 cis-1,4-Dichloro-2-butene  
 Concen: 223.20 ug/L  
 RT: 14.790 min Scan# 1981  
 Delta R.T. 0.007 min  
 Lab File: 4B343.D  
 Acq: 11 Mar 2010 11:41 am



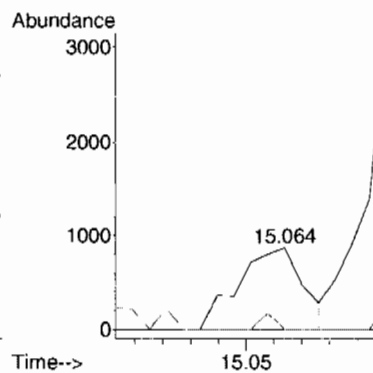
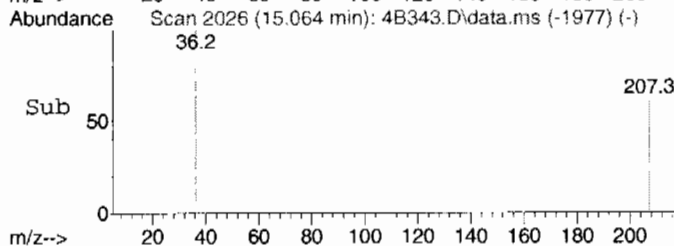
Tgt Ion: 53 Resp: 189824  
 Ion Ratio Lower Upper  
 53 100  
 88 0.2 83.6 143.6#  
 77 328.9 3.2 63.2#



#109 BEFORE analyst DELETION  
 trans-1,4-Dichloro-2-butene  
 Concen: 1.73 ug/L  
 RT: 15.064 min Scan# 2026  
 Delta R.T. 0.001 min  
 Lab File: 4B343.D  
 Acq: 11 Mar 2010 11:41 am



Tgt Ion: 53 Resp: 1408  
 Ion Ratio Lower Upper  
 53 100  
 88 0.0 24.1 84.1#  
 75 0.0 97.3 157.3#



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B343.D  
Acq On : 11 Mar 2010 11:41 am  
Operator : ACJ  
Sample : |248506012|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 43 Sample Multiplier: 1

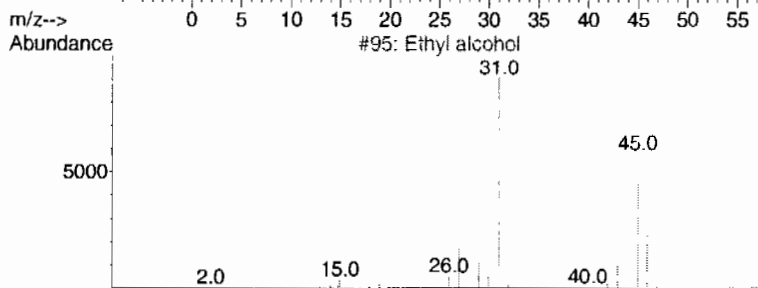
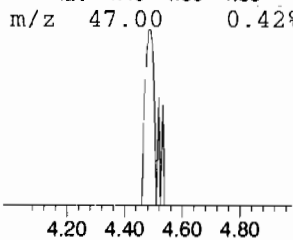
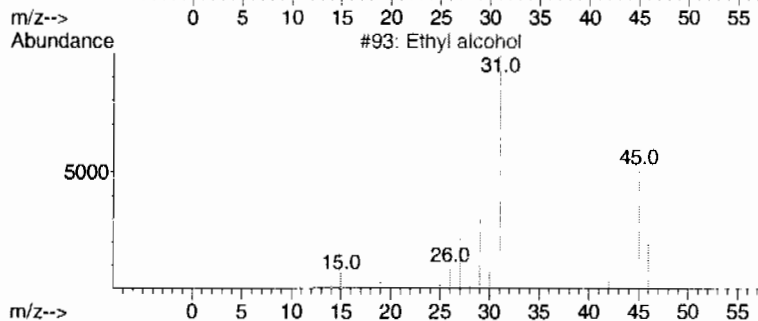
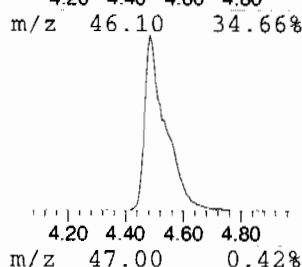
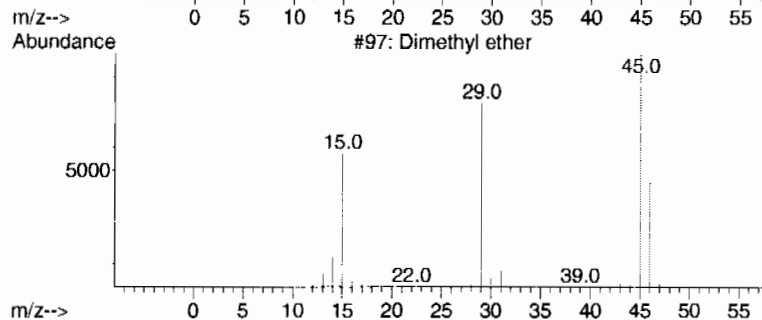
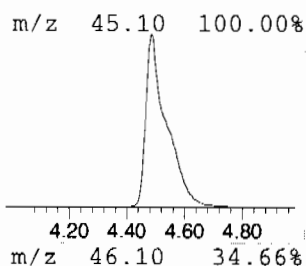
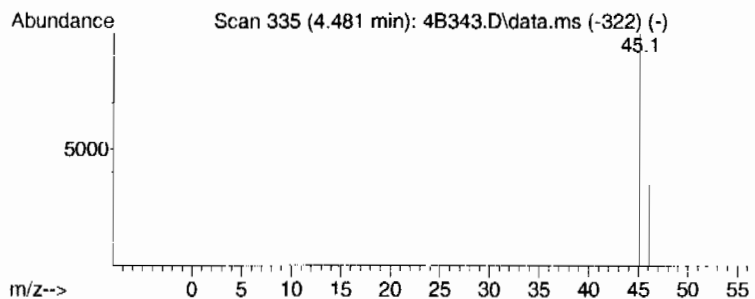
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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.
4.481	20.23 ug/L	822283	Fluorobenzene	10.620

Hit#	5	Tentative ID	MW	MolForm	CAS#	Qual
1		Dimethyl ether	46	C2H6O	000115-10-6	5
2		Ethyl alcohol	46	C2H6O	000064-17-5	4
3		Ethyl alcohol	46	C2H6O	000064-17-5	4
4		Ethyl alcohol	46	C2H6O	000064-17-5	4
5		Formic acid	46	CH2O2	000064-18-6	3



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B343.D  
Acq On : 11 Mar 2010 11:41 am  
Operator : ACJ  
Sample : |248506012|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 43 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

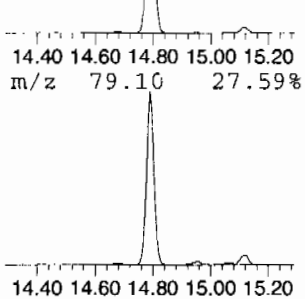
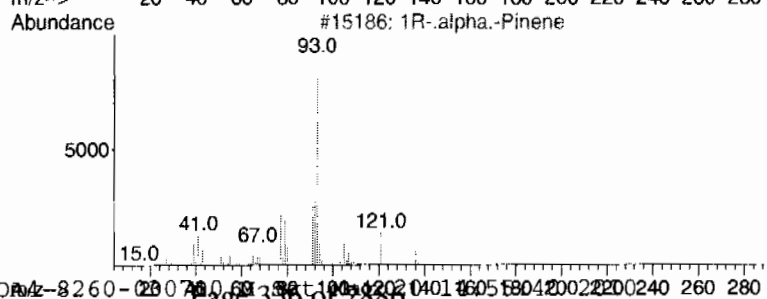
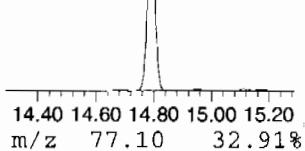
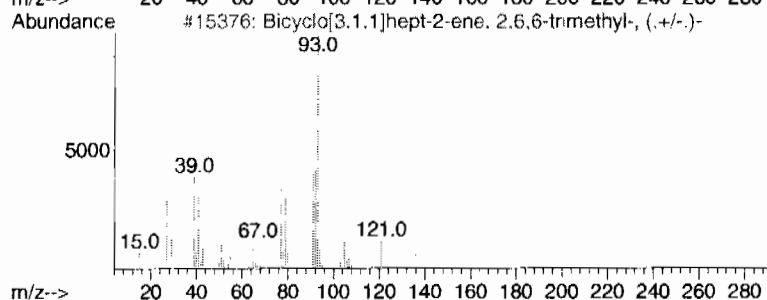
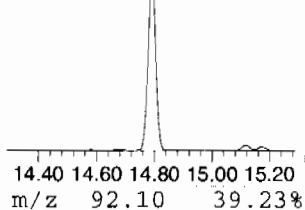
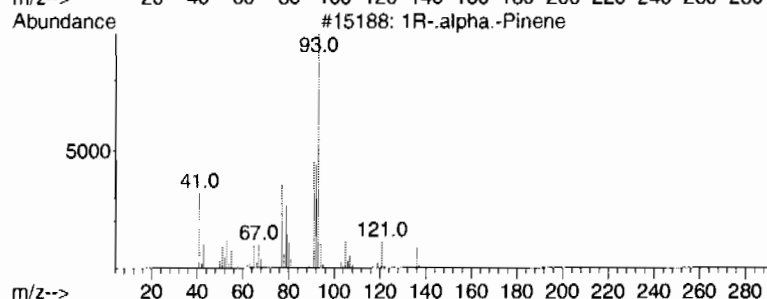
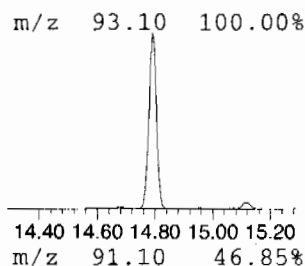
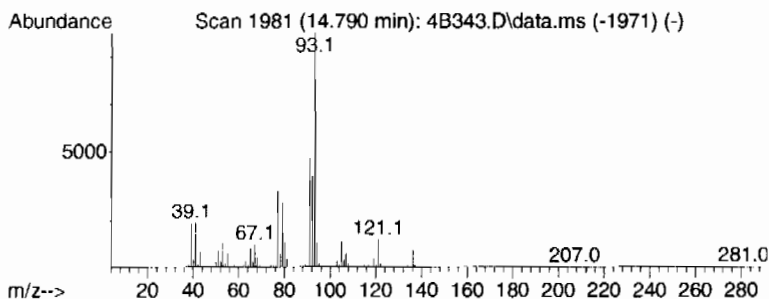
TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 2 unknown hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.790	262.79 ug/L	8512730	B Chlorobenzene-d5	13.772

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1R-.alpha.-Pinene	136	C10H16	007785-70-8	97
2	Bicyclo[3.1.1]hept-2-ene, 2,6,6-...	136	C10H16	002437-95-8	95
3	1R-.alpha.-Pinene	136	C10H16	007785-70-8	94
4	Bicyclo[3.1.1]hept-2-ene, 3,6,6-...	136	C10H16	004889-83-2	94
5	.alpha.-Pinene	136	C10H16	000080-56-8	94





## Page: 3

## Page: 4

## Page: 5

## Page: 6

Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B343.D  
Acq On : 11 Mar 2010 11:41 am  
Operator : ACJ  
Sample : |248506012|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 43 Sample Multiplier: 1

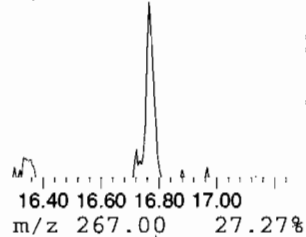
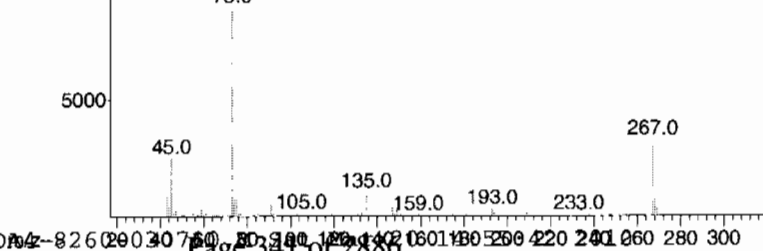
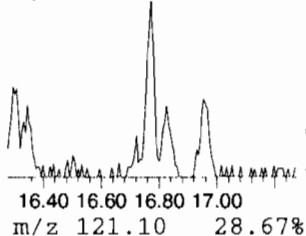
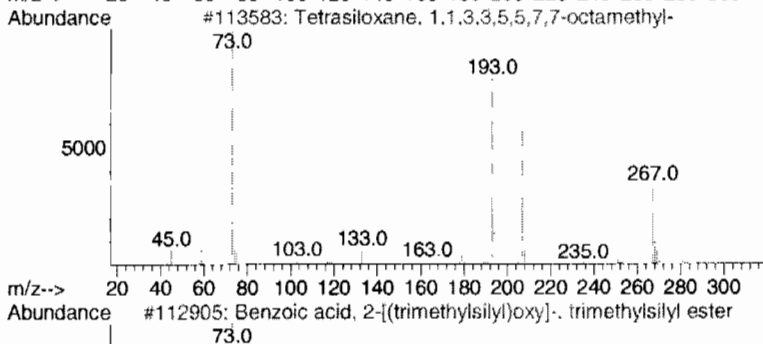
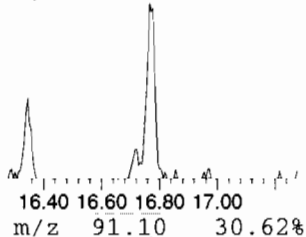
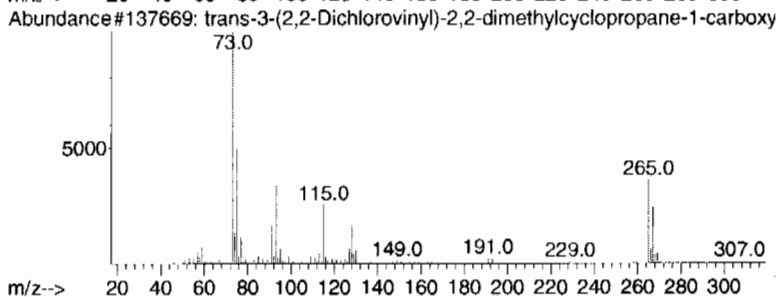
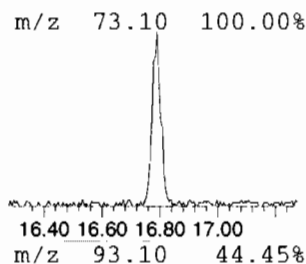
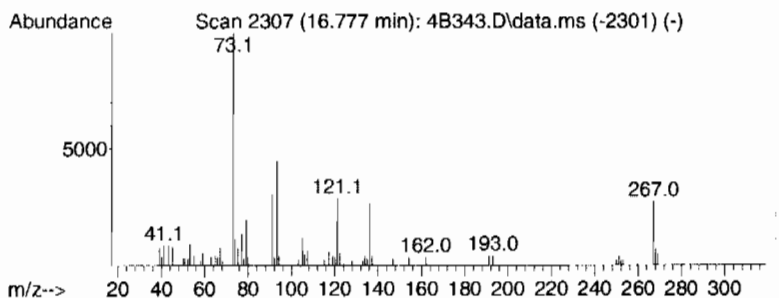
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 7 unknown siloxane Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.777	6.79 ug/L	140817	B 1,4-Dichlorobenzene-d4	16.180

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1	trans-3-(2,2-Dichlorovinyl)-2,2-...	322	C14H24Cl2O2Si	1000314-29-8	17	
2	Tetrasiloxane, 1,1,3,3,5,5,7,7-o...	282	C8H26O3Si4	001000-05-1	12	
3	Benzoic acid, 2-[(trimethylsilyl)...	282	C13H22O3Si2	003789-85-3	12	
4	Benzoic acid, 2-[(trimethylsilyl)...	282	C13H22O3Si2	003789-85-3	10	
5	Benzeneethanamine, N-[(pentaflu...	475	C21H26F5NO2Si2	055429-85-1	10	



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B343.D  
Acq On : 11 Mar 2010 11:41 am  
Operator : ACJ  
Sample : |248506012|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 43 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.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...	4.481	20.2	ug/L	822283	1	10.620	2032580	50.0
unknown hydroca...	14.790	262.8	ug/L	8512730	4	13.772	1619680	50.0
unknown hydroca...	15.119	20.6	ug/L	426337	5	16.180	1036560	50.0
unknown substit...	15.405	48.5	ug/L	1004960	5	16.180	1036560	50.0
unknown hydroca...	15.503	76.7	ug/L	1589180	5	16.180	1036560	50.0
unknown hydroca...	15.796	114.1	ug/L	2364460	5	16.180	1036560	50.0
unknown siloxane	16.777	6.8	ug/L	140817	6	16.180	1036560	50.0

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

SDG Number: 10-2193  
 Lab Sample ID: 248506016

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 22.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

Client ID: RE36-10-7441  
 Batch ID: 963417  
 Run Date: 03/11/2010 13:30  
 Prep Date: 03/10/2010 19:57  
 Data File: 031010V44B347.D

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.29	ug/kg	0.438	1.29
74-87-3	Chloromethane	U	1.29	ug/kg	0.386	1.29
75-01-4	Vinyl chloride	U	1.29	ug/kg	0.386	1.29
74-83-9	Bromomethane	U	1.29	ug/kg	0.386	1.29
75-00-3	Chloroethane	U	1.29	ug/kg	0.386	1.29
75-69-4	Trichlorofluoromethane	U	1.29	ug/kg	0.386	1.29
67-64-1	Acetone	J	4.42	ug/kg	2.14	6.44
75-35-4	1,1-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
74-88-4	Iodomethane	U	6.44	ug/kg	2.06	6.44
75-09-2	Methylene chloride	U	6.44	ug/kg	2.58	6.44
75-15-0	Carbon disulfide	U	6.44	ug/kg	1.61	6.44
156-60-5	trans-1,2-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
75-34-3	1,1-Dichloroethane	U	1.29	ug/kg	0.386	1.29
78-93-3	2-Butanone	U	6.44	ug/kg	1.93	6.44
156-59-2	cis-1,2-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
594-20-7	2,2-Dichloropropane	U	1.29	ug/kg	0.386	1.29
67-66-3	Chloroform	U	1.29	ug/kg	0.386	1.29
74-97-5	Bromochloromethane	U	1.29	ug/kg	0.425	1.29
71-55-6	1,1,1-Trichloroethane	U	1.29	ug/kg	0.386	1.29
563-58-6	1,1-Dichloropropene	U	1.29	ug/kg	0.386	1.29
56-23-5	Carbon tetrachloride	U	1.29	ug/kg	0.386	1.29
107-06-2	1,2-Dichloroethane	U	1.29	ug/kg	0.386	1.29
71-43-2	Benzene	U	1.29	ug/kg	0.386	1.29
79-01-6	Trichloroethylene	U	1.29	ug/kg	0.425	1.29
78-87-5	1,2-Dichloropropane	U	1.29	ug/kg	0.386	1.29
75-27-4	Bromodichloromethane	U	1.29	ug/kg	0.386	1.29
74-95-3	Dibromomethane	U	1.29	ug/kg	0.386	1.29
108-10-1	4-Methyl-2-pentanone	U	6.44	ug/kg	1.61	6.44
10061-01-5	cis-1,3-Dichloropropylene	U	1.29	ug/kg	0.386	1.29
108-88-3	Toluene	U	1.29	ug/kg	0.386	1.29
10061-02-6	trans-1,3-Dichloropropylene	U	1.29	ug/kg	0.386	1.29
79-00-5	1,1,2-Trichloroethane	U	1.29	ug/kg	0.386	1.29
591-78-6	2-Hexanone	U	6.44	ug/kg	1.93	6.44
142-28-9	1,3-Dichloropropane	U	1.29	ug/kg	0.386	1.29
127-18-4	Tetrachloroethylene	U	1.29	ug/kg	0.386	1.29
124-48-1	Dibromochloromethane	U	1.29	ug/kg	0.386	1.29
106-93-4	1,2-Dibromoethane	U	1.29	ug/kg	0.386	1.29
108-90-7	Chlorobenzene	U	1.29	ug/kg	0.386	1.29

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

SDG Number: 10-2193  
 Lab Sample ID: 248506016  
  
 Client ID: RE36-10-7441  
 Batch ID: 963417  
 Run Date: 03/11/2010 13:30  
 Prep Date: 03/10/2010 19:57  
 Data File: 031010V44B347.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 22.4  
 Project: LANL01004  
 SOP Ref: GL-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.29	ug/kg	0.386	1.29
179601-23-1	m,p-Xylenes	U	2.58	ug/kg	0.386	2.58
95-47-6	o-Xylene	U	1.29	ug/kg	0.386	1.29
100-42-5	Styrene	U	1.29	ug/kg	0.386	1.29
75-25-2	Bromoform	U	1.29	ug/kg	0.386	1.29
79-34-5	1,1,2,2-Tetrachloroethane	U	1.29	ug/kg	0.386	1.29
96-18-4	1,2,3-Trichloropropane	U	1.29	ug/kg	0.386	1.29
108-86-1	Bromobenzene	U	1.29	ug/kg	0.386	1.29
103-65-1	n-Propylbenzene	U	1.29	ug/kg	0.386	1.29
95-49-8	2-Chlorotoluene	U	1.29	ug/kg	0.386	1.29
98-82-8	Isopropylbenzene	U	1.29	ug/kg	0.386	1.29
108-67-8	1,3,5-Trimethylbenzene	U	1.29	ug/kg	0.386	1.29
106-43-4	4-Chlorotoluene	U	1.29	ug/kg	0.386	1.29
98-06-6	tert-Butylbenzene	U	1.29	ug/kg	0.386	1.29
95-63-6	1,2,4-Trimethylbenzene	U	1.29	ug/kg	0.386	1.29
135-98-8	sec-Butylbenzene	U	1.29	ug/kg	0.386	1.29
99-87-6	4-Isopropyltoluene	J	0.451	ug/kg	0.386	1.29
541-73-1	1,3-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29
106-46-7	1,4-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29
104-51-8	n-Butylbenzene	U	1.29	ug/kg	0.386	1.29
96-12-8	1,2-Dibromo-3-chloropropane	U	1.29	ug/kg	0.386	1.29
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.44	ug/kg	2.06	6.44
630-20-6	1,1,1,2-Tetrachloroethane	U	1.29	ug/kg	0.386	1.29
95-50-1	1,2-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	23.1	ug/kg	0	J
	unknown hydrocarbon	6.77	6.69	ug/kg	0	J
	unknown hydrocarbon	15.62	17.2	ug/kg	0	J
	unknown siloxane	16.79	12.1	ug/kg	0	J



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B347.D  
Acq On : 11 Mar 2010 1:30 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506016|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Mar 19 21:53:48 2010  
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev (Min)
Internal Standards								
1) Fluorobenzene	10.619	10.613	1.000	96	912793	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	497893	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	135491	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.613	1.000	96	912563	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	497893	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	135491	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	10.259	10.259	0.966	65	231465	46.96	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	93.92%			
43) Toluene-d8	12.253	12.247	0.890	98	679894	59.98	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	119.96%			
61) Bromofluorobenzene	14.953	14.947	0.924	95	209937	79.90	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	159.80%#			
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	0.000	5.299	0.000		0	N.D.		
4) Vinyl chloride	0.000	5.521	0.000		0	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	0.000	6.991	0.000		0	N.D.		
9) Acetone	7.369	7.351	0.694	43	19153	3.43	ug/L	95
10) 1,1-Dichloroethylene	7.400	7.394	0.697	61	687	N.D.		
11) Iodomethane	0.000	7.662	0.000		0	N.D.		
12) Acetonitrile	7.692	7.693	0.724	41	342	N.D.		
13) Methyl acetate	7.741	7.747	0.729	43	308	N.D.		
14) Carbon disulfide	7.778	7.778	0.732	76	137	N.D.		
15) Methylene chloride	7.930	7.967	0.747	84	2340	Below Cal		85
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.705	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.338	9.320	0.879	43	2284	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.692	9.686	0.913	83	590	N.D.		
25) 1,1,1-Trichloroethane	9.979	9.973	0.940	97	285	N.D.		
26) Cyclohexane	10.076	10.076	0.949	56	182	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.338	0.000		0	N.D.		
31) Benzene	10.381	10.369	0.978	78	372	N.D.		
32) Cyclohexene	0.000	10.491	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	10.985	11.003	1.034	95	257	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.259	0.000		0	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B347.D  
Acq On : 11 Mar 2010 1:30 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506016|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Mar 19 21:53:48 2010

Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Mar 08 17:08:49 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.015	0.000		0	N.D.	
44) Toluene	12.332	12.320	0.896	91	1722	Below Cal	95
45) trans-1,3-Dichloroprop...	12.460	12.460	0.905	75	343	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.856	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.917	0.000		0	N.D.	
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.801	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.	
54) Ethylbenzene	13.868	13.862	1.007	91	2036	N.D.	
55) m,p-Xylenes	13.966	13.966	1.014	106	395	N.D.	
56) o-Xylene	14.405	14.399	1.046	106	298	N.D.	
57) Styrene	14.392	14.399	1.045	104	144	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.758	14.758	0.912	105	494	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.014	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	0.000	15.167	0.000		0	N.D.	
65) n-Propylbenzene	15.179	15.179	0.938	91	326	N.D.	
66) 1,3,5-Trimethylbenzene	15.331	15.325	0.948	105	454	N.D.	
67) 2-Chlorotoluene	0.000	15.331	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	15.429	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.703	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.734	15.740	0.972	105	573	N.D.	
71) sec-Butylbenzene	15.923	15.929	0.984	105	145	N.D.	
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	3149	0.35 ug/L	91
73) 1,3-Dichlorobenzene	0.000	16.118	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	16.191	16.203	1.001	146	118	N.D.	
75) n-Butylbenzene	0.000	16.502	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.642	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.629	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.	
80) Naphthalene	19.032	19.026	1.176	128	425	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.385	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.174	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.	
87) Isopropyl Alcohol	7.430	7.430	0.700	45	2491	N.D.	
88) Allyl chloride	7.820	7.796	0.736	41	119	N.D.	
89) tert-Butyl Alcohol	7.924	7.924	0.746	59	156	N.D.	
90) Acrylonitrile	0.000	8.168	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.735	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.338	9.339	0.879	43	2284	N.D.	
95) Propionitrile	0.000	9.387	0.000		0	N.D.	
96) Methacrylonitrile	9.643	9.570	0.908	41	146	N.D.	
97) Tetrahydrofuran	9.698	9.710	0.913	42	277	N.D.	
98) Isobutyl alcohol	10.003	10.003	0.942	41	140	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B347.D  
Acq On : 11 Mar 2010 1:30 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506016|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Mar 19 21:53:48 2010  
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

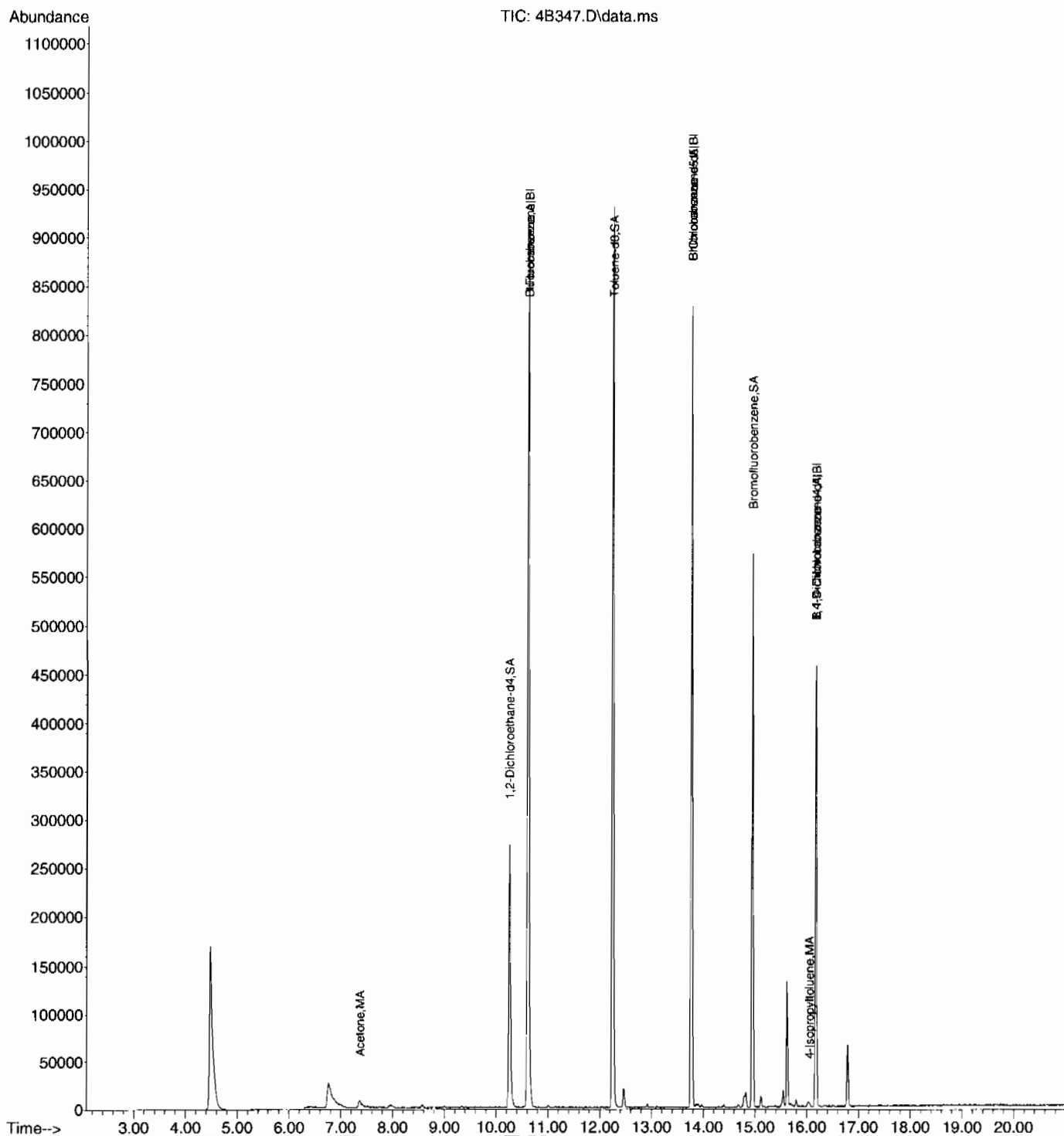
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.381	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	12.460	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.789	14.783	0.914	53	369	N.D.	
108) Cyclohexanone	0.000	14.905	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0m	N.D.	d
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.313	16.319	1.008	91	251	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.715	0.000		0m	N.D.	d

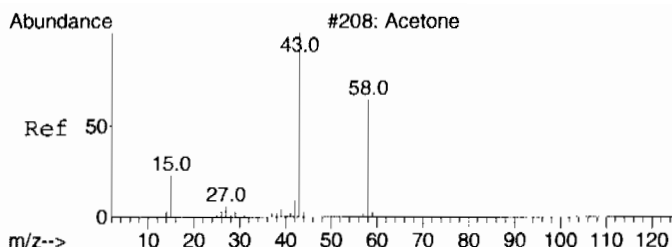
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B347.D  
Acq On : 11 Mar 2010 1:30 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506016|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 47 Sample Multiplier: 1

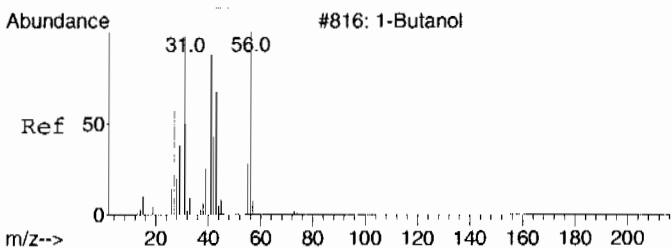
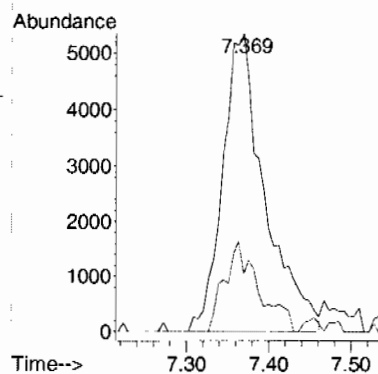
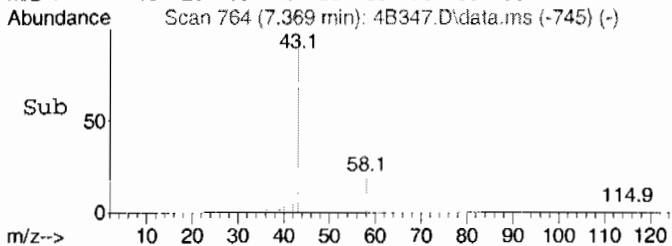
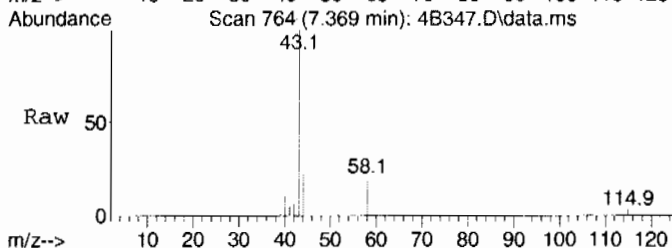
Quant Time: Mar 19 21:53:48 2010  
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE





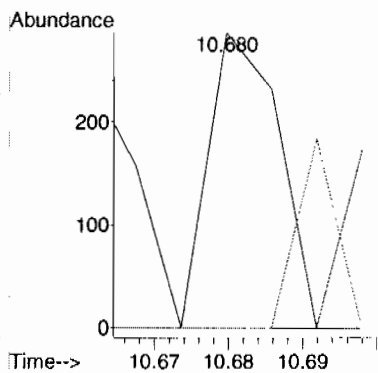
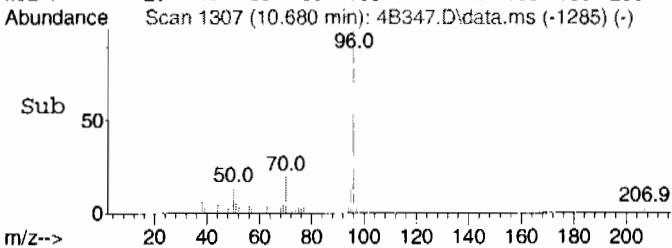
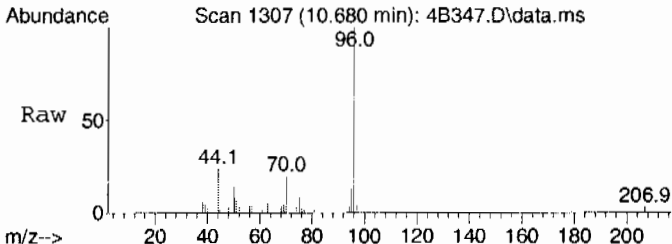
#9  
Acetone  
Concen: 3.43 ug/L  
RT: 7.369 min Scan# 764  
Delta R.T. 0.018 min  
Lab File: 4B347.D  
Acq: 11 Mar 2010 1:30 pm

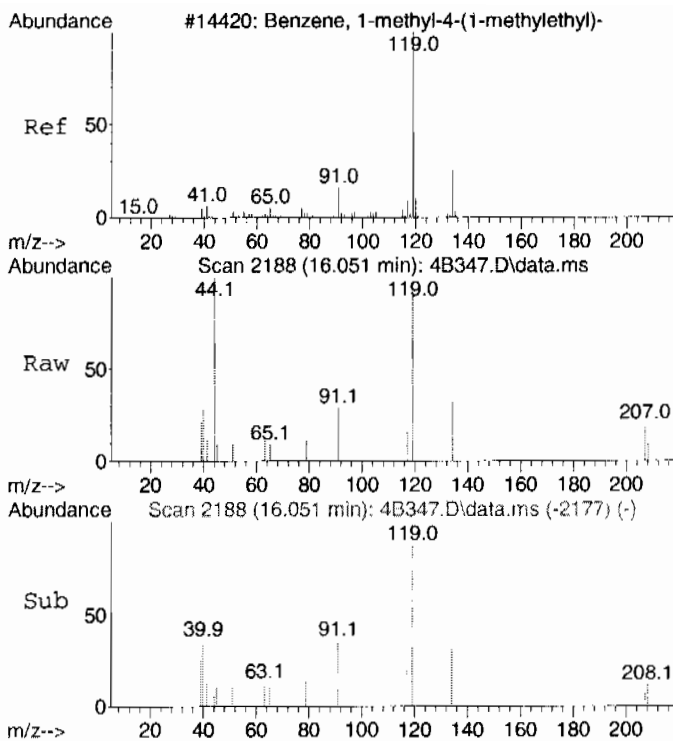
Tgt Ion: 43 Resp: 19153  
Ion Ratio Lower Upper  
43 100  
58 25.0 0.0 57.5



#33 BEFORE analyst DELETION  
n-Butyl alcohol  
Concen: 181.50 ug/L  
RT: 10.680 min Scan# 1307  
Delta R.T. -0.006 min  
Lab File: 4B347.D  
Acq: 11 Mar 2010 1:30 pm

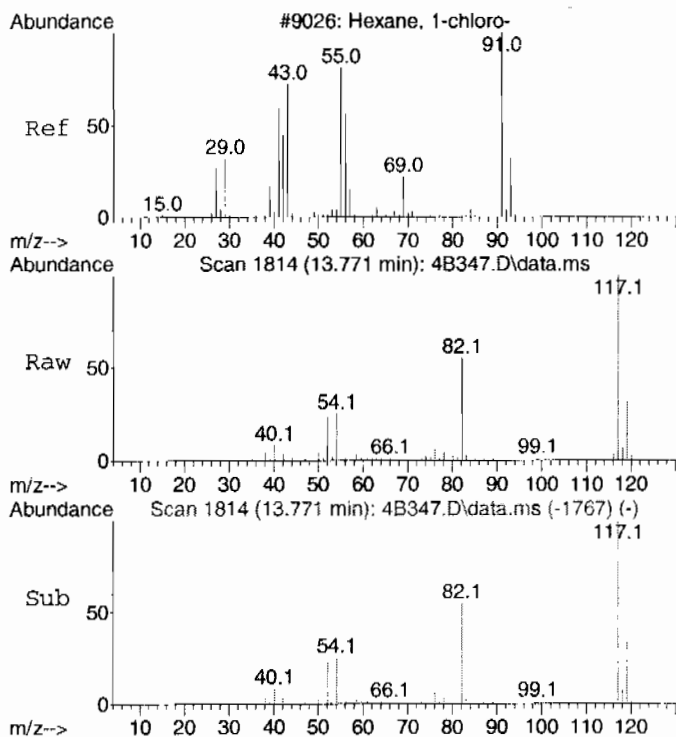
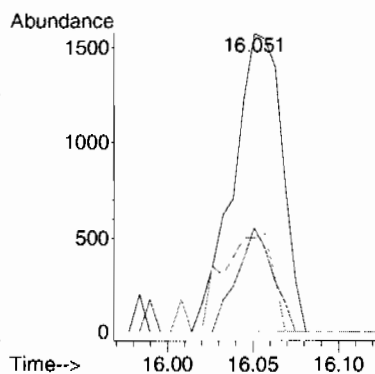
Tgt Ion: 56 Resp: 190  
Ion Ratio Lower Upper  
56 100  
41 0.0 49.2 109.2#  
43 0.0 30.5 90.5#





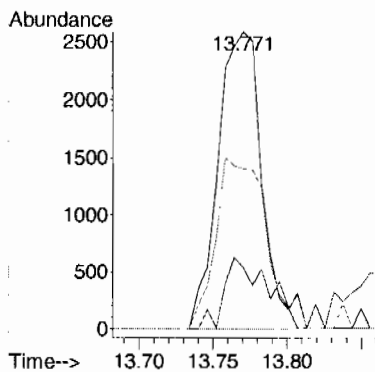
#72  
4-Isopropyltoluene  
Concen: 0.35 ug/L  
RT: 16.051 min Scan# 2188  
Delta R.T. -0.000 min  
Lab File: 4B347.D  
Acq: 11 Mar 2010 1:30 pm

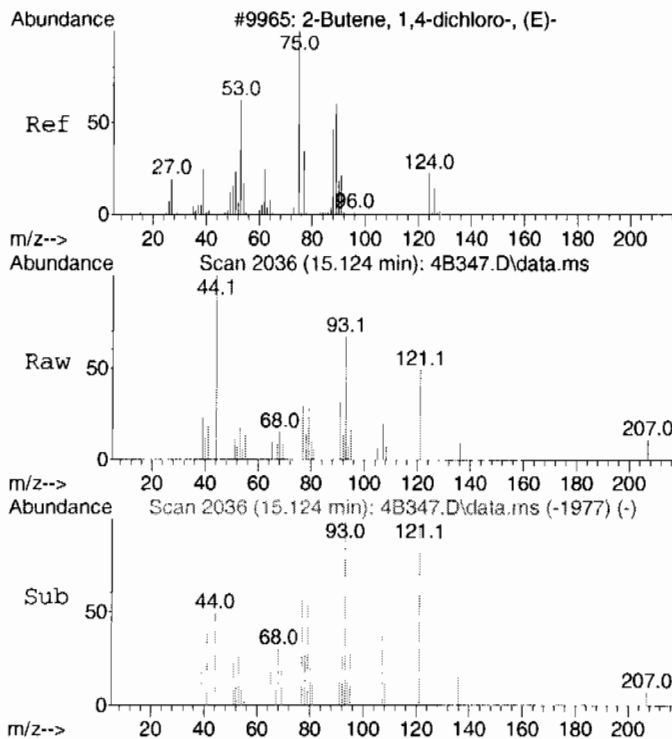
Tgt Ion	Ratio	Lower	Upper
119	100		
134	26.0	0.0	57.0
91	33.5	0.0	55.4



#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 3.23 ug/L  
RT: 13.771 min Scan# 1814  
Delta R.T. 0.110 min  
Lab File: 4B347.D  
Acq: 11 Mar 2010 1:30 pm

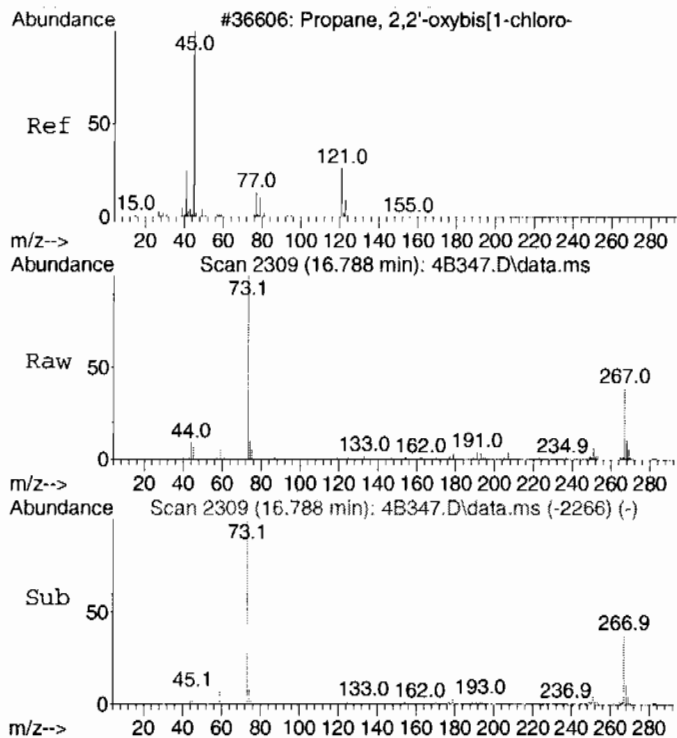
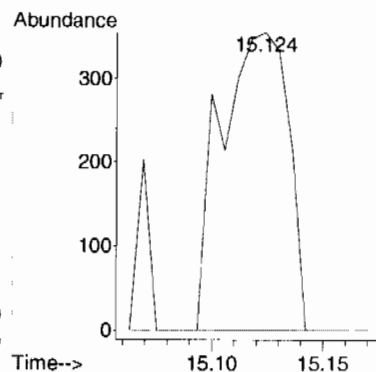
Tgt Ion	Ratio	Lower	Upper
55	100		
91	23.7	108.1	168.1#
56	66.2	27.8	87.8





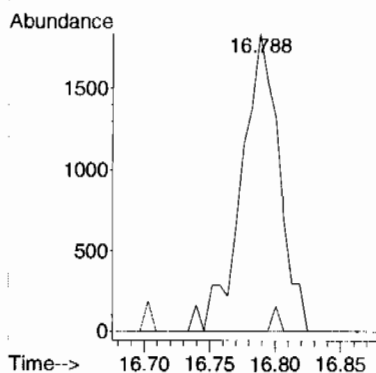
#109 BEFORE analyst DELETION  
trans-1,4-Dichloro-2-butene  
Concen: 1.11 ug/L  
RT: 15.124 min Scan# 2036  
Delta R.T. 0.061 min  
Lab File: 4B347.D  
Acq: 11 Mar 2010 1:30 pm

Tgt Ion: 53 Resp: 750  
Ion Ratio Lower Upper  
53 100  
88 0.0 24.1 84.1#  
75 0.0 97.3 157.3#



#112 BEFORE analyst DELETION  
bis(2-Chloroisopropyl)ether  
Concen: 3.76 ug/L  
RT: 16.788 min Scan# 2309  
Delta R.T. 0.073 min  
Lab File: 4B347.D  
Acq: 11 Mar 2010 1:30 pm

Tgt Ion: 45 Resp: 3713  
Ion Ratio Lower Upper  
45 100  
121 0.0 0.0 54.6



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B347.D  
Acq On : 11 Mar 2010 1:30 pm  
Operator : ACJ  
Sample : |248506016|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

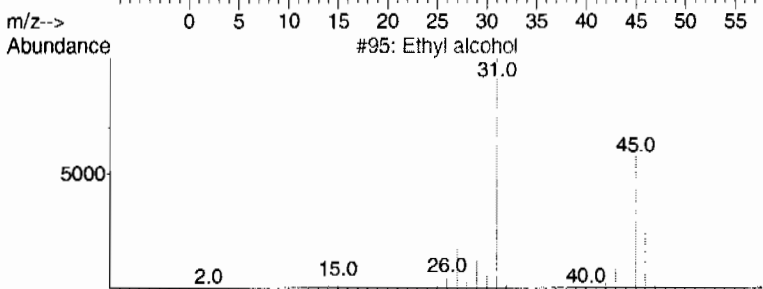
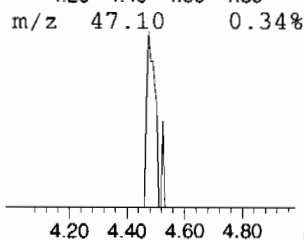
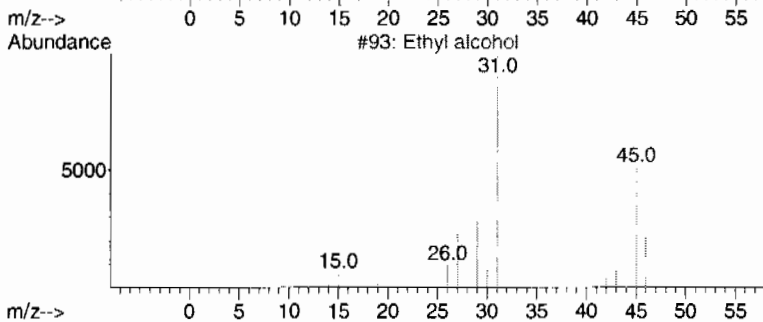
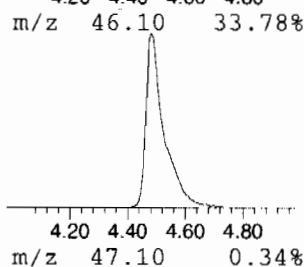
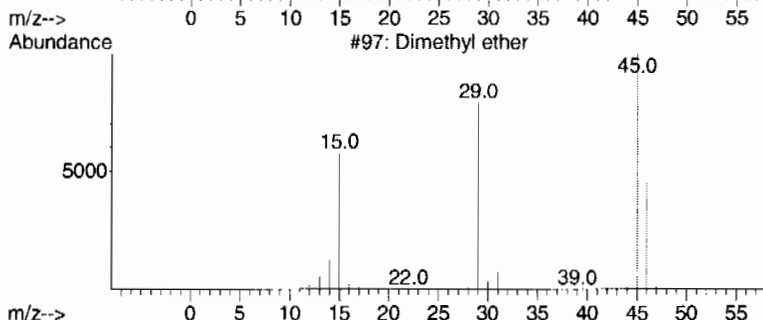
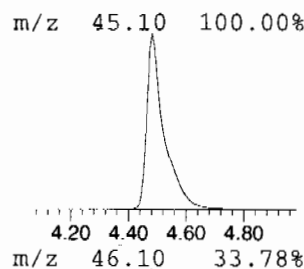
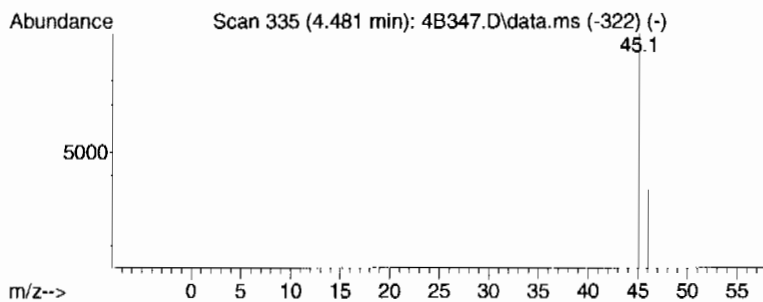
TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

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

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	17.97 ug/L	724010	Fluorobenzene	10.619

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	2





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B347.D  
Acq On : 11 Mar 2010 1:30 pm  
Operator : ACJ  
Sample : |248506016|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 47 Sample Multiplier: 1

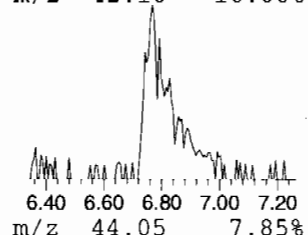
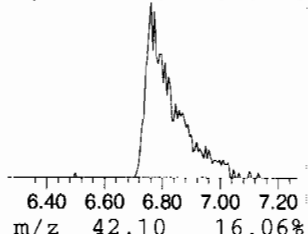
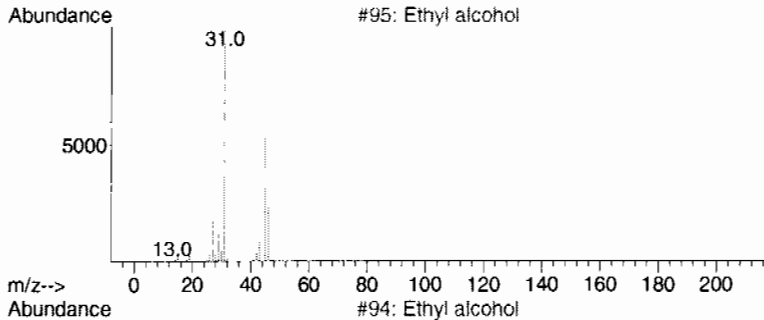
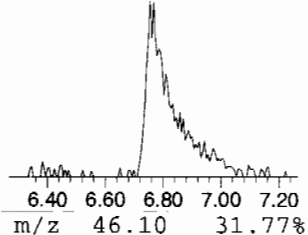
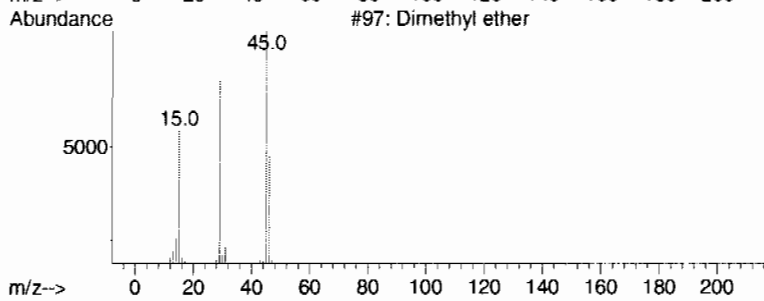
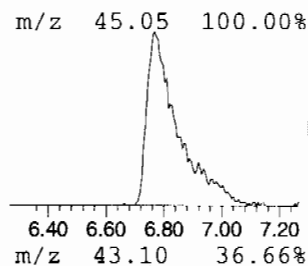
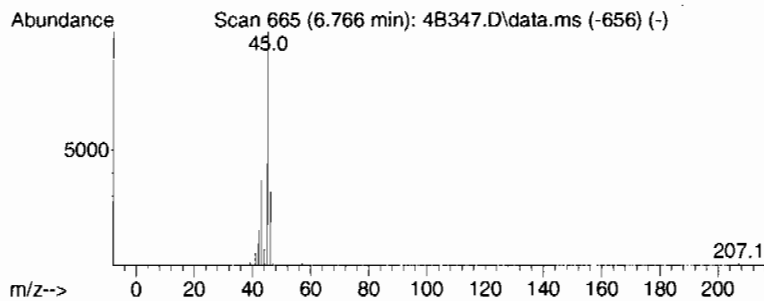
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 2 unknown hydrocarbon Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
6.766	5.19 ug/L	208951	Fluorobenzene	10.619

Hit# of	5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether		46	C2H6O	000115-10-6	9
2	Ethyl alcohol		46	C2H6O	000064-17-5	7
3	Ethyl alcohol		46	C2H6O	000064-17-5	7
4	Ethyl alcohol		46	C2H6O	000064-17-5	7
5	Methane, nitroso-		45	CH3NO	000865-40-7	4



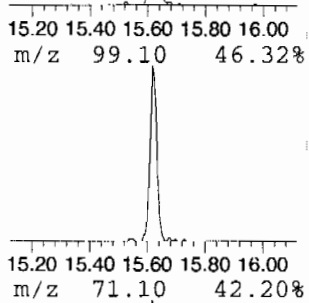
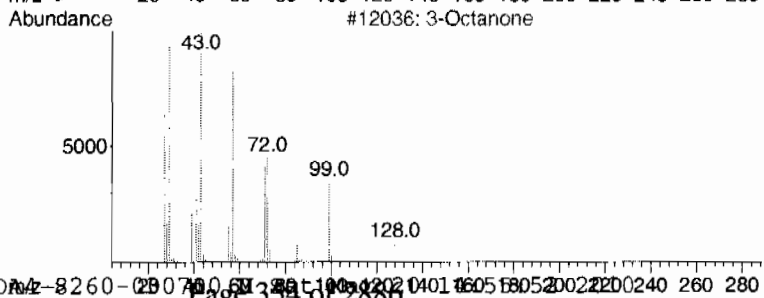
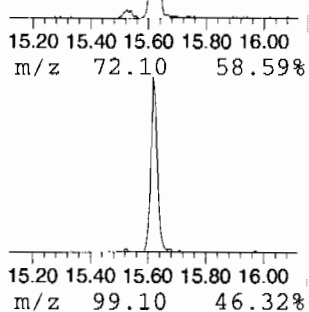
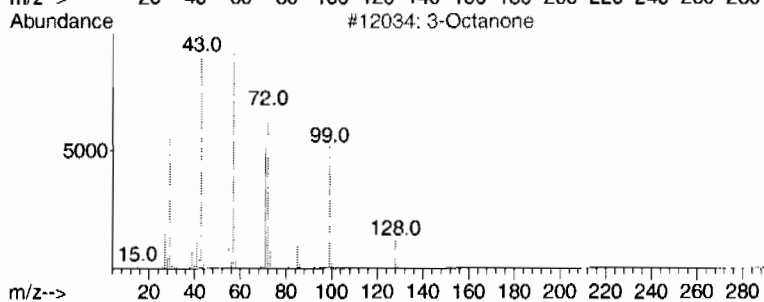
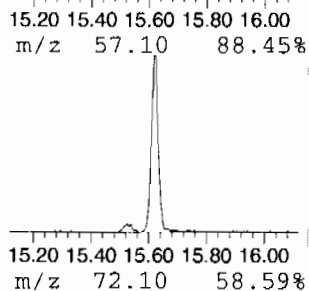
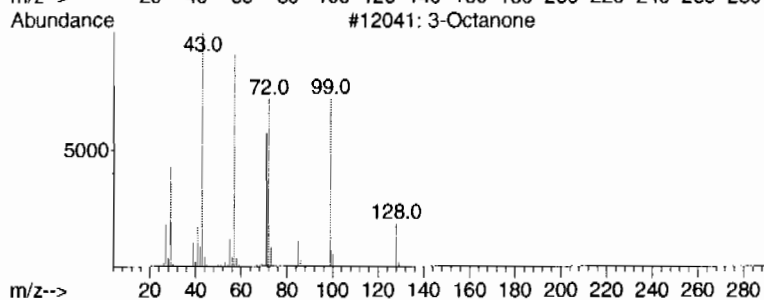
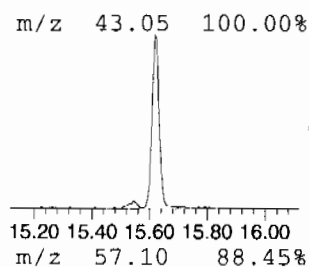
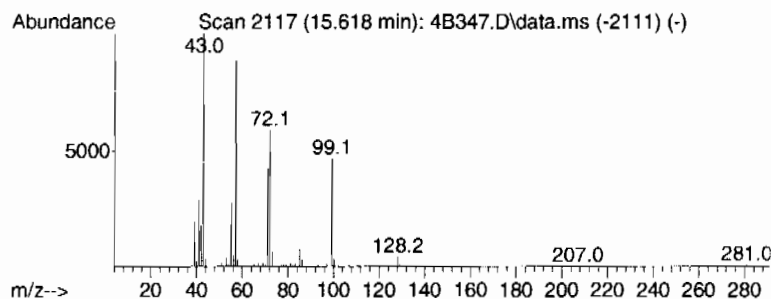
GEL Laboratories, LLC

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

\*\*\*\*\*  
Peak Number 3    unknown hydrocarbon                      Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.618	13.39 ug/L	236786	1,4-Dichlorobenzene-d4	16.179

Hit#	of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Octanone		128	C8H16O	000106-68-3	90
2	3-Octanone		128	C8H16O	000106-68-3	78
3	3-Octanone		128	C8H16O	000106-68-3	74
4	Butanal, 2-ethyl-		100	C6H12O	000097-96-1	47
5	1-Propene, 1-methoxy-		72	C4H8O	007319-16-6	43



## Page: 4

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B347.D  
Acq On : 11 Mar 2010 1:30 pm  
Operator : ACJ  
Sample : |248506016|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.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...	4.481	18.0	ug/L	724010	1	10.619	2014120	50.0
unknown hydroca...	6.766	5.2	ug/L	208951	1	10.619	2014120	50.0
unknown hydroca...	15.618	13.4	ug/L	236786	5	16.179	884019	50.0
unknown siloxane	16.788	9.4	ug/L	165446	6	16.179	884019	50.0

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

SDG Number: 10-2193  
 Lab Sample ID: 248506019  
 Client ID: RE36-10-7438  
 Batch ID: 963417  
 Run Date: 03/11/2010 14:52  
 Prep Date: 03/10/2010 20:01  
 Data File: 031010V4V4B350.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 5.3  
 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
75-71-8	Dichlorodifluoromethane	U	1.06	ug/kg	0.359	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.317	1.06
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.317	1.06
74-83-9	Bromomethane	U	1.06	ug/kg	0.317	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.317	1.06
75-69-4	Trichlorofluoromethane	U	1.06	ug/kg	0.317	1.06
67-64-1	Acetone	J	2.61	ug/kg	1.75	5.28
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
74-88-4	Iodomethane	U	5.28	ug/kg	1.69	5.28
75-09-2	Methylene chloride	U	5.28	ug/kg	2.11	5.28
75-15-0	Carbon disulfide	U	5.28	ug/kg	1.32	5.28
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.317	1.06
78-93-3	2-Butanone	U	5.28	ug/kg	1.58	5.28
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.317	1.06
594-20-7	2,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.317	1.06
74-97-5	Bromochloromethane	U	1.06	ug/kg	0.349	1.06
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.317	1.06
563-58-6	1,1-Dichloropropene	U	1.06	ug/kg	0.317	1.06
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.317	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.317	1.06
71-43-2	Benzene	U	1.06	ug/kg	0.317	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.349	1.06
78-87-5	1,2-Dichloropropane	U	1.06	ug/kg	0.317	1.06
75-27-4	Bromodichloromethane	U	1.06	ug/kg	0.317	1.06
74-95-3	Dibromomethane	U	1.06	ug/kg	0.317	1.06
108-10-1	4-Methyl-2-pentanone	U	5.28	ug/kg	1.32	5.28
10061-01-5	cis-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
108-88-3	Toluene		1.09	ug/kg	0.317	1.06
10061-02-6	trans-1,3-Dichloropropylene	U	1.06	ug/kg	0.317	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.317	1.06
591-78-6	2-Hexanone	U	5.28	ug/kg	1.58	5.28
142-28-9	1,3-Dichloropropane	U	1.06	ug/kg	0.317	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.317	1.06
124-48-1	Dibromochloromethane	U	1.06	ug/kg	0.317	1.06
106-93-4	1,2-Dibromoethane	U	1.06	ug/kg	0.317	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.317	1.06

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

SDG Number: 10-2193  
 Lab Sample ID: 248506019  
 Client ID: RE36-10-7438  
 Batch ID: 963417  
 Run Date: 03/11/2010 14:52  
 Prep Date: 03/10/2010 20:01  
 Data File: 031010V44B350.D

Date Collected: 02/25/2010 12:00  
 Date Received: 03/03/2010 08:50  
 Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: R  
 %Moisture: 5.3  
 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	U	1.06	ug/kg	0.317	1.06
179601-23-1	m,p-Xylenes	U	2.11	ug/kg	0.317	2.11
95-47-6	o-Xylene	U	1.06	ug/kg	0.317	1.06
100-42-5	Styrene	U	1.06	ug/kg	0.317	1.06
75-25-2	Bromoform	U	1.06	ug/kg	0.317	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
96-18-4	1,2,3-Trichloropropane	U	1.06	ug/kg	0.317	1.06
108-86-1	Bromobenzene	U	1.06	ug/kg	0.317	1.06
103-65-1	n-Propylbenzene	U	1.06	ug/kg	0.317	1.06
95-49-8	2-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-82-8	Isopropylbenzene	U	1.06	ug/kg	0.317	1.06
108-67-8	1,3,5-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
106-43-4	4-Chlorotoluene	U	1.06	ug/kg	0.317	1.06
98-06-6	tert-Butylbenzene	U	1.06	ug/kg	0.317	1.06
95-63-6	1,2,4-Trimethylbenzene	U	1.06	ug/kg	0.317	1.06
135-98-8	sec-Butylbenzene	U	1.06	ug/kg	0.317	1.06
99-87-6	4-Isopropyltoluene		1.87	ug/kg	0.317	1.06
541-73-1	1,3-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
106-46-7	1,4-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06
104-51-8	n-Butylbenzene	U	1.06	ug/kg	0.317	1.06
96-12-8	1,2-Dibromo-3-chloropropane	U	1.06	ug/kg	0.317	1.06
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.28	ug/kg	1.69	5.28
630-20-6	1,1,1,2-Tetrachloroethane	U	1.06	ug/kg	0.317	1.06
95-50-1	1,2-Dichlorobenzene	U	1.06	ug/kg	0.317	1.06

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	16.4	ug/kg	0	J
	unknown hydrocarbon	14.79	56.7	ug/kg	0	J
	unknown hydrocarbon	15.8	47.2	ug/kg	0	J
	unknown siloxane	15.97	6.04	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B350.D  
Acq On : 11 Mar 2010 2:52 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506019|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Mar 19 21:56:49 2010  
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
-----								
Internal Standards								Dev (Min)
1) Fluorobenzene	10.619	10.613	1.000	96	968987	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	647067	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	312623	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.613	1.000	96	968970	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	647067	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	312600	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.966	65	234062	44.74	ug/L	0.00
Spiked Amount	50.000	Range 66 - 134	Recovery	=	89.48%			
43) Toluene-d8	12.253	12.247	0.890	98	756900	51.38	ug/L	0.00
Spiked Amount	50.000	Range 71 - 128	Recovery	=	102.76%			
61) Bromofluorobenzene	14.953	14.947	0.924	95	371107	61.21	ug/L	0.00
Spiked Amount	50.000	Range 65 - 130	Recovery	=	122.42%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	0.000	5.299	0.000		0	N.D.		
4) Vinyl chloride	5.535	5.521	0.521	62	113	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	6.991	6.991	0.658	59	691	N.D.		
9) Acetone	7.363	7.351	0.693	43	14625	2.47	ug/L	88
10) 1,1-Dichloroethylene	0.000	7.394	0.000		0	N.D.		
11) Iodomethane	0.000	7.662	0.000		0	N.D.		
12) Acetonitrile	7.936	7.693	0.747	41	187	N.D.		
13) Methyl acetate	7.766	7.747	0.731	43	342	N.D.		
14) Carbon disulfide	0.000	7.778	0.000		0	N.D.		
15) Methylene chloride	7.942	7.967	0.748	84	7976	Below Cal		80
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.674	8.705	0.817	43	120	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.332	9.320	0.879	43	1415	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	9.278	9.412	0.874	77	110	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.686	9.686	0.912	83	391	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.973	0.000		0	N.D.		
26) Cyclohexane	10.094	10.076	0.951	56	100	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.277	10.338	0.968	62	132	N.D.		
31) Benzene	10.375	10.369	0.977	78	846	N.D.		
32) Cyclohexene	10.625	10.491	1.001	67	546	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	11.003	11.003	1.036	95	1567	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.259	0.000		0	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B350.D  
Acq On : 11 Mar 2010 2:52 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506019|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOJL  
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Mar 19 21:56:49 2010  
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.015	0.000		0	N.D.	
44) Toluene	12.326	12.320	0.895	91	45328	1.03 ug/L	97
45) trans-1,3-Dichloroprop...	12.460	12.460	0.905	75	182	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.	
47) 2-Hexanone	12.868	12.856	0.934	43	462	N.D.	
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.	
49) Tetrachloroethylene	12.917	12.917	0.938	164	168	N.D.	
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.801	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.	
54) Ethylbenzene	13.868	13.862	1.007	91	3814	N.D.	
55) m,p-Xylenes	13.972	13.966	1.015	106	2526	N.D.	
56) o-Xylene	14.405	14.399	1.046	106	1595	N.D.	
57) Styrene	14.405	14.399	1.046	104	832	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.758	0.000		0m	N.D. d	
62) 1,1,2,2-Tetrachloroethane	0.000	15.014	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	0.000	15.167	0.000		0	N.D.	
65) n-Propylbenzene	15.185	15.179	0.939	91	2505	N.D.	
66) 1,3,5-Trimethylbenzene	15.337	15.325	0.948	105	1703	N.D.	
67) 2-Chlorotoluene	0.000	15.331	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	15.429	0.000		0m	N.D. d	
69) tert-Butylbenzene	15.740	15.703	0.973	134	151	N.D.	
70) 1,2,4-Trimethylbenzene	15.740	15.740	0.973	105	3753	N.D.	
71) sec-Butylbenzene	15.929	15.929	0.985	105	390	N.D.	
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	36921	1.77 ug/L #	1
73) 1,3-Dichlorobenzene	0.000	16.118	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	16.209	16.203	1.002	146	240	N.D.	
75) n-Butylbenzene	16.490	16.502	1.019	91	160	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.642	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.629	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.	
80) Naphthalene	19.038	19.026	1.177	128	917	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.385	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.174	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.	
87) Isopropyl Alcohol	7.436	7.430	0.700	45	785	N.D.	
88) Allyl chloride	7.936	7.796	0.747	41	187	N.D.	
89) tert-Butyl Alcohol	7.924	7.924	0.746	59	304	N.D.	
90) Acrylonitrile	0.000	8.168	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.735	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	8.839	8.863	0.832	53	130	N.D.	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.332	9.339	0.879	43	1415	N.D.	
95) Propionitrile	0.000	9.387	0.000		0	N.D.	
96) Methacrylonitrile	9.662	9.570	0.910	41	108	N.D.	
97) Tetrahydrofuran	9.716	9.710	0.915	42	876	N.D.	
98) Isobutyl alcohol	10.082	10.003	0.949	41	124	N.D.	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B350.D  
Acq On : 11 Mar 2010 2:52 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506019|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Mar 19 21:56:49 2010  
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

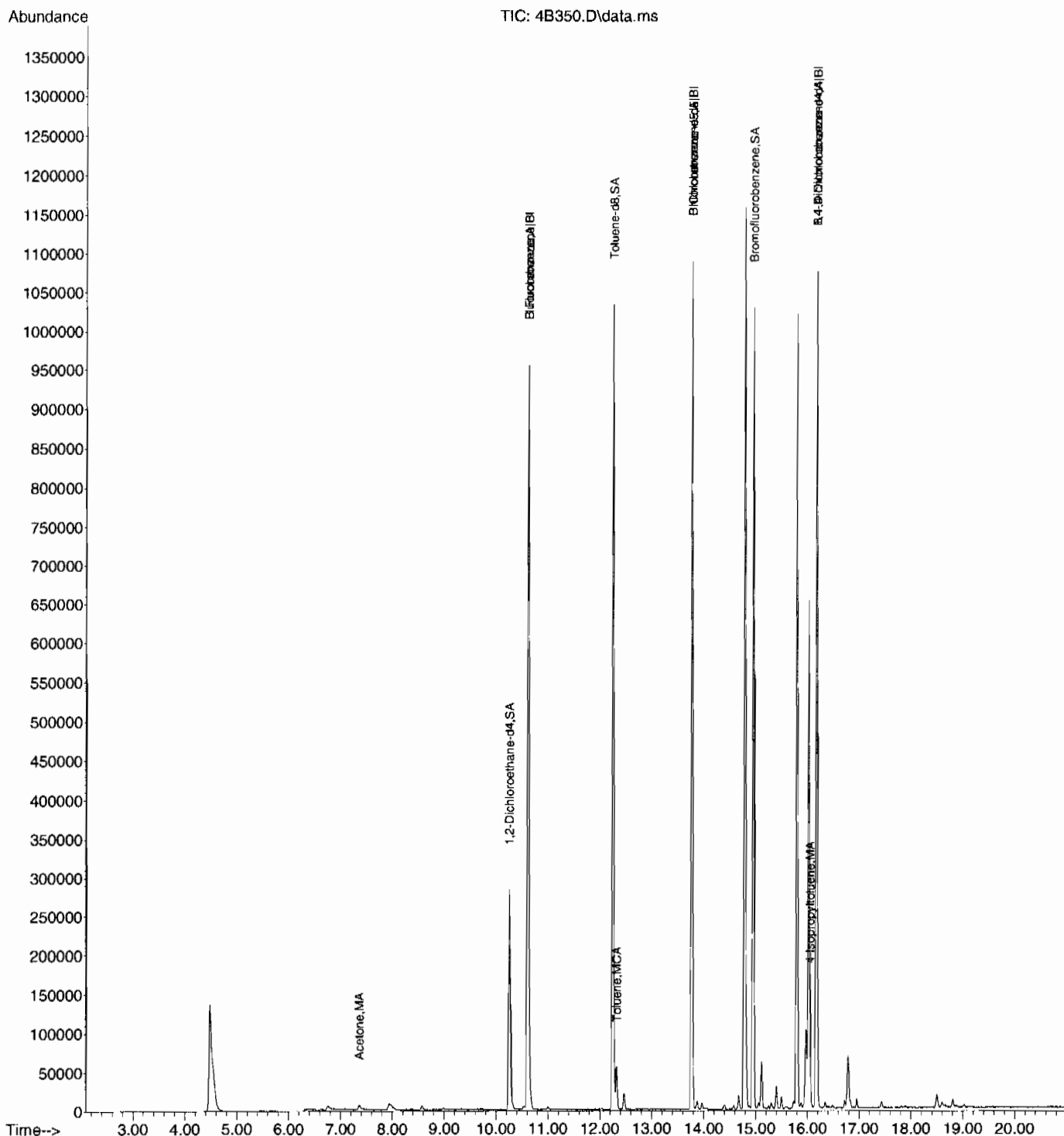
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.381	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0m	N.D.	d
104) Ethyl methacrylate	0.000	12.460	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0m	N.D.	d
108) Cyclohexanone	0.000	14.905	0.000		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	676	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.301	16.319	1.008	91	111	N.D.	
112) bis(2-Chloroisopropyl)...	16.794	16.715	1.038	45	3275	N.D.	

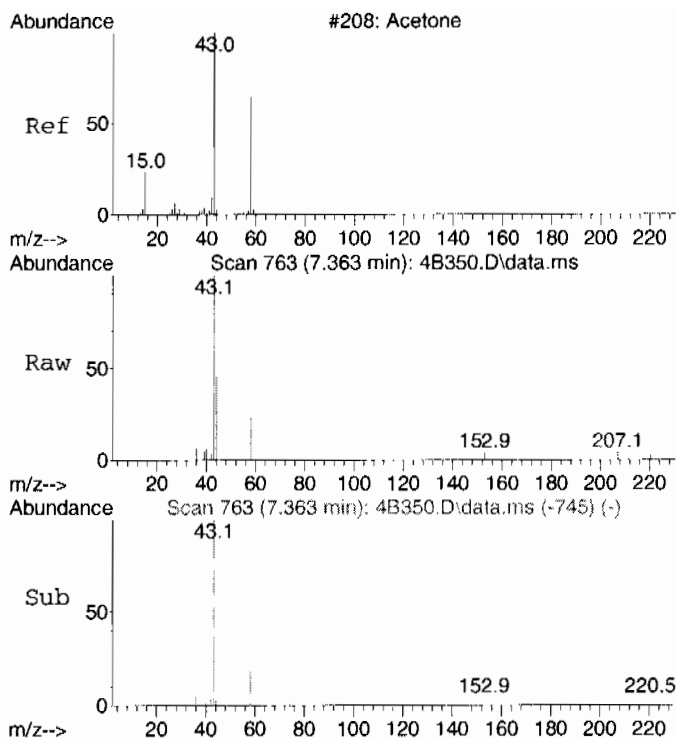
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B350.D  
Acq On : 11 Mar 2010 2:52 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |248506019|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Mar 19 21:56:49 2010  
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

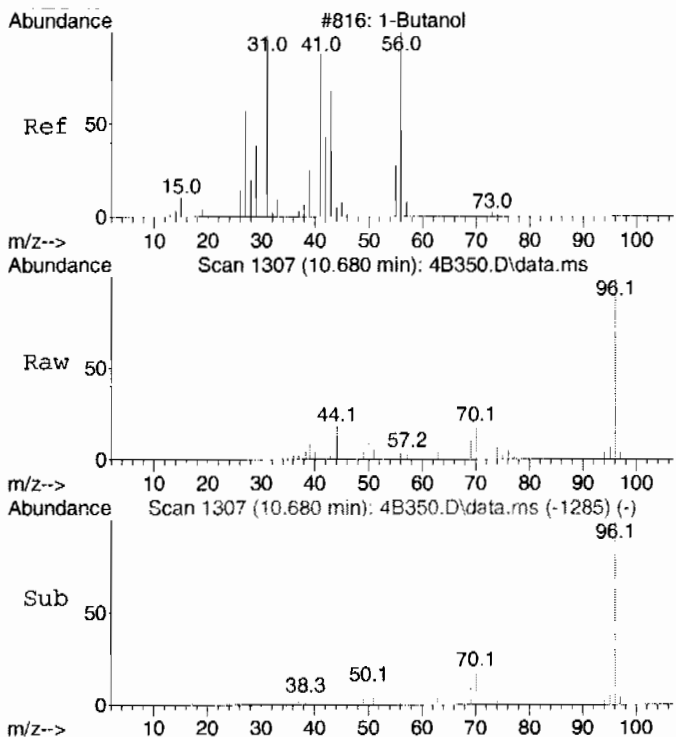
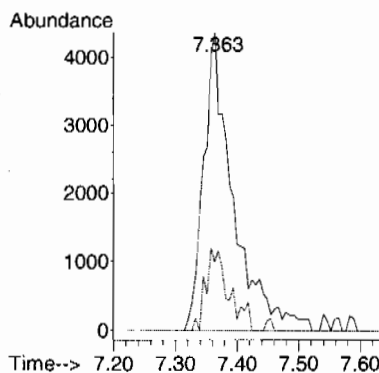




#9  
Acetone  
Concen: 2.47 ug/L  
RT: 7.363 min Scan# 763  
Delta R.T. 0.012 min  
Lab File: 4B350.D  
Acq: 11 Mar 2010 2:52 pm

Tgt Ion: 43 Resp: 14625

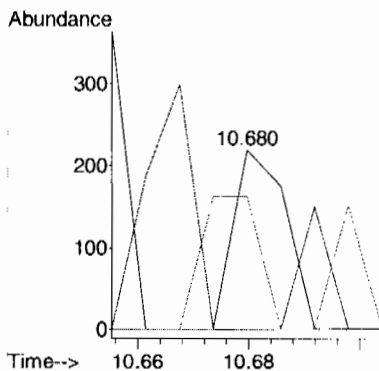
Ion	Ratio	Lower	Upper
43	100		
58	21.4	0.0	57.5

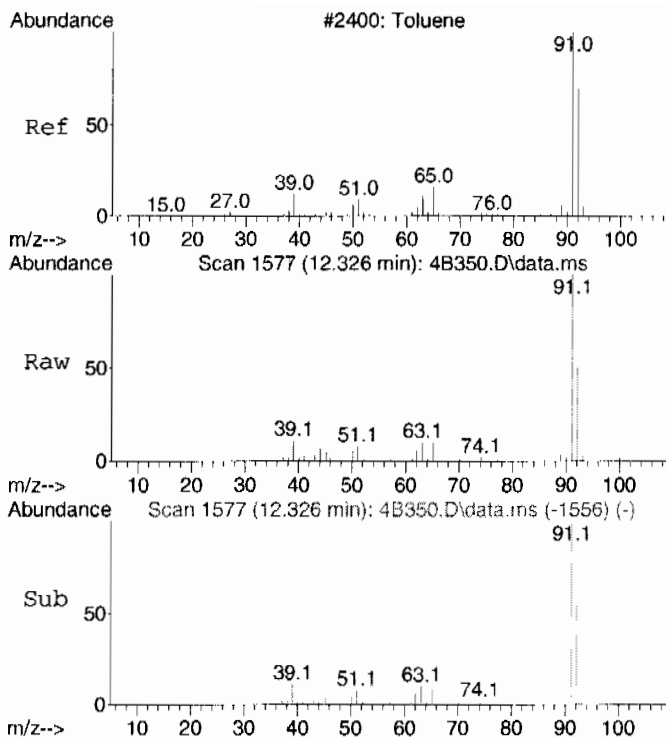


#33 BEFORE analyst DELETION  
n-Butyl alcohol  
Concen: 181.26 ug/L  
RT: 10.680 min Scan# 1307  
Delta R.T. -0.006 min  
Lab File: 4B350.D  
Acq: 11 Mar 2010 2:52 pm

Tgt Ion: 56 Resp: 144

Ion	Ratio	Lower	Upper
56	100		
41	123.6	49.2	109.2#
43	82.6	30.5	90.5

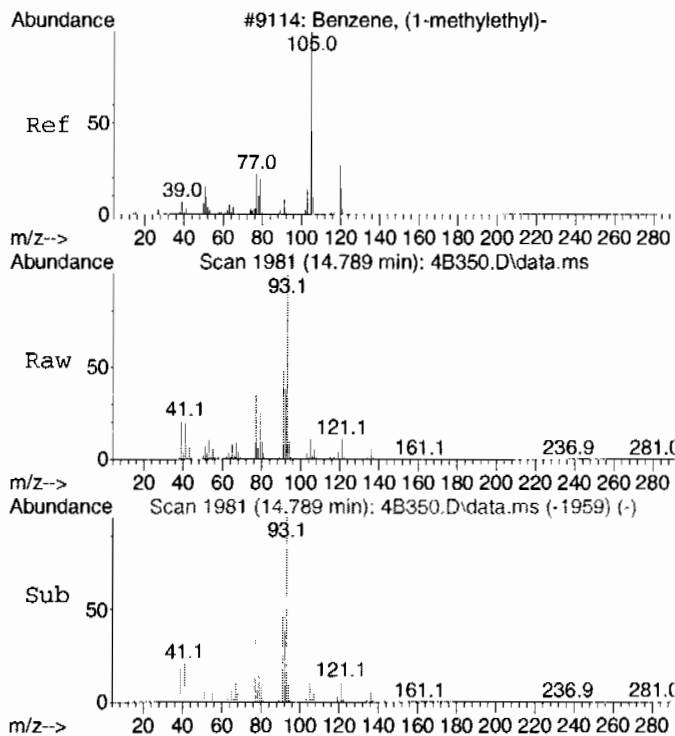
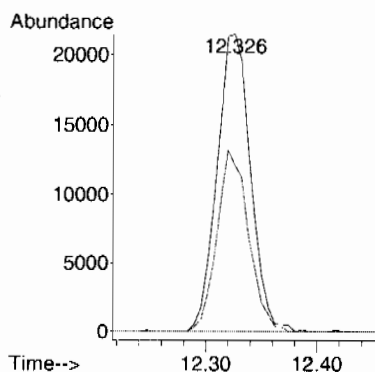




#44  
Toluene  
Concen: 1.03 ug/L  
RT: 12.326 min Scan# 1577  
Delta R.T. 0.006 min  
Lab File: 4B350.D  
Acq: 11 Mar 2010 2:52 pm

Tgt Ion: 91 Resp: 45328

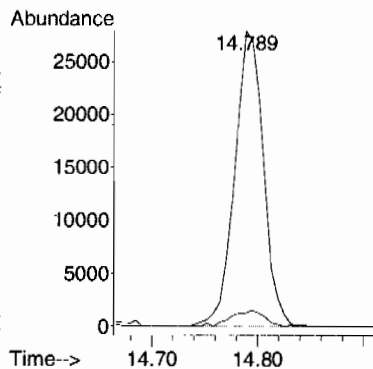
Ion	Ratio	Lower	Upper
91	100		
92	57.7	29.8	89.8

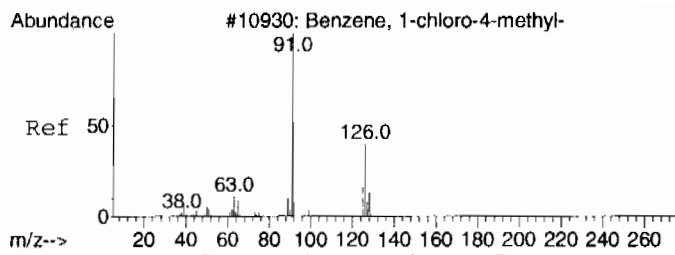


#60 BEFORE analyst DELETION  
Isopropylbenzene  
Concen: 2.49 ug/L  
RT: 14.789 min Scan# 1981  
Delta R.T. 0.030 min  
Lab File: 4B350.D  
Acq: 11 Mar 2010 2:52 pm

Tgt Ion: 105 Resp: 52737

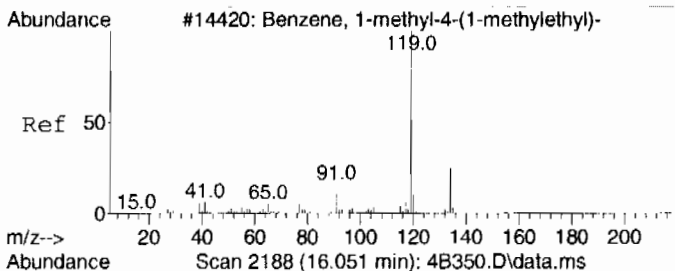
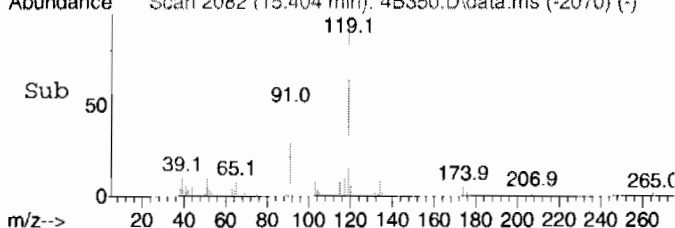
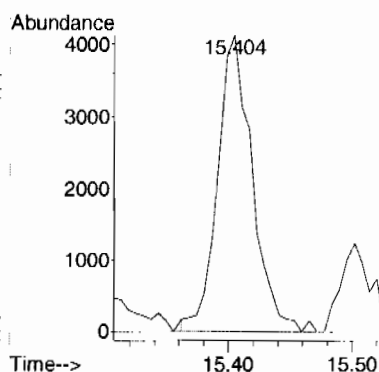
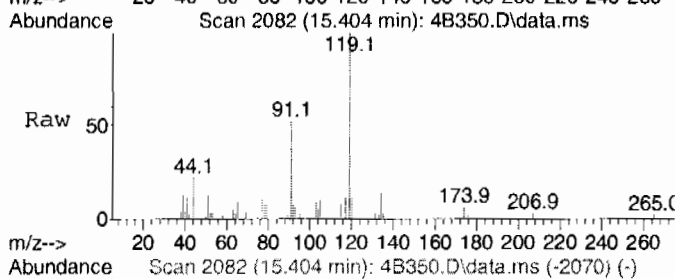
Ion	Ratio	Lower	Upper
105	100		
120	6.5	0.0	57.3





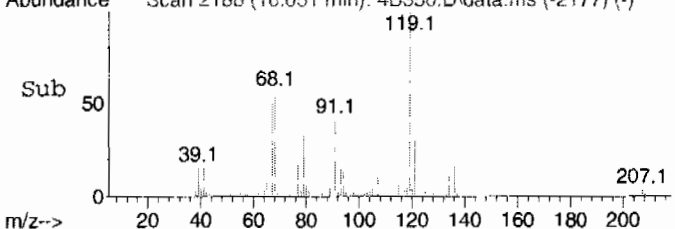
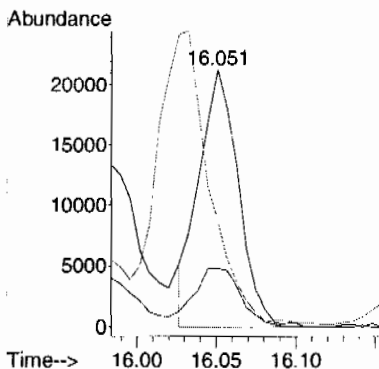
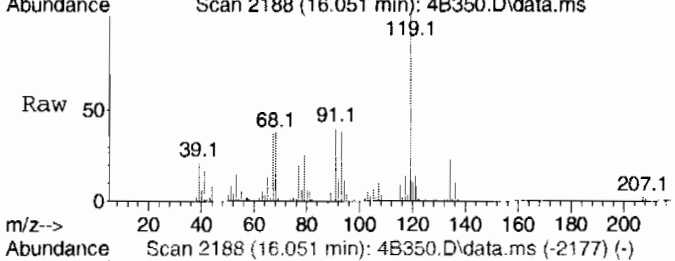
#68 BEFORE analyst DELETION  
4-Chlorotoluene  
Concen: 0.50 ug/L  
RT: 15.404 min Scan# 2082  
Delta R.T. -0.024 min  
Lab File: 4B350.D  
Acq: 11 Mar 2010 2:52 pm

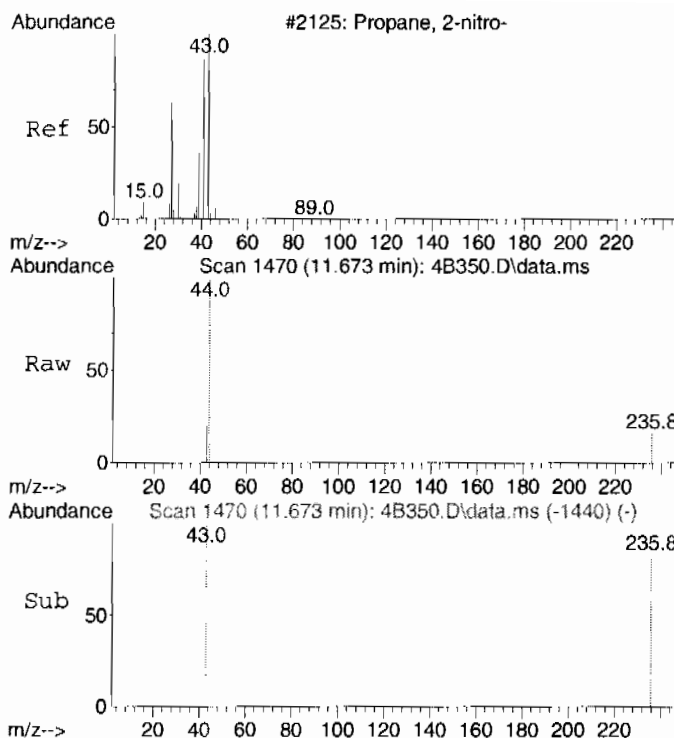
Tgt Ion: 91 Resp: 8114  
Ion Ratio Lower Upper  
91 100  
126 0.0 4.6 64.6#



#72  
4-Isopropyltoluene  
Concen: 1.77 ug/L  
RT: 16.051 min Scan# 2188  
Delta R.T. -0.000 min  
Lab File: 4B350.D  
Acq: 11 Mar 2010 2:52 pm

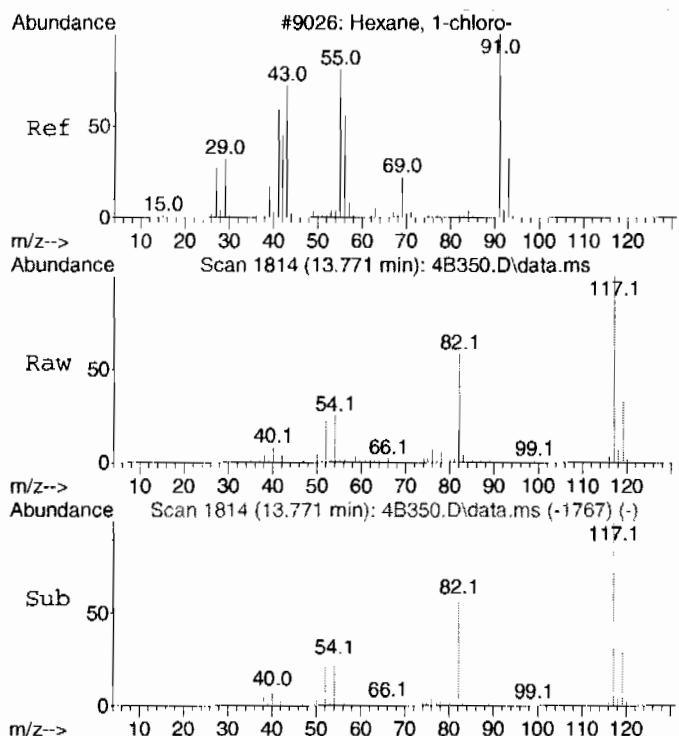
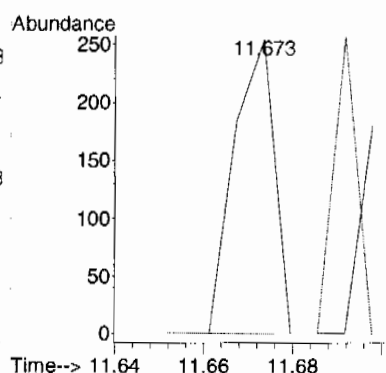
Tgt Ion: 119 Resp: 36921  
Ion Ratio Lower Upper  
119 100  
134 26.8 0.0 57.0  
91 148.8 0.0 55.4#





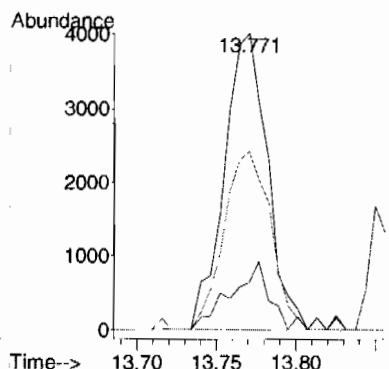
#102 BEFORE analyst DELETION  
2-Nitropropane  
Concen: 6.29 ug/L  
RT: 11.673 min Scan# 1470  
Delta R.T. 0.006 min  
Lab File: 4B350.D  
Acq: 11 Mar 2010 2:52 pm

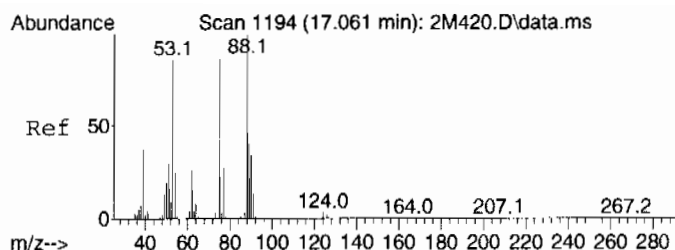
Tgt Ion	Ratio	Lower	Upper
43	100		
41	0.0	57.4	117.4#



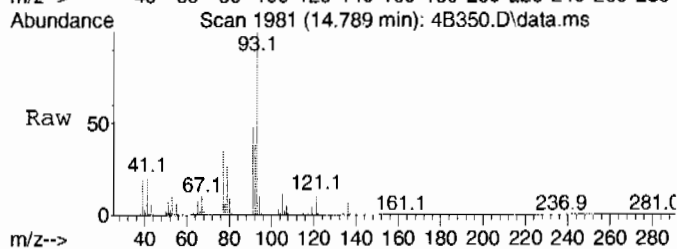
#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 1.98 ug/L  
RT: 13.771 min Scan# 1814  
Delta R.T. 0.110 min  
Lab File: 4B350.D  
Acq: 11 Mar 2010 2:52 pm

Tgt Ion	Ratio	Lower	Upper
55	100		
91	20.7	108.1	168.1#
56	65.0	27.8	87.8

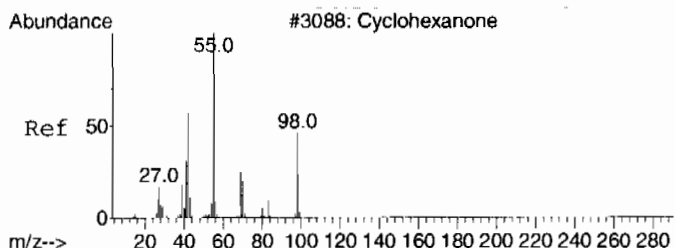
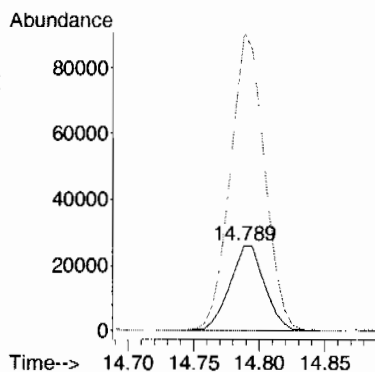
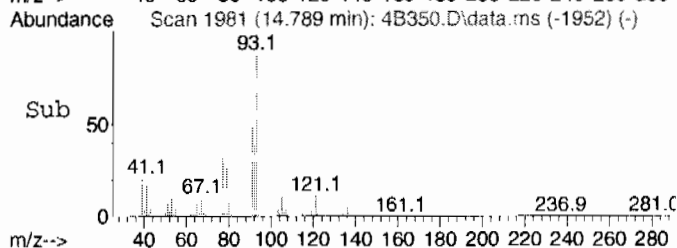




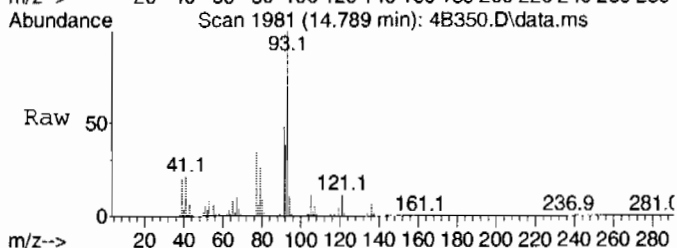
#107 BEFORE analyst DELETION  
 cis-1,4-Dichloro-2-butene  
 Concen: 29.42 ug/L  
 RT: 14.789 min Scan# 1981  
 Delta R.T. 0.006 min  
 Lab File: 4B350.D  
 Acq: 11 Mar 2010 2:52 pm



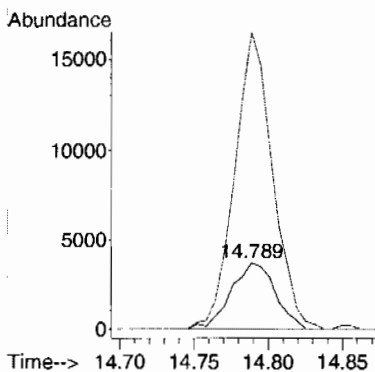
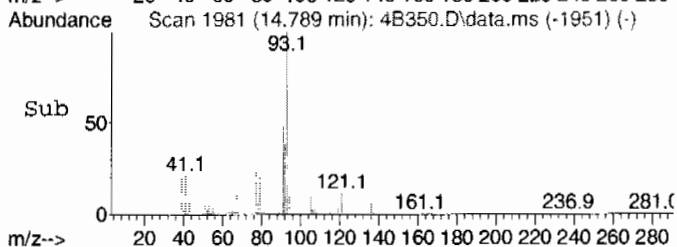
Tgt Ion: 53 Resp: 48113  
 Ion Ratio Lower Upper  
 53 100  
 88 0.3 83.6 143.6#  
 77 340.2 3.2 63.2#



#108 BEFORE analyst DELETION  
 Cyclohexanone  
 Concen: 40.84 ug/L  
 RT: 14.789 min Scan# 1981  
 Delta R.T. -0.116 min  
 Lab File: 4B350.D  
 Acq: 11 Mar 2010 2:52 pm



Tgt Ion: 42 Resp: 7574  
 Ion Ratio Lower Upper  
 42 100  
 55 386.8 99.9 159.9#  
 98 0.0 28.4 88.4#



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B350.D  
Acq On : 11 Mar 2010 2:52 pm  
Operator : ACJ  
Sample : |248506019|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 50 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

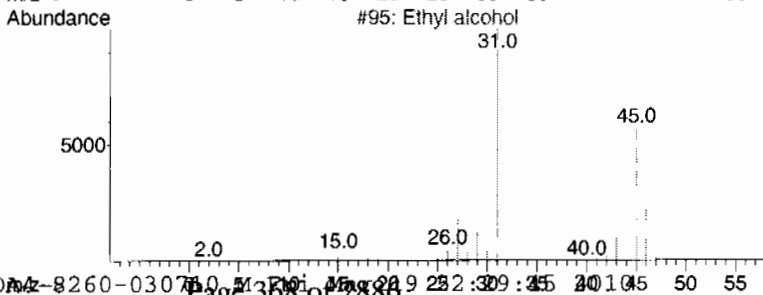
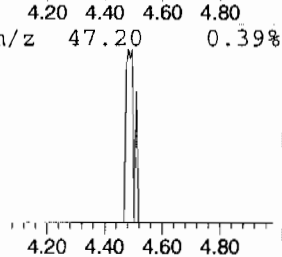
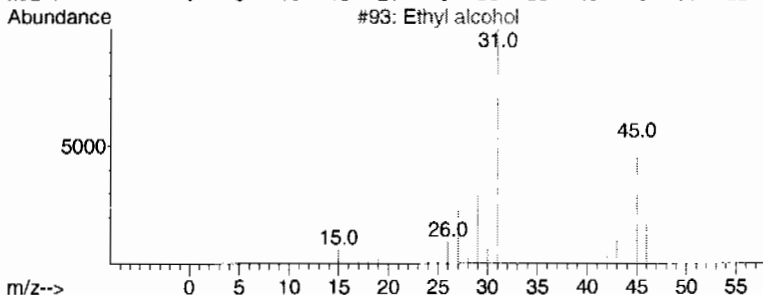
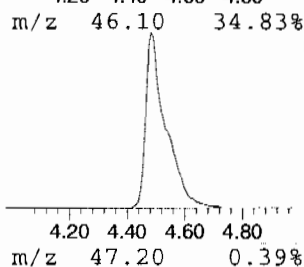
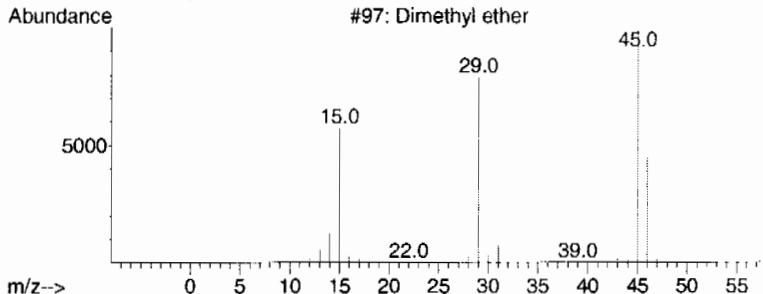
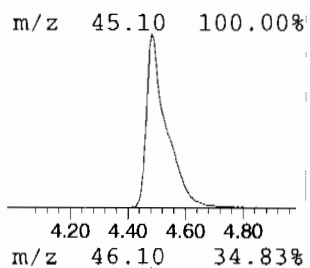
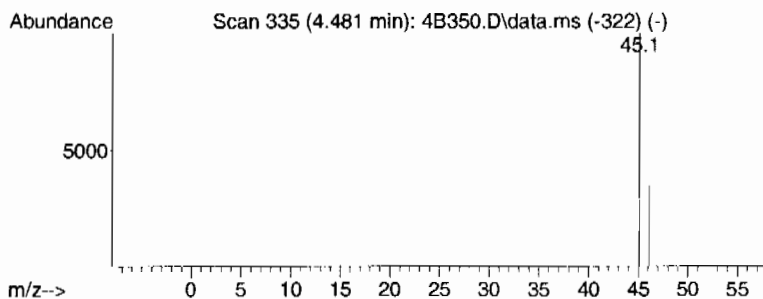
TIC Library : C:\Database\NIST05.L  
TIC Integration Parameters: default.P

\*\*\*\*\*  
Peak Number 1 unknown hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	15.56 ug/L	661969	Fluorobenzene	10.619

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B350.D  
Acq On : 11 Mar 2010 2:52 pm  
Operator : ACJ  
Sample : |248506019|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 50 Sample Multiplier: 1

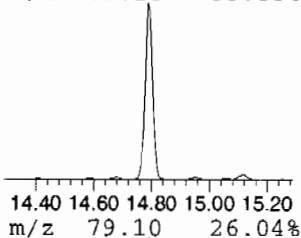
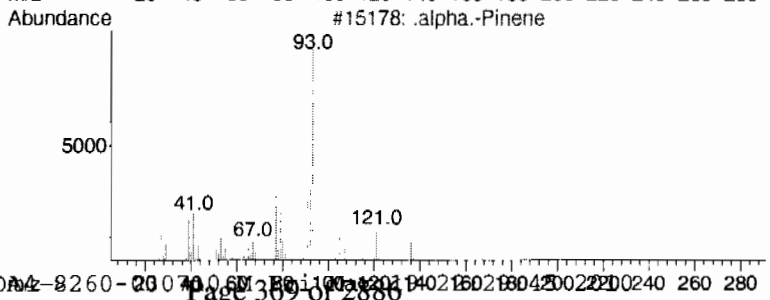
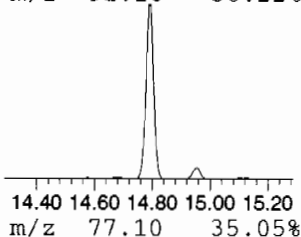
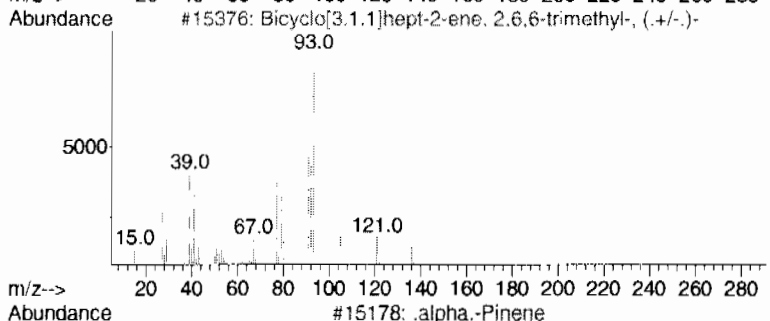
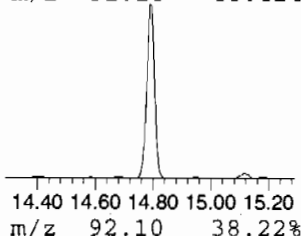
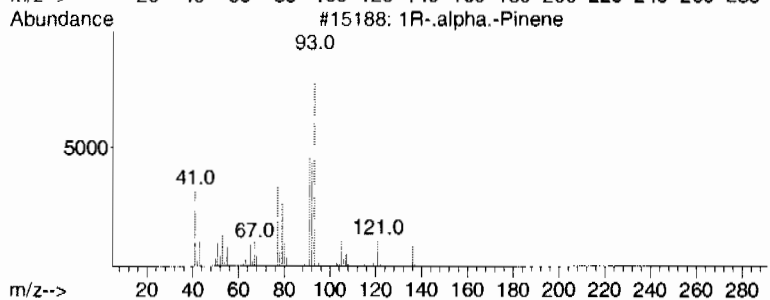
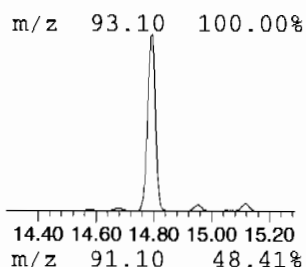
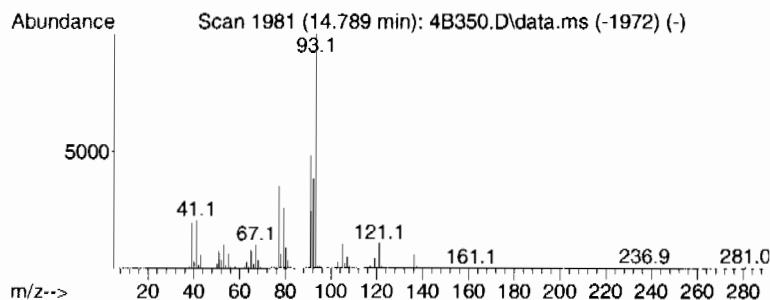
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 2 unknown hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.789	53.70 ug/L	2249580	B Chlorobenzene-d5	13.771

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			1R-.alpha.-Pinene	136	C10H16	007785-70-8	97
2			Bicyclo[3.1.1]hept-2-ene, 2,6,6-...	136	C10H16	002437-95-8	95
3			.alpha.-Pinene	136	C10H16	000080-56-8	94
4			1R-.alpha.-Pinene	136	C10H16	007785-70-8	94
5			Bicyclo[3.1.1]heptane, 6,6-dimet...	136	C10H16	018172-67-3	93



## Page: 3

## Page: 4

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B350.D  
Acq On : 11 Mar 2010 2:52 pm  
Operator : ACJ  
Sample : |248506019|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G N/A SOIL  
ALS Vial : 50 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.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...	4.481	15.6	ug/L	661969	1	10.619	2127300	50.0
unknown hydroca...	14.789	53.7	ug/L	2249580	4	13.771	2094580	50.0
unknown hydroca...	15.795	44.6	ug/L	1802490	5	16.179	2018720	50.0
unknown siloxane	15.971	5.7	ug/L	230913	5	16.179	2018720	50.0

# Standards

## 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
Styrene		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-chloropropene		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

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

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

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



## Calibration History Report VOA4

GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M

Last Update : Mon Mar 08 15:37:50 2010

Integrator : (RTE Integrator)

Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\030710V4\4A703.D

Injection Date	Mix	Calibration File
7 Mar 2010 7:57 pm	A	C:\msdchem\1\DATA\030710V4\4A703.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\030710V4\4A713.D

Injection Date	Mix	Calibration File
7 Mar 2010 8:24 pm	A	C:\msdchem\1\DATA\030710V4\4A704.D
8 Mar 2010 12:32 am	B	C:\msdchem\1\DATA\030710V4\4A713.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\030710V4\4A714.D

Injection Date	Mix	Calibration File
7 Mar 2010 9:20 pm	A	C:\msdchem\1\DATA\030710V4\4A706.D
8 Mar 2010 12:59 am	B	C:\msdchem\1\DATA\030710V4\4A714.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\030710V4\4A715.D

Injection Date	Mix	Calibration File
7 Mar 2010 9:47 pm	A	C:\msdchem\1\DATA\030710V4\4A707.D
8 Mar 2010 1:26 am	B	C:\msdchem\1\DATA\030710V4\4A715.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\030710V4\4A716.D

Injection Date	Mix	Calibration File
7 Mar 2010 10:14 pm	A	C:\msdchem\1\DATA\030710V4\4A708.D
8 Mar 2010 1:53 am	B	C:\msdchem\1\DATA\030710V4\4A716.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\030710V4\4A709.D

Injection Date	Mix	Calibration File
7 Mar 2010 10:41 pm	A	C:\msdchem\1\DATA\030710V4\4A709.D
8 Mar 2010 2:20 am	B	C:\msdchem\1\DATA\030710V4\4A717.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\030710V4\4A718.D

Injection Date	Mix	Calibration File
7 Mar 2010 11:09 pm	A	C:\msdchem\1\DATA\030710V4\4A710.D
8 Mar 2010 2:48 am	B	C:\msdchem\1\DATA\030710V4\4A718.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\030710V4\4A719.D

Injection Date	Mix	Calibration File
7 Mar 2010 11:36 pm	A	C:\msdchem\1\DATA\030710V4\4A711.D
8 Mar 2010 3:16 am	B	C:\msdchem\1\DATA\030710V4\4A719.D

VOA4-8260-030710.M Thu Mar 11 21:18:47 2010

VOA4-8260-030710.M Thu Mar 11 21:18:29 2010

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 <sup>2</sup>
2)MA	Dichlorodifluoromethane	0.2781171	0.3847111 0.2836120	0.3173665	0.4009280	0.3168993	0.3046980	0.3266	AVRG		14.6615
3)MPA	Chloromethane	0.5169886	0.7174981 0.4868842	0.5902273	0.6297628	0.5700034	0.5723330	0.5834	AVRG		12.9426
4)MCA	Vinyl chloride	0.5016885	0.6386742 0.4877397	0.5446101	0.5928368	0.5463737	0.5482180	0.5514	AVRG		9.3466
5)MA	Bromomethane	0.3108270	0.3798938 0.3062157	0.3446964	0.3606783	0.3312143	0.3337987	0.3382	AVRG		7.7543
6)MA	Chloroethane	0.2563908	0.2952502 0.2476539	0.2529569	0.2802255	0.2705414	0.2757087	0.2684	AVRG		6.3302
7)MA	Trichlorofluoromethane	0.4972104	0.4920190 0.4755355	0.4500754	0.5599192	0.5245043	0.5217503	0.5030	AVRG		7.1511
8)MA	Ethyl ether	0.2446414	0.2784379 0.2466757	0.2300558	0.2569265	0.2480025	0.2524600	0.2510	AVRG		5.8566
9)MA	Acetone	0.2690210	0.3731688 0.2942279	0.3178043	0.3129916	0.2935766	0.2805258	0.3059	AVRG		11.1731
10)MCA	1,1-Dichloroethylene	0.5325221	0.6831621 0.5669228	0.5227698	0.5878646	0.6143364	0.5686178	0.5823	AVRG		9.3209
11)MA	Iodomethane	0.5138970	0.5793073 0.5952628	0.5171523	0.5274416	0.5596984	0.5310291	0.5463	AVRG		5.8632
12)MA	Acetonitrile	0.0447346	0.0591755 0.0472539	0.0509342	0.0498766	0.0489982	0.0479929	0.0499	AVRG		9.1639
13)MA	Methyl acetate	0.2372110	0.3139830 0.2528477	0.2712274	0.2600721	0.2502574	0.2584180	0.2634	AVRG		9.3316
14)MA	Carbon disulfide	0.9952956	1.2567985 1.0941721	1.0908907	1.1600388	1.1811299	1.0081920	1.1124	AVRG		8.4661
15)MA	Methylene chloride 0.0129   0.3806   0.00	593698	1345154	50981	71081	143455	258098		LINR		0.9987
16)MA	tert-Butyl methyl ether	0.7998450	0.9441411 0.8745498	1.0254338	0.8304927	0.8794366	0.8648654	0.8884	AVRG		8.4618

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
17)MA	trans-1,2-Dichloroethylene	0.4103411	0.5055012 0.4418471	0.4684469	0.4473065	0.4639979	0.4467301	0.4549	AVRG		6.4137
18)MA	Vinyl acetate	0.5795520	0.6275069 0.5440209	0.5142661	0.6196775	0.6249895	0.5794282	0.5842	AVRG		7.4440
19)MA	1,1-Dichloroethane	0.5207180	0.5942832 0.5521234	0.5751394	0.5594937	0.5732302	0.5695642	0.5635	AVRG		4.0921
20)MA	2-Butanone	0.2953734	0.3626935 0.3353735	0.3096475	0.3195724	0.3029926	0.2983251	0.3177	AVRG		7.5968
21)MA	cis-1,2-Dichloroethylene	0.4486693	0.5410334 0.4735443	0.4876940	0.4908067	0.5063158	0.4885038	0.4909	AVRG		5.7922
22)MA	2,2-Dichloropropane	0.2549203	0.3309117 0.2643745	0.2883864	0.2856896	0.2879068	0.2820780	0.2849	AVRG		8.4375
23)MA	Bromochloromethane	0.1562085	0.1737489 0.1695852	0.1561153	0.1604204	0.1676648	0.1631981	0.1638	AVRG		4.1382
24)MA	Chloroform	0.5379497	0.6433622 0.5654810	0.5846198	0.5765907	0.5826429	0.5808521	0.5816	AVRG		5.4439
25)MA	1,1,1-Trichloroethane	0.4006757	0.4451385 0.4228686	0.4251367	0.4396288	0.4364882	0.4312489	0.4287	AVRG		3.4185
26)MA	Cyclohexane	0.4252655	0.5984539 0.4523892	0.5053077	0.4989431	0.4822191	0.4471476	0.4871	AVRG		11.7096
27)MA	1,1-Dichloropropene	0.3826385	0.4720382 0.4160467	0.4150501	0.4153461	0.4161441	0.4109867	0.4183	AVRG		6.3563
28)MA	Carbon tetrachloride	0.3760889	0.3998746 0.4117864	0.3979753	0.3964144	0.4029689	0.3971773	0.3975	AVRG		2.7167
29)SA	1,2-Dichloroethane-d4	0.2628378	0.2729946 0.2609598	0.2696950	0.2753822	0.2782786	0.2696187	0.2700	AVRG		2.3414
30)MA	1,2-Dichloroethane	0.4348277	0.5299437 0.4613404	0.4795439	0.4637786	0.4857889	0.4662702	0.4745	AVRG		6.1783
31)MA	Benzene	1.1196144	1.3635761 1.1953915	1.2584869	1.2370111	1.2636422	1.2275306	1.2379	AVRG		5.9717

For Linear Calibration:  $y = \text{concentration ratio}, x = \text{response ratio}, y = b + m1(x) + m2(xE2)$

b	Compound ml   m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA	Cyclohexene	0.5550972	0.6247717 0.6064626	0.5874825	0.5944920	0.6052830	0.5997258	0.5962	AVRG		3.6137
33)MA	n-Butyl alcohol -0.0442   0.0122   0.00	15243 1817490	31642 4210137	50152	152593	313637	648858		LINR	#	0.9945
34)MA	Trichloroethylene		0.3498256 0.3288030	0.3230581	0.3186538	0.3204397	0.3276930		AVRG		4.2615
35)MA	1,2-Dichloropropane	0.3038723	0.3274523 0.3284172	0.3247589	0.3214457	0.3288171	0.3273066	0.3246	AVRG		1.9589
36)MA	Methylcyclohexane		0.5244474 0.4988980	0.4945812	0.5136736	0.4998067	0.4859004	0.4962	AVRG		4.4057
37)MA	Dibromomethane	0.1921356	0.2194008 0.2114116	0.2008568	0.1930323	0.1958049	0.2044823	0.2024	AVRG		4.9950
38)MA	Bromodichloromethane	0.4154906	0.3905631 0.4461295	0.3581340	0.3937954	0.4166177	0.4190965	0.4057	AVRG		6.8713
39)MA	2-Chloroethylvinyl ether	0.1530252	0.1357207 0.1699701	0.1308297	0.1765485	0.1485729	0.1516427	0.1523	AVRG		10.8893
40)MA	cis-1,3-Dichloropropylene	0.4801397	0.4740751 0.5240658	0.4276458	0.4523119	0.4764872	0.4983328	0.4762	AVRG		6.4898
42)MA	4-Methyl-2-pentanone	0.1745778	0.1845889 0.1923990	0.1645122	0.1801401	0.1726628	0.1763825	0.1779	AVRG		5.0278
43)SA	Toluene-d8	1.1175534	1.1701998 1.0554783	1.1701288	1.1632434	1.1582600	1.13332419	1.1383	AVRG		3.6516
44)MA	Toluene 0.0388   1.5118   0.00	1944367	54765 4385624	86496	203113	414206	808277		LINR		0.9995
45)MA	trans-1,3-Dichloropropyl	0.5823623	0.6215373 0.6079108	0.5378195	0.5598573	0.5903803	0.5963173	0.5852	AVRG		4.8745
46)MA	1,1,2-Trichloroethane	0.2974039	0.3390283 0.3022775	0.3008131	0.3107452	0.3174639	0.3122011	0.3114	AVRG		4.5267
47)MA	2-Hexanone	0.5105521	0.5542854 0.5246310	0.4852104	0.5227900	0.5166987	0.5188626	0.5190	AVRG		3.9405

# Response Factor Report VOA4

GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M

Last Update : Mon Mar 08 17:08:49 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^2
38)MA	1,3-Dichloropropane	0.6070960	0.6654871 0.6390218	0.6369703	0.6420110	0.6487584	0.6359485	0.6393	AVRG		2.7364
49)MA	Tetrachloroethylene	0.3025804	0.3591134 0.3298787	0.3430385	0.3552496	0.3269767	0.3320369	0.3356	AVRG		5.7122
50)MA	Dibromochloromethane	0.4221683	0.3795061 0.4605393	0.3454847	0.3710752	0.4080888	0.4218100	0.4012	AVRG		9.6071
51)MA	1,2-Dibromoethane	0.3717620	0.4026236 0.3948117	0.3462392	0.3578560	0.3829128	0.3865654	0.3775	AVRG		5.3397
52)MPA	Chlorobenzene	1.0635166	1.3151522 1.1202207	1.1275120	1.1544095	1.1712305	1.1404912	1.1561	AVRG		6.7419
53)MA	1,1,1,2-Tetrachloroethan	0.4302094	0.4188411 0.4768172	0.3814461	0.4024139	0.4250356	0.4394185	0.4249	AVRG		7.0378
54)MCA	Ethylbenzene	1.8596546	2.2230221 1.9228476	2.0151143	2.0362140	2.0536048	2.0492525	2.0228	AVRG		5.6576
55)MA	m,p-Xylenes	0.7546313	0.8326279 0.8188063	0.7620920	0.7748637	0.7909865	0.8006870	0.7907	AVRG		3.6575
56)MA	o-Xylene	0.8019055	0.8182124 0.9063242	0.7709165	0.7957502	0.8037171	0.8256684	0.8175	AVRG		5.2455
57)MA	Styrene	1.3519245	1.2162213 1.4994308	1.1495049	1.2283693	1.3164776	1.3736727	1.3051	AVRG		9.0004
59)MPA	Bromoform	0.4847114	0.3894464 0.5431002	0.3849307	0.3856385	0.3993084	0.4373476	0.4321	AVRG		14.1398
60)MA	Isopropylbenzene	3.1576656	3.6796482 3.1883776	3.5287924	3.4070584	3.4028001	3.3579154	3.3889	AVRG		5.3775
61)SA	Bromofluorobenzene	0.9696546	0.9792003 0.9544998	1.0213783	0.9602071	0.9636617	0.9386677	0.9696	AVRG		2.6899
62)MPA	1,1,2,2-Tetrachloroethan	0.9190226	1.0584058 0.9069823	0.9664858	0.9128922	0.9282457	0.9150681	0.9439	AVRG		5.7448
63)MA	1,2,3-Trichloropropane	0.2376888	0.2587891 0.2446558	0.2616034	0.2458426	0.2367747	0.2444322	0.2471	AVRG		3.8985

# Response Factor Report VOA4

GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M

Last Update : Mon Mar 08 17:08:49 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>
64)MA	Bromobenzene	0.8902987	1.0127983 0.9882940	0.9316456	0.8864343	0.8788781	0.8946019	0.9261	AVRG		5.8301
65)MA	n-Propylbenzene	3.8894181	4.6944521 3.8412630	4.4973277	4.2656595	4.2340849	4.2164293	4.2341	AVRG		7.1873
66)MA	1,3,5-Trimethylbenzene	2.9875201	3.2233504 3.0952337	3.1723930	3.0369767	3.0943374	3.1024601	3.1018	AVRG		2.5358
67)MA	2-Chlorotoluene	0.8838398	0.9385190 1.0083540	0.9067711	0.8532866	0.9042933	0.9057034	0.9144	AVRG		5.3416
68)MA	4-Chlorotoluene	2.4003206	2.8848596 2.4798382	2.6975286	2.5646730	2.6550744	2.5413117	2.6034	AVRG		6.1261
69)MA	tert-Butylbenzene	0.6422286	0.7160525 0.6878192	0.6448463	0.6376121	0.6556203	0.6632992	0.6639	AVRG		4.2976
70)MA	1,2,4-Trimethylbenzene	3.0069188	3.3803026 3.0263306	3.2040185	3.2629221	3.2348014	3.1859306	3.1859	AVRG		4.1313
71)MA	sec-Butylbenzene	3.8997074	4.6297548 3.7621381	4.3369500	4.2342166	4.2727189	4.2055077	4.1916	AVRG		6.8271
72)MA	4-Isopropyltoluene	3.1190339	3.5365120 3.1619611	3.3394816	3.3438716	3.4128971	3.3983700	3.3303	AVRG		4.3724
73)MA	1,3-Dichlorobenzene	1.7281918	2.0494403 1.7855972	1.8295359	1.7810337	1.8113698	1.8211607	1.8295	AVRG		5.6149
74)MA	1,4-Dichlorobenzene	1.7272033	2.1102008 1.8009802	1.9125980	1.8874671	1.8633311	1.8273689	1.8756	AVRG		6.4059
75)MA	n-Butylbenzene	2.9116181	3.4450742 2.9713171	3.1272252	3.2914428	3.2954375	3.2749747	3.1882	AVRG		6.0460
76)MA	1,2-Dichlorobenzene	1.6505886	1.9128407 1.6914570	1.7650392	1.7304957	1.7764062	1.7499921	1.7538	AVRG		4.7150
77)MA	1,2-Dibromo-3-chloroprop	0.1495461	0.1231551 0.1666594	0.1178220	0.1307426	0.1326626	0.1412774	0.1374	AVRG		12.1473
78)MA	1,2,4-Trichlorobenzene	0.7792801	0.9554547 0.8799772	0.7467953	0.8131055	0.8648602	0.8679244	0.8439	AVRG		8.2828

Response via : Initial Calibration

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

Page	b	Compound ml   m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
83	79)MA	Hexachlorobutadiene	0.4892986	0.6419960 0.5489906	0.5191079	0.5681081	0.5838917	0.5777124	0.5613	AVRG		8.7442
84	80)MA	Naphthalene	1.7544075	2.1685843 1.8732739	1.6321479	1.8303827	1.8858072	1.9472545	1.8703	AVRG		8.9172
85	81)MA	1,2,3-Trichlorobenzene	0.6184219	0.7195436 0.6769220	0.5922041	0.6967020	0.7202315	0.7228298	0.6781	AVRG		7.7986
86	83)B	Chlorotrifluoroethylene		0.1683476 0.1072131	0.1482966	0.1397416	0.1432537	0.1507096	0.1429	AVRG		14.0676
87	84)B	2-Chloro-1,1,1-trifluoro		0.5629955 0.5217692	0.5434168	0.5262020	0.5195977	0.5549552	0.5382	AVRG		3.4089
88	85)B	Acrolein		0.0539173 0.0574869	0.0495124	0.0509074	0.0515214	0.0545229	0.0530	AVRG		5.4719
89	86)B	Trichlorotrifluoroethane		0.1458583 0.1213442	0.1324321	0.1191455	0.1218517	0.1380722	0.1298	AVRG		8.3088
90	87)B	Isopropyl Alcohol		0.0250166 0.0283925	0.0253024	0.0243876	0.0262973	0.0262986	0.0259	AVRG		5.4334
91	88)B	Allyl chloride		0.4264231 0.4210418	0.3964279	0.4193791	0.4367967	0.4721968	0.4287	AVRG		5.8545
92	89)B	tert-Butyl Alcohol		0.0385567 0.0445530	0.0397228	0.0378918	0.0409592	0.0409698	0.0404	AVRG		5.8536
93	90)B	Acrylonitrile		0.1101592 0.1129537	0.1032081	0.1044850	0.1072665	0.1098708	0.1080	AVRG		3.4289
94	91)B	Isopropyl ether		1.0257189 1.1016160	1.0336584	1.0233618	1.0227375	1.0881826	1.0492	AVRG		3.4173
95	92)B	2-Chloro-1,3-butadiene		0.4394654 0.4381146	0.3970330	0.4010895	0.4048753	0.4497988	0.4217	AVRG		5.5009
96	93)B	Ethyl tert-butyl ether		0.9285834 1.0288499	0.9010864	0.9134736	0.9140355	0.9801407	0.9444	AVRG		5.2763
97	94)B	Ethyl acetate		0.3463033 0.3105102	0.3167351	0.3067502	0.3125539	0.3165222	0.3182	AVRG		4.4813

Response Factor Report VOA4  
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Last Update : Mon Mar 08 17:08:49 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	0.0460015 0.0486726	0.0433417	0.0464698	0.0468178	0.0466295	0.0463	AVRG	---	---	3.7233
96)B	Methacrylonitrile	0.1971969 0.1984142	0.1868467	0.1834326	0.1917006	0.1959005	0.1922	AVRG	---	---	3.1472
97)B	Tetrahydrofuran	0.1082128 0.1037325	0.1008595	0.0977016	0.0996182	0.1014744	0.1019	AVRG	---	---	3.5992
98)B	Isobutyl alcohol	0.0132494 0.0152197	0.0143189	0.0127632	0.0142503	0.0149279	0.0141	AVRG	---	---	6.7310
99)B	Methyl tert-amyl ether	0.8206619 0.9712837	0.8318321	0.8146796	0.8330675	0.9035866	0.8625	AVRG	---	---	7.2155
100)B	Methyl methacrylate	0.1745898 0.2250656	0.1747622	0.1796936	0.1928783	0.2069370	0.1923	AVRG	---	---	10.5754
101)B	1,4-Dioxane	0.0035302 0.0036044	0.0031556	0.0032354	0.0034546	0.0035279	0.0034	AVRG	#	---	5.2817
102)B	2-Nitropropane -0.0147   0.1184   0.00	14535 1899119	23402	65158	146420	323303	---	LINR	---	---	0.9996
104)B	Ethyl methacrylate	0.4261441 0.5177196	0.4466172	0.4679576	0.4909274	0.5318005	0.4802	AVRG	---	---	8.5281
106)B	1-Chlorohexane	0.6781509 0.5090774	0.6132403	0.6279815	0.5736578	0.6751180	0.6129	AVRG	---	---	10.4924
107)B	cis-1,4-Dichloro-2-buten	0.2311115 0.2924000	0.2406969	0.2553496	0.2653700	0.2845497	0.2616	AVRG	---	---	9.1990
108)B	Cyclohexanone	0.0276994 0.0336296	0.0281730	0.0269267	0.0306219	0.0309377	0.0297	AVRG	---	---	8.5069
109)B	trans-1,4-Dichloro-2-but	0.2242976 0.2709381	0.2302755	0.2467778	0.2512143	0.2747401	0.2497	AVRG	---	---	8.2296
110)B	Pentachloroethane -0.0179   0.3698   0.00	24828 2894562	43330	98874	143704	610798	---	LINR	---	---	0.9957
111)B	Benzyl chloride	1.1010175 1.2744811	1.1610713	1.2712102	1.3303209	1.5084334	1.2744	AVRG	---	---	11.1420



Response Factor Report VOA4  
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M

Last Update : Mon Mar 08 17:08:49 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	RPD/r^2
112)B	bis(2-Chloroisopropyl)et					0.3487777	0.3499675	0.3294410	0.3837311	0.3885983		0.3640	AVRG		6.7226
						0.3834011									

) = Out of Range

## Continuing Calibration Summary

Client SDG: 10-2193

Instrument ID: VOA4.I

Injection Date 08-MAR-10 04:38

Data File: 030710V4\4A722.D

Init. Cal. Date(s) 07-MAR-10 19:57 - 08-MAR-10 03:1

Lab Sample ID W4VM100307-18

Quant Type ISTD

Method: 030710V4\VOA4-8260-030710.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S1,2-Dichloroethane-d4	0.27	0.27105		.01		0.38889	30		Averaged
SToluene-d8	1.1383	1.12844		.01		-0.8662	30		Averaged
SBromofluorobenzene	0.9696	1.00214		.01		3.35602	30		Averaged
Chlorotrifluoroethylene	0.1429	0.16556		.01		15.85724	30		Averaged
2-Chloro-1,1,1-trifluoroethane	0.5382	0.53523		.01		-0.55184	30		Averaged
Acrolein	0.053	0.05443		.01		2.69811	30		Averaged
Trichlorotrifluoroethane	0.1298	0.1214		.01		-6.47149	30		Averaged
Isopropyl Alcohol	0.0259	0.02575		.01		-0.57915	40		Averaged
Allyl chloride	0.4287	0.45662		.01		6.51271	30		Averaged
tert-Butyl Alcohol	0.0404	0.04012		.01		-0.69307	40		Averaged
Acrylonitrile	0.108	0.11038		.01		2.2037	30		Averaged
Isopropyl ether	1.0492	1.04145		.01		-0.73866	30		Averaged
2-Chloro-1,3-butadiene	0.4217	0.47638		.01		12.96656	30		Averaged
Ethyl tert-butyl ether	0.9444	0.95363		.01		0.97734	30		Averaged
Ethyl acetate	0.3182	0.28288		.01		-11.09994	40		Averaged
Propionitrile	0.0463	0.04436		.01		-4.19006	30		Averaged
Methacrylonitrile	0.1922	0.19368		.01		0.77003	30		Averaged
Tetrahydrofuran	0.1019	0.09598		.01		-5.80962	30		Averaged
Isobutyl alcohol	0.0141	0.01338		.01		-5.10638	40		Averaged
Methyl tert-amyl ether	0.8625	0.88601		.01		2.7258	30		Averaged
Methyl methacrylate	0.1923	0.20995		.01		9.17837	30		Averaged
1,4-Dioxane	0.0034	0.00325		.01		-4.41176	40		Averaged
2-Nitropropane	250	230.02	250			-7.992	30		Linear
Ethyl methacrylate	0.4802	0.53438		.01		11.2828	30		Averaged
1-Chlorohexane	0.6129	0.62105		.01		1.32974	30		Averaged
cis-1,4-Dichloro-2-butene	0.2616	0.30039		.01		14.82798	30		Averaged
Cyclohexanone	0.0297	0.02199		.01		-25.9596	40		Averaged
trans-1,4-Dichloro-2-butene	0.2497	0.28657		.01		14.76572	30		Averaged
Pentachloroethane	250	268.34	250			7.336	30		Linear
Benzyl chloride	1.2744	1.31502		.01		3.18738	30		Averaged
bis(2-Chloroisopropyl)ether	0.364	0.37375		.01		2.67857	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030710V4\  
Data File : 4A722.D  
Acq On : 8 Mar 2010 4:38 am  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100307-18|ICV|1|VOAF|1|  
Misc : ICV 5ML - MIX[B] 0304-08A+0125-08E  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 08 17:09:03 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.613	10.613	1.000	96	1619577	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.764	13.765	1.000	117	1247772	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	767843	50.00	ug/L	0.00
82) B Fluorobenzene	10.613	10.613	1.000	96	1618950	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.764	13.764	1.000	117	1247772	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	768078	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.967	65	438984	50.20	ug/L	0.00
43) Toluene-d8	12.246	12.247	0.890	98	1408039	49.57	ug/L	0.00
61) Bromofluorobenzene	14.953	14.947	0.924	95	769490	51.68	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	4.818	4.897	0.454		0m	N.D.	d	
3) Chloromethane	5.284	5.299	0.498		0m	N.D.	d	
4) Vinyl chloride	5.514	5.521	0.520		0m	N.D.	d	
5) Bromomethane	6.016	6.130	0.567		0m	N.D.	d	
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	6.668	6.668	0.628		0m	N.D.	d	
8) Ethyl ether	6.997	6.991	0.659		0m	N.D.	d	
9) Acetone	7.357	7.351	0.693		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.357	7.394	0.693		0m	N.D.	d	
11) Iodomethane	7.650	7.662	0.721		0m	N.D.	d	
12) Acetonitrile	7.686	7.693	0.724		0m	N.D.	d	
13) Methyl acetate	7.747	7.747	0.730		0m	N.D.	d	
14) Carbon disulfide	7.796	7.778	0.735		0m	N.D.	d	
15) Methylene chloride	7.930	7.967	0.747		0m	N.D.	d	
16) tert-Butyl methyl ether	8.235	8.235	0.776		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.278	8.278	0.780		0m	N.D.	d	
18) Vinyl acetate	8.735	8.705	0.823		0m	N.D.	d	
19) 1,1-Dichloroethane	8.765	8.753	0.826		0m	N.D.	d	
20) 2-Butanone	9.338	9.320	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.338	9.381	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	9.418	9.412	0.887		0m	N.D.	d	
23) Bromochloromethane	9.662	9.656	0.910		0m	N.D.	d	
24) Chloroform	9.698	9.686	0.914		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.972	9.973	0.940		0m	N.D.	d	
26) Cyclohexane	10.003	10.076	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.143	10.131	0.956		0m	N.D.	d	
28) Carbon tetrachloride	10.168	10.168	0.958		0m	N.D.	d	
30) 1,2-Dichloroethane	10.338	10.338	0.974		0m	N.D.	d	
31) Benzene	10.375	10.369	0.978		0m	N.D.	d	
32) Cyclohexene	10.497	10.491	0.989		0m	N.D.	d	
33) n-Butyl alcohol	10.692	10.686	1.007		0m	N.D.	d	
34) Trichloroethylene	11.003	11.003	1.037		0m	N.D.	d	
35) 1,2-Dichloropropane	11.241	11.241	1.059		0m	N.D.	d	
36) Methylcyclohexane	11.204	11.259	1.056		0m	N.D.	d	
37) Dibromomethane	11.369	11.369	1.071		0m	N.D.	d	
38) Bromodichloromethane	11.484	11.478	1.082		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.692	11.692	1.102		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	11.942	11.930	1.125		0m	N.D.	d	
42) 4-Methyl-2-pentanone	12.009	12.015	0.872		0m	N.D.	d	
44) Toluene	12.326	12.320	0.895		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030710V4\  
Data File : 4A722.D  
Acq On : 8 Mar 2010 4:38 am  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100307-18|ICV|1|VOAF|1|  
Misc : ICV 5ML - MIX[B] 0304-08A+0125-08E  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 08 17:09:03 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
45) trans-1,3-Dichloroprop...	12.460	12.460	0.905		0m	N.D.	d
46) 1,1,2-Trichloroethane	12.679	12.679	0.921		0m	N.D.	d
47) 2-Hexanone	12.862	12.856	0.934		0m	N.D.	d
48) 1,3-Dichloropropane	12.880	12.874	0.936		0m	N.D.	d
49) Tetrachloroethylene	12.917	12.917	0.938		0m	N.D.	d
50) Dibromochloromethane	13.137	13.143	0.954		0m	N.D.	d
51) 1,2-Dibromoethane	13.313	13.313	0.967		0m	N.D.	d
52) Chlorobenzene	13.807	13.801	1.003		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	13.850	13.850	1.006		0m	N.D.	d
54) Ethylbenzene	13.862	13.862	1.007		0m	N.D.	d
55) m,p-Xylenes	13.972	13.966	1.015		0m	N.D.	d
56) o-Xylene	14.405	14.399	1.047		0m	N.D.	d
57) Styrene	14.398	14.399	1.046		0m	N.D.	d
59) Bromoform	14.655	14.655	0.906		0m	N.D.	d
60) Isopropylbenzene	14.758	14.758	0.912		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	15.020	15.014	0.928		0m	N.D.	d
63) 1,2,3-Trichloropropane	15.112	15.106	0.934		0m	N.D.	d
64) Bromobenzene	15.167	15.167	0.937		0m	N.D.	d
65) n-Propylbenzene	15.179	15.179	0.938		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	15.337	15.325	0.948		0m	N.D.	d
67) 2-Chlorotoluene	15.331	15.331	0.948		0m	N.D.	d
68) 4-Chlorotoluene	15.429	15.429	0.954		0m	N.D.	d
69) tert-Butylbenzene	15.703	15.703	0.971		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	15.740	15.740	0.973		0m	N.D.	d
71) sec-Butylbenzene	15.929	15.929	0.985		0m	N.D.	d
72) 4-Isopropyltoluene	16.051	16.051	0.992		0m	N.D.	d
73) 1,3-Dichlorobenzene	16.124	16.118	0.997		0m	N.D.	d
74) 1,4-Dichlorobenzene	16.209	16.203	1.002		0m	N.D.	d
75) n-Butylbenzene	16.502	16.502	1.020		0m	N.D.	d
76) 1,2-Dichlorobenzene	16.648	16.642	1.029		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	17.526	17.526	1.083		0m	N.D.	d
78) 1,2,4-Trichlorobenzene	18.629	18.629	1.151		0m	N.D.	d
79) Hexachlorobutadiene	18.812	18.818	1.163		0m	N.D.	d
80) Naphthalene	19.032	19.026	1.176		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	19.385	19.385	1.198		0m	N.D.	d
83) Chlorotrifluoroethylene	4.818	4.826	0.454	116	804090	173.75	ug/L
84) 2-Chloro-1,1,1-trifluo...	5.657	5.657	0.533	118	2599534	149.18	ug/L #
85) Acrolein	7.180	7.174	0.677	56	440559	256.83	ug/L
86) Trichlorotrifluoroethane	7.363	7.363	0.694	85	982740	233.86	ug/L
87) Isopropyl Alcohol	7.430	7.430	0.700	45	2084345	2480.75	ug/L
88) Allyl chloride	7.796	7.796	0.735	41	3696261	266.28	ug/L
89) tert-Butyl Alcohol	7.924	7.924	0.747	59	3247570	2480.05	ug/L #
90) Acrylonitrile	8.174	8.168	0.770	53	893519	255.54	ug/L
91) Isopropyl ether	8.741	8.735	0.824	45	1686051	49.63	ug/L
92) 2-Chloro-1,3-butadiene	8.863	8.863	0.835	53	771230	56.48	ug/L
93) Ethyl tert-butyl ether	9.143	9.137	0.862	59	1543875	50.49	ug/L
94) Ethyl acetate	9.338	9.339	0.880	43	2289835	222.23	ug/L
95) Propionitrile	9.393	9.387	0.885	54	359063	239.40	ug/L
96) Methacrylonitrile	9.576	9.570	0.902	41	1567819	251.87	ug/L
97) Tetrahydrofuran	9.710	9.710	0.915	42	776929	235.40	ug/L
98) Isobutyl alcohol	10.003	10.003	0.943	41	1083034	2368.62	ug/L
99) Methyl tert-amyl ether	10.387	10.381	0.979	73	1434411	51.36	ug/L
100) Methyl methacrylate	11.204	11.204	1.056	69	1699461	272.91	ug/L
101) 1,4-Dioxane	11.326	11.326	1.067	88	263043	2376.77	ug/L

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030710V4\  
Data File : 4A722.D  
Acq On : 8 Mar 2010 4:38 am  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100307-18|ICV|1|VOAF|1|  
Misc : ICV 5ML - MIX[B] 0304-08A+0125-08E  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 08 17:09:03 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

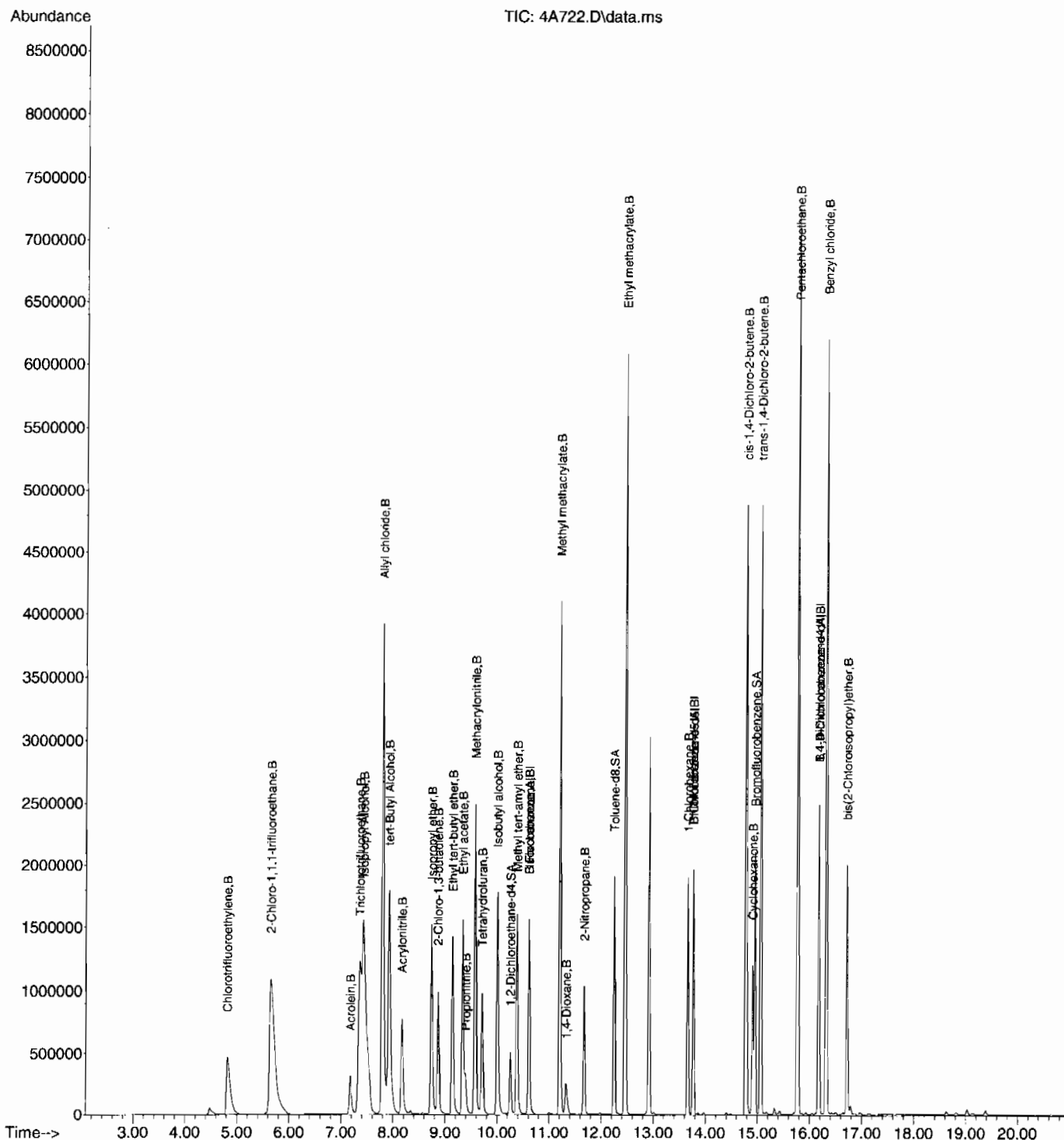
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
102) 2-Nitropropane	11.673	11.667	1.100	43	858154	230.02	ug/L	100
104) Ethyl methacrylate	12.460	12.460	0.905	69	3333938	278.21	ug/L	99
106) 1-Chlorohexane	13.661	13.661	0.844	55	477018	50.67	ug/L	98
107) cis-1,4-Dichloro-2-butene	14.783	14.783	0.914	53	1153607	287.09	ug/L	98
108) Cyclohexanone	14.904	14.905	0.921	42	422271	926.65	ug/L	99
109) trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	1100536	286.90	ug/L	98
110) Pentachloroethane	15.770	15.770	0.975	167	1510607	268.34	ug/L	100
111) Benzyl chloride	16.319	16.319	1.009	91	5050204	257.96	ug/L	100
112) bis(2-Chloroisopropyl)...	16.715	16.715	1.033	45	1435362	256.71	ug/L	99

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

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030710V4\  
Data File : 4A722.D  
Acq On : 8 Mar 2010 4:38 am  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100307-18|ICV|1|VOAF|1|  
Misc : ICV 5ML - MIX[B] 0304-08A+0125-08E  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 08 17:09:03 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE



## Continuing Calibration Summary

Client SDG: 10-2193

Instrument ID: VOA4.I

Injection Date: 08-MAR-10 16:19

Data File: 030810V4\B102.D

Init. Cal. Date(s) 07-MAR-10 19:57 - 08-MAR-10 03:1

Lab Sample ID W4VM100308-01

Quant Type ISTD

Method:030710V4\VOA4-8260-030710.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S1,2-Dichloroethane-d4	0.27	0.2613		.01		-3.22222	30		Averaged	
SToluene-d8	1.1383	1.1019		.01		-3.19775	30		Averaged	
SBromofluorobenzene	0.9696	0.92099		.01		-5.01341	30		Averaged	
Dichlorodifluoromethane	0.3266	0.3088		.01		-5.45009	30		Averaged	
Chloromethane	0.5834	0.50681		.1		-13.12821	30		Averaged	spcc
Vinyl chloride	0.5514	0.54591		.01		-0.99565	20		Averaged	ccc
Bromomethane	0.3382	0.32927		.01		-2.64045	30		Averaged	
Chloroethane	0.2684	0.27646		.01		3.00298	30		Averaged	
Trichlorofluoromethane	0.503	0.56846		.01		13.01392	30		Averaged	
Ethyl ether	0.251	0.24745		.01		-1.41434	30		Averaged	
Acetone	0.3059	0.26135		.01		-14.56358	40		Averaged	
1,1-Dichloroethylene	0.5823	0.57999		.01		-0.3967	20		Averaged	ccc
Iodomethane	0.5463	0.57785		.01		5.77522	30		Averaged	
Acetonitrile	0.0499	0.05212		.01		4.4489	30		Averaged	
Methyl acetate	0.2634	0.2621		.01		-0.49355	40		Averaged	
Carbon disulfide	1.1124	1.19166		.01		7.12513	30		Averaged	
Methylene chloride	50	49.89	50			-0.22	30		Linear	
tert-Butyl methyl ether	0.8884	0.8941		.01		0.6416	30		Averaged	
trans-1,2-Dichloroethylene	0.4549	0.44546		.01		-2.07518	30		Averaged	
Vinyl acetate	0.5842	0.70538		.01		20.7429	40		Averaged	
1,1-Dichloroethane	0.5635	0.5693		.1		1.02928	30		Averaged	spcc
2-Butanone	0.3177	0.28489		.01		-10.32735	40		Averaged	
cis-1,2-Dichloroethylene	0.4909	0.49019		.01		-0.14463	30		Averaged	
2,2-Dichloropropane	0.2849	0.31542		.01		10.71253	30		Averaged	
Bromochloromethane	0.1638	0.16753		.01		2.27717	30		Averaged	
Chloroform	0.5816	0.58045		.01		-0.19773	20		Averaged	ccc
1,1,1-Trichloroethane	0.4287	0.46005		.01		7.31281	30		Averaged	
Cyclohexane	0.4871	0.50927		.01		4.55143	30		Averaged	
1,1-Dichloropropene	0.4183	0.43573		.01		4.16687	30		Averaged	
Carbon tetrachloride	0.3975	0.4324		.01		8.77987	30		Averaged	
1,2-Dichloroethane	0.4745	0.46459		.01		-2.08851	30		Averaged	
Benzene	1.2379	1.22834		.01		-0.77228	30		Averaged	
Cyclohexene	0.5962	0.61906		.01		3.83428	30		Averaged	
n-Butyl alcohol	5000	5775.34	5000			15.5068	40		Linear	
Trichloroethylene	0.3246	0.33255		.01		2.44917	30		Averaged	
1,2-Dichloropropane	0.3242	0.3269		.01		0.83282	20		Averaged	ccc
Methylcyclohexane	0.4962	0.53584		.01		7.98871	30		Averaged	

## Continuing Calibration Summary

Instrument ID: VOA4.I

Injection Date 08-MAR-10 16:19

Data File: 030810V4\4B102.D

Init. Cal. Date(s) 07-MAR-10 19:57 08-MAR-10 03:1

Lab Sample ID W4VM100308-01

Quant Type ISTD

Method: 030710V4\VOA4-8260-030710.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.2024	0.2069		.01		2.22332	30		Averaged	
Bromodichloromethane	0.4057	0.44525		.01		9.74858	30		Averaged	
2-Chloroethylvinyl ether	0.1523	0.16724		.01		9.80959	30		Averaged	
cis-1,3-Dichloropropylene	0.4762	0.51754		.01		8.68123	30		Averaged	
4-Methyl-2-pentanone	0.1779	0.19114		.01		7.44238	40		Averaged	
Toluene	50	54.13	50			8.26	20		Linear	ccc
trans-1,3-Dichloropropylene	0.5852	0.63375		.01		8.29631	30		Averaged	
1,1,2-Trichloroethane	0.3114	0.3151		.01		1.18818	30		Averaged	
2-Hexanone	0.519	0.49097		.01		-5.40077	40		Averaged	
1,3-Dichloropropane	0.6393	0.64246		.01		0.49429	30		Averaged	
Tetrachloroethylene	0.3356	0.35357		.01		5.35459	30		Averaged	
Dibromochloromethane	0.4012	0.45191		.01		12.63958	30		Averaged	
1,2-Dibromoethane	0.3775	0.40005		.01		5.97351	30		Averaged	
Chlorobenzene	1.1561	1.18462		.3		2.46691	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.4249	0.45826		.01		7.85126	30		Averaged	
Ethylbenzene	2.0228	2.06614		.01		2.14257	20		Averaged	ccc
m,p-Xylenes	0.7907	0.83972		.01		6.19957	30		Averaged	
o-Xylene	0.8175	0.88727		.01		8.53456	30		Averaged	
Styrene	1.3051	1.48762		.01		13.98514	30		Averaged	
Bromoform	0.4321	0.48452		.1		12.13145	30		Averaged	spcc
Isopropylbenzene	3.3889	3.19829		.01		-5.62454	30		Averaged	
1,1,2,2-Tetrachloroethane	0.9439	0.905		.3		-4.1212	30		Averaged	spcc
1,2,3-Trichloropropane	0.2471	0.24103		.01		-2.4565	30		Averaged	
Bromobenzene	0.9261	0.91628		.01		-1.06036	30		Averaged	
n-Propylbenzene	4.2341	4.00933		.01		-5.30857	30		Averaged	
2-Chlorotoluene	0.9144	0.92679		.01		1.35499	30		Averaged	
1,3,5-Trimethylbenzene	3.1018	3.09566		.01		-0.19795	30		Averaged	
4-Chlorotoluene	2.6034	2.52846		.01		-2.87854	30		Averaged	
tert-Butylbenzene	0.6639	0.66716		.01		0.49104	30		Averaged	
1,2,4-Trimethylbenzene	3.1859	3.12968		.01		-1.76465	30		Averaged	
sec-Butylbenzene	4.1916	4.10304		.01		-2.1128	30		Averaged	
4-Isopropyltoluene	3.3303	3.38662		.01		1.69114	30		Averaged	
1,3-Dichlorobenzene	1.8295	1.8401		.01		0.57939	30		Averaged	
1,4-Dichlorobenzene	1.8756	1.88038		.01		0.25485	30		Averaged	
n-Butylbenzene	3.1882	3.26771		.01		2.49388	30		Averaged	
1,2-Dichlorobenzene	1.7538	1.74372		.01		-0.57475	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1374	0.16435		.01		19.61426	30		Averaged	



## Continuing Calibration Summary

Instrument ID: VOA4.I

Injection Date 08-MAR-10 16:19

Data File: 030810V4\4B102.D

Init. Cal. Date(s) 07-MAR-10 19:57 08-MAR-10 03:1

Lab Sample ID W4VM100308-01

Quant Type ISTD

Method: 030710V4\VOA4-8260-030710.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8439	0.9446		.01		11.93269	30		Averaged
Hexachlorobutadiene	0.5613	0.56082		.01		-0.08552	30		Averaged
Naphthalene	1.8703	1.95603		.01		4.58376	30		Averaged
1,2,3-Trichlorobenzene	0.6781	0.72966		.01		7.6036	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\  
Data File : 4B102.D  
Acq On : 8 Mar 2010 4:19 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100308-01|ICV|1|VOAF|1|  
Misc : ICV 5ML - MIX[A] 0220-01E+0308-01  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 08 20:28:35 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev (Min)
Internal Standards								
1) Fluorobenzene	10.619	10.613	1.000	96	1626598	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	1299226	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	928000	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.613	1.000	96	1626038	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	1299226	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	930060	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	10.259	10.259	0.966	65	425037	48.40	ug/L	0.00
43) Toluene-d8	12.253	12.247	0.890	98	1431615	48.40	ug/L	0.00
61) Bromofluorobenzene	14.953	14.947	0.924	95	854682	47.49	ug/L	0.00
Target Compounds								
2) Dichlorodifluoromethane	4.904	4.897	0.462	85	502296	47.27	ug/L	100
3) Chloromethane	5.292	5.299	0.498	50	824374	43.44	ug/L	100
4) Vinyl chloride	5.521	5.521	0.520	62	887981	49.50	ug/L	99
5) Bromomethane	6.138	6.130	0.578	94	535590	48.68	ug/L	99
6) Chloroethane	6.295	6.288	0.593	64	449684	51.50	ug/L	100
7) Trichlorofluoromethane	6.662	6.668	0.627	101	924648	56.51	ug/L	99
8) Ethyl ether	6.997	6.991	0.659	59	402505	49.29	ug/L	98
9) Acetone	7.351	7.351	0.692	43	2125578	213.59	ug/L	100
10) 1,1-Dichloroethylene	7.388	7.394	0.696	61	943413	49.80	ug/L	98
11) Iodomethane	7.656	7.662	0.721	142	4699622	264.46	ug/L	99
12) Acetonitrile	7.699	7.693	0.725	41	2119334	1306.78	ug/L	100
13) Methyl acetate	7.747	7.747	0.730	43	2131691	248.74	ug/L	100
14) Carbon disulfide	7.772	7.778	0.732	76	9691789	267.82	ug/L	100
15) Methylene chloride	7.936	7.967	0.747	84	638675	49.89	ug/L	98
16) tert-Butyl methyl ether	8.235	8.235	0.776	73	1454341	50.32	ug/L	100
17) trans-1,2-Dichloroethy...	8.284	8.278	0.780	61	724588	48.96	ug/L	99
18) Vinyl acetate	8.704	8.705	0.820	43	5736862	301.85	ug/L	100
19) 1,1-Dichloroethane	8.753	8.753	0.824	63	926016	50.51	ug/L	100
20) 2-Butanone	9.326	9.320	0.878	43	2316994	224.17	ug/L	99
21) cis-1,2-Dichloroethylene	9.387	9.381	0.884	61	797350	49.92	ug/L	100
22) 2,2-Dichloropropane	9.418	9.412	0.887	77	513069	55.36	ug/L	98
23) Bromochloromethane	9.656	9.656	0.909	128	272501	51.12	ug/L	99
24) Chloroform	9.686	9.686	0.912	83	944155	49.90	ug/L	100
25) 1,1,1-Trichloroethane	9.979	9.973	0.940	97	748321	53.65	ug/L	100
26) Cyclohexane	10.082	10.076	0.949	56	828381	52.28	ug/L	100
27) 1,1-Dichloropropene	10.131	10.131	0.954	75	708752	52.08	ug/L	# 99
28) Carbon tetrachloride	10.174	10.168	0.958	117	703333	54.39	ug/L	98
30) 1,2-Dichloroethane	10.338	10.338	0.974	62	755701	48.96	ug/L	99
31) Benzene	10.369	10.369	0.976	78	1998013	49.61	ug/L	100
32) Cyclohexene	10.491	10.491	0.988	67	1006956	51.92	ug/L	99
33) n-Butyl alcohol	10.692	10.686	1.007	56	2224385	5775.34	ug/L	99
34) Trichloroethylene	11.003	11.003	1.036	95	540924	51.22	ug/L	97
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	531739	50.42	ug/L	98
36) Methylcyclohexane	11.265	11.259	1.061	83	871591	54.00	ug/L	99
37) Dibromomethane	11.375	11.369	1.071	93	336542	51.10	ug/L	98
38) Bromodichloromethane	11.484	11.478	1.082	83	724245	54.88	ug/L	100
39) 2-Chloroethylvinyl ether	11.698	11.692	1.102	63	1360200	274.48	ug/L	100
40) cis-1,3-Dichloropropylene	11.929	11.930	1.123	75	841830	54.35	ug/L	99
42) 4-Methyl-2-pentanone	12.015	12.015	0.872	58	1241676	268.62	ug/L	98
44) Toluene	12.326	12.320	0.895	91	2176686	54.13	ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\  
Data File : 4B102.D  
Acq On : 8 Mar 2010 4:19 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100308-01|ICV|1|VOAF|1|  
Misc : ICV 5ML - MIX[A] 0220-01E+0308-01  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 08 20:28:35 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45) trans-1,3-Dichloroprop...	12.460	12.460	0.905	75	823380	54.15	ug/L	100
46) 1,1,2-Trichloroethane	12.685	12.679	0.921	83	409392	50.59	ug/L	99
47) 2-Hexanone	12.856	12.856	0.934	43	3189401	236.50	ug/L	99
48) 1,3-Dichloropropane	12.874	12.874	0.935	76	834702	50.25	ug/L	95
49) Tetrachloroethylene	12.917	12.917	0.938	164	459369	52.68	ug/L	98
50) Dibromochloromethane	13.143	13.143	0.954	129	587134	56.31	ug/L	99
51) 1,2-Dibromoethane	13.313	13.313	0.967	107	519761	52.98	ug/L	99
52) Chlorobenzene	13.801	13.801	1.002	112	1539094	51.23	ug/L	100
53) 1,1,1,2-Tetrachloroethane	13.850	13.850	1.006	131	595387	53.93	ug/L	99
54) Ethylbenzene	13.862	13.862	1.007	91	2684387	51.07	ug/L	100
55) m,p-Xylenes	13.972	13.966	1.015	106	2181983	106.20	ug/L	100
56) o-Xylene	14.405	14.399	1.046	106	1152764	54.27	ug/L	98
57) Styrene	14.405	14.399	1.046	104	1932760	56.99	ug/L	100
59) Bromoform	14.655	14.655	0.906	173	449630	56.07	ug/L	100
60) Isopropylbenzene	14.758	14.758	0.912	105	2968011	47.19	ug/L	99
62) 1,1,2,2-Tetrachloroethane	15.020	15.014	0.928	83	839836	47.94	ug/L	98
63) 1,2,3-Trichloropropane	15.112	15.106	0.934	110	223679	48.77	ug/L	97
64) Bromobenzene	15.167	15.167	0.937	156	850311	49.47	ug/L	98
65) n-Propylbenzene	15.179	15.179	0.938	91	3720654	47.35	ug/L	99
66) 1,3,5-Trimethylbenzene	15.331	15.325	0.948	105	2872769	49.90	ug/L	99
67) 2-Chlorotoluene	15.331	15.331	0.948	126	860063	50.68	ug/L	98
68) 4-Chlorotoluene	15.429	15.429	0.954	91	2346415	48.56	ug/L	99
69) tert-Butylbenzene	15.703	15.703	0.971	134	619129	50.24	ug/L	98
70) 1,2,4-Trimethylbenzene	15.740	15.740	0.973	105	2904345	49.12	ug/L	99
71) sec-Butylbenzene	15.929	15.929	0.985	105	3807623	48.94	ug/L	99
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	3142787	50.85	ug/L	99
73) 1,3-Dichlorobenzene	16.124	16.118	0.997	146	1707617	50.29	ug/L	99
74) 1,4-Dichlorobenzene	16.209	16.203	1.002	146	1744992	50.13	ug/L	100
75) n-Butylbenzene	16.502	16.502	1.020	91	3032434	51.25	ug/L	99
76) 1,2-Dichlorobenzene	16.642	16.642	1.029	146	1618169	49.71	ug/L	99
77) 1,2-Dibromo-3-chloropr...	17.526	17.526	1.083	157	152515	59.80	ug/L	99
78) 1,2,4-Trichlorobenzene	18.635	18.629	1.152	180	876585	55.97	ug/L	99
79) Hexachlorobutadiene	18.818	18.818	1.163	225	520439	49.96	ug/L	99
80) Naphthalene	19.032	19.026	1.176	128	1815198	52.29	ug/L	99
81) 1,2,3-Trichlorobenzene	19.385	19.385	1.198	180	677122	53.80	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	7.138	7.174	0.672		0m	N.D.	d	
86) Trichlorotrifluoroethane	7.357	7.363	0.693		0m	N.D.	d	
87) Isopropyl Alcohol	7.351	7.430	0.692		0m	N.D.	d	
88) Allyl chloride	7.699	7.796	0.725		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	7.924	0.000		0	N.D.		
90) Acrylonitrile	8.174	8.168	0.770		0m	N.D.	d	
91) Isopropyl ether	8.704	8.735	0.820		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	8.863	8.863	0.835		0m	N.D.	d	
93) Ethyl tert-butyl ether	9.149	9.137	0.862		0m	N.D.	d	
94) Ethyl acetate	9.326	9.339	0.878		0m	N.D.	d	
95) Propionitrile	9.430	9.387	0.888		0m	N.D.	d	
96) Methacrylonitrile	0.000	9.570	0.000		0	N.D.		
97) Tetrahydrofuran	9.686	9.710	0.912		0m	N.D.	d	
98) Isobutyl alcohol	10.082	10.003	0.949		0m	N.D.	d	
99) Methyl tert-amyl ether	10.369	10.381	0.976		0m	N.D.	d	
100) Methyl methacrylate	11.180	11.204	1.053		0m	N.D.	d	
101) 1,4-Dioxane	11.369	11.326	1.071		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\  
Data File : 4B102.D  
Acq On : 8 Mar 2010 4:19 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100308-01|ICV|1|VOAF|1|  
Misc : ICV 5ML - MIX[A] 0220-01E+0308-01  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 08 20:28:35 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
102) 2-Nitropropane	11.698	11.667	1.102		0m	N.D.	d
104) Ethyl methacrylate	12.472	12.460	0.906		0m	N.D.	d
106) 1-Chlorohexane	13.667	13.661	0.845		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.758	14.783	0.912		0m	N.D.	d
108) Cyclohexanone	14.911	14.905	0.922		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.075	15.063	0.932		0m	N.D.	d
110) Pentachloroethane	15.770	15.770	0.975		0m	N.D.	d
111) Benzyl chloride	16.319	16.319	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.721	16.715	1.034		0m	N.D.	d

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



## Continuing Calibration Summary

Client SDG: 10-2193

Instrument ID: VOA4.1

Injection Date 09-MAR-10 17:43

Data File: 030910V4\4B202.D

Init. Cal. Date(s) 07-MAR-10 19:57 - 08-MAR-10 03:1

Lab Sample ID W4VM100309-01

Quant Type ISTD

Method: 030710V4\VOA4-8260-030710.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S1,2-Dichloroethane-d4	0.27	0.24688		.01		-8.56296	30		Averaged	
SToluene-d8	1.1383	1.06455		.01		-6.47896	30		Averaged	
SBromofluorobenzene	0.9696	0.9268		.01		-4.41419	30		Averaged	
Dichlorodifluoromethane	0.3266	0.29648		.01		-9.22229	30		Averaged	
Chloromethane	0.5834	0.50919		.1		-12.72026	30		Averaged	spcc
Vinyl chloride	0.5514	0.5575		.01		1.10627	20		Averaged	ccc
Bromomethane	0.3382	0.3314		.01		-2.01064	30		Averaged	
Chloroethane	0.2684	0.27126		.01		1.06557	30		Averaged	
Trichlorofluoromethane	0.503	0.56952		.01		13.22465	30		Averaged	
Ethyl ether	0.251	0.2407		.01		-4.10359	30		Averaged	
Acetone	0.3059	0.27501		.01		-10.09807	40		Averaged	
1,1-Dichloroethylene	0.5823	0.59185		.01		1.64005	20		Averaged	ccc
Iodomethane	0.5463	0.57552		.01		5.34871	30		Averaged	
Acetonitrile	0.0499	0.05277		.01		5.7515	30		Averaged	
Methyl acetate	0.2634	0.26565		.01		0.85421	40		Averaged	
Carbon disulfide	1.1124	1.22502		.01		10.12406	30		Averaged	
Methylene chloride	50	49.61	50			-0.78	30		Linear	
tert-Butyl methyl ether	0.8884	0.86525		.01		-2.60581	30		Averaged	
trans-1,2-Dichloroethylene	0.4549	0.46564		.01		2.36096	30		Averaged	
Vinyl acetate	0.5842	0.69976		.01		19.7809	40		Averaged	
1,1-Dichloroethane	0.5635	0.5812		.1		3.14108	30		Averaged	spcc
2-Butanone	0.3177	0.29399		.01		-7.46302	40		Averaged	
cis-1,2-Dichloroethylene	0.4909	0.49983		.01		1.81911	30		Averaged	
2,2-Dichloropropane	0.2849	0.32103		.01		12.68164	30		Averaged	
Bromochloromethane	0.1638	0.16732		.01		2.14896	30		Averaged	
Chloroform	0.5816	0.58696		.01		0.9216	20		Averaged	ccc
1,1,1-Trichloroethane	0.4287	0.47373		.01		10.50385	30		Averaged	
Cyclohexane	0.4871	0.52255		.01		7.27777	30		Averaged	
1,1-Dichloropropene	0.4183	0.46179		.01		10.39684	30		Averaged	
Carbon tetrachloride	0.3975	0.45829		.01		15.29308	30		Averaged	
1,2-Dichloroethane	0.4745	0.4614		.01		-2.7608	30		Averaged	
Benzene	1.2379	1.26653		.01		2.31279	30		Averaged	
Cyclohexene	0.5962	0.65327		.01		9.57229	30		Averaged	
n-Butyl alcohol	5000	5960.41	5000			19.2082	40		Linear	
Trichloroethylene	0.3246	0.34381		.01		5.91805	30		Averaged	
1,2-Dichloropropane	0.3242	0.33498		.01		3.32511	20		Averaged	ccc
Methylcyclohexane	0.4962	0.5652		.01		13.90568	30		Averaged	

## Continuing Calibration Summary

Instrument ID: VOA4.I

Injection Date 09-MAR-10 17:43

Data File: 030910V44B202.D

Init. Cal. Date(s) 07-MAR-10 19:57 08-MAR-10 03:1

Lab Sample ID W4VM100309-01

Quant Type ISTD

Method: 030710V4\VOA4-8260-030710.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Dibromomethane	0.2024	0.20429		.01		0.93379	30		Averaged
Bromodichloromethane	0.4057	0.44497		.01		9.67957	30		Averaged
2-Chloroethylvinyl ether	0.1523	0.15391		.01		1.05712	30		Averaged
cis-1,3-Dichloropropylene	0.4762	0.51953		.01		9.09912	30		Averaged
4-Methyl-2-pentanone	0.1779	0.19292		.01		8.44295	40		Averaged
Toluene	50	56.53	50			13.06	20		Linear ccc
trans-1,3-Dichloropropylene	0.5852	0.63086		.01		7.80246	30		Averaged
1,1,2-Trichloroethane	0.3114	0.31285		.01		0.46564	30		Averaged
2-Hexanone	0.519	0.49622		.01		-4.38921	40		Averaged
1,3-Dichloropropane	0.6393	0.64193		.01		0.41139	30		Averaged
Tetrachloroethylene	0.3356	0.36916		.01		10	30		Averaged
Dibromochloromethane	0.4012	0.44736		.01		11.50548	30		Averaged
1,2-Dibromoethane	0.3775	0.39976		.01		5.89669	30		Averaged
Chlorobenzene	1.1561	1.19817		.3		3.63896	30		Averaged spcc
1,1,1,2-Tetrachloroethane	0.4249	0.46438		.01		9.2916	30		Averaged
Ethylbenzene	2.0228	2.14107		.01		5.84685	20		Averaged ccc
m,p-Xylenes	0.7907	0.86707		.01		9.65853	30		Averaged
o-Xylene	0.8175	0.90262		.01		10.41223	30		Averaged
Styrene	1.3051	1.50134		.01		15.0364	30		Averaged
Bromoform	0.4321	0.49016		.1		13.4367	30		Averaged spcc
Isopropylbenzene	3.3889	3.43493		.01		1.35826	30		Averaged
1,1,2,2-Tetrachloroethane	0.9439	0.94957		.3		0.6007	30		Averaged spcc
1,2,3-Trichloropropane	0.2471	0.24926		.01		0.87414	30		Averaged
Bromobenzene	0.9261	0.94534		.01		2.07753	30		Averaged
n-Propylbenzene	4.2341	4.37967		.01		3.43804	30		Averaged
2-Chlorotoluene	0.9144	0.98741		.01		7.98447	30		Averaged
1,3,5-Trimethylbenzene	3.1018	3.33218		.01		7.4273	30		Averaged
4-Chlorotoluene	2.6034	2.65234		.01		1.87985	30		Averaged
tert-Butylbenzene	0.6639	0.71767		.01		8.09911	30		Averaged
1,2,4-Trimethylbenzene	3.1859	3.32449		.01		4.35011	30		Averaged
sec-Butylbenzene	4.1916	4.39658		.01		4.89026	30		Averaged
4-Isopropyltoluene	3.3303	3.62787		.01		8.93523	30		Averaged
1,3-Dichlorobenzene	1.8295	1.91433		.01		4.63679	30		Averaged
1,4-Dichlorobenzene	1.8756	1.9381		.01		3.33227	30		Averaged
n-Butylbenzene	3.1882	3.48327		.01		9.25507	30		Averaged
1,2-Dichlorobenzene	1.7538	1.77863		.01		1.41578	30		Averaged
1,2-Dibromo-3-chloropropane	0.1374	0.17492		.01		27.30713	30		Averaged

## Continuing Calibration Summary

Instrument ID: VOA4.I

Injection Date 09-MAR-10 17:43

Data File: 030910V4\4B202.D

Init. Cal. Date(s) 07-MAR-10 19:57 08-MAR-10 03:1

Lab Sample ID W4VM100309-01 Quant Type ISTD

Method: 030710V4\VOA4-8260-030710.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8439	0.96174		.01		13.96374	30		Averaged
Hexachlorobutadiene	0.5613	0.59887		.01		6.69339	30		Averaged
Naphthalene	1.8703	2.03834		.01		8.98465	30		Averaged
1,2,3-Trichlorobenzene	0.6781	0.74418		.01		9.74488	30		Averaged



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B202.D  
Acq On : 9 Mar 2010 5:43 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100309-01|CCV|1|VOAF|1|VOA8260LF|  
Misc : GEL 5ML - MIX[A] 0220-01E+0308-01  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 09 18:08:38 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.614	10.613	1.000	96	1588780	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.765	13.765	1.000	117	1244594	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	846459	50.00	ug/L	0.00
82) B Fluorobenzene	10.614	10.613	1.000	96	1588578	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.765	13.764	1.000	117	1244594	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	848839	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.259	0.967	65	392232	45.72	ug/L	0.00
43) Toluene-d8	12.247	12.247	0.890	98	1324928	46.76	ug/L	0.00
61) Bromofluorobenzene	14.954	14.947	0.924	95	784496	47.79	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	4.904	4.897	0.462	85	471038	45.39	ug/L	100
3) Chloromethane	5.299	5.299	0.499	50	808989	43.64	ug/L	99
4) Vinyl chloride	5.521	5.521	0.520	62	885739	50.55	ug/L	100
5) Bromomethane	6.130	6.130	0.578	94	526524	49.00	ug/L	98
6) Chloroethane	6.295	6.288	0.593	64	430976	50.54	ug/L	99
7) Trichlorofluoromethane	6.663	6.668	0.628	101	904838	56.61	ug/L	100
8) Ethyl ether	6.998	6.991	0.659	59	382425	47.94	ug/L	99
9) Acetone	7.352	7.351	0.693	43	2184663	224.75	ug/L	100
10) 1,1-Dichloroethylene	7.389	7.394	0.696	61	940320	50.82	ug/L	99
11) Iodomethane	7.651	7.662	0.721	142	4571862	263.39	ug/L	99
12) Acetonitrile	7.699	7.693	0.725	41	2096163	1323.26	ug/L	100
13) Methyl acetate	7.748	7.747	0.730	43	2110332	252.11	ug/L	99
14) Carbon disulfide	7.773	7.778	0.732	76	9731441	275.32	ug/L	100
15) Methylene chloride	7.937	7.967	0.748	84	620389	49.61	ug/L	98
16) tert-Butyl methyl ether	8.236	8.235	0.776	73	1374696	48.70	ug/L	99
17) trans-1,2-Dichloroethy...	8.279	8.278	0.780	61	739798	51.18	ug/L	100
18) Vinyl acetate	8.705	8.705	0.820	43	5558851	299.45	ug/L	100
19) 1,1-Dichloroethane	8.754	8.753	0.825	63	923405	51.57	ug/L	99
20) 2-Butanone	9.321	9.320	0.878	43	2335439	231.34	ug/L	99
21) cis-1,2-Dichloroethylene	9.382	9.381	0.884	61	794119	50.91	ug/L	99
22) 2,2-Dichloropropane	9.419	9.412	0.887	77	510045	56.34	ug/L	96
23) Bromochloromethane	9.656	9.656	0.910	128	265836	51.06	ug/L	99
24) Chloroform	9.687	9.686	0.913	83	932551	50.46	ug/L	99
25) 1,1,1-Trichloroethane	9.973	9.973	0.940	97	752646	55.25	ug/L	100
26) Cyclohexane	10.077	10.076	0.949	56	830219	53.64	ug/L	100
27) 1,1-Dichloropropene	10.132	10.131	0.955	75	733689	55.20	ug/L	# 99
28) Carbon tetrachloride	10.175	10.168	0.959	117	728119	57.65	ug/L	98
30) 1,2-Dichloroethane	10.339	10.338	0.974	62	733063	48.62	ug/L	99
31) Benzene	10.370	10.369	0.977	78	2012238	51.16	ug/L	99
32) Cyclohexene	10.492	10.491	0.989	67	1037901	54.79	ug/L	100
33) n-Butyl alcohol	10.687	10.686	1.007	56	2244540	5960.41	ug/L	98
34) Trichloroethylene	11.004	11.003	1.037	95	546238	52.96	ug/L	98
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	532204	51.67	ug/L	99
36) Methylcyclohexane	11.260	11.259	1.061	83	897977	56.96	ug/L	99
37) Dibromomethane	11.369	11.369	1.071	93	324571	50.46	ug/L	98
38) Bromodichloromethane	11.479	11.478	1.082	83	706960	54.84	ug/L	100
39) 2-Chloroethylvinyl ether	11.693	11.692	1.102	63	1222653	252.59	ug/L	100
40) cis-1,3-Dichloropropylene	11.930	11.930	1.124	75	825425	54.56	ug/L	99
42) 4-Methyl-2-pentanone	12.016	12.015	0.873	58	1200527	271.11	ug/L	99
44) Toluene	12.321	12.320	0.895	91	2175459	56.53	ug/L	100

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B202.D  
Acq On : 9 Mar 2010 5:43 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100309-01|CCV|1|VOAF|1|VOA8260LF|  
Misc : GEL 5ML - MIX[A] 0220-01E+0308-01  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 09 18:08:38 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45) trans-1,3-Dichloroprop...	12.461	12.460	0.905	75	785165	53.90	ug/L	99
46) 1,1,2-Trichloroethane	12.680	12.679	0.921	83	389377	50.23	ug/L	99
47) 2-Hexanone	12.857	12.856	0.934	43	3087936	239.02	ug/L	100
48) 1,3-Dichloropropane	12.875	12.874	0.935	76	798946	50.20	ug/L	95
49) Tetrachloroethylene	12.918	12.917	0.938	164	459459	55.01	ug/L	98
50) Dibromochloromethane	13.144	13.143	0.955	129	556787	55.75	ug/L	100
51) 1,2-Dibromoethane	13.314	13.313	0.967	107	497534	52.94	ug/L	99
52) Chlorobenzene	13.802	13.801	1.003	112	1491229	51.82	ug/L	99
53) 1,1,1,2-Tetrachloroethane	13.851	13.850	1.006	131	577968	54.65	ug/L	100
54) Ethylbenzene	13.863	13.862	1.007	91	2664761	52.92	ug/L	100
55) m,p-Xylenes	13.967	13.966	1.015	106	2158309	109.66	ug/L	99
56) o-Xylene	14.399	14.399	1.046	106	1123399	55.21	ug/L	97
57) Styrene	14.399	14.399	1.046	104	1868558	57.52	ug/L	100
59) Bromoform	14.655	14.655	0.906	173	414901	56.72	ug/L	97
60) Isopropylbenzene	14.759	14.758	0.912	105	2907525	50.68	ug/L	99
62) 1,1,2,2-Tetrachloroethane	15.015	15.014	0.928	83	803769	50.30	ug/L	100
63) 1,2,3-Trichloropropane	15.107	15.106	0.934	110	210992	50.44	ug/L	98
64) Bromobenzene	15.168	15.167	0.937	156	800192	51.04	ug/L	100
65) n-Propylbenzene	15.180	15.179	0.938	91	3707209	51.72	ug/L	100
66) 1,3,5-Trimethylbenzene	15.332	15.325	0.948	105	2820554	53.71	ug/L	100
67) 2-Chlorotoluene	15.332	15.331	0.948	126	835803	53.99	ug/L	99
68) 4-Chlorotoluene	15.430	15.429	0.954	91	2245101	50.94	ug/L	100
69) tert-Butylbenzene	15.704	15.703	0.971	134	607480	54.05	ug/L	97
70) 1,2,4-Trimethylbenzene	15.741	15.740	0.973	105	2814041	52.18	ug/L	100
71) sec-Butylbenzene	15.930	15.929	0.985	105	3721525	52.45	ug/L	99
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	3070845	54.47	ug/L	100
73) 1,3-Dichlorobenzene	16.119	16.118	0.996	146	1620400	52.32	ug/L	100
74) 1,4-Dichlorobenzene	16.204	16.203	1.002	146	1640526	51.67	ug/L	99
75) n-Butylbenzene	16.503	16.502	1.020	91	2948448	54.63	ug/L	99
76) 1,2-Dichlorobenzene	16.643	16.642	1.029	146	1505540	50.71	ug/L	99
77) 1,2-Dibromo-3-chloropr...	17.527	17.526	1.083	157	148062	63.65	ug/L	99
78) 1,2,4-Trichlorobenzene	18.630	18.629	1.151	180	814076	56.98	ug/L	99
79) Hexachlorobutadiene	18.813	18.818	1.163	225	506921	53.35	ug/L	100
80) Naphthalene	19.027	19.026	1.176	128	1725373	54.49	ug/L	100
81) 1,2,3-Trichlorobenzene	19.386	19.385	1.198	180	629922	54.87	ug/L	100
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	7.175	7.174	0.676		0m	N.D.	d	
86) Trichlorotrifluoroethane	7.340	7.363	0.692		0m	N.D.	d	
87) Isopropyl Alcohol	7.364	7.430	0.694		0m	N.D.	d	
88) Allyl chloride	7.699	7.796	0.725		0m	N.D.	d	
89) tert-Butyl Alcohol	7.992	7.924	0.753		0m	N.D.	d	
90) Acrylonitrile	8.169	8.168	0.770		0m	N.D.	d	
91) Isopropyl ether	8.699	8.735	0.820		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	8.864	8.863	0.835		0m	N.D.	d	
93) Ethyl tert-butyl ether	9.138	9.137	0.861		0m	N.D.	d	
94) Ethyl acetate	9.321	9.339	0.878		0m	N.D.	d	
95) Propionitrile	9.321	9.387	0.878		0m	N.D.	d	
96) Methacrylonitrile	9.669	9.570	0.911		0m	N.D.	d	
97) Tetrahydrofuran	9.687	9.710	0.913		0m	N.D.	d	
98) Isobutyl alcohol	9.955	10.003	0.938		0m	N.D.	d	
99) Methyl tert-amyl ether	10.370	10.381	0.977		0m	N.D.	d	
100) Methyl methacrylate	11.150	11.204	1.051		0m	N.D.	d	
101) 1,4-Dioxane	11.333	11.326	1.068		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B202.D  
Acq On : 9 Mar 2010 5:43 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100309-01|CCV|1|VOAF|1|VOA8260LF|  
Misc : GEL 5ML - MIX[A] 0220-01E+0308-01  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 09 18:08:38 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT QIon	Response	Conc	Units
102) 2-Nitropropane	11.693	11.667	1.102	0m	N.D.	d
104) Ethyl methacrylate	12.455	12.460	0.905	0m	N.D.	d
106) 1-Chlorohexane	13.643	13.661	0.843	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.759	14.783	0.912	0m	N.D.	d
108) Cyclohexanone	14.893	14.905	0.920	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.064	15.063	0.931	0m	N.D.	d
110) Pentachloroethane	15.771	15.770	0.975	0m	N.D.	d
111) Benzyl chloride	16.314	16.319	1.008	0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.716	16.715	1.033	0m	N.D.	d

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



## Continuing Calibration Summary

Client SDG: 10-2193

Instrument ID: VOA4.I

Injection Date 09-MAR-10 18:38

Data File: 030910V4\4B204.D

Init. Cal. Date(s) 07-MAR-10 19:57 - 08-MAR-10 03:1

Lab Sample ID W4VM100309-03

Quant Type ISTD

Method: 030710V4\VOA4-8260-030710.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S1,2-Dichloroethane-d4	0.27	0.24573		.01		-8.98889	30		Averaged
SToluene-d8	1.1383	1.08686		.01		-4.51902	30		Averaged
SBromofluorobenzene	0.9696	0.99874		.01		3.00536	30		Averaged
Acrolein	0.053	0.06474		.01		22.15094	30		Averaged
Trichlorotrifluoroethane	0.1298	0.12637		.01		-2.64253	30		Averaged
Allyl chloride	0.4287	0.48856		.01		13.96314	30		Averaged
Acrylonitrile	0.108	0.11782		.01		9.09259	30		Averaged
2-Chloro-1,3-butadiene	0.4217	0.51902		.01		23.07802	30		Averaged
Ethyl acetate	0.3182	0.30642		.01		-3.70207	40		Averaged
Propionitrile	0.0463	0.04847		.01		4.68683	30		Averaged
Methacrylonitrile	0.1922	0.20472		.01		6.51405	30		Averaged
Tetrahydrofuran	0.1019	0.1049		.01		2.94406	30		Averaged
Isobutyl alcohol	0.0141	0.01498		.01		6.24113	40		Averaged
Methyl methacrylate	0.1923	0.22463		.01		16.81227	30		Averaged
1,4-Dioxane	0.0034	0.00347		.01		2.05882	40		Averaged
2-Nitropropane	250	254.36	250			1.744	30		Linear
Ethyl methacrylate	0.4802	0.56903		.01		18.49854	30		Averaged
cis-1,4-Dichloro-2-butene	0.2616	0.33496		.01		28.04281	30		Averaged
Cyclohexanone	0.0297	0.02378		.01		-19.93266	40		Averaged
trans-1,4-Dichloro-2-butene	0.2497	0.31835		.01		27.49299	30		Averaged
Pentachloroethane	250	416.68	250			66.672	30	*	Linear
Benzyl chloride	1.2744	1.75161		.01		37.44586	30	*	Averaged
bis(2-Chloroisopropyl)ether	0.364	0.41178		.01		13.12637	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B204.D  
Acq On : 9 Mar 2010 6:38 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100309-03|CCV|1|VOAF|1|VOA8260LF|  
Misc : GEL 5ML - MIX[B] 0304-08A  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 09 19:56:37 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.619	10.613	1.000	96	1684114	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.770	13.765	1.000	117	1278351	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	804910	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.613	1.000	96	1683887	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.770	13.764	1.000	117	1278351	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	805047	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.966	65	413843	45.51	ug/L	0.00
43) Toluene-d8	12.252	12.247	0.890	98	1389383	47.74	ug/L	0.00
61) Bromofluorobenzene	14.953	14.947	0.924	95	803897	51.50	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.292	5.299	0.498		0m	N.D.	d	
4) Vinyl chloride	5.521	5.521	0.520		0m	N.D.	d	
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	6.699	6.668	0.631		0m	N.D.	d	
8) Ethyl ether	0.000	6.991	0.000		0	N.D.		
9) Acetone	7.363	7.351	0.693		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.363	7.394	0.693		0m	N.D.	d	
11) Iodomethane	7.613	7.662	0.717		0m	N.D.	d	
12) Acetonitrile	7.699	7.693	0.725		0m	N.D.	d	
13) Methyl acetate	7.747	7.747	0.730		0m	N.D.	d	
14) Carbon disulfide	7.802	7.778	0.735		0m	N.D.	d	
15) Methylene chloride	7.936	7.967	0.747		0m	N.D.	d	
16) tert-Butyl methyl ether	8.247	8.235	0.777		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.278	8.278	0.780		0m	N.D.	d	
18) Vinyl acetate	8.710	8.705	0.820		0m	N.D.	d	
19) 1,1-Dichloroethane	8.741	8.753	0.823		0m	N.D.	d	
20) 2-Butanone	9.338	9.320	0.879		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.338	9.381	0.879		0m	N.D.	d	
22) 2,2-Dichloropropane	9.418	9.412	0.887		0m	N.D.	d	
23) Bromochloromethane	9.655	9.656	0.909		0m	N.D.	d	
24) Chloroform	9.692	9.686	0.913		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.979	9.973	0.940		0m	N.D.	d	
26) Cyclohexane	10.003	10.076	0.942		0m	N.D.	d	
27) 1,1-Dichloropropene	10.137	10.131	0.955		0m	N.D.	d	
28) Carbon tetrachloride	10.180	10.168	0.959		0m	N.D.	d	
30) 1,2-Dichloroethane	10.344	10.338	0.974		0m	N.D.	d	
31) Benzene	10.375	10.369	0.977		0m	N.D.	d	
32) Cyclohexene	10.491	10.491	0.988		0m	N.D.	d	
33) n-Butyl alcohol	10.698	10.686	1.007		0m	N.D.	d	
34) Trichloroethylene	11.003	11.003	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	11.228	11.241	1.057		0m	N.D.	d	
36) Methylcyclohexane	11.210	11.259	1.056		0m	N.D.	d	
37) Dibromomethane	11.393	11.369	1.073		0m	N.D.	d	
38) Bromodichloromethane	11.490	11.478	1.082		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.698	11.692	1.102		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	11.923	11.930	1.123		0m	N.D.	d	
42) 4-Methyl-2-pentanone	12.015	12.015	0.872		0m	N.D.	d	
44) Toluene	12.326	12.320	0.895		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B204.D  
Acq On : 9 Mar 2010 6:38 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100309-03|CCV|1|VOAF|1|VOA8260LF|  
Misc : GEL 5ML - MIX[B] 0304-08A  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 09 19:56:37 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
45) trans-1,3-Dichloroprop...	12.460	12.460	0.905		0m	N.D.	d
46) 1,1,2-Trichloroethane	12.673	12.679	0.920		0m	N.D.	d
47) 2-Hexanone	12.862	12.856	0.934		0m	N.D.	d
48) 1,3-Dichloropropane	12.911	12.874	0.938		0m	N.D.	d
49) Tetrachloroethylene	12.923	12.917	0.938		0m	N.D.	d
50) Dibromochloromethane	13.143	13.143	0.954		0m	N.D.	d
51) 1,2-Dibromoethane	13.319	13.313	0.967		0m	N.D.	d
52) Chlorobenzene	13.807	13.801	1.003		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	13.856	13.850	1.006		0m	N.D.	d
54) Ethylbenzene	13.862	13.862	1.007		0m	N.D.	d
55) m,p-Xylenes	13.972	13.966	1.015		0m	N.D.	d
56) o-Xylene	14.405	14.399	1.046		0m	N.D.	d
57) Styrene	14.405	14.399	1.046		0m	N.D.	d
59) Bromoform	14.654	14.655	0.906		0m	N.D.	d
60) Isopropylbenzene	14.758	14.758	0.912		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	15.020	15.014	0.928		0m	N.D.	d
63) 1,2,3-Trichloropropane	15.100	15.106	0.933		0m	N.D.	d
64) Bromobenzene	15.173	15.167	0.938		0m	N.D.	d
65) n-Propylbenzene	15.179	15.179	0.938		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	15.331	15.325	0.948		0m	N.D.	d
67) 2-Chlorotoluene	15.331	15.331	0.948		0m	N.D.	d
68) 4-Chlorotoluene	15.429	15.429	0.954		0m	N.D.	d
69) tert-Butylbenzene	15.697	15.703	0.970		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	15.746	15.740	0.973		0m	N.D.	d
71) sec-Butylbenzene	15.935	15.929	0.985		0m	N.D.	d
72) 4-Isopropyltoluene	16.051	16.051	0.992		0m	N.D.	d
73) 1,3-Dichlorobenzene	16.118	16.118	0.996		0m	N.D.	d
74) 1,4-Dichlorobenzene	16.209	16.203	1.002		0m	N.D.	d
75) n-Butylbenzene	16.502	16.502	1.020		0m	N.D.	d
76) 1,2-Dichlorobenzene	16.642	16.642	1.029		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	17.520	17.526	1.083		0m	N.D.	d
78) 1,2,4-Trichlorobenzene	18.635	18.629	1.152		0m	N.D.	d
79) Hexachlorobutadiene	18.812	18.818	1.163		0m	N.D.	d
80) Naphthalene	19.032	19.026	1.176		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	19.385	19.385	1.198		0m	N.D.	d
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	7.180	7.174	0.676	56	545048	305.49 ug/L	99
86) Trichlorotrifluoroethane	7.363	7.363	0.693	85	1063958	243.42 ug/L	99
87) Isopropyl Alcohol	0.000	7.430	0.000		0m	N.D.	d
88) Allyl chloride	7.796	7.796	0.734	41	4113407	284.90 ug/L	99
89) tert-Butyl Alcohol	7.924	7.924	0.746	59	1378	N.D.	
90) Acrylonitrile	8.174	8.168	0.770	53	991976	272.75 ug/L	99
91) Isopropyl ether	8.717	8.735	0.821	45	170	N.D.	
92) 2-Chloro-1,3-butadiene	8.869	8.863	0.835	53	873975	61.53 ug/L	99
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.338	9.339	0.879	43	2579878	240.72 ug/L	99
95) Propionitrile	9.393	9.387	0.885	54	408089	261.59 ug/L	100
96) Methacrylonitrile	9.576	9.570	0.902	41	1723598	266.21 ug/L	99
97) Tetrahydrofuran	9.710	9.710	0.914	42	883187	257.27 ug/L	99
98) Isobutyl alcohol	10.003	10.003	0.942	41	1261148	2651.80 ug/L	97
99) Methyl tert-amyl ether	10.363	10.381	0.976	73	580	N.D.	
100) Methyl methacrylate	11.210	11.204	1.056	69	1891243	292.00 ug/L	98
101) 1,4-Dioxane	11.326	11.326	1.067	88	291840	2535.28 ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B204.D  
Acq On : 9 Mar 2010 6:38 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100309-03|CCV|1|VOAF|1|VOA8260LF|  
Misc : GEL 5ML - MIX[B] 0304-08A  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 09 19:56:37 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
102) 2-Nitropropane	11.673	11.667	1.099	43	989637	254.36	ug/L	99
104) Ethyl methacrylate	12.466	12.460	0.905	69	3637097	296.25	ug/L	98
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d	
107) cis-1,4-Dichloro-2-butene	14.782	14.783	0.914	53	1348288	320.13	ug/L	97
108) Cyclohexanone	14.904	14.905	0.921	42	478508	1001.84	ug/L	99
109) trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	1281434	318.72	ug/L	97
110) Pentachloroethane	15.770	15.770	0.975	167	2466500	416.68	ug/L	97
111) Benzyl chloride	16.319	16.319	1.009	91	7050624	343.61	ug/L	98
112) bis(2-Chloroisopropyl)...	16.721	16.715	1.034	45	1657511	282.83	ug/L	98

(#) = 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\030910V4\

Data File : 4B204.D

Acq On : 9 Mar 2010 6:38 pm

Operator : ACJ

InstName : VOA4

Sample : W4VM100309-03 | CCV | 1 | VOA | 1 | VOA8260LF |

Misc : GEL 5ML - MIX[B] 0304-08A

ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 09 19:56:37 2010

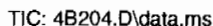
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M

SubList :

QLast Update : Mon Mar 08 17:08:49 2010

Response via : Initial Calibration

Integrator: RTE



## Continuing Calibration Summary

Client SDG: 10-2193

Instrument ID: VOA4.I

Injection Date 10-MAR-10 05:37

Data File: 030910V4\4B228.D

Init. Cal. Date(s) 07-MAR-10 19:57 - 08-MAR-10 03:1

Lab Sample ID W4VM100309-05

Quant Type ISTD

Method: 030710V4\VOA4-8260-030710.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S1,2-Dichloroethane-d4	0.27	0.24899		.01		-7.78148	30		Averaged	
SToluene-d8	1.1383	1.07636		.01		-5.44145	30		Averaged	
SBromofluorobenzene	0.9696	0.94275		.01		-2.76918	30		Averaged	
Dichlorodifluoromethane	0.3266	0.22119		.01		-32.27495	30	*	Averaged	
Chloromethane	0.5834	0.46821		.1		-19.7446	30		Averaged	spcc
Vinyl chloride	0.5514	0.47493		.01		-13.86834	20		Averaged	ccc
Bromomethane	0.3382	0.30484		.01		-9.86399	30		Averaged	
Chloroethane	0.2684	0.24011		.01		-10.54024	30		Averaged	
Trichlorofluoromethane	0.503	0.47385		.01		-5.79523	30		Averaged	
Ethyl ether	0.251	0.23035		.01		-8.22709	30		Averaged	
Acetone	0.3059	0.22234		.01		-27.31612	40		Averaged	
1,1-Dichloroethylene	0.5823	0.51202		.01		-12.06938	20		Averaged	ccc
Iodomethane	0.5463	0.49667		.01		-9.08475	30		Averaged	
Acetonitrile	0.0499	0.04788		.01		-4.0481	30		Averaged	
Methyl acetate	0.2634	0.24235		.01		-7.99165	40		Averaged	
Carbon disulfide	1.1124	1.07793		.01		-3.09871	30		Averaged	
Methylene chloride	50	47.86	50			-4.28	30		Linear	
tert-Butyl methyl ether	0.8884	0.80975		.01		-8.85299	30		Averaged	
trans-1,2-Dichloroethylene	0.4549	0.41278		.01		-9.25918	30		Averaged	
Vinyl acetate	0.5842	0.56992		.01		-2.44437	40		Averaged	
1,1-Dichloroethane	0.5635	0.53477		.1		-5.09849	30		Averaged	spcc
2-Butanone	0.3177	0.24916		.01		-21.57381	40		Averaged	
cis-1,2-Dichloroethylene	0.4909	0.46388		.01		-5.50418	30		Averaged	
2,2-Dichloropropane	0.2849	0.2485		.01		-12.77641	30		Averaged	
Bromochloromethane	0.1638	0.15641		.01		-4.5116	30		Averaged	
Chloroform	0.5816	0.54512		.01		-6.27235	20		Averaged	ccc
1,1,1-Trichloroethane	0.4287	0.39529		.01		-7.79333	30		Averaged	
Cyclohexane	0.4871	0.43827		.01		-10.02464	30		Averaged	
1,1-Dichloropropene	0.4183	0.38721		.01		-7.43246	30		Averaged	
Carbon tetrachloride	0.3975	0.37222		.01		-6.35975	30		Averaged	
1,2-Dichloroethane	0.4745	0.44643		.01		-5.9157	30		Averaged	
Benzene	1.2379	1.14835		.01		-7.23403	30		Averaged	
Cyclohexene	0.5962	0.54393		.01		-8.76719	30		Averaged	
n-Butyl alcohol	5000	5313.44	5000			6.2688	40		Linear	
Trichloroethylene	0.3246	0.30058		.01		-7.39988	30		Averaged	
1,2-Dichloropropane	0.3242	0.32116		.01		-0.93769	20		Averaged	ccc
Methylcyclohexane	0.4962	0.45795		.01		-7.70859	30		Averaged	

## Continuing Calibration Summary

Instrument ID: VOA4.I

Injection Date: 10-MAR-10 05:37

Data File: 030910V4\4B228.D

Init. Cal. Date(s) 07-MAR-10 19:57 08-MAR-10 03:1

Lab Sample ID W4VM100309-05

Quant Type ISTD

Method: 030710V4\VOA4-8260-030710.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.2024	0.19639		.01		-2.96937	30		Averaged	
Bromodichloromethane	0.4057	0.42525		.01		4.81883	30		Averaged	
2-Chloroethylvinyl ether	0.1523	0.14199		.01		-6.76953	30		Averaged	
cis-1,3-Dichloropropylene	0.4762	0.48143		.01		1.09828	30		Averaged	
4-Methyl-2-pentanone	0.1779	0.17269		.01		-2.92861	40		Averaged	
Toluene	50	50.33	50			0.66	20		Linear	ccc
trans-1,3-Dichloropropylene	0.5852	0.59554		.01		1.76692	30		Averaged	
1,1,2-Trichloroethane	0.3114	0.31116		.01		-0.07707	30		Averaged	
2-Hexanone	0.519	0.44524		.01		-14.21195	40		Averaged	
1,3-Dichloropropane	0.6393	0.6389		.01		-0.06257	30		Averaged	
Tetrachloroethylene	0.3356	0.30092		.01		-10.33373	30		Averaged	
Dibromochloromethane	0.4012	0.4372		.01		8.97308	30		Averaged	
1,2-Dibromoethane	0.3775	0.37524		.01		-0.59868	30		Averaged	
Chlorobenzene	1.1561	1.11588		.3		-3.47894	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.4249	0.4473		.01		5.27183	30		Averaged	
Ethylbenzene	2.0228	1.93144		.01		-4.51651	20		Averaged	ccc
m,p-Xylenes	0.7907	0.77508		.01		-1.97546	30		Averaged	
o-Xylene	0.8175	0.83759		.01		2.45749	30		Averaged	
Styrene	1.3051	1.4297		.01		9.54716	30		Averaged	
Bromoform	0.4321	0.45125		.1		4.43184	30		Averaged	spcc
Isopropylbenzene	3.3889	3.02729		.01		-10.67042	30		Averaged	
1,1,2,2-Tetrachloroethane	0.9439	0.89687		.3		-4.98252	30		Averaged	spcc
1,2,3-Trichloropropane	0.2471	0.22889		.01		-7.36949	30		Averaged	
Bromobenzene	0.9261	0.86892		.01		-6.17428	30		Averaged	
n-Propylbenzene	4.2341	3.82799		.01		-9.59141	30		Averaged	
2-Chlorotoluene	0.9144	0.88047		.01		-3.71063	30		Averaged	
1,3,5-Trimethylbenzene	3.1018	2.95316		.01		-4.79206	30		Averaged	
4-Chlorotoluene	2.6034	2.40095		.01		-7.77637	30		Averaged	
tert-Butylbenzene	0.6639	0.62777		.01		-5.44208	30		Averaged	
1,2,4-Trimethylbenzene	3.1859	2.97754		.01		-6.54007	30		Averaged	
sec-Butylbenzene	4.1916	3.84903		.01		-8.17277	30		Averaged	
4-Isopropyltoluene	3.3303	3.11873		.01		-6.35288	30		Averaged	
1,3-Dichlorobenzene	1.8295	1.74474		.01		-4.63296	30		Averaged	
1,4-Dichlorobenzene	1.8756	1.76359		.01		-5.97196	30		Averaged	
n-Butylbenzene	3.1882	2.96548		.01		-6.98576	30		Averaged	
1,2-Dichlorobenzene	1.7538	1.69353		.01		-3.43654	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1374	0.14548		.01		5.88064	30		Averaged	

## Continuing Calibration Summary

Instrument ID: VOA4.I

Injection Date 10-MAR-10 05:37

Data File: 030910V4\4B228.D

Init. Cal. Date(s) 07-MAR-10 19:57 08-MAR-10 03:1

Lab Sample ID W4VM100309-05 Quant Type ISTD

Method: 030710V4\VOA4-8260-030710.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8439	0.80978		.01		-4.04313	30		Averaged
Hexachlorobutadiene	0.5613	0.48741		.01		-13.16408	30		Averaged
Naphthalene	1.8703	1.77733		.01		-4.97086	30		Averaged
1,2,3-Trichlorobenzene	0.6781	0.6672		.01		-1.60743	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B228.D  
Acq On : 10 Mar 2010 5:37 am  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100309-05|CCV|1|VOAF|1|VOA8260LF|  
Misc : GEL 5ML - MIX[A] 0220-01E+0308-01  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 10 06:29:28 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.614	10.613	1.000	96	1305366	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	1040715	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	723756	50.00	ug/L	0.00
82) B Fluorobenzene	10.614	10.613	1.000	96	1305178	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	1040715	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	723782	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.260	10.259	0.967	65	325024	46.12	ug/L	0.00
43) Toluene-d8	12.247	12.247	0.889	98	1120185	47.28	ug/L	0.00
61) Bromofluorobenzene	14.954	14.947	0.924	95	682324	48.62	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	4.911	4.897	0.463	85	288736	33.86	ug/L	100
3) Chloromethane	5.291	5.299	0.499	50	611186	40.13	ug/L	100
4) Vinyl chloride	5.521	5.521	0.520	62	619962	43.06	ug/L	100
5) Bromomethane	6.130	6.130	0.578	94	397925	45.07	ug/L	99
6) Chloroethane	6.295	6.288	0.593	64	313433	44.73	ug/L	99
7) Trichlorofluoromethane	6.669	6.668	0.628	101	618553	47.10	ug/L	99
8) Ethyl ether	6.998	6.991	0.659	59	300690	45.88	ug/L	100
9) Acetone	7.352	7.351	0.693	43	1451184	181.71	ug/L	100
10) 1,1-Dichloroethylene	7.395	7.394	0.697	61	668373	43.96	ug/L	99
11) Iodomethane	7.657	7.662	0.721	142	3241696	227.31	ug/L	100
12) Acetonitrile	7.699	7.693	0.725	41	1562601	1200.61	ug/L	99
13) Methyl acetate	7.748	7.747	0.730	43	1581753	229.99	ug/L	99
14) Carbon disulfide	7.779	7.778	0.733	76	7035484	242.26	ug/L	100
15) Methylene chloride	7.943	7.967	0.748	84	492371	47.86	ug/L	100
16) tert-Butyl methyl ether	8.236	8.235	0.776	73	1057025	45.57	ug/L	100
17) trans-1,2-Dichloroethy...	8.279	8.278	0.780	61	538824	45.37	ug/L	99
18) Vinyl acetate	8.705	8.705	0.820	43	3719781	243.89	ug/L	99
19) 1,1-Dichloroethane	8.754	8.753	0.825	63	698067	47.45	ug/L	99
20) 2-Butanone	9.327	9.320	0.879	43	1626229	196.06	ug/L	99
21) cis-1,2-Dichloroethylene	9.382	9.381	0.884	61	605531	47.24	ug/L	98
22) 2,2-Dichloropropane	9.419	9.412	0.887	77	324382	43.61	ug/L	99
23) Bromochloromethane	9.656	9.656	0.910	128	204171	47.73	ug/L	96
24) Chloroform	9.687	9.686	0.913	83	711581	46.86	ug/L	100
25) 1,1,1-Trichloroethane	9.980	9.973	0.940	97	516000	46.10	ug/L	99
26) Cyclohexane	10.077	10.076	0.949	56	572104	44.99	ug/L	100
27) 1,1-Dichloropropene	10.132	10.131	0.955	75	505453	46.28	ug/L	# 100
28) Carbon tetrachloride	10.169	10.168	0.958	117	485884	46.82	ug/L	99
30) 1,2-Dichloroethane	10.339	10.338	0.974	62	582753	47.04	ug/L	100
31) Benzene	10.370	10.369	0.977	78	1499014	46.38	ug/L	99
32) Cyclohexene	10.492	10.491	0.989	67	710024	45.62	ug/L	99
33) n-Butyl alcohol	10.687	10.686	1.007	56	1637720	5313.44	ug/L	99
34) Trichloroethylene	11.004	11.003	1.037	95	392364	46.30	ug/L	99
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	419232	49.54	ug/L	99
36) Methylcyclohexane	11.260	11.259	1.061	83	597787	46.15	ug/L	99
37) Dibromomethane	11.370	11.369	1.071	93	256359	48.50	ug/L	98
38) Bromodichloromethane	11.479	11.478	1.082	83	555106	52.41	ug/L	100
39) 2-Chloroethylvinyl ether	11.699	11.692	1.102	63	926727	233.03	ug/L	100
40) cis-1,3-Dichloropropylene	11.930	11.930	1.124	75	628443	50.55	ug/L	99
42) 4-Methyl-2-pentanone	12.016	12.015	0.873	58	898630	242.69	ug/L	97
44) Toluene	12.321	12.320	0.895	91	1624084	50.33	ug/L	100

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B228.D  
Acq On : 10 Mar 2010 5:37 am  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100309-05|CCV|1|VOAF|1|VOA8260LF|  
Misc : GEL 5ML - MIX[A] 0220-01E+0308-01  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 10 06:29:28 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45) trans-1,3-Dichloroprop...	12.461	12.460	0.905	75	619790	50.89	ug/L	98
46) 1,1,2-Trichloroethane	12.680	12.679	0.921	83	323824	49.96	ug/L	99
47) 2-Hexanone	12.857	12.856	0.934	43	2316857	214.47	ug/L	98
48) 1,3-Dichloropropane	12.875	12.874	0.935	76	664910	49.97	ug/L	92
49) Tetrachloroethylene	12.918	12.917	0.938	164	313168	44.84	ug/L	99
50) Dibromochloromethane	13.144	13.143	0.954	129	455002	54.48	ug/L	99
51) 1,2-Dibromoethane	13.314	13.313	0.967	107	390521	49.70	ug/L	100
52) Chlorobenzene	13.802	13.801	1.002	112	1161316	48.26	ug/L	99
53) 1,1,1,2-Tetrachloroethane	13.851	13.850	1.006	131	465512	52.64	ug/L	99
54) Ethylbenzene	13.863	13.862	1.007	91	2010077	47.74	ug/L	99
55) m,p-Xylenes	13.973	13.966	1.015	106	1613276	98.03	ug/L	98
56) o-Xylene	14.399	14.399	1.046	106	871694	51.23	ug/L	100
57) Styrene	14.399	14.399	1.046	104	1487910	54.77	ug/L	100
59) Bromoform	14.655	14.655	0.906	173	326597	52.22	ug/L	100
60) Isopropylbenzene	14.759	14.758	0.912	105	2191016	44.66	ug/L	100
62) 1,1,2,2-Tetrachloroethane	15.015	15.014	0.928	83	649113	47.51	ug/L	100
63) 1,2,3-Trichloropropane	15.107	15.106	0.934	110	165662	46.31	ug/L	98
64) Bromobenzene	15.168	15.167	0.937	156	628884	46.91	ug/L	98
65) n-Propylbenzene	15.180	15.179	0.938	91	2770531	45.20	ug/L	99
66) 1,3,5-Trimethylbenzene	15.332	15.325	0.948	105	2137370	47.60	ug/L	99
67) 2-Chlorotoluene	15.332	15.331	0.948	126	637248	48.15	ug/L	98
68) 4-Chlorotoluene	15.430	15.429	0.954	91	1737700	46.11	ug/L	100
69) tert-Butylbenzene	15.704	15.703	0.971	134	454352	47.28	ug/L	99
70) 1,2,4-Trimethylbenzene	15.741	15.740	0.973	105	2155016	46.73	ug/L	99
71) sec-Butylbenzene	15.930	15.929	0.985	105	2785755	45.91	ug/L	100
72) 4-Isopropyltoluene	16.052	16.051	0.992	119	2257202	46.82	ug/L	99
73) 1,3-Dichlorobenzene	16.119	16.118	0.996	146	1262768	47.68	ug/L	100
74) 1,4-Dichlorobenzene	16.204	16.203	1.002	146	1276409	47.01	ug/L	99
75) n-Butylbenzene	16.503	16.502	1.020	91	2146287	46.51	ug/L	99
76) 1,2-Dichlorobenzene	16.643	16.642	1.029	146	1225706	48.28	ug/L	99
77) 1,2-Dibromo-3-chloropr...	17.527	17.526	1.083	157	105289	52.94	ug/L	98
78) 1,2,4-Trichlorobenzene	18.630	18.629	1.151	180	586082	47.98	ug/L	100
79) Hexachlorobutadiene	18.819	18.818	1.163	225	352767	43.42	ug/L	99
80) Naphthalene	19.027	19.026	1.176	128	1286354	47.52	ug/L	99
81) 1,2,3-Trichlorobenzene	19.386	19.385	1.198	180	482892	49.19	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	7.181	7.174	0.677		0m	N.D.	d	
86) Trichlorotrifluoroethane	7.358	7.363	0.693		0m	N.D.	d	
87) Isopropyl Alcohol	7.486	7.430	0.705		0m	N.D.	d	
88) Allyl chloride	7.699	7.796	0.725		0m	N.D.	d	
89) tert-Butyl Alcohol	8.029	7.924	0.756		0m	N.D.	d	
90) Acrylonitrile	8.175	8.168	0.770		0m	N.D.	d	
91) Isopropyl ether	8.699	8.735	0.820		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	8.870	8.863	0.836		0m	N.D.	d	
93) Ethyl tert-butyl ether	9.138	9.137	0.861		0m	N.D.	d	
94) Ethyl acetate	9.327	9.339	0.879		0m	N.D.	d	
95) Propionitrile	9.327	9.387	0.879		0m	N.D.	d	
96) Methacrylonitrile	0.000	9.570	0.000		0	N.D.		
97) Tetrahydrofuran	9.699	9.710	0.914		0m	N.D.	d	
98) Isobutyl alcohol	9.955	10.003	0.938		0m	N.D.	d	
99) Methyl tert-amyl ether	10.370	10.381	0.977		0m	N.D.	d	
100) Methyl methacrylate	11.260	11.204	1.061		0m	N.D.	d	
101) 1,4-Dioxane	11.363	11.326	1.071		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B228.D  
Acq On : 10 Mar 2010 5:37 am  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100309-05|CCV|1|VOAF|1|VOA8260LF|  
Misc : GEL 5ML - MIX[A] 0220-01E+0308-01  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 10 06:29:28 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

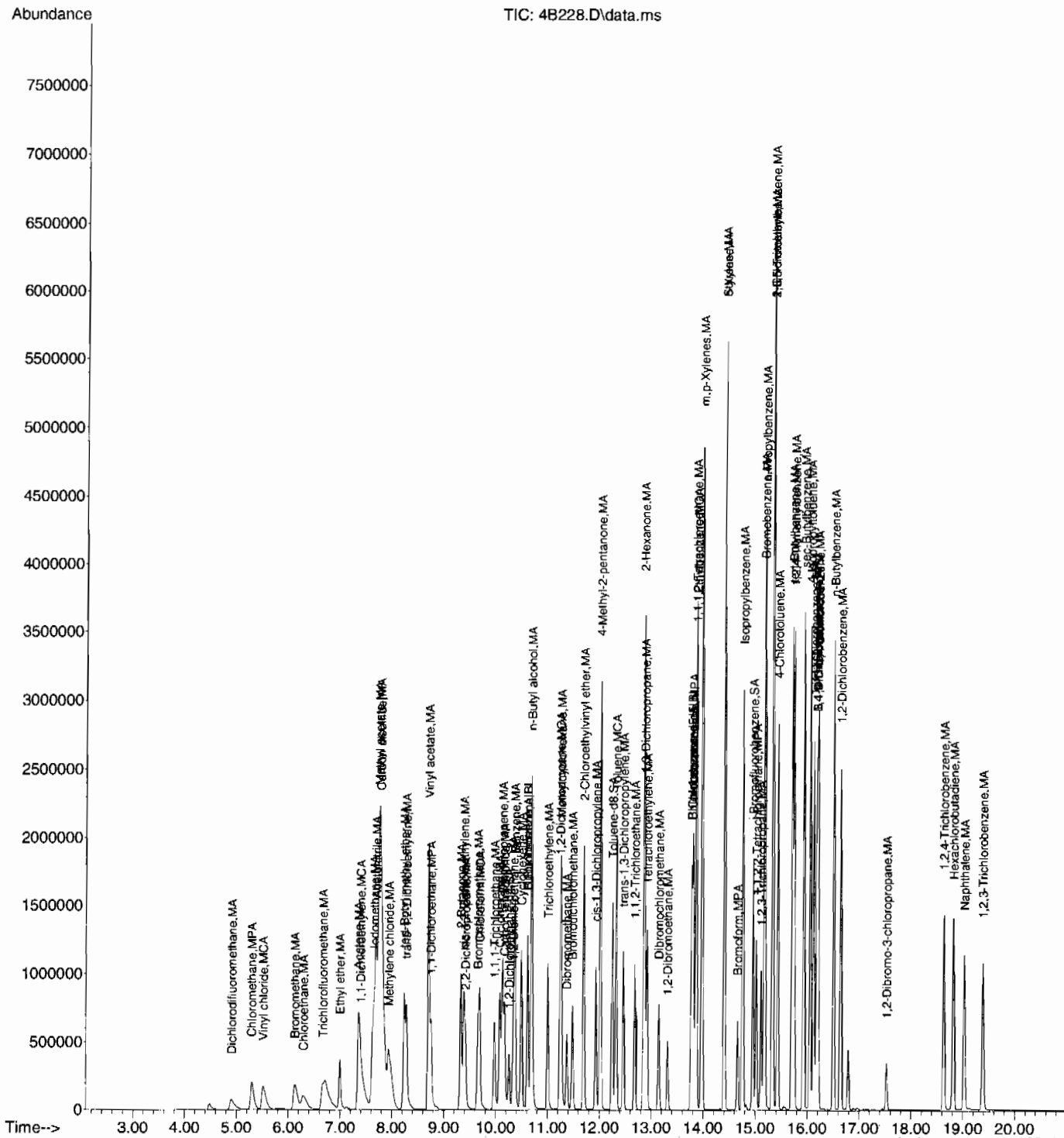
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
102) 2-Nitropropane	11.693	11.667	1.102		0m	N.D.	d
104) Ethyl methacrylate	12.467	12.460	0.905		0m	N.D.	d
106) 1-Chlorohexane	13.662	13.661	0.844		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.753	14.783	0.912		0m	N.D.	d
108) Cyclohexanone	14.899	14.905	0.921		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.064	15.063	0.931		0m	N.D.	d
110) Pentachloroethane	15.765	15.770	0.974		0m	N.D.	d
111) Benzyl chloride	16.320	16.319	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.716	16.715	1.033		0m	N.D.	d

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

GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B228.D  
Acq On : 10 Mar 2010 5:37 am  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100309-05|CCV|1|VOAF|1|VOA8260LF|  
Misc : GEL 5ML - MIX[A] 0220-01E+0308-01  
ALS Vial : 28 Sample Multiplier: 1
```

Quant Time: Mar 10 06:29:28 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE





## Continuing Calibration Summary

Client SDG: 10-2193

Instrument ID: VOA4.I

Injection Date 10-MAR-10 06:33

Data File: 030910V4\4B230.D

Init. Cal. Date(s) 07-MAR-10 19:57 - 08-MAR-10 03:1

Lab Sample ID W4VM100309-07

Quant Type ISTD

Method:030710V4\VOA4-8260-030710.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S1,2-Dichloroethane-d4	0.27	0.24947		.01		-7.6037	30		Averaged
SToluene-d8	1.1383	1.09177		.01		-4.08767	30		Averaged
SBromofluorobenzene	0.9696	1.01948		.01		5.14439	30		Averaged
Acrolein	0.053	0.05539		.01		4.50943	30		Averaged
Trichlorotrifluoroethane	0.1298	0.11451		.01		-11.77966	30		Averaged
Allyl chloride	0.4287	0.47351		.01		10.45253	30		Averaged
Acrylonitrile	0.108	0.11036		.01		2.18519	30		Averaged
2-Chloro-1,3-butadiene	0.4217	0.48699		.01		15.48257	30		Averaged
Ethyl acetate	0.3182	0.28968		.01		-8.96292	40		Averaged
Propionitrile	0.0463	0.04508		.01		-2.63499	30		Averaged
Methacrylonitrile	0.1922	0.19669		.01		2.33611	30		Averaged
Tetrahydrofuran	0.1019	0.09857		.01		-3.26791	30		Averaged
Isobutyl alcohol	0.0141	0.01343		.01		-4.75177	40		Averaged
Methyl methacrylate	0.1923	0.21495		.01		11.77847	30		Averaged
1,4-Dioxane	0.0034	0.00321		.01		-5.58824	40		Averaged
2-Nitropropane	250	234.49	250			-6.204	30		Linear
Ethyl methacrylate	0.4802	0.55682		.01		15.95585	30		Averaged
cis-1,4-Dichloro-2-butene	0.2616	0.30882		.01		18.05046	30		Averaged
Cyclohexanone	0.0297	0.02183		.01		-26.49832	40		Averaged
trans-1,4-Dichloro-2-butene	0.2497	0.29834		.01		19.47938	30		Averaged
Pentachloroethane	250	286.1	250			14.44	30		Linear
Benzyl chloride	1.2744	1.42118		.01		11.51758	30		Averaged
bis(2-Chloroisopropyl)ether	0.364	0.37805		.01		3.85989	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B230.D  
Acq On : 10 Mar 2010 6:33 am  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100309-07|CCV|1|VOAF|1|VOA8260LF|  
Misc : GEL 5ML - MIX[B] 0304-08A  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 10 06:54:32 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.613	10.613	1.000	96	1494392	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	1117697	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	693837	50.00	ug/L	0.00
82) B Fluorobenzene	10.613	10.613	1.000	96	1493896	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	1117697	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	694021	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.259	0.967	65	372812	46.20	ug/L	0.00
43) Toluene-d8	12.247	12.247	0.889	98	1220272	47.96	ug/L	0.00
61) Bromofluorobenzene	14.954	14.947	0.924	95	707351	52.57	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.284	5.299	0.498		0m	N.D.	d	
4) Vinyl chloride	5.514	5.521	0.519		0m	N.D.	d	
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	6.669	6.668	0.628		0m	N.D.	d	
8) Ethyl ether	6.992	6.991	0.659		0m	N.D.	d	
9) Acetone	7.370	7.351	0.694		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.370	7.394	0.694		0m	N.D.	d	
11) Iodomethane	7.614	7.662	0.717		0m	N.D.	d	
12) Acetonitrile	7.706	7.693	0.726		0m	N.D.	d	
13) Methyl acetate	7.748	7.747	0.730		0m	N.D.	d	
14) Carbon disulfide	7.797	7.778	0.735		0m	N.D.	d	
15) Methylene chloride	7.949	7.967	0.749		0m	N.D.	d	
16) tert-Butyl methyl ether	8.242	8.235	0.777		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.291	8.278	0.781		0m	N.D.	d	
18) Vinyl acetate	8.711	8.705	0.821		0m	N.D.	d	
19) 1,1-Dichloroethane	8.754	8.753	0.825		0m	N.D.	d	
20) 2-Butanone	9.339	9.320	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.339	9.381	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	9.345	9.412	0.881		0m	N.D.	d	
23) Bromochloromethane	9.662	9.656	0.910		0m	N.D.	d	
24) Chloroform	9.687	9.686	0.913		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.979	9.973	0.940		0m	N.D.	d	
26) Cyclohexane	10.004	10.076	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.120	10.131	0.953		0m	N.D.	d	
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.351	10.338	0.975		0m	N.D.	d	
31) Benzene	10.370	10.369	0.977		0m	N.D.	d	
32) Cyclohexene	10.492	10.491	0.989		0m	N.D.	d	
33) n-Butyl alcohol	10.687	10.686	1.007		0m	N.D.	d	
34) Trichloroethylene	11.010	11.003	1.037		0m	N.D.	d	
35) 1,2-Dichloropropane	11.241	11.241	1.059		0m	N.D.	d	
36) Methylcyclohexane	11.205	11.259	1.056		0m	N.D.	d	
37) Dibromomethane	11.369	11.369	1.071		0m	N.D.	d	
38) Bromodichloromethane	11.467	11.478	1.080		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.699	11.692	1.102		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	11.930	11.930	1.124		0m	N.D.	d	
42) 4-Methyl-2-pentanone	12.022	12.015	0.873		0m	N.D.	d	
44) Toluene	12.327	12.320	0.895		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B230.D  
Acq On : 10 Mar 2010 6:33 am  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100309-07|CCV|1|VOAF|1|VOA8260LF|  
Misc : GEL 5ML - MIX[B] 0304-08A  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 10 06:54:32 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
45) trans-1,3-Dichloroprop...	12.467	12.460	0.905		0m	N.D.	d
46) 1,1,2-Trichloroethane	12.680	12.679	0.921		0m	N.D.	d
47) 2-Hexanone	12.857	12.856	0.934		0m	N.D.	d
48) 1,3-Dichloropropane	12.875	12.874	0.935		0m	N.D.	d
49) Tetrachloroethylene	12.918	12.917	0.938		0m	N.D.	d
50) Dibromochloromethane	13.137	13.143	0.954		0m	N.D.	d
51) 1,2-Dibromoethane	13.326	13.313	0.968		0m	N.D.	d
52) Chlorobenzene	13.808	13.801	1.003		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	13.838	13.850	1.005		0m	N.D.	d
54) Ethylbenzene	13.863	13.862	1.007		0m	N.D.	d
55) m,p-Xylenes	13.966	13.966	1.014		0m	N.D.	d
56) o-Xylene	14.399	14.399	1.046		0m	N.D.	d
57) Styrene	14.405	14.399	1.046		0m	N.D.	d
59) Bromoform	14.655	14.655	0.906		0m	N.D.	d
60) Isopropylbenzene	14.759	14.758	0.912		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	15.015	15.014	0.928		0m	N.D.	d
63) 1,2,3-Trichloropropane	15.113	15.106	0.934		0m	N.D.	d
64) Bromobenzene	15.167	15.167	0.937		0m	N.D.	d
65) n-Propylbenzene	15.180	15.179	0.938		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	15.326	15.325	0.947		0m	N.D.	d
67) 2-Chlorotoluene	15.332	15.331	0.948		0m	N.D.	d
68) 4-Chlorotoluene	15.430	15.429	0.954		0m	N.D.	d
69) tert-Butylbenzene	15.698	15.703	0.970		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	15.747	15.740	0.973		0m	N.D.	d
71) sec-Butylbenzene	15.930	15.929	0.985		0m	N.D.	d
72) 4-Isopropyltoluene	16.051	16.051	0.992		0m	N.D.	d
73) 1,3-Dichlorobenzene	16.119	16.118	0.996		0m	N.D.	d
74) 1,4-Dichlorobenzene	16.204	16.203	1.002		0m	N.D.	d
75) n-Butylbenzene	16.503	16.502	1.020		0m	N.D.	d
76) 1,2-Dichlorobenzene	16.643	16.642	1.029		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	17.515	17.526	1.083		0m	N.D.	d
78) 1,2,4-Trichlorobenzene	18.636	18.629	1.152		0m	N.D.	d
79) Hexachlorobutadiene	18.819	18.818	1.163		0m	N.D.	d
80) Naphthalene	19.026	19.026	1.176		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	19.380	19.385	1.198		0m	N.D.	d
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	7.181	7.174	0.677	56	413731	261.38 ug/L	100
86) Trichlorotrifluoroethane	7.358	7.363	0.693	85	855303	220.57 ug/L	98
87) Isopropyl Alcohol	0.000	7.430	0.000		0m	N.D.	d
88) Allyl chloride	7.797	7.796	0.735	41	3536903	276.13 ug/L	99
89) tert-Butyl Alcohol	7.907	7.924	0.745	59	208	N.D.	
90) Acrylonitrile	8.175	8.168	0.770	53	824360	255.49 ug/L	99
91) Isopropyl ether	8.864	8.735	0.835	45	213	N.D.	
92) 2-Chloro-1,3-butadiene	8.870	8.863	0.836	53	727508	57.74 ug/L	100
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.339	9.339	0.880	43	2163791	227.58 ug/L	100
95) Propionitrile	9.394	9.387	0.885	54	336690	243.27 ug/L	99
96) Methacrylonitrile	9.577	9.570	0.902	41	1469150	255.77 ug/L	100
97) Tetrahydrofuran	9.711	9.710	0.915	42	736238	241.74 ug/L	99
98) Isobutyl alcohol	10.004	10.003	0.943	41	1003290	2377.90 ug/L	99
99) Methyl tert-amyl ether	10.370	10.381	0.977	73	144	N.D.	
100) Methyl methacrylate	11.205	11.204	1.056	69	1605551	279.41 ug/L	99
101) 1,4-Dioxane	11.327	11.326	1.067	88	239474	2344.94 ug/L	100

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B230.D  
Acq On : 10 Mar 2010 6:33 am  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100309-07|CCV|1|VOAF|1|VOA8260LF|  
Misc : GEL 5ML - MIX[B] 0304-08A  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 10 06:54:32 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

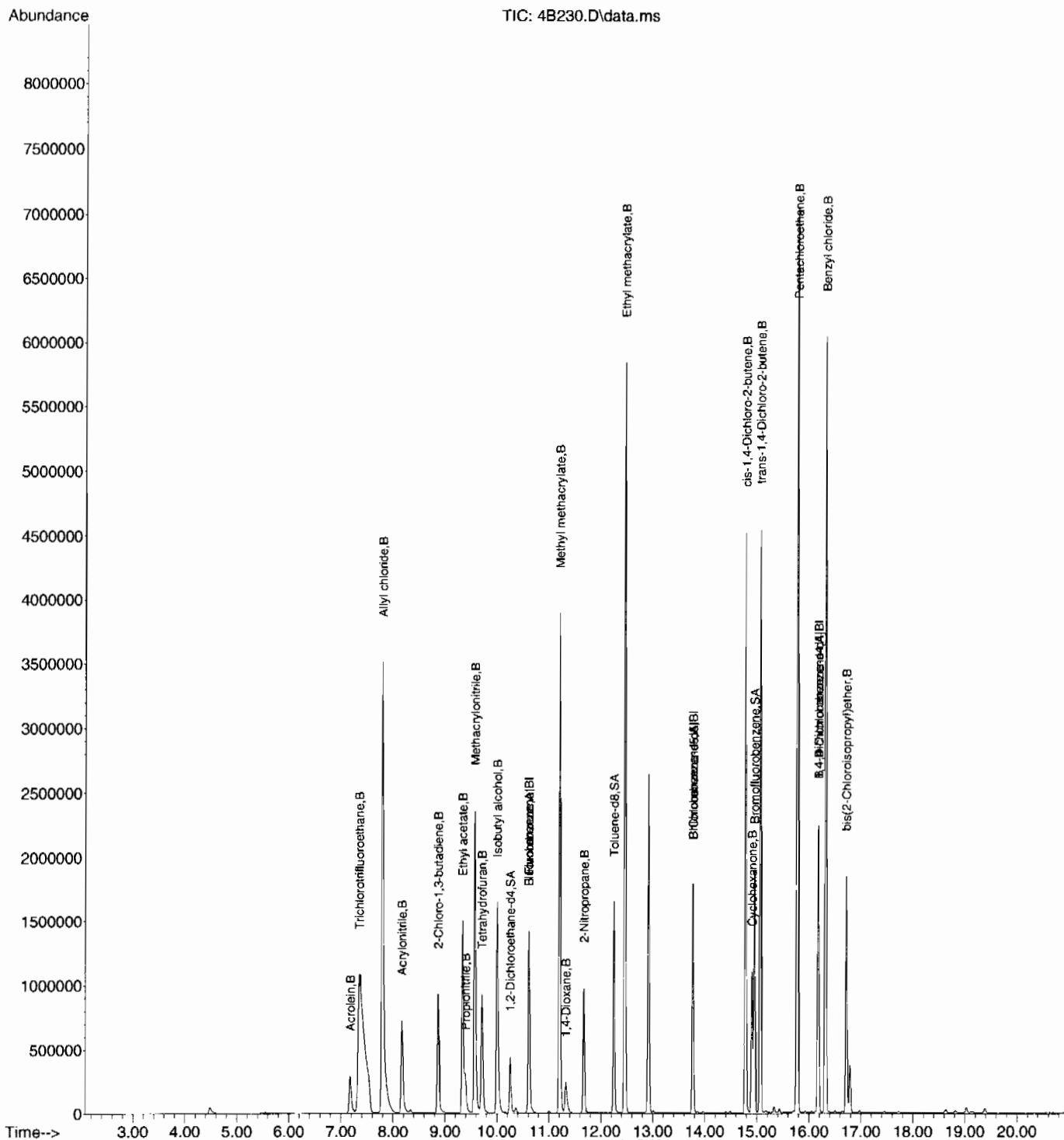
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
102) 2-Nitropropane	11.674	11.667	1.100	43	807665	234.49	ug/L	99
104) Ethyl methacrylate	12.461	12.460	0.905	69	3111770	289.89	ug/L	100
106) 1-Chlorohexane	13.656	13.661	0.844	55	139	N.D.		
107) cis-1,4-Dichloro-2-butene	14.783	14.783	0.914	53	1071632	295.15	ug/L	99
108) Cyclohexanone	14.905	14.905	0.921	42	378791	919.93	ug/L	99
109) trans-1,4-Dichloro-2-b...	15.064	15.063	0.931	53	1035276	298.69	ug/L	100
110) Pentachloroethane	15.771	15.770	0.975	167	1456115	286.10	ug/L	100
111) Benzyl chloride	16.320	16.319	1.009	91	4931634	278.79	ug/L	99
112) bis(2-Chloroisopropyl)...	16.716	16.715	1.033	45	1311878	259.66	ug/L	99

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

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B230.D  
Acq On : 10 Mar 2010 6:33 am  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100309-07|CCV|1|VOAF|1|VOA8260LF|  
Misc : GEL 5ML - MIX[B] 0304-08A  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 10 06:54:32 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE



## Continuing Calibration Summary

Client SDG: 10-2193

Instrument ID: VOA4.I

Injection Date 11-MAR-10 04:50

Data File: 031010V4\4B328.D

Init. Cal. Date(s) 07-MAR-10 19:57 - 08-MAR-10 03:1

Lab Sample ID W4VM100310-05

Quant Type ISTD

Method: 030710V4\VOA4-8260-030710.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S1,2-Dichloroethane-d4	0.27	0.2351		.01		-12.92593	30		Averaged	
SToluene-d8	1.1383	1.06792		.01		-6.1829	30		Averaged	
SBromofluorobenzene	0.9696	0.92788		.01		-4.30281	30		Averaged	
Dichlorodifluoromethane	0.3266	0.26979		.01		-17.39437	30		Averaged	
Chloromethane	0.5834	0.52974		.1		-9.19781	30		Averaged	spcc
Vinyl chloride	0.5514	0.50144		.01		-9.06057	20		Averaged	ccc
Bromomethane	0.3382	0.31078		.01		-8.10763	30		Averaged	
Chloroethane	0.2684	0.24925		.01		-7.13487	30		Averaged	
Trichlorofluoromethane	0.503	0.48084		.01		-4.40557	30		Averaged	
Ethyl ether	0.251	0.22392		.01		-10.78884	30		Averaged	
Acetone	0.3059	0.27171		.01		-11.17686	40		Averaged	
1,1-Dichloroethylene	0.5823	0.57949		.01		-0.48257	20		Averaged	ccc
Iodomethane	0.5463	0.56071		.01		2.63774	30		Averaged	
Acetonitrile	0.0499	0.05103		.01		2.26453	30		Averaged	
Methyl acetate	0.2634	0.2687		.01		2.01215	40		Averaged	
Carbon disulfide	1.1124	1.16809		.01		5.00629	30		Averaged	
Methylene chloride	50	49.11	50			-1.78	30		Linear	
tert-Butyl methyl ether	0.8884	0.84309		.01		-5.10018	30		Averaged	
trans-1,2-Dichloroethylene	0.4549	0.45536		.01		0.10112	30		Averaged	
Vinyl acetate	0.5842	0.51304		.01		-12.18076	40		Averaged	
1,1-Dichloroethane	0.5635	0.57486		.1		2.01597	30		Averaged	spcc
2-Butanone	0.3177	0.31651		.01		-0.37457	40		Averaged	
cis-1,2-Dichloroethylene	0.4909	0.48751		.01		-0.69057	30		Averaged	
2,2-Dichloropropane	0.2849	0.26942		.01		-5.43349	30		Averaged	
Bromochloromethane	0.1638	0.16403		.01		0.14042	30		Averaged	
Chloroform	0.5816	0.57507		.01		-1.12276	20		Averaged	ccc
1,1,1-Trichloroethane	0.4287	0.43044		.01		0.40588	30		Averaged	
Cyclohexane	0.4871	0.47793		.01		-1.88257	30		Averaged	
1,1-Dichloropropene	0.4183	0.41425		.01		-0.9682	30		Averaged	
Carbon tetrachloride	0.3975	0.40293		.01		1.36604	30		Averaged	
1,2-Dichloroethane	0.4745	0.4665		.01		-1.68599	30		Averaged	
Benzene	1.2379	1.22096		.01		-1.36845	30		Averaged	
Cyclohexene	0.5962	0.6083		.01		2.02952	30		Averaged	
n-Butyl alcohol	5000	5144.63	5000			2.8926	40		Linear	
Trichloroethylene	0.3246	0.3261		.01		0.46211	30		Averaged	
1,2-Dichloropropane	0.3242	0.33642		.01		3.76928	20		Averaged	ccc
Methylcyclohexane	0.4962	0.50272		.01		1.31399	30		Averaged	

## Continuing Calibration Summary

Instrument ID: VOA4.I

Injection Date 11-MAR-10 04:50

Data File: 031010V4\4B328.D

Init. Cal. Date(s) 07-MAR-10 19:57 08-MAR-10 03:1

Lab Sample ID W4VM100310-05

Quant Type ISTD

Method: 030710V4\VOA4-8260-030710.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.2024	0.20444		.01		1.00791	30		Averaged	
Bromodichloromethane	0.4057	0.43054		.01		6.12275	30		Averaged	
2-Chloroethylvinyl ether	0.1523	0.14226		.01		-6.59225	30		Averaged	
cis-1,3-Dichloropropylene	0.4762	0.49848		.01		4.67871	30		Averaged	
4-Methyl-2-pentanone	0.1779	0.17869		.01		0.44407	40		Averaged	
Toluene	50	54.16	50			8.32	20		Linear	ccc
trans-1,3-Dichloropropylene	0.5852	0.59798		.01		2.18387	30		Averaged	
1,1,2-Trichloroethane	0.3114	0.31048		.01		-0.29544	30		Averaged	
2-Hexanone	0.519	0.51212		.01		-1.32563	40		Averaged	
1,3-Dichloropropane	0.6393	0.65337		.01		2.20084	30		Averaged	
Tetrachloroethylene	0.3356	0.32638		.01		-2.74732	30		Averaged	
Dibromochloromethane	0.4012	0.43783		.01		9.13011	30		Averaged	
1,2-Dibromoethane	0.3775	0.3817		.01		1.11258	30		Averaged	
Chlorobenzene	1.1561	1.14135		.3		-1.27584	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.4249	0.44798		.01		5.43187	30		Averaged	
Ethylbenzene	2.0228	2.06452		.01		2.06249	20		Averaged	ccc
m,p-Xylenes	0.7907	0.82279		.01		4.05843	30		Averaged	
Styrene	1.3051	1.4621		.01		12.02973	30		Averaged	
o-Xylene	0.8175	0.87719		.01		7.30153	30		Averaged	
Bromoform	0.4321	0.44291		.1		2.50174	30		Averaged	spcc
Isopropylbenzene	3.3889	3.14773		.01		-7.11647	30		Averaged	
1,1,2,2-Tetrachloroethane	0.9439	0.87557		.3		-7.23911	30		Averaged	spcc
1,2,3-Trichloropropane	0.2471	0.22851		.01		-7.52327	30		Averaged	
Bromobenzene	0.9261	0.85049		.01		-8.16435	30		Averaged	
n-Propylbenzene	4.2341	3.99424		.01		-5.66496	30		Averaged	
2-Chlorotoluene	0.9144	0.87217		.01		-4.61833	30		Averaged	
1,3,5-Trimethylbenzene	3.1018	3.00308		.01		-3.18267	30		Averaged	
4-Chlorotoluene	2.6034	2.41671		.01		-7.17101	30		Averaged	
tert-Butylbenzene	0.6639	0.63309		.01		-4.64076	30		Averaged	
1,2,4-Trimethylbenzene	3.1859	3.06164		.01		-3.90031	30		Averaged	
sec-Butylbenzene	4.1916	4.03496		.01		-3.737	30		Averaged	
4-Isopropyltoluene	3.3303	3.29283		.01		-1.12512	30		Averaged	
1,3-Dichlorobenzene	1.8295	1.74022		.01		-4.88002	30		Averaged	
1,4-Dichlorobenzene	1.8756	1.77049		.01		-5.60407	30		Averaged	
n-Butylbenzene	3.1882	3.1983		.01		0.31679	30		Averaged	
1,2-Dichlorobenzene	1.7538	1.70321		.01		-2.88459	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1374	0.14795		.01		7.67831	30		Averaged	

## Continuing Calibration Summary

Instrument ID: VOA4.I

Injection Date 11-MAR-10 04:50

Data File: 031010V4\4B328.D

Init. Cal. Date(s) 07-MAR-10 19:57 08-MAR-10 03:1

Lab Sample ID W4VM100310-05

Quant Type ISTD

Method:030710V4\VOA4-8260-030710.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8439	0.8313		.01		-1.49307	30		Averaged
Hexachlorobutadiene	0.5613	0.53335		.01		-4.97951	30		Averaged
Naphthalene	1.8703	1.87176		.01		0.07806	30		Averaged
1,2,3-Trichlorobenzene	0.6781	0.66278		.01		-2.25925	30		Averaged



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B328.D  
Acq On : 11 Mar 2010 4:50 am  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100310-05|CCV|1|VOAF|1|VOA8260LF|  
Misc : GEL 5ML N/A MIX[A] 0106-08D/0222-08B  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 23 09:36:09 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.619	10.613	1.000	96	1098297	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	874299	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	622153	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.613	1.000	96	1098138	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	874299	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	622153	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.966	65	258213	43.54	ug/L	0.00
43) Toluene-d8	12.253	12.247	0.890	98	933682	46.91	ug/L	0.00
61) Bromofluorobenzene	14.953	14.947	0.924	95	577285	47.85	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	4.904	4.897	0.462	85	296305	41.30	ug/L	99
3) Chloromethane	5.292	5.299	0.498	50	581816	45.40	ug/L	100
4) Vinyl chloride	5.514	5.521	0.519	62	550726	45.47	ug/L	100
5) Bromomethane	6.138	6.130	0.578	94	341330	45.95	ug/L	100
6) Chloroethane	6.288	6.288	0.592	64	273754	46.43	ug/L	100
7) Trichlorofluoromethane	6.674	6.668	0.629	101	528106	47.80	ug/L	99
8) Ethyl ether	6.998	6.991	0.659	59	245926	44.60	ug/L	98
9) Acetone	7.351	7.351	0.692	43	1492100	222.06	ug/L	99
10) 1,1-Dichloroethylene	7.394	7.394	0.696	61	636449	49.76	ug/L	99
11) Iodomethane	7.656	7.662	0.721	142	3079146	256.62	ug/L	99
12) Acetonitrile	7.699	7.693	0.725	41	1401160	1279.54	ug/L	100
13) Methyl acetate	7.747	7.747	0.730	43	1475552	255.00	ug/L	99
14) Carbon disulfide	7.778	7.778	0.732	76	6414556	262.53	ug/L	100
15) Methylene chloride	7.942	7.967	0.748	84	424698	49.11	ug/L	98
16) tert-Butyl methyl ether	8.241	8.235	0.776	73	925966	47.45	ug/L	100
17) trans-1,2-Dichloroethy...	8.284	8.278	0.780	61	500125	50.05	ug/L	98
18) Vinyl acetate	8.711	8.705	0.820	43	2817347	219.55	ug/L	98
19) 1,1-Dichloroethane	8.759	8.753	0.825	63	631370	51.01	ug/L	100
20) 2-Butanone	9.326	9.320	0.878	43	1738134	249.06	ug/L	99
21) cis-1,2-Dichloroethylene	9.387	9.381	0.884	61	535435	49.65	ug/L	99
22) 2,2-Dichloropropane	9.418	9.412	0.887	77	295902	47.28	ug/L	99
23) Bromochloromethane	9.656	9.656	0.909	128	180154	50.06	ug/L	96
24) Chloroform	9.692	9.686	0.913	83	631597	49.43	ug/L	100
25) 1,1,1-Trichloroethane	9.979	9.973	0.940	97	472750	50.20	ug/L	98
26) Cyclohexane	10.082	10.076	0.949	56	524909	49.06	ug/L	100
27) 1,1-Dichloropropene	10.131	10.131	0.954	75	454974	49.51	ug/L	# 99
28) Carbon tetrachloride	10.174	10.168	0.958	117	442534	50.69	ug/L	98
30) 1,2-Dichloroethane	10.344	10.338	0.974	62	512355	49.16	ug/L	99
31) Benzene	10.369	10.369	0.976	78	1340981	49.32	ug/L	99
32) Cyclohexene	10.491	10.491	0.988	67	668091	51.02	ug/L	99
33) n-Butyl alcohol	10.686	10.686	1.006	56	1332610	5144.63	ug/L	98
34) Trichloroethylene	11.003	11.003	1.036	95	358154	50.23	ug/L	100
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	369488	51.89	ug/L	100
36) Methylcyclohexane	11.265	11.259	1.061	83	552139	50.66	ug/L	98
37) Dibromomethane	11.375	11.369	1.071	93	224539	50.49	ug/L	98
38) Bromodichloromethane	11.484	11.478	1.082	83	472858	53.06	ug/L	100
39) 2-Chloroethylvinyl ether	11.698	11.692	1.102	63	781242	233.48	ug/L	99
40) cis-1,3-Dichloropropylene	11.930	11.930	1.123	75	547478	52.34	ug/L	99
42) 4-Methyl-2-pentanone	12.015	12.015	0.872	58	781150	251.12	ug/L	96
44) Toluene	12.326	12.320	0.895	91	1465709	54.16	ug/L	100

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B328.D  
Acq On : 11 Mar 2010 4:50 am  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100310-05|CCV|1|VOAF|1|VOA8260LF|  
Misc : GEL 5ML N/A MIX[A] 0106-08D/0222-08B  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 23 09:36:09 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45) trans-1,3-Dichloroprop...	12.460	12.460	0.905	75	522814	51.09	ug/L	98
46) 1,1,2-Trichloroethane	12.685	12.679	0.921	83	271452	49.85	ug/L	99
47) 2-Hexanone	12.856	12.856	0.934	43	2238730	246.68	ug/L	98
48) 1,3-Dichloropropane	12.874	12.874	0.935	76	571244	51.10	ug/L	97
49) Tetrachloroethylene	12.917	12.917	0.938	164	285355	48.63	ug/L	99
50) Dibromochloromethane	13.149	13.143	0.955	129	382795	54.56	ug/L	99
51) 1,2-Dibromoethane	13.319	13.313	0.967	107	333720	50.55	ug/L	98
52) Chlorobenzene	13.801	13.801	1.002	112	997882	49.36	ug/L	99
53) 1,1,1,2-Tetrachloroethane	13.850	13.850	1.006	131	391665	52.72	ug/L	99
54) Ethylbenzene	13.862	13.862	1.007	91	1805007	51.03	ug/L	99
55) m,p-Xylenes	13.972	13.966	1.015	106	1438737	104.06	ug/L	97
56) o-Xylene	14.405	14.399	1.046	106	766928	53.65	ug/L	99
57) Styrene	14.399	14.399	1.046	104	1278314	56.02	ug/L	99
59) Bromoform	14.655	14.655	0.906	173	275558	51.25	ug/L	100
60) Isopropylbenzene	14.758	14.758	0.912	105	1958367	46.44	ug/L	99
62) 1,1,2,2-Tetrachloroethane	15.014	15.014	0.928	83	544737	46.38	ug/L	100
63) 1,2,3-Trichloropropane	15.106	15.106	0.934	110	142167	46.24	ug/L	99
64) Bromobenzene	15.167	15.167	0.937	156	529136	45.92	ug/L	96
65) n-Propylbenzene	15.179	15.179	0.938	91	2485027	47.17	ug/L	99
66) 1,3,5-Trimethylbenzene	15.331	15.325	0.948	105	1868373	48.41	ug/L	99
67) 2-Chlorotoluene	15.331	15.331	0.948	126	542623	47.69	ug/L	94
68) 4-Chlorotoluene	15.429	15.429	0.954	91	1503566	46.42	ug/L	99
69) tert-Butylbenzene	15.703	15.703	0.971	134	393879	47.68	ug/L	98
70) 1,2,4-Trimethylbenzene	15.740	15.740	0.973	105	1904810	48.05	ug/L	99
71) sec-Butylbenzene	15.929	15.929	0.985	105	2510364	48.13	ug/L	99
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	2048641	49.44	ug/L	100
73) 1,3-Dichlorobenzene	16.118	16.118	0.996	146	1082680	47.56	ug/L	99
74) 1,4-Dichlorobenzene	16.203	16.203	1.002	146	1101517	47.20	ug/L	99
75) n-Butylbenzene	16.502	16.502	1.020	91	1989835	50.16	ug/L	99
76) 1,2-Dichlorobenzene	16.642	16.642	1.029	146	1059655	48.56	ug/L	99
77) 1,2-Dibromo-3-chloropr...	17.526	17.526	1.083	157	92046	53.83	ug/L	98
78) 1,2,4-Trichlorobenzene	18.629	18.629	1.151	180	517198	49.25	ug/L	100
79) Hexachlorobutadiene	18.818	18.818	1.163	225	331827	47.51	ug/L	99
80) Naphthalene	19.032	19.026	1.176	128	1164524	50.04	ug/L	100
81) 1,2,3-Trichlorobenzene	19.385	19.385	1.198	180	412348	48.87	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	7.174	7.174	0.676		0m	N.D.	d	
86) Trichlorotrifluoroethane	7.357	7.363	0.693		0m	N.D.	d	
87) Isopropyl Alcohol	7.363	7.430	0.693		0m	N.D.	d	
88) Allyl chloride	7.699	7.796	0.725		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	7.924	0.000		0	N.D.		
90) Acrylonitrile	8.180	8.168	0.770		0m	N.D.	d	
91) Isopropyl ether	8.705	8.735	0.820		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	8.869	8.863	0.835		0m	N.D.	d	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.		
94) Ethyl acetate	9.326	9.339	0.878		0m	N.D.	d	
95) Propionitrile	9.320	9.387	0.878		0m	N.D.	d	
96) Methacrylonitrile	0.000	9.570	0.000		0	N.D.		
97) Tetrahydrofuran	9.680	9.710	0.912		0m	N.D.	d	
98) Isobutyl alcohol	10.082	10.003	0.949		0m	N.D.	d	
99) Methyl tert-amyl ether	10.369	10.381	0.976		0m	N.D.	d	
100) Methyl methacrylate	11.259	11.204	1.060		0m	N.D.	d	
101) 1,4-Dioxane	11.356	11.326	1.069		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B328.D  
Acq On : 11 Mar 2010 4:50 am  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100310-05|CCV|1|VOAF|1|VOA8260LF|  
Misc : GEL 5ML N/A MIX[A] 0106-08D/0222-08B  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 23 09:36:09 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

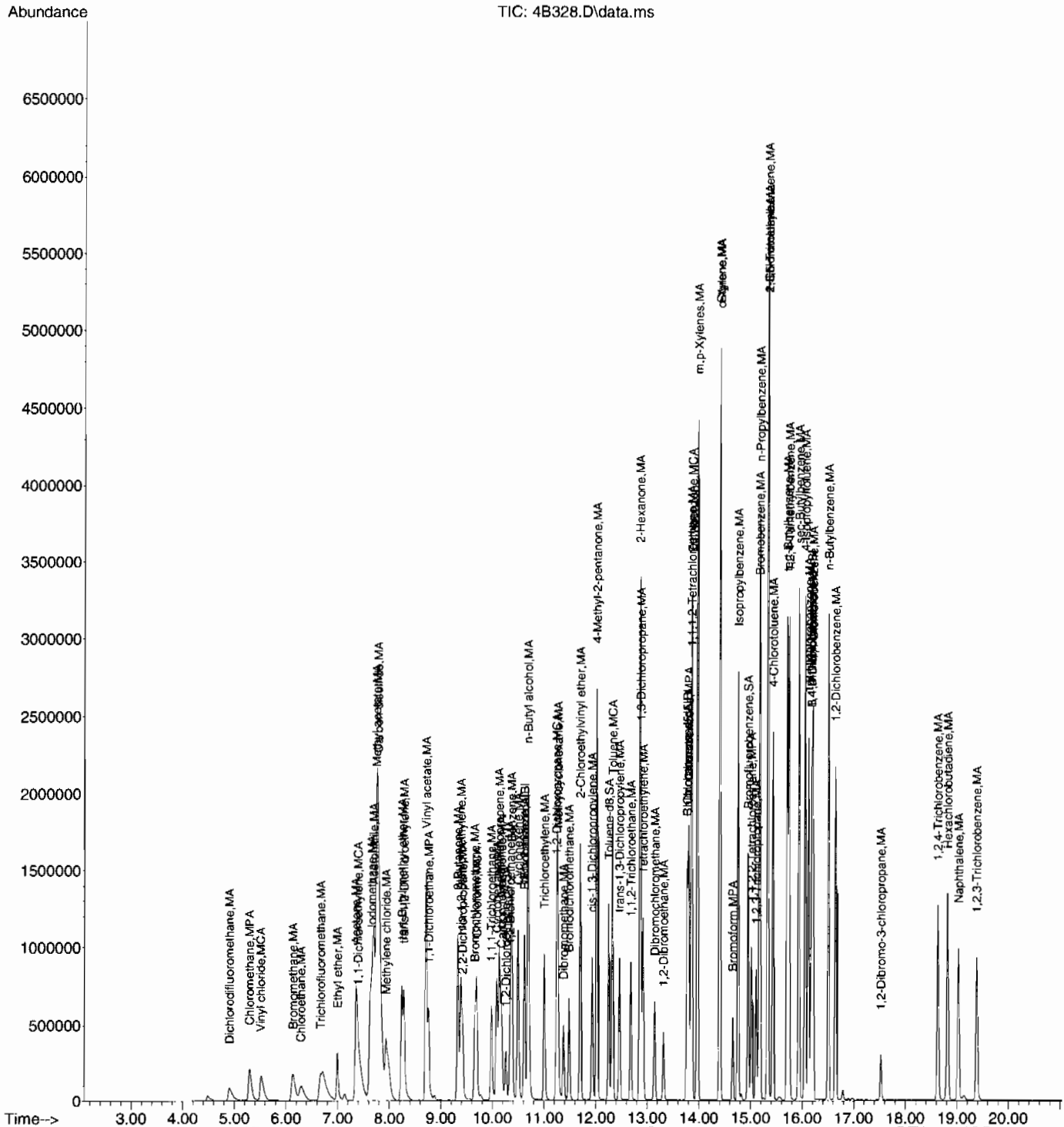
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
102) 2-Nitropropane	11.698	11.667	1.102		0m	N.D.	d
104) Ethyl methacrylate	12.460	12.460	0.905		0m	N.D.	d
106) 1-Chlorohexane	13.771	13.661	0.851		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.758	14.783	0.912		0m	N.D.	d
108) Cyclohexanone	14.911	14.905	0.922		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.057	15.063	0.931		0m	N.D.	d
110) Pentachloroethane	15.770	15.770	0.975		0m	N.D.	d
111) Benzyl chloride	16.319	16.319	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.721	16.715	1.034		0m	N.D.	d

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

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B328.D  
Acq On : 11 Mar 2010 4:50 am  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100310-05|CCV|1|VOAF|1|VOA8260LF|  
Misc : GEL 5ML N/A MIX[A] 0106-08D/0222-08B  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 23 09:36:09 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE



## Continuing Calibration Summary

Client SDG: 10-2193

Instrument ID: VOA4.1

Injection Date 11-MAR-10 06:12

Data File: 031010V4\B331.D

Init. Cal. Date(s) 07-MAR-10 19:57 - 08-MAR-10 03:1

Lab Sample ID W4VM100310-08

Quant Type ISTD

Method: 030710V4\VOA4-8260-030710.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S1,2-Dichloroethane-d4	0.27	0.24548		.01		-9.08148	30		Averaged
SToluene-d8	1.1383	1.09485		.01		-3.8171	30		Averaged
SBromofluorobenzene	0.9696	1.00524		.01		3.67574	30		Averaged
Acrolein	0.053	0.05868		.01		10.71698	30		Averaged
Trichlorotrifluoroethane	0.1298	0.1212		.01		-6.62558	30		Averaged
Allyl chloride	0.4287	0.49493		.01		15.44903	30		Averaged
Acrylonitrile	0.108	0.11826		.01		9.5	30		Averaged
2-Chloro-1,3-butadiene	0.4217	0.48273		.01		14.47237	30		Averaged
Ethyl acetate	0.3182	0.31084		.01		-2.31301	40		Averaged
Propionitrile	0.0463	0.0487		.01		5.18359	30		Averaged
Methacrylonitrile	0.1922	0.2111		.01		9.83351	30		Averaged
Tetrahydrofuran	0.1019	0.10649		.01		4.50442	30		Averaged
Isobutyl alcohol	0.0141	0.01513		.01		7.30496	40		Averaged
Methyl methacrylate	0.1923	0.22439		.01		16.68747	30		Averaged
1,4-Dioxane	0.0034	0.00348		.01		2.35294	40		Averaged
2-Nitropropane	250	247.34	250			-1.064	30		Linear
Ethyl methacrylate	0.4802	0.57402		.01		19.53769	30		Averaged
cis-1,4-Dichloro-2-butene	0.2616	0.3105		.01		18.69266	30		Averaged
Cyclohexanone	0.0297	0.02389		.01		-19.56229	40		Averaged
trans-1,4-Dichloro-2-butene	0.2497	0.3016		.01		20.78494	30		Averaged
Pentachloroethane	250	241.07	250			-3.572	30		Linear
Benzyl chloride	1.2744	1.37105		.01		7.58396	30		Averaged
bis(2-Chloroisopropyl)ether	0.364	0.41916		.01		15.15385	30		Averaged

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B331.D  
Acq On : 11 Mar 2010 6:12 am  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100310-08|CCV|1|VOAF|1|VOA8260LF|  
Misc : CCV 5ML - MIX[B] 0304-08A  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 23 15:09:59 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.613	10.613	1.000	96	1357049	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	1013354	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	641410	50.00	ug/L	0.00
82) B Fluorobenzene	10.613	10.613	1.000	96	1356610	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	1013354	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	641440	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.967	65	333124	45.46	ug/L	0.00
43) Toluene-d8	12.253	12.247	0.890	98	1109469	48.09	ug/L	0.00
61) Bromofluorobenzene	14.953	14.947	0.924	95	644773	51.84	ug/L	0.00
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.292	5.299	0.499		0m	N.D.	d	
4) Vinyl chloride	5.514	5.521	0.520		0m	N.D.	d	
5) Bromomethane	6.009	6.130	0.566		0m	N.D.	d	
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	6.668	6.668	0.628		0m	N.D.	d	
8) Ethyl ether	6.997	6.991	0.659		0m	N.D.	d	
9) Acetone	7.369	7.351	0.694		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.375	7.394	0.695		0m	N.D.	d	
11) Iodomethane	7.619	7.662	0.718		0m	N.D.	d	
12) Acetonitrile	7.802	7.693	0.735		0m	N.D.	d	
13) Methyl acetate	7.747	7.747	0.730		0m	N.D.	d	
14) Carbon disulfide	7.802	7.778	0.735		0m	N.D.	d	
15) Methylene chloride	7.930	7.967	0.747		0m	N.D.	d	
16) tert-Butyl methyl ether	8.247	8.235	0.777		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.278	8.278	0.780		0m	N.D.	d	
18) Vinyl acetate	8.711	8.705	0.821		0m	N.D.	d	
19) 1,1-Dichloroethane	8.759	8.753	0.825		0m	N.D.	d	
20) 2-Butanone	9.338	9.320	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.338	9.381	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	9.424	9.412	0.888		0m	N.D.	d	
23) Bromochloromethane	9.655	9.656	0.910		0m	N.D.	d	
24) Chloroform	9.692	9.686	0.913		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.973	9.973	0.940		0m	N.D.	d	
26) Cyclohexane	10.003	10.076	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.137	10.131	0.955		0m	N.D.	d	
28) Carbon tetrachloride	10.174	10.168	0.959		0m	N.D.	d	
30) 1,2-Dichloroethane	10.344	10.338	0.975		0m	N.D.	d	
31) Benzene	10.375	10.369	0.978		0m	N.D.	d	
32) Cyclohexene	10.491	10.491	0.989		0m	N.D.	d	
33) n-Butyl alcohol	10.692	10.686	1.007		0m	N.D.	d	
34) Trichloroethylene	11.009	11.003	1.037		0m	N.D.	d	
35) 1,2-Dichloropropane	11.241	11.241	1.059		0m	N.D.	d	
36) Methylcyclohexane	11.210	11.259	1.056		0m	N.D.	d	
37) Dibromomethane	11.381	11.369	1.072		0m	N.D.	d	
38) Bromodichloromethane	11.484	11.478	1.082		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.698	11.692	1.102		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	11.923	11.930	1.124		0m	N.D.	d	
42) 4-Methyl-2-pentanone	12.021	12.015	0.873		0m	N.D.	d	
44) Toluene	12.326	12.320	0.895		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B331.D  
Acq On : 11 Mar 2010 6:12 am  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100310-08|CCV|1|VOAF|1|VOA8260LF|  
Misc : CCV 5ML - MIX[B] 0304-08A  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 23 15:09:59 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45) trans-1,3-Dichloroprop...	12.460	12.460	0.905		0m	N.D.	d	
46) 1,1,2-Trichloroethane	12.679	12.679	0.921		0m	N.D.	d	
47) 2-Hexanone	12.856	12.856	0.934		0m	N.D.	d	
48) 1,3-Dichloropropane	12.874	12.874	0.935		0m	N.D.	d	
49) Tetrachloroethylene	12.917	12.917	0.938		0m	N.D.	d	
50) Dibromochloromethane	13.149	13.143	0.955		0m	N.D.	d	
51) 1,2-Dibromoethane	13.313	13.313	0.967		0m	N.D.	d	
52) Chlorobenzene	13.795	13.801	1.002		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	13.856	13.850	1.006		0m	N.D.	d	
54) Ethylbenzene	13.856	13.862	1.006		0m	N.D.	d	
55) m,p-Xylenes	13.966	13.966	1.014		0m	N.D.	d	
56) o-Xylene	14.405	14.399	1.046		0m	N.D.	d	
57) Styrene	14.411	14.399	1.046		0m	N.D.	d	
59) Bromoform	14.661	14.655	0.906		0m	N.D.	d	
60) Isopropylbenzene	14.764	14.758	0.913		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	15.020	15.014	0.928		0m	N.D.	d	
63) 1,2,3-Trichloropropane	15.106	15.106	0.934		0m	N.D.	d	
64) Bromobenzene	15.173	15.167	0.938		0m	N.D.	d	
65) n-Propylbenzene	15.179	15.179	0.938		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	15.331	15.325	0.948		0m	N.D.	d	
67) 2-Chlorotoluene	15.331	15.331	0.948		0m	N.D.	d	
68) 4-Chlorotoluene	15.435	15.429	0.954		0m	N.D.	d	
69) tert-Butylbenzene	15.697	15.703	0.970		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	15.746	15.740	0.973		0m	N.D.	d	
71) sec-Butylbenzene	15.929	15.929	0.985		0m	N.D.	d	
72) 4-Isopropyltoluene	16.051	16.051	0.992		0m	N.D.	d	
73) 1,3-Dichlorobenzene	16.118	16.118	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	16.203	16.203	1.002		0m	N.D.	d	
75) n-Butylbenzene	16.502	16.502	1.020		0m	N.D.	d	
76) 1,2-Dichlorobenzene	16.642	16.642	1.029		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	17.526	17.526	1.083		0m	N.D.	d	
78) 1,2,4-Trichlorobenzene	18.635	18.629	1.152		0m	N.D.	d	
79) Hexachlorobutadiene	18.818	18.818	1.163		0m	N.D.	d	
80) Naphthalene	19.032	19.026	1.176		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	19.391	19.385	1.199		0m	N.D.	d	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	7.180	7.174	0.677	56	398044	276.92	ug/L	98
86) Trichlorotrifluoroethane	7.363	7.363	0.694	85	822082	233.46	ug/L	98
87) Isopropyl Alcohol	0.000	7.430	0.000		0m	N.D.	d	
88) Allyl chloride	7.802	7.796	0.735	41	3357124	288.61	ug/L	100
89) tert-Butyl Alcohol	7.930	7.924	0.747	59	669	N.D.		
90) Acrylonitrile	8.174	8.168	0.770	53	802155	273.77	ug/L	100
91) Isopropyl ether	8.869	8.735	0.836	45	219	N.D.		
92) 2-Chloro-1,3-butadiene	8.869	8.863	0.836	53	654878	57.23	ug/L	100
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.		
94) Ethyl acetate	9.338	9.339	0.880	43	2108460	244.20	ug/L	100
95) Propionitrile	9.393	9.387	0.885	54	330310	262.81	ug/L	98
96) Methacrylonitrile	9.576	9.570	0.902	41	1431890	274.51	ug/L	100
97) Tetrahydrofuran	9.716	9.710	0.916	42	722308	261.17	ug/L	99
98) Isobutyl alcohol	10.003	10.003	0.943	41	1026503	2679.12	ug/L	100
99) Methyl tert-amyl ether	10.369	10.381	0.977	73	204	N.D.		
100) Methyl methacrylate	11.204	11.204	1.056	69	1522038	291.68	ug/L	99
101) 1,4-Dioxane	11.326	11.326	1.067	88	235787	2542.49	ug/L	100

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B331.D  
Acq On : 11 Mar 2010 6:12 am  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100310-08|CCV|1|VOAF|1|VOA8260LF|  
Misc : CCV 5ML - MIX[B] 0304-08A  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 23 15:09:59 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
102) 2-Nitropropane	11.673	11.667	1.100	43	774733	247.34	ug/L 99
104) Ethyl methacrylate	12.466	12.460	0.905	69	2908411	298.85	ug/L 100
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.783	14.783	0.914	53	995850	296.76	ug/L 99
108) Cyclohexanone	14.904	14.905	0.921	42	383055	1006.55	ug/L 99
109) trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	967278	301.95	ug/L 99
110) Pentachloroethane	15.770	15.770	0.975	167	1132159	241.07	ug/L 99
111) Benzyl chloride	16.319	16.319	1.009	91	4397236	268.96	ug/L 99
112) bis(2-Chloroisopropyl)...	16.721	16.715	1.034	45	1344330	287.90	ug/L 100

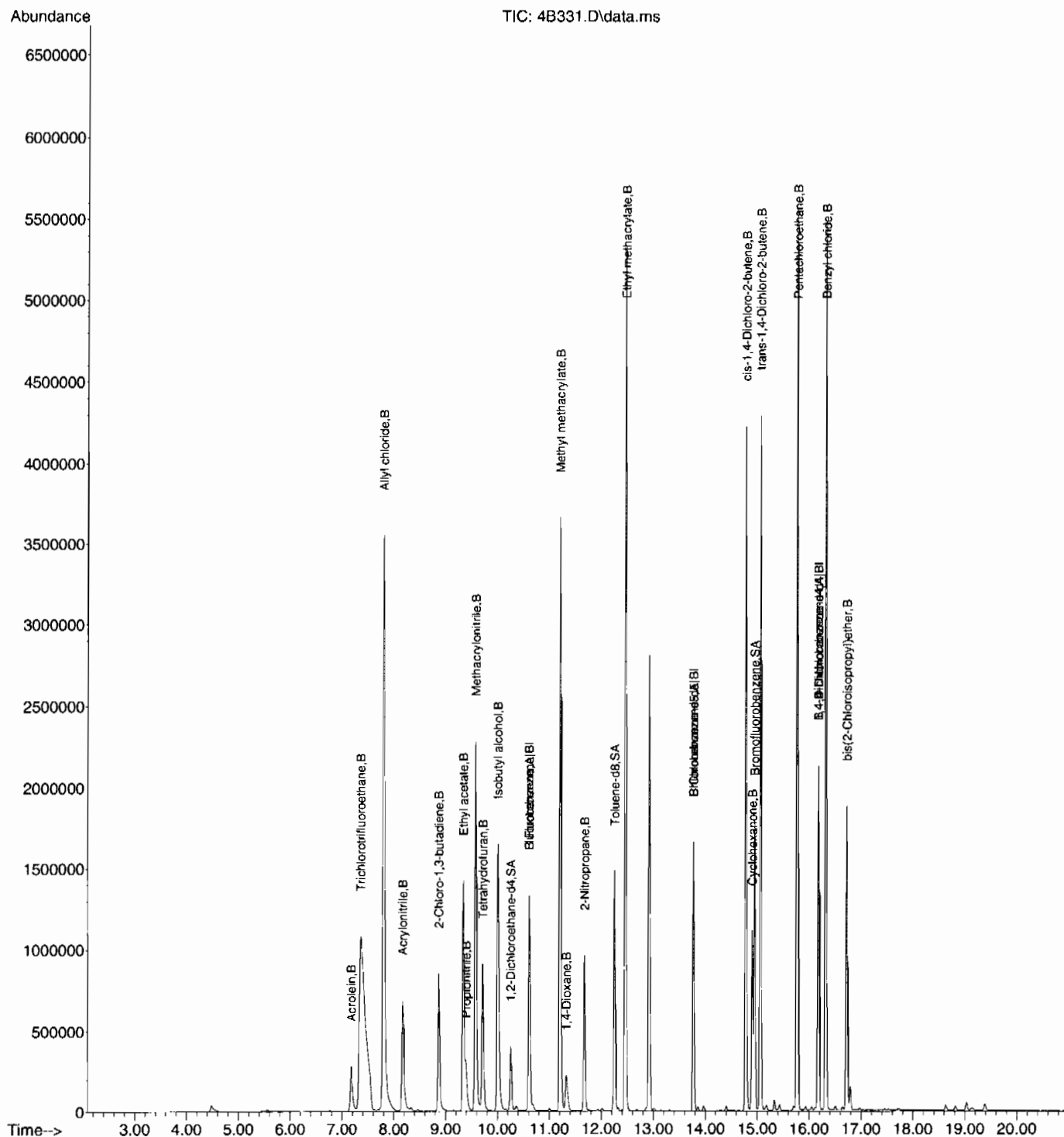
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B331.D  
Acq On : 11 Mar 2010 6:12 am  
Operator : ACJ  
InstName : VOA4  
Sample : |W4VM100310-08|CCV|1|VOAF|1|VOA8260LF|  
Misc : CCV 5ML - MIX[B] 0304-08A  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 23 15:09:59 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE



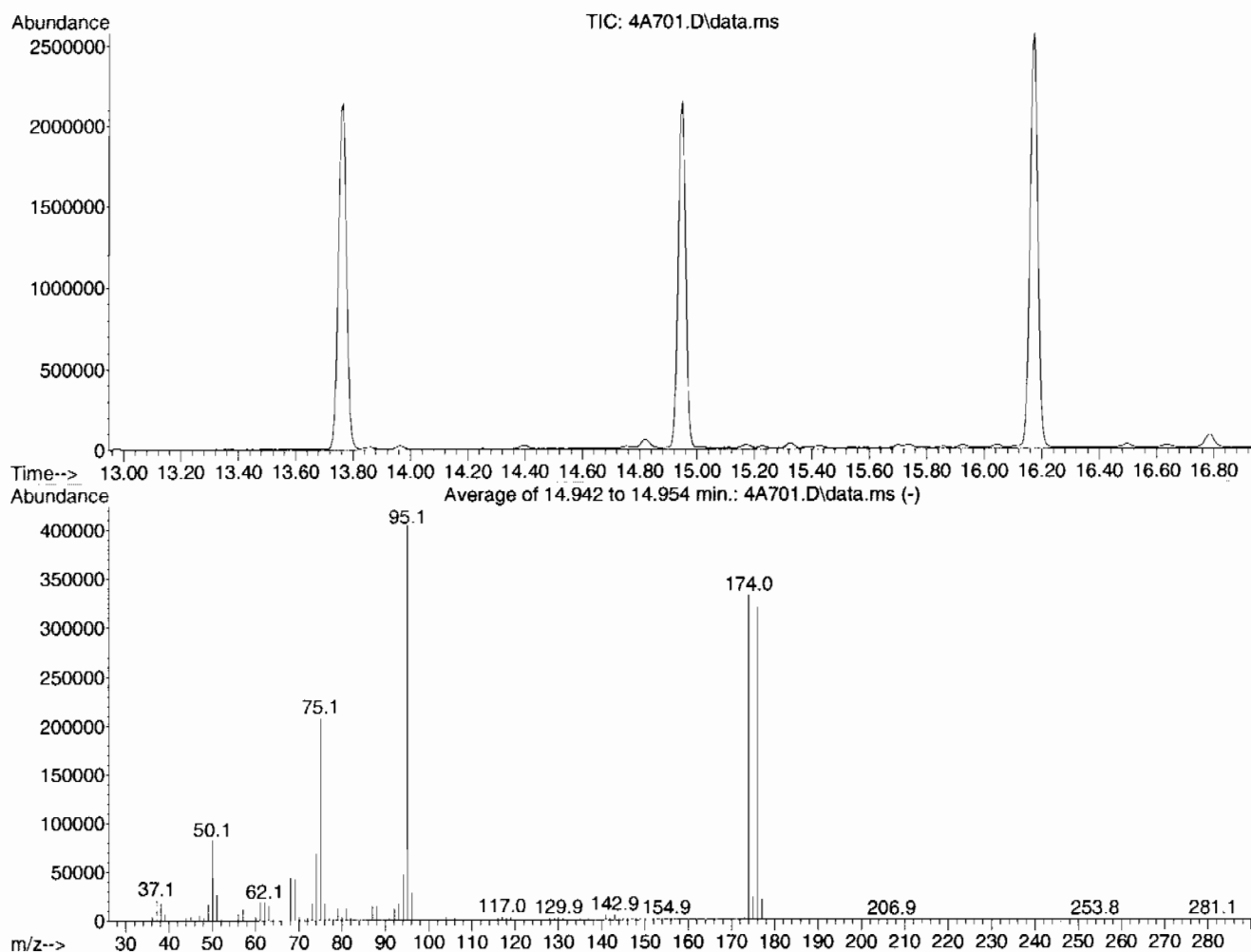
# Quality Control Data

Tune Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030710V4\  
Data File : 4A701.D  
Acq On : 7 Mar 2010 7:02 pm  
Operator : ACJ  
Sample : |UVM100217-02|BFB1|1|VOAF|1|  
Misc : GEL 5ML N/A  
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\031110V4\Methods\VOA4-8260-030710.M  
Title : Volatile Organics 8260B SubList :  
Last Update : Mon Mar 08 17:08:49 2010



AutoFind: Scans 2006, 2007, 2008; Background Corrected with Scan 1996

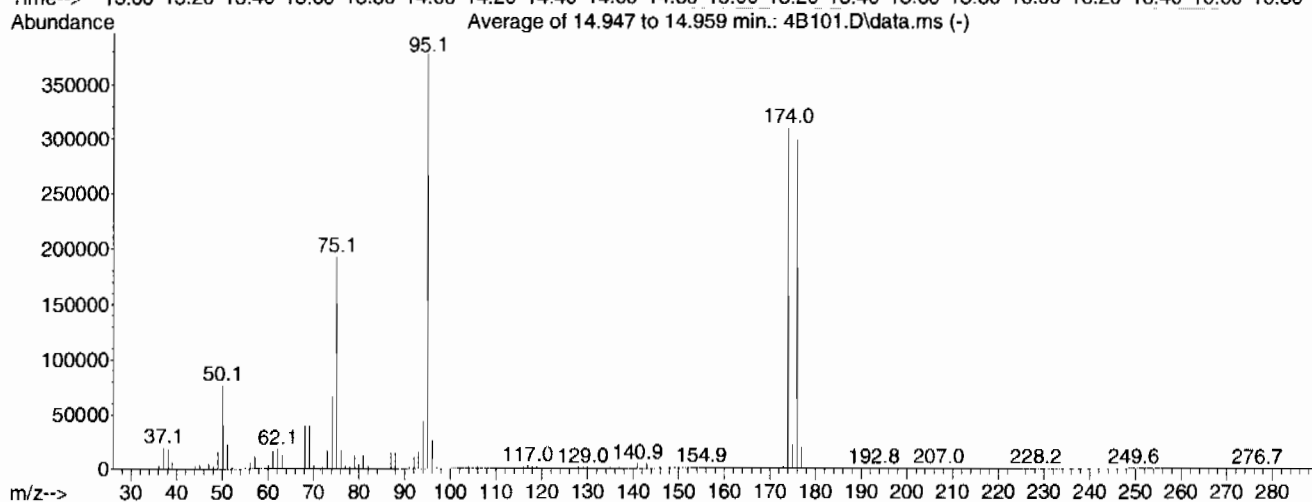
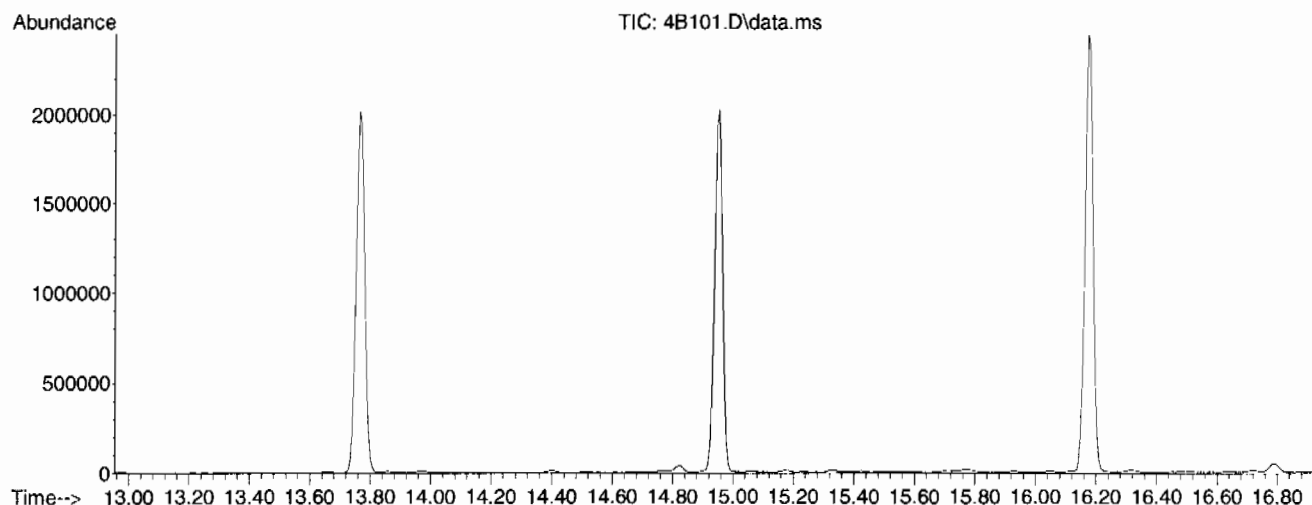
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	81539	PASS
75	95	30	60	51.3	207573	PASS
95	95	100	100	100.0	404309	PASS
96	95	5	9	6.9	27867	PASS
173	174	0.00	2	0.6	1959	PASS
174	95	50	100	81.9	331221	PASS
175	174	5	9	6.8	22475	PASS
176	174	95	101	96.2	318549	PASS
177	176	5	9	6.5	20803	PASS

Tune Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\  
Data File : 4B101.D  
Acq On : 8 Mar 2010 3:51 pm  
Operator : ACJ  
Sample : |UVM100217-02|BFB1|1|VOAF|1|  
Misc : GEL 5ML N/A  
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M  
Title : Volatile Organics 8260B SubList :  
Last Update : Mon Mar 08 15:37:50 2010



AutoFind: Scans 2007, 2008, 2009; Background Corrected with Scan 1996

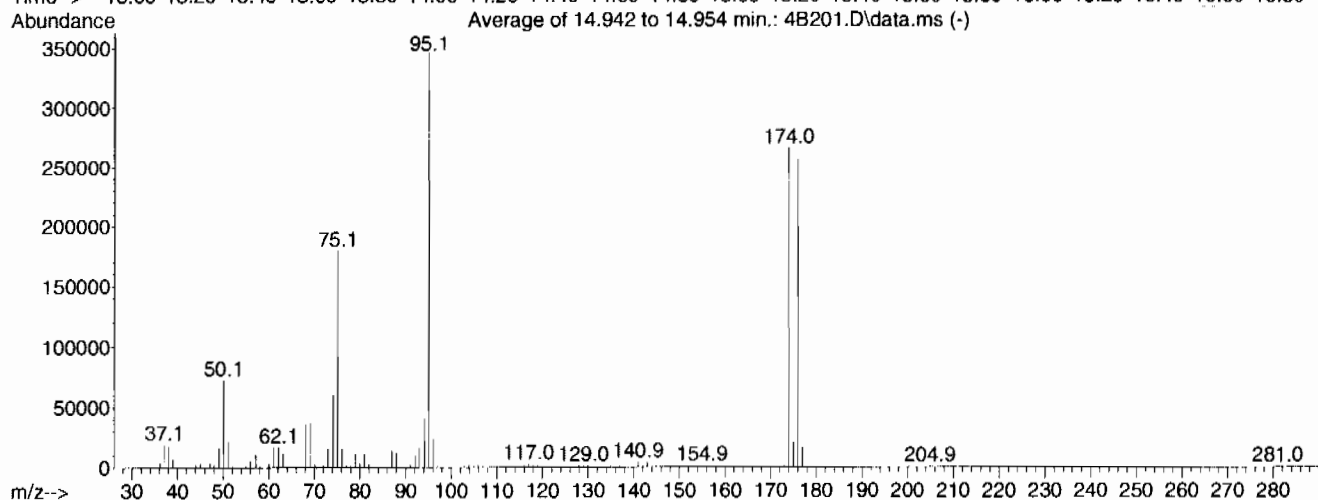
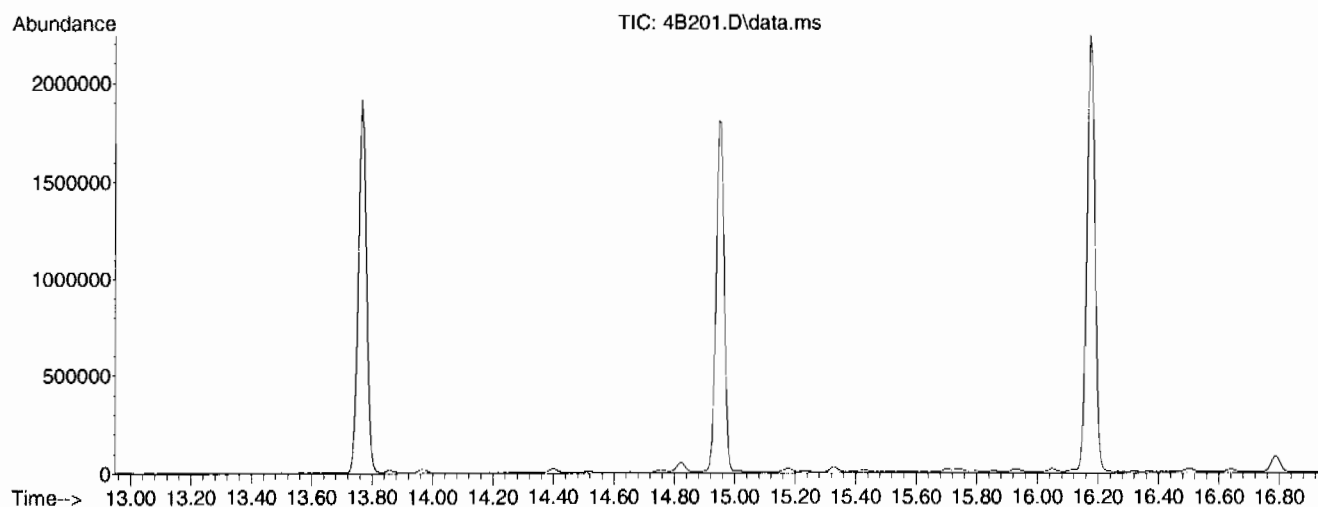
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	76429	PASS
75	95	30	60	50.8	192021	PASS
95	95	100	100	100.0	377899	PASS
96	95	5	9	6.9	26224	PASS
173	174	0.00	2	0.6	1744	PASS
174	95	50	100	82.0	309824	PASS
175	174	5	9	7.1	22000	PASS
176	174	95	101	96.2	298091	PASS
177	176	5	9	6.4	19187	PASS

Tune Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B201.D  
Acq On : 9 Mar 2010 5:16 pm  
Operator : ACJ  
Sample : |UVM100217-02|BFB1|1|VOAF|1|  
Misc : GEL 5ML N/A  
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M  
Title : Volatile Organics 8260B SubList :  
Last Update : Mon Mar 08 15:37:50 2010



AutoFind: Scans 2006, 2007, 2008; Background Corrected with Scan 1995

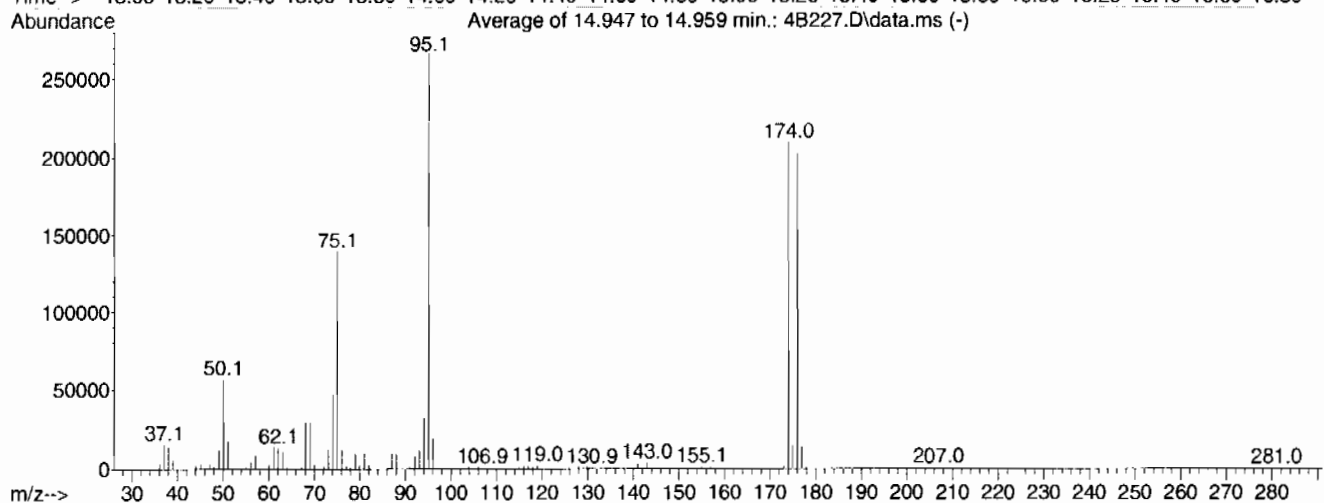
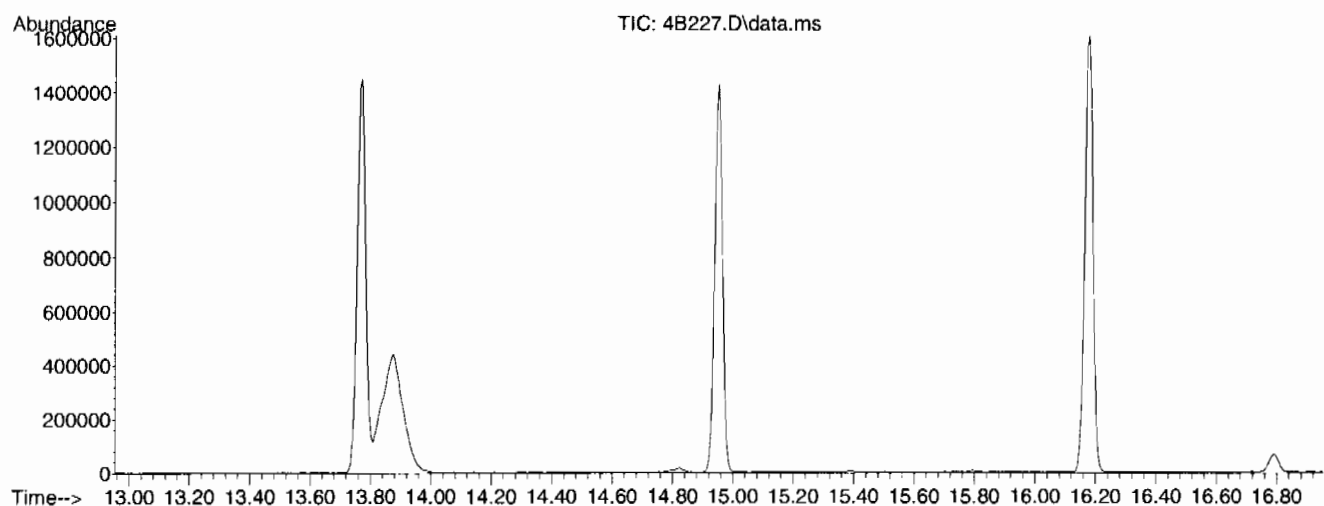
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.9	72317	PASS
75	95	30	60	51.8	179541	PASS
95	95	100	100	100.0	346368	PASS
96	95	5	9	6.7	23315	PASS
173	174	0.00	2	0.7	1816	PASS
174	95	50	100	76.7	265664	PASS
175	174	5	9	7.5	19955	PASS
176	174	95	101	96.3	255787	PASS
177	176	5	9	6.5	16530	PASS

Tune Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B227.D  
Acq On : 10 Mar 2010 5:10 am  
Operator : ACJ  
Sample : |UVM100217-02|BFB2|1|VOAF|1|  
Misc : GEL 5ML N/A  
ALS Vial : 27 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M  
Title : Volatile Organics 8260B SubList :  
Last Update : Mon Mar 08 15:37:50 2010



AutoFind: Scans 2007, 2008, 2009; Background Corrected with Scan 1998

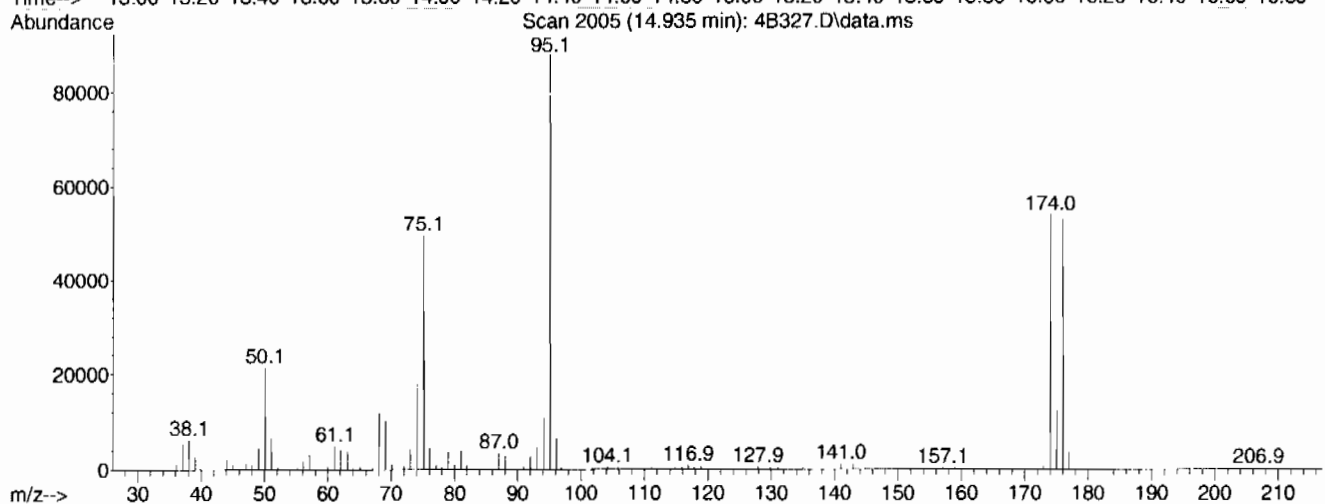
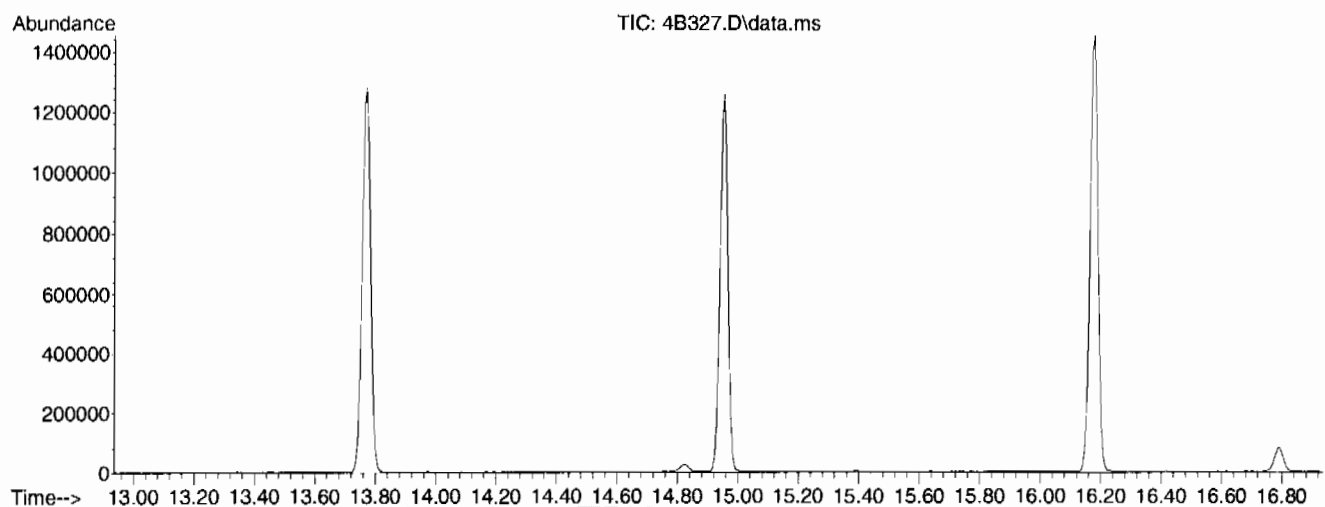
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.1	56269	PASS
75	95	30	60	52.2	139264	PASS
95	95	100	100	100.0	266752	PASS
96	95	5	9	6.9	18487	PASS
173	174	0.00	2	0.5	1134	PASS
174	95	50	100	78.6	209536	PASS
175	174	5	9	7.0	14693	PASS
176	174	95	101	96.7	202624	PASS
177	176	5	9	6.8	13760	PASS

Tune Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B327.D  
Acq On : 11 Mar 2010 4:23 am  
Operator : ACJ  
Sample : |UVM100217-02|BFB1|1|VOAF|1|  
Misc : GEL 5ML N/A  
ALS Vial : 27 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M  
Title : Volatile Organics 8260B SubList :  
Last Update : Mon Mar 08 15:37:50 2010



Spectrum Information: Scan 2005

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.2	21264	PASS
75	95	30	60	56.4	49608	PASS
95	95	100	100	100.0	87968	PASS
96	95	5	9	7.5	6593	PASS
173	174	0.00	2	1.0	525	PASS
174	95	50	100	61.2	53864	PASS
175	174	5	9	7.3	3922	PASS
176	174	95	101	98.3	52936	PASS
177	176	5	9	6.8	3588	PASS

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

SDG Number: 10-2193

Matrix: SOIL

Lab Sample ID: 1202066790

Client Sample: QC for batch 963416

Client: LANL010

Project: QC

Client ID: MB for batch 963416

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 963417

Inst: VOA4.I

Dilution: 1

Run Date: 03/09/2010 19:33

Analyst: ACJ

Purge Vol: 5 mL

Prep Date: 03/09/2010 17:00

Aliquot: 5 g

Final Volume: 5 mL

Data File: 030910V4V4B206bLD

Column: DB-624

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



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

SDG Number: 10-2193  
 Lab Sample ID: 1202066790  
 Client Sample: QC for batch 963416  
 Client ID: MB for batch 963416  
 Batch ID: 963417  
 Run Date: 03/09/2010 19:33  
 Prep Date: 03/09/2010 17:00  
 Data File: 030910V4\4B206bl.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 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	MDI/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
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						

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B206b1.D  
Acq On : 9 Mar 2010 7:33 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066790|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G N/A SOIL  
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 09 20:58:26 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.619	10.613	1.000	96	1603089	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.770	13.765	1.000	117	1170300	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	663580	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.613	1.000	96	1602595	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.770	13.764	1.000	117	1170429	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	663937	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.966	65	412279	47.63	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	95.26%			
43) Toluene-d8	12.252	12.247	0.890	98	1316902	49.43	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	98.86%			
61) Bromofluorobenzene	14.953	14.947	0.924	95	695924	54.08	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	108.16%			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.284	5.299	0.498	50	947	N.D.		
4) Vinyl chloride	5.507	5.521	0.519	62	2939	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	7.010	6.991	0.660	59	115	N.D.		
9) Acetone	7.369	7.351	0.694	43	4951	N.D.		
10) 1,1-Dichloroethylene	0.000	7.394	0.000		0	N.D.		
11) Iodomethane	7.668	7.662	0.722	142	105	N.D.		
12) Acetonitrile	7.686	7.693	0.724	41	538	N.D.		
13) Methyl acetate	7.753	7.747	0.730	43	584	N.D.		
14) Carbon disulfide	7.759	7.778	0.731	76	3799	N.D.		
15) Methylene chloride	7.967	7.967	0.750	84	15683	Below Cal		98
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.741	8.705	0.823	43	1460	N.D.		
19) 1,1-Dichloroethane	8.765	8.753	0.825	63	159	N.D.		
20) 2-Butanone	9.338	9.320	0.879	43	4410	N.D.		
21) cis-1,2-Dichloroethylene	9.351	9.381	0.881	61	212	N.D.		
22) 2,2-Dichloropropane	9.442	9.412	0.889	77	115	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.686	9.686	0.912	83	599	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.973	0.000		0	N.D.		
26) Cyclohexane	10.107	10.076	0.952	56	1645	N.D.		
27) 1,1-Dichloropropene	10.131	10.131	0.954	75	198	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.320	10.338	0.972	62	365	N.D.		
31) Benzene	10.357	10.369	0.975	78	1127	N.D.		
32) Cyclohexene	10.509	10.491	0.990	67	104	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	10.997	11.003	1.036	95	184	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	11.259	11.259	1.060	83	124	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	11.490	11.478	1.082	83	165	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B206bl.D  
Acq On : 9 Mar 2010 7:33 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066790|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G N/A SOIL  
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 09 20:58:26 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	12.015	12.015	0.872	58	237	N.D.	
44) Toluene	12.320	12.320	0.895	91	6492	Below Cal	96
45) trans-1,3-Dichloroprop...	12.472	12.460	0.906	75	800	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.	
47) 2-Hexanone	12.862	12.856	0.934	43	1320	N.D.	
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.	
49) Tetrachloroethylene	12.911	12.917	0.938	164	1046	N.D.	
50) Dibromochloromethane	13.155	13.143	0.955	129	199	N.D.	
51) 1,2-Dibromoethane	13.332	13.313	0.968	107	126	N.D.	
52) Chlorobenzene	13.807	13.801	1.003	112	1596	N.D.	
53) 1,1,1,2-Tetrachloroethane	13.844	13.850	1.005	131	126	N.D.	
54) Ethylbenzene	13.868	13.862	1.007	91	2642	N.D.	
55) m,p-Xylenes	13.972	13.966	1.015	106	2337	N.D.	
56) o-Xylene	14.392	14.399	1.045	106	608	N.D.	
57) Styrene	14.405	14.399	1.046	104	1383	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.758	14.758	0.912	105	2069	N.D.	
62) 1,1,2,2-Tetrachloroethane	15.014	15.014	0.928	83	210	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	15.167	15.167	0.937	156	468	N.D.	
65) n-Propylbenzene	15.179	15.179	0.938	91	2920	N.D.	
66) 1,3,5-Trimethylbenzene	15.337	15.325	0.948	105	1817	N.D.	
67) 2-Chlorotoluene	15.331	15.331	0.948	126	628	N.D.	
68) 4-Chlorotoluene	15.435	15.429	0.954	91	2044	N.D.	
69) tert-Butylbenzene	15.691	15.703	0.970	134	211	N.D.	
70) 1,2,4-Trimethylbenzene	15.746	15.740	0.973	105	1788	N.D.	
71) sec-Butylbenzene	15.929	15.929	0.985	105	1662	N.D.	
72) 4-Isopropyltoluene	16.044	16.051	0.992	119	1370	N.D.	
73) 1,3-Dichlorobenzene	16.118	16.118	0.996	146	1329	N.D.	
74) 1,4-Dichlorobenzene	16.203	16.203	1.002	146	1870	N.D.	
75) n-Butylbenzene	16.502	16.502	1.020	91	2000	N.D.	
76) 1,2-Dichlorobenzene	16.648	16.642	1.029	146	1302	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.629	18.629	1.151	180	1130	N.D.	
79) Hexachlorobutadiene	18.818	18.818	1.163	225	303	N.D.	
80) Naphthalene	19.026	19.026	1.176	128	6806	N.D.	
81) 1,2,3-Trichlorobenzene	19.385	19.385	1.198	180	1453	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	7.199	7.174	0.678	56	615	N.D.	
86) Trichlorotrifluoroethane	7.351	7.363	0.692	85	158	N.D.	
87) Isopropyl Alcohol	7.528	7.430	0.709	45	143	N.D.	
88) Allyl chloride	7.808	7.796	0.735	41	3806	N.D.	
89) tert-Butyl Alcohol	7.912	7.924	0.745	59	158	N.D.	
90) Acrylonitrile	8.174	8.168	0.770	53	1677	N.D.	
91) Isopropyl ether	0.000	8.735	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	8.875	8.863	0.836	53	638	N.D.	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.338	9.339	0.879	43	4410	N.D.	
95) Propionitrile	9.393	9.387	0.885	54	692	N.D.	
96) Methacrylonitrile	9.570	9.570	0.901	41	2518	N.D.	
97) Tetrahydrofuran	9.710	9.710	0.914	42	2636	N.D.	
98) Isobutyl alcohol	10.015	10.003	0.943	41	5244	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B206bl.D  
Acq On : 9 Mar 2010 7:33 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066790|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G N/A SOIL  
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 09 20:58:26 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

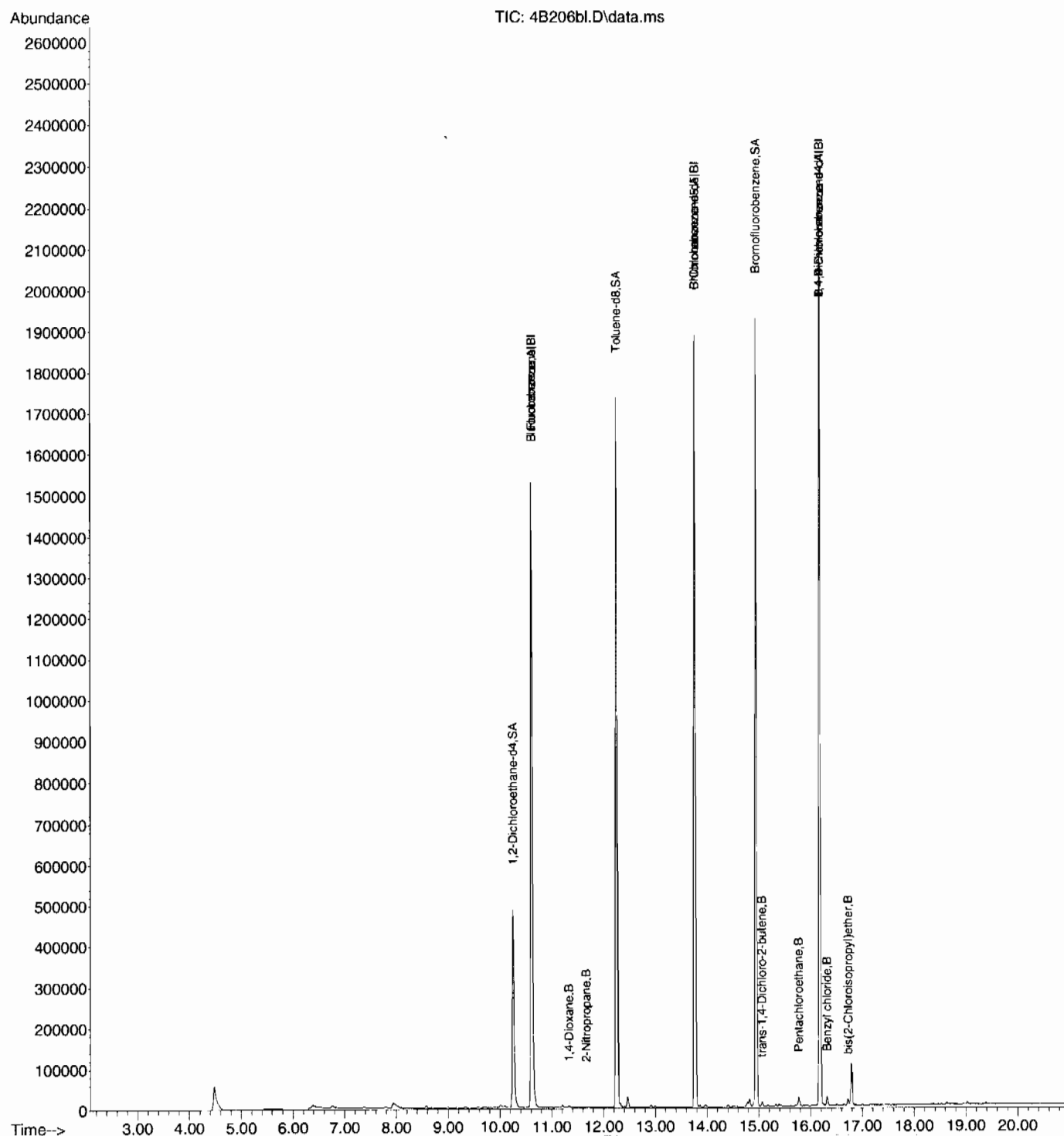
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
99) Methyl tert-amyl ether	0.000	10.381	0.000		0	N.D.		
100) Methyl methacrylate	11.210	11.204	1.056	69	1649	N.D.		
101) 1,4-Dioxane	11.332	11.326	1.067	88	2681	24.47 ug/L		86
102) 2-Nitropropane	11.667	11.667	1.099	43	1446	6.60 ug/L		97
104) Ethyl methacrylate	12.460	12.460	0.905	69	3558	N.D.		
106) 1-Chlorohexane	13.661	13.661	0.844	55	178	N.D.		
107) cis-1,4-Dichloro-2-butene	14.782	14.783	0.914	53	1941	N.D.		
108) Cyclohexanone	14.911	14.905	0.922	42	4801	N.D.		
109) trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	3087	0.93 ug/L		75
110) Pentachloroethane	15.770	15.770	0.975	167	3542	3.14 ug/L		61
111) Benzyl chloride	16.313	16.319	1.008	91	20390	1.20 ug/L		96
112) bis(2-Chloroisopropyl)...	16.721	16.715	1.034	45	11796	2.44 ug/L		97

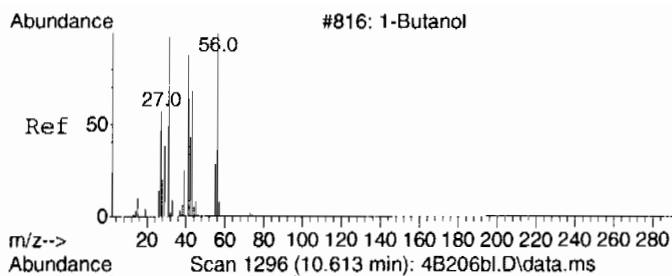
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B206bl.D  
Acq On : 9 Mar 2010 7:33 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066790|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G N/A SOIL  
ALS Vial : 6 Sample Multiplier: 1

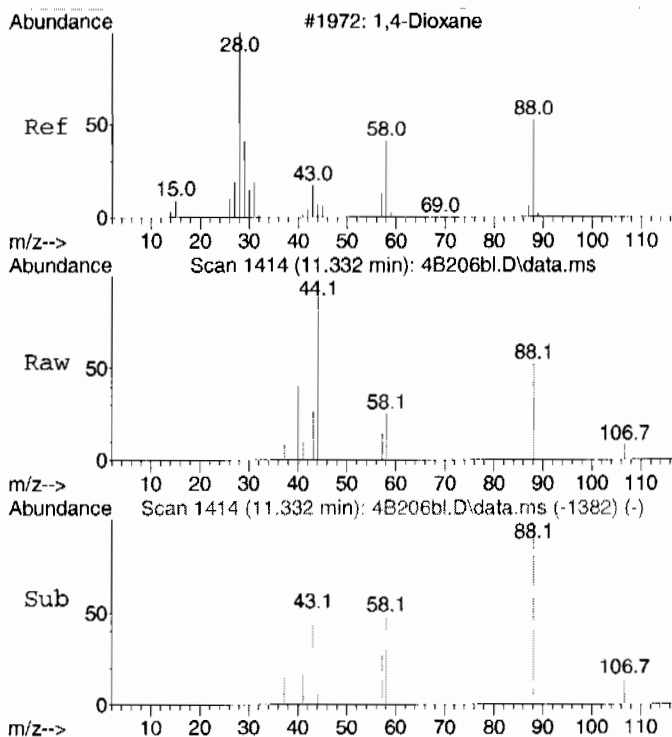
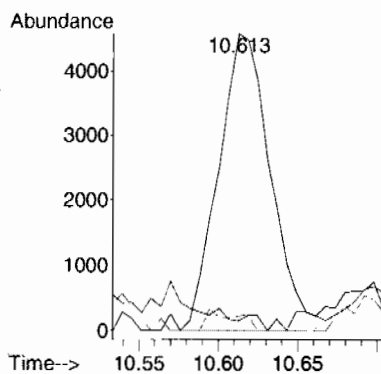
Quant Time: Mar 09 20:58:26 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE





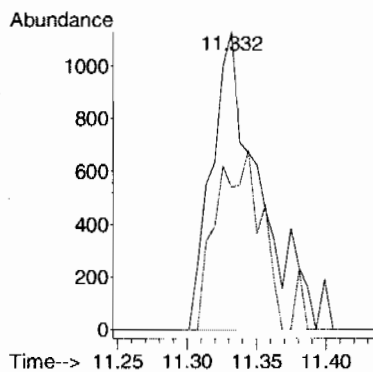
#33 BEFORE analyst DELETION  
n-Butyl alcohol  
Concen: 207.16 ug/L  
RT: 10.613 min Scan# 1296  
Delta R.T. -0.073 min  
Lab File: 4B206bl.D  
Acq: 9 Mar 2010 7:33 pm

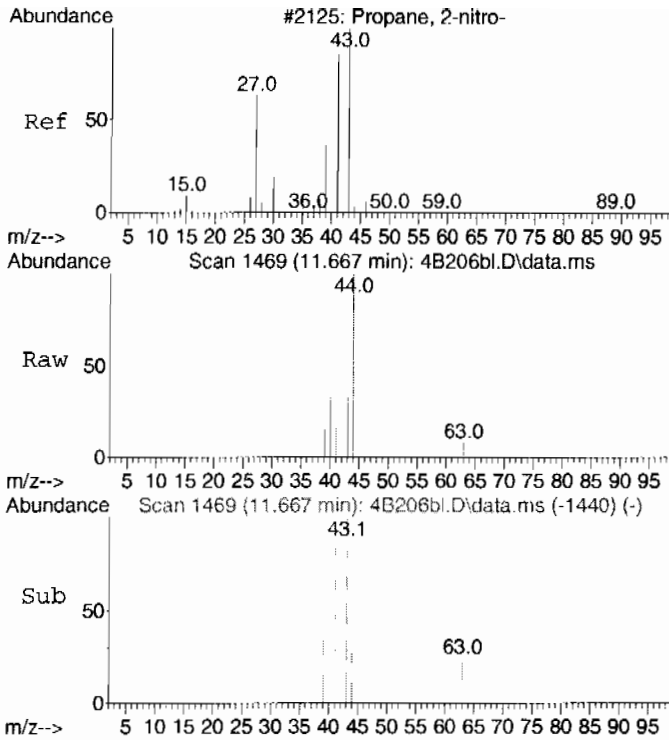
Tgt Ion: 56 Resp: 10388  
Ion Ratio Lower Upper  
56 100  
41 0.0 49.2 109.2#  
43 2.6 30.5 90.5#



#101  
1,4-Dioxane  
Concen: 24.47 ug/L  
RT: 11.332 min Scan# 1414  
Delta R.T. 0.006 min  
Lab File: 4B206bl.D  
Acq: 9 Mar 2010 7:33 pm

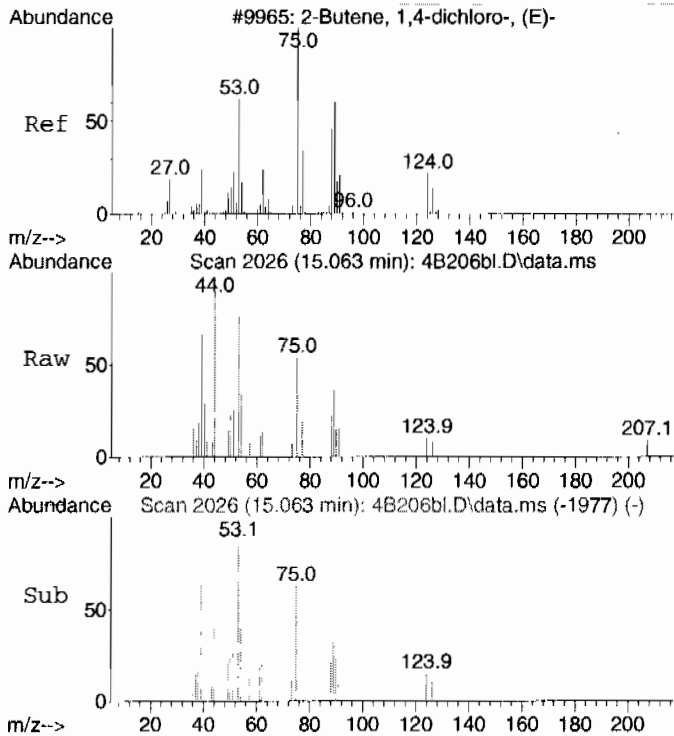
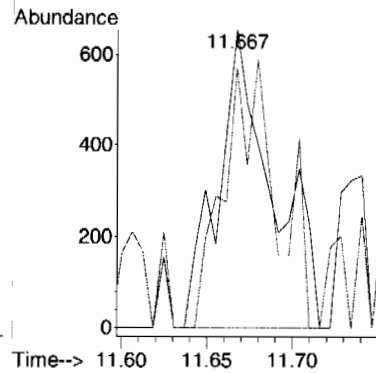
Tgt Ion: 88 Resp: 2681  
Ion Ratio Lower Upper  
88 100  
58 56.8 37.9 97.9





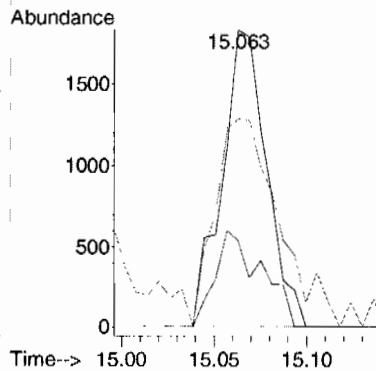
#102  
2-Nitropropane  
Concen: 6.60 ug/L  
RT: 11.667 min Scan# 1469  
Delta R.T. 0.000 min  
Lab File: 4B206bl.D  
Acq: 9 Mar 2010 7:33 pm

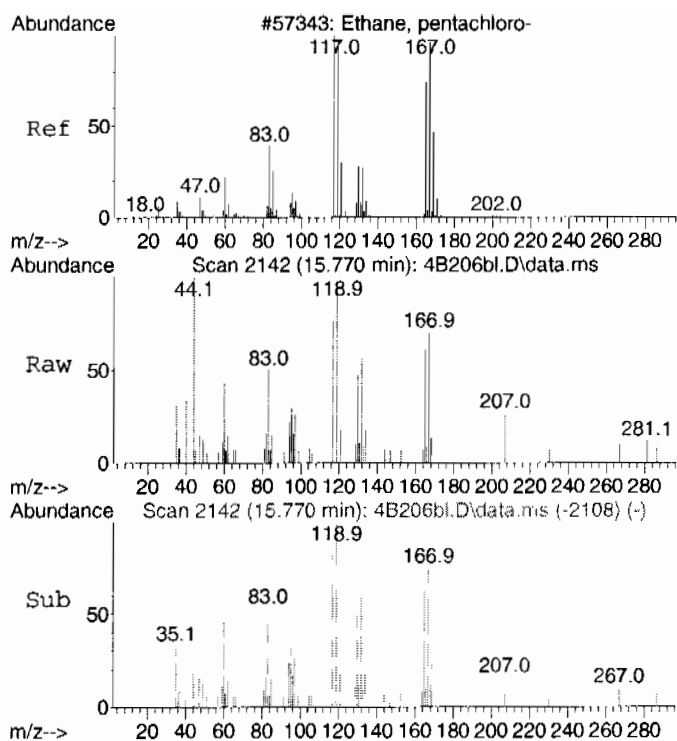
Tgt Ion: 43 Resp: 1446  
Ion Ratio Lower Upper  
43 100  
41 85.0 57.4 117.4



#109  
trans-1,4-Dichloro-2-butene  
Concen: 0.93 ug/L  
RT: 15.063 min Scan# 2026  
Delta R.T. -0.000 min  
Lab File: 4B206bl.D  
Acq: 9 Mar 2010 7:33 pm

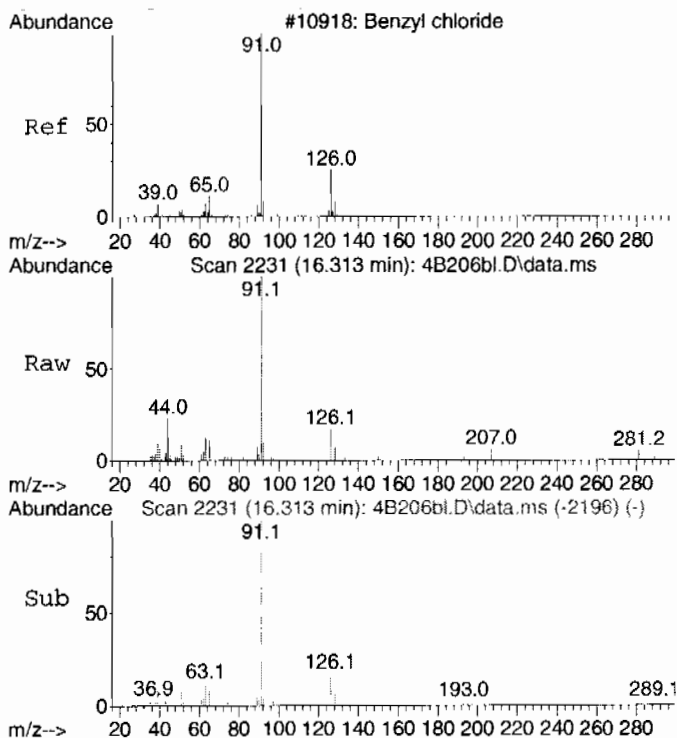
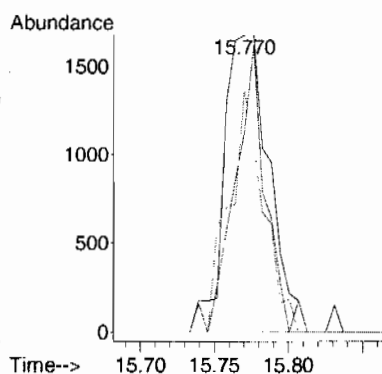
Tgt Ion: 53 Resp: 3087  
Ion Ratio Lower Upper  
53 100  
88 34.1 24.1 84.1  
75 100.4 97.3 157.3





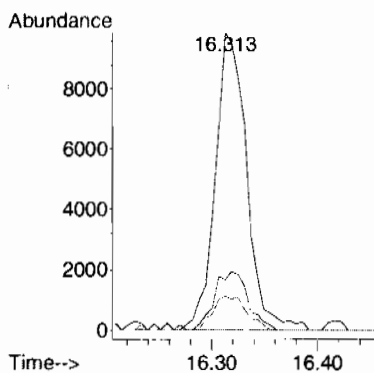
#110  
Pentachloroethane  
Concen: 3.14 ug/L  
RT: 15.770 min Scan# 2142  
Delta R.T. 0.000 min  
Lab File: 4B206bl.D  
Acq: 9 Mar 2010 7:33 pm

Tgt Ion	Ratio	Lower	Upper
167	100		
130	66.9	11.5	71.5
132	62.9	9.9	69.9

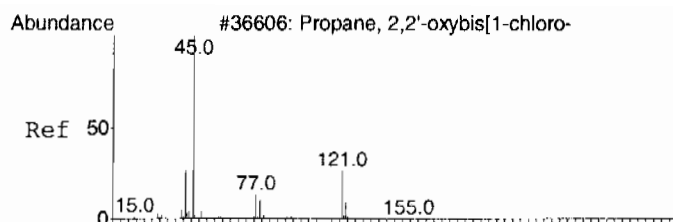


#111  
Benzyl chloride  
Concen: 1.20 ug/L  
RT: 16.313 min Scan# 2231  
Delta R.T. -0.006 min  
Lab File: 4B206bl.D  
Acq: 9 Mar 2010 7:33 pm

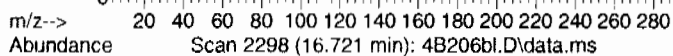
Tgt Ion	Ratio	Lower	Upper
91	100		
126	20.9	0.0	52.7
65	12.1	0.0	43.4



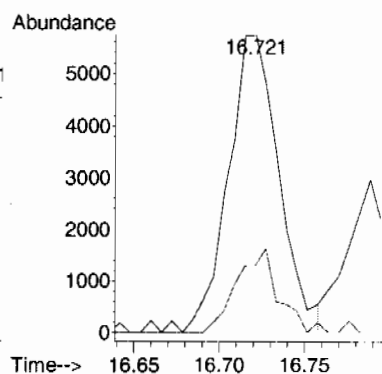
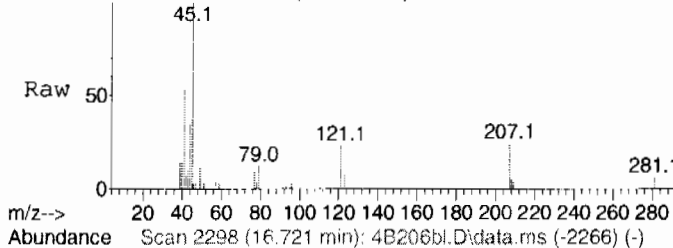




#112  
 bis(2-Chloroisopropyl) ether  
 Concen: 2.44 ug/L  
 RT: 16.721 min Scan# 2298  
 Delta R.T. 0.006 min  
 Lab File: 4B206bl.D  
 Acq: 9 Mar 2010 7:33 pm



Tgt Ion: 45 Resp: 11796  
 Ion Ratio Lower Upper  
 45 100  
 121 23.2 0.0 54.6



Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B206bl.D  
Acq On : 9 Mar 2010 7:33 pm  
Operator : ACJ  
Sample : |1202066790|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G N/A SOIL  
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

No Library Search Compounds Detected

\*\*\*\*\*

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B206bl.D  
Acq On : 9 Mar 2010 7:33 pm  
Operator : ACJ  
Sample : |1202066790|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G N/A SOIL  
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.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**

SDG Number: 10-2193

Matrix: SOIL

Lab Sample ID: 1202066791

Client Sample: QC for batch 963416

Client: LANI.010

Project: QC

Client ID: MB for batch 963416

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 963417

Inst: VOA4.J

Dilution: 1

Run Date: 03/10/2010 07:27

Analyst: ACJ

Purge Vol: 5 mL

Prep Date: 03/09/2010 22:30

Aliquot: 5 g

Final Volume: 5 mL

Data File: 030910V44B232ba.D

Column: DB-624

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

# **Volatile Certificate of Analysis Sample Summary**

SDG Number: 10-2193  
 Lab Sample ID: 1202066791  
 Client Sample: QC for batch 963416  
 Client ID: MB for batch 963416  
 Batch ID: 963417  
 Run Date: 03/10/2010 07:27  
 Prep Date: 03/09/2010 22:30  
 Data File: 030910V44B232ba.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 Aliquot: 5 g  
 Column: DB-624

Matrix: SOIL  
 Project: QC  
 SOP Ref: G1.-OA-E-038  
 Dilution: 1  
 Purge Vol: 5 mL  
 Final Volume: 5 mL

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

## **Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.79	5.03	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B232ba.D  
Acq On : 10 Mar 2010 7:27 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066791|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G N/A SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 10 09:43:05 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.619	10.613	1.000	96	1356041	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.770	13.765	1.000	117	994961	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.178	16.179	1.000	152	563817	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.613	1.000	96	1355693	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.770	13.764	1.000	117	995092	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.178	16.179	1.000	152	563782	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.966	65	352797	48.19	ug/L	0.00
Spiked Amount	50.000	Range	66 - 134	Recovery	=	96.38%		
43) Toluene-d8	12.252	12.247	0.890	98	1121085	49.49	ug/L	0.00
Spiked Amount	50.000	Range	71 - 128	Recovery	=	98.98%		
61) Bromofluorobenzene	14.953	14.947	0.924	95	598172	54.71	ug/L	0.00
Spiked Amount	50.000	Range	65 - 130	Recovery	=	109.42%		
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.306	5.299	0.500	50	385	N.D.		
4) Vinyl chloride	5.507	5.521	0.519	62	781	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	6.985	6.991	0.658	59	112	N.D.		
9) Acetone	7.363	7.351	0.693	43	3251	N.D.		
10) 1,1-Dichloroethylene	0.000	7.394	0.000		0	N.D.		
11) Iodomethane	7.631	7.662	0.719	142	455	N.D.		
12) Acetonitrile	7.650	7.693	0.720	41	104	N.D.		
13) Methyl acetate	7.741	7.747	0.729	43	223	N.D.		
14) Carbon disulfide	7.753	7.778	0.730	76	2696	N.D.		
15) Methylene chloride	7.936	7.967	0.747	84	14354	Below Cal		90
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.698	8.705	0.819	43	955	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.351	9.320	0.881	43	3145	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	9.503	9.412	0.895	77	106	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.692	9.686	0.913	83	664	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.973	0.000		0	N.D.		
26) Cyclohexane	10.070	10.076	0.948	56	638	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.296	10.338	0.970	62	149	N.D.		
31) Benzene	10.356	10.369	0.975	78	1286	N.D.		
32) Cyclohexene	10.613	10.491	0.999	67	646	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	0.000	11.003	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	11.259	11.259	1.060	83	214	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B232ba.D  
Acq On : 10 Mar 2010 7:27 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066791|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G N/A SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 10 09:43:05 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.015	0.000		0	N.D.	
44) Toluene	12.326	12.320	0.895	91	4082	Below Cal	89
45) trans-1,3-Dichloroprop...	12.472	12.460	0.906	75	891	N.D.	
46) 1,1,2-Trichloroethane	12.661	12.679	0.919	83	106	N.D.	
47) 2-Hexanone	12.856	12.856	0.934	43	979	N.D.	
48) 1,3-Dichloropropane	12.874	12.874	0.935	76	222	N.D.	
49) Tetrachloroethylene	12.929	12.917	0.939	164	1067	N.D.	
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.	
52) Chlorobenzene	13.807	13.801	1.003	112	841	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.	
54) Ethylbenzene	13.862	13.862	1.007	91	1719	N.D.	
55) m,p-Xylenes	13.972	13.966	1.015	106	1322	N.D.	
56) o-Xylene	14.398	14.399	1.046	106	381	N.D.	
57) Styrene	14.398	14.399	1.046	104	730	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.764	14.758	0.913	105	1295	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.014	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	15.160	15.167	0.937	156	201	N.D.	
65) n-Propylbenzene	15.185	15.179	0.939	91	2116	N.D.	
66) 1,3,5-Trimethylbenzene	15.331	15.325	0.948	105	1400	N.D.	
67) 2-Chlorotoluene	15.319	15.331	0.947	126	103	N.D.	
68) 4-Chlorotoluene	15.435	15.429	0.954	91	1419	N.D.	
69) tert-Butylbenzene	15.758	15.703	0.974	134	148	N.D.	
70) 1,2,4-Trimethylbenzene	15.740	15.740	0.973	105	1196	N.D.	
71) sec-Butylbenzene	15.929	15.929	0.985	105	1282	N.D.	
72) 4-Isopropyltoluene	16.044	16.051	0.992	119	460	N.D.	
73) 1,3-Dichlorobenzene	16.118	16.118	0.996	146	877	N.D.	
74) 1,4-Dichlorobenzene	16.203	16.203	1.002	146	1114	N.D.	
75) n-Butylbenzene	16.508	16.502	1.020	91	1442	N.D.	
76) 1,2-Dichlorobenzene	16.648	16.642	1.029	146	716	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.635	18.629	1.152	180	806	N.D.	
79) Hexachlorobutadiene	18.812	18.818	1.163	225	151	N.D.	
80) Naphthalene	19.026	19.026	1.176	128	3954	N.D.	
81) 1,2,3-Trichlorobenzene	19.391	19.385	1.199	180	641	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	7.199	7.174	0.678	56	458	N.D.	
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.	
87) Isopropyl Alcohol	7.522	7.430	0.708	45	179	N.D.	
88) Allyl chloride	7.735	7.796	0.728	41	582	N.D.	
89) tert-Butyl Alcohol	7.918	7.924	0.746	59	217	N.D.	
90) Acrylonitrile	8.180	8.168	0.770	53	1298	N.D.	
91) Isopropyl ether	8.771	8.735	0.826	45	153	N.D.	
92) 2-Chloro-1,3-butadiene	8.875	8.863	0.836	53	527	N.D.	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.351	9.339	0.881	43	3145	N.D.	
95) Propionitrile	9.393	9.387	0.885	54	662	N.D.	
96) Methacrylonitrile	9.588	9.570	0.903	41	2284	N.D.	
97) Tetrahydrofuran	9.710	9.710	0.914	42	1800	N.D.	
98) Isobutyl alcohol	10.009	10.003	0.943	41	5229	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B232ba.D  
Acq On : 10 Mar 2010 7:27 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066791|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G N/A SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 10 09:43:05 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
99) Methyl tert-amyl ether	0.000	10.381	0.000		0	N.D.		
100) Methyl methacrylate	11.216	11.204	1.056	69	962	N.D.		
101) 1,4-Dioxane	11.326	11.326	1.067	88	2991	32.27 ug/L		91
102) 2-Nitropropane	0.000	11.667	0.000		0m	N.D. d		
104) Ethyl methacrylate	12.466	12.460	0.905	69	2982	N.D.		
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D. d		
107) cis-1,4-Dichloro-2-butene	14.782	14.783	0.914	53	1796	N.D.		
108) Cyclohexanone	14.910	14.905	0.922	42	4232	N.D.		
109) trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	2120	0.75 ug/L		87
110) Pentachloroethane	15.776	15.770	0.975	167	2192	2.95 ug/L #		43
111) Benzyl chloride	16.319	16.319	1.009	91	12284	N.D.		
112) bis(2-Chloroisopropyl)...	16.715	16.715	1.033	45	8832	2.15 ug/L		89

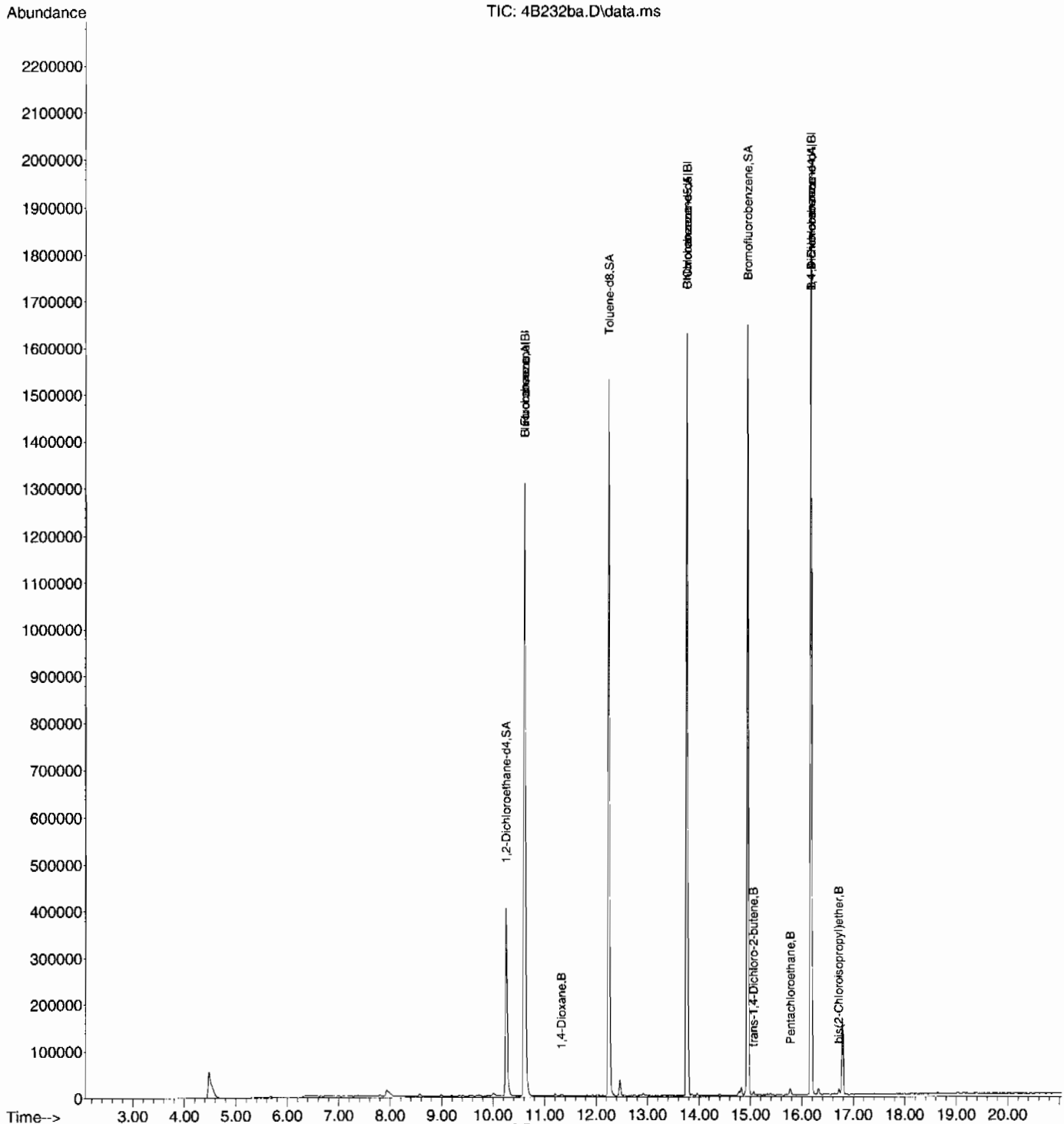
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

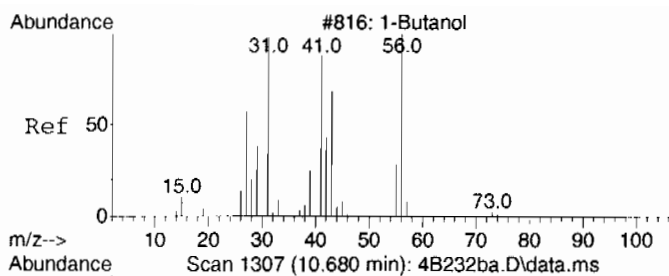


Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B232ba.D  
Acq On : 10 Mar 2010 7:27 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066791|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G N/A SOIL  
ALS Vial : 32 Sample Multiplier: 1

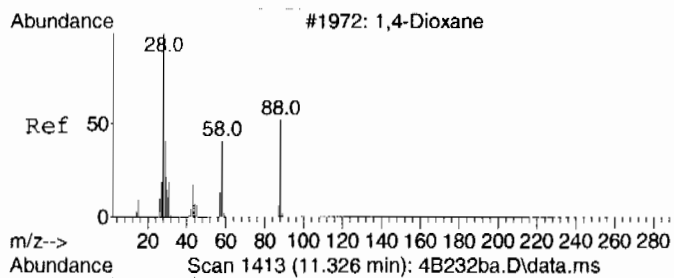
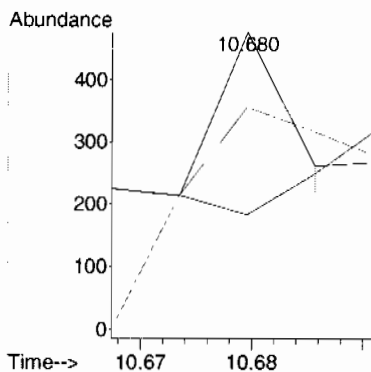
Quant Time: Mar 10 09:43:05 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE





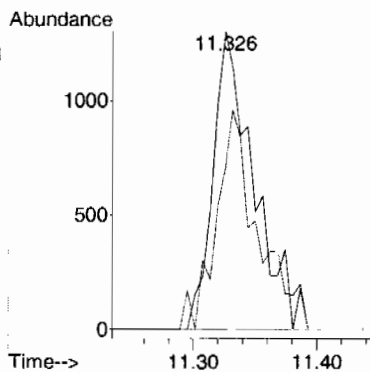
#33 BEFORE analyst DELETION  
n-Butyl alcohol  
Concen: 181.00 ug/L  
RT: 10.680 min Scan# 1307  
Delta R.T. -0.006 min  
Lab File: 4B232ba.D  
Acq: 10 Mar 2010 7:27 am

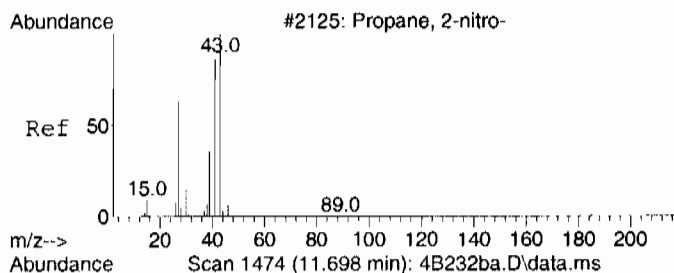
Tgt Ion: 56 Resp: 114  
Ion Ratio Lower Upper  
56 100  
41 307.0 49.2 109.2#  
43 453.5 30.5 90.5#



#101  
1,4-Dioxane  
Concen: 32.27 ug/L  
RT: 11.326 min Scan# 1413  
Delta R.T. -0.000 min  
Lab File: 4B232ba.D  
Acq: 10 Mar 2010 7:27 am

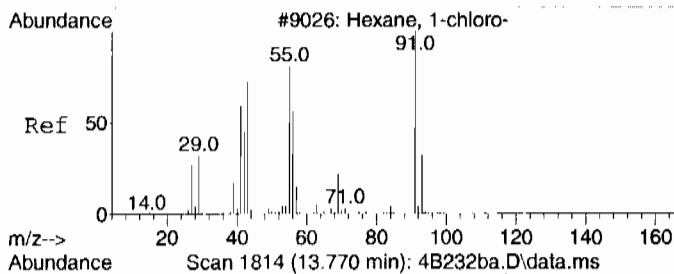
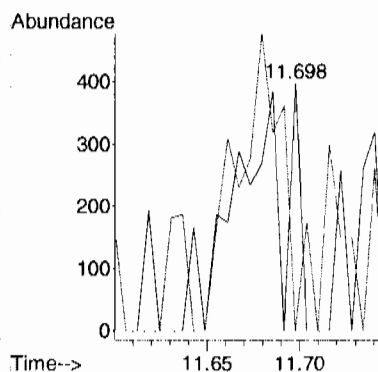
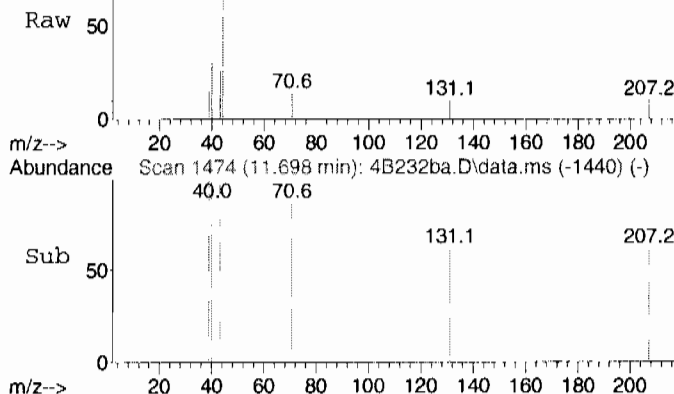
Tgt Ion: 88 Resp: 2991  
Ion Ratio Lower Upper  
88 100  
58 75.0 37.9 97.9





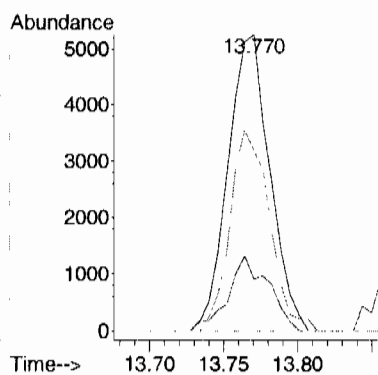
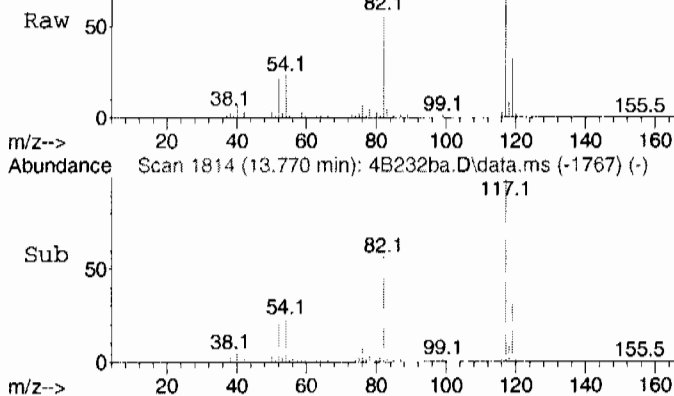
#102 BEFORE analyst DELETION  
2-Nitropropane  
Concen: 6.46 ug/L  
RT: 11.698 min Scan# 1474  
Delta R.T. 0.031 min  
Lab File: 4B232ba.D  
Acq: 10 Mar 2010 7:27 am

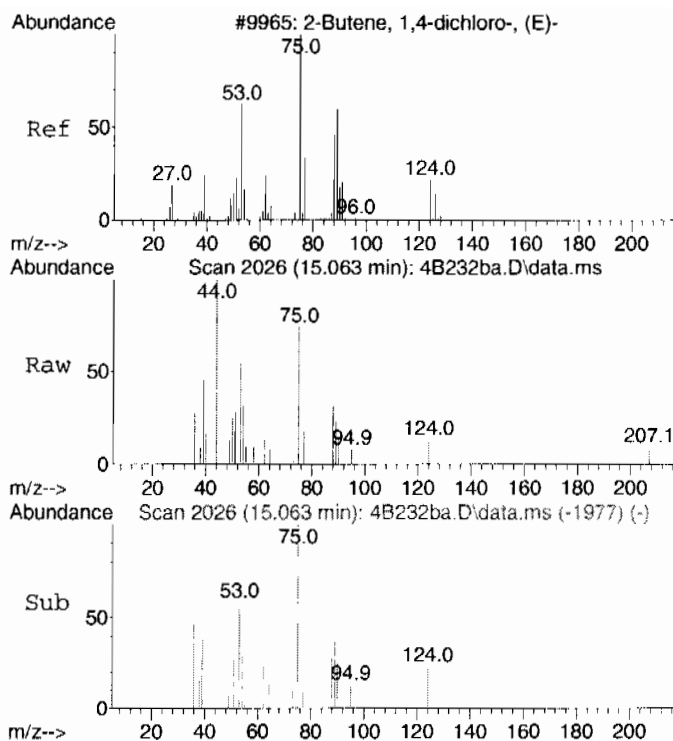
Tgt Ion: 43 Resp: 768  
Ion Ratio Lower Upper  
43 100  
41 110.3 57.4 117.4



#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 1.48 ug/L  
RT: 13.770 min Scan# 1814  
Delta R.T. 0.109 min  
Lab File: 4B232ba.D  
Acq: 10 Mar 2010 7:27 am

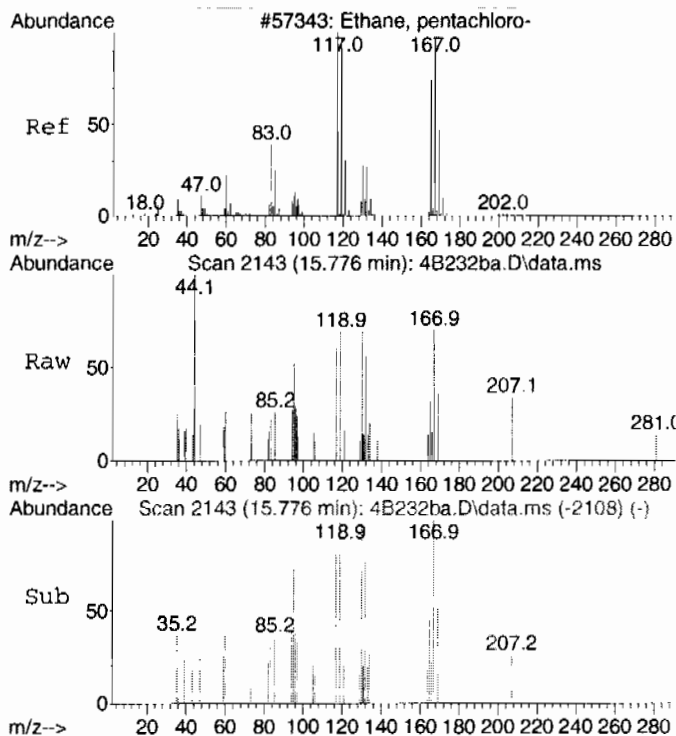
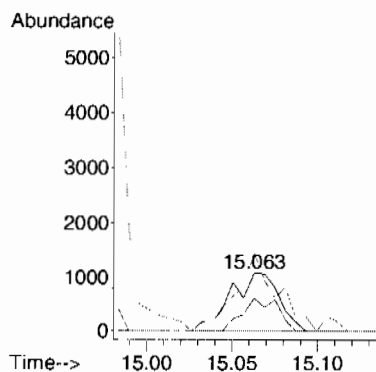
Tgt Ion: 55 Resp: 10245  
Ion Ratio Lower Upper  
55 100  
91 24.1 108.1 168.1#  
56 64.3 27.8 87.8





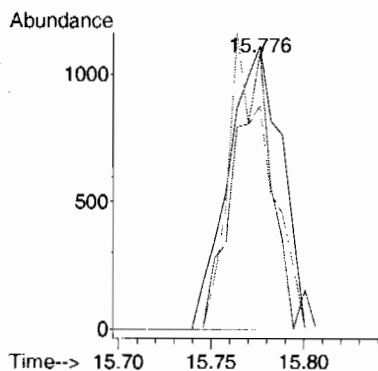
#109  
trans-1,4-Dichloro-2-butene  
Concen: 0.75 ug/L  
RT: 15.063 min Scan# 2026  
Delta R.T. -0.000 min  
Lab File: 4B232ba.D  
Acq: 10 Mar 2010 7:27 am

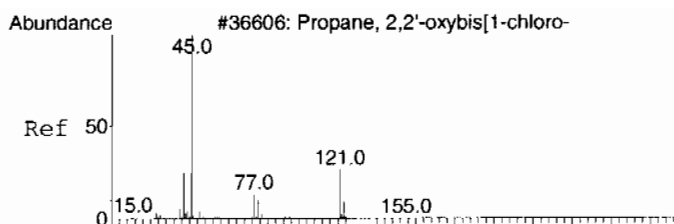
Tgt Ion: 53 Resp: 2120  
Ion Ratio Lower Upper  
53 100  
88 41.2 24.1 84.1  
75 114.2 97.3 157.3



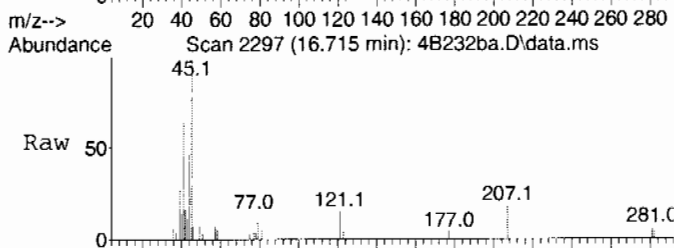
#110  
Pentachloroethane  
Concen: 2.95 ug/L  
RT: 15.776 min Scan# 2143  
Delta R.T. 0.006 min  
Lab File: 4B232ba.D  
Acq: 10 Mar 2010 7:27 am

Tgt Ion: 167 Resp: 2192  
Ion Ratio Lower Upper  
167 100  
130 72.9 11.5 71.5#  
132 79.2 9.9 69.9#

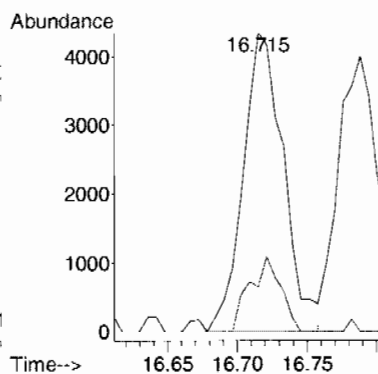
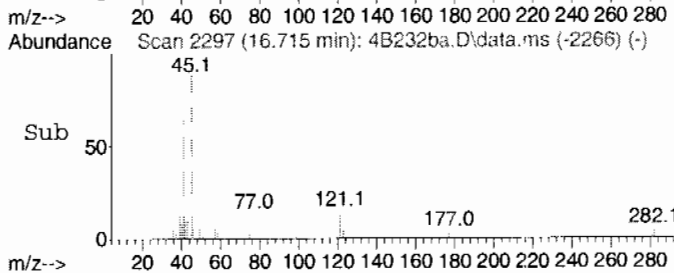




#112  
 bis(2-Chloroisopropyl) ether  
 Concen: 2.15 ug/L  
 RT: 16.715 min Scan# 2297  
 Delta R.T. -0.000 min  
 Lab File: 4B232ba.D  
 Acq: 10 Mar 2010 7:27 am



Tgt Ion: 45 Resp: 8832  
 Ion Ratio Lower Upper  
 45 100  
 121 19.1 0.0 54.6



## Page: 1

Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B232ba.D  
Acq On : 10 Mar 2010 7:27 am  
Operator : ACJ  
Sample : |1202066791|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G N/A SOIL  
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.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 siloxane	16.788	5.0	ug/L	352670	6	16.179	3507750	50.0

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

SDG Number: 10-2193  
 Lab Sample ID: 1202076510  
 Client Sample: QC for batch 963416  
 Client ID: MB for batch 963416  
 Batch ID: 963417  
 Run Date: 03/11/2010 07:07  
 Prep Date: 03/10/2010 22:30  
 Data File: 031010V4V4B333bl.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 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**

SDG Number: 10-2193  
Lab Sample ID: 1202076510  
Client Sample: QC for batch 963416  
Client ID: MB for batch 963416  
Batch ID: 963417  
Run Date: 03/11/2010 07:07  
Prep Date: 03/10/2010 22:30  
Data File: 031010V4V4B333bLD

Client: LANL010  
Method: SW846 8260B  
Inst: VOA4.I  
Analyst: ACJ  
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	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
	unknown siloxane	16.79	6.34	ug/kg	0	J

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B333bl.D  
Acq On : 11 Mar 2010 7:07 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202076510|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G N/A SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 11 08:49:18 2010  
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev (Min)
1) Fluorobenzene	10.619	10.613	1.000	96	1218942	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.770	13.765	1.000	117	904825	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	514162	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.613	1.000	96	1218641	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.770	13.764	1.000	117	904749	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	514179	50.00	ug/L	0.00
System Monitoring Compounds								Dev (Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.966	65	306457	46.56	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	93.12%			
43) Toluene-d8	12.252	12.247	0.890	98	1000687	48.58	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	97.16%			
61) Bromofluorobenzene	14.953	14.947	0.924	95	554741	55.64	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	111.28%			
Target Compounds								QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.284	5.299	0.498	50	111	N.D.		
4) Vinyl chloride	5.514	5.521	0.519	62	719	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	6.309	6.288	0.594	64	121	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	6.997	6.991	0.659	59	567	N.D.		
9) Acetone	7.369	7.351	0.694	43	3821	N.D.		
10) 1,1-Dichloroethylene	0.000	7.394	0.000		0	N.D.		
11) Iodomethane	7.674	7.662	0.723	142	360	N.D.		
12) Acetonitrile	7.680	7.693	0.723	41	313	N.D.		
13) Methyl acetate	7.747	7.747	0.730	43	300	N.D.		
14) Carbon disulfide	7.766	7.778	0.731	76	2702	N.D.		
15) Methylene chloride	7.936	7.967	0.747	84	13030	Below Cal		99
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	8.290	8.278	0.781	61	132	N.D.		
18) Vinyl acetate	8.717	8.705	0.821	43	654	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.351	9.320	0.881	43	3034	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.686	9.686	0.912	83	750	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.973	0.000		0	N.D.		
26) Cyclohexane	10.058	10.076	0.947	56	278	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.296	10.338	0.970	62	110	N.D.		
31) Benzene	10.369	10.369	0.976	78	1224	N.D.		
32) Cyclohexene	10.613	10.491	0.999	67	313	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	0.000	11.003	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	11.271	11.259	1.061	83	238	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.478	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B333bl.D  
Acq On : 11 Mar 2010 7:07 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202076510|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G N/A SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 11 08:49:18 2010  
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	11.942	11.930	1.125	75	154	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.015	0.000		0	N.D.	
44) Toluene	12.332	12.320	0.896	91	4713	Below Cal	97
45) trans-1,3-Dichloroprop...	12.460	12.460	0.905	75	1051	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.	
47) 2-Hexanone	12.862	12.856	0.934	43	678	N.D.	
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.	
49) Tetrachloroethylene	12.917	12.917	0.938	164	1466	N.D.	
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.	
52) Chlorobenzene	13.813	13.801	1.003	112	1053	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.	
54) Ethylbenzene	13.868	13.862	1.007	91	1970	N.D.	
55) m,p-Xylenes	13.972	13.966	1.015	106	1211	N.D.	
56) o-Xylene	14.411	14.399	1.046	106	331	N.D.	
57) Styrene	14.392	14.399	1.045	104	825	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.764	14.758	0.913	105	1486	N.D.	
62) 1,1,2,2-Tetrachloroethane	14.953	15.014	0.924	83	302	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	15.167	15.167	0.937	156	247	N.D.	
65) n-Propylbenzene	15.185	15.179	0.939	91	2069	N.D.	
66) 1,3,5-Trimethylbenzene	15.325	15.325	0.947	105	1263	N.D.	
67) 2-Chlorotoluene	15.343	15.331	0.948	126	385	N.D.	
68) 4-Chlorotoluene	15.435	15.429	0.954	91	1493	N.D.	
69) tert-Butylbenzene	15.776	15.703	0.975	134	180	N.D.	
70) 1,2,4-Trimethylbenzene	15.740	15.740	0.973	105	1254	N.D.	
71) sec-Butylbenzene	15.929	15.929	0.985	105	1462	N.D.	
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	1033	N.D.	
73) 1,3-Dichlorobenzene	16.118	16.118	0.996	146	1012	N.D.	
74) 1,4-Dichlorobenzene	16.191	16.203	1.001	146	650	N.D.	
75) n-Butylbenzene	16.502	16.502	1.020	91	1231	N.D.	
76) 1,2-Dichlorobenzene	16.642	16.642	1.029	146	986	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.635	18.629	1.152	180	809	N.D.	
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.	
80) Naphthalene	19.038	19.026	1.177	128	4501	N.D.	
81) 1,2,3-Trichlorobenzene	19.391	19.385	1.199	180	1158	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	7.083	7.174	0.667	56	173	N.D.	
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.430	0.000		0	N.D.	
88) Allyl chloride	7.796	7.796	0.734	41	2485	N.D.	
89) tert-Butyl Alcohol	7.930	7.924	0.747	59	264	N.D.	
90) Acrylonitrile	8.186	8.168	0.771	53	1241	N.D.	
91) Isopropyl ether	0.000	8.735	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	8.857	8.863	0.834	53	397	N.D.	
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.351	9.339	0.881	43	3034	N.D.	
95) Propionitrile	9.405	9.387	0.886	54	480	N.D.	
96) Methacrylonitrile	9.582	9.570	0.902	41	1676	N.D.	
97) Tetrahydrofuran	9.716	9.710	0.915	42	1432	N.D.	
98) Isobutyl alcohol	10.009	10.003	0.943	41	2761	N.D.	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B333bl.D  
Acq On : 11 Mar 2010 7:07 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202076510|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G N/A SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Mar 11 08:49:18 2010  
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

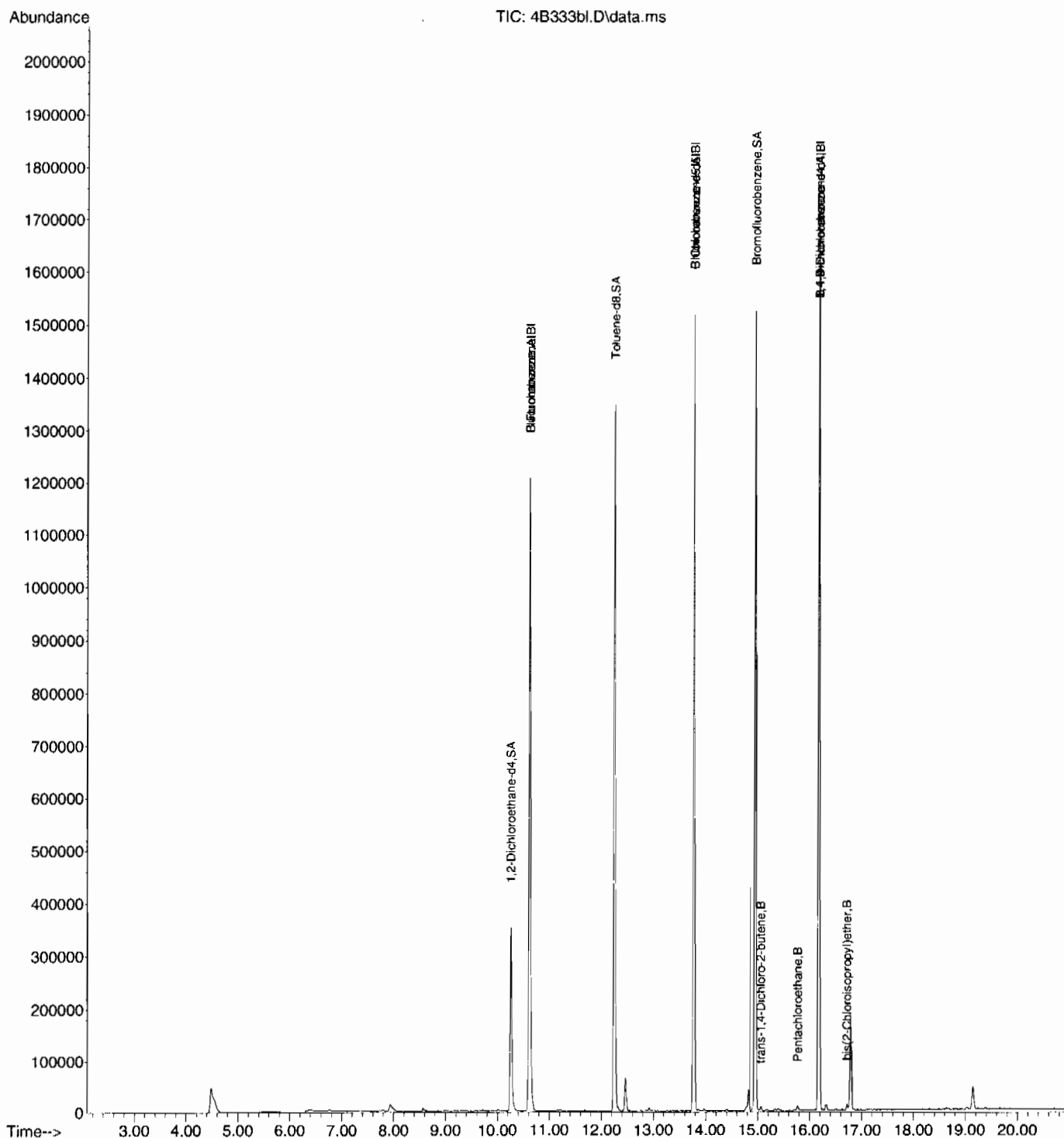
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	10.460	10.381	0.985	73	113	N.D.	
100) Methyl methacrylate	11.210	11.204	1.056	69	1100	N.D.	
101) 1,4-Dioxane	11.332	11.326	1.067	88	922	N.D.	
102) 2-Nitropropane	0.000	11.667	0.000		0m	N.D.	d
104) Ethyl methacrylate	12.472	12.460	0.906	69	2381	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.789	14.783	0.914	53	1449	N.D.	
108) Cyclohexanone	14.904	14.905	0.921	42	2478	N.D.	
109) trans-1,4-Dichloro-2-b...	15.057	15.063	0.931	53	2184	0.85 ug/L	72
110) Pentachloroethane	15.770	15.770	0.975	167	1420	2.80 ug/L #	38
111) Benzyl chloride	16.319	16.319	1.009	91	10917	N.D.	
112) bis(2-Chloroisopropyl)...	16.715	16.715	1.033	45	8245	2.20 ug/L	98

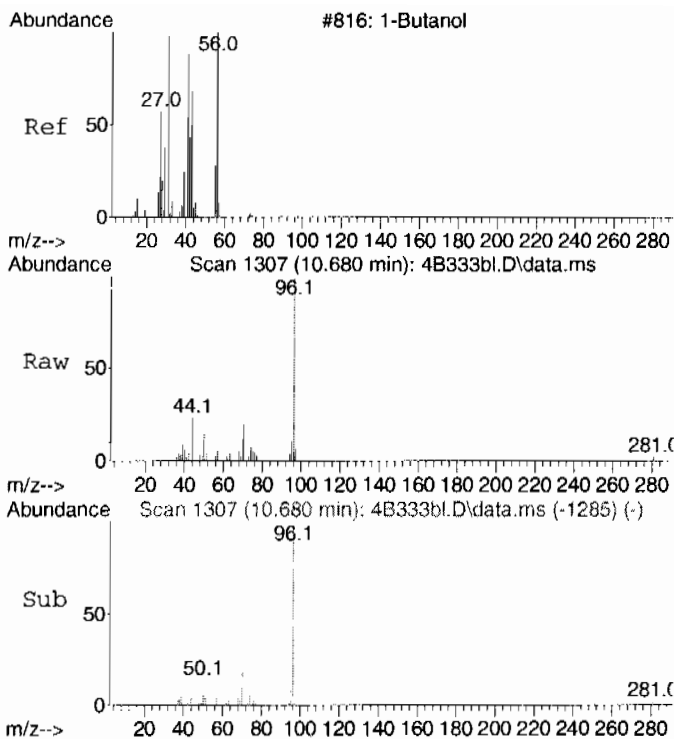
(#) = qualifier out of range (m) = manual integration (+) = signals summed  
(E) = Over the calibration range (d) = deleted

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B333bl.D  
Acq On : 11 Mar 2010 7:07 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202076510|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G N/A SOIL  
ALS Vial : 33 Sample Multiplier: 1

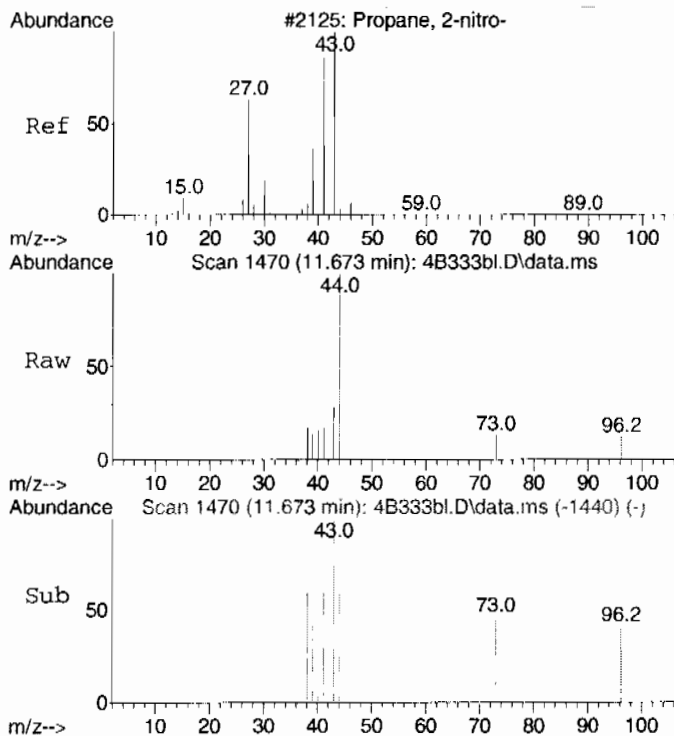
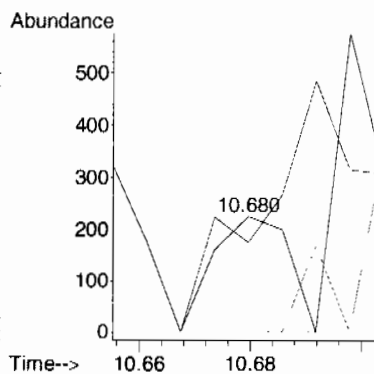
Quant Time: Mar 11 08:49:18 2010  
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE





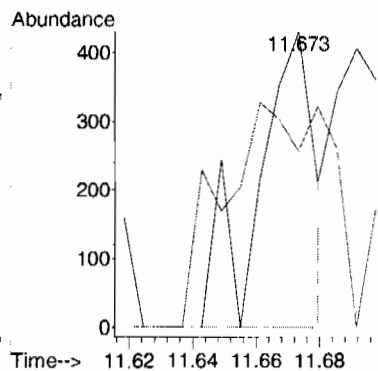
#33 BEFORE analyst DELETION  
n-Butyl alcohol  
Concen: 181.37 ug/L  
RT: 10.680 min Scan# 1307  
Delta R.T. -0.006 min  
Lab File: 4B333bl.D  
Acq: 11 Mar 2010 7:07 am

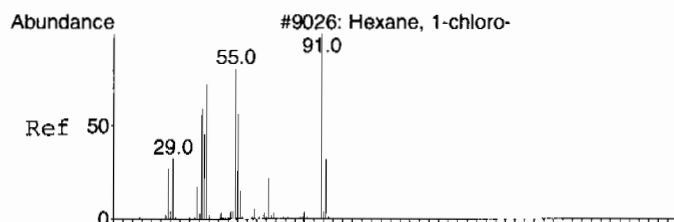
Tgt Ion: 56 Resp: 214  
Ion Ratio Lower Upper  
56 100  
41 67.8 49.2 109.2  
43 0.0 30.5 90.5#



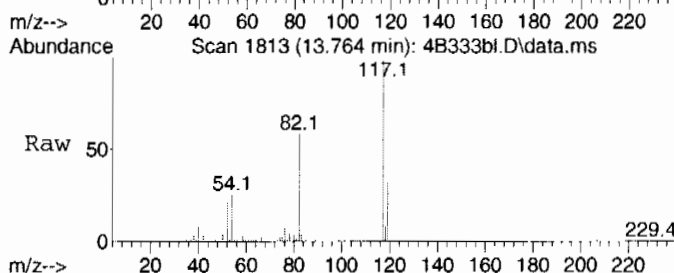
#102 BEFORE analyst DELETION  
2-Nitropropane  
Concen: 6.40 ug/L  
RT: 11.673 min Scan# 1470  
Delta R.T. 0.006 min  
Lab File: 4B333bl.D  
Acq: 11 Mar 2010 7:07 am

Tgt Ion: 43 Resp: 532  
Ion Ratio Lower Upper  
43 100  
41 142.5 57.4 117.4#

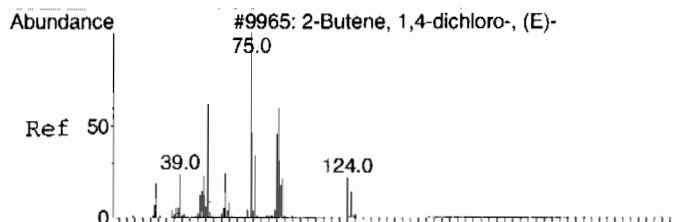
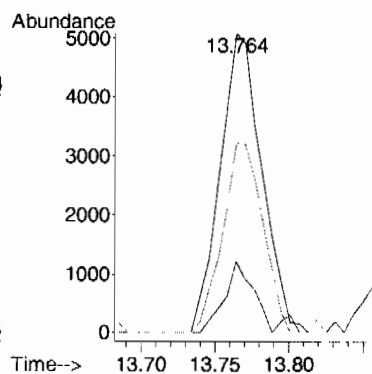
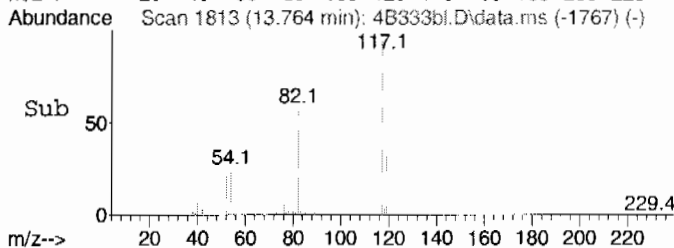




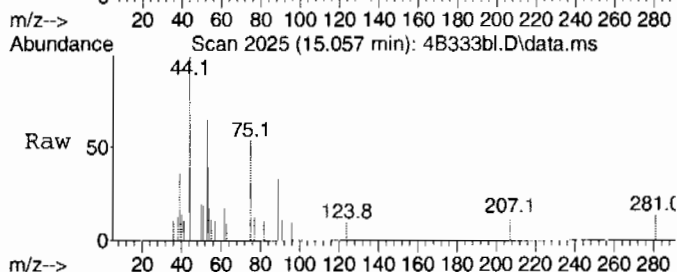
#106 BEFORE analyst DELETION  
1-Chlorohexane  
Concen: 1.58 ug/L  
RT: 13.764 min Scan# 1813  
Delta R.T. 0.103 min  
Lab File: 4B333bl.D  
Acq: 11 Mar 2010 7:07 am



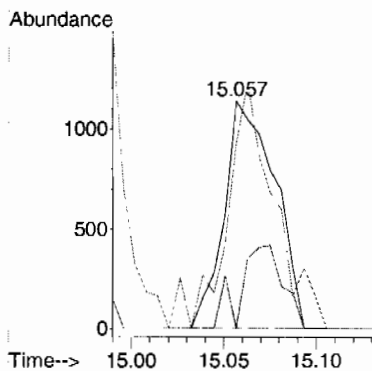
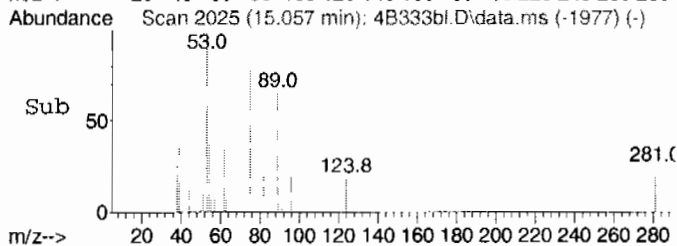
Tgt Ion: 55 Resp: 9983  
Ion Ratio Lower Upper  
55 100  
91 16.7 108.1 168.1#  
56 61.2 27.8 87.8

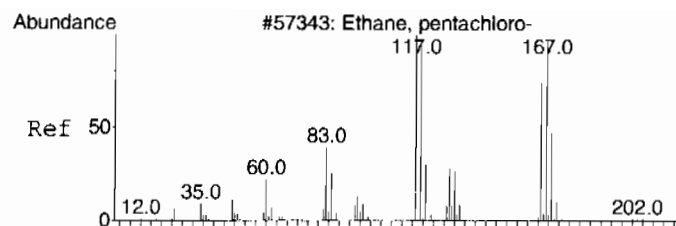


#109  
trans-1,4-Dichloro-2-butene  
Concen: 0.85 ug/L  
RT: 15.057 min Scan# 2025  
Delta R.T. -0.006 min  
Lab File: 4B333bl.D  
Acq: 11 Mar 2010 7:07 am

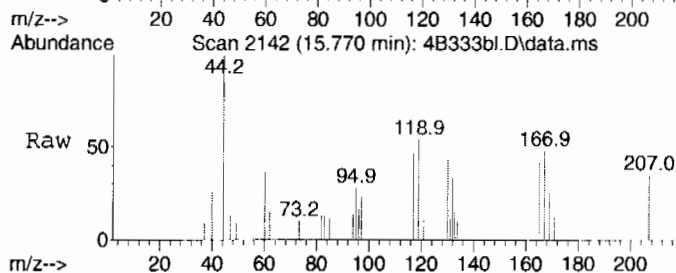


Tgt Ion: 53 Resp: 2184  
Ion Ratio Lower Upper  
53 100  
88 30.8 24.1 84.1  
75 97.6 97.3 157.3

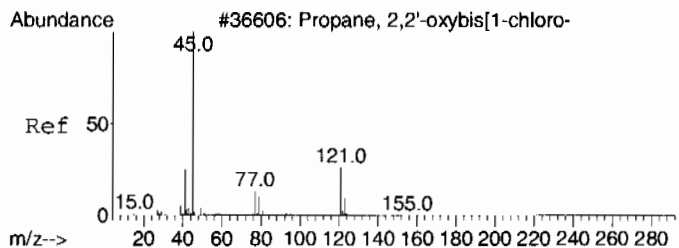
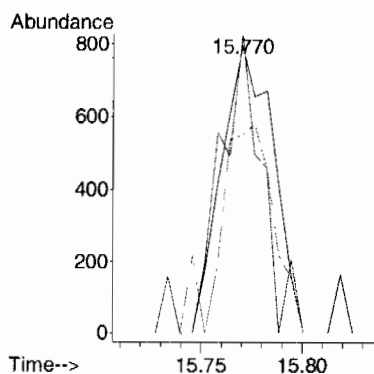
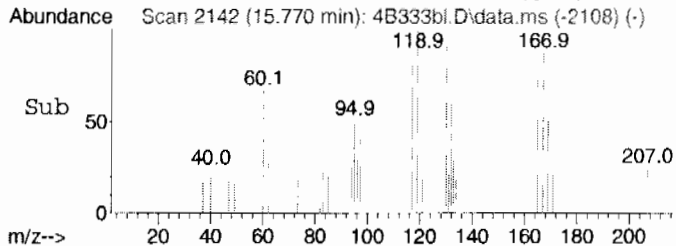




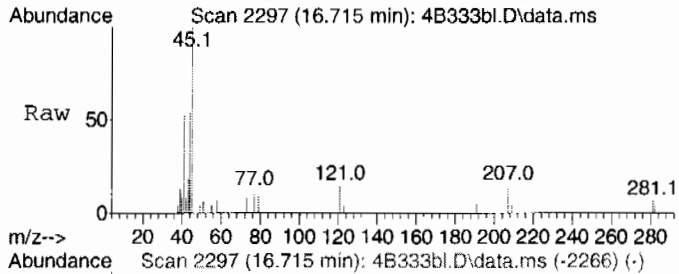
#110  
Pentachloroethane  
Concen: 2.80 ug/L  
RT: 15.770 min Scan# 2142  
Delta R.T. 0.000 min  
Lab File: 4B333bl.D  
Acq: 11 Mar 2010 7:07 am



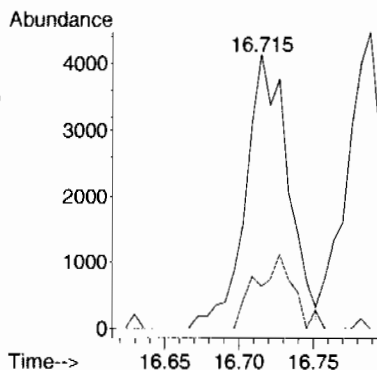
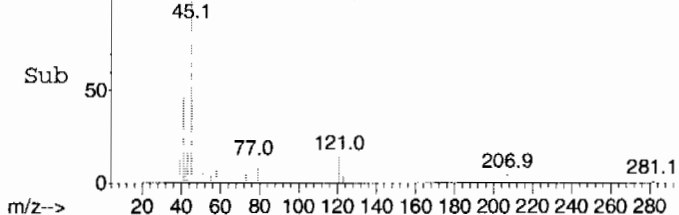
Tgt Ion: 167 Resp: 1420  
Ion Ratio Lower Upper  
167 100  
130 83.3 11.5 71.5#  
132 74.7 9.9 69.9#



#112  
bis(2-Chloroisopropyl) ether  
Concen: 2.20 ug/L  
RT: 16.715 min Scan# 2297  
Delta R.T. 0.000 min  
Lab File: 4B333bl.D  
Acq: 11 Mar 2010 7:07 am



Tgt Ion: 45 Resp: 8245  
Ion Ratio Lower Upper  
45 100  
121 23.4 0.0 54.6





Library Search Compound Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B333bl.D  
Acq On : 11 Mar 2010 7:07 am  
Operator : ACJ  
Sample : |1202076510|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G N/A SOIL  
ALS Vial : 33 Sample Multiplier: 1

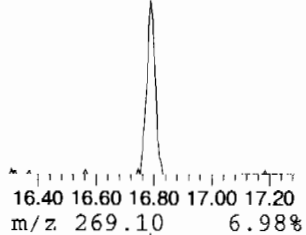
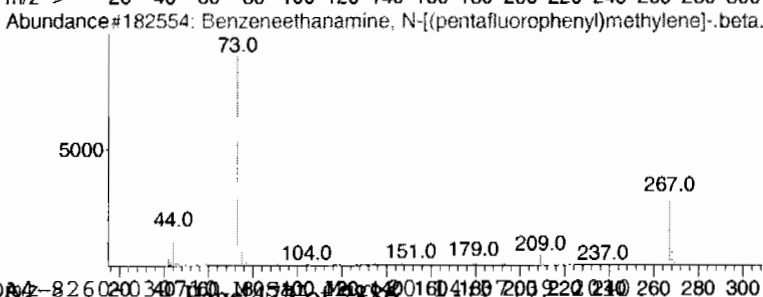
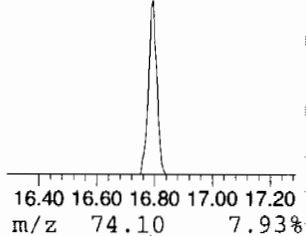
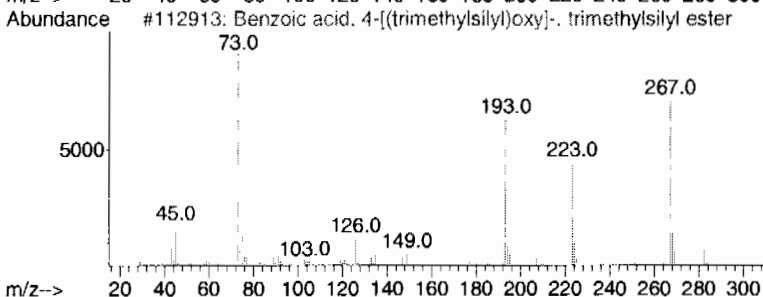
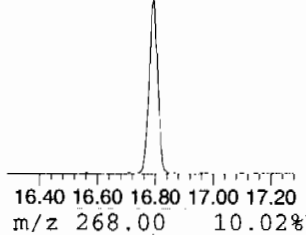
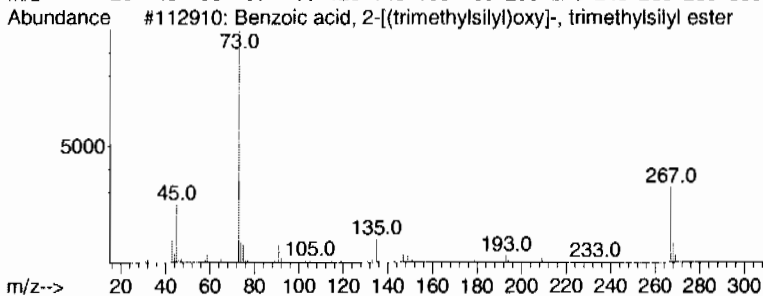
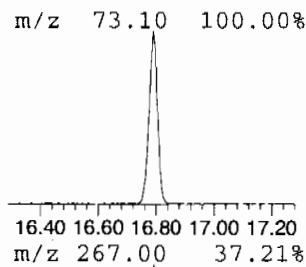
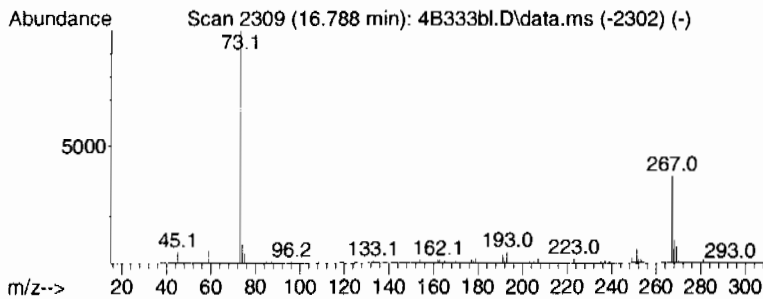
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :

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

\*\*\*\*\*  
Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.788	6.34 ug/L	403790	B 1,4-Dichlorobenzene-d4	16.179

Hit#	of	5	Tentative ID	MW	MolForm	CAS#	Qual
1			Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	282	C13H22O3Si2	003789-85-3	64
2			Benzoic acid, 4-[(trimethylsilyl)oxy]-, trimethylsilyl ester	282	C13H22O3Si2	002078-13-9	53
3			Benzenethanamine, N-[(pentafluorophenyl)methylene]-, beta., (Z)-	475	C21H26F5NO2Si2	055429-85-1	42
4			Tetrasiloxane, 1,1,3,3,5,5,7,7-octa-	282	C8H26O3Si4	001000-05-1	39
5			Benzoic acid, 2-[(trimethylsilyl)oxy]-, trimethylsilyl ester	282	C13H22O3Si2	003789-85-3	39



Tentatively Identified Compound (LSC) summary  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B333b1.D  
Acq On : 11 Mar 2010 7:07 am  
Operator : ACJ  
Sample : |1202076510|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G N/A SOIL  
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.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 siloxane	16.788	6.3	ug/L	403790	6	16.179	3186910	50.0

**Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193

Matrix: SOIL

Lab Sample ID: 1202066794

Client Sample: QC for batch 963416

Client: LANL010

Project: QC

Client ID: LCS for batch 963416

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 963417

Inst: VOA4.I

Dilution: 1

Run Date: 03/09/2010 18:11

Analyst: ACJ

Purge Vol: 5 mL

Prep Date: 03/09/2010 16:30

Aliquot: 5 g

Final Volume: 5 mL

Data File: 030910V4V4B20311.D

Column: DB-624

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		46.5	ug/kg	0.340	1.00
74-87-3	Chloromethane		43.2	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		51.5	ug/kg	0.300	1.00
74-83-9	Bromomethane		49.8	ug/kg	0.300	1.00
75-00-3	Chloroethane		52.2	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		58.0	ug/kg	0.300	1.00
67-64-1	Acetone		214	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		50.7	ug/kg	0.300	1.00
74-88-4	Iodomethane		274	ug/kg	1.60	5.00
75-09-2	Methylene chloride		49.7	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		275	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		50.2	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		50.6	ug/kg	0.300	1.00
78-93-3	2-Butanone		221	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		50.2	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		56.0	ug/kg	0.300	1.00
67-66-3	Chloroform		49.5	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		50.1	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		55.3	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		53.2	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		56.4	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		48.2	ug/kg	0.300	1.00
71-43-2	Benzene		49.5	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		52.2	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		50.2	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		53.4	ug/kg	0.300	1.00
74-95-3	Dibromomethane		49.8	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		267	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		53.6	ug/kg	0.300	1.00
108-88-3	Toluene		54.1	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		52.8	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		49.6	ug/kg	0.300	1.00
591-78-6	2-Hexanone		230	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		49.4	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		52.6	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		55.4	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		51.8	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		49.6	ug/kg	0.300	1.00

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

SDG Number: 10-2193  
 Lab Sample ID: 1202066794  
 Client Sample: QC for batch 963416  
 Client ID: LCS for batch 963416  
 Batch ID: 963417  
 Run Date: 03/09/2010 18:11  
 Prep Date: 03/09/2010 16:30  
 Data File: 030910V44B20311.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4J  
 Analyst: ACJ  
 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		50.5	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		105	ug/kg	0.300	2.00
95-47-6	o-Xylene		53.4	ug/kg	0.300	1.00
100-42-5	Styrene		55.8	ug/kg	0.300	1.00
75-25-2	Bromoform		57.0	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		49.4	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		48.7	ug/kg	0.300	1.00
108-86-1	Bromobenzene		49.2	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		49.3	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		51.7	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		49.2	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		51.3	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		49.1	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		51.3	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		50.2	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		51.7	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		49.7	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		49.5	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		51.9	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		62.2	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		52.7	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		49.0	ug/kg	0.300	1.00

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B20311.D  
Acq On : 9 Mar 2010 6:11 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066794|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[A] 0220-01E+0308-01  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 09 20:55:40 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.619	10.613	1.000	96	1564760	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	1240562	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	844783	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.613	1.000	96	1564305	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	1240562	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	844984	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.966	65	396210	46.90	ug/L	0.00
Spiked Amount	50.000	Range 66 - 134	Recovery	=	93.80%			
43) Toluene-d8	12.253	12.247	0.890	98	1314641	46.55	ug/L	0.00
Spiked Amount	50.000	Range 71 - 128	Recovery	=	93.10%			
61) Bromofluorobenzene	14.953	14.947	0.924	95	792050	48.35	ug/L	0.00
Spiked Amount	50.000	Range 65 - 130	Recovery	=	96.70%			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.904	4.897	0.462	85	475099	46.48	ug/L	100
3) Chloromethane	5.292	5.299	0.498	50	789421	43.24	ug/L	100
4) Vinyl chloride	5.521	5.521	0.520	62	888428	51.48	ug/L	99
5) Bromomethane	6.130	6.130	0.577	94	526801	49.77	ug/L	100
6) Chloroethane	6.295	6.288	0.593	64	438243	52.18	ug/L	100
7) Trichlorofluoromethane	6.668	6.668	0.628	101	913201	58.01	ug/L	100
8) Ethyl ether	6.997	6.991	0.659	59	393563	50.10	ug/L	96
9) Acetone	7.357	7.351	0.693	43	2050968	214.24	ug/L	99
10) 1,1-Dichloroethylene	7.394	7.394	0.696	61	923571	50.68	ug/L	100
11) Iodomethane	7.631	7.662	0.719	142	4689395	274.31	ug/L	99
12) Acetonitrile	7.699	7.693	0.725	41	2076611	1331.04	ug/L	100
13) Methyl acetate	7.747	7.747	0.730	43	2092757	253.85	ug/L	99
14) Carbon disulfide	7.772	7.778	0.732	76	9576542	275.10	ug/L	100
15) Methylene chloride	7.936	7.967	0.747	84	612482	49.73	ug/L	98
16) tert-Butyl methyl ether	8.241	8.235	0.776	73	1389762	49.99	ug/L	99
17) trans-1,2-Dichloroethy...	8.284	8.278	0.780	61	714998	50.23	ug/L	99
18) Vinyl acetate	8.711	8.705	0.820	43	5494682	300.54	ug/L	100
19) 1,1-Dichloroethane	8.759	8.753	0.825	63	892445	50.61	ug/L	99
20) 2-Butanone	9.326	9.320	0.878	43	2195569	220.82	ug/L	99
21) cis-1,2-Dichloroethylene	9.387	9.381	0.884	61	771193	50.19	ug/L	100
22) 2,2-Dichloropropane	9.418	9.412	0.887	77	499327	56.00	ug/L	95
23) Bromochloromethane	9.655	9.656	0.909	128	257115	50.14	ug/L	98
24) Chloroform	9.692	9.686	0.913	83	901032	49.50	ug/L	99
25) 1,1,1-Trichloroethane	9.979	9.973	0.940	97	741666	55.28	ug/L	99
26) Cyclohexane	10.082	10.076	0.949	56	809837	53.12	ug/L	100
27) 1,1-Dichloropropene	10.131	10.131	0.954	75	696040	53.17	ug/L	98
28) Carbon tetrachloride	10.174	10.168	0.958	117	701012	56.36	ug/L	98
30) 1,2-Dichloroethane	10.338	10.338	0.974	62	715713	48.20	ug/L	100
31) Benzene	10.369	10.369	0.976	78	1918681	49.53	ug/L	99
32) Cyclohexene	10.491	10.491	0.988	67	983478	52.71	ug/L	100
33) n-Butyl alcohol	10.692	10.686	1.007	56	2147918	5796.51	ug/L	99
34) Trichloroethylene	11.009	11.003	1.037	95	529944	52.16	ug/L	99
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	509383	50.21	ug/L	100
36) Methylcyclohexane	11.259	11.259	1.060	83	858771	55.31	ug/L	99
37) Dibromomethane	11.375	11.369	1.071	93	315738	49.84	ug/L	97
38) Bromodichloromethane	11.484	11.478	1.082	83	677945	53.40	ug/L	100
39) 2-Chloroethylvinyl ether	11.698	11.692	1.102	63	1157919	242.89	ug/L	100

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B20311.D  
Acq On : 9 Mar 2010 6:11 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066794|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[A] 0220-01E+0308-01  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 09 20:55:40 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	11.929	11.930	1.123	75	798189	53.57	ug/L 100
42) 4-Methyl-2-pentanone	12.015	12.015	0.872	58	1180312	267.41	ug/L 98
44) Toluene	12.326	12.320	0.895	91	2077898	54.11	ug/L 99
45) trans-1,3-Dichloroprop...	12.460	12.460	0.905	75	766588	52.80	ug/L 99
46) 1,1,2-Trichloroethane	12.685	12.679	0.921	83	383030	49.57	ug/L 99
47) 2-Hexanone	12.856	12.856	0.934	43	2958419	229.74	ug/L 100
48) 1,3-Dichloropropane	12.874	12.874	0.935	76	783214	49.38	ug/L 93
49) Tetrachloroethylene	12.917	12.917	0.938	164	437846	52.59	ug/L 98
50) Dibromochloromethane	13.149	13.143	0.955	129	551505	55.40	ug/L 98
51) 1,2-Dibromoethane	13.319	13.313	0.967	107	485122	51.79	ug/L 98
52) Chlorobenzene	13.801	13.801	1.002	112	1423822	49.64	ug/L 100
53) 1,1,1,2-Tetrachloroethane	13.850	13.850	1.006	131	555728	52.72	ug/L 99
54) Ethylbenzene	13.862	13.862	1.007	91	2535014	50.51	ug/L 100
55) m,p-Xylenes	13.972	13.966	1.015	106	2060156	105.02	ug/L 100
56) o-Xylene	14.405	14.399	1.046	106	1083799	53.43	ug/L 98
57) Styrene	14.405	14.399	1.046	104	1807337	55.82	ug/L 100
59) Bromoform	14.654	14.655	0.906	173	415741	56.95	ug/L 99
60) Isopropylbenzene	14.758	14.758	0.912	105	2818479	49.22	ug/L 100
62) 1,1,2,2-Tetrachloroethane	15.020	15.014	0.928	83	787847	49.40	ug/L 100
63) 1,2,3-Trichloropropane	15.106	15.106	0.934	110	203141	48.66	ug/L 100
64) Bromobenzene	15.167	15.167	0.937	156	769963	49.21	ug/L 100
65) n-Propylbenzene	15.179	15.179	0.938	91	3527512	49.31	ug/L 99
66) 1,3,5-Trimethylbenzene	15.331	15.325	0.948	105	2686740	51.27	ug/L 100
67) 2-Chlorotoluene	15.331	15.331	0.948	126	798182	51.66	ug/L 99
68) 4-Chlorotoluene	15.429	15.429	0.954	91	2161058	49.13	ug/L 100
69) tert-Butylbenzene	15.703	15.703	0.971	134	575812	51.33	ug/L 98
70) 1,2,4-Trimethylbenzene	15.740	15.740	0.973	105	2680530	49.80	ug/L 99
71) sec-Butylbenzene	15.929	15.929	0.985	105	3554749	50.19	ug/L 100
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	2909347	51.71	ug/L 100
73) 1,3-Dichlorobenzene	16.118	16.118	0.996	146	1537152	49.73	ug/L 99
74) 1,4-Dichlorobenzene	16.209	16.203	1.002	146	1569170	49.52	ug/L 99
75) n-Butylbenzene	16.502	16.502	1.020	91	2793840	51.87	ug/L 99
76) 1,2-Dichlorobenzene	16.642	16.642	1.029	146	1451321	48.98	ug/L 99
77) 1,2-Dibromo-3-chloropr...	17.532	17.526	1.084	157	144372	62.19	ug/L 100
78) 1,2,4-Trichlorobenzene	18.629	18.629	1.151	180	813249	57.04	ug/L 100
79) Hexachlorobutadiene	18.818	18.818	1.163	225	505218	53.27	ug/L 99
80) Naphthalene	19.032	19.026	1.176	128	1775969	56.20	ug/L 100
81) 1,2,3-Trichlorobenzene	19.391	19.385	1.199	180	647533	56.52	ug/L 99
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	7.138	7.174	0.672		0m	N.D.	d
86) Trichlorotrifluoroethane	7.382	7.363	0.695		0m	N.D.	d
87) Isopropyl Alcohol	7.369	7.430	0.694		0m	N.D.	d
88) Allyl chloride	7.699	7.796	0.725		0m	N.D.	d
89) tert-Butyl Alcohol	0.000	7.924	0.000		0	N.D.	
90) Acrylonitrile	8.235	8.168	0.776		0m	N.D.	d
91) Isopropyl ether	8.711	8.735	0.820		0m	N.D.	d
92) 2-Chloro-1,3-butadiene	8.875	8.863	0.836		0m	N.D.	d
93) Ethyl tert-butyl ether	9.143	9.137	0.861		0m	N.D.	d
94) Ethyl acetate	9.326	9.339	0.878		0m	N.D.	d
95) Propionitrile	9.320	9.387	0.878		0m	N.D.	d
96) Methacrylonitrile	9.631	9.570	0.907		0m	N.D.	d
97) Tetrahydrofuran	9.704	9.710	0.914		0m	N.D.	d
98) Isobutyl alcohol	10.009	10.003	0.943		0m	N.D.	d

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B20311.D  
Acq On : 9 Mar 2010 6:11 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066794|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[A] 0220-01E+0308-01  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 09 20:55:40 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	10.375	10.381	0.977		0m	N.D.	d
100) Methyl methacrylate	11.259	11.204	1.060		0m	N.D.	d
101) 1,4-Dioxane	11.320	11.326	1.066		0m	N.D.	d
102) 2-Nitropropane	11.698	11.667	1.102		0m	N.D.	d
104) Ethyl methacrylate	12.472	12.460	0.906		0m	N.D.	d
106) 1-Chlorohexane	13.606	13.661	0.841		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.758	14.783	0.912		0m	N.D.	d
108) Cyclohexanone	14.917	14.905	0.922		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.063	15.063	0.931		0m	N.D.	d
110) Pentachloroethane	15.770	15.770	0.975		0m	N.D.	d
111) Benzyl chloride	16.313	16.319	1.008		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.788	16.715	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\030910V4\  
Data File : 4B20311.D  
Acq On : 9 Mar 2010 6:11 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066794|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[A] 0220-01E+0308-01  
ALS Vial : 3 Sample Multiplier:1
```

[illegible]



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

SDG Number: 10-2193  
 Lab Sample ID: 1202066795  
 Client Sample: QC for batch 963416  
 Client ID: LCS for batch 963416  
 Batch ID: 963417  
 Run Date: 03/09/2010 19:06  
 Prep Date: 03/09/2010 16:45  
 Data File: 030910V4\4B205sLD

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4J  
 Analyst: ACJ  
 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**

SDG Number: 10-2193  
 Lab Sample ID: 1202066795  
 Client Sample: QC for batch 963416  
 Client ID: LCS for batch 963416  
 Batch ID: 963417  
 Run Date: 03/09/2010 19:06  
 Prep Date: 03/09/2010 16:45  
 Data File: 030910V4\4B205sl.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 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	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		262	ug/kg	1.60	5.00
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B205sl.D  
Acq On : 9 Mar 2010 7:06 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066795|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[B] 0304-08A  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 20:57:51 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.619	10.613	1.000	96	1634792	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.770	13.765	1.000	117	1264411	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.178	16.179	1.000	152	813961	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.613	1.000	96	1634171	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.770	13.764	1.000	117	1264997	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.178	16.179	1.000	152	815458	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.966	65	436399	49.44	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	98.88%			
43) Toluene-d8	12.252	12.247	0.890	98	1365198	47.43	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	94.86%			
61) Bromofluorobenzene	14.953	14.947	0.924	95	801318	50.77	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	101.54%			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.291	5.299	0.498		0m	N.D.	d	
4) Vinyl chloride	5.535	5.521	0.521		0m	N.D.	d	
5) Bromomethane	5.994	6.130	0.564		0m	N.D.	d	
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	0.000	6.991	0.000		0	N.D.		
9) Acetone	7.369	7.351	0.694		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.388	7.394	0.696		0m	N.D.	d	
11) Iodomethane	7.625	7.662	0.718		0m	N.D.	d	
12) Acetonitrile	7.705	7.693	0.726		0m	N.D.	d	
13) Methyl acetate	7.753	7.747	0.730		0m	N.D.	d	
14) Carbon disulfide	7.802	7.778	0.735		0m	N.D.	d	
15) Methylene chloride	7.948	7.967	0.749		0m	N.D.	d	
16) tert-Butyl methyl ether	8.241	8.235	0.776		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.704	8.705	0.820		0m	N.D.	d	
19) 1,1-Dichloroethane	8.869	8.753	0.835		0m	N.D.	d	
20) 2-Butanone	9.338	9.320	0.879		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.338	9.381	0.879		0m	N.D.	d	
22) 2,2-Dichloropropane	9.418	9.412	0.887		0m	N.D.	d	
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.686	9.686	0.912		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	9.973	0.000		0	N.D.		
26) Cyclohexane	10.009	10.076	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.131	10.131	0.954		0m	N.D.	d	
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.344	10.338	0.974		0m	N.D.	d	
31) Benzene	10.369	10.369	0.976		0m	N.D.	d	
32) Cyclohexene	10.613	10.491	0.999		0m	N.D.	d	
33) n-Butyl alcohol	10.692	10.686	1.007		0m	N.D.	d	
34) Trichloroethylene	11.003	11.003	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	11.253	11.241	1.060		0m	N.D.	d	
36) Methylcyclohexane	11.204	11.259	1.055		0m	N.D.	d	
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	11.484	11.478	1.082		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.698	11.692	1.102		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B205s1.D  
Acq On : 9 Mar 2010 7:06 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066795|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[B] 0304-08A  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 20:57:51 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	11.935	11.930	1.124		0m	N.D.	d
42) 4-Methyl-2-pentanone	12.015	12.015	0.872		0m	N.D.	d
44) Toluene	12.326	12.320	0.895		0m	N.D.	d
45) trans-1,3-Dichloroprop...	12.460	12.460	0.905		0m	N.D.	d
46) 1,1,2-Trichloroethane	12.685	12.679	0.921		0m	N.D.	d
47) 2-Hexanone	12.850	12.856	0.933		0m	N.D.	d
48) 1,3-Dichloropropane	12.868	12.874	0.934		0m	N.D.	d
49) Tetrachloroethylene	12.917	12.917	0.938		0m	N.D.	d
50) Dibromochloromethane	13.155	13.143	0.955		0m	N.D.	d
51) 1,2-Dibromoethane	13.313	13.313	0.967		0m	N.D.	d
52) Chlorobenzene	13.801	13.801	1.002		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	13.856	13.850	1.006		0m	N.D.	d
54) Ethylbenzene	13.862	13.862	1.007		0m	N.D.	d
55) m,p-Xylenes	13.978	13.966	1.015		0m	N.D.	d
56) o-Xylene	14.398	14.399	1.046		0m	N.D.	d
57) Styrene	14.411	14.399	1.046		0m	N.D.	d
59) Bromoform	14.648	14.655	0.905		0m	N.D.	d
60) Isopropylbenzene	14.758	14.758	0.912		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	15.014	15.014	0.928		0m	N.D.	d
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	15.160	15.167	0.937		0m	N.D.	d
65) n-Propylbenzene	15.179	15.179	0.938		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	15.331	15.325	0.948		0m	N.D.	d
67) 2-Chlorotoluene	15.331	15.331	0.948		0m	N.D.	d
68) 4-Chlorotoluene	15.429	15.429	0.954		0m	N.D.	d
69) tert-Butylbenzene	15.697	15.703	0.970		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	15.746	15.740	0.973		0m	N.D.	d
71) sec-Butylbenzene	15.929	15.929	0.985		0m	N.D.	d
72) 4-Isopropyltoluene	16.050	16.051	0.992		0m	N.D.	d
73) 1,3-Dichlorobenzene	16.124	16.118	0.997		0m	N.D.	d
74) 1,4-Dichlorobenzene	16.209	16.203	1.002		0m	N.D.	d
75) n-Butylbenzene	0.000	16.502	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	16.648	16.642	1.029		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	17.526	17.526	1.083		0m	N.D.	d
78) 1,2,4-Trichlorobenzene	18.629	18.629	1.151		0m	N.D.	d
79) Hexachlorobutadiene	18.824	18.818	1.164		0m	N.D.	d
80) Naphthalene	19.038	19.026	1.177		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	19.391	19.385	1.199		0m	N.D.	d
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	7.180	7.174	0.676	56	592244	342.04 ug/L	99
86) Trichlorotrifluoroethane	7.363	7.363	0.693	85	1110079	261.70 ug/L	99
87) Isopropyl Alcohol	0.000	7.430	0.000		0m	N.D.	d
88) Allyl chloride	7.796	7.796	0.734	41	4107484	293.15 ug/L	98
89) tert-Butyl Alcohol	7.930	7.924	0.747	59	1101	N.D.	
90) Acrylonitrile	8.174	8.168	0.770	53	1096889	310.78 ug/L	99
91) Isopropyl ether	8.875	8.735	0.836	45	230	N.D.	
92) 2-Chloro-1,3-butadiene	8.869	8.863	0.835	53	854899	62.02 ug/L	98
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.338	9.339	0.879	43	2853311	274.34 ug/L	99
95) Propionitrile	9.393	9.387	0.885	54	460380	304.09 ug/L	99
96) Methacrylonitrile	9.576	9.570	0.902	41	1883668	299.79 ug/L	98
97) Tetrahydrofuran	9.710	9.710	0.914	42	1007459	302.40 ug/L	99
98) Isobutyl alcohol	10.009	10.003	0.943	41	1475899	3197.76 ug/L	98

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B205s1.D  
Acq On : 9 Mar 2010 7:06 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066795|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[B] 0304-08A  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 20:57:51 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

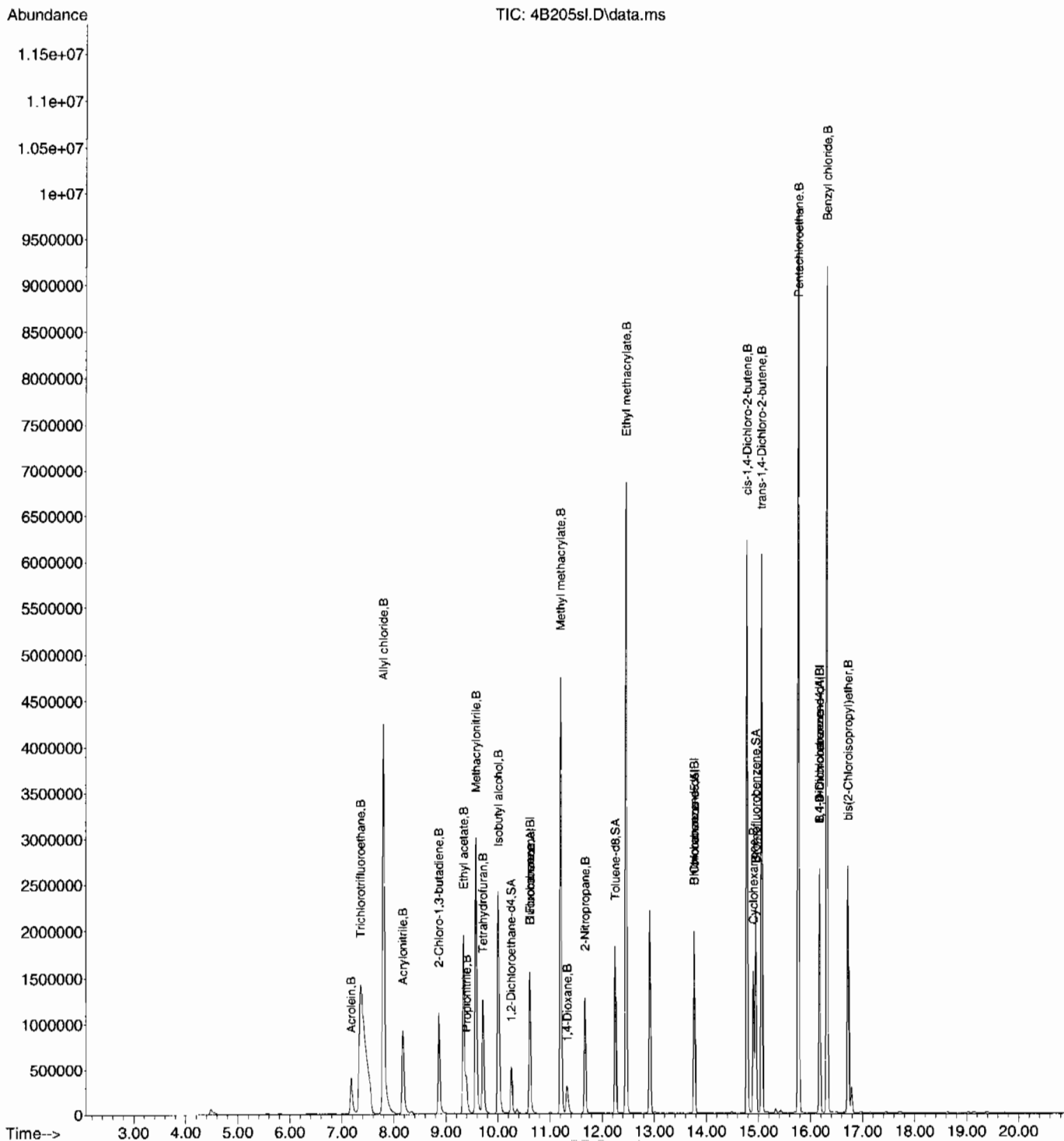
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	10.356	10.381	0.975	73	140	N.D.	
100) Methyl methacrylate	11.204	11.204	1.055	69	2053536	326.70	ug/L 97
101) 1,4-Dioxane	11.332	11.326	1.067	88	326255	2920.48	ug/L 100
102) 2-Nitropropane	11.673	11.667	1.099	43	1077518	284.61	ug/L 99
104) Ethyl methacrylate	12.466	12.460	0.905	69	3815055	314.02	ug/L 98
106) 1-Chlorohexane	13.630	13.661	0.842	55	252	N.D.	
107) cis-1,4-Dichloro-2-butene	14.782	14.783	0.914	53	1429024	334.97	ug/L 95
108) Cyclohexanone	14.904	14.905	0.921	42	547594	1131.85	ug/L 99
109) trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	1382869	339.56	ug/L 97
110) Pentachloroethane	15.770	15.770	0.975	167	2079561	347.23	ug/L 98
111) Benzyl chloride	16.319	16.319	1.009	91	7233779	348.03	ug/L 98
112) bis(2-Chloroisopropyl)...	16.721	16.715	1.034	45	1947825	328.12	ug/L 98

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

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B205sl.D  
Acq On : 9 Mar 2010 7:06 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066795|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[B] 0304-08A  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 09 20:57:51 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE



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

SDG Number: 10-2193  
 Lab Sample ID: 1202066796  
 Client Sample: QC for batch 963416  
 Client ID: LCS for batch 963416  
 Batch ID: 963417  
 Run Date: 03/10/2010 06:05  
 Prep Date: 03/09/2010 22:00  
 Data File: 030910V4\4B2291a.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 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		38.2	ug/kg	0.340	1.00
74-87-3	Chloromethane		41.1	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		47.0	ug/kg	0.300	1.00
74-83-9	Bromomethane		47.4	ug/kg	0.300	1.00
75-00-3	Chloroethane		47.9	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		51.3	ug/kg	0.300	1.00
67-64-1	Acetone		195	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		47.3	ug/kg	0.300	1.00
74-88-4	Iodomethane		253	ug/kg	1.60	5.00
75-09-2	Methylene chloride		50.1	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		257	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		47.5	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		48.9	ug/kg	0.300	1.00
78-93-3	2-Butanone		203	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		48.5	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		45.9	ug/kg	0.300	1.00
67-66-3	Chloroform		48.1	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		49.7	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		49.4	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		49.0	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		50.4	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		48.3	ug/kg	0.300	1.00
71-43-2	Benzene		48.2	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		48.8	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		49.6	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		52.1	ug/kg	0.300	1.00
74-95-3	Dibromomethane		49.2	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		253	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		50.5	ug/kg	0.300	1.00
108-88-3	Toluene		51.7	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		50.9	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		48.8	ug/kg	0.300	1.00
591-78-6	2-Hexanone		215	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		49.5	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		46.9	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		53.9	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		50.7	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		47.2	ug/kg	0.300	1.00

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

SDG Number: 10-2193		Matrix: SOIL
Lab Sample ID: 1202066796		
Client Sample: QC for batch 963416	Client: LANL010	Project: QC
Client ID: LCS for batch 963416	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.1	Dilution: 1
Run Date: 03/10/2010 06:05	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 22:00	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4V4B2291a.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		47.1	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		95.6	ug/kg	0.300	2.00
95-47-6	o-Xylene		49.6	ug/kg	0.300	1.00
100-42-5	Styrene		51.8	ug/kg	0.300	1.00
75-25-2	Bromoform		52.7	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		46.3	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		47.0	ug/kg	0.300	1.00
108-86-1	Bromobenzene		45.6	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		43.7	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		46.3	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		44.1	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		45.2	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		43.7	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		44.7	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		44.2	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		43.9	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		44.3	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		44.3	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		43.4	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		42.8	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		54.9	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	5.00	ug/kg	1.60	5.00
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane		50.5	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		45.1	ug/kg	0.300	1.00



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B2291a.D  
Acq On : 10 Mar 2010 6:05 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066796|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[A] 0220-01E+0308-01  
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 10 07:29:53 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.614	10.613	1.000	96	1400888	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.765	13.765	1.000	117	1088686	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	749756	50.00	ug/L	0.00
82) B Fluorobenzene	10.614	10.613	1.000	96	1400650	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.765	13.764	1.000	117	1088686	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	750116	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.259	0.967	65	350158	46.29	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	92.58%			
43) Toluene-d8	12.247	12.247	0.890	98	1163834	46.96	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	93.92%			
61) Bromofluorobenzene	14.954	14.947	0.924	95	715474	49.21	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	98.42%			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.897	4.897	0.461	85	349865	38.23	ug/L	100
3) Chloromethane	5.291	5.299	0.499	50	672156	41.12	ug/L	100
4) Vinyl chloride	5.514	5.521	0.519	62	725623	46.96	ug/L	100
5) Bromomethane	6.130	6.130	0.578	94	448887	47.37	ug/L	100
6) Chloroethane	6.288	6.288	0.592	64	360188	47.90	ug/L	99
7) Trichlorofluoromethane	6.675	6.668	0.629	101	723537	51.34	ug/L	100
8) Ethyl ether	6.998	6.991	0.659	59	337086	47.93	ug/L	99
9) Acetone	7.352	7.351	0.693	43	1674106	195.33	ug/L	100
10) 1,1-Dichloroethylene	7.395	7.394	0.697	61	772396	47.34	ug/L	99
11) Iodomethane	7.657	7.662	0.721	142	3869475	252.83	ug/L	100
12) Acetonitrile	7.699	7.693	0.725	41	1770875	1267.85	ug/L	100
13) Methyl acetate	7.748	7.747	0.730	43	1820240	246.62	ug/L	99
14) Carbon disulfide	7.773	7.778	0.732	76	8003941	256.82	ug/L	100
15) Methylene chloride	7.937	7.967	0.748	84	552151	50.09	ug/L	98
16) tert-Butyl methyl ether	8.236	8.235	0.776	73	1205962	48.45	ug/L	100
17) trans-1,2-Dichloroethy...	8.279	8.278	0.780	61	605443	47.51	ug/L	100
18) Vinyl acetate	8.705	8.705	0.820	43	4016784	245.40	ug/L	99
19) 1,1-Dichloroethane	8.754	8.753	0.825	63	772589	48.93	ug/L	100
20) 2-Butanone	9.327	9.320	0.879	43	1803592	202.62	ug/L	100
21) cis-1,2-Dichloroethylene	9.382	9.381	0.884	61	666495	48.45	ug/L	99
22) 2,2-Dichloropropane	9.419	9.412	0.887	77	366107	45.87	ug/L	99
23) Bromochloromethane	9.656	9.656	0.910	128	228216	49.71	ug/L	97
24) Chloroform	9.693	9.686	0.913	83	783821	48.10	ug/L	99
25) 1,1,1-Trichloroethane	9.979	9.973	0.940	97	593525	49.41	ug/L	99
26) Cyclohexane	10.083	10.076	0.950	56	673416	49.34	ug/L	98
27) 1,1-Dichloropropene	10.132	10.131	0.955	75	574528	49.02	ug/L	99
28) Carbon tetrachloride	10.175	10.168	0.959	117	560986	50.37	ug/L	100
30) 1,2-Dichloroethane	10.339	10.338	0.974	62	642704	48.34	ug/L	99
31) Benzene	10.370	10.369	0.977	78	1671649	48.20	ug/L	100
32) Cyclohexene	10.492	10.491	0.989	67	807121	48.32	ug/L	100
33) n-Butyl alcohol	10.687	10.686	1.007	56	1854686	5597.08	ug/L	99
34) Trichloroethylene	11.004	11.003	1.037	95	444159	48.83	ug/L	99
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	450512	49.60	ug/L	99
36) Methylcyclohexane	11.260	11.259	1.061	83	690080	49.64	ug/L	99
37) Dibromomethane	11.376	11.369	1.072	93	278922	49.17	ug/L	99
38) Bromodichloromethane	11.485	11.478	1.082	83	591895	52.07	ug/L	99
39) 2-Chloroethylvinyl ether	11.699	11.692	1.102	63	1072871	251.38	ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B2291a.D  
Acq On : 10 Mar 2010 6:05 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066796|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[A] 0220-01E+0308-01  
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 10 07:29:53 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	11.930	11.930	1.124	75	673234	50.46	ug/L	99
42) 4-Methyl-2-pentanone	12.016	12.015	0.873	58	979878	252.97	ug/L	99
44) Toluene	12.320	12.320	0.895	91	1743641	51.69	ug/L	100
45) trans-1,3-Dichloroprop...	12.461	12.460	0.905	75	648209	50.87	ug/L	100
46) 1,1,2-Trichloroethane	12.680	12.679	0.921	83	331201	48.84	ug/L	99
47) 2-Hexanone	12.857	12.856	0.934	43	2426074	214.68	ug/L	99
48) 1,3-Dichloropropane	12.875	12.874	0.935	76	688759	49.48	ug/L	92
49) Tetrachloroethylene	12.918	12.917	0.938	164	342965	46.94	ug/L	99
50) Dibromochloromethane	13.143	13.143	0.955	129	470619	53.87	ug/L	98
51) 1,2-Dibromoethane	13.320	13.313	0.968	107	417074	50.74	ug/L	100
52) Chlorobenzene	13.802	13.801	1.003	112	1187940	47.19	ug/L	100
53) 1,1,1,2-Tetrachloroethane	13.851	13.850	1.006	131	467343	50.52	ug/L	99
54) Ethylbenzene	13.863	13.862	1.007	91	2075453	47.12	ug/L	99
55) m,p-Xylenes	13.967	13.966	1.015	106	1646493	95.64	ug/L	97
56) o-Xylene	14.399	14.399	1.046	106	883007	49.61	ug/L	99
57) Styrene	14.399	14.399	1.046	104	1472337	51.81	ug/L	99
59) Bromoform	14.655	14.655	0.906	173	341304	52.68	ug/L	100
60) Isopropylbenzene	14.759	14.758	0.912	105	2240109	44.08	ug/L	100
62) 1,1,2,2-Tetrachloroethane	15.015	15.014	0.928	83	655477	46.31	ug/L	100
63) 1,2,3-Trichloropropane	15.107	15.106	0.934	110	174318	47.04	ug/L	100
64) Bromobenzene	15.167	15.167	0.937	156	632669	45.56	ug/L	100
65) n-Propylbenzene	15.180	15.179	0.938	91	2774273	43.70	ug/L	99
66) 1,3,5-Trimethylbenzene	15.332	15.325	0.948	105	2101645	45.19	ug/L	100
67) 2-Chlorotoluene	15.332	15.331	0.948	126	634981	46.31	ug/L	99
68) 4-Chlorotoluene	15.430	15.429	0.954	91	1704988	43.68	ug/L	100
69) tert-Butylbenzene	15.704	15.703	0.971	134	445447	44.74	ug/L	99
70) 1,2,4-Trimethylbenzene	15.741	15.740	0.973	105	2111506	44.20	ug/L	100
71) sec-Butylbenzene	15.930	15.929	0.985	105	2756918	43.86	ug/L	100
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	2211405	44.28	ug/L	99
73) 1,3-Dichlorobenzene	16.119	16.118	0.996	146	1214191	44.26	ug/L	100
74) 1,4-Dichlorobenzene	16.204	16.203	1.002	146	1220577	43.40	ug/L	100
75) n-Butylbenzene	16.503	16.502	1.020	91	2044603	42.77	ug/L	100
76) 1,2-Dichlorobenzene	16.643	16.642	1.029	146	1186285	45.11	ug/L	99
77) 1,2-Dibromo-3-chloropr...	17.527	17.526	1.083	157	113078	54.88	ug/L	98
78) 1,2,4-Trichlorobenzene	18.630	18.629	1.151	180	553077	43.71	ug/L	99
79) Hexachlorobutadiene	18.819	18.818	1.163	225	320308	38.06	ug/L	99
80) Naphthalene	19.026	19.026	1.176	128	1342986	47.89	ug/L	100
81) 1,2,3-Trichlorobenzene	19.386	19.385	1.198	180	465805	45.81	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	7.193	7.174	0.678		0m	N.D.	d	
86) Trichlorotrifluoroethane	7.376	7.363	0.695		0m	N.D.	d	
87) Isopropyl Alcohol	7.462	7.430	0.703		0m	N.D.	d	
88) Allyl chloride	7.699	7.796	0.725		0m	N.D.	d	
89) tert-Butyl Alcohol	7.986	7.924	0.752		0m	N.D.	d	
90) Acrylonitrile	8.242	8.168	0.777		0m	N.D.	d	
91) Isopropyl ether	8.705	8.735	0.820		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	8.864	8.863	0.835		0m	N.D.	d	
93) Ethyl tert-butyl ether	9.126	9.137	0.860		0m	N.D.	d	
94) Ethyl acetate	9.327	9.339	0.879		0m	N.D.	d	
95) Propionitrile	9.315	9.387	0.878		0m	N.D.	d	
96) Methacrylonitrile	0.000	9.570	0.000		0	N.D.		
97) Tetrahydrofuran	9.693	9.710	0.913		0m	N.D.	d	
98) Isobutyl alcohol	9.967	10.003	0.939		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B2291a.D  
Acq On : 10 Mar 2010 6:05 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066796|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[A] 0220-01E+0308-01  
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 10 07:29:53 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	10.376	10.381	0.978		0m	N.D.	d
100) Methyl methacrylate	11.260	11.204	1.061		0m	N.D.	d
101) 1,4-Dioxane	11.321	11.326	1.067		0m	N.D.	d
102) 2-Nitropropane	11.699	11.667	1.102		0m	N.D.	d
104) Ethyl methacrylate	12.467	12.460	0.906		0m	N.D.	d
106) 1-Chlorohexane	13.613	13.661	0.841		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.759	14.783	0.912		0m	N.D.	d
108) Cyclohexanone	14.905	14.905	0.921		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.070	15.063	0.931		0m	N.D.	d
110) Pentachloroethane	15.771	15.770	0.975		0m	N.D.	d
111) Benzyl chloride	16.314	16.319	1.008		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.728	16.715	1.034		0m	N.D.	d

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



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

SDG Number: 10-2193

Matrix: SOIL

Lab Sample ID: 1202066797

Client Sample: QC for batch 963416

Client: LANL010

Project: QC

Client ID: LCS for batch 963416

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 963417

Inst: VOA4.1

Dilution: 1

Run Date: 03/10/2010 07:00

Analyst: ACJ

Purge Vol: 5 mL

Prep Date: 03/09/2010 22:15

Aliquot: 5 g

Final Volume: 5 mL

Data File: 030910V44B231sa.D

Column: DB-624

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

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

SDG Number: 10-2193

Matrix: SOIL

Lab Sample ID: 1202066797

Client Sample: QC for batch 963416

Client: LANL010

Project: QC

Client ID: LCS for batch 963416

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 963417

Inst: VOA4J

Dilution: 1

Run Date: 03/10/2010 07:00

Analyst: ACJ

Purge Vol: 5 mL

Prep Date: 03/09/2010 22:15

Aliquot: 5 g

Final Volume: 5 mL

Data File: 030910V44B231sa.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		253	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

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B231sa.D  
Acq On : 10 Mar 2010 7:00 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066797|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[B] 0304-08A  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 10 09:42:15 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.613	10.613	1.000	96	1459668	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	1120191	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	694474	50.00	ug/L	0.00
82) B Fluorobenzene	10.613	10.613	1.000	96	1459458	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	1120486	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	694701	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	10.259	10.259	0.967	65	371665	47.16	ug/L	0.00
Spiked Amount	50.000	Range 66 - 134	Recovery	=	94.32%			
43) Toluene-d8	12.246	12.247	0.889	98	1191436	46.72	ug/L	0.00
Spiked Amount	50.000	Range 71 - 128	Recovery	=	93.44%			
61) Bromofluorobenzene	14.953	14.947	0.924	95	697790	51.81	ug/L	0.00
Spiked Amount	50.000	Range 65 - 130	Recovery	=	103.62%			
Target Compounds								
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.292	5.299	0.499		0m	N.D.	d	
4) Vinyl chloride	5.528	5.521	0.521		0m	N.D.	d	
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	6.991	6.991	0.659		0m	N.D.	d	
9) Acetone	7.363	7.351	0.694		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.351	7.394	0.693		0m	N.D.	d	
11) Iodomethane	7.613	7.662	0.717		0m	N.D.	d	
12) Acetonitrile	7.699	7.693	0.725		0m	N.D.	d	
13) Methyl acetate	7.747	7.747	0.730		0m	N.D.	d	
14) Carbon disulfide	7.796	7.778	0.735		0m	N.D.	d	
15) Methylene chloride	7.942	7.967	0.748		0m	N.D.	d	
16) tert-Butyl methyl ether	8.229	8.235	0.775		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.704	8.705	0.820		0m	N.D.	d	
19) 1,1-Dichloroethane	8.753	8.753	0.825		0m	N.D.	d	
20) 2-Butanone	9.338	9.320	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.338	9.381	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	9.668	9.656	0.911		0m	N.D.	d	
24) Chloroform	9.686	9.686	0.913		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	9.973	0.000		0	N.D.		
26) Cyclohexane	10.003	10.076	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.137	10.131	0.955		0m	N.D.	d	
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.350	10.338	0.975		0m	N.D.	d	
31) Benzene	10.363	10.369	0.976		0m	N.D.	d	
32) Cyclohexene	10.472	10.491	0.987		0m	N.D.	d	
33) n-Butyl alcohol	10.680	10.686	1.006		0m	N.D.	d	
34) Trichloroethylene	11.003	11.003	1.037		0m	N.D.	d	
35) 1,2-Dichloropropane	11.241	11.241	1.059		0m	N.D.	d	
36) Methylcyclohexane	11.204	11.259	1.056		0m	N.D.	d	
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	11.484	11.478	1.082		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.710	11.692	1.103		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B231sa.D  
Acq On : 10 Mar 2010 7:00 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066797|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[B] 0304-08A  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 10 09:42:15 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	11.923	11.930	1.124		0m	N.D.	d
42) 4-Methyl-2-pentanone	12.027	12.015	0.873		0m	N.D.	d
44) Toluene	12.332	12.320	0.896		0m	N.D.	d
45) trans-1,3-Dichloroprop...	12.460	12.460	0.905		0m	N.D.	d
46) 1,1,2-Trichloroethane	12.679	12.679	0.921		0m	N.D.	d
47) 2-Hexanone	12.856	12.856	0.934		0m	N.D.	d
48) 1,3-Dichloropropane	12.917	12.874	0.938		0m	N.D.	d
49) Tetrachloroethylene	12.917	12.917	0.938		0m	N.D.	d
50) Dibromochloromethane	13.143	13.143	0.954		0m	N.D.	d
51) 1,2-Dibromoethane	13.313	13.313	0.967		0m	N.D.	d
52) Chlorobenzene	13.801	13.801	1.002		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	13.844	13.850	1.005		0m	N.D.	d
54) Ethylbenzene	13.862	13.862	1.007		0m	N.D.	d
55) m,p-Xylenes	13.966	13.966	1.014		0m	N.D.	d
56) o-Xylene	14.411	14.399	1.046		0m	N.D.	d
57) Styrene	14.392	14.399	1.045		0m	N.D.	d
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.752	14.758	0.912		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	15.063	15.014	0.931		0m	N.D.	d
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.	
64) Bromobenzene	15.167	15.167	0.937		0m	N.D.	d
65) n-Propylbenzene	15.185	15.179	0.939		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	15.331	15.325	0.948		0m	N.D.	d
67) 2-Chlorotoluene	15.337	15.331	0.948		0m	N.D.	d
68) 4-Chlorotoluene	15.429	15.429	0.954		0m	N.D.	d
69) tert-Butylbenzene	15.709	15.703	0.971		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	15.746	15.740	0.973		0m	N.D.	d
71) sec-Butylbenzene	15.929	15.929	0.985		0m	N.D.	d
72) 4-Isopropyltoluene	16.051	16.051	0.992		0m	N.D.	d
73) 1,3-Dichlorobenzene	16.124	16.118	0.997		0m	N.D.	d
74) 1,4-Dichlorobenzene	16.203	16.203	1.002		0m	N.D.	d
75) n-Butylbenzene	0.000	16.502	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	16.636	16.642	1.028		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.635	18.629	1.152		0m	N.D.	d
79) Hexachlorobutadiene	18.818	18.818	1.163		0m	N.D.	d
80) Naphthalene	19.032	19.026	1.176		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	19.385	19.385	1.198		0m	N.D.	d
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	7.180	7.174	0.677	56	461291	298.30 ug/L	99
86) Trichlorotrifluoroethane	7.363	7.363	0.694	85	958634	253.05 ug/L	99
87) Isopropyl Alcohol	0.000	7.430	0.000		0m	N.D.	d
88) Allyl chloride	7.796	7.796	0.735	41	3656490	292.20 ug/L	99
89) tert-Butyl Alcohol	7.906	7.924	0.745	59	364	N.D.	
90) Acrylonitrile	8.174	8.168	0.770	53	933010	295.99 ug/L	100
91) Isopropyl ether	8.778	8.735	0.827	45	194	N.D.	
92) 2-Chloro-1,3-butadiene	8.869	8.863	0.836	53	743544	60.40 ug/L	100
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.	
94) Ethyl acetate	9.338	9.339	0.880	43	2442197	262.92 ug/L	100
95) Propionitrile	9.393	9.387	0.885	54	381989	282.51 ug/L	99
96) Methacrylonitrile	9.576	9.570	0.902	41	1634996	291.36 ug/L	100
97) Tetrahydrofuran	9.710	9.710	0.915	42	836489	281.14 ug/L	99
98) Isobutyl alcohol	10.003	10.003	0.943	41	1211708	2939.63 ug/L	100



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B231sa.D  
Acq On : 10 Mar 2010 7:00 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066797|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[B] 0304-08A  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 10 09:42:15 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
99) Methyl tert-amyl ether	10.357	10.381	0.976	73	182	N.D.		
100) Methyl methacrylate	11.204	11.204	1.056	69	1774327	316.07	ug/L	100
101) 1,4-Dioxane	11.326	11.326	1.067	88	272158	2727.87	ug/L	99
102) 2-Nitropropane	11.673	11.667	1.100	43	924699	273.73	ug/L	99
104) Ethyl methacrylate	12.466	12.460	0.905	69	3354719	311.75	ug/L	99
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d	
107) cis-1,4-Dichloro-2-butene	14.783	14.783	0.914	53	1186647	326.50	ug/L	99
108) Cyclohexanone	14.904	14.905	0.921	42	454904	1103.70	ug/L	99
109) trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	1148852	331.13	ug/L	100
110) Pentachloroethane	15.770	15.770	0.975	167	1327913	260.87	ug/L	99
111) Benzyl chloride	16.319	16.319	1.009	91	5232400	295.50	ug/L	100
112) bis(2-Chloroisopropyl)...	16.721	16.715	1.034	45	1568381	310.13	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\030910V4\  
 Data File : 4B231sa.D  
 Acq On : 10 Mar 2010 7:00 am  
 Operator : ACJ  
 InstName : VOA4  
 Sample : |1202066797|963417|1|VOAF|1|VOA8260BS|  
 Misc : GEL 5G - SOIL MIX[B] 0304-08A  
 ALS Vial : 31 Sample Multiplier: 1

Abundance

TIC: 4B231sa.D\data.ms

Time-->

7500000

7000000

6500000

6000000

5500000

5000000

4500000

4000000

3500000

3000000

2500000

2000000

1500000

1000000

500000

0

3.00 4.00 5.00 6.00 7.00 8.00 9.00 10.00 11.00 12.00 13.00 14.00 15.00 16.00 17.00 18.00 19.00 20.00

Acrolein, B

Trichlorotrifluoroethane, B

Allyl chloride, B

Acrylonitrile, B

2-Chloro-1,3-butadiene, B

Propionitrile, B

Ethyl acetate, B

Tetrahydrofuran, B

Mathacrylonitrile, B

Isobutyl alcohol, B

1,2-Dichloroethane-d4, SA

Bis(2-chloroisopropyl) ether, B

1,4-Dioxane, B

2-Nitropropane, B

Toluene-d8, SA

Bis(2-chloroisopropyl) ether, B

Cyclohexanone, B

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

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

Pentachloroethane, B

Benzyl chloride, B

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

SDG Number: 10-2193  
 Lab Sample ID: 1202076511  
 Client Sample: QC for batch 963416  
 Client ID: LCS for batch 963416  
 Batch ID: 963417  
 Run Date: 03/11/2010 05:45  
 Prep Date: 03/10/2010 22:00  
 Data File: 031010V4V4B3301.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.1  
 Analyst: ACJ  
 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		27.6	ug/kg	0.340	1.00
74-87-3	Chloromethane		33.7	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		40.4	ug/kg	0.300	1.00
74-83-9	Bromomethane		39.9	ug/kg	0.300	1.00
75-00-3	Chloroethane		41.2	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		45.3	ug/kg	0.300	1.00
67-64-1	Acetone		178	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		39.9	ug/kg	0.300	1.00
74-88-4	Iodomethane		221	ug/kg	1.60	5.00
75-09-2	Methylene chloride		41.7	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		217	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		42.4	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		44.1	ug/kg	0.300	1.00
78-93-3	2-Butanone		187	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		42.9	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		44.0	ug/kg	0.300	1.00
67-66-3	Chloroform		42.6	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		44.5	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		45.2	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		44.0	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		45.9	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		42.4	ug/kg	0.300	1.00
71-43-2	Benzene		42.8	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		44.3	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		44.5	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		46.2	ug/kg	0.300	1.00
74-95-3	Dibromomethane		43.6	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		231	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		44.5	ug/kg	0.300	1.00
108-88-3	Toluene		46.6	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		44.8	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		44.1	ug/kg	0.300	1.00
591-78-6	2-Hexanone		188	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		44.4	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		42.7	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		47.2	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		44.7	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		42.0	ug/kg	0.300	1.00

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

SDG Number: 10-2193  
 Lab Sample ID: 1202076511  
 Client Sample: QC for batch 963416  
 Client ID: LCS for batch 963416  
 Batch ID: 963417  
 Run Date: 03/11/2010 05:45  
 Prep Date: 03/10/2010 22:00  
 Data File: 031010V44B33011.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.J  
 Analyst: ACJ  
 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		42.5	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		86.8	ug/kg	0.300	2.00
95-47-6	o-Xylene		43.6	ug/kg	0.300	1.00
100-42-5	Styrene		45.9	ug/kg	0.300	1.00
75-25-2	Bromoform		46.5	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		42.2	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		42.7	ug/kg	0.300	1.00
108-86-1	Bromobenzene		41.1	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		41.1	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		42.3	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		40.5	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		42.0	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		41.2	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		41.4	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		41.6	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		41.4	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		42.1	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		40.8	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		42.1	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		52.8	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		44.5	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		42.0	ug/kg	0.300	1.00

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B33011.D  
Acq On : 11 Mar 2010 5:45 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202076511|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[A] 0220-01E+0310-01  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 11 22:17:07 2010

Quant Method : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M

Quant Title : Volatile Organics 8260B

SubList :

QLast Update : Mon Mar 08 15:37:50 2010

Response via : Initial Calibration

Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.620	10.613	1.000	96	1298330	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.772	13.765	1.000	117	1013729	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	679941	50.00	ug/L	0.00
82) B Fluorobenzene	10.620	10.613	1.000	96	1297724	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.772	13.764	1.000	117	1013729	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	679958	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.259	0.966	65	317077	45.23	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	90.46%			
43) Toluene-d8	12.254	12.247	0.890	98	1071032	46.41	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	92.82%			
61) Bromofluorobenzene	14.954	14.947	0.924	95	659141	49.99	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	99.98%			
Target Compounds								QValue
2) Dichlorodifluoromethane	4.904	4.897	0.462	85	234300	27.63	ug/L	99
3) Chloromethane	5.292	5.299	0.498	50	509804	33.65	ug/L	100
4) Vinyl chloride	5.514	5.521	0.519	62	578549	40.40	ug/L	100
5) Bromomethane	6.130	6.130	0.577	94	350665	39.93	ug/L	99
6) Chloroethane	6.295	6.288	0.593	64	287002	41.18	ug/L	99
7) Trichlorofluoromethane	6.663	6.668	0.627	101	591167	45.26	ug/L	99
8) Ethyl ether	6.998	6.991	0.659	59	285458	43.79	ug/L	98
9) Acetone	7.358	7.351	0.693	43	1411180	177.66	ug/L	100
10) 1,1-Dichloroethylene	7.383	7.394	0.695	61	603197	39.89	ug/L	99
11) Iodomethane	7.626	7.662	0.718	142	3134234	220.96	ug/L	100
12) Acetonitrile	7.700	7.693	0.725	41	1499234	1158.16	ug/L	100
13) Methyl acetate	7.748	7.747	0.730	43	1581228	231.16	ug/L	99
14) Carbon disulfide	7.773	7.778	0.732	76	6276007	217.28	ug/L	100
15) Methylene chloride	7.937	7.967	0.747	84	429197	41.74	ug/L	99
16) tert-Butyl methyl ether	8.242	8.235	0.776	73	999859	43.34	ug/L	100
17) trans-1,2-Dichloroethy...	8.285	8.278	0.780	61	500555	42.38	ug/L	99
18) Vinyl acetate	8.712	8.705	0.820	43	3263487	215.13	ug/L	99
19) 1,1-Dichloroethane	8.754	8.753	0.824	63	645650	44.12	ug/L	99
20) 2-Butanone	9.327	9.320	0.878	43	1546580	187.47	ug/L	100
21) cis-1,2-Dichloroethylene	9.388	9.381	0.884	61	546988	42.91	ug/L	99
22) 2,2-Dichloropropane	9.419	9.412	0.887	77	325302	43.97	ug/L	99
23) Bromochloromethane	9.656	9.656	0.909	128	189144	44.46	ug/L	100
24) Chloroform	9.693	9.686	0.913	83	643178	42.59	ug/L	100
25) 1,1,1-Trichloroethane	9.980	9.973	0.940	97	503301	45.21	ug/L	98
26) Cyclohexane	10.083	10.076	0.949	56	556867	44.03	ug/L	87
27) 1,1-Dichloropropene	10.132	10.131	0.954	75	477887	43.99	ug/L	# 99
28) Carbon tetrachloride	10.175	10.168	0.958	117	474137	45.94	ug/L	97
30) 1,2-Dichloroethane	10.339	10.338	0.974	62	522649	42.42	ug/L	99
31) Benzene	10.370	10.369	0.976	78	1376669	42.83	ug/L	100
32) Cyclohexene	10.492	10.491	0.988	67	674568	43.57	ug/L	100
33) n-Butyl alcohol	10.687	10.686	1.006	56	1477976	4837.89	ug/L	99
34) Trichloroethylene	11.004	11.003	1.036	95	373493	44.31	ug/L	100
35) 1,2-Dichloropropane	11.242	11.241	1.059	63	374523	44.49	ug/L	99
36) Methylcyclohexane	11.260	11.259	1.060	83	582679	45.23	ug/L	99
37) Dibromomethane	11.376	11.369	1.071	93	229182	43.60	ug/L	99
38) Bromodichloromethane	11.479	11.478	1.081	83	486131	46.15	ug/L	100
39) 2-Chloroethylvinyl ether	11.699	11.692	1.102	63	903954	228.53	ug/L	99

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B33011.D  
Acq On : 11 Mar 2010 5:45 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202076511|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[A] 0220-01E+0310-01  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 11 22:17:07 2010  
Quant Method : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 15:37:50 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	11.930	11.930	1.123	75	550292	44.51	ug/L	99
42) 4-Methyl-2-pentanone	12.016	12.015	0.873	58	831640	230.58	ug/L	98
44) Toluene	12.327	12.320	0.895	91	1467574	46.60	ug/L	99
45) trans-1,3-Dichloroprop...	12.461	12.460	0.905	75	531588	44.81	ug/L	99
46) 1,1,2-Trichloroethane	12.680	12.679	0.921	83	278195	44.06	ug/L	100
47) 2-Hexanone	12.857	12.856	0.934	43	1974658	187.66	ug/L	98
48) 1,3-Dichloropropane	12.875	12.874	0.935	76	574890	44.35	ug/L	92
49) Tetrachloroethylene	12.918	12.917	0.938	164	290170	42.65	ug/L	98
50) Dibromochloromethane	13.144	13.143	0.954	129	383985	47.20	ug/L	99
51) 1,2-Dibromoethane	13.320	13.313	0.967	107	341938	44.67	ug/L	98
52) Chlorobenzene	13.802	13.801	1.002	112	984758	42.01	ug/L	99
53) 1,1,1,2-Tetrachloroethane	13.851	13.850	1.006	131	382997	44.46	ug/L	99
54) Ethylbenzene	13.863	13.862	1.007	91	1742794	42.50	ug/L	99
55) m,p-Xylenes	13.973	13.966	1.015	106	1390668	86.75	ug/L	97
56) o-Xylene	14.399	14.399	1.046	106	722820	43.61	ug/L	98
57) Styrene	14.399	14.399	1.046	104	1213685	45.87	ug/L	100
59) Bromoform	14.656	14.655	0.906	173	273015	46.47	ug/L	98
60) Isopropylbenzene	14.759	14.758	0.912	105	1868007	40.53	ug/L	100
62) 1,1,2,2-Tetrachloroethane	15.015	15.014	0.928	83	541037	42.15	ug/L	99
63) 1,2,3-Trichloropropane	15.107	15.106	0.934	110	143398	42.67	ug/L	99
64) Bromobenzene	15.168	15.167	0.937	156	517458	41.09	ug/L	98
65) n-Propylbenzene	15.180	15.179	0.938	91	2363608	41.05	ug/L	99
66) 1,3,5-Trimethylbenzene	15.332	15.325	0.948	105	1772273	42.02	ug/L	99
67) 2-Chlorotoluene	15.332	15.331	0.948	126	526404	42.33	ug/L	98
68) 4-Chlorotoluene	15.430	15.429	0.954	91	1457944	41.18	ug/L	99
69) tert-Butylbenzene	15.704	15.703	0.971	134	373579	41.38	ug/L	97
70) 1,2,4-Trimethylbenzene	15.741	15.740	0.973	105	1801126	41.57	ug/L	99
71) sec-Butylbenzene	15.930	15.929	0.985	105	2358956	41.38	ug/L	99
72) 4-Isopropyltoluene	16.052	16.051	0.992	119	1905879	42.08	ug/L	100
73) 1,3-Dichlorobenzene	16.119	16.118	0.996	146	1034984	41.60	ug/L	99
74) 1,4-Dichlorobenzene	16.204	16.203	1.002	146	1041258	40.82	ug/L	100
75) n-Butylbenzene	16.503	16.502	1.020	91	1823579	42.06	ug/L	99
76) 1,2-Dichlorobenzene	16.643	16.642	1.029	146	1000447	41.95	ug/L	100
77) 1,2-Dibromo-3-chloropr...	17.527	17.526	1.083	157	98658	52.80	ug/L	98
78) 1,2,4-Trichlorobenzene	18.630	18.629	1.151	180	515280	44.90	ug/L	99
79) Hexachlorobutadiene	18.819	18.818	1.163	225	320420	41.98	ug/L	99
80) Naphthalene	19.027	19.026	1.176	128	1242019	48.83	ug/L	100
81) 1,2,3-Trichlorobenzene	19.386	19.385	1.198	180	444091	48.16	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	7.194	7.174	0.677		0m	N.D.	d	
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.		
87) Isopropyl Alcohol	7.480	7.430	0.704		0m	N.D.	d	
88) Allyl chloride	7.700	7.796	0.725		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	7.924	0.000		0	N.D.		
90) Acrylonitrile	8.230	8.168	0.775		0m	N.D.	d	
91) Isopropyl ether	8.705	8.735	0.820		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	8.882	8.863	0.836		0m	N.D.	d	
93) Ethyl tert-butyl ether	9.138	9.137	0.861		0m	N.D.	d	
94) Ethyl acetate	9.327	9.339	0.878		0m	N.D.	d	
95) Propionitrile	9.339	9.387	0.879		0m	N.D.	d	
96) Methacrylonitrile	0.000	9.570	0.000		0	N.D.		
97) Tetrahydrofuran	9.705	9.710	0.914		0m	N.D.	d	
98) Isobutyl alcohol	10.010	10.003	0.943		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B33011.D  
Acq On : 11 Mar 2010 5:45 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202076511|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[A] 0220-01E+0310-01  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 11 22:17:07 2010  
Quant Method : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 15:37:50 2010  
Response via : Initial Calibration  
Integrator: RTE

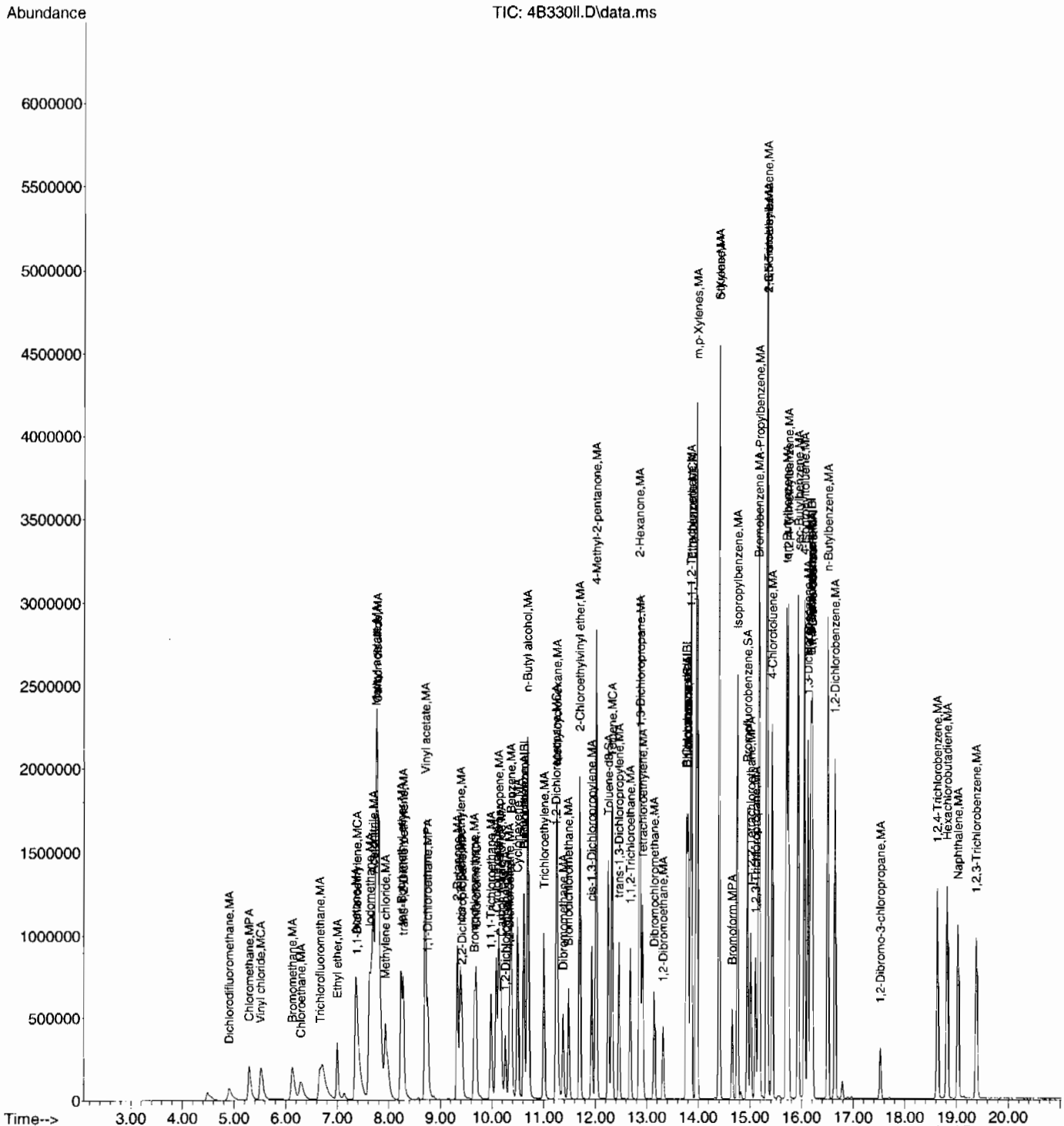
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	10.370	10.381	0.976		0m	N.D.	d
100) Methyl methacrylate	11.266	11.204	1.061		0m	N.D.	d
101) 1,4-Dioxane	11.376	11.326	1.071		0m	N.D.	d
102) 2-Nitropropane	11.699	11.667	1.102		0m	N.D.	d
104) Ethyl methacrylate	12.461	12.460	0.905		0m	N.D.	d
106) 1-Chlorohexane	13.644	13.661	0.843		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.759	14.783	0.912		0m	N.D.	d
108) Cyclohexanone	14.893	14.905	0.920		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.070	15.063	0.931		0m	N.D.	d
110) Pentachloroethane	15.765	15.770	0.974		0m	N.D.	d
111) Benzyl chloride	16.326	16.319	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.716	16.715	1.033		0m	N.D.	d

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

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B33011.D  
Acq On : 11 Mar 2010 5:45 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202076511|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[A] 0220-01E+0310-01  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 11 22:17:07 2010  
Quant Method : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 15:37:50 2010  
Response via : Initial Calibration  
Integrator: RTE





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

SDG Number: 10-2193  
 Lab Sample ID: 1202076512  
 Client Sample: QC for batch 963416  
 Client ID: LCS for batch 963416  
 Batch ID: 963417  
 Run Date: 03/11/2010 06:40  
 Prep Date: 03/10/2010 22:15  
 Data File: 031010V4V4B332sl.D

Client: LANL010  
 Method: SW846 8260B  
 Inst: VOA4.I  
 Analyst: ACJ  
 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-Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

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

SDG Number: 10-2193

Matrix: SOIL

Lab Sample ID: 1202076512

Client Sample: QC for batch 963416

Client: LANL010

Project: QC

Client ID: LCS for batch 963416

Method: SW846 8260B

SOP Ref: GL-OA-E-038

Batch ID: 963417

Inst: VOA4.I

Dilution: 1

Run Date: 03/11/2010 06:40

Analyst: ACJ

Purge Vol: 5 mL

Prep Date: 03/10/2010 22:15

Aliquot: 5 g

Final Volume: 5 mL

Data File: 031010V44B332sl.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		301	ug/kg	1.60	5.00
	<i>Trichlorotrifluoroethane</i>					
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B332sl.D  
Acq On : 11 Mar 2010 6:40 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202076512|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[B] 0304-08A  
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 11 08:45:38 2010  
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.619	10.613	1.000	96	1270339	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.770	13.765	1.000	117	970983	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	640157	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.613	1.000	96	1270189	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.770	13.764	1.000	117	971269	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	640173	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.966	65	315960	46.07	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	92.14%			
43) Toluene-d8	12.252	12.247	0.890	98	1031298	46.65	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	93.30%			
61) Bromofluorobenzene	14.953	14.947	0.924	95	640146	51.57	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	103.14%			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.284	5.299	0.498		0m	N.D.	d	
4) Vinyl chloride	5.514	5.521	0.519		0m	N.D.	d	
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	6.662	6.668	0.627		0m	N.D.	d	
8) Ethyl ether	7.003	6.991	0.660		0m	N.D.	d	
9) Acetone	7.363	7.351	0.693		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.381	7.394	0.695		0m	N.D.	d	
11) Iodomethane	7.662	7.662	0.722		0m	N.D.	d	
12) Acetonitrile	7.698	7.693	0.725		0m	N.D.	d	
13) Methyl acetate	7.747	7.747	0.730		0m	N.D.	d	
14) Carbon disulfide	7.802	7.778	0.735		0m	N.D.	d	
15) Methylene chloride	7.936	7.967	0.747		0m	N.D.	d	
16) tert-Butyl methyl ether	8.223	8.235	0.774		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.290	8.278	0.781		0m	N.D.	d	
18) Vinyl acetate	8.704	8.705	0.820		0m	N.D.	d	
19) 1,1-Dichloroethane	8.875	8.753	0.836		0m	N.D.	d	
20) 2-Butanone	9.338	9.320	0.879		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.338	9.381	0.879		0m	N.D.	d	
22) 2,2-Dichloropropane	9.430	9.412	0.888		0m	N.D.	d	
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.686	9.686	0.912		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.991	9.973	0.941		0m	N.D.	d	
26) Cyclohexane	10.009	10.076	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.125	10.131	0.953		0m	N.D.	d	
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.344	10.338	0.974		0m	N.D.	d	
31) Benzene	10.375	10.369	0.977		0m	N.D.	d	
32) Cyclohexene	10.485	10.491	0.987		0m	N.D.	d	
33) n-Butyl alcohol	10.686	10.686	1.006		0m	N.D.	d	
34) Trichloroethylene	11.003	11.003	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	11.247	11.241	1.059		0m	N.D.	d	
36) Methylcyclohexane	11.204	11.259	1.055		0m	N.D.	d	
37) Dibromomethane	11.375	11.369	1.071		0m	N.D.	d	
38) Bromodichloromethane	11.490	11.478	1.082		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.692	11.692	1.101		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B332sl.D  
Acq On : 11 Mar 2010 6:40 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202076512|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[B] 0304-08A  
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 11 08:45:38 2010  
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	11.923	11.930	1.123		0m	N.D.	d
42) 4-Methyl-2-pentanone	12.015	12.015	0.872		0m	N.D.	d
44) Toluene	12.320	12.320	0.895		0m	N.D.	d
45) trans-1,3-Dichloroprop...	12.466	12.460	0.905		0m	N.D.	d
46) 1,1,2-Trichloroethane	12.679	12.679	0.921		0m	N.D.	d
47) 2-Hexanone	12.862	12.856	0.934		0m	N.D.	d
48) 1,3-Dichloropropane	12.868	12.874	0.934		0m	N.D.	d
49) Tetrachloroethylene	12.917	12.917	0.938		0m	N.D.	d
50) Dibromochloromethane	13.149	13.143	0.955		0m	N.D.	d
51) 1,2-Dibromoethane	13.319	13.313	0.967		0m	N.D.	d
52) Chlorobenzene	13.807	13.801	1.003		0m	N.D.	d
53) 1,1,1,2-Tetrachloroethane	13.844	13.850	1.005		0m	N.D.	d
54) Ethylbenzene	13.862	13.862	1.007		0m	N.D.	d
55) m,p-Xylenes	13.972	13.966	1.015		0m	N.D.	d
56) o-Xylene	14.411	14.399	1.046		0m	N.D.	d
57) Styrene	14.398	14.399	1.046		0m	N.D.	d
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.764	14.758	0.913		0m	N.D.	d
62) 1,1,2,2-Tetrachloroethane	15.014	15.014	0.928		0m	N.D.	d
63) 1,2,3-Trichloropropane	15.081	15.106	0.932		0m	N.D.	d
64) Bromobenzene	15.166	15.167	0.937		0m	N.D.	d
65) n-Propylbenzene	15.185	15.179	0.939		0m	N.D.	d
66) 1,3,5-Trimethylbenzene	15.331	15.325	0.948		0m	N.D.	d
67) 2-Chlorotoluene	15.331	15.331	0.948		0m	N.D.	d
68) 4-Chlorotoluene	15.429	15.429	0.954		0m	N.D.	d
69) tert-Butylbenzene	15.709	15.703	0.971		0m	N.D.	d
70) 1,2,4-Trimethylbenzene	15.740	15.740	0.973		0m	N.D.	d
71) sec-Butylbenzene	15.929	15.929	0.985		0m	N.D.	d
72) 4-Isopropyltoluene	16.050	16.051	0.992		0m	N.D.	d
73) 1,3-Dichlorobenzene	16.124	16.118	0.997		0m	N.D.	d
74) 1,4-Dichlorobenzene	16.203	16.203	1.002		0m	N.D.	d
75) n-Butylbenzene	0.000	16.502	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	16.636	16.642	1.028		0m	N.D.	d
77) 1,2-Dibromo-3-chloropr...	17.514	17.526	1.083		0m	N.D.	d
78) 1,2,4-Trichlorobenzene	18.629	18.629	1.151		0m	N.D.	d
79) Hexachlorobutadiene	18.806	18.818	1.162		0m	N.D.	d
80) Naphthalene	19.032	19.026	1.176		0m	N.D.	d
81) 1,2,3-Trichlorobenzene	19.385	19.385	1.198		0m	N.D.	d
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	7.180	7.174	0.676	56	391337	290.77 ug/L	98
86) Trichlorotrifluoroethane	7.357	7.363	0.693	85	992506	301.03 ug/L	98
87) Isopropyl Alcohol	0.000	7.430	0.000		0m	N.D.	d
88) Allyl chloride	7.796	7.796	0.734	41	3305371	303.50 ug/L	99
89) tert-Butyl Alcohol	7.942	7.924	0.748	59	636	N.D.	
90) Acrylonitrile	8.174	8.168	0.770	53	814893	297.04 ug/L	99
91) Isopropyl ether	8.869	8.735	0.835	45	419	N.D.	
92) 2-Chloro-1,3-butadiene	8.869	8.863	0.835	53	652007	60.86 ug/L	100
93) Ethyl tert-butyl ether	9.143	9.137	0.861	59	125	N.D.	
94) Ethyl acetate	9.338	9.339	0.879	43	2133052	263.85 ug/L	99
95) Propionitrile	9.393	9.387	0.885	54	338263	287.45 ug/L	99
96) Methacrylonitrile	9.576	9.570	0.902	41	1438217	294.48 ug/L	100
97) Tetrahydrofuran	9.716	9.710	0.915	42	731278	282.40 ug/L	100
98) Isobutyl alcohol	10.003	10.003	0.942	41	1084794	3023.89 ug/L	100

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B332sl.D  
Acq On : 11 Mar 2010 6:40 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202076512|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[B] 0304-08A  
ALS Via1 : 32 Sample Multiplier: 1

Quant Time: Mar 11 08:45:38 2010  
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

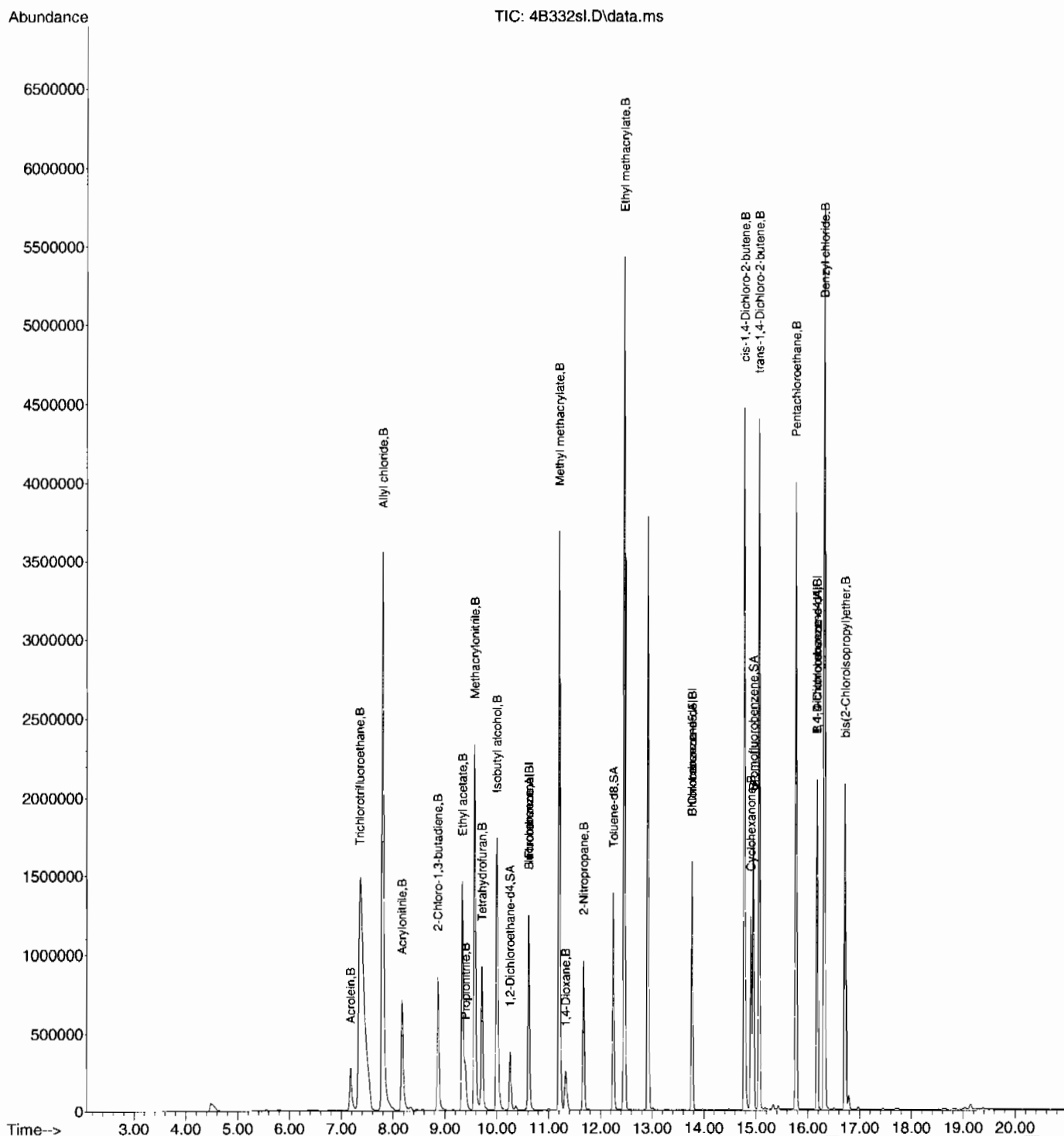
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
99) Methyl tert-amyl ether	10.356	10.381	0.975	73	156	N.D.		
100) Methyl methacrylate	11.204	11.204	1.055	69	1533974	313.97	ug/L	99
101) 1,4-Dioxane	11.326	11.326	1.067	88	263628	3036.11	ug/L	99
102) 2-Nitropropane	11.673	11.667	1.099	43	789662	268.71	ug/L	100
104) Ethyl methacrylate	12.466	12.460	0.905	69	2943020	315.51	ug/L	99
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d	
107) cis-1,4-Dichloro-2-butene	14.782	14.783	0.914	53	1059777	316.43	ug/L	99
108) Cyclohexanone	14.904	14.905	0.921	42	428429	1128.01	ug/L	98
109) trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	1011281	316.31	ug/L	99
110) Pentachloroethane	15.770	15.770	0.975	167	827416	177.18	ug/L	98
111) Benzyl chloride	16.319	16.319	1.009	91	4533859	277.86	ug/L	99
112) bis(2-Chloroisopropyl)...	16.721	16.715	1.034	45	1455823	312.39	ug/L	100

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

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\031010V4\  
Data File : 4B332sl.D  
Acq On : 11 Mar 2010 6:40 am  
Operator : ACJ  
InstName : VOA4  
Sample : |1202076512|963417|1|VOAF|1|VOA8260BS|  
Misc : GEL 5G - SOIL MIX[B] 0304-08A  
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 11 08:45:38 2010  
Quant Method : C:\msdchem\1\DATA\031010V4\Methods\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE



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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lah Sample ID: 1202066792	Date Received: 03/03/2010 08:50	%Moisture: 22.9
Client Sample: QC for batch 963416	Client: LANL010	Project: QC
Client ID: RE36-10-7407PS	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.I	Dilution: 1
Run Date: 03/10/2010 13:53	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:09	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4\4B246.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		45.9	ug/kg	0.441	1.30
74-87-3	Chloromethane		47.7	ug/kg	0.389	1.30
75-01-4	Vinyl chloride		60.2	ug/kg	0.389	1.30
74-83-9	Bromomethane		32.9	ug/kg	0.389	1.30
75-00-3	Chloroethane		59.8	ug/kg	0.389	1.30
75-69-4	Trichlorofluoromethane		60.0	ug/kg	0.389	1.30
67-64-1	Acetone		73.3	ug/kg	2.15	6.48
75-35-4	1,1-Dichloroethylene		52.2	ug/kg	0.389	1.30
74-88-4	Iodomethane		122	ug/kg	2.07	6.48
75-09-2	Methylene chloride		59.0	ug/kg	2.59	6.48
75-15-0	Carbon disulfide		242	ug/kg	1.62	6.48
156-60-5	trans-1,2-Dichloroethylene		48.8	ug/kg	0.389	1.30
75-34-3	1,1-Dichloroethane		56.8	ug/kg	0.389	1.30
78-93-3	2-Butanone		49.1	ug/kg	1.94	6.48
156-59-2	cis-1,2-Dichloroethylene		49.8	ug/kg	0.389	1.30
594-20-7	2,2-Dichloropropane		52.1	ug/kg	0.389	1.30
67-66-3	Chloroform		54.0	ug/kg	0.389	1.30
74-97-5	Bromochloromethane		52.9	ug/kg	0.428	1.30
71-55-6	1,1,1-Trichloroethane		57.5	ug/kg	0.389	1.30
563-58-6	1,1-Dichloropropene		49.5	ug/kg	0.389	1.30
56-23-5	Carbon tetrachloride		54.7	ug/kg	0.389	1.30
107-06-2	1,2-Dichloroethane		50.6	ug/kg	0.389	1.30
71-43-2	Benzene		50.9	ug/kg	0.389	1.30
79-01-6	Trichloroethylene		45.7	ug/kg	0.428	1.30
78-87-5	1,2-Dichloropropane		53.2	ug/kg	0.389	1.30
75-27-4	Bromodichloromethane		50.7	ug/kg	0.389	1.30
74-95-3	Dibromomethane		47.1	ug/kg	0.389	1.30
108-10-1	4-Methyl-2-pentanone		195	ug/kg	1.62	6.48
10061-01-5	cis-1,3-Dichloropropylene		19.5	ug/kg	0.389	1.30
108-88-3	Toluene		60.2	ug/kg	0.389	1.30
10061-02-6	trans-1,3-Dichloropropylene		26.3	ug/kg	0.389	1.30
79-00-5	1,1,2-Trichloroethane		56.9	ug/kg	0.389	1.30
591-78-6	2-Hexanone		40.9	ug/kg	1.94	6.48
142-28-9	1,3-Dichloropropane		52.3	ug/kg	0.389	1.30
127-18-4	Tetrachloroethylene		51.3	ug/kg	0.389	1.30
124-48-1	Dibromochloromethane		51.3	ug/kg	0.389	1.30
106-93-4	1,2-Dibromoethane		41.4	ug/kg	0.389	1.30
108-90-7	Chlorobenzene		40.2	ug/kg	0.389	1.30

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 1202066792	Date Received: 03/03/2010 08:50	%Moisture: 22.9
Client Sample: QC for batch 963416	Client: LANL010	Project: QC
Client ID: RE36-10-7407PS	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.1	Dilution: 1
Run Date: 03/10/2010 13:53	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:09	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4V4B246.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQ1/L.OQ
100-41-4	Ethylbenzene		48.6	ug/kg	0.389	1.30
179601-23-1	m,p-Xylenes		91.1	ug/kg	0.389	2.59
95-47-6	o-Xylene		46.9	ug/kg	0.389	1.30
100-42-5	Styrene		28.7	ug/kg	0.389	1.30
75-25-2	Bromoform		58.5	ug/kg	0.389	1.30
79-34-5	1,1,2,2-Tetrachloroethane		65.4	ug/kg	0.389	1.30
96-18-4	1,2,3-Trichloropropane		66.7	ug/kg	0.389	1.30
108-86-1	Bromobenzene		44.1	ug/kg	0.389	1.30
103-65-1	n-Propylbenzene		53.1	ug/kg	0.389	1.30
95-49-8	2-Chlorotoluene		52.1	ug/kg	0.389	1.30
98-82-8	Isopropylbenzene		65.1	ug/kg	0.389	1.30
108-67-8	1,3,5-Trimethylbenzene		57.3	ug/kg	0.389	1.30
106-43-4	4-Chlorotoluene		42.6	ug/kg	0.389	1.30
98-06-6	tert-Butylbenzene		64.8	ug/kg	0.389	1.30
95-63-6	1,2,4-Trimethylbenzene		50.8	ug/kg	0.389	1.30
135-98-8	sec-Butylbenzene		52.1	ug/kg	0.389	1.30
99-87-6	4-Isopropyltoluene		35.9	ug/kg	0.389	1.30
541-73-1	1,3-Dichlorobenzene		33.5	ug/kg	0.389	1.30
106-46-7	1,4-Dichlorobenzene		31.3	ug/kg	0.389	1.30
104-51-8	n-Butylbenzene		36.3	ug/kg	0.389	1.30
96-12-8	1,2-Dibromo-3-chloropropane		47.3	ug/kg	0.389	1.30
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.48	ug/kg	2.07	6.48
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane		54.4	ug/kg	0.389	1.30
95-50-1	1,2-Dichlorobenzene		33.3	ug/kg	0.389	1.30



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B246.D  
Acq On : 10 Mar 2010 1:53 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066792|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G - SOIL MIX[A] MS 248506001  
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Mar 10 15:45:20 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.619	10.613	1.000	96	1090276	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	692415	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	304827	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.613	1.000	96	1090084	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	692415	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	304836	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.966	65	266540	45.28	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	90.56%			
43) Toluene-d8	12.253	12.247	0.890	98	864495	54.84	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	109.68%			
61) Bromofluorobenzene	14.953	14.947	0.924	95	363680	61.52	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	123.04%			
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.912	4.897	0.463	85	252129	35.40	ug/L	100
3) Chloromethane	5.299	5.299	0.499	50	467989	36.79	ug/L	100
4) Vinyl chloride	5.528	5.521	0.521	62	558113	46.41	ug/L	100
5) Bromomethane	6.145	6.130	0.579	94	187237	25.39	ug/L	100
6) Chloroethane	6.303	6.288	0.594	64	270136	46.16	ug/L	99
7) Trichlorofluoromethane	6.674	6.668	0.629	101	507927	46.31	ug/L	100
8) Ethyl ether	6.998	6.991	0.659	59	239624	43.78	ug/L	98
9) Acetone	7.357	7.351	0.693	43	377170	56.54	ug/L	99
10) 1,1-Dichloroethylene	7.388	7.394	0.696	61	511345	40.27	ug/L	98
11) Iodomethane	7.668	7.662	0.722	142	1121452	94.15	ug/L	98
12) Acetonitrile	7.705	7.693	0.726	41	927091	852.85	ug/L	99
13) Methyl acetate	7.753	7.747	0.730	43	71589	12.46	ug/L	96
14) Carbon disulfide	7.778	7.778	0.732	76	4520439	186.37	ug/L	99
15) Methylene chloride	7.942	7.967	0.748	84	391878	45.53	ug/L	99
16) tert-Butyl methyl ether	8.241	8.235	0.776	73	842858	43.51	ug/L	99
17) trans-1,2-Dichloroethy...	8.284	8.278	0.780	61	373101	37.62	ug/L	98
18) Vinyl acetate	8.674	8.705	0.817	43	162	N.D.		
19) 1,1-Dichloroethane	8.759	8.753	0.825	63	538806	43.85	ug/L	98
20) 2-Butanone	9.326	9.320	0.878	43	262139	37.84	ug/L	100
21) cis-1,2-Dichloroethylene	9.387	9.381	0.884	61	411385	38.43	ug/L	99
22) 2,2-Dichloropropane	9.418	9.412	0.887	77	249664	40.19	ug/L	96
23) Bromochloromethane	9.662	9.656	0.910	128	145809	40.81	ug/L	94
24) Chloroform	9.692	9.686	0.913	83	528722	41.69	ug/L	100
25) 1,1,1-Trichloroethane	9.979	9.973	0.940	97	414770	44.37	ug/L	99
26) Cyclohexane	10.082	10.076	0.949	56	432754	40.74	ug/L	98
27) 1,1-Dichloropropene	10.137	10.131	0.955	75	348097	38.16	ug/L	# 100
28) Carbon tetrachloride	10.174	10.168	0.958	117	365648	42.19	ug/L	98
30) 1,2-Dichloroethane	10.344	10.338	0.974	62	403605	39.01	ug/L	100
31) Benzene	10.375	10.369	0.977	78	1059270	39.24	ug/L	100
32) Cyclohexene	10.497	10.491	0.989	67	539804	41.52	ug/L	100
33) n-Butyl alcohol	10.692	10.686	1.007	56	35944	315.53	ug/L	92
34) Trichloroethylene	11.009	11.003	1.037	95	249561	35.26	ug/L	100
35) 1,2-Dichloropropane	11.247	11.241	1.059	63	290251	41.06	ug/L	100
36) Methylcyclohexane	11.265	11.259	1.061	83	384664	35.55	ug/L	99
37) Dibromomethane	11.375	11.369	1.071	93	160456	36.35	ug/L	98
38) Bromodichloromethane	11.484	11.478	1.082	83	345894	39.10	ug/L	100
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B246.D  
Acq On : 10 Mar 2010 1:53 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066792|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G - SOIL MIX[A] MS 248506001  
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Mar 10 15:45:20 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	11.929	11.930	1.123	75	155987	15.02	ug/L	98
42) 4-Methyl-2-pentanone	12.021	12.015	0.873	58	370112	150.24	ug/L	93
44) Toluene	12.326	12.320	0.895	91	999047	46.44	ug/L	99
45) trans-1,3-Dichloroprop...	12.466	12.460	0.905	75	164188	20.26	ug/L	96
46) 1,1,2-Trichloroethane	12.685	12.679	0.921	83	189351	43.91	ug/L	100
47) 2-Hexanone	12.862	12.856	0.934	43	226926	31.57	ug/L	94
48) 1,3-Dichloropropane	12.874	12.874	0.935	76	356923	40.31	ug/L #	59
49) Tetrachloroethylene	12.923	12.917	0.938	164	183969	39.59	ug/L	99
50) Dibromochloromethane	13.149	13.143	0.955	129	220020	39.60	ug/L	100
51) 1,2-Dibromoethane	13.319	13.313	0.967	107	167130	31.97	ug/L	98
52) Chlorobenzene	13.801	13.801	1.002	112	496339	31.00	ug/L	99
53) 1,1,1,2-Tetrachloroethane	13.850	13.850	1.006	131	247024	41.98	ug/L	99
54) Ethylbenzene	13.862	13.862	1.007	91	1049513	37.47	ug/L	98
55) m,p-Xylenes	13.972	13.966	1.015	106	769291	70.26	ug/L	94
56) o-Xylene	14.405	14.399	1.046	106	409930	36.21	ug/L	97
57) Styrene	14.405	14.399	1.046	104	400091	22.14	ug/L	91
59) Bromoform	14.661	14.655	0.906	173	118824	45.11	ug/L	99
60) Isopropylbenzene	14.758	14.758	0.912	105	1038029	50.24	ug/L	98
62) 1,1,2,2-Tetrachloroethane	15.020	15.014	0.928	83	290340	50.46	ug/L	99
63) 1,2,3-Trichloropropane	15.106	15.106	0.934	110	77574	51.49	ug/L	98
64) Bromobenzene	15.167	15.167	0.937	156	191963	34.00	ug/L	94
65) n-Propylbenzene	15.185	15.179	0.939	91	1056867	40.94	ug/L	98
66) 1,3,5-Trimethylbenzene	15.331	15.325	0.948	105	836073	44.21	ug/L	99
67) 2-Chlorotoluene	15.331	15.331	0.948	126	224066	40.19	ug/L	90
68) 4-Chlorotoluene	15.435	15.429	0.954	91	521343	32.85	ug/L	99
69) tert-Butylbenzene	15.703	15.703	0.971	134	202374	50.00	ug/L	99
70) 1,2,4-Trimethylbenzene	15.746	15.740	0.973	105	761750	39.22	ug/L	99
71) sec-Butylbenzene	15.929	15.929	0.985	105	1026865	40.18	ug/L	98
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	562297	27.69	ug/L	99
73) 1,3-Dichlorobenzene	16.124	16.118	0.997	146	288704	25.88	ug/L	99
74) 1,4-Dichlorobenzene	16.209	16.203	1.002	146	276473	24.18	ug/L	99
75) n-Butylbenzene	16.502	16.502	1.020	91	545007	28.04	ug/L	96
76) 1,2-Dichlorobenzene	16.642	16.642	1.029	146	274839	25.70	ug/L	99
77) 1,2-Dibromo-3-chloropr...	17.526	17.526	1.083	157	30592	36.52	ug/L	97
78) 1,2,4-Trichlorobenzene	18.636	18.629	1.152	180	53379	10.38	ug/L	98
79) Hexachlorobutadiene	18.818	18.818	1.163	225	65613	19.17	ug/L	99
80) Naphthalene	19.032	19.026	1.176	128	107767	9.45	ug/L	99
81) 1,2,3-Trichlorobenzene	19.385	19.385	1.198	180	41017	9.92	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	0.000	7.174	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.		
87) Isopropyl Alcohol	7.443	7.430	0.701		0m	N.D.	d	
88) Allyl chloride	7.705	7.796	0.726		0m	N.D.	d	
89) tert-Butyl Alcohol	7.900	7.924	0.744		0m	N.D.	d	
90) Acrylonitrile	8.241	8.168	0.776		0m	N.D.	d	
91) Isopropyl ether	8.747	8.735	0.824		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.		
93) Ethyl tert-butyl ether	9.137	9.137	0.860		0m	N.D.	d	
94) Ethyl acetate	9.326	9.339	0.878		0m	N.D.	d	
95) Propionitrile	9.332	9.387	0.879		0m	N.D.	d	
96) Methacrylonitrile	9.576	9.570	0.902		0m	N.D.	d	
97) Tetrahydrofuran	9.692	9.710	0.913		0m	N.D.	d	
98) Isobutyl alcohol	10.003	10.003	0.942		0m	N.D.	d	

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B246.D  
Acq On : 10 Mar 2010 1:53 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066792|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G - SOIL MIX[A] MS 248506001  
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Mar 10 15:45:20 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	10.369	10.381	0.976		0m	N.D.	d
100) Methyl methacrylate	11.265	11.204	1.061		0m	N.D.	d
101) 1,4-Dioxane	11.338	11.326	1.068		0m	N.D.	d
102) 2-Nitropropane	11.692	11.667	1.101		0m	N.D.	d
104) Ethyl methacrylate	0.000	12.460	0.000		0	N.D.	
106) 1-Chlorohexane	13.771	13.661	0.851		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.758	14.783	0.912		0m	N.D.	d
108) Cyclohexanone	14.880	14.905	0.920		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.106	15.063	0.934		0m	N.D.	d
110) Pentachloroethane	15.776	15.770	0.975		0m	N.D.	d
111) Benzyl chloride	16.301	16.319	1.008		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.788	16.715	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\030910V4\  
Data File : 4B246.D  
Acq On : 10 Mar 2010 1:53 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066792|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G - SOIL MIX[A] MS 248506001  
ALS Vial : 46 Sample Multiplier: 1
```

[illegible]

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 1202066793	Date Received: 03/03/2010 08:50	%Moisture: 22.9
Client Sample: QC for batch 963416	Client: LANL010	Project: QC
Client ID: RE36-10-7407PSD	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4.1	Dilution: 1
Run Date: 03/10/2010 14:21	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:10	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4\4B247.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		46.6	ug/kg	0.441	1.30
74-87-3	Chloromethane		46.4	ug/kg	0.389	1.30
75-01-4	Vinyl chloride		57.8	ug/kg	0.389	1.30
74-83-9	Bromomethane		31.9	ug/kg	0.389	1.30
75-00-3	Chloroethane		57.0	ug/kg	0.389	1.30
75-69-4	Trichlorofluoromethane		59.1	ug/kg	0.389	1.30
67-64-1	Acetone		71.3	ug/kg	2.15	6.48
75-35-4	1,1-Dichloroethylene		49.6	ug/kg	0.389	1.30
74-88-4	Iodomethane		126	ug/kg	2.07	6.48
75-09-2	Methylene chloride		56.1	ug/kg	2.59	6.48
75-15-0	Carbon disulfide		228	ug/kg	1.62	6.48
156-60-5	trans-1,2-Dichloroethylene		46.5	ug/kg	0.389	1.30
75-34-3	1,1-Dichloroethane		55.4	ug/kg	0.389	1.30
78-93-3	2-Butanone		52.2	ug/kg	1.94	6.48
156-59-2	cis-1,2-Dichloroethylene		48.8	ug/kg	0.389	1.30
594-20-7	2,2-Dichloropropane		54.3	ug/kg	0.389	1.30
67-66-3	Chloroform		52.7	ug/kg	0.389	1.30
74-97-5	Bromochloromethane		53.6	ug/kg	0.428	1.30
71-55-6	1,1,1-Trichloroethane		55.8	ug/kg	0.389	1.30
563-58-6	1,1-Dichloropropene		47.7	ug/kg	0.389	1.30
56-23-5	Carbon tetrachloride		53.2	ug/kg	0.389	1.30
107-06-2	1,2-Dichloroethane		49.5	ug/kg	0.389	1.30
71-43-2	Benzene		49.3	ug/kg	0.389	1.30
79-01-6	Trichloroethylene		44.1	ug/kg	0.428	1.30
78-87-5	1,2-Dichloropropane		50.6	ug/kg	0.389	1.30
75-27-4	Bromodichloromethane		48.7	ug/kg	0.389	1.30
74-95-3	Dibromomethane		47.2	ug/kg	0.389	1.30
108-10-1	4-Methyl-2-pentanone		189	ug/kg	1.62	6.48
10061-01-5	cis-1,3-Dichloropropylene		20.2	ug/kg	0.389	1.30
108-88-3	Toluene		55.5	ug/kg	0.389	1.30
10061-02-6	trans-1,3-Dichloropropylene		26.6	ug/kg	0.389	1.30
79-00-5	1,1,2-Trichloroethane		53.5	ug/kg	0.389	1.30
591-78-6	2-Hexanone		42.5	ug/kg	1.94	6.48
142-28-9	1,3-Dichloropropane		50.1	ug/kg	0.389	1.30
127-18-4	Tetrachloroethylene		47.5	ug/kg	0.389	1.30
124-48-1	Dibromochloromethane		48.8	ug/kg	0.389	1.30
106-93-4	1,2-Dibromoethane		39.8	ug/kg	0.389	1.30
108-90-7	Chlorobenzene		38.3	ug/kg	0.389	1.30

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 1202066793	Date Received: 03/03/2010 08:50	%Moisture: 22.9
Client Sample: QC for batch 963416	Client: LANL010	Project: QC
Client ID: RE36-10-7407PSD	Method: SW846 8260B	SOP Ref: GL-OA-E-038
Batch ID: 963417	Inst: VOA4J	Dilution: 1
Run Date: 03/10/2010 14:21	Analyst: ACJ	Purge Vol: 5 mL
Prep Date: 03/09/2010 20:10	Aliquot: 5 g	Final Volume: 5 mL
Data File: 030910V4\4B247.D	Column: DB-624	

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		45.0	ug/kg	0.389	1.30
179601-23-1	m,p-Xylenes		85.3	ug/kg	0.389	2.59
95-47-6	o-Xylene		43.6	ug/kg	0.389	1.30
100-42-5	Styrene		27.6	ug/kg	0.389	1.30
75-25-2	Bromoform		57.2	ug/kg	0.389	1.30
79-34-5	1,1,2,2-Tetrachloroethane		62.7	ug/kg	0.389	1.30
96-18-4	1,2,3-Trichloropropane		61.1	ug/kg	0.389	1.30
108-86-1	Bromobenzene		42.2	ug/kg	0.389	1.30
103-65-1	n-Propylbenzene		49.1	ug/kg	0.389	1.30
95-49-8	2-Chlorotoluene		49.9	ug/kg	0.389	1.30
98-82-8	Isopropylbenzene		60.6	ug/kg	0.389	1.30
108-67-8	1,3,5-Trimethylbenzene		54.5	ug/kg	0.389	1.30
106-43-4	4-Chlorotoluene		41.4	ug/kg	0.389	1.30
98-06-6	tert-Butylbenzene		59.8	ug/kg	0.389	1.30
95-63-6	1,2,4-Trimethylbenzene		48.4	ug/kg	0.389	1.30
135-98-8	sec-Butylbenzene		47.8	ug/kg	0.389	1.30
99-87-6	4-Isopropyltoluene		30.2	ug/kg	0.389	1.30
541-73-1	1,3-Dichlorobenzene		32.1	ug/kg	0.389	1.30
106-46-7	1,4-Dichlorobenzene		30.5	ug/kg	0.389	1.30
104-51-8	n-Butylbenzene		33.5	ug/kg	0.389	1.30
96-12-8	1,2-Dibromo-3-chloropropane		47.2	ug/kg	0.389	1.30
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	U	6.48	ug/kg	2.07	6.48
	Trichlorotrifluoroethane					
630-20-6	1,1,1,2-Tetrachloroethane		50.0	ug/kg	0.389	1.30
95-50-1	1,2-Dichlorobenzene		32.6	ug/kg	0.389	1.30

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B247.D  
Acq On : 10 Mar 2010 2:21 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066793|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G - SOIL MIX[A] MSD 248506001  
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Mar 10 15:45:27 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev (Min)
Internal Standards								
1) Fluorobenzene	10.619	10.613	1.000	96	1148499	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	749115	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	323669	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.613	1.000	96	1148067	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	749115	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	323677	50.00	ug/L	0.00
System Monitoring Compounds								
29) 1,2-Dichloroethane-d4	10.265	10.259	0.967	65	284312	45.85	ug/L	0.00
Spiked Amount 50.000	Range 66	- 134	Recovery	=	91.70%			
43) Toluene-d8	12.253	12.247	0.890	98	914209	53.61	ug/L	0.00
Spiked Amount 50.000	Range 71	- 128	Recovery	=	107.22%			
61) Bromofluorobenzene	14.953	14.947	0.924	95	386919	61.64	ug/L	0.00
Spiked Amount 50.000	Range 65	- 130	Recovery	=	123.28%			
Target Compounds								
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.912	4.897	0.463	85	269526	35.93	ug/L	100
3) Chloromethane	5.292	5.299	0.498	50	479954	35.82	ug/L	100
4) Vinyl chloride	5.521	5.521	0.520	62	565087	44.61	ug/L	99
5) Bromomethane	6.138	6.130	0.578	94	191202	24.61	ug/L	99
6) Chloroethane	6.295	6.288	0.593	64	271106	43.98	ug/L	100
7) Trichlorofluoromethane	6.668	6.668	0.628	101	526387	45.56	ug/L	100
8) Ethyl ether	6.998	6.991	0.659	59	251603	43.63	ug/L	98
9) Acetone	7.357	7.351	0.693	43	386685	55.03	ug/L	98
10) 1,1-Dichloroethylene	7.388	7.394	0.696	61	511968	38.28	ug/L	98
11) Iodomethane	7.656	7.662	0.721	142	1221113	97.32	ug/L	99
12) Acetonitrile	7.705	7.693	0.726	41	962406	840.45	ug/L	98
13) Methyl acetate	7.753	7.747	0.730	43	78417	12.96	ug/L	98
14) Carbon disulfide	7.772	7.778	0.732	76	4488438	175.67	ug/L	100
15) Methylene chloride	7.936	7.967	0.747	84	393353	43.30	ug/L	99
16) tert-Butyl methyl ether	8.241	8.235	0.776	73	889771	43.60	ug/L	100
17) trans-1,2-Dichloroethy...	8.284	8.278	0.780	61	374460	35.84	ug/L	99
18) Vinyl acetate	8.747	8.705	0.824	43	891	N.D.		
19) 1,1-Dichloroethane	8.759	8.753	0.825	63	553052	42.73	ug/L	99
20) 2-Butanone	9.332	9.320	0.879	43	293870	40.27	ug/L	100
21) cis-1,2-Dichloroethylene	9.387	9.381	0.884	61	424778	37.67	ug/L	99
22) 2,2-Dichloropropane	9.424	9.412	0.887	77	274185	41.90	ug/L	97
23) Bromochloromethane	9.662	9.656	0.910	128	155756	41.38	ug/L	98
24) Chloroform	9.692	9.686	0.913	83	543509	40.68	ug/L	100
25) 1,1,1-Trichloroethane	9.979	9.973	0.940	97	423948	43.05	ug/L	98
26) Cyclohexane	10.082	10.076	0.949	56	464907	41.55	ug/L	87
27) 1,1-Dichloropropene	10.137	10.131	0.955	75	353717	36.81	ug/L	99
28) Carbon tetrachloride	10.180	10.168	0.959	117	374762	41.05	ug/L	97
30) 1,2-Dichloroethane	10.344	10.338	0.974	62	416139	38.18	ug/L	99
31) Benzene	10.375	10.369	0.977	78	1081156	38.02	ug/L	99
32) Cyclohexene	10.497	10.491	0.989	67	548119	40.02	ug/L	100
33) n-Butyl alcohol	10.692	10.686	1.007	56	25750	272.38	ug/L	89
34) Trichloroethylene	11.003	11.003	1.036	95	253636	34.02	ug/L	99
35) 1,2-Dichloropropane	11.247	11.241	1.059	63	290384	39.00	ug/L	99
36) Methylcyclohexane	11.265	11.259	1.061	83	394321	34.60	ug/L	99
37) Dibromomethane	11.375	11.369	1.071	93	169159	36.38	ug/L	97
38) Bromodichloromethane	11.484	11.478	1.082	83	349821	37.54	ug/L	100
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B247.D  
Acq On : 10 Mar 2010 2:21 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066793|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G - SOIL MIX[A] MSD 248506001  
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Mar 10 15:45:27 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	11.929	11.930	1.123	75	170376	15.58	ug/L	98
42) 4-Methyl-2-pentanone	12.021	12.015	0.873	58	387647	145.44	ug/L	93
44) Toluene	12.326	12.320	0.895	91	999463	42.84	ug/L	100
45) trans-1,3-Dichloroprop...	12.466	12.460	0.905	75	179791	20.51	ug/L	98
46) 1,1,2-Trichloroethane	12.685	12.679	0.921	83	192633	41.29	ug/L	100
47) 2-Hexanone	12.862	12.856	0.934	43	254864	32.78	ug/L	95
48) 1,3-Dichloropropane	12.881	12.874	0.935	76	370141	38.64	ug/L #	60
49) Tetrachloroethylene	12.923	12.917	0.938	164	184033	36.61	ug/L	99
50) Dibromochloromethane	13.149	13.143	0.955	129	226262	37.64	ug/L	99
51) 1,2-Dibromoethane	13.319	13.313	0.967	107	173569	30.69	ug/L	100
52) Chlorobenzene	13.801	13.801	1.002	112	511303	29.52	ug/L	99
53) 1,1,1,2-Tetrachloroethane	13.850	13.850	1.006	131	245530	38.57	ug/L	99
54) Ethylbenzene	13.862	13.862	1.007	91	1052039	34.71	ug/L	98
55) m,p-Xylenes	13.972	13.966	1.015	106	779209	65.78	ug/L	94
56) o-Xylene	14.405	14.399	1.046	106	411666	33.61	ug/L	96
57) Styrene	14.405	14.399	1.046	104	416383	21.29	ug/L	92
59) Bromoform	14.661	14.655	0.906	173	123485	44.15	ug/L	100
60) Isopropylbenzene	14.758	14.758	0.912	105	1025934	46.77	ug/L	99
62) 1,1,2,2-Tetrachloroethane	15.014	15.014	0.928	83	295408	48.35	ug/L	99
63) 1,2,3-Trichloropropane	15.112	15.106	0.934	110	75369	47.12	ug/L	98
64) Bromobenzene	15.167	15.167	0.937	156	195228	32.56	ug/L	95
65) n-Propylbenzene	15.185	15.179	0.939	91	1039099	37.91	ug/L	98
66) 1,3,5-Trimethylbenzene	15.331	15.325	0.948	105	843699	42.02	ug/L	98
67) 2-Chlorotoluene	15.331	15.331	0.948	126	228057	38.53	ug/L	91
68) 4-Chlorotoluene	15.435	15.429	0.954	91	537793	31.91	ug/L	97
69) tert-Butylbenzene	15.703	15.703	0.971	134	198404	46.16	ug/L	98
70) 1,2,4-Trimethylbenzene	15.746	15.740	0.973	105	769183	37.30	ug/L	99
71) sec-Butylbenzene	15.935	15.929	0.985	105	1000412	36.87	ug/L	98
72) 4-Isopropyltoluene	16.057	16.051	0.992	119	501925	23.28	ug/L	99
73) 1,3-Dichlorobenzene	16.118	16.118	0.996	146	293358	24.77	ug/L	99
74) 1,4-Dichlorobenzene	16.209	16.203	1.002	146	285217	23.49	ug/L	99
75) n-Butylbenzene	16.502	16.502	1.020	91	532572	25.81	ug/L	97
76) 1,2-Dichlorobenzene	16.642	16.642	1.029	146	285704	25.17	ug/L	99
77) 1,2-Dibromo-3-chloropr...	17.526	17.526	1.083	157	32379	36.40	ug/L	96
78) 1,2,4-Trichlorobenzene	18.635	18.629	1.152	180	59717	10.93	ug/L	100
79) Hexachlorobutadiene	18.824	18.818	1.164	225	64338	17.71	ug/L	98
80) Naphthalene	19.032	19.026	1.176	128	129552	10.70	ug/L	99
81) 1,2,3-Trichlorobenzene	19.385	19.385	1.198	180	47433	10.81	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	0.000	7.174	0.000		0	N.D.		
86) Trichlorotrifluoroethane	7.357	7.363	0.693		0m	N.D.	d	
87) Isopropyl Alcohol	7.436	7.430	0.700		0m	N.D.	d	
88) Allyl chloride	7.705	7.796	0.726		0m	N.D.	d	
89) tert-Butyl Alcohol	7.942	7.924	0.748		0m	N.D.	d	
90) Acrylonitrile	8.241	8.168	0.776		0m	N.D.	d	
91) Isopropyl ether	8.759	8.735	0.825		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	9.021	8.863	0.850		0m	N.D.	d	
93) Ethyl tert-butyl ether	9.131	9.137	0.860		0m	N.D.	d	
94) Ethyl acetate	9.332	9.339	0.879		0m	N.D.	d	
95) Propionitrile	9.326	9.387	0.878		0m	N.D.	d	
96) Methacrylonitrile	9.619	9.570	0.906		0m	N.D.	d	
97) Tetrahydrofuran	9.704	9.710	0.914		0m	N.D.	d	
98) Isobutyl alcohol	10.009	10.003	0.943		0m	N.D.	d	



Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
Data File : 4B247.D  
Acq On : 10 Mar 2010 2:21 pm  
Operator : ACJ  
InstName : VOA4  
Sample : |1202066793|963417|1|VOAF|1|VOA8260BS|  
Misc : LANL 5G - SOIL MIX[A] MSD 248506001  
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Mar 10 15:45:27 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE

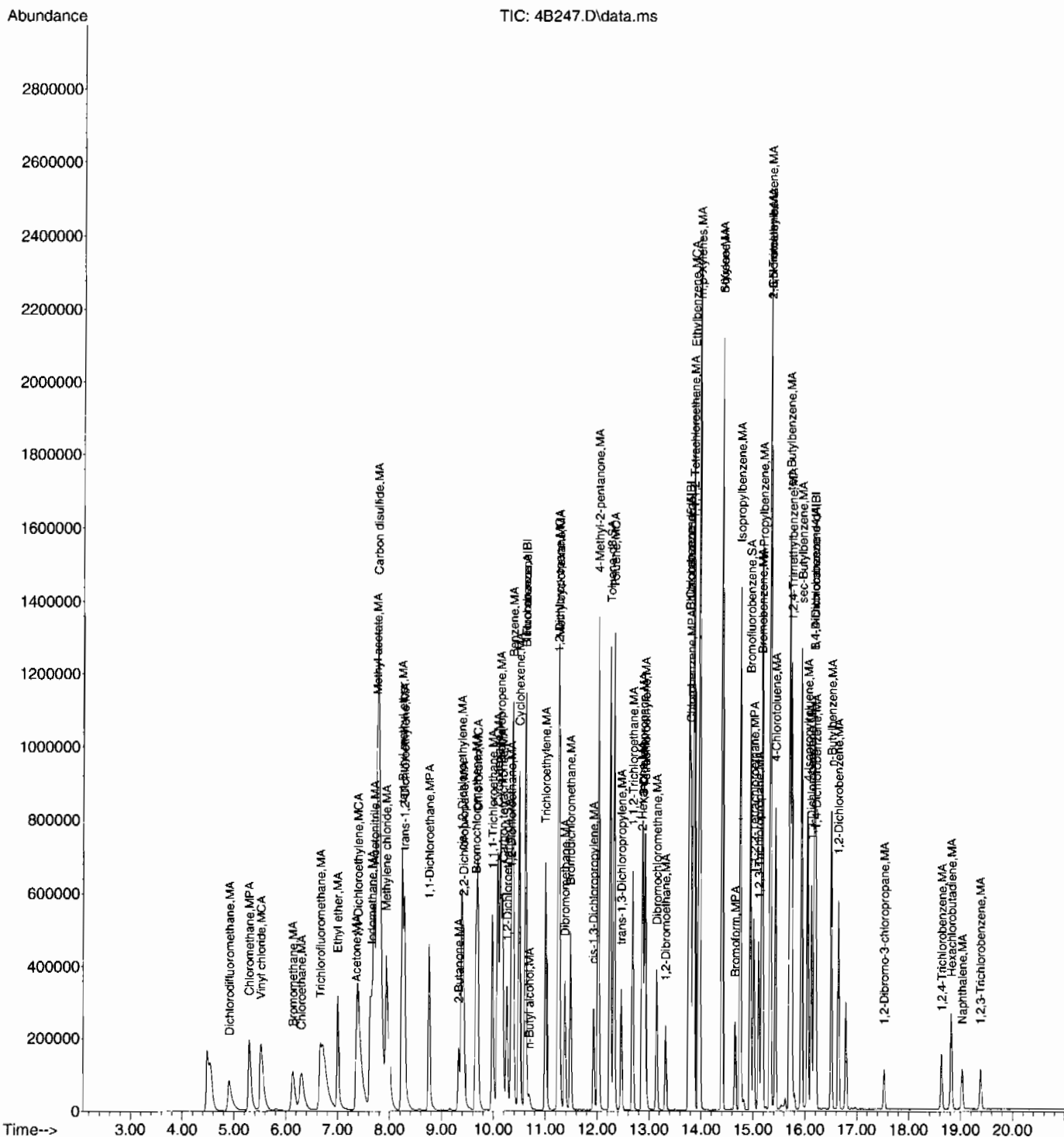
Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	10.375	10.381	0.977		0m	N.D.	d
100) Methyl methacrylate	11.265	11.204	1.061		0m	N.D.	d
101) 1,4-Dioxane	11.350	11.326	1.069		0m	N.D.	d
102) 2-Nitropropane	11.704	11.667	1.102		0m	N.D.	d
104) Ethyl methacrylate	12.442	12.460	0.903		0m	N.D.	d
106) 1-Chlorohexane	13.771	13.661	0.851		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.758	14.783	0.912		0m	N.D.	d
108) Cyclohexanone	14.892	14.905	0.920		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.118	15.063	0.934		0m	N.D.	d
110) Pentachloroethane	15.770	15.770	0.975		0m	N.D.	d
111) Benzyl chloride	16.282	16.319	1.006		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.782	16.715	1.037		0m	N.D.	d

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

Quantitation Report  
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030910V4\  
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Acq On : 10 Mar 2010 2:21 pm  
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Sample : |1202066793|963417|1|VOAF|1|VOA8260BS|  
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Quant Time: Mar 10 15:45:27 2010  
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M  
Quant Title : Volatile Organics 8260B SubList :  
QLast Update : Mon Mar 08 17:08:49 2010  
Response via : Initial Calibration  
Integrator: RTE



# Miscellaneous

Prep Logbook

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

Batch ID: 963416

Analyst: Amy Jamison

Method: SW846 5030

Lab SOP: GL-OA-E-038 REV# 14

Instrument: Sartorius Balance B-001

Verified by:

Type

Sample Id

Description

Serial Number

Spike Amount

Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202066794 LCS	09-MAR-2010 16:30:00	Soil	5	5	1	
1202066795 LCS	09-MAR-2010 16:45:00	Soil	5	5	1	
1202066790 MB	09-MAR-2010 17:00:00	Soil	5	5	1	
248506001	09-MAR-2010 20:06:00	Soil	5	5	1	
1202066792 PS (248506001)	09-MAR-2010 20:09:00	Soil	5	5	1	
1202066793 PSD (248506001)	09-MAR-2010 20:10:00	Soil	5	5	1	
248506002	09-MAR-2010 20:11:00	Soil	5	5	1	
248506003	09-MAR-2010 20:12:00	Soil	5	5	1	
248506004	09-MAR-2010 20:13:00	Soil	5	5	1	
248506005	09-MAR-2010 20:14:00	Soil	5	5	1	
248506006	09-MAR-2010 20:15:00	Soil	5	5	1	
248506007	09-MAR-2010 20:16:00	Soil	5	5	1	
248506008	09-MAR-2010 20:17:00	Soil	5	5	1	
248506009	09-MAR-2010 20:18:00	Soil	5	5	1	
248506010	09-MAR-2010 20:19:00	Soil	5	5	1	
248506011	09-MAR-2010 20:20:00	Soil	5	5	1	
248506013	09-MAR-2010 20:22:00	Soil	5	5	1	
248506014	09-MAR-2010 20:23:00	Soil	5	5	1	
248506015	09-MAR-2010 20:24:00	Soil	5	5	1	
248506017	09-MAR-2010 20:26:00	Soil	5	5	1	
248506018	09-MAR-2010 20:27:00	Soil	5	5	1	
248506020	09-MAR-2010 20:29:00	Soil	5	5	1	
1202066796 LCS	09-MAR-2010 22:00:00	Soil	5	5	1	
1202066797 LCS	09-MAR-2010 22:15:00	Soil	5	5	1	
1202066791 MB	09-MAR-2010 22:30:00	Soil	5	5	1	
248506012	10-MAR-2010 19:53:00	Soil	5	5	1	

Prep Logbook

Batch ID: 963416

Analyst: Amy Jamison

Method: SW846 5030

Lab SOP: GL-OA-E-038 REV# 14

Instrument: Sartorius Balance B-001

Verified by:

Type

Sample Id

Description

Serial Number

Spike Amount

Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
248506016	10-MAR-2010 19:57:00	Soil	5	5	1	
248506019	10-MAR-2010 20:01:00	Soil	5	5	1	
1202076511 LCS	10-MAR-2010 22:00:00	Soil	5	5	1	
1202076512 LCS	10-MAR-2010 22:15:00	Soil	5	5	1	
1202076510 MB	10-MAR-2010 22:30:00	Soil	5	5	1	

Reagent/Solvent Lot ID

Description

Amount

Comments:

ORGANIC RUN LOG - INSTRUMENT ID#VOA4

Date: 3/7/2010 Method 8260B/624 Operator: ACJ  
HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1  
CALIBRATION & CC INFORMATION:  
Initial Calibration Date: 3/7/2010  
Daily Standard Solution ID# CCV 5+5 MS/ BFB  
IS UVM100217-01 1 1 1  
SS UVM100217-02 1 1 1  
LCS/MS 5+5  
BFB UVM100217-02 1  
SHORT  
DHEC  
Sequence Number: 030710V4  
Ci test lot # 81710  
NaHSO4 lot # N/A  
(See pg. 72 for ICAL Std. Sci. Ids)  
Purge Amount  
5 Water Purge Vol:  
Soil Purge Wt:  
Mid level ext. MeOH Vol:  
ul  
Methanol Lot #  
x Heated Purge  
Multiplier Voltage: 1706  
Daily Instrument Readings:  
REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

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)	Acceptable (O/X)	Comments
7 Mar 2010	19:02	4A701.D	UVM100217-02	GEL	BFB1	5ML	1	N/A	1	w	ACJ	N/A	O	
7 Mar 2010	19:29	4A702.D	12020-....	GEL	BLANK	5ML	1	N/A	2	w	ACJ	N/A	X	
7 Mar 2010	19:57	4A703.D	W4VVM100307-01	GEL	ICAL	5UL+5UL	1	N/A	3	w	ACJ	N/A	O	UVM100106-01D+UVM100222-01B
7 Mar 2010	20:24	4A704.D	W4VVM100307-02	GEL	ICAL	5UL+5UL	1	N/A	4	w	ACJ	N/A	O	UVM100106-02D+UVM100222-02B
7 Mar 2010	20:52	4A705.D	W4VVM100307-03	GEL	ICAL	5UL+5UL	1	N/A	5	w	ACJ	N/A	X	UVM100106-02D+UVM100222-02B
7 Mar 2010	21:20	4A706.D	W4VVM100307-04	GEL	ICAL	5UL+5UL	1	N/A	6	w	ACJ	N/A	O	UVM100106-03D+UVM100222-03B
7 Mar 2010	21:47	4A707.D	W4VVM100307-05	GEL	ICAL	5UL+5UL	1	N/A	7	w	ACJ	N/A	O	UVM100106-04D+UVM100222-04B
7 Mar 2010	22:14	4A708.D	W4VVM100307-06	GEL	ICAL	5UL+5UL	1	N/A	8	w	ACJ	N/A	O	UVM100106-05D+UVM100222-05B
7 Mar 2010	22:41	4A709.D	W4VVM100307-07	GEL	ICAL	5UL+5UL	1	N/A	9	w	ACJ	N/A	O	UVM100106-06D+UVM100222-06B
7 Mar 2010	23:09	4A710.D	W4VVM100307-08	GEL	ICAL	5UL+5UL	1	N/A	10	w	ACJ	N/A	O	UVM100106-07D+UVM100222-07B
7 Mar 2010	23:36	4A711.D	W4VVM100307-09	GEL	ICAL	5UL+5UL	1	N/A	11	w	ACJ	N/A	O	UVM100106-08D+UVM100222-08B
8 Mar 2010	00:04	4A712.D	120256-....	GEL	BLANK	5ML	1	N/A	12	w	ACJ	N/A	X	
8 Mar 2010	00:32	4A713.D	W4VVM100307-10	GEL	ICAL	5UL+5UL	1	N/A	13	w	ACJ	N/A	O	UVM100304-01+UVM100227-01A
8 Mar 2010	00:59	4A714.D	W4VVM100307-11	GEL	ICAL	5UL+5UL	1	N/A	14	w	ACJ	N/A	O	UVM100304-02+UVM100227-02A
8 Mar 2010	01:26	4A715.D	W4VVM100307-12	GEL	ICAL	5UL+5UL	1	N/A	15	w	ACJ	N/A	O	UVM100304-03+UVM100227-03A
8 Mar 2010	01:53	4A716.D	W4VVM100307-13	GEL	ICAL	5UL+5UL	1	N/A	16	w	ACJ	N/A	O	UVM100304-04+UVM100227-04A
8 Mar 2010	02:20	4A717.D	W4VVM100307-14	GEL	ICAL	5UL+5UL	1	N/A	17	w	ACJ	N/A	O	UVM100304-05+UVM100227-05A
8 Mar 2010	02:48	4A718.D	W4VVM100307-15	GEL	ICAL	5UL+5UL	1	N/A	18	w	ACJ	N/A	X	UVM100304-06+UVM100227-06A
8 Mar 2010	03:16	4A719.D	W4VVM100307-16	GEL	ICAL	5UL+5UL	1	N/A	19	w	ACJ	N/A	O	UVM100304-07+UVM100227-07A
8 Mar 2010	03:43	4A720.D	120256-....	GEL	BLANK	5ML	1	N/A	20	w	ACJ	N/A	X	
8 Mar 2010	04:10	4A721.D	W4VVM100307-17	GEL	ICV	5UL+5UL	1	N/A	21	w	ACJ	N/A	X	UVM100220-01D+UVM100304-01
8 Mar 2010	04:38	4A722.D	W4VVM100307-18	GEL	ICV	5UL+5UL	1	N/A	22	w	ACJ	N/A	O	UVM100304-08A+UVM100125-08E

Date: 3/8/2010 Method 8260B/624 Operator: ACJ REVIEWED BY: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1  
 Daily Instrument Readings: \_\_\_\_\_  
 Multiplier Voltage: 1706

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/7/2010  
 (See pg. 72 for iCAL Std. Sci. Ids)  
 NaHSO4 lot # N/A  
 CI test lot # 81710  
 Sequence Number: 030810V4

Daily Standard Volume Added for Purge (ul) MS/  
 Bk/ LCS BFB  
 Solution ID# Smpl CCV  
 IS UVM100217-01 1 1 1  
 SS UVM100217-01/02 1 1 1  
 LCS/MS W4VM100308-04 5+5  
 BFB UVM100217-02 1  
 SHORT W4VM100308-03/04  
 DHEC N/A

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

Analysis		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)	Acceptable (O/X)	Comments
Date	Time															
8 Mar 2010	15:51	4B101.D	UVM100217-02	GEL	BFB	5ML	5ML	1	1	N/A	1	W	ACJ	N/A	O	
8 Mar 2010	16:19	4B102.D	W4VM100308-01	GEL	ICV/LCS	5ML	5ML	1	1	N/A	2	W	ACJ	N/A	O	UVM100220-01E-IVM100308-01
8 Mar 2010	17:06	4B103.D	W4VM100308-02	GEL	LCS	5G	5G	1	1	N/A	3	S	ACJ	N/A	O	UVM100220-01E-IVM100308-01
8 Mar 2010	17:33	4B104.D	W4VM100308-03	GEL	CCV	5ML	5ML	1	1	N/A	4	W	ACJ	N/A	O	UVM100304-08A
8 Mar 2010	18:01	4B105.D	W4VM100308-04	GEL	LCS	5G	5G	1	1	N/A	5	S	ACJ	N/A	O	UVM100304-08A
8 Mar 2010	18:28	4B106.D	12020-....	BLANK	BLANK	5G	5G	1	1	N/A	6	S	ACJ	N/A	O	
8 Mar 2010	18:55	4B107.D	12020-....	BLANK	BLANK	5ML	5ML	1	1	N/A	7	W	ACJ	N/A	O	
8 Mar 2010	19:23	4B108.D	248017006	LANL	961925	5ML	5ML	1	1	PH2	8	w	ACJ	N	O	
8 Mar 2010	19:51	4B109.D	248047010	LANL	961925	5ML	5ML	1	1	PH2	9	w	ACJ	N	O	
8 Mar 2010	20:18	4B110.D	248170002	LANL	961925	5ML	5ML	1	1	PH2	10	w	ACJ	N	O	
8 Mar 2010	20:46	4B111.D	248170003	LANL	961925	5ML	5ML	1	1	PH2	11	w	ACJ	N	O	
8 Mar 2010	21:13	4B112.D	248232001	LANL	961802	5G	5G	1	1	N/A	12	s	ACJ	N/A	X	CONFIRMS 4A508
8 Mar 2010	21:41	4B113.D	248232003	LANL	961802	5G	5G	1	1	N/A	13	s	ACJ	N/A	O	CONFIRMED BY 4B113
8 Mar 2010	22:08	4B114.D	248232006	LANL	961802	5G	5G	1	1	N/A	14	s	ACJ	N/A	X	CONFIRMED 4A513
8 Mar 2010	22:36	4B115.D	248232007	LANL	961802	5G	5G	1	1	N/A	15	s	ACJ	N/A	X	CONFIRMED 4A514
8 Mar 2010	23:03	4B116.D	248232011	LANL	961802	5G	5G	1	1	N/A	16	s	ACJ	N/A	O	CONFIRMED BY 4B116
8 Mar 2010	23:31	4B117.D	248232012	LANL	961802	5G	5G	1	1	N/A	17	s	ACJ	N/A	X	CONFIRMS 4A519
8 Mar 2010	23:58	4B118.D	248232019	LANL	961802	5G	5G	1	1	N/A	18	s	ACJ	N/A	X	CONFIRMS 4A534
9 Mar 2010	00:25	4B119.D	248232020	LANL	961802	5G	5G	1	1	N/A	19	s	ACJ	N/A	O	CONFIRMED BY 4A535
9 Mar 2010	00:53	4B120.D	1202062980	LANL	961802	5G	5G	1	1	N/A	20	s	ACJ	N/A	O	MS 248232001
9 Mar 2010	01:20	4B121.D	1202062981	LANL	961802	5G	5G	1	1	N/A	21	s	ACJ	N/A	O	MSD 248232001
9 Mar 2010	01:47	4B122.D	1202063271	LANL	961925	5ML	5ML	1	1	PH2	22	w	ACJ	N	O	MS 248017001
9 Mar 2010	02:15	4B123.D	1202063272	LANL	961925	5ML	5ML	1	1	PH2	23	w	ACJ	N	O	MSD 248017001

Date: 3/9/2010 Method: 8260B/624 Operator: ACJ  
REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
Daily Instrument Readings: \_\_\_\_\_  
Multiplier Voltage: 1706

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/7/2010  
(See pg. 72 for ICAI Std. Sci. Ids)  
NaHSO4 lot # N/A  
CI test lot # 81710  
Sequence Number: 030910V4  
Purge Amount  
5 Water Purge Vol:  
5G Soil Purge Wt.  
N/A Mid level ext. MeOH Vol:  
N/A ul  
N/A Methanol Lot #  
x Heated Purge

Analysis		Data File		Lab Sample ID		Client		Batch #		Wt(g) or Vol(ml/ul)		Dil.		pH		AS		Matrix		Analyst		CI test		Acceptable		Comments	
Date	Time																										
9 Mar 2010	17:16	4B201.D		UVM100217-02		GEL		BFB1		5ML		1		N/A		1		W		ACJ		N/A		O			
9 Mar 2010	17:43	4B202.D		W4VM100309-01		GEL		CCV		5ML		1		N/A		2		W		ACJ		N/A		O			UVM100220-01E+IVM100308-01
9 Mar 2010	18:11	4B203.D		W4VM100309-02		GEL		LCS		5G		1		N/A		3		S		ACJ		N/A		O			UVM100220-01E+IVM100308-01
9 Mar 2010	18:38	4B204.D		W4VM100309-03		GEL		CCV		5ML		1		N/A		4		W		ACJ		N/A		O			UVM100304-08A
9 Mar 2010	19:06	4B205.D		W4VM100309-04		GEL		LCS		5G		1		N/A		5		S		ACJ		N/A		O			UVM100304-08A
9 Mar 2010	19:33	4B206.D		12020-....		GEL		BLANK		5G		1		N/A		6		S		ACJ		N/A		O			
9 Mar 2010	20:01	4B207.D		12020-....		GEL		BLANK		5ML		1		N/A		7		W		ACJ		N/A		X			NOT NEEDED
9 Mar 2010	20:28	4B208.D		248506001		LANL		963417		5G		1		N/A		8		S		ACJ		N/A		O			CONFIRMED BY 4B309
9 Mar 2010	20:56	4B209.D		248506002		LANL		963417		5G		1		N/A		9		S		ACJ		N/A		O			CONFIRMED BY 4B310
9 Mar 2010	21:23	4B210.D		248506003		LANL		963417		5G		1		N/A		10		S		ACJ		N/A		O			
9 Mar 2010	21:50	4B211.D		248506004		LANL		963417		5G		1		N/A		11		S		ACJ		N/A		O			CONFIRMED BY 4B335
9 Mar 2010	22:17	4B212.D		248506005		LANL		963417		5G		1		N/A		12		S		ACJ		N/A		O			CONFIRMED BY 4B336
9 Mar 2010	22:45	4B213.D		248506006		LANL		963417		5G		1		N/A		13		S		ACJ		N/A		O			CONFIRMED BY 4B337
9 Mar 2010	23:12	4B214.D		248506007		LANL		963417		5G		1		N/A		14		S		ACJ		N/A		O			CONFIRMED BY 4B338
9 Mar 2010	23:39	4B215.D		248506008		LANL		963417		5G		1		N/A		15		S		ACJ		N/A		O			CONFIRMED BY 4B339
3/10/2010	0:07	4B216.D		248506009		LANL		963417		5G		1		N/A		16		S		ACJ		N/A		O			CONFIRMED BY 4B340
3/10/2010	0:35	4B217.D		248506010		LANL		963417		5G		1		N/A		17		S		ACJ		N/A		O			CONFIRMED BY 4B341
3/10/2010	1:02	4B218.D		248506011		LANL		963417		5G		1		N/A		18		S		ACJ		N/A		O			CONFIRMED BY 4B342
3/10/2010	1:30	4B219.D		248506012		LANL		963417		5G		1		N/A		19		S		ACJ		N/A		X			CONFIRMS 4B343
3/10/2010	1:57	4B220.D		248506013		LANL		963417		5G		1		N/A		20		S		ACJ		N/A		O			CONFIRMED BY 4B344
3/10/2010	2:24	4B221.D		248506014		LANL		963417		5G		1		N/A		21		S		ACJ		N/A		O			CONFIRMED BY 4B345
3/10/2010	2:52	4B222.D		248506015		LANL		963417		5G		1		N/A		22		S		ACJ		N/A		O			CONFIRMED BY 4B346
3/10/2010	3:20	4B223.D		248506016		LANL		963417		5G		1		N/A		23		S		ACJ		N/A		X			CONFIRMS 4B347
3/10/2010	3:47	4B224.D		248506017		LANL		963417		5G		1		N/A		24		S		ACJ		N/A		O			CONFIRMED BY 4B348
3/10/2010	4:14	4B225.D		248506018		LANL		963417		5G		1		N/A		25		S		ACJ		N/A		O			CONFIRMED BY 4B349
3/10/2010	4:42	4B226.D		248506019		LANL		963417		5G		1		N/A		26		S		ACJ		N/A		X			SEE 4B350



Date: 3/9/2010 Method 8260B/624 Operator: ACJ REVIEWED BY: \_\_\_\_\_  
 HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 DATE: \_\_\_\_\_  
 Multiplier Voltage: 1706 Daily Instrument Readings:

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/7/2010 Daily Standard Volume Added for Purge (ul) MS/ Blk/ Smp/ CCV LCS BFB  
 (See pg. 72 for ICAL Std. Sci. lds)  
 NaHSO4 lot # N/A  
 CI test lot # 81710  
 Sequence Number: 030910V4PM

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

Analysis		Data File		Lab Sample ID	Client	Batch #	Wt (g) or Vol (ml/ul)	Dil.	pH	AS	Matrix	Analyst	CI test	Acceptable	Comments
Date	Time							Factor		Slot #	w or s		(Y/N)	(O/X)	
3/10/2010	5:10	4B227.D	UVM100217-02	GEL	BFB2	5ML	1	1	N/A	27	W	ACJ	N/A	O	
3/10/2010	5:37	4B228.D	W4VM100309-05	GEL	CCV	5ML	1	1	N/A	28	W	ACJ	N/A	O	UVM100220-01E+IVM100308-01
3/10/2010	6:05	4B229.D	W4VM100309-06	GEL	LCS	5G	1	1	N/A	29	S	ACJ	N/A	O	UVM100220-01E+IVM100308-01
3/10/2010	6:33	4B230.D	W4VM100309-07	GEL	CCV	5ML	1	1	N/A	30	W	ACJ	N/A	O	UVM100304-06A
3/10/2010	7:00	4B231.D	W4VM100309-08	GEL	LCS	5G	1	1	N/A	31	S	ACJ	N/A	O	UVM100304-06A
3/10/2010	7:27	4B232.D	12020-0000	GEL	BLANK	5G	1	1	N/A	32	S	ACJ	N/A	O	
3/10/2010	7:54	4B233.D	12020-0000	GEL	BLANK	5ML	1	1	N/A	33	W	ACJ	N/A	X	NOT NEEDED
3/10/2010	8:21	4B234.D	248255008	LANL	963483	5G	1	1	N/A	34	S	ACJ	N/A	O	
3/10/2010	8:49	4B235.D	248389001	LANL	963483	5G	1	1	N/A	35	S	ACJ	N/A	O	
3/10/2010	9:17	4B236.D	248506020	LANL	963417	5G	1	1	N/A	36	S	ACJ	N/A	O	CONFIRMED BY 4B351
3/10/2010	9:44	4B237.D	248255001	LANL	963483	5G	1	1	N/A	37	S	ACJ	N/A	O	
3/10/2010	10:11	4B238.D	248255002	LANL	963483	5G	1	1	N/A	38	S	ACJ	N/A	O	
3/10/2010	10:39	4B239.D	248255003	LANL	963483	5G	1	1	N/A	39	S	ACJ	N/A	O	
3/10/2010	11:07	4B240.D	248255004	LANL	963483	5G	1	1	N/A	40	S	ACJ	N/A	O	
3/10/2010	11:35	4B241.D	248255005	LANL	963483	5G	1	1	N/A	41	S	ACJ	N/A	O	
3/10/2010	12:02	4B242.D	248255006	LANL	963483	5G	1	1	N/A	42	S	ACJ	N/A	O	
3/10/2010	12:30	4B243.D	248255007	LANL	963483	5G	1	1	N/A	43	S	ACJ	N/A	O	
3/10/2010	12:58	4B244.D	248389002	LANL	963483	5G	1	1	N/A	44	S	ACJ	N/A	O	
3/10/2010	13:26	4B245.D	248389003	LANL	963483	5G	1	1	N/A	45	S	ACJ	N/A	O	
3/10/2010	13:53	4B246.D	1202066792	LANL	963417	5G	1	1	N/A	46	S	ACJ	N/A	O	MS 248506001
3/10/2010	14:21	4B247.D	1202066793	LANL	963417	5G	1	1	N/A	47	S	ACJ	N/A	O	MSD 248506001
3/10/2010	14:49	4B248.D	1202066995	LANL	963483	5G	1	1	N/A	48	S	ACJ	N/A	O	MS 248255001
3/10/2010	15:17	4B249.D	1202066996	LANL	963483	5G	1	1	N/A	49	S	ACJ	N/A	O	MSD 248255001

Date: 3/10/2010 Method 8260B/624 Operator: ACJ  
REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
Daily Instrument Readings: \_\_\_\_\_  
Multiplier Voltage: 1706

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/7/2010  
Daily Standard Volume Added for Purge (ul) MS/Blk/CCV LCS BFB  
Solution ID#  
CCV W4VM100310-05 5+5 1 1 1  
IS UVM100217-01 1 1 1  
SS UVM100217-02 1 1 1  
LCS/MS W4VM100310-06/07 5+5 1  
BFB UVM100217-02 1  
SHORT W4VM100310-08/09 5 5  
DHEC N/A 5

(See pg. 72 for ICAI Std. Sol. Ids)  
NaHSO<sub>4</sub> lot # N/A  
Cl test lot # 81710  
Sequence Number: 031010V4PM

Purge Amount  
5 Water Purge Vol:  
5G 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)	Acceptable (O/X)	Comments
3/11/2010	4:23	4B327.D	UVM100217-02	GEL	BFB1	5ML	1	N/A	27	W	ACJ	N/A	O	
3/11/2010	4:50	4B328.D	W4VM100310-05	GEL	CCV	5ML	1	N/A	28	W	ACJ	N/A	O	UVM100106-08D/UVM100222-08B
3/11/2010	5:17	4B329.D	W4VM100310-06	GEL	LCS	5ML	1	N/A	29	W	ACJ	N/A	O	UVM100220-01E+UVM100310-01
3/11/2010	5:45	4B330.D	W4VM100310-07	GEL	LCS	5G	1	N/A	30	S	ACJ	N/A	O	UVM100220-01E+UVM100310-01
3/11/2010	6:12	4B331.D	W4VM100310-08	GEL	CCV	5ML	1	N/A	31	W	ACJ	N/A	O	UVM100304-08A
3/11/2010	6:40	4B332.D	W4VM100310-09	GEL	LCS	5G	1	N/A	32	S	ACJ	N/A	O	UVM100304-08A
3/11/2010	7:07	4B333.D	12020-....	GEL	BLANK	5G	1	N/A	33	S	ACJ	N/A	O	
3/11/2010	7:35	4B334.D	12020-....	GEL	BLANK	5ML	1	N/A	34	W	ACJ	N/A	X	NOT NEEDED
3/11/2010	8:02	4B335.D	248506004	LANL	963417	5G	1	N/A	35	S	ACJ	N/A	X	CONFIRMS 4B211
3/11/2010	8:29	4B336.D	248506005	LANL	963417	5G	1	N/A	36	S	ACJ	N/A	X	CONFIRMS 4B212
3/11/2010	8:57	4B337.D	248506006	LANL	963417	5G	1	N/A	37	S	ACJ	N/A	X	CONFIRMS 4B213
3/11/2010	9:24	4B338.D	248506007	LANL	963417	5G	1	N/A	38	S	ACJ	N/A	X	CONFIRMS 4B214
3/11/2010	9:51	4B339.D	248506008	LANL	963417	5G	1	N/A	39	S	ACJ	N/A	X	CONFIRMS 4B215
3/11/2010	10:19	4B340.D	248506009	LANL	963417	5G	1	N/A	40	S	ACJ	N/A	X	CONFIRMS 4B216
3/11/2010	10:46	4B341.D	248506010	LANL	963417	5G	1	N/A	41	S	ACJ	N/A	X	CONFIRMS 4B217
3/11/2010	11:13	4B342.D	248506011	LANL	963417	5G	1	N/A	42	S	ACJ	N/A	X	CONFIRMS 4B218
3/11/2010	11:41	4B343.D	248506012	LANL	963417	5G	1	N/A	43	S	ACJ	N/A	O	CONFIRMED BY 4B219
3/11/2010	12:08	4B344.D	248506013	LANL	963417	5G	1	N/A	44	S	ACJ	N/A	X	CONFIRMS 4B220
3/11/2010	12:35	4B345.D	248506014	LANL	963417	5G	1	N/A	45	S	ACJ	N/A	X	CONFIRMS 4B221
3/11/2010	13:02	4B346.D	248506015	LANL	963417	5G	1	N/A	46	S	ACJ	N/A	X	CONFIRMS 4B222
3/11/2010	13:30	4B347.D	248506016	LANL	963417	5G	1	N/A	47	S	ACJ	N/A	O	CONFIRMED BY 4B223
3/11/2010	13:57	4B348.D	248506017	LANL	963417	5G	1	N/A	48	S	ACJ	N/A	X	CONFIRMS 4B224
3/11/2010	14:25	4B349.D	248506018	LANL	963417	5G	1	N/A	49	S	ACJ	N/A	X	CONFIRMS 4B225
3/11/2010	14:52	4B350.D	248506019	LANL	963417	5G	1	N/A	50	S	ACJ	N/A	O	
3/11/2010	15:19	4B351.D	248506020	LANL	963417	5G	1	N/A	51	S	ACJ	N/A	X	CONFIRMS 4B236

### DATA EXCEPTION REPORT

<b>Mo.Day Yr.</b> 20-MAR-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> VOA GC/MS	<b>Test / Method:</b> SW846 8260B	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 963417	<b>Sample Numbers:</b> See Below		

**Potentially affected work order(s)(SDG): 248506(10-2193)**

**Application Issues:**

Failed Recovery for Surrogate or Tracer

Failed Recovery for MS/PS

Method Blank contamination

Other

Failed Recovery for MSD/PSD

<b>Specification and Requirements Exception Description:</b>	<b>DER Disposition:</b>
<p>1. QC samples 1202066792MS and 1202066793MSD were outside the spike recovery acceptance limits for several compounds.</p> <p>2. The following samples were outside the surrogate recovery acceptance limits:</p> <p>248506001,002,004,005,006,008,009,010,011,012,013,014,015,016,017,020</p> <p>3. The following samples were outside the internal standard response recovery acceptance criteria:</p> <p>248506001,002,004,005,006,007,008,009,010,011,012,013,014,015,016,017,018,020, 1202066792MS and 1202066793MSD</p>	<p>1. Narrate and report data. The MS/MSD recovered in a similar manner and passed RPD.</p> <p>2. Narrate and report data. The samples were analyzed twice with similar results. It is believed matrix interference has been demonstrated.</p> <p>3. Narrate and report data. The samples were analyzed twice with similar results. It is believed matrix interference has been demonstrated.</p>

**Originator's Name:**

Amy Jamison

20-MAR-10

**Data Validator/Group Leader:**

Sarah Kozlik

22-MAR-10

# **GC/MS Semivolatile Analysis**

**Semi-Volatile Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2193**

**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:	963086
Prep Batch Number:	963080

**Sample Analysis**

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

<b>Sample ID</b>	<b>Client ID</b>
248506001	RE36-10-7407
248506002	RE36-10-7421
248506003	RE36-10-7422
248506004	RE36-10-7451
248506005	RE36-10-7449
248506006	RE36-10-7445
248506007	RE36-10-7450
248506008	RE36-10-7444
248506009	RE36-10-7448
248506010	RE36-10-7447
248506011	RE36-10-7443
248506012	RE36-10-7452
248506013	RE36-10-7437
248506014	RE36-10-7440
248506015	RE36-10-7435
248506016	RE36-10-7441
248506017	RE36-10-7442
248506018	RE36-10-7436
248506019	RE36-10-7438
248506020	RE36-10-7439
1202066110	Method Blank (MB)
1202066111	Laboratory Control Sample (LCS)
1202066112	248506001(RE36-10-7407) Matrix Spike (MS)
1202066113	248506001(RE36-10-7407) 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 spike recoveries met the acceptance limits.

**QC Sample Designation**

Sample 248506001 (RE36-10-7407) was selected for analysis as the matrix spike and matrix spike duplicate.

**Matrix Spike (MS) Recovery Statement**

The MS (1202066112) and MSD (1202066113) each displayed failing recoveries for 3,3'Dichlorobenzidine. Please see the spike recovery report for the specific failures. As the failures duplicated, they were attributed to sample matrix interference and the data have been.

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

The MS (1202066112) and MSD (1202066113) each displayed failing recoveries for 3,3'Dichlorobenzidine. Please see the spike recovery report for the specific failures. As the failures duplicated, they were attributed to sample matrix interference and the data have been.

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

The MS (1202066112)/MSD (1202066113) RPD value for p-Nitroaniline failed. Please see the spike recovery report for the specific value. As the individual MS and MSD recoveries for that analyte were acceptable, the data have been reported un-qualified for the RPD value failure.

**Internal Standard (ISTD) Acceptance**

The internal standard responses were outside of the acceptance criteria for the following sample: 248506020 (RE36-10-7439). The sample was re-analyzed and the failures were confirmed. The first analysis data are reported. The re-analysis raw data are in the Miscellaneous Section.

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

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

**Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

**Sample Dilutions**

Sample 248506005 (RE36-10-7449) was diluted because the extract was very dark and viscous.

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

This sample 248506020 (RE36-10-7439) was re-analyzed to confirm internal standard failure.

### **Miscellaneous Information**

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

The following DER was generated for this SDG: 808685. It is located in the Miscellaneous Section of the data report.

#### **Manual Integrations**

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

#### **Additional Comments**

Additional comments were not required for this SDG.

#### **Electronic Package Comment**

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

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

#### **System Configuration**

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

<b>Instrument ID</b>	<b>Instrument</b>	<b>System Configuration</b>	<b>Column ID</b>	<b>Column Description</b>
MSD5.1	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

#### **Certification Statement**

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



**Review Validation:**

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

Reviewer: Wan Buehary Date: 3-30-10

## Roadmap for LANL 10-2193 SVOA

This roadmap was analyzed by rmb on 03-24-2010, 08:06.

This roadmap was reviewed by rmb on 03-24-2010, 08:47.

This roadmap was packaged by CHA01131 on 03-29-2010, 19:03.

Sample										
exclude	manual	datafile	smplid	injdate	injtime	sublist	clitid	dilution	batchid	comment
<input type="checkbox"/>	N	/chem/MSD5.i/s032210.b/s5c2210.d	248506001	22-MAR-2010	11:55	10-2193.sub	RE36-10-7407	1	963086	
<input type="checkbox"/>	N	/chem/MSD5.i/s032210.b/s5c2213.d	248506002	22-MAR-2010	13:04	10-2193.sub	RE36-10-7421	1	963086	
<input type="checkbox"/>	N	/chem/MSD5.i/s032210.b/s5c2214.d	248506003	22-MAR-2010	13:27	10-2193.sub	RE36-10-7422	1	963086	
<input type="checkbox"/>	N	/chem/MSD5.i/s032210.b/s5c2215.d	248506004	22-MAR-2010	13:49	10-2193.sub	RE36-10-7451	1	963086	
<input type="checkbox"/>	N	/chem/MSD5.i/s032210.b/s5c2216.d	248506005	22-MAR-2010	14:13	10-2193.sub	RE36-10-7449	10	963086	
<input type="checkbox"/>	N	/chem/MSD5.i/s032210.b/s5c2217.d	248506006	22-MAR-2010	14:35	10-2193.sub	RE36-10-7445	1	963086	
<input type="checkbox"/>	N	/chem/MSD5.i/s032210.b/s5c2218.d	248506007	22-MAR-2010	14:58	10-2193.sub	RE36-10-7450	1	963086	
<input type="checkbox"/>	N	/chem/MSD5.i/s032210.b/s5c2219.d	248506008	22-MAR-2010	15:21	10-2193.sub	RE36-10-7444	1	963086	
<input type="checkbox"/>	N	/chem/MSD5.i/s032210.b/s5c2220.d	248506009	22-MAR-2010	15:44	10-2193.sub	RE36-10-7448	1	963086	
<input type="checkbox"/>	N	/chem/MSD5.i/s032210.b/s5c2221.d	248506010	22-MAR-2010	16:07	10-2193.sub	RE36-10-7447	1	963086	
<input type="checkbox"/>	N	/chem/MSD5.i/s032210.b/s5c2222.d	248506011	22-MAR-2010	16:30	10-2193.sub	RE36-10-7443	1	963086	
<input type="checkbox"/>	N	/chem/MSD5.i/s032210.b/s5c2223.d	248506012	22-MAR-2010	16:54	10-2193.sub	RE36-10-7452	1	963086	
<input type="checkbox"/>	N	/chem/MSD5.i/s032210.b/s5c2224.d	248506013	22-MAR-2010	17:16	10-2193.sub	RE36-10-7437	1	963086	
<input type="checkbox"/>	N	/chem/MSD5.i/s032210.b/s5c2225.d	248506014	22-MAR-2010	17:39	10-2193.sub	RE36-10-7440	1	963086	
<input type="checkbox"/>	N	/chem/MSD5.i/s032210.b/s5c2226.d	248506015	22-MAR-2010	18:02	10-2193.sub	RE36-10-7435	1	963086	
<input type="checkbox"/>	N	/chem/MSD5.i/s032210.b/s5c2227.d	248506016	22-MAR-2010	18:25	10-2193.sub	RE36-10-7441	1	963086	
<input type="checkbox"/>	N	/chem/MSD5.i/s032210.b/s5c2228.d	248506017	22-MAR-2010	18:48	10-2193.sub	RE36-10-7442	1	963086	
<input type="checkbox"/>	N	/chem/MSD5.i/s032210.b/s5c2229.d	248506018	22-MAR-2010	19:11	10-2193.sub	RE36-10-7436	1	963086	
<input type="checkbox"/>	N	/chem/MSD5.i/s032210.b/s5c2230.d	248506019	22-MAR-2010	19:34	10-2193.sub	RE36-10-7438	1	963086	
<input type="checkbox"/>	N	/chem/MSD5.i/s032210.b/s5c2231.d	248506020	22-MAR-2010	19:57	10-2193.sub	RE36-10-7439	1	963086	Fail IS - confirmed by s5c2231
<input checked="" type="checkbox"/>	N	/chem/MSD5.i/s032310.b/s5c2321.d	248506020	23-MAR-2010	17:41	10-2193.sub	RE36-10-7439	1	963086	DUSE - fail IS - confirms s5c2231

## QC Sample

exclude	manual	datafile	smplid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
<input type="checkbox"/>	Y	/chem/MSD5.i/s032210.b/s5c2208.d	1202066110	mb	22-MAR-2010	11:09	10-2193.sub	SBLK01	1.00000	963086	<input type="text"/>
<input type="checkbox"/>	Y	/chem/MSD5.i/s032210.b/s5c2209.d	1202066111	lcs	22-MAR-2010	11:32	10-2193.sub	SBLK011.LCS	1.00000	963086	<input type="text"/>
<input type="checkbox"/>	Y	/chem/MSD5.i/s032210.b/s5c2211.d	1202066112	ms	22-MAR-2010	12:18	10-2193.sub	RE36-10-7407MS	1.00000	963086	<input type="text"/>
<input type="checkbox"/>	Y	/chem/MSD5.i/s032210.b/s5c2212.d	1202066113	msd	22-MAR-2010	12:41	10-2193.sub	RE36-10-7407MSD	1.00000	963086	<input type="text"/>

# Sample Data Summary

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

SDG Number: 10-2193  
Lab Sample ID: 248506001

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.J  
Analyst: RMB  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.9  
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	432	ug/kg	86.4	432
108-95-2	Phenol	U	432	ug/kg	86.4	432
95-57-8	2-Chlorophenol	U	432	ug/kg	86.4	432
106-46-7	1,4-Dichlorobenzene	U	432	ug/kg	86.4	432
621-64-7	N-Nitrosodipropylamine	U	432	ug/kg	86.4	432
59-50-7	4-Chloro-3-methylphenol	U	432	ug/kg	86.4	432
83-32-9	Acenaphthene	U	43.2	ug/kg	14.3	43.2
121-14-2	2,4-Dinitrotoluene	U	432	ug/kg	43.2	432
100-02-7	4-Nitrophenol	U	432	ug/kg	143	432
87-86-5	Pentachlorophenol	U	432	ug/kg	108	432
129-00-0	Pyrene	J	35.7	ug/kg	13.0	43.2
110-86-1	Pyridine	U	432	ug/kg	86.4	432
62-53-3	Aniline	U	432	ug/kg	130	432
111-44-4	bis(2-Chloroethyl) ether	U	432	ug/kg	86.4	432
541-73-1	1,3-Dichlorobenzene	U	432	ug/kg	86.4	432
100-51-6	Benzyl alcohol	U	432	ug/kg	130	432
95-50-1	1,2-Dichlorobenzene	U	432	ug/kg	86.4	432
108-60-1	bis(2-Chloroisopropyl)ether	U	432	ug/kg	86.4	432
95-48-7	o-Cresol	U	432	ug/kg	86.4	432
65794-96-9	m,p-Cresols	U	432	ug/kg	130	432
67-72-1	Hexachloroethane	U	432	ug/kg	86.4	432
98-95-3	Nitrobenzene	U	432	ug/kg	86.4	432
78-59-1	Isophorone	U	432	ug/kg	86.4	432
88-75-5	2-Nitrophenol	U	432	ug/kg	86.4	432
105-67-9	2,4-Dimethylphenol	U	432	ug/kg	151	432
111-91-1	bis(2-Chloroethoxy)methane	U	432	ug/kg	86.4	432
120-83-2	2,4-Dichlorophenol	U	432	ug/kg	86.4	432
65-85-0	Benzoic acid	J	621	ug/kg	216	864
91-20-3	Naphthalene	U	43.2	ug/kg	13.0	43.2
106-47-8	4-Chloroaniline	U	432	ug/kg	86.4	432
87-68-3	Hexachlorobutadiene	U	432	ug/kg	86.4	432
91-57-6	2-Methylnaphthalene	U	43.2	ug/kg	8.64	43.2
77-47-4	Hexachlorocyclopentadiene	U	432	ug/kg	86.4	432
88-06-2	2,4,6-Trichlorophenol	U	432	ug/kg	86.4	432
95-95-4	2,4,5-Trichlorophenol	U	432	ug/kg	86.4	432
91-58-7	2-Chloronaphthalene	U	43.2	ug/kg	14.3	43.2
88-74-4	2-Nitroaniline	U	432	ug/kg	86.4	432
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	432	ug/kg	86.4	432

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506001	Date Received: 03/03/2010 08:50	%Moisture: 22.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7407	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 11:55	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30 g	Final Volume: 1 mL
Data File: s5c2210.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	432	ug/kg	86.4	432
606-20-2	2,6-Dinitrotoluene	U	432	ug/kg	43.2	432
208-96-8	Acenaphthylene	U	43.2	ug/kg	13.0	43.2
51-28-5	2,4-Dinitrophenol	U	864	ug/kg	164	864
132-64-9	Dibenzofuran	U	432	ug/kg	86.4	432
84-66-2	Diethylphthalate	U	432	ug/kg	86.4	432
86-73-7	Fluorene	U	43.2	ug/kg	13.0	43.2
7005-72-3	4-Chlorophenylphenylether	U	432	ug/kg	86.4	432
534-52-1	2-Methyl-4,6-dinitrophenol	U	432	ug/kg	86.4	432
100-01-6	4-Nitroaniline	U	432	ug/kg	130	432
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	432	ug/kg	86.4	432
122-66-7	Azobenzene	U	432	ug/kg	86.4	432
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	432	ug/kg	86.4	432
118-74-1	Hexachlorobenzene	U	432	ug/kg	86.4	432
85-01-8	Phenanthrene	J	27.3	ug/kg	13.0	43.2
120-12-7	Anthracene	U	43.2	ug/kg	8.64	43.2
84-74-2	Di-n-butylphthalate	U	432	ug/kg	86.4	432
206-44-0	Fluoranthene		44.8	ug/kg	13.0	43.2
85-68-7	Butylbenzylphthalate	U	432	ug/kg	86.4	432
56-55-3	Benzo(a)anthracene	J	27.2	ug/kg	13.0	43.2
91-94-1	3,3'-Dichlorobenzidine	U	432	ug/kg	130	432
218-01-9	Chrysene	J	21.4	ug/kg	13.0	43.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	432	ug/kg	86.4	432
117-84-0	Di-n-octylphthalate	U	432	ug/kg	86.4	432
205-99-2	Benzo(b)fluoranthene	U	43.2	ug/kg	13.0	43.2
207-08-9	Benzo(k)fluoranthene	U	43.2	ug/kg	13.0	43.2
50-32-8	Benzo(a)pyrene	J	20.1	ug/kg	13.0	43.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	43.2	ug/kg	13.0	43.2
53-70-3	Dibenzo(a,h)anthracene	U	43.2	ug/kg	13.0	43.2
191-24-2	Benzo(ghi)perylene	U	43.2	ug/kg	13.0	43.2
120-82-1	1,2,4-Trichlorobenzene	U	432	ug/kg	86.4	432

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
25269-17-4	Thunbergol	8.13	511	ug/kg	83	NJ
1139-30-6	Caryophyllene oxide	8.36	321	ug/kg	90	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506001	Date Received: 03/03/2010 08:50	%Moisture: 22.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7407	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.1	Dilution: 1
Run Date: 03/22/2010 11:55	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30 g	Final Volume: 1 mL
Data File: s5c2210.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	8.68	243	ug/kg		J
4860-03-1	Hexadecane, 1-chloro-	8.8	284	ug/kg	92	NJ
	Unknown	9.01	294	ug/kg		J
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	9.04	207	ug/kg	93	NJ
	Unknown	9.06	246	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.1	177	ug/kg	89	NJ
	Unknown	9.12	348	ug/kg		J
	Unknown	9.25	437	ug/kg		J
74339-54-1	Trichloroacetic acid, hexadecyl ester	9.44	608	ug/kg	93	NJ
	Unknown	9.52	227	ug/kg		J
62016-76-6	Nonadecane, 1-chloro-	9.75	175	ug/kg	94	NJ
	Unknown	9.88	264	ug/kg		J
1599-67-3	1-Docosenc	10.1	597	ug/kg	98	NJ
	Unknown	11.91	712	ug/kg		J
	Unknown	12.09	232	ug/kg		J
	Unknown	12.67	414	ug/kg		J
	Unknown	12.97	300	ug/kg		J
83-47-6	.gamma.-Sitosterol	13.85	1300	ug/kg	99	NJ

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506002	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 15
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7421	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 13:04	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.05 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2213.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	391	ug/kg	78.3	391
108-95-2	Phenol	U	391	ug/kg	78.3	391
95-57-8	2-Chlorophenol	U	391	ug/kg	78.3	391
106-46-7	1,4-Dichlorobenzene	U	391	ug/kg	78.3	391
621-64-7	N-Nitrosodipropylamine	U	391	ug/kg	78.3	391
59-50-7	4-Chloro-3-methylphenol	U	391	ug/kg	78.3	391
83-32-9	Acenaphthene	U	39.1	ug/kg	12.9	39.1
121-14-2	2,4-Dinitrotoluene	U	391	ug/kg	39.1	391
100-02-7	4-Nitrophenol	U	391	ug/kg	129	391
87-86-5	Pentachlorophenol	U	391	ug/kg	97.8	391
129-00-0	Pyrene	J	36.0	ug/kg	11.7	39.1
110-86-1	Pyridine	U	391	ug/kg	78.3	391
62-53-3	Aniline	U	391	ug/kg	117	391
111-44-4	bis(2-Chloroethyl) ether	U	391	ug/kg	78.3	391
541-73-1	1,3-Dichlorobenzene	U	391	ug/kg	78.3	391
100-51-6	Benzyl alcohol	U	391	ug/kg	117	391
95-50-1	1,2-Dichlorobenzene	U	391	ug/kg	78.3	391
108-60-1	bis(2-Chloroisopropyl) ether	U	391	ug/kg	78.3	391
95-48-7	o-Cresol	U	391	ug/kg	78.3	391
65794-96-9	m,p-Cresols	U	391	ug/kg	117	391
67-72-1	Hexachloroethane	U	391	ug/kg	78.3	391
98-95-3	Nitrobenzene	U	391	ug/kg	78.3	391
78-59-1	Isophorone	U	391	ug/kg	78.3	391
88-75-5	2-Nitrophenol	U	391	ug/kg	78.3	391
105-67-9	2,4-Dimethylphenol	U	391	ug/kg	137	391
111-91-1	bis(2-Chloroethoxy)methane	U	391	ug/kg	78.3	391
120-83-2	2,4-Dichlorophenol	U	391	ug/kg	78.3	391
65-85-0	Benzoic acid	J	702	ug/kg	196	783
91-20-3	Naphthalene	U	39.1	ug/kg	11.7	39.1
106-47-8	4-Chloroaniline	U	391	ug/kg	78.3	391
87-68-3	Hexachlorobutadiene	U	391	ug/kg	78.3	391
91-57-6	2-Methylnaphthalene	U	39.1	ug/kg	7.83	39.1
77-47-4	Hexachlorocyclopentadiene	U	391	ug/kg	78.3	391
88-06-2	2,4,6-Trichlorophenol	U	391	ug/kg	78.3	391
95-95-4	2,4,5-Trichlorophenol	U	391	ug/kg	78.3	391
91-58-7	2-Chloronaphthalene	U	39.1	ug/kg	12.9	39.1
88-74-4	2-Nitroaniline	U	391	ug/kg	78.3	391
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	391	ug/kg	78.3	391



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

SDG Number: 10-2193

Lab Sample ID: 248506002

Client ID: RE36-10-7421

Batch ID: 963086

Run Date: 03/22/2010 13:04

Prep Date: 03/10/2010 12:33

Data File: s5c2213.d

Date Collected: 02/25/2010 12:00

Date Received: 03/03/2010 08:50

Client: LANL010

Method: SW846 8270C

Inst: MSD5.I

Analyst: RMB

Aliquot: 30.05 g

Column: J&amp;W DB-5MS

Matrix: R

%Moisture: 15

Project: LANL01004

SOP Ref: GL-OA-E-009

Dilution: 1

Inj. Vol: .5 uL

Final Volume: 1 mL

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	391	ug/kg	78.3	391
606-20-2	2,6-Dinitrotoluene	U	391	ug/kg	39.1	391
208-96-8	Acenaphthylene	U	39.1	ug/kg	11.7	39.1
51-28-5	2,4-Dinitrophenol	U	783	ug/kg	149	783
132-64-9	Dibenzofuran	U	391	ug/kg	78.3	391
84-66-2	Diethylphthalate	U	391	ug/kg	78.3	391
86-73-7	Fluorene	U	39.1	ug/kg	11.7	39.1
7005-72-3	4-Chlorophenylphenylether	U	391	ug/kg	78.3	391
534-52-1	2-Methyl-4,6-dinitrophenol	U	391	ug/kg	78.3	391
100-01-6	4-Nitroaniline	U	391	ug/kg	117	391
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	391	ug/kg	78.3	391
122-66-7	Azobenzene	U	391	ug/kg	78.3	391
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	391	ug/kg	78.3	391
118-74-1	Hexachlorobenzene	U	391	ug/kg	78.3	391
85-01-8	Phenanthrene	J	22.5	ug/kg	11.7	39.1
120-12-7	Anthracene	U	39.1	ug/kg	7.83	39.1
84-74-2	Di-n-butylphthalate	J	168	ug/kg	78.3	391
206-44-0	Fluoranthene	J	35.7	ug/kg	11.7	39.1
85-68-7	Butylbenzylphthalate	U	391	ug/kg	78.3	391
56-55-3	Benzo(a)anthracene	J	19.9	ug/kg	11.7	39.1
91-94-1	3,3'-Dichlorobenzidine	U	391	ug/kg	117	391
218-01-9	Chrysene	J	20.0	ug/kg	11.7	39.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	391	ug/kg	78.3	391
117-84-0	Di-n-octylphthalate	U	391	ug/kg	78.3	391
205-99-2	Benzo(h)fluoranthene	U	39.1	ug/kg	11.7	39.1
207-08-9	Benzo(k)fluoranthene	U	39.1	ug/kg	11.7	39.1
50-32-8	Benzo(a)pyrene	U	39.1	ug/kg	11.7	39.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.1	ug/kg	11.7	39.1
53-70-3	Dibenzo(a,h)anthracene	U	39.1	ug/kg	11.7	39.1
191-24-2	Benzo(ghi)perylene	U	39.1	ug/kg	11.7	39.1
120-82-1	1,2,4-Trichlorobenzene	U	391	ug/kg	78.3	391

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.71	313	ug/kg		J
309735-29-3	1,2-Benzisothiazole, 3-(hexahydro-1H-aze	8.78	385	ug/kg	91	NJ

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506002	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 15
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7421	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5J	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 13:04	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.05 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2213.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> 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	8.93	475	ug/kg		J
	Unknown	9.03	930	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.1	304	ug/kg	96	NJ
	Unknown	9.13	378	ug/kg		J
	Unknown	9.22	292	ug/kg		J
	Unknown	9.24	414	ug/kg		J
	Unknown	9.4	461	ug/kg		J
1599-67-3	1-Docosene	9.44	665	ug/kg	96	NJ
	Unknown	9.72	332	ug/kg		J
	Unknown	9.75	338	ug/kg		J
	Unknown	9.88	565	ug/kg		J
	Unknown	9.98	305	ug/kg		J
3386-33-2	Octadecane, 1-chloro-	10.08	601	ug/kg	90	NJ
	Unknown	10.1	846	ug/kg		J
559-74-0	Friedelan-3-one	10.13	1020	ug/kg	97	NJ
	Unknown	10.25	523	ug/kg		J
1000108-92-4	Farnesol isomer a	10.54	661	ug/kg	93	NJ
	Unknown	11.92	1910	ug/kg		J
	Unknown	12.09	477	ug/kg		J
	Unknown	12.41	541	ug/kg		J
	Unknown	12.68	731	ug/kg		J
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	12.98	822	ug/kg	92	NJ
474-62-4	Campesterol	13.17	505	ug/kg	84	NJ
83-47-6	.gamma.-Sitosterol	13.87	1900	ug/kg	98	NJ

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

SDG Number: 10-2193  
Lab Sample ID: 248506003

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.1  
Analyst: RMB  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 5.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7422  
Batch ID: 963086  
Run Date: 03/22/2010 13:27  
Prep Date: 03/10/2010 12:33  
Data File: s5c2214.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	354	ug/kg	70.8	354
108-95-2	Phenol	U	354	ug/kg	70.8	354
95-57-8	2-Chlorophenol	U	354	ug/kg	70.8	354
106-46-7	1,4-Dichlorobenzene	U	354	ug/kg	70.8	354
621-64-7	N-Nitrosodipropylamine	U	354	ug/kg	70.8	354
59-50-7	4-Chloro-3-methylphenol	U	354	ug/kg	70.8	354
83-32-9	Acenaphthene	U	35.4	ug/kg	11.7	35.4
121-14-2	2,4-Dinitrotoluene	U	354	ug/kg	35.4	354
100-02-7	4-Nitrophenol	U	354	ug/kg	117	354
87-86-5	Pentachlorophenol	U	354	ug/kg	88.5	354
129-00-0	Pyrene	U	35.4	ug/kg	10.6	35.4
110-86-1	Pyridine	U	354	ug/kg	70.8	354
62-53-3	Aniline	U	354	ug/kg	106	354
111-44-4	bis(2-Chloroethyl) ether	U	354	ug/kg	70.8	354
541-73-1	1,3-Dichlorobenzene	U	354	ug/kg	70.8	354
100-51-6	Benzyl alcohol	U	354	ug/kg	106	354
95-50-1	1,2-Dichlorobenzene	U	354	ug/kg	70.8	354
108-60-1	bis(2-Chloroisopropyl) ether	U	354	ug/kg	70.8	354
95-48-7	o-Cresol	U	354	ug/kg	70.8	354
65794-96-9	m,p-Cresols	U	354	ug/kg	106	354
67-72-1	Hexachloroethane	U	354	ug/kg	70.8	354
98-95-3	Nitrobenzene	U	354	ug/kg	70.8	354
78-59-1	Isophorone	U	354	ug/kg	70.8	354
88-75-5	2-Nitrophenol	U	354	ug/kg	70.8	354
105-67-9	2,4-Dimethylphenol	U	354	ug/kg	124	354
111-91-1	bis(2-Chloroethoxy)methane	U	354	ug/kg	70.8	354
120-83-2	2,4-Dichlorophenol	U	354	ug/kg	70.8	354
65-85-0	Benzoic acid	J	427	ug/kg	177	708
91-20-3	Naphthalene	U	35.4	ug/kg	10.6	35.4
106-47-8	4-Chloroaniline	U	354	ug/kg	70.8	354
87-68-3	Hexachlorobutadiene	U	354	ug/kg	70.8	354
91-57-6	2-Methylnaphthalene	U	35.4	ug/kg	7.08	35.4
77-47-4	Hexachlorocyclopentadiene	U	354	ug/kg	70.8	354
88-06-2	2,4,6-Trichlorophenol	U	354	ug/kg	70.8	354
95-95-4	2,4,5-Trichlorophenol	U	354	ug/kg	70.8	354
91-58-7	2-Chloronaphthalene	U	35.4	ug/kg	11.7	35.4
88-74-4	2-Nitroaniline	U	354	ug/kg	70.8	354
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	354	ug/kg	70.8	354

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506003	Date Received: 03/03/2010 08:50	%Moisture: 5.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7422	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 13:27	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s5c2214.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	354	ug/kg	70.8	354
606-20-2	2,6-Dinitrotoluene	U	354	ug/kg	35.4	354
208-96-8	Accnaphthylene	U	35.4	ug/kg	10.6	35.4
51-28-5	2,4-Dinitrophenol	U	708	ug/kg	134	708
132-64-9	Dibenzofuran	U	354	ug/kg	70.8	354
84-66-2	Diethylphthalate	U	354	ug/kg	70.8	354
86-73-7	Fluorene	U	35.4	ug/kg	10.6	35.4
7005-72-3	4-Chlorophenylphenylether	U	354	ug/kg	70.8	354
534-52-1	2-Methyl-4,6-dinitrophenol	U	354	ug/kg	70.8	354
100-01-6	4-Nitroaniline	U	354	ug/kg	106	354
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	354	ug/kg	70.8	354
122-66-7	Azobenzene	U	354	ug/kg	70.8	354
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	354	ug/kg	70.8	354
118-74-1	Hexachlorobenzene	U	354	ug/kg	70.8	354
85-01-8	Phenanthrene	U	35.4	ug/kg	10.6	35.4
120-12-7	Anthracene	U	35.4	ug/kg	7.08	35.4
84-74-2	Di-n-butylphthalate	U	354	ug/kg	70.8	354
206-44-0	Fluoranthene	U	35.4	ug/kg	10.6	35.4
85-68-7	Butylbenzylphthalate	U	354	ug/kg	70.8	354
56-55-3	Benzo(a)anthracene	U	35.4	ug/kg	10.6	35.4
91-94-1	3,3'-Dichlorobenzidine	U	354	ug/kg	106	354
218-01-9	Chrysene	U	35.4	ug/kg	10.6	35.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	354	ug/kg	70.8	354
117-84-0	Di-n-octylphthalate	U	354	ug/kg	70.8	354
205-99-2	Benzo(b)fluoranthene	U	35.4	ug/kg	10.6	35.4
207-08-9	Benzo(k)fluoranthene	U	35.4	ug/kg	10.6	35.4
50-32-8	Benzo(a)pyrene	U	35.4	ug/kg	10.6	35.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.4	ug/kg	10.6	35.4
53-70-3	Dibenzo(a,h)anthracene	U	35.4	ug/kg	10.6	35.4
191-24-2	Benzo(ghi)perylene	U	35.4	ug/kg	10.6	35.4
120-82-1	1,2,4-Trichlorobenzene	U	354	ug/kg	70.8	354

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.1	2350	ug/kg		J
	Unknown Aldol Condensate	2.98	250	ug/kg		JA

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

SDG Number: 10-2193  
Lab Sample ID: 248506003

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 5.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7422  
Batch ID: 963086  
Run Date: 03/22/2010 13:27  
Prep Date: 03/10/2010 12:33  
Data File: s5c2214.d

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
1058-61-3	Stigmast-4-en-3-one	8.42	796	ug/kg	95	NJ
	Unknown	9.03	155	ug/kg		J
1000131-11-8	Z-5-Nonadecene	9.44	227	ug/kg	96	NJ
	Unknown	10.1	366	ug/kg		J
	Unknown	10.14	698	ug/kg		J
	Unknown	10.54	150	ug/kg		J
	Unknown	12.09	392	ug/kg		J
	Unknown	12.42	212	ug/kg		J
70038-20-9	7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	12.87	335	ug/kg	93	NJ
57-87-4	Ergosterol	12.97	223	ug/kg	90	NJ
83-46-5	.beta.-Sitosterol	13.85	705	ug/kg	90	NJ
	Unknown	14.45	327	ug/kg		J

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506015	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 30.1
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7435	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 18:02	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.06 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2226.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	476	ug/kg	95.2	476
108-95-2	Phenol	U	476	ug/kg	95.2	476
95-57-8	2-Chlorophenol	U	476	ug/kg	95.2	476
106-46-7	1,4-Dichlorobenzene	U	476	ug/kg	95.2	476
621-64-7	N-Nitrosodipropylamine	U	476	ug/kg	95.2	476
59-50-7	4-Chloro-3-methylphenol	U	476	ug/kg	95.2	476
83-32-9	Acenaphthene	U	47.6	ug/kg	15.7	47.6
121-14-2	2,4-Dinitrotoluene	U	476	ug/kg	47.6	476
100-02-7	4-Nitrophenol	U	476	ug/kg	157	476
87-86-5	Pentachlorophenol	U	476	ug/kg	119	476
129-00-0	Pyrene	U	47.6	ug/kg	14.3	47.6
110-86-1	Pyridine	U	476	ug/kg	95.2	476
62-53-3	Aniline	U	476	ug/kg	143	476
111-44-4	bis(2-Chloroethyl) ether	U	476	ug/kg	95.2	476
541-73-1	1,3-Dichlorobenzene	U	476	ug/kg	95.2	476
100-51-6	Benzyl alcohol	U	476	ug/kg	143	476
95-50-1	1,2-Dichlorobenzene	U	476	ug/kg	95.2	476
108-60-1	bis(2-Chloroisopropyl)ether	U	476	ug/kg	95.2	476
95-48-7	o-Cresol	U	476	ug/kg	95.2	476
65794-96-9	m,p-Cresols	U	476	ug/kg	143	476
67-72-1	Hexachloroethane	U	476	ug/kg	95.2	476
98-95-3	Nitrobenzene	U	476	ug/kg	95.2	476
78-59-1	Isophorone	U	476	ug/kg	95.2	476
88-75-5	2-Nitrophenol	U	476	ug/kg	95.2	476
105-67-9	2,4-Dimethylphenol	U	476	ug/kg	167	476
111-91-1	bis(2-Chloroethoxy)methane	U	476	ug/kg	95.2	476
120-83-2	2,4-Dichlorophenol	U	476	ug/kg	95.2	476
65-85-0	Benzoic acid	U	952	ug/kg	238	952
91-20-3	Naphthalene	U	47.6	ug/kg	14.3	47.6
106-47-8	4-Chloroaniline	U	476	ug/kg	95.2	476
87-68-3	Hexachlorobutadiene	U	476	ug/kg	95.2	476
91-57-6	2-Methylnaphthalene	U	47.6	ug/kg	9.52	47.6
77-47-4	Hexachlorocyclopentadiene	U	476	ug/kg	95.2	476
88-06-2	2,4,6-Trichlorophenol	U	476	ug/kg	95.2	476
95-95-4	2,4,5-Trichlorophenol	U	476	ug/kg	95.2	476
91-58-7	2-Chloronaphthalene	U	47.6	ug/kg	15.7	47.6
88-74-4	2-Nitroaniline	U	476	ug/kg	95.2	476
99-09-2	<i>o</i> -Nitroaniline	U	476	ug/kg	95.2	476
	3-Nitroaniline					

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506015	Date Received: 03/03/2010 08:50	%Moisture: 30.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7435	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 18:02	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.06 g	Final Volume: 1 mL
Data File: s5c2226.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	U	476	ug/kg	95.2	476
606-20-2	2,6-Dinitrotoluene	U	476	ug/kg	47.6	476
208-96-8	Acenaphthylene	U	47.6	ug/kg	14.3	47.6
51-28-5	2,4-Dinitrophenol	U	952	ug/kg	181	952
132-64-9	Dibenzofuran	U	476	ug/kg	95.2	476
84-66-2	Diethylphthalate	U	476	ug/kg	95.2	476
86-73-7	Fluorene	U	47.6	ug/kg	14.3	47.6
7005-72-3	4-Chlorophenylphenylether	U	476	ug/kg	95.2	476
534-52-1	2-Methyl-4,6-dinitrophenol	U	476	ug/kg	95.2	476
100-01-6	4-Nitroaniline	U	476	ug/kg	143	476
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	476	ug/kg	95.2	476
122-66-7	Azobenzene	U	476	ug/kg	95.2	476
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	476	ug/kg	95.2	476
118-74-1	Hexachlorobenzene	U	476	ug/kg	95.2	476
85-01-8	Phenanthrene	U	47.6	ug/kg	14.3	47.6
120-12-7	Anthracene	U	47.6	ug/kg	9.52	47.6
84-74-2	Di-n-butylphthalate	U	476	ug/kg	95.2	476
206-44-0	Fluoranthene	U	47.6	ug/kg	14.3	47.6
85-68-7	Butylbenzylphthalate	U	476	ug/kg	95.2	476
56-55-3	Benzo(a)anthracene	U	47.6	ug/kg	14.3	47.6
91-94-1	3,3'-Dichlorobenzidine	U	476	ug/kg	143	476
218-01-9	Chrysene	U	47.6	ug/kg	14.3	47.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	476	ug/kg	95.2	476
117-84-0	Di-n-octylphthalate	U	476	ug/kg	95.2	476
205-99-2	Benzo(b)fluoranthene	U	47.6	ug/kg	14.3	47.6
207-08-9	Benzo(k)fluoranthene	U	47.6	ug/kg	14.3	47.6
50-32-8	Benzo(a)pyrene	U	47.6	ug/kg	14.3	47.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	47.6	ug/kg	14.3	47.6
53-70-3	Dibenzo(a,h)anthracene	U	47.6	ug/kg	14.3	47.6
191-24-2	Benzo(ghi)perylene	U	47.6	ug/kg	14.3	47.6
120-82-1	1,2,4-Trichlorobenzene	U	476	ug/kg	95.2	476

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
7785-70-8	1R-.alpha.-Pinene	3.52	552	ug/kg	97	NJ
	Unknown	8.94	303	ug/kg		J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506015	Date Received: 03/03/2010 08:50	%Moisture: 30.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7435	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.1	Dilution: 1
Run Date: 03/22/2010 18:02	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.06 g	Final Volume: 1 mL
Data File: s5c2226.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	9.07	1090	ug/kg		J
	Unknown	9.14	395	ug/kg		J
6971-40-0	17-Pentatriacontene	9.45	420	ug/kg	93	NJ
	Unknown	9.75	307	ug/kg		J
112-95-8	Eicosane	10.09	419	ug/kg	96	NJ
7773-83-3	1-Docosanethiol	10.11	593	ug/kg	93	NJ
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.18	1710	ug/kg	91	NJ
	Unknown	10.45	357	ug/kg		J
	Unknown	10.85	896	ug/kg		J
2883-08-1	Cyclohexane, 1,1'-(2-methyl-1,3-propanedi	11.93	771	ug/kg	89	NJ
	Unknown	12.11	548	ug/kg		J
	Unknown	12.16	919	ug/kg		J
	Unknown	12.48	415	ug/kg		J
	Unknown	12.91	924	ug/kg		J
83-46-5	.beta.-Sitosterol	13.89	618	ug/kg	96	NJ



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

SDG Number: 10-2193  
Lab Sample ID: 248506018

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 21.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7436  
Batch ID: 963086  
Run Date: 03/22/2010 19:11  
Prep Date: 03/10/2010 12:33  
Data File: s5c2229.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	423	ug/kg	84.5	423
108-95-2	Phenol	U	423	ug/kg	84.5	423
95-57-8	2-Chlorophenol	U	423	ug/kg	84.5	423
106-46-7	1,4-Dichlorobenzene	U	423	ug/kg	84.5	423
621-64-7	N-Nitrosodipropylamine	U	423	ug/kg	84.5	423
59-50-7	4-Chloro-3-methylphenol	U	423	ug/kg	84.5	423
83-32-9	Acenaphthene	U	42.3	ug/kg	13.9	42.3
121-14-2	2,4-Dinitrotoluene	U	423	ug/kg	42.3	423
100-02-7	4-Nitrophenol	U	423	ug/kg	139	423
87-86-5	Pentachlorophenol	U	423	ug/kg	106	423
129-00-0	Pyrene	U	42.3	ug/kg	12.7	42.3
110-86-1	Pyridine	U	423	ug/kg	84.5	423
62-53-3	Aniline	U	423	ug/kg	127	423
111-44-4	bis(2-Chloroethyl) ether	U	423	ug/kg	84.5	423
541-73-1	1,3-Dichlorobenzene	U	423	ug/kg	84.5	423
100-51-6	Benzyl alcohol	U	423	ug/kg	127	423
95-50-1	1,2-Dichlorobenzene	U	423	ug/kg	84.5	423
108-60-1	bis(2-Chloroisopropyl)ether	U	423	ug/kg	84.5	423
95-48-7	o-Cresol	U	423	ug/kg	84.5	423
65794-96-9	m,p-Cresols	U	423	ug/kg	127	423
67-72-1	Hexachloroethane	U	423	ug/kg	84.5	423
98-95-3	Nitrobenzene	U	423	ug/kg	84.5	423
78-59-1	Isophorone	U	423	ug/kg	84.5	423
88-75-5	2-Nitrophenol	U	423	ug/kg	84.5	423
105-67-9	2,4-Dimethylphenol	U	423	ug/kg	148	423
111-91-1	bis(2-Chloroethoxy)methane	U	423	ug/kg	84.5	423
120-83-2	2,4-Dichlorophenol	U	423	ug/kg	84.5	423
65-85-0	Benzoic acid	U	845	ug/kg	211	845
91-20-3	Naphthalene	U	42.3	ug/kg	12.7	42.3
106-47-8	4-Chloroaniline	U	423	ug/kg	84.5	423
87-68-3	Hexachlorobutadiene	U	423	ug/kg	84.5	423
91-57-6	2-Methylnaphthalene	U	42.3	ug/kg	8.45	42.3
77-47-4	Hexachlorocyclopentadiene	U	423	ug/kg	84.5	423
88-06-2	2,4,6-Trichlorophenol	U	423	ug/kg	84.5	423
95-95-4	2,4,5-Trichlorophenol	U	423	ug/kg	84.5	423
91-58-7	2-Chloronaphthalene	U	42.3	ug/kg	13.9	42.3
88-74-4	2-Nitroaniline	U	423	ug/kg	84.5	423
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	423	ug/kg	84.5	423

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506018	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 21.4
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7436	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 19:11	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.09 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2229.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	423	ug/kg	84.5	423
606-20-2	2,6-Dinitrotoluene	U	423	ug/kg	42.3	423
208-96-8	Acenaphthylene	U	42.3	ug/kg	12.7	42.3
51-28-5	2,4-Dinitrophenol	U	845	ug/kg	161	845
132-64-9	Dibenzofuran	U	423	ug/kg	84.5	423
84-66-2	Diethylphthalate	U	423	ug/kg	84.5	423
86-73-7	Fluorene	U	42.3	ug/kg	12.7	42.3
7005-72-3	4-Chlorophenylphenylether	U	423	ug/kg	84.5	423
534-52-1	2-Methyl-4,6-dinitrophenol	U	423	ug/kg	84.5	423
100-01-6	4-Nitroaniline	U	423	ug/kg	127	423
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	423	ug/kg	84.5	423
122-66-7	Azobenzene	U	423	ug/kg	84.5	423
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	423	ug/kg	84.5	423
118-74-1	Hexachlorobenzene	U	423	ug/kg	84.5	423
85-01-8	Phenanthrene	U	42.3	ug/kg	12.7	42.3
120-12-7	Anthracene	U	42.3	ug/kg	8.45	42.3
84-74-2	Di-n-butylphthalate	U	423	ug/kg	84.5	423
206-44-0	Fluoranthene	U	42.3	ug/kg	12.7	42.3
85-68-7	Butylbenzylphthalate	U	423	ug/kg	84.5	423
56-55-3	Benzo(a)anthracene	U	42.3	ug/kg	12.7	42.3
91-94-1	3,3'-Dichlorobenzidine	U	423	ug/kg	127	423
218-01-9	Chrysene	U	42.3	ug/kg	12.7	42.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	423	ug/kg	84.5	423
117-84-0	Di-n-octylphthalate	U	423	ug/kg	84.5	423
205-99-2	Benzo(b)fluoranthene	U	42.3	ug/kg	12.7	42.3
207-08-9	Benzo(k)fluoranthene	U	42.3	ug/kg	12.7	42.3
50-32-8	Benzo(a)pyrene	U	42.3	ug/kg	12.7	42.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.3	ug/kg	12.7	42.3
53-70-3	Dibenzo(a,h)anthracene	U	42.3	ug/kg	12.7	42.3
191-24-2	Benzo(ghi)perylene	U	42.3	ug/kg	12.7	42.3
120-82-1	1,2,4-Trichlorobenzene	U	423	ug/kg	84.5	423

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.08	466	ug/kg		J
7785-70-8	1R-.alpha.-Pinene	3.52	471	ug/kg	96	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506018	Date Received: 03/03/2010 08:50	% Moisture: 21.4
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7436	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.1	Dilution: 1
Run Date: 03/22/2010 19:11	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s5c2229.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	8.45	327	ug/kg		J
	Unknown	8.84	223	ug/kg		J
	Unknown	8.94	317	ug/kg		J
	Unknown	9.14	406	ug/kg		J
	Unknown	9.28	315	ug/kg		J
18435-45-5	1-Nonadecene	9.46	394	ug/kg	90	NJ
	Unknown	9.75	277	ug/kg		J
	Unknown	10.12	423	ug/kg		J
	Unknown	10.45	338	ug/kg		J
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.55	343	ug/kg	93	NJ
112-95-8	Eicosane	10.85	348	ug/kg	95	NJ
	Unknown	12.16	1190	ug/kg		J
	Unknown	12.48	358	ug/kg		J
	Unknown	12.93	1020	ug/kg		J
83-46-5	.beta.-Sitosterol	13.89	430	ug/kg	95	NJ

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

SDG Number: 10-2193  
Lab Sample ID: 248506013

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.1  
Analyst: RMB  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 16.3  
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	397	ug/kg	79.5	397
108-95-2	Phenol	U	397	ug/kg	79.5	397
95-57-8	2-Chlorophenol	U	397	ug/kg	79.5	397
106-46-7	1,4-Dichlorobenzene	U	397	ug/kg	79.5	397
621-64-7	N-Nitrosodipropylamine	U	397	ug/kg	79.5	397
59-50-7	4-Chloro-3-methylphenol	U	397	ug/kg	79.5	397
83-32-9	Acenaphthene	U	39.7	ug/kg	13.1	39.7
121-14-2	2,4-Dinitrotoluene	U	397	ug/kg	39.7	397
100-02-7	4-Nitrophenol	U	397	ug/kg	131	397
87-86-5	Pentachlorophenol	U	397	ug/kg	99.4	397
129-00-0	Pyrene		48.9	ug/kg	11.9	39.7
110-86-1	Pyridine	U	397	ug/kg	79.5	397
62-53-3	Aniline	U	397	ug/kg	119	397
111-44-4	bis(2-Chloroethyl) ether	U	397	ug/kg	79.5	397
541-73-1	1,3-Dichlorobenzene	U	397	ug/kg	79.5	397
100-51-6	Benzyl alcohol	U	397	ug/kg	119	397
95-50-1	1,2-Dichlorobenzene	U	397	ug/kg	79.5	397
108-60-1	bis(2-Chloroisopropyl)ether	U	397	ug/kg	79.5	397
95-48-7	o-Cresol	U	397	ug/kg	79.5	397
65794-96-9	m,p-Cresols	U	397	ug/kg	119	397
67-72-1	Hexachloroethane	U	397	ug/kg	79.5	397
98-95-3	Nitrobenzene	U	397	ug/kg	79.5	397
78-59-1	Isophorone	U	397	ug/kg	79.5	397
88-75-5	2-Nitrophenol	U	397	ug/kg	79.5	397
105-67-9	2,4-Dimethylphenol	U	397	ug/kg	139	397
111-91-1	bis(2-Chloroethoxy)methane	U	397	ug/kg	79.5	397
120-83-2	2,4-Dichlorophenol	U	397	ug/kg	79.5	397
65-85-0	Benzoic acid	U	795	ug/kg	199	795
91-20-3	Naphthalene	U	39.7	ug/kg	11.9	39.7
106-47-8	4-Chloroaniline	U	397	ug/kg	79.5	397
87-68-3	Hexachlorobutadiene	U	397	ug/kg	79.5	397
91-57-6	2-Methylnaphthalene	U	39.7	ug/kg	7.95	39.7
77-47-4	Hexachlorocyclopentadiene	U	397	ug/kg	79.5	397
88-06-2	2,4,6-Trichlorophenol	U	397	ug/kg	79.5	397
95-95-4	2,4,5-Trichlorophenol	U	397	ug/kg	79.5	397
91-58-7	2-Chloronaphthalene	U	39.7	ug/kg	13.1	39.7
88-74-4	2-Nitroaniline	U	397	ug/kg	79.5	397
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	397	ug/kg	79.5	397

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506013	Date Received: 03/03/2010 08:50	%Moisture: 16.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7437	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 17:16	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s5c2224.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	U	397	ug/kg	79.5	397
606-20-2	2,6-Dinitrotoluene	U	397	ug/kg	39.7	397
208-96-8	Acenaphthylene	U	39.7	ug/kg	11.9	39.7
51-28-5	2,4-Dinitrophenol	U	795	ug/kg	151	795
132-64-9	Dibenzofuran	U	397	ug/kg	79.5	397
84-66-2	Diethylphthalate	U	397	ug/kg	79.5	397
86-73-7	Fluorene	U	39.7	ug/kg	11.9	39.7
7005-72-3	4-Chlorophenylphenylether	U	397	ug/kg	79.5	397
534-52-1	2-Methyl-4,6-dinitrophenol	U	397	ug/kg	79.5	397
100-01-6	4-Nitroaniline	U	397	ug/kg	119	397
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	397	ug/kg	79.5	397
122-66-7	Azobenzene	U	397	ug/kg	79.5	397
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	397	ug/kg	79.5	397
118-74-1	Hexachlorobenzene	U	397	ug/kg	79.5	397
85-01-8	Phenanthrene	J	35.1	ug/kg	11.9	39.7
120-12-7	Anthracene	U	39.7	ug/kg	7.95	39.7
84-74-2	Di-n-butylphthalate	U	397	ug/kg	79.5	397
206-44-0	Fluoranthene		54.5	ug/kg	11.9	39.7
85-68-7	Butylbenzylphthalate	U	397	ug/kg	79.5	397
56-55-3	Benzo(a)anthracene	U	39.7	ug/kg	11.9	39.7
91-94-1	3,3'-Dichlorobenzidine	U	397	ug/kg	119	397
218-01-9	Chrysene	J	29.7	ug/kg	11.9	39.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	397	ug/kg	79.5	397
117-84-0	Di-n-octylphthalate	U	397	ug/kg	79.5	397
205-99-2	Benzo(b)fluoranthene	U	39.7	ug/kg	11.9	39.7
207-08-9	Benzo(k)fluoranthene	U	39.7	ug/kg	11.9	39.7
50-32-8	Benzo(a)pyrene	U	39.7	ug/kg	11.9	39.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.7	ug/kg	11.9	39.7
53-70-3	Dibenzo(a,h)anthracene	U	39.7	ug/kg	11.9	39.7
191-24-2	Benzo(ghi)perylene	U	39.7	ug/kg	11.9	39.7
120-82-1	1,2,4-Trichlorobenzene	U	397	ug/kg	79.5	397

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
103-82-2	Benzeneacetic acid	4.96	684	ug/kg	91	NJ
	Unknown	8.46	329	ug/kg		J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506013	Date Received: 03/03/2010 08:50	%Moisture: 16.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7437	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.J	Dilution: 1
Run Date: 03/22/2010 17:16	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s5c2224.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
1000130-99-4	9-Methyl-Z-10-tetradecen-1-ol acetate	8.79	663	ug/kg	93	NJ
	Unknown	9.02	374	ug/kg		J
5508-58-7	Andrographolide	9.14	356	ug/kg	81	NJ
1000130-84-8	(S)(+)-Z-13-Methyl-11-pentadecen-1-ol ac	9.25	387	ug/kg	93	NJ
	Unknown	9.45	941	ug/kg		J
629-78-7	Heptadecane	10.09	404	ug/kg	95	NJ
1599-67-3	1-Docosene	10.11	2000	ug/kg	99	NJ
	Unknown	10.26	345	ug/kg		J
4860-03-1	Hexadecane, 1-chloro-	10.45	760	ug/kg	91	NJ
309735-29-3	1,2-Benzisothiazole, 3-(hexahydro-1H-aze	10.49	575	ug/kg	91	NJ
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.55	1060	ug/kg	95	NJ
	Unknown	10.63	853	ug/kg		J
1000131-09-4	Z-12-Pentacosene	10.9	923	ug/kg	96	NJ
	Unknown	11.12	613	ug/kg		J
	Unknown	11.45	548	ug/kg		J
	Unknown	11.51	488	ug/kg		J
	Unknown	11.81	730	ug/kg		J
	Unknown	11.94	3600	ug/kg		J
	Unknown	12.11	1140	ug/kg		J
	Unknown	12.7	979	ug/kg		J
57-87-4	Ergosterol	13.01	975	ug/kg	86	NJ
83-47-6	.gamma.-Sitosterol	13.9	2570	ug/kg	96	NJ
	Unknown	14.01	535	ug/kg		J
	Unknown	14.32	638	ug/kg		J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506019	Date Received: 03/03/2010 08:50	%Moisture: 5.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7438	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5J	Dilution: 1
Run Date: 03/22/2010 19:34	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s5c2230.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	352	ug/kg	70.4	352
108-95-2	Phenol	U	352	ug/kg	70.4	352
95-57-8	2-Chlorophenol	U	352	ug/kg	70.4	352
106-46-7	1,4-Dichlorobenzene	U	352	ug/kg	70.4	352
621-64-7	N-Nitrosodipropylamine	U	352	ug/kg	70.4	352
59-50-7	4-Chloro-3-methylphenol	U	352	ug/kg	70.4	352
83-32-9	Acenaphthene	U	35.2	ug/kg	11.6	35.2
121-14-2	2,4-Dinitrotoluene	U	352	ug/kg	35.2	352
100-02-7	4-Nitrophenol	U	352	ug/kg	116	352
87-86-5	Pentachlorophenol	U	352	ug/kg	88.0	352
129-00-0	Pyrene	U	35.2	ug/kg	10.6	35.2
110-86-1	Pyridine	U	352	ug/kg	70.4	352
62-53-3	Aniline	U	352	ug/kg	106	352
111-44-4	bis(2-Chloroethyl) ether	U	352	ug/kg	70.4	352
541-73-1	1,3-Dichlorobenzene	U	352	ug/kg	70.4	352
100-51-6	Benzyl alcohol	U	352	ug/kg	106	352
95-50-1	1,2-Dichlorobenzene	U	352	ug/kg	70.4	352
108-60-1	bis(2-Chloroisopropyl)ether	U	352	ug/kg	70.4	352
95-48-7	o-Cresol	U	352	ug/kg	70.4	352
65794-96-9	m,p-Cresols	U	352	ug/kg	106	352
67-72-1	Hexachloroethane	U	352	ug/kg	70.4	352
98-95-3	Nitrobenzene	U	352	ug/kg	70.4	352
78-59-1	Isophorone	U	352	ug/kg	70.4	352
88-75-5	2-Nitrophenol	U	352	ug/kg	70.4	352
105-67-9	2,4-Dimethylphenol	U	352	ug/kg	123	352
111-91-1	bis(2-Chloroethoxy)methane	U	352	ug/kg	70.4	352
120-83-2	2,4-Dichlorophenol	U	352	ug/kg	70.4	352
65-85-0	Benzoic acid	U	704	ug/kg	176	704
91-20-3	Naphthalene	U	35.2	ug/kg	10.6	35.2
106-47-8	4-Chloroaniline	U	352	ug/kg	70.4	352
87-68-3	Hexachlorobutadiene	U	352	ug/kg	70.4	352
91-57-6	2-Methylnaphthalene	U	35.2	ug/kg	7.04	35.2
77-47-4	Hexachlorocyclopentadiene	U	352	ug/kg	70.4	352
88-06-2	2,4,6-Trichlorophenol	U	352	ug/kg	70.4	352
95-95-4	2,4,5-Trichlorophenol	U	352	ug/kg	70.4	352
91-58-7	2-Chloronaphthalene	U	35.2	ug/kg	11.6	35.2
88-74-4	2-Nitroaniline	U	352	ug/kg	70.4	352
99-09-2	3-Nitroaniline	U	352	ug/kg	70.4	352

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506019	Date Received: 03/03/2010 08:50	%Moisture: 5.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7438	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 19:34	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s5c2230.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	352	ug/kg	70.4	352
606-20-2	2,6-Dinitrotoluene	U	352	ug/kg	35.2	352
208-96-8	Acenaphthylene	U	35.2	ug/kg	10.6	35.2
51-28-5	2,4-Dinitrophenol	U	704	ug/kg	134	704
132-64-9	Dibenzofuran	U	352	ug/kg	70.4	352
84-66-2	Diethylphthalate	U	352	ug/kg	70.4	352
86-73-7	Fluorene	U	35.2	ug/kg	10.6	35.2
7005-72-3	4-Chlorophenylphenylether	U	352	ug/kg	70.4	352
534-52-1	2-Methyl-4,6-dinitrophenol	U	352	ug/kg	70.4	352
100-01-6	4-Nitroaniline	U	352	ug/kg	106	352
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	352	ug/kg	70.4	352
122-66-7	Azobenzene	U	352	ug/kg	70.4	352
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	352	ug/kg	70.4	352
118-74-1	Hexachlorobenzene	U	352	ug/kg	70.4	352
85-01-8	Phenanthrene	U	35.2	ug/kg	10.6	35.2
120-12-7	Anthracene	U	35.2	ug/kg	7.04	35.2
84-74-2	Di-n-butylphthalate	U	352	ug/kg	70.4	352
206-44-0	Fluoranthene	U	35.2	ug/kg	10.6	35.2
85-68-7	Butylbenzylphthalate	U	352	ug/kg	70.4	352
56-55-3	Benzo(a)anthracene	U	35.2	ug/kg	10.6	35.2
91-94-1	3,3'-Dichlorobenzidine	U	352	ug/kg	106	352
218-01-9	Chrysene	U	35.2	ug/kg	10.6	35.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	352	ug/kg	70.4	352
117-84-0	Di-n-octylphthalate	U	352	ug/kg	70.4	352
205-99-2	Benzo(b)fluoranthene	U	35.2	ug/kg	10.6	35.2
207-08-9	Benzo(k)fluoranthene	U	35.2	ug/kg	10.6	35.2
50-32-8	Benzo(a)pyrene	U	35.2	ug/kg	10.6	35.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.2	ug/kg	10.6	35.2
53-70-3	Dibenzo(a,h)anthracene	U	35.2	ug/kg	10.6	35.2
191-24-2	Benzo(ghi)perylene	U	35.2	ug/kg	10.6	35.2
120-82-1	1,2,4-Trichlorobenzene	U	352	ug/kg	70.4	352

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.08	3140	ug/kg		J
13481-95-3	10-Octadecenoic acid, methyl ester	8.14	241	ug/kg	99	NJ



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

SDG Number: 10-2193  
Lab Sample ID: 248506019

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 5.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
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	9.05	467	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.1	274	ug/kg	93	NJ
	Unknown	9.14	218	ug/kg		J
1000131-09-4	Z-12-Pentacosene	9.46	278	ug/kg	95	NJ
	Unknown	9.57	144	ug/kg		J
	Unknown	9.79	192	ug/kg		J
	Unknown	9.89	150	ug/kg		J
	Unknown	10.09	207	ug/kg		J
7773-83-3	1-Docosanethiol	10.12	460	ug/kg	92	NJ
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.16	1060	ug/kg	91	NJ
	Unknown	10.45	171	ug/kg		J
112-95-8	Eicosane	10.85	210	ug/kg	86	NJ
	Unknown	11.57	200	ug/kg		J
	Unknown	11.93	402	ug/kg		J
	Unknown	12.15	848	ug/kg		J
	Unknown	12.69	194	ug/kg		J
	Unknown	12.86	191	ug/kg		J
	Unknown	12.91	575	ug/kg		J
	Unknown	13.01	378	ug/kg		J
	Unknown	13.2	172	ug/kg		J
83-46-5	.beta.-Sitosterol	13.9	747	ug/kg	90	NJ
	Unknown	14.26	175	ug/kg		J

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2193  
Lab Sample ID: 248506020

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 18.1  
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	406	ug/kg	81.2	406
108-95-2	Phenol	U	406	ug/kg	81.2	406
95-57-8	2-Chlorophenol	U	406	ug/kg	81.2	406
106-46-7	1,4-Dichlorobenzene	U	406	ug/kg	81.2	406
621-64-7	N-Nitrosodipropylamine	U	406	ug/kg	81.2	406
59-50-7	4-Chloro-3-methylphenol	U	406	ug/kg	81.2	406
83-32-9	Acenaphthene	U	40.6	ug/kg	13.4	40.6
121-14-2	2,4-Dinitrotoluene	U	406	ug/kg	40.6	406
100-02-7	4-Nitrophenol	U	406	ug/kg	134	406
87-86-5	Pentachlorophenol	U	406	ug/kg	102	406
129-00-0	Pyrene		226	ug/kg	12.2	40.6
110-86-1	Pyridine	U	406	ug/kg	81.2	406
62-53-3	Aniline	U	406	ug/kg	122	406
111-44-4	bis(2-Chloroethyl) ether	U	406	ug/kg	81.2	406
541-73-1	1,3-Dichlorobenzene	U	406	ug/kg	81.2	406
100-51-6	Benzyl alcohol	U	406	ug/kg	122	406
95-50-1	1,2-Dichlorobenzene	U	406	ug/kg	81.2	406
108-60-1	bis(2-Chloroisopropyl)ether	U	406	ug/kg	81.2	406
95-48-7	o-Cresol	U	406	ug/kg	81.2	406
65794-96-9	m,p-Cresols	U	406	ug/kg	122	406
67-72-1	Hexachloroethane	U	406	ug/kg	81.2	406
98-95-3	Nitrobenzene	U	406	ug/kg	81.2	406
78-59-1	Isophorone	U	406	ug/kg	81.2	406
88-75-5	2-Nitrophenol	U	406	ug/kg	81.2	406
105-67-9	2,4-Dimethylphenol	U	406	ug/kg	142	406
111-91-1	bis(2-Chloroethoxy)methane	U	406	ug/kg	81.2	406
120-83-2	2,4-Dichlorophenol	U	406	ug/kg	81.2	406
65-85-0	Benzoic acid	J	562	ug/kg	203	812
91-20-3	Naphthalene	U	40.6	ug/kg	12.2	40.6
106-47-8	4-Chloroaniline	U	406	ug/kg	81.2	406
87-68-3	Hexachlorobutadiene	U	406	ug/kg	81.2	406
91-57-6	2-Methylnaphthalene	U	40.6	ug/kg	8.12	40.6
77-47-4	Hexachlorocyclopentadiene	U	406	ug/kg	81.2	406
88-06-2	2,4,6-Trichlorophenol	U	406	ug/kg	81.2	406
95-95-4	2,4,5-Trichlorophenol	U	406	ug/kg	81.2	406
91-58-7	2-Chloronaphthalene	U	40.6	ug/kg	13.4	40.6
88-74-4	2-Nitroaniline	U	406	ug/kg	81.2	406
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	406	ug/kg	81.2	406

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506020	Date Received: 03/03/2010 08:50	%Moisture: 18.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7439	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.1	Dilution: 1
Run Date: 03/22/2010 19:57	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s5c2231.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	U	406	ug/kg	81.2	406
606-20-2	2,6-Dinitrotoluene	U	406	ug/kg	40.6	406
208-96-8	Acenaphthylene	U	40.6	ug/kg	12.2	40.6
51-28-5	2,4-Dinitrophenol	U	812	ug/kg	154	812
132-64-9	Dibenzofuran	U	406	ug/kg	81.2	406
84-66-2	Diethylphthalate	U	406	ug/kg	81.2	406
86-73-7	Fluorene	J	14.0	ug/kg	12.2	40.6
7005-72-3	4-Chlorophenylphenylether	U	406	ug/kg	81.2	406
534-52-1	2-Methyl-4,6-dinitrophenol	U	406	ug/kg	81.2	406
100-01-6	4-Nitroaniline	U	406	ug/kg	122	406
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	406	ug/kg	81.2	406
122-66-7	Azobenzene	U	406	ug/kg	81.2	406
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	406	ug/kg	81.2	406
118-74-1	Hexachlorobenzene	U	406	ug/kg	81.2	406
85-01-8	Phenanthrene		178	ug/kg	12.2	40.6
120-12-7	Anthracene	J	23.9	ug/kg	8.12	40.6
84-74-2	Di-n-butylphthalate	U	406	ug/kg	81.2	406
206-44-0	Fluoranthene		241	ug/kg	12.2	40.6
85-68-7	Butylbenzylphthalate	U	406	ug/kg	81.2	406
56-55-3	Benzo(a)anthracene		74.9	ug/kg	12.2	40.6
91-94-1	3,3'-Dichlorobenzidine	U	406	ug/kg	122	406
218-01-9	Chrysene		115	ug/kg	12.2	40.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	406	ug/kg	81.2	406
117-84-0	Di-n-octylphthalate	U	406	ug/kg	81.2	406
205-99-2	Benzo(b)fluoranthene		128	ug/kg	12.2	40.6
207-08-9	Benzo(k)fluoranthene		52.8	ug/kg	12.2	40.6
50-32-8	Benzo(a)pyrene		84.5	ug/kg	12.2	40.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.6	ug/kg	12.2	40.6
53-70-3	Dibenzo(a,h)anthracene	U	40.6	ug/kg	12.2	40.6
191-24-2	Benzo(ghi)perylene		59.6	ug/kg	12.2	40.6
120-82-1	1,2,4-Trichlorobenzene	U	406	ug/kg	81.2	406

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
36617-50-2	Heptadecanoic acid, heptadecyl ester	8.8	467	ug/kg	91	NJ
	Unknown	9.02	503	ug/kg		J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506020	Date Received: 03/03/2010 08:50	%Moisture: 18.1
Client ID: RE36-10-7439	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 19:57	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2231.d	Aliquot: 30.05 g	Final Volume: 1 mL
	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	9.05	513	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.1	586	ug/kg	86	NJ
3452-07-1	1-Eicosene	9.45	1110	ug/kg	95	NJ
	Unknown	9.57	574	ug/kg		J
	Unknown	9.75	583	ug/kg		J
	Unknown	9.9	583	ug/kg		J
	Unknown	9.97	514	ug/kg		J
3386-33-2	Octadecane, 1-chloro-	10.09	728	ug/kg	95	NJ
1599-67-3	1-Docosene	10.11	1460	ug/kg	99	NJ
	Unknown	10.16	1170	ug/kg		J
	Unknown	10.25	823	ug/kg		J
62016-76-6	Nonadecane, 1-chloro-	10.45	709	ug/kg	93	NJ
	Unknown	10.49	473	ug/kg		J
	Unknown	10.55	928	ug/kg		J
	Unknown	10.64	751	ug/kg		J
	Unknown	11.16	1930	ug/kg		J
7390-81-0	Oxirane, hexadecyl-	11.58	592	ug/kg	98	NJ
	Unknown	11.94	1860	ug/kg		J
	Unknown	12.11	763	ug/kg		J
	Unknown	12.17	2000	ug/kg		J
	Unknown	12.72	602	ug/kg		J
	Unknown	12.94	1630	ug/kg		J
	Unknown	13.01	725	ug/kg		J
83-47-6	gamma.-Sitosterol	13.9	1050	ug/kg	92	NJ

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

**SDG Number:** 10-2193  
**Lab Sample ID:** 248506014

**Date Collected:** 02/25/2010 12:00  
**Date Received:** 03/03/2010 08:50  
**Client:** LANL010  
**Method:** SW846 8270C  
**Inst:** MSD5.1  
**Analyst:** RMB  
**Aliquot:** 30.01 g  
**Column:** J&W DB-5MS

**Matrix:** R  
**%Moisture:** 8.1  
**Project:** LANL01004  
**SOP Ref:** GL-OA-E-009  
**Dilution:** 1  
**Inj. Vol:** .5 uL  
**Final Volume:** 1 mL  
**Level:** LOW

**Client ID:** RE36-10-7440  
**Batch ID:** 963086  
**Run Date:** 03/22/2010 17:39  
**Prep Date:** 03/10/2010 12:33  
**Data File:** s5c2225.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	363	ug/kg	72.5	363
108-95-2	Phenol	U	363	ug/kg	72.5	363
95-57-8	2-Chlorophenol	U	363	ug/kg	72.5	363
106-46-7	1,4-Dichlorobenzene	U	363	ug/kg	72.5	363
621-64-7	N-Nitrosodipropylamine	U	363	ug/kg	72.5	363
59-50-7	4-Chloro-3-methylphenol	U	363	ug/kg	72.5	363
83-32-9	Acenaphthene	U	36.3	ug/kg	12.0	36.3
121-14-2	2,4-Dinitrotoluene	U	363	ug/kg	36.3	363
100-02-7	4-Nitrophenol	U	363	ug/kg	120	363
87-86-5	Pentachlorophenol	U	363	ug/kg	90.7	363
129-00-0	Pyrene	J	22.3	ug/kg	10.9	36.3
110-86-1	Pyridine	U	363	ug/kg	72.5	363
62-53-3	Aniline	U	363	ug/kg	109	363
111-44-4	bis(2-Chloroethyl) ether	U	363	ug/kg	72.5	363
541-73-1	1,3-Dichlorobenzene	U	363	ug/kg	72.5	363
100-51-6	Benzyl alcohol	U	363	ug/kg	109	363
95-50-1	1,2-Dichlorobenzene	U	363	ug/kg	72.5	363
108-60-1	bis(2-Chloroisopropyl) ether	U	363	ug/kg	72.5	363
95-48-7	o-Cresol	U	363	ug/kg	72.5	363
65794-96-9	m,p-Cresols	U	363	ug/kg	109	363
67-72-1	Hexachloroethane	U	363	ug/kg	72.5	363
98-95-3	Nitrobenzene	U	363	ug/kg	72.5	363
78-59-1	Isophorone	U	363	ug/kg	72.5	363
88-75-5	2-Nitrophenol	U	363	ug/kg	72.5	363
105-67-9	2,4-Dimethylphenol	U	363	ug/kg	127	363
111-91-1	bis(2-Chloroethoxy)methane	U	363	ug/kg	72.5	363
120-83-2	2,4-Dichlorophenol	U	363	ug/kg	72.5	363
65-85-0	Benzoic acid	U	725	ug/kg	181	725
91-20-3	Naphthalene	U	36.3	ug/kg	10.9	36.3
106-47-8	4-Chloroaniline	U	363	ug/kg	72.5	363
87-68-3	Hexachlorobutadiene	U	363	ug/kg	72.5	363
91-57-6	2-Methylnaphthalene	U	36.3	ug/kg	7.25	36.3
77-47-4	Hexachlorocyclopentadiene	U	363	ug/kg	72.5	363
88-06-2	2,4,6-Trichlorophenol	U	363	ug/kg	72.5	363
95-95-4	2,4,5-Trichlorophenol	U	363	ug/kg	72.5	363
91-58-7	2-Chloronaphthalene	U	36.3	ug/kg	12.0	36.3
88-74-4	2-Nitroaniline	U	363	ug/kg	72.5	363
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	363	ug/kg	72.5	363

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506014	Date Received: 03/03/2010 08:50	%Moisture: 8.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7440	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 17:39	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.01 g	Final Volume: 1 mL
Data File: s5c2225.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	363	ug/kg	72.5	363
606-20-2	2,6-Dinitrotoluene	U	363	ug/kg	36.3	363
208-96-8	Acenaphthylene	U	36.3	ug/kg	10.9	36.3
51-28-5	2,4-Dinitrophenol	U	725	ug/kg	138	725
132-64-9	Dibenzofuran	U	363	ug/kg	72.5	363
84-66-2	Diethylphthalate	U	363	ug/kg	72.5	363
86-73-7	Fluorene	U	36.3	ug/kg	10.9	36.3
7005-72-3	4-Chlorophenylphenylether	U	363	ug/kg	72.5	363
534-52-1	2-Methyl-4,6-dinitrophenol	U	363	ug/kg	72.5	363
100-01-6	4-Nitroaniline	U	363	ug/kg	109	363
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	363	ug/kg	72.5	363
122-66-7	Azobenzene	U	363	ug/kg	72.5	363
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	363	ug/kg	72.5	363
118-74-1	Hexachlorobenzene	U	363	ug/kg	72.5	363
85-01-8	Phenanthrene	J	15.4	ug/kg	10.9	36.3
120-12-7	Anthracene	U	36.3	ug/kg	7.25	36.3
84-74-2	Di-n-butylphthalate	U	363	ug/kg	72.5	363
206-44-0	Fluoranthene	J	27.0	ug/kg	10.9	36.3
85-68-7	Butylbenzylphthalate	U	363	ug/kg	72.5	363
56-55-3	Benzo(a)anthracene	U	36.3	ug/kg	10.9	36.3
91-94-1	3,3'-Dichlorobenzidine	U	363	ug/kg	109	363
218-01-9	Chrysene	U	36.3	ug/kg	10.9	36.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	363	ug/kg	72.5	363
117-84-0	Di-n-octylphthalate	U	363	ug/kg	72.5	363
205-99-2	Benzo(b)fluoranthene	U	36.3	ug/kg	10.9	36.3
207-08-9	Benzo(k)fluoranthene	U	36.3	ug/kg	10.9	36.3
50-32-8	Benzo(a)pyrene	U	36.3	ug/kg	10.9	36.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.3	ug/kg	10.9	36.3
53-70-3	Dibenzo(a,h)anthracene	U	36.3	ug/kg	10.9	36.3
191-24-2	Benzo(ghi)perylene	U	36.3	ug/kg	10.9	36.3
120-82-1	1,2,4-Trichlorobenzene	U	363	ug/kg	72.5	363

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.07	556	ug/kg		J
7785-70-8	1R-.alpha.-Pinene	3.52	1020	ug/kg	97	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506014	Date Received: 03/03/2010 08:50	%Moisture: 8.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7440	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 17:39	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.01 g	Final Volume: 1 mL
Data File: s5c2225.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						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
13466-78-9	3-Carene	3.91	877	ug/kg	94	NJ
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.8	1790	ug/kg	99	NJ
1058-61-3	Stigmast-4-en-3-one	8.47	526	ug/kg	93	NJ
	Unknown	8.48	191	ug/kg		J
	Unknown	8.84	152	ug/kg		J
	Unknown	9.02	152	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.1	454	ug/kg	95	NJ
	Unknown	9.14	304	ug/kg		J
	Unknown	9.28	165	ug/kg		J
1599-67-3	1-Docosene	9.45	316	ug/kg	99	NJ
	Unknown	9.51	241	ug/kg		J
62600-05-9	Cedran-diol, 8S,14-	9.75	249	ug/kg	93	NJ
	Unknown	9.96	661	ug/kg		J
	Unknown	10.08	260	ug/kg		J
629-96-9	1-Eicosanol	10.11	329	ug/kg	93	NJ
559-74-0	Friedelan-3-one	10.24	3930	ug/kg	96	NJ
112-95-8	Eicosane	10.85	260	ug/kg	95	NJ
	Unknown	11.64	168	ug/kg		J
	Unknown	11.81	162	ug/kg		J
62016-76-6	Nonadecane, 1-chloro-	11.85	211	ug/kg	95	NJ
	Unknown	11.92	352	ug/kg		J
	Unknown	12.1	200	ug/kg		J
	Unknown	12.15	373	ug/kg		J
	Unknown	12.49	902	ug/kg		J
	Unknown	12.92	241	ug/kg		J
	Unknown	12.99	457	ug/kg		J
	Unknown	13.34	245	ug/kg		J
83-46-5	.beta.-Sitosterol	13.88	638	ug/kg	97	NJ

Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2193  
Lab Sample ID: 248506016

Client ID: RE36-10-7441  
Batch ID: 963086  
Run Date: 03/22/2010 18:25  
Prep Date: 03/10/2010 12:33  
Data File: sSc2227.d

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	429	ug/kg	85.8	429
108-95-2	Phenol	U	429	ug/kg	85.8	429
95-57-8	2-Chlorophenol	U	429	ug/kg	85.8	429
106-46-7	1,4-Dichlorobenzene	U	429	ug/kg	85.8	429
621-64-7	N-Nitrosodipropylamine	U	429	ug/kg	85.8	429
59-50-7	4-Chloro-3-methylphenol	U	429	ug/kg	85.8	429
83-32-9	Acenaphthene	U	42.9	ug/kg	14.2	42.9
121-14-2	2,4-Dinitrotoluene	U	429	ug/kg	42.9	429
100-02-7	4-Nitrophenol	U	429	ug/kg	142	429
87-86-5	Pentachlorophenol	U	429	ug/kg	107	429
129-00-0	Pyrene		58.5	ug/kg	12.9	42.9
110-86-1	Pyridine	U	429	ug/kg	85.8	429
62-53-3	Aniline	U	429	ug/kg	129	429
111-44-4	bis(2-Chloroethyl) ether	U	429	ug/kg	85.8	429
541-73-1	1,3-Dichlorobenzene	U	429	ug/kg	85.8	429
100-51-6	Benzyl alcohol	U	429	ug/kg	129	429
95-50-1	1,2-Dichlorobenzene	U	429	ug/kg	85.8	429
108-60-1	bis(2-Chloroisopropyl)ether	U	429	ug/kg	85.8	429
95-48-7	o-Cresol	U	429	ug/kg	85.8	429
65794-96-9	m,p-Cresols	U	429	ug/kg	129	429
67-72-1	Hexachloroethane	U	429	ug/kg	85.8	429
98-95-3	Nitrobenzene	U	429	ug/kg	85.8	429
78-59-1	Isophorone	U	429	ug/kg	85.8	429
88-75-5	2-Nitrophenol	U	429	ug/kg	85.8	429
105-67-9	2,4-Dimethylphenol	U	429	ug/kg	150	429
111-91-1	bis(2-Chloroethoxy)methane	U	429	ug/kg	85.8	429
120-83-2	2,4-Dichlorophenol	U	429	ug/kg	85.8	429
65-85-0	Benzoic acid	U	858	ug/kg	215	858
91-20-3	Naphthalene	U	42.9	ug/kg	12.9	42.9
106-47-8	4-Chloroaniline	U	429	ug/kg	85.8	429
87-68-3	Hexachlorobutadiene	U	429	ug/kg	85.8	429
91-57-6	2-Methylnaphthalene	U	42.9	ug/kg	8.58	42.9
77-47-4	Hexachlorocyclopentadiene	U	429	ug/kg	85.8	429
88-06-2	2,4,6-Trichlorophenol	U	429	ug/kg	85.8	429
95-95-4	2,4,5-Trichlorophenol	U	429	ug/kg	85.8	429
91-58-7	2-Chloronaphthalene	U	42.9	ug/kg	14.2	42.9
88-74-4	2-Nitroaniline	U	429	ug/kg	85.8	429
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	429	ug/kg	85.8	429



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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506016	Date Received: 03/03/2010 08:50	%Moisture: 22.4
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7441	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.J	Dilution: 1
Run Date: 03/22/2010 18:25	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s5c2227.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	U	429	ug/kg	85.8	429
606-20-2	2,6-Dinitrotoluene	U	429	ug/kg	42.9	429
208-96-8	Acenaphthylene	U	42.9	ug/kg	12.9	42.9
51-28-5	2,4-Dinitrophenol	U	858	ug/kg	163	858
132-64-9	Dibenzofuran	U	429	ug/kg	85.8	429
84-66-2	Diethylphthalate	U	429	ug/kg	85.8	429
86-73-7	Fluorene	U	42.9	ug/kg	12.9	42.9
7005-72-3	4-Chlorophenylphenylether	U	429	ug/kg	85.8	429
534-52-1	2-Methyl-4,6-dinitrophenol	U	429	ug/kg	85.8	429
100-01-6	4-Nitroaniline	U	429	ug/kg	129	429
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	429	ug/kg	85.8	429
122-66-7	Azobenzene	U	429	ug/kg	85.8	429
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	429	ug/kg	85.8	429
118-74-1	Hexachlorobenzene	U	429	ug/kg	85.8	429
85-01-8	Phenanthrene		45.8	ug/kg	12.9	42.9
120-12-7	Anthracene	U	42.9	ug/kg	8.58	42.9
84-74-2	Di-n-butylphthalate	U	429	ug/kg	85.8	429
206-44-0	Fluoranthene		67.3	ug/kg	12.9	42.9
85-68-7	Butylbenzylphthalate	U	429	ug/kg	85.8	429
56-55-3	Benzo(a)anthracene	U	42.9	ug/kg	12.9	42.9
91-94-1	3,3'-Dichlorobenzidine	U	429	ug/kg	129	429
218-01-9	Chrysene	J	32.4	ug/kg	12.9	42.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	429	ug/kg	85.8	429
117-84-0	Di-n-octylphthalate	U	429	ug/kg	85.8	429
205-99-2	Benzo(b)fluoranthene	U	42.9	ug/kg	12.9	42.9
207-08-9	Benzo(k)fluoranthene	U	42.9	ug/kg	12.9	42.9
50-32-8	Benzo(a)pyrene	U	42.9	ug/kg	12.9	42.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.9	ug/kg	12.9	42.9
53-70-3	Dibenzo(a,h)anthracene	U	42.9	ug/kg	12.9	42.9
191-24-2	Benzo(ghi)perylene	U	42.9	ug/kg	12.9	42.9
120-82-1	1,2,4-Trichlorobenzene	U	429	ug/kg	85.8	429

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
103-82-2	Benzeneacetic acid	4.95	494	ug/kg	91	J
52380-33-3	11-Octadecenoic acid, methyl ester	8.14	282	ug/kg	95	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506016	Date Received: 03/03/2010 08:50	%Moisture: 22.4
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7441	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 18:25	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s5c2227.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
2885-00-9	1-Octadecanethiol	8.79	337	ug/kg	96	NJ
3779-61-1	1,3,6-Octatriene, 3,7-dimethyl-, (E)-	9.14	447	ug/kg	49	NJ
114614-84-5	1-Cyclohexylnonene	9.25	335	ug/kg	78	NJ
3452-07-1	1-Eicosene	9.45	793	ug/kg	93	NJ
	Unknown	9.75	337	ug/kg		J
	Unknown	9.89	291	ug/kg		J
112-95-8	Eicosane	10.08	479	ug/kg	95	NJ
629-96-9	1-Eicosanol	10.11	888	ug/kg	93	NJ
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.15	1220	ug/kg	92	NJ
	Unknown	10.24	528	ug/kg		J
62016-76-6	Nonadecane, 1-chloro-	10.45	362	ug/kg	94	NJ
111-02-4	2,6,10,14,18,22-Tetracosahexaene, 2,6,10	10.55	656	ug/kg	95	NJ
	Unknown	10.63	469	ug/kg		J
	Unknown	10.91	478	ug/kg		J
	Unknown	11.45	452	ug/kg		J
	Unknown	11.81	542	ug/kg		J
	Unknown	11.93	1880	ug/kg		J
	Unknown	12.11	870	ug/kg		J
	Unknown	12.14	562	ug/kg		J
53939-28-9	cis-11-Hexadecenal	12.69	810	ug/kg	83	NJ
	Unknown	12.9	889	ug/kg		J
	Unknown	13	559	ug/kg		J
83-46-5	.beta.-Sitosterol	13.89	1400	ug/kg	96	NJ
	Unknown	14.48	616	ug/kg		J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506017	Date Received: 03/03/2010 08:50	%Moisture: 13.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7442	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.1	Dilution: 1
Run Date: 03/22/2010 18:48	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30 g	Final Volume: 1 mL
Data File: s5c2228.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	384	ug/kg	76.9	384
108-95-2	Phenol	U	384	ug/kg	76.9	384
95-57-8	2-Chlorophenol	U	384	ug/kg	76.9	384
106-46-7	1,4-Dichlorobenzene	U	384	ug/kg	76.9	384
621-64-7	N-Nitrosodipropylamine	U	384	ug/kg	76.9	384
59-50-7	4-Chloro-3-methylphenol	U	384	ug/kg	76.9	384
83-32-9	Acenaphthene	U	38.4	ug/kg	12.7	38.4
121-14-2	2,4-Dinitrotoluene	U	384	ug/kg	38.4	384
100-02-7	4-Nitrophenol	U	384	ug/kg	127	384
87-86-5	Pentachlorophenol	U	384	ug/kg	96.1	384
129-00-0	Pyrene	U	38.4	ug/kg	11.5	38.4
110-86-1	Pyridine	U	384	ug/kg	76.9	384
62-53-3	Aniline	U	384	ug/kg	115	384
111-44-4	bis(2-Chloroethyl) ether	U	384	ug/kg	76.9	384
541-73-1	1,3-Dichlorobenzene	U	384	ug/kg	76.9	384
100-51-6	Benzyl alcohol	U	384	ug/kg	115	384
95-50-1	1,2-Dichlorobenzene	U	384	ug/kg	76.9	384
108-60-1	bis(2-Chloroisopropyl)ether	U	384	ug/kg	76.9	384
95-48-7	o-Cresol	U	384	ug/kg	76.9	384
65794-96-9	m,p-Cresols	U	384	ug/kg	115	384
67-72-1	Hexachloroethane	U	384	ug/kg	76.9	384
98-95-3	Nitrobenzene	U	384	ug/kg	76.9	384
78-59-1	Isophorone	U	384	ug/kg	76.9	384
88-75-5	2-Nitrophenol	U	384	ug/kg	76.9	384
105-67-9	2,4-Dimethylphenol	U	384	ug/kg	135	384
111-91-1	bis(2-Chloroethoxy)methane	U	384	ug/kg	76.9	384
120-83-2	2,4-Dichlorophenol	U	384	ug/kg	76.9	384
65-85-0	Benzoic acid	U	769	ug/kg	192	769
91-20-3	Naphthalene	U	38.4	ug/kg	11.5	38.4
106-47-8	4-Chloroaniline	U	384	ug/kg	76.9	384
87-68-3	Hexachlorobutadiene	U	384	ug/kg	76.9	384
91-57-6	2-Methylnaphthalene	U	38.4	ug/kg	7.69	38.4
77-47-4	Hexachlorocyclopentadiene	U	384	ug/kg	76.9	384
88-06-2	2,4,6-Trichlorophenol	U	384	ug/kg	76.9	384
95-95-4	2,4,5-Trichlorophenol	U	384	ug/kg	76.9	384
91-58-7	2-Chloronaphthalene	U	38.4	ug/kg	12.7	38.4
88-74-4	2-Nitroaniline	U	384	ug/kg	76.9	384
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	384	ug/kg	76.9	384

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

SDG Number: 10-2193  
Lab Sample ID: 248506017

Client ID: RE36-10-7442  
Batch ID: 963086  
Run Date: 03/22/2010 18:48  
Prep Date: 03/10/2010 12:33  
Data File: s5c2228.d

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 13.3  
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	384	ug/kg	76.9	384
606-20-2	2,6-Dinitrotoluene	U	384	ug/kg	38.4	384
208-96-8	Acenaphthylene	U	38.4	ug/kg	11.5	38.4
51-28-5	2,4-Dinitrophenol	U	769	ug/kg	146	769
132-64-9	Dibenzofuran	U	384	ug/kg	76.9	384
84-66-2	Diethylphthalate	U	384	ug/kg	76.9	384
86-73-7	Fluorene	U	38.4	ug/kg	11.5	38.4
7005-72-3	4-Chlorophenylphenylether	U	384	ug/kg	76.9	384
534-52-1	2-Methyl-4,6-dinitrophenol	U	384	ug/kg	76.9	384
100-01-6	4-Nitroaniline	U	384	ug/kg	115	384
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	384	ug/kg	76.9	384
122-66-7	Azobenzene	U	384	ug/kg	76.9	384
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	384	ug/kg	76.9	384
118-74-1	Hexachlorobenzene	U	384	ug/kg	76.9	384
85-01-8	Phenanthrene	U	38.4	ug/kg	11.5	38.4
120-12-7	Anthracene	U	38.4	ug/kg	7.69	38.4
84-74-2	Di-n-butylphthalate	U	384	ug/kg	76.9	384
206-44-0	Fluoranthene	U	38.4	ug/kg	11.5	38.4
85-68-7	Butylbenzylphthalate	U	384	ug/kg	76.9	384
56-55-3	Benzo(a)anthracene	U	38.4	ug/kg	11.5	38.4
91-94-1	3,3'-Dichlorobenzidine	U	384	ug/kg	115	384
218-01-9	Chrysene	U	38.4	ug/kg	11.5	38.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	384	ug/kg	76.9	384
117-84-0	Di-n-octylphthalate	U	384	ug/kg	76.9	384
205-99-2	Benzo(b)fluoranthene	U	38.4	ug/kg	11.5	38.4
207-08-9	Benzo(k)fluoranthene	U	38.4	ug/kg	11.5	38.4
50-32-8	Benzo(a)pyrene	U	38.4	ug/kg	11.5	38.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	38.4	ug/kg	11.5	38.4
53-70-3	Dibenzo(a,h)anthracene	U	38.4	ug/kg	11.5	38.4
191-24-2	Benzo(ghi)perylene	U	38.4	ug/kg	11.5	38.4
120-82-1	1,2,4-Trichlorobenzene	U	384	ug/kg	76.9	384

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.08	2040	ug/kg		J
56554-46-2	12-Octadecenoic acid, methyl ester	8.14	382	ug/kg	95	NJ

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

SDG Number: 10-2193  
Lab Sample ID: 248506017

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 13.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7442  
Batch ID: 963086  
Run Date: 03/22/2010 18:48  
Prep Date: 03/10/2010 12:33  
Data File: s5c2228.d

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	8.46	412	ug/kg		J
77899-03-7	1-Heneicosyl formate	8.79	308	ug/kg	95	NJ
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.1	326	ug/kg	94	NJ
	Unknown	9.14	342	ug/kg		J
296-56-0	Cyclocicosane	9.45	842	ug/kg	94	NJ
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	9.79	225	ug/kg	93	NJ
	Unknown	9.89	196	ug/kg		J
	Unknown	9.96	351	ug/kg		J
	Unknown	10.09	359	ug/kg		J
1599-67-3	1-Docosene	10.11	788	ug/kg	95	NJ
	Unknown	10.45	423	ug/kg		J
	Unknown	10.55	346	ug/kg		J
112-95-8	Eicosane	10.85	447	ug/kg	95	NJ
	Unknown	10.91	325	ug/kg		J
	Unknown	11.51	241	ug/kg		J
13360-61-7	1-Pentadecene	11.93	362	ug/kg	89	NJ
	Unknown	12.1	284	ug/kg		J
	Unknown	12.16	422	ug/kg		J
	Unknown	12.44	247	ug/kg		J
	Unknown	12.48	301	ug/kg		J
	Unknown	12.91	483	ug/kg		J
	Unknown	13	298	ug/kg		J
83-47-6	.gamma.-Sitosterol	13.89	976	ug/kg	95	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506011	Date Received: 03/03/2010 08:50	%Moisture: 25.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7443	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 16:30	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s5c2222.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	444	ug/kg	88.9	444
108-95-2	Phenol	U	444	ug/kg	88.9	444
95-57-8	2-Chlorophenol	U	444	ug/kg	88.9	444
106-46-7	1,4-Dichlorobenzene	U	444	ug/kg	88.9	444
621-64-7	N-Nitrosodipropylamine	U	444	ug/kg	88.9	444
59-50-7	4-Chloro-3-methylphenol	U	444	ug/kg	88.9	444
83-32-9	Acenaphthene	U	44.4	ug/kg	14.7	44.4
121-14-2	2,4-Dinitrotoluene	U	444	ug/kg	44.4	444
100-02-7	4-Nitrophenol	U	444	ug/kg	147	444
87-86-5	Pentachlorophenol	U	444	ug/kg	111	444
129-00-0	Pyrene	U	44.4	ug/kg	13.3	44.4
110-86-1	Pyridine	U	444	ug/kg	88.9	444
62-53-3	Aniline	U	444	ug/kg	133	444
111-44-4	bis(2-Chloroethyl) ether	U	444	ug/kg	88.9	444
541-73-1	1,3-Dichlorobenzene	U	444	ug/kg	88.9	444
100-51-6	Benzyl alcohol	U	444	ug/kg	133	444
95-50-1	1,2-Dichlorobenzene	U	444	ug/kg	88.9	444
108-60-1	bis(2-Chloroisopropyl)ether	U	444	ug/kg	88.9	444
95-48-7	o-Cresol	U	444	ug/kg	88.9	444
65794-96-9	m,p-Cresols	U	444	ug/kg	133	444
67-72-1	Hexachloroethane	U	444	ug/kg	88.9	444
98-95-3	Nitrobenzene	U	444	ug/kg	88.9	444
78-59-1	Isophorone	U	444	ug/kg	88.9	444
88-75-5	2-Nitrophenol	U	444	ug/kg	88.9	444
105-67-9	2,4-Dimethylphenol	U	444	ug/kg	156	444
111-91-1	bis(2-Chloroethoxy)methane	U	444	ug/kg	88.9	444
120-83-2	2,4-Dichlorophenol	U	444	ug/kg	88.9	444
65-85-0	Benzoic acid	U	889	ug/kg	222	889
91-20-3	Naphthalene	U	44.4	ug/kg	13.3	44.4
106-47-8	4-Chloroaniline	U	444	ug/kg	88.9	444
87-68-3	Hexachlorobutadiene	U	444	ug/kg	88.9	444
91-57-6	2-Methylnaphthalene	U	44.4	ug/kg	8.89	44.4
77-47-4	Hexachlorocyclopentadiene	U	444	ug/kg	88.9	444
88-06-2	2,4,6-Trichlorophenol	U	444	ug/kg	88.9	444
95-95-4	2,4,5-Trichlorophenol	U	444	ug/kg	88.9	444
91-58-7	2-Chloronaphthalene	U	44.4	ug/kg	14.7	44.4
88-74-4	2-Nitroaniline	U	444	ug/kg	88.9	444
99-09-2	<i>o</i> -Nitroaniline	U	444	ug/kg	88.9	444
	3-Nitroaniline					

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506011	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 25.1
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7443	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 16:30	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.05 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2222.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQI/A.OQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	444	ug/kg	88.9	444
606-20-2	2,6-Dinitrotoluene	U	444	ug/kg	44.4	444
208-96-8	Acenaphthylene	U	44.4	ug/kg	13.3	44.4
51-28-5	2,4-Dinitrophenol	U	889	ug/kg	169	889
132-64-9	Dibenzofuran	U	444	ug/kg	88.9	444
84-66-2	Diethylphthalate	U	444	ug/kg	88.9	444
86-73-7	Fluorene	U	44.4	ug/kg	13.3	44.4
7005-72-3	4-Chlorophenylphenylether	U	444	ug/kg	88.9	444
534-52-1	2-Methyl-4,6-dinitrophenol	U	444	ug/kg	88.9	444
100-01-6	4-Nitroaniline	U	444	ug/kg	133	444
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	444	ug/kg	88.9	444
122-66-7	Azobenzene	U	444	ug/kg	88.9	444
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	444	ug/kg	88.9	444
118-74-1	Hexachlorobenzene	U	444	ug/kg	88.9	444
85-01-8	Phenanthrene	U	44.4	ug/kg	13.3	44.4
120-12-7	Anthracene	U	44.4	ug/kg	8.89	44.4
84-74-2	Di-n-butylphthalate	U	444	ug/kg	88.9	444
206-44-0	Fluoranthene	U	44.4	ug/kg	13.3	44.4
85-68-7	Butylbenzylphthalate	U	444	ug/kg	88.9	444
56-55-3	Benzo(a)anthracene	U	44.4	ug/kg	13.3	44.4
91-94-1	3,3'-Dichlorobenzidine	U	444	ug/kg	133	444
218-01-9	Chrysene	U	44.4	ug/kg	13.3	44.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	444	ug/kg	88.9	444
117-84-0	Di-n-octylphthalate	U	444	ug/kg	88.9	444
205-99-2	Benzo(b)fluoranthene	U	44.4	ug/kg	13.3	44.4
207-08-9	Benzo(k)fluoranthene	U	44.4	ug/kg	13.3	44.4
50-32-8	Benzo(a)pyrene	U	44.4	ug/kg	13.3	44.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	44.4	ug/kg	13.3	44.4
53-70-3	Dibenzo(a,h)anthracene	U	44.4	ug/kg	13.3	44.4
191-24-2	Benzo(ghi)perylene	U	44.4	ug/kg	13.3	44.4
120-82-1	1,2,4-Trichlorobenzene	U	444	ug/kg	88.9	444

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
1000131-11-8	Z-5-Nonadecene	9.44	182	ug/kg	95	NJ
112-95-8	Eicosane	10.08	224	ug/kg	98	NJ

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

SDG Number: 10-2193  
Lab Sample ID: 248506011

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 25.1  
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
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Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
1599-67-3	1-Docosene	10.11	449	ug/kg	94	NJ
630-03-5	Nonacosane	10.85	447	ug/kg	98	NJ
629-97-0	Docosane	11.85	703	ug/kg	95	NJ
2883-08-1	Cyclohexane, 1,1'-(2-methyl-1,3-propanediol)	11.92	516	ug/kg	91	NJ
	Unknown	12.09	348	ug/kg		J
	Unknown	12.48	258	ug/kg		J
13183-70-5	Silane, 1,4-phenylenebis(trimethyl-	12.68	273	ug/kg	87	NJ
	Unknown	13.21	415	ug/kg		J
83-46-5	.beta.-Sitosterol	13.87	685	ug/kg	96	NJ



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

SDG Number: 10-2193

Lab Sample ID: 248506008

Client ID: RE36-10-7444

Batch ID: 963086

Run Date: 03/22/2010 15:21

Prep Date: 03/10/2010 12:33

Data File: s5c2219.d

Date Collected: 02/25/2010 12:00

Date Received: 03/03/2010 08:50

Client: LANL010

Method: SW846 8270C

Inst: MSD5.I

Analyst: RMB

Aliquot: 30.05 g

Column: J&amp;W DB-5MS

Matrix: R

%Moisture: 20.6

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	419	ug/kg	83.8	419
108-95-2	Phenol	U	419	ug/kg	83.8	419
95-57-8	2-Chlorophenol	U	419	ug/kg	83.8	419
106-46-7	1,4-Dichlorobenzene	U	419	ug/kg	83.8	419
621-64-7	N-Nitrosodipropylamine	U	419	ug/kg	83.8	419
59-50-7	4-Chloro-3-methylphenol	U	419	ug/kg	83.8	419
83-32-9	Acenaphthene	U	41.9	ug/kg	13.8	41.9
121-14-2	2,4-Dinitrotoluene	U	419	ug/kg	41.9	419
100-02-7	4-Nitrophenol	U	419	ug/kg	138	419
87-86-5	Pentachlorophenol	U	419	ug/kg	105	419
129-00-0	Pyrene	U	41.9	ug/kg	12.6	41.9
110-86-1	Pyridine	U	419	ug/kg	83.8	419
62-53-3	Aniline	U	419	ug/kg	126	419
111-44-4	bis(2-Chloroethyl) ether	U	419	ug/kg	83.8	419
541-73-1	1,3-Dichlorobenzene	U	419	ug/kg	83.8	419
100-51-6	Benzyl alcohol	U	419	ug/kg	126	419
95-50-1	1,2-Dichlorobenzene	U	419	ug/kg	83.8	419
108-60-1	bis(2-Chloroisopropyl)ether	U	419	ug/kg	83.8	419
95-48-7	o-Cresol	U	419	ug/kg	83.8	419
65794-96-9	m,p-Cresols	U	419	ug/kg	126	419
67-72-1	Hexachloroethane	U	419	ug/kg	83.8	419
98-95-3	Nitrobenzene	U	419	ug/kg	83.8	419
78-59-1	Isophorone	U	419	ug/kg	83.8	419
88-75-5	2-Nitrophenol	U	419	ug/kg	83.8	419
105-67-9	2,4-Dimethylphenol	U	419	ug/kg	147	419
111-91-1	bis(2-Chloroethoxy)methane	U	419	ug/kg	83.8	419
120-83-2	2,4-Dichlorophenol	U	419	ug/kg	83.8	419
65-85-0	Benzoic acid	U	838	ug/kg	209	838
91-20-3	Naphthalene	U	41.9	ug/kg	12.6	41.9
106-47-8	4-Chloroaniline	U	419	ug/kg	83.8	419
87-68-3	Hexachlorobutadiene	U	419	ug/kg	83.8	419
91-57-6	2-Methylnaphthalene	U	41.9	ug/kg	8.38	41.9
77-47-4	Hexachlorocyclopentadiene	U	419	ug/kg	83.8	419
88-06-2	2,4,6-Trichlorophenol	U	419	ug/kg	83.8	419
95-95-4	2,4,5-Trichlorophenol	U	419	ug/kg	83.8	419
91-58-7	2-Chloronaphthalene	U	41.9	ug/kg	13.8	41.9
88-74-4	2-Nitroaniline	U	419	ug/kg	83.8	419
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	419	ug/kg	83.8	419

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

SDG Number: 10-2193  
Lab Sample ID: 248506008

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.J  
Analyst: RMB  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.6  
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	419	ug/kg	83.8	419
606-20-2	2,6-Dinitrotoluene	U	419	ug/kg	41.9	419
208-96-8	Accenaphthylene	U	41.9	ug/kg	12.6	41.9
51-28-5	2,4-Dinitrophenol	U	838	ug/kg	159	838
132-64-9	Dibenzofuran	U	419	ug/kg	83.8	419
84-66-2	Diethylphthalate	U	419	ug/kg	83.8	419
86-73-7	Fluorene	U	41.9	ug/kg	12.6	41.9
7005-72-3	4-Chlorophenylphenylether	U	419	ug/kg	83.8	419
534-52-1	2-Methyl-4,6-dinitrophenol	U	419	ug/kg	83.8	419
100-01-6	4-Nitroaniline	U	419	ug/kg	126	419
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	419	ug/kg	83.8	419
122-66-7	Azobenzene	U	419	ug/kg	83.8	419
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	419	ug/kg	83.8	419
118-74-1	Hexachlorobenzene	U	419	ug/kg	83.8	419
85-01-8	Phenanthrene	U	41.9	ug/kg	12.6	41.9
120-12-7	Anthracene	U	41.9	ug/kg	8.38	41.9
84-74-2	Di-n-butylphthalate	U	419	ug/kg	83.8	419
206-44-0	Fluoranthene	U	41.9	ug/kg	12.6	41.9
85-68-7	Butylbenzylphthalate	U	419	ug/kg	83.8	419
56-55-3	Benzo(a)anthracene	U	41.9	ug/kg	12.6	41.9
91-94-1	3,3'-Dichlorobenzidine	U	419	ug/kg	126	419
218-01-9	Chrysene	U	41.9	ug/kg	12.6	41.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	419	ug/kg	83.8	419
117-84-0	Di-n-octylphthalate	U	419	ug/kg	83.8	419
205-99-2	Benzo(b)fluoranthene	U	41.9	ug/kg	12.6	41.9
207-08-9	Benzo(k)fluoranthene	U	41.9	ug/kg	12.6	41.9
50-32-8	Benzo(a)pyrene	U	41.9	ug/kg	12.6	41.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.9	ug/kg	12.6	41.9
53-70-3	Dibenzo(a,h)anthracene	U	41.9	ug/kg	12.6	41.9
191-24-2	Benzo(ghi)perylene	U	41.9	ug/kg	12.6	41.9
120-82-1	1,2,4-Trichlorobenzene	U	419	ug/kg	83.8	419

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.98	210	ug/kg		JA
7785-70-8	1R- $\alpha$ -Pinene	3.52	202	ug/kg	97	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506008	Date Received: 03/03/2010 08:50	%Moisture: 20.6
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7444	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 15:21	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s5c2219.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
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.8	327	ug/kg	98	NJ
1058-61-3	Stigmast-4-en-3-one	8.42	350	ug/kg	97	NJ
58-22-0	Androst-4-en-3-one, 17-hydroxy-, (17.bet	8.45	223	ug/kg	92	NJ
	Unknown	9.14	181	ug/kg		J
6971-40-0	17-Pentatriacontene	9.44	209	ug/kg	93	NJ
34315-85-0	Naphthalene, decahydro-1,6-dimethyl-4-(1	9.91	464	ug/kg	83	NJ
	Unknown	9.93	239	ug/kg		J
5085-72-3	D:A-Friedoolcanan-3-ol, (3.alpha.)-	9.95	539	ug/kg	87	NJ
629-96-9	1-Eicosanol	10.1	494	ug/kg	90	NJ
559-74-0	Friedelan-3-one	10.17	1850	ug/kg	99	NJ
	Unknown	10.85	274	ug/kg		J
56221-91-1	13-Tetradecen-1-ol acetate	10.89	176	ug/kg	96	NJ
112-95-8	Eicosane	11.85	224	ug/kg	96	NJ
2883-08-1	Cyclohexane, 1,1'-(2-methyl-1,3-propaned	11.92	326	ug/kg	86	NJ
	Unknown	12.1	758	ug/kg		J
	Unknown	12.87	287	ug/kg		J
	Unknown	12.99	260	ug/kg		J
	Unknown	13.17	181	ug/kg		J
	Unknown	13.35	256	ug/kg		J
83-46-5	.beta.-Sitosterol	13.87	784	ug/kg	96	NJ

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

SDG Number: 10-2193  
Lab Sample ID: 248506006

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.1  
Analyst: RMB  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 25.6  
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	448	ug/kg	89.6	448
108-95-2	Phenol	U	448	ug/kg	89.6	448
95-57-8	2-Chlorophenol	U	448	ug/kg	89.6	448
106-46-7	1,4-Dichlorobenzene	U	448	ug/kg	89.6	448
621-64-7	N-Nitrosodipropylamine	U	448	ug/kg	89.6	448
59-50-7	4-Chloro-3-methylphenol	U	448	ug/kg	89.6	448
83-32-9	Acenaphthene	U	44.8	ug/kg	14.8	44.8
121-14-2	2,4-Dinitrotoluene	U	448	ug/kg	44.8	448
100-02-7	4-Nitrophenol	U	448	ug/kg	148	448
87-86-5	Pentachlorophenol	U	448	ug/kg	112	448
129-00-0	Pyrene	J	43.8	ug/kg	13.4	44.8
110-86-1	Pyridine	U	448	ug/kg	89.6	448
62-53-3	Aniline	U	448	ug/kg	134	448
111-44-4	bis(2-Chloroethyl) ether	U	448	ug/kg	89.6	448
541-73-1	1,3-Dichlorobenzene	U	448	ug/kg	89.6	448
100-51-6	Benzyl alcohol	U	448	ug/kg	134	448
95-50-1	1,2-Dichlorobenzene	U	448	ug/kg	89.6	448
108-60-1	bis(2-Chloroisopropyl)ether	U	448	ug/kg	89.6	448
95-48-7	o-Cresol	U	448	ug/kg	89.6	448
65794-96-9	m,p-Cresols	U	448	ug/kg	134	448
67-72-1	Hexachloroethane	U	448	ug/kg	89.6	448
98-95-3	Nitrobenzene	U	448	ug/kg	89.6	448
78-59-1	Isophorone	U	448	ug/kg	89.6	448
88-75-5	2-Nitrophenol	U	448	ug/kg	89.6	448
105-67-9	2,4-Dimethylphenol	U	448	ug/kg	157	448
111-91-1	bis(2-Chloroethoxy)methane	U	448	ug/kg	89.6	448
120-83-2	2,4-Dichlorophenol	U	448	ug/kg	89.6	448
65-85-0	Benzoic acid	J	602	ug/kg	224	896
91-20-3	Naphthalene	U	44.8	ug/kg	13.4	44.8
106-47-8	4-Chloroaniline	U	448	ug/kg	89.6	448
87-68-3	Hexachlorobutadiene	U	448	ug/kg	89.6	448
91-57-6	2-Methylnaphthalene	U	44.8	ug/kg	8.96	44.8
77-47-4	Hexachlorocyclopentadiene	U	448	ug/kg	89.6	448
88-06-2	2,4,6-Trichlorophenol	U	448	ug/kg	89.6	448
95-95-4	2,4,5-Trichlorophenol	U	448	ug/kg	89.6	448
91-58-7	2-Chloronaphthalene	U	44.8	ug/kg	14.8	44.8
88-74-4	2-Nitroaniline	U	448	ug/kg	89.6	448
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	448	ug/kg	89.6	448

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506006	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 25.6
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7445	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 14:35	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.01 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2217.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline	U	448	ug/kg	89.6	448
606-20-2	Dimethylphthalate	U	448	ug/kg	44.8	448
208-96-8	2,6-Dinitrotoluene	U	44.8	ug/kg	13.4	44.8
51-28-5	Acenaphthylene	U	896	ug/kg	170	896
132-64-9	2,4-Dinitrophenol	U	448	ug/kg	89.6	448
84-66-2	Dibenzofuran	U	448	ug/kg	89.6	448
86-73-7	Diethylphthalate	U	44.8	ug/kg	13.4	44.8
7005-72-3	Fluorene	U	448	ug/kg	89.6	448
534-52-1	4-Chlorophenylphenylether	U	448	ug/kg	89.6	448
100-01-6	2-Methyl-4,6-dinitrophenol	U	448	ug/kg	89.6	448
	4-Nitroaniline	U	448	ug/kg	134	448
122-39-4	<i>p</i> -Nitroaniline	U	448	ug/kg	89.6	448
122-66-7	Diphenylamine	U	448	ug/kg	89.6	448
101-55-3	Azobenzene	U	448	ug/kg	89.6	448
118-74-1	<i>1,2</i> -Diphenylhydrazine	U	448	ug/kg	89.6	448
85-01-8	4-Bromophenylphenylether	U	448	ug/kg	89.6	448
120-12-7	Hexachlorobenzene	U	44.8	ug/kg	8.96	44.8
84-74-2	Phenanthrene	J	32.2	ug/kg	13.4	44.8
206-44-0	Anthracene	U	448	ug/kg	89.6	448
85-68-7	Di-n-butylphthalate	U	57.4	ug/kg	13.4	44.8
56-55-3	Fluoranthene	U	448	ug/kg	89.6	448
91-94-1	Butylbenzylphthalate	J	27.0	ug/kg	13.4	44.8
218-01-9	Benzo(a)anthracene	U	448	ug/kg	134	448
117-81-7	3,3'-Dichlorobenzidine	J	28.8	ug/kg	13.4	44.8
117-84-0	Chrysene	U	448	ug/kg	89.6	448
205-99-2	bis(2-Ethylhexyl)phthalate	U	448	ug/kg	13.4	44.8
207-08-9	Di-n-octylphthalate	U	44.8	ug/kg	13.4	44.8
50-32-8	Benzo(b)fluoranthene	U	44.8	ug/kg	13.4	44.8
193-39-5	Benzo(k)fluoranthene	U	44.8	ug/kg	13.4	44.8
53-70-3	Benzo(a)pyrene	U	44.8	ug/kg	13.4	44.8
191-24-2	Indeno(1,2,3-cd)pyrene	U	44.8	ug/kg	13.4	44.8
120-82-1	Dibenzo(a,h)anthracene	U	44.8	ug/kg	13.4	44.8
	Benzo(ghi)perylene	U	44.8	ug/kg	13.4	44.8
	1,2,4-Trichlorobenzene	U	448	ug/kg	89.6	448

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	3.21	529	ug/kg		J
7785-70-8	1R- $\alpha$ -Pinene	3.52	507	ug/kg	98	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506006	Date Received: 03/03/2010 08:50	%Moisture: 25.6
	Client: LANL010	Project: LANL.01004
Client ID: RE36-10-7445	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 14:35	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.01 g	Final Volume: 1 mL
Data File: s5c2217.d	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	
13466-78-9	3-Carene		3.9	477	ug/kg	95	NJ
103-82-2	Benzeneacetic acid		4.94	363	ug/kg	91	NJ
56599-58-7	8,11-Octadecadienoic acid, methyl ester		8.12	301	ug/kg	91	NJ
1000155-85-3	Cyclohexadecane, 1,2-diethyl-		8.78	283	ug/kg	97	NJ
	Unknown		9.04	209	ug/kg		J
3386-33-2	Octadecane, 1-chloro-		9.12	252	ug/kg	80	NJ
638-66-4	Octadecanal		9.24	212	ug/kg	95	NJ
1599-67-3	1-Docosene		9.44	732	ug/kg	98	NJ
	Unknown		9.57	262	ug/kg		J
629-78-7	Heptadecane		9.75	304	ug/kg	94	NJ
1000130-84-8	(S)(+)-Z-13-Methyl-11-pentadecen-1-ol ac		9.89	284	ug/kg	86	NJ
	Unknown		9.95	266	ug/kg		J
27519-02-4	9-Tricosene, (Z)-		10.1	1910	ug/kg	94	NJ
	Unknown		10.24	357	ug/kg		J
	Unknown		10.3	271	ug/kg		J
62016-76-6	Nonadecane, 1-chloro-		10.45	329	ug/kg	86	NJ
	Unknown		10.54	424	ug/kg		J
	Unknown		10.89	418	ug/kg		J
	Unknown		11.8	363	ug/kg		J
112-95-8	Eicosane		11.85	384	ug/kg	92	NJ
	Unknown		11.92	1690	ug/kg		J
	Unknown		12.1	480	ug/kg		J
	Unknown		12.68	544	ug/kg		J
	Unknown		12.98	779	ug/kg		J
83-47-6	.gamma.-Sitosterol		13.88	1960	ug/kg	99	NJ
	Unknown		14.31	775	ug/kg		J
	Unknown		14.46	837	ug/kg		J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506010	Date Received: 03/03/2010 08:50	%Moisture: 28.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7447	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.1	Dilution: 1
Run Date: 03/22/2010 16:07	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30 g	Final Volume: 1 mL
Data File: s5c2221.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	466	ug/kg	93.2	466
108-95-2	Phenol	U	466	ug/kg	93.2	466
95-57-8	2-Chlorophenol	U	466	ug/kg	93.2	466
106-46-7	1,4-Dichlorobenzene	U	466	ug/kg	93.2	466
621-64-7	N-Nitrosodipropylamine	U	466	ug/kg	93.2	466
59-50-7	4-Chloro-3-methylphenol	U	466	ug/kg	93.2	466
83-32-9	Acenaphthene	U	46.6	ug/kg	15.4	46.6
121-14-2	2,4-Dinitrotoluene	U	466	ug/kg	46.6	466
100-02-7	4-Nitrophenol	U	466	ug/kg	154	466
87-86-5	Pentachlorophenol	U	466	ug/kg	117	466
129-00-0	Pyrene	U	46.6	ug/kg	14.0	46.6
110-86-1	Pyridine	U	466	ug/kg	93.2	466
62-53-3	Aniline	U	466	ug/kg	140	466
111-44-4	bis(2-Chloroethyl) ether	U	466	ug/kg	93.2	466
541-73-1	1,3-Dichlorobenzene	U	466	ug/kg	93.2	466
100-51-6	Benzyl alcohol	U	466	ug/kg	140	466
95-50-1	1,2-Dichlorobenzene	U	466	ug/kg	93.2	466
108-60-1	bis(2-Chloroisopropyl) ether	U	466	ug/kg	93.2	466
95-48-7	o-Cresol	U	466	ug/kg	93.2	466
65794-96-9	m,p-Cresols	U	466	ug/kg	140	466
67-72-1	Hexachloroethane	U	466	ug/kg	93.2	466
98-95-3	Nitrobenzene	U	466	ug/kg	93.2	466
78-59-1	Isophorone	U	466	ug/kg	93.2	466
88-75-5	2-Nitrophenol	U	466	ug/kg	93.2	466
105-67-9	2,4-Dimethylphenol	U	466	ug/kg	163	466
111-91-1	bis(2-Chloroethoxy)methane	U	466	ug/kg	93.2	466
120-83-2	2,4-Dichlorophenol	U	466	ug/kg	93.2	466
65-85-0	Benzoic acid	U	932	ug/kg	233	932
91-20-3	Naphthalene	U	46.6	ug/kg	14.0	46.6
106-47-8	4-Chloroaniline	U	466	ug/kg	93.2	466
87-68-3	Hexachlorobutadiene	U	466	ug/kg	93.2	466
91-57-6	2-Methylnaphthalene	U	46.6	ug/kg	9.32	46.6
77-47-4	Hexachlorocyclopentadiene	U	466	ug/kg	93.2	466
88-06-2	2,4,6-Trichlorophenol	U	466	ug/kg	93.2	466
95-95-4	2,4,5-Trichlorophenol	U	466	ug/kg	93.2	466
91-58-7	2-Chloronaphthalene	U	46.6	ug/kg	15.4	46.6
88-74-4	2-Nitroaniline	U	466	ug/kg	93.2	466
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	466	ug/kg	93.2	466

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506010	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 28.5
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7447	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 16:07	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2221.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	466	ug/kg	93.2	466
606-20-2	2,6-Dinitrotoluene	U	466	ug/kg	46.6	466
208-96-8	Acenaphthylene	U	46.6	ug/kg	14.0	46.6
51-28-5	2,4-Dinitrophenol	U	932	ug/kg	177	932
132-64-9	Dibenzofuran	U	466	ug/kg	93.2	466
84-66-2	Diethylphthalate	U	466	ug/kg	93.2	466
86-73-7	Fluorene	U	46.6	ug/kg	14.0	46.6
7005-72-3	4-Chlorophenylphenylether	U	466	ug/kg	93.2	466
534-52-1	2-Methyl-4,6-dinitrophenol	U	466	ug/kg	93.2	466
100-01-6	4-Nitroaniline	U	466	ug/kg	140	466
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	466	ug/kg	93.2	466
122-66-7	Azobenzene	U	466	ug/kg	93.2	466
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	466	ug/kg	93.2	466
118-74-1	Hexachlorobenzene	U	466	ug/kg	93.2	466
85-01-8	Phenanthrene	U	46.6	ug/kg	14.0	46.6
120-12-7	Anthracene	U	46.6	ug/kg	9.32	46.6
84-74-2	Di-n-butylphthalate	U	466	ug/kg	93.2	466
206-44-0	Fluoranthene	U	46.6	ug/kg	14.0	46.6
85-68-7	Butylbenzylphthalate	U	466	ug/kg	93.2	466
56-55-3	Benzo(a)anthracene	U	46.6	ug/kg	14.0	46.6
91-94-1	3,3'-Dichlorobenzidine	U	466	ug/kg	140	466
218-01-9	Chrysene	U	46.6	ug/kg	14.0	46.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	466	ug/kg	93.2	466
117-84-0	Di-n-octylphthalate	U	466	ug/kg	93.2	466
205-99-2	Benzo(b)fluoranthene	U	46.6	ug/kg	14.0	46.6
207-08-9	Benzo(k)fluoranthene	U	46.6	ug/kg	14.0	46.6
50-32-8	Benzo(a)pyrene	U	46.6	ug/kg	14.0	46.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	46.6	ug/kg	14.0	46.6
53-70-3	Dibenzo(a,h)anthracene	U	46.6	ug/kg	14.0	46.6
191-24-2	Benzo(ghi)perylene	U	46.6	ug/kg	14.0	46.6
120-82-1	1,2,4-Trichlorobenzene	U	466	ug/kg	93.2	466

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.98	200	ug/kg		JA
	Unknown	3.71	227	ug/kg		J



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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506010	Date Received: 03/03/2010 08:50	%Moisture: 28.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7447	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.1	Dilution: 1
Run Date: 03/22/2010 16:07	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30 g	Final Volume: 1 mL
Data File: s5c2221.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	9.44	223	ug/kg		J
559-74-0	Friedelan-3-one	10.15	1630	ug/kg	95	NJ
112-95-8	Eicosane	10.85	188	ug/kg	97	NJ
	Unknown	11.92	573	ug/kg		J
	Unknown	12.42	305	ug/kg		J
	Unknown	12.68	283	ug/kg		J
	Unknown	12.99	242	ug/kg		J
83-46-5	.beta.-Sitosterol	13.87	592	ug/kg	96	NJ

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506009	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 17.5
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7448	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 15:44	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.04 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2220.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	403	ug/kg	80.7	403
108-95-2	Phenol	U	403	ug/kg	80.7	403
95-57-8	2-Chlorophenol	U	403	ug/kg	80.7	403
106-46-7	1,4-Dichlorobenzene	U	403	ug/kg	80.7	403
621-64-7	N-Nitrosodipropylamine	U	403	ug/kg	80.7	403
59-50-7	4-Chloro-3-methylphenol	U	403	ug/kg	80.7	403
83-32-9	Acenaphthene	U	40.3	ug/kg	13.3	40.3
121-14-2	2,4-Dinitrotoluene	U	403	ug/kg	40.3	403
100-02-7	4-Nitrophenol	U	403	ug/kg	133	403
87-86-5	Pentachlorophenol	U	403	ug/kg	101	403
129-00-0	Pyrene	U	40.3	ug/kg	12.1	40.3
110-86-1	Pyridine	U	403	ug/kg	80.7	403
62-53-3	Aniline	U	403	ug/kg	121	403
111-44-4	bis(2-Chloroethyl) ether	U	403	ug/kg	80.7	403
541-73-1	1,3-Dichlorobenzene	U	403	ug/kg	80.7	403
100-51-6	Benzyl alcohol	U	403	ug/kg	121	403
95-50-1	1,2-Dichlorobenzene	U	403	ug/kg	80.7	403
108-60-1	bis(2-Chloroisopropyl)ether	U	403	ug/kg	80.7	403
95-48-7	o-Cresol	U	403	ug/kg	80.7	403
65794-96-9	m,p-Cresols	U	403	ug/kg	121	403
67-72-1	Hexachloroethane	U	403	ug/kg	80.7	403
98-95-3	Nitrobenzene	U	403	ug/kg	80.7	403
78-59-1	Isophorone	U	403	ug/kg	80.7	403
88-75-5	2-Nitrophenol	U	403	ug/kg	80.7	403
105-67-9	2,4-Dimethylphenol	U	403	ug/kg	141	403
111-91-1	bis(2-Chloroethoxy)methane	U	403	ug/kg	80.7	403
120-83-2	2,4-Dichlorophenol	U	403	ug/kg	80.7	403
65-85-0	Benzoic acid	U	807	ug/kg	202	807
91-20-3	Naphthalene	U	40.3	ug/kg	12.1	40.3
106-47-8	4-Chloroaniline	U	403	ug/kg	80.7	403
87-68-3	Hexachlorobutadiene	U	403	ug/kg	80.7	403
91-57-6	2-Methylnaphthalene	U	40.3	ug/kg	8.07	40.3
77-47-4	Hexachlorocyclopentadiene	U	403	ug/kg	80.7	403
88-06-2	2,4,6-Trichlorophenol	U	403	ug/kg	80.7	403
95-95-4	2,4,5-Trichlorophenol	U	403	ug/kg	80.7	403
91-58-7	2-Chloronaphthalene	U	40.3	ug/kg	13.3	40.3
88-74-4	2-Nitroaniline	U	403	ug/kg	80.7	403
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	403	ug/kg	80.7	403

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506009	Date Received: 03/03/2010 08:50	%Moisture: 17.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7448	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 15:44	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.04 g	Final Volume: 1 mL
Data File: s5c2220.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	403	ug/kg	80.7	403
606-20-2	2,6-Dinitrotoluene	U	403	ug/kg	40.3	403
208-96-8	Accnaphthylene	U	40.3	ug/kg	12.1	40.3
51-28-5	2,4-Dinitrophenol	U	807	ug/kg	153	807
132-64-9	Dibenzofuran	U	403	ug/kg	80.7	403
84-66-2	Diethylphthalate	U	403	ug/kg	80.7	403
86-73-7	Fluorene	U	40.3	ug/kg	12.1	40.3
7005-72-3	4-Chlorophenylphenylether	U	403	ug/kg	80.7	403
534-52-1	2-Methyl-4,6-dinitrophenol	U	403	ug/kg	80.7	403
100-01-6	4-Nitroaniline	U	403	ug/kg	121	403
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	403	ug/kg	80.7	403
122-66-7	Azobenzene	U	403	ug/kg	80.7	403
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	403	ug/kg	80.7	403
118-74-1	Hexachlorobenzene	U	403	ug/kg	80.7	403
85-01-8	Phenanthrene	U	40.3	ug/kg	12.1	40.3
120-12-7	Anthracene	U	40.3	ug/kg	8.07	40.3
84-74-2	Di-n-butylphthalate	U	403	ug/kg	80.7	403
206-44-0	Fluoranthene	U	40.3	ug/kg	12.1	40.3
85-68-7	Butylbenzylphthalate	U	403	ug/kg	80.7	403
56-55-3	Benzo(a)anthracene	U	40.3	ug/kg	12.1	40.3
91-94-1	3,3'-Dichlorobenzidine	U	403	ug/kg	121	403
218-01-9	Chrysene	U	40.3	ug/kg	12.1	40.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	403	ug/kg	80.7	403
117-84-0	Di-n-octylphthalate	U	403	ug/kg	80.7	403
205-99-2	Benzo(b)fluoranthene	U	40.3	ug/kg	12.1	40.3
207-08-9	Benzo(k)fluoranthene	U	40.3	ug/kg	12.1	40.3
50-32-8	Benzo(a)pyrene	U	40.3	ug/kg	12.1	40.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.3	ug/kg	12.1	40.3
53-70-3	Dibenzo(a,h)anthracene	U	40.3	ug/kg	12.1	40.3
191-24-2	Benzo(ghi)perylene	U	40.3	ug/kg	12.1	40.3
120-82-1	1,2,4-Trichlorobenzene	U	403	ug/kg	80.7	403

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.98	241	ug/kg		JA
3452-07-1	1-Eicosene	9.44	236	ug/kg	90	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506009	Date Received: 03/03/2010 08:50	%Moisture: 17.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7448	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 15:44	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.04 g	Final Volume: 1 mL
Data File: s5c2220.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
112-95-8	Eicosane	10.85	167	ug/kg	96	NJ
	Unknown	11.92	175	ug/kg		J
	Unknown	12.09	432	ug/kg		J
	Unknown	12.69	237	ug/kg		J
	Unknown	12.87	454	ug/kg		J
	Unknown	12.98	189	ug/kg		J
4651-51-8	Ergost-5-en-3-ol, (3.beta.)-	13.17	278	ug/kg	90	NJ
83-46-5	.beta.-Sitosterol	13.87	767	ug/kg	96	NJ
	Unknown	14.47	279	ug/kg		J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506005	Date Received: 03/03/2010 08:50	%Moisture: 17.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7449	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 10
Run Date: 03/22/2010 14:13	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30 g	Final Volume: 1 mL
Data File: s5c2216.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	4060	ug/kg	811	4060
108-95-2	Phenol	U	4060	ug/kg	811	4060
95-57-8	2-Chlorophenol	U	4060	ug/kg	811	4060
106-46-7	1,4-Dichlorobenzene	U	4060	ug/kg	811	4060
621-64-7	N-Nitrosodipropylamine	U	4060	ug/kg	811	4060
59-50-7	4-Chloro-3-methylphenol	U	4060	ug/kg	811	4060
83-32-9	Acenaphthene	U	406	ug/kg	134	406
121-14-2	2,4-Dinitrotoluene	U	4060	ug/kg	406	4060
100-02-7	4-Nitrophenol	U	4060	ug/kg	1340	4060
87-86-5	Pentachlorophenol	U	4060	ug/kg	1010	4060
129-00-0	Pyrene	U	406	ug/kg	122	406
110-86-1	Pyridine	U	4060	ug/kg	811	4060
62-53-3	Aniline	U	4060	ug/kg	1220	4060
111-44-4	bis(2-Chloroethyl) ether	U	4060	ug/kg	811	4060
541-73-1	1,3-Dichlorobenzene	U	4060	ug/kg	811	4060
100-51-6	Benzyl alcohol	U	4060	ug/kg	1220	4060
95-50-1	1,2-Dichlorobenzene	U	4060	ug/kg	811	4060
108-60-1	bis(2-Chloroisopropyl) ether	U	4060	ug/kg	811	4060
95-48-7	o-Cresol	U	4060	ug/kg	811	4060
65794-96-9	m,p-Cresols	U	4060	ug/kg	1220	4060
67-72-1	Hexachloroethane	U	4060	ug/kg	811	4060
98-95-3	Nitrobenzene	U	4060	ug/kg	811	4060
78-59-1	Isophorone	U	4060	ug/kg	811	4060
88-75-5	2-Nitrophenol	U	4060	ug/kg	811	4060
105-67-9	2,4-Dimethylphenol	U	4060	ug/kg	1420	4060
111-91-1	bis(2-Chloroethoxy)methane	U	4060	ug/kg	811	4060
120-83-2	2,4-Dichlorophenol	U	4060	ug/kg	811	4060
65-85-0	Benzoic acid	U	8110	ug/kg	2030	8110
91-20-3	Naphthalene	U	406	ug/kg	122	406
106-47-8	4-Chloroaniline	U	4060	ug/kg	811	4060
87-68-3	Hexachlorobutadiene	U	4060	ug/kg	811	4060
91-57-6	2-Methylnaphthalene	U	406	ug/kg	81.1	406
77-47-4	Hexachlorocyclopentadiene	U	4060	ug/kg	811	4060
88-06-2	2,4,6-Trichlorophenol	U	4060	ug/kg	811	4060
95-95-4	2,4,5-Trichlorophenol	U	4060	ug/kg	811	4060
91-58-7	2-Chloronaphthalene	U	406	ug/kg	134	406
88-74-4	2-Nitroaniline	U	4060	ug/kg	811	4060
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	4060	ug/kg	811	4060

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506005	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 17.8
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7449	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.I	<b>Dilution:</b> 10
<b>Run Date:</b> 03/22/2010 14:13	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2216.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	4060	ug/kg	811	4060
606-20-2	2,6-Dinitrotoluene	U	4060	ug/kg	406	4060
208-96-8	Accnaphthylene	U	406	ug/kg	122	406
51-28-5	2,4-Dinitrophenol	U	8110	ug/kg	1540	8110
132-64-9	Dibenzofuran	U	4060	ug/kg	811	4060
84-66-2	Diethylphthalate	U	4060	ug/kg	811	4060
86-73-7	Fluorene	U	406	ug/kg	122	406
7005-72-3	4-Chlorophenylphenylether	U	4060	ug/kg	811	4060
534-52-1	2-Methyl-4,6-dinitrophenol	U	4060	ug/kg	811	4060
100-01-6	4-Nitroaniline	U	4060	ug/kg	1220	4060
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	4060	ug/kg	811	4060
122-66-7	Azobenzene	U	4060	ug/kg	811	4060
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	4060	ug/kg	811	4060
118-74-1	Hexachlorobenzene	U	4060	ug/kg	811	4060
85-01-8	Phenanthrene	U	406	ug/kg	122	406
120-12-7	Anthracene	U	406	ug/kg	81.1	406
84-74-2	Di-n-butylphthalate	U	4060	ug/kg	811	4060
206-44-0	Fluoranthene	U	406	ug/kg	122	406
85-68-7	Butylbenzylphthalate	U	4060	ug/kg	811	4060
56-55-3	Benzo(a)anthracene	U	406	ug/kg	122	406
91-94-1	3,3'-Dichlorobenzidine	U	4060	ug/kg	1220	4060
218-01-9	Chrysene	U	406	ug/kg	122	406
117-81-7	bis(2-Ethylhexyl)phthalate	U	4060	ug/kg	811	4060
117-84-0	Di-n-octylphthalate	U	4060	ug/kg	811	4060
205-99-2	Benzo(b)fluoranthene	U	406	ug/kg	122	406
207-08-9	Benzo(k)fluoranthene	U	406	ug/kg	122	406
50-32-8	Benzo(a)pyrene	U	406	ug/kg	122	406
193-39-5	Indeno(1,2,3-cd)pyrene	U	406	ug/kg	122	406
53-70-3	Dibenzo(a,h)anthracene	U	406	ug/kg	122	406
191-24-2	Benzo(ghi)perylene	U	406	ug/kg	122	406
120-82-1	1,2,4-Trichlorobenzene	U	4060	ug/kg	811	4060

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
4358-59-2	2-Butenoic acid, methyl ester, (Z)-	2.3	2790	ug/kg	80	NJ
7785-70-8	1R-.alpha.-Pinene	3.52	30300	ug/kg	97	NJ

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506005	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 17.8
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7449	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.I	<b>Dilution:</b> 10
<b>Run Date:</b> 03/22/2010 14:13	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2216.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> 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
3479-89-8	1,3,5-Cycloheptatriene, 3,7,7-trimethyl-	3.72	3340	ug/kg	95	NJ
7785-26-4	1S-.alpha.-Pinene	3.91	8940	ug/kg	95	NJ
535-77-3	Benzene, 1-methyl-3-(1-methylethyl)-	3.97	1920	ug/kg	95	NJ
	Unknown	4.58	4970	ug/kg		J
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.8	7600	ug/kg	99	NJ
1000197-14-1	4b,8-Dimethyl-2-isopropylphenanthrene, 4	8.04	2330	ug/kg	95	NJ
	Unknown	8.93	2740	ug/kg		J
17974-57-1	(3E,5E,7E)-6-Methyl-8-(2,6,6-trimethyl-1	9.13	2620	ug/kg	83	NJ
	Unknown	10.08	5190	ug/kg		J
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.11	5400	ug/kg	92	NJ
	Unknown	10.14	7900	ug/kg		J
	Unknown	10.25	5380	ug/kg		J
	Unknown	10.85	2030	ug/kg		J
	Unknown	12.1	4470	ug/kg		J
	Unknown	12.86	5240	ug/kg		J
	Unknown	13.87	2280	ug/kg		J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506007	Date Received: 03/03/2010 08:50	%Moisture: 9.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7450	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 14:58	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.03 g	Final Volume: 1 mL
Data File: s5c2218.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	370	ug/kg	73.9	370
108-95-2	Phenol	U	370	ug/kg	73.9	370
95-57-8	2-Chlorophenol	U	370	ug/kg	73.9	370
106-46-7	1,4-Dichlorobenzene	U	370	ug/kg	73.9	370
621-64-7	N-Nitrosodipropylamine	U	370	ug/kg	73.9	370
59-50-7	4-Chloro-3-methylphenol	U	370	ug/kg	73.9	370
83-32-9	Acenaphthene	U	37.0	ug/kg	12.2	37.0
121-14-2	2,4-Dinitrotoluene	U	370	ug/kg	37.0	370
100-02-7	4-Nitrophenol	U	370	ug/kg	122	370
87-86-5	Pentachlorophenol	U	370	ug/kg	92.4	370
129-00-0	Pyrene	U	37.0	ug/kg	11.1	37.0
110-86-1	Pyridine	U	370	ug/kg	73.9	370
62-53-3	Aniline	U	370	ug/kg	111	370
111-44-4	bis(2-Chloroethyl) ether	U	370	ug/kg	73.9	370
541-73-1	1,3-Dichlorobenzene	U	370	ug/kg	73.9	370
100-51-6	Benzyl alcohol	U	370	ug/kg	111	370
95-50-1	1,2-Dichlorobenzene	U	370	ug/kg	73.9	370
108-60-1	bis(2-Chloroisopropyl)ether	U	370	ug/kg	73.9	370
95-48-7	o-Cresol	U	370	ug/kg	73.9	370
65794-96-9	m,p-Cresols	U	370	ug/kg	111	370
67-72-1	Hexachloroethane	U	370	ug/kg	73.9	370
98-95-3	Nitrobenzene	U	370	ug/kg	73.9	370
78-59-1	Isophorone	U	370	ug/kg	73.9	370
88-75-5	2-Nitrophenol	U	370	ug/kg	73.9	370
105-67-9	2,4-Dimethylphenol	U	370	ug/kg	129	370
111-91-1	bis(2-Chloroethoxy)methane	U	370	ug/kg	73.9	370
120-83-2	2,4-Dichlorophenol	U	370	ug/kg	73.9	370
65-85-0	Benzoic acid	U	739	ug/kg	185	739
91-20-3	Naphthalene	U	37.0	ug/kg	11.1	37.0
106-47-8	4-Chloroaniline	U	370	ug/kg	73.9	370
87-68-3	Hexachlorobutadiene	U	370	ug/kg	73.9	370
91-57-6	2-Methylnaphthalene	U	37.0	ug/kg	7.39	37.0
77-47-4	Hexachlorocyclopentadiene	U	370	ug/kg	73.9	370
88-06-2	2,4,6-Trichlorophenol	U	370	ug/kg	73.9	370
95-95-4	2,4,5-Trichlorophenol	U	370	ug/kg	73.9	370
91-58-7	2-Chloronaphthalene	U	37.0	ug/kg	12.2	37.0
88-74-4	2-Nitroaniline	U	370	ug/kg	73.9	370
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	370	ug/kg	73.9	370



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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506007	Date Received: 03/03/2010 08:50	%Moisture: 9.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7450	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.1	Dilution: 1
Run Date: 03/22/2010 14:58	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.03 g	Final Volume: 1 mL
Data File: s5c2218.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	370	ug/kg	73.9	370
606-20-2	2,6-Dinitrotoluene	U	370	ug/kg	37.0	370
208-96-8	Acenaphthylene	U	37.0	ug/kg	11.1	37.0
51-28-5	2,4-Dinitrophenol	U	739	ug/kg	140	739
132-64-9	Dibenzofuran	U	370	ug/kg	73.9	370
84-66-2	Diethylphthalate	U	370	ug/kg	73.9	370
86-73-7	Fluorene	U	37.0	ug/kg	11.1	37.0
7005-72-3	4-Chlorophenylphenylether	U	370	ug/kg	73.9	370
534-52-1	2-Methyl-4,6-dinitrophenol	U	370	ug/kg	73.9	370
100-01-6	4-Nitroaniline	U	370	ug/kg	111	370
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	370	ug/kg	73.9	370
122-66-7	Azobenzene	U	370	ug/kg	73.9	370
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	370	ug/kg	73.9	370
118-74-1	Hexachlorobenzene	U	370	ug/kg	73.9	370
85-01-8	Phenanthrene	U	37.0	ug/kg	11.1	37.0
120-12-7	Anthracene	U	37.0	ug/kg	7.39	37.0
84-74-2	Di-n-butylphthalate	U	370	ug/kg	73.9	370
206-44-0	Fluoranthene	U	37.0	ug/kg	11.1	37.0
85-68-7	Butylbenzylphthalate	U	370	ug/kg	73.9	370
56-55-3	Benzo(a)anthracene	U	37.0	ug/kg	11.1	37.0
91-94-1	3,3'-Dichlorobenzidine	U	370	ug/kg	111	370
218-01-9	Chrysene	U	37.0	ug/kg	11.1	37.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	370	ug/kg	73.9	370
117-84-0	Di-n-octylphthalate	U	370	ug/kg	73.9	370
205-99-2	Benzo(b)fluoranthene	U	37.0	ug/kg	11.1	37.0
207-08-9	Benzo(k)fluoranthene	U	37.0	ug/kg	11.1	37.0
50-32-8	Benzo(a)pyrene	U	37.0	ug/kg	11.1	37.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.0	ug/kg	11.1	37.0
53-70-3	Dibenzo(a,h)anthracene	U	37.0	ug/kg	11.1	37.0
191-24-2	Benzo(ghi)perylene	U	37.0	ug/kg	11.1	37.0
120-82-1	1,2,4-Trichlorobenzene	U	370	ug/kg	73.9	370

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.1	827	ug/kg		J
7785-70-8	1R-.alpha.-Pinene	3.52	415	ug/kg	97	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506007	Date Received: 03/03/2010 08:50	%Moisture: 9.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7450	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5J	Dilution: 1
Run Date: 03/22/2010 14:58	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.03 g	Final Volume: 1 mL
Data File: s5c2218.d	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
58-22-0	Androst-4-en-3-one, 17-hydroxy-, (17.bet	8.43	330	ug/kg	93	NJ
1058-61-3	Stigmast-4-en-3-one	8.44	263	ug/kg	93	NJ
2490-48-4	1-Hexadecanol, 2-methyl-	9.44	372	ug/kg	91	NJ
629-78-7	Heptadecane	9.75	195	ug/kg	94	NJ
14811-95-1	1,19-Eicosadiene	9.89	244	ug/kg	93	NJ
77899-03-7	1-Heneicosyl formate	10.1	1570	ug/kg	95	NJ
559-74-0	Friedelan-3-one	10.17	1740	ug/kg	95	NJ
	Unknown	10.24	280	ug/kg		J
	Unknown	10.44	217	ug/kg		J
111-02-4	2,6,10,14,18,22-Tetracosahexaene, 2,6,10	10.54	282	ug/kg	98	NJ
638-66-4	Octadecanal	10.62	355	ug/kg	95	NJ
	Unknown	10.74	247	ug/kg		J
112-95-8	Eicosane	10.85	862	ug/kg	96	NJ
7390-81-0	Oxirane, hexadecyl-	11.57	319	ug/kg	83	NJ
	Unknown	11.92	1280	ug/kg		J
	Unknown	12.1	433	ug/kg		J
	Unknown	12.14	312	ug/kg		J
	Unknown	12.43	397	ug/kg		J
	Unknown	12.69	269	ug/kg		J
	Unknown	12.85	352	ug/kg		J
57-87-4	Ergosterol	12.98	511	ug/kg	93	NJ
83-46-5	.beta.-Sitosterol	13.88	1640	ug/kg	96	NJ
	Unknown	13.98	291	ug/kg		J
	Unknown	14.16	273	ug/kg		J
	Unknown	14.3	499	ug/kg		J
	Unknown	14.46	295	ug/kg		J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506004	Date Received: 03/03/2010 08:50	%Moisture: 39.4
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7451	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.1	Dilution: 1
Run Date: 03/22/2010 13:49	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s5c2215.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	548	ug/kg	110	548
108-95-2	Phenol	U	548	ug/kg	110	548
95-57-8	2-Chlorophenol	U	548	ug/kg	110	548
106-46-7	1,4-Dichlorobenzene	U	548	ug/kg	110	548
621-64-7	N-Nitrosodipropylamine	U	548	ug/kg	110	548
59-50-7	4-Chloro-3-methylphenol	U	548	ug/kg	110	548
83-32-9	Acenaphthene	U	54.8	ug/kg	18.1	54.8
121-14-2	2,4-Dinitrotoluene	U	548	ug/kg	54.8	548
100-02-7	4-Nitrophenol	U	548	ug/kg	181	548
87-86-5	Pentachlorophenol	U	548	ug/kg	137	548
129-00-0	Pyrene	U	54.8	ug/kg	16.5	54.8
110-86-1	Pyridine	U	548	ug/kg	110	548
62-53-3	Aniline	U	548	ug/kg	165	548
111-44-4	bis(2-Chloroethyl) ether	U	548	ug/kg	110	548
541-73-1	1,3-Dichlorobenzene	U	548	ug/kg	110	548
100-51-6	Benzyl alcohol	U	548	ug/kg	165	548
95-50-1	1,2-Dichlorobenzene	U	548	ug/kg	110	548
108-60-1	bis(2-Chloroisopropyl) ether	U	548	ug/kg	110	548
95-48-7	o-Cresol	U	548	ug/kg	110	548
65794-96-9	m,p-Cresols	U	548	ug/kg	165	548
67-72-1	Hexachloroethane	U	548	ug/kg	110	548
98-95-3	Nitrobenzene	U	548	ug/kg	110	548
78-59-1	Isophorone	U	548	ug/kg	110	548
88-75-5	2-Nitrophenol	U	548	ug/kg	110	548
105-67-9	2,4-Dimethylphenol	U	548	ug/kg	192	548
111-91-1	bis(2-Chloroethoxy)methane	U	548	ug/kg	110	548
120-83-2	2,4-Dichlorophenol	U	548	ug/kg	110	548
65-85-0	Benzoic acid	U	1100	ug/kg	274	1100
91-20-3	Naphthalene	U	54.8	ug/kg	16.5	54.8
106-47-8	4-Chloroaniline	U	548	ug/kg	110	548
87-68-3	Hexachlorobutadiene	U	548	ug/kg	110	548
91-57-6	2-Methylnaphthalene	U	54.8	ug/kg	11.0	54.8
77-47-4	Hexachlorocyclopentadiene	U	548	ug/kg	110	548
88-06-2	2,4,6-Trichlorophenol	U	548	ug/kg	110	548
95-95-4	2,4,5-Trichlorophenol	U	548	ug/kg	110	548
91-58-7	2-Chloronaphthalene	U	54.8	ug/kg	18.1	54.8
88-74-4	2-Nitroaniline	U	548	ug/kg	110	548
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	548	ug/kg	110	548

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506004	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 39.4
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7451	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 13:49	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.09 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2215.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	548	ug/kg	110	548
606-20-2	2,6-Dinitrotoluene	U	548	ug/kg	54.8	548
208-96-8	Acenaphthylene	U	54.8	ug/kg	16.5	54.8
51-28-5	2,4-Dinitrophenol	U	1100	ug/kg	208	1100
132-64-9	Dibenzofuran	U	548	ug/kg	110	548
84-66-2	Diethylphthalate	U	548	ug/kg	110	548
86-73-7	Fluorene	U	54.8	ug/kg	16.5	54.8
7005-72-3	4-Chlorophenylphenylether	U	548	ug/kg	110	548
534-52-1	2-Methyl-4,6-dinitrophenol	U	548	ug/kg	110	548
100-01-6	4-Nitroaniline	U	548	ug/kg	165	548
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	548	ug/kg	110	548
122-66-7	Azobenzene	U	548	ug/kg	110	548
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	548	ug/kg	110	548
118-74-1	Hexachlorobenzene	U	548	ug/kg	110	548
85-01-8	Phenanthrene	U	54.8	ug/kg	16.5	54.8
120-12-7	Anthracene	U	54.8	ug/kg	11.0	54.8
84-74-2	Di-n-butylphthalate	U	548	ug/kg	110	548
206-44-0	Fluoranthene	U	54.8	ug/kg	16.5	54.8
85-68-7	Butylbenzylphthalate	U	548	ug/kg	110	548
56-55-3	Benzo(a)anthracene	U	54.8	ug/kg	16.5	54.8
91-94-1	3,3'-Dichlorobenzidine	U	548	ug/kg	165	548
218-01-9	Chrysene	U	54.8	ug/kg	16.5	54.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	548	ug/kg	110	548
117-84-0	Di-n-octylphthalate	U	548	ug/kg	110	548
205-99-2	Benzo(b)fluoranthene	U	54.8	ug/kg	16.5	54.8
207-08-9	Benzo(k)fluoranthene	U	54.8	ug/kg	16.5	54.8
50-32-8	Benzo(a)pyrene	U	54.8	ug/kg	16.5	54.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	54.8	ug/kg	16.5	54.8
53-70-3	Dibenzo(a,h)anthracene	U	54.8	ug/kg	16.5	54.8
191-24-2	Benzo(ghi)perylene	U	54.8	ug/kg	16.5	54.8
120-82-1	1,2,4-Trichlorobenzene	U	548	ug/kg	110	548

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.8	355	ug/kg	99	NJ
	Unknown	9.01	234	ug/kg		J

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

SDG Number: 10-2193  
Lab Sample ID: 248506004

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.1  
Analyst: RMB  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 39.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7451  
Batch ID: 963086  
Run Date: 03/22/2010 13:49  
Prep Date: 03/10/2010 12:33  
Data File: s5c2215.d

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
301-02-0	9-Octadecenamide, (Z)-	9.05	257	ug/kg	89	NJ
	Unknown	9.14	508	ug/kg		J
	Unknown	9.25	224	ug/kg		J
1000309-70-5	Oxalic acid, cyclobutyl pentadecyl ester	9.44	418	ug/kg	90	NJ
629-78-7	Heptadecane	9.75	245	ug/kg	97	NJ
	Unknown	10.08	440	ug/kg		J
559-74-0	Friedelan-3-one	10.11	535	ug/kg	95	NJ
	Unknown	10.14	1460	ug/kg		J
	Unknown	10.24	273	ug/kg		J
	Unknown	10.44	411	ug/kg		J
	Unknown	10.54	322	ug/kg		J
112-95-8	Eicosane	10.85	475	ug/kg	98	NJ
629-96-9	1-Eicosanol	10.89	266	ug/kg	87	NJ
	Unknown	11.85	365	ug/kg		J
	Unknown	11.91	941	ug/kg		J
	Unknown	12.09	715	ug/kg		J
	Unknown	12.21	331	ug/kg		J
	Unknown	12.41	482	ug/kg		J
	Unknown	12.47	252	ug/kg		J
	Unknown	12.68	361	ug/kg		J
	Unknown	12.85	440	ug/kg		J
	Unknown	12.97	405	ug/kg		J
	Unknown	13.2	293	ug/kg		J
83-46-5	.beta.-Sitosterol	13.86	1260	ug/kg	99	NJ

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

SDG Number: 10-2193  
Lab Sample ID: 248506012

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.03 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 24.9  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7452  
Batch ID: 963086  
Run Date: 03/22/2010 16:54  
Prep Date: 03/10/2010 12:33  
Data File: s5c2223.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	443	ug/kg	88.6	443
108-95-2	Phenol	U	443	ug/kg	88.6	443
95-57-8	2-Chlorophenol	U	443	ug/kg	88.6	443
106-46-7	1,4-Dichlorobenzene	U	443	ug/kg	88.6	443
621-64-7	N-Nitrosodipropylamine	U	443	ug/kg	88.6	443
59-50-7	4-Chloro-3-methylphenol	U	443	ug/kg	88.6	443
83-32-9	Acenaphthene	U	44.3	ug/kg	14.6	44.3
121-14-2	2,4-Dinitrotoluene	U	443	ug/kg	44.3	443
100-02-7	4-Nitrophenol	U	443	ug/kg	146	443
87-86-5	Pentachlorophenol	U	443	ug/kg	111	443
129-00-0	Pyrene	U	44.3	ug/kg	13.3	44.3
110-86-1	Pyridine	U	443	ug/kg	88.6	443
62-53-3	Aniline	U	443	ug/kg	133	443
111-44-4	bis(2-Chloroethyl) ether	U	443	ug/kg	88.6	443
541-73-1	1,3-Dichlorobenzene	U	443	ug/kg	88.6	443
100-51-6	Benzyl alcohol	U	443	ug/kg	133	443
95-50-1	1,2-Dichlorobenzene	U	443	ug/kg	88.6	443
108-60-1	bis(2-Chloroisopropyl)ether	U	443	ug/kg	88.6	443
95-48-7	o-Cresol	U	443	ug/kg	88.6	443
65794-96-9	m,p-Cresols	U	443	ug/kg	133	443
67-72-1	Hexachloroethane	U	443	ug/kg	88.6	443
98-95-3	Nitrobenzene	U	443	ug/kg	88.6	443
78-59-1	Isophorone	U	443	ug/kg	88.6	443
88-75-5	2-Nitrophenol	U	443	ug/kg	88.6	443
105-67-9	2,4-Dimethylphenol	U	443	ug/kg	155	443
111-91-1	bis(2-Chloroethoxy)methane	U	443	ug/kg	88.6	443
120-83-2	2,4-Dichlorophenol	U	443	ug/kg	88.6	443
65-85-0	Benzoic acid	U	886	ug/kg	222	886
91-20-3	Naphthalene	U	44.3	ug/kg	13.3	44.3
106-47-8	4-Chloroaniline	U	443	ug/kg	88.6	443
87-68-3	Hexachlorobutadiene	U	443	ug/kg	88.6	443
91-57-6	2-Methylnaphthalene	U	44.3	ug/kg	8.86	44.3
77-47-4	Hexachlorocyclopentadiene	U	443	ug/kg	88.6	443
88-06-2	2,4,6-Trichlorophenol	U	443	ug/kg	88.6	443
95-95-4	2,4,5-Trichlorophenol	U	443	ug/kg	88.6	443
91-58-7	2-Chloronaphthalene	U	44.3	ug/kg	14.6	44.3
88-74-4	2-Nitroaniline	U	443	ug/kg	88.6	443
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	443	ug/kg	88.6	443

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506012	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 24.9
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7452	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 16:54	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.03 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2223.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDI/LOD	PQL/LOQ
	<i>m</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	443	ug/kg	88.6	443
606-20-2	2,6-Dinitrotoluene	U	443	ug/kg	44.3	443
208-96-8	Acenaphthylene	U	44.3	ug/kg	13.3	44.3
51-28-5	2,4-Dinitrophenol	U	886	ug/kg	168	886
132-64-9	Dibenzofuran	U	443	ug/kg	88.6	443
84-66-2	Diethylphthalate	U	443	ug/kg	88.6	443
86-73-7	Fluorene	U	44.3	ug/kg	13.3	44.3
7005-72-3	4-Chlorophenylphenylether	U	443	ug/kg	88.6	443
534-52-1	2-Methyl-4,6-dinitrophenol	U	443	ug/kg	88.6	443
100-01-6	4-Nitroaniline	U	443	ug/kg	133	443
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	443	ug/kg	88.6	443
122-66-7	Azobenzene	U	443	ug/kg	88.6	443
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	443	ug/kg	88.6	443
118-74-1	Hexachlorobenzene	U	443	ug/kg	88.6	443
85-01-8	Phenanthrene	U	44.3	ug/kg	13.3	44.3
120-12-7	Anthracene	U	44.3	ug/kg	8.86	44.3
84-74-2	Di-n-butylphthalate	U	443	ug/kg	88.6	443
206-44-0	Fluoranthene	U	44.3	ug/kg	13.3	44.3
85-68-7	Butylbenzylphthalate	U	443	ug/kg	88.6	443
56-55-3	Benzo(a)anthracene	U	44.3	ug/kg	13.3	44.3
91-94-1	3,3'-Dichlorobenzidine	U	443	ug/kg	133	443
218-01-9	Chrysene	U	44.3	ug/kg	13.3	44.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	443	ug/kg	88.6	443
117-84-0	Di-n-octylphthalate	U	443	ug/kg	88.6	443
205-99-2	Benzo(b)fluoranthene	U	44.3	ug/kg	13.3	44.3
207-08-9	Benzo(k)fluoranthene	U	44.3	ug/kg	13.3	44.3
50-32-8	Benzo(a)pyrene	U	44.3	ug/kg	13.3	44.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	44.3	ug/kg	13.3	44.3
53-70-3	Dibenzo(a,h)anthracene	U	44.3	ug/kg	13.3	44.3
191-24-2	Benzo(ghi)perylene	U	44.3	ug/kg	13.3	44.3
120-82-1	1,2,4-Trichlorobenzene	U	443	ug/kg	88.6	443

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
7785-70-8	1R-.alpha.-Pinene	3.52	3270	ug/kg	97	NJ
127-91-3	.beta.-Pinene	3.77	2110	ug/kg	97	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506012	Date Received: 03/03/2010 08:50	%Moisture: 24.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7452	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.1	Dilution: 1
Run Date: 03/22/2010 16:54	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.03 g	Final Volume: 1 mL
Data File: s5c2223.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQI/LOQ
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Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.8	3710	ug/kg	98	NJ
	Unknown	8.94	911	ug/kg		J
	Unknown	9.02	487	ug/kg		J
17974-57-1	(3E,5E,7E)-6-Methyl-8-(2,6,6-trimethyl-1	9.14	649	ug/kg	89	NJ
	Unknown	9.28	438	ug/kg		J
	Unknown	10.26	479	ug/kg		J
71502-22-2	9-Hexacosene	10.9	1550	ug/kg	99	NJ



# QC Summary

Semi-Volatile  
Surrogate Recovery Report

Page 1 of 1

SDG Number: 10-2193

Matrix Type: SOLID

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

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202066110	MB for batch 963080	56	57	59	56	50	65
1202066111	LCS for batch 963080	70	69	76	68	65	75
248506001	RE36-10-7407	64	70	71	64	65	72
1202066112	RE36-10-7407MS	60	61	65	57	58	62
1202066113	RE36-10-7407MSD	64	64	71	59	62	64
248506002	RE36-10-7421	59	60	69	63	63	72
248506003	RE36-10-7422	66	71	70	66	72	81
248506004	RE36-10-7451	50	55	58	41	51	50
248506005	RE36-10-7449	67	D	62	D	75	D
248506006	RE36-10-7445	61	61	71	61	62	65
248506007	RE36-10-7450	63	65	70	62	67	71
248506008	RE36-10-7444	57	62	67	59	66	66
248506009	RE36-10-7448	64	66	69	61	65	67
248506010	RE36-10-7447	57	65	67	60	61	67
248506011	RE36-10-7443	46	53	54	47	52	53
248506012	RE36-10-7452	48	53	55	46	51	42
248506013	RE36-10-7437	60	61	71	64	61	71
248506014	RE36-10-7440	62	68	71	69	74	81
248506015	RE36-10-7435	46	53	56	49	56	59
248506016	RE36-10-7441	53	61	68	61	60	72
248506017	RE36-10-7442	64	74	77	73	76	83
248506018	RE36-10-7436	51	54	55	49	56	59
248506019	RE36-10-7438	61	68	67	64	72	80
248506020	RE36-10-7439	56	64	70	68	71	89

**Surrogate****Acceptance Limits**

2FP = 2-Fluorophenol

(29%-99%)

PHL = Phenol-d5

(33%-98%)

NBZ = Nitrobenzene-d5

(31%-105%)

FBP = 2-Fluorobiphenyl

(25%-109%)

TBP = 2,4,6-Tribromophenol

(37%-106%)

TPH = p-Terphenyl-d14

(13%-150%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted

## Semi-Volatile

Page 1 of 4

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2193

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963080

Matrix: SOIL

Lab Sample ID:1202066111

Instrument: MSD5.I

Analysis Date: 03/22/2010 11:32

Dilution: 1

Analyst: RMB

Prep Batch II 963080

Inj. Vol: .5 uL

Batch ID: 963086

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	1160	70	22-114
108-95-2	LCS Phenol	1670	0.0	1220	73	39-104
95-57-8	LCS 2-Chlorophenol	1670	0.0	1350	81	40-107
106-46-7	LCS 1,4-Dichlorobenzene	1670	0.0	1080	65	33-108
621-64-7	LCS N-Nitrosodipropylamine	1670	0.0	1430	86	34-113
59-50-7	LCS 4-Chloro-3-methylphenol	1670	0.0	1450	87	42-114
83-32-9	LCS Acenaphthene	1670	0.0	1160	70	40-105
121-14-2	LCS 2,4-Dinitrotoluene	1670	0.0	1260	76	49-112
100-02-7	LCS 4-Nitrophenol	1670	0.0	1600	96	24-113
87-86-5	LCS Pentachlorophenol	1670	0.0	1290	78	27-116
129-00-0	LCS Pyrene	1670	0.0	1130	68	42-113
110-86-1	LCS Pyridine	1670	0.0	1170	70	8-125
62-53-3	LCS Aniline	1670	0.0	1180	71	18-126
111-44-4	LCS bis(2-Chloroethyl) ether	1670	0.0	1180	71	32-103
541-73-1	LCS 1,3-Dichlorobenzene	1670	0.0	1080	65	32-108
100-51-6	LCS Benzyl alcohol	1670	0.0	1350	81	27-108
95-50-1	LCS 1,2-Dichlorobenzene	1670	0.0	1140	68	35-111
108-60-1	LCS bis(2-Chloroisopropyl)ether	1670	0.0	1130	68	28-117
95-48-7	LCS o-Cresol	1670	0.0	1390	83	39-111
65794-96-9	LCS m,p-Cresols	1670	0.0	1470	88	45-121
67-72-1	LCS Hexachloroethane	1670	0.0	1100	66	30-109
98-95-3	LCS Nitrobenzene	1670	0.0	1380	83	33-116

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2193

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963080

Matrix: SOIL

Lab Sample ID: J202066111

Instrument: MSD5.J

Analysis Date: 03/22/2010 11:32

Dilution: 1

Analyst: RMB

Pren Batch ID: 963080

Inj. Vol: .5 uL

Batch ID: 963086

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	1310	79	35-113
88-75-5	LCS 2-Nitrophenol	1670	0.0	1170	70	31-117
105-67-9	LCS 2,4-Dimethylphenol	1670	0.0	1230	74	32-112
111-91-1	LCS bis(2-Chloroethoxy)methane	1670	0.0	1190	71	34-110
120-83-2	LCS 2,4-Dichlorophenol	1670	0.0	1310	78	34-116
65-85-0	LCS Benzoic acid	3330	0.0	2920	88	22-138
91-20-3	LCS Naphthalene	1670	0.0	1040	62	35-103
106-47-8	LCS 4-Chloroaniline	1670	0.0	1120	67	20-118
87-68-3	LCS Hexachlorobutadiene	1670	0.0	1170	70	31-117
91-57-6	LCS 2-Methylnaphthalene	1670	0.0	1200	72	38-115
77-47-4	LCS Hexachlorocyclopentadiene	1670	0.0	841	50	22-140
88-06-2	LCS 2,4,6-Trichlorophenol	1670	0.0	1260	76	40-110
95-95-4	LCS 2,4,5-Trichlorophenol	1670	0.0	1240	74	43-113
91-58-7	LCS 2-Chloronaphthalene	1670	0.0	1150	69	37-111
88-74-4	LCS 2-Nitroaniline <i>o</i> -Nitroaniline	1670	0.0	1300	78	41-113
99-09-2	LCS 3-Nitroaniline <i>m</i> -Nitroaniline	1670	0.0	1270	76	34-125
131-11-3	LCS Dimethylphthalate	1670	0.0	1320	79	48-122
606-20-2	LCS 2,6-Dinitrotoluene	1670	0.0	1210	73	47-107
208-96-8	LCS Acenaphthylene	1670	0.0	1240	74	44-110
51-28-5	LCS 2,4-Dinitrophenol	1670	0.0	1540	92	18-127
132-64-9	LCS Dibenzofuran	1670	0.0	1230	74	49-115
84-66-2	LCS Diethylphthalate	1670	0.0	1400	84	51-126

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 3 of 4

SDG Number: 10-2193

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963080

Matrix: SOIL

Lab Sample ID: 1202066111

Instrument: MSD5.I

Analysis Date: 03/22/2010 11:32

Dilution: 1

Analyst: RMB

Prep Batch ID: 963080

Inj. Vol: .5 uL

Batch ID: 963086

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	1080	65	43-109
7005-72-3	LCS 4-Chlorophenylphenylether	1670	0.0	1180	71	45-115
534-52-1	LCS 2-Methyl-4,6-dinitrophenol	1670	0.0	1350	81	32-117
100-01-6	LCS 4-Nitroaniline <i>p</i> -Nitroaniline	1670	0.0	1540	92	33-148
122-39-4	LCS Diphenylamine	1670	0.0	1240	74	46-114
122-66-7	LCS Azobenzene <i>1,2</i> -Diphenylhydrazine	1670	0.0	1530	92	38-123
101-55-3	LCS 4-Bromophenylphenylether	1670	0.0	1100	66	40-119
118-74-1	LCS Hexachlorobenzene	1670	0.0	1060	63	43-111
85-01-8	LCS Phenanthrene	1670	0.0	1210	73	46-107
120-12-7	LCS Anthracene	1670	0.0	1240	75	46-110
84-74-2	LCS Di-n-butylphthalate	1670	0.0	1470	88	52-132
206-44-0	LCS Fluoranthene	1670	0.0	1330	80	51-115
85-68-7	LCS Butylbenzylphthalate	1670	0.0	1450	87	47-137
56-55-3	LCS Benzo(a)anthracene	1670	0.0	1260	75	50-108
91-94-1	LCS 3,3'-Dichlorobenzidine	1670	0.0	1180	71	36-103
218-01-9	LCS Chrysene	1670	0.0	1280	77	48-111
117-81-7	LCS bis(2-Ethylhexyl)phthalate	1670	0.0	1700	102	48-139
117-84-0	LCS Di-n-octylphthalate	1670	0.0	1480	89	42-141
205-99-2	LCS Benzo(b)fluoranthene	1670	0.0	1260	76	49-114
207-08-9	LCS Benzo(k)fluoranthene	1670	0.0	1280	77	50-116
50-32-8	LCS Benzo(a)pyrene	1670	0.0	1350	81	54-114
193-39-5	LCS Indeno(1,2,3-cd)pyrene	1670	0.0	1570	94	53-120

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

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SDG Number: 10-2193

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 963080

Matrix: SOIL

Lab Sample ID: 1202066111

Instrument: MSD5.I

Analysis Date: 03/22/2010 11:32

Dilution: 1

Analyst: RMB

Prep Batch ID: 963080

Inj. Vol: .5 uL

Batch ID: 963086

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	1630	98	53-121
191-24-2	LCS Benzo(ghi)perylene	1670	0.0	1620	97	50-121
120-82-1	LCS 1,2,4-Trichlorobenzene	1670	0.0	1150	69	32-114

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2193

Sample Type: Matrix Spike

Client ID: RE36-10-7407MS

Matrix: R

Lab Sample ID: 1202066112

%Moisture: 22.9

Instrument: MSD5.1

Analysis Date: 03/22/2010 12:18

Dilution: 1

Analyst: RMB

Pren Batch II 963080

Inj. Vol: .5 uL

Batch ID: 963086

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	2160	0.00	U	1270	59	27-98
108-95-2	MS	Phenol	2160	0.00	U	1400	65	33-94
95-57-8	MS	2-Chlorophenol	2160	0.00	U	1480	68	29-96
106-46-7	MS	1,4-Dichlorobenzene	2160	0.00	U	938	43	27-96
621-64-7	MS	N-Nitrosodipropylamine	2160	0.00	U	1530	71	29-102
59-50-7	MS	4-Chloro-3-methylphenol	2160	0.00	U	1640	76	29-110
83-32-9	MS	Acenaphthene	2160	0.00	U	1310	61	17-109
121-14-2	MS	2,4-Dinitrotoluene	2160	0.00	U	1350	63	33-107
100-02-7	MS	4-Nitrophenol	2160	0.00	U	1790	83	15-110
87-86-5	MS	Pentachlorophenol	2160	0.00	U	1570	73	23-110
129-00-0	MS	Pyrene	2160	35.7	J	1240	56	24-118
110-86-1	MS	Pyridine	2160	0.00	U	1150	53	25-102
62-53-3	MS	Aniline	2160	0.00	U	468	22	18-109
111-44-4	MS	bis(2-Chloroethyl) ether	2160	0.00	U	1130	52	29-96
541-73-1	MS	1,3-Dichlorobenzene	2160	0.00	U	908	42	26-97
100-51-6	MS	Benzyl alcohol	2160	0.00	U	1500	70	19-112
95-50-1	MS	1,2-Dichlorobenzene	2160	0.00	U	1040	48	30-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	2160	0.00	U	1140	53	28-103
95-48-7	MS	o-Cresol	2160	0.00	U	1460	67	32-107
65794-96-9	MS	m,p-Cresols	2160	0.00	U	1230	57	33-115
67-72-1	MS	Hexachloroethane	2160	0.00	U	944	44	25-100
98-95-3	MS	Nitrobenzene	2160	0.00	U	1480	68	27-106

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2193

Sample Type: Matrix Spike

Client ID: RE36-10-7407MS

Matrix: R

Lab Sample ID: 1202066112

%Moisture: 22.9

Instrument: MSD5.I

Analysis Date: 03/22/2010 12:18

Dilution: 1

Analyst: RMB

Prep Batch ID: 963080

Inj. Vol: .5 uL

Batch ID: 963086

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS Isophorone	2160	0.00 U	1420	66	29-104
88-75-5	MS 2-Nitrophenol	2160	0.00 U	1370	63	26-102
105-67-9	MS 2,4-Dimethylphenol	2160	0.00 U	1150	53	22-104
111-91-1	MS bis(2-Chloroethoxy)methane	2160	0.00 U	1290	59	27-101
120-83-2	MS 2,4-Dichlorophenol	2160	0.00 U	1480	68	26-103
65-85-0	MS Benzoic acid	4320	621 J	4560	91	13-131
91-20-3	MS Naphthalene	2160	0.00 U	1070	49	23-103
106-47-8	MS 4-Chloroaniline	2160	0.00 U	758	35	26-103
87-68-3	MS Hexachlorobutadiene	2160	0.00 U	1040	48	28-101
91-57-6	MS 2-Methylnaphthalene	2160	0.00 U	1300	60	27-106
77-47-4	MS Hexachlorocyclopentadiene	2160	0.00 U	660	31	24-117
88-06-2	MS 2,4,6-Trichlorophenol	2160	0.00 U	1470	68	26-105
95-95-4	MS 2,4,5-Trichlorophenol	2160	0.00 U	1450	67	30-110
91-58-7	MS 2-Chloronaphthalene	2160	0.00 U	1250	58	28-102
88-74-4	MS 2-Nitroaniline <i>o</i> -Nitroaniline	2160	0.00 U	1460	68	33-106
99-09-2	MS 3-Nitroaniline <i>m</i> -Nitroaniline	2160	0.00 U	1020	47	33-116
131-11-3	MS Dimethylphthalate	2160	0.00 U	1470	68	38-113
606-20-2	MS 2,6-Dinitrotoluene	2160	0.00 U	1350	63	29-107
208-96-8	MS Acenaphthylene	2160	0.00 U	1320	61	25-108
51-28-5	MS 2,4-Dinitrophenol	2160	0.00 U	1630	76	14-102
132-64-9	MS Dibenzofuran	2160	0.00 U	1350	63	35-112
84-66-2	MS Diethylphthalate	2160	0.00 U	1540	72	36-122



Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

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SDG Number: 10-2193

Sample Type: Matrix Spike

Client ID: RE36-10-7407MS

Matrix: R

Lab Sample ID: 1202066112

%Moisture: 22.9

Instrument: MSD5.I

Analysis Date: 03/22/2010 12:18

Dilution: 1

Analyst: RMB

Prep Batch II 963080

Inj. Vol: .5 uL

Batch ID: 963086

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS Fluorene	2160	0.00 U	1200	55	33-105
7005-72-3	MS 4-Chlorophenylphenylether	2160	0.00 U	1290	60	30-110
534-52-1	MS 2-Methyl-4,6-dinitrophenol	2160	0.00 U	1450	67	26-97
100-01-6	MS 4-Nitroaniline <i>p-Nitroaniline</i>	2160	0.00 U	1170	54	28-135
122-39-4	MS Diphenylamine	2160	0.00 U	1240	57	33-109
122-66-7	MS Azobenzene <i>1,2-Diphenylhydrazine</i>	2160	0.00 U	1720	79	31-113
101-55-3	MS 4-Bromophenylphenylether	2160	0.00 U	1210	56	31-109
118-74-1	MS Hexachlorobenzene	2160	0.00 U	1170	54	37-99
85-01-8	MS Phenanthrene	2160	27.3 J	1290	58	29-109
120-12-7	MS Anthracene	2160	0.00 U	1270	59	19-118
84-74-2	MS Di-n-butylphthalate	2160	0.00 U	1500	69	39-123
206-44-0	MS Fluoranthene	2160	44.8	1280	57	33-114
85-68-7	MS Butylbenzylphthalate	2160	0.00 U	1540	71	35-131
56-55-3	MS Benzo(a)anthracene	2160	27.2 J	1210	55	30-111
91-94-1	MS 3,3'-Dichlorobenzidine	2160	0.00 U	0.00	0 *	30-124
218-01-9	MS Chrysene	2160	21.4 J	1270	58	32-108
117-81-7	MS bis(2-Ethylhexyl)phthalate	2160	0.00 U	1680	78	37-129
117-84-0	MS Di-n-octylphthalate	2160	0.00 U	1610	75	31-143
205-99-2	MS Benzo(b)fluoranthene	2160	0.00 U	1270	59	29-118
207-08-9	MS Benzo(k)fluoranthene	2160	0.00 U	1250	58	32-118
50-32-8	MS Benzo(a)pyrene	2160	20.1 J	1260	57	33-115
193-39-5	MS Indeno(1,2,3-cd)pyrene	2160	0.00 U	1210	56	29-114

## Semi-Volatile

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Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2193

Sample Type: Matrix Spike

Client ID: RE36-10-7407MS

Matrix: R

Lab Sample ID: 1202066112

% Moisture: 22.9

Instrument: MSD5.J

Analysis Date: 03/22/2010 12:18

Dilution: 1

Analyst: RMB

Prod Batch ID: 963080

Inj. Vol: .5 uL

Batch ID: 963086

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS Dibenzo(a,h)anthracene	2160	0.00 U	1310	61	27-119
191-24-2	MS Benzo(ghi)perylene	2160	0.00 U	1180	55	28-112
120-82-1	MS 1,2,4-Trichlorobenzene	2160	0.00 U	1180	54	28-99

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

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SDG Number: 10-2193

Sample Type: Matrix Spike Duplicate

Client ID: RE36-10-7407MSD

Matrix: R

Lab Sample ID: 1202066113

%Moisture: 22.9

Instrument: MSD5.I

Analysis Date: 03/22/2010 12:41

Dilution: 1

Analyst: RMB

Pren Batch II 963080

Inj. Vol: .5 uL

Batch ID: 963086

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	2160	0.00	U	1310	61	27-98	4	0-30
108-95-2	MSD Phenol	2160	0.00	U	1490	69	33-94	6	0-30
95-57-8	MSD 2-Chlorophenol	2160	0.00	U	1620	75	29-96	9	0-30
106-46-7	MSD 1,4-Dichlorobenzene	2160	0.00	U	991	46	27-96	5	0-30
621-64-7	MSD N-Nitrosodipropylamine	2160	0.00	U	1630	75	29-102	6	0-30
59-50-7	MSD 4-Chloro-3-methylphenol	2160	0.00	U	1800	83	29-110	9	0-30
83-32-9	MSD Acenaphthene	2160	0.00	U	1380	64	17-109	6	0-30
121-14-2	MSD 2,4-Dinitrotoluene	2160	0.00	U	1480	68	33-107	9	0-30
100-02-7	MSD 4-Nitrophenol	2160	0.00	U	1970	91	15-110	9	0-30
87-86-5	MSD Pentachlorophenol	2160	0.00	U	1650	76	23-110	5	0-30
129-00-0	MSD Pyrene	2160	35.7	J	1250	56	24-118	1	0-30
110-86-1	MSD Pyridine	2160	0.00	U	1160	54	25-102	1	0-30
62-53-3	MSD Aniline	2160	0.00	U	529	24	18-109	12	0-30
111-44-4	MSD bis(2-Chloroethyl) ether	2160	0.00	U	1180	54	29-96	4	0-30
541-73-1	MSD 1,3-Dichlorobenzene	2160	0.00	U	943	44	26-97	4	0-30
100-51-6	MSD Benzyl alcohol	2160	0.00	U	1600	74	19-112	6	0-30
95-50-1	MSD 1,2-Dichlorobenzene	2160	0.00	U	1120	52	30-97	7	0-30
108-60-1	MSD bis(2-Chloroisopropyl)ether	2160	0.00	U	1180	55	28-103	4	0-30
95-48-7	MSD o-Cresol	2160	0.00	U	1660	77	32-107	13	0-30
65794-96-9	MSD m,p-Cresols	2160	0.00	U	1370	63	33-115	11	0-30
67-72-1	MSD Hexachloroethane	2160	0.00	U	972	45	25-100	3	0-30
98-95-3	MSD Nitrobenzene	2160	0.00	U	1610	74	27-106	8	0-30

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

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SDG Number: 10-2193

Sample Type: Matrix Spike Duplicate

Client ID: RE36-10-7407MSD

Matrix: R

Lab Sample ID: 1202066113

%Moisture: 22.9

Instrument: MSD5.I

Analysis Date: 03/22/2010 12:41

Dilution: 1

Analyst: RMB

Prep Batch ID: 963080

Inj. Vol: .5 uL

Batch ID: 963086

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	2160	0.00 U	1530	71	29-104	7	0-30
88-75-5	MSD 2-Nitrophenol	2160	0.00 U	1440	67	26-102	5	0-30
105-67-9	MSD 2,4-Dimethylphenol	2160	0.00 U	1320	61	22-104	13	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	2160	0.00 U	1410	65	27-101	9	0-30
120-83-2	MSD 2,4-Dichlorophenol	2160	0.00 U	1570	73	26-103	6	0-30
65-85-0	MSD Benzoic acid	4320	621 J	4680	94	13-131	3	0-30
91-20-3	MSD Naphthalene	2160	0.00 U	1160	54	23-103	8	0-30
106-47-8	MSD 4-Chloroaniline	2160	0.00 U	889	41	26-103	16	0-30
87-68-3	MSD Hexachlorobutadiene	2160	0.00 U	1140	53	28-101	10	0-30
91-57-6	MSD 2-Methylnaphthalene	2160	0.00 U	1360	63	27-106	5	0-30
77-47-4	MSD Hexachlorocyclopentadiene	2160	0.00 U	718	33	24-117	8	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	2160	0.00 U	1560	72	26-105	6	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	2160	0.00 U	1570	73	30-110	8	0-30
91-58-7	MSD 2-Chloronaphthalene	2160	0.00 U	1320	61	28-102	6	0-30
88-74-4	MSD 2-Nitroaniline	2160	0.00 U	1550	72	33-106	5	0-30
99-09-2	MSD 3-Nitroaniline	2160	0.00 U	1130	52	33-116	10	0-30
131-11-3	MSD Dimethylphthalate	2160	0.00 U	1580	73	38-113	7	0-30
606-20-2	MSD 2,6-Dinitrotoluene	2160	0.00 U	1440	67	29-107	6	0-30
208-96-8	MSD Acenaphthylene	2160	0.00 U	1430	66	25-108	8	0-30
51-28-5	MSD 2,4-Dinitrophenol	2160	0.00 U	1860	86	14-102	13	0-30
132-64-9	MSD Dibenzofuran	2160	0.00 U	1430	66	35-112	6	0-30
84-66-2	MSD Diethylphthalate	2160	0.00 U	1660	77	36-122	7	0-30

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

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SDG Number: 10-2193

Sample Type: Matrix Spike Duplicate

Client ID: RE36-10-7407MSD

Matrix: R

Lab Sample ID: 1202066113

%Moisture: 22.9

Instrument: MSD5.I

Analysis Date: 03/22/2010 12:41

Dilution: 1

Analyst: RMB

Prep Batch II 963080

Inj. Vol: .5 uL

Batch ID: 963086

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	2160	0.00	U	1260	58	33-105	5	0-30
7005-72-3	MSD 4-Chlorophenylphenylether	2160	0.00	U	1370	63	30-110	6	0-30
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	2160	0.00	U	1610	75	26-97	11	0-30
100-01-6	MSD 4-Nitroaniline <i>p</i> -Nitroaniline	2160	0.00	U	1590	73	28-135	31 *	0-30
122-39-4	MSD Diphenylamine	2160	0.00	U	1340	62	33-109	8	0-30
122-66-7	MSD Azobenzene <i>1,2</i> -Diphenylhydrazine	2160	0.00	U	1770	82	31-113	3	0-30
101-55-3	MSD 4-Bromophenylphenylether	2160	0.00	U	1250	58	31-109	3	0-30
118-74-1	MSD Hexachlorobenzene	2160	0.00	U	1180	55	37-99	1	0-30
85-01-8	MSD Phenanthrene	2160	27.3	J	1350	61	29-109	5	0-30
120-12-7	MSD Anthracene	2160	0.00	U	1320	61	19-118	4	0-30
84-74-2	MSD Di-n-butylphthalate	2160	0.00	U	1600	74	39-123	7	0-30
206-44-0	MSD Fluoranthene	2160	44.8		1350	60	33-114	5	0-30
85-68-7	MSD Butylbenzylphthalate	2160	0.00	U	1580	73	35-131	3	0-30
56-55-3	MSD Benzo(a)anthracene	2160	27.2	J	1260	57	30-111	4	0-30
91-94-1	MSD 3,3'-Dichlorobenzidine	2160	0.00	U	0.00	0 *	30-124	0	0-30
218-01-9	MSD Chrysene	2160	21.4	J	1320	60	32-108	4	0-30
117-81-7	MSD bis(2-Ethylhexyl)phthalate	2160	0.00	U	1690	78	37-129	1	0-30
117-84-0	MSD Di-n-octylphthalate	2160	0.00	U	1630	76	31-143	2	0-30
205-99-2	MSD Benzo(b)fluoranthene	2160	0.00	U	1420	66	29-118	11	0-30
207-08-9	MSD Benzo(k)fluoranthene	2160	0.00	U	1220	56	32-118	2	0-30
50-32-8	MSD Benzo(a)pyrene	2160	20.1	J	1330	61	33-115	5	0-30
193-39-5	MSD Indeno(1,2,3-cd)pyrene	2160	0.00	U	1350	63	29-114	11	0-30

Semi-Volatile  
Quality Control Summary  
Spike Recovery Report

Page 8 of 8

SDG Number: 10-2193

Sample Type: Matrix Spike Duplicate

Client ID: RE36-10-7407MSD

Matrix: R

Lab Sample ID: 1202066113

%Moisture: 22.9

Instrument: MSD5.I

Analysis Date: 03/22/2010 12:41

Dilution: 1

Analyst: RMB

Prep Batch ID: 963080

Inj. Vol: .5 uL

Batch ID: 963086

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	2160	0.00 U	1430	66	27-119	9	0-30
191-24-2	MSD Benzo(ghi)perylene	2160	0.00 U	1300	60	28-112	10	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	2160	0.00 U	1250	58	28-99	6	0-30

## Method Blank Summary

SDG Number: 10-2193  
 Client ID: MB for batch 963080  
 Lab Sample ID: 1202066110  
 Column: J&W DB-5MS

Client: LANL010  
 Instrument ID: MSD5.1  
 Prep Date: 03/10/2010 12:33  
 Level: LOW

Matrix: SOIL  
 Data File: s5c2208.d  
 Analyzed: 03/22/10 11:09

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 963080	1202066111	s5c2209.d	03/22/10	1132
02 RE36-10-7407	248506001	s5c2210.d	03/22/10	1155
03 RE36-10-7407MS	1202066112	s5c2211.d	03/22/10	1218
04 RE36-10-7407MSD	1202066113	s5c2212.d	03/22/10	1241
05 RE36-10-7421	248506002	s5c2213.d	03/22/10	1304
06 RE36-10-7422	248506003	s5c2214.d	03/22/10	1327
07 RE36-10-7451	248506004	s5c2215.d	03/22/10	1349
08 RE36-10-7449	248506005	s5c2216.d	03/22/10	1413
09 RE36-10-7445	248506006	s5c2217.d	03/22/10	1435
10 RE36-10-7450	248506007	s5c2218.d	03/22/10	1458
11 RE36-10-7444	248506008	s5c2219.d	03/22/10	1521
12 RE36-10-7448	248506009	s5c2220.d	03/22/10	1544
13 RE36-10-7447	248506010	s5c2221.d	03/22/10	1607
14 RE36-10-7443	248506011	s5c2222.d	03/22/10	1630
15 RE36-10-7452	248506012	s5c2223.d	03/22/10	1654
16 RE36-10-7437	248506013	s5c2224.d	03/22/10	1716
17 RE36-10-7440	248506014	s5c2225.d	03/22/10	1739
18 RE36-10-7435	248506015	s5c2226.d	03/22/10	1802
19 RE36-10-7441	248506016	s5c2227.d	03/22/10	1825
20 RE36-10-7442	248506017	s5c2228.d	03/22/10	1848
21 RE36-10-7436	248506018	s5c2229.d	03/22/10	1911
22 RE36-10-7438	248506019	s5c2230.d	03/22/10	1934
23 RE36-10-7439	248506020	s5c2231.d	03/22/10	1957

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2193

Instrument ID: MSD5.I

Injection Date/Time: 17-FEB-10 14:51

Column Description: Phenomenex ZB-5MS

Lab File ID /chem/MSD5.i/s021710.b/s5b1701.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	44.5
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	41.3
70	Less than 2% of mass 69	0.4
127	40 - 60% of mass 198	49.4
197	0 - 1% of mass 198	0.6
199	5 - 9% of mass 198	7
275	10 - 30% of mass 198	26.6
365	Greater than 1% of mass 198	3.6
441	Present, but less than mass 443	67.4
442	Greater than 40% of mass 198	82.6
443	17 - 23% of mass 442	21.7

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
AP12ICAL010	WBN100120-01	s5b1711.d	17-FEB-10 19:16
AP12ICAL020	WBN100120-02	s5b1712.d	17-FEB-10 19:38
AP12ICAL040	WBN100120-03.1	s5b1713.d	17-FEB-10 20:01
AP12ICAL050	WBN100120-04	s5b1714.d	17-FEB-10 20:24
AP12ICAL080	WBN100120-05	s5b1715.d	17-FEB-10 20:47
AP12ICAL100	WBN100120-06	s5b1716.d	17-FEB-10 21:10
AP12ICAL120	WBN100120-07	s5b1717.d	17-FEB-10 21:33
AP12ICV	WBN100120-08.1	s5b1719.d	17-FEB-10 22:24



## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2193

Instrument ID: MSD5.1

Injection Date/Time: 18-FEB-10 08:43

Column Description: Phenomenex ZB-5MS

Lab File ID /chem/MSD5.1/s021710.b/s5b1727.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	43.6
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	40.6
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	50
197	0 - 1% of mass 198	0.6
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	25.7
365	Greater than 1% of mass 198	3.2
441	Present, but less than mass 443	72.2
442	Greater than 40% of mass 198	86.9
443	17 - 23% of mass 442	21.1

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
MEGAICAL001	WBN100215-08	s5b1729.d	18-FEB-10 09:42
MEGAICAL010	WBN100215-07	s5b1730.d	18-FEB-10 10:10
MEGAICAL020	WBN100215-06	s5b1731.d	18-FEB-10 10:39
MEGAICAL040	WBN100215-05.1	s5b1732.d	18-FEB-10 11:08
MEGAICAL050	WBN100215-04	s5b1733.d	18-FEB-10 11:35
MEGAICAL080	WBN100215-03	s5b1734.d	18-FEB-10 12:04
MEGAICAL100	WBN100215-02	s5b1735.d	18-FEB-10 12:32
MEGAICAL120	WBN100215-01	s5b1736.d	18-FEB-10 13:01
MEGAICV	WBN100215-09.1	s5b1738.d	18-FEB-10 13:53

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2193

Instrument ID: MSD5.I

Injection Date/Time: 22-MAR-10 10:05

Column Description: Phenomenex ZB-5MS

Lab File ID /chem/MSD5.i/s032210.b/s5c2205.d

m/e	Ion Abundance Criteria	% Relative Abundance
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	58.1
197	0 - 1% of mass 198	0.9
199	5 - 9% of mass 198	7.1
275	10 - 30% of mass 198	26.4
365	Greater than 1% of mass 198	5.1
441	Present, but less than mass 443	76.9
442	Greater than 40% of mass 198	69.5
443	17 - 23% of mass 442	20.4
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	55.6
68	Less than 2% of mass 69	1.7
69	Mass 69 Relative Abundance	50.1

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	WBN100129-05.5	s5c2206.d	22-MAR-10 10:18
API2CVS	WBN100312-03.5	s5c2207.d	22-MAR-10 10:46
SBLK01	1202066110	s5c2208.d	22-MAR-10 11:09
SBLK01LCS	1202066111	s5c2209.d	22-MAR-10 11:32
RE36-10-7407	248506001	s5c2210.d	22-MAR-10 11:55
RE36-10-7407MS	1202066112	s5c2211.d	22-MAR-10 12:18
RE36-10-7407MSD	1202066113	s5c2212.d	22-MAR-10 12:41
RE36-10-7421	248506002	s5c2213.d	22-MAR-10 13:04
RE36-10-7422	248506003	s5c2214.d	22-MAR-10 13:27
RE36-10-7451	248506004	s5c2215.d	22-MAR-10 13:49
RE36-10-7449	248506005	s5c2216.d	22-MAR-10 14:13
RE36-10-7445	248506006	s5c2217.d	22-MAR-10 14:35
RE36-10-7450	248506007	s5c2218.d	22-MAR-10 14:58
RE36-10-7444	248506008	s5c2219.d	22-MAR-10 15:21
RE36-10-7448	248506009	s5c2220.d	22-MAR-10 15:44
RE36-10-7447	248506010	s5c2221.d	22-MAR-10 16:07

## Instrument Performance Check

## DFTPP

Lab Name GEL Laboratories LLC

Client SDG: 10-2193

Instrument ID: MSD5.I

Injection Date/Time: 22-MAR-10 10:05

Column Description: Phenomenex ZB-5MS

Lab File ID /chem/MSD5.i/s032210.b/s5c2205.d

m/e	Ion Abundance Criteria	% Relative Abundance
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	58.1
197	0 - 1% of mass 198	0.9
199	5 - 9% of mass 198	7.1
275	10 - 30% of mass 198	26.4
365	Greater than 1% of mass 198	5.1
441	Present, but less than mass 443	76.9
442	Greater than 40% of mass 198	69.5
443	17 - 23% of mass 442	20.4
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	55.6
68	Less than 2% of mass 69	1.7
69	Mass 69 Relative Abundance	50.1

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
RE36-10-7443	248506011	s5c2222.d	22-MAR-10 16:30
RE36-10-7452	248506012	s5c2223.d	22-MAR-10 16:54
RE36-10-7437	248506013	s5c2224.d	22-MAR-10 17:16
RE36-10-7440	248506014	s5c2225.d	22-MAR-10 17:39
RE36-10-7435	248506015	s5c2226.d	22-MAR-10 18:02
RE36-10-7441	248506016	s5c2227.d	22-MAR-10 18:25
RE36-10-7442	248506017	s5c2228.d	22-MAR-10 18:48
RE36-10-7436	248506018	s5c2229.d	22-MAR-10 19:11
RE36-10-7438	248506019	s5c2230.d	22-MAR-10 19:34
RE36-10-7439	248506020	s5c2231.d	22-MAR-10 19:57

### Internal Standard Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2193

Instrument: MSD5.1

STD Analysis Time: 22-MAR-10 10:18

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

Data File: s5c2206.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	253657		3.95	1010577		4.82	572604		6.08	1021744		7.25	1027829		9.67	992950		11.4
Upper Limit	507314		4.45	2021154		5.32	1145208		6.58	2043488		7.75	2055658		10.2	1985900		11.9
Lower Limit	126829		3.45	505289		4.32	286302		5.58	510872		6.75	513915		9.17	496475		10.9
Sample ID																		
BLK01	263318		3.94	1009397		4.81	589214		6.07	1042663		7.24	1010082		9.66	936795		11.4
BLK01LCS	253770		3.94	1016198		4.81	596451		6.07	1067876		7.25	1040125		9.67	962336		11.4
RE36-10-7407	256420		3.94	972552		4.81	569702		6.07	977574		7.24	879503		9.66	722462		11.4
RE36-10-7407MS	279434		3.94	1114292		4.81	652596		6.07	1149047		7.25	975905		9.67	800952		11.4
RE36-10-7407MSD	277919		3.94	1096271		4.81	652022		6.07	1170646		7.25	1055077		9.67	871989		11.4
RE36-10-7421	270985		3.94	1033028		4.81	619716		6.07	1103037		7.25	869459		9.67	661980		11.4
RE36-10-7422	264936		3.94	1036157		4.81	632443		6.07	1116155		7.25	968331		9.67	800119		11.4
RE36-10-7451	269906		3.94	1037921		4.81	638925		6.07	1123080		7.25	1061489		9.67	921841		11.4
RE36-10-7449	266875		3.95	1002216		4.81	627194		6.07	1104094		7.25	994863		9.67	841660		11.4
RE36-10-7445	268130		3.95	1041118		4.81	636991		6.07	1137238		7.25	1031896		9.67	752191		11.4
RE36-10-7450	277559		3.94	1076533		4.81	661700		6.07	1177046		7.25	1090721		9.67	904490		11.4
RE36-10-7444	276174		3.95	1050945		4.81	638386		6.07	1157209		7.25	1098115		9.67	853775		11.4
RE36-10-7448	254138		3.95	994075		4.81	617840		6.07	1102361		7.25	1033090		9.67	865318		11.4
RE36-10-7447	252505		3.95	1032776		4.81	599894		6.07	1077501		7.25	949280		9.67	736577		11.4
RE36-10-7443	270222		3.95	1067137		4.81	665794		6.07	1198418		7.25	1068046		9.67	883762		11.4
RE36-10-7452	257030		3.95	1019332		4.81	615475		6.07	1131162		7.25	993472		9.68	738511		11.4
RE36-10-7437	257888		3.95	1004072		4.81	604003		6.07	1078894		7.25	830155		9.67	524611		11.4
RE36-10-7440	240807		3.95	994428		4.81	573003		6.07	1019580		7.25	878894		9.67	615320		11.4
RE36-10-7435	237904		3.95	979535		4.81	577975		6.07	1045110		7.25	938040		9.67	649352		11.4
RE36-10-7441	229513		3.95	942308		4.81	567017		6.07	1009761		7.25	817790		9.67	500553		11.4
RE36-10-7442	238512		3.95	956800		4.81	569027		6.07	1011382		7.25	902789		9.67	627122		11.4
RE36-10-7436	247442		3.95	1019470		4.81	605296		6.07	1066685		7.25	1006687		9.67	743774		11.4
RE36-10-7438	240117		3.95	966208		4.81	568148		6.07	1003703		7.25	892989		9.67	652768		11.4
RE36-10-7439	245335		3.95	966466		4.81	554119		6.08	979268		7.25	713153		9.67	446174	*	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**

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506001	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 22.9
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7407	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 11:55	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2210.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	432	ug/kg	86.4	432
108-95-2	Phenol	U	432	ug/kg	86.4	432
95-57-8	2-Chlorophenol	U	432	ug/kg	86.4	432
106-46-7	1,4-Dichlorobenzene	U	432	ug/kg	86.4	432
621-64-7	N-Nitrosodipropylamine	U	432	ug/kg	86.4	432
59-50-7	4-Chloro-3-methylphenol	U	432	ug/kg	86.4	432
83-32-9	Acenaphthene	U	43.2	ug/kg	14.3	43.2
121-14-2	2,4-Dinitrotoluene	U	432	ug/kg	43.2	432
100-02-7	4-Nitrophenol	U	432	ug/kg	143	432
87-86-5	Pentachlorophenol	U	432	ug/kg	108	432
129-00-0	Pyrene	J	35.7	ug/kg	13.0	43.2
110-86-1	Pyridine	U	432	ug/kg	86.4	432
62-53-3	Aniline	U	432	ug/kg	130	432
111-44-4	bis(2-Chloroethyl) ether	U	432	ug/kg	86.4	432
541-73-1	1,3-Dichlorobenzene	U	432	ug/kg	86.4	432
100-51-6	Benzyl alcohol	U	432	ug/kg	130	432
95-50-1	1,2-Dichlorobenzene	U	432	ug/kg	86.4	432
108-60-1	bis(2-Chloroisopropyl)ether	U	432	ug/kg	86.4	432
95-48-7	o-Cresol	U	432	ug/kg	86.4	432
65794-96-9	m,p-Cresols	U	432	ug/kg	130	432
67-72-1	Hexachloroethane	U	432	ug/kg	86.4	432
98-95-3	Nitrobenzene	U	432	ug/kg	86.4	432
78-59-1	Isophorone	U	432	ug/kg	86.4	432
88-75-5	2-Nitrophenol	U	432	ug/kg	86.4	432
105-67-9	2,4-Dimethylphenol	U	432	ug/kg	151	432
111-91-1	bis(2-Chloroethoxy)methane	U	432	ug/kg	86.4	432
120-83-2	2,4-Dichlorophenol	U	432	ug/kg	86.4	432
65-85-0	Benzoic acid	J	621	ug/kg	216	864
91-20-3	Naphthalene	U	43.2	ug/kg	13.0	43.2
106-47-8	4-Chloroaniline	U	432	ug/kg	86.4	432
87-68-3	Hexachlorobutadiene	U	432	ug/kg	86.4	432
91-57-6	2-Methylnaphthalene	U	43.2	ug/kg	8.64	43.2
77-47-4	Hexachlorocyclopentadiene	U	432	ug/kg	86.4	432
88-06-2	2,4,6-Trichlorophenol	U	432	ug/kg	86.4	432
95-95-4	2,4,5-Trichlorophenol	U	432	ug/kg	86.4	432
91-58-7	2-Chloronaphthalene	U	43.2	ug/kg	14.3	43.2
88-74-4	2-Nitroaniline	U	432	ug/kg	86.4	432
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	432	ug/kg	86.4	432

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506001	<b>Date Received:</b> 03/03/2010 08:50	<b>% Moisture:</b> 22.9
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7407	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 11:55	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2210.d	<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	432	ug/kg	86.4	432
606-20-2	2,6-Dinitrotoluene	U	432	ug/kg	43.2	432
208-96-8	Acenaphthylene	U	43.2	ug/kg	13.0	43.2
51-28-5	2,4-Dinitrophenol	U	864	ug/kg	164	864
132-64-9	Dibenzofuran	U	432	ug/kg	86.4	432
84-66-2	Diethylphthalate	U	432	ug/kg	86.4	432
86-73-7	Fluorene	U	43.2	ug/kg	13.0	43.2
7005-72-3	4-Chlorophenylphenylether	U	432	ug/kg	86.4	432
534-52-1	2-Methyl-4,6-dinitrophenol	U	432	ug/kg	86.4	432
100-01-6	4-Nitroaniline	U	432	ug/kg	130	432
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	432	ug/kg	86.4	432
122-66-7	Azobenzene	U	432	ug/kg	86.4	432
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	432	ug/kg	86.4	432
118-74-1	Hexachlorobenzene	U	432	ug/kg	86.4	432
85-01-8	Phenanthrene	J	27.3	ug/kg	13.0	43.2
120-12-7	Anthracene	U	43.2	ug/kg	8.64	43.2
84-74-2	Di-n-butylphthalate	U	432	ug/kg	86.4	432
206-44-0	Fluoranthene		44.8	ug/kg	13.0	43.2
85-68-7	Butylbenzylphthalate	U	432	ug/kg	86.4	432
56-55-3	Benzo(a)anthracene	J	27.2	ug/kg	13.0	43.2
91-94-1	3,3'-Dichlorobenzidine	U	432	ug/kg	130	432
218-01-9	Chrysene	J	21.4	ug/kg	13.0	43.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	432	ug/kg	86.4	432
117-84-0	Di-n-octylphthalate	U	432	ug/kg	86.4	432
205-99-2	Benzo(b)fluoranthene	U	43.2	ug/kg	13.0	43.2
207-08-9	Benzo(k)fluoranthene	U	43.2	ug/kg	13.0	43.2
50-32-8	Benzo(a)pyrene	J	20.1	ug/kg	13.0	43.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	43.2	ug/kg	13.0	43.2
53-70-3	Dibenzo(a,h)anthracene	U	43.2	ug/kg	13.0	43.2
191-24-2	Benzo(ghi)perylene	U	43.2	ug/kg	13.0	43.2
120-82-1	1,2,4-Trichlorobenzene	U	432	ug/kg	86.4	432

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
25269-17-4	Thunbergol	8.13	511	ug/kg	83	NJ
1139-30-6	Caryophyllene oxide	8.36	321	ug/kg	90	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506001	Date Received: 03/03/2010 08:50	%Moisture: 22.9
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7407	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 11:55	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30 g	Final Volume: 1 mL
Data File: s5c2210.d	Column: J&W DB-SMS	Level: LOW

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

Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.68	243	ug/kg		J
4860-03-1	Hexadecane, 1-chloro-	8.8	284	ug/kg	92	NJ
	Unknown	9.01	294	ug/kg		J
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	9.04	207	ug/kg	93	NJ
	Unknown	9.06	246	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.1	177	ug/kg	89	NJ
	Unknown	9.12	348	ug/kg		J
	Unknown	9.25	437	ug/kg		J
74339-54-1	Trichloroacetic acid, hexadecyl ester	9.44	608	ug/kg	93	NJ
	Unknown	9.52	227	ug/kg		J
62016-76-6	Nonadecane, 1-chloro-	9.75	175	ug/kg	94	NJ
	Unknown	9.88	264	ug/kg		J
1599-67-3	1-Docosene	10.1	597	ug/kg	98	NJ
	Unknown	11.91	712	ug/kg		J
	Unknown	12.09	232	ug/kg		J
	Unknown	12.67	414	ug/kg		J
	Unknown	12.97	300	ug/kg		J
83-47-6	gamma.-Sitosterol	13.85	1300	ug/kg	99	NJ



Data File: /chem/MSD5.i/s032210.b/s5c2210.d  
Report Date: 22-Mar-2010 12:36

Page 1

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2210.d  
Lab Smp Id: 248506001 Client Smp ID: RE36-10-7407  
Inj Date : 22-MAR-2010 11:55  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506001|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 10  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	22.85850	% 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	3.942	3.950	(1.000)	256420	40.0000	
* 29 Naphthalene-d8		136	4.813	4.821	(1.000)	972552	40.0000	
* 46 Acenaphthene-d10		164	6.072	6.078	(1.000)	569702	40.0000	
* 67 Phenanthrene-d10		188	7.242	7.253	(1.000)	977574	40.0000	
* 91 Chrysene-d12		240	9.660	9.670	(1.000)	879503	40.0000	
* 98 Perylene-d12		264	11.360	11.370	(1.000)	722462	40.0000	
\$ 3 2-Fluorophenol		112	3.137	3.141	(0.796)	410819	64.1609	2770
\$ 5 Phenol-d5		99	3.660	3.666	(0.928)	535511	69.5853	3010
\$ 20 Nitrobenzene-d5		82	4.307	4.316	(0.895)	255782	35.3939	1530
\$ 39 2-Fluorobiphenyl		172	5.554	5.558	(0.915)	458548	32.2257	1390
\$ 60 2,4,6-Tribromophenol		329	6.672	6.675	(1.099)	138409	64.6837	2800
\$ 81 p-Terphenyl-d14		244	8.630	8.630	(0.893)	523219	35.7639	1540

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	8.525	8.534	(0.882)	20094	0.82683	35.7(a)
27 Benzoic acid	105	4.554	4.585	(0.946)	21305	14.3697	621(a)
68 Phenanthrene	178	7.266	7.272	(1.003)	13098	0.63293	27.3(a)
76 Fluoranthene	202	8.307	8.317	(1.147)	22405	1.03787	44.8
89 Benzo(a)anthracene	228	9.648	9.656	(0.999)	12386	0.62973	27.2(a)
92 Chrysene	228	9.683	9.694	(1.002)	9084	0.49563	21.4(a)
97 Benzo(a)pyrene	252	11.277	11.293	(0.993)	6736	0.46465	20.1(a)

#### QC Flag Legend

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

## ION RATIO REPORT

## SV REPORT

Data file: s5c2210.d

Report Date: 03/22/2010 12:31

Lab. ID: 248506001

SampleType: SAMPLE

Injection Date: 22-MAR-2010 11:55

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506001|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline		CAS#: 62-53-3			
66	36361	3.66	3.74	80-120	100	(T)
93	8176	3.62	3.74	219-279	22	(QT)
-----						
17	N-Nitrosodipropylamine		CAS#: 621-64-7			
70	36407	4.31	4.19	80-120	100	(T)
42	22950	4.30	4.19	44-104	63	(T)
-----						
27	Benzoic acid		CAS#: 65-85-0			
105	21305	4.55	4.59	80-120	100	( )
122	14552	4.55	4.59	45-105	68	( )
77	12109	4.55	4.59	48-108	57	( )
-----						
43	Dimethylphthalate		CAS#: 131-11-3			
163	103028	6.07	5.84	80-120	100	(T)
164	569471	6.07	5.84	0- 40	553	(QT)
-----						
44	2,6-Dinitrotoluene		CAS#: 606-20-2			
165	74028	6.07	5.90	80-120	100	(T)
63	1064	6.07	5.89	62-122	1	(QT)
-----						
45	Acenaphthylene		CAS#: 208-96-8			
152	14207	6.04	5.98	80-120	100	(T)
151	4442	6.04	5.98	0- 50	31	(T)
153	16698	6.04	5.98	0- 45	118	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
47 Acenaphthene			CAS#: 83-32-9			
154	12747	6.04	6.10	80-120	100	( )
153	16698	6.04	6.10	72-132	131	( )
152	14206	6.04	6.10	15- 75	111	(Q)
-----						
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	74028	6.07	6.19	80-120	100	(T)
89	2308	6.07	6.19	51-111	3	(QT)
63	1064	6.07	6.19	24- 84	1	(QT)
-----						
52 4-Nitrophenol			CAS#: 100-02-7			
139	432	6.13	6.12	80-120	100	( )
109	538	6.16	6.12	63-123	125	(Q)
65	1573	6.13	6.11	71-131	364	(Q)
-----						
53 Fluorene			CAS#: 86-73-7			
166	6920	6.67	6.49	80-120	100	(T)
165	6394	6.67	6.49	62-122	92	(T)
167	2515	6.67	6.49	0- 44	36	(T)
-----						
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	856	6.67	6.51	80-120	100	(T)
105	2312	6.67	6.50	13- 73	270	(QT)
51	1737	6.67	6.50	51-111	203	(QT)
-----						
68 Phenanthrene			CAS#: 85-01-8			
178	13098	7.27	7.27	80-120	100	( )
179	2529	7.26	7.27	0- 46	19	( )
176	2391	7.27	7.27	0- 49	18	( )
-----						
69 Anthracene			CAS#: 120-12-7			
178	13098	7.27	7.32	80-120	100	( )
179	2529	7.26	7.32	0- 46	19	( )
176	2391	7.27	7.32	0- 49	18	( )
-----						
76 Fluoranthene			CAS#: 206-44-0			
202	22405	8.31	8.32	80-120	100	( )
203	5419	8.31	8.32	0- 48	24	( )
101	3064	8.31	8.32	0- 41	14	( )
-----						
79 Pyrene			CAS#: 129-00-0			
202	20094	8.52	8.53	80-120	100	( )
200	4988	8.52	8.53	0- 51	25	( )
101	4003	8.52	8.53	0- 43	20	( )
-----						
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	12386	9.65	9.66	80-120	100	( )
226	2856	9.65	9.66	0- 56	23	( )
229	4273	9.65	9.66	0- 50	35	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
92 Chrysene		CAS#: 218-01-9				
228	9084	9.68	9.69	80-120	100	( )
229	1871	9.68	9.69	0- 50	21	( )
226	3132	9.68	9.69	0- 59	34	( )
-----						
95 Benzo(b)fluoranthene		CAS#: 205-99-2				
252	7912	10.83	10.85	80-120	100	( )
253	1480	10.82	10.85	0- 52	19	( )
125	1928	10.84	10.85	0- 41	24	( )
-----						
96 Benzo(k)fluoranthene		CAS#: 207-08-9				
252	7912	10.83	10.88	80-120	100	( )
253	1195	10.82	10.88	0- 52	15	( )
125	1650	10.84	10.88	0- 40	21	( )
-----						
97 Benzo(a)pyrene		CAS#: 50-32-8				
252	6736	11.28	11.29	80-120	100	( )
253	1627	11.27	11.29	0- 52	24	( )
125	1263	11.28	11.29	0- 30	19	( )

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

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2210.d  
Lab Smp Id: 248506001 Client Smp ID: RE36-10-7407  
Inj Date : 22-MAR-2010 11:55  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506001|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 10  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	22.85850	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 67 Phenanthrene-d10	7.242	2667491	40.000
* 91 Chrysene-d12	9.660	2789702	40.000
* 98 Perylene-d12	11.360	2060070	40.000

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

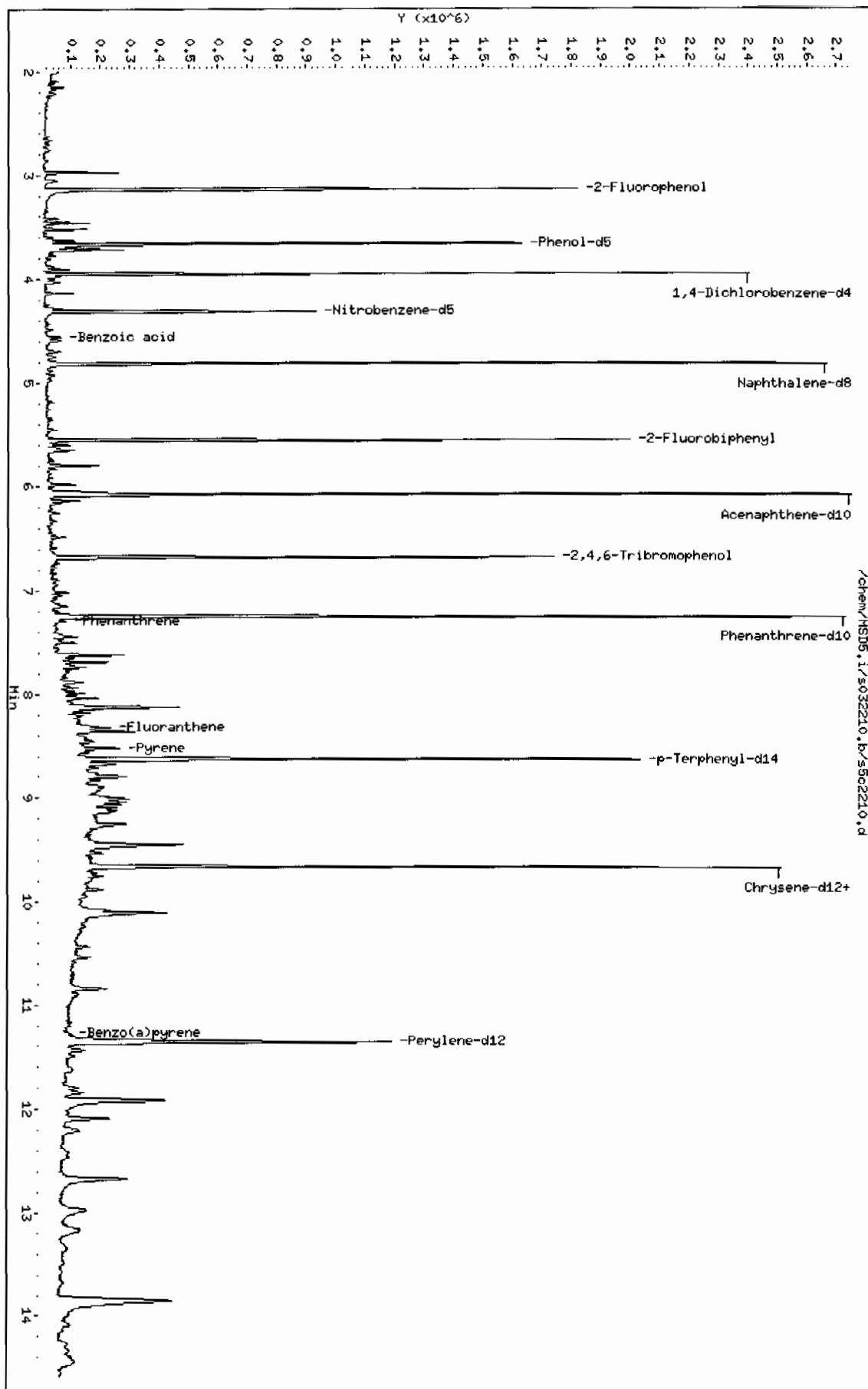
RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Thunbergol					CAS #: 25269-17-4		
8.130	788927	11.8302455	511	83	NIST05.L	118732	67
Caryophyllene oxide					CAS #: 1139-30-6		
8.360	495219	7.42598176	321	90	NIST05.L	71353	67
Unknown					CAS #:		
8.677	391792	5.61769251	243	0		0	91
Hexadecane, 1-chloro-					CAS #: 4860-03-1		
8.795	459069	6.58234072	284	92	NIST05.L	98777	91
Unknown					CAS #:		
9.007	474814	6.80809067	294	0		0	91
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa					CAS #: 511-15-9		
9.036	334835	4.80101385	207	93	NIST05.L	116239	91
Unknown					CAS #:		
9.060	396361	5.68320061	246	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 1235-74-1		
9.095	284931	4.08546314	176	89	NIST05.L	133620	91
Unknown					CAS #:		
9.119	562468	8.06492088	348	0		0	91
Unknown					CAS #:		
9.248	705703	10.1186848	437	0		0	91
Trichloroacetic acid, hexadecyl ester					CAS #: 74339-54-1		
9.442	981231	14.0693242	608	93	NIST05.L	166990	91
Unknown					CAS #:		
9.524	366652	5.25722745	227	0		0	91
Nonadecane, 1-chloro-					CAS #: 62016-76-6		
9.748	282212	4.04648430	175	94	NIST05.L	126107	91
Unknown					CAS #:		
9.883	426072	6.10921456	264	0		0	91
1-Docosene					CAS #: 1599-67-3		
10.101	963926	13.8212061	597	98	NIST05.L	129889	91

RT	AREA	CONCENTRATIONS		QUAL	QUANT		CPND #
		ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
Unknown				CAS #:			
11.913	848952	16.4839362	712	0		0	98
Unknown				CAS #:			
12.089	276079	5.36057628	232	0		0	98
Unknown				CAS #:			
12.671	493972	9.59135640	414	0		0	98
Unknown				CAS #:			
12.971	357113	6.93399108	300	0		0	98
.gamma.-Sitosterol				CAS #: 83-47-6			
13.854	1552715	30.1487795	1300	99	NIST05.L	174402	98



Data File: /chem/MSDS.i/s032210.b/s032210.d  
 Date: 22-MAR-2010 11:55  
 Client ID: RES6-10-7407  
 Sample Info: 124850600196308611SWH11LNL  
 Volume Injected (uL): 0.5  
 Column phase: J&M DB-SMS

Instrument: MSD5.i  
 Operator: RMB  
 Column diameter: 0.20



Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: 124850600196308611SVH111LANL

Volume Injected (uL): 0.5

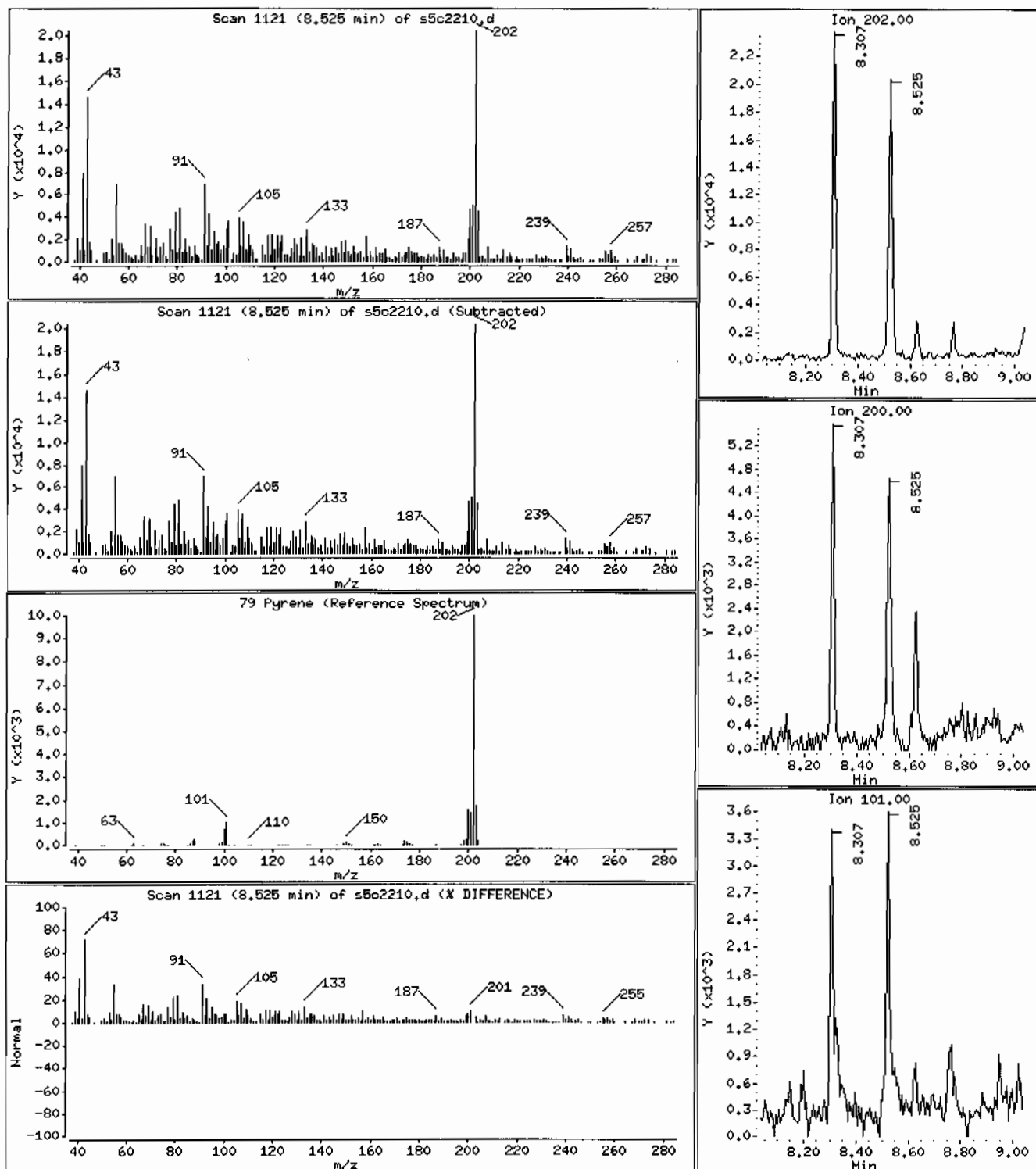
Operator: RMB

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

Column diameter: 0.20

79 Pyrene

Concentration: 35.7 ug/Kg



Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: 12485060011963086111SVH111LANL

Volume Injected (uL): 0.5

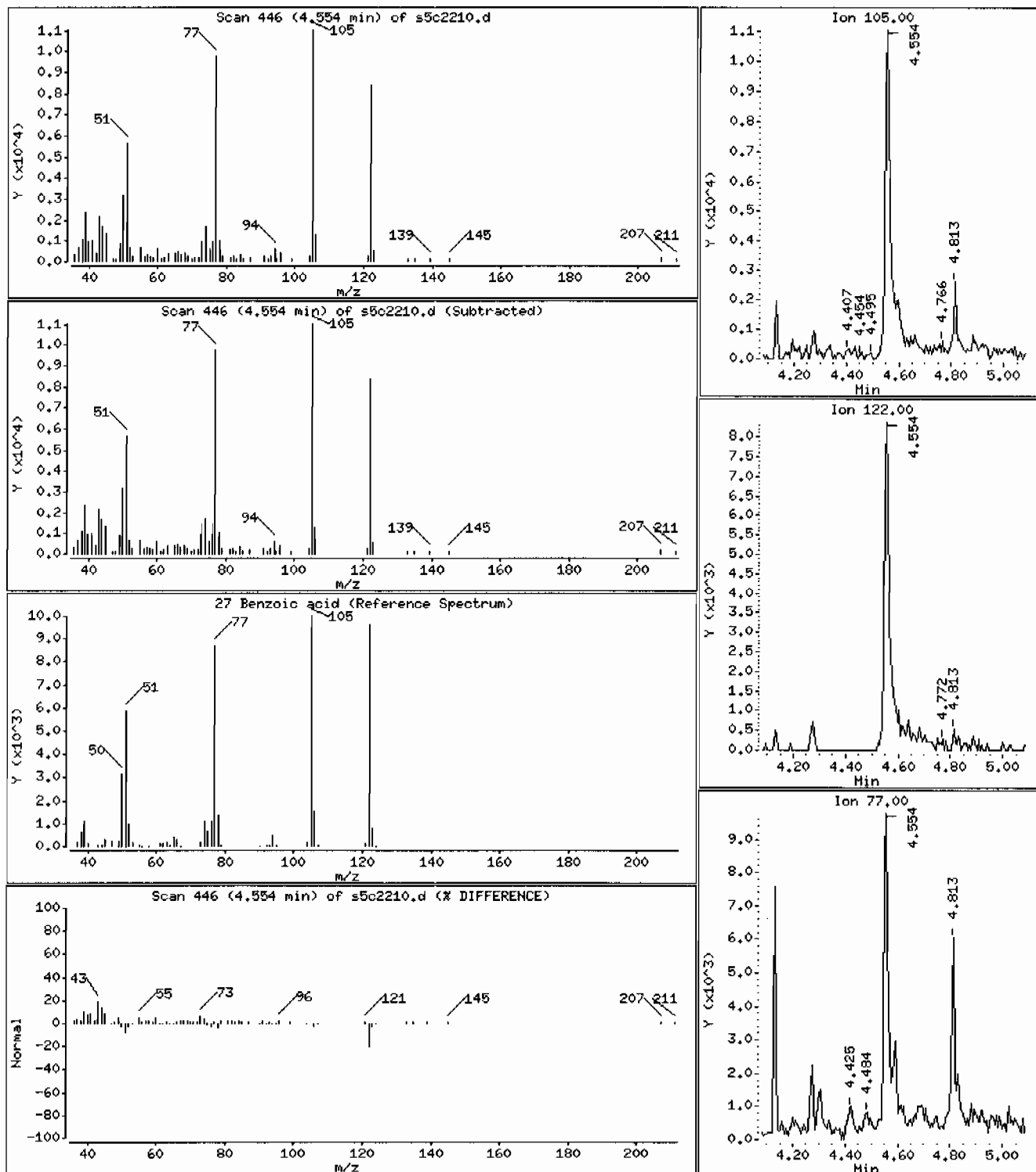
Operator: RMB

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

Column diameter: 0.20

27 Benzoic acid

Concentration: 621 ug/Kg



Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: 1248506001196308611SVMI11LANL

Volume Injected (uL): 0.5

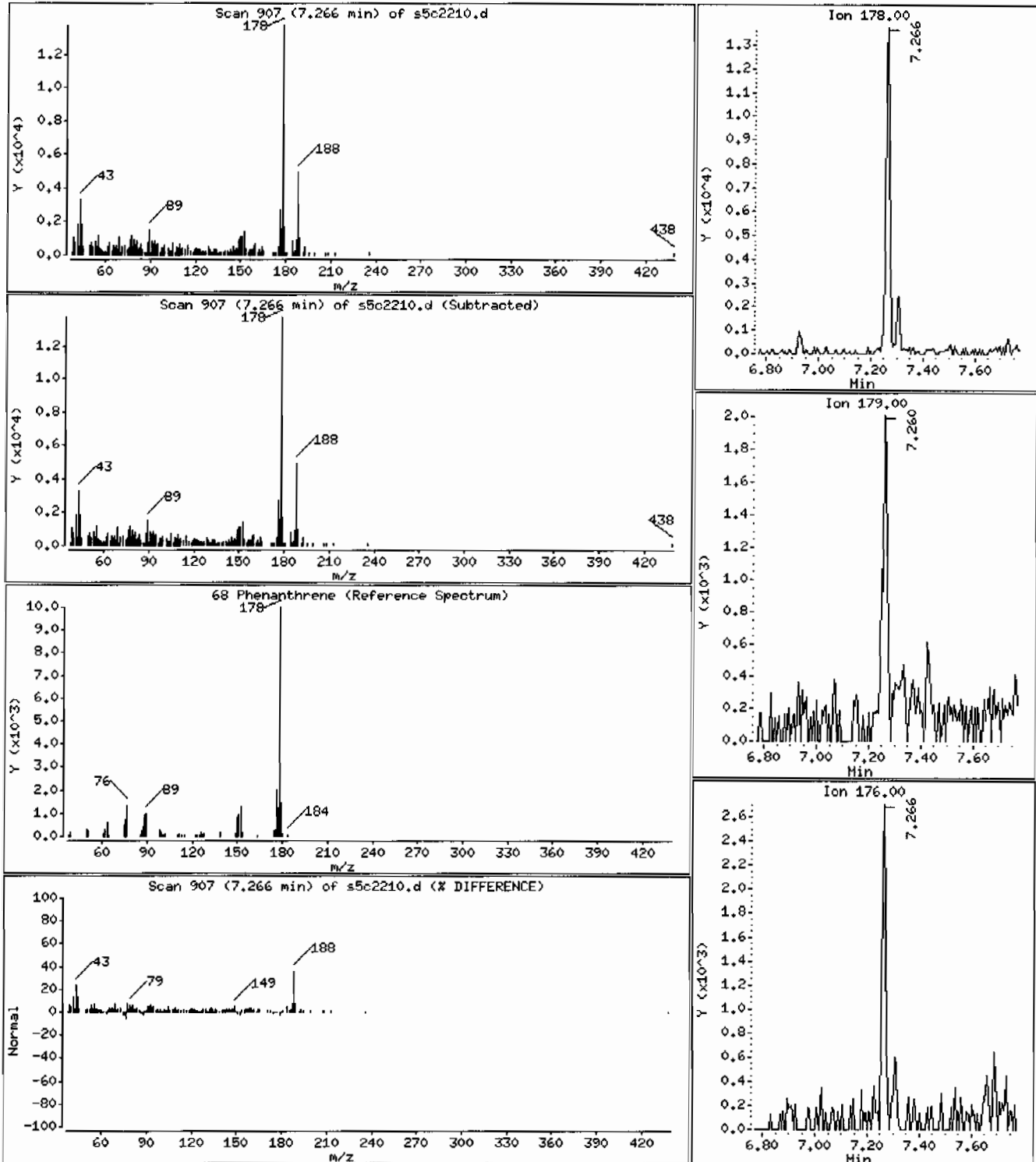
Operator: RMB

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

Column diameter: 0.20

68 Phenanthrene

Concentration: 27.3 ug/Kg



Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: 1248506001196308611SVH11LANL

Volume Injected (uL): 0.5

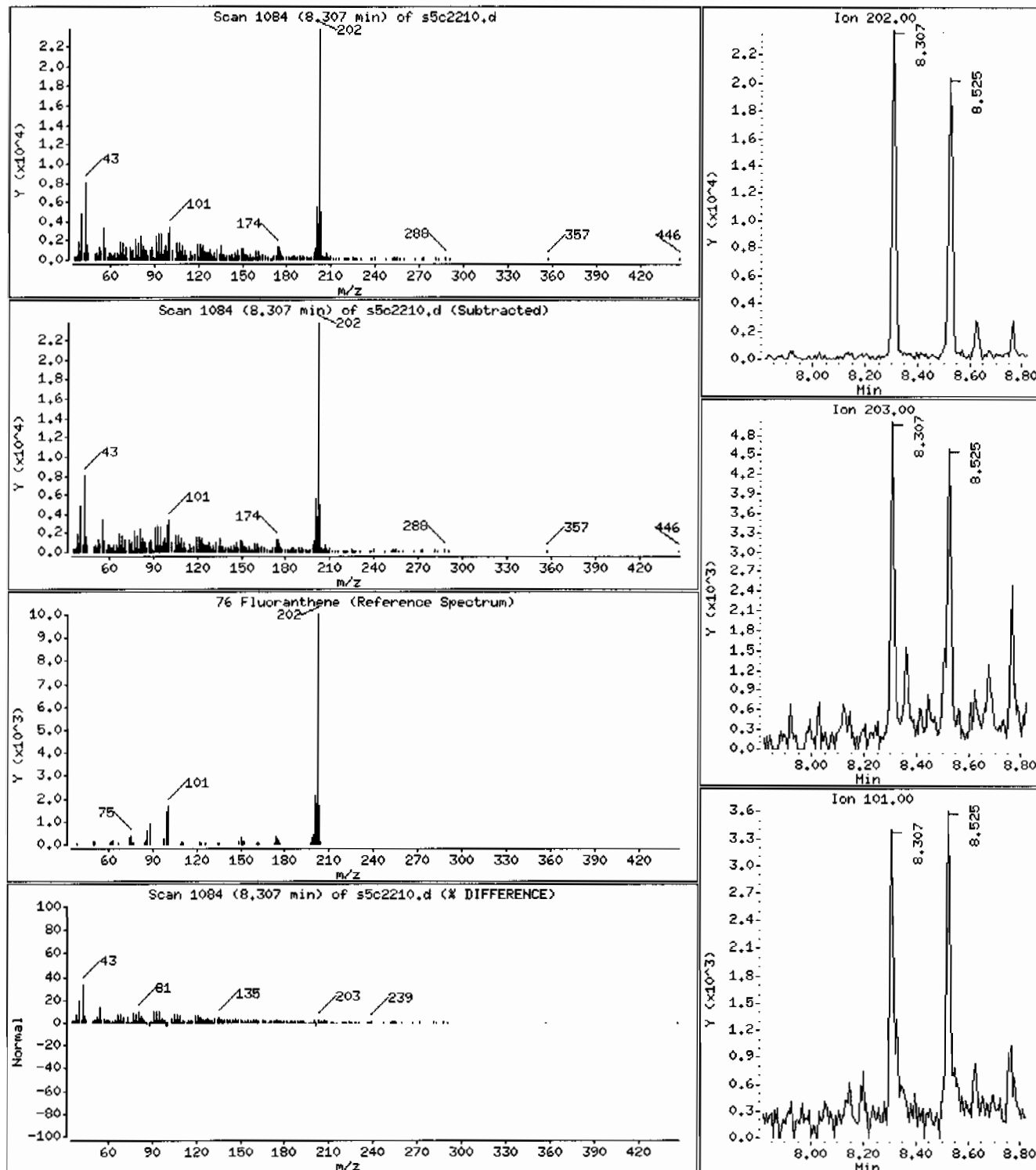
Operator: RMB

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

Column diameter: 0.20

76 Fluoranthene

Concentration: 44.8 ug/Kg



Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: 1248506001|96308611|SVH111|LANL

Volume Injected (uL): 0.5

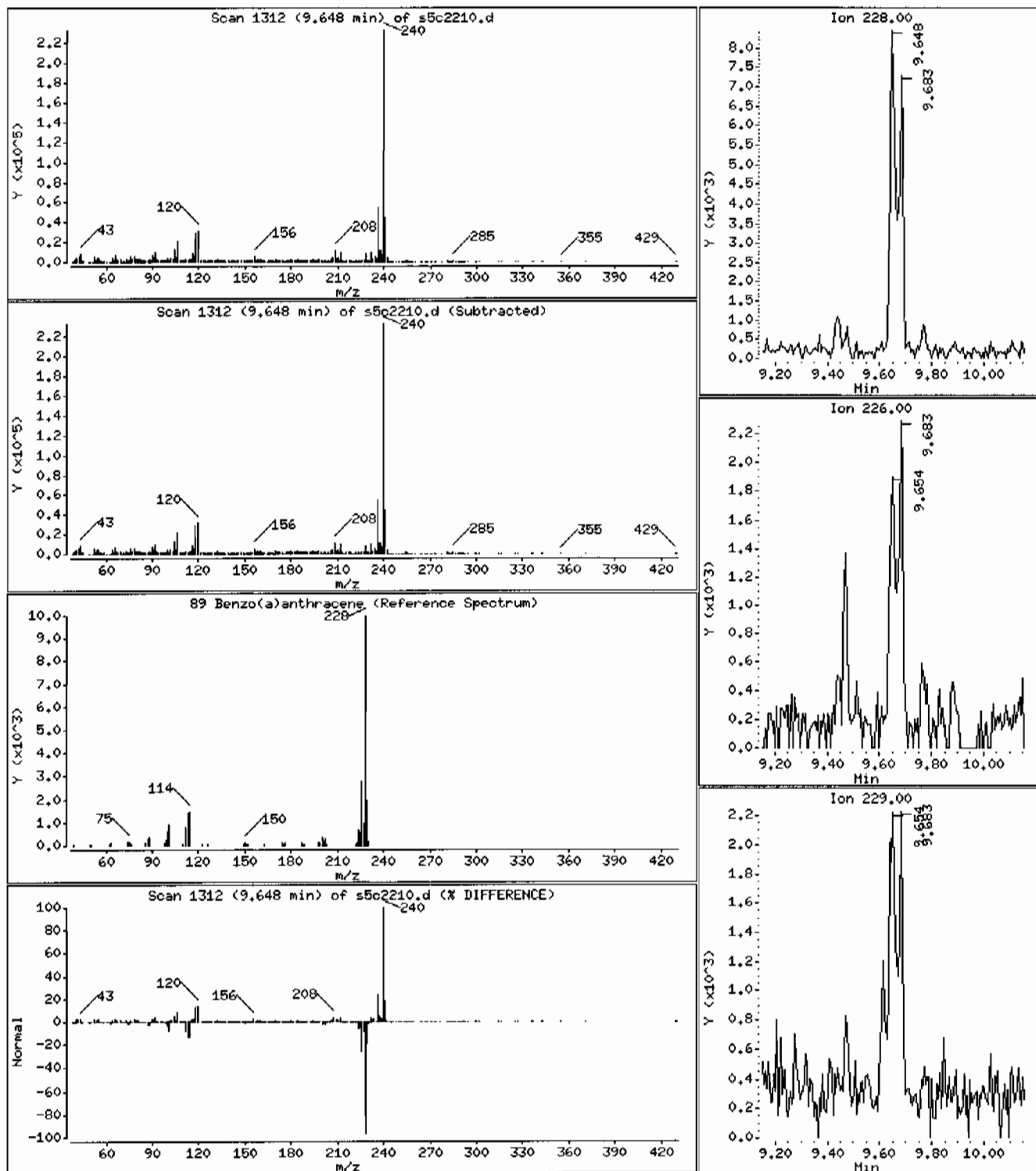
Operator: RMB

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

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 27.2 ug/Kg



Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: 1248506001196308611SVH111LANL

Volume Injected (uL): 0.5

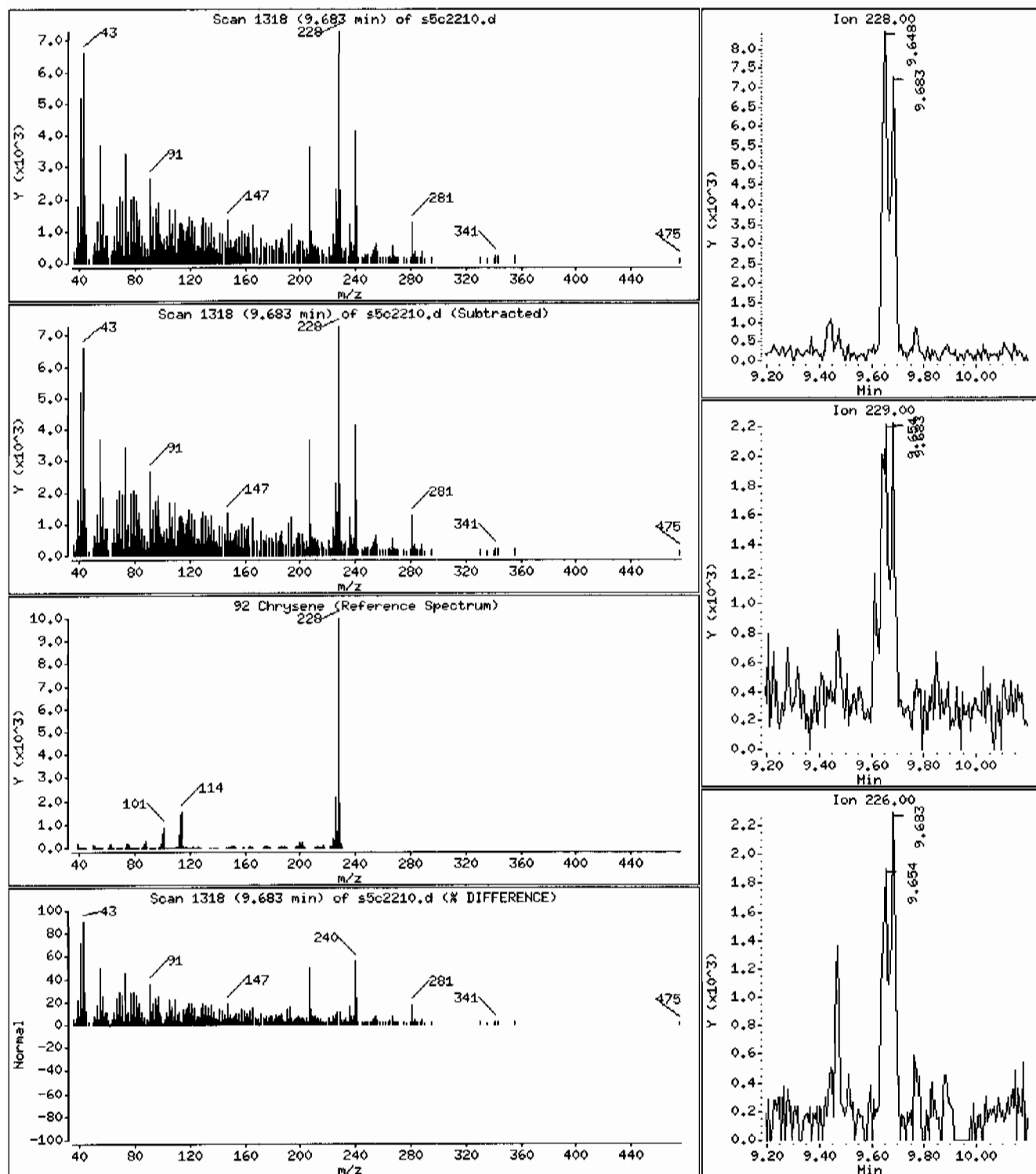
Operator: RMB

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

Column diameter: 0.20

92 Chrysene

Concentration: 21.4 ug/Kg



Date: 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: HSD5.i

Sample Info: 1248506001|96308611|SVH11|LANL

Volume Injected (uL): 0.5

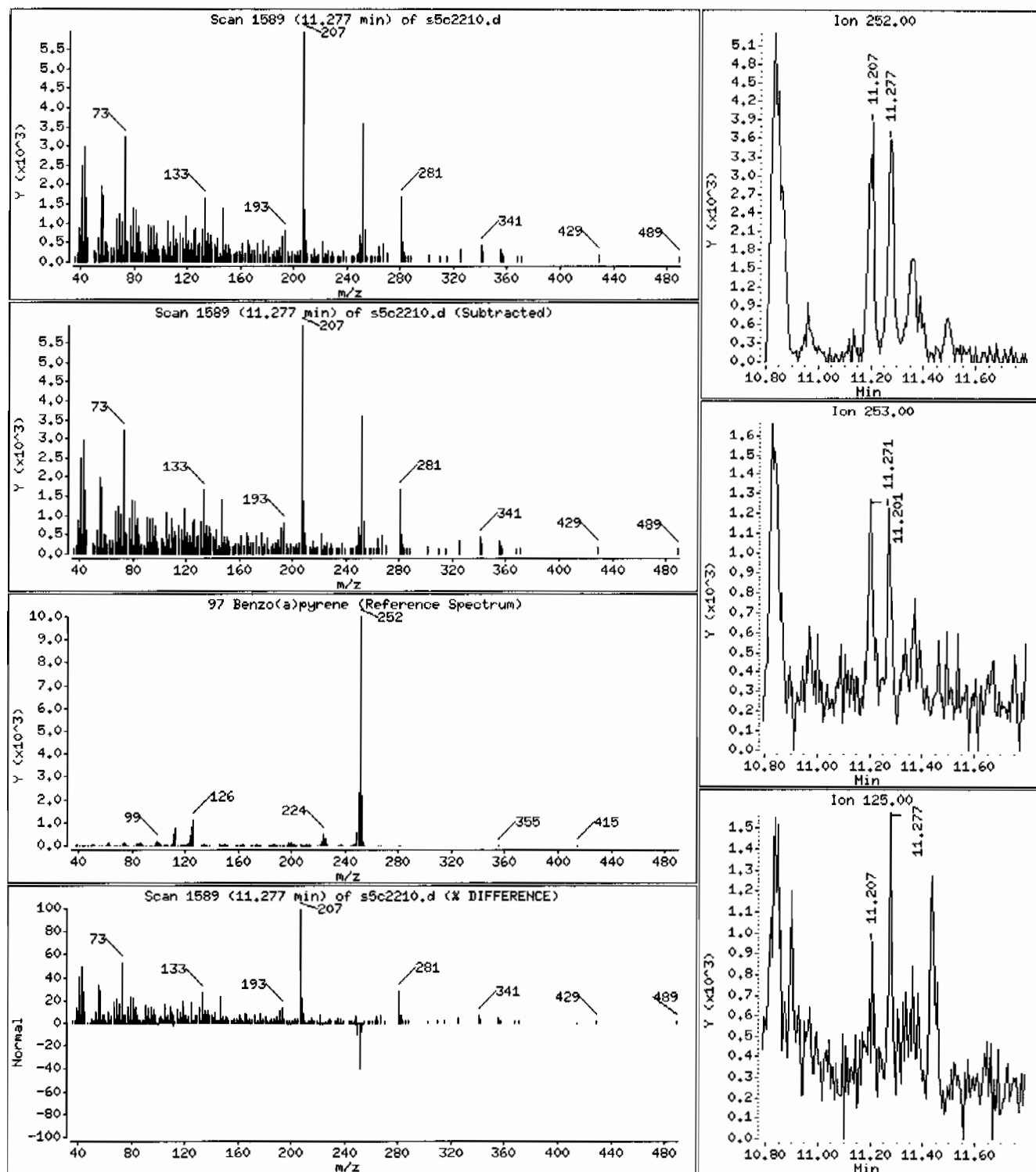
Operator: RMB

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

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 20.1 ug/Kg





Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: HSD5.i

Sample Info: 12485060011963086111SVMI11LANL

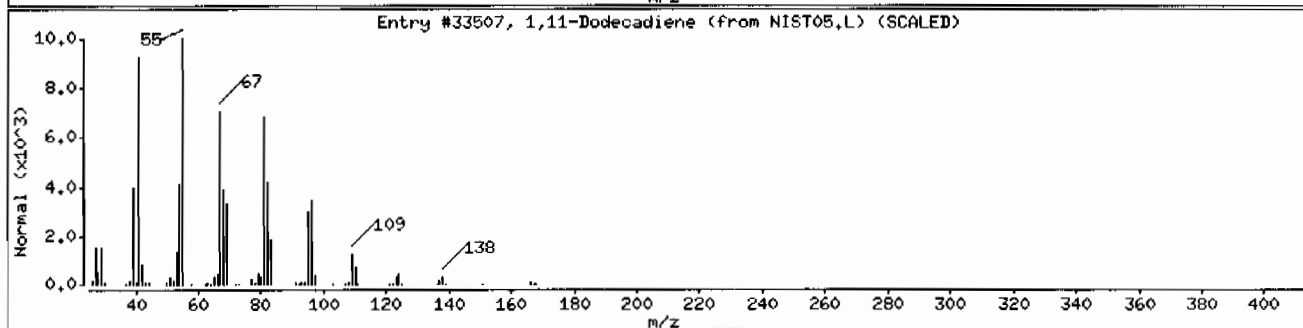
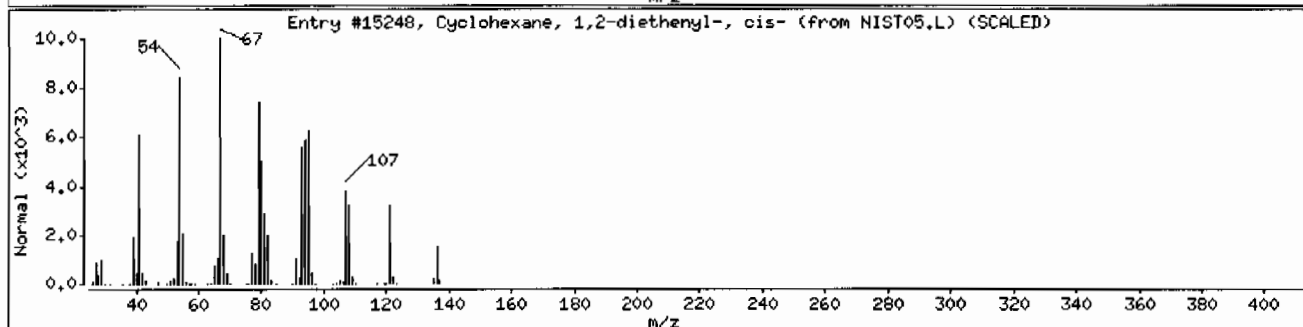
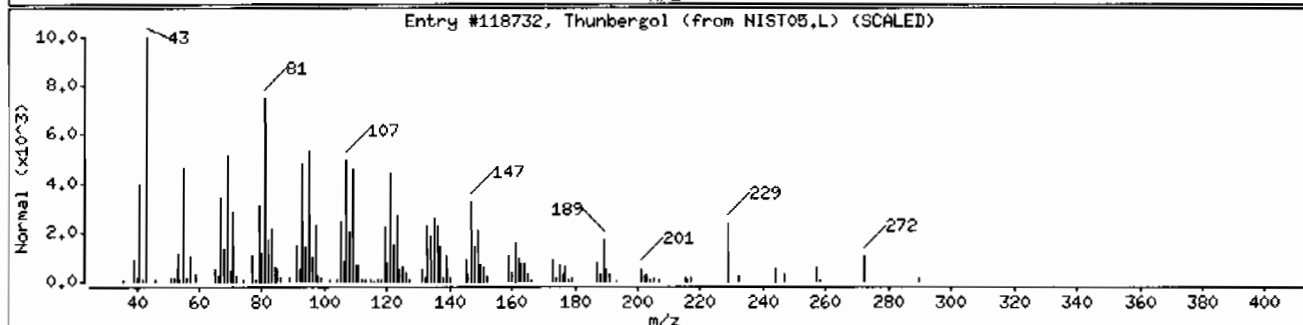
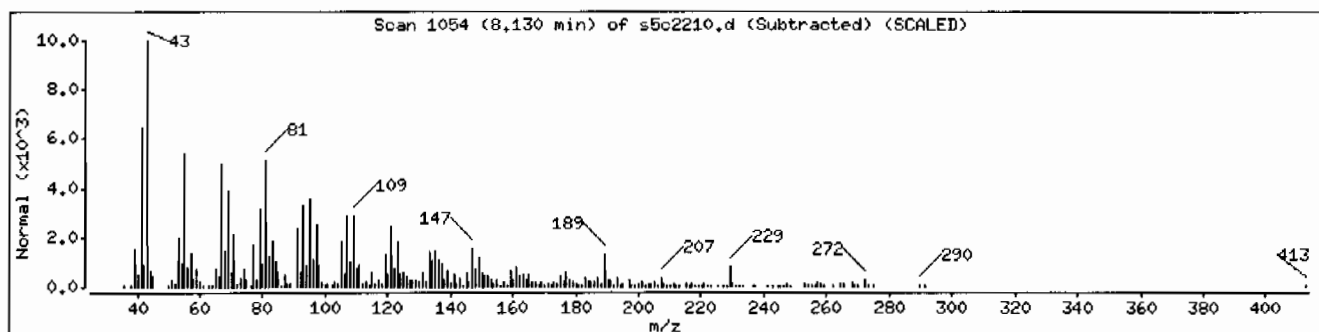
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Thunbergol	25269-17-4	NIST05.L	118732	83	C20H34O	290
Cyclohexane, 1,2-diethenyl-, cis-	1004-84-8	NIST05.L	15248	43	C10H16	136
1,11-Dodecadiene	5876-87-9	NIST05.L	33507	42	C12H22	166



Date: 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: I248506001963086111SVMI11LANL

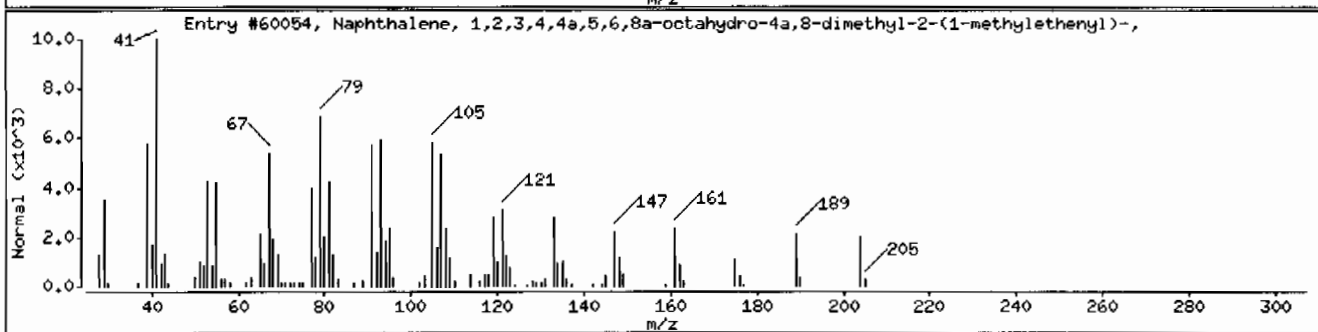
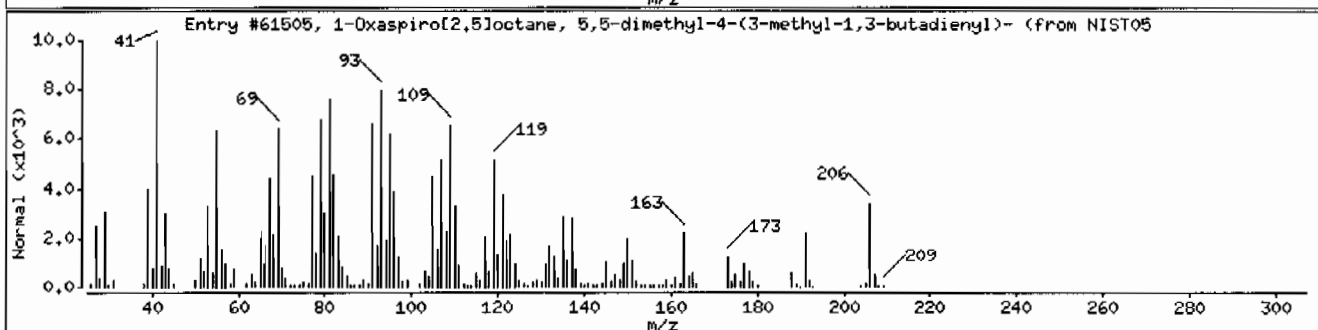
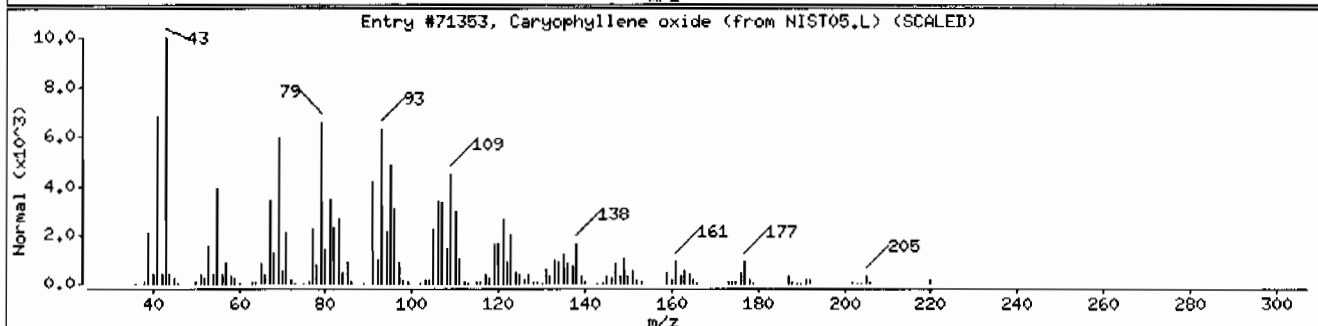
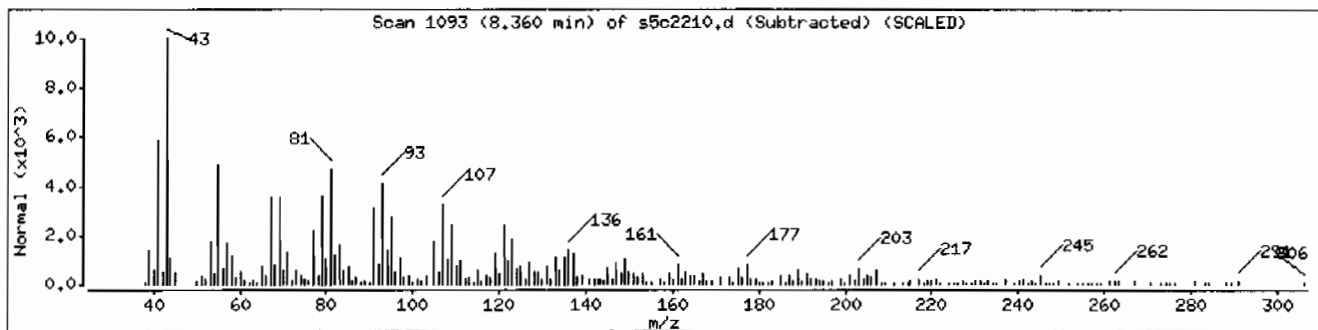
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Caryophyllene oxide	1139-30-6	NIST05.L	71353	90	C15H24O	220
1-Oxaspiro[2.5]octane, 5,5-dimethyl-4-(3-methyl-1,3-butadienyl)-	1000195-92-1	NIST05.L	61505	76	C14H22O	206
Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro	473-13-2	NIST05.L	60054	74	C15H24	204



Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: I24850600196308611ISVH11ILANL

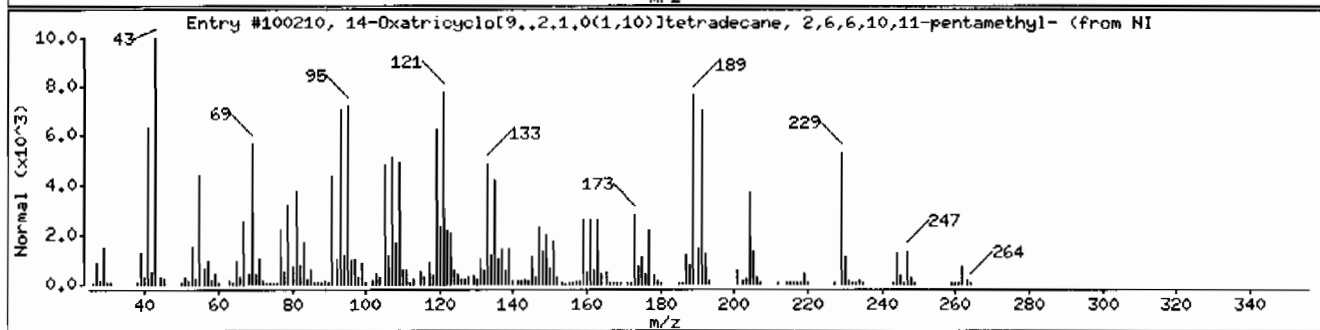
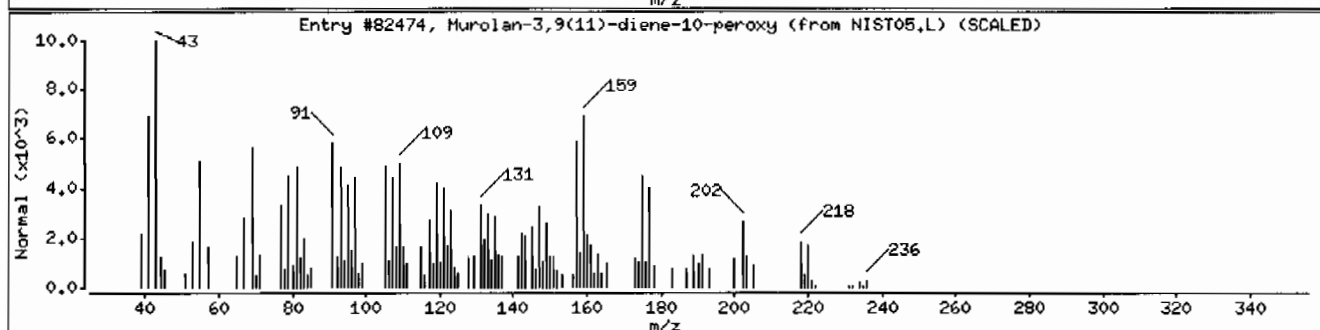
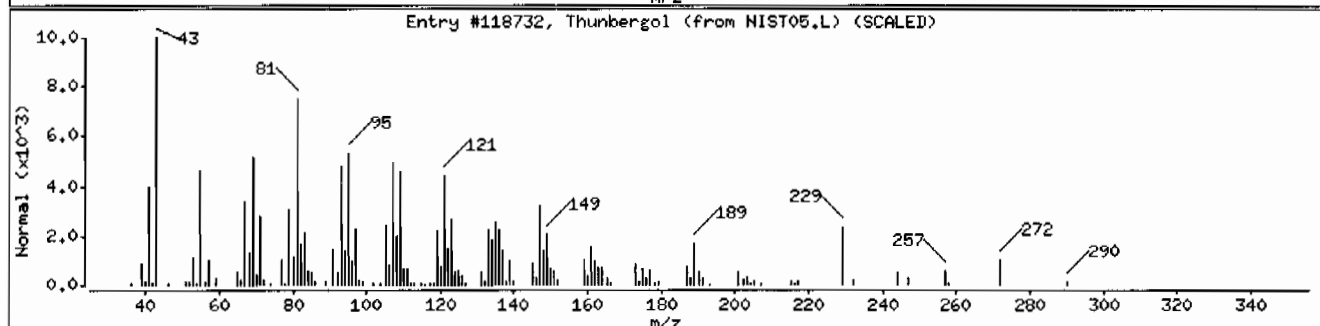
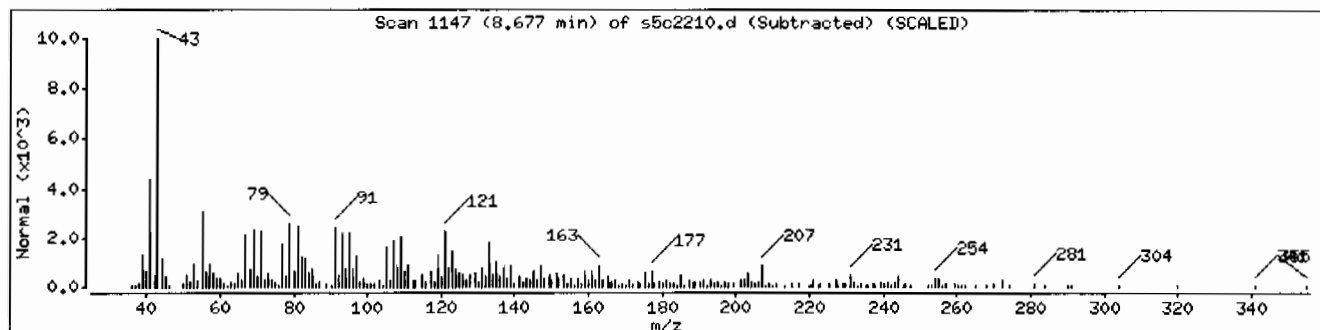
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Thunbergol	25269-17-4	NIST05.L	118732	81	C20H34O	290
Murolan-3,9(11)-diene-10-peroxy	1000140-33-3	NIST05.L	82474	55	C15H24O2	236
14-Oxatricyclo[9..2.1.0(1,10)]tetradecan	1000193-06-8	NIST05.L	100210	52	C18H30O	262



Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: 12485060011963086111SVH111LANL

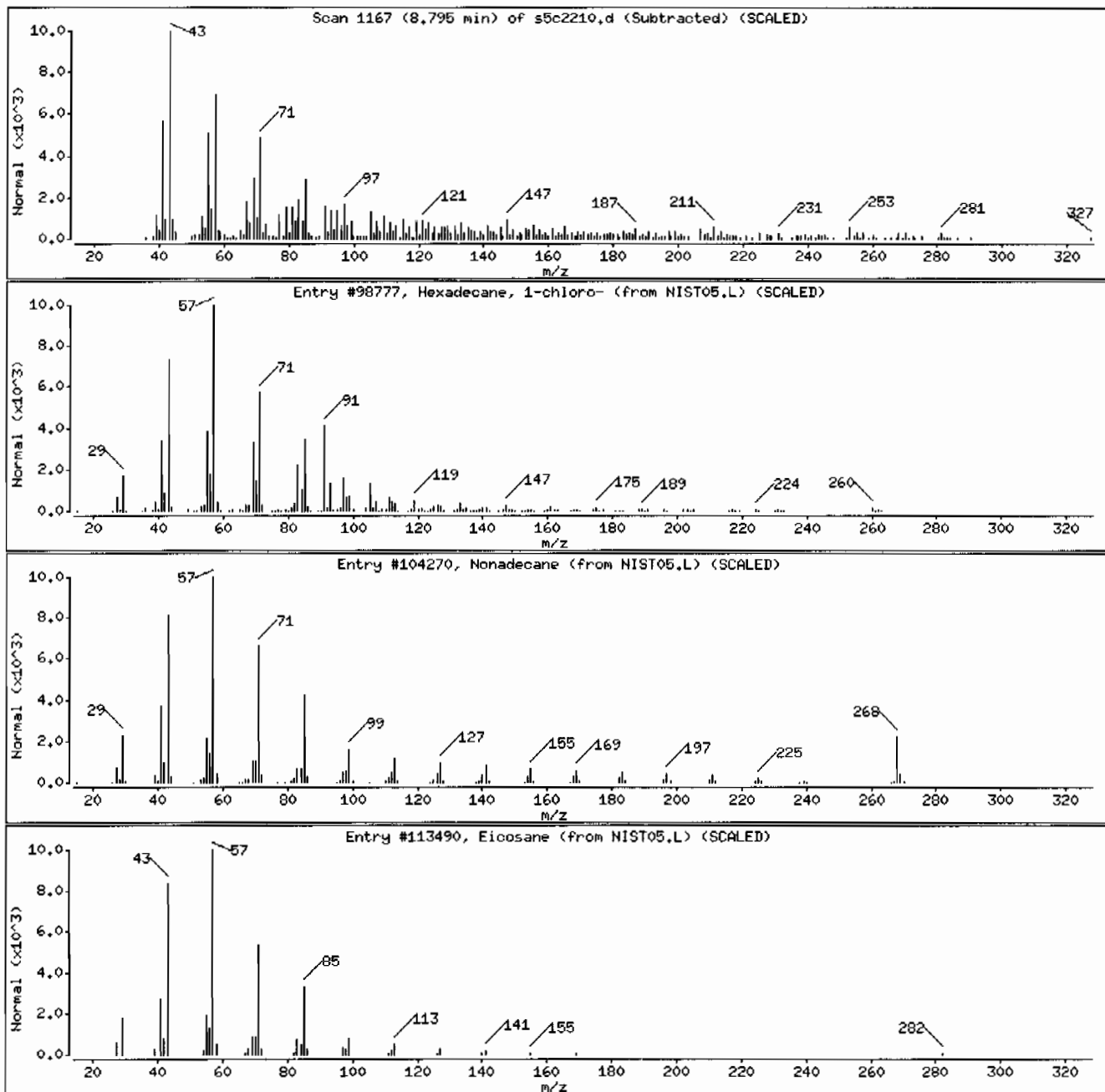
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexadecane, 1-chloro-	4860-03-1	NIST05.L	98777	92	C16H33Cl	260
Nonadecane	629-92-5	NIST05.L	104270	87	C19H40	268
Eicosane	112-95-8	NIST05.L	113490	64	C20H42	282



Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: I248506001196308611SVH11ILANL

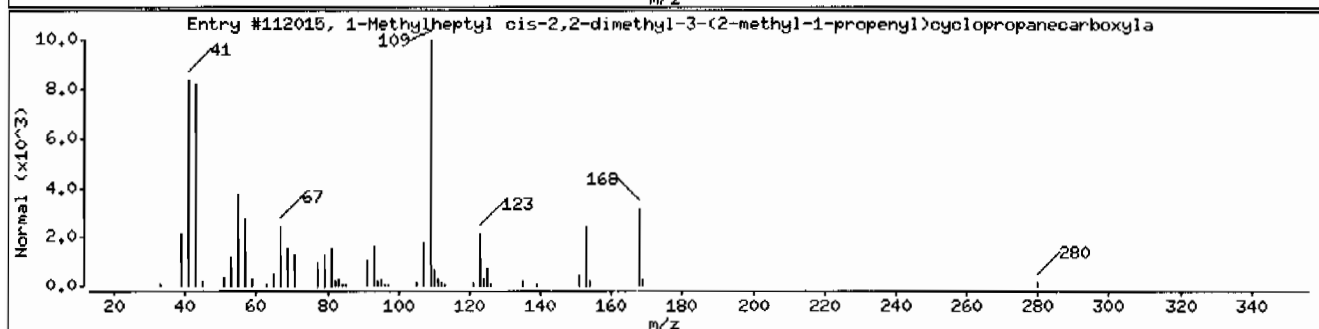
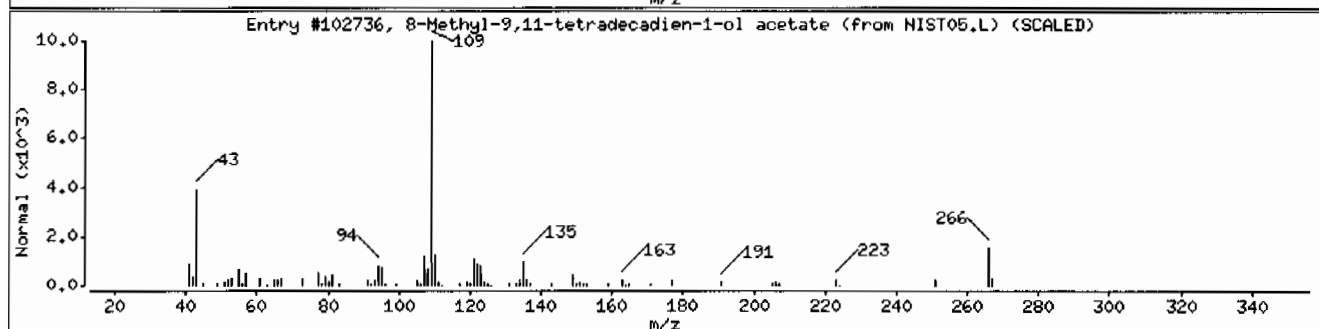
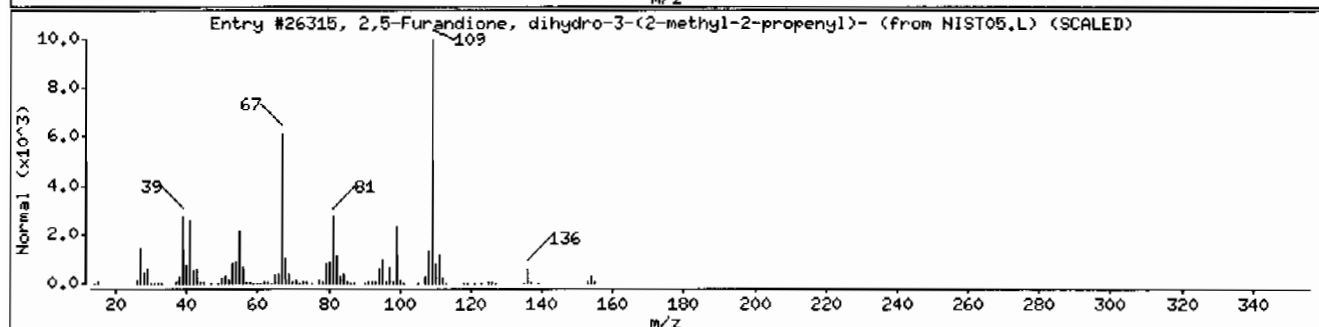
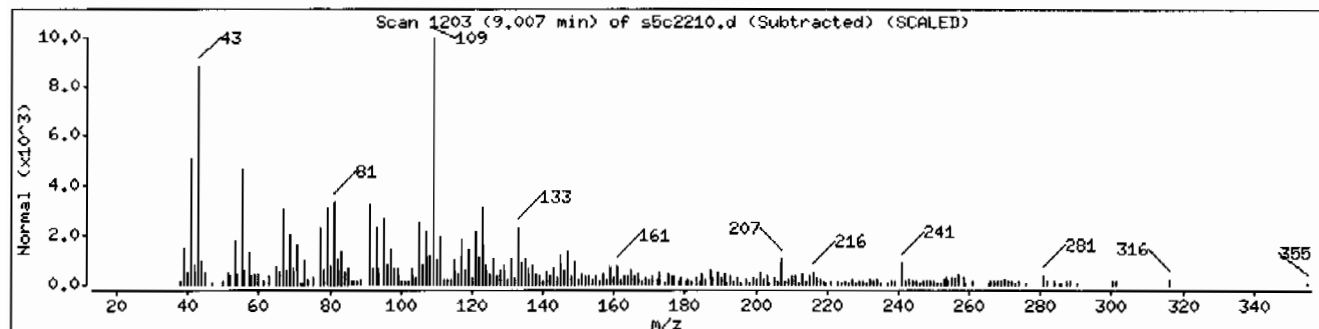
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,5-Furandione, dihydro-3-(2-methyl-2-pr	18908-20-8	NIST05.L	26315	41	C8H10O3	154
8-Methyl-9,11-tetradecadien-1-ol acetate	1000130-98-8	NIST05.L	102736	38	C17H30O2	266
1-Methylheptyl cis-2,2-dimethyl-3-(2-met	1000223-35-3	NIST05.L	112015	38	C18H32O2	280



Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.1

Sample Info: 1248506001|96308611|SVH11|LANL

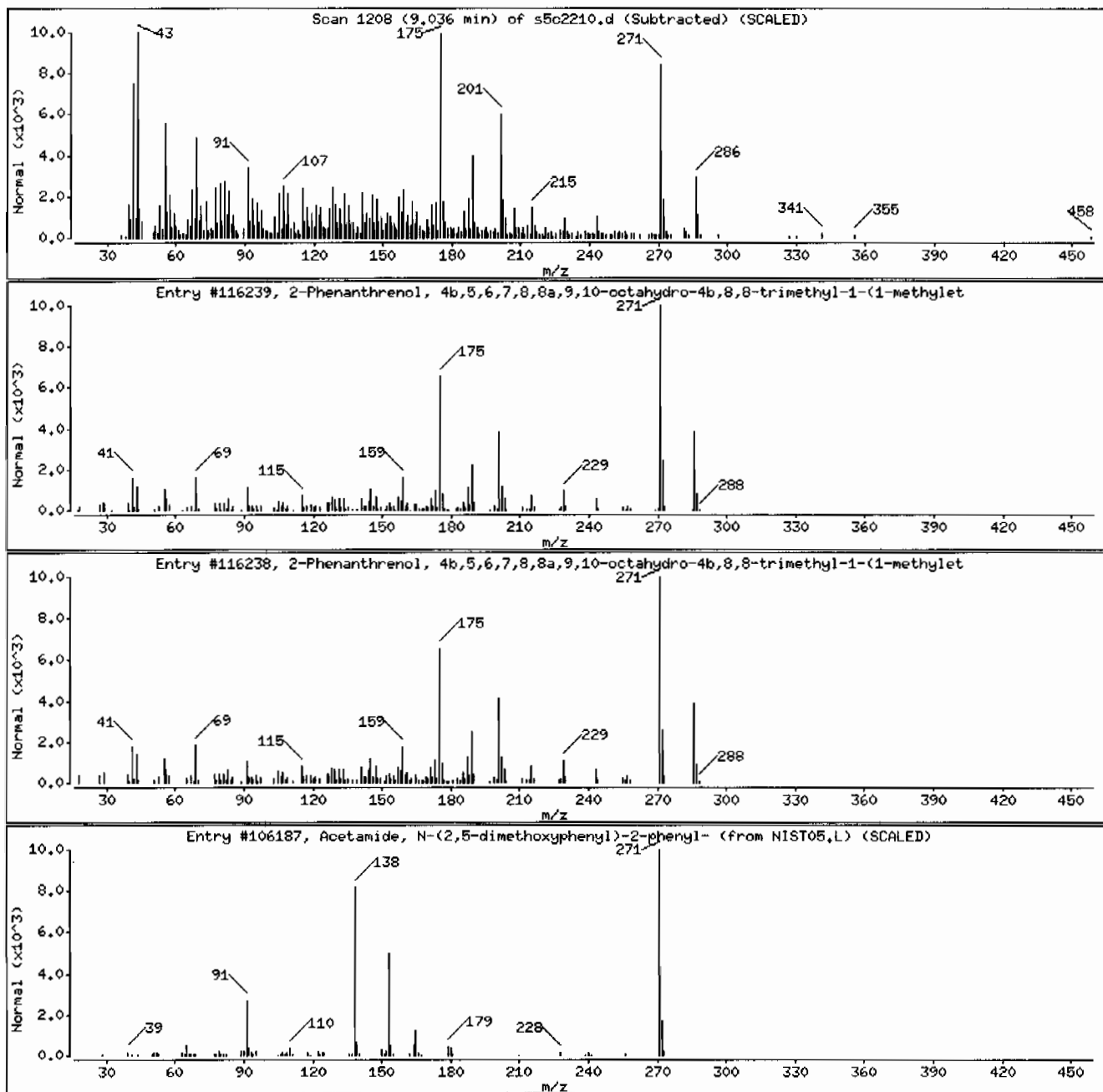
Volume Injected (UL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116239	93	C20H30O	286
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116238	91	C20H30O	286
Acetamide, N-(2,5-dimethoxyphenyl)-2-phe	1000307-14-6	NIST05.L	106187	44	C16H17NO3	271



Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: 124850600196308611SVH11/LANL

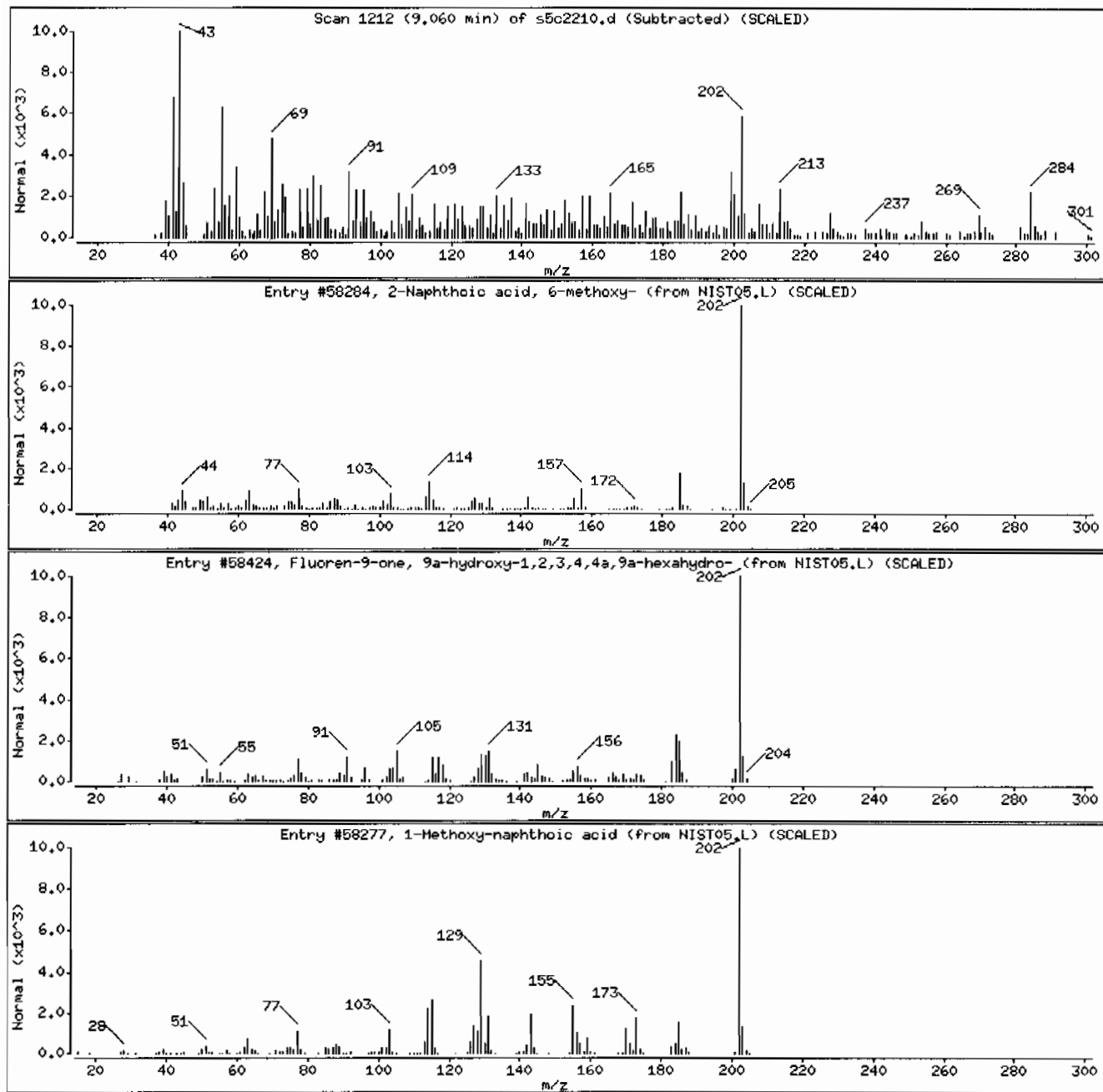
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Naphthoic acid, 6-methoxy-	2471-70-7	NIST05.L	58284	43	C12H10O3	202
Fluoren-9-one, 9a-hydroxy-1,2,3,4,4a,9a-	1000160-37-9	NIST05.L	58424	42	C13H14O2	202
1-Methoxy-naphthoic acid	883-21-6	NIST05.L	58277	15	C12H10O3	202



Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: 1248506001963086111SVH111LANL

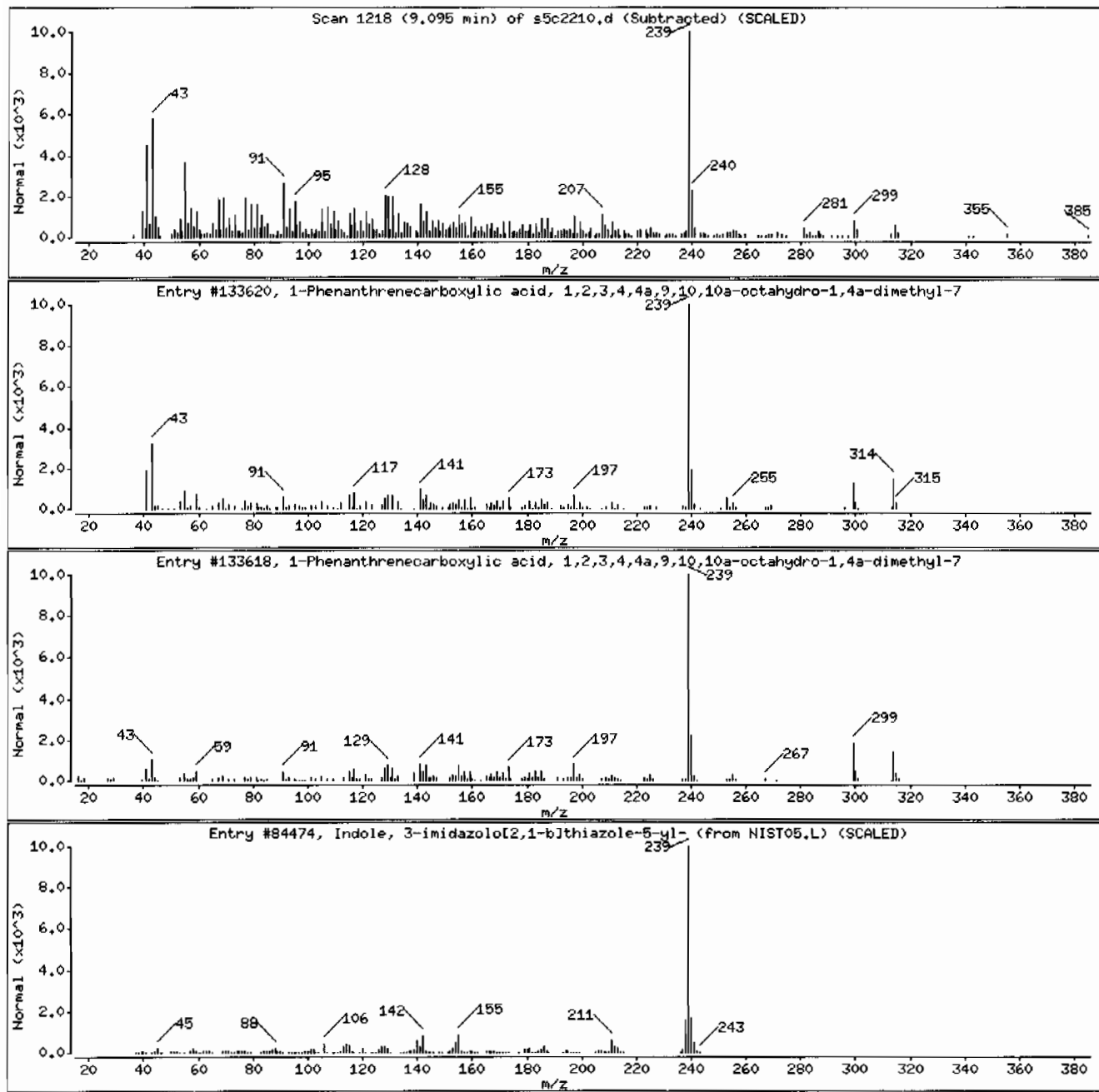
Volume Injected (uL): 0.5

Operator: RMB

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	133620	89	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133618	64	C21H30O2	314
Indole, 3-imidazol[2,1-b]thiazole-5-yl-	292855-05-1	NIST05.L	84474	45	C13H9N3S	239





Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: HSD5.i

Sample Info: 1248506001196308611SVH111LANL

Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

## Library Search Compound Match

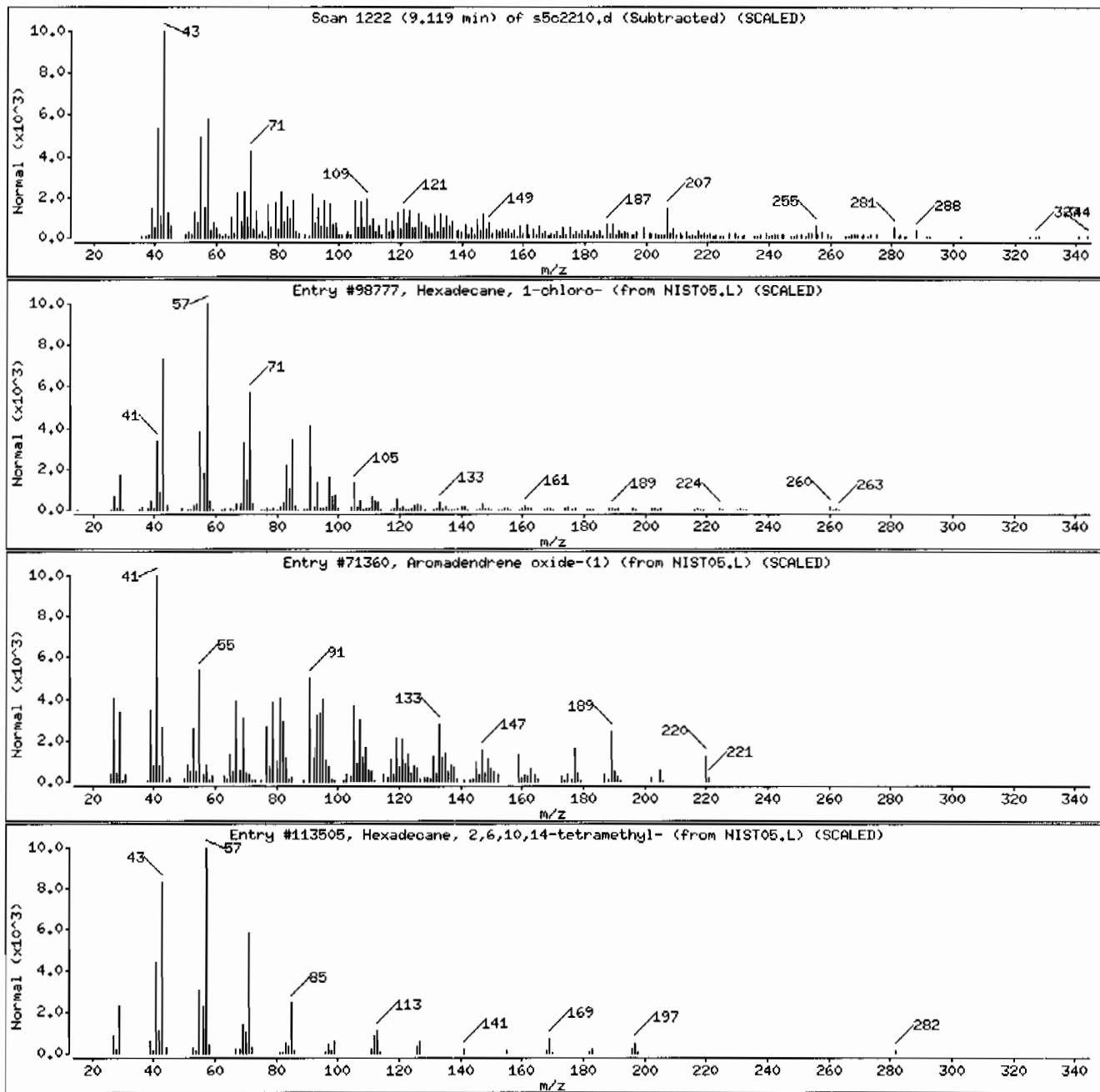
Unknown

Hexadecane, 1-chloro-

Aromadendrene oxide-(1)

Hexadecane, 2,6,10,14-tetramethyl-

CAS Number	Library	Entry	Quality	Formula	Weight
4860-03-1	NIST05.L	98777	78	C16H33Cl	260
1000151-98-4	NIST05.L	71360	44	C15H24O	220
638-36-8	NIST05.L	113505	38	C20H42	282



Date: 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: HSD5.i

Sample Info: 1248506001|96308611|SVH11|LANL

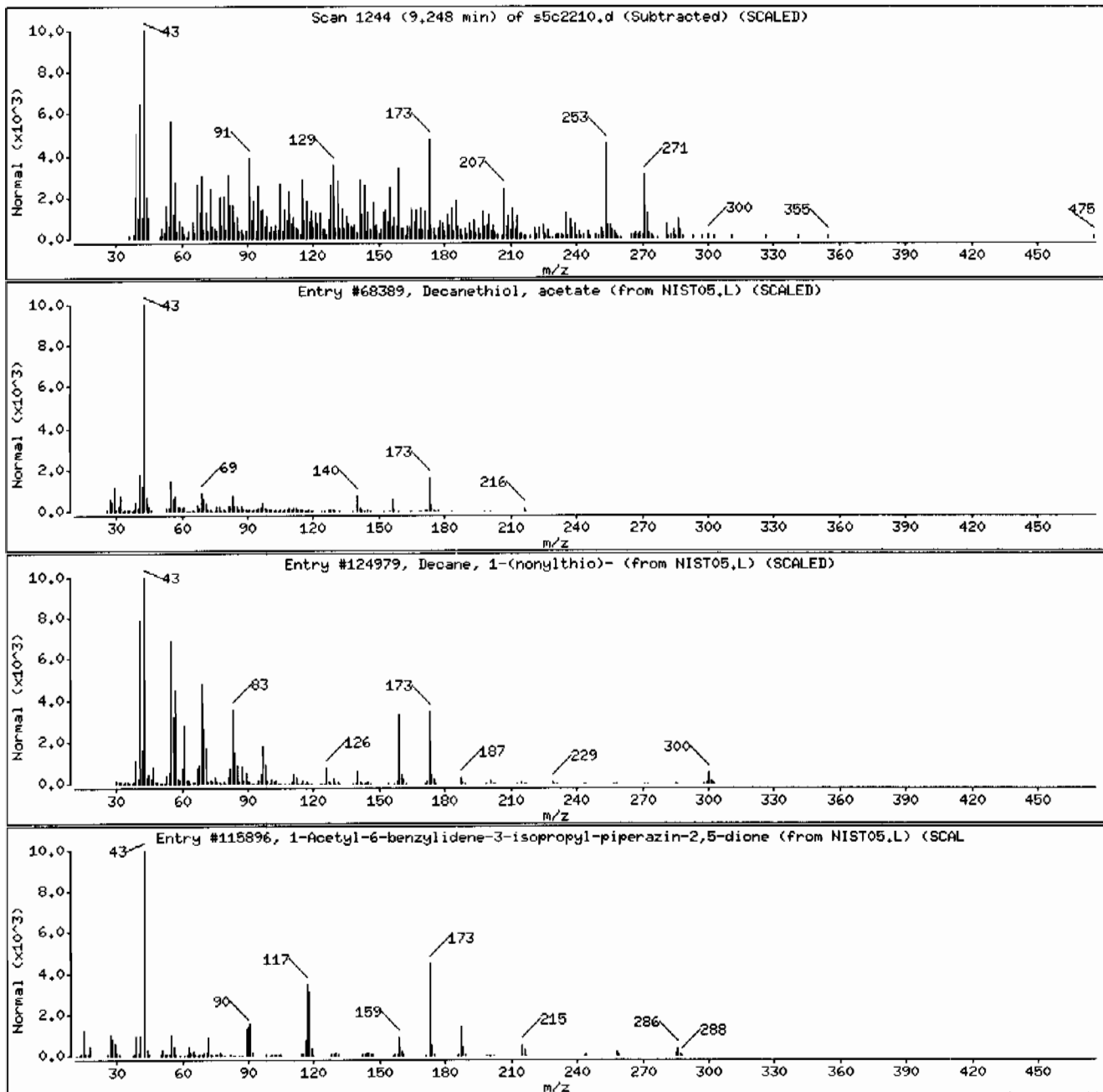
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Decanethiol, acetate	1534-09-4	NIST05.L	68389	15	C12H24OS	216
Decane, 1-(nonylthio)-	54934-54-2	NIST05.L	124979	10	C19H40S	300
1-Acetyl-6-benzylidene-3-isopropyl-piper	1000287-36-5	NIST05.L	115896	10	C16H18N2O3	286



Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: 12485060011963086111SVMI11LANL

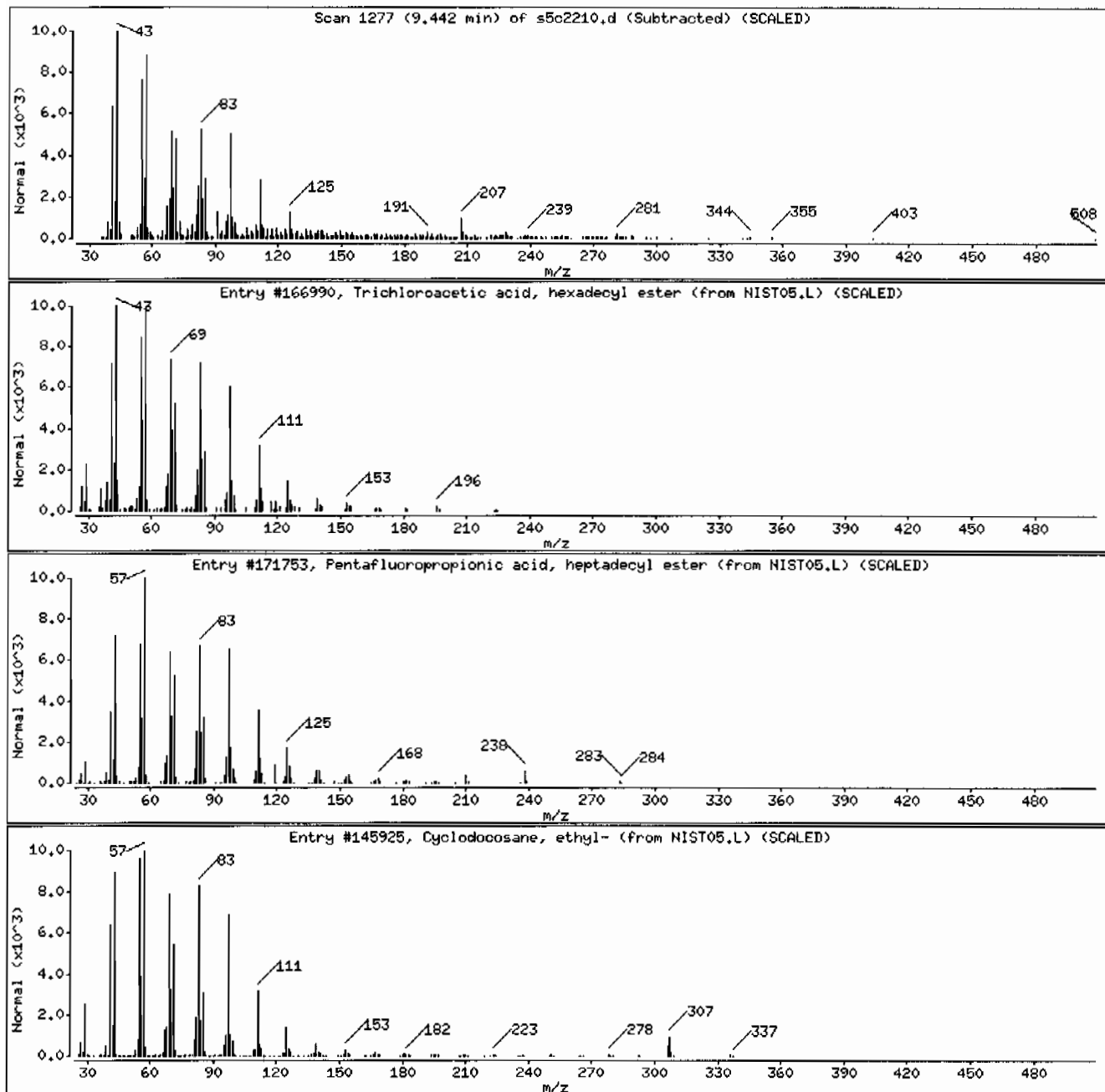
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Trichloroacetic acid, hexadecyl ester	74339-54-1	NIST05.L	166990	93	C18H33Cl3O2	386
Pentafluoropropionic acid, heptadecyl es	1000283-04-2	NIST05.L	171753	90	C20H35F5O2	402
Cyclodocosane, ethyl-	1000151-22-6	NIST05.L	145925	90	C24H48	336



Date: 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: 1248506001196308611|SVH11|LANL

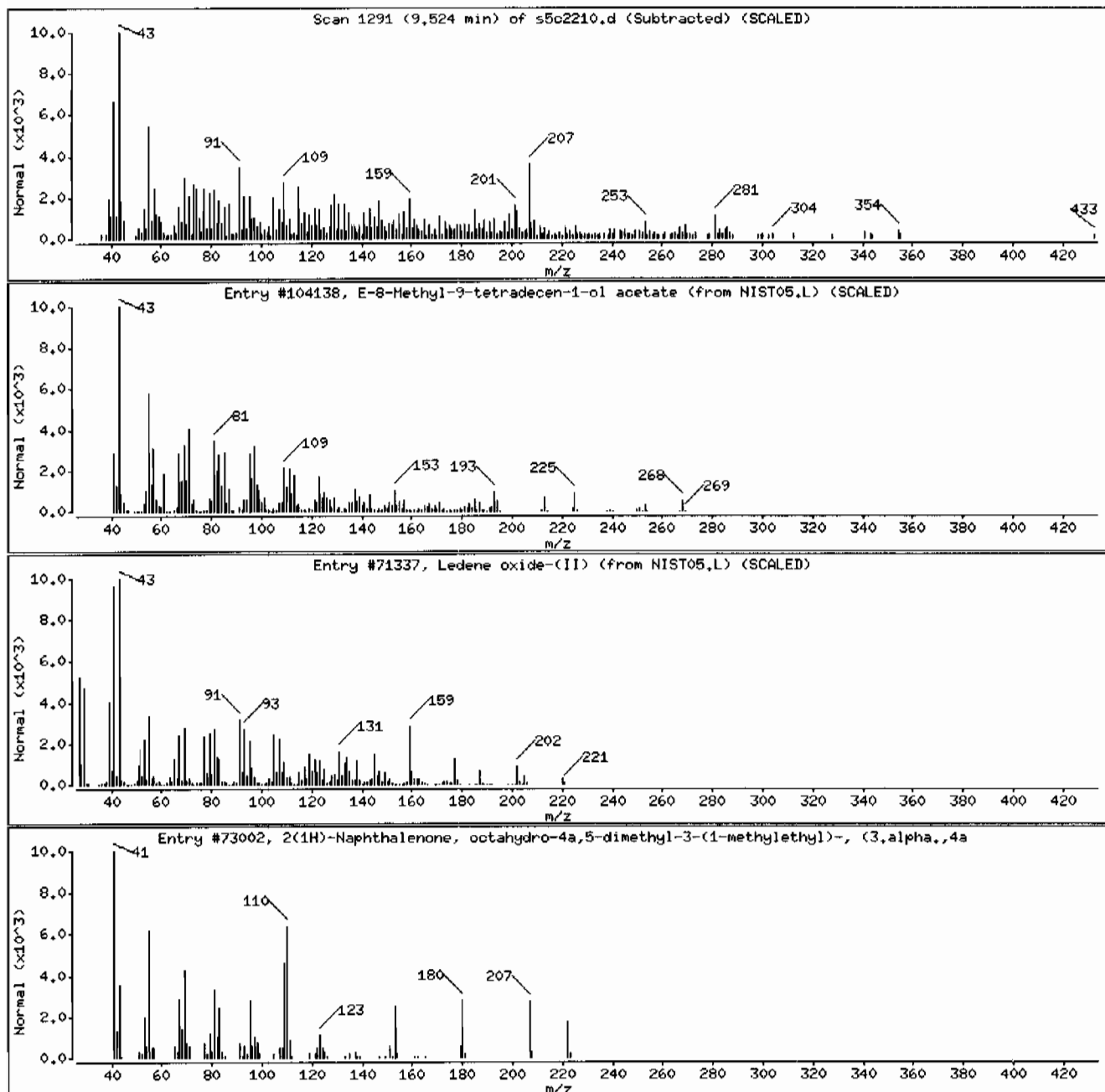
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
E-8-Methyl-9-tetradecen-1-ol acetate	1000130-81-4	NIST05.L	104138	41	C17H32O2	268
Ledene oxide-(II)	1000159-36-7	NIST05.L	71337	25	C15H24O	220
2(1H)-Naphthalenone, octahydro-4a,5-dione	55332-04-2	NIST05.L	73002	22	C15H26O	222



Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: 1248506001196308611SVMI1ILANL

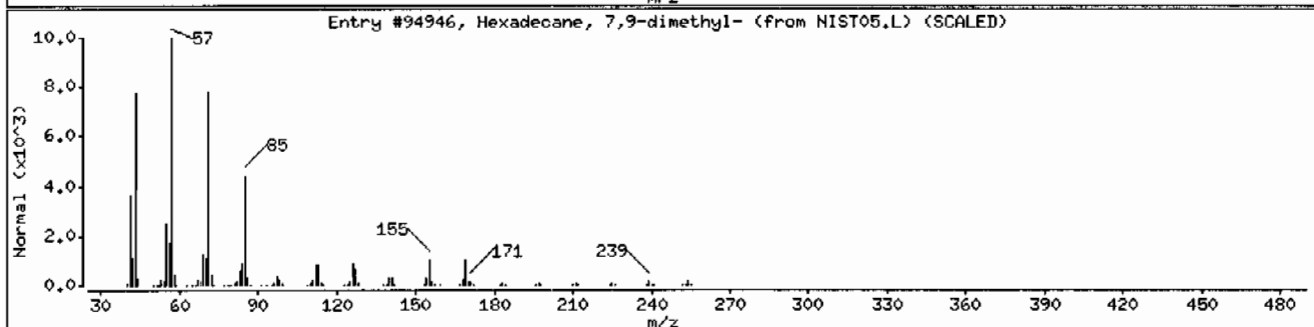
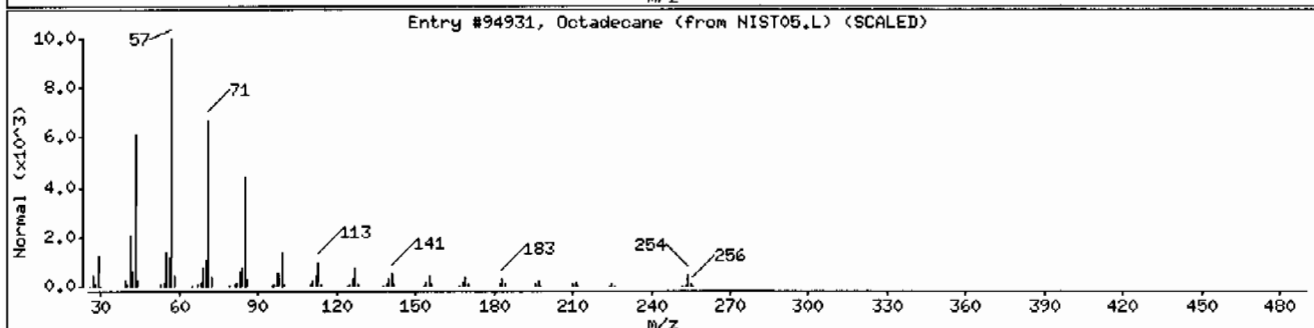
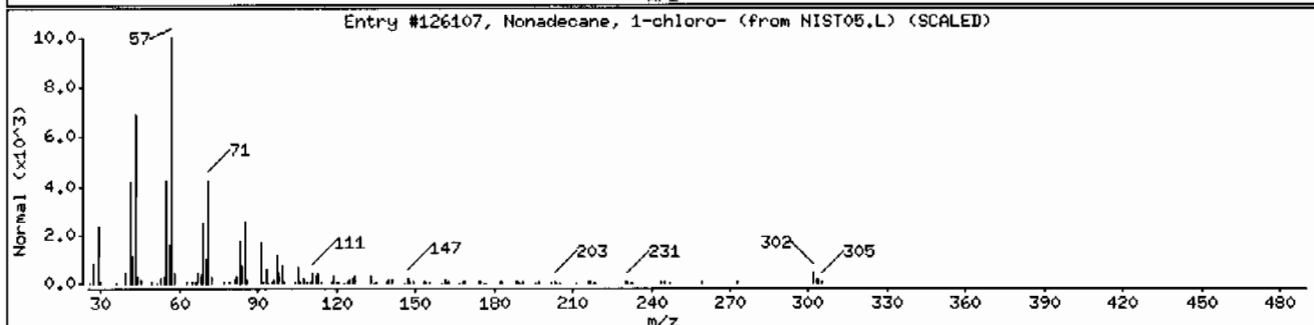
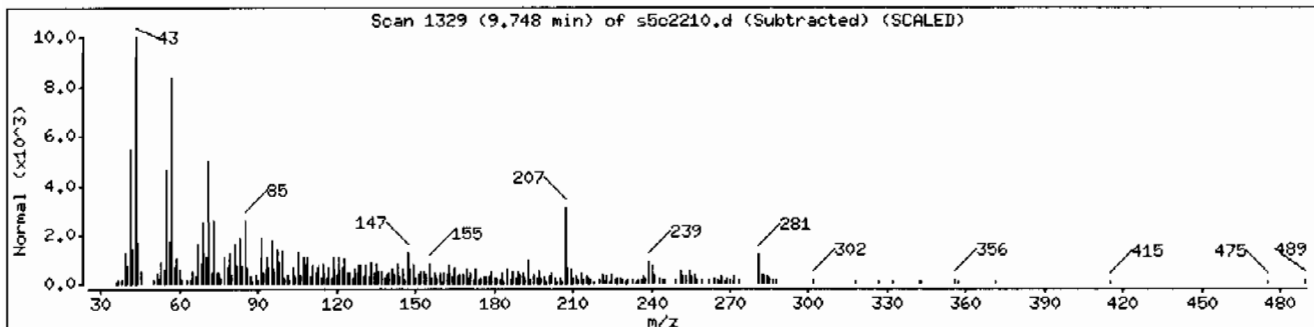
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Nonadecane, 1-chloro-	62016-76-6	NIST05.L	126107	94	C19H39Cl	302
Octadecane	593-45-3	NIST05.L	94931	50	C18H38	254
Hexadecane, 7,9-dimethyl-	21164-95-4	NIST05.L	94946	50	C18H38	254



Date: 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: 12485060011963086111SVH111LANL

Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

## Library Search Compound Match

Unknown

5,6,6-Trimethyl-5-(3-oxobut-1-enyl)-1-ox

CAS Number

Library

Entry

Quality

Formula

Weight

1000192-73-9 NIST05.L

82376

25

C14H20O3

236

10-Oxo-5,5-dimethyl-5-sila-5,10-dihydro-

89052-45-9 NIST05.L

94458

22

C14H14N2OSi

254

Z-7-Hexadecenoic acid

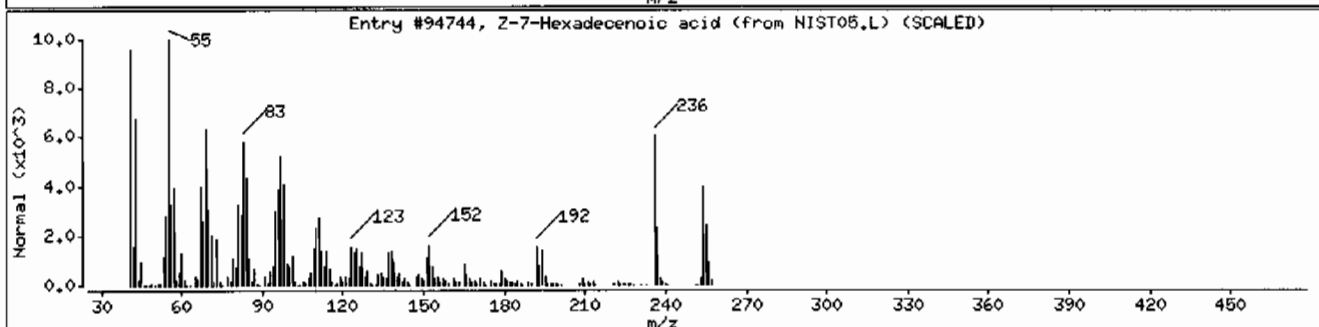
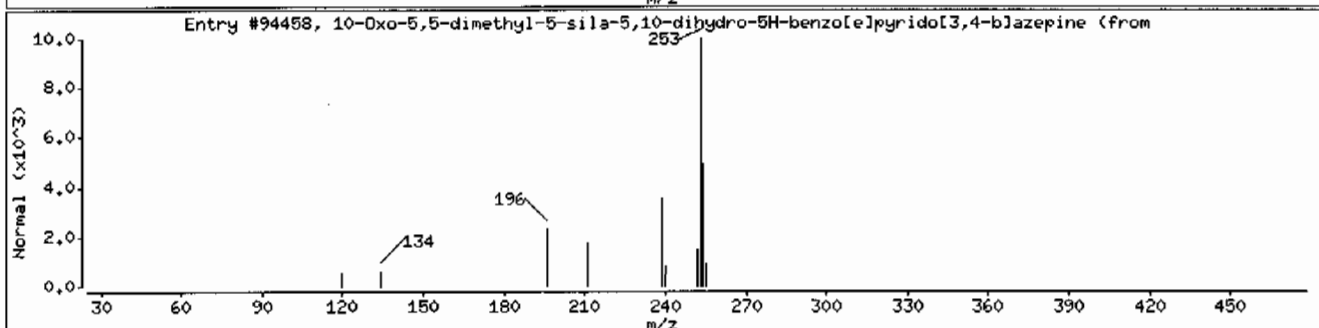
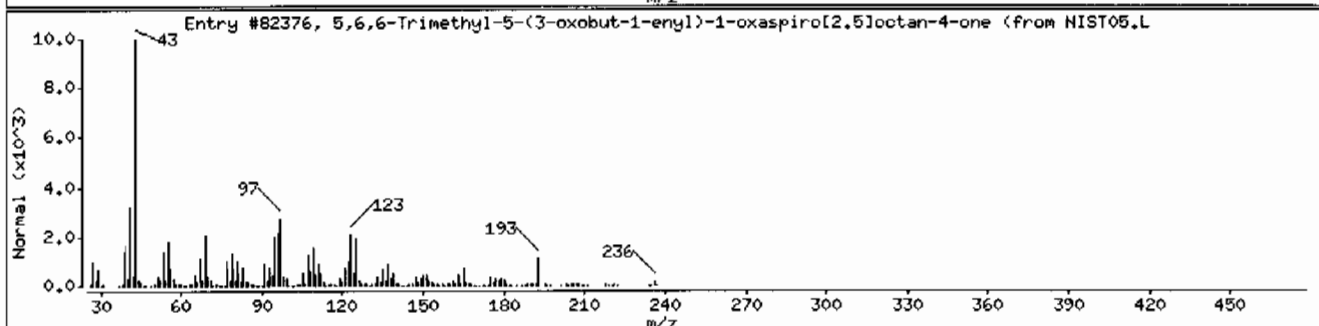
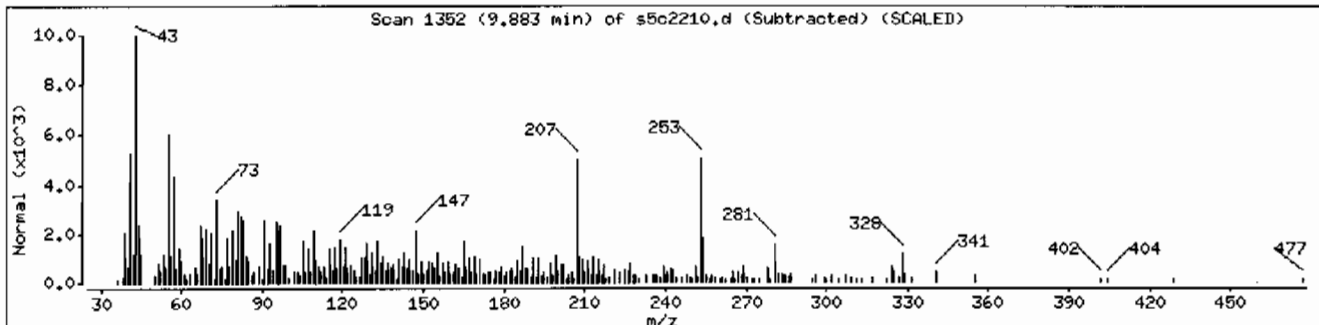
1000130-90-8 NIST05.L

94744

15

C16H30O2

254



Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: 1248506001196308611ISVH11ILANL

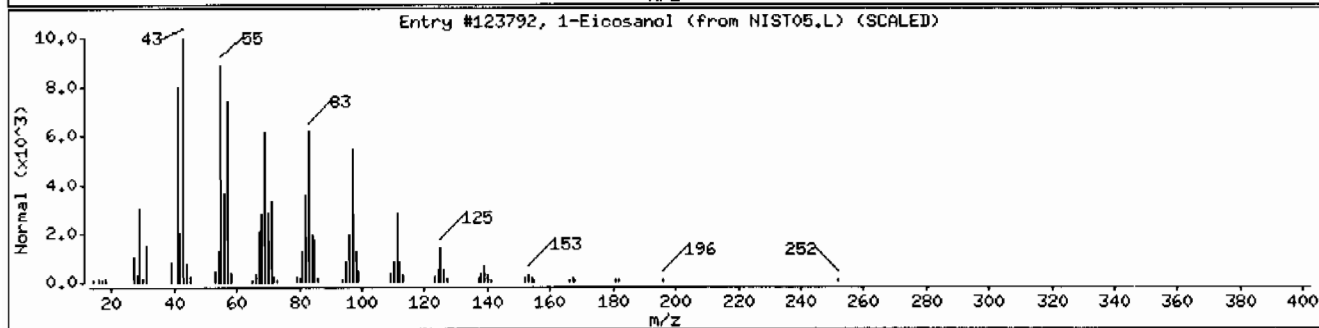
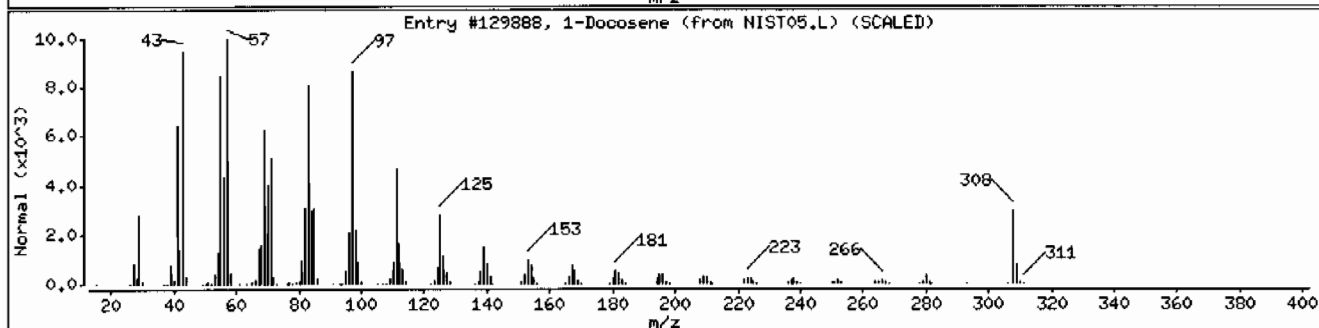
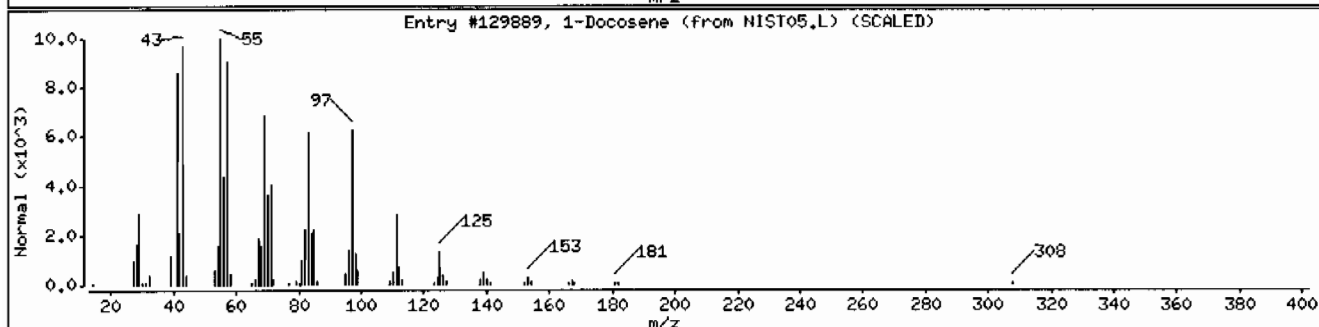
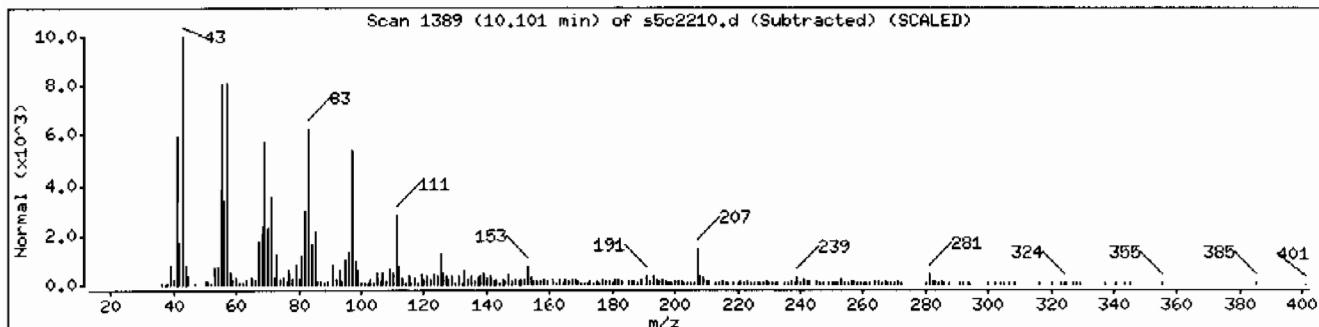
Volume Injected (uL): 0.5

Operator: RMB

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	129889	98	C22H44	308
1-Docosene	1599-67-3	NIST05.L	129888	98	C22H44	308
1-Eicosanol	629-96-9	NIST05.L	123792	93	C20H42O	298



Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: I248506001I963086I1ISVH11ILANL

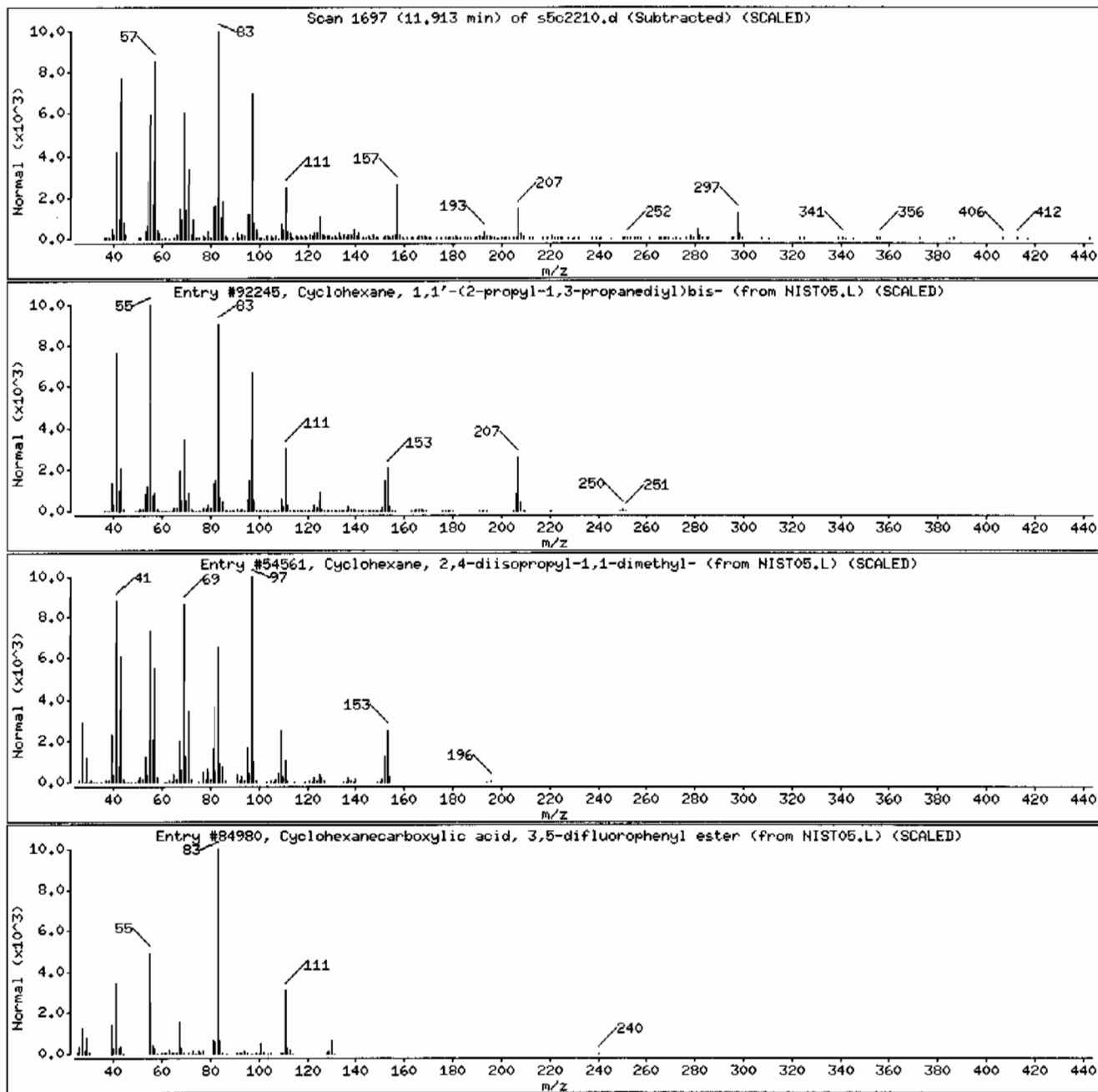
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexane, 1,1'-(2-propyl-1,3-propanediyl)bis-	55030-21-2	NIST05.L	92245	50	C18H34	250
Cyclohexane, 2,4-diisopropyl-1,1-dimethyl-	1000149-60-5	NIST05.L	54561	46	C14H28	196
Cyclohexanecarboxylic acid, 3,5-difluoro	1000293-69-2	NIST05.L	84980	41	C13H14F2O2	240





Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: 12485060011963086111SVMI11LANL

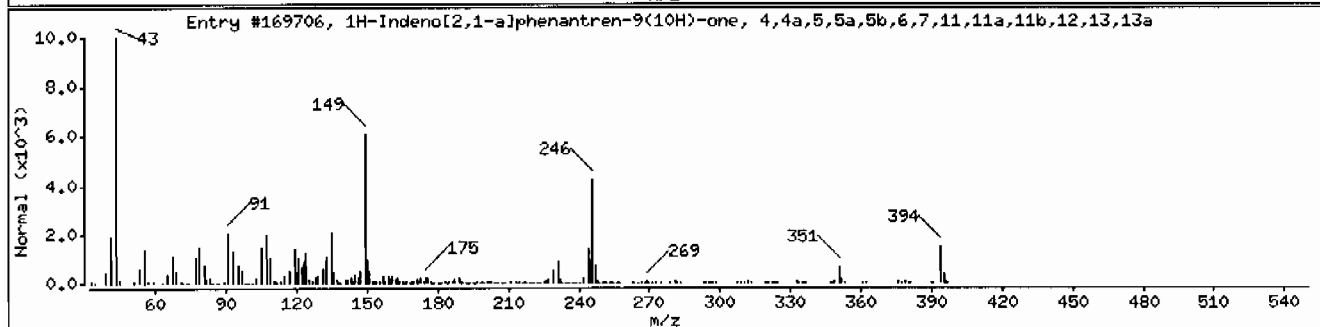
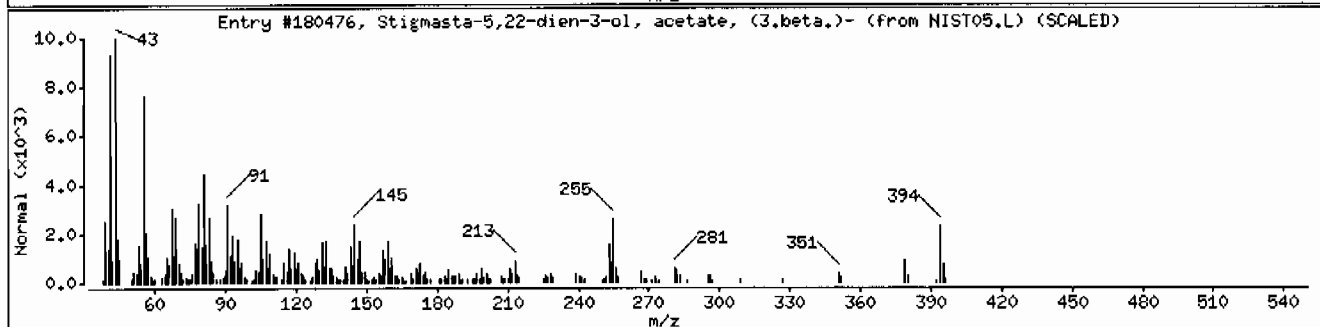
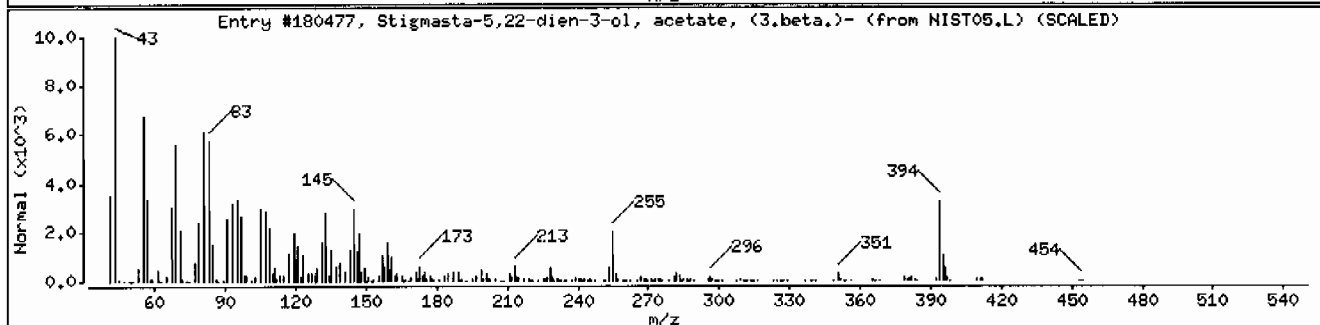
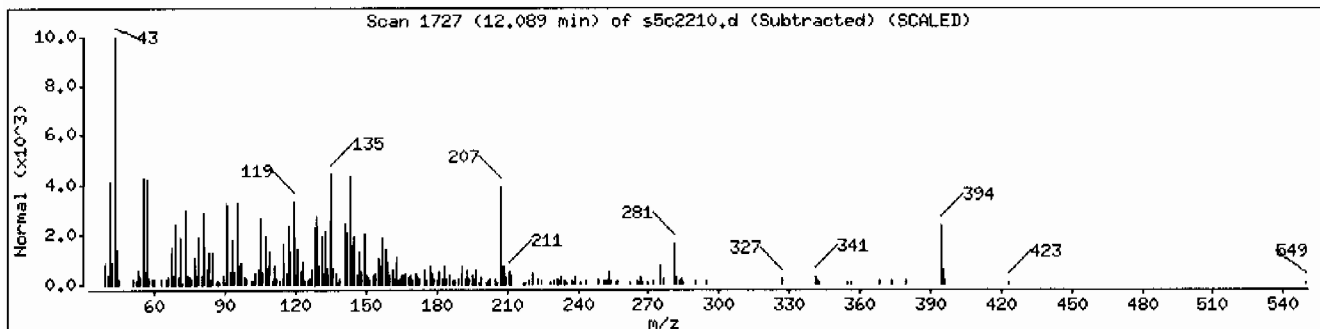
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Stigmasta-5,22-dien-3-ol, acetate, (3.β)	4651-48-3	NIST05.L	180477	9	C31H50O2	454
Stigmasta-5,22-dien-3-ol, acetate, (3.β)	4651-48-3	NIST05.L	180476	9	C31H50O2	454
1H-Indeno[2,1-a]phenantren-9(10H)-one, 4	38522-43-9	NIST05.L	169706	9	C27H38O2	394



Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: 1248506001/96308611SVMI11LANL

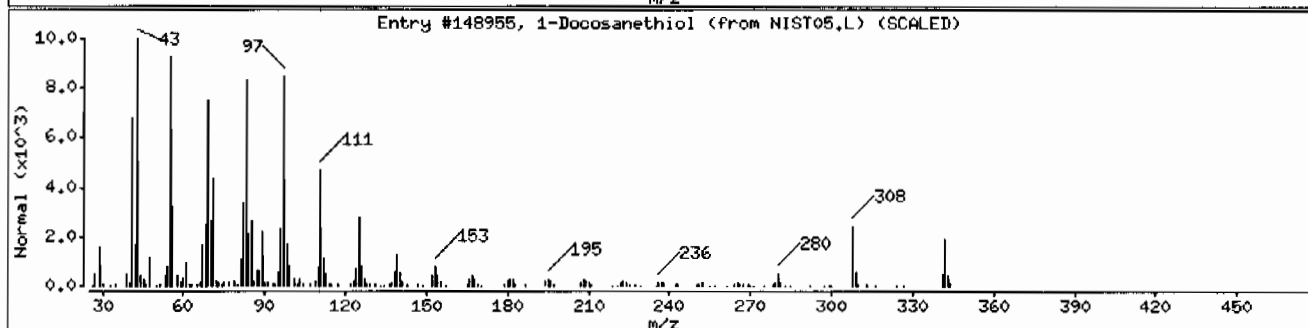
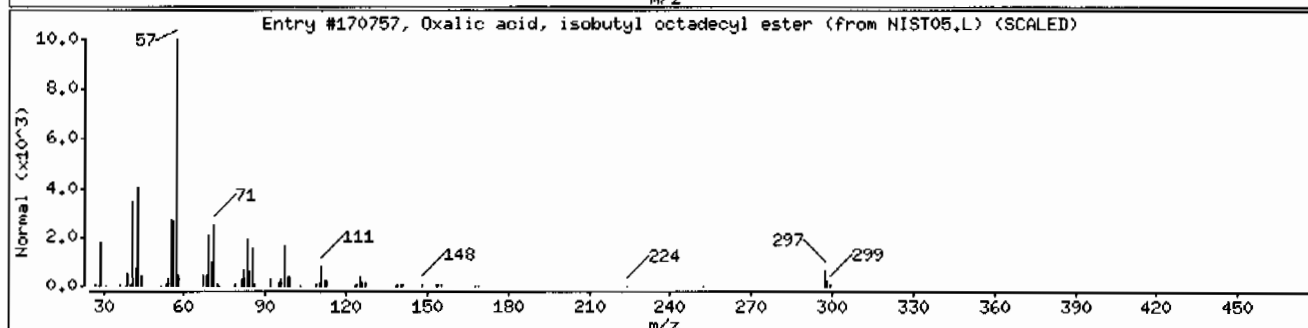
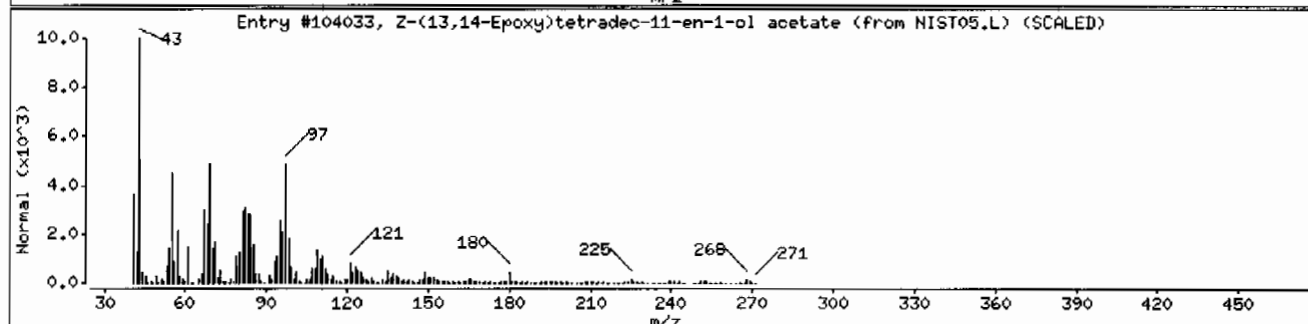
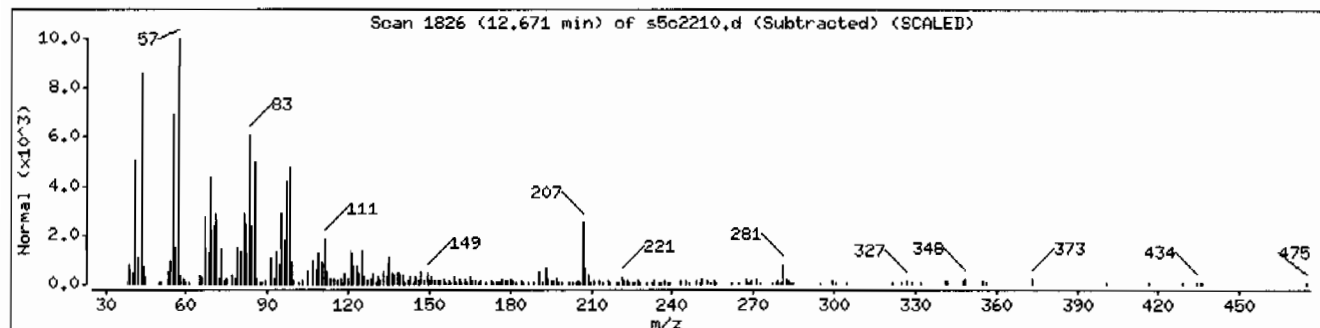
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Z-(13,14-Epoxy)tetradec-11-en-1-ol aceta	1000131-33-2	NIST05.L	104033	64	C16H28O3	268
Oxalic acid, isobutyl octadecyl ester	1000309-38-3	NIST05.L	170757	47	C24H46O4	398
1-Docosanethiol	7773-83-3	NIST05.L	148955	46	C22H46S	342



Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: HSD5.i

Sample Info: 12485060011963086111SVH111LANL

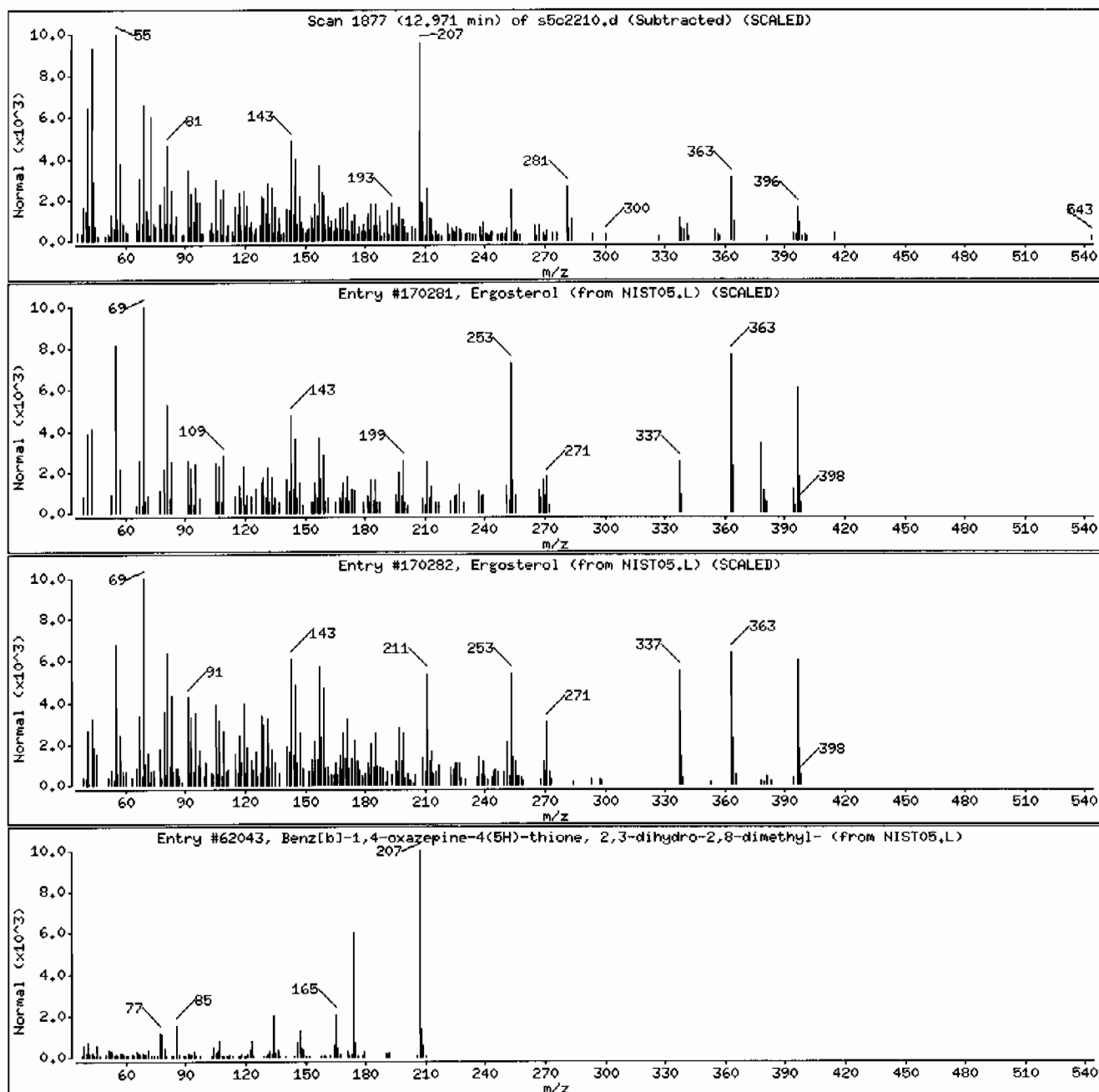
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ergosterol	57-87-4	NIST05.L	170281	41	C28H44O	386
Ergosterol	57-87-4	NIST05.L	170282	38	C28H44O	386
Benz[b]-1,4-oxazepine-4(5H)-thione, 2,3-	1000258-63-4	NIST05.L	62043	35	C11H13NOS	207



Date : 22-MAR-2010 11:55

Client ID: RE36-10-7407

Instrument: MSD5.i

Sample Info: 12485060011963086111SVH111LANL

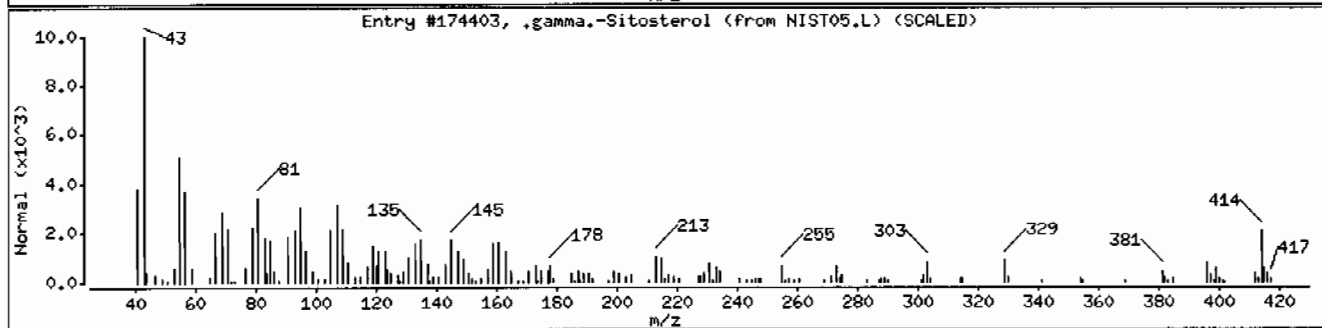
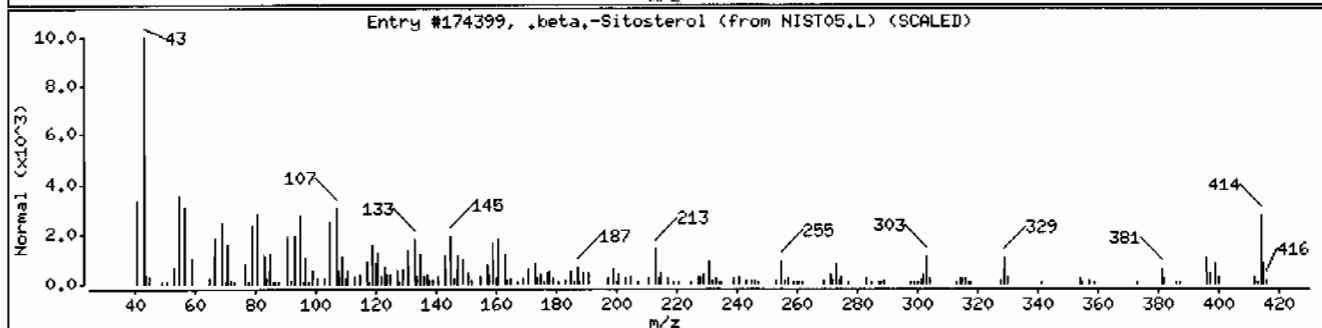
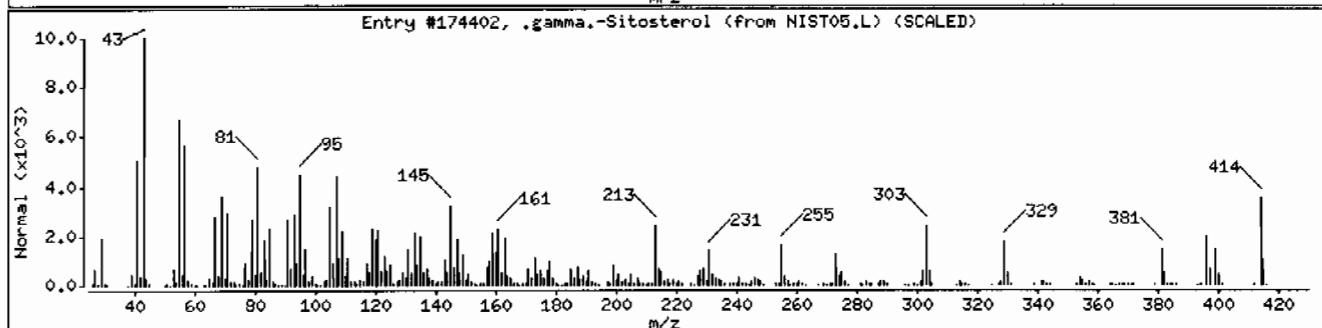
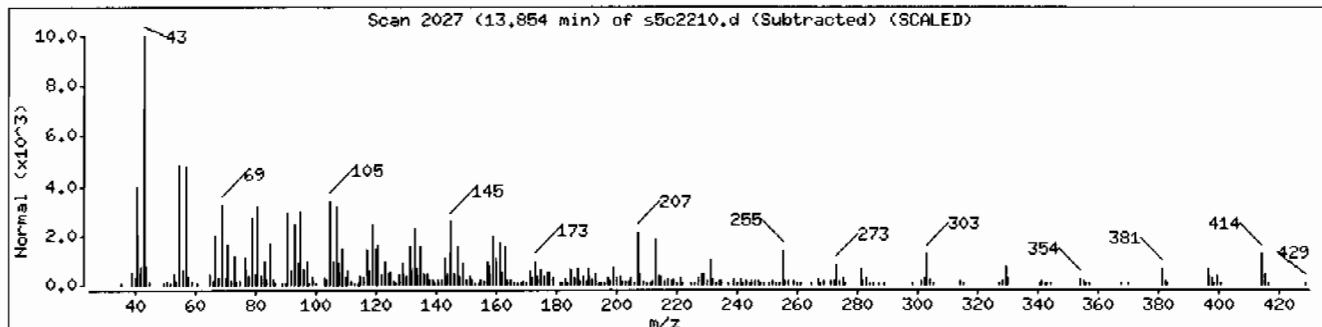
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	99	C29H50O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174399	97	C29H50O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174403	87	C29H50O	414



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

SDG Number: 10-2193  
Lab Sample ID: 248506002

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 15  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7421  
Batch ID: 963086  
Run Date: 03/22/2010 13:04  
Prep Date: 03/10/2010 12:33  
Data File: s5c2213.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	391	ug/kg	78.3	391
108-95-2	Phenol	U	391	ug/kg	78.3	391
95-57-8	2-Chlorophenol	U	391	ug/kg	78.3	391
106-46-7	1,4-Dichlorobenzene	U	391	ug/kg	78.3	391
621-64-7	N-Nitrosodipropylamine	U	391	ug/kg	78.3	391
59-50-7	4-Chloro-3-methylphenol	U	391	ug/kg	78.3	391
83-32-9	Acenaphthene	U	39.1	ug/kg	12.9	39.1
121-14-2	2,4-Dinitrotoluene	U	391	ug/kg	39.1	391
100-02-7	4-Nitrophenol	U	391	ug/kg	129	391
87-86-5	Pentachlorophenol	U	391	ug/kg	97.8	391
129-00-0	Pyrene	J	36.0	ug/kg	11.7	39.1
110-86-1	Pyridine	U	391	ug/kg	78.3	391
62-53-3	Aniline	U	391	ug/kg	117	391
111-44-4	bis(2-Chloroethyl) ether	U	391	ug/kg	78.3	391
541-73-1	1,3-Dichlorobenzene	U	391	ug/kg	78.3	391
100-51-6	Benzyl alcohol	U	391	ug/kg	117	391
95-50-1	1,2-Dichlorobenzene	U	391	ug/kg	78.3	391
108-60-1	bis(2-Chloroisopropyl)ether	U	391	ug/kg	78.3	391
95-48-7	o-Cresol	U	391	ug/kg	78.3	391
65794-96-9	m,p-Cresols	U	391	ug/kg	117	391
67-72-1	Hexachloroethane	U	391	ug/kg	78.3	391
98-95-3	Nitrobenzene	U	391	ug/kg	78.3	391
78-59-1	Isophorone	U	391	ug/kg	78.3	391
88-75-5	2-Nitrophenol	U	391	ug/kg	78.3	391
105-67-9	2,4-Dimethylphenol	U	391	ug/kg	137	391
111-91-1	bis(2-Chloroethoxy)methane	U	391	ug/kg	78.3	391
120-83-2	2,4-Dichlorophenol	U	391	ug/kg	78.3	391
65-85-0	Benzoic acid	J	702	ug/kg	196	783
91-20-3	Naphthalene	U	39.1	ug/kg	11.7	39.1
106-47-8	4-Chloroaniline	U	391	ug/kg	78.3	391
87-68-3	Hexachlorobutadiene	U	391	ug/kg	78.3	391
91-57-6	2-Methylnaphthalene	U	39.1	ug/kg	7.83	39.1
77-47-4	Hexachlorocyclopentadiene	U	391	ug/kg	78.3	391
88-06-2	2,4,6-Trichlorophenol	U	391	ug/kg	78.3	391
95-95-4	2,4,5-Trichlorophenol	U	391	ug/kg	78.3	391
91-58-7	2-Chloronaphthalene	U	39.1	ug/kg	12.9	39.1
88-74-4	2-Nitroaniline	U	391	ug/kg	78.3	391
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	391	ug/kg	78.3	391

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506002	Date Received: 03/03/2010 08:50	%Moisture: 15
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7421	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.1	Dilution: 1
Run Date: 03/22/2010 13:04	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s5c2213.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	U	391	ug/kg	78.3	391
606-20-2	2,6-Dinitrotoluene	U	391	ug/kg	39.1	391
208-96-8	Acenaphthylene	U	39.1	ug/kg	11.7	39.1
51-28-5	2,4-Dinitrophenol	U	783	ug/kg	149	783
132-64-9	Dibenzofuran	U	391	ug/kg	78.3	391
84-66-2	Diethylphthalate	U	391	ug/kg	78.3	391
86-73-7	Fluorene	U	39.1	ug/kg	11.7	39.1
7005-72-3	4-Chlorophenylphenylether	U	391	ug/kg	78.3	391
534-52-1	2-Methyl-4,6-dinitrophenol	U	391	ug/kg	78.3	391
100-01-6	4-Nitroaniline	U	391	ug/kg	117	391
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	391	ug/kg	78.3	391
122-66-7	Azobenzene	U	391	ug/kg	78.3	391
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	391	ug/kg	78.3	391
118-74-1	Hexachlorobenzene	U	391	ug/kg	78.3	391
85-01-8	Phenanthrene	J	22.5	ug/kg	11.7	39.1
120-12-7	Anthracene	U	39.1	ug/kg	7.83	39.1
84-74-2	Di-n-butylphthalate	J	168	ug/kg	78.3	391
206-44-0	Fluoranthene	J	35.7	ug/kg	11.7	39.1
85-68-7	Butylbenzylphthalate	U	391	ug/kg	78.3	391
56-55-3	Benzo(a)anthracene	J	19.9	ug/kg	11.7	39.1
91-94-1	3,3'-Dichlorobenzidine	U	391	ug/kg	117	391
218-01-9	Chrysene	J	20.0	ug/kg	11.7	39.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	391	ug/kg	78.3	391
117-84-0	Di-n-octylphthalate	U	391	ug/kg	78.3	391
205-99-2	Benzo(b)fluoranthene	U	39.1	ug/kg	11.7	39.1
207-08-9	Benzo(k)fluoranthene	U	39.1	ug/kg	11.7	39.1
50-32-8	Benzo(a)pyrene	U	39.1	ug/kg	11.7	39.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.1	ug/kg	11.7	39.1
53-70-3	Dibenzo(a,h)anthracene	U	39.1	ug/kg	11.7	39.1
191-24-2	Benzo(ghi)perylene	U	39.1	ug/kg	11.7	39.1
120-82-1	1,2,4-Trichlorobenzene	U	391	ug/kg	78.3	391

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.71	313	ug/kg		J
309735-29-3	1,2-Benzisothiazole, 3-(hexahydro-1H-azc	8.78	385	ug/kg	91	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506002	Date Received: 03/03/2010 08:50	%Moisture: 15
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7421	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 13:04	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s5c2213.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQI/LOQ
---------	---------	-----------	--------	-------	---------	---------

Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.93	475	ug/kg		J
	Unknown	9.03	930	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.1	304	ug/kg	96	NJ
	Unknown	9.13	378	ug/kg		J
	Unknown	9.22	292	ug/kg		J
	Unknown	9.24	414	ug/kg		J
	Unknown	9.4	461	ug/kg		J
1599-67-3	1-Docosene	9.44	665	ug/kg	96	NJ
	Unknown	9.72	332	ug/kg		J
	Unknown	9.75	338	ug/kg		J
	Unknown	9.88	565	ug/kg		J
	Unknown	9.98	305	ug/kg		J
3386-33-2	Octadecane, 1-chloro-	10.08	601	ug/kg	90	NJ
	Unknown	10.1	846	ug/kg		J
559-74-0	Friedelan-3-one	10.13	1020	ug/kg	97	NJ
	Unknown	10.25	523	ug/kg		J
1000108-92-4	Farnesol isomer a	10.54	661	ug/kg	93	NJ
	Unknown	11.92	1910	ug/kg		J
	Unknown	12.09	477	ug/kg		J
	Unknown	12.41	541	ug/kg		J
	Unknown	12.68	731	ug/kg		J
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	12.98	822	ug/kg	92	NJ
474-62-4	Campesterol	13.17	505	ug/kg	84	NJ
83-47-6	.gamma.-Sitosterol	13.87	1900	ug/kg	98	NJ

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2213.d  
Lab Smp Id: 248506002 Client Smp ID: RE36-10-7421  
Inj Date : 22-MAR-2010 13:04  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506002|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 13  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	14.95190	% 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	3.943	3.950	(1.000)	270985	40.0000	
* 29 Naphthalene-d8	=====	136	4.813	4.821	(1.000)	1033028	40.0000	
* 46 Acenaphthene-d10	=====	164	6.072	6.078	(1.000)	619716	40.0000	
* 67 Phenanthrene-d10	=====	188	7.248	7.253	(1.000)	1103037	40.0000	
* 91 Chrysene-d12	=====	240	9.666	9.670	(1.000)	869459	40.0000	
* 98 Perylene-d12	=====	264	11.366	11.370	(1.000)	661980	40.0000	
\$ 3 2-Fluorophenol	=====	112	3.143	3.141	(0.797)	401274	59.3018	2320
\$ 5 Phenol-d5	=====	99	3.660	3.666	(0.928)	491939	60.4877	2370
\$ 20 Nitrobenzene-d5	=====	82	4.307	4.316	(0.895)	265517	34.5901	1350
\$ 39 2-Fluorobiphenyl	=====	172	5.554	5.558	(0.915)	485860	31.3895	1230
\$ 60 2,4,6-Tribromophenol	=====	329	6.672	6.675	(1.099)	146411	62.9013	2460
\$ 81 p-Terphenyl-d14	=====	244	8.631	8.630	(0.893)	517247	35.7641	1400



Compounds	QUANT SIG						CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL	
						(ng/ul)	(ug/Kg)	
79 Pyrene	202	8.525	8.534	(0.882)	22083	0.91917	36.0(a)	
27 Benzoic acid	105	4.560	4.585	(0.947)	37561	17.9506	702(a)	
68 Phenanthrene	178	7.266	7.272	(1.002)	13433	0.57528	22.5(a)	
72 Di-n-butylphthalate	149	7.666	7.672	(1.058)	109698	4.30047	168(a)	
76 Fluoranthene	202	8.313	8.317	(1.147)	22219	0.91218	35.7(a)	
89 Benzo(a)anthracene	228	9.654	9.656	(0.999)	9906	0.50946	19.9(a)	
92 Chrysene	228	9.689	9.694	(1.002)	9246	0.51030	20.0(a)	

#### QC Flag Legend

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

## ION RATIO REPORT

## SV REPORT

Data file: s5c2213.d

Report Date: 03/22/2010 13:20

Lab. ID: 248506002

SampleType: SAMPLE

Injection Date: 22-MAR-2010 13:04

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506002|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	34504	3.66	3.74	80-120	100	(T)
93	21647	3.63	3.74	219-279	63	(QT)
-----						
7 bis(2-Chloroethyl) ether		CAS#: 111-44-4				
63	12858	3.94	3.75	80-120	100	(T)
93	21671	3.90	3.75	119-179	169	(T)
95	947	3.90	3.75	8- 68	7	(QT)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	38452	4.31	4.19	80-120	100	(T)
42	25094	4.31	4.19	44-104	65	(T)
-----						
21 Nitrobenzene		CAS#: 98-95-3				
77	21197	4.56	4.33	80-120	100	(T)
65	1311	4.56	4.33	0- 45	6	(T)
123	2523	4.56	4.33	15- 75	12	(QT)
-----						
22 Isophorone		CAS#: 78-59-1				
82	262036	4.31	4.48	80-120	100	(T)
138	131	4.50	4.48	0- 49	0	( )
-----						
24 2,4-Dimethylphenol		CAS#: 105-67-9				
122	25000	4.56	4.53	80-120	100	( )
107	2372	4.58	4.53	89-149	9	(Q)
121	485	4.57	4.53	24- 84	2	(Q)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
27 Benzoic acid			CAS#: 65-85-0			
105	37561	4.56	4.59	80-120	100	( )
122	24844	4.56	4.59	45-105	66	( )
77	31276	4.56	4.59	48-108	83	( )
-----						
40 2-Chloronaphthalene			CAS#: 91-58-7			
162	6513	5.80	5.67	80-120	100	(T)
164	436	5.80	5.67	3- 63	7	(T)
127	1442	5.80	5.67	11- 71	22	(T)
-----						
42 o-Nitroaniline			CAS#: 88-74-4			
65	10415	5.80	5.73	80-120	100	(T)
92	12239	5.80	5.73	34- 94	118	(QT)
138	1112	5.80	5.73	74-134	11	(QT)
-----						
43 Dimethylphthalate			CAS#: 131-11-3			
163	115366	6.07	5.84	80-120	100	(T)
164	619716	6.07	5.84	0- 40	537	(QT)
-----						
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	84517	6.07	5.90	80-120	100	(T)
63	1192	6.07	5.89	62-122	1	(QT)
-----						
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	84517	6.07	6.19	80-120	100	(T)
89	2701	6.07	6.19	51-111	3	(QT)
63	1187	6.07	6.19	24- 84	1	(QT)
-----						
52 4-Nitrophenol			CAS#: 100-02-7			
139	536	6.11	6.12	80-120	100	( )
109	1149	6.15	6.12	63-123	214	(Q)
65	1545	6.13	6.11	71-131	288	(Q)
-----						
53 Fluorene			CAS#: 86-73-7			
166	7054	6.67	6.49	80-120	100	(T)
165	6382	6.67	6.49	62-122	90	(T)
167	2845	6.67	6.49	0- 44	40	(T)
-----						
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	802	6.67	6.51	80-120	100	(T)
105	2685	6.67	6.50	13- 73	335	(QT)
51	1454	6.67	6.50	51-111	181	(QT)
-----						
68 Phenanthrene			CAS#: 85-01-8			
178	13433	7.27	7.27	80-120	100	( )
179	2258	7.27	7.27	0- 46	17	( )
176	2605	7.27	7.27	0- 49	19	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
69 Anthracene		CAS#: 120-12-7				
178	13584	7.27	7.32	80-120	100	( )
179	2281	7.27	7.32	0- 46	17	( )
176	2605	7.27	7.32	0- 49	19	( )
-----						
72 Di-n-butylphthalate		CAS#: 84-74-2				
149	109698	7.67	7.67	80-120	100	( )
150	9689	7.67	7.67	0- 39	9	( )
104	6859	7.67	7.67	0- 37	6	( )
-----						
76 Fluoranthene		CAS#: 206-44-0				
202	22219	8.31	8.32	80-120	100	( )
203	4627	8.31	8.32	0- 48	21	( )
101	3395	8.31	8.32	0- 41	15	( )
-----						
79 Pyrene		CAS#: 129-00-0				
202	22083	8.52	8.53	80-120	100	( )
200	4635	8.53	8.53	0- 51	21	( )
101	3155	8.52	8.53	0- 43	14	( )
-----						
89 Benzo(a)anthracene		CAS#: 56-55-3				
228	9906	9.65	9.66	80-120	100	( )
226	2394	9.65	9.66	0- 56	24	( )
229	2547	9.65	9.66	0- 50	26	( )
-----						
92 Chrysene		CAS#: 218-01-9				
228	9246	9.69	9.69	80-120	100	( )
229	2590	9.69	9.69	0- 50	28	( )
226	3013	9.69	9.69	0- 59	33	( )
-----						
95 Benzo(b)fluoranthene		CAS#: 205-99-2				
252	9195	10.83	10.85	80-120	100	( )
253	3576	10.84	10.85	0- 52	39	( )
125	4387	10.85	10.85	0- 41	48	(Q)
-----						
96 Benzo(k)fluoranthene		CAS#: 207-08-9				
252	9195	10.83	10.88	80-120	100	( )
253	3991	10.84	10.88	0- 52	43	( )
125	4579	10.85	10.88	0- 40	50	(Q)
-----						
97 Benzo(a)pyrene		CAS#: 50-32-8				
252	5458	11.29	11.29	80-120	100	( )
253	1138	11.29	11.29	0- 52	21	( )
125	647	11.28	11.29	0- 30	12	( )
-----						
101 Benzo(ghi)perylene		CAS#: 191-24-2				
276	2982	13.71	13.72	80-120	100	( )
138	992	13.69	13.72	0- 30	33	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2213.d  
 Lab Smp Id: 248506002 Client Smp ID: RE36-10-7421  
 Inj Date : 22-MAR-2010 13:04  
 Operator : RMB Inst ID: MSD5.i  
 Smp Info : |248506002|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
 Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
 Als bottle: 13  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2193.sub  
 Target Version: 3.50  
 Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	14.95190	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 91 Chrysene-d12	9.666	3452063	40.000
* 98 Perylene-d12	11.366	2090080	40.000

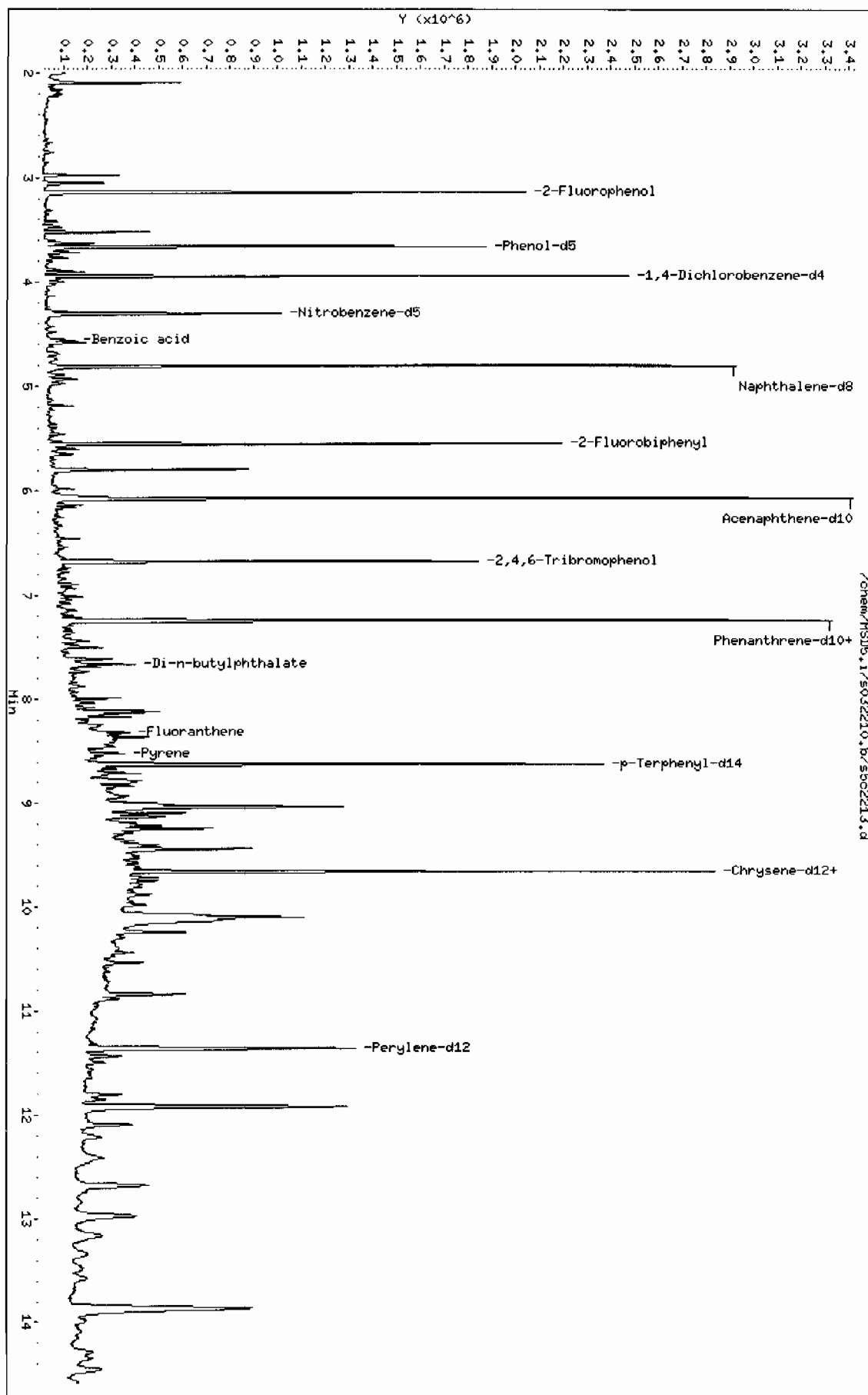
CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown				CAS #:			
8.713	689440	7.98872919	312	0		0	91

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
1,2-Benzisothiazole, 3- (hexahydro-1H-az					CAS #: 309735-29-3		
8.784	849015	9.83777111	385	91	NIST05.L	101019	91
Unknown					CAS #:		
8.931	1047353	12.1359597	475	0		0	91
Unknown					CAS #:		
9.031	2051157	23.7673190	930	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 1235-74-1		
9.095	669633	7.75921434	304	96	NIST05.L	133618	91
Unknown					CAS #:		
9.131	834725	9.67218902	378	0		0	91
Unknown					CAS #:		
9.219	644974	7.47348683	292	0		0	91
Unknown					CAS #:		
9.242	912438	10.5726707	414	0		0	91
Unknown					CAS #:		
9.401	1016451	11.7778975	461	0		0	91
1-Docosene					CAS #: 1599-67-3		
9.442	1466551	16.9933198	665	96	NIST05.L	129888	91
Unknown					CAS #:		
9.719	733284	8.49675707	332	0		0	91
Unknown					CAS #:		
9.748	745869	8.64258364	338	0		0	91
Unknown					CAS #:		
9.884	1245708	14.4343592	565	0		0	91
Unknown					CAS #:		
9.984	672623	7.79387122	305	0		0	91
Octadecane, 1-chloro-					CAS #: 3386-33-2		
10.084	1324889	15.3518520	601	90	NIST05.L	117264	91
Unknown					CAS #:		
10.101	1865800	21.6195368	846	0		0	91

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Friedelan-3-one					CAS #: 559-74-0		
10.131	2246403	26.0296831	1020	97	NIST05.L	176566	91
Unknown					CAS #:		
10.248	1153856	13.3700471	523	0		0	91
Farnesol isomer a					CAS #: 1000108-92-4		
10.542	883266	16.9039681	661	93	NIST05.L	72912	98
Unknown					CAS #:		
11.919	2552135	48.8428085	1910	0		0	98
Unknown					CAS #:		
12.089	637130	12.1934033	477	0		0	98
Unknown					CAS #:		
12.413	722810	13.8331436	541	0		0	98
Unknown					CAS #:		
12.677	975590	18.6708544	730	0		0	98
Pyridine-3-carboxamide, oxime, N-(2-trif					CAS #: 288246-53-7		
12.977	1097921	21.0120264	822	92	NIST05.L	112295	98
Campesterol					CAS #: 474-62-4		
13.166	674252	12.9038517	505	84	NIST05.L	171431	98
.gamma.-Sitosterol					CAS #: 83-47-6		
13.866	2543530	48.6781290	1900	98	NIST05.L	174402	98

Data File: /chem/MSDS.i/s032210.b/s032213.d  
 Date : 22-MAR-2010 13:04  
 Client ID: RE36-10-7421  
 Sample Info: 12485060021963086.11SVH11.LANL  
 Volume Injected (uL): 0.5  
 Column phase: J&N DB-5MS

Instrument: MSD5.i  
 Operator: RMB  
 Column diameter: 0.20





Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: HSD5.i

Sample Info: 12485060021963086111SVMI11LANL

Volume Injected (uL): 0.5

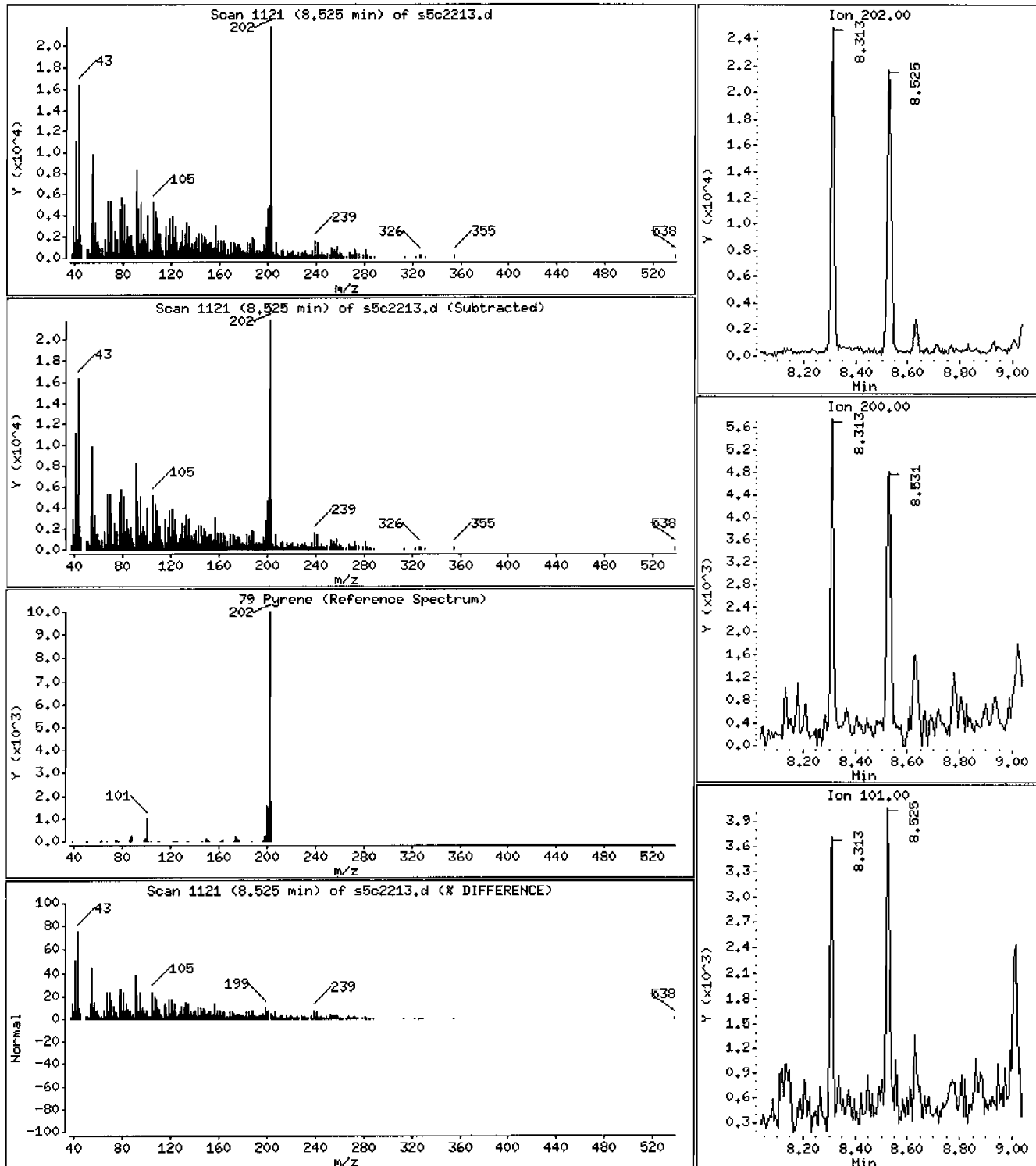
Operator: RHB

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

Column diameter: 0.20

79 Pyrene

Concentration: 36.0 ug/Kg



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 12485060021963086111SVH111LANL

Volume Injected (uL): 0.5

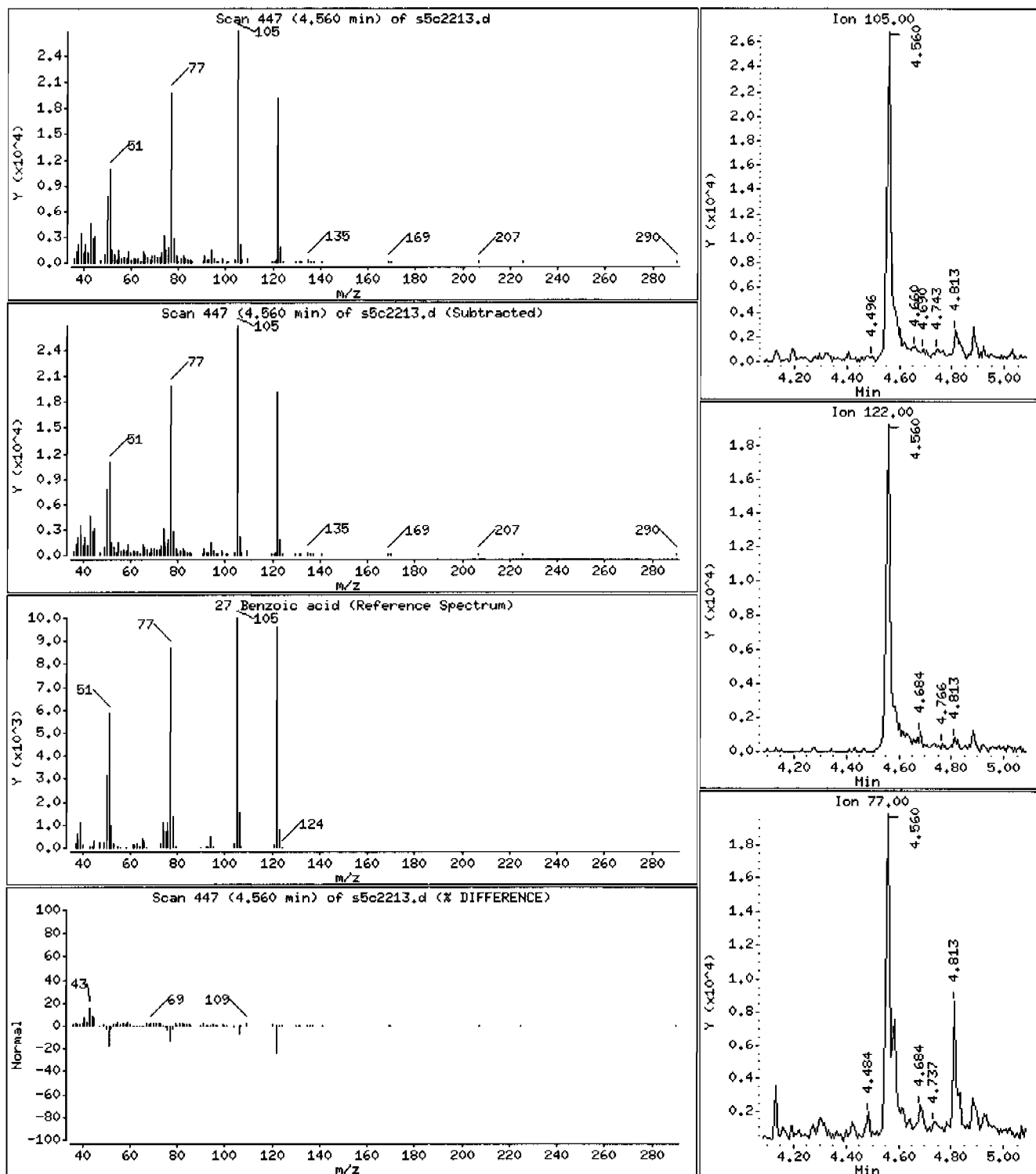
Operator: RMB

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

Column diameter: 0.20

27 Benzoic acid

Concentration: 702 ug/Kg



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 1248506002196308611|SVMI1|LANL

Volume Injected (uL): 0.5

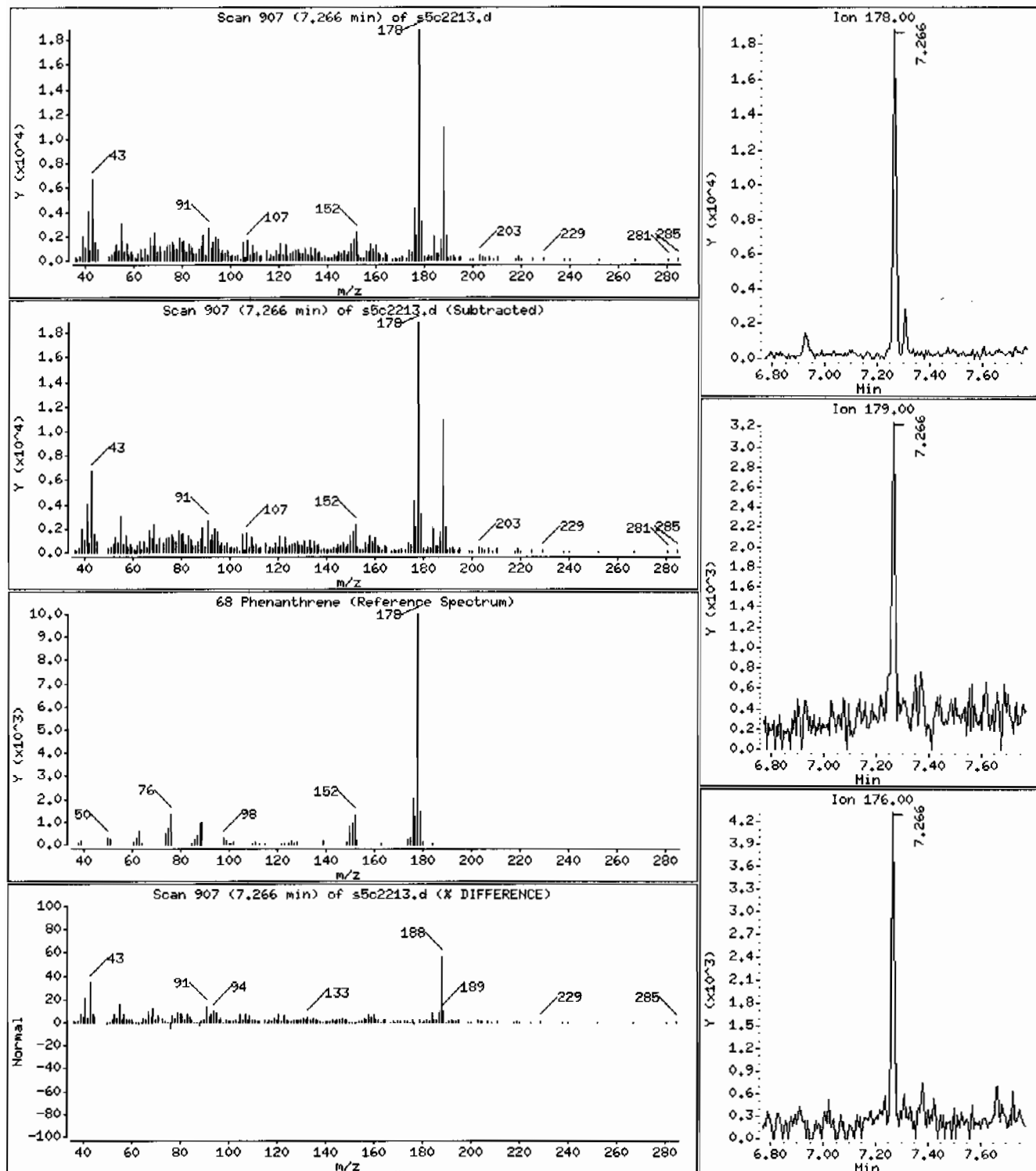
Operator: RMB

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

Column diameter: 0.20

68 Phenanthrene

Concentration: 22.5 ug/Kg



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 1248506002196308611/SVM11/LANL

Volume Injected (uL): 0.5

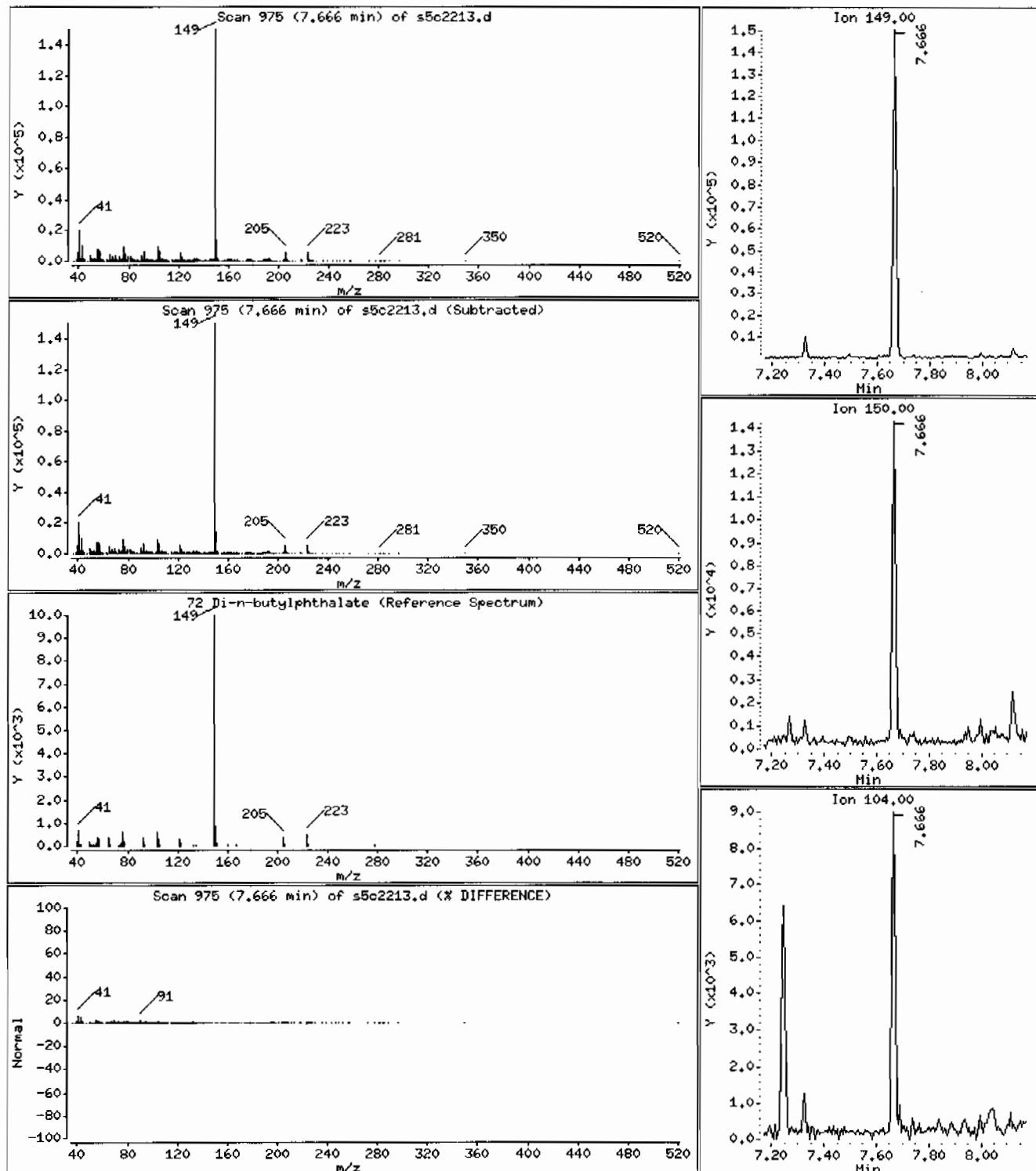
Operator: RMB

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

Column diameter: 0.20

72 Di-n-butylphthalate

Concentration: 168 ug/Kg



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 12485060021963086111SVH111LANL

Volume Injected (uL): 0.5

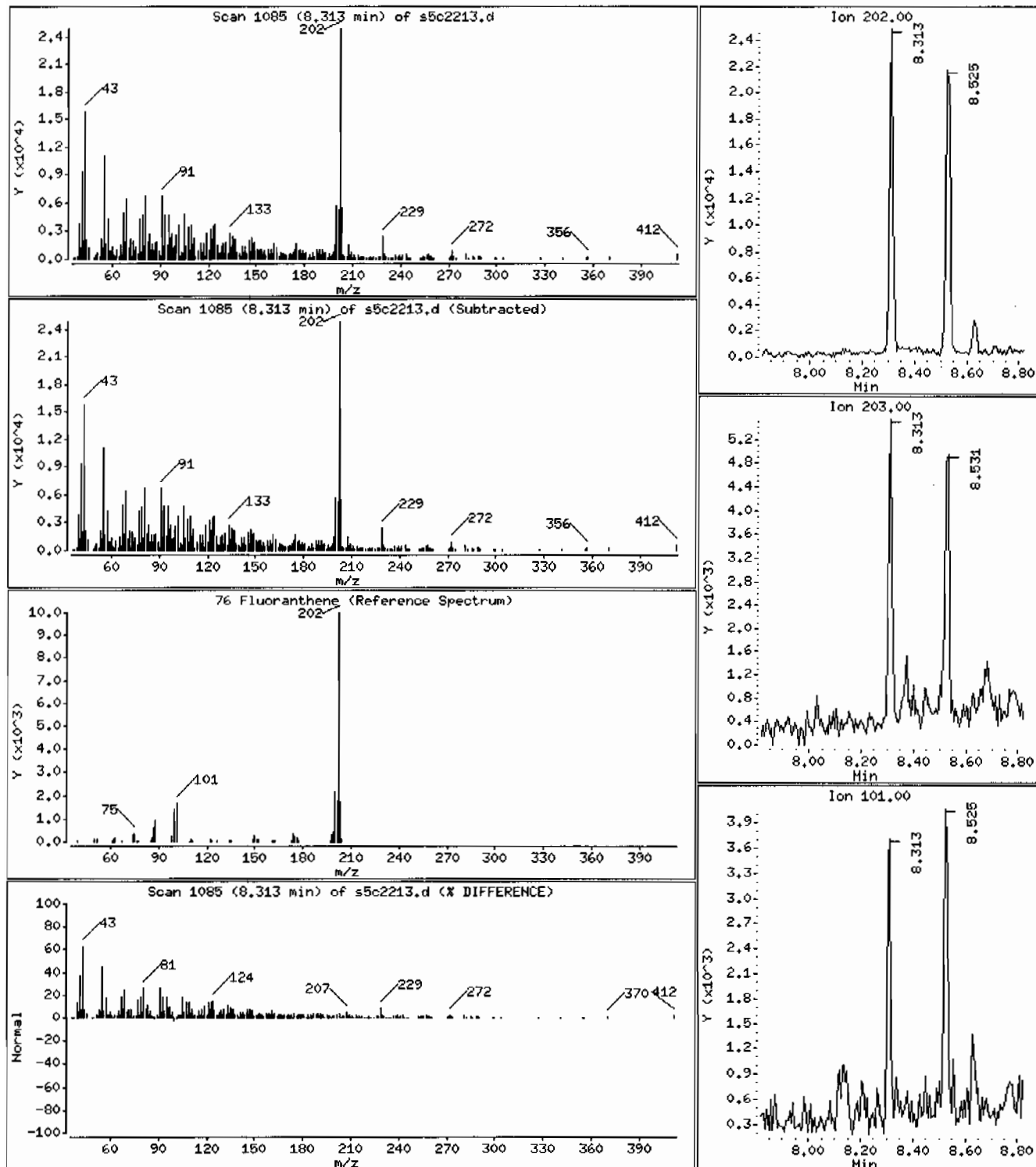
Operator: RMB

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

Column diameter: 0.20

76 Fluoranthene

Concentration: 35.7 ug/Kg



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: HSD5.i

Sample Info: 1248506002196308611SVMI1ILANL

Volume Injected (uL): 0.5

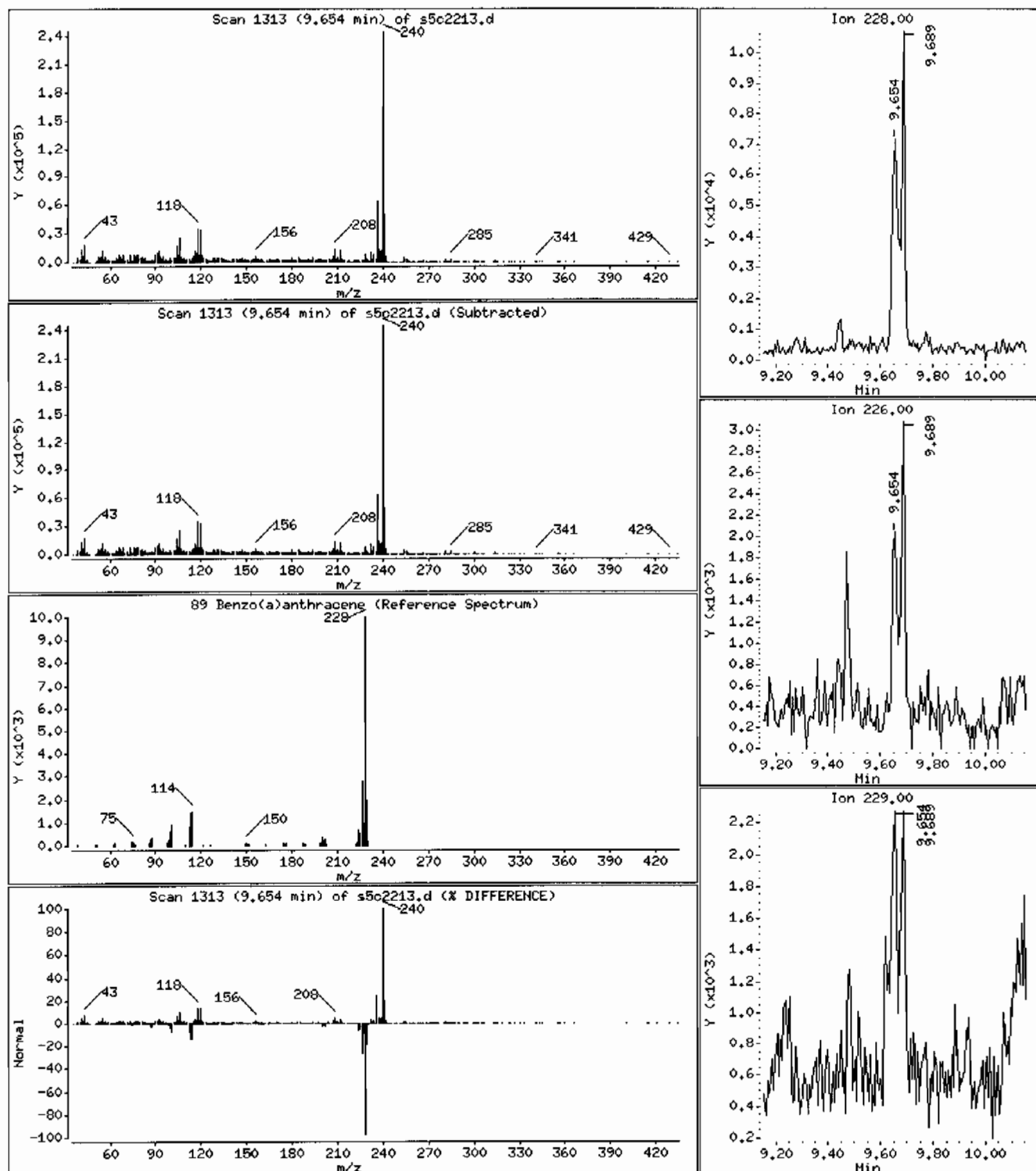
Operator: RHB

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

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 19.9 ug/Kg



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.1

Sample Info: 12485060021963086111SVMI11LANL

Volume Injected (uL): 0.5

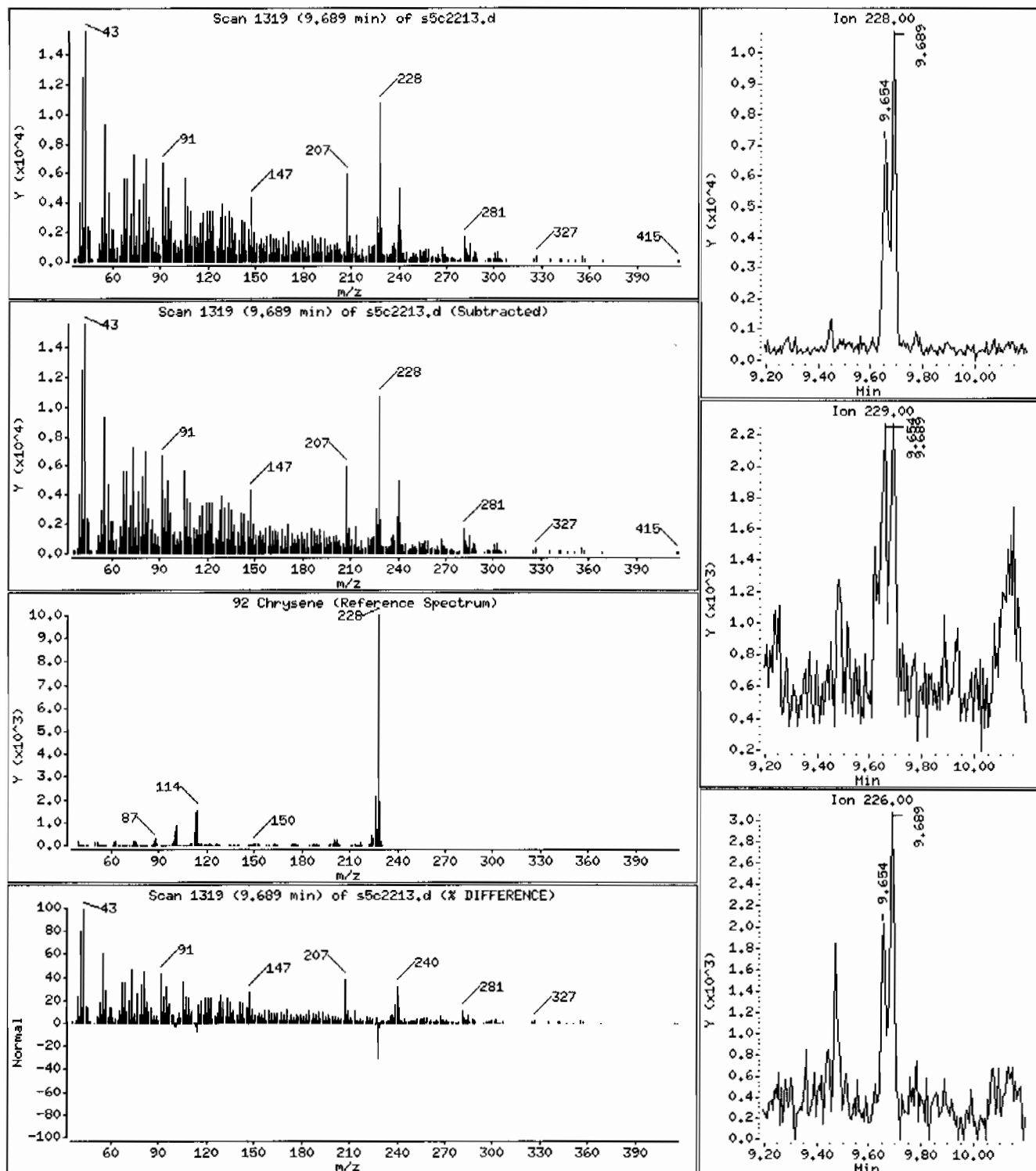
Operator: RMB

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

Column diameter: 0.20

92 Chrysene

Concentration: 20.0 ug/Kg



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 1248506002196308611|SVH11|LANL

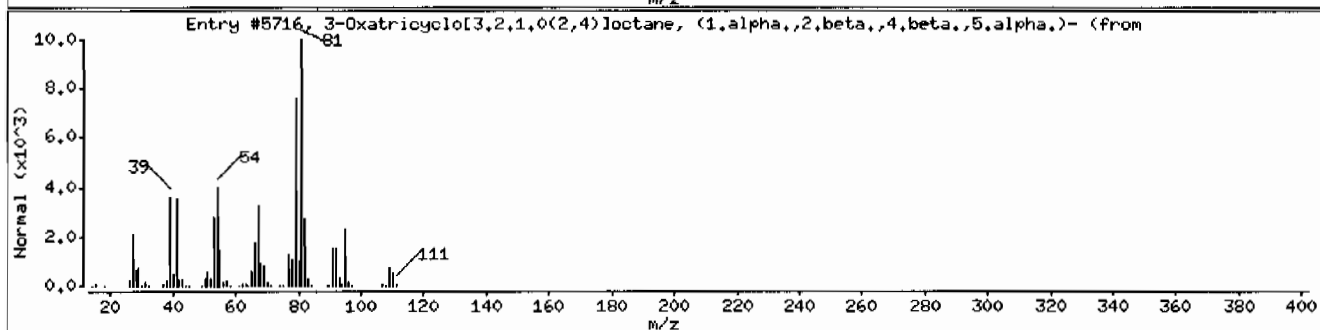
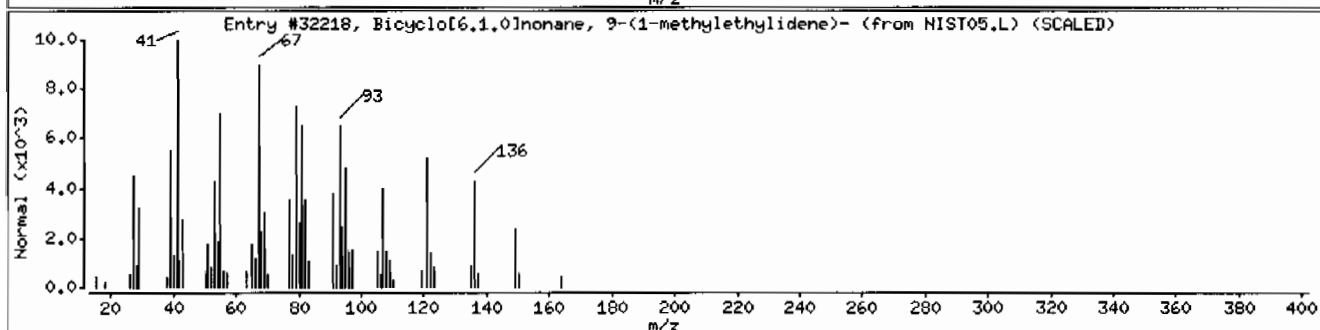
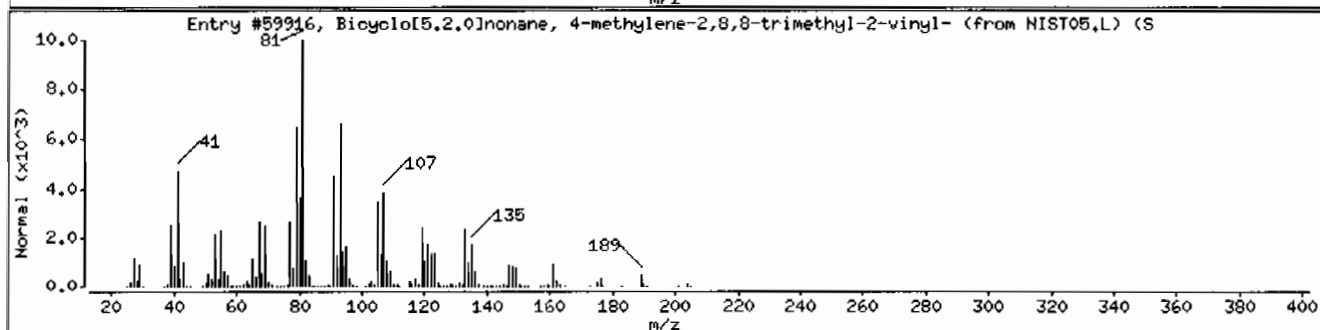
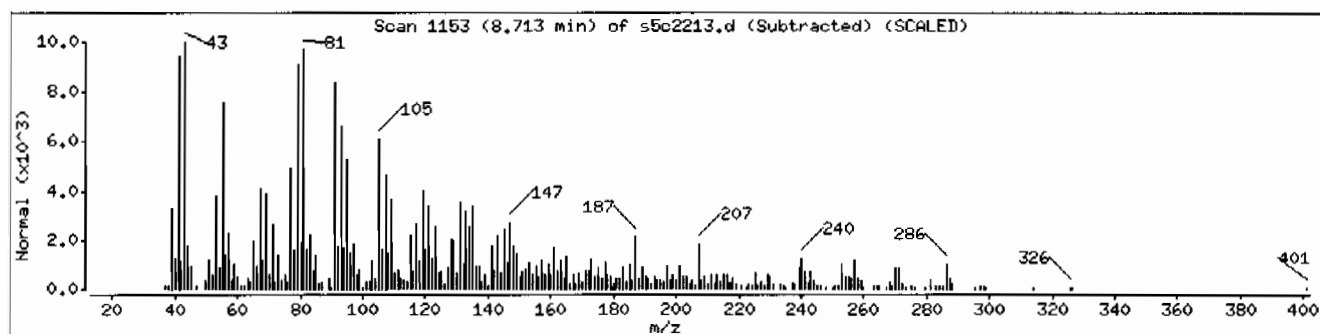
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[5.2.0]nonane, 4-methylene-2,8,8-	1000159-38-2	NIST05.L	59916	58	C15H24	204
Bicyclo[6.1.0]nonane, 9-(1-methylethylidene)	56666-90-1	NIST05.L	32218	53	C12H20	164
3-Oxatricyclo[3.2.1.0(2,4)]octane, (1,α)	3146-39-2	NIST05.L	5716	52	C7H10O	110





Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: HSD5.i

Sample Info: 1248506002|96308611|SVMI1|LANL

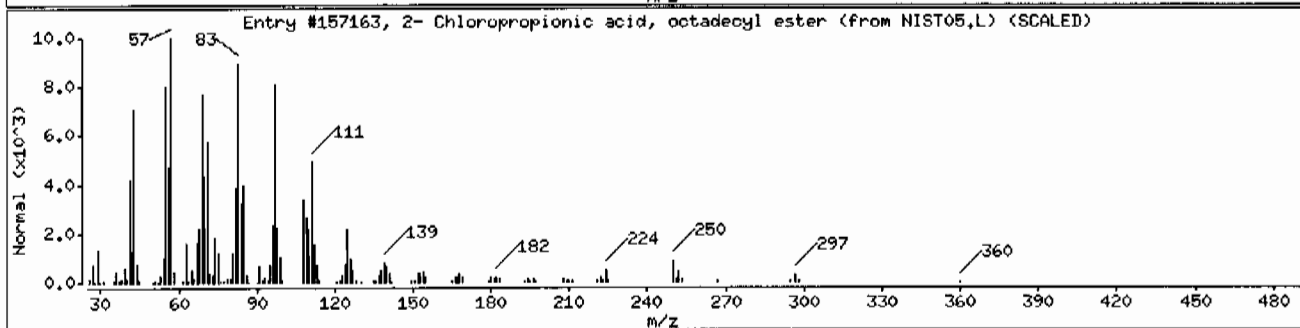
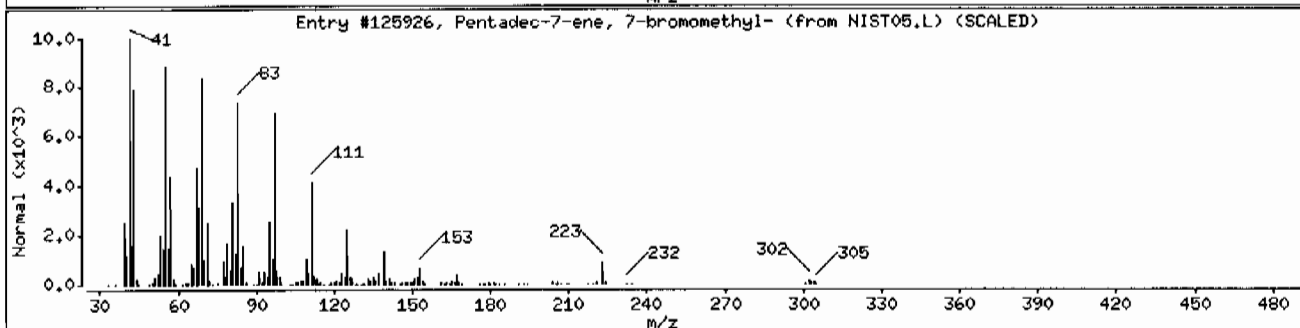
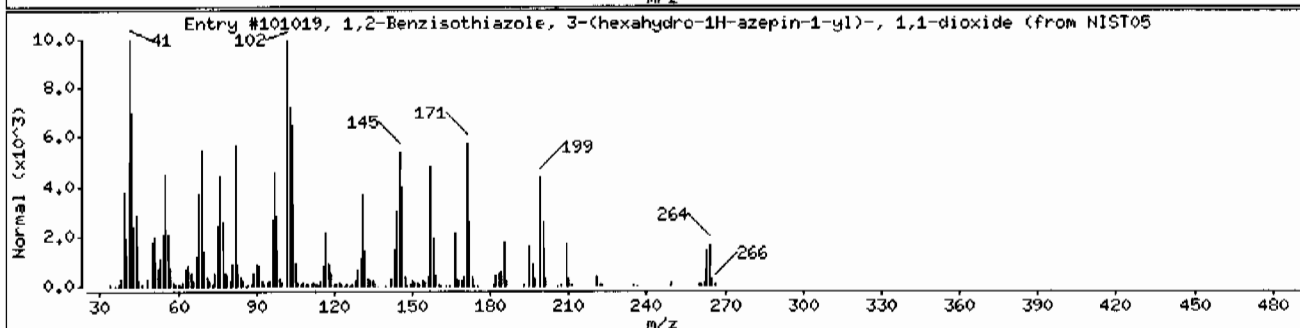
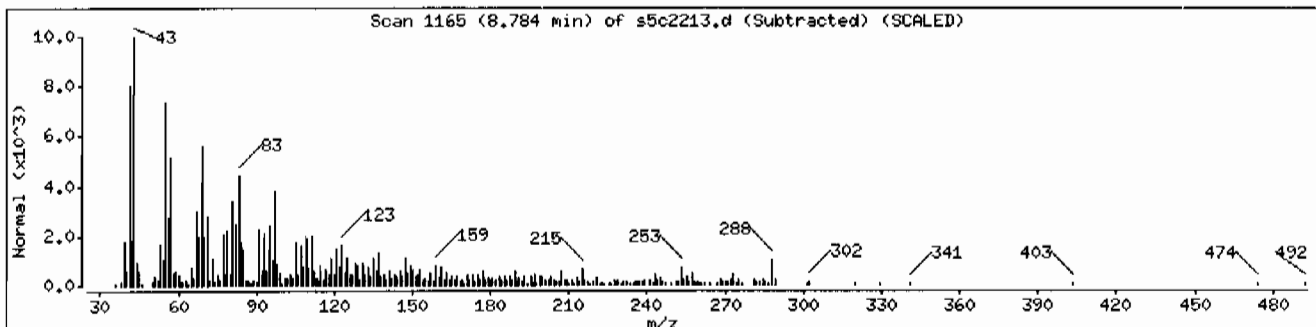
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,2-Benzisothiazole, 3-(hexahydro-1H-azepin-1-yl)-, 1,1-dioxide	309735-29-3	NIST05.L	101019	91	C13H16N2O2S	264
Pentadec-7-ene, 7-bromomethyl-	1000259-58-5	NIST05.L	125926	64	C16H31Br	302
2- Chloropropionic acid, octadecyl ester	88104-31-8	NIST05.L	157163	60	C21H41ClO2	360



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: HSD5.i

Sample Info: 12485060021963086111SVH111LANL

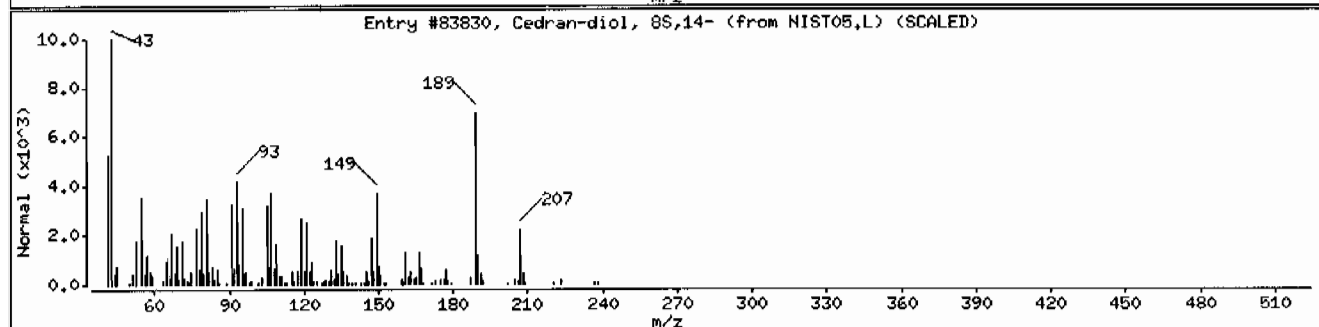
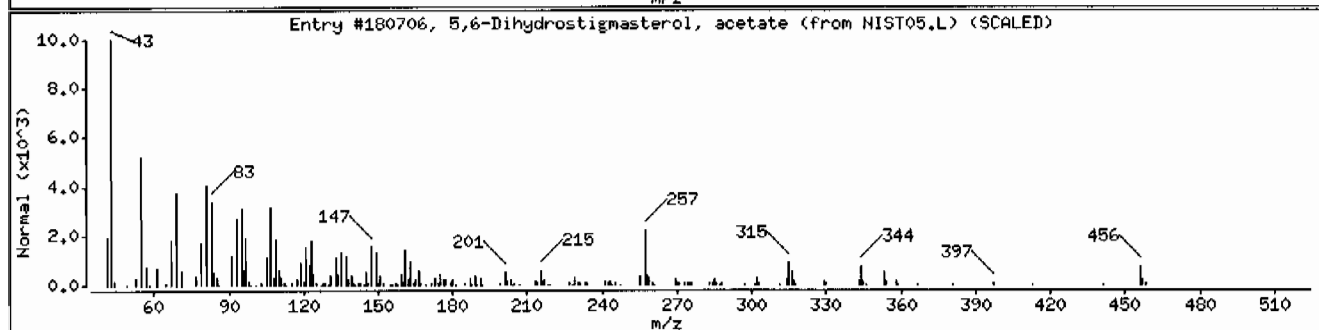
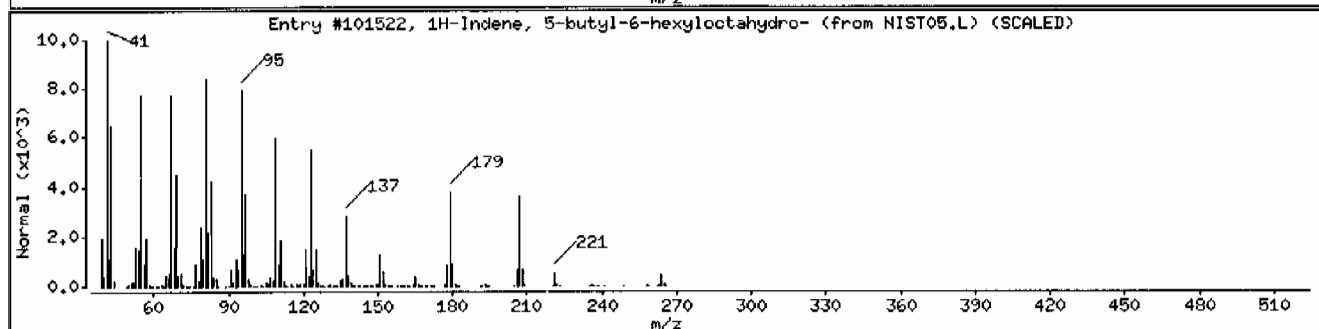
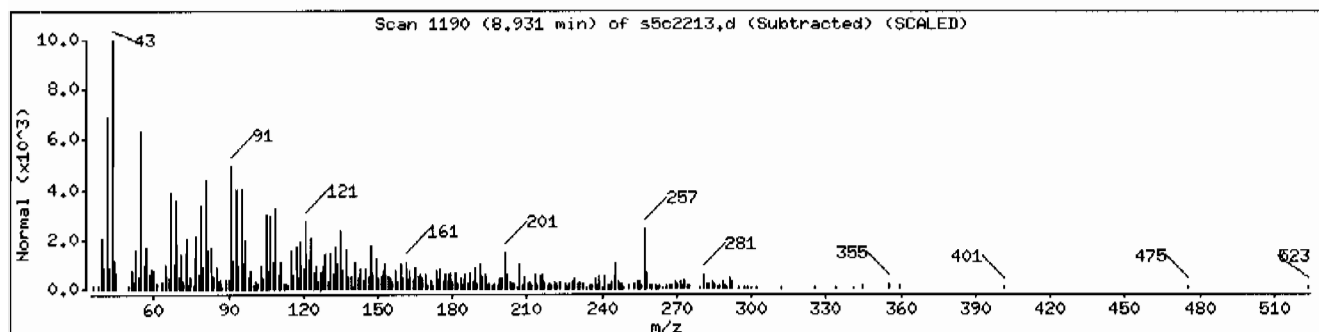
Volume Injected (uL): 0.5

Operator: RMB

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	53	C19H36	264
5,6-Dihydrostigmaterol, acetate	5405-37-8	NIST05.L	180706	43	C31H52O2	456
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	27	C15H26O2	238



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: I248506002196308611SVH11ILANL

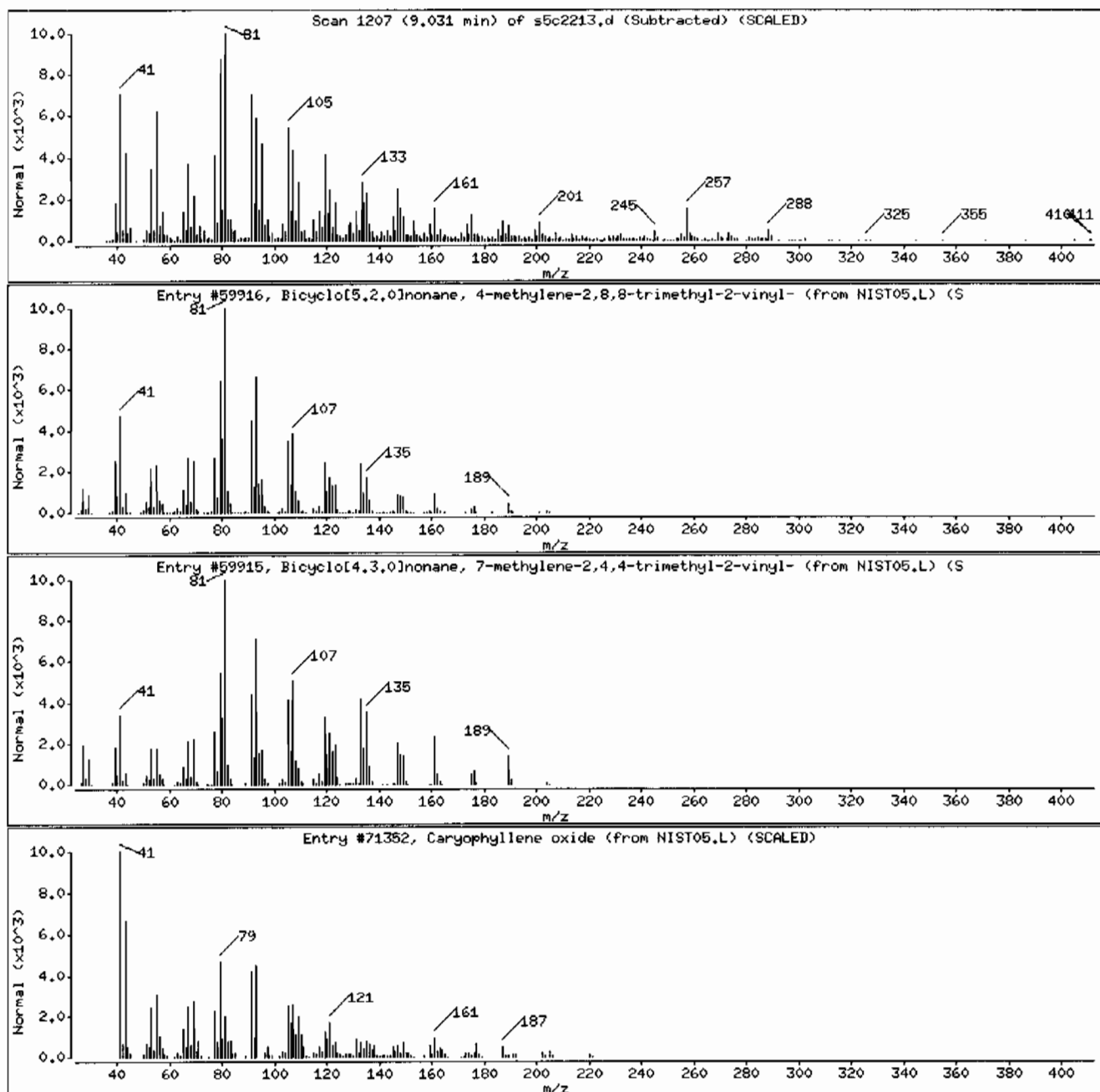
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[5.2.0]nonane, 4-methylene-2,8,8-	1000159-38-2	NIST05.L	59916	46	C <sub>15</sub> H <sub>24</sub>	204
Bicyclo[4.3.0]nonane, 7-methylene-2,4,4-	1000186-11-9	NIST05.L	59915	38	C <sub>15</sub> H <sub>24</sub>	204
Caryophyllene oxide	1139-30-6	NIST05.L	71352	38	C <sub>15</sub> H <sub>24</sub> O	220



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 12485060021963086111SVMI11LANL

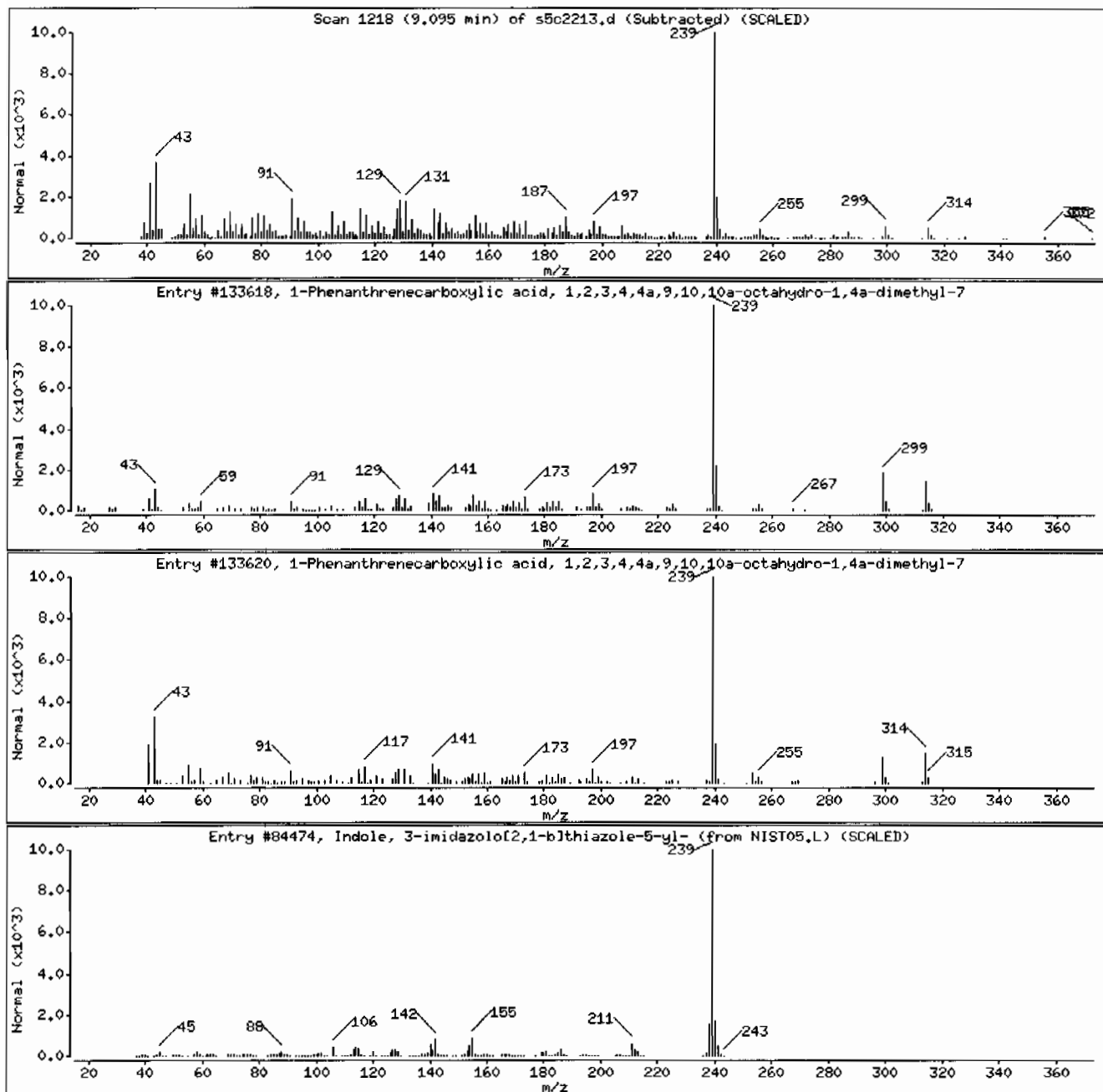
Volume Injected (uL): 0.5

Operator: RMB

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	96	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133620	94	C21H30O2	314
Indole, 3-imidazolo[2,1-b]thiazole-5-yl-	292855-05-1	NIST05.L	84474	53	C13H9N3S	239



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 12485060021963086111SVH111LANL

Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

## Library Search Compound Match

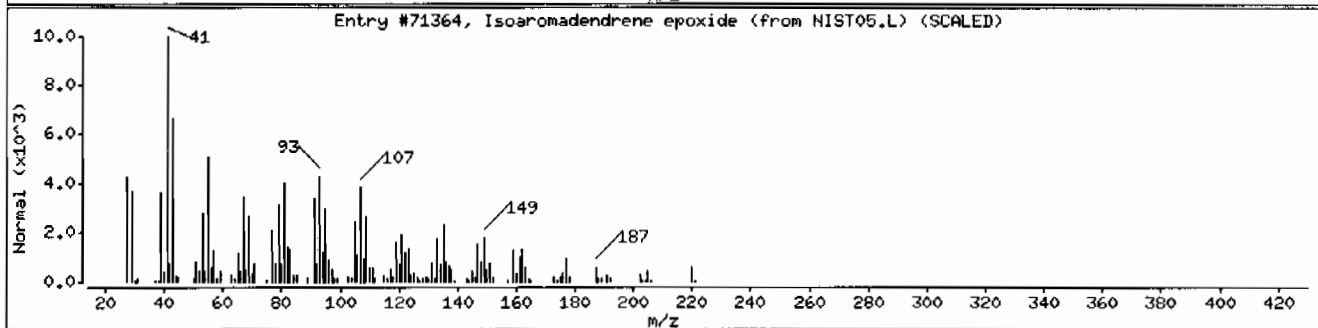
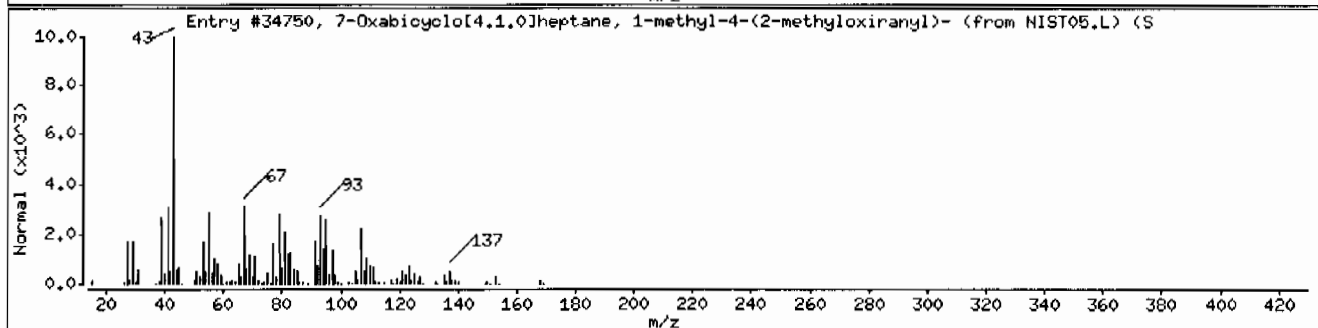
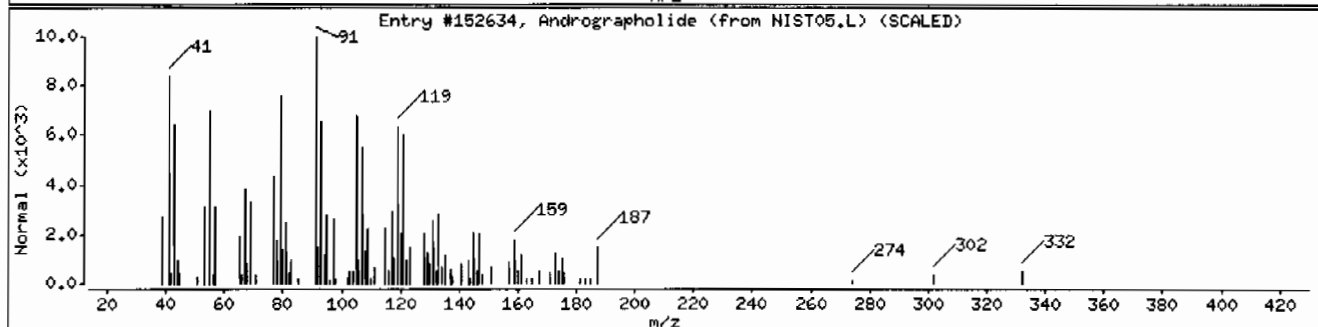
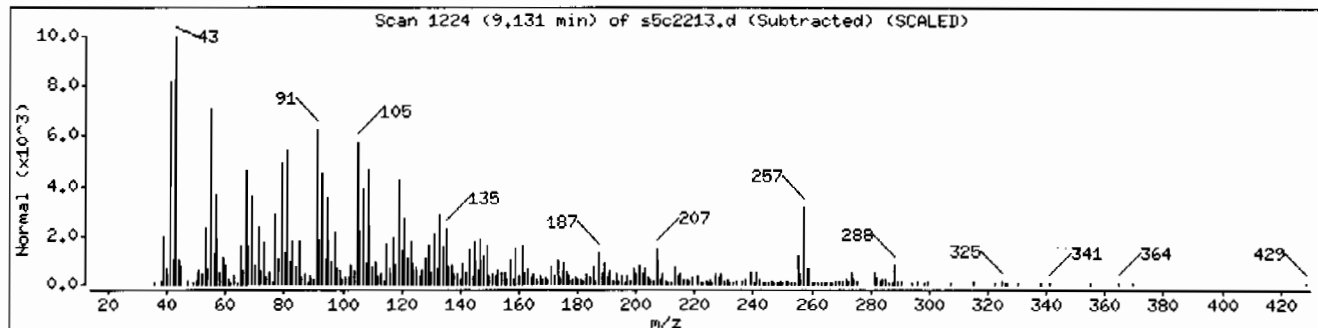
Unknown

Andrographolide

7-Oxabicyclo[4.1.0]heptane, 1-methyl-4-(

Isoaromadendrene epoxide

CAS Number	Library	Entry	Quality	Formula	Weight
5508-58-7	NIST05.L	152634	55	C20H30O5	350
96-08-2	NIST05.L	34750	38	C10H16O2	168
1000159-36-6	NIST05.L	71364	38	C15H24O	220



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 12485060021963086111SVH111LANL

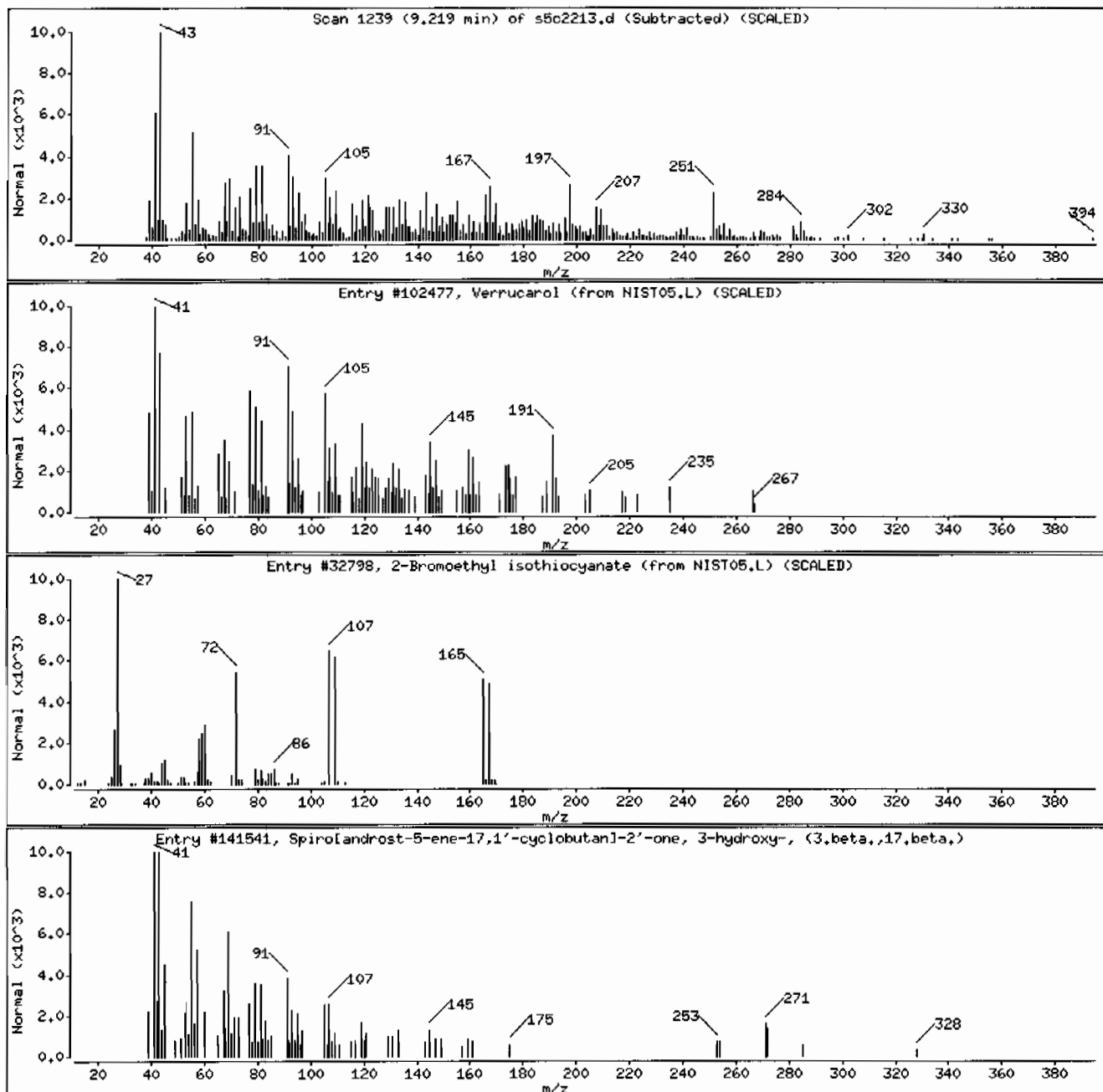
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Verrucarol	2198-92-7	NIST05.L	102477	25	C15H22O4	266
2-Bromoethyl isothiocyanate	1483-41-6	NIST05.L	32798	14	C3H4BrNS	165
Spiro[androster-5-ene-17,1'-cyclobutan]-2'	60534-16-9	NIST05.L	141541	11	C22H32O2	328



Date: 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 12485060021963086111SVH111LANL

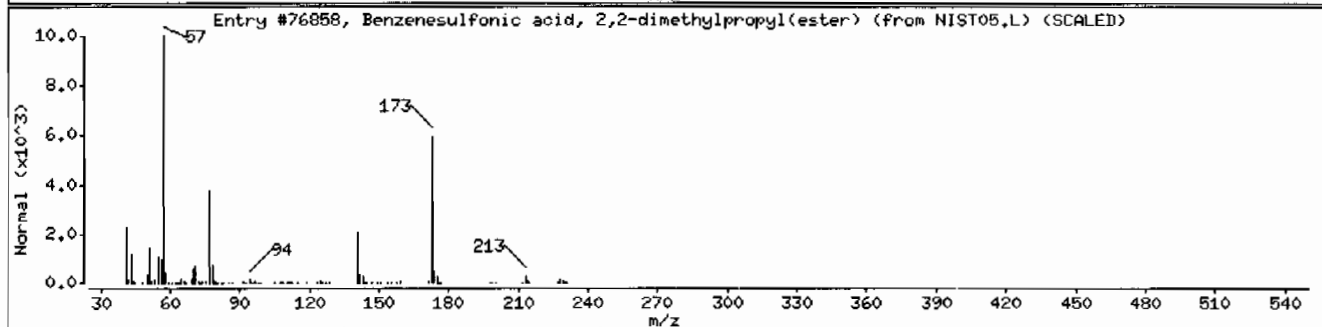
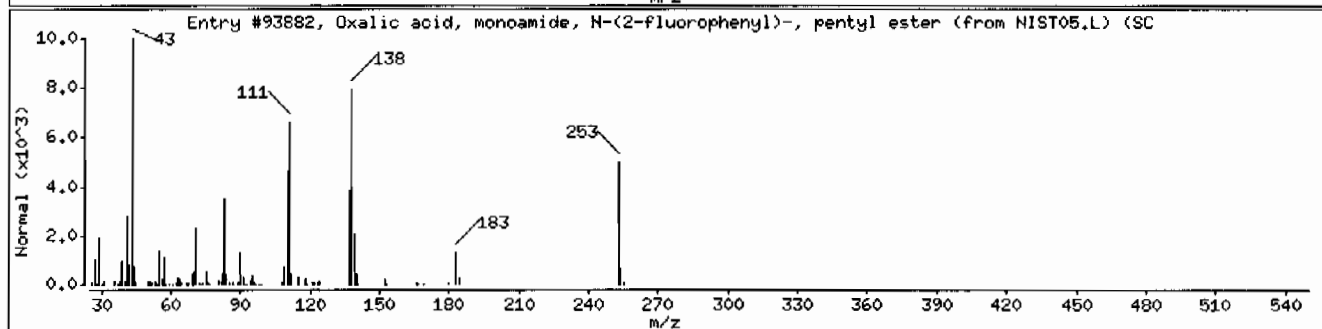
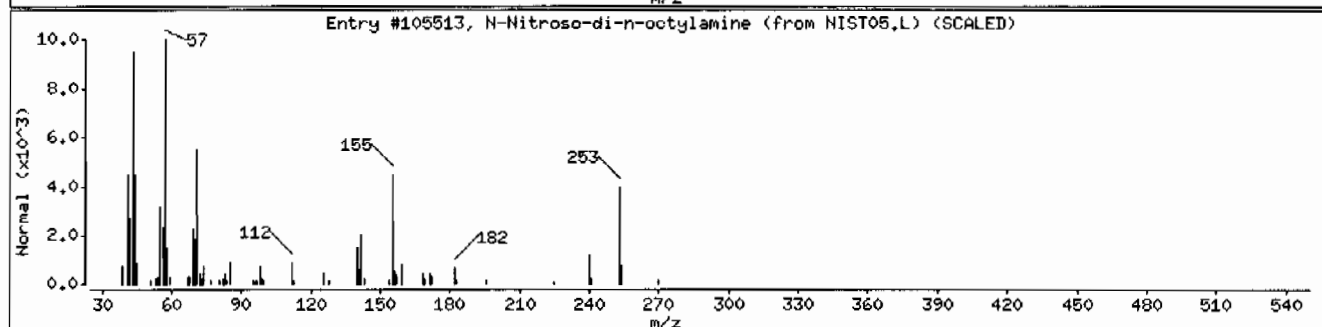
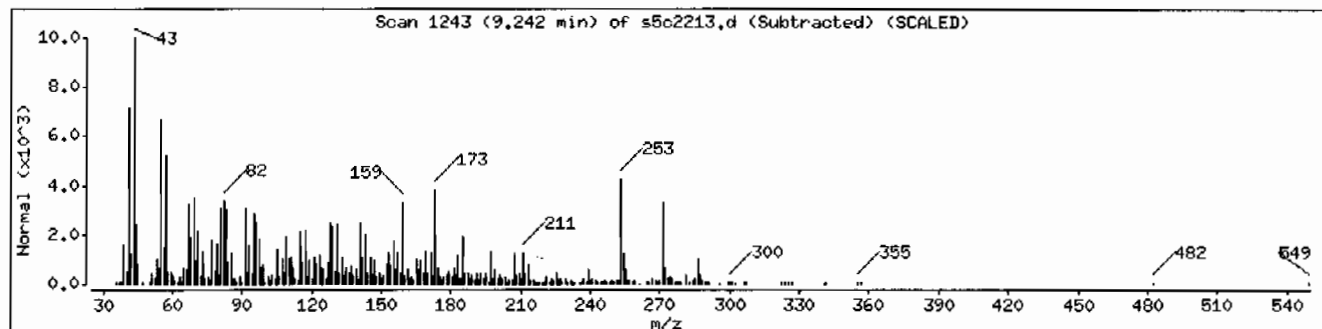
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
N-Nitroso-di-n-octylamine	6335-97-3	NIST05.L	105513	25	C16H34N2O	270
Oxalic acid, monoamide, N-(2-fluorophenyl	1000309-40-4	NIST05.L	93882	11	C13H16FNO3	253
Benzenesulfonic acid, 2,2-dimethylpropyl	75620-67-6	NIST05.L	76858	10	C11H16O3S	228



Date: 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 12485060021963086111SVMI11LANL

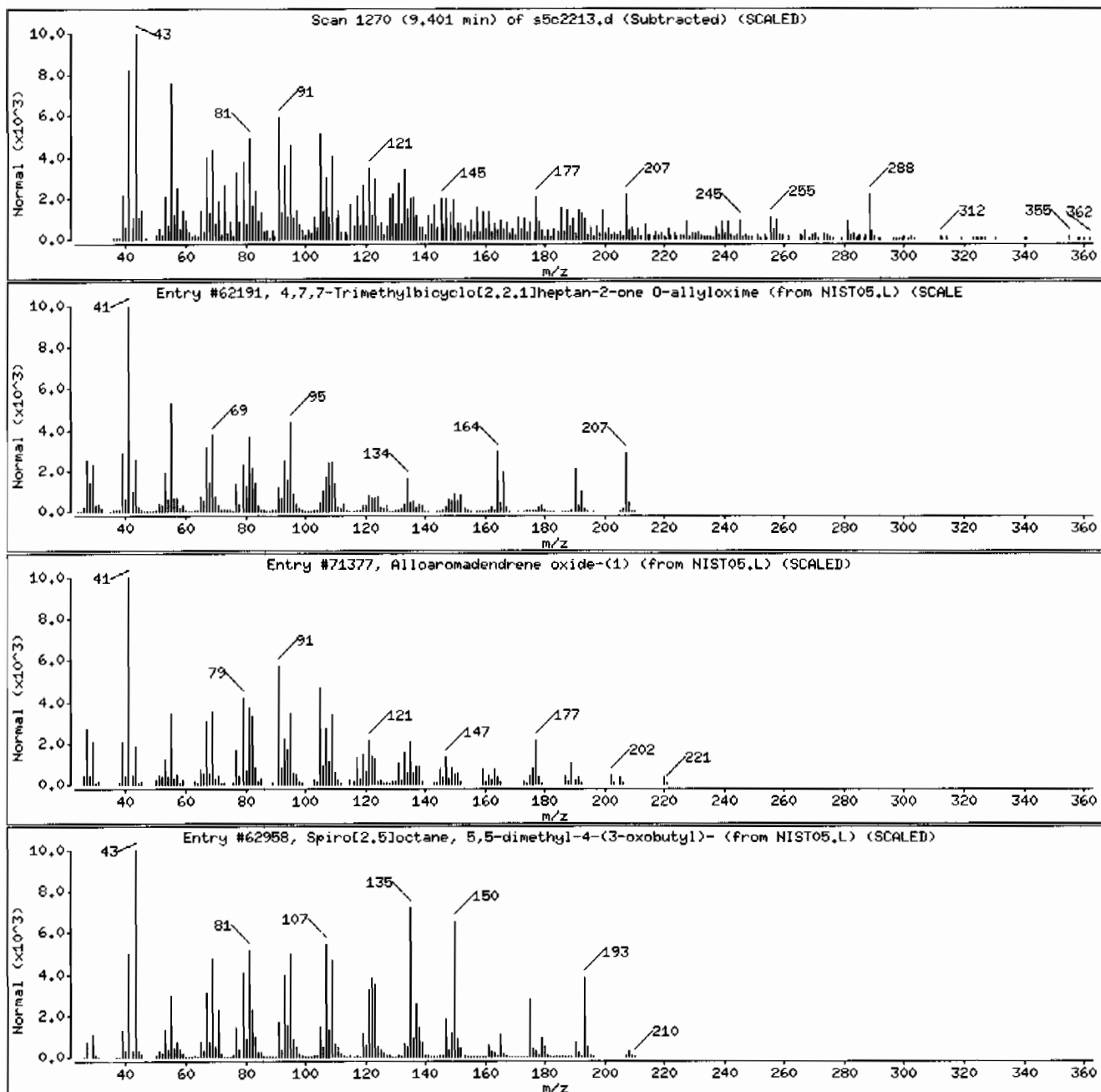
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4,7,7-Trimethylbicyclo[2.2.1]heptan-2-one	1000210-89-8	NIST05.L	62191	30	C13H21NO	207
Alloaromadendrene oxide-(1)	1000156-12-8	NIST05.L	71377	27	C15H24O	220
Spiro[2.5]octane, 5,5-dimethyl-4-(3-oxob	77143-32-9	NIST05.L	62958	25	C14H24O	208





Date: 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 12485060021963086111SVMI11LANL

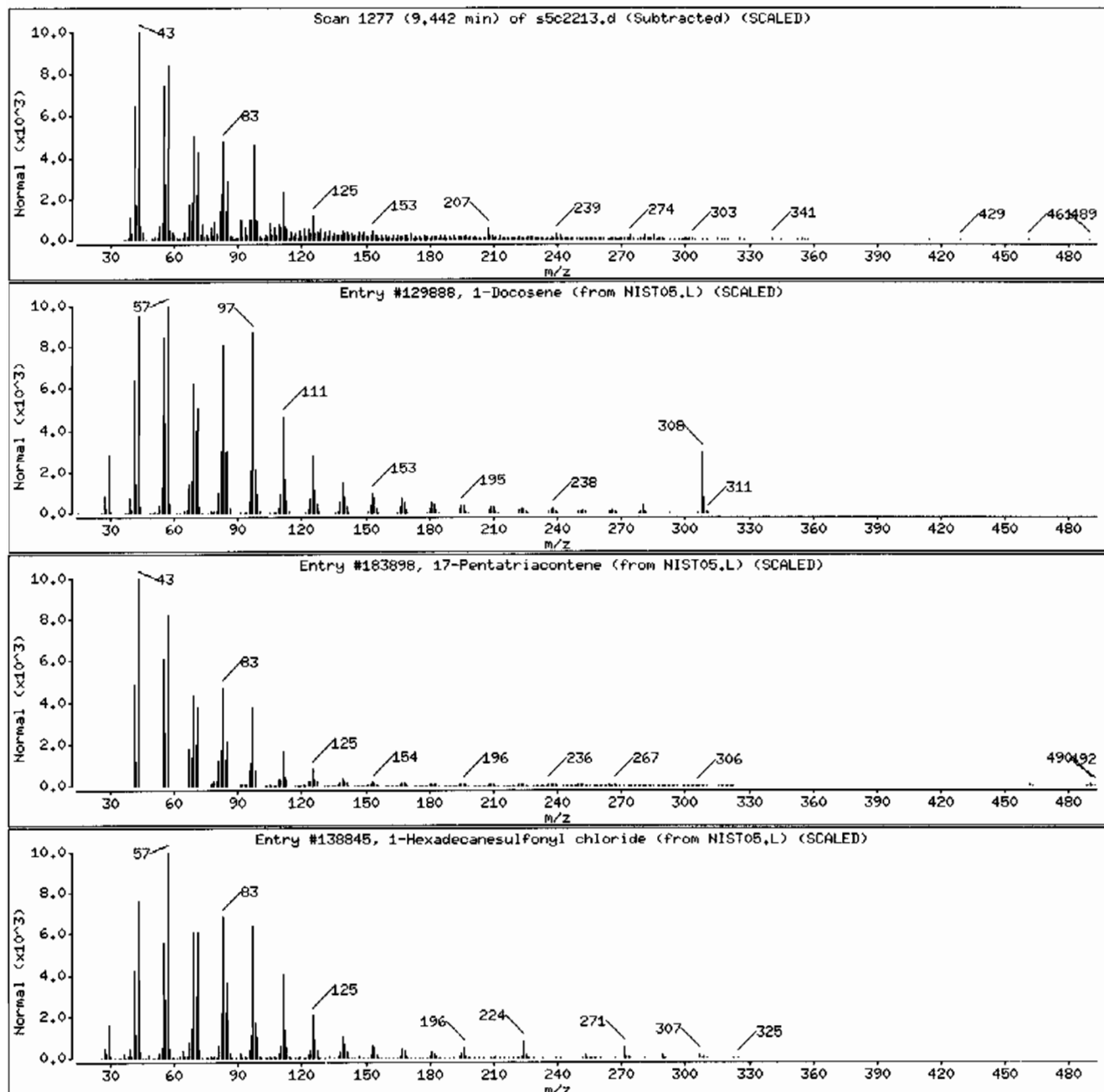
Volume Injected (uL): 0.5

Operator: RHB

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	96	C22H44	308
17-Pentatriacontene	6971-40-0	NIST05.L	183898	95	C35H70	491
1-Hexadecanesulfonyl chloride	38775-38-1	NIST05.L	138845	91	C16H33ClO2S	324



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 12485060021963086111SVH111LANL

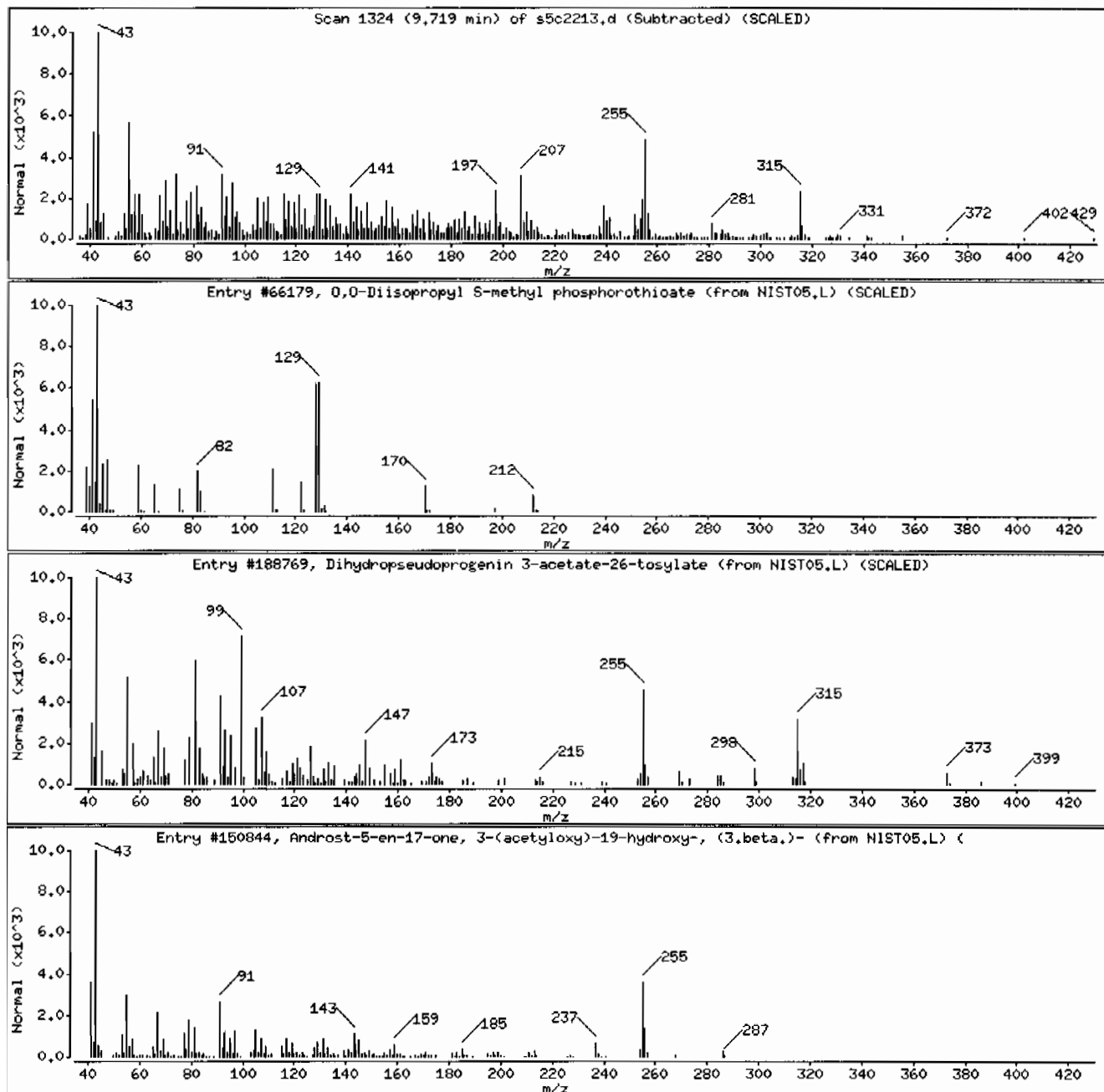
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
O,O-Diisopropyl S-methyl phosphorothioat	1000306-07-2	NIST05.L	66179	15	C7H17O3PS	212
Dihydropseudoprogenin 3-acetate-26-tosyl	1000255-26-6	NIST05.L	188769	12	C36H54O6S	614
Androst-5-en-17-one, 3-(acetyloxy)-19-hy	2857-42-3	NIST05.L	150844	10	C21H30O4	346



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: HSD5.i

Sample Info: 1248506002196308611SVH11/LANL

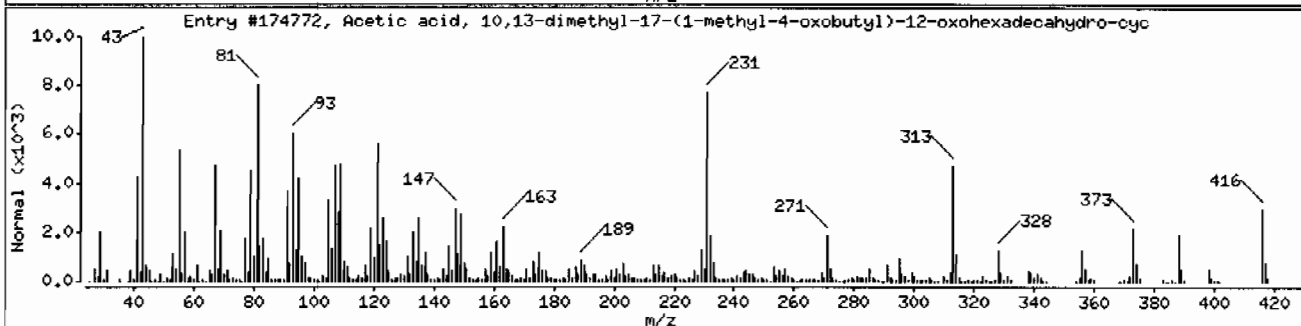
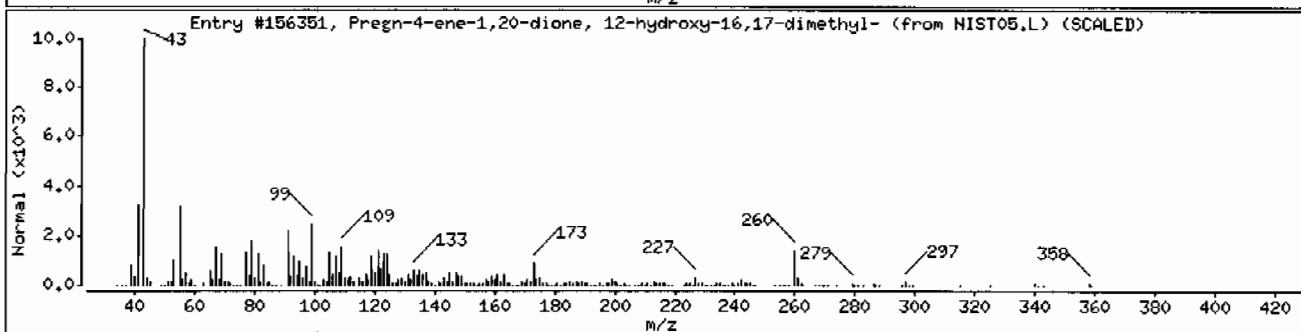
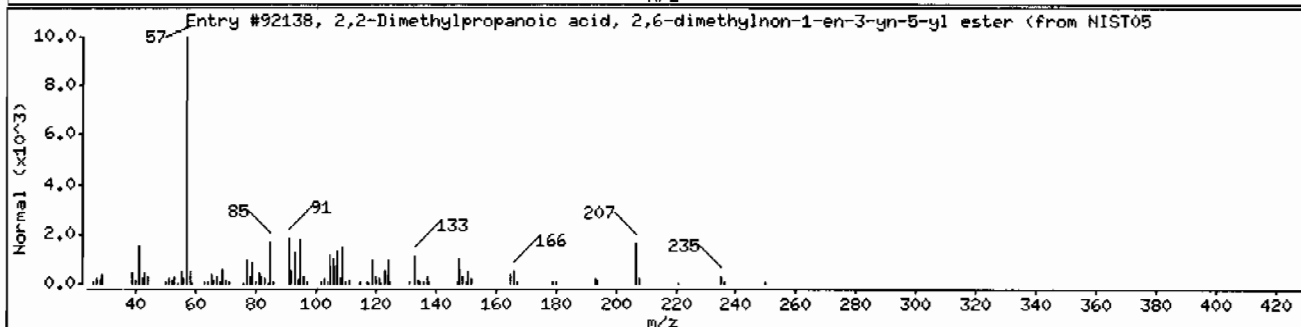
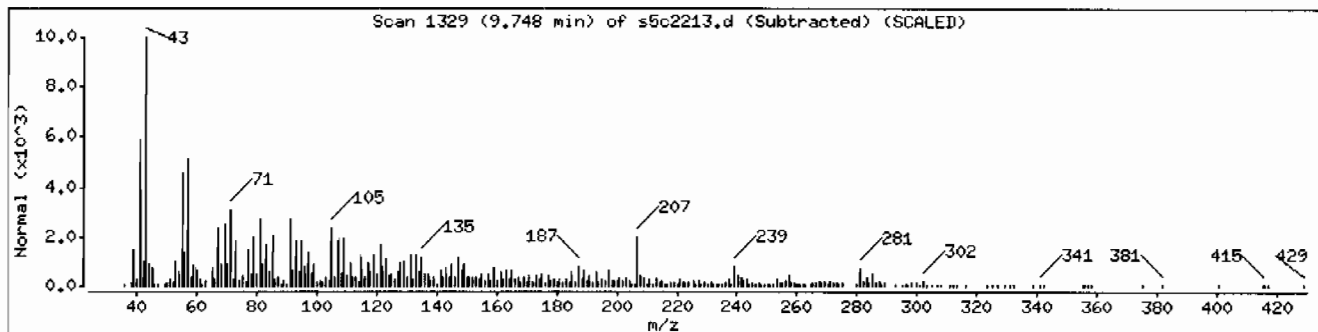
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,2-Dimethylpropanoic acid, 2,6-dimethyl	1000299-33-6	NIST05.L	92138	46	C <sub>16</sub> H <sub>26</sub> O <sub>2</sub>	250
Pregn-4-ene-1,20-dione, 12-hydroxy-16,17	1000259-74-7	NIST05.L	156351	44	C <sub>23</sub> H <sub>34</sub> O <sub>3</sub>	358
Acetic acid, 10,13-dimethyl-17-(1-methyl	1000195-24-1	NIST05.L	174772	43	C <sub>26</sub> H <sub>40</sub> O <sub>4</sub>	416



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 1248506002196308611SVH11ILANL

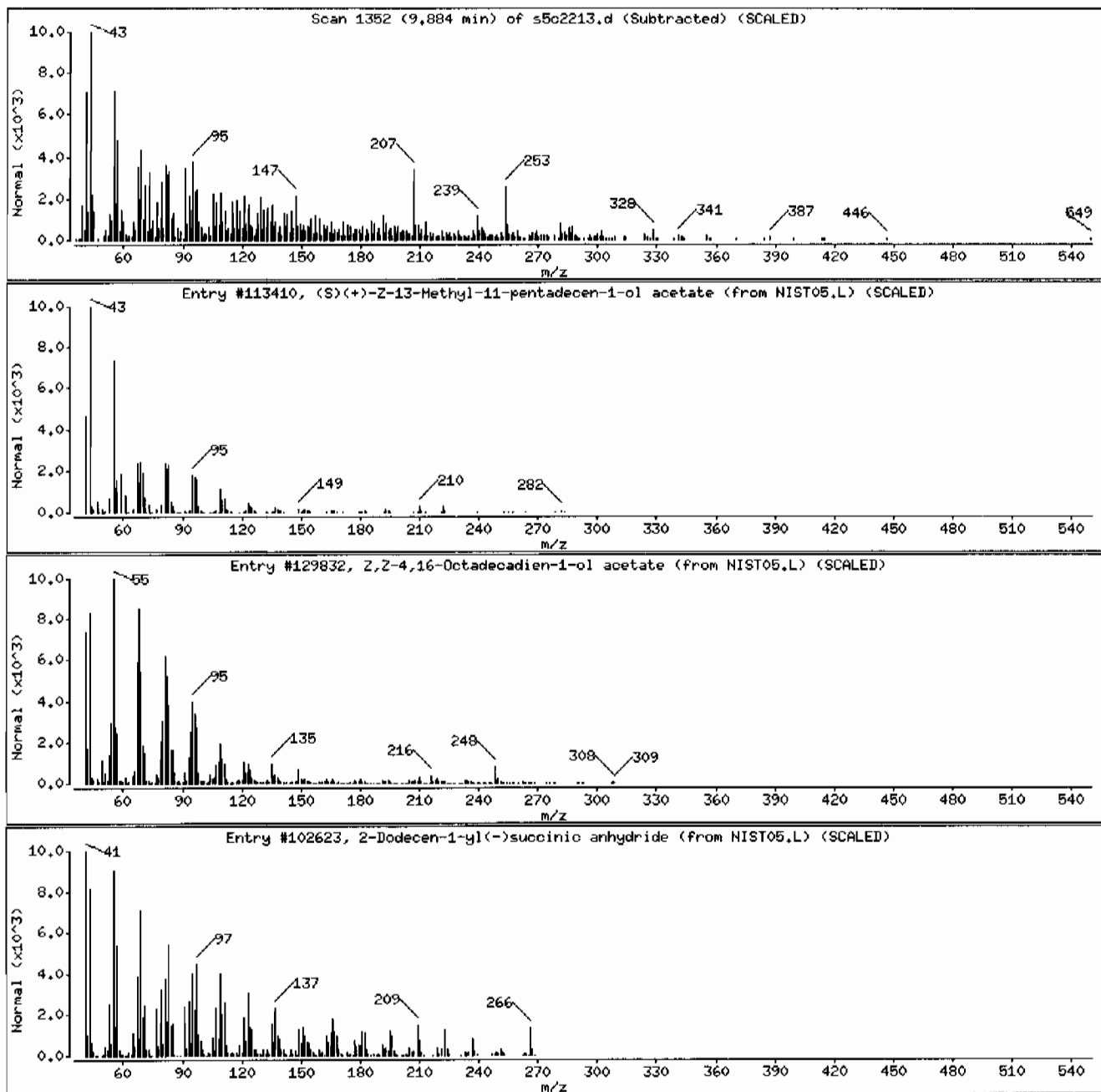
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
(S)(+)-Z-13-Methyl-11-pentadecen-1-ol ac	1000130-84-8	NIST05.L	113410	60	C18H34O2	282
Z,Z-4,16-Octadecadien-1-ol acetate	1000130-95-7	NIST05.L	129832	51	C20H36O2	308
2-Dodecen-1-yl(-)succinic anhydride	19780-11-1	NIST05.L	102623	47	C16H26O3	266



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 1248506002196308611ISVH11ILANL

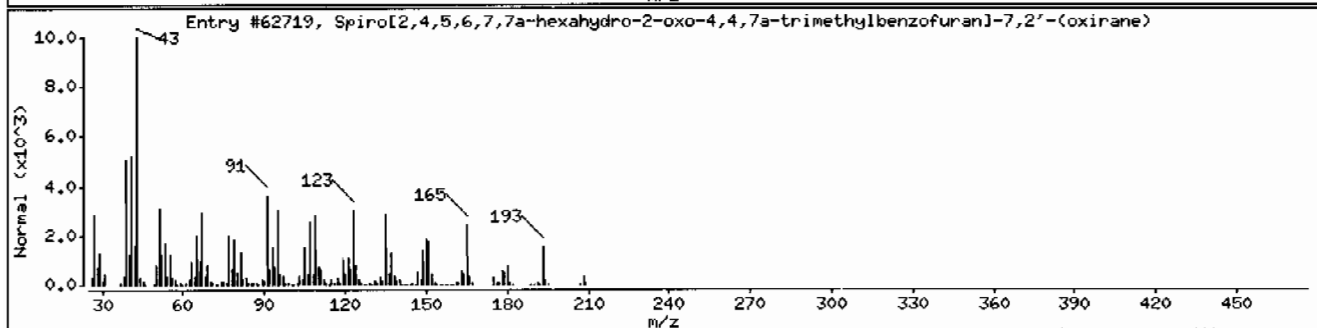
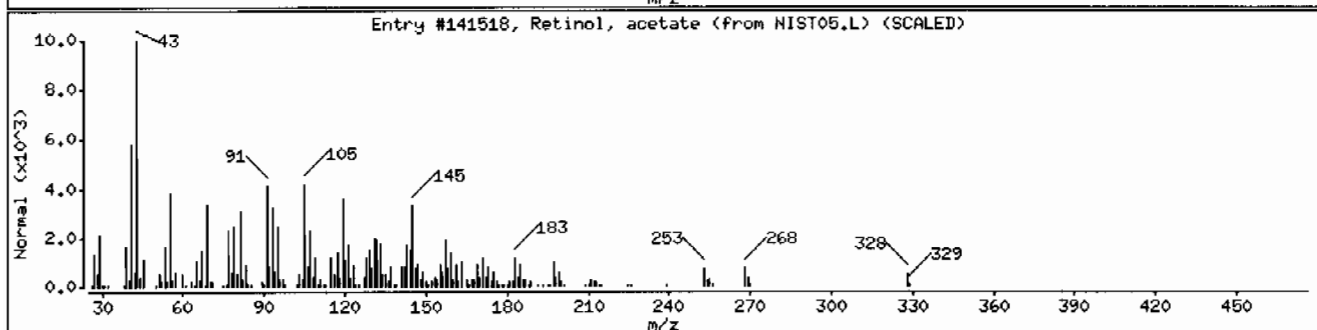
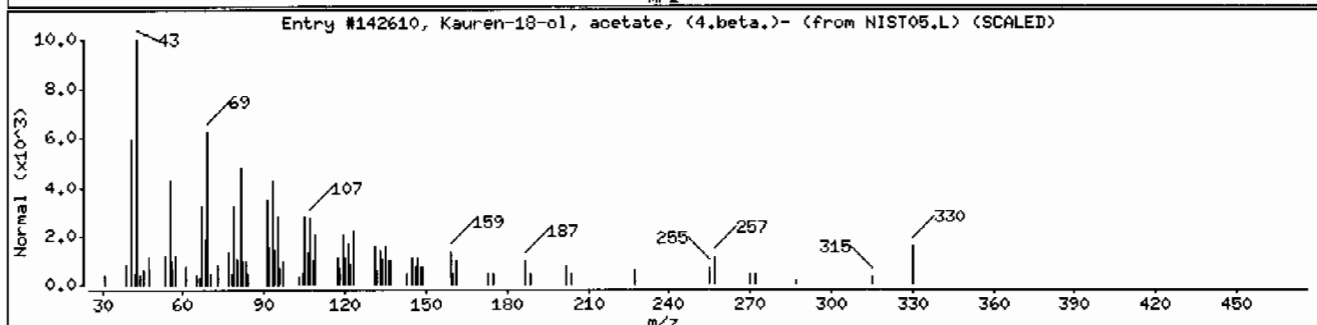
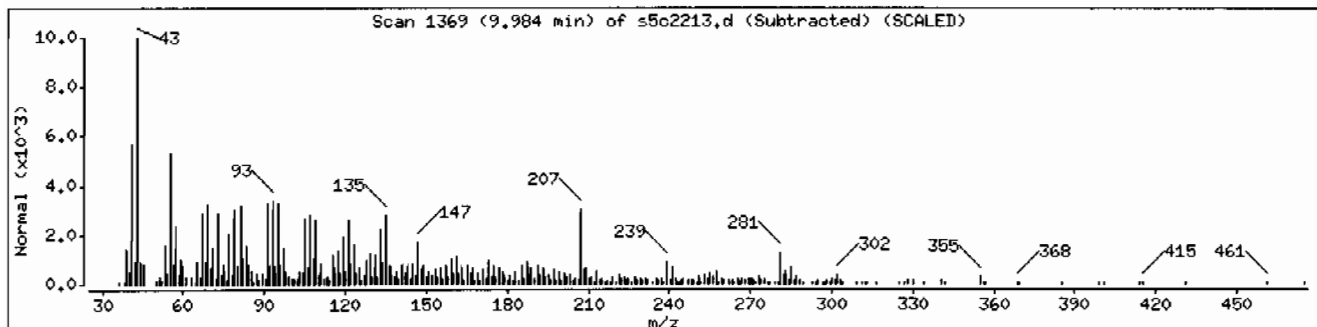
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Kauren-18-ol, acetate, (4,beta.)-	72150-74-4	NIST05.L	142610	64	C22H34O2	330
Retinol, acetate	127-47-9	NIST05.L	141518	46	C22H32O2	328
Spiro[2,4,5,6,7,7a-hexahydro-2-oxo-4,4,7	1000197-10-9	NIST05.L	62719	43	C12H16O3	208



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 1248506002196308611|SVH11|LANL

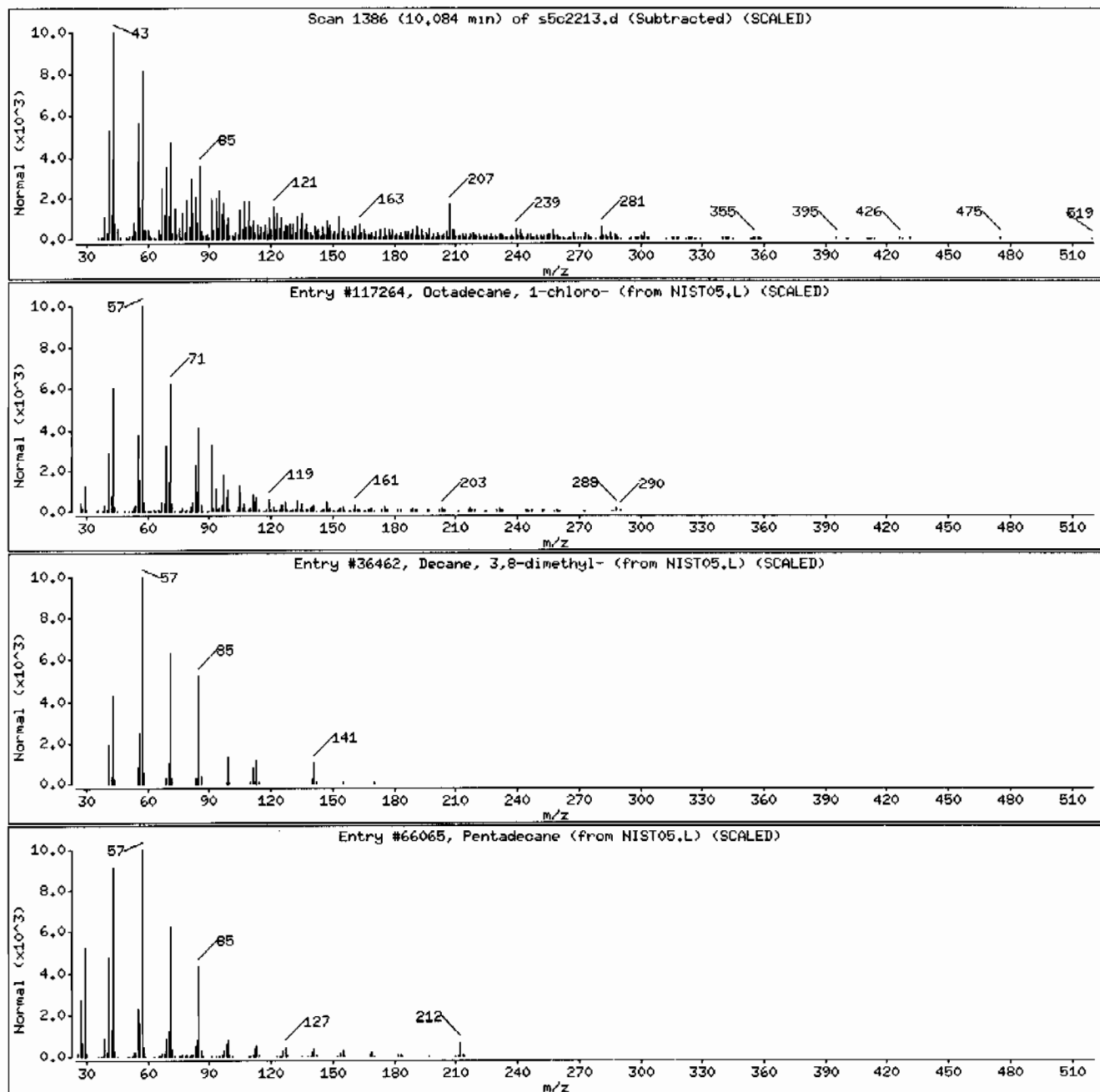
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Octadecane, 1-chloro-	3386-33-2	NIST05.L	117264	90	C18H37Cl	288
Decane, 3,8-dimethyl-	17312-55-9	NIST05.L	36462	86	C12H26	170
Pentadecane	629-62-9	NIST05.L	66065	86	C15H32	212



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 1248506002196308611SVH111LANL

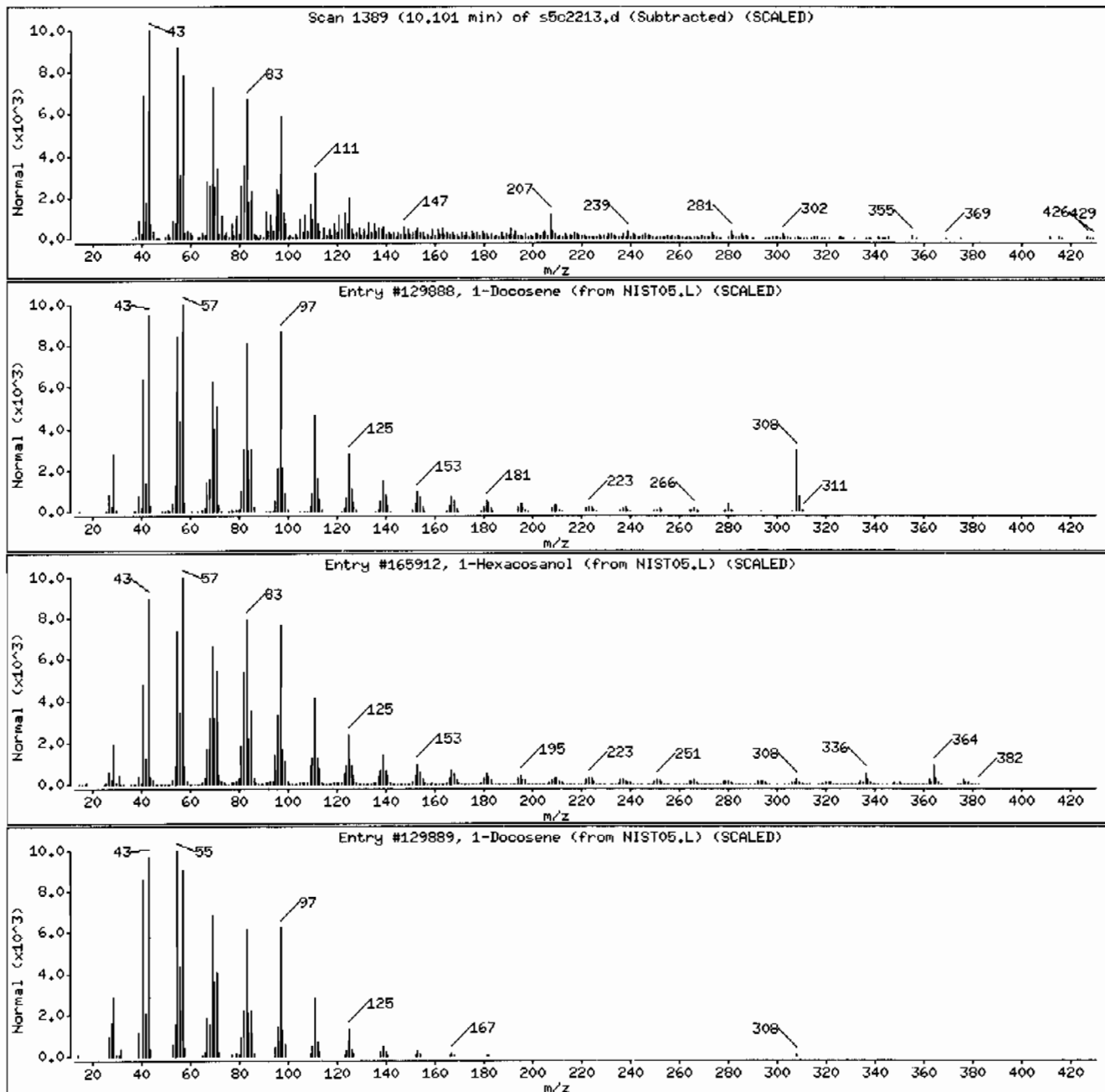
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Docosene	1599-67-3	NIST05.L	129888	93	C22H44	308
1-Hexacosanol	506-52-5	NIST05.L	165912	76	C26H54O	382
1-Docosene	1599-67-3	NIST05.L	129889	70	C22H44	308



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: HSD5.i

Sample Info: 12485060021963086111SVH111LANL

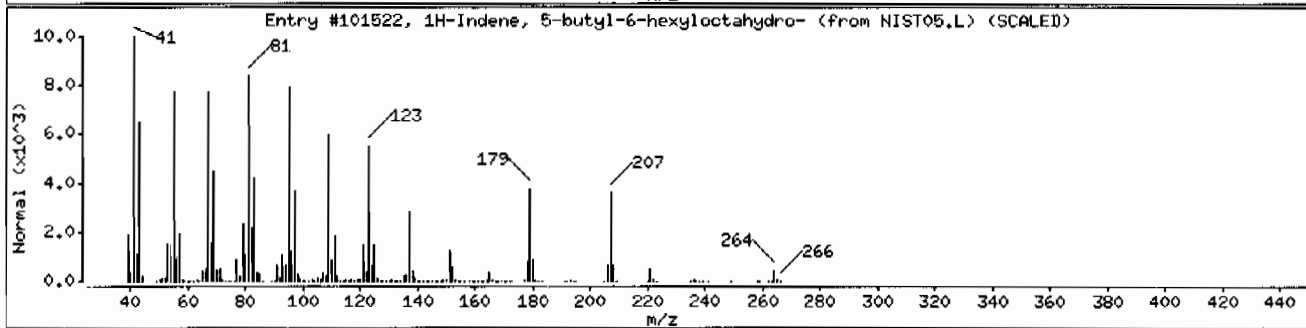
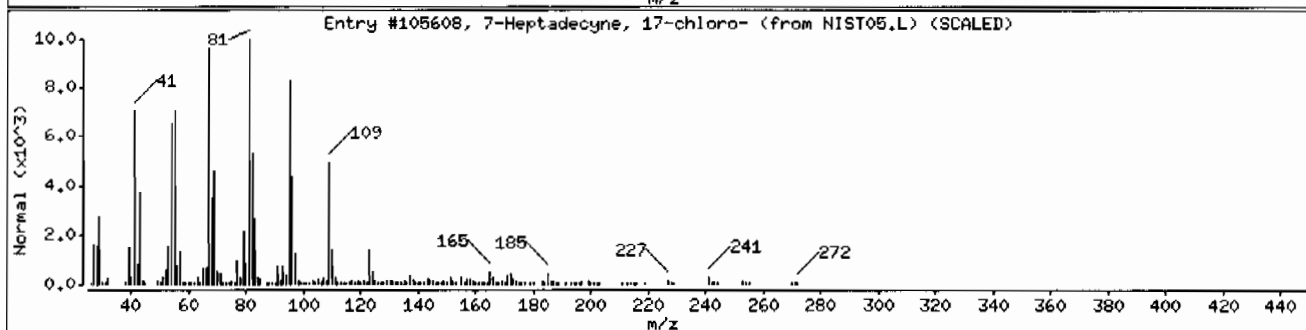
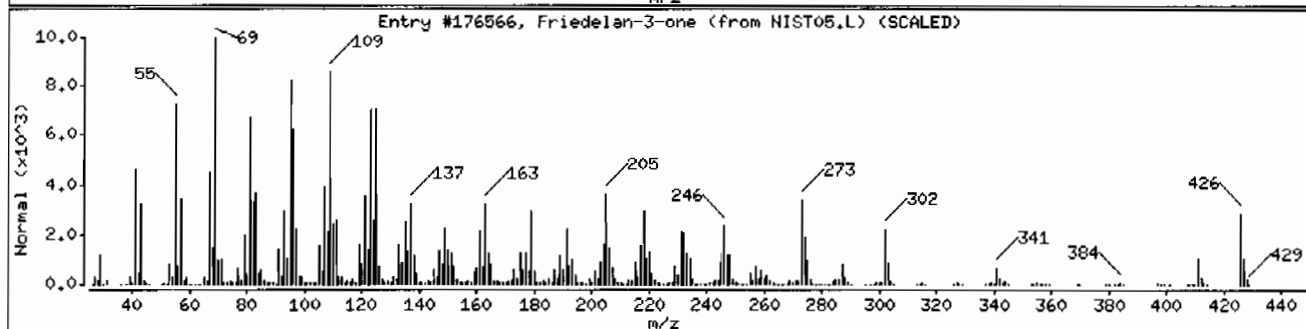
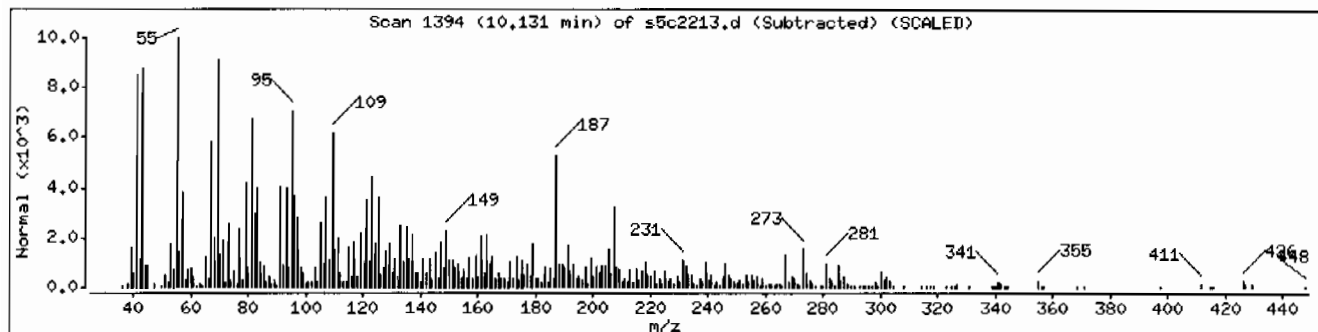
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Friedelan-3-one	559-74-0	NIST05.L	176566	97	C30H50O	426
7-Heptadecyne, 17-chloro-	56554-75-7	NIST05.L	105608	50	C17H31Cl	270
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	46	C19H36	264





Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: I248506002196308611ISVH11ILANL

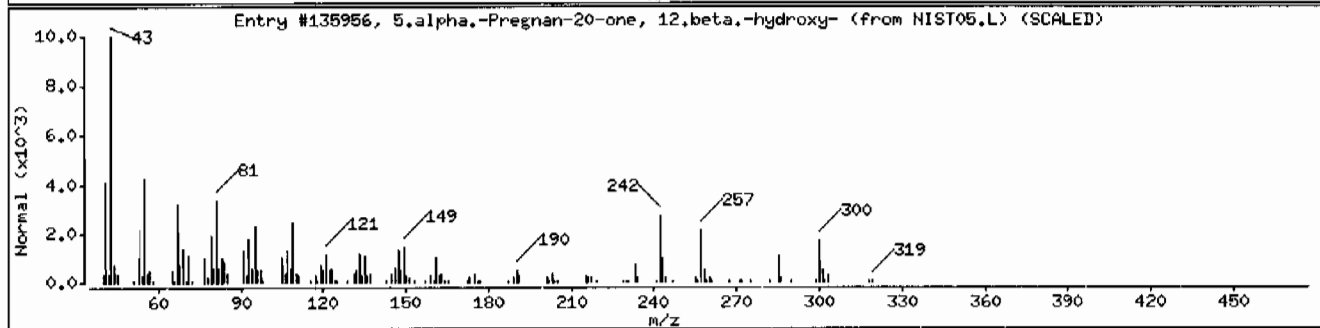
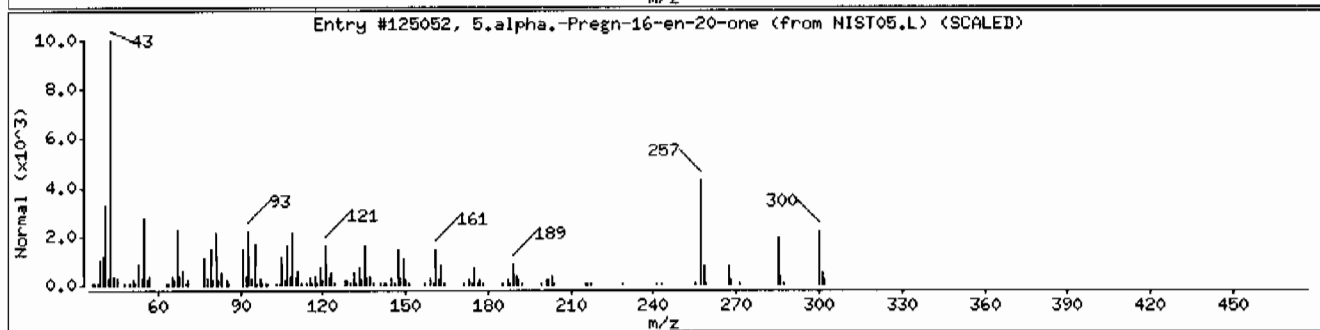
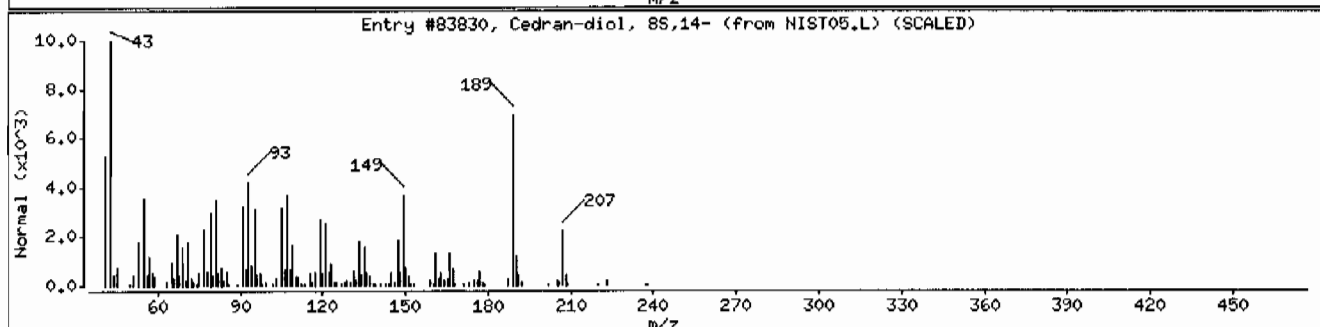
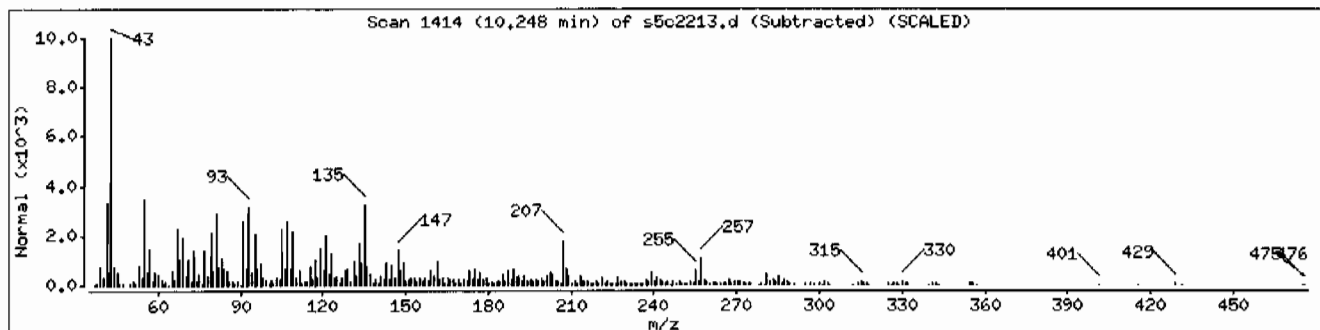
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	70	C15H26O2	238
5.alpha.-Pregn-16-en-20-one	3752-04-3	NIST05.L	125052	38	C21H32O	300
5.alpha.-Pregnan-20-one, 12.beta.-hydrox	5618-22-4	NIST05.L	135956	37	C21H34O2	318



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 1248506002196308611SVH111LANL

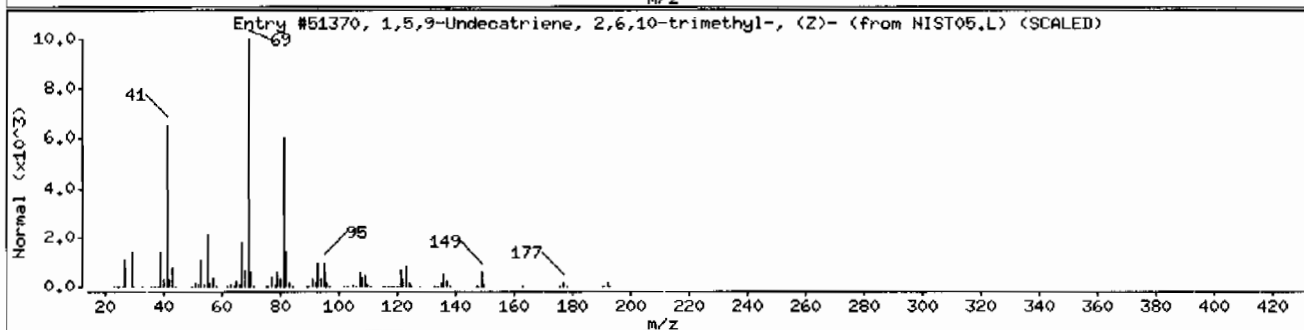
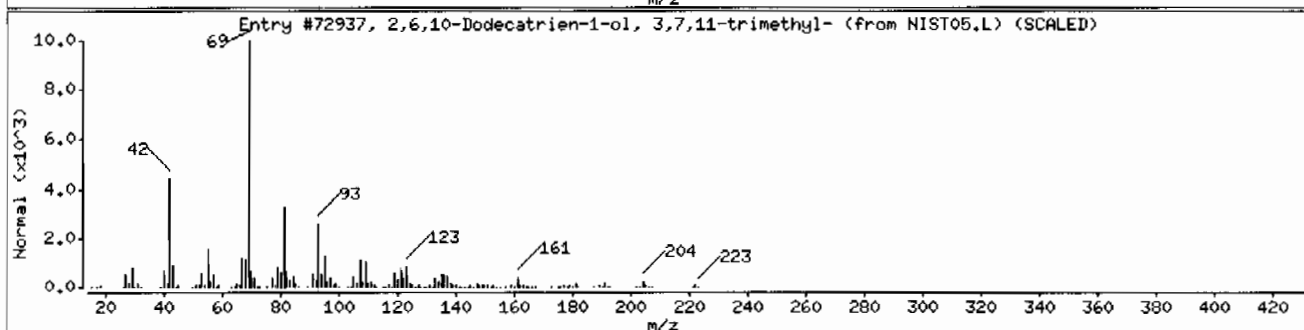
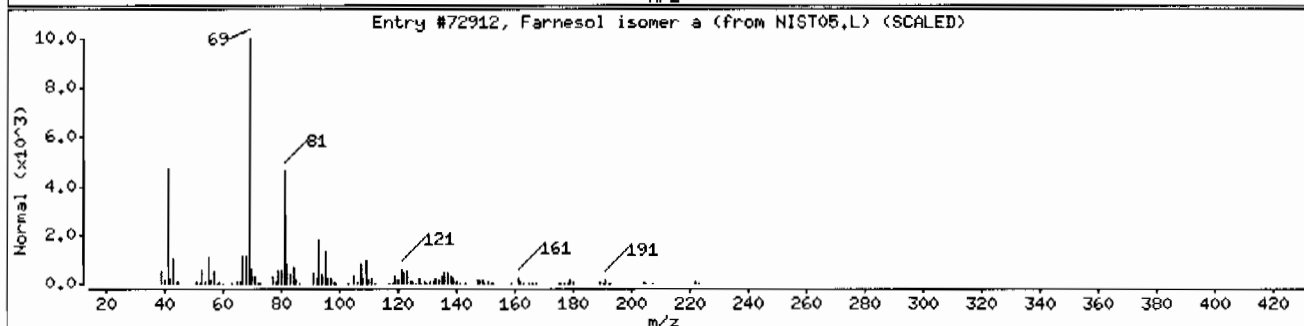
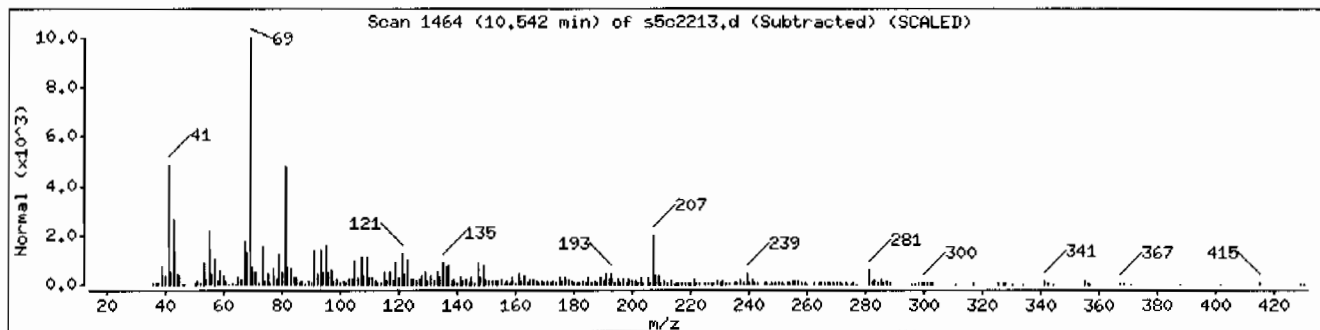
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Farnesol isomer a	1000108-92-4	NIST05.L	72912	93	C15H26O	222
2,6,10-Dodecatrien-1-ol, 3,7,11-trimethyl-	4602-84-0	NIST05.L	72937	89	C15H26O	222
1,5,9-Undecatriene, 2,6,10-trimethyl-, (	62951-96-6	NIST05.L	51370	86	C14H24	192



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 12485060021963086111SVMI11LANL

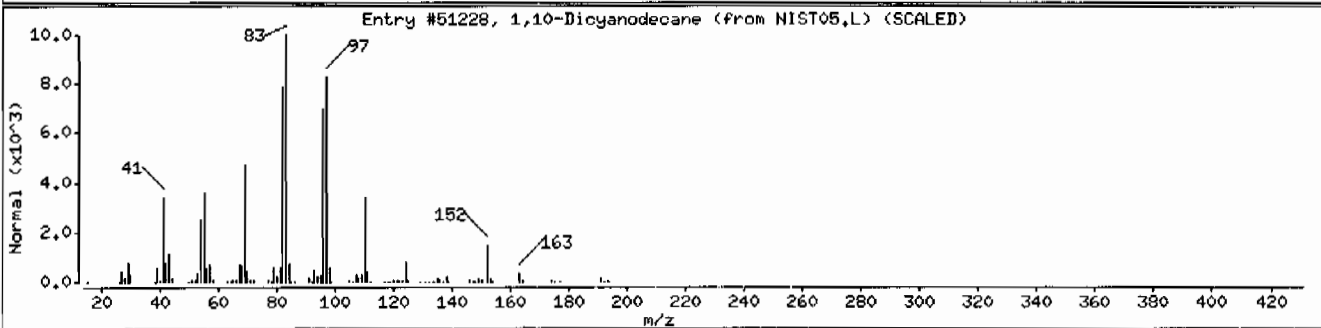
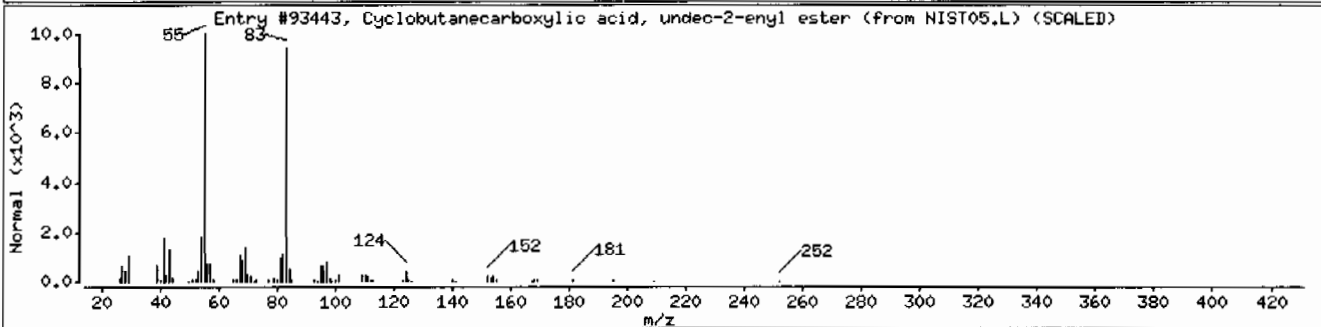
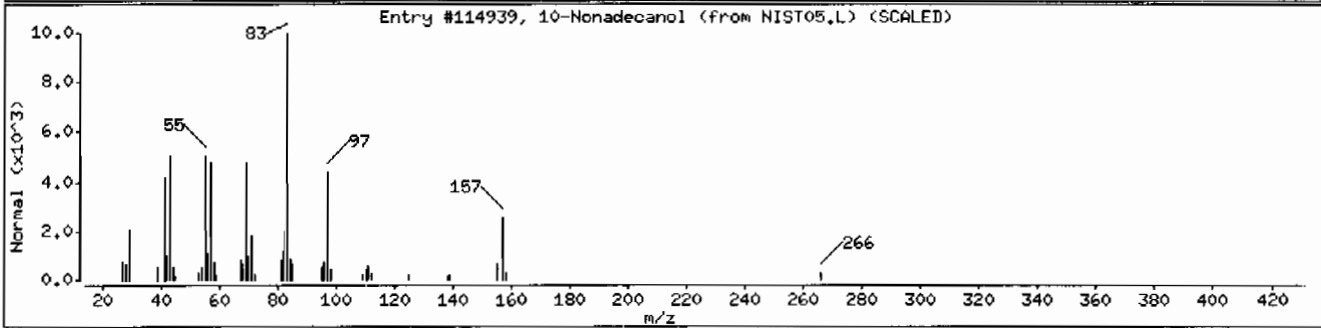
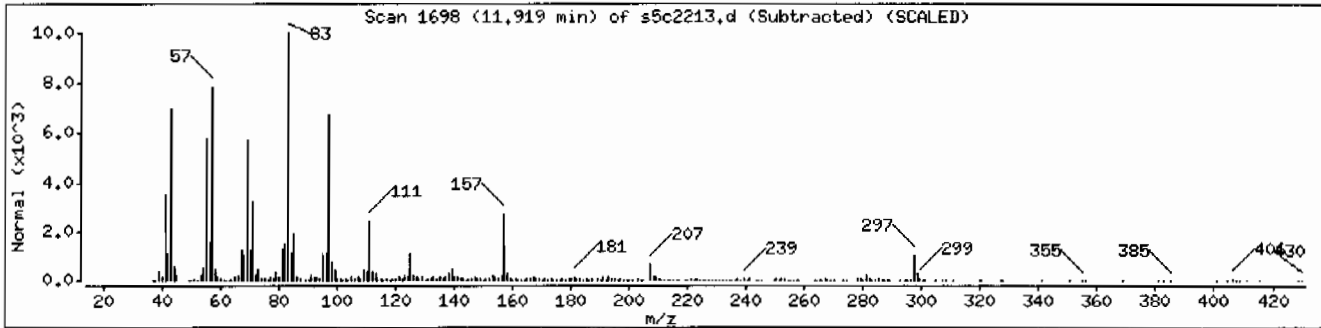
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
10-Nonadecanol	16840-84-9	NIST05.L	114939	64	C19H40O	284
Cyclobutanecarboxylic acid, undec-2-enyl	1000299-13-6	NIST05.L	93443	50	C16H28O2	252
1,10-Dicyanodecane	4543-66-2	NIST05.L	51228	46	C12H20N2	192



Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 1248506002196308611SVMI11LANL

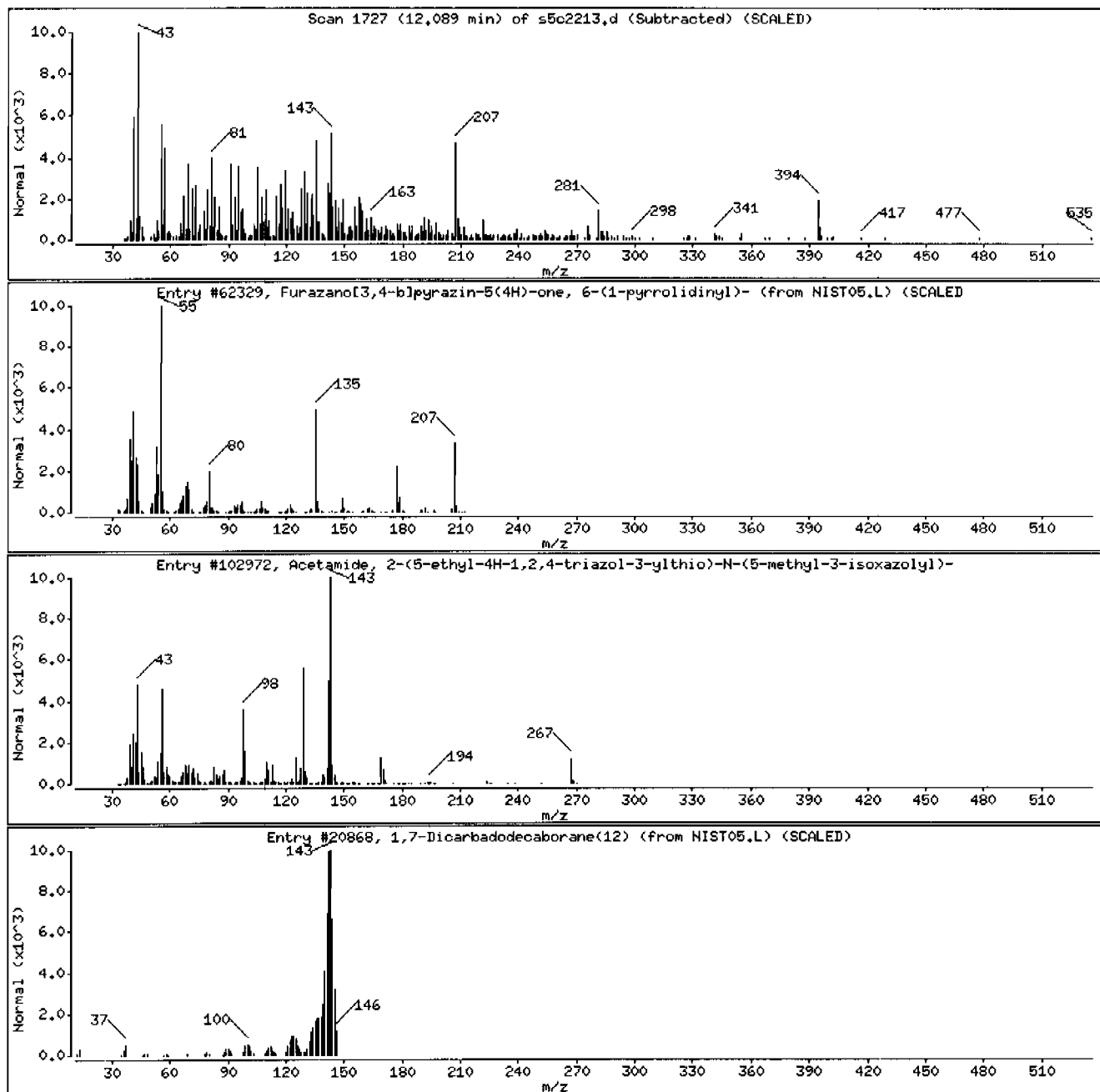
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Furazano[3,4-b]pyrazin-5(4H)-one, 6-(1-p	332099-72-6	NIST05.L	62329	12	C8H9N5O2	207
Acetamide, 2-(5-ethyl-4H-1,2,4-triazol-3	309922-84-7	NIST05.L	102972	10	C10H13N5O2S	267
1,7-Dicarbododecaborane(12)	16986-24-6	NIST05.L	20868	10	C2H12B10	146



Date: 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 12485060021963086111SVH111LANL

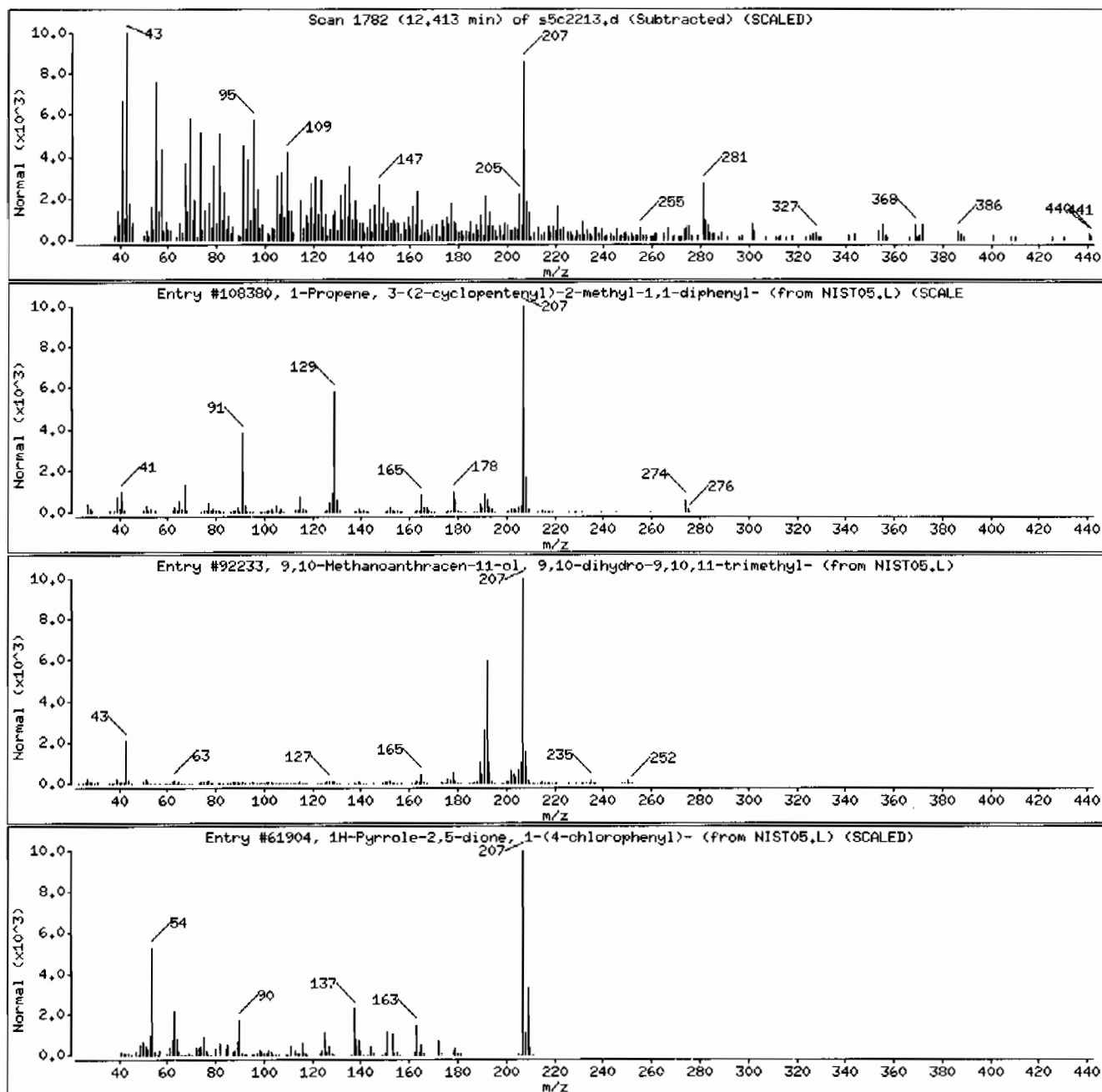
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Propene, 3-(2-cyclopentyl)-2-methyl-	1000154-23-3	NIST05.L	108380	38	C21H22	274
9,10-Methanthracen-11-ol, 9,10-dihydr	126615-74-5	NIST05.L	92233	30	C18H18O	250
1H-Pyrrole-2,5-dione, 1-(4-chlorophenyl)	1631-29-4	NIST05.L	61904	30	C10H6ClN02	207



Date: 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 12485060021963086111SVH111LANL

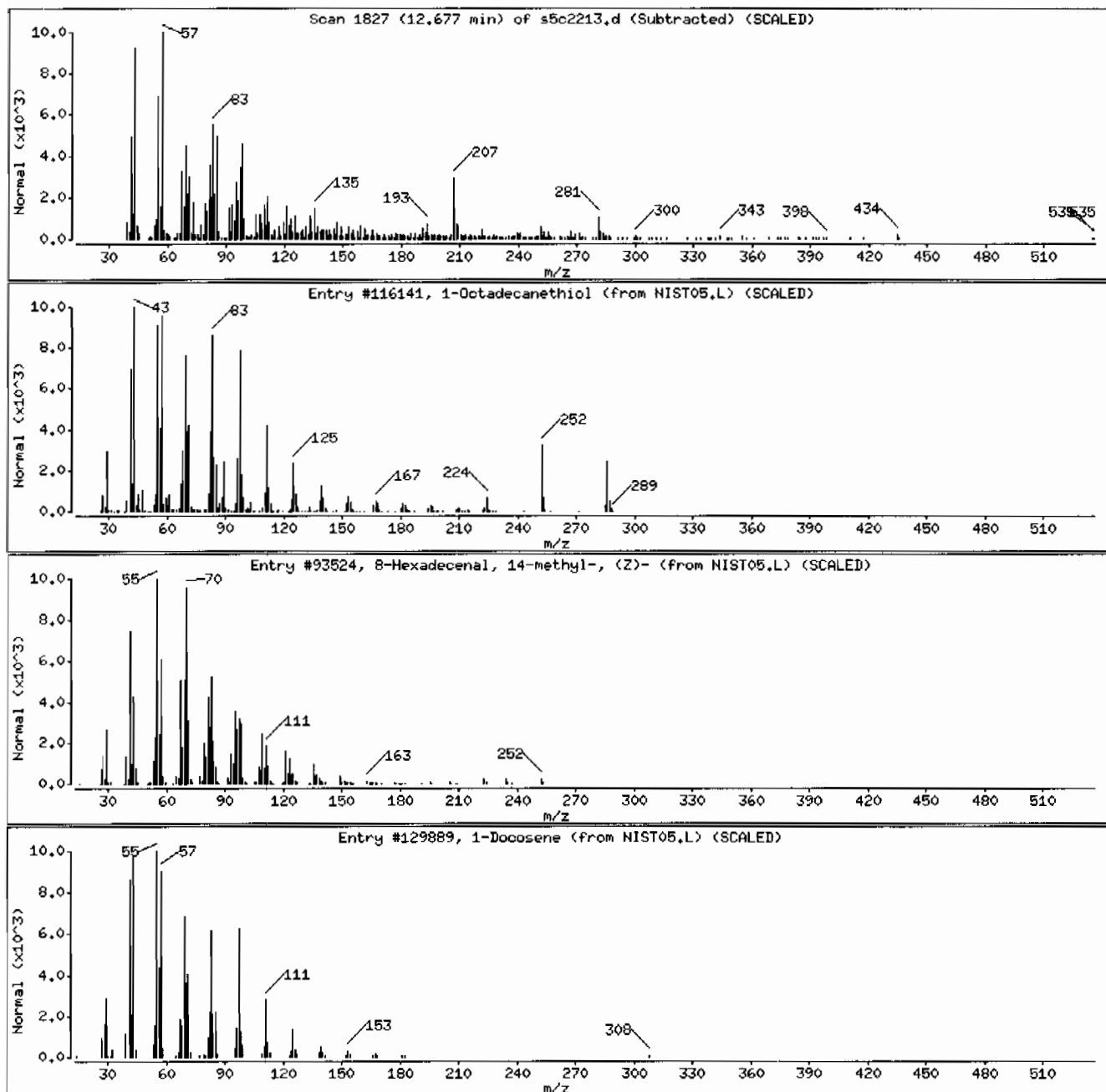
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Octadecanethiol	2885-00-9	NIST05.L	116141	58	C18H38S	286
8-Hexadecenal, 14-methyl-, (Z)-	60609-53-2	NIST05.L	93524	52	C17H32O	252
1-Docosene	1599-67-3	NIST05.L	129889	51	C22H44	308



Date: 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: HSD5.i

Sample Info: 1248506002196308611SVH11/LANL

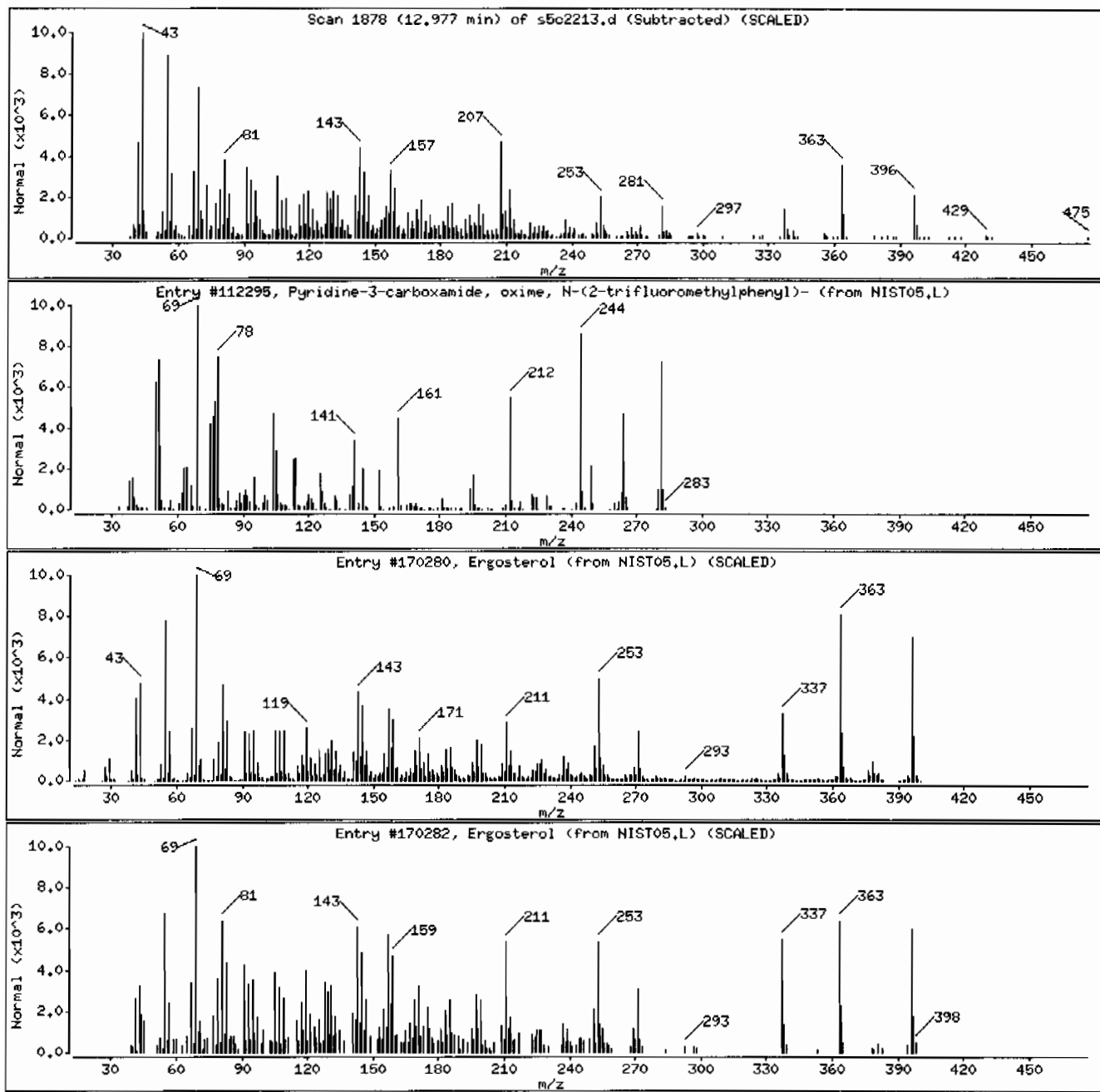
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyridine-3-carboxamide, oxime, N-(2-trif	288246-53-7	NIST05.L	112295	92	C13H10F3N3O	281
Ergosterol	57-87-4	NIST05.L	170280	87	C28H44O	396
Ergosterol	57-87-4	NIST05.L	170282	83	C28H44O	396



Date: 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.i

Sample Info: 1248506002196308611SVH111LANL

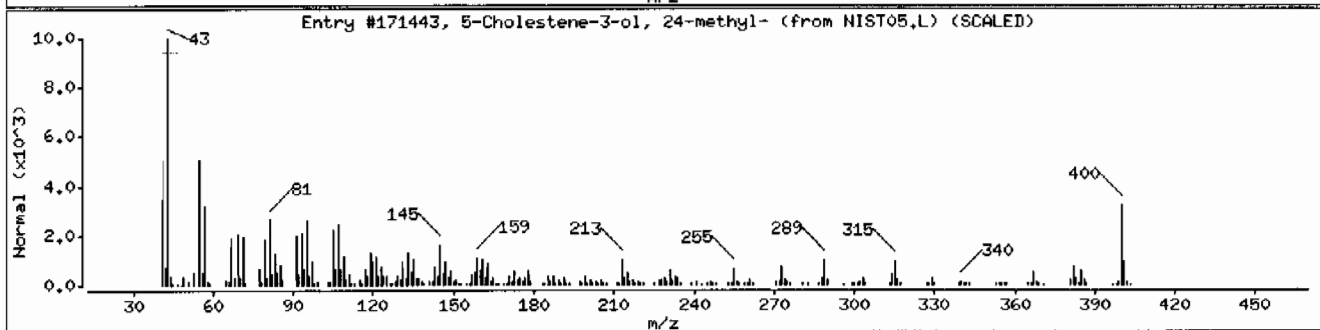
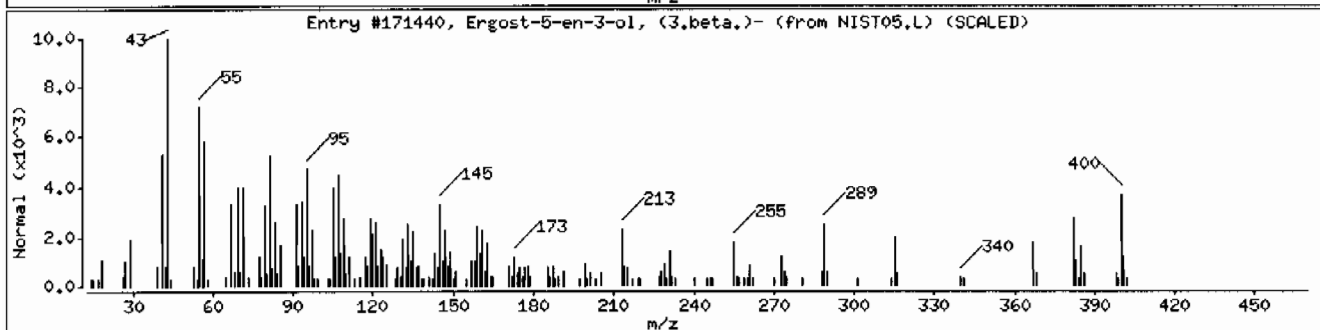
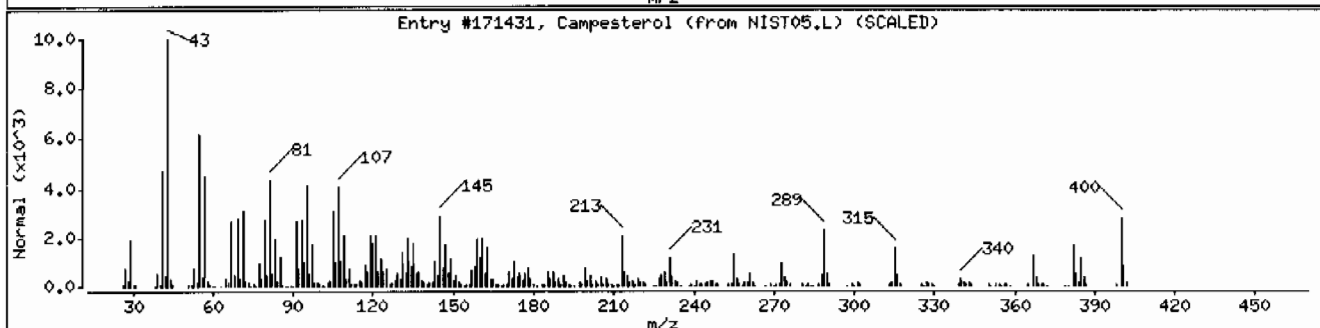
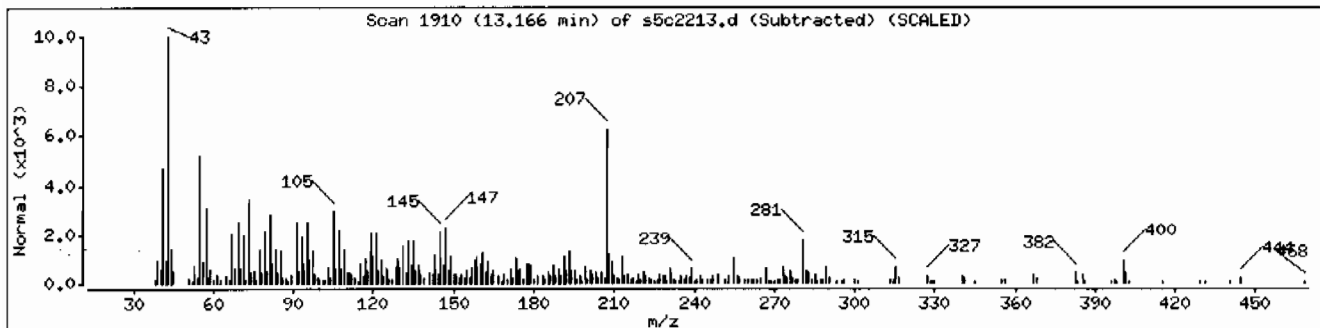
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Campesterol	474-62-4	NIST05.L	171431	84	C28H48O	400
Ergost-5-en-3-ol, (3.beta.)-	4651-51-8	NIST05.L	171440	83	C28H48O	400
5-Cholestene-3-ol, 24-methyl-	1000214-17-4	NIST05.L	171443	81	C28H48O	400





Date : 22-MAR-2010 13:04

Client ID: RE36-10-7421

Instrument: MSD5.1

Sample Info: 1248506002196308611SVH111LANL

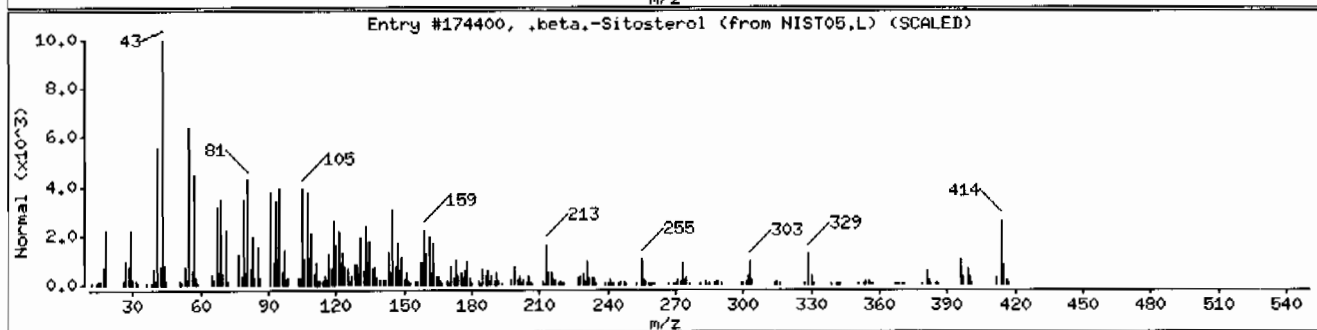
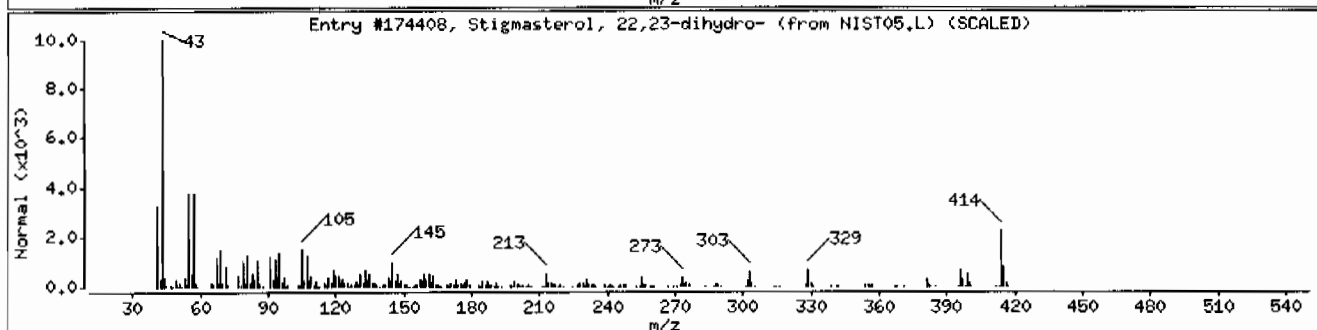
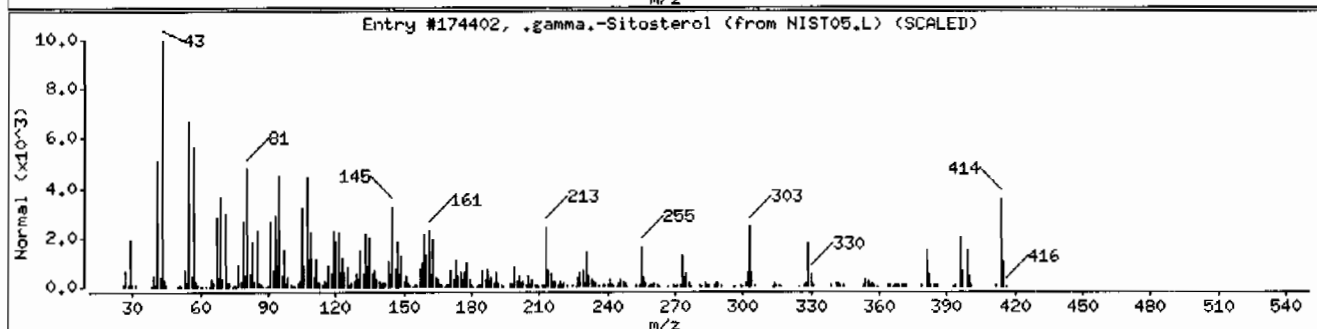
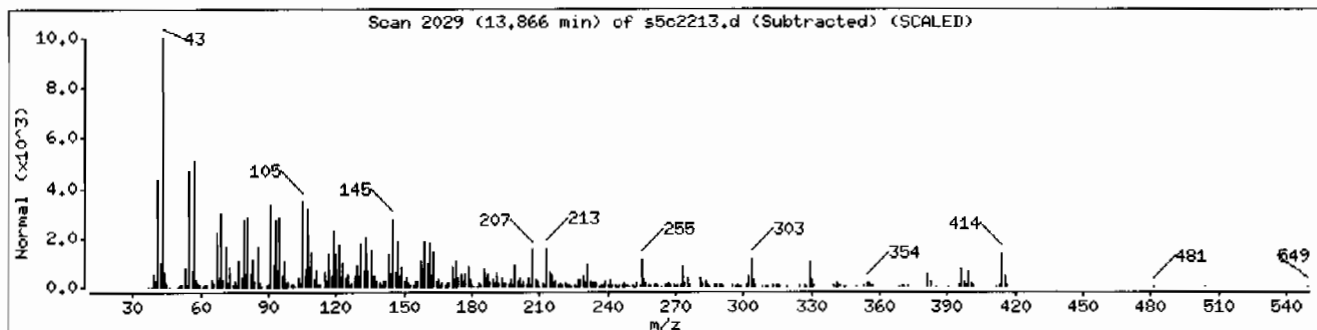
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	98	C29H50O	414
Stigmasterol, 22,23-dihydro-	1000214-20-7	NIST05.L	174408	97	C29H50O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174400	93	C29H50O	414



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

SDG Number: 10-2193  
Lab Sample ID: 248506003

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 5.9  
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	354	ug/kg	70.8	354
108-95-2	Phenol	U	354	ug/kg	70.8	354
95-57-8	2-Chlorophenol	U	354	ug/kg	70.8	354
106-46-7	1,4-Dichlorobenzene	U	354	ug/kg	70.8	354
621-64-7	N-Nitrosodipropylamine	U	354	ug/kg	70.8	354
59-50-7	4-Chloro-3-methylphenol	U	354	ug/kg	70.8	354
83-32-9	Accnaphthene	U	35.4	ug/kg	11.7	35.4
121-14-2	2,4-Dinitrotoluene	U	354	ug/kg	35.4	354
100-02-7	4-Nitrophenol	U	354	ug/kg	117	354
87-86-5	Pentachlorophenol	U	354	ug/kg	88.5	354
129-00-0	Pyrene	U	35.4	ug/kg	10.6	35.4
110-86-1	Pyridine	U	354	ug/kg	70.8	354
62-53-3	Aniline	U	354	ug/kg	106	354
111-44-4	bis(2-Chloroethyl) ether	U	354	ug/kg	70.8	354
541-73-1	1,3-Dichlorobenzene	U	354	ug/kg	70.8	354
100-51-6	Benzyl alcohol	U	354	ug/kg	106	354
95-50-1	1,2-Dichlorobenzene	U	354	ug/kg	70.8	354
108-60-1	bis(2-Chloroisopropyl)ether	U	354	ug/kg	70.8	354
95-48-7	o-Cresol	U	354	ug/kg	70.8	354
65794-96-9	m,p-Cresols	U	354	ug/kg	106	354
67-72-1	Hexachloroethane	U	354	ug/kg	70.8	354
98-95-3	Nitrobenzene	U	354	ug/kg	70.8	354
78-59-1	Isophorone	U	354	ug/kg	70.8	354
88-75-5	2-Nitrophenol	U	354	ug/kg	70.8	354
105-67-9	2,4-Dimethylphenol	U	354	ug/kg	124	354
111-91-1	bis(2-Chloroethoxy)methane	U	354	ug/kg	70.8	354
120-83-2	2,4-Dichlorophenol	U	354	ug/kg	70.8	354
65-85-0	Benzoic acid	J	427	ug/kg	177	708
91-20-3	Naphthalene	U	35.4	ug/kg	10.6	35.4
106-47-8	4-Chloroaniline	U	354	ug/kg	70.8	354
87-68-3	Hexachlorobutadiene	U	354	ug/kg	70.8	354
91-57-6	2-Methylnaphthalene	U	35.4	ug/kg	7.08	35.4
77-47-4	Hexachlorocyclopentadiene	U	354	ug/kg	70.8	354
88-06-2	2,4,6-Trichlorophenol	U	354	ug/kg	70.8	354
95-95-4	2,4,5-Trichlorophenol	U	354	ug/kg	70.8	354
91-58-7	2-Chloronaphthalene	U	35.4	ug/kg	11.7	35.4
88-74-4	2-Nitroaniline	U	354	ug/kg	70.8	354
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	354	ug/kg	70.8	354

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

SDG Number: 10-2193  
Lab Sample ID: 248506003

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 5.9  
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	354	ug/kg	70.8	354
606-20-2	2,6-Dinitrotoluene	U	354	ug/kg	35.4	354
208-96-8	Acenaphthylene	U	35.4	ug/kg	10.6	35.4
51-28-5	2,4-Dinitrophenol	U	708	ug/kg	134	708
132-64-9	Dibenzofuran	U	354	ug/kg	70.8	354
84-66-2	Diethylphthalate	U	354	ug/kg	70.8	354
86-73-7	Fluorene	U	35.4	ug/kg	10.6	35.4
7005-72-3	4-Chlorophenylphenylether	U	354	ug/kg	70.8	354
534-52-1	2-Methyl-4,6-dinitrophenol	U	354	ug/kg	70.8	354
100-01-6	4-Nitroaniline	U	354	ug/kg	106	354
122-39-4	<i>p</i> -Nitroaniline Diphenylamine	U	354	ug/kg	70.8	354
122-66-7	Azobenzene	U	354	ug/kg	70.8	354
101-55-3	<i>1,2</i> -Diphenylhydrazine 4-Bromophenylphenylether	U	354	ug/kg	70.8	354
118-74-1	Hexachlorobenzene	U	354	ug/kg	70.8	354
85-01-8	Phenanthrene	U	35.4	ug/kg	10.6	35.4
120-12-7	Anthracene	U	35.4	ug/kg	7.08	35.4
84-74-2	Di-n-butylphthalate	U	354	ug/kg	70.8	354
206-44-0	Fluoranthene	U	35.4	ug/kg	10.6	35.4
85-68-7	Butylbenzylphthalate	U	354	ug/kg	70.8	354
56-55-3	Benzo(a)anthracene	U	35.4	ug/kg	10.6	35.4
91-94-1	3,3'-Dichlorobenzidine	U	354	ug/kg	106	354
218-01-9	Chrysene	U	35.4	ug/kg	10.6	35.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	354	ug/kg	70.8	354
117-84-0	Di-n-octylphthalate	U	354	ug/kg	70.8	354
205-99-2	Benzo(b)fluoranthene	U	35.4	ug/kg	10.6	35.4
207-08-9	Benzo(k)fluoranthene	U	35.4	ug/kg	10.6	35.4
50-32-8	Benzo(a)pyrene	U	35.4	ug/kg	10.6	35.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.4	ug/kg	10.6	35.4
53-70-3	Dibenzo(a,h)anthracene	U	35.4	ug/kg	10.6	35.4
191-24-2	Benzo(ghi)perylene	U	35.4	ug/kg	10.6	35.4
120-82-1	1,2,4-Trichlorobenzene	U	354	ug/kg	70.8	354

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.1	2350	ug/kg		J
	Unknown Aldol Condensate	2.98	250	ug/kg		JA

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506003	Date Received: 03/03/2010 08:50	% Moisture: 5.9
Client ID: RE36-10-7422	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 13:27	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2214.d	Aliquot: 30.02 g	Final Volume: 1 mL
	Column: J&W DB-5MS	Level: LOW

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

Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
1058-61-3	Stigmast-4-en-3-one	8.42	796	ug/kg	95	NJ
	Unknown	9.03	155	ug/kg		J
1000131-11-8	Z-5-Nonadecene	9.44	227	ug/kg	96	NJ
	Unknown	10.1	366	ug/kg		J
	Unknown	10.14	698	ug/kg		J
	Unknown	10.54	150	ug/kg		J
	Unknown	12.09	392	ug/kg		J
	Unknown	12.42	212	ug/kg		J
70038-20-9	7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	12.87	335	ug/kg	93	NJ
57-87-4	Ergosterol	12.97	223	ug/kg	90	NJ
83-46-5	.beta.-Sitosterol	13.85	705	ug/kg	90	NJ
	Unknown	14.45	327	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2214.d  
Lab Smp Id: 248506003 Client Smp ID: RE36-10-7422  
Inj Date : 22-MAR-2010 13:27  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506003|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 14  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	5.86450	% 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	3.943	3.950 (1.000)	264936	40.0000	
* 29 Naphthalene-d8	136	4.813	4.821 (1.000)	1036157	40.0000	
* 46 Acenaphthene-d10	164	6.072	6.078 (1.000)	632443	40.0000	
* 67 Phenanthrene-d10	188	7.248	7.253 (1.000)	1116155	40.0000	
* 91 Chrysene-d12	240	9.666	9.670 (1.000)	968331	40.0000	
* 98 Perylene-d12	264	11.366	11.370 (1.000)	800119	40.0000	
\$ 3 2-Fluorophenol	112	3.143	3.141 (0.797)	439606	66.4499	2350
\$ 5 Phenol-d5	99	3.660	3.666 (0.928)	566381	71.2310	2520
\$ 20 Nitrobenzene-d5	82	4.307	4.316 (0.895)	271028	35.2014	1240
\$ 39 2-Fluorobiphenyl	172	5.554	5.558 (0.915)	521435	33.0099	1170
\$ 60 2,4,6-Tribromophenol	329	6.672	6.675 (1.099)	171205	72.0731	2550
\$ 81 p-Terphenyl-d14	244	8.630	8.630 (0.893)	656245	40.7418	1440

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	====	==	=====	=====	=====	=====	=====
27 Benzoic acid	105	4.554	4.585	(0.946)	13107	12.0763	427 (a)

QC Flag Legend

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

## ION RATIO REPORT

## SV REPORT

Data file: s5c2214.d

Report Date: 03/22/2010 13:40

Lab. ID: 248506003

SampleType: SAMPLE

Injection Date: 22-MAR-2010 13:27

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506003|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline		CAS#: 62-53-3			
66	37180	3.66	3.74	80-120	100	(T)
93	991	3.62	3.74	219-279	3	(QT)
-----						
7	bis(2-Chloroethyl) ether		CAS#: 111-44-4			
63	12261	3.94	3.75	80-120	100	(T)
93	621	3.91	3.75	119-179	5	(QT)
95	291	3.94	3.75	8- 68	2	(QT)
-----						
17	N-Nitrosodipropylamine		CAS#: 621-64-7			
70	40455	4.31	4.19	80-120	100	(T)
42	24069	4.31	4.19	44-104	59	(T)
-----						
27	Benzoic acid		CAS#: 65-85-0			
105	13107	4.55	4.59	80-120	100	( )
122	10139	4.55	4.59	45-105	77	( )
77	9430	4.55	4.59	48-108	72	( )
-----						
43	Dimethylphthalate		CAS#: 131-11-3			
163	111697	6.07	5.84	80-120	100	(T)
164	632443	6.07	5.84	0- 40	566	(QT)
-----						
44	2,6-Dinitrotoluene		CAS#: 606-20-2			
165	84121	6.07	5.90	80-120	100	(T)
63	1376	6.07	5.89	62-122	2	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	84121	6.07	6.19	80-120	100	(T)
89	2000	6.07	6.19	51-111	2	(QT)
63	1376	6.07	6.19	24- 84	2	(QT)
-----						
52 4-Nitrophenol		CAS#: 100-02-7				
139	130	6.11	6.12	80-120	100	( )
109	2489	6.07	6.12	63-123	1911	(Q)
65	833	6.15	6.11	71-131	640	(Q)
-----						
53 Fluorene		CAS#: 86-73-7				
166	6660	6.67	6.49	80-120	100	(T)
165	7801	6.67	6.49	62-122	117	(T)
167	2808	6.67	6.49	0- 44	42	(T)
-----						
55 2-Methyl-4,6-dinitrophenol		CAS#: 534-52-1				
198	1162	6.67	6.51	80-120	100	(T)
105	2200	6.67	6.50	13- 73	189	(QT)
51	1497	6.67	6.50	51-111	129	(QT)
-----						
61 4-Bromophenylphenylether		CAS#: 101-55-3				
248	10769	6.67	6.85	80-120	100	(T)
141	96415	6.67	6.85	59-119	895	(QT)
250	22687	6.67	6.85	66-126	211	(QT)

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



GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2214.d  
 Lab Smp Id: 248506003 Client Smp ID: RE36-10-7422  
 Inj Date : 22-MAR-2010 13:27  
 Operator : RMB Inst ID: MSD5.i  
 Smp Info : |248506003|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
 Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
 Als bottle: 14  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2193.sub  
 Target Version: 3.50  
 Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	5.86450	% moisture

Cpnd Variable

Local Compound Variable

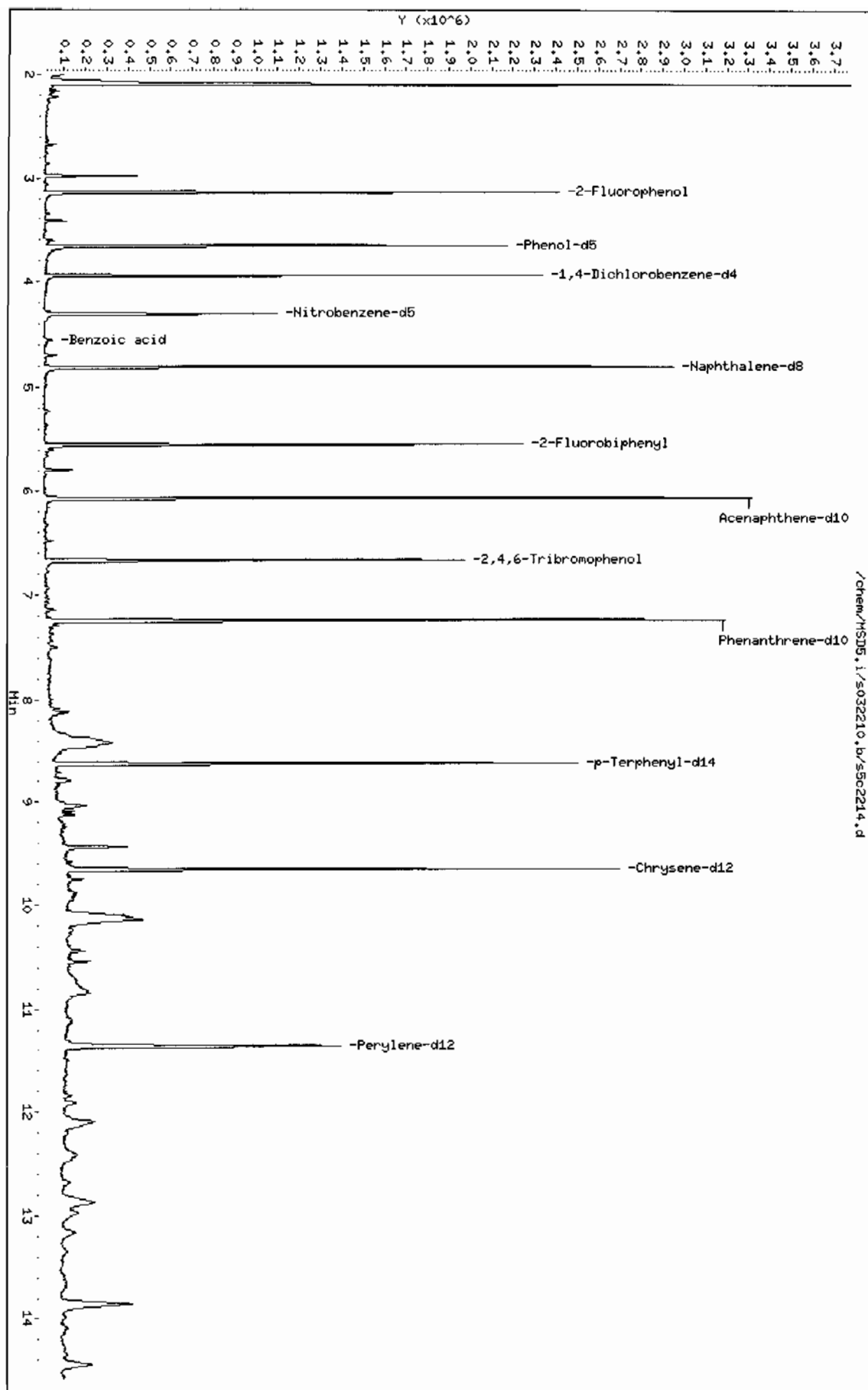
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.943	1850113	40.000
* 67 Phenanthrene-d10	7.248	2974790	40.000
* 91 Chrysene-d12	9.666	2874846	40.000
* 98 Perylene-d12	11.366	2157946	40.000

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	
=====	=====	=====	=====	=====	=====	=====	=====
Unknown					CAS #:		
2.096	3074561	66.4729186	2350	0		0	10
Unknown Aldol Condensate					CAS #:		
2.978	326588	7.06092449	250	0		0	10
Stigmast-4-en-3-one					CAS #: 1058-61-3		
8.425	1672081	22.4833441	796	95	NIST05.L	173936	67
Unknown					CAS #:		
9.030	314255	4.37248200	155	0		0	91
Z-5-Nonadecene					CAS #: 1000131-11-8		
9.436	461094	6.41556123	227	96	NIST05.L	102861	91
Unknown					CAS #:		
10.101	743501	10.3449153	366	0		0	91
Unknown					CAS #:		
10.142	1418320	19.7342078	698	0		0	91
Unknown					CAS #:		
10.542	228223	4.23037325	150	0		0	98
Unknown					CAS #:		
12.095	597392	11.0733343	392	0		0	98
Unknown					CAS #:		
12.418	323231	5.99145224	212	0		0	98
7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet					CAS #: 70038-20-9		
12.871	510745	9.46724493	335	93	NIST05.L	69982	98
Ergosterol					CAS #: 57-87-4		
12.971	340114	6.30440690	223	90	NIST05.L	170282	98
.beta.-Sitosterol					CAS #: 83-46-5		
13.854	1075373	19.9332600	705	90	NIST05.L	174399	98
Unknown					CAS #:		
14.448	499178	9.25283493	327	0		0	98

Data File: /chem/MSD5.i/s032210.b/s502214.d  
 Date: 22-MAR-2010 13:27  
 Client ID: RE36-10-7422  
 Sample Info: 1248506003196308611SVH11LNL  
 Volume Injected (uL): 0.5  
 Column Phase: J&W DB-5MS

Instrument: MSD5.1  
 Operator: RHB  
 Column diameter: 0.20



Date: 22-MAR-2010 13:27

Client ID: RE36-10-7422

Instrument: MSD5.i

Sample Info: 1248506003196308611|SVH11|LANL

Volume Injected (uL): 0.5

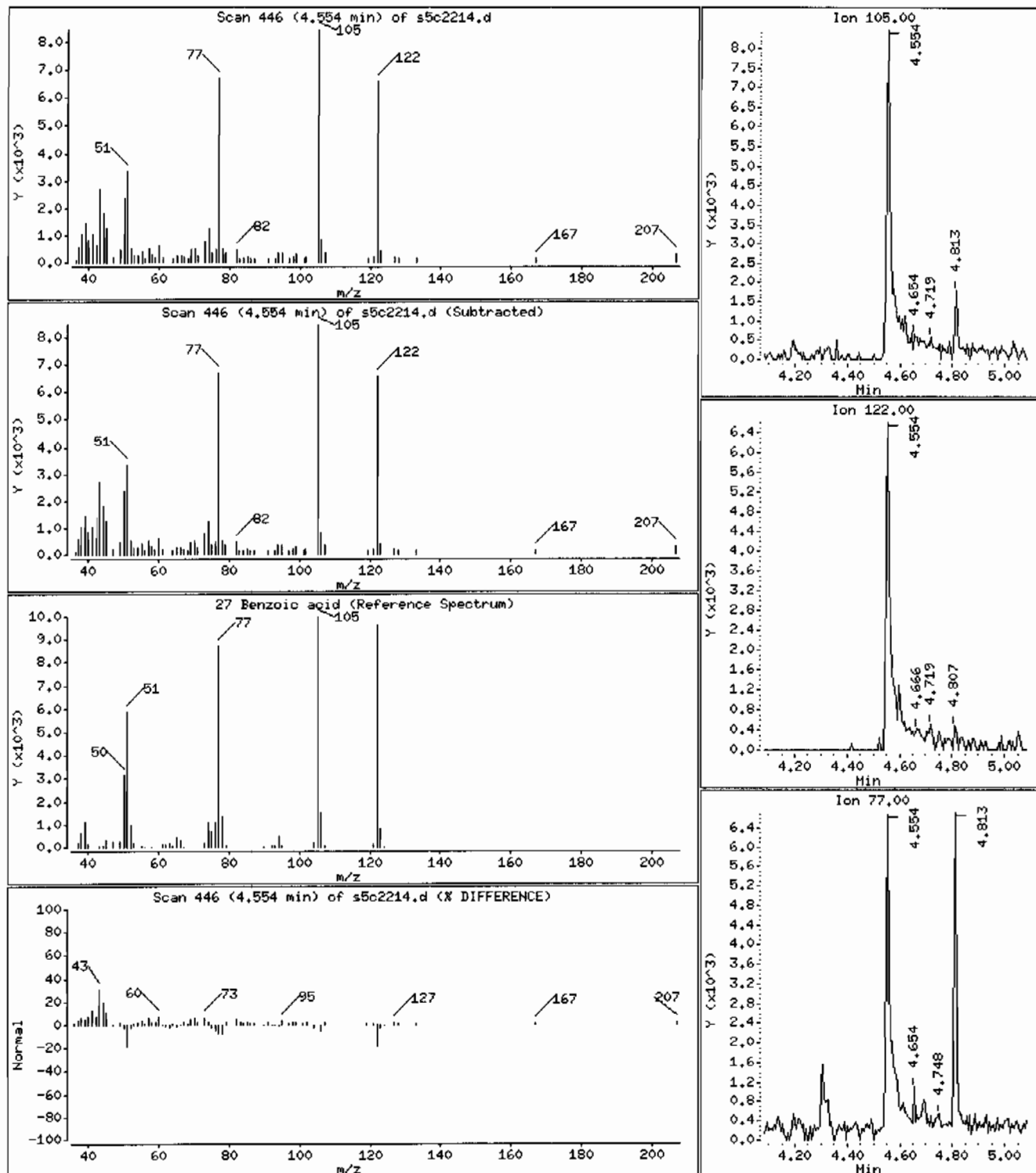
Operator: RMB

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

Column diameter: 0.20

27 Benzoic acid

Concentration: 427 ug/Kg



Date : 22-MAR-2010 13:27

Client ID: RE36-10-7422

Instrument: MSD5,i

Sample Info: 1248506003|96308611|SVM11|LANL

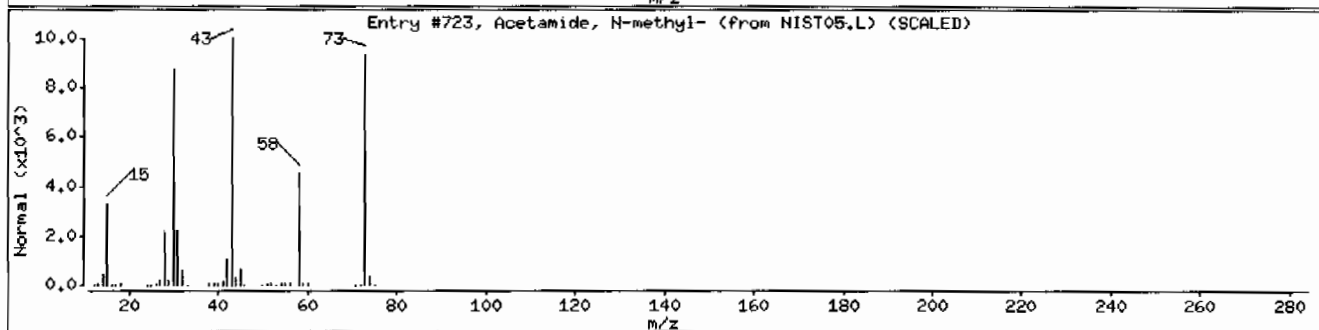
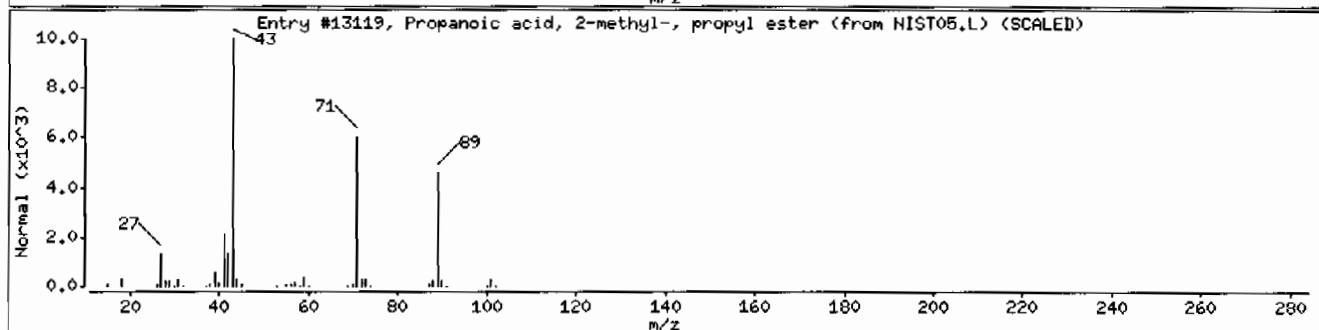
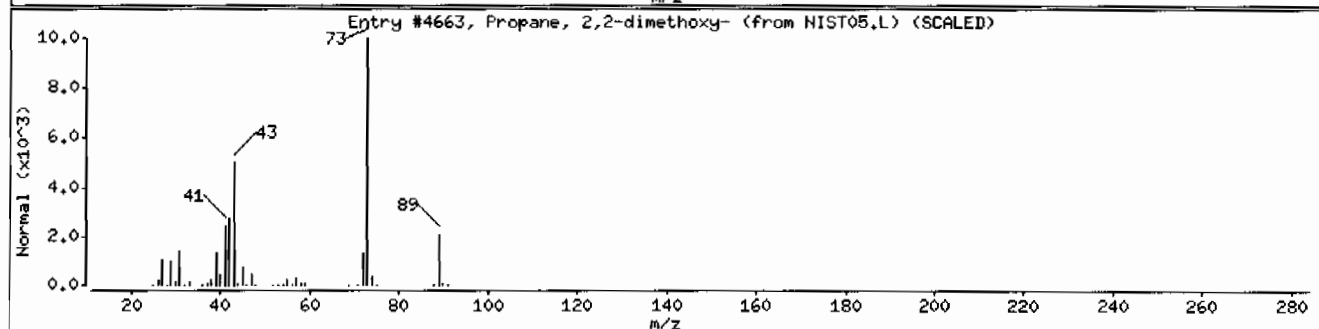
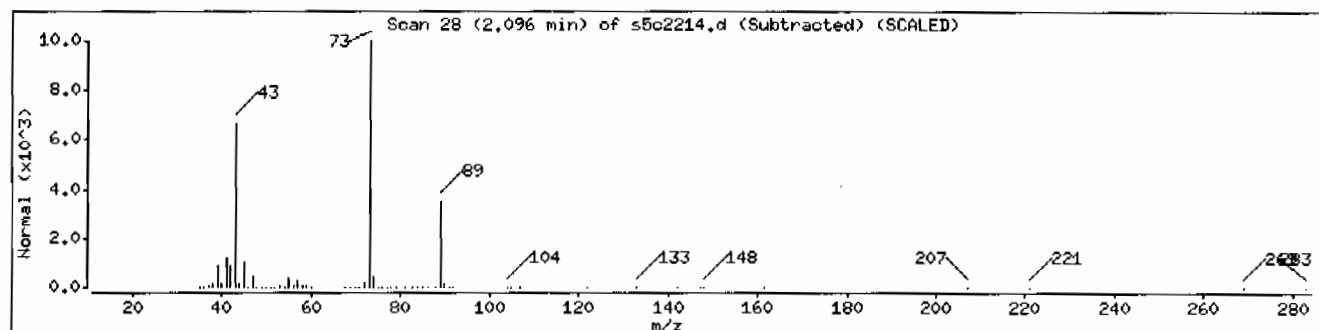
Volume Injected (uL): 0.5

Operator: RMB

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	38	C5H12O2	104
Propanoic acid, 2-methyl-, propyl ester	644-49-5	NIST05.L	13119	16	C7H14O2	130
Acetamide, N-methyl-	79-16-3	NIST05.L	723	9	C3H7NO	73



Date : 22-MAR-2010 13:27

Client ID: RE36-10-7422

Instrument: MSD5.i

Sample Info: 12485060031963086111SVH111LANL

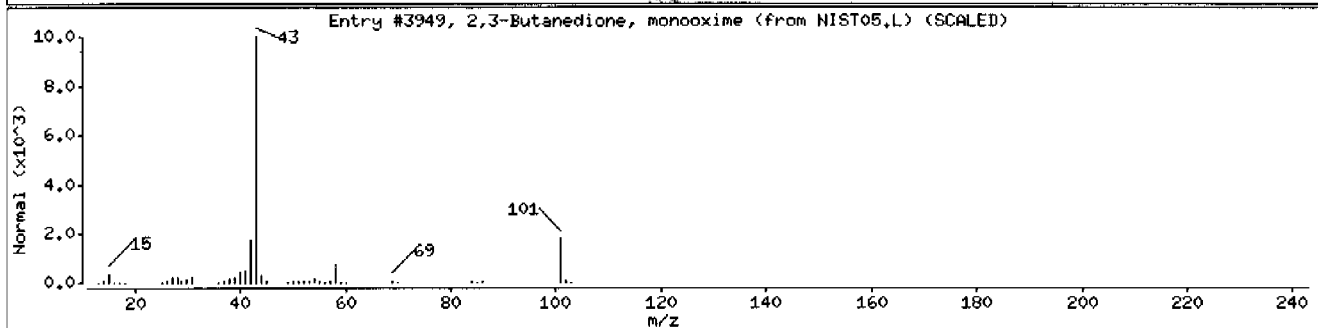
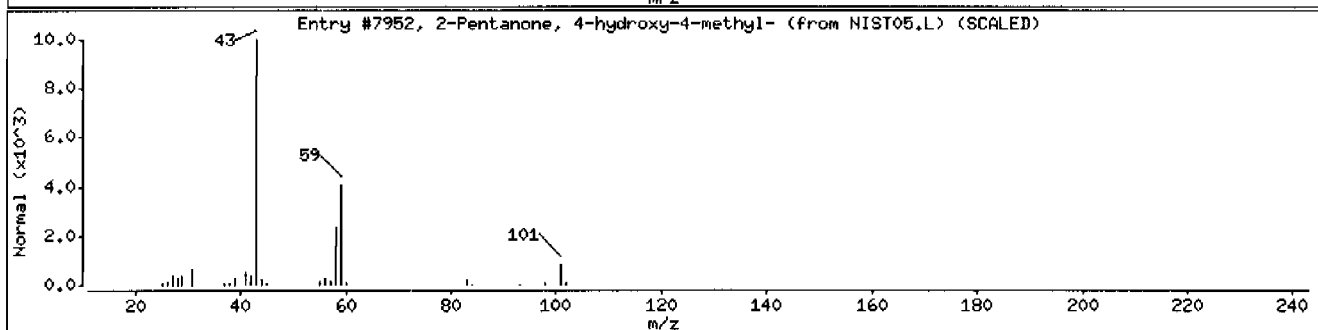
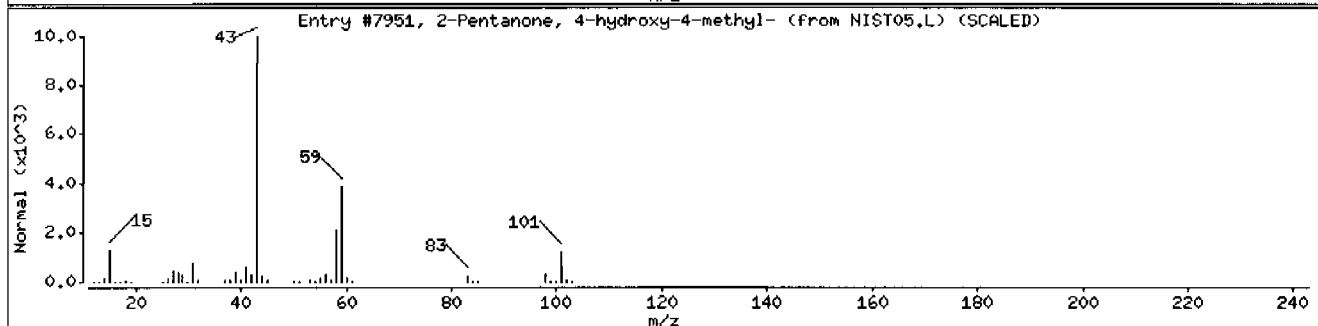
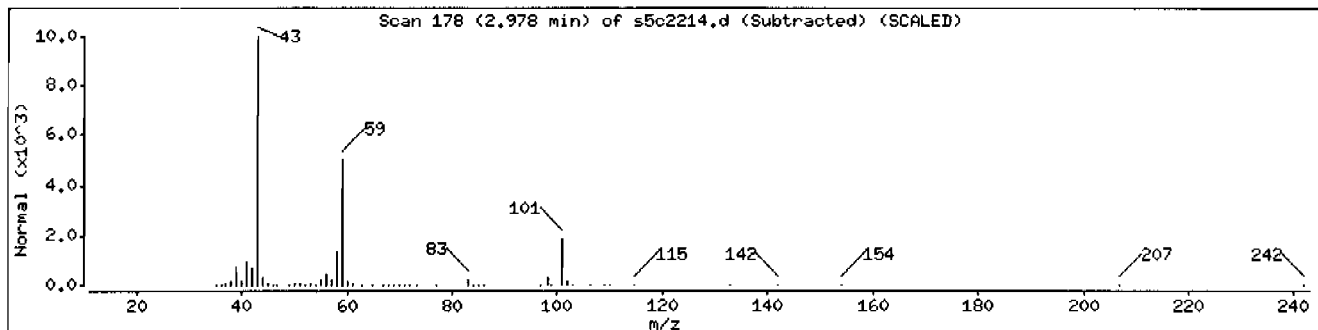
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	45	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	27	C4H7NO2	101



Date : 22-MAR-2010 13:27

Client ID: RE36-10-7422

Instrument: MSD5.i

Sample Info: 12485060031963086111SVH111LANL

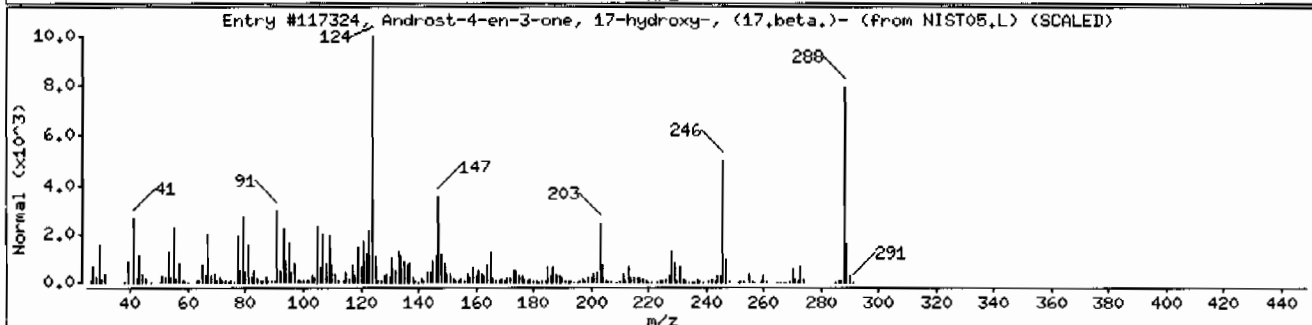
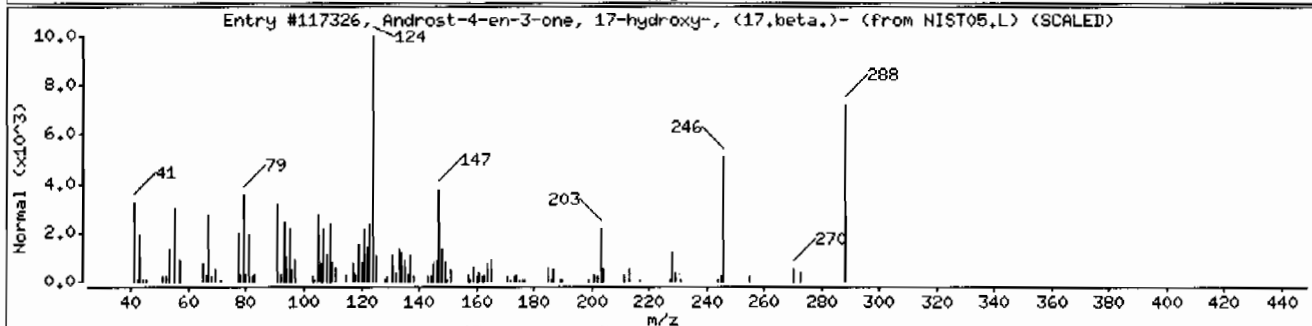
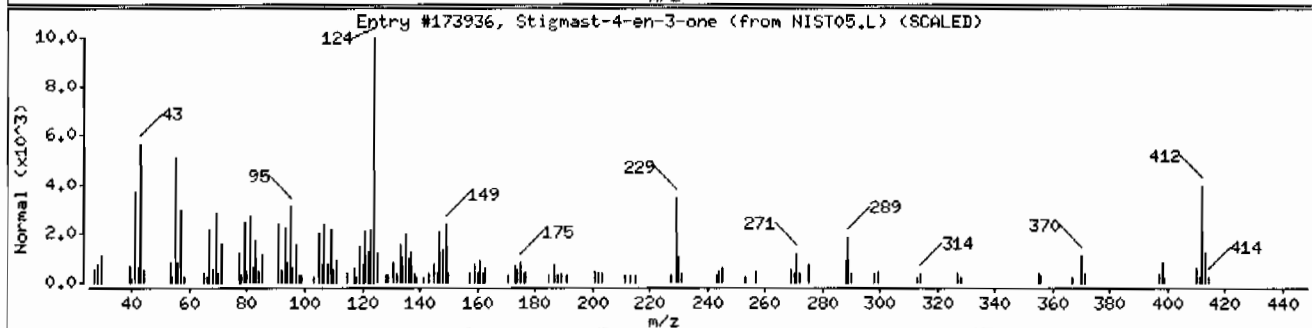
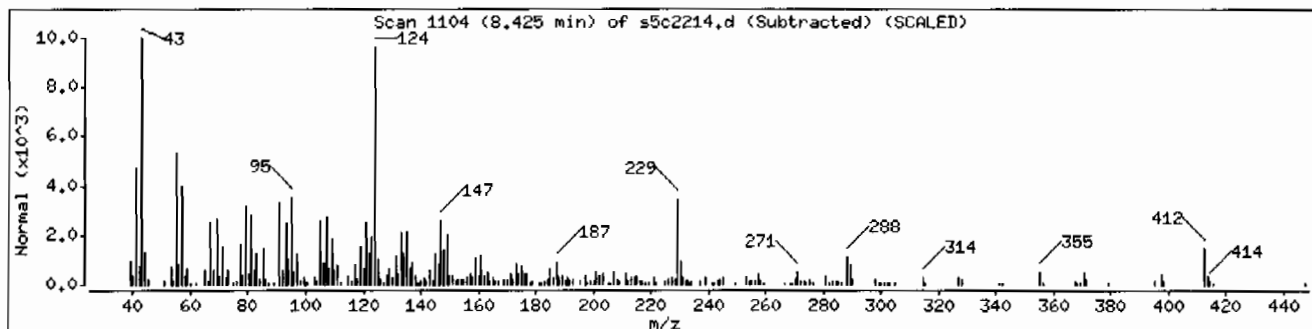
Volume Injected (uL): 0.5

Operator: RMB

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	95	C <sub>29</sub> H <sub>48</sub> O	412
Androst-4-en-3-one, 17-hydroxy-, (17.β)	58-22-0	NIST05.L	117326	64	C <sub>19</sub> H <sub>28</sub> O <sub>2</sub>	288
Androst-4-en-3-one, 17-hydroxy-, (17.β)	58-22-0	NIST05.L	117324	55	C <sub>19</sub> H <sub>28</sub> O <sub>2</sub>	288



Date : 22-MAR-2010 13:27

Client ID: RE36-10-7422

Instrument: MSD5.i

Sample Info: 1248506003196308611ISVH11LANL

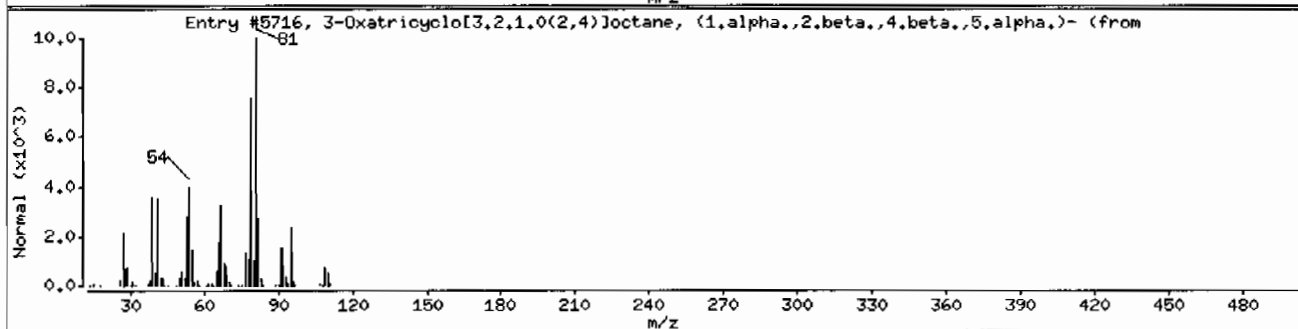
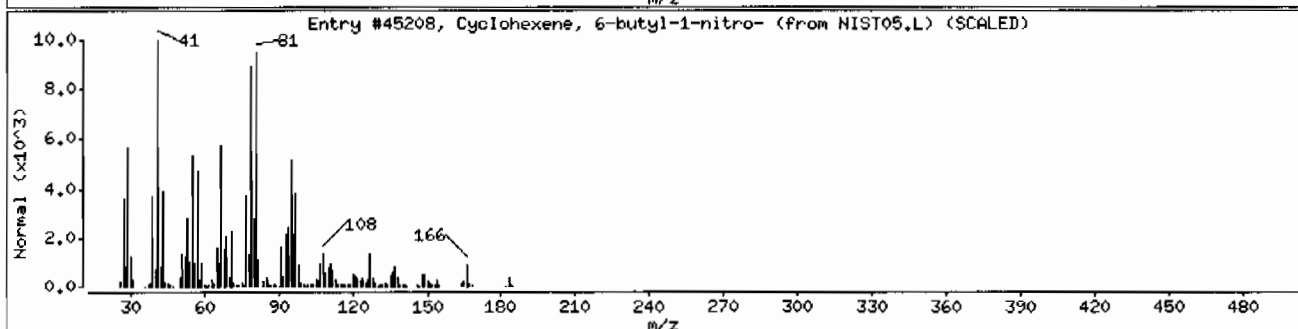
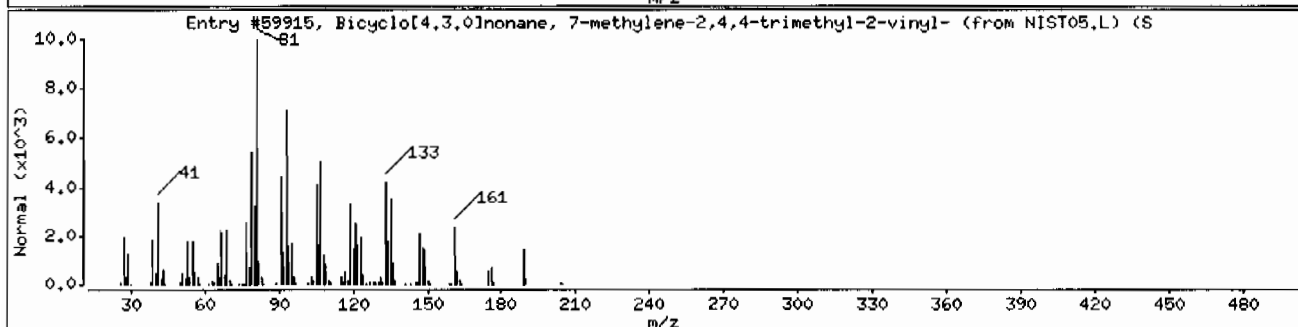
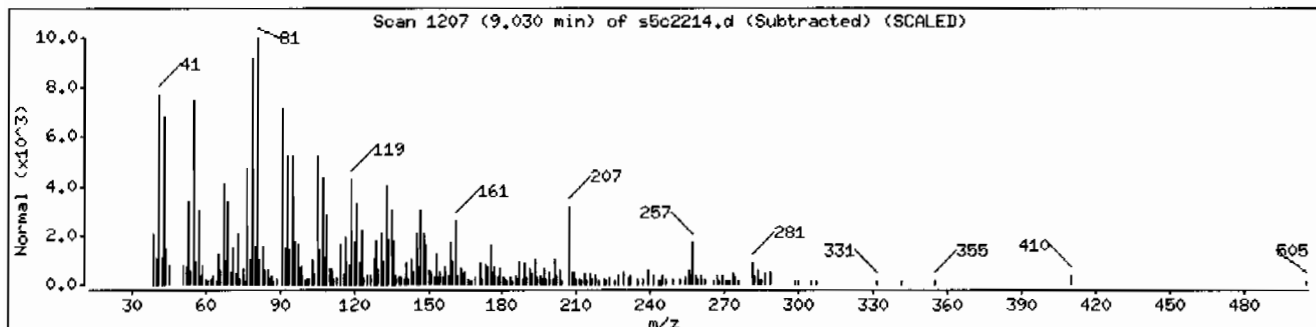
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[4.3.0]nonane, 7-methylene-2,4,4-	1000156-11-9	NIST05.L	59915	64	C15H24	204
Cyclohexene, 6-butyl-1-nitro-	84820-13-3	NIST05.L	45208	55	C10H17NO2	183
3-Oxatricyclo[3.2.1.0(2,4)]octane, (1.alpha.	3146-39-2	NIST05.L	5716	38	C7H10O	110





Date : 22-MAR-2010 13:27

Client ID: RE36-10-7422

Instrument: MSD5.i

Sample Info: 1248506003196308611SVMI11LANL

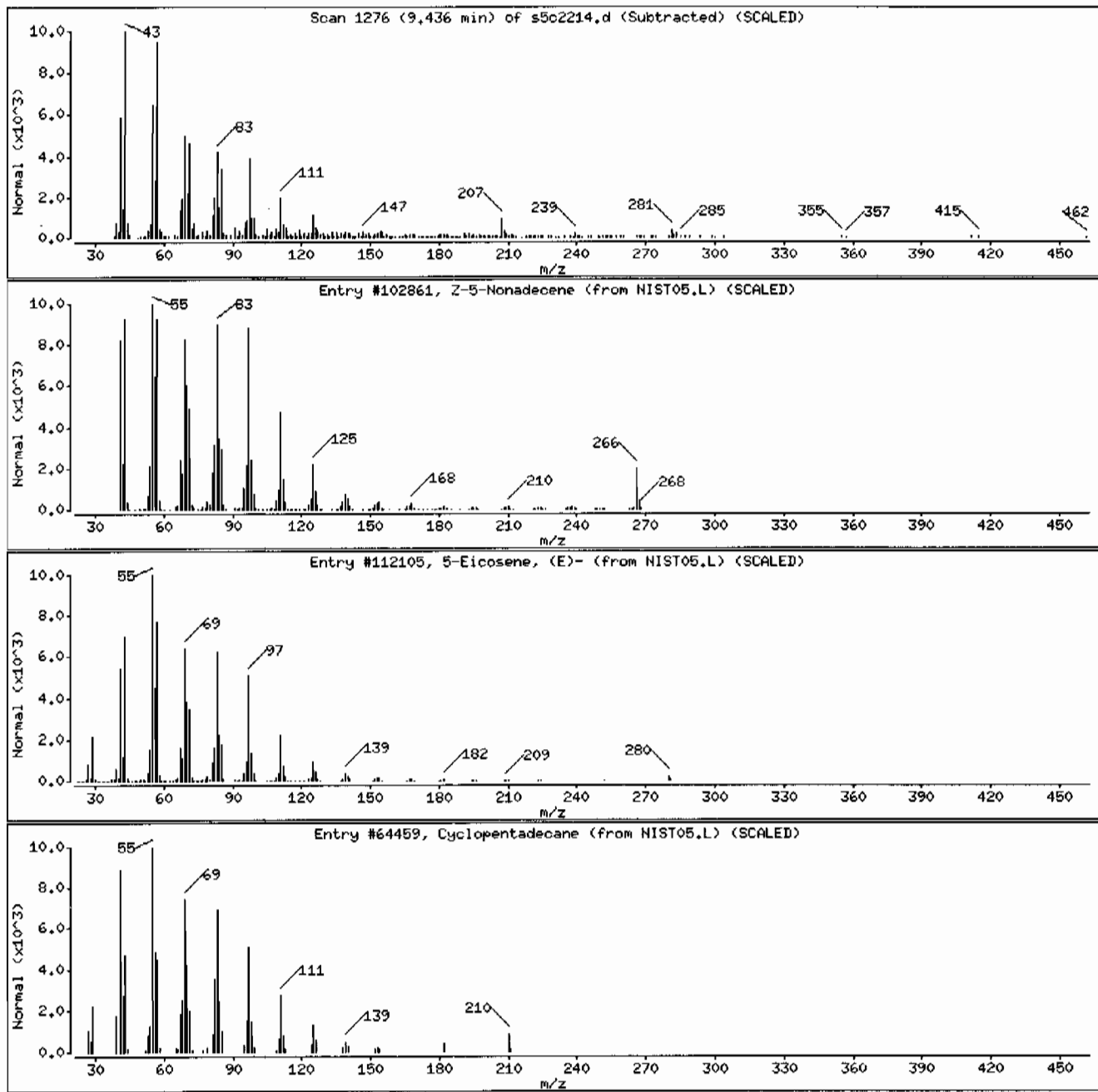
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Z-5-Nonadecene	1000131-11-8	NIST05.L	102861	96	C19H38	266
5-Eicosene, (E)-	74685-30-6	NIST05.L	112105	92	C20H40	280
Cyclopentadecane	295-48-7	NIST05.L	64459	92	C15H30	210



Date : 22-MAR-2010 13:27

Client ID: RE36-10-7422

Instrument: MSD5.i

Sample Info: 1248506003196308611SVMI1ILANL

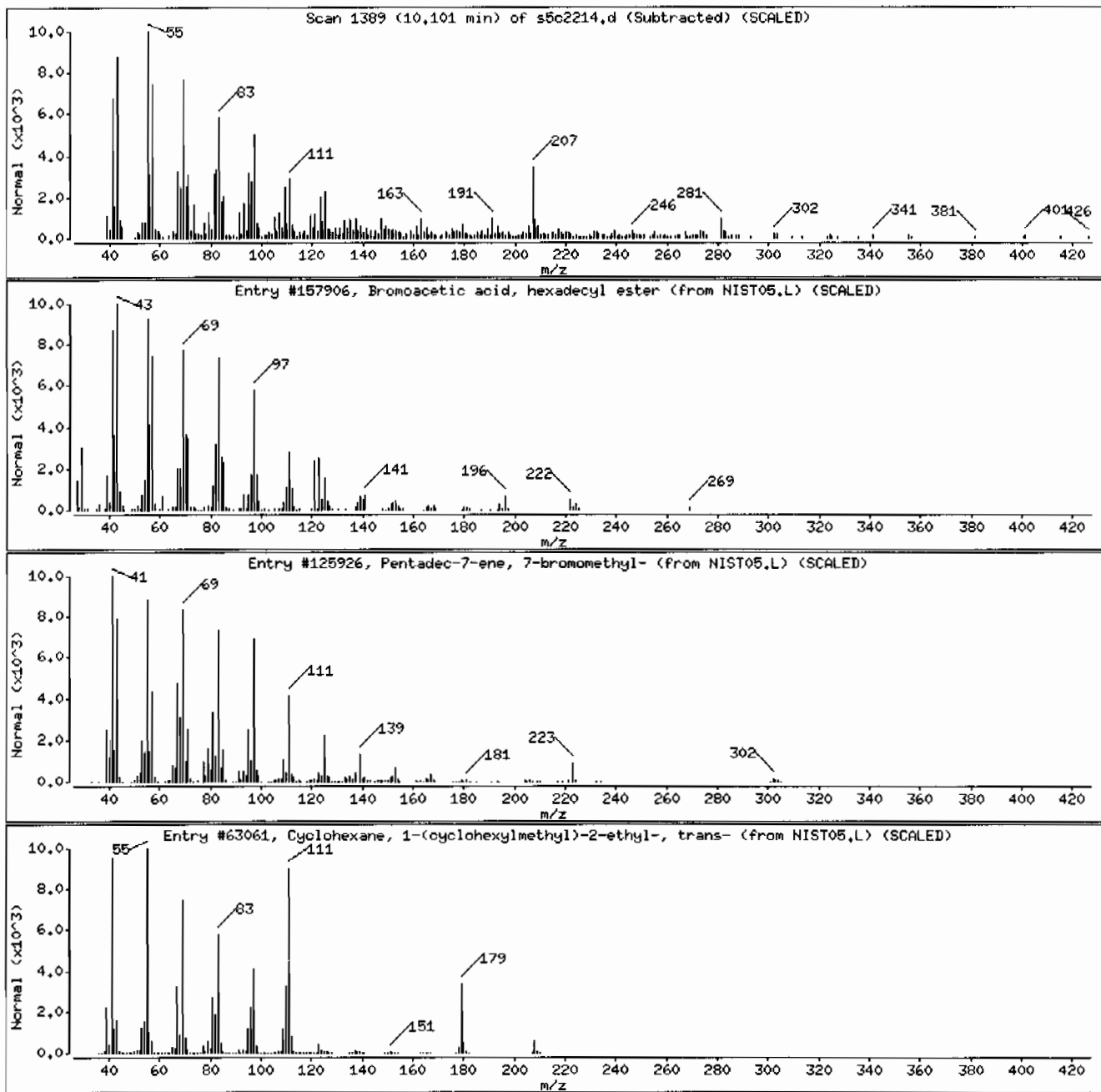
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bromoacetic acid, hexadecyl ester	5454-48-8	NIST05.L	157906	58	C18H35BrO2	362
Pentadec-7-ene, 7-bromomethyl-	1000259-58-5	NIST05.L	125926	53	C16H31Br	302
Cyclohexane, 1-(cyclohexylmethyl)-2-ethyl	54934-92-8	NIST05.L	63061	53	C15H28	208



Date : 22-MAR-2010 13:27

Client ID: RE36-10-7422

Instrument: MSD5.i

Sample Info: 1248506003196308611SVH11ILANL

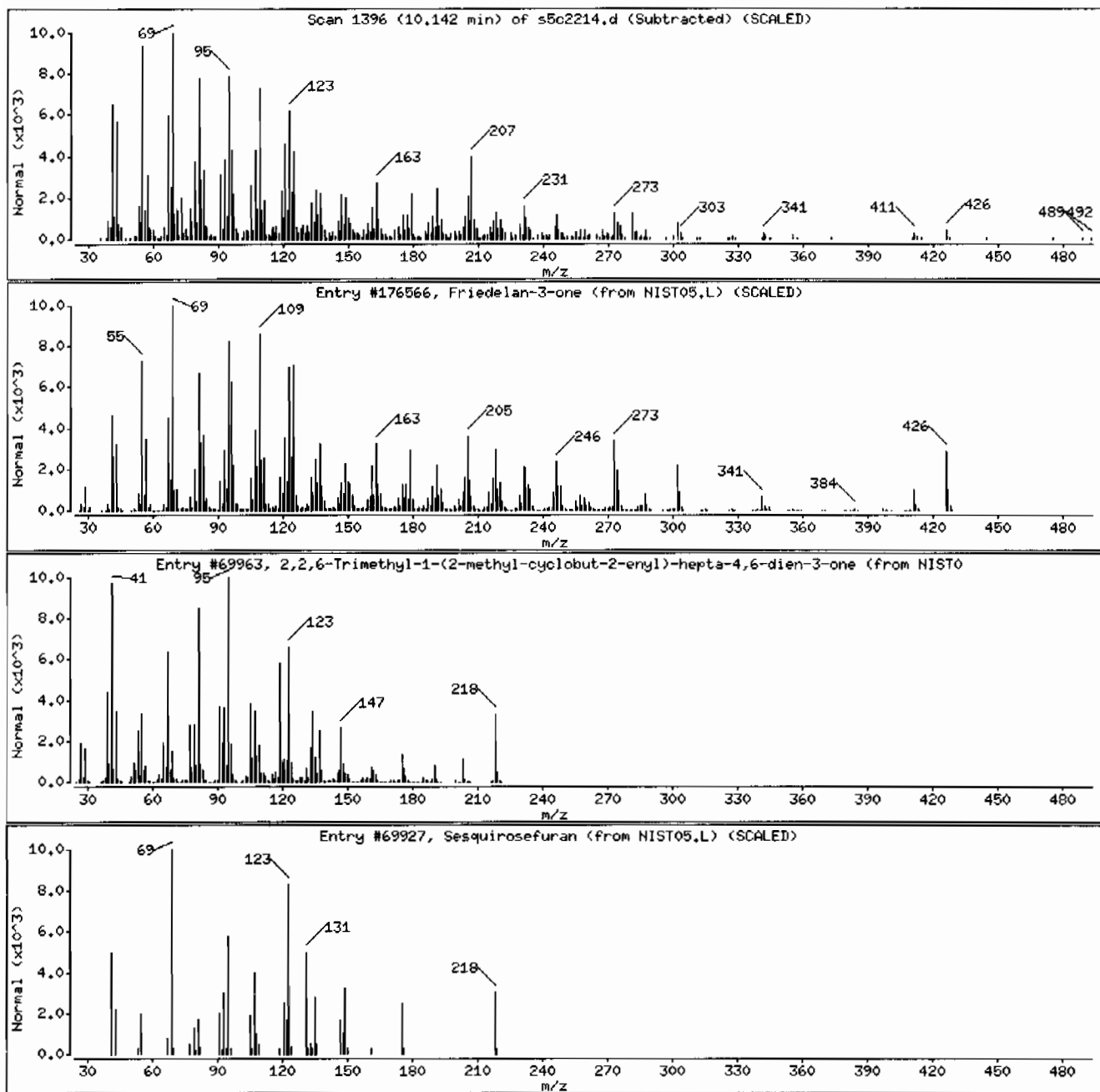
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Friedelan-3-one	559-74-0	NIST05.L	176566	66	C30H50O	426
2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-yl)-hepta-4,6-dien-3-one	1000188-72-8	NIST05.L	69963	62	C15H22O	218
Sesquirosefuran	39007-93-7	NIST05.L	69927	55	C15H22O	218



Date : 22-MAR-2010 13:27

Client ID: RE36-10-7422

Instrument: HSD5.i

Sample Info: I248506003I96308611ISVM11ILANL

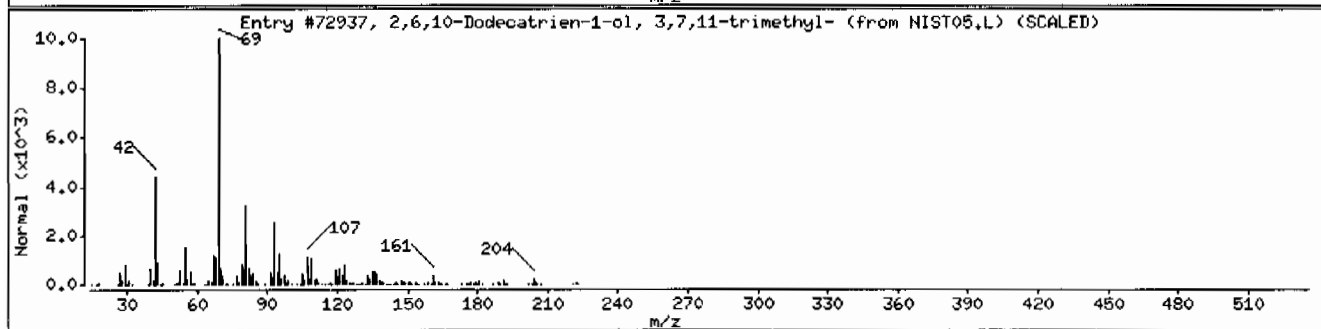
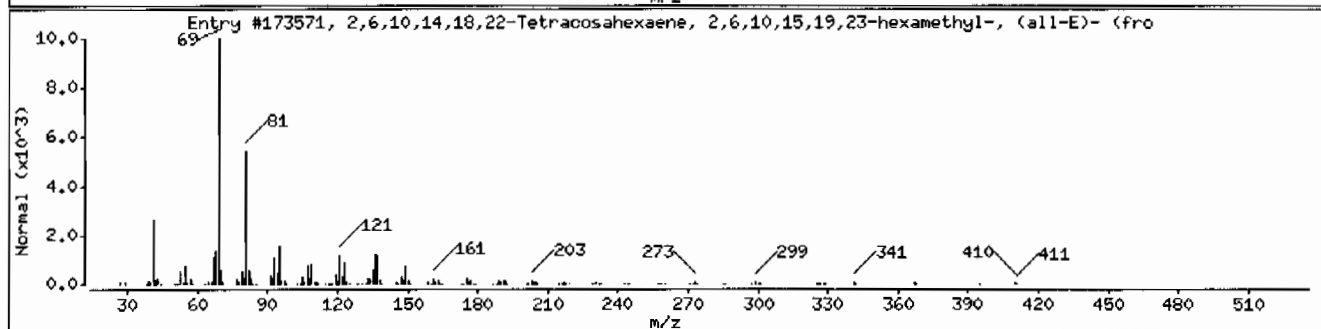
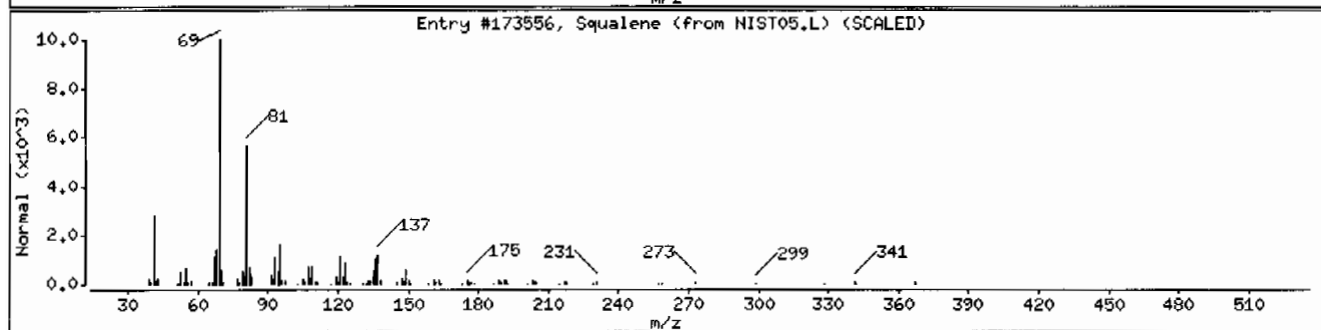
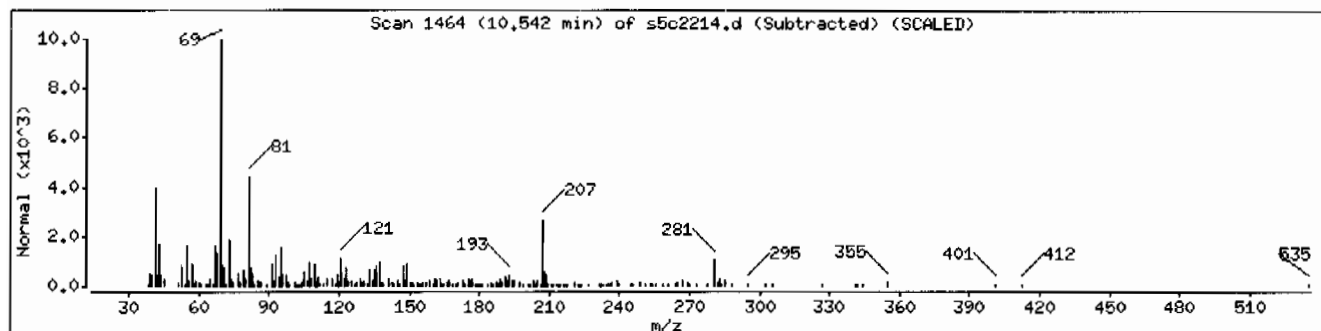
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Squalene	7683-64-9	NIST05.L	173556	76	C <sub>30</sub> H <sub>50</sub>	410
2,6,10,14,18,22-Tetracosahexaene, 2,6,10	111-02-4	NIST05.L	173571	76	C <sub>30</sub> H <sub>50</sub>	410
2,6,10-Dodecatrien-1-ol, 3,7,11-trimethyl	4602-84-0	NIST05.L	72937	70	C <sub>15</sub> H <sub>26</sub> O	222



Date : 22-MAR-2010 13:27

Client ID: RE36-10-7422

Instrument: MSD5.i

Sample Info: I248506003I963086I1ISVH11ILANL

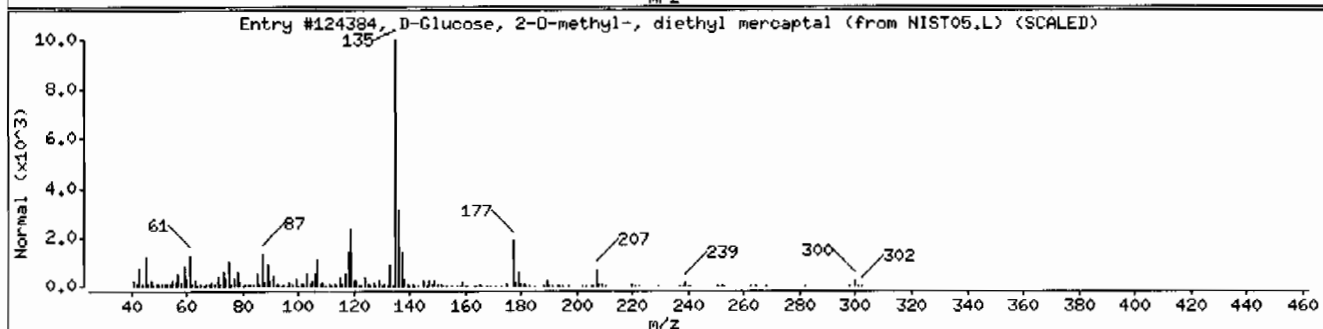
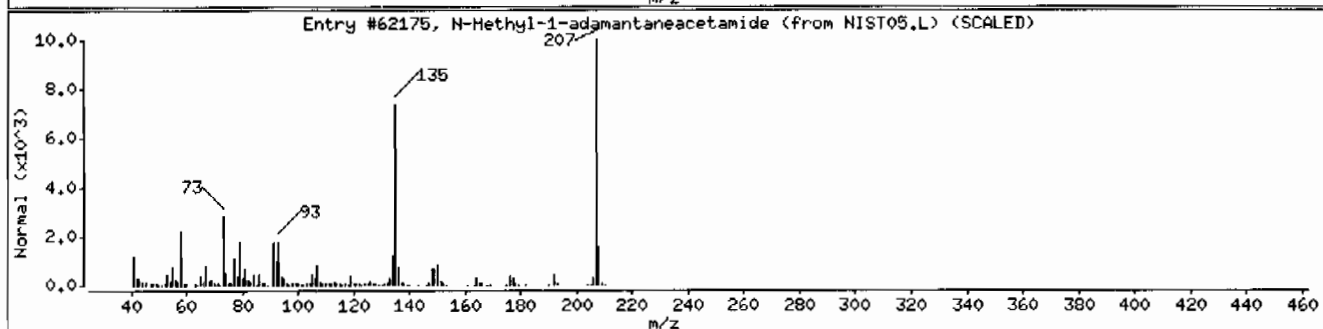
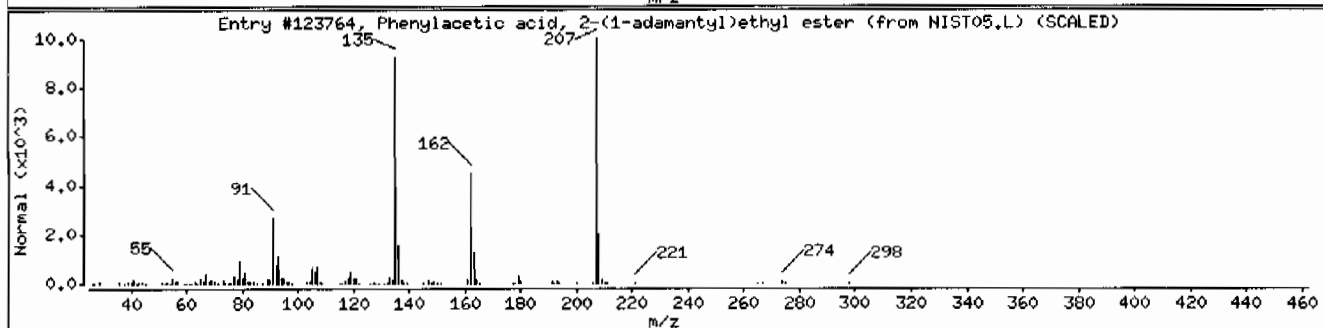
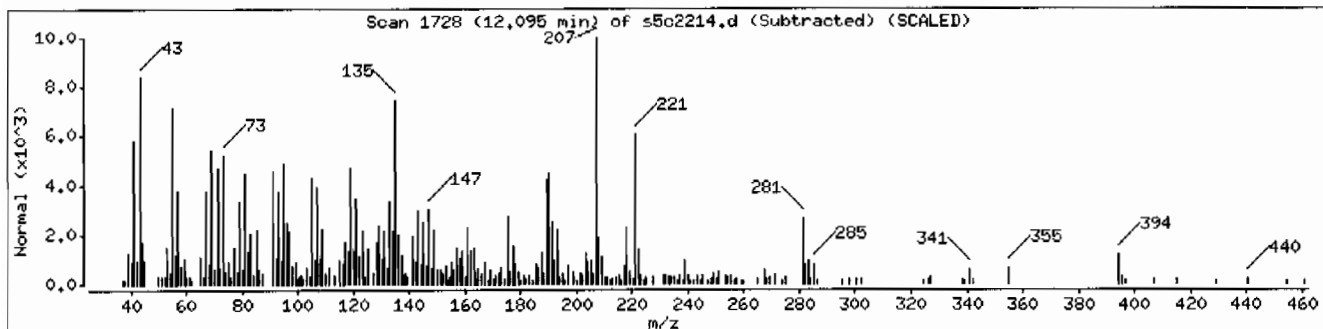
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Phenylacetic acid, 2-(1-adamantyl)ethyl	1000282-91-2	NIST05.L	123764	30	C20H26O2	298
N-Methyl-1-adamantanecetamide	31897-93-5	NIST05.L	62175	30	C13H21NO	207
D-Glucose, 2-O-methyl-, diethyl mercapta	3767-34-8	NIST05.L	124384	25	C11H24O5S2	300



Date : 22-MAR-2010 13:27

Client ID: RE36-10-7422

Instrument: MSD5.i

Sample Info: 1248506003196308611|SVH11|LANL

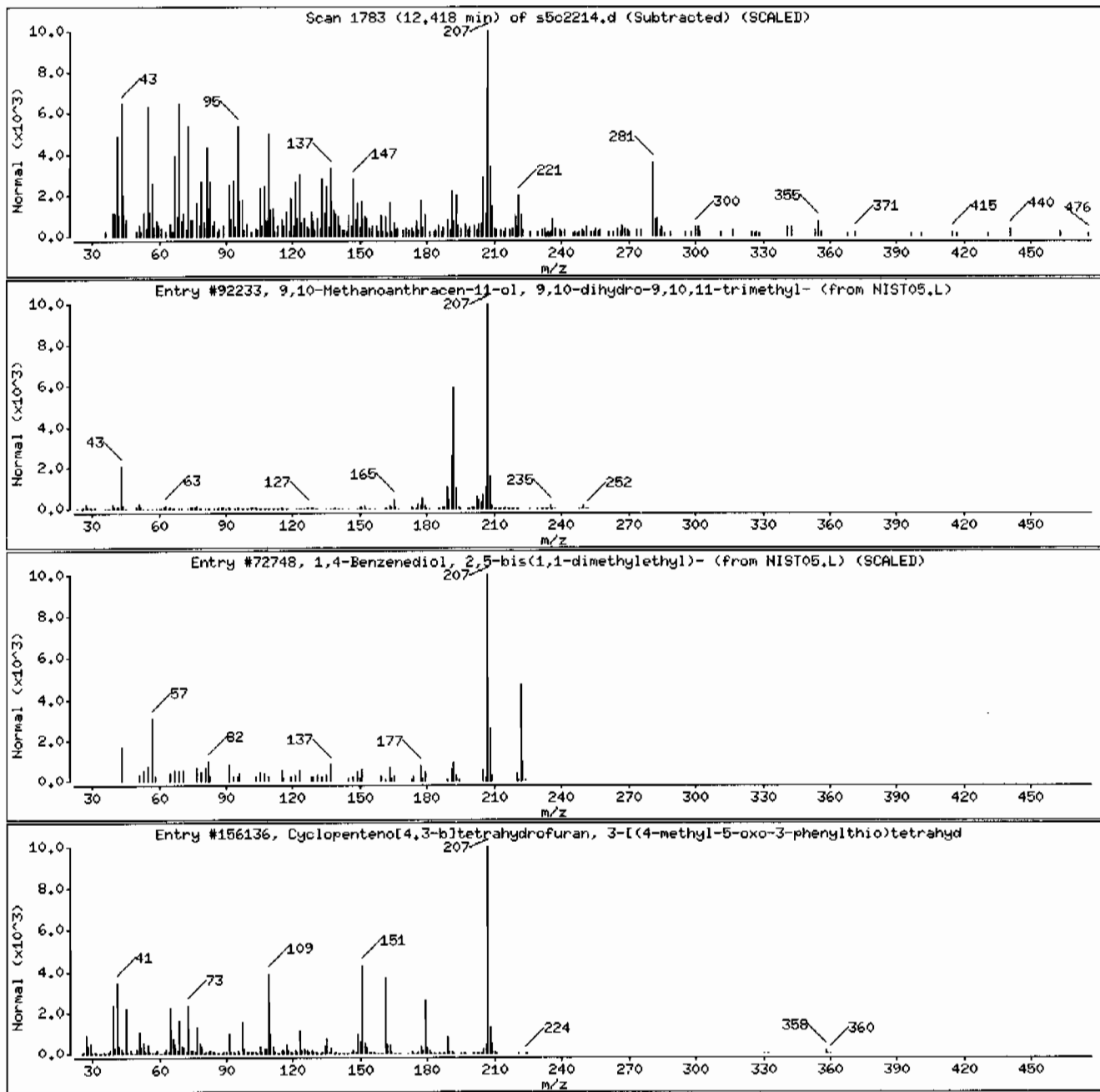
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
9,10-Methanoanthracen-11-ol, 9,10-dihydr	126615-74-5	NIST05.L	92233	38	C18H18O	250
1,4-Benzenediol, 2,5-bis(1,1-dimethyleth	88-58-4	NIST05.L	72748	38	C14H22O2	222
Cyclopenteno[4,3-b]tetrahydrofuran, 3-[	1000211-22-7	NIST05.L	156136	32	C19H18O5S	358



Date : 22-MAR-2010 13:27

Client ID: RE36-10-7422

Instrument: MSD5.i

Sample Info: 1248506003196308611SVH111LANL

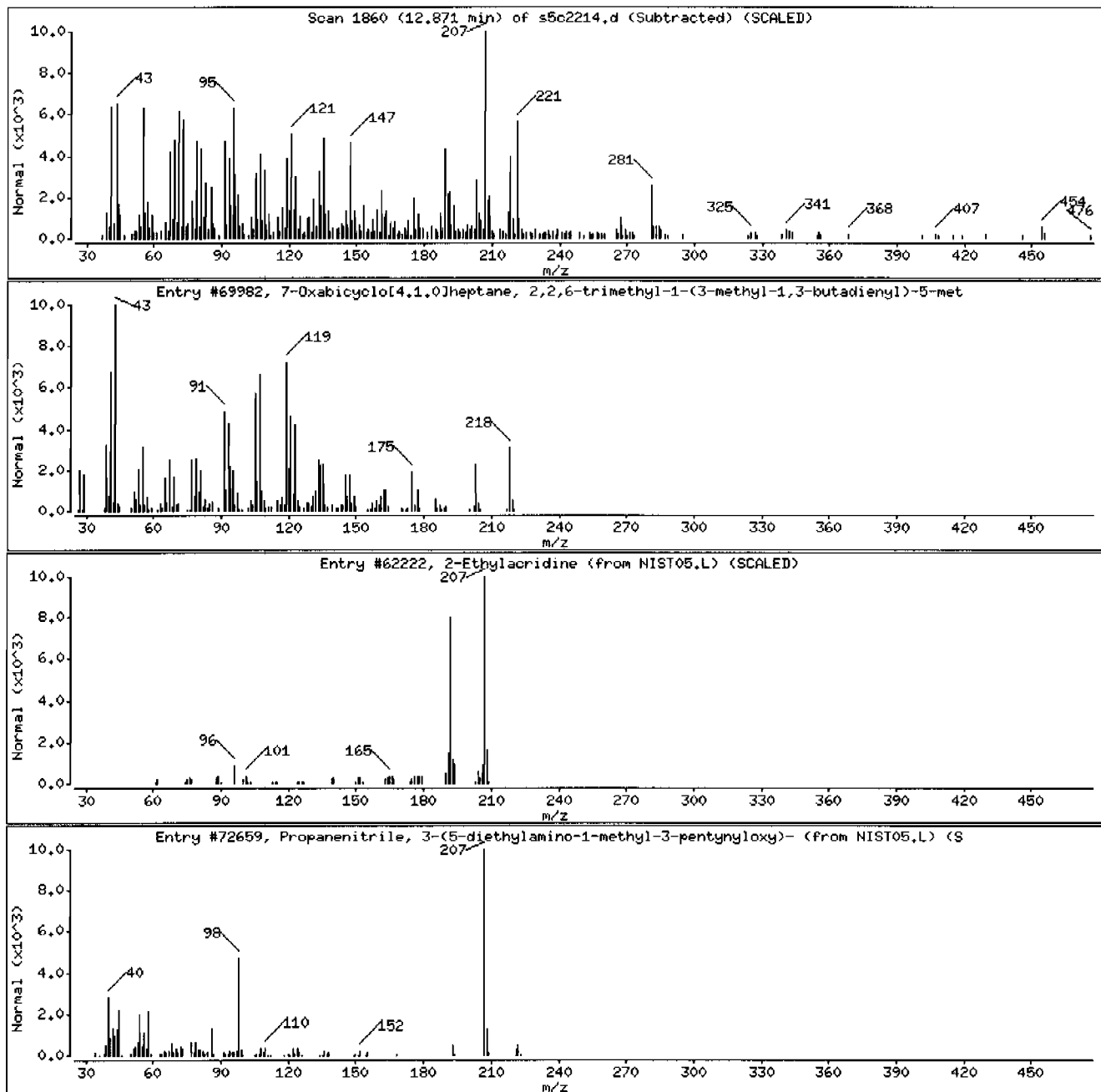
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	70038-20-9	NIST05.L	69982	93	C15H22O	218
2-Ethylacridine	55751-83-2	NIST05.L	62222	15	C15H13N	207
Propanenitrile, 3-(5-diethylamino-1-meth	16454-78-7	NIST05.L	72659	11	C13H22N2O	222



Date : 22-MAR-2010 13:27

Client ID: RE36-10-7422

Instrument: MSD5.i

Sample Info: 1248506003196308611|SVH11|LANL

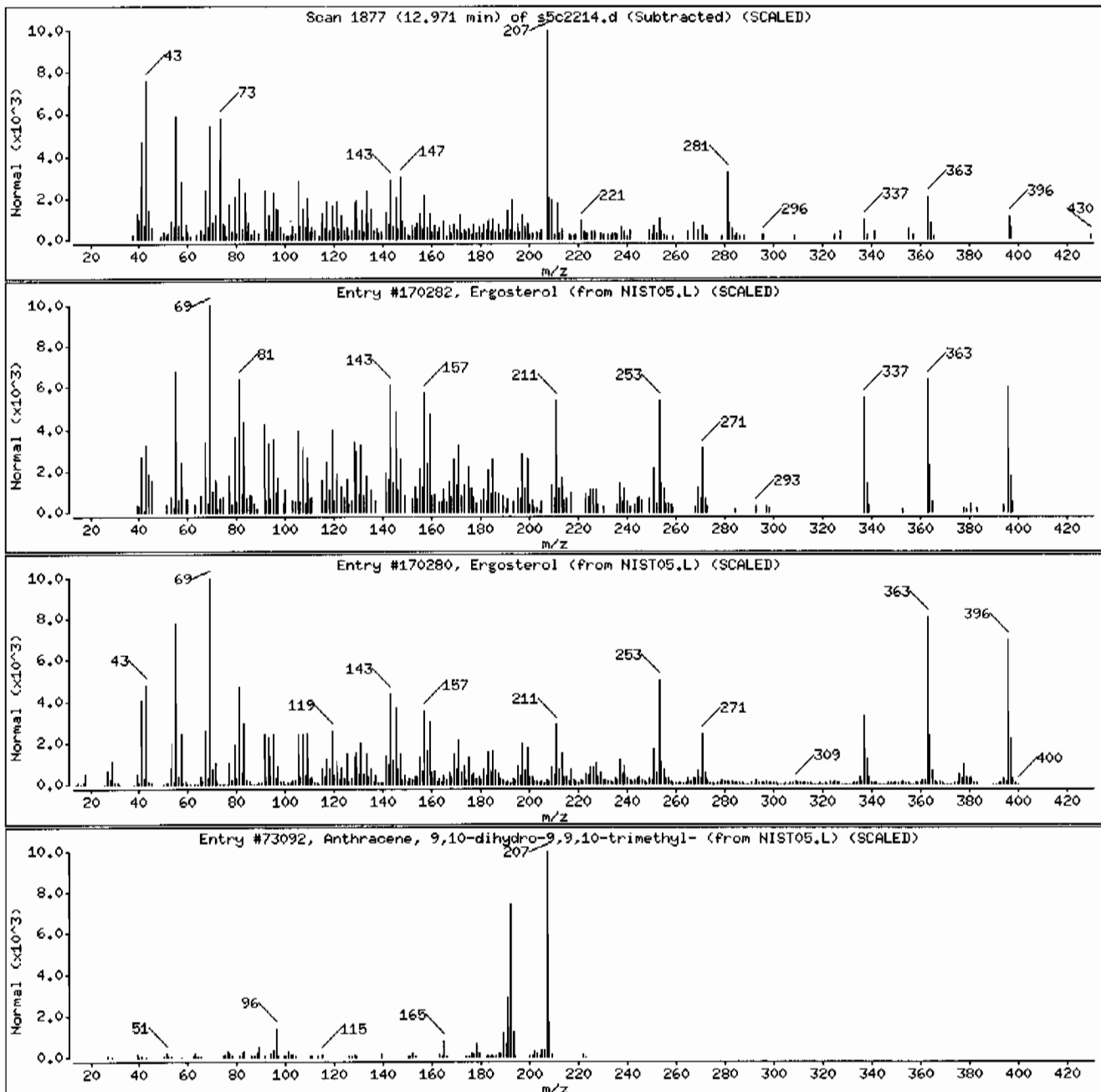
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ergosterol	57-87-4	NIST05.L	170282	90	C28H44O	386
Ergosterol	57-87-4	NIST05.L	170280	45	C28H44O	386
Anthracene, 9,10-dihydro-9,10-trimethyl-	14923-29-6	NIST05.L	73092	38	C17H18	222





Date : 22-MAR-2010 13:27

Client ID: RE36-10-7422

Instrument: MSD5.i

Sample Info: 1248506003196308611SVH11LANL

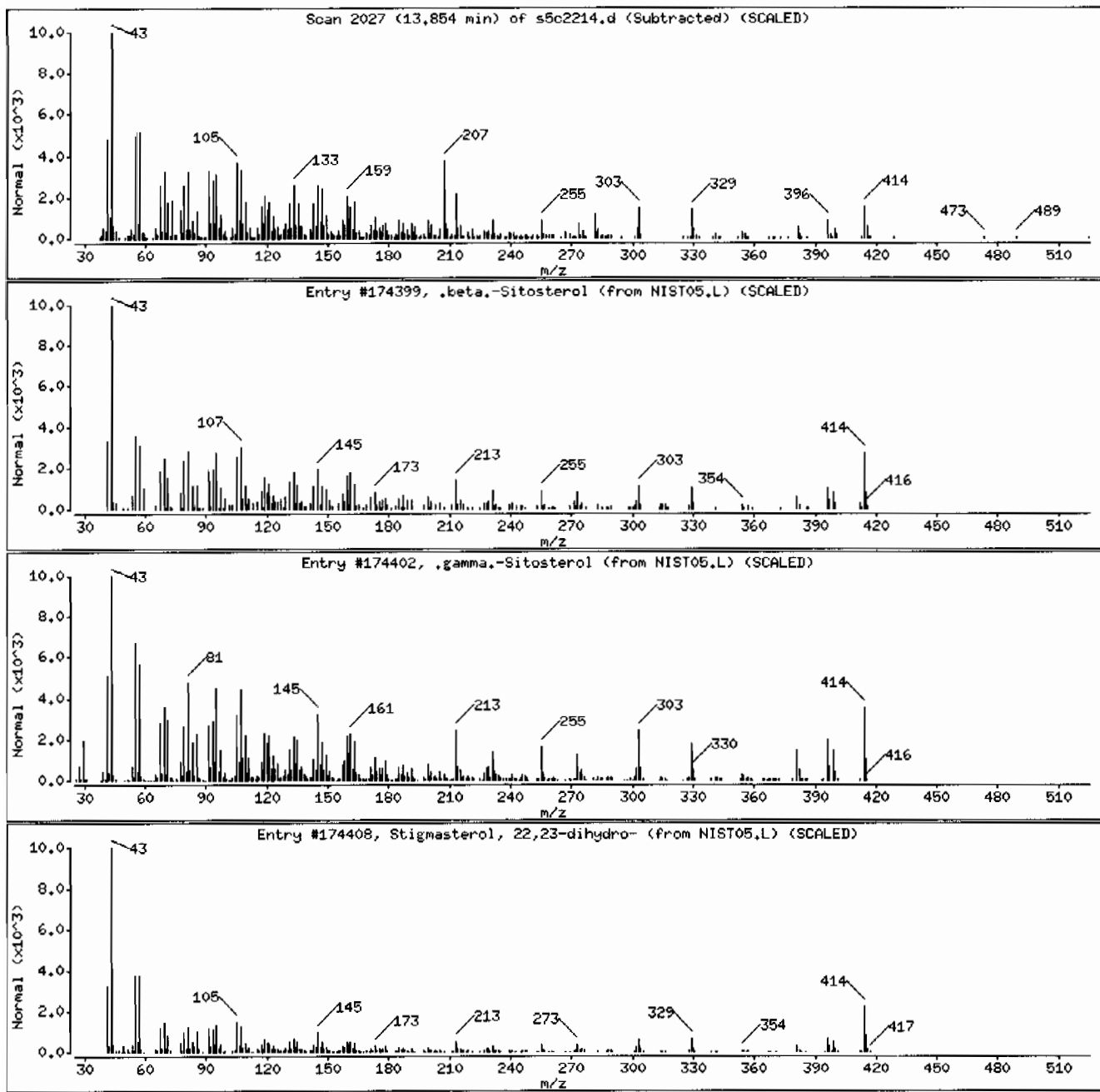
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174399	90	C29H50O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	86	C29H50O	414
Stigmasterol, 22,23-dihydro-	1000214-20-7	NIST05.L	174408	78	C29H50O	414



Date : 22-MAR-2010 13:27

Client ID: RE36-10-7422

Instrument: MSD5.1

Sample Info: 1248506003196308611ISVH11LANL

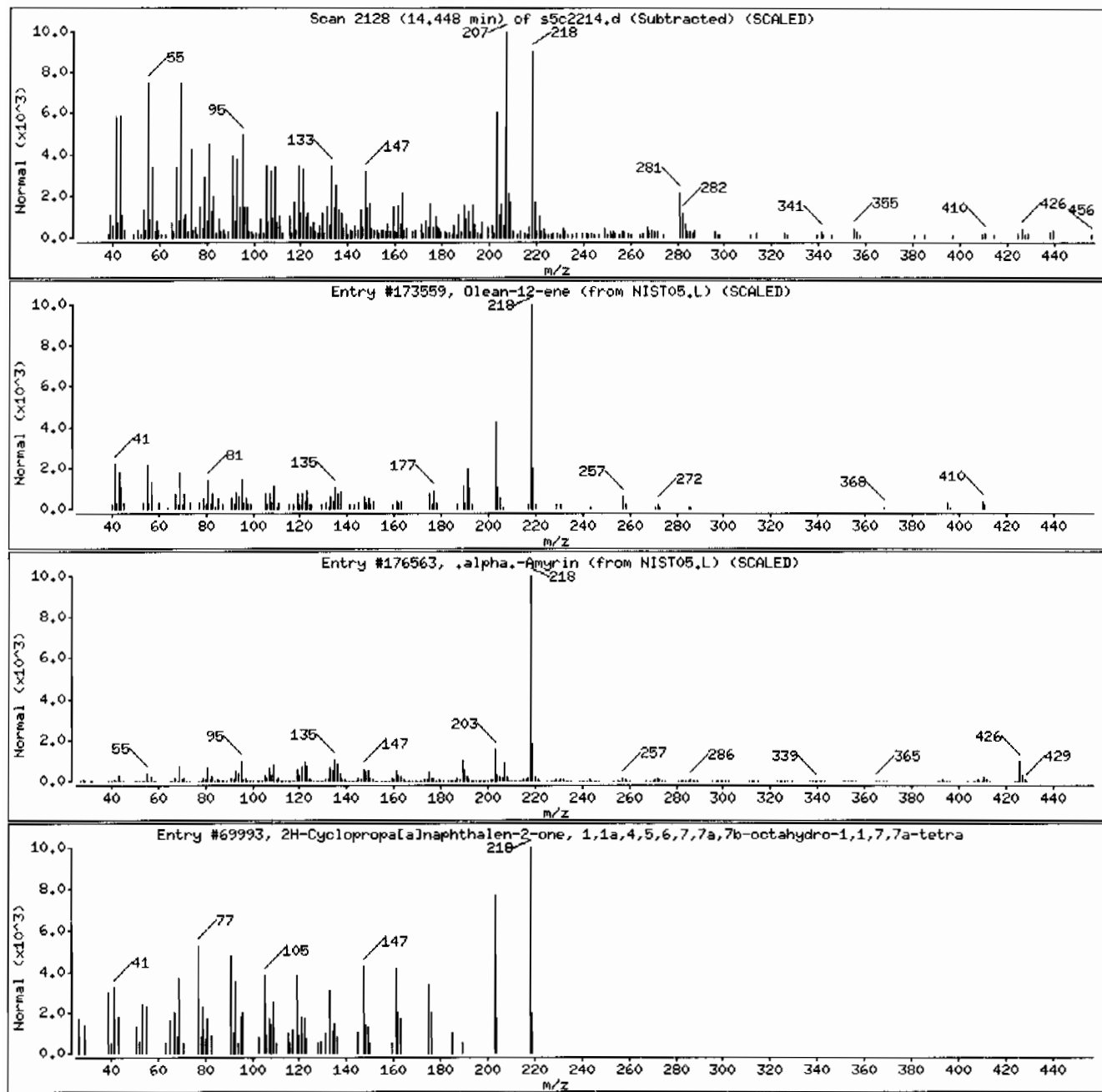
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Olean-12-ene	471-68-1	NIST05.L	173559	50	C <sub>30</sub> H <sub>50</sub>	410
.alpha.-Amyrin	638-95-9	NIST05.L	176563	48	C <sub>30</sub> H <sub>50</sub> O	426
2H-Cyclopropa[1,1a]naphthalen-2-one, 1,1a,4	6831-17-0	NIST05.L	69993	47	C <sub>15</sub> H <sub>22</sub> O	218



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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506015	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 30.1
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7435	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 18:02	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.06 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2226.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	476	ug/kg	95.2	476
108-95-2	Phenol	U	476	ug/kg	95.2	476
95-57-8	2-Chlorophenol	U	476	ug/kg	95.2	476
106-46-7	1,4-Dichlorobenzene	U	476	ug/kg	95.2	476
621-64-7	N-Nitrosodipropylamine	U	476	ug/kg	95.2	476
59-50-7	4-Chloro-3-methylphenol	U	476	ug/kg	95.2	476
83-32-9	Acenaphthene	U	47.6	ug/kg	15.7	47.6
121-14-2	2,4-Dinitrotoluene	U	476	ug/kg	47.6	476
100-02-7	4-Nitrophenol	U	476	ug/kg	157	476
87-86-5	Pentachlorophenol	U	476	ug/kg	119	476
129-00-0	Pyrene	U	47.6	ug/kg	14.3	47.6
110-86-1	Pyridine	U	476	ug/kg	95.2	476
62-53-3	Aniline	U	476	ug/kg	143	476
111-44-4	bis(2-Chloroethyl) ether	U	476	ug/kg	95.2	476
541-73-1	1,3-Dichlorobenzene	U	476	ug/kg	95.2	476
100-51-6	Benzyl alcohol	U	476	ug/kg	143	476
95-50-1	1,2-Dichlorobenzene	U	476	ug/kg	95.2	476
108-60-1	bis(2-Chloroisopropyl) ether	U	476	ug/kg	95.2	476
95-48-7	o-Cresol	U	476	ug/kg	95.2	476
65794-96-9	m,p-Cresols	U	476	ug/kg	143	476
67-72-1	Hexachloroethane	U	476	ug/kg	95.2	476
98-95-3	Nitrobenzene	U	476	ug/kg	95.2	476
78-59-1	Isophorone	U	476	ug/kg	95.2	476
88-75-5	2-Nitrophenol	U	476	ug/kg	95.2	476
105-67-9	2,4-Dimethylphenol	U	476	ug/kg	167	476
111-91-1	bis(2-Chloroethoxy)methane	U	476	ug/kg	95.2	476
120-83-2	2,4-Dichlorophenol	U	476	ug/kg	95.2	476
65-85-0	Benzoic acid	U	952	ug/kg	238	952
91-20-3	Naphthalene	U	47.6	ug/kg	14.3	47.6
106-47-8	4-Chloroaniline	U	476	ug/kg	95.2	476
87-68-3	Hexachlorobutadiene	U	476	ug/kg	95.2	476
91-57-6	2-Methylnaphthalene	U	47.6	ug/kg	9.52	47.6
77-47-4	Hexachlorocyclopentadiene	U	476	ug/kg	95.2	476
88-06-2	2,4,6-Trichlorophenol	U	476	ug/kg	95.2	476
95-95-4	2,4,5-Trichlorophenol	U	476	ug/kg	95.2	476
91-58-7	2-Chloronaphthalene	U	47.6	ug/kg	15.7	47.6
88-74-4	2-Nitroaniline	U	476	ug/kg	95.2	476
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	476	ug/kg	95.2	476

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506015	Date Received: 03/03/2010 08:50	%Moisture: 30.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7435	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 18:02	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.06 g	Final Volume: 1 mL
Data File: s5c2226.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	476	ug/kg	95.2	476
606-20-2	2,6-Dinitrotoluene	U	476	ug/kg	47.6	476
208-96-8	Acenaphthylene	U	47.6	ug/kg	14.3	47.6
51-28-5	2,4-Dinitrophenol	U	952	ug/kg	181	952
132-64-9	Dibenzofuran	U	476	ug/kg	95.2	476
84-66-2	Diethylphthalate	U	476	ug/kg	95.2	476
86-73-7	Fluorene	U	47.6	ug/kg	14.3	47.6
7005-72-3	4-Chlorophenylphenylether	U	476	ug/kg	95.2	476
534-52-1	2-Methyl-4,6-dinitrophenol	U	476	ug/kg	95.2	476
100-01-6	4-Nitroaniline	U	476	ug/kg	143	476
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	476	ug/kg	95.2	476
122-66-7	Azobenzene	U	476	ug/kg	95.2	476
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	476	ug/kg	95.2	476
118-74-1	Hexachlorobenzene	U	476	ug/kg	95.2	476
85-01-8	Phenanthrene	U	47.6	ug/kg	14.3	47.6
120-12-7	Anthracene	U	47.6	ug/kg	9.52	47.6
84-74-2	Di-n-butylphthalate	U	476	ug/kg	95.2	476
206-44-0	Fluoranthene	U	47.6	ug/kg	14.3	47.6
85-68-7	Butylbenzylphthalate	U	476	ug/kg	95.2	476
56-55-3	Benzo(a)anthracene	U	47.6	ug/kg	14.3	47.6
91-94-1	3,3'-Dichlorobenzidine	U	476	ug/kg	143	476
218-01-9	Chrysene	U	47.6	ug/kg	14.3	47.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	476	ug/kg	95.2	476
117-84-0	Di-n-octylphthalate	U	476	ug/kg	95.2	476
205-99-2	Benzo(b)fluoranthene	U	47.6	ug/kg	14.3	47.6
207-08-9	Benzo(k)fluoranthene	U	47.6	ug/kg	14.3	47.6
50-32-8	Benzo(a)pyrene	U	47.6	ug/kg	14.3	47.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	47.6	ug/kg	14.3	47.6
53-70-3	Dibenzo(a,h)anthracene	U	47.6	ug/kg	14.3	47.6
191-24-2	Benzo(ghi)perylene	U	47.6	ug/kg	14.3	47.6
120-82-1	1,2,4-Trichlorobenzene	U	476	ug/kg	95.2	476

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
7785-70-8	1R- $\alpha$ -Pinene	3.52	552	ug/kg	97	NJ
	Unknown	8.94	303	ug/kg		J

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

SDG Number: 10-2193  
Lab Sample ID: 248506015

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.06 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 30.1  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parname	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	9.07	1090	ug/kg		J
	Unknown	9.14	395	ug/kg		J
6971-40-0	17-Pentatriacontene	9.45	420	ug/kg	93	NJ
	Unknown	9.75	307	ug/kg		J
112-95-8	Eicosane	10.09	419	ug/kg	96	NJ
7773-83-3	1-Docosanethiol	10.11	593	ug/kg	93	NJ
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.18	1710	ug/kg	91	NJ
	Unknown	10.45	357	ug/kg		J
	Unknown	10.85	896	ug/kg		J
2883-08-1	Cyclohexane, 1,1'-(2-methyl-1,3-propaned	11.93	771	ug/kg	89	NJ
	Unknown	12.11	548	ug/kg		J
	Unknown	12.16	919	ug/kg		J
	Unknown	12.48	415	ug/kg		J
	Unknown	12.91	924	ug/kg		J
83-46-5	.beta.-Sitosterol	13.89	618	ug/kg	96	NJ

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2226.d  
Lab Smp Id: 248506015 Client Smp ID: RE36-10-7435  
Inj Date : 22-MAR-2010 18:02  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506015|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 26  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.06000	weight of sample
M	30.14270	% 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	3.948	3.950	(1.000)	237904	40.0000		
* 29 Naphthalene-d8	136	4.813	4.821	(1.000)	979535	40.0000		
* 46 Acenaphthene-d10	164	6.072	6.078	(1.000)	577975	40.0000		
* 67 Phenanthrene-d10	188	7.254	7.253	(1.000)	1045110	40.0000		
* 91 Chrysene-d12	240	9.672	9.670	(1.000)	938040	40.0000		
* 98 Perylene-d12	264	11.377	11.370	(1.000)	649352	40.0000		
\$ 3 2-Fluorophenol	112	3.143	3.141	(0.796)	270873	45.5969	2170	
\$ 5 Phenol-d5	99	3.666	3.666	(0.928)	375739	52.6242	2510	
\$ 20 Nitrobenzene-d5	82	4.307	4.316	(0.895)	202870	27.8721	1330	
\$ 39 2-Fluorobiphenyl	172	5.560	5.558	(0.916)	351537	24.3516	1160	
\$ 60 2,4,6-Tribromophenol	329	6.678	6.675	(1.100)	122563	56.4584	2690	
\$ 81 p-Terphenyl-d14	244	8.636	8.630	(0.893)	458507	29.3848	1400	

## ION RATIO REPORT

## SV REPORT

Data file: s5c2226.d

Report Date: 03/23/2010 07:06

Lab. ID: 248506015

SampleType: SAMPLE

Injection Date: 22-MAR-2010 18:02

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506015|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	24590	3.67	3.74	80-120	100	(T)
93	5376	3.62	3.74	219-279	22	(QT)
-----						
7 bis(2-Chloroethyl) ether		CAS#: 111-44-4				
63	10934	3.95	3.75	80-120	100	(T)
93	32199	3.90	3.75	119-179	294	(QT)
95	511	3.95	3.75	8- 68	5	(QT)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	28566	4.31	4.19	80-120	100	(T)
42	17569	4.31	4.19	44-104	62	(T)
-----						
27 Benzoic acid		CAS#: 65-85-0				
105	2953	4.58	4.59	80-120	100	( )
122	1415	4.56	4.59	45-105	48	( )
77	2223	4.59	4.59	48-108	75	( )
-----						
42 o-Nitroaniline		CAS#: 88-74-4				
65	8653	5.80	5.73	80-120	100	(T)
92	9612	5.80	5.73	34- 94	111	(QT)
138	269	5.80	5.73	74-134	3	(QT)
-----						
43 Dimethylphthalate		CAS#: 131-11-3				
163	105197	6.08	5.84	80-120	100	(T)
164	577975	6.07	5.84	0- 40	549	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
44	2,6-Dinitrotoluene			CAS#: 606-20-2		
165	76131	6.07	5.90	80-120	100	(T)
63	1475	6.08	5.89	62-122	2	(QT)
<hr/>						
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	76471	6.07	6.19	80-120	100	(T)
89	2289	6.07	6.19	51-111	3	(QT)
63	1475	6.08	6.19	24- 84	2	(QT)
<hr/>						
52	4-Nitrophenol			CAS#: 100-02-7		
139	354	6.18	6.12	80-120	100	(T)
109	729	6.19	6.12	63-123	206	(QT)
65	600	6.21	6.11	71-131	170	(QT)
<hr/>						
53	Fluorene			CAS#: 86-73-7		
166	6050	6.68	6.49	80-120	100	(T)
165	5691	6.67	6.49	62-122	94	(T)
167	1970	6.67	6.49	0- 44	33	(T)
<hr/>						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	625	6.68	6.51	80-120	100	(T)
105	1830	6.68	6.50	13- 73	293	(QT)
51	1293	6.67	6.50	51-111	207	(QT)
<hr/>						
69	Anthracene			CAS#: 120-12-7		
178	4492	7.27	7.32	80-120	100	( )
179	986	7.26	7.32	0- 46	22	( )
176	1019	7.27	7.32	0- 49	23	( )
<hr/>						
76	Fluoranthene			CAS#: 206-44-0		
202	7076	8.32	8.32	80-120	100	( )
203	1209	8.32	8.32	0- 48	17	( )
101	875	8.31	8.32	0- 41	12	( )

Q qualifier indicates ion failed ratio requirement



GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2226.d  
 Lab Smp Id: 248506015 Client Smp ID: RE36-10-7435  
 Inj Date : 22-MAR-2010 18:02  
 Operator : RMB Inst ID: MSD5.i  
 Smp Info : |248506015|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
 Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
 Als bottle: 26  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2193.sub  
 Target Version: 3.50  
 Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.06000	weight of sample
M	30.14270	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.948	1669656	40.000
* 91 Chrysene-d12	9.672	3060463	40.000
* 98 Perylene-d12	11.377	2135540	40.000

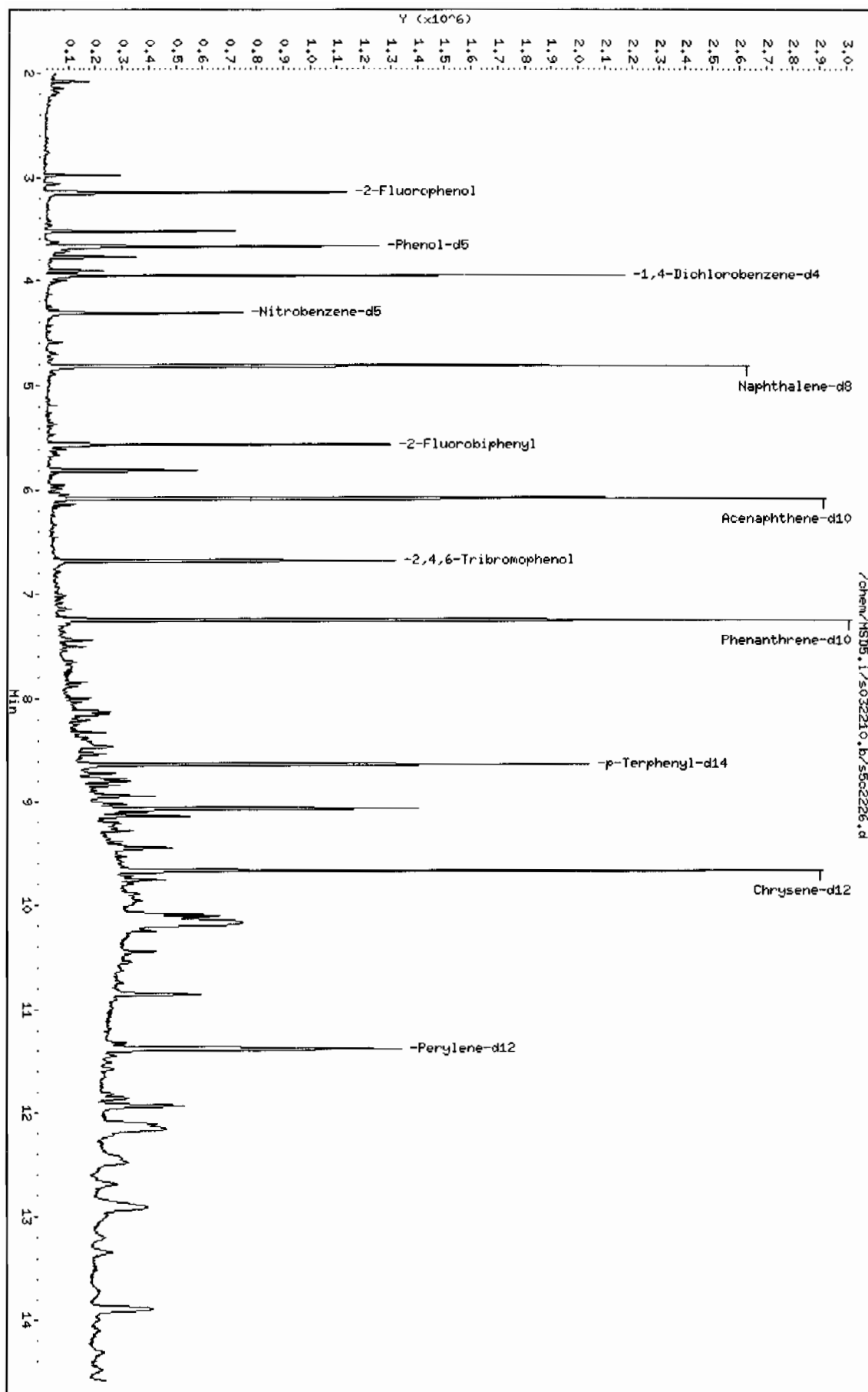
CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
1R-.alpha.-Pinene					CAS #: 7785-70-8		
3.519	484235	11.6008225	552	97	NIST05.L	15188	10
Unknown					CAS #:		
8.942	486454	6.35791275	303	0		0	91
Unknown					CAS #:		
9.066	1744540	22.8009902	1080	0		0	91
Unknown					CAS #:		
9.136	634829	8.29716420	395	0		0	91
17-Pentatriacontene					CAS #: 6971-40-0		
9.448	675590	8.82989849	420	93	NIST05.L	183898	91
Unknown					CAS #:		
9.754	492982	6.44323897	307	0		0	91
Eicosane					CAS #: 112-95-8		
10.089	672934	8.79519715	419	96	NIST05.L	113492	91
1-Docosanethiol					CAS #: 7773-83-3		
10.113	953409	12.4609701	593	93	NIST05.L	148955	91
Pyridine-3-carboxamide, oxime, N-(2-trif					CAS #: 288246-53-7		
10.177	2745438	35.8826481	1710	91	NIST05.L	112295	91
Unknown					CAS #:		
10.448	574286	7.50586497	357	0		0	91
Unknown					CAS #:		
10.854	1004629	18.8173302	896	0		0	98
Cyclohexane, 1,1'-(2-methyl-1,3-propaned					CAS #: 2883-08-1		
11.930	864359	16.1899840	771	89	NIST05.L	73082	98
Unknown					CAS #:		
12.107	614681	11.5133472	548	0		0	98
Unknown					CAS #:		
12.160	1030494	19.3017868	919	0		0	98
Unknown					CAS #:		
12.483	465338	8.71606667	415	0		0	98

RT	AREA	CONCENTRATIONS		QUAL	QUANT		CPND #			
		ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY				
=====										
Unknown					CAS #:					
12.913	1035939	19.4037810	924	0		0	98			
.beta.-Sitosterol					CAS #: 83-46-5					
13.889	693344	12.9867619	618	96	NIST05.L	174400	98			

Data File: /chem/MS05.1/s032210.b/s02226.d  
Date: 22-MAR-2010 18:02  
Client ID: RE36-10-7435  
Sample Info: 1248506015196309611SVH11.LANL  
Volume Injected (uL): 0.5  
Column Phase: J&W DB-SMS

Instrument: MS05.1  
Operator: RHB  
Column diameter: 0.20



Date : 22-MAR-2010 18:02

Client ID: RE36-10-7435

Instrument: MSD5.i

Sample Info: 1248506015196308611ISVM11ILANL

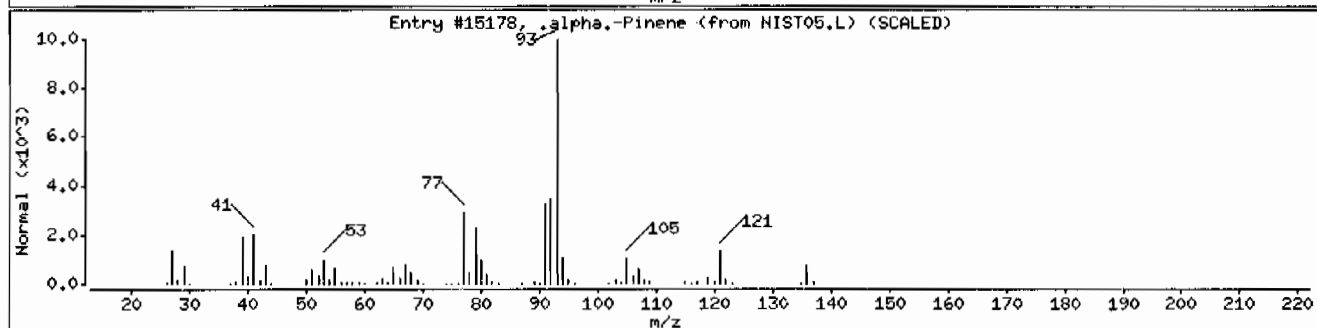
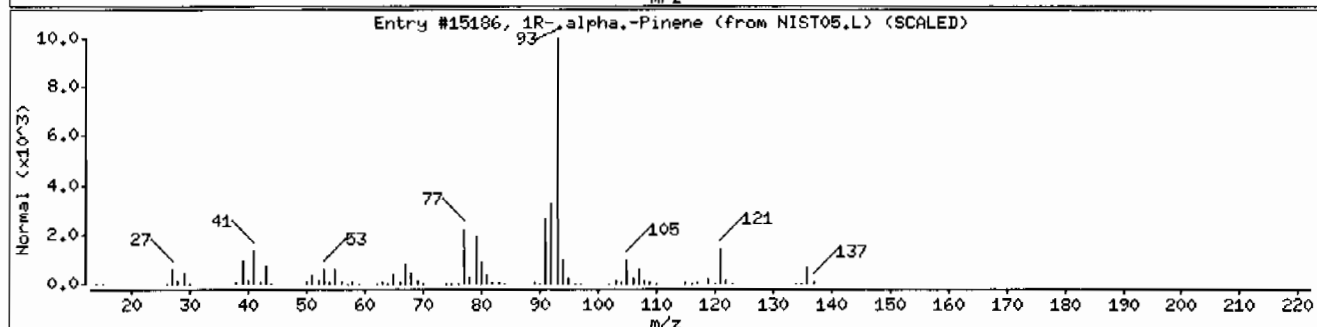
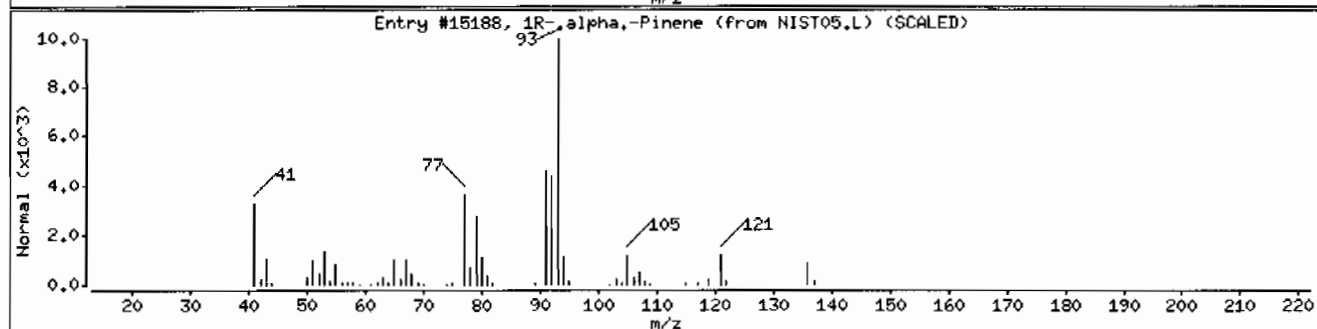
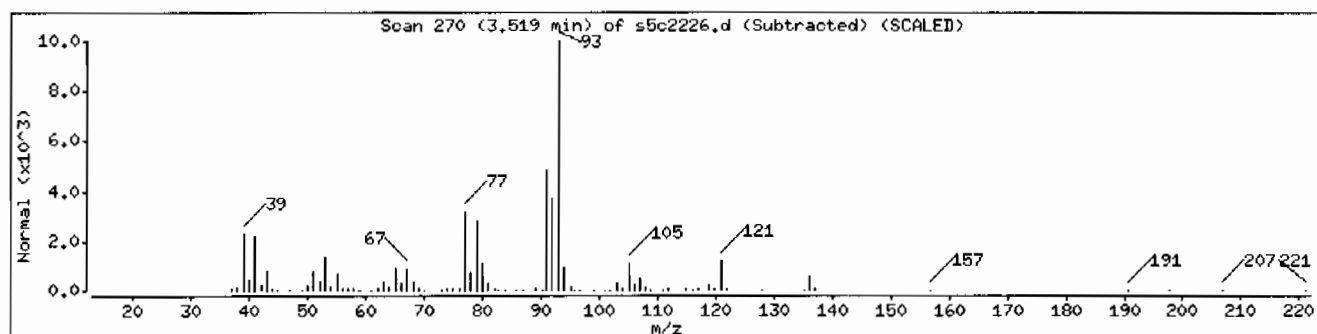
Volume Injected (uL): 0.5

Operator: RMB

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	95	C10H16	136



Date : 22-MAR-2010 18:02

Client ID: RE36-10-7435

Instrument: HSD5.i

Sample Info: 12485060151963086111SVH111LANL

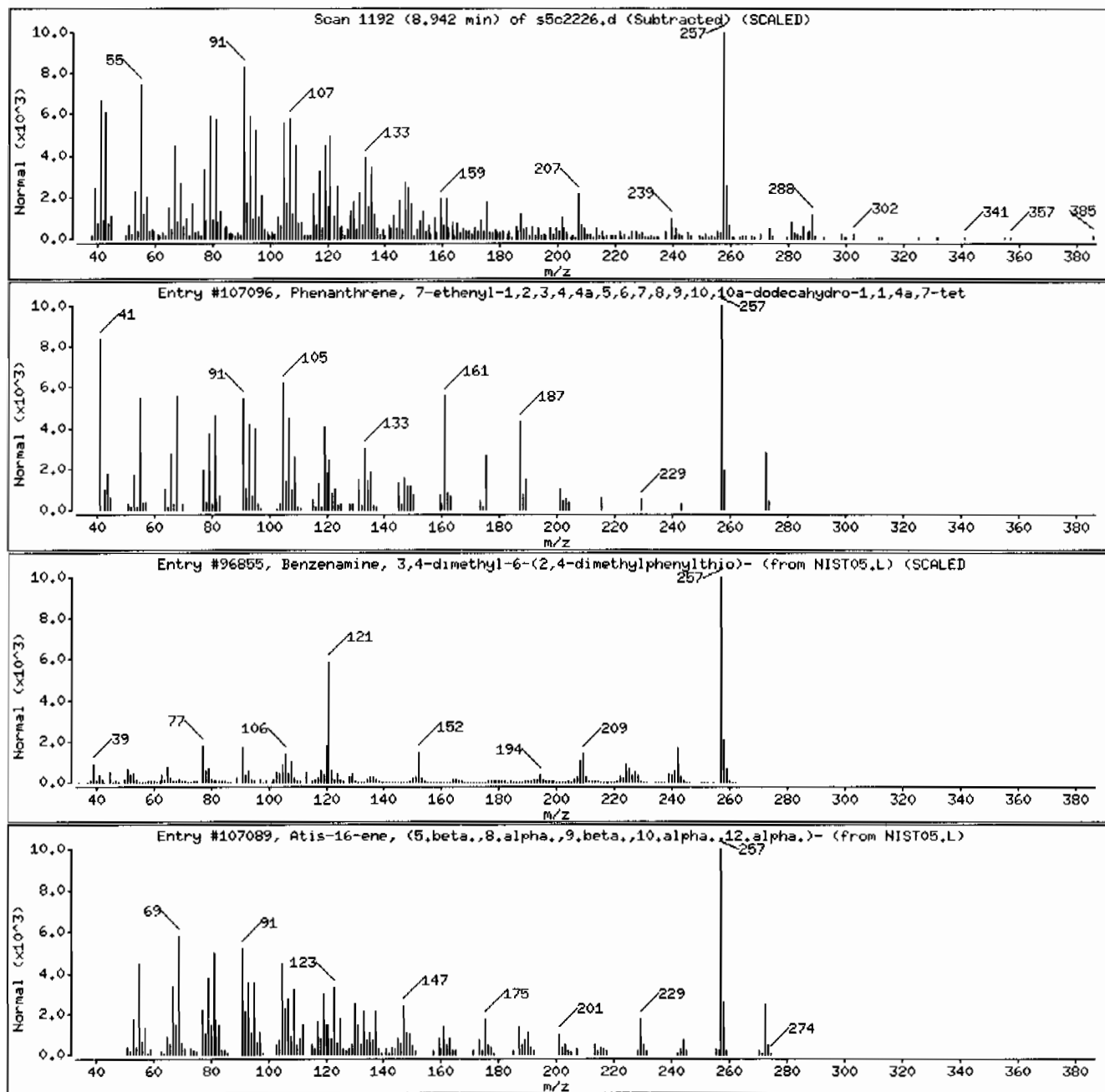
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Phenanthrene, 7-ethenyl-1,2,3,4,4a,5,6,7	55255-56-6	NIST05.L	107096	64	C20H32	272
Benzenamine, 3,4-dimethyl-6-(2,4-dimethy	1000266-21-4	NIST05.L	96855	44	C16H19NS	267
Atis-16-ene, (5.beta.,8.alpha.,9.beta.,1	20230-48-2	NIST05.L	107089	43	C20H32	272



Date : 22-MAR-2010 18:02

Client ID: RE36-10-7435

Instrument: HSD5.i

Sample Info: 1248506015196308611SVH111LANL

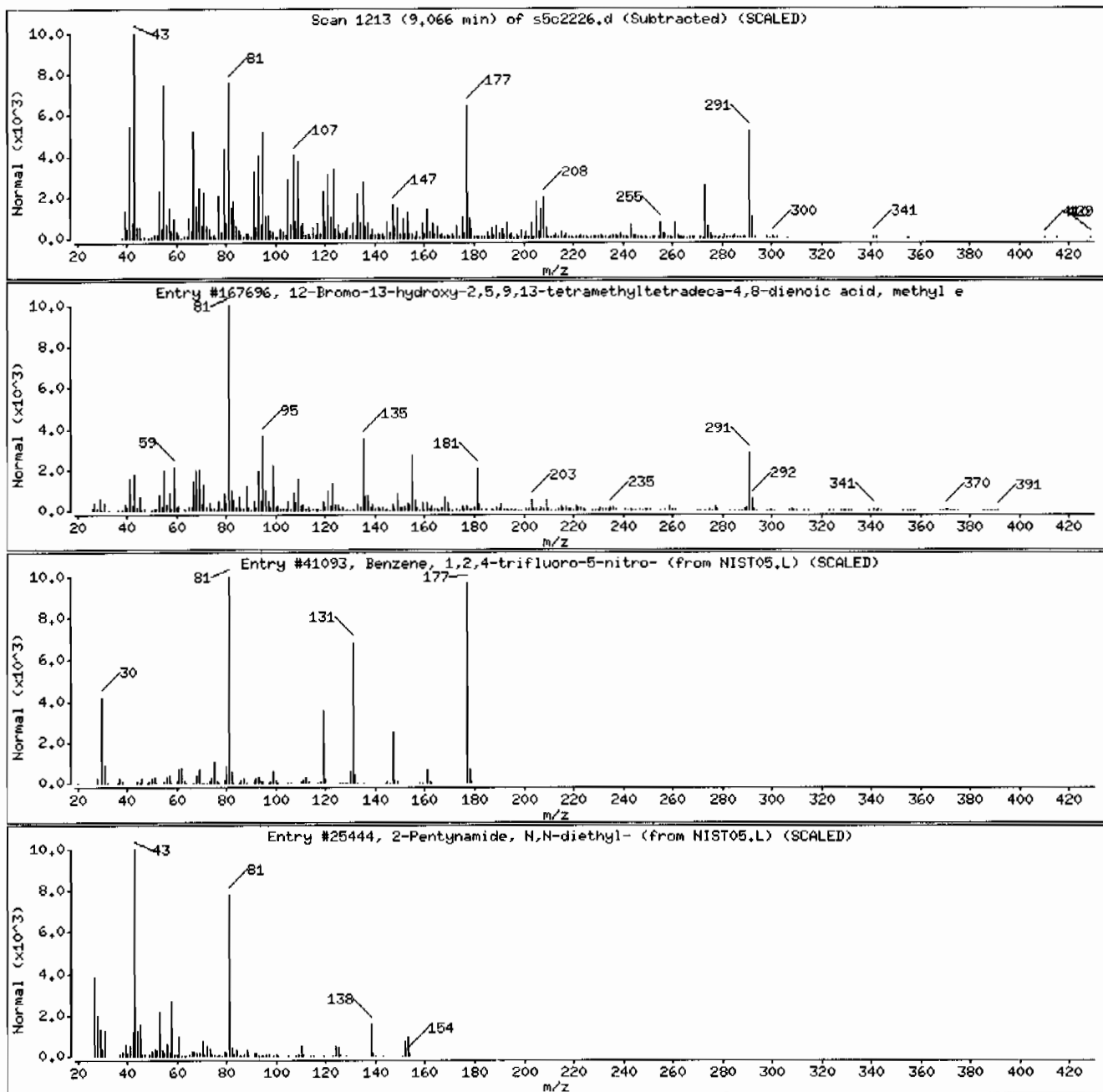
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
12-Bromo-13-hydroxy-2,5,9,13-tetramethyl	1000187-42-6	NIST05.L	167696	38	C19H33BrO3	388
Benzene, 1,2,4-trifluoro-5-nitro-	2105-61-5	NIST05.L	41093	25	C6H2F3NO2	177
2-Pentynamide, N,N-diethyl-	95503-10-9	NIST05.L	25444	15	C9H15NO	153



Date : 22-MAR-2010 18:02

Client ID: RE36-10-7435

Instrument: MSD5.i

Sample Info: 1248506015196308611ISVH11LANL

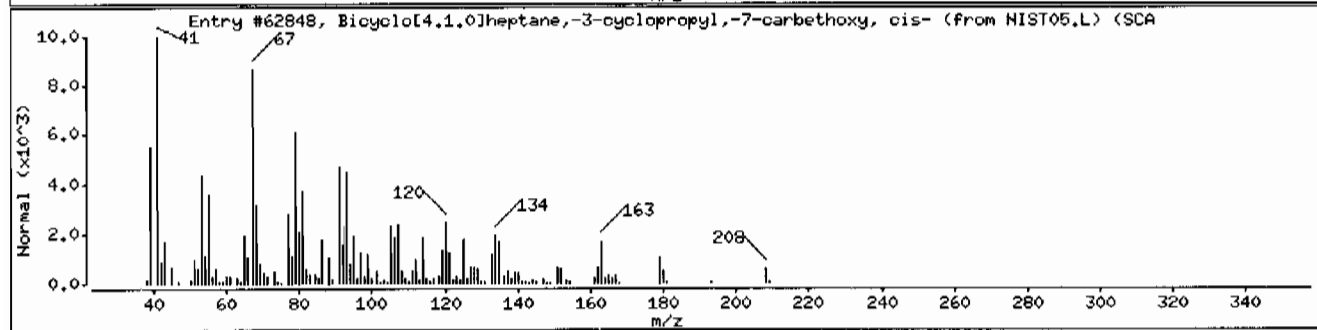
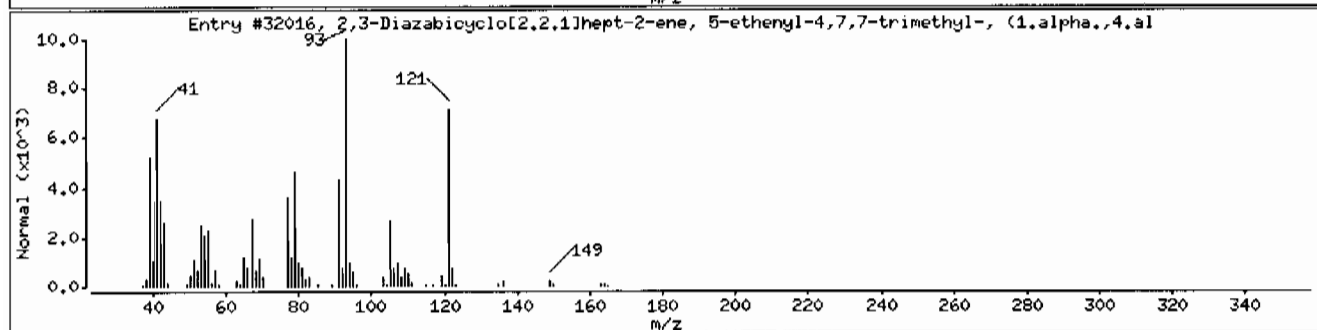
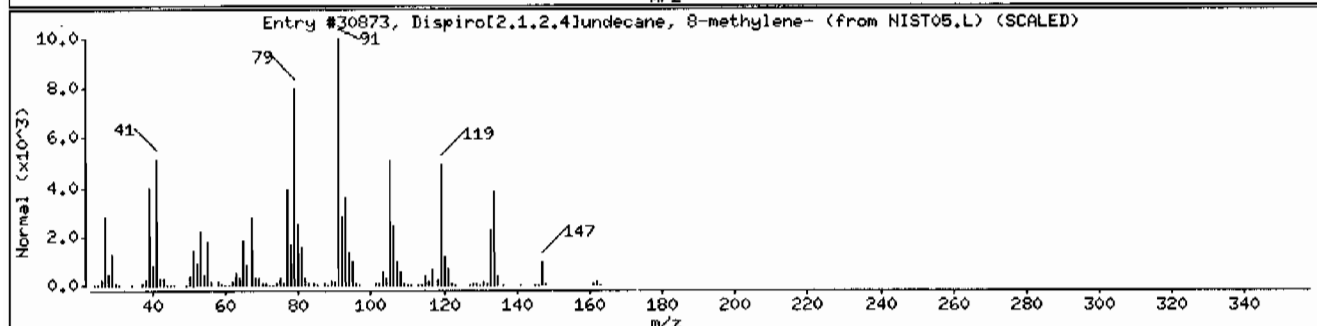
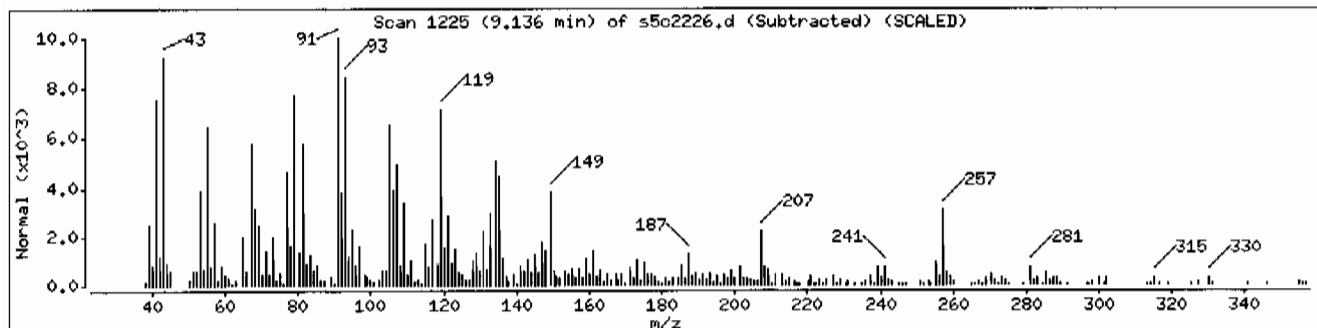
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Dispiro[2.1,2,4]undecane, 8-methylene-	51567-08-9	NIST05.L	30873	38	C <sub>12</sub> H <sub>18</sub>	162
2,3-Diazabicyclo[2.2.1]hept-2-ene, 5-eth	1000221-84-7	NIST05.L	32016	30	C <sub>10</sub> H <sub>16</sub> N <sub>2</sub>	164
Bicyclo[4.1.0]heptane, -3-cyclopropyl, -7-	1000222-97-2	NIST05.L	62848	30	C <sub>13</sub> H <sub>20</sub> O <sub>2</sub>	208





Date : 22-MAR-2010 18:02

Client ID: RE36-10-7435

Instrument: MSD5.i

Sample Info: 1248506015196308611ISVM11ILANL

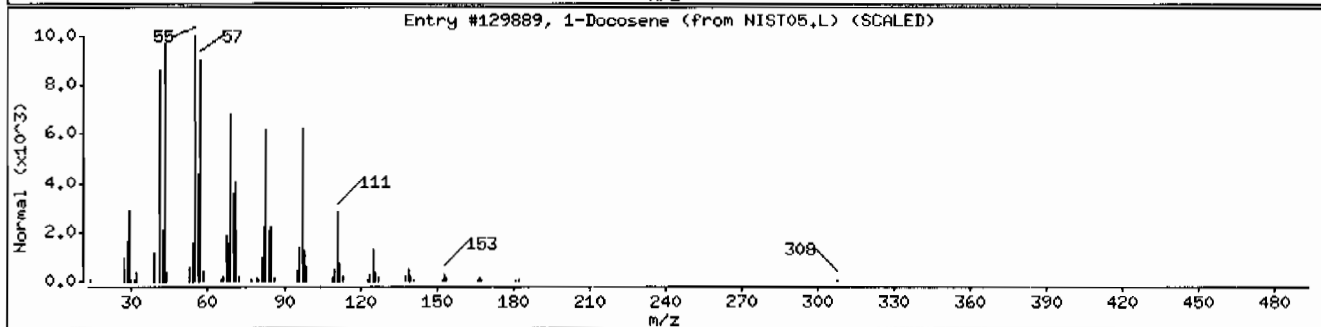
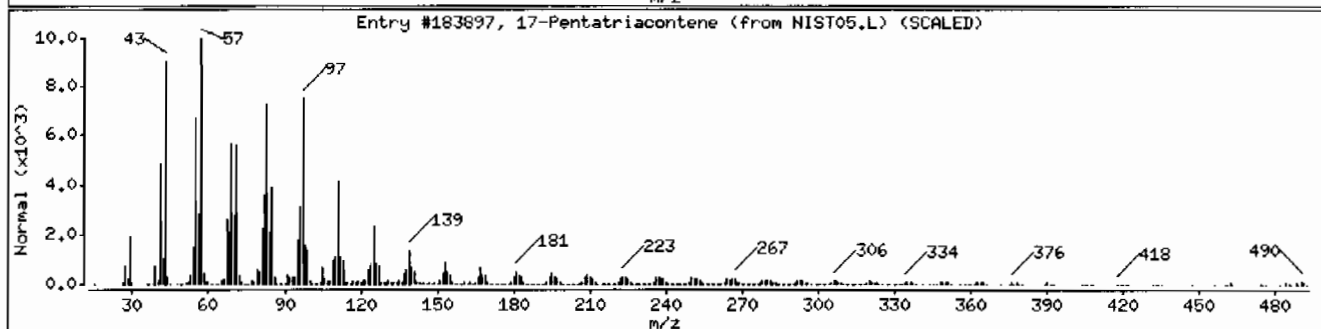
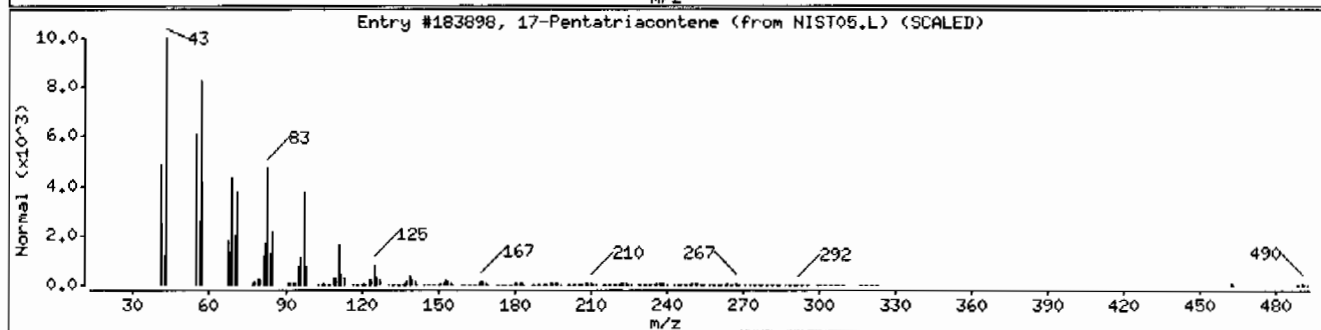
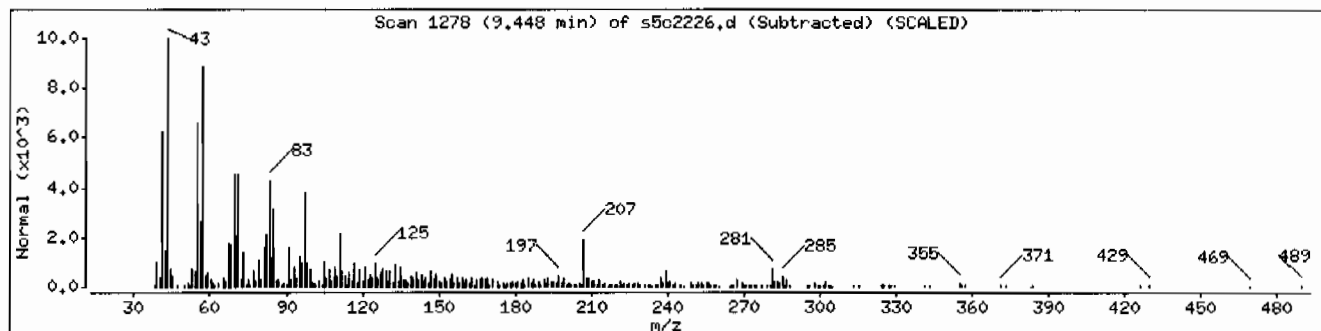
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
17-Pentatriacontene	6971-40-0	NIST05.L	183898	93	C <sub>35</sub> H <sub>70</sub>	491
17-Pentatriacontene	6971-40-0	NIST05.L	183897	87	C <sub>35</sub> H <sub>70</sub>	491
1-Docosene	1599-67-3	NIST05.L	129889	70	C <sub>22</sub> H <sub>44</sub>	308



Date : 22-MAR-2010 18:02

Client ID: RE36-10-7435

Instrument: MSD5.i

Sample Info: 12485060151963086111SVH111LANL

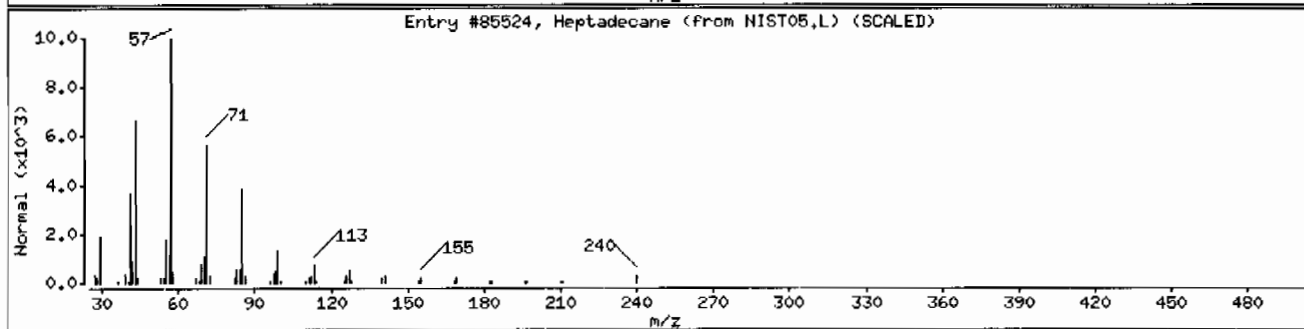
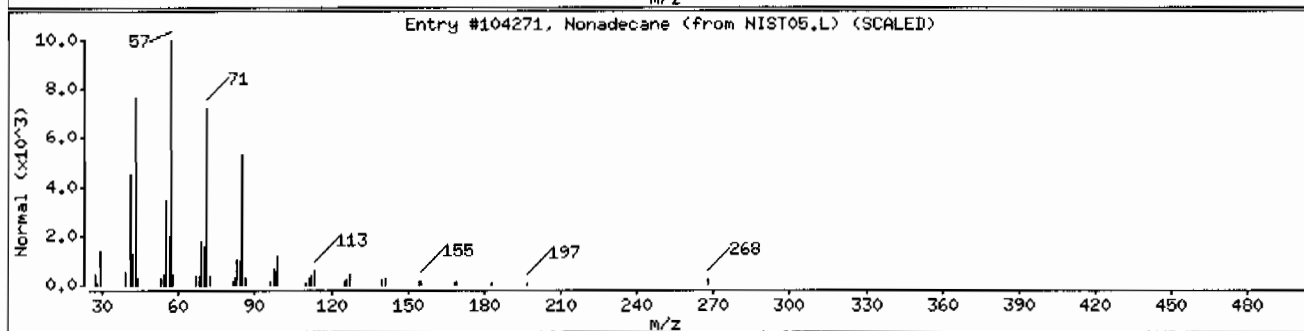
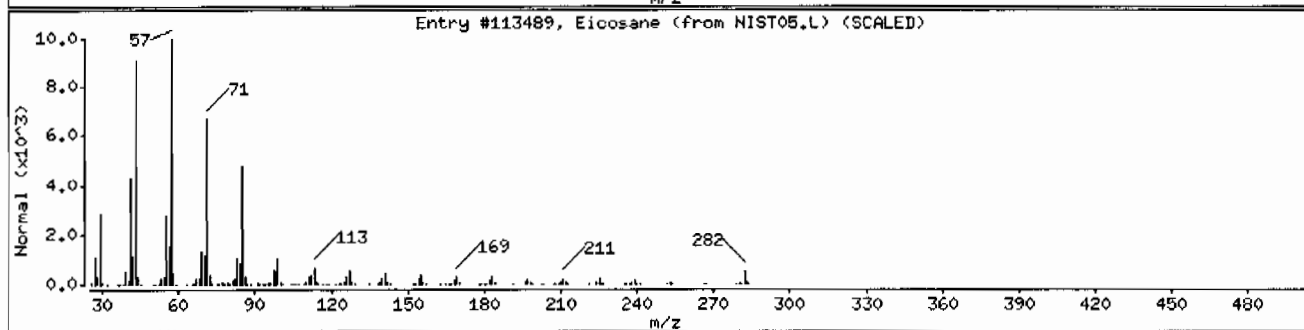
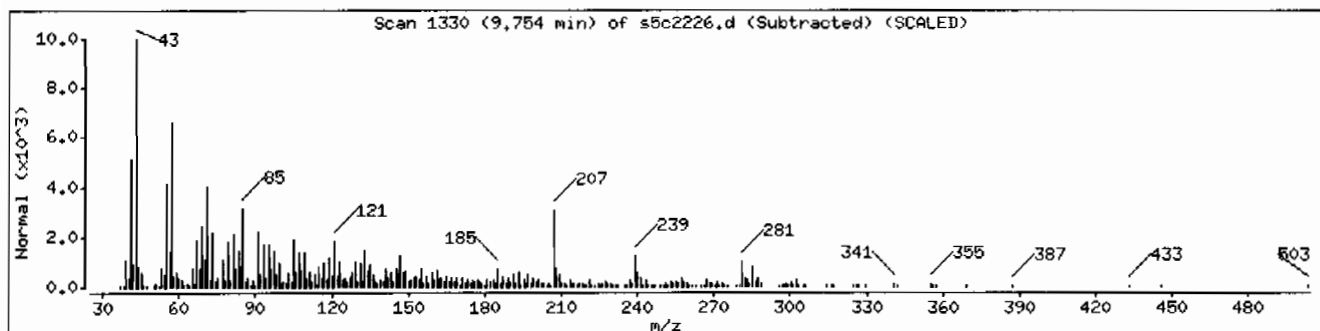
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Eicosane	112-95-8	NIST05.L	113489	93	C <sub>20</sub> H <sub>42</sub>	282
Nonadecane	629-92-5	NIST05.L	104271	93	C <sub>19</sub> H <sub>40</sub>	268
Heptadecane	629-78-7	NIST05.L	85524	84	C <sub>17</sub> H <sub>36</sub>	240



Date : 22-MAR-2010 18:02

Client ID: RE36-10-7435

Instrument: MSD5.i

Sample Info: 1248506015196308611SVH11LANL

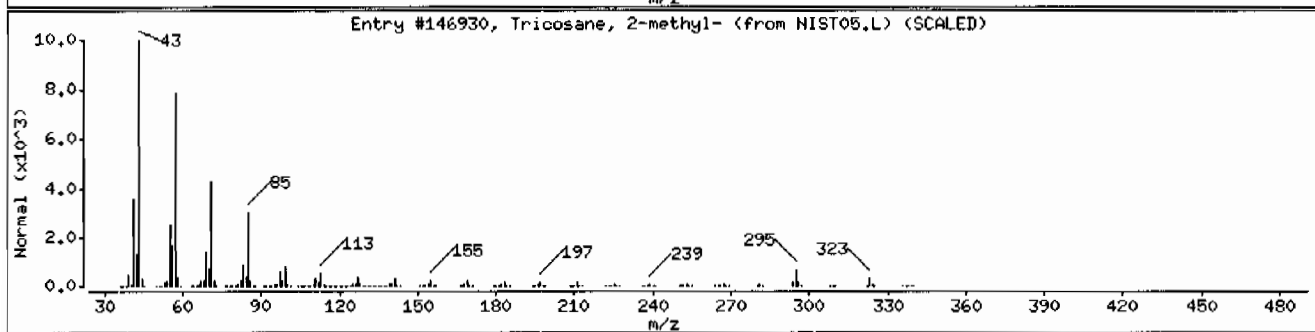
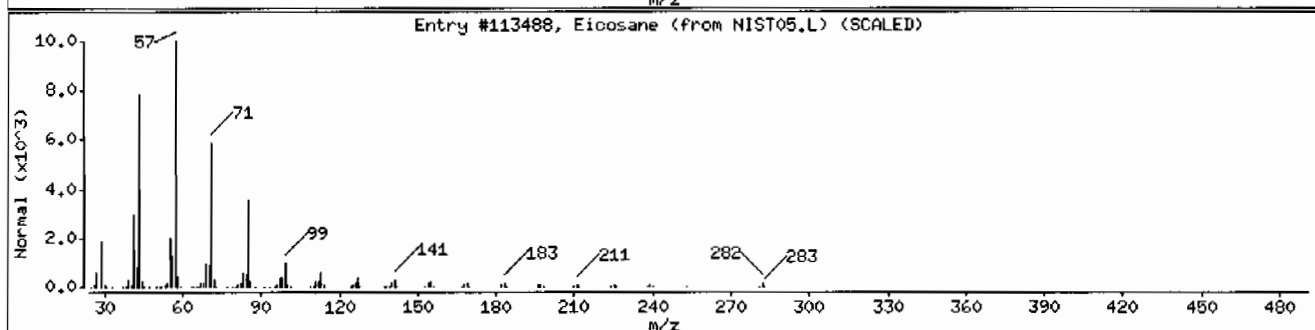
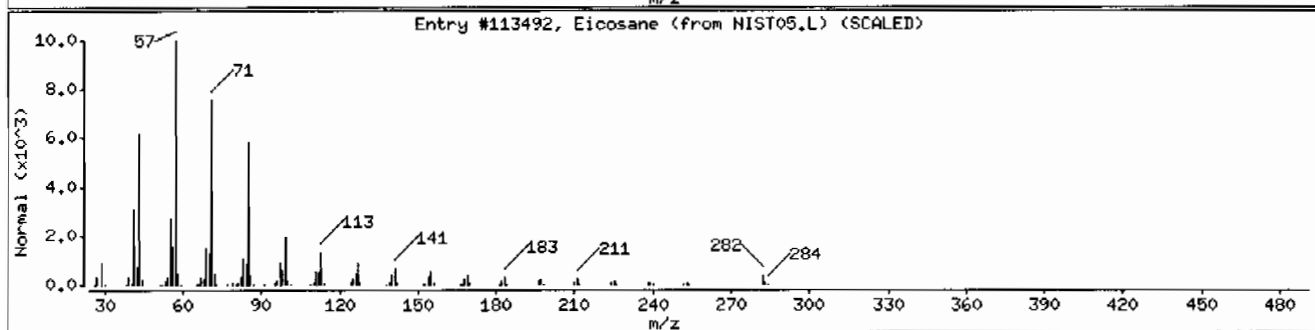
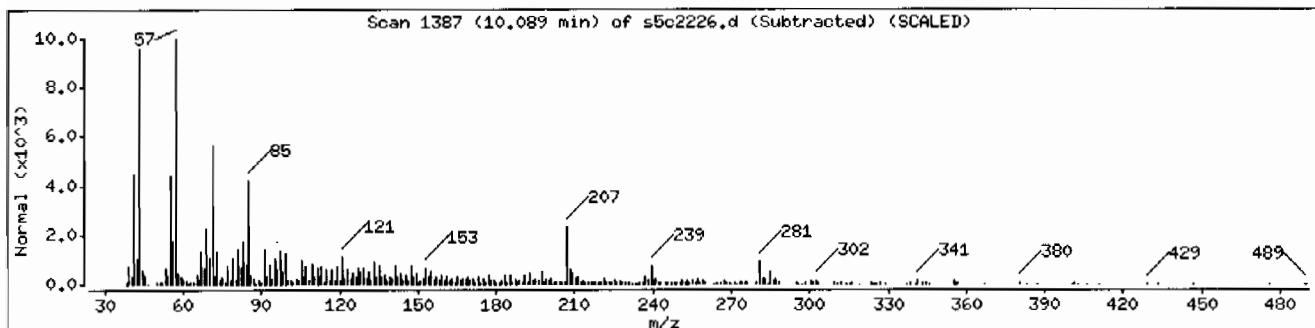
Volume Injected (uL): 0.5

Operator: RMB

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	96	C20H42	282
Eicosane	112-95-8	NIST05.L	113488	92	C20H42	282
Tricosane, 2-methyl-	1928-30-9	NIST05.L	146930	78	C24H50	338



Date : 22-MAR-2010 18:02

Client ID: RE36-10-7435

Instrument: MSD5.i

Sample Info: 12485060151963086111SVH111LANL

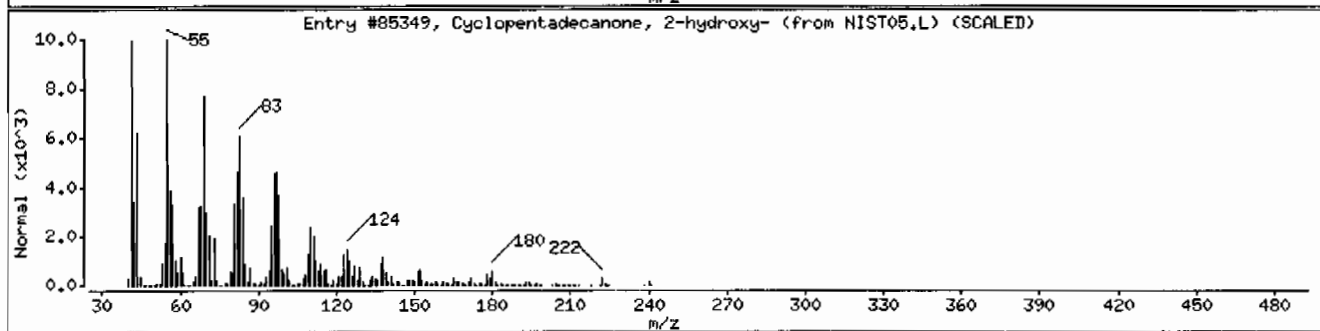
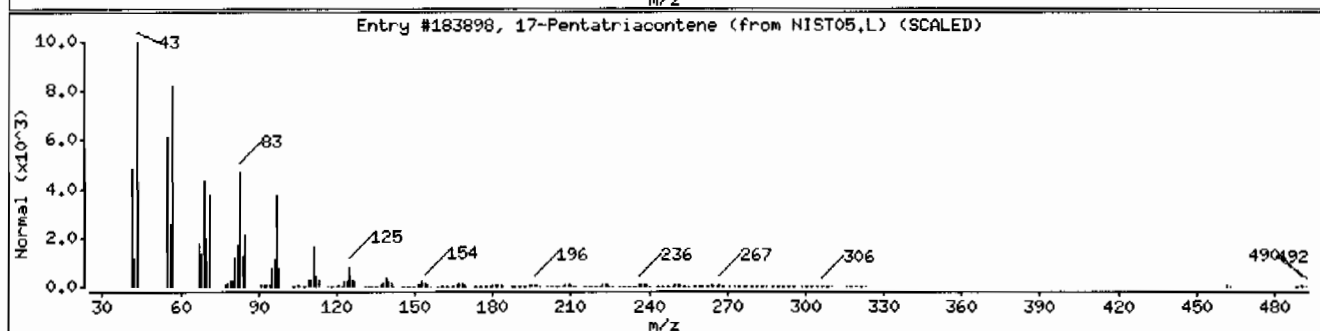
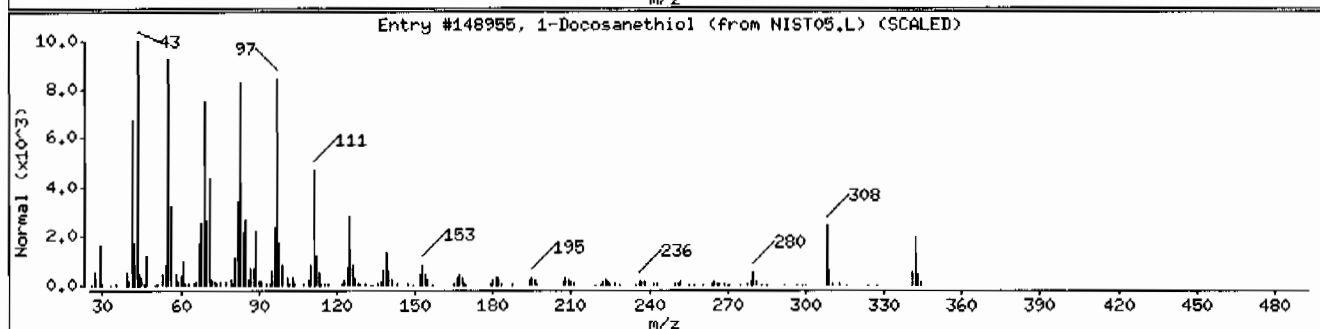
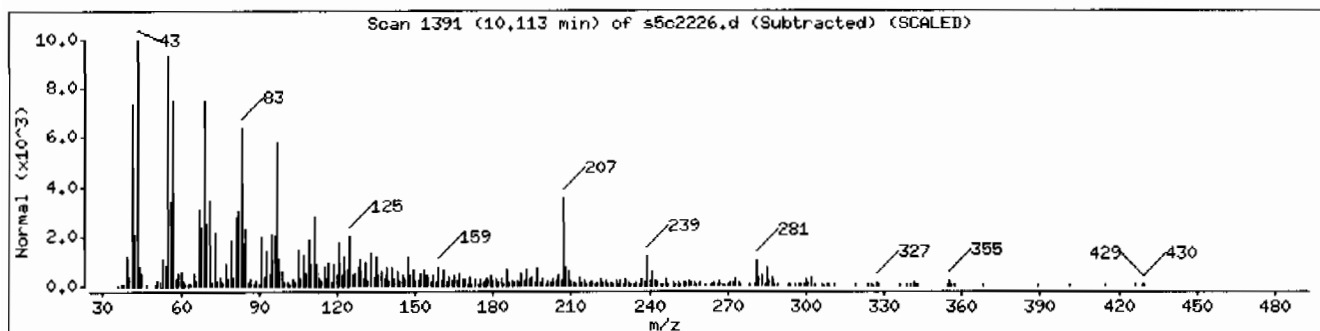
Volume Injected (uL): 0.5

Operator: RMB

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	93	C22H46S	342
17-Pentatriacontene	6971-40-0	NIST05.L	183898	76	C35H70	491
Cyclopentadecanone, 2-hydroxy-	4727-18-8	NIST05.L	85349	64	C15H28O2	240



Date : 22-MAR-2010 18:02

Client ID: RE36-10-7435

Instrument: HSD5.i

Sample Info: 12485060151963086111SVH111LANL

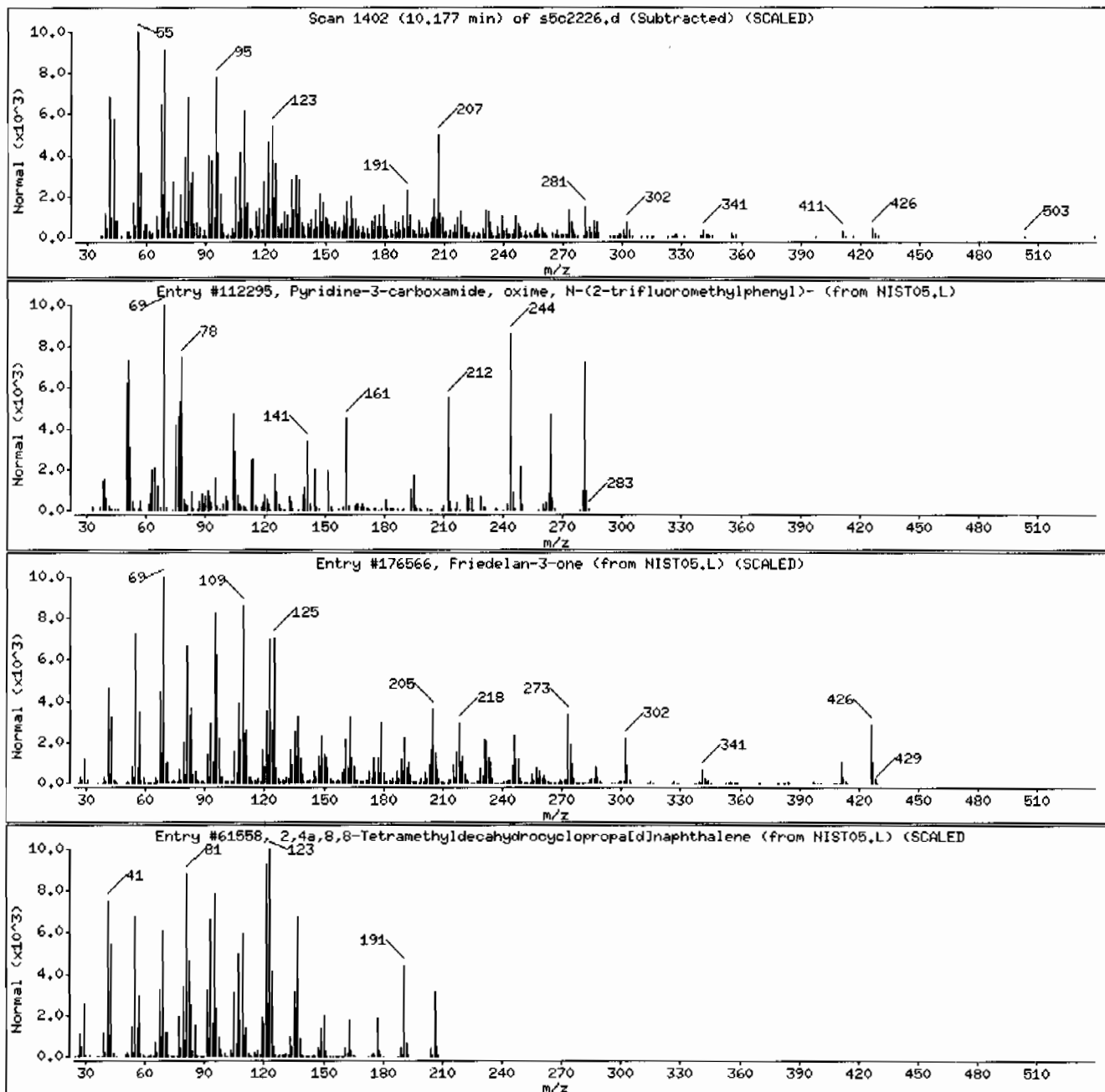
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyridine-3-carboxamide, oxime, N-(2-trif	288246-53-7	NIST05.L	112295	91	C13H10F3N3O	281
Friedelan-3-one	559-74-0	NIST05.L	176566	89	C30H50O	426
2,4a,8,8-Tetramethyldecahydrocyclopropa[	74022-04-1	NIST05.L	61558	64	C15H26	206



Date : 22-MAR-2010 18:02

Client ID: RE36-10-7435

Instrument: MSD5.i

Sample Info: 1248506015196308611SVH11/LANL

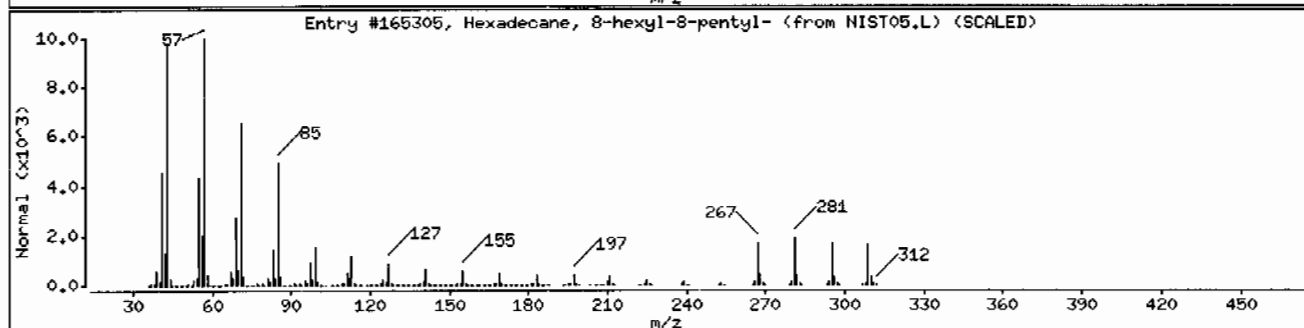
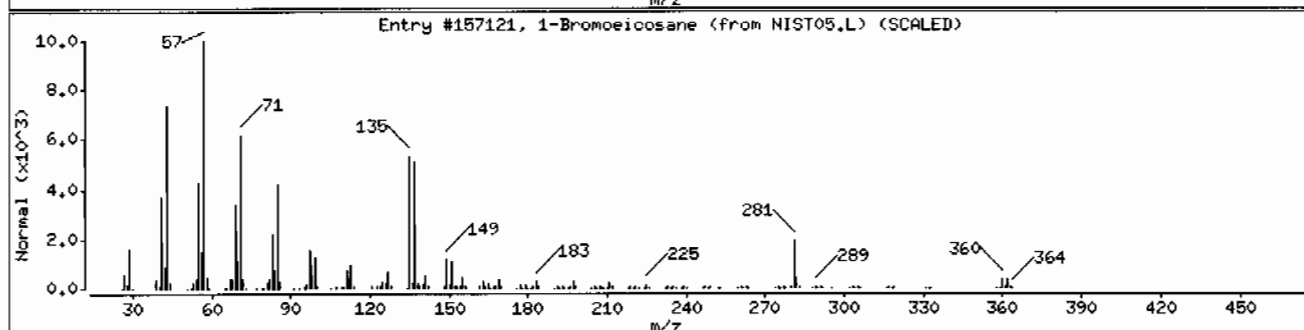
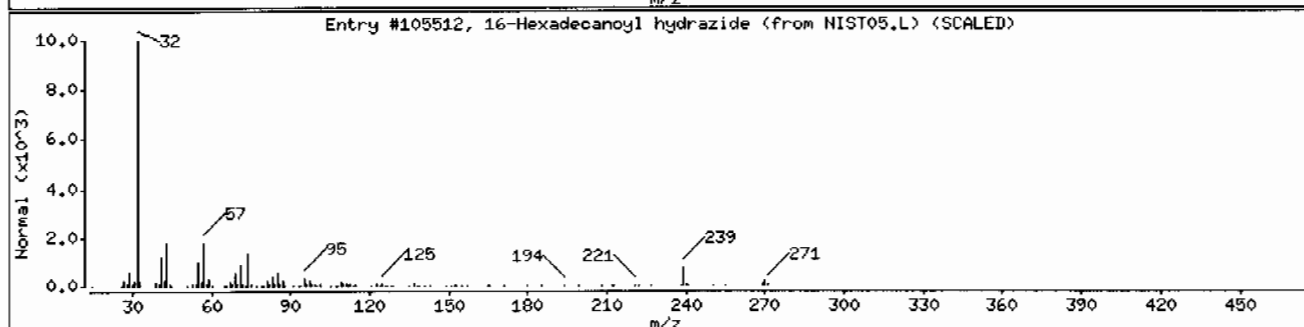
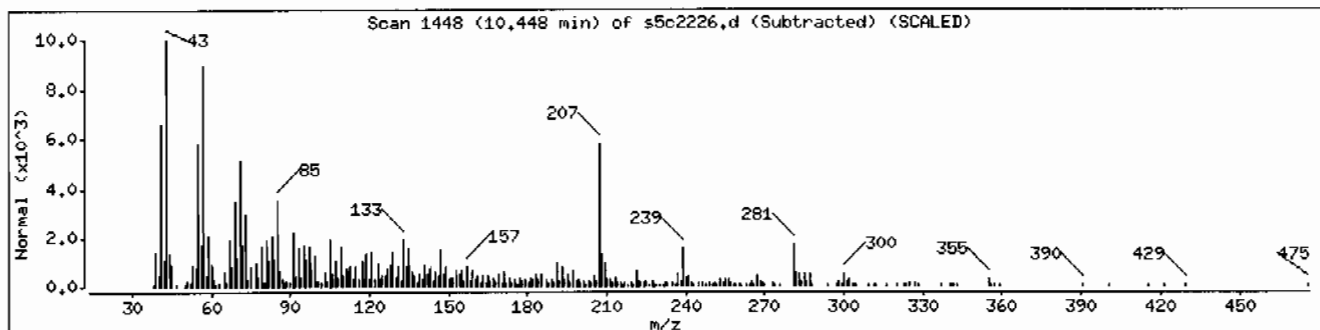
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
16-Hexadecanoyl hydrazide	2619-88-7	NIST05.L	105512	38	C16H34N2O	270
1-Bromoeicosane	4276-49-7	NIST05.L	157121	30	C20H41Br	360
Hexadecane, 8-hexyl-8-pentyl-	55282-29-6	NIST05.L	165305	30	C27H56	380



Date : 22-MAR-2010 18:02

Client ID: RE36-10-7435

Instrument: MSD5.i

Sample Info: I248506015I963086I1ISVMI1ILANL

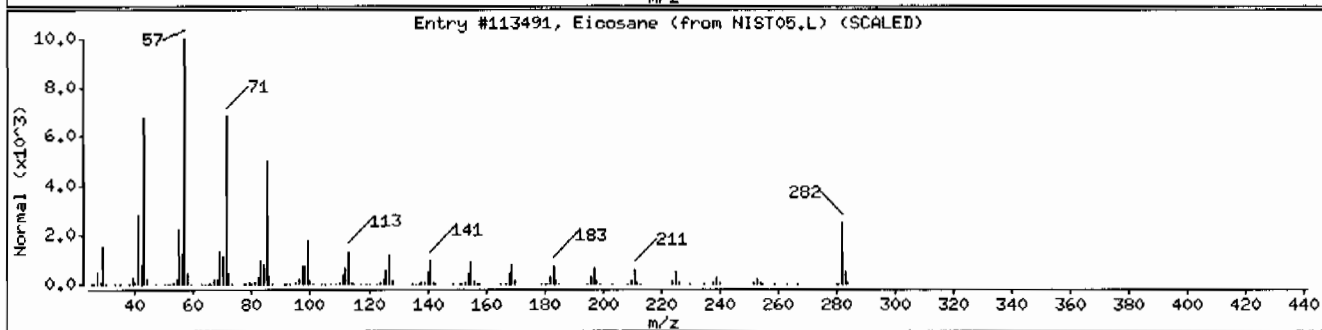
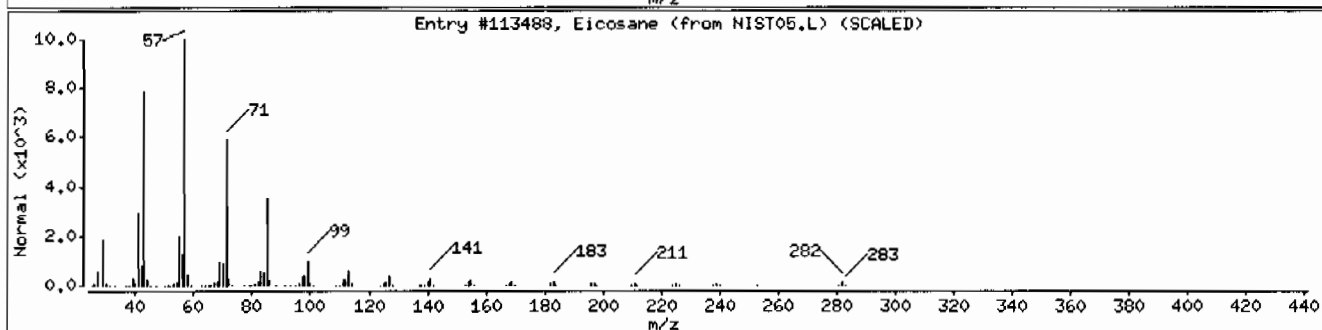
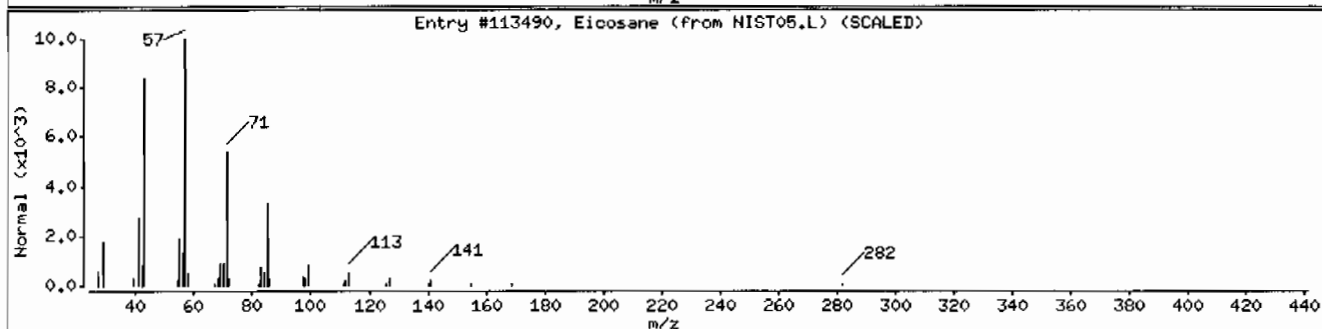
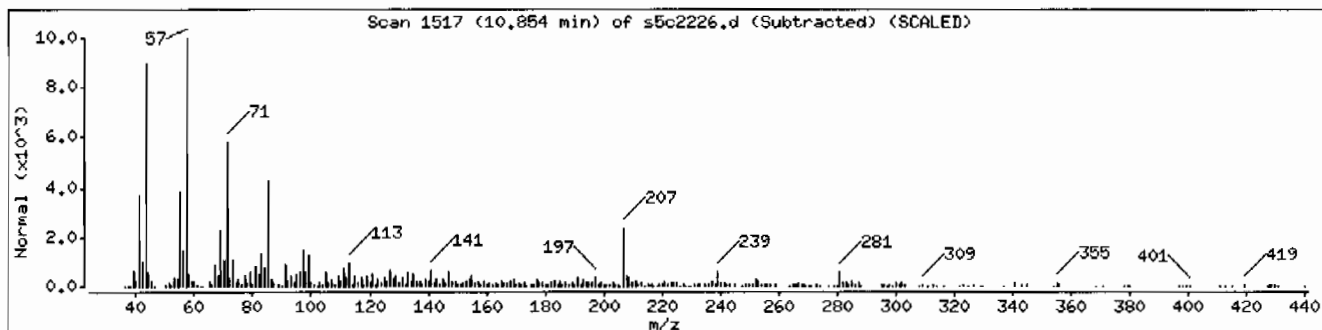
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Eicosane	112-95-8	NIST05.L	113490	96	C <sub>20</sub> H <sub>42</sub>	282
Eicosane	112-95-8	NIST05.L	113488	96	C <sub>20</sub> H <sub>42</sub>	282
Eicosane	112-95-8	NIST05.L	113491	92	C <sub>20</sub> H <sub>42</sub>	282



Date : 22-MAR-2010 18:02

Client ID: RE36-10-7435

Instrument: MSD5.i

Sample Info: 1248506015196308611SVMI1ILANL

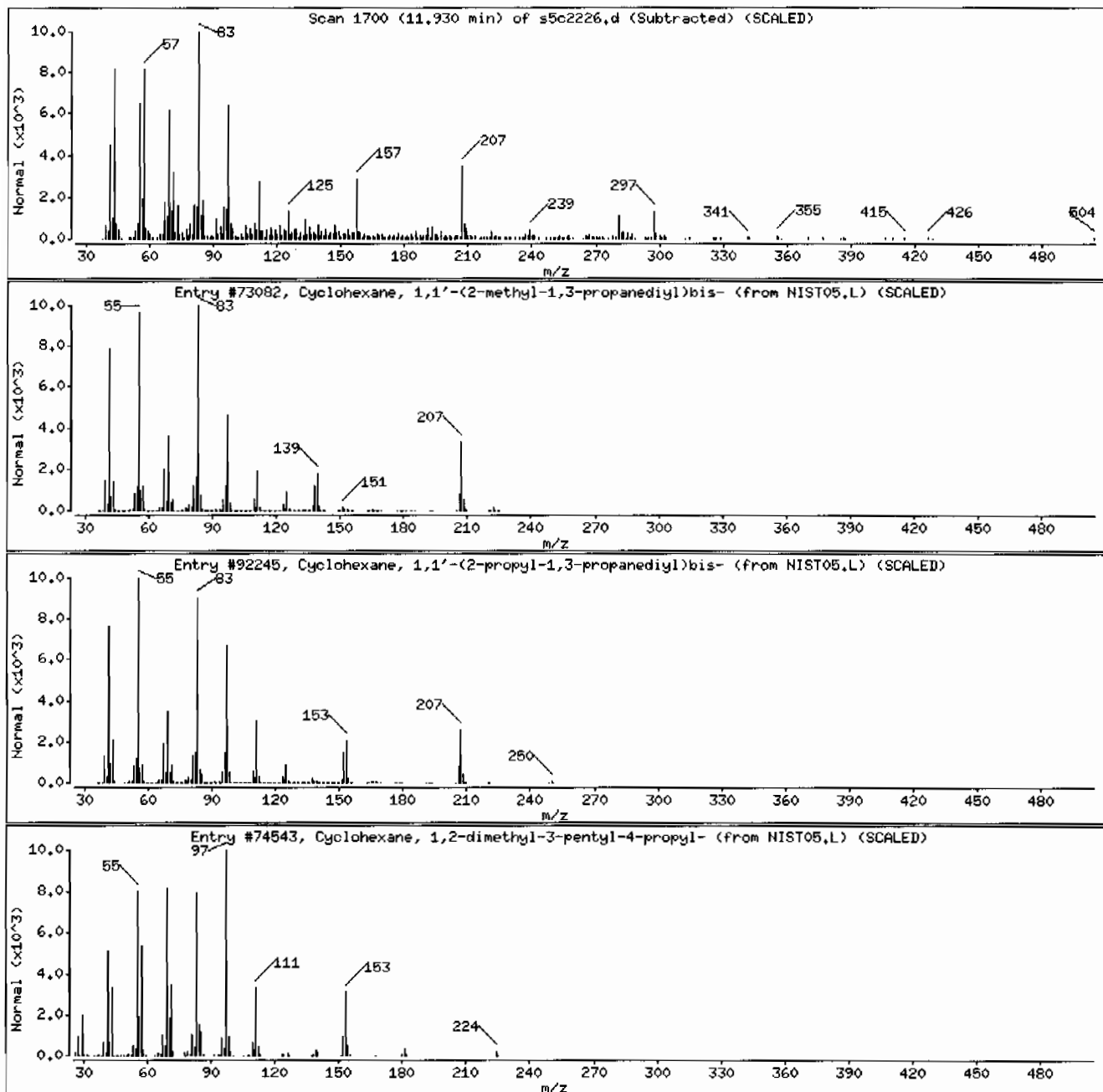
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexane, 1,1'-(2-methyl-1,3-propanediyl)bis-	2883-08-1	NIST05.L	73082	89	C16H30	222
Cyclohexane, 1,1'-(2-propyl-1,3-propanediyl)bis-	55030-21-2	NIST05.L	92245	68	C18H34	250
Cyclohexane, 1,2-dimethyl-3-pentyl-4-propyl-	62376-17-4	NIST05.L	74543	62	C16H32	224





Date : 22-MAR-2010 18:02

Client ID: RE36-10-7435

Instrument: MSD5.i

Sample Info: 1248506015196308611SVH111LANL

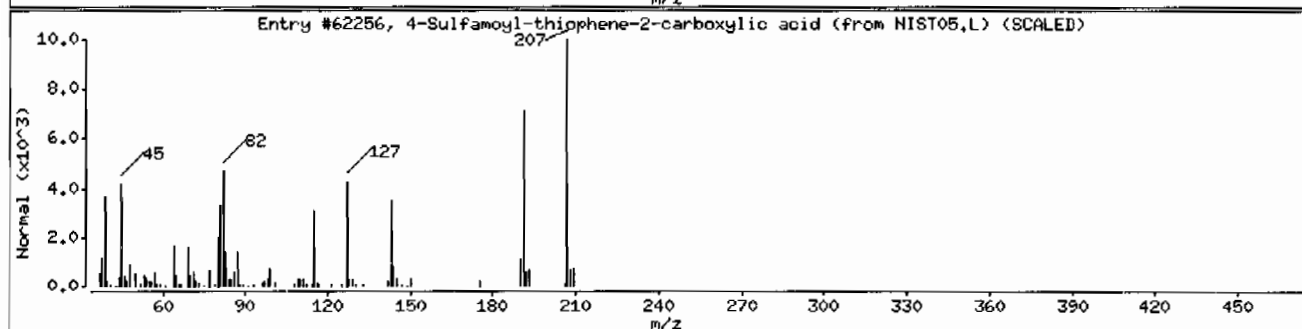
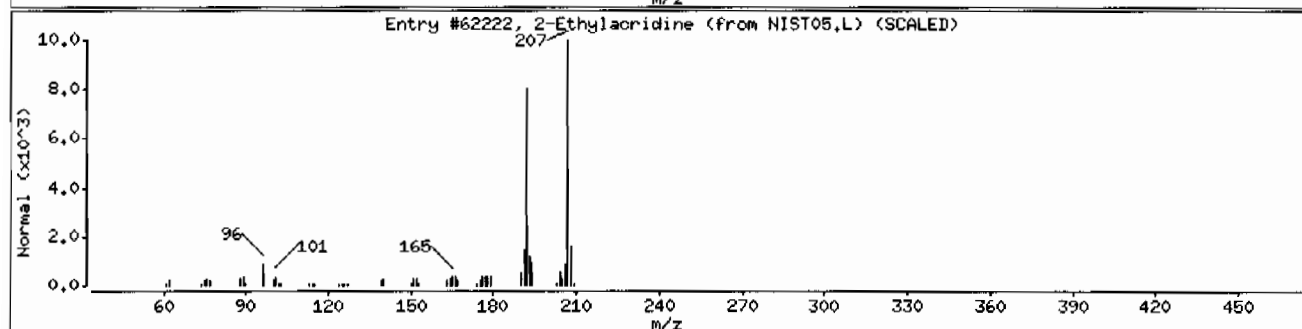
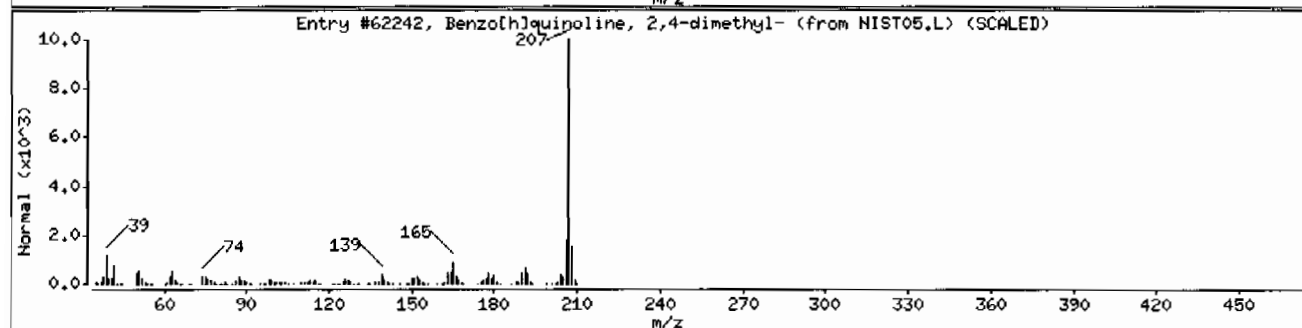
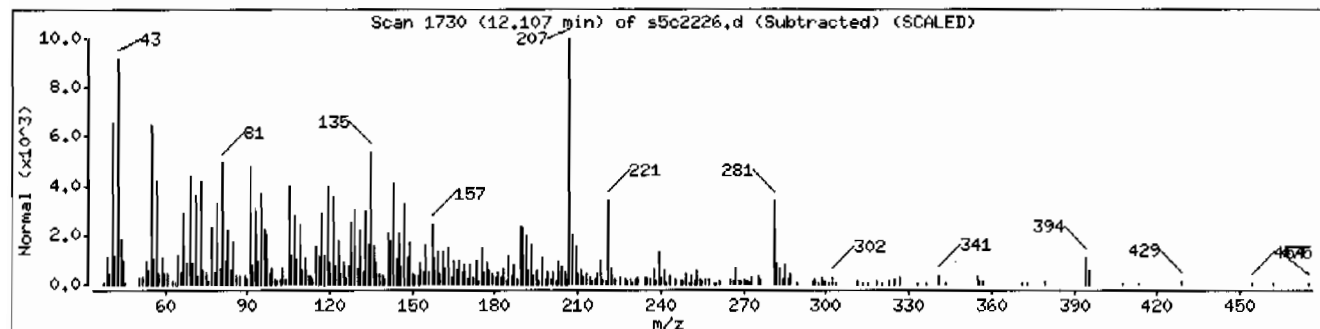
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62242	30	C15H13N	207
2-Ethylacridine	55751-83-2	NIST05.L	62222	30	C15H13N	207
4-Sulfamoyl-thiophene-2-carboxylic acid	1000300-36-6	NIST05.L	62256	27	C5H5NO4S2	207



Date : 22-MAR-2010 18:02

Client ID: RE36-10-7435

Instrument: MSD5.i

Sample Info: 1248506015196308611SVH111LANL

Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

## Library Search Compound Match

Unknown

3-Methoxymethyl-2,5,5,8a-tetramethyl-6,7

CAS Number

Library

Entry

Quality

Formula

Weight

64201-73-6

NIST05.L

82517

30

C15H24O2

236

7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet

70038-20-9

NIST05.L

69982

25

C15H22O

218

3,4-Bis-(methylthio)-quinoline

74579-34-3

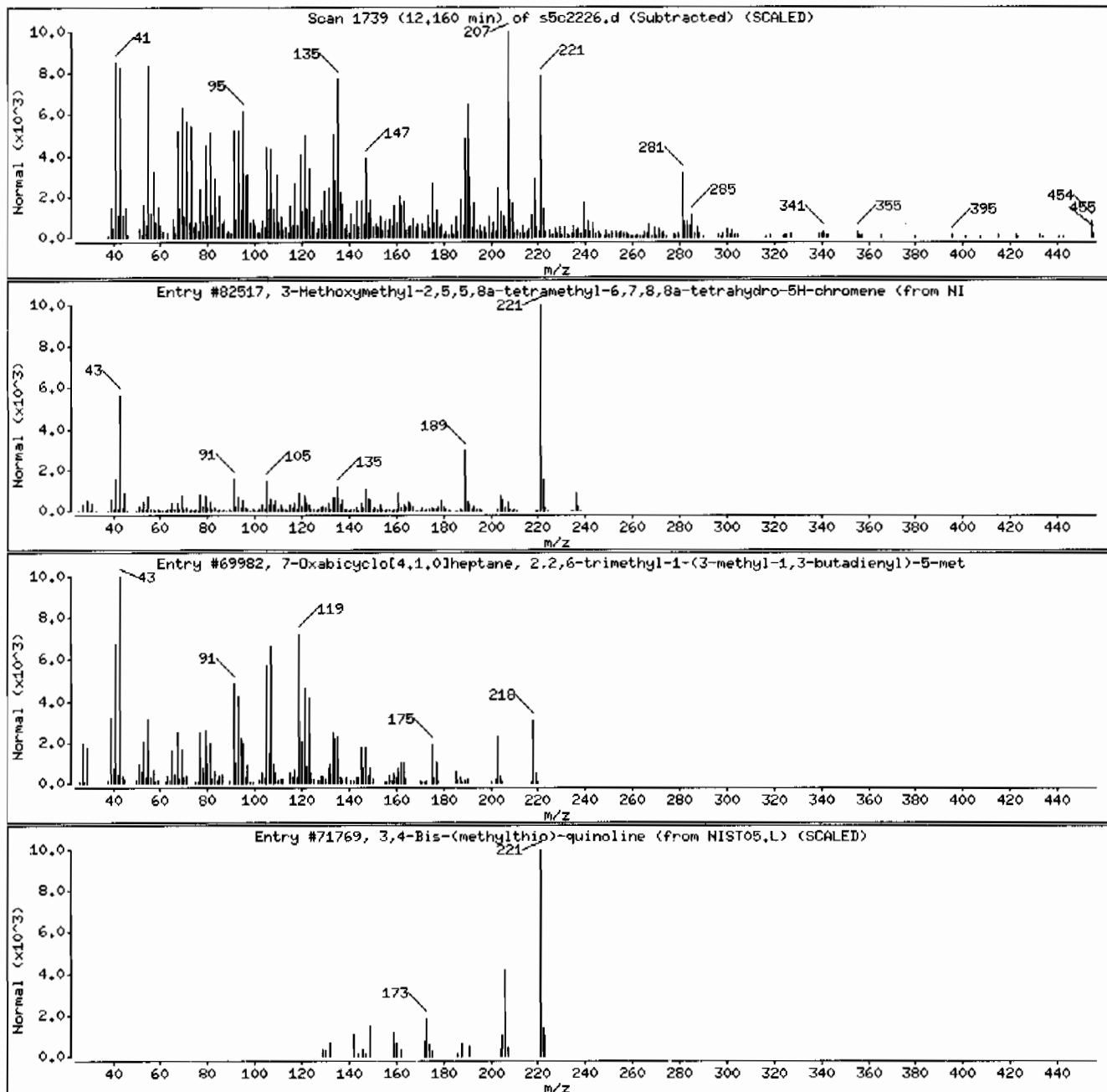
NIST05.L

71769

25

C11H11NS2

221



Date : 22-MAR-2010 18:02

Client ID: RE36-10-7435

Instrument: MSD5.i

Sample Info: I248506015196308611SVH11ILANL

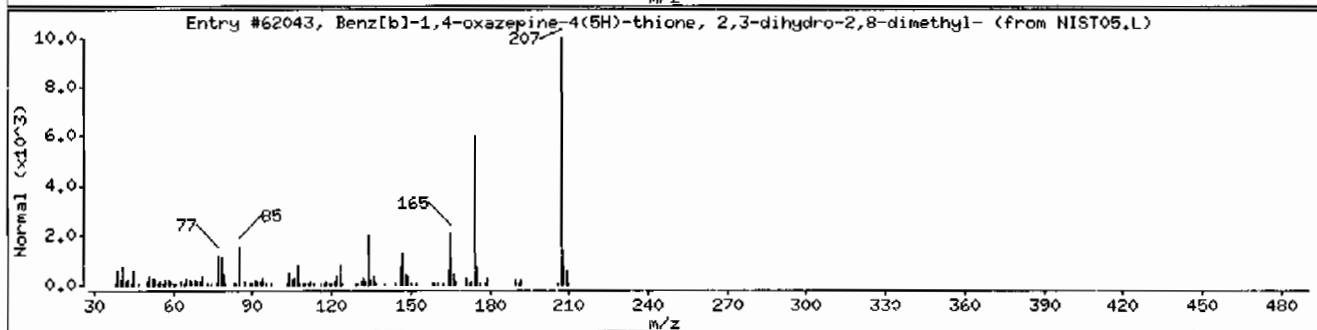
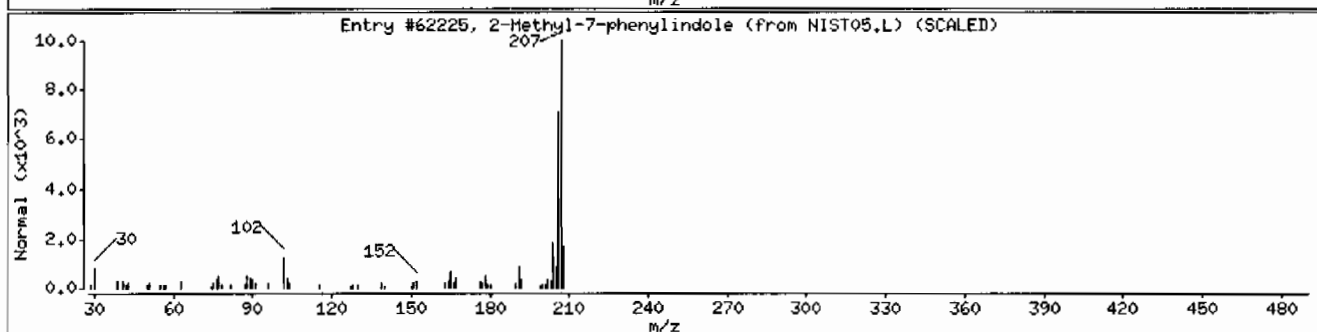
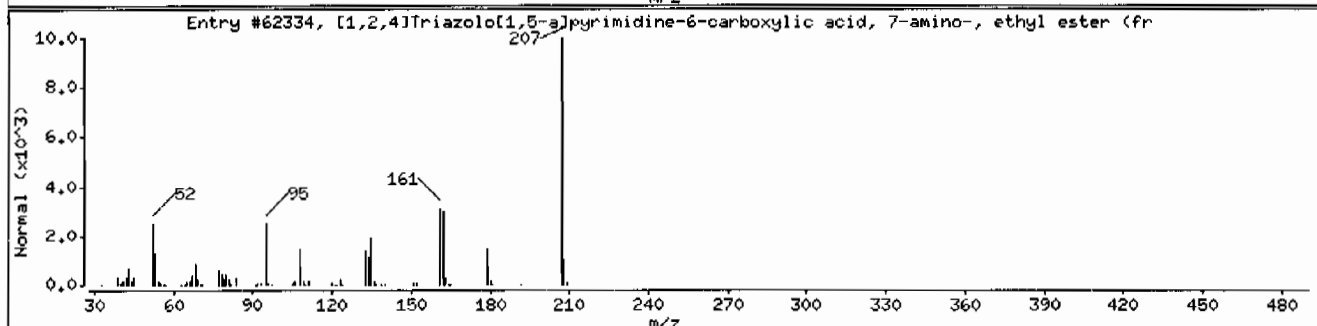
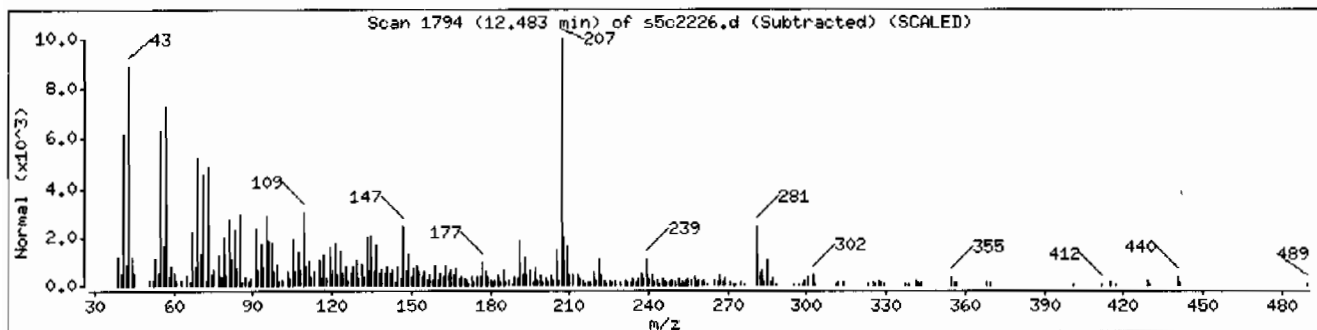
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
[1,2,4]Triazolo[1,5-a]pyrimidine-6-carbo	1000316-75-8	NIST05.L	62334	43	C8H9N5O2	207
2-Methyl-7-phenylindole	1140-08-5	NIST05.L	62225	42	C15H13N	207
Benz[b]-1,4-oxazepine-4(5H)-thione, 2,3-	1000258-63-4	NIST05.L	62043	41	C11H13NOS	207



Date : 22-MAR-2010 18:02

Client ID: RE36-10-7435

Instrument: MSD5.i

Sample Info: 12485060151963086111SVH111LANL

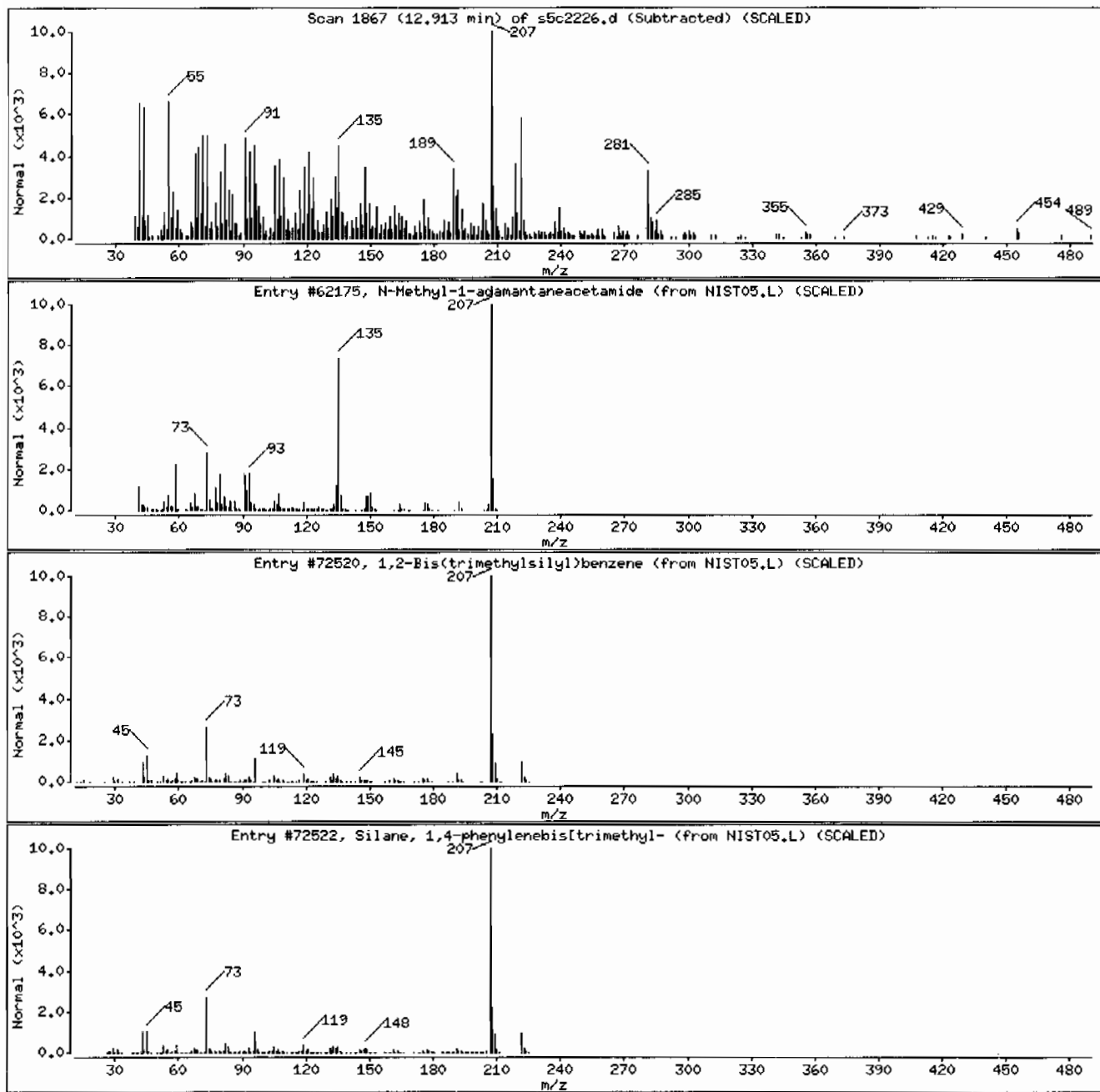
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05.L	62175	35	C <sub>13</sub> H <sub>21</sub> NO	207
1,2-Bis(trimethylsilyl)benzene	17151-09-6	NIST05.L	72520	25	C <sub>12</sub> H <sub>22</sub> Si <sub>2</sub>	222
Silane, 1,4-phenylenebis(trimethyl-	13183-70-5	NIST05.L	72522	25	C <sub>12</sub> H <sub>22</sub> Si <sub>2</sub>	222



Date : 22-MAR-2010 18:02

Client ID: RE36-10-7435

Instrument: HSD5.i

Sample Info: 12485060151963086111SVH111LANL

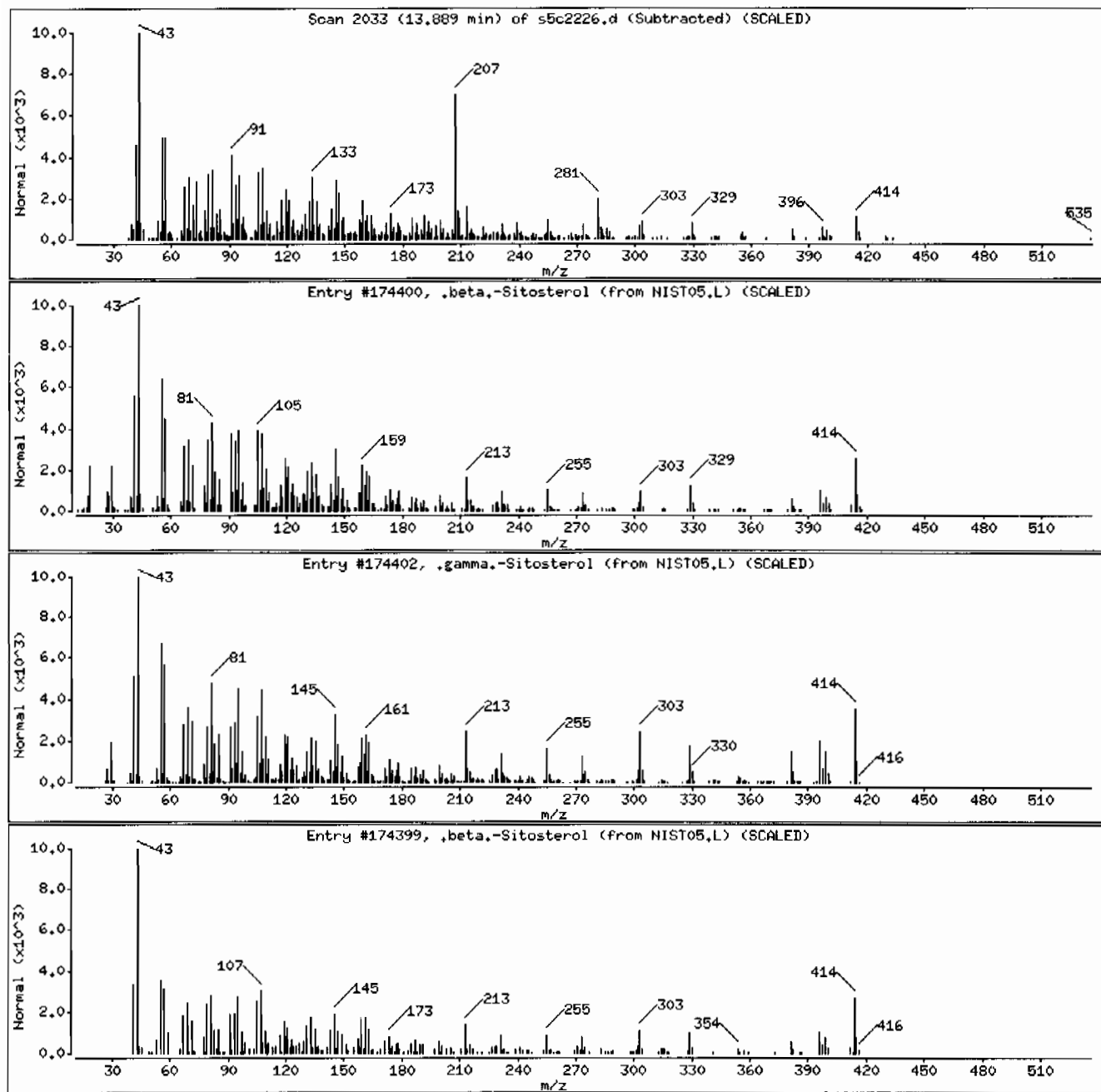
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174400	96	C29H50O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	91	C29H50O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174399	74	C29H50O	414



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

SDG Number: 10-2193  
Lab Sample ID: 248506018

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 21.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	423	ug/kg	84.5	423
108-95-2	Phenol	U	423	ug/kg	84.5	423
95-57-8	2-Chlorophenol	U	423	ug/kg	84.5	423
106-46-7	1,4-Dichlorobenzene	U	423	ug/kg	84.5	423
621-64-7	N-Nitrosodipropylamine	U	423	ug/kg	84.5	423
59-50-7	4-Chloro-3-methylphenol	U	423	ug/kg	84.5	423
83-32-9	Acenaphthene	U	42.3	ug/kg	13.9	42.3
121-14-2	2,4-Dinitrotoluene	U	423	ug/kg	42.3	423
100-02-7	4-Nitrophenol	U	423	ug/kg	139	423
87-86-5	Pentachlorophenol	U	423	ug/kg	106	423
129-00-0	Pyrene	U	42.3	ug/kg	12.7	42.3
110-86-1	Pyridine	U	423	ug/kg	84.5	423
62-53-3	Aniline	U	423	ug/kg	127	423
111-44-4	bis(2-Chloroethyl) ether	U	423	ug/kg	84.5	423
541-73-1	1,3-Dichlorobenzene	U	423	ug/kg	84.5	423
100-51-6	Benzyl alcohol	U	423	ug/kg	127	423
95-50-1	1,2-Dichlorobenzene	U	423	ug/kg	84.5	423
108-60-1	bis(2-Chloroisopropyl) ether	U	423	ug/kg	84.5	423
95-48-7	o-Cresol	U	423	ug/kg	84.5	423
65794-96-9	m,p-Cresols	U	423	ug/kg	127	423
67-72-1	Hexachloroethane	U	423	ug/kg	84.5	423
98-95-3	Nitrobenzene	U	423	ug/kg	84.5	423
78-59-1	Isophorone	U	423	ug/kg	84.5	423
88-75-5	2-Nitrophenol	U	423	ug/kg	84.5	423
105-67-9	2,4-Dimethylphenol	U	423	ug/kg	148	423
111-91-1	bis(2-Chloroethoxy)methane	U	423	ug/kg	84.5	423
120-83-2	2,4-Dichlorophenol	U	423	ug/kg	84.5	423
65-85-0	Benzoic acid	U	845	ug/kg	211	845
91-20-3	Naphthalene	U	42.3	ug/kg	12.7	42.3
106-47-8	4-Chloroaniline	U	423	ug/kg	84.5	423
87-68-3	Hexachlorobutadiene	U	423	ug/kg	84.5	423
91-57-6	2-Methylnaphthalene	U	42.3	ug/kg	8.45	42.3
77-47-4	Hexachlorocyclopentadiene	U	423	ug/kg	84.5	423
88-06-2	2,4,6-Trichlorophenol	U	423	ug/kg	84.5	423
95-95-4	2,4,5-Trichlorophenol	U	423	ug/kg	84.5	423
91-58-7	2-Chloronaphthalene	U	42.3	ug/kg	13.9	42.3
88-74-4	2-Nitroaniline	U	423	ug/kg	84.5	423
99-09-2	<i>o</i> -Nitroaniline	U	423	ug/kg	84.5	423
	3-Nitroaniline	U	423	ug/kg	84.5	423

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506018	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 21.4
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7436	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 19:11	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.09 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2229.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	423	ug/kg	84.5	423
606-20-2	2,6-Dinitrotoluene	U	423	ug/kg	42.3	423
208-96-8	Acenaphthylene	U	42.3	ug/kg	12.7	42.3
51-28-5	2,4-Dinitrophenol	U	845	ug/kg	161	845
132-64-9	Dibenzofuran	U	423	ug/kg	84.5	423
84-66-2	Diethylphthalate	U	423	ug/kg	84.5	423
86-73-7	Fluorene	U	42.3	ug/kg	12.7	42.3
7005-72-3	4-Chlorophenylphenylether	U	423	ug/kg	84.5	423
534-52-1	2-Methyl-4,6-dinitrophenol	U	423	ug/kg	84.5	423
100-01-6	4-Nitroaniline	U	423	ug/kg	127	423
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	423	ug/kg	84.5	423
122-66-7	Azobenzene	U	423	ug/kg	84.5	423
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	423	ug/kg	84.5	423
118-74-1	Hexachlorobenzene	U	423	ug/kg	84.5	423
85-01-8	Phenanthrene	U	42.3	ug/kg	12.7	42.3
120-12-7	Anthracene	U	42.3	ug/kg	8.45	42.3
84-74-2	Di-n-butylphthalate	U	423	ug/kg	84.5	423
206-44-0	Fluoranthene	U	42.3	ug/kg	12.7	42.3
85-68-7	Butylbenzylphthalate	U	423	ug/kg	84.5	423
56-55-3	Benzo(a)anthracene	U	42.3	ug/kg	12.7	42.3
91-94-1	3,3'-Dichlorobenzidine	U	423	ug/kg	127	423
218-01-9	Chrysene	U	42.3	ug/kg	12.7	42.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	423	ug/kg	84.5	423
117-84-0	Di-n-octylphthalate	U	423	ug/kg	84.5	423
205-99-2	Benzo(b)fluoranthene	U	42.3	ug/kg	12.7	42.3
207-08-9	Benzo(k)fluoranthene	U	42.3	ug/kg	12.7	42.3
50-32-8	Benzo(a)pyrene	U	42.3	ug/kg	12.7	42.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.3	ug/kg	12.7	42.3
53-70-3	Dibenzo(a,h)anthracene	U	42.3	ug/kg	12.7	42.3
191-24-2	Benzo(ghi)perylene	U	42.3	ug/kg	12.7	42.3
120-82-1	1,2,4-Trichlorobenzene	U	423	ug/kg	84.5	423

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.08	466	ug/kg		J
7785-70-8	1R-.alpha.-Pincene	3.52	471	ug/kg	96	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lah Sample ID: 248506018	Date Received: 03/03/2010 08:50	%Moisture: 21.4
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7436	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.1	Dilution: 1
Run Date: 03/22/2010 19:11	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.09 g	Final Volume: 1 mL
Data File: s5c2229.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	8.45	327	ug/kg		J
	Unknown	8.84	223	ug/kg		J
	Unknown	8.94	317	ug/kg		J
	Unknown	9.14	406	ug/kg		J
	Unknown	9.28	315	ug/kg		J
18435-45-5	1-Nonadecene	9.46	394	ug/kg	90	NJ
	Unknown	9.75	277	ug/kg		J
	Unknown	10.12	423	ug/kg		J
	Unknown	10.45	338	ug/kg		J
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.55	343	ug/kg	93	NJ
112-95-8	Eicosane	10.85	348	ug/kg	95	NJ
	Unknown	12.16	1190	ug/kg		J
	Unknown	12.48	358	ug/kg		J
	Unknown	12.93	1020	ug/kg		J
83-46-5	.beta.-Sitosterol	13.89	430	ug/kg	95	NJ



Data File: /chem/MSD5.i/s032210.b/s5c2229.d  
 Report Date: 23-Mar-2010 07:54

Page 1

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2229.d  
 Lab Smp Id: 248506018 Client Smp ID: RE36-10-7436  
 Inj Date : 22-MAR-2010 19:11  
 Operator : RMB Inst ID: MSD5.i  
 Smp Info : |248506018|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
 Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
 Als bottle: 29  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2193.sub  
 Target Version: 3.50  
 Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	21.35060	% 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	3.948	3.950	(1.000)	247442	40.0000	
* 29 Naphthalene-d8	136	4.813	4.821	(1.000)	1019470	40.0000	
* 46 Acenaphthene-d10	164	6.072	6.078	(1.000)	605296	40.0000	
* 67 Phenanthrene-d10	188	7.254	7.253	(1.000)	1066685	40.0000	
* 91 Chrysene-d12	240	9.672	9.670	(1.000)	1006687	40.0000	
* 98 Perylene-d12	264	11.383	11.370	(1.000)	743774	40.0000	
\$ 3 2-Fluorophenol	112	3.148	3.141	(0.797)	312197	50.5274	2140
\$ 5 Phenol-d5	99	3.666	3.666	(0.928)	400834	53.9750	2280
\$ 20 Nitrobenzene-d5	82	4.307	4.316	(0.895)	208421	27.5130	1160
\$ 39 2-Fluorobiphenyl	172	5.560	5.558	(0.916)	373559	24.7091	1040
\$ 60 2,4,6-Tribromophenol	329	6.678	6.675	(1.100)	128318	56.4415	2380
\$ 81 p-Terphenyl-d14	244	8.636	8.630	(0.893)	497638	29.7178	1260

## ION RATIO REPORT

## SV REPORT

Data file: s5c2229.d

Report Date: 03/23/2010 07:08

Lab. ID: 248506018

SampleType: SAMPLE

Injection Date: 22-MAR-2010 19:11

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506018|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline CAS#: 62-53-3						
66	25577	3.67	3.74	80-120	100	(T)
93	2342	3.62	3.74	219-279	9	(QT)
-----						
7 bis(2-Chloroethyl) ether CAS#: 111-44-4						
63	12268	3.95	3.75	80-120	100	(T)
93	1777	3.94	3.75	119-179	14	(QT)
95	304	3.95	3.75	8- 68	2	(QT)
-----						
17 N-Nitrosodipropylamine CAS#: 621-64-7						
70	28850	4.31	4.19	80-120	100	(T)
42	18165	4.31	4.19	44-104	63	(T)
-----						
27 Benzoic acid CAS#: 65-85-0						
105	2621	4.59	4.59	80-120	100	( )
122	701	4.57	4.59	45-105	27	(Q)
77	1620	4.59	4.59	48-108	62	( )
-----						
43 Dimethylphthalate CAS#: 131-11-3						
163	106235	6.08	5.84	80-120	100	(T)
164	605296	6.07	5.84	0- 40	570	(QT)
-----						
44 2,6-Dinitrotoluene CAS#: 606-20-2						
165	80586	6.07	5.90	80-120	100	(T)
63	1902	6.07	5.89	62-122	2	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	80586	6.07	6.19	80-120	100	(T)
89	2214	6.07	6.19	51-111	3	(QT)
63	1902	6.07	6.19	24- 84	2	(QT)
-----						
52 4-Nitrophenol		CAS#: 100-02-7				
139	224	6.19	6.12	80-120	100	(T)
109	228	6.18	6.12	63-123	102	(T)
65	1423	6.19	6.11	71-131	635	(QT)
-----						
53 Fluorene		CAS#: 86-73-7				
166	6487	6.67	6.49	80-120	100	(T)
165	6504	6.67	6.49	62-122	100	(T)
167	2454	6.67	6.49	0- 44	38	(T)
-----						
55 2-Methyl-4,6-dinitrophenol		CAS#: 534-52-1				
198	163	6.65	6.51	80-120	100	(T)
105	1537	6.67	6.50	13- 73	943	(QT)
51	1886	6.67	6.50	51-111	1157	(QT)
-----						
94 Di-n-octylphthalate		CAS#: 117-84-0				
149	46750	10.21	10.24	80-120	100	( )
43	113262	10.22	10.24	0- 43	242	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2229.d  
Lab Smp Id: 248506018 Client Smp ID: RE36-10-7436  
Inj Date : 22-MAR-2010 19:11  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506018|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 29  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	21.35060	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.948	1762592	40.000
* 67 Phenanthrene-d10	7.254	2845178	40.000
* 91 Chrysene-d12	9.672	3386055	40.000
* 98 Perylene-d12	11.383	2895372	40.000

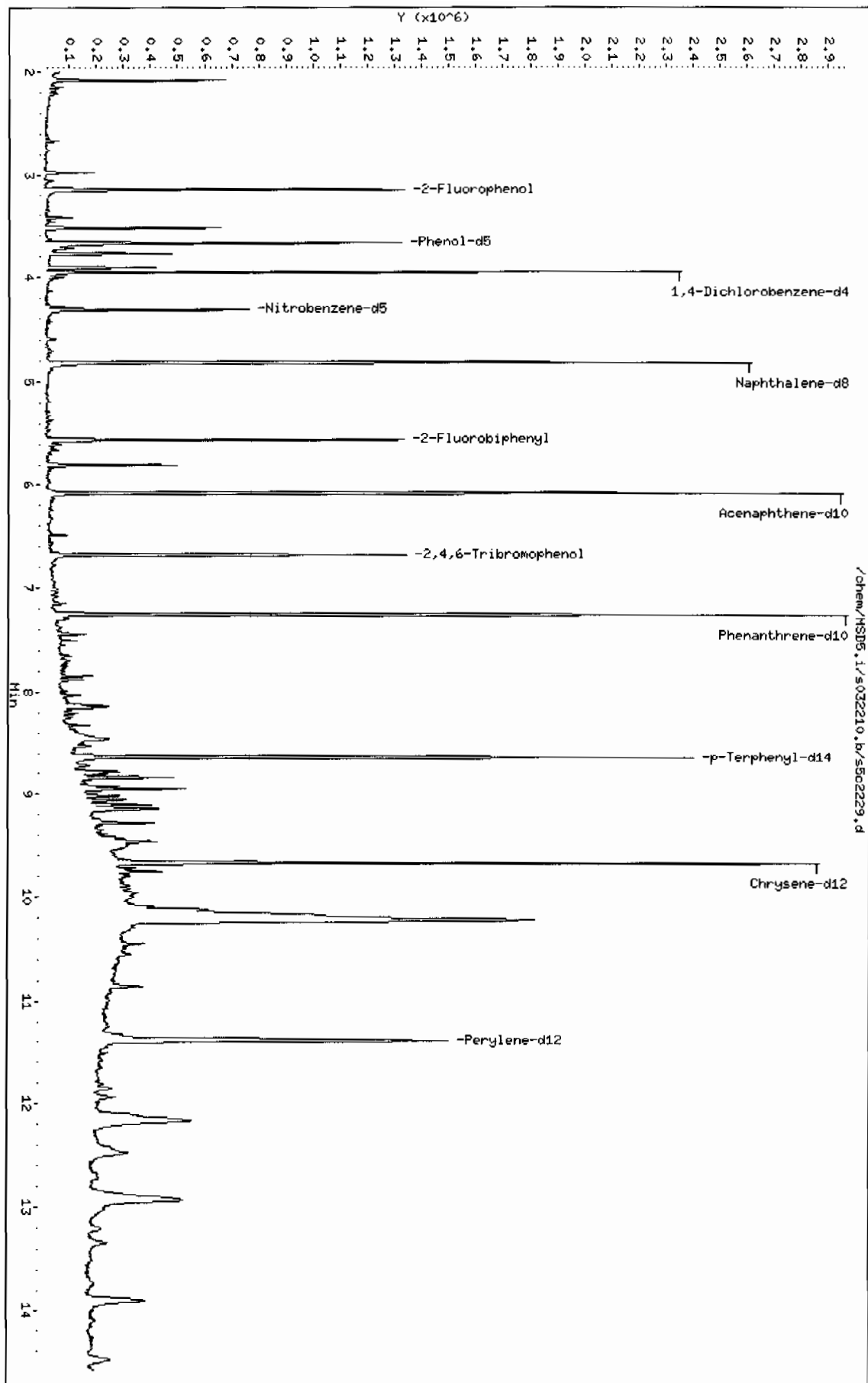
CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIE ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
Unknown					CAS #:		
2.084	485691	11.0221862	466	0		0	10
1R-.alpha.-Pinene					CAS #: 7785-70-8		
3.519	491347	11.1505403	471	96	NIST05.L	15188	10
Unknown					CAS #:		
8.448	550344	7.73721191	327	0		0	67
Unknown					CAS #:		
8.836	447662	5.28830381	223	0		0	91
Unknown					CAS #:		
8.942	634776	7.49871276	317	0		0	91
Unknown					CAS #:		
9.136	812982	9.60388120	406	0		0	91
Unknown					CAS #:		
9.277	630344	7.44634748	315	0		0	91
1-Nonadecene					CAS #: 18435-45-5		
9.460	790090	9.33345079	394	90	NIST05.L	102859	91
Unknown					CAS #:		
9.754	554267	6.54764666	277	0		0	91
Unknown					CAS #:		
10.119	847565	10.0124215	423	0		0	91
Unknown					CAS #:		
10.448	676171	7.98771873	338	0		0	91
Pyridine-3-carboxamide, oxime, N-(2-trif					CAS #: 288246-53-7		
10.548	587403	8.11505893	343	93	NIST05.L	112295	98
Eicosane					CAS #: 112-95-8		
10.854	595725	8.23003423	348	95	NIST05.L	113489	98
Unknown					CAS #:		
12.160	2045337	28.2566350	1190	0		0	98
Unknown					CAS #:		
12.477	613639	8.47752031	358	0		0	98

RT	AREA	CONCENTRATIONS		QUAL	QUANT		CPND #
		ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
12.930	1753835	24.2294875	1020	0		0	98
				CAS #:			
				95	NIST05.L	174399	98
				CAS #: 83-46-5			
				95	NIST05.L	174399	98

Data File: /chem/HSD5.i/s032210.b/s502229.d  
 Date: 22-MAR-2010 19:11  
 Client ID: RE36-10-7436  
 Sample Info: 1248506018196308611SM11LLNL  
 Volume Injected (uL): 0.5  
 Column phase: 3M DB-SHS

Instrument: HSD5.i  
 Operator: RMB  
 Column diameter: 0.20



Date : 22-MAR-2010 19:11

Client ID: RE36-10-7436

Instrument: MSD5.i

Sample Info: I248506018I963086I1ISVH11ILANL

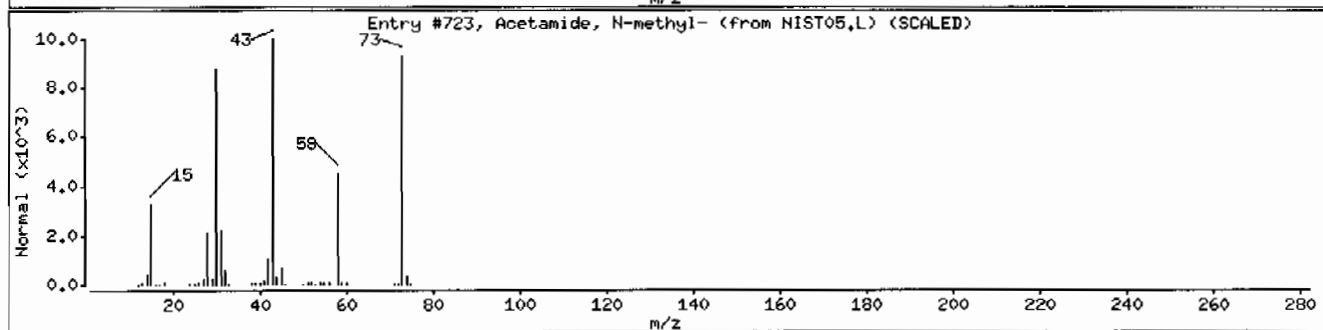
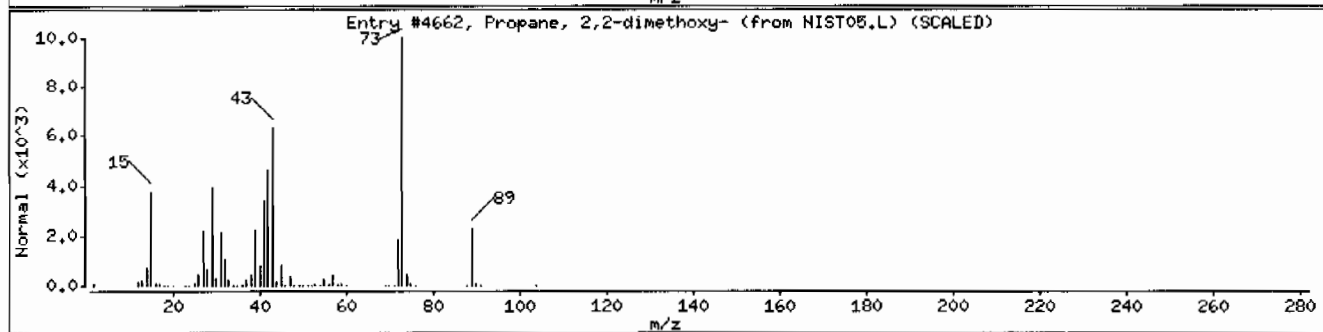
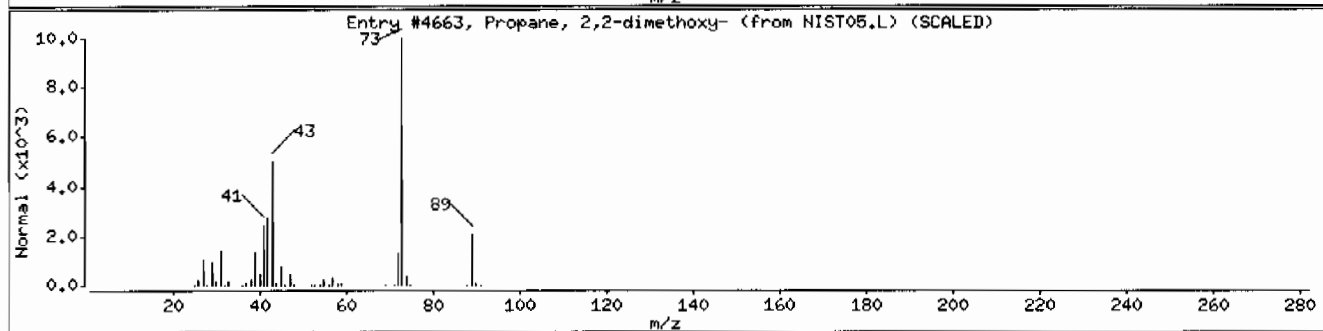
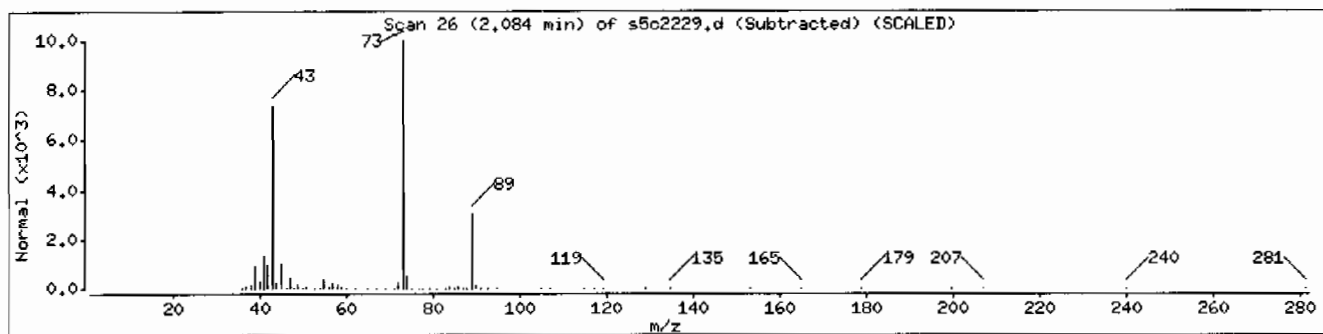
Volume Injected (uL): 0.5

Operator: RMB

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	64	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	50	C5H12O2	104
Acetamide, N-methyl-	79-16-3	NIST05.L	723	38	C3H7NO	73





Date : 22-MAR-2010 19:11

Client ID: RE36-10-7436

Instrument: MSD5.i

Sample Info: 1248506018196308611|SVH11|LANL

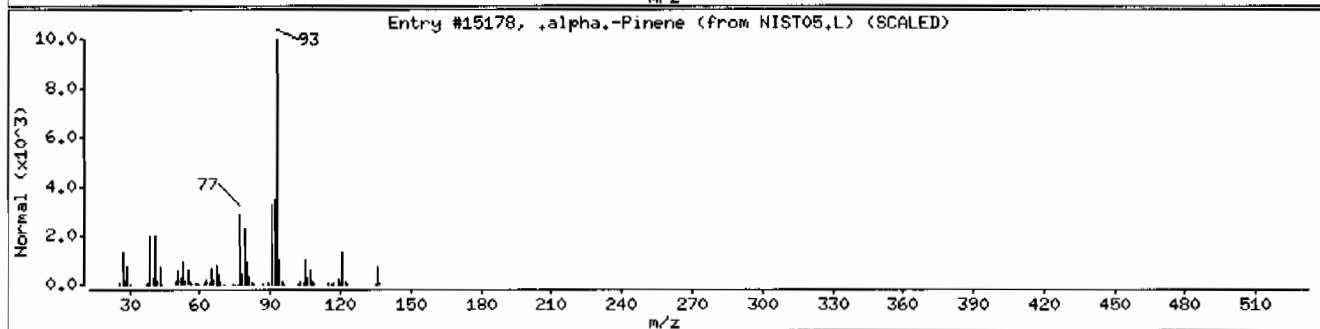
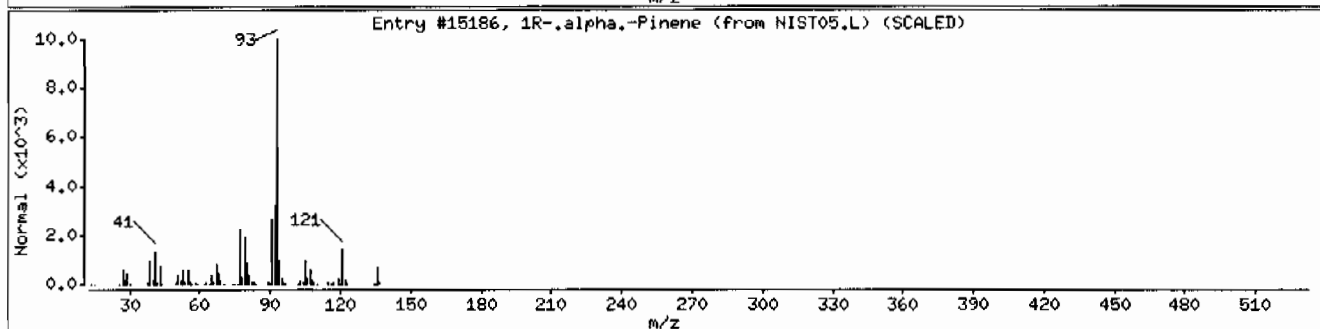
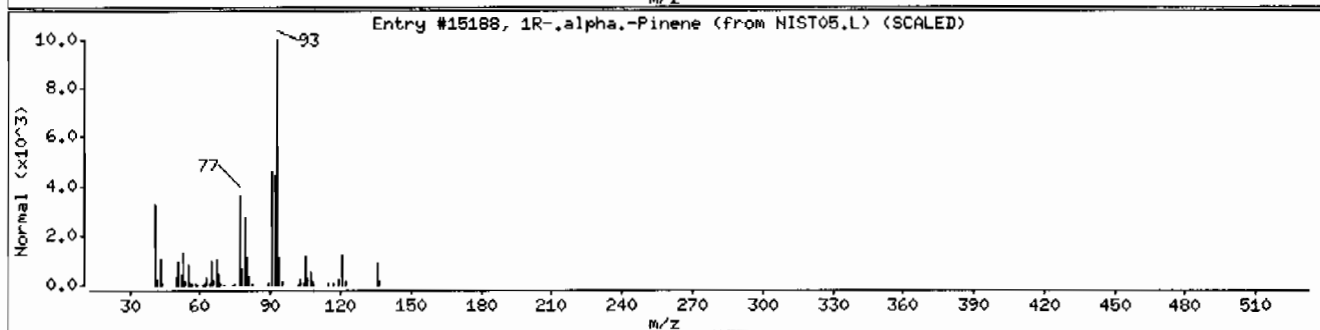
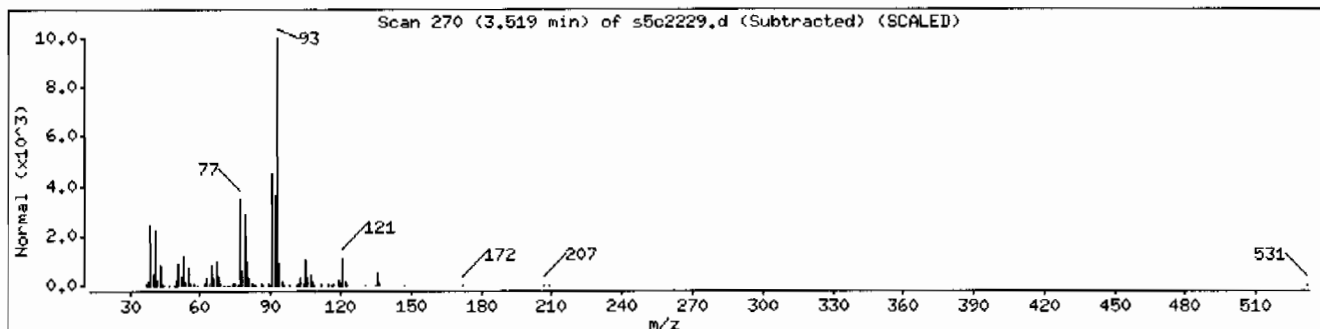
Volume Injected (uL): 0.5

Operator: RMB

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	96	C10H16	136
1R-.alpha.-Pinene	7785-70-8	NIST05.L	15186	95	C10H16	136
.alpha.-Pinene	80-56-8	NIST05.L	15178	94	C10H16	136



Date : 22-MAR-2010 19:11

Client ID: RE36-10-7436

Instrument: MSD5.i

Sample Info: 12485060181963086111SVH111LANL

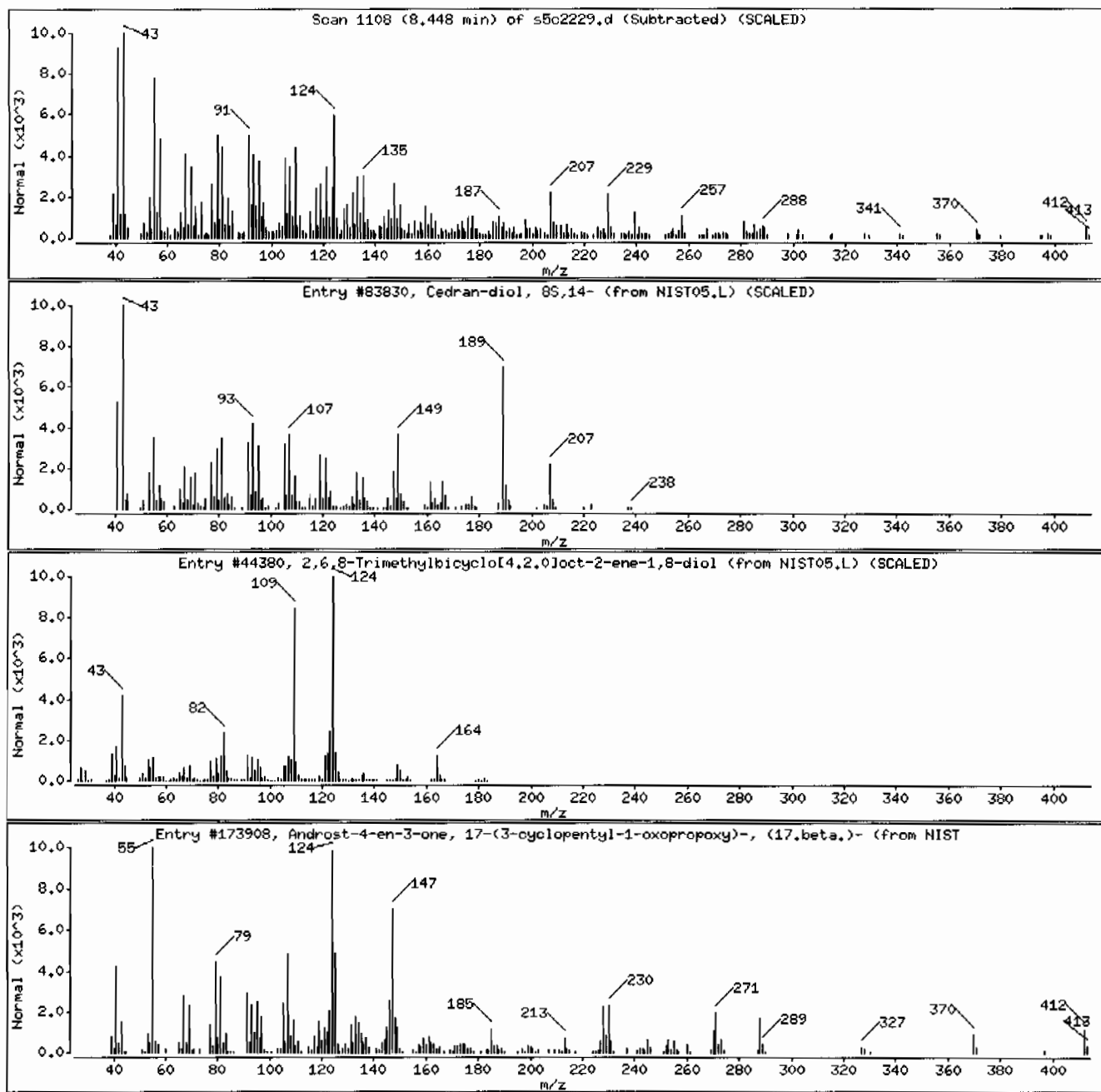
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	44	C15H26O2	238
2,6,8-Trimethylbicyclo[4.2.0]oct-2-ene-1	1000187-22-4	NIST05.L	44380	38	C11H18O2	182
Androst-4-en-3-one, 17-(3-cyclopentyl-1-	58-20-8	NIST05.L	173908	35	C27H40O3	412



Date : 22-MAR-2010 19:11

Client ID: RE36-10-7436

Instrument: HSD5.i

Sample Info: I2485060181963086111SVH111LANL

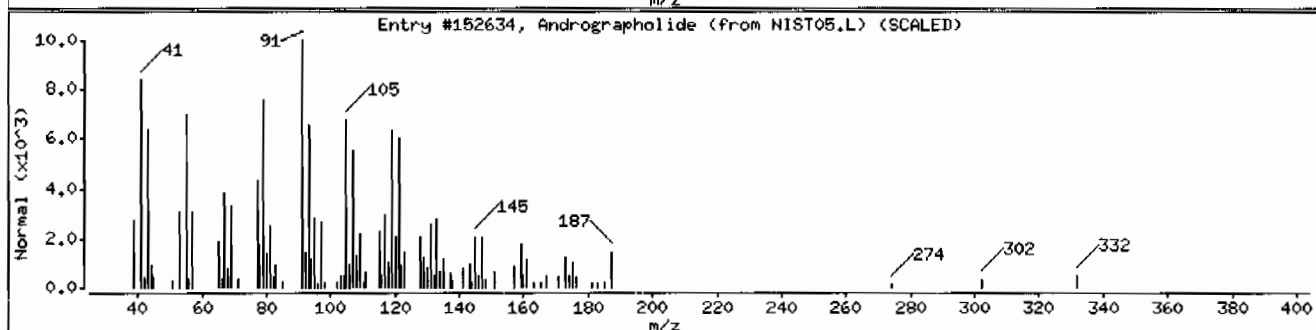
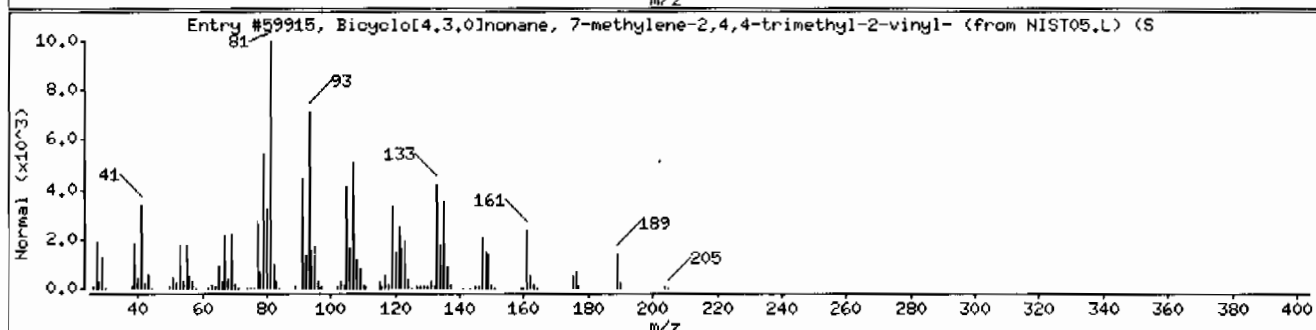
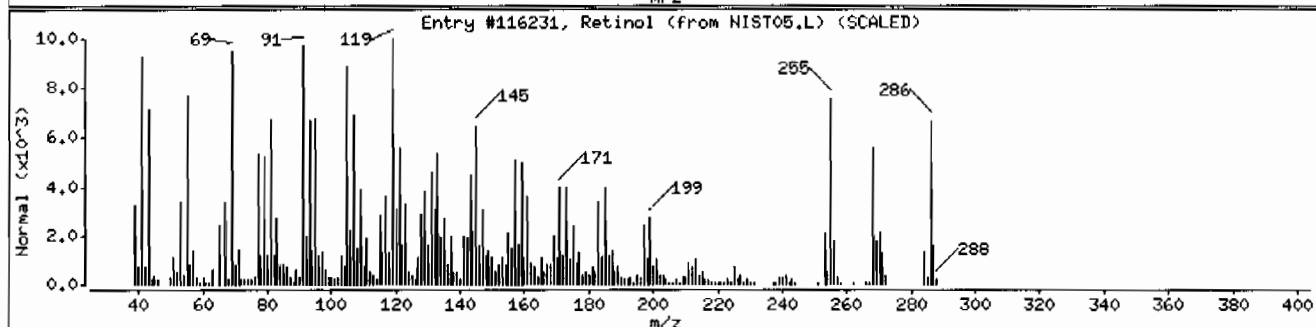
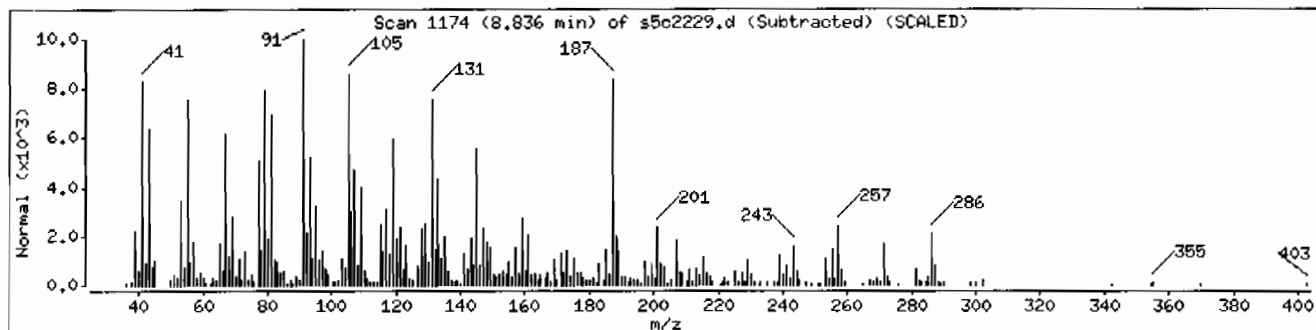
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Retinol	68-26-8	NIST05.L	116231	45	C20H30O	286
Bicyclo[4.3.0]nonane, 7-methylene-2,4,4-	1000156-11-9	NIST05.L	59915	44	C15H24	204
Andrographolide	5508-58-7	NIST05.L	152634	41	C20H30O5	350



Date: 22-MAR-2010 19:11

Client ID: RE36-10-7436

Instrument: MSD5.i

Sample Info: 12485060181963086111SVH111LANL

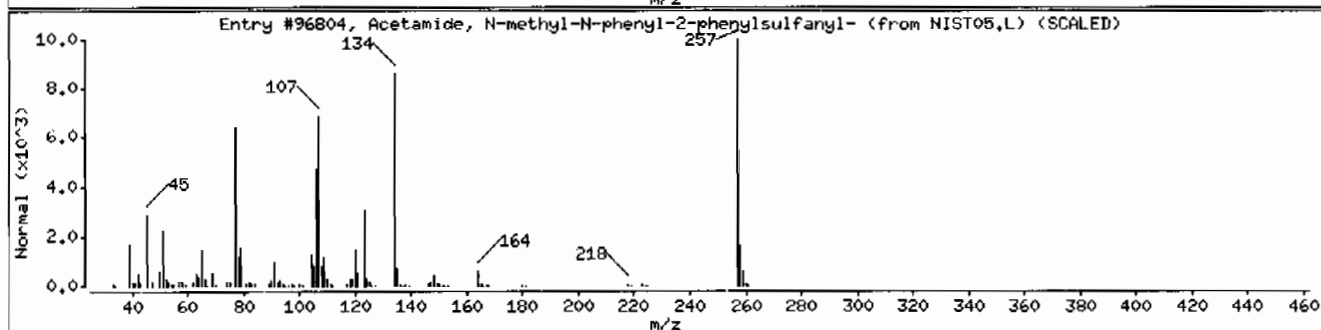
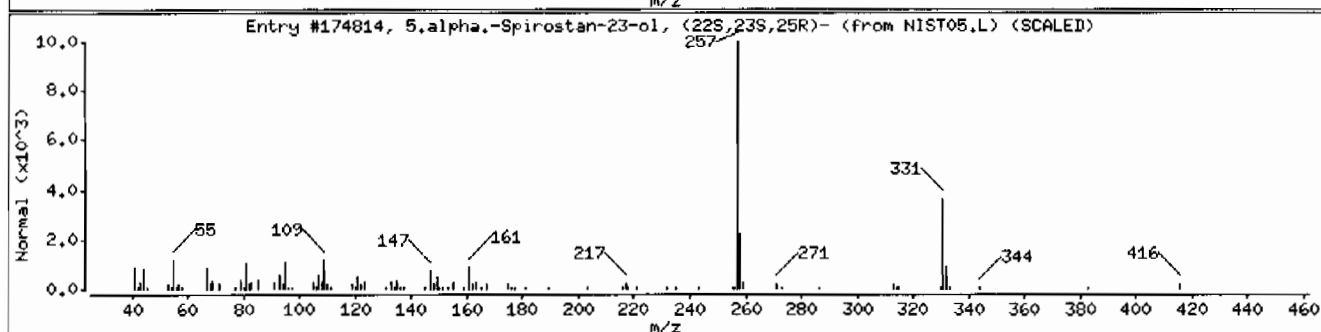
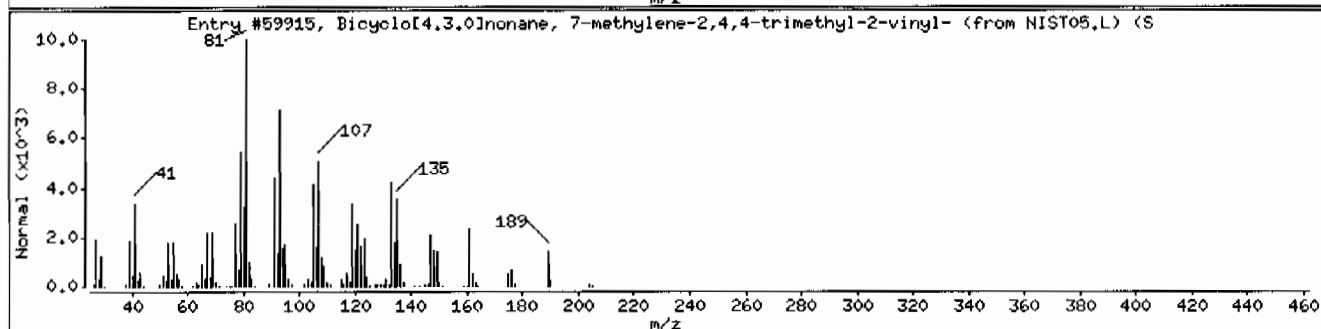
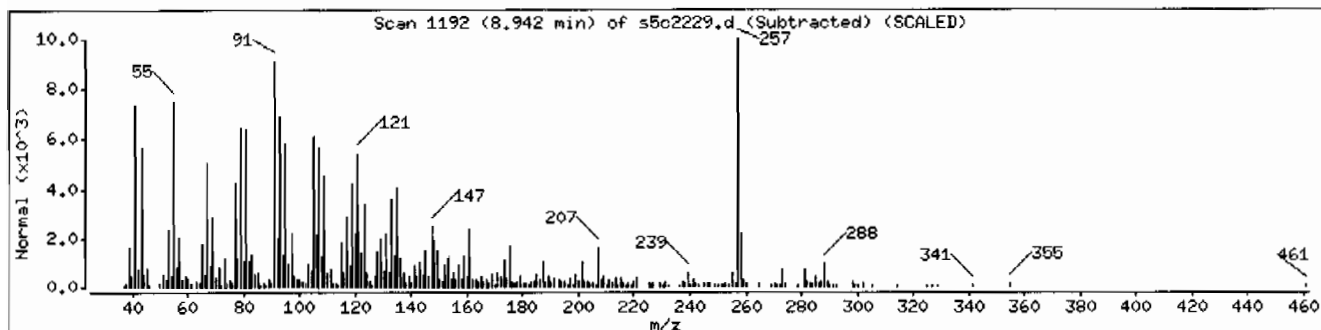
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[4.3.0]nonane, 7-methylene-2,4,4-	1000156-11-9	NIST05.L	59915	41	C15H24	204
5.alpha.-Spirostan-23-ol, (22S,23S,25R)-	24744-36-3	NIST05.L	174814	22	C27H44O3	416
Acetamide, N-methyl-N-phenyl-2-phenylsul	1000310-21-6	NIST05.L	96804	22	C15H15NOS	257



Date : 22-MAR-2010 19:11

Client ID: RE36-10-7436

Instrument: MSD5.i

Sample Info: I2485060181963086111SVH111LANL

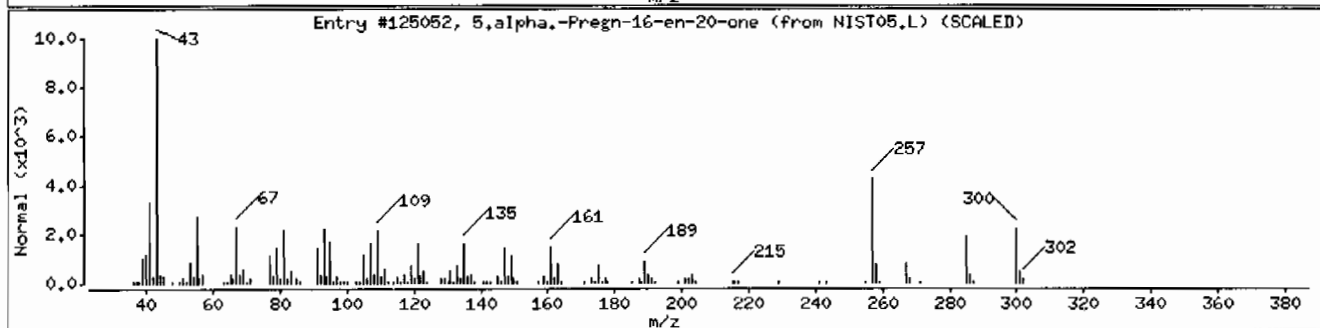
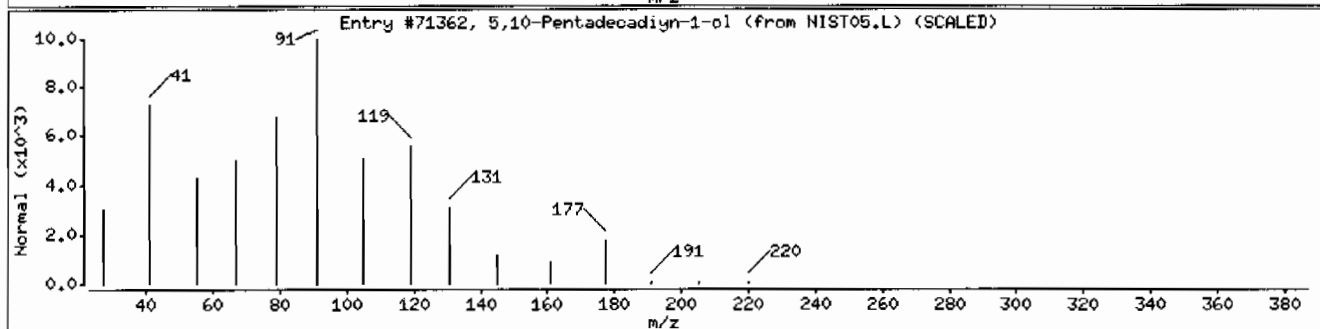
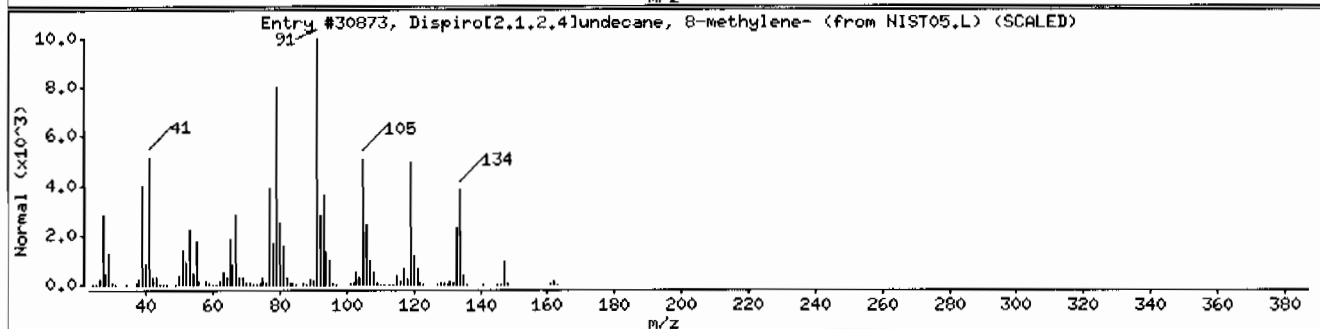
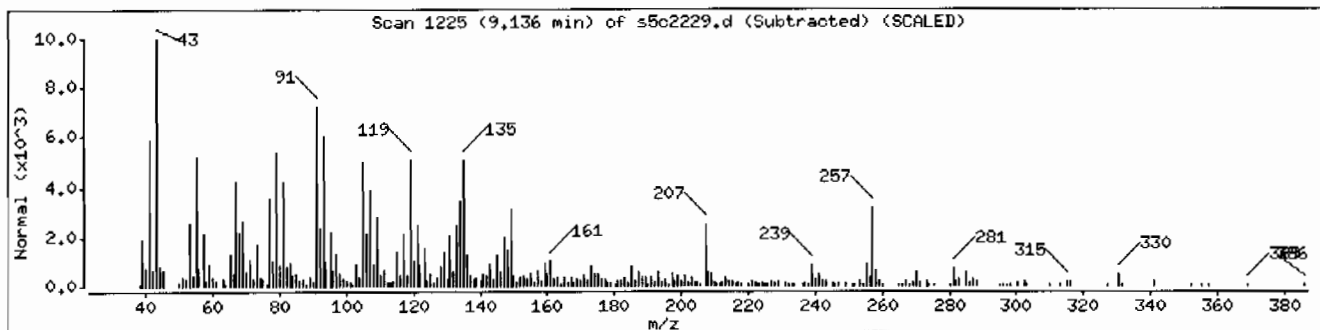
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Dispiro[2.1,2.4]undecane, 8-methylene-	51567-08-9	NIST05.L	30873	47	C12H18	162
5,10-Pentadecadiyn-1-ol	64275-50-9	NIST05.L	71362	44	C15H24O	220
5.alpha.-Pregn-16-en-20-one	3752-04-3	NIST05.L	125052	30	C21H32O	300



Date : 22-MAR-2010 19:11

Client ID: RE36-10-7436

Instrument: HSD5.i

Sample Info: 1248506018196308611SVH111LANL

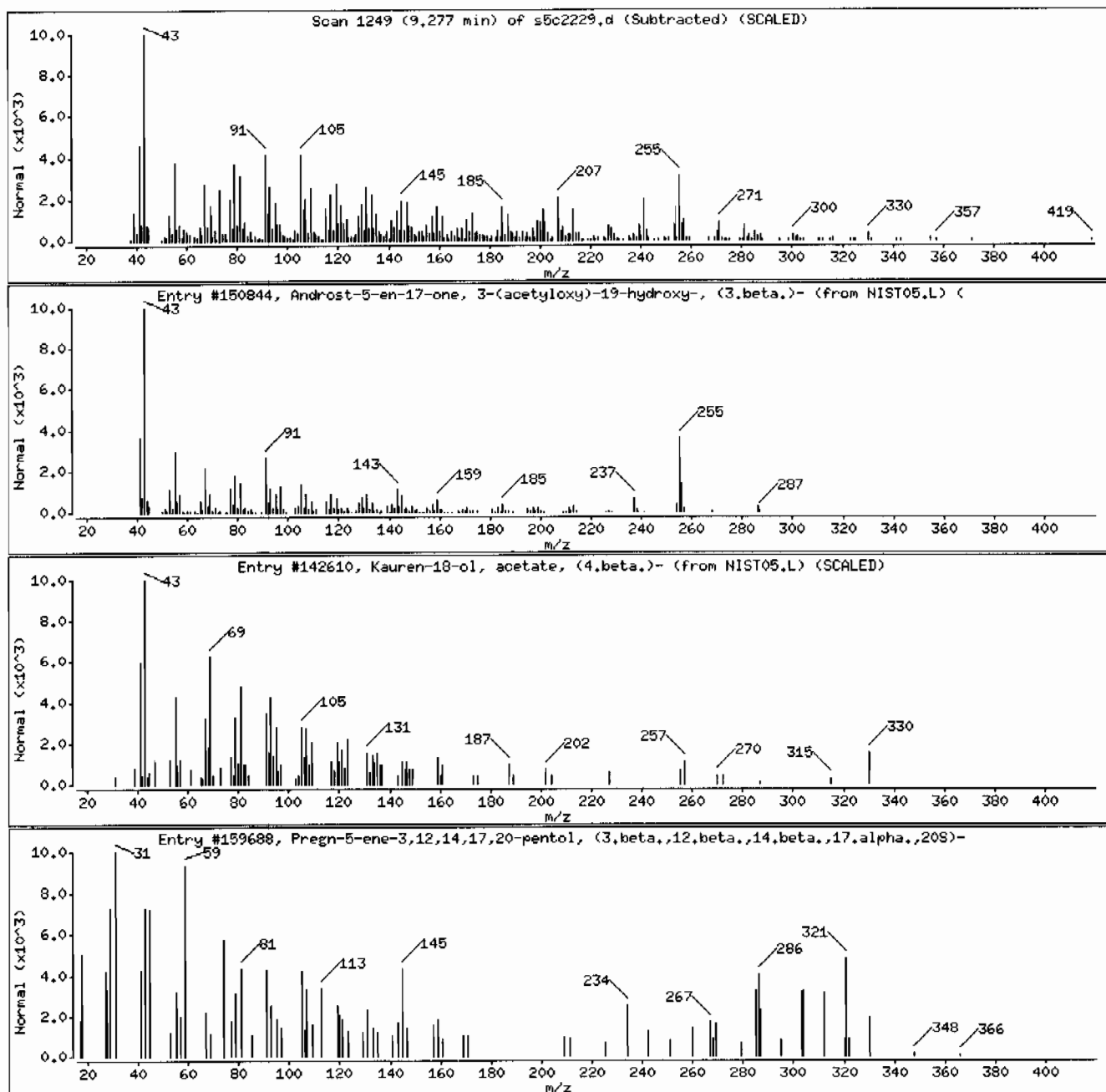
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Androst-5-en-17-one, 3-(acetyloxy)-19-hy	2857-42-3	NIST05.L	150844	25	C21H30O4	346
Kauren-18-ol, acetate, (4.beta.)-	72150-74-4	NIST05.L	142610	16	C22H34O2	330
Pregn-5-ene-3,12,14,17,20-pentol, (3.bet	28417-32-5	NIST05.L	159688	11	C21H34O5	366



Date : 22-MAR-2010 19:11

Client ID: RE36-10-7436

Instrument: MSD5.i

Sample Info: 12485060181963086111SVH111LANL

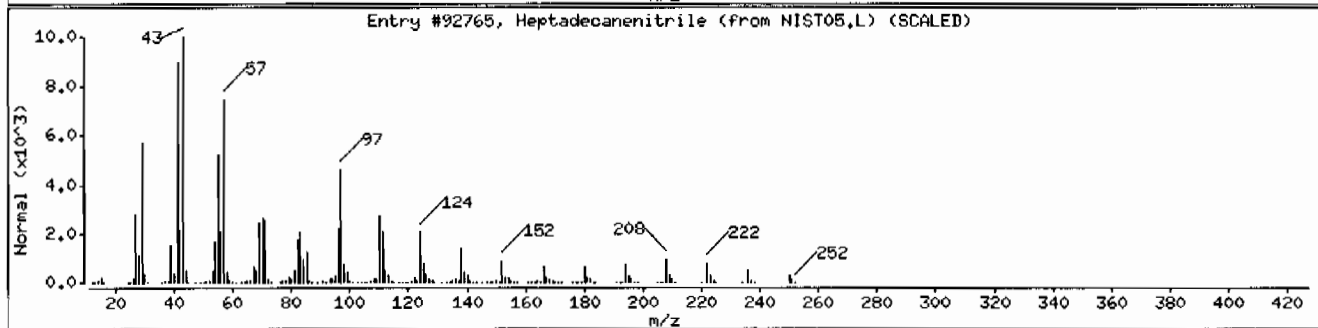
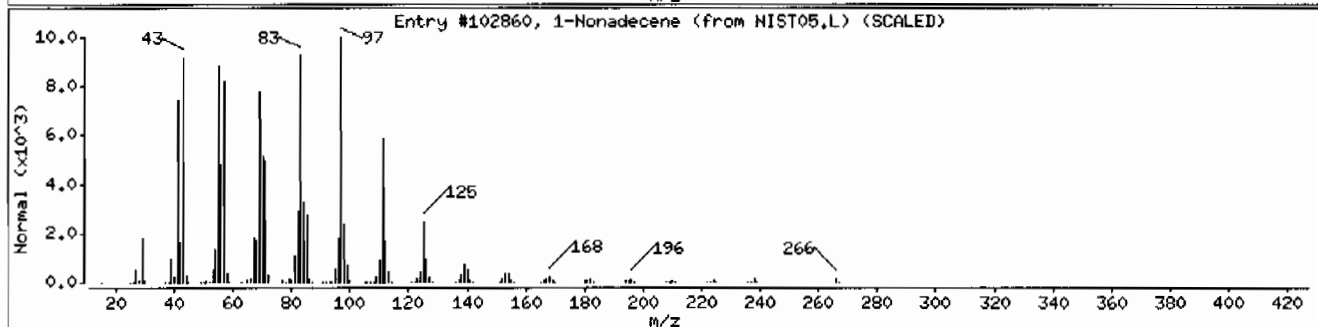
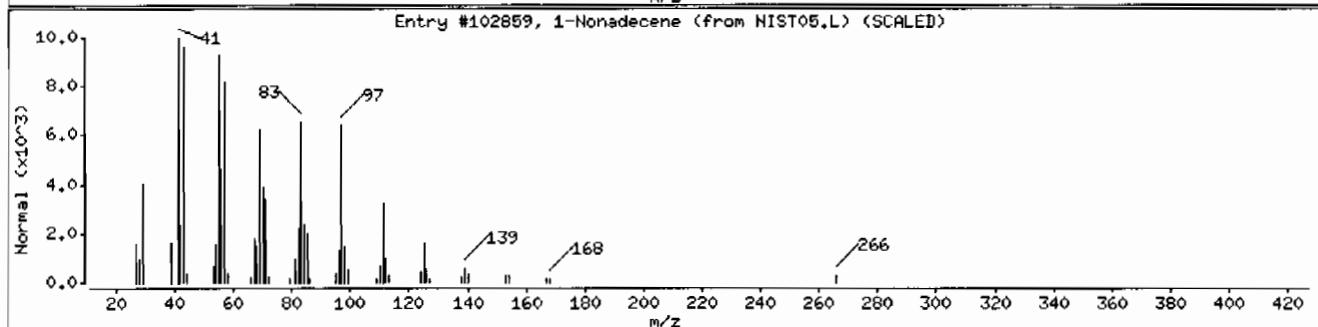
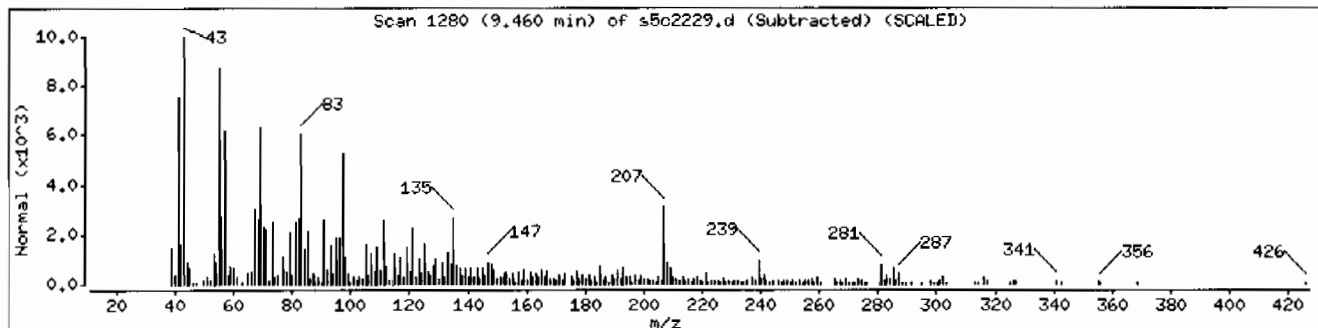
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Nonadecene	18435-45-5	NIST05.L	102859	90	C19H38	266
1-Nonadecene	18435-45-5	NIST05.L	102860	90	C19H38	266
Heptadecanenitrile	5399-02-0	NIST05.L	92765	60	C17H33N	251



Date : 22-MAR-2010 19:11

Client ID: RE36-10-7436

Instrument: HSD5.i

Sample Info: 12485060181963086111SVH111LANL

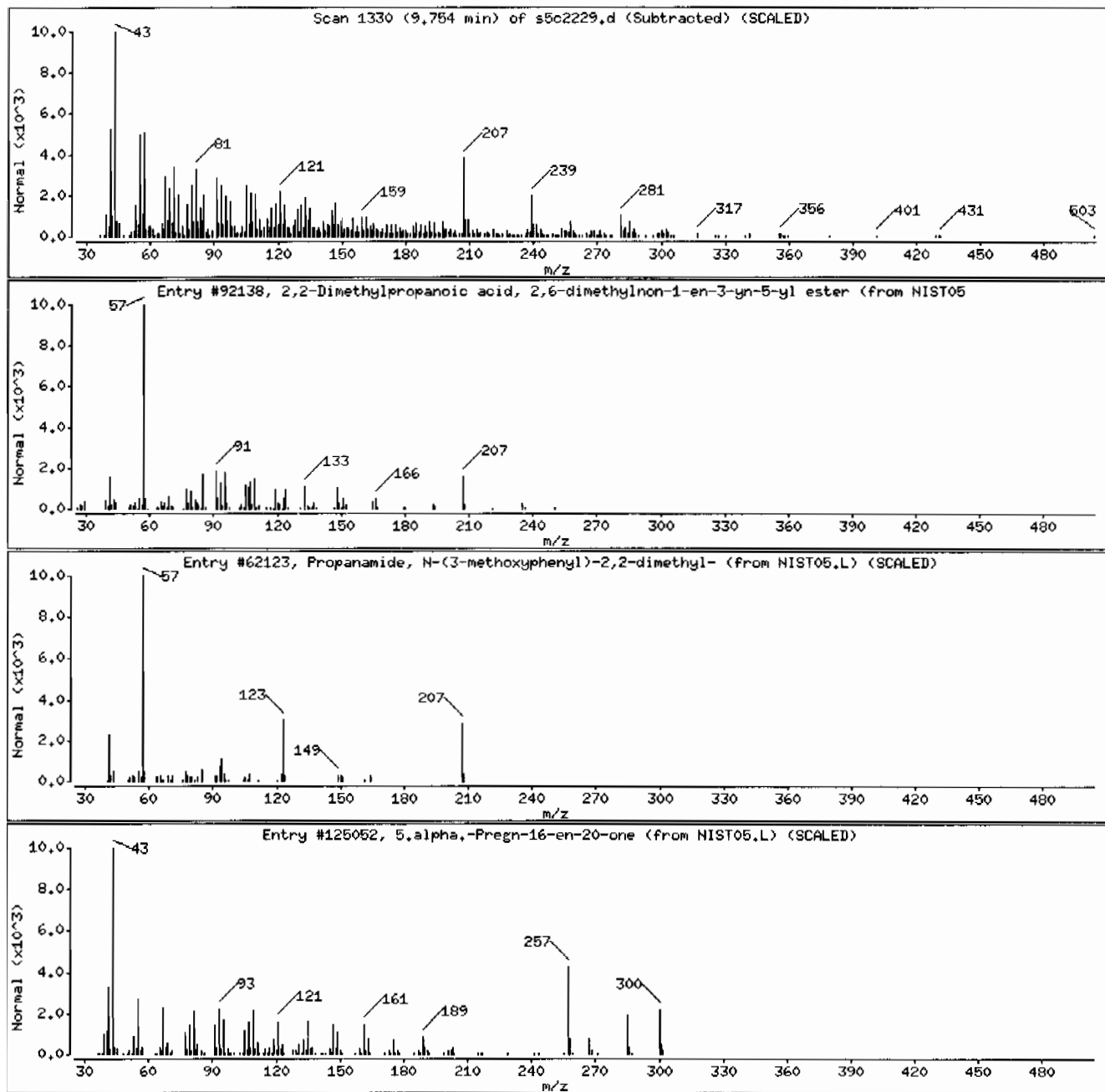
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,2-Dimethylpropanoic acid, 2,6-dimethyl	1000299-33-6	NIST05.L	92138	33	C16H26O2	250
Propanamide, N-(3-methoxyphenyl)-2,2-dim	56619-93-3	NIST05.L	62123	14	C12H17NO2	207
5.alpha.-Pregn-16-en-20-one	3752-04-3	NIST05.L	125052	12	C21H32O	300





Date : 22-MAR-2010 19:11

Client ID: RE36-10-7436

Instrument: MSD5.i

Sample Info: 12485060181963086111SVH11/LANL

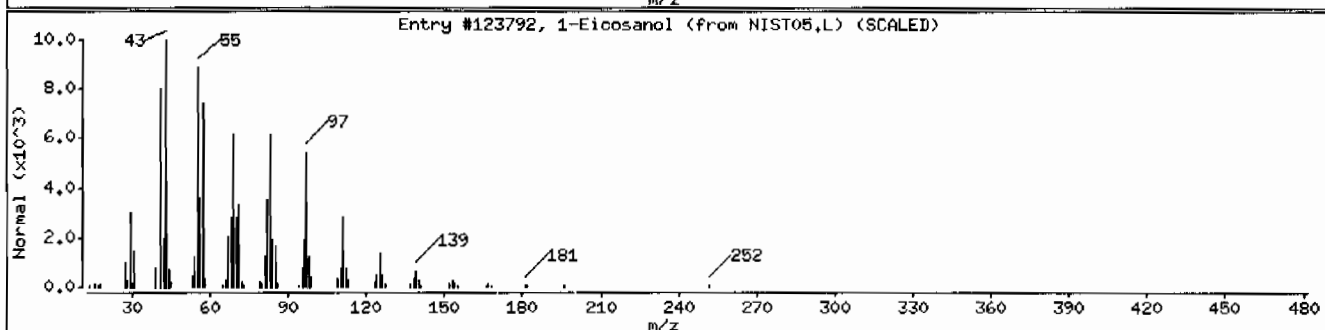
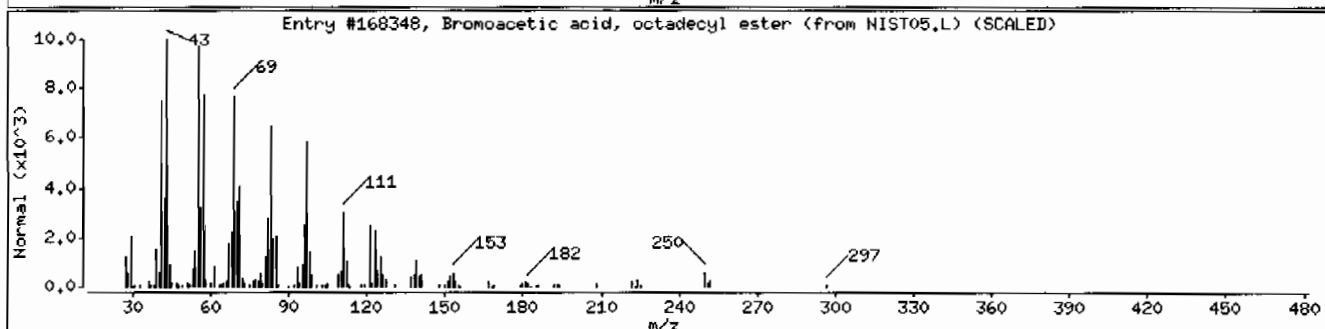
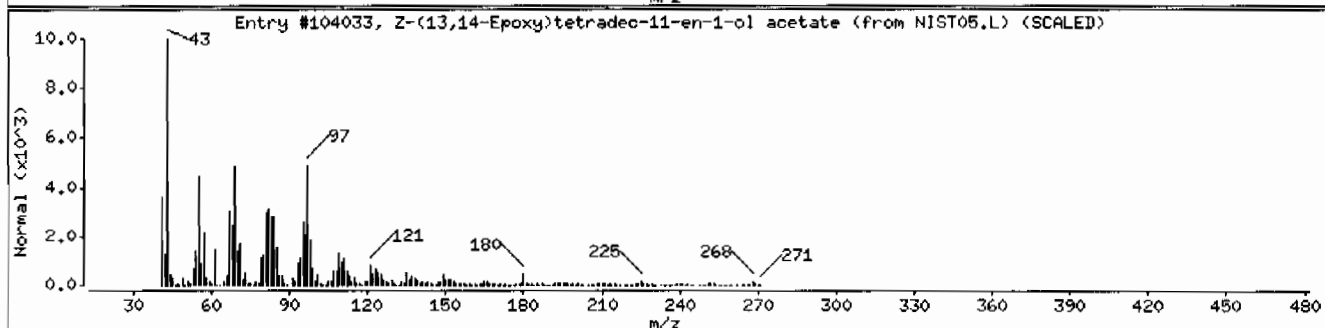
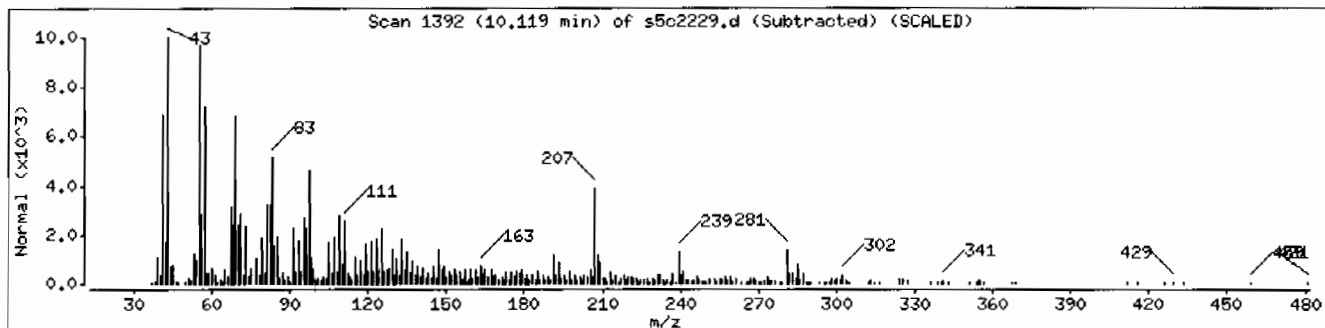
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Z-(13,14-Epoxy)tetradec-11-en-1-ol aceta	1000131-33-2	NIST05.L	104033	70	C16H28O3	268
Bromoacetic acid, octadecyl ester	18992-03-5	NIST05.L	168348	50	C20H39BrO2	390
1-Eicosanol	629-96-9	NIST05.L	123792	46	C20H42O	298



Date : 22-MAR-2010 19:11

Client ID: RE36-10-7436

Instrument: MSD5.i

Sample Info: I248506018I963086I1ISVMH1ILANL

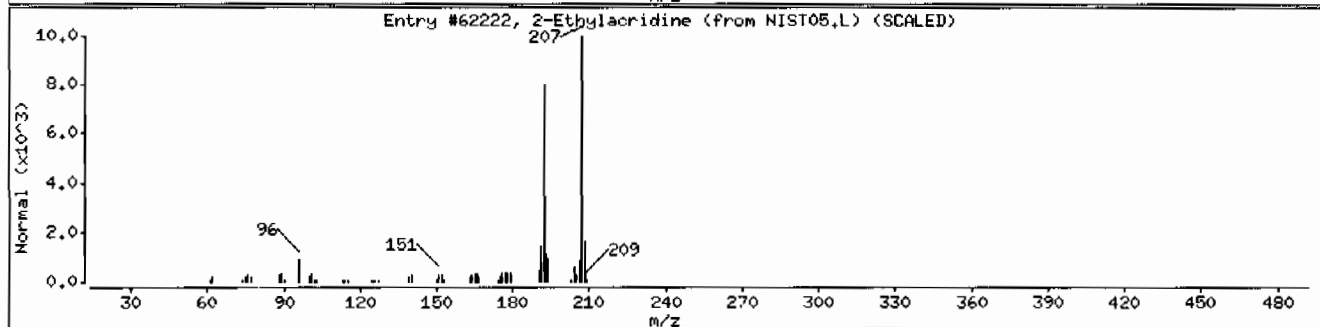
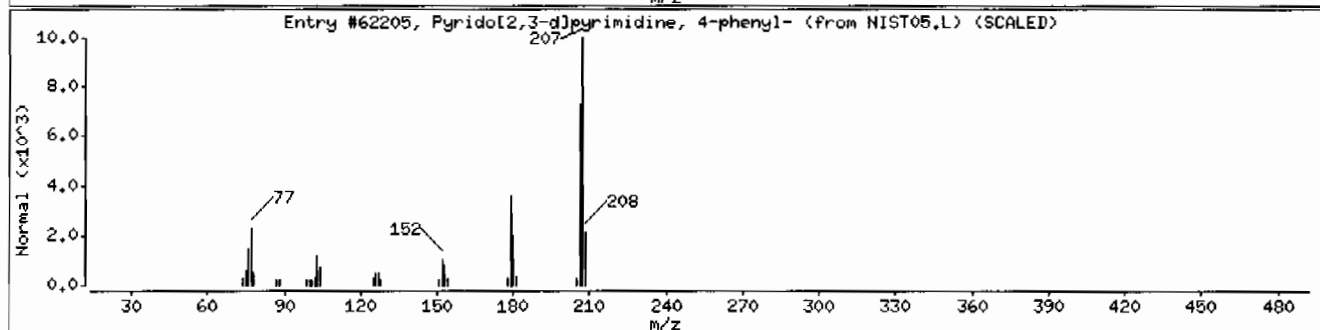
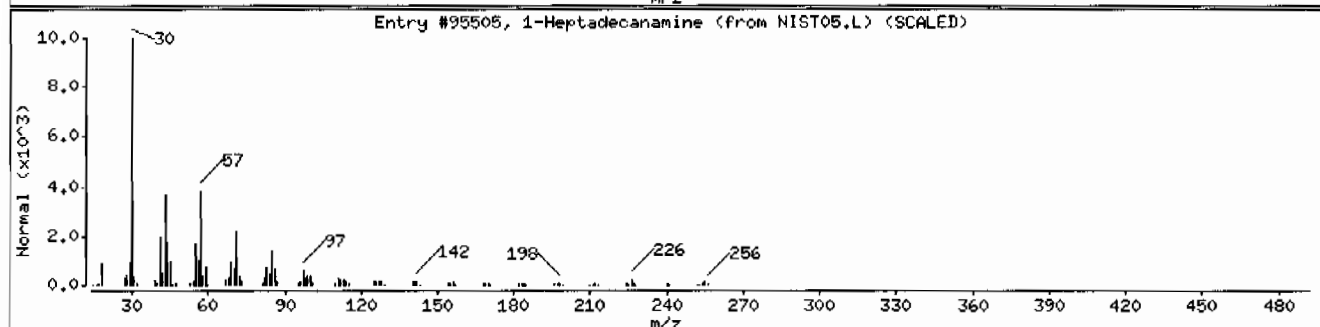
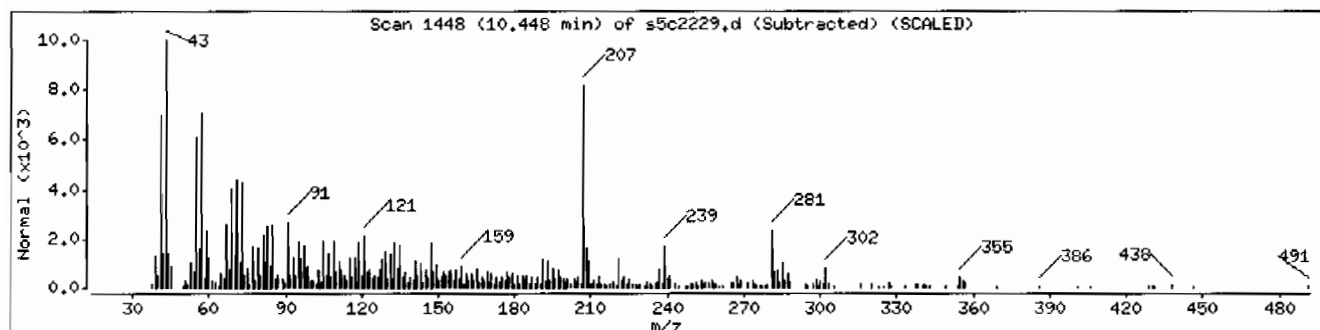
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Heptadecanamine	4200-95-7	NIST05.L	95505	47	C17H37N	255
Pyrido[2,3-d]pyrimidine, 4-phenyl-	28732-75-4	NIST05.L	62205	43	C13H9N3	207
2-Ethylacridine	55751-83-2	NIST05.L	62222	42	C15H13N	207



Date : 22-MAR-2010 19:11

Client ID: RE36-10-7436

Instrument: MSD5.i

Sample Info: 12485060181963086111SVH111LANL

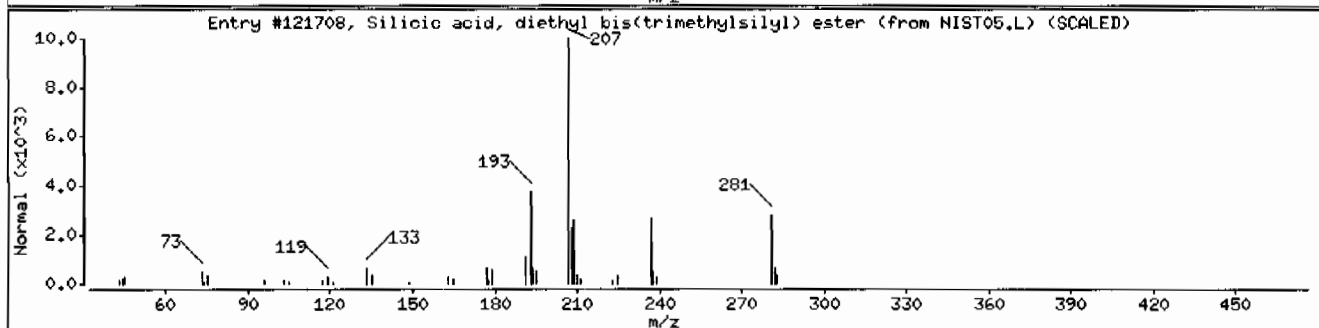
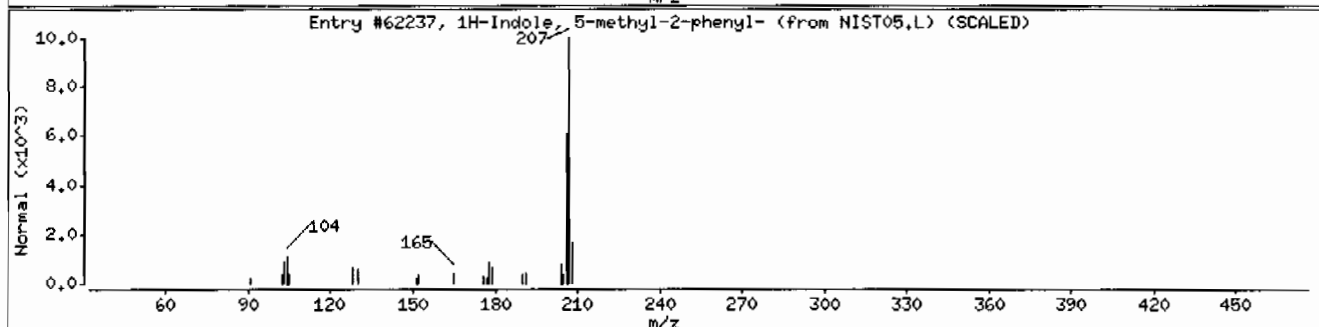
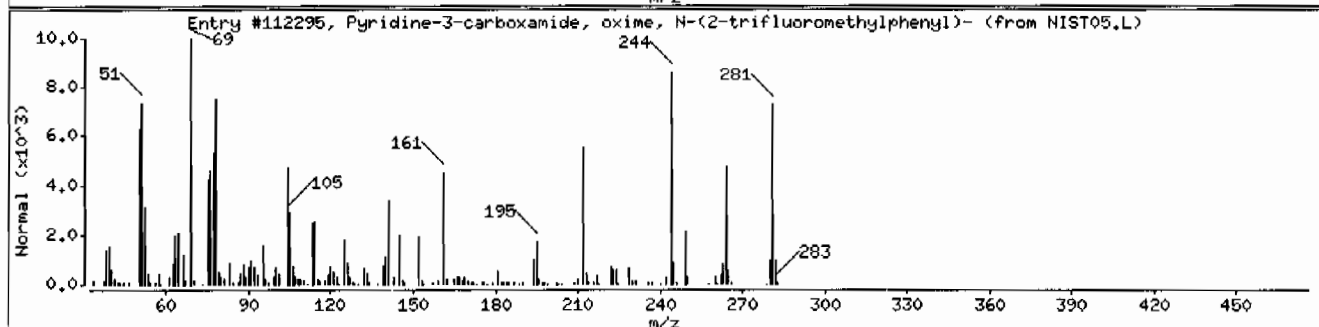
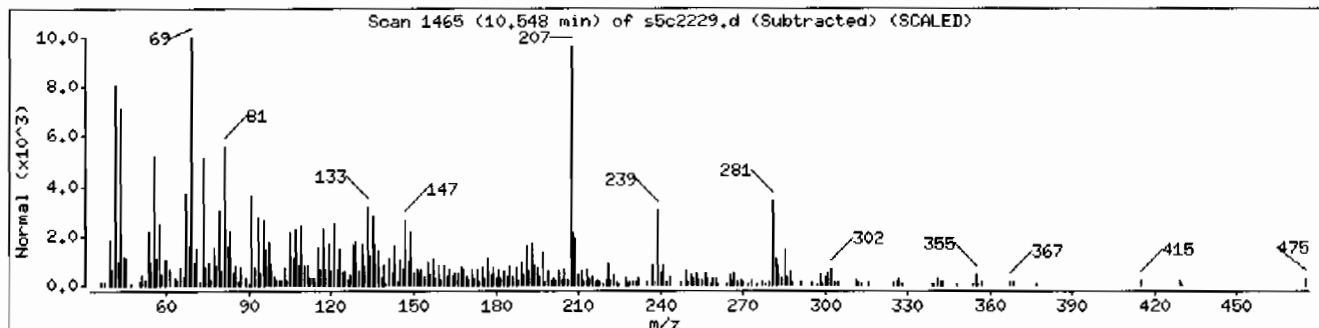
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyridine-3-carboxamide, oxime, N-(2-trif	288246-53-7	NIST05.L	112295	93	C13H10F3N3O	281
1H-Indole, 5-methyl-2-phenyl-	13228-36-9	NIST05.L	62237	30	C15H13N	207
Silicic acid, diethyl bis(trimethylsilyl	3555-45-1	NIST05.L	121708	27	C10H28O4Si3	296



Date : 22-MAR-2010 19:11

Client ID: RE36-10-7436

Instrument: HSD5.i

Sample Info: 12485060181963086111SVMI11LANL

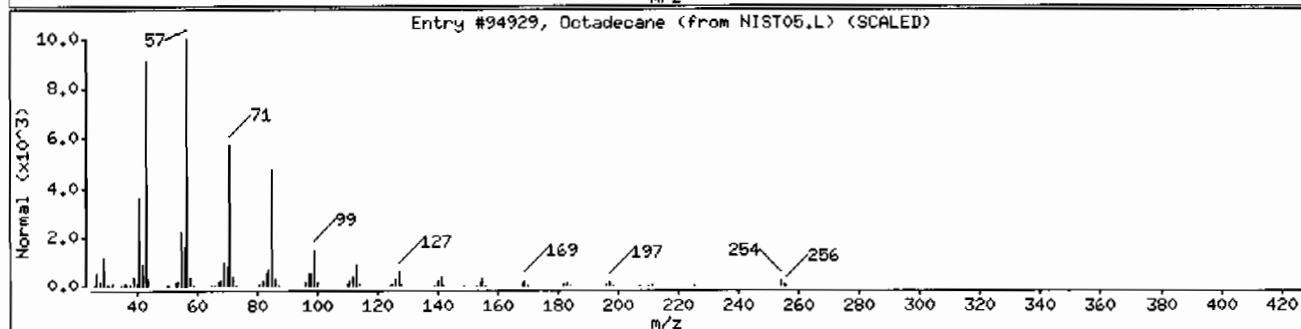
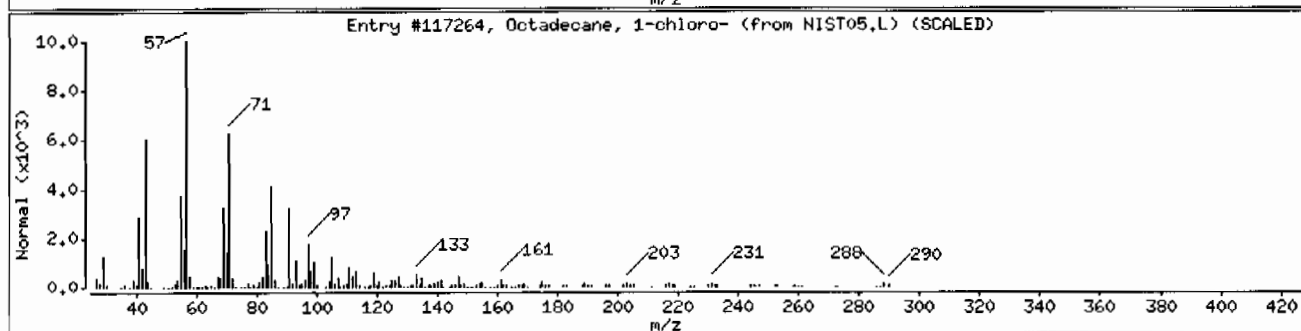
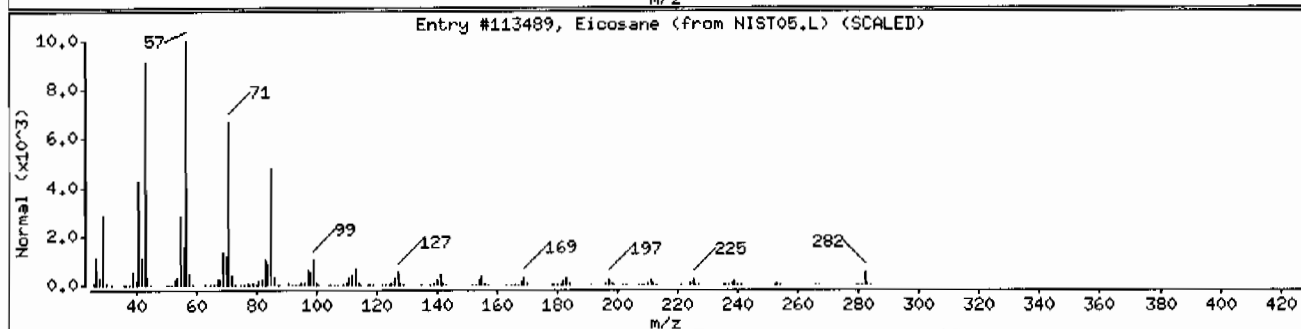
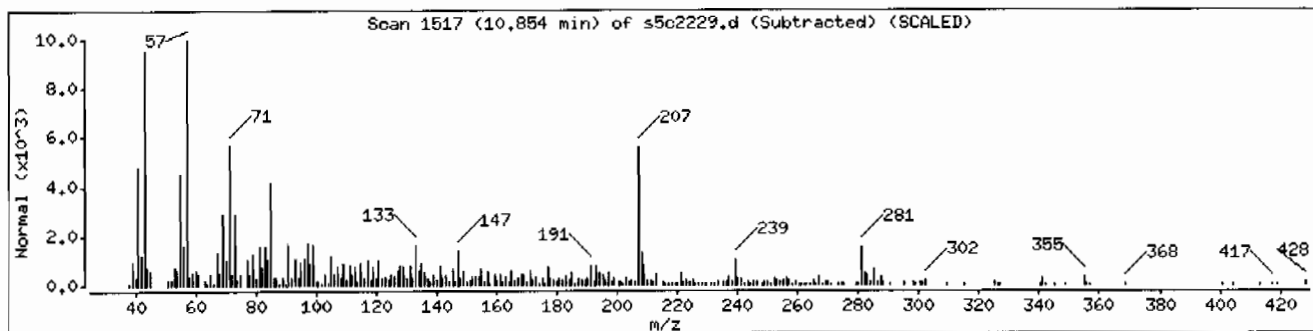
Volume Injected (uL): 0.5

Operator: RMB

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	113489	95	C20H42	282
Octadecane, 1-chloro-	3386-33-2	NIST05.L	117264	94	C18H37Cl	288
Octadecane	593-45-3	NIST05.L	94929	86	C18H38	254



Date : 22-MAR-2010 19:11

Client ID: RE36-10-7436

Instrument: MSD5.i

Sample Info: 1248506018196308611|SVH11|LANL

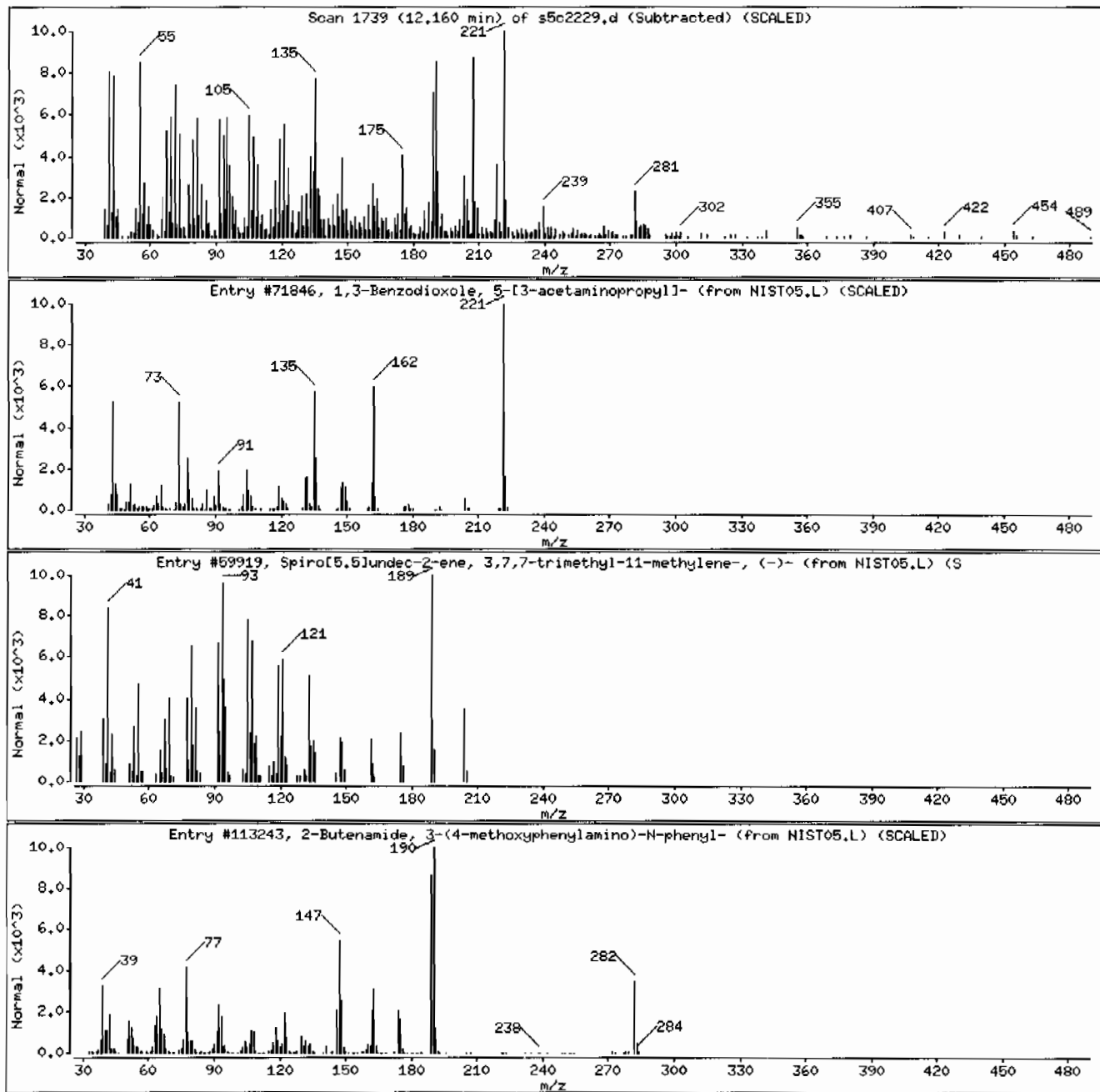
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,3-Benzodioxole, 5-[3-acetaminopropyl]-	1000124-33-0	NIST05.L	71846	35	C12H15NO3	221
Spiro[5.5]undec-2-ene, 3,7,7-trimethyl-1	18431-82-8	NIST05.L	59919	25	C15H24	204
2-Butenamide, 3-(4-methoxyphenylamino)-N	24572-60-9	NIST05.L	113243	25	C17H18N2O2	282



Date : 22-MAR-2010 19:11

Client ID: RE36-10-7436

Instrument: MSD5.i

Sample Info: I2485060181963086111SVH111LANL

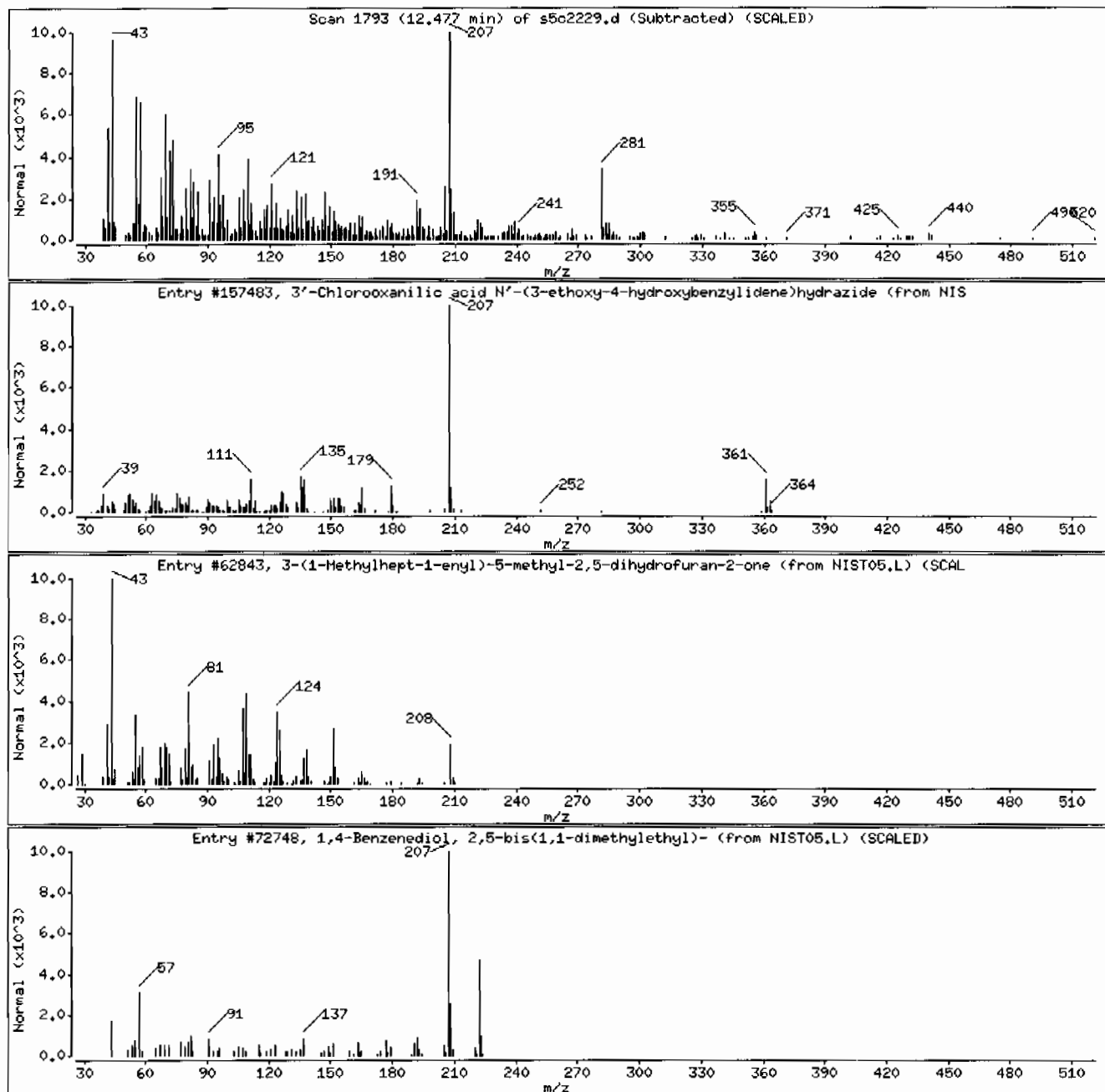
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3'-Chlorooxanilic acid N'-(3-ethoxy-4-hy	328018-74-2	NIST05.L	157483	35	C17H16ClN3O4	361
3-(1-Methylhept-1-enyl)-5-methyl-2,5-dih	1000284-50-5	NIST05.L	62843	35	C13H20O2	208
1,4-Benzenediol, 2,5-bis(1,1-dimethyleth	88-58-4	NIST05.L	72748	30	C14H22O2	222



Date : 22-MAR-2010 19:11

Client ID: RE36-10-7436

Instrument: HSD5.i

Sample Info: 1248506018196308611SVH11ILANL

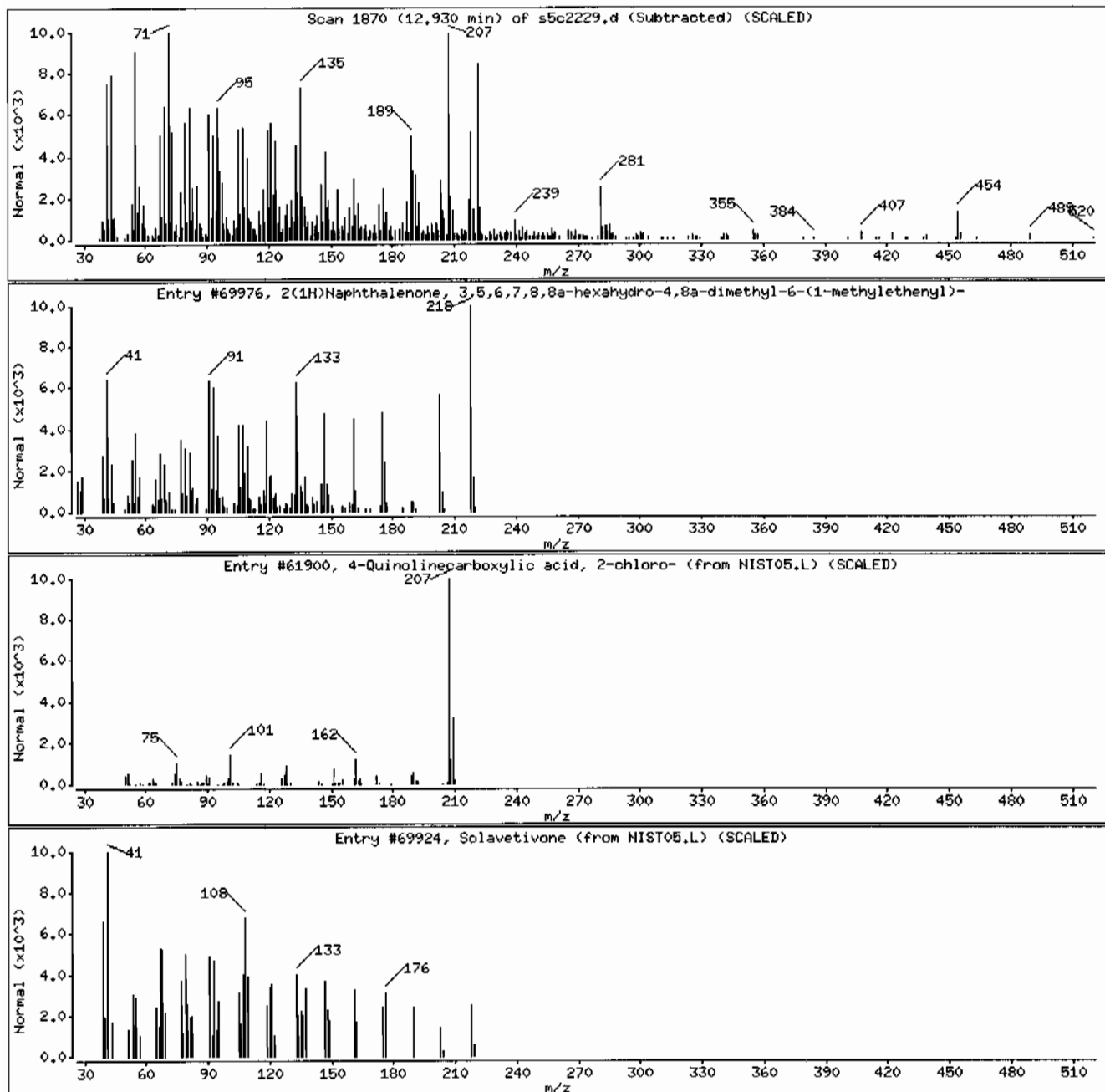
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2(1H)Naphthalenone, 3,5,6,7,8,8a-hexahyd	1000188-66-5	NIST05.L	69976	35	C15H22O	218
4-Quinolinecarboxylic acid, 2-chloro-	5467-57-2	NIST05.L	61900	25	C10H6ClNO2	207
Solavetivone	54878-25-0	NIST05.L	69924	25	C15H22O	218



Date : 22-MAR-2010 19:11

Client ID: RE36-10-7436

Instrument: HSD5.i

Sample Info: 12485060181963086111SVH111LANL

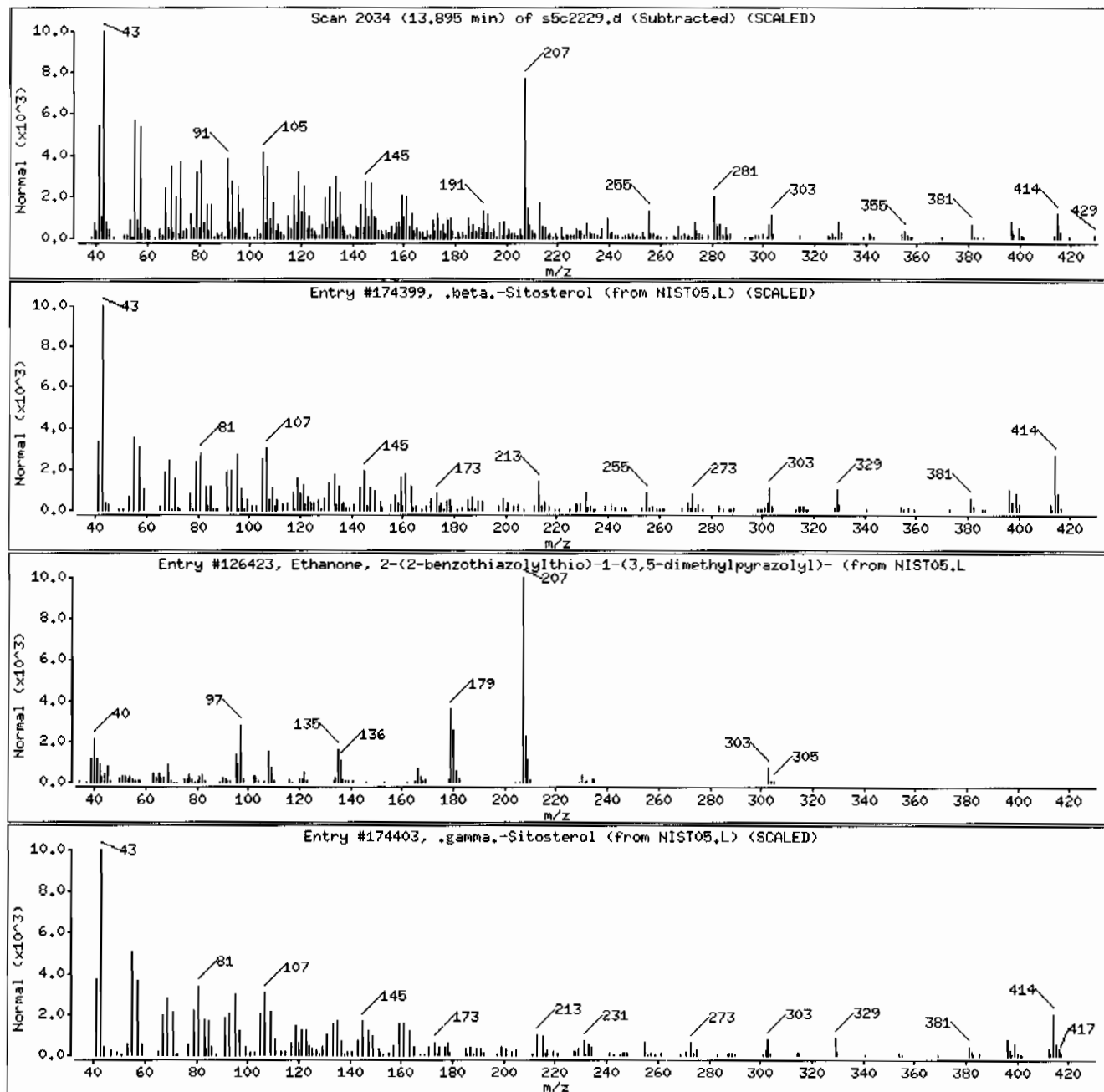
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174399	95	C29H50O	414
Ethanone, 2-(2-benzothiazolylthio)-1-(3,	155670-84-1	NIST05.L	126423	41	C14H13N3OS2	303
.gamma.-Sitosterol	83-47-6	NIST05.L	174403	41	C29H50O	414





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

SDG Number: 10-2193  
Lab Sample ID: 248506013

Client ID: RE36-10-7437  
Batch ID: 963086  
Run Date: 03/22/2010 17:16  
Prep Date: 03/10/2010 12:33  
Data File: s5c2224.d

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 16.3  
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	397	ug/kg	79.5	397
108-95-2	Phenol	U	397	ug/kg	79.5	397
95-57-8	2-Chlorophenol	U	397	ug/kg	79.5	397
106-46-7	1,4-Dichlorobenzene	U	397	ug/kg	79.5	397
621-64-7	N-Nitrosodipropylamine	U	397	ug/kg	79.5	397
59-50-7	4-Chloro-3-methylphenol	U	397	ug/kg	79.5	397
83-32-9	Acenaphthene	U	39.7	ug/kg	13.1	39.7
121-14-2	2,4-Dinitrotoluene	U	397	ug/kg	39.7	397
100-02-7	4-Nitrophenol	U	397	ug/kg	131	397
87-86-5	Pentachlorophenol	U	397	ug/kg	99.4	397
129-00-0	Pyrene		48.9	ug/kg	11.9	39.7
110-86-1	Pyridine	U	397	ug/kg	79.5	397
62-53-3	Aniline	U	397	ug/kg	119	397
111-44-4	bis(2-Chloroethyl) ether	U	397	ug/kg	79.5	397
541-73-1	1,3-Dichlorobenzene	U	397	ug/kg	79.5	397
100-51-6	Benzyl alcohol	U	397	ug/kg	119	397
95-50-1	1,2-Dichlorobenzene	U	397	ug/kg	79.5	397
108-60-1	bis(2-Chloroisopropyl)ether	U	397	ug/kg	79.5	397
95-48-7	o-Cresol	U	397	ug/kg	79.5	397
65794-96-9	m,p-Cresols	U	397	ug/kg	119	397
67-72-1	Hexachloroethane	U	397	ug/kg	79.5	397
98-95-3	Nitrobenzene	U	397	ug/kg	79.5	397
78-59-1	Isophorone	U	397	ug/kg	79.5	397
88-75-5	2-Nitrophenol	U	397	ug/kg	79.5	397
105-67-9	2,4-Dimethylphenol	U	397	ug/kg	139	397
111-91-1	bis(2-Chloroethoxy)methane	U	397	ug/kg	79.5	397
120-83-2	2,4-Dichlorophenol	U	397	ug/kg	79.5	397
65-85-0	Benzoic acid	U	795	ug/kg	199	795
91-20-3	Naphthalene	U	39.7	ug/kg	11.9	39.7
106-47-8	4-Chloroaniline	U	397	ug/kg	79.5	397
87-68-3	Hexachlorobutadiene	U	397	ug/kg	79.5	397
91-57-6	2-Methylnaphthalene	U	39.7	ug/kg	7.95	39.7
77-47-4	Hexachlorocyclopentadiene	U	397	ug/kg	79.5	397
88-06-2	2,4,6-Trichlorophenol	U	397	ug/kg	79.5	397
95-95-4	2,4,5-Trichlorophenol	U	397	ug/kg	79.5	397
91-58-7	2-Chloronaphthalene	U	39.7	ug/kg	13.1	39.7
88-74-4	2-Nitroaniline	U	397	ug/kg	79.5	397
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	397	ug/kg	79.5	397

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506013	Date Received: 03/03/2010 08:50	% Moisture: 16.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7437	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 17:16	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s5c2224.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	U	397	ug/kg	79.5	397
606-20-2	2,6-Dinitrotoluene	U	397	ug/kg	39.7	397
208-96-8	Acenaphthylene	U	39.7	ug/kg	11.9	39.7
51-28-5	2,4-Dinitrophenol	U	795	ug/kg	151	795
132-64-9	Dibenzofuran	U	397	ug/kg	79.5	397
84-66-2	Diethylphthalate	U	397	ug/kg	79.5	397
86-73-7	Fluorene	U	39.7	ug/kg	11.9	39.7
7005-72-3	4-Chlorophenylphenylether	U	397	ug/kg	79.5	397
534-52-1	2-Methyl-4,6-dinitrophenol	U	397	ug/kg	79.5	397
100-01-6	4-Nitroaniline	U	397	ug/kg	119	397
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	397	ug/kg	79.5	397
122-66-7	Azobenzene	U	397	ug/kg	79.5	397
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	397	ug/kg	79.5	397
118-74-1	Hexachlorobenzene	U	397	ug/kg	79.5	397
85-01-8	Phenanthrene	J	35.1	ug/kg	11.9	39.7
120-12-7	Anthracene	U	39.7	ug/kg	7.95	39.7
84-74-2	Di-n-butylphthalate	U	397	ug/kg	79.5	397
206-44-0	Fluoranthene		54.5	ug/kg	11.9	39.7
85-68-7	Butylbenzylphthalate	U	397	ug/kg	79.5	397
56-55-3	Benzo(a)anthracene	U	39.7	ug/kg	11.9	39.7
91-94-1	3,3'-Dichlorobenzidine	U	397	ug/kg	119	397
218-01-9	Chrysene	J	29.7	ug/kg	11.9	39.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	397	ug/kg	79.5	397
117-84-0	Di-n-octylphthalate	U	397	ug/kg	79.5	397
205-99-2	Benzo(b)fluoranthene	U	39.7	ug/kg	11.9	39.7
207-08-9	Benzo(k)fluoranthene	U	39.7	ug/kg	11.9	39.7
50-32-8	Benzo(a)pyrene	U	39.7	ug/kg	11.9	39.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.7	ug/kg	11.9	39.7
53-70-3	Dibenzo(a,h)anthracene	U	39.7	ug/kg	11.9	39.7
191-24-2	Benzo(ghi)perylene	U	39.7	ug/kg	11.9	39.7
120-82-1	1,2,4-Trichlorobenzene	U	397	ug/kg	79.5	397

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
103-82-2	Benzeneacetic acid	4.96	684	ug/kg	91	NJ
	Unknown	8.46	329	ug/kg		J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506013	Date Received: 03/03/2010 08:50	%Moisture: 16.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7437	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 17:16	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s5c2224.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
1000130-99-4	9-Methyl-Z-10-tetradecen-1-ol acetate	8.79	663	ug/kg	93	NJ
	Unknown	9.02	374	ug/kg		J
5508-58-7	Andrographolide	9.14	356	ug/kg	81	NJ
1000130-84-8	(S)(+)-Z-13-Methyl-11-pentadecen-1-ol ac	9.25	387	ug/kg	93	NJ
	Unknown	9.45	941	ug/kg		J
629-78-7	Heptadecane	10.09	404	ug/kg	95	NJ
1599-67-3	1-Docosene	10.11	2000	ug/kg	99	NJ
	Unknown	10.26	345	ug/kg		J
4860-03-1	Hexadecane, 1-chloro-	10.45	760	ug/kg	91	NJ
309735-29-3	1,2-Benzisothiazole, 3-(hexahydro-1H-aze	10.49	575	ug/kg	91	NJ
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.55	1060	ug/kg	95	NJ
	Unknown	10.63	853	ug/kg		J
1000131-09-4	Z-12-Pentacosene	10.9	923	ug/kg	96	NJ
	Unknown	11.12	613	ug/kg		J
	Unknown	11.45	548	ug/kg		J
	Unknown	11.51	488	ug/kg		J
	Unknown	11.81	730	ug/kg		J
	Unknown	11.94	3600	ug/kg		J
	Unknown	12.11	1140	ug/kg		J
	Unknown	12.7	979	ug/kg		J
57-87-4	Ergosterol	13.01	975	ug/kg	86	NJ
83-47-6	.gamma.-Sitosterol	13.9	2570	ug/kg	96	NJ
	Unknown	14.01	535	ug/kg		J
	Unknown	14.32	638	ug/kg		J

Data File: /chem/MSD5.i/s032210.b/s5c2224.d  
Report Date: 23-Mar-2010 07:53

Page 1

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2224.d  
Lab Smp Id: 248506013 Client Smp ID: RE36-10-7437  
Inj Date : 22-MAR-2010 17:16  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506013|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 24  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	16.27870	% 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	3.949	3.950	(1.000)	257888	40.0000	
* 29 Naphthalene-d8		136	4.813	4.821	(1.000)	1004072	40.0000	
* 46 Acenaphthene-d10		164	6.072	6.078	(1.000)	604003	40.0000	
* 67 Phenanthrene-d10		188	7.254	7.253	(1.000)	1078894	40.0000	
* 91 Chrysene-d12		240	9.672	9.670	(1.000)	830155	40.0000	
* 98 Perylene-d12		264	11.383	11.370	(1.000)	524611	40.0000	
\$ 3 2-Fluorophenol		112	3.143	3.141	(0.796)	384274	59.6735	2370
\$ 5 Phenol-d5		99	3.666	3.666	(0.928)	470233	60.7552	2410
\$ 20 Nitrobenzene-d5		82	4.307	4.316	(0.895)	266305	35.6932	1420
\$ 39 2-Fluorobiphenyl		172	5.554	5.558	(0.915)	480190	31.8302	1260
\$ 60 2,4,6-Tribromophenol		329	6.678	6.675	(1.100)	137749	60.7194	2410
\$ 81 p-Terphenyl-d14		244	8.636	8.630	(0.893)	490289	35.5051	1410

Compounds	QUANT SIG							CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL	(ng/ul)	(ug/Kg)
79 Pyrene	202	8.531	8.534	(0.882)	26215	1.23001	48.9		
68 Phenanthrene	178	7.266	7.272	(1.002)	20148	0.88217	35.1 (a)		
76 Fluoranthene	202	8.319	8.317	(1.147)	32681	1.37172	54.5		
92 Chrysene	228	9.695	9.694	(1.002)	12946	0.74834	29.7 (a)		

#### QC Flag Legend

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

## ION RATIO REPORT

## SV REPORT

Data file: s5c2224.d

Report Date: 03/23/2010 07:05

Lab. ID: 248506013

SampleType: SAMPLE

Injection Date: 22-MAR-2010 17:16

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506013|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
1 N-Methyl-N-nitrosomethylamine				CAS#: 62-75-9		
74	45608	2.23	2.46	80-120	100	(T)
42	6749	2.22	2.46	82-142	15	(QT)
43	34080	2.22	2.46	15- 75	75	(QT)
-----						
4 Aniline				CAS#: 62-53-3		
66	31774	3.67	3.74	80-120	100	(T)
93	19134	3.62	3.74	219-279	60	(QT)
-----						
7 bis(2-Chloroethyl) ether				CAS#: 111-44-4		
63	11720	3.95	3.75	80-120	100	(T)
93	16330	3.90	3.75	119-179	139	(T)
95	641	3.90	3.75	8- 68	5	(QT)
-----						
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	38471	4.31	4.19	80-120	100	(T)
42	25330	4.31	4.19	44-104	66	(T)
-----						
22 Isophorone				CAS#: 78-59-1		
82	262301	4.31	4.48	80-120	100	(T)
138	494	4.37	4.48	0- 49	0	(T)
-----						
27 Benzoic acid				CAS#: 65-85-0		
105	15775	4.57	4.59	80-120	100	( )
122	11161	4.57	4.59	45-105	71	( )
77	18240	4.58	4.59	48-108	116	(Q)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
40	2-Chloronaphthalene			CAS#: 91-58-7		
162	5202	5.64	5.67	80-120	100	( )
164	380	5.67	5.67	3- 63	7	( )
127	1204	5.63	5.67	11- 71	23	( )
<hr/>						
42	o-Nitroaniline			CAS#: 88-74-4		
65	14196	5.80	5.73	80-120	100	(T)
92	16344	5.80	5.73	34- 94	115	(QT)
138	1121	5.80	5.73	74-134	8	(QT)
<hr/>						
43	Dimethylphthalate			CAS#: 131-11-3		
163	112179	6.07	5.84	80-120	100	(T)
164	604003	6.07	5.84	0- 40	538	(QT)
<hr/>						
44	2,6-Dinitrotoluene			CAS#: 606-20-2		
165	80198	6.07	5.90	80-120	100	(T)
63	3318	6.07	5.89	62-122	4	(QT)
<hr/>						
48	2,4-Dinitrophenol			CAS#: 51-28-5		
184	286	6.18	6.10	80-120	100	(T)
154	1478	6.24	6.10	1062-1122	517	(QT)
<hr/>						
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	79992	6.07	6.19	80-120	100	(T)
89	5670	6.07	6.19	51-111	7	(QT)
63	2798	6.07	6.19	24- 84	3	(QT)
<hr/>						
52	4-Nitrophenol			CAS#: 100-02-7		
139	712	6.13	6.12	80-120	100	( )
109	1902	6.13	6.12	63-123	267	(Q)
65	4273	6.13	6.11	71-131	600	(Q)
<hr/>						
53	Fluorene			CAS#: 86-73-7		
166	7348	6.67	6.49	80-120	100	(T)
165	6293	6.67	6.49	62-122	86	(T)
167	1927	6.67	6.49	0- 44	26	(T)
<hr/>						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	194	6.51	6.51	80-120	100	( )
105	3054	6.53	6.50	13- 73	1567	(Q)
51	1010	6.54	6.50	51-111	518	(Q)
<hr/>						
68	Phenanthrene			CAS#: 85-01-8		
178	20148	7.27	7.27	80-120	100	( )
179	3528	7.27	7.27	0- 46	18	( )
176	3648	7.27	7.27	0- 49	18	( )
<hr/>						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
69 Anthracene		CAS#: 120-12-7				
178	20148	7.27	7.32	80-120	100	( )
179	3332	7.27	7.32	0- 46	17	( )
176	3648	7.27	7.32	0- 49	18	( )
-----						
76 Fluoranthene		CAS#: 206-44-0				
202	32681	8.32	8.32	80-120	100	( )
203	6637	8.31	8.32	0- 48	20	( )
101	4521	8.32	8.32	0- 41	14	( )
-----						
79 Pyrene		CAS#: 129-00-0				
202	28215	8.53	8.53	80-120	100	( )
200	6985	8.53	8.53	0- 51	25	( )
101	4161	8.53	8.53	0- 43	15	( )
-----						
89 Benzo(a)anthracene		CAS#: 56-55-3				
228	12934	9.66	9.66	80-120	100	( )
226	3548	9.67	9.66	0- 56	27	( )
229	6600	9.66	9.66	0- 50	51	(Q)
-----						
92 Chrysene		CAS#: 218-01-9				
228	12946	9.70	9.69	80-120	100	( )
229	3558	9.70	9.69	0- 50	27	( )
226	4407	9.70	9.69	0- 59	34	( )
-----						
95 Benzo(b)fluoranthene		CAS#: 205-99-2				
252	14404	10.86	10.85	80-120	100	( )
253	2989	10.86	10.85	0- 52	21	( )
125	6010	10.86	10.85	0- 41	42	(Q)
-----						
96 Benzo(k)fluoranthene		CAS#: 207-08-9				
252	14404	10.86	10.88	80-120	100	( )
253	4378	10.86	10.88	0- 52	30	( )
125	6585	10.86	10.88	0- 40	46	(Q)
-----						
97 Benzo(a)pyrene		CAS#: 50-32-8				
252	6388	11.30	11.29	80-120	100	( )
253	1311	11.30	11.29	0- 52	21	( )
125	2207	11.38	11.29	0- 30	35	(QT)
-----						
99 Indeno(1,2,3-cd)pyrene		CAS#: 193-39-5				
276	3153	13.18	13.17	80-120	100	( )
138	1281	13.19	13.18	0- 58	41	( )
-----						
101 Benzo(ghi)perylene		CAS#: 191-24-2				
276	2840	13.73	13.72	80-120	100	( )
138	2655	13.74	13.72	0- 30	93	(Q)
-----						

Q qualifier indicates ion failed ratio requirement



GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2224.d  
 Lab Smp Id: 248506013 Client Smp ID: RE36-10-7437  
 Inj Date : 22-MAR-2010 17:16  
 Operator : RMB Inst ID: MSD5.i  
 Smp Info : |248506013|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
 Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
 Als bottle: 24  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2193.sub  
 Target Version: 3.50  
 Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	16.27870	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 29 Naphthalene-d8	4.813	2275480	40.000
* 67 Phenanthrene-d10	7.254	2845660	40.000
* 91 Chrysene-d12	9.672	2695192	40.000
* 98 Perylene-d12	11.383	1805817	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	
====	=====	=====	=====	=====	=====	=====	=====
Benzeneacetic acid					CAS #: 103-82-2		
4.960	978599	17.2025057	684	91	NIST05.L	15740	29
Unknown					CAS #:		
8.460	588198	8.26800222	329	0		0	67
9-Methyl-Z-10-tetradecen-1-ol acetate					CAS #: 1000130-99-4		
8.789	1124328	16.6864186	663	93	NIST05.L	104145	91
Unknown					CAS #:		
9.019	634123	9.41117499	374	0		0	91
Andrographolide					CAS #: 5508-58-7		
9.136	603028	8.94967989	356	81	NIST05.L	152634	91
(S) (+)-Z-13-Methyl-11-pentadecen-1-ol ac					CAS #: 1000130-84-8		
9.248	655620	9.73021200	387	93	NIST05.L	113410	91
Unknown					CAS #:		
9.448	1595026	23.6721712	941	0		0	91
Heptadecane					CAS #: 629-78-7		
10.089	684009	10.1515370	404	95	NIST05.L	85524	91
1-Docosene					CAS #: 1599-67-3		
10.113	3396099	50.4023301	2000	99	NIST05.L	129888	91
Unknown					CAS #:		
10.260	585529	8.68997146	345	0		0	91
Hexadecane, 1-chloro-					CAS #: 4860-03-1		
10.454	1288939	19.1294493	760	91	NIST05.L	98777	91
1,2-Benzisothiazole, 3-(hexahydro-1H-aze					CAS #: 309735-29-3		
10.489	975302	14.4746910	575	91	NIST05.L	101019	91
Pyridine-3-carboxamide, oxime, N-(2-trif					CAS #: 288246-53-7		
10.548	1202125	26.6278358	1060	95	NIST05.L	112295	98
Unknown					CAS #:		
10.630	968341	21.4493731	852	0		0	98
Z-12-Pentacosene					CAS #: 1000131-09-4		
10.901	1048418	23.2231325	923	96	NIST05.L	152786	98

RT	CONCENTRATIONS			QUANT			
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
11.125	696180	15.4208266	613	0		0	98
Unknown					CAS #:		
11.454	622613	13.7912762	548	0		0	98
Unknown					CAS #:		
11.513	553948	12.2702910	488	0		0	98
Unknown					CAS #:		
11.813	828557	18.3530654	730	0		0	98
Unknown					CAS #:		
11.942	4086370	90.5156758	3600	0		0	98
Unknown					CAS #:		
12.107	1289368	28.5603186	1140	0		0	98
Unknown					CAS #:		
12.701	1111997	24.6314417	979	0		0	98
Ergosterol					CAS #: 57-87-4		
13.007	1107272	24.5267835	975	86	NIST05.L	170282	98
.gamma.-Sitosterol					CAS #: 83-47-6		
13.901	2923081	64.7480949	2570	96	NIST05.L	174402	98
Unknown					CAS #:		
14.013	607387	13.4540159	535	0		0	98
Unknown					CAS #:		
14.324	724648	16.0514131	638	0		0	98



Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.i

Sample Info: 1248506013196308611SVH11ILANL

Volume Injected (uL): 0.5

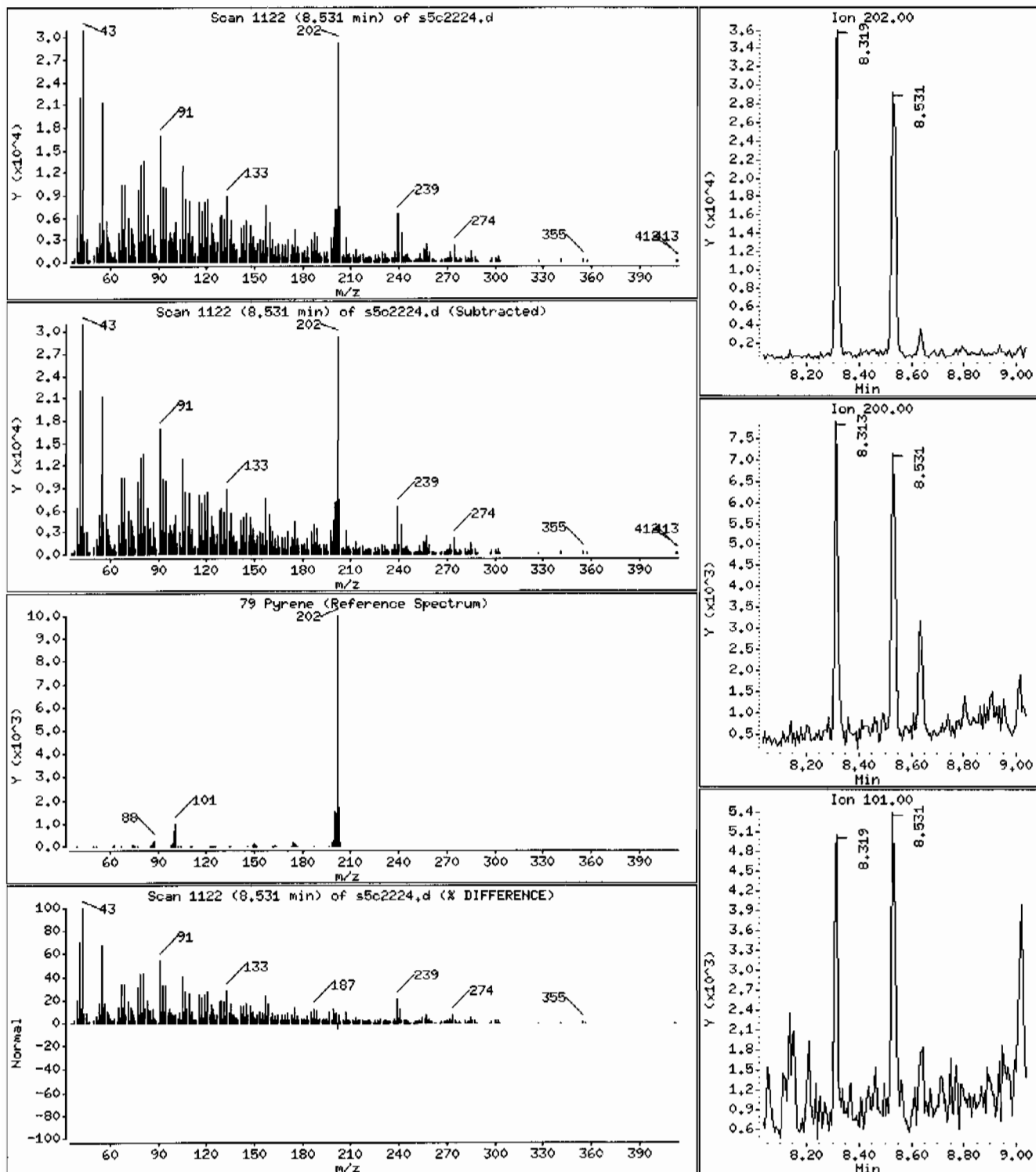
Operator: RMB

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

Column diameter: 0.20

79 Pyrene

Concentration: 48.9 ug/Kg



Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.i

Sample Info: 12485060131963086111SVH111LANL

Volume Injected (uL): 0.5

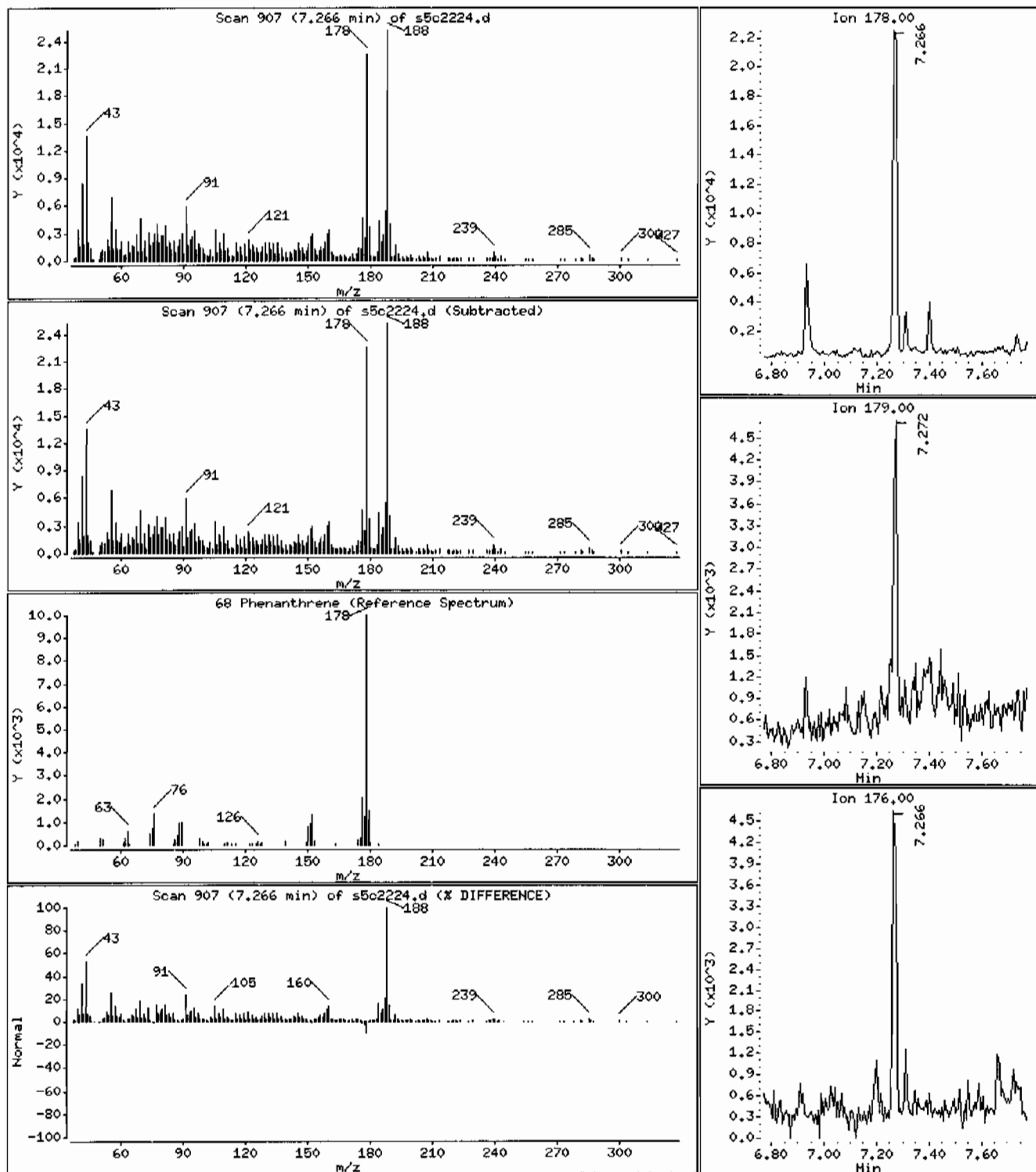
Operator: RMB

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

Column diameter: 0.20

68 Phenanthrene

Concentration: 35.1 ug/Kg



Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.i

Sample Info: 12485060131963086111SVH111LANL

Volume Injected (uL): 0.5

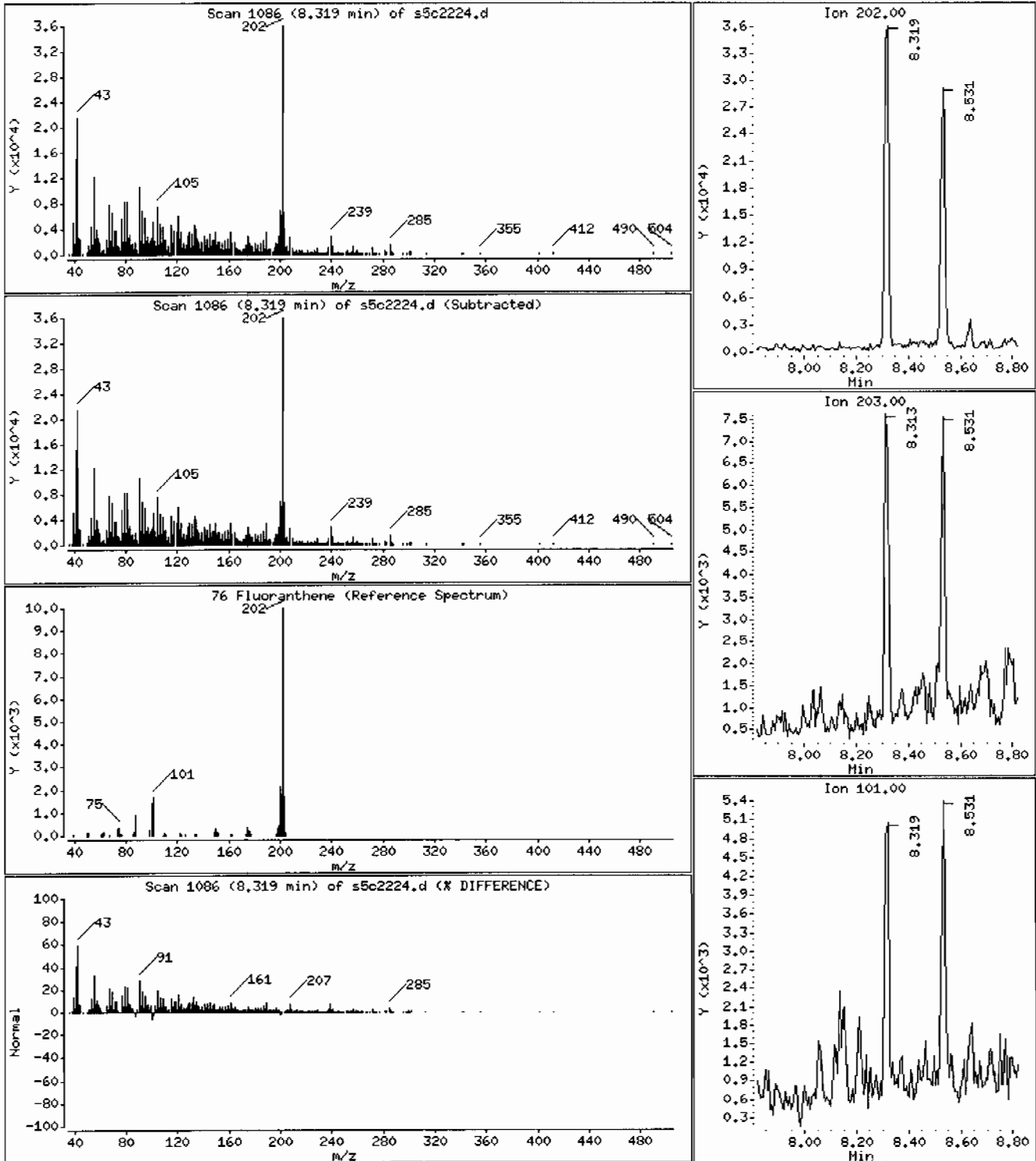
Operator: RMB

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

Column diameter: 0.20

76 Fluoranthene

Concentration: 54.5 ug/Kg



Date: 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.1

Sample Info: 12485060131963086111SVH111LANL

Volume Injected (uL): 0.5

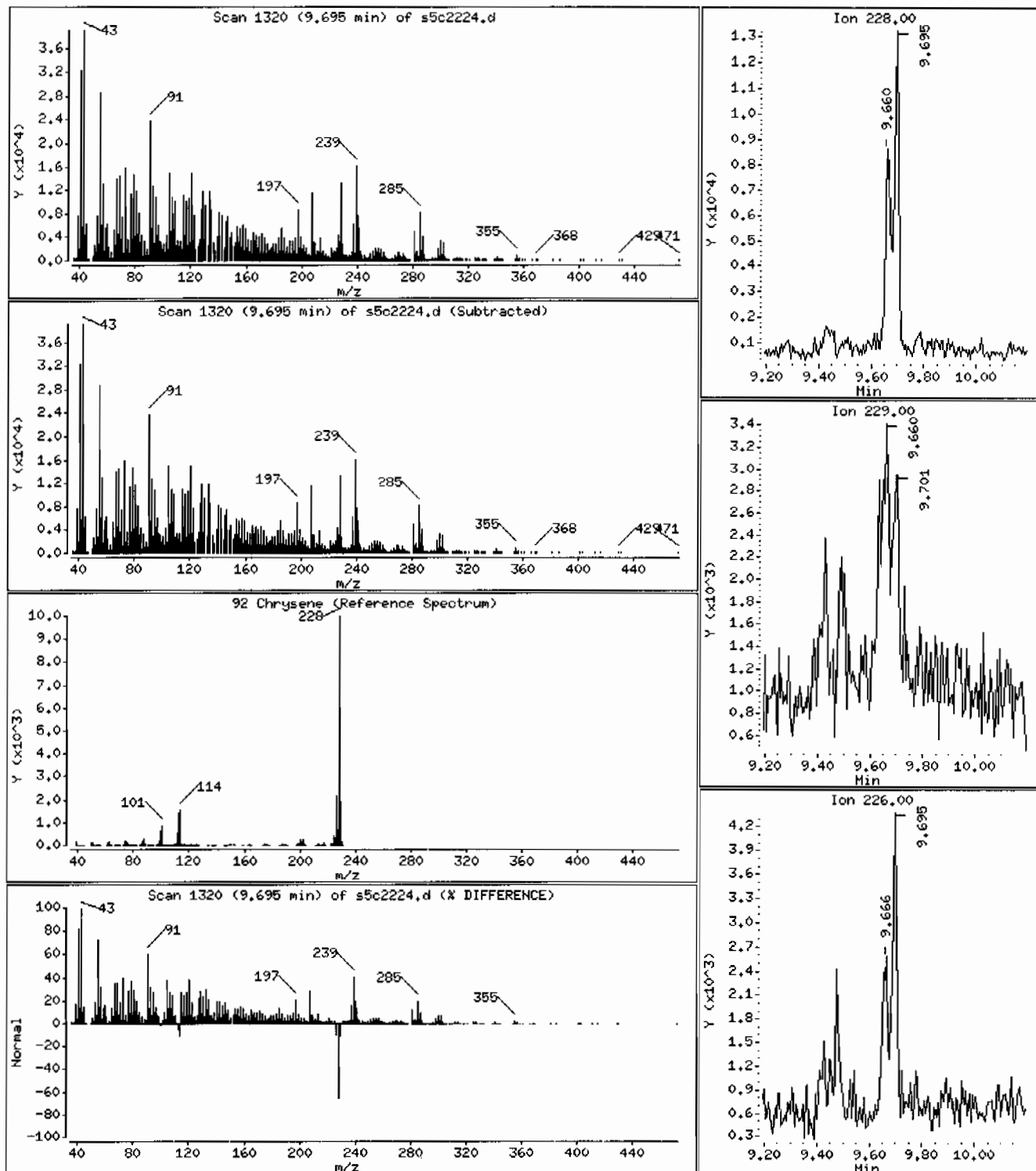
Operator: RMB

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

Column diameter: 0.20

92 Chrysene

Concentration: 29.7 ug/Kg





Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.i

Sample Info: 1248506013196308611ISVMI1ILANL

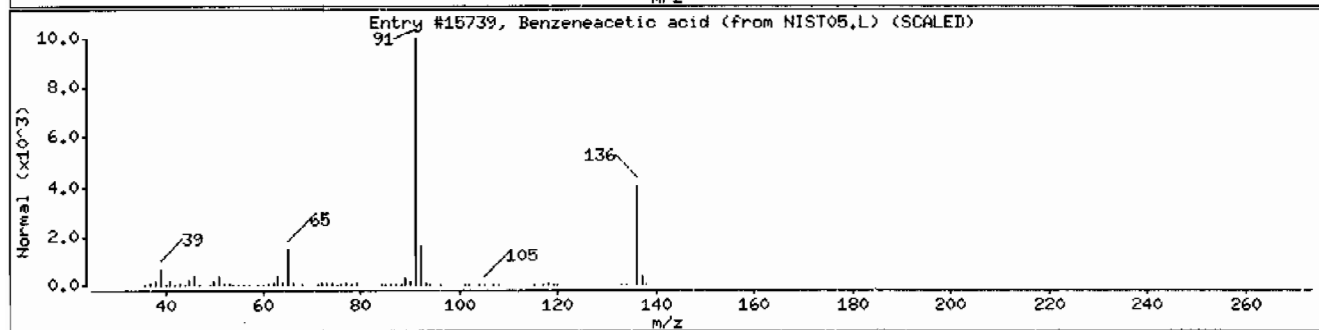
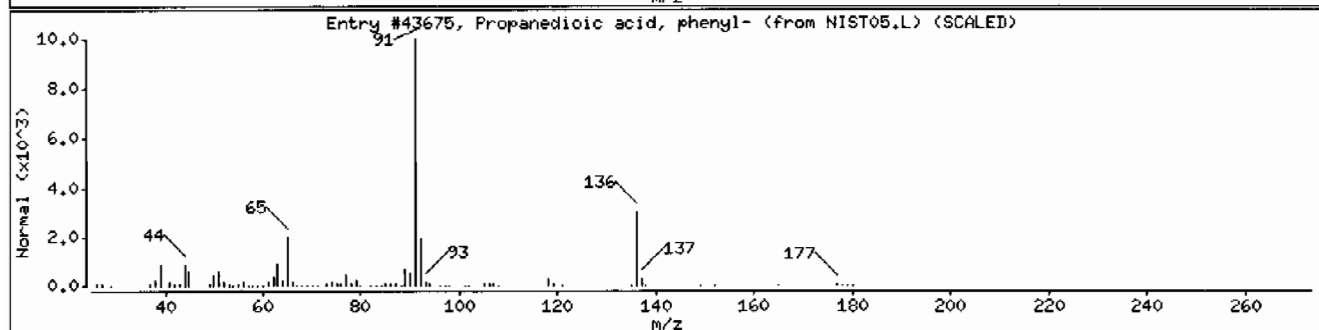
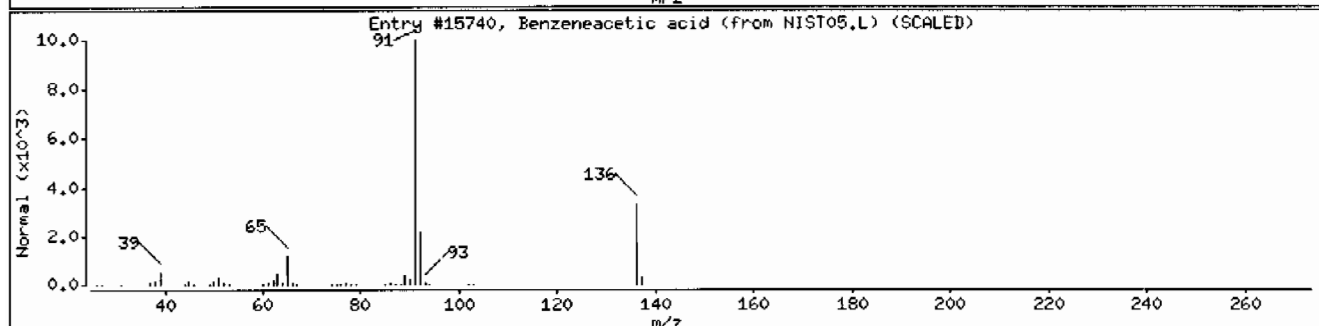
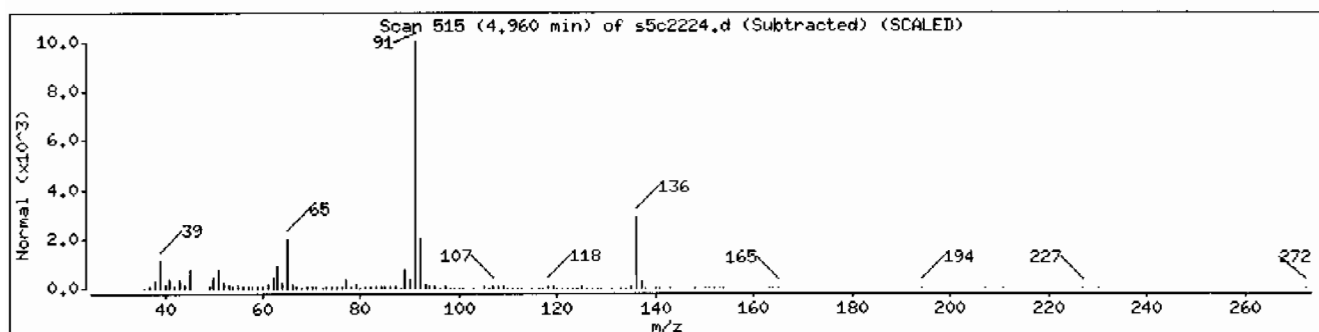
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzeneacetic acid	103-82-2	NIST05.L	15740	91	C8H8O2	136
Propanedioic acid, phenyl-	2613-89-0	NIST05.L	43675	90	C9H8O4	180
Benzeneacetic acid	103-82-2	NIST05.L	15739	87	C8H8O2	136



Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.1

Sample Info: 1248506013196308611SVMI11LANL

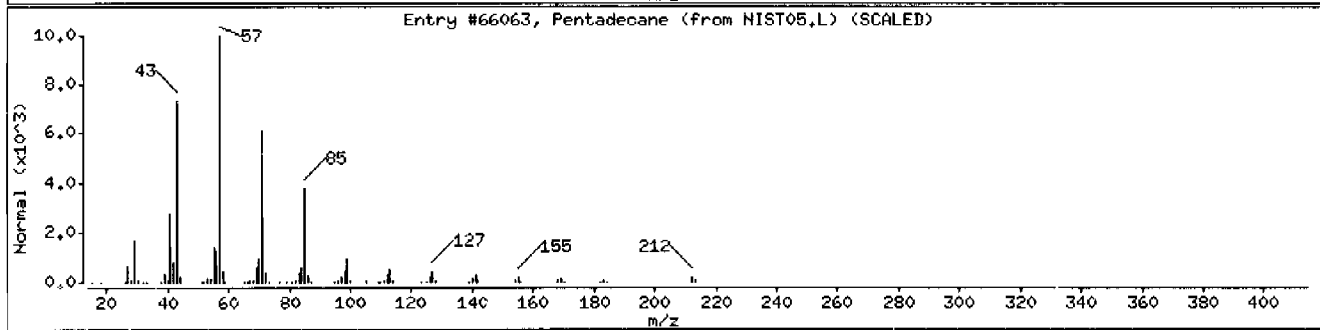
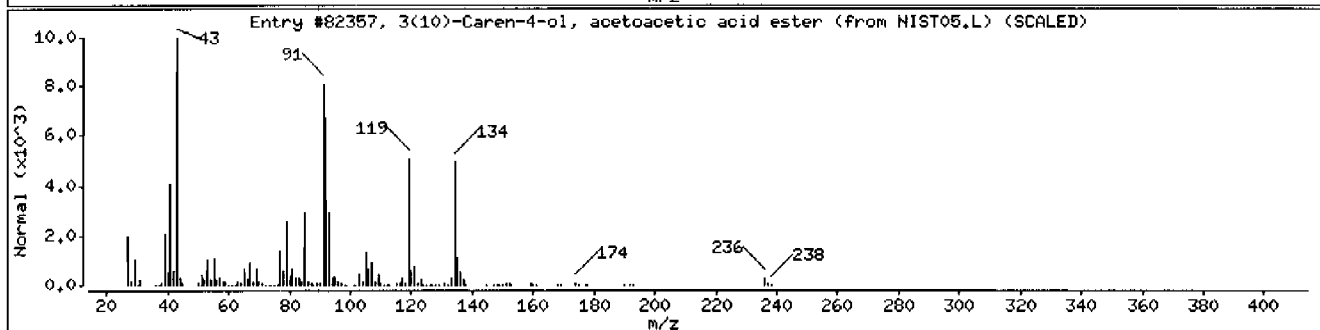
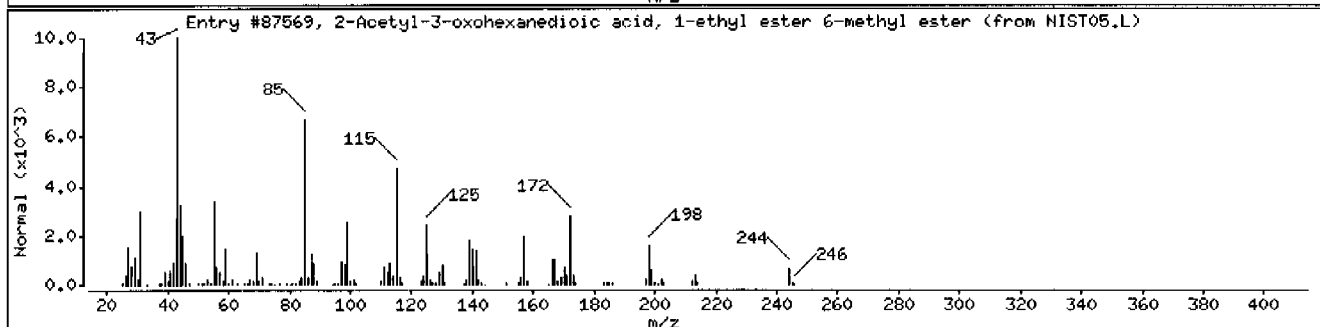
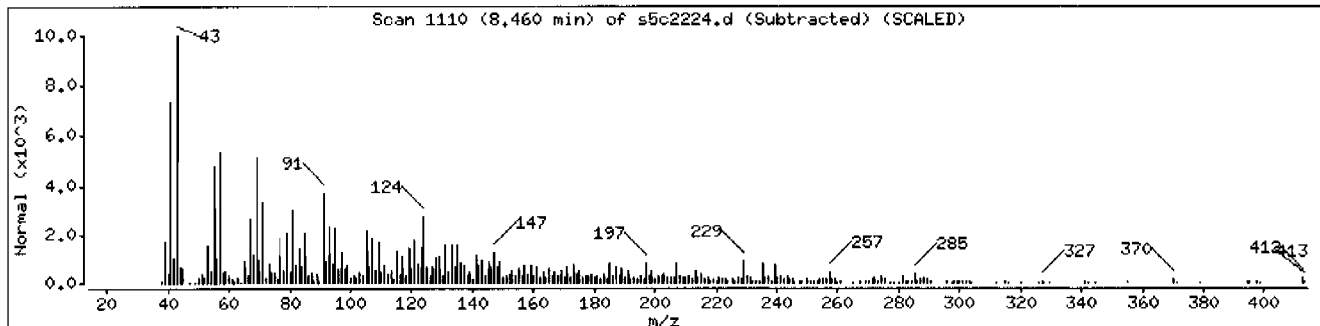
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Acetyl-3-oxohexanedioic acid, 1-ethyl	1000193-25-5	NIST05.L	87569	41	C11H16O6	244
3(10)-Caren-4-ol, acetoacetic acid ester	1000159-36-4	NIST05.L	82357	25	C14H20O3	236
Pentadecane	629-62-9	NIST05.L	66063	25	C15H32	212



Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.i

Sample Info: 12485060131963086111SVH111LANL

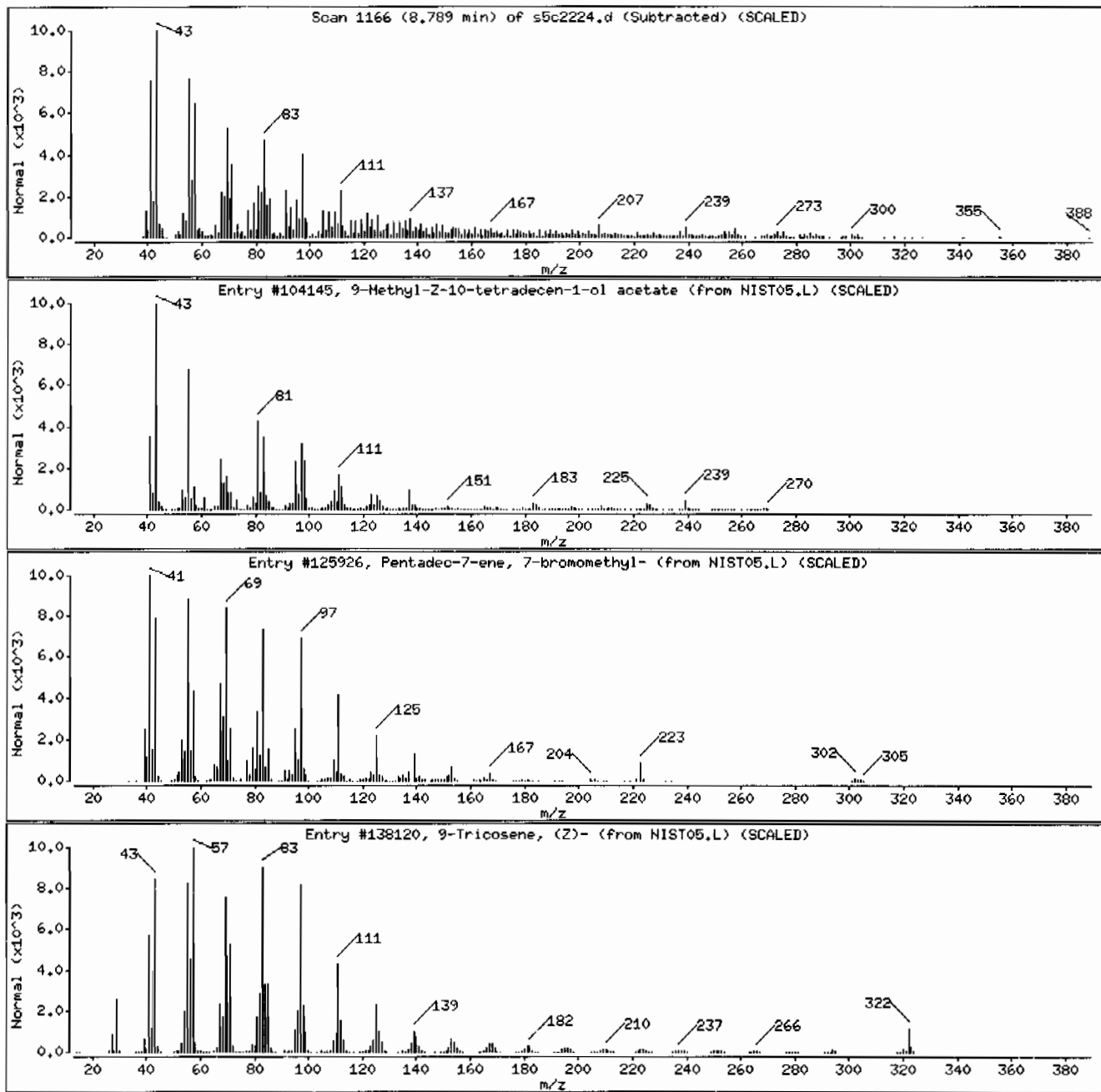
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Methyl-Z-10-tetradecen-1-ol acetate	1000130-99-4	NIST05.L	104145	93	C17H32O2	268
Pentadec-7-ene, 7-bromomethyl-	1000259-58-5	NIST05.L	125926	86	C16H31Br	302
9-Tricosene, (Z)-	27519-02-4	NIST05.L	138120	86	C23H46	322



Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.i

Sample Info: I248506013196308611SVMI11LANL

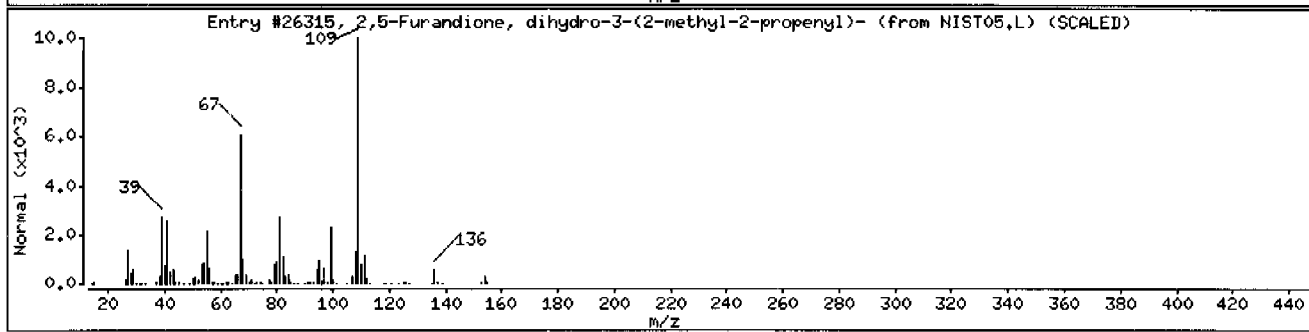
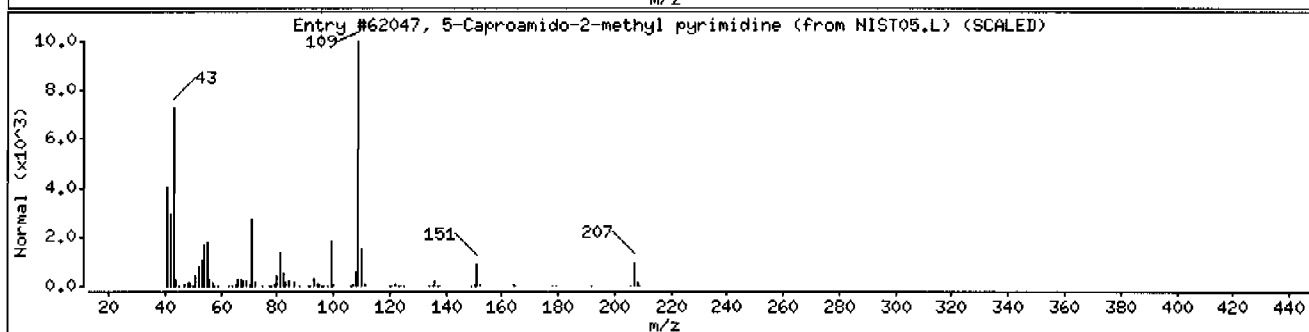
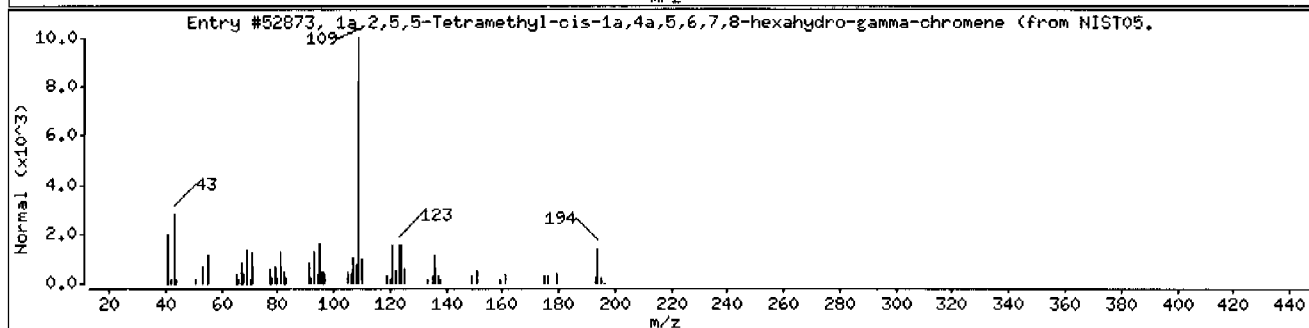
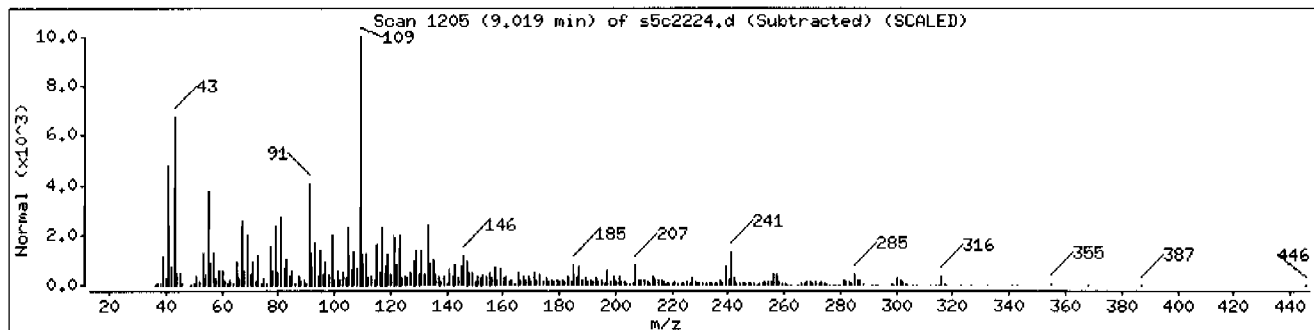
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1a,2,5,5-Tetramethyl-cis-1a,4a,5,6,7,8-h	1000215-77-7	NIST05.L	52873	46	C13H22O	194
5-Caproamido-2-methyl pyrimidine	1000213-95-8	NIST05.L	62047	46	C11H17N3O	207
2,5-Furandione, dihydro-3-(2-methyl-2-pr	18908-20-8	NIST05.L	26315	38	C8H10O3	154



Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.i

Sample Info: I2485060131963086111SVH111LANL

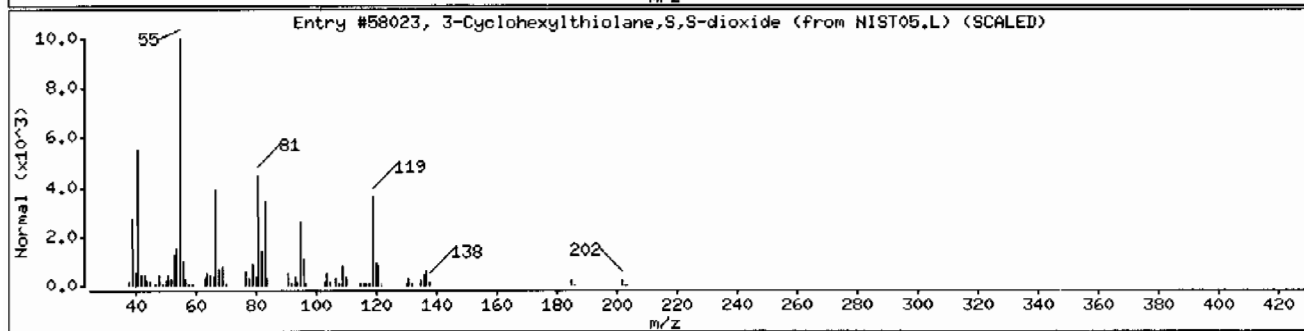
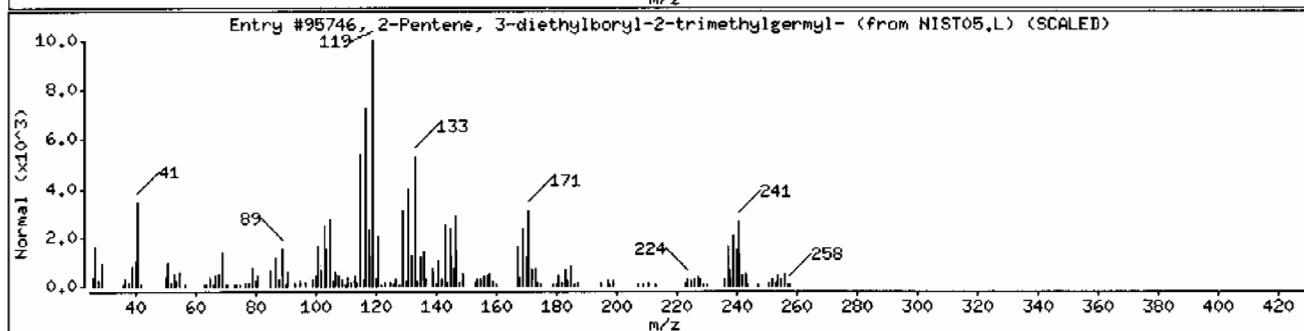
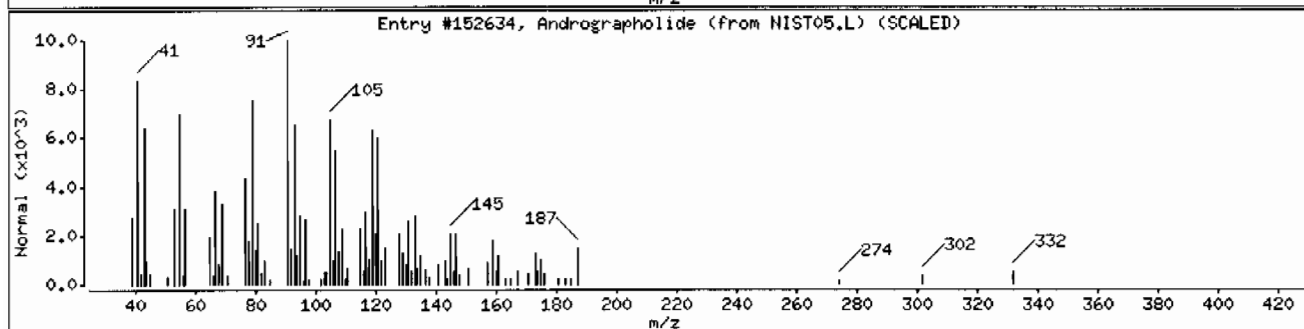
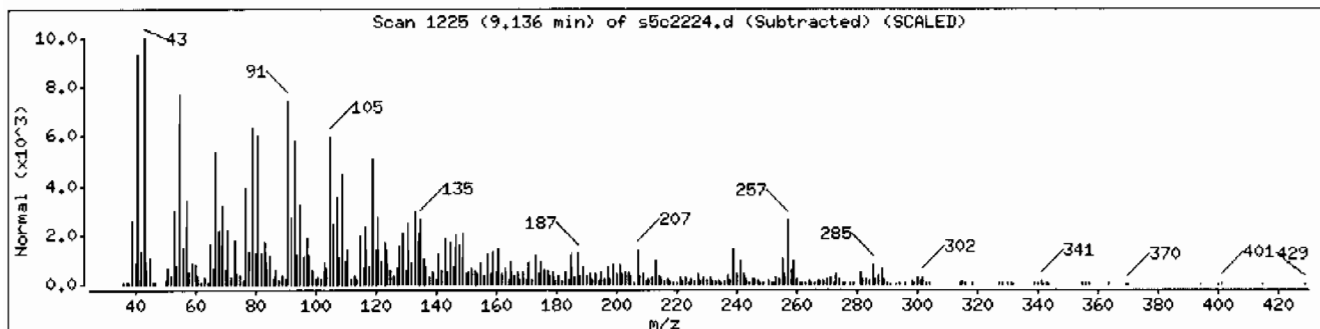
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Andrographolide	5508-58-7	NIST05.L	152634	81	C20H30O5	350
2-Pentene, 3-diethylboryl-2-trimethylger	1000153-65-0	NIST05.L	95746	43	C12H27BGe	256
3-Cyclohexylthiolane,S,S-dioxide	71053-08-2	NIST05.L	58023	25	C10H18O2S	202



Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.i

Sample Info: 1248506013196308611SVH11LANL

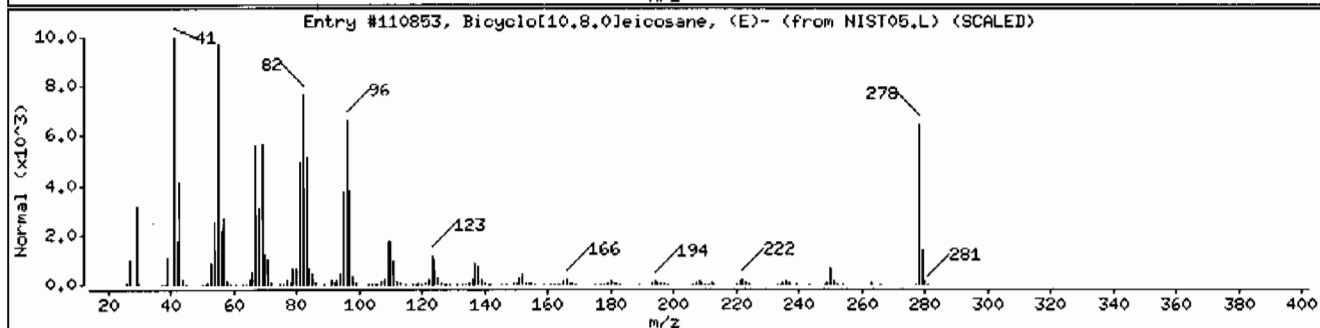
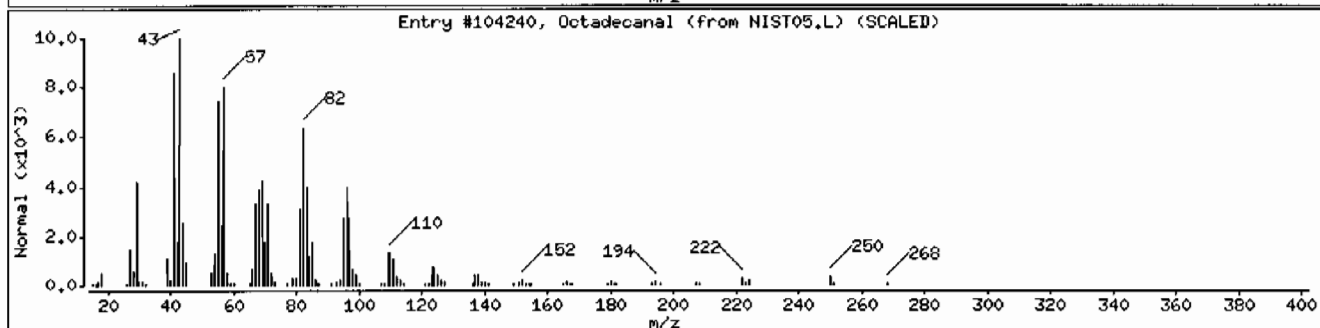
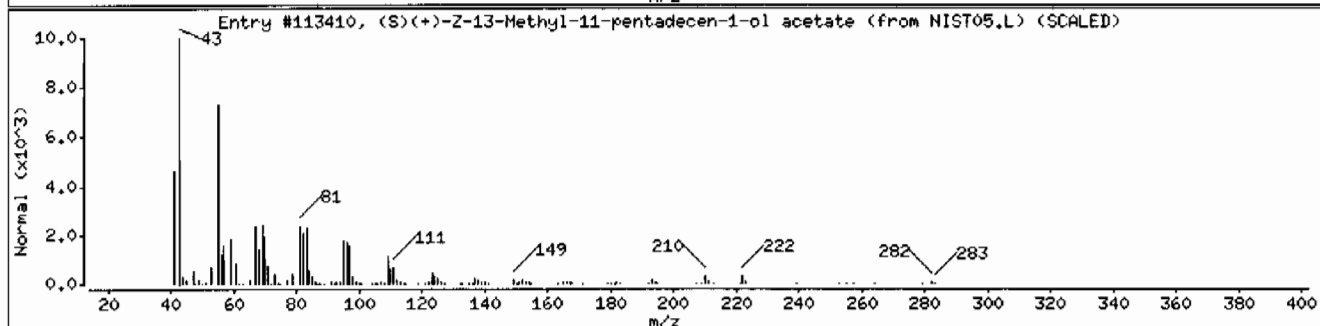
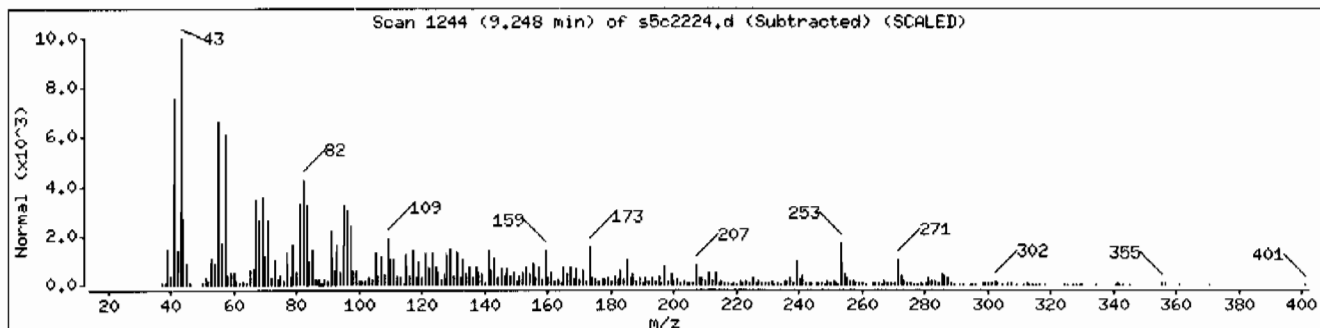
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
(S)(+)-2-13-Methyl-11-pentadecen-1-ol ac	1000130-84-8	NIST05.L	113410	93	C18H34O2	282
Octadecanal	638-66-4	NIST05.L	104240	90	C18H36O	268
Bicyclo[10.8.0]heicosane, (E)-	1000155-85-0	NIST05.L	110853	78	C20H38	278



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Client ID: RE36-10-7437

Instrument: MSD5.i

Sample Info: 1248506013196308611SVH111LANL

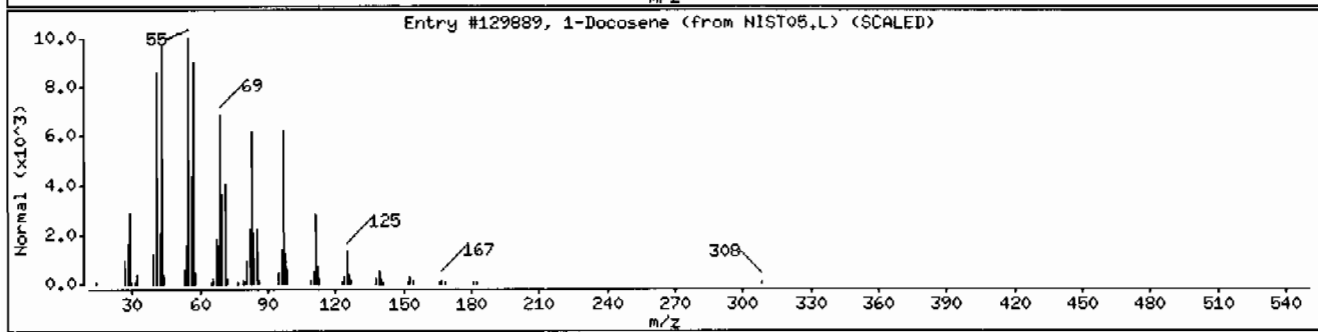
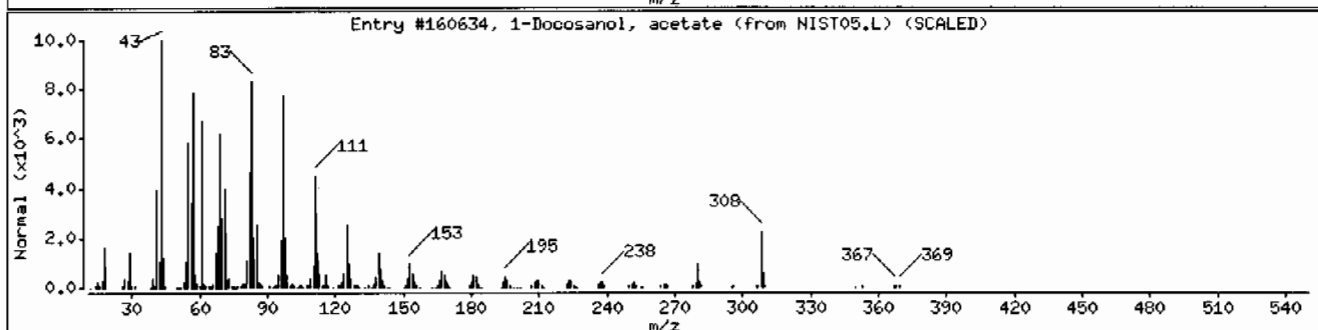
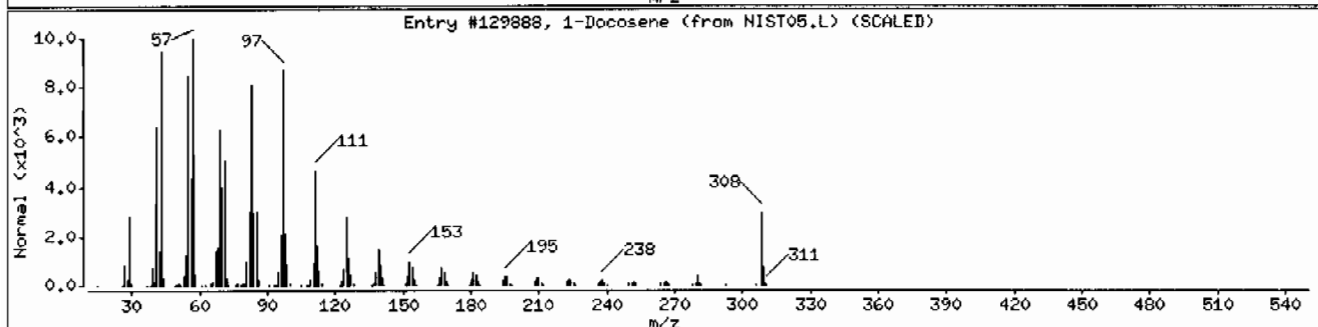
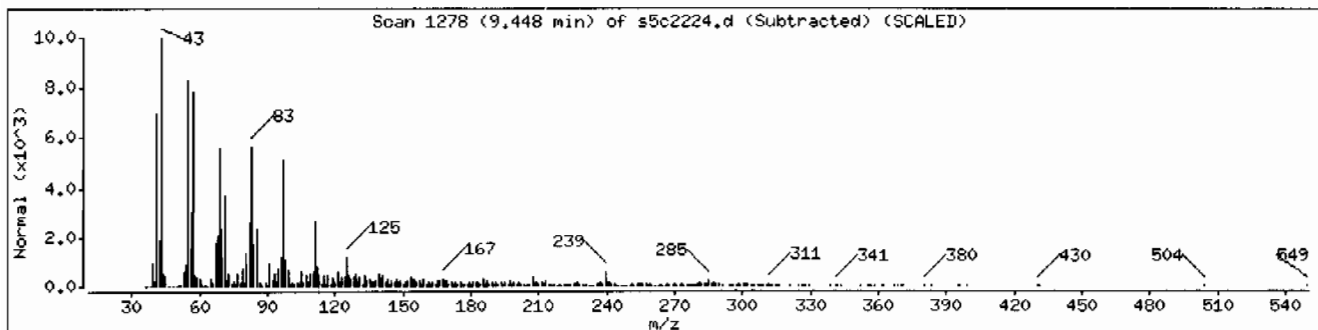
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Docosene	1599-67-3	NIST05.L	129888	98	C22H44	308
1-Docosanol, acetate	822-26-4	NIST05.L	160634	97	C24H48O2	368
1-Docosene	1599-67-3	NIST05.L	129889	94	C22H44	308



Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.i

Sample Info: 12485060131963086111SVH111LANL

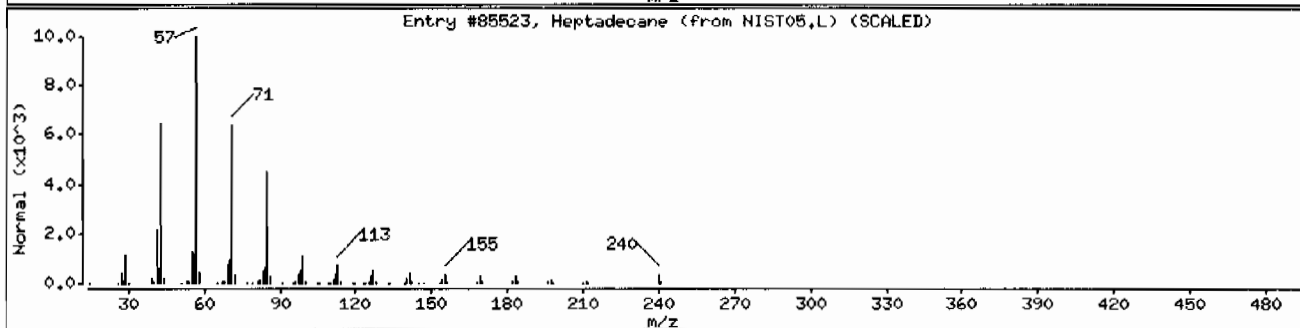
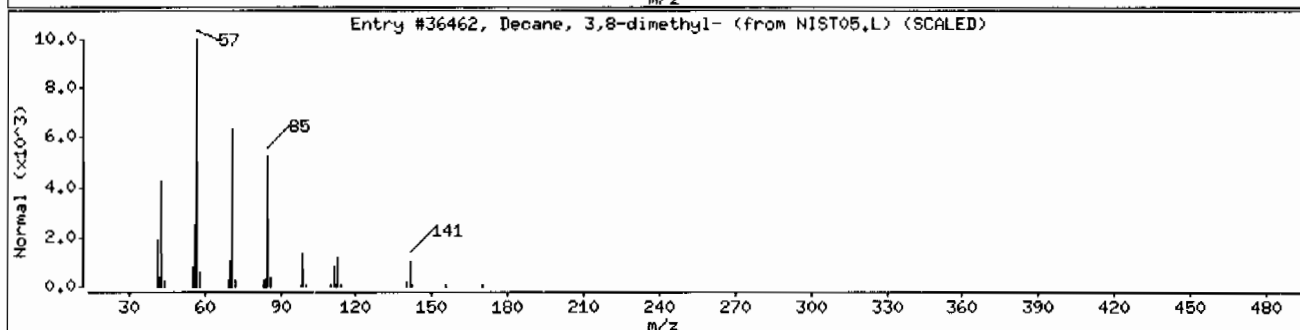
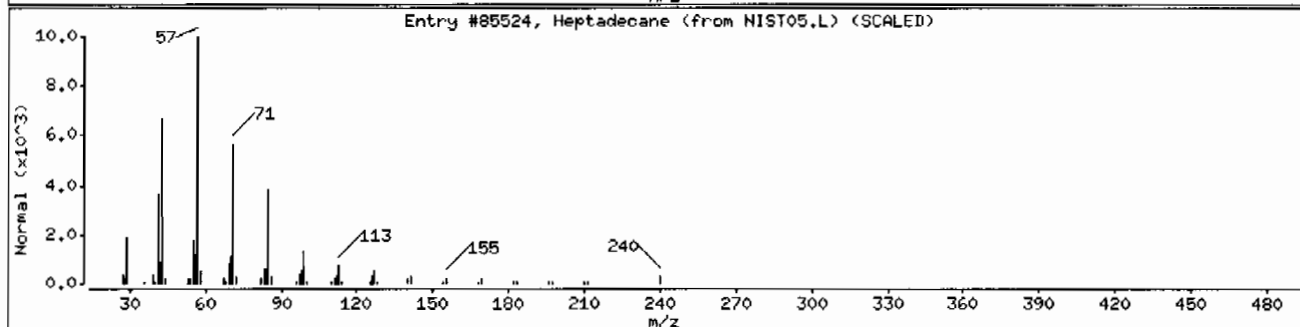
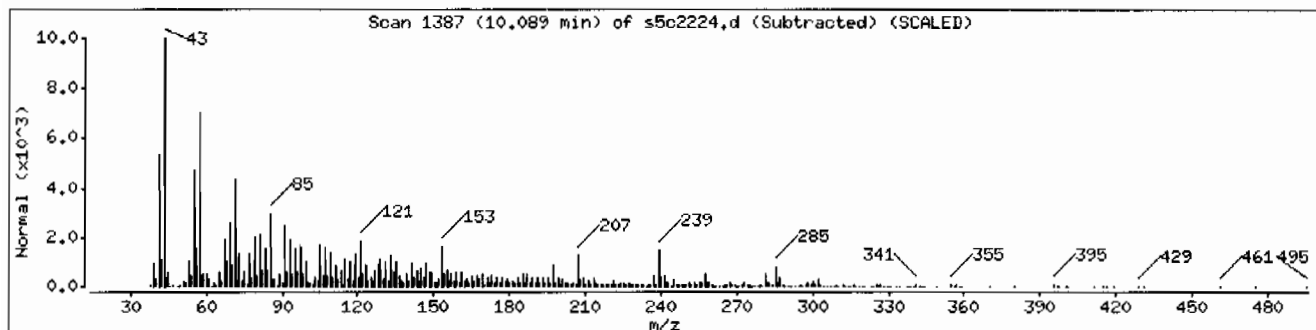
Volume Injected (uL): 0.5

Operator: RMB

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	95	C17H36	240
Decane, 3,8-dimethyl-	17312-55-9	NIST05.L	36462	89	C12H26	170
Heptadecane	629-78-7	NIST05.L	85523	86	C17H36	240





Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: HSD5.i

Sample Info: 12485060131963086111SVMI11LANL

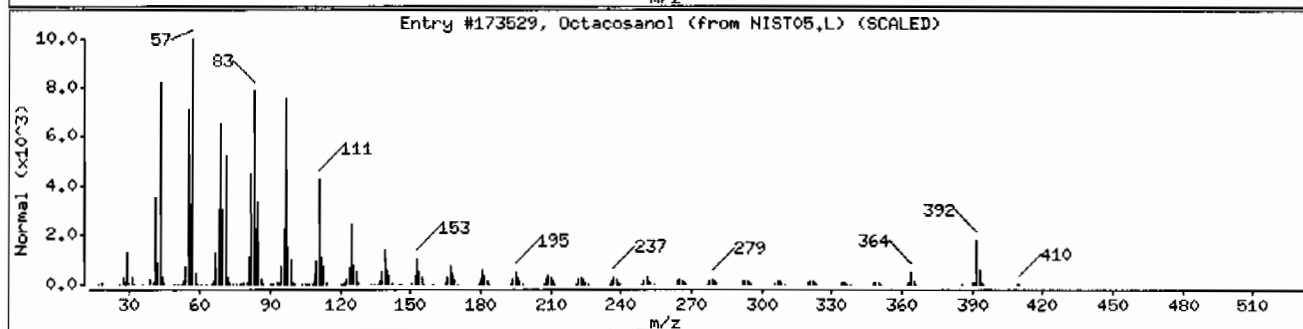
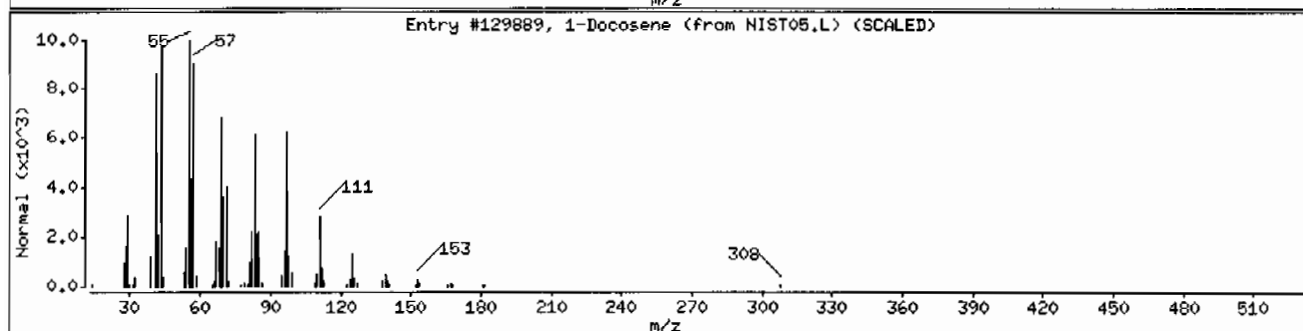
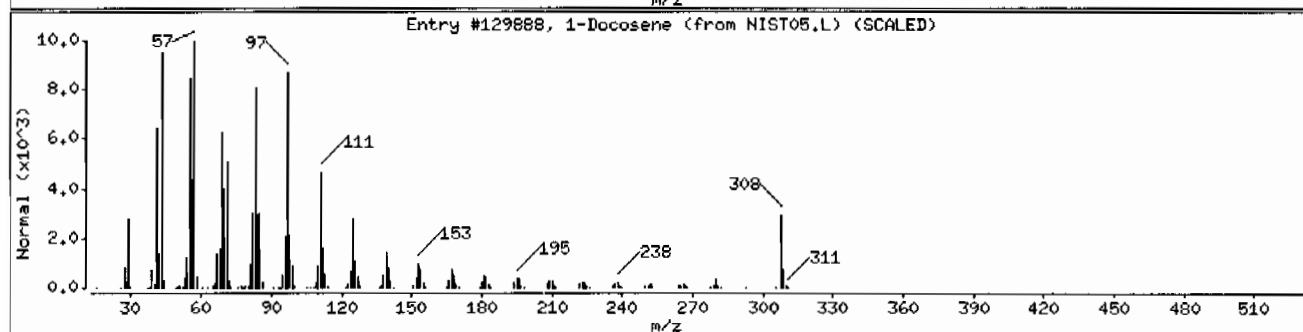
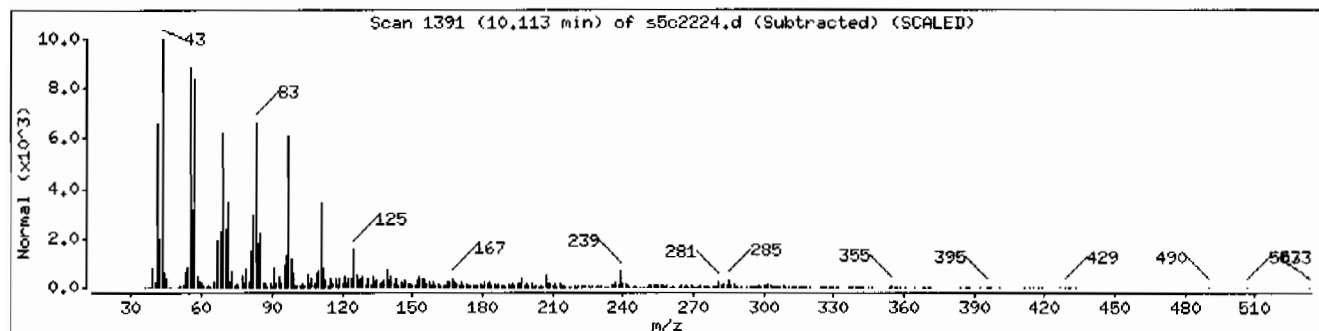
Volume Injected (uL): 0.5

Operator: RMB

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	99	C22H44	308
1-Docosene	1599-67-3	NIST05.L	129889	98	C22H44	308
Octacosanol	557-61-9	NIST05.L	173529	91	C28H58O	410



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Client ID: RE36-10-7437

Instrument: MSD5.1

Sample Info: 12485060131963086111SVMI11LANL

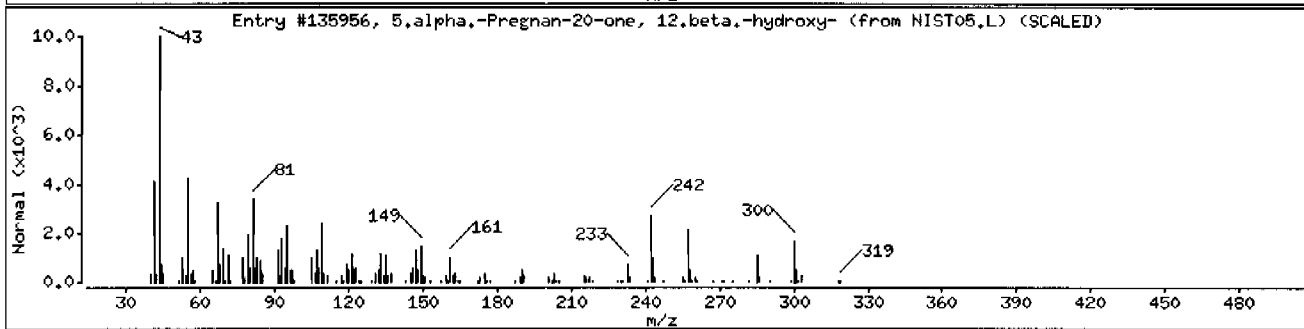
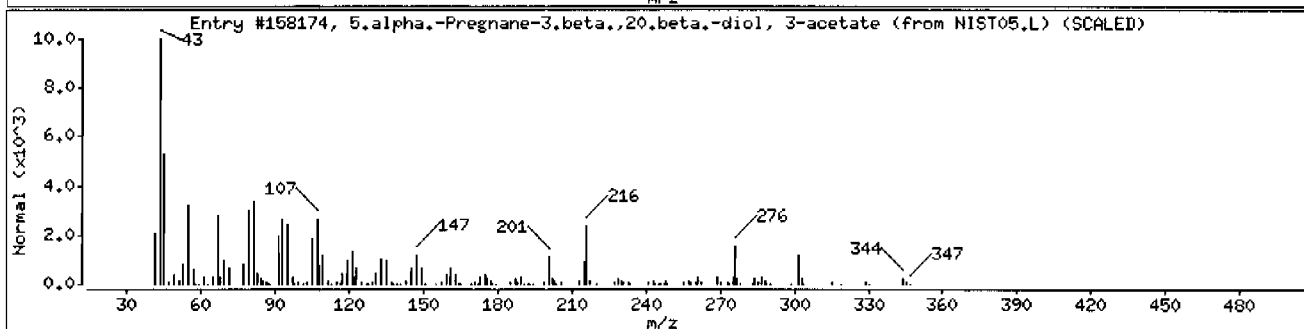
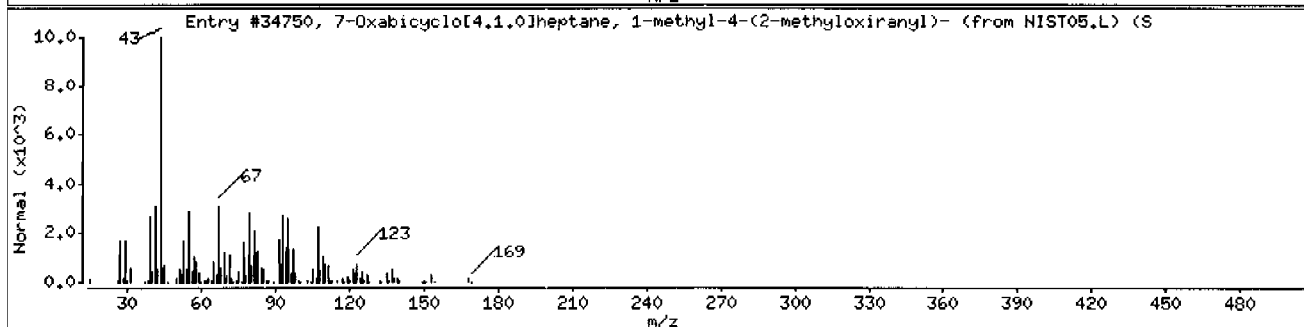
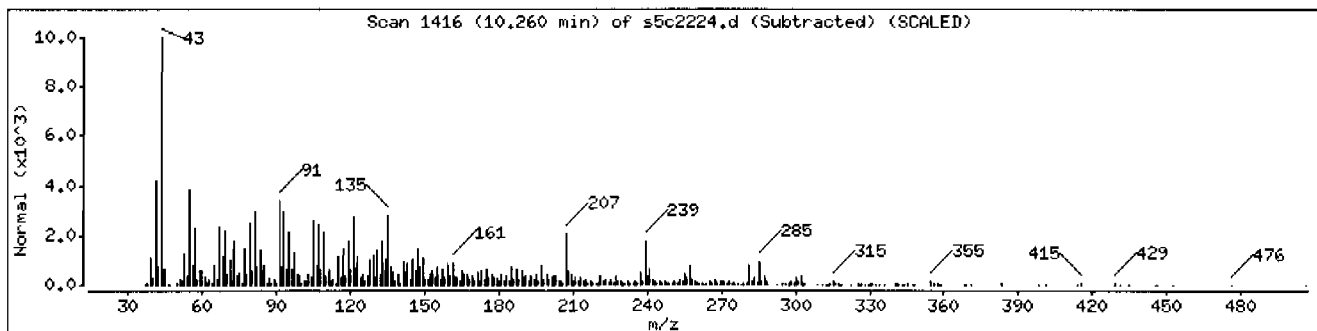
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
7-Oxabicyclo[4.1.0]heptane, 1-methyl-4-(	96-08-2	NIST05.L	34750	51	C10H16O2	168
5.alpha.-Pregnane-3.beta.,20.beta.-diol,	17182-23-9	NIST05.L	158174	35	C23H38O3	362
5.alpha.-Pregnan-20-one, 12.beta.-hydrox	5618-22-4	NIST05.L	135956	27	C21H34O2	318



Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.i

Sample Info: 1248506013196308611ISVM11ILANL

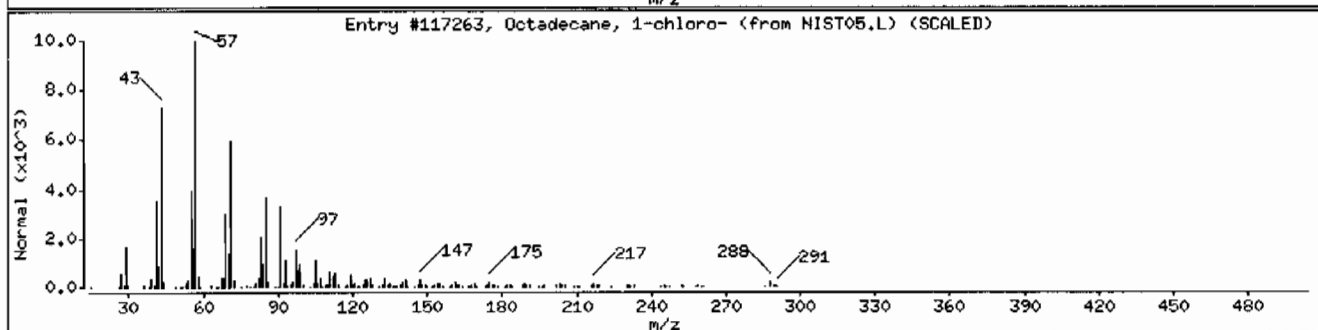
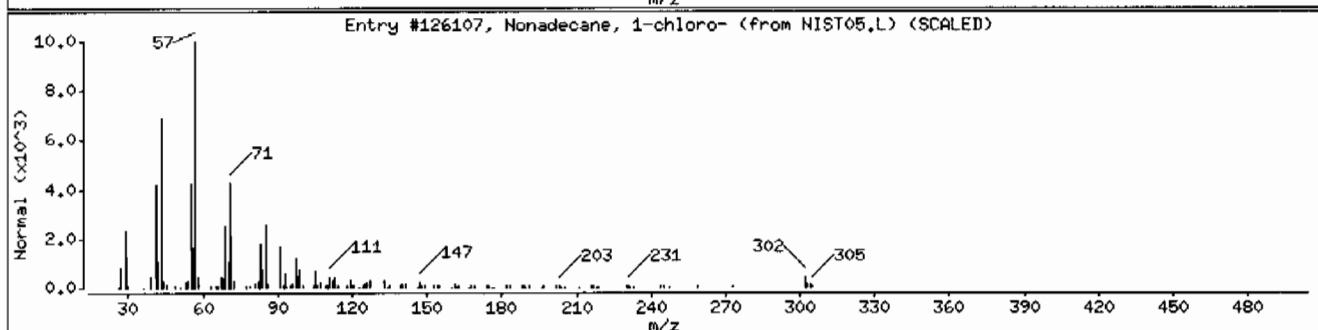
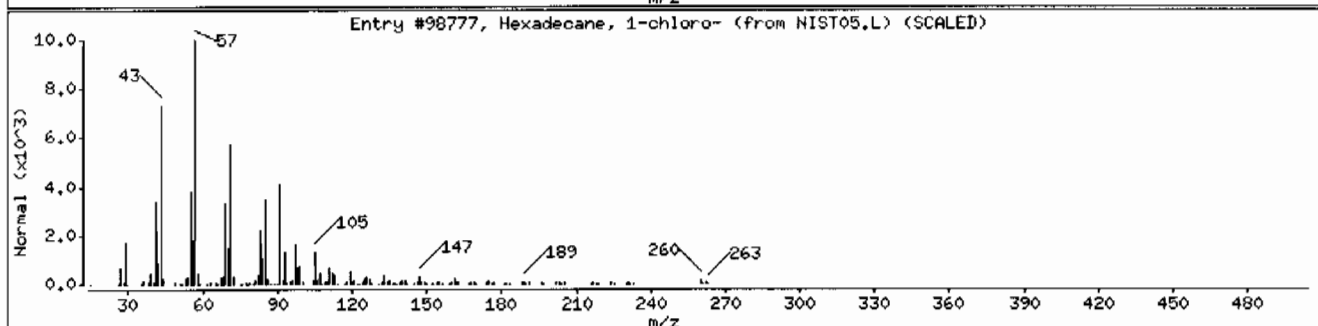
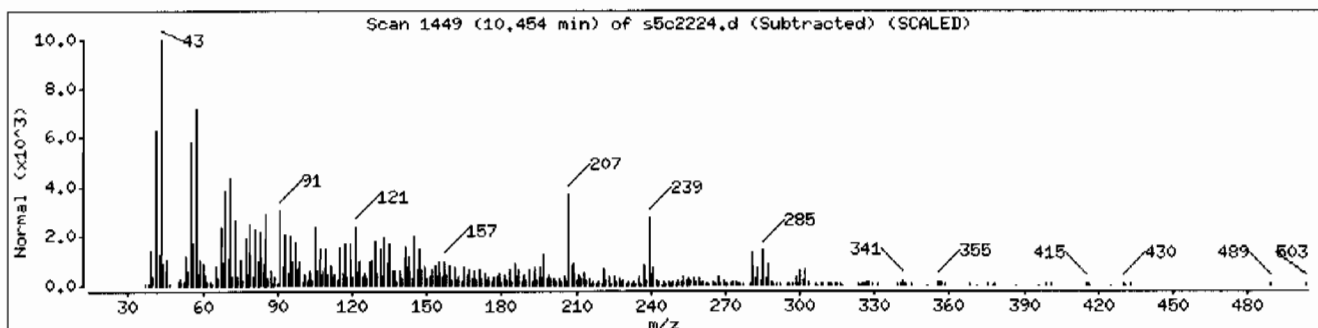
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexadecane, 1-chloro-	4860-03-1	NIST05.L	98777	91	C16H33Cl	260
Nonadecane, 1-chloro-	62016-76-6	NIST05.L	126107	72	C19H39Cl	302
Octadecane, 1-chloro-	3386-33-2	NIST05.L	117263	68	C18H37Cl	288



Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: HSD5.i

Sample Info: I248506013196308611ISVH11ILANL

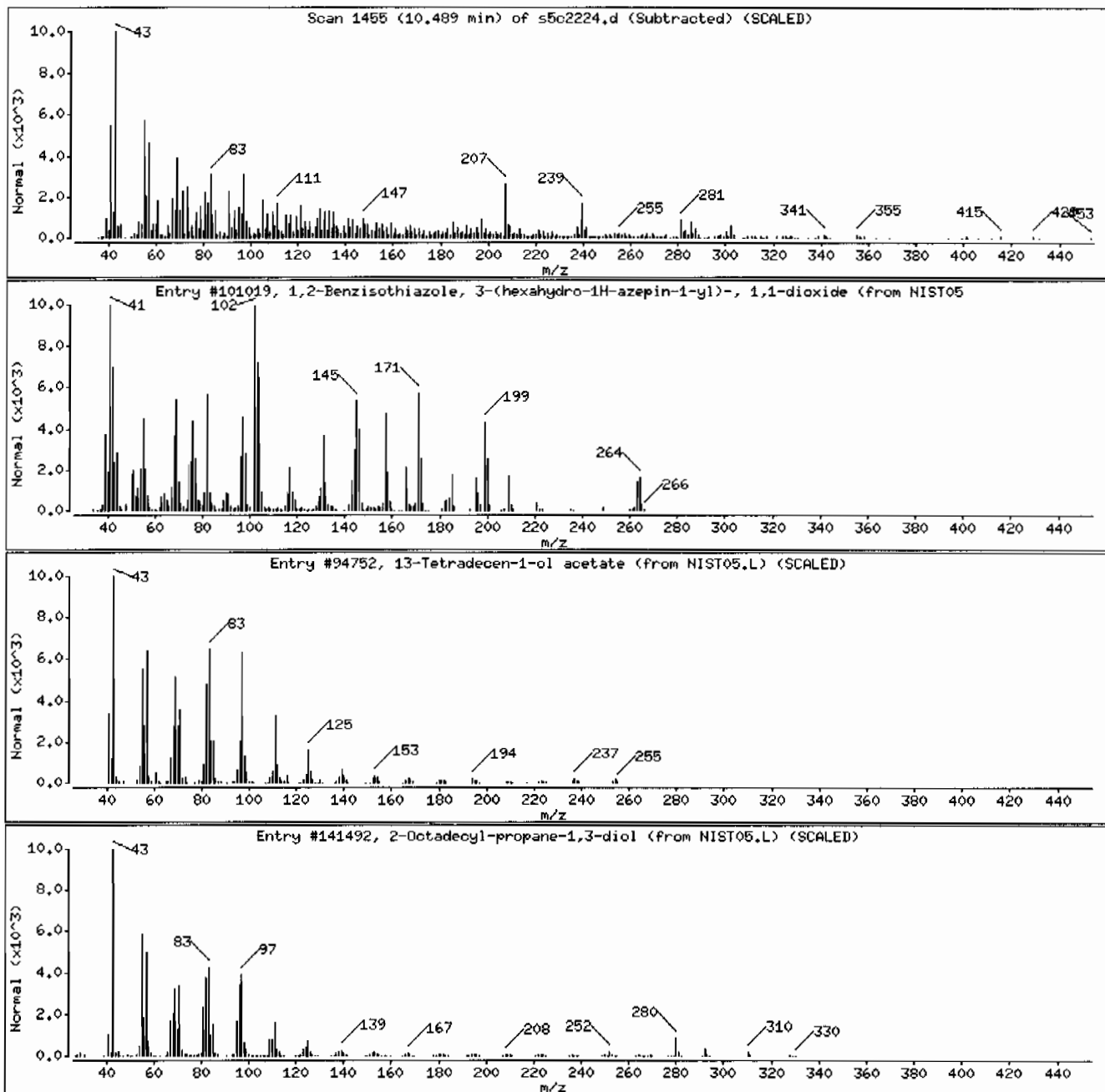
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,2-Benzisothiazole, 3-(hexahydro-1H-azepin-1-yl)-, 1,1-dioxide	309735-29-3	NIST05.L	101019	91	C13H16N2O2S	264
13-Tetradecen-1-ol acetate	56221-91-1	NIST05.L	94752	59	C16H30O2	254
2-Octadecyl-propane-1,3-diol	5337-61-1	NIST05.L	141492	25	C21H44O2	328



Date: 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.i

Sample Info: 12485060131963086111SVMI11LANL

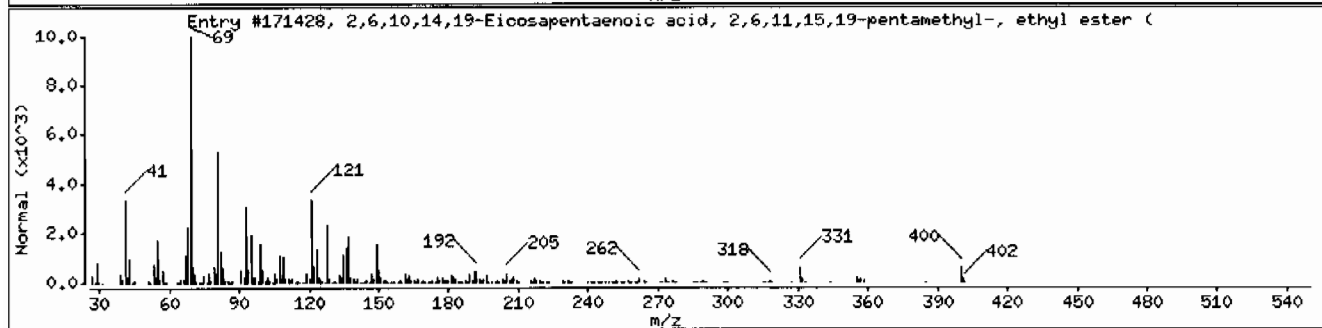
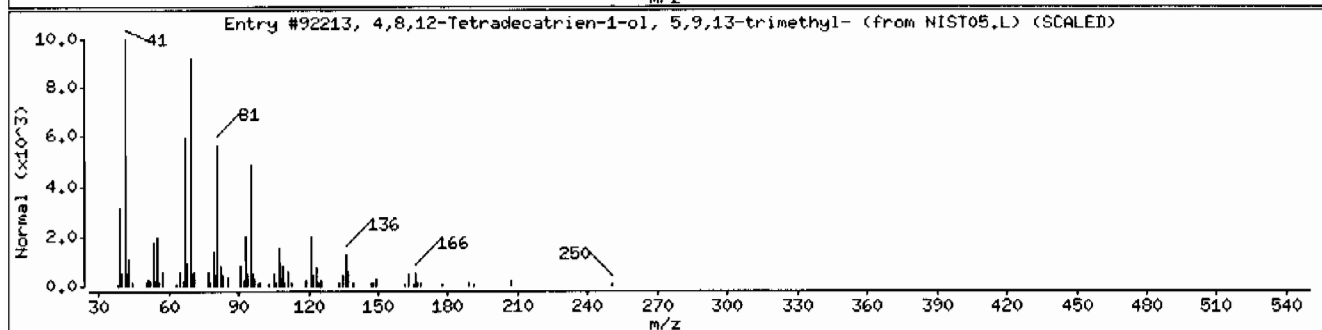
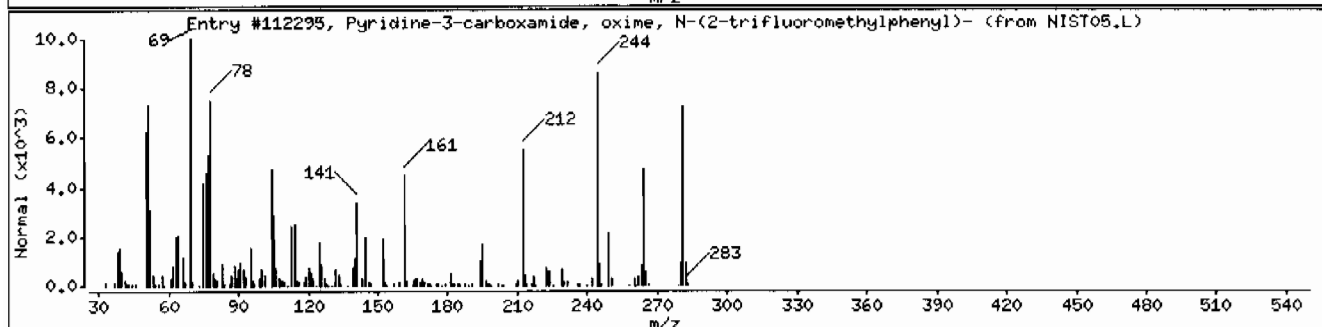
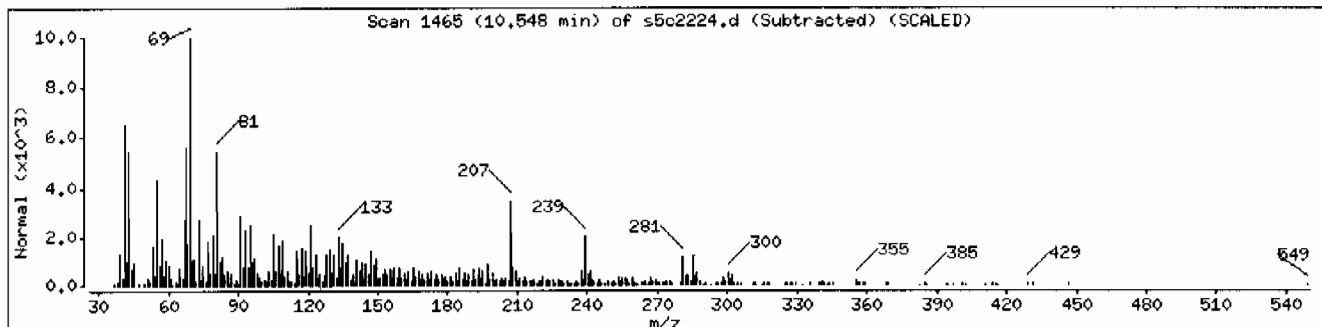
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyridine-3-carboxamide, oxime, N-(2-trif	288246-53-7	NIST05.L	112295	95	C13H10F3N3O	281
4,8,12-Tetradecatrien-1-ol, 5,9,13-trime	1000141-99-9	NIST05.L	92213	56	C17H30O	250
2,6,10,14,19-Eicosapentaenoic acid, 2,6,	1000196-72-6	NIST05.L	171428	46	C27H44O2	400



Date: 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.i

Sample Info: I2485060131963086111SVMI11LANL

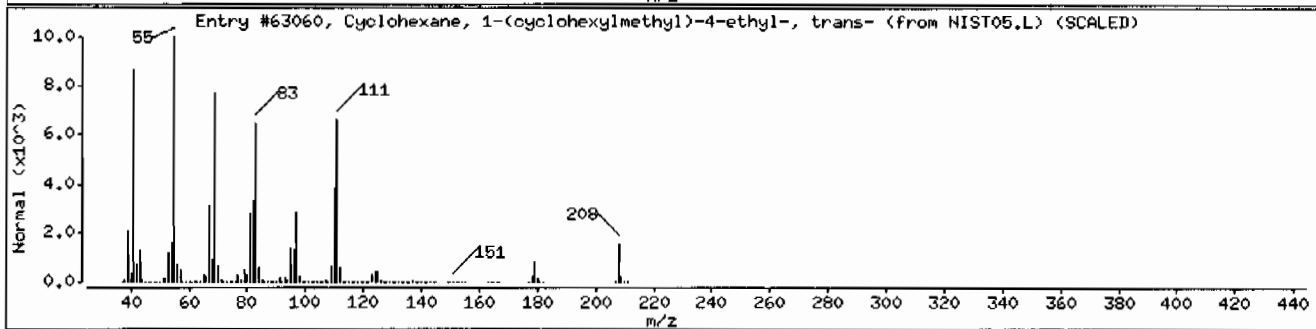
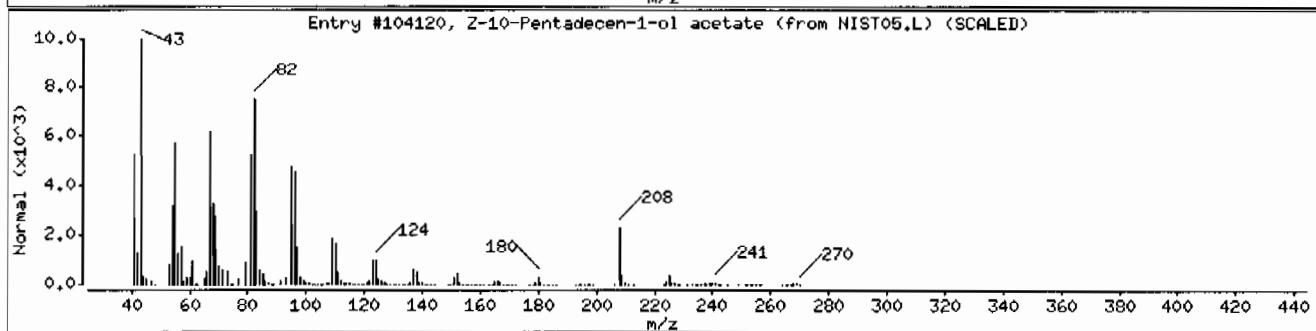
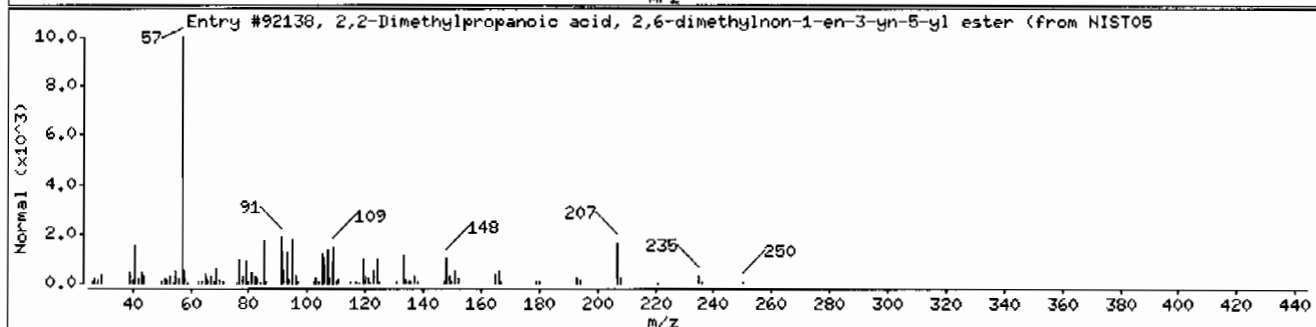
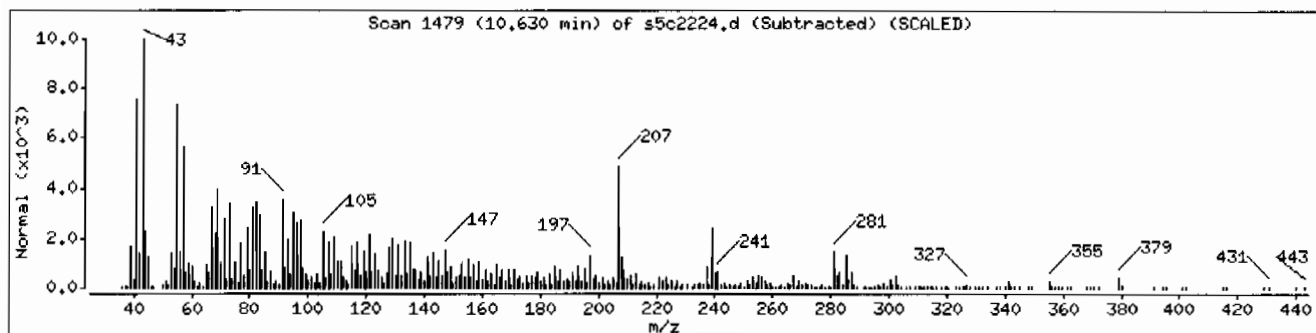
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,2-Dimethylpropanoic acid, 2,6-dimethyl	1000299-33-6	NIST05.L	92138	38	C16H26O2	250
Z-10-Pentadecen-1-ol acetate	1000130-85-0	NIST05.L	104120	25	C17H32O2	268
Cyclohexane, 1-(cyclohexylmethyl)-4-ethyl	54934-94-0	NIST05.L	63060	15	C15H28	208



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Instrument: MSD5.i

Sample Info: 1248506013196308611ISVH11ILANL

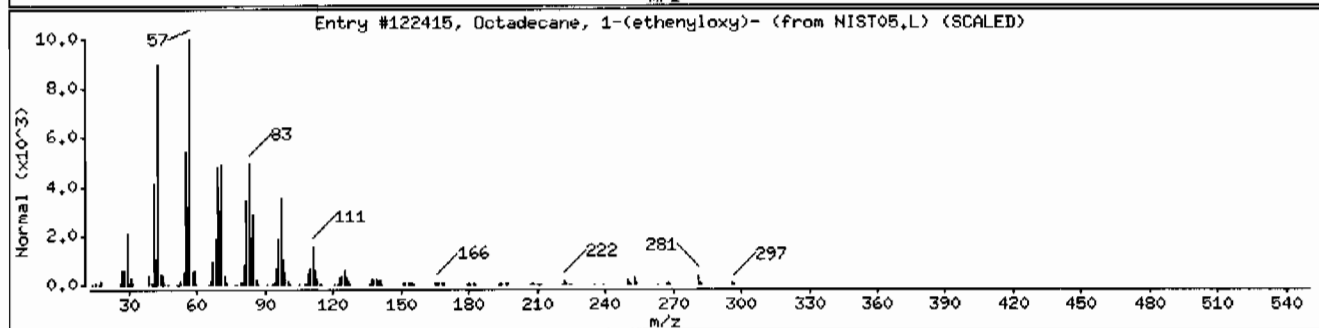
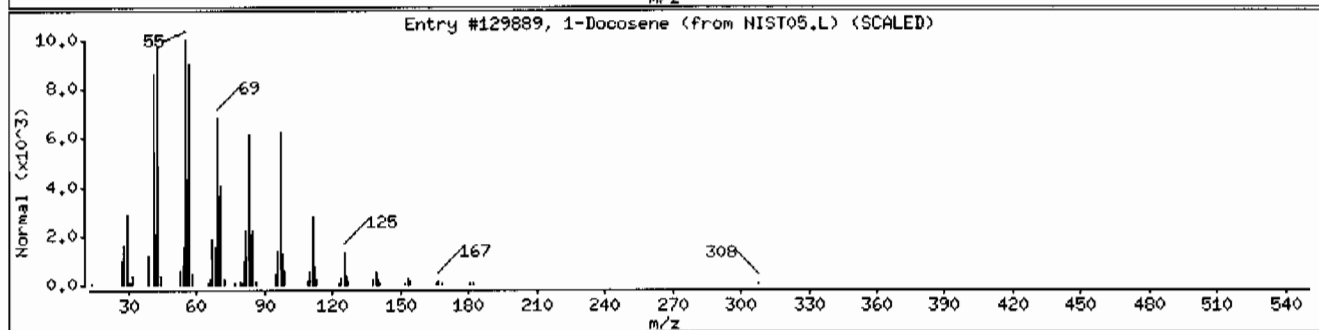
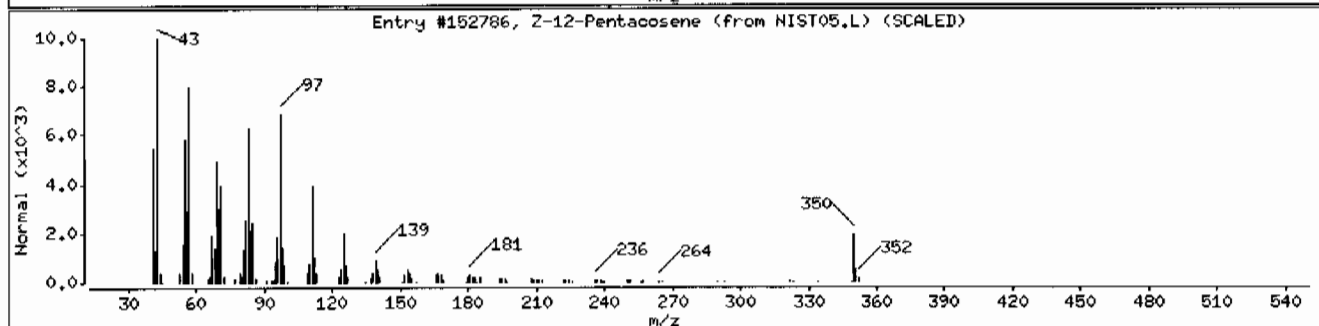
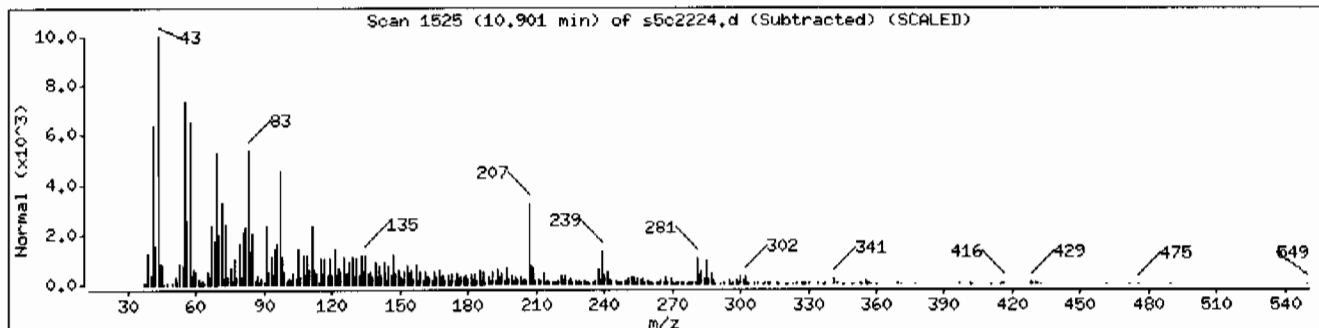
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Z-12-Pentacosene	1000131-09-4	NIST05.L	152786	96	C <sub>25</sub> H <sub>50</sub>	350
1-Docosene	1599-67-3	NIST05.L	129889	95	C <sub>22</sub> H <sub>44</sub>	308
Octadecane, 1-(ethenyloxy)-	930-02-9	NIST05.L	122415	93	C <sub>20</sub> H <sub>40</sub> O	296



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Client ID: RE36-10-7437

Instrument: MSD5.1

Sample Info: I248506013196308611SVMI1ILANL

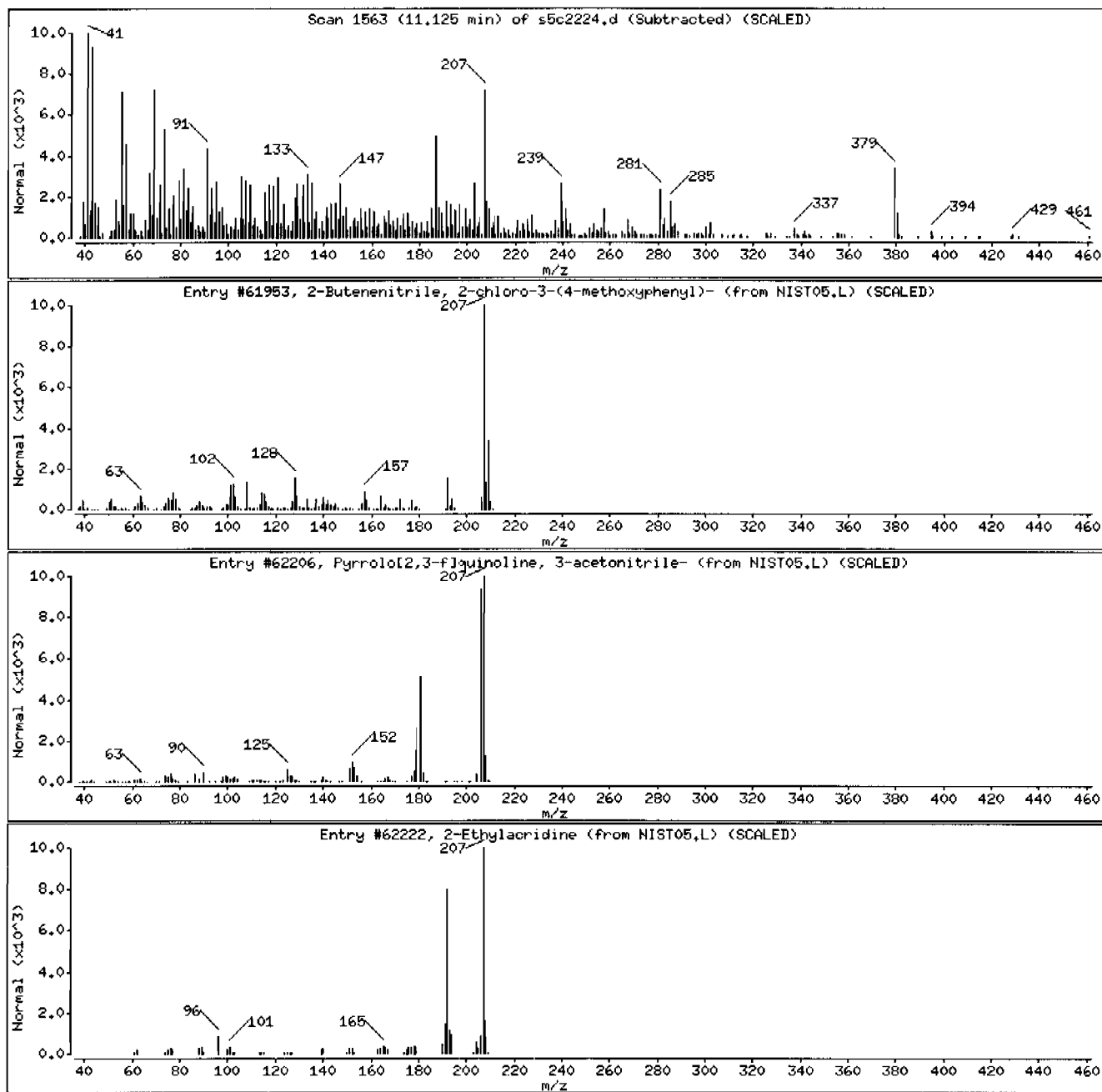
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Butenenitrile, 2-chloro-3-(4-methoxyph	1000305-66-7	NIST05.L	61953	25	C11H10ClNO	207
Pyrrolo[2,3-f]quinoline, 3-acetonitrile-	87361-85-1	NIST05.L	62206	25	C13H9N3	207
2-Ethylacridine	55751-83-2	NIST05.L	62222	15	C15H13N	207





Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.i

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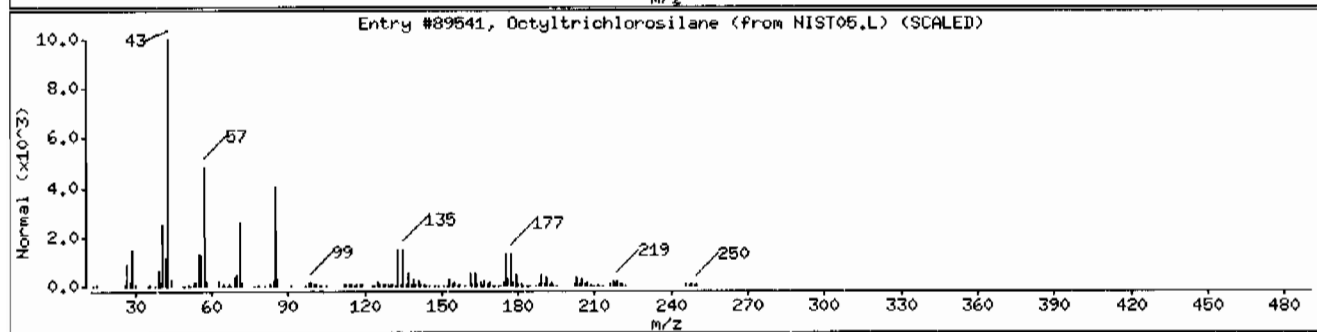
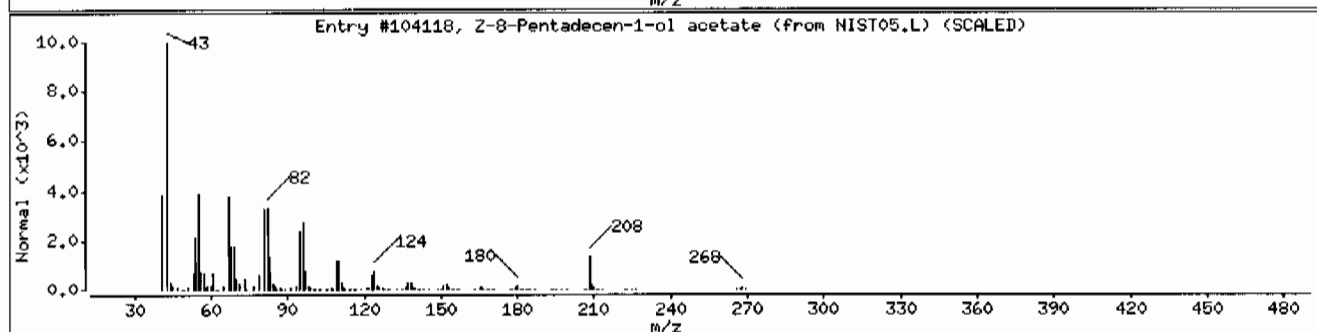
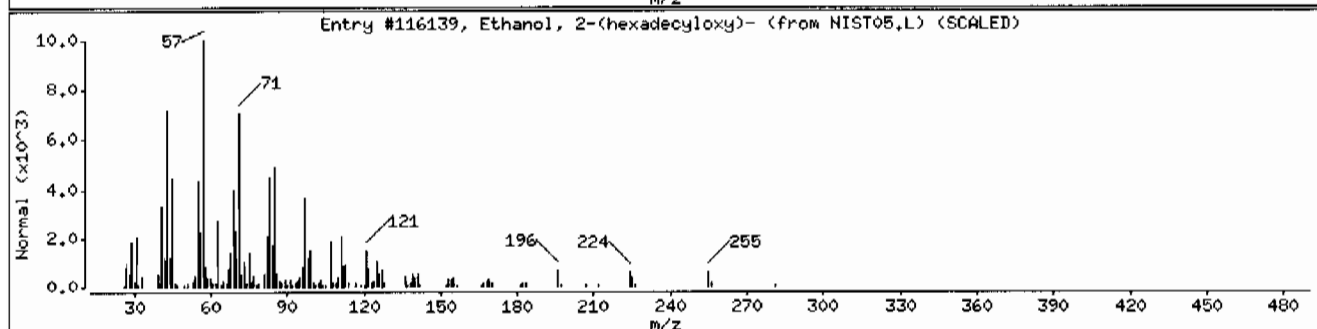
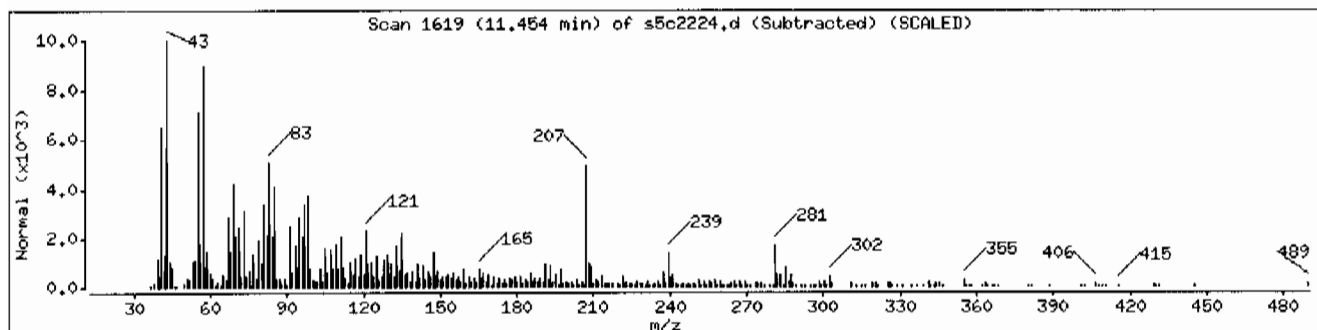
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ethanol, 2-(hexadecyloxy)-	2136-71-2	NIST05.L	116139	27	C18H38O2	286
Z-8-Pentadecen-1-ol acetate	1000130-85-1	NIST05.L	104118	25	C17H32O2	268
Octyltrichlorosilane	5283-66-9	NIST05.L	89541	25	C8H17Cl3Si	246



Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.i

Sample Info: I248506013196308611ISVM11ILANL

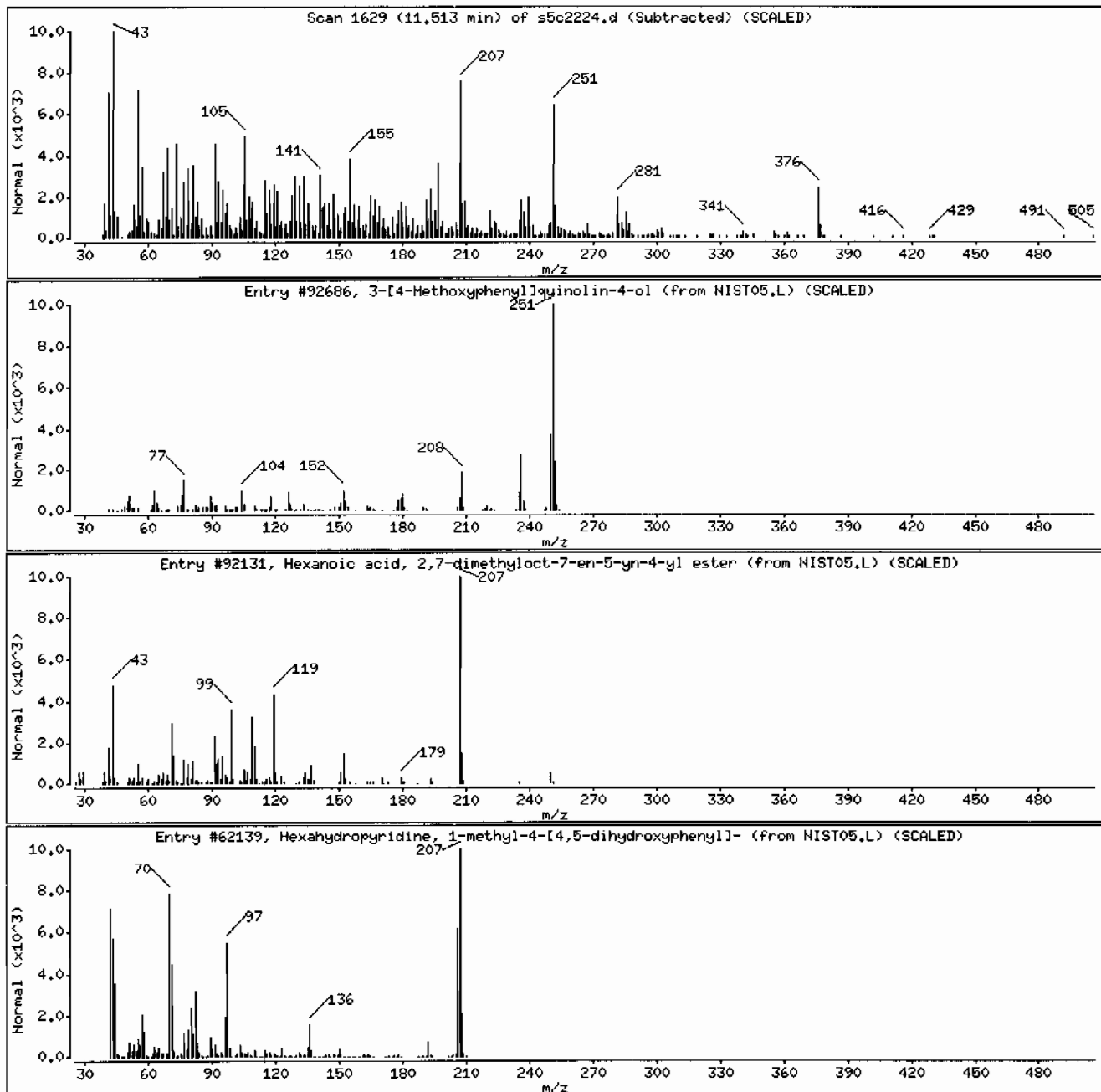
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3-[4-Methoxyphenyl]quinolin-4-ol	1000254-66-9	NIST05.L	92686	52	C16H13NO2	251
Hexanoic acid, 2,7-dimethyloct-7-en-5-yn	1000299-35-7	NIST05.L	92131	42	C16H26O2	250
Hexahydropyridine, 1-methyl-4-[4,5-dihyd	94427-47-1	NIST05.L	62139	42	C12H17NO2	207



Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.i

Sample Info: I2485060131963086111SVH111LANL

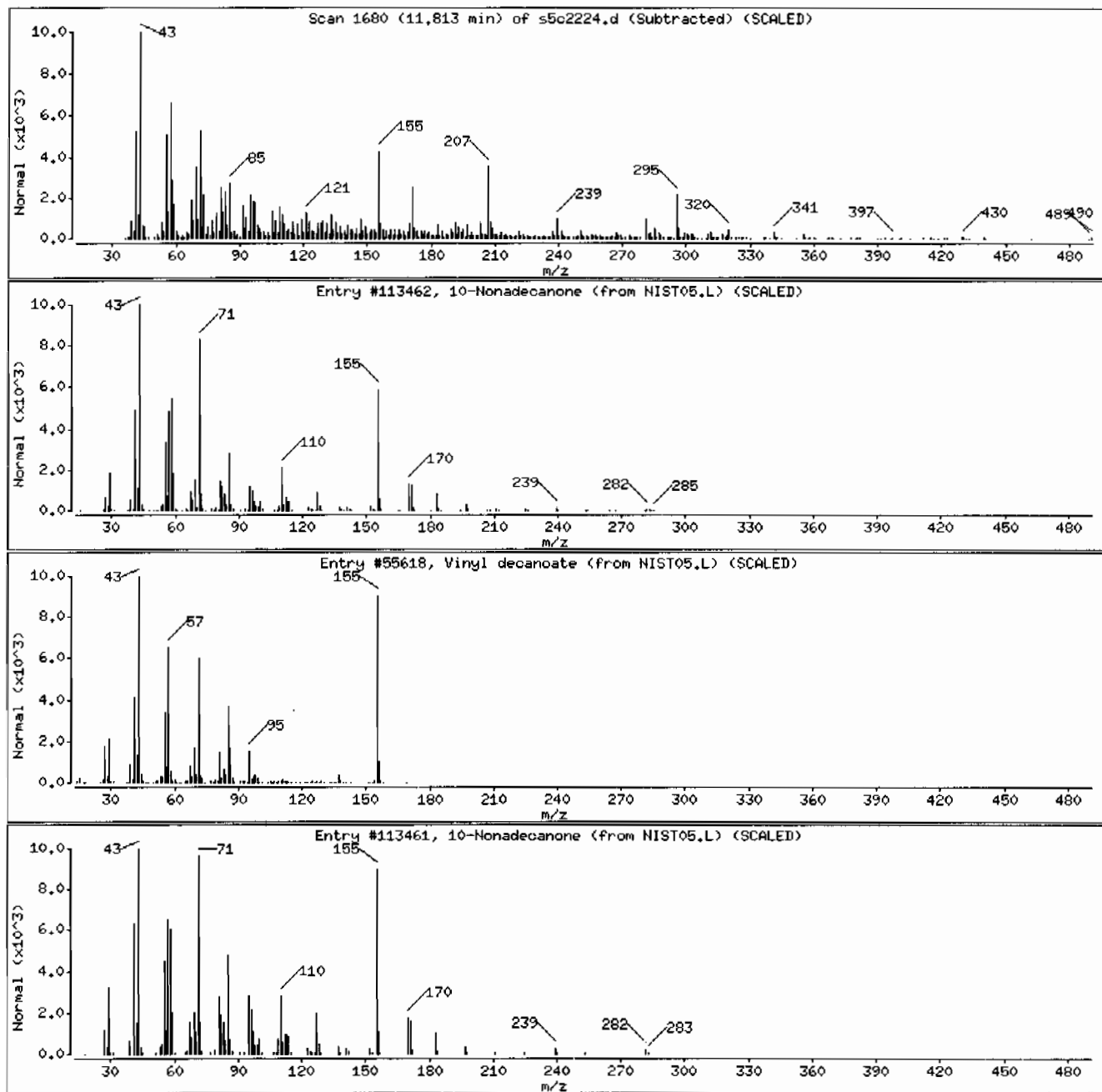
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
10-Nonadecanone	504-57-4	NIST05.L	113462	41	C19H38O	282
Vinyl decanoate	4704-31-8	NIST05.L	55618	32	C12H22O2	198
10-Nonadecanone	504-57-4	NIST05.L	113461	30	C19H38O	282



Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.i

Sample Info: 12485060131963086111SVH111LANL

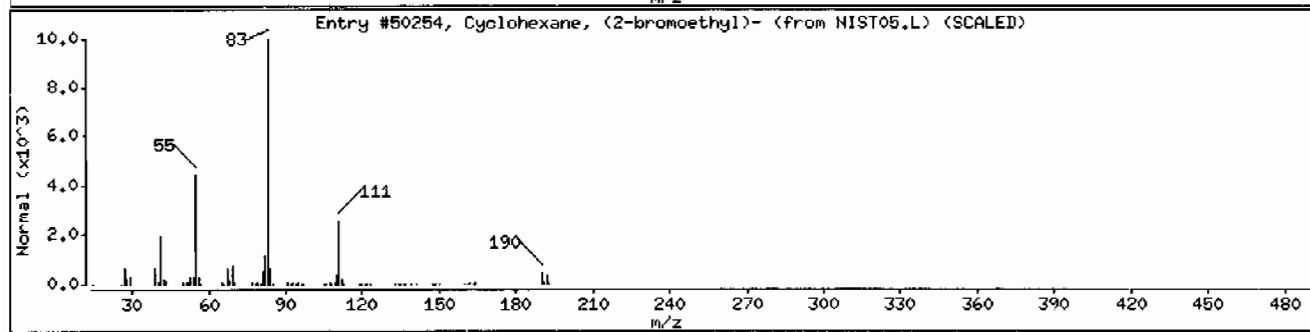
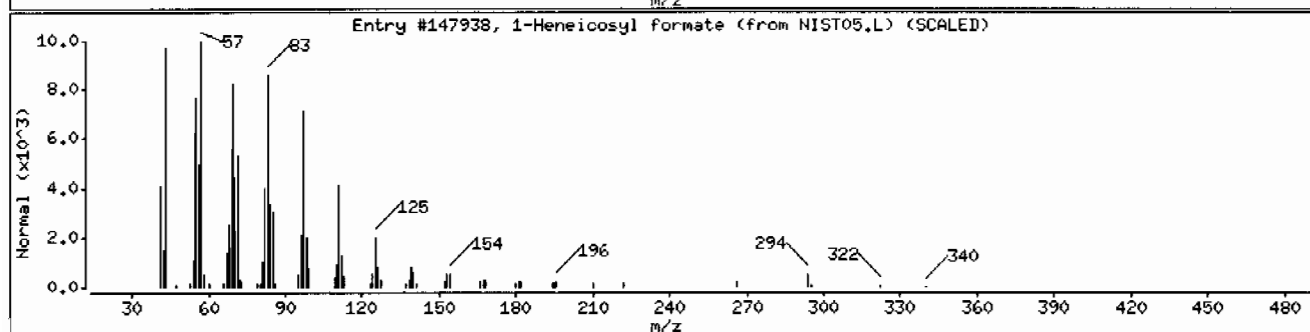
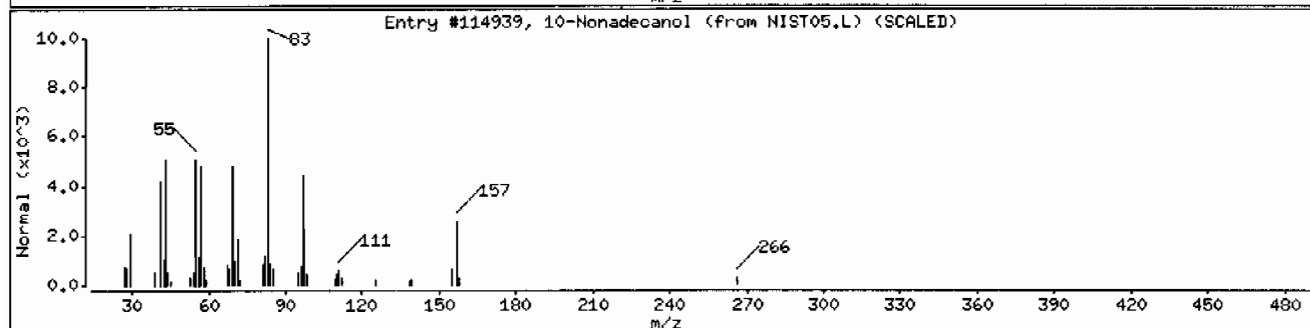
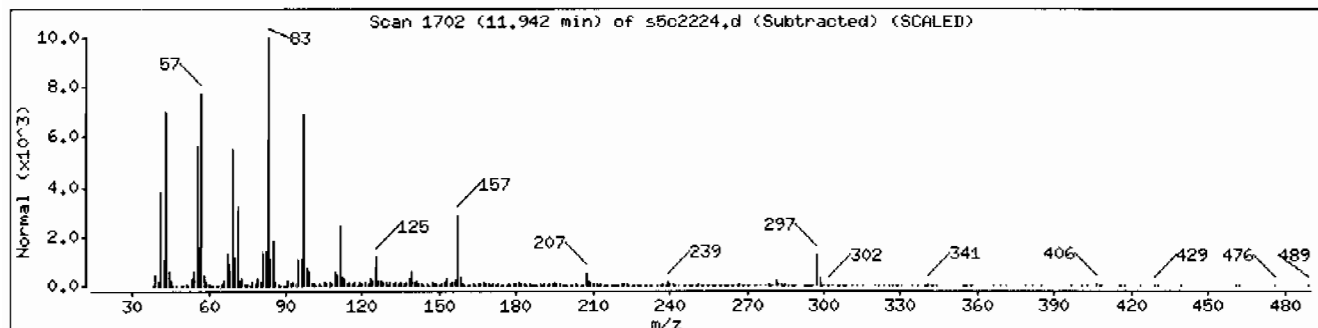
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
10-Nonadecanol	16840-84-9	NIST05.L	114939	74	C19H40O	284
1-Heneicosyl formate	77899-03-7	NIST05.L	147938	43	C22H44O2	340
Cyclohexane, (2-bromoethyl)-	1647-26-3	NIST05.L	50254	43	C8H15Br	190



Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: HSD5.i

Sample Info: I248506013|96308611|SVH11|LANL

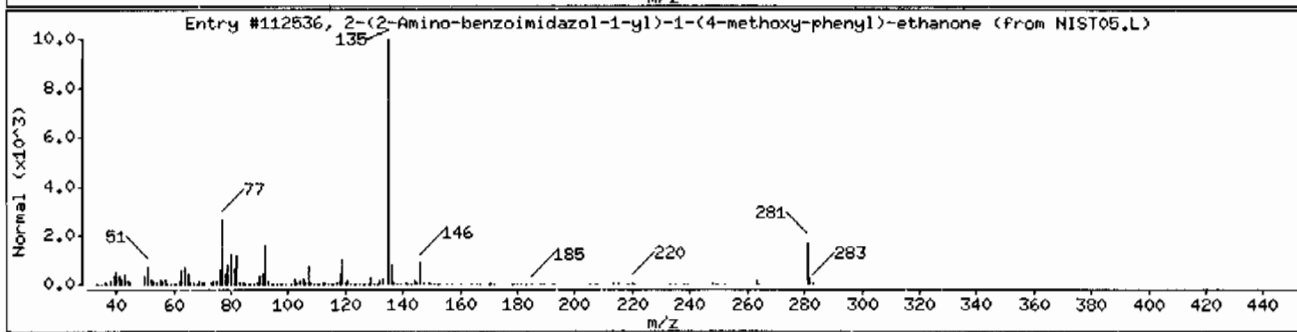
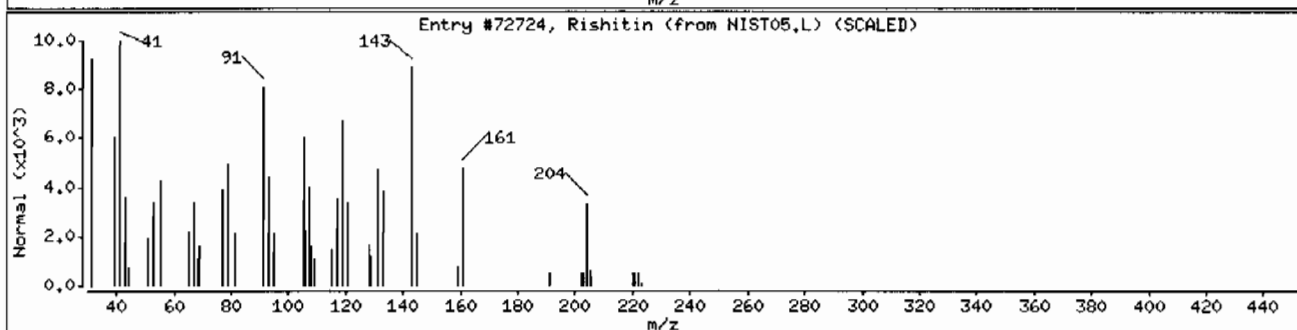
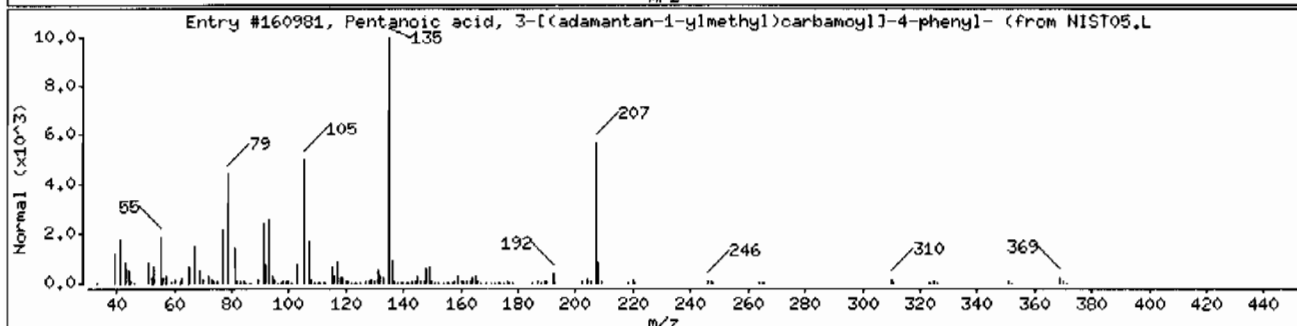
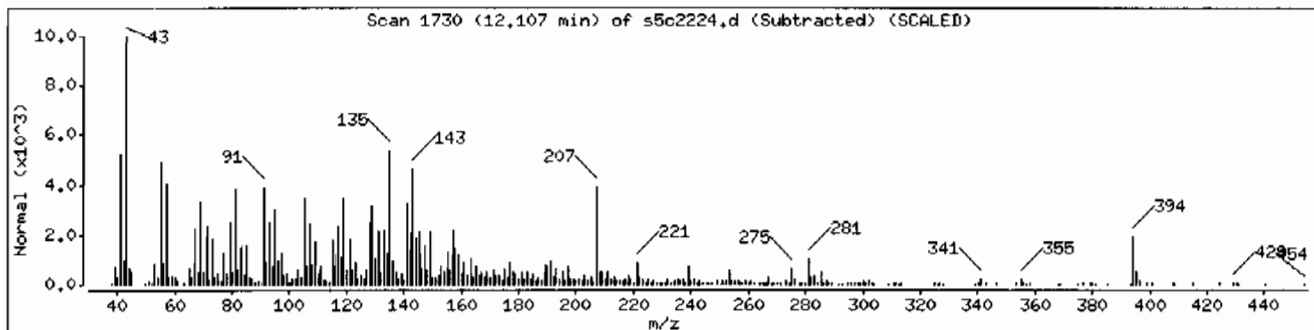
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Pentanoic acid, 3-[(adamantan-1-ylmethyl)	1000316-89-1	NIST05.L	160981	18	C23H31NO3	369
Rishitin	18178-54-6	NIST05.L	72724	15	C14H22O2	222
2-(2-Amino-benzimidazol-1-yl)-1-(4-meth	1000277-85-9	NIST05.L	112536	11	C16H15N3O2	281



Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.1

Sample Info: I2485060131963086111SVMI11LANL

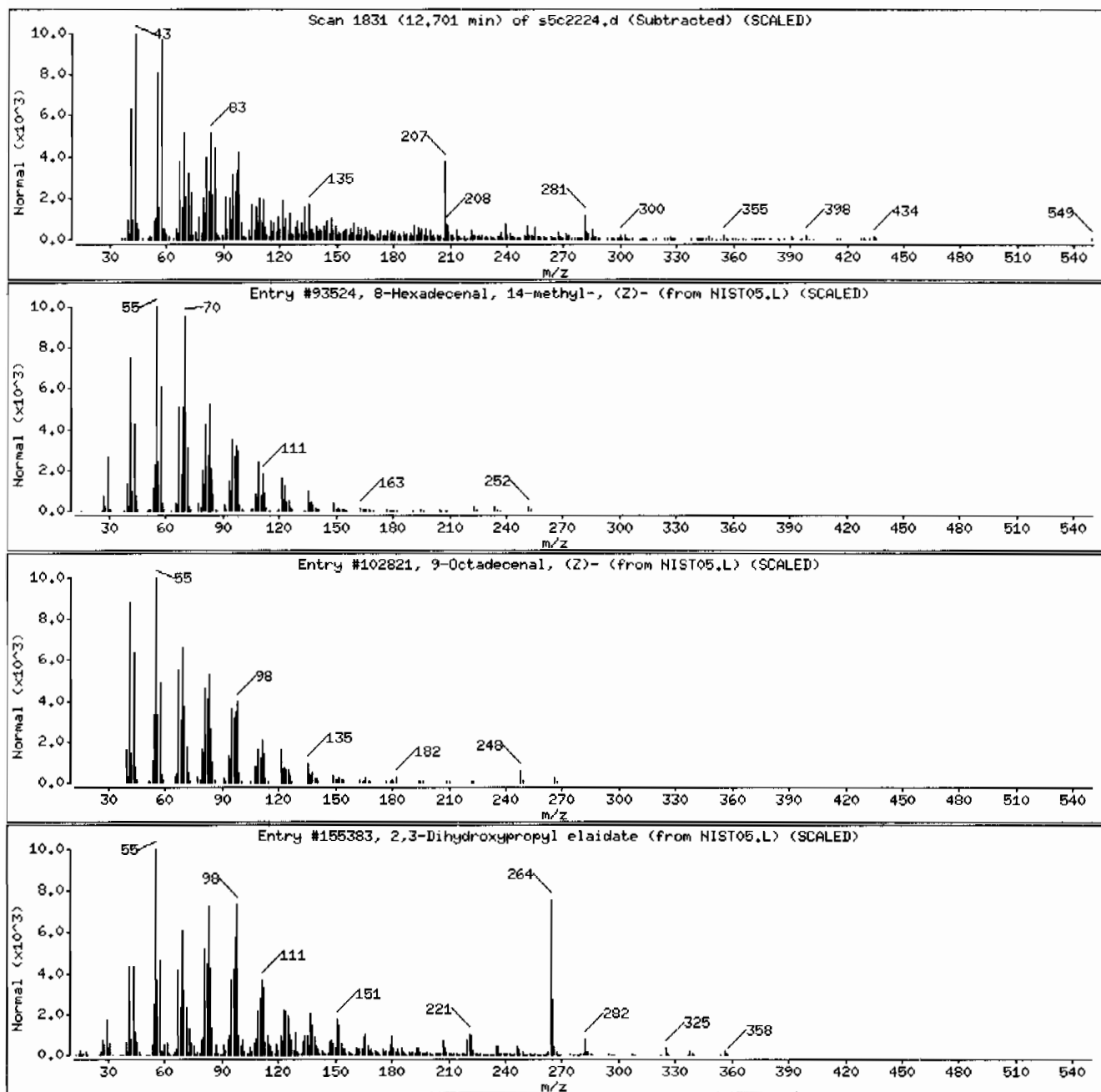
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
8-Hexadecenal, 14-methyl-, (Z)-	60609-53-2	NIST05.L	93524	78	C17H32O	252
9-Octadecenal, (Z)-	2423-10-1	NIST05.L	102821	70	C18H34O	266
2,3-Dihydroxypropyl elaidate	2716-53-2	NIST05.L	155383	60	C21H40O4	356



Date: 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.i

Sample Info: 12485060131963086111SVH111LANL

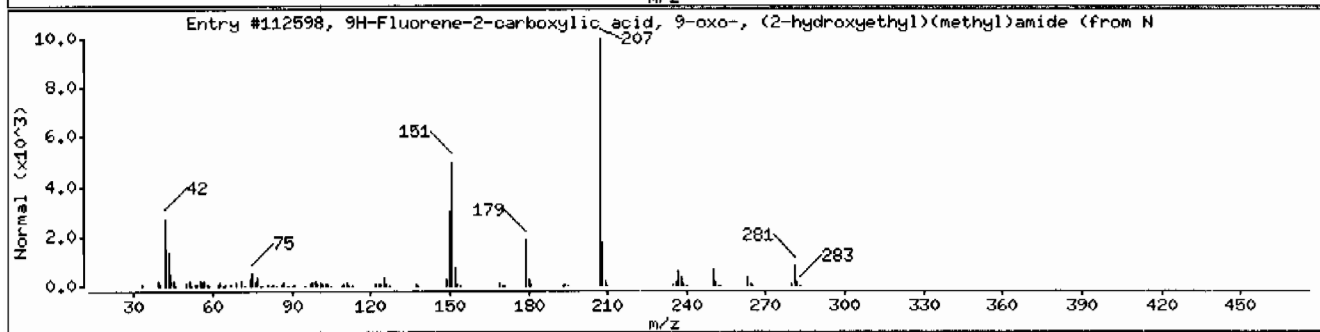
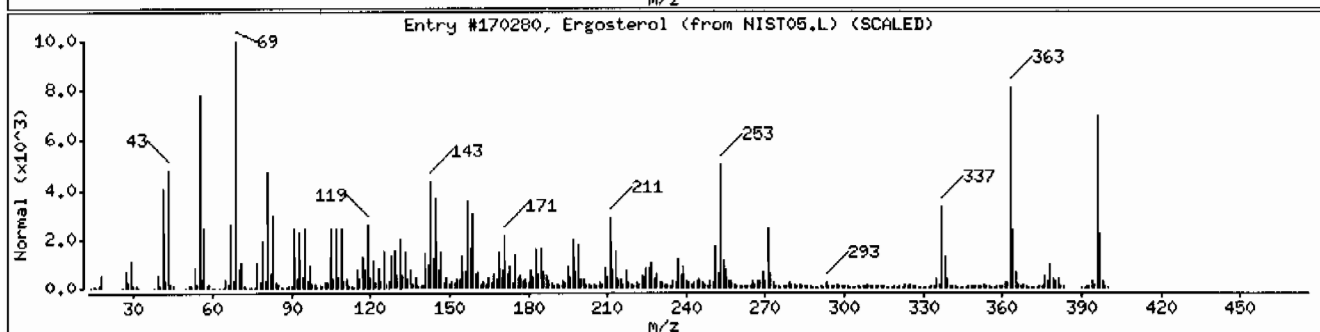
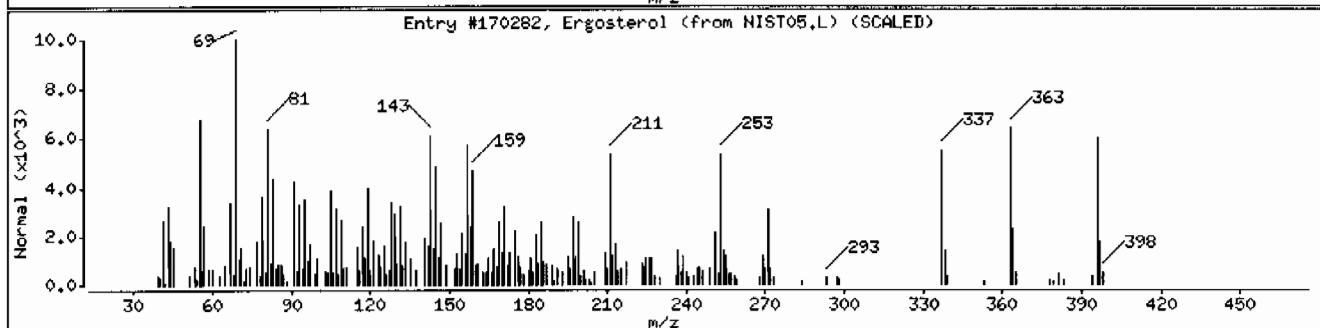
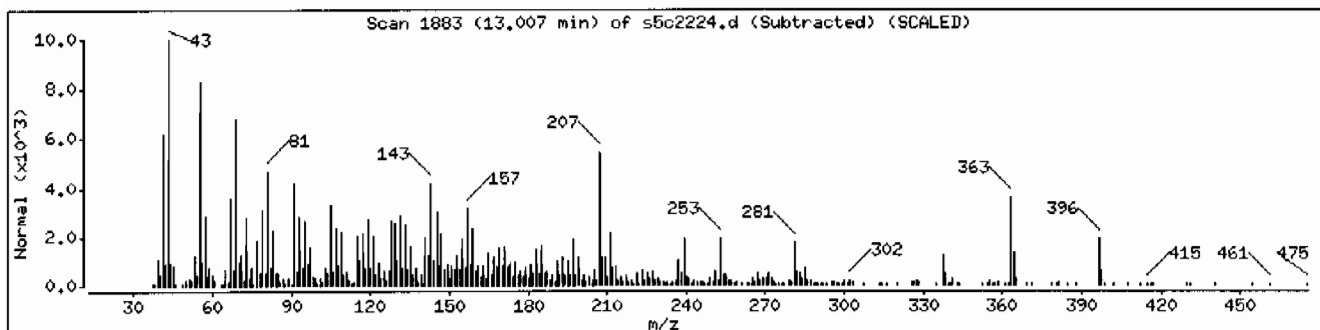
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ergosterol	57-87-4	NIST05.L	170282	86	C28H44O	386
Ergosterol	57-87-4	NIST05.L	170280	46	C28H44O	386
9H-Fluorene-2-carboxylic acid, 9-oxo-, (	1000316-02-1	NIST05.L	112598	35	C17H15NO3	281



Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: HSD5.i

Sample Info: 1248506013196308611|SVH11|LANL

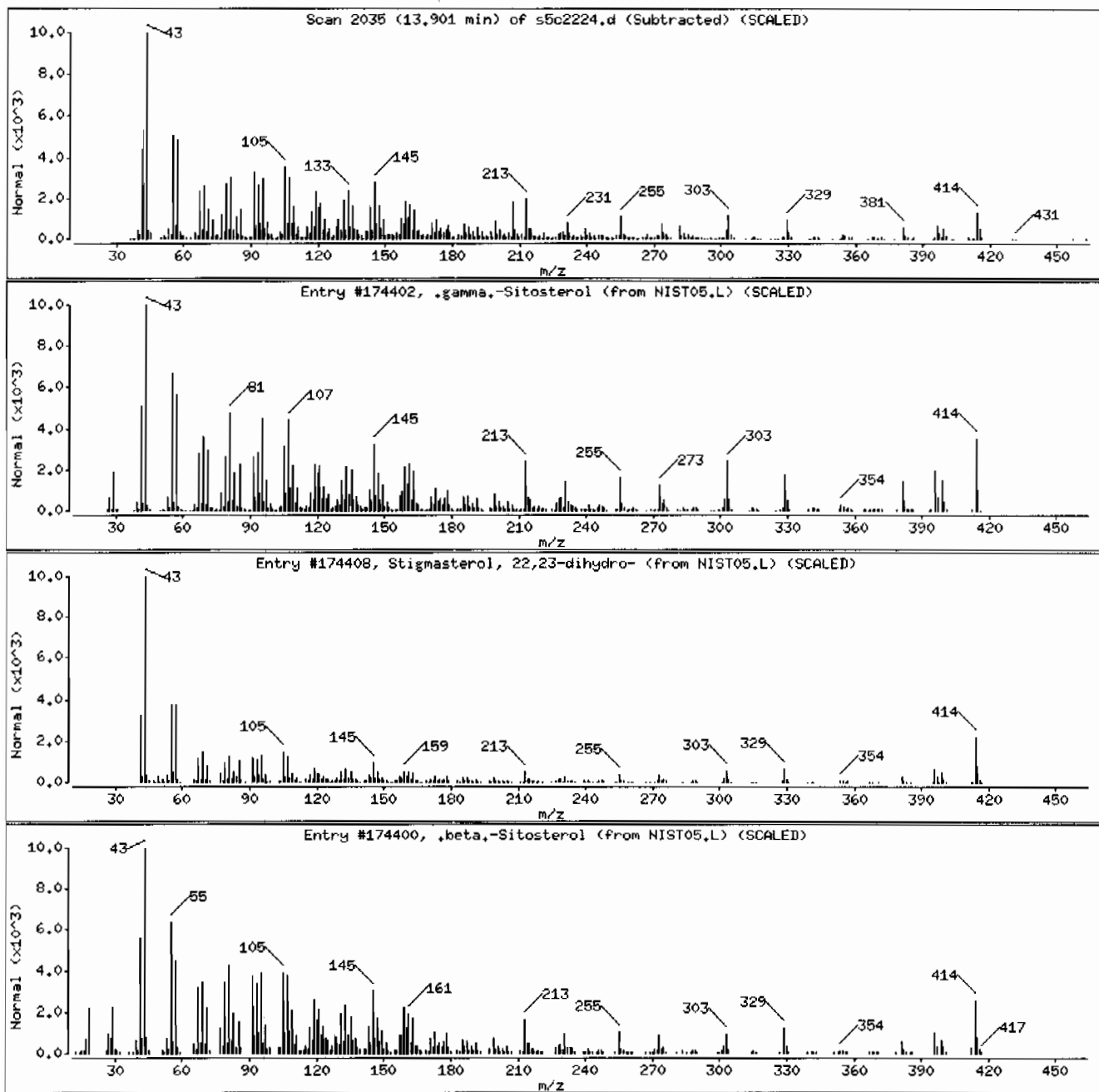
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	96	C29H50O	414
Stigmasterol, 22,23-dihydro-	1000214-20-7	NIST05.L	174408	94	C29H50O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174400	91	C29H50O	414





Date: 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: HSD5.i

Sample Info: 1248506013196308611SVMI11LANL

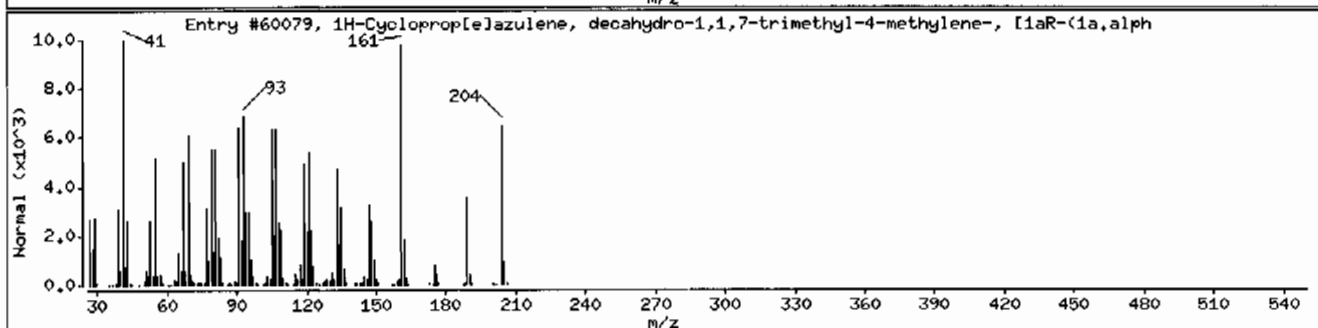
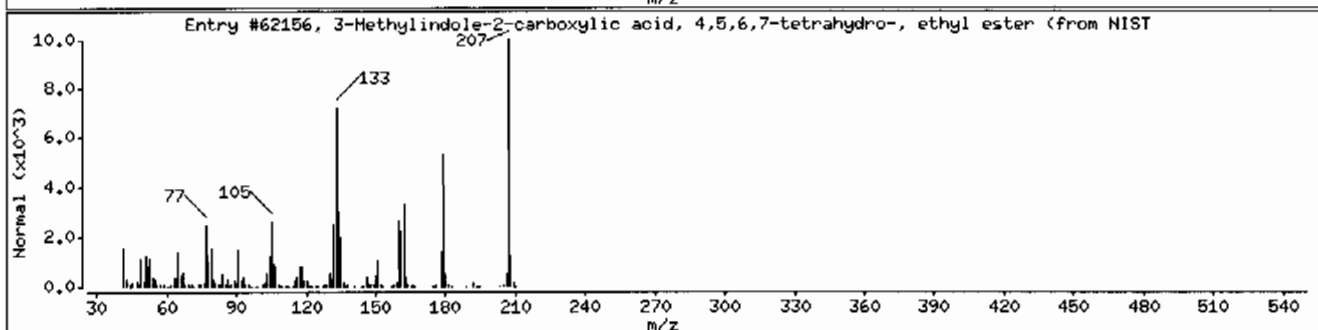
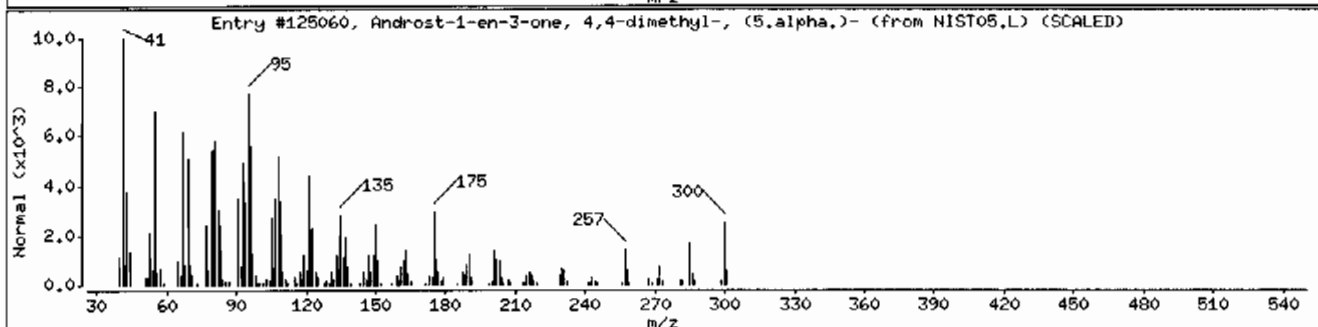
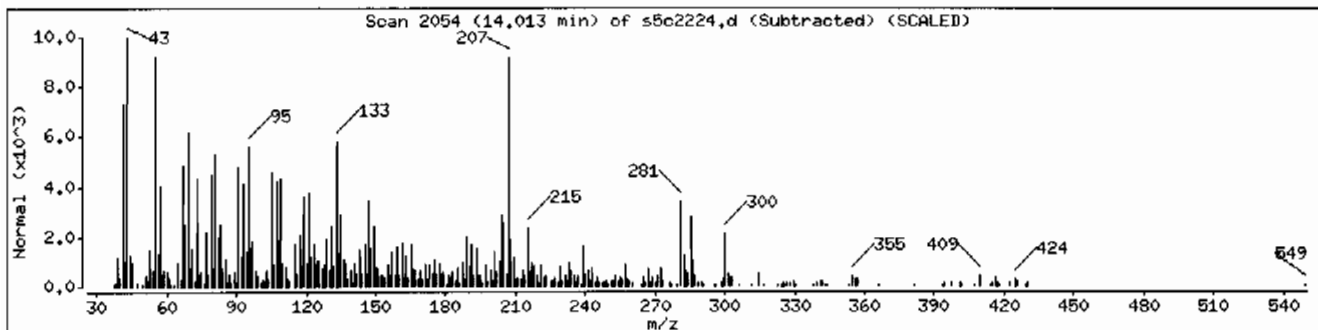
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Androst-1-en-3-one, 4,4-dimethyl-, (5 $\alpha$ ,1	54550-04-8	NIST05.L	125060	38	C21H32O	300
3-Methylindole-2-carboxylic acid, 4,5,6,	37945-37-2	NIST05.L	62156	27	C12H17NO2	207
1H-Cycloprop[elazulene, decahydro-1,1,7-	489-39-4	NIST05.L	60079	25	C15H24	204



Date : 22-MAR-2010 17:16

Client ID: RE36-10-7437

Instrument: MSD5.i

Sample Info: 1248506013196308611SVH111LANL

Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

## Library Search Compound Match

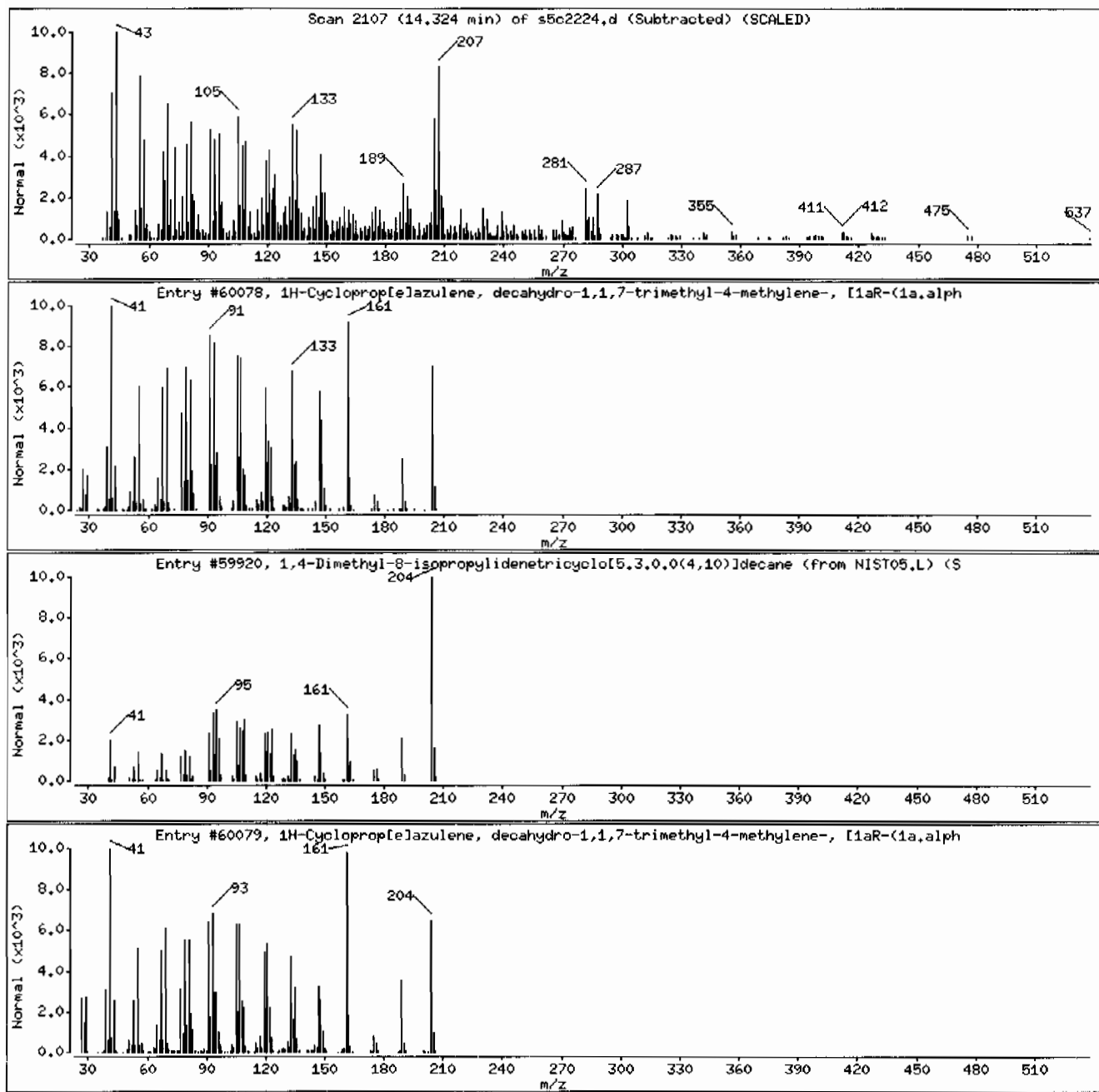
Unknown

1H-Cyclopropelazulene, decahydro-1,1,7-

CAS Number	Library	Entry	Quality	Formula	Weight
489-39-4	NIST05.L	60078	59	C15H24	204
1000140-07-7	NIST05.L	59920	50	C15H24	204
489-39-4	NIST05.L	60079	42	C15H24	204

1,4-Dimethyl-8-isopropylidenetricyclo[5.

1H-Cyclopropelazulene, decahydro-1,1,7-



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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506019	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 5.3
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7438	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 19:34	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.02 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2230.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	352	ug/kg	70.4	352
108-95-2	Phenol	U	352	ug/kg	70.4	352
95-57-8	2-Chlorophenol	U	352	ug/kg	70.4	352
106-46-7	1,4-Dichlorobenzene	U	352	ug/kg	70.4	352
621-64-7	N-Nitrosodipropylamine	U	352	ug/kg	70.4	352
59-50-7	4-Chloro-3-methylphenol	U	352	ug/kg	70.4	352
83-32-9	Accnaphthene	U	35.2	ug/kg	11.6	35.2
121-14-2	2,4-Dinitrotolucne	U	352	ug/kg	35.2	352
100-02-7	4-Nitrophenol	U	352	ug/kg	116	352
87-86-5	Pentachlorophenol	U	352	ug/kg	88.0	352
129-00-0	Pyrene	U	35.2	ug/kg	10.6	35.2
110-86-1	Pyridine	U	352	ug/kg	70.4	352
62-53-3	Aniline	U	352	ug/kg	106	352
111-44-4	bis(2-Chloroethyl) ether	U	352	ug/kg	70.4	352
541-73-1	1,3-Dichlorobenzene	U	352	ug/kg	70.4	352
100-51-6	Benzyl alcohol	U	352	ug/kg	106	352
95-50-1	1,2-Dichlorobenzene	U	352	ug/kg	70.4	352
108-60-1	bis(2-Chloroisopropyl)ether	U	352	ug/kg	70.4	352
95-48-7	o-Cresol	U	352	ug/kg	70.4	352
65794-96-9	m,p-Cresols	U	352	ug/kg	106	352
67-72-1	Hexachloroethane	U	352	ug/kg	70.4	352
98-95-3	Nitrobenzene	U	352	ug/kg	70.4	352
78-59-1	Isophorone	U	352	ug/kg	70.4	352
88-75-5	2-Nitrophenol	U	352	ug/kg	70.4	352
105-67-9	2,4-Dimethylphenol	U	352	ug/kg	123	352
111-91-1	bis(2-Chloroethoxy)methane	U	352	ug/kg	70.4	352
120-83-2	2,4-Dichlorophenol	U	352	ug/kg	70.4	352
65-85-0	Benzoic acid	U	704	ug/kg	176	704
91-20-3	Naphthalene	U	35.2	ug/kg	10.6	35.2
106-47-8	4-Chloroaniline	U	352	ug/kg	70.4	352
87-68-3	Hexachlorobutadiene	U	352	ug/kg	70.4	352
91-57-6	2-Methylnaphthalene	U	35.2	ug/kg	7.04	35.2
77-47-4	Hexachlorocyclopentadiene	U	352	ug/kg	70.4	352
88-06-2	2,4,6-Trichlorophenol	U	352	ug/kg	70.4	352
95-95-4	2,4,5-Trichlorophenol	U	352	ug/kg	70.4	352
91-58-7	2-Chloronaphthalene	U	35.2	ug/kg	11.6	35.2
88-74-4	2-Nitroaniline	U	352	ug/kg	70.4	352
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	352	ug/kg	70.4	352

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

<b>SDG Number:</b>	10-2193	<b>Date Collected:</b>	02/25/2010 12:00	<b>Matrix:</b>	R
<b>Lab Sample ID:</b>	248506019	<b>Date Received:</b>	03/03/2010 08:50	<b>%Moisture:</b>	5.3
		<b>Client:</b>	LANL010	<b>Project:</b>	LANL01004
<b>Client ID:</b>	RF36-10-7438	<b>Method:</b>	SW846 8270C	<b>SOP Ref:</b>	GL-OA-E-009
<b>Batch ID:</b>	963086	<b>Inst:</b>	MSD5.1	<b>Dilution:</b>	1
<b>Run Date:</b>	03/22/2010 19:34	<b>Analyst:</b>	RMB	<b>Inj. Vol:</b>	.5 uL
<b>Prep Date:</b>	03/10/2010 12:33	<b>Aliquot:</b>	30.02 g	<b>Final Volume:</b>	1 mL
<b>Data File:</b>	s5c2230.d	<b>Column:</b>	J&W DB-5MS	<b>Level:</b>	LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	352	ug/kg	70.4	352
606-20-2	2,6-Dinitrotoluene	U	352	ug/kg	35.2	352
208-96-8	Acenaphthylene	U	35.2	ug/kg	10.6	35.2
51-28-5	2,4-Dinitrophenol	U	704	ug/kg	134	704
132-64-9	Dibenzofuran	U	352	ug/kg	70.4	352
84-66-2	Diethylphthalate	U	352	ug/kg	70.4	352
86-73-7	Fluorene	U	35.2	ug/kg	10.6	35.2
7005-72-3	4-Chlorophenylphenylether	U	352	ug/kg	70.4	352
534-52-1	2-Methyl-4,6-dinitrophenol	U	352	ug/kg	70.4	352
100-01-6	4-Nitroaniline	U	352	ug/kg	106	352
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	352	ug/kg	70.4	352
122-66-7	Azobenzene	U	352	ug/kg	70.4	352
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	352	ug/kg	70.4	352
118-74-1	Hexachlorobenzene	U	352	ug/kg	70.4	352
85-01-8	Phenanthrene	U	35.2	ug/kg	10.6	35.2
120-12-7	Anthracene	U	35.2	ug/kg	7.04	35.2
84-74-2	Di-n-butylphthalate	U	352	ug/kg	70.4	352
206-44-0	Fluoranthene	U	35.2	ug/kg	10.6	35.2
85-68-7	Butylbenzylphthalate	U	352	ug/kg	70.4	352
56-55-3	Benzo(a)anthracene	U	35.2	ug/kg	10.6	35.2
91-94-1	3,3'-Dichlorobenzidine	U	352	ug/kg	106	352
218-01-9	Chrysene	U	35.2	ug/kg	10.6	35.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	352	ug/kg	70.4	352
117-84-0	Di-n-octylphthalate	U	352	ug/kg	70.4	352
205-99-2	Benzo(b)fluoranthene	U	35.2	ug/kg	10.6	35.2
207-08-9	Benzo(k)fluoranthene	U	35.2	ug/kg	10.6	35.2
50-32-8	Benzo(a)pyrene	U	35.2	ug/kg	10.6	35.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.2	ug/kg	10.6	35.2
53-70-3	Dibenzo(a,h)anthracene	U	35.2	ug/kg	10.6	35.2
191-24-2	Benzo(ghi)perylene	U	35.2	ug/kg	10.6	35.2
120-82-1	1,2,4-Trichlorobenzene	U	352	ug/kg	70.4	352

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.08	3140	ug/kg		J
13481-95-3	10-Octadecenoic acid, methyl ester	8.14	241	ug/kg	99	NJ

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

SDG Number: 10-2193  
Lab Sample ID: 248506019

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 5.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

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

Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
	Unknown	9.05	467	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.1	274	ug/kg	93	NJ
	Unknown	9.14	218	ug/kg		J
1000131-09-4	Z-12-Pentacosene	9.46	278	ug/kg	95	NJ
	Unknown	9.57	144	ug/kg		J
	Unknown	9.79	192	ug/kg		J
	Unknown	9.89	150	ug/kg		J
	Unknown	10.09	207	ug/kg		J
7773-83-3	1-Docosanethiol	10.12	460	ug/kg	92	NJ
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.16	1060	ug/kg	91	NJ
	Unknown	10.45	171	ug/kg		J
112-95-8	Eicosane	10.85	210	ug/kg	86	NJ
	Unknown	11.57	200	ug/kg		J
	Unknown	11.93	402	ug/kg		J
	Unknown	12.15	848	ug/kg		J
	Unknown	12.69	194	ug/kg		J
	Unknown	12.86	191	ug/kg		J
	Unknown	12.91	575	ug/kg		J
	Unknown	13.01	378	ug/kg		J
	Unknown	13.2	172	ug/kg		J
83-46-5	.beta.-Sitosterol	13.9	747	ug/kg	90	NJ
	Unknown	14.26	175	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2230.d  
Lab Smp Id: 248506019 Client Smp ID: RE36-10-7438  
Inj Date : 22-MAR-2010 19:34  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506019|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 30  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	5.34460	% 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	3.949	3.950	(1.000)	240117	40.0000	
* 29 Naphthalene-d8		136	4.813	4.821	(1.000)	966208	40.0000	
* 46 Acenaphthene-d10		164	6.072	6.078	(1.000)	568148	40.0000	
* 67 Phenanthrene-d10		188	7.254	7.253	(1.000)	1003703	40.0000	
* 91 Chrysene-d12		240	9.672	9.670	(1.000)	892989	40.0000	
* 98 Perylene-d12		264	11.378	11.370	(1.000)	652768	40.0000	
\$ 3 2-Fluorophenol		112	3.149	3.141	(0.797)	366106	61.0598	2150
\$ 5 Phenol-d5		99	3.666	3.666	(0.928)	490779	68.1027	2400
\$ 20 Nitrobenzene-d5		82	4.307	4.316	(0.895)	239066	33.2980	1170
\$ 39 2-Fluorobiphenyl		172	5.560	5.558	(0.916)	455340	32.0878	1130
\$ 60 2,4,6-Tribromophenol		329	6.678	6.675	(1.100)	154467	72.3857	2550
\$ 81 p-Terphenyl-d14		244	8.637	8.630	(0.893)	594827	40.0445	1410

## ION RATIO REPORT

## SV REPORT

Data file: s5c2230.d

Report Date: 03/23/2010 07:08

Lab. ID: 248506019

SampleType: SAMPLE

Injection Date: 22-MAR-2010 19:34

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506019|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline		CAS#: 62-53-3			
66	32158	3.67	3.74	80-120	100	(T)
93	7147	3.72	3.74	219-279	22	(Q)
-----						
7	bis(2-Chloroethyl) ether		CAS#: 111-44-4			
63	10754	3.95	3.75	80-120	100	(T)
93	1668	3.94	3.75	119-179	16	(QT)
95	369	3.94	3.75	8- 68	3	(QT)
-----						
17	N-Nitrosodipropylamine		CAS#: 621-64-7			
70	35010	4.31	4.19	80-120	100	(T)
42	22505	4.31	4.19	44-104	64	(T)
-----						
27	Benzoic acid		CAS#: 65-85-0			
105	1531	4.60	4.59	80-120	100	( )
122	1187	4.57	4.59	45-105	78	( )
77	1057	4.58	4.59	48-108	69	( )
-----						
40	2-Chloronaphthalene		CAS#: 91-58-7			
162	9419	5.80	5.67	80-120	100	(T)
164	498	5.80	5.67	3- 63	5	(T)
127	1287	5.80	5.67	11- 71	14	(T)
-----						
42	o-Nitroaniline		CAS#: 88-74-4			
65	17190	5.80	5.73	80-120	100	(T)
92	19673	5.80	5.73	34- 94	114	(QT)
138	1439	5.80	5.73	74-134	8	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
43	Dimethylphthalate			CAS#: 131-11-3		
163	104382	6.08	5.84	80-120	100	(T)
164	568148	6.07	5.84	0- 40	544	(QT)
-----						
44	2,6-Dinitrotoluene			CAS#: 606-20-2		
165	74884	6.07	5.90	80-120	100	(T)
63	1315	6.07	5.89	62-122	2	(QT)
-----						
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	75114	6.07	6.19	80-120	100	(T)
89	1778	6.07	6.19	51-111	2	(QT)
63	1315	6.07	6.19	24- 84	2	(QT)
-----						
52	4-Nitrophenol			CAS#: 100-02-7		
139	246	6.12	6.12	80-120	100	( )
109	1555	6.08	6.12	63-123	630	(Q)
65	953	6.13	6.11	71-131	386	(Q)
-----						
53	Fluorene			CAS#: 86-73-7		
166	6525	6.68	6.49	80-120	100	(T)
165	7045	6.68	6.49	62-122	108	(T)
167	2516	6.68	6.49	0- 44	39	(T)
-----						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	129	6.64	6.51	80-120	100	(T)
105	1863	6.67	6.50	13- 73	1438	(QT)
51	1257	6.67	6.50	51-111	971	(QT)
-----						
61	4-Bromophenylphenylether			CAS#: 101-55-3		
248	10257	6.68	6.85	80-120	100	(T)
141	86783	6.68	6.85	59-119	846	(QT)
250	20793	6.68	6.85	66-126	203	(QT)

Q qualifier indicates ion failed ratio requirement



GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2230.d  
 Lab Smp Id: 248506019 Client Smp ID: RE36-10-7438  
 Inj Date : 22-MAR-2010 19:34  
 Operator : RMB Inst ID: MSD5.i  
 Smp Info : |248506019|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
 Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
 Als bottle: 30  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2193.sub  
 Target Version: 3.50  
 Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	5.34460	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.949	1657114	40.000
* 67 Phenanthrene-d10	7.254	2657399	40.000
* 91 Chrysene-d12	9.672	2848357	40.000
* 98 Perylene-d12	11.378	1990887	40.000

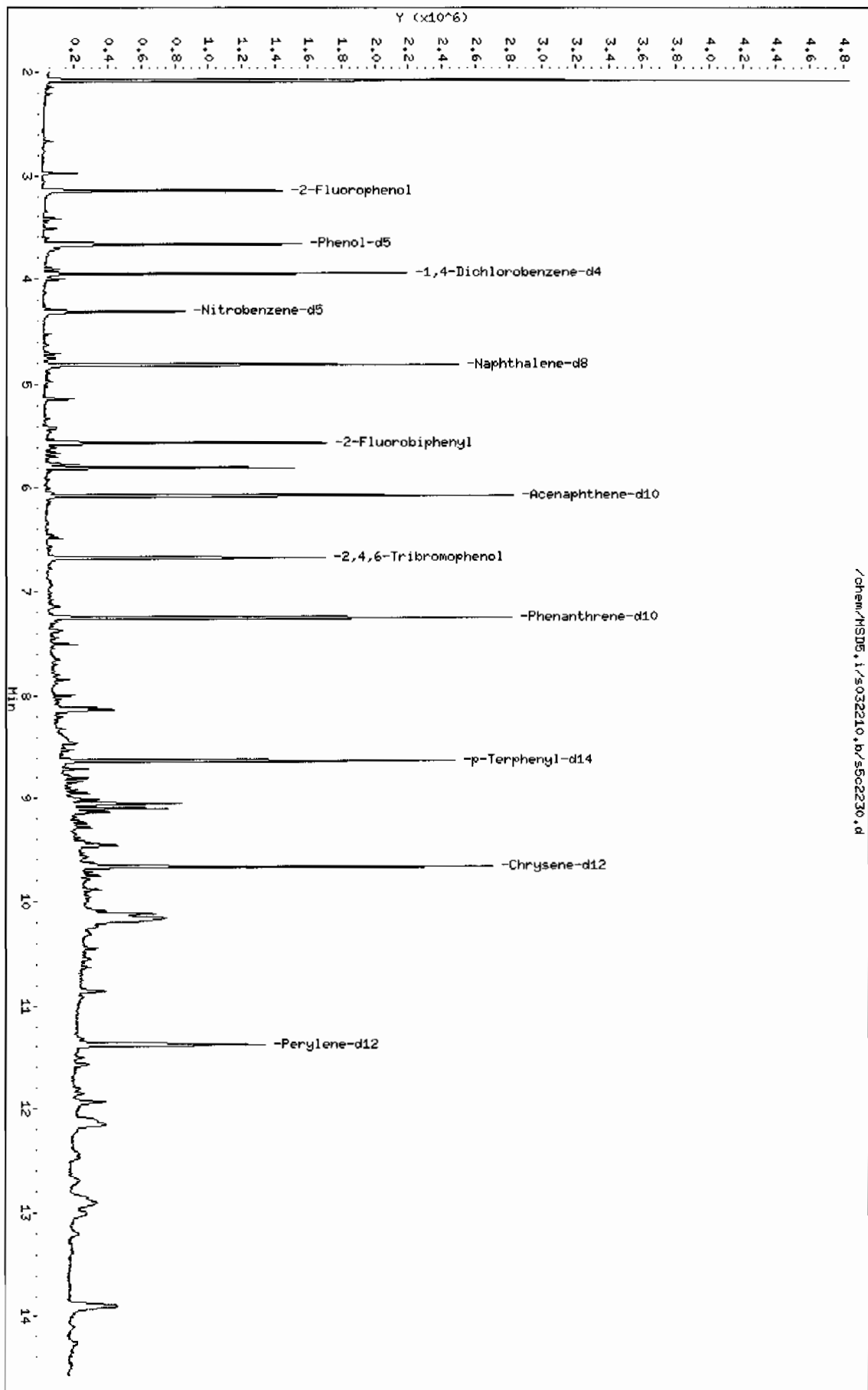
CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
Unknown					CAS #:		
2.078	3693170	89.1470104	3140	0		0	10
10-Octadecenoic acid, methyl ester					CAS #: 13481-95-3		
8.137	454206	6.83685226	241	99	NIST05.L	122312	67
Unknown					CAS #:		
9.048	944218	13.2598313	467	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 1235-74-1		
9.101	553728	7.77610277	274	93	NIST05.L	133621	91
Unknown					CAS #:		
9.136	440959	6.19246917	218	0		0	91
2-12-Pentacosene					CAS #: 1000131-09-4		
9.460	561685	7.88784137	278	95	NIST05.L	152786	91
Unknown					CAS #:		
9.566	290443	4.07874530	144	0		0	91
Unknown					CAS #:		
9.789	387715	5.44475902	192	0		0	91
Unknown					CAS #:		
9.889	303459	4.26152362	150	0		0	91
Unknown					CAS #:		
10.089	419332	5.88875375	207	0		0	91
1-Docosanethiol					CAS #: 7773-83-3		
10.119	930740	13.0705574	460	92	NIST05.L	148955	91
Pyridine-3-carboxamide, oxime, N-(2-trif					CAS #: 288246-53-7		
10.160	2144858	30.1206321	1060	91	NIST05.L	112295	91
Unknown					CAS #:		
10.448	345746	4.85537524	171	0		0	91
Eicosane					CAS #: 112-95-8		
10.854	296310	5.95332129	210	86	NIST05.L	113490	98
Unknown					CAS #:		
11.572	282188	5.66959168	200	0		0	98

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
Unknown					CAS #:		
11.930	568197	10.4159490	402	0		0	98
Unknown					CAS #:		
12.154	1198716	24.0840400	848	0		0	98
Unknown					CAS #:		
12.689	274609	5.51731168	194	0		0	98
Unknown					CAS #:		
12.860	270195	5.42862769	191	0		0	98
Unknown					CAS #:		
12.907	812828	16.3309683	575	0		0	98
Unknown					CAS #:		
13.007	534112	10.7311360	378	0		0	98
Unknown					CAS #:		
13.195	243101	4.88427840	172	0		0	98
.beta.-Sitosterol					CAS #: 83-46-5		
13.895	1057107	21.2389035	747	90	NIST05.L	174399	98
Unknown					CAS #:		
14.260	248045	4.98361526	175	0		0	98

Data File: /chem/MSD5.1/s032210.b/s0c2230.d  
 Date: 22-MAR-2010 19:34  
 Client ID: RE36-10-7438  
 Sample Info: 1248506019196308611SVH11LRL  
 Volume Injected (uL): 0.5  
 Column phase: 38N DB-SMS

Instrument: MSD5.1  
 Operator: RMB  
 Column diameter: 0.20



Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: MSD5.1

Sample Info: 12485060191963086111SVMI11LANL

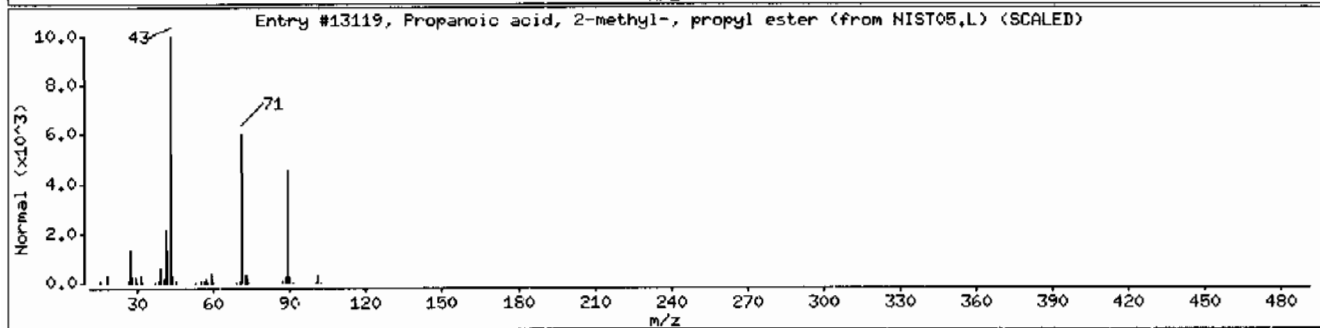
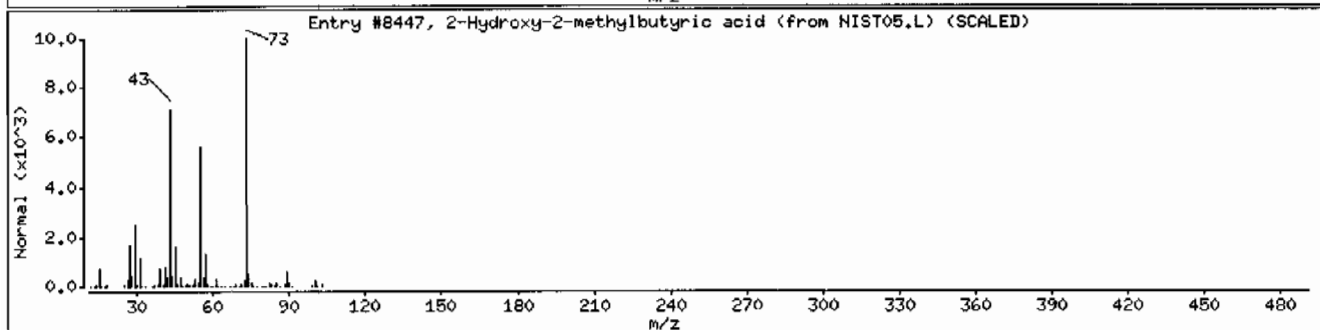
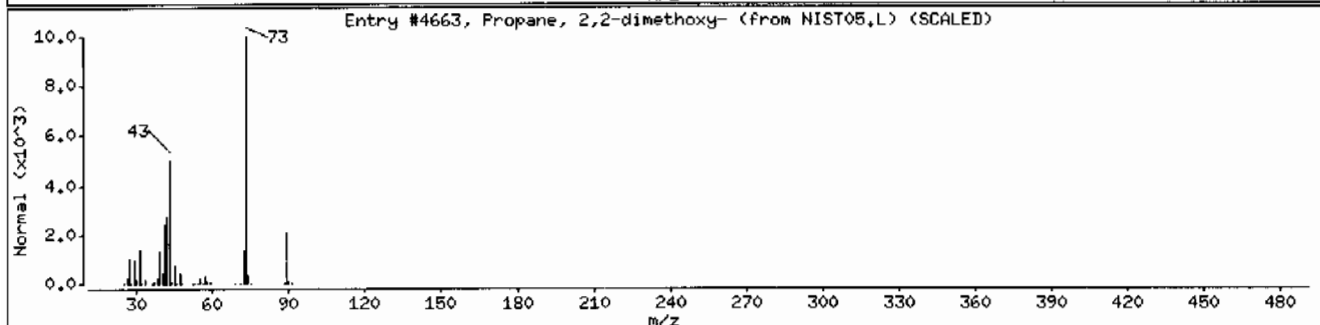
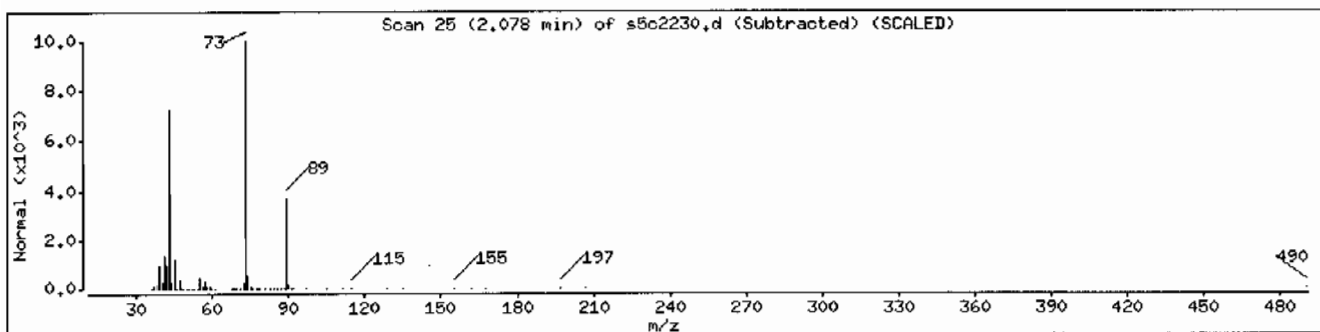
Volume Injected (uL): 0.5

Operator: RMB

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	33	C5H12O2	104
2-Hydroxy-2-methylbutyric acid	3739-30-8	NIST05.L	8447	28	C5H10O3	118
Propanoic acid, 2-methyl-, propyl ester	644-49-5	NIST05.L	13119	27	C7H14O2	130



Date: 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: MSD5.1

Sample Info: 12485060191963086111SVH111LANL

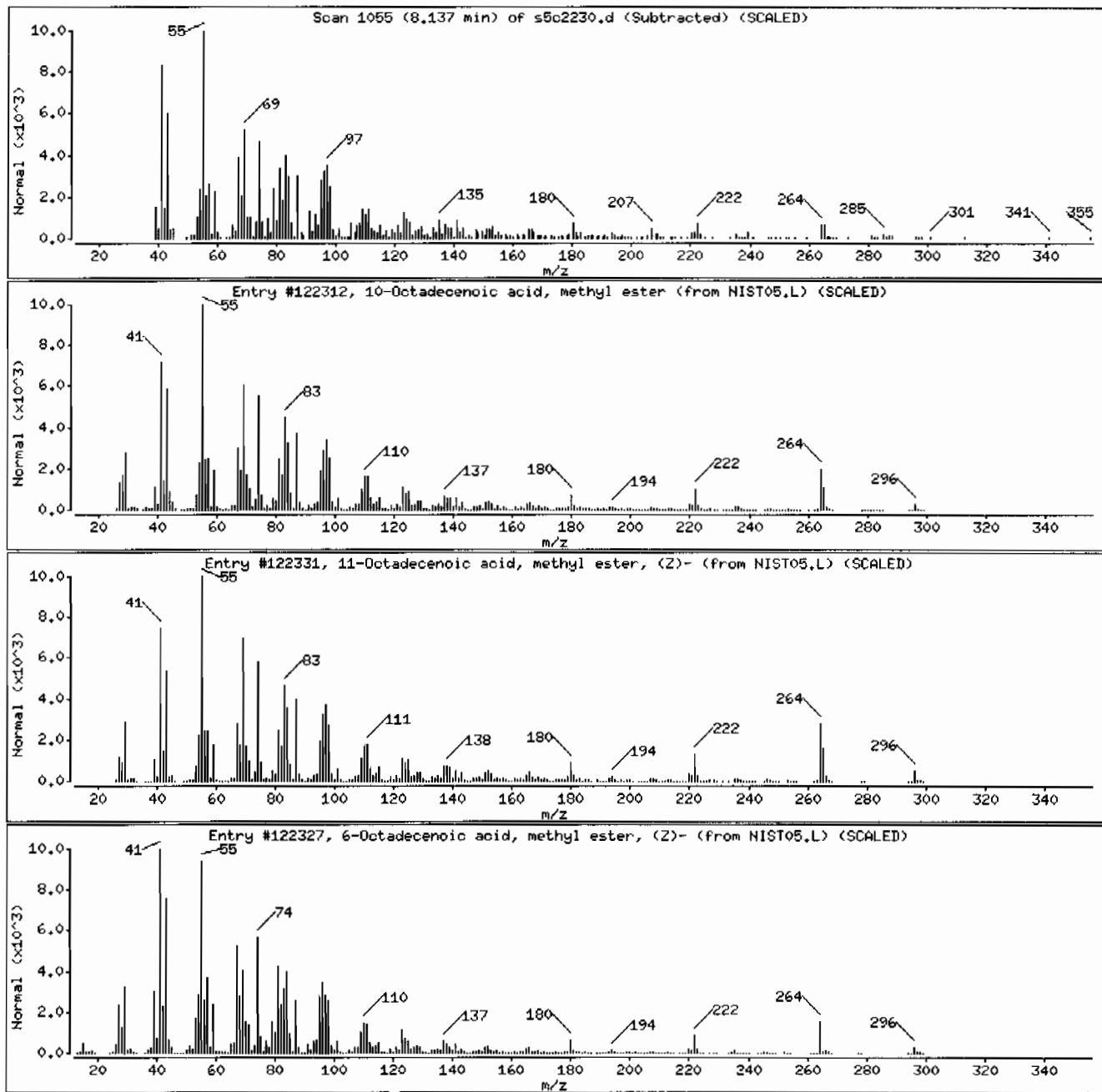
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
10-Octadecenoic acid, methyl ester	13481-95-3	NIST05.L	122312	99	C19H36O2	296
11-Octadecenoic acid, methyl ester, (Z)-	1937-63-9	NIST05.L	122331	99	C19H36O2	296
6-Octadecenoic acid, methyl ester, (Z)-	2777-58-4	NIST05.L	122327	99	C19H36O2	296



Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: MSD5.i

Sample Info: 12485060191963086111SVH111LANL

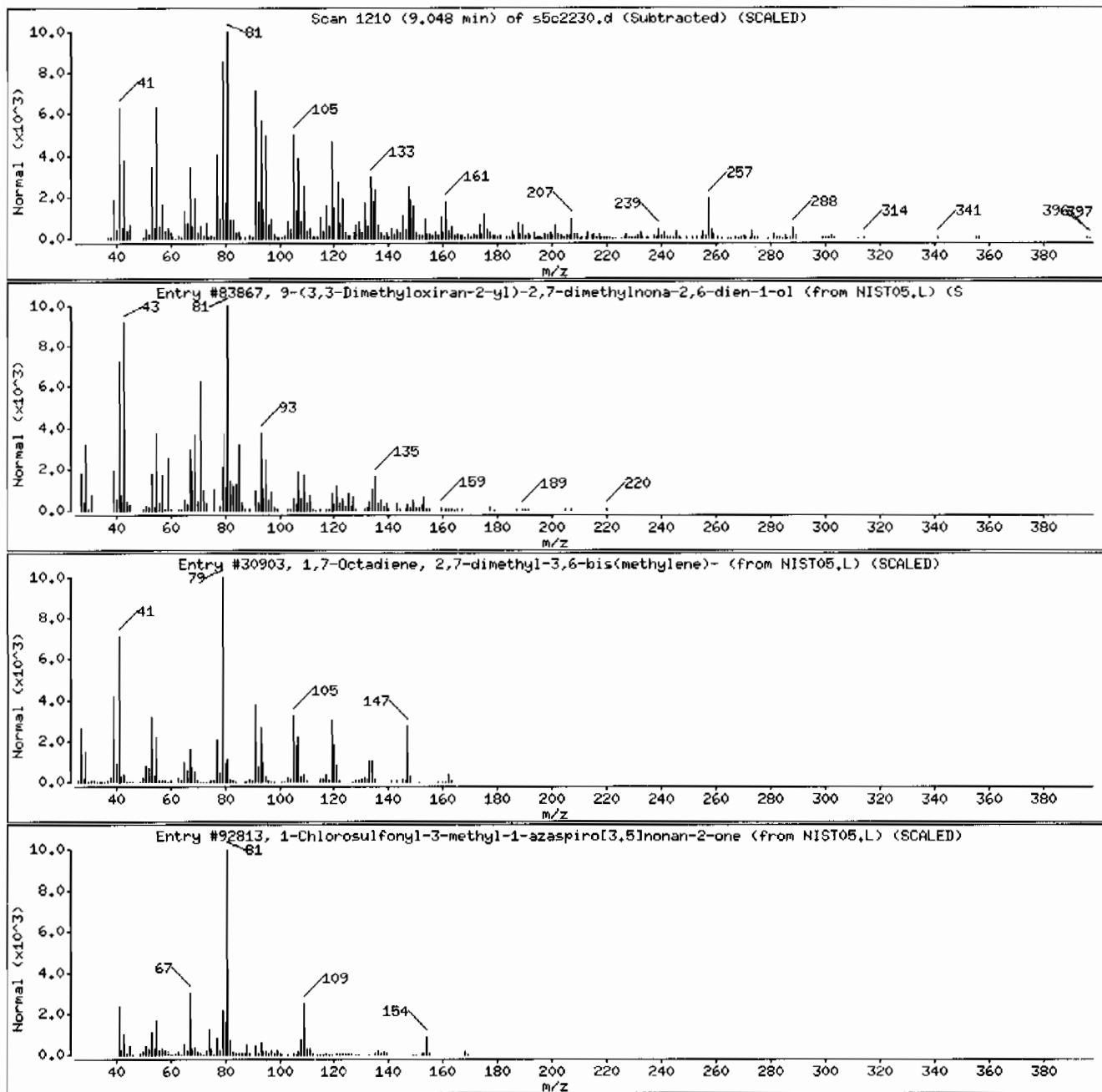
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
9-(3,3-Dimethyloxiran-2-yl)-2,7-dimethyl	1000192-15-6	NIST05.L	83867	27	C15H26O2	238
1,7-Octadiene, 2,7-dimethyl-3,6-bis(meth	16714-60-6	NIST05.L	30903	25	C12H18	162
1-Chlorosulfonyl-3-methyl-1-azaspiro[3.5	16933-89-4	NIST05.L	92813	22	C9H14ClNO3S	251



Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: HSD5.i

Sample Info: 12485060191963086111SVH111LANL

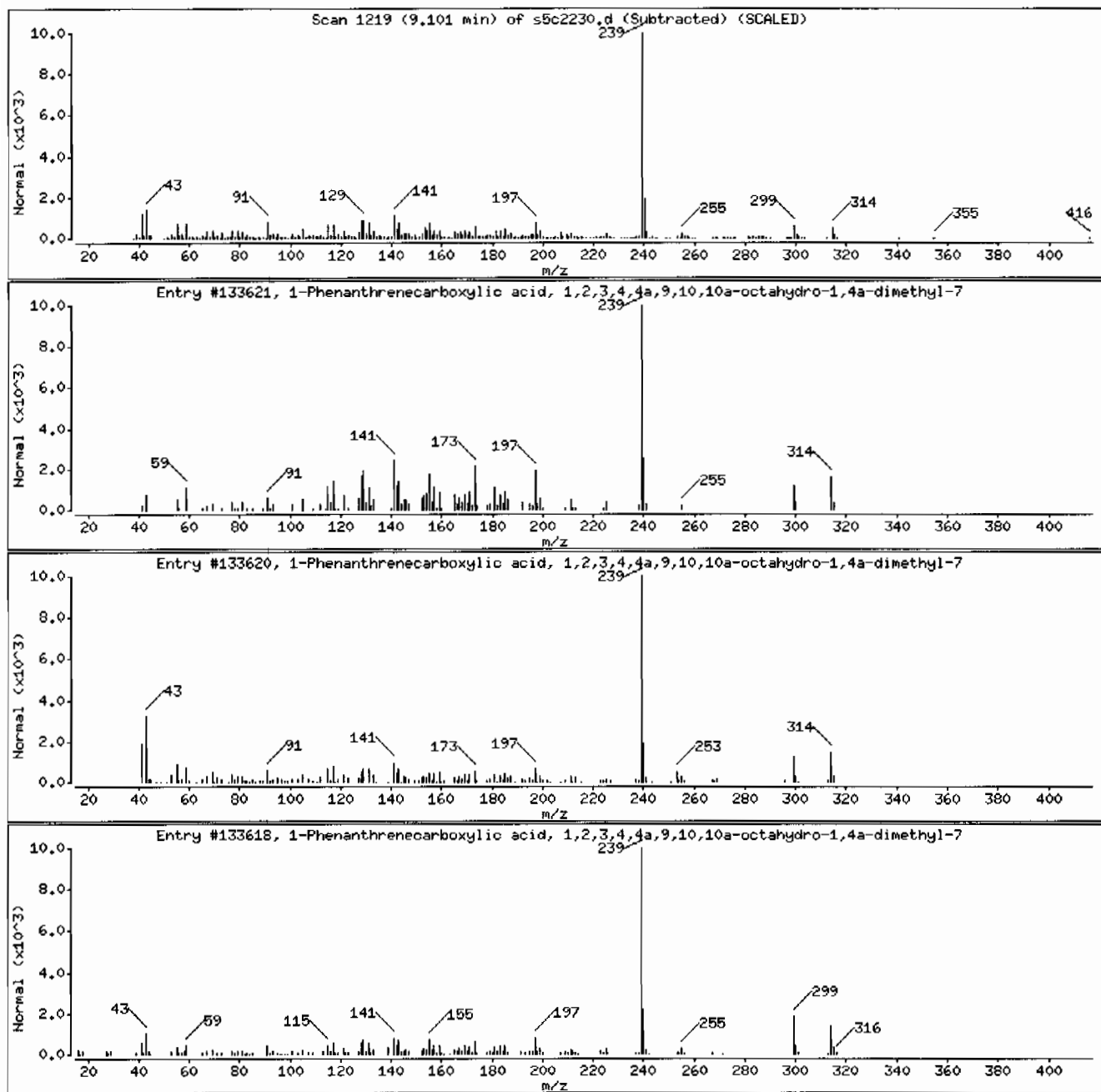
Volume Injected (uL): 0.5

Operator: RMB

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	133621	93	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133620	87	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133618	81	C21H30O2	314





Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: HSD5.i

Sample Info: 12485060191963086111SVMI11LANL

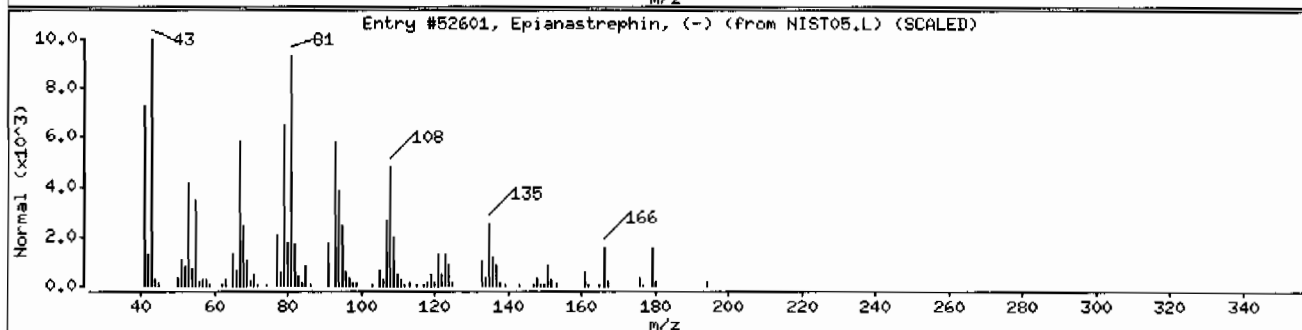
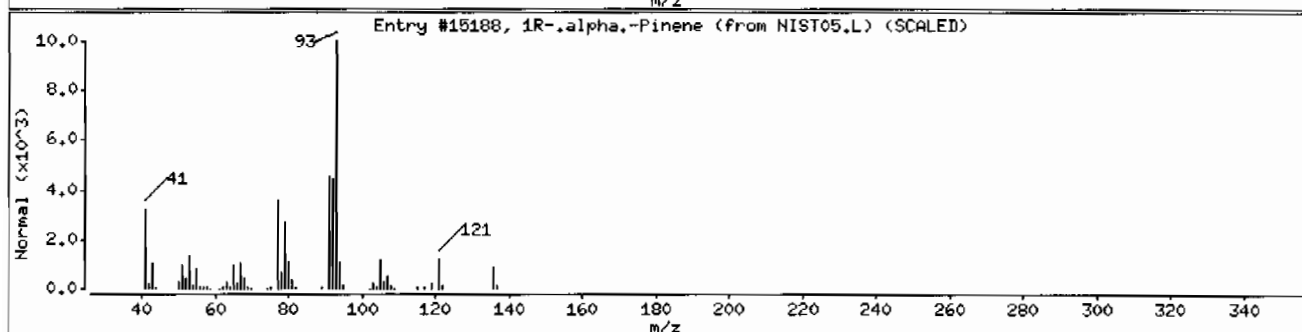
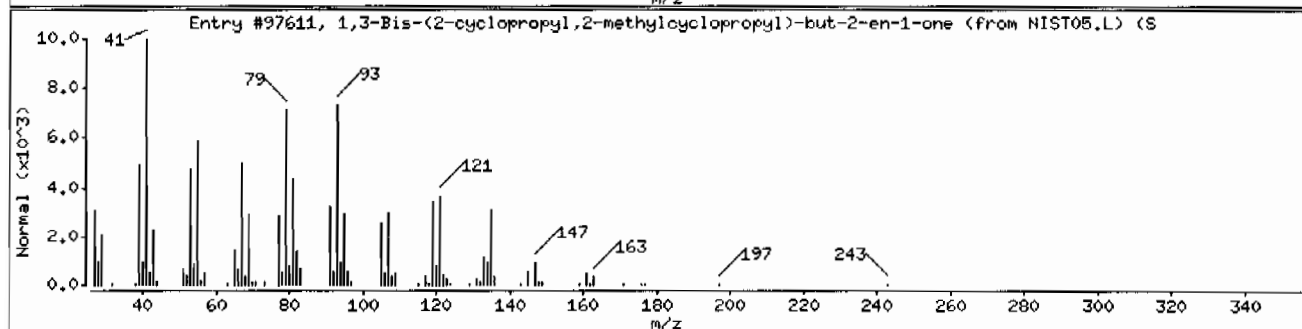
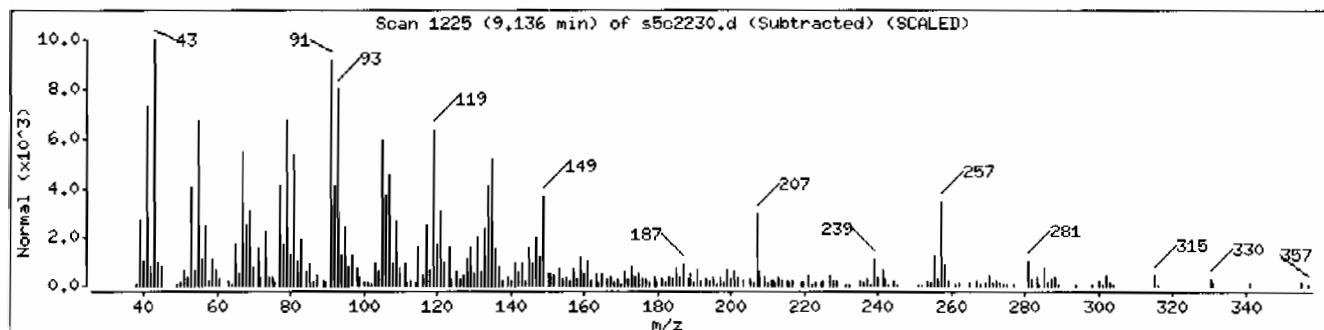
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,3-Bis-(2-cyclopropyl,2-methylcycloprop	1000222-08-6	NIST05.L	97611	64	C18H26O	258
1R-.alpha.-Pinene	7785-70-8	NIST05.L	15188	60	C10H16	136
Epianastrephin, (-)	77670-93-0	NIST05.L	52601	55	C12H18O2	194



Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: MSD5.i

Sample Info: 1248506019196308611|SVH11|LANL

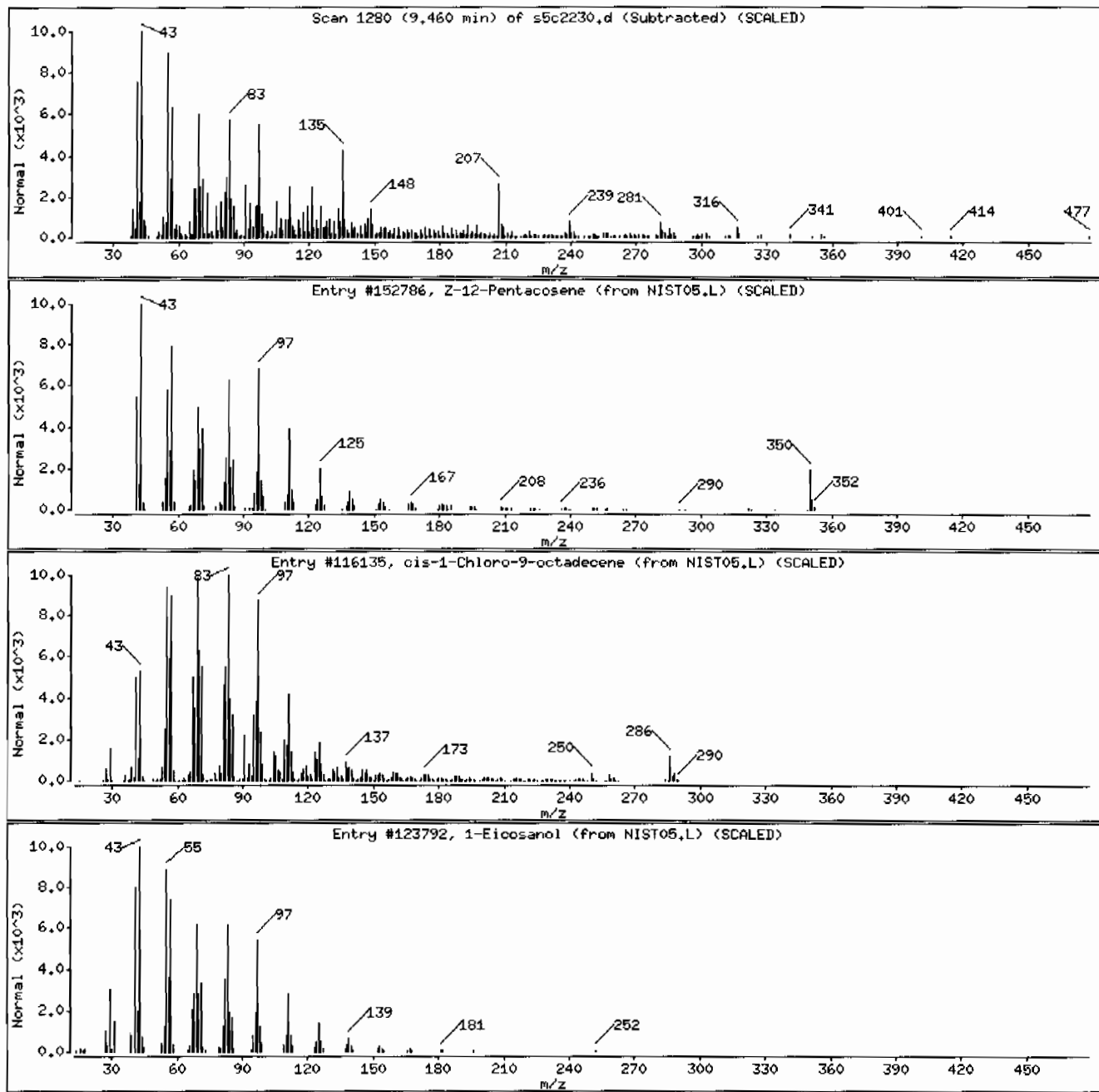
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Z-12-Pentacosene	1000131-09-4	NIST05.L	152786	95	C25H50	350
cis-1-Chloro-9-octadecene	16507-61-2	NIST05.L	116135	95	C18H35Cl	286
1-Eicosanol	629-96-9	NIST05.L	123792	87	C20H42O	298



Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: MSD5.i

Sample Info: 12485060191963086111SVH111LANL

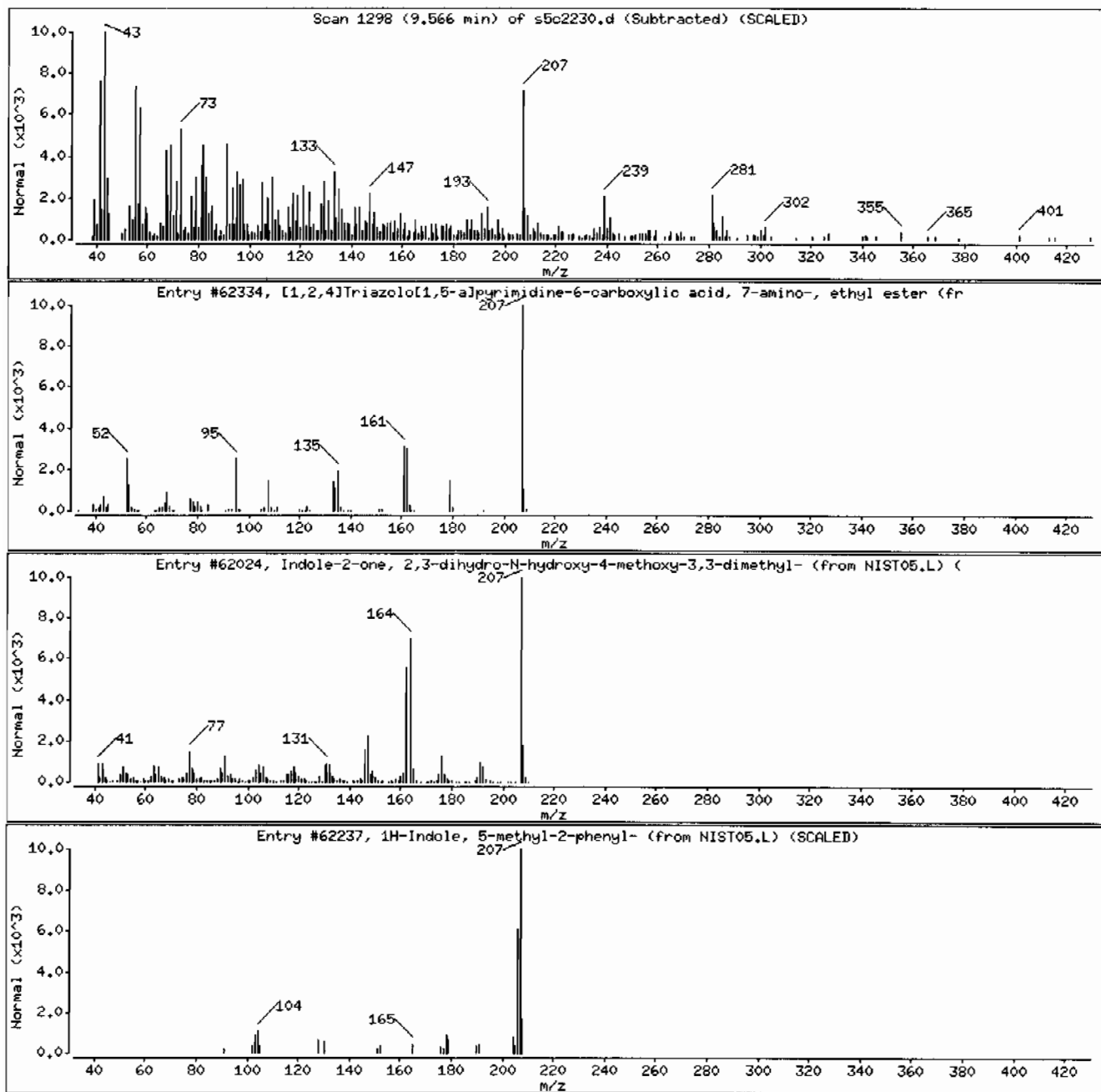
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
[1,2,4]Triazolo[1,5-a]pyrimidine-6-carbo	1000316-75-8	NIST05.L	62334	22	C8H9N5O2	207
Indole-2-one, 2,3-dihydro-N-hydroxy-4-me	1000129-52-1	NIST05.L	62024	18	C11H13NO3	207
1H-Indole, 5-methyl-2-phenyl-	13228-36-9	NIST05.L	62237	15	C15H13N	207



Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: MSD5.i

Sample Info: 1248506019196308611SVH11ILANL

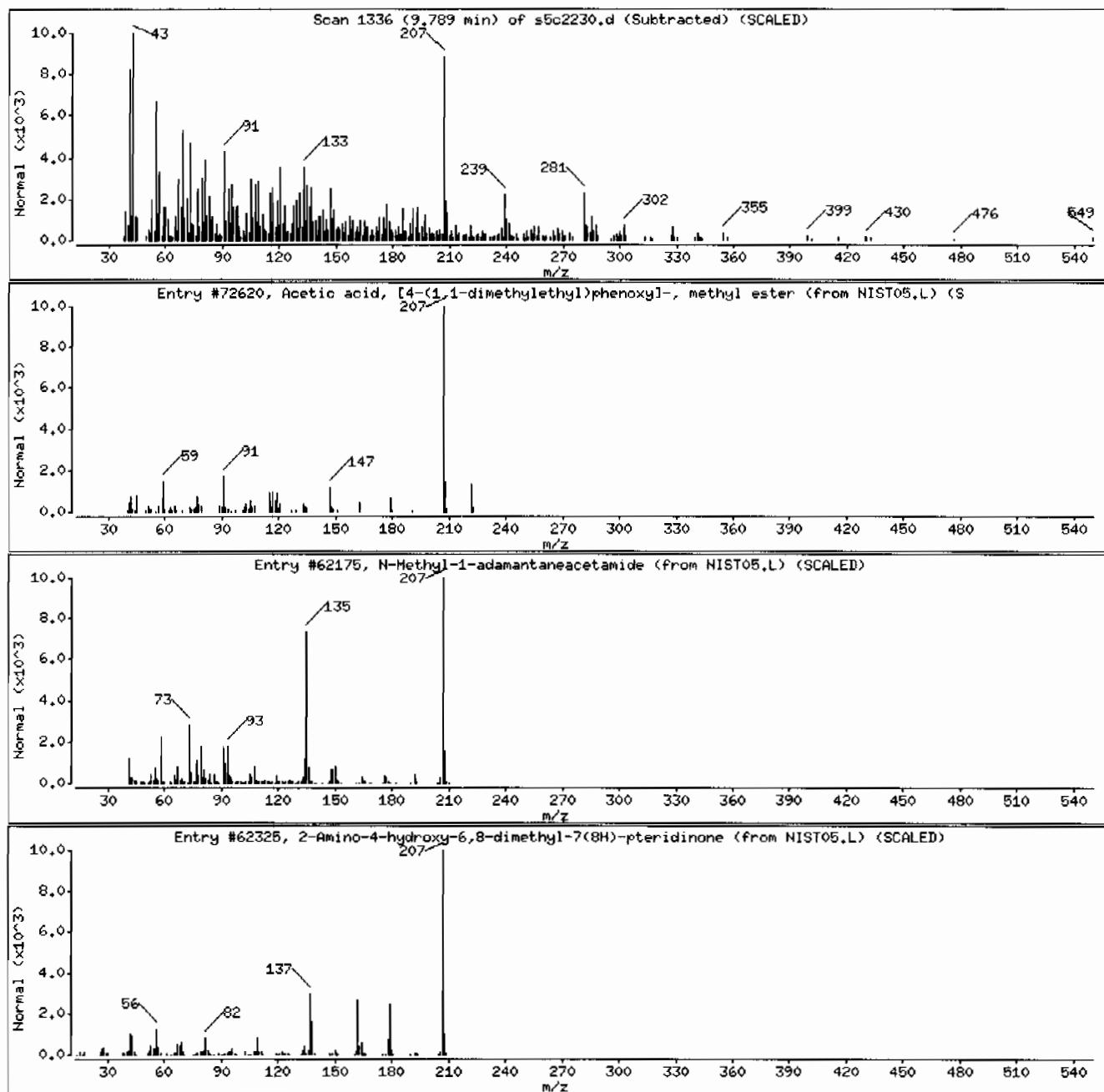
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Acetic acid, [4-(1,1-dimethylethyl)pheno	88530-52-3	NIST05.L	72620	50	C13H18O3	222
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05.L	62175	43	C13H21NO	207
2-Amino-4-hydroxy-6,8-dimethyl-7(8H)-pte	25477-64-9	NIST05.L	62325	43	C8H9N5O2	207



Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: MSD5.i

Sample Info: 12485060191963086111SVH111LANL

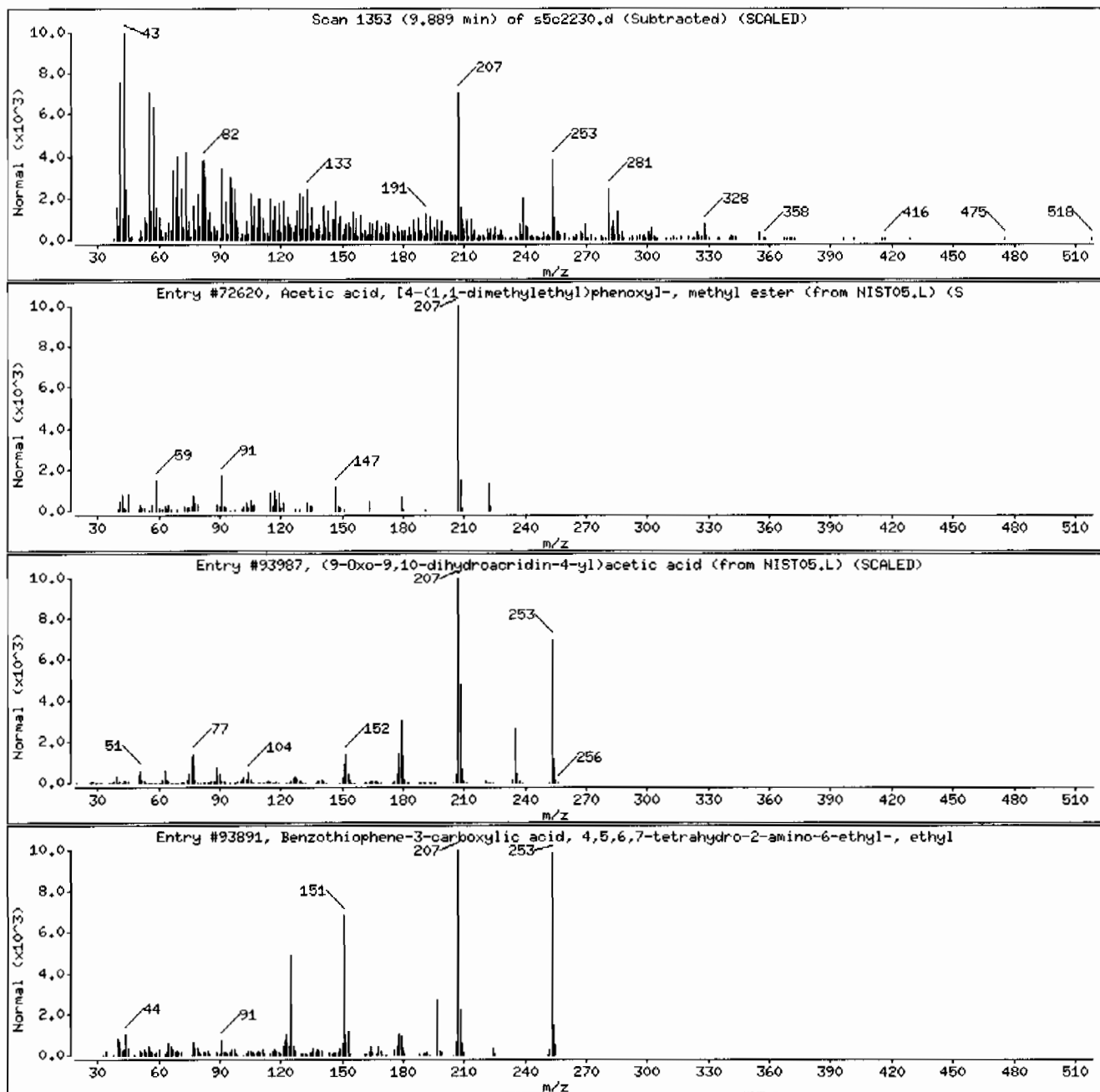
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Acetic acid, [4-(1,1-dimethylethyl)pheno	88530-52-3	NIST05.L	72620	44	C13H18O3	222
(9-Oxo-9,10-dihydroacridin-4-yl)acetic a	145447-90-1	NIST05.L	93987	30	C15H11NO3	253
Benzothiophene-3-carboxylic acid, 4,5,6,	329222-94-8	NIST05.L	93891	30	C13H9NO2S	253



Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: MSD5.i

Sample Info: 1248506019196308611ISVM11ILANL

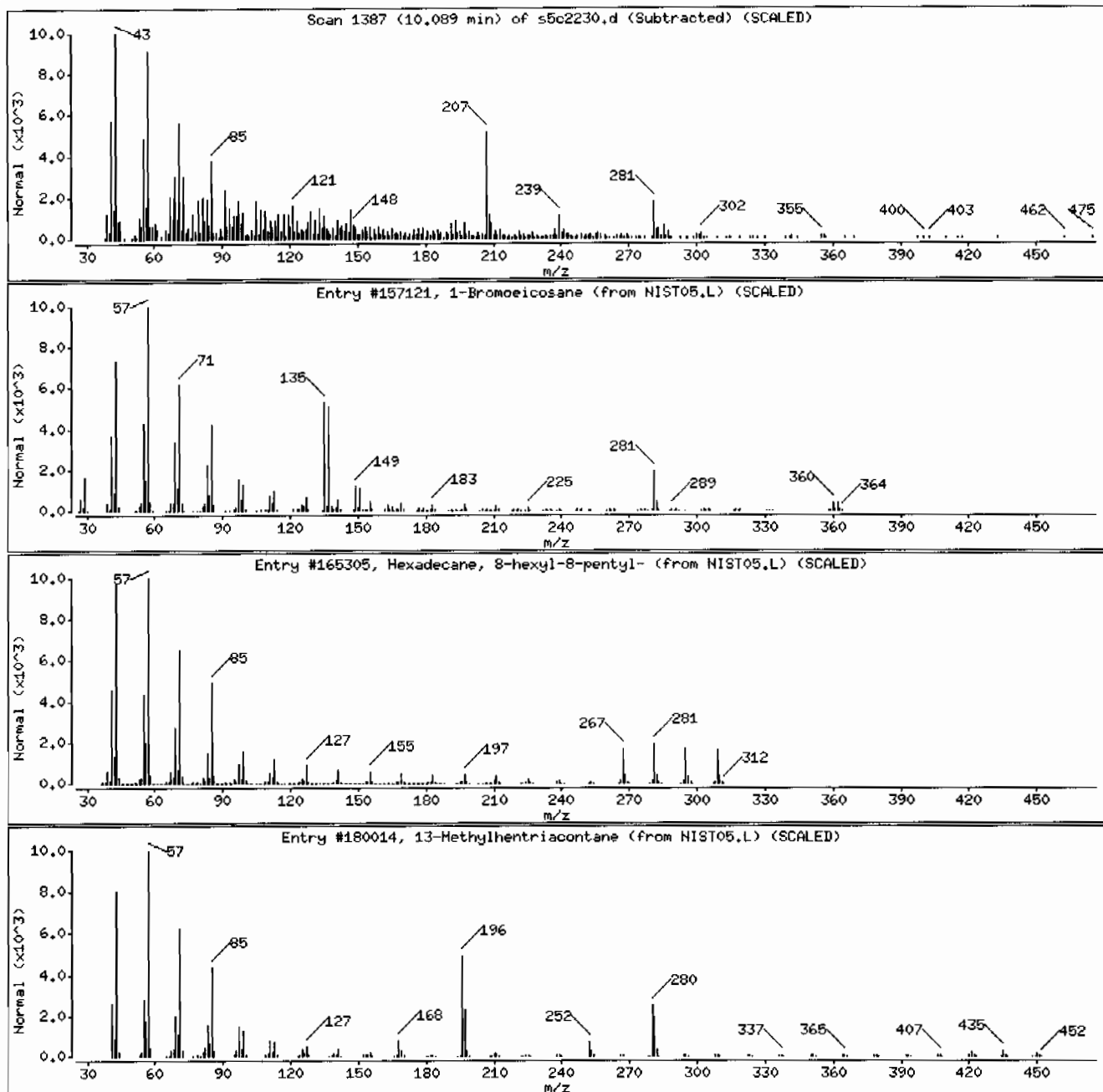
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Bromoeicosane	4276-49-7	NIST05.L	157121	41	C <sub>20</sub> H <sub>41</sub> Br	360
Hexadecane, 8-hexyl-8-pentyl-	55282-29-6	NIST05.L	165305	38	C <sub>27</sub> H <sub>56</sub>	380
13-Methylhentriacontane	1000131-19-4	NIST05.L	180014	38	C <sub>32</sub> H <sub>66</sub>	451



Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: MSD5.1

Sample Info: 12485060191963086111SVMI11LANL

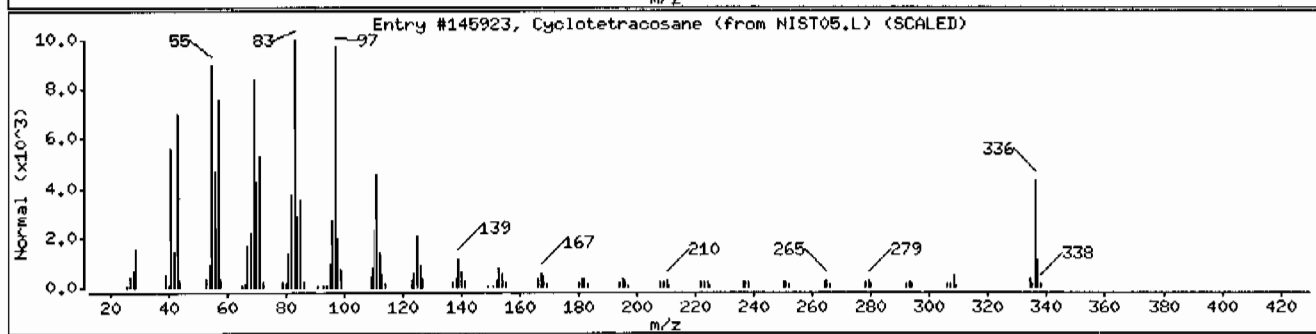
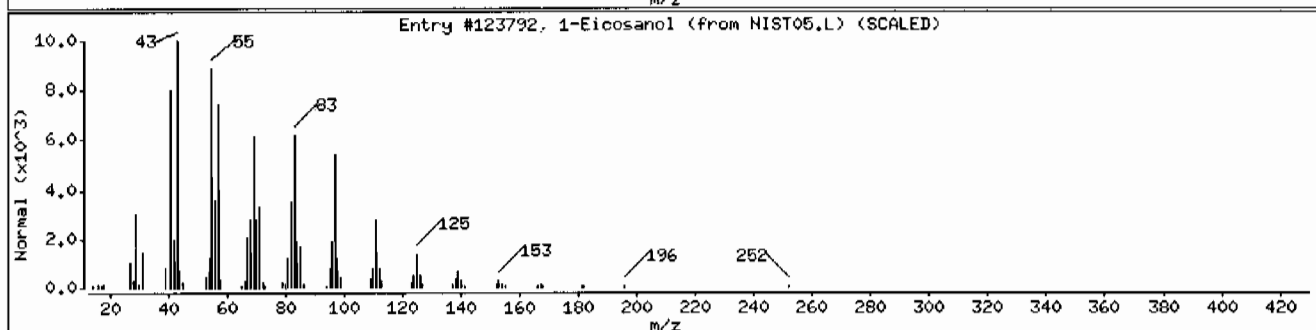
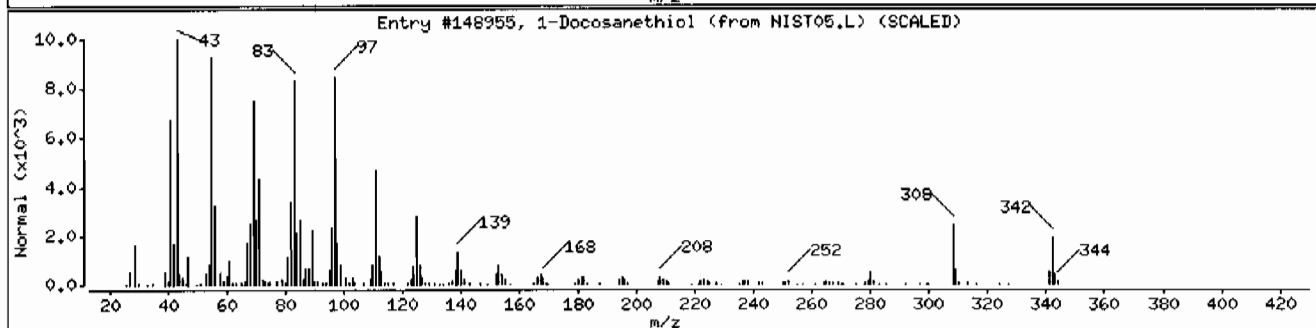
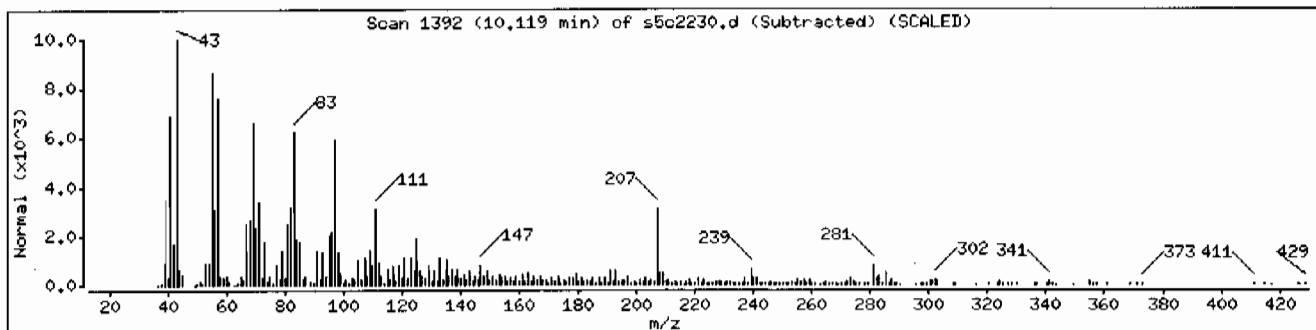
Volume Injected (uL): 0.5

Operator: RMB

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	92	C22H46S	342
1-Eicosanol	629-96-9	NIST05.L	123792	91	C20H42O	298
Cyclotetracosane	297-03-0	NIST05.L	145923	91	C24H48	336



Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: MSD5.i

Sample Info: 12485060191963086111SVH111LANL

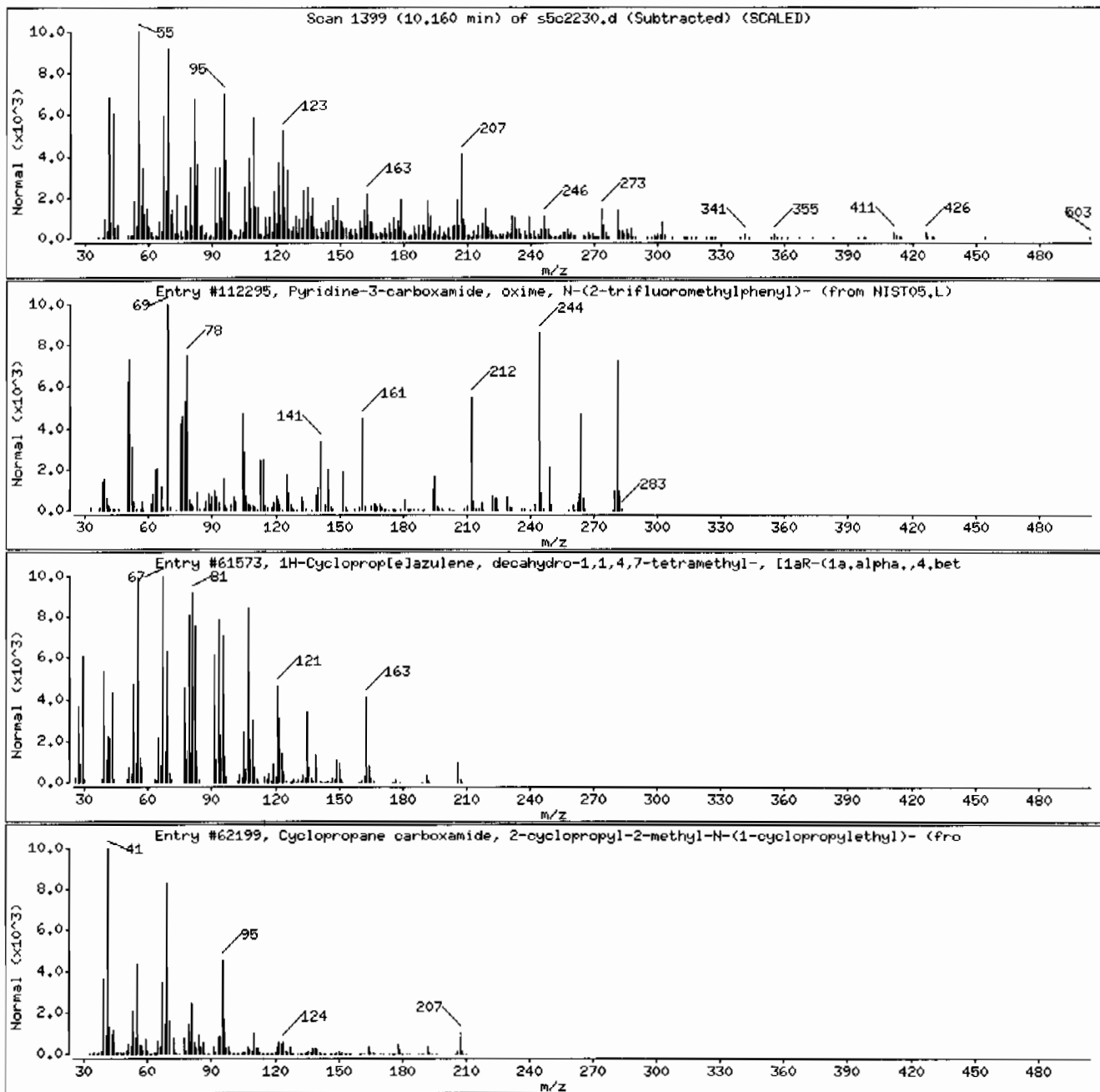
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyridine-3-carboxamide, oxime, N-(2-trif	288246-53-7	NIST05.L	112295	91	C13H10F3N3O	281
1H-Cycloprop[elazulene, decahydro-1,1,4,	28580-43-0	NIST05.L	61573	53	C15H26	206
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	50	C13H21NO	207





Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: MSD5.i

Sample Info: 1248506019196308611SVMI1ILANL

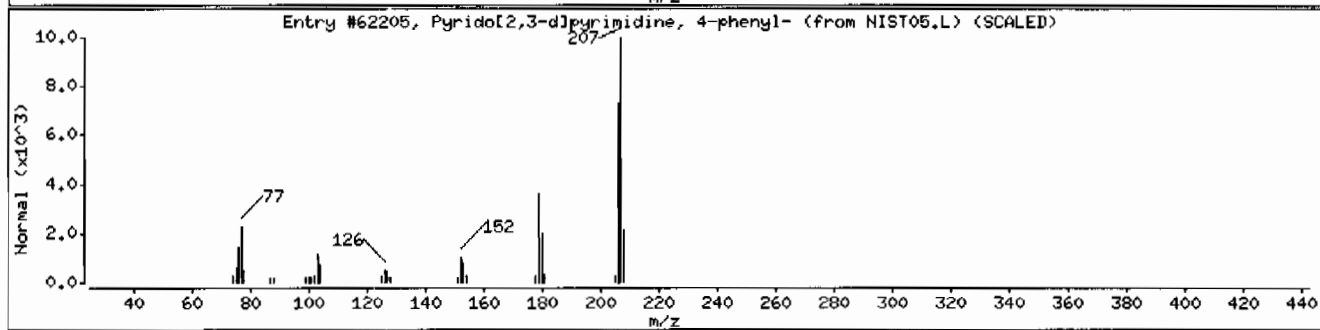
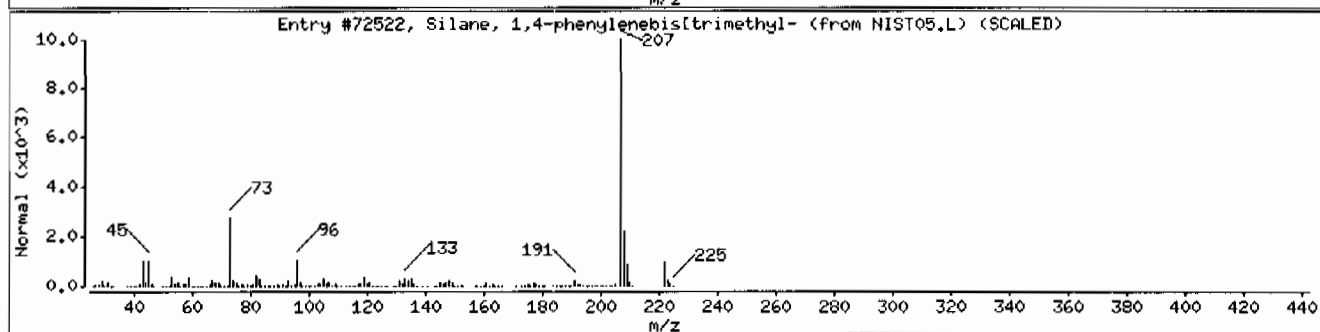
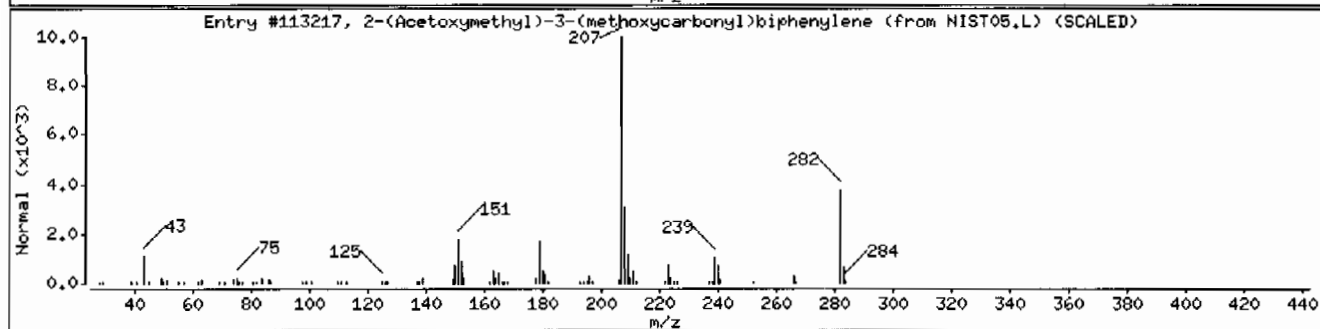
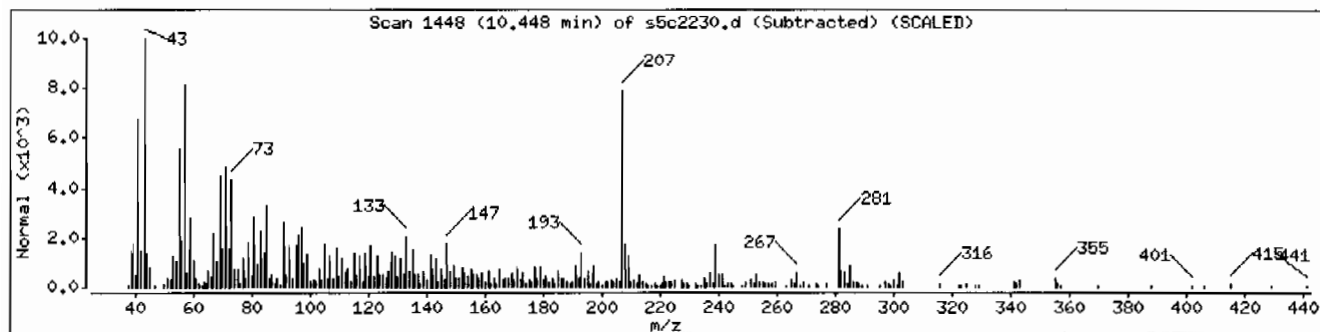
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-(Acetoxymethyl)-3-(methoxycarbonyl)bip	93103-70-9	NIST05.L	113217	47	C17H14O4	282
Silane, 1,4-phenylenebis(trimethyl-	13183-70-5	NIST05.L	72522	46	C12H22Si2	222
Pyrido[2,3-d]pyrimidine, 4-phenyl-	28732-75-4	NIST05.L	62205	41	C13H9N3	207



Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: MSD5.i

Sample Info: 1248506019196308611SVH111LANL

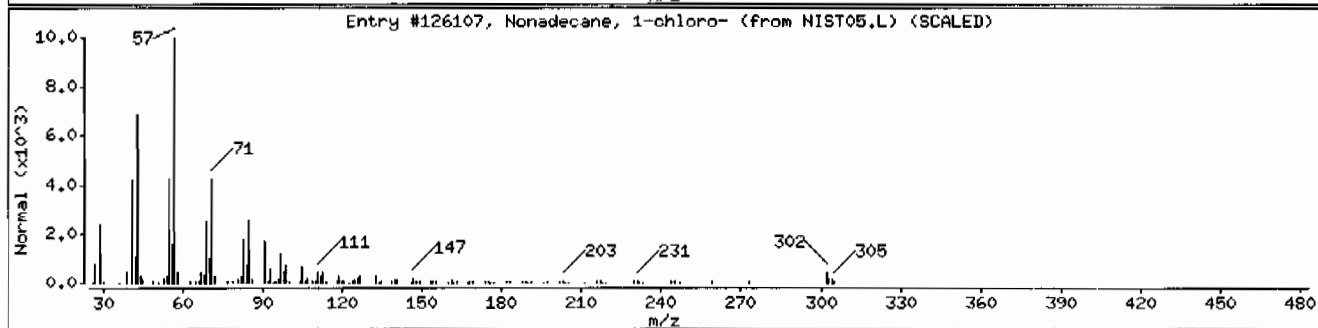
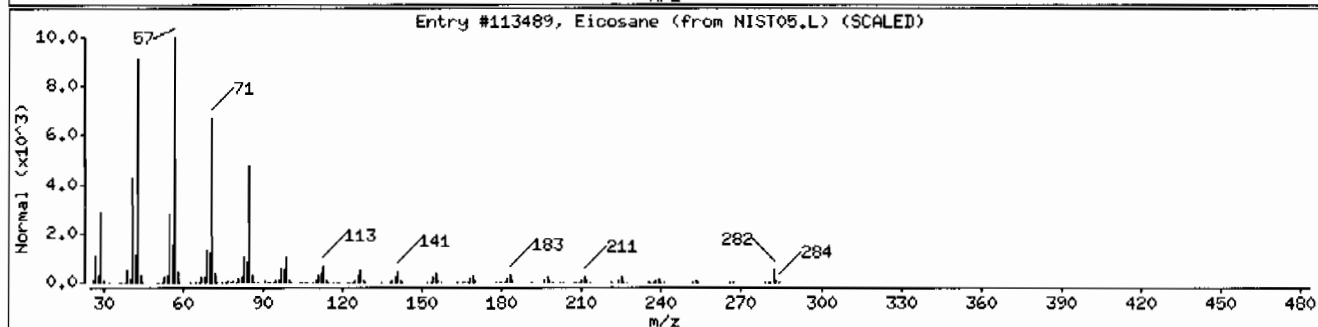
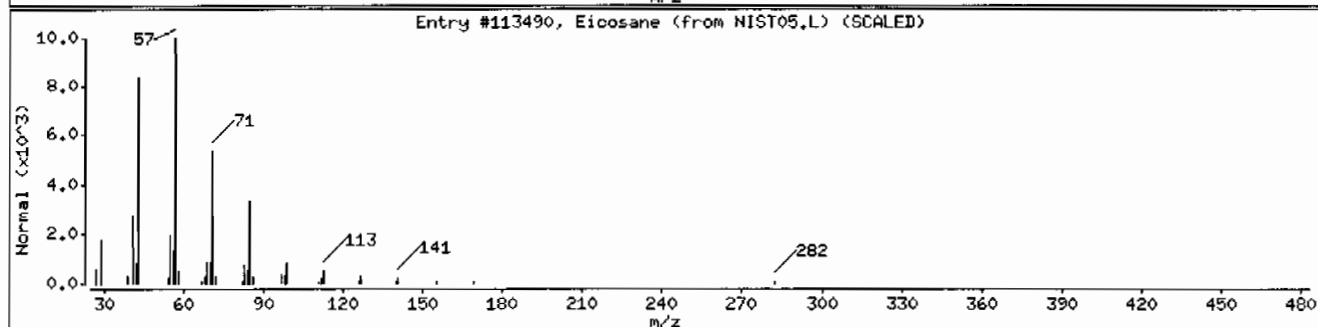
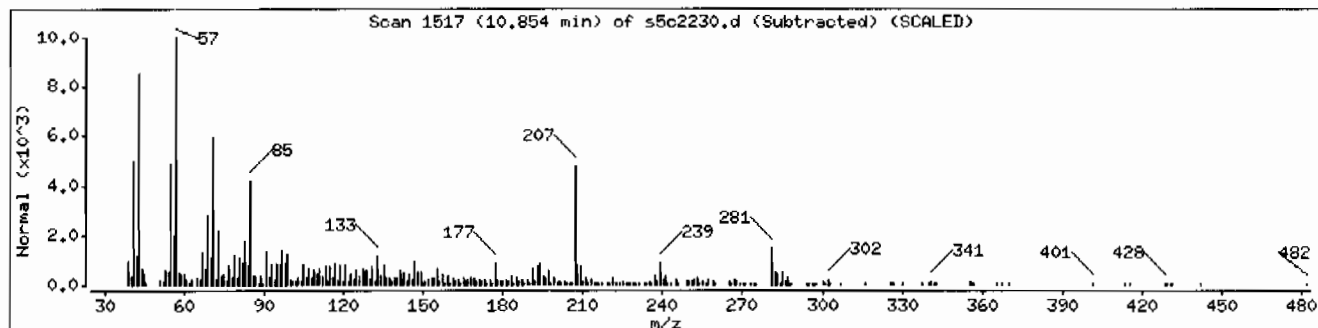
Volume Injected (uL): 0.5

Operator: RMB

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	113490	86	C20H42	282
Eicosane	112-95-8	NIST05.L	113489	86	C20H42	282
Nonadecane, 1-chloro-	62016-76-6	NIST05.L	126107	80	C19H39Cl	302



Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: HSD5.i

Sample Info: 1248506019196308611SVH111LANL

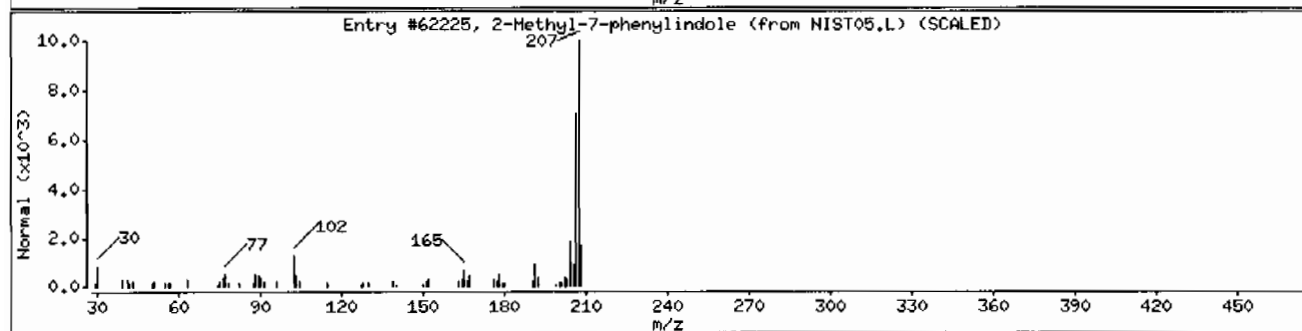
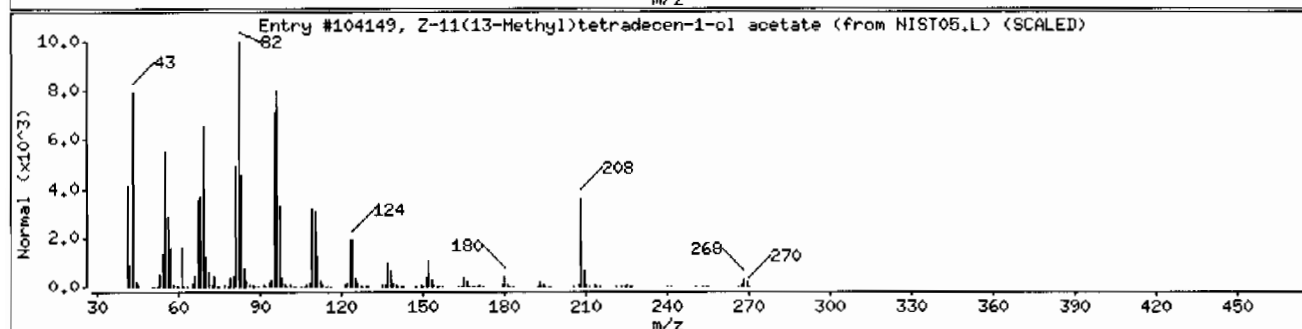
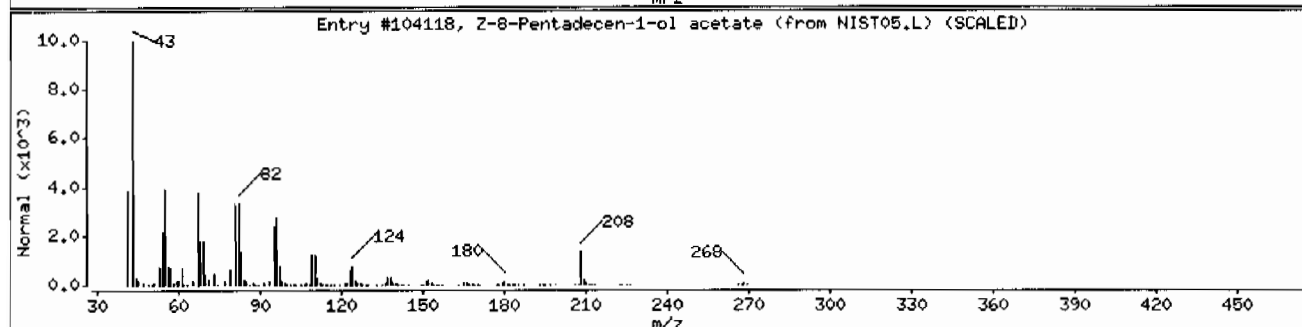
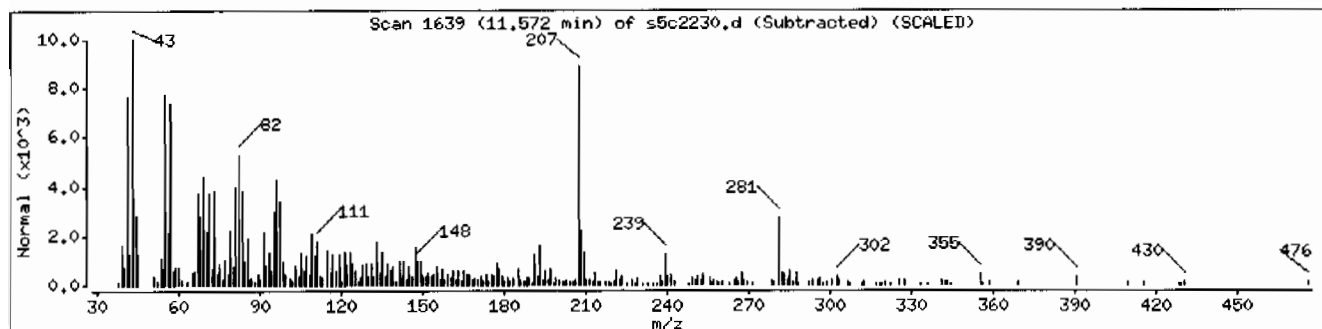
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Z-8-Pentadecen-1-ol acetate	1000130-85-1	NIST05.L	104118	43	C17H32O2	268
Z-11(13-Methyl)tetradecen-1-ol acetate	1000131-33-3	NIST05.L	104149	35	C17H32O2	268
2-Methyl-7-phenylindole	1140-08-5	NIST05.L	62225	35	C15H13N	207



Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: MSD5.i

Sample Info: I248506019196308611SVH11ILANL

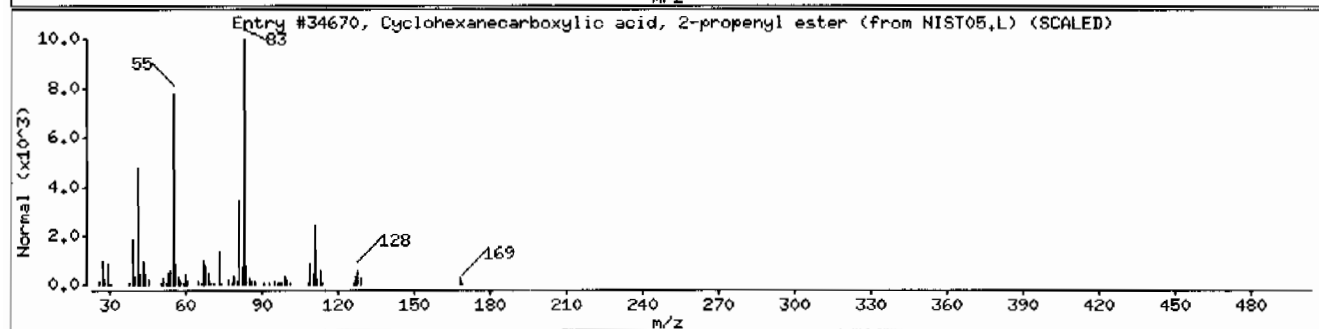
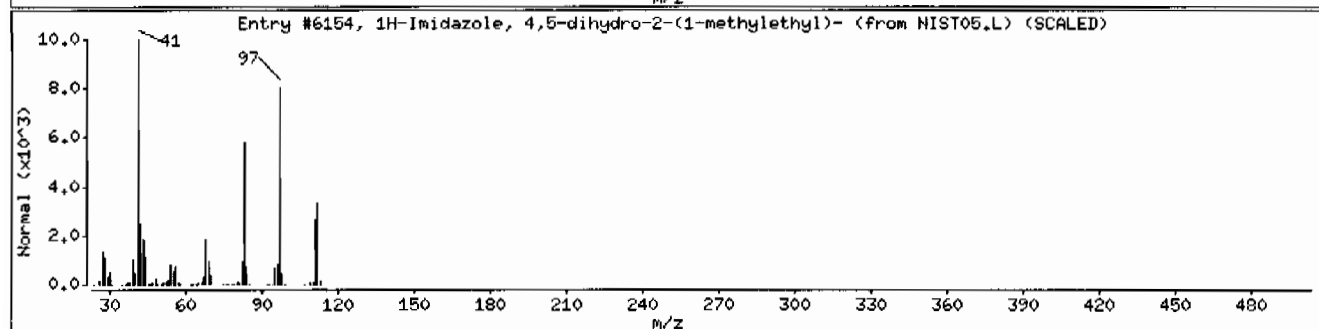
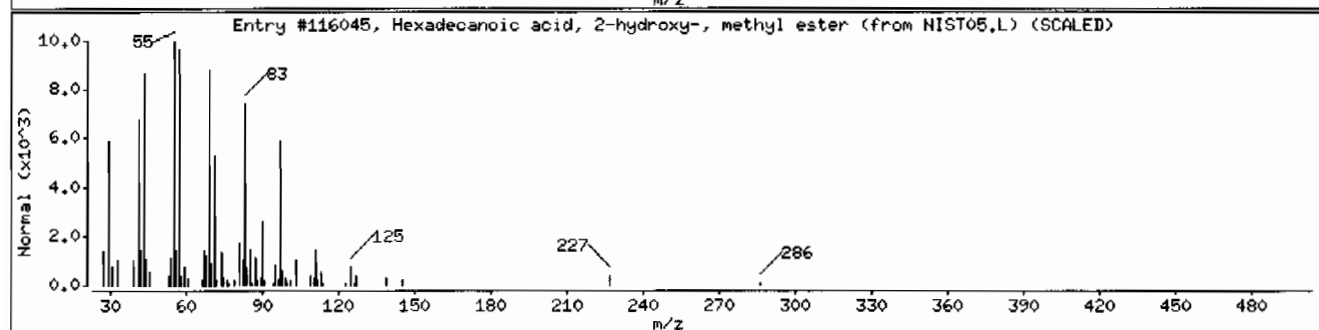
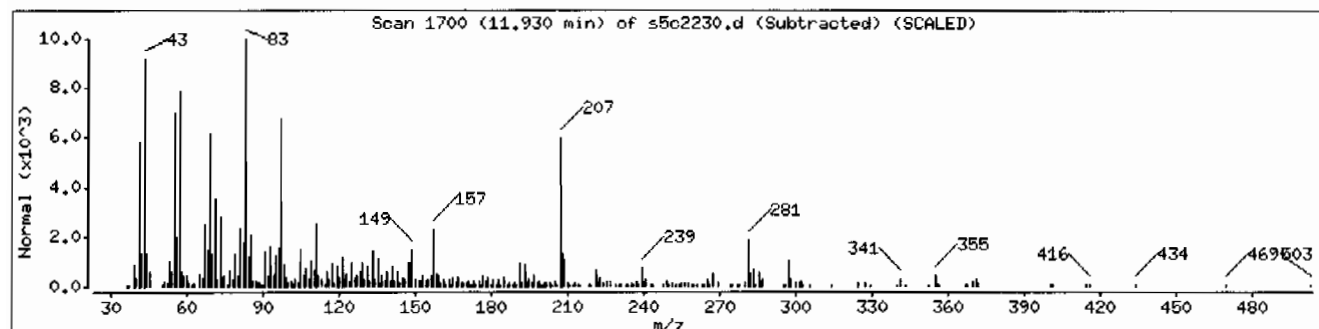
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Hexadecanoic acid, 2-hydroxy-, methyl es	16742-51-1	NIST05.L	116045	49	C17H34O3	286
1H-Imidazole, 4,5-dihydro-2-(1-methyleth	40029-86-5	NIST05.L	6154	46	C6H12N2	112
Cyclohexanecarboxylic acid, 2-propenyl e	16491-63-7	NIST05.L	34670	42	C10H16O2	168



Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: MSD5.i

Sample Info: 12485060191963086111SVMI11LANL

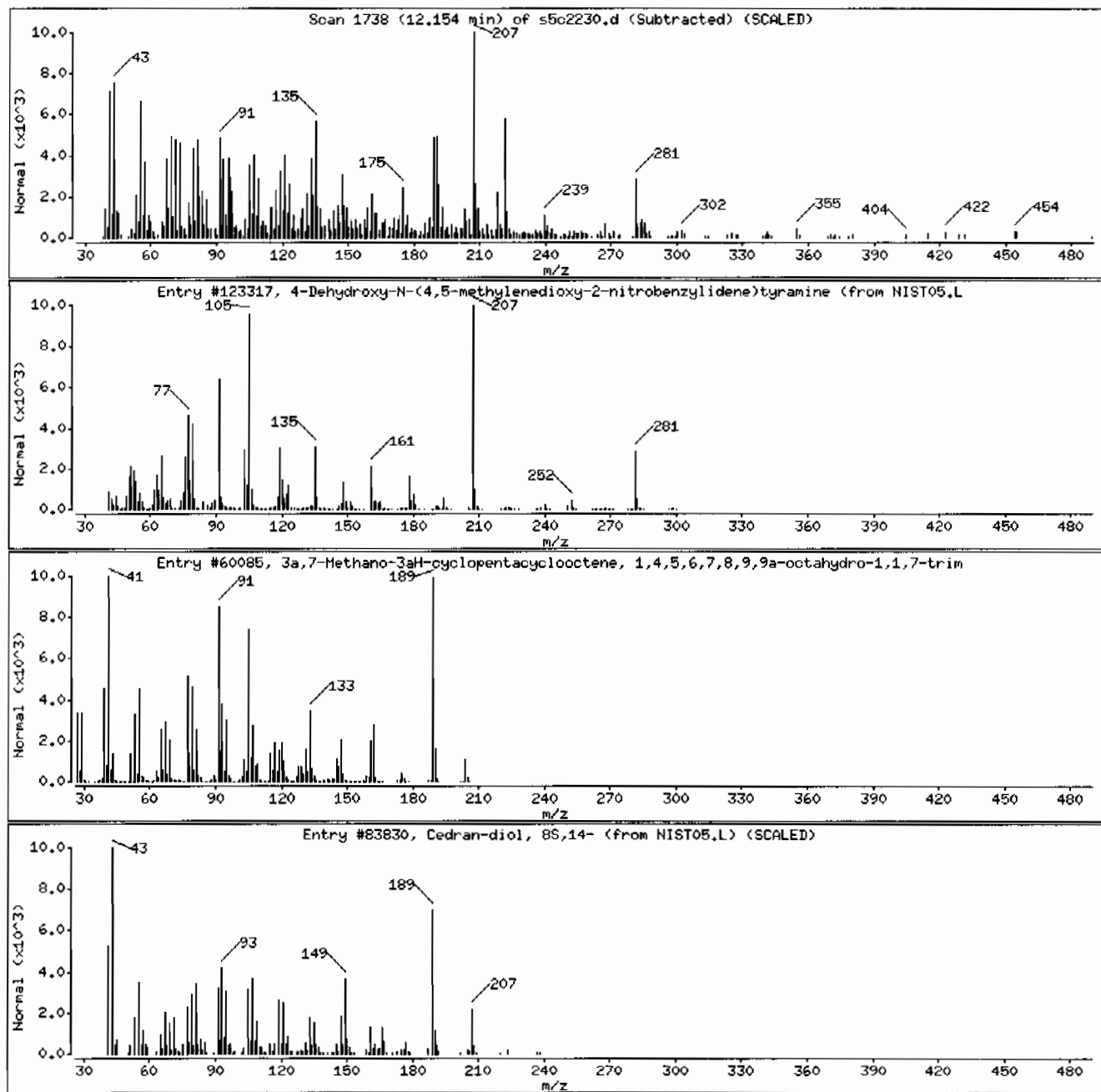
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4-Dehydroxy-N-(4,5-methylenedioxy-2-nitr	1000111-66-9	NIST05.L	123317	35	C16H14N2O4	298
3a,7-Methano-3aH-cyclopentaacyclooctene,	469-92-1	NIST05.L	60085	35	C15H24	204
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	25	C15H26O2	238



Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: HSD5.i

Sample Info: 12485060191963086111SVH111LANL

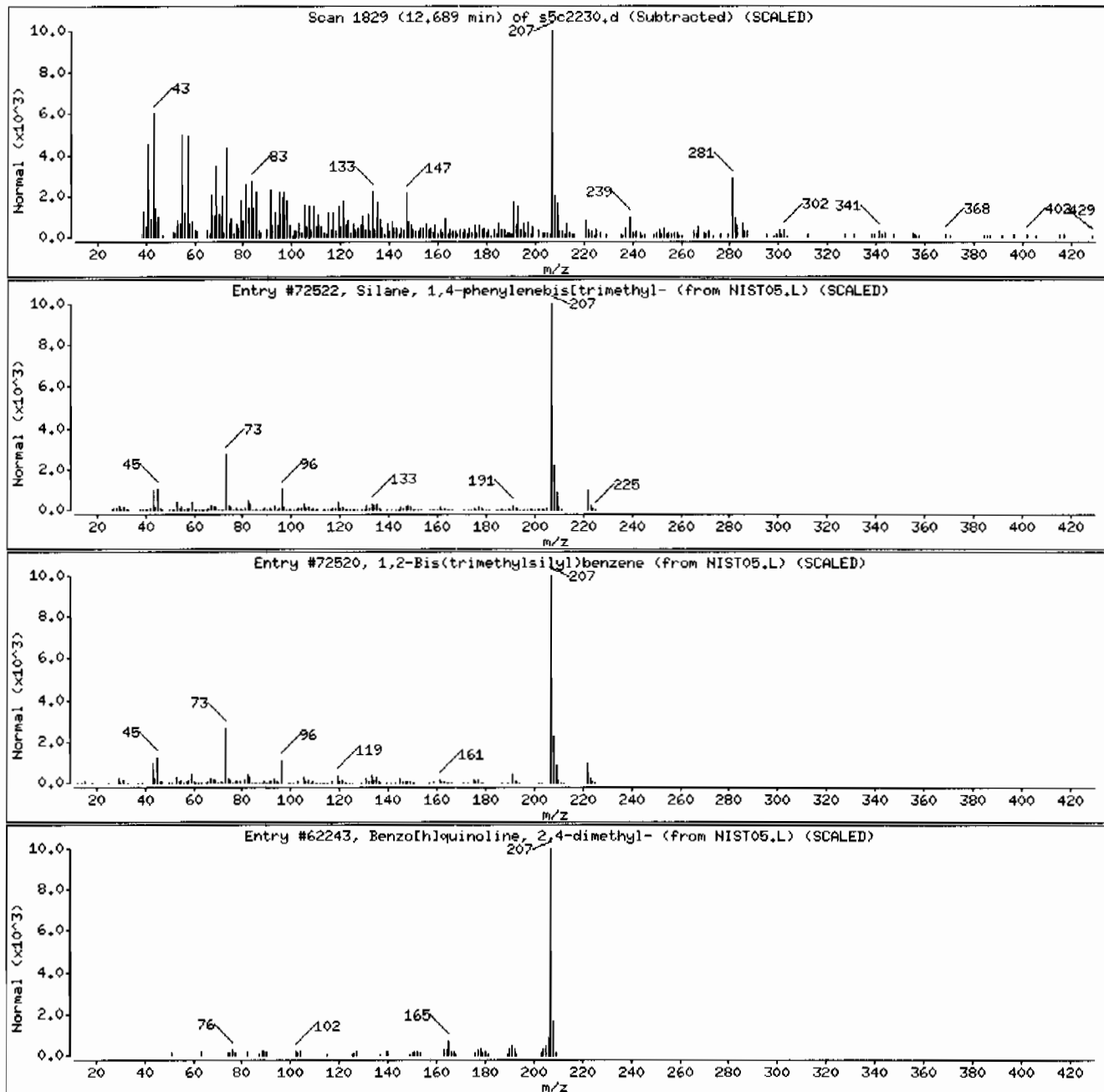
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Silane, 1,4-phenylenebis(trimethyl-	13183-70-5	NIST05.L	72522	46	C12H22Si2	222
1,2-Bis(trimethylsilyl)benzene	17151-09-6	NIST05.L	72520	43	C12H22Si2	222
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	38	C15H13N	207



Date: 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: MSD5.i

Sample Info: 12485060191963086111SVH111LANL

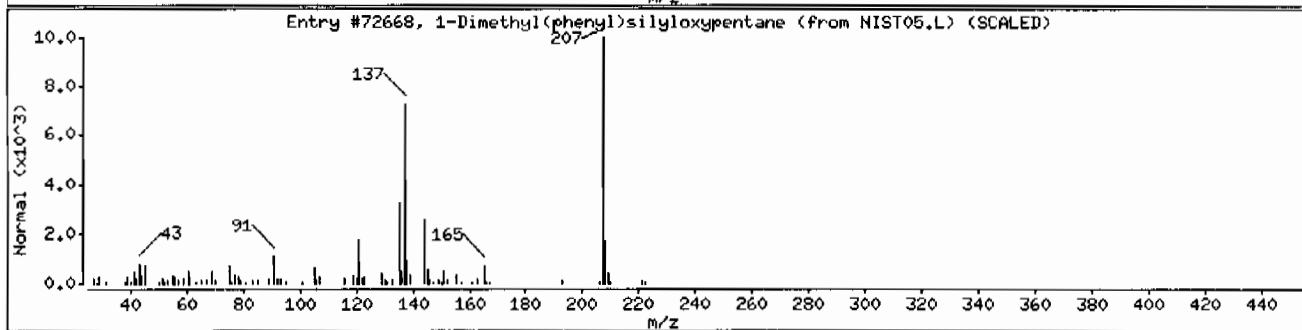
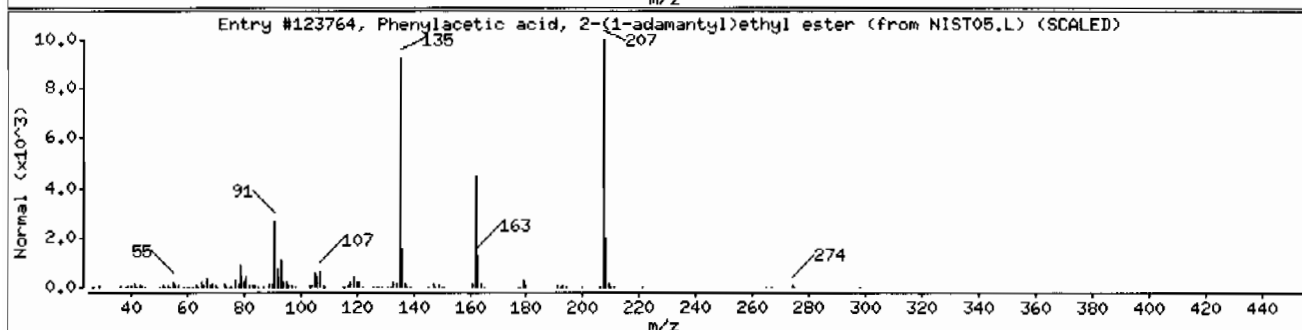
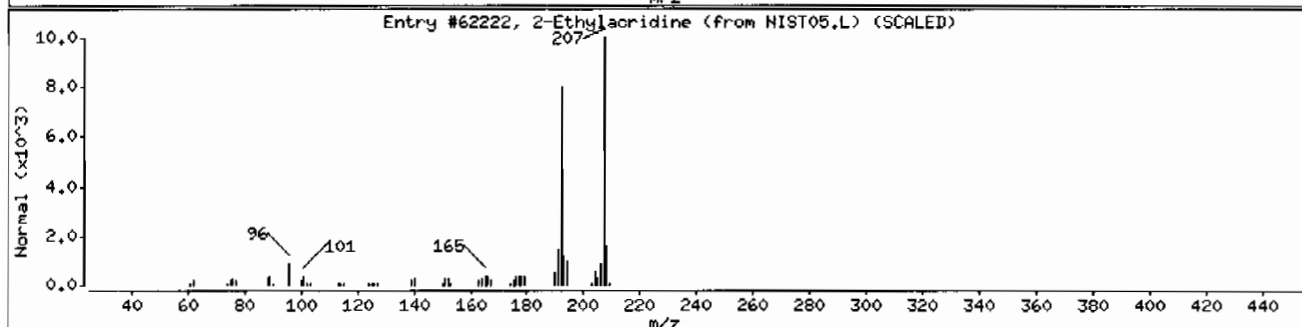
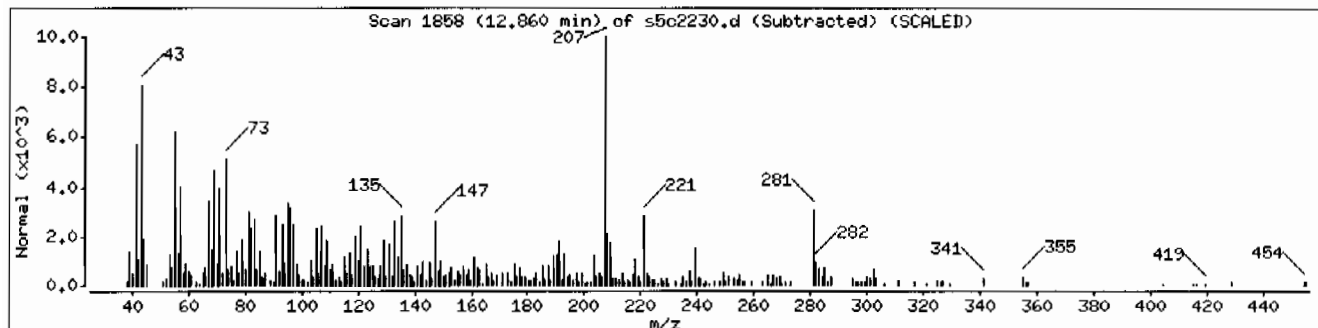
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Ethylacridine	55751-83-2	NIST05.L	62222	42	C15H13N	207
Phenylacetic acid, 2-(1-adamantyl)ethyl	1000282-91-2	NIST05.L	123764	38	C20H26O2	298
1-Dimethyl(phenyl)silyloxypentane	1000280-41-7	NIST05.L	72668	35	C13H22OSi	222



Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: MSD5.i

Sample Info: 1248506019196308611SVH111LANL

Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

## Library Search Compound Match

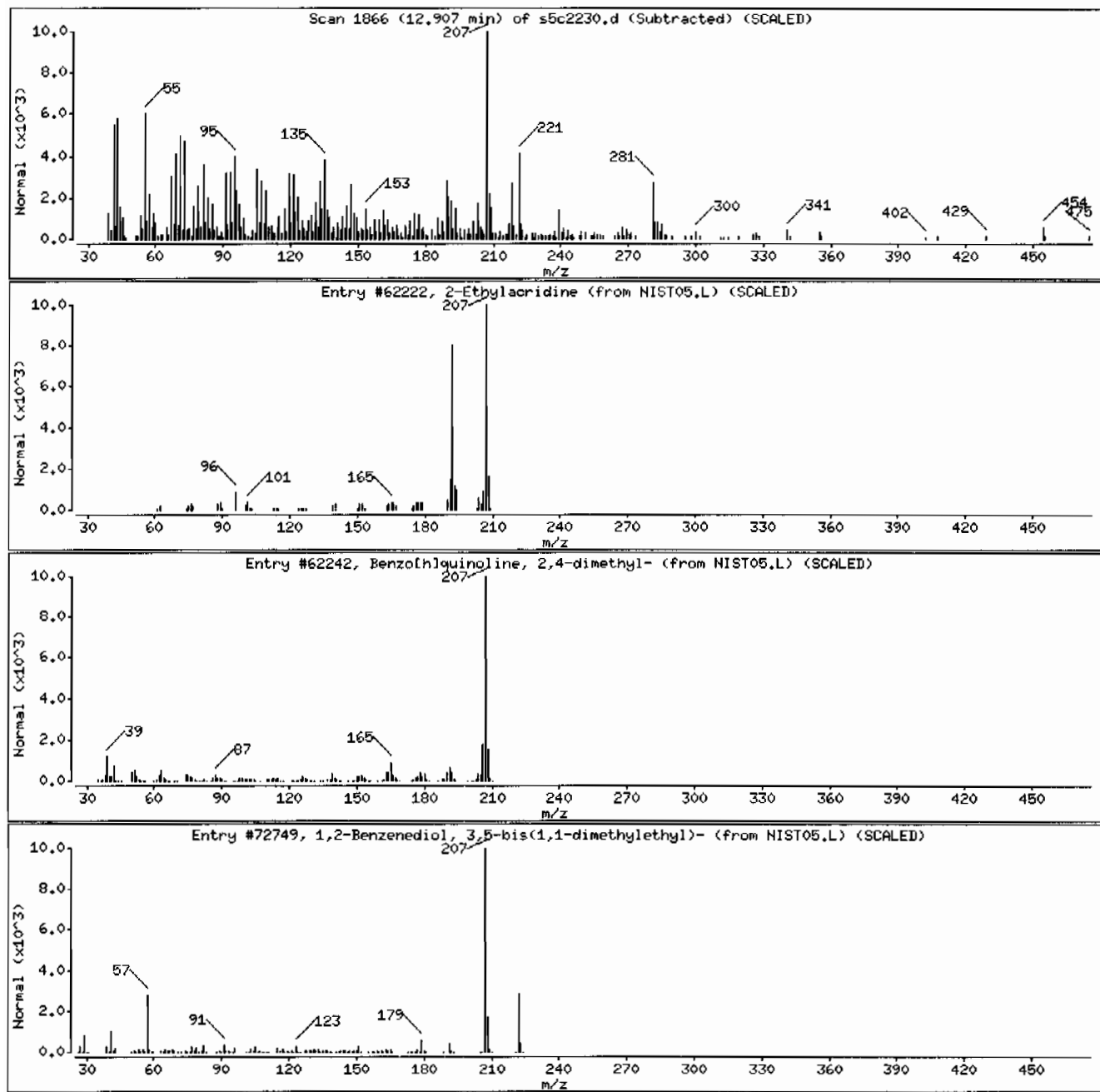
Unknown

2-Ethylacridine

CAS Number	Library	Entry	Quality	Formula	Weight
55751-83-2	NIST05.L	62222	51	C15H13N	207
605-67-4	NIST05.L	62242	22	C15H13N	207
1020-31-1	NIST05.L	72749	22	C14H22O2	222

Benzo[h]quinoline, 2,4-dimethyl-

1,2-Benzenediol, 3,5-bis(1,1-dimethyleth





Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: MSD5.i

Sample Info: 1248506019196308611SVMI11LANL

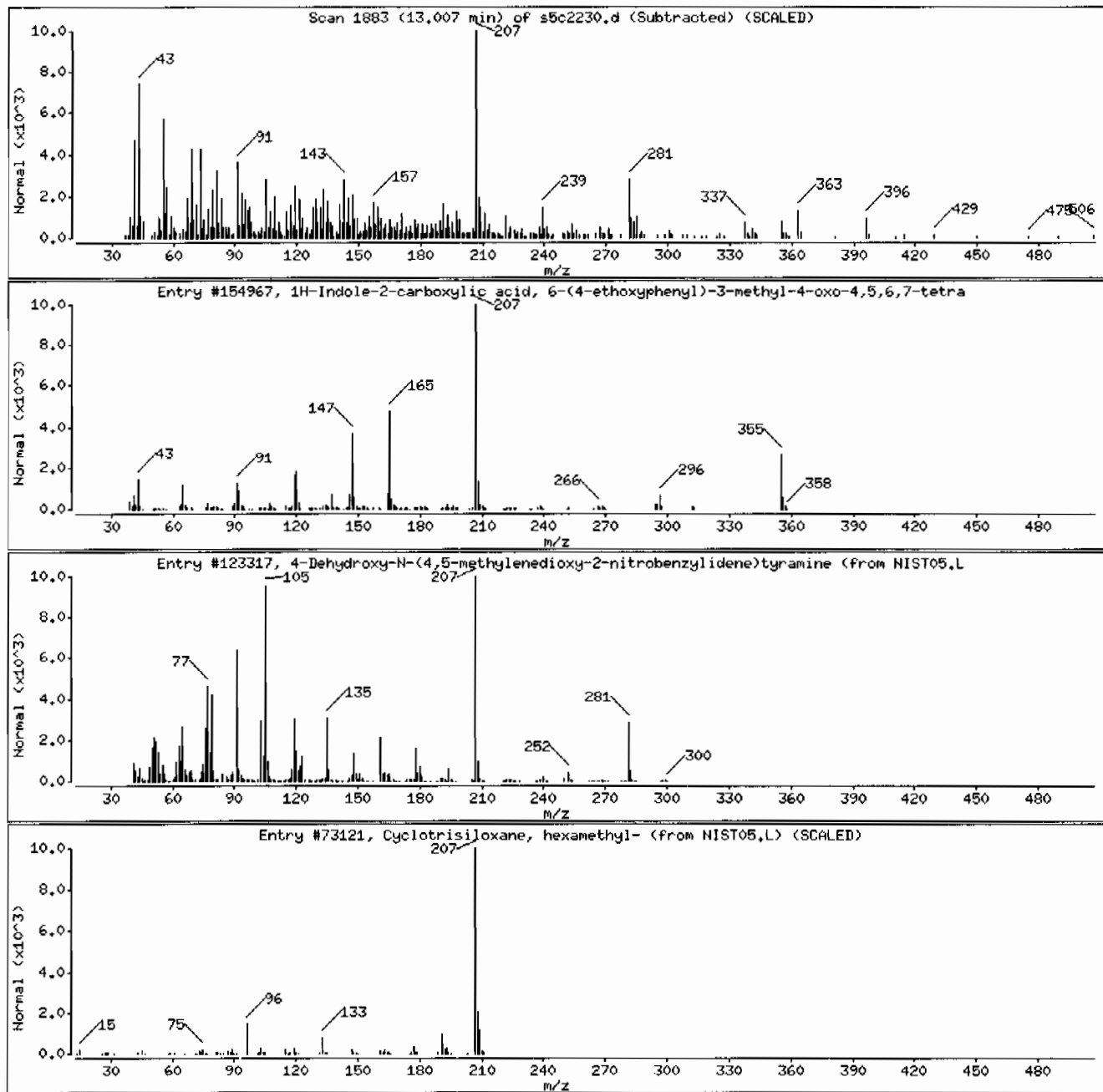
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indole-2-carboxylic acid, 6-(4-ethoxy	1000316-17-5	NIST05.L	154967	49	C21H25NO4	355
4-Dehydroxy-N-(4,5-methylenedioxy-2-nitr	1000111-66-9	NIST05.L	123317	49	C16H14N2O4	298
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73121	43	C6H18OSi3	222



Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: MSD5.i

Sample Info: I2485060191963086111SVH111LANL

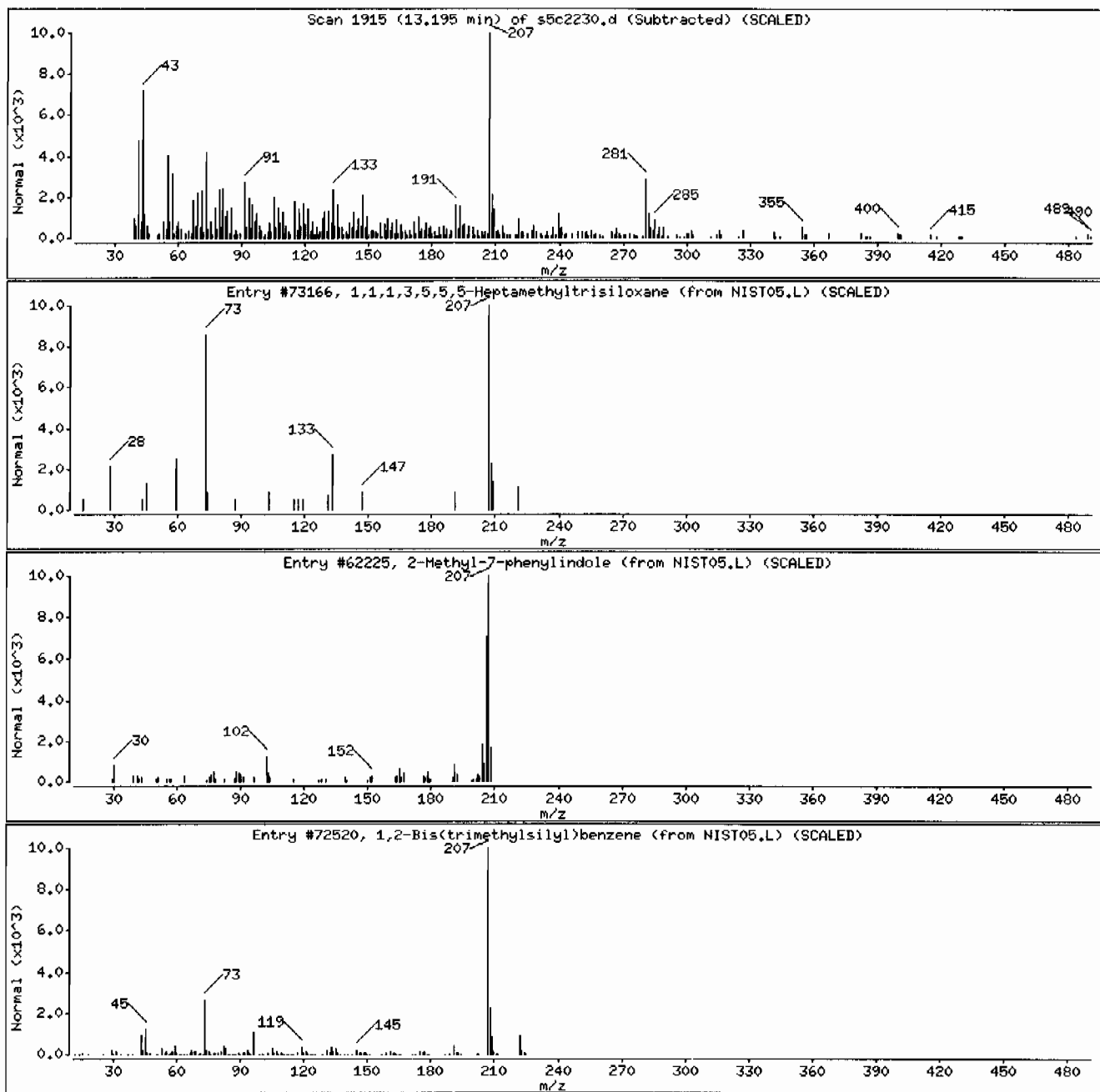
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,1,1,3,5,5-Heptamethyltrisiloxane	1873-88-7	NIST05.L	73166	53	C7H22O2Si3	222
2-Methyl-7-phenylindole	1140-08-5	NIST05.L	62225	49	C15H13N	207
1,2-Bis(trimethylsilyl)benzene	17151-09-6	NIST05.L	72520	49	C12H22Si2	222



Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: HSD5.i

Sample Info: 12485060191963086111SVH111LANL

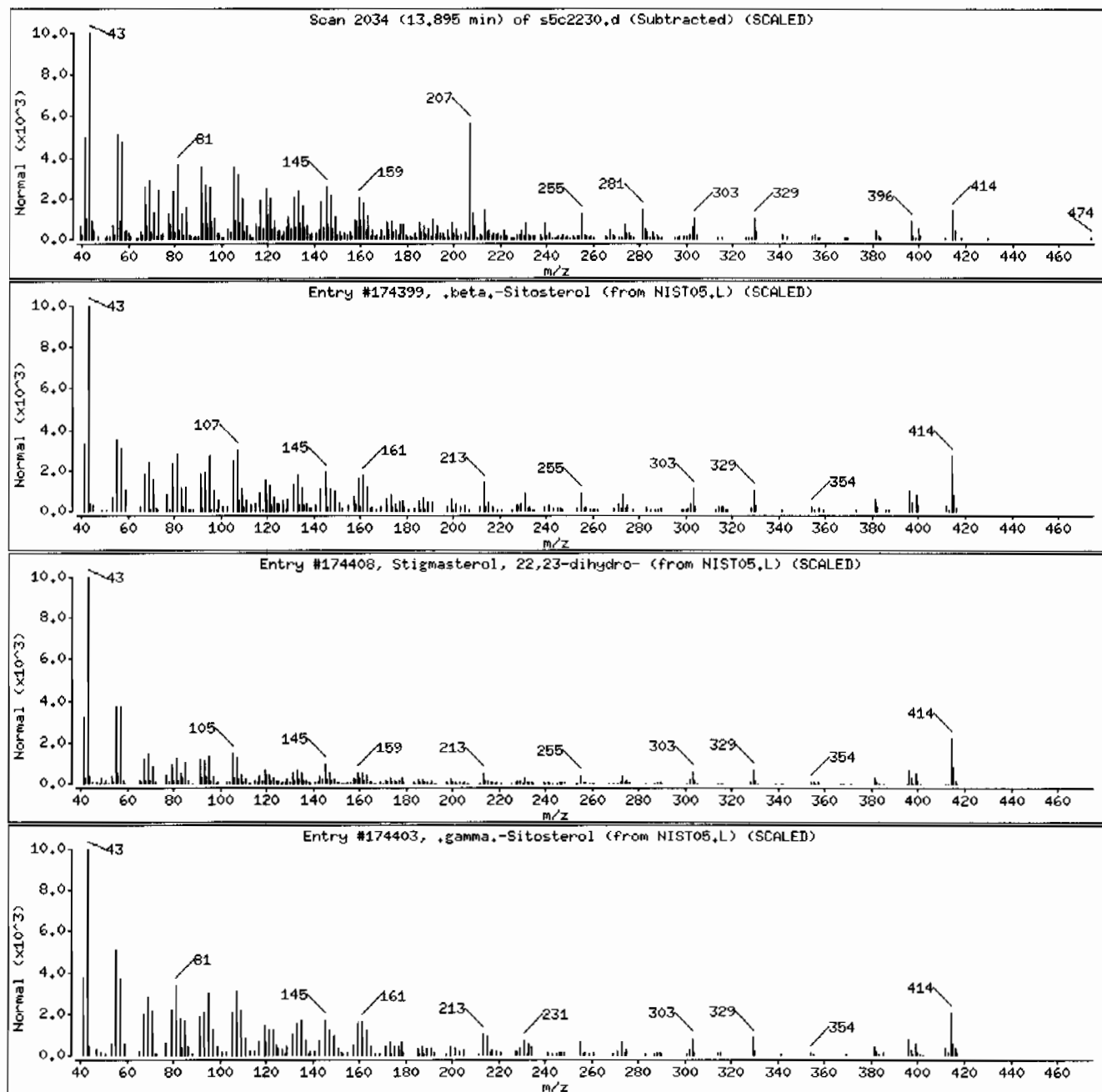
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174399	90	C <sub>29</sub> H <sub>50</sub> O	414
Stigmasterol, 22,23-dihydro-	1000214-20-7	NIST05.L	174408	62	C <sub>29</sub> H <sub>50</sub> O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174403	62	C <sub>29</sub> H <sub>50</sub> O	414



Date : 22-MAR-2010 19:34

Client ID: RE36-10-7438

Instrument: MSD5.i

Sample Info: I248506019I963086I1ISVHI1ILANL

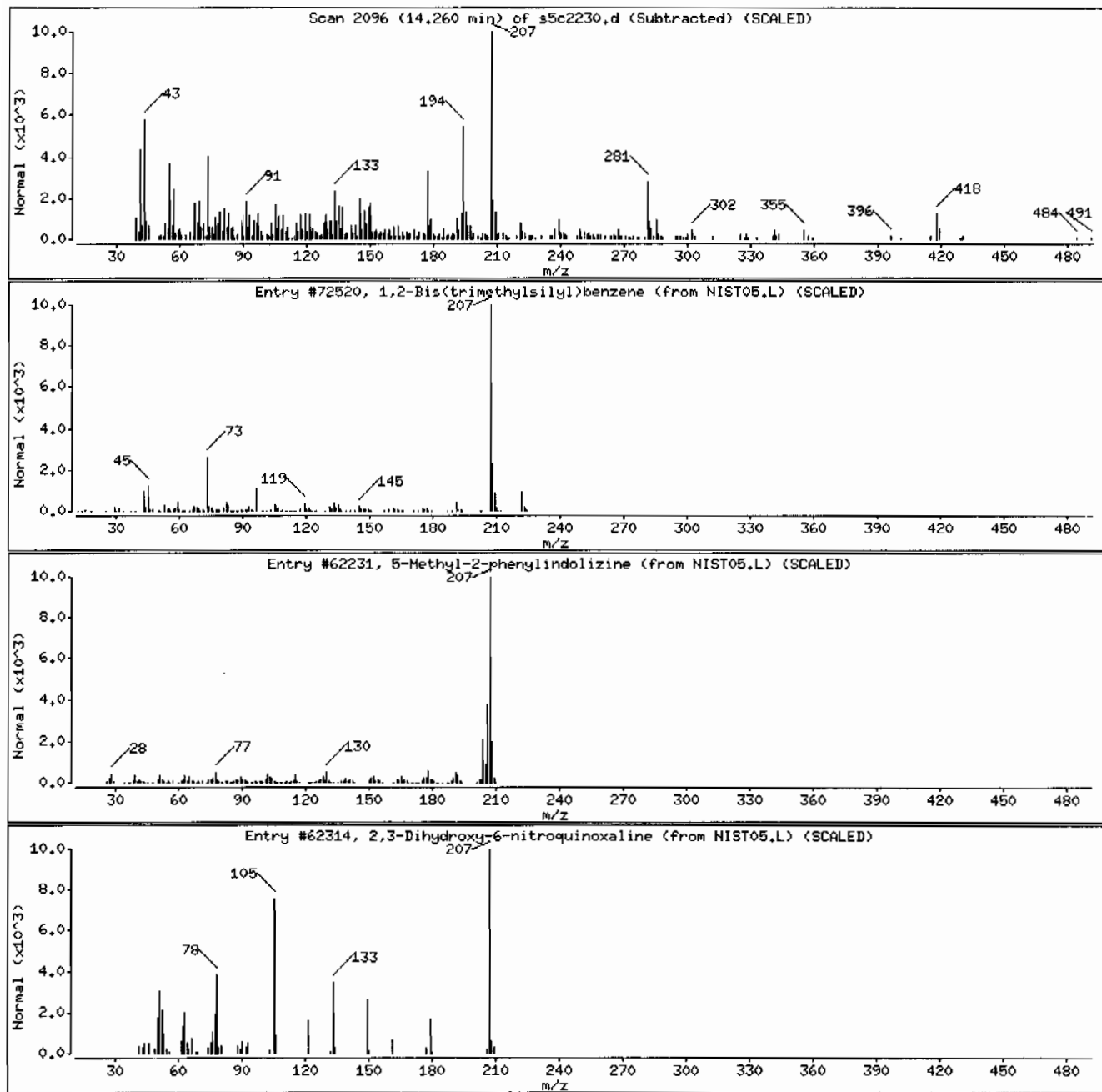
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,2-Bis(trimethylsilyl)benzene	17151-09-6	NIST05.L	72520	46	C <sub>12</sub> H <sub>22</sub> Si <sub>2</sub>	222
5-Methyl-2-phenylindolizine	36944-99-7	NIST05.L	62231	38	C <sub>15</sub> H <sub>13</sub> N	207
2,3-Dihydroxy-6-nitroquinoxaline	2379-56-8	NIST05.L	62314	38	C <sub>8</sub> H <sub>5</sub> N <sub>3</sub> O <sub>4</sub>	207



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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506020	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 18.1
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7439	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 19:57	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.05 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2231.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	406	ug/kg	81.2	406
108-95-2	Phenol	U	406	ug/kg	81.2	406
95-57-8	2-Chlorophenol	U	406	ug/kg	81.2	406
106-46-7	1,4-Dichlorobenzene	U	406	ug/kg	81.2	406
621-64-7	N-Nitrosodipropylamine	U	406	ug/kg	81.2	406
59-50-7	4-Chloro-3-methylphenol	U	406	ug/kg	81.2	406
83-32-9	Acenaphthene	U	40.6	ug/kg	13.4	40.6
121-14-2	2,4-Dinitrotoluene	U	406	ug/kg	40.6	406
100-02-7	4-Nitrophenol	U	406	ug/kg	134	406
87-86-5	Pentachlorophenol	U	406	ug/kg	102	406
129-00-0	Pyrene		226	ug/kg	12.2	40.6
110-86-1	Pyridine	U	406	ug/kg	81.2	406
62-53-3	Aniline	U	406	ug/kg	122	406
111-44-4	bis(2-Chloroethyl) ether	U	406	ug/kg	81.2	406
541-73-1	1,3-Dichlorobenzene	U	406	ug/kg	81.2	406
100-51-6	Benzyl alcohol	U	406	ug/kg	122	406
95-50-1	1,2-Dichlorobenzene	U	406	ug/kg	81.2	406
108-60-1	bis(2-Chloroisopropyl)ether	U	406	ug/kg	81.2	406
95-48-7	o-Cresol	U	406	ug/kg	81.2	406
65794-96-9	m,p-Cresols	U	406	ug/kg	122	406
67-72-1	Hexachloroethane	U	406	ug/kg	81.2	406
98-95-3	Nitrobenzene	U	406	ug/kg	81.2	406
78-59-1	Isophorone	U	406	ug/kg	81.2	406
88-75-5	2-Nitrophenol	U	406	ug/kg	81.2	406
105-67-9	2,4-Dimethylphenol	U	406	ug/kg	142	406
111-91-1	bis(2-Chloroethoxy)methane	U	406	ug/kg	81.2	406
120-83-2	2,4-Dichlorophenol	U	406	ug/kg	81.2	406
65-85-0	Benzoic acid	J	562	ug/kg	203	812
91-20-3	Naphthalene	U	40.6	ug/kg	12.2	40.6
106-47-8	4-Chloroaniline	U	406	ug/kg	81.2	406
87-68-3	Hexachlorobutadiene	U	406	ug/kg	81.2	406
91-57-6	2-Methylnaphthalene	U	40.6	ug/kg	8.12	40.6
77-47-4	Hexachlorocyclopentadiene	U	406	ug/kg	81.2	406
88-06-2	2,4,6-Trichlorophenol	U	406	ug/kg	81.2	406
95-95-4	2,4,5-Trichlorophenol	U	406	ug/kg	81.2	406
91-58-7	2-Chloronaphthalene	U	40.6	ug/kg	13.4	40.6
88-74-4	2-Nitroaniline	U	406	ug/kg	81.2	406
	<i>o-Nitroaniline</i>					
99-09-2	3-Nitroaniline	U	406	ug/kg	81.2	406

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506020	Date Received: 03/03/2010 08:50	%Moisture: 18.1
	Client: LANL.010	Project: LANL.01004
Client ID: RE36-10-7439	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.1	Dilution: 1
Run Date: 03/22/2010 19:57	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s5c2231.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	406	ug/kg	81.2	406
606-20-2	2,6-Dinitrotoluene	U	406	ug/kg	40.6	406
208-96-8	Acenaphthylene	U	40.6	ug/kg	12.2	40.6
51-28-5	2,4-Dinitrophenol	U	812	ug/kg	154	812
132-64-9	Dibenzofuran	U	406	ug/kg	81.2	406
84-66-2	Diethylphthalate	U	406	ug/kg	81.2	406
86-73-7	Fluorene	J	14.0	ug/kg	12.2	40.6
7005-72-3	4-Chlorophenylphenylether	U	406	ug/kg	81.2	406
534-52-1	2-Methyl-4,6-dinitrophenol	U	406	ug/kg	81.2	406
100-01-6	4-Nitroaniline	U	406	ug/kg	122	406
	<i>p-Nitroaniline</i>					
122-39-4	Diphenylamine	U	406	ug/kg	81.2	406
122-66-7	Azobenzene	U	406	ug/kg	81.2	406
	<i>1,2-Diphenylhydrazine</i>					
101-55-3	4-Bromophenylphenylether	U	406	ug/kg	81.2	406
118-74-1	Hexachlorobenzene	U	406	ug/kg	81.2	406
85-01-8	Phenanthrene		178	ug/kg	12.2	40.6
120-12-7	Anthracene	J	23.9	ug/kg	8.12	40.6
84-74-2	Di-n-butylphthalate	U	406	ug/kg	81.2	406
206-44-0	Fluoranthene		241	ug/kg	12.2	40.6
85-68-7	Butylbenzylphthalate	U	406	ug/kg	81.2	406
56-55-3	Benzo(a)anthracene		74.9	ug/kg	12.2	40.6
91-94-1	3,3'-Dichlorobenzidine	U	406	ug/kg	122	406
218-01-9	Chrysene		115	ug/kg	12.2	40.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	406	ug/kg	81.2	406
117-84-0	Di-n-octylphthalate	U	406	ug/kg	81.2	406
205-99-2	Benzo(b)fluoranthene		128	ug/kg	12.2	40.6
207-08-9	Benzo(k)fluoranthene		52.8	ug/kg	12.2	40.6
50-32-8	Benzo(a)pyrene		84.5	ug/kg	12.2	40.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.6	ug/kg	12.2	40.6
53-70-3	Dibenzo(a,h)anthracene	U	40.6	ug/kg	12.2	40.6
191-24-2	Benzo(ghi)perylene		59.6	ug/kg	12.2	40.6
120-82-1	1,2,4-Trichlorobenzene	U	406	ug/kg	81.2	406

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
36617-50-2	Heptadecanoic acid, heptadecyl ester	8.8	467	ug/kg	91	NJ
	Unknown	9.02	503	ug/kg		J

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506020	Date Received: 03/03/2010 08:50	%Moisture: 18.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7439	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 19:57	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s5c2231.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	9.05	513	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.1	586	ug/kg	86	NJ
3452-07-1	1-Eicosene	9.45	1110	ug/kg	95	NJ
	Unknown	9.57	574	ug/kg		J
	Unknown	9.75	583	ug/kg		J
	Unknown	9.9	583	ug/kg		J
	Unknown	9.97	514	ug/kg		J
3386-33-2	Octadecane, 1-chloro-	10.09	728	ug/kg	95	NJ
1599-67-3	1-Docosene	10.11	1460	ug/kg	99	NJ
	Unknown	10.16	1170	ug/kg		J
	Unknown	10.25	823	ug/kg		J
62016-76-6	Nonadecane, 1-chloro-	10.45	709	ug/kg	93	NJ
	Unknown	10.49	473	ug/kg		J
	Unknown	10.55	928	ug/kg		J
	Unknown	10.64	751	ug/kg		J
	Unknown	11.16	1930	ug/kg		J
7390-81-0	Oxirane, hexadecyl-	11.58	592	ug/kg	98	NJ
	Unknown	11.94	1860	ug/kg		J
	Unknown	12.11	763	ug/kg		J
	Unknown	12.17	2000	ug/kg		J
	Unknown	12.72	602	ug/kg		J
	Unknown	12.94	1630	ug/kg		J
	Unknown	13.01	725	ug/kg		J
83-47-6	.gamma.-Sitosterol	13.9	1050	ug/kg	92	NJ

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2231.d  
Lab Smp Id: 248506020 Client Smp ID: RE36-10-7439  
Inj Date : 22-MAR-2010 19:57  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506020|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 31  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	18.08490	% 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	3.949	3.950	(1.000)	245335	40.0000	
* 29 Naphthalene-d8		136	4.813	4.821	(1.000)	966466	40.0000	
* 46 Acenaphthene-d10		164	6.078	6.078	(1.000)	554119	40.0000	
* 67 Phenanthrene-d10		188	7.254	7.253	(1.000)	979268	40.0000	
* 91 Chrysene-d12		240	9.672	9.670	(1.000)	713153	40.0000	
* 98 Perylene-d12		264	11.383	11.370	(1.000)	446174	40.0000	
\$ 3 2-Fluorophenol		112	3.149	3.141	(0.797)	342943	55.9802	2270
\$ 5 Phenol-d5		99	3.672	3.666	(0.930)	470990	63.9666	2600
\$ 20 Nitrobenzene-d5		82	4.307	4.316	(0.895)	250730	34.9133	1420
\$ 39 2-Fluorobiphenyl		172	5.560	5.558	(0.915)	473484	34.2112	1390
\$ 60 2,4,6-Tribromophenol		329	6.678	6.675	(1.099)	148507	71.3547	2900
\$ 81 p-Terphenyl-d14		244	8.636	8.630	(0.893)	527032	44.4276	1800



Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
79 Pyrene	202	8.536	8.534	(0.883)	109512	5.55735	226
27 Benzoic acid	105	4.572	4.585	(0.950)	19127	13.8455	562 (a)
53 Fluorene	166	6.484	6.487	(1.067)	4972	0.34550	14.0 (a)
68 Phenanthrene	178	7.272	7.272	(1.002)	90678	4.37420	178
69 Anthracene	178	7.313	7.316	(1.008)	12333	0.58809	23.9 (a)
76 Fluoranthene	202	8.319	8.317	(1.147)	128496	5.94204	241
89 Benzo(a)anthracene	228	9.660	9.656	(0.999)	29395	1.84311	74.9
92 Chrysene	228	9.695	9.694	(1.002)	42120	2.83418	115
95 Benzo(b)fluoranthene	252	10.854	10.845	(0.953)	33514	3.14472	128 (Q)
96 Benzo(k)fluoranthene	252	10.883	10.879	(0.956)	13493	1.30048	52.8 (Q)
97 Benzo(a)pyrene	252	11.301	11.293	(0.993)	18612	2.07885	84.4 (Q)
101 Benzo(ghi)perylene	276	13.736	13.725	(1.207)	9055	1.46782	59.6 (Q)

#### QC Flag Legend

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

## ION RATIO REPORT

## SV REPORT

Data file: s5c2231.d

Report Date: 03/23/2010 07:09

Lab. ID: 248506020

SampleType: SAMPLE

Injection Date: 22-MAR-2010 19:57

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506020|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	30848	3.67	3.74	80-120	100	(T)
93	6828	3.63	3.74	219-279	22	(QT)
-----						
6	Phenol	CAS#: 108-95-2				
94	17383	3.52	3.68	80-120	100	(T)
66	4759	3.52	3.67	23- 83	27	(T)
65	16165	3.52	3.68	0- 30	93	(QT)
-----						
7	bis(2-Chloroethyl) ether	CAS#: 111-44-4				
63	11278	3.95	3.75	80-120	100	(T)
93	146883	3.91	3.75	119-179	1302	(QT)
95	2513	3.91	3.75	8- 68	22	(T)
-----						
15	o-Cresol	CAS#: 95-48-7				
107	11693	3.91	4.07	80-120	100	(T)
108	2942	3.91	4.07	86-146	25	(QT)
77	59632	3.91	4.07	26- 86	510	(QT)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	36131	4.31	4.19	80-120	100	(T)
42	23147	4.31	4.19	44-104	64	(T)
-----						
22	Isophorone	CAS#: 78-59-1				
82	246623	4.31	4.48	80-120	100	(T)
138	202	4.50	4.48	0- 49	0	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
27 Benzoic acid			CAS#: 65-85-0			
105	19127	4.57	4.59	80-120	100	( )
122	14387	4.57	4.59	45-105	75	( )
77	13435	4.57	4.59	48-108	70	( )
-----						
40 2-Chloronaphthalene			CAS#: 91-58-7			
162	23490	5.80	5.67	80-120	100	(T)
164	1657	5.80	5.67	3- 63	7	(T)
127	3089	5.80	5.67	11- 71	13	(T)
-----						
42 o-Nitroaniline			CAS#: 88-74-4			
65	39152	5.80	5.73	80-120	100	(T)
92	46738	5.80	5.73	34- 94	119	(QT)
138	2443	5.80	5.73	74-134	6	(QT)
-----						
43 Dimethylphthalate			CAS#: 131-11-3			
163	105450	6.08	5.84	80-120	100	(T)
164	554119	6.08	5.84	0- 40	525	(QT)
-----						
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	74070	6.07	5.90	80-120	100	(T)
63	1536	6.08	5.89	62-122	2	(QT)
-----						
47 Acenaphthene			CAS#: 83-32-9			
154	4572	6.10	6.10	80-120	100	( )
153	3439	6.10	6.10	72-132	75	( )
152	2391	6.10	6.10	15- 75	52	( )
-----						
48 2,4-Dinitrophenol			CAS#: 51-28-5			
184	186	6.30	6.10	80-120	100	(T)
154	1213	6.24	6.10	1062-1122	650	(QT)
-----						
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	74070	6.07	6.19	80-120	100	(T)
89	2913	6.08	6.19	51-111	4	(QT)
63	1514	6.08	6.19	24- 84	2	(QT)
-----						
52 4-Nitrophenol			CAS#: 100-02-7			
139	834	6.13	6.12	80-120	100	( )
109	1203	6.13	6.12	63-123	144	(Q)
65	1463	6.13	6.11	71-131	175	(Q)
-----						
53 Fluorene			CAS#: 86-73-7			
166	4972	6.48	6.49	80-120	100	( )
165	3925	6.48	6.49	62-122	79	( )
167	1095	6.48	6.49	0- 44	22	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	945	6.68	6.51	80-120	100	(T)
105	2462	6.68	6.50	13- 73	260	(QT)
51	1536	6.67	6.50	51-111	163	(QT)
-----						
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	10509	6.68	6.85	80-120	100	(T)
141	85246	6.68	6.85	59-119	811	(QT)
250	18384	6.68	6.85	66-126	175	(QT)
-----						
65 Pentachlorophenol				CAS#: 87-86-5		
266	515	7.08	7.07	80-120	100	( )
264	268	7.08	7.07	34- 94	52	( )
268	383	7.08	7.07	33- 93	74	( )
-----						
68 Phenanthrene				CAS#: 85-01-8		
178	90678	7.27	7.27	80-120	100	( )
179	14403	7.27	7.27	0- 46	16	( )
176	17110	7.27	7.27	0- 49	19	( )
-----						
69 Anthracene				CAS#: 120-12-7		
178	12333	7.31	7.32	80-120	100	( )
179	1613	7.31	7.32	0- 46	13	( )
176	2595	7.31	7.32	0- 49	21	( )
-----						
76 Fluoranthene				CAS#: 206-44-0		
202	128496	8.32	8.32	80-120	100	( )
203	21596	8.32	8.32	0- 48	17	( )
101	15459	8.32	8.32	0- 41	12	( )
-----						
79 Pyrene				CAS#: 129-00-0		
202	109512	8.54	8.53	80-120	100	( )
200	23215	8.54	8.53	0- 51	21	( )
101	13239	8.54	8.53	0- 43	12	( )
-----						
85 Butylbenzylphthalate				CAS#: 85-68-7		
149	37266	9.14	9.06	80-120	100	(T)
91	55035	9.14	9.06	50-110	148	(QT)
206	372	9.05	9.06	0- 50	1	( )
-----						
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	29395	9.66	9.66	80-120	100	( )
226	8792	9.66	9.66	0- 56	30	( )
229	9595	9.66	9.66	0- 50	33	( )
-----						
92 Chrysene				CAS#: 218-01-9		
228	42120	9.70	9.69	80-120	100	( )
229	10244	9.70	9.69	0- 50	24	( )
226	12335	9.70	9.69	0- 59	29	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	33514	10.85	10.85	80-120	100	( )
253	9133	10.85	10.85	0- 52	27	( )
125	19855	10.85	10.85	0- 41	59	(Q)
-----						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	13493	10.88	10.88	80-120	100	( )
253	2695	10.89	10.88	0- 52	20	( )
125	7299	10.90	10.88	0- 40	54	(Q)
-----						
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	18612	11.30	11.29	80-120	100	( )
253	4639	11.30	11.29	0- 52	25	( )
125	6889	11.30	11.29	0- 30	37	(Q)
-----						
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	9914	13.19	13.17	80-120	100	( )
138	2238	13.18	13.18	0- 58	23	( )
-----						
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	2858	13.18	13.19	80-120	100	( )
139	325	13.27	13.19	0- 30	11	(T)
-----						
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	9055	13.74	13.72	80-120	100	( )
138	3335	13.74	13.72	0- 30	37	(Q)

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

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2231.d  
Lab Smp Id: 248506020 Client Smp ID: RE36-10-7439  
Inj Date : 22-MAR-2010 19:57  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506020|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 31  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	18.08490	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 91 Chrysene-d12	9.672	3377623	40.000
* 98 Perylene-d12	11.383	2558592	40.000

CONCENTRATIONS				QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY
====	====	=====	=====	=====	=====	=====
Heptadecanoic acid, heptadecyl ester					CAS #: 36617-50-2	
8.795	970595	11.4944109	467	91	NIST05.L	185057

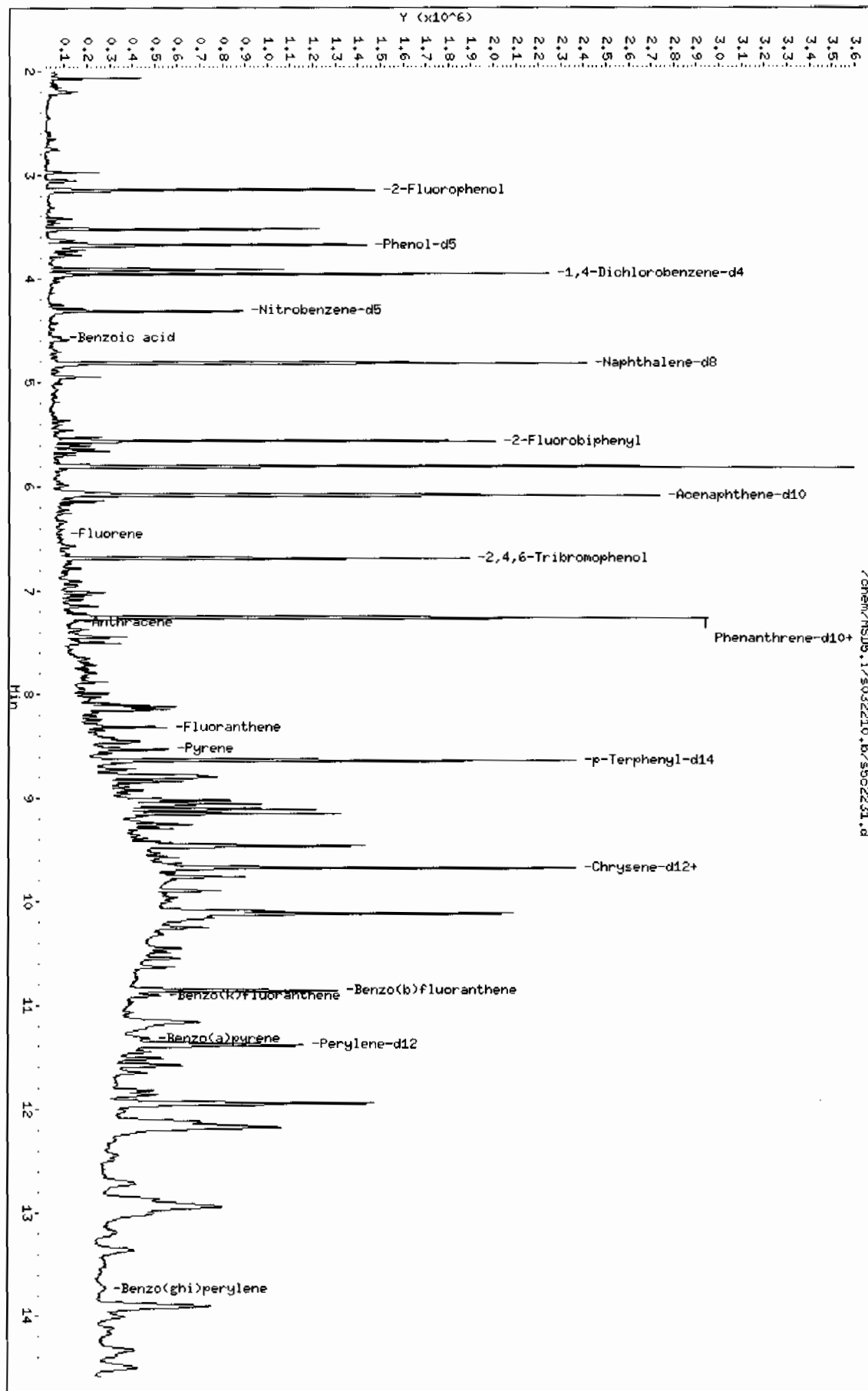
RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
Unknown					CAS #:		
9.019	1046221	12.3900209	503	0		0	91
Unknown					CAS #:		
9.048	1065739	12.6211686	513	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 1235-74-1		
9.101	1217908	14.4232494	586	86	NIST05.L	133618	91
1-Eicosene					CAS #: 3452-07-1		
9.454	2309108	27.3459496	1110	95	NIST05.L	112103	91
Unknown					CAS #:		
9.572	1192844	14.1264311	574	0		0	91
Unknown					CAS #:		
9.754	1211412	14.3463268	583	0		0	91
Unknown					CAS #:		
9.895	1211843	14.3514277	583	0		0	91
Unknown					CAS #:		
9.966	1068849	12.6580005	514	0		0	91
Octadecane, 1-chloro-					CAS #: 3386-33-2		
10.089	1513091	17.9189972	728	95	NIST05.L	117264	91
1-Docosene					CAS #: 1599-67-3		
10.113	3035143	35.9441193	1460	99	NIST05.L	129889	91
Unknown					CAS #:		
10.160	2422611	28.6901186	1160	0		0	91
Unknown					CAS #:		
10.254	1710554	20.2574835	823	0		0	91
Nonadecane, 1-chloro-					CAS #: 62016-76-6		
10.454	1472862	17.4425813	709	93	NIST05.L	126107	91
Unknown					CAS #:		
10.489	983702	11.6496347	473	0		0	91
Unknown					CAS #:		
10.548	1461092	22.8421235	928	0		0	98

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Unknown				CAS #:			
10.636	1182696	18.4897844	751	0		0	98
Unknown				CAS #:			
11.160	3039102	47.5120902	1930	0		0	98
Oxirane, hexadecyl-				CAS #: 7390-81-0			
11.577	931935	14.5694921	592	98	NIST05.L	104256	98
Unknown				CAS #:			
11.936	2927607	45.7690238	1860	0		0	98
Unknown				CAS #:			
12.113	1202078	18.7927952	763	0		0	98
Unknown				CAS #:			
12.166	3143666	49.1467976	2000	0		0	98
Unknown				CAS #:			
12.719	948044	14.8213267	602	0		0	98
Unknown				CAS #:			
12.942	2573738	40.2367800	1630	0		0	98
Unknown				CAS #:			
13.007	1142235	17.8572311	725	0		0	98
.gamma.-Sitosterol				CAS #: 83-47-6			
13.901	1648236	25.7678505	1050	92	NIST05.L	174402	98



Data File: /chem/HSD5.1/s032210.b/s502231.d  
 Date: 22-MAR-2010 19:57  
 Client ID: RE36-10-7439  
 Sample Info: 1248506020196308611SMH11LNL  
 Volume Injected (uL): 0.5  
 Column phase: 3uM DB-SMS

Instrument: HSD5.1  
 Operator: RMB  
 Column diameter: 0.20



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVH111LANL

Volume Injected (uL): 0.5

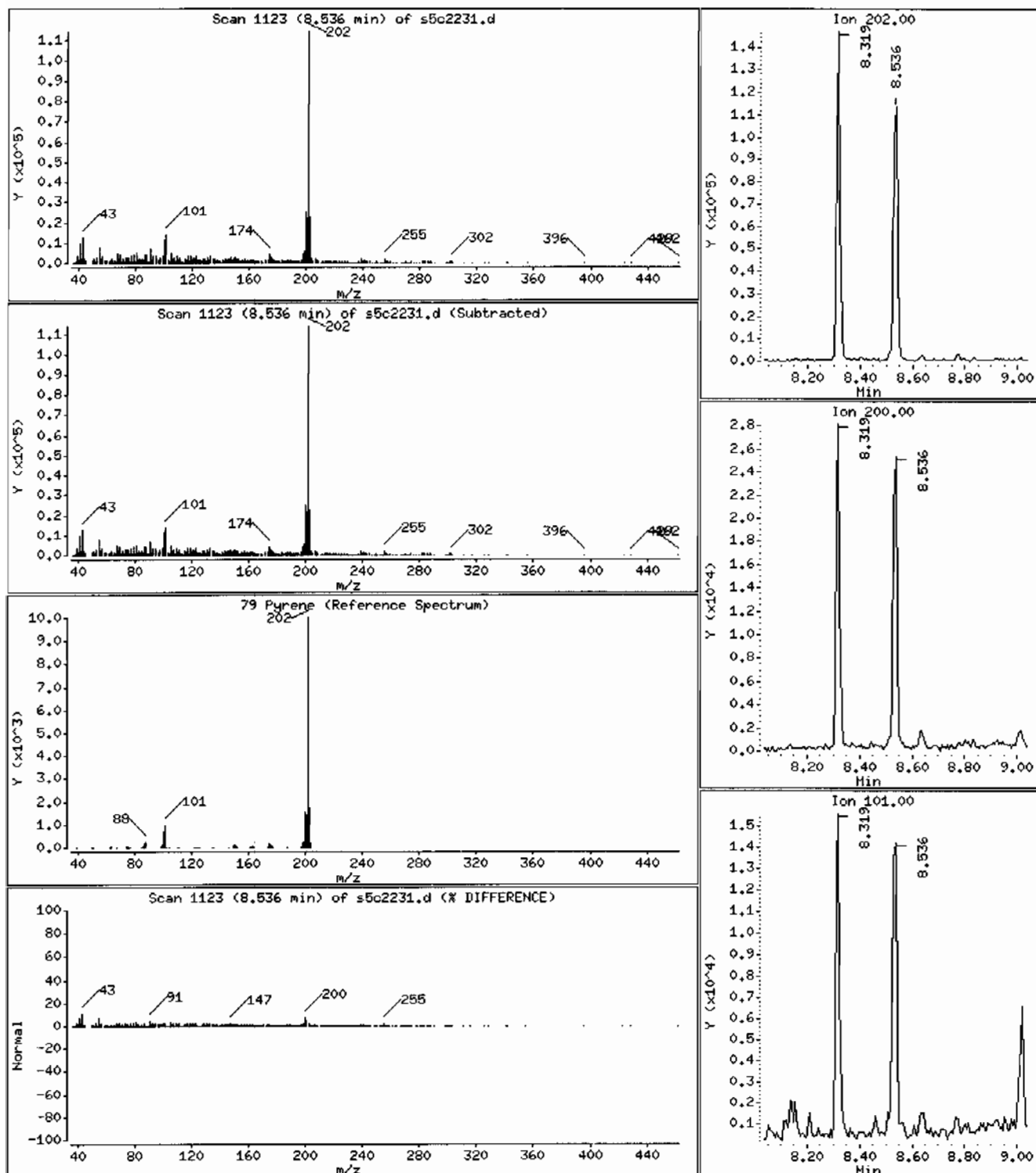
Operator: RMB

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

Column diameter: 0.20

79 Pyrene

Concentration: 226 ug/Kg



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 1248506020196308611SVH11/LANL

Volume Injected (uL): 0.5

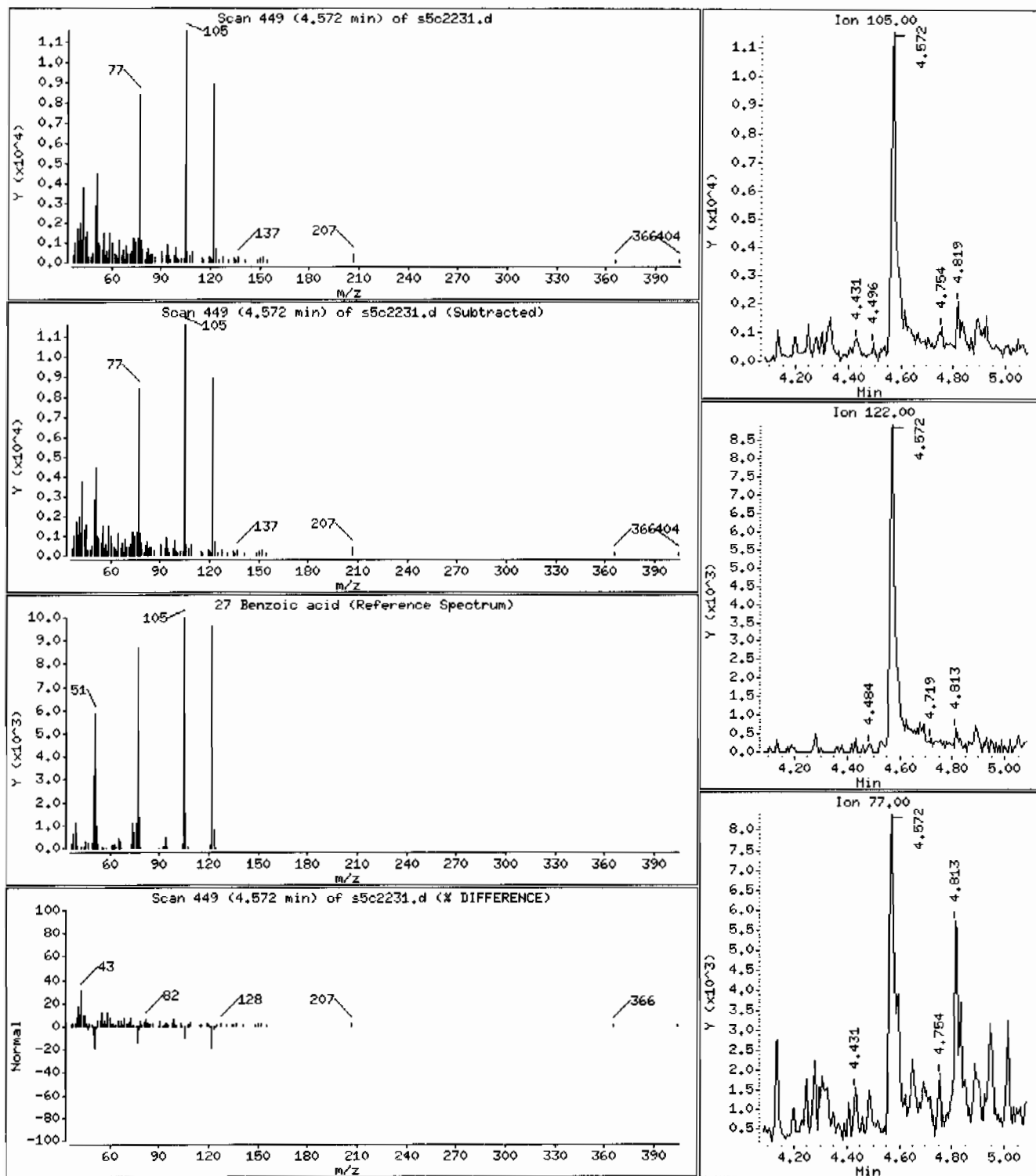
Operator: RMB

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

Column diameter: 0.20

27 Benzoic acid

Concentration: 562 ug/Kg



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: 1248506020196308611|SVH11|LANL

Volume Injected (uL): 0.5

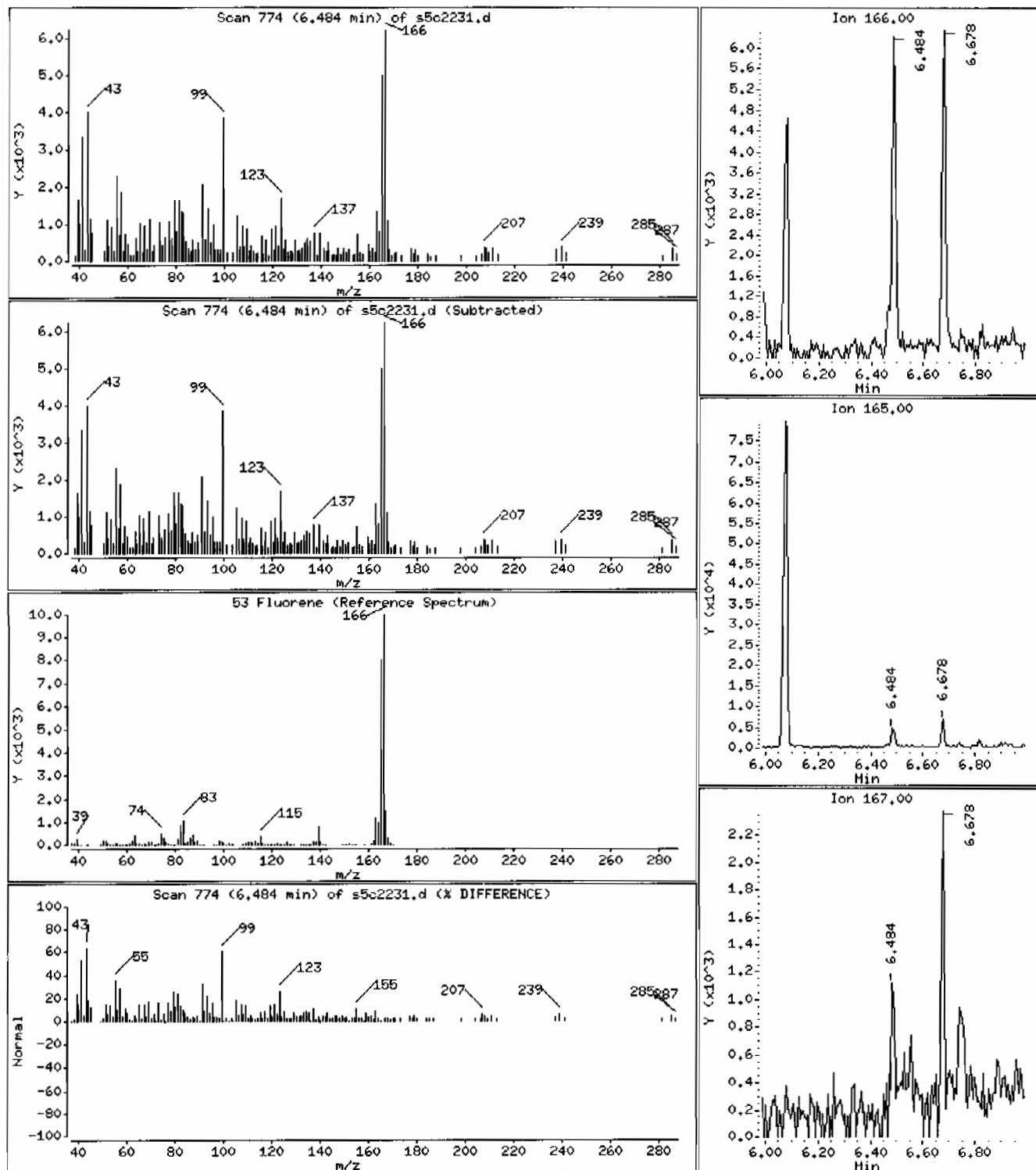
Operator: RMB

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

Column diameter: 0.20

53 Fluorene

Concentration: 14.0 ug/Kg



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: 12485060201963086111SVMI11LANL

Volume Injected (uL): 0.5

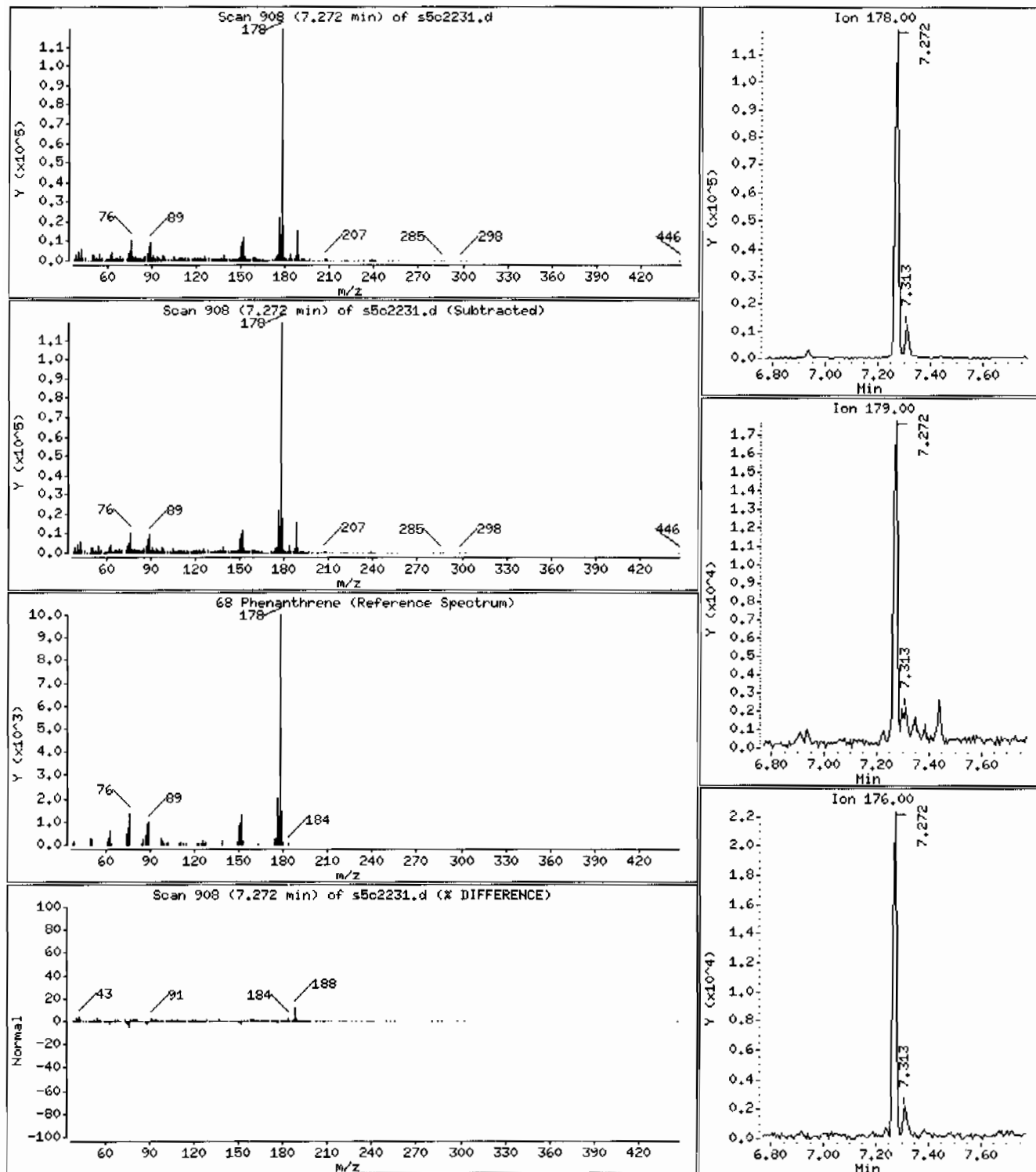
Operator: RMB

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

Column diameter: 0.20

68 Phenanthrene

Concentration: 178 ug/Kg

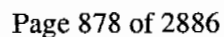


Instrument: MSD5.i

Operator: RMB

Column diameter: 0.20

Concentration: 23.9 ug/Kg



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: 12485060201963086111SVMI11LANL

Volume Injected (uL): 0.5

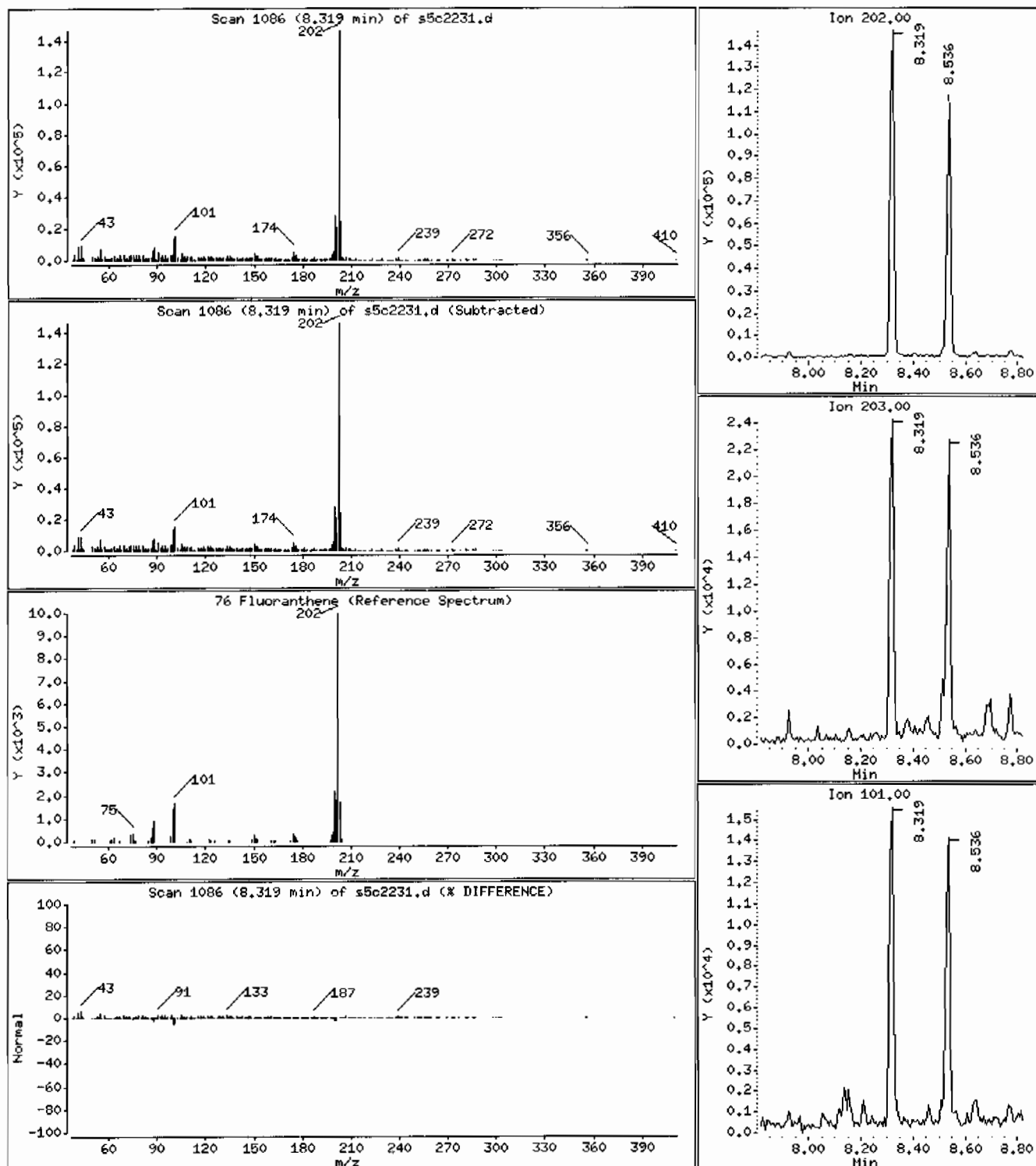
Operator: RMB

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

Column diameter: 0.20

76 Fluoranthene

Concentration: 241 ug/Kg



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVM111LANL

Volume Injected (uL): 0.5

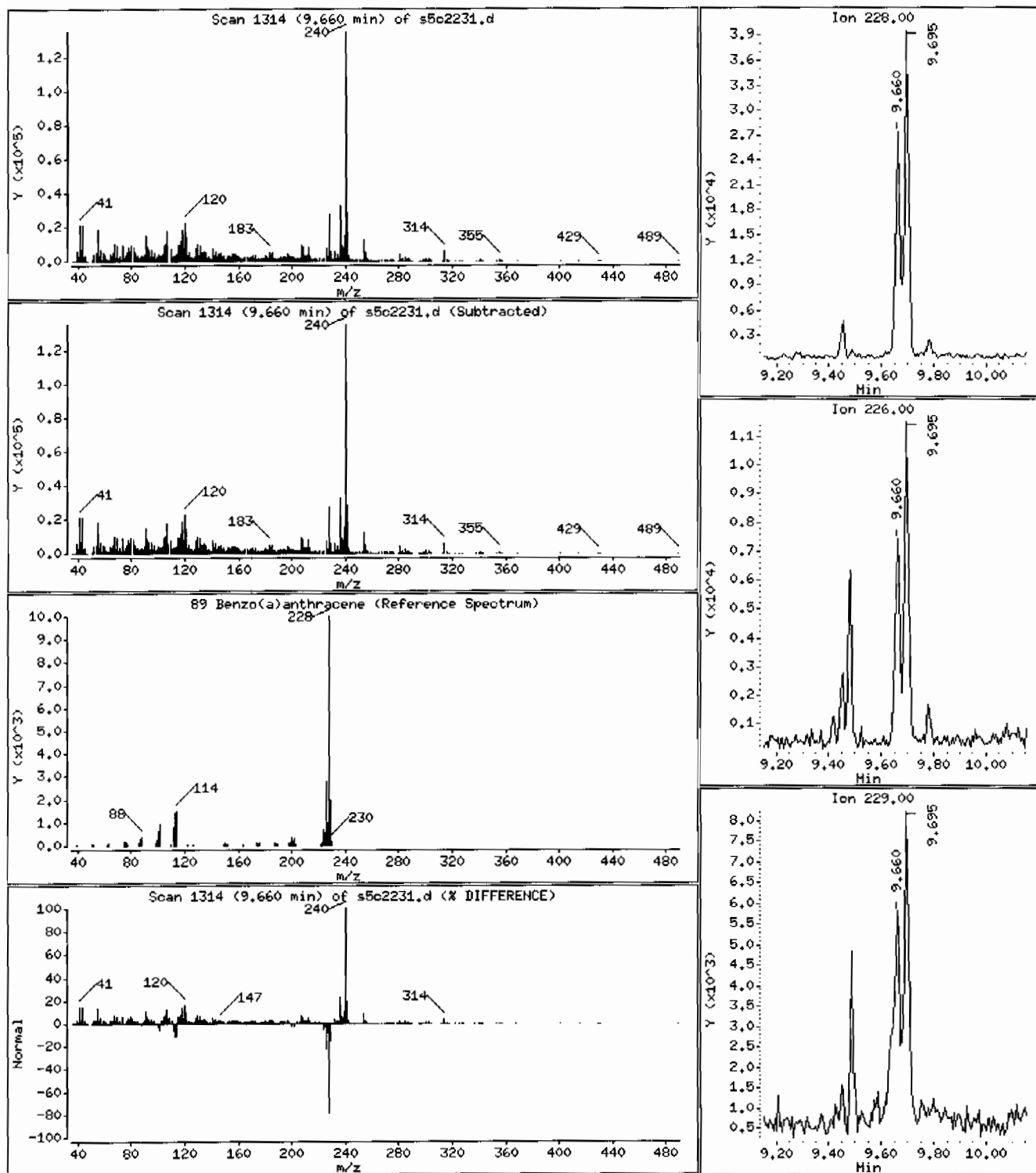
Operator: RMB

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

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 74.9 ug/Kg





Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVH111LANL

Volume Injected (uL): 0.5

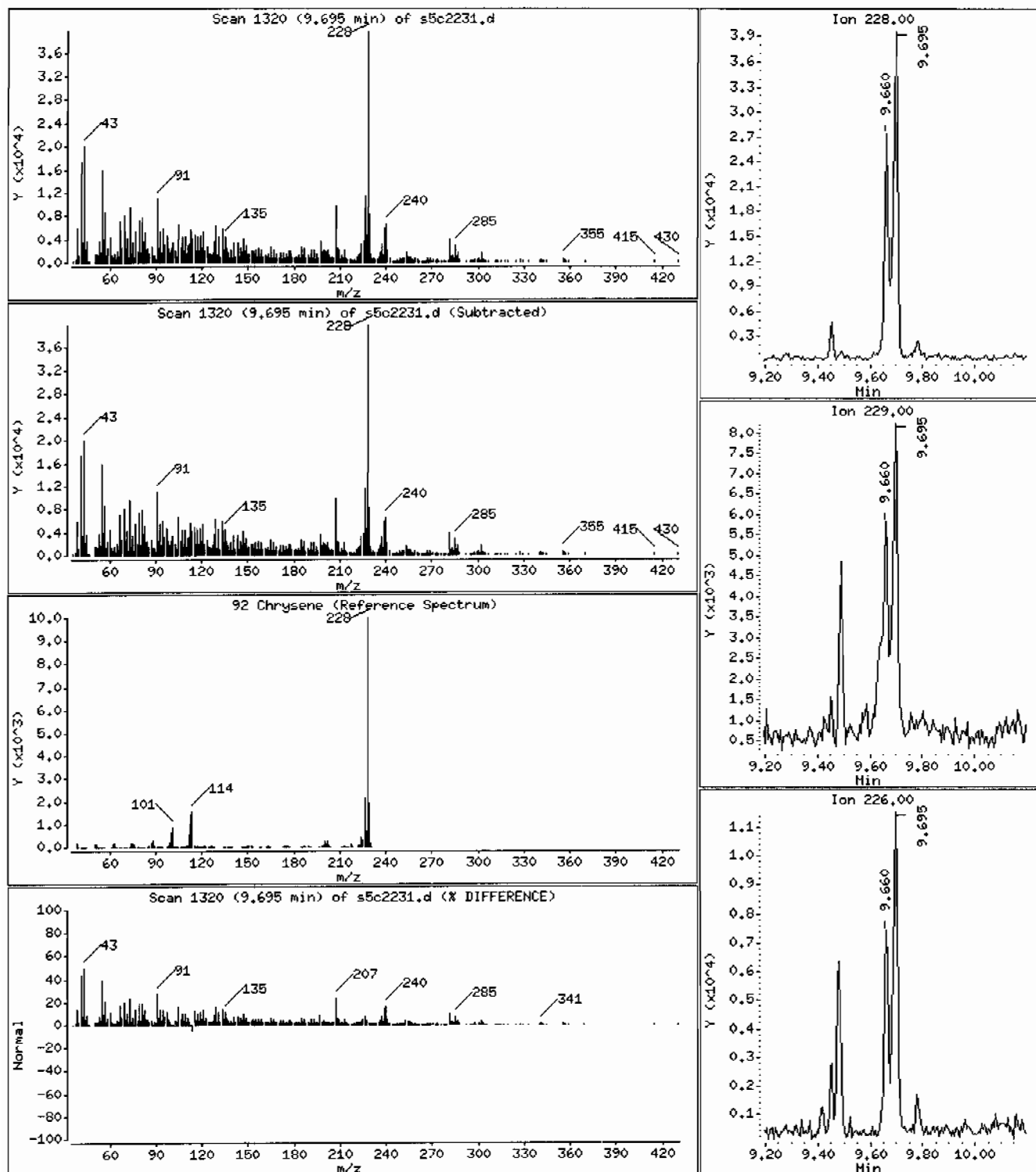
Operator: RMB

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

Column diameter: 0.20

92 Chrysene

Concentration: 115 ug/Kg



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.1

Sample Info: 12485060201963086111SVH111LANL

Volume Injected (uL): 0.5

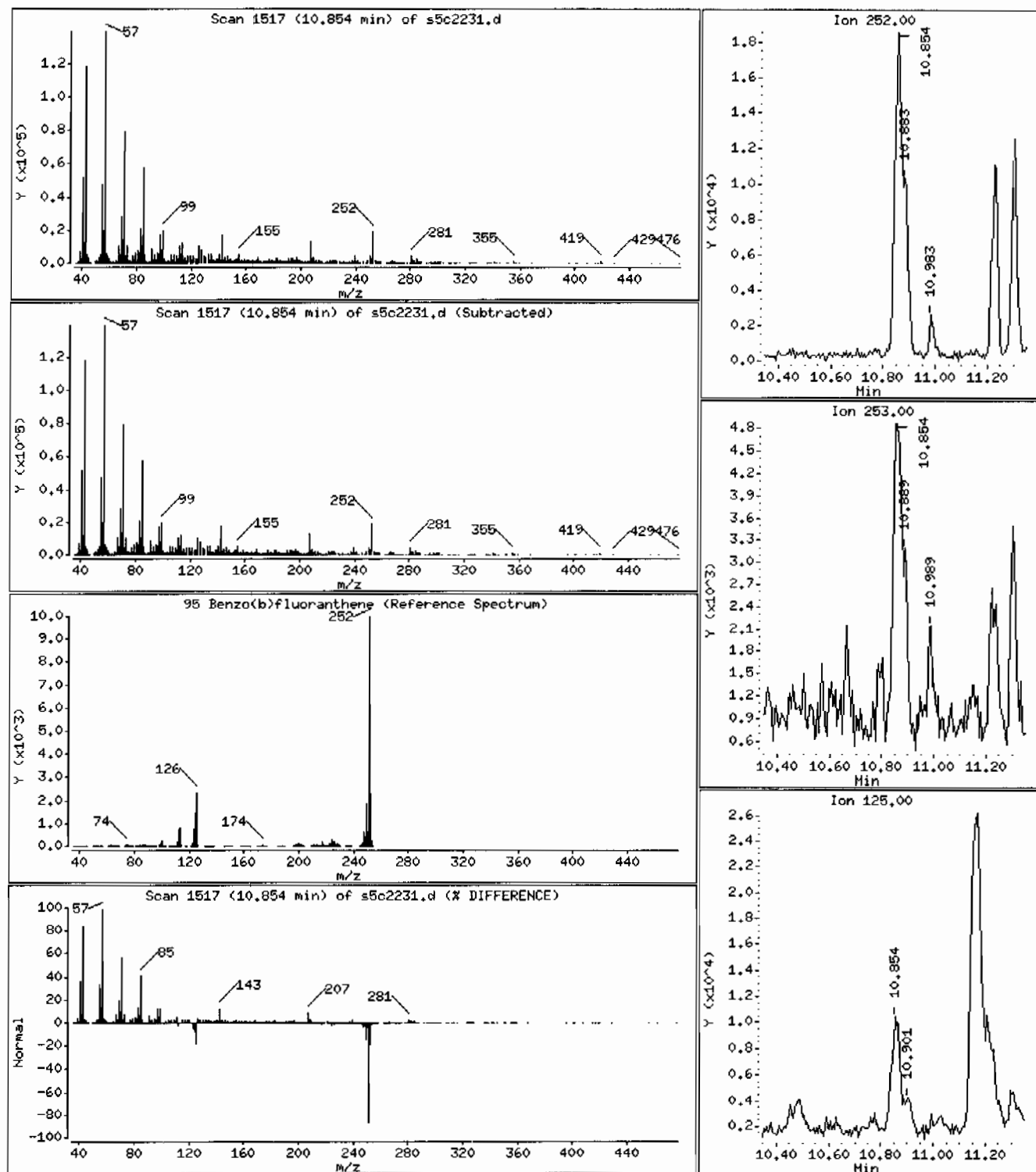
Operator: RMB

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

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 128 ug/Kg



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVH111LANL

Volume Injected (uL): 0.5

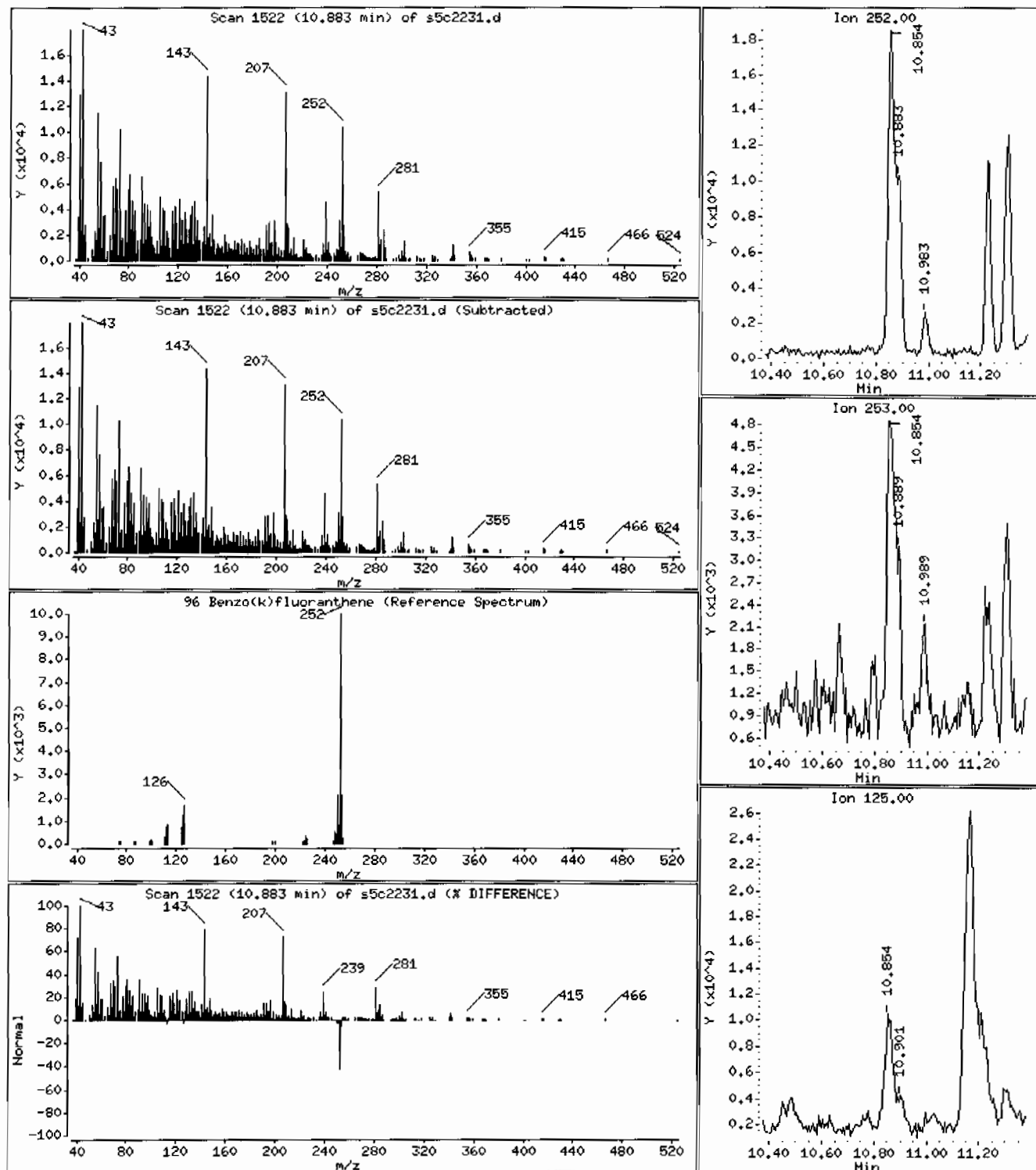
Operator: RMB

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

Column diameter: 0.20

96 Benzo(k)fluoranthene

Concentration: 52.8 ug/Kg



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: 12485060201963086111SVH111LANL

Volume Injected (uL): 0.5

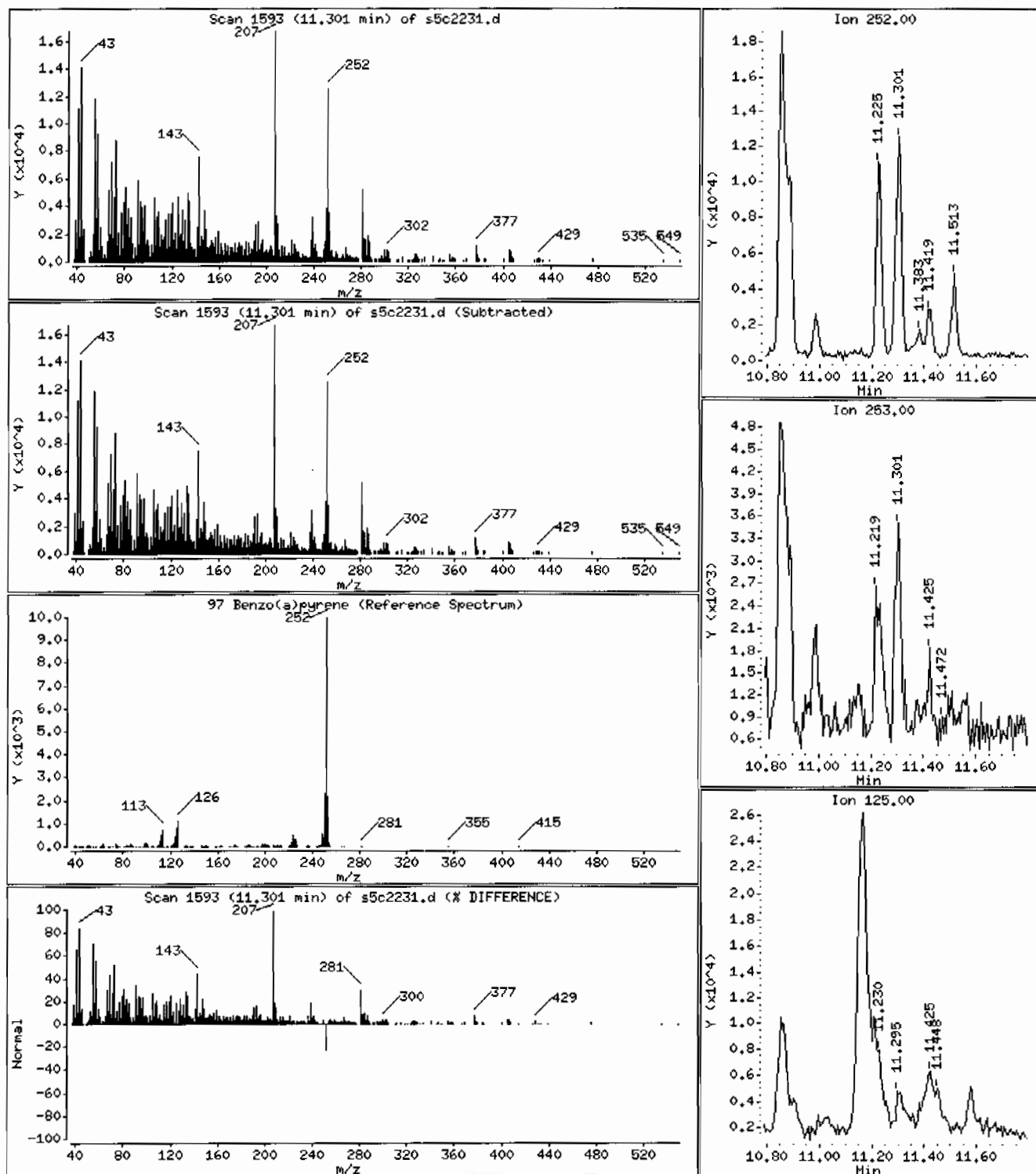
Operator: RMB

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

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 84.4 ug/Kg



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 1248506020196308611ISVH11ILANL

Volume Injected (uL): 0.5

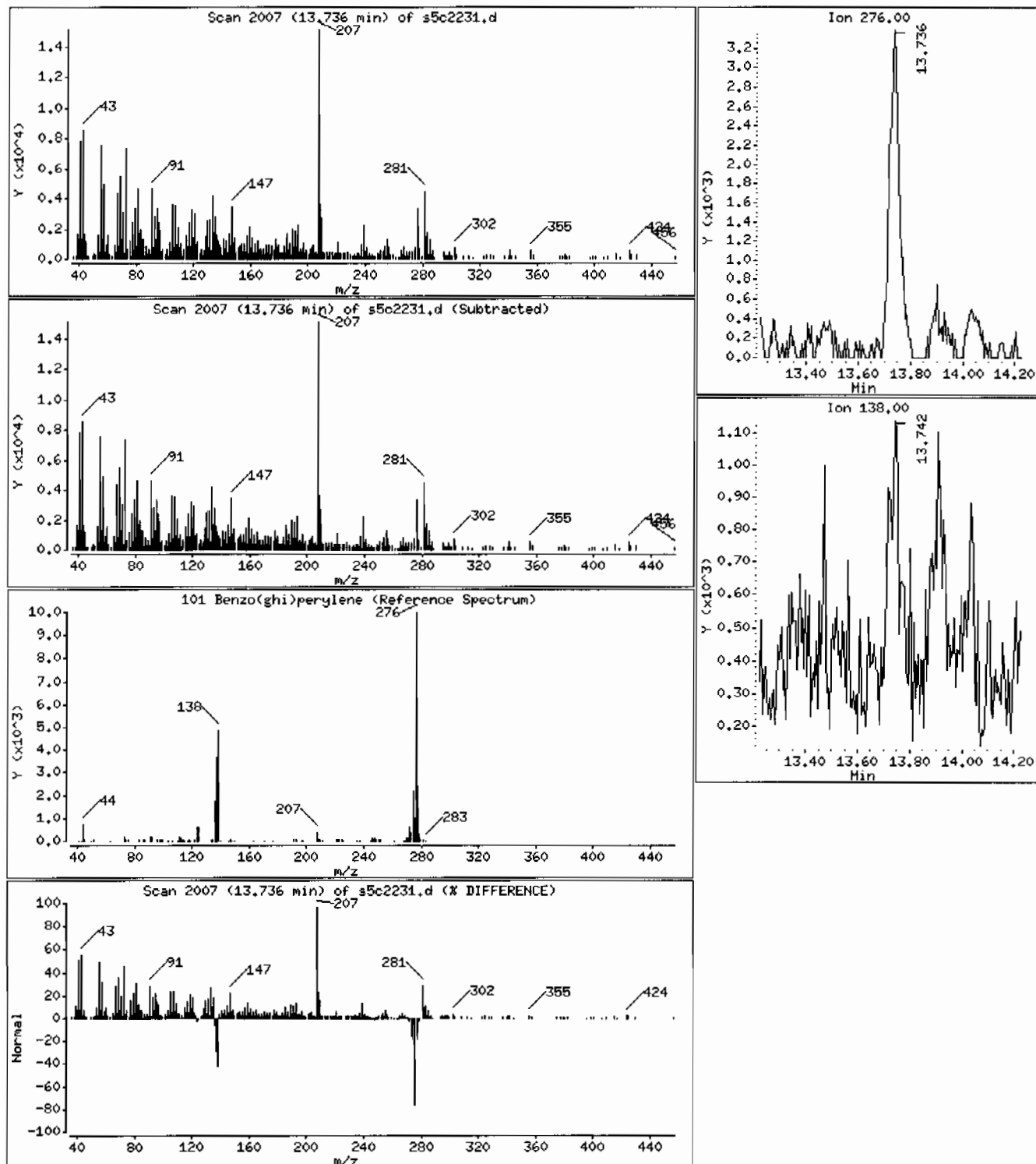
Operator: RMB

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

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 59.6 ug/Kg



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: 12485060201963086111SVH111LANL

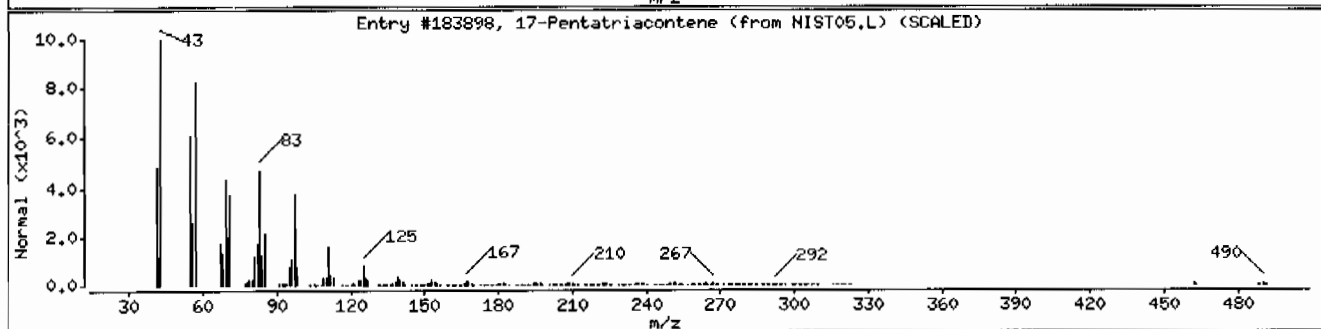
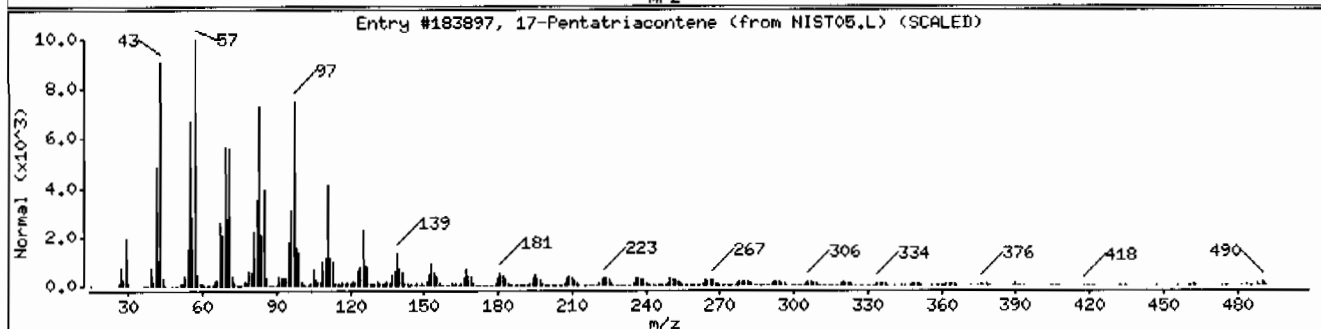
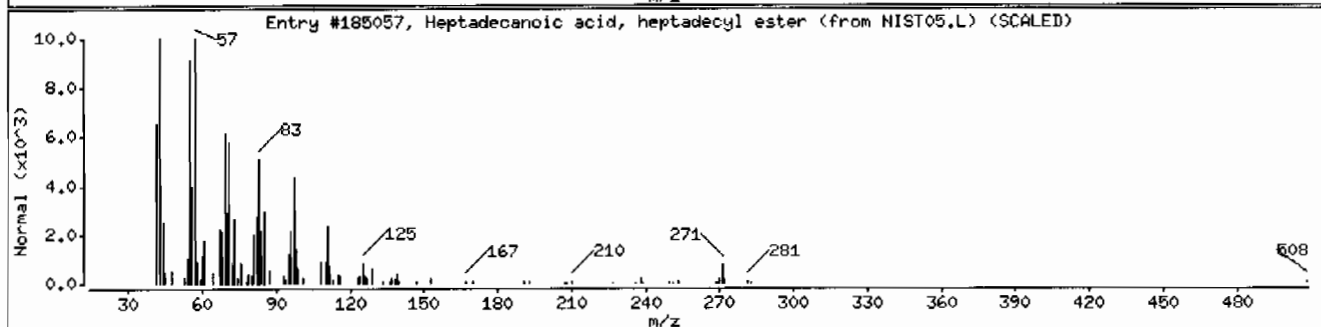
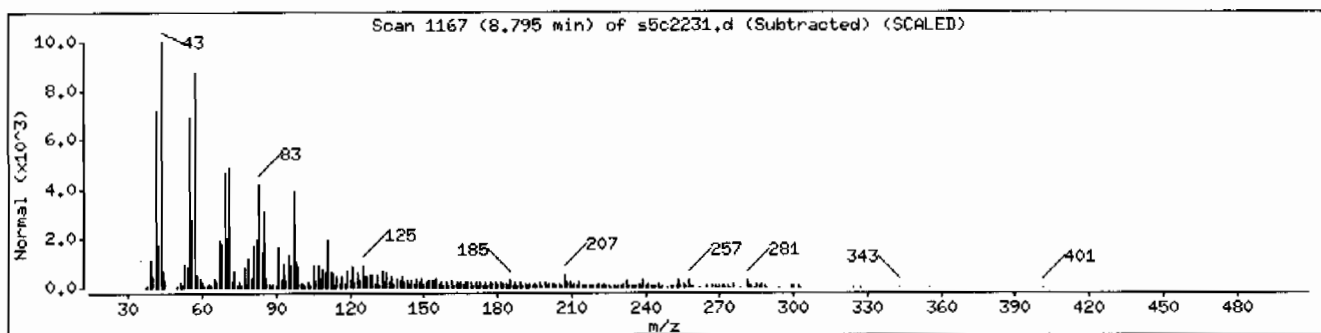
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Heptadecanoic acid, heptadecyl ester	36617-50-2	NIST05.L	185057	91	C34H68O2	509
17-Pentatriacontene	6971-40-0	NIST05.L	183897	91	C35H70	491
17-Pentatriacontene	6971-40-0	NIST05.L	183898	90	C35H70	491



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVH111LANL

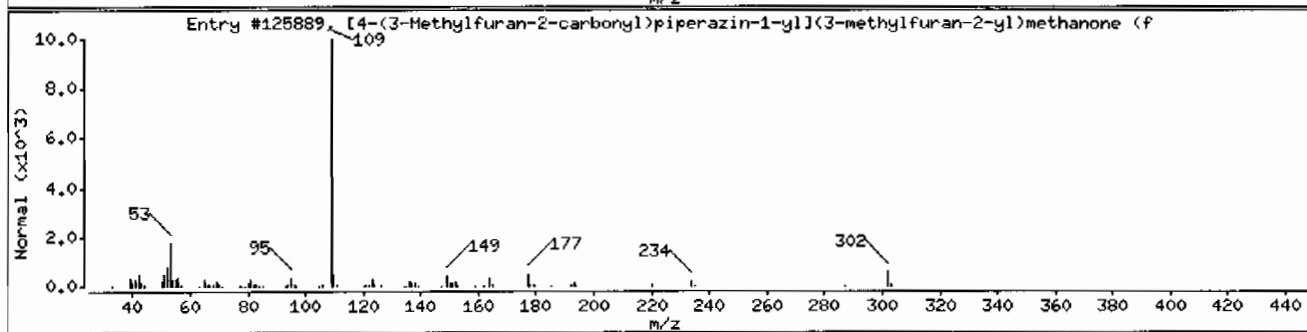
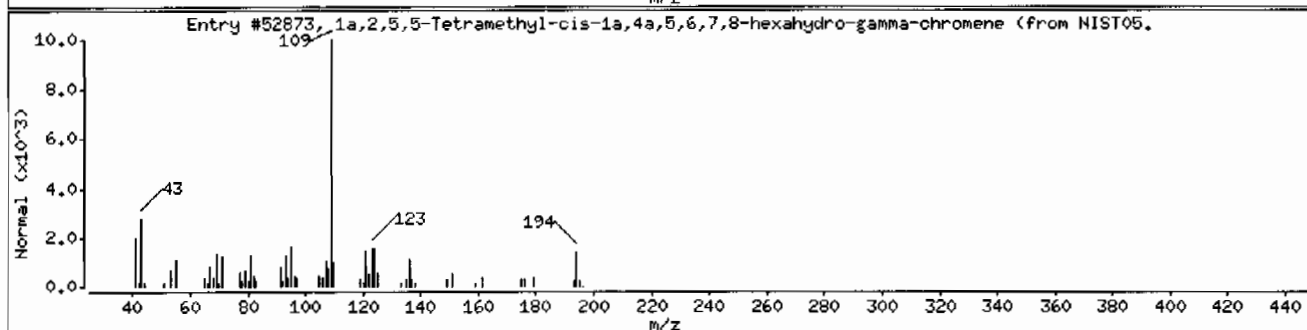
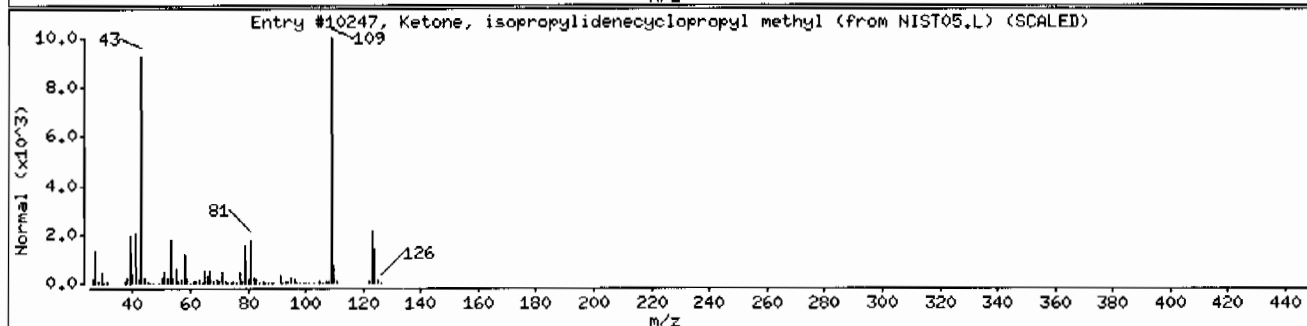
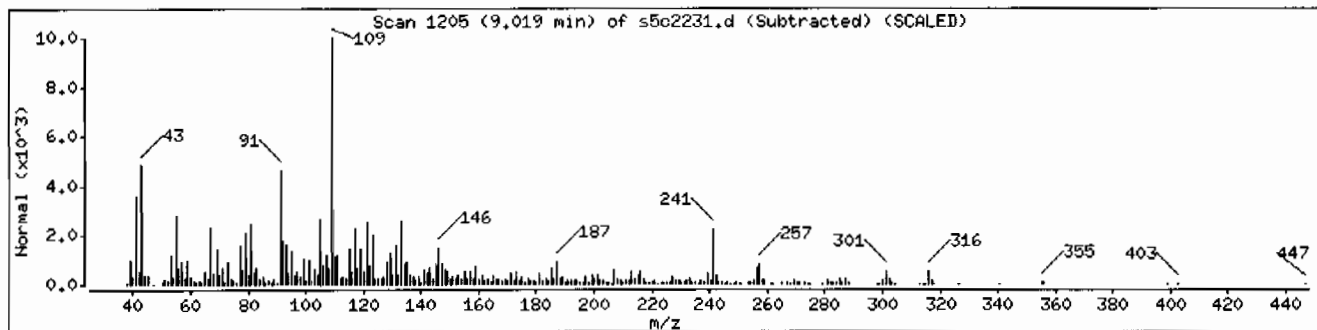
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ketone, isopropylidenecyclopropyl methyl	29765-67-1	NIST05.L	10247	38	C8H12O	124
1a,2,5,5-Tetramethyl-cis-1a,4a,5,6,7,8-h	1000215-77-7	NIST05.L	52873	35	C13H22O	194
[4-(3-Methylfuran-2-carbonyl)piperazin-1	1000310-09-2	NIST05.L	125889	30	C16H18N2O4	302



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVH111LANL

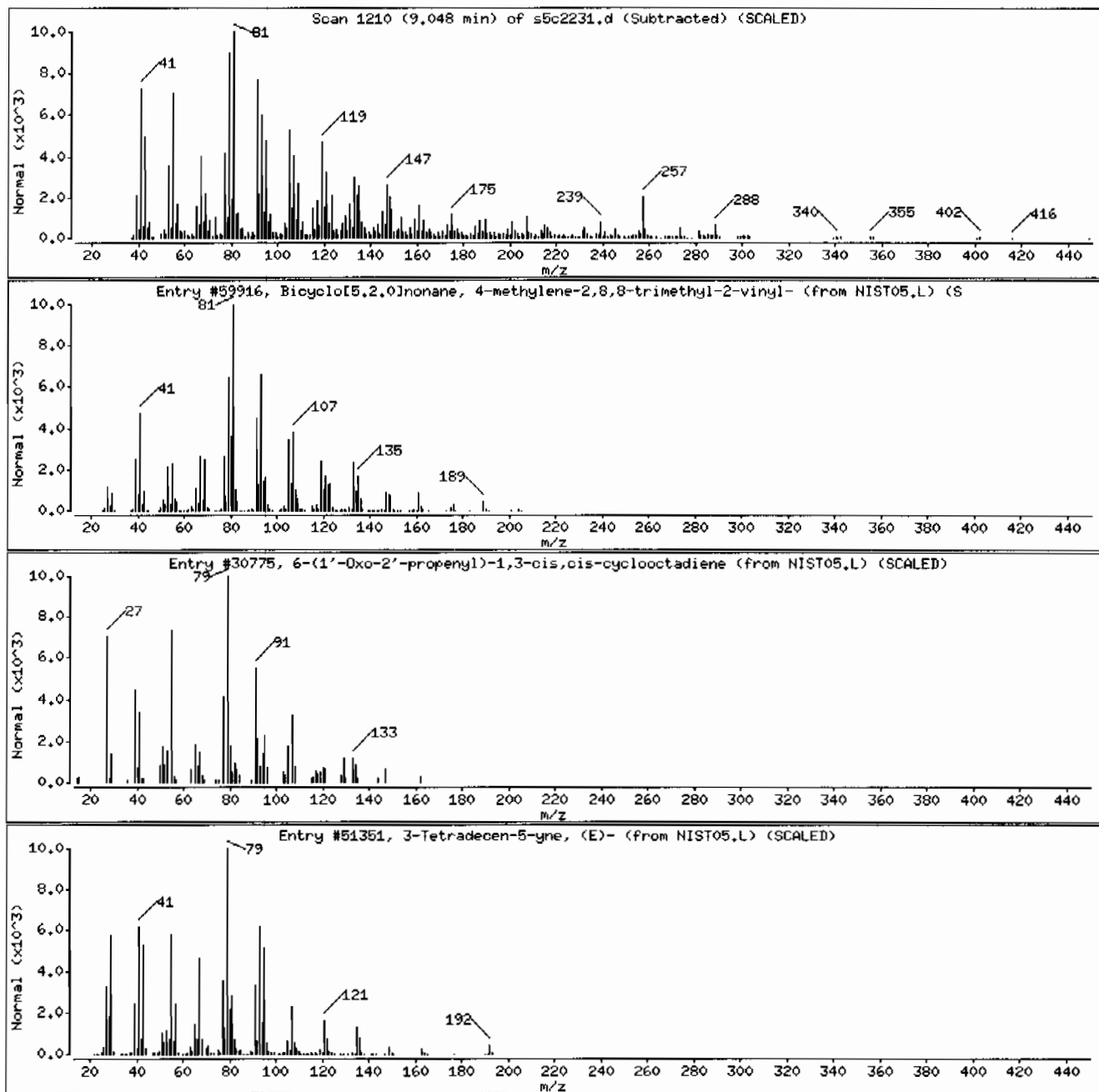
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[5.2.0]nonane, 4-methylene-2,8,8-	1000159-38-2	NIST05.L	59916	43	C15H24	204
6-(1'-Oxo-2'-propenyl)-1,3-cis,cis-cyclo	138146-05-1	NIST05.L	30775	42	C11H14O	162
3-Tetradecen-5-yne, (E)-	74744-44-8	NIST05.L	51351	30	C14H24	192





Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVM11ILANL

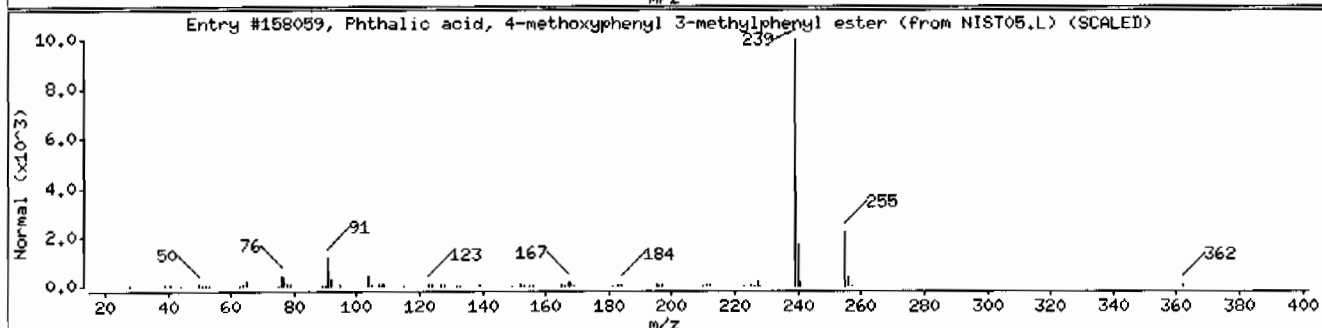
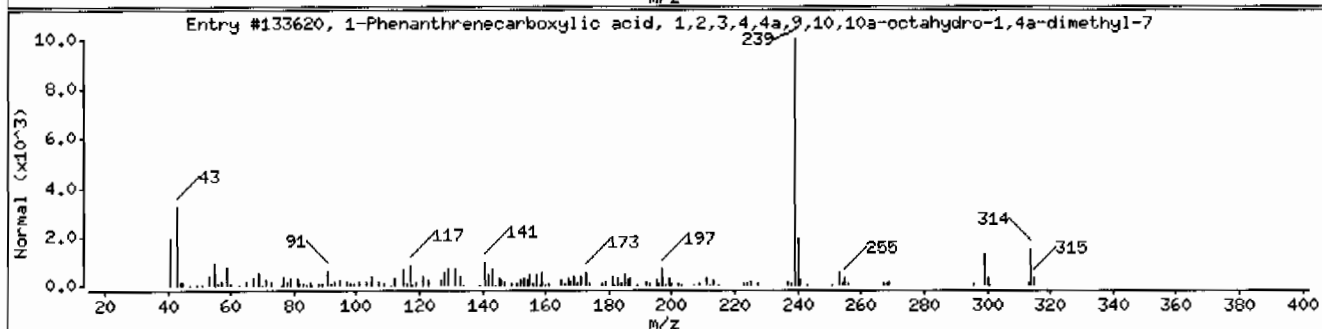
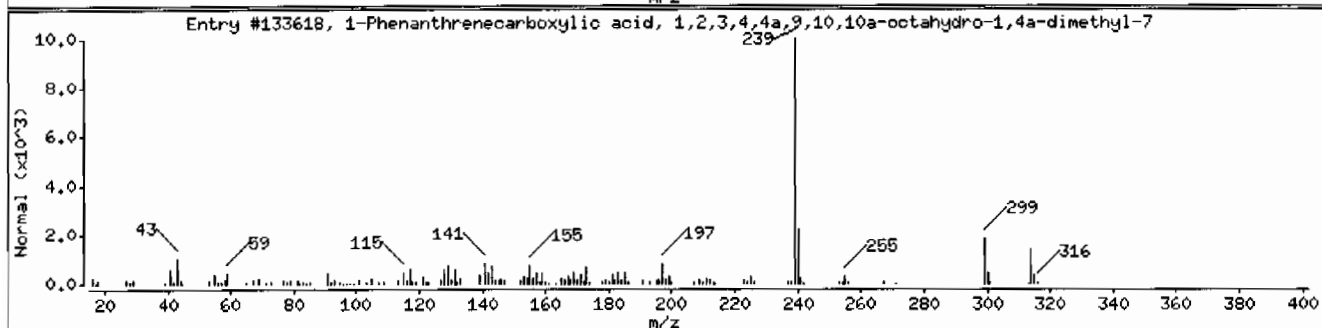
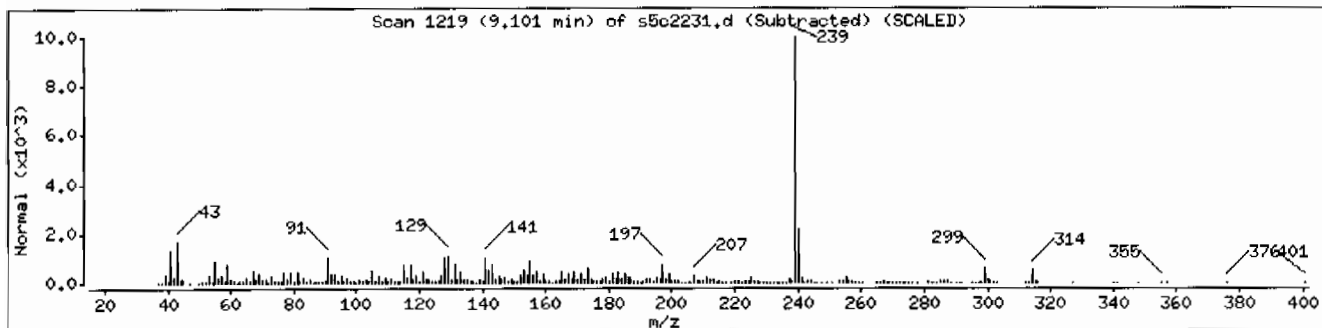
Volume Injected (uL): 0.5

Operator: RMB

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	86	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133620	64	C21H30O2	314
Phthalic acid, 4-methoxyphenyl 3-methylp	1000315-68-0	NIST05.L	158059	53	C22H18O5	362



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVH111LANL

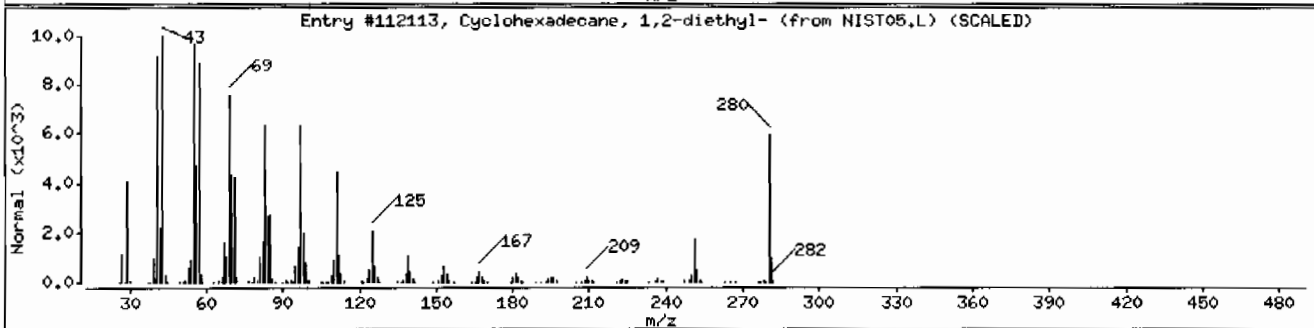
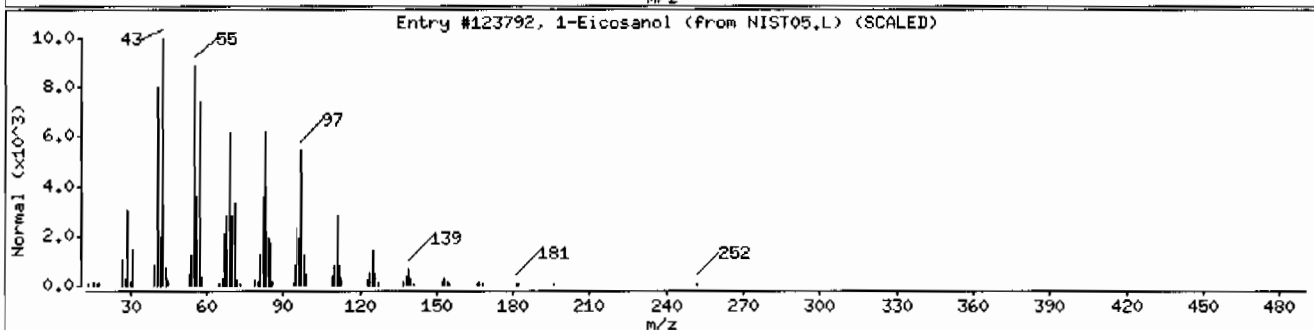
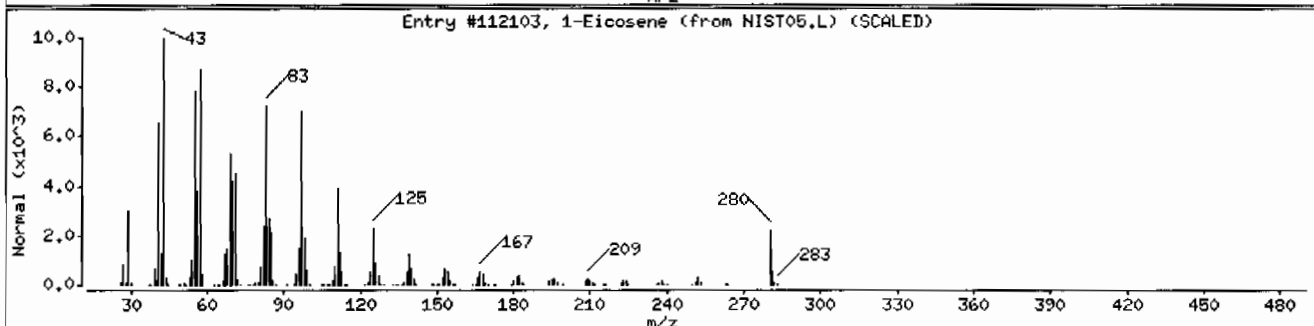
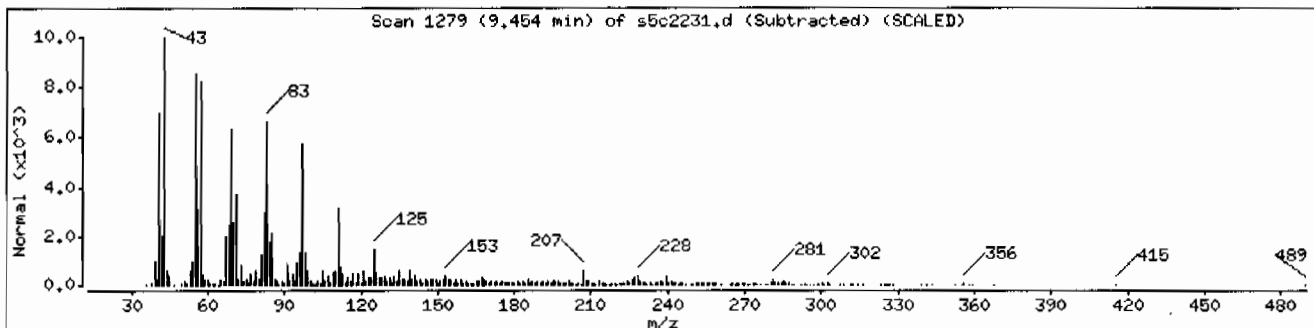
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Eicosene	3452-07-1	NIST05.L	112103	95	C <sub>20</sub> H <sub>40</sub>	280
1-Eicosanol	629-96-9	NIST05.L	123792	94	C <sub>20</sub> H <sub>42</sub> O	298
Cyclohexadecane, 1,2-diethyl-	1000155-85-3	NIST05.L	112113	93	C <sub>20</sub> H <sub>40</sub>	280



Date: 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 1248506020196308611SVH11ILANL

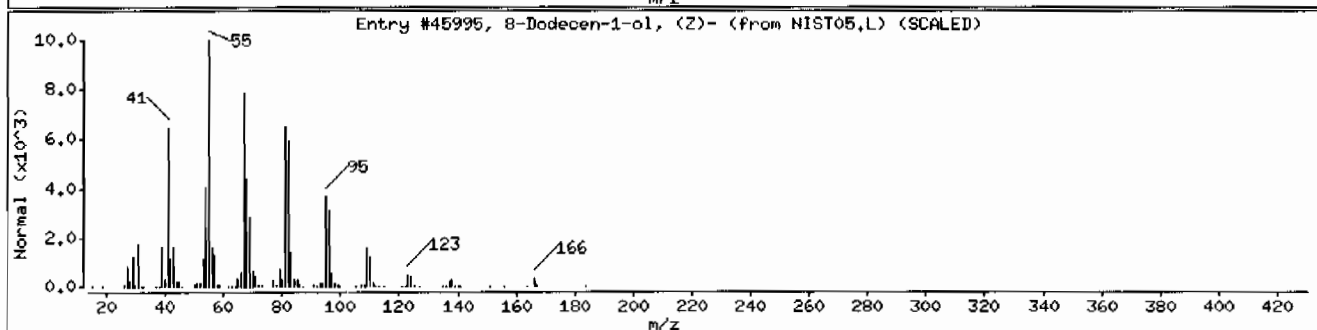
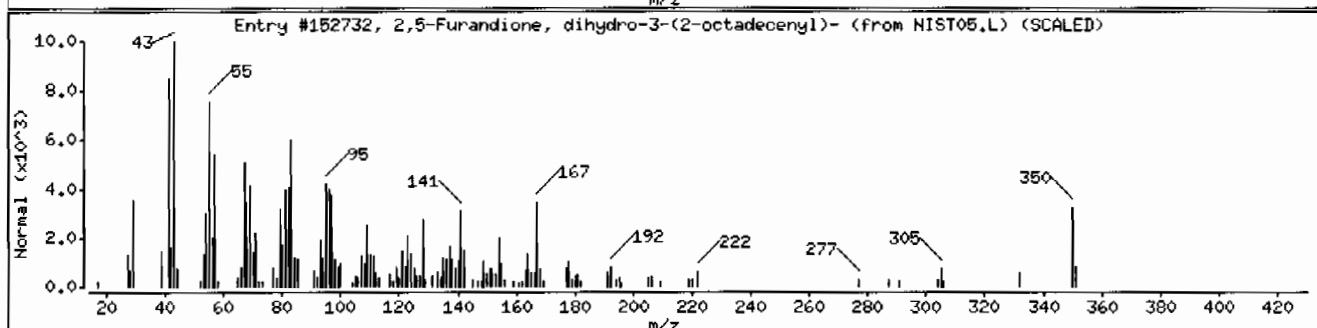
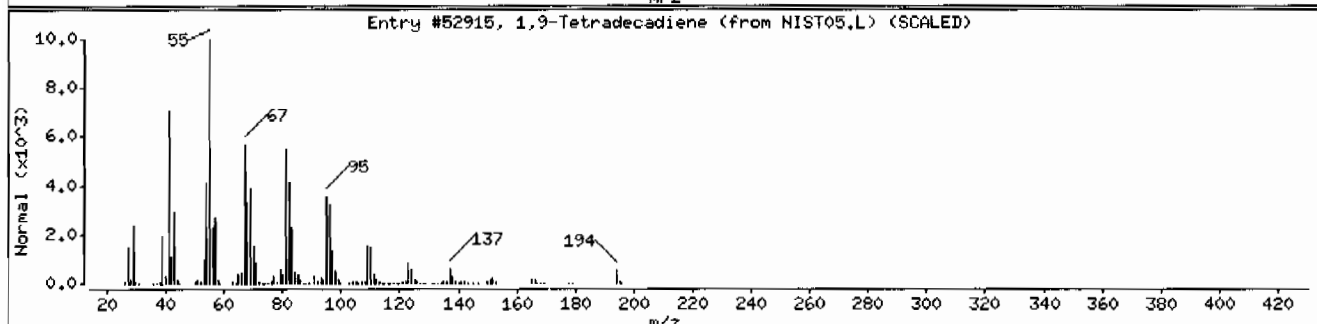
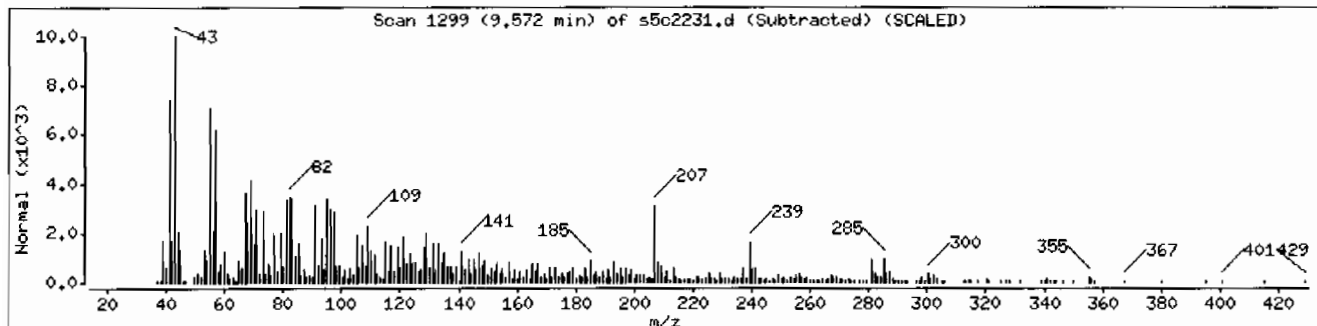
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,9-Tetradecadiene	112929-06-3	NIST05.L	52915	52	C <sub>14</sub> H <sub>26</sub>	194
2,5-Furandione, dihydro-3-(2-octadecenyl)	67066-88-0	NIST05.L	152732	50	C <sub>22</sub> H <sub>38</sub> O <sub>3</sub>	350
8-Dodecen-1-ol, (Z)-	40642-40-8	NIST05.L	45995	48	C <sub>12</sub> H <sub>24</sub> O	184



Date: 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: I2485060201963086111SVH111LANL

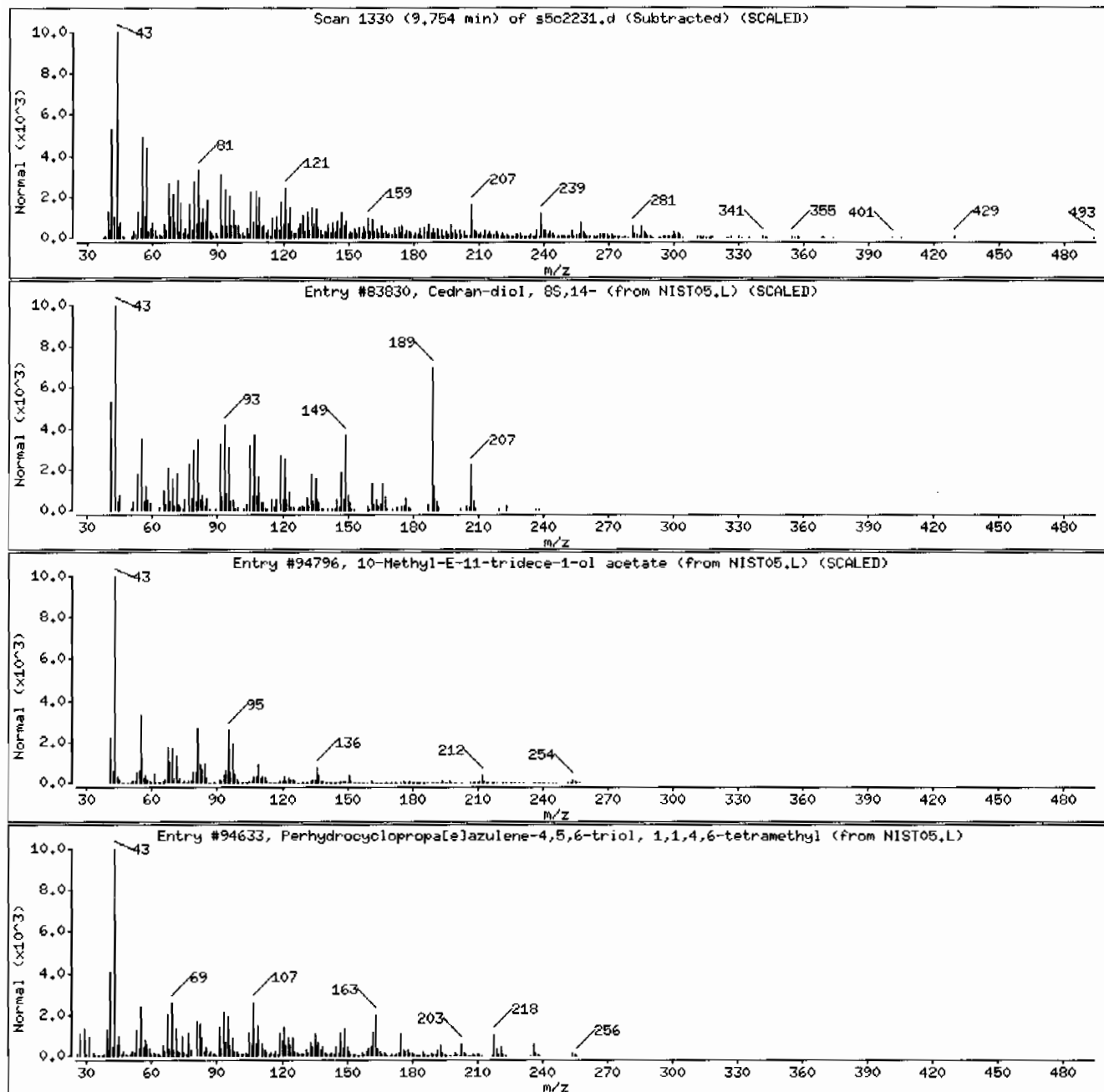
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	78	C15H26O2	238
10-Methyl-E-11-tridece-1-ol acetate	1000130-97-3	NIST05.L	94796	45	C16H30O2	254
Perhydrocyclopropa[elazulene-4,5,6-triol	1000197-87-8	NIST05.L	94633	43	C15H26O3	254



Date: 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: I2485060201963086111SVH111LANL

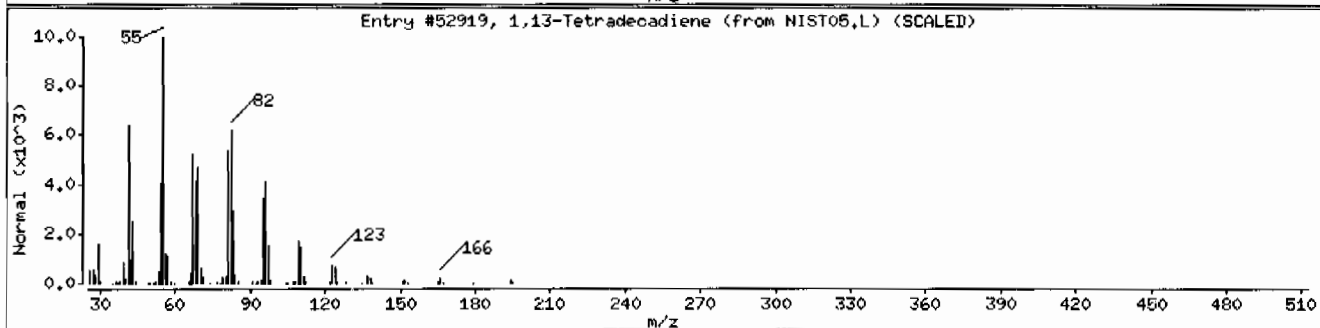
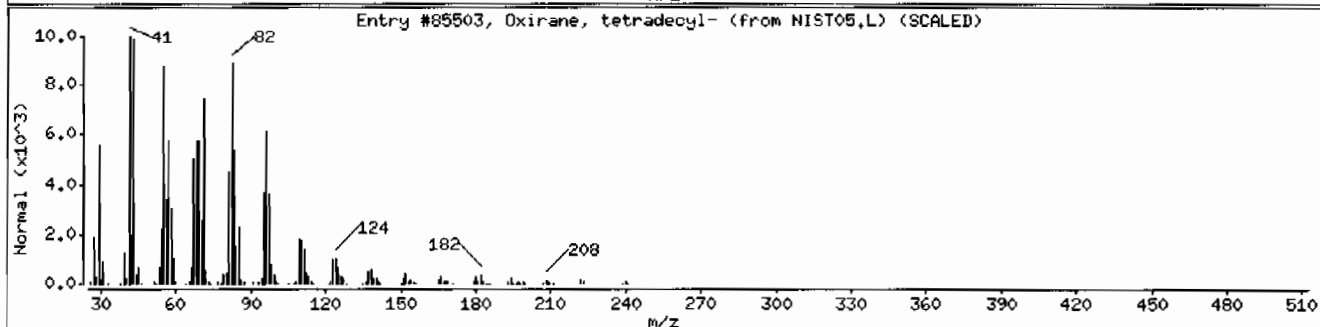
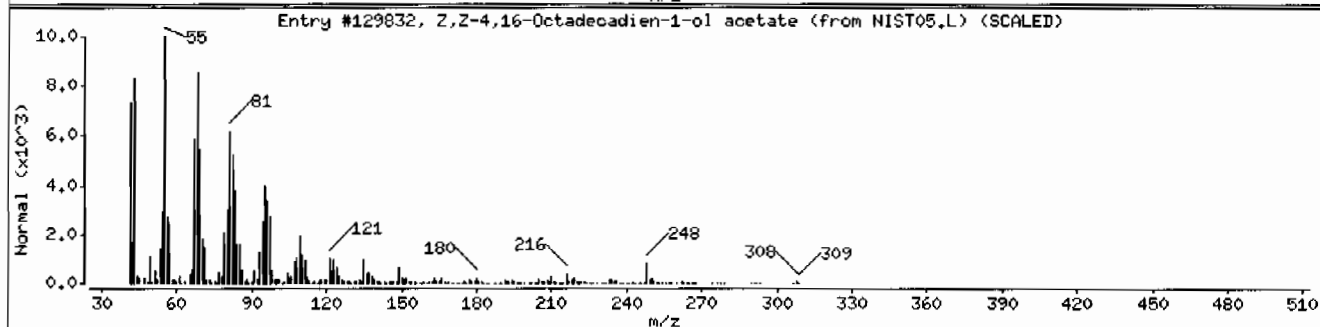
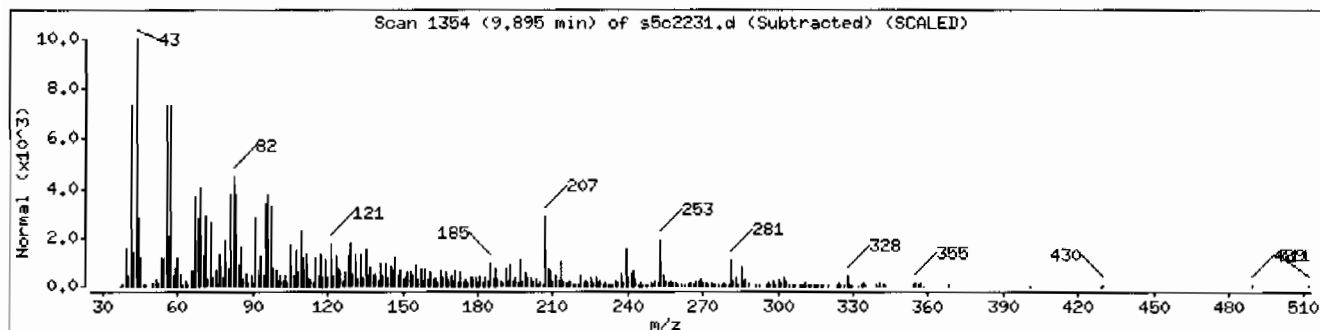
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Z,Z-4,16-Octadecadien-1-ol acetate	1000130-95-7	NIST05.L	129832	78	C20H36O2	308
Oxirane, tetradecyl-	7320-37-8	NIST05.L	85503	64	C16H32O	240
1,13-Tetradecadiene	21964-49-8	NIST05.L	52919	64	C14H26	194



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 1248506020196308611ISVM11ILANL

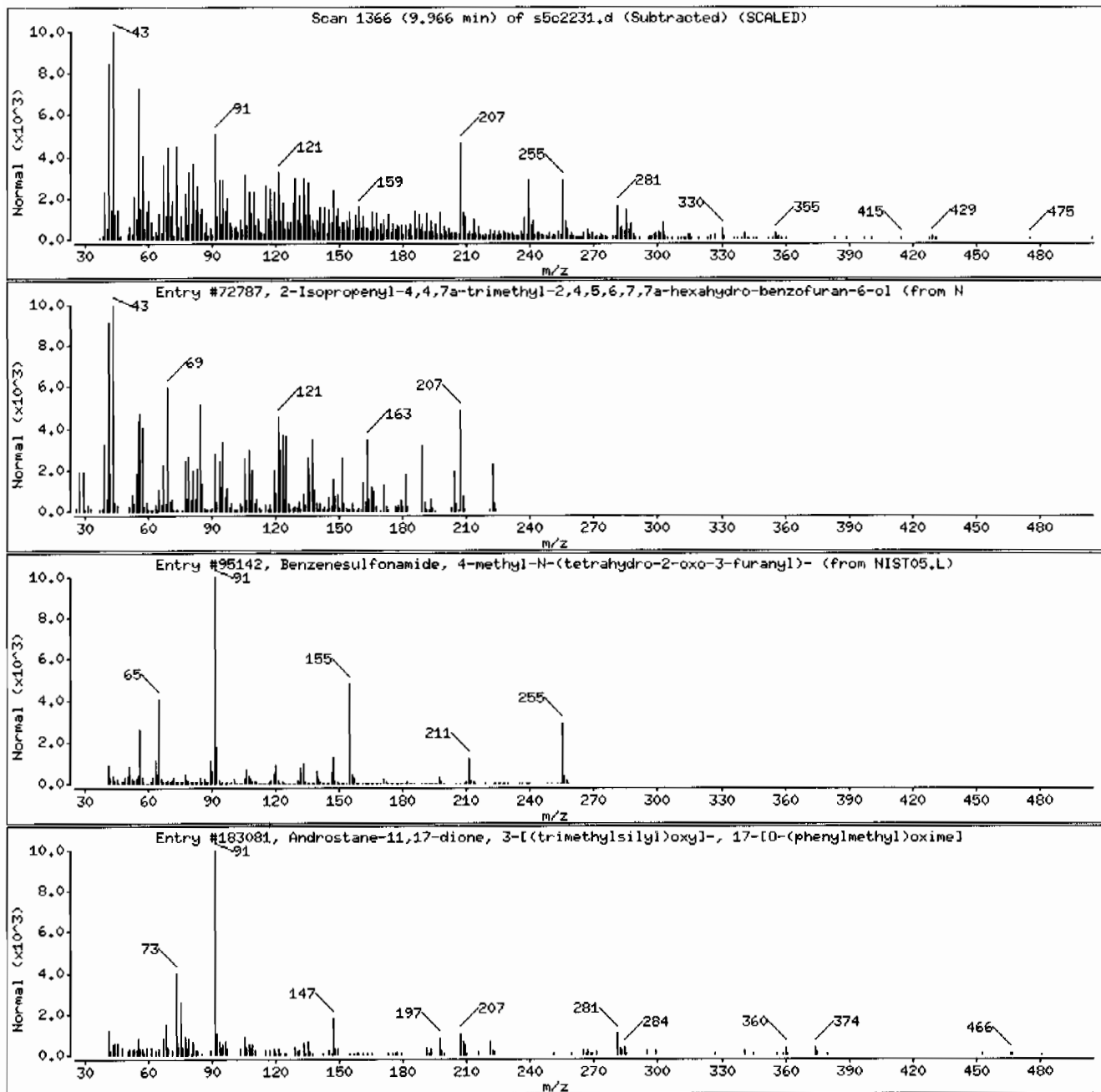
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Isopropenyl-4,4,7a-trimethyl-2,4,5,6,7	1000189-13-5	NIST05.L	72787	22	C14H22O2	222
Benzenesulfonamide, 4-methyl-N-(tetrahyd	6513-20-8	NIST05.L	95142	11	C11H13NO4S	255
Androstane-11,17-dione, 3-[(trimethylsil	57305-11-0	NIST05.L	183081	10	C29H43NO3Si	481



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVMI11LANL

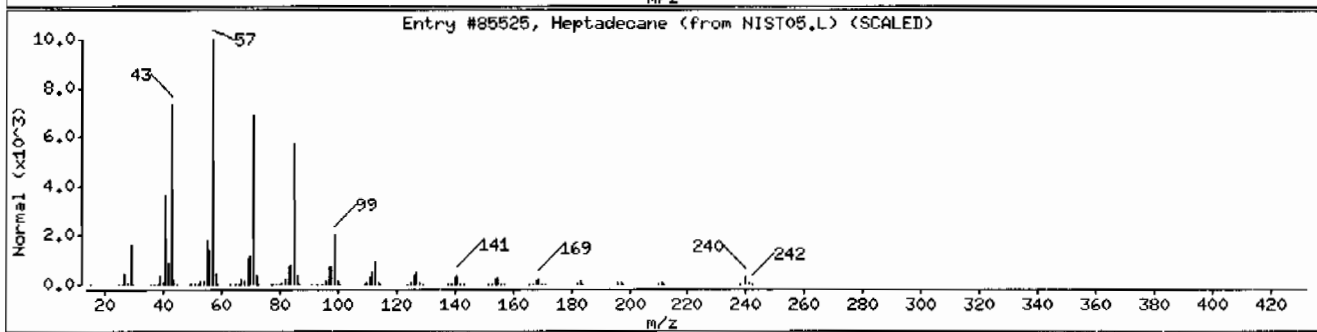
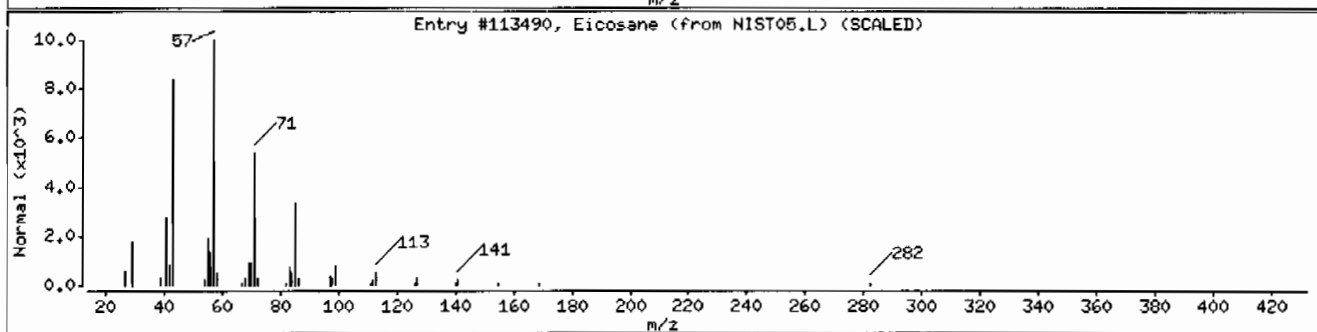
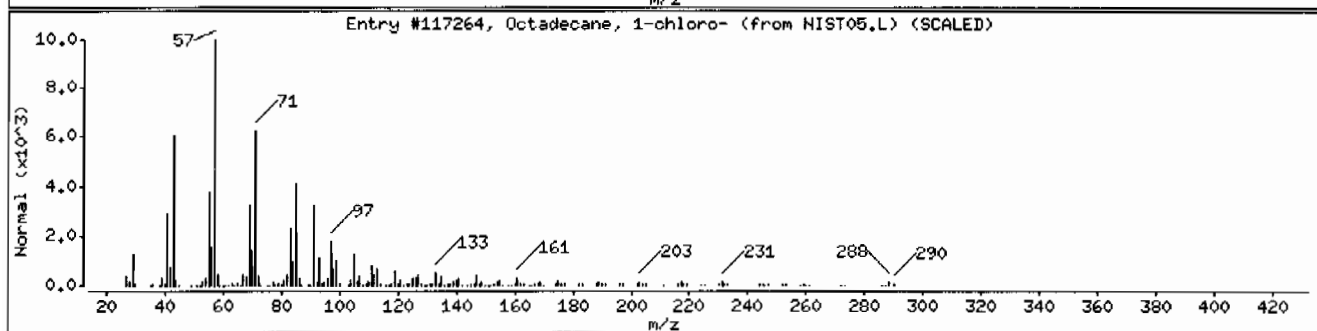
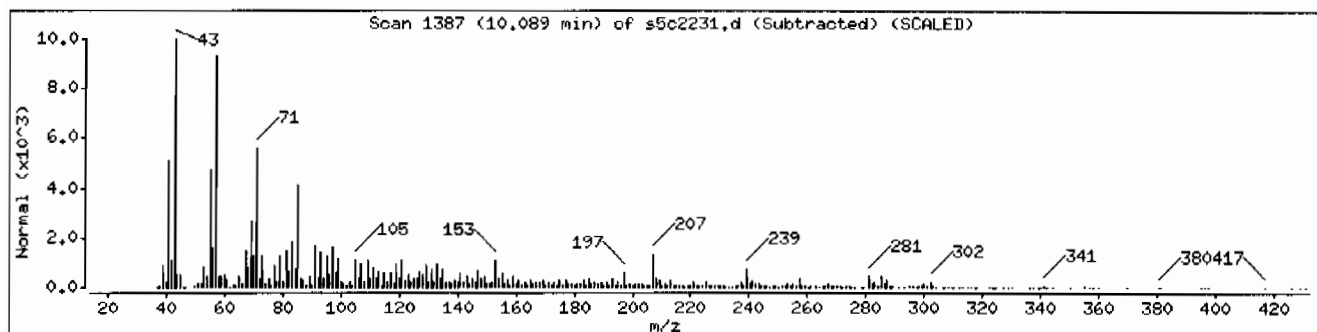
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Octadecane, 1-chloro-	3386-33-2	NIST05.L	117264	95	C18H37Cl	288
Eicosane	112-95-8	NIST05.L	113490	95	C20H42	282
Heptadecane	629-78-7	NIST05.L	85525	89	C17H36	240



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVMI11LANL

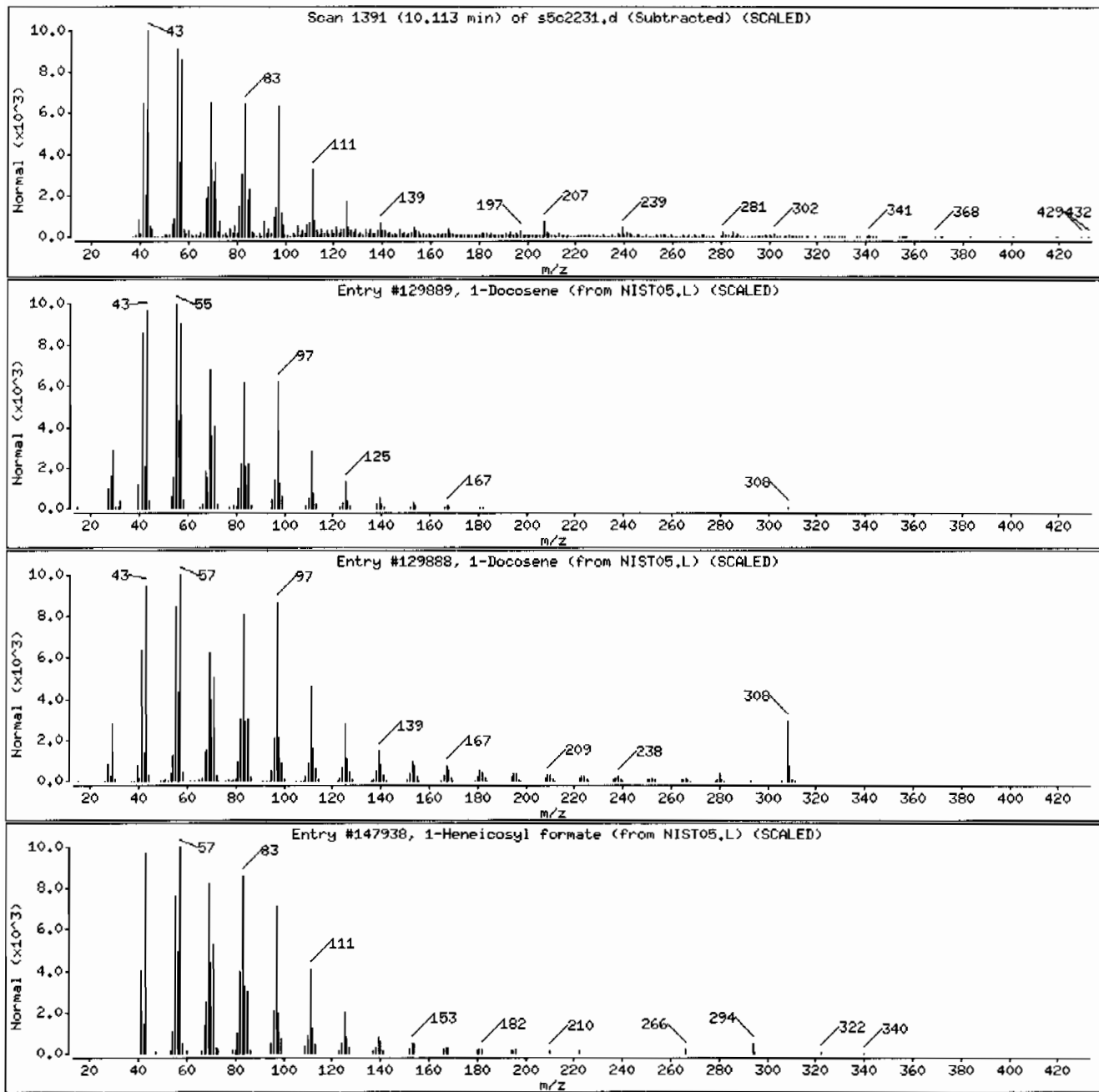
Volume Injected (uL): 0.5

Operator: RMB

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	129889	99	C22H44	308
1-Docosene	1599-67-3	NIST05.L	129888	99	C22H44	308
1-Heneicosyl formate	77899-03-7	NIST05.L	147938	98	C22H44O2	340





Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: 12485060201963086111SVH111LANL

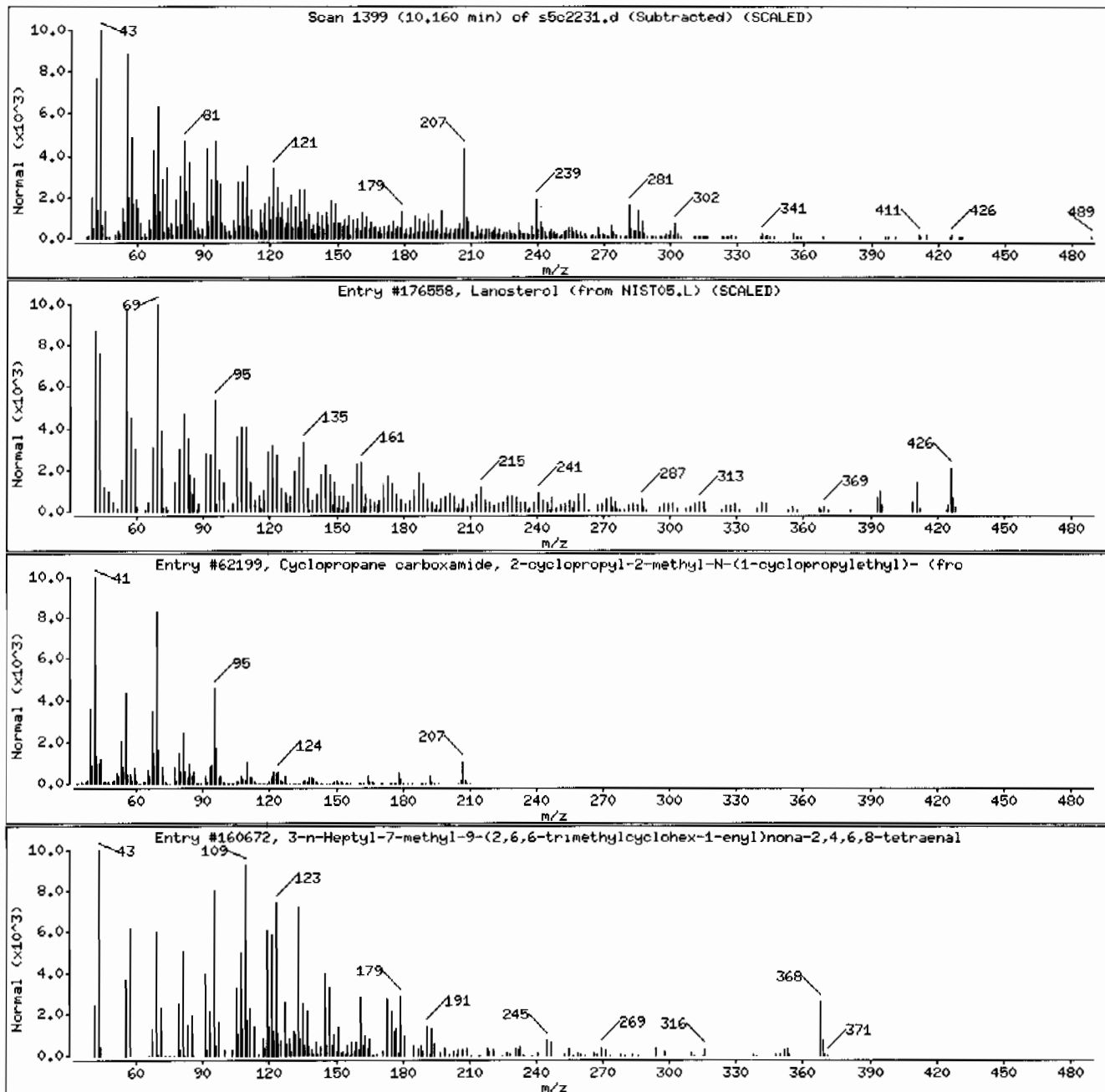
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Lanosterol	79-63-0	NIST05.L	176558	43	C30H50O	426
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	38	C13H21NO	207
3-n-Heptyl-7-methyl-9-(2,6,6-trimethyl)	1000216-09-3	NIST05.L	160672	35	C26H40O	368



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 1248506020196308611|SVMI1|LANL

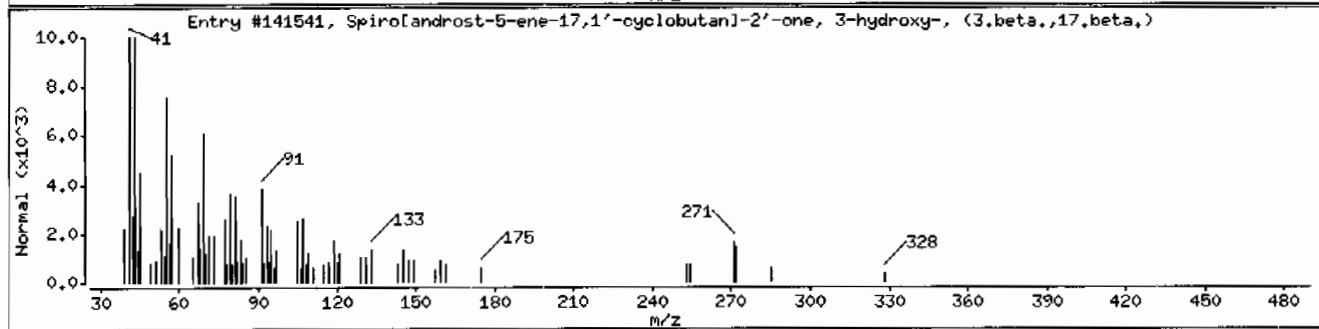
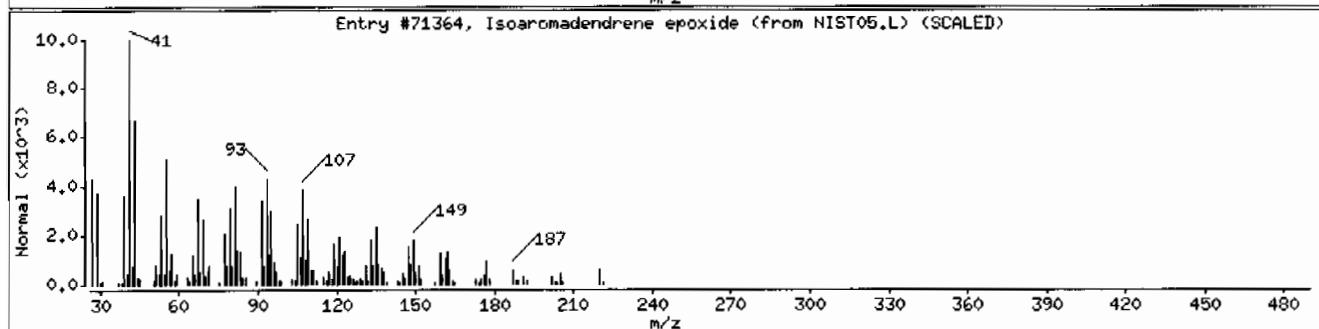
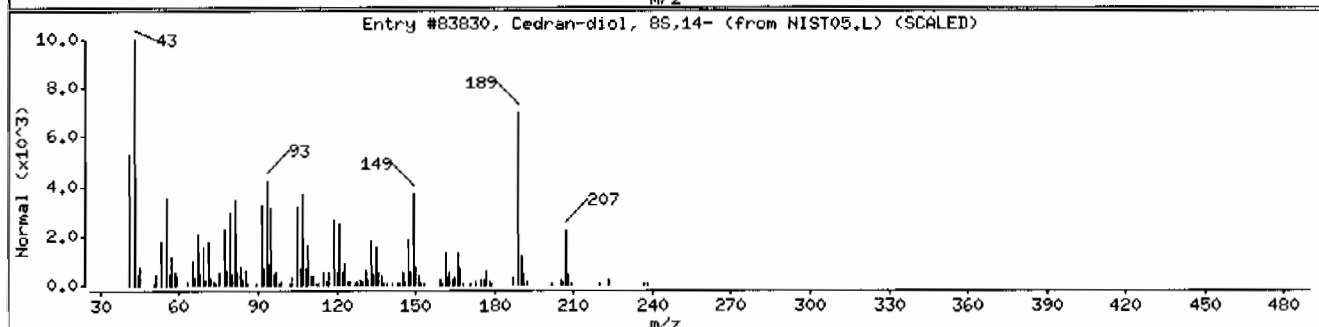
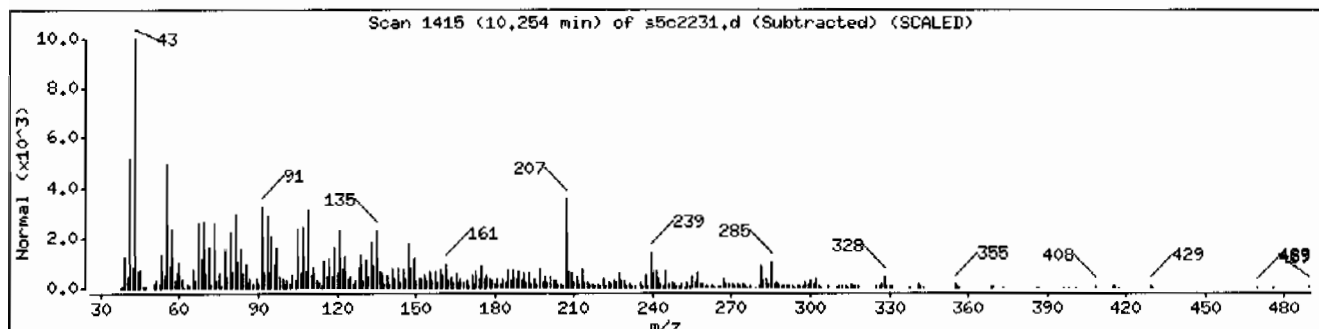
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	46	C15H26O2	238
Isoaromadendrene epoxide	1000159-36-6	NIST05.L	71364	42	C15H24O	220
Spiro[androst-5-ene-17,1'-cyclobutan]-2'	60534-16-9	NIST05.L	141541	38	C22H32O2	328



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: 1248506020196308611SVMI11LANL

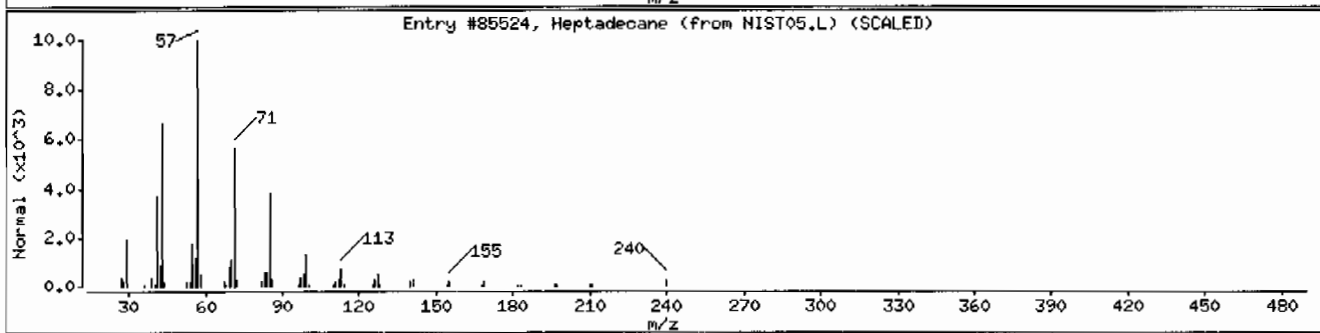
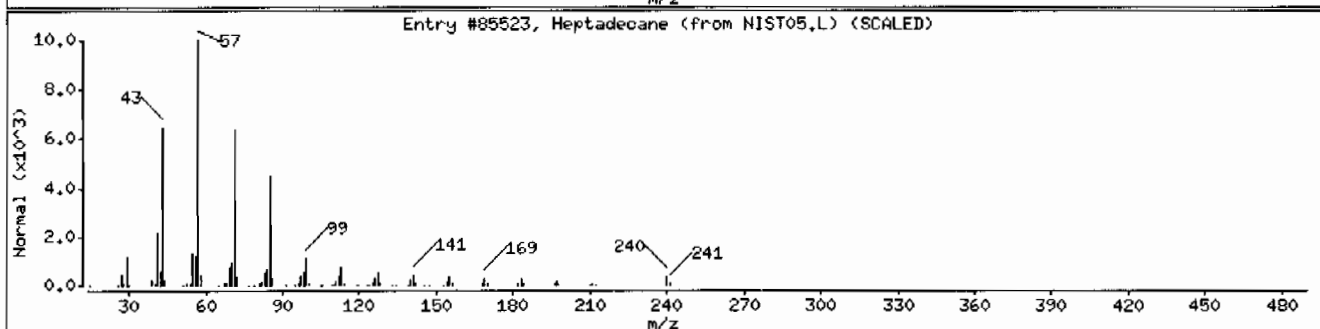
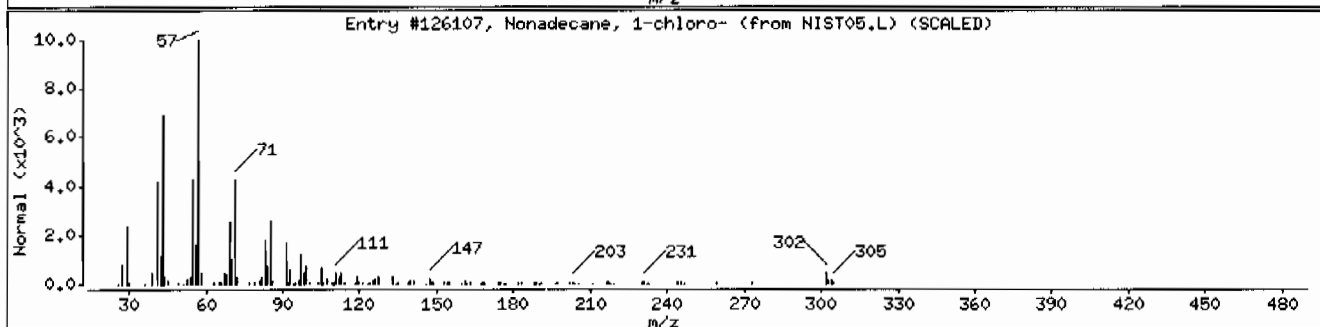
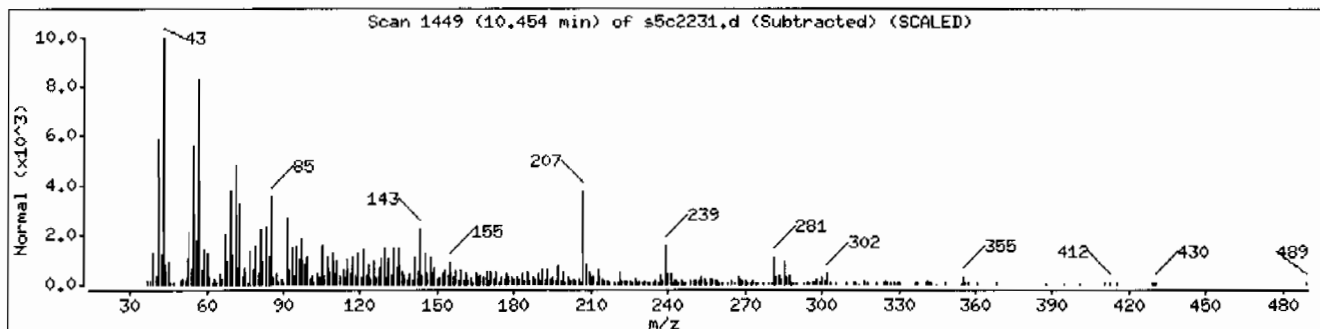
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Nonadecane, 1-chloro-	62016-76-6	NIST05.L	126107	93	C19H39Cl	302
Heptadecane	629-78-7	NIST05.L	85523	83	C17H36	240
Heptadecane	629-78-7	NIST05.L	85524	80	C17H36	240



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: I2485060201963086111SVH111LANL

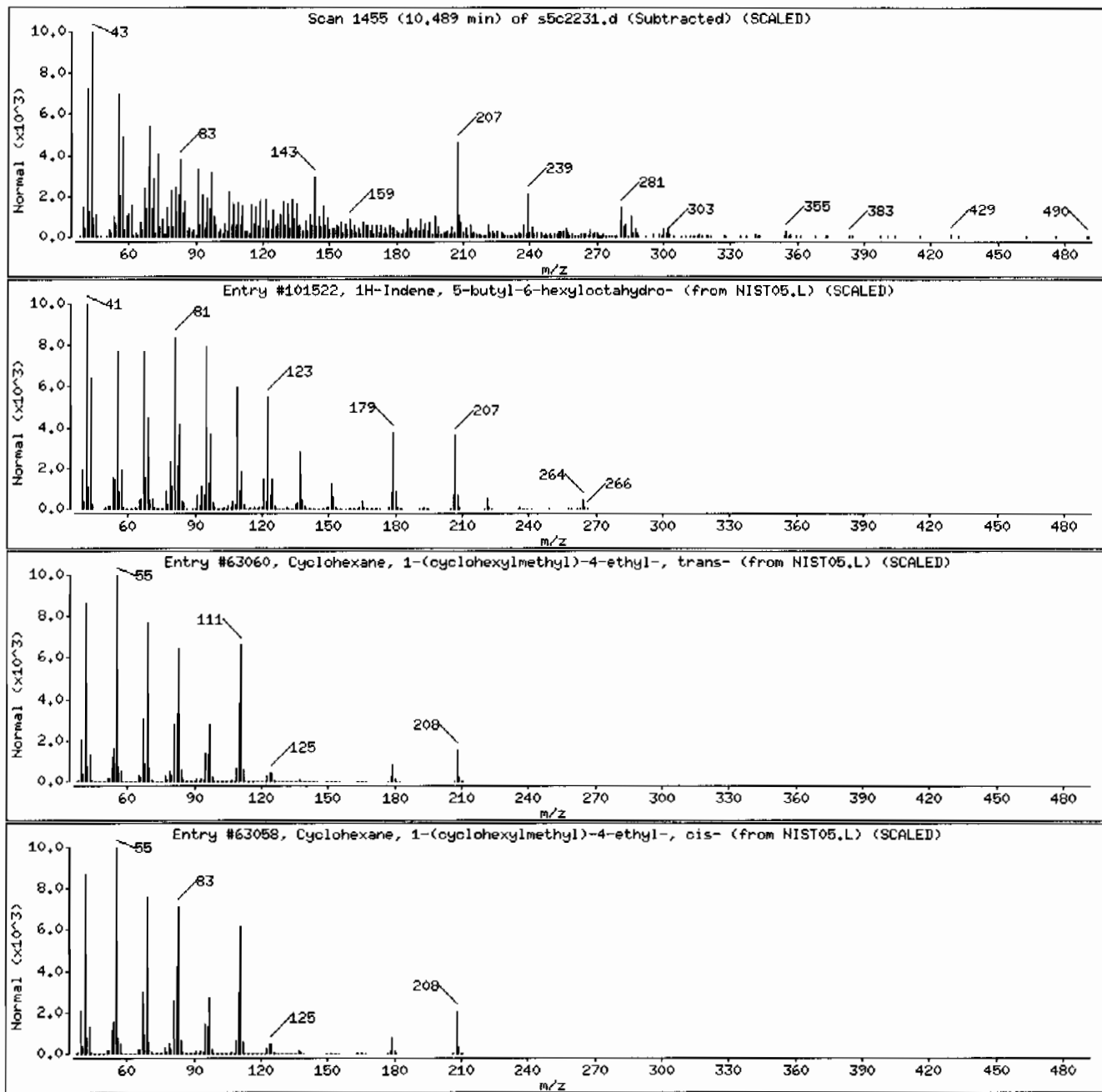
Volume Injected (uL): 0.5

Operator: RMB

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	32	C19H36	264
Cyclohexane, 1-(cyclohexylmethyl)-4-ethyl	54934-94-0	NIST05.L	63060	30	C15H28	208
Cyclohexane, 1-(cyclohexylmethyl)-4-ethyl	54934-95-1	NIST05.L	63058	25	C15H28	208



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 1248506020196308611ISVH11ILANL

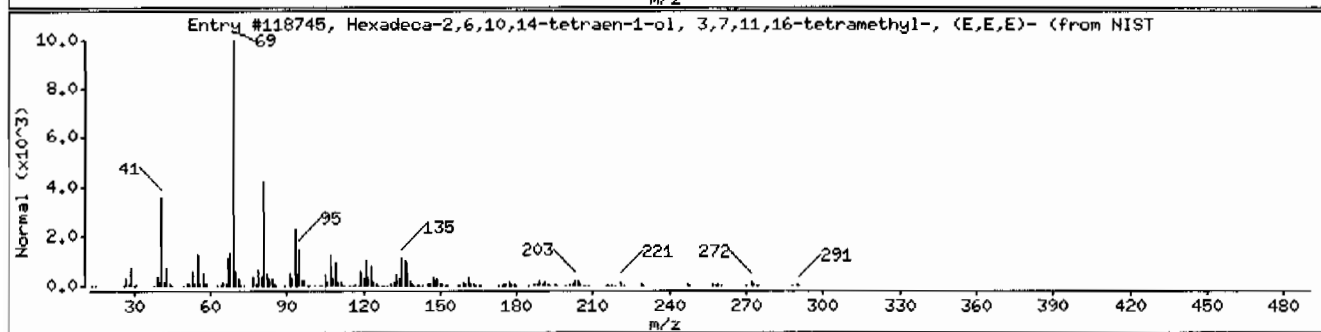
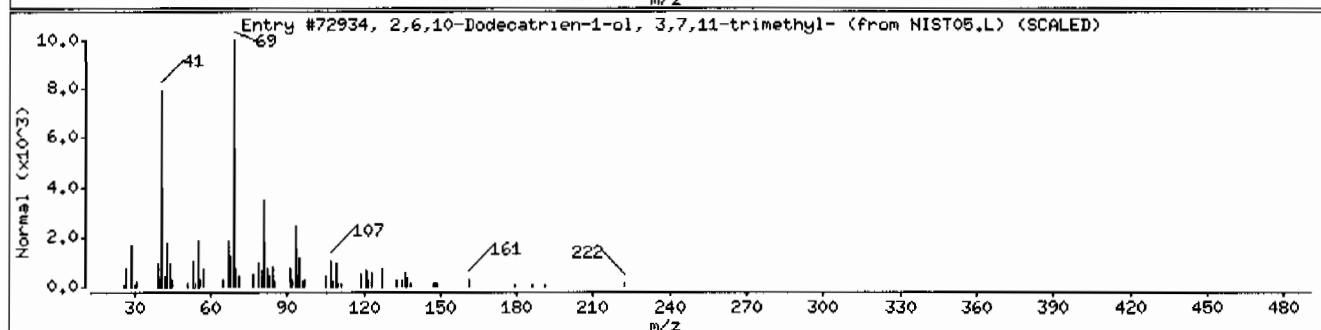
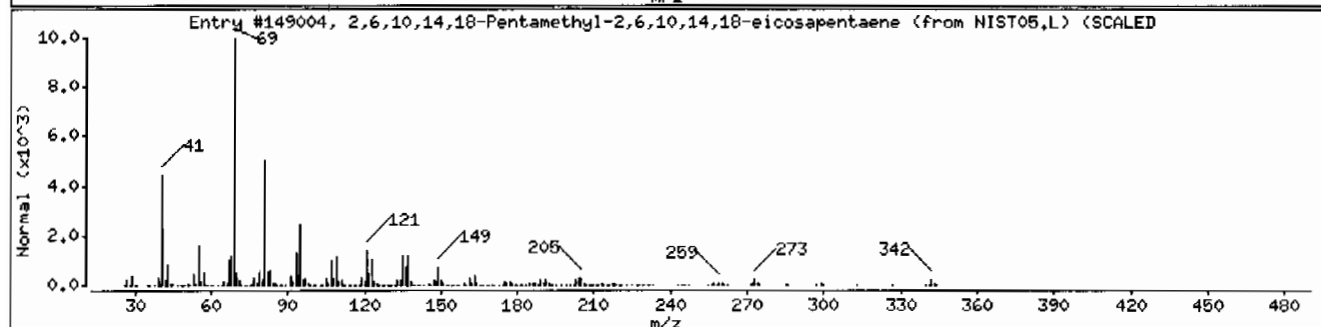
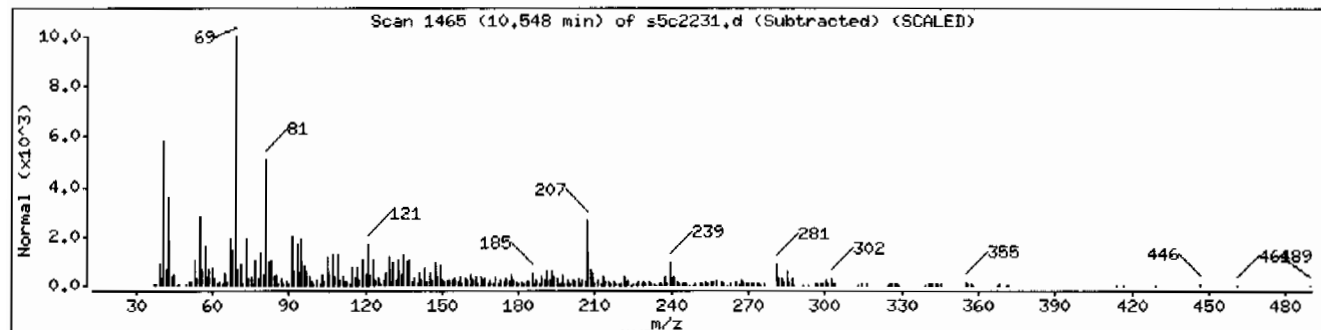
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,6,10,14,18-Pentamethyl-2,6,10,14,18-ei	75581-03-2	NIST05.L	149004	70	C25H42	342
2,6,10-Dodecatrien-1-ol, 3,7,11-trimethy	4602-84-0	NIST05.L	72934	64	C15H26O	222
Hexadeca-2,6,10,14-tetraen-1-ol, 3,7,11,	7614-21-3	NIST05.L	118745	49	C20H34O	290



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: 12485060201963086111SVH111LANL

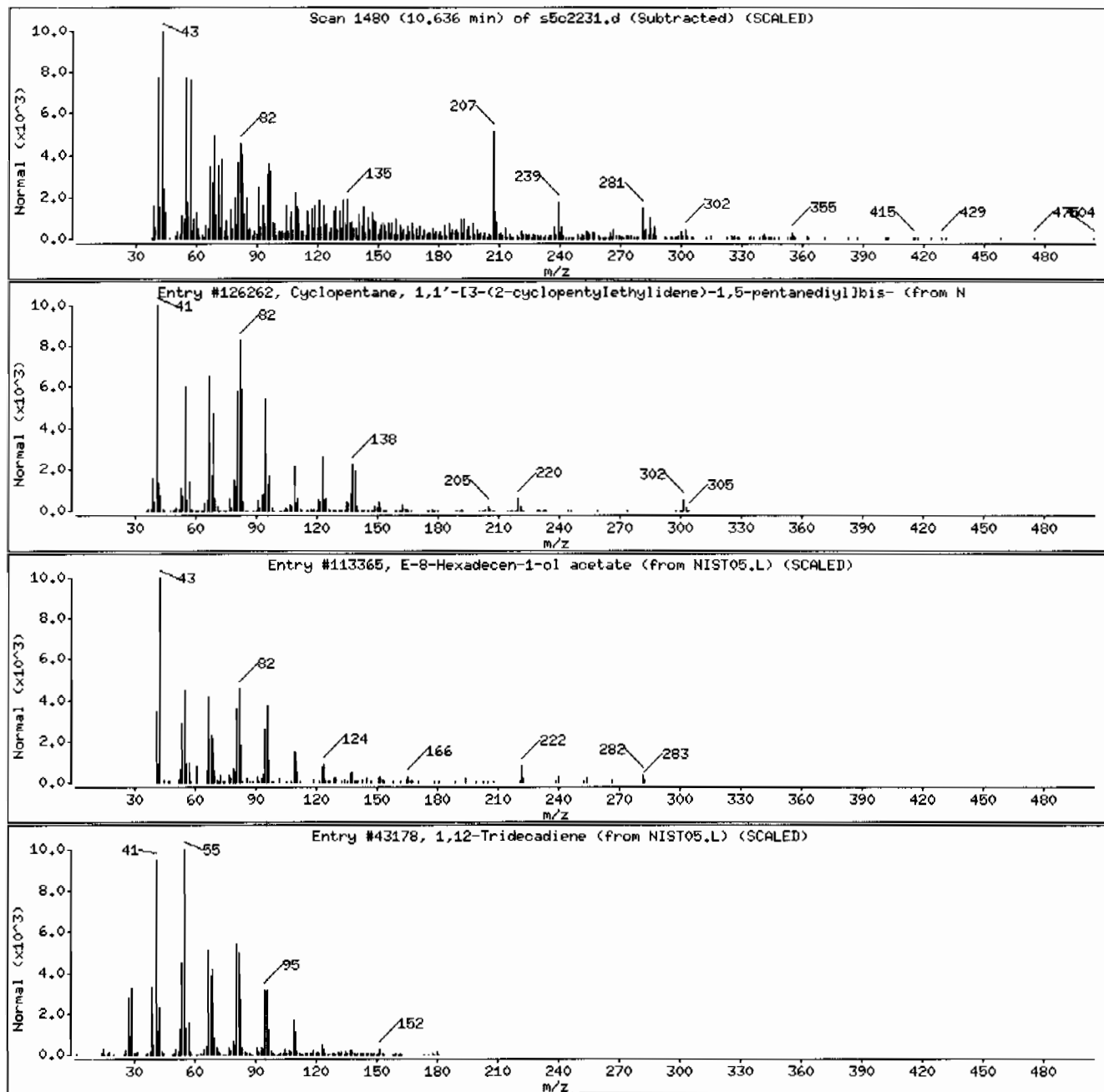
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclopentane, 1,1'-[3-(2-cyclopentylethyl	54934-71-3	NIST05.L	126262	64	C22H38	302
E-8-Hexadecen-1-ol acetate	1000131-01-1	NIST05.L	113365	59	C18H34O2	282
1,12-Tridecadiene	21964-48-7	NIST05.L	43178	55	C13H24	180



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 1248506020196308611ISVM11ILANL

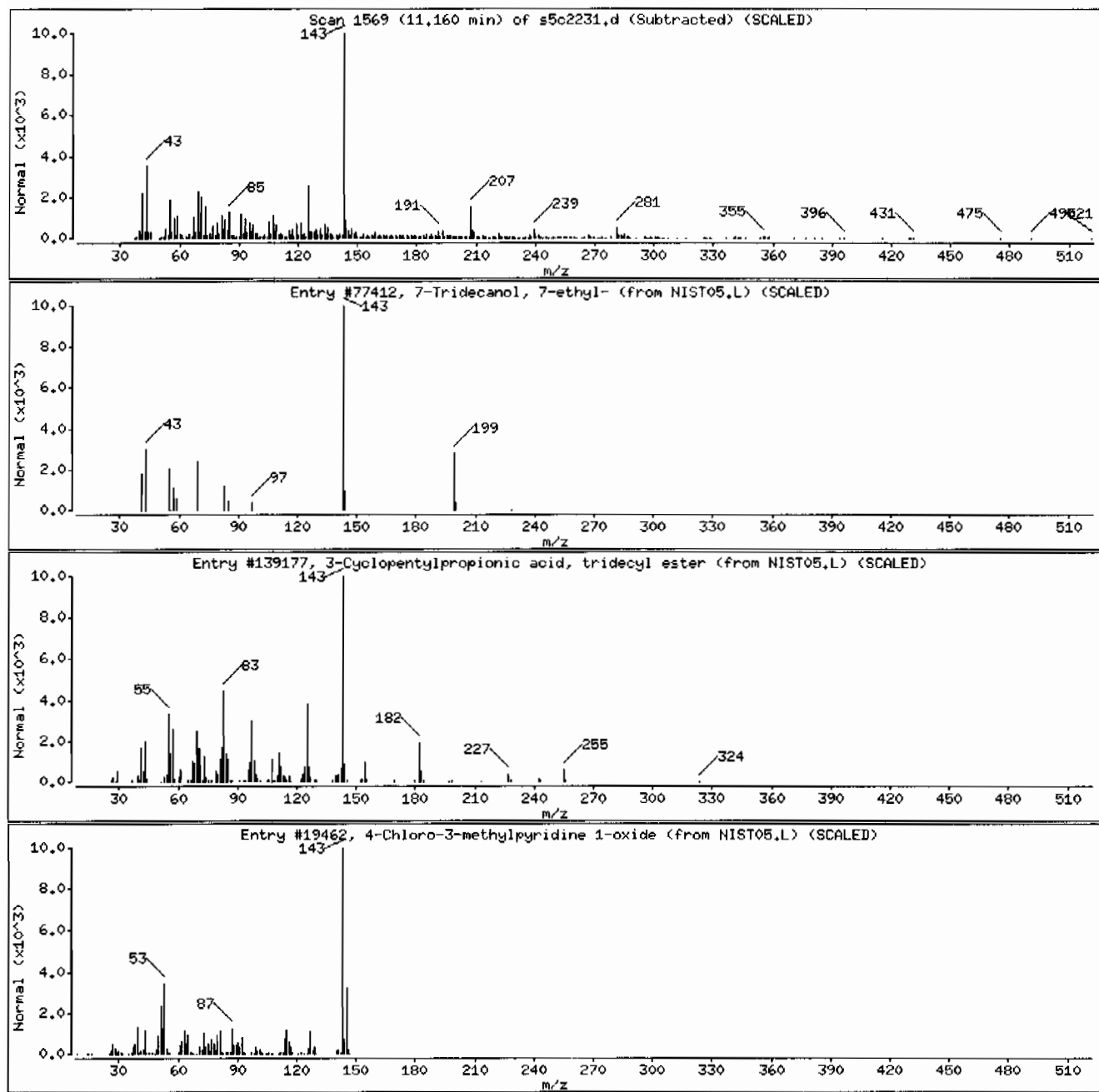
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
7-Tridecanol, 7-ethyl-	21905-45-3	NIST05.L	77412	43	C15H32O	228
3-Cyclopentylpropionic acid, tridecyl es	1000292-33-7	NIST05.L	139177	42	C21H40O2	324
4-Chloro-3-methylpyridine 1-oxide	1073-34-3	NIST05.L	19462	38	C6H6ClNO	143



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 1248506020196308611ISVH11ILANL

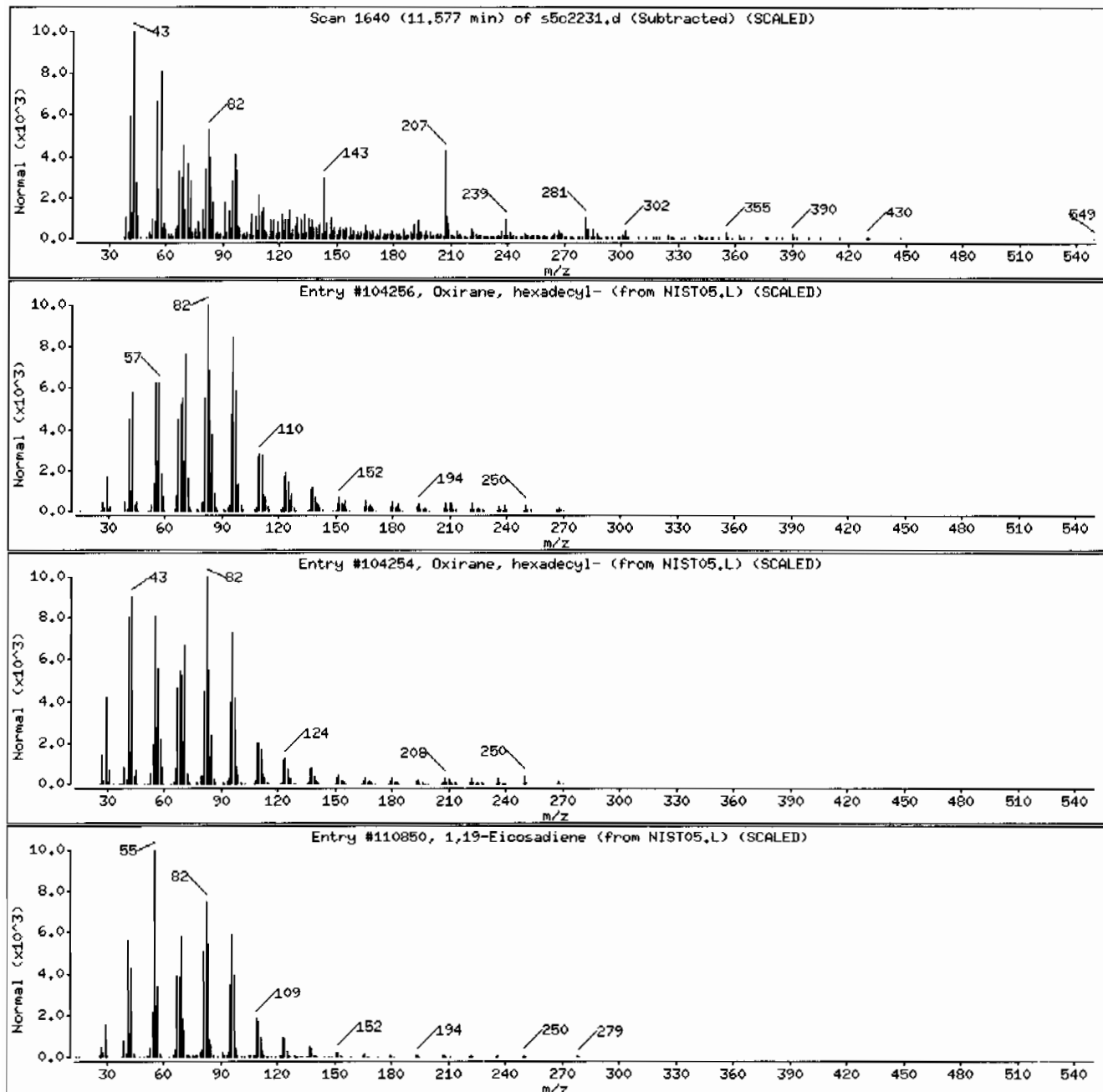
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Oxirane, hexadecyl-	7390-81-0	NIST05.L	104256	98	C18H36O	268
Oxirane, hexadecyl-	7390-81-0	NIST05.L	104254	93	C18H36O	268
1,19-Eicosadiene	14811-95-1	NIST05.L	110850	92	C20H38	278





Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: I2485060201963086111SVH111LANL

Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

## Library Search Compound Match

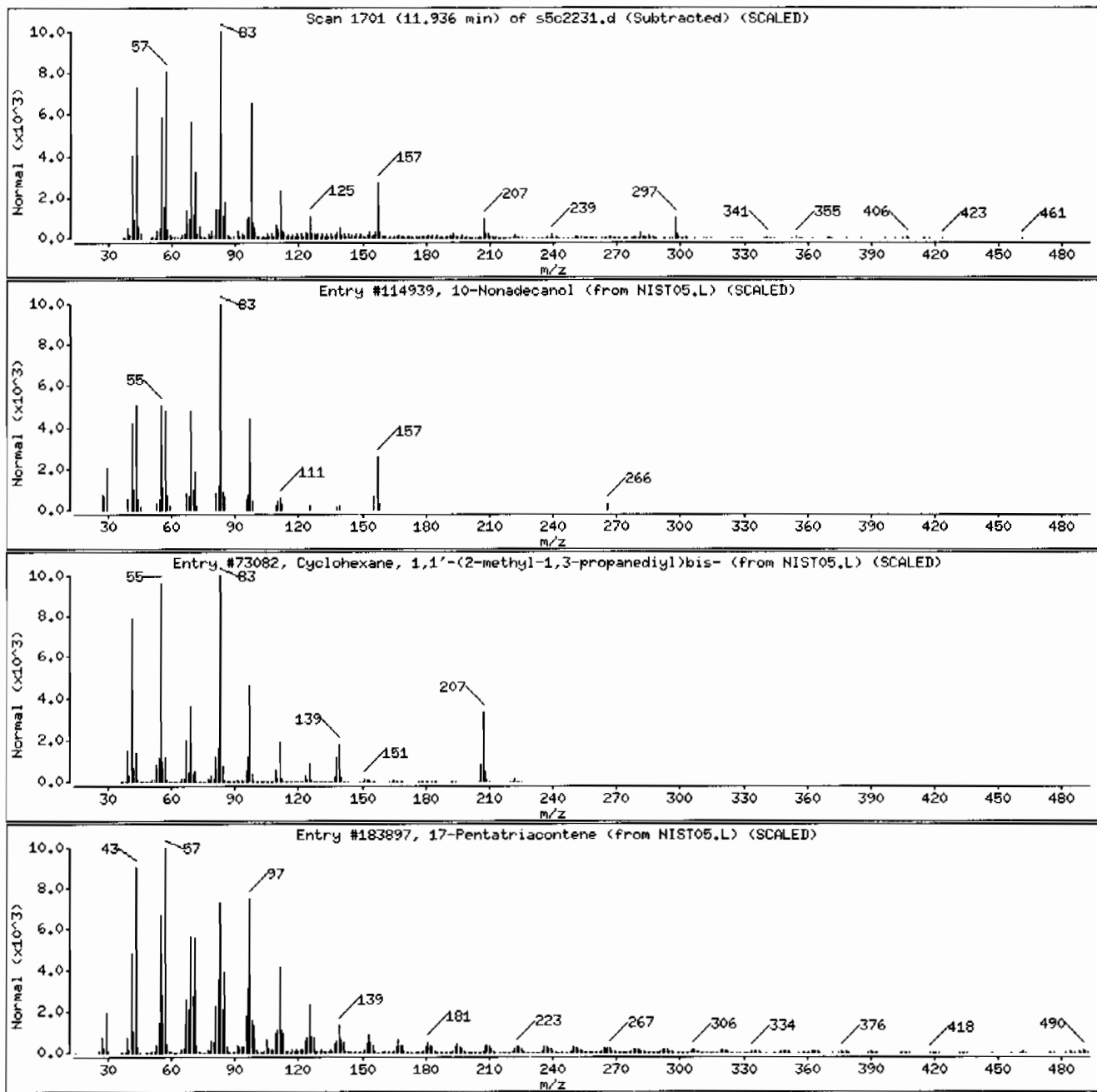
Unknown

10-Nonadecanol

CAS Number	Library	Entry	Quality	Formula	Weight
16840-84-9	NIST05.L	114939	68	C19H40O	284
2883-08-1	NIST05.L	73082	49	C16H30	222
6971-40-0	NIST05.L	183897	38	C35H70	491

Cyclohexane, 1,1'-(2-methyl-1,3-propanediol)bis-

17-Pentatriacontene



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVM111LANL

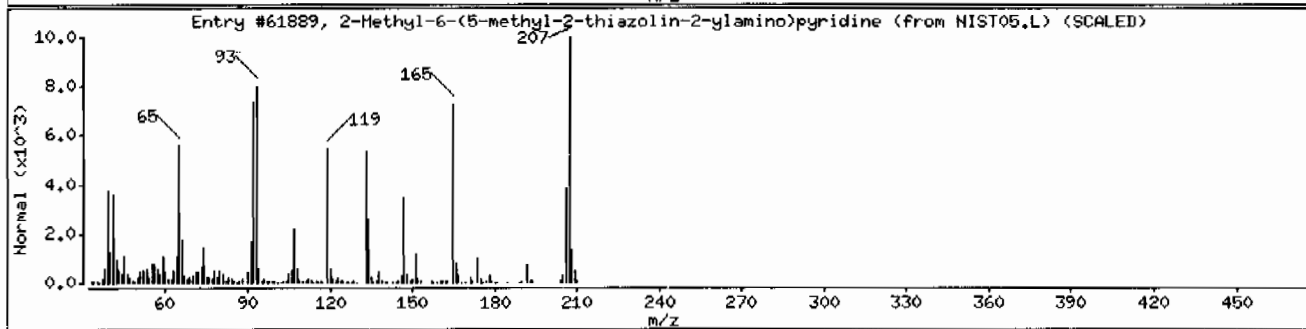
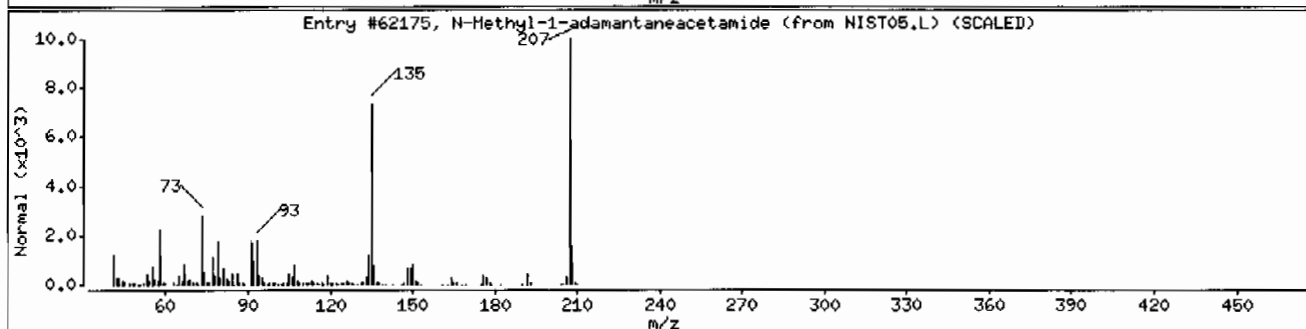
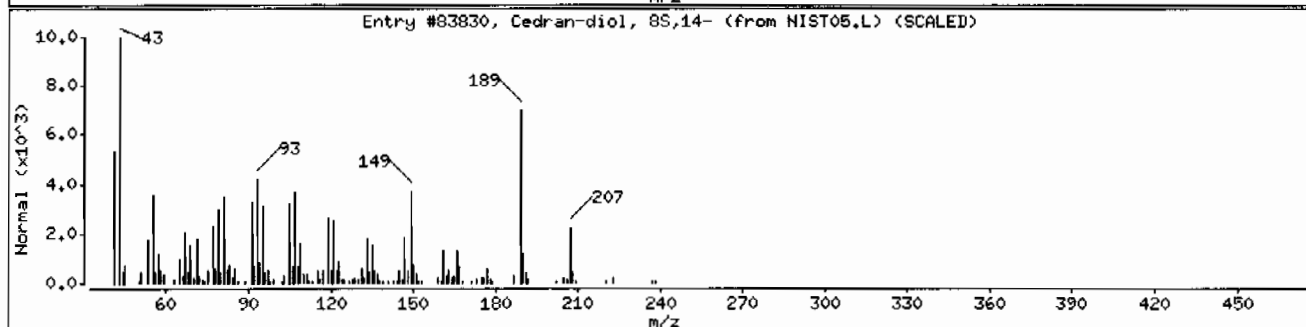
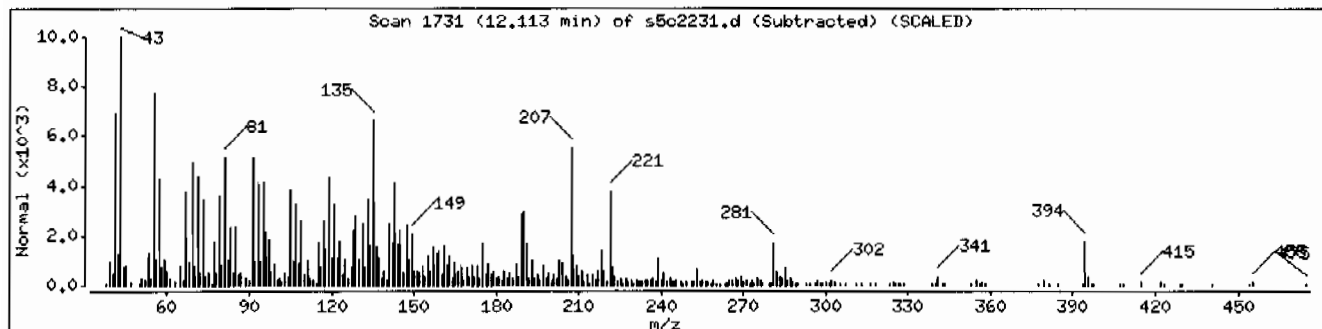
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	35	C15H26O2	238
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05.L	62175	22	C13H21NO	207
2-Methyl-6-(5-methyl-2-thiazolin-2-ylamino)pyridine	339352-50-0	NIST05.L	61889	15	C10H13N3S	207



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVH111LANL

Volume Injected (uL): 0.5

Operator: RHB

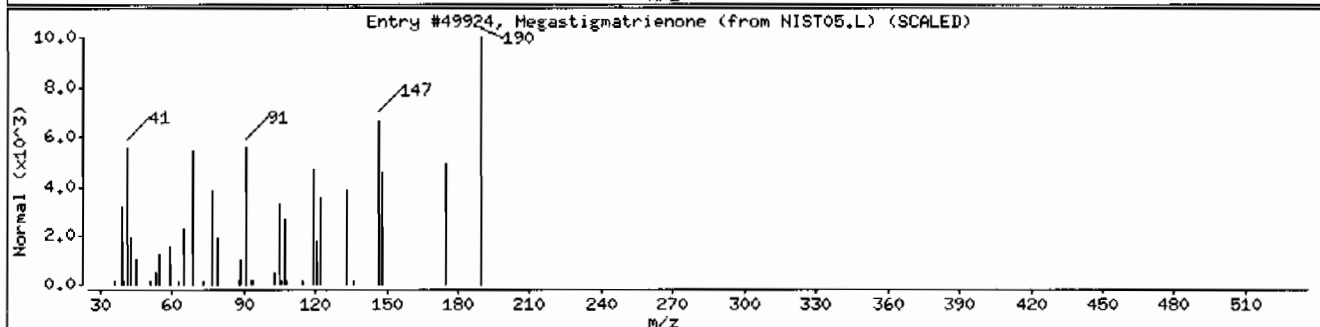
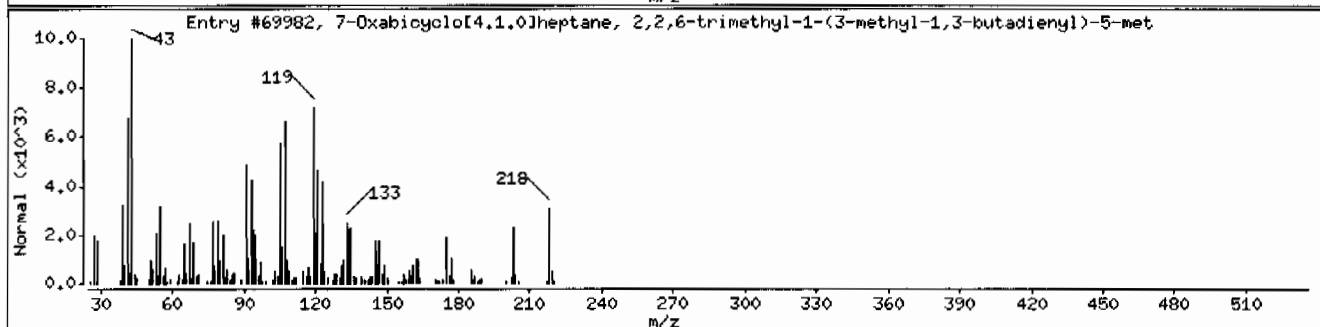
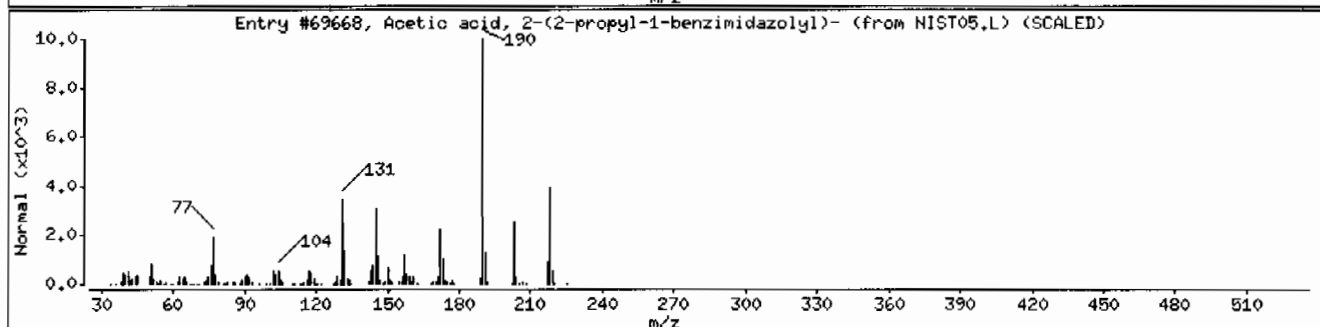
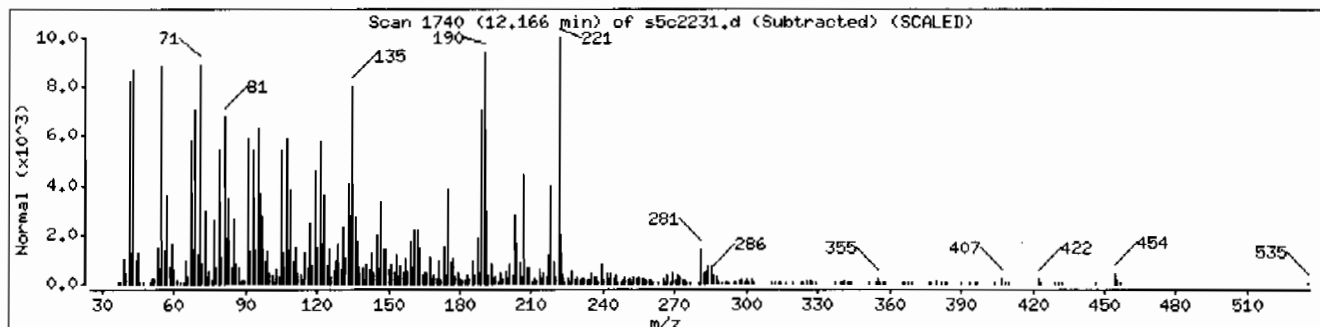
Column phase: J&amp;W DB-5MS

Column diameter: 0.20

## Library Search Compound Match

Unknown

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Acetic acid, 2-(2-propyl-1-benzimidazolyl)	331736-92-6	NIST05.L	69668	45	C <sub>12</sub> H <sub>14</sub> N <sub>2</sub> O <sub>2</sub>	218
7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	70038-20-9	NIST05.L	69982	40	C <sub>15</sub> H <sub>22</sub> O	218
Megastigmatrienone	38818-55-2	NIST05.L	49924	30	C <sub>13</sub> H <sub>18</sub> O	190



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 1248506020196308611ISVM11ILANL

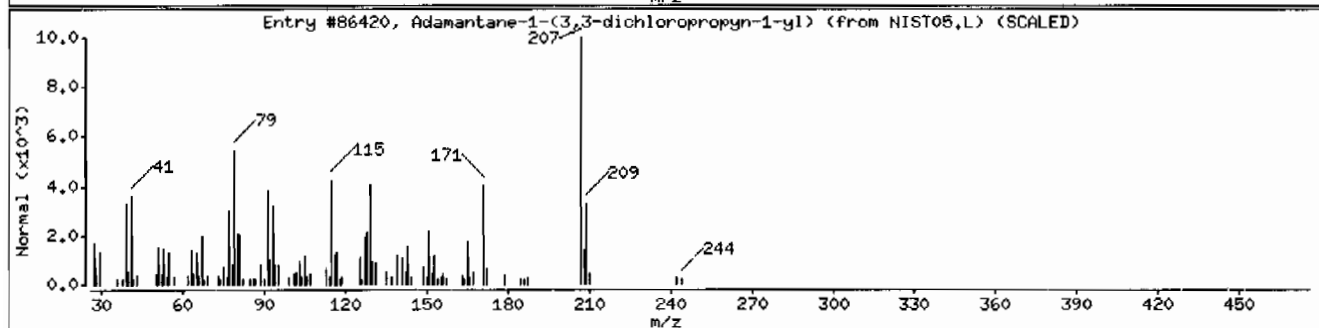
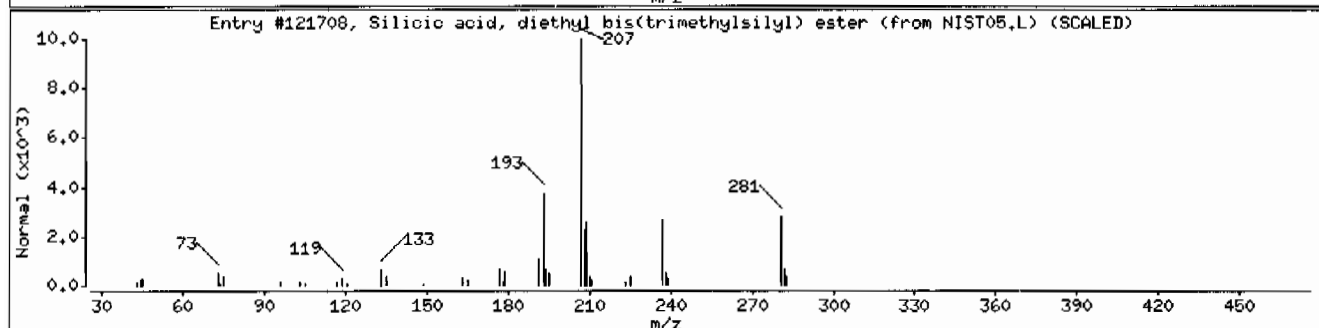
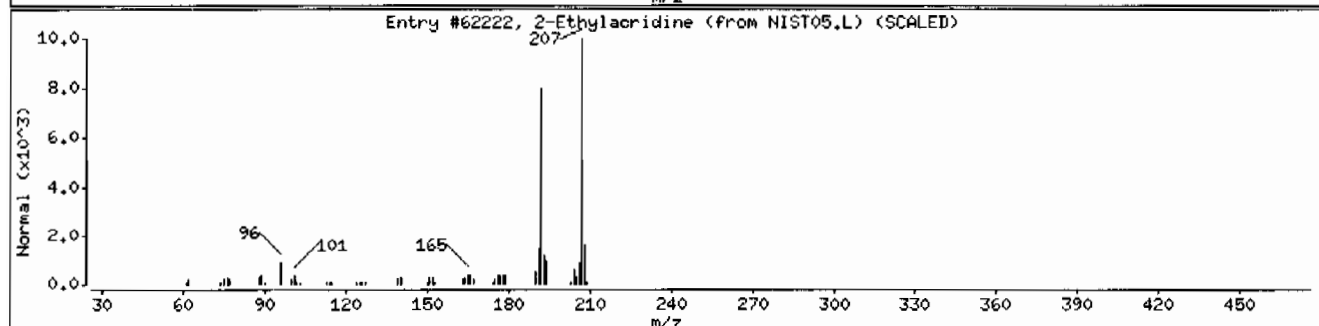
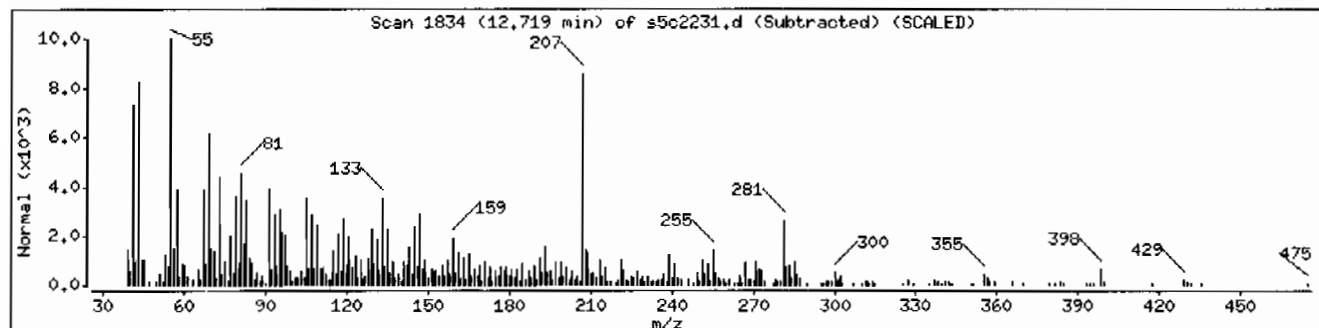
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Ethylacridine	55751-83-2	NIST05.L	62222	38	C15H13N	207
Silicic acid, diethyl bis(trimethylsilyl)	3555-45-1	NIST05.L	121708	35	C10H28O4Si3	296
Adamantane-1-(3,3-dichloropropyn-1-yl)	139185-48-1	NIST05.L	86420	35	C13H16Cl2	242



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 1248506020196308611SVMI11LANL

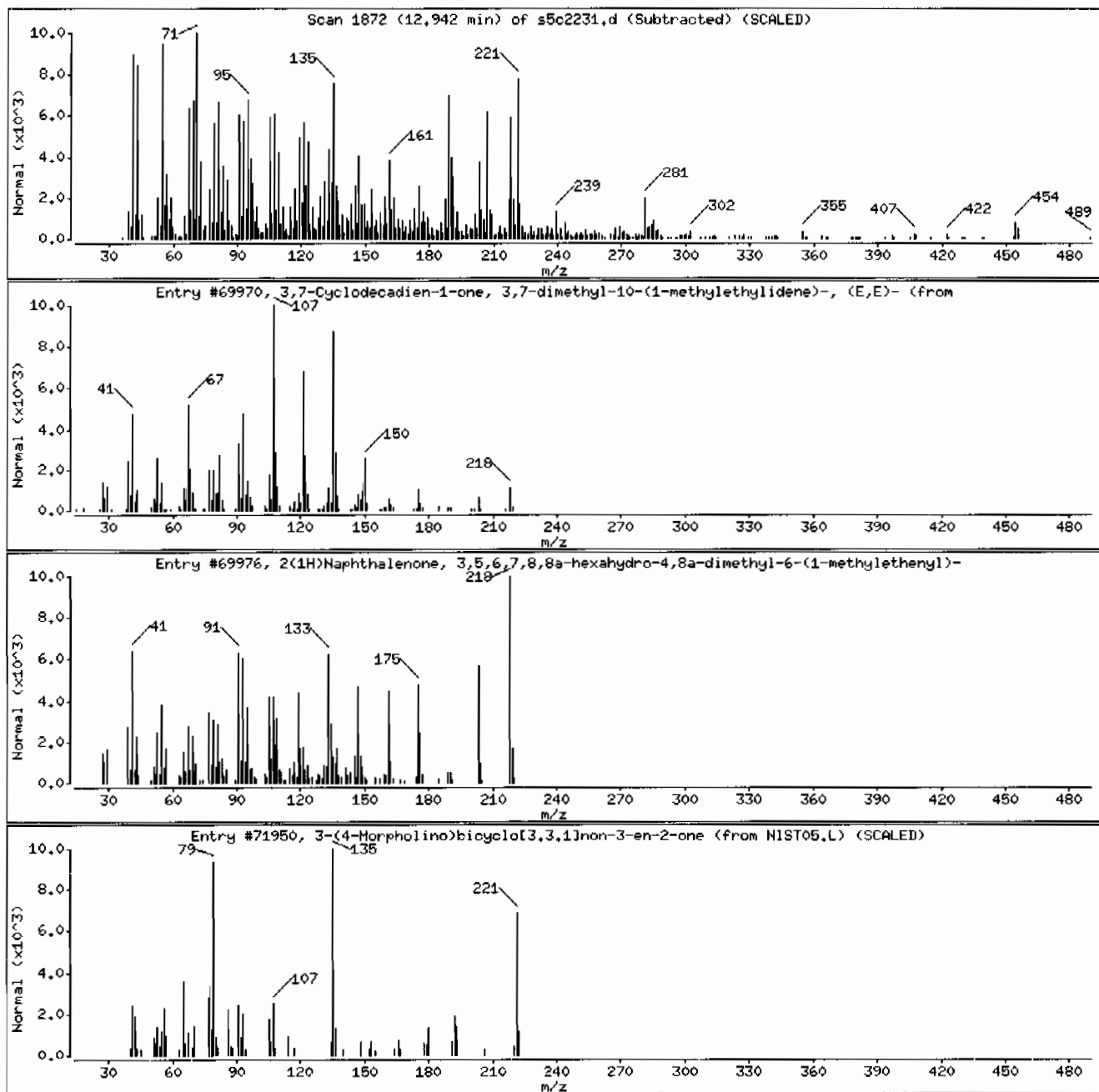
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3,7-Cyclodecadien-1-one, 3,7-dimethyl-10	6902-91-6	NIST05.L	69970	42	C15H22O	218
2(1H)Naphthalenone, 3,5,6,7,8,8a-hexahyd	1000188-66-5	NIST05.L	69976	38	C15H22O	218
3-(4-Morpholino)bicyclo[3.3.1]non-3-en-2	1000101-15-7	NIST05.L	71950	38	C13H19NO2	221



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.1

Sample Info: 1248506020196308611|SVMI1|LANL

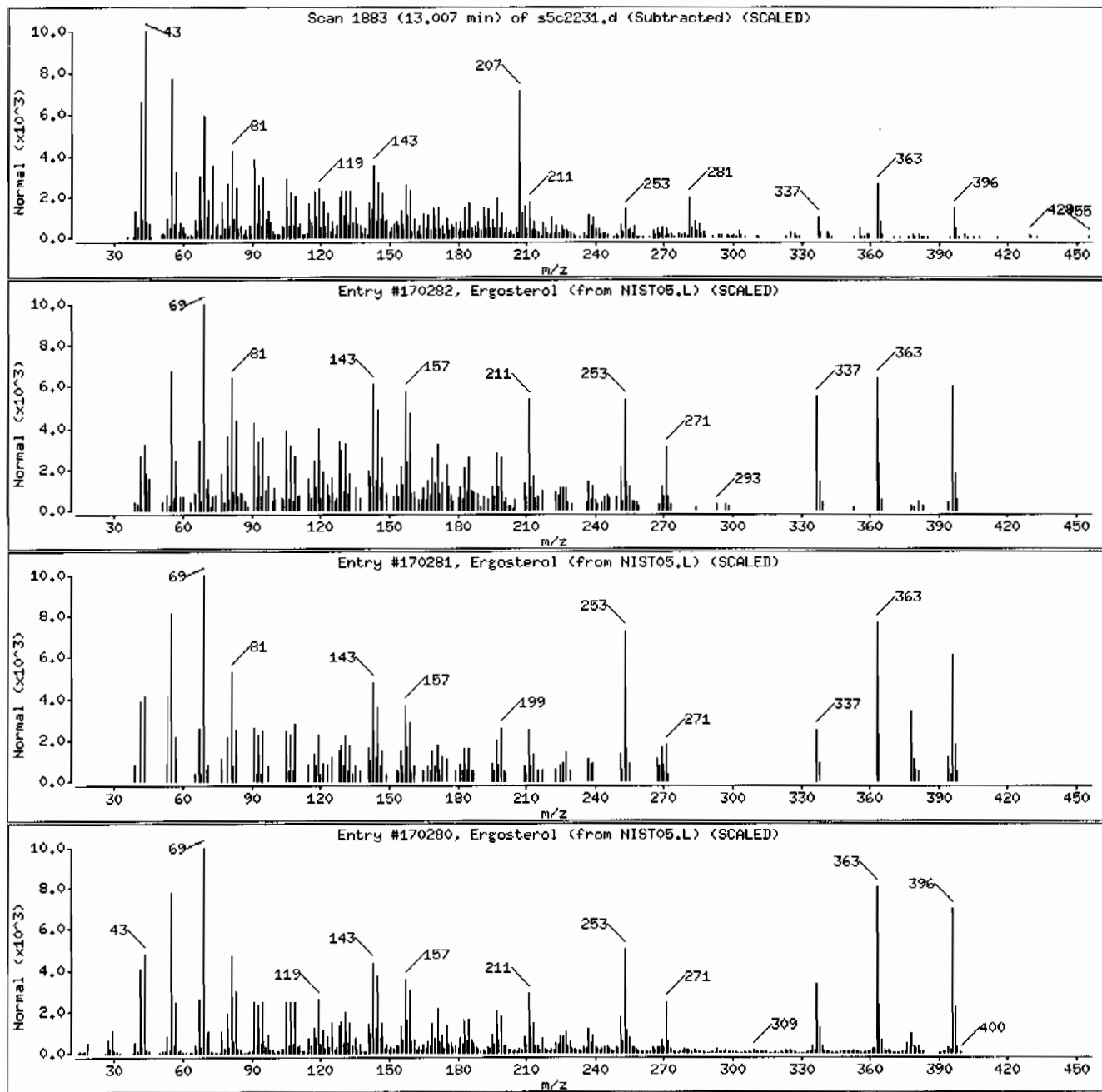
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ergosterol	57-87-4	NIST05.L	170282	62	C28H44O	386
Ergosterol	57-87-4	NIST05.L	170281	52	C28H44O	386
Ergosterol	57-87-4	NIST05.L	170280	38	C28H44O	386



Date : 22-MAR-2010 19:57

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVH11/LANL

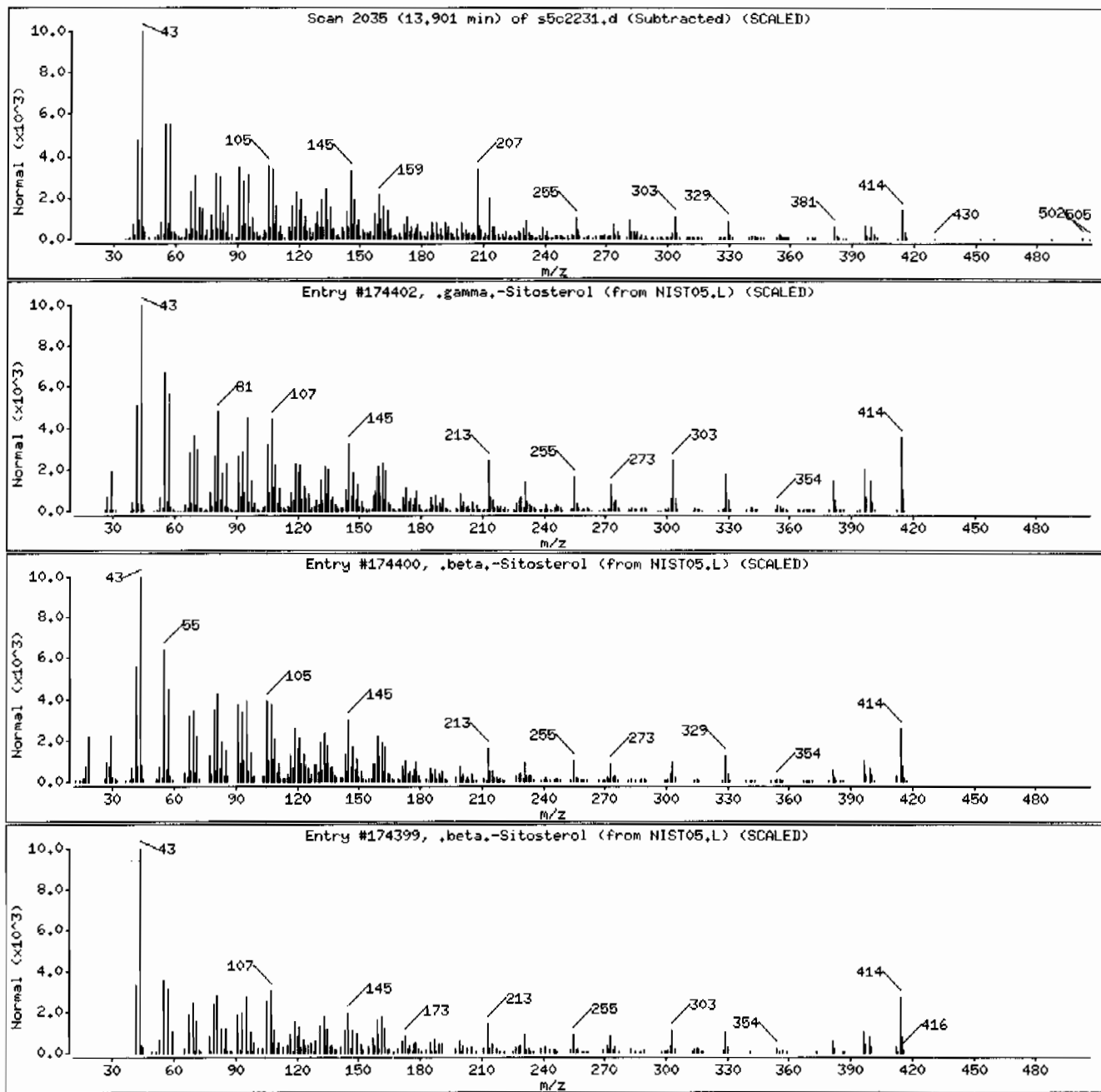
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	92	C29H50O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174400	90	C29H50O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174399	53	C29H50O	414



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

SDG Number: 10-2193  
Lab Sample ID: 248506014

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.1  
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	363	ug/kg	72.5	363
108-95-2	Phenol	U	363	ug/kg	72.5	363
95-57-8	2-Chlorophenol	U	363	ug/kg	72.5	363
106-46-7	1,4-Dichlorobenzene	U	363	ug/kg	72.5	363
621-64-7	N-Nitrosodipropylamine	U	363	ug/kg	72.5	363
59-50-7	4-Chloro-3-methylphenol	U	363	ug/kg	72.5	363
83-32-9	Acenaphthene	U	36.3	ug/kg	12.0	36.3
121-14-2	2,4-Dinitrotoluene	U	363	ug/kg	36.3	363
100-02-7	4-Nitrophenol	U	363	ug/kg	120	363
87-86-5	Pentachlorophenol	U	363	ug/kg	90.7	363
129-00-0	Pyrene	J	22.3	ug/kg	10.9	36.3
110-86-1	Pyridine	U	363	ug/kg	72.5	363
62-53-3	Aniline	U	363	ug/kg	109	363
111-44-4	bis(2-Chloroethyl) ether	U	363	ug/kg	72.5	363
541-73-1	1,3-Dichlorobenzene	U	363	ug/kg	72.5	363
100-51-6	Benzyl alcohol	U	363	ug/kg	109	363
95-50-1	1,2-Dichlorobenzene	U	363	ug/kg	72.5	363
108-60-1	bis(2-Chloroisopropyl)ether	U	363	ug/kg	72.5	363
95-48-7	o-Cresol	U	363	ug/kg	72.5	363
65794-96-9	m,p-Cresols	U	363	ug/kg	109	363
67-72-1	Hexachloroethane	U	363	ug/kg	72.5	363
98-95-3	Nitrobenzene	U	363	ug/kg	72.5	363
78-59-1	Isophorone	U	363	ug/kg	72.5	363
88-75-5	2-Nitrophenol	U	363	ug/kg	72.5	363
105-67-9	2,4-Dimethylphenol	U	363	ug/kg	127	363
111-91-1	bis(2-Chloroethoxy)methane	U	363	ug/kg	72.5	363
120-83-2	2,4-Dichlorophenol	U	363	ug/kg	72.5	363
65-85-0	Benzoic acid	U	725	ug/kg	181	725
91-20-3	Naphthalene	U	36.3	ug/kg	10.9	36.3
106-47-8	4-Chloroaniline	U	363	ug/kg	72.5	363
87-68-3	Hexachlorobutadiene	U	363	ug/kg	72.5	363
91-57-6	2-Methylnaphthalene	U	36.3	ug/kg	7.25	36.3
77-47-4	Hexachlorocyclopentadiene	U	363	ug/kg	72.5	363
88-06-2	2,4,6-Trichlorophenol	U	363	ug/kg	72.5	363
95-95-4	2,4,5-Trichlorophenol	U	363	ug/kg	72.5	363
91-58-7	2-Chloronaphthalene	U	36.3	ug/kg	12.0	36.3
88-74-4	2-Nitroaniline	U	363	ug/kg	72.5	363
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	363	ug/kg	72.5	363



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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506014	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 8.1
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7440	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 17:39	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.01 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2225.d	<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	363	ug/kg	72.5	363
606-20-2	2,6-Dinitrotoluene	U	363	ug/kg	36.3	363
208-96-8	Acenaphthylene	U	36.3	ug/kg	10.9	36.3
51-28-5	2,4-Dinitrophenol	U	725	ug/kg	138	725
132-64-9	Dibenzofuran	U	363	ug/kg	72.5	363
84-66-2	Diethylphthalate	U	363	ug/kg	72.5	363
86-73-7	Fluorene	U	36.3	ug/kg	10.9	36.3
7005-72-3	4-Chlorophenylphenylether	U	363	ug/kg	72.5	363
534-52-1	2-Methyl-4,6-dinitrophenol	U	363	ug/kg	72.5	363
100-01-6	4-Nitroaniline	U	363	ug/kg	109	363
	<i>p-Nitroaniline</i>					
122-39-4	Diphenylamine	U	363	ug/kg	72.5	363
122-66-7	Azobenzene	U	363	ug/kg	72.5	363
	<i>1,2-Diphenylhydrazine</i>					
101-55-3	4-Bromophenylphenylether	U	363	ug/kg	72.5	363
118-74-1	Hexachlorobenzene	U	363	ug/kg	72.5	363
85-01-8	Phenanthrene	J	15.4	ug/kg	10.9	36.3
120-12-7	Anthracene	U	36.3	ug/kg	7.25	36.3
84-74-2	Di-n-butylphthalate	U	363	ug/kg	72.5	363
206-44-0	Fluoranthene	J	27.0	ug/kg	10.9	36.3
85-68-7	Butylbenzylphthalate	U	363	ug/kg	72.5	363
56-55-3	Benzo(a)anthracene	U	36.3	ug/kg	10.9	36.3
91-94-1	3,3'-Dichlorobenzidine	U	363	ug/kg	109	363
218-01-9	Chrysene	U	36.3	ug/kg	10.9	36.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	363	ug/kg	72.5	363
117-84-0	Di-n-octylphthalate	U	363	ug/kg	72.5	363
205-99-2	Benzo(b)fluoranthene	U	36.3	ug/kg	10.9	36.3
207-08-9	Benzo(k)fluoranthene	U	36.3	ug/kg	10.9	36.3
50-32-8	Benzo(a)pyrene	U	36.3	ug/kg	10.9	36.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.3	ug/kg	10.9	36.3
53-70-3	Dibenzo(a,h)anthracene	U	36.3	ug/kg	10.9	36.3
191-24-2	Benzo(ghi)perylene	U	36.3	ug/kg	10.9	36.3
120-82-1	1,2,4-Trichlorobenzene	U	363	ug/kg	72.5	363

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.07	556	ug/kg		J
7785-70-8	1R-.alpha.-Pinene	3.52	1020	ug/kg	97	NJ

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

SDG Number: 10-2193  
Lab Sample ID: 248506014

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 8.1  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7440  
Batch ID: 963086  
Run Date: 03/22/2010 17:39  
Prep Date: 03/10/2010 12:33  
Data File: s5c2225.d

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

Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
13466-78-9	3-Carene	3.91	877	ug/kg	94	NJ
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.8	1790	ug/kg	99	NJ
1058-61-3	Stigmast-4-en-3-one	8.47	526	ug/kg	93	NJ
	Unknown	8.48	191	ug/kg		J
	Unknown	8.84	152	ug/kg		J
	Unknown	9.02	152	ug/kg		J
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.1	454	ug/kg	95	NJ
	Unknown	9.14	304	ug/kg		J
	Unknown	9.28	165	ug/kg		J
1599-67-3	1-Docosene	9.45	316	ug/kg	99	NJ
	Unknown	9.51	241	ug/kg		J
62600-05-9	Cedran-diol, 8S,14-	9.75	249	ug/kg	93	NJ
	Unknown	9.96	661	ug/kg		J
	Unknown	10.08	260	ug/kg		J
629-96-9	1-Eicosanol	10.11	329	ug/kg	93	NJ
559-74-0	Friedelan-3-one	10.24	3930	ug/kg	96	NJ
112-95-8	Eicosane	10.85	260	ug/kg	95	NJ
	Unknown	11.64	168	ug/kg		J
	Unknown	11.81	162	ug/kg		J
62016-76-6	Nonadecane, 1-chloro-	11.85	211	ug/kg	95	NJ
	Unknown	11.92	352	ug/kg		J
	Unknown	12.1	200	ug/kg		J
	Unknown	12.15	373	ug/kg		J
	Unknown	12.49	902	ug/kg		J
	Unknown	12.92	241	ug/kg		J
	Unknown	12.99	457	ug/kg		J
	Unknown	13.34	245	ug/kg		J
83-46-5	.beta.-Sitosterol	13.88	638	ug/kg	97	NJ

Data File: /chem/MSD5.i/s032210.b/s5c2225.d  
Report Date: 23-Mar-2010 07:53

Page 1

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2225.d  
Lab Smp Id: 248506014 Client Smp ID: RE36-10-7440  
Inj Date : 22-MAR-2010 17:39  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506014|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 25  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	8.13370	% 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	3.948	3.950	(1.000)	240807	40.0000	
* 29 Naphthalene-d8	136	4.813	4.821	(1.000)	994428	40.0000	
* 46 Acenaphthene-d10	164	6.072	6.078	(1.000)	573003	40.0000	
* 67 Phenanthrene-d10	188	7.254	7.253	(1.000)	1019580	40.0000	
* 91 Chrysene-d12	240	9.672	9.670	(1.000)	878894	40.0000	
* 98 Perylene-d12	264	11.383	11.370	(1.000)	615320	40.0000	
\$ 3 2-Fluorophenol	112	3.148	3.141	(0.797)	372806	61.9991	2250
\$ 5 Phenol-d5	99	3.666	3.666	(0.928)	494880	68.4750	2480
\$ 20 Nitrobenzene-d5	82	4.307	4.316	(0.895)	263907	35.7149	1300
\$ 39 2-Fluorobiphenyl	172	5.560	5.558	(0.916)	490673	34.2848	1240
\$ 60 2,4,6-Tribromophenol	329	6.678	6.675	(1.100)	158454	73.6249	2670
\$ 81 p-Terphenyl-d14	244	8.636	8.630	(0.893)	588591	40.2601	1460

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng/ul)	(ug/Kg)
=====	=====	==	..	-----	=====	=====	=====
79 Pyrene	202	8.530	8.534	(0.882)	14937	0.61506	22.3(a)
68 Phenanthrene	178	7.272	7.272	(1.002)	9188	0.42569	15.4(a)
76 Fluoranthene	202	8.319	8.317	(1.147)	16746	0.74377	27.0(a)

# QC Flag Legend

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

## ION RATIO REPORT

## SV REPORT

Data file: s5c2225.d

Report Date: 03/23/2010 07:05

Lab. ID: 248506014

SampleType: SAMPLE

Injection Date: 22-MAR-2010 17:39

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506014|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline		CAS#: 62-53-3			
66	31465	3.67	3.74	80-120	100	(T)
93	3923	3.62	3.74	219-279	12	(QT)
-----						
6	Phenol		CAS#: 108-95-2			
94	23564	3.52	3.68	80-120	100	(T)
66	6495	3.52	3.67	23- 83	28	(T)
65	22662	3.52	3.68	0- 30	96	(QT)
-----						
7	bis(2-Chloroethyl) ether		CAS#: 111-44-4			
63	11188	3.95	3.75	80-120	100	(T)
93	14078	3.97	3.75	119-179	126	(T)
95	1126	3.97	3.75	8- 68	10	(T)
-----						
15	o-Cresol		CAS#: 95-48-7			
107	15402	3.91	4.07	80-120	100	(T)
108	3749	3.91	4.07	86-146	24	(QT)
77	76837	3.91	4.07	26- 86	499	(QT)
-----						
17	N-Nitrosodipropylamine		CAS#: 621-64-7			
70	36229	4.31	4.19	80-120	100	(T)
42	22951	4.31	4.19	44-104	63	(T)
-----						
22	Isophorone		CAS#: 78-59-1			
82	263843	4.31	4.48	80-120	100	(T)
138	104	4.48	4.48	0- 49	0	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
27 Benzoic acid			CAS#: 65-85-0			
105	7576	4.56	4.59	80-120	100	( )
122	5480	4.56	4.59	45-105	72	( )
77	6650	4.59	4.59	48-108	88	( )
-----						
40 2-Chloronaphthalene			CAS#: 91-58-7			
162	28186	5.80	5.67	80-120	100	(T)
164	1802	5.80	5.67	3- 63	6	(T)
127	3464	5.80	5.67	11- 71	12	(T)
-----						
42 o-Nitroaniline			CAS#: 88-74-4			
65	48609	5.80	5.73	80-120	100	(T)
92	54807	5.80	5.73	34- 94	113	(QT)
138	3429	5.80	5.73	74-134	7	(QT)
-----						
43 Dimethylphthalate			CAS#: 131-11-3			
163	104285	6.08	5.84	80-120	100	(T)
164	573003	6.07	5.84	0- 40	549	(QT)
-----						
44 2,6-Dinitrotoluene			CAS#: 606-20-2			
165	76149	6.07	5.90	80-120	100	(T)
63	1139	6.08	5.89	62-122	1	(QT)
-----						
48 2,4-Dinitrophenol			CAS#: 51-28-5			
184	136	6.21	6.10	80-120	100	(T)
154	588	6.17	6.10	1062-1122	431	(QT)
-----						
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	75809	6.07	6.19	80-120	100	(T)
89	2069	6.07	6.19	51-111	3	(QT)
63	1047	6.08	6.19	24- 84	1	(QT)
-----						
52 4-Nitrophenol			CAS#: 100-02-7			
139	1289	6.17	6.12	80-120	100	( )
109	1062	6.22	6.12	63-123	82	(T)
65	1833	6.16	6.11	71-131	142	(Q)
-----						
53 Fluorene			CAS#: 86-73-7			
166	6593	6.68	6.49	80-120	100	(T)
165	7553	6.68	6.49	62-122	115	(T)
167	2188	6.68	6.49	0- 44	33	(T)
-----						
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	191	6.43	6.51	80-120	100	(T)
105	908	6.53	6.50	13- 73	475	(Q)
51	639	6.42	6.50	51-111	334	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	10816	6.68	6.85	80-120	100	(T)
141	88998	6.68	6.85	59-119	823	(QT)
250	19951	6.68	6.85	66-126	184	(QT)
-----						
65 Pentachlorophenol				CAS#: 87-86-5		
266	286	7.08	7.07	80-120	100	( )
264	184	7.08	7.07	34- 94	64	( )
268	427	7.08	7.07	33- 93	149	(Q)
-----						
68 Phenanthrene				CAS#: 85-01-8		
178	9188	7.27	7.27	80-120	100	( )
179	1846	7.27	7.27	0- 46	20	( )
176	2101	7.27	7.27	0- 49	23	( )
-----						
69 Anthracene				CAS#: 120-12-7		
178	9212	7.27	7.32	80-120	100	( )
179	1841	7.27	7.32	0- 46	20	( )
176	2101	7.27	7.32	0- 49	23	( )
-----						
76 Fluoranthene				CAS#: 206-44-0		
202	16746	8.32	8.32	80-120	100	( )
203	3162	8.32	8.32	0- 48	19	( )
101	2794	8.31	8.32	0- 41	17	( )
-----						
79 Pyrene				CAS#: 129-00-0		
202	14937	8.53	8.53	80-120	100	( )
200	4594	8.53	8.53	0- 51	31	( )
101	2002	8.53	8.53	0- 43	13	( )
-----						
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	9139	9.66	9.66	80-120	100	( )
226	2299	9.66	9.66	0- 56	25	( )
229	3481	9.66	9.66	0- 50	38	( )
-----						
92 Chrysene				CAS#: 218-01-9		
228	8098	9.70	9.69	80-120	100	( )
229	2098	9.70	9.69	0- 50	26	( )
226	2984	9.70	9.69	0- 59	37	( )
-----						
94 Di-n-octylphthalate				CAS#: 117-84-0		
149	75942	10.23	10.24	80-120	100	( )
43	156905	10.25	10.24	0- 43	207	(Q)
-----						
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	6651	10.85	10.85	80-120	100	( )
253	2083	10.86	10.85	0- 52	31	( )
125	3922	10.86	10.85	0- 41	59	(Q)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	6611	10.85	10.88	80-120	100	( )
253	2803	10.86	10.88	0- 52	42	( )
125	3922	10.86	10.88	0- 40	59	(Q)

97 Benzo(a)pyrene				CAS#: 50-32-8		
252	4607	11.30	11.29	80-120	100	( )
253	1182	11.29	11.29	0- 52	26	( )
125	1851	11.30	11.29	0- 30	40	(Q)

-----

Q qualifier indicates ion failed ratio requirement



GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2225.d  
Lab Smp Id: 248506014 Client Smp ID: RE36-10-7440  
Inj Date : 22-MAR-2010 17:39  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506014|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 25  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	8.13370	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.948	1691753	40.000
* 46 Acenaphthene-d10	6.072	2479864	40.000
* 91 Chrysene-d12	9.672	2708067	40.000
* 98 Perylene-d12	11.383	2240711	40.000

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

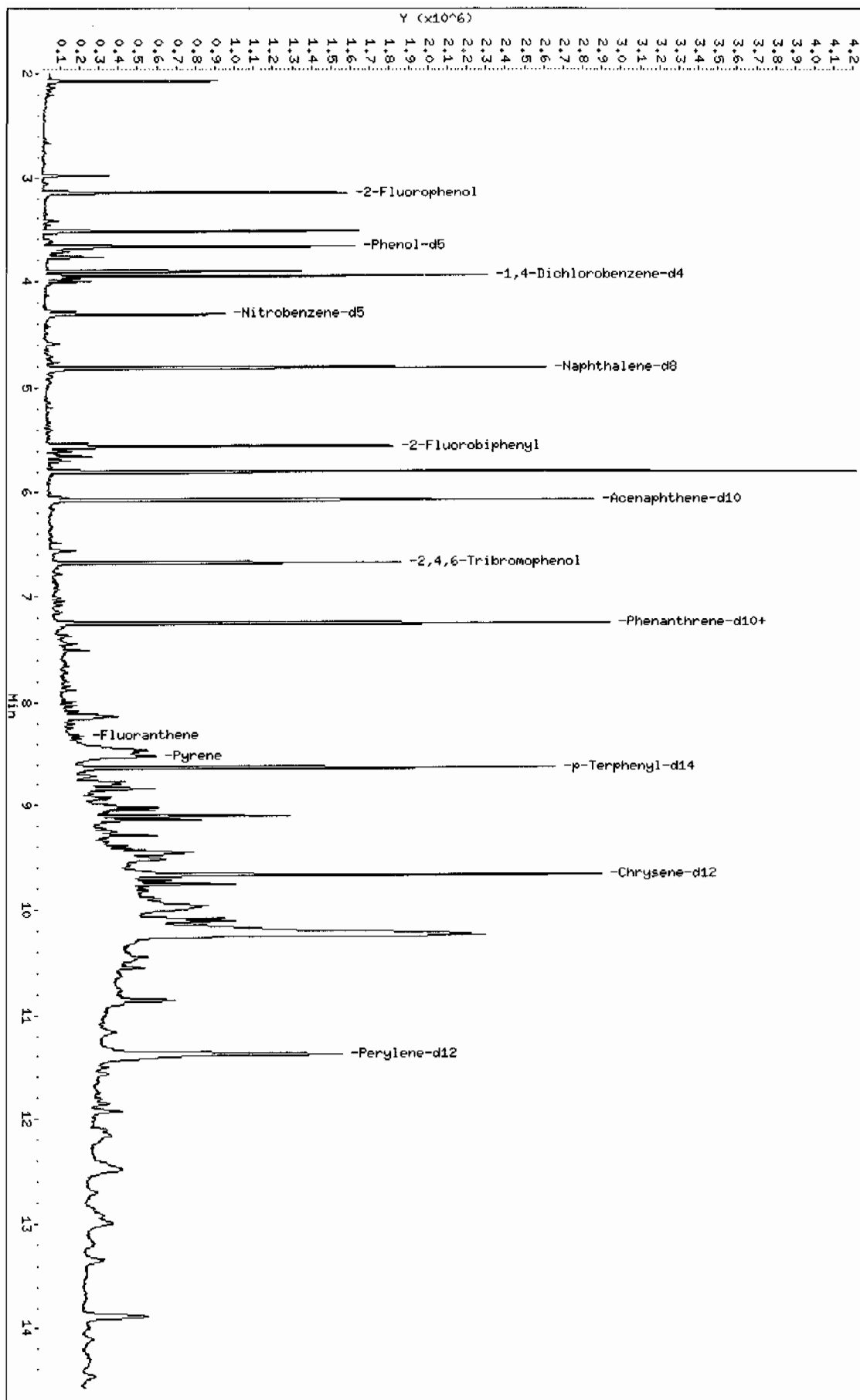
RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
Unknown					CAS #:		
2.072	646818	15.3407238	556	0		0	10
1R-.alpha.-Pinene					CAS #: 7785-70-8		
3.519	1183585	27.9847946	1020	97	NIST05.L	15188	10
3-Carene					CAS #: 13466-78-9		
3.907	1022968	24.1871473	877	94	NIST05.L	14156	10
1,4-Methanoazulene, decahydro-4,8,8-trim					CAS #: 475-20-7		
5.801	3061645	49.3840713	1790	99	NIST05.L	60023	46
Stigmast-4-en-3-one					CAS #: 1058-61-3		
8.466	982666	14.5146505	526	93	NIST05.L	173936	91
Unknown					CAS #:		
8.483	356086	5.25963182	191	0		0	91
Unknown					CAS #:		
8.836	282878	4.17829752	152	0		0	91
Unknown					CAS #:		
9.019	284031	4.19537938	152	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 1235-74-1		
9.101	848187	12.5283051	454	95	NIST05.L	133621	91
Unknown					CAS #:		
9.136	567623	8.38418292	304	0		0	91
Unknown					CAS #:		
9.283	307398	4.54047346	165	0		0	91
1-Docosene					CAS #: 1599-67-3		
9.454	590513	8.72227460	316	99	NIST05.L	129888	91
Unknown					CAS #:		
9.513	448945	6.63122328	240	0		0	91
Cedran-diol, 8S,14-					CAS #: 62600-05-9		
9.754	465503	6.87578995	249	93	NIST05.L	83830	91
Unknown					CAS #:		
9.960	1233634	18.2216201	661	0		0	91

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
-----	----	-----	-----	----	-----	-----	-----
Unknown					CAS #:		
10.083	484542	7.15701440	260	0		0	91
1-Eicosanol					CAS #: 629-96-9		
10.107	613618	9.06355748	329	93	NIST05.L	123792	91
Friedelan-3-one					CAS #: 559-74-0		
10.236	7330991	108.283728	3930	96	NIST05.L	176566	91
Eicosane					CAS #: 112-95-8		
10.854	401334	7.16440182	260	95	NIST05.L	113492	98
Unknown					CAS #:		
11.642	259664	4.63538558	168	0		0	98
Unknown					CAS #:		
11.807	249833	4.45988646	162	0		0	98
Nonadecane, 1-chloro-					CAS #: 62016-76-6		
11.854	326173	5.82266463	211	95	NIST05.L	126107	98
Unknown					CAS #:		
11.924	543815	9.70790228	352	0		0	98
Unknown					CAS #:		
12.101	308335	5.50423952	200	0		0	98
Unknown					CAS #:		
12.154	576545	10.2921753	373	0		0	98
Unknown					CAS #:		
12.489	1393074	24.8684270	902	0		0	98
Unknown					CAS #:		
12.924	371716	6.63568252	241	0		0	98
Unknown					CAS #:		
12.989	705735	12.5984176	457	0		0	98
Unknown					CAS #:		
13.342	378094	6.74952754	245	0		0	98
.beta.-Sitosterol					CAS #: 83-46-5		
13.883	985881	17.5994367	638	97	NIST05.L	174399	98

Data File: /chem/MSD5.i/s032210.b/s502225.d  
Date : 22-MAR-2010 17:39  
Client ID: RE36-10-7440  
Sample Info: 1248506014196308611SVH111LRNL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-5MS

Instrument: MSD5.i  
Operator: RHB  
Column diameter: 0.20

/chem/MSD5.i/s032210.b/s502225.d



Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: 12485060141963086111SVH111LANL

Volume Injected (uL): 0.5

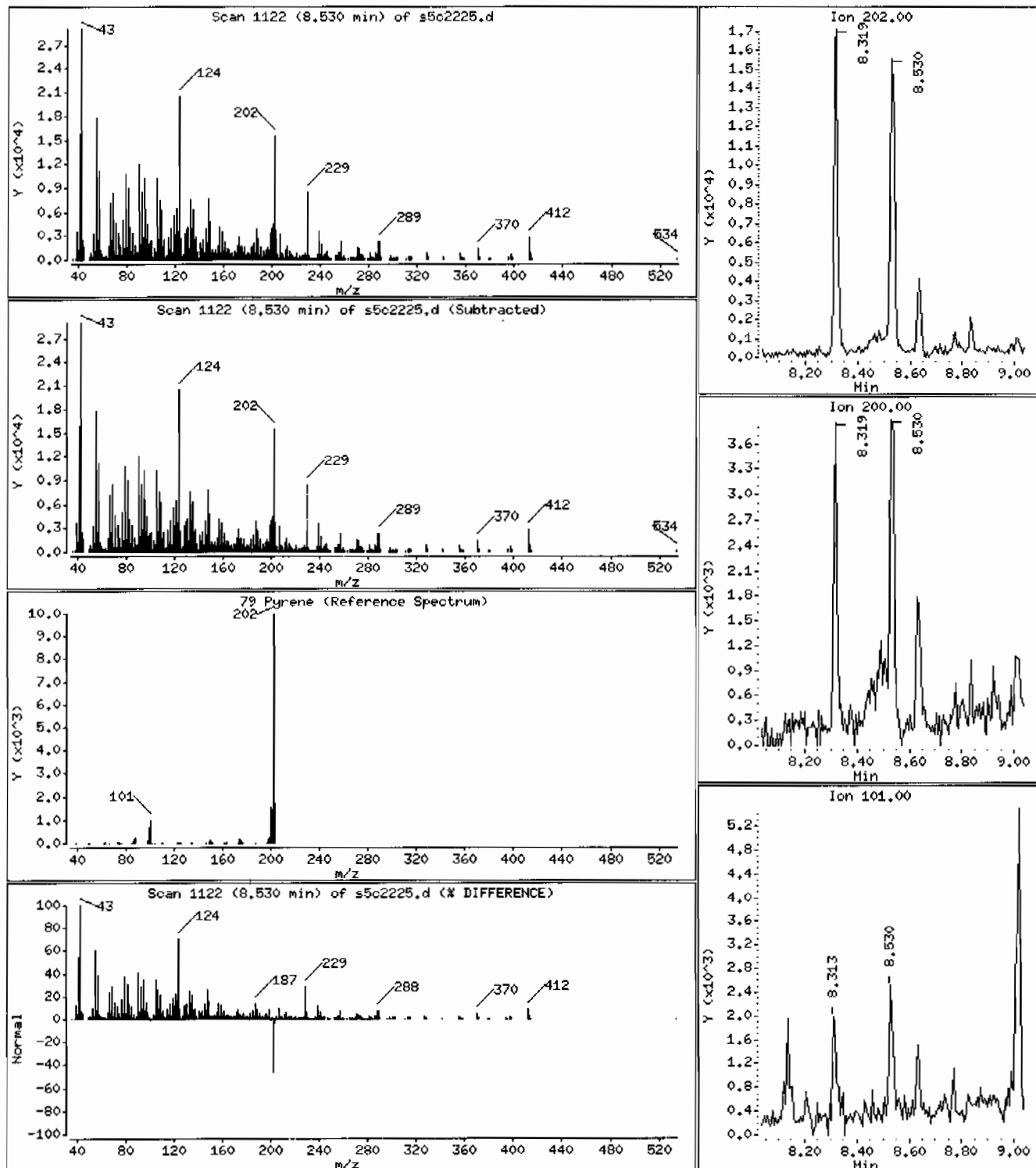
Operator: RMB

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

Column diameter: 0.20

79 Pyrene

Concentration: 22.3 ug/Kg



Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: 12485060141963086111SVMI11LANL

Volume Injected (uL): 0.5

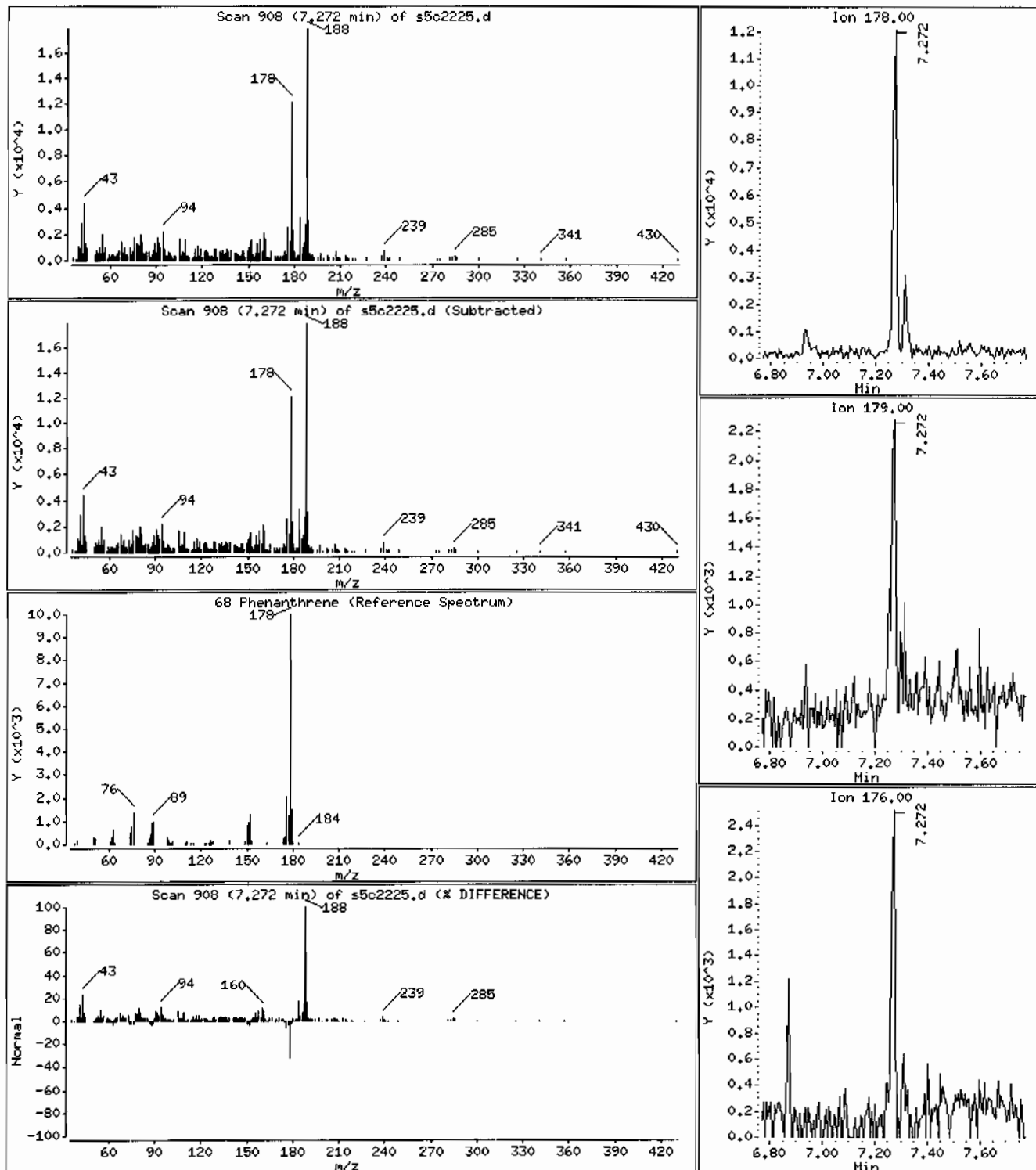
Operator: RMB

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

Column diameter: 0.20

68 Phenanthrene

Concentration: 15.4 ug/Kg



Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: HSD5.i

Sample Info: 1248506014196308611SVMI1ILANL

Volume Injected (uL): 0.5

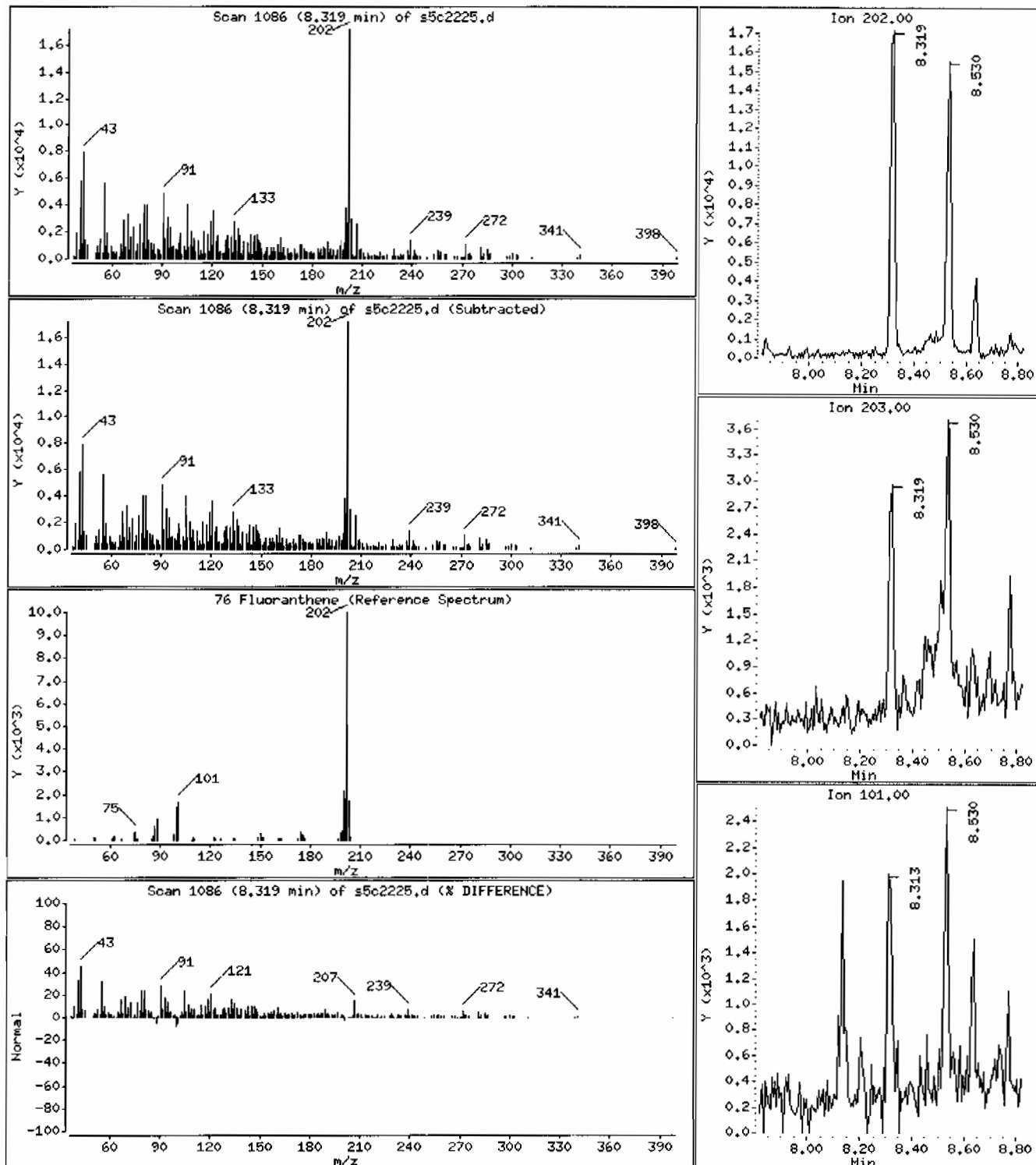
Operator: RMB

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

Column diameter: 0.20

76 Fluoranthene

Concentration: 27.0 ug/Kg



Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: I2485060141963086111SVH111LANL

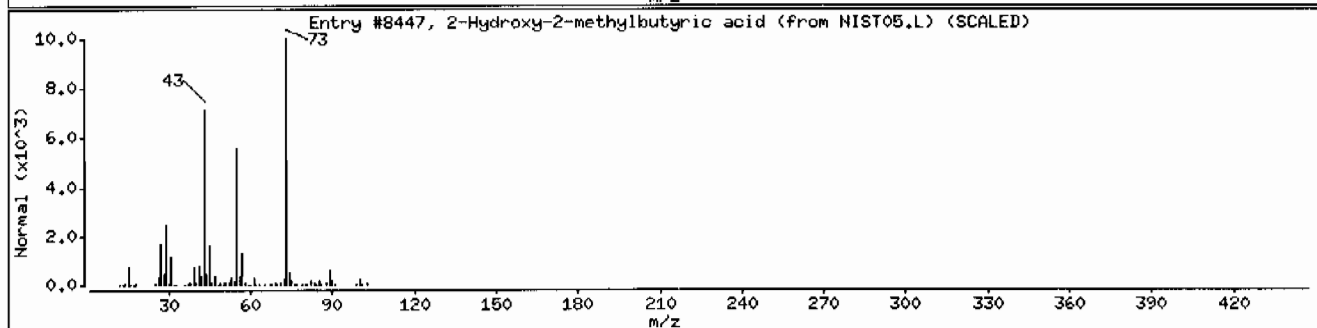
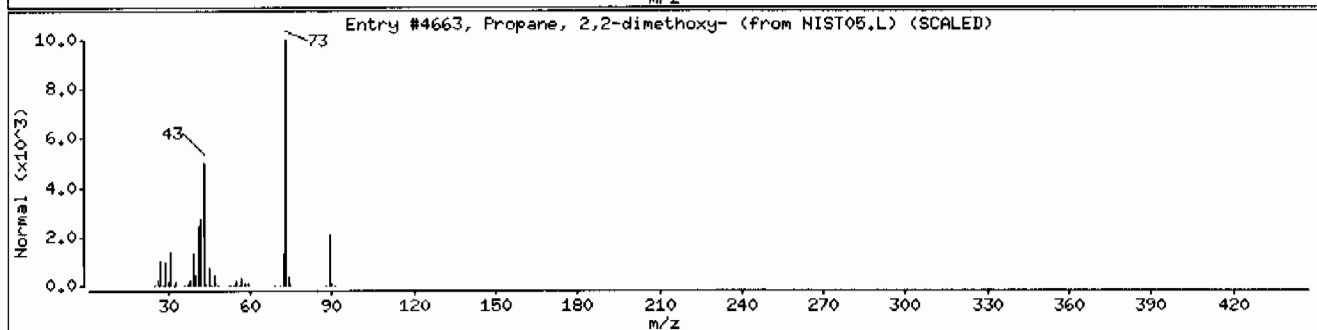
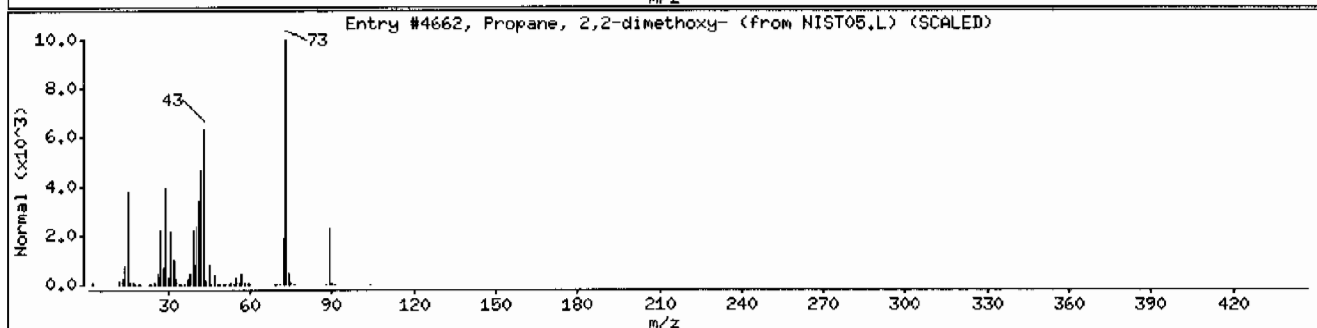
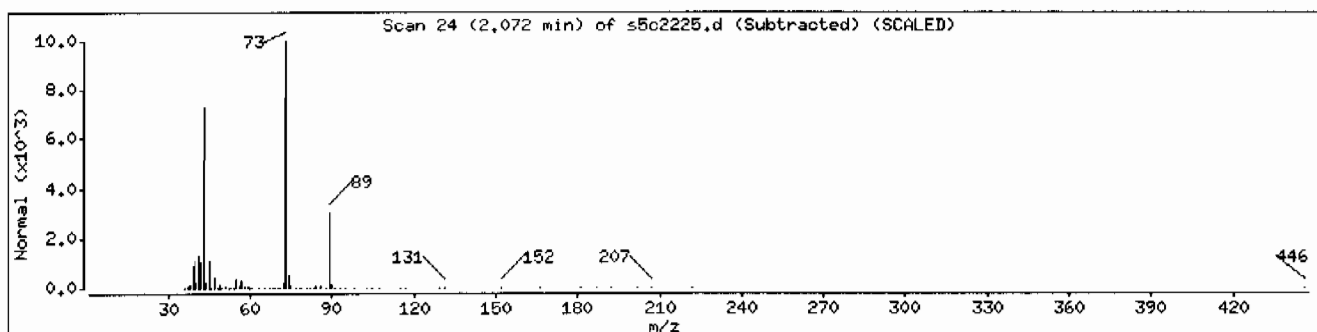
Volume Injected (uL): 0.5

Operator: RMB

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	4662	45	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	28	C5H12O2	104
2-Hydroxy-2-methylbutyric acid	3739-30-8	NIST05.L	8447	28	C5H10O3	118





Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: 1248506014196308611SVH111LANL

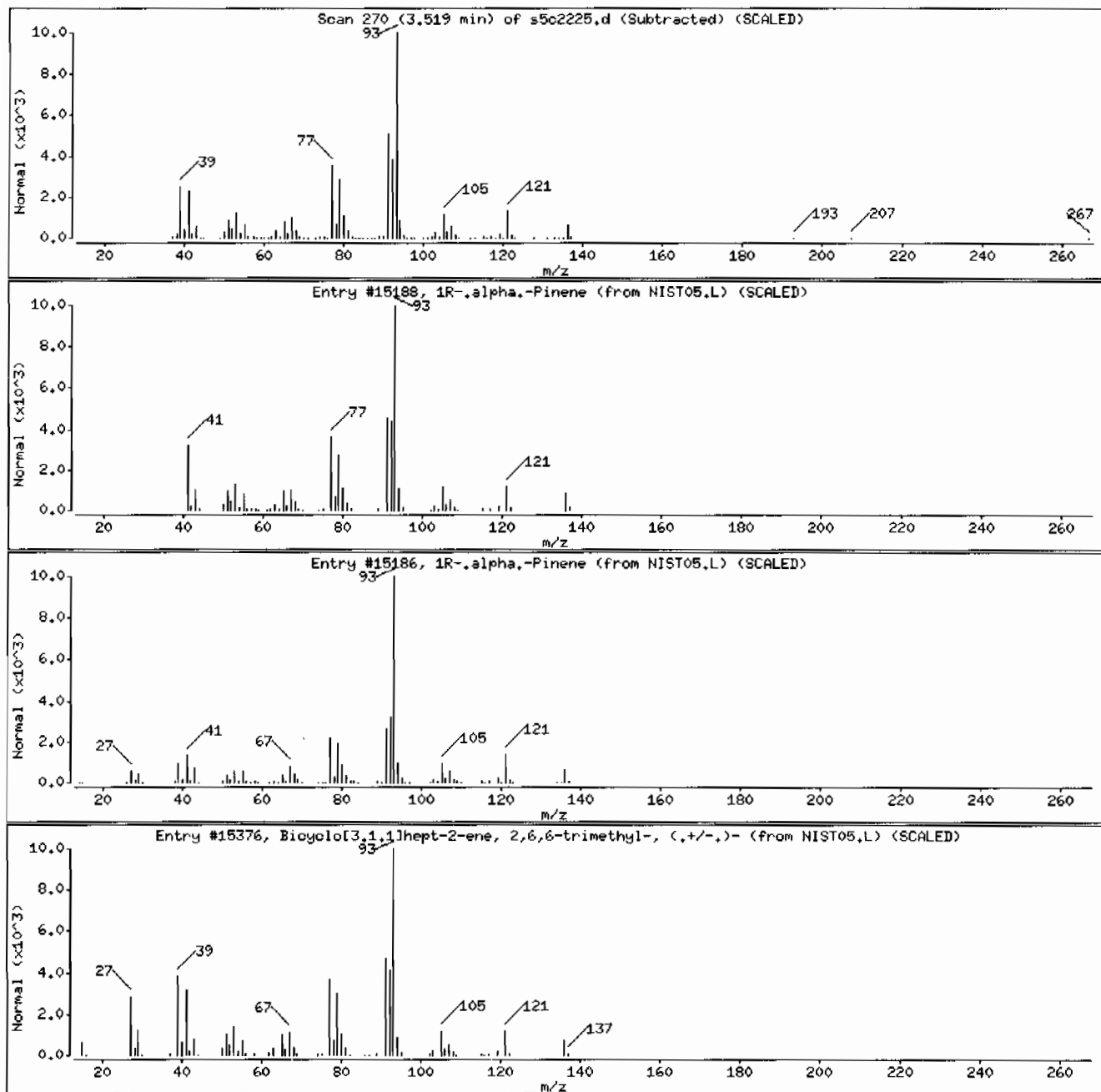
Volume Injected (uL): 0.5

Operator: RMB

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
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl	2437-95-8	NIST05.L	15376	95	C10H16	136



Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: 12485060141963086111SVH111LANL

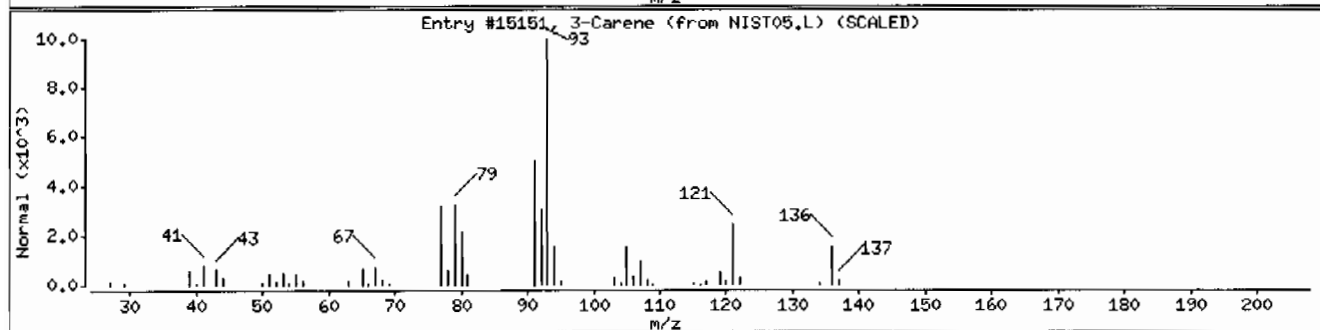
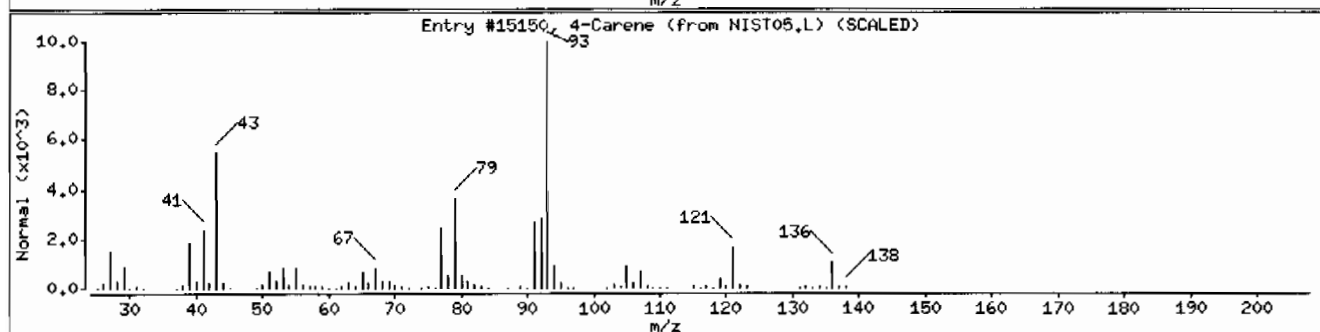
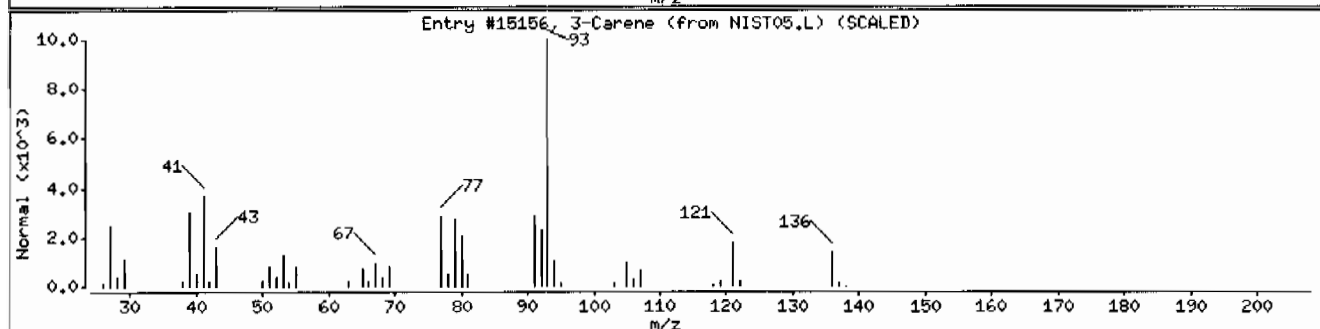
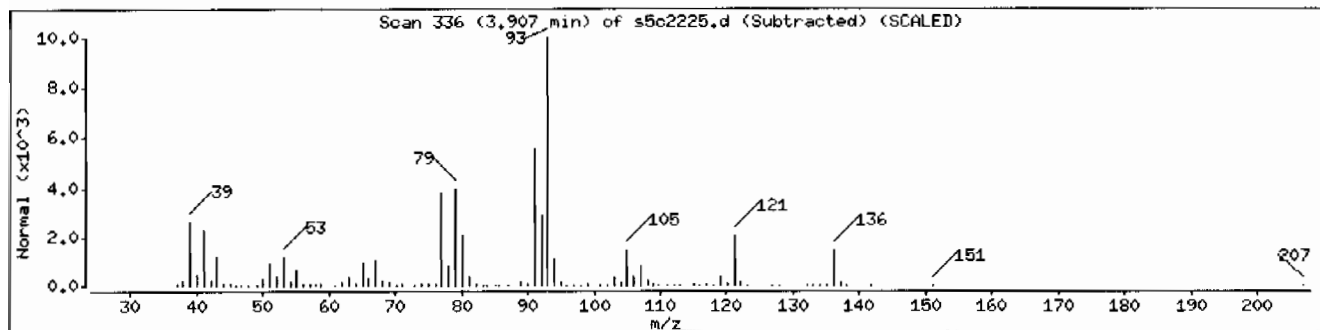
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Carene	13466-78-9	NIST05.L	15156	94	C10H16	136
4-Carene	1000150-36-1	NIST05.L	15150	93	C10H16	136
3-Carene	13466-78-9	NIST05.L	15151	93	C10H16	136



Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: HSD5.i

Sample Info: 12485060141963086111SVH111LANL

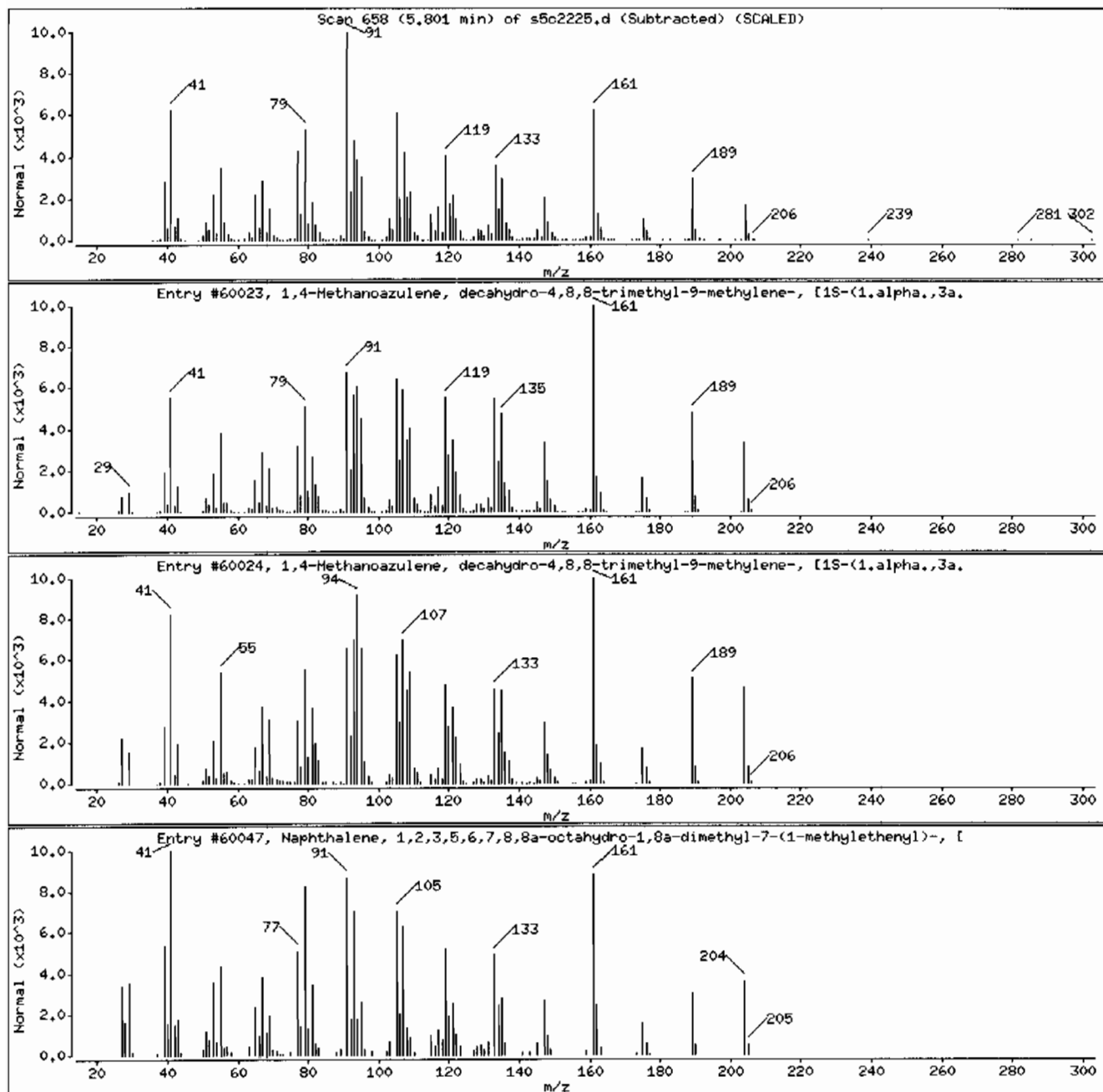
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60023	99	C15H24	204
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60024	97	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60047	93	C15H24	204



Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: 12485060141963086111SVMI11LANL

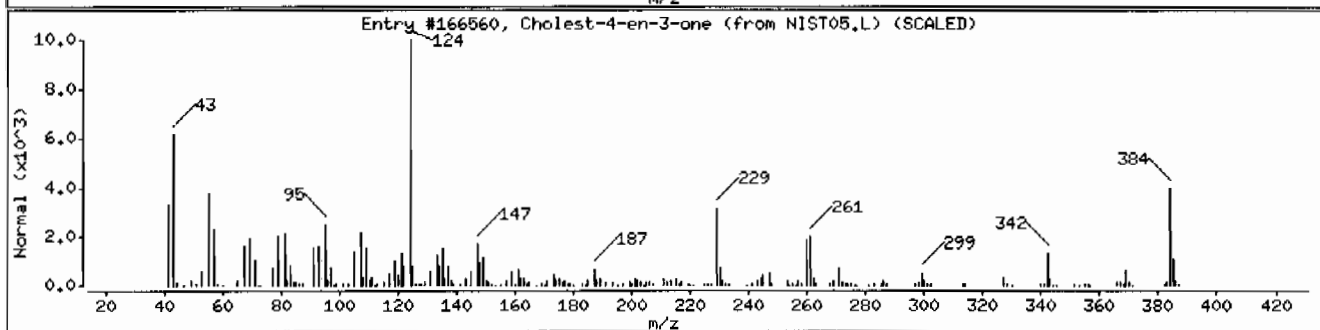
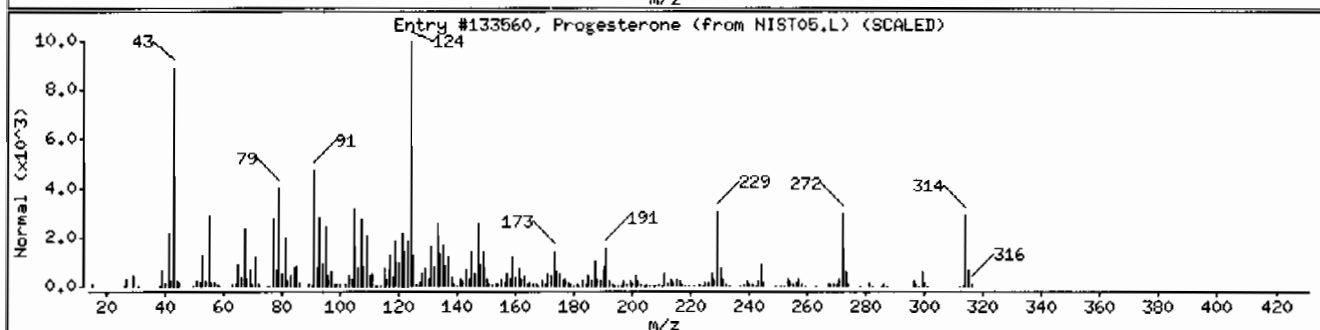
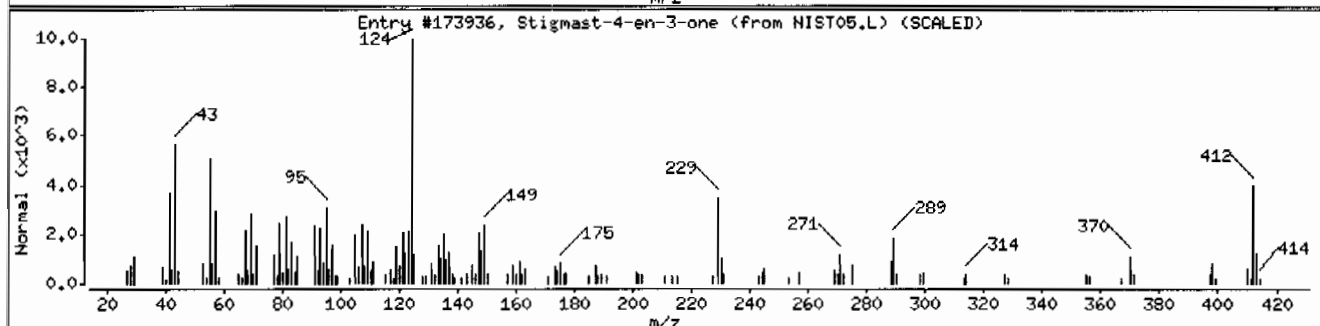
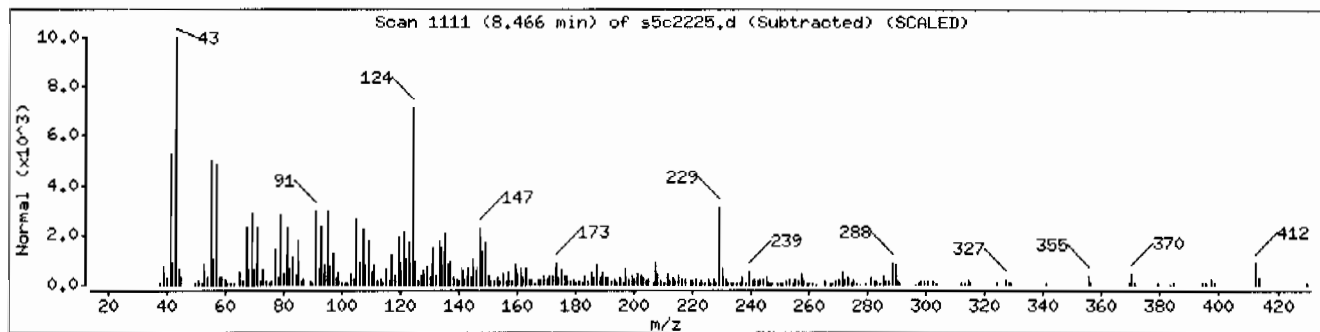
Volume Injected (uL): 0.5

Operator: RHE

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	93	C29H48O	412
Progesterone	57-83-0	NIST05.L	133560	89	C21H30O2	314
Cholest-4-en-3-one	601-57-0	NIST05.L	166560	78	C27H44O	384



Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: HSD5.i

Sample Info: I248506014196308611ISVM11ILANL

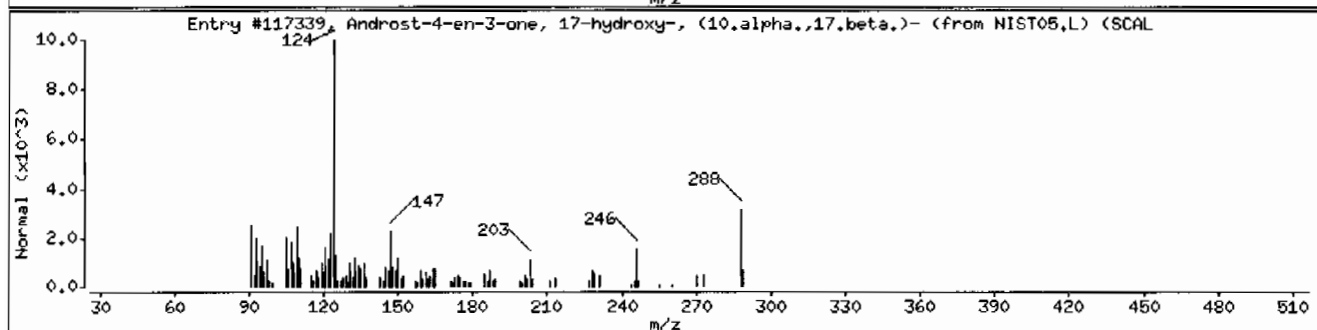
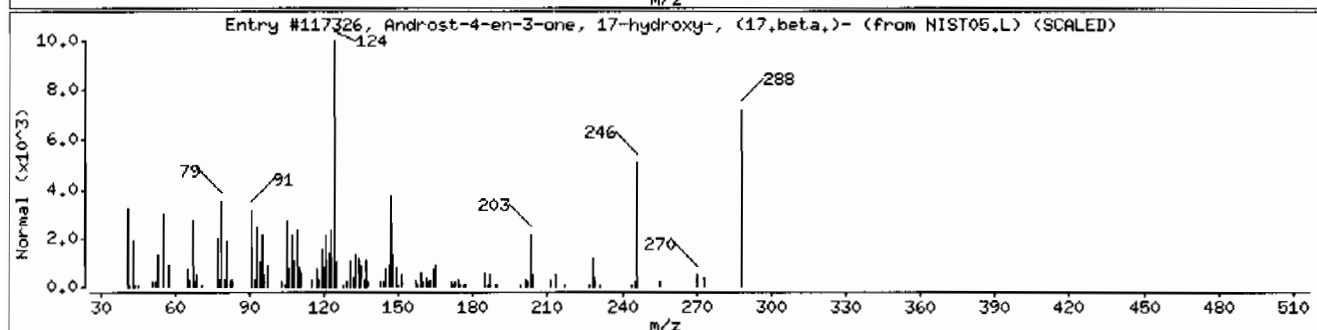
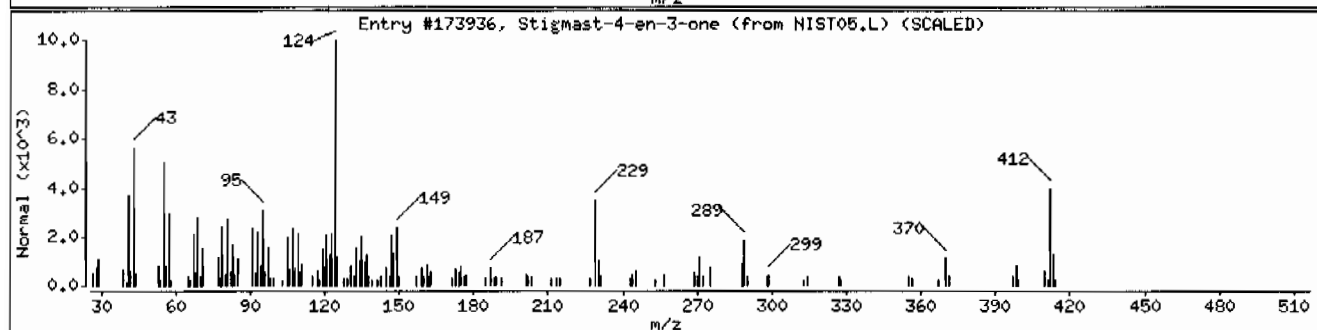
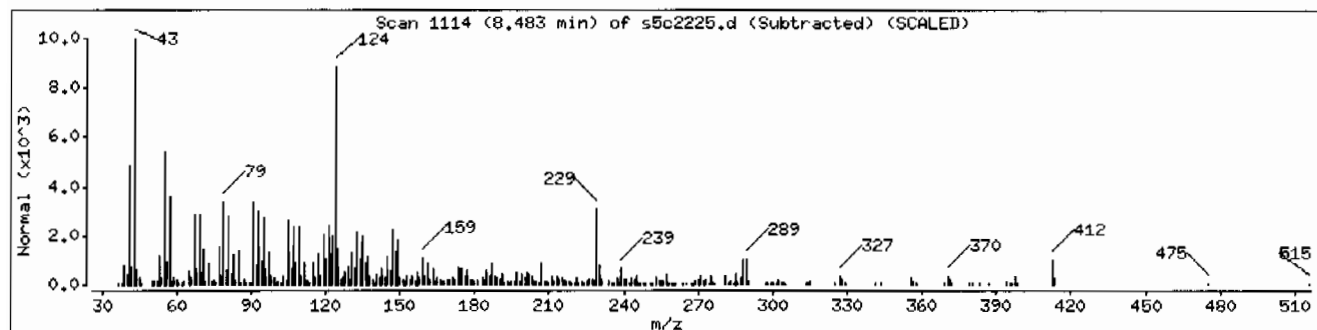
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Stigmast-4-en-3-one	1058-61-3	NIST05.L	173936	93	C29H48O	412
Androst-4-en-3-one, 17-hydroxy-, (17,bet	58-22-0	NIST05.L	117326	90	C19H28O2	288
Androst-4-en-3-one, 17-hydroxy-, (10,alp	604-39-7	NIST05.L	117339	70	C19H28O2	288



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Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: I248506014196308611SVMI1ILANL

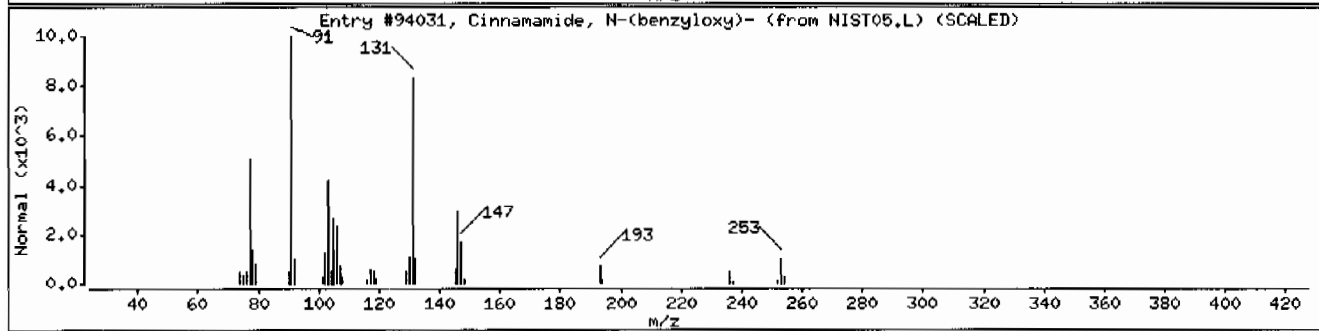
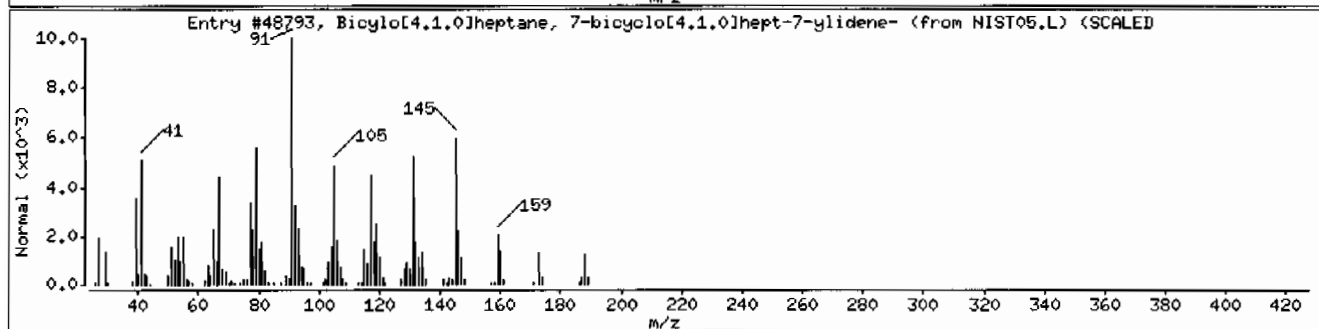
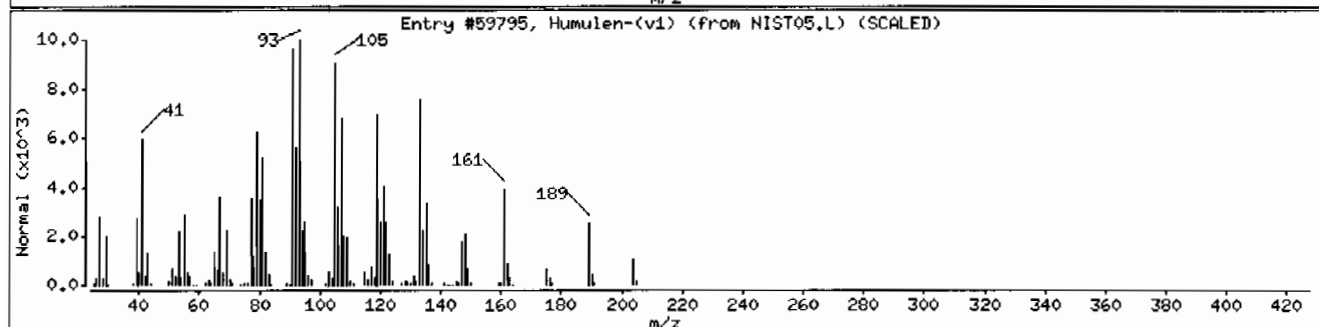
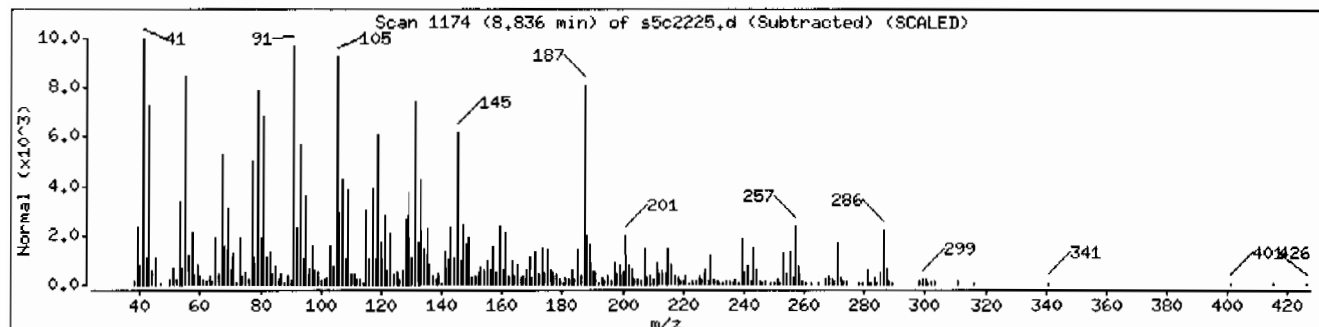
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Humulen-(v1)	1000159-39-4	NIST05.L	59795	44	C15H24	204
Bicyclo[4.1.0]heptane, 7-bicyclo[4.1.0]he	1000152-39-9	NIST05.L	48793	38	C14H20	188
Cinnamamide, N-(benzyloxy)-	22472-17-9	NIST05.L	94031	25	C16H15NO2	253



Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: HSD5.i

Sample Info: 12485060141963086111SVH111LANL

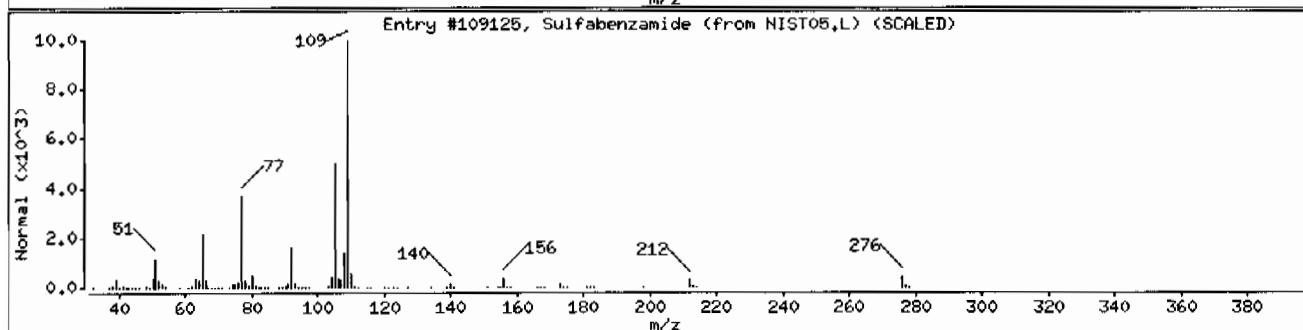
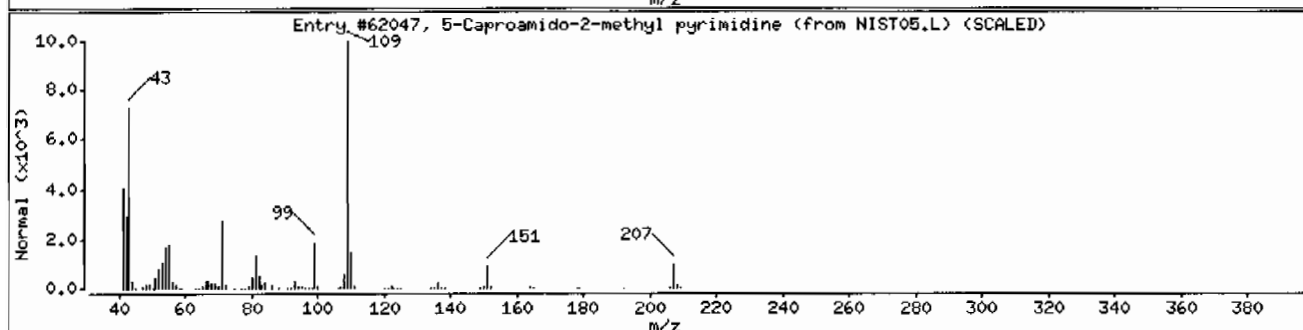
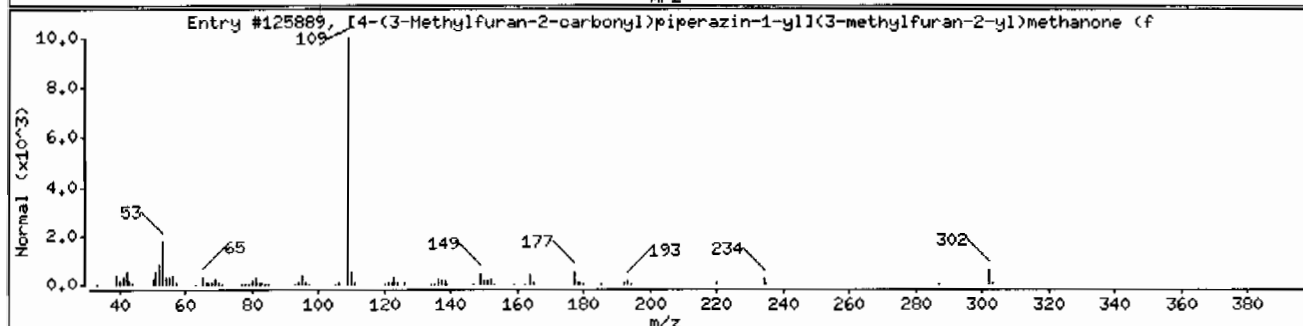
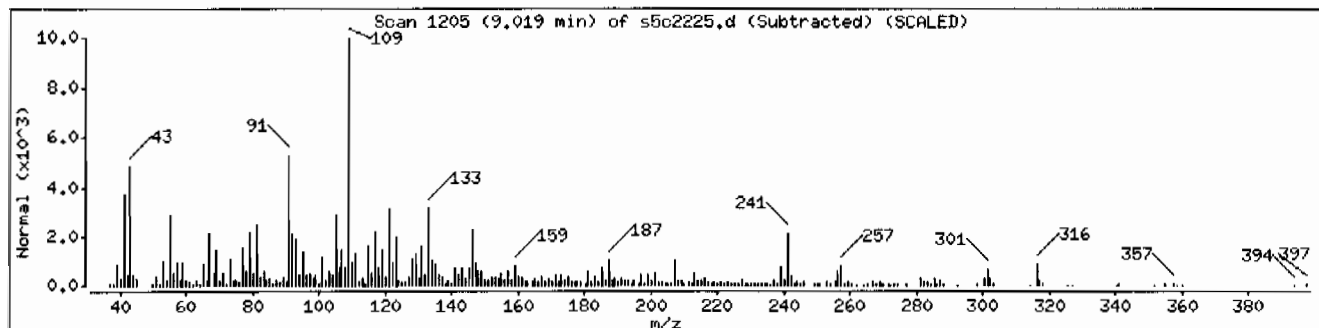
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
[4-(3-Methylfuran-2-carbonyl)piperazin-1	1000310-09-2	NIST05.L	125889	30	C16H18N2O4	302
5-Caproamido-2-methyl pyrimidine	1000213-95-8	NIST05.L	62047	30	C11H17N3O	207
Sulfabenzamide	127-71-9	NIST05.L	109125	27	C13H12N2O3S	276



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Client ID: RE36-10-7440

Instrument: HSD5.i

Sample Info: I248506014I963086I1ISVH1I1LANL

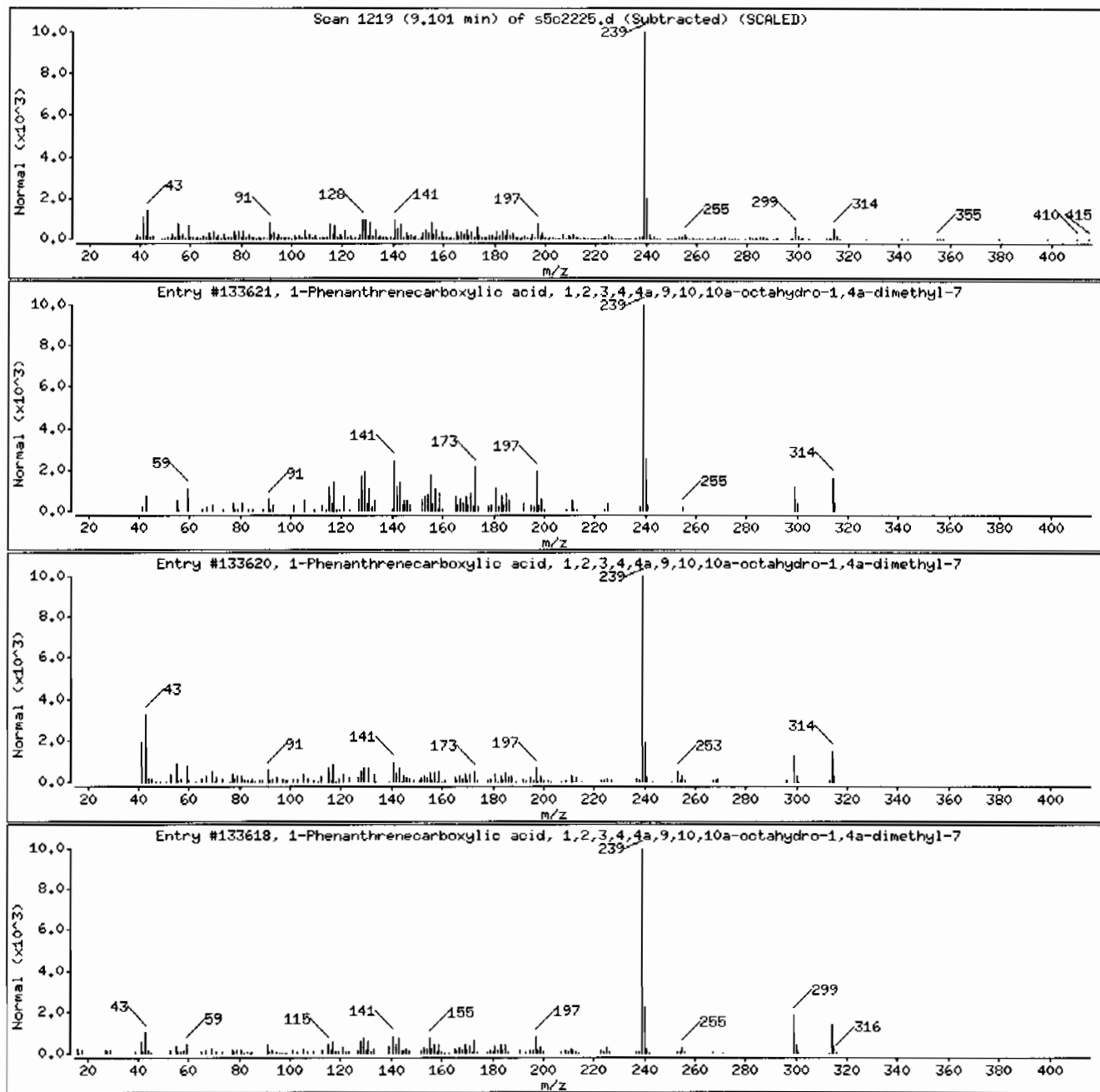
Volume Injected (uL): 0.5

Operator: RMB

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	133621	95	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133620	93	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133618	68	C21H30O2	314





Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: I2485060141963086111SVMI11LANL

Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

## Library Search Compound Match

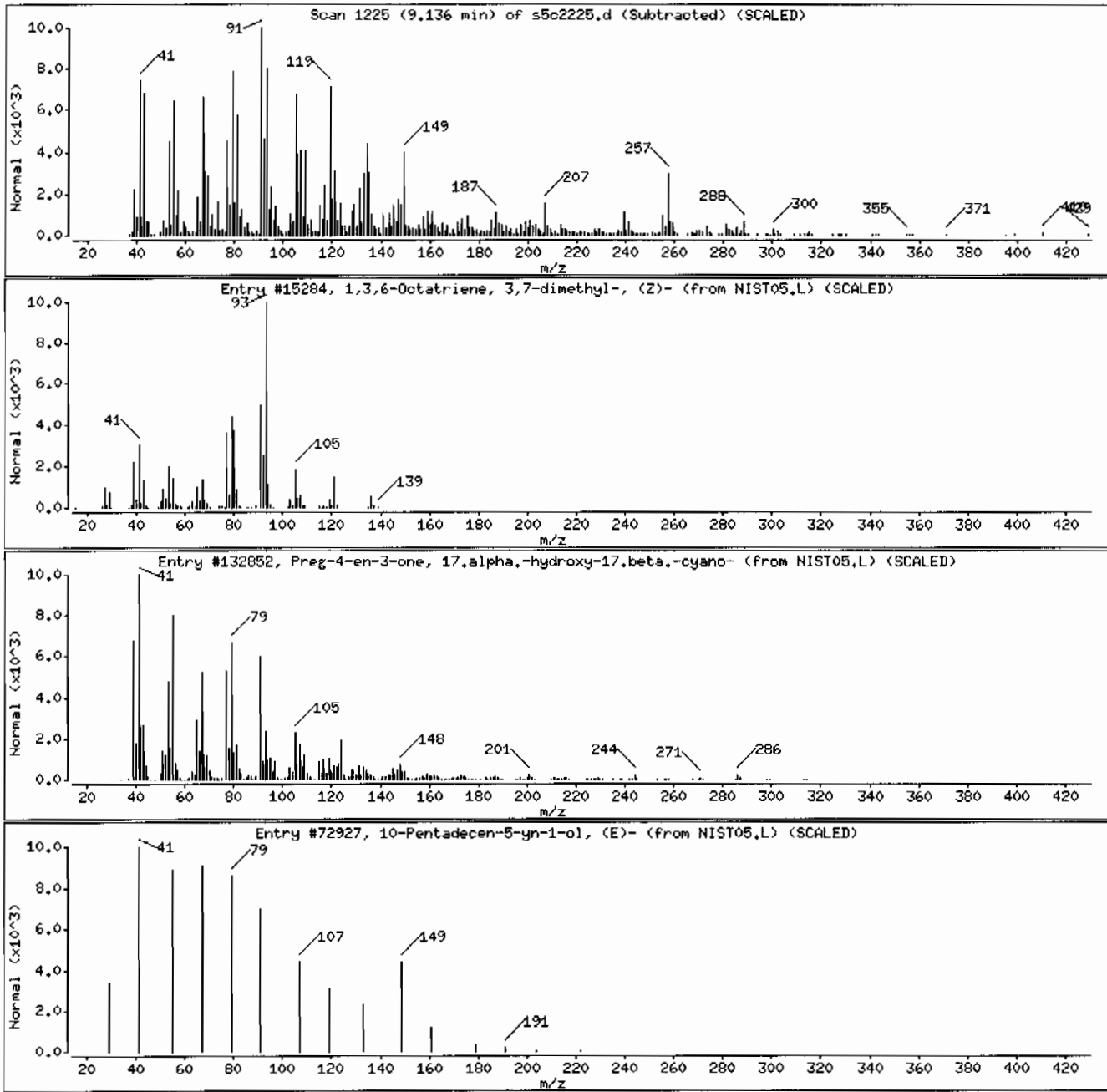
Unknown

1,3,6-Octatriene, 3,7-dimethyl-, (Z)-

Preg-4-en-3-one, 17.alpha.-hydroxy-17.be

10-Pentadecen-5-yn-1-ol, (E)-

CAS Number	Library	Entry	Quality	Formula	Weight
3338-55-4	NIST05.L	15284	43	C10H16	136
1000294-64-4	NIST05.L	132852	38	C20H27NO2	313
64275-59-8	NIST05.L	72927	35	C15H26O	222



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Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: 1248506014196308611SVH111LANL

Volume Injected (uL): 0.5

Operator: RMB

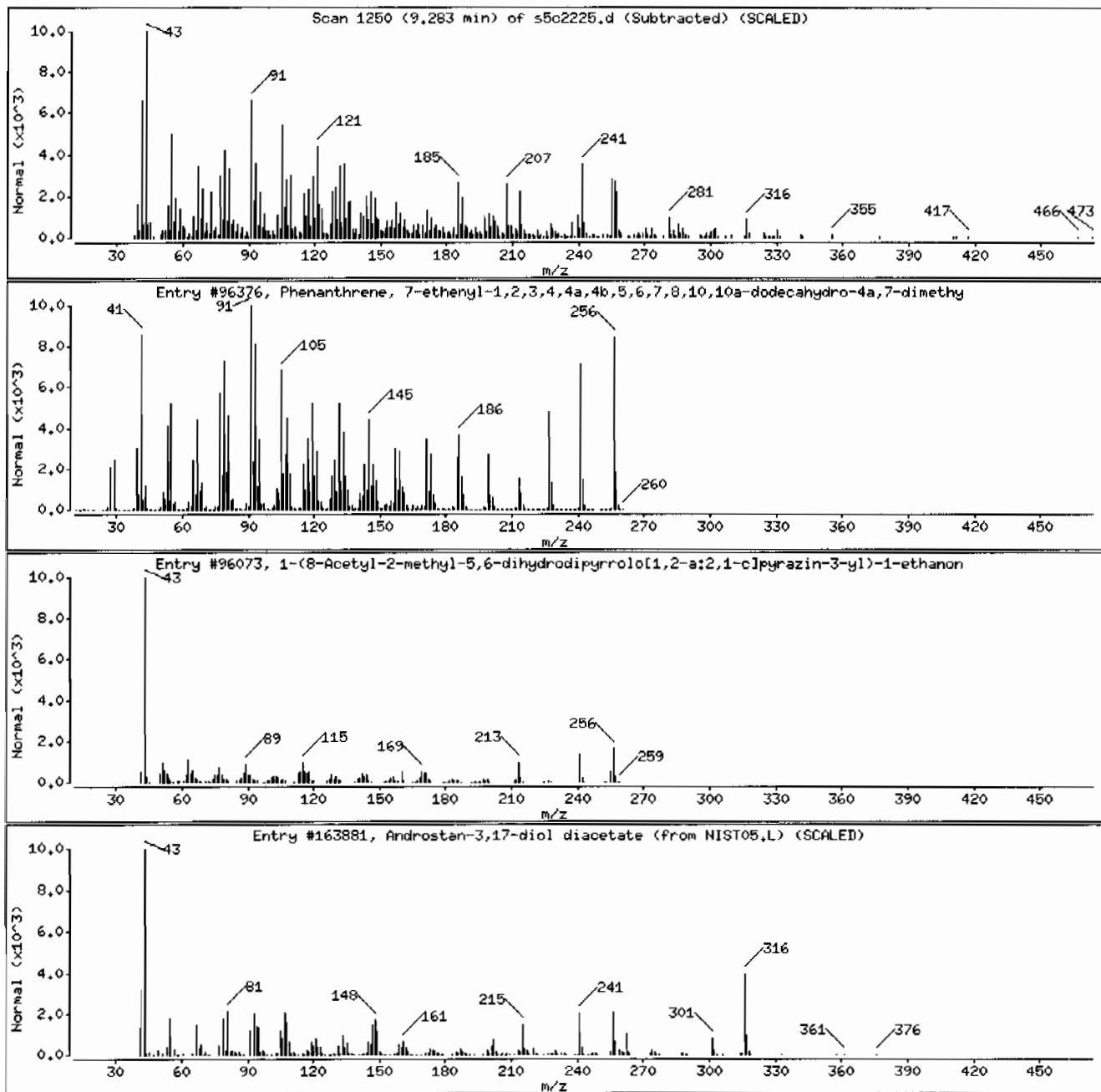
Column phase: J&amp;W DB-5MS

Column diameter: 0.20

## Library Search Compound Match

Unknown

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenanthrene, 7-ethenyl-1,2,3,4,4a,4b,5,	26549-04-2	NIST05.L	96376	35	C19H28	256
1-(8-Acetyl-2-methyl-5,6-dihydrodipyrrol	1000305-46-1	NIST05.L	96073	30	C15H16N2O2	256
Androstan-3,17-diol diacetate	95720-72-2	NIST05.L	163881	9	C23H36O4	376



Date: 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: 1248506014196308611ISVH11ILANL

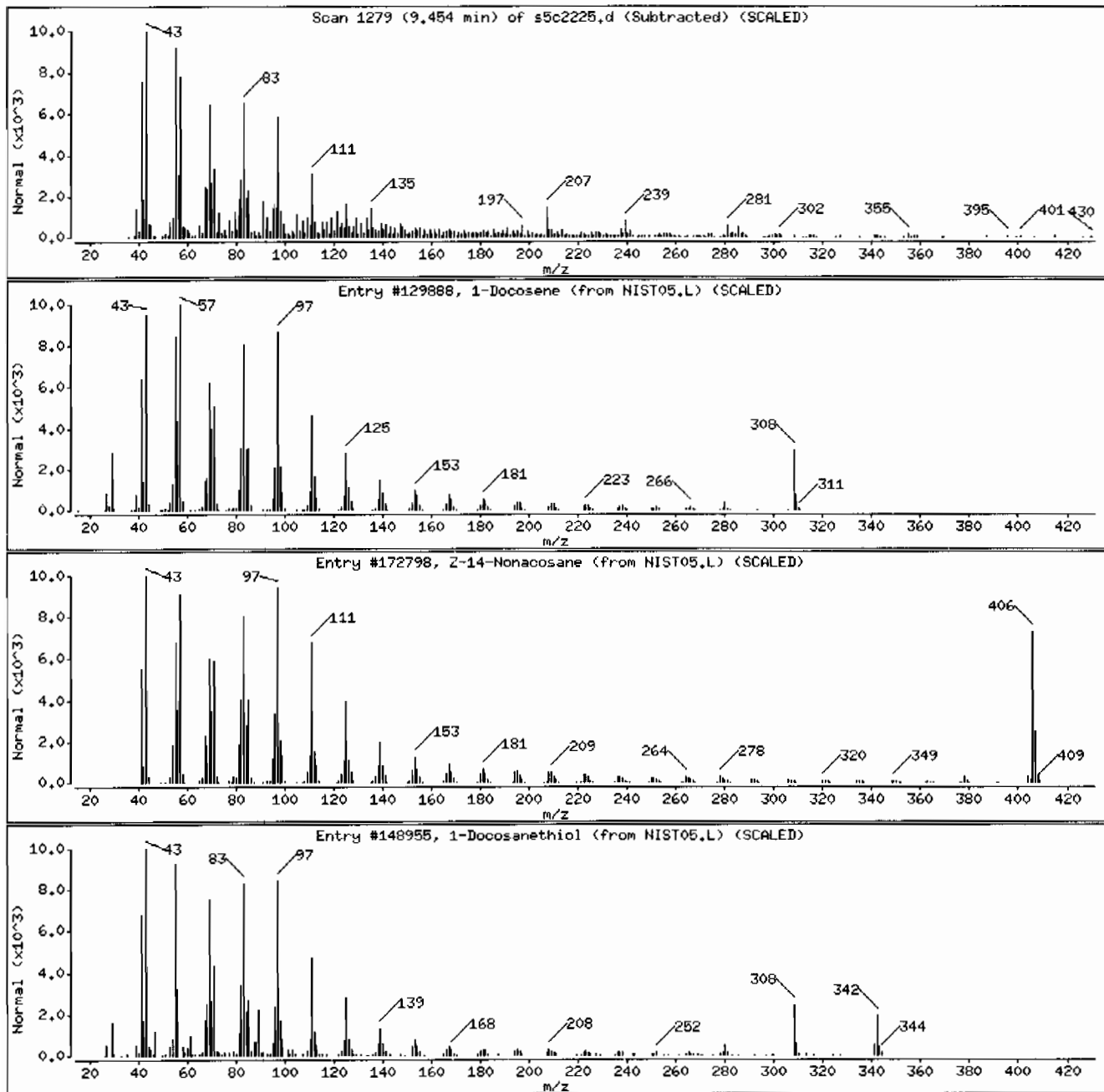
Volume Injected (uL): 0.5

Operator: RMB

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	99	C22H44	308
Z-14-Nonacosane	1000131-18-9	NIST05.L	172798	94	C29H58	406
1-Docosanethiol	7773-83-3	NIST05.L	148955	93	C22H46S	342



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Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: 12485060141963086111SVH111LANL

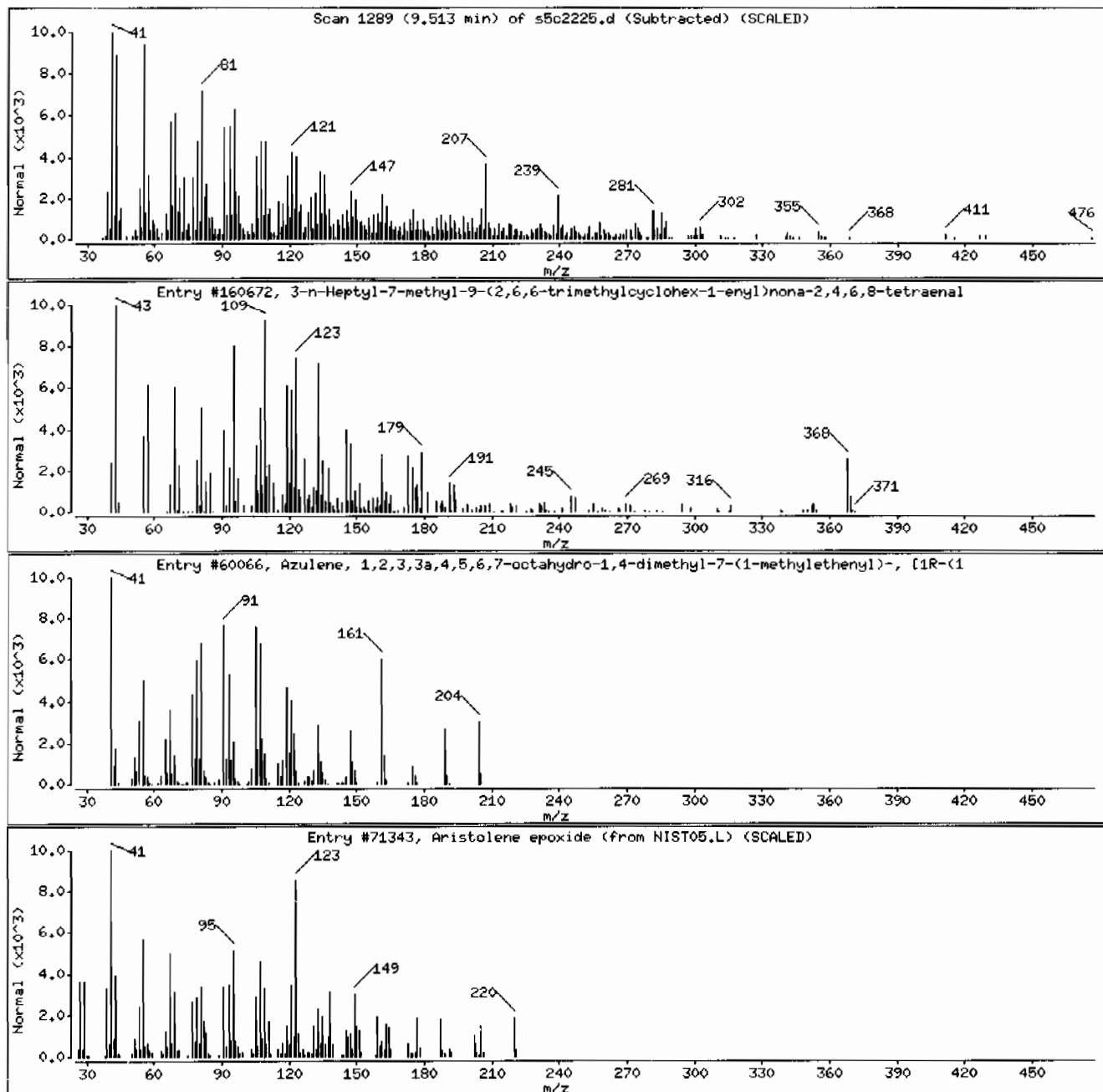
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3-n-Heptyl-7-methyl-9-(2,6,6-trimethylcy	1000216-09-3	NIST05.L	160672	70	C26H40O	368
Azulene, 1,2,3,3a,4,5,6,7-octahydro-1,4-	22567-17-5	NIST05.L	60066	60	C15H24	204
Aristolene epoxide	1000151-48-9	NIST05.L	71343	53	C15H24O	220



Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: HSD5.i

Sample Info: 1248506014196308611|SVH11|LANL

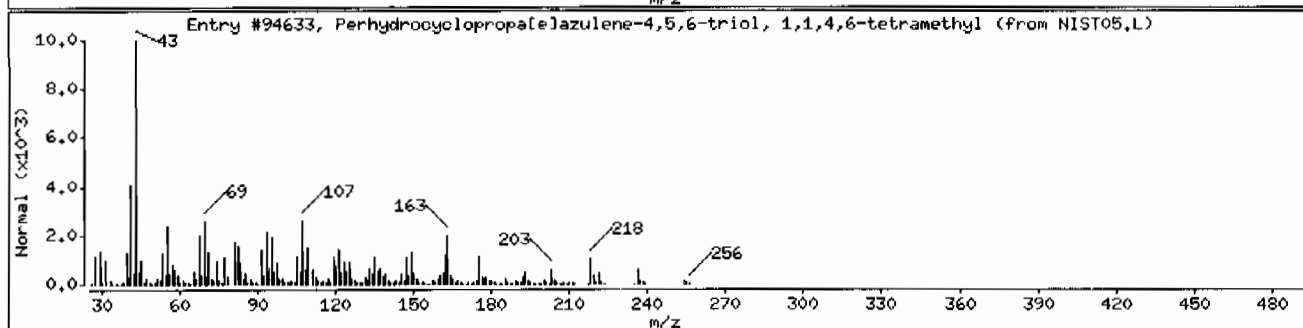
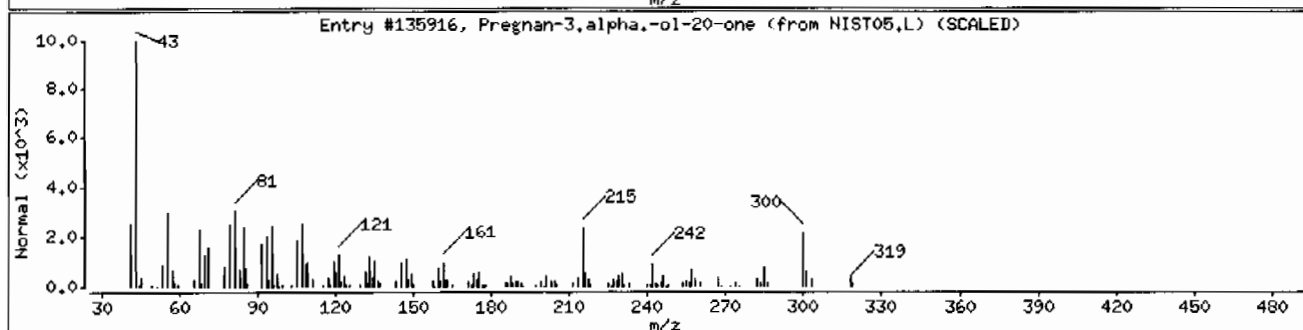
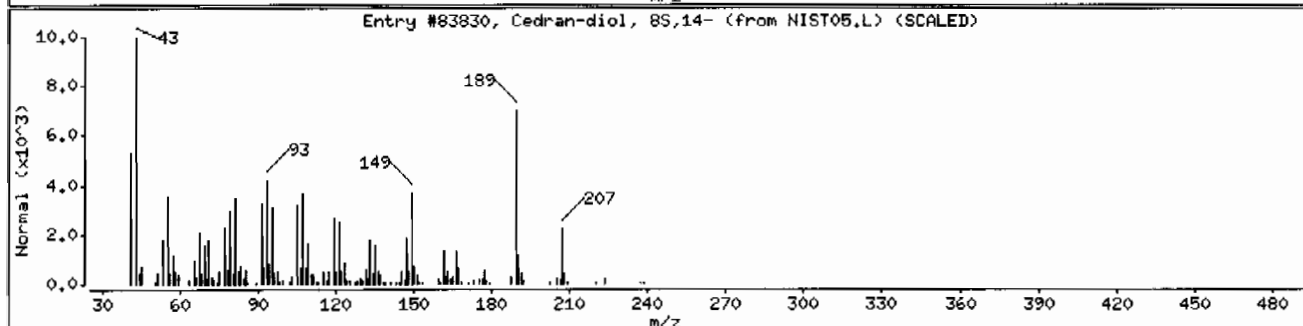
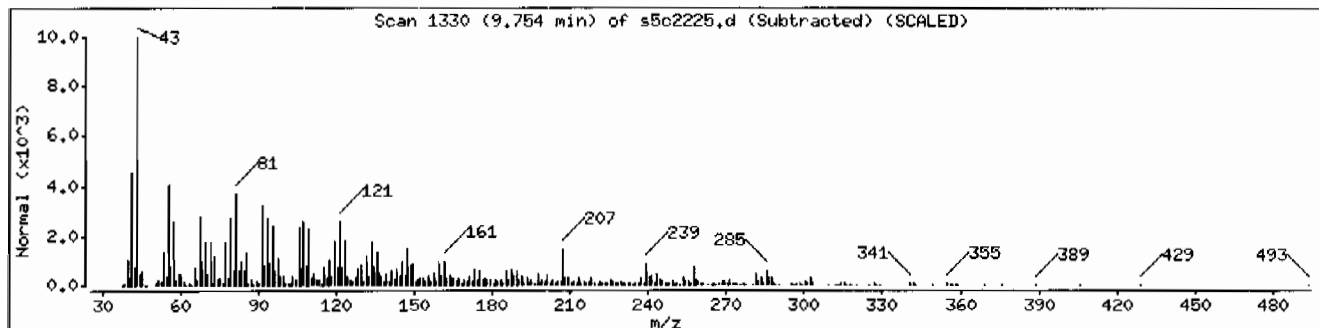
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	93	C15H26O2	238
Pregnan-3,α.-ol-20-one	128-20-1	NIST05.L	135916	64	C21H34O2	318
Perhydrocyclopropa[elazulene-4,5,6-triol	1000197-87-8	NIST05.L	94633	45	C15H26O3	254



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Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: 12485060141963086111SVH111LANL

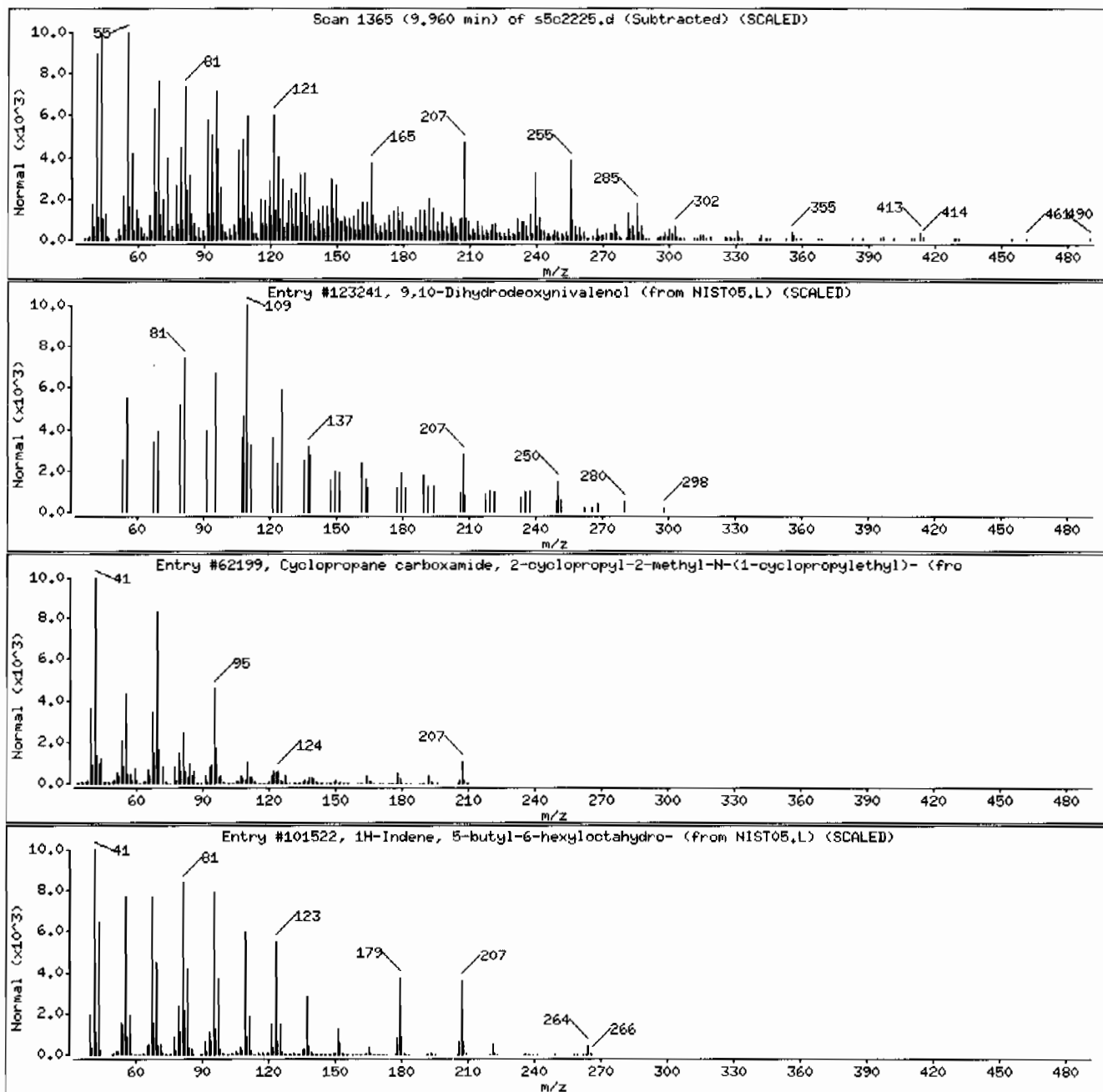
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
9,10-Dihydrodeoxynivalenol	123505-36-2	NIST05.L	123241	41	C15H22O6	298
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	38	C13H21NO	207
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	38	C19H36	264



Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: 1248506014196308611/SVMI1/LANL

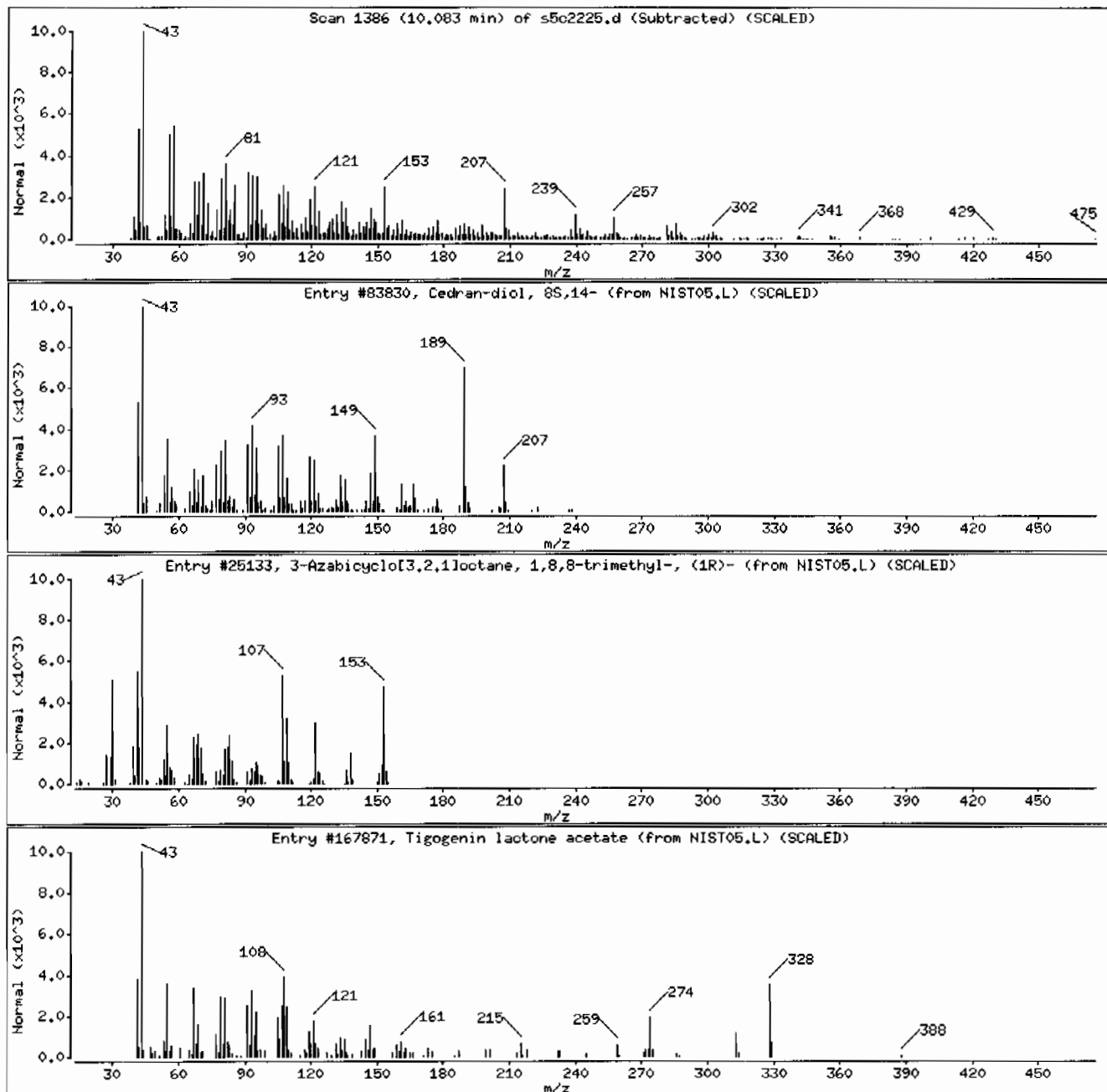
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	64	C15H26O2	238
3-Azabicyclo[3.2.1]octane, 1,8,8-trimeth	465-49-6	NIST05.L	25133	25	C10H19N	153
Tigogenin lactone acetate	1000256-75-2	NIST05.L	167871	22	C24H36O4	388



Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: 1248506014196308611SVMI11LANL

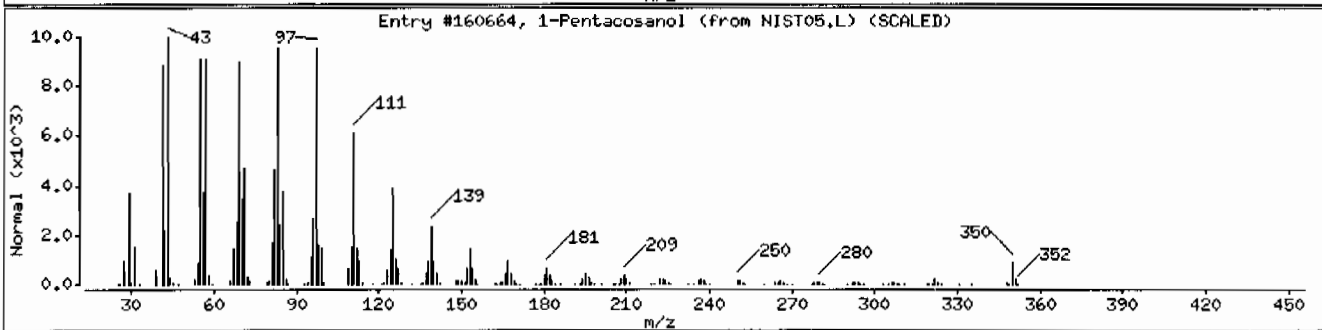
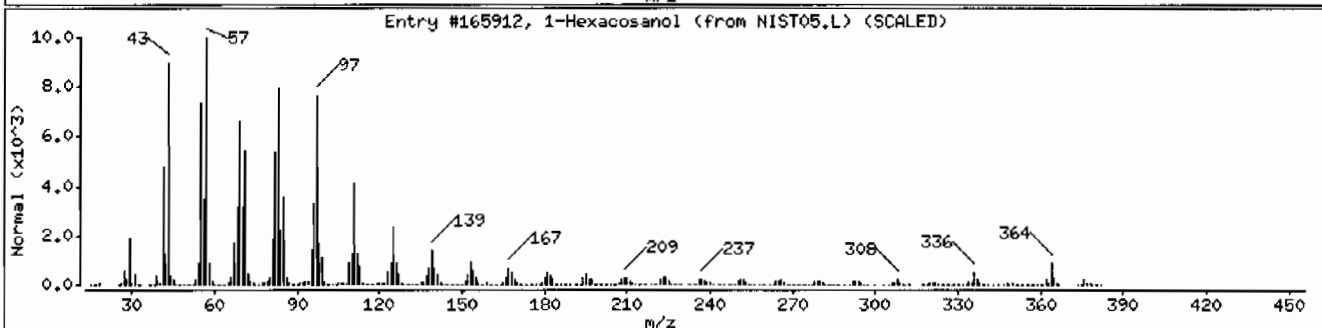
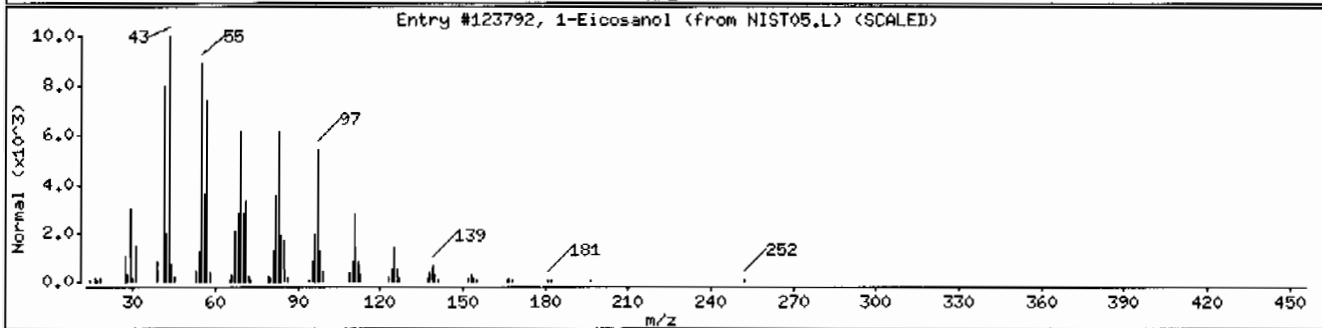
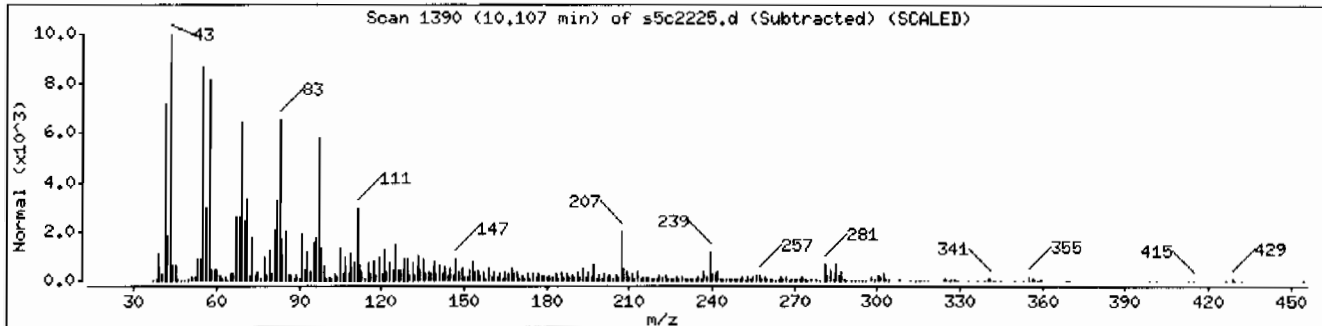
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Eicosanol	629-96-9	NIST05.L	123792	93	C20H42O	298
1-Hexacosanol	506-52-5	NIST05.L	165912	70	C26H54O	382
1-Pentacosanol	26040-98-2	NIST05.L	160664	70	C25H52O	368





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Client ID: RE36-10-7440

Instrument: MSD5.1

Sample Info: 1248506014196308611SVH111LANL

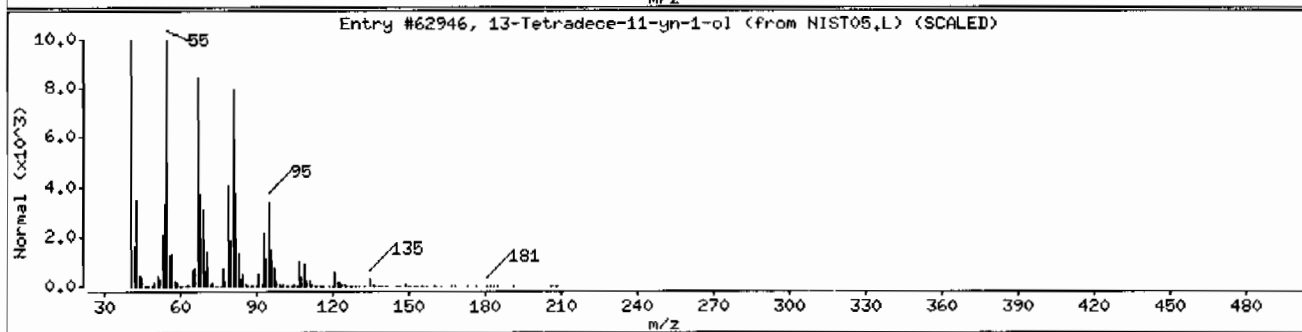
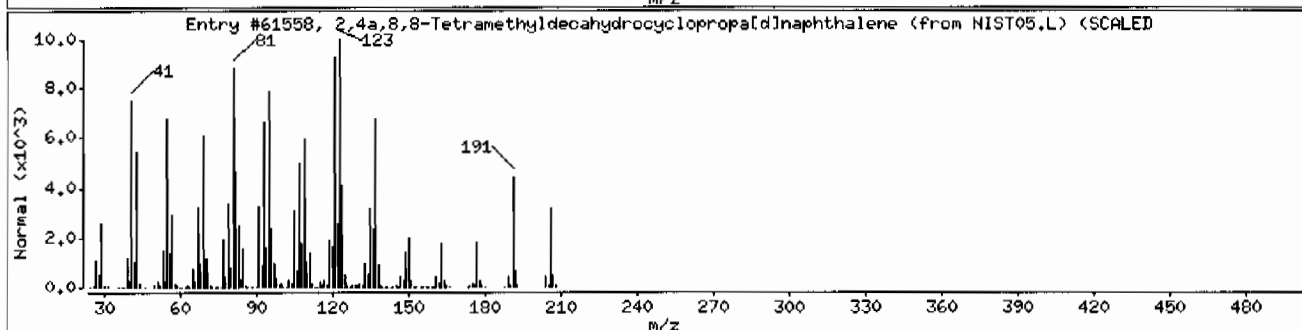
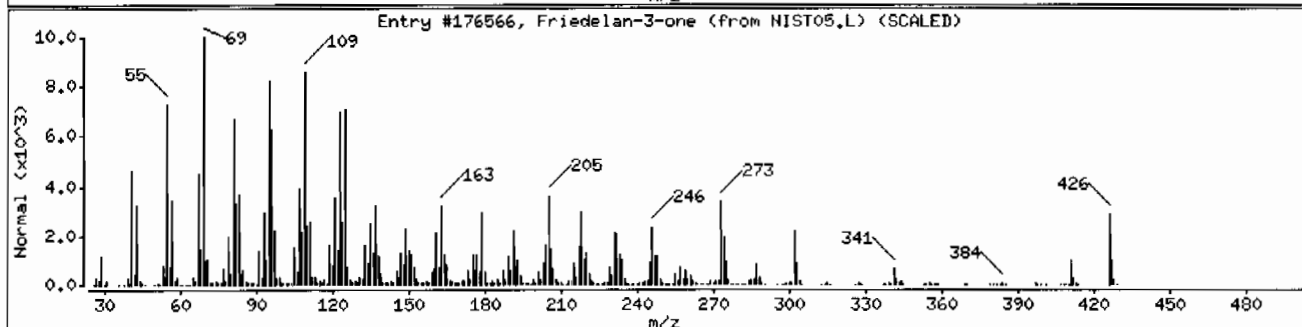
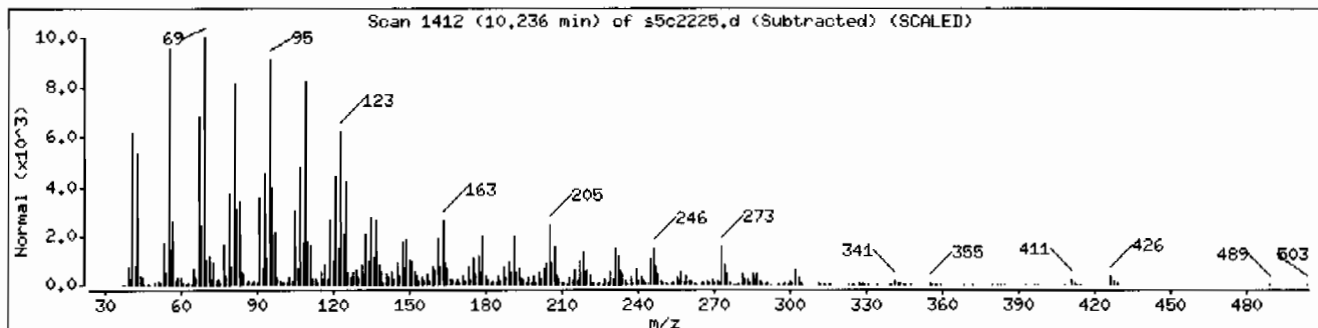
Volume Injected (uL): 0.5

Operator: RMB

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	96	C30H50O	426
2,4a,8,8-Tetramethyldecahydrocyclopropa[	74022-04-1	NIST05.L	61558	81	C15H26	206
13-Tetradec-11-yn-1-ol	1000131-00-4	NIST05.L	62946	64	C14H24O	208



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Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: I2485060141963086111SVH111LANL

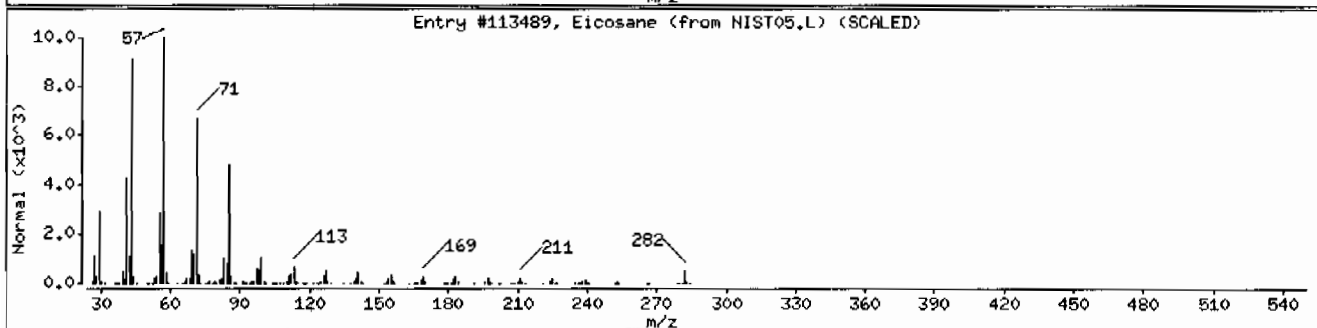
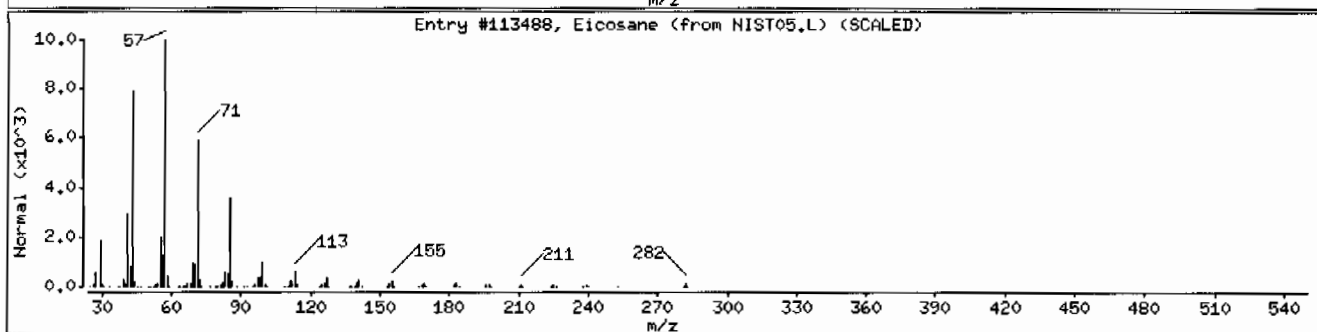
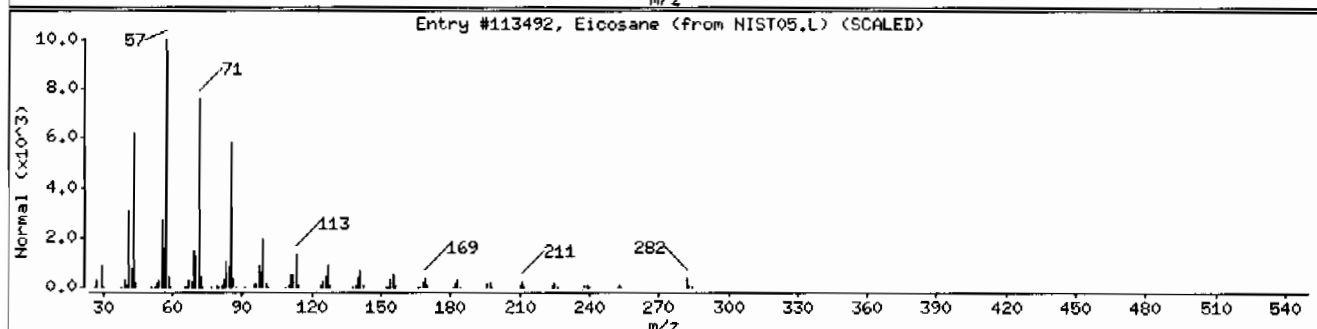
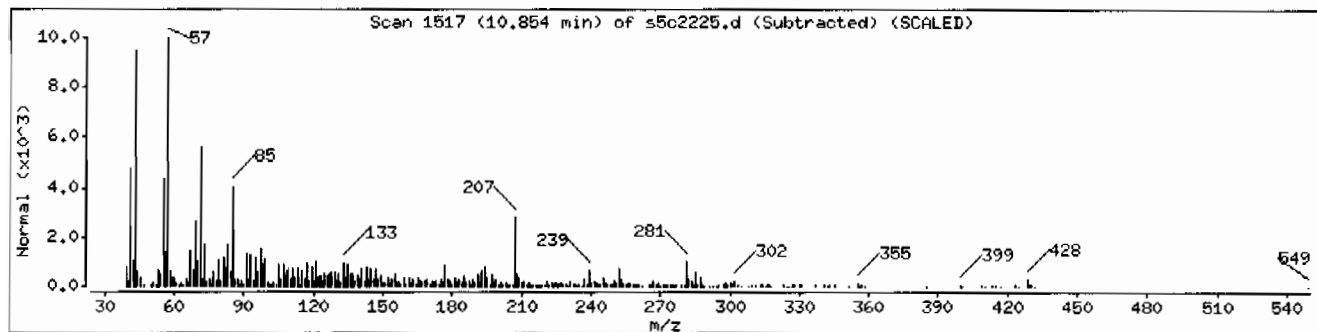
Volume Injected (uL): 0.5

Operator: RHB

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	95	C <sub>20</sub> H <sub>42</sub>	282
Eicosane	112-95-8	NIST05.L	113488	91	C <sub>20</sub> H <sub>42</sub>	282
Eicosane	112-95-8	NIST05.L	113489	90	C <sub>20</sub> H <sub>42</sub>	282



Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: I248506014I963086I1ISVM11ILANL

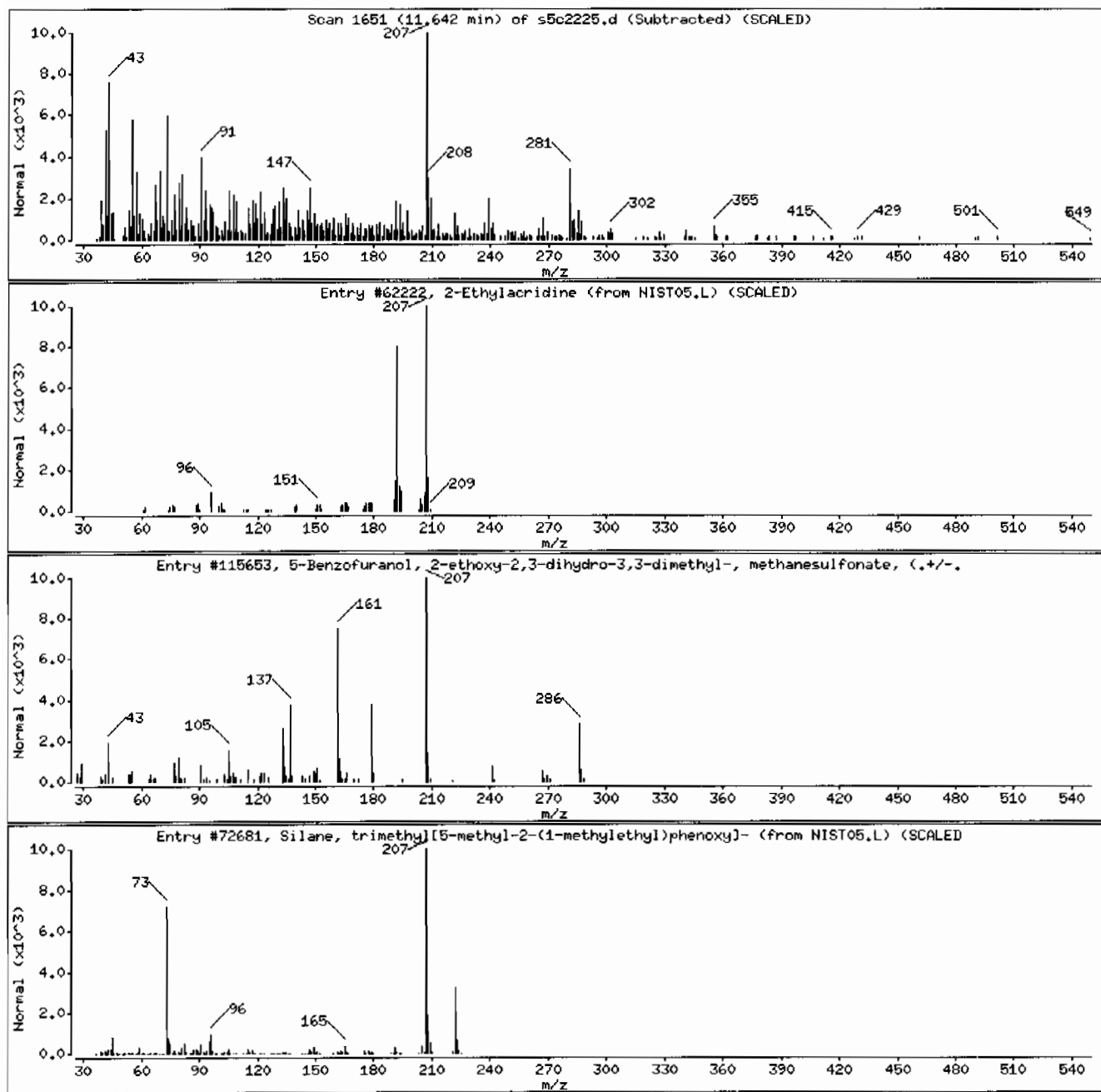
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Ethylacridine	55751-83-2	NIST05.L	62222	51	C15H13N	207
5-Benzofuranol, 2-ethoxy-2,3-dihydro-3,3	26225-79-6	NIST05.L	115653	43	C13H18O5S	286
Silane, trimethyl[5-methyl-2-(1-methylet	55012-80-1	NIST05.L	72681	42	C13H22OSi	222



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Client ID: RE36-10-7440

Instrument: MSD5.1

Sample Info: I248506014I963086I1ISVM11ILANL

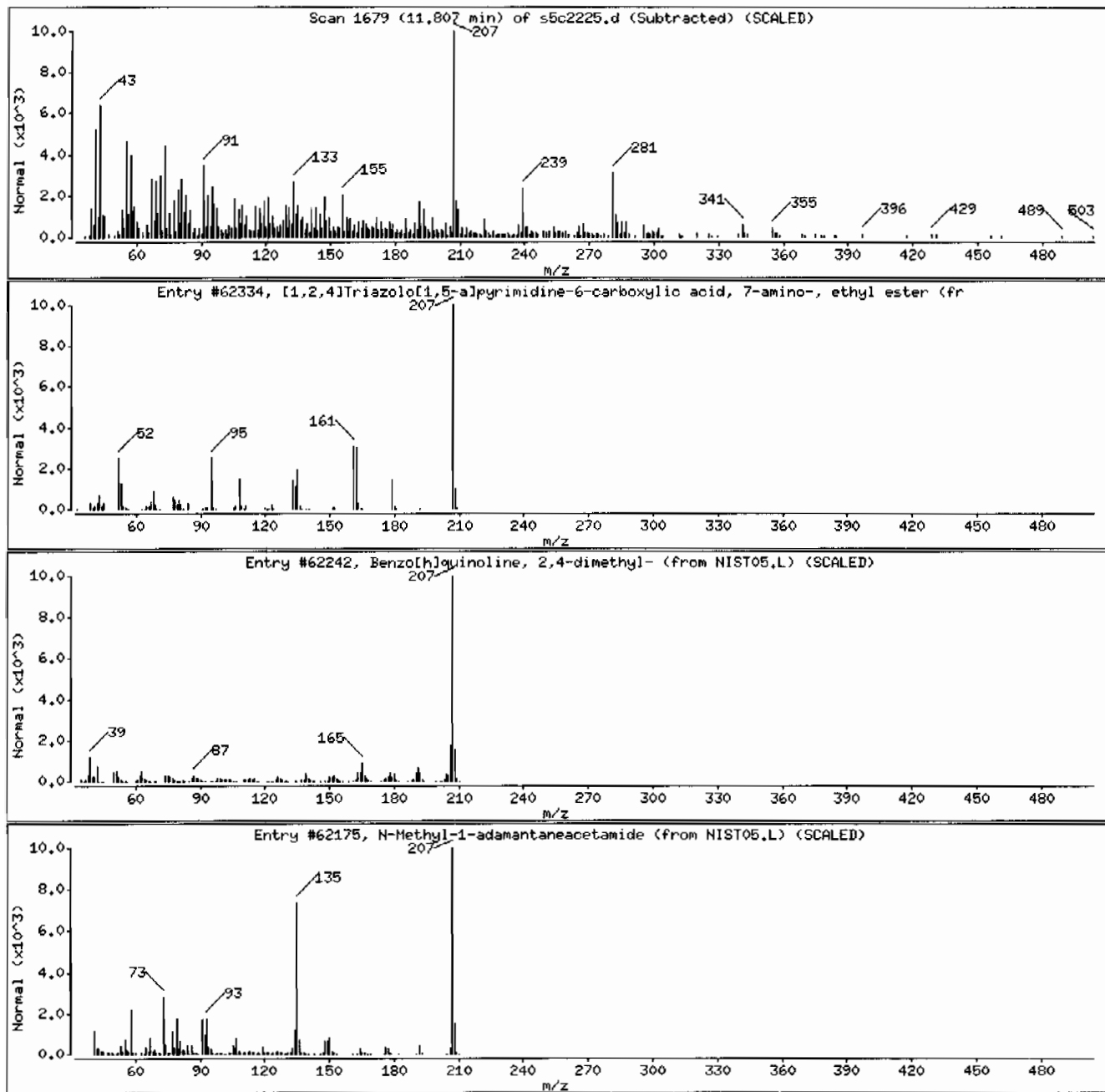
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
[1,2,4]Triazolo[1,5-a]pyrimidine-6-carbo	1000316-75-8	NIST05.L	62334	45	C8H9N5O2	207
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62242	42	C15H13N	207
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05.L	62175	42	C13H21NO	207



Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: 12485060141963086111SVH111LANL

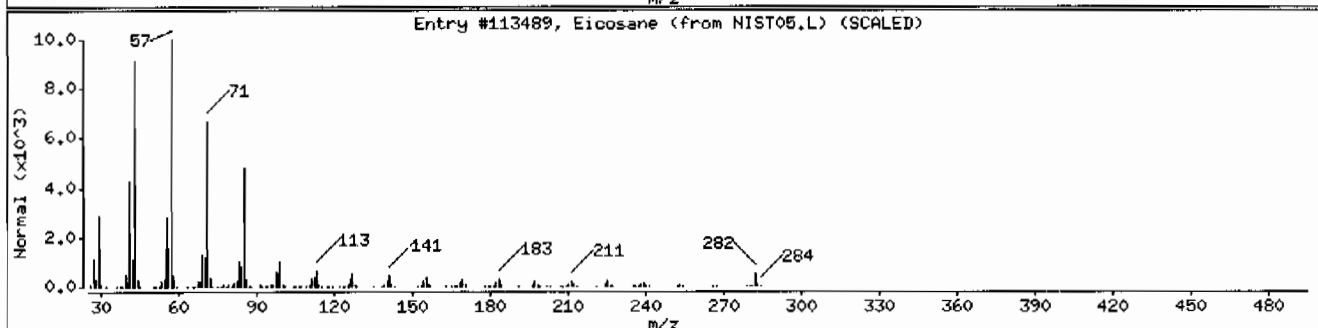
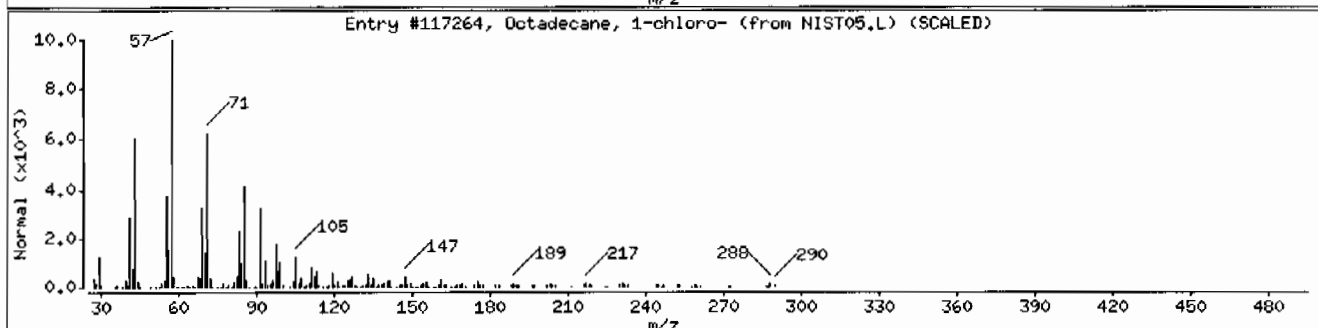
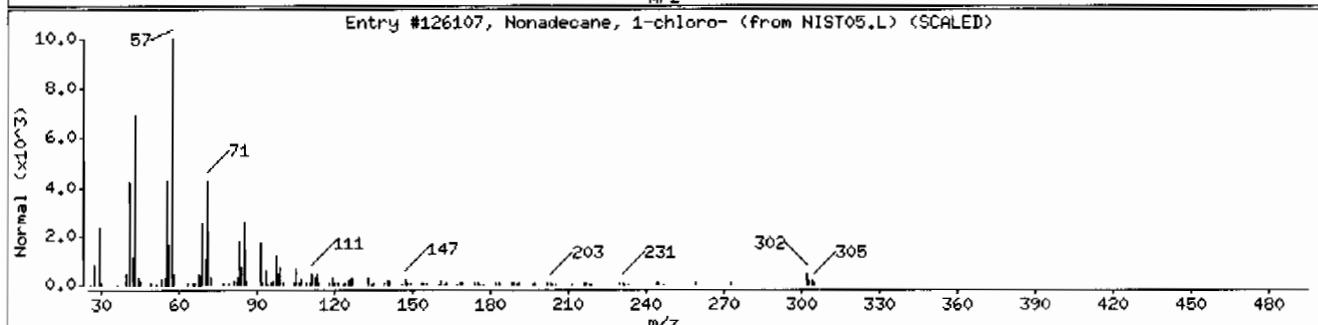
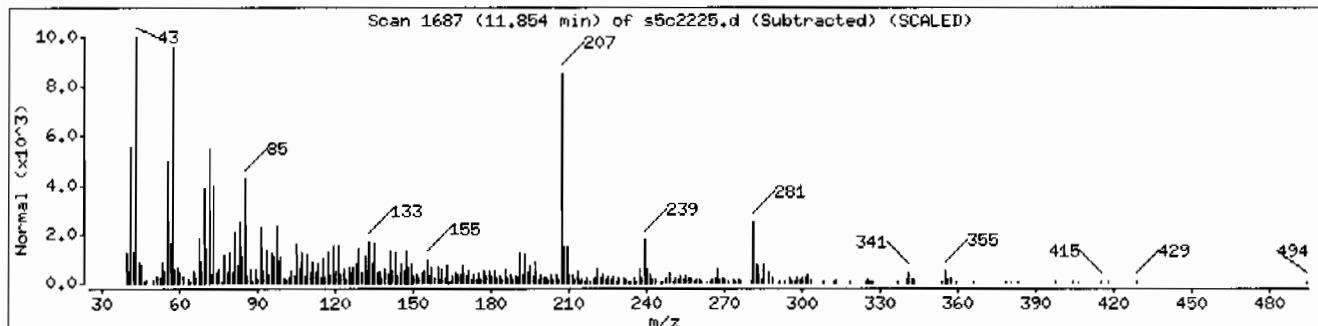
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Nonadecane, 1-chloro-	62016-76-6	NIST05.L	126107	95	C19H39Cl	302
Octadecane, 1-chloro-	3386-33-2	NIST05.L	117264	94	C18H37Cl	288
Eicosane	112-95-8	NIST05.L	113489	93	C20H42	282



Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: 12485060141963086111SVMI11LANL

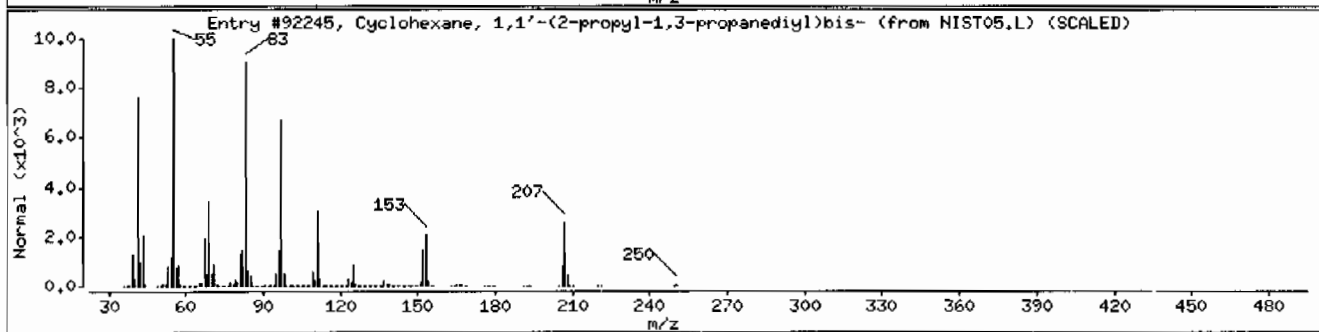
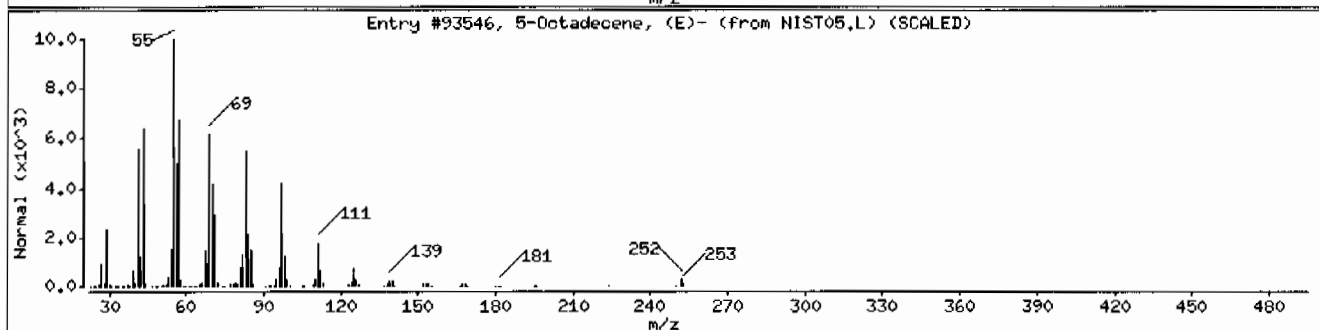
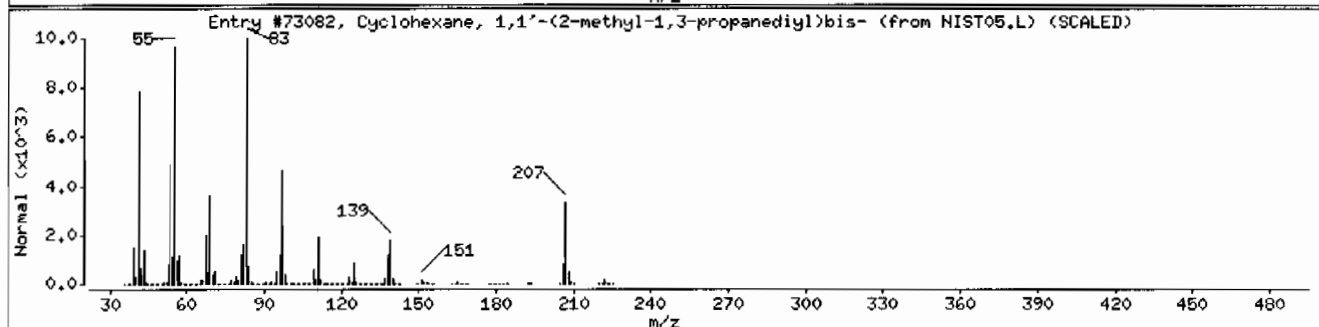
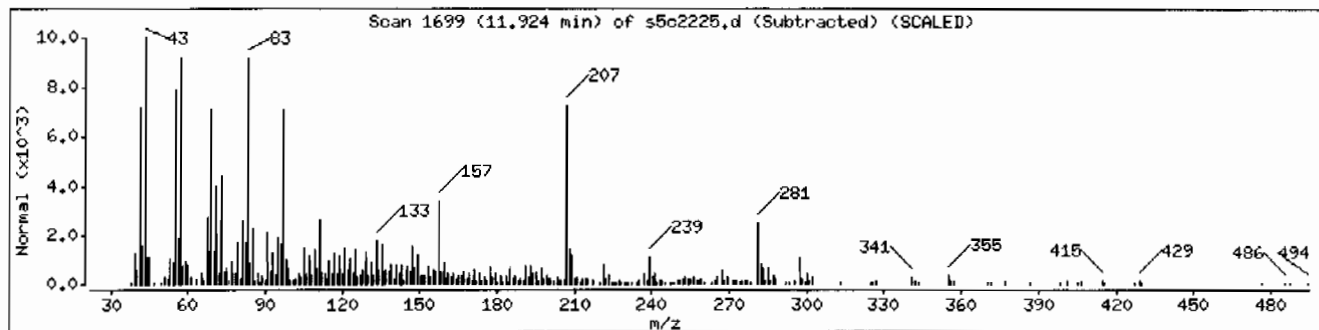
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexane, 1,1'-(2-methyl-1,3-propanediol)bis-	2883-08-1	NIST05.L	73082	62	C16H30	222
5-Octadecene, (E)-	7206-21-5	NIST05.L	93546	55	C18H36	252
Cyclohexane, 1,1'-(2-propyl-1,3-propanediol)bis-	55030-21-2	NIST05.L	92245	53	C18H34	250



Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: 1248506014196308611SVMI1ILANL

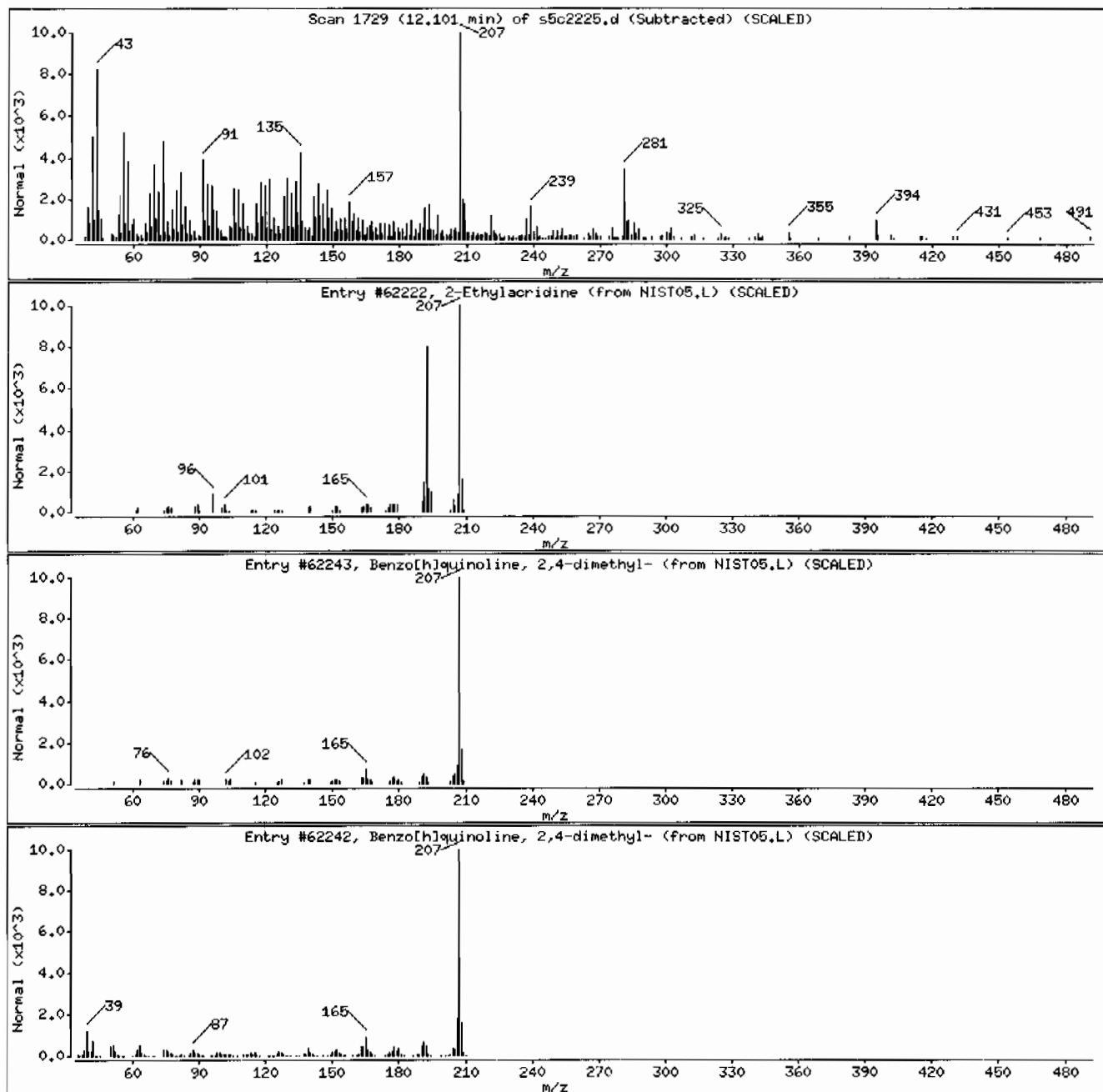
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Ethylacridine	55751-83-2	NIST05.L	62222	42	C15H13N	207
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	38	C15H13N	207
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62242	38	C15H13N	207



Date: 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: 12485060141963086111SVH111LANL

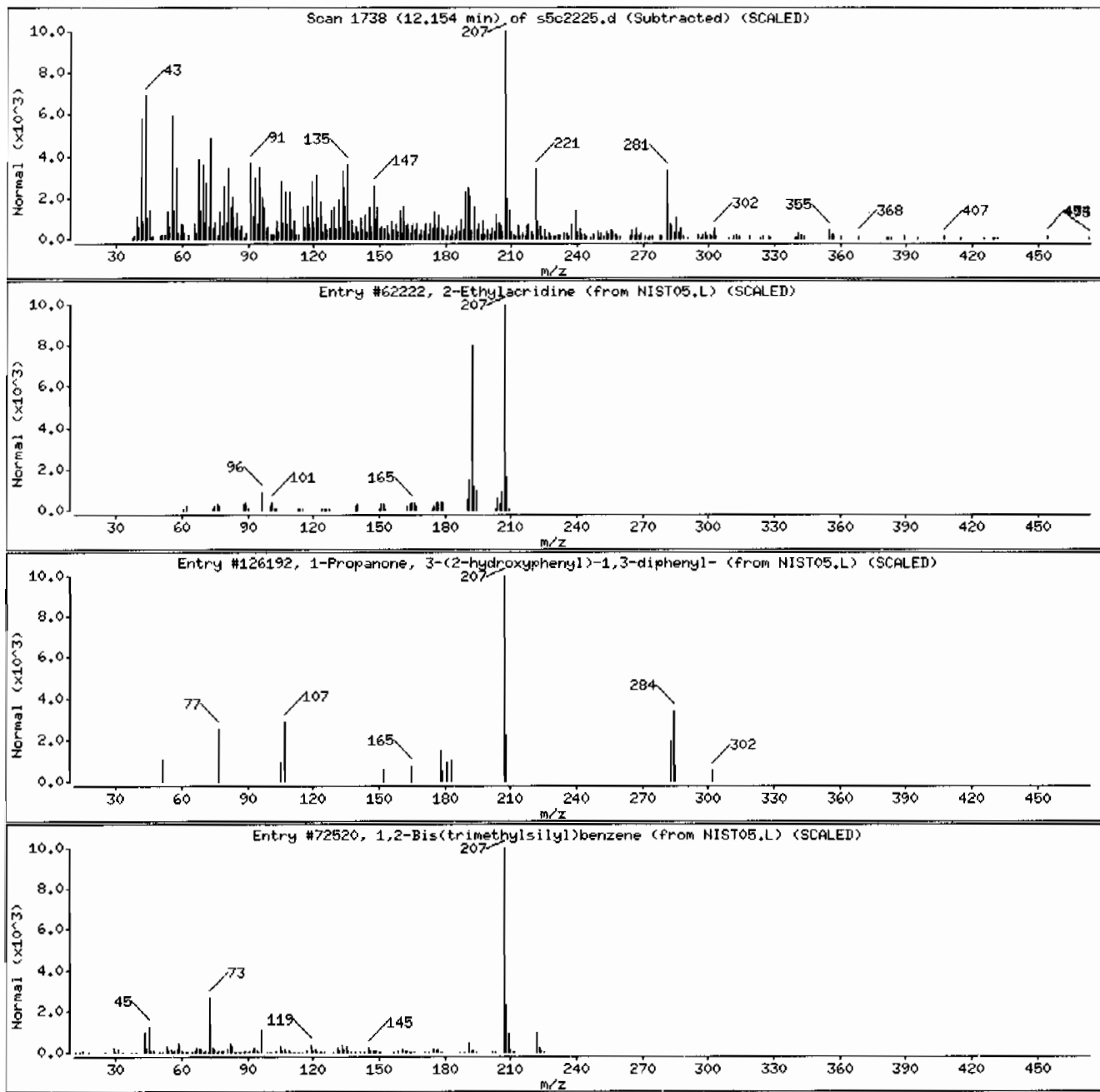
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Ethylacridine	55751-83-2	NIST05.L	62222	50	C15H13N	207
1-Propanone, 3-(2-hydroxyphenyl)-1,3-dip	4376-83-4	NIST05.L	126192	38	C21H18O2	302
1,2-Bis(trimethylsilyl)benzene	17151-09-6	NIST05.L	72520	38	C12H22Si2	222





Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: 12485060141963086111SVH111LANL

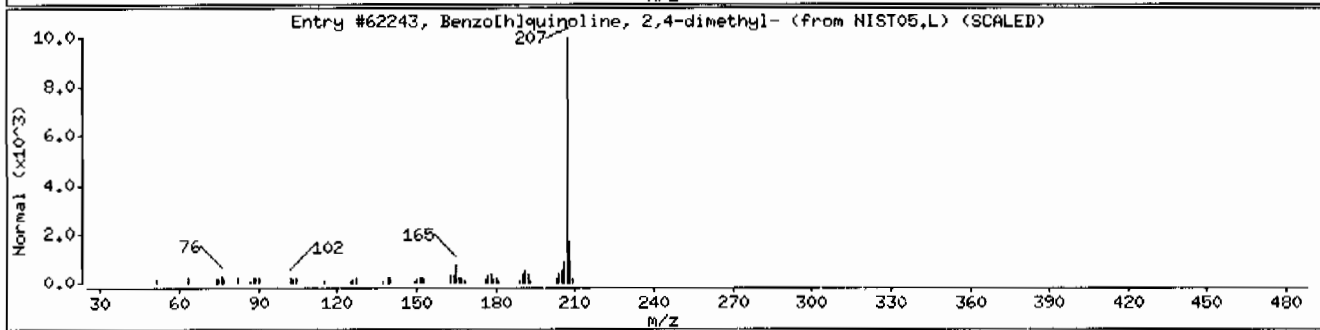
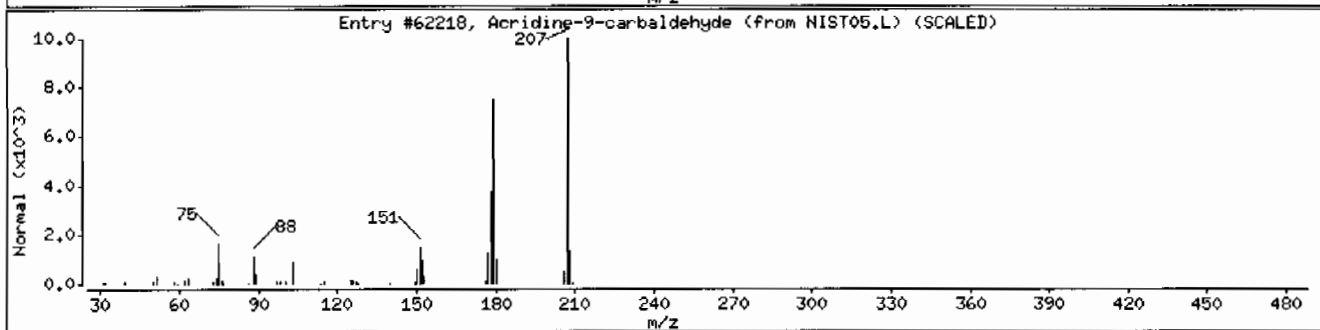
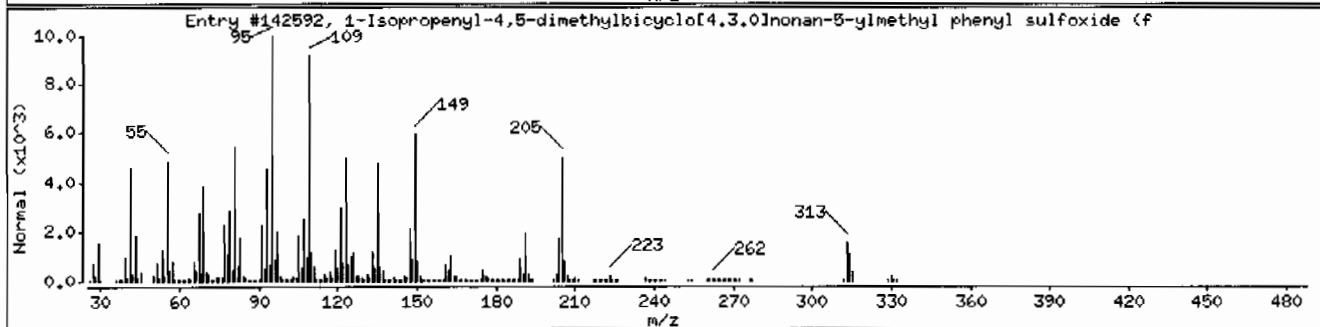
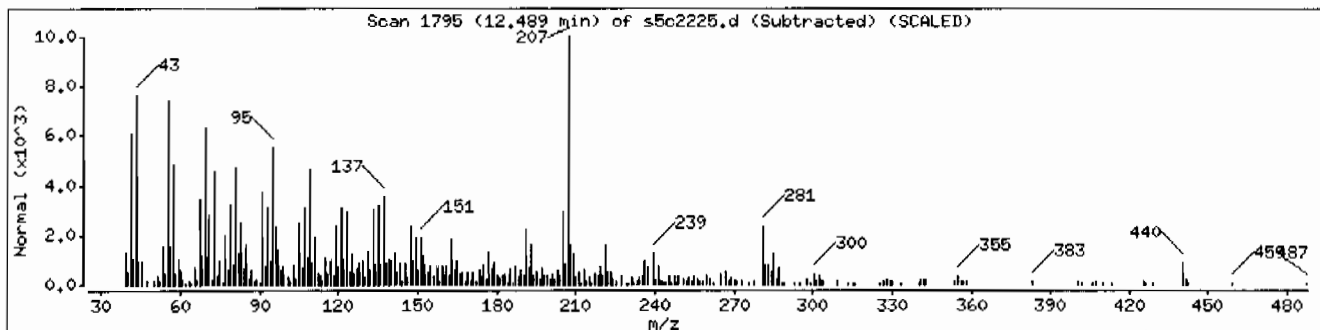
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Isopropenyl-4,5-dimethylbicyclo[4.3.0]	1000195-85-4	NIST05.L	142592	42	C21H30OS	330
Acridine-9-carbaldehyde	1000318-45-4	NIST05.L	62218	38	C14H9NO	207
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	38	C15H13N	207



Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: MSD5,i

Sample Info: 1248506014196308611SVMI11LANL

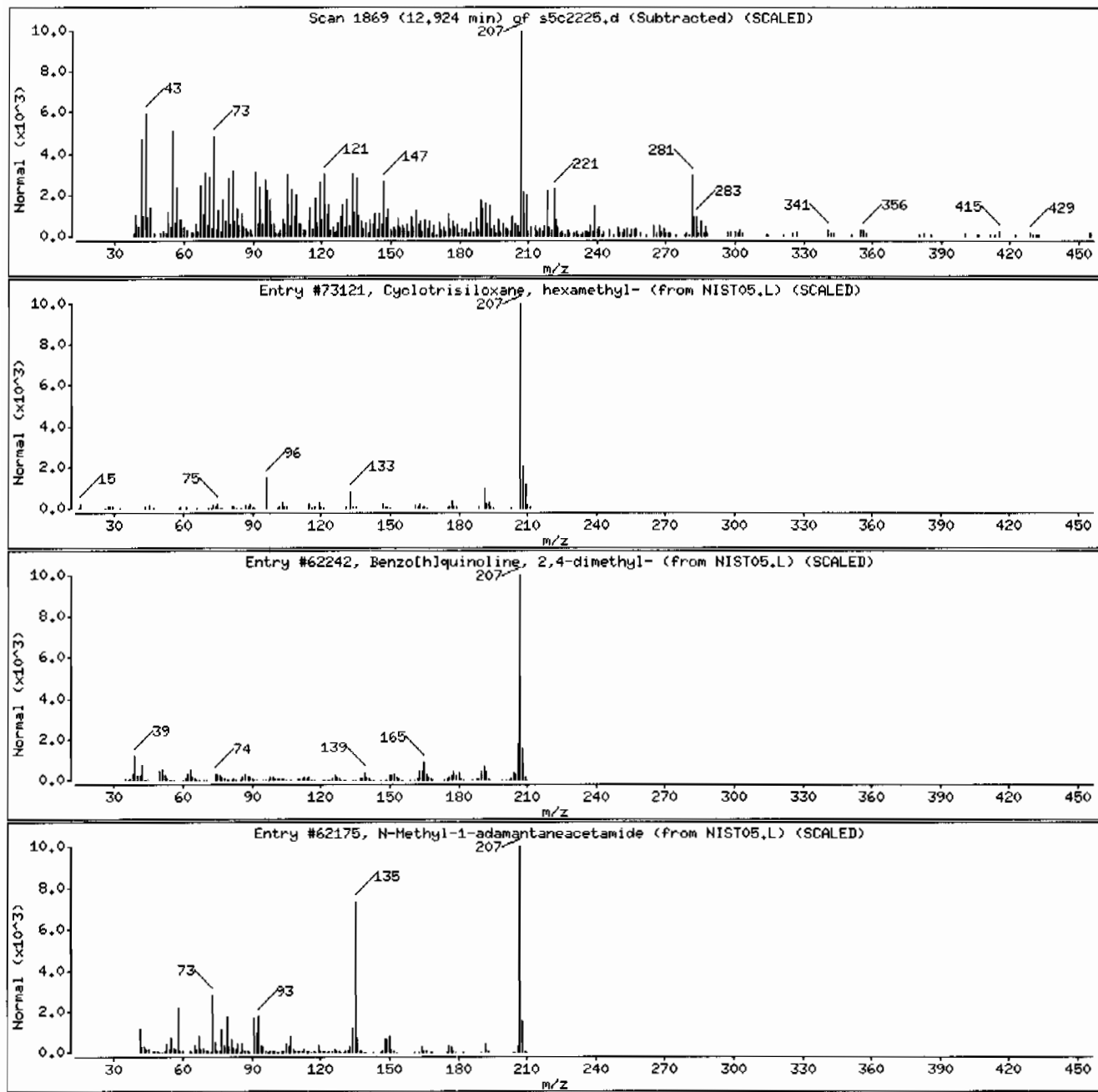
Volume Injected (uL): 0,5

Operator: RMB

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

Column diameter: 0,20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73121	38	C <sub>6</sub> H <sub>18</sub> O <sub>3</sub> Si <sub>3</sub>	222
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62242	38	C <sub>15</sub> H <sub>13</sub> N	207
N-Methyl-1-adamantanecetamide	31897-93-5	NIST05.L	62175	38	C <sub>13</sub> H <sub>21</sub> NO	207



Date : 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: 1248506014196308611SVMI11LANL

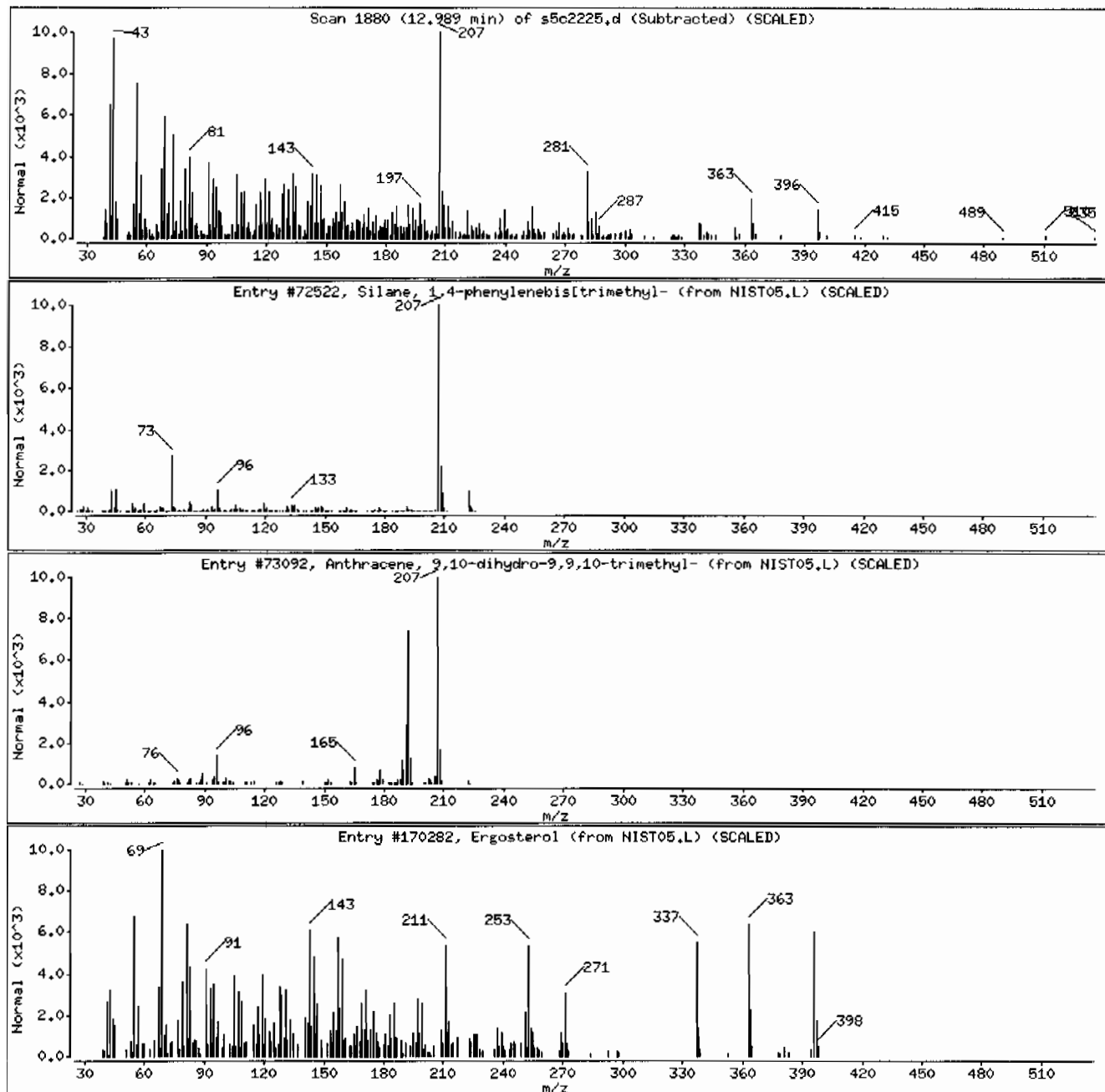
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Silane, 1,4-phenylenebis(trimethyl-	13183-70-5	NIST05.L	72522	50	C12H22Si2	222
Anthracene, 9,10-dihydro-9,9,10-trimethy	14923-29-6	NIST05.L	73092	46	C17H18	222
Ergosterol	57-87-4	NIST05.L	170282	45	C28H44O	396



Date: 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: MSD5.i

Sample Info: I248506014/96308611/SVMI1/LANL

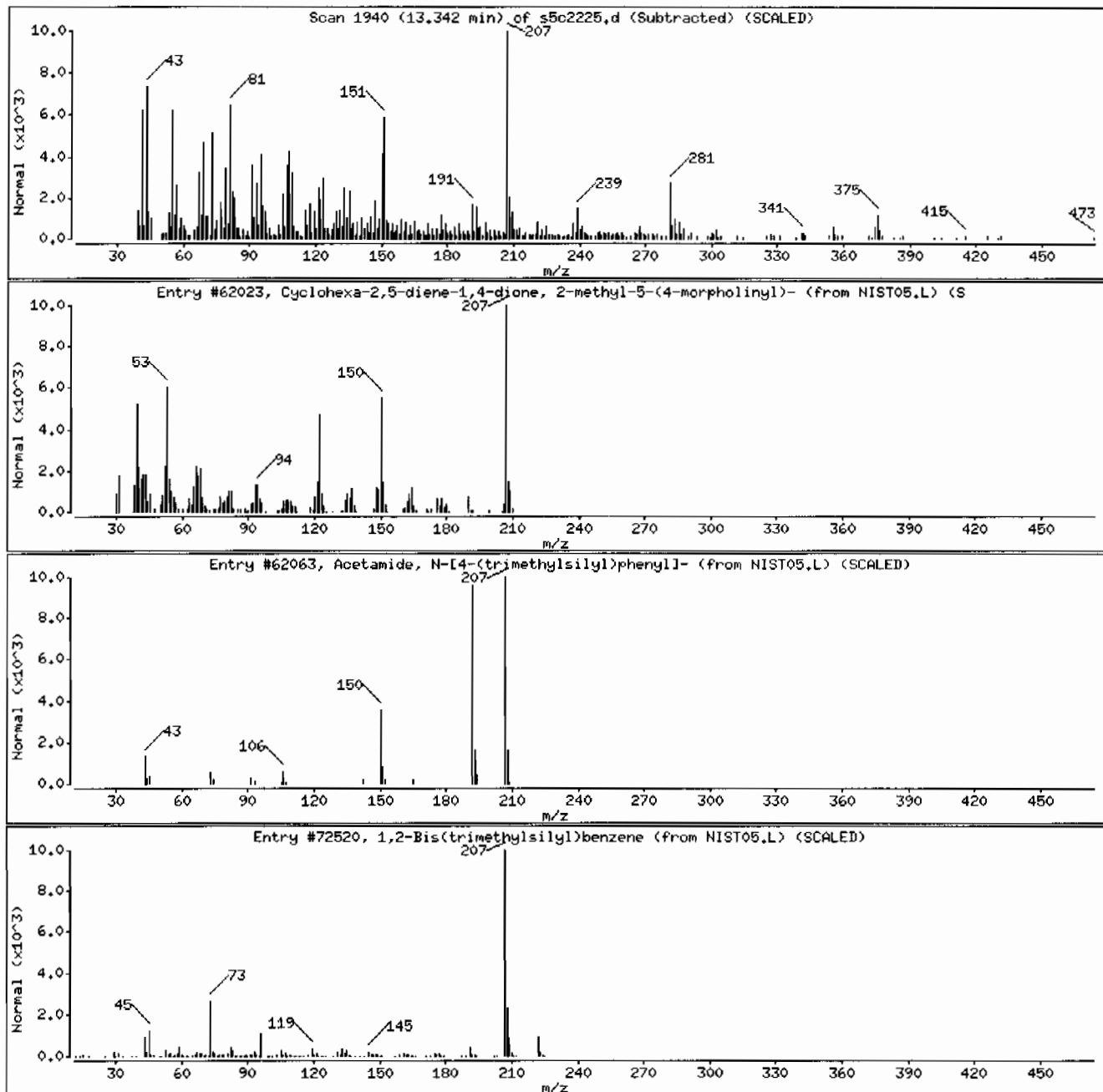
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexa-2,5-diene-1,4-dione, 2-methyl-	2158-89-6	NIST05.L	62023	43	C11H13NO3	207
Acetamide, N-[4-(trimethylsilyl)phenyl]-	17983-71-0	NIST05.L	62063	38	C11H17NOSi	207
1,2-Bis(trimethylsilyl)benzene	17151-09-6	NIST05.L	72520	35	C12H22Si2	222



Date: 22-MAR-2010 17:39

Client ID: RE36-10-7440

Instrument: HSD5.i

Sample Info: 12485060141963086111SVH111LANL

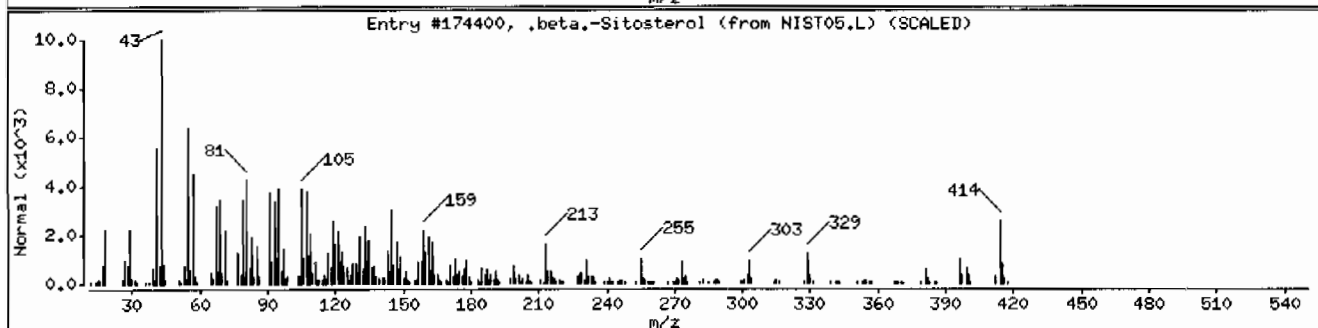
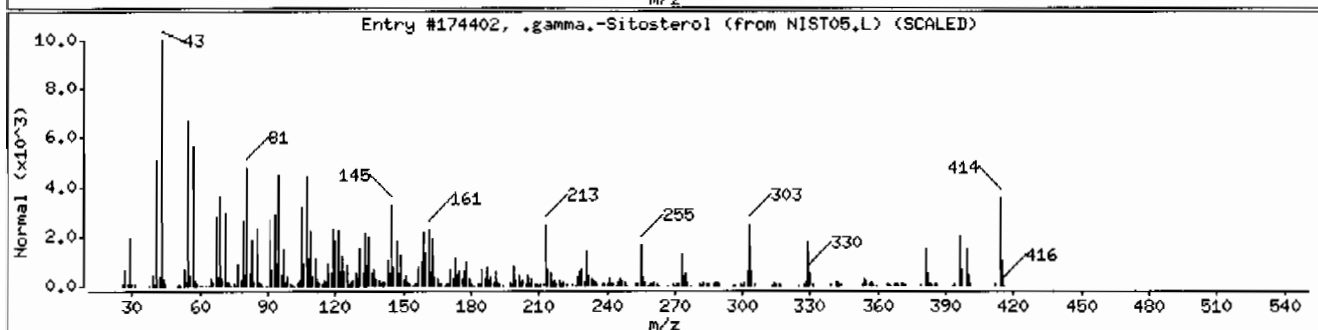
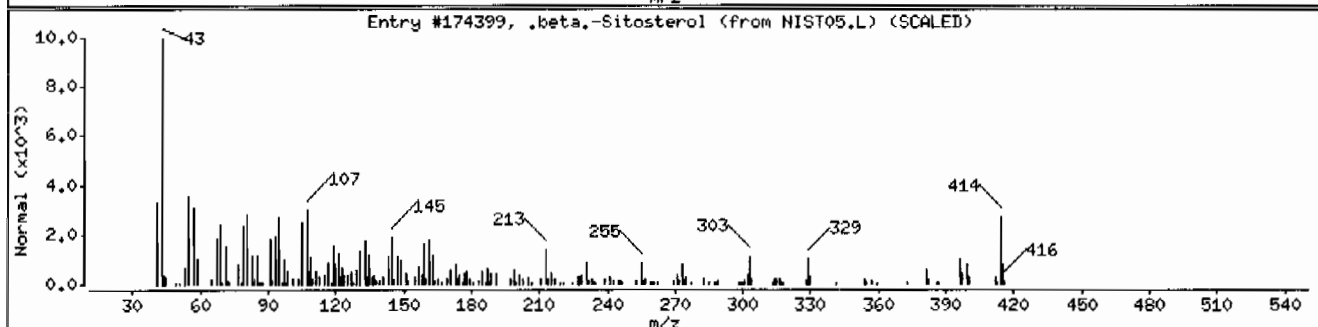
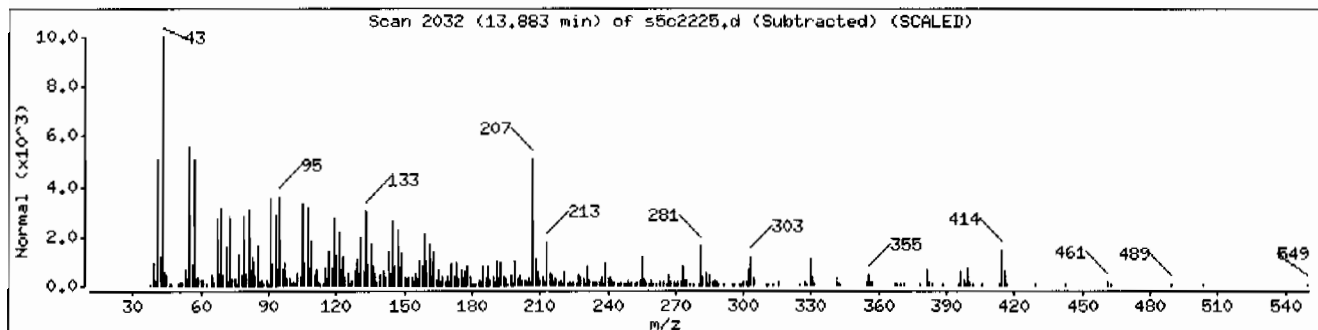
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174399	97	C29H50O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	95	C29H50O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174400	78	C29H50O	414



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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506016	Date Received: 03/03/2010 08:50	%Moisture: 22.4
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7441	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 18:25	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.02 g	Final Volume: 1 mL
Data File: s5c2227.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	429	ug/kg	85.8	429
108-95-2	Phenol	U	429	ug/kg	85.8	429
95-57-8	2-Chlorophenol	U	429	ug/kg	85.8	429
106-46-7	1,4-Dichlorobenzene	U	429	ug/kg	85.8	429
621-64-7	N-Nitrosodipropylamine	U	429	ug/kg	85.8	429
59-50-7	4-Chloro-3-methylphenol	U	429	ug/kg	85.8	429
83-32-9	Acenaphthene	U	42.9	ug/kg	14.2	42.9
121-14-2	2,4-Dinitrotoluene	U	429	ug/kg	42.9	429
100-02-7	4-Nitrophenol	U	429	ug/kg	142	429
87-86-5	Pentachlorophenol	U	429	ug/kg	107	429
129-00-0	Pyrene		58.5	ug/kg	12.9	42.9
110-86-1	Pyridine	U	429	ug/kg	85.8	429
62-53-3	Aniline	U	429	ug/kg	129	429
111-44-4	bis(2-Chloroethyl) ether	U	429	ug/kg	85.8	429
541-73-1	1,3-Dichlorobenzene	U	429	ug/kg	85.8	429
100-51-6	Benzyl alcohol	U	429	ug/kg	129	429
95-50-1	1,2-Dichlorobenzene	U	429	ug/kg	85.8	429
108-60-1	bis(2-Chloroisopropyl)ether	U	429	ug/kg	85.8	429
95-48-7	o-Cresol	U	429	ug/kg	85.8	429
65794-96-9	m,p-Cresols	U	429	ug/kg	129	429
67-72-1	Hexachloroethane	U	429	ug/kg	85.8	429
98-95-3	Nitrobenzene	U	429	ug/kg	85.8	429
78-59-1	Isophorone	U	429	ug/kg	85.8	429
88-75-5	2-Nitrophenol	U	429	ug/kg	85.8	429
105-67-9	2,4-Dimethylphenol	U	429	ug/kg	150	429
111-91-1	bis(2-Chloroethoxy)methane	U	429	ug/kg	85.8	429
120-83-2	2,4-Dichlorophenol	U	429	ug/kg	85.8	429
65-85-0	Benzoic acid	U	858	ug/kg	215	858
91-20-3	Naphthalene	U	42.9	ug/kg	12.9	42.9
106-47-8	4-Chloroaniline	U	429	ug/kg	85.8	429
87-68-3	Hexachlorobutadiene	U	429	ug/kg	85.8	429
91-57-6	2-Methylnaphthalene	U	42.9	ug/kg	8.58	42.9
77-47-4	Hexachlorocyclopentadiene	U	429	ug/kg	85.8	429
88-06-2	2,4,6-Trichlorophenol	U	429	ug/kg	85.8	429
95-95-4	2,4,5-Trichlorophenol	U	429	ug/kg	85.8	429
91-58-7	2-Chloronaphthalene	U	42.9	ug/kg	14.2	42.9
88-74-4	2-Nitroaniline	U	429	ug/kg	85.8	429
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	429	ug/kg	85.8	429

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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506016	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 22.4
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7441	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 18:25	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.02 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2227.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	429	ug/kg	85.8	429
606-20-2	2,6-Dinitrotoluene	U	429	ug/kg	42.9	429
208-96-8	Acenaphthylene	U	42.9	ug/kg	12.9	42.9
51-28-5	2,4-Dinitrophenol	U	858	ug/kg	163	858
132-64-9	Dibenzofuran	U	429	ug/kg	85.8	429
84-66-2	Diethylphthalate	U	429	ug/kg	85.8	429
86-73-7	Fluorene	U	42.9	ug/kg	12.9	42.9
7005-72-3	4-Chlorophenylphenylether	U	429	ug/kg	85.8	429
534-52-1	2-Methyl-4,6-dinitrophenol	U	429	ug/kg	85.8	429
100-01-6	4-Nitroaniline	U	429	ug/kg	129	429
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	429	ug/kg	85.8	429
122-66-7	Azobenzene	U	429	ug/kg	85.8	429
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	429	ug/kg	85.8	429
118-74-1	Hexachlorobenzene	U	429	ug/kg	85.8	429
85-01-8	Phenanthrene		45.8	ug/kg	12.9	42.9
120-12-7	Anthracene	U	42.9	ug/kg	8.58	42.9
84-74-2	Di-n-butylphthalate	U	429	ug/kg	85.8	429
206-44-0	Fluoranthene		67.3	ug/kg	12.9	42.9
85-68-7	Butylbenzylphthalate	U	429	ug/kg	85.8	429
56-55-3	Benzo(a)anthracene	U	42.9	ug/kg	12.9	42.9
91-94-1	3,3'-Dichlorobenzidine	U	429	ug/kg	129	429
218-01-9	Chrysene	J	32.4	ug/kg	12.9	42.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	429	ug/kg	85.8	429
117-84-0	Di-n-octylphthalate	U	429	ug/kg	85.8	429
205-99-2	Benzo(b)fluoranthene	U	42.9	ug/kg	12.9	42.9
207-08-9	Benzo(k)fluoranthene	U	42.9	ug/kg	12.9	42.9
50-32-8	Benzo(a)pyrene	U	42.9	ug/kg	12.9	42.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.9	ug/kg	12.9	42.9
53-70-3	Dibenzo(a,h)anthracene	U	42.9	ug/kg	12.9	42.9
191-24-2	Benzo(ghi)perylene	U	42.9	ug/kg	12.9	42.9
120-82-1	1,2,4-Trichlorobenzene	U	429	ug/kg	85.8	429

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
103-82-2	Benzenecetic acid	4.95	494	ug/kg	91	J
52380-33-3	11-Octadecenoic acid, methyl ester	8.14	282	ug/kg	95	NJ

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

SDG Number: 10-2193  
Lab Sample ID: 248506016

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.1  
Analyst: RMB  
Aliquot: 30.02 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 22.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
2885-00-9	1-Octadecanethiol	8.79	337	ug/kg	96	NJ
3779-61-1	1,3,6-Octatriene, 3,7-dimethyl-, (E)-	9.14	447	ug/kg	49	NJ
114614-84-5	1-Cyclohexylnonene	9.25	335	ug/kg	78	NJ
3452-07-1	1-Eicosene	9.45	793	ug/kg	93	NJ
	Unknown	9.75	337	ug/kg		J
	Unknown	9.89	291	ug/kg		J
112-95-8	Eicosane	10.08	479	ug/kg	95	NJ
629-96-9	1-Eicosanol	10.11	888	ug/kg	93	NJ
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.15	1220	ug/kg	92	NJ
	Unknown	10.24	528	ug/kg		J
62016-76-6	Nonadecane, 1-chloro-	10.45	362	ug/kg	94	NJ
111-02-4	2,6,10,14,18,22-Tetracosahexaene, 2,6,10	10.55	656	ug/kg	95	NJ
	Unknown	10.63	469	ug/kg		J
	Unknown	10.91	478	ug/kg		J
	Unknown	11.45	452	ug/kg		J
	Unknown	11.81	542	ug/kg		J
	Unknown	11.93	1880	ug/kg		J
	Unknown	12.11	870	ug/kg		J
	Unknown	12.14	562	ug/kg		J
53939-28-9	cis-11-Hexadecenal	12.69	810	ug/kg	83	NJ
	Unknown	12.9	889	ug/kg		J
	Unknown	13	559	ug/kg		J
83-46-5	.beta.-Sitosterol	13.89	1400	ug/kg	96	NJ
	Unknown	14.48	616	ug/kg		J



Data File: /chem/MSD5.i/s032210.b/s5c2227.d  
Report Date: 23-Mar-2010 07:54

Page 1

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2227.d  
Lab Smp Id: 248506016 Client Smp ID: RE36-10-7441  
Inj Date : 22-MAR-2010 18:25  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506016|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 27  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	22.36670	% 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	3.948	3.950	(1.000)	229513	40.0000	
* 29 Naphthalene-d8	136	4.813	4.821	(1.000)	942308	40.0000	
* 46 Acenaphthene-d10	164	6.072	6.078	(1.000)	567017	40.0000	
* 67 Phenanthrene-d10	188	7.254	7.253	(1.000)	1009761	40.0000	
* 91 Chrysene-d12	240	9.672	9.670	(1.000)	817790	40.0000	
* 98 Perylene-d12	264	11.377	11.370	(1.000)	500553	40.0000	
\$ 3 2-Fluorophenol	112	3.148	3.141	(0.797)	301630	52.6307	2260
\$ 5 Phenol-d5	99	3.666	3.666	(0.928)	419992	60.9726	2620
\$ 20 Nitrobenzene-d5	82	4.307	4.316	(0.895)	237074	33.8581	1450
\$ 39 2-Fluorobiphenyl	172	5.560	5.558	(0.916)	430740	30.4148	1300
\$ 60 2,4,6-Tribromophenol	329	6.678	6.675	(1.100)	127949	60.0785	2580
\$ 81 p-Terphenyl-d14	244	8.636	8.630	(0.893)	492864	36.2313	1550

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
79 Pyrene		202	8.530	8.534	(0.882)	30817	1.36376	58.5
68 Phenanthrene		178	7.272	7.272	(1.002)	22832	1.06813	45.8
76 Fluoranthene		202	8.319	8.317	(1.147)	34991	1.56922	67.3
92 Chrysene		228	9.695	9.694	(1.002)	12852	0.75414	32.4 (a)

#### QC Flag Legend

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

## ION RATIO REPORT

## SV REPORT

Data file: s5c2227.d

Report Date: 03/23/2010 07:07

Lab. ID: 248506016

SampleType: SAMPLE

Injection Date: 22-MAR-2010 18:25

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506016|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
1 N-Methyl-N-nitrosomethylamine				CAS#: 62-75-9		
74	35985	2.22	2.46	80-120	100	(T)
42	6591	2.21	2.46	82-142	18	(QT)
43	31443	2.21	2.46	15- 75	87	(QT)
-----						
4 Aniline				CAS#: 62-53-3		
66	25823	3.67	3.74	80-120	100	(T)
93	7214	3.62	3.74	219-279	28	(QT)
-----						
7 bis(2-Chloroethyl) ether				CAS#: 111-44-4		
63	10654	3.95	3.75	80-120	100	(T)
93	3635	3.94	3.75	119-179	34	(QT)
95	991	3.91	3.75	8- 68	9	(T)
-----						
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	32251	4.31	4.19	80-120	100	(T)
42	20690	4.31	4.19	44-104	64	(T)
-----						
22 Isophorone				CAS#: 78-59-1		
82	238796	4.31	4.48	80-120	100	(T)
138	207	4.50	4.48	0- 49	0	( )
-----						
27 Benzoic acid				CAS#: 65-85-0		
105	7611	4.56	4.59	80-120	100	( )
122	6034	4.56	4.59	45-105	79	( )
77	5730	4.56	4.59	48-108	75	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
43 Dimethylphthalate				CAS#: 131-11-3		
163	103020	6.07	5.84	80-120	100	(T)
164	567017	6.07	5.84	0- 40	550	(QT)
<hr/>						
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	75514	6.07	5.90	80-120	100	(T)
63	867	6.07	5.89	62-122	1	(QT)
<hr/>						
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	75514	6.07	6.19	80-120	100	(T)
89	2525	6.07	6.19	51-111	3	(QT)
63	927	6.07	6.19	24- 84	1	(QT)
<hr/>						
52 4-Nitrophenol				CAS#: 100-02-7		
139	389	6.12	6.12	80-120	100	( )
109	3867	6.07	6.12	63-123	994	(Q)
65	1072	6.13	6.11	71-131	276	(Q)
<hr/>						
53 Fluorene				CAS#: 86-73-7		
166	6263	6.68	6.49	80-120	100	(T)
165	5804	6.68	6.49	62-122	93	(T)
167	2341	6.68	6.49	0- 44	37	(T)
<hr/>						
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	103	6.53	6.51	80-120	100	( )
105	1401	6.54	6.50	13- 73	1352	(Q)
51	445	6.47	6.50	51-111	430	(Q)
<hr/>						
68 Phenanthrene				CAS#: 85-01-8		
178	22832	7.27	7.27	80-120	100	( )
179	4609	7.27	7.27	0- 46	20	( )
176	4260	7.27	7.27	0- 49	19	( )
<hr/>						
69 Anthracene				CAS#: 120-12-7		
178	22755	7.27	7.32	80-120	100	( )
179	4742	7.27	7.32	0- 46	21	( )
176	4450	7.27	7.32	0- 49	20	( )
<hr/>						
76 Fluoranthene				CAS#: 206-44-0		
202	34991	8.32	8.32	80-120	100	( )
203	6341	8.32	8.32	0- 48	18	( )
101	4678	8.31	8.32	0- 41	13	( )
<hr/>						
79 Pyrene				CAS#: 129-00-0		
202	30817	8.53	8.53	80-120	100	( )
200	6606	8.53	8.53	0- 51	21	( )
101	4145	8.53	8.53	0- 43	13	( )
<hr/>						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
89 Benzo(a)anthracene		CAS#: 56-55-3				
228	13822	9.66	9.66	80-120	100	( )
226	2941	9.66	9.66	0- 56	21	( )
229	4647	9.66	9.66	0- 50	34	( )
-----						
92 Chrysene		CAS#: 218-01-9				
228	12852	9.70	9.69	80-120	100	( )
229	2904	9.70	9.69	0- 50	23	( )
226	3493	9.69	9.69	0- 59	27	( )
-----						
95 Benzo(b)fluoranthene		CAS#: 205-99-2				
252	12967	10.85	10.85	80-120	100	( )
253	2966	10.85	10.85	0- 52	23	( )
125	3449	10.85	10.85	0- 41	27	( )
-----						
96 Benzo(k)fluoranthene		CAS#: 207-08-9				
252	12967	10.85	10.88	80-120	100	( )
253	3858	10.85	10.88	0- 52	30	( )
125	4486	10.85	10.88	0- 40	35	( )
-----						
97 Benzo(a)pyrene		CAS#: 50-32-8				
252	5607	11.29	11.29	80-120	100	( )
253	2202	11.29	11.29	0- 52	39	( )
125	1803	11.29	11.29	0- 30	32	(Q)
-----						
99 Indeno(1,2,3-cd)pyrene		CAS#: 193-39-5				
276	2862	13.17	13.17	80-120	100	( )
138	959	13.17	13.18	0- 58	34	( )
-----						
101 Benzo(ghi)perylene		CAS#: 191-24-2				
276	2529	13.72	13.72	80-120	100	( )
138	1366	13.71	13.72	0- 30	54	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2227.d  
 Lab Smp Id: 248506016 Client Smp ID: RE36-10-7441  
 Inj Date : 22-MAR-2010 18:25  
 Operator : RMB Inst ID: MSD5.i  
 Smp Info : |248506016|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
 Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
 Als bottle: 27  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2193.sub  
 Target Version: 3.50  
 Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	22.36670	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 29 Naphthalene-d8	4.813	2142288	40.000
* 67 Phenanthrene-d10	7.254	2701766	40.000
* 91 Chrysene-d12	9.672	2795564	40.000
* 98 Perylene-d12	11.377	1704244	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	LIP ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Benzeneacetic acid					CAS #: 103-82-2		
4.954	616977	11.5199655	494	91	NIST05.L	15740	29(L)
11-Octadecenoic acid, methyl ester					CAS #: 52380-33-3		
8.136	444462	6.58032346	282	95	NIST05.L	122316	67
1-Octadecanethiol					CAS #: 2885-00-9		
8.789	548166	7.84336724	336	96	NIST05.L	116141	91
1,3,6-Octatriene, 3,7-dimethyl-, (E)-					CAS #: 3779-61-1		
9.142	728084	10.4176985	447	49	NIST05.L	15285	91
1-Cyclohexynonene					CAS #: 114614-84-5		
9.248	545525	7.80558187	335	78	NIST05.L	63041	91
1-Eicosene					CAS #: 3452-07-1		
9.448	1291803	18.4836149	793	93	NIST05.L	112101	91
Unknown					CAS #:		
9.754	548195	7.84377646	336	0		0	91
Unknown					CAS #:		
9.889	474353	6.78721764	291	0		0	91
Eicosane					CAS #: 112-95-8		
10.083	780077	11.1616436	479	95	NIST05.L	113489	91
1-Eicosanol					CAS #: 629-96-9		
10.107	1446983	20.7039875	888	93	NIST05.L	123792	91
Pyridine-3-carboxamide, oxime, N-(2-trif					CAS #: 288246-53-7		
10.154	1982770	28.3702303	1220	92	NIST05.L	112295	91
Unknown					CAS #:		
10.242	859494	12.2979700	528	0		0	91
Nonadecane, 1-chloro-					CAS #: 62016-76-6		
10.448	590384	8.44743692	362	94	NIST05.L	126107	91
2,6,10,14,18,22-Tetracosahexaene, 2,6,10					CAS #: 111-02-4		
10.548	651679	15.2954313	656	95	NIST05.L	173571	98
Unknown					CAS #:		
10.630	465568	10.9272632	469	0		0	98

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
Unknown					CAS #:		
10.907	474634	11.1400372	478	0		0	98
Unknown					CAS #:		
11.448	448952	10.5372653	452	0		0	98
Unknown					CAS #:		
11.813	538365	12.6358657	542	0		0	98
Unknown					CAS #:		
11.930	1865343	43.7811105	1880	0		0	98
Unknown					CAS #:		
12.107	864193	20.2833040	870	0		0	98
Unknown					CAS #:		
12.136	557613	13.0876329	562	0		0	98
cis-11-Hexadecenal					CAS #: 53939-28-9		
12.689	804059	18.8719231	810	83	NIST05.L	83994	98
Unknown					CAS #:		
12.901	883027	20.7253520	889	0		0	98
Unknown					CAS #:		
13.001	554825	13.0221961	559	0		0	98
.beta.-Sitosterol					CAS #: 83-46-5		
13.895	1389404	32.6104351	1400	96	NIST05.L	174399	98
Unknown					CAS #:		
14.483	611303	14.3477854	616	0		0	98

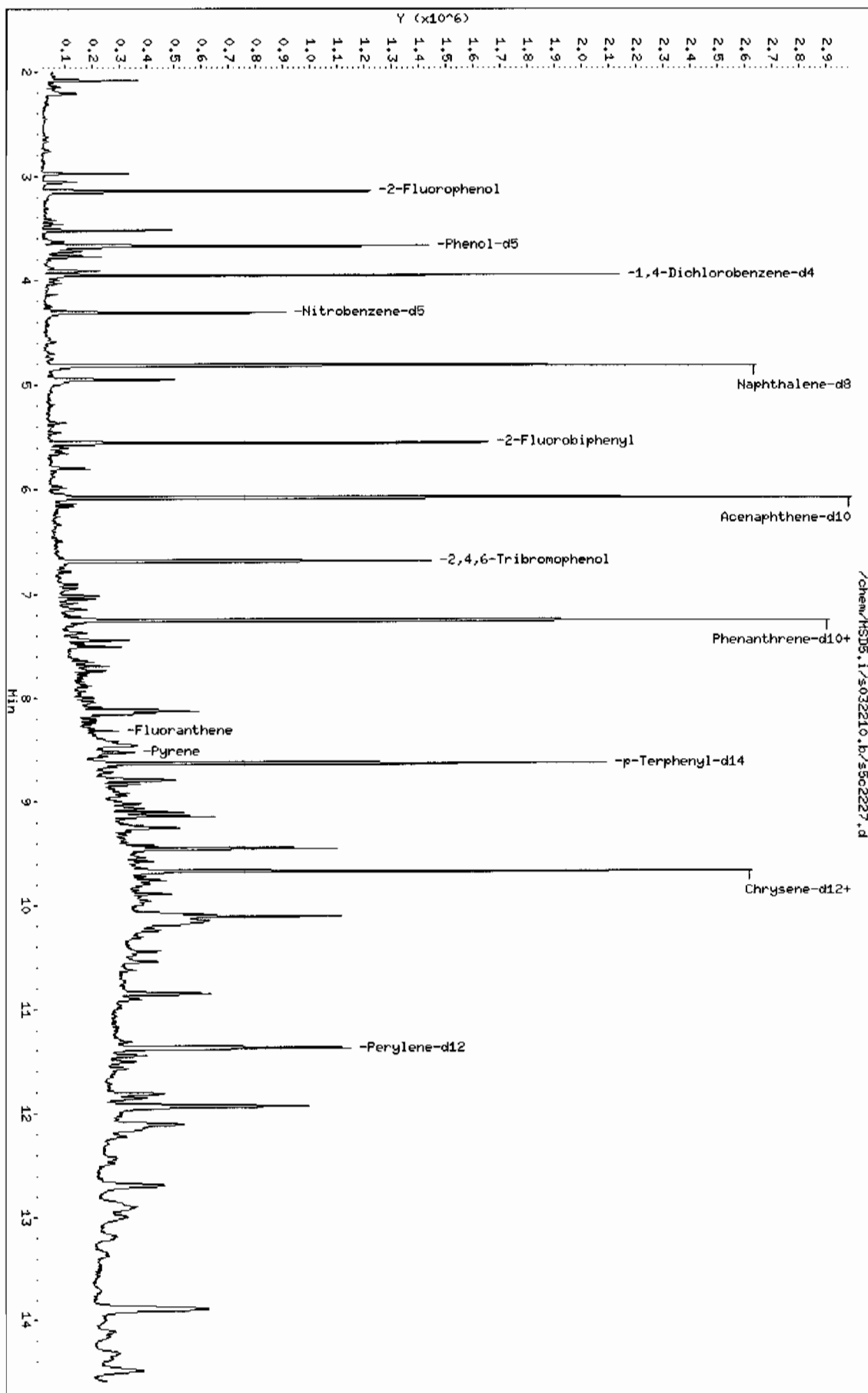
#### QC Flag Legend

L - Operator selected an alternate library search match.



Data File: /chem/MSD5.i/s032210.b/s502227.d  
 Date: 22-MAR-2010 16:25  
 Client ID: RE36-10-7441  
 Sample Info: 1248506016|96308611|SVH11|LNL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-SHS

Instrument: MSD5.i  
 Operator: RMB  
 Column diameter: 0.20



Date : 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: 12485060161963086111SVH111LANL

Volume Injected (uL): 0.5

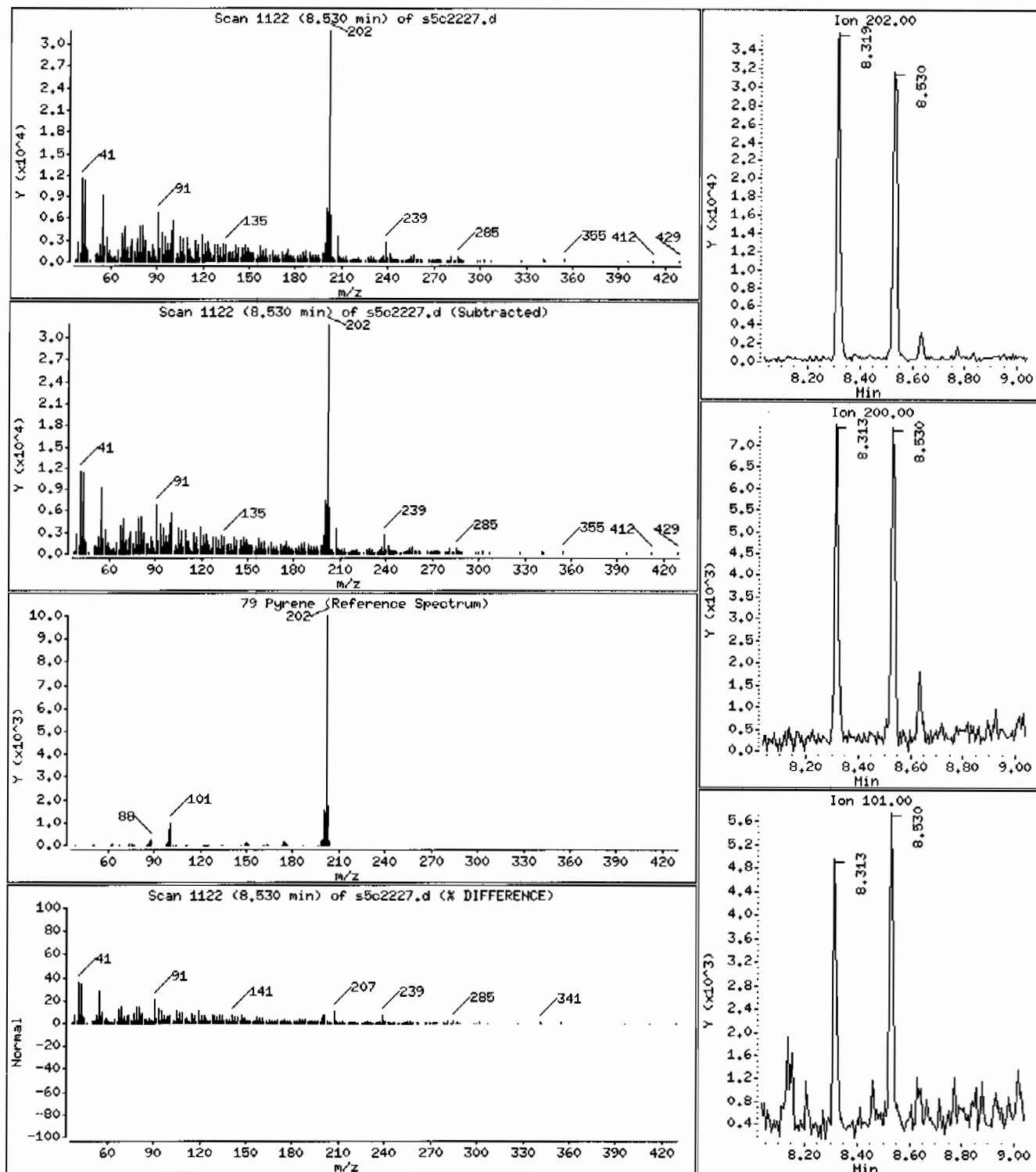
Operator: RMB

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

Column diameter: 0.20

79 Pyrene

Concentration: 58.5 ug/Kg



Date : 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: I2485060161963086111SVMI11LANL

Volume Injected (uL): 0.5

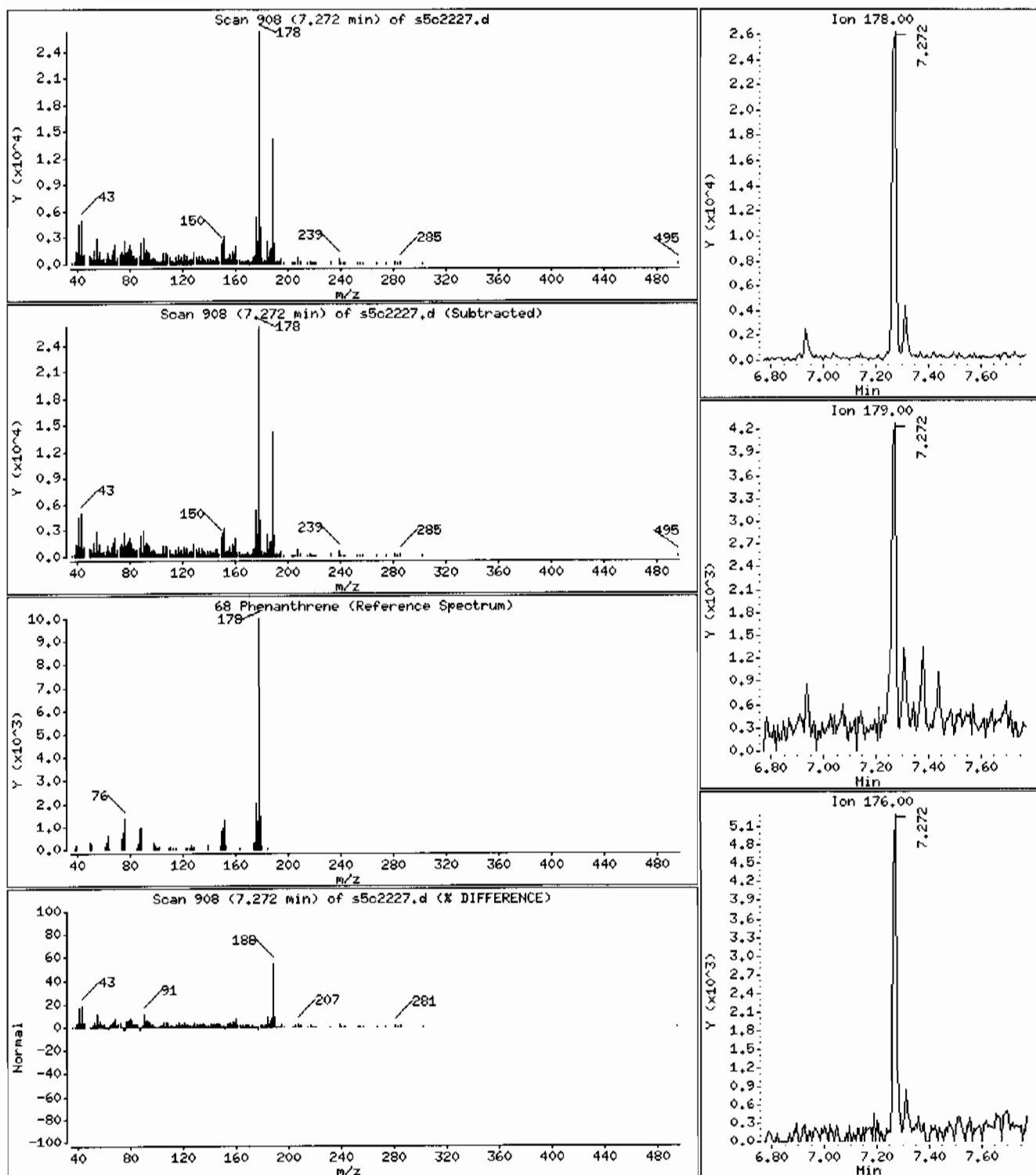
Operator: RMB

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

Column diameter: 0.20

68 Phenanthrene

Concentration: 45.8 ug/Kg



Date : 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: 12485060161963086111SVMI11LANL

Volume Injected (uL): 0.5

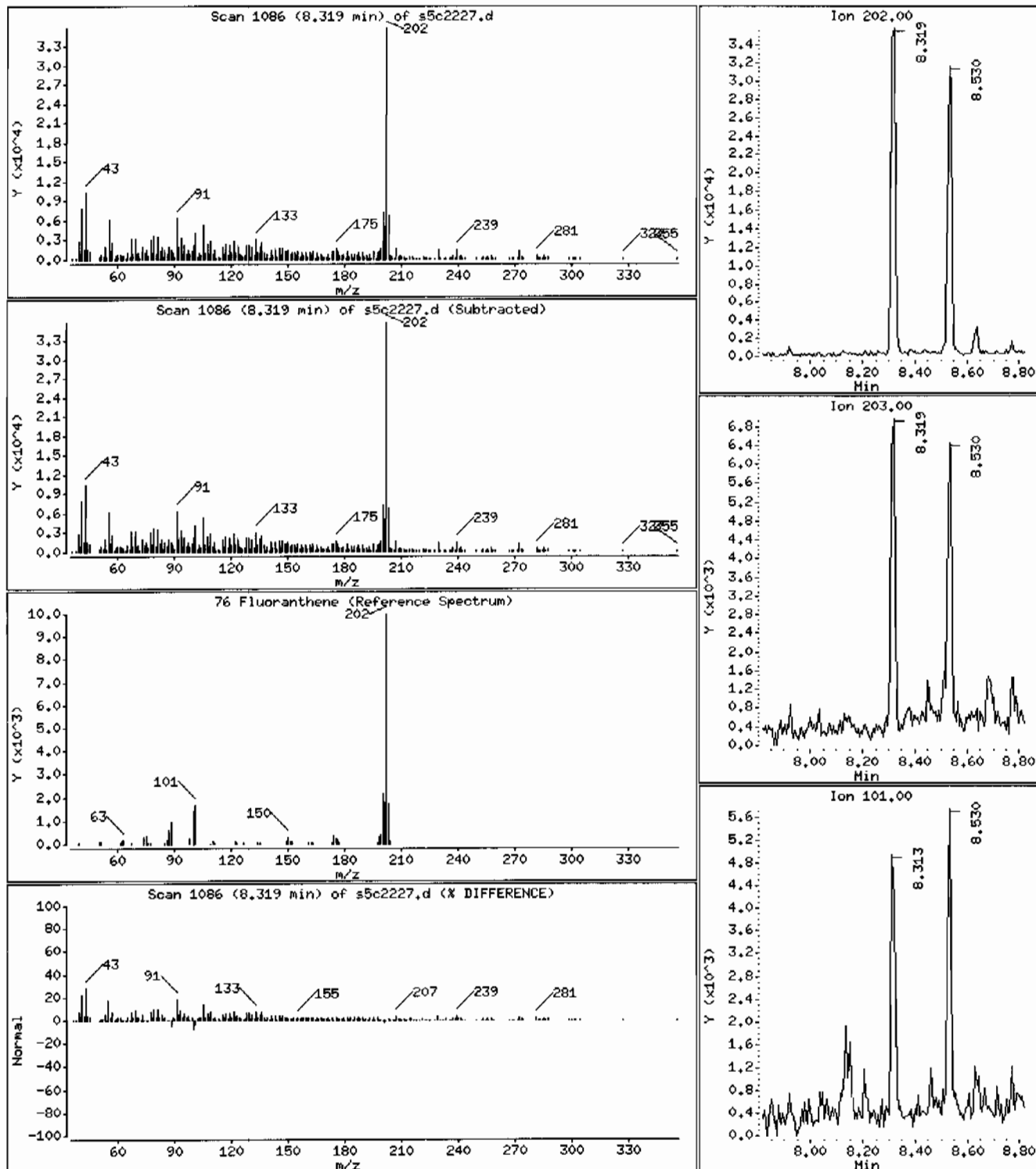
Operator: RMB

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

Column diameter: 0.20

76 Fluoranthene

Concentration: 67.3 ug/Kg



Date : 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: 12485060161963086111SVMI11LANL

Volume Injected (uL): 0.5

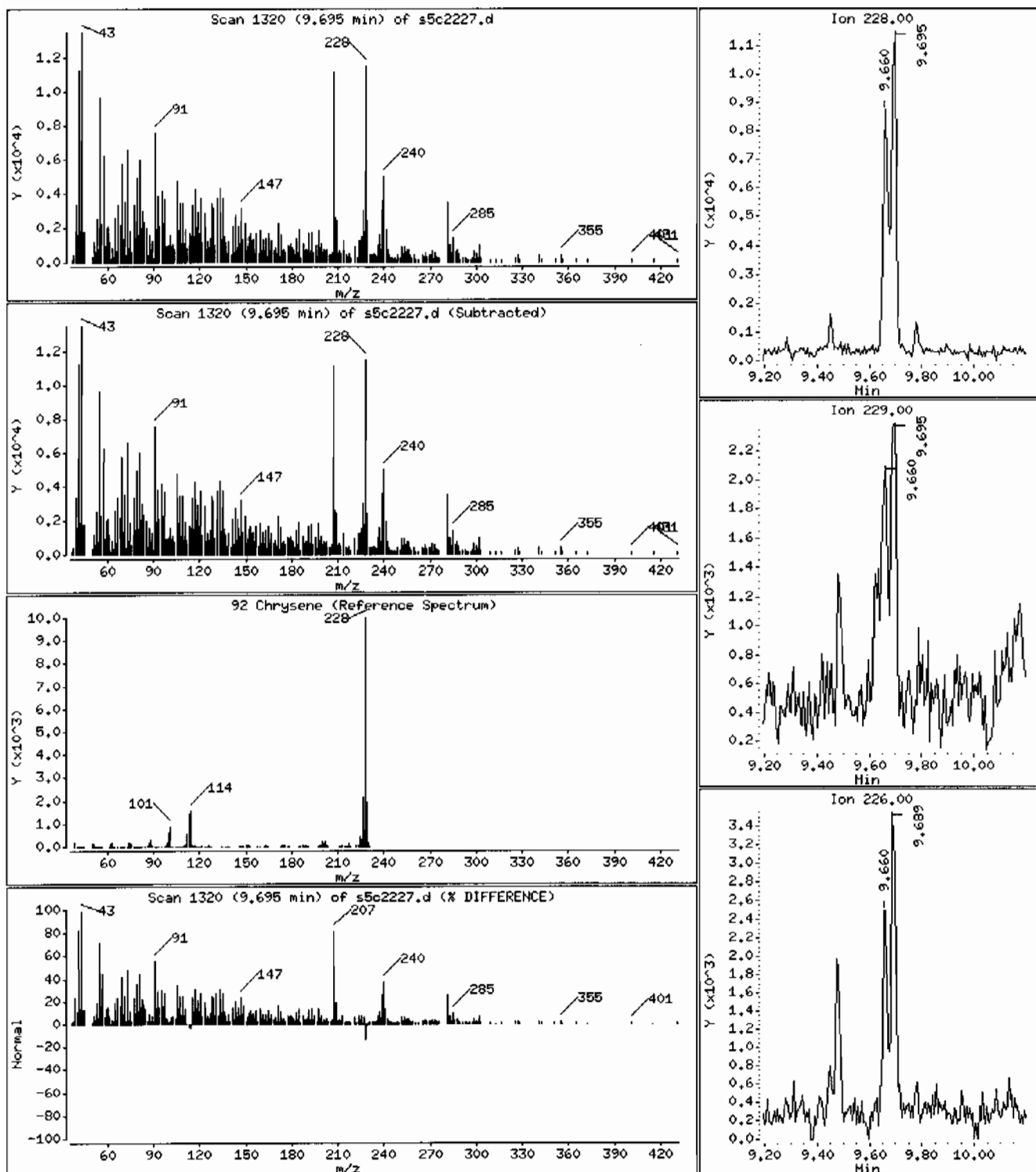
Operator: RMB

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

Column diameter: 0.20

92 Chrysene

Concentration: 32.4 ug/Kg



Date : 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: 1248506016196308611SVMI11LANL

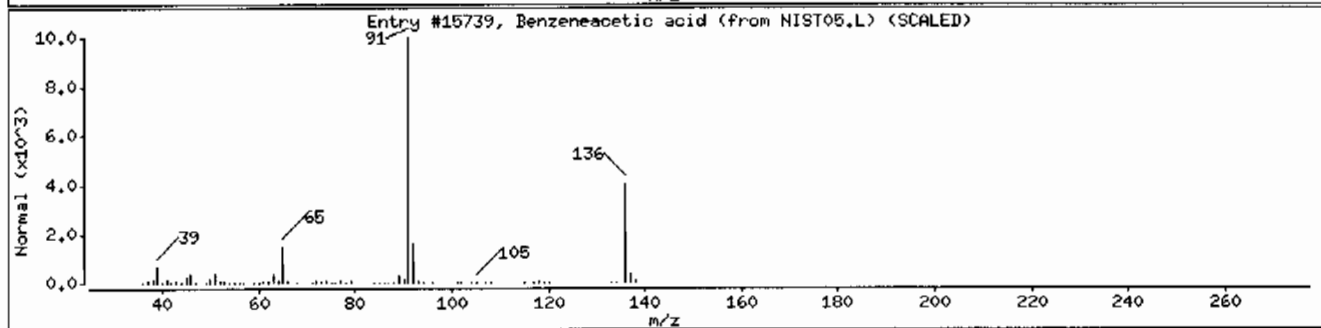
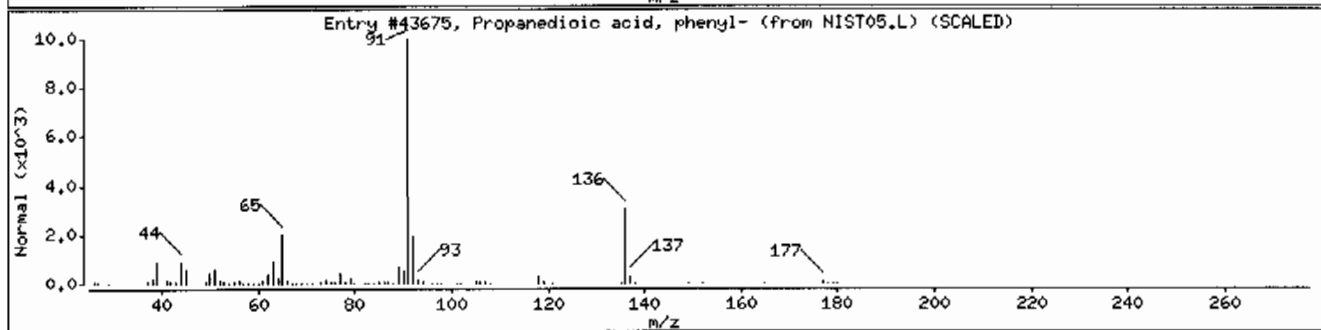
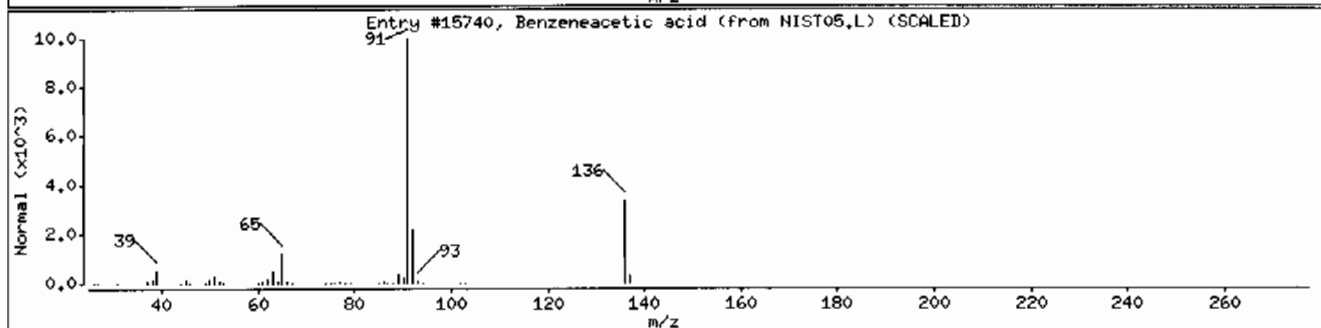
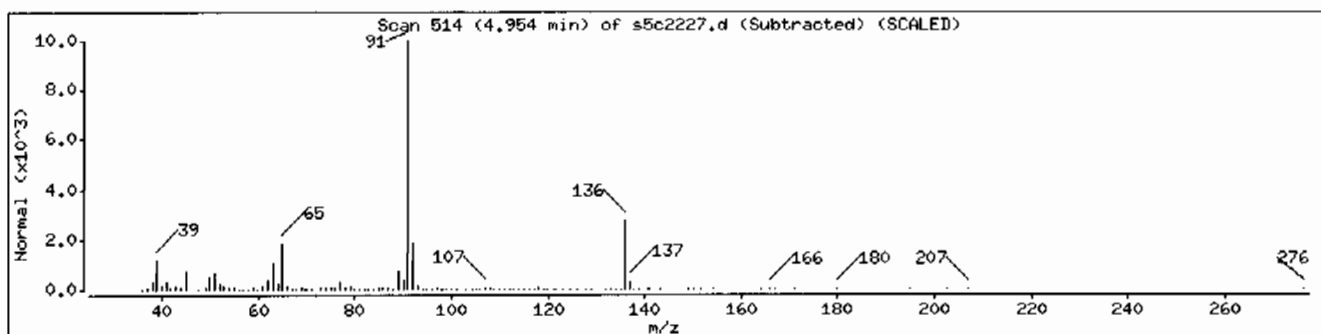
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzeneacetic acid	103-82-2	NIST05.L	15740	91	C8H8O2	136
Propanedioic acid, phenyl-	2613-89-0	NIST05.L	43675	90	C9H8O4	180
Benzeneacetic acid	103-82-2	NIST05.L	15739	80	C8H8O2	136



Date : 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: HSD5.i

Sample Info: 12485060161963086111SVH11|LANL

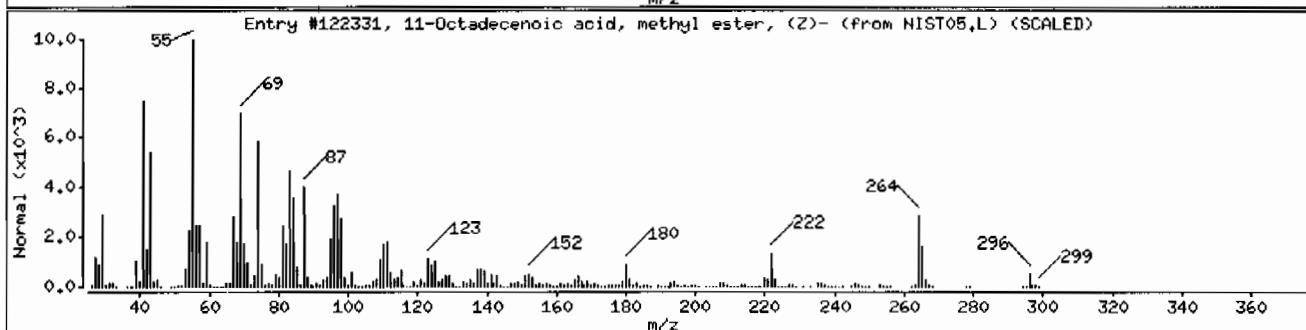
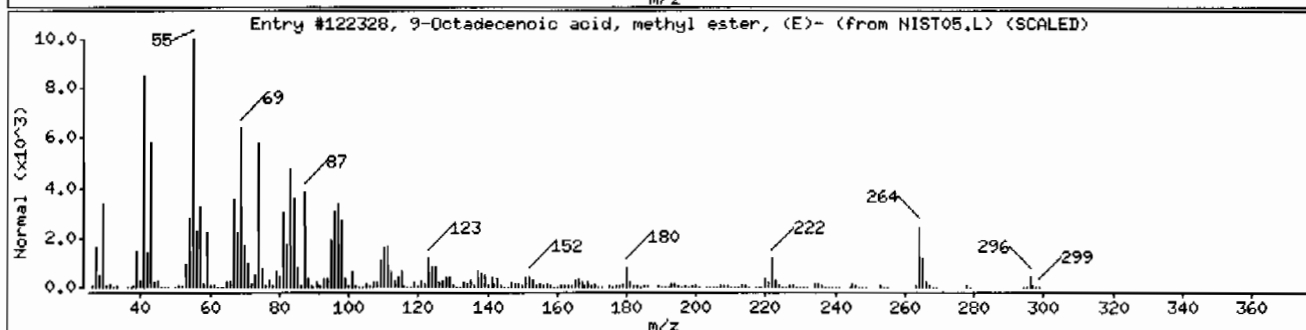
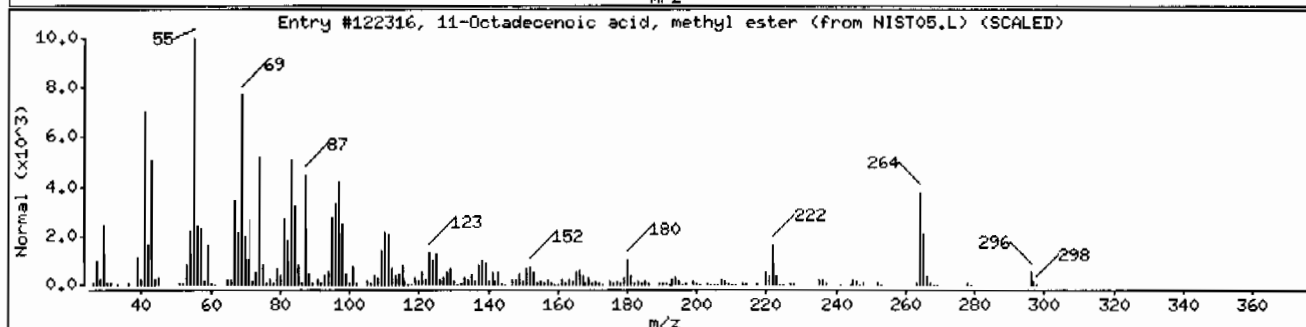
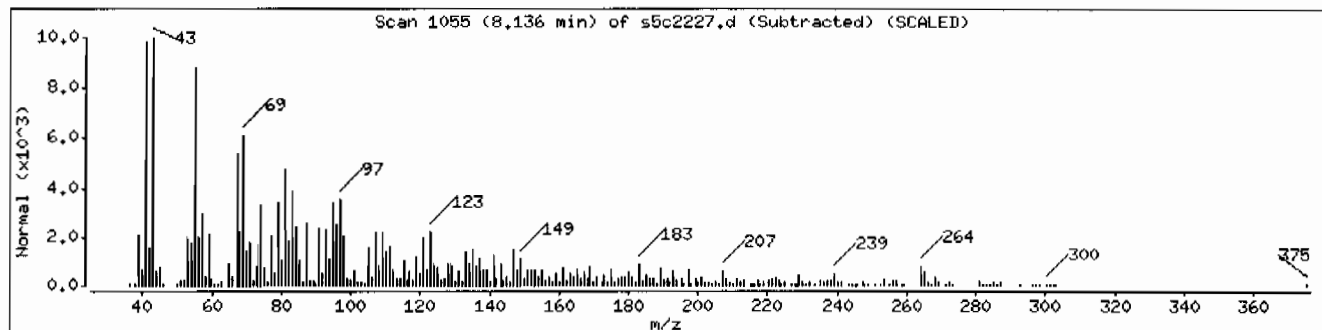
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
11-Octadecenoic acid, methyl ester	52380-33-3	NIST05.L	122316	95	C19H36O2	296
9-Octadecenoic acid, methyl ester, (E)-	1937-62-8	NIST05.L	122328	91	C19H36O2	296
11-Octadecenoic acid, methyl ester, (Z)-	1937-63-9	NIST05.L	122331	91	C19H36O2	296



Date : 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: HSD5.i

Sample Info: 12485060161963086111SVMI11LANL

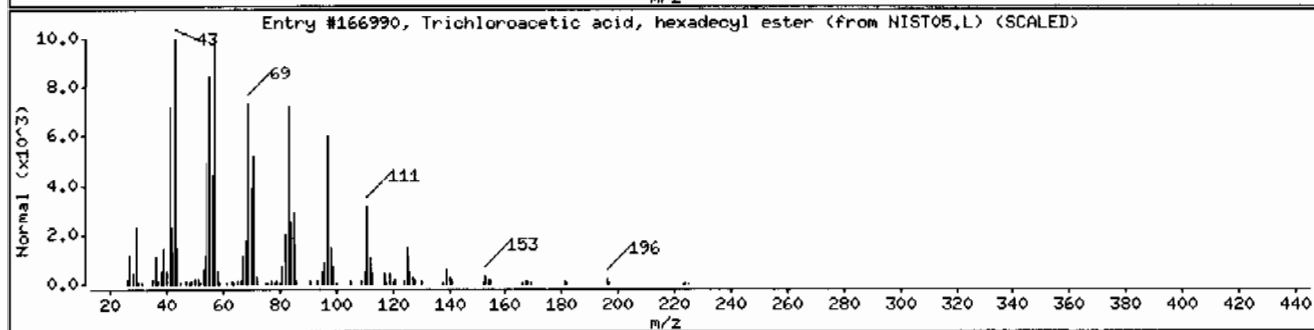
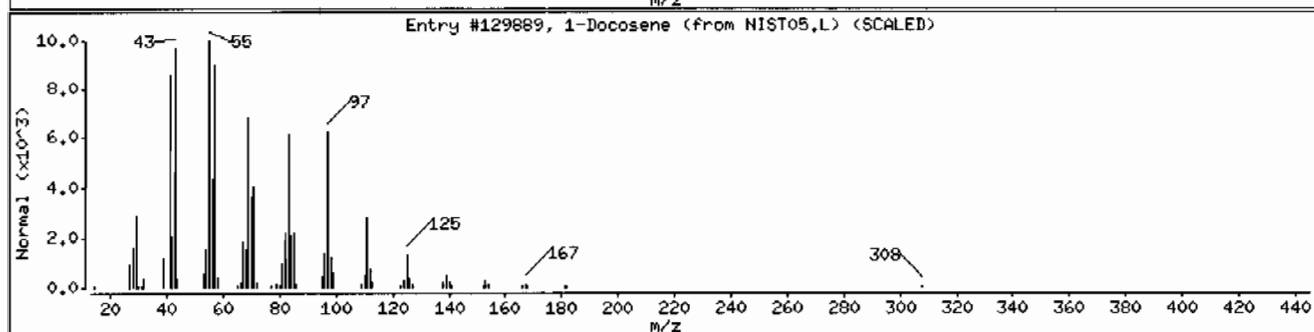
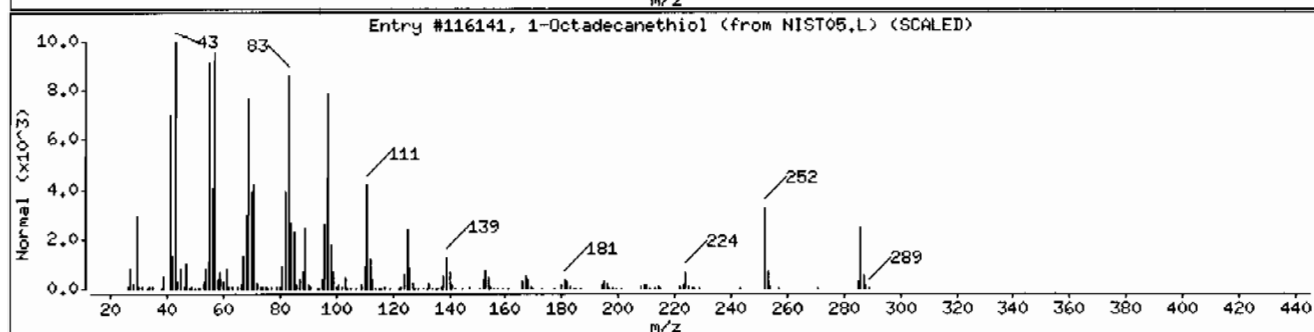
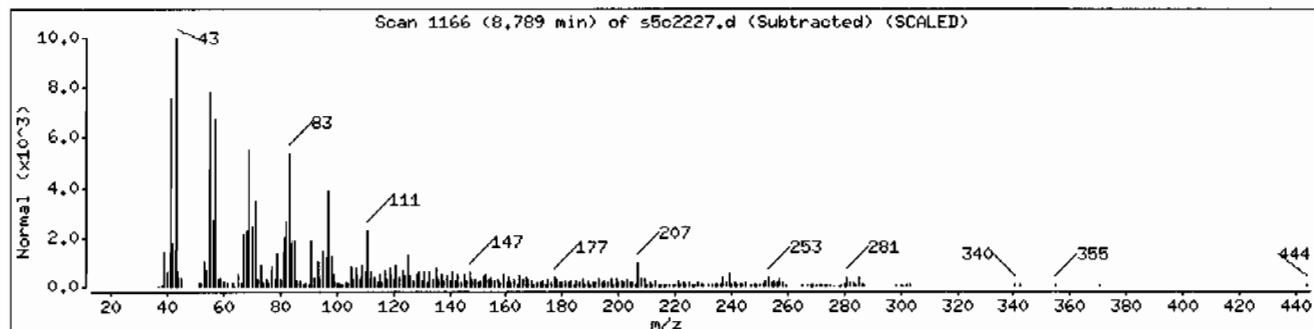
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Octadecanethiol	2885-00-9	NIST05.L	116141	96	C18H38S	286
1-Docosene	1599-67-3	NIST05.L	129889	93	C22H44	308
Trichloroacetic acid, hexadecyl ester	74339-54-1	NIST05.L	166990	92	C18H33Cl3O2	386





Date : 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: HSD5.i

Sample Info: 1248506016196308611SVH111LANL

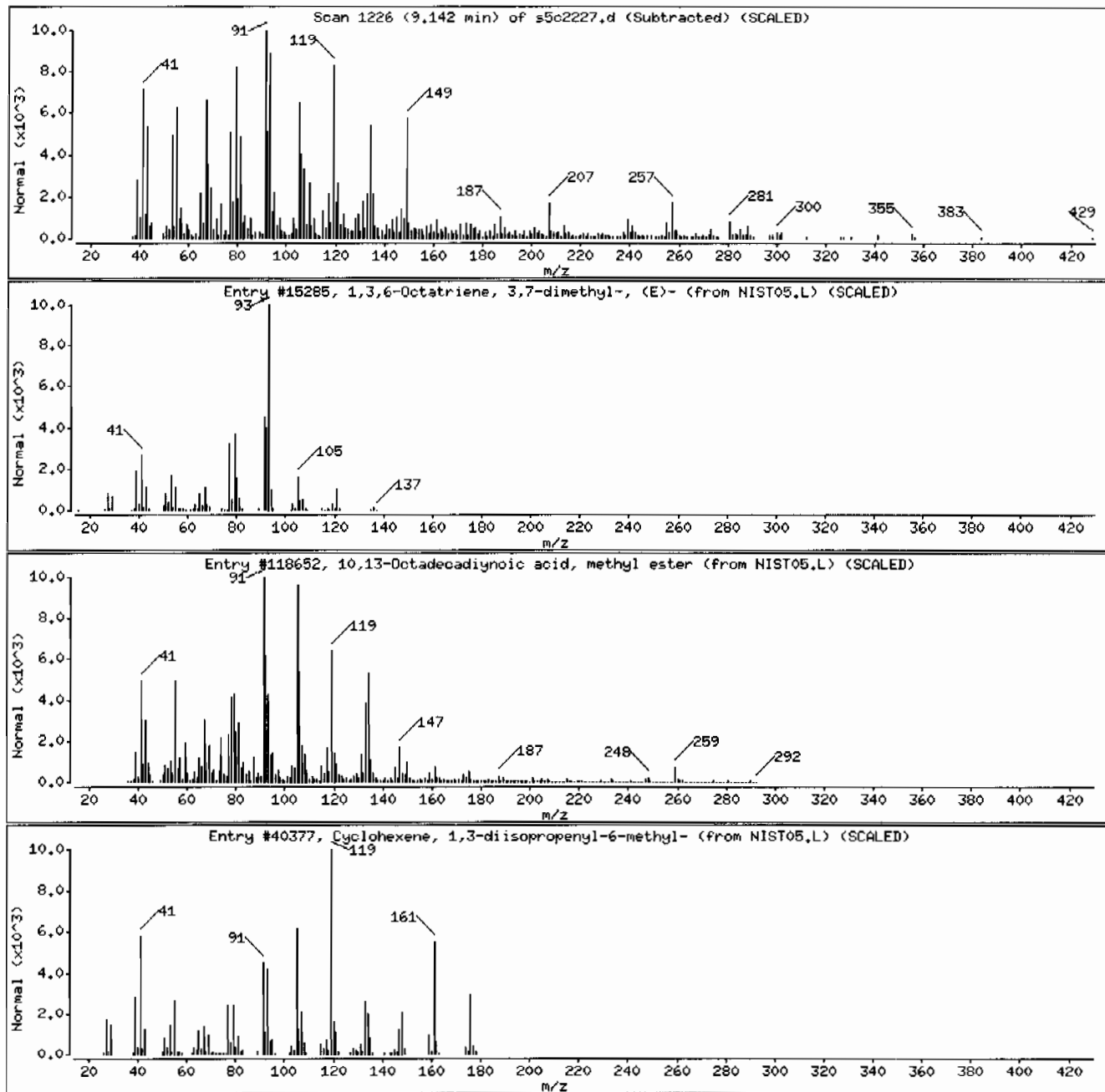
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,3,6-Octatriene, 3,7-dimethyl-, (E)-	3779-61-1	NIST05.L	15285	49	C10H16	136
10,13-Octadecadiynoic acid, methyl ester	18202-24-9	NIST05.L	118652	38	C19H30O2	290
Cyclohexene, 1,3-diisopropenyl-6-methyl-	1000151-28-9	NIST05.L	40377	30	C13H20	176



Date: 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: 12485060161963086111SVH11ILANL

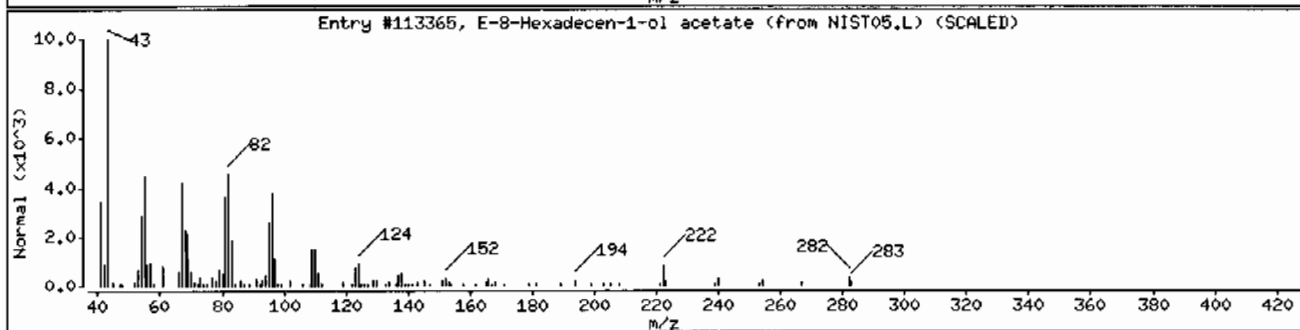
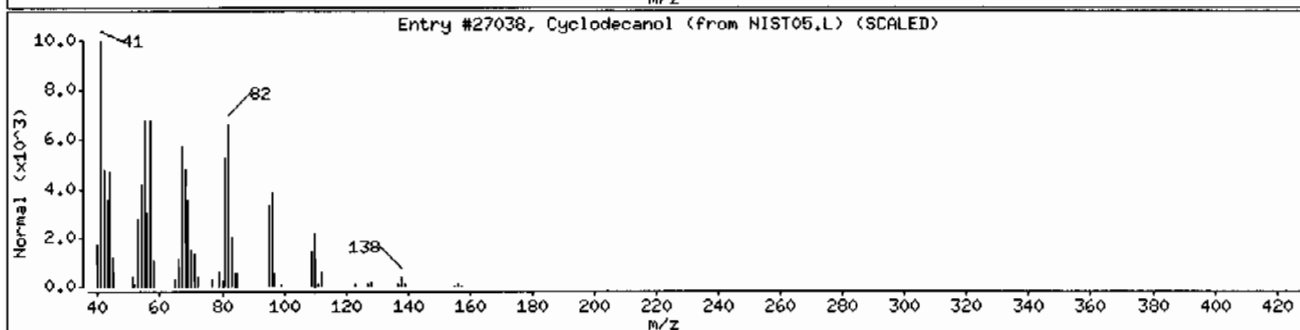
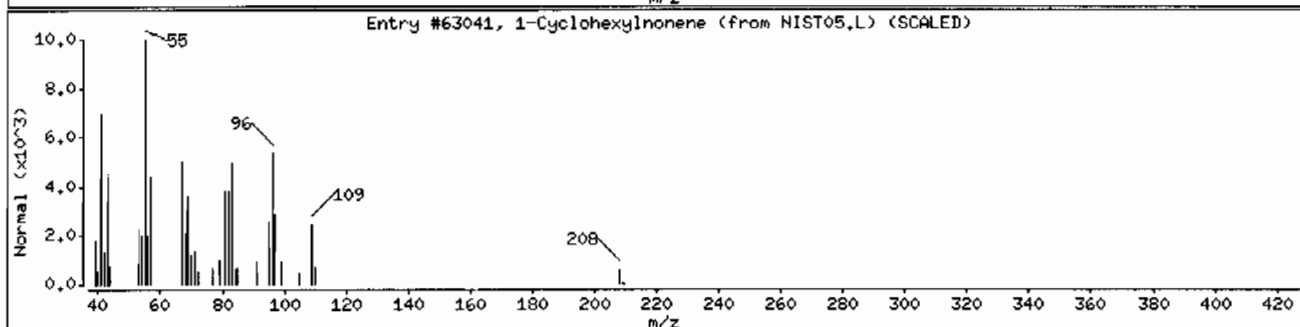
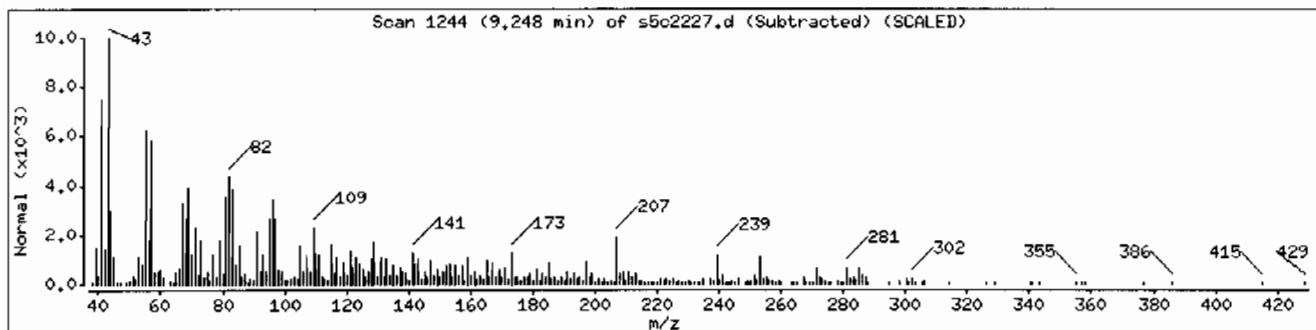
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Cyclohexynonene	114614-84-5	NIST05.L	63041	78	C15H28	208
Cyclodecanol	1502-05-2	NIST05.L	27038	78	C10H20O	156
E-8-Hexadecen-1-ol acetate	1000131-01-1	NIST05.L	113365	78	C18H34O2	282



Date: 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: I2485060161963086111SVMI1ILANL

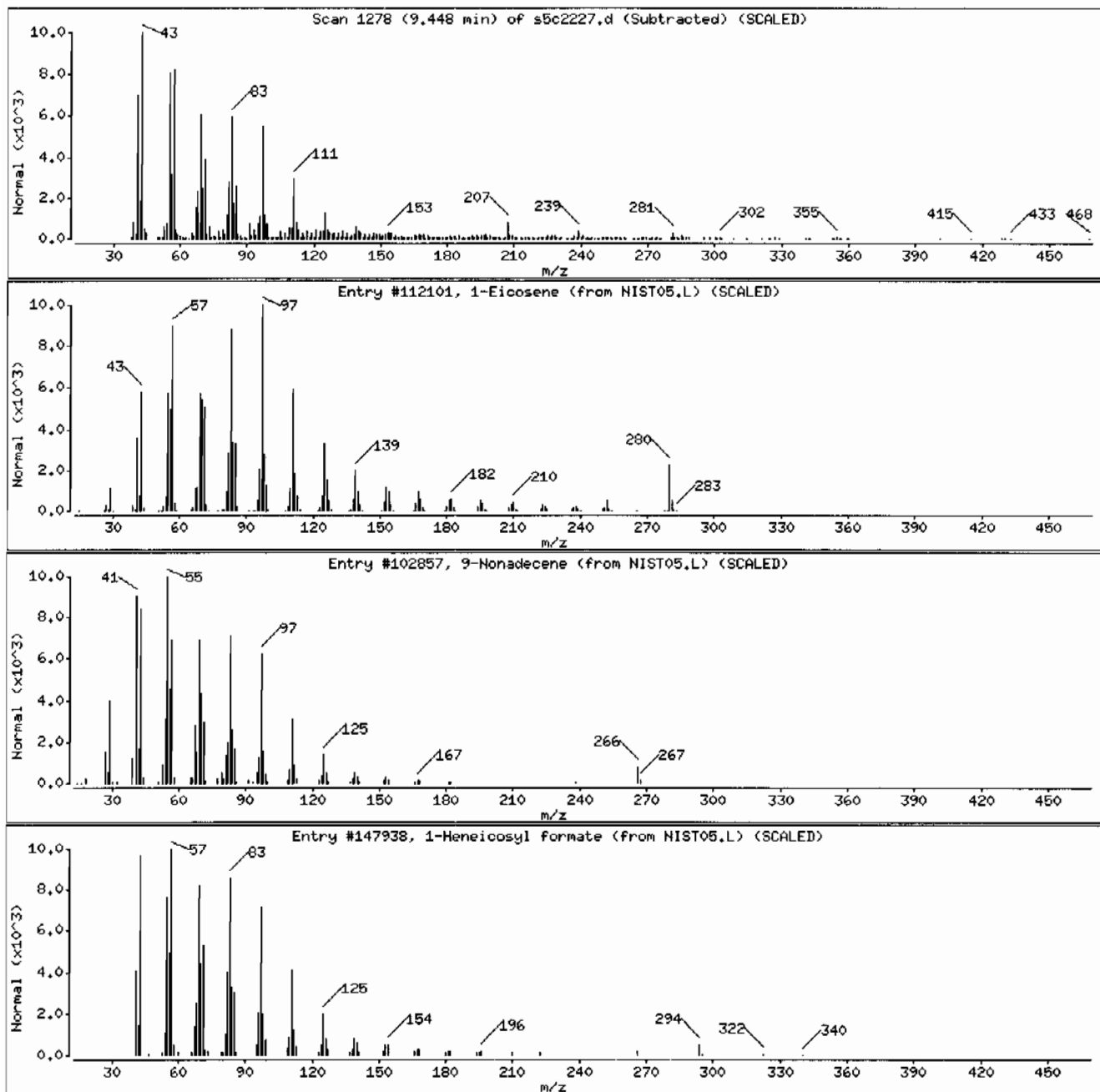
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Eicosene	3452-07-1	NIST05.L	112101	93	C20H40	280
9-Nonadecene	31035-07-1	NIST05.L	102857	93	C19H38	266
1-Heneicosyl formate	77899-03-7	NIST05.L	147938	91	C22H44O2	340



Date: 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: HSD5.i

Sample Info: 1248506016196308611SVMI1ILANL

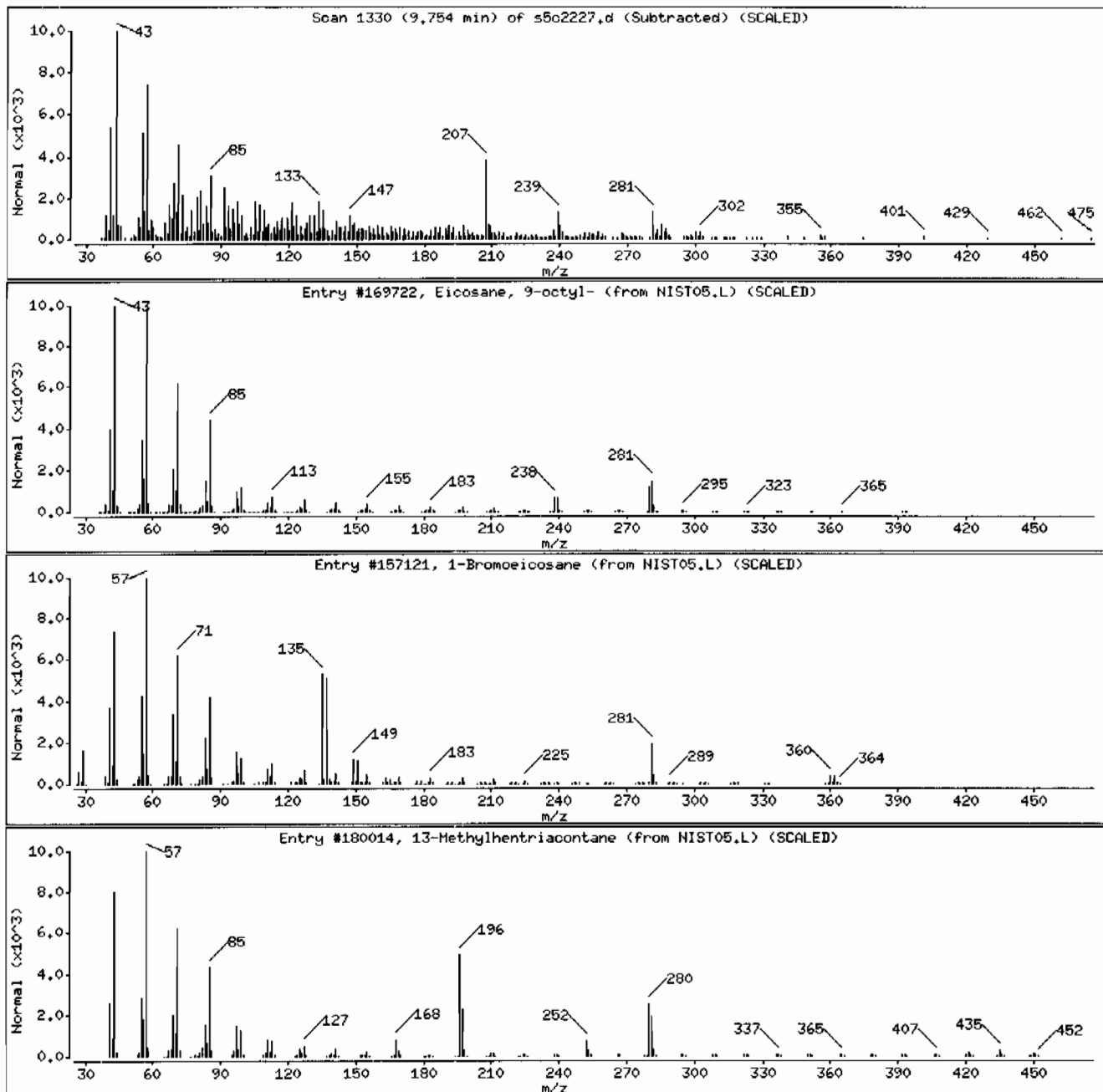
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Eicosane, 9-octyl-	13475-77-9	NIST05.L	169722	38	C28H58	394
1-Bromoeicosane	4276-49-7	NIST05.L	157121	35	C20H41Br	360
13-Methylhentriacontane	1000131-19-4	NIST05.L	180014	35	C32H66	451



Date: 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: 12485060161963086111SVMI11LANL

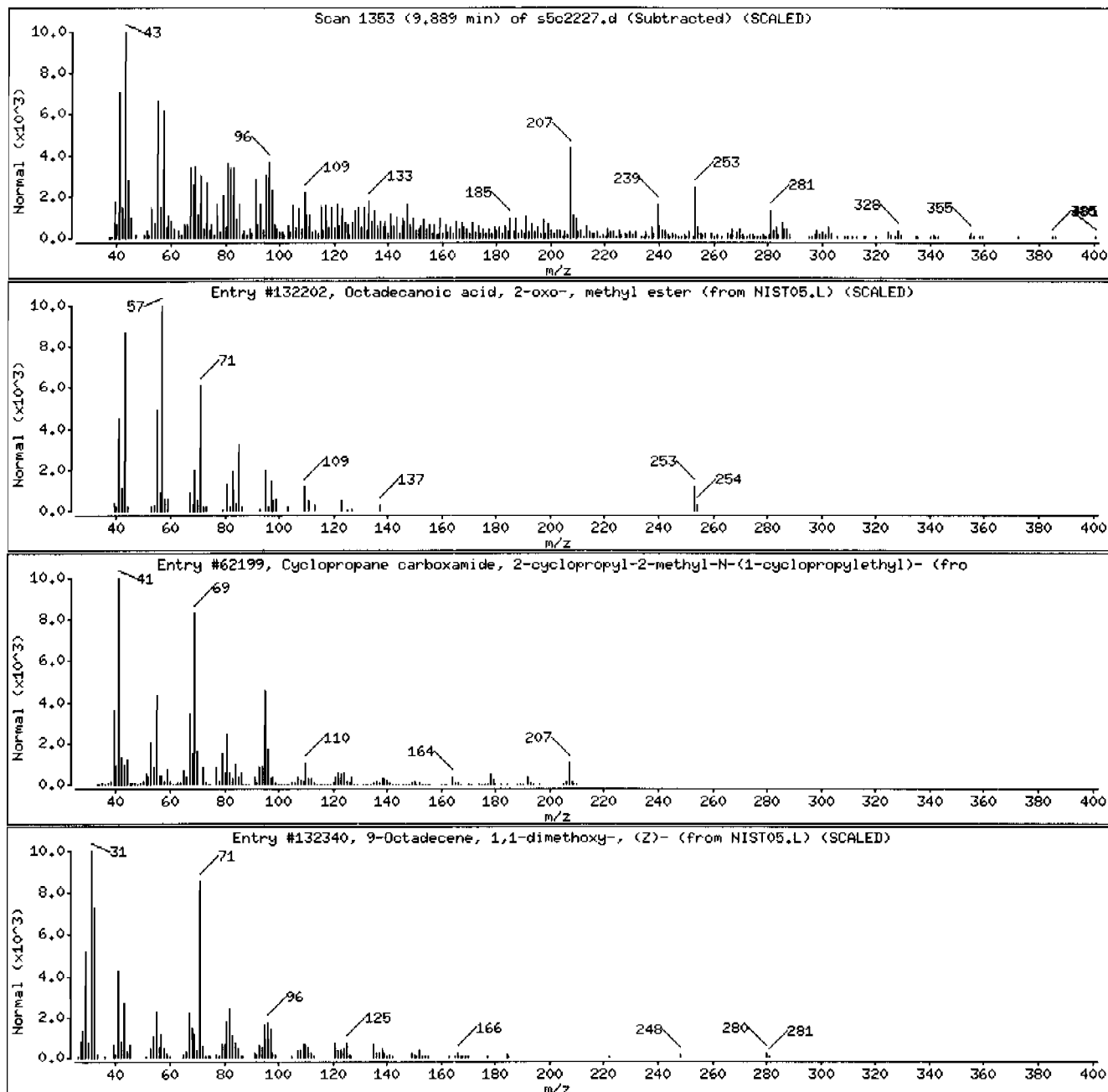
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Octadecanoic acid, 2-oxo-, methyl ester	2380-18-9	NIST05.L	132202	25	C19H36O3	312
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	22	C13H21NO	207
9-Octadecene, 1,1-dimethoxy-, (Z)-	15677-71-1	NIST05.L	132340	22	C20H40O2	312



Date : 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: I2485060161963086111SVMI11LANL

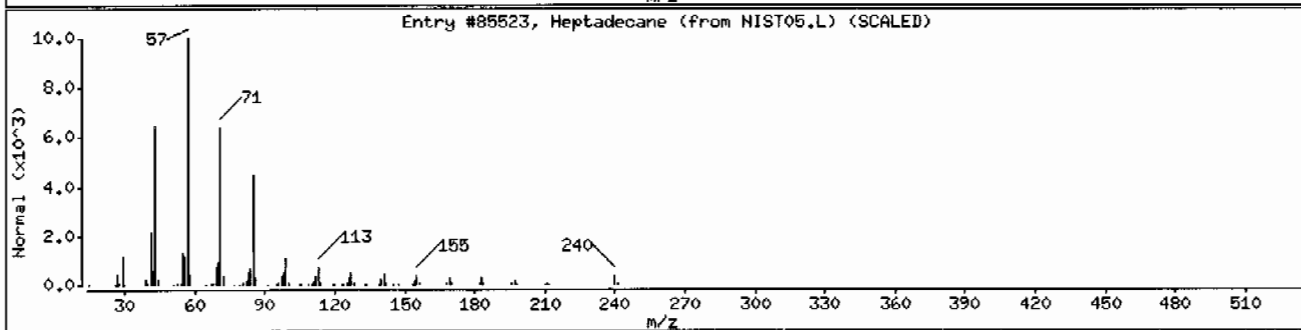
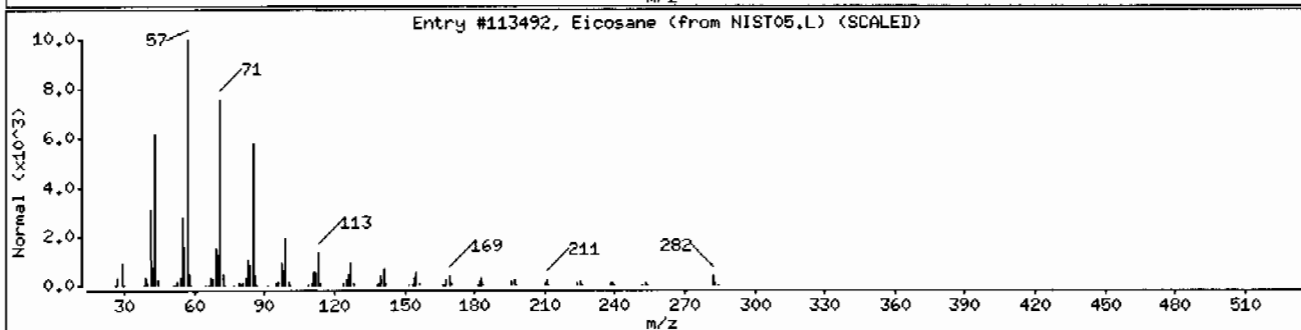
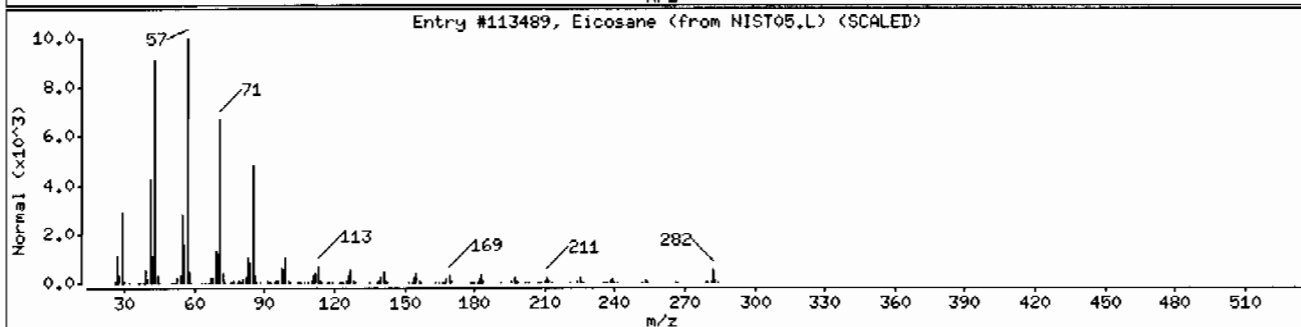
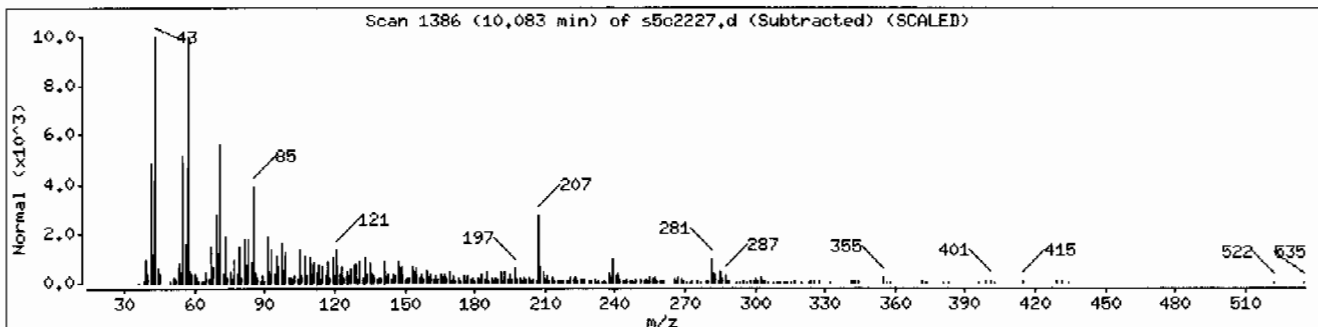
Volume Injected (uL): 0.5

Operator: RMB

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	113489	95	C <sub>20</sub> H <sub>42</sub>	282
Eicosane	112-95-8	NIST05.L	113492	95	C <sub>20</sub> H <sub>42</sub>	282
Heptadecane	629-78-7	NIST05.L	85523	95	C <sub>17</sub> H <sub>36</sub>	240



Date : 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: I2485060161963086111SVMI11LANL

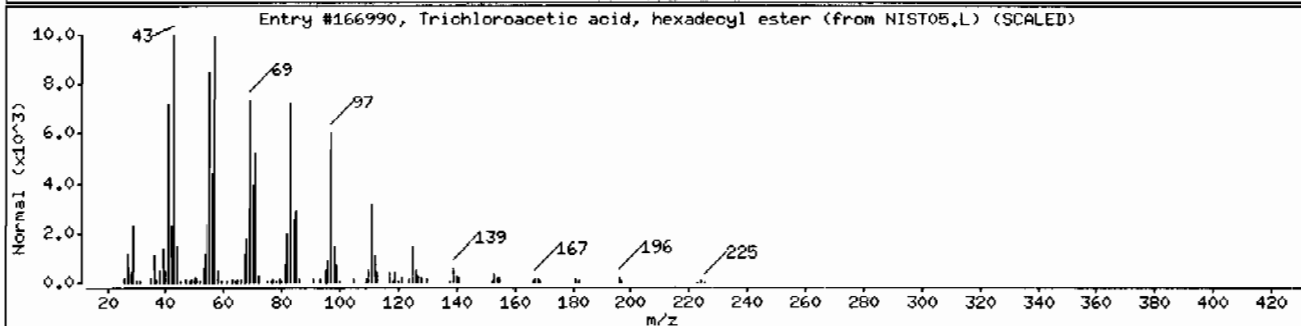
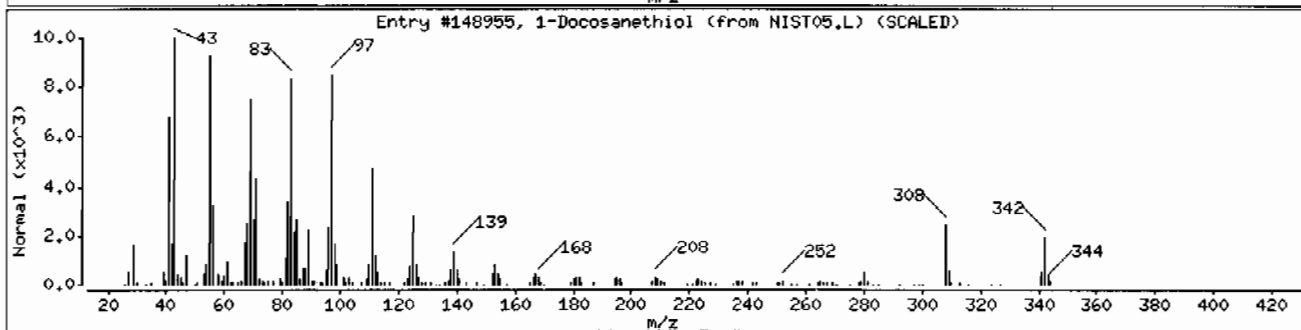
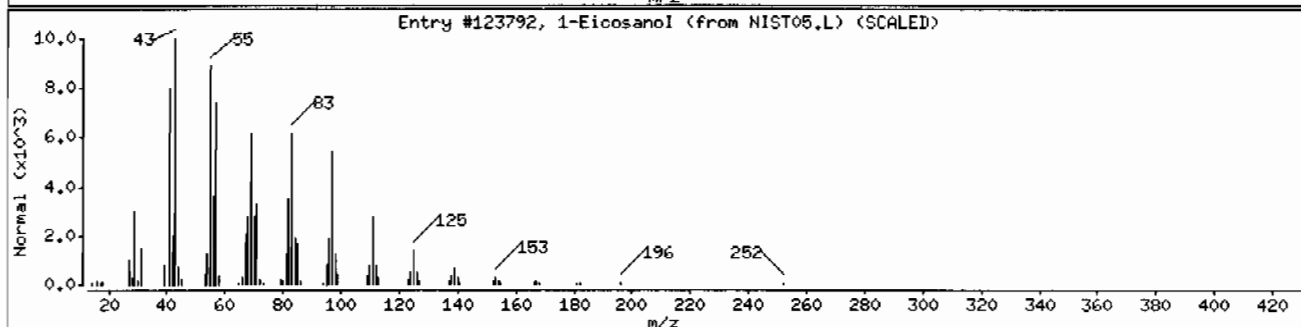
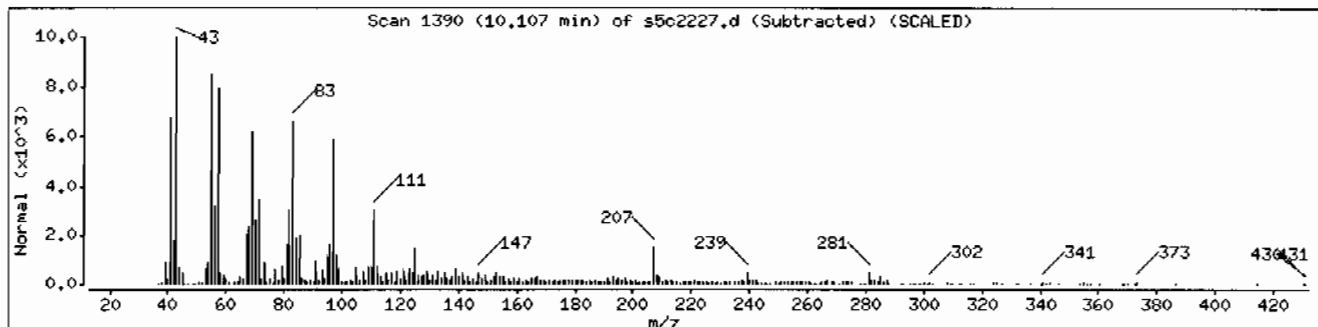
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Eicosanol	629-96-9	NIST05.L	123792	93	C20H42O	298
1-Docosanethiol	7773-83-3	NIST05.L	148955	93	C22H46S	342
Trichloroacetic acid, hexadecyl ester	74339-54-1	NIST05.L	166990	93	C18H33Cl3O2	386



Date : 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: I2485060161963086111SVH111LANL

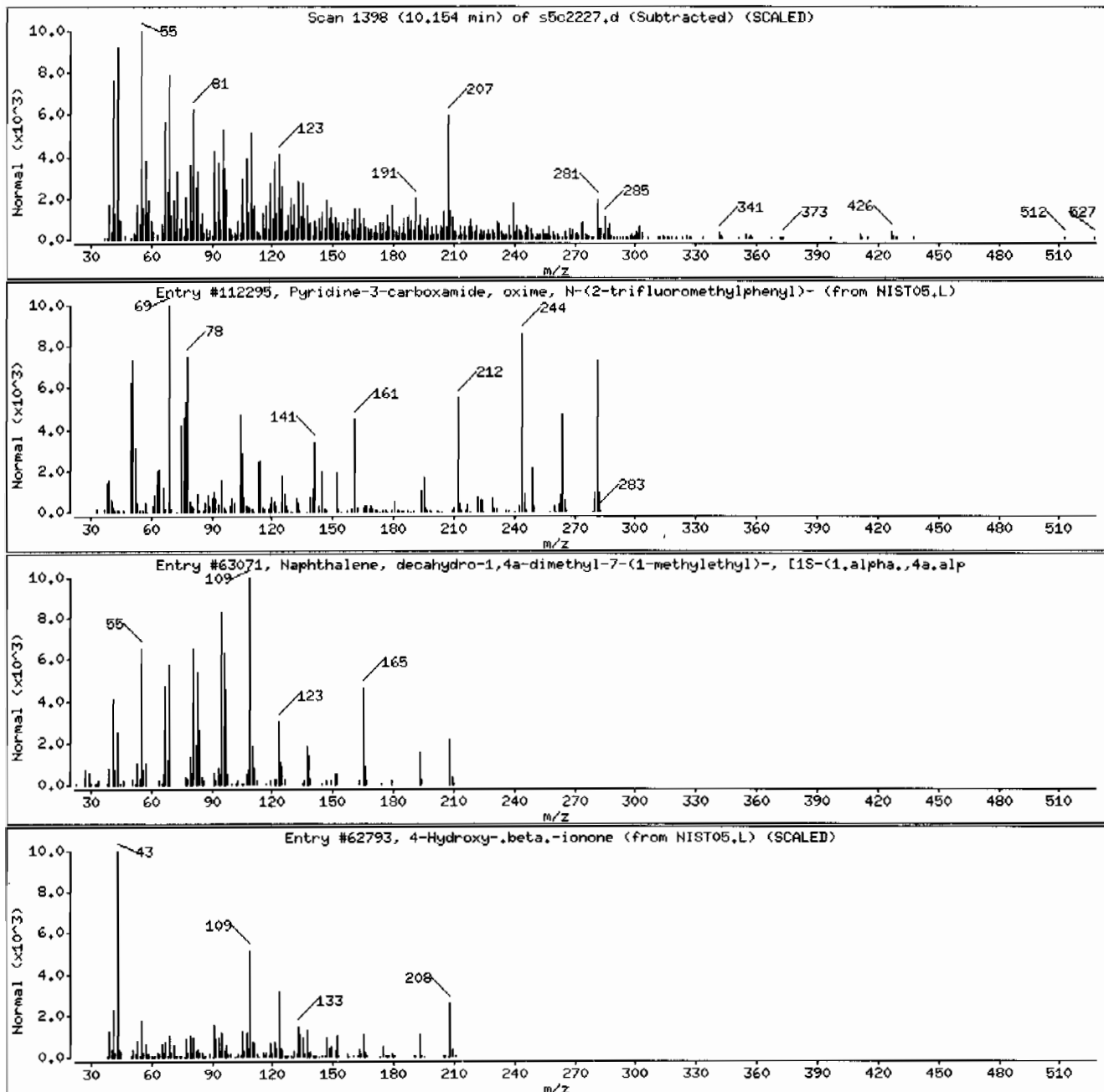
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyridine-3-carboxamide, oxime, N-(2-trif	288246-53-7	NIST05.L	112295	92	C13H10F3N3O	281
Naphthalene, decahydro-1,4a-dimethyl-7-(	30824-81-8	NIST05.L	63071	44	C15H28	208
4-Hydroxy-.beta.-ionone	15401-34-0	NIST05.L	62793	35	C13H20O2	208





Date: 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: 1248506016196308611SVMI11LANL

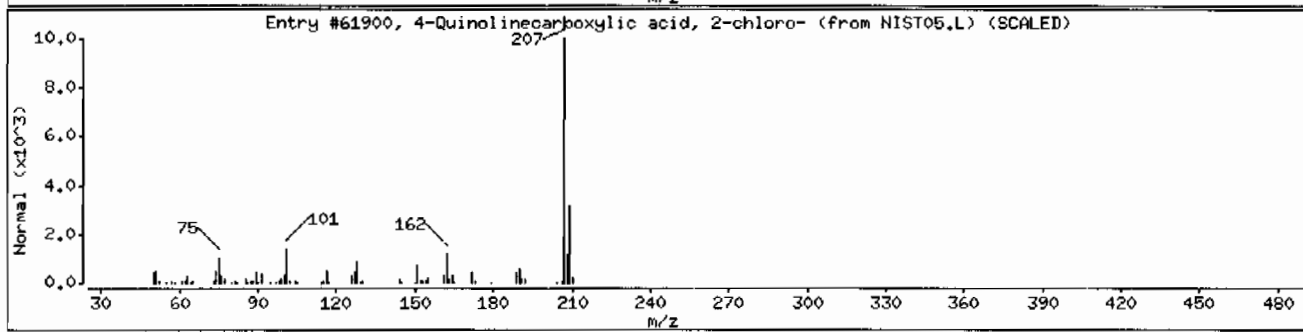
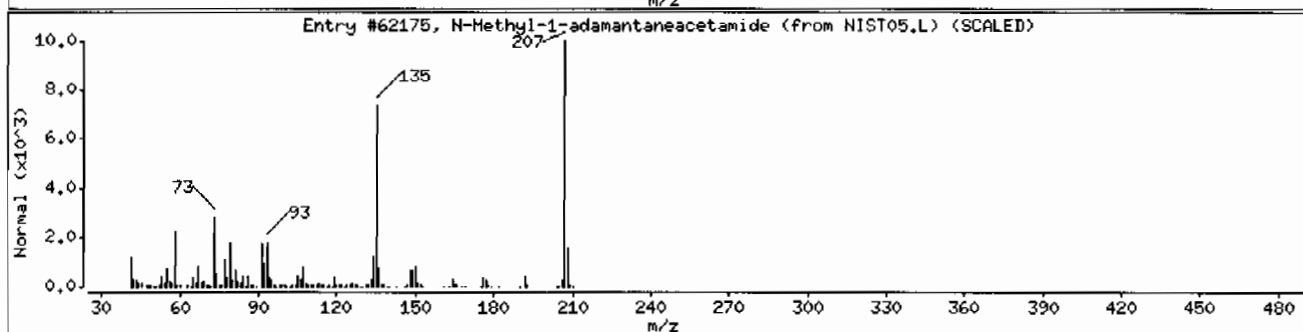
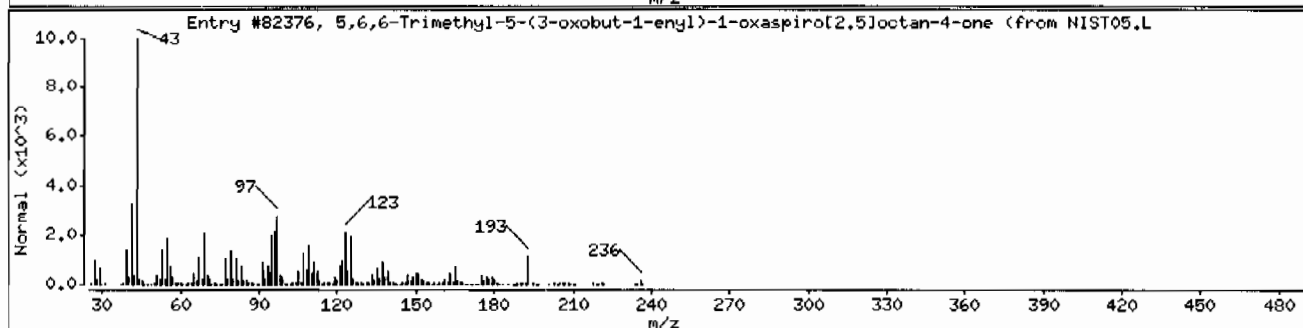
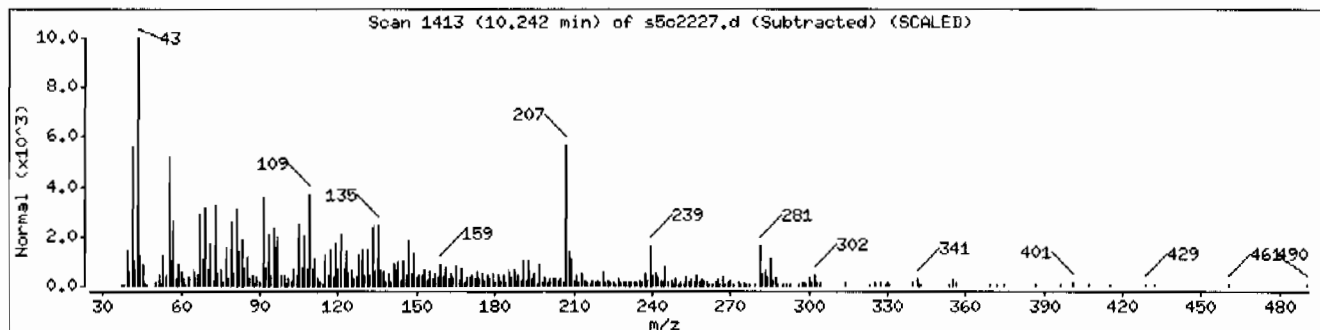
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
5,6,6-Trimethyl-5-(3-oxobut-1-enyl)-1-ox	1000192-73-9	NIST05.L	82376	46	C <sub>14</sub> H <sub>20</sub> O <sub>3</sub>	236
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05.L	62175	35	C <sub>13</sub> H <sub>21</sub> N	207
4-Quinolinecarboxylic acid, 2-chloro-	5467-57-2	NIST05.L	61900	25	C <sub>10</sub> H <sub>6</sub> ClNO <sub>2</sub>	207



Date : 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.1

Sample Info: 1248506016196308611|SVH11|LANL

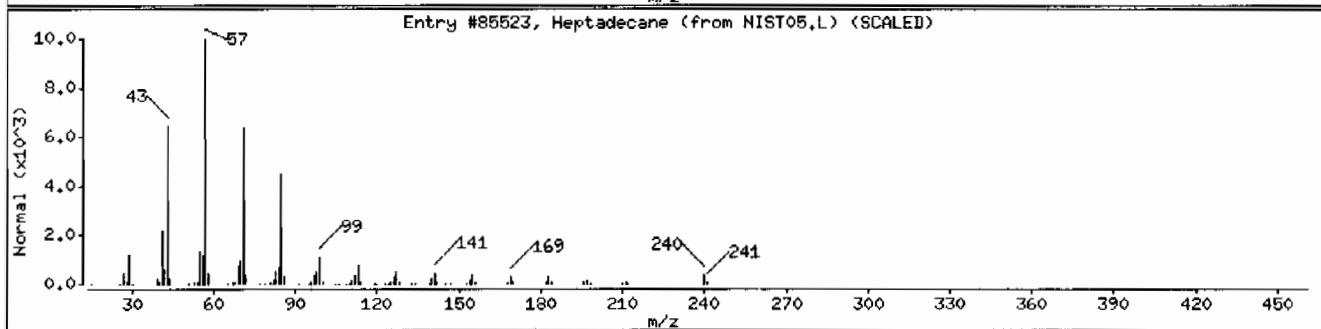
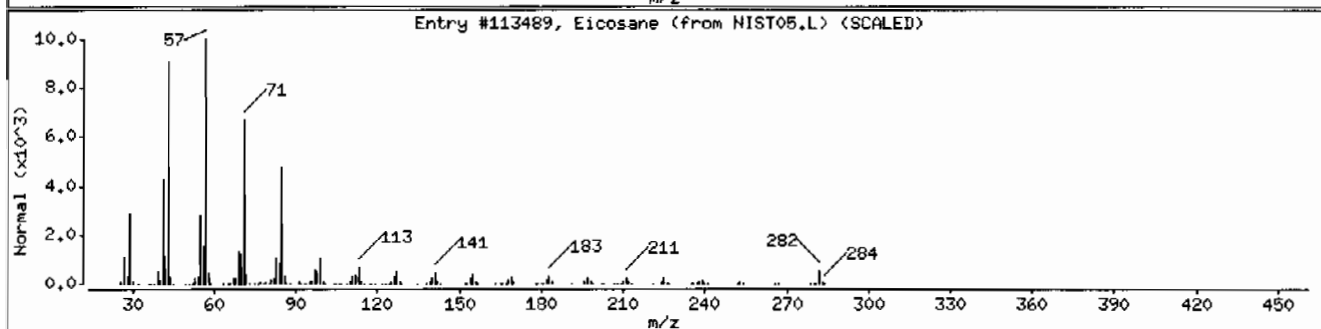
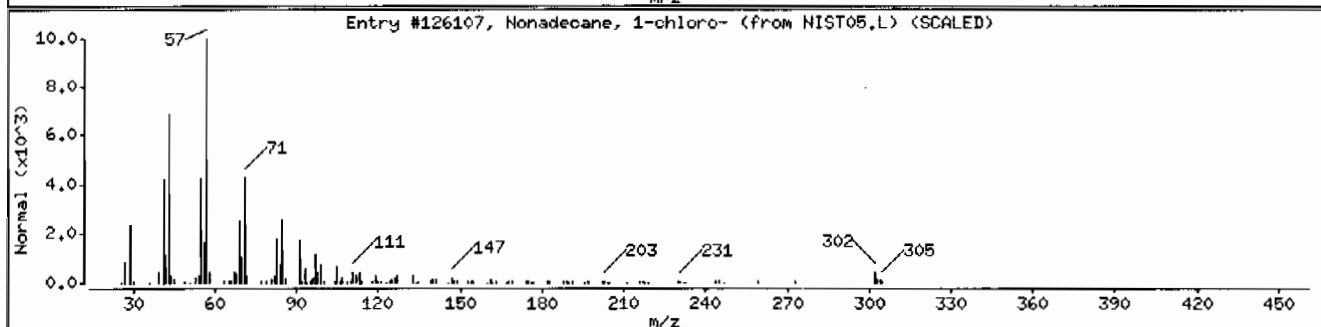
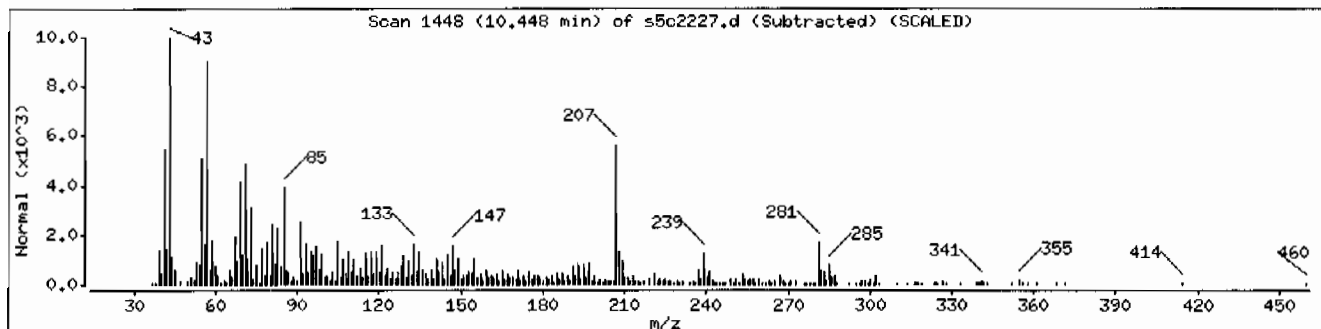
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Nonadecane, 1-chloro-	62016-76-6	NIST05.L	126107	94	C19H39Cl	302
Eicosane	112-95-8	NIST05.L	113489	89	C20H42	282
Heptadecane	629-78-7	NIST05.L	85523	86	C17H36	240



Date : 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: 1248506016196308611SVMI1ILANL

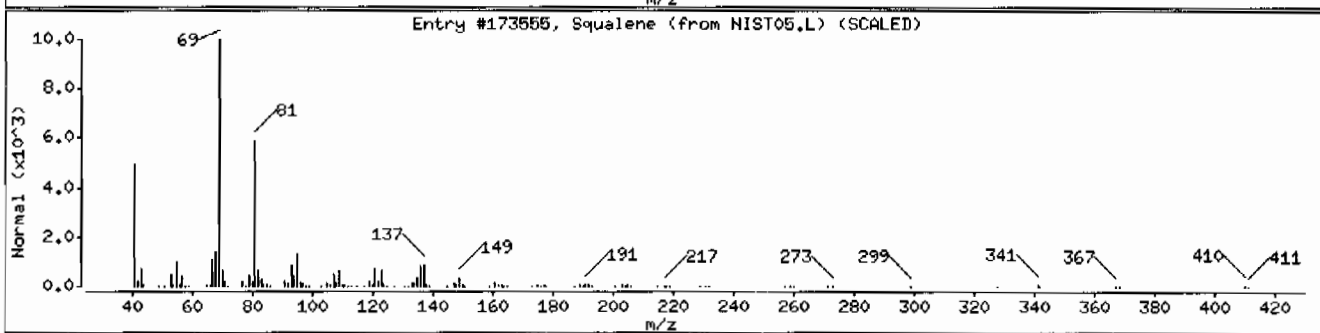
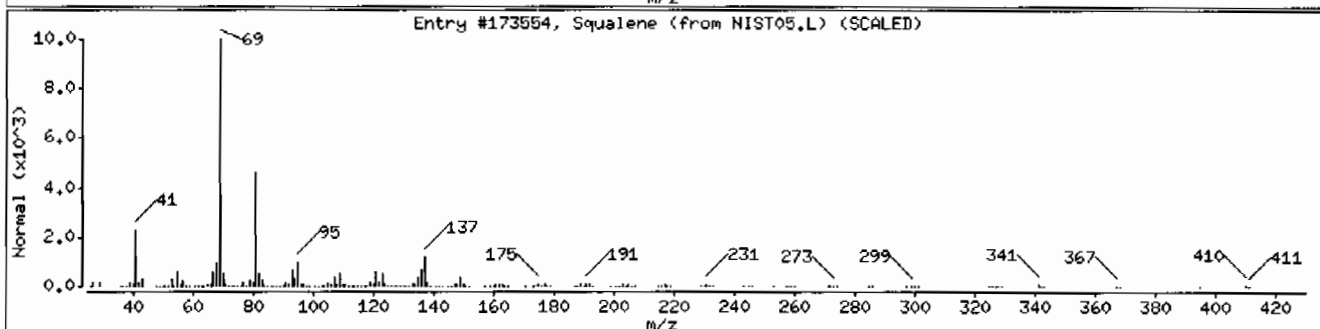
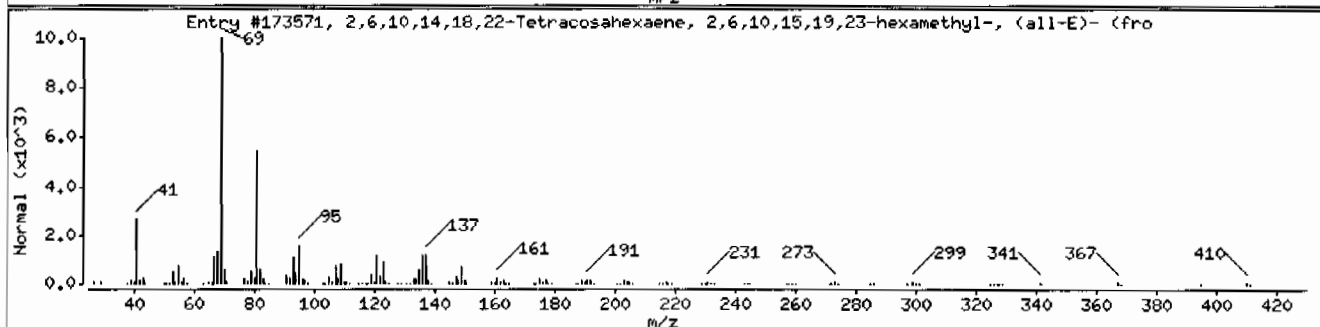
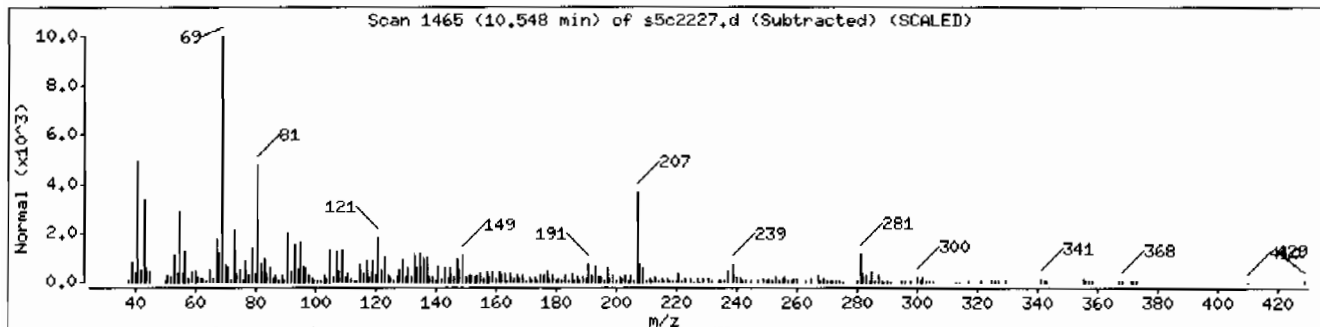
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2,6,10,14,18,22-Tetracosahexaene, 2,6,10	111-02-4	NIST05.L	173571	95	C30H50	410
Squalene	7683-64-9	NIST05.L	173554	50	C30H50	410
Squalene	7683-64-9	NIST05.L	173555	49	C30H50	410



Date : 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: 12485060161963086111SVMI11LANL

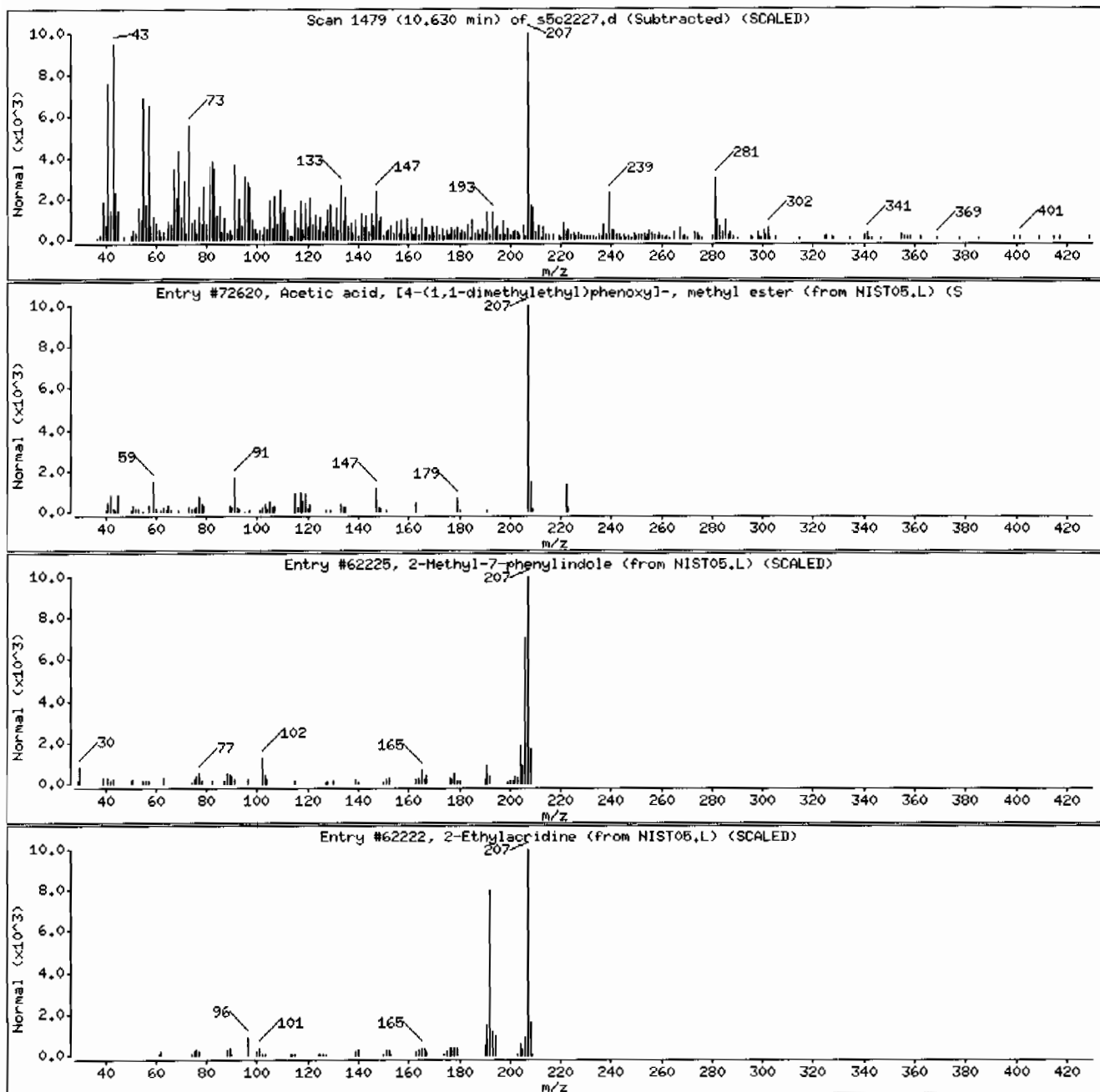
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Acetic acid, [4-(1,1-dimethylethyl)pheno	88530-52-3	NIST05.L	72620	49	C13H18O3	222
2-Methyl-7-phenylindole	1140-08-5	NIST05.L	62225	38	C15H13N	207
2-Ethylacridine	55751-83-2	NIST05.L	62222	38	C15H13N	207



Date: 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: 12485060161963086111SVMI11LANL

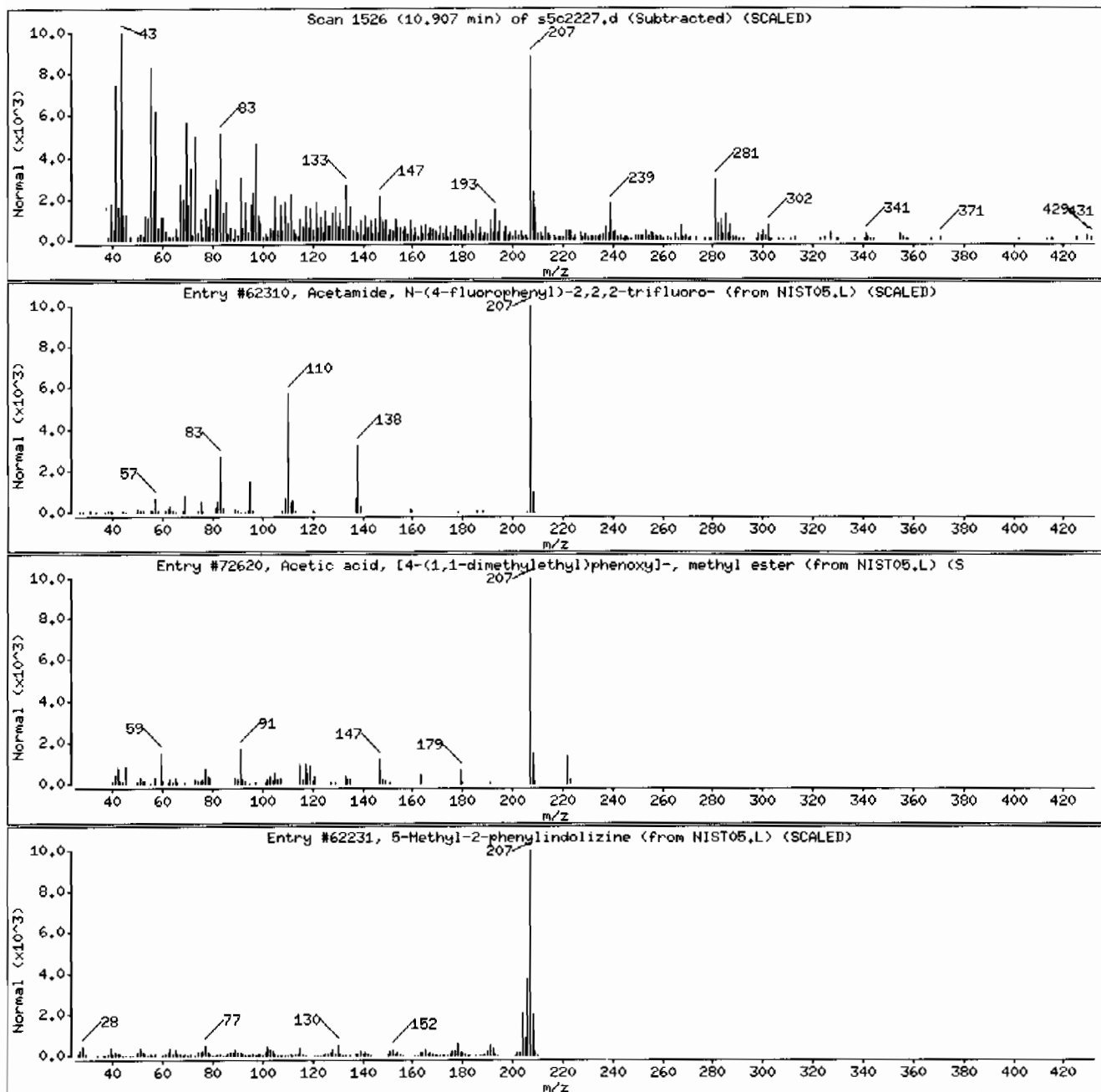
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Acetamide, N-(4-fluorophenyl)-2,2,2-trif	1000307-30-8	NIST05.L	62310	35	C8H5F4NO	207
Acetic acid, [4-(1,1-dimethylethyl)pheno	88530-52-3	NIST05.L	72620	30	C13H18O3	222
5-Methyl-2-phenylindolizine	36944-99-7	NIST05.L	62231	25	C15H13N	207



Date: 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: 1248506016196308611SVMI11LANL

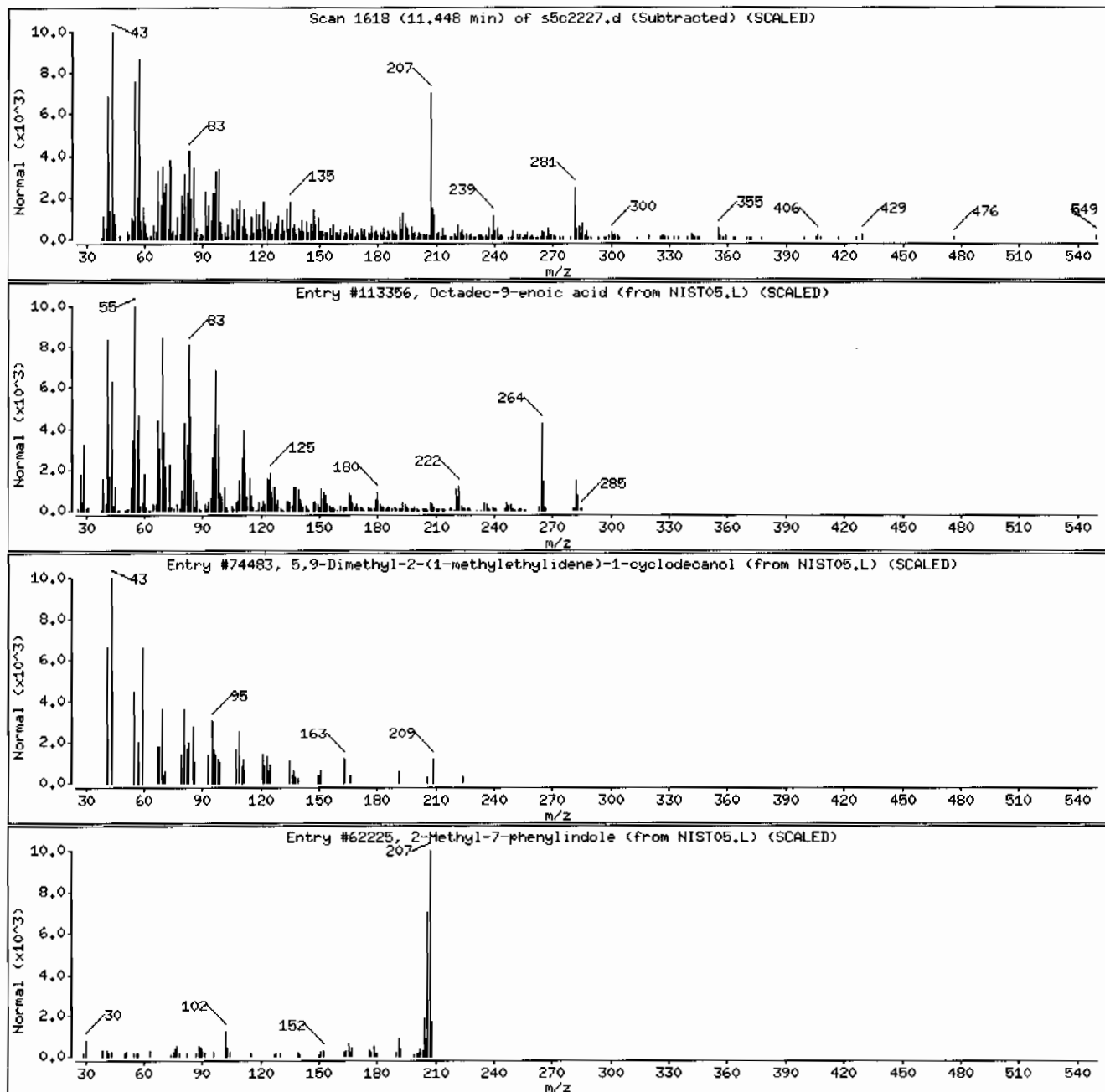
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Octadec-9-enoic acid	1000190-13-7	NIST05.L	113356	27	C18H34O2	282
5,9-Dimethyl-2-(1-methylethylidene)-1-cy	69239-72-1	NIST05.L	74483	25	C15H28O	224
2-Methyl-7-phenylindole	1140-08-5	NIST05.L	62225	25	C15H13N	207



Date : 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: I2485060161963086111SVMI11LANL

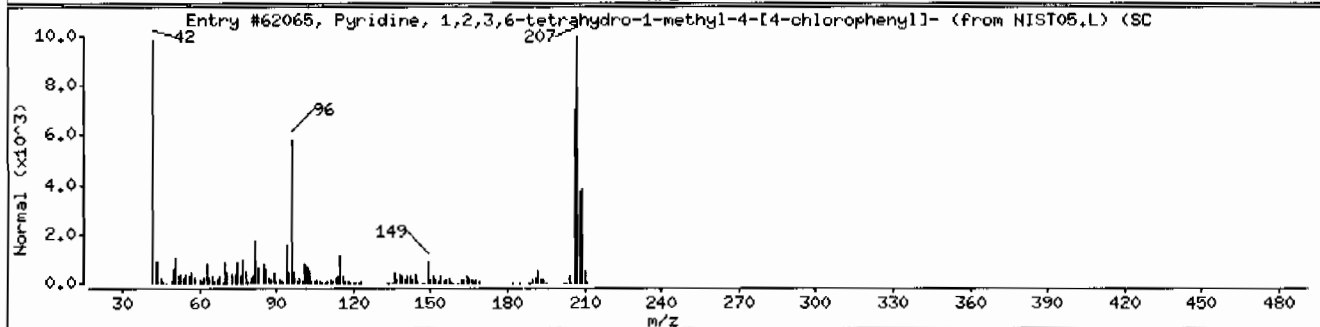
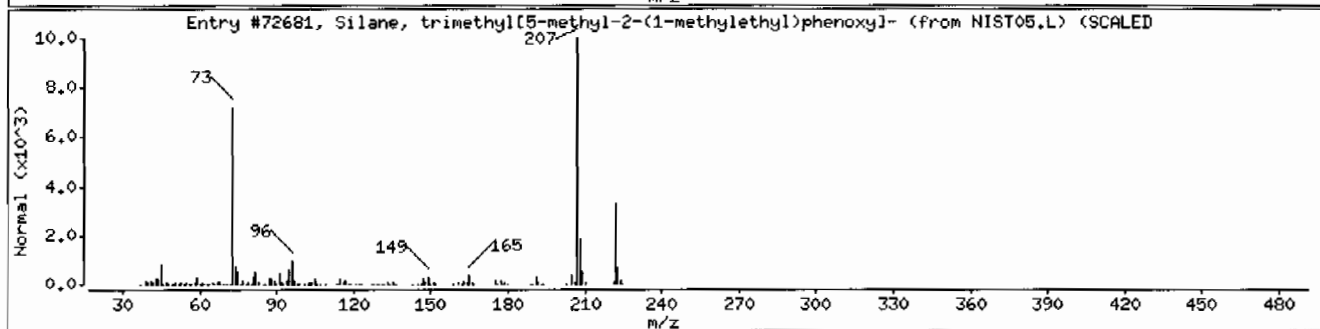
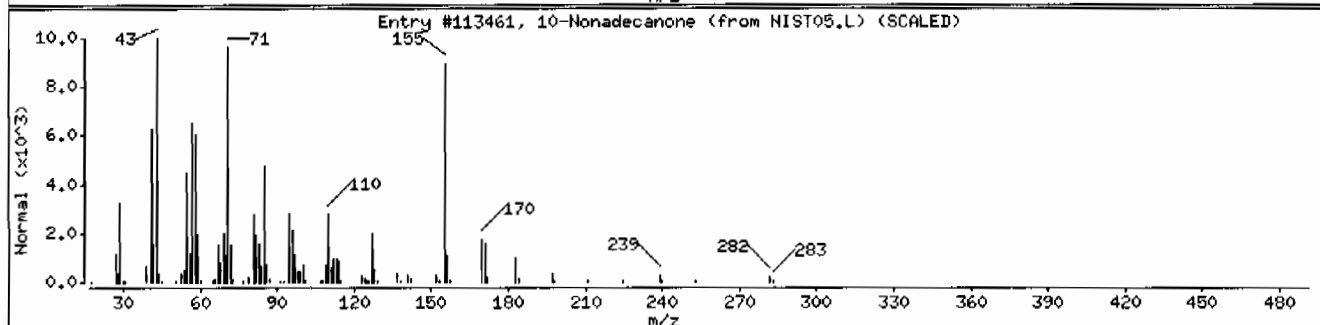
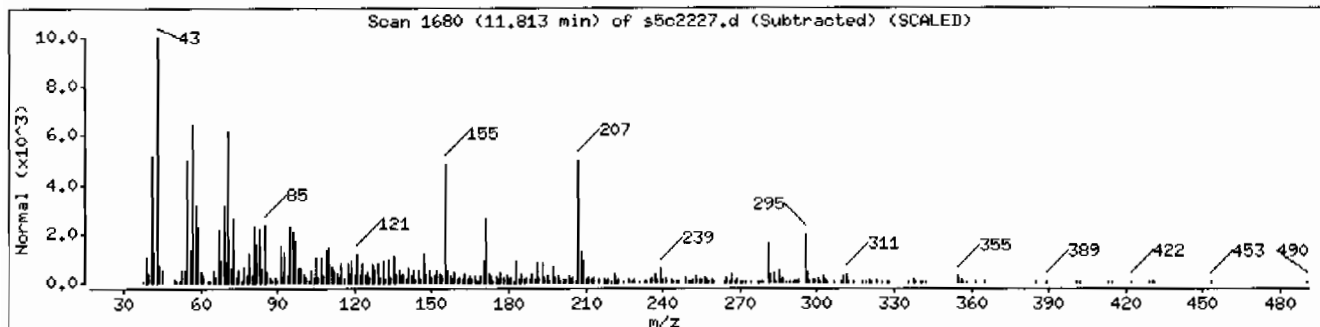
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
10-Nonadecanone	504-57-4	NIST05.L	113461	22	C19H38O	282
Silane, trimethyl[5-methyl-2-(1-methylethyl)-	55012-80-1	NIST05.L	72681	22	C13H22OSi	222
Pyridine, 1,2,3,6-tetrahydro-1-methyl-4-	5048-08-8	NIST05.L	62065	18	C12H14ClN	207



Date : 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: I248506016I963086I1ISVM11ILANL

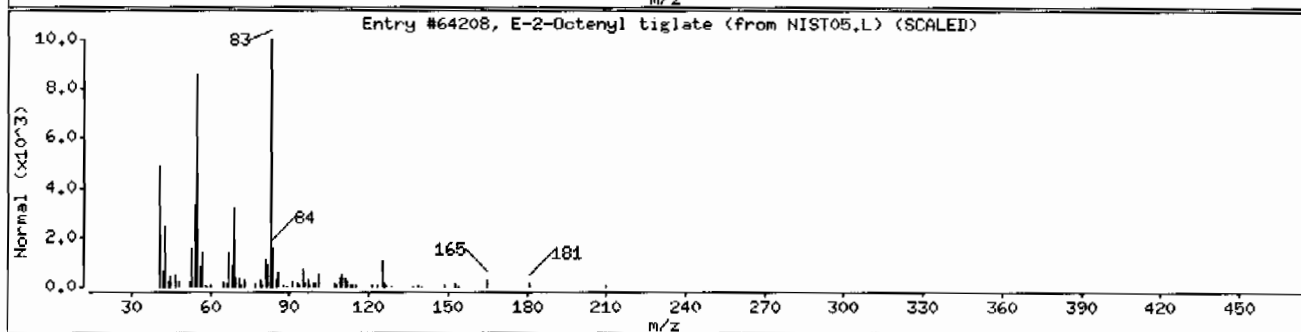
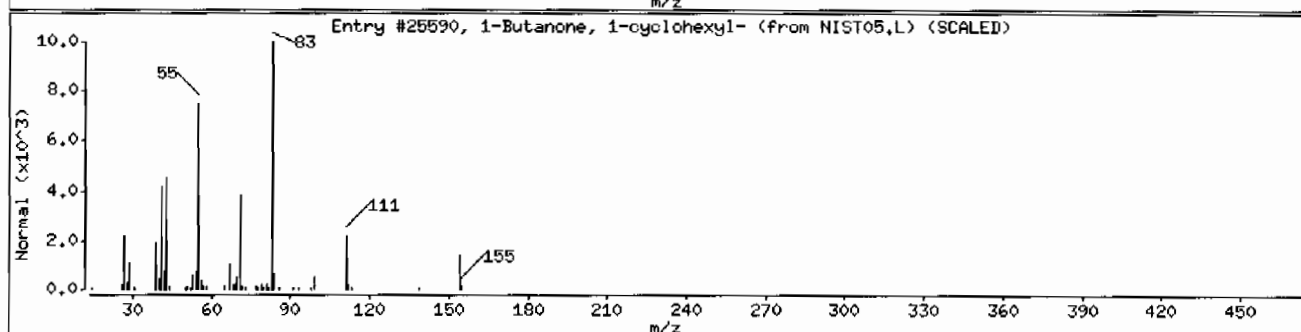
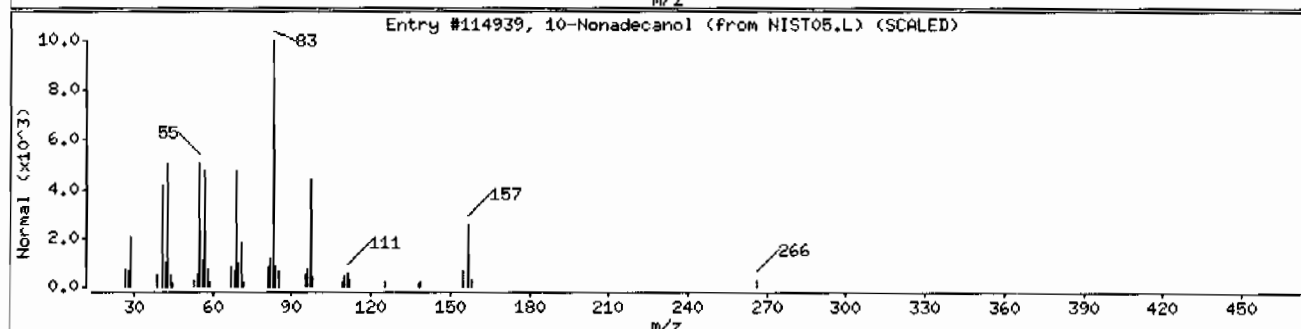
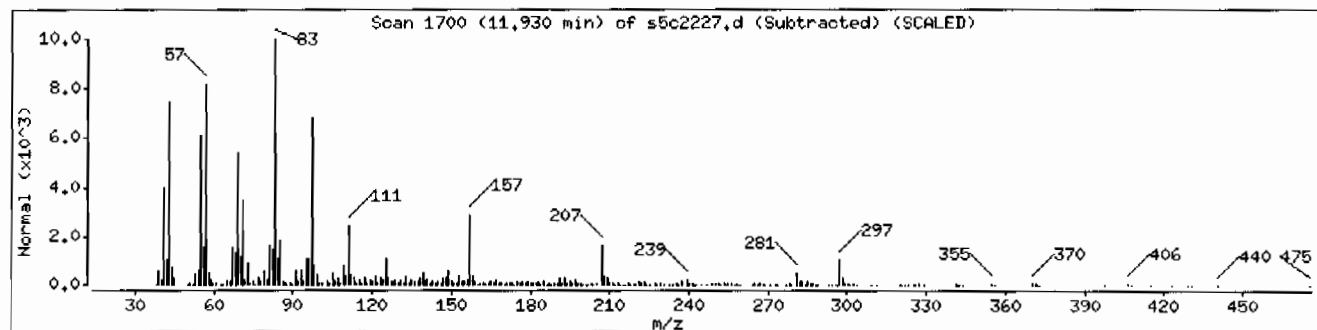
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
10-Nonadecanol	16840-84-9	NIST05.L	114939	52	C19H40O	284
1-Butanone, 1-cyclohexyl-	1462-27-7	NIST05.L	25590	41	C10H18O	154
E-2-Octenyl tiglate	84271-97-6	NIST05.L	64208	38	C13H22O2	210





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Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: 12485060161963086111SVH111LANL

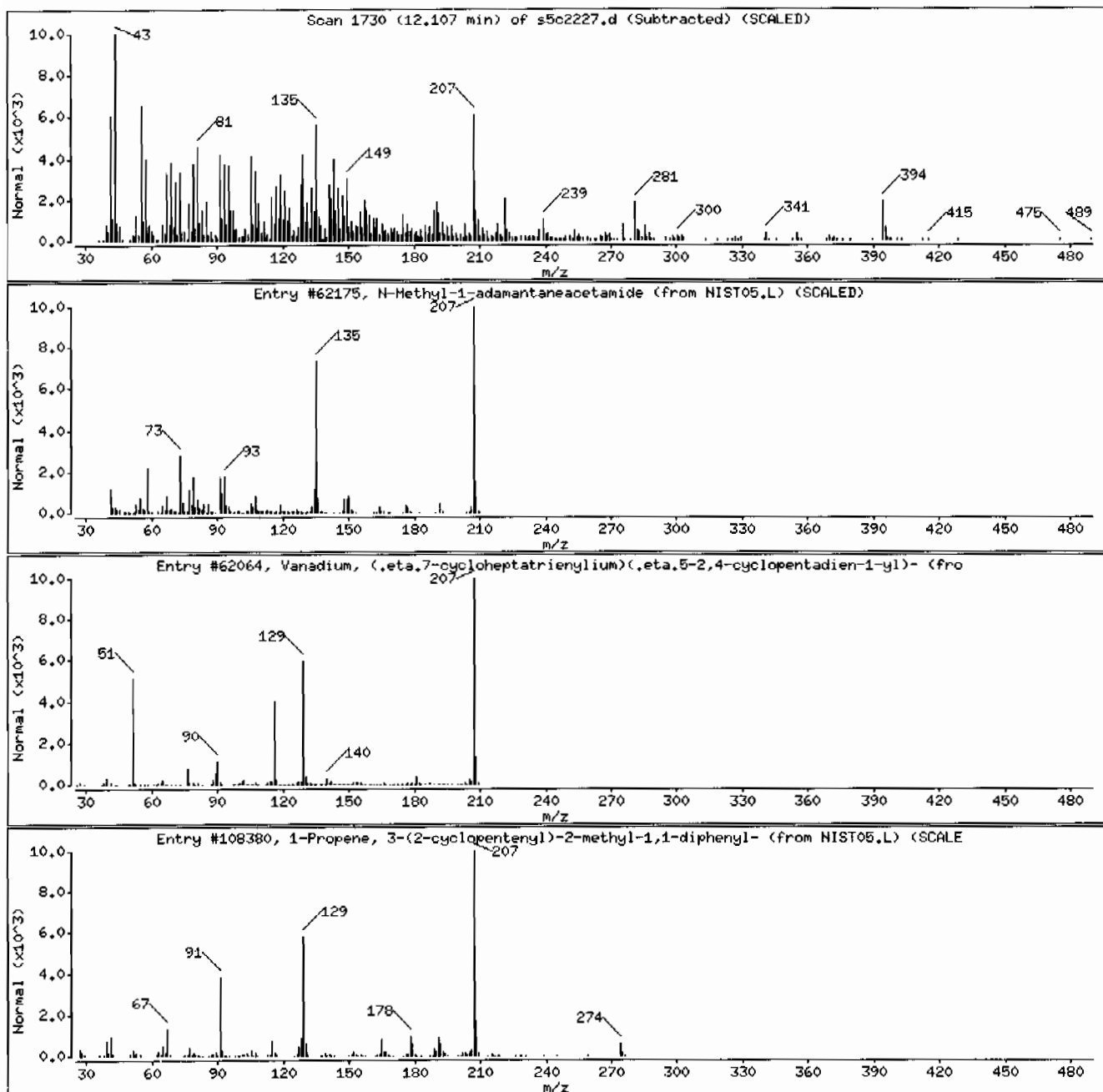
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05.L	62175	30	C <sub>13</sub> H <sub>21</sub> NO	207
Vanadium, (.eta.7-cycloheptatrienylum)(	12636-68-9	NIST05.L	62064	22	C <sub>12</sub> H <sub>12</sub> V	207
1-Propene, 3-(2-cyclopenteny)-2-methyl-	1000154-23-3	NIST05.L	108380	22	C <sub>21</sub> H <sub>22</sub>	274



Date: 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: 1248506016196308611ISVH11ILANL

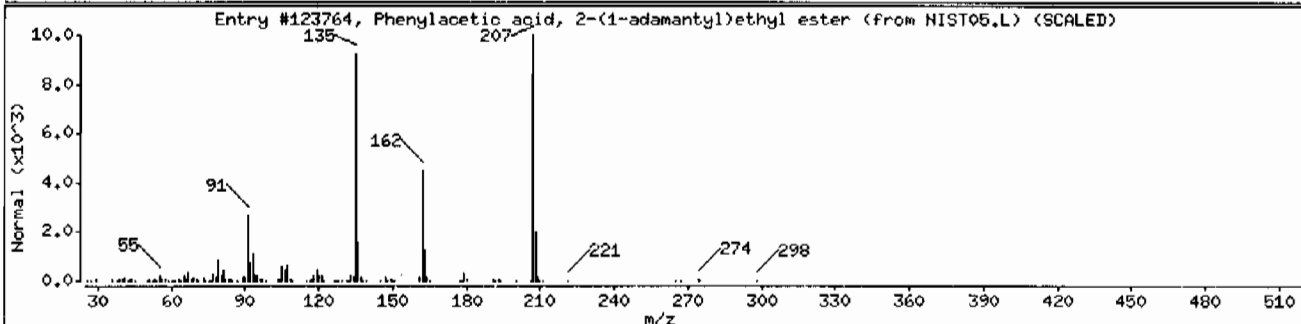
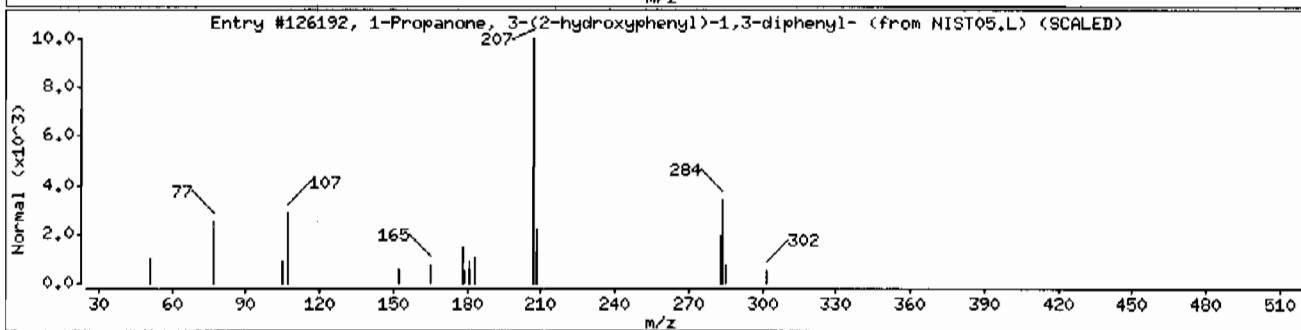
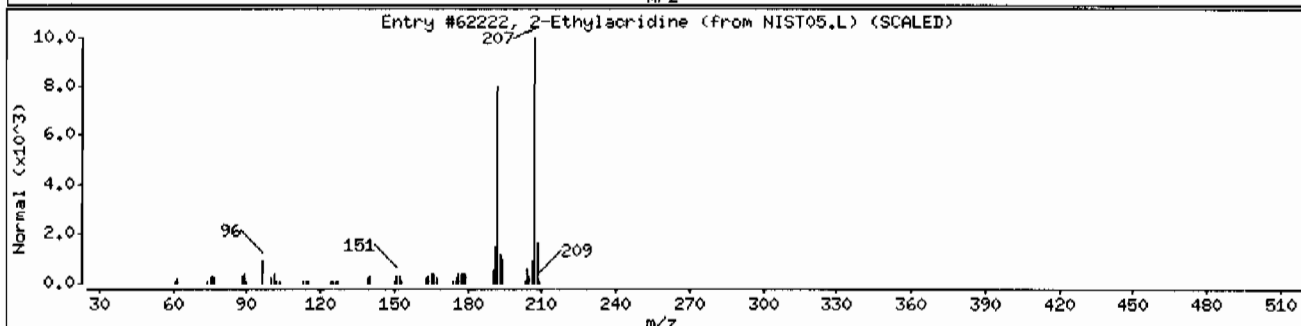
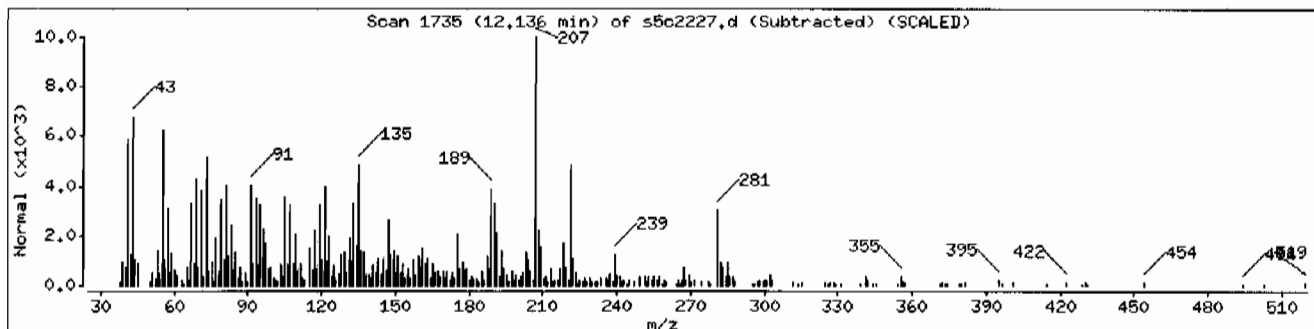
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Ethylacridine	55751-83-2	NIST05.L	62222	42	C15H13N	207
1-Propanone, 3-(2-hydroxyphenyl)-1,3-dip	4376-83-4	NIST05.L	126192	38	C21H18O2	302
Phenylacetic acid, 2-(1-adamantyl)ethyl	1000282-91-2	NIST05.L	123764	38	C20H26O2	298



Date: 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: 12485060161963086111SVH111LANL

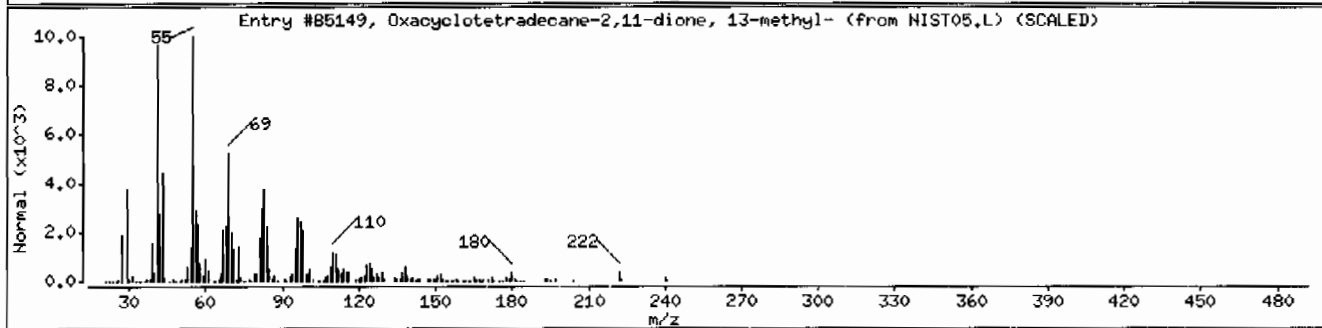
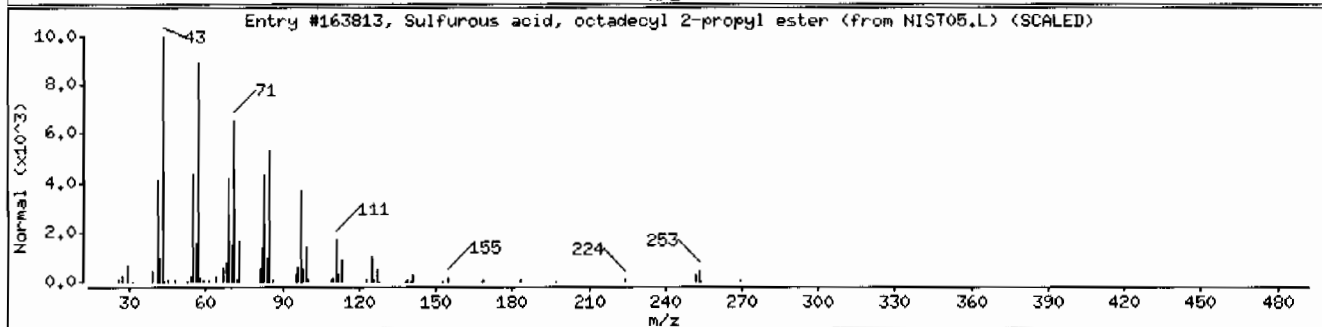
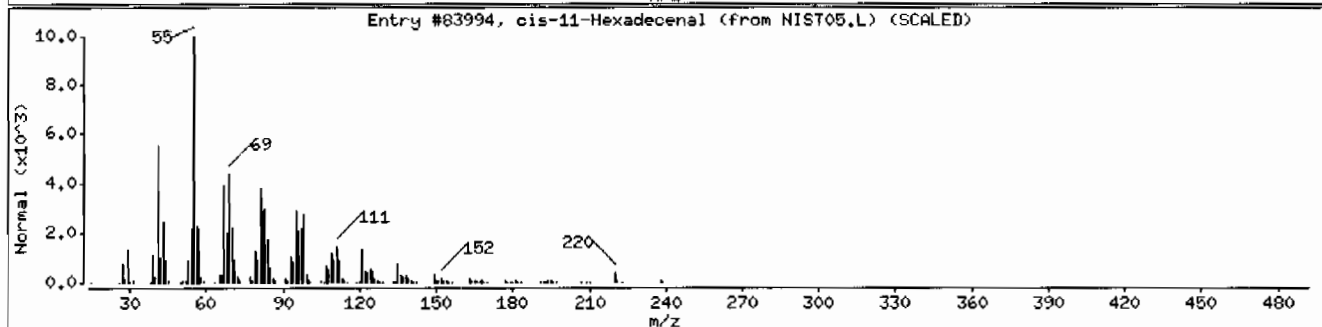
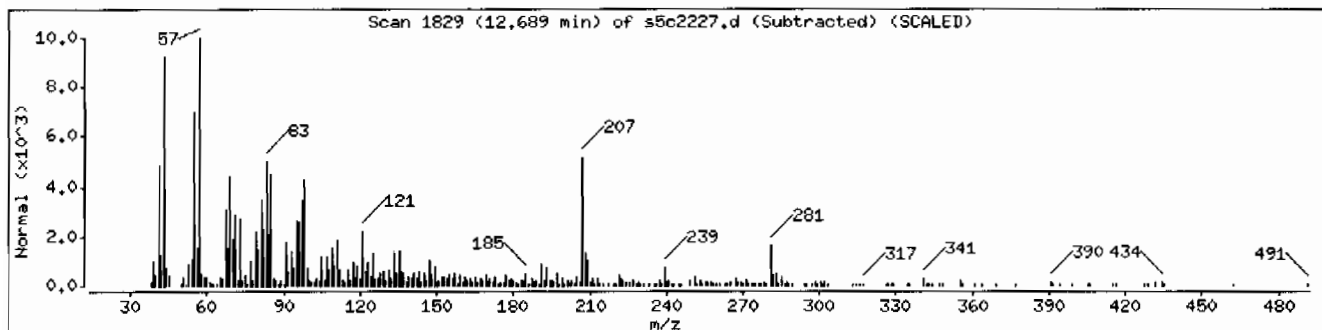
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
cis-11-Hexadecenal	53939-28-9	NIST05.L	83994	83	C16H30O	238
Sulfurous acid, octadecyl 2-propyl ester	1000309-12-7	NIST05.L	163813	35	C21H44O3S	376
Oxacyclotetradecane-2,11-dione, 13-methyl-	74685-36-2	NIST05.L	85149	22	C14H24O3	240



Date: 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: 1248506016196308611|SVH11|LANL

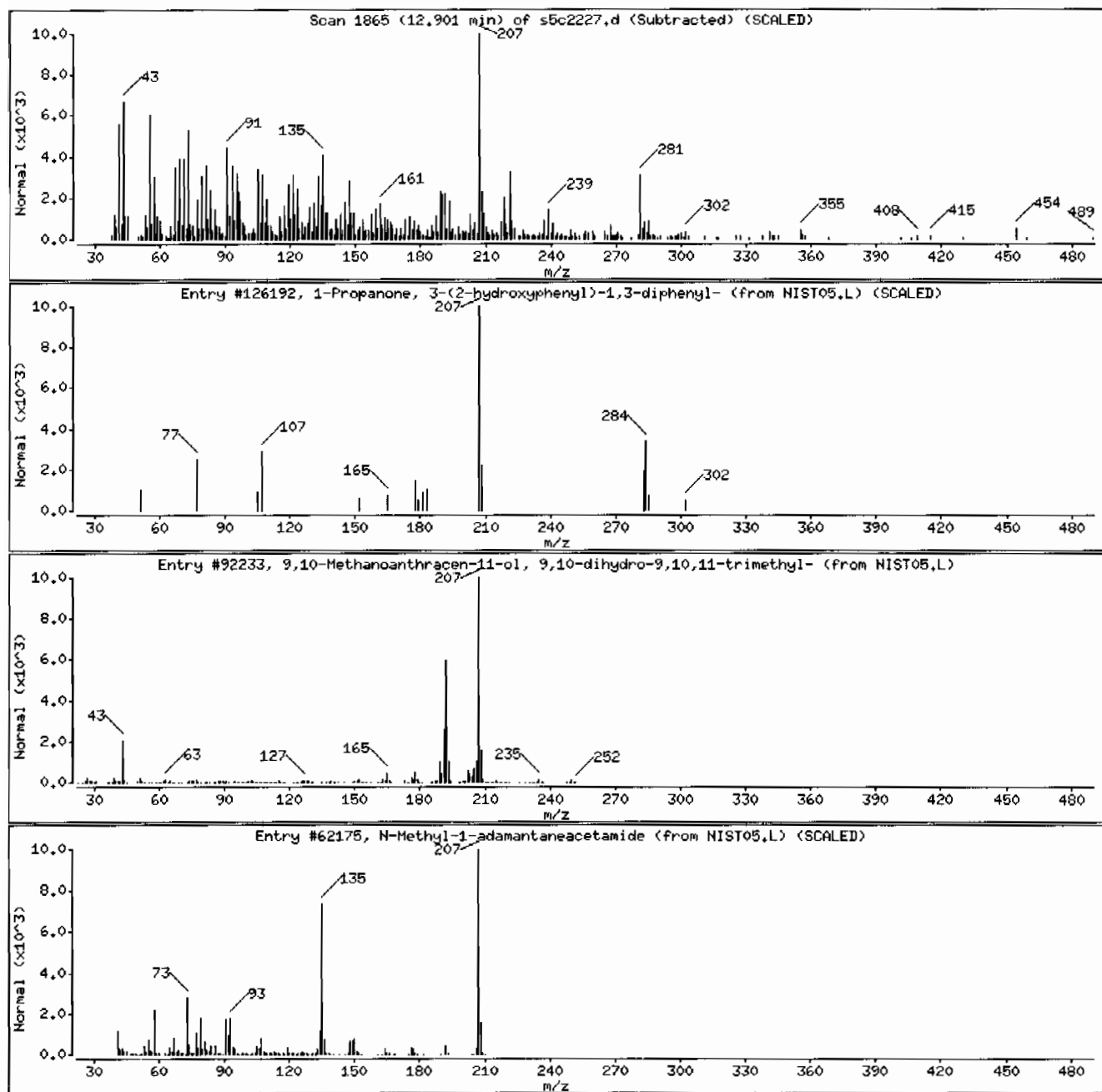
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Propanone, 3-(2-hydroxyphenyl)-1,3-dip	4376-83-4	NIST05.L	126192	38	C21H18O2	302
9,10-Methanoanthracen-11-ol, 9,10-dihydr	126615-74-5	NIST05.L	92233	38	C18H18O	250
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05.L	62175	38	C13H21NO	207



Date : 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: MSD5.i

Sample Info: 1248506016196308611ISVM11ILANL

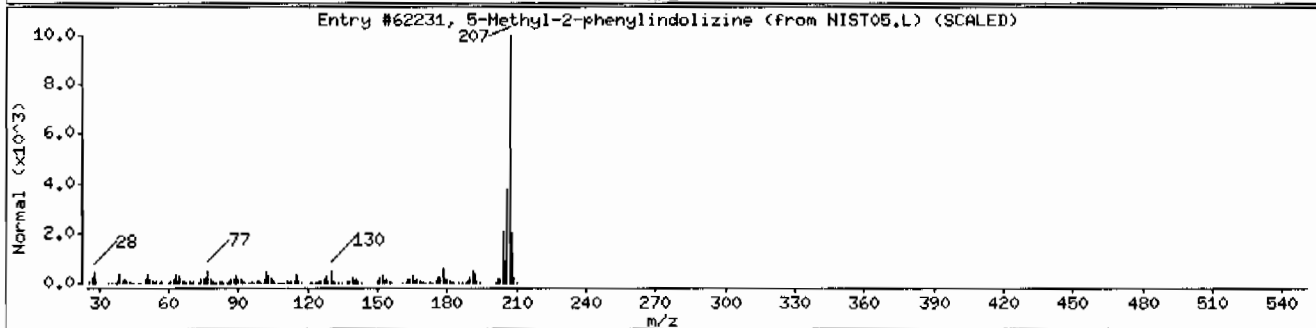
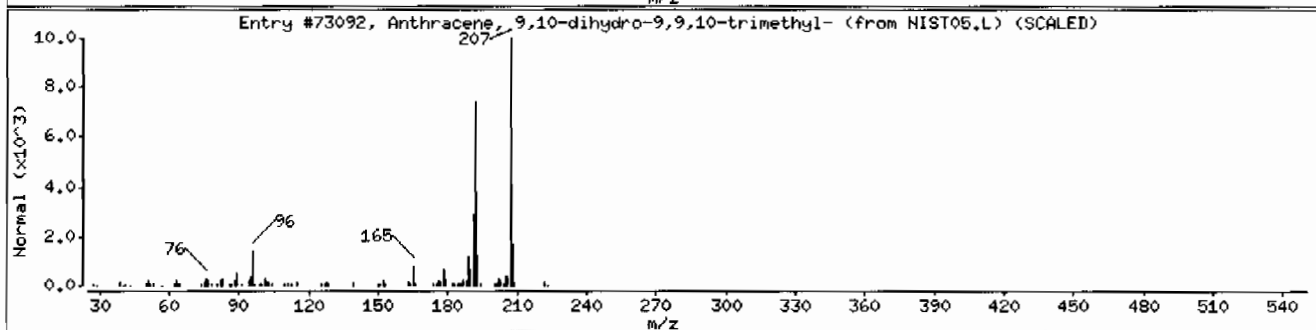
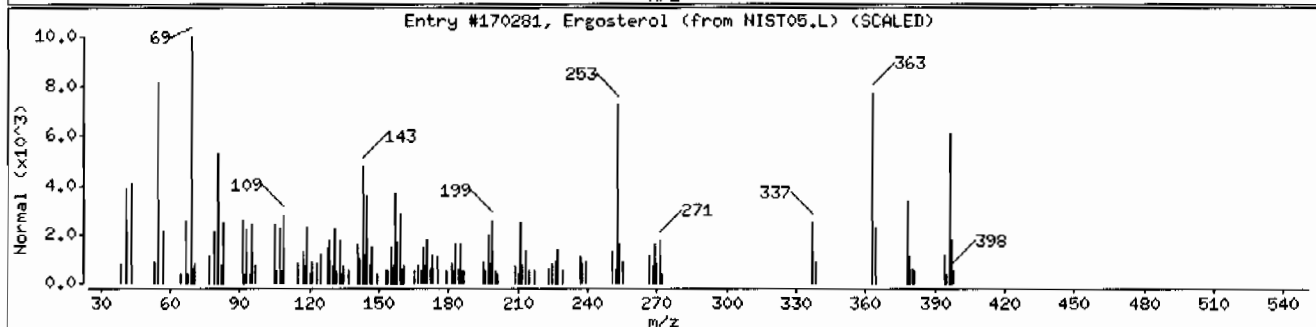
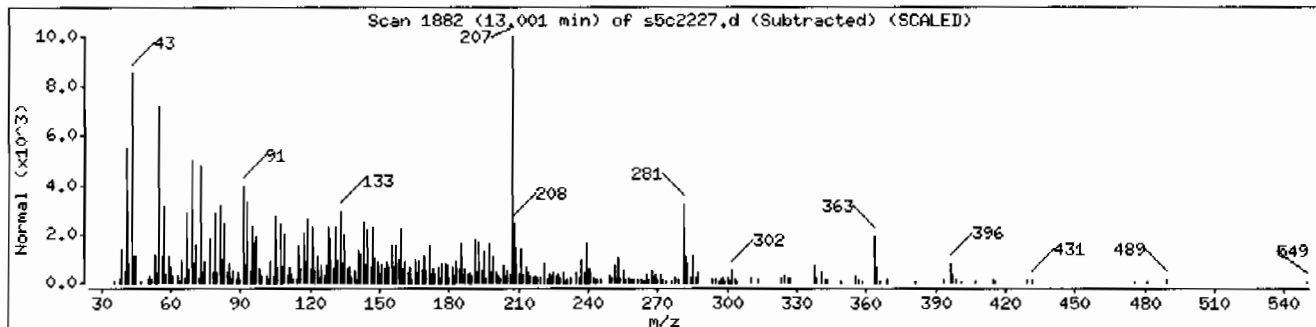
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ergosterol	57-87-4	NIST05.L	170281	47	C28H44O	386
Anthracene, 9,10-dihydro-9,9,10-trimethyl-	14923-29-6	NIST05.L	73092	42	C17H18	222
5-Methyl-2-phenylindolizine	36944-99-7	NIST05.L	62231	38	C15H13N	207



Date : 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: HSD5.i

Sample Info: 1248506016196308611SVH11ILANL

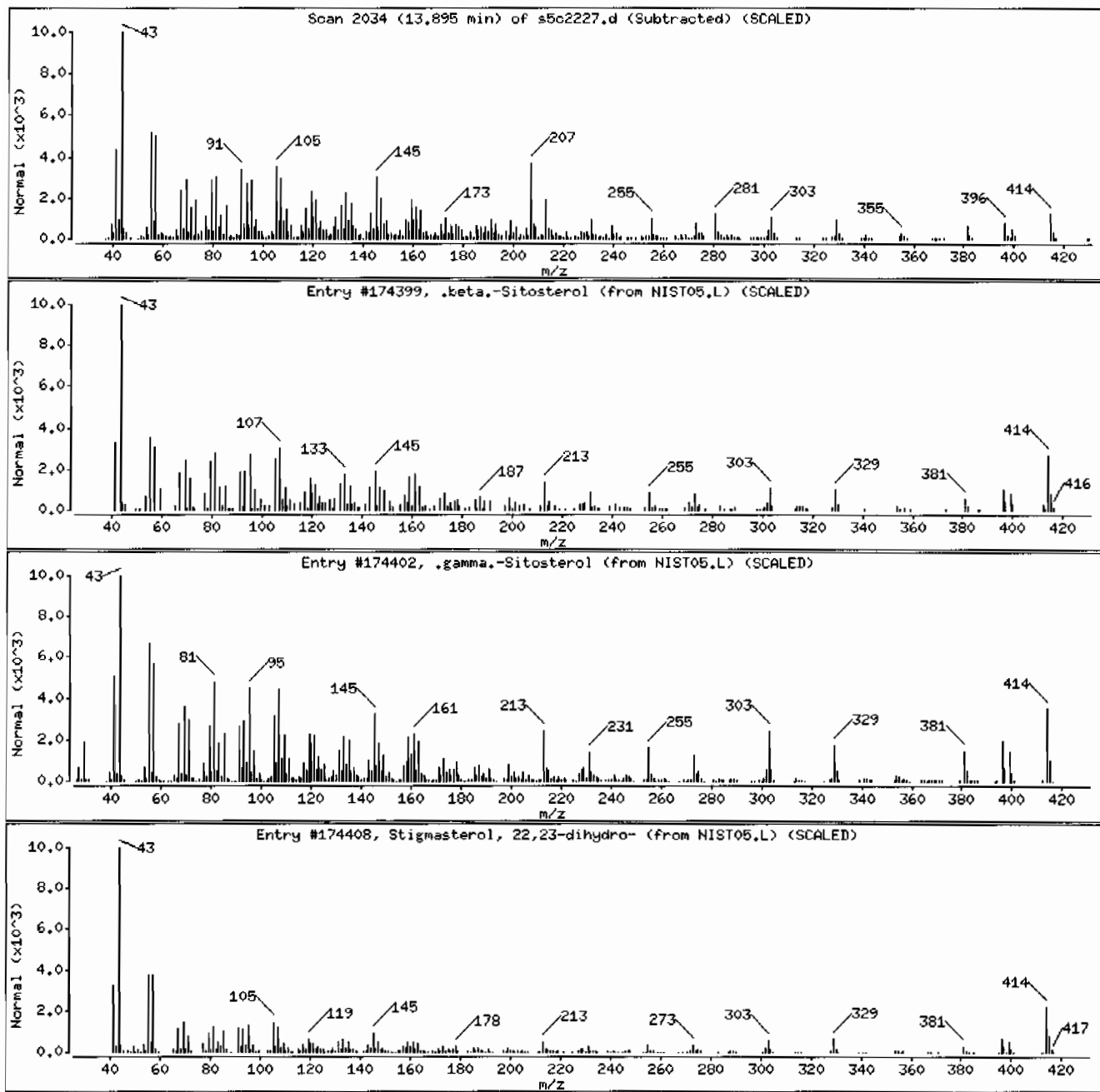
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174399	96	C29H50O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	95	C29H50O	414
Stigmasterol, 22,23-dihydro-	1000214-20-7	NIST05.L	174408	93	C29H50O	414



Date: 22-MAR-2010 18:25

Client ID: RE36-10-7441

Instrument: HSD5.i

Sample Info: I2485060161963086111SVH111LANL

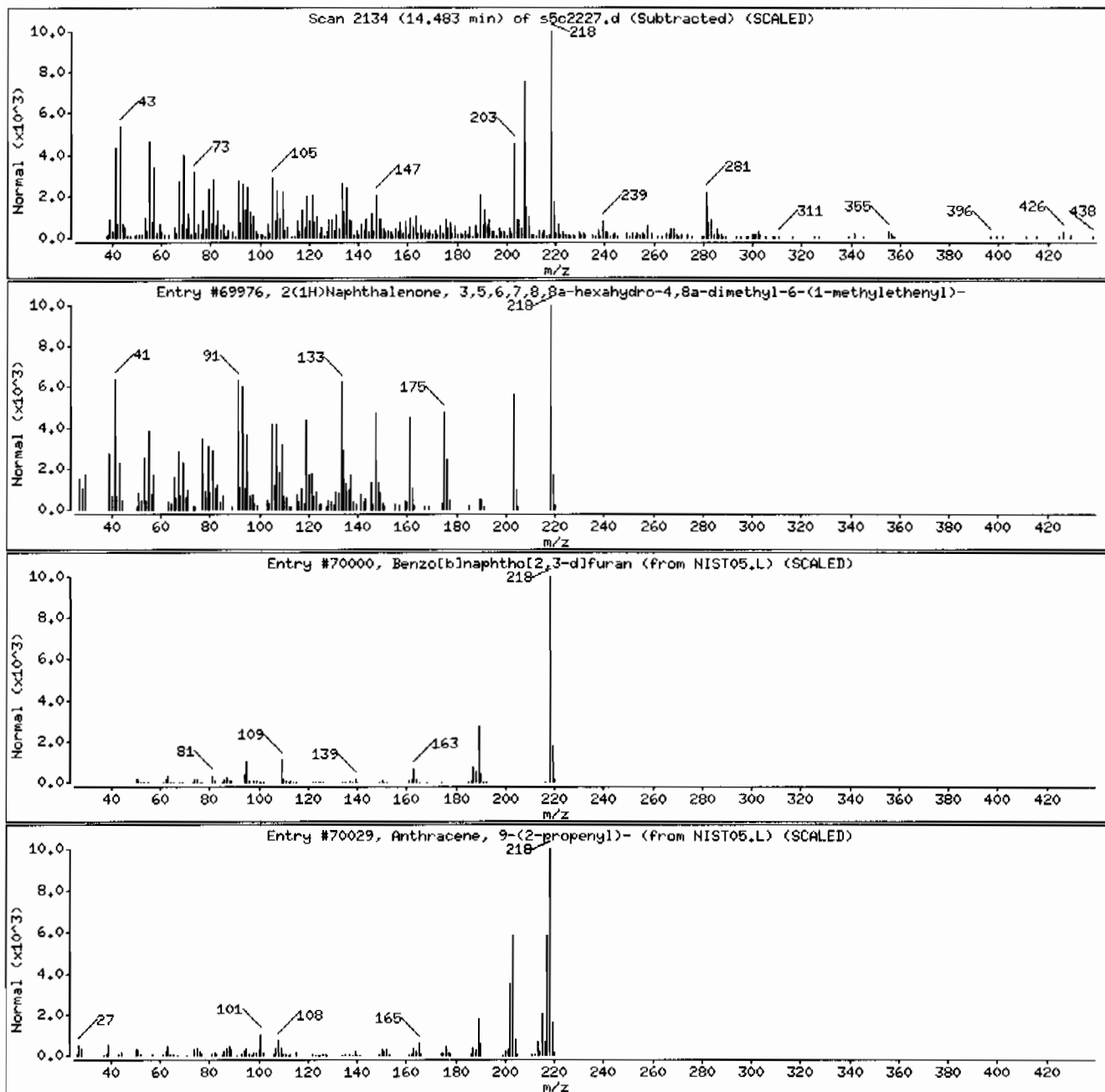
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2(1H)Naphthalenone, 3,5,6,7,8,8a-hexahyd	1000188-66-5	NIST05.L	69976	70	C15H22O	218
Benzo[b]naphtho[2,3-d]furan	243-42-5	NIST05.L	70000	43	C16H10O	218
Anthracene, 9-(2-propenyl)-	23707-65-5	NIST05.L	70029	38	C17H14	218



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

Page 1 of 3

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506017	Date Received: 03/03/2010 08:50	%Moisture: 13.3
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7442	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 18:48	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30 g	Final Volume: 1 mL
Data File: s5c2228.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	384	ug/kg	76.9	384
108-95-2	Phenol	U	384	ug/kg	76.9	384
95-57-8	2-Chlorophenol	U	384	ug/kg	76.9	384
106-46-7	1,4-Dichlorobenzene	U	384	ug/kg	76.9	384
621-64-7	N-Nitrosodipropylamine	U	384	ug/kg	76.9	384
59-50-7	4-Chloro-3-methylphenol	U	384	ug/kg	76.9	384
83-32-9	Acenaphthene	U	38.4	ug/kg	12.7	38.4
121-14-2	2,4-Dinitrotoluene	U	384	ug/kg	38.4	384
100-02-7	4-Nitrophenol	U	384	ug/kg	127	384
87-86-5	Pentachlorophenol	U	384	ug/kg	96.1	384
129-00-0	Pyrene	U	38.4	ug/kg	11.5	38.4
110-86-1	Pyridine	U	384	ug/kg	76.9	384
62-53-3	Aniline	U	384	ug/kg	115	384
111-44-4	bis(2-Chloroethyl) ether	U	384	ug/kg	76.9	384
541-73-1	1,3-Dichlorobenzene	U	384	ug/kg	76.9	384
100-51-6	Benzyl alcohol	U	384	ug/kg	115	384
95-50-1	1,2-Dichlorobenzene	U	384	ug/kg	76.9	384
108-60-1	bis(2-Chloroisopropyl)ether	U	384	ug/kg	76.9	384
95-48-7	o-Cresol	U	384	ug/kg	76.9	384
65794-96-9	m,p-Cresols	U	384	ug/kg	115	384
67-72-1	Hexachloroethane	U	384	ug/kg	76.9	384
98-95-3	Nitrobenzene	U	384	ug/kg	76.9	384
78-59-1	Isophorone	U	384	ug/kg	76.9	384
88-75-5	2-Nitrophenol	U	384	ug/kg	76.9	384
105-67-9	2,4-Dimethylphenol	U	384	ug/kg	135	384
111-91-1	bis(2-Chloroethoxy)methane	U	384	ug/kg	76.9	384
120-83-2	2,4-Dichlorophenol	U	384	ug/kg	76.9	384
65-85-0	Benzoic acid	U	769	ug/kg	192	769
91-20-3	Naphthalene	U	38.4	ug/kg	11.5	38.4
106-47-8	4-Chloroaniline	U	384	ug/kg	76.9	384
87-68-3	Hexachlorohutadiene	U	384	ug/kg	76.9	384
91-57-6	2-Methylnaphthalene	U	38.4	ug/kg	7.69	38.4
77-47-4	Hexachlorocyclopentadiene	U	384	ug/kg	76.9	384
88-06-2	2,4,6-Trichlorophenol	U	384	ug/kg	76.9	384
95-95-4	2,4,5-Trichlorophenol	U	384	ug/kg	76.9	384
91-58-7	2-Chloronaphthalene	U	38.4	ug/kg	12.7	38.4
88-74-4	2-Nitroaniline	U	384	ug/kg	76.9	384
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	384	ug/kg	76.9	384



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

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506017	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 13.3
<b>Client ID:</b> RE36-10-7442	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 963086	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Run Date:</b> 03/22/2010 18:48	<b>Inst:</b> MSD5.1	<b>Dilution:</b> 1
<b>Prep Date:</b> 03/10/2010 12:33	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Data File:</b> s5c2228.d	<b>Aliquot:</b> 30 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
131-11-3	<i>m</i> -Nitroaniline					
606-20-2	Dimethylphthalate	U	384	ug/kg	76.9	384
208-96-8	2,6-Dinitrotoluene	U	384	ug/kg	38.4	384
51-28-5	Acenaphthylene	U	38.4	ug/kg	11.5	38.4
132-64-9	2,4-Dinitrophenol	U	769	ug/kg	146	769
84-66-2	Dibenzofuran	U	384	ug/kg	76.9	384
86-73-7	Diethylphthalate	U	384	ug/kg	76.9	384
7005-72-3	Fluorene	U	38.4	ug/kg	11.5	38.4
534-52-1	4-Chlorophenylphenylether	U	384	ug/kg	76.9	384
100-01-6	2-Methyl-4,6-dinitrophenol	U	384	ug/kg	76.9	384
122-39-4	4-Nitroaniline	U	384	ug/kg	115	384
122-66-7	<i>p</i> -Nitroaniline					
101-55-3	Diphenylamine	U	384	ug/kg	76.9	384
118-74-1	Azobenzene	U	384	ug/kg	76.9	384
85-01-8	<i>1,2</i> -Diphenylhydrazine					
120-12-7	4-Bromophenylphenylether	U	384	ug/kg	76.9	384
84-74-2	Hexachlorobenzene	U	384	ug/kg	76.9	384
206-44-0	Phenanthrene	U	38.4	ug/kg	11.5	38.4
85-68-7	Anthracene	U	38.4	ug/kg	7.69	38.4
56-55-3	Di-n-butylphthalate	U	384	ug/kg	76.9	384
91-94-1	Fluoranthene	U	38.4	ug/kg	11.5	38.4
218-01-9	Butylbenzylphthalate	U	384	ug/kg	76.9	384
117-81-7	Benzo(a)anthracene	U	38.4	ug/kg	11.5	38.4
117-84-0	3,3'-Dichlorobenzidine	U	384	ug/kg	115	384
205-99-2	Chrysene	U	38.4	ug/kg	11.5	38.4
207-08-9	bis(2-Ethylhexyl)phthalate	U	384	ug/kg	76.9	384
50-32-8	Di-n-octylphthalate	U	384	ug/kg	76.9	384
193-39-5	Benzo(b)fluoranthene	U	38.4	ug/kg	11.5	38.4
53-70-3	Benzo(k)fluoranthene	U	38.4	ug/kg	11.5	38.4
191-24-2	Benzo(a)pyrene	U	38.4	ug/kg	11.5	38.4
120-82-1	Indeno(1,2,3-cd)pyrene	U	38.4	ug/kg	11.5	38.4
	Dibenzo(a,h)anthracene	U	38.4	ug/kg	11.5	38.4
	Benzo(ghi)perylene	U	38.4	ug/kg	11.5	38.4
	1,2,4-Trichlorobenzene	U	384	ug/kg	76.9	384

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.08	2040	ug/kg		J
56554-46-2	12-Octadecenoic acid, methyl ester	8.14	382	ug/kg	95	NJ

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

SDG Number: 10-2193  
Lab Sample ID: 248506017

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 13.3  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7442  
Batch ID: 963086  
Run Date: 03/22/2010 18:48  
Prep Date: 03/10/2010 12:33  
Data File: s5c2228.d

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

Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	8.46	412	ug/kg		J
77899-03-7	1-Heneicosyl formate	8.79	308	ug/kg	95	NJ
1235-74-1	1-Phenanthrenecarboxylic acid, 1,2,3,4,4	9.1	326	ug/kg	94	NJ
	Unknown	9.14	342	ug/kg		J
296-56-0	Cycloeicosane	9.45	842	ug/kg	94	NJ
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	9.79	225	ug/kg	93	NJ
	Unknown	9.89	196	ug/kg		J
	Unknown	9.96	351	ug/kg		J
	Unknown	10.09	359	ug/kg		J
1599-67-3	1-Docosene	10.11	788	ug/kg	95	NJ
	Unknown	10.45	423	ug/kg		J
	Unknown	10.55	346	ug/kg		J
112-95-8	Eicosane	10.85	447	ug/kg	95	NJ
	Unknown	10.91	325	ug/kg		J
	Unknown	11.51	241	ug/kg		J
13360-61-7	1-Pentadecene	11.93	362	ug/kg	89	NJ
	Unknown	12.1	284	ug/kg		J
	Unknown	12.16	422	ug/kg		J
	Unknown	12.44	247	ug/kg		J
	Unknown	12.48	301	ug/kg		J
	Unknown	12.91	483	ug/kg		J
	Unknown	13	298	ug/kg		J
83-47-6	.gamma.-Sitosterol	13.89	976	ug/kg	95	NJ

Data File: /chem/MSD5.i/s032210.b/s5c2228.d  
Report Date: 23-Mar-2010 07:54

Page 1

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2228.d  
Lab Smp Id: 248506017 Client Smp ID: RE36-10-7442  
Inj Date : 22-MAR-2010 18:48  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506017|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 28  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	13.26130	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.949	3.950	(1.000)	238512	40.0000	
* 29 Naphthalene-d8	136	4.813	4.821	(1.000)	956800	40.0000	
* 46 Acenaphthene-d10	164	6.072	6.078	(1.000)	569027	40.0000	
* 67 Phenanthrene-d10	188	7.254	7.253	(1.000)	1011382	40.0000	
* 91 Chrysene-d12	240	9.672	9.670	(1.000)	902789	40.0000	
* 98 Perylene-d12	264	11.377	11.370	(1.000)	627122	40.0000	
\$ 3 2-Fluorophenol	112	3.149	3.141	(0.797)	383908	64.4598	2480
\$ 5 Phenol-d5	99	3.666	3.666	(0.928)	527578	73.7017	2830
\$ 20 Nitrobenzene-d5	82	4.307	4.316	(0.895)	272511	38.3296	1470
\$ 39 2-Fluorobiphenyl	172	5.560	5.558	(0.916)	516186	36.3194	1400
\$ 60 2,4,6-Tribromophenol	329	6.678	6.675	(1.100)	161839	75.7232	2910
\$ 81 p-Terphenyl-d14	244	8.636	8.630	(0.893)	623441	41.5152	1600

## ION RATIO REPORT

## SV REPORT

Data file: s5c2228.d

Report Date: 03/23/2010 07:07

Lab. ID: 248506017

SampleType: SAMPLE

Injection Date: 22-MAR-2010 18:48

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506017|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	33126	3.67	3.74	80-120	100	(T)
93	6000	3.63	3.74	219-279	18	(QT)
-----						
7 bis(2-Chloroethyl) ether		CAS#: 111-44-4				
63	10843	3.95	3.75	80-120	100	(T)
93	69170	3.91	3.75	119-179	638	(QT)
95	1580	3.91	3.75	8- 68	15	(T)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	38254	4.31	4.19	80-120	100	(T)
42	24023	4.31	4.19	44-104	63	(T)
-----						
27 Benzoic acid		CAS#: 65-85-0				
105	5546	4.57	4.59	80-120	100	( )
122	3797	4.57	4.59	45-105	68	( )
77	4355	4.56	4.59	48-108	79	( )
-----						
43 Dimethylphthalate		CAS#: 131-11-3				
163	104852	6.08	5.84	80-120	100	(T)
164	569027	6.07	5.84	0- 40	543	(QT)
-----						
44 2,6-Dinitrotoluene		CAS#: 606-20-2				
165	74662	6.07	5.90	80-120	100	(T)
63	1480	6.07	5.89	62-122	2	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	74662	6.07	6.19	80-120	100	(T)
89	2619	6.07	6.19	51-111	4	(QT)
63	1480	6.07	6.19	24- 84	2	(QT)
-----						
52	4-Nitrophenol			CAS#: 100-02-7		
139	549	6.07	6.12	80-120	100	( )
109	1991	6.07	6.12	63-123	363	(Q)
65	3491	6.07	6.11	71-131	636	(Q)
-----						
53	Fluorene			CAS#: 86-73-7		
166	6426	6.67	6.49	80-120	100	(T)
165	7280	6.67	6.49	62-122	113	(T)
167	2659	6.67	6.49	0- 44	41	(T)
-----						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	867	6.68	6.51	80-120	100	(T)
105	2631	6.68	6.50	13- 73	303	(QT)
51	1500	6.68	6.50	51-111	173	(QT)
-----						
61	4-Bromophenylphenylether			CAS#: 101-55-3		
248	10798	6.68	6.85	80-120	100	(T)
141	91436	6.68	6.85	59-119	847	(QT)
250	20322	6.68	6.85	66-126	188	(QT)
-----						
89	Benzo(a)anthracene			CAS#: 56-55-3		
228	7322	9.67	9.66	80-120	100	( )
226	1418	9.66	9.66	0- 56	19	( )
229	2046	9.67	9.66	0- 50	28	( )
-----						
94	Di-n-octylphthalate			CAS#: 117-84-0		
149	57443	10.21	10.24	80-120	100	( )
43	108137	10.22	10.24	0- 43	188	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2228.d  
Lab Smp Id: 248506017 Client Smp ID: RE36-10-7442  
Inj Date : 22-MAR-2010 18:48  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506017|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 28  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	13.26130	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.949	1671670	40.000
* 67 Phenanthrene-d10	7.254	2654359	40.000
* 91 Chrysene-d12	9.672	3137894	40.000
* 98 Perylene-d12	11.377	2468604	40.000

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

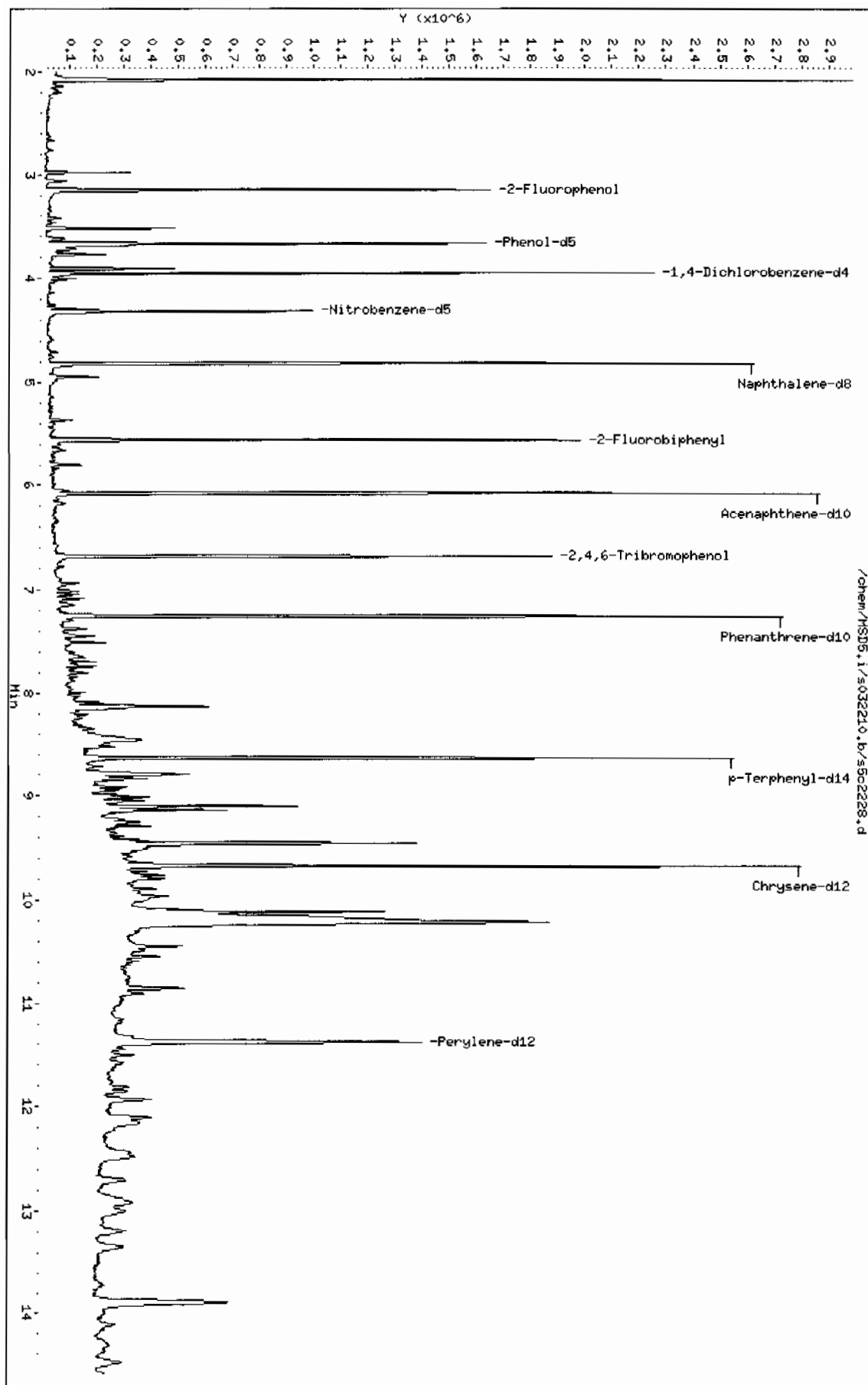
RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)		LIBRARY	LIB ENTRY	
Unknown					CAS #:		
2.078	2215556	53.0141817	2040	0		0	10
12-Octadecenoic acid, methyl ester					CAS #: 56554-46-2		
8.137	660201	9.94892682	382	95	NIST05.L	122311	67
Unknown					CAS #:		
8.460	711151	10.7167255	412	0		0	67
1-Heneicosyl formate					CAS #: 77899-03-7		
8.789	627989	8.00522380	308	95	NIST05.L	147938	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 1235-74-1		
9.101	666044	8.49032648	326	94	NIST05.L	133618	91
Unknown					CAS #:		
9.136	697138	8.88670288	342	0		0	91
Cycloeicosane					CAS #: 296-56-0		
9.448	1718575	21.9073684	842	94	NIST05.L	112104	91
Pyridine-3-carboxamide, oxime, N-(2-trif					CAS #: 288246-53-7		
9.789	459097	5.85229300	225	93	NIST05.L	112295	91
Unknown					CAS #:		
9.889	399965	5.09851257	196	0		0	91
Unknown					CAS #:		
9.960	717207	9.14252993	351	0		0	91
Unknown					CAS #:		
10.089	733083	9.34489876	359	0		0	91
1-Docosene					CAS #: 1599-67-3		
10.113	1609313	20.5145626	788	95	NIST05.L	129888	91
Unknown					CAS #:		
10.448	863491	11.0072668	423	0		0	91
Unknown					CAS #:		
10.548	554936	8.99189623	346	0		0	98
Eicosane					CAS #: 112-95-8		
10.854	718602	11.6438599	447	95	NIST05.L	113492	98

RT	CONCENTRATIONS				QUANT		
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
10.907	522391	8.46454929	325	0		0	98
Unknown				CAS #:			
11.507	387528	6.27931030	241	0		0	98
1-Pentadecene				CAS #: 13360-61-7			
11.930	581363	9.42011081	362	89	NIST05.L	64457	98
Unknown				CAS #:			
12.101	456511	7.39707433	284	0		0	98
Unknown				CAS #:			
12.160	677671	10.9806271	422	0		0	98
Unknown				CAS #:			
12.442	396530	6.42516552	247	0		0	98
Unknown				CAS #:			
12.477	483727	7.83807065	301	0		0	98
Unknown				CAS #:			
12.913	776463	12.5814072	483	0		0	98
Unknown				CAS #:			
13.001	478581	7.75468526	298	0		0	98
.gamma.-Sitosterol				CAS #: 83-47-6			
13.889	1568049	25.4078659	976	95	NIST05.L	174402	98



Data File: /chem/MSDS.i/s032210.b/s0c2228.d  
Date: 22-MAR-2010 18:48  
Client ID: RE36-10-7442  
Sample Info: 1248506017196308611SVH11LNL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-SMS

Instrument: MSD5.i  
Operator: RMB  
Column diameter: 0.20



Date : 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: MSD5.i

Sample Info: 12485060171963086111SVH111LANL

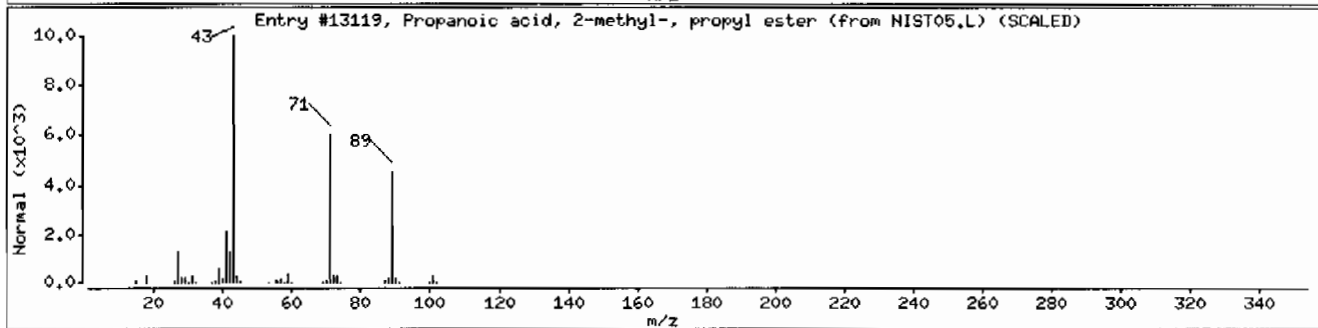
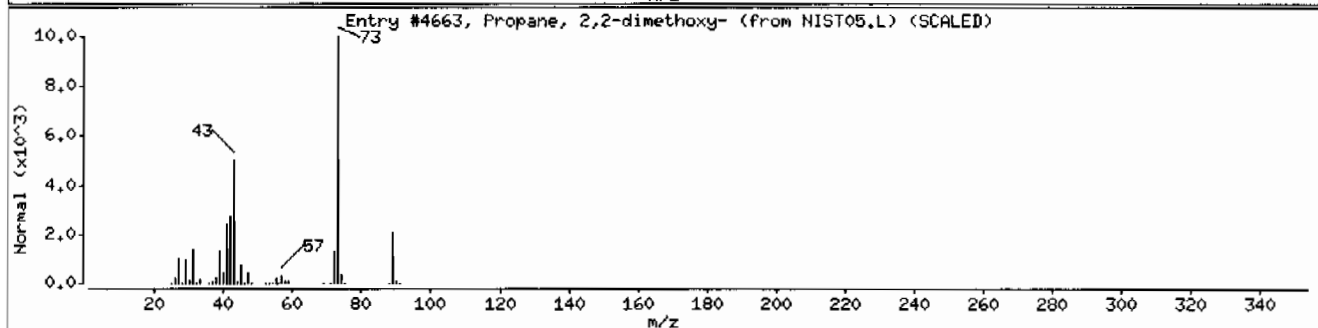
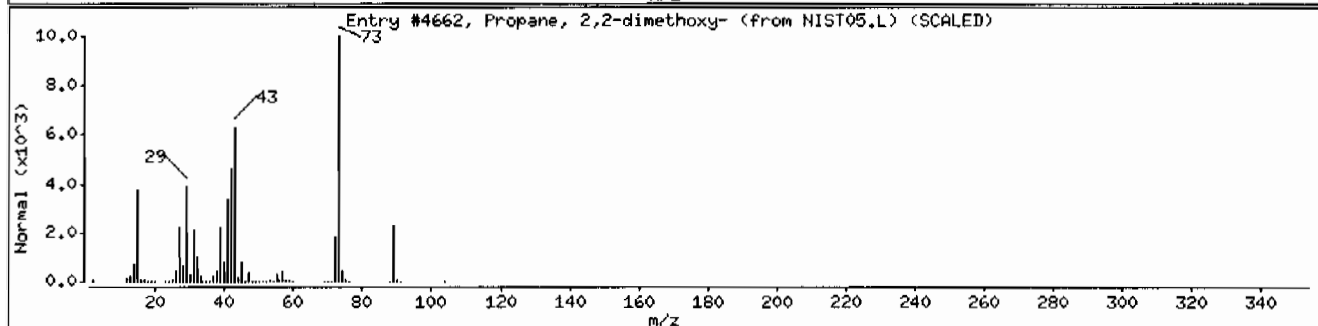
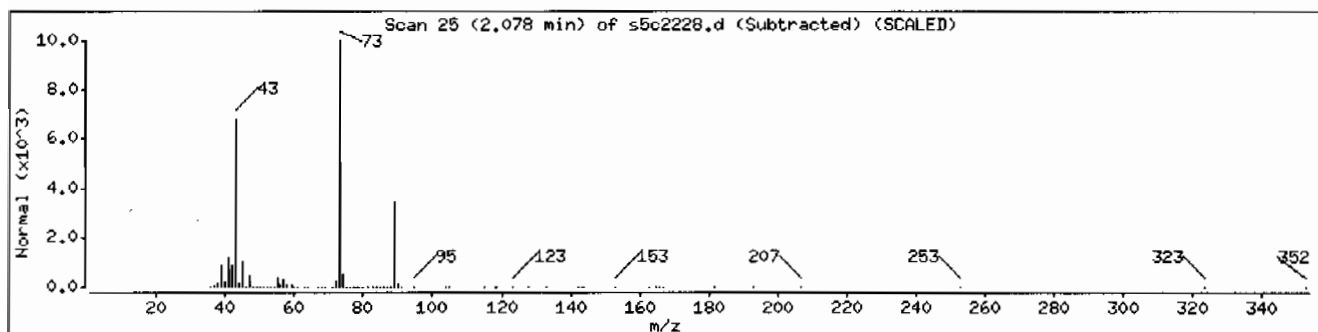
Volume Injected (uL): 0.5

Operator: RMB

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	4662	56	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	38	C5H12O2	104
Propanoic acid, 2-methyl-, propyl ester	644-49-5	NIST05.L	13119	16	C7H14O2	130



Date : 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: MSD5.i

Sample Info: 1248506017196308611SVMI11LANL

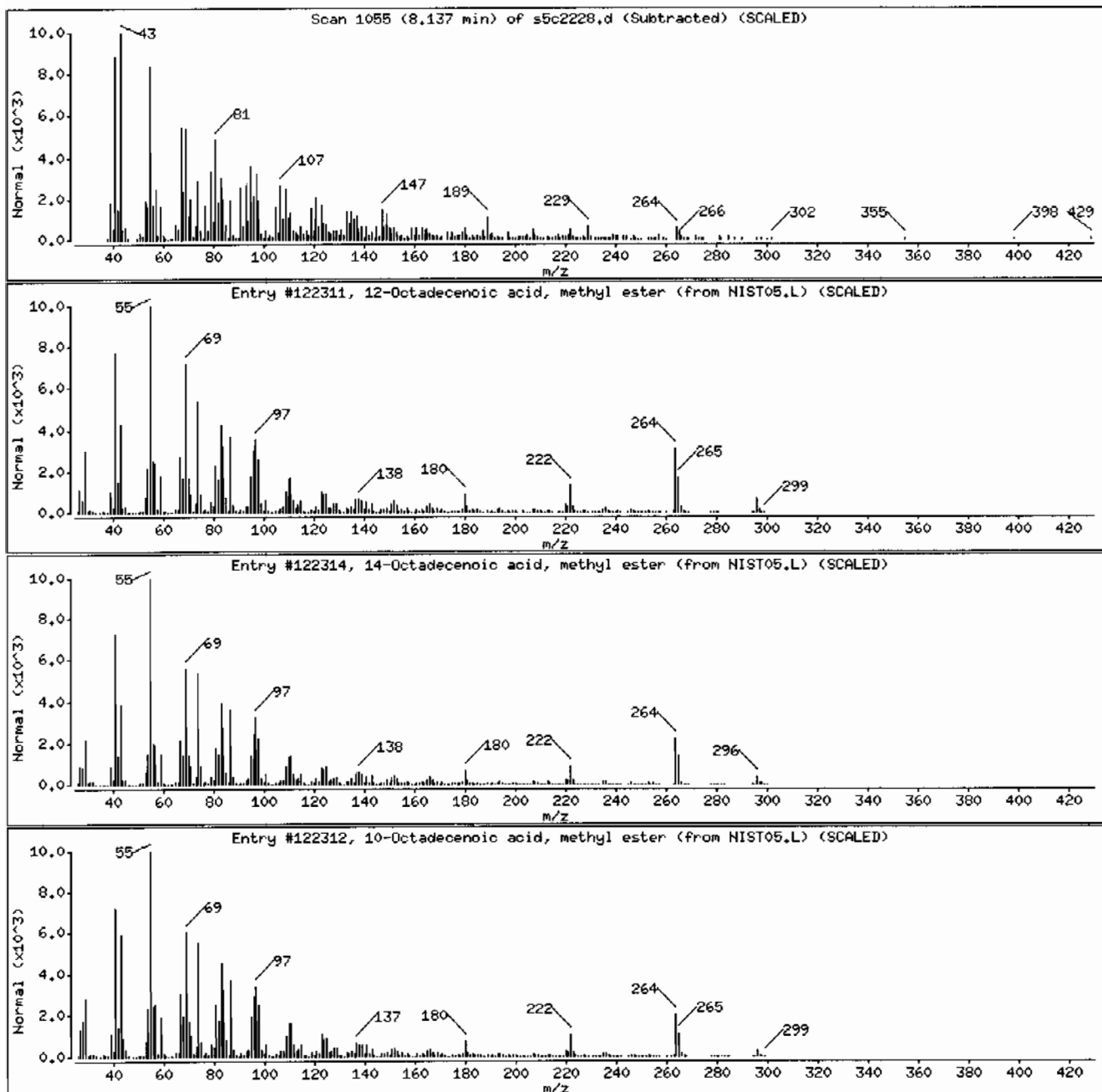
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
12-Octadecenoic acid, methyl ester	56554-46-2	NIST05.L	122311	95	C19H36O2	296
14-Octadecenoic acid, methyl ester	56554-48-4	NIST05.L	122314	93	C19H36O2	296
10-Octadecenoic acid, methyl ester	13481-95-3	NIST05.L	122312	91	C19H36O2	296



Date : 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: MSD5.i

Sample Info: 12485060171963086111SVMI11LANL

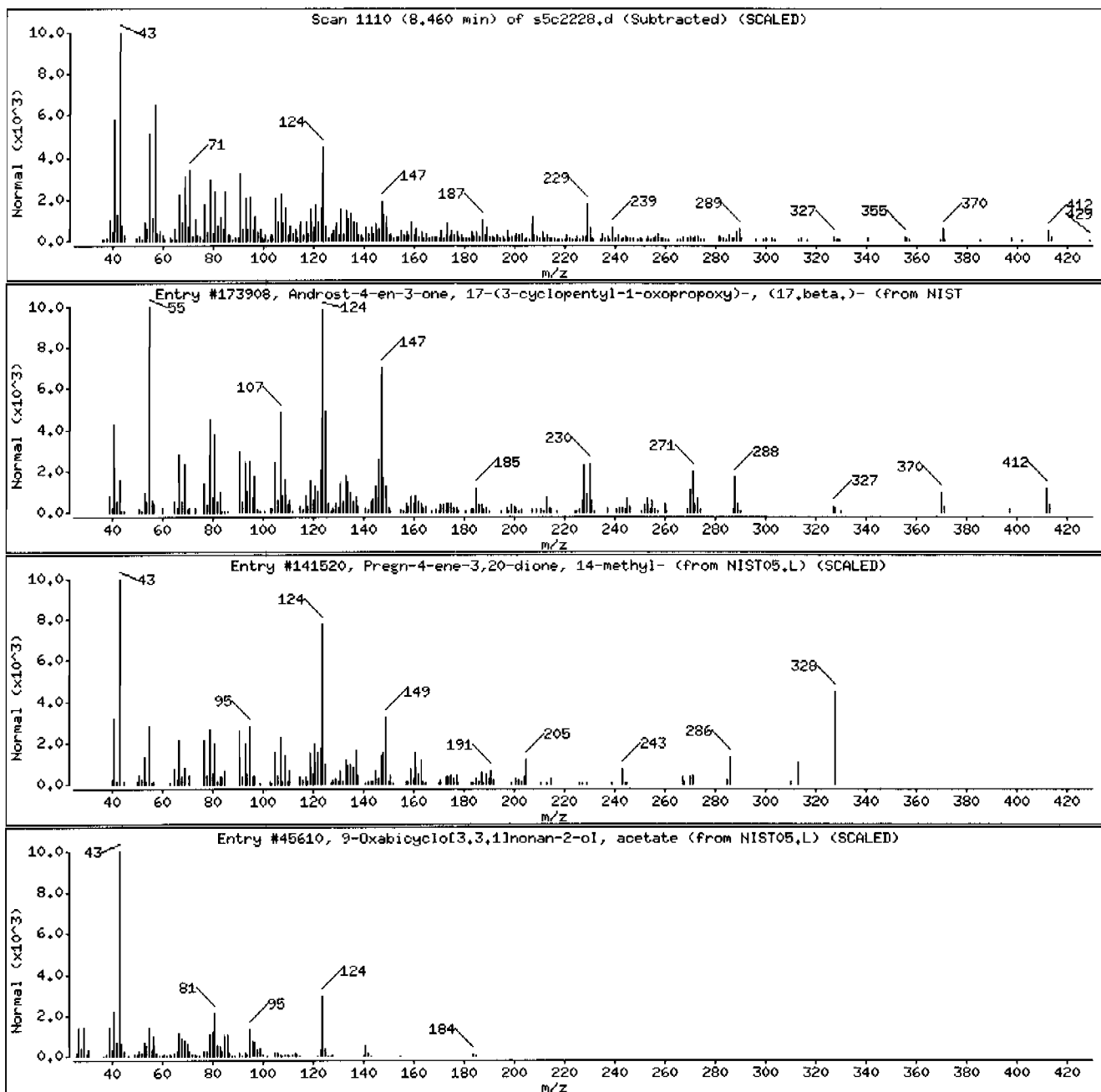
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Androst-4-en-3-one, 17-(3-cyclopentyl-1-	58-20-8	NIST05.L	173908	53	C27H40O3	412
Pregn-4-ene-3,20-dione, 14-methyl-	55162-96-4	NIST05.L	141520	50	C22H32O2	328
9-Oxabicyclo[3.3.1]nonan-2-ol, acetate	10555-34-7	NIST05.L	45610	43	C10H16O3	184



Date : 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: MSD5.i

Sample Info: 12485060171963086111SVMI11LANL

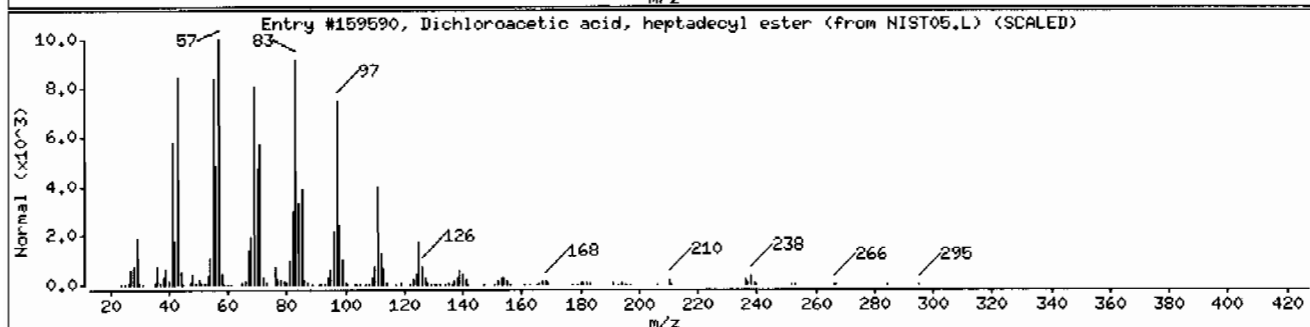
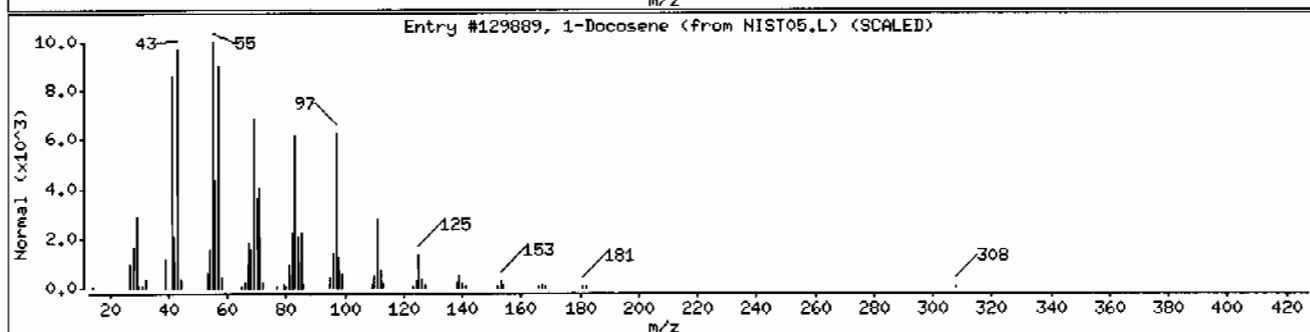
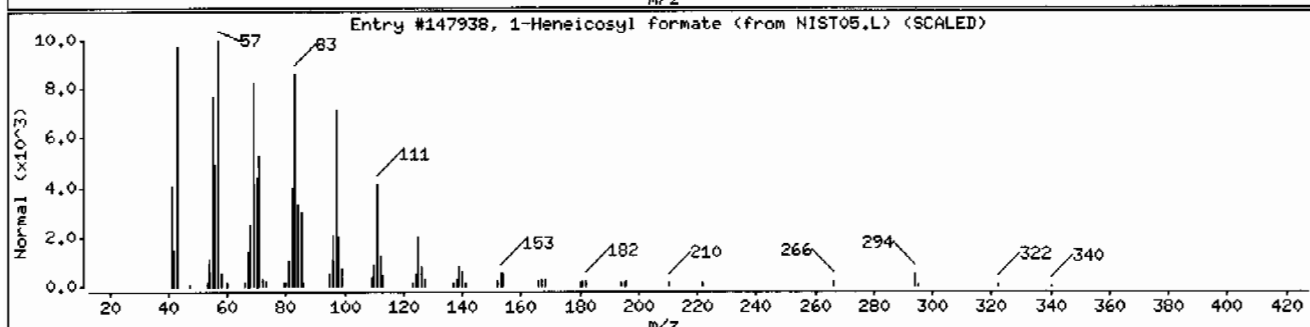
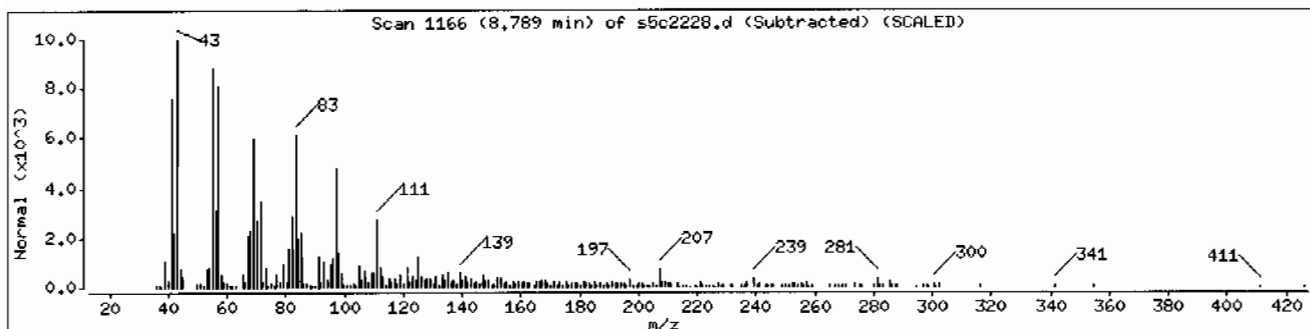
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Heneicosyl formate	77899-03-7	NIST05.L	147938	95	C22H44O2	340
1-Docosene	1599-67-3	NIST05.L	129889	93	C22H44	308
Dichloroacetic acid, heptadecyl ester	1000282-98-2	NIST05.L	159590	93	C19H36Cl2O2	366



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Client ID: RE36-10-7442

Instrument: MSD5.i

Sample Info: 1248506017196308611|SVMI1|LANL

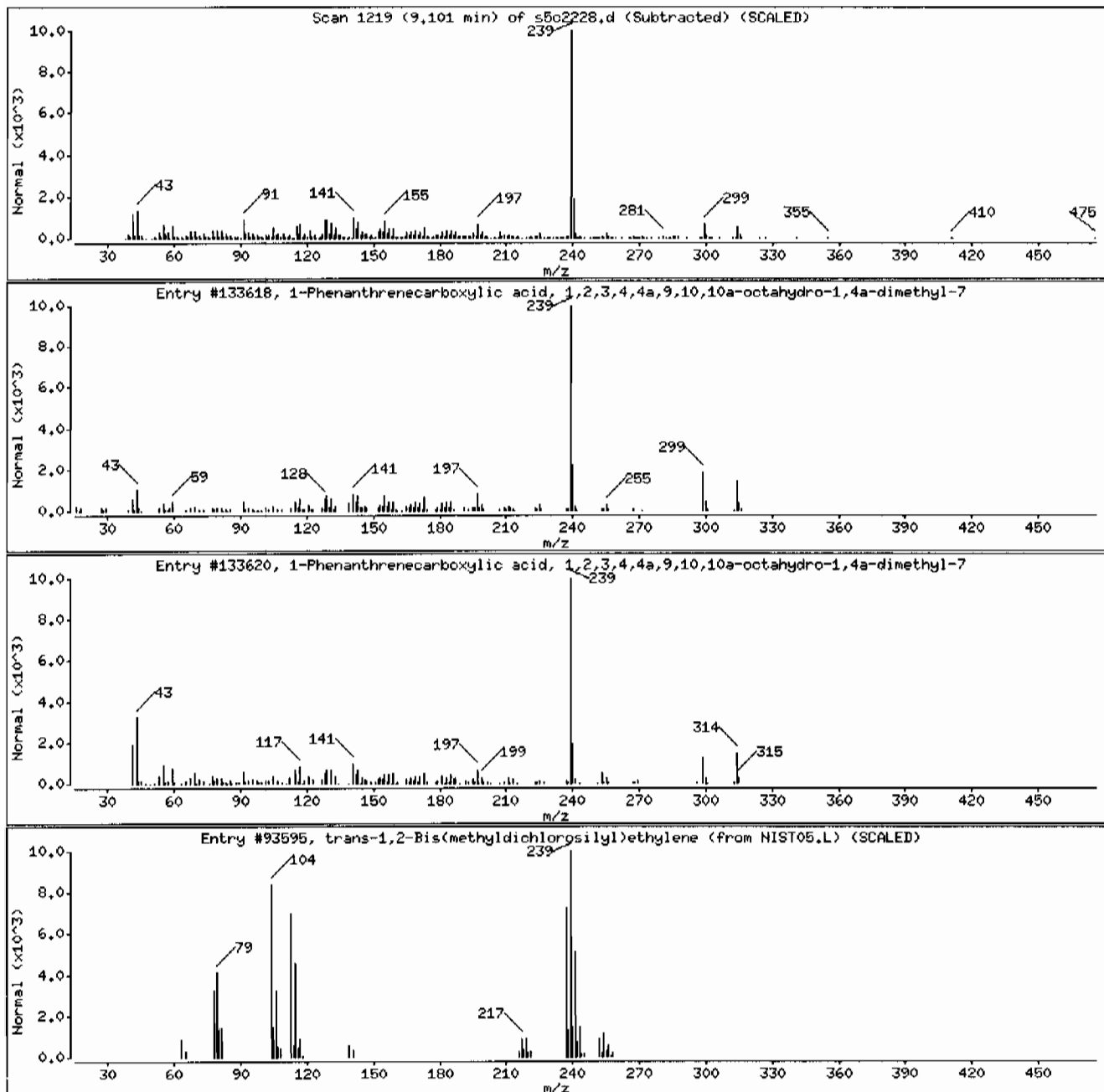
Volume Injected (UL): 0.5

Operator: RMB

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	94	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133620	78	C21H30O2	314
trans-1,2-Bis(methyldichlorosilyl)ethylene	65899-10-7	NIST05.L	93595	60	C4H8Cl2Si2	252



Date : 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: MSD5.i

Sample Info: I248506017|96308611|SVH111|LANL

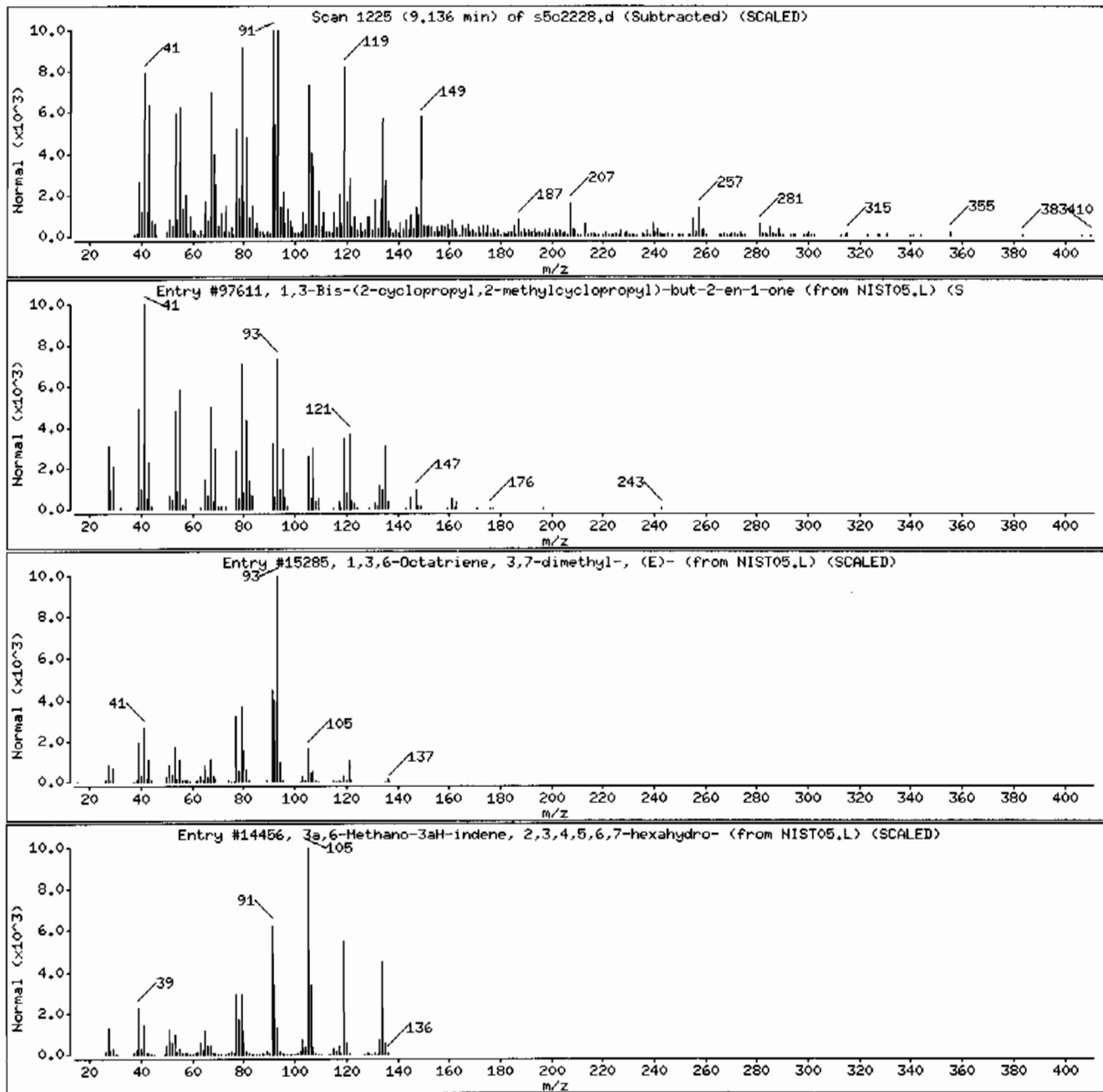
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,3-Bis-(2-cyclopropyl,2-methylcycloprop	1000222-08-6	NIST05.L	97611	49	C18H26O	258
1,3,6-Octatriene, 3,7-dimethyl-, (E)-	3779-61-1	NIST05.L	15285	43	C10H16	136
3a,6-Methano-3aH-indene, 2,3,4,5,6,7-hex	98640-10-9	NIST05.L	14456	42	C10H14	134



Date : 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: MSD5.i

Sample Info: 1248506017196308611SVMI1ILANL

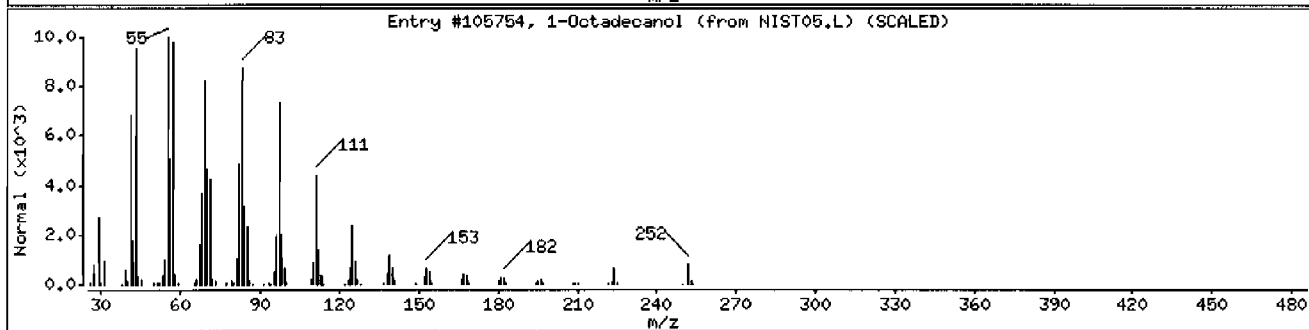
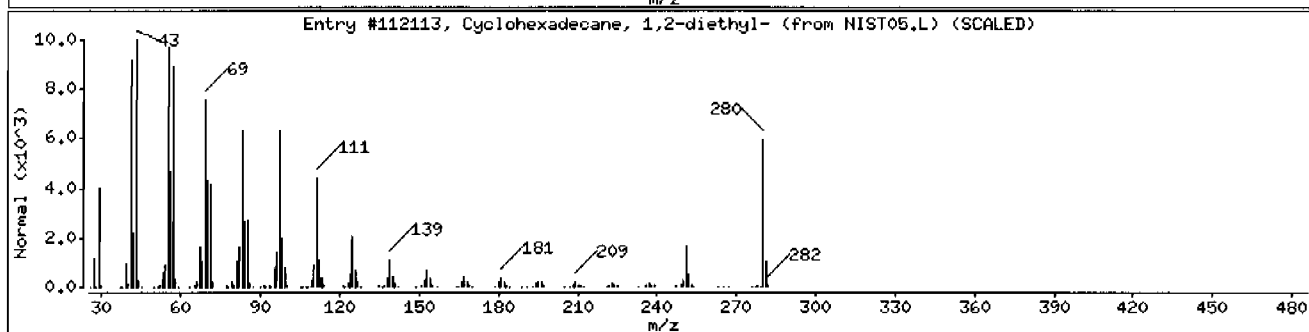
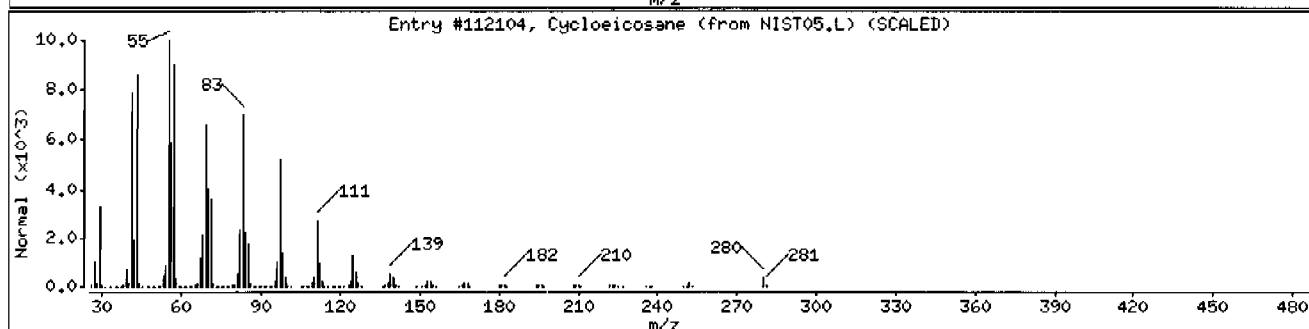
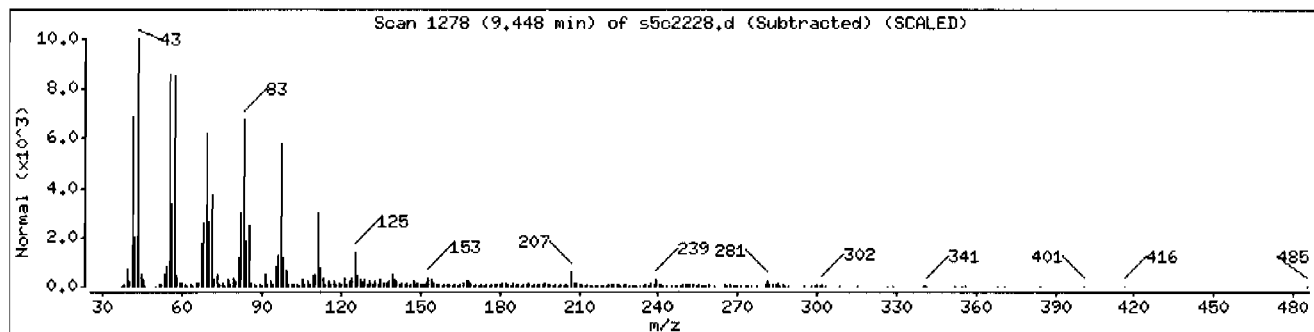
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cycloeicosane	296-56-0	NIST05.L	112104	94	C <sub>20</sub> H <sub>40</sub>	280
Cyclohexadecane, 1,2-diethyl-	1000155-85-3	NIST05.L	112113	91	C <sub>20</sub> H <sub>40</sub>	280
1-Octadecanol	112-92-5	NIST05.L	105754	91	C <sub>18</sub> H <sub>38</sub> O	270





Date: 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: MSD5.i

Sample Info: 1248506017196308611ISVM11ILANL

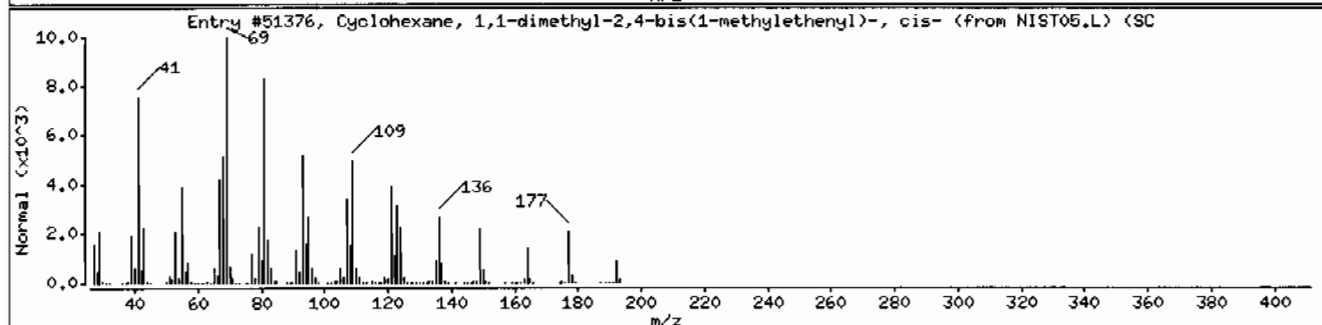
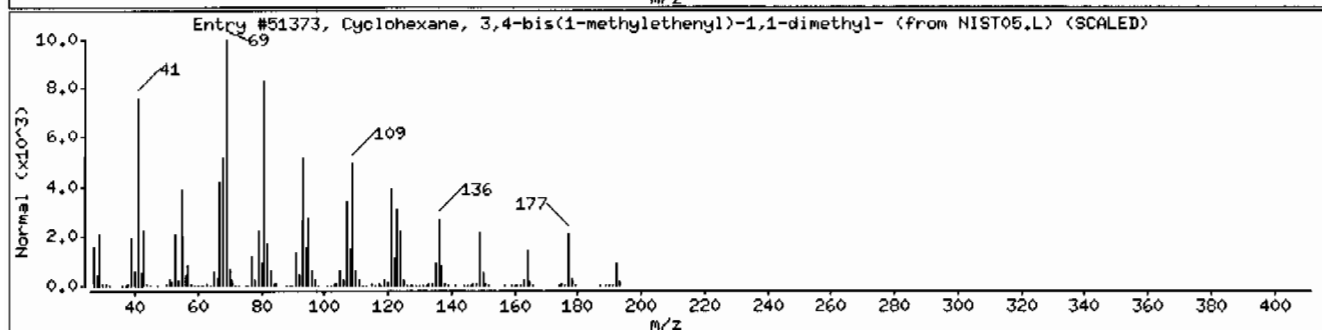
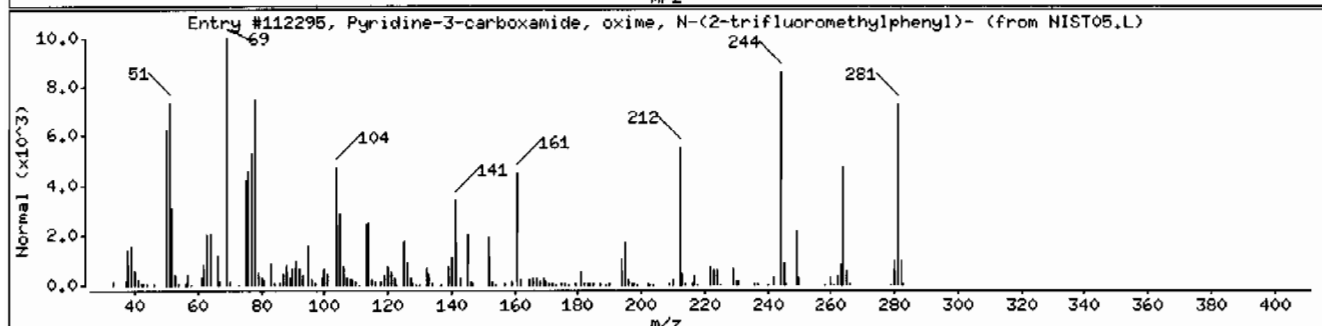
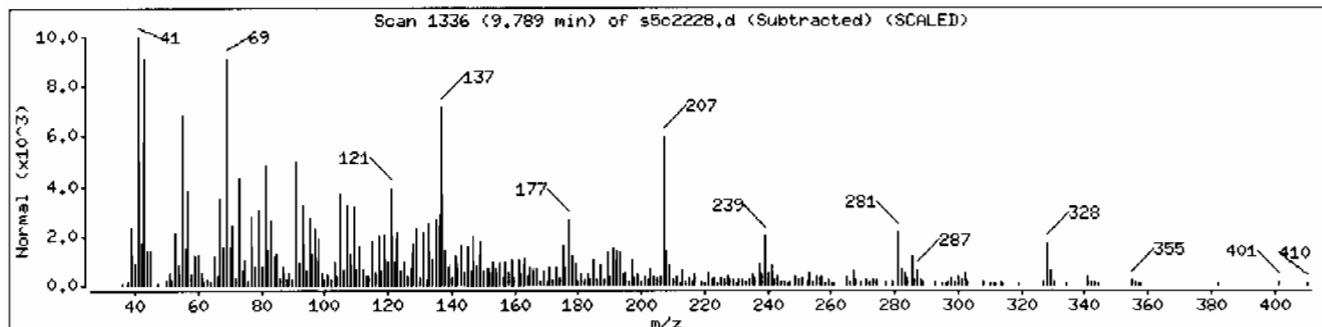
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyridine-3-carboxamide, oxime, N-(2-trifluoromethylphenyl)-	288246-53-7	NIST05.L	112295	93	C13H10F3N3O	281
Cyclohexane, 3,4-bis(1-methylethenyl)-1,	61142-74-3	NIST05.L	51373	49	C14H24	192
Cyclohexane, 1,1-dimethyl-2,4-bis(1-meth	62337-98-8	NIST05.L	51376	49	C14H24	192



Date: 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: MSD5.i

Sample Info: 12485060171963086111SVMI11LANL

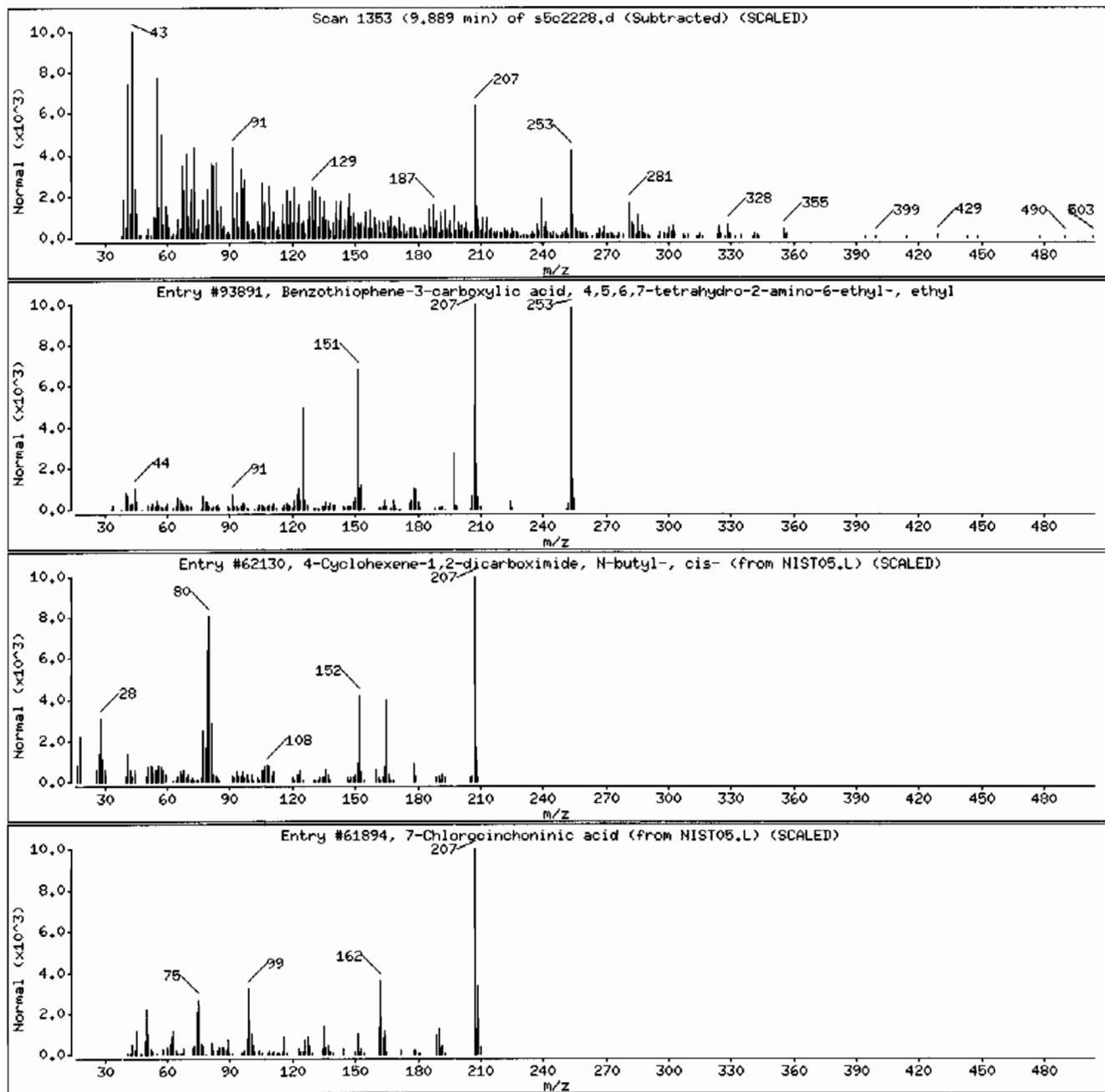
Volume Injected (UL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzothiophene-3-carboxylic acid, 4,5,6,	329222-94-8	NIST05.L	93891	46	C13H19NO2S	253
4-Cyclohexene-1,2-dicarboximide, N-butyl	28916-00-9	NIST05.L	62130	25	C12H17NO2	207
7-Chlorocinchoninic acid	13337-66-1	NIST05.L	61894	25	C10H6ClNO2	207



Date: 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: MSD5.i

Sample Info: 12485060171963086111SVH111LANL

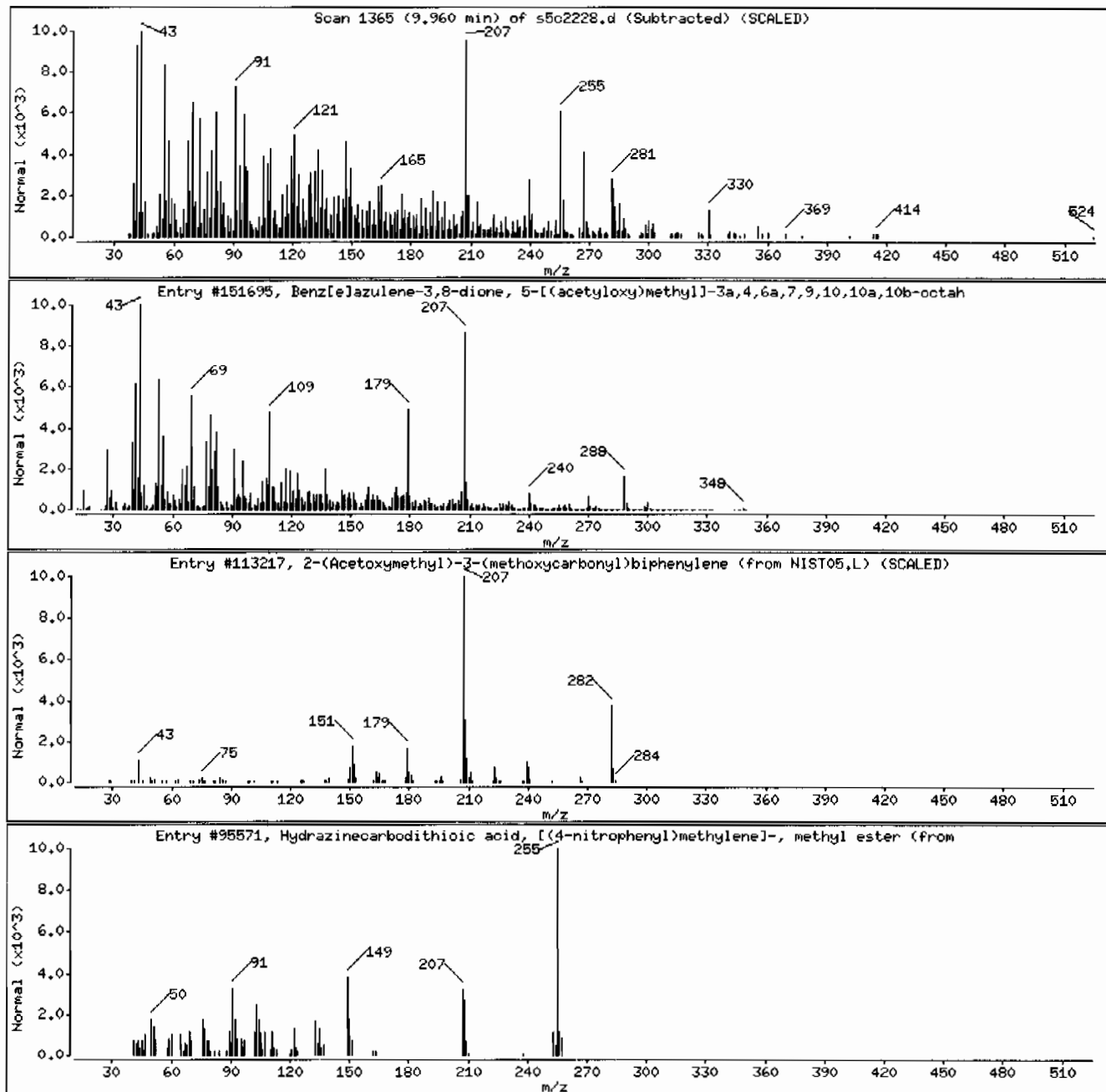
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benz[e]azulene-3,8-dione, 5-[(acetyloxy)methyl]-3a,4,6a,7,9,10,10a,10b-octah	25536-74-7	NIST05.L	151695	49	C19H24O6	348
2-(Acetoxymethyl)-3-(methoxycarbonyl)bip	93103-70-9	NIST05.L	113217	25	C17H14O4	282
Hydrazinecarbodithioic acid, [(4-nitroph	20184-97-8	NIST05.L	95571	25	C9H9N3O2S2	255



Date : 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: MSD5.i

Sample Info: 1248506017196308611|SVH11|LANL

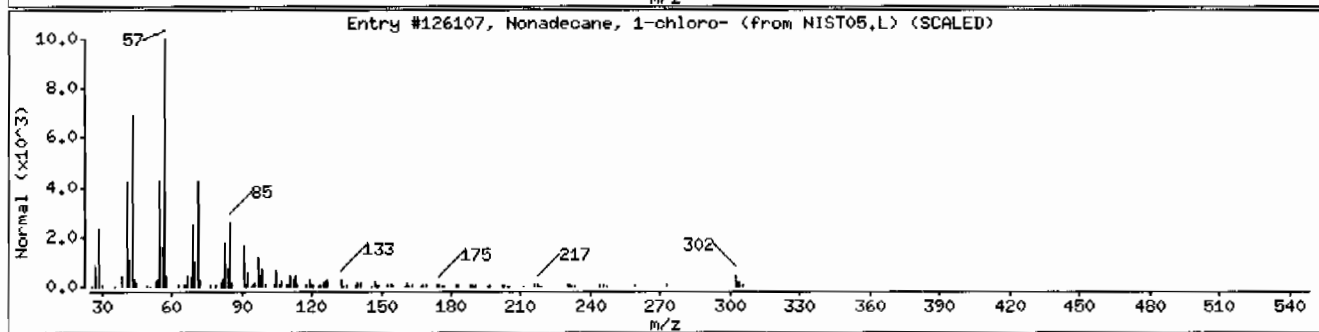
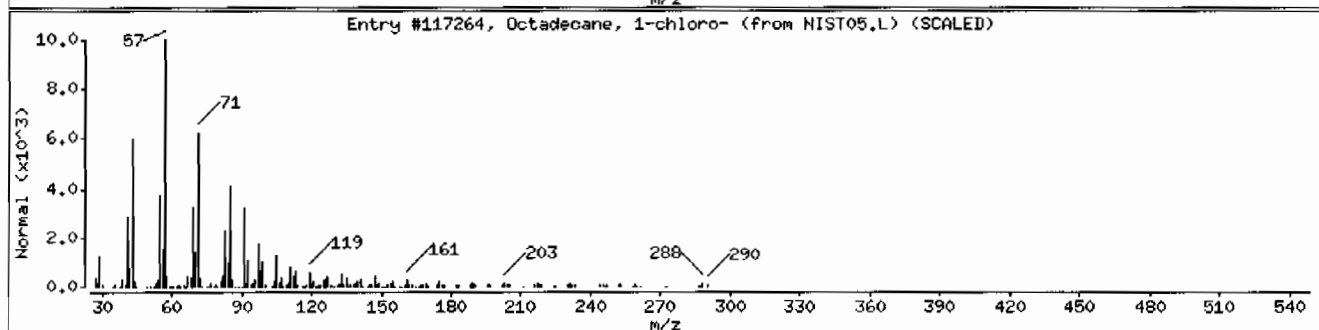
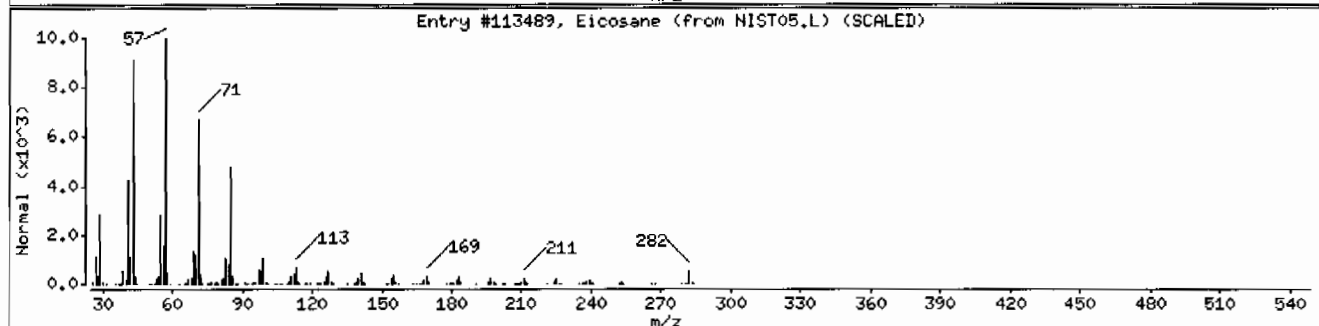
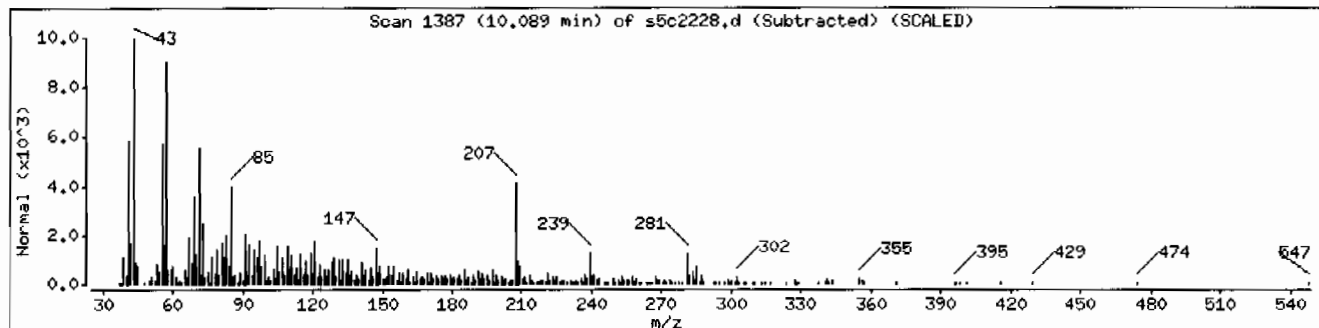
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Eicosane	112-95-8	NIST05.L	113489	94	C20H42	282
Octadecane, 1-chloro-	3386-33-2	NIST05.L	117264	94	C18H37Cl	288
Nonadecane, 1-chloro-	62016-76-6	NIST05.L	126107	86	C19H39Cl	302



Date : 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: MSD5.i

Sample Info: 1248506017196308611SVMI11LANL

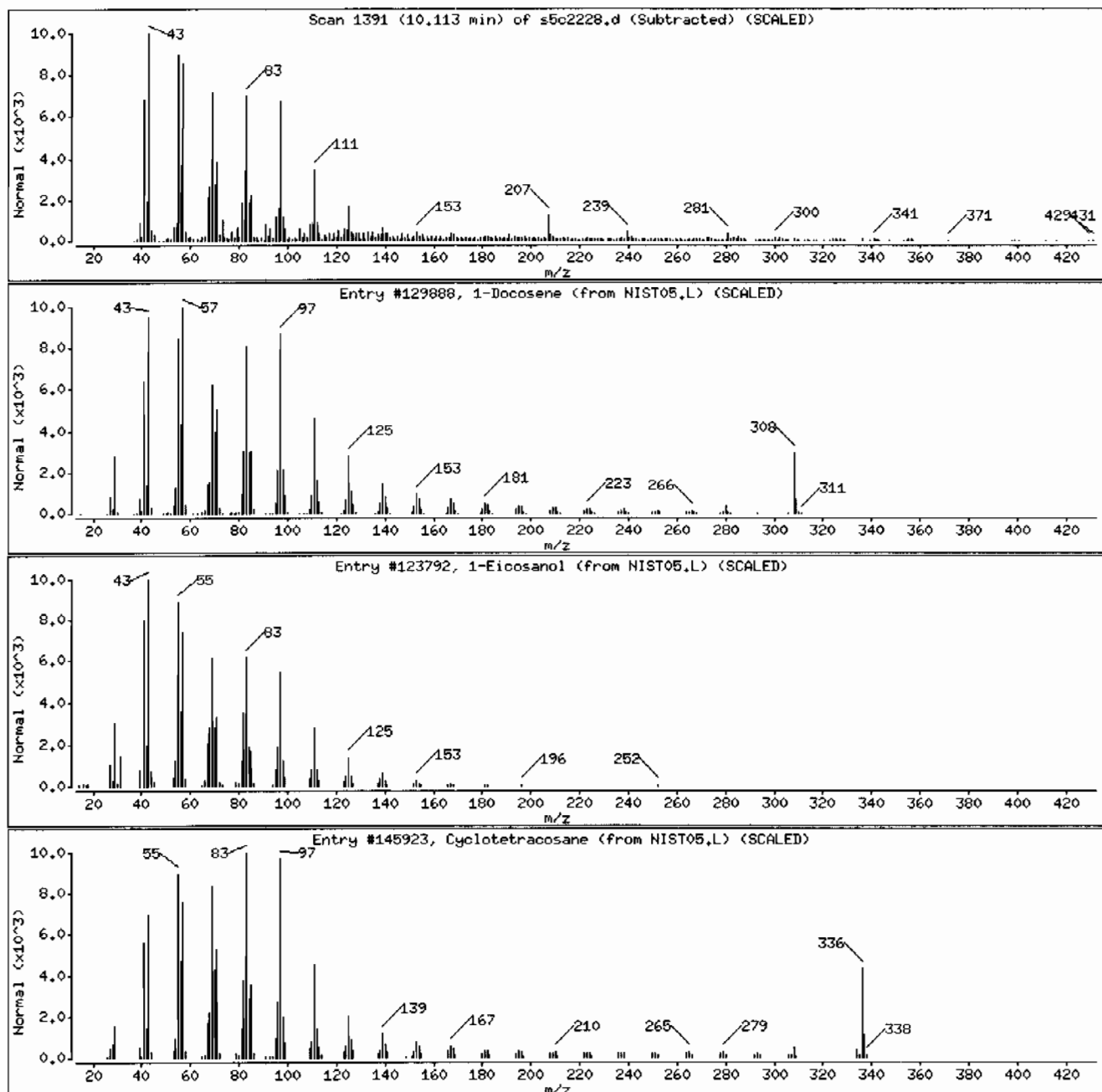
Volume Injected (uL): 0.5

Operator: RMB

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	95	C22H44	308
1-Eicosanol	629-96-9	NIST05.L	123792	93	C20H42O	298
Cyclotetracosane	297-03-0	NIST05.L	145923	90	C24H48	336



Date: 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: MSD5.i

Sample Info: 12485060171963086111SVMI11LANL

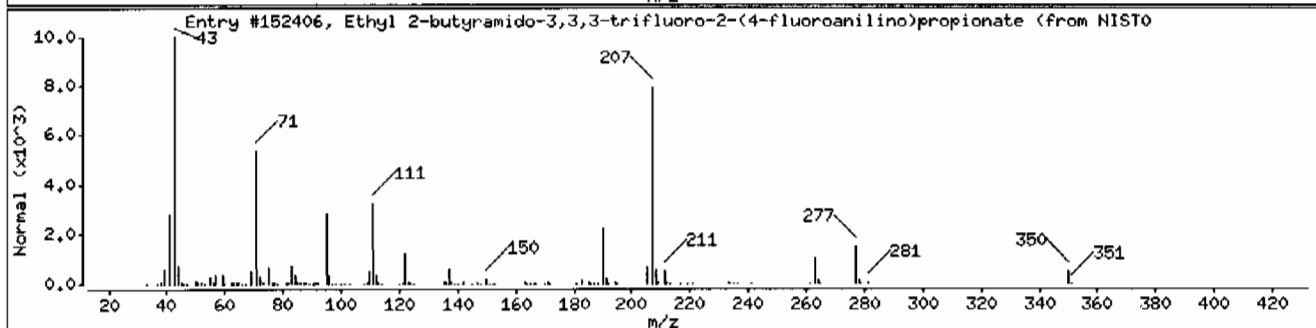
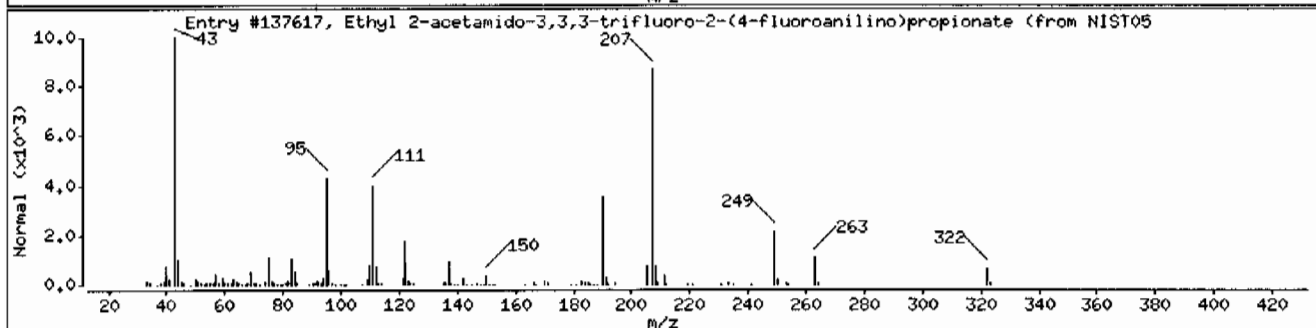
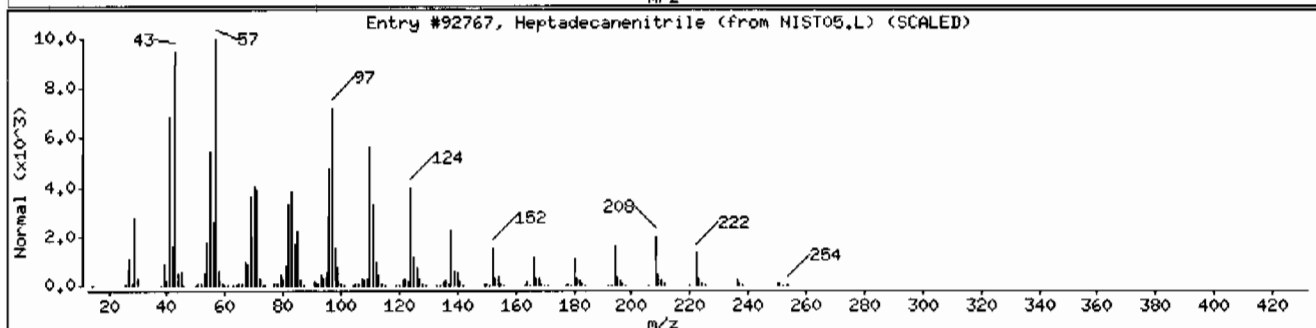
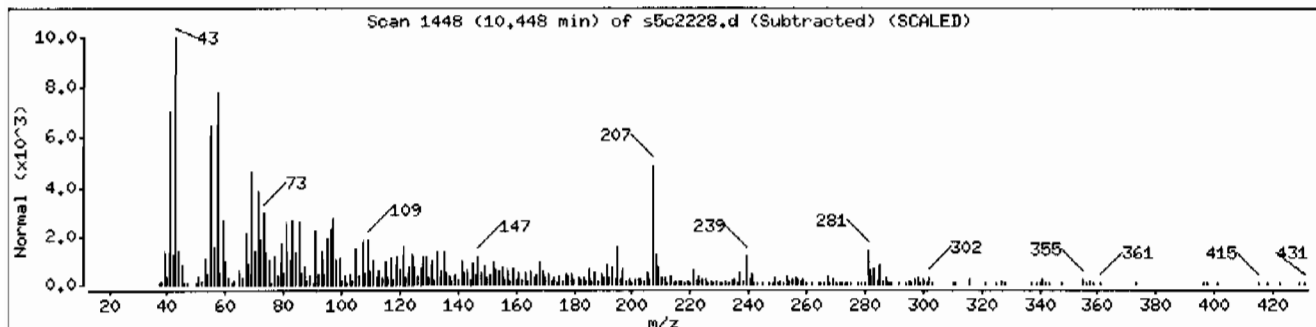
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Heptadecanenitrile	5399-02-0	NIST05.L	92767	18	C17H33N	251
Ethyl 2-acetamido-3,3,3-trifluoro-2-(4-f	328270-12-8	NIST05.L	137617	12	C13H14F4N2O3	322
Ethyl 2-butyramido-3,3,3-trifluoro-2-(4-	1000224-16-2	NIST05.L	152406	12	C15H18F4N2O3	350



Date : 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: MSD5.i

Sample Info: 12485060171963086111SVH111LANL

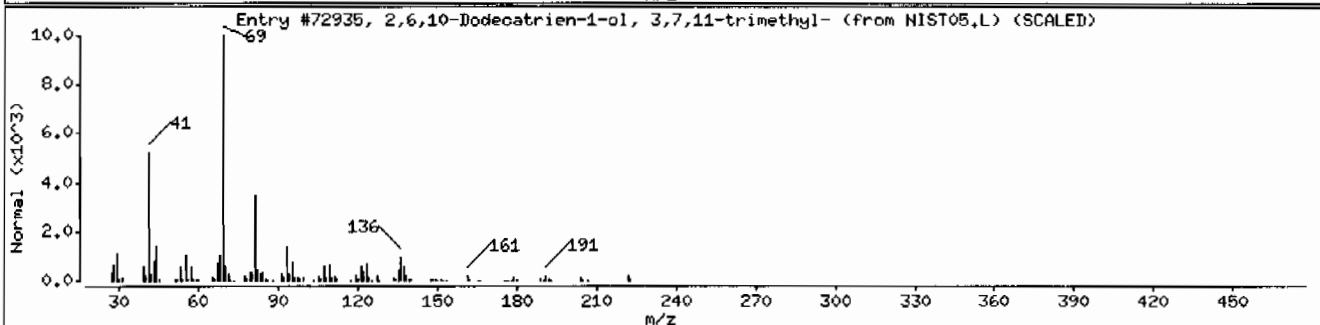
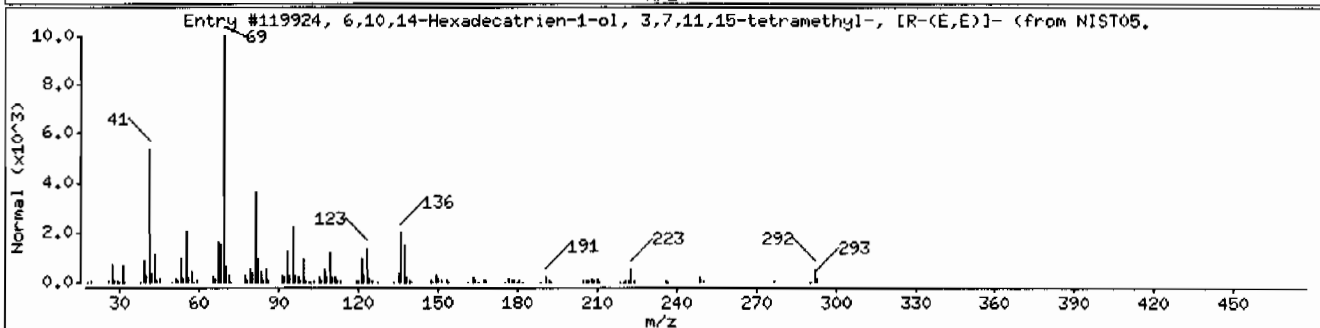
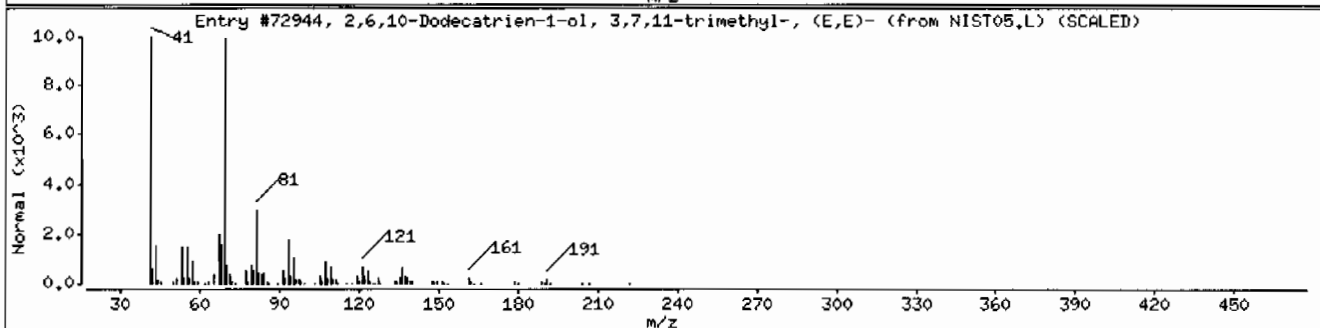
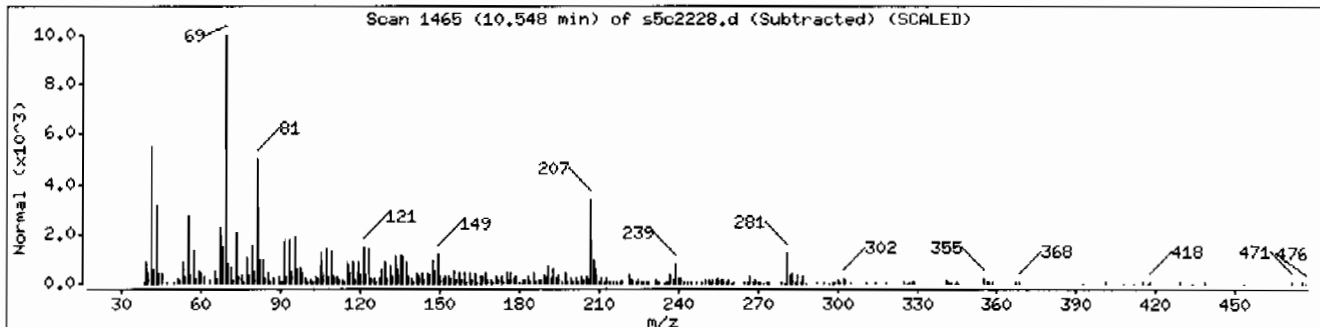
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,6,10-Dodecatrien-1-ol, 3,7,11-trimethy	106-28-5	NIST05.L	72944	64	C15H26O	222
6,10,14-Hexadecatrien-1-ol, 3,7,11,15-te	36237-66-8	NIST05.L	119924	64	C20H36O	292
2,6,10-Dodecatrien-1-ol, 3,7,11-trimethy	4602-84-0	NIST05.L	72935	46	C15H26O	222



Date : 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: MSD5.i

Sample Info: 12485060171963086111SVMI11LANL

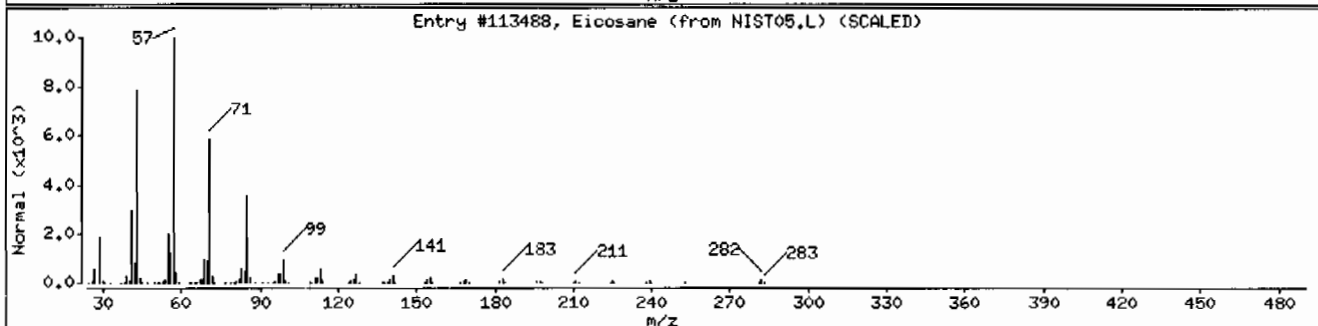
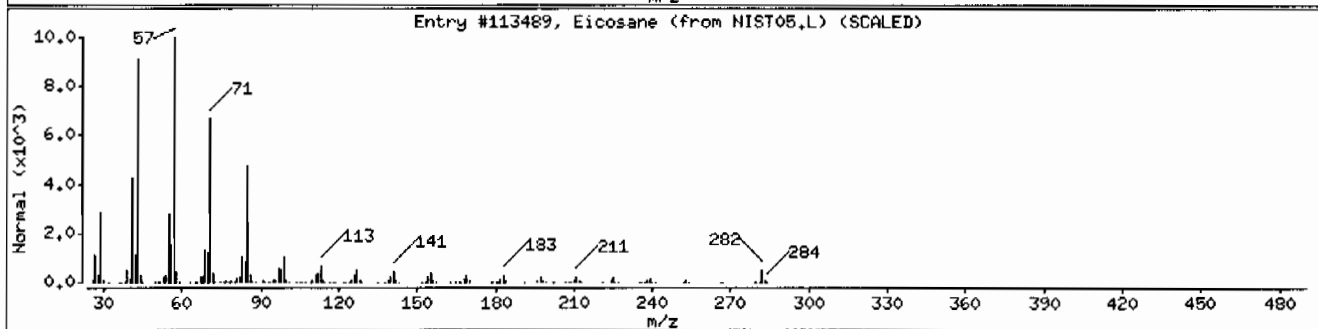
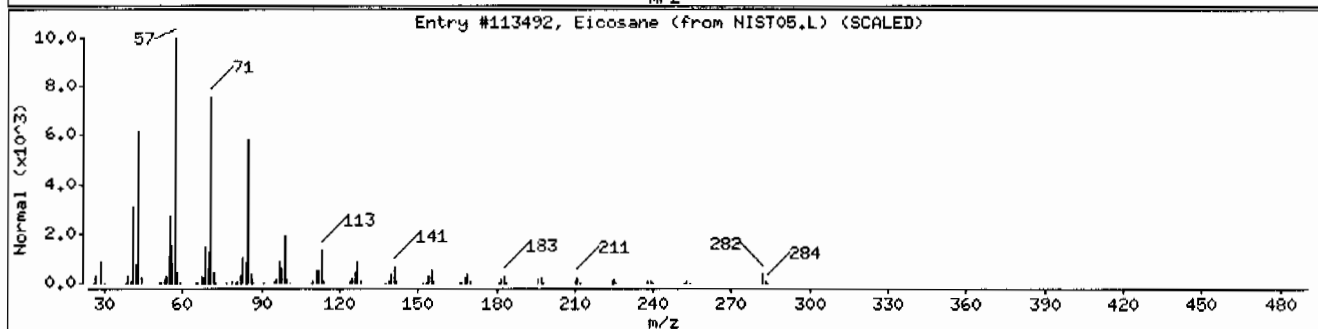
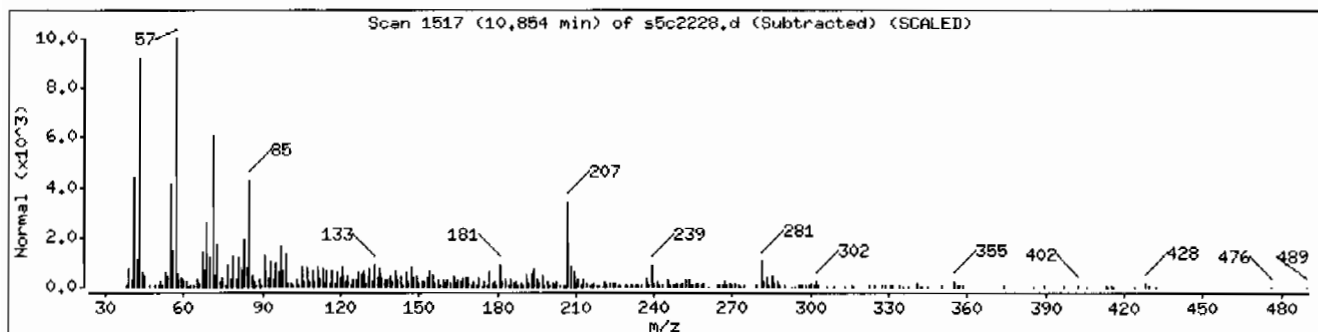
Volume Injected (uL): 0.5

Operator: RMB

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	95	C20H42	282
Eicosane	112-95-8	NIST05.L	113489	92	C20H42	282
Eicosane	112-95-8	NIST05.L	113488	92	C20H42	282





Date : 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: HSD5.1

Sample Info: I2485060171963086111SVH111LANL

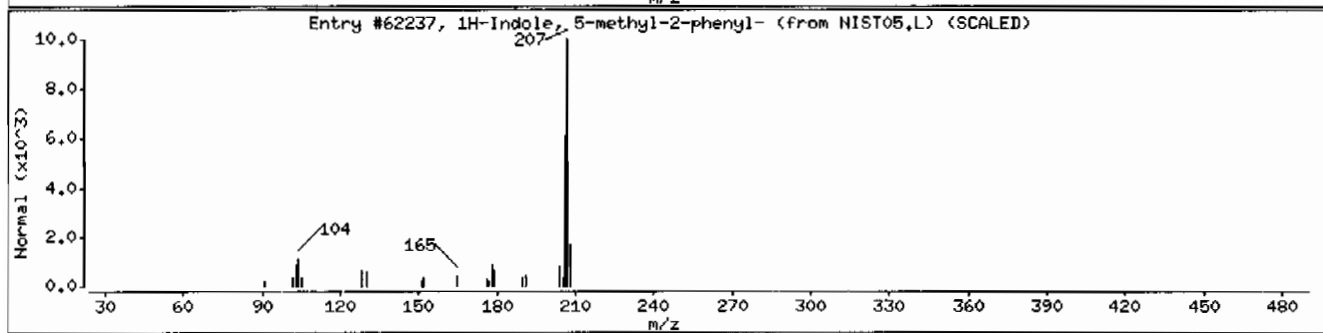
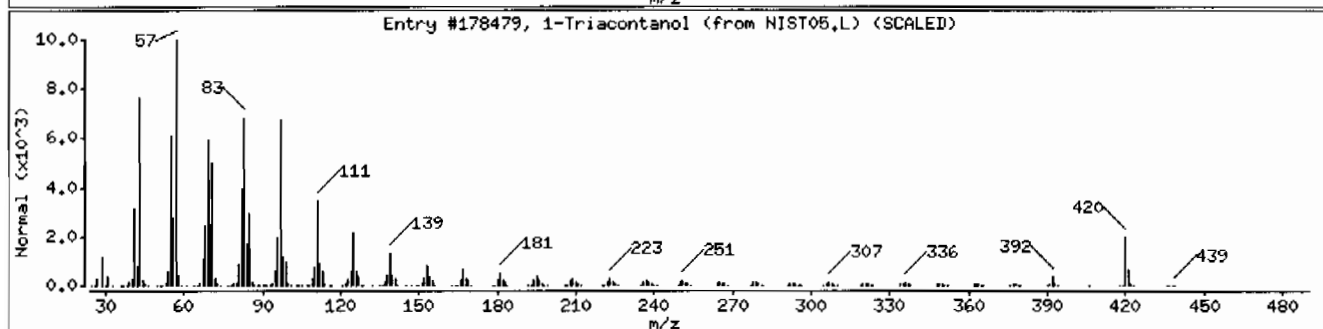
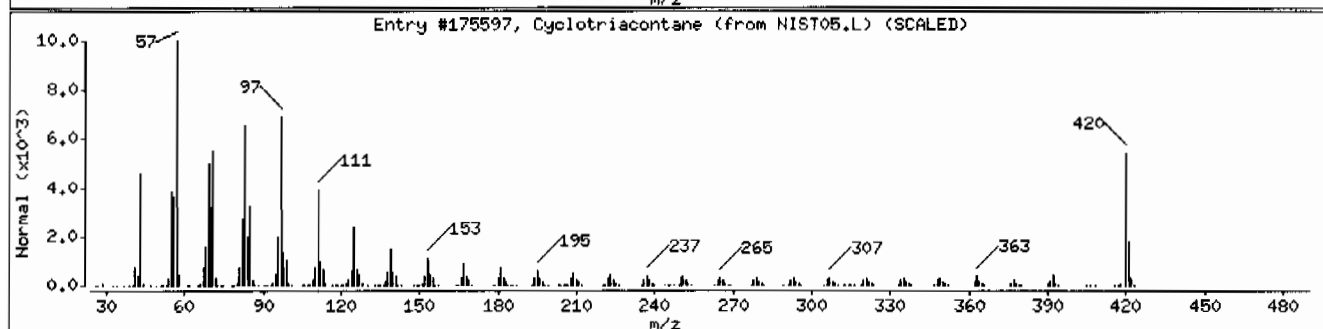
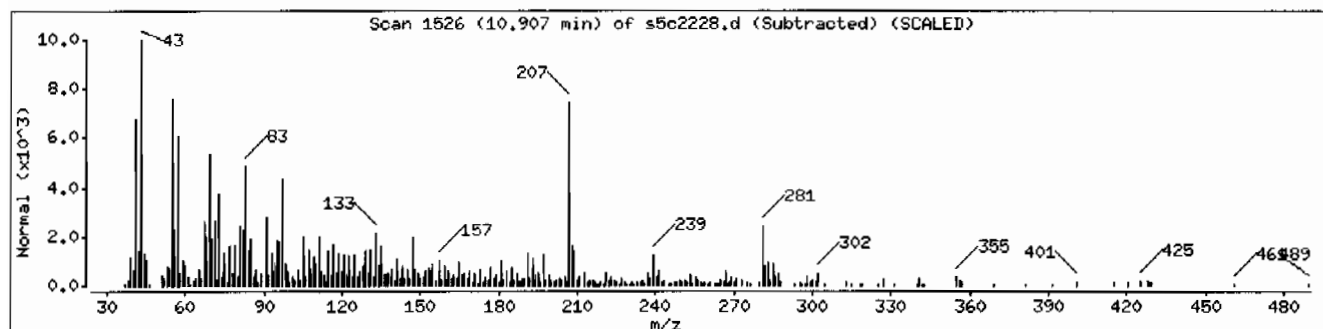
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclotriacontane	297-35-8	NIST05.L	175597	70	C <sub>30</sub> H <sub>60</sub>	420
1-Triacontanol	593-50-0	NIST05.L	178479	42	C <sub>30</sub> H <sub>62</sub> O	438
1H-Indole, 5-methyl-2-phenyl-	13228-36-9	NIST05.L	62237	42	C <sub>15</sub> H <sub>13</sub> N	207



Date : 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: HSD5.i

Sample Info: 1248506017196308611|SVH11|LANL

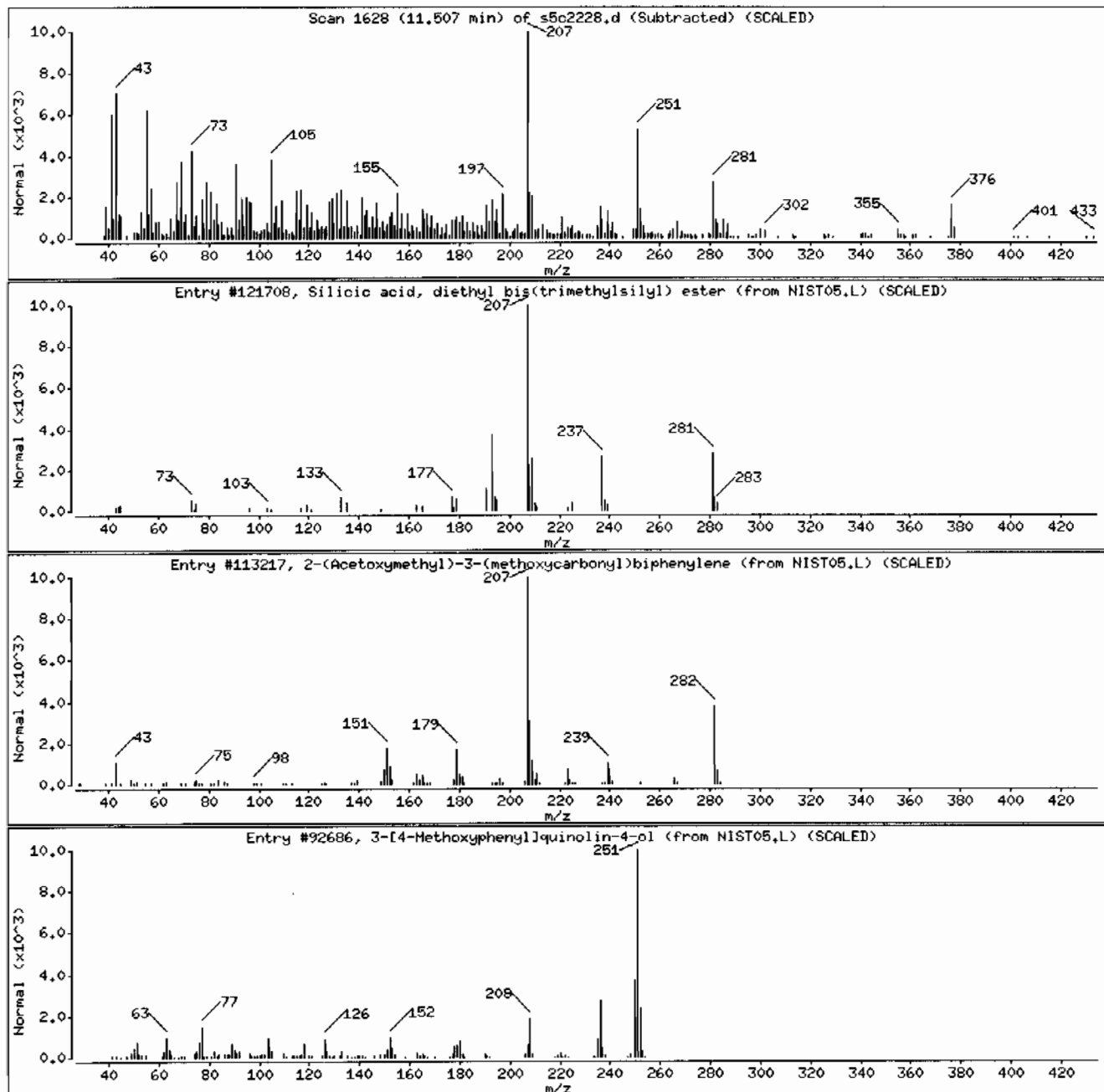
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Silicic acid, diethyl bis(trimethylsilyl)	3555-45-1	NIST05.L	121708	47	C10H28O4Si3	296
2-(Acetoxymethyl)-3-(methoxycarbonyl)bip	93103-70-9	NIST05.L	113217	38	C17H14O4	282
3-[4-Methoxyphenyl]quinolin-4-ol	1000254-66-9	NIST05.L	92686	35	C16H13NO2	251



Date : 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: MSD5.i

Sample Info: I248506017196308611SVMI11LANL

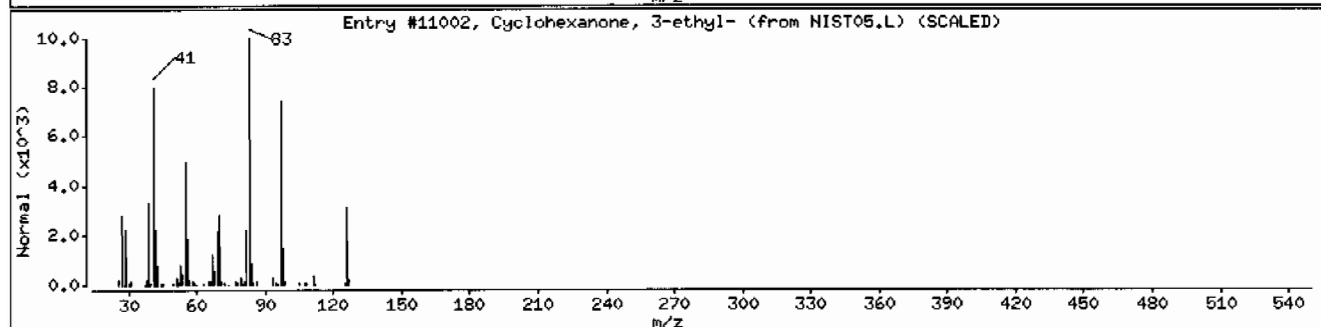
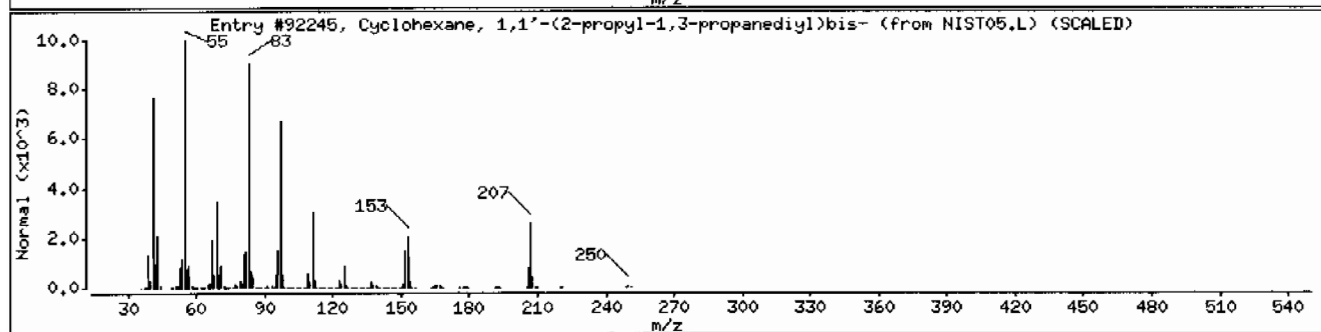
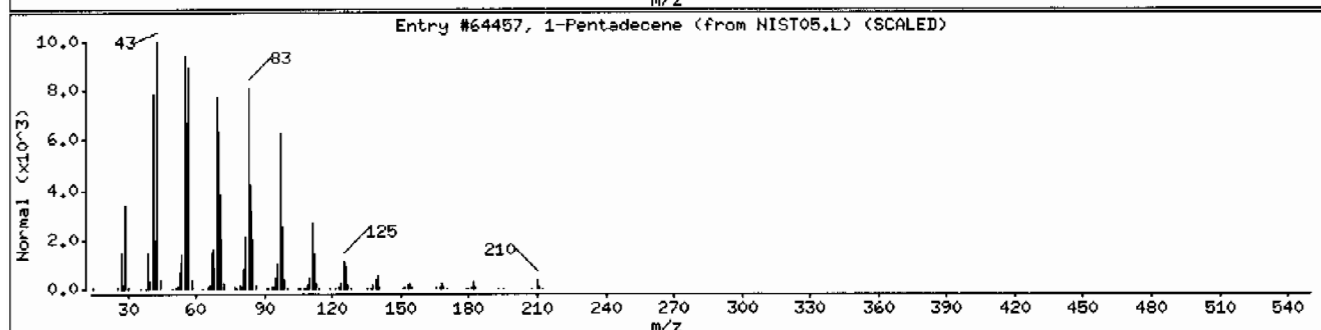
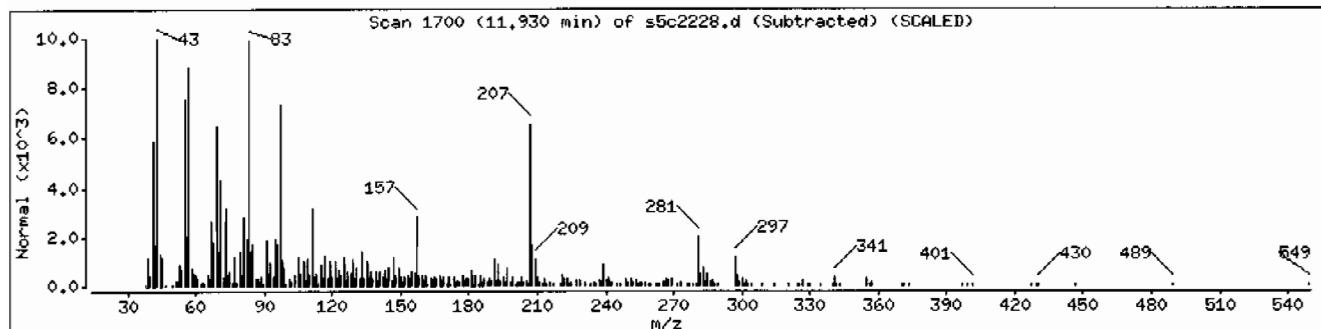
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Pentadecene	13360-61-7	NIST05.L	64457	89	C15H30	210
Cyclohexane, 1,1'-(2-propyl-1,3-propanediyl)bis-	55030-21-2	NIST05.L	92245	83	C18H34	250
Cyclohexanone, 3-ethyl-	22461-89-8	NIST05.L	11002	43	C8H14O	126



Date: 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: HSD5.i

Sample Info: 12485060171963086111SVH111LANL

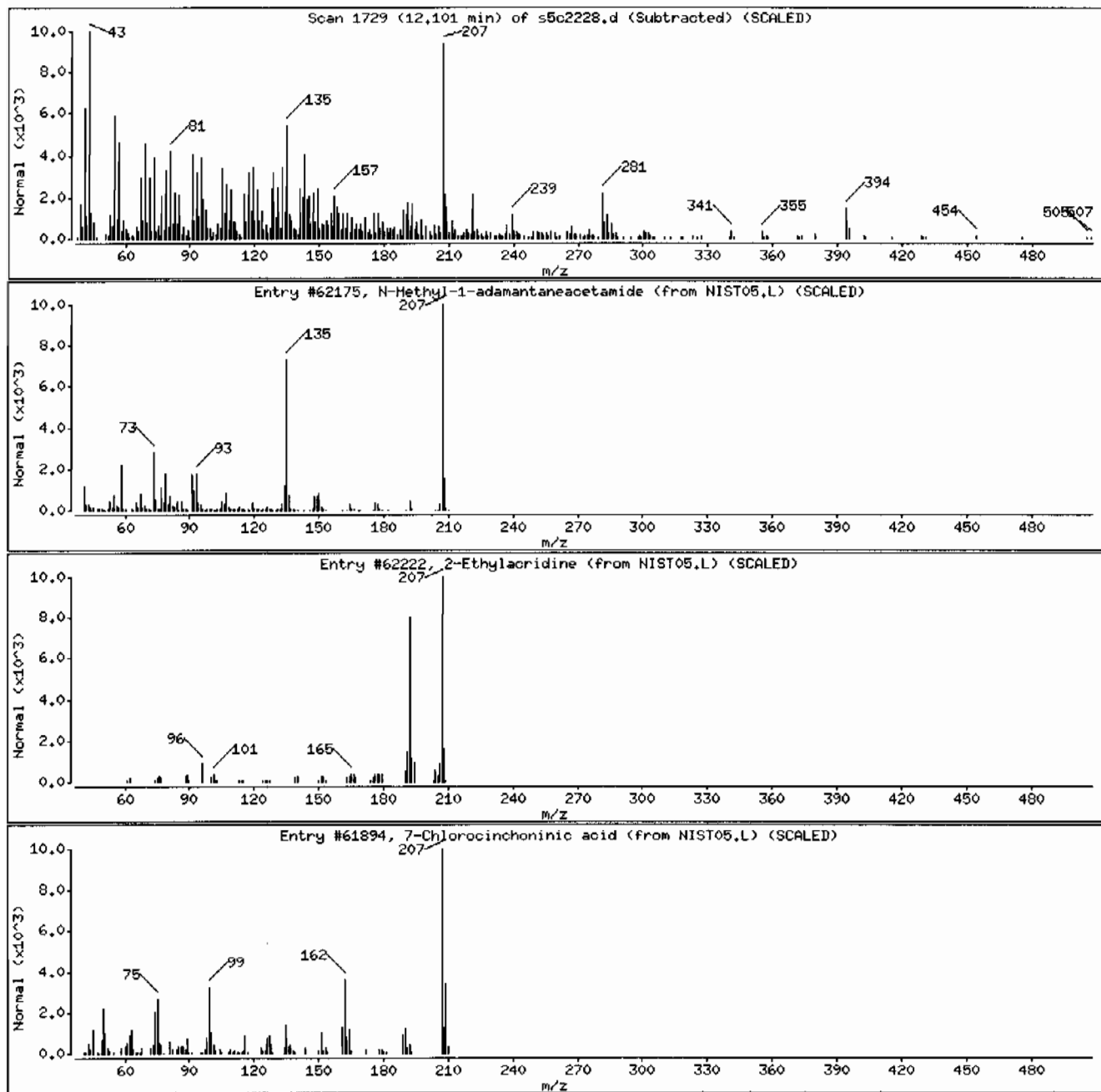
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05.L	62175	38	C13H21NO	207
2-Ethylacridine	55751-83-2	NIST05.L	62222	18	C15H13N	207
7-Chlorocinchoninic acid	13337-66-1	NIST05.L	61894	18	C10H6ClNO2	207



Date : 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: MSD5.i

Sample Info: 12485060171963086111SVMI11LANL

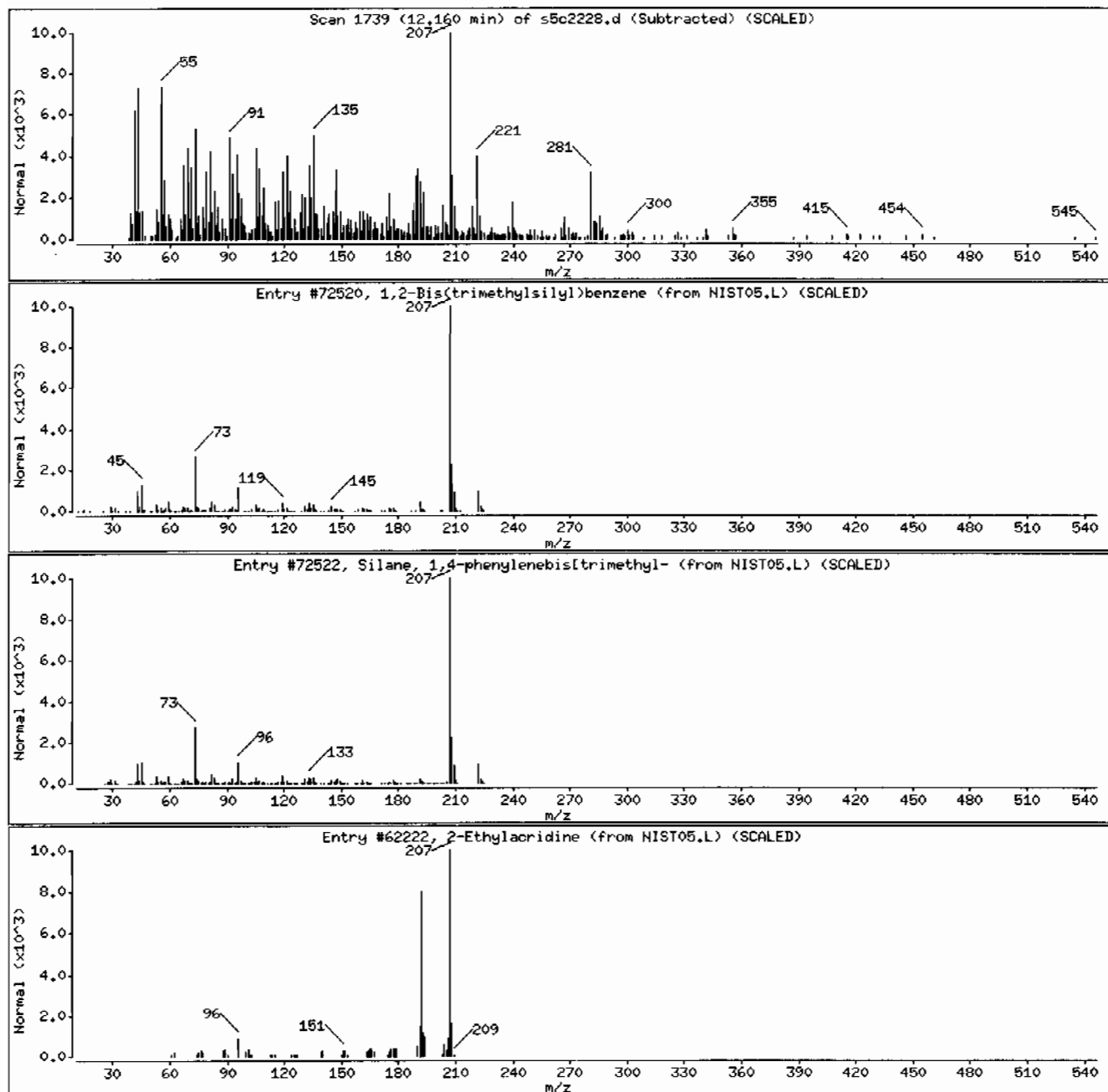
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,2-Bis(trimethylsilyl)benzene	17151-09-6	NIST05.L	72520	30	C <sub>12</sub> H <sub>22</sub> Si <sub>2</sub>	222
Silane, 1,4-phenylenebis(trimethyl-	13183-70-5	NIST05.L	72522	30	C <sub>12</sub> H <sub>22</sub> Si <sub>2</sub>	222
2-Ethylacridine	55751-83-2	NIST05.L	62222	25	C <sub>15</sub> H <sub>13</sub> N	207



Date : 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: MSD5.i

Sample Info: 1248506017196308611ISVH11ILANL

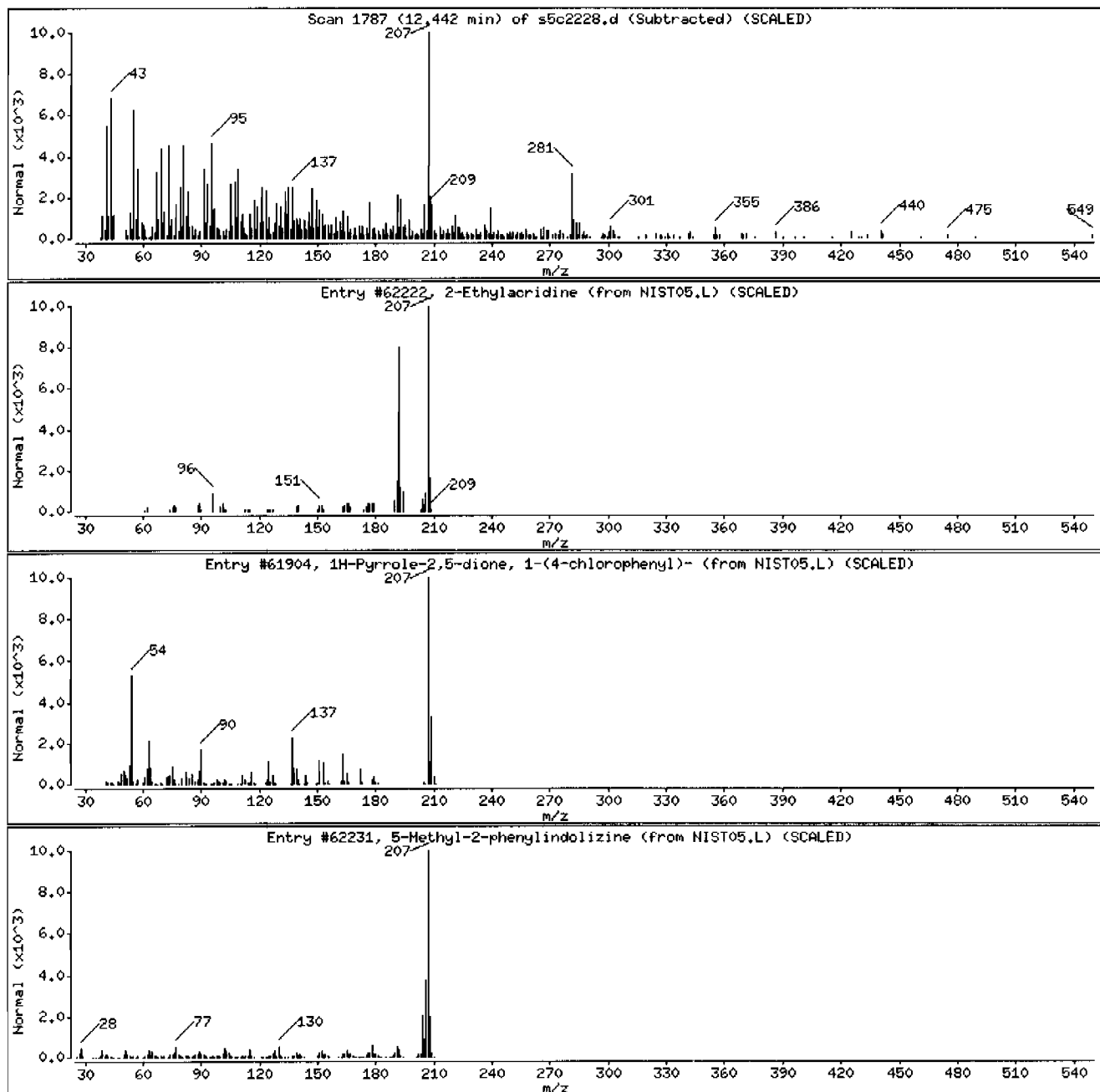
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Ethylacridine	55751-83-2	NIST05.L	62222	45	C15H13N	207
1H-Pyrrole-2,5-dione, 1-(4-chlorophenyl)	1631-29-4	NIST05.L	61904	41	C10H6ClN02	207
5-Methyl-2-phenylindolizine	36944-99-7	NIST05.L	62231	38	C15H13N	207



Date : 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: MSD5.i

Sample Info: 12485060171963086111SVH111LANL

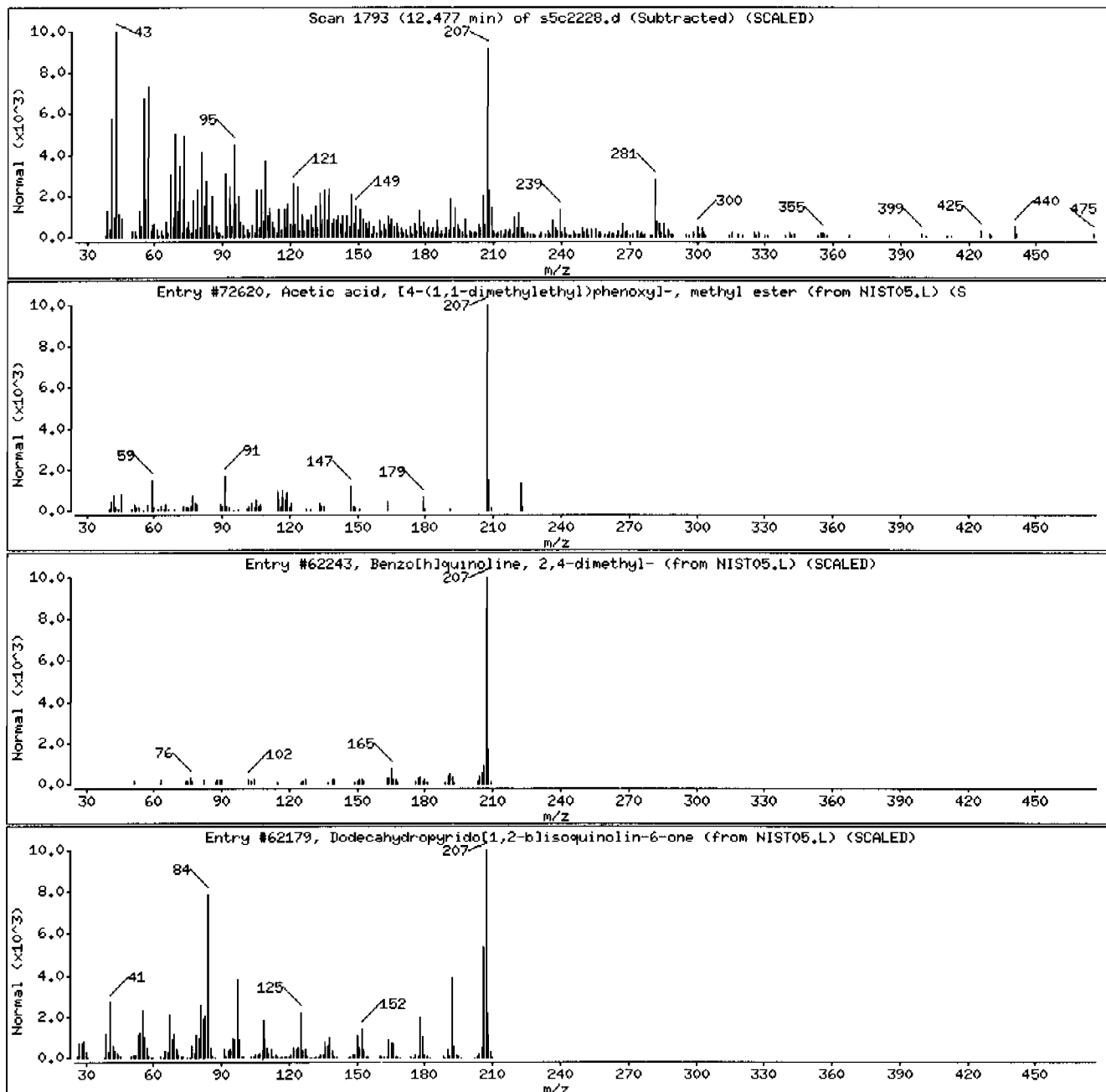
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Acetic acid, [4-(1,1-dimethylethyl)pheno	88530-52-3	NIST05.L	72620	46	C13H18O3	222
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	38	C15H13N	207
Dodecahydropyrido[1,2-b]isoquinolin-6-on	108873-36-5	NIST05.L	62179	30	C13H21NO	207



Date : 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: MSD5.i

Sample Info: 12485060171963086111SVH111LANL

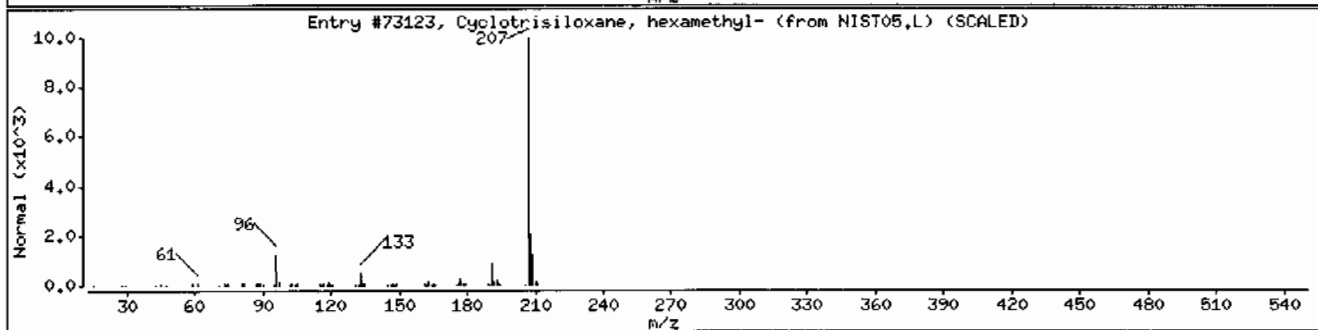
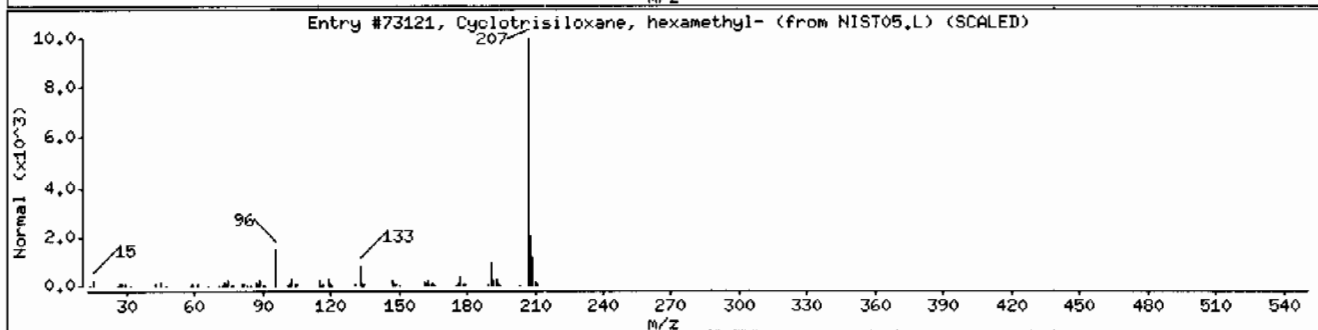
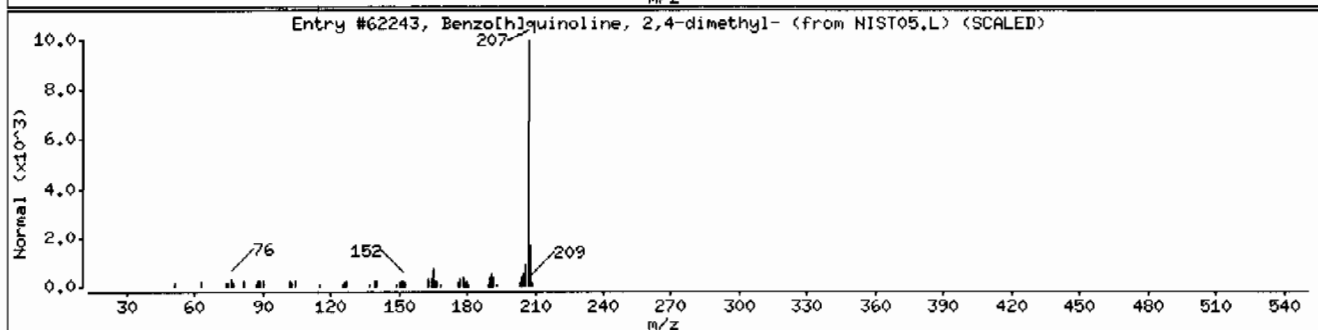
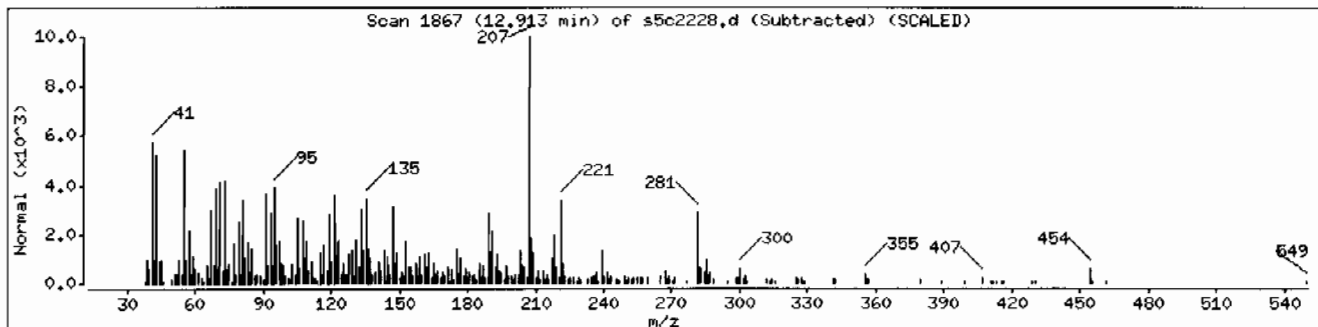
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	42	C15H13N	207
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73121	35	C6H18O3Si3	222
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73123	35	C6H18O3Si3	222





Date : 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: HSD5.i

Sample Info: 1248506017196308611SVH11ILANL

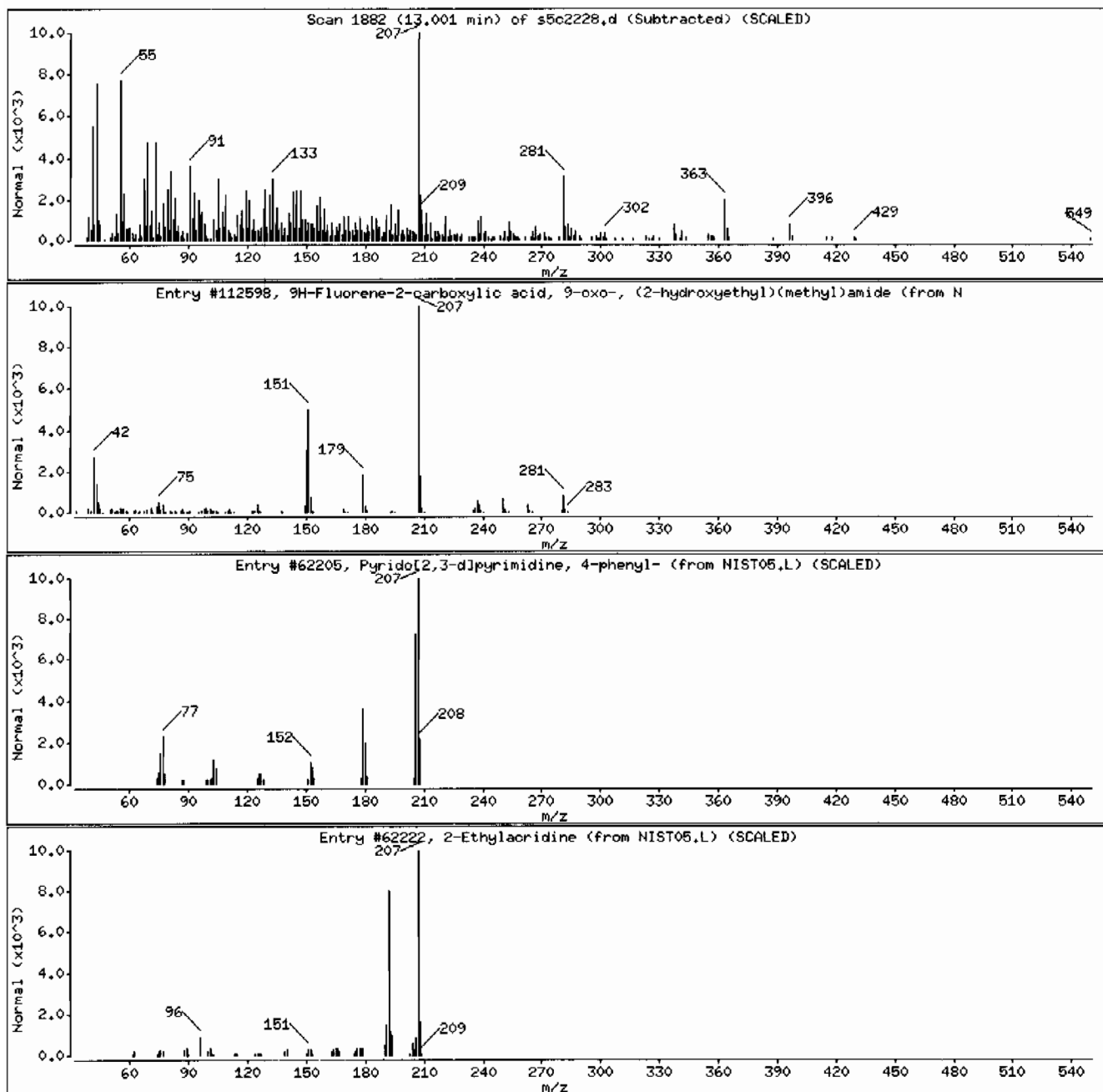
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
9H-Fluorene-2-carboxylic acid, 9-oxo-, (	1000316-02-1	NIST05.L	112598	43	C17H15NO3	281
Pyrido[2,3-d]pyrimidine, 4-phenyl-	28732-75-4	NIST05.L	62205	42	C13H9N3	207
2-Ethylacridine	55751-83-2	NIST05.L	62222	38	C15H13N	207



Date : 22-MAR-2010 18:48

Client ID: RE36-10-7442

Instrument: HSD5.i

Sample Info: 1248506017196308611ISVH11ILANL

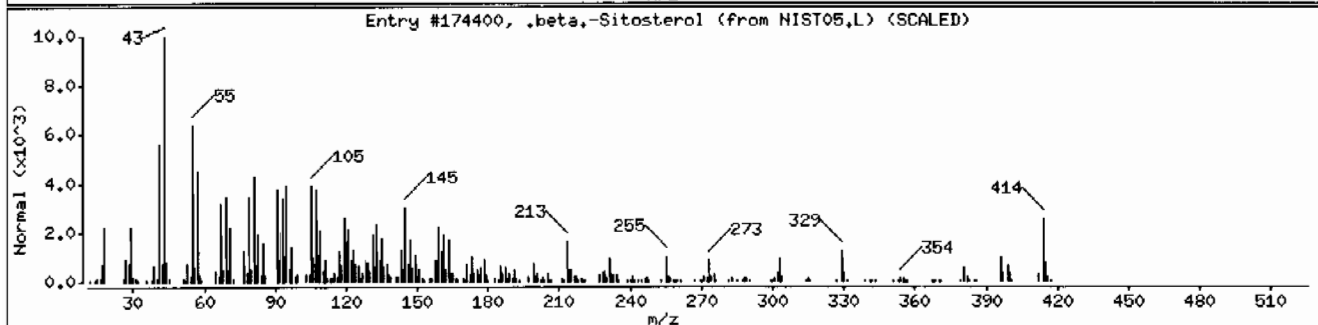
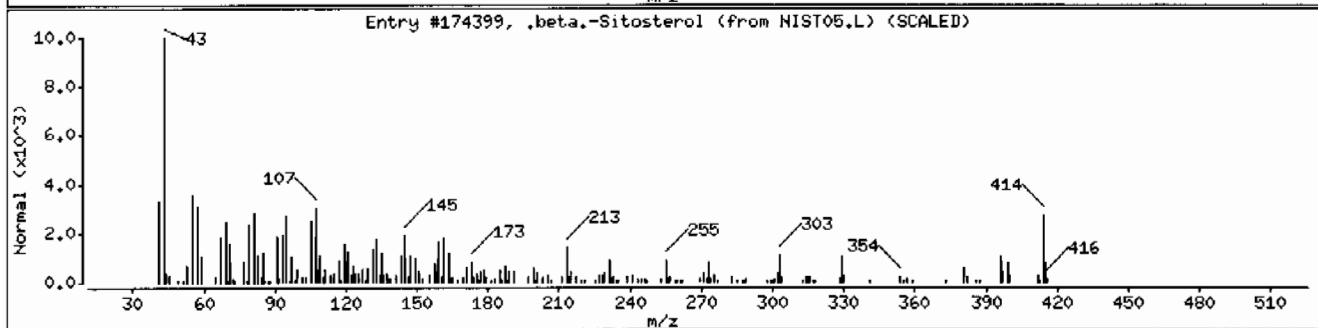
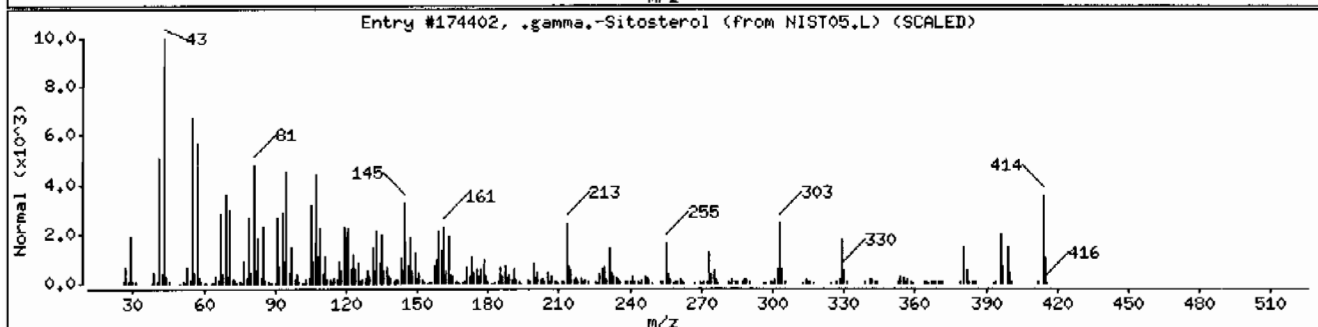
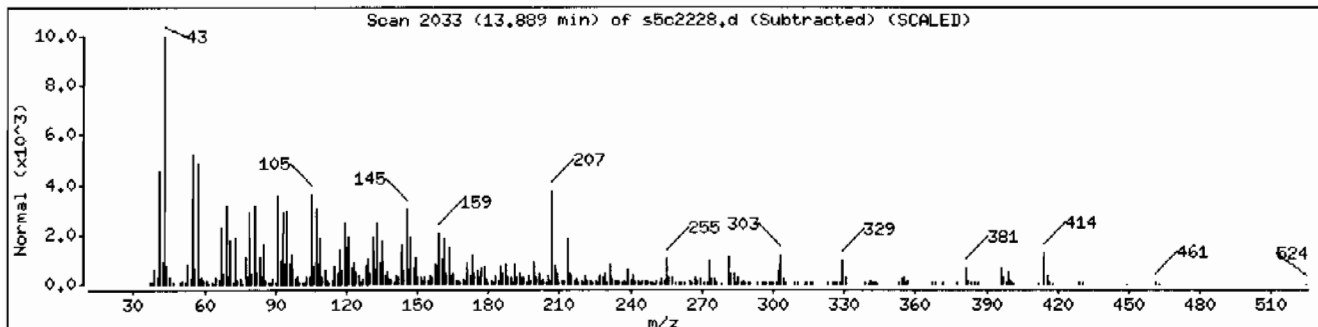
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	95	C29H50O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174399	94	C29H50O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174400	91	C29H50O	414



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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506011	Date Received: 03/03/2010 08:50	%Moisture: 25.1
Client ID: RE36-10-7443	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 16:30	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2222.d	Aliquot: 30.05 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	444	ug/kg	88.9	444
108-95-2	Phenol	U	444	ug/kg	88.9	444
95-57-8	2-Chlorophenol	U	444	ug/kg	88.9	444
106-46-7	1,4-Dichlorobenzene	U	444	ug/kg	88.9	444
621-64-7	N-Nitrosodipropylamine	U	444	ug/kg	88.9	444
59-50-7	4-Chloro-3-methylphenol	U	444	ug/kg	88.9	444
83-32-9	Accenaphthene	U	44.4	ug/kg	14.7	44.4
121-14-2	2,4-Dinitrotoluene	U	444	ug/kg	44.4	444
100-02-7	4-Nitrophenol	U	444	ug/kg	147	444
87-86-5	Pentachlorophenol	U	444	ug/kg	111	444
129-00-0	Pyrene	U	44.4	ug/kg	13.3	44.4
110-86-1	Pyridine	U	444	ug/kg	88.9	444
62-53-3	Aniline	U	444	ug/kg	133	444
111-44-4	bis(2-Chloroethyl) ether	U	444	ug/kg	88.9	444
541-73-1	1,3-Dichlorobenzene	U	444	ug/kg	88.9	444
100-51-6	Benzyl alcohol	U	444	ug/kg	133	444
95-50-1	1,2-Dichlorobenzene	U	444	ug/kg	88.9	444
108-60-1	bis(2-Chloroisopropyl)ether	U	444	ug/kg	88.9	444
95-48-7	o-Cresol	U	444	ug/kg	88.9	444
65794-96-9	m,p-Cresols	U	444	ug/kg	133	444
67-72-1	Hexachloroethane	U	444	ug/kg	88.9	444
98-95-3	Nitrobenzene	U	444	ug/kg	88.9	444
78-59-1	Isophorone	U	444	ug/kg	88.9	444
88-75-5	2-Nitrophenol	U	444	ug/kg	88.9	444
105-67-9	2,4-Dimethylphenol	U	444	ug/kg	156	444
111-91-1	bis(2-Chloroethoxy)methane	U	444	ug/kg	88.9	444
120-83-2	2,4-Dichlorophenol	U	444	ug/kg	88.9	444
65-85-0	Benzoic acid	U	889	ug/kg	222	889
91-20-3	Naphthalene	U	44.4	ug/kg	13.3	44.4
106-47-8	4-Chloroaniline	U	444	ug/kg	88.9	444
87-68-3	Hexachlorobutadiene	U	444	ug/kg	88.9	444
91-57-6	2-Methylnaphthalene	U	44.4	ug/kg	8.89	44.4
77-47-4	Hexachlorocyclopentadiene	U	444	ug/kg	88.9	444
88-06-2	2,4,6-Trichlorophenol	U	444	ug/kg	88.9	444
95-95-4	2,4,5-Trichlorophenol	U	444	ug/kg	88.9	444
91-58-7	2-Chloronaphthalene	U	44.4	ug/kg	14.7	44.4
88-74-4	2-Nitroaniline	U	444	ug/kg	88.9	444
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	444	ug/kg	88.9	444

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506011	Date Received: 03/03/2010 08:50	%Moisture: 25.1
Client ID: RE36-10-7443	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 16:30	Inst: MSD5.1	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2222.d	Aliquot: 30.05 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	444	ug/kg	88.9	444
606-20-2	2,6-Dinitrotoluene	U	444	ug/kg	44.4	444
208-96-8	Acenaphthylene	U	44.4	ug/kg	13.3	44.4
51-28-5	2,4-Dinitrophenol	U	889	ug/kg	169	889
132-64-9	Dibenzofuran	U	444	ug/kg	88.9	444
84-66-2	Diethylphthalate	U	444	ug/kg	88.9	444
86-73-7	Fluorene	U	44.4	ug/kg	13.3	44.4
7005-72-3	4-Chlorophenylphenylether	U	444	ug/kg	88.9	444
534-52-1	2-Methyl-4,6-dinitrophenol	U	444	ug/kg	88.9	444
100-01-6	4-Nitroaniline	U	444	ug/kg	133	444
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	444	ug/kg	88.9	444
122-66-7	Azobenzene	U	444	ug/kg	88.9	444
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	444	ug/kg	88.9	444
118-74-1	Hexachlorobenzene	U	444	ug/kg	88.9	444
85-01-8	Phenanthrene	U	44.4	ug/kg	13.3	44.4
120-12-7	Anthracene	U	44.4	ug/kg	8.89	44.4
84-74-2	Di-n-butylphthalate	U	444	ug/kg	88.9	444
206-44-0	Fluoranthene	U	44.4	ug/kg	13.3	44.4
85-68-7	Butylbenzylphthalate	U	444	ug/kg	88.9	444
56-55-3	Benzo(a)anthracene	U	44.4	ug/kg	13.3	44.4
91-94-1	3,3'-Dichlorobenzidine	U	444	ug/kg	133	444
218-01-9	Chrysene	U	44.4	ug/kg	13.3	44.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	444	ug/kg	88.9	444
117-84-0	Di-n-octylphthalate	U	444	ug/kg	88.9	444
205-99-2	Benzo(b)fluoranthene	U	44.4	ug/kg	13.3	44.4
207-08-9	Benzo(k)fluoranthene	U	44.4	ug/kg	13.3	44.4
50-32-8	Benzo(a)pyrene	U	44.4	ug/kg	13.3	44.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	44.4	ug/kg	13.3	44.4
53-70-3	Dibenzo(a,h)anthracene	U	44.4	ug/kg	13.3	44.4
191-24-2	Benzo(ghi)perylene	U	44.4	ug/kg	13.3	44.4
120-82-1	1,2,4-Trichlorobenzene	U	444	ug/kg	88.9	444

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
1000131-11-8	Z-5-Nonadecene	9.44	182	ug/kg	95	NJ
112-95-8	Eicosane	10.08	224	ug/kg	98	NJ

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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506011	Date Received: 03/03/2010 08:50	%Moisture: 25.1
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7443	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.1	Dilution: 1
Run Date: 03/22/2010 16:30	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s5c2222.d	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
1599-67-3	1-Docosene	10.11	449	ug/kg	94	NJ
630-03-5	Nonacosane	10.85	447	ug/kg	98	NJ
629-97-0	Docosane	11.85	703	ug/kg	95	NJ
2883-08-1	Cyclohexane, 1,1'-(2-methyl-1,3-propanediol)	11.92	516	ug/kg	91	NJ
	Unknown	12.09	348	ug/kg		J
	Unknown	12.48	258	ug/kg		J
13183-70-5	Silane, 1,4-phenylenebis(trimethyl-)	12.68	273	ug/kg	87	NJ
	Unknown	13.21	415	ug/kg		J
83-46-5	.beta.-Sitosterol	13.87	685	ug/kg	96	NJ

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2222.d  
Lab Smp Id: 248506011 Client Smp ID: RE36-10-7443  
Inj Date : 22-MAR-2010 16:30  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506011|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 22  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	25.11330	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG			RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT REL RT		ON-COLUMN	FINAL
					(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.948	3.950 (1.000)	270222	40.0000	
* 29 Naphthalene-d8	136	4.813	4.821 (1.000)	1067137	40.0000	
* 46 Acenaphthene-d10	164	6.072	6.078 (1.000)	665794	40.0000	
* 67 Phenanthrene-d10	188	7.248	7.253 (1.000)	1198418	40.0000	
* 91 Chrysene-d12	240	9.666	9.670 (1.000)	1068046	40.0000	
* 98 Perylene-d12	264	11.371	11.370 (1.000)	883762	40.0000	
\$ 3 2-Fluorophenol	112	3.143	3.141 (0.796)	311523	46.1680	2050
\$ 5 Phenol-d5	99	3.666	3.666 (0.928)	431020	53.1469	2360
\$ 20 Nitrobenzene-d5	82	4.307	4.316 (0.895)	214482	27.0484	1200
\$ 39 2-Fluorobiphenyl	172	5.554	5.558 (0.915)	390302	23.4707	1040
\$ 60 2,4,6-Tribromophenol	329	6.672	6.675 (1.099)	130593	52.2226	2320
\$ 81 p-Terphenyl-d14	244	8.630	8.630 (0.893)	468730	26.3834	1170

## ION RATIO REPORT

## SV REPORT

Data file: s5c2222.d

Report Date: 03/23/2010 07:03

Lab. ID: 248506011

SampleType: SAMPLE

Injection Date: 22-MAR-2010 16:30

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506011|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	26760	3.67	3.74	80-120	100	(T)
93	4009	3.62	3.74	219-279	15	(QT)
-----						
7	bis(2-Chloroethyl) ether	CAS#: 111-44-4				
63	12202	3.94	3.75	80-120	100	(T)
93	2225	3.94	3.75	119-179	18	(QT)
95	336	3.94	3.75	8- 68	3	(QT)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	31019	4.31	4.19	80-120	100	(T)
42	19521	4.31	4.19	44-104	63	(T)
-----						
27	Benzoic acid	CAS#: 65-85-0				
105	3879	4.56	4.59	80-120	100	( )
122	1844	4.55	4.59	45-105	48	( )
77	2498	4.56	4.59	48-108	64	( )
-----						
43	Dimethylphthalate	CAS#: 131-11-3				
163	123143	6.07	5.84	80-120	100	(T)
164	665794	6.07	5.84	0- 40	541	(QT)
-----						
44	2,6-Dinitrotoluene	CAS#: 606-20-2				
165	89300	6.07	5.90	80-120	100	(T)
63	8585	6.08	5.89	62-122	10	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	89300	6.07	6.19	80-120	100	(T)
89	12769	6.08	6.19	51-111	14	(QT)
63	9108	6.08	6.19	24- 84	10	(QT)
-----						
52 4-Nitrophenol				CAS#: 100-02-7		
139	201	6.33	6.12	80-120	100	(T)
109	884	6.36	6.12	63-123	440	(QT)
65	1669	6.34	6.11	71-131	830	(QT)
-----						
53 Fluorene				CAS#: 86-73-7		
166	6006	6.67	6.49	80-120	100	(T)
165	6219	6.67	6.49	62-122	104	(T)
167	2053	6.67	6.49	0- 44	34	(T)
-----						
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	739	6.67	6.51	80-120	100	(T)
105	2898	6.67	6.50	13- 73	392	(QT)
51	1017	6.67	6.50	51-111	138	(QT)
-----						
89 Benzo(a)anthracene				CAS#: 56-55-3		
228	7999	9.67	9.66	80-120	100	( )
226	726	9.65	9.66	0- 56	9	( )
229	2053	9.67	9.66	0- 50	26	( )

Q qualifier indicates ion failed ratio requirement



Data File: /chem/MSD5.i/s032210.b/s5c2222.d  
Report Date: 23-Mar-2010 07:52

Page 2

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2222.d  
Lab Smp Id: 248506011 Client Smp ID: RE36-10-7443  
Inj Date : 22-MAR-2010 16:30  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506011|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 22  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	25.11330	% moisture

Cpnd Variable

Local Compound Variable

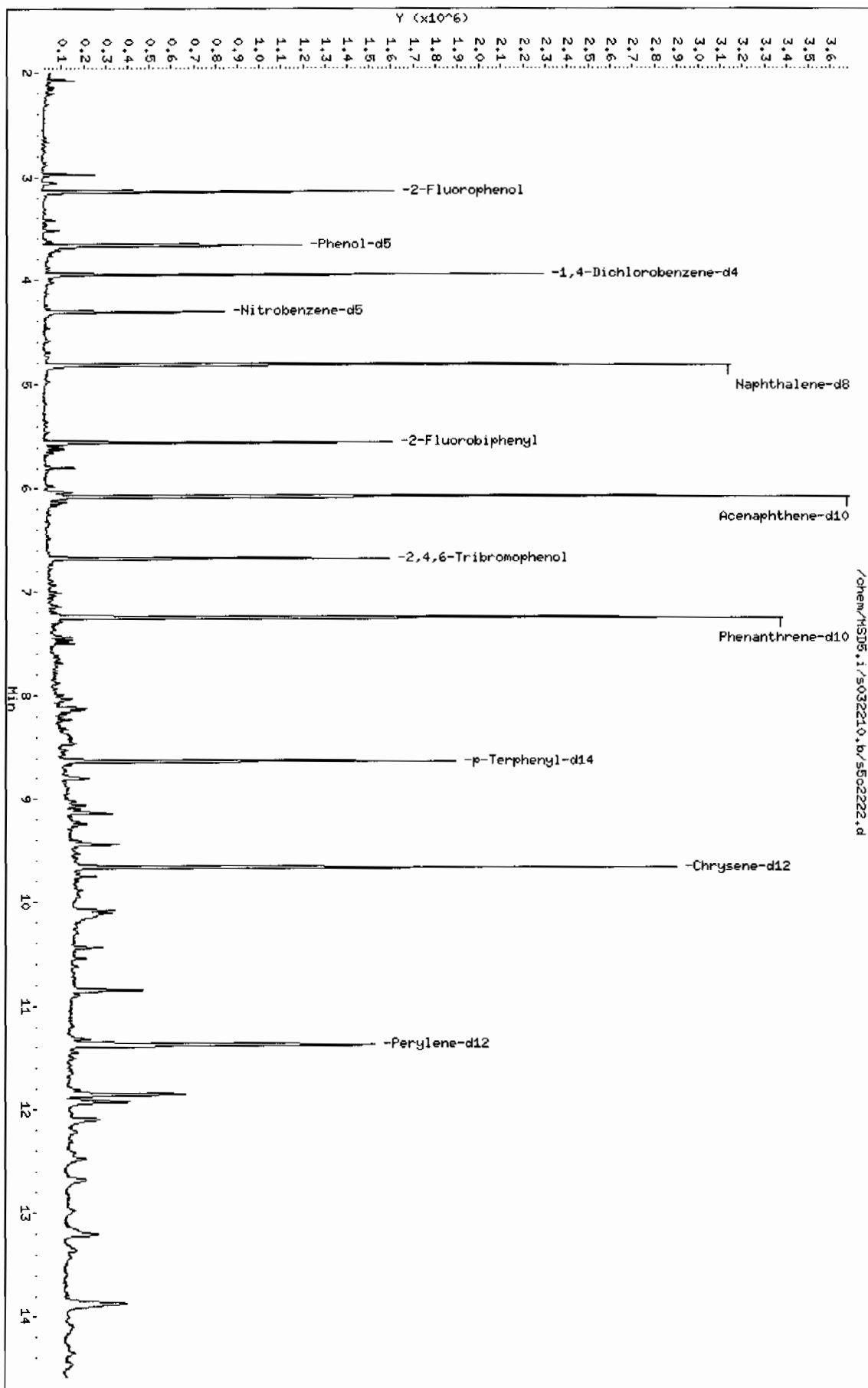
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 91 Chrysene-d12	9.666	3143824	40.000
* 98 Perylene-d12	11.371	2459216	40.000

CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Z-5-Nonadecene							
				CAS #: 1000131-11-8			
9.442	322374	4.10167581	182	95	NIST05.L	102861	91

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
Eicosane					CAS #: 112-95-8		
10.083	396986	5.05099937	224	98	NIST05.L	113492	91
1-Docosene					CAS #: 1599-67-3		
10.107	794356	10.1068776	449	94	NIST05.L	129889	91
Nonacosane					CAS #: 630-03-5		
10.848	618583	10.0614586	447	98	NIST05.L	173140	98
Docosane					CAS #: 629-97-0		
11.848	972545	15.8187752	703	95	NIST05.L	131157	98
Cyclohexane, 1,1'-(2-methyl-1,3-propanediol)					CAS #: 2883-08-1		
11.918	714114	11.6153129	516	91	NIST05.L	73082	98
Unknown					CAS #:		
12.089	481728	7.83546905	348	0		0	98
Unknown					CAS #:		
12.477	356904	5.80516801	258	0		0	98
Silane, 1,4-phenylenebis(trimethyl-)					CAS #: 13183-70-5		
12.683	377557	6.14109082	273	87	NIST05.L	72522	98
Unknown					CAS #:		
13.207	573643	9.33050550	415	0		0	98
.beta.-Sitosterol					CAS #: 83-46-5		
13.871	947275	15.4077462	685	96	NIST05.L	174400	98

Data File: /chem/MSDB.i/s032210.b/s502222.d  
 Date: 22-MAR-2010 16:30  
 Client ID: RE36-10-7443  
 Sample Info: 124850601196308611SVH11LANL  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: MSDB.i  
 Operator: RMB  
 Column diameter: 0.20



Date : 22-MAR-2010 16:30

Client ID: RE36-10-7443

Instrument: MSD5.i

Sample Info: 1248506011196308611ISVH11ILANL

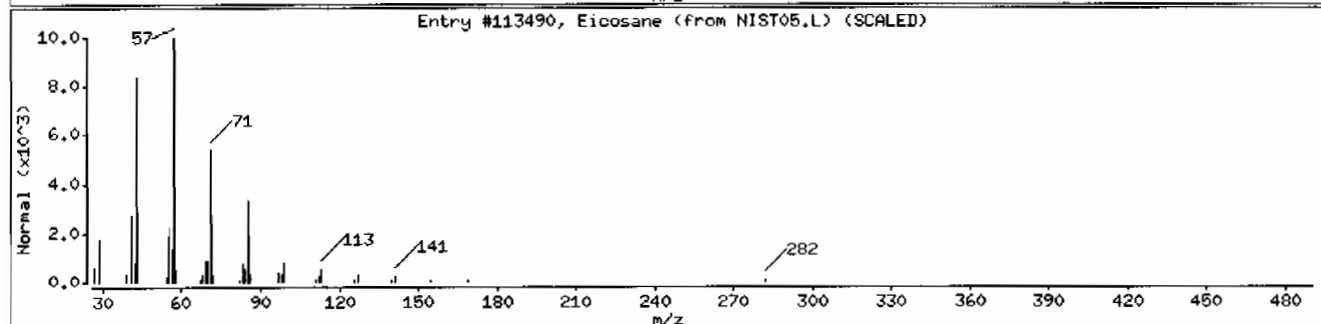
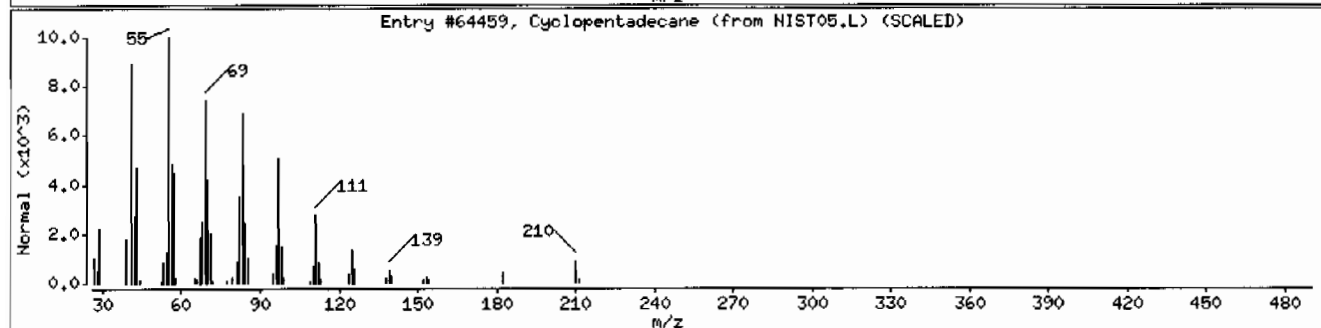
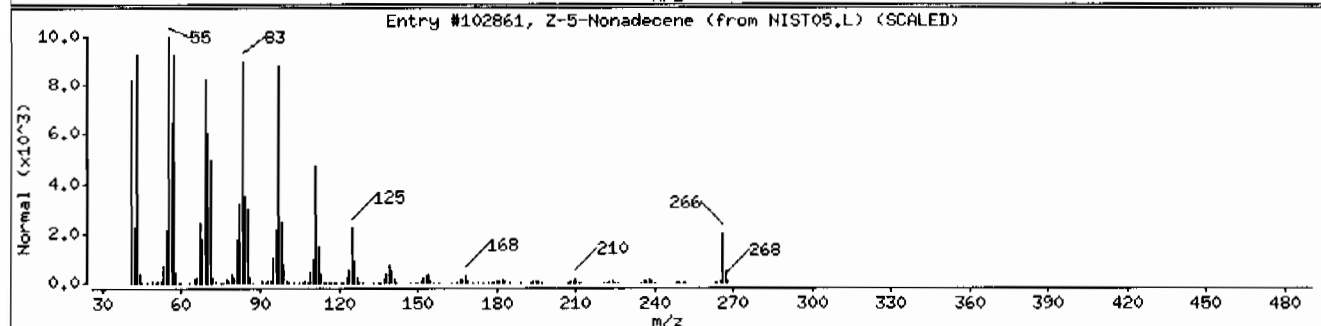
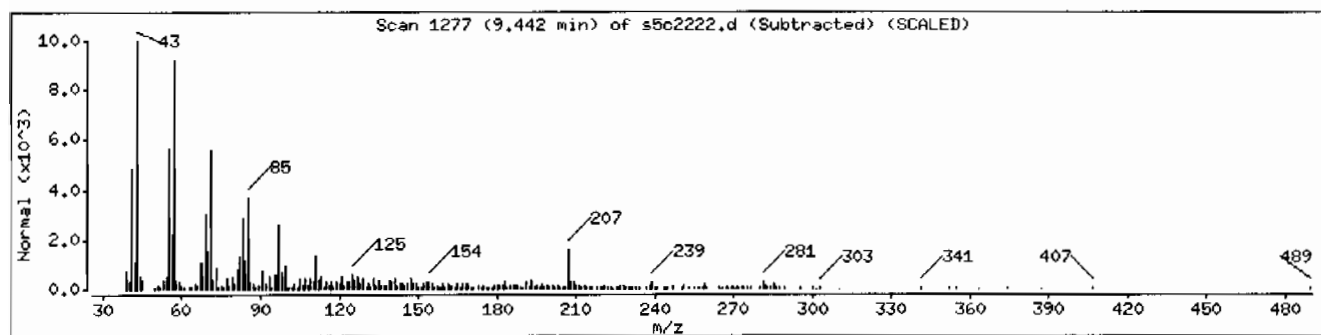
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Z-5-Nonadecene	1000131-11-8	NIST05.L	102861	95	C19H38	266
Cyclopentadecane	295-48-7	NIST05.L	64459	90	C15H30	210
Eicosane	112-95-8	NIST05.L	113490	90	C20H42	282



Date : 22-MAR-2010 16:30

Client ID: RE36-10-7443

Instrument: HSD5.i

Sample Info: 124850601196308611SVH11ILANL

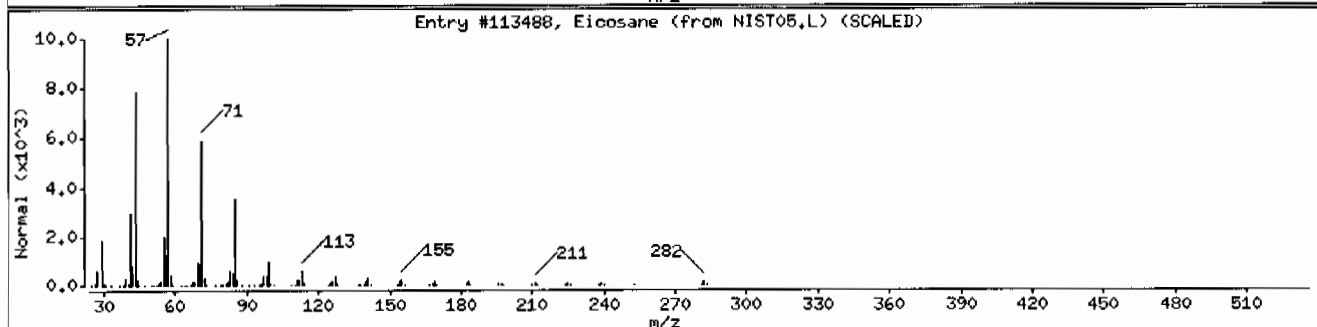
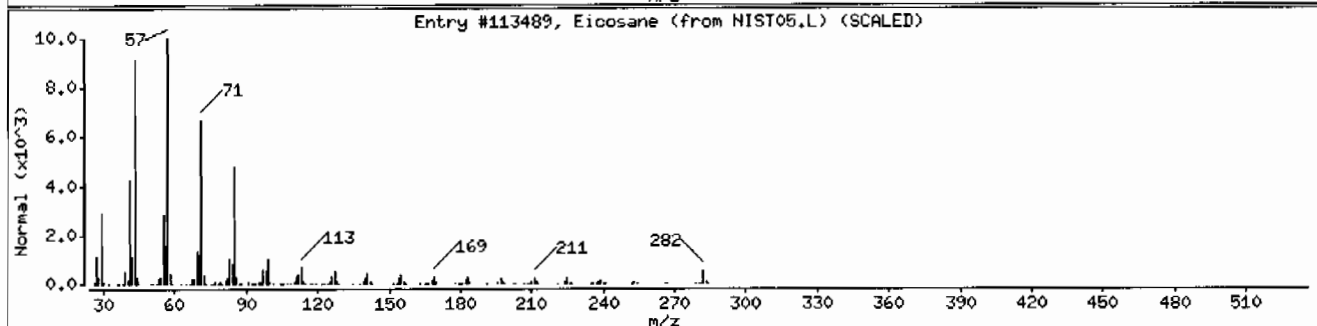
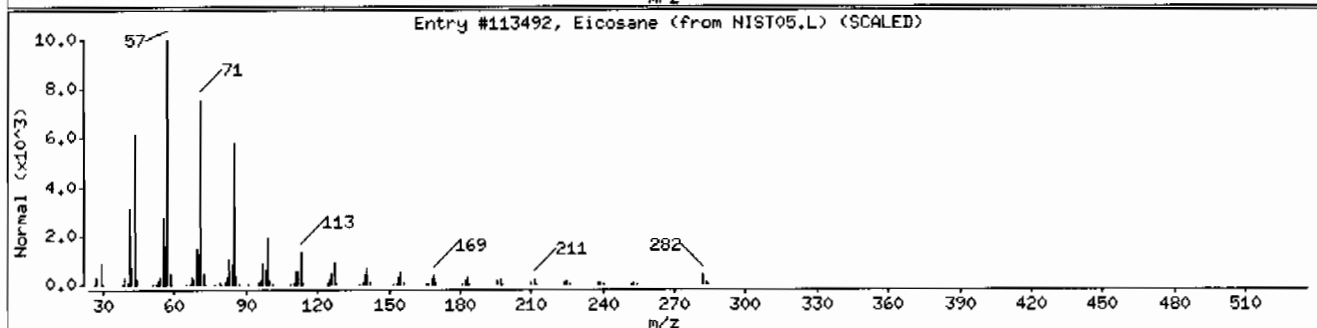
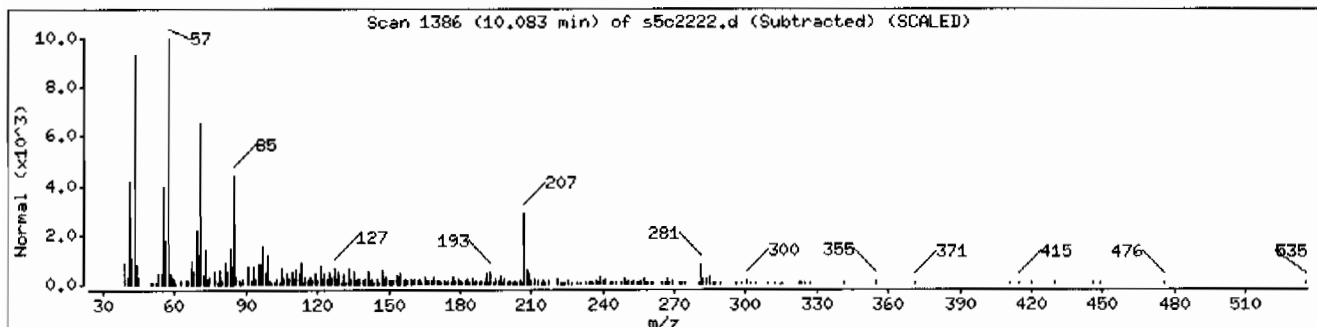
Volume Injected (uL): 0.5

Operator: RMB

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	113489	98	C <sub>20</sub> H <sub>42</sub>	282
Eicosane	112-95-8	NIST05.L	113488	96	C <sub>20</sub> H <sub>42</sub>	282



Date : 22-MAR-2010 16:30

Client ID: RE36-10-7443

Instrument: MSD5.i

Sample Info: 124850601196308611SVMI11LANL

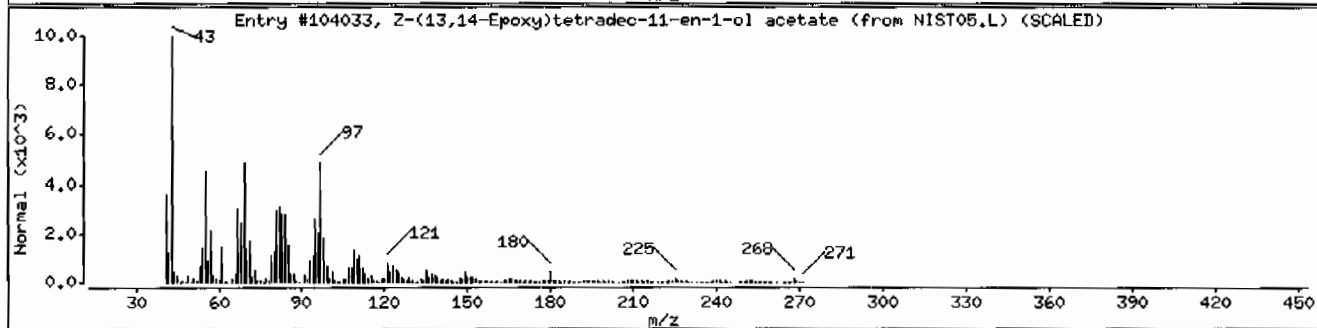
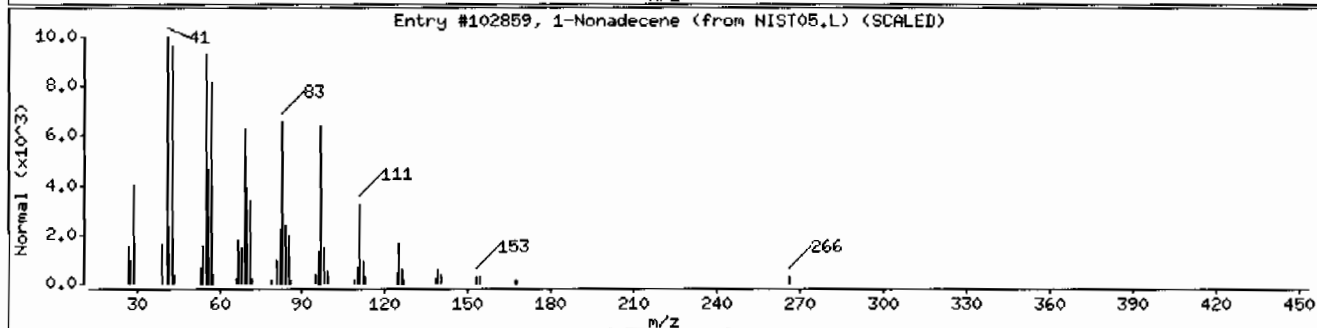
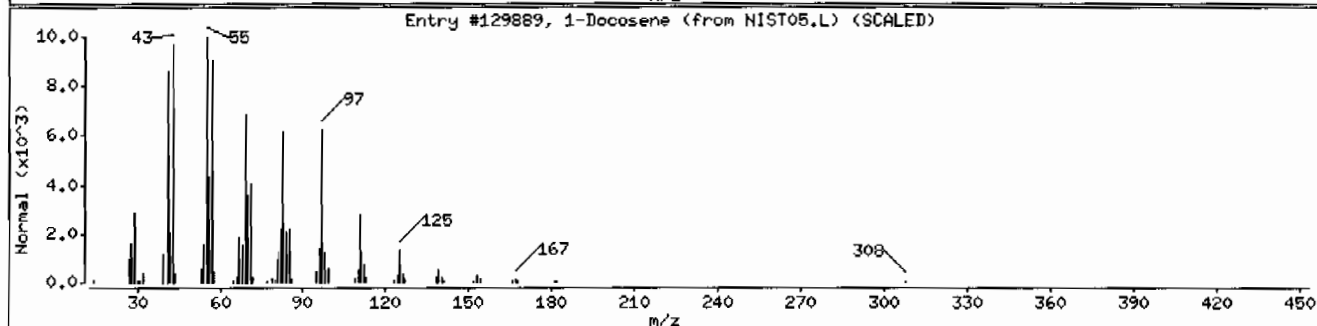
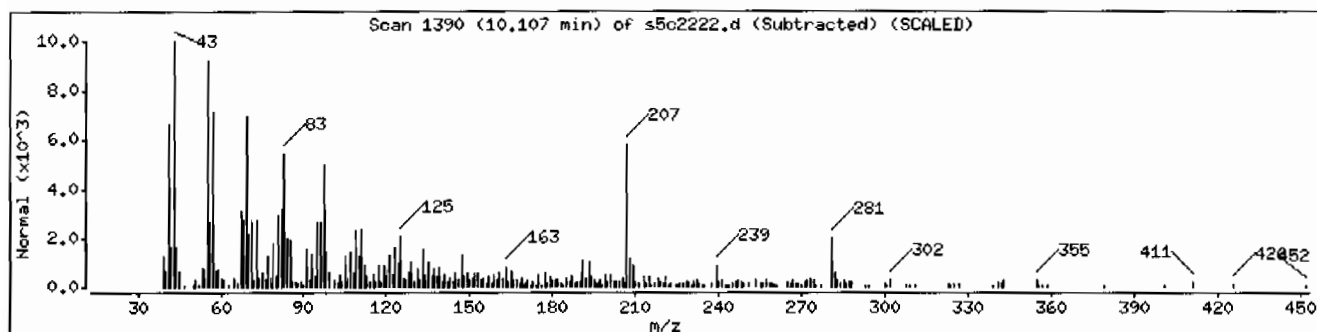
Volume Injected (uL): 0.5

Operator: RMB

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	129889	94	C22H44	308
1-Nonadecene	18435-45-5	NIST05.L	102859	74	C19H38	266
Z-(13,14-Epoxy)tetradec-11-en-1-ol aceta	1000131-33-2	NIST05.L	104033	50	C16H28O3	268



Date : 22-MAR-2010 16:30

Client ID: RE36-10-7443

Instrument: HSD5.i

Sample Info: I248506011|96308611|SVMI11|LANL

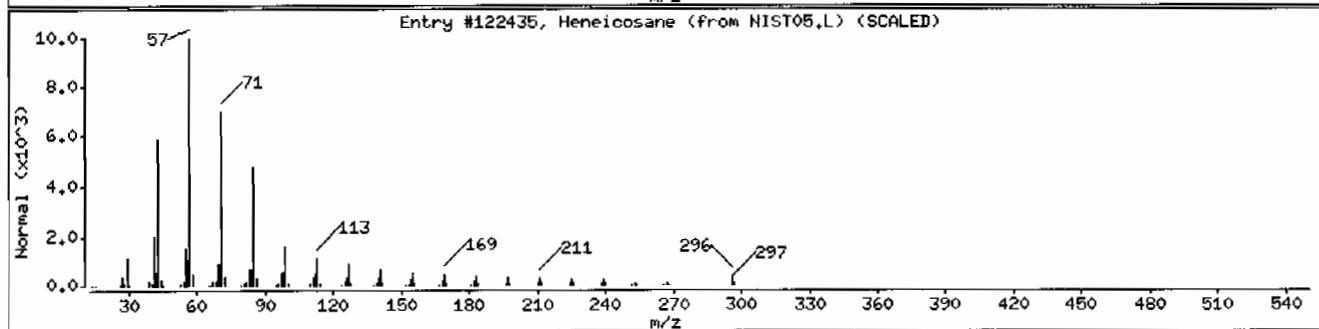
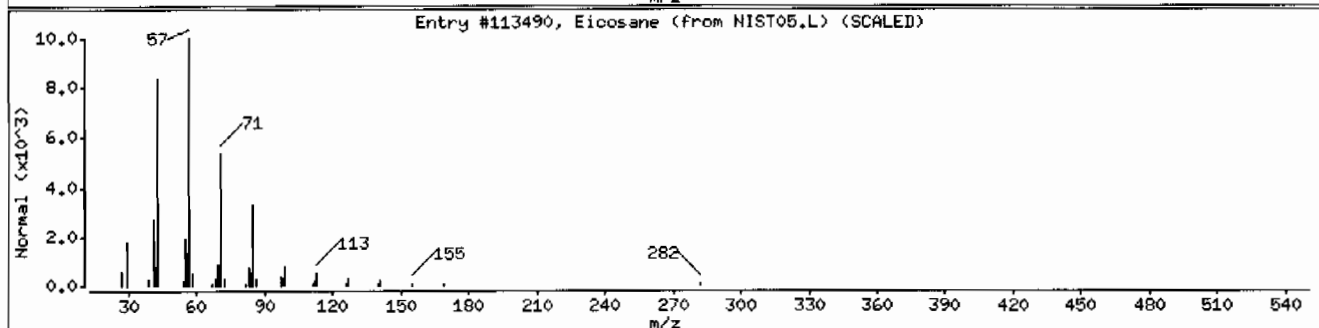
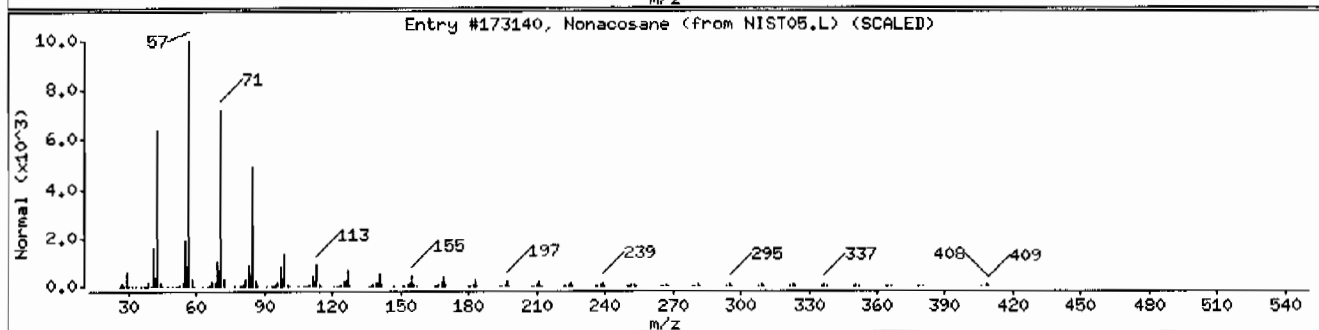
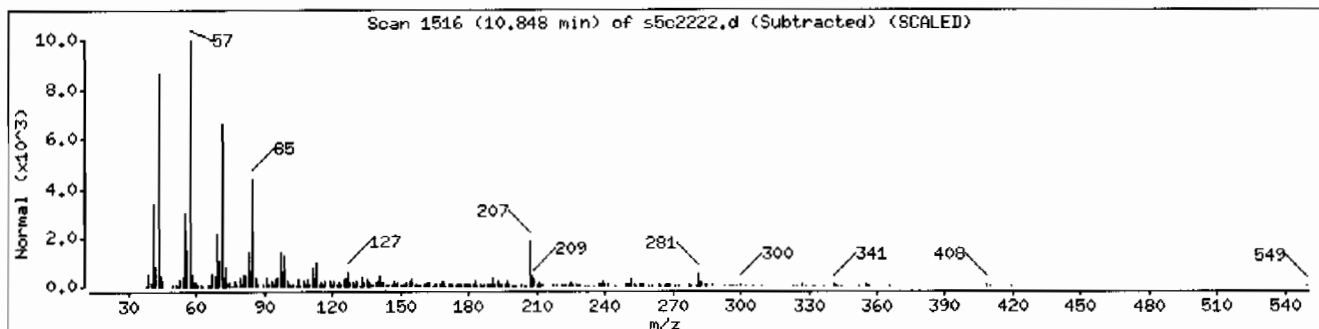
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Nonacosane	630-03-5	NIST05.L	173140	98	C29H60	408
Eicosane	112-95-8	NIST05.L	113490	97	C20H42	282
Heneicosane	629-94-7	NIST05.L	122435	97	C21H44	296



Date : 22-MAR-2010 16:30

Client ID: RE36-10-7443

Instrument: HSD5.i

Sample Info: 124850601196308611SVH11ILANL

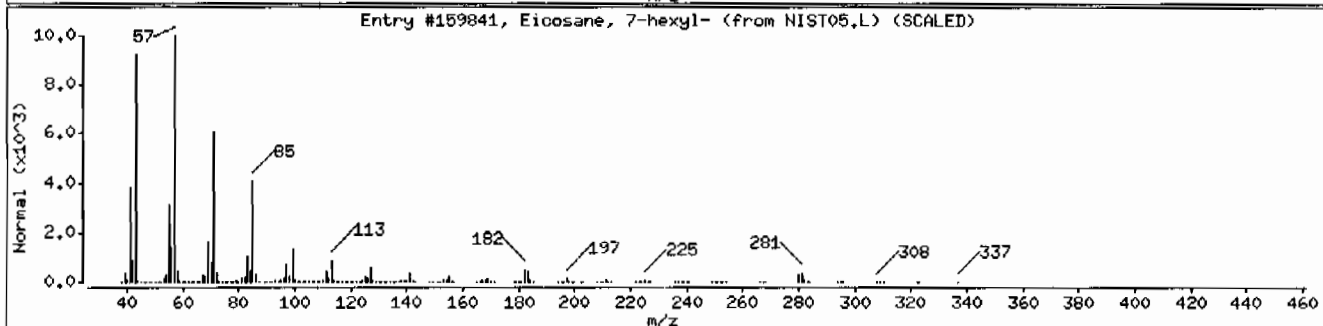
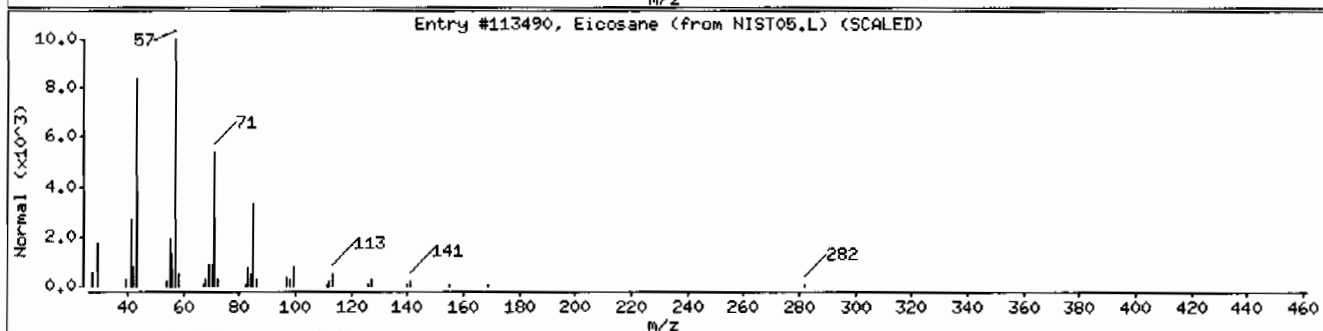
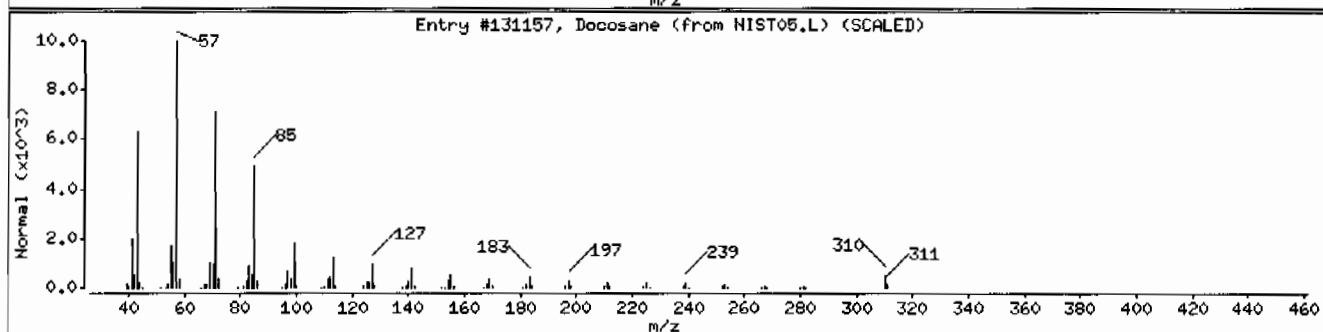
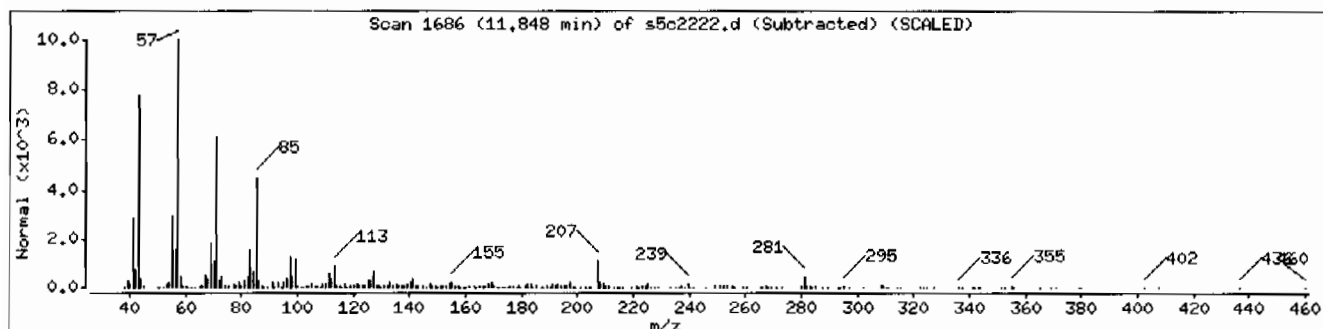
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Docosane	629-97-0	NIST05.L	131157	95	C22H46	310
Eicosane	112-95-8	NIST05.L	113490	92	C20H42	282
Eicosane, 7-hexyl-	55333-99-8	NIST05.L	159841	90	C26H54	366





Date : 22-MAR-2010 16:30

Client ID: RE36-10-7443

Instrument: MSD5.i

Sample Info: I248506011196308611ISVMI1ILANL

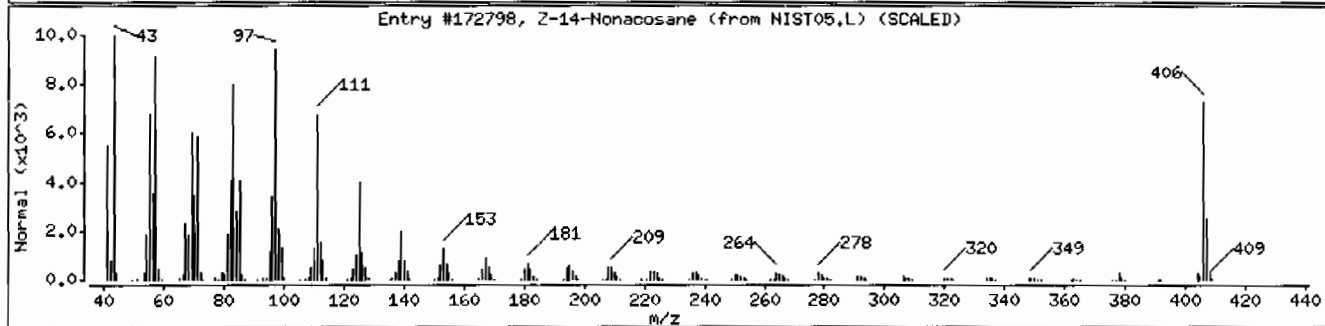
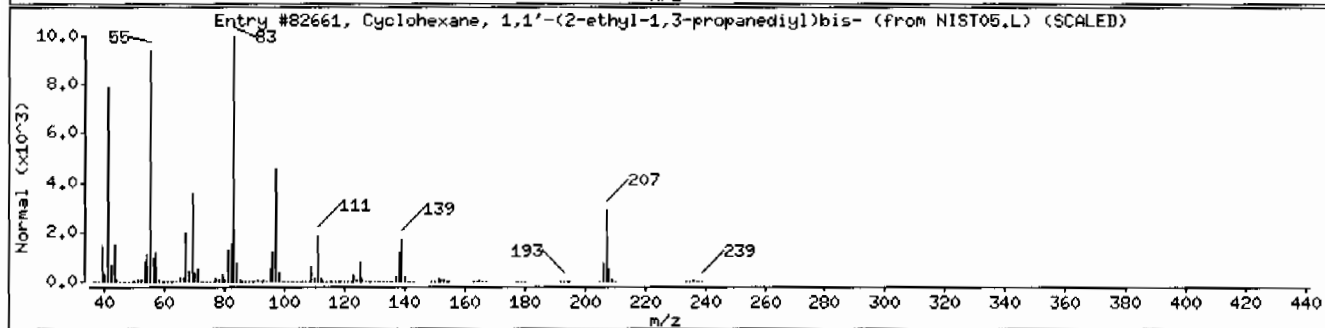
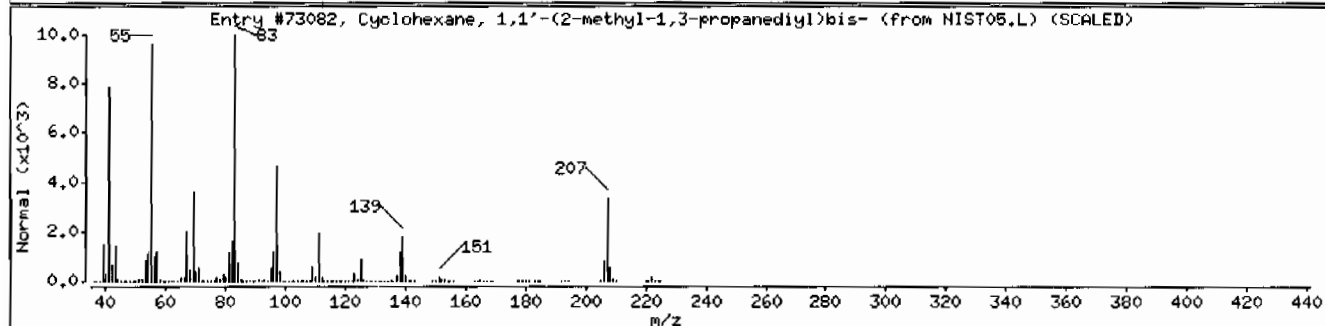
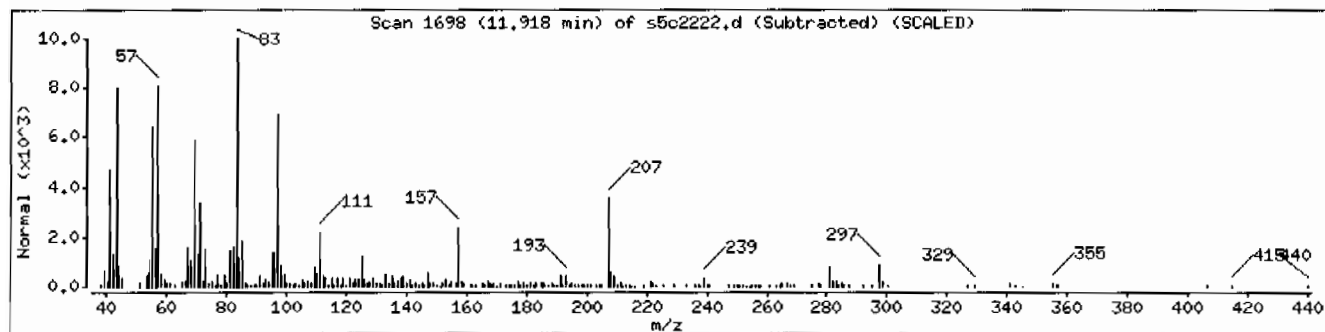
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexane, 1,1'-(2-methyl-1,3-propanedi	2883-08-1	NIST05.L	73082	91	C16H30	222
Cyclohexane, 1,1'-(2-ethyl-1,3-propanedi	54833-34-0	NIST05.L	82661	83	C17H32	236
Z-14-Nonacosane	1000131-18-9	NIST05.L	172798	78	C29H58	406



Date : 22-MAR-2010 16:30

Client ID: RE36-10-7443

Instrument: MSD5.i

Sample Info: I248506011196308611ISVM111LANL

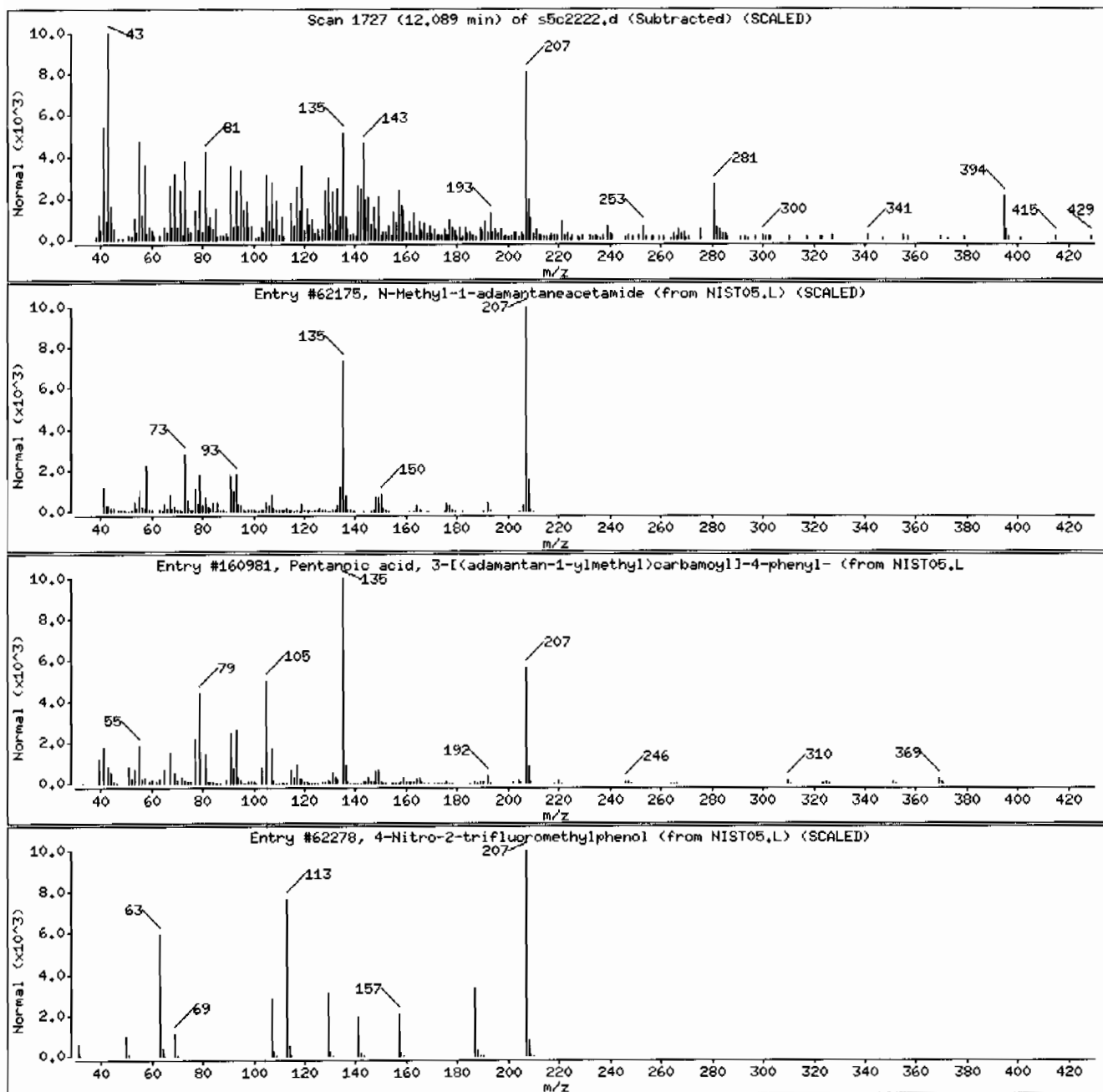
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05.L	62175	38	C13H21NO	207
Pentanoic acid, 3-[(adamantan-1-yl)methyl]	1000316-89-1	NIST05.L	160981	25	C23H31NO3	369
4-Nitro-2-trifluoromethylphenol	1000306-30-8	NIST05.L	62278	22	C7H4F3NO3	207



Date : 22-MAR-2010 16:30

Client ID: RE36-10-7443

Instrument: MSD5.i

Sample Info: 12485060111963086111SVH111LANL

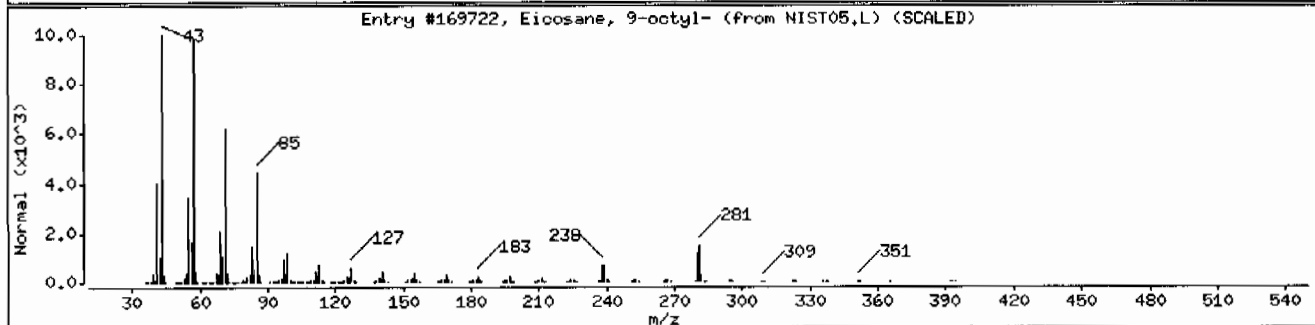
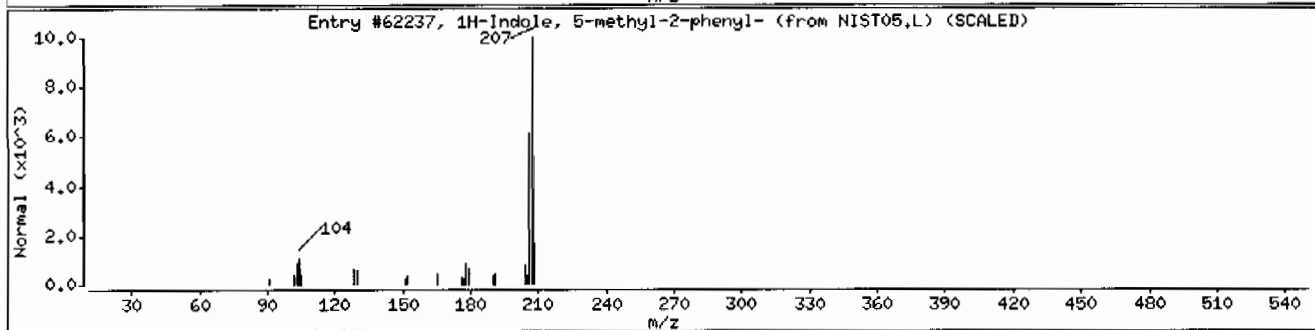
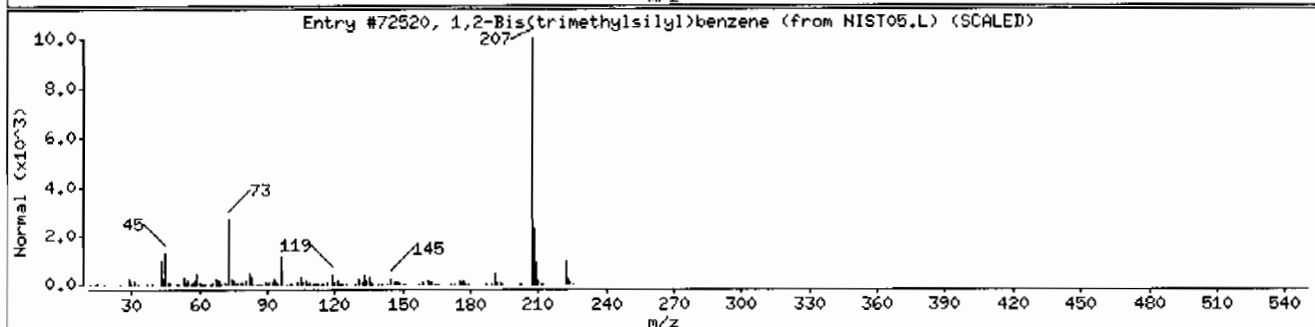
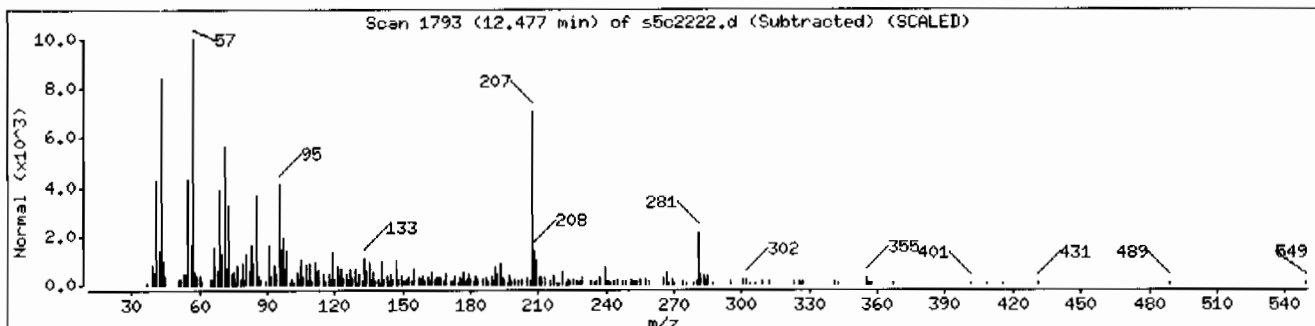
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,2-Bis(trimethylsilyl)benzene	17151-09-6	NIST05.L	72520	47	C <sub>12</sub> H <sub>22</sub> Si <sub>2</sub>	222
1H-Indole, 5-methyl-2-phenyl-	13228-36-9	NIST05.L	62237	30	C <sub>15</sub> H <sub>13</sub> N	207
Eicosane, 9-octyl-	13475-77-9	NIST05.L	169722	30	C <sub>28</sub> H <sub>58</sub>	394



Date : 22-MAR-2010 16:30

Client ID: RE36-10-7443

Instrument: MSD5.i

Sample Info: 1248506011196308611ISVH11ILANL

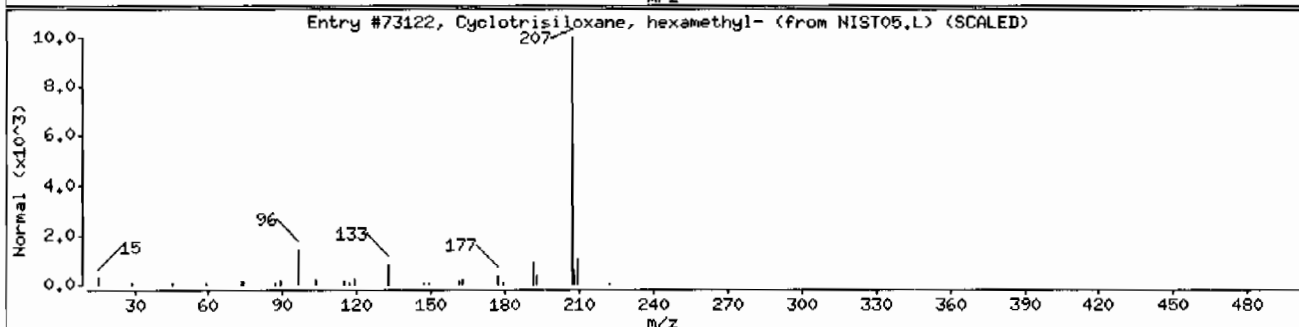
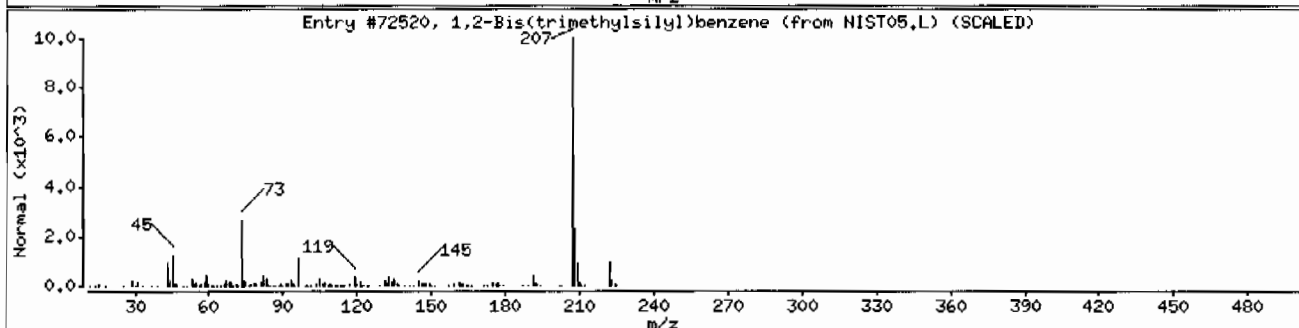
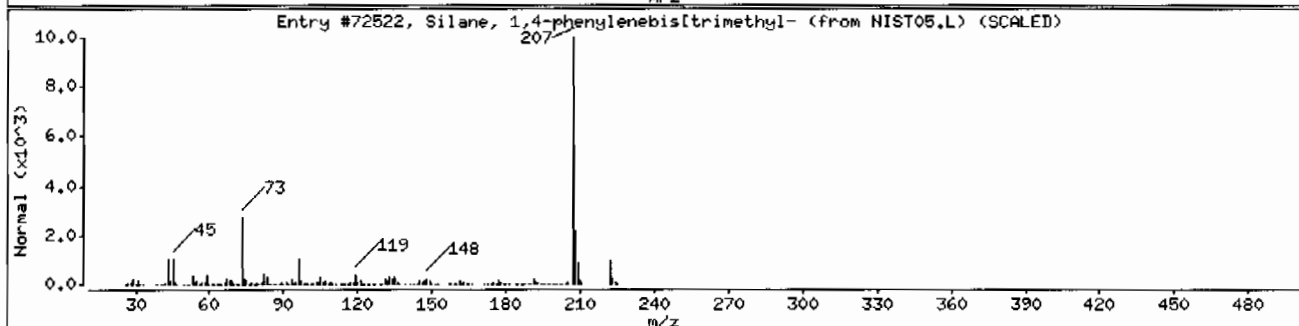
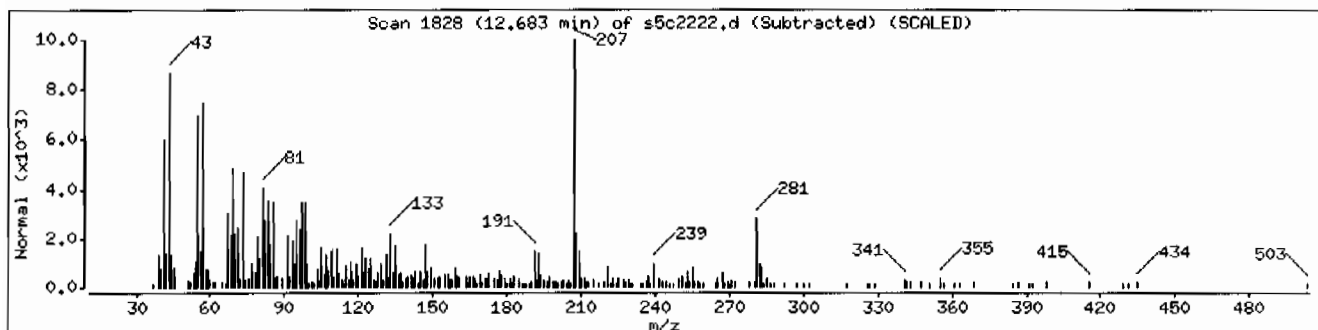
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Silane, 1,4-phenylenebis(trimethyl-	13183-70-5	NIST05.L	72522	87	C <sub>12</sub> H <sub>22</sub> Si <sub>2</sub>	222
1,2-Bis(trimethylsilyl)benzene	17151-09-6	NIST05.L	72520	64	C <sub>12</sub> H <sub>22</sub> Si <sub>2</sub>	222
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73122	38	C <sub>6</sub> H <sub>18</sub> O <sub>3</sub> Si <sub>3</sub>	222



Date : 22-MAR-2010 16:30

Client ID: RE36-10-7443

Instrument: MSD5.i

Sample Info: I248506011|96308611|SVH11|LANL

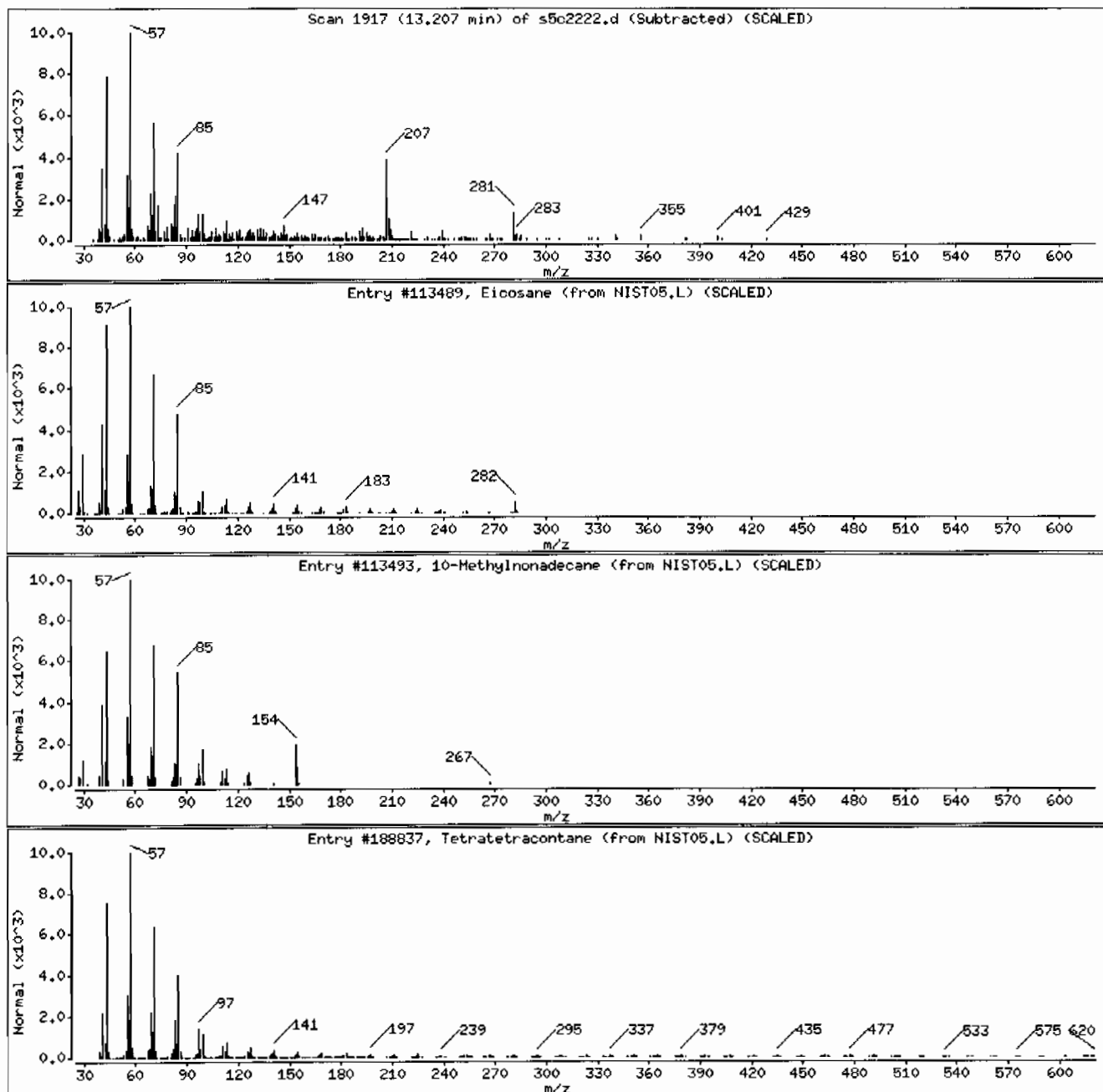
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Eicosane	112-95-8	NIST05.L	113489	70	C20H42	282
10-Methylnonadecane	56862-62-5	NIST05.L	113493	60	C20H42	282
Tetratetracontane	7098-22-8	NIST05.L	188837	60	C44H90	619



Date : 22-MAR-2010 16:30

Client ID: RE36-10-7443

Instrument: MSD5.i

Sample Info: 12485060111963086111SVH111LANL

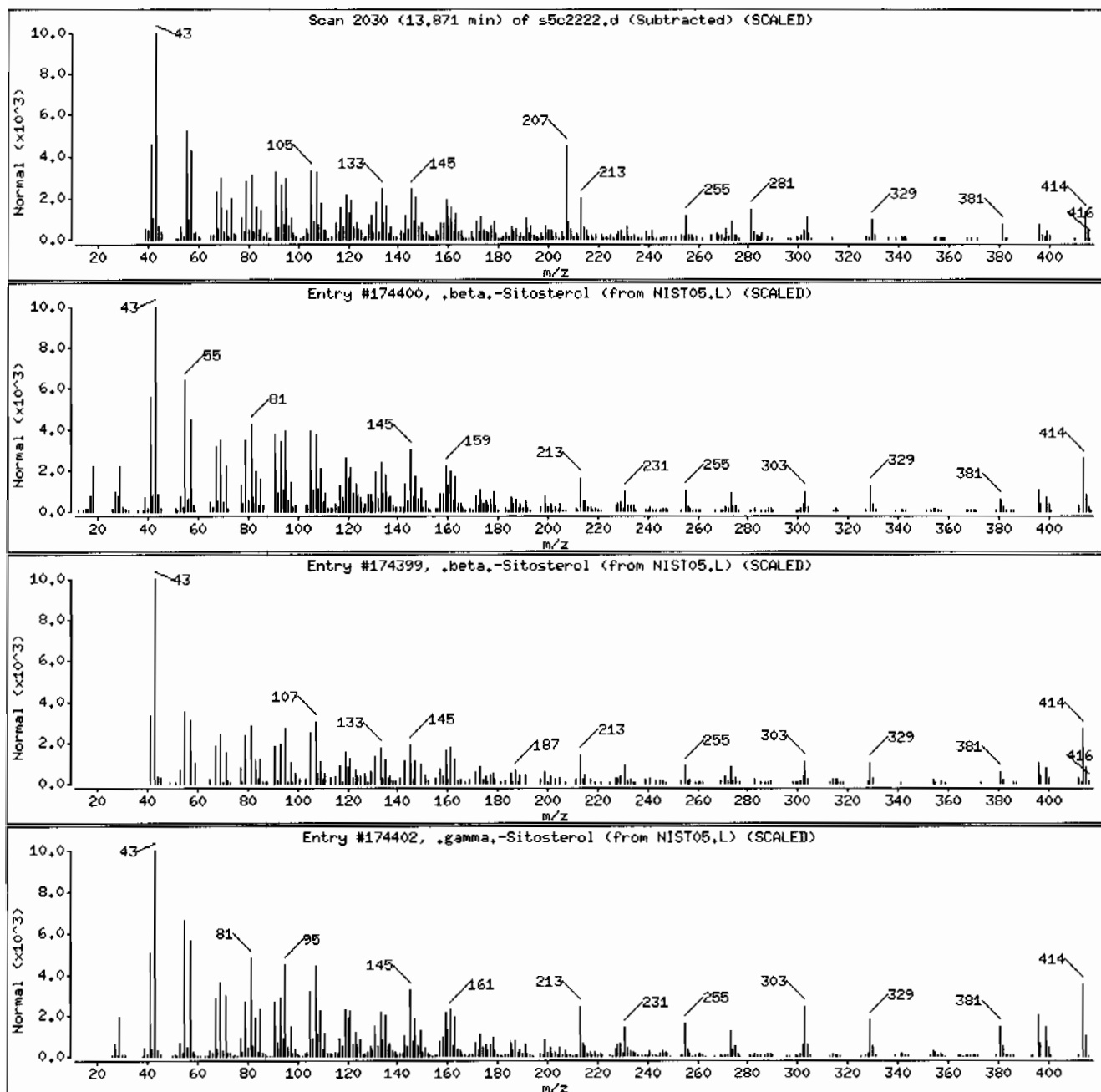
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174400	96	C29H50O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174399	95	C29H50O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	87	C29H50O	414



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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506008	Date Received: 03/03/2010 08:50	%Moisture: 20.6
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7444	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.1	Dilution: 1
Run Date: 03/22/2010 15:21	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s5c2219.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	419	ug/kg	83.8	419
108-95-2	Phenol	U	419	ug/kg	83.8	419
95-57-8	2-Chlorophenol	U	419	ug/kg	83.8	419
106-46-7	1,4-Dichlorobenzene	U	419	ug/kg	83.8	419
621-64-7	N-Nitrosodipropylamine	U	419	ug/kg	83.8	419
59-50-7	4-Chloro-3-methylphenol	U	419	ug/kg	83.8	419
83-32-9	Acenaphthene	U	41.9	ug/kg	13.8	41.9
121-14-2	2,4-Dinitrotoluene	U	419	ug/kg	41.9	419
100-02-7	4-Nitrophenol	U	419	ug/kg	138	419
87-86-5	Pentachlorophenol	U	419	ug/kg	105	419
129-00-0	Pyrene	U	41.9	ug/kg	12.6	41.9
110-86-1	Pyridine	U	419	ug/kg	83.8	419
62-53-3	Aniline	U	419	ug/kg	126	419
111-44-4	bis(2-Chloroethyl) ether	U	419	ug/kg	83.8	419
541-73-1	1,3-Dichlorobenzene	U	419	ug/kg	83.8	419
100-51-6	Benzyl alcohol	U	419	ug/kg	126	419
95-50-1	1,2-Dichlorobenzene	U	419	ug/kg	83.8	419
108-60-1	bis(2-Chloroisopropyl)ether	U	419	ug/kg	83.8	419
95-48-7	o-Cresol	U	419	ug/kg	83.8	419
65794-96-9	m,p-Cresols	U	419	ug/kg	126	419
67-72-1	Hexachloroethane	U	419	ug/kg	83.8	419
98-95-3	Nitrobenzene	U	419	ug/kg	83.8	419
78-59-1	Isophorone	U	419	ug/kg	83.8	419
88-75-5	2-Nitrophenol	U	419	ug/kg	83.8	419
105-67-9	2,4-Dimethylphenol	U	419	ug/kg	147	419
111-91-1	bis(2-Chloroethoxy)methane	U	419	ug/kg	83.8	419
120-83-2	2,4-Dichlorophenol	U	419	ug/kg	83.8	419
65-85-0	Benzoic acid	U	838	ug/kg	209	838
91-20-3	Naphthalene	U	41.9	ug/kg	12.6	41.9
106-47-8	4-Chloroaniline	U	419	ug/kg	83.8	419
87-68-3	Hexachlorobutadiene	U	419	ug/kg	83.8	419
91-57-6	2-Methylnaphthalene	U	41.9	ug/kg	8.38	41.9
77-47-4	Hexachlorocyclopentadiene	U	419	ug/kg	83.8	419
88-06-2	2,4,6-Trichlorophenol	U	419	ug/kg	83.8	419
95-95-4	2,4,5-Trichlorophenol	U	419	ug/kg	83.8	419
91-58-7	2-Chloronaphthalene	U	41.9	ug/kg	13.8	41.9
88-74-4	2-Nitroaniline	U	419	ug/kg	83.8	419
99-09-2	o-Nitroaniline	U	419	ug/kg	83.8	419
	3-Nitroaniline					

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

SDG Number: 10-2193  
Lab Sample ID: 248506008

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.05 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 20.6  
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	419	ug/kg	83.8	419
606-20-2	2,6-Dinitrotoluene	U	419	ug/kg	41.9	419
208-96-8	Acenaphthylene	U	41.9	ug/kg	12.6	41.9
51-28-5	2,4-Dinitrophenol	U	838	ug/kg	159	838
132-64-9	Dibenzofuran	U	419	ug/kg	83.8	419
84-66-2	Diethylphthalate	U	419	ug/kg	83.8	419
86-73-7	Fluorene	U	41.9	ug/kg	12.6	41.9
7005-72-3	4-Chlorophenylphenylether	U	419	ug/kg	83.8	419
534-52-1	2-Methyl-4,6-dinitrophenol	U	419	ug/kg	83.8	419
100-01-6	4-Nitroaniline	U	419	ug/kg	126	419
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	419	ug/kg	83.8	419
122-66-7	Azobenzene	U	419	ug/kg	83.8	419
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	419	ug/kg	83.8	419
118-74-1	Hexachlorobenzene	U	419	ug/kg	83.8	419
85-01-8	Phenanthrene	U	41.9	ug/kg	12.6	41.9
120-12-7	Anthracene	U	41.9	ug/kg	8.38	41.9
84-74-2	Di-n-butylphthalate	U	419	ug/kg	83.8	419
206-44-0	Fluoranthene	U	41.9	ug/kg	12.6	41.9
85-68-7	Butylbenzylphthalate	U	419	ug/kg	83.8	419
56-55-3	Benzo(a)anthracene	U	41.9	ug/kg	12.6	41.9
91-94-1	3,3'-Dichlorobenzidine	U	419	ug/kg	126	419
218-01-9	Chrysene	U	41.9	ug/kg	12.6	41.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	419	ug/kg	83.8	419
117-84-0	Di-n-octylphthalate	U	419	ug/kg	83.8	419
205-99-2	Benzo(b)fluoranthene	U	41.9	ug/kg	12.6	41.9
207-08-9	Benzo(k)fluoranthene	U	41.9	ug/kg	12.6	41.9
50-32-8	Benzo(a)pyrene	U	41.9	ug/kg	12.6	41.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	41.9	ug/kg	12.6	41.9
53-70-3	Dibenzo(a,h)anthracene	U	41.9	ug/kg	12.6	41.9
191-24-2	Benzo(ghi)perylene	U	41.9	ug/kg	12.6	41.9
120-82-1	1,2,4-Trichlorobenzene	U	419	ug/kg	83.8	419

## Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.98	210	ug/kg		JA
7785-70-8	1R- $\alpha$ -Pinene	3.52	202	ug/kg	97	NJ



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

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506008	Date Received: 03/03/2010 08:50	%Moisture: 20.6
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7444	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 15:21	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.05 g	Final Volume: 1 mL
Data File: s5c2219.d	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
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.8	327	ug/kg	98	NJ
1058-61-3	Stigmast-4-en-3-one	8.42	350	ug/kg	97	NJ
58-22-0	Androst-4-en-3-one, 17-hydroxy-, (17.bet	8.45	223	ug/kg	92	NJ
	Unknown	9.14	181	ug/kg		J
6971-40-0	17-Pentatriacontene	9.44	209	ug/kg	93	NJ
34315-85-0	Naphthalene, decahydro-1,6-dimethyl-4-(1	9.91	464	ug/kg	83	NJ
	Unknown	9.93	239	ug/kg		J
5085-72-3	D:A-Friedooleanan-3-ol, (3.alpha.)-	9.95	539	ug/kg	87	NJ
629-96-9	1-Eicosanol	10.1	494	ug/kg	90	NJ
559-74-0	Friedelan-3-one	10.17	1850	ug/kg	99	NJ
	Unknown	10.85	274	ug/kg		J
56221-91-1	13-Tetradecen-1-ol acetate	10.89	176	ug/kg	96	NJ
112-95-8	Eicosane	11.85	224	ug/kg	96	NJ
2883-08-1	Cyclohexane, 1,1'-(2-methyl-1,3-propaned	11.92	326	ug/kg	86	NJ
	Unknown	12.1	758	ug/kg		J
	Unknown	12.87	287	ug/kg		J
	Unknown	12.99	260	ug/kg		J
	Unknown	13.17	181	ug/kg		J
	Unknown	13.35	256	ug/kg		J
83-46-5	.beta.-Sitosterol	13.87	784	ug/kg	96	NJ

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2219.d  
 Lab Smp Id: 248506008 Client Smp ID: RE36-10-7444  
 Inj Date : 22-MAR-2010 15:21  
 Operator : RMB Inst ID: MSD5.i  
 Smp Info : |248506008|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
 Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
 Als bottle: 19  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2193.sub  
 Target Version: 3.50  
 Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	20.57450	% 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	3.949	3.950	(1.000)	276174	40.0000
* 29 Naphthalene-d8	136	4.813	4.821	(1.000)	1050945	40.0000
* 46 Acenaphthene-d10	164	6.072	6.078	(1.000)	638386	40.0000
* 67 Phenanthrene-d10	188	7.248	7.253	(1.000)	1157209	40.0000
* 91 Chrysene-d12	240	9.666	9.670	(1.000)	1098115	40.0000
* 98 Perylene-d12	264	11.372	11.370	(1.000)	853775	40.0000
\$ 3 2-Fluorophenol	112	3.143	3.141	(0.796)	396091	57.4360 2410
\$ 5 Phenol-d5	99	3.666	3.666	(0.928)	517082	62.3847 2610
\$ 20 Nitrobenzene-d5	82	4.307	4.316	(0.895)	260447	33.3512 1400
\$ 39 2-Fluorobiphenyl	172	5.554	5.558	(0.915)	472309	29.6216 1240
\$ 60 2,4,6-Tribromophenol	329	6.672	6.675	(1.099)	158915	66.2766 2780
\$ 81 p-Terphenyl-d14	244	8.631	8.630	(0.893)	607233	33.2434 1390

## ION RATIO REPORT

## SV REPORT

Data file: s5c2219.d

Report Date: 03/23/2010 07:02

Lab. ID: 248506008

SampleType: SAMPLE

Injection Date: 22-MAR-2010 15:21

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506008|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	35426	3.67	3.74	80-120	100	(T)
93	1856	3.63	3.74	219-279	5	(QT)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	35811	4.31	4.19	80-120	100	(T)
42	22166	4.31	4.19	44-104	62	(T)
-----						
27 Benzoic acid		CAS#: 65-85-0				
105	4160	4.55	4.59	80-120	100	( )
122	2166	4.55	4.59	45-105	52	( )
77	2992	4.55	4.59	48-108	72	( )
-----						
43 Dimethylphthalate		CAS#: 131-11-3				
163	114992	6.07	5.84	80-120	100	(T)
164	638386	6.07	5.84	0- 40	555	(QT)
-----						
44 2,6-Dinitrotoluene		CAS#: 606-20-2				
165	84274	6.07	5.90	80-120	100	(T)
63	3052	6.08	5.89	62-122	4	(QT)
-----						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	84274	6.07	6.19	80-120	100	(T)
89	4898	6.08	6.19	51-111	6	(QT)
63	3122	6.08	6.19	24- 84	4	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
52 4-Nitrophenol		CAS#: 100-02-7				
139	266	6.13	6.12	80-120	100	( )
109	731	6.18	6.12	63-123	275	(QT)
65	1380	6.13	6.11	71-131	519	(Q)
-----						
53 Fluorene		CAS#: 86-73-7				
166	6538	6.67	6.49	80-120	100	(T)
165	7287	6.67	6.49	62-122	111	(T)
167	3025	6.67	6.49	0- 44	46	(QT)
-----						
55 2-Methyl-4,6-dinitrophenol		CAS#: 534-52-1				
198	894	6.67	6.51	80-120	100	(T)
105	2314	6.67	6.50	13- 73	259	(QT)
51	1202	6.67	6.50	51-111	134	(QT)

-----

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2219.d  
 Lab Smp Id: 248506008 Client Smp ID: RE36-10-7444  
 Inj Date : 22-MAR-2010 15:21  
 Operator : RMB Inst ID: MSD5.i  
 Smp Info : |248506008|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
 Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
 Als bottle: 19  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2193.sub  
 Target Version: 3.50  
 Processing Host: kilroy

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

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	20.57450	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.949	1914842	40.000
* 46 Acenaphthene-d10	6.072	2964643	40.000
* 67 Phenanthrene-d10	7.248	3040803	40.000
* 91 Chrysene-d12	9.666	3316902	40.000
* 98 Perylene-d12	11.372	2254998	40.000

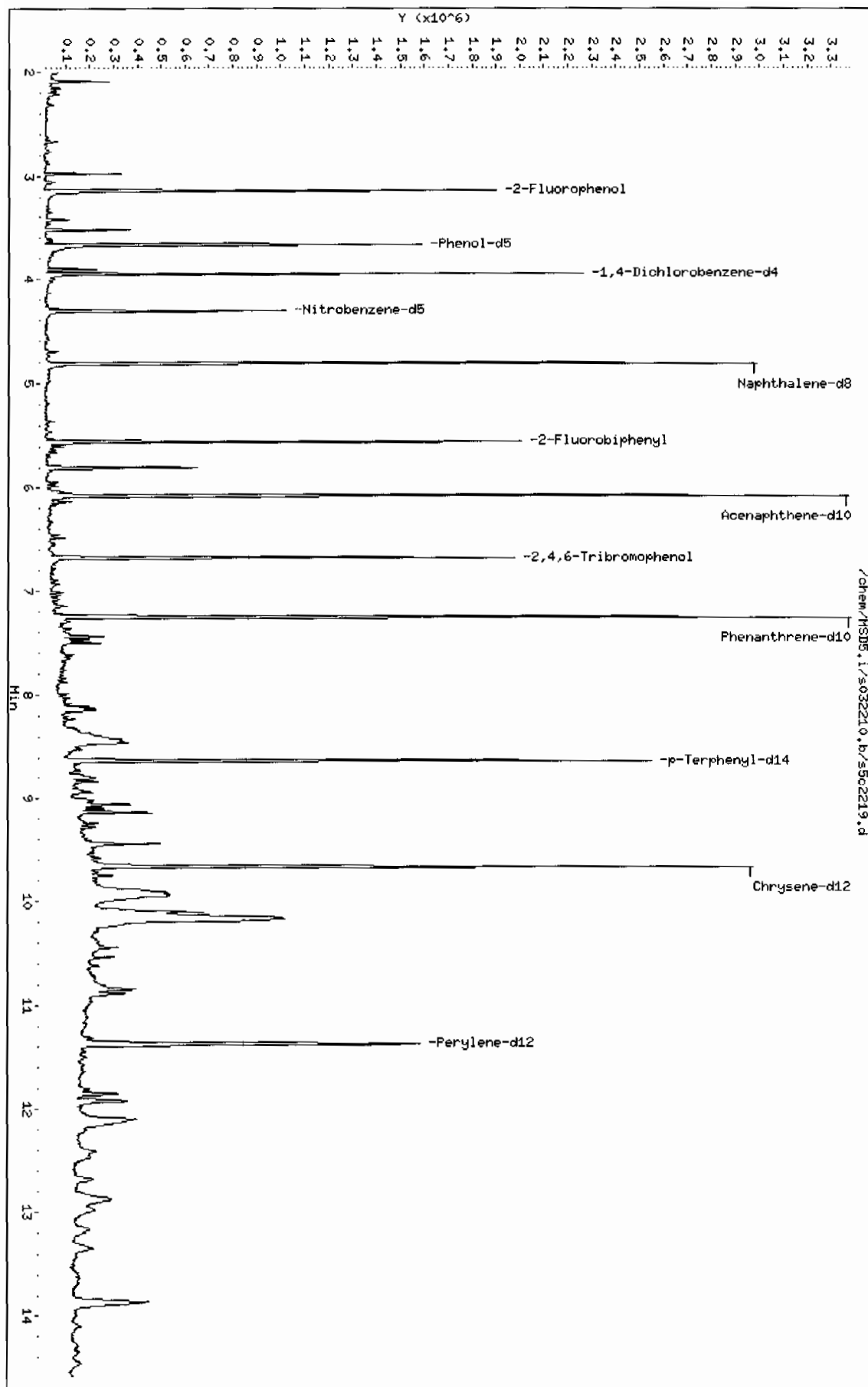
CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

RT	CONCENTRATIONS				QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)			LIBRARY	LIB ENTRY	
Unknown Aldol Condensate						CAS #:		
2.978	239746	5.00816866	210	0			0	10
1R-.alpha.-Pinene						CAS #: 7785-70-8		
3.519	230523	4.81549791	202	97	NIST05.L	15188		10
1,4-Methanoazulene, decahydro-4,8,8-trim						CAS #: 475-20-7		
5.801	579205	7.81483758	327	98	NIST05.L	60023		46
Stigmast-4-en-3-one						CAS #: 1058-61-3		
8.425	635588	8.36079346	350	97	NIST05.L	173936		67
Androst-4-en-3-one, 17-hydroxy-, (17.bet						CAS #: 58-22-0		
8.454	405431	5.33320364	223	92	NIST05.L	117325		67
Unknown						CAS #:		
9.136	357747	4.31422579	181	0			0	91
17-Pentatriacontene						CAS #: 6971-40-0		
9.442	414409	4.99754673	209	93	NIST05.L	183898		91
Naphthalene, decahydro-1,6-dimethyl-4-(1						CAS #: 34315-85-0		
9.913	917606	11.0658146	464	83	NIST05.L	63064		91
Unknown						CAS #:		
9.930	472370	5.69652494	239	0			0	91
D:A-Friedooleanan-3-ol, (3.alpha.)-						CAS #: 5085-72-3		
9.948	1066456	12.8608641	539	87	NIST05.L	176947		91
1-Eicosanol						CAS #: 629-96-9		
10.101	978179	11.7962977	494	90	NIST05.L	123792		91
Friedelan-3-one						CAS #: 559-74-0		
10.172	3666197	44.2122960	1850	99	NIST05.L	176566		91
Unknown						CAS #:		
10.848	368853	6.54284353	274	0			0	98
13-Tetradecen-1-ol acetate						CAS #: 56221-91-1		
10.889	236671	4.19816592	176	96	NIST05.L	94752		98
Eicosane						CAS #: 112-95-8		
11.848	301658	5.35091969	224	96	NIST05.L	113488		98

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	L1B ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
Cyclohexane, 1,1'-(2-methyl-1,3-propanediol)				CAS #: 2883-08-1			
11.919	438622	7.78044081	326	86	NIST05.L	73082	98
Unknown				CAS #:			
12.095	1019707	18.0879395	758	0		0	98
Unknown				CAS #:			
12.871	386494	6.85577025	287	0		0	98
Unknown				CAS #:			
12.989	349678	6.20272286	260	0		0	98
Unknown				CAS #:			
13.171	243390	4.31733512	181	0		0	98
Unknown				CAS #:			
13.348	345095	6.12143100	256	0		0	98
.beta.-Sitosterol				CAS #: 83-46-5			
13.866	1054947	18.7130502	784	96	NIST05.L	174400	98

Data File: /chem/MSDS.i/s032210.b/s0c2219.d  
 Date: 22-MAR-2010 15:21  
 Client ID: RE36-10-7444  
 Sample Info: 1248506008196308611SVH11LNL  
 Volume Injected (uL): 0.5  
 Column Phase: J&W DB-5MS

Instrument: MSD5.i  
 Operator: RHB  
 Column diameter: 0.20





Date : 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: MSD5.i

Sample Info: I2485060081963086111SVMI11LANL

Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

## Library Search Compound Match

Unknown Aldol Condensate

2-Pentanone, 4-hydroxy-4-methyl-

CAS Number

Library

Entry

Quality

Formula

Weight

123-42-2

NIST05.L

7952

72

C6H12O2

116

2-Pentanone, 4-hydroxy-4-methyl-

123-42-2

NIST05.L

7951

45

C6H12O2

116

2,3-Butanedione, monooxime

57-71-6

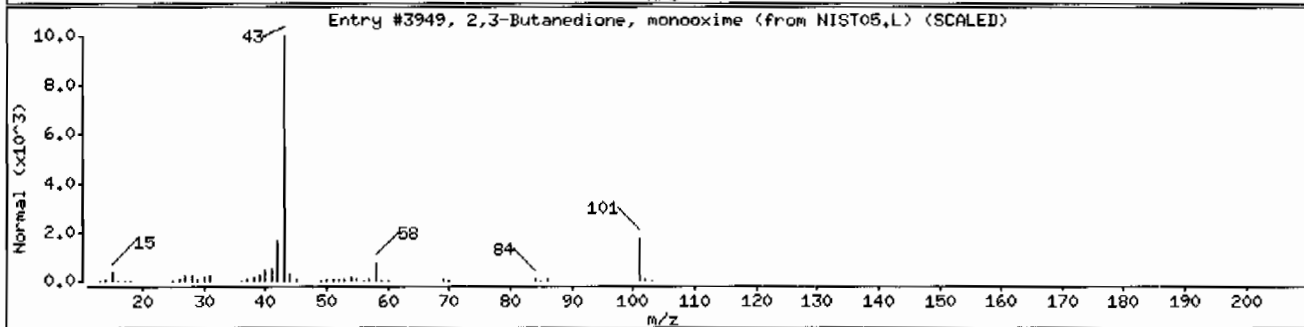
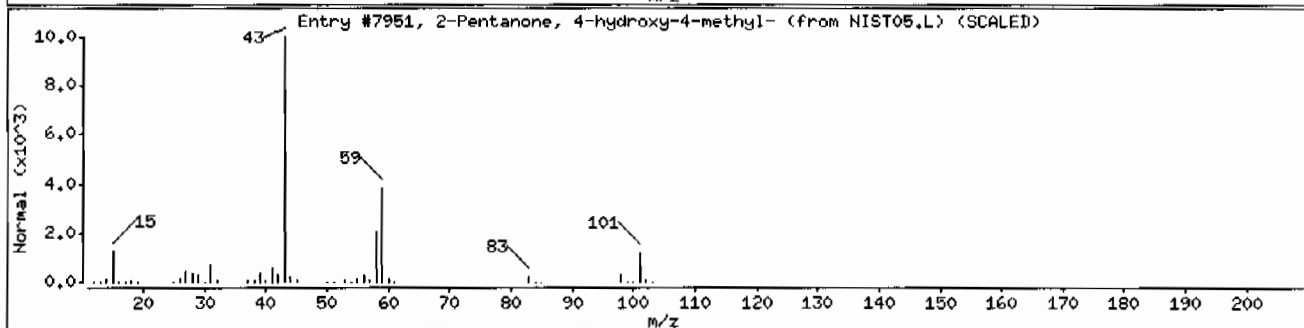
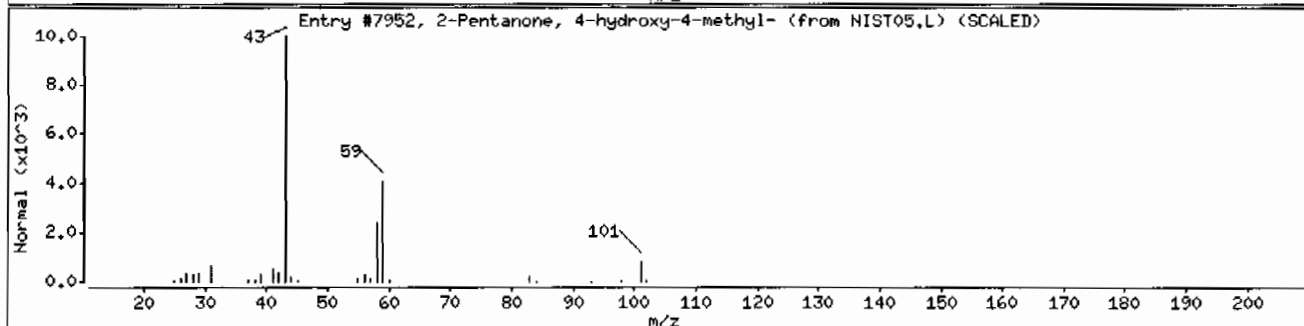
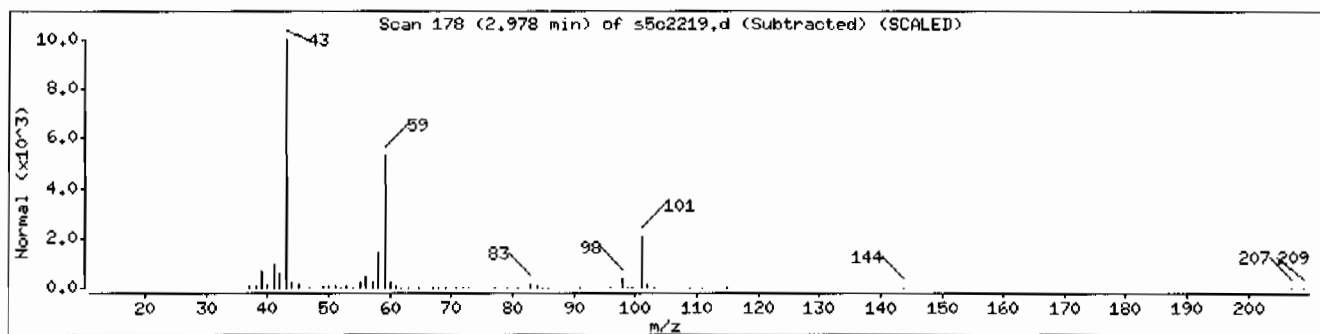
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3949

38

C4H7NO2

101



Date : 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: HSD5.i

Sample Info: I248506008I963086I1ISVM11ILANL

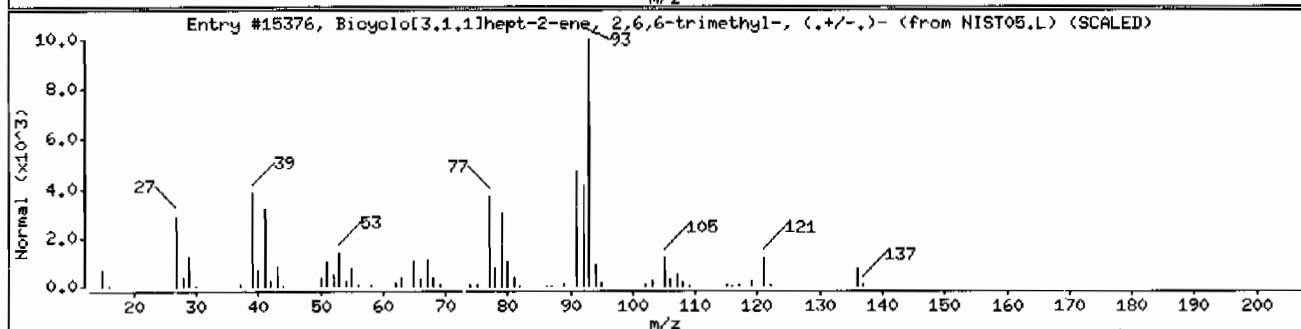
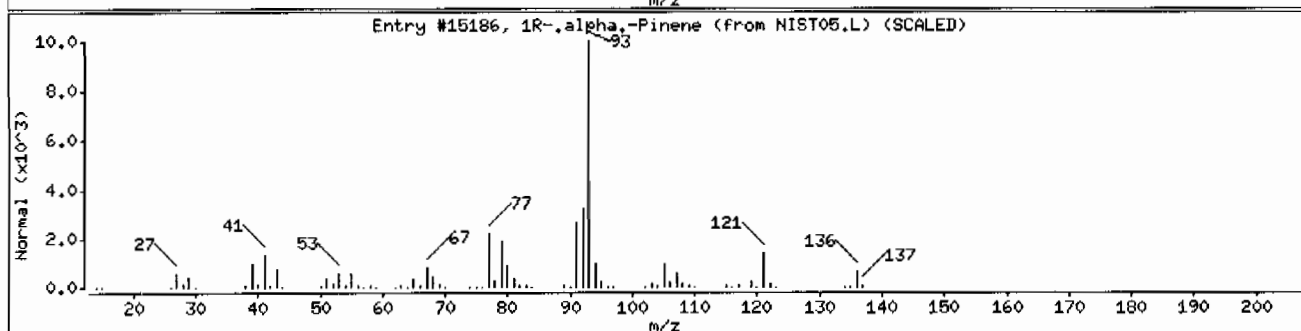
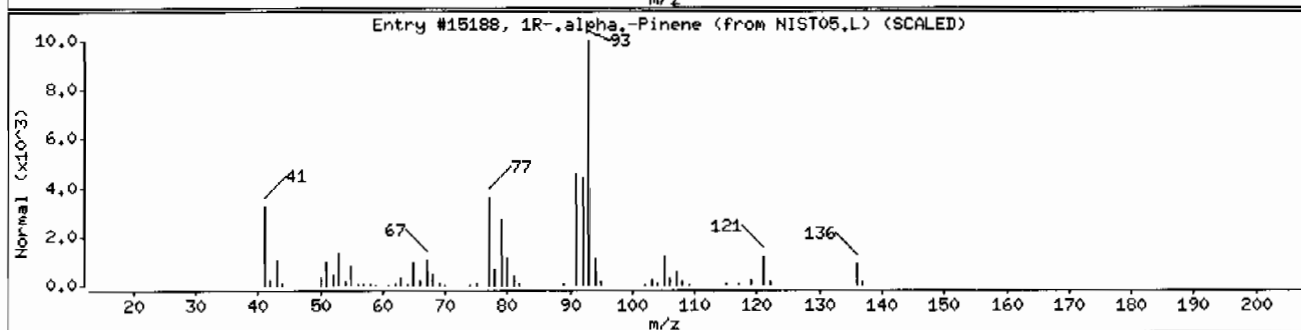
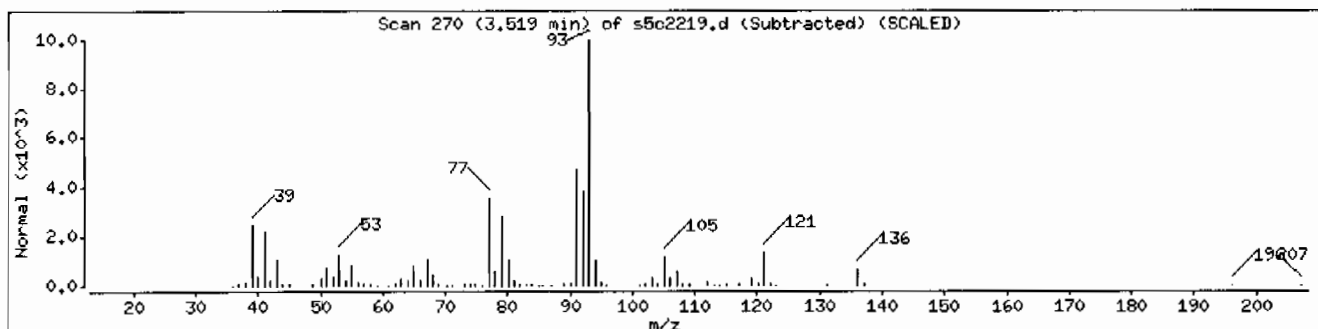
Volume Injected (uL): 0.5

Operator: RMB

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
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl	2437-95-8	NIST05.L	15376	95	C10H16	136



Date : 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: MSD5.i

Sample Info: 1248506008196308611SVMI11LANL

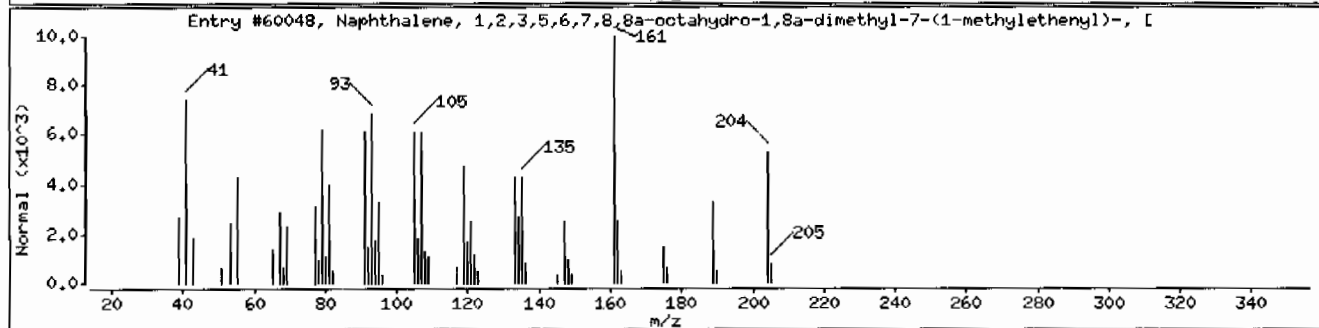
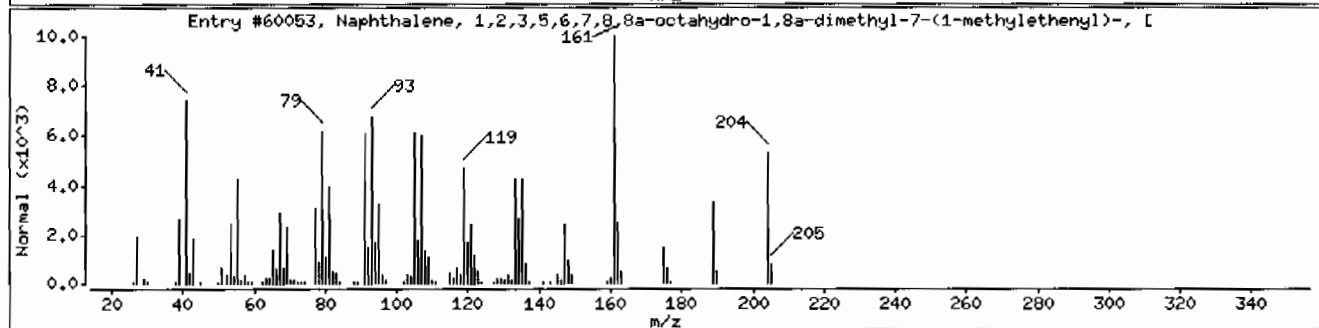
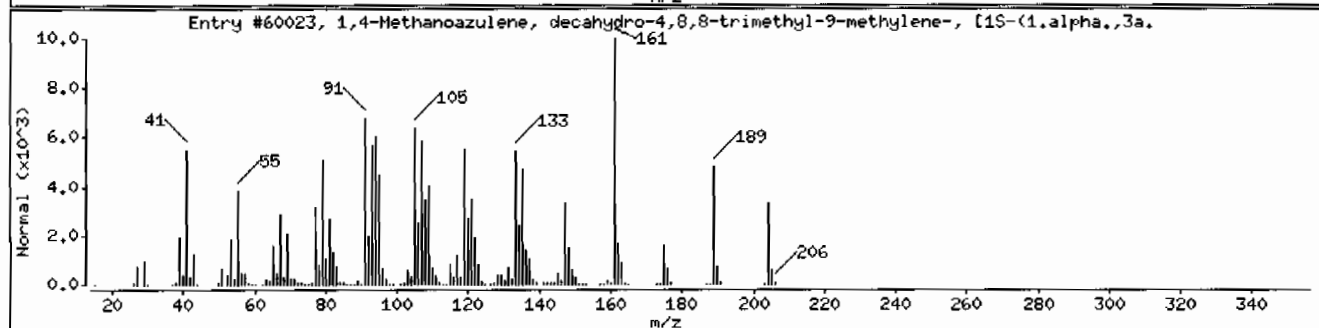
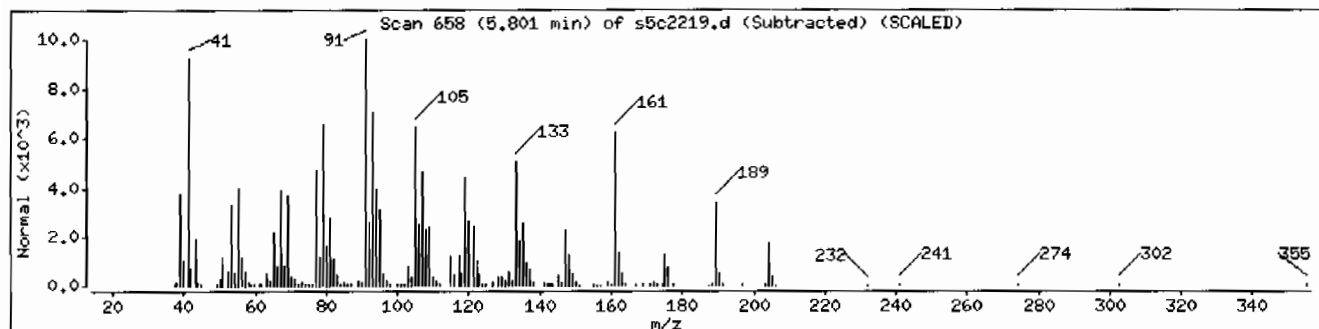
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60023	98	C <sub>15</sub> H <sub>24</sub>	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	10219-75-7	NIST05.L	60053	97	C <sub>15</sub> H <sub>24</sub>	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60048	97	C <sub>15</sub> H <sub>24</sub>	204



Date: 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: MSD5.i

Sample Info: 12485060081963086111SVH111LANL

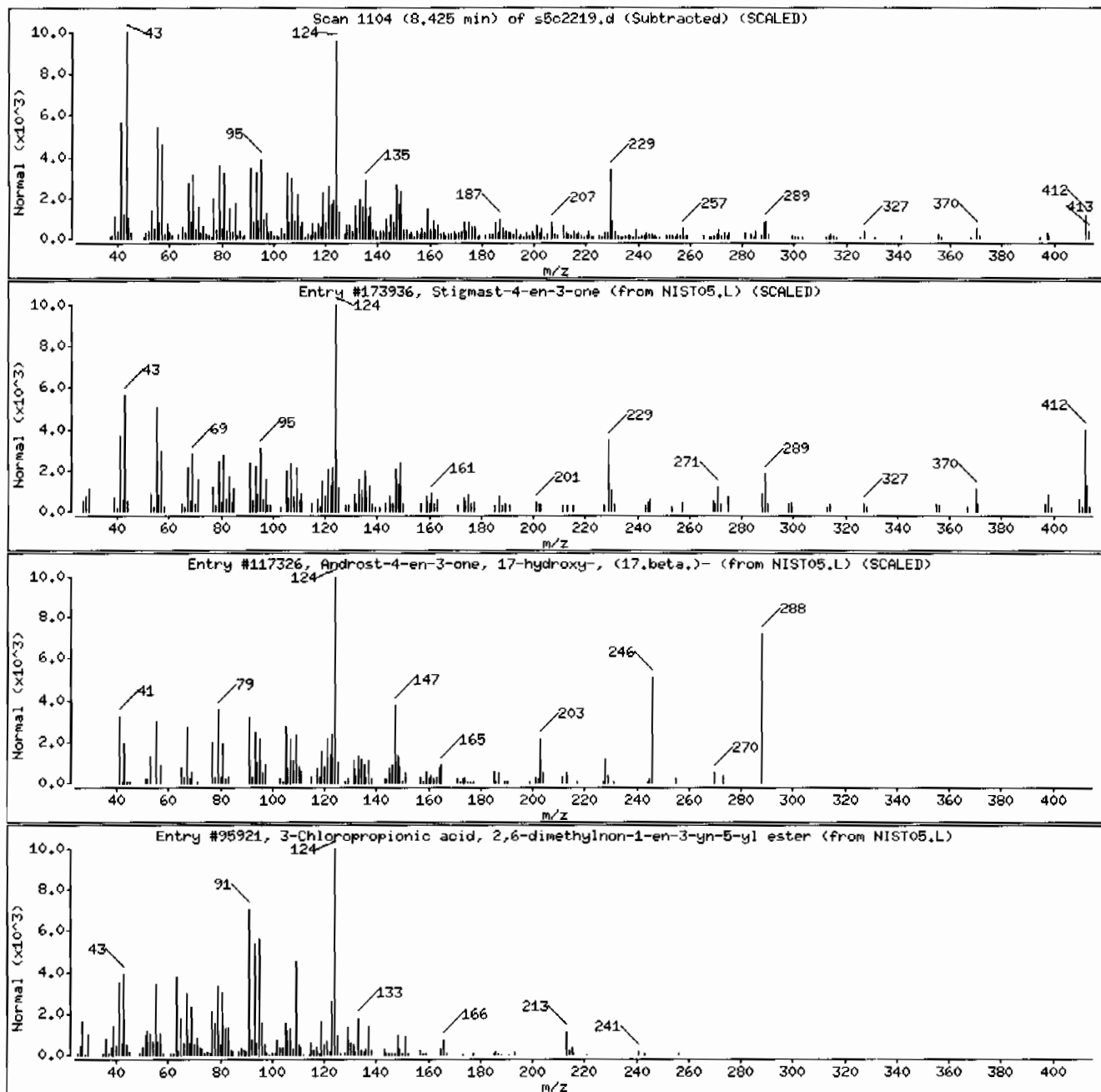
Volume Injected (uL): 0.5

Operator: RMB

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	97	C29H48O	412
Androst-4-en-3-one, 17-hydroxy-, (17,bet	58-22-0	NIST05.L	117326	70	C19H28O2	288
3-Chloropropionic acid, 2,6-dimethylnon-	1000299-21-8	NIST05.L	95921	42	C14H21ClO2	256



Date : 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: HSD5.i

Sample Info: 12485060081963086111SVH111LANL

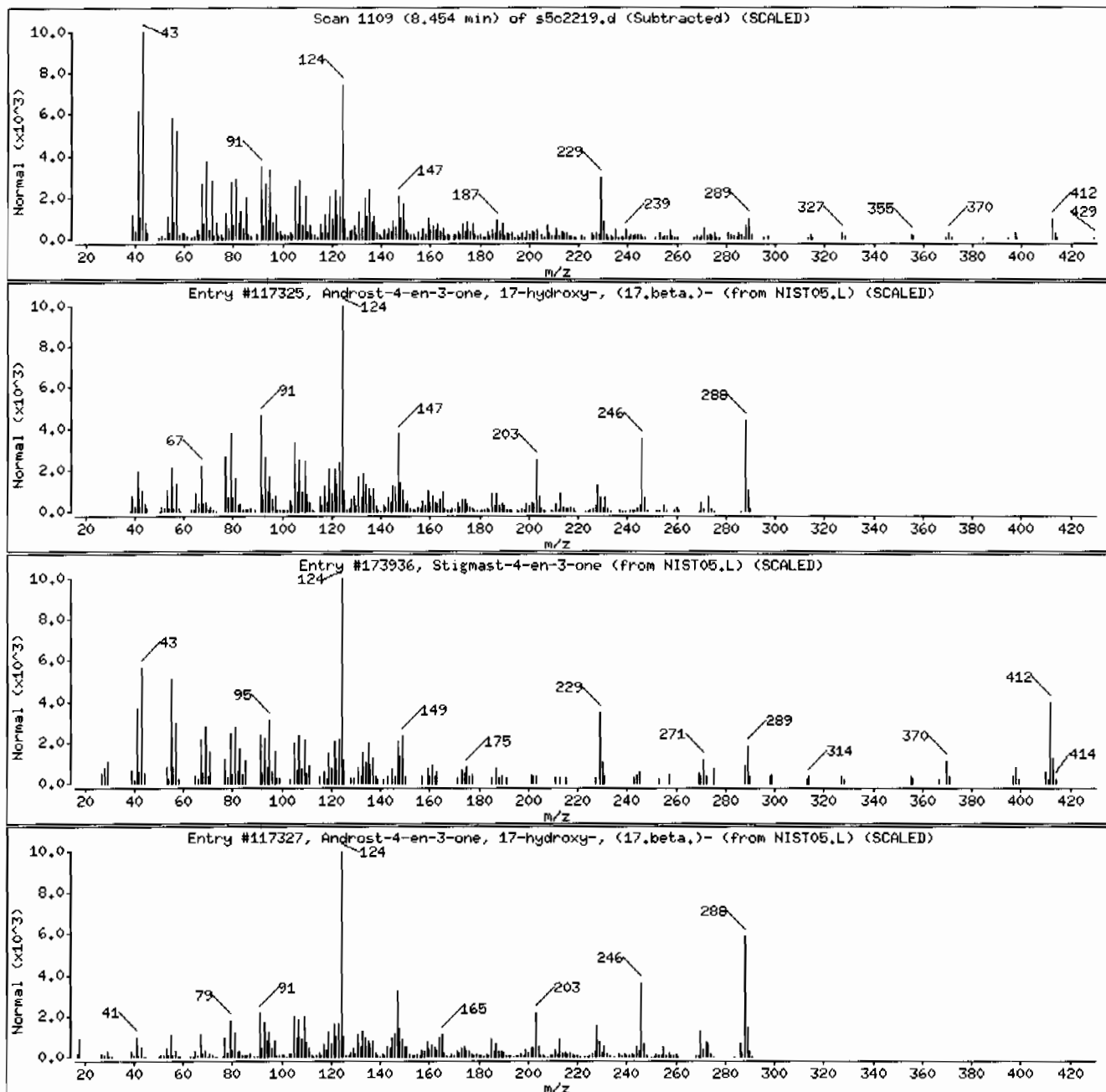
Volume Injected (uL): 0.5

Operator: RMB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117325	92	C19H28O2	288
Stigmast-4-en-3-one	1058-61-3	NIST05.L	173936	89	C29H48O	412
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117327	64	C19H28O2	288



Date: 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: MSD5.1

Sample Info: 1248506008196308611SVMI1ILANL

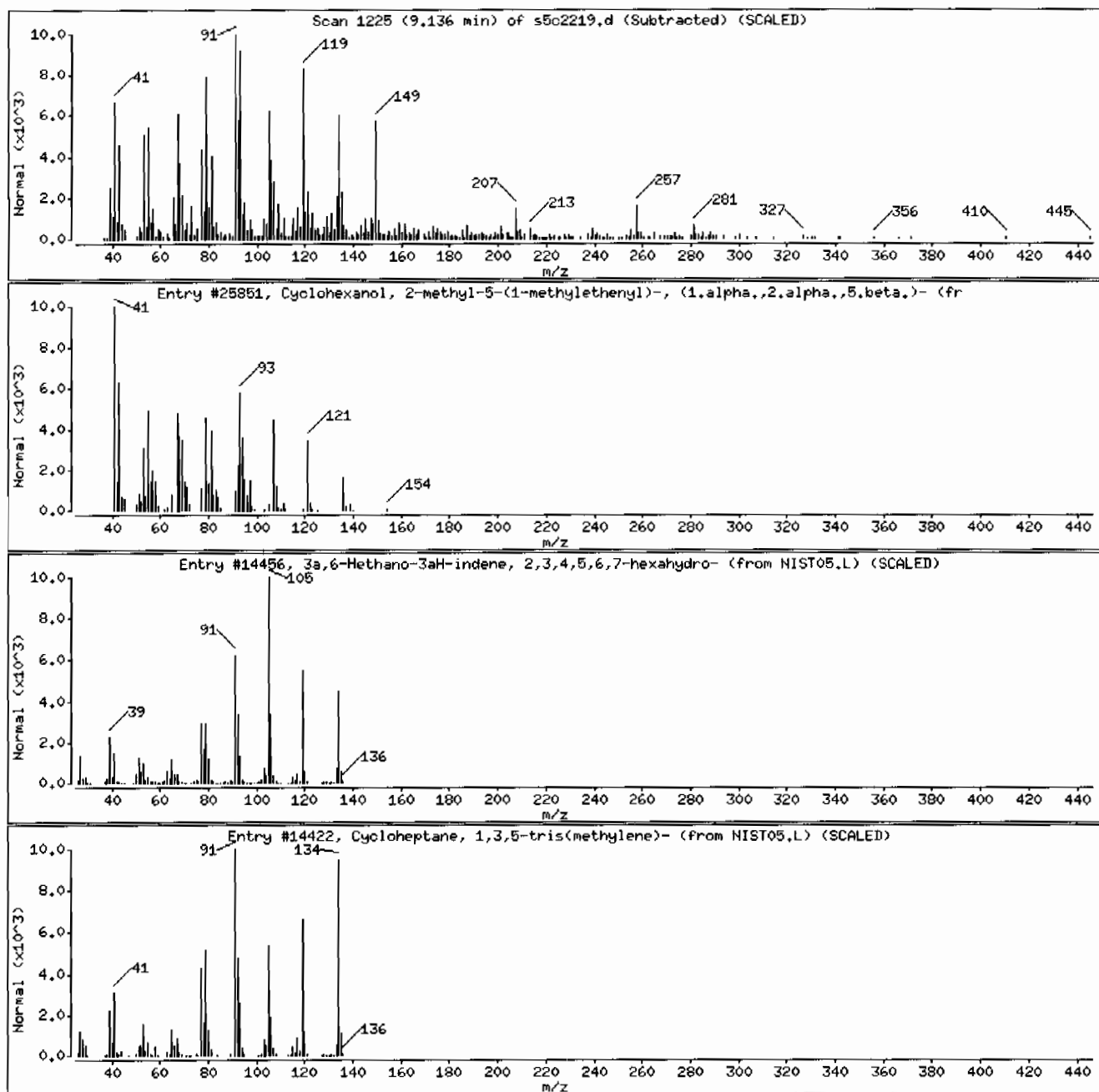
Volume Injected (uL): 0.5

Operator: RHB

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

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexanol, 2-methyl-5-(1-methylethenyl)	18675-33-7	NIST05.L	25851	46	C10H18O	154
3a,6-Methano-3aH-indene, 2,3,4,5,6,7-hex	98640-10-9	NIST05.L	14456	42	C10H14	134
Cycloheptane, 1,3,5-tris(methylene)-	68284-24-2	NIST05.L	14422	42	C10H14	134



Date : 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: MSD5.i

Sample Info: 12485060081963086111SVM111LANL

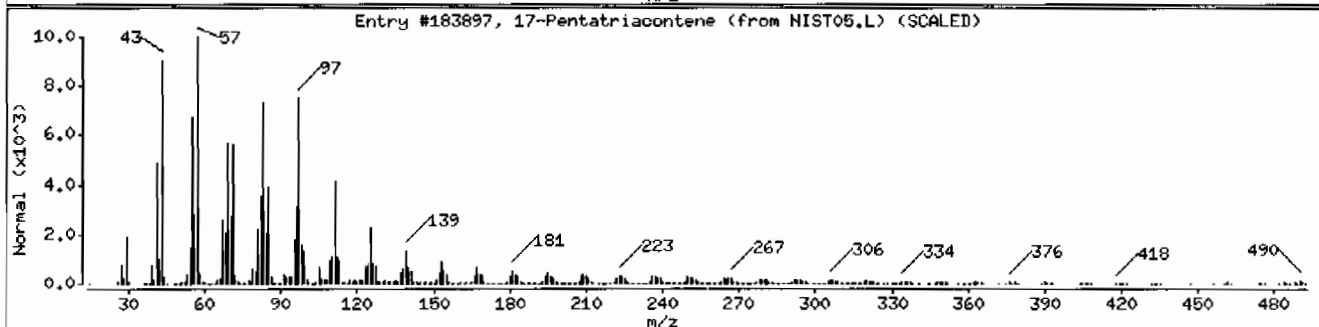
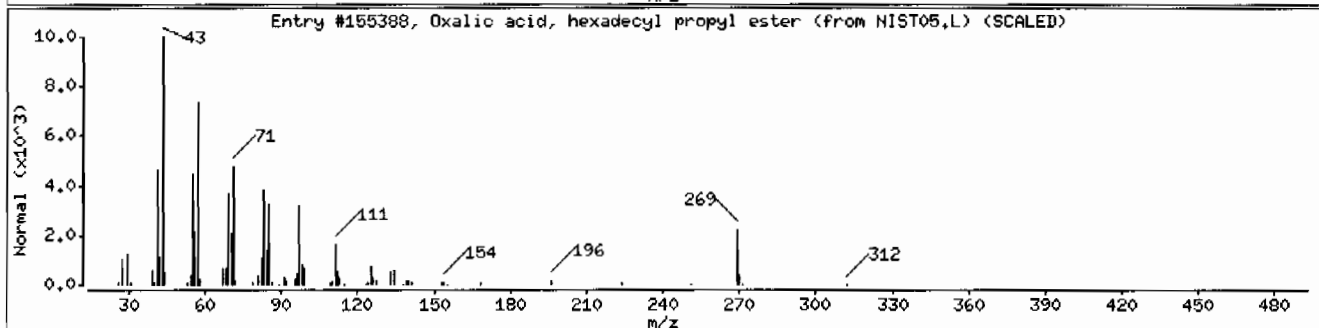
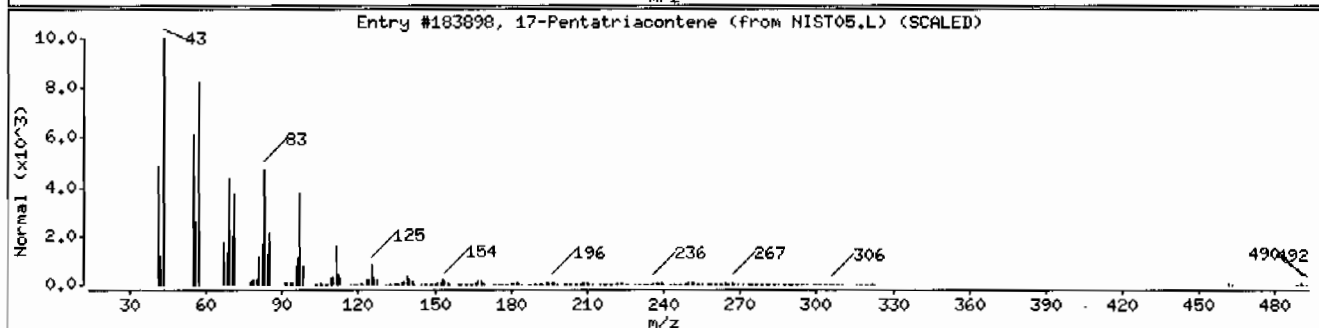
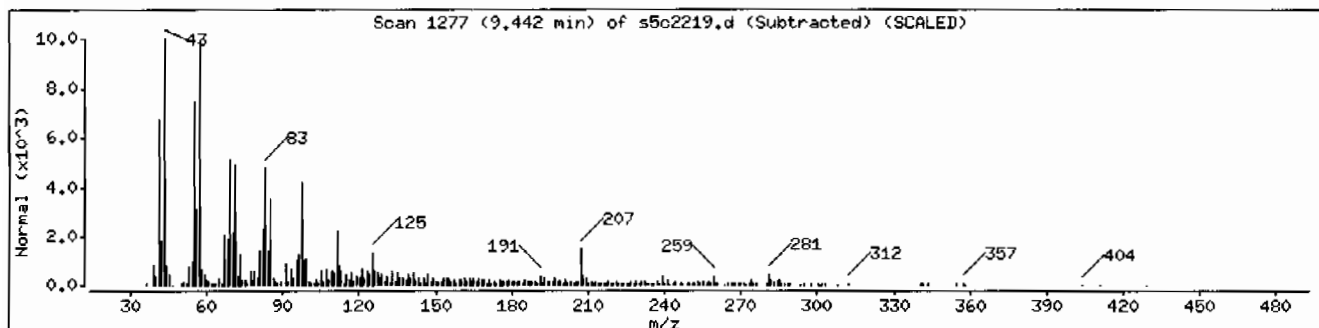
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
17-Pentatriacontene	6971-40-0	NIST05.L	183898	93	C35H70	491
Oxalic acid, hexadecyl propyl ester	1000309-26-9	NIST05.L	155388	90	C21H40O4	356
17-Pentatriacontene	6971-40-0	NIST05.L	183897	90	C35H70	491



Date : 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: MSD5.i

Sample Info: I2485060081963086111SVH111LANL

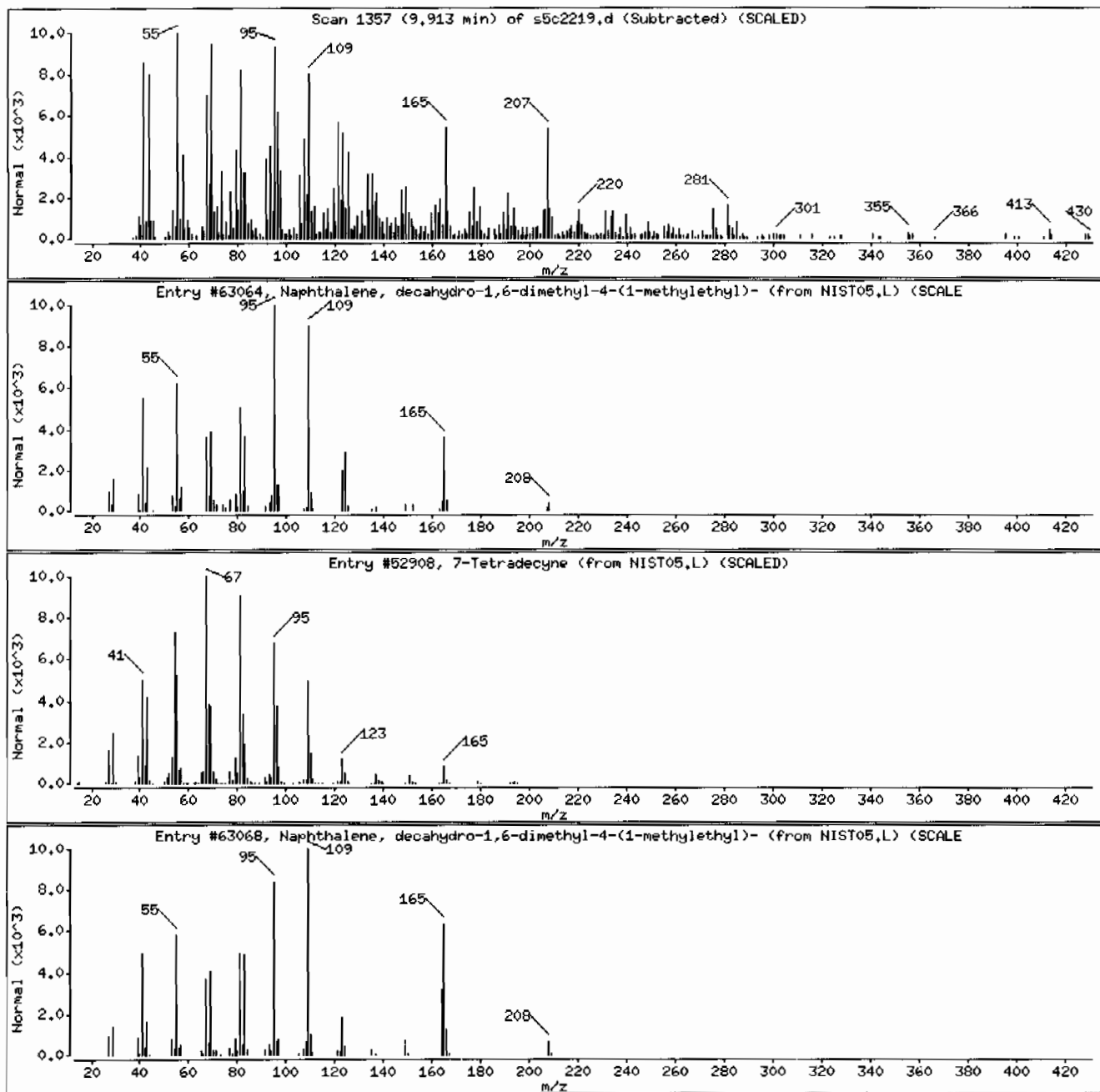
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, decahydro-1,6-dimethyl-4-(1	34315-85-0	NIST05.L	63064	83	C15H28	208
7-Tetradecyne	35216-11-6	NIST05.L	52908	55	C14H26	194
Naphthalene, decahydro-1,6-dimethyl-4-(1	29788-41-8	NIST05.L	63068	55	C15H28	208





Date : 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: HSD5.i

Sample Info: I248506008I963086I1ISVHI1ILANL

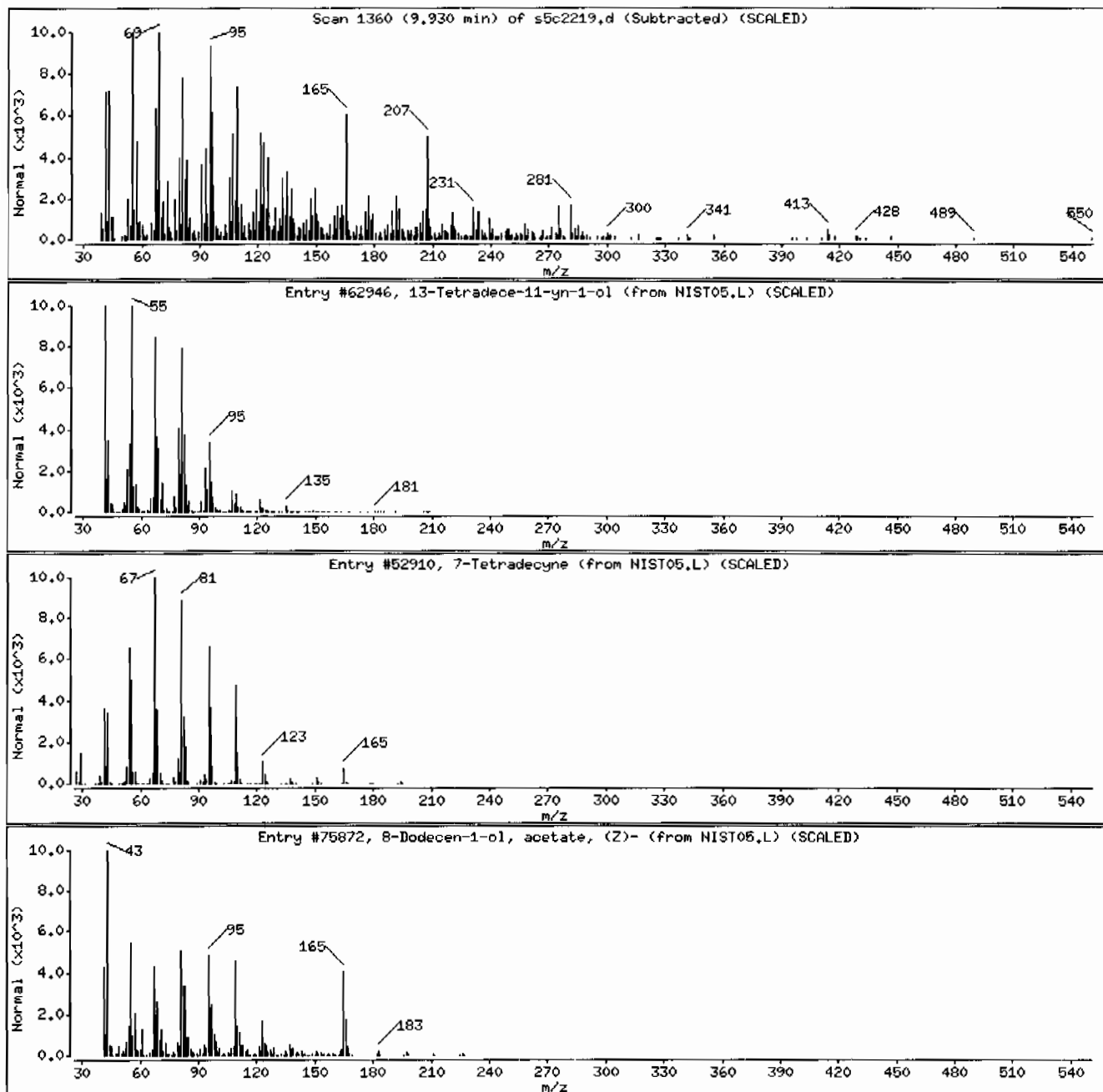
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
13-Tetradecene-11-yn-1-ol	1000131-00-4	NIST05.L	62946	60	C14H24O	208
7-Tetradecyne	35216-11-6	NIST05.L	52910	55	C14H26	194
8-Dodecen-1-ol, acetate, (Z)-	28079-04-1	NIST05.L	75872	47	C14H26O2	226



Date: 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: MSD5.i

Sample Info: I248506008I963086I1ISVMH11LANL

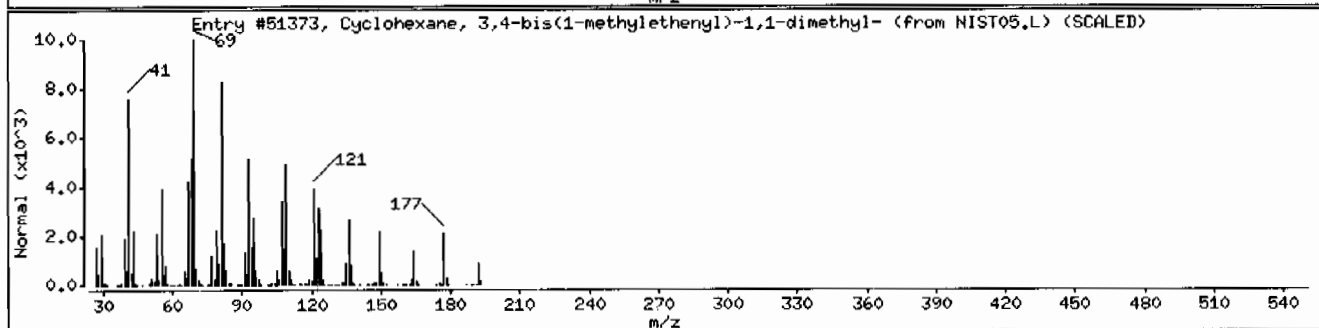
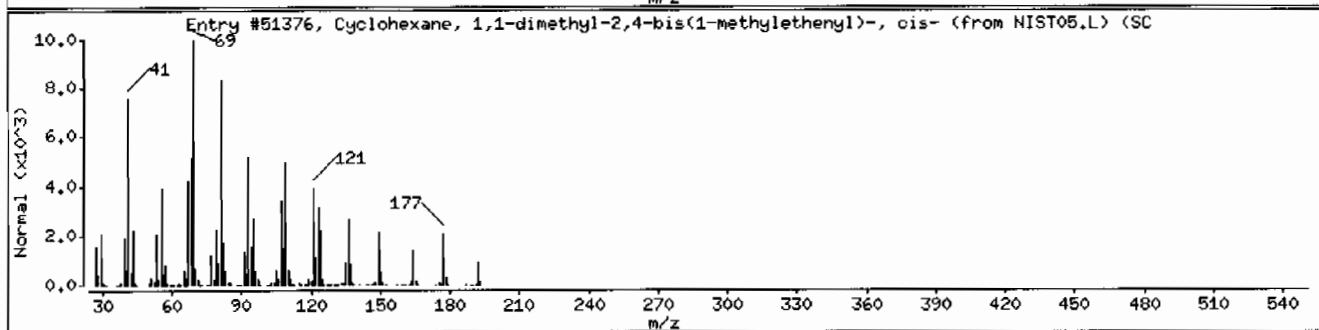
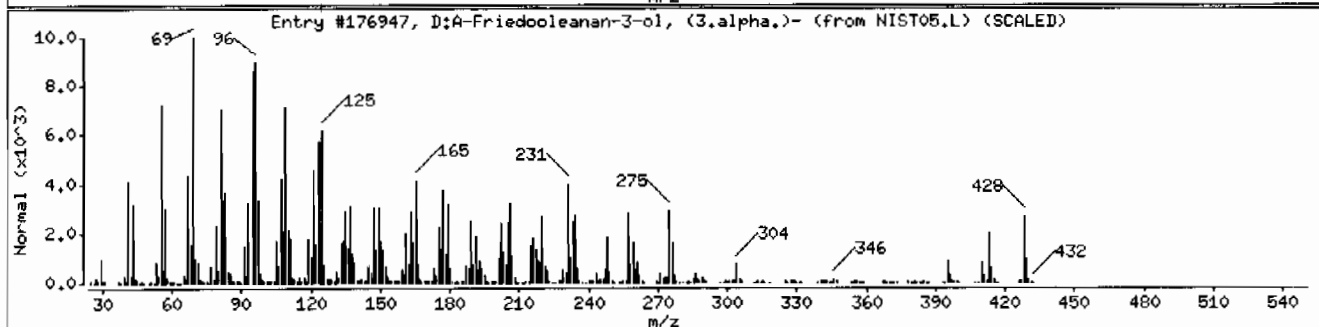
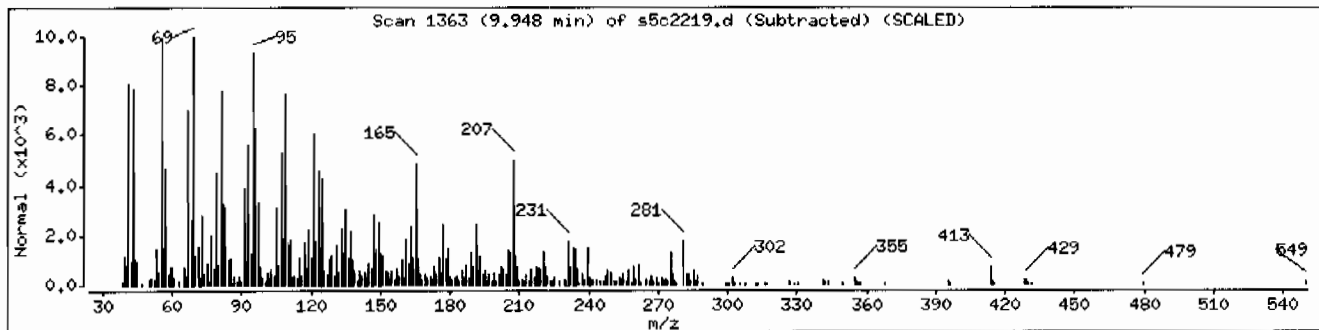
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
D:A-Friedooleanan-3-ol, (3.alpha.)-	5085-72-3	NIST05.L	176947	87	C30H52O	428
Cyclohexane, 1,1-dimethyl-2,4-bis(1-meth	62337-98-8	NIST05.L	51376	78	C14H24	192
Cyclohexane, 3,4-bis(1-methylethenyl)-1,	61142-74-3	NIST05.L	51373	78	C14H24	192



Date : 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: MSD5.i

Sample Info: 12485060081963086111SVH111LANL

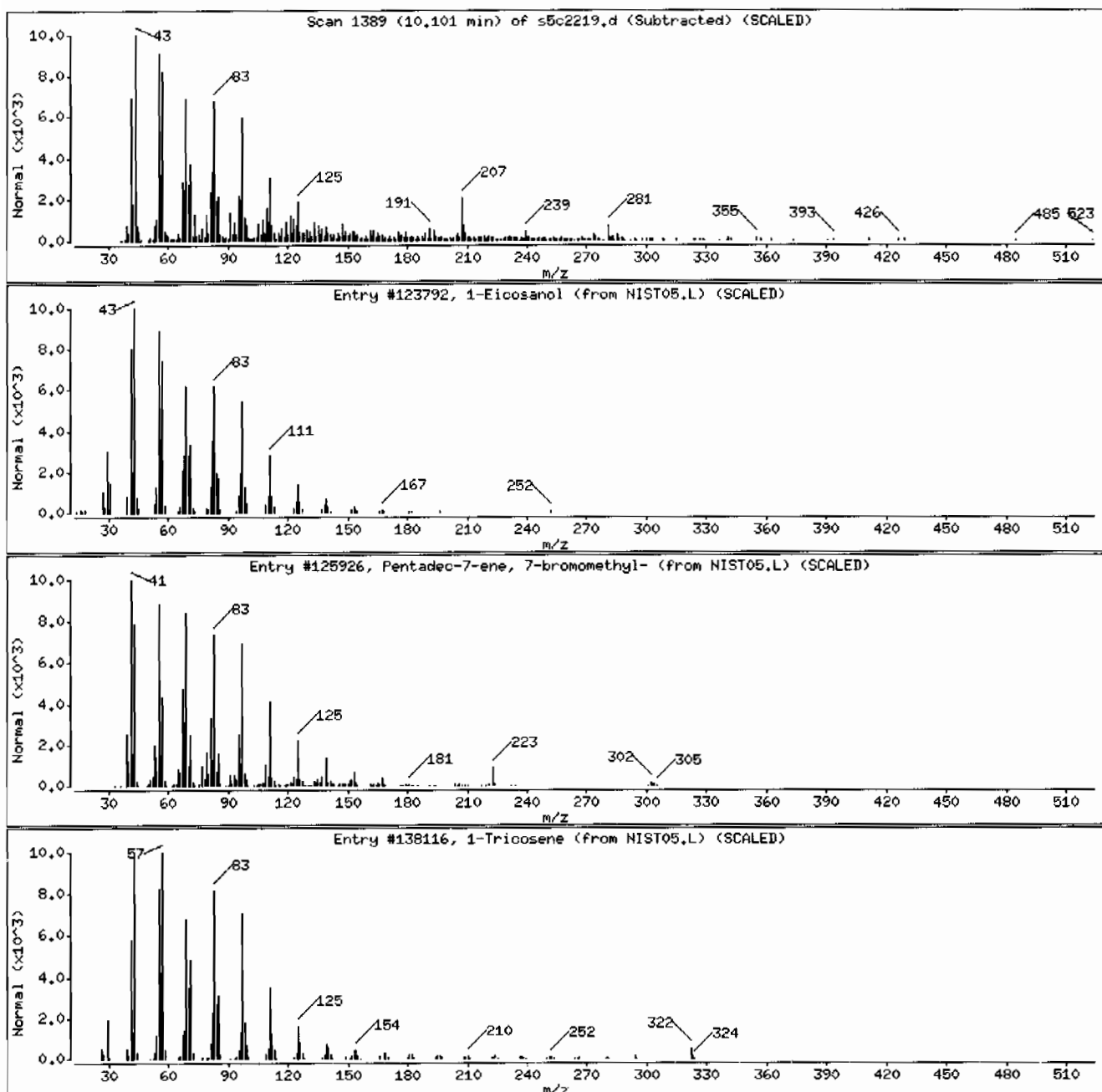
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Eicosanol	629-96-9	NIST05.L	123792	90	C <sub>20</sub> H <sub>42</sub> O	298
Pentadec-7-ene, 7-bromomethyl-	1000259-58-5	NIST05.L	125926	86	C <sub>16</sub> H <sub>31</sub> Br	302
1-Tricosene	18835-32-0	NIST05.L	138116	64	C <sub>23</sub> H <sub>46</sub>	322



Date : 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: MSD5.i

Sample Info: 12485060081963086111SVMI11LANL

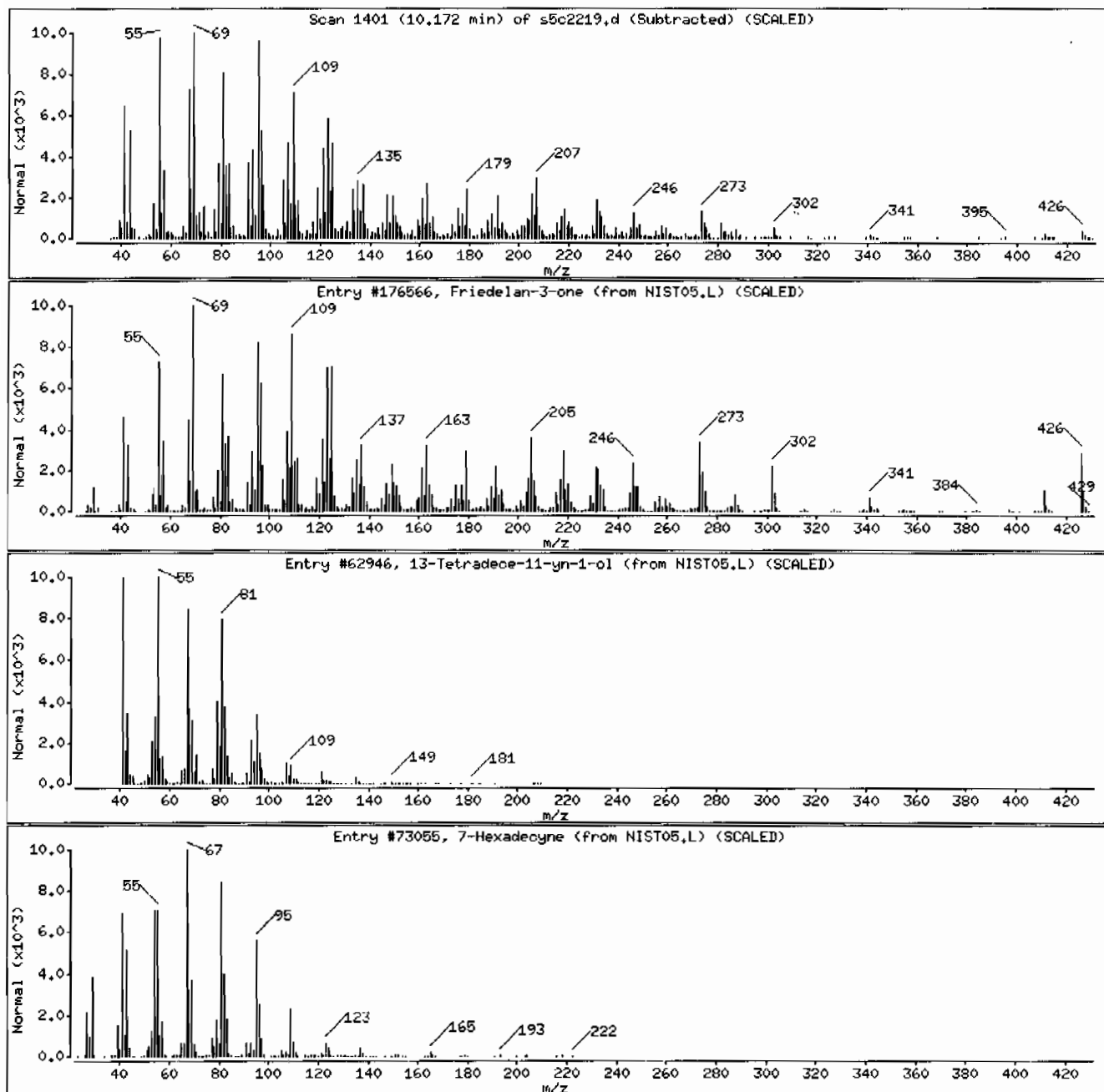
Volume Injected (uL): 0.5

Operator: RMB

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	99	C30H50O	426
13-Tetradecene-11-yn-1-ol	1000131-00-4	NIST05.L	62946	64	C14H24O	208
7-Hexadecyne	74685-28-2	NIST05.L	73055	55	C16H30	222



Date : 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: HSD5.i

Sample Info: 12485060081963086111SVH111LANL

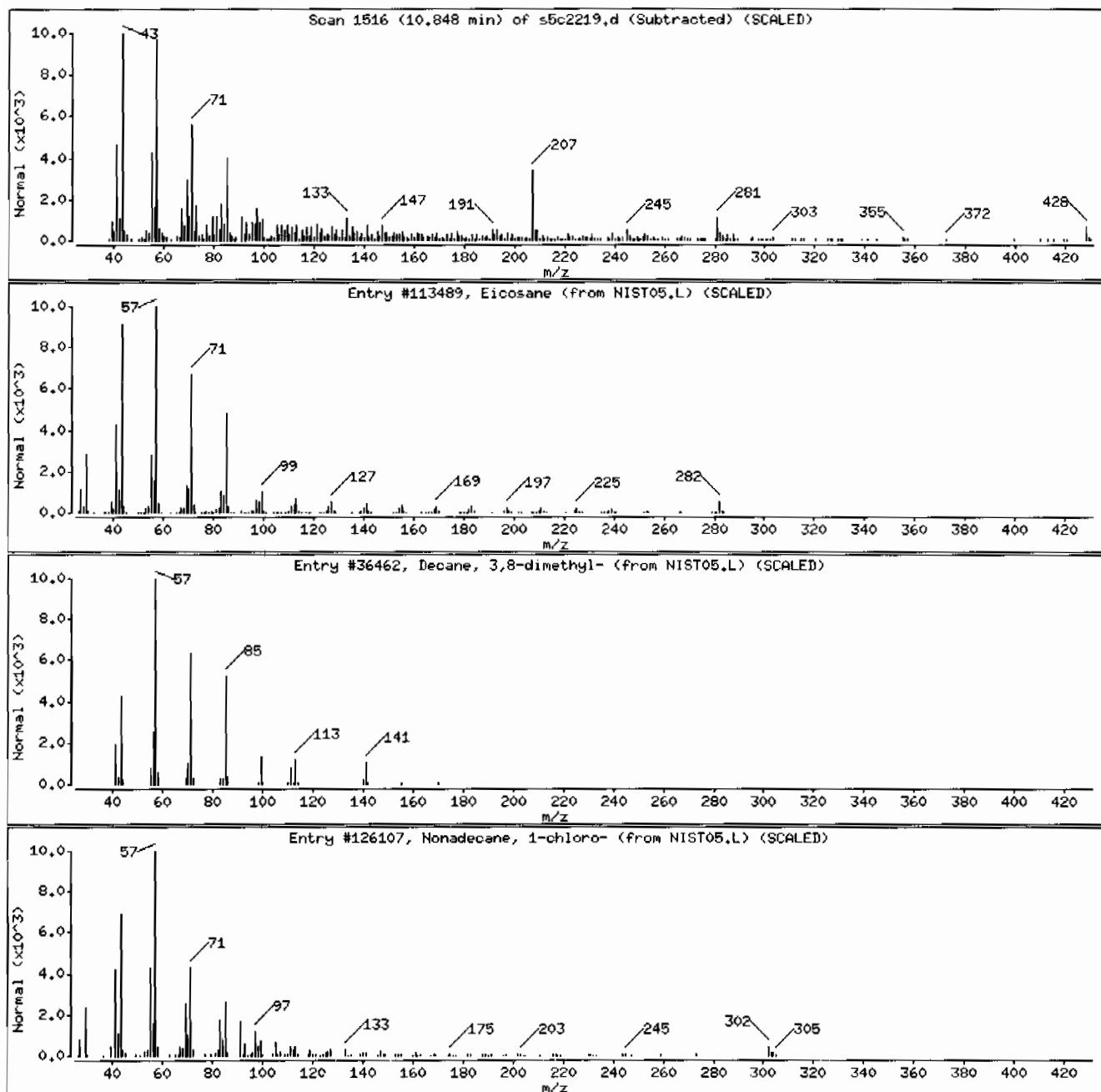
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Eicosane	112-95-8	NIST05.L	113489	91	C20H42	282
Decane, 3,8-dimethyl-	17312-55-9	NIST05.L	36462	90	C12H26	170
Nonadecane, 1-chloro-	62016-76-6	NIST05.L	126107	86	C19H39Cl	302



Date : 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: MSD5.i

Sample Info: I248506008I963086I1ISVM11ILANL

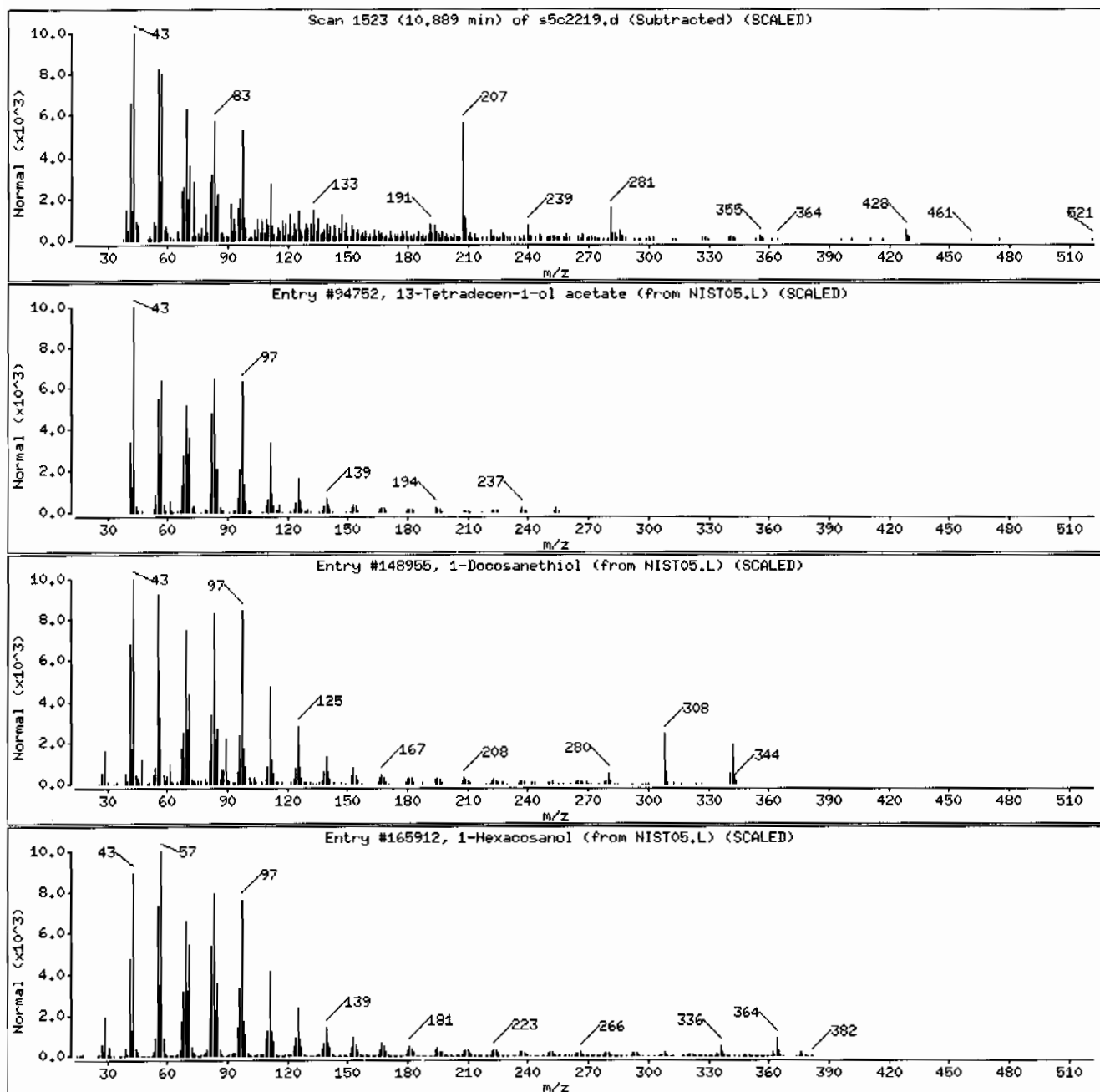
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
13-Tetradecen-1-ol acetate	56221-91-1	NIST05.L	94752	96	C16H30O2	254
1-Docosanethiol	7773-83-3	NIST05.L	148955	90	C22H46S	342
1-Hexacosanol	506-52-5	NIST05.L	165912	78	C26H54O	382



Date : 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: MSD5.i

Sample Info: 12485060081963086111SVH111LANL

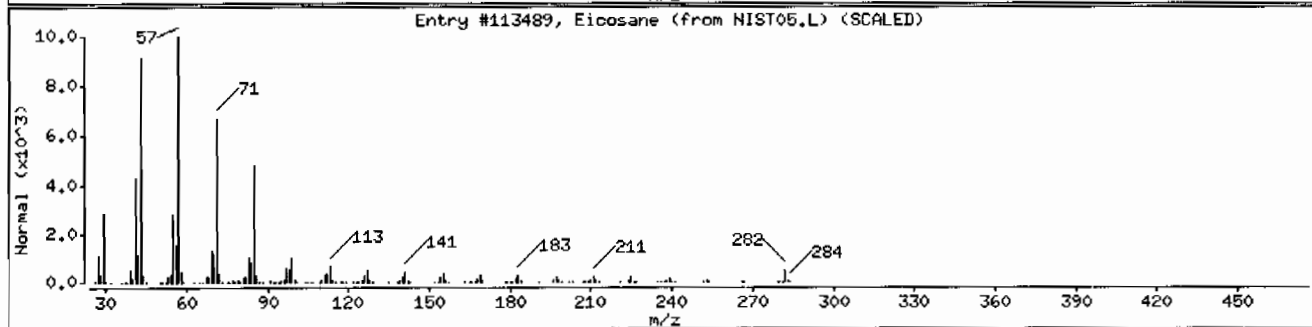
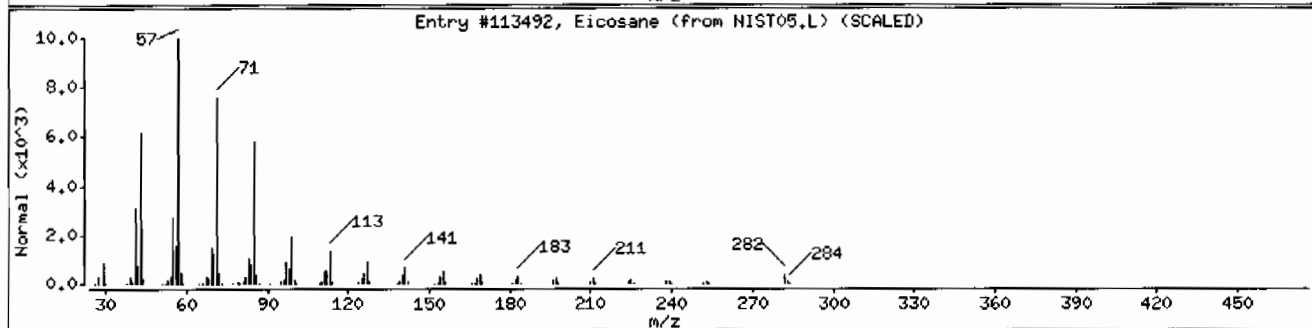
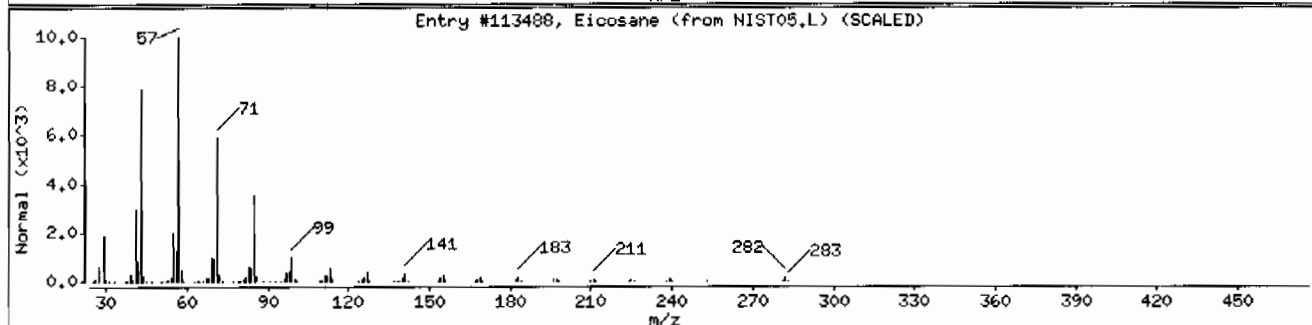
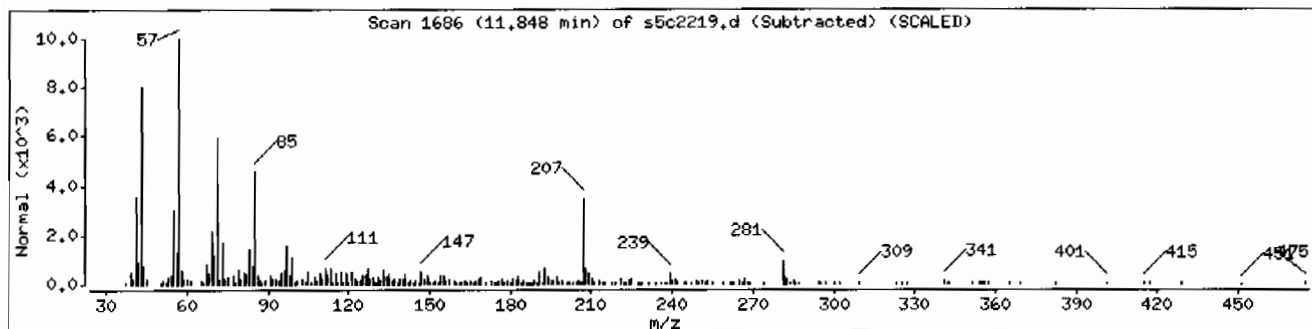
Volume Injected (uL): 0.5

Operator: RMB

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	113488	96	C20H42	282
Eicosane	112-95-8	NIST05.L	113492	95	C20H42	282
Eicosane	112-95-8	NIST05.L	113489	83	C20H42	282



Date : 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: MSD5.i

Sample Info: 1248506008196308611SVH111LANL

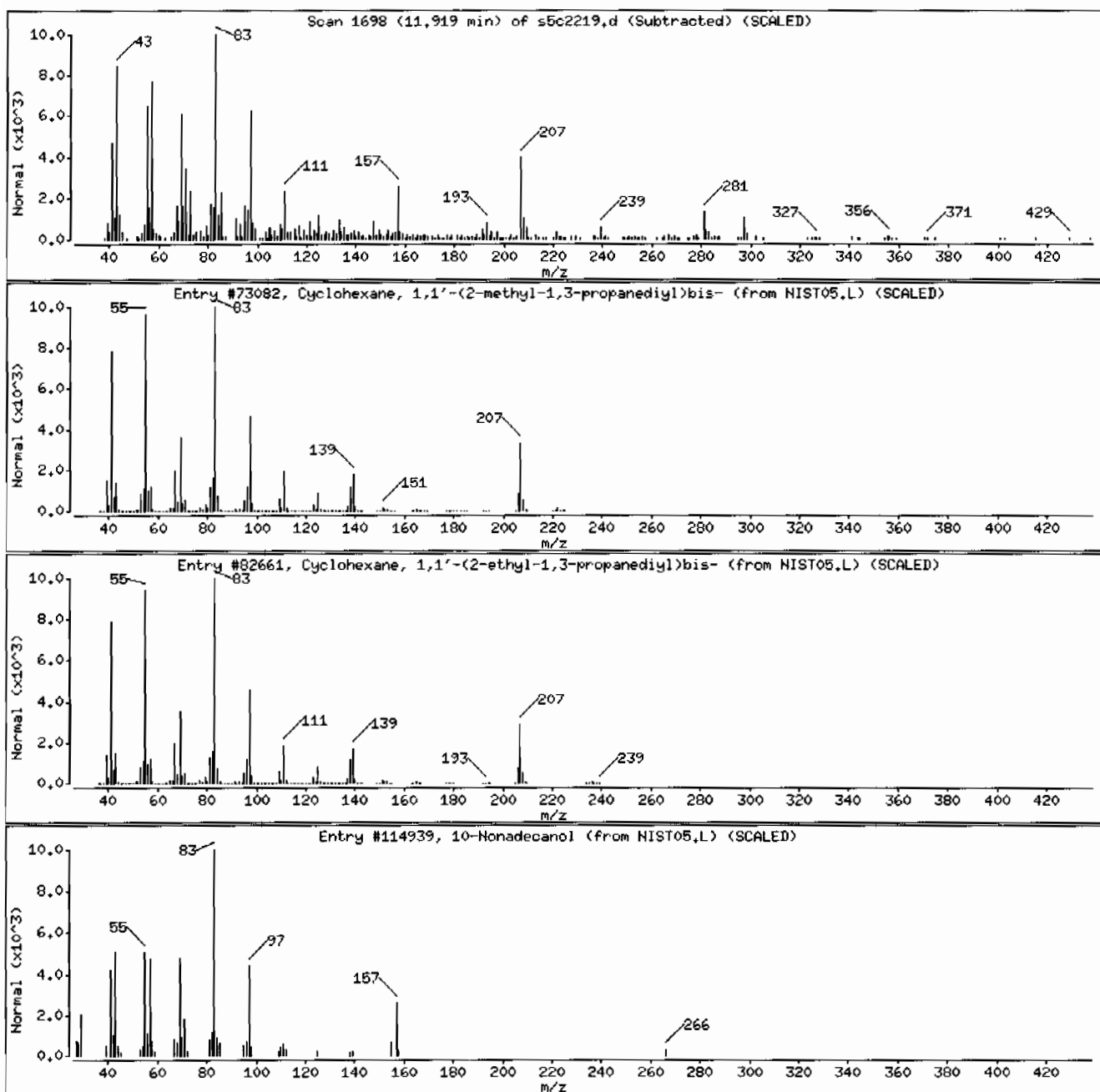
Volume Injected (uL): 0.5

Operator: RHB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexane, 1,1'-(2-methyl-1,3-propanedi	2883-08-1	NIST05.L	73082	86	C16H30	222
Cyclohexane, 1,1'-(2-ethyl-1,3-propanedi	54833-34-0	NIST05.L	82661	86	C17H32	236
10-Nonadecanol	16840-84-9	NIST05.L	114939	46	C19H40O	284





Date : 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: MSD5.i

Sample Info: I248506008196308611ISVMI1ILANL

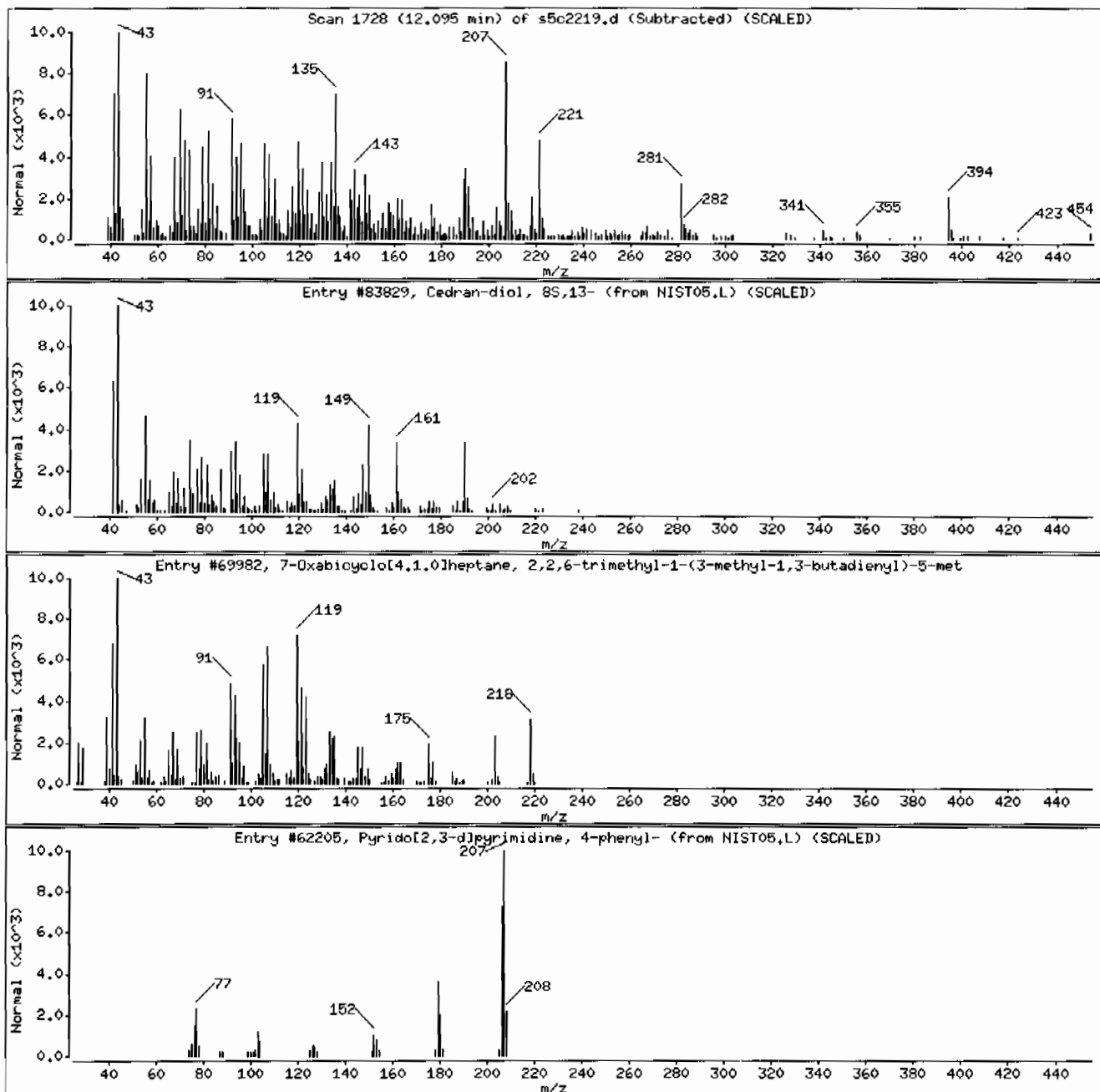
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cedran-diol, 8S,13-	88588-48-1	NIST05.L	83829	41	C <sub>15</sub> H <sub>26</sub> O <sub>2</sub>	238
7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	70038-20-9	NIST05.L	69982	38	C <sub>15</sub> H <sub>22</sub> O	218
Pyrido[2,3-d]pyrimidine, 4-phenyl-	28732-75-4	NIST05.L	62205	25	C <sub>13</sub> H <sub>9</sub> N <sub>3</sub>	207



Date : 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: MSD5.1

Sample Info: I248506008I963086I1ISVM11ILANL

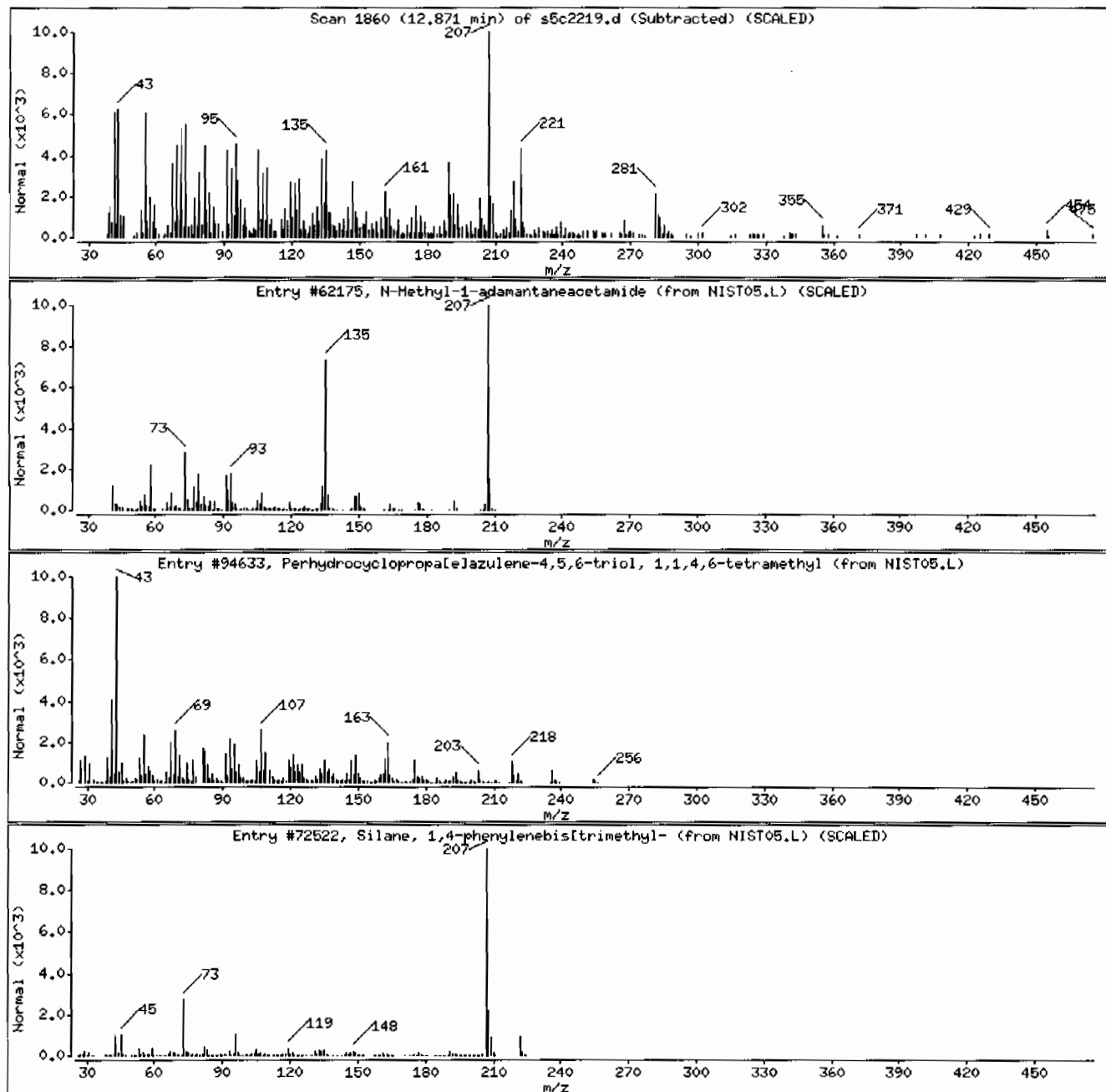
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05.L	62175	35	C <sub>13</sub> H <sub>21</sub> NO	207
Perhydrocyclopropa[elazulene-4,5,6-triol	1000197-87-8	NIST05.L	94633	25	C <sub>15</sub> H <sub>26</sub> O <sub>3</sub>	254
Silane, 1,4-phenylenebis[trimethyl-	13183-70-5	NIST05.L	72522	22	C <sub>12</sub> H <sub>22</sub> Si <sub>2</sub>	222



Date : 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: MSD5.i

Sample Info: 12485060081963086111SVH111LANL

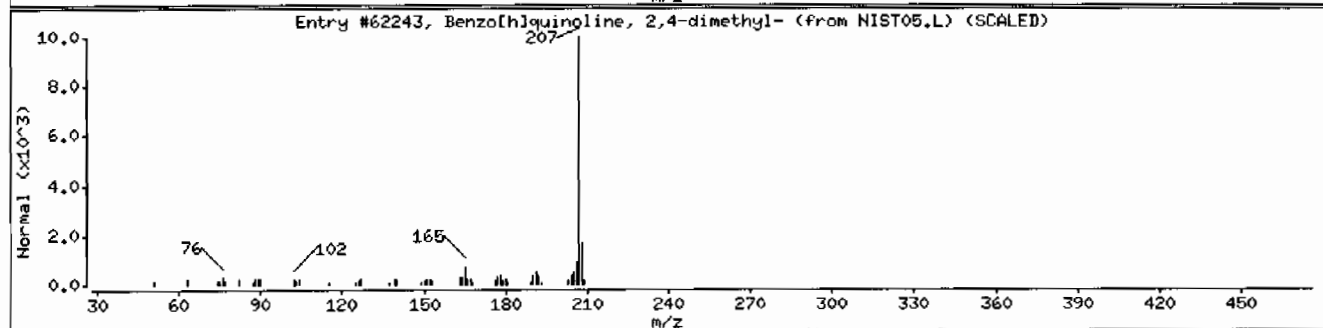
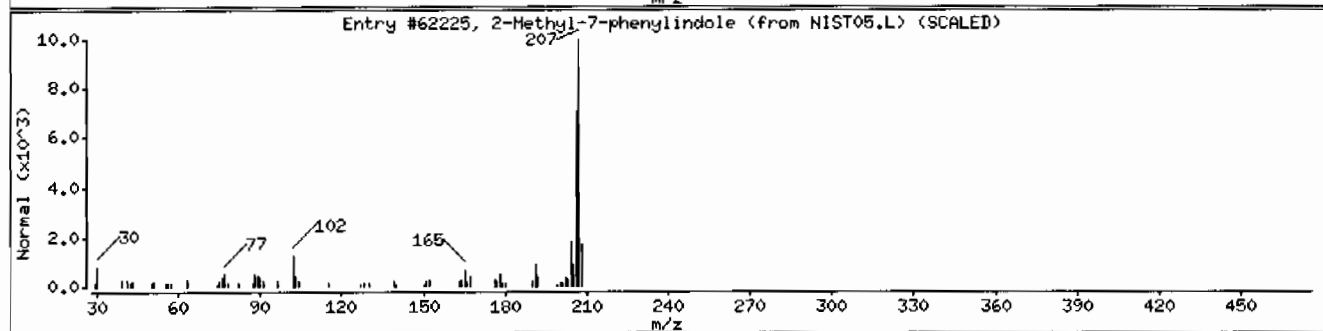
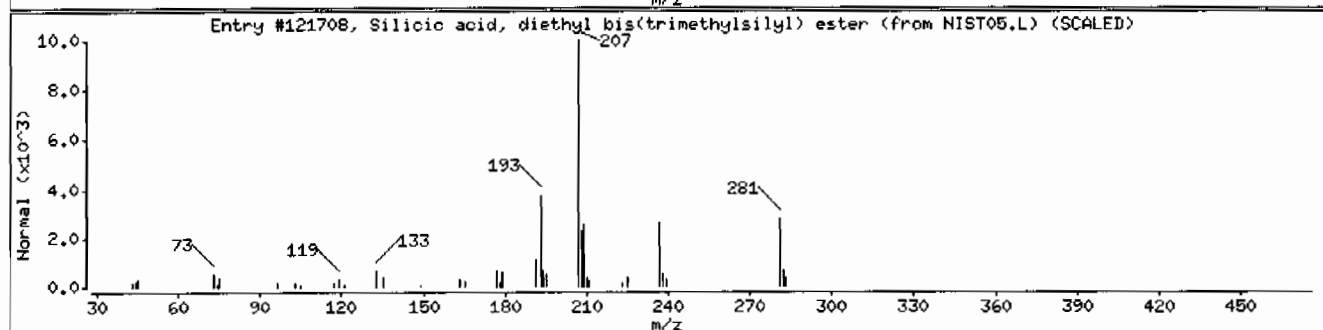
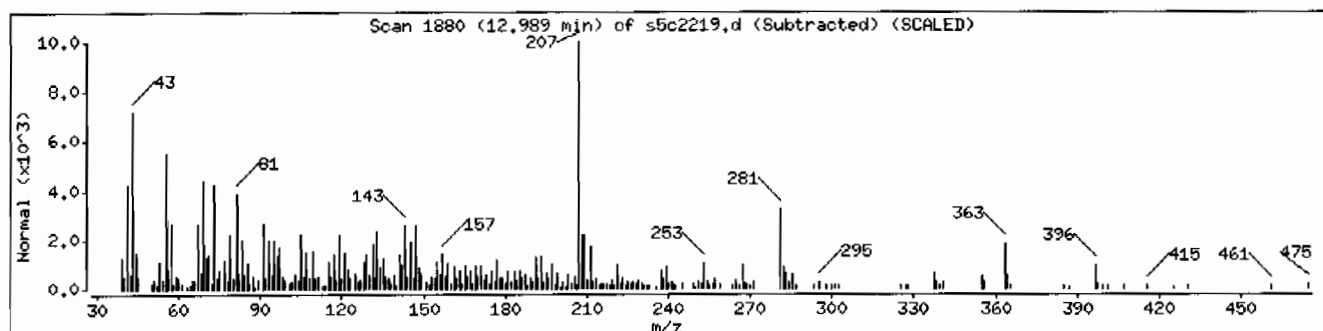
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Silicic acid, diethyl bis(trimethylsilyl)	3555-45-1	NIST05.L	121708	58	C10H28O4Si3	296
2-Methyl-7-phenylindole	1140-08-5	NIST05.L	62225	42	C15H13N	207
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	41	C15H13N	207



Date : 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: HSD5.1

Sample Info: I2485060081963086111SVMI11LANL

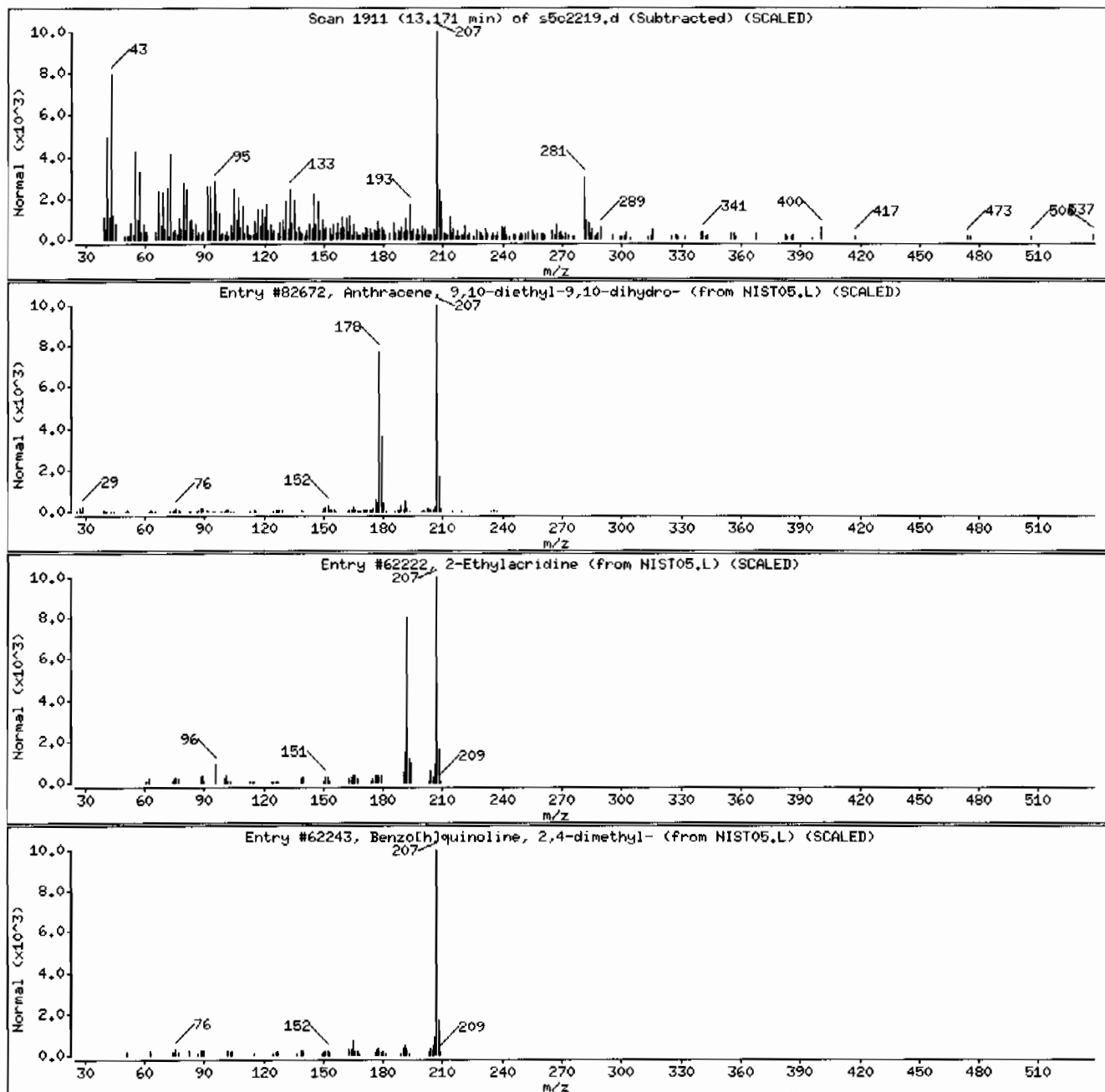
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Anthracene, 9,10-diethyl-9,10-dihydro-	46868-29-5	NIST05.L	82672	38	C18H20	236
2-Ethylacridine	55751-83-2	NIST05.L	62222	38	C15H13N	207
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	38	C15H13N	207



Date : 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: MSD5.i

Sample Info: 12485060081963086111SVMI11LANL

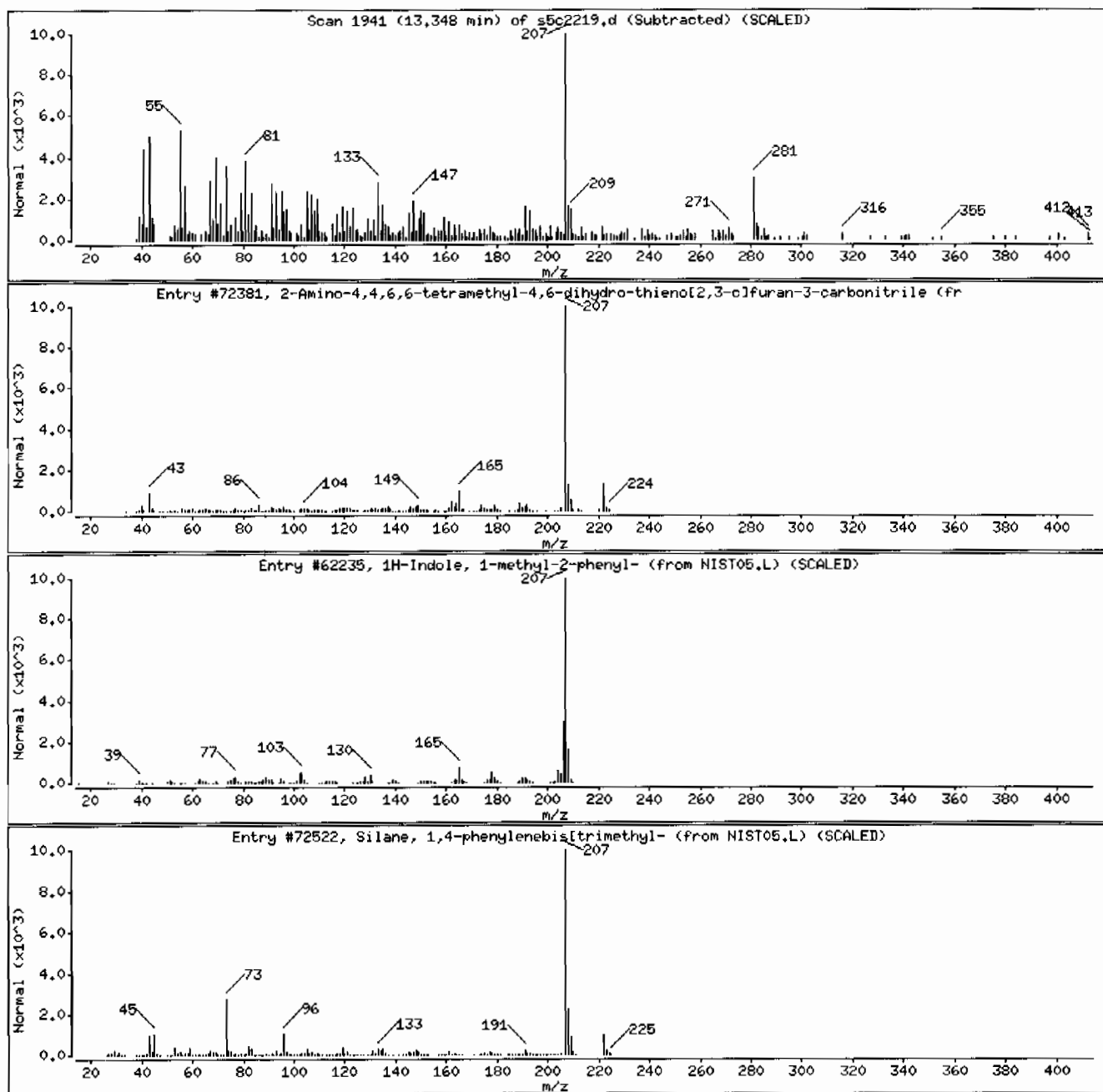
Volume Injected (uL): 0.5

Operator: RHE

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Amino-4,4,6,6-tetramethyl-4,6-dihydro-	1000275-36-2	NIST05.L	72381	42	C11H14N2O5	222
1H-Indole, 1-methyl-2-phenyl-	3558-24-5	NIST05.L	62235	42	C15H13N	207
Silane, 1,4-phenylenebis(trimethyl-	13183-70-5	NIST05.L	72522	38	C12H22Si2	222



Date : 22-MAR-2010 15:21

Client ID: RE36-10-7444

Instrument: MSD5.i

Sample Info: 1248506008196308611|SVH11|LANL

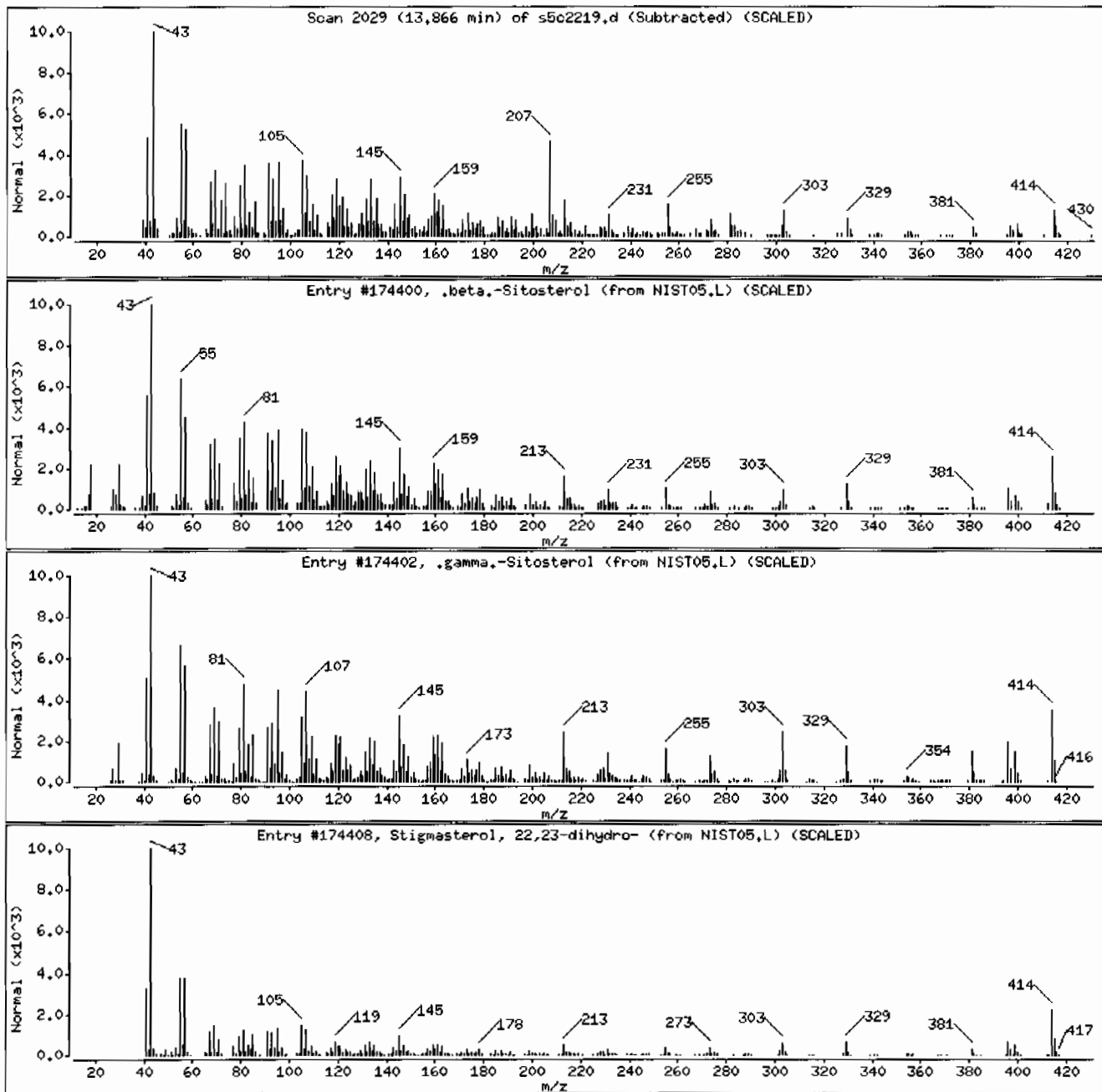
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174400	96	C29H50O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	93	C29H50O	414
Stigmasterol, 22,23-dihydro-	1000214-20-7	NIST05.L	174408	59	C29H50O	414



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193  
Lab Sample ID: 248506006

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.01 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 25.6  
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	448	ug/kg	89.6	448
108-95-2	Phenol	U	448	ug/kg	89.6	448
95-57-8	2-Chlorophenol	U	448	ug/kg	89.6	448
106-46-7	1,4-Dichlorobenzene	U	448	ug/kg	89.6	448
621-64-7	N-Nitrosodipropylamine	U	448	ug/kg	89.6	448
59-50-7	4-Chloro-3-methylphenol	U	448	ug/kg	89.6	448
83-32-9	Acenaphthene	U	44.8	ug/kg	14.8	44.8
121-14-2	2,4-Dinitrotoluene	U	448	ug/kg	44.8	448
100-02-7	4-Nitrophenol	U	448	ug/kg	148	448
87-86-5	Pentachlorophenol	U	448	ug/kg	112	448
129-00-0	Pyrene	J	43.8	ug/kg	13.4	44.8
110-86-1	Pyridine	U	448	ug/kg	89.6	448
62-53-3	Aniline	U	448	ug/kg	134	448
111-44-4	bis(2-Chloroethyl) ether	U	448	ug/kg	89.6	448
541-73-1	1,3-Dichlorobenzene	U	448	ug/kg	89.6	448
100-51-6	Benzyl alcohol	U	448	ug/kg	134	448
95-50-1	1,2-Dichlorobenzene	U	448	ug/kg	89.6	448
108-60-1	bis(2-Chloroisopropyl)ether	U	448	ug/kg	89.6	448
95-48-7	o-Cresol	U	448	ug/kg	89.6	448
65794-96-9	m,p-Cresols	U	448	ug/kg	134	448
67-72-1	Hexachloroethane	U	448	ug/kg	89.6	448
98-95-3	Nitrobenzene	U	448	ug/kg	89.6	448
78-59-1	Isophorone	U	448	ug/kg	89.6	448
88-75-5	2-Nitrophenol	U	448	ug/kg	89.6	448
105-67-9	2,4-Dimethylphenol	U	448	ug/kg	157	448
111-91-1	bis(2-Chloroethoxy)methane	U	448	ug/kg	89.6	448
120-83-2	2,4-Dichlorophenol	U	448	ug/kg	89.6	448
65-85-0	Benzoic acid	J	602	ug/kg	224	896
91-20-3	Naphthalene	U	44.8	ug/kg	13.4	44.8
106-47-8	4-Chloroaniline	U	448	ug/kg	89.6	448
87-68-3	Hexachlorobutadiene	U	448	ug/kg	89.6	448
91-57-6	2-Methylnaphthalene	U	44.8	ug/kg	8.96	44.8
77-47-4	Hexachlorocyclopentadiene	U	448	ug/kg	89.6	448
88-06-2	2,4,6-Trichlorophenol	U	448	ug/kg	89.6	448
95-95-4	2,4,5-Trichlorophenol	U	448	ug/kg	89.6	448
91-58-7	2-Chloronaphthalene	U	44.8	ug/kg	14.8	44.8
88-74-4	2-Nitroaniline	U	448	ug/kg	89.6	448
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	448	ug/kg	89.6	448

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506006	Date Received: 03/03/2010 08:50	%Moisture: 25.6
Client ID: RE36-10-7445	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 14:35	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2217.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</i> -Nitroaniline					
131-11-3	Dimethylphthalate	U	448	ug/kg	89.6	448
606-20-2	2,6-Dinitrotoluene	U	448	ug/kg	44.8	448
208-96-8	Accnaphthylene	U	44.8	ug/kg	13.4	44.8
51-28-5	2,4-Dinitrophenol	U	896	ug/kg	170	896
132-64-9	Dibenzofuran	U	448	ug/kg	89.6	448
84-66-2	Diethylphthalate	U	448	ug/kg	89.6	448
86-73-7	Fluorene	U	44.8	ug/kg	13.4	44.8
7005-72-3	4-Chlorophenylphenylether	U	448	ug/kg	89.6	448
534-52-1	2-Methyl-4,6-dinitrophenol	U	448	ug/kg	89.6	448
100-01-6	4-Nitroaniline	U	448	ug/kg	134	448
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	448	ug/kg	89.6	448
122-66-7	Azobenzene	U	448	ug/kg	89.6	448
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	448	ug/kg	89.6	448
118-74-1	Hexachlorobenzene	U	448	ug/kg	89.6	448
85-01-8	Phenanthrene	J	32.2	ug/kg	13.4	44.8
120-12-7	Anthracene	U	44.8	ug/kg	8.96	44.8
84-74-2	Di-n-butylphthalate	U	448	ug/kg	89.6	448
206-44-0	Fluoranthene		57.4	ug/kg	13.4	44.8
85-68-7	Butylbenzylphthalate	U	448	ug/kg	89.6	448
56-55-3	Benzo(a)anthracene	J	27.0	ug/kg	13.4	44.8
91-94-1	3,3'-Dichlorobenzidine	U	448	ug/kg	134	448
218-01-9	Chrysene	J	28.8	ug/kg	13.4	44.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	448	ug/kg	89.6	448
117-84-0	Di-n-octylphthalate	U	448	ug/kg	89.6	448
205-99-2	Benzo(b)fluoranthene	U	44.8	ug/kg	13.4	44.8
207-08-9	Benzo(k)fluoranthene	U	44.8	ug/kg	13.4	44.8
50-32-8	Benzo(a)pyrene	U	44.8	ug/kg	13.4	44.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	44.8	ug/kg	13.4	44.8
53-70-3	Dibenzo(a,h)anthracene	U	44.8	ug/kg	13.4	44.8
191-24-2	Benzo(ghi)perylene	U	44.8	ug/kg	13.4	44.8
120-82-1	1,2,4-Trichlorobenzene	U	448	ug/kg	89.6	448

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	3.21	529	ug/kg		J
7785-70-8	1R-.alpha.-Pinene	3.52	507	ug/kg	98	NJ



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506006	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 25.6
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7445	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5J	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 14:35	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.01 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2217.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQI/LOQ
---------	----------	-----------	--------	-------	---------	---------

Tentatively Identified Compound Summary			Estimated			
CAS No.	Tentatively Identified Compound (TIC)	RT		Units	Fit	Qual
13466-78-9	3-Carene	3.9	477	ug/kg	95	NJ
103-82-2	Benzeneacetic acid	4.94	363	ug/kg	91	NJ
56599-58-7	8,11-Octadecadienoic acid, methyl ester	8.12	301	ug/kg	91	NJ
1000155-85-3	Cyclohexadecane, 1,2-diethyl-	8.78	283	ug/kg	97	NJ
	Unknown	9.04	209	ug/kg		J
3386-33-2	Octadecane, 1-chloro-	9.12	252	ug/kg	80	NJ
638-66-4	Octadecanal	9.24	212	ug/kg	95	NJ
1599-67-3	1-Docosene	9.44	732	ug/kg	98	NJ
	Unknown	9.57	262	ug/kg		J
629-78-7	Heptadecane	9.75	304	ug/kg	94	NJ
1000130-84-8	(S)(+)-Z-13-Methyl-11-pentadecen-1-ol ac	9.89	284	ug/kg	86	NJ
	Unknown	9.95	266	ug/kg		J
27519-02-4	9-Tricosene, (Z)-	10.1	1910	ug/kg	94	NJ
	Unknown	10.24	357	ug/kg		J
	Unknown	10.3	271	ug/kg		J
62016-76-6	Nonadecane, 1-chloro-	10.45	329	ug/kg	86	NJ
	Unknown	10.54	424	ug/kg		J
	Unknown	10.89	418	ug/kg		J
	Unknown	11.8	363	ug/kg		J
112-95-8	Eicosane	11.85	384	ug/kg	92	NJ
	Unknown	11.92	1690	ug/kg		J
	Unknown	12.1	480	ug/kg		J
	Unknown	12.68	544	ug/kg		J
	Unknown	12.98	779	ug/kg		J
83-47-6	.gamma.-Sitosterol	13.88	1960	ug/kg	99	NJ
	Unknown	14.31	775	ug/kg		J
	Unknown	14.46	837	ug/kg		J

Data File: /chem/MSD5.i/s032210.b/s5c2217.d  
Report Date: 22-Mar-2010 14:58

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GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2217.d  
Lab Smp Id: 248506006 Client Smp ID: RE36-10-7445  
Inj Date : 22-MAR-2010 14:35  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506006|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 17  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	25.59930	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG		CONCENTRATIONS		RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
	MASS	RT	EXP RT	REL RT			
* 10 1,4-Dichlorobenzene-d4	152	3.949	3.950	(1.000)	268130	40.0000	
* 29 Naphthalene-d8	136	4.813	4.821	(1.000)	1041118	40.0000	
* 46 Acenaphthene-d10	164	6.072	6.078	(1.000)	636991	40.0000	
* 67 Phenanthrene-d10	188	7.248	7.253	(1.000)	1137238	40.0000	
* 91 Chrysene-d12	240	9.666	9.670	(1.000)	1031896	40.0000	
* 98 Perylene-d12	264	11.372	11.370	(1.000)	752191	40.0000	
\$ 3 2-Fluorophenol	112	3.143	3.141	(0.796)	406571	60.7243	2720
\$ 5 Phenol-d5	99	3.660	3.666	(0.927)	488509	60.7055	2720
\$ 20 Nitrobenzene-d5	82	4.307	4.316	(0.895)	273759	35.3867	1580
\$ 39 2-Fluorobiphenyl	172	5.554	5.558	(0.915)	481787	30.2822	1360
\$ 60 2,4,6-Tribromophenol	329	6.672	6.675	(1.099)	148378	62.0176	2780
\$ 81 p-Terphenyl-d14	244	8.631	8.630	(0.893)	561166	32.6929	1460

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
79 Pyrene		202	8.531	8.534	(0.883)	27868	0.97737	43.8(a)
27 Benzoic acid		105	4.560	4.585	(0.947)	18866	13.4318	602(a)
68 Phenanthrene		178	7.266	7.272	(1.002)	17296	0.71844	32.2(a)
76 Fluoranthene		202	8.313	8.317	(1.147)	32167	1.28087	57.4
89 Benzo(a)anthracene		228	9.654	9.656	(0.999)	13910	0.60277	27.0(a)
92 Chrysene		228	9.689	9.694	(1.002)	13847	0.64393	28.8(a)

#### QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

## ION RATIO REPORT

## SV REPORT

Data file: s5c2217.d

Report Date: 03/22/2010 14:53

Lab. ID: 248506006

SampleType: SAMPLE

Injection Date: 22-MAR-2010 14:35

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506006|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	31427	3.66	3.74	80-120	100	(T)
93	7629	3.62	3.74	219-279	24	(QT)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	37481	4.31	4.19	80-120	100	(T)
42	23413	4.31	4.19	44-104	62	(T)
-----						
21	Nitrobenzene	CAS#: 98-95-3				
77	14606	4.56	4.33	80-120	100	(T)
65	469	4.55	4.33	0- 45	3	(T)
123	836	4.56	4.33	15- 75	6	(QT)
-----						
22	Isophorone	CAS#: 78-59-1				
82	266656	4.31	4.48	80-120	100	(T)
138	184	4.50	4.48	0- 49	0	( )
-----						
27	Benzoic acid	CAS#: 65-85-0				
105	18866	4.56	4.59	80-120	100	( )
122	14994	4.55	4.59	45-105	79	( )
77	16929	4.56	4.59	48-108	90	( )
-----						
40	2-Chloronaphthalene	CAS#: 91-58-7				
162	7752	5.80	5.67	80-120	100	(T)
164	633	5.80	5.67	3- 63	8	(T)
127	1174	5.80	5.67	11- 71	15	(T)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
42 o-Nitroaniline		CAS#: 88-74-4				
65	11212	5.80	5.73	80-120	100	(T)
92	13580	5.80	5.73	34- 94	121	(QT)
138	618	5.80	5.73	74-134	6	(QT)
<hr/>						
43 Dimethylphthalate		CAS#: 131-11-3				
163	116061	6.07	5.84	80-120	100	(T)
164	636991	6.07	5.84	0- 40	549	(QT)
<hr/>						
44 2,6-Dinitrotoluene		CAS#: 606-20-2				
165	82965	6.07	5.90	80-120	100	(T)
63	1901	6.07	5.89	62-122	2	(QT)
<hr/>						
50 2,4-Dinitrotoluene		CAS#: 121-14-2				
165	82965	6.07	6.19	80-120	100	(T)
89	3016	6.07	6.19	51-111	4	(QT)
63	1963	6.07	6.19	24- 84	2	(QT)
<hr/>						
52 4-Nitrophenol		CAS#: 100-02-7				
139	528	6.11	6.12	80-120	100	( )
109	5587	6.07	6.12	63-123	1058	(Q)
65	1438	6.13	6.11	71-131	272	(Q)
<hr/>						
53 Fluorene		CAS#: 86-73-7				
166	6900	6.67	6.49	80-120	100	(T)
165	7776	6.67	6.49	62-122	113	(T)
167	2309	6.67	6.49	0- 44	33	(T)
<hr/>						
55 2-Methyl-4,6-dinitrophenol		CAS#: 534-52-1				
198	779	6.67	6.51	80-120	100	(T)
105	2626	6.67	6.50	13- 73	337	(QT)
51	1302	6.67	6.50	51-111	167	(QT)
<hr/>						
68 Phenanthrene		CAS#: 85-01-8				
178	17296	7.27	7.27	80-120	100	( )
179	2659	7.27	7.27	0- 46	15	( )
176	2924	7.27	7.27	0- 49	17	( )
<hr/>						
69 Anthracene		CAS#: 120-12-7				
178	17178	7.27	7.32	80-120	100	( )
179	2592	7.27	7.32	0- 46	15	( )
176	2924	7.27	7.32	0- 49	17	( )
<hr/>						
76 Fluoranthene		CAS#: 206-44-0				
202	32167	8.31	8.32	80-120	100	( )
203	5405	8.31	8.32	0- 48	17	( )
101	3442	8.31	8.32	0- 41	11	( )
<hr/>						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
79 Pyrene		CAS#: 129-00-0				
202	27868	8.53	8.53	80-120	100	( )
200	6393	8.53	8.53	0- 51	23	( )
101	4518	8.53	8.53	0- 43	16	( )
-----						
89 Benzo(a)anthracene		CAS#: 56-55-3				
228	13910	9.65	9.66	80-120	100	( )
226	3220	9.65	9.66	0- 56	23	( )
229	4474	9.66	9.66	0- 50	32	( )
-----						
92 Chrysene		CAS#: 218-01-9				
228	13847	9.69	9.69	80-120	100	( )
229	2928	9.69	9.69	0- 50	21	( )
226	3257	9.69	9.69	0- 59	24	( )
-----						
95 Benzo(b)fluoranthene		CAS#: 205-99-2				
252	14143	10.84	10.85	80-120	100	( )
253	5642	10.85	10.85	0- 52	40	( )
125	5422	10.85	10.85	0- 41	38	( )
-----						
96 Benzo(k)fluoranthene		CAS#: 207-08-9				
252	14145	10.84	10.88	80-120	100	( )
253	5642	10.85	10.88	0- 52	40	( )
125	6225	10.85	10.88	0- 40	44	(Q)
-----						
97 Benzo(a)pyrene		CAS#: 50-32-8				
252	9455	11.28	11.29	80-120	100	( )
253	889	11.28	11.29	0- 52	9	( )
125	963	11.29	11.29	0- 30	10	( )
-----						
99 Indeno(1,2,3-cd)pyrene		CAS#: 193-39-5				
276	4591	13.15	13.17	80-120	100	( )
138	3120	13.18	13.18	0- 58	68	(Q)
-----						
101 Benzo(ghi)perylene		CAS#: 191-24-2				
276	4127	13.71	13.72	80-120	100	( )
138	2669	13.72	13.72	0- 30	65	(Q)

Q qualifier indicates ion failed ratio requirement

Data File: /chem/MSD5.i/s032210.b/s5c2217.d  
 Report Date: 22-Mar-2010 14:58

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# GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2217.d  
 Lab Smp Id: 248506006 Client Smp ID: RE36-10-7445  
 Inj Date : 22-MAR-2010 14:35  
 Operator : RMB Inst ID: MSD5.i  
 Smp Info : |248506006|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
 Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
 Als bottle: 17  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2193.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	25.59930	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.949	1874574	40.000
* 29 Naphthalene-d8	4.813	2316906	40.000
* 67 Phenanthrene-d10	7.248	2917132	40.000
* 91 Chrysene-d12	9.666	3425819	40.000
* 98 Perylene-d12	11.372	2199238	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/uL)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
----	----	-----	-----	----	-----	-----	-----

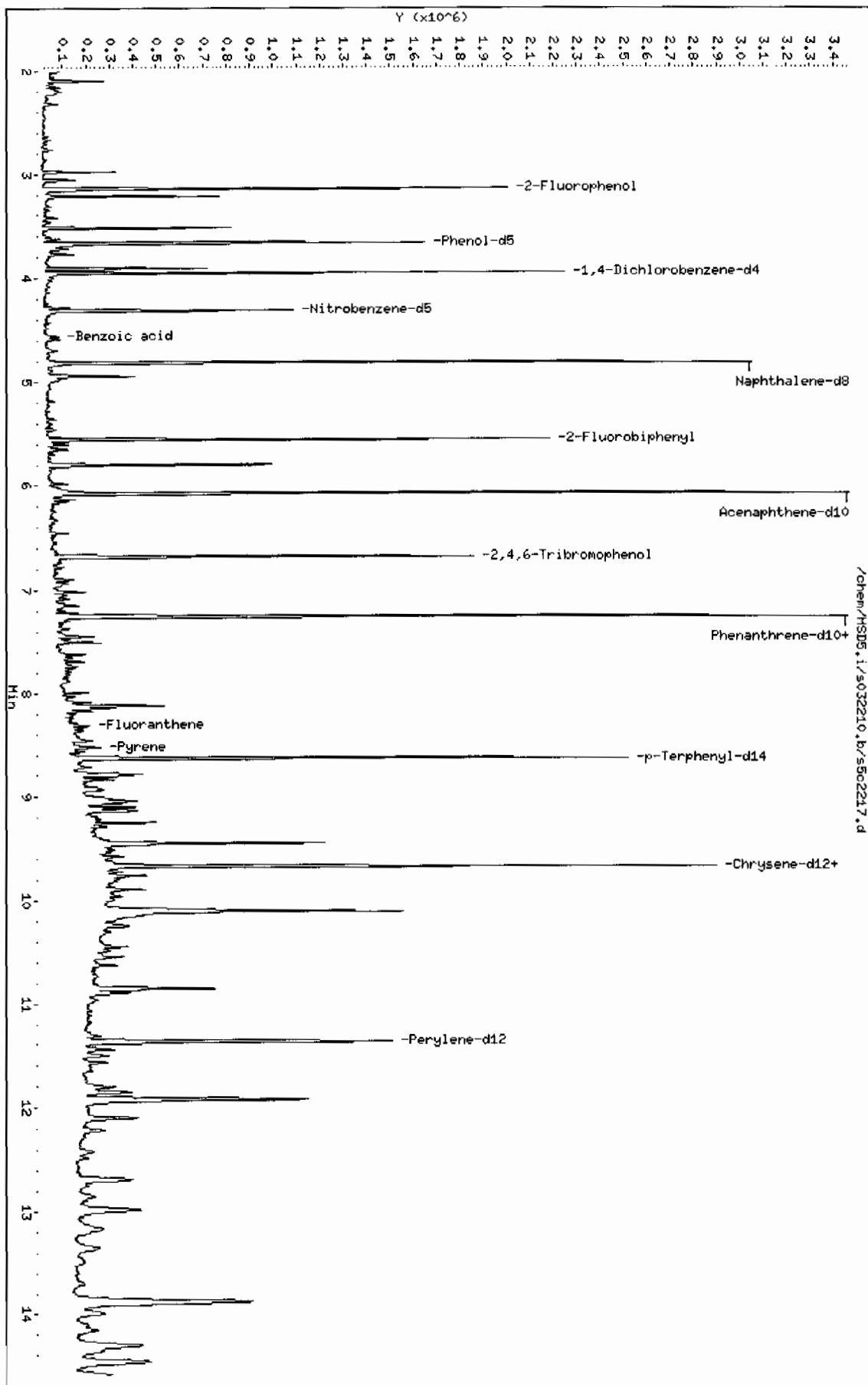
RT	CONCENTRATIONS				QUANT		
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
3.213	553021	11.8004603	528	0		0	10
1R-.alpha.-Pinene					CAS #: 7785-70-8		
3.519	530444	11.3187055	507	98	NIST05.L	15188	10
3-Carene					CAS #: 13466-78-9		
3.901	498785	10.6431626	477	95	NIST05.L	15156	10
Benzeneacetic acid					CAS #: 103-82-2		
4.943	468842	8.09427844	362	91	NIST05.L	15740	29
8,11-Octadecadienoic acid, methyl ester					CAS #: 56599-58-7		
8.119	490900	6.73126454	301	91	NIST05.L	121092	67
Cyclohexadecane, 1,2-diethyl-					CAS #: 1000155-85-3		
8.784	540274	6.30826564	282	97	NIST05.L	112113	91
Unknown					CAS #:		
9.036	399234	4.66147362	209	0		0	91
Octadecane, 1-chloro-					CAS #: 3386-33-2		
9.125	481179	5.61826247	252	80	NIST05.L	117263	91
Octadecanal					CAS #: 638-66-4		
9.242	405664	4.73655344	212	95	NIST05.L	104240	91
1-Docosene					CAS #: 1599-67-3		
9.442	1399200	16.3371170	732	98	NIST05.L	129888	91
Unknown					CAS #:		
9.566	501147	5.85140803	262	0		0	91
Heptadecane					CAS #: 629-78-7		
9.754	581407	6.78853333	304	94	NIST05.L	85524	91
(S)(+)-2-13-Methyl-11-pentadecen-1-ol ac					CAS #: 1000130-84-8		
9.889	543806	6.34950556	284	86	NIST05.L	113410	91
Unknown					CAS #:		
9.954	507799	5.92908008	266	0		0	91
9-Tricosene, (Z)-					CAS #: 27519-02-4		
10.101	3652627	42.6482155	1910	94	NIST05.L	138119	91



RT	CONCENTRATIONS				QUANT		CPND #
	AREA	ON-COL (ng/u1)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	
Unknown					CAS #:		
10.242	683002	7.97475244	357	0		0	91
Unknown					CAS #:		
10.301	519161	6.06174014	271	0		0	91
Nonadecane, 1-chloro-					CAS #: 62016-76-6		
10.448	628319	7.33627974	328	86	NIST05.L	126107	91
Unknown					CAS #:		
10.542	520955	9.47518052	424	0		0	98
Unknown					CAS #:		
10.889	512692	9.32490472	418	0		0	98
Unknown					CAS #:		
11.801	445823	8.10867091	363	0		0	98
Eicosane					CAS #: 112-95-8		
11.848	471892	8.58282881	384	92	NIST05.L	113488	98
Unknown					CAS #:		
11.919	2080395	37.8384623	1690	0		0	98
Unknown					CAS #:		
12.095	589278	10.7178529	480	0		0	98
Unknown					CAS #:		
12.683	667530	12.1411122	544	0		0	98
Unknown					CAS #:		
12.983	956134	17.3902676	779	0		0	98
.gamma.-Sitosterol					CAS #: 83-47-6		
13.877	2407118	43.7809324	1960	99	NIST05.L	174402	98
Unknown					CAS #:		
14.307	951986	17.3148242	775	0		0	98
Unknown					CAS #:		
14.460	1027303	18.6847029	937	0		0	98

Data File: /chem/MSD5.i/s032210.b/s0c2217.d  
 Date: 22-MAR-2010 14:35  
 Client ID: RE36-10-7445  
 Sample Info: 1248506006196308611SWH11L1ANL  
 Volume Injected (uL): 0.5  
 Column Phase: J&W DB-SMS

Instrument: MSD5.i  
 Operator: RMB  
 Column diameter: 0.20



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.1

Sample Info: 12485060061963086111SVH111LANL

Volume Injected (uL): 0.5

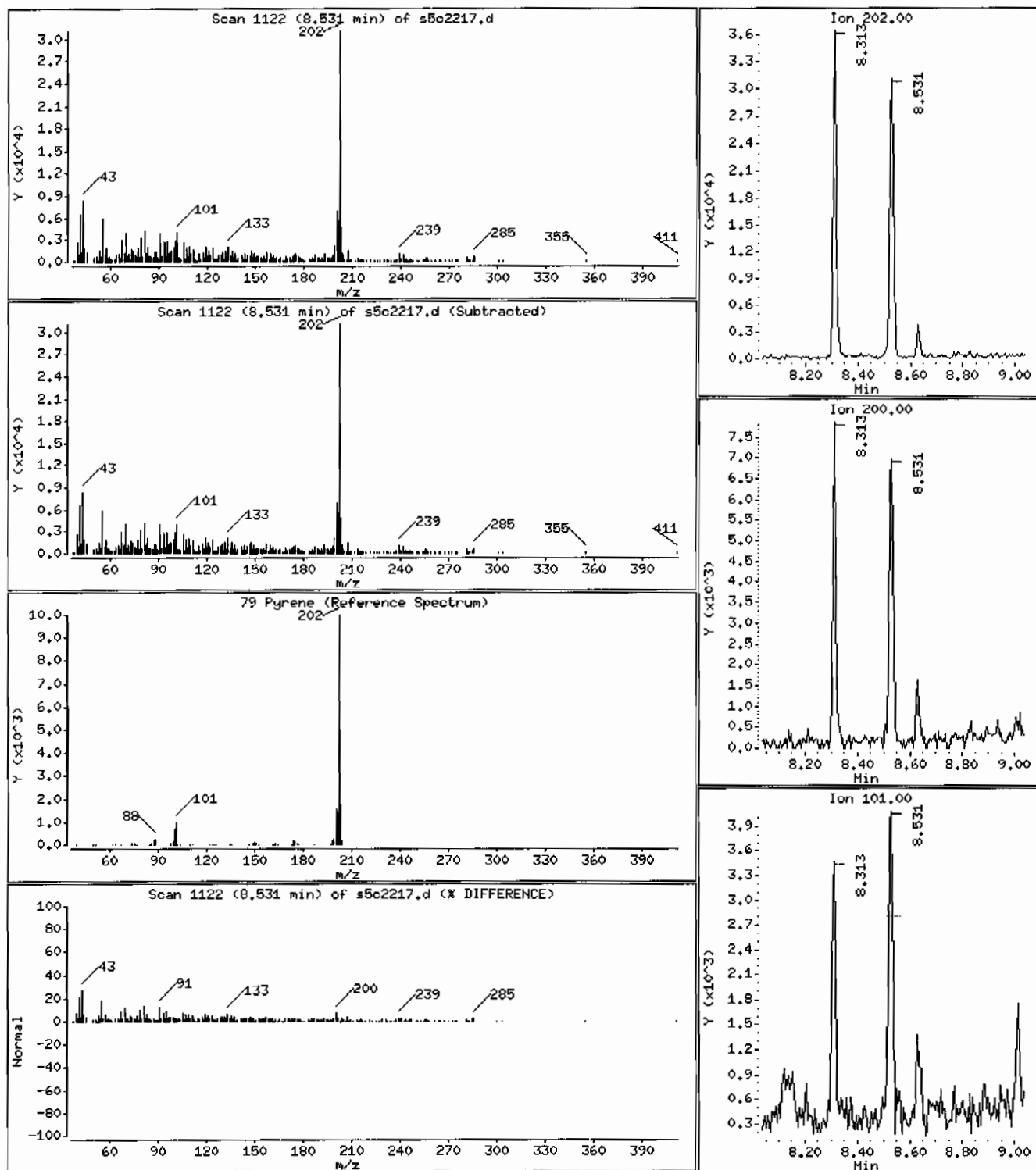
Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 43.8 ug/Kg



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: I248506006I963086I11SVMI11LANL

Volume Injected (uL): 0.5

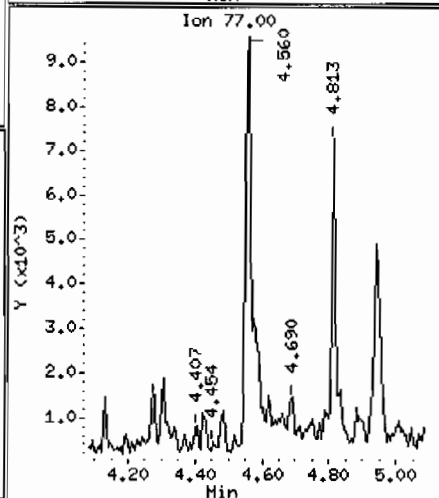
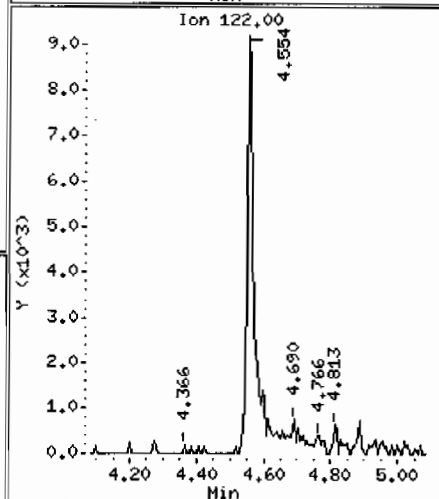
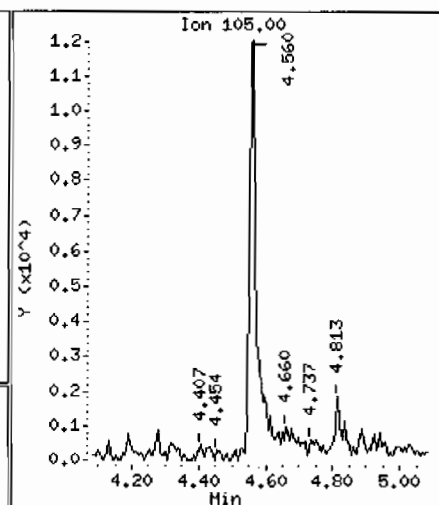
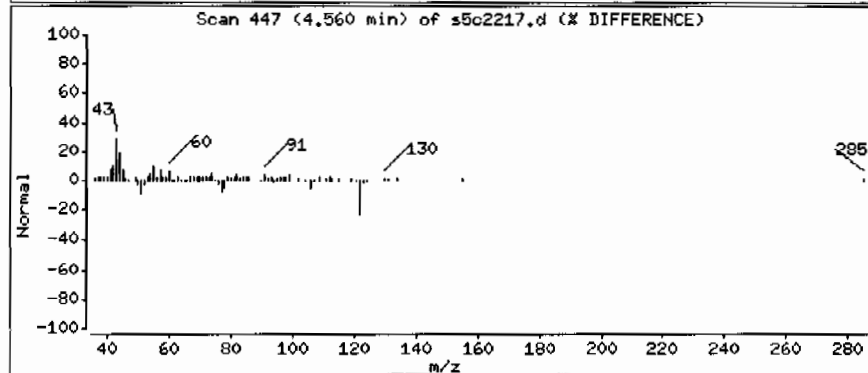
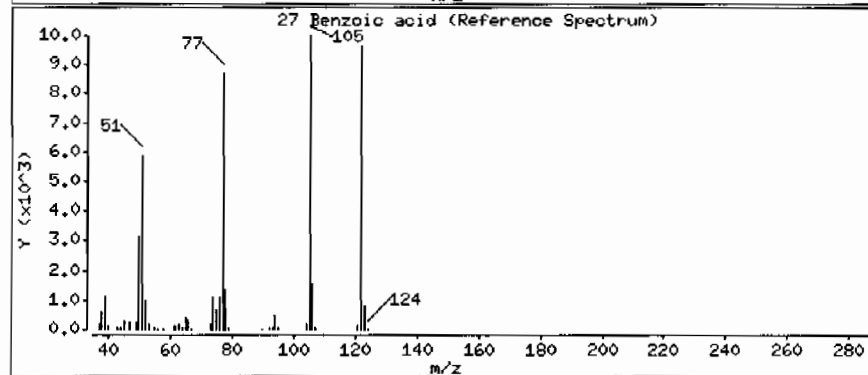
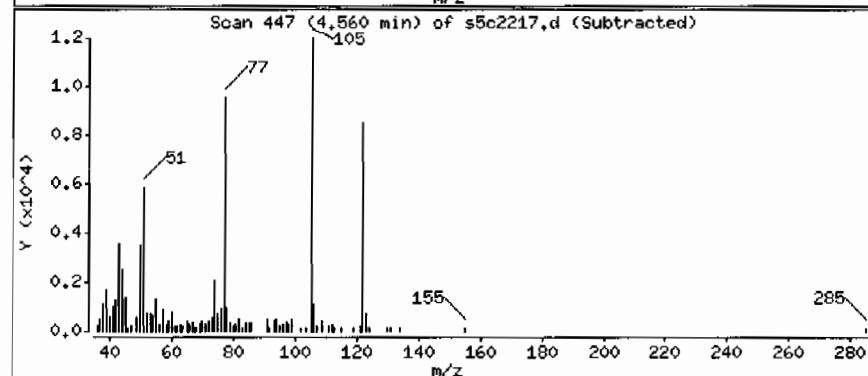
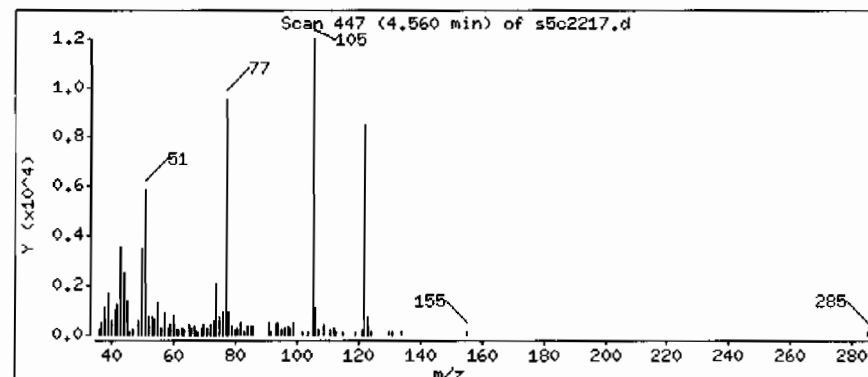
Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

27 Benzoic acid

Concentration: 602 ug/Kg



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 1248506006196308611SVH11LANL

Volume Injected (UL): 0.5

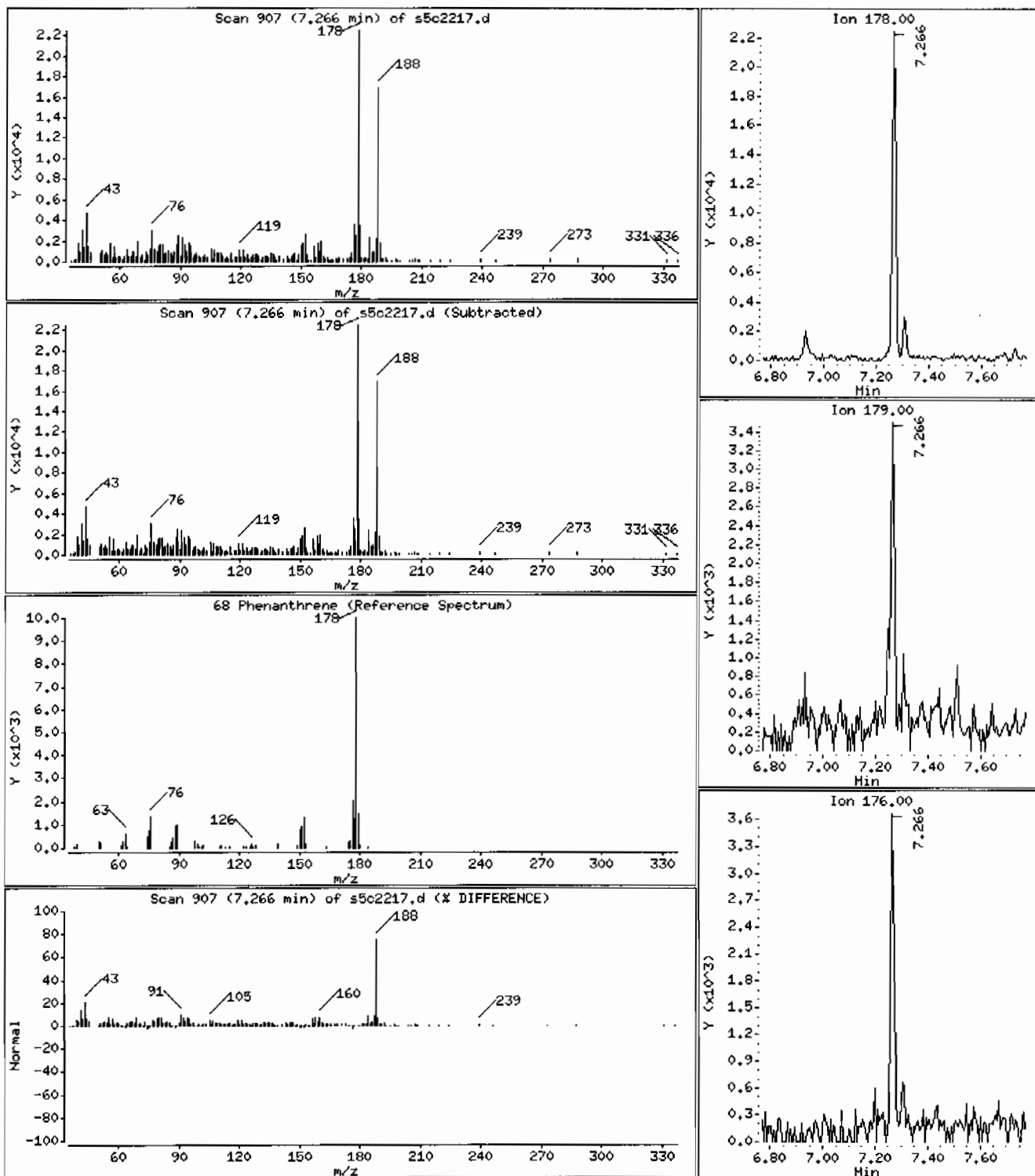
Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 32.2 ug/Kg



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: HSD5.i

Sample Info: 12485060061963086111SVH111LANL

Volume Injected (uL): 0.5

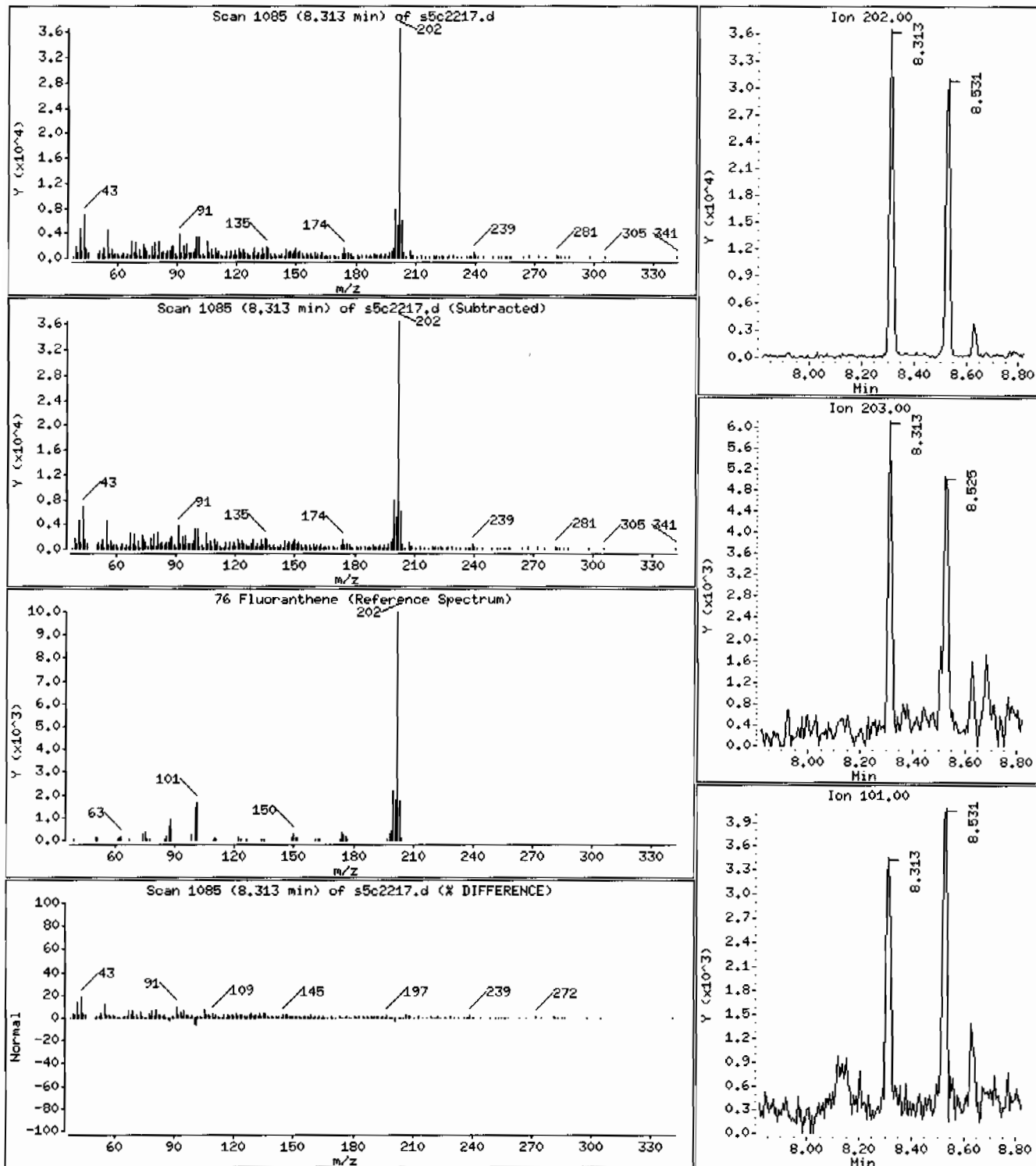
Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 57.4 ug/Kg



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 12485060061963086111SVH111LANL

Volume Injected (uL): 0.5

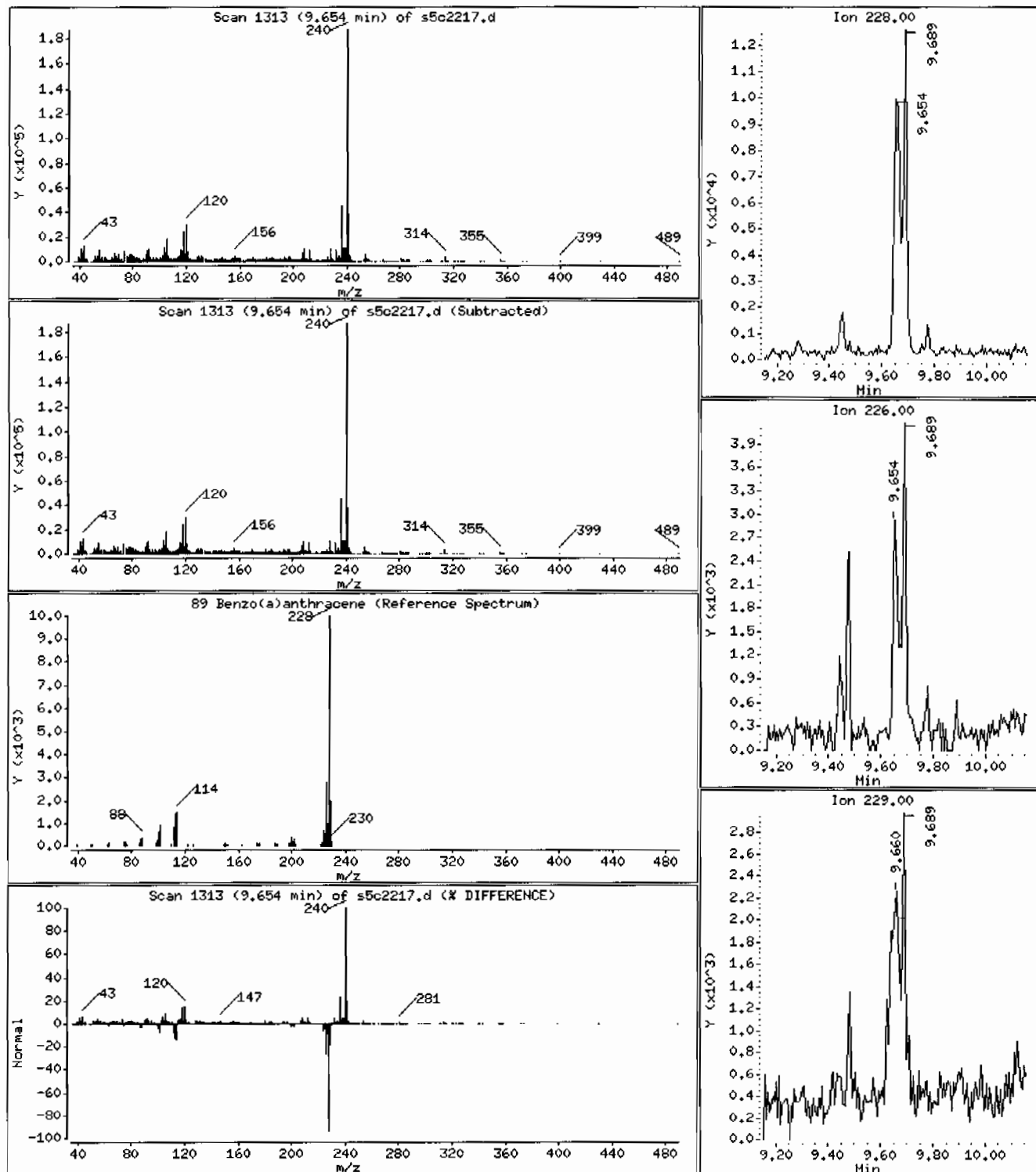
Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 27.0 ug/Kg



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 12485060061963086111SVMI11LANL

Volume Injected (uL): 0.5

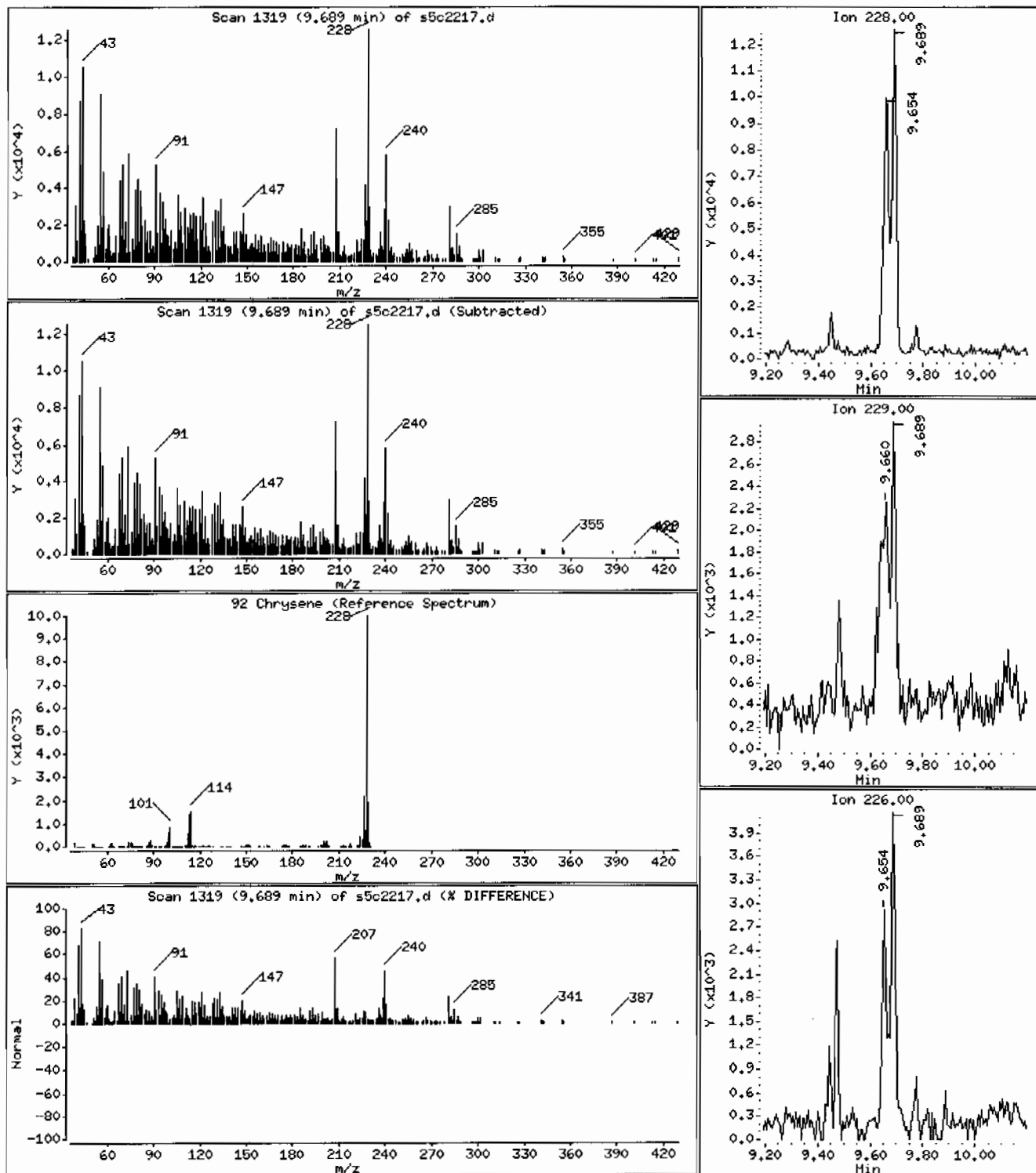
Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 28.8 ug/Kg





Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 1248506006196308611|SVH11|LANL

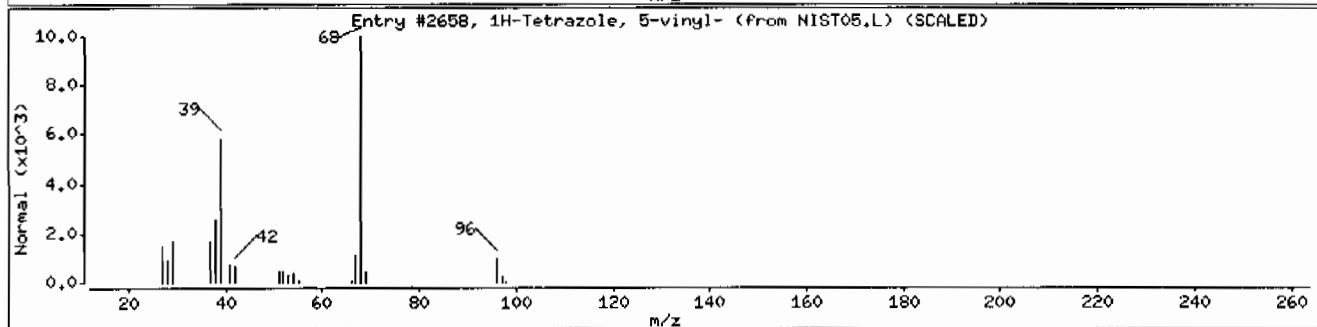
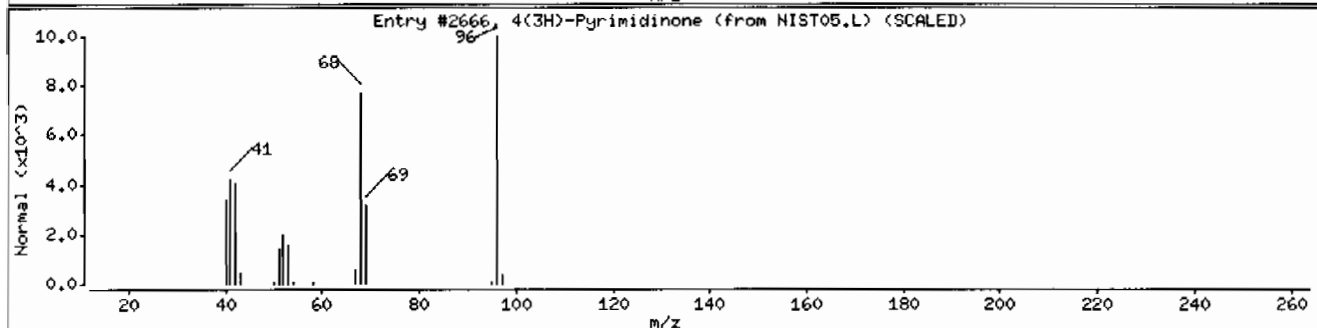
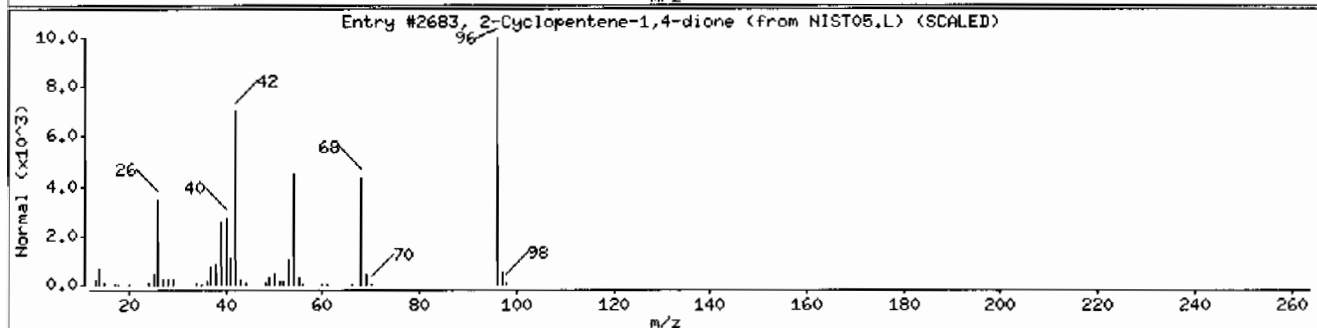
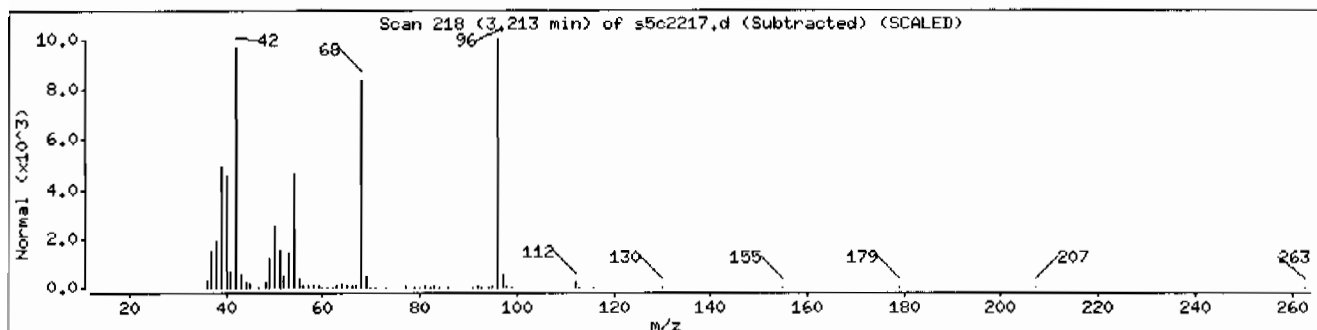
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Cyclopentene-1,4-dione	930-60-9	NIST05.L	2683	49	C5H4O2	96
4(3H)-Pyrimidinone	51953-17-4	NIST05.L	2666	49	C4H4N2O	96
1H-Tetrazole, 5-vinyl-	18755-47-0	NIST05.L	2658	47	C3H4N4	96



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 1248506006196308611SVH111LANL

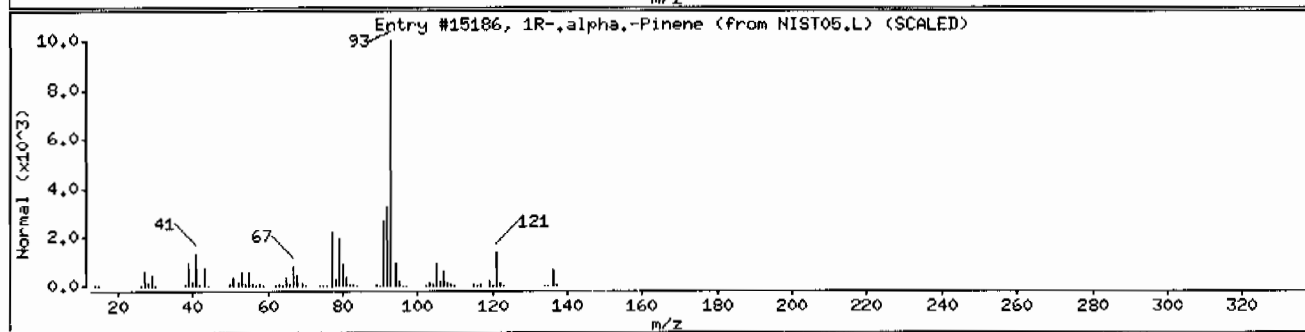
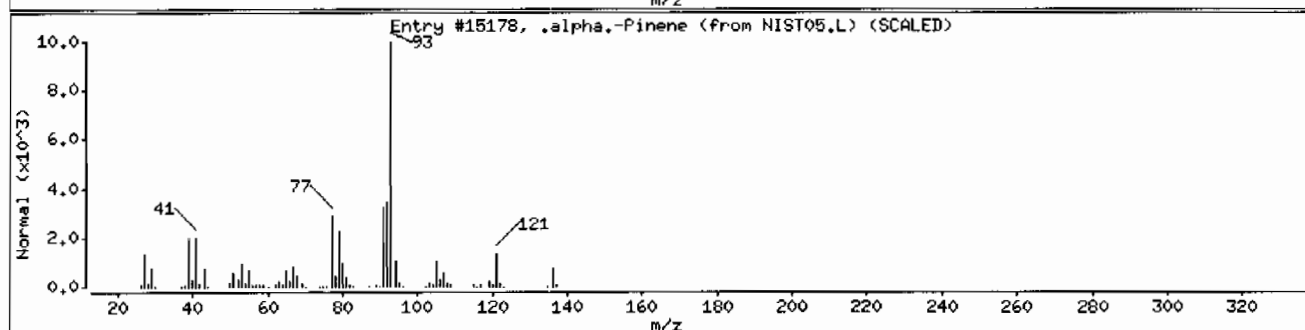
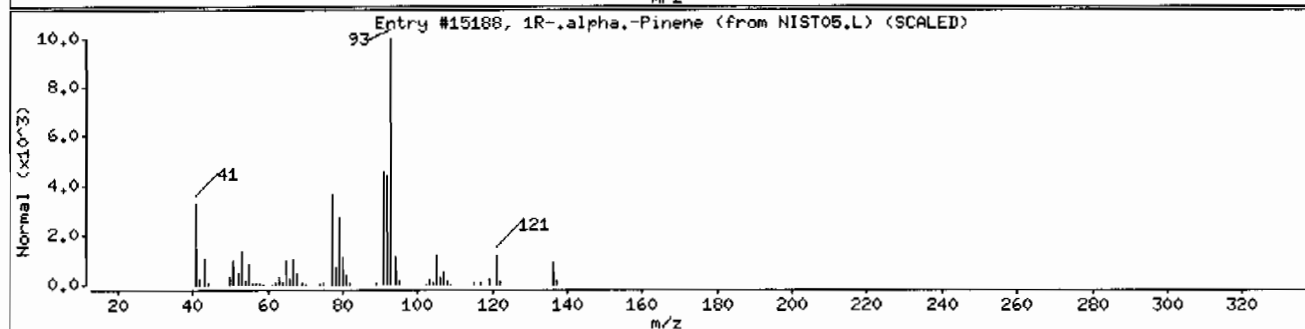
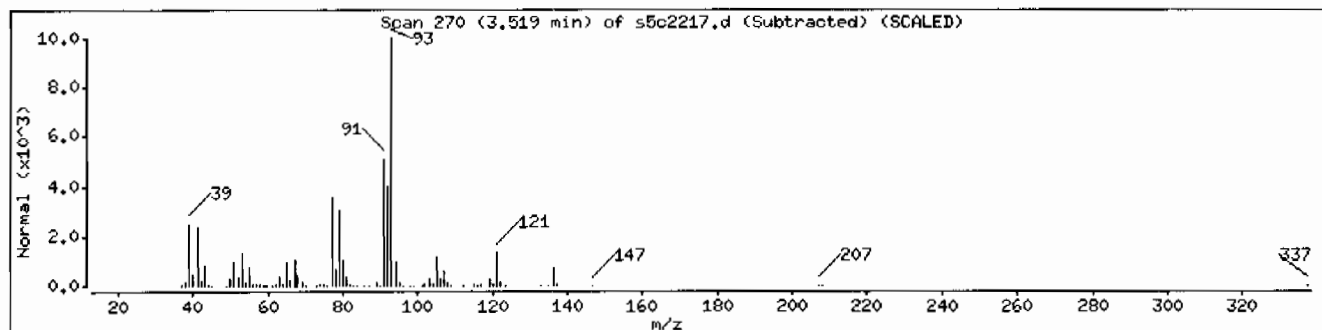
Volume Injected (uL): 0.5

Operator: RMB

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	98	C10H16	136
,alpha.-Pinene	80-56-8	NIST05.L	15178	96	C10H16	136
1R-,alpha.-Pinene	7785-70-8	NIST05.L	15186	96	C10H16	136



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: HSD5.i

Sample Info: 12485060061963086111SVH111LANL

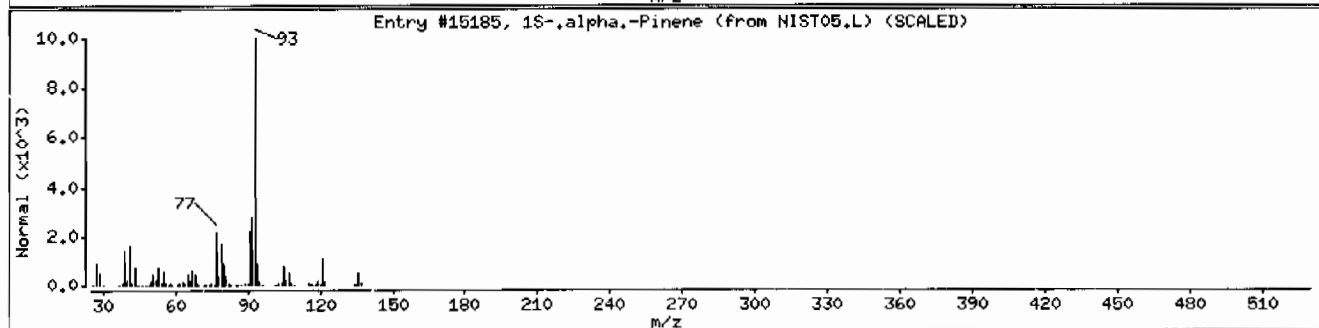
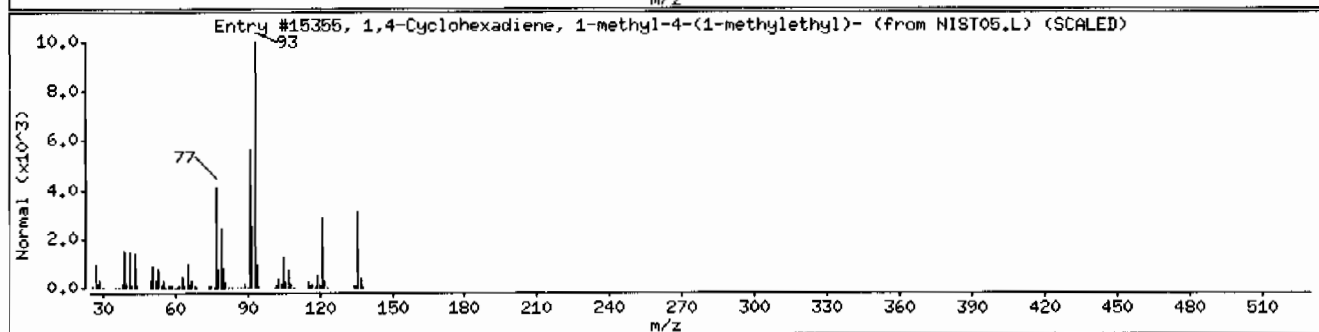
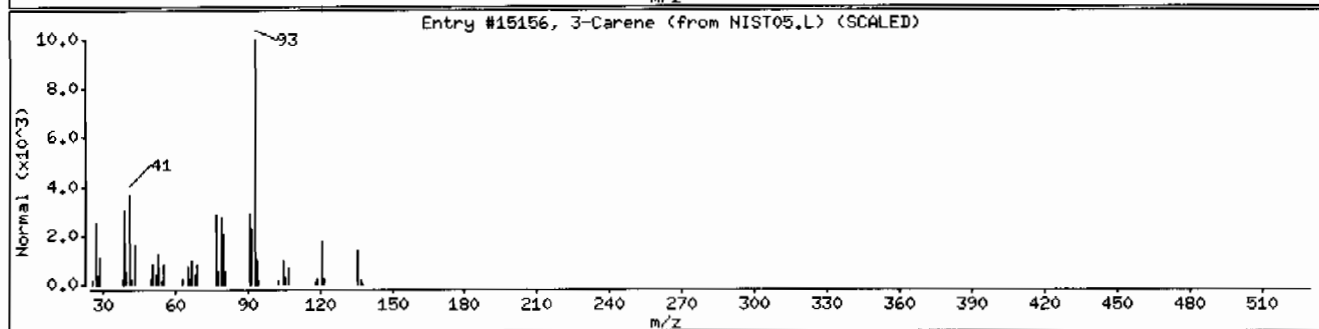
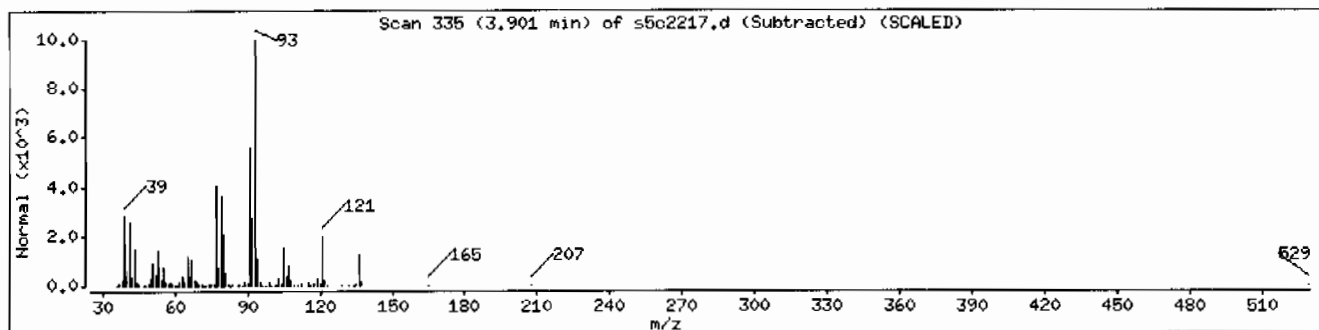
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Carene	13466-78-9	NIST05.L	15156	95	C10H16	136
1,4-Cyclohexadiene, 1-methyl-4-(1-methyl	99-85-4	NIST05.L	15355	93	C10H16	136
1S-.alpha.-Pinene	7785-26-4	NIST05.L	15185	91	C10H16	136



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 1248506006196308611SVH111LANL

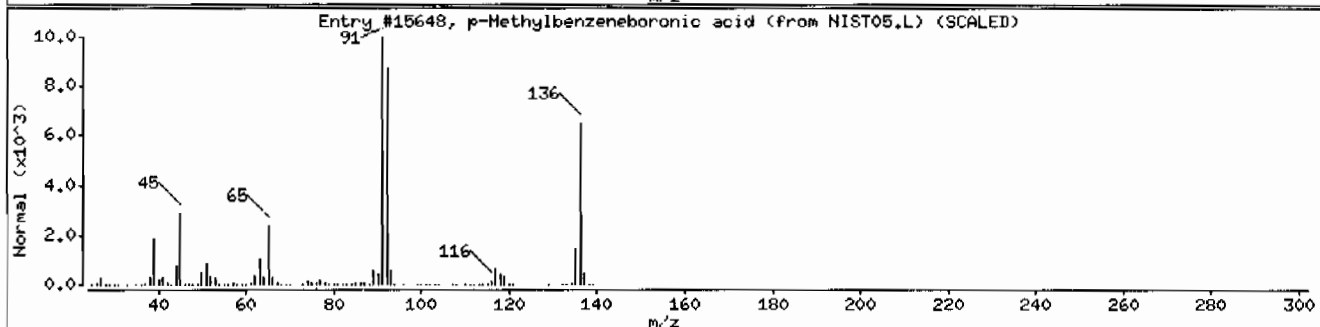
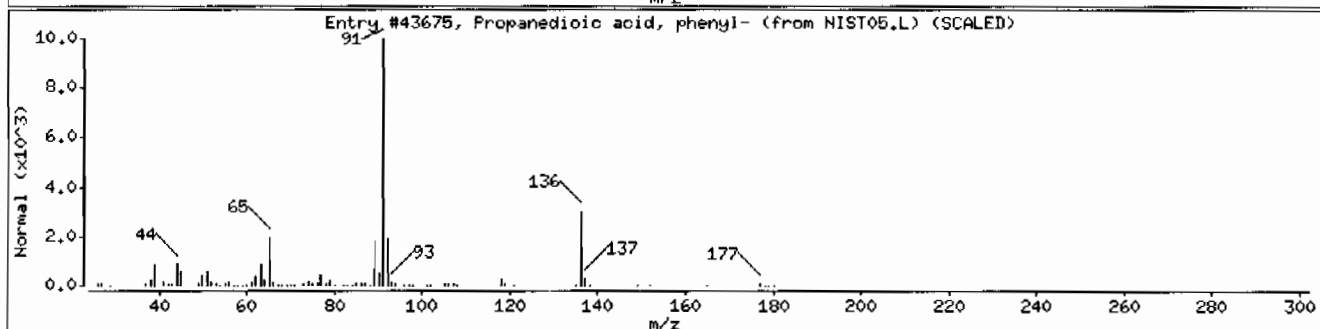
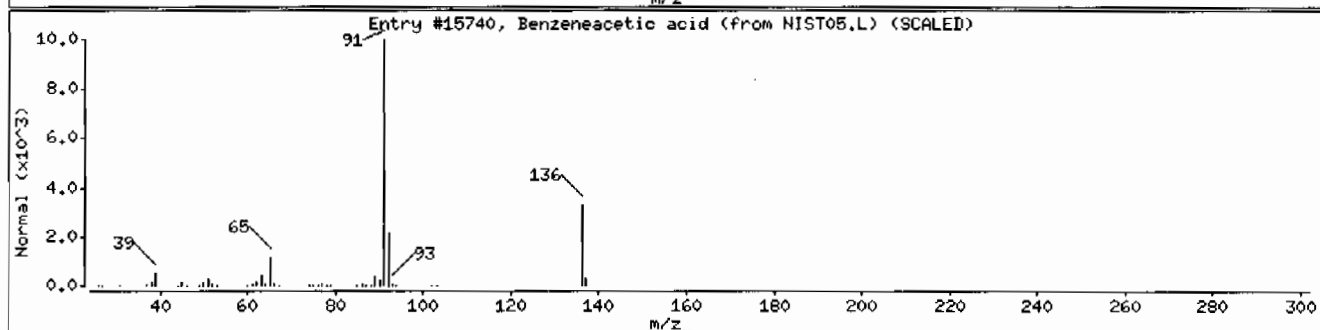
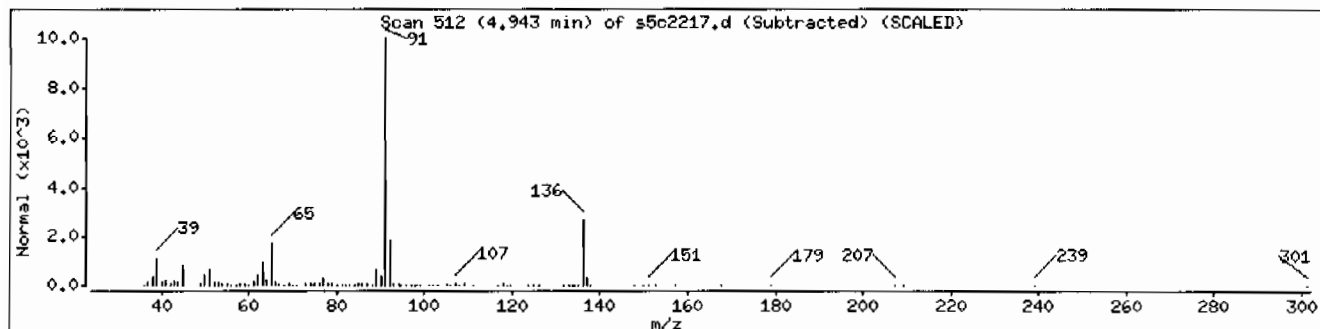
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzeneacetic acid	103-82-2	NIST05.L	15740	91	C8H8O2	136
Propanedioic acid, phenyl-	2613-89-0	NIST05.L	43675	90	C9H8O4	180
p-Methylbenzeneboronic acid	5720-05-8	NIST05.L	15648	72	C7H9BO2	136



Date: 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 12485060061963086111SVH111LANL

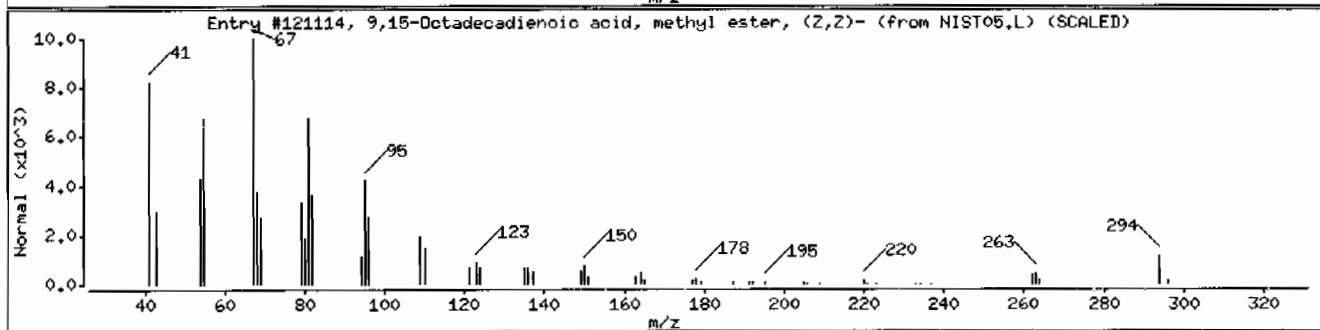
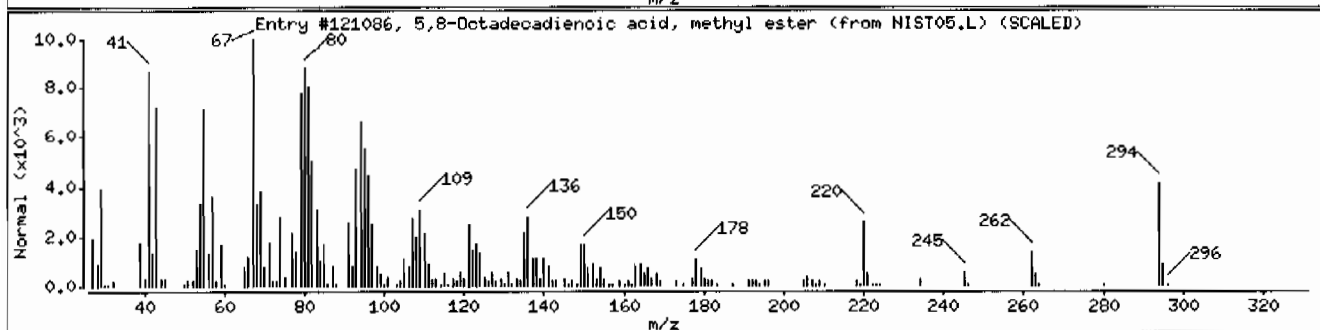
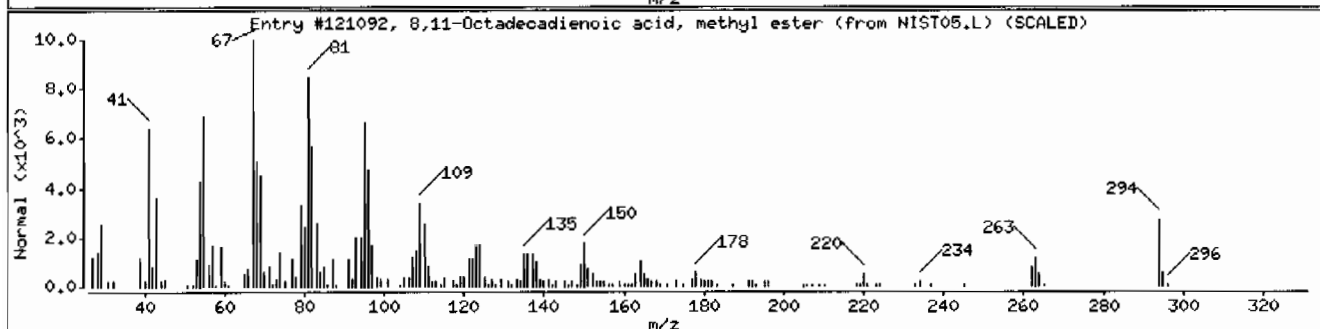
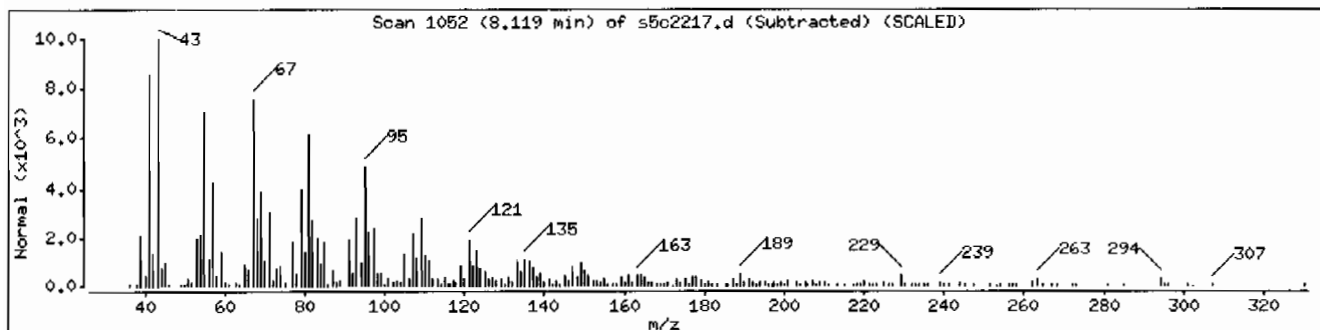
Volume Injected (uL): 0.5

Operator: RHB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
8,11-Octadecadienoic acid, methyl ester	56599-58-7	NIST05.L	121092	91	C19H34O2	294
5,8-Octadecadienoic acid, methyl ester	56630-74-1	NIST05.L	121086	89	C19H34O2	294
9,15-Octadecadienoic acid, methyl ester,	17309-05-6	NIST05.L	121114	83	C19H34O2	294



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: I248506006I963086I1ISVM11ILANL

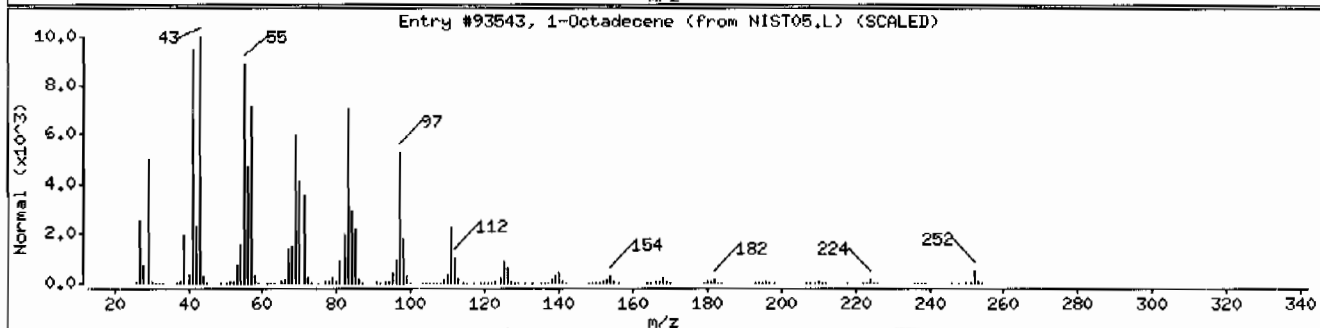
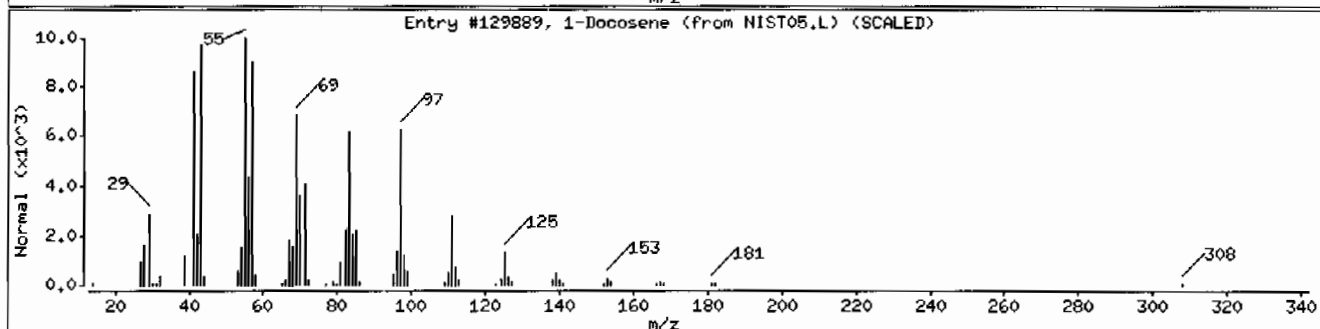
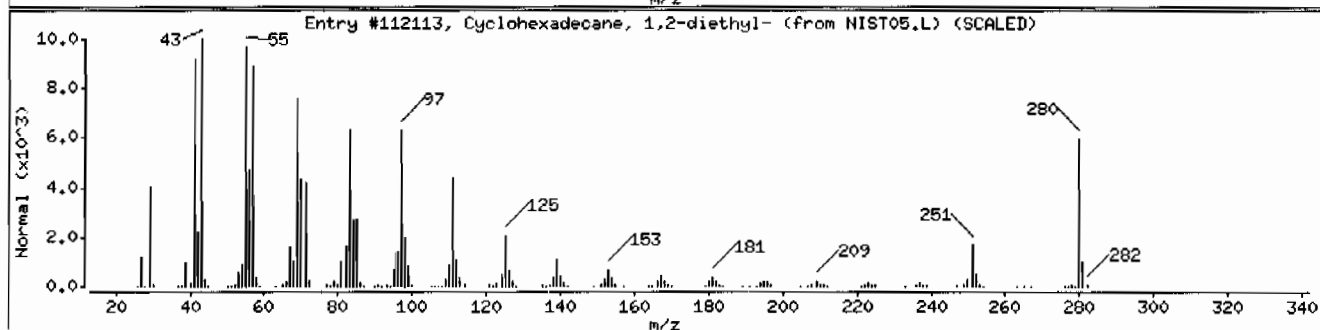
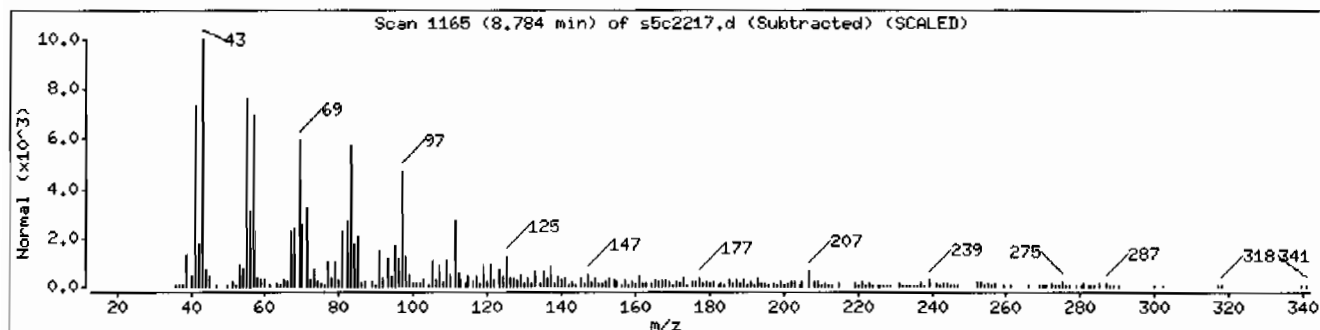
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclohexadecane, 1,2-diethyl-	1000155-85-3	NIST05.L	112113	97	C20H40	280
1-Docosene	1599-67-3	NIST05.L	129889	93	C22H44	308
1-Octadecene	112-88-9	NIST05.L	93543	89	C18H36	252



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 1248506006196308611SVH11LANL

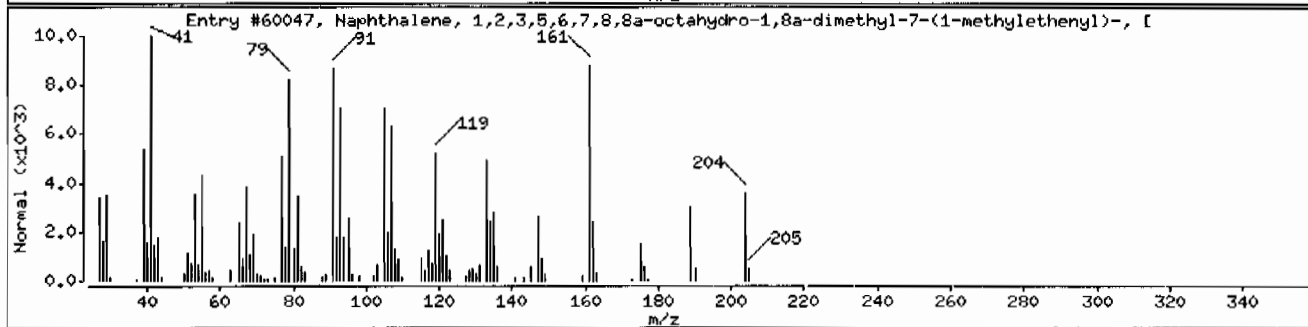
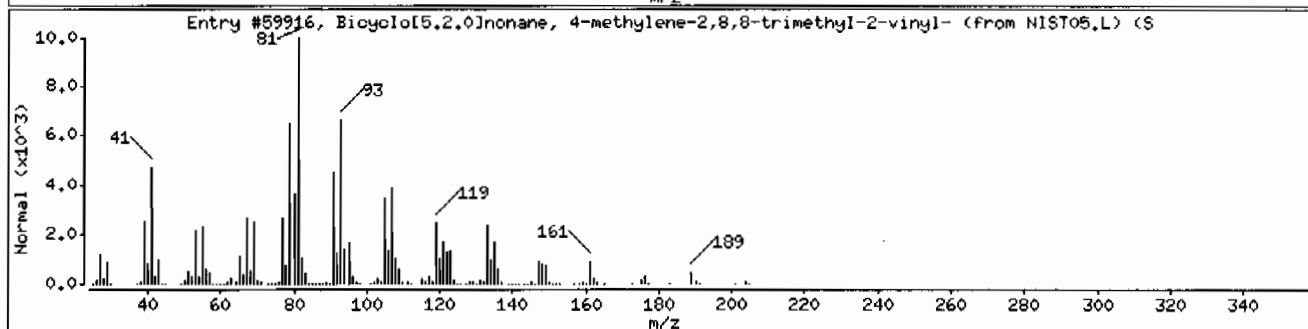
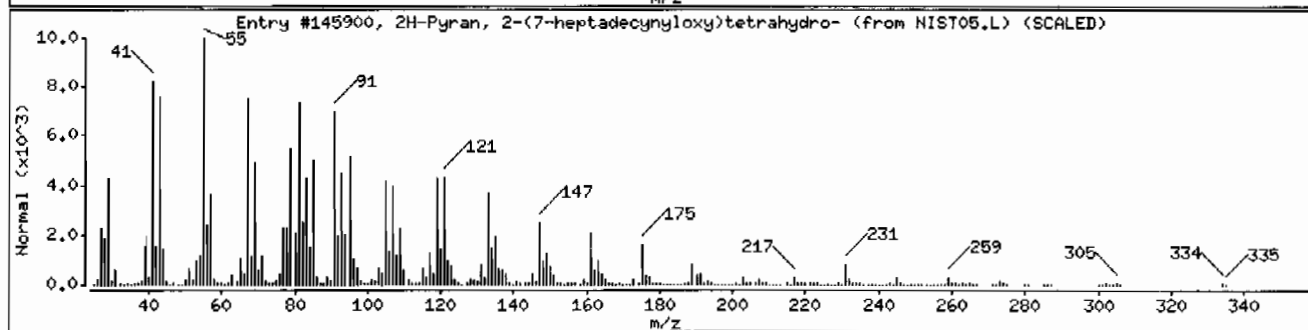
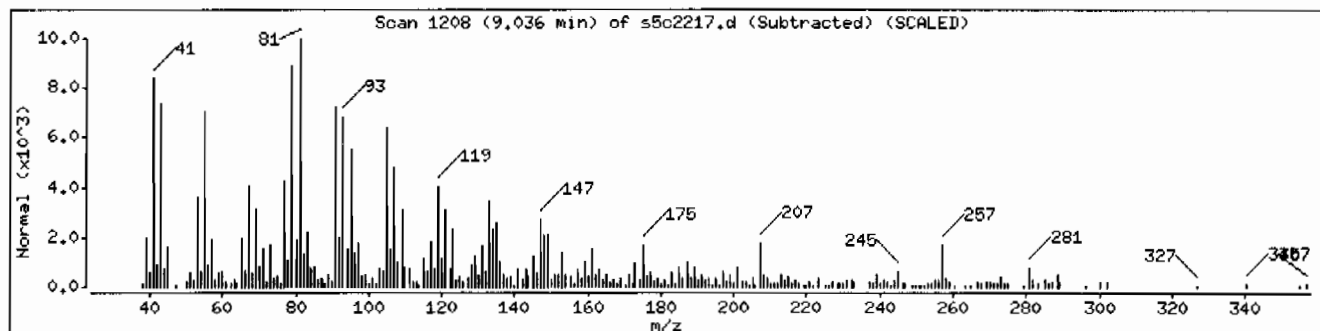
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2H-Pyran, 2-(7-heptadecyloxy)tetrahydr	56599-50-9	NIST05.L	145900	58	C22H40O2	336
Bicyclo[5.2.0]nonane, 4-methylene-2,8,8-	1000159-38-2	NIST05.L	59916	49	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60047	43	C15H24	204



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: I248506006I963086I1ISVMI1ILANL

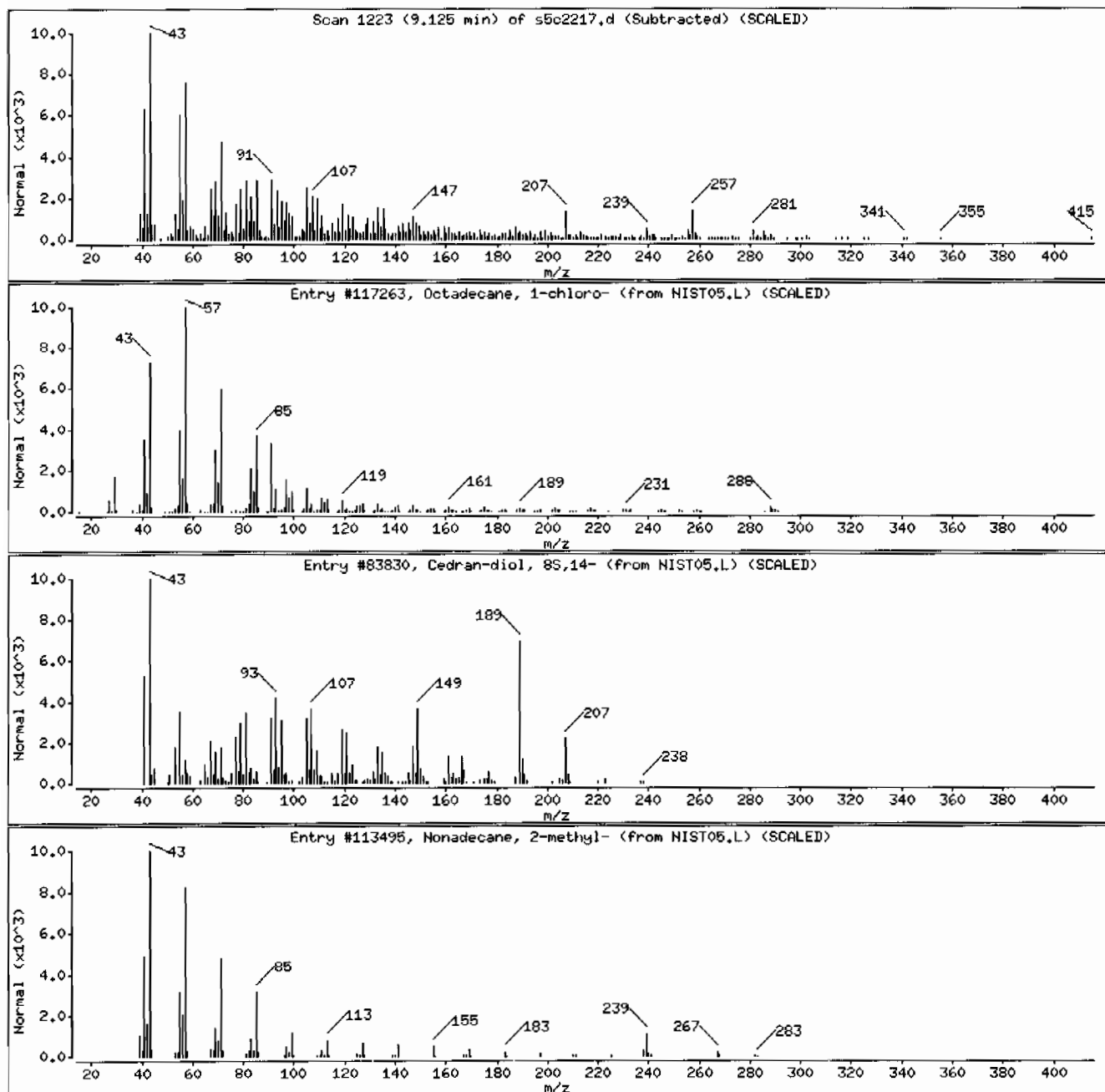
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Octadecane, 1-chloro-	3386-33-2	NIST05.L	117263	80	C18H37Cl	288
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	38	C15H26O2	238
Nonadecane, 2-methyl-	1560-86-7	NIST05.L	113495	38	C20H42	282





Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 1248506006196308611|SVH11|LANL

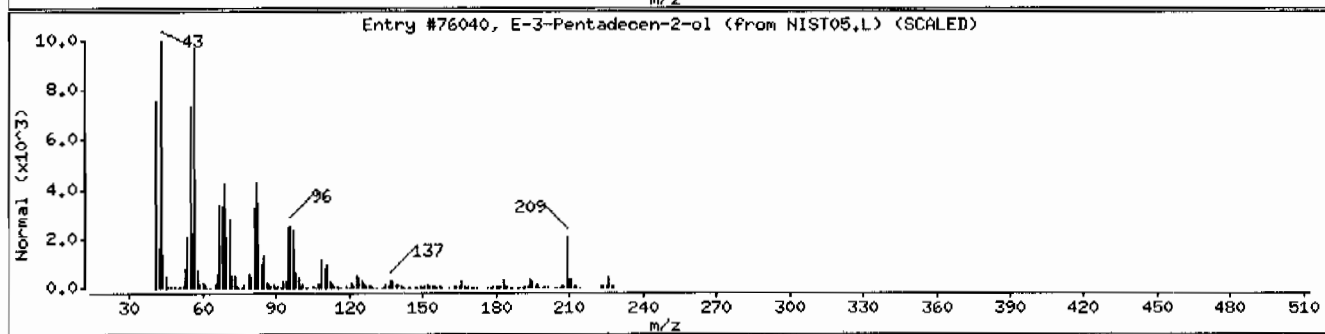
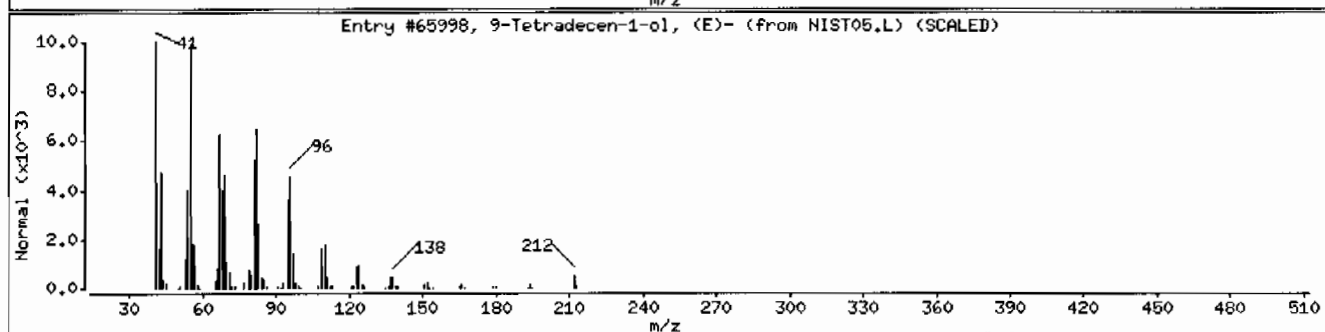
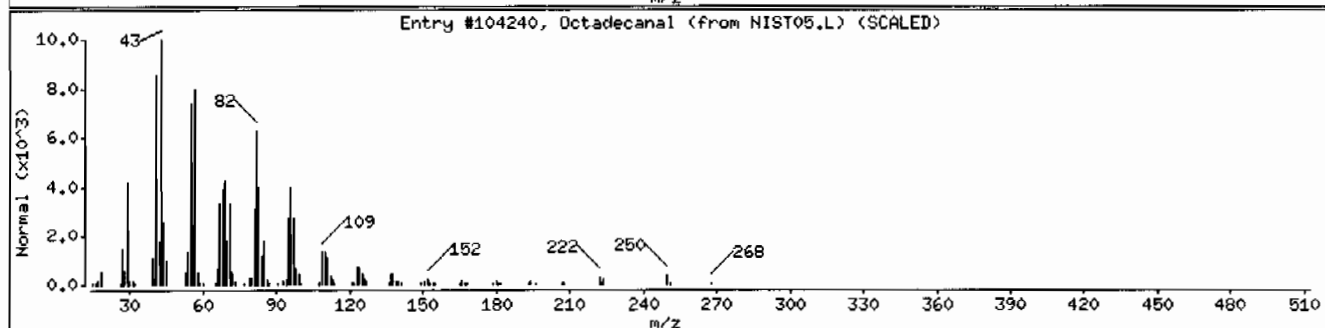
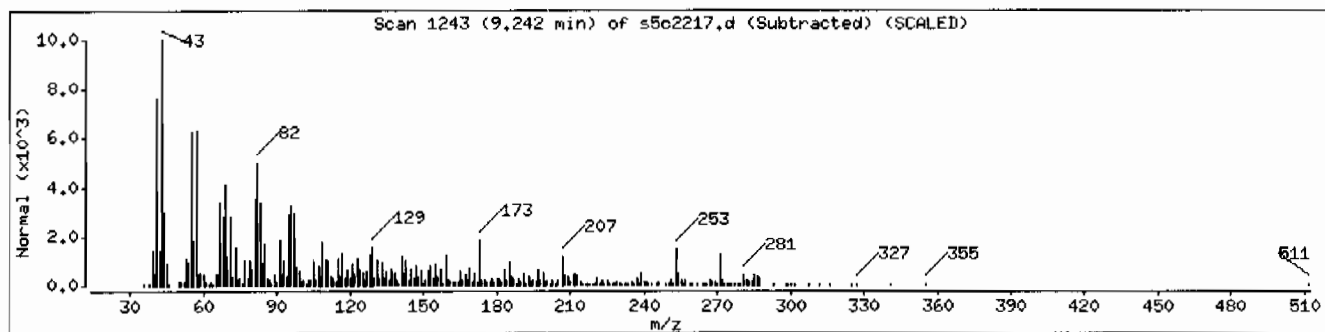
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Octadecanal	638-66-4	NIST05.L	104240	95	C18H36O	268
9-Tetradecen-1-ol, (E)-	52957-16-1	NIST05.L	65998	91	C14H28O	212
E-3-Pentadecen-2-ol	1000130-83-8	NIST05.L	76040	89	C15H30O	226



Date: 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: HSD5.i

Sample Info: 1248506006196308611SVMI11LANL

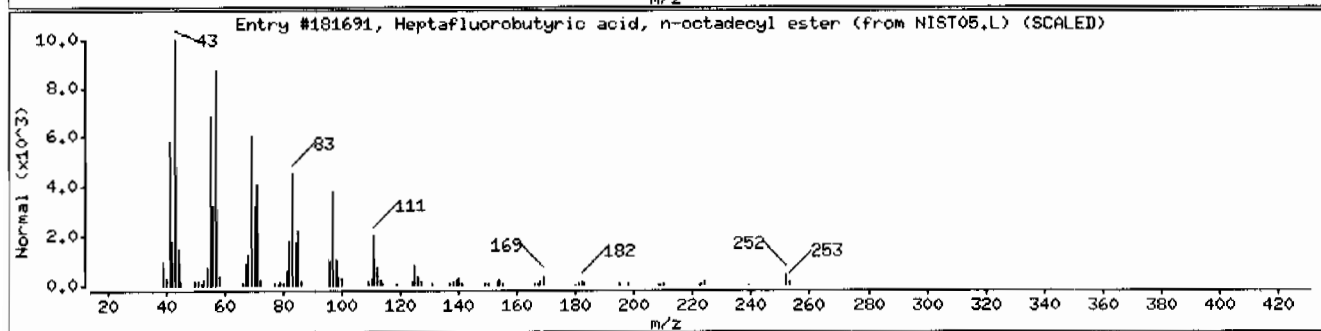
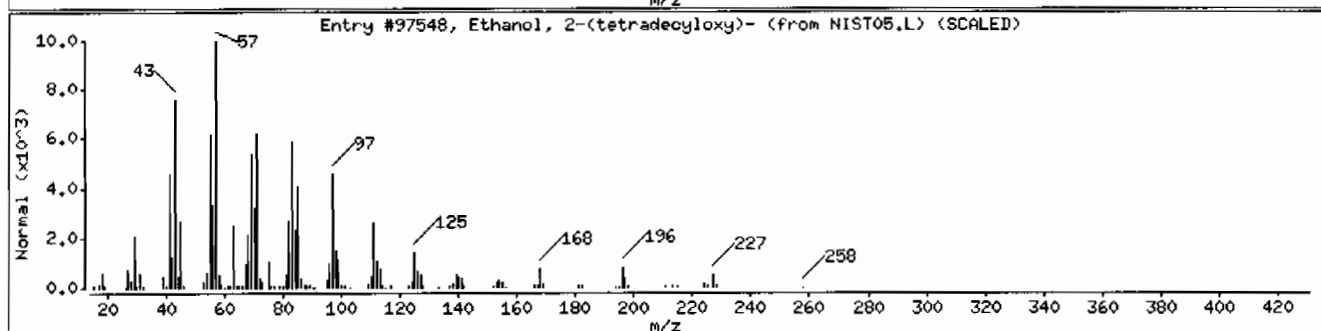
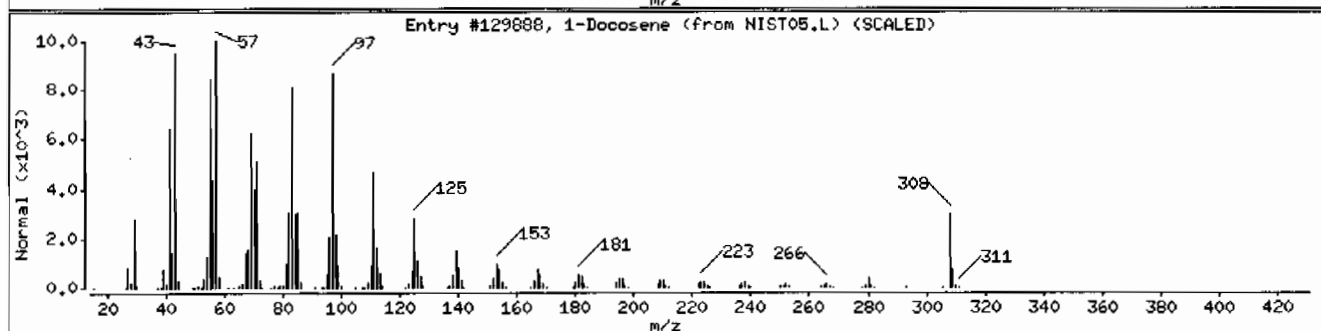
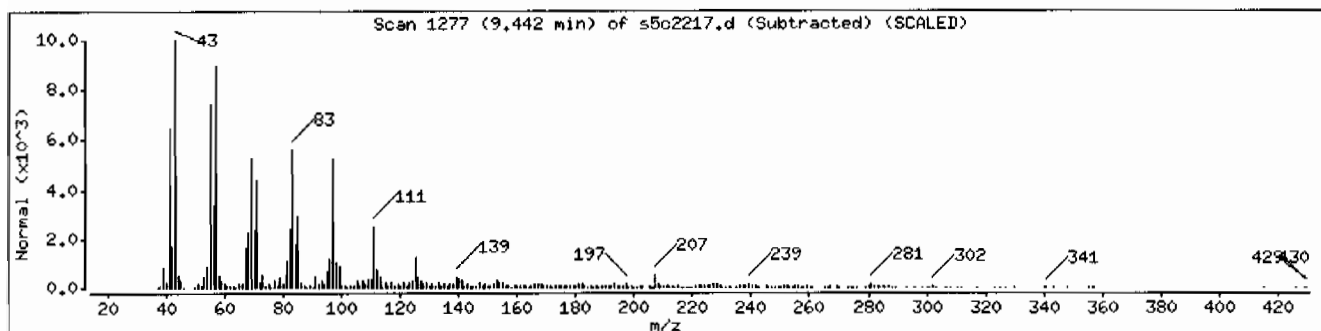
Volume Injected (uL): 0.5

Operator: RMB

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	98	C22H44	308
Ethanol, 2-(tetradecyloxy)-	2136-70-1	NIST05.L	97548	95	C16H34O2	258
Heptafluorobutyric acid, n-octadecyl est	400-57-7	NIST05.L	181691	91	C22H37F7O2	466



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 1248506006196308611SVMI11LANL

Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

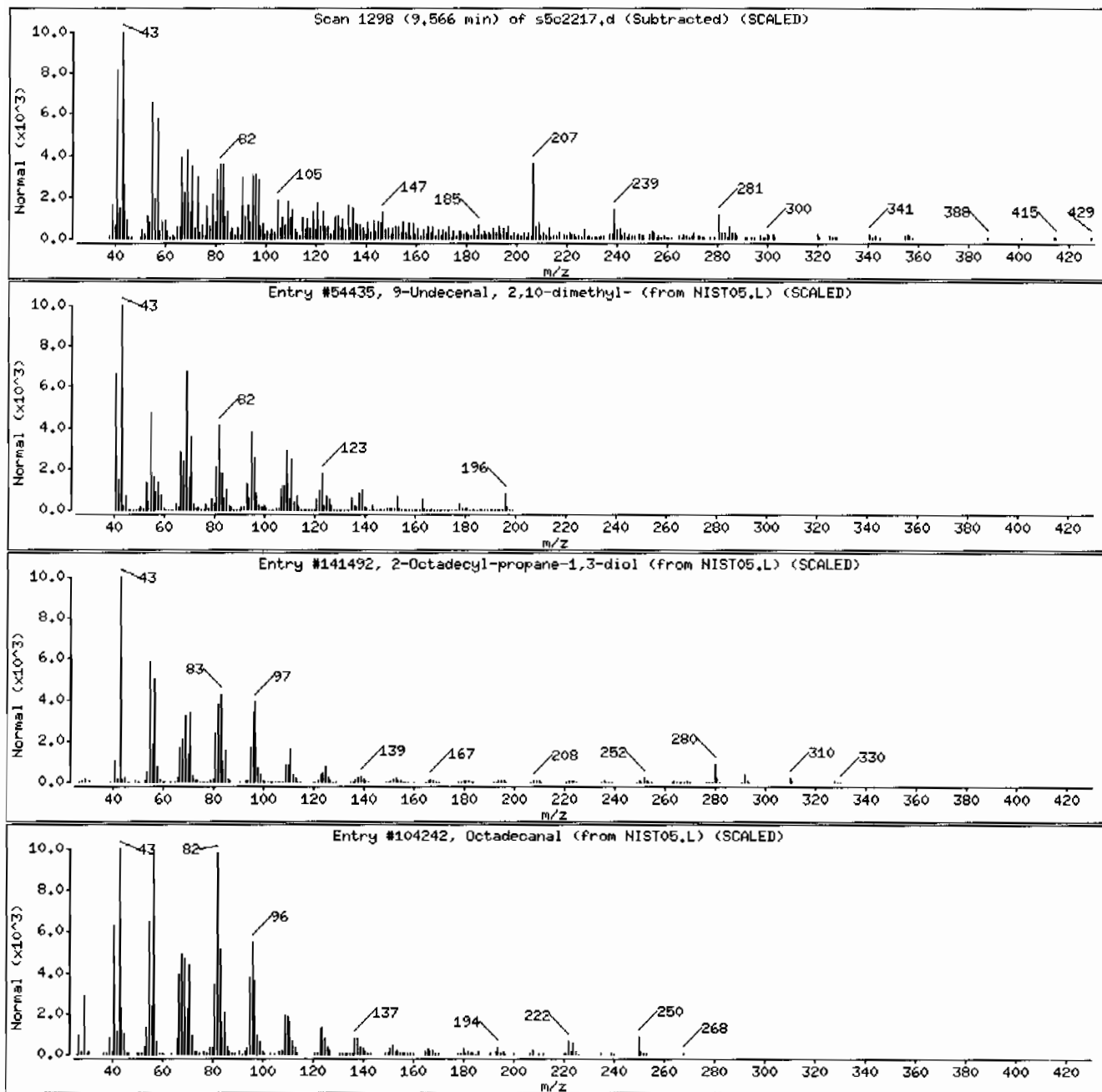
Library Search Compound Match  
Unknown

9-Undecenal, 2,10-dimethyl-

2-Octadecyl-propane-1,3-diol

Octadecanal

CAS Number	Library	Entry	Quality	Formula	Weight
1000131-85-9	NIST05.L	54435	68	C13H24O	196
5337-61-1	NIST05.L	141492	62	C21H44O2	328
638-66-4	NIST05.L	104242	55	C18H36O	268



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: I248506006196308611SVH11ILANL

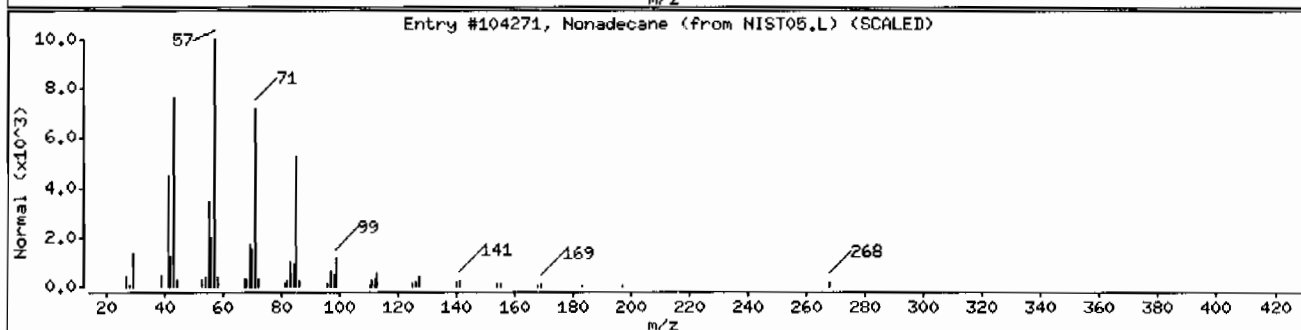
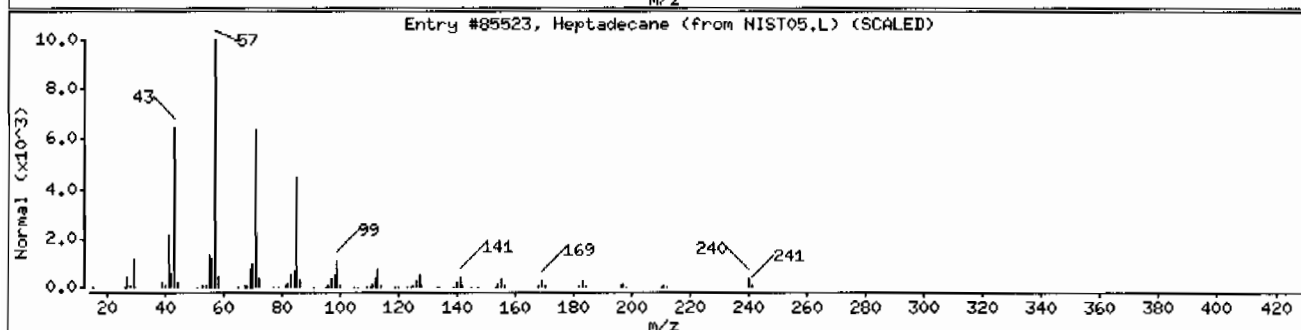
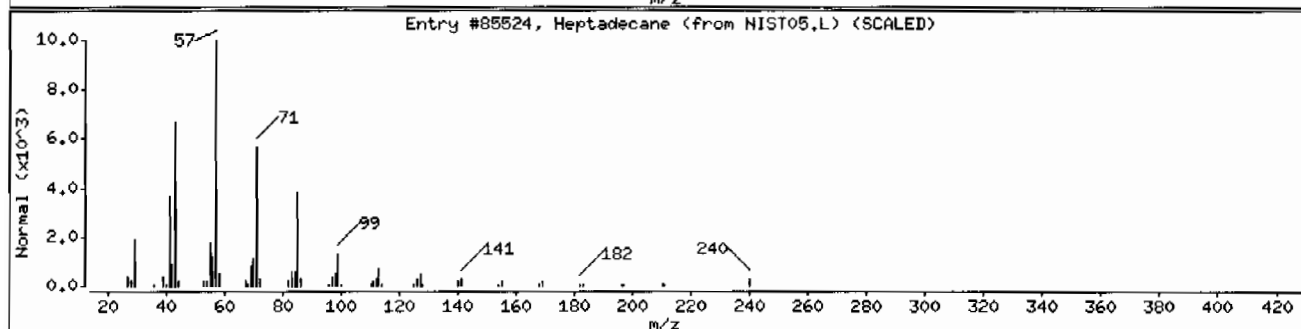
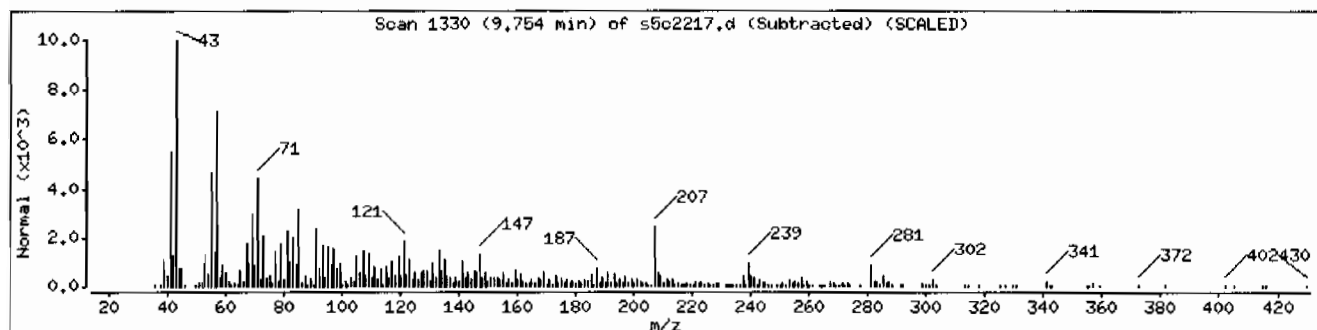
Volume Injected (uL): 0.5

Operator: RMB

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	94	C17H36	240
Heptadecane	629-78-7	NIST05.L	85523	86	C17H36	240
Nonadecane	629-92-5	NIST05.L	104271	83	C19H40	268



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 12485060061963086111SVH111LANL

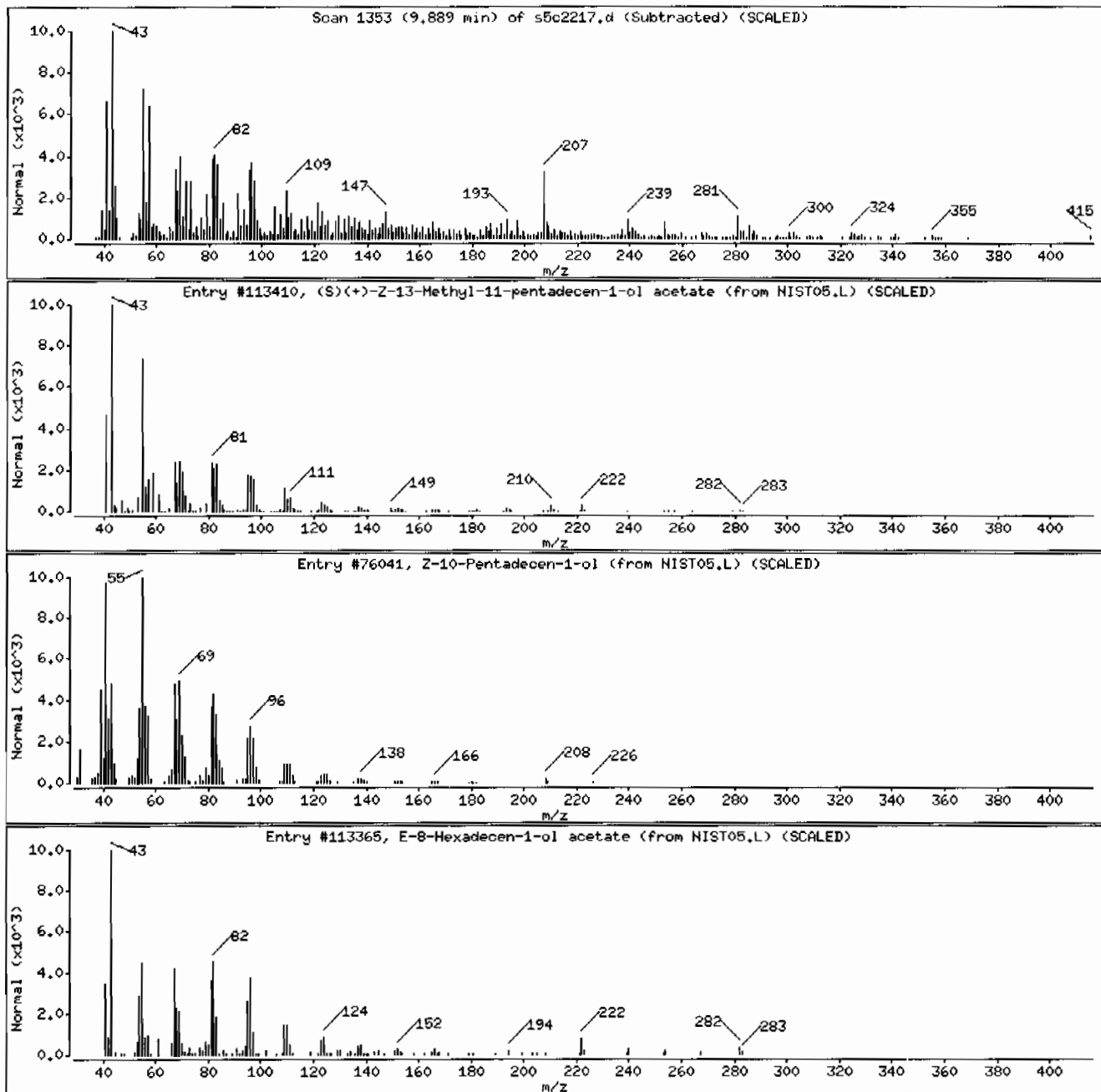
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
(S)(+)-Z-13-Methyl-11-pentadecen-1-ol ac	1000130-84-8	NIST05.L	113410	86	C18H34O2	282
Z-10-Pentadecen-1-ol	1000245-48-5	NIST05.L	76041	70	C15H30O	226
E-8-Hexadecen-1-ol acetate	1000131-01-1	NIST05.L	113365	66	C18H34O2	282



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 12485060061963086111SVH111LANL

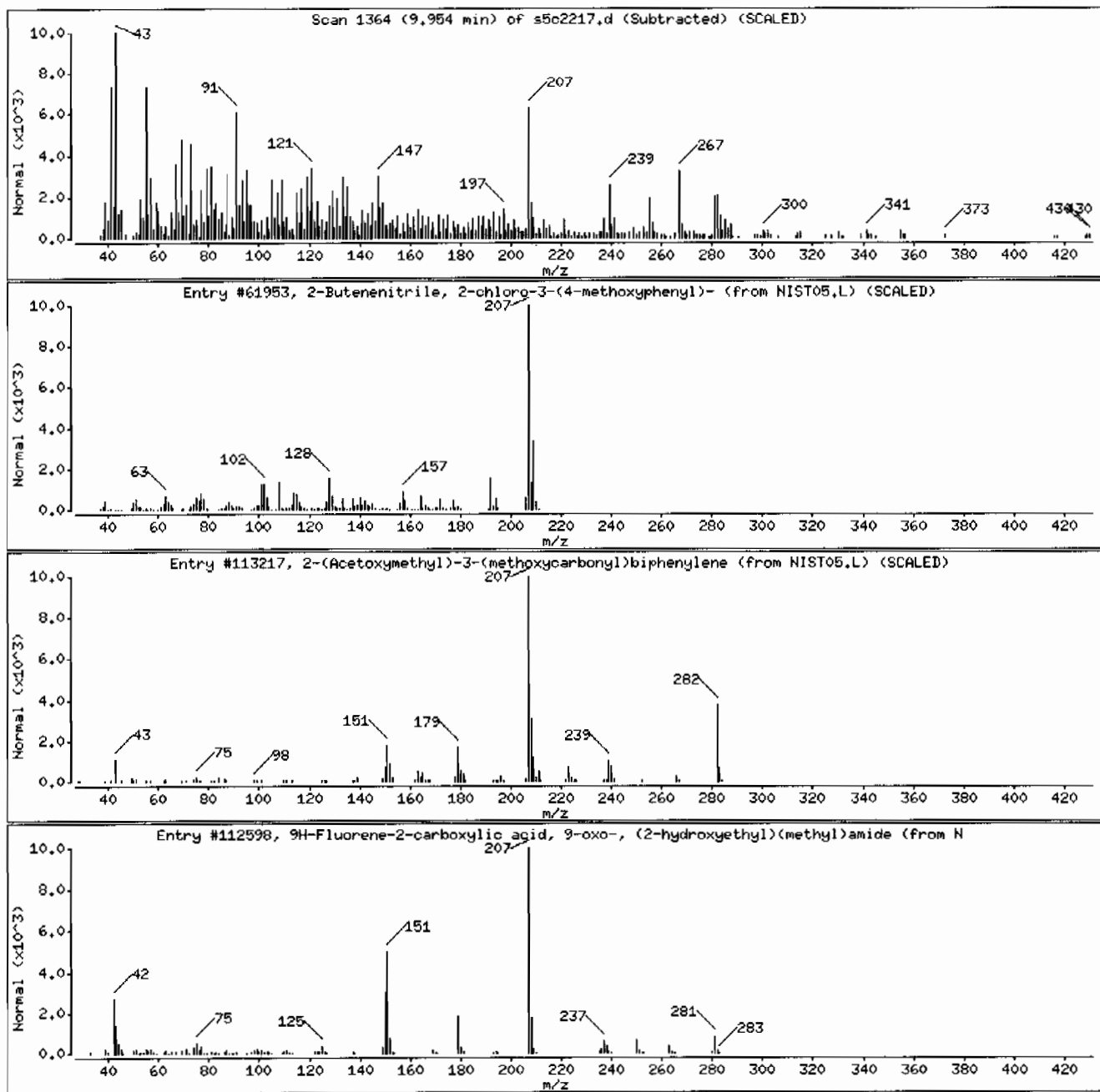
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Butenenitrile, 2-chloro-3-(4-methoxyph	1000305-66-7	NIST05.L	61953	41	C11H10ClNO	207
2-(Acetoxymethyl)-3-(methoxycarbonyl)bip	93103-70-9	NIST05.L	113217	38	C17H14O4	282
9H-Fluorene-2-carboxylic acid, 9-oxo-, (	1000316-02-1	NIST05.L	112598	30	C17H15NO3	281



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 12485060061963086111SVH111LANL

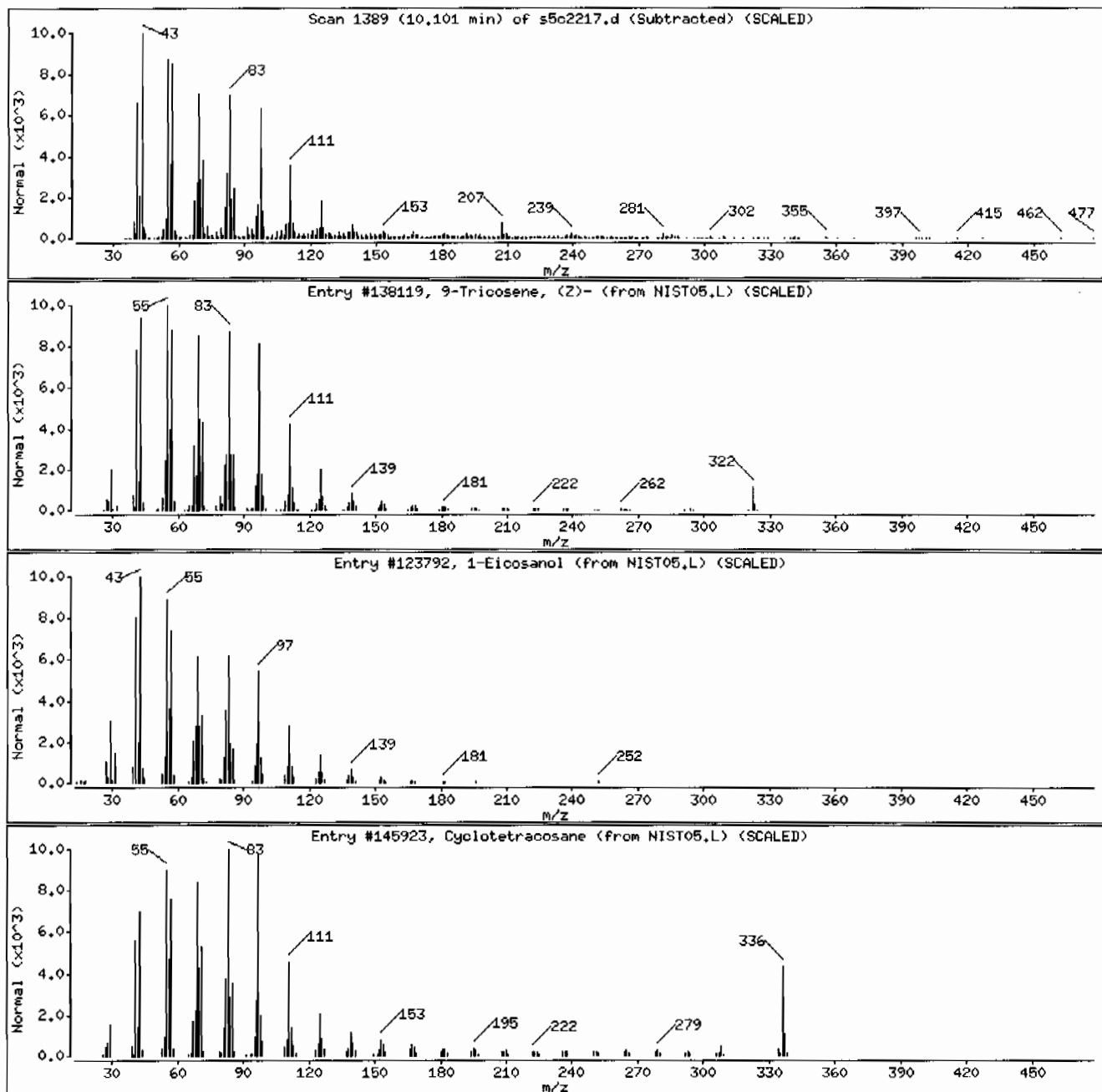
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Tricosene, (Z)-	27519-02-4	NIST05.L	138119	94	C23H46	322
1-Eicosanol	629-96-9	NIST05.L	123792	93	C20H42O	298
Cyclotetracosane	297-03-0	NIST05.L	145923	91	C24H48	336



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: HSD5.i

Sample Info: 1248506006196308611SVH11ILANL

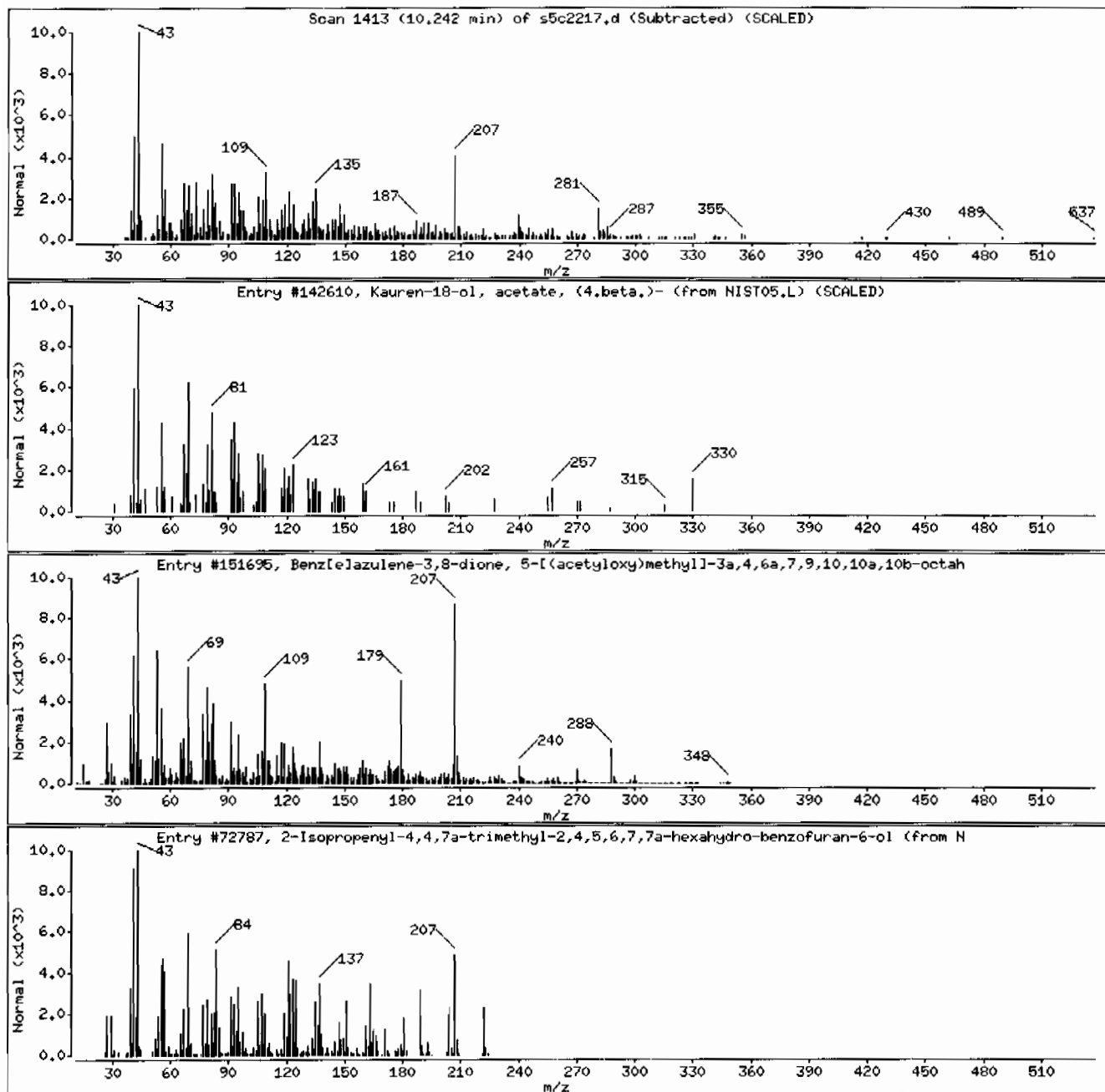
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Kauren-18-ol, acetate, (4.beta.)-	72150-74-4	NIST05.L	142610	15	C22H34O2	330
Benz[e]azulene-3,8-dione, 5-[(acetyloxy)	25536-74-7	NIST05.L	151695	12	C19H24O6	348
2-Isopropenyl-4,4,7a-trimethyl-2,4,5,6,7	1000189-13-5	NIST05.L	72787	12	C14H22O2	222





Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 12485060061963086111SVH111LANL

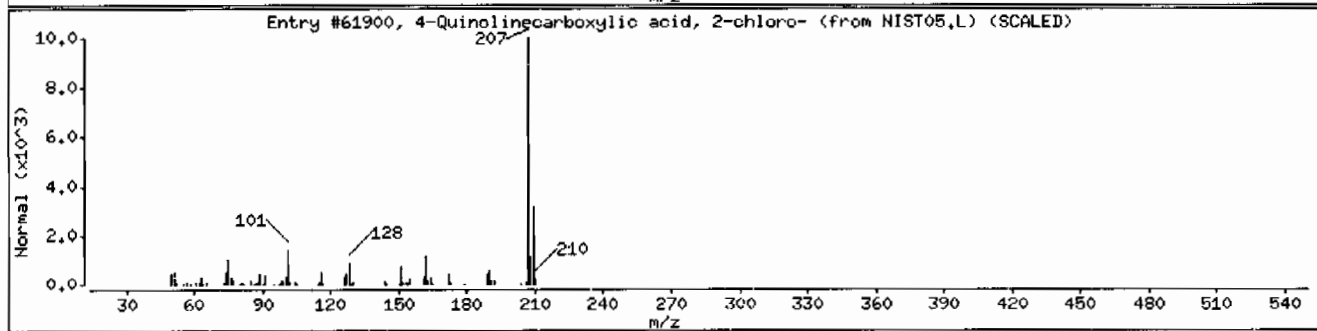
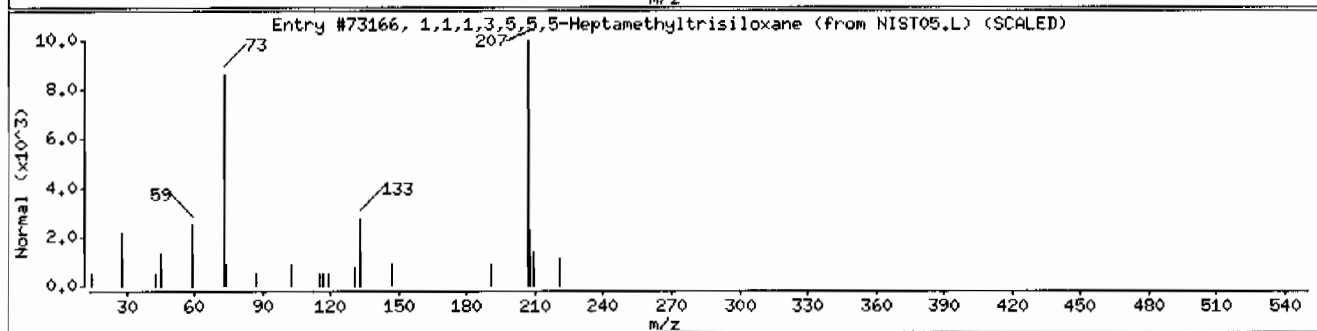
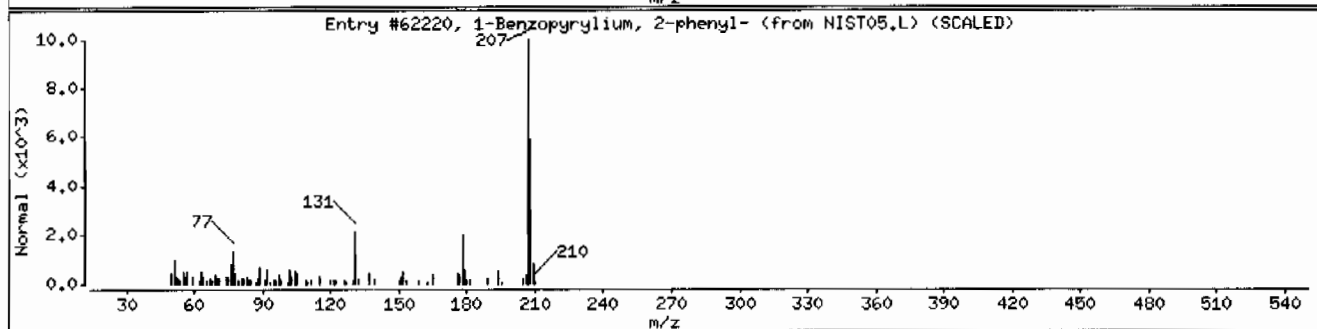
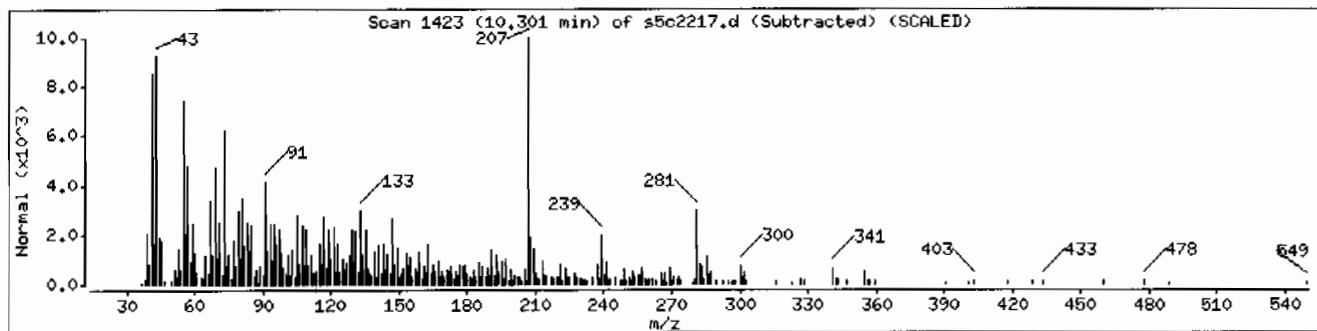
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Benzopyrylium, 2-phenyl-	14051-53-7	NIST05.L	62220	55	C15H11O	207
1,1,1,3,5,5,5-Heptamethyltrisiloxane	1873-88-7	NIST05.L	73166	43	C7H22O2Si3	222
4-Quinolincarboxylic acid, 2-chloro-	5467-57-2	NIST05.L	61900	38	C10H6ClNO2	207



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: HSD5.i

Sample Info: 12485060061963086111SVH111LANL

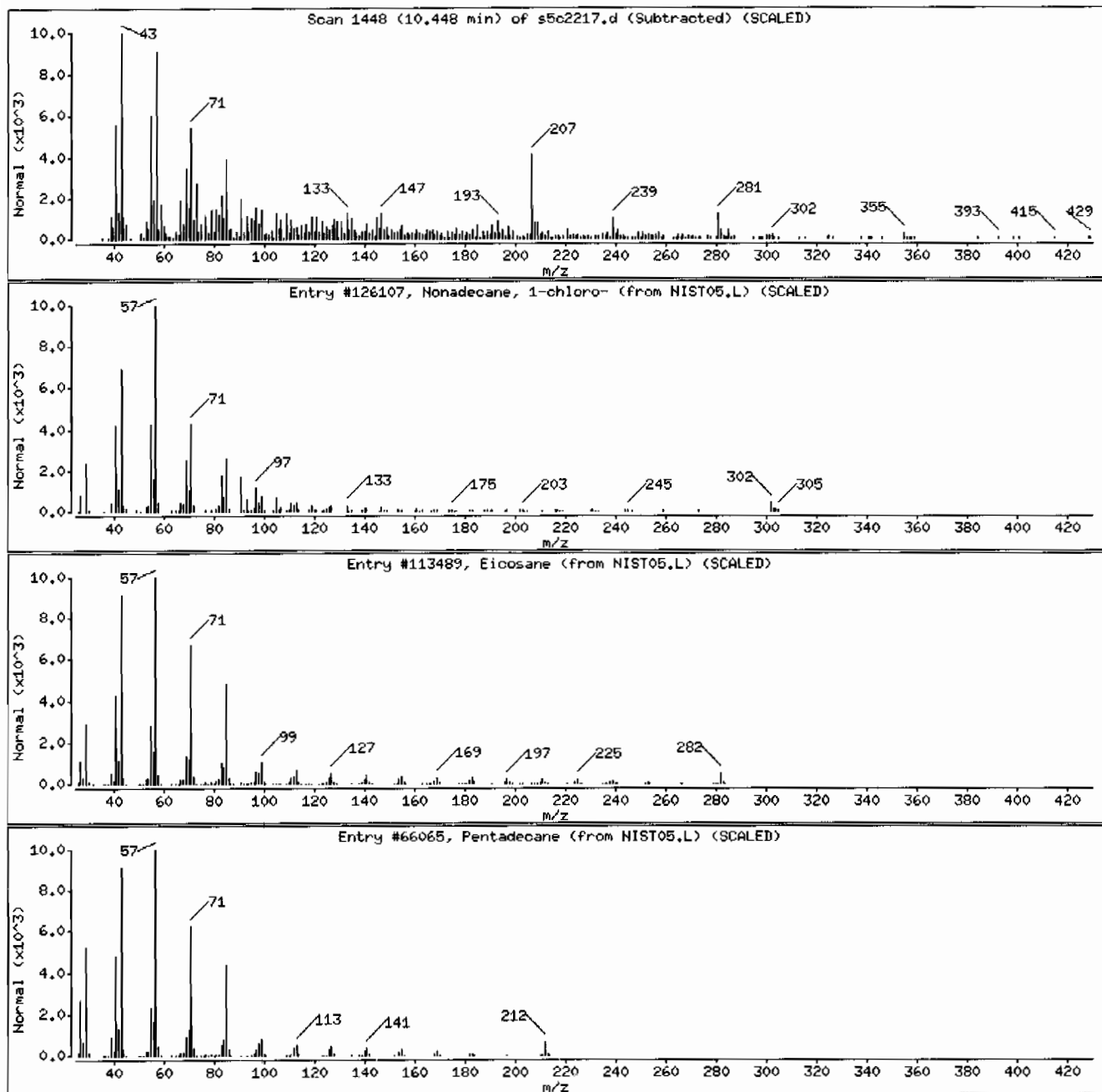
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Nonadecane, 1-chloro-	62016-76-6	NIST05.L	126107	86	C19H39Cl	302
Eicosane	112-95-8	NIST05.L	113489	86	C20H42	282
Pentadecane	629-62-9	NIST05.L	66065	81	C15H32	212



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 1248506006196308611|SVMI1|LANL

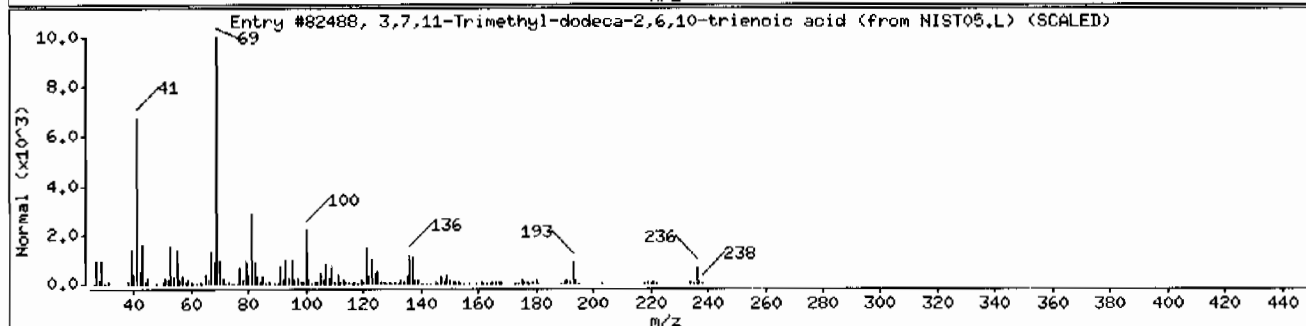
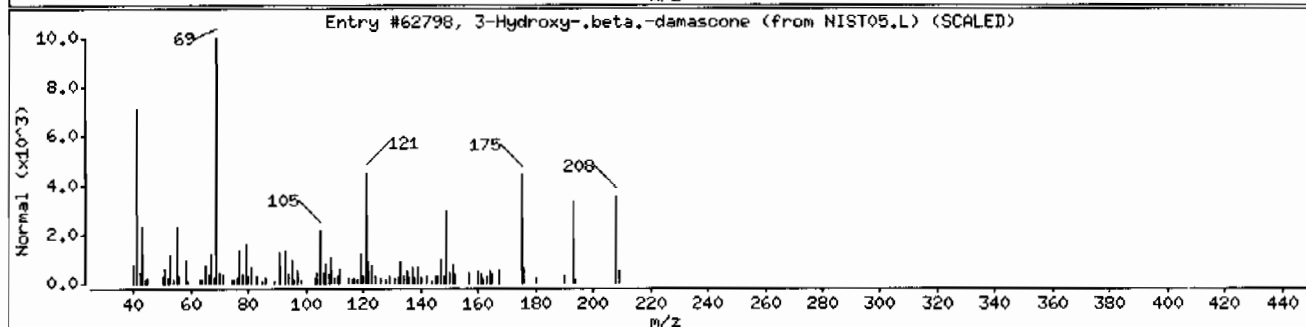
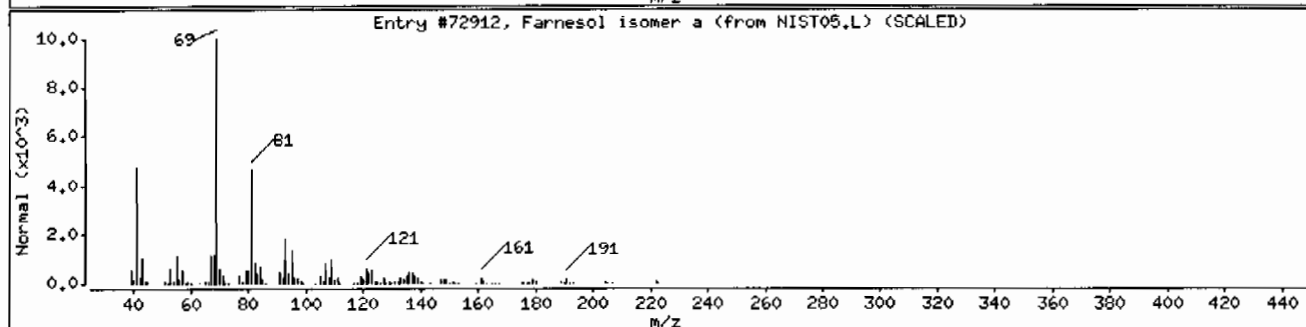
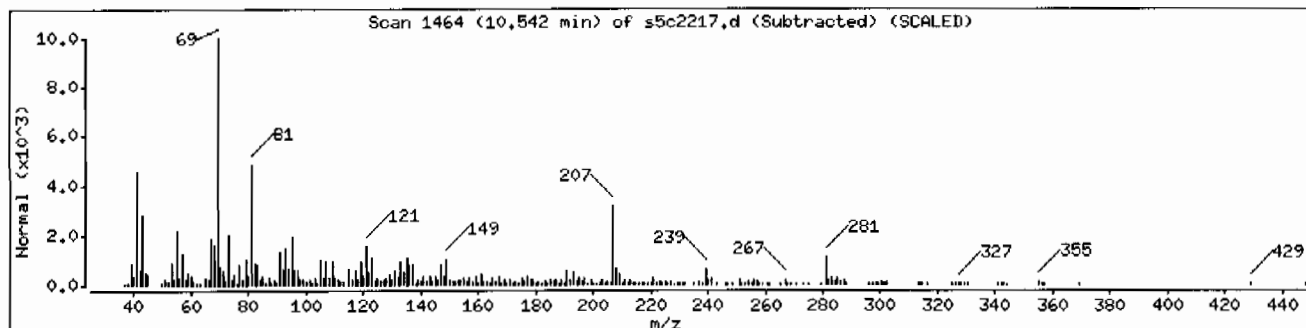
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Farnesol isomer a	1000108-92-4	NIST05.L	72912	46	C15H26O	222
3-Hydroxy-.beta.-damascone	1000314-35-7	NIST05.L	62798	43	C13H20O2	208
3,7,11-Trimethyl-dodeca-2,6,10-trienoic	7548-13-2	NIST05.L	82488	43	C15H24O2	236



Date: 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: I248506006196308611ISVM11ILANL

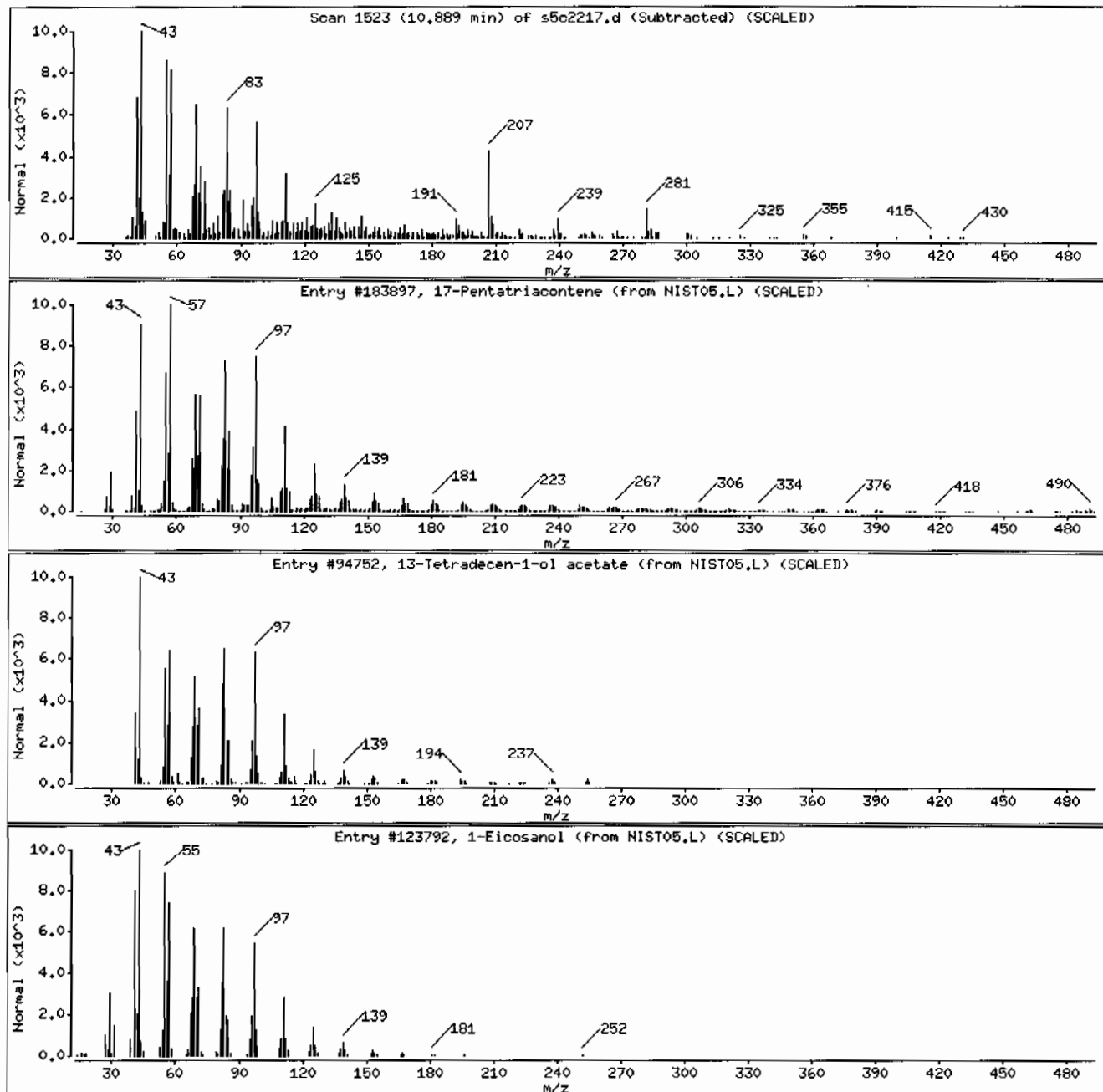
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
17-Pentatriacontene	6971-40-0	NIST05.L	183897	78	C35H70	491
13-Tetradecen-1-ol acetate	56221-91-1	NIST05.L	94752	60	C16H30O2	254
1-Eicosanol	629-96-9	NIST05.L	123792	55	C20H42O	298



Date: 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 12485060061963086111SVH111LANL

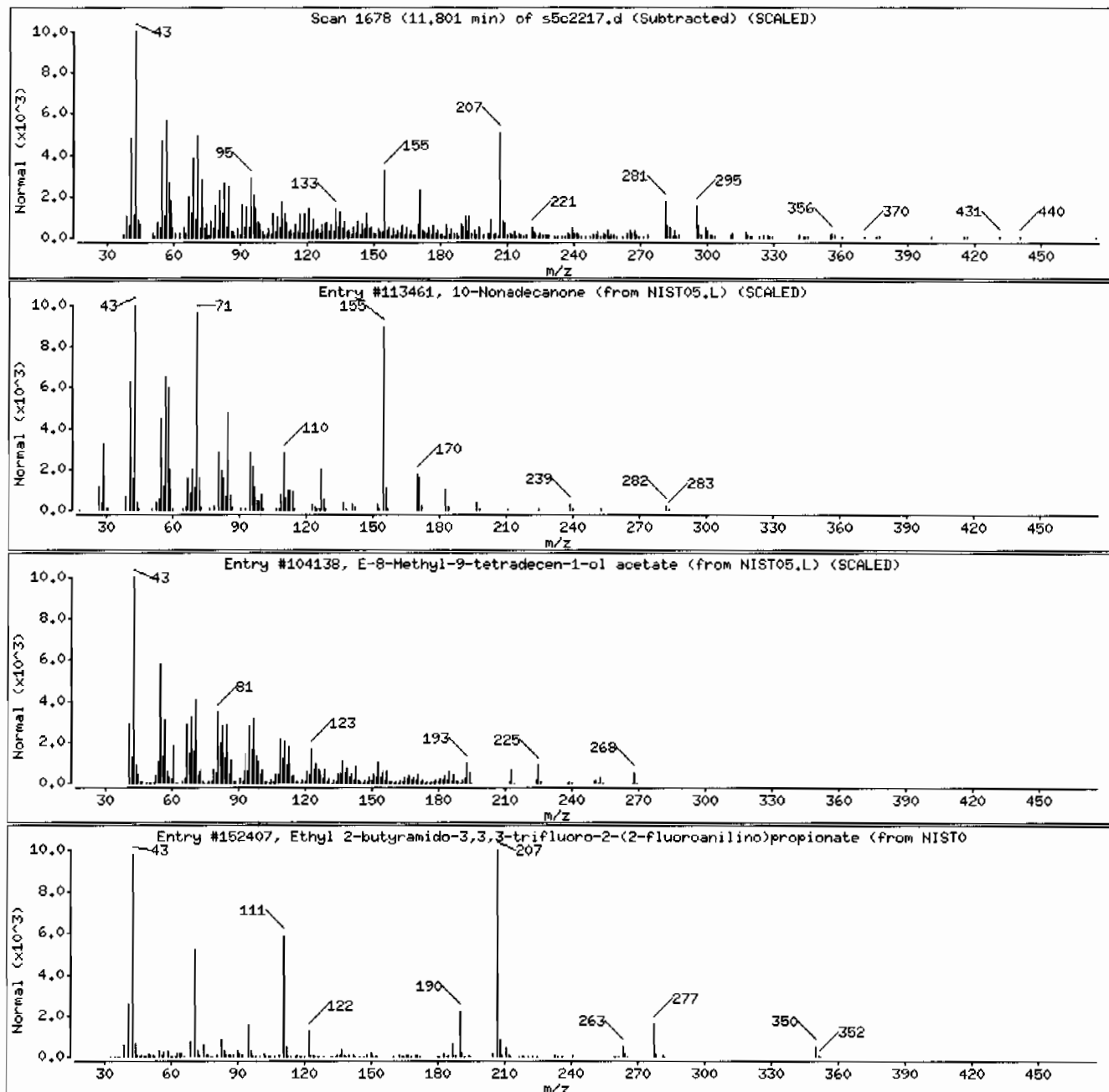
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
10-Nonadecanone	504-57-4	NIST05.L	113461	30	C19H38O	282
E-8-Methyl-9-tetradecen-1-ol acetate	1000130-81-4	NIST05.L	104138	30	C17H32O2	268
Ethyl 2-butyramido-3,3,3-trifluoro-2-(2-	1000224-16-0	NIST05.L	152407	27	C15H18F4N2O3	350



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 12485060061963086111SVH111LANL

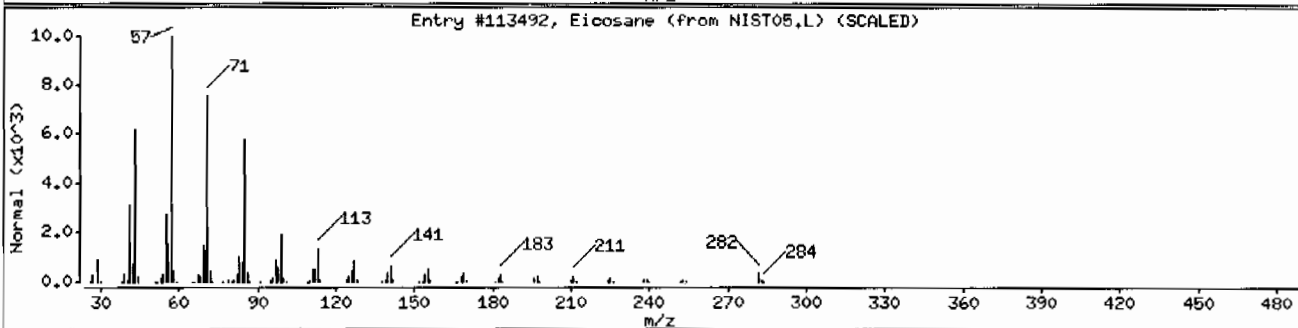
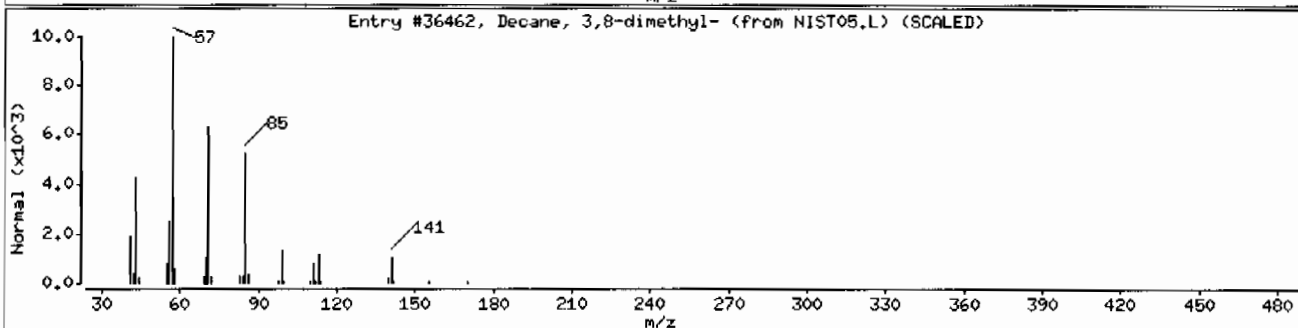
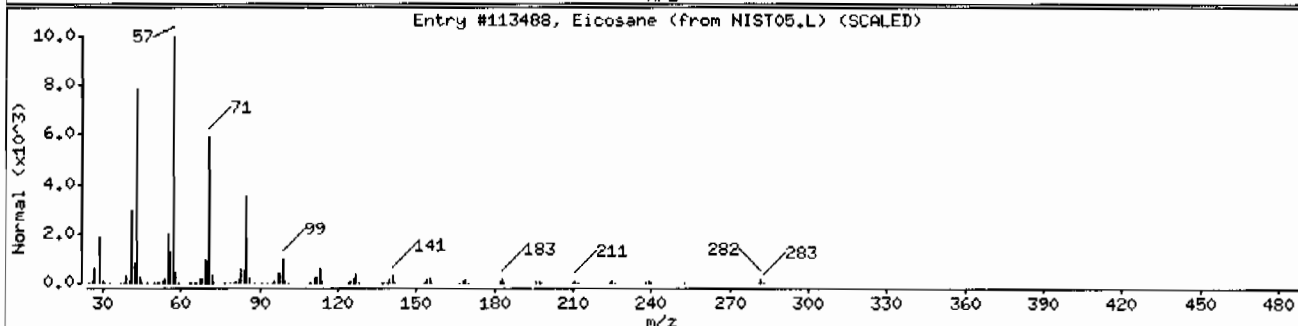
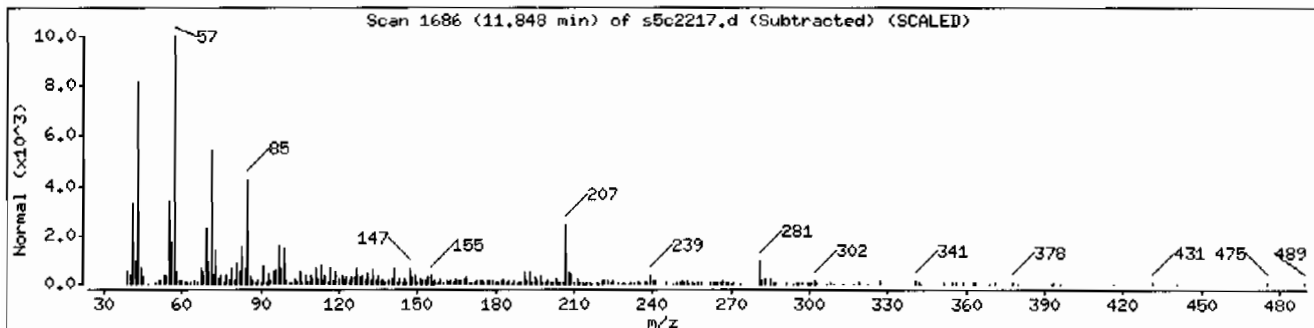
Volume Injected (uL): 0.5

Operator: RHB

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	113488	92	C20H42	282
Decane, 3,8-dimethyl-	17312-55-9	NIST05.L	36462	91	C12H26	170
Eicosane	112-95-8	NIST05.L	113492	90	C20H42	282



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 1248506006196308611ISVH11ILANL

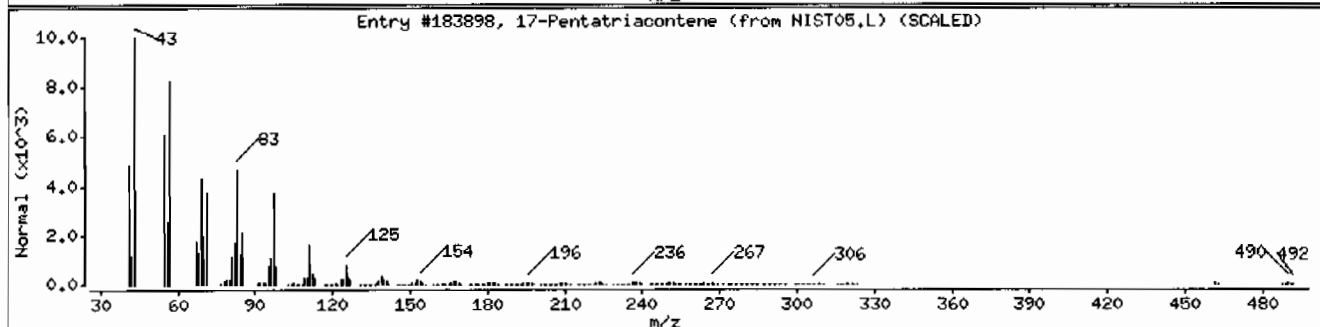
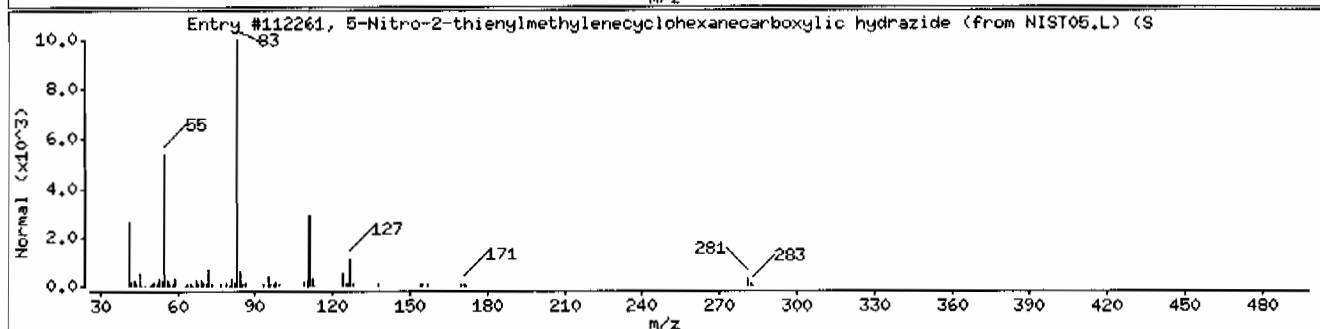
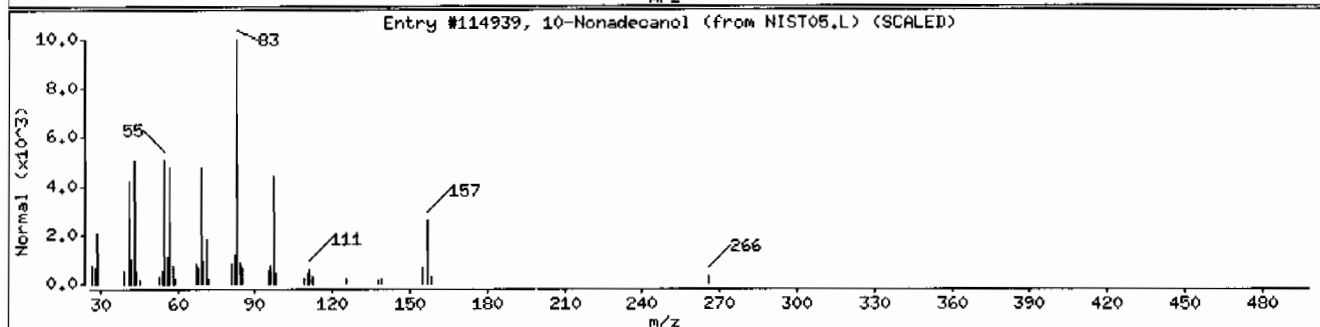
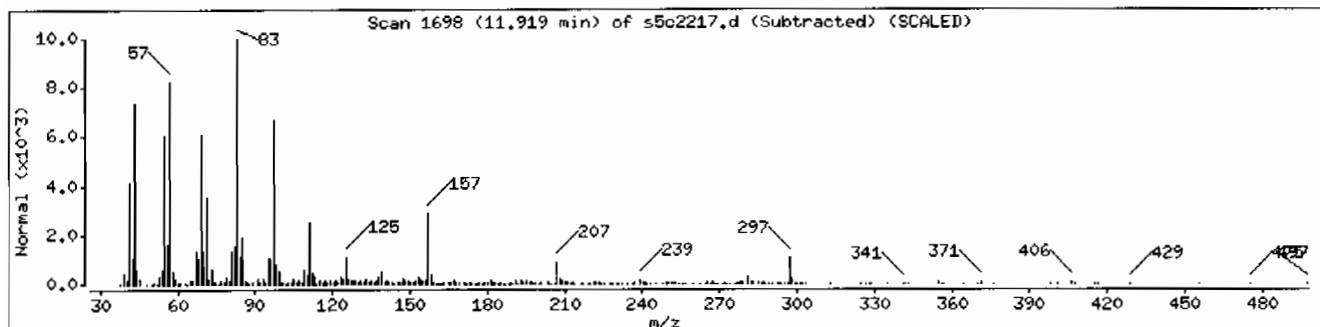
Volume Injected (uL): 0.5

Operator: RHB

Column phase: 3&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
10-Nonadecanol	16840-84-9	NIST05.L	114939	52	C19H40O	284
5-Nitro-2-thienylmethylenecyclohexanecar	42826-29-9	NIST05.L	112261	43	C12H15N3O3S	281
17-Pentatriacontene	6971-40-0	NIST05.L	183898	41	C35H70	491



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 12485060061963086111SVMI11LANL

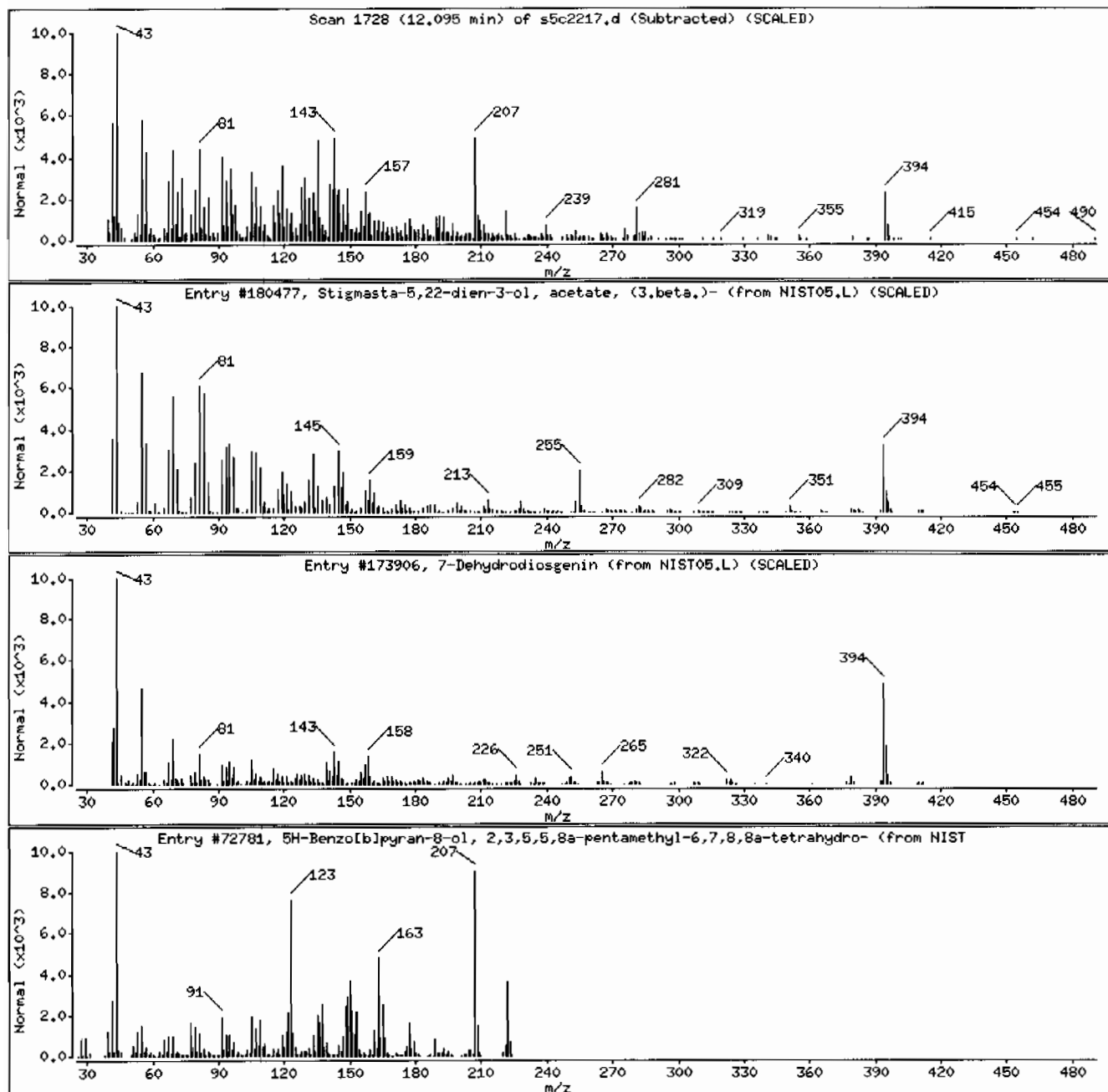
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Stigmasta-5,22-dien-3-ol, acetate, (3,be	4651-48-3	NIST05.L	180477	10	C31H50O2	454
7-Dehydrososigenin	85706-84-9	NIST05.L	173906	9	C27H40O3	412
5H-Benzo[b]pyran-8-ol, 2,3,5,5,8a-pentam	97306-66-6	NIST05.L	72781	9	C14H22O2	222





Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 12485060061963086111SVH111LANL

Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match

Unknown

9-Octadecenal, (Z)-

CAS Number

Library

Entry

Quality

Formula

Weight

2423-10-1

NIST05.L

102821

55

C18H34O

266

9-Octadecene, (E)-

7206-25-9

NIST05.L

93547

50

C18H36

252

Z-(13,14-Epoxy)tetradec-11-en-1-ol aceta

1000131-33-2

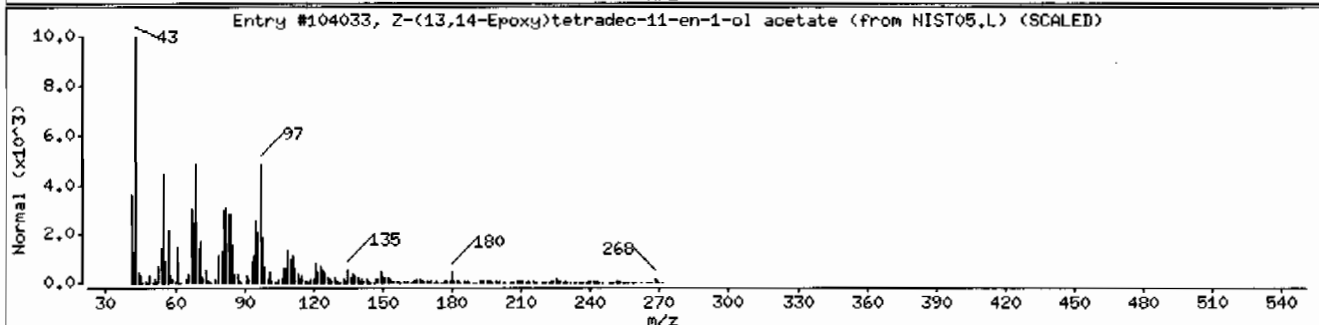
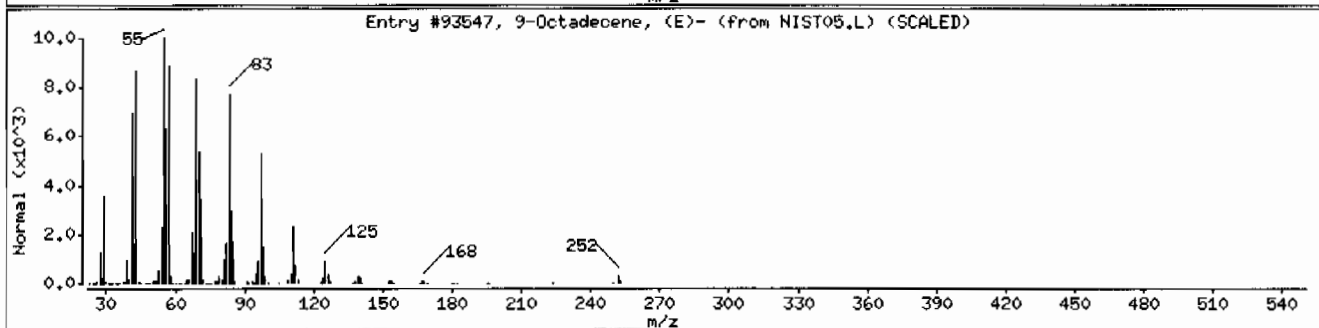
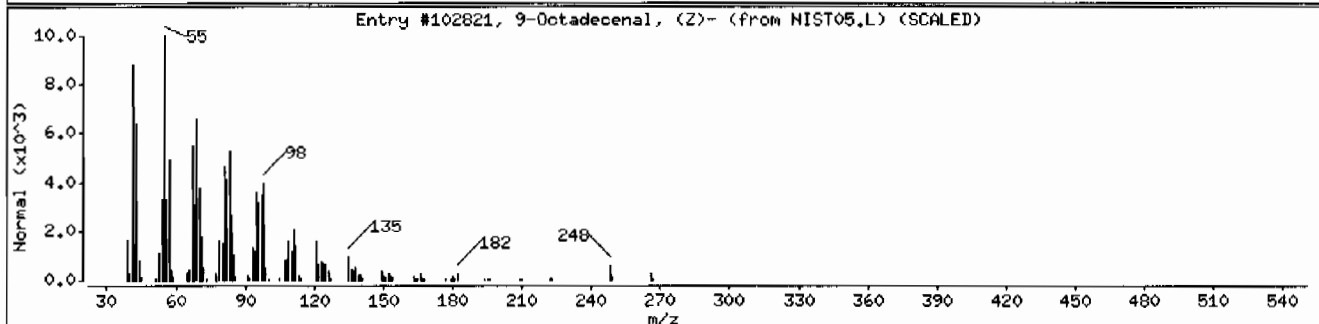
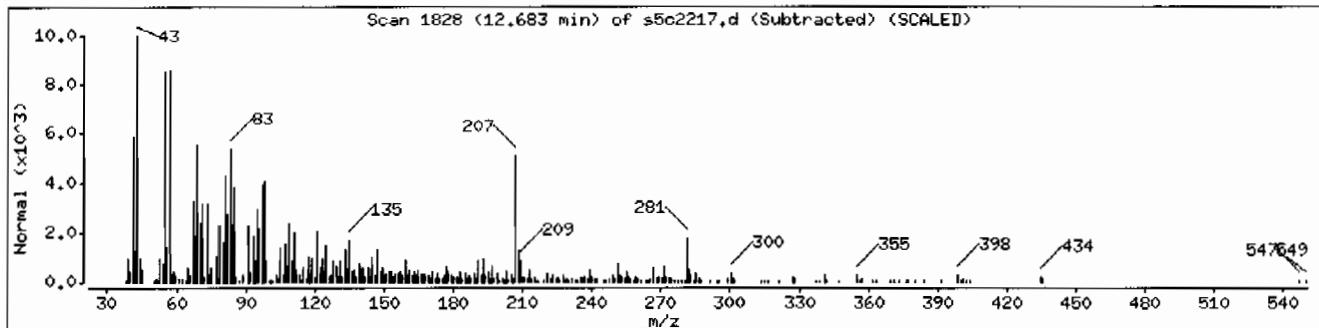
NIST05.L

104033

46

C16H28O3

268



Date: 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 12485060061963086111SVH111LANL

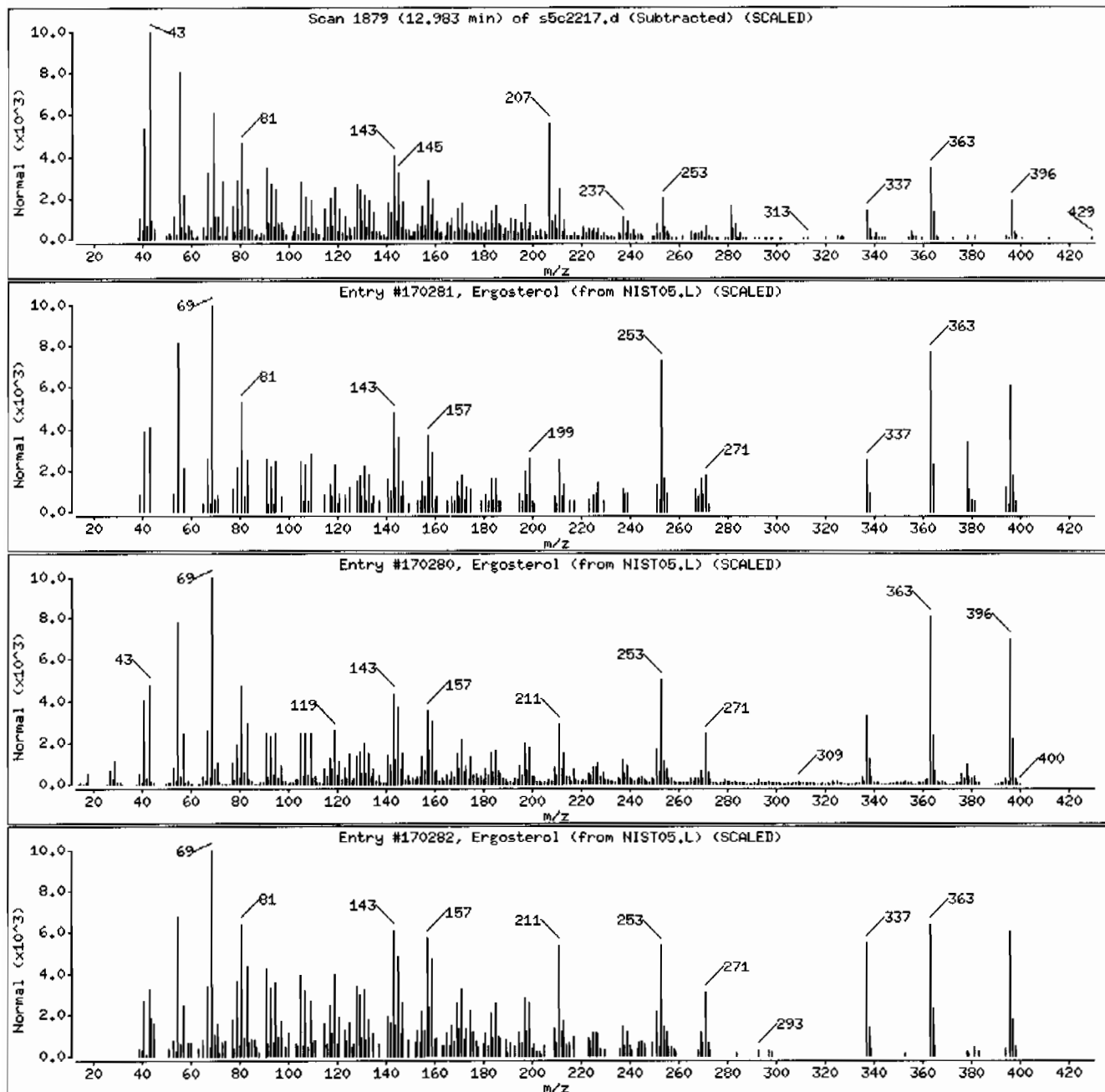
Volume Injected (uL): 0.5

Operator: RHB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Ergosterol	57-87-4	NIST05.L	170281	53	C28H44O	386
Ergosterol	57-87-4	NIST05.L	170280	53	C28H44O	386
Ergosterol	57-87-4	NIST05.L	170282	38	C28H44O	386



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: HSD5.i

Sample Info: 1248506006196308611SVH11LANL

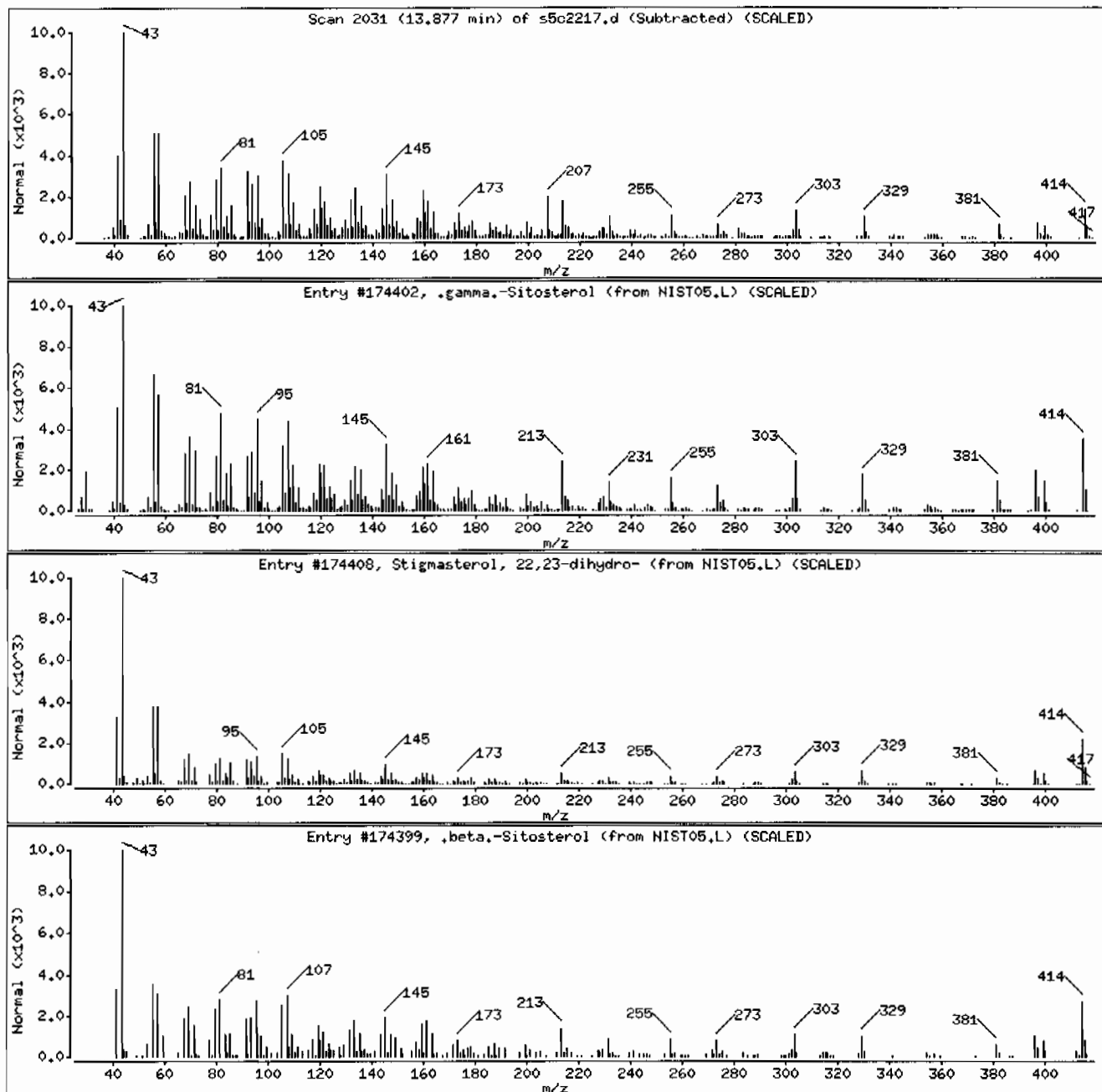
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	99	C29H50O	414
Stigmasterol, 22,23-dihydro-	1000214-20-7	NIST05.L	174408	93	C29H50O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174399	86	C29H50O	414



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: HSD5.i

Sample Info: 12485060061963086111SVMI11LANL

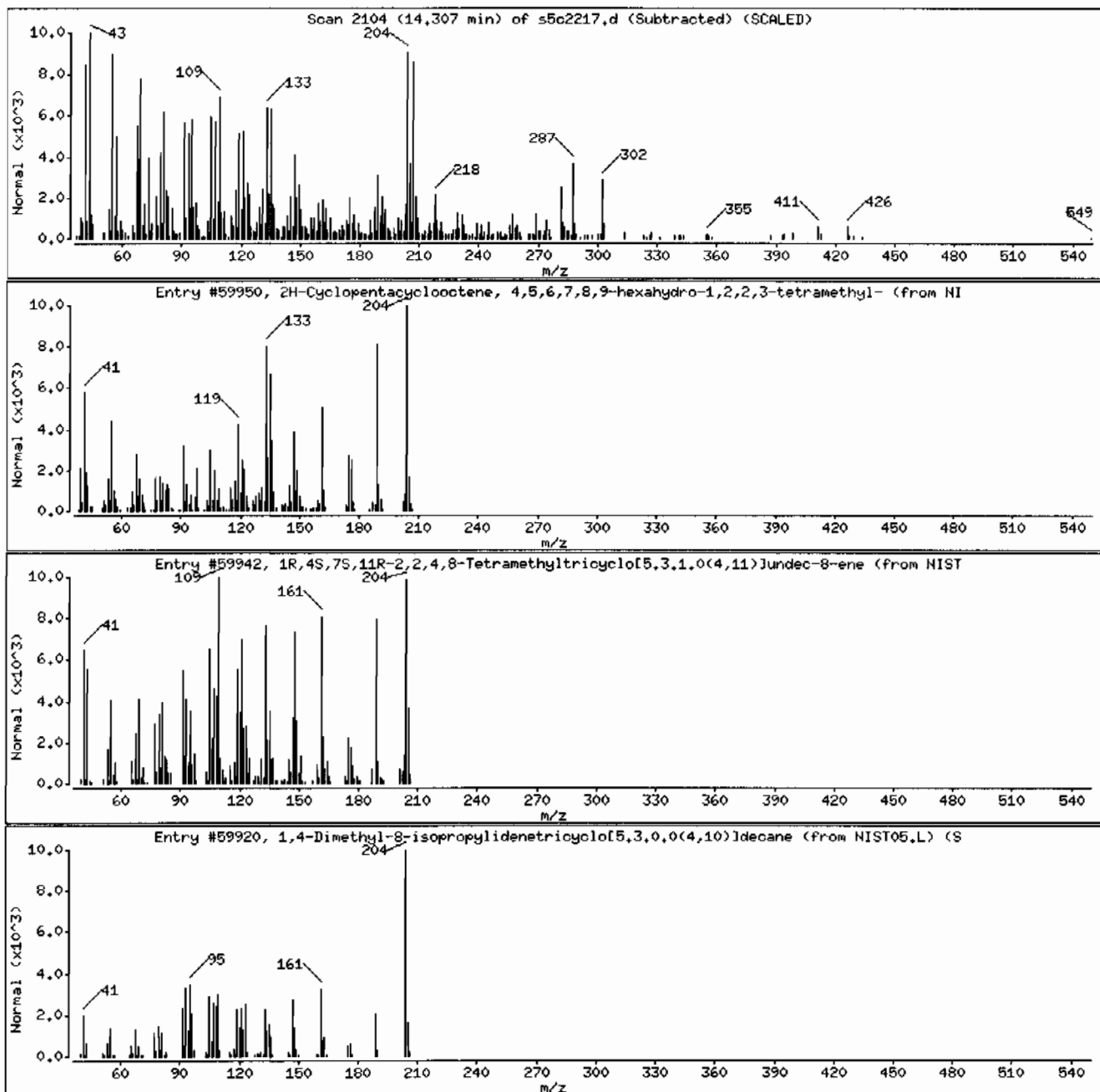
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2H-Cyclopentacyclooctene, 4,5,6,7,8,9-hexahydro-1,2,3-tetramethyl-	1000221-85-8	NIST05.L	59950	53	C15H24	204
1R,4S,7S,11R-2,2,4,8-Tetramethyltricyclo[5.3.1.0(4,11)]undec-8-ene	1000140-07-6	NIST05.L	59942	50	C15H24	204
1,4-Dimethyl-8-isopropylidenetricyclo[5.3.0.0(4,10)]decane	1000140-07-7	NIST05.L	59920	46	C15H24	204



Date : 22-MAR-2010 14:35

Client ID: RE36-10-7445

Instrument: MSD5.i

Sample Info: 12485060061963086111SVMI11LANL

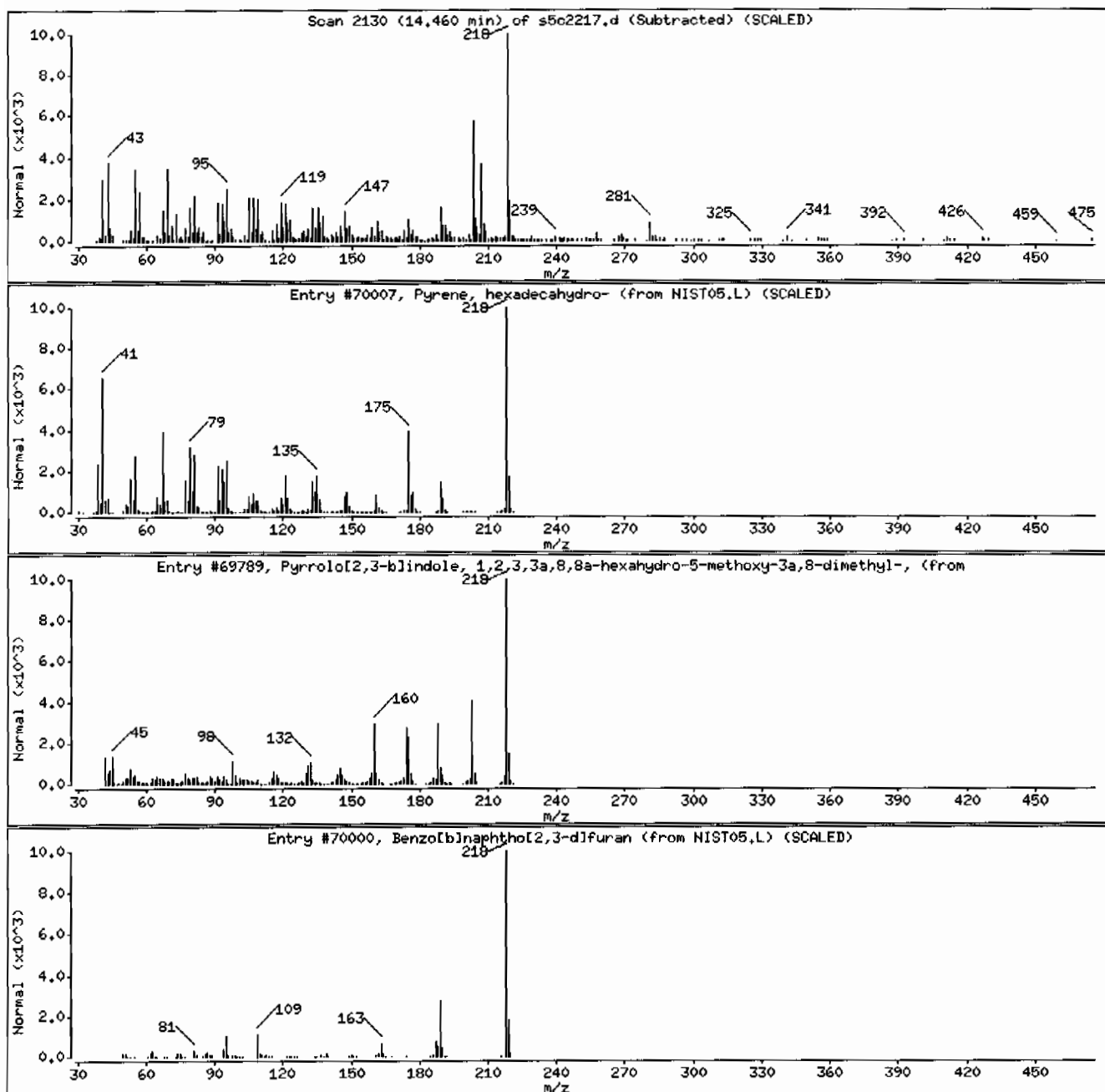
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Pyrene, hexadecahydro-	2438-85-0	NIST05.L	70007	64	C <sub>16</sub> H <sub>26</sub>	218
Pyrrolo[2,3-b]indole, 1,2,3,3a,8,8a-hexa	46479-70-3	NIST05.L	69789	60	C <sub>13</sub> H <sub>18</sub> N <sub>2</sub> O	218
Benzo[b]naphtho[2,3-d]furan	243-42-5	NIST05.L	70000	60	C <sub>16</sub> H <sub>10</sub> O	218



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506010	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 28.5
<b>Client ID:</b> RE36-10-7447	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 963086	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Run Date:</b> 03/22/2010 16:07	<b>Inst:</b> MSD5.I	<b>Dilution:</b> 1
<b>Prep Date:</b> 03/10/2010 12:33	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Data File:</b> s5c2221.d	<b>Aliquot:</b> 30 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
62-75-9	N-Methyl-N-nitrosomethylamine	U	466	ug/kg	93.2	466
108-95-2	Phenol	U	466	ug/kg	93.2	466
95-57-8	2-Chlorophenol	U	466	ug/kg	93.2	466
106-46-7	1,4-Dichlorobenzene	U	466	ug/kg	93.2	466
621-64-7	N-Nitrosodipropylamine	U	466	ug/kg	93.2	466
59-50-7	4-Chloro-3-methylphenol	U	466	ug/kg	93.2	466
83-32-9	Acenaphthene	U	46.6	ug/kg	15.4	46.6
121-14-2	2,4-Dinitrotoluene	U	466	ug/kg	46.6	466
100-02-7	4-Nitrophenol	U	466	ug/kg	154	466
87-86-5	Pentachlorophenol	U	466	ug/kg	117	466
129-00-0	Pyrene	U	46.6	ug/kg	14.0	46.6
110-86-1	Pyridine	U	466	ug/kg	93.2	466
62-53-3	Aniline	U	466	ug/kg	140	466
111-44-4	bis(2-Chloroethyl) ether	U	466	ug/kg	93.2	466
541-73-1	1,3-Dichlorobenzene	U	466	ug/kg	93.2	466
100-51-6	Benzyl alcohol	U	466	ug/kg	140	466
95-50-1	1,2-Dichlorobenzene	U	466	ug/kg	93.2	466
108-60-1	bis(2-Chloroisopropyl)ether	U	466	ug/kg	93.2	466
95-48-7	o-Cresol	U	466	ug/kg	93.2	466
65794-96-9	m,p-Cresols	U	466	ug/kg	140	466
67-72-1	Hexachloroethane	U	466	ug/kg	93.2	466
98-95-3	Nitrobenzene	U	466	ug/kg	93.2	466
78-59-1	Isophorone	U	466	ug/kg	93.2	466
88-75-5	2-Nitrophenol	U	466	ug/kg	93.2	466
105-67-9	2,4-Dimethylphenol	U	466	ug/kg	163	466
111-91-1	bis(2-Chloroethoxy)methane	U	466	ug/kg	93.2	466
120-83-2	2,4-Dichlorophenol	U	466	ug/kg	93.2	466
65-85-0	Benzoic acid	U	932	ug/kg	233	932
91-20-3	Naphthalene	U	46.6	ug/kg	14.0	46.6
106-47-8	4-Chloroaniline	U	466	ug/kg	93.2	466
87-68-3	Hexachlorobutadiene	U	466	ug/kg	93.2	466
91-57-6	2-Methylnaphthalene	U	46.6	ug/kg	9.32	46.6
77-47-4	Hexachlorocyclopentadiene	U	466	ug/kg	93.2	466
88-06-2	2,4,6-Trichlorophenol	U	466	ug/kg	93.2	466
95-95-4	2,4,5-Trichlorophenol	U	466	ug/kg	93.2	466
91-58-7	2-Chloronaphthalene	U	46.6	ug/kg	15.4	46.6
88-74-4	2-Nitroaniline	U	466	ug/kg	93.2	466
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	466	ug/kg	93.2	466

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506010	Date Received: 03/03/2010 08:50	%Moisture: 28.5
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7447	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5J	Dilution: 1
Run Date: 03/22/2010 16:07	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30 g	Final Volume: 1 mL
Data File: s5c2221.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	466	ug/kg	93.2	466
606-20-2	2,6-Dinitrotoluene	U	466	ug/kg	46.6	466
208-96-8	Acenaphthylene	U	46.6	ug/kg	14.0	46.6
51-28-5	2,4-Dinitrophenol	U	932	ug/kg	177	932
132-64-9	Dibenzofuran	U	466	ug/kg	93.2	466
84-66-2	Diethylphthalate	U	466	ug/kg	93.2	466
86-73-7	Fluorene	U	46.6	ug/kg	14.0	46.6
7005-72-3	4-Chlorophenylphenylether	U	466	ug/kg	93.2	466
534-52-1	2-Methyl-4,6-dinitrophenol	U	466	ug/kg	93.2	466
100-01-6	4-Nitroaniline	U	466	ug/kg	140	466
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	466	ug/kg	93.2	466
122-66-7	Azobenzene	U	466	ug/kg	93.2	466
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	466	ug/kg	93.2	466
118-74-1	Hexachlorobenzene	U	466	ug/kg	93.2	466
85-01-8	Phenanthrene	U	46.6	ug/kg	14.0	46.6
120-12-7	Anthracene	U	46.6	ug/kg	9.32	46.6
84-74-2	Di-n-butylphthalate	U	466	ug/kg	93.2	466
206-44-0	Fluoranthene	U	46.6	ug/kg	14.0	46.6
85-68-7	Butylbenzylphthalate	U	466	ug/kg	93.2	466
56-55-3	Benzo(a)anthracene	U	46.6	ug/kg	14.0	46.6
91-94-1	3,3'-Dichlorobenzidine	U	466	ug/kg	140	466
218-01-9	Chrysene	U	46.6	ug/kg	14.0	46.6
117-81-7	bis(2-Ethylhexyl)phthalate	U	466	ug/kg	93.2	466
117-84-0	Di-n-octylphthalate	U	466	ug/kg	93.2	466
205-99-2	Benzo(b)fluoranthene	U	46.6	ug/kg	14.0	46.6
207-08-9	Benzo(k)fluoranthene	U	46.6	ug/kg	14.0	46.6
50-32-8	Benzo(a)pyrene	U	46.6	ug/kg	14.0	46.6
193-39-5	Indeno(1,2,3-cd)pyrene	U	46.6	ug/kg	14.0	46.6
53-70-3	Dibenzo(a,h)anthracene	U	46.6	ug/kg	14.0	46.6
191-24-2	Benzo(ghi)perylene	U	46.6	ug/kg	14.0	46.6
120-82-1	1,2,4-Trichlorobenzene	U	466	ug/kg	93.2	466

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.98	200	ug/kg		JA
	Unknown	3.71	227	ug/kg		J

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506010	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 28.5
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7447	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 16:07	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2221.d	<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						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	9.44	223	ug/kg		J
559-74-0	Friedelan-3-one	10.15	1630	ug/kg	95	NJ
112-95-8	Eicosane	10.85	188	ug/kg	97	NJ
	Unknown	11.92	573	ug/kg		J
	Unknown	12.42	305	ug/kg		J
	Unknown	12.68	283	ug/kg		J
	Unknown	12.99	242	ug/kg		J
83-46-5	.beta.-Sitosterol	13.87	592	ug/kg	96	NJ



GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2221.d  
Lab Smp Id: 248506010 Client Smp ID: RE36-10-7447  
Inj Date : 22-MAR-2010 16:07  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506010|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 21  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	28.50590	% 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	3.948	3.950	(1.000)	252505	40.0000	
* 29 Naphthalene-d8		136	4.813	4.821	(1.000)	1032776	40.0000	
* 46 Acenaphthene-d10		164	6.072	6.078	(1.000)	599894	40.0000	
* 67 Phenanthrene-d10		188	7.248	7.253	(1.000)	1077501	40.0000	
* 91 Chrysene-d12		240	9.666	9.670	(1.000)	949280	40.0000	
* 98 Perylene-d12		264	11.366	11.370	(1.000)	736577	40.0000	
\$ 3 2-Fluorophenol		112	3.143	3.141	(0.796)	358364	56.8363	2650
\$ 5 Phenol-d5		99	3.666	3.666	(0.928)	490212	64.6867	3020
\$ 20 Nitrobenzene-d5		82	4.307	4.316	(0.895)	256067	33.3671	1560
\$ 39 2-Fluorobiphenyl		172	5.554	5.558	(0.915)	451571	30.1382	1400
\$ 60 2,4,6-Tribromophenol		329	6.672	6.675	(1.099)	138461	61.4513	2860
\$ 81 p-Terphenyl-d14		244	8.631	8.630	(0.893)	526939	33.3706	1560

## ION RATIO REPORT

## SV REPORT

Data file: s5c2221.d

Report Date: 03/23/2010 07:03

Lab. ID: 248506010

SampleType: SAMPLE

Injection Date: 22-MAR-2010 16:07

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506010|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline		CAS#: 62-53-3			
66	30032	3.67	3.74	80-120	100	(T)
93	3067	3.62	3.74	219-279	10	(QT)
-----						
7	bis(2-Chloroethyl) ether		CAS#: 111-44-4			
63	11255	3.95	3.75	80-120	100	(T)
93	2025	3.94	3.75	119-179	18	(QT)
95	365	3.94	3.75	8- 68	3	(QT)
-----						
17	N-Nitrosodipropylamine		CAS#: 621-64-7			
70	34941	4.31	4.19	80-120	100	(T)
42	21782	4.31	4.19	44-104	62	(T)
-----						
27	Benzoic acid		CAS#: 65-85-0			
105	1097	4.58	4.59	80-120	100	( )
122	411	4.67	4.59	45-105	38	(QT)
77	2461	4.59	4.59	48-108	224	(Q)
-----						
43	Dimethylphthalate		CAS#: 131-11-3			
163	110651	6.07	5.84	80-120	100	(T)
164	599894	6.07	5.84	0- 40	542	(QT)
-----						
44	2,6-Dinitrotoluene		CAS#: 606-20-2			
165	80889	6.07	5.90	80-120	100	(T)
63	1725	6.07	5.89	62-122	2	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	80728	6.07	6.19	80-120	100	(T)
89	4341	6.07	6.19	51-111	5	(QT)
63	1725	6.07	6.19	24- 84	2	(QT)
-----						
52 4-Nitrophenol			CAS#: 100-02-7			
139	311	6.06	6.12	80-120	100	( )
109	2663	6.07	6.12	63-123	856	(Q)
65	4173	6.07	6.11	71-131	1341	(Q)
-----						
53 Fluorene			CAS#: 86-73-7			
166	6570	6.67	6.49	80-120	100	(T)
165	6780	6.67	6.49	62-122	103	(T)
167	2174	6.67	6.49	0- 44	33	(T)
-----						
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	552	6.67	6.51	80-120	100	(T)
105	2187	6.67	6.50	13- 73	396	(QT)
51	1606	6.67	6.50	51-111	291	(QT)
-----						
Q qualifier indicates ion failed ratio requirement						

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2221.d  
Lab Smp Id: 248506010 Client Smp ID: RE36-10-7447  
Inj Date : 22-MAR-2010 16:07  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506010|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 21  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	28.50590	% moisture

Cpnd Variable

Local Compound Variable

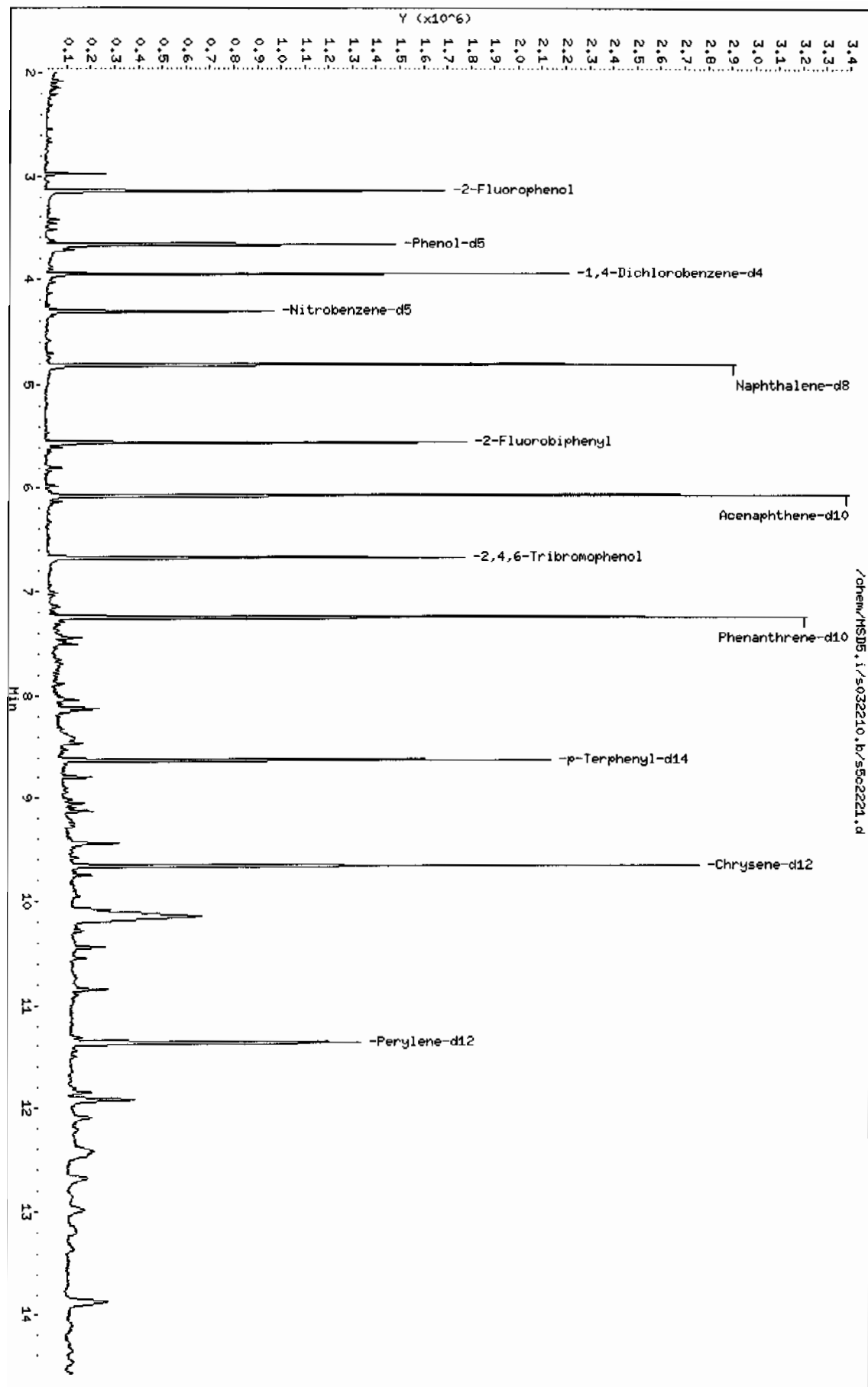
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.948	1787967	40.000
* 91 Chrysene-d12	9.666	2685045	40.000
* 98 Perylene-d12	11.366	1917563	40.000

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	
=====	=====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate				CAS #:			
2.978	192195	4.29974911	200	0		0	10
Unknown				CAS #:			
3.713	217237	4.85997408	226	0		0	10
Unknown				CAS #:			
9.442	321247	4.78571816	223	0		0	91
Friedelan-3-one				CAS #: 559-74-0			
10.154	2342986	34.9042274	1630	95	NIST05.L	176566	91
Eicosane				CAS #: 112-95-8			
10.848	193636	4.03921709	188	97	NIST05.L	113488	98
Unknown				CAS #:			
11.919	589321	12.2931210	573	0		0	98
Unknown				CAS #:			
12.424	313407	6.53761814	305	0		0	98
Unknown				CAS #:			
12.683	291463	6.07986913	283	0		0	98
Unknown				CAS #:			
12.989	248315	5.17979397	242	0		0	98
.beta.-Sitosterol				CAS #: 83-46-5			
13.871	608993	12.7034822	592	96	NIST05.L	174399	98

Data File: /chem/MSD5.i/s032210.b/s0502221.d  
Date: 22-MAR-2010 16:07  
Client ID: RE36-10-7447  
Sample Info: 1248506010196308611SVH11LNL  
Volume Injected (uL): 0.5  
Column Phase: J&W DB-5MS

Instrument: MSD5.i  
Operator: RMB  
Column diameter: 0.20



Date : 22-MAR-2010 16:07

Client ID: RE36-10-7447

Instrument: MSD5.i

Sample Info: 12485060101963086111SVH111LANL

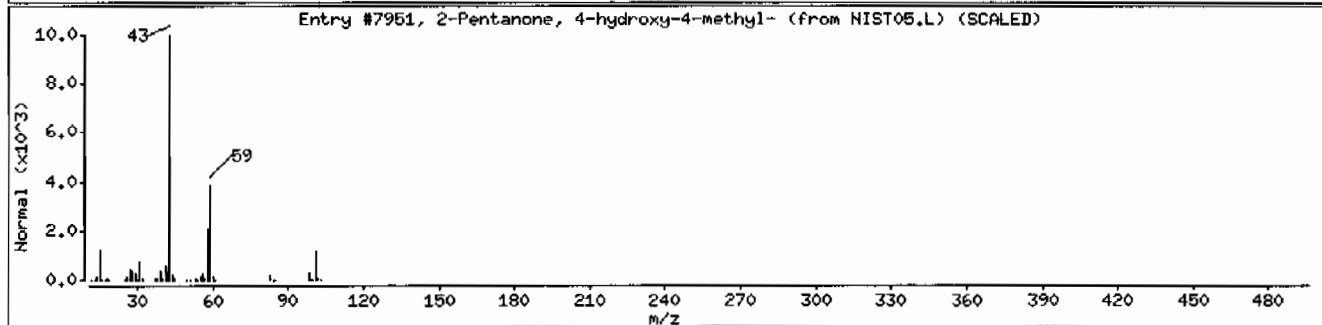
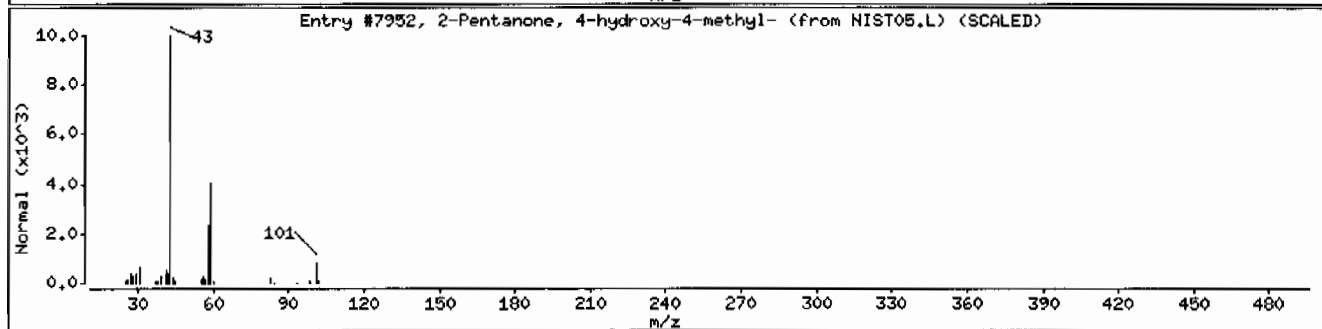
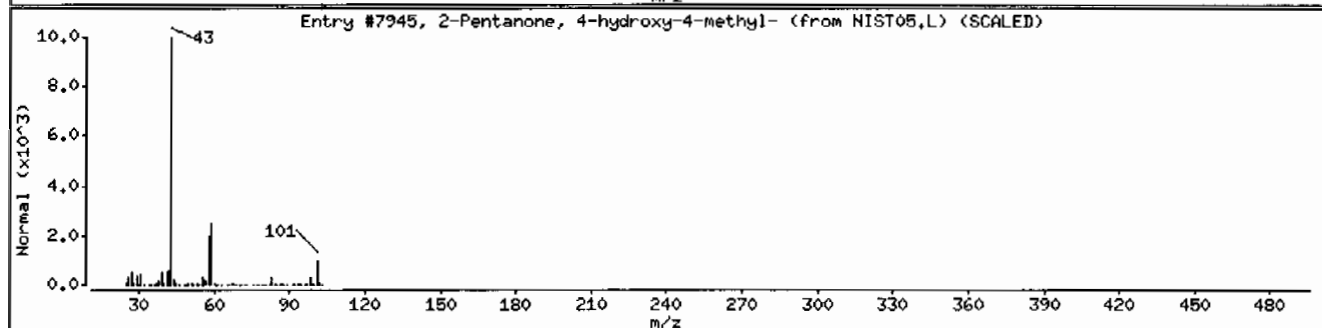
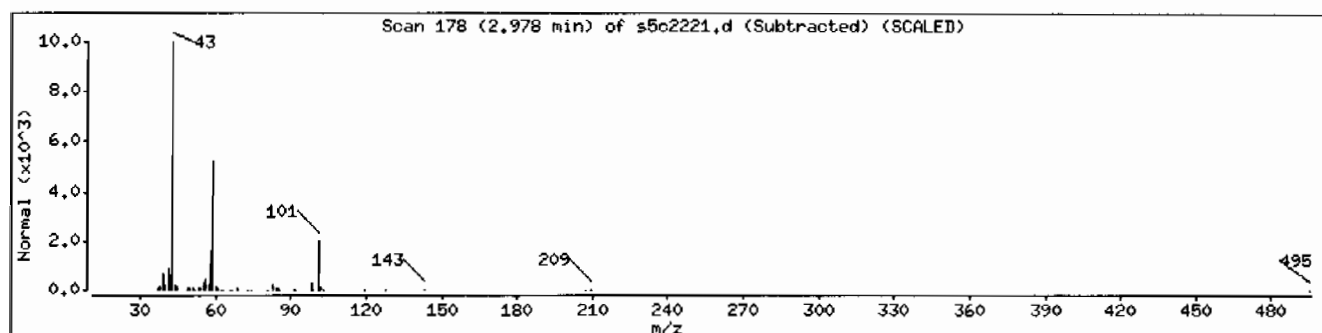
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	72	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	7951	40	C6H12O2	116



Date : 22-MAR-2010 16:07

Client ID: RE36-10-7447

Instrument: MSD5.i

Sample Info: 12485060101963086111SVH111LANL

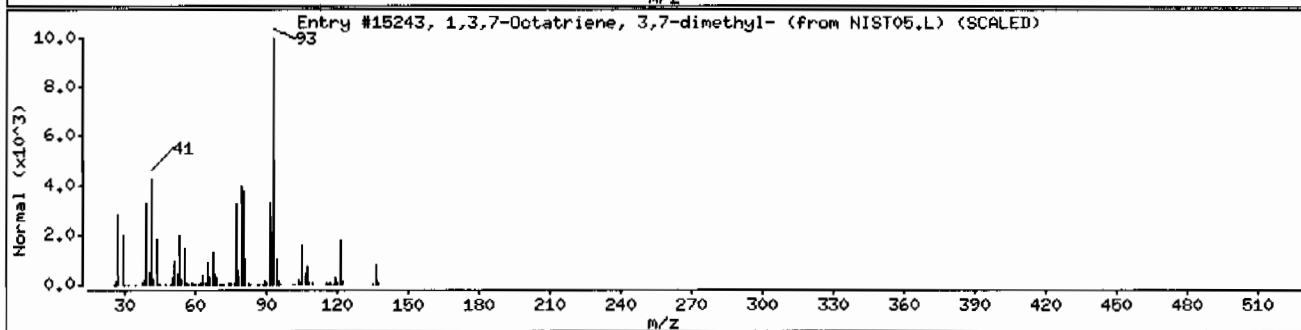
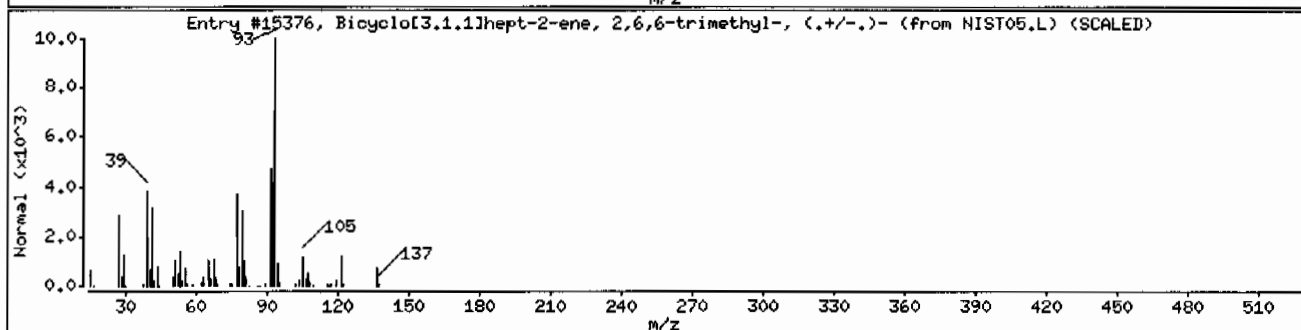
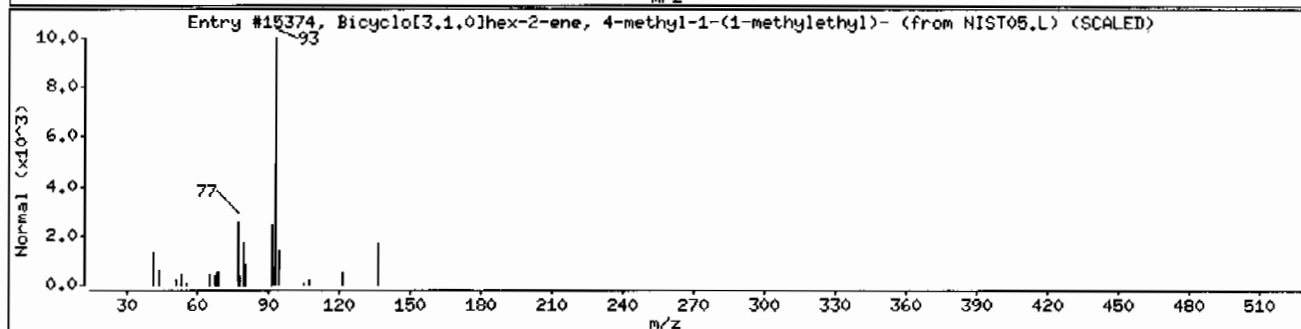
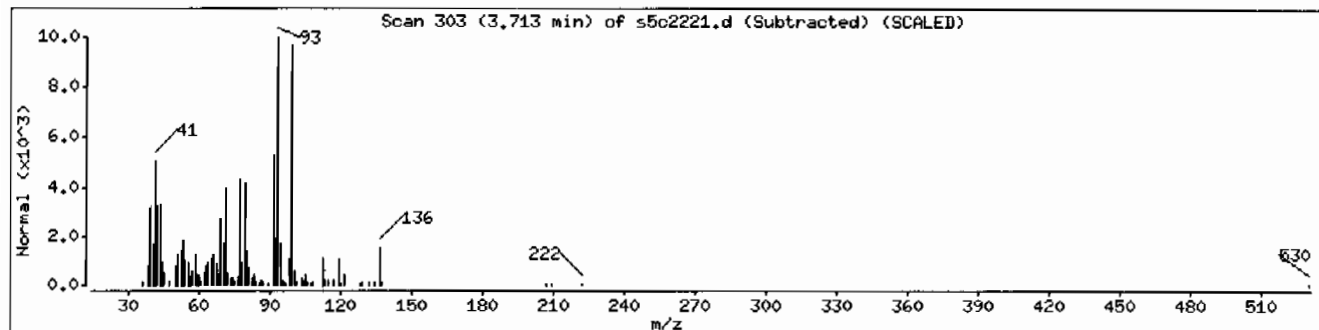
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[3.1.0]hex-2-ene, 4-methyl-1-(1-m	28634-89-1	NIST05.L	15374	46	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy	2437-95-8	NIST05.L	15376	45	C10H16	136
1,3,7-Octatriene, 3,7-dimethyl-	502-99-8	NIST05.L	15243	43	C10H16	136





Date : 22-MAR-2010 16:07

Client ID: RE36-10-7447

Instrument: HSD5.i

Sample Info: 12485060101963086111SVH111LANL

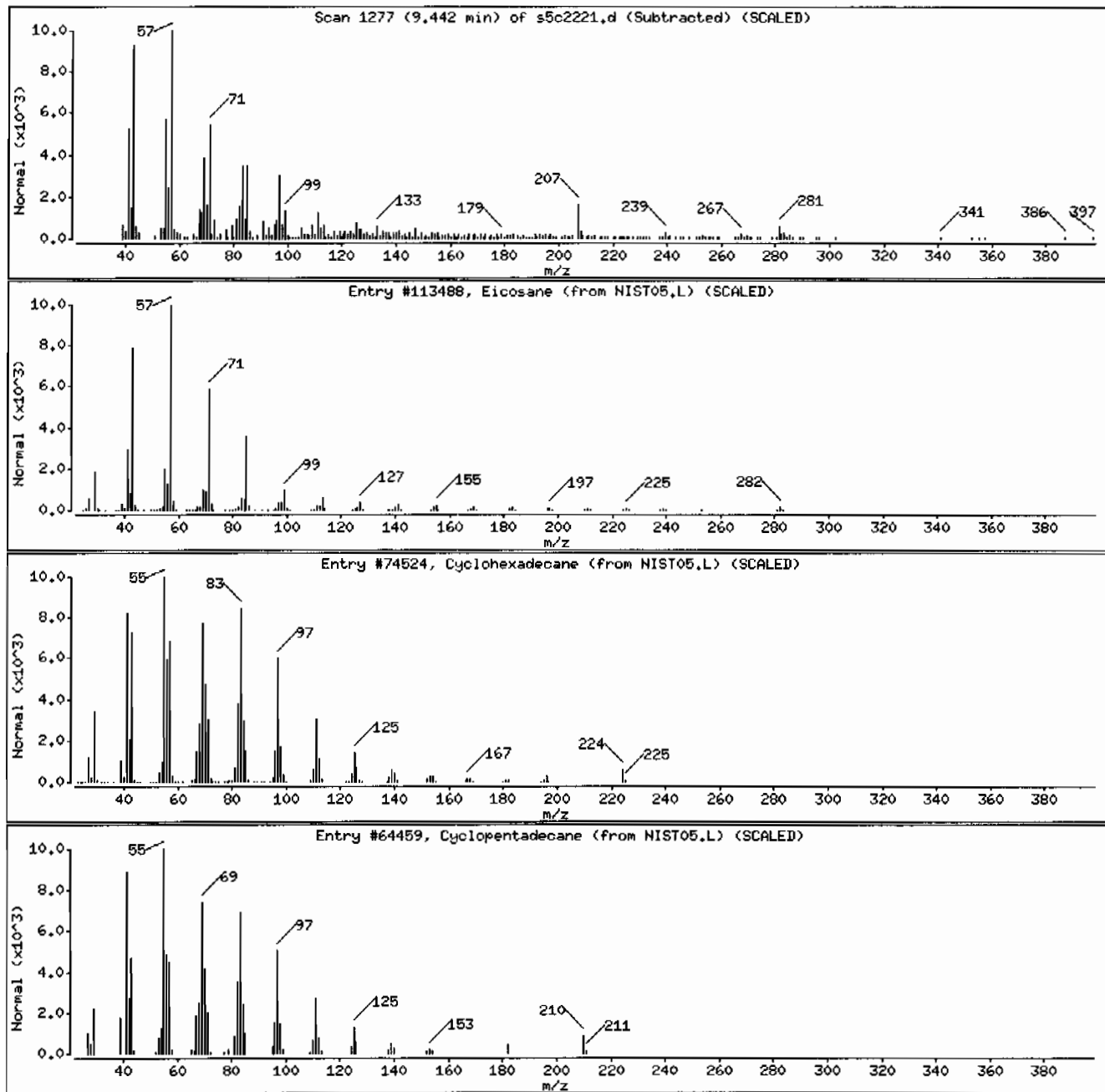
Volume Injected (uL): 0.5

Operator: RHB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Eicosane	112-95-8	NIST05.L	113488	90	C20H42	282
Cyclohexadecane	295-65-8	NIST05.L	74524	83	C16H32	224
Cyclopentadecane	295-48-7	NIST05.L	64459	83	C15H30	210



Date : 22-MAR-2010 16:07

Client ID: RE36-10-7447

Instrument: MSD5.i

Sample Info: 12485060101963086111SVH111LANL

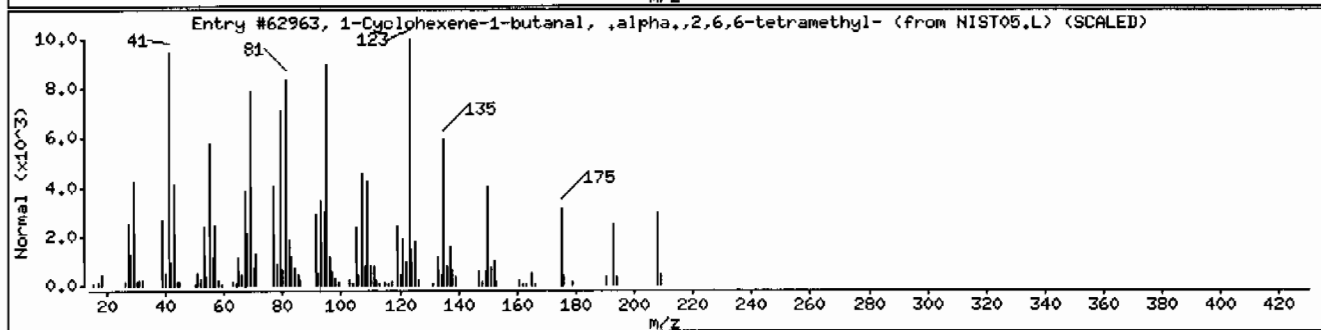
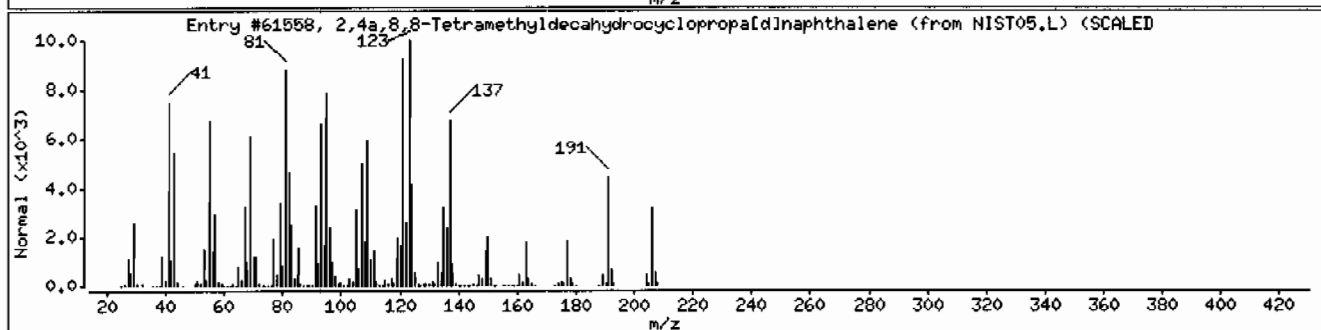
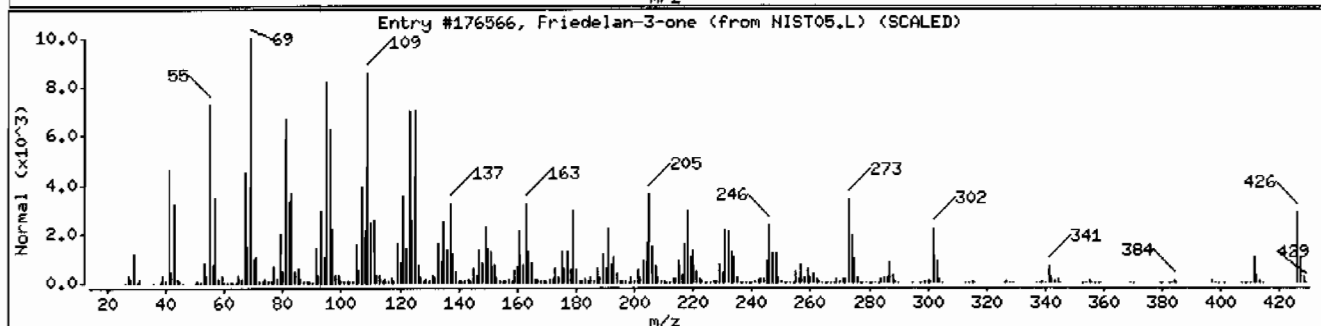
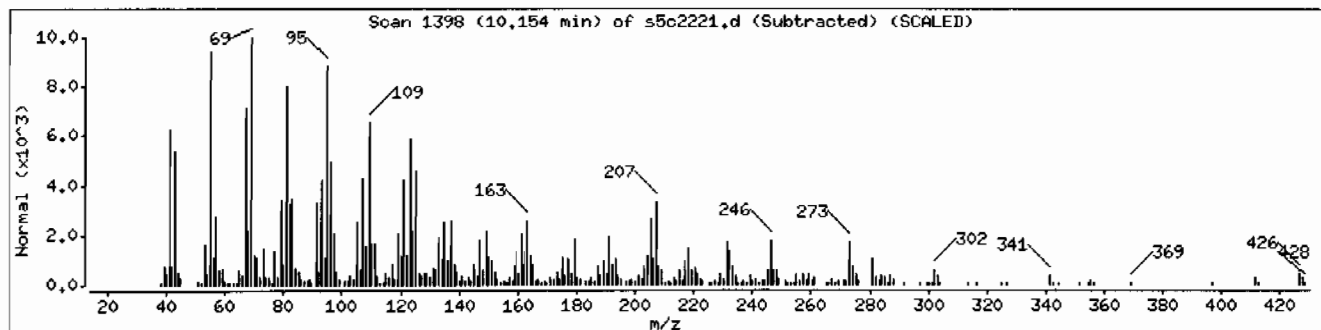
Volume Injected (uL): 0.5

Operator: RMB

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	96	C30H50O	426
2,4a,8,8-Tetramethyldecahydrocyclopropa[	74022-04-1	NIST05.L	61558	84	C15H26	206
1-Cyclohexene-1-butanal, .alpha.,2,6,6-t	21632-06-4	NIST05.L	62963	68	C14H24O	208



Date : 22-MAR-2010 16:07

Client ID: RE36-10-7447

Instrument: MSD5.i

Sample Info: 12485060101963086111SVH111LANL

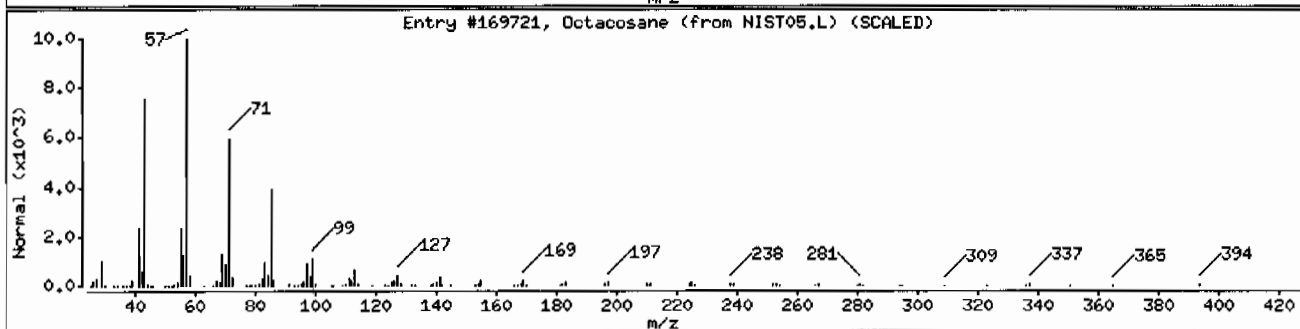
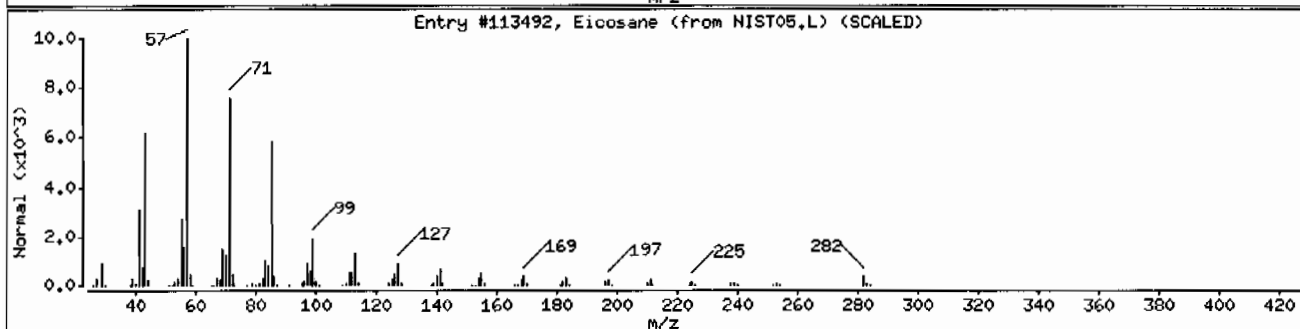
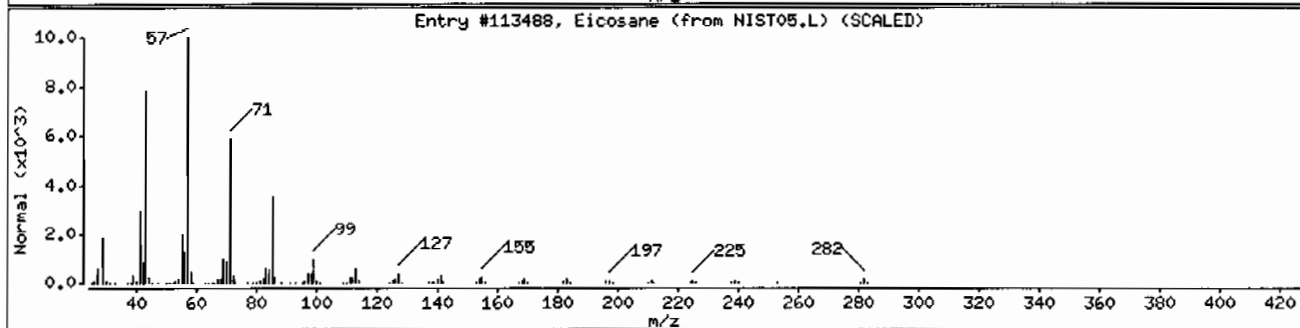
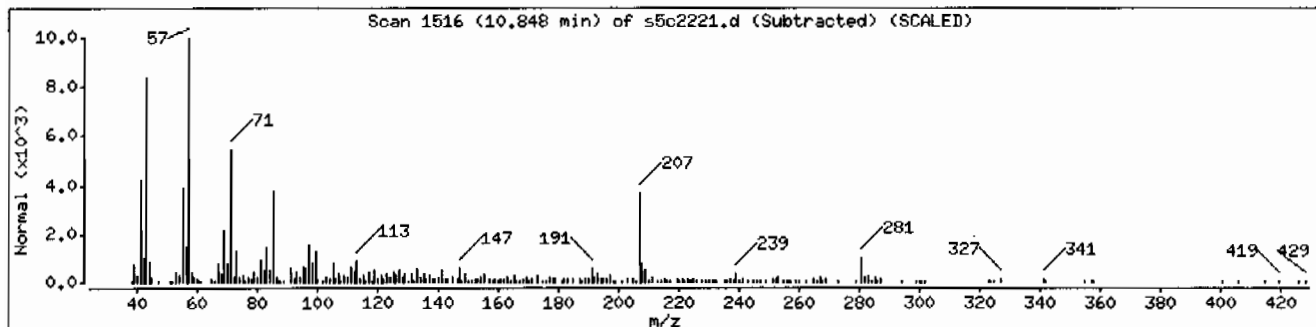
Volume Injected (uL): 0.5

Operator: RMB

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	113488	97	C <sub>20</sub> H <sub>42</sub>	282
Eicosane	112-95-8	NIST05.L	113492	95	C <sub>20</sub> H <sub>42</sub>	282
Octacosane	630-02-4	NIST05.L	169721	64	C <sub>28</sub> H <sub>58</sub>	394



Date: 22-MAR-2010 16:07

Client ID: RE36-10-7447

Instrument: MSD5.i

Sample Info: 1248506010196308611SVMI1ILANL

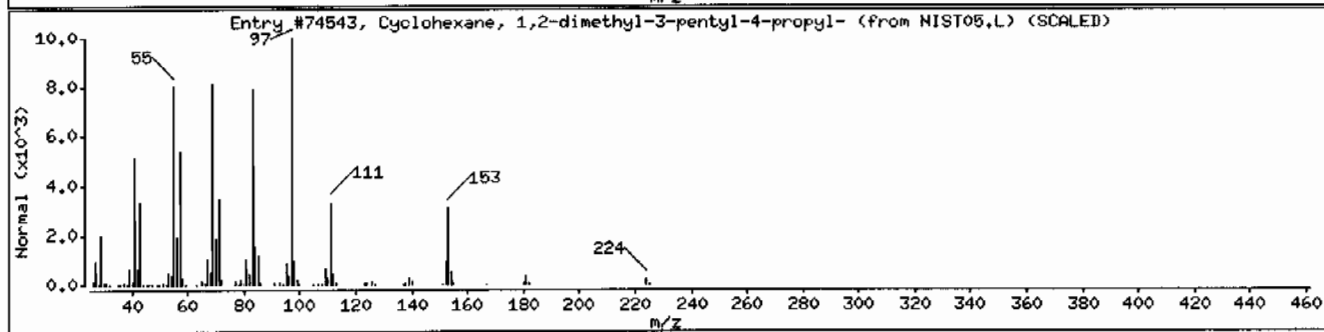
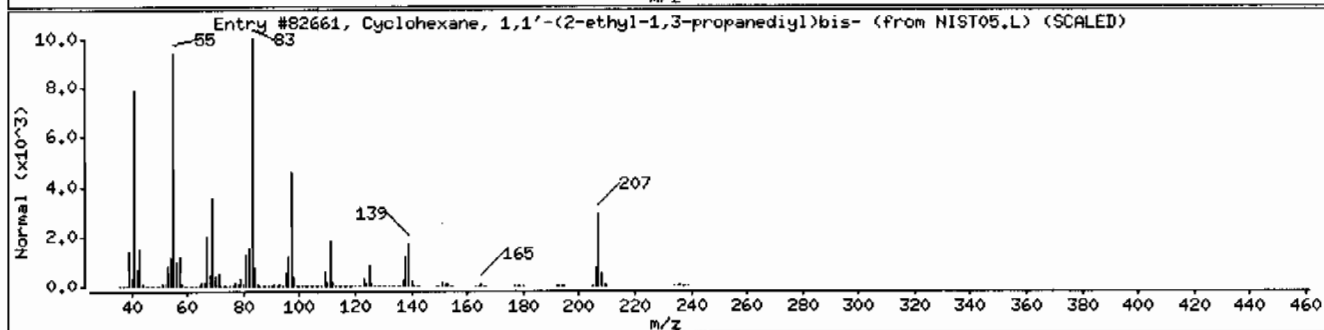
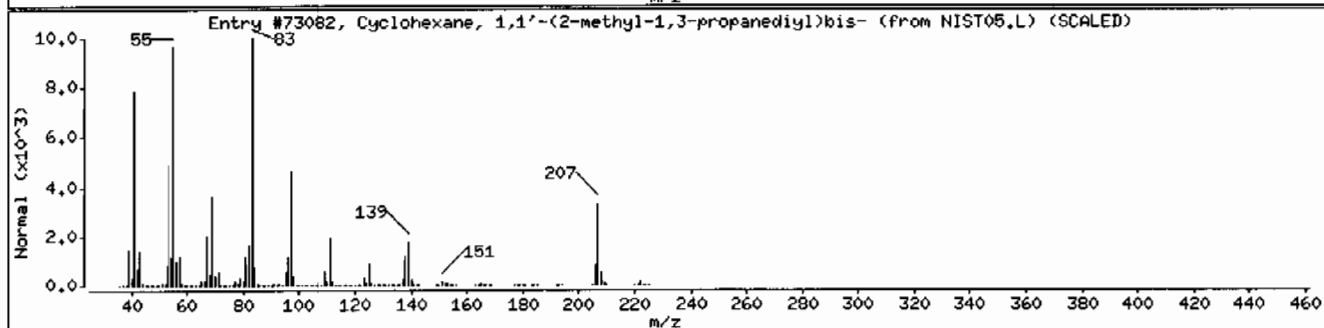
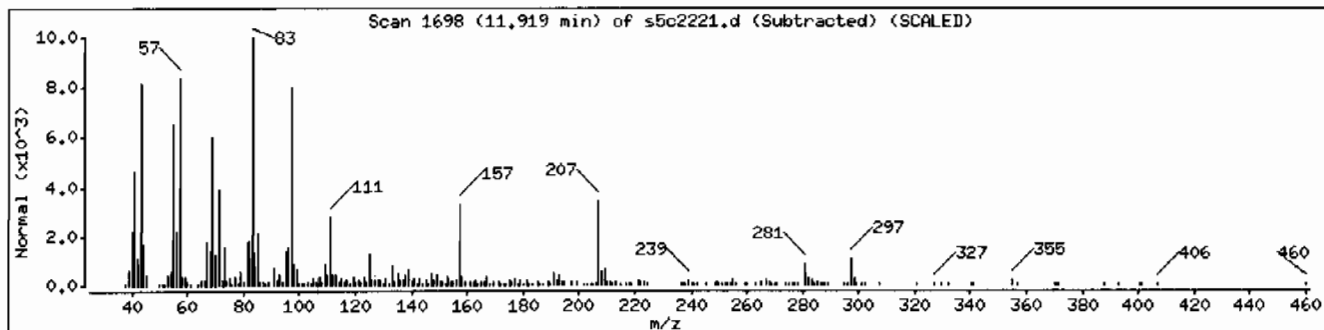
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexane, 1,1'-(2-methyl-1,3-propanedi	2883-08-1	NIST05.L	73082	64	C16H30	222
Cyclohexane, 1,1'-(2-ethyl-1,3-propanedi	54833-34-0	NIST05.L	82661	64	C17H32	236
Cyclohexane, 1,2-dimethyl-3-pentyl-4-pro	62376-17-4	NIST05.L	74543	55	C16H32	224



Date : 22-MAR-2010 16:07

Client ID: RE36-10-7447

Instrument: MSD5.1

Sample Info: 1248506010196308611SVH111LANL

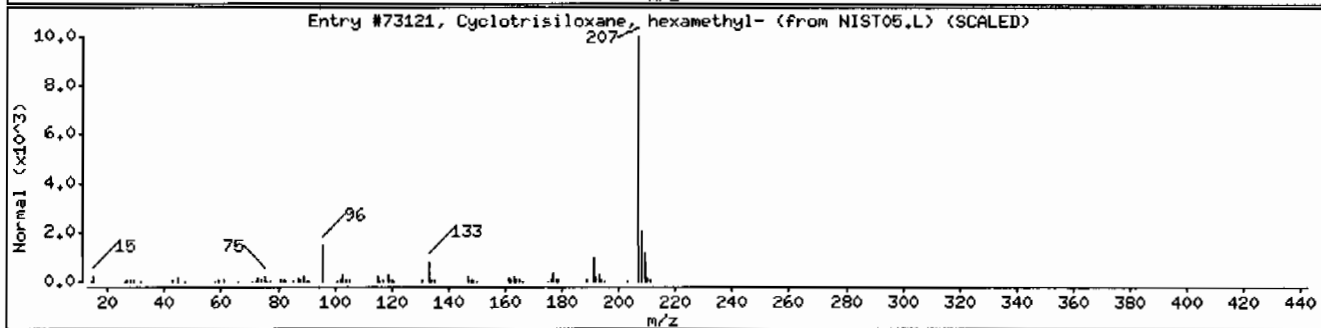
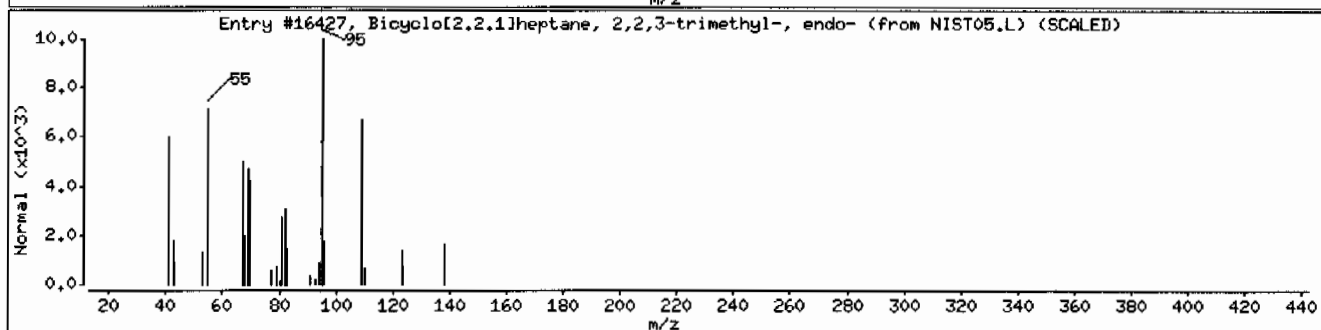
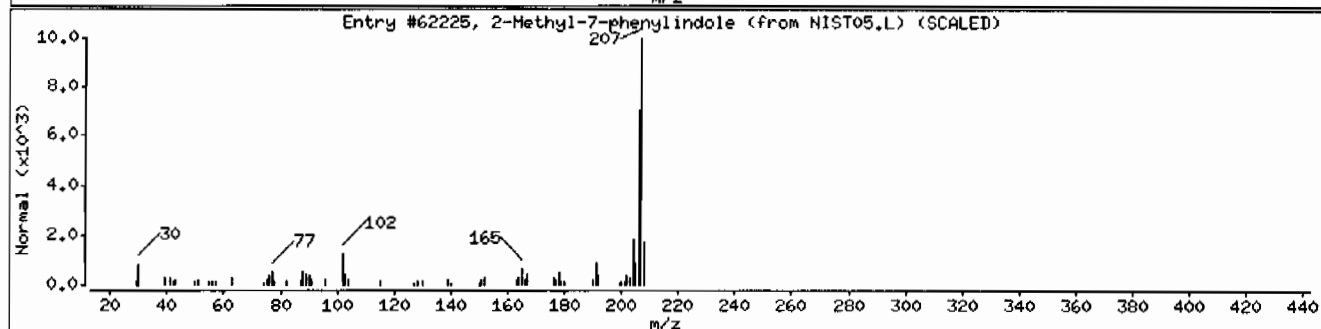
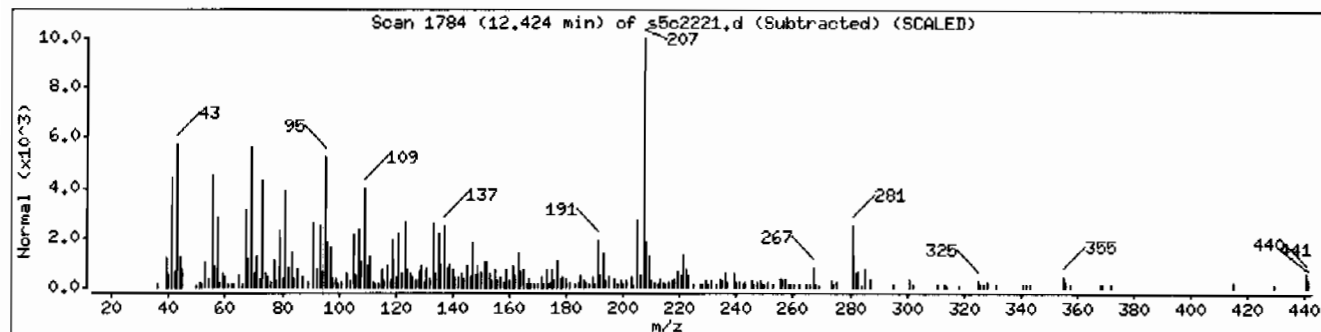
Volume Injected (uL): 0.5

Operator: RMB

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-7-phenylindole	1140-08-5	NIST05.L	62225	38	C <sub>15</sub> H <sub>13</sub> N	207
Bicyclo[2.2.1]heptane, 2,2,3-trimethyl-,	20536-40-7	NIST05.L	16427	35	C <sub>10</sub> H <sub>18</sub>	138
Cyclotrisiloxane, hexamethyl-	541-05-9	NIST05.L	73121	30	C <sub>6</sub> H <sub>18</sub> OSi <sub>3</sub>	222



Date : 22-MAR-2010 16:07

Client ID: RE36-10-7447

Instrument: MSD5.i

Sample Info: I2485060101963086111SVH111LANL

Volume Injected (uL): 0,5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0,20

## Library Search Compound Match

Unknown

Cyclotrisiloxane, hexamethyl-

Benzo[h]quinoline, 2,4-dimethyl-

3,3,7,11-Tetramethyltricyclo[5.4.0.0(4,1

CAS Number

Library

Entry

Quality

Formula

Weight

541-05-9

NIST05.L

73123

25

C6H18O3Si3

222

605-67-4

NIST05.L

62242

25

C15H13N

207

117591-80-7

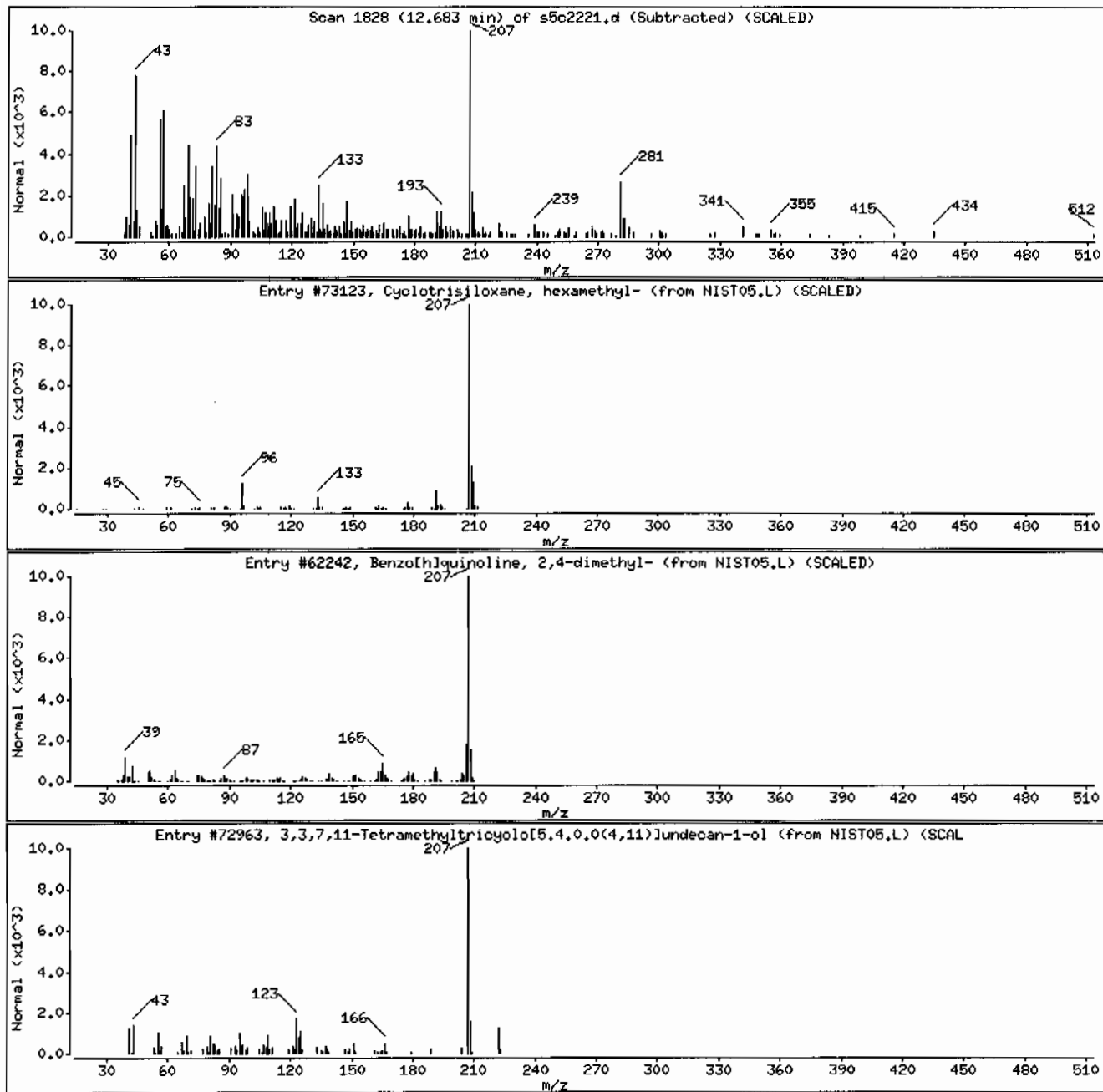
NIST05.L

72963

25

C15H26O

222



Date : 22-MAR-2010 16:07

Client ID: RE36-10-7447

Instrument: HSD5.1

Sample Info: 12485060101963086111SVH111LANL

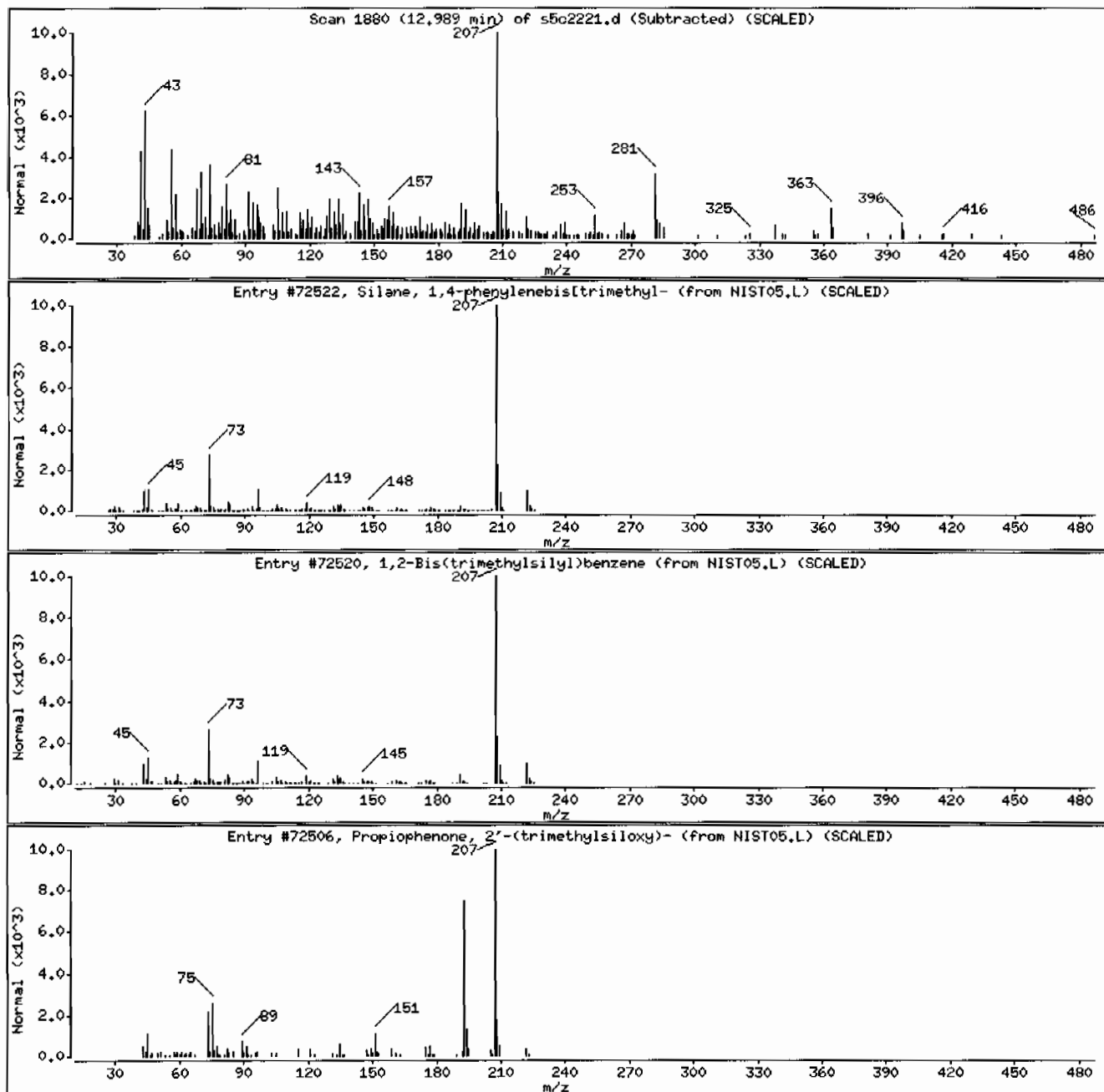
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Silane, 1,4-phenylenebis(trimethyl-	13183-70-5	NIST05.L	72522	49	C12H22Si2	222
1,2-Bis(trimethylsilyl)benzene	17151-09-6	NIST05.L	72520	49	C12H22Si2	222
Propiophenone, 2'-(trimethylsiloxy)-	33342-87-9	NIST05.L	72506	46	C12H18O2Si	222



Date : 22-MAR-2010 16:07

Client ID: RE36-10-7447

Instrument: MSD5.i

Sample Info: 12485060101963086111SVH111LANL

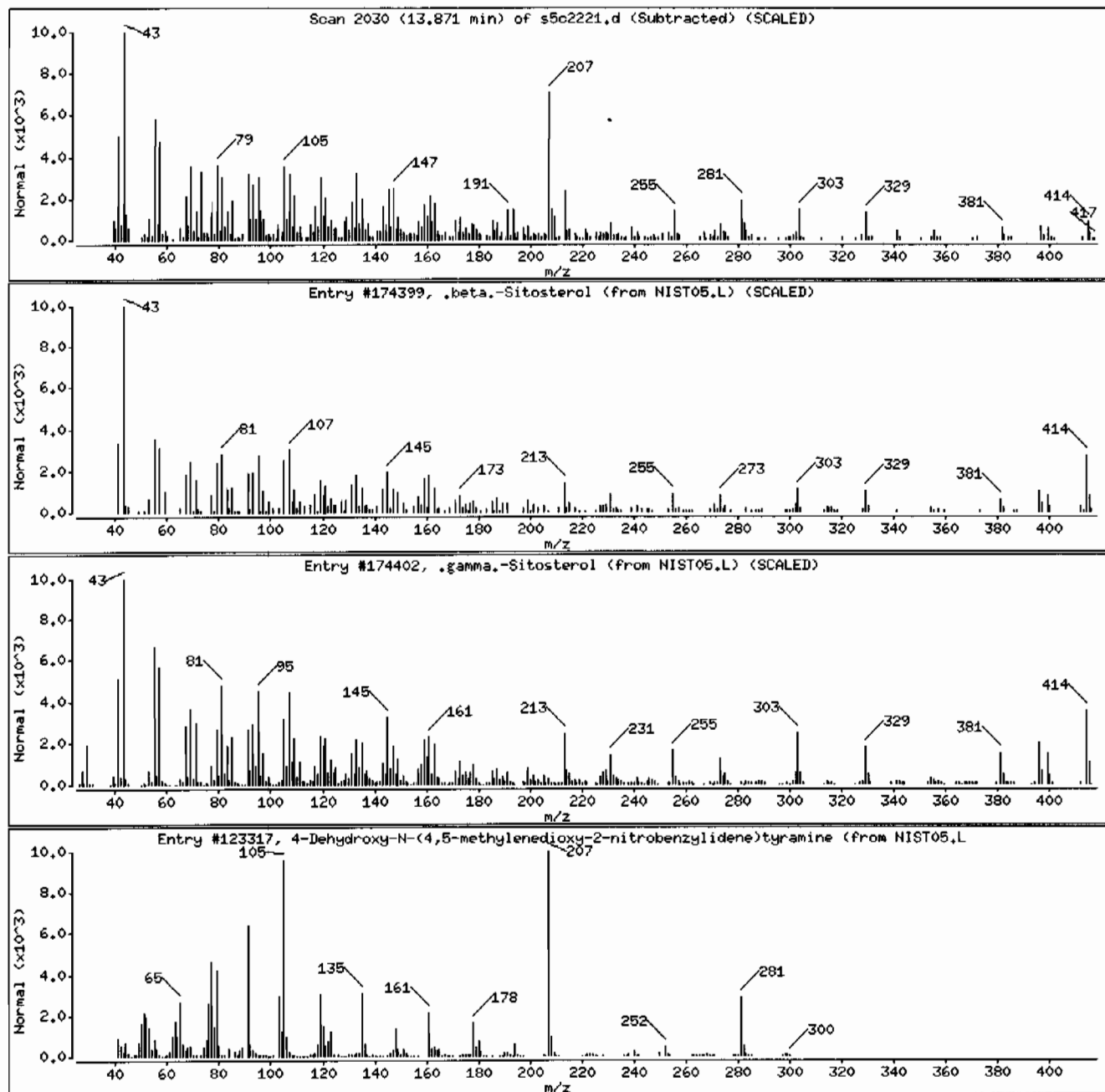
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174399	96	C29H50O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	93	C29H50O	414
4-Dehydroxy-N-(4,5-methylenedioxy-2-nitr	1000111-66-9	NIST05.L	123317	46	C16H14N2O4	298





**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506009	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 17.5
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7448	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 15:44	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.04 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2220.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	403	ug/kg	80.7	403
108-95-2	Phenol	U	403	ug/kg	80.7	403
95-57-8	2-Chlorophenol	U	403	ug/kg	80.7	403
106-46-7	1,4-Dichlorobenzene	U	403	ug/kg	80.7	403
621-64-7	N-Nitrosodipropylamine	U	403	ug/kg	80.7	403
59-50-7	4-Chloro-3-methylphenol	U	403	ug/kg	80.7	403
83-32-9	Acenaphthene	U	40.3	ug/kg	13.3	40.3
121-14-2	2,4-Dinitrotoluene	U	403	ug/kg	40.3	403
100-02-7	4-Nitrophenol	U	403	ug/kg	133	403
87-86-5	Pentachlorophenol	U	403	ug/kg	101	403
129-00-0	Pyrene	U	40.3	ug/kg	12.1	40.3
110-86-1	Pyridine	U	403	ug/kg	80.7	403
62-53-3	Aniline	U	403	ug/kg	121	403
111-44-4	bis(2-Chloroethyl) ether	U	403	ug/kg	80.7	403
541-73-1	1,3-Dichlorobenzene	U	403	ug/kg	80.7	403
100-51-6	Benzyl alcohol	U	403	ug/kg	121	403
95-50-1	1,2-Dichlorobenzene	U	403	ug/kg	80.7	403
108-60-1	bis(2-Chloroisopropyl)ether	U	403	ug/kg	80.7	403
95-48-7	o-Cresol	U	403	ug/kg	80.7	403
65794-96-9	m,p-Cresols	U	403	ug/kg	121	403
67-72-1	Hexachloroethane	U	403	ug/kg	80.7	403
98-95-3	Nitrobenzene	U	403	ug/kg	80.7	403
78-59-1	Isophorone	U	403	ug/kg	80.7	403
88-75-5	2-Nitrophenol	U	403	ug/kg	80.7	403
105-67-9	2,4-Dimethylphenol	U	403	ug/kg	141	403
111-91-1	bis(2-Chloroethoxy)methane	U	403	ug/kg	80.7	403
120-83-2	2,4-Dichlorophenol	U	403	ug/kg	80.7	403
65-85-0	Benzoic acid	U	807	ug/kg	202	807
91-20-3	Naphthalene	U	40.3	ug/kg	12.1	40.3
106-47-8	4-Chloroaniline	U	403	ug/kg	80.7	403
87-68-3	Hexachlorobutadiene	U	403	ug/kg	80.7	403
91-57-6	2-Methylnaphthalene	U	40.3	ug/kg	8.07	40.3
77-47-4	Hexachlorocyclopentadiene	U	403	ug/kg	80.7	403
88-06-2	2,4,6-Trichlorophenol	U	403	ug/kg	80.7	403
95-95-4	2,4,5-Trichlorophenol	U	403	ug/kg	80.7	403
91-58-7	2-Chloronaphthalene	U	40.3	ug/kg	13.3	40.3
88-74-4	2-Nitroaniline	U	403	ug/kg	80.7	403
99-09-2	o-Nitroaniline					
	3-Nitroaniline	U	403	ug/kg	80.7	403

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193  
Lab Sample ID: 248506009

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.04 g  
Column: J&W DB-5MS

Matrix: R  
% Moisture: 17.5  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7448  
Batch ID: 963086  
Run Date: 03/22/2010 15:44  
Prep Date: 03/10/2010 12:33  
Data File: s5c2220.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	403	ug/kg	80.7	403
606-20-2	2,6-Dinitrotoluene	U	403	ug/kg	40.3	403
208-96-8	Acenaphthylene	U	40.3	ug/kg	12.1	40.3
51-28-5	2,4-Dinitrophenol	U	807	ug/kg	153	807
132-64-9	Dibenzofuran	U	403	ug/kg	80.7	403
84-66-2	Diethylphthalate	U	403	ug/kg	80.7	403
86-73-7	Fluorene	U	40.3	ug/kg	12.1	40.3
7005-72-3	4-Chlorophenylphenylether	U	403	ug/kg	80.7	403
534-52-1	2-Methyl-4,6-dinitrophenol	U	403	ug/kg	80.7	403
100-01-6	4-Nitroaniline	U	403	ug/kg	121	403
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	403	ug/kg	80.7	403
122-66-7	Azobenzene	U	403	ug/kg	80.7	403
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	403	ug/kg	80.7	403
118-74-1	Hexachlorobenzene	U	403	ug/kg	80.7	403
85-01-8	Phenanthrene	U	40.3	ug/kg	12.1	40.3
120-12-7	Anthracene	U	40.3	ug/kg	8.07	40.3
84-74-2	Di-n-butylphthalate	U	403	ug/kg	80.7	403
206-44-0	Fluoranthene	U	40.3	ug/kg	12.1	40.3
85-68-7	Butylbenzylphthalate	U	403	ug/kg	80.7	403
56-55-3	Benzo(a)anthracene	U	40.3	ug/kg	12.1	40.3
91-94-1	3,3'-Dichlorobenzidine	U	403	ug/kg	121	403
218-01-9	Chrysene	U	40.3	ug/kg	12.1	40.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	403	ug/kg	80.7	403
117-84-0	Di-n-octylphthalate	U	403	ug/kg	80.7	403
205-99-2	Benzo(b)fluoranthene	U	40.3	ug/kg	12.1	40.3
207-08-9	Benzo(k)fluoranthene	U	40.3	ug/kg	12.1	40.3
50-32-8	Benzo(a)pyrene	U	40.3	ug/kg	12.1	40.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	40.3	ug/kg	12.1	40.3
53-70-3	Dibenzo(a,h)anthracene	U	40.3	ug/kg	12.1	40.3
191-24-2	Benzo(ghi)perylene	U	40.3	ug/kg	12.1	40.3
120-82-1	1,2,4-Trichlorobenzene	U	403	ug/kg	80.7	403

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.98	241	ug/kg		JA
3452-07-1	1-Eicosene	9.44	236	ug/kg	90	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193  
Lab Sample ID: 248506009

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30.04 g  
Column: J&W DB-5MS

Matrix: R  
% Moisture: 17.5  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
<b>Tentatively Identified Compound Summary</b>						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
112-95-8	Eicosane	10.85	167	ug/kg	96	NJ
	Unknown	11.92	175	ug/kg		J
	Unknown	12.09	432	ug/kg		J
	Unknown	12.69	237	ug/kg		J
	Unknown	12.87	454	ug/kg		J
	Unknown	12.98	189	ug/kg		J
4651-51-8	Ergost-5-en-3-ol, (3.beta.)-	13.17	278	ug/kg	90	NJ
83-46-5	.beta.-Sitosterol	13.87	767	ug/kg	96	NJ
	Unknown	14.47	279	ug/kg		J

Data File: /chem/MSD5.i/s032210.b/s5c2220.d  
Report Date: 23-Mar-2010 07:52

Page 1

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2220.d  
Lab Smp Id: 248506009 Client Smp ID: RE36-10-7448  
Inj Date : 22-MAR-2010 15:44  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506009|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 20  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	17.49450	% 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	3.948	3.950	(1.000)	254138	40.0000	
* 29 Naphthalene-d8		136	4.813	4.821	(1.000)	994075	40.0000	
* 46 Acenaphthene-d10		164	6.072	6.078	(1.000)	617840	40.0000	
* 67 Phenanthrene-d10		188	7.248	7.253	(1.000)	1102361	40.0000	
* 91 Chrysene-d12		240	9.666	9.670	(1.000)	1033090	40.0000	
* 98 Perylene-d12		264	11.371	11.370	(1.000)	865318	40.0000	
\$ 3 2-Fluorophenol		112	3.143	3.141	(0.796)	405500	63.8988	2580
\$ 5 Phenol-d5		99	3.666	3.666	(0.928)	501135	65.7032	2650
\$ 20 Nitrobenzene-d5		82	4.307	4.316	(0.895)	253479	34.3158	1380
\$ 39 2-Fluorobiphenyl		172	5.554	5.558	(0.915)	473866	30.7076	1240
\$ 60 2,4,6-Tribromophenol		329	6.672	6.675	(1.099)	150556	64.8784	2620
\$ 81 p-Terphenyl-d14		244	8.630	8.630	(0.893)	574160	33.4113	1350

## ION RATIO REPORT

## SV REPORT

Data file: s5c2220.d

Report Date: 03/23/2010 07:03

Lab. ID: 248506009

SampleType: SAMPLE

Injection Date: 22-MAR-2010 15:44

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506009|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	30785	3.67	3.74	80-120	100	(T)
93	1117	3.62	3.74	219-279	4	(QT)
-----						
7 bis(2-Chloroethyl) ether		CAS#: 111-44-4				
63	11890	3.94	3.75	80-120	100	(T)
93	633	3.94	3.75	119-179	5	(QT)
95	407	3.95	3.75	8- 68	3	(QT)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	34586	4.31	4.19	80-120	100	(T)
42	21241	4.31	4.19	44-104	61	(T)
-----						
27 Benzoic acid		CAS#: 65-85-0				
105	4641	4.56	4.59	80-120	100	( )
122	2615	4.55	4.59	45-105	56	( )
77	2907	4.57	4.59	48-108	63	( )
-----						
43 Dimethylphthalate		CAS#: 131-11-3				
163	113895	6.07	5.84	80-120	100	(T)
164	617840	6.07	5.84	0- 40	542	(QT)
-----						
44 2,6-Dinitrotoluene		CAS#: 606-20-2				
165	81850	6.07	5.90	80-120	100	(T)
63	1423	6.07	5.89	62-122	2	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50	2,4-Dinitrotoluene		CAS#: 121-14-2			
165	82101	6.07	6.19	80-120	100	(T)
89	3025	6.07	6.19	51-111	4	(QT)
63	1423	6.07	6.19	24- 84	2	(QT)
-----						
52	4-Nitrophenol		CAS#: 100-02-7			
139	278	6.04	6.12	80-120	100	(T)
109	2600	6.07	6.12	63-123	933	(Q)
65	3349	6.07	6.11	71-131	1202	(Q)
-----						
53	Fluorene		CAS#: 86-73-7			
166	7120	6.67	6.49	80-120	100	(T)
165	7278	6.67	6.49	62-122	102	(T)
167	2945	6.67	6.49	0- 44	41	(T)
-----						
55	2-Methyl-4,6-dinitrophenol		CAS#: 534-52-1			
198	796	6.67	6.51	80-120	100	(T)
105	1932	6.67	6.50	13- 73	243	(QT)
51	1287	6.67	6.50	51-111	162	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2220.d  
Lab Smp Id: 248506009 Client Smp ID: RE36-10-7448  
Inj Date : 22-MAR-2010 15:44  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506009|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 20  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.04000	weight of sample
M	17.49450	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.948	1784993	40.000
* 91 Chrysene-d12	9.666	2790256	40.000
* 98 Perylene-d12	11.371	2297768	40.000

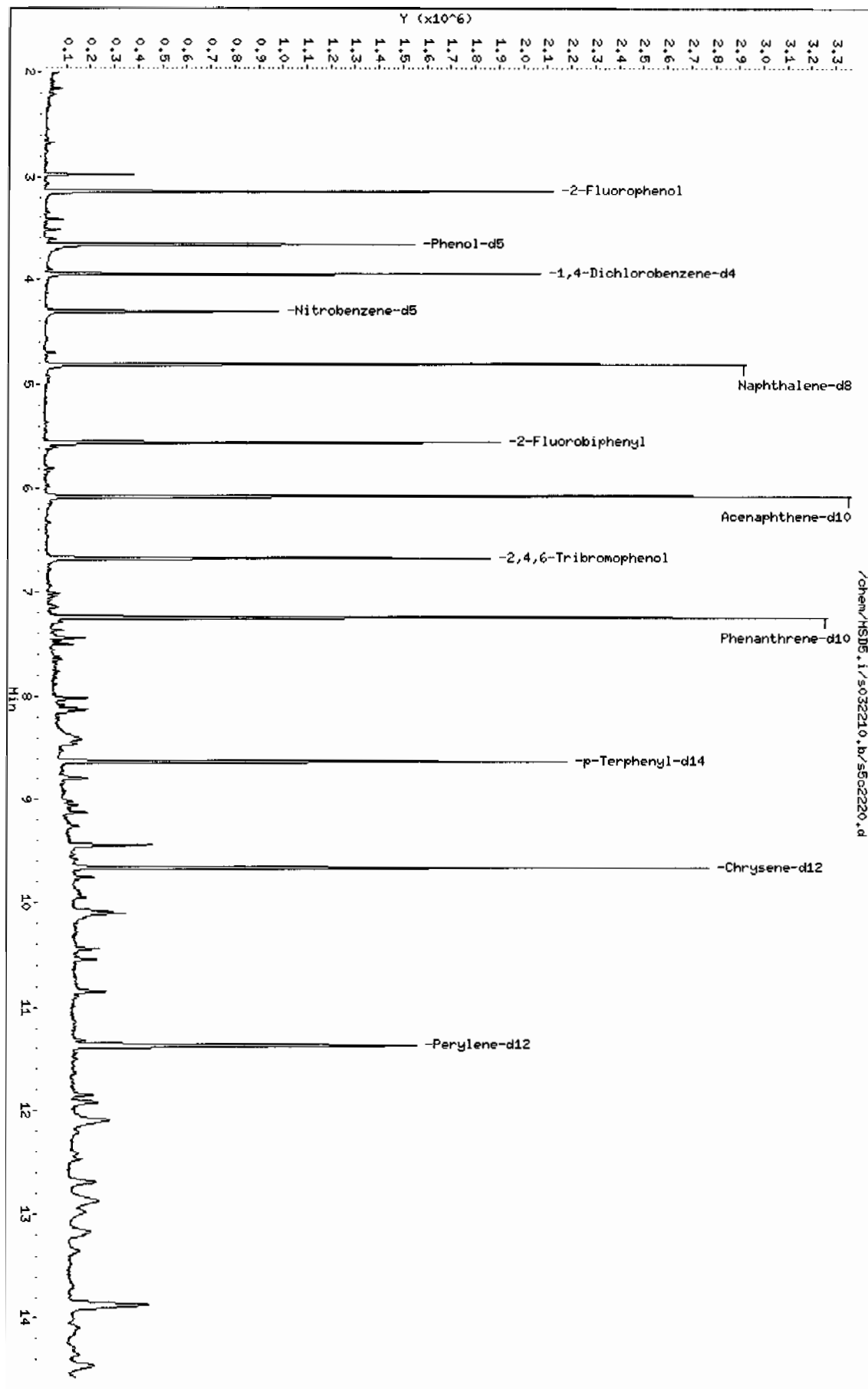
CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
=====	=====	=====	=====	=====	=====	=====	=====
Unknown Aldol Condensate					CAS #:		
2.978	266500	5.97201898	241	0		0	10
1-Eicosene					CAS #: 3452-07-1		
9.442	408735	5.85946730	236	90	NIST05.L	112102	91
Eicosane					CAS #: 112-95-8		
10.848	237798	4.13963926	167	96	NIST05.L	113489	98
Unknown					CAS #:		
11.918	249853	4.34948127	175	0		0	98
Unknown					CAS #:		
12.089	615578	10.7160929	432	0		0	98
Unknown					CAS #:		
12.689	337359	5.87280351	237	0		0	98
Unknown					CAS #:		
12.871	645888	11.2437441	454	0		0	98
Unknown					CAS #:		
12.983	269707	4.69511871	189	0		0	98
Ergost-5-en-3-ol, (3.beta.)-					CAS #: 4651-51-8		
13.165	396037	6.89429470	278	90	NIST05.L	171440	98
.beta.-Sitosterol					CAS #: 83-46-5		
13.871	1091753	19.0054459	767	96	NIST05.L	174399	98
Unknown					CAS #:		
14.465	396637	6.90473252	278	0		0	98



Data File: /chem/MSD5.i/s032210.b/s062220.d  
Date: 22-MAR-2010 15:44  
Client ID: RE36-10-7448  
Sample Info: 124850609196308611SVH11LANL  
Volume Injected (ul): 0.5  
Column phase: J&W DB-5MS

Instrument: MSD5.i  
Operator: RMB  
Column diameter: 0.20



Date : 22-MAR-2010 15:44

Client ID: RE36-10-7448

Instrument: MSD5.i

Sample Info: I248506009196308611SVH111LANL

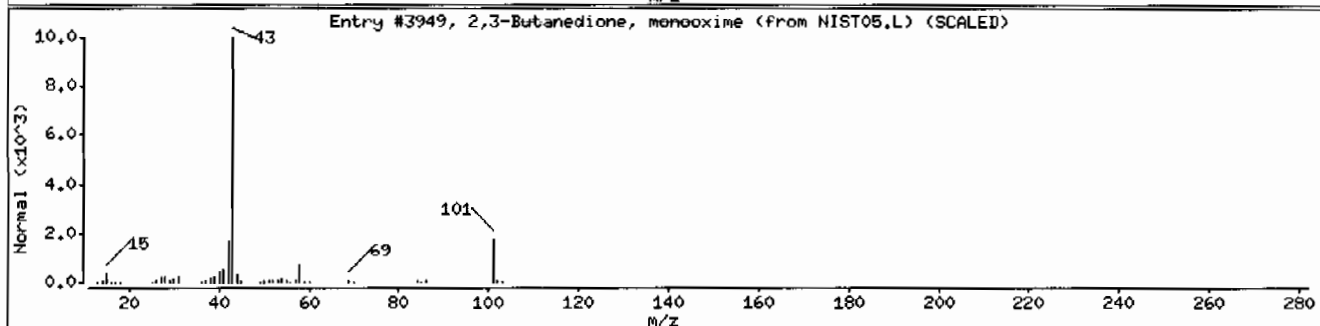
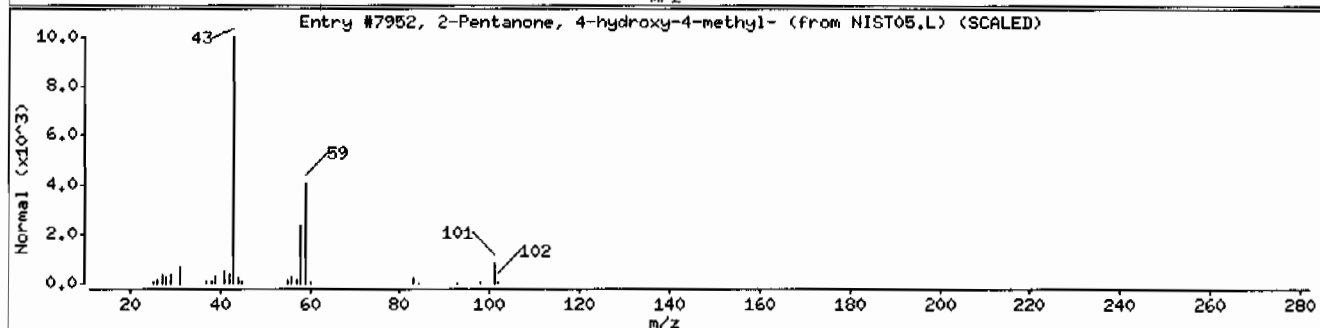
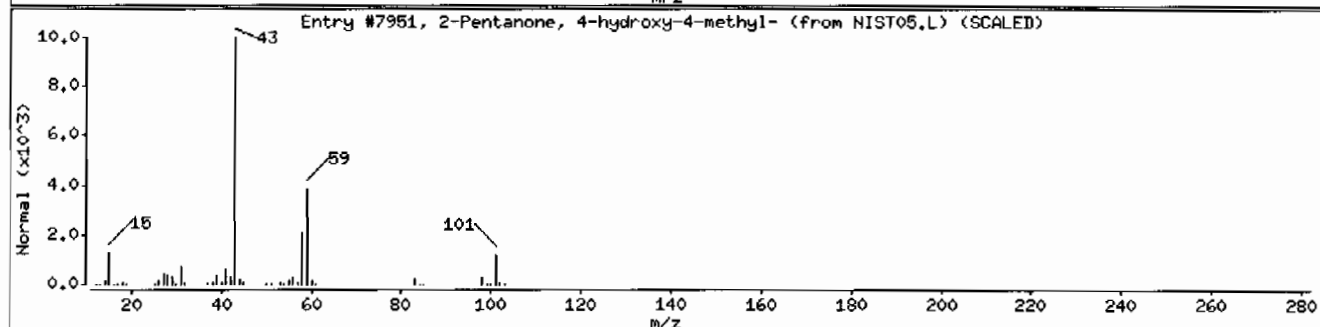
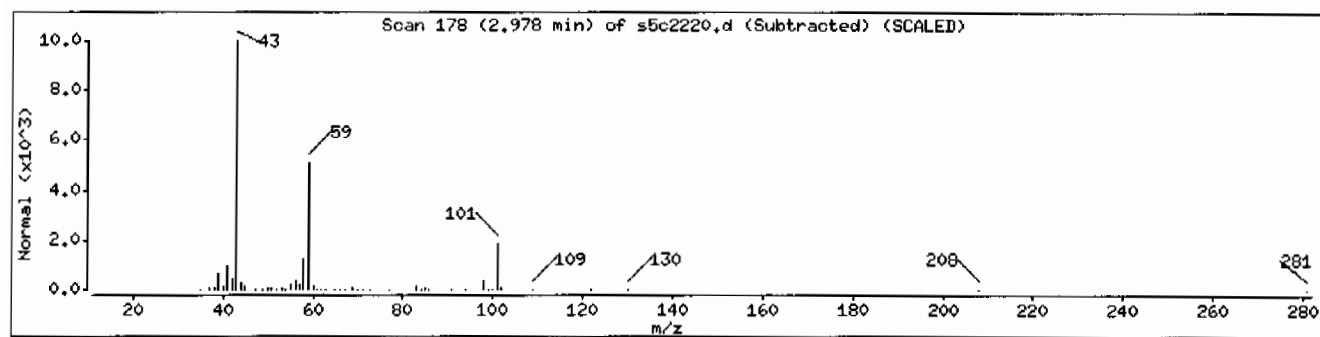
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	64	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	45	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	27	C4H7NO2	101



Date : 22-MAR-2010 15:44

Client ID: RE36-10-7448

Instrument: MSD5.i

Sample Info: 1248506009196308611|SVH11|LANL

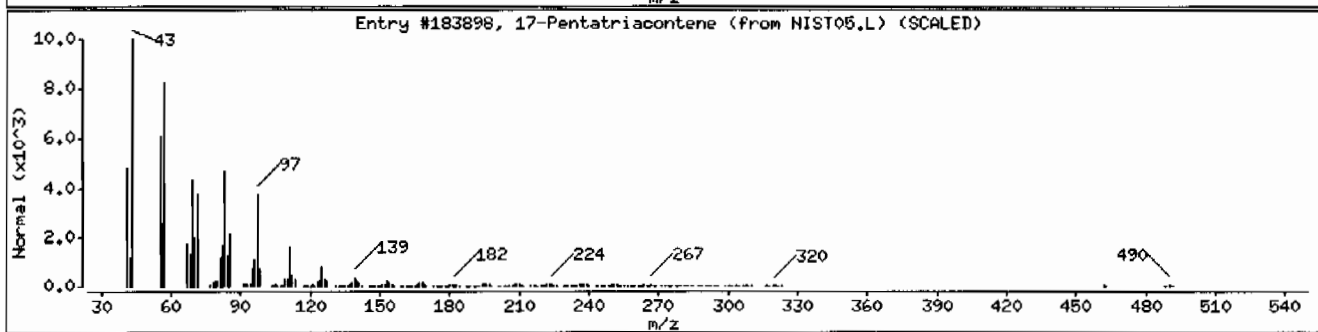
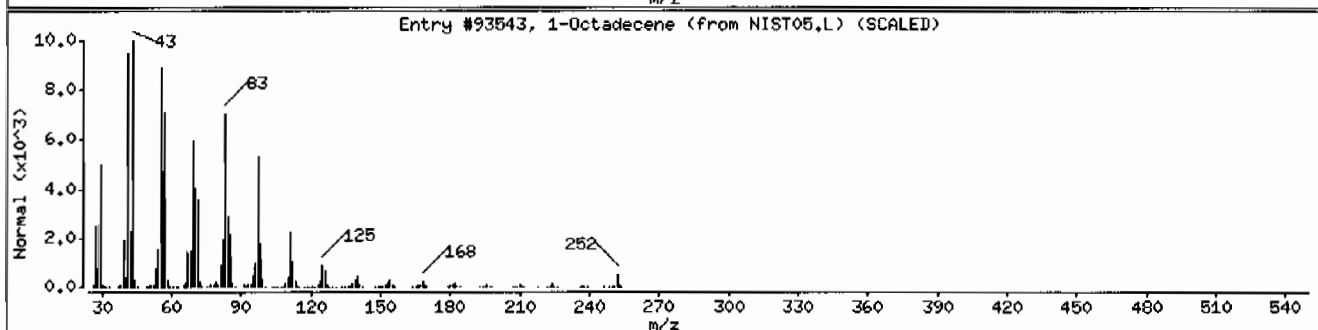
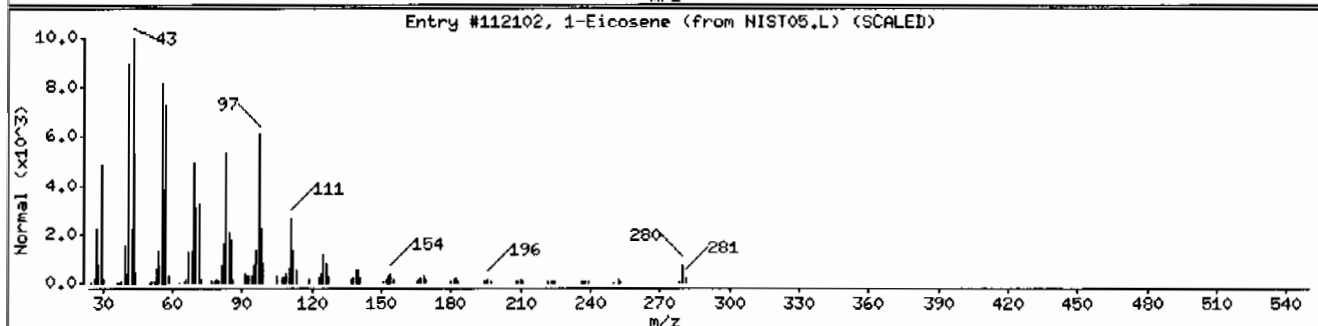
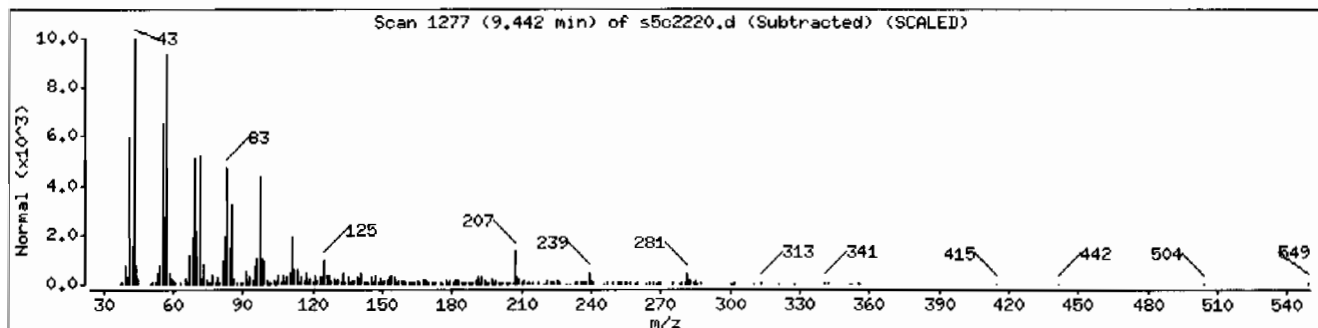
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Eicosene	3452-07-1	NIST05.L	112102	90	C <sub>20</sub> H <sub>40</sub>	280
1-Octadecene	112-88-9	NIST05.L	93543	86	C <sub>18</sub> H <sub>36</sub>	252
17-Pentatriacontene	6971-40-0	NIST05.L	183898	76	C <sub>35</sub> H <sub>70</sub>	491



Date : 22-MAR-2010 15:44

Client ID: RE36-10-7448

Instrument: MSD5.i

Sample Info: 12485060091963086111SVH111LANL

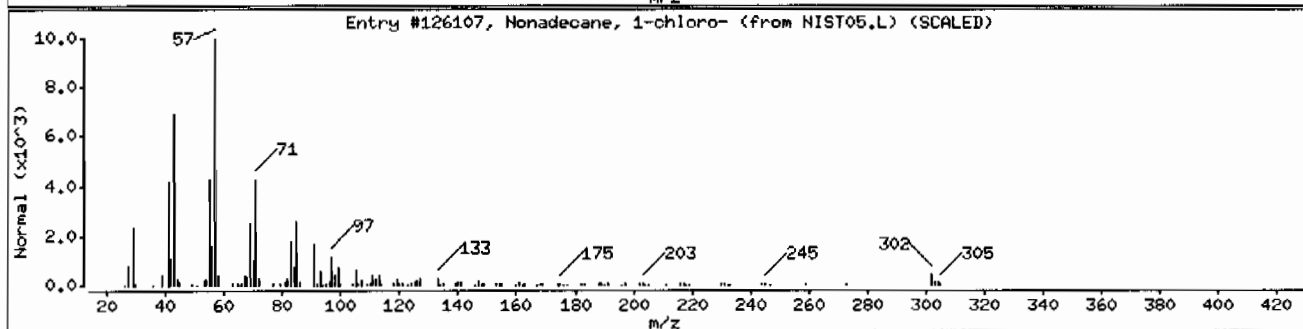
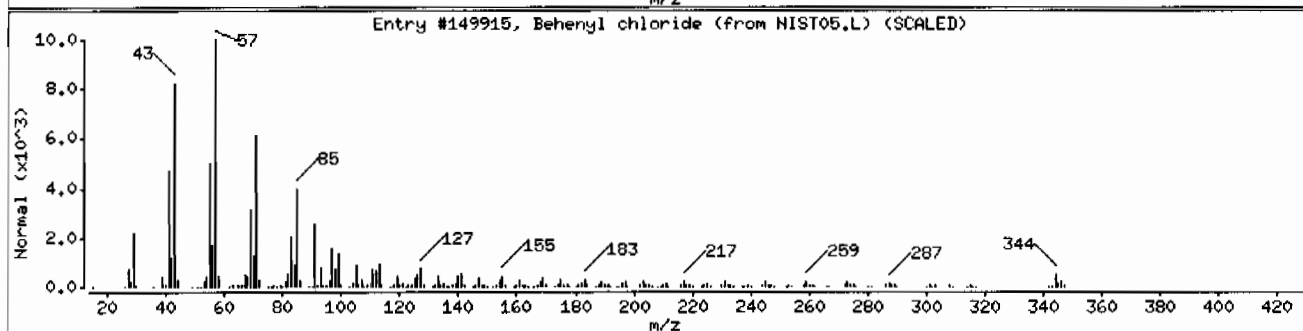
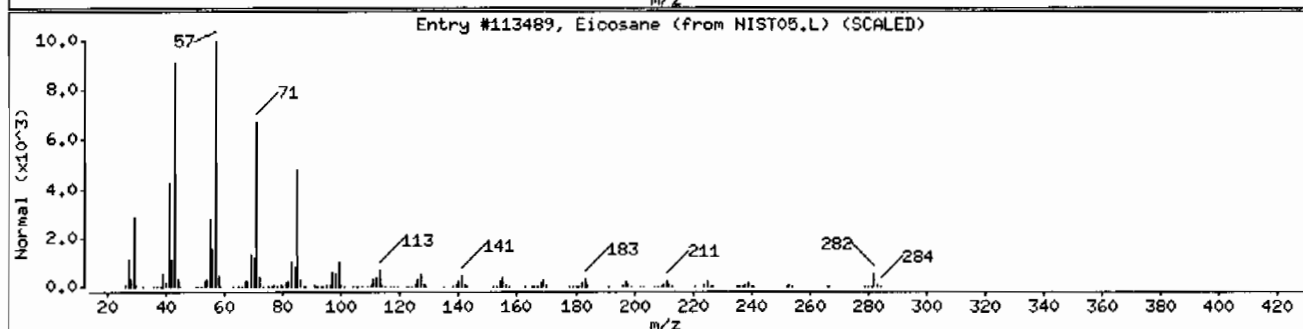
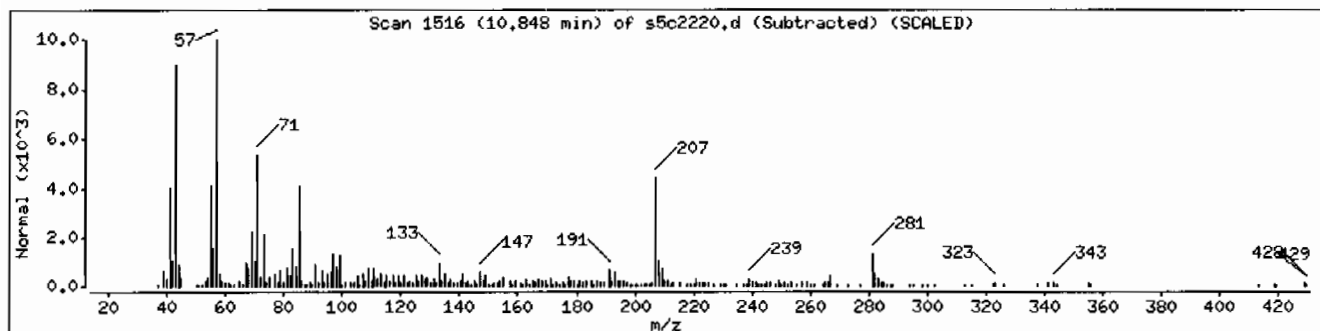
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5HS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NIST05.L	113489	96	C20H42	282
Behenyl chloride	42217-03-8	NIST05.L	149915	70	C22H45Cl	344
Nonadecane, 1-chloro-	62016-76-6	NIST05.L	126107	55	C19H39Cl	302



Date : 22-MAR-2010 15:44

Client ID: RE36-10-7448

Instrument: HSD5.i

Sample Info: 1248506009196308611SVH111LANL

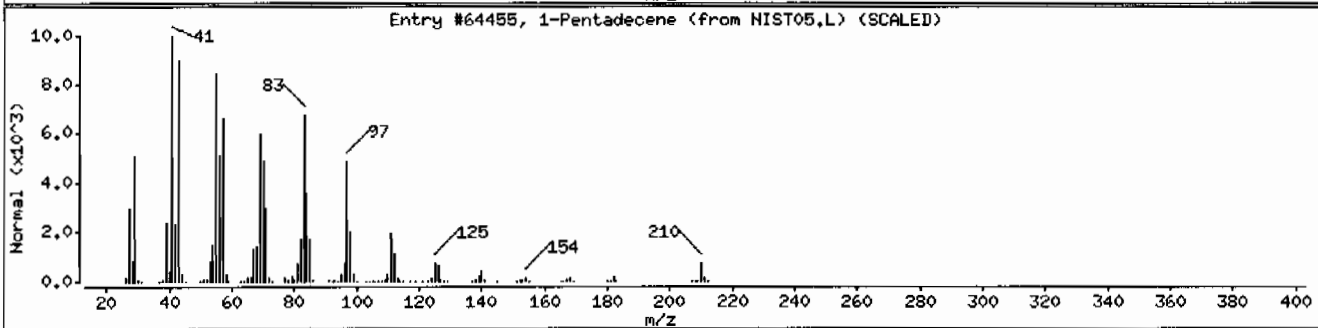
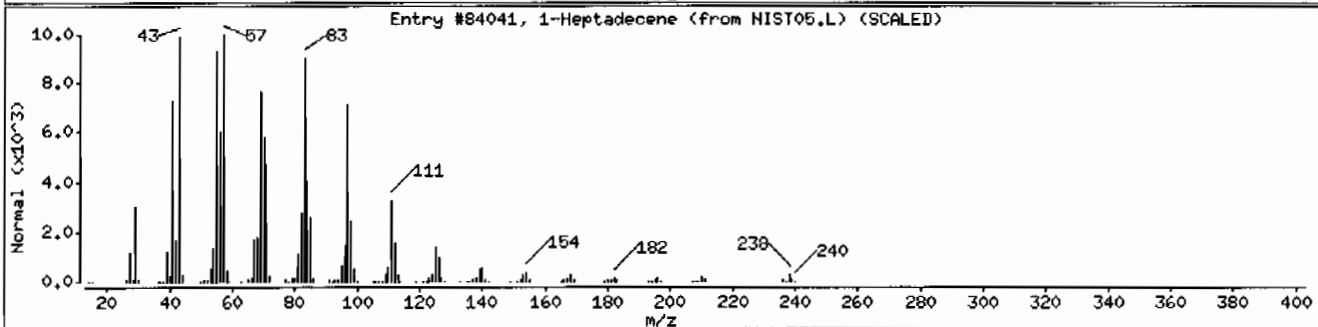
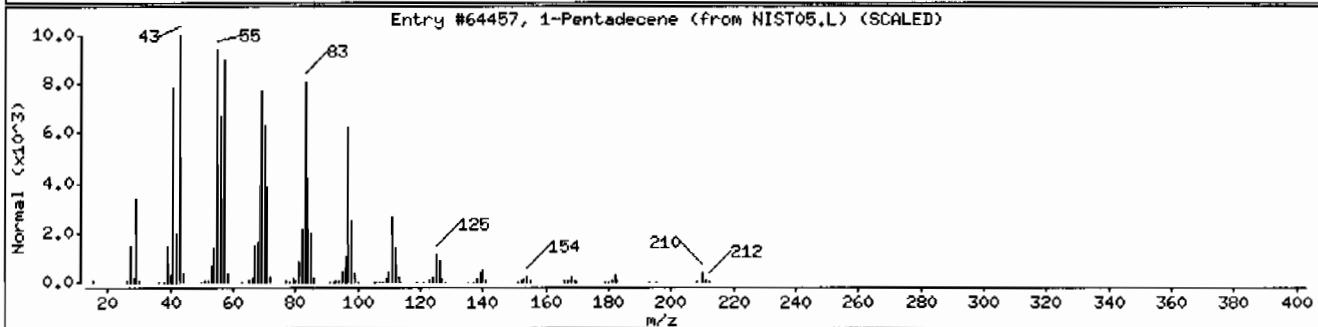
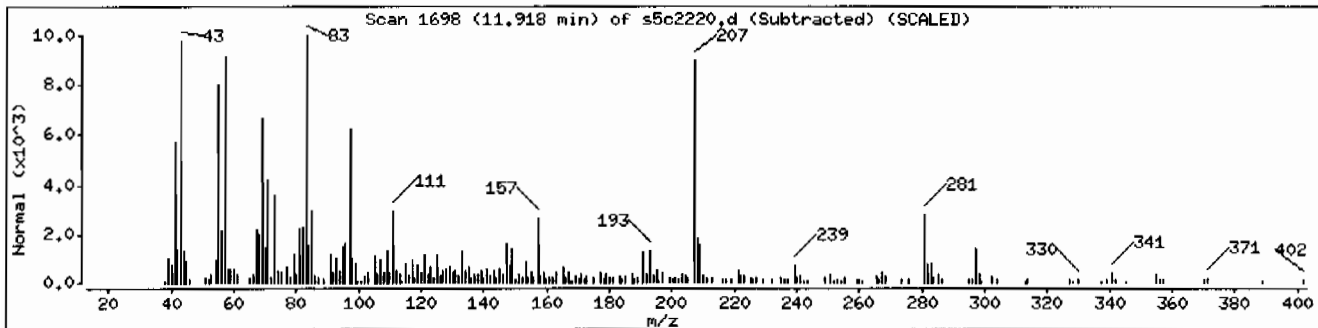
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Pentadecene	13360-61-7	NIST05.L	64457	46	C15H30	210
1-Heptadecene	6765-39-5	NIST05.L	84041	45	C17H34	238
1-Pentadecene	13360-61-7	NIST05.L	64455	45	C15H30	210



Date: 22-MAR-2010 15:44

Client ID: RE36-10-7448

Instrument: MSD5.i

Sample Info: 1248506009196308611SVMI11LANL

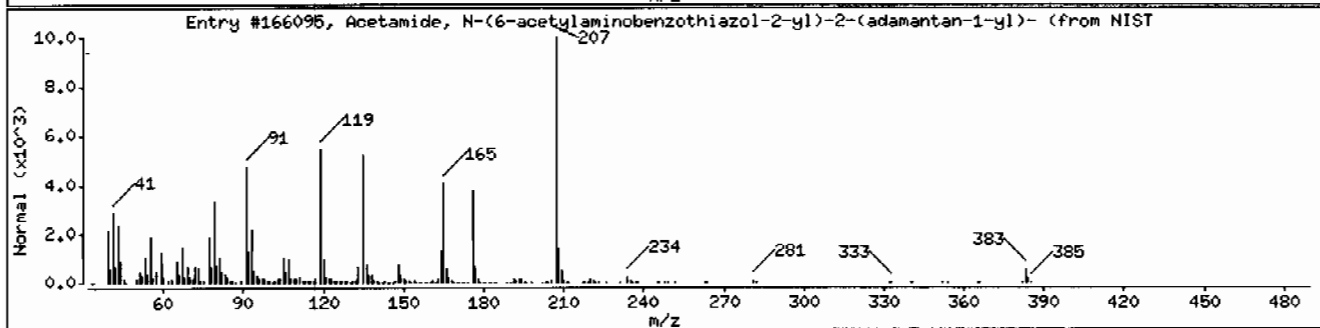
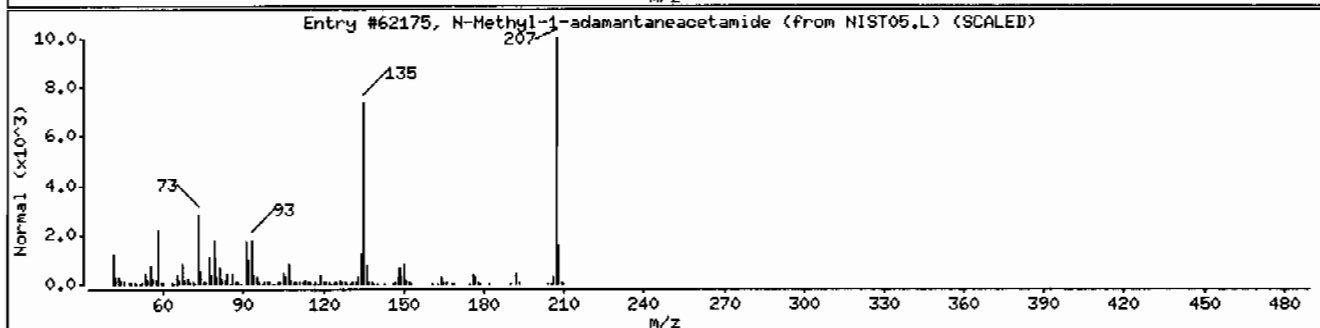
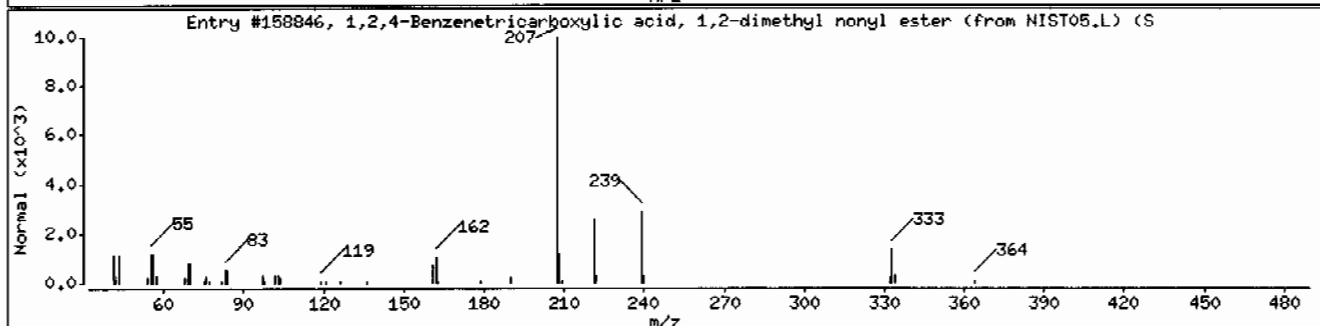
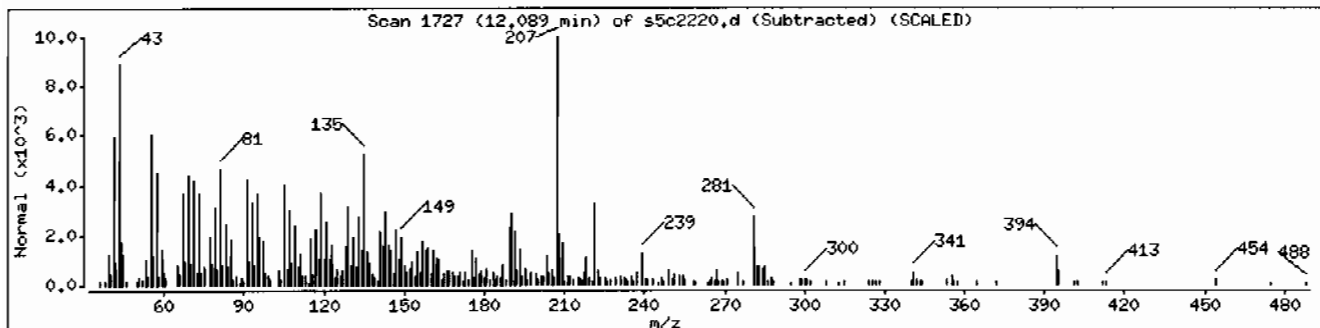
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,2,4-Benzenetricarboxylic acid, 1,2-dim	33975-28-9	NIST05.L	158846	42	C20H28O6	364
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05.L	62175	38	C13H21NO	207
Acetamide, N-(6-acetylaminobenzothiazol-	1000316-84-8	NIST05.L	166095	38	C21H25N3O2S	383



Date : 22-MAR-2010 15:44

Client ID: RE36-10-7448

Instrument: MSD5.i

Sample Info: I2485060091963086111SVH111LANL

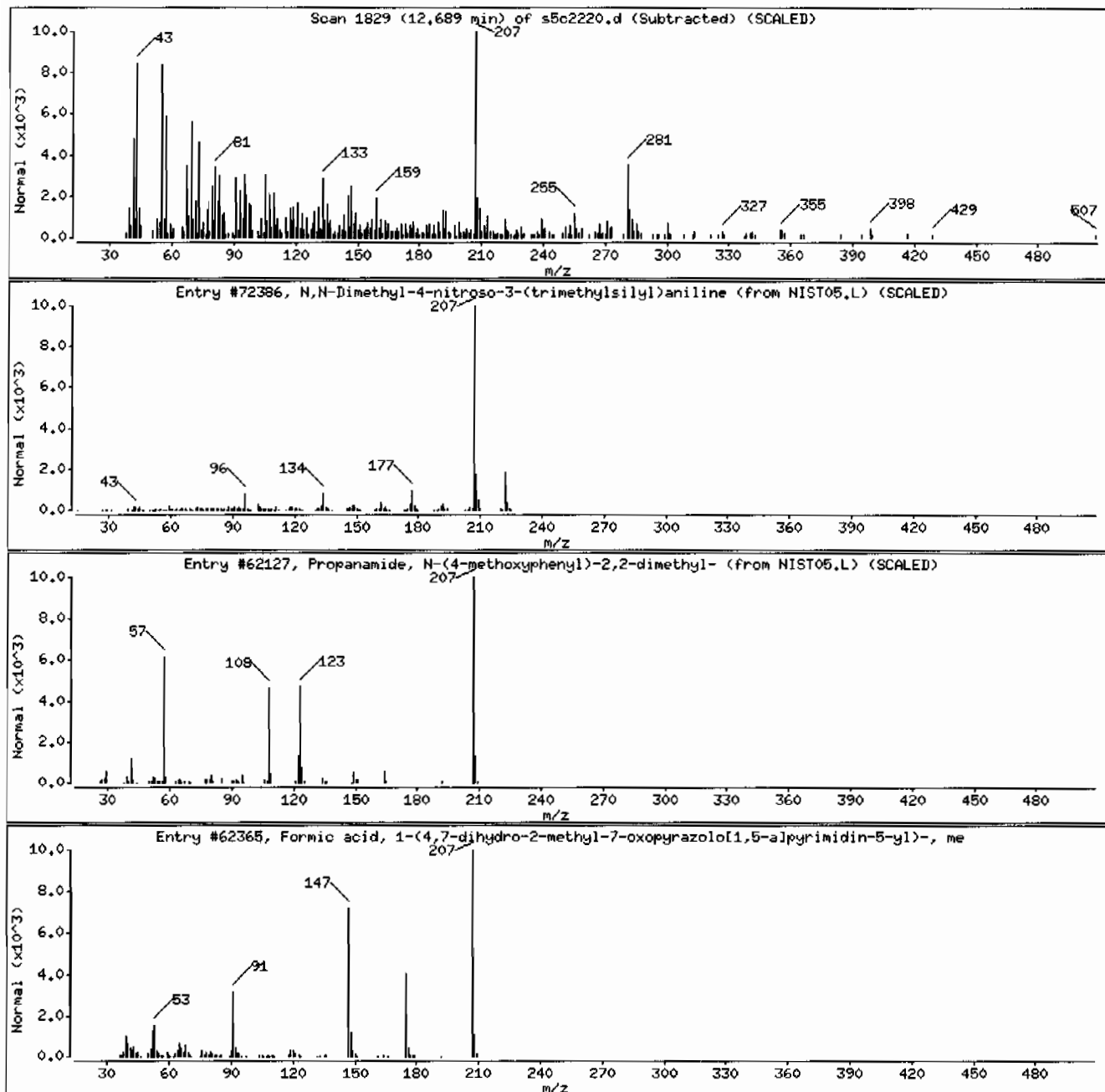
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
N,N-Dimethyl-4-nitroso-3-(trimethylsilyl)propanamide, N-(4-methoxyphenyl)-2,2-dimethyl-	17993-84-9	NIST05.L	72386	35	C11H18N2OSi	222
Formic acid, 1-(4,7-dihydro-2-methyl-7-o	56619-94-4	NIST05.L	62127	35	C12H17N02	207
	1000267-28-6	NIST05.L	62365	35	C9H9N3O3	207



Date : 22-MAR-2010 15:44

Client ID: RE36-10-7448

Instrument: MSD5.i

Sample Info: I248506009196308611ISVH11ILANL

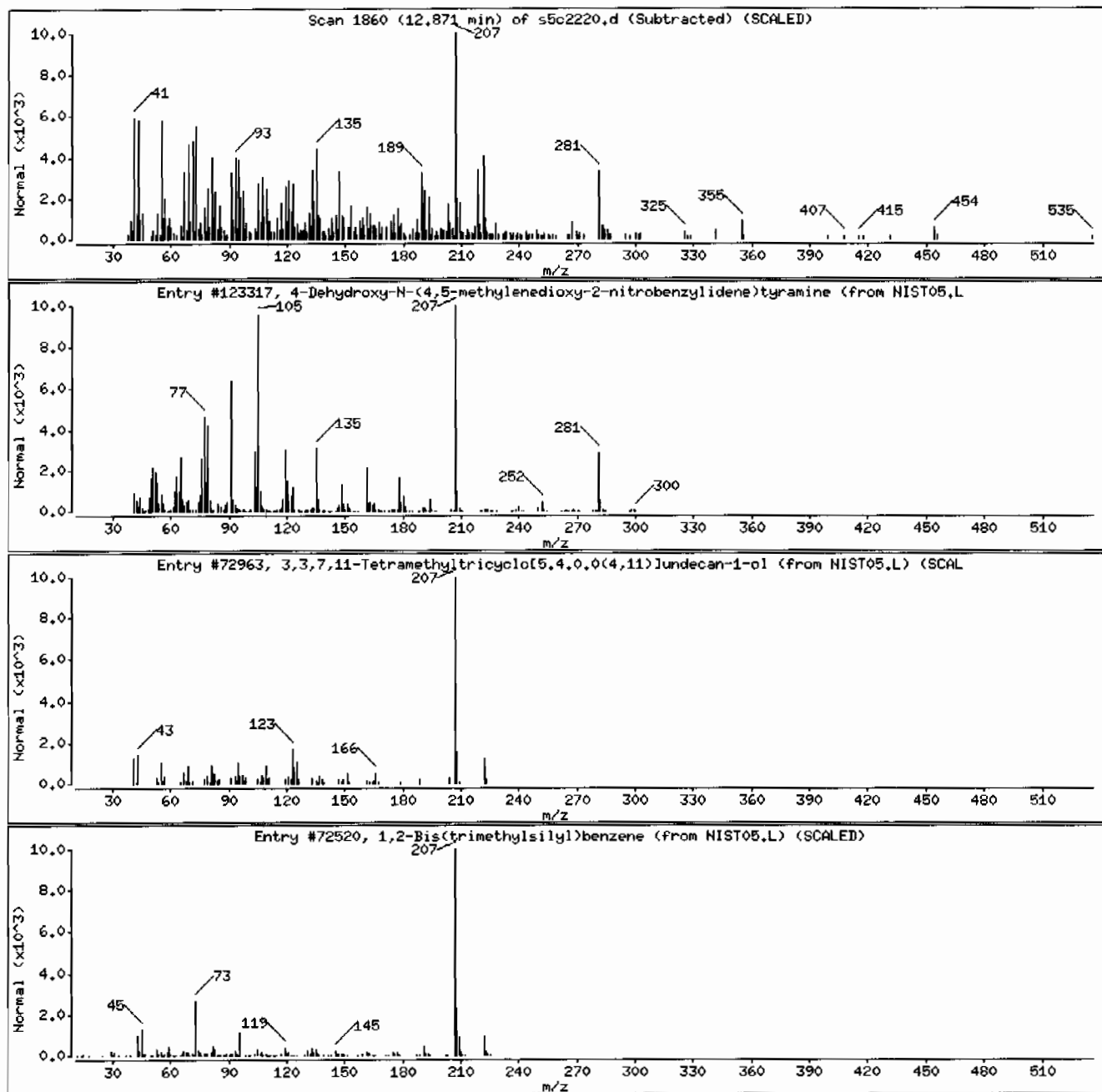
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4-Dehydroxy-N-(4,5-methylenedioxy-2-nitr	1000111-66-9	NIST05.L	123317	35	C16H14N2O4	298
3,3,7,11-Tetramethyltricyclo[5.4.0.0(4,1	117591-80-7	NIST05.L	72963	27	C15H26O	222
1,2-Bis(trimethylsilyl)benzene	17151-09-6	NIST05.L	72520	27	C12H22Si2	222





Date : 22-MAR-2010 15:44

Client ID: RE36-10-7448

Instrument: HSD5.i

Sample Info: 1248506009196308611SVH111LANL

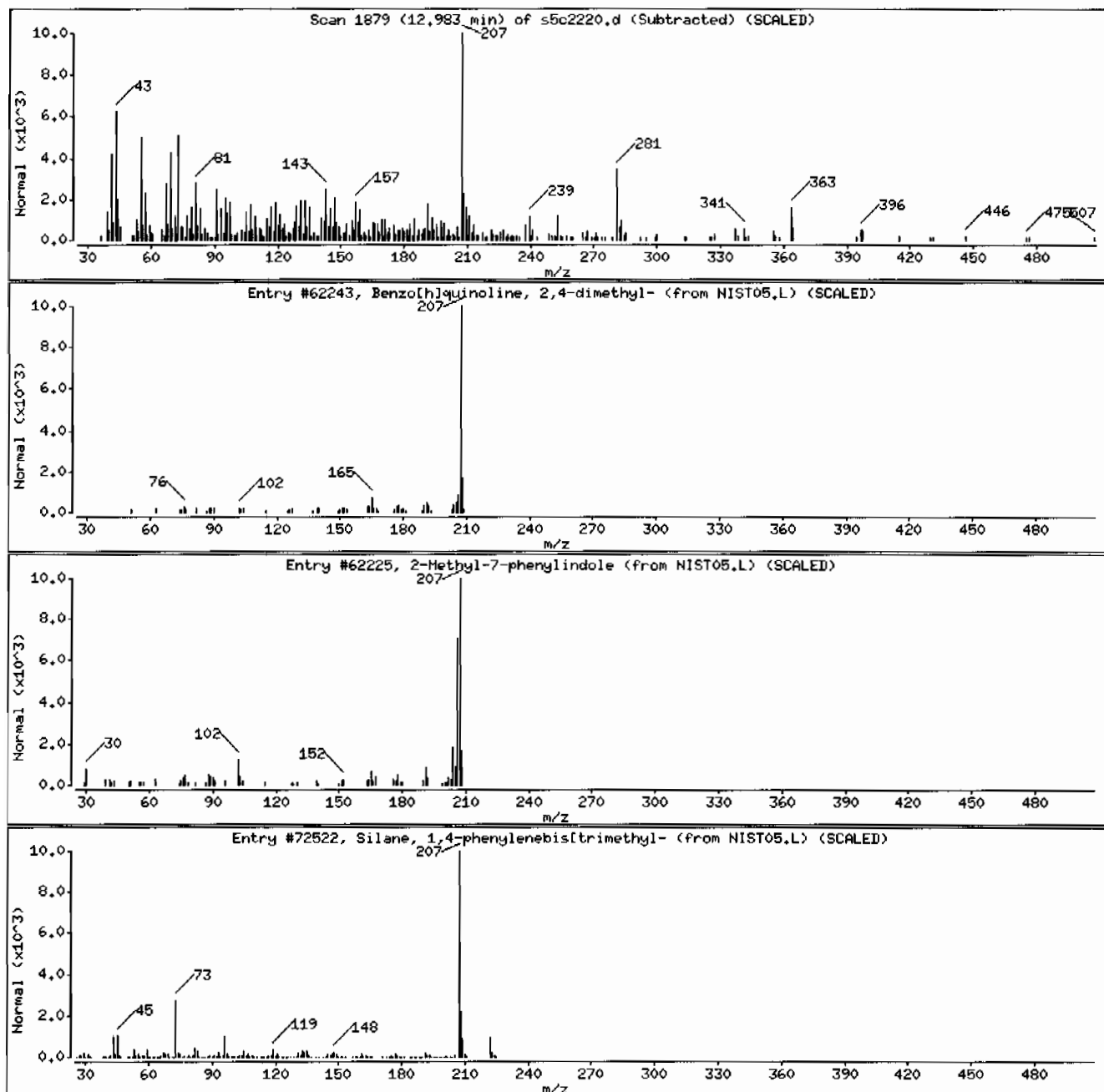
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	50	C15H13N	207
2-Methyl-7-phenylindole	1140-08-5	NIST05.L	62225	45	C15H13N	207
Silane, 1,4-phenylenebis(trimethyl-	13183-70-5	NIST05.L	72522	45	C12H22Si2	222



Date : 22-MAR-2010 15:44

Client ID: RE36-10-7448

Instrument: MSD5.i

Sample Info: 1248506009196308611SVH11ILANL

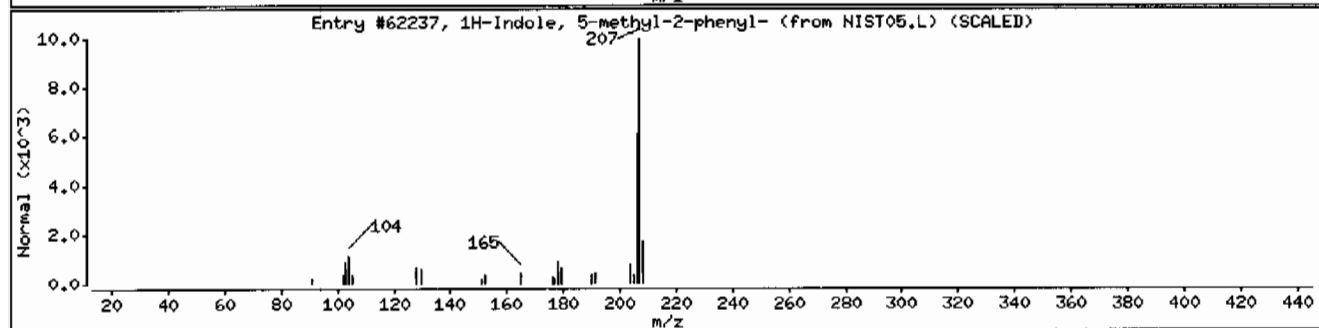
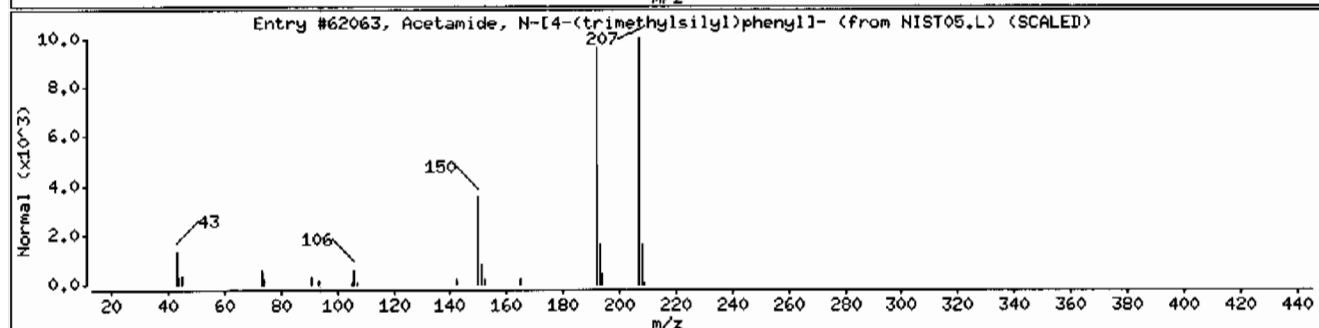
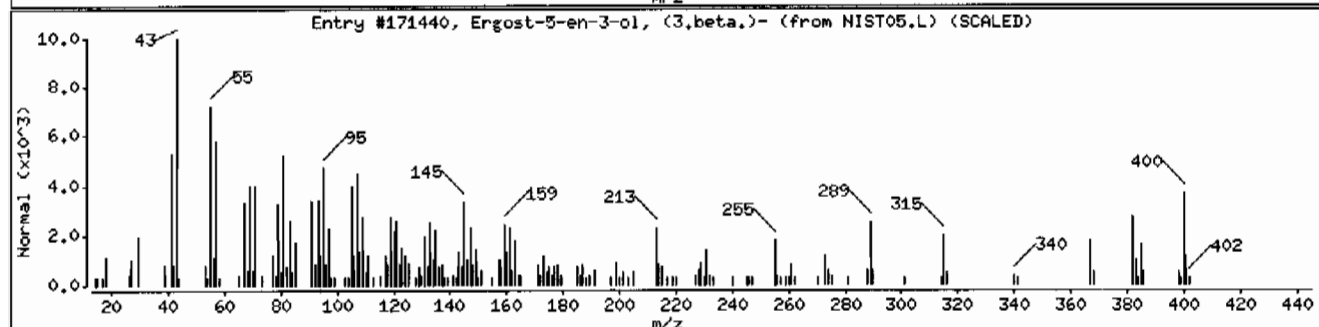
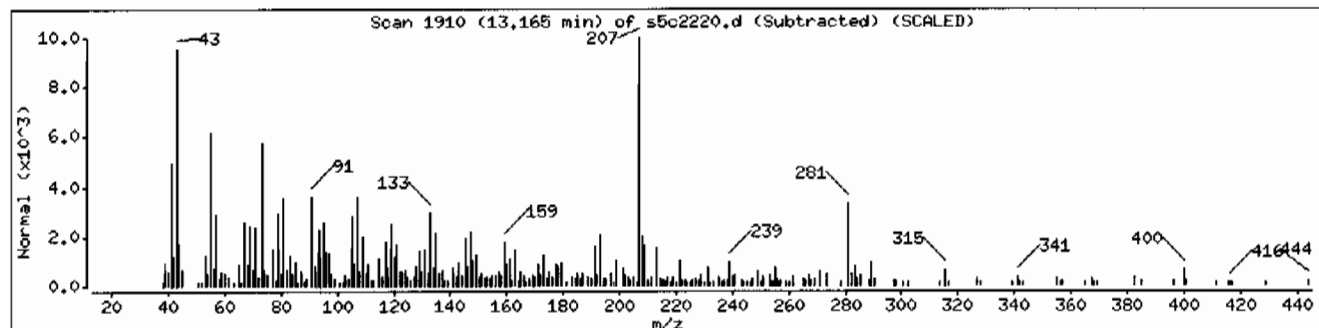
Volume Injected (uL): 0.5

Operator: RHB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ergost-5-en-3-ol, (3,β)-	4651-51-8	NIST05.L	171440	90	C28H48O	400
Acetamide, N-[4-(trimethylsilyl)phenyl]-	17983-71-0	NIST05.L	62063	35	C11H17NOSi	207
1H-Indole, 5-methyl-2-phenyl-	13228-36-9	NIST05.L	62237	30	C15H13N	207



Date : 22-MAR-2010 15:44

Client ID: RE36-10-7448

Instrument: MSD5.i

Sample Info: 12485060091963086111SVMI111LANL

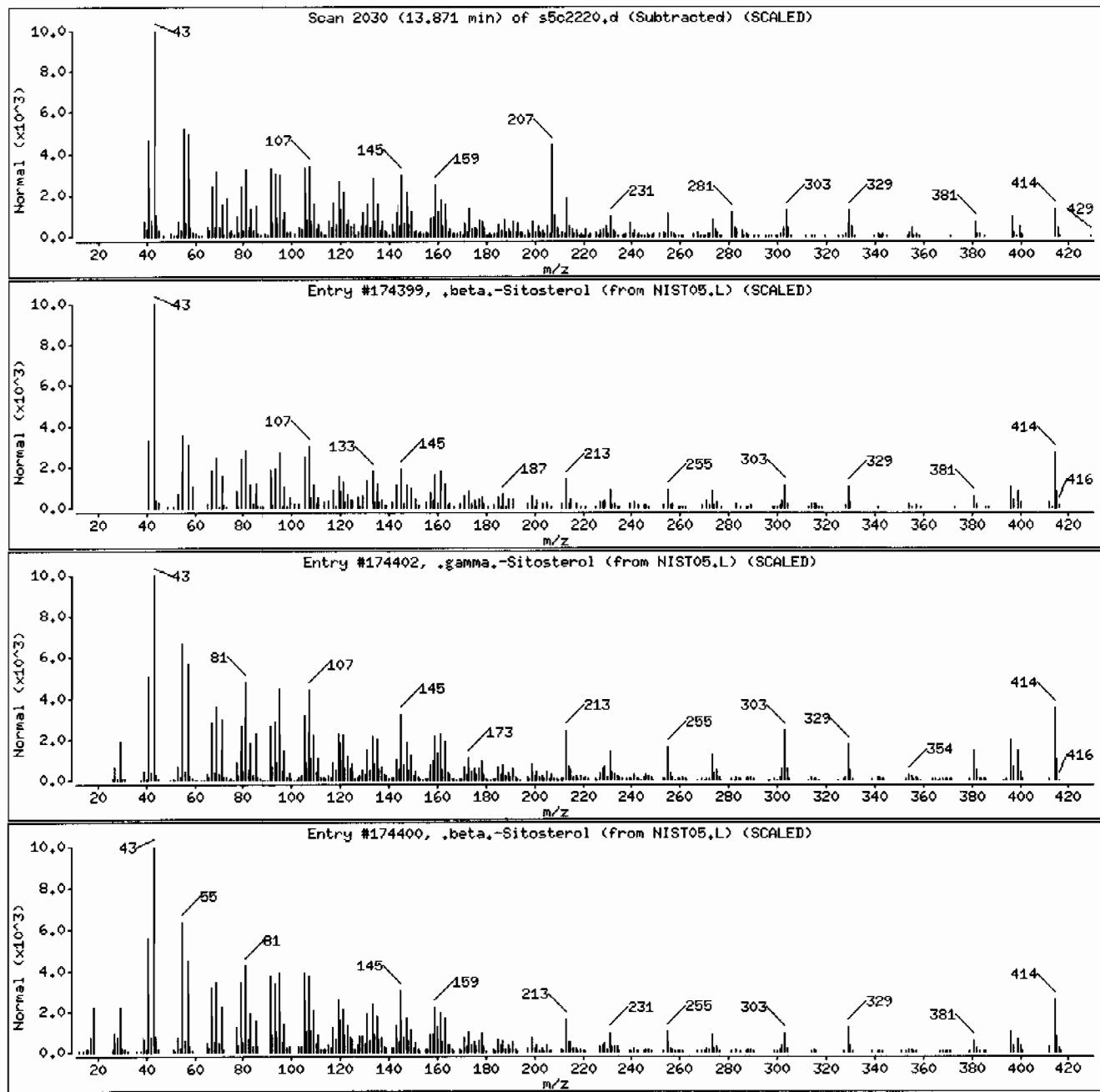
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174399	96	C <sub>29</sub> H <sub>50</sub> O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	94	C <sub>29</sub> H <sub>50</sub> O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174400	93	C <sub>29</sub> H <sub>50</sub> O	414



Date : 22-MAR-2010 15:44

Client ID: RE36-10-7448

Instrument: MSD5.i

Sample Info: I2485060091963086111SVH111LANL

Volume Injected (uL): 0.5

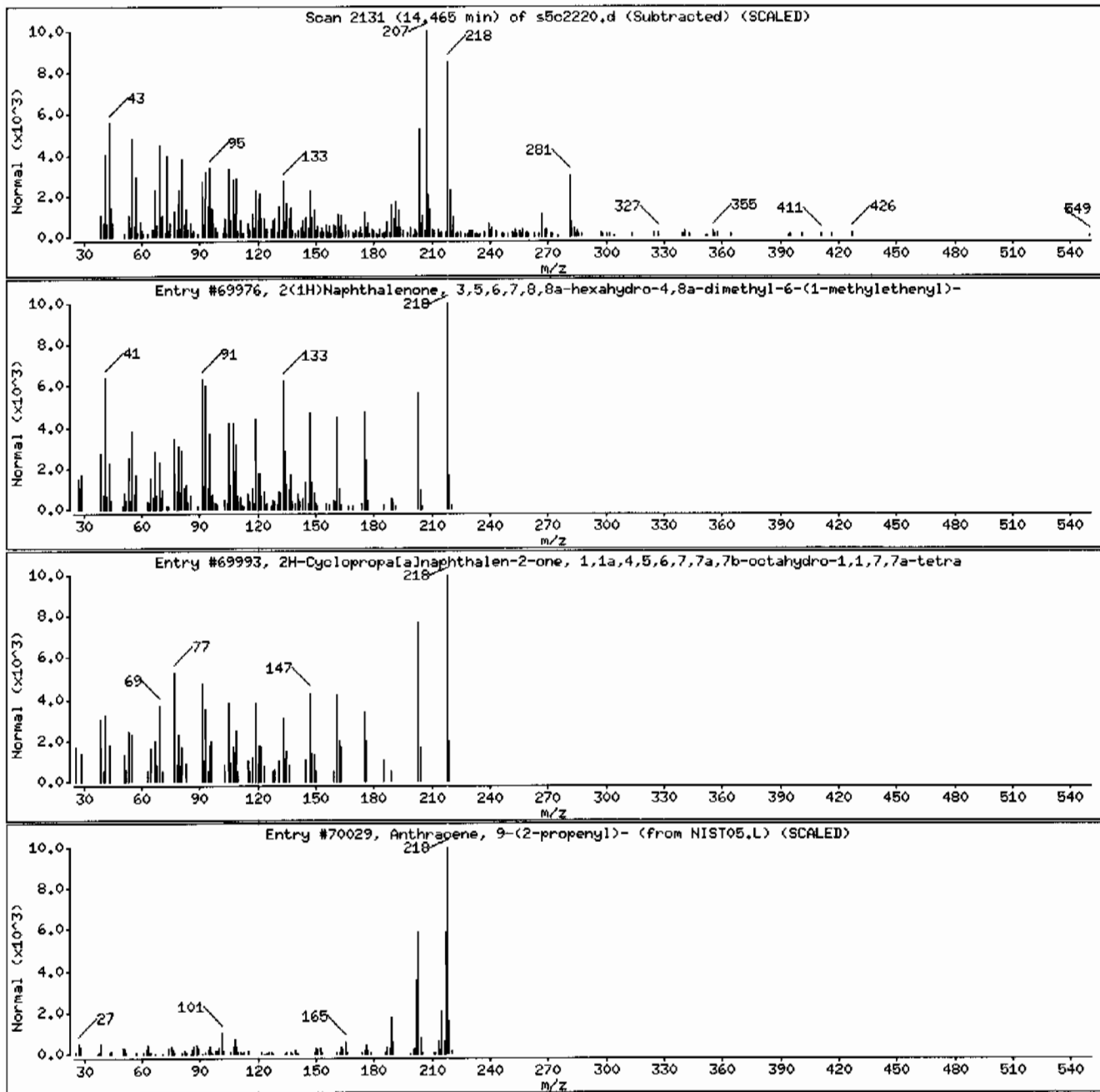
Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

## Library Search Compound Match

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2(1H)Naphthalenone, 3,5,6,7,8,8a-hexahyd	1000188-66-5	NIST05.L	69976	70	C15H22O	218
2H-Cyclopropa[s]naphthalen-2-one, 1,1a,4	6831-17-0	NIST05.L	69993	46	C15H22O	218
Anthracene, 9-(2-propenyl)-	23707-65-5	NIST05.L	70029	42	C17H14	218



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506005	Date Received: 03/03/2010 08:50	%Moisture: 17.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7449	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.1	Dilution: 10
Run Date: 03/22/2010 14:13	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30 g	Final Volume: 1 mL
Data File: s5c2216.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	4060	ug/kg	811	4060
108-95-2	Phenol	U	4060	ug/kg	811	4060
95-57-8	2-Chlorophenol	U	4060	ug/kg	811	4060
106-46-7	1,4-Dichlorobenzene	U	4060	ug/kg	811	4060
621-64-7	N-Nitrosodipropylamine	U	4060	ug/kg	811	4060
59-50-7	4-Chloro-3-methylphenol	U	4060	ug/kg	811	4060
83-32-9	Acenaphthene	U	406	ug/kg	134	406
121-14-2	2,4-Dinitrotoluene	U	4060	ug/kg	406	4060
100-02-7	4-Nitrophenol	U	4060	ug/kg	1340	4060
87-86-5	Pentachlorophenol	U	4060	ug/kg	1010	4060
129-00-0	Pyrene	U	406	ug/kg	122	406
110-86-1	Pyridine	U	4060	ug/kg	811	4060
62-53-3	Aniline	U	4060	ug/kg	1220	4060
111-44-4	bis(2-Chloroethyl) ether	U	4060	ug/kg	811	4060
541-73-1	1,3-Dichlorobenzene	U	4060	ug/kg	811	4060
100-51-6	Benzyl alcohol	U	4060	ug/kg	1220	4060
95-50-1	1,2-Dichlorobenzene	U	4060	ug/kg	811	4060
108-60-1	bis(2-Chloroisopropyl)ether	U	4060	ug/kg	811	4060
95-48-7	o-Cresol	U	4060	ug/kg	811	4060
65794-96-9	m,p-Cresols	U	4060	ug/kg	1220	4060
67-72-1	Hexachloroethane	U	4060	ug/kg	811	4060
98-95-3	Nitrobenzene	U	4060	ug/kg	811	4060
78-59-1	Isophorone	U	4060	ug/kg	811	4060
88-75-5	2-Nitrophenol	U	4060	ug/kg	811	4060
105-67-9	2,4-Dimethylphenol	U	4060	ug/kg	1420	4060
111-91-1	bis(2-Chloroethoxy)methane	U	4060	ug/kg	811	4060
120-83-2	2,4-Dichlorophenol	U	4060	ug/kg	811	4060
65-85-0	Benzoic acid	U	8110	ug/kg	2030	8110
91-20-3	Naphthalene	U	406	ug/kg	122	406
106-47-8	4-Chloroaniline	U	4060	ug/kg	811	4060
87-68-3	Hexachlorobutadiene	U	4060	ug/kg	811	4060
91-57-6	2-Methylnaphthalene	U	406	ug/kg	81.1	406
77-47-4	Hexachlorocyclopentadiene	U	4060	ug/kg	811	4060
88-06-2	2,4,6-Trichlorophenol	U	4060	ug/kg	811	4060
95-95-4	2,4,5-Trichlorophenol	U	4060	ug/kg	811	4060
91-58-7	2-Chloronaphthalene	U	406	ug/kg	134	406
88-74-4	2-Nitroaniline	U	4060	ug/kg	811	4060
99-09-2	<i>o</i> -Nitroaniline	U	4060	ug/kg	811	4060
	3-Nitroaniline					

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193

Date Collected: 02/25/2010 12:00

Matrix: R

Lab Sample ID: 248506005

Date Received: 03/03/2010 08:50

%Moisture: 17.8

Client ID: RE36-10-7449

Client: LANL010

Project: LANL01004

Batch ID: 963086

Method: SW846 8270C

SOP Ref: GL-OA-E-009

Run Date: 03/22/2010 14:13

Inst: MSD5.I

Dilution: 10

Prep Date: 03/10/2010 12:33

Analyst: RMB

Inj. Vol: .5 uL

Data File: s5c2216.d

Aliquot: 30 g

Final Volume: 1 mL

Column: J&amp;W DB-5MS

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
	Dimethylphthalate	U	4060	ug/kg	811	4060
606-20-2	2,6-Dinitrotoluene	U	4060	ug/kg	406	4060
208-96-8	Acenaphthylene	U	406	ug/kg	122	406
51-28-5	2,4-Dinitrophenol	U	8110	ug/kg	1540	8110
132-64-9	Dibenzofuran	U	4060	ug/kg	811	4060
84-66-2	Diethylphthalate	U	4060	ug/kg	811	4060
86-73-7	Fluorene	U	406	ug/kg	122	406
7005-72-3	4-Chlorophenylphenylether	U	4060	ug/kg	811	4060
534-52-1	2-Methyl-4,6-dinitrophenol	U	4060	ug/kg	811	4060
100-01-6	4-Nitroaniline	U	4060	ug/kg	1220	4060
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	4060	ug/kg	811	4060
122-66-7	Azobenzene	U	4060	ug/kg	811	4060
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	4060	ug/kg	811	4060
118-74-1	Hexachlorobenzene	U	4060	ug/kg	811	4060
85-01-8	Phenanthrene	U	406	ug/kg	122	406
120-12-7	Anthracene	U	406	ug/kg	81.1	406
84-74-2	Di-n-butylphthalate	U	4060	ug/kg	811	4060
206-44-0	Fluoranthene	U	406	ug/kg	122	406
85-68-7	Butylbenzylphthalate	U	4060	ug/kg	811	4060
56-55-3	Benzo(a)anthracene	U	406	ug/kg	122	406
91-94-1	3,3'-Dichlorobenzidine	U	4060	ug/kg	1220	4060
218-01-9	Chrysene	U	406	ug/kg	122	406
117-81-7	bis(2-Ethylhexyl)phthalate	U	4060	ug/kg	811	4060
117-84-0	Di-n-octylphthalate	U	4060	ug/kg	811	4060
205-99-2	Benzo(b)fluoranthene	U	406	ug/kg	122	406
207-08-9	Benzo(k)fluoranthene	U	406	ug/kg	122	406
50-32-8	Benzo(a)pyrene	U	406	ug/kg	122	406
193-39-5	Indeno(1,2,3-cd)pyrene	U	406	ug/kg	122	406
53-70-3	Dibenzo(a,h)anthracene	U	406	ug/kg	122	406
191-24-2	Benzo(ghi)perylene	U	406	ug/kg	122	406
120-82-1	1,2,4-Trichlorobenzene	U	4060	ug/kg	811	4060

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
4358-59-2	2-Butenoic acid, methyl ester, (Z)-	2.3	2790	ug/kg	80	NJ
7785-70-8	1R-.alpha.-Pinene	3.52	30300	ug/kg	97	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506005	Date Received: 03/03/2010 08:50	%Moisture: 17.8
	Client: LANL010	Project: LANL01004
Client ID: RE36-10-7449	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 10
Run Date: 03/22/2010 14:13	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30 g	Final Volume: 1 mL
Data File: s5c2216.d	Column: J&W DB-5MS	Level: LOW

CAS No.	Parname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
---------	---------	-----------	--------	-------	---------	---------

Tentatively Identified Compound Summary						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
3479-89-8	1,3,5-Cycloheptatriene, 3,7,7-trimethyl-	3.72	3340	ug/kg	95	NJ
7785-26-4	1S- $\alpha$ -Pinene	3.91	8940	ug/kg	95	NJ
535-77-3	Benzene, 1-methyl-3-(1-methylethyl)-	3.97	1920	ug/kg	95	NJ
	Unknown	4.58	4970	ug/kg		J
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trimethyl-	5.8	7600	ug/kg	99	NJ
1000197-14-1	4b,8-Dimethyl-2-isopropylphenanthrene, 4	8.04	2330	ug/kg	95	NJ
	Unknown	8.93	2740	ug/kg		J
17974-57-1	(3E,5E,7E)-6-Methyl-8-(2,6,6-trimethyl-1	9.13	2620	ug/kg	83	NJ
	Unknown	10.08	5190	ug/kg		J
288246-53-7	Pyridine-3-carboxamide, oxime, N-(2-trif	10.11	5400	ug/kg	92	NJ
	Unknown	10.14	7900	ug/kg		J
	Unknown	10.25	5380	ug/kg		J
	Unknown	10.85	2030	ug/kg		J
	Unknown	12.1	4470	ug/kg		J
	Unknown	12.86	5240	ug/kg		J
	Unknown	13.87	2280	ug/kg		J

Data File: /chem/MSD5.i/s032210.b/s5c2216.d  
Report Date: 23-Mar-2010 07:47

Page 1

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2216.d  
Lab Smp Id: 248506005 Client Smp ID: RE36-10-7449  
Inj Date : 22-MAR-2010 14:13  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506005|963086|10|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 16  
Dil Factor: 10.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	10.00000	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	17.80990	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.949	3.950	(1.000)	266875	40.0000	
* 29 Naphthalene-d8	136	4.813	4.821	(1.000)	1002216	40.0000	
* 46 Acenaphthene-d10	164	6.072	6.078	(1.000)	627194	40.0000	
* 67 Phenanthrene-d10	188	7.248	7.253	(1.000)	1104094	40.0000	
* 91 Chrysene-d12	240	9.672	9.670	(1.000)	994863	40.0000	
* 98 Perylene-d12	264	11.372	11.370	(1.000)	841660	40.0000	
\$ 3 2-Fluorophenol	112	3.137	3.141	(0.794)	44785	6.72042	2720
\$ 5 Phenol-d5	99	3.660	3.666	(0.927)	49806	6.21835	2520
\$ 20 Nitrobenzene-d5	82	4.307	4.316	(0.895)	27839	3.73821	1520
\$ 39 2-Fluorobiphenyl	172	5.554	5.558	(0.915)	58774	3.75188	1520
\$ 60 2,4,6-Tribromophenol	329	6.672	6.675	(1.099)	16079	6.82552	2770
\$ 81 p-Terphenyl-d14	244	8.631	8.630	(0.892)	63861	3.85896	1560



## ION RATIO REPORT

## SV REPORT

Data file: s5c2216.d

Report Date: 03/22/2010 14:33

Lab. ID: 248506005

SampleType: SAMPLE

Injection Date: 22-MAR-2010 14:13

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506005|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline		CAS#: 62-53-3			
66	12701	3.94	3.74	80-120	100	(T)
93	190238	3.91	3.74	219-279	1498	(QT)
-----						
6	Phenol		CAS#: 108-95-2			
94	71402	3.52	3.68	80-120	100	(T)
66	21560	3.52	3.67	23- 83	30	(T)
65	74168	3.52	3.68	0- 30	104	(QT)
-----						
7	bis(2-Chloroethyl) ether		CAS#: 111-44-4			
63	12356	3.95	3.75	80-120	100	(T)
93	190317	3.91	3.75	119-179	1540	(QT)
95	468	3.95	3.75	8- 68	4	(QT)
-----						
15	o-Cresol		CAS#: 95-48-7			
107	15321	3.91	4.07	80-120	100	(T)
108	3534	3.90	4.07	86-146	23	(QT)
77	78264	3.90	4.07	26- 86	511	(QT)
-----						
22	Isophorone		CAS#: 78-59-1			
82	27391	4.31	4.48	80-120	100	(T)
138	217	4.45	4.48	0- 49	1	( )
-----						
27	Benzoic acid		CAS#: 65-85-0			
105	10643	4.58	4.59	80-120	100	( )
122	2533	4.58	4.59	45-105	24	(Q)
77	23054	4.58	4.59	48-108	217	(Q)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	12358	5.80	5.67	80-120	100	(T)
164	802	5.80	5.67	3- 63	6	(T)
127	1623	5.80	5.67	11- 71	13	(T)
-----						
42 o-Nitroaniline				CAS#: 88-74-4		
65	20157	5.80	5.73	80-120	100	(T)
92	22299	5.80	5.73	34- 94	111	(QT)
138	1358	5.80	5.73	74-134	7	(QT)
-----						
43 Dimethylphthalate				CAS#: 131-11-3		
163	112876	6.07	5.84	80-120	100	(T)
164	627194	6.07	5.84	0- 40	556	(QT)
-----						
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	81603	6.07	5.90	80-120	100	(T)
63	1729	6.07	5.89	62-122	2	(QT)
-----						
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	81603	6.07	6.19	80-120	100	(T)
89	2323	6.07	6.19	51-111	3	(QT)
63	1729	6.07	6.19	24- 84	2	(QT)
-----						
52 4-Nitrophenol				CAS#: 100-02-7		
139	283	6.12	6.12	80-120	100	( )
109	4873	6.07	6.12	63-123	1720	(Q)
65	731	6.13	6.11	71-131	258	(Q)

-----  
Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2216.d  
Lab Smp Id: 248506005 Client Smp ID: RE36-10-7449  
Inj Date : 22-MAR-2010 14:13  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506005|963086|10|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 16  
Dil Factor: 10.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	10.00000	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	17.80990	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.949	1859755	40.000
* 29 Naphthalene-d8	4.813	2467577	40.000
* 46 Acenaphthene-d10	6.072	2803850	40.000
* 67 Phenanthrene-d10	7.248	2943697	40.000
* 91 Chrysene-d12	9.672	2819683	40.000
* 98 Perylene-d12	11.372	2382558	40.000

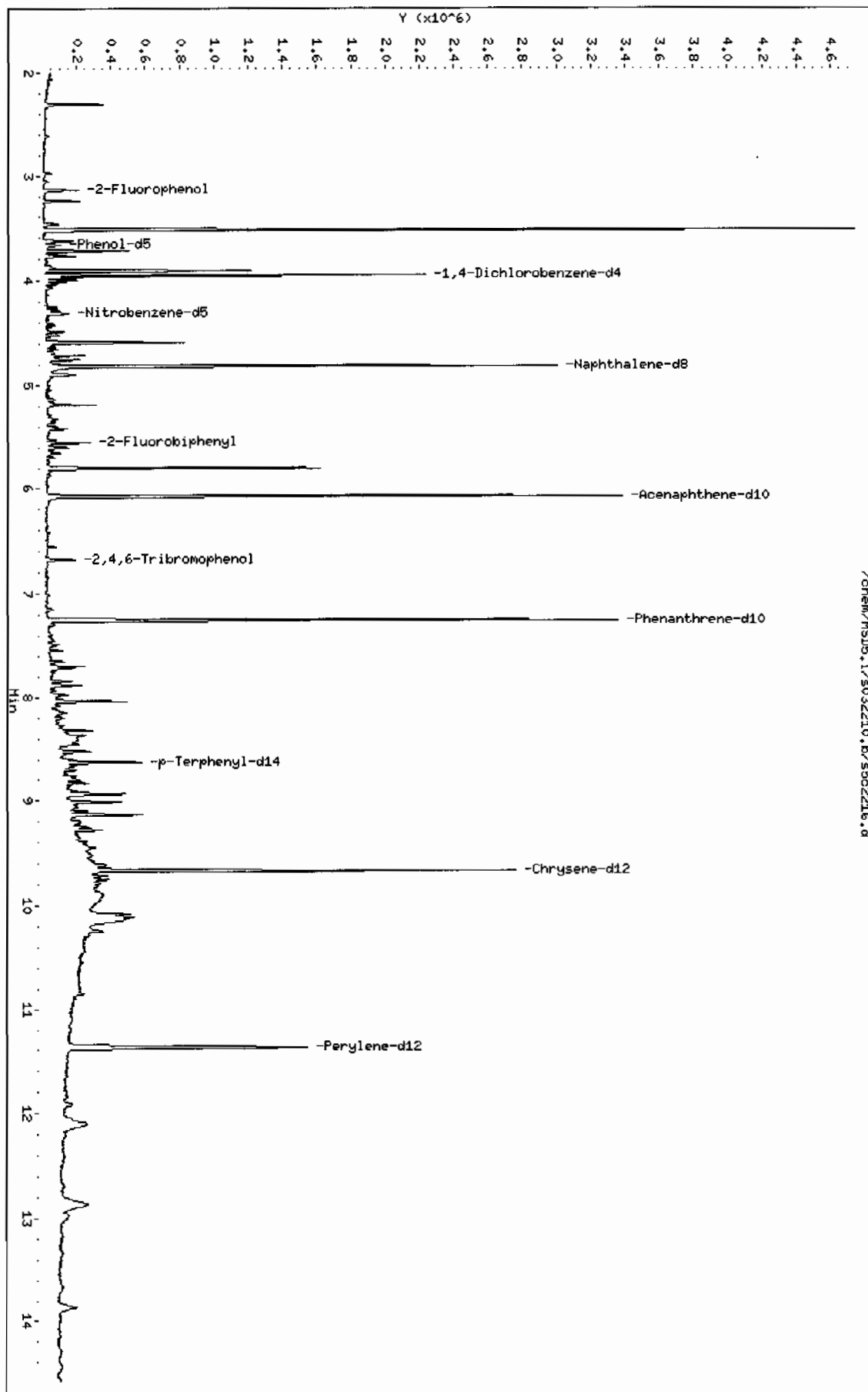
RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
2-Butenoic acid, methyl ester, (Z)-					CAS #: 4358-59-2		
2.302	320414	6.89153488	2790	80	NIST05.L	3666	10
1R-.alpha.-Pinene					CAS #: 7785-70-8		
3.519	3476136	74.7654138	30300	97	NIST05.L	15188	10
1,3,5-Cycloheptatriene, 3,7,7-trimethyl-					CAS #: 3479-89-8		
3.719	383054	8.23879859	3340	95	NIST05.L	14442	10
1S-.alpha.-Pinene					CAS #: 7785-26-4		
3.907	1024652	22.0384122	8940	95	NIST05.L	15185	10
Benzene, 1-methyl-3-(1-methylethyl)-					CAS #: 535-77-3		
3.972	220020	4.73224058	1920	95	NIST05.L	14424	10
Unknown					CAS #:		
4.584	755940	12.2539616	4970	0		0	29
1,4-Methanoazulene, decahydro-4,8,8-trim					CAS #: 475-20-7		
5.801	1313604	18.7400087	7600	99	NIST05.L	60024	46
4b,8-Dimethyl-2-isopropylphenanthrene, 4					CAS #: 1000197-14-1		
8.042	422554	5.74180786	2330	95	NIST05.L	96373	67
Unknown					CAS #:		
8.931	476641	6.76162358	2740	0		0	91
(3E,5E,7E)-6-Methyl-8-(2,6,6-trimethyl-1					CAS #: 17974-57-1		
9.131	455992	6.46870282	2620	83	NIST05.L	97615	91
Unknown					CAS #:		
10.078	902584	12.8040490	5190	0		0	91
Pyridine-3-carboxamide, oxime, N-(2-trif					CAS #: 288246-53-7		
10.107	939365	13.3258143	5400	92	NIST05.L	112295	91
Unknown					CAS #:		
10.136	1373571	19.4854555	7900	0		0	91
Unknown					CAS #:		
10.248	935789	13.2750953	5380	0		0	91
Unknown					CAS #:		
10.848	297444	4.99369293	2020	0		0	98

RT	CONCENTRATIONS				QUANT		
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	=====	=====	====	=====	=====	=====
Unknown				CAS #:			
12.101	656580	11.0231059	4470	0		0	98
Unknown				CAS #:			
12.860	769387	12.9169832	5240	0		0	98
Unknown				CAS #:			
13.866	334626	5.61792553	2280	0		0	98

Data File: /chem/MSD5.1/s032210.b/s02216.d  
Date: 22-MAR-2010 14:13  
Client ID: RE36-10-7449  
Sample Info: 12485060051963086110:SVH11.LNL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-5MS

Instrument: MSD5.1  
Operator: RMB  
Column diameter: 0.20

/chem/MSD5.1/s032210.b/s02216.d



Date : 22-MAR-2010 14:13

Client ID: RE36-10-7449

Instrument: MSD5.i

Sample Info: I24850600519630861101SVH111LANL

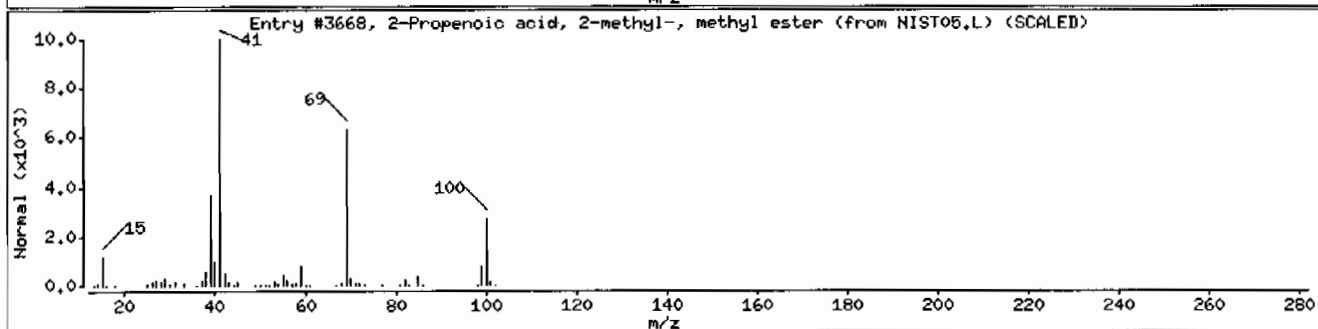
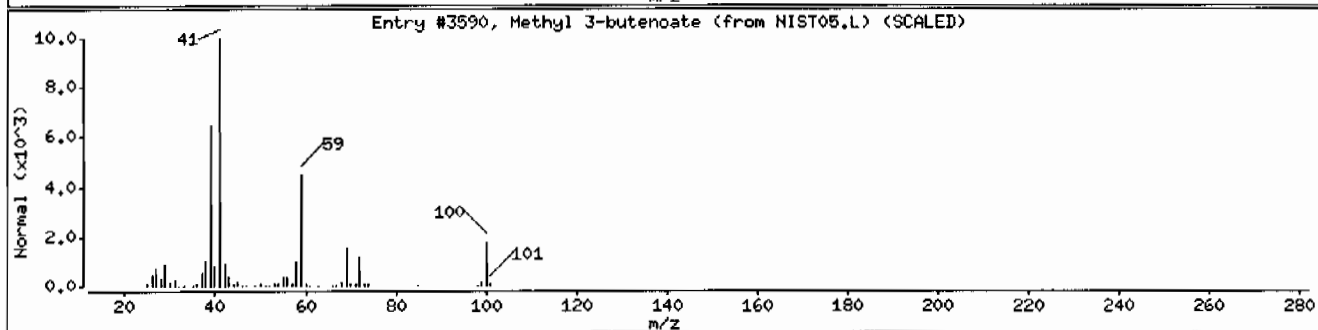
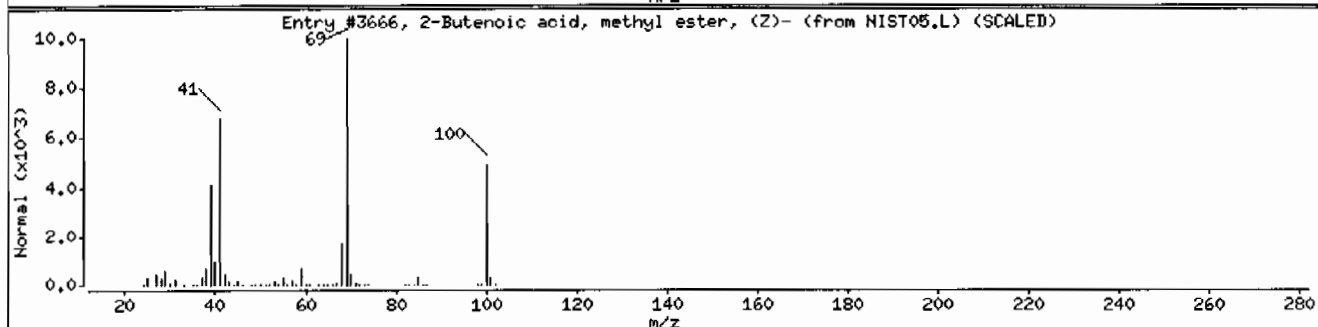
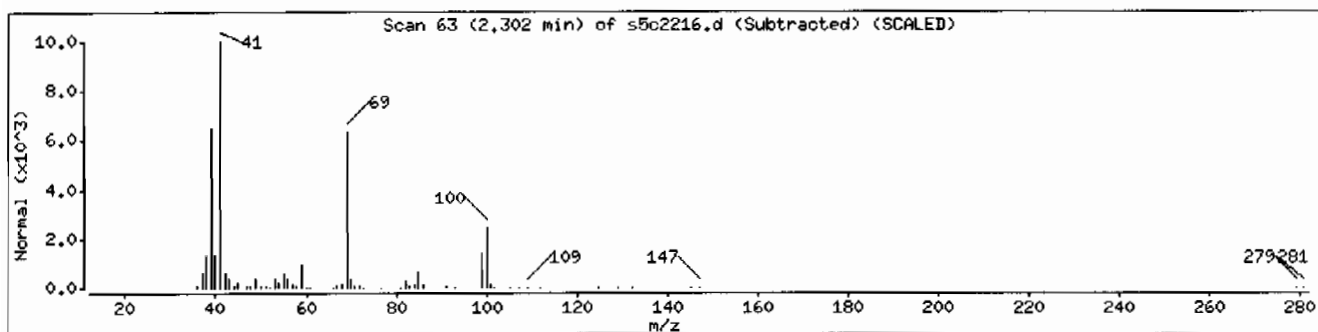
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Butenoic acid, methyl ester, (Z)-	4358-59-2	NIST05.L	3666	80	C5H8O2	100
Methyl 3-butenate	3724-55-8	NIST05.L	3590	59	C5H8O2	100
2-Propenoic acid, 2-methyl-, methyl este	80-62-6	NIST05.L	3668	53	C5H8O2	100



Date : 22-MAR-2010 14:13

Client ID: RE36-10-7449

Instrument: MSD5.i

Sample Info: 124850600519630861101SVM11ILANL

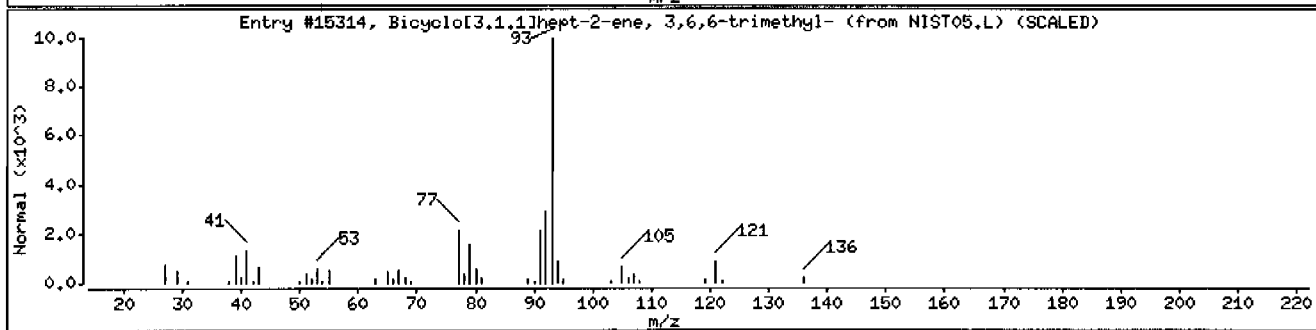
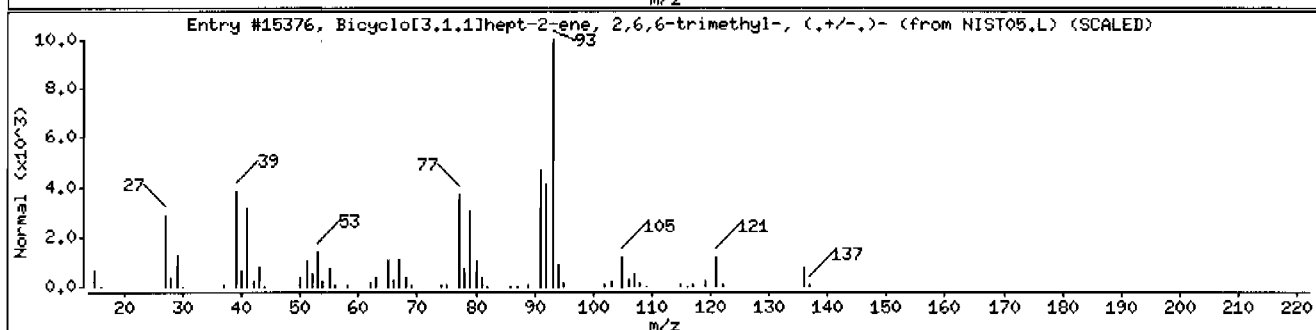
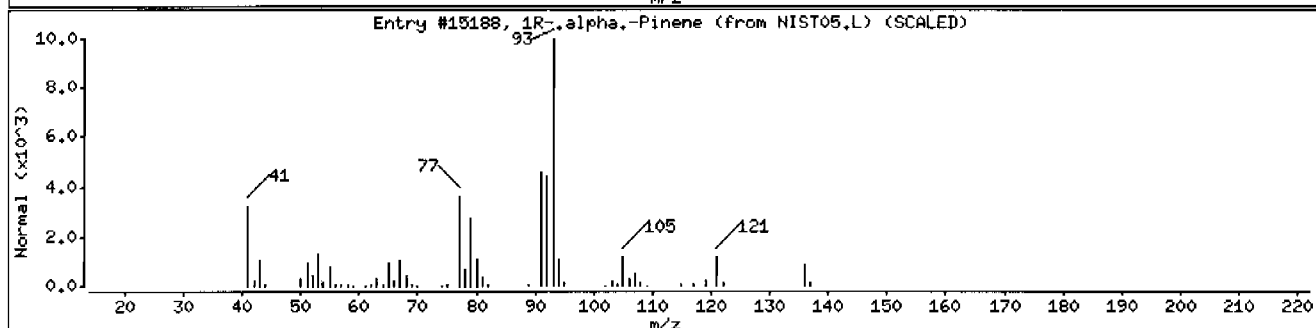
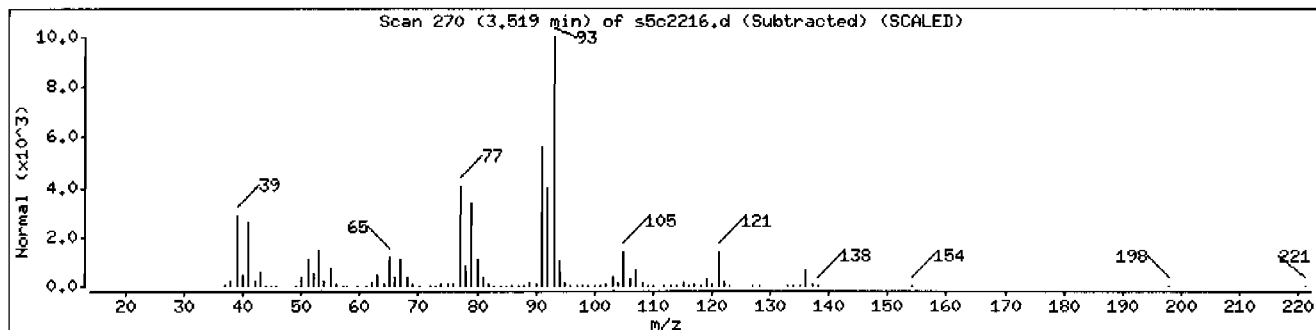
Volume Injected (uL): 0.5

Operator: RHB

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
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl	2437-95-8	NIST05.L	15376	95	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 3,6,6-trimethyl	4889-83-2	NIST05.L	15314	94	C10H16	136





Date: 22-MAR-2010 14:13

Client ID: RE36-10-7449

Instrument: MSD5.i

Sample Info: 124850600519630861101SVMI11LANL

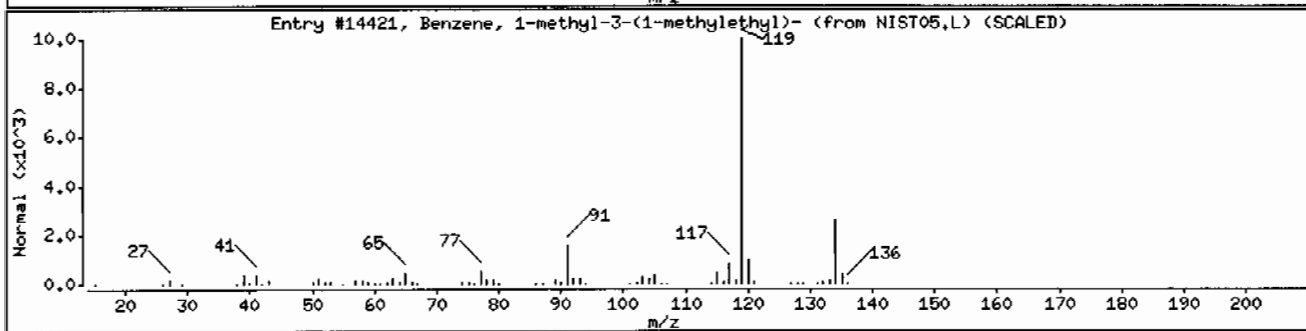
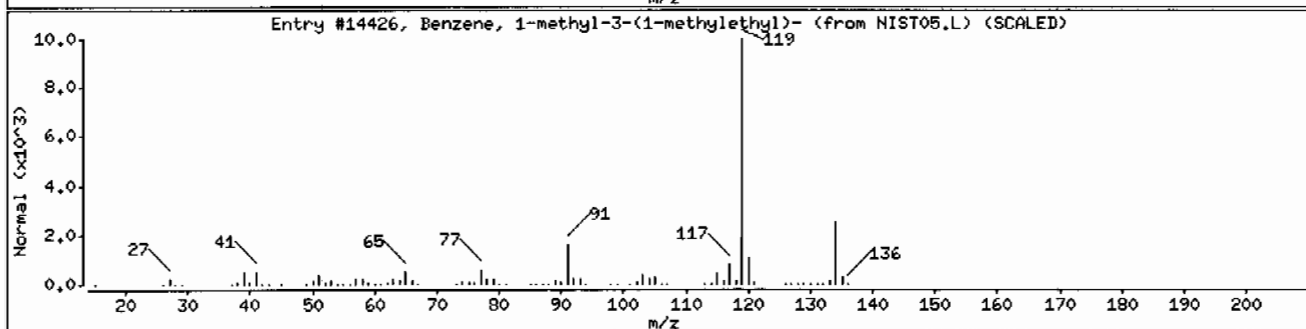
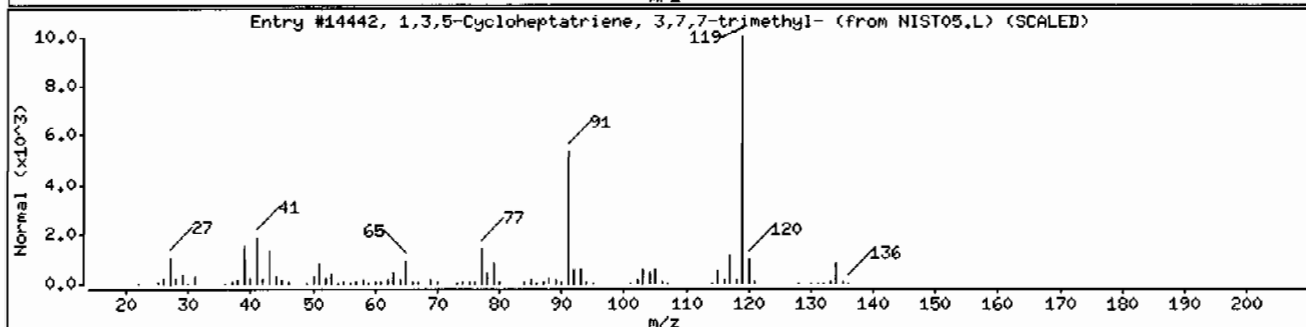
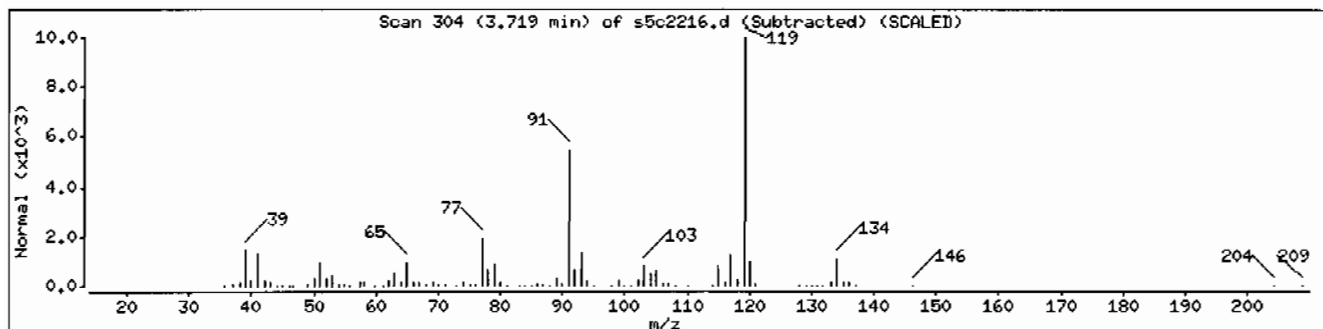
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,3,5-Cycloheptatriene, 3,7,7-trimethyl-	3479-89-8	NIST05.L	14442	95	C <sub>10</sub> H <sub>14</sub>	134
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST05.L	14426	93	C <sub>10</sub> H <sub>14</sub>	134
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST05.L	14421	93	C <sub>10</sub> H <sub>14</sub>	134



Date: 22-MAR-2010 14:13

Client ID: RE36-10-7449

Instrument: MSD5.i

Sample Info: 124850600519630861101SVH111LANL

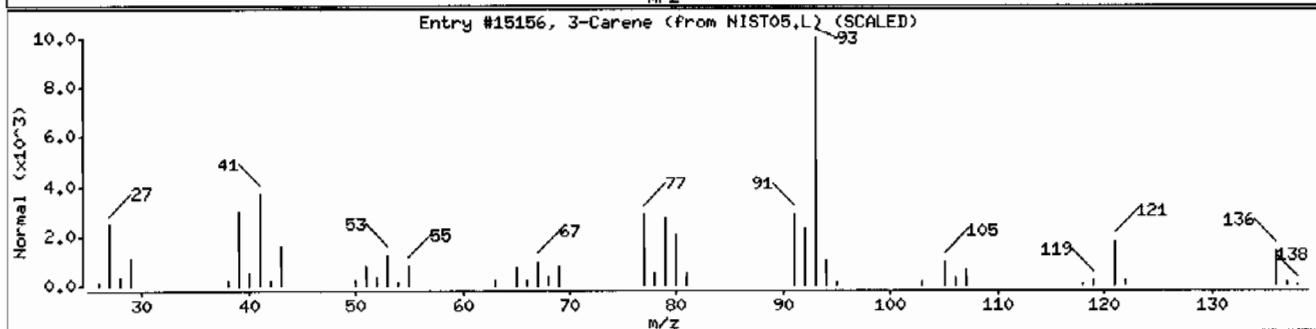
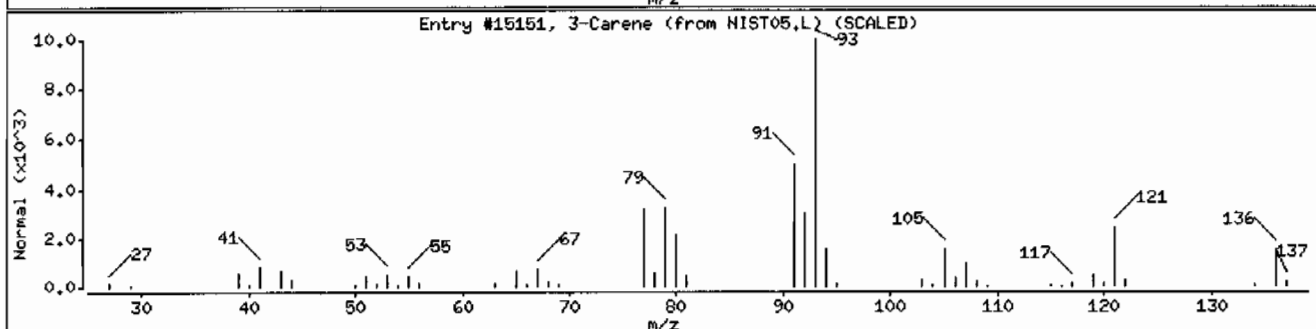
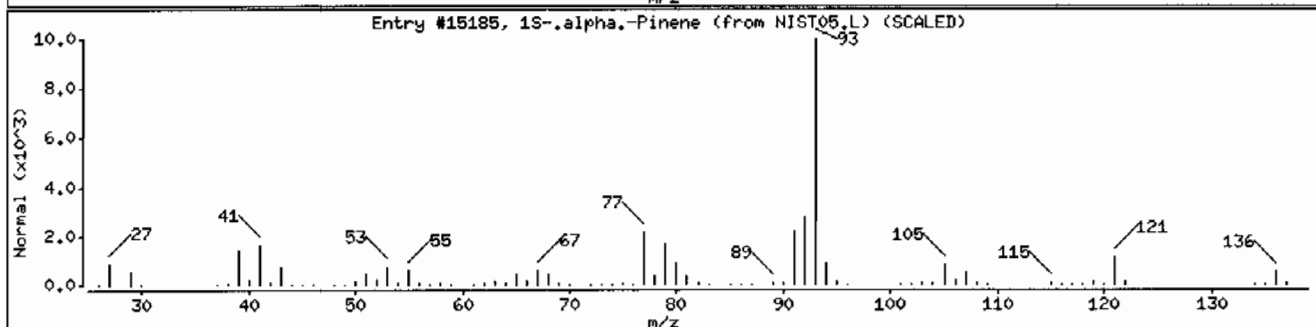
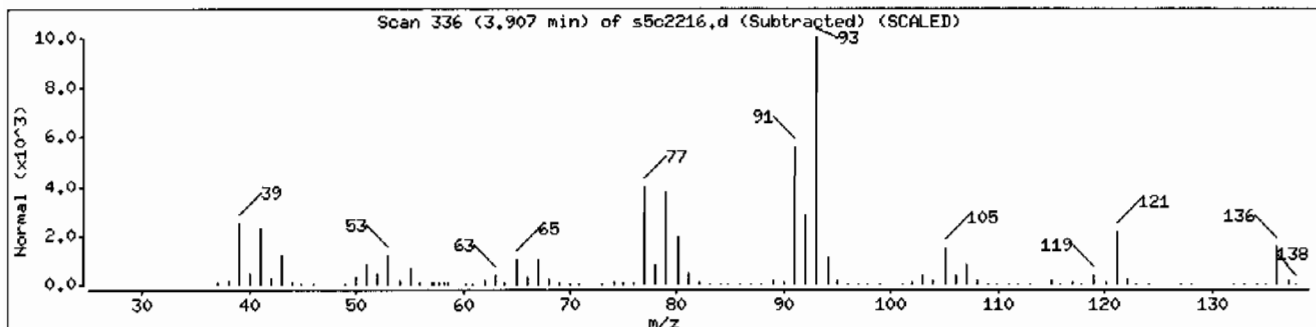
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1S-.alpha.-Pinene	7785-26-4	NIST05.L	15185	95	C10H16	136
3-Carene	13466-78-9	NIST05.L	15151	94	C10H16	136
3-Carene	13466-78-9	NIST05.L	15156	94	C10H16	136



Date : 22-MAR-2010 14:13

Client ID: RE36-10-7449

Instrument: MSD5.i

Sample Info: 124850600519630861101SVH111LANL

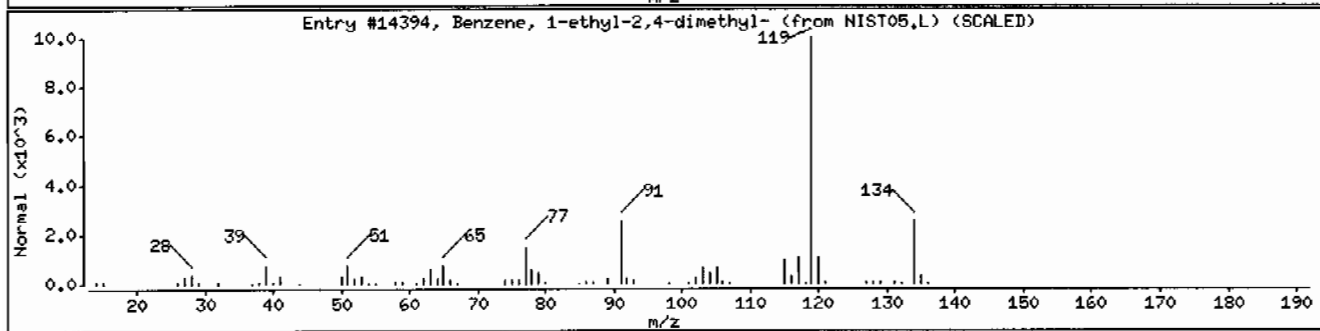
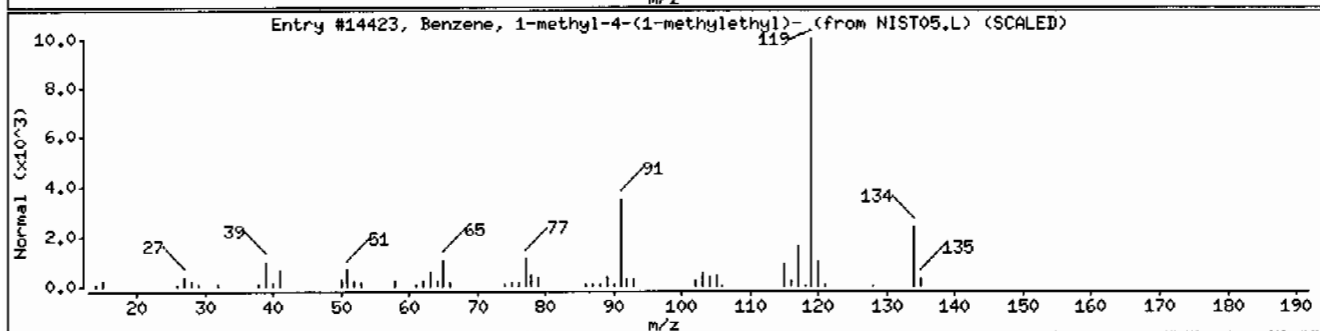
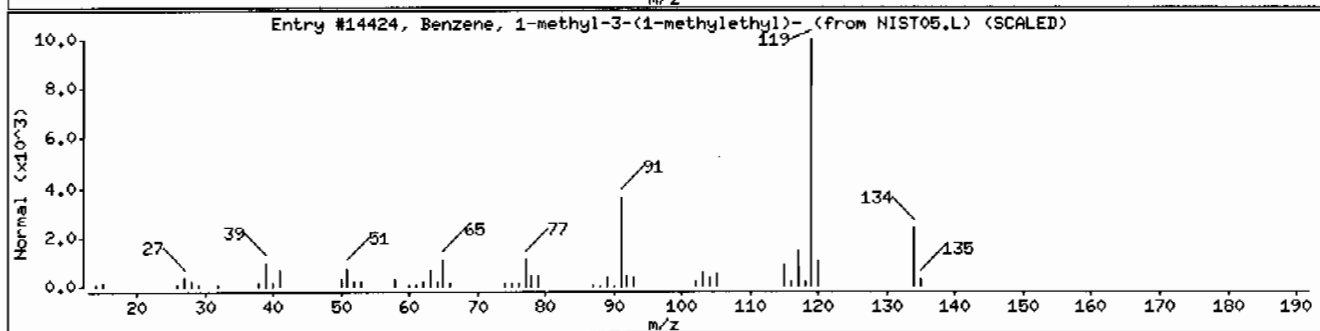
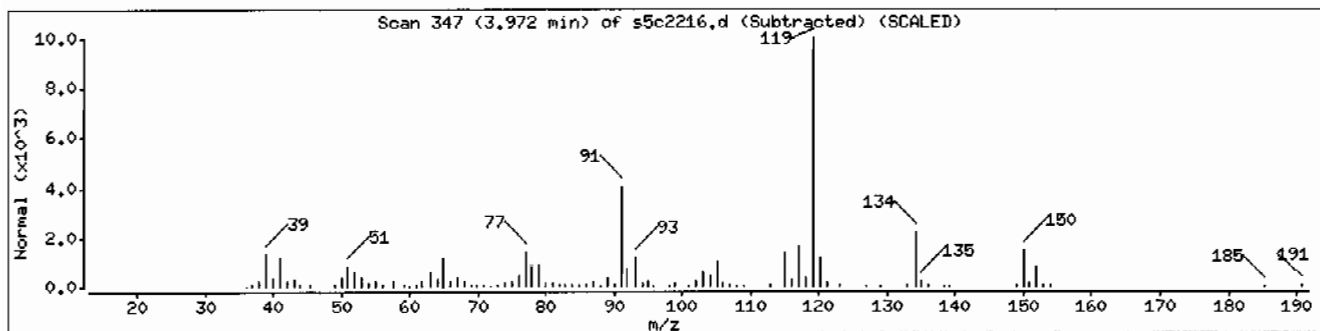
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	NIST05.L	14424	95	C10H14	134
Benzene, 1-methyl-4-(1-methylethyl)-	99-87-6	NIST05.L	14423	94	C10H14	134
Benzene, 1-ethyl-2,4-dimethyl-	874-41-9	NIST05.L	14394	94	C10H14	134



Date : 22-MAR-2010 14:13

Client ID: RE36-10-7449

Instrument: MSD5.i

Sample Info: 124850600519630861101SVH111LANL

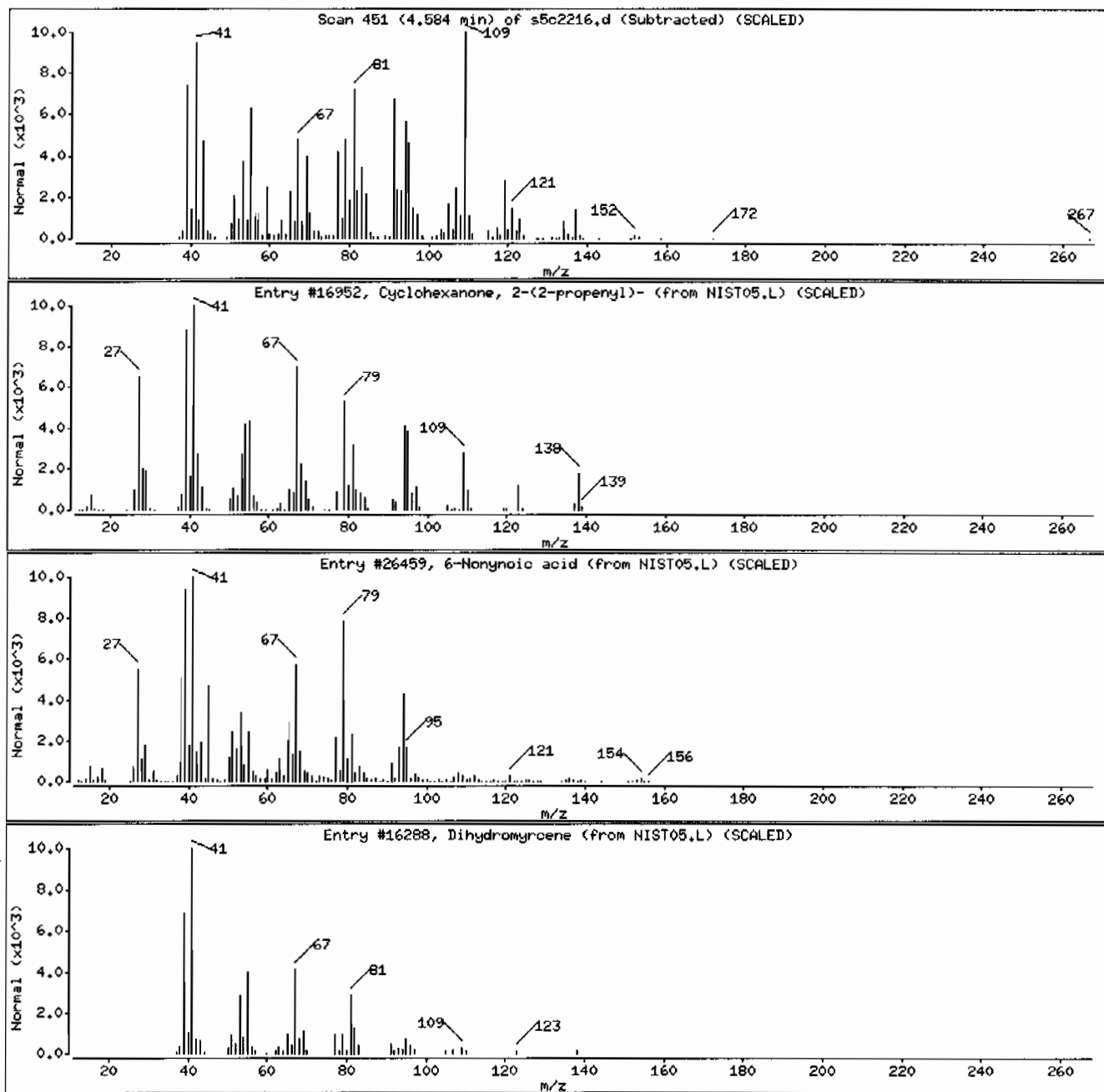
Volume Injected (ul): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexanone, 2-(2-propenyl)-	94-66-6	NIST05.L	16952	40	C9H14O	138
6-Nonynoic acid	56630-31-0	NIST05.L	26459	38	C9H14O2	154
Dihydromyrcene	2436-90-0	NIST05.L	16288	38	C10H18	138



Date : 22-MAR-2010 14:13

Client ID: RE36-10-7449

Instrument: MSD5.i

Sample Info: 12485060051963086110ISVM111LANL

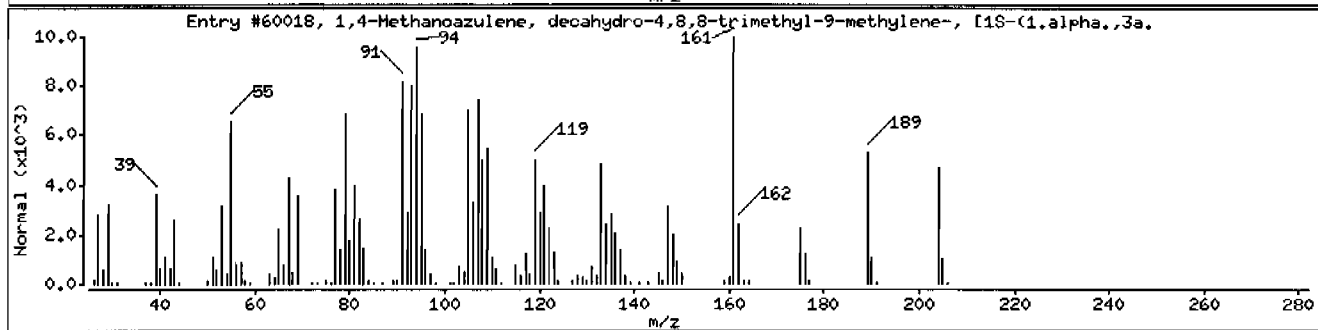
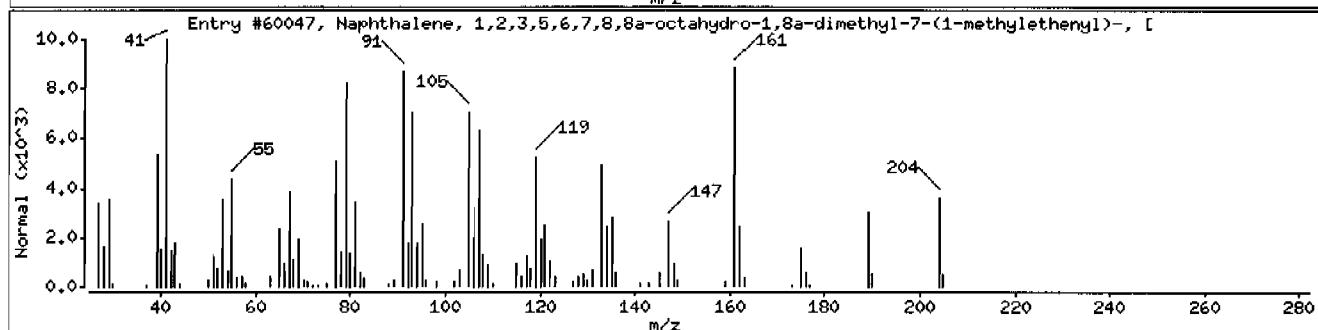
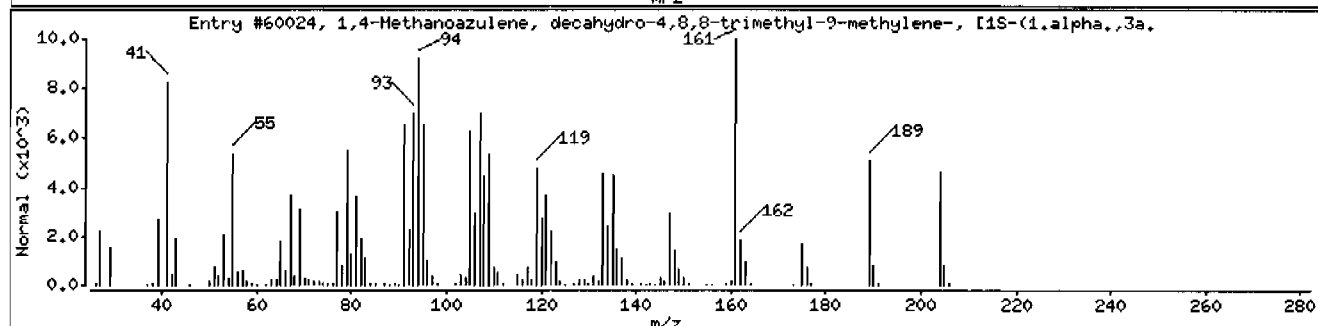
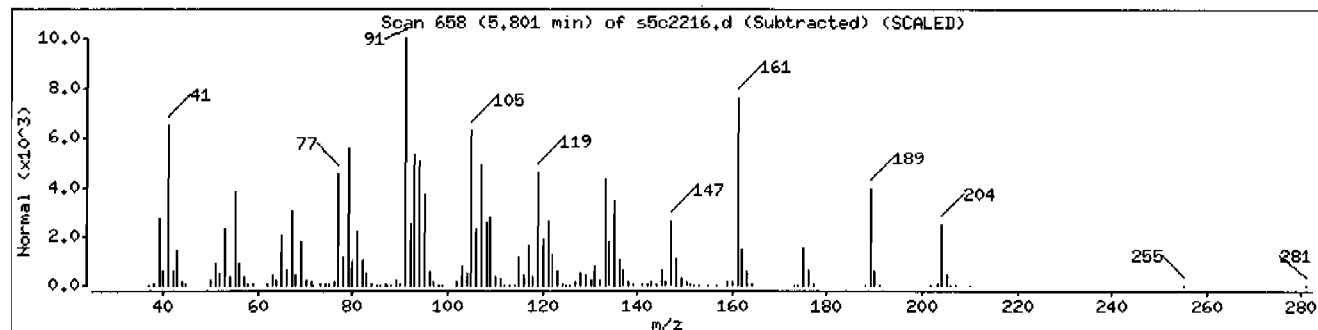
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60024	99	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60047	98	C15H24	204
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60018	95	C15H24	204



Date : 22-MAR-2010 14:13

Client ID: RE36-10-7449

Instrument: MSD5.i

Sample Info: 12485060051963086101SVH111LANL

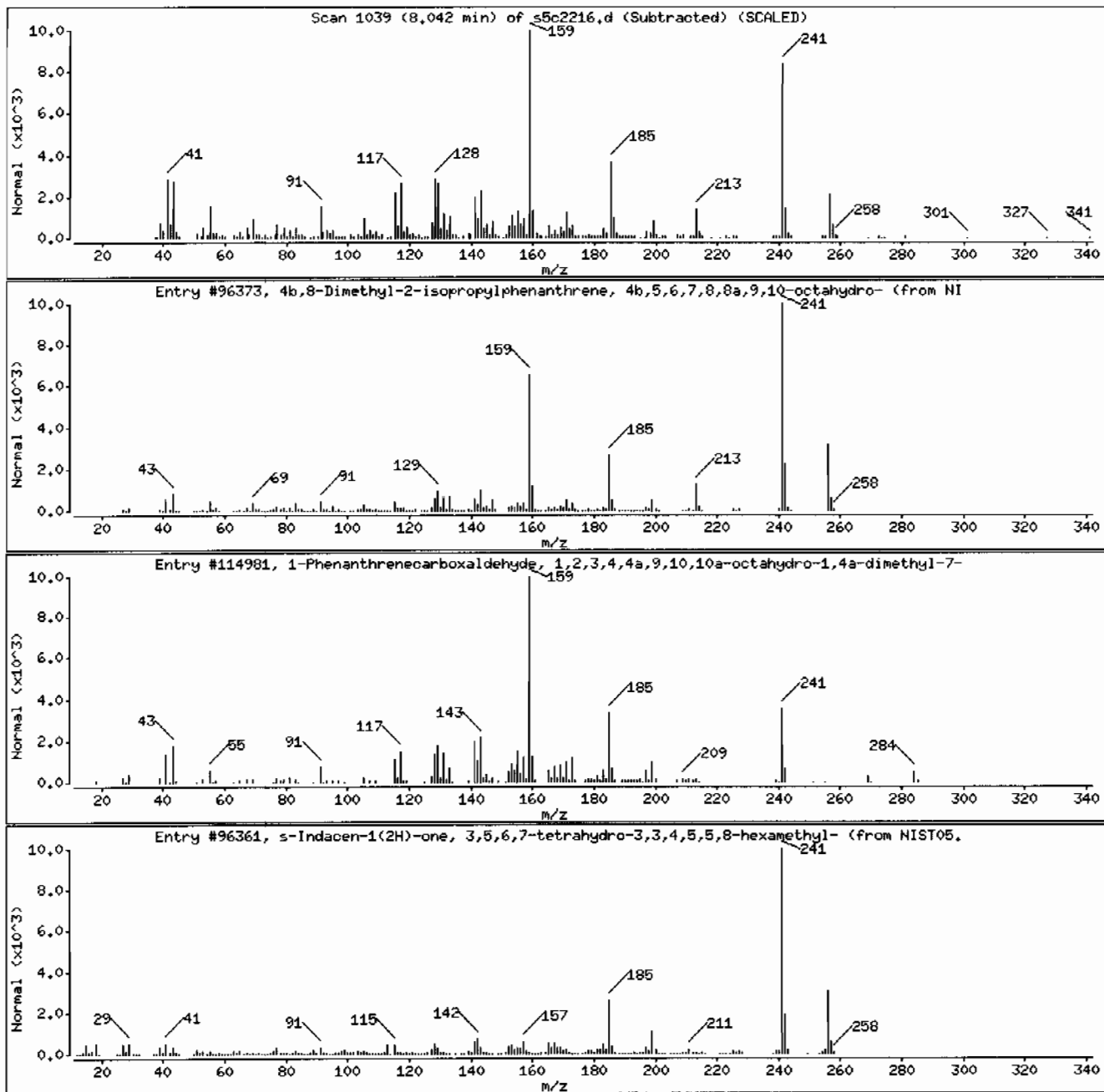
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
4b,8-Dimethyl-2-isopropylphenanthrene, 4	1000197-14-1	NIST05.L	96373	95	C19H28	256
1-Phenanthrenecarboxaldehyde, 1,2,3,4,4a	24035-50-5	NIST05.L	114981	58	C20H28O	284
s-Indacen-1(2H)-one, 3,5,6,7-tetrahydro-	38754-94-8	NIST05.L	96361	38	C18H24O	256



Date : 22-MAR-2010 14:13

Client ID: RE36-10-7449

Instrument: MSD5.i

Sample Info: 124850600519630861101SVMI11LANL

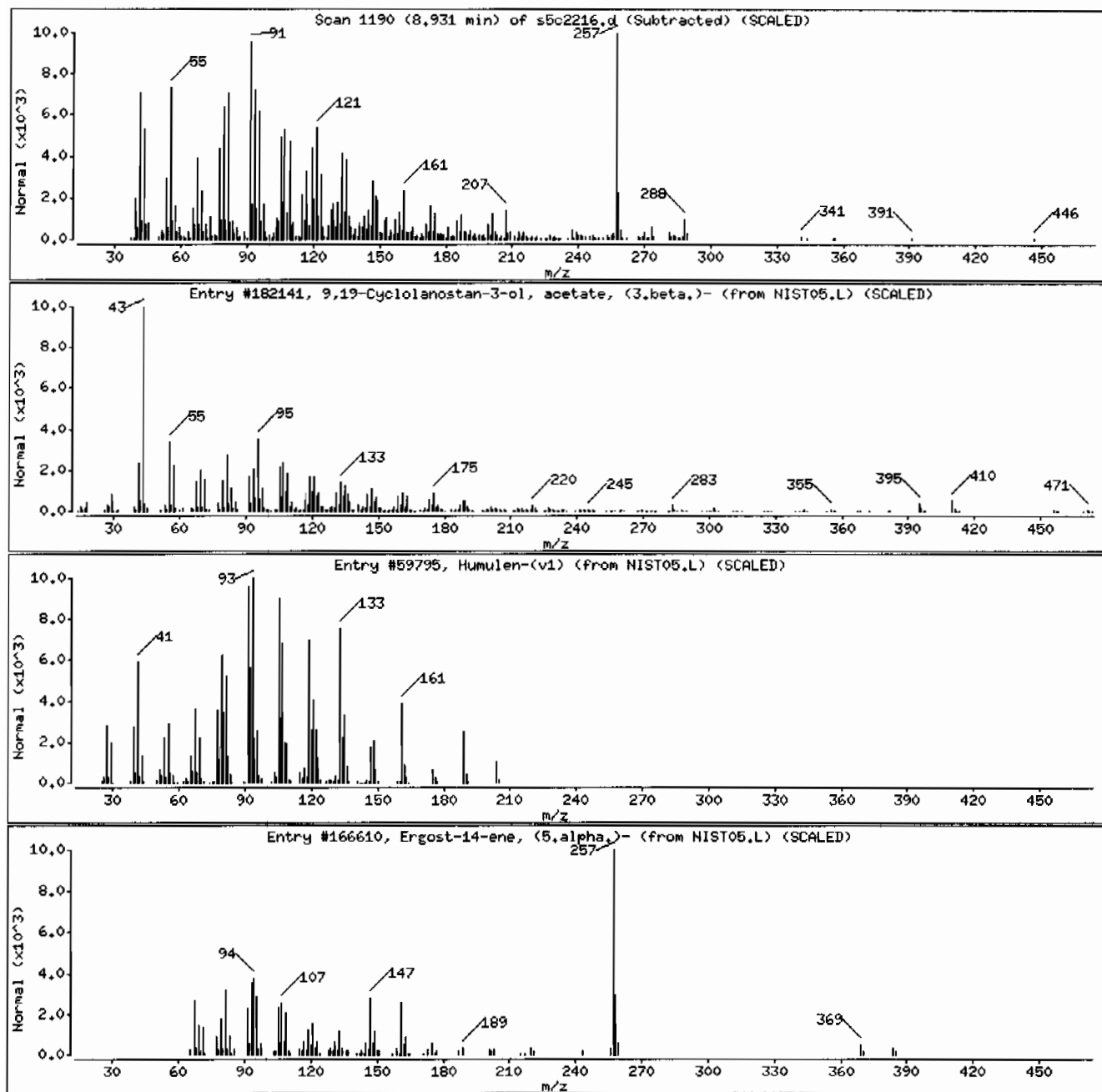
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
9,19-Cyclolanostan-3-ol, acetate, (3.beta	4575-74-0	NIST05.L	182141	50	C32H54O2	470
Humulen-(v1)	1000159-39-4	NIST05.L	59795	35	C15H24	204
Ergost-14-ene, (5.alpha.)-	40446-05-7	NIST05.L	166610	35	C28H48	384



Date : 22-MAR-2010 14:13

Client ID: RE36-10-7449

Instrument: HSD5.i

Sample Info: 124850600519630861101SVH111LANL

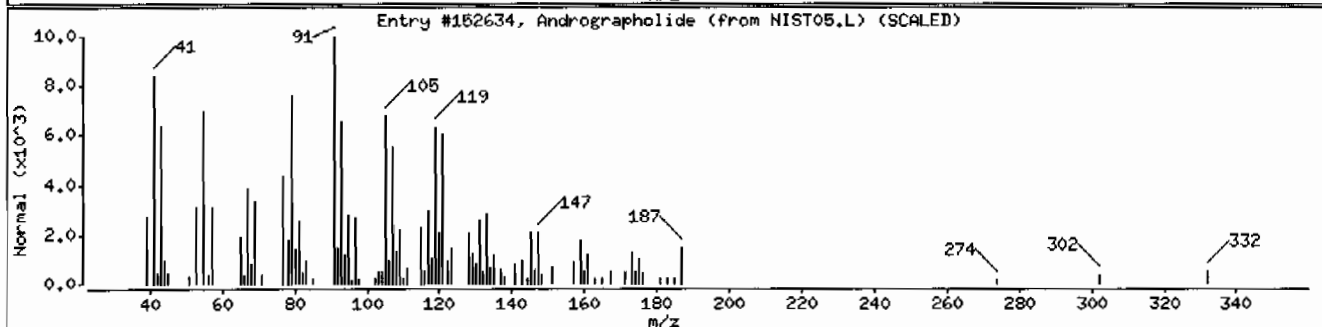
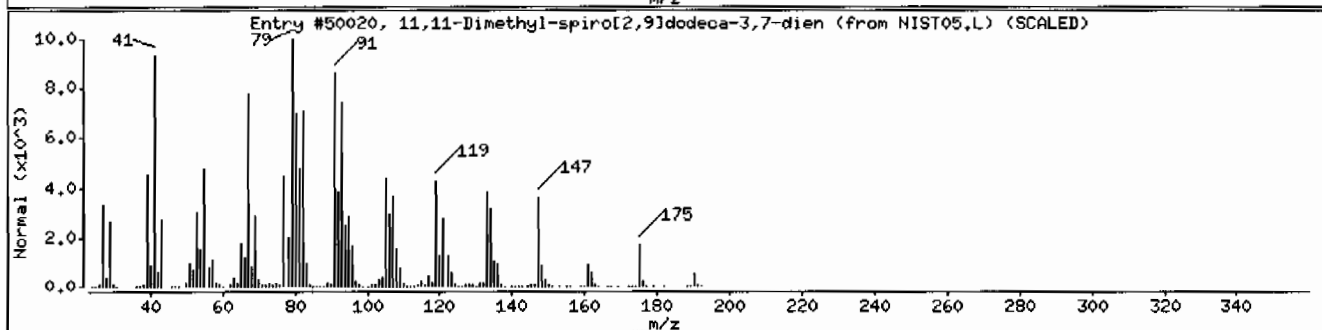
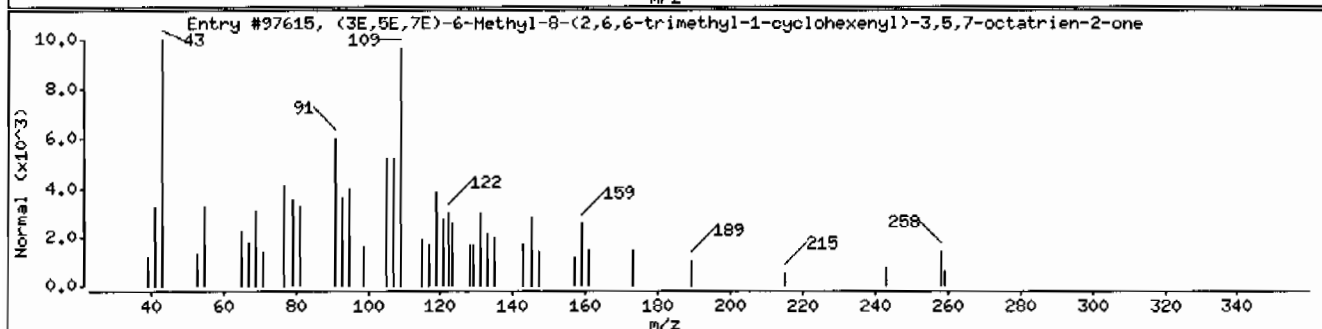
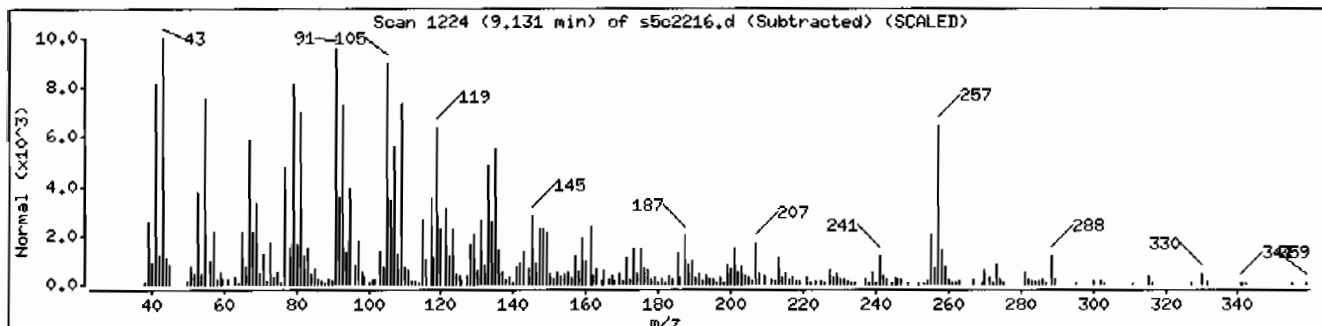
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
(3E,5E,7E)-6-Methyl-8-(2,6,6-trimethyl-1	17974-57-1	NIST05.L	97615	83	C18H26O	258
11,11-Dimethyl-spiro[2,9]dodeca-3,7-dien	1000062-28-4	NIST05.L	50020	58	C14H22	190
Andrographolide	5508-58-7	NIST05.L	152634	58	C20H30O5	350





Date : 22-MAR-2010 14:13

Client ID: RE36-10-7449

Instrument: MSD5.i

Sample Info: 124850600519630861101SVH111LANL

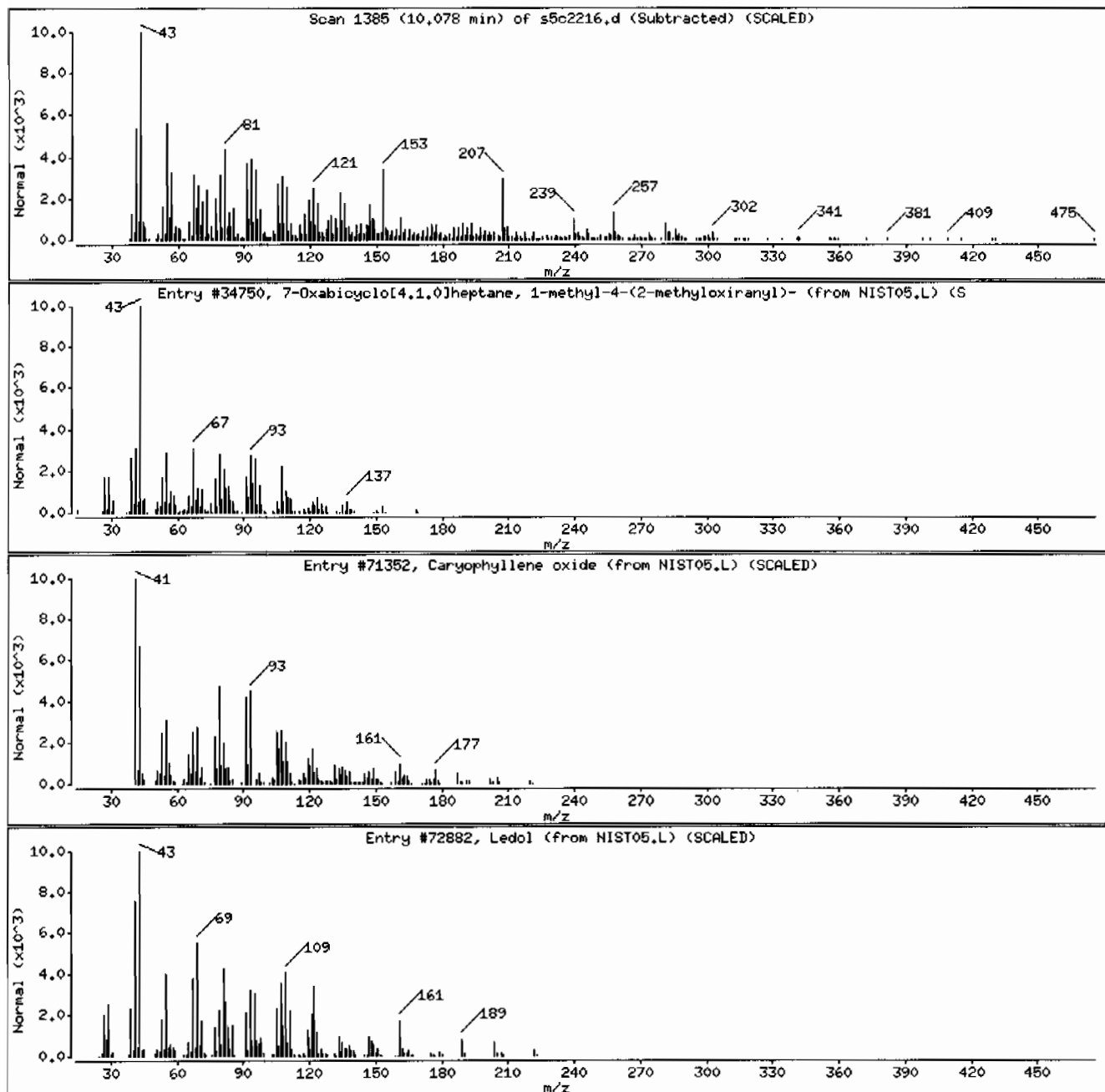
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
7-Oxabicyclo[4.1.0]heptane, 1-methyl-4-(	96-08-2	NIST05.L	34750	55	C10H16O2	168
Caryophyllene oxide	1139-30-6	NIST05.L	71352	44	C15H24O	220
Ledol	577-27-5	NIST05.L	72882	38	C15H26O	222



Date : 22-MAR-2010 14:13

Client ID: RE36-10-7449

Instrument: MSD5.i

Sample Info: 124850600519630861101SVMI1ILANL

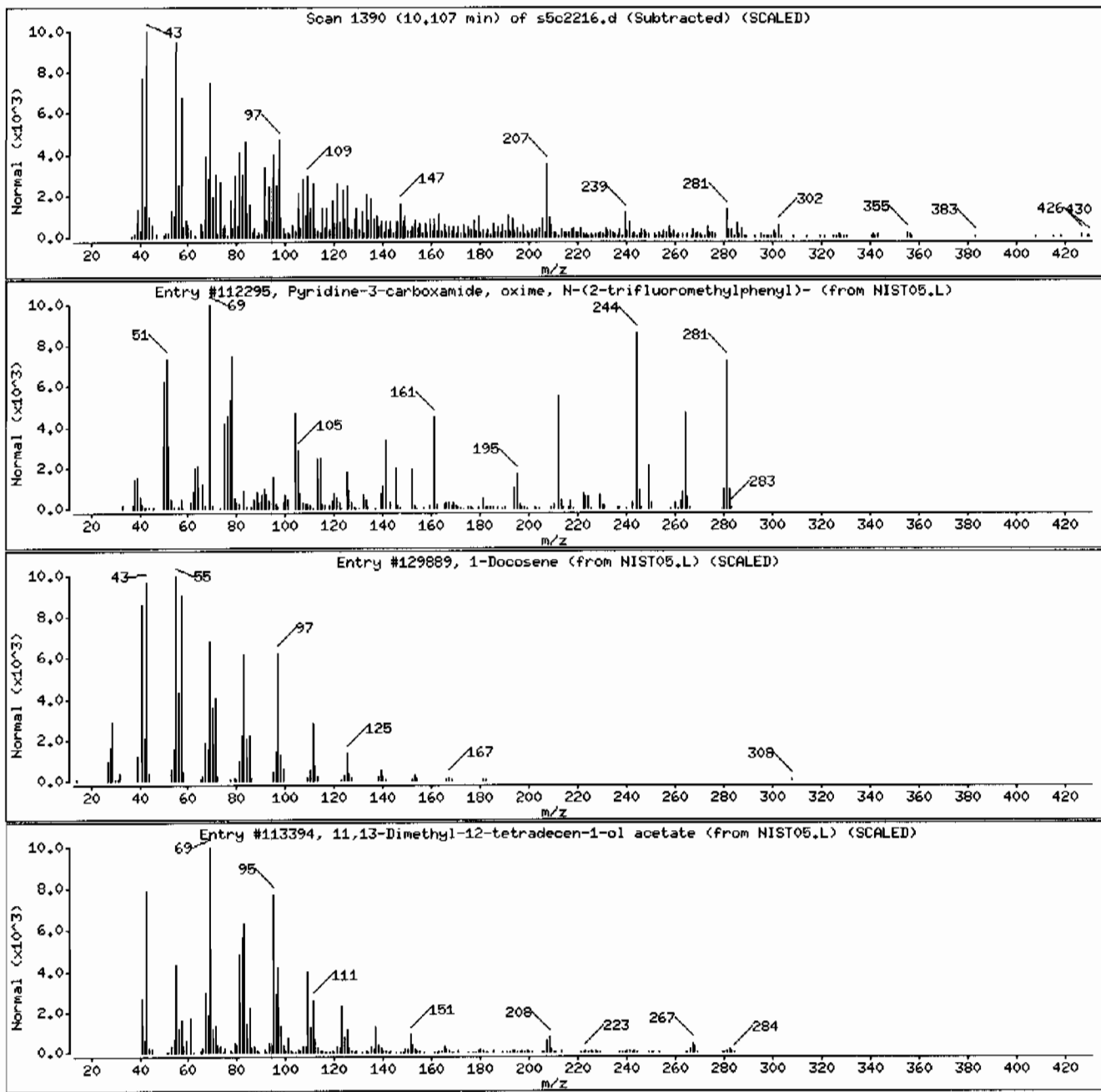
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pyridine-3-carboxamide, oxime, N-(2-trif	288246-53-7	NIST05.L	112295	92	C13H10F3N3O	281
1-Docosene	1599-67-3	NIST05.L	129889	90	C22H44	308
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	78	C18H34O2	282



Date : 22-MAR-2010 14:13

Client ID: RE36-10-7449

Instrument: MSD5.1

Sample Info: I24850600519630861101SVH11ILANL

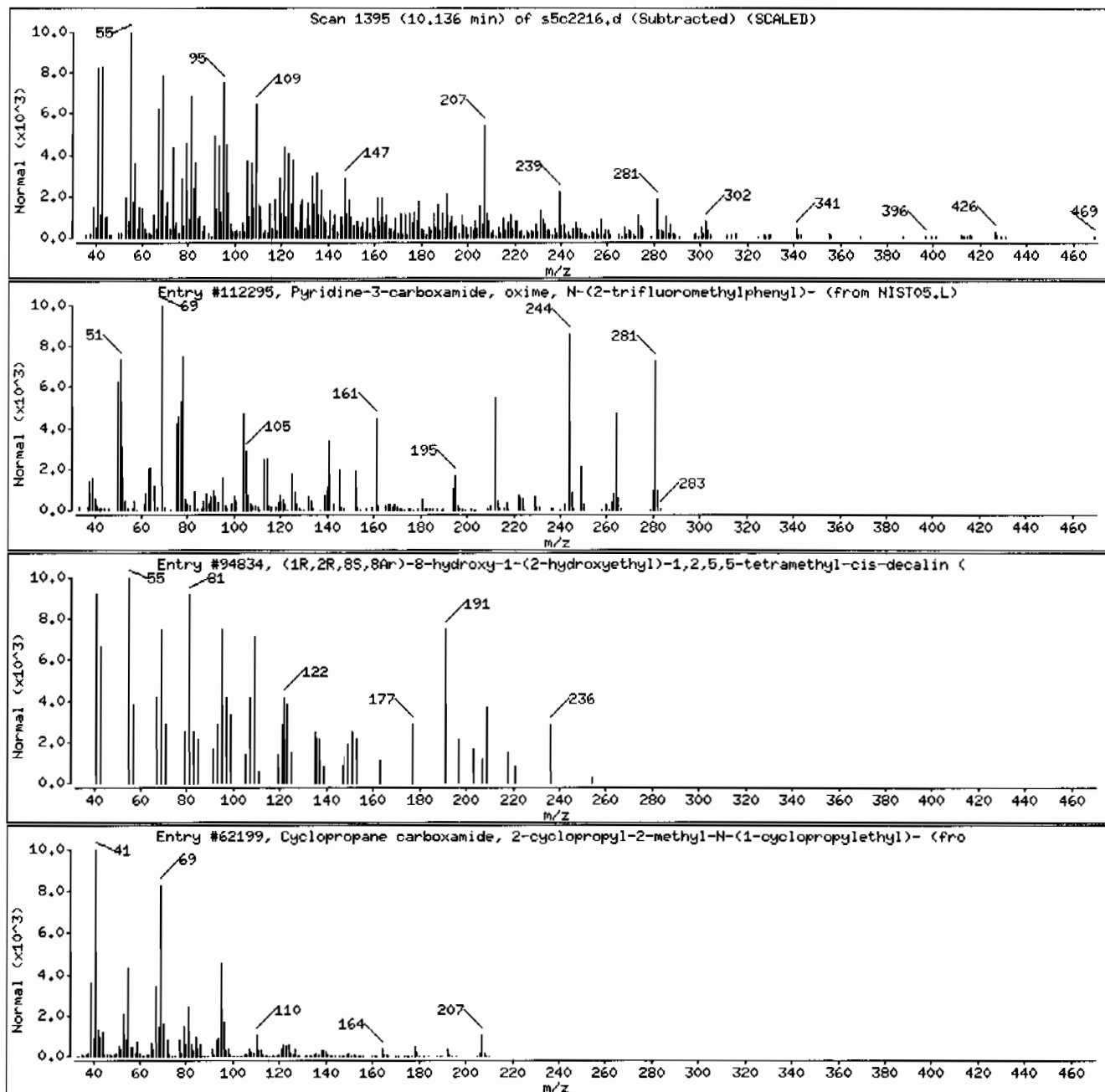
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Pyridine-3-carboxamide, oxime, N-(2-trif	288246-53-7	NIST05.L	112295	91	C13H10F3N3O	281
(1R,2R,8S,8Ar)-8-hydroxy-1-(2-hydroxyeth	1000298-98-6	NIST05.L	94834	52	C16H30O2	254
Cyclopropane carboxamide, 2-cyclopropyl-	331416-19-4	NIST05.L	62199	49	C13H21NO	207



Date : 22-MAR-2010 14:13

Client ID: RE36-10-7449

Instrument: MSD5.i

Sample Info: 124850600519630861101SVH111LANL

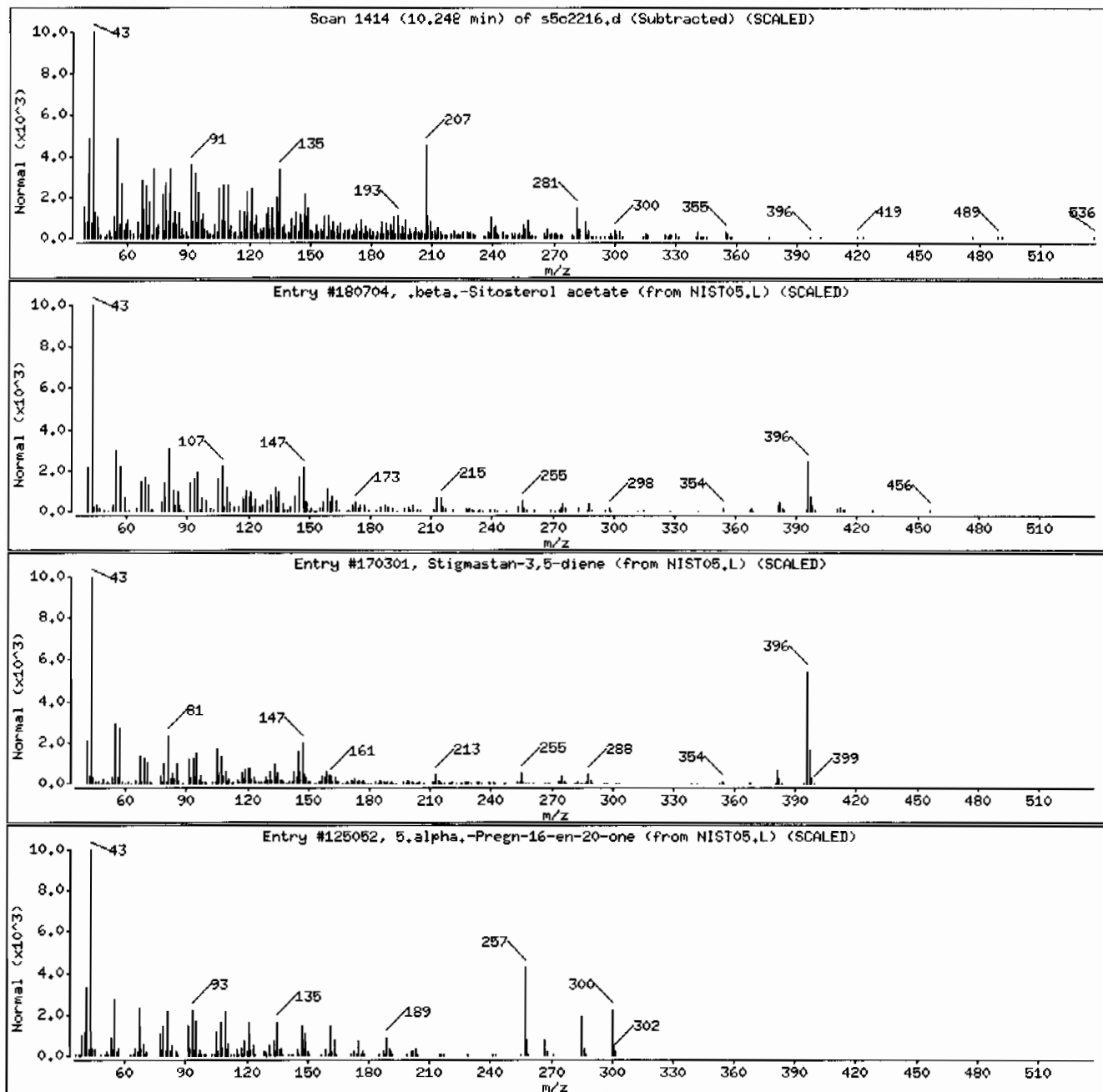
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
.beta.-Sitosterol acetate	915-05-9	NIST05.L	180704	32	C31H52O2	456
Stigmastan-3,5-diene	1000214-16-4	NIST05.L	170301	18	C29H48	396
5.alpha.-Pregn-16-en-20-one	3752-04-3	NIST05.L	125052	16	C21H32O	300



Date : 22-MAR-2010 14:13

Client ID: RE36-10-7449

Instrument: HSD5.i

Sample Info: I248506005I963086I10ISVH11ILANL

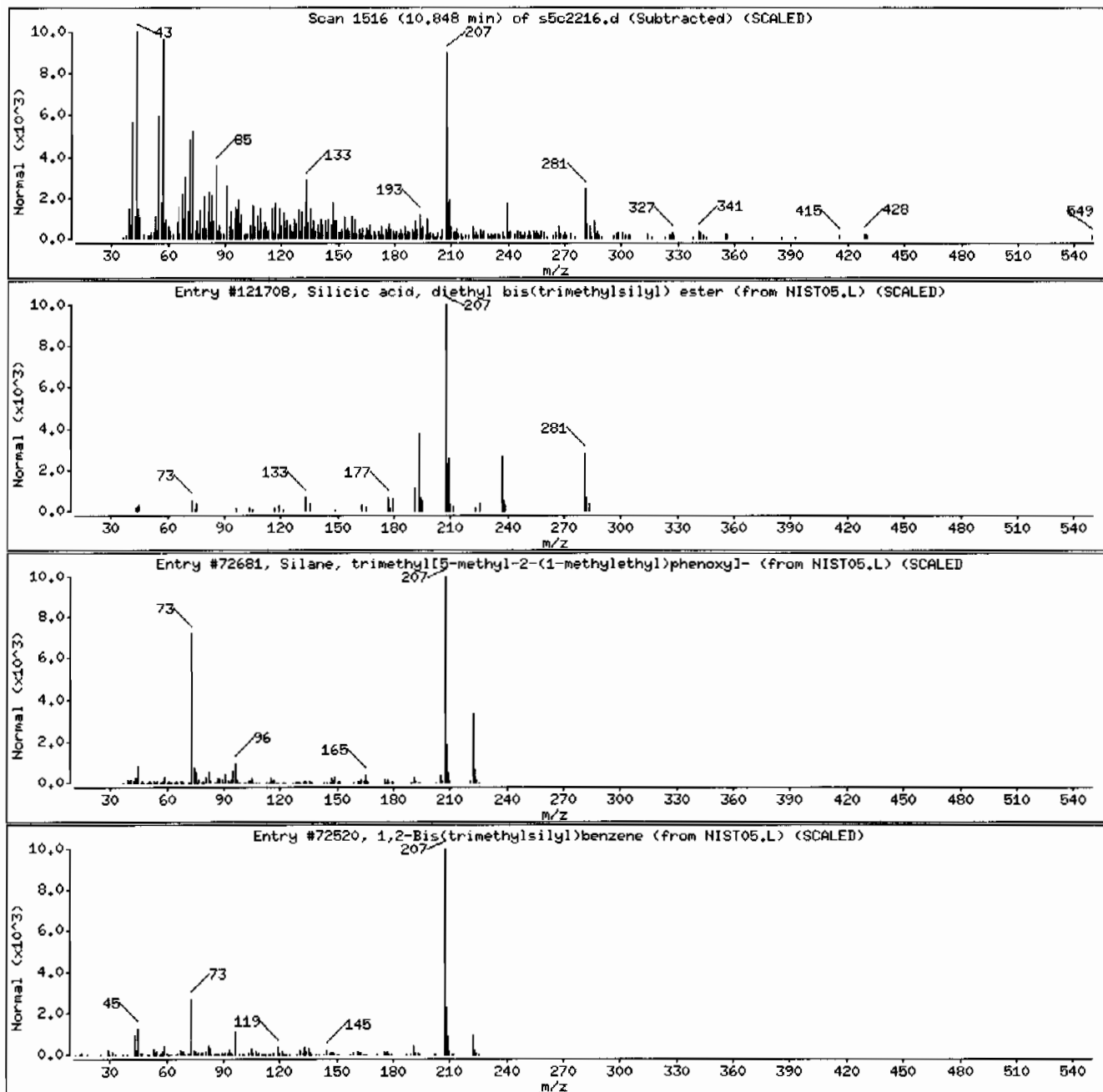
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Silicic acid, diethyl bis(trimethylsilyl)	3555-45-1	NIST05.L	121708	53	C10H28O4Si3	296
Silane, trimethyl[5-methyl-2-(1-methylethyl)	55012-80-1	NIST05.L	72681	42	C13H22OSi	222
1,2-Bis(trimethylsilyl)benzene	17151-09-6	NIST05.L	72520	38	C12H22Si2	222



Date : 22-MAR-2010 14:13

Client ID: RE36-10-7449

Instrument: HSD5.i

Sample Info: I2485060051963086110ISVM11ILANL

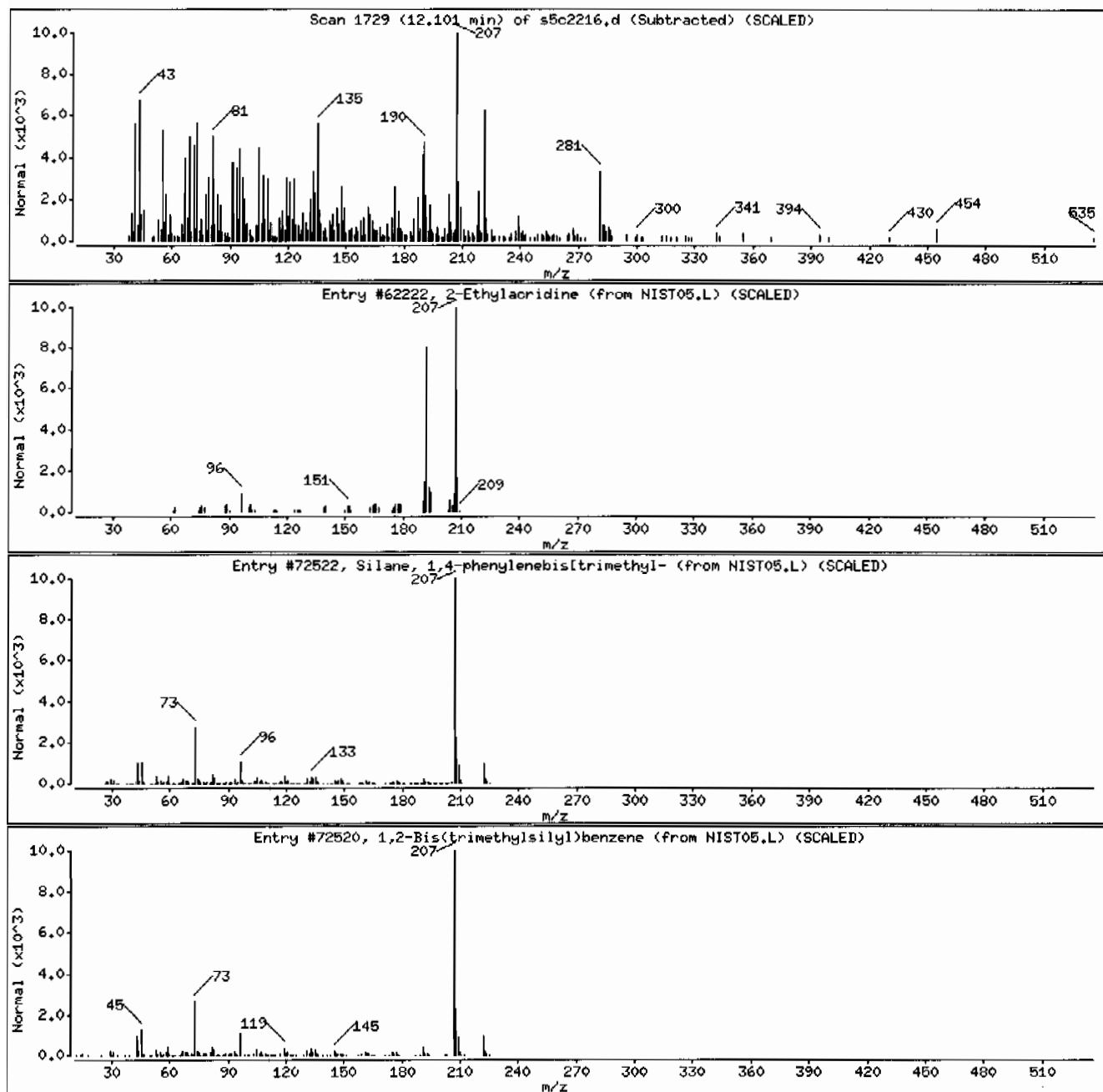
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Ethylacridine	55751-83-2	NIST05.L	62222	35	C15H13N	207
Silane, 1,4-phenylenebis(trimethyl-	13183-70-5	NIST05.L	72522	18	C12H22Si2	222
1,2-Bis(trimethylsilyl)benzene	17151-09-6	NIST05.L	72520	18	C12H22Si2	222



Date : 22-MAR-2010 14:13

Client ID: RE36-10-7449

Instrument: MSD5.i

Sample Info: 124850600519630861101SVH111LANL

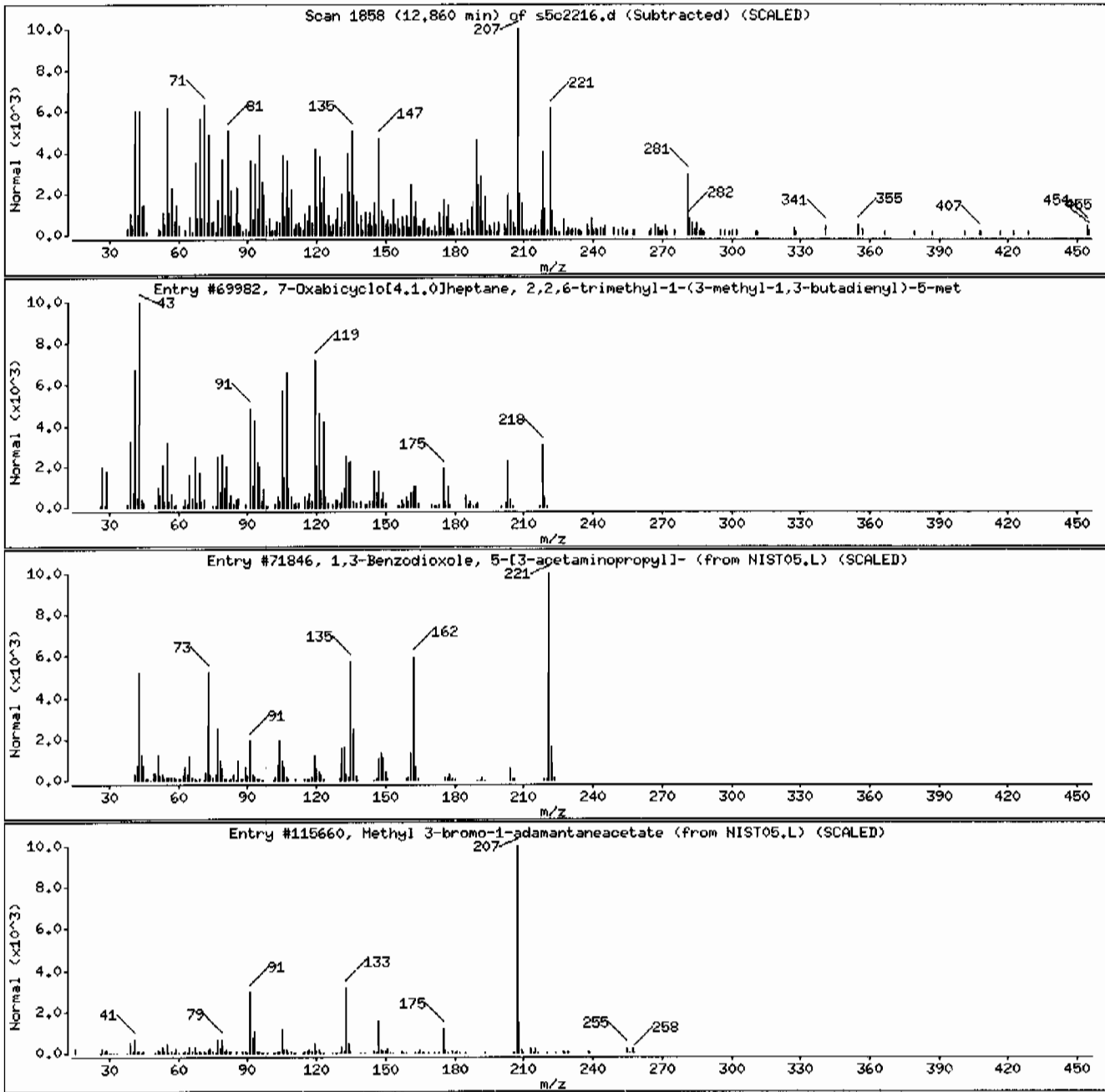
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
7-Oxabicyclo[4.1.0]heptane, 2,2,6-trimet	70038-20-9	NIST05.L	69982	58	C15H22O	218
1,3-Benzodioxole, 5-[3-acetaminopropyl]-	1000124-33-0	NIST05.L	71846	25	C12H15NO3	221
Methyl 3-bromo-1-adamantaneacetate	14575-01-0	NIST05.L	115660	22	C13H19BrO2	286



Date : 22-MAR-2010 14:13

Client ID: RE36-10-7449

Instrument: MSD5.i

Sample Info: I24850600519630861101SVH111LANL

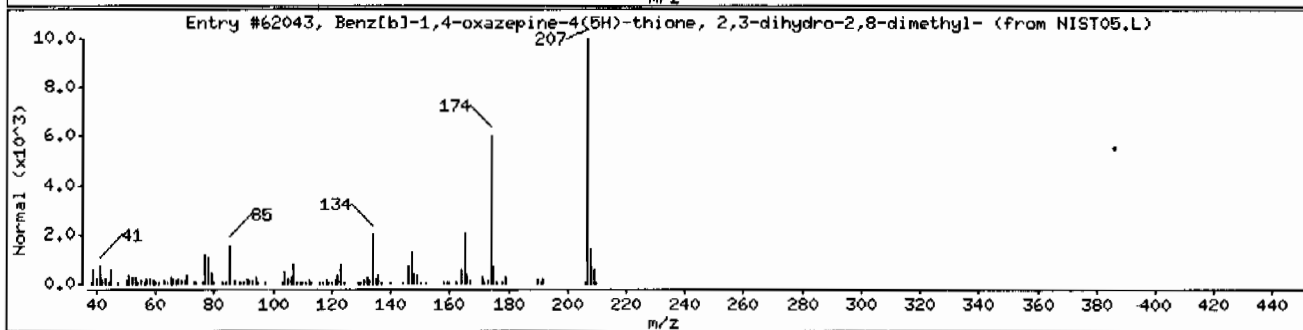
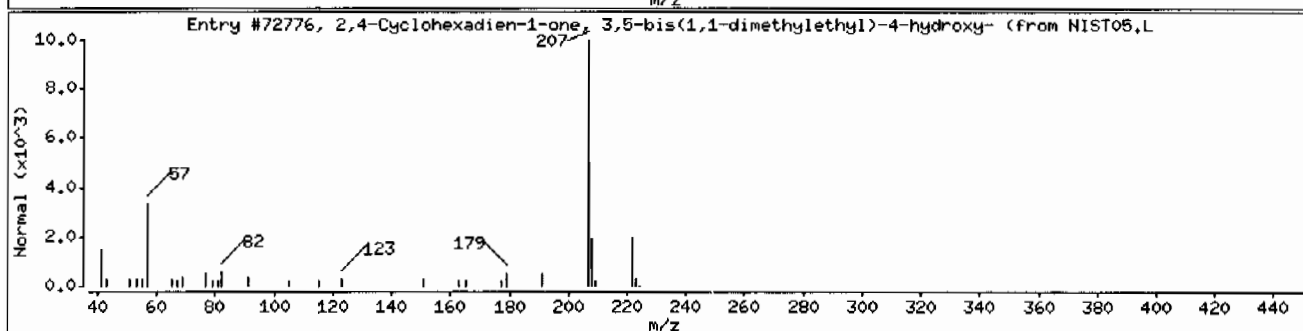
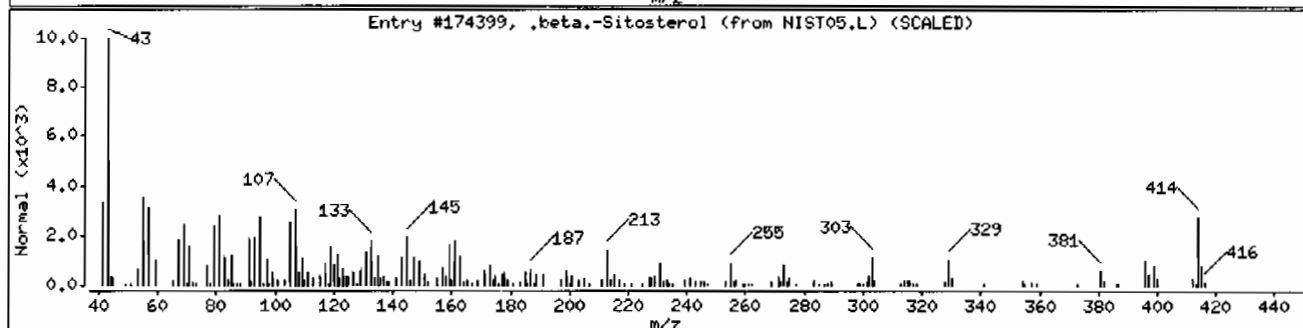
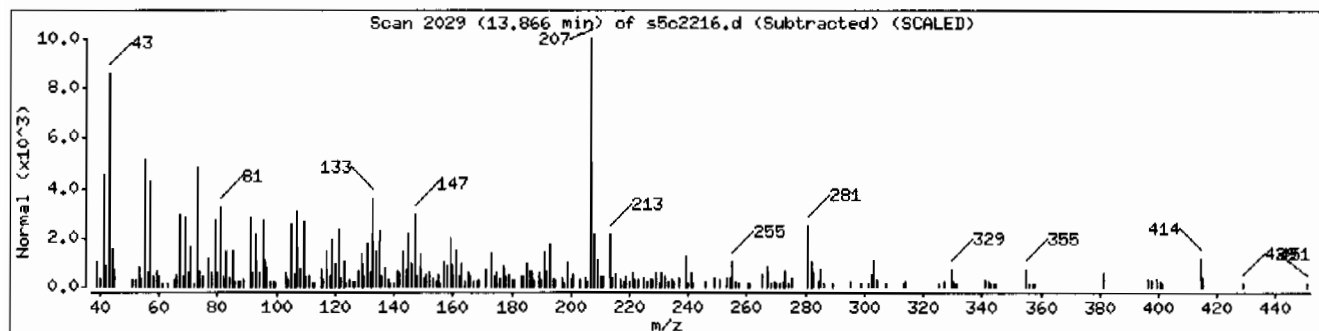
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
.beta.-Sitosterol	83-46-5	NIST05.L	174399	56	C29H50O	414
2,4-Cyclohexadien-1-one, 3,5-bis(1,1-dimethyl-2-propenyl)-	54965-43-4	NIST05.L	72776	46	C14H22O2	222
Benz[b]-1,4-oxazepine-4(5H)-thione, 2,3-dihydro-2,8-dimethyl-	1000258-63-4	NIST05.L	62043	46	C11H13NOS	207





**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506007	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 9.9
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7450	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.J	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 14:58	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.03 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2218.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	370	ug/kg	73.9	370
108-95-2	Phenol	U	370	ug/kg	73.9	370
95-57-8	2-Chlorophenol	U	370	ug/kg	73.9	370
106-46-7	1,4-Dichlorobenzene	U	370	ug/kg	73.9	370
621-64-7	N-Nitrosodipropylamine	U	370	ug/kg	73.9	370
59-50-7	4-Chloro-3-methylphenol	U	370	ug/kg	73.9	370
83-32-9	Acenaphthene	U	37.0	ug/kg	12.2	37.0
121-14-2	2,4-Dinitrotoluene	U	370	ug/kg	37.0	370
100-02-7	4-Nitrophenol	U	370	ug/kg	122	370
87-86-5	Pentachlorophenol	U	370	ug/kg	92.4	370
129-00-0	Pyrene	U	37.0	ug/kg	11.1	37.0
110-86-1	Pyridine	U	370	ug/kg	73.9	370
62-53-3	Aniline	U	370	ug/kg	111	370
111-44-4	bis(2-Chloroethyl) ether	U	370	ug/kg	73.9	370
541-73-1	1,3-Dichlorobenzene	U	370	ug/kg	73.9	370
100-51-6	Benzyl alcohol	U	370	ug/kg	111	370
95-50-1	1,2-Dichlorobenzene	U	370	ug/kg	73.9	370
108-60-1	bis(2-Chloroisopropyl)ether	U	370	ug/kg	73.9	370
95-48-7	o-Cresol	U	370	ug/kg	73.9	370
65794-96-9	m,p-Cresols	U	370	ug/kg	111	370
67-72-1	Hexachloroethane	U	370	ug/kg	73.9	370
98-95-3	Nitrobenzene	U	370	ug/kg	73.9	370
78-59-1	Isophorone	U	370	ug/kg	73.9	370
88-75-5	2-Nitrophenol	U	370	ug/kg	73.9	370
105-67-9	2,4-Dimethylphenol	U	370	ug/kg	129	370
111-91-1	bis(2-Chloroethoxy)methane	U	370	ug/kg	73.9	370
120-83-2	2,4-Dichlorophenol	U	370	ug/kg	73.9	370
65-85-0	Benzoic acid	U	739	ug/kg	185	739
91-20-3	Naphthalene	U	37.0	ug/kg	11.1	37.0
106-47-8	4-Chloroaniline	U	370	ug/kg	73.9	370
87-68-3	Hexachlorobutadiene	U	370	ug/kg	73.9	370
91-57-6	2-Methylnaphthalene	U	37.0	ug/kg	7.39	37.0
77-47-4	Hexachlorocyclopentadiene	U	370	ug/kg	73.9	370
88-06-2	2,4,6-Trichlorophenol	U	370	ug/kg	73.9	370
95-95-4	2,4,5-Trichlorophenol	U	370	ug/kg	73.9	370
91-58-7	2-Chloronaphthalene	U	37.0	ug/kg	12.2	37.0
88-74-4	2-Nitroaniline	U	370	ug/kg	73.9	370
	<i>o</i> -Nitroaniline					
99-09-2	3-Nitroaniline	U	370	ug/kg	73.9	370

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 248506007	Date Received: 03/03/2010 08:50	%Moisture: 9.9
Client ID: RE36-10-7450	Client: LANL010	Project: LANL01004
Batch ID: 963086	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Run Date: 03/22/2010 14:58	Inst: MSD5.I	Dilution: 1
Prep Date: 03/10/2010 12:33	Analyst: RMB	Inj. Vol: .5 uL
Data File: s5c2218.d	Aliquot: 30.03 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	370	ug/kg	73.9	370
606-20-2	2,6-Dinitrotoluene	U	370	ug/kg	37.0	370
208-96-8	Acenaphthylene	U	37.0	ug/kg	11.1	37.0
51-28-5	2,4-Dinitrophenol	U	739	ug/kg	140	739
132-64-9	Dibenzofuran	U	370	ug/kg	73.9	370
84-66-2	Diethylphthalate	U	370	ug/kg	73.9	370
86-73-7	Fluorene	U	37.0	ug/kg	11.1	37.0
7005-72-3	4-Chlorophenylphenylether	U	370	ug/kg	73.9	370
534-52-1	2-Methyl-4,6-dinitrophenol	U	370	ug/kg	73.9	370
100-01-6	4-Nitroaniline	U	370	ug/kg	111	370
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	370	ug/kg	73.9	370
122-66-7	Azobenzene	U	370	ug/kg	73.9	370
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	370	ug/kg	73.9	370
118-74-1	Hexachlorobenzene	U	370	ug/kg	73.9	370
85-01-8	Phenanthrene	U	37.0	ug/kg	11.1	37.0
120-12-7	Anthracene	U	37.0	ug/kg	7.39	37.0
84-74-2	Di-n-butylphthalate	U	370	ug/kg	73.9	370
206-44-0	Fluoranthene	U	37.0	ug/kg	11.1	37.0
85-68-7	Butylbenzylphthalate	U	370	ug/kg	73.9	370
56-55-3	Benzo(a)anthracene	U	37.0	ug/kg	11.1	37.0
91-94-1	3,3'-Dichlorobenzidine	U	370	ug/kg	111	370
218-01-9	Chrysene	U	37.0	ug/kg	11.1	37.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	370	ug/kg	73.9	370
117-84-0	Di-n-octylphthalate	U	370	ug/kg	73.9	370
205-99-2	Benzo(b)fluoranthene	U	37.0	ug/kg	11.1	37.0
207-08-9	Benzo(k)fluoranthene	U	37.0	ug/kg	11.1	37.0
50-32-8	Benzo(a)pyrene	U	37.0	ug/kg	11.1	37.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.0	ug/kg	11.1	37.0
53-70-3	Dibenzo(a,h)anthracene	U	37.0	ug/kg	11.1	37.0
191-24-2	Benzo(ghi)perylene	U	37.0	ug/kg	11.1	37.0
120-82-1	1,2,4-Trichlorobenzene	U	370	ug/kg	73.9	370

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.1	827	ug/kg		J
7785-70-8	1R-.alpha.-Pinene	3.52	415	ug/kg	97	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506007	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 9.9
<b>Client ID:</b> RE36-10-7450	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Batch ID:</b> 963086	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Run Date:</b> 03/22/2010 14:58	<b>Inst:</b> MSD5.I	<b>Dilution:</b> 1
<b>Prep Date:</b> 03/10/2010 12:33	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Data File:</b> s5c2218.d	<b>Aliquot:</b> 30.03 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						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
58-22-0	Androst-4-en-3-one, 17-hydroxy-, (17.bet	8.43	330	ug/kg	93	NJ
1058-61-3	Stigmast-4-en-3-one	8.44	263	ug/kg	93	NJ
2490-48-4	1-Hexadecanol, 2-methyl-	9.44	372	ug/kg	91	NJ
629-78-7	Heptadecane	9.75	195	ug/kg	94	NJ
14811-95-1	1,19-Eicosadiene	9.89	244	ug/kg	93	NJ
77899-03-7	1-Heneicosyl formate	10.1	1570	ug/kg	95	NJ
559-74-0	Friedelan-3-one	10.17	1740	ug/kg	95	NJ
	Unknown	10.24	280	ug/kg		J
	Unknown	10.44	217	ug/kg		J
111-02-4	2,6,10,14,18,22-Tetracosahexaene, 2,6,10	10.54	282	ug/kg	98	NJ
638-66-4	Octadecanal	10.62	355	ug/kg	95	NJ
	Unknown	10.74	247	ug/kg		J
112-95-8	Eicosane	10.85	862	ug/kg	96	NJ
7390-81-0	Oxirane, hexadecyl-	11.57	319	ug/kg	83	NJ
	Unknown	11.92	1280	ug/kg		J
	Unknown	12.1	433	ug/kg		J
	Unknown	12.14	312	ug/kg		J
	Unknown	12.43	397	ug/kg		J
	Unknown	12.69	269	ug/kg		J
	Unknown	12.85	352	ug/kg		J
57-87-4	Ergosterol	12.98	511	ug/kg	93	NJ
83-46-5	.beta.-Sitosterol	13.88	1640	ug/kg	96	NJ
	Unknown	13.98	291	ug/kg		J
	Unknown	14.16	273	ug/kg		J
	Unknown	14.3	499	ug/kg		J
	Unknown	14.46	295	ug/kg		J

Data File: /chem/MSD5.i/s032210.b/s5c2218.d  
Report Date: 23-Mar-2010 07:51

Page 1

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2218.d  
Lab Smp Id: 248506007 Client Smp ID: RE36-10-7450  
Inj Date : 22-MAR-2010 14:58  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506007|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 18  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	9.87950	% 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	3.943	3.950	(1.000)	277559	40.0000	
* 29 Naphthalene-d8		136	4.813	4.821	(1.000)	1076533	40.0000	
* 46 Acenaphthene-d10		164	6.072	6.078	(1.000)	661700	40.0000	
* 67 Phenanthrene-d10		188	7.248	7.253	(1.000)	1177046	40.0000	
* 91 Chrysene-d12		240	9.666	9.670	(1.000)	1090721	40.0000	
* 98 Perylene-d12		264	11.372	11.370	(1.000)	904490	40.0000	
\$ 3 2-Fluorophenol		112	3.143	3.141	(0.797)	435816	62.8810	2320
\$ 5 Phenol-d5		99	3.660	3.666	(0.928)	543540	65.2495	2410
\$ 20 Nitrobenzene-d5		82	4.307	4.316	(0.895)	278757	34.8474	1290
\$ 39 2-Fluorobiphenyl		172	5.554	5.558	(0.915)	515620	31.1986	1150
\$ 60 2,4,6-Tribromophenol		329	6.672	6.675	(1.099)	167630	67.4480	2490
\$ 81 p-Terphenyl-d14		244	8.631	8.630	(0.893)	641574	35.3615	1310

## ION RATIO REPORT

## SV REPORT

Data file: s5c2218.d

Report Date: 03/23/2010 07:02

Lab. ID: 248506007

SampleType: SAMPLE

Injection Date: 22-MAR-2010 14:58

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506007|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline		CAS#: 62-53-3			
66	38555	3.66	3.74	80-120	100	(T)
93	15980	3.62	3.74	219-279	41	(QT)
-----						
7	bis(2-Chloroethyl) ether		CAS#: 111-44-4			
63	12292	3.94	3.75	80-120	100	(T)
93	16845	3.90	3.75	119-179	137	(T)
95	523	3.95	3.75	8- 68	4	(QT)
-----						
17	N-Nitrosodipropylamine		CAS#: 621-64-7			
70	40118	4.31	4.19	80-120	100	(T)
42	25718	4.31	4.19	44-104	64	(T)
-----						
22	Isophorone		CAS#: 78-59-1			
82	270746	4.31	4.48	80-120	100	(T)
138	272	4.58	4.48	0- 49	0	(T)
-----						
27	Benzoic acid		CAS#: 65-85-0			
105	11681	4.55	4.59	80-120	100	( )
122	6497	4.56	4.59	45-105	56	( )
77	12485	4.58	4.59	48-108	107	( )
-----						
43	Dimethylphthalate		CAS#: 131-11-3			
163	122912	6.07	5.84	80-120	100	(T)
164	661647	6.07	5.84	0- 40	538	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	89042	6.07	5.90	80-120	100	(T)
63	1869	6.07	5.89	62-122	2	(QT)
-----						
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	88991	6.07	6.19	80-120	100	(T)
89	3484	6.07	6.19	51-111	4	(QT)
63	1869	6.07	6.19	24- 84	2	(QT)
-----						
52 4-Nitrophenol				CAS#: 100-02-7		
139	1184	6.17	6.12	80-120	100	( )
109	1105	6.16	6.12	63-123	93	( )
65	1759	6.12	6.11	71-131	149	(Q)
-----						
53 Fluorene				CAS#: 86-73-7		
166	7622	6.67	6.49	80-120	100	(T)
165	7536	6.67	6.49	62-122	99	(T)
167	2692	6.67	6.49	0- 44	35	(T)
-----						
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	916	6.67	6.51	80-120	100	(T)
105	2506	6.67	6.50	13- 73	274	(QT)
51	1263	6.67	6.50	51-111	138	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2218.d  
Lab Smp Id: 248506007 Client Smp ID: RE36-10-7450  
Inj Date : 22-MAR-2010 14:58  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506007|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 18  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	9.87950	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.943	1937996	40.000
* 67 Phenanthrene-d10	7.248	2975952	40.000
* 91 Chrysene-d12	9.666	3637739	40.000
* 98 Perylene-d12	11.372	2823923	40.000

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

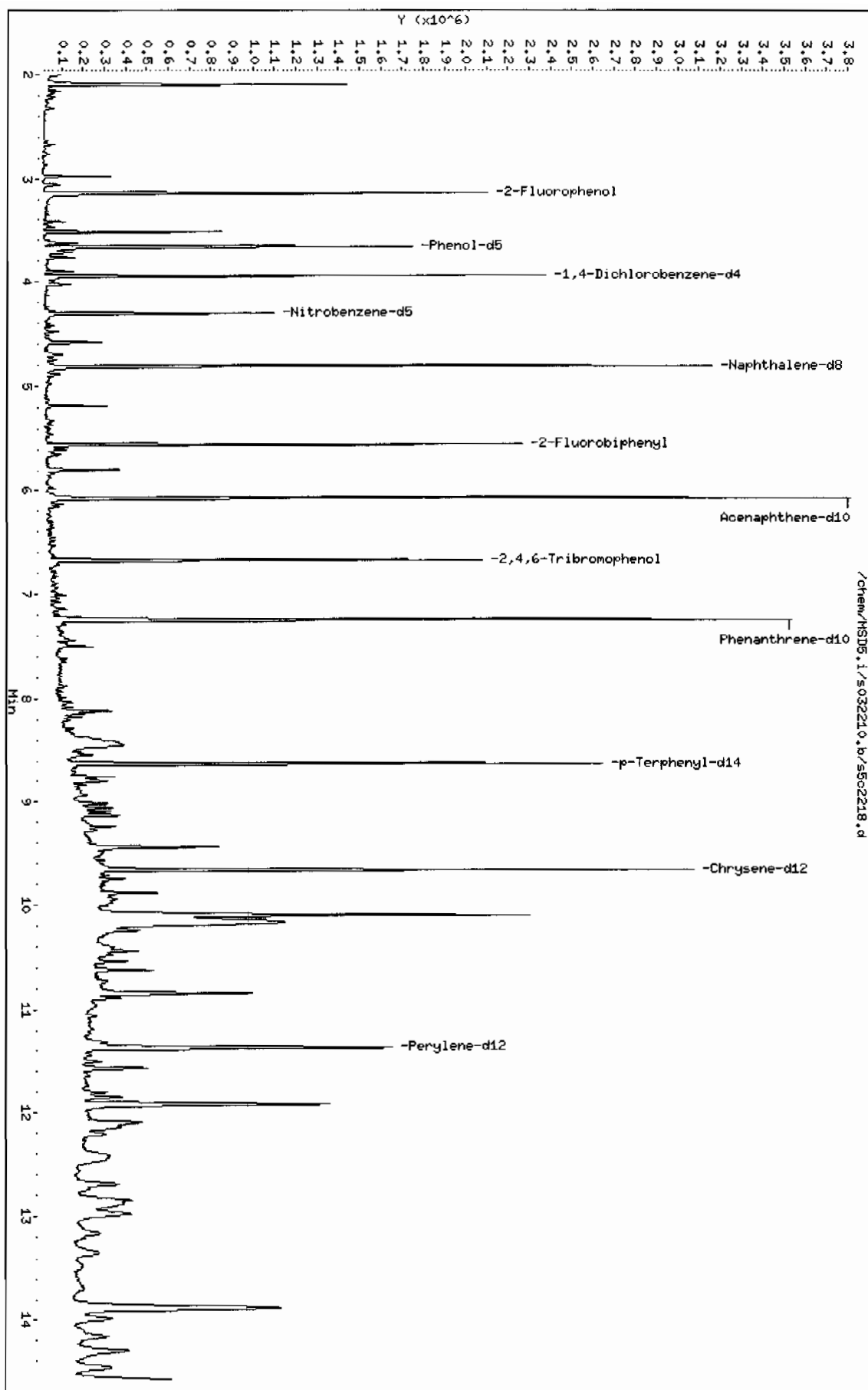
RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/vl)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
====	====	=====	=====	====	=====	=====	=====
Unknown					CAS #:		
2.096	1084632	22.3866751	827	0		0	10
1R-.alpha.-Pinene					CAS #: 7785-70-8		
3.519	544375	11.2358313	415	97	NIST05.L	15188	10
Androst-4-en-3-one, 17-hydroxy-, (17.bet					CAS #: 58-22-0		
8.431	664285	8.92871121	330	93	NIST05.L	117326	67
Stigmast-4-en-3-one					CAS #: 1058-61-3		
8.442	529767	7.12063710	263	93	NIST05.L	173936	67
1-Hexadecanol, 2-methyl-					CAS #: 2490-48-4		
9.442	914963	10.0607820	372	91	NIST05.L	96338	91
Heptadecane					CAS #: 629-78-7		
9.748	480039	5.27843167	195	94	NIST05.L	85523	91
1,19-Eicosadiene					CAS #: 14811-95-1		
9.889	600108	6.59868886	244	93	NIST05.L	110850	91
1-Heneicosyl formate					CAS #: 77899-03-7		
10.101	3852045	42.3564727	1560	95	NIST05.L	147938	91
Friedelan-3-one					CAS #: 559-74-0		
10.172	4283811	47.1040975	1740	95	NIST05.L	176566	91
Unknown					CAS #:		
10.242	690110	7.58833762	280	0		0	91
Unknown					CAS #:		
10.442	533959	5.87132480	217	0		0	91
2,6,10,14,18,22-Tetracosahexaene, 2,6,10					CAS #: 111-02-4		
10.542	538530	7.62810724	282	98	NIST05.L	173571	98
Octadecanal					CAS #: 638-66-4		
10.624	677846	9.60147642	355	95	NIST05.L	104241	98
Unknown					CAS #:		
10.736	471430	6.67765804	247	0		0	98
Eicosane					CAS #: 112-95-8		
10.848	1647150	23.3313638	862	96	NIST05.L	113490	98



RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
Oxirane, hexadecyl-					CAS #: 7390-81-0		
11.566	608646	8.62128742	318	83	NIST05.L	104256	98
Unknown					CAS #:		
11.919	2445997	34.6467882	1280	0		0	98
Unknown					CAS #:		
12.095	826360	11.7051363	432	0		0	98
Unknown					CAS #:		
12.142	595967	8.44168620	312	0		0	98
Unknown					CAS #:		
12.430	759245	10.7544730	397	0		0	98
Unknown					CAS #:		
12.695	514585	7.28894341	269	0		0	98
Unknown					CAS #:		
12.848	672894	9.53134030	352	0		0	98
Ergosterol					CAS #: 57-87-4		
12.983	975613	13.8192540	511	93	NIST05.L	170282	98
.beta.-Sitosterol					CAS #: 83-46-5		
13.883	3132848	44.3758153	1640	96	NIST05.L	174400	98
Unknown					CAS #:		
13.983	556557	7.88345137	291	0		0	98
Unknown					CAS #:		
14.160	520903	7.37843136	273	0		0	98
Unknown					CAS #:		
14.301	954286	13.5171573	499	0		0	98
Unknown					CAS #:		
14.460	562857	7.97268903	294	0		0	98

Data File: /chem/MSD5.i/s032210.b/s502218.d  
 Date: 22-MAR-2010 14:58  
 Client ID: RE36-10-7450  
 Sample Info: 1248506007196308611SVN111LNL  
 Volume Injected (uL): 0.5  
 Column phase: 38M DB-SMS

Instrument: MSD5.i  
 Operator: RMB  
 Column diameter: 0.20



Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: 12485060071963086111SVMI11LANL

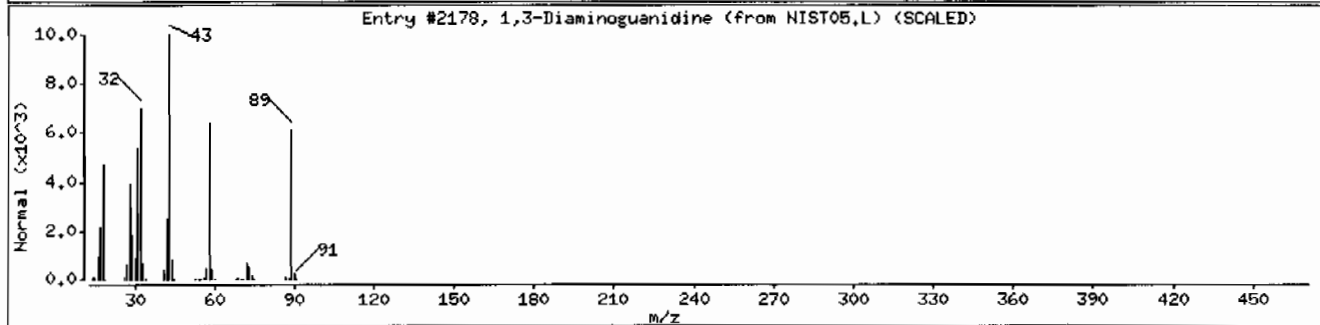
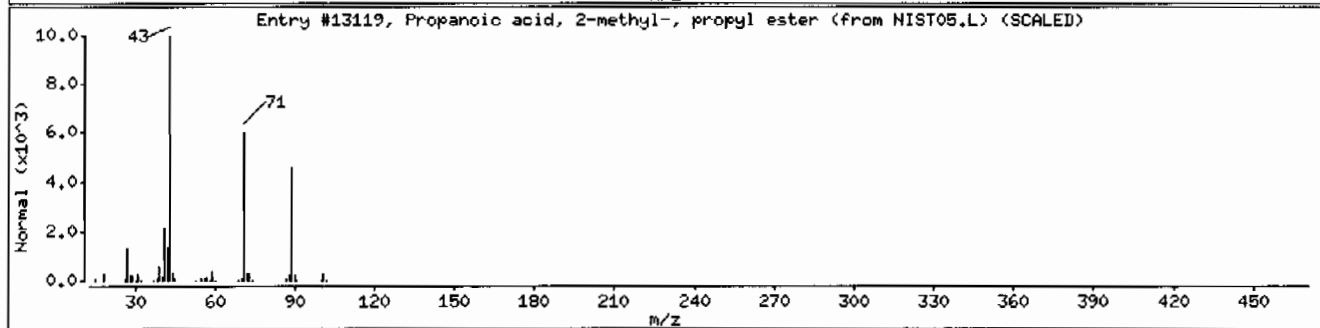
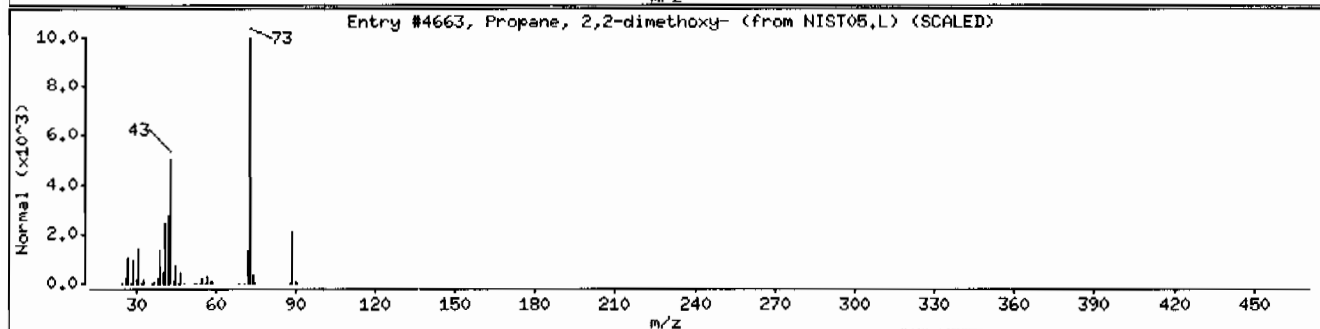
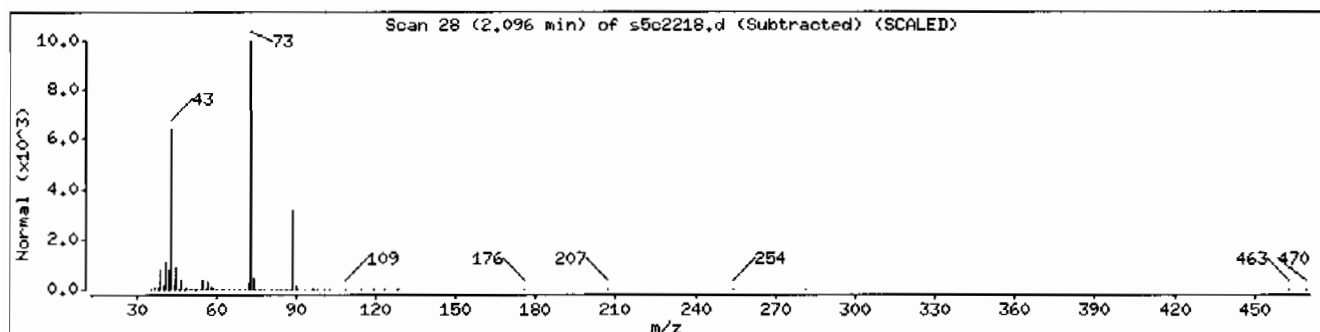
Volume Injected (uL): 0.5

Operator: RMB

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	36	C5H12O2	104
Propanoic acid, 2-methyl-, propyl ester	644-49-5	NIST05.L	13119	17	C7H14O2	130
1,3-Diaminoguanidine	4364-78-7	NIST05.L	2178	9	CH7N5	89



Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: I2485060071963086111SVH111LANL

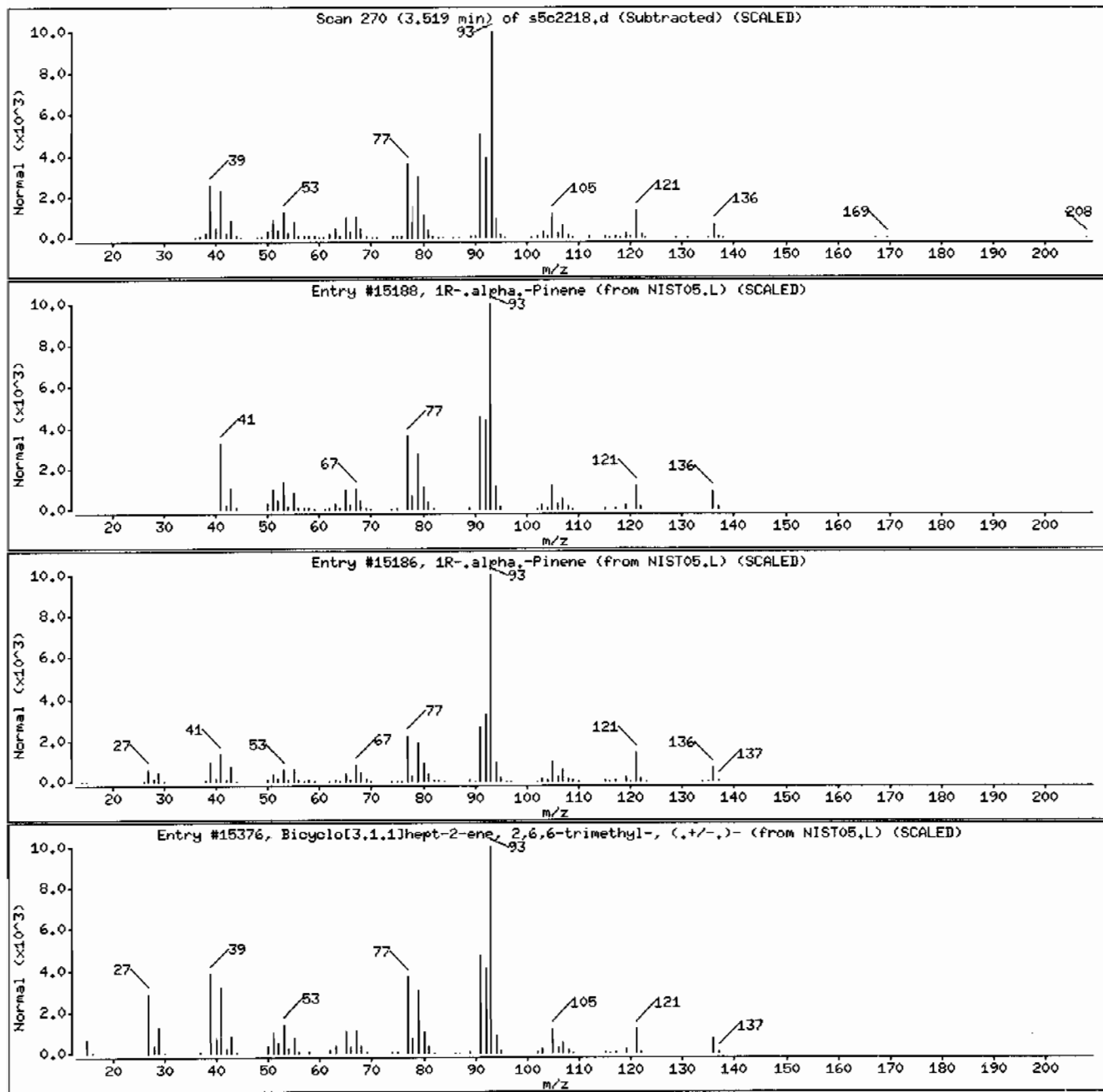
Volume Injected (uL): 0.5

Operator: RHE

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
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl	2437-95-8	NIST05.L	15376	95	C10H16	136



Date: 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: I248506007196308611ISVH11ILANL

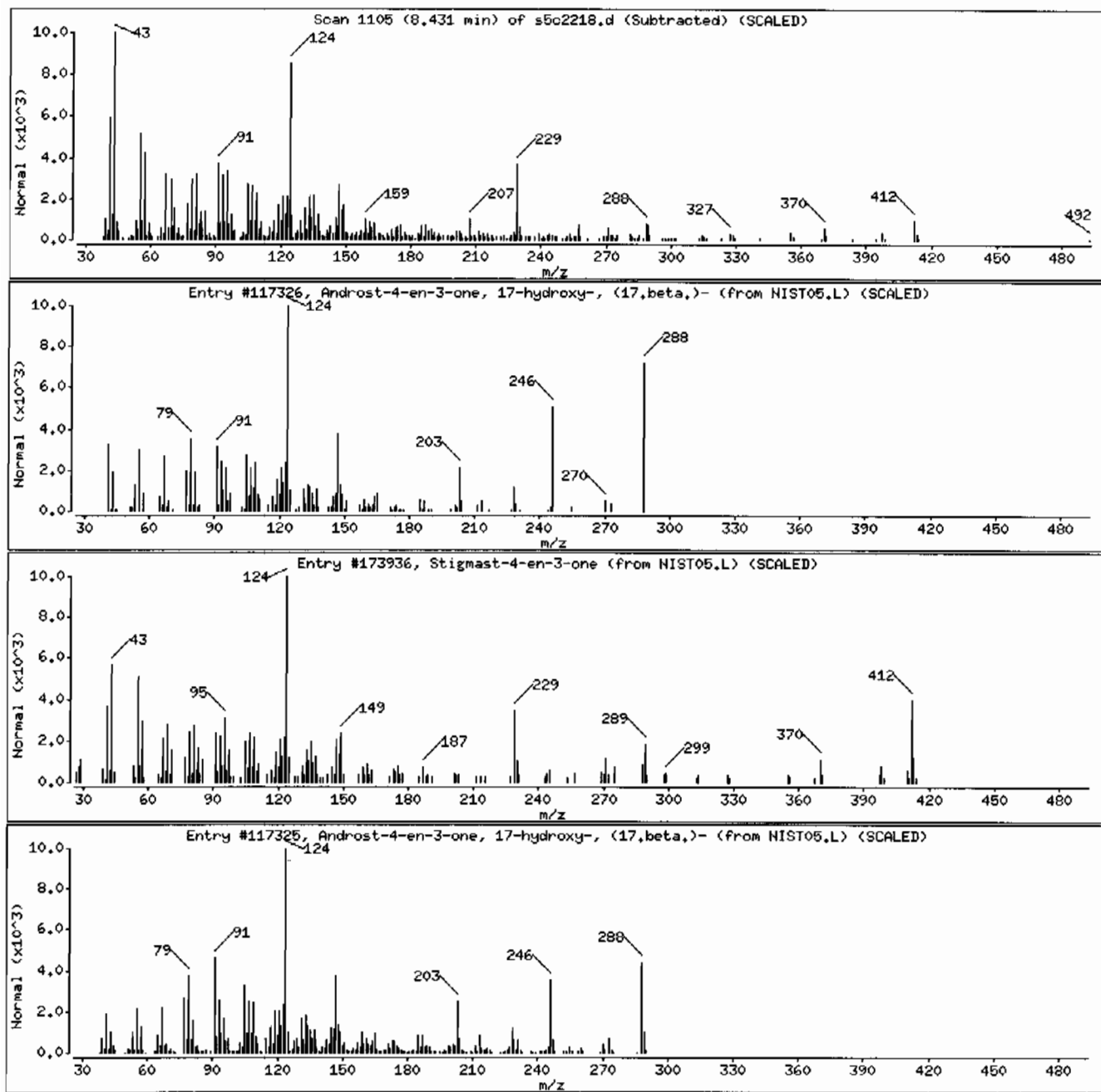
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117326	93	C19H28O2	288
Stigmast-4-en-3-one	1058-61-3	NIST05.L	173936	87	C29H48O	412
Androst-4-en-3-one, 17-hydroxy-, (17.bet	58-22-0	NIST05.L	117325	83	C19H28O2	288



Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: 12485060071963086111SVH111LANL

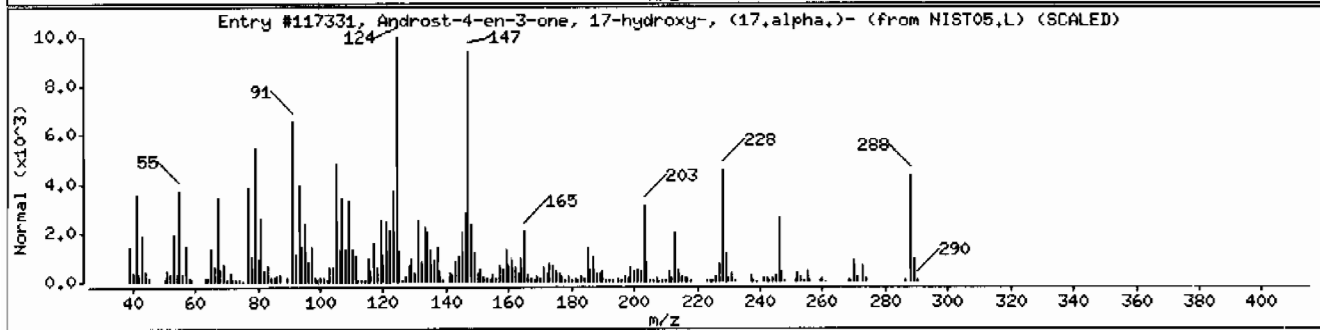
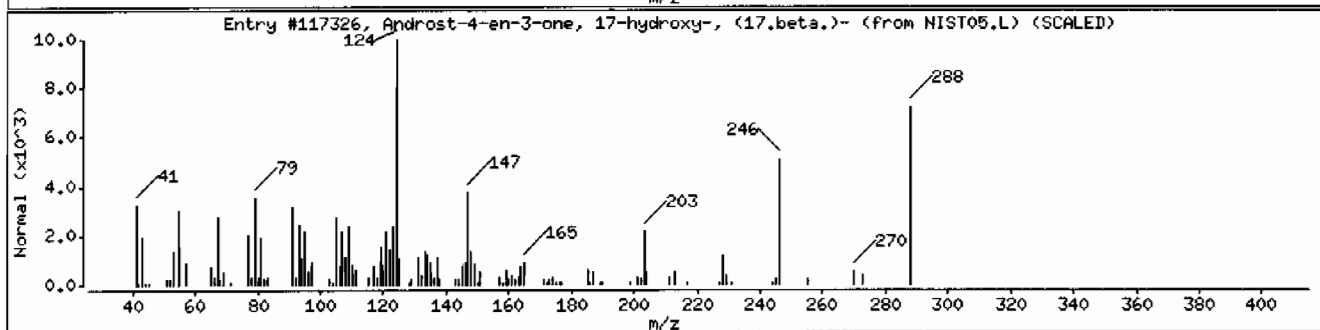
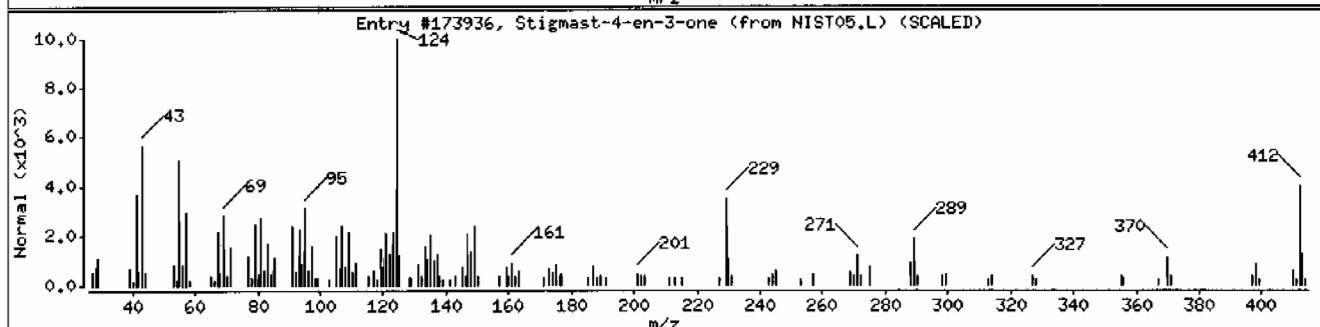
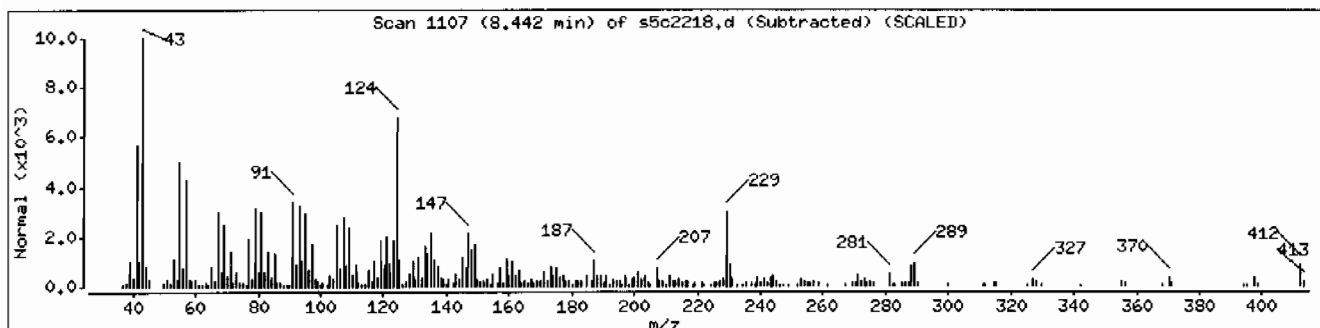
Volume Injected (uL): 0.5

Operator: RMB

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	93	C29H48O	412
Androst-4-en-3-one, 17-hydroxy-, (17,bet	58-22-0	NIST05.L	117326	70	C19H28O2	288
Androst-4-en-3-one, 17-hydroxy-, (17.alp	481-30-1	NIST05.L	117331	53	C19H28O2	288



Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: 1248506007196308611SVH111LANL

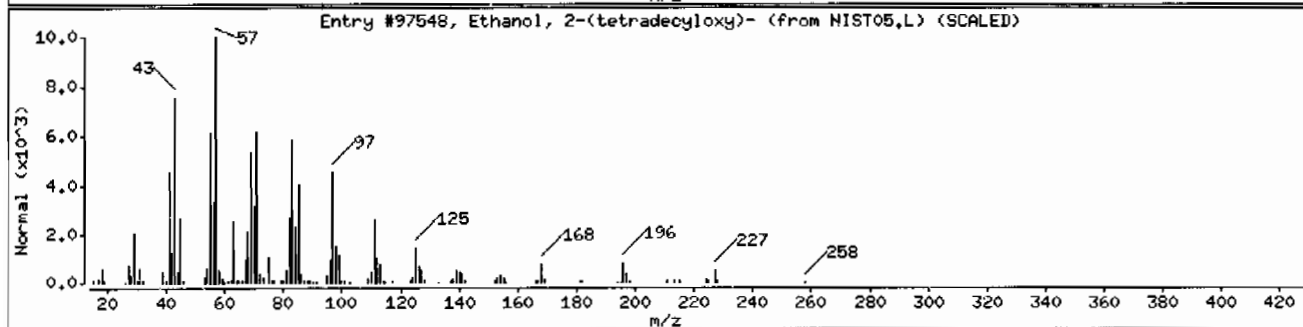
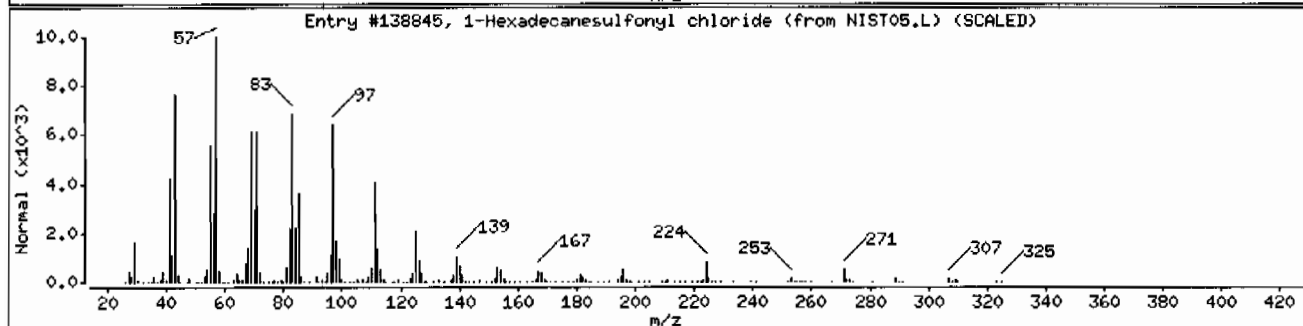
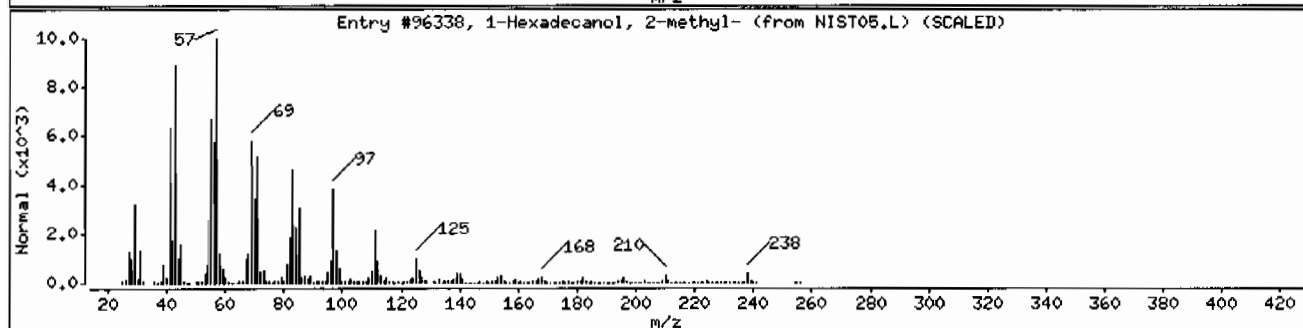
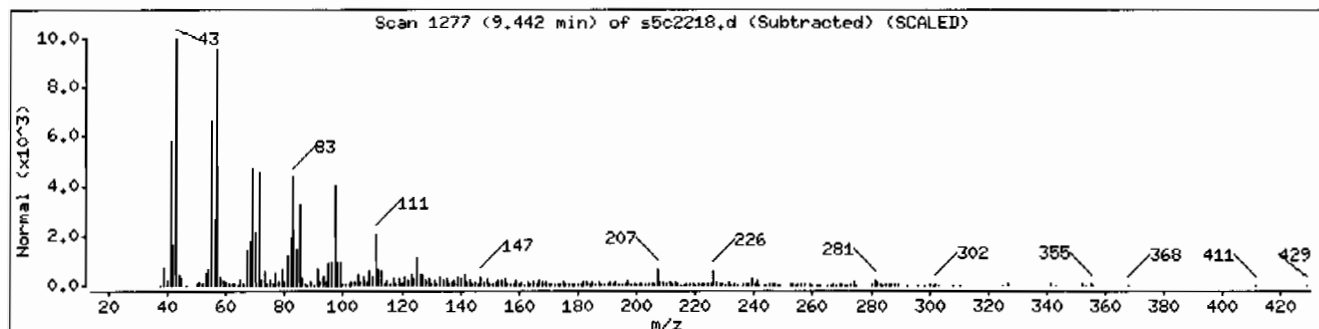
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Hexadecanol, 2-methyl-	2490-48-4	NIST05.L	96338	91	C17H36O	256
1-Hexadecanesulfonyl chloride	38775-38-1	NIST05.L	138845	91	C16H33ClO2S	324
Ethanol, 2-(tetradecyloxy)-	2136-70-1	NIST05.L	97548	91	C16H34O2	258



Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: 12485060071963066111SVMI11LANL

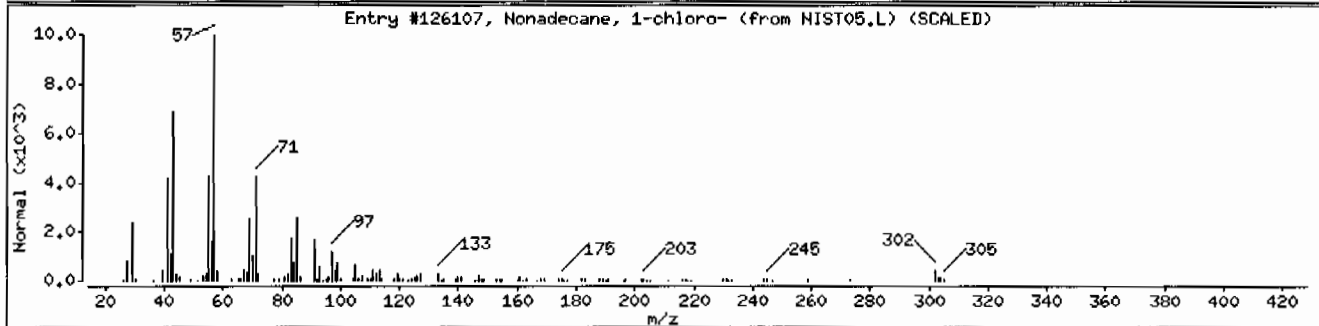
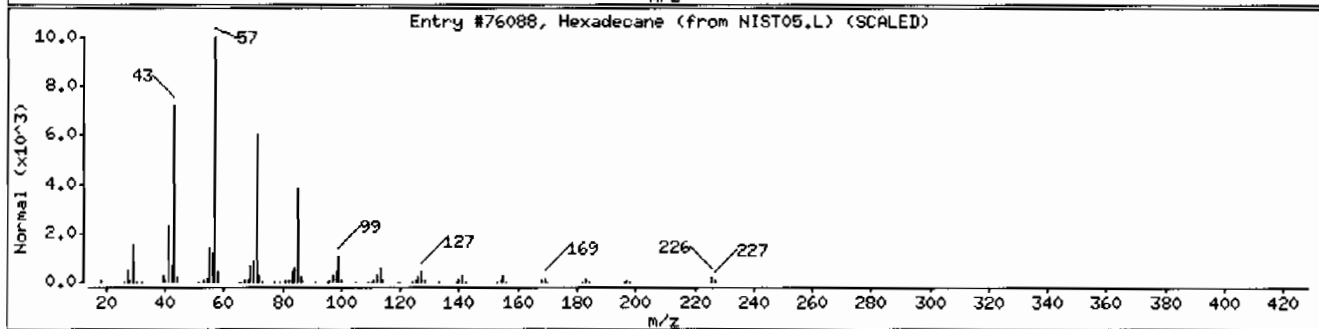
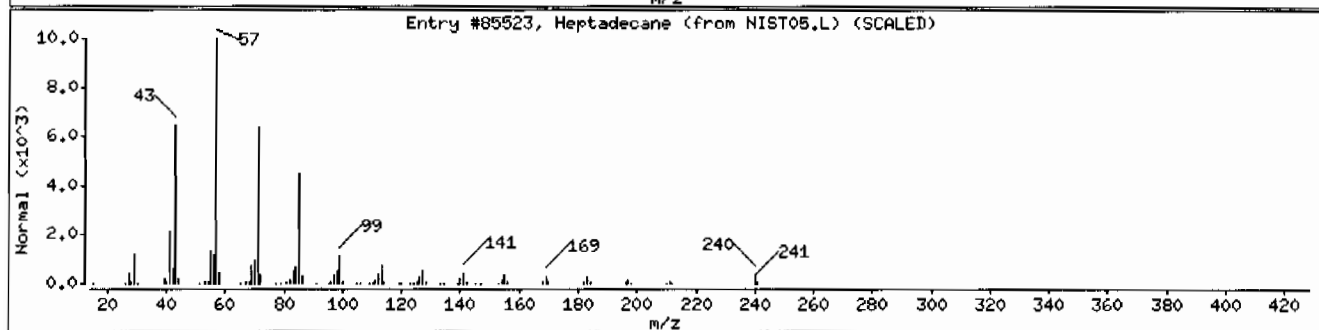
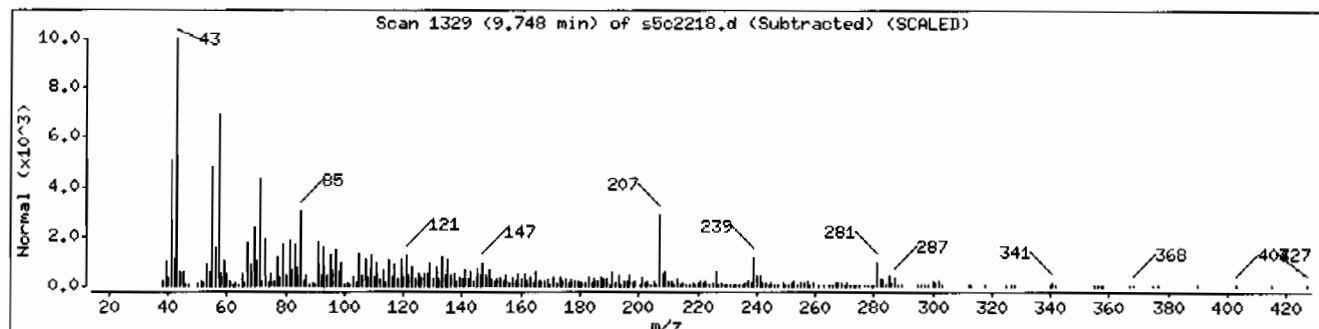
Volume Injected (uL): 0.5

Operator: RMB

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	94	C17H36	240
Hexadecane	544-76-3	NIST05.L	76088	93	C16H34	226
Nonadecane, 1-chloro-	62016-76-6	NIST05.L	126107	93	C19H39Cl	302





Date: 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: 1248506007196308611SVH111LANL

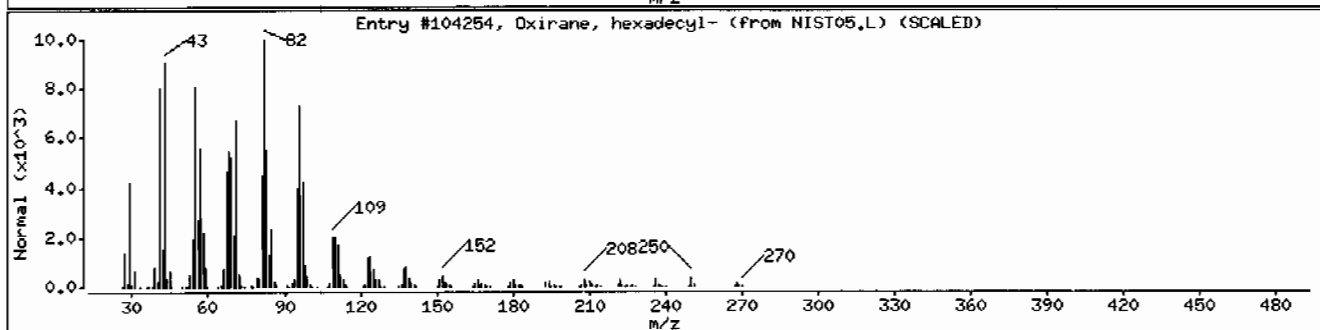
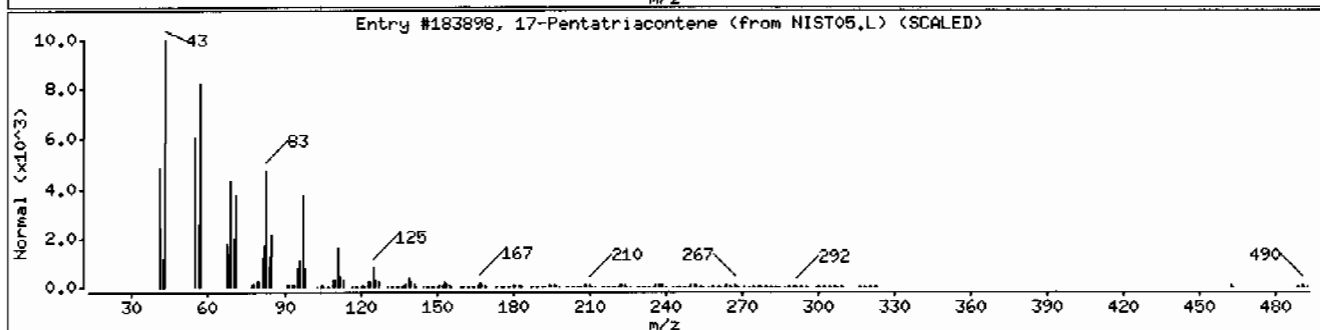
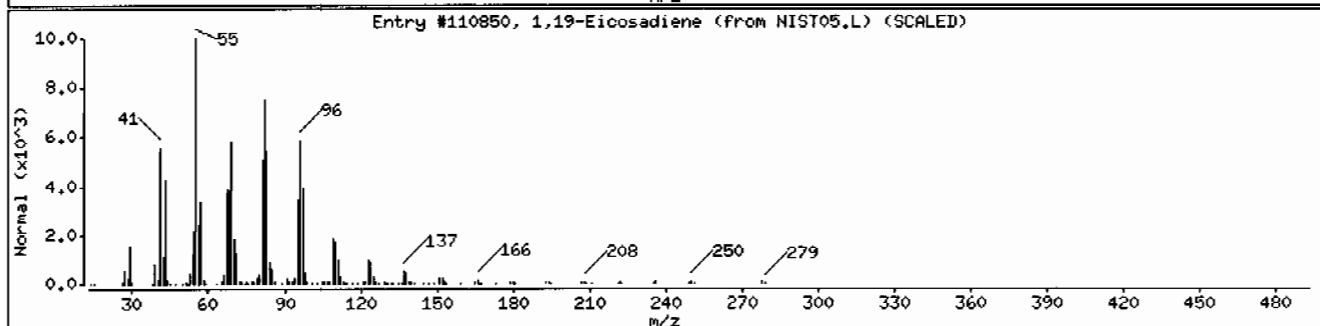
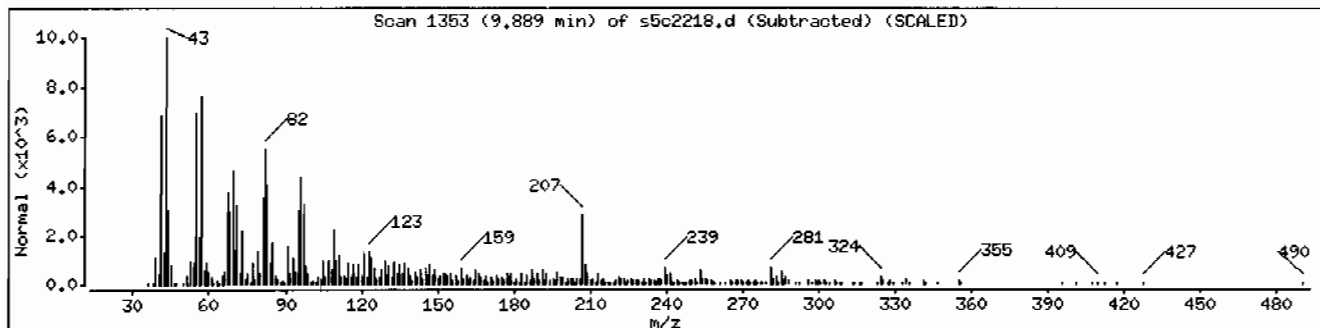
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,19-Eicosadiene	14811-95-1	NIST05.L	110850	93	C20H38	278
17-Pentatriacontene	6971-40-0	NIST05.L	183898	93	C35H70	491
Oxirane, hexadecyl-	7390-81-0	NIST05.L	104254	92	C18H36O	268



Date: 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: HSD5.i

Sample Info: 12485060071963086111SVMI11LANL

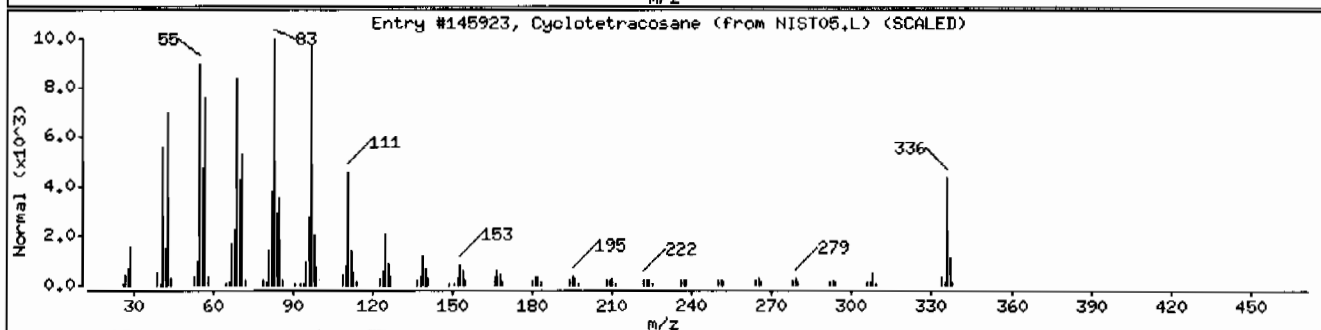
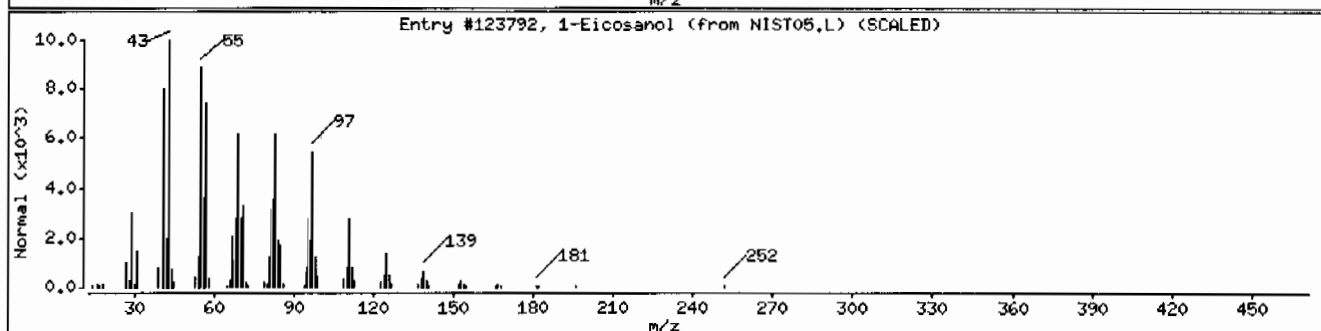
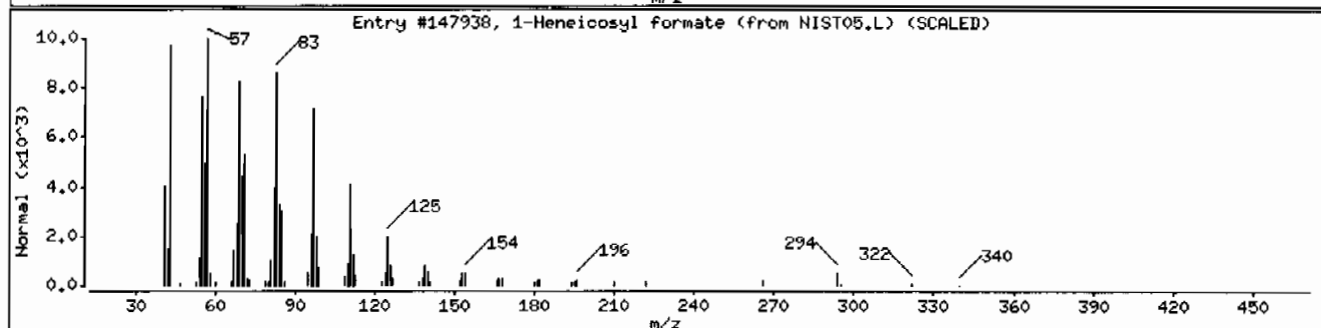
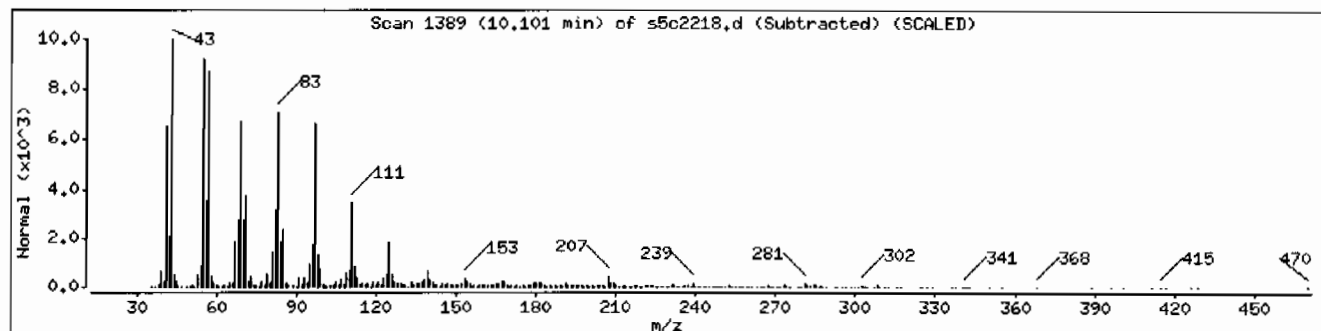
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Heneicosyl formate	77899-03-7	NIST05.L	147938	95	C22H44O2	340
1-Eicosanol	629-96-9	NIST05.L	123792	93	C20H42O	298
Cyclotetracosane	297-03-0	NIST05.L	145923	91	C24H48	336



Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: 12485060071963086111SVH111LANL

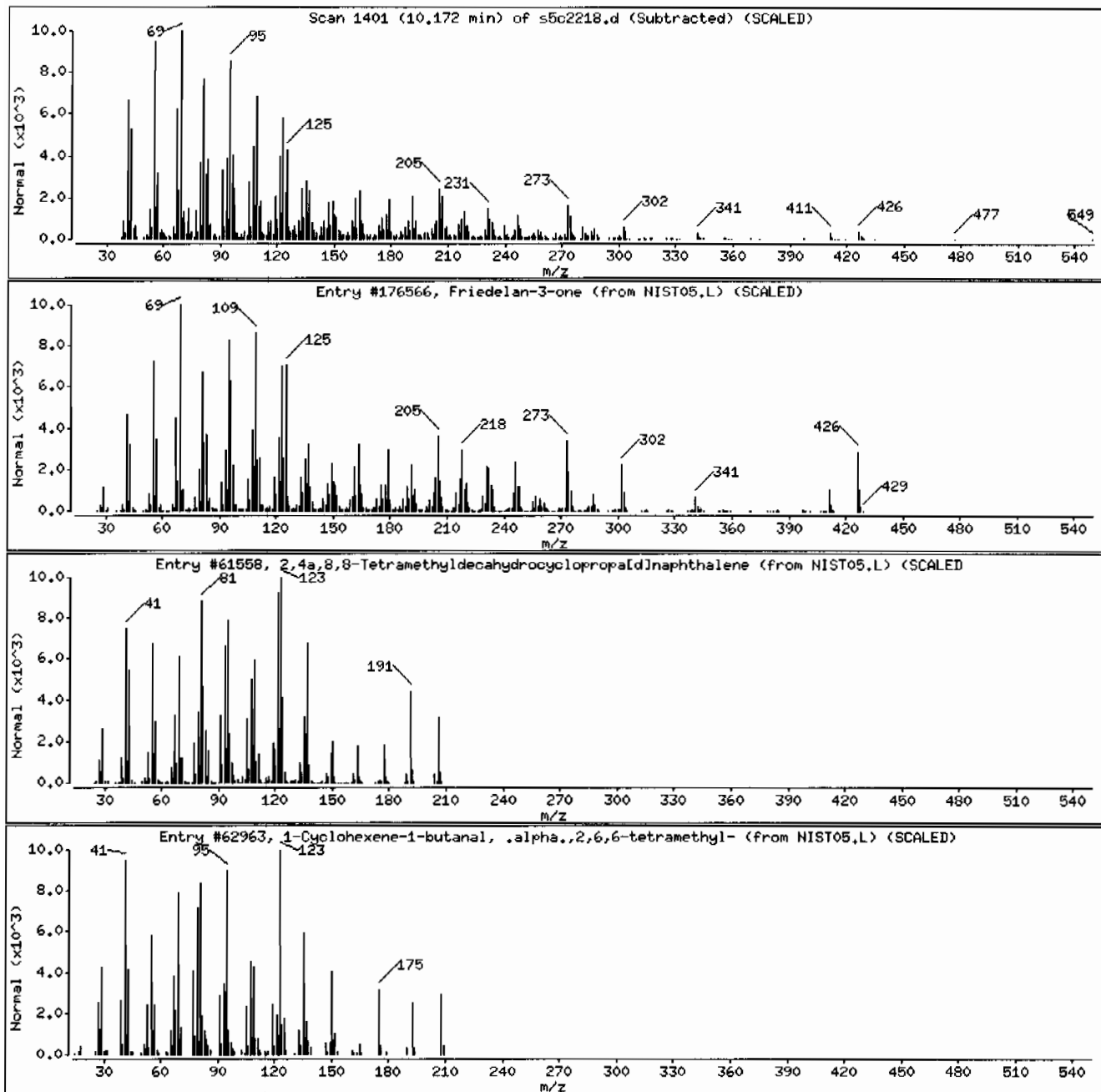
Volume Injected (uL): 0.5

Operator: RMB

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	95	C30H50O	426
2,4a,8,8-Tetramethyldecahydrocyclopropa[	74022-04-1	NIST05.L	61558	84	C15H26	206
1-Cyclohexene-1-butanal, .alpha.,2,6,6-t	21632-06-4	NIST05.L	62963	68	C14H24O	208



Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: 1248506007196308611SVH111LANL

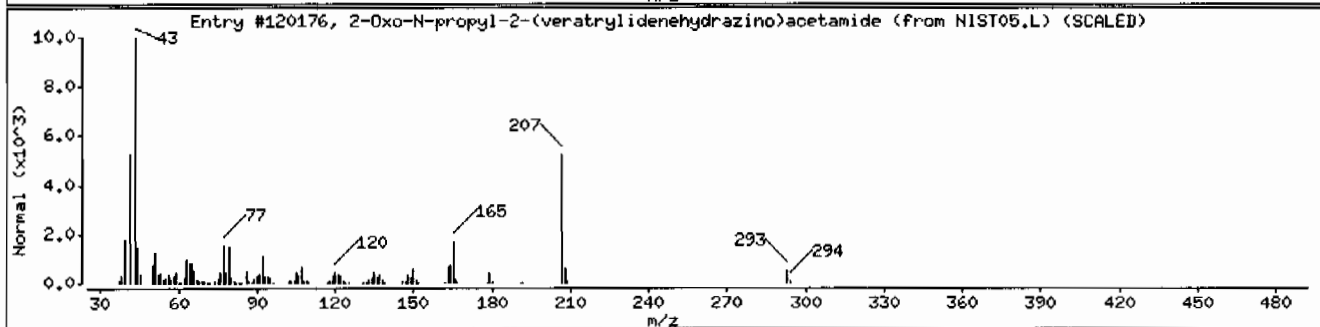
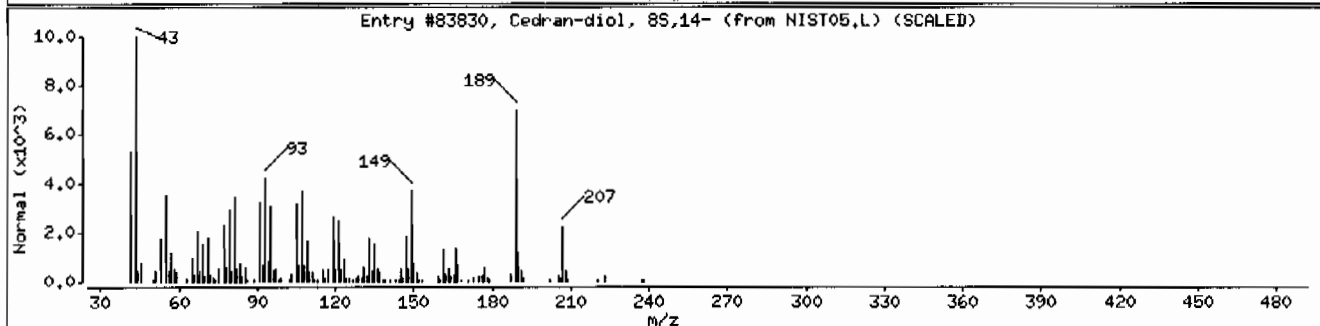
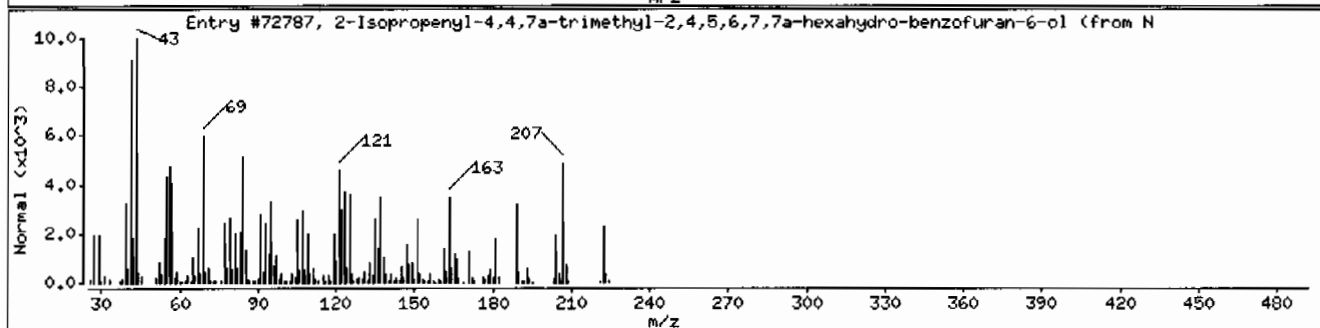
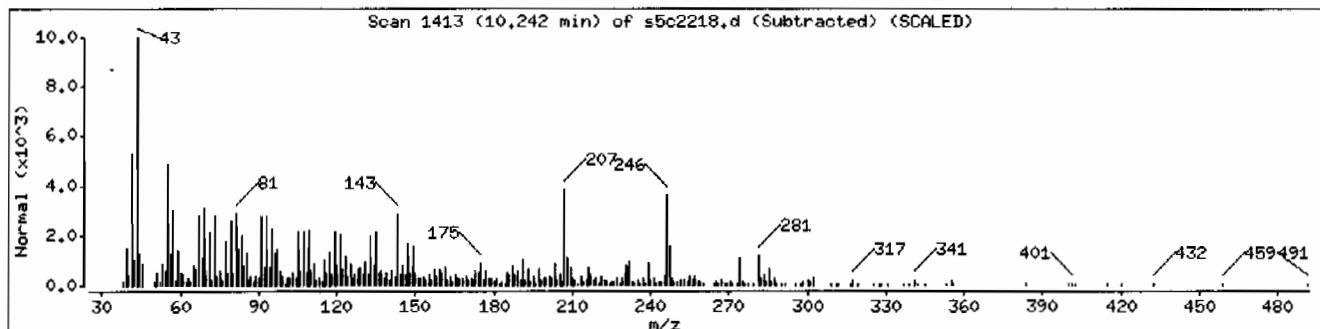
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Isopropenyl-4,4,7a-trimethyl-2,4,5,6,7	1000189-13-5	NIST05.L	72787	12	C14H22O2	222
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	10	C15H26O2	238
2-Oxo-N-propyl-2-(veratrylidenehydrazino	339241-37-1	NIST05.L	120176	9	C14H19N3O4	293



Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: 1248506007196308611SVH111LANL

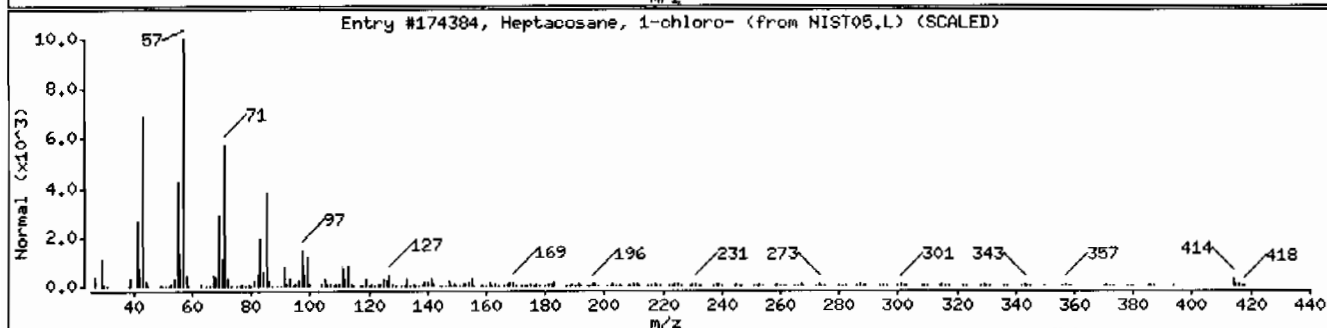
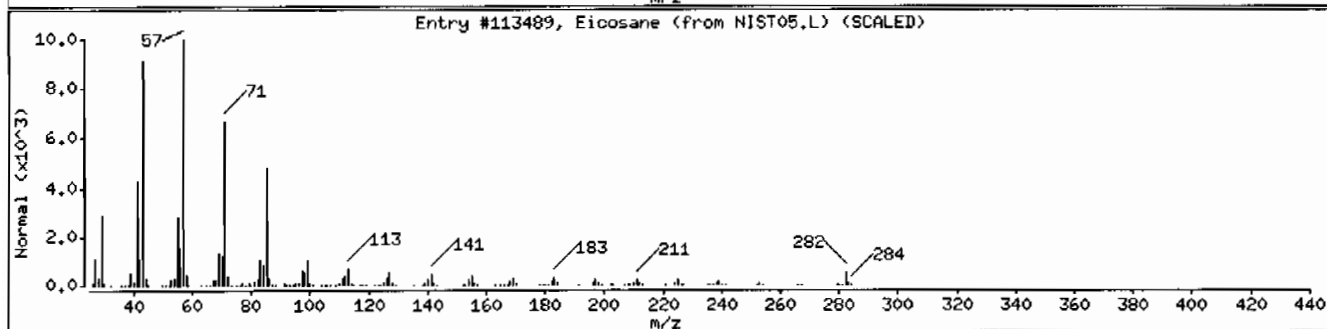
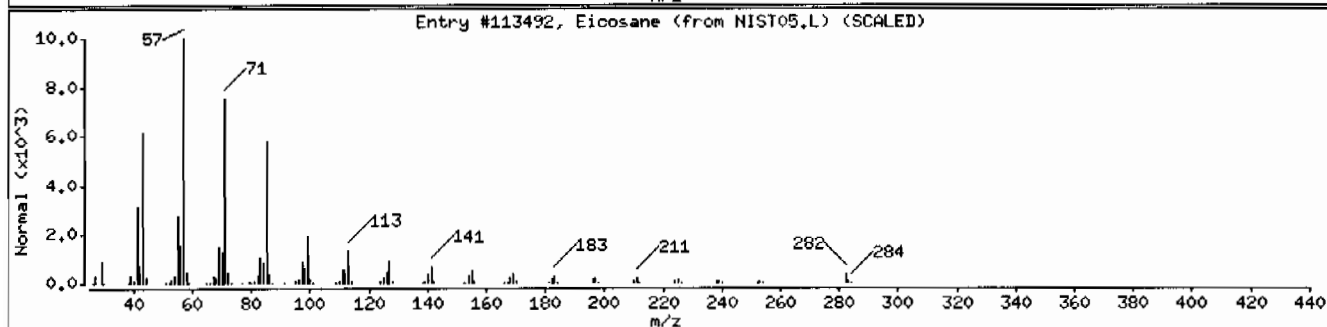
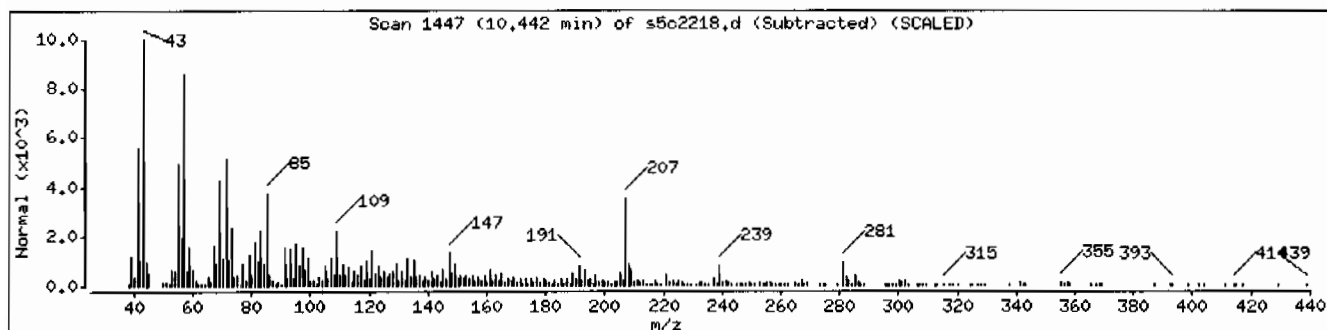
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Eicosane	112-95-8	NIST05.L	113492	94	C <sub>20</sub> H <sub>42</sub>	282
Eicosane	112-95-8	NIST05.L	113489	93	C <sub>20</sub> H <sub>42</sub>	282
Heptacosane, 1-chloro-	62016-79-9	NIST05.L	174384	76	C <sub>27</sub> H <sub>55</sub> Cl	414



Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: 12485060071963086111SVH111LANL

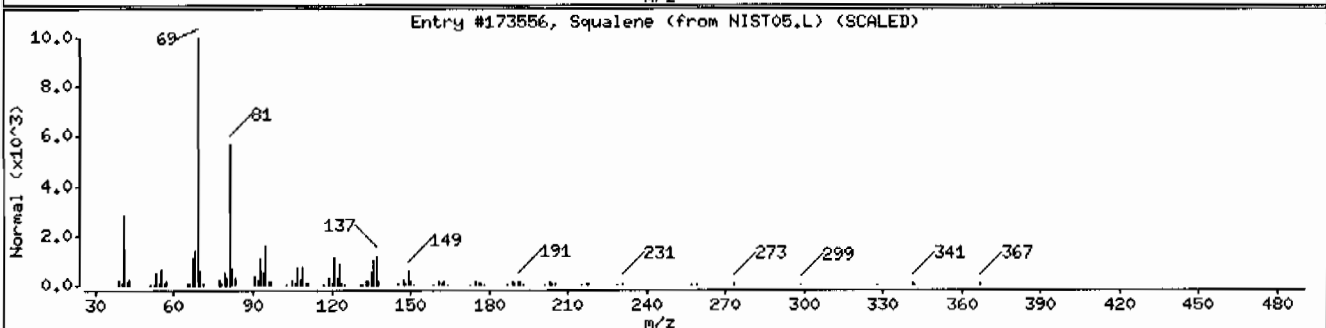
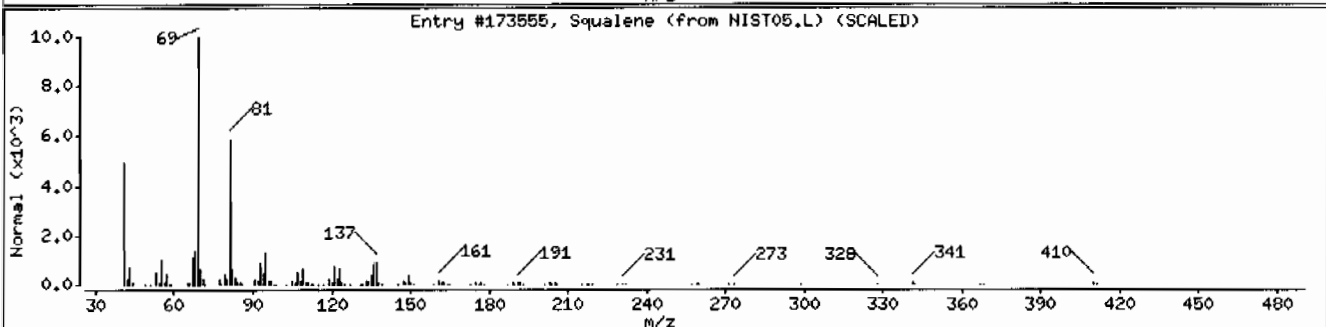
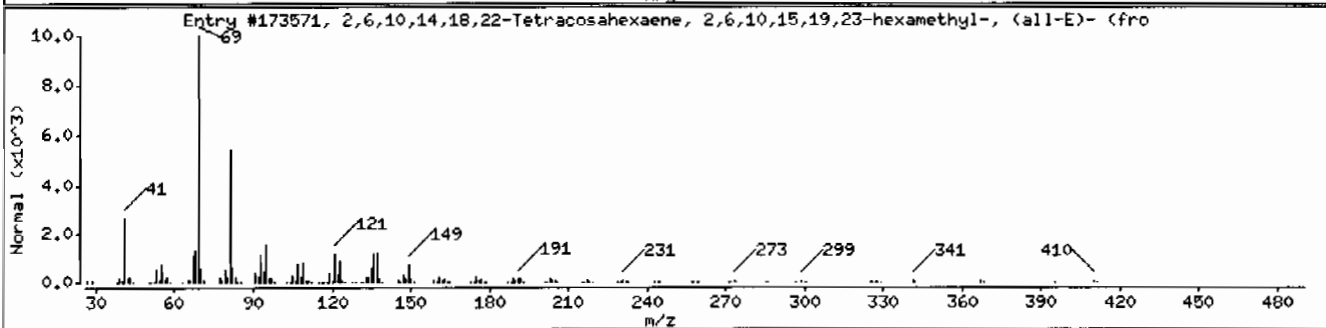
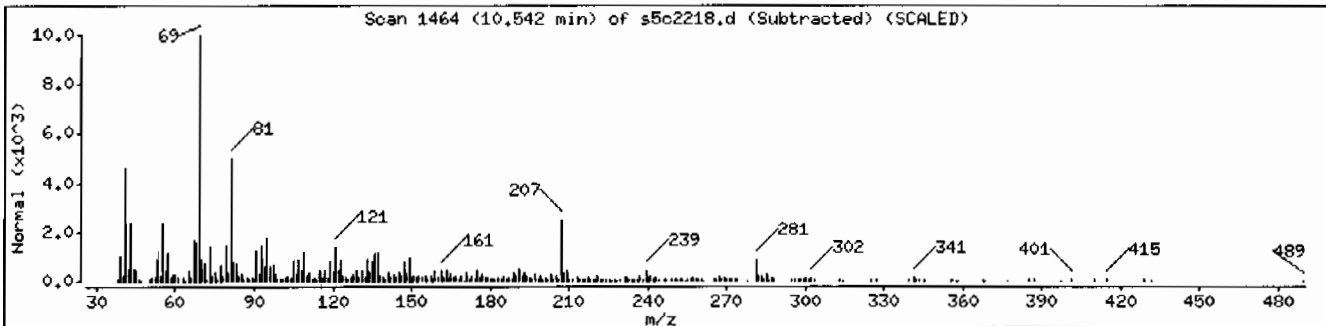
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2,6,10,14,18,22-Tetracosahexaene, 2,6,10	111-02-4	NIST05.L	173571	98	C30H50	410
Squalene	7683-64-9	NIST05.L	173555	90	C30H50	410
Squalene	7683-64-9	NIST05.L	173556	81	C30H50	410



Date: 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: HSD5,i

Sample Info: 1248506007196308611|SVH11|LANL

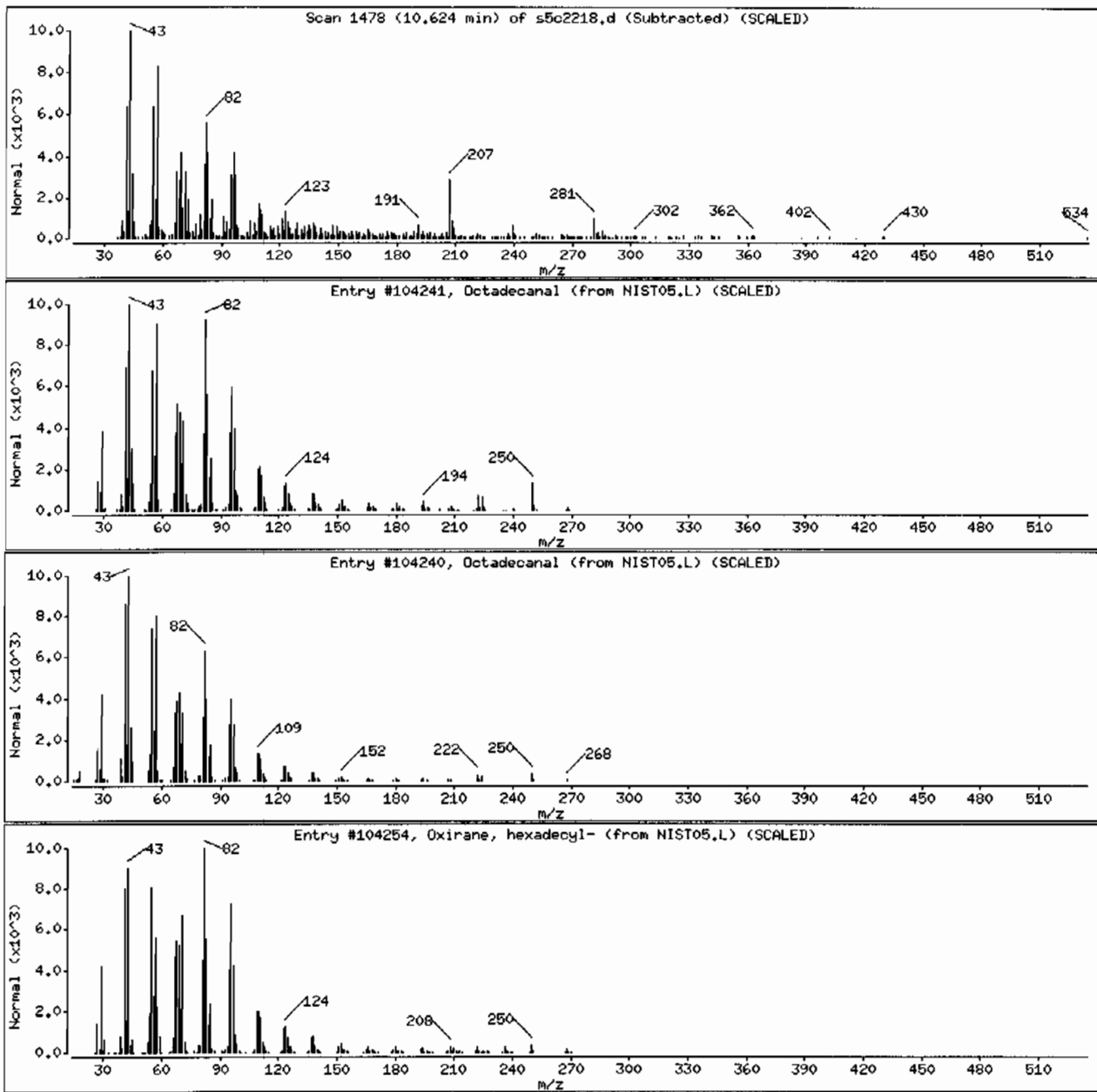
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Octadecanal	638-66-4	NIST05.L	104241	95	C18H36O	268
Octadecanal	638-66-4	NIST05.L	104240	93	C18H36O	268
Oxirane, hexadecyl-	7390-81-0	NIST05.L	104254	92	C18H36O	268



Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: 12485060071963086111SVH111LANL

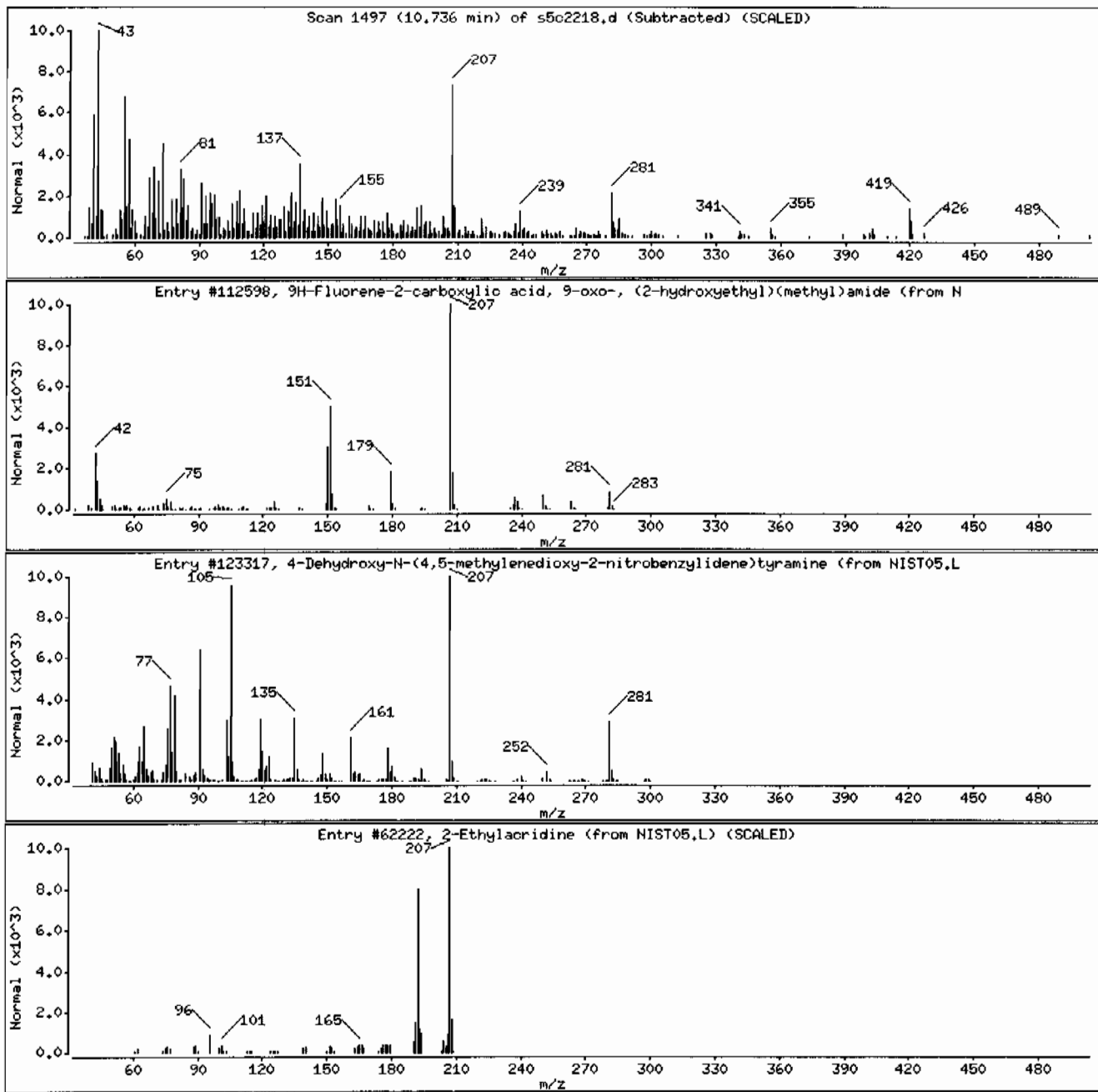
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
9H-Fluorene-2-carboxylic acid, 9-oxo-, (	1000316-02-1	NIST05.L	112598	49	C17H15NO3	281
4-Dehydroxy-N-(4,5-methylenedioxy-2-nitr	1000111-66-9	NIST05.L	123317	46	C16H14N2O4	298
2-Ethylacridine	55751-83-2	NIST05.L	62222	46	C15H13N	207





Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: 1248506007196308611SVMI11LANL

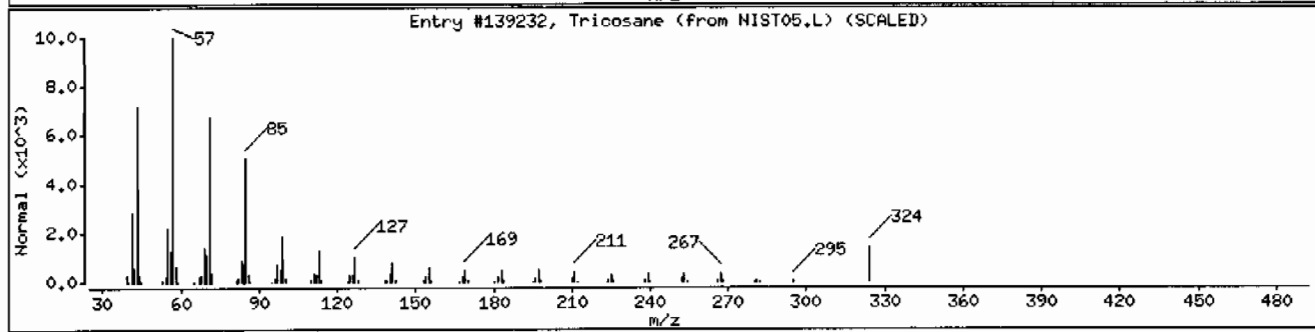
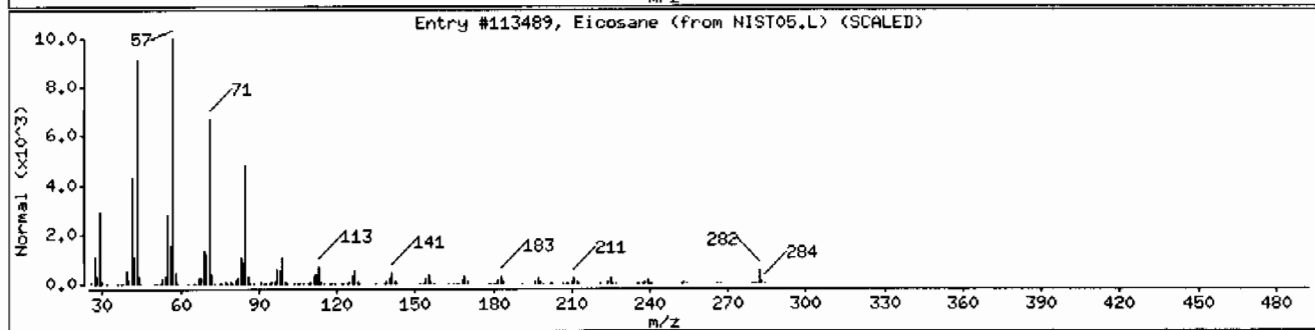
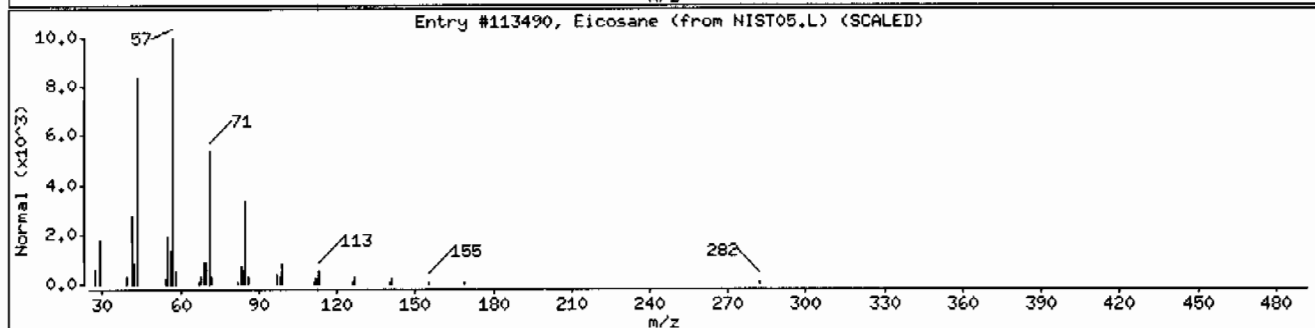
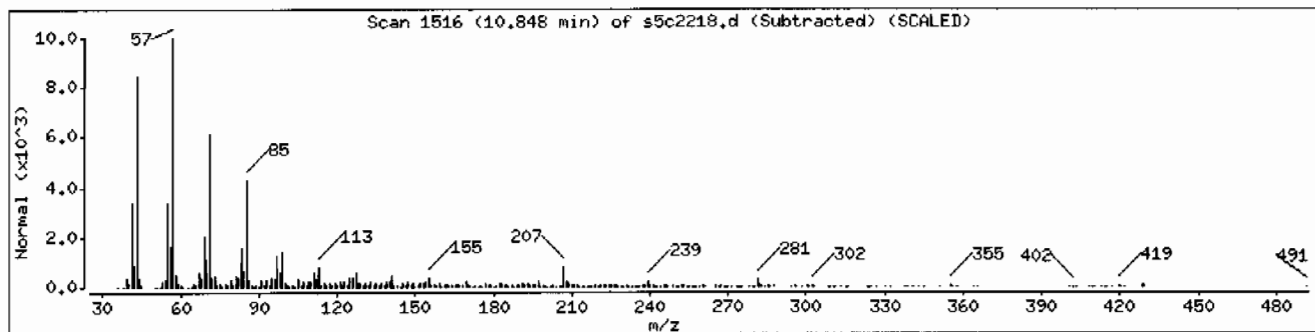
Volume Injected (uL): 0.5

Operator: RMB

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	113490	96	C20H42	282
Eicosane	112-95-8	NIST05.L	113489	96	C20H42	282
Tricosane	638-67-5	NIST05.L	139232	95	C23H46	324



Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: 12485060071963086111SVMI11LANL

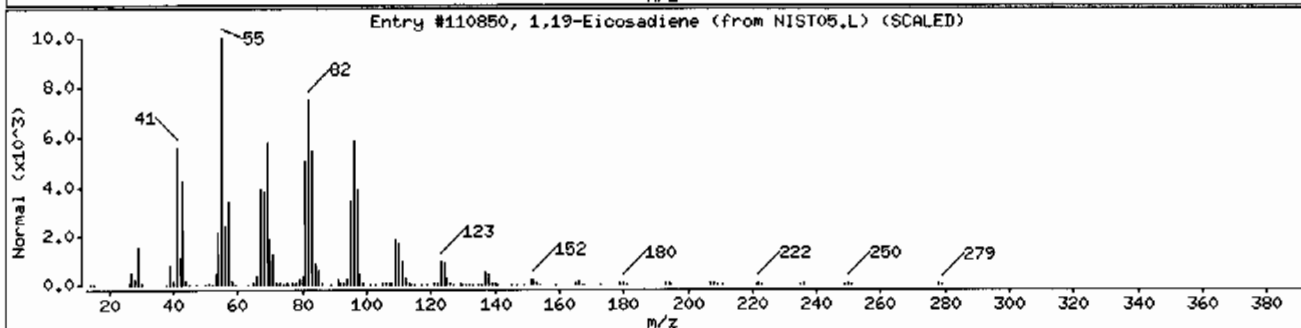
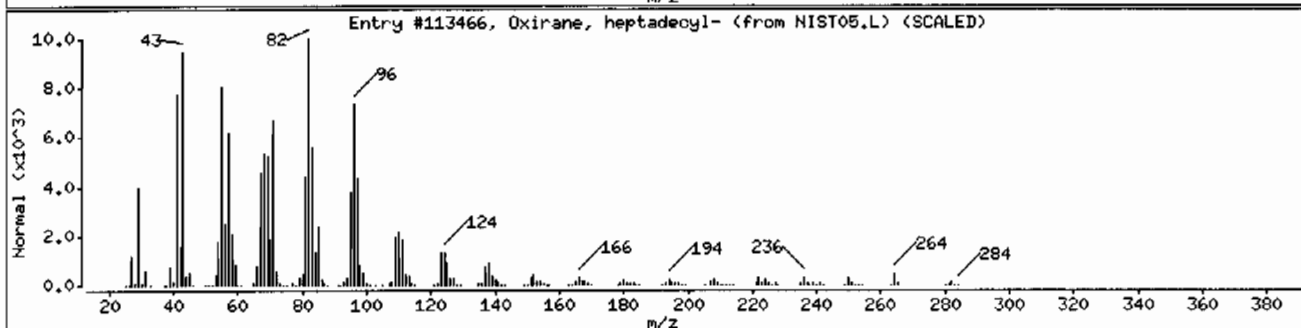
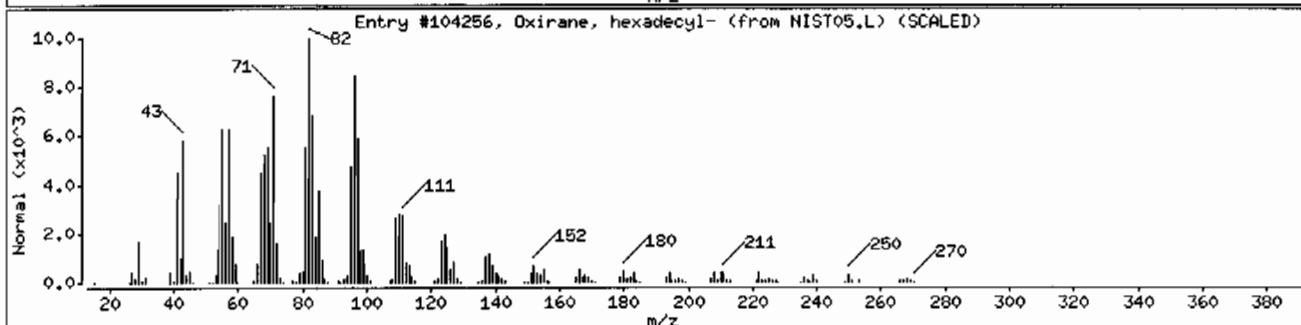
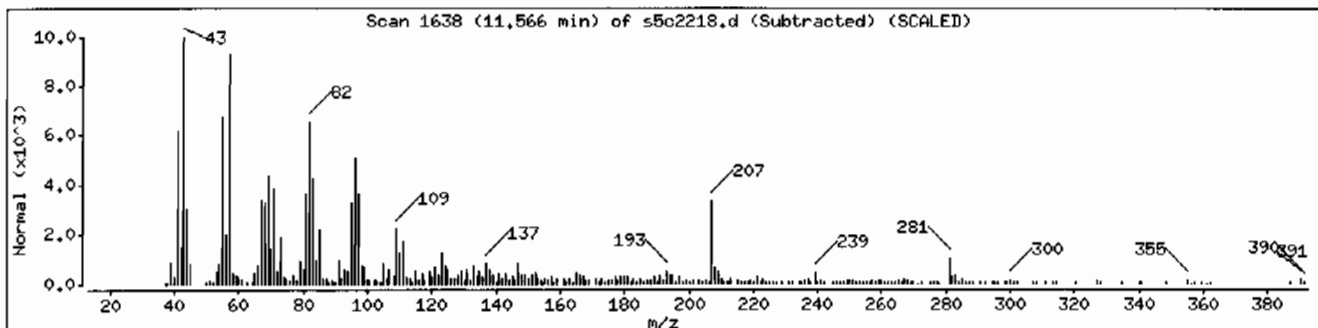
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Oxirane, hexadecyl-	7390-81-0	NIST05.L	104256	83	C18H36O	268
Oxirane, heptadecyl-	67860-04-2	NIST05.L	113466	68	C19H38O	282
1,19-Eicosadiene	14811-95-1	NIST05.L	110850	68	C20H38	278



Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: HSD5,i

Sample Info: I248506007196308611SVHI1ILANL

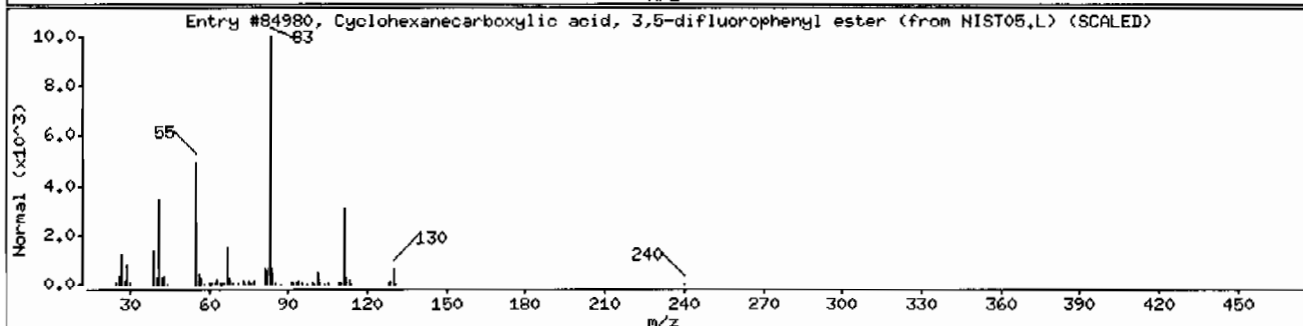
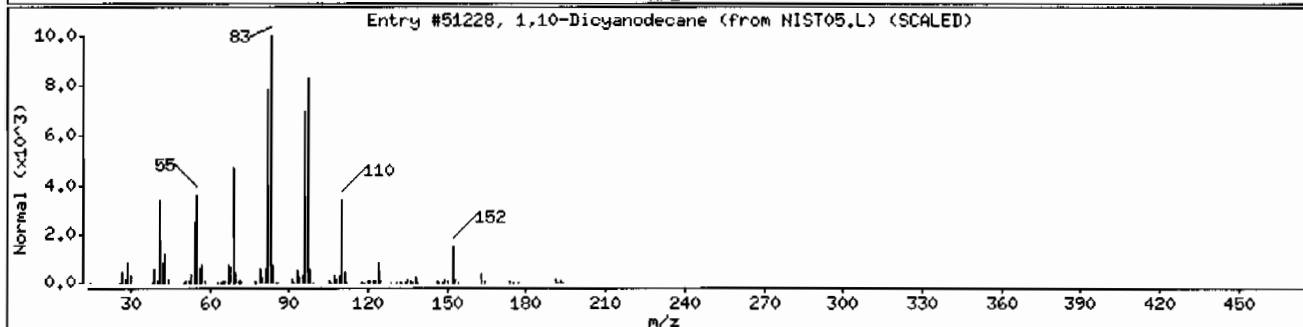
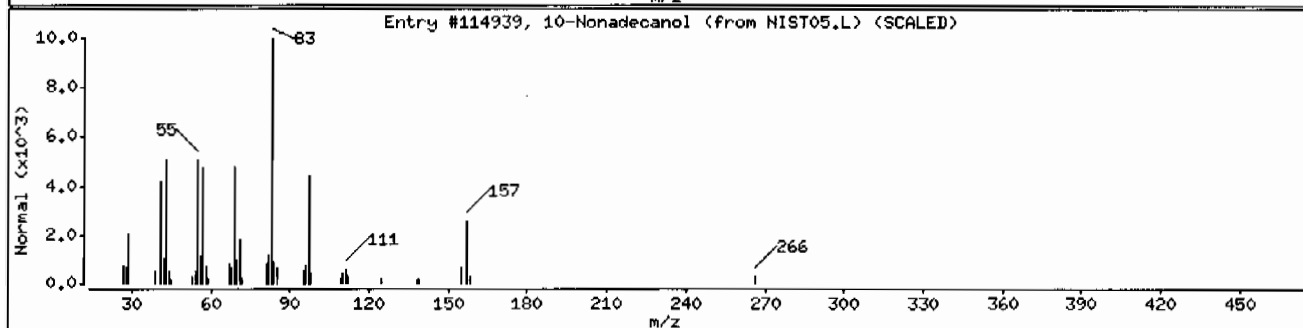
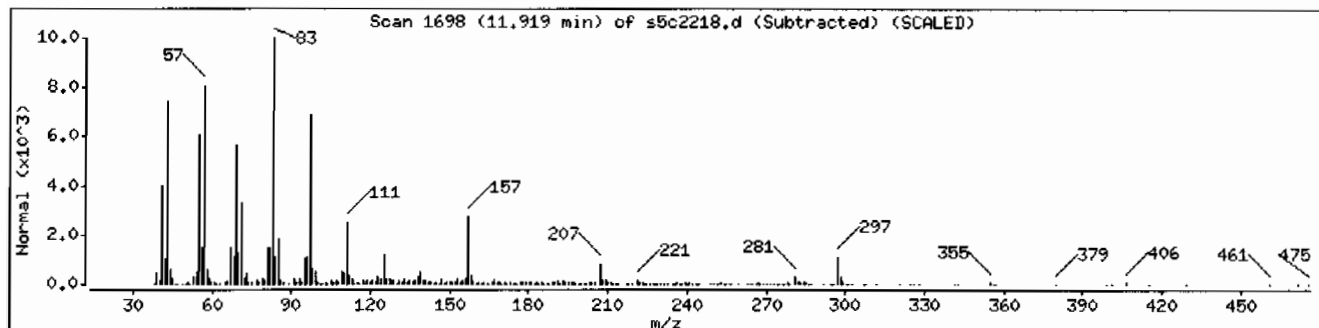
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
10-Nonadecanol	16840-84-9	NIST05.L	114939	74	C19H40O	284
1,10-Dicyanodecane	4543-66-2	NIST05.L	51228	49	C12H20N2	192
Cyclohexanecarboxylic acid, 3,5-difluoro	1000293-69-2	NIST05.L	84980	45	C13H14F2O2	240



Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: 12485060071963086111SVH111LANL

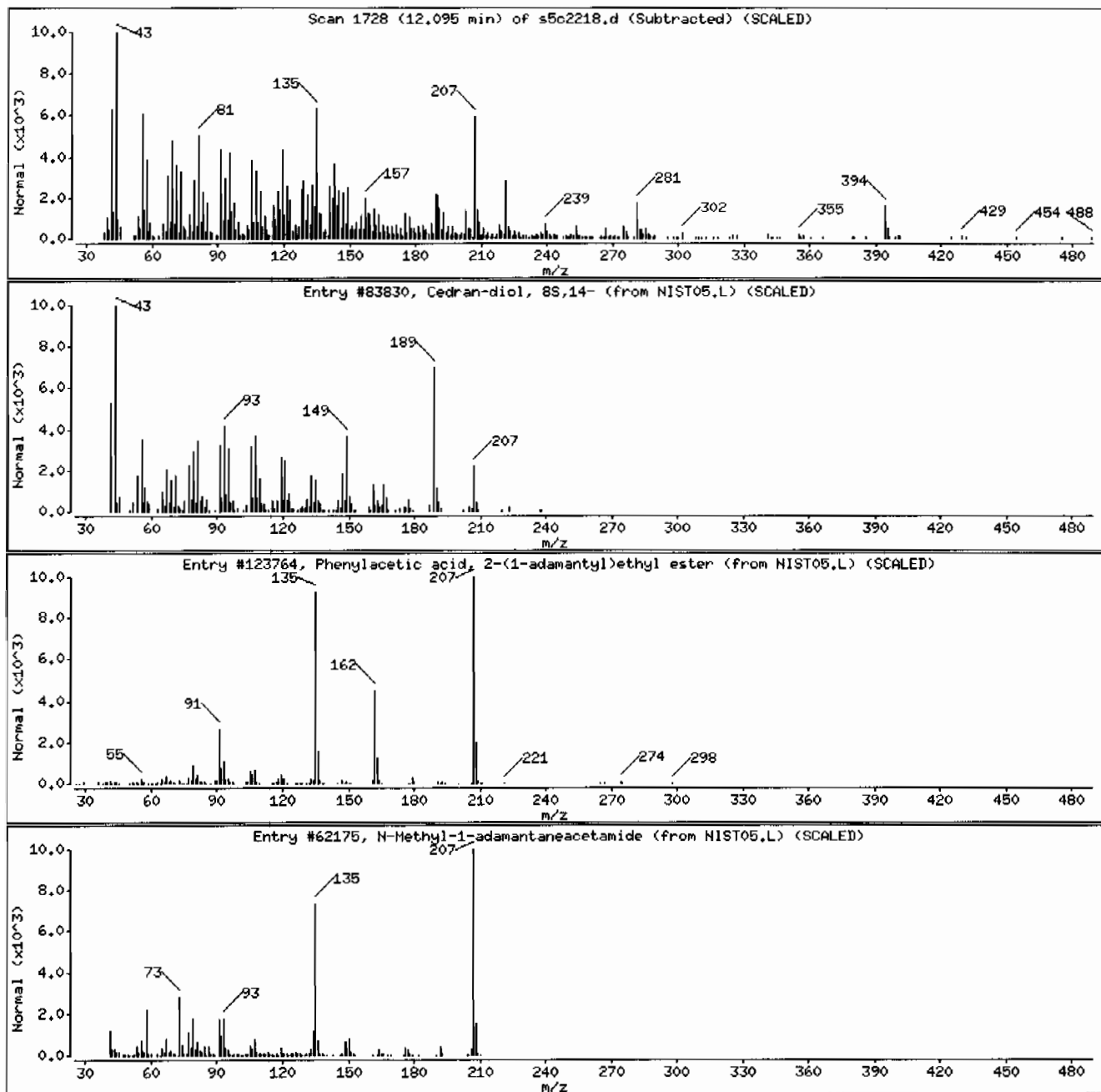
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	38	C15H26O2	238
Phenylacetic acid, 2-(1-adamantyl)ethyl	1000282-91-2	NIST05.L	123764	25	C20H26O2	298
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05.L	62175	22	C13H21NO	207



Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: 12485060071963086111SVH111LANL

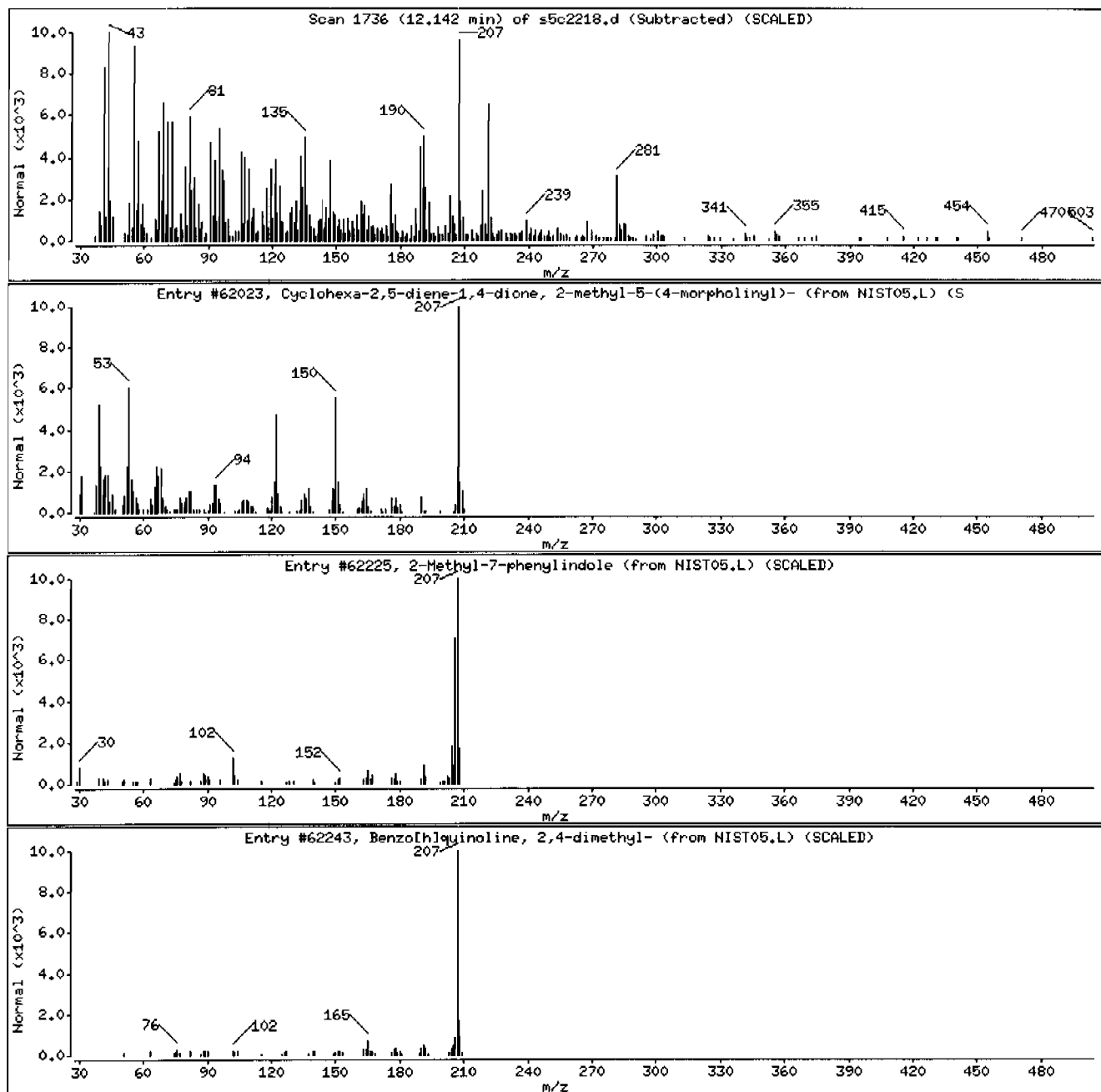
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexa-2,5-diene-1,4-dione, 2-methyl-	2158-89-6	NIST05.L	62023	25	C11H13NO3	207
2-Methyl-7-phenylindole	1140-08-5	NIST05.L	62225	25	C15H13N	207
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	15	C15H13N	207



Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5,i

Sample Info: 1248506007196308611ISVM11ILANL

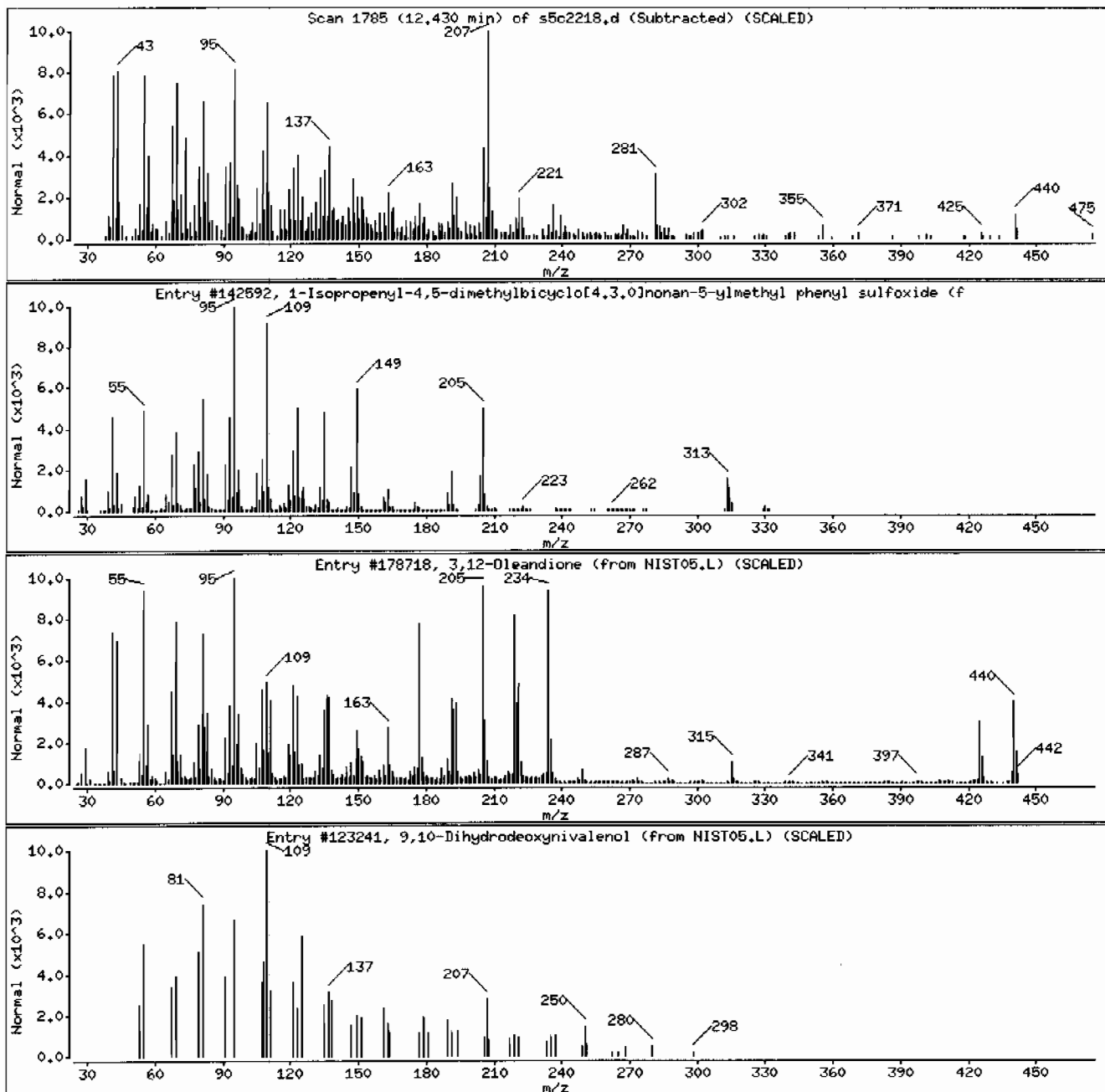
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Isopropenyl-4,5-dimethylbicyclo[4.3.0]	1000195-85-4	NIST05.L	142592	64	C21H30O5	330
3,12-Oleandione	1000195-96-9	NIST05.L	178718	43	C30H48O2	440
9,10-Dihydrodeoxynivalenol	123505-36-2	NIST05.L	123241	42	C15H22O6	298



Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: 1248506007196308611ISVH11ILANL

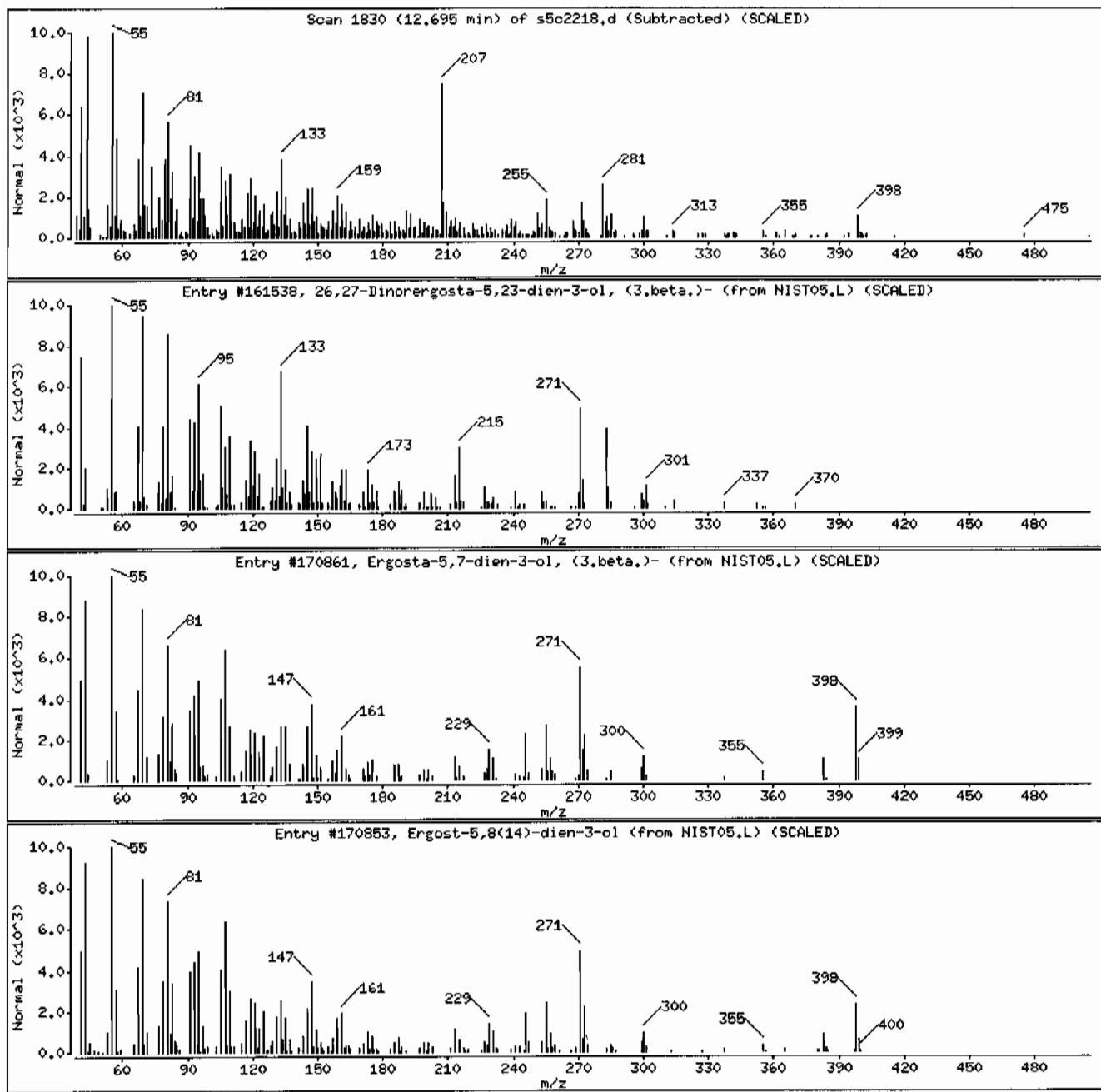
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
26,27-Dinoregosta-5,23-dien-3-ol, (3,be	35882-88-3	NIST05.L	161538	72	C26H42O	370
Ergosta-5,7-dien-3-ol, (3,beta.)-	516-79-0	NIST05.L	170861	46	C28H46O	398
Ergost-5,8(14)-dien-3-ol	177962-83-3	NIST05.L	170853	45	C28H46O	398



Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: 12485060071963086111SVH111LANL

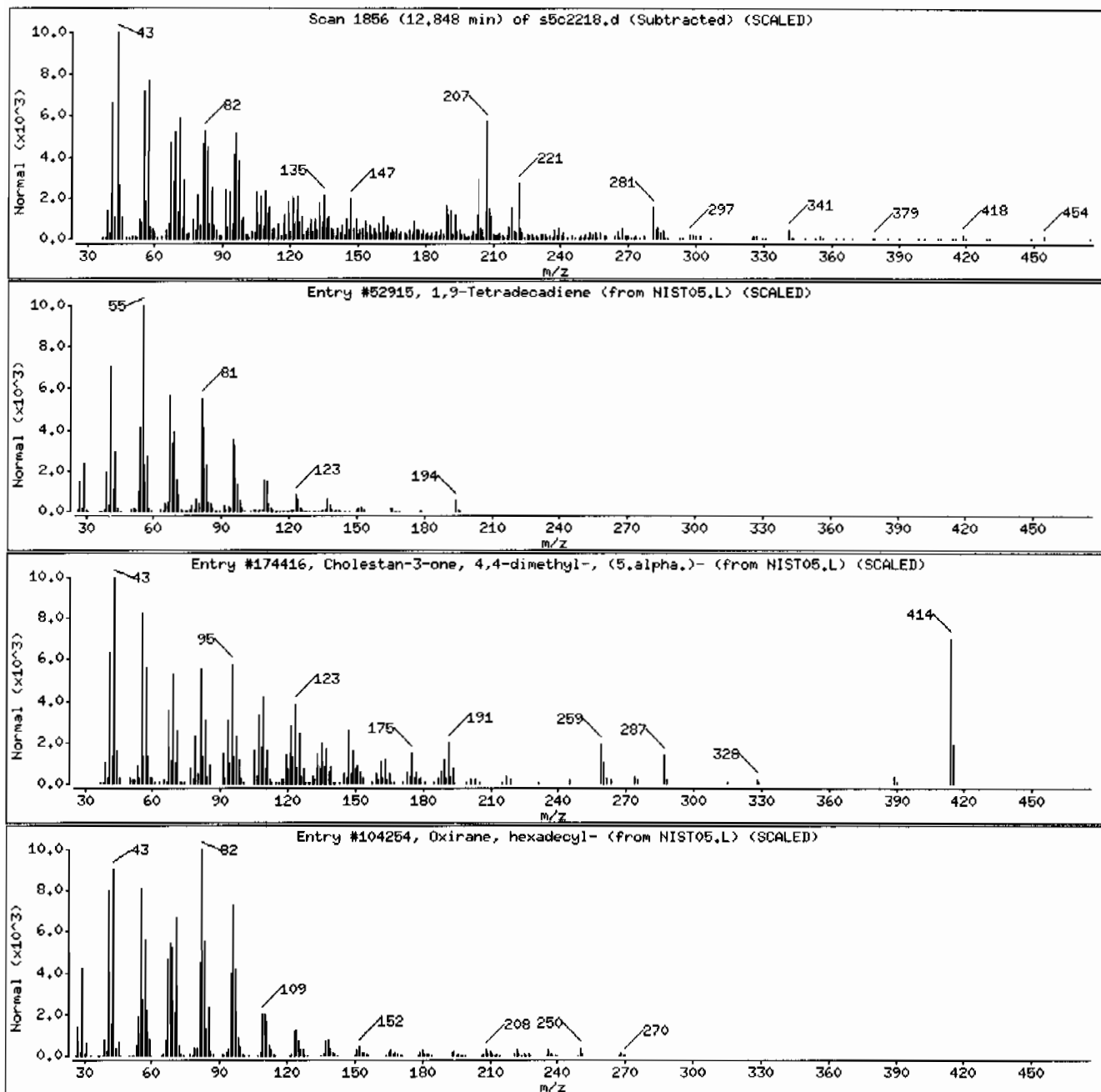
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,9-Tetradecadiene	112929-06-3	NIST05.L	52915	62	C14H26	194
Cholestan-3-one, 4,4-dimethyl-, (5.alpha.)-	2097-85-0	NIST05.L	174416	55	C29H50O	414
Oxirane, hexadecyl-	7390-81-0	NIST05.L	104254	47	C18H36O	268





Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: 1248506007196308611SVMI11LANL

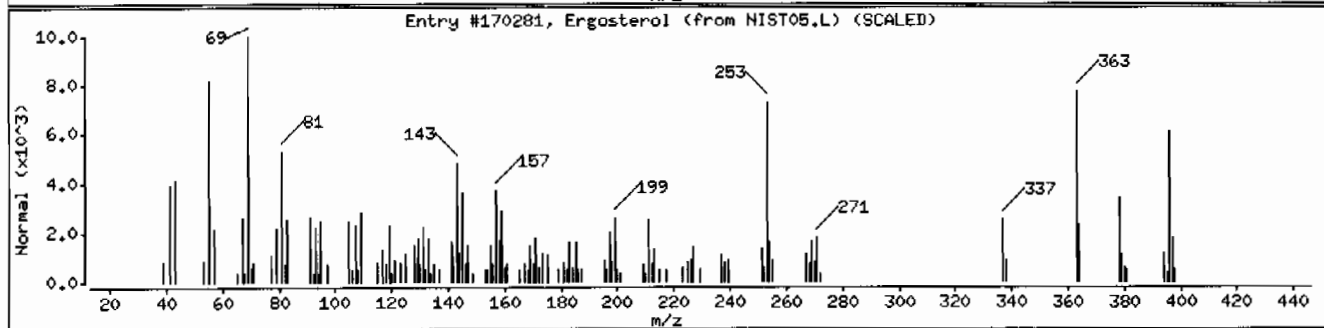
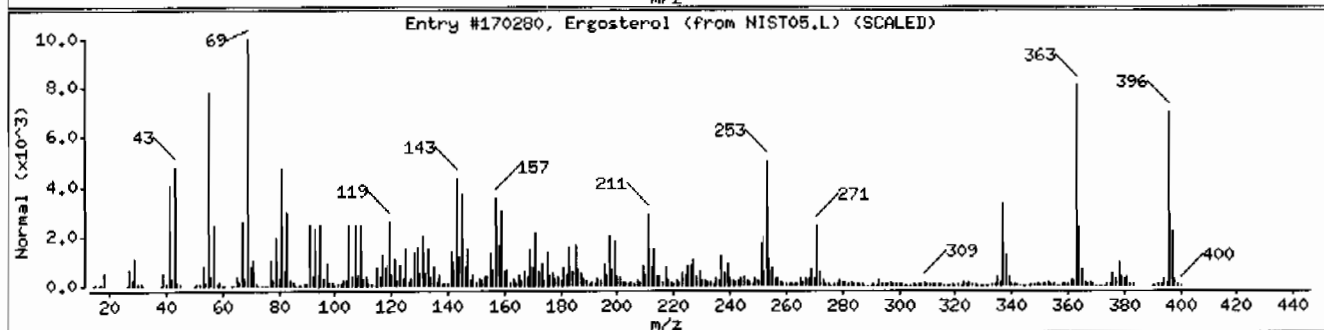
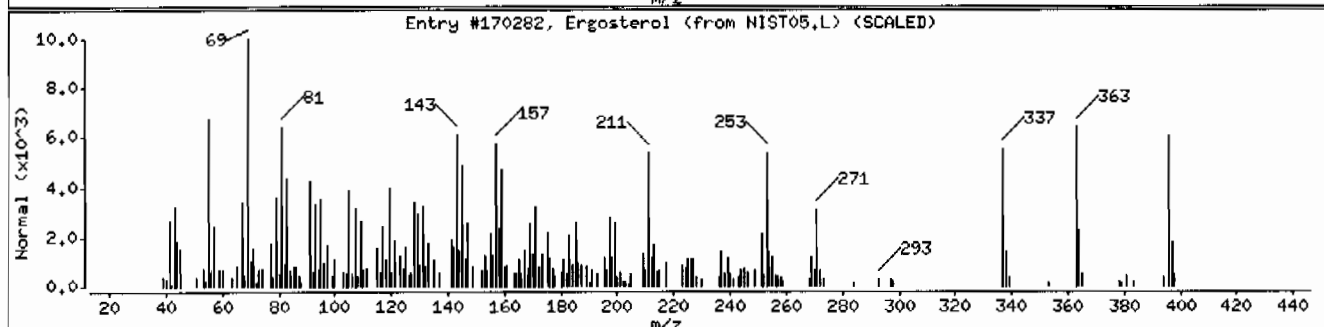
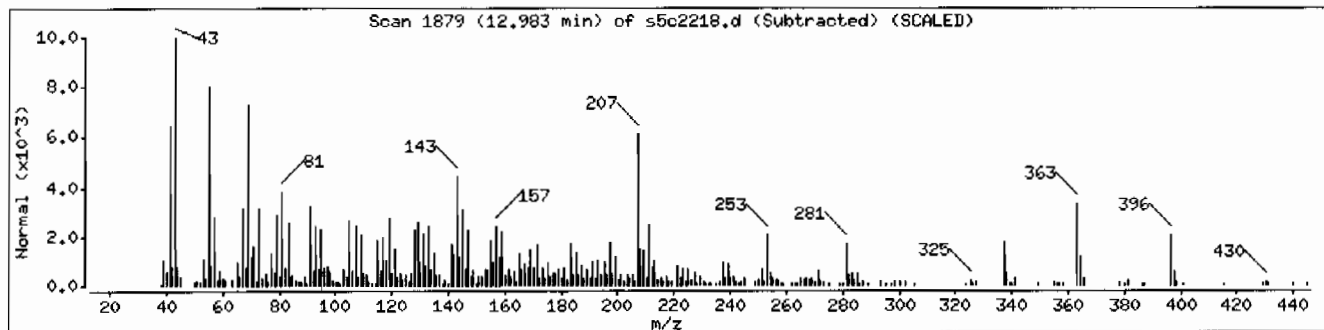
Volume Injected (uL): 0.5

Operator: RHB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ergosterol	57-87-4	NIST05.L	170282	93	C <sub>28</sub> H <sub>44</sub> O	396
Ergosterol	57-87-4	NIST05.L	170280	58	C <sub>28</sub> H <sub>44</sub> O	396
Ergosterol	57-87-4	NIST05.L	170281	53	C <sub>28</sub> H <sub>44</sub> O	396



Date: 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.1

Sample Info: 1248506007196308611SVH111LANL

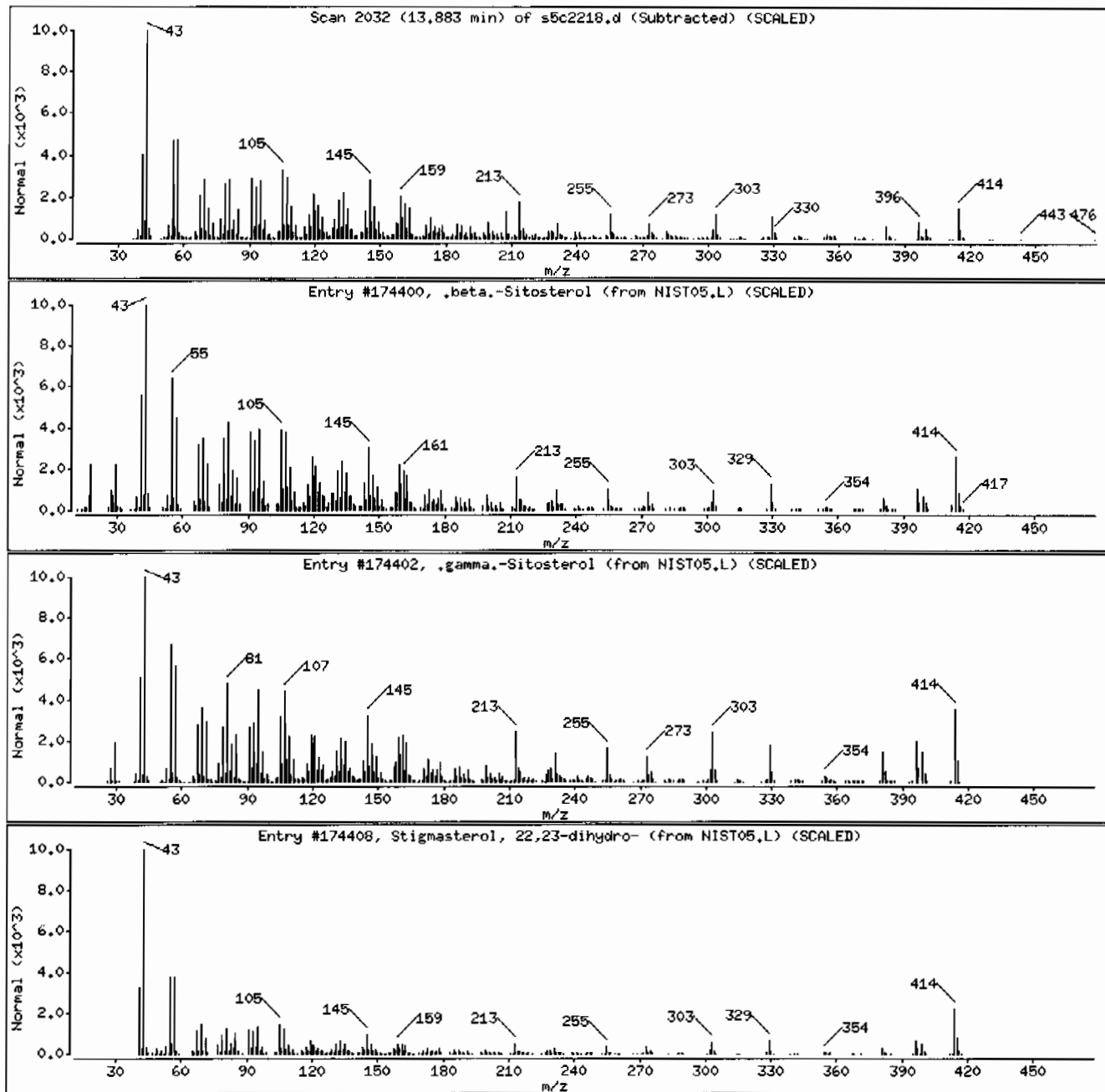
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174400	96	C29H50O	414
.gamma.-Sitosterol	83-47-6	NIST05.L	174402	94	C29H50O	414
Stigmasterol, 22,23-dihydro-	1000214-20-7	NIST05.L	174408	94	C29H50O	414



Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: I248506007196308611ISVM11ILANL

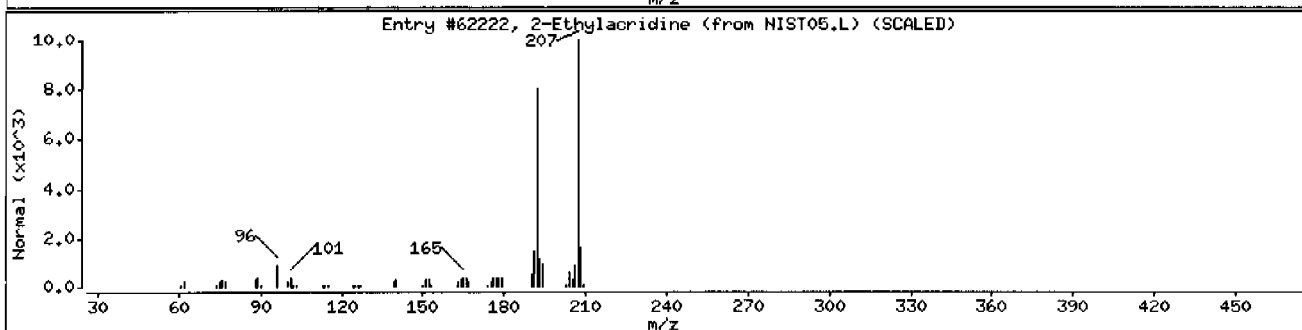
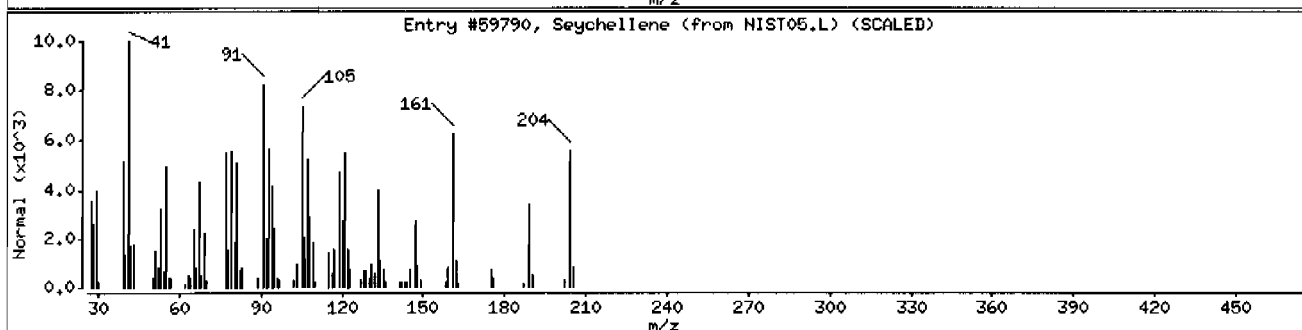
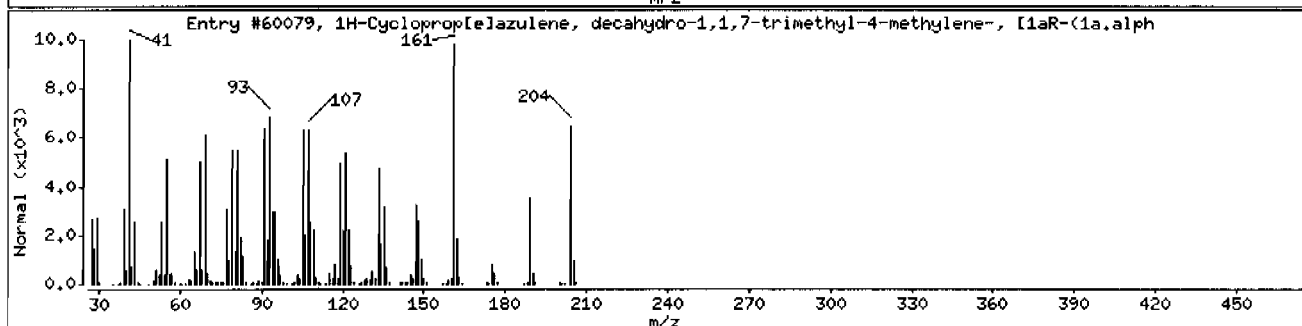
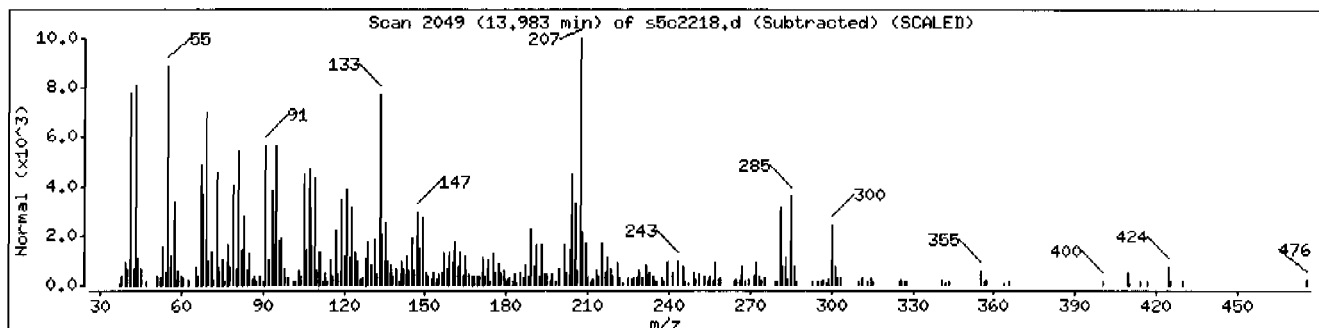
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Cycloprop[elazulene, decahydro-1,1,7-	489-39-4	NIST05.L	60079	62	C15H24	204
Seychellene	20085-93-2	NIST05.L	59790	25	C15H24	204
2-Ethylacridine	55751-83-2	NIST05.L	62222	25	C15H13N	207



Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: 1248506007196308611SVMI11LANL

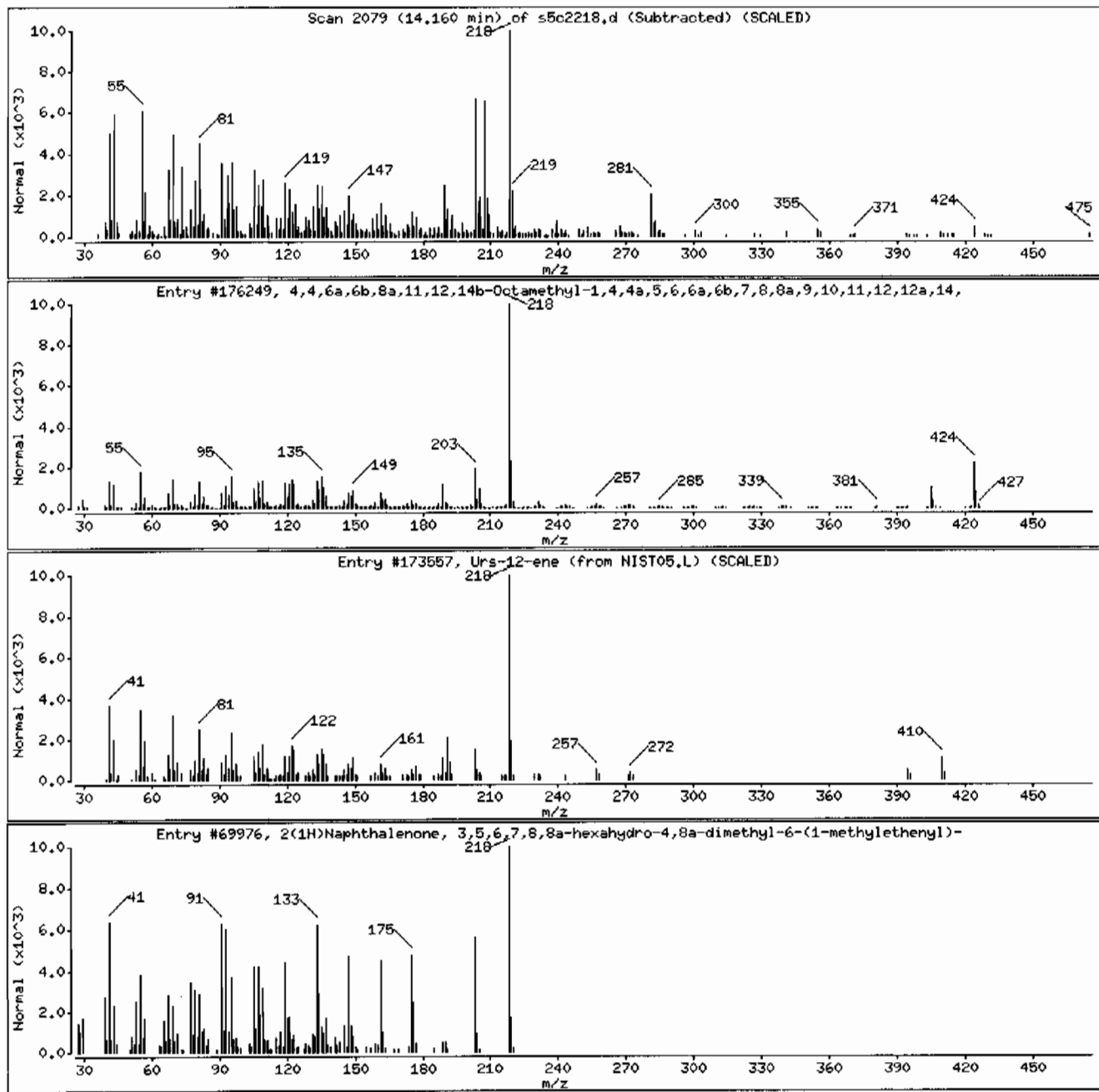
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
4,4,6a,6b,8a,11,12,14b-Octamethyl-1,4,4a	1000194-64-2	NIST05.L	176249	70	C30H48O	424
Urs-12-ene	464-97-1	NIST05.L	173557	64	C30H50	410
2(1H)Naphthalenone, 3,5,6,7,8,8a-hexahyd	1000188-66-5	NIST05.L	69976	49	C15H22O	218



Date : 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: 1248506007196308611SVH11ILANL

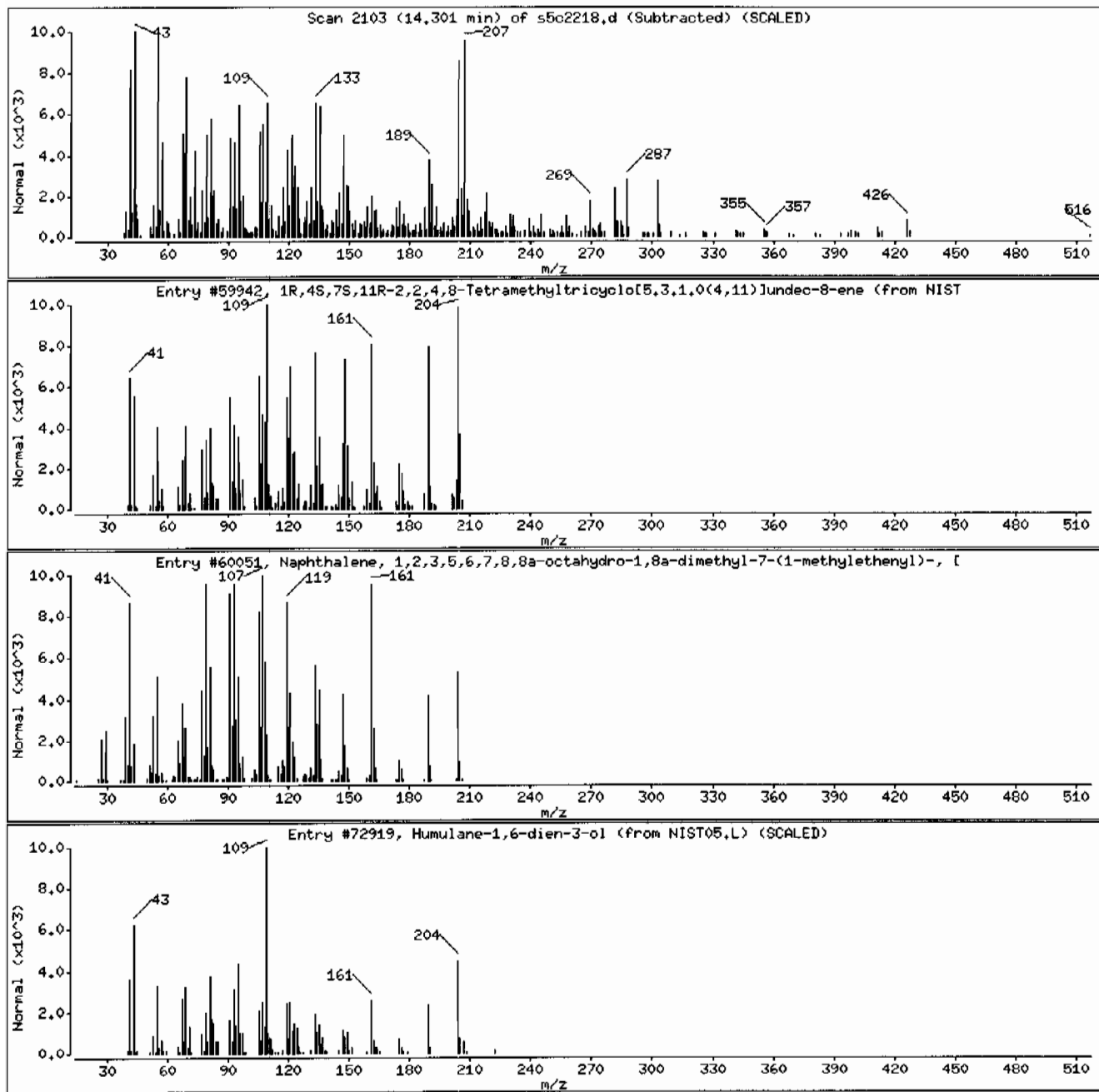
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1R,4S,7S,11R-2,2,4,8-Tetramethyltricyclo	1000140-07-6	NIST05.L	59942	49	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	10219-75-7	NIST05.L	60051	43	C15H24	204
Humulane-1,6-dien-3-ol	1000140-23-1	NIST05.L	72919	42	C15H26O	222



Date: 22-MAR-2010 14:58

Client ID: RE36-10-7450

Instrument: MSD5.i

Sample Info: I248506007196308611ISVM11ILANL

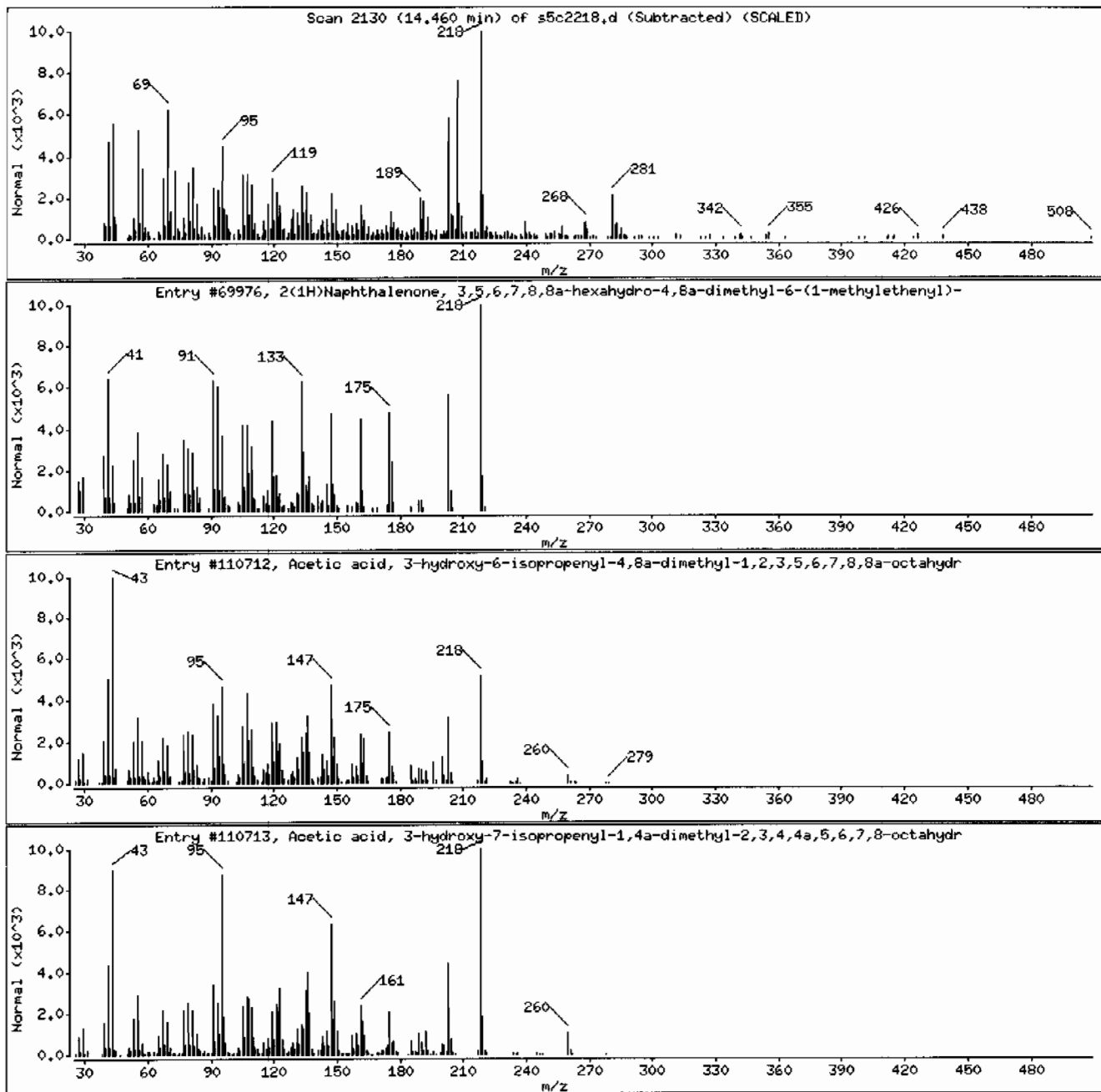
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2(1H)Naphthalenone, 3,5,6,7,8,8a-hexahyd	1000188-66-5	NIST05.L	69976	64	C15H22O	218
Acetic acid, 3-hydroxy-6-isopropenyl-4,8	1000185-44-8	NIST05.L	110712	45	C17H26O3	278
Acetic acid, 3-hydroxy-7-isopropenyl-1,4	1000187-37-6	NIST05.L	110713	43	C17H26O3	278



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193  
Lab Sample ID: 248506004

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.1  
Analyst: RMB  
Aliquot: 30.09 g  
Column: J&W DB-5MS

Matrix: R  
%Moisture: 39.4  
Project: LANL01004  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

Client ID: RE36-10-7451  
Batch ID: 963086  
Run Date: 03/22/2010 13:49  
Prep Date: 03/10/2010 12:33  
Data File: s5c2215.d

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	548	ug/kg	110	548
108-95-2	Phenol	U	548	ug/kg	110	548
95-57-8	2-Chlorophenol	U	548	ug/kg	110	548
106-46-7	1,4-Dichlorobenzene	U	548	ug/kg	110	548
621-64-7	N-Nitrosodipropylamine	U	548	ug/kg	110	548
59-50-7	4-Chloro-3-methylphenol	U	548	ug/kg	110	548
83-32-9	Acenaphthene	U	54.8	ug/kg	18.1	54.8
121-14-2	2,4-Dinitrotoluene	U	548	ug/kg	54.8	548
100-02-7	4-Nitrophenol	U	548	ug/kg	181	548
87-86-5	Pentachlorophenol	U	548	ug/kg	137	548
129-00-0	Pyrene	U	54.8	ug/kg	16.5	54.8
110-86-1	Pyridine	U	548	ug/kg	110	548
62-53-3	Aniline	U	548	ug/kg	165	548
111-44-4	bis(2-Chloroethyl) ether	U	548	ug/kg	110	548
541-73-1	1,3-Dichlorobenzene	U	548	ug/kg	110	548
100-51-6	Benzyl alcohol	U	548	ug/kg	165	548
95-50-1	1,2-Dichlorobenzene	U	548	ug/kg	110	548
108-60-1	bis(2-Chloroisopropyl)ether	U	548	ug/kg	110	548
95-48-7	o-Cresol	U	548	ug/kg	110	548
65794-96-9	m,p-Cresols	U	548	ug/kg	165	548
67-72-1	Hexachloroethane	U	548	ug/kg	110	548
98-95-3	Nitrobenzene	U	548	ug/kg	110	548
78-59-1	Isophorone	U	548	ug/kg	110	548
88-75-5	2-Nitrophenol	U	548	ug/kg	110	548
105-67-9	2,4-Dimethylphenol	U	548	ug/kg	192	548
111-91-1	bis(2-Chloroethoxy)methane	U	548	ug/kg	110	548
120-83-2	2,4-Dichlorophenol	U	548	ug/kg	110	548
65-85-0	Benzoic acid	U	1100	ug/kg	274	1100
91-20-3	Naphthalene	U	54.8	ug/kg	16.5	54.8
106-47-8	4-Chloroaniline	U	548	ug/kg	110	548
87-68-3	Hexachlorobutadiene	U	548	ug/kg	110	548
91-57-6	2-Methylnaphthalene	U	54.8	ug/kg	11.0	54.8
77-47-4	Hexachlorocyclopentadiene	U	548	ug/kg	110	548
88-06-2	2,4,6-Trichlorophenol	U	548	ug/kg	110	548
95-95-4	2,4,5-Trichlorophenol	U	548	ug/kg	110	548
91-58-7	2-Chloronaphthalene	U	54.8	ug/kg	18.1	54.8
88-74-4	2-Nitroaniline	U	548	ug/kg	110	548
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline	U	548	ug/kg	110	548

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506004	<b>Date Received:</b> 03/03/2010 08:50	<b>% Moisture:</b> 39.4
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7451	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 13:49	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.09 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2215.d	<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	548	ug/kg	110	548
606-20-2	2,6-Dinitrotoluene	U	548	ug/kg	54.8	548
208-96-8	Acenaphthylene	U	54.8	ug/kg	16.5	54.8
51-28-5	2,4-Dinitrophenol	U	1100	ug/kg	208	1100
132-64-9	Dibenzofuran	U	548	ug/kg	110	548
84-66-2	Diethylphthalate	U	548	ug/kg	110	548
86-73-7	Fluorene	U	54.8	ug/kg	16.5	54.8
7005-72-3	4-Chlorophenylphenylether	U	548	ug/kg	110	548
534-52-1	2-Methyl-4,6-dinitrophenol	U	548	ug/kg	110	548
100-01-6	4-Nitroaniline	U	548	ug/kg	165	548
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine	U	548	ug/kg	110	548
122-66-7	Azobenzene	U	548	ug/kg	110	548
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	548	ug/kg	110	548
118-74-1	Hexachlorobenzene	U	548	ug/kg	110	548
85-01-8	Phenanthrene	U	54.8	ug/kg	16.5	54.8
120-12-7	Anthracene	U	54.8	ug/kg	11.0	54.8
84-74-2	Di-n-butylphthalate	U	548	ug/kg	110	548
206-44-0	Fluoranthene	U	54.8	ug/kg	16.5	54.8
85-68-7	Butylbenzylphthalate	U	548	ug/kg	110	548
56-55-3	Benzo(a)anthracene	U	54.8	ug/kg	16.5	54.8
91-94-1	3,3'-Dichlorobenzidine	U	548	ug/kg	165	548
218-01-9	Chrysene	U	54.8	ug/kg	16.5	54.8
117-81-7	bis(2-Ethylhexyl)phthalate	U	548	ug/kg	110	548
117-84-0	Di-n-octylphthalate	U	548	ug/kg	110	548
205-99-2	Benzo(b)fluoranthene	U	54.8	ug/kg	16.5	54.8
207-08-9	Benzo(k)fluoranthene	U	54.8	ug/kg	16.5	54.8
50-32-8	Benzo(a)pyrene	U	54.8	ug/kg	16.5	54.8
193-39-5	Indeno(1,2,3-cd)pyrene	U	54.8	ug/kg	16.5	54.8
53-70-3	Dibenzo(a,h)anthracene	U	54.8	ug/kg	16.5	54.8
191-24-2	Benzo(ghi)perylene	U	54.8	ug/kg	16.5	54.8
120-82-1	1,2,4-Trichlorobenzene	U	548	ug/kg	110	548

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.8	355	ug/kg	99	NJ
	Unknown	9.01	234	ug/kg		J



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506004	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 39.4
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7451	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 13:49	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.09 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2215.d	<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						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
301-02-0	9-Octadecenamide, (Z)-	9.05	257	ug/kg	89	NJ
	Unknown	9.14	508	ug/kg		J
	Unknown	9.25	224	ug/kg		J
1000309-70-5	Oxalic acid, cyclobutyl pentadecyl ester	9.44	418	ug/kg	90	NJ
629-78-7	Heptadecane	9.75	245	ug/kg	97	NJ
	Unknown	10.08	440	ug/kg		J
559-74-0	Friedelan-3-one	10.11	535	ug/kg	95	NJ
	Unknown	10.14	1460	ug/kg		J
	Unknown	10.24	273	ug/kg		J
	Unknown	10.44	411	ug/kg		J
	Unknown	10.54	322	ug/kg		J
112-95-8	Eicosane	10.85	475	ug/kg	98	NJ
629-96-9	1-Eicosanol	10.89	266	ug/kg	87	NJ
	Unknown	11.85	365	ug/kg		J
	Unknown	11.91	941	ug/kg		J
	Unknown	12.09	715	ug/kg		J
	Unknown	12.21	331	ug/kg		J
	Unknown	12.41	482	ug/kg		J
	Unknown	12.47	252	ug/kg		J
	Unknown	12.68	361	ug/kg		J
	Unknown	12.85	440	ug/kg		J
	Unknown	12.97	405	ug/kg		J
	Unknown	13.2	293	ug/kg		J
83-46-5	.beta.-Sitosterol	13.86	1260	ug/kg	99	NJ

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2215.d  
Lab Smp Id: 248506004 Client Smp ID: RE36-10-7451  
Inj Date : 22-MAR-2010 13:49  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506004|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 15  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	39.40730	% 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	3.943	3.950	(1.000)	269906	40.0000	
* 29 Naphthalene-d8		136	4.813	4.821	(1.000)	1037921	40.0000	
* 46 Acenaphthene-d10		164	6.072	6.078	(1.000)	638925	40.0000	
* 67 Phenanthrene-d10		188	7.248	7.253	(1.000)	1123080	40.0000	
* 91 Chrysene-d12		240	9.666	9.670	(1.000)	1061489	40.0000	
* 98 Perylene-d12		264	11.372	11.370	(1.000)	921841	40.0000	
\$ 3 2-Fluorophenol		112	3.143	3.141	(0.797)	336549	49.9353	2740
\$ 5 Phenol-d5		99	3.660	3.666	(0.928)	446728	55.1483	3020
\$ 20 Nitrobenzene-d5		82	4.307	4.316	(0.895)	224743	29.1403	1600
\$ 39 2-Fluorobiphenyl		172	5.554	5.558	(0.915)	330811	20.7298	1140
\$ 60 2,4,6-Tribromophenol		329	6.672	6.675	(1.099)	122284	50.9563	2790
\$ 81 p-Terphenyl-d14		244	8.631	8.630	(0.893)	444533	25.1760	1380

## ION RATIO REPORT

## SV REPORT

Data file: s5c2215.d

Report Date: 03/22/2010 14:03

Lab. ID: 248506004

SampleType: SAMPLE

Injection Date: 22-MAR-2010 13:49

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506004|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4	Aniline	CAS#: 62-53-3				
66	28905	3.66	3.74	80-120	100	(T)
93	13330	3.63	3.74	219-279	46	(QT)
-----						
7	bis(2-Chloroethyl) ether	CAS#: 111-44-4				
63	12238	3.94	3.75	80-120	100	(T)
93	2473	3.94	3.75	119-179	20	(QT)
95	343	3.95	3.75	8- 68	3	(QT)
-----						
17	N-Nitrosodipropylamine	CAS#: 621-64-7				
70	34731	4.31	4.19	80-120	100	(T)
42	19211	4.31	4.19	44-104	55	(T)
-----						
27	Benzoic acid	CAS#: 65-85-0				
105	2798	4.58	4.59	80-120	100	( )
122	2236	4.55	4.59	45-105	80	( )
77	3994	4.58	4.59	48-108	143	(Q)
-----						
43	Dimethylphthalate	CAS#: 131-11-3				
163	114431	6.07	5.84	80-120	100	(T)
164	638925	6.07	5.84	0- 40	558	(QT)
-----						
44	2,6-Dinitrotoluene	CAS#: 606-20-2				
165	82938	6.07	5.90	80-120	100	(T)
63	1797	6.07	5.89	62-122	2	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
50	2,4-Dinitrotoluene			CAS#: 121-14-2		
165	82938	6.07	6.19	80-120	100	(T)
89	3915	6.07	6.19	51-111	5	(QT)
63	1797	6.07	6.19	24- 84	2	(QT)
-----						
52	4-Nitrophenol			CAS#: 100-02-7		
139	470	6.14	6.12	80-120	100	( )
109	933	6.15	6.12	63-123	199	(Q)
65	807	6.13	6.11	71-131	172	(Q)
-----						
53	Fluorene			CAS#: 86-73-7		
166	5479	6.67	6.49	80-120	100	(T)
165	6050	6.67	6.49	62-122	110	(T)
167	2299	6.67	6.49	0- 44	42	(T)
-----						
55	2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1		
198	648	6.67	6.51	80-120	100	(T)
105	2390	6.67	6.50	13- 73	369	(QT)
51	1005	6.67	6.50	51-111	155	(QT)
-----						
Q qualifier indicates ion failed ratio requirement						

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2215.d  
Lab Smp Id: 248506004 Client Smp ID: RE36-10-7451  
Inj Date : 22-MAR-2010 13:49  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506004|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 15  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \*Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.09000	weight of sample
M	39.40730	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 46 Acenaphthene-d10	6.072	2792279	40.000
* 91 Chrysene-d12	9.666	3293183	40.000
* 98 Perylene-d12	11.372	2677063	40.000

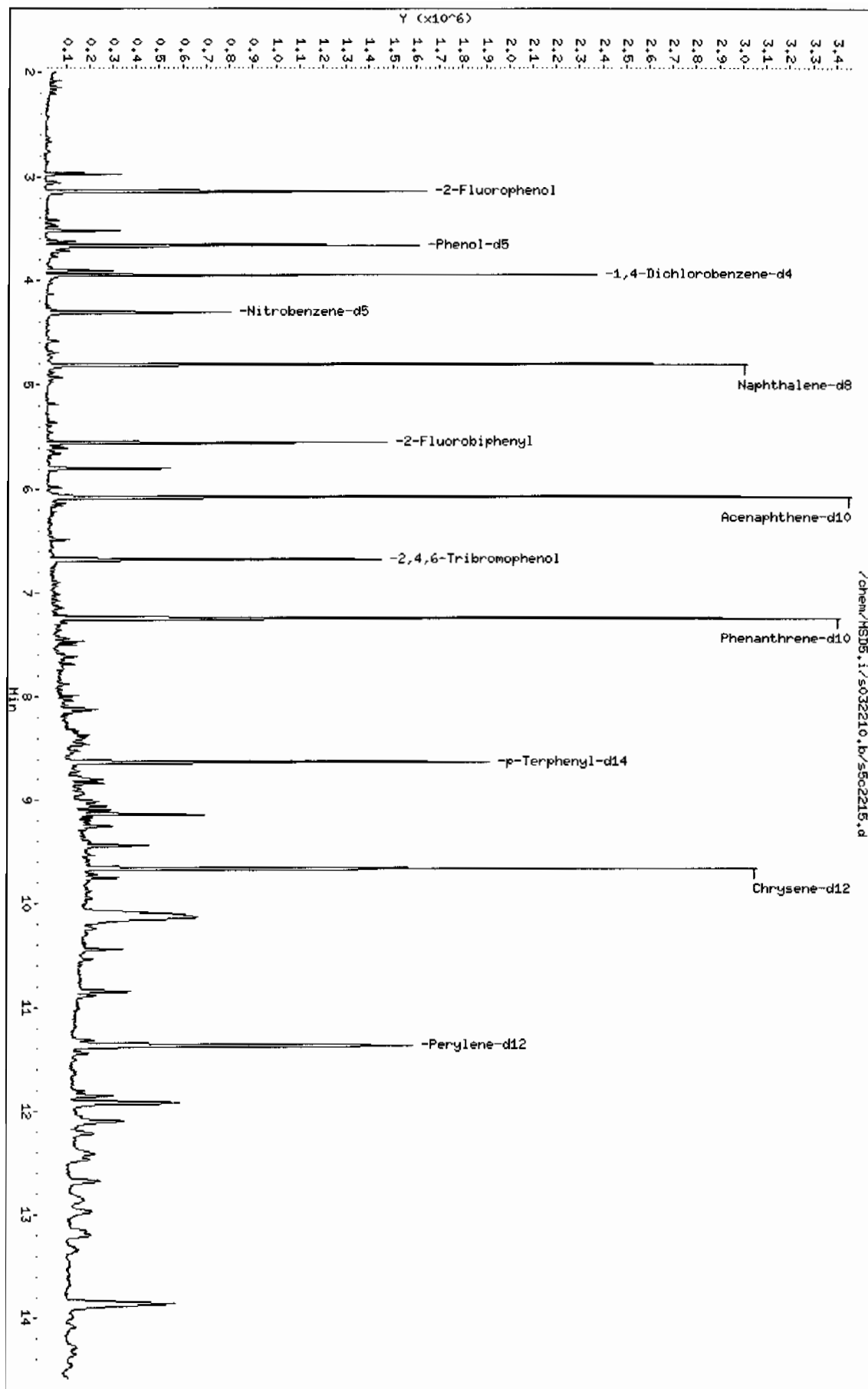
CONCENTRATIONS				QUANT			
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
----	----	-----	-----	----	-----	-----	-----

CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====
1,4-Methanoazulene, decahydro-4,8,8-trim				CAS #:	475-20-7		
5.795	451605	6.46933735	355	99	NIST05.L	60023	46
Unknown				CAS #:			
9.013	350859	4.26164323	234	0		0	91
9-Octadecenamide, (Z)-				CAS #:	301-02-0		
9.054	386285	4.69193039	257	89	NIST05.L	112655	91
Unknown				CAS #:			
9.136	763062	9.26837737	508	0		0	91
Unknown				CAS #:			
9.248	336039	4.08162712	224	0		0	91
Oxalic acid, cyclobutyl pentadecyl ester				CAS #:	1000309-70-5		
9.442	626769	7.61292170	418	90	NIST05.L	154537	91
Heptadecane				CAS #:	629-78-7		
9.748	367260	4.46085639	245	97	NIST05.L	85523	91
Unknown				CAS #:			
10.083	661182	8.03092040	440	0		0	91
Friedelan-3-one				CAS #:	559-74-0		
10.107	802681	9.74960308	535	95	NIST05.L	176566	91
Unknown				CAS #:			
10.136	2193041	26.6373389	1460	0		0	91
Unknown				CAS #:			
10.242	410207	4.98249637	273	0		0	91
Unknown				CAS #:			
10.442	617476	7.50004779	411	0		0	91
Unknown				CAS #:			
10.542	392458	5.86400644	322	0		0	98
Eicosane				CAS #:	112-95-8		
10.848	579410	8.65739990	475	98	NIST05.L	113488	98
1-Eicosanol				CAS #:	629-96-9		
10.889	324782	4.85280385	266	87	NIST05.L	123792	98

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
====	=====	=====	=====	=====	=====	=====	=====
Unknown					CAS #:		
11.848	445021	6.64938458	365	0		0	98
Unknown					CAS #:		
11.913	1148120	17.1549096	941	0		0	98
Unknown					CAS #:		
12.089	872745	13.0403266	715	0		0	98
Unknown					CAS #:		
12.213	403926	6.03536028	331	0		0	98
Unknown					CAS #:		
12.407	587781	8.78247554	482	0		0	98
Unknown					CAS #:		
12.466	307313	4.59179128	252	0		0	98
Unknown					CAS #:		
12.677	440293	6.57874564	361	0		0	98
Unknown					CAS #:		
12.854	536466	8.01573965	440	0		0	98
Unknown					CAS #:		
12.972	494365	7.38667416	405	0		0	98
Unknown					CAS #:		
13.201	357535	5.34219210	293	0		0	98
.beta.-Sitosterol					CAS #: 83-46-5		
13.860	1536906	22.9640536	1260	99	NIST05.L	174400	98

Data File: /chem/MSD5.i/s032210.b/s0c2215.d  
Date: 22-MAR-2010 13:49  
Client ID: RE36-10-7451  
Sample Info: 1243606004/96308611/SWH11/LANL  
Volume Injected (uL): 0.5  
Column phase: 3uM DB-5MS

Instrument: MSD5.i  
Operator: RMB  
Column diameter: 0.20





Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.i

Sample Info: I248506004I9630861IISVM11ILANL

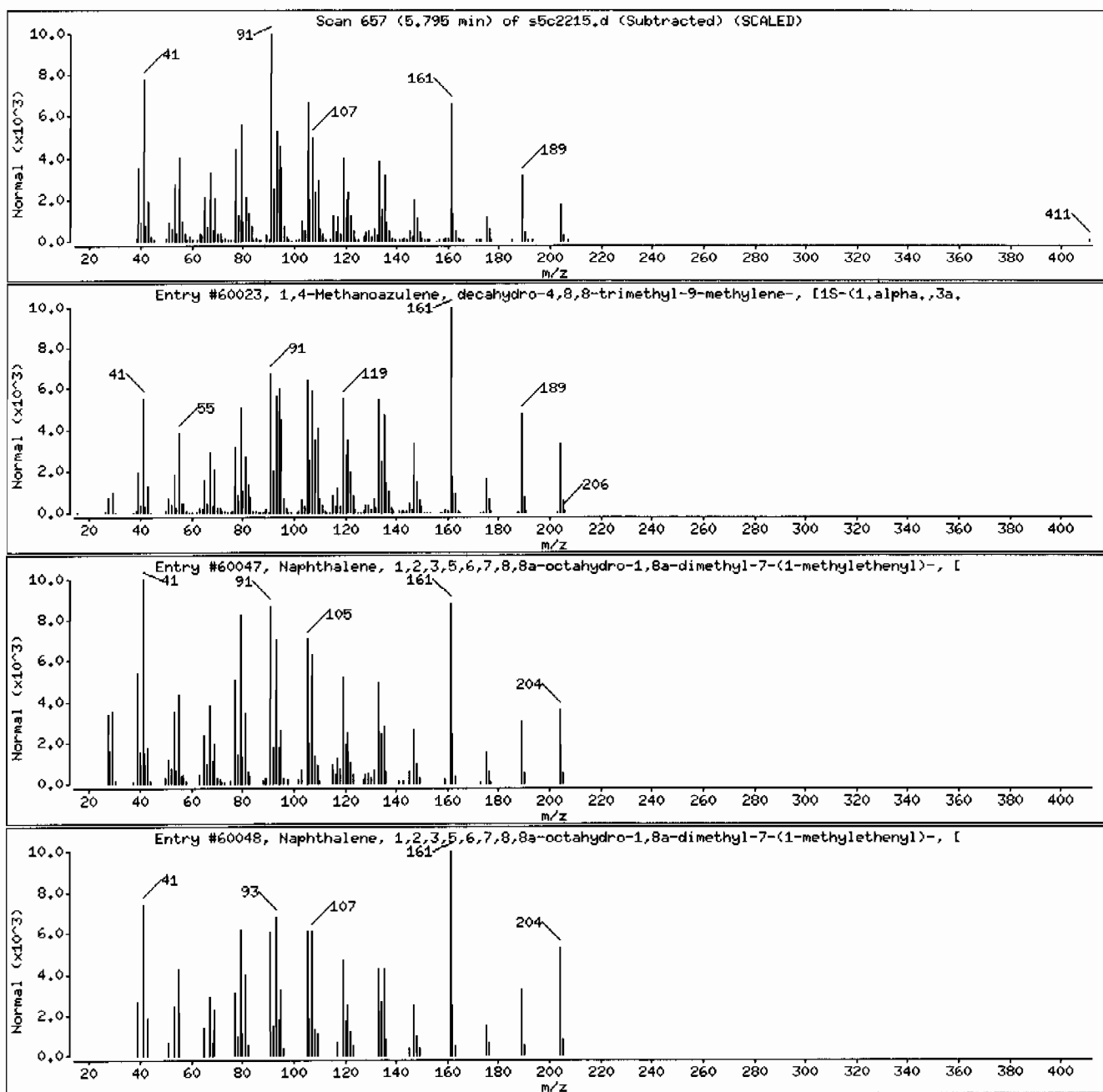
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60023	99	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60047	97	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60048	95	C15H24	204



Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.i

Sample Info: I248506004196308611ISVM11ILANL

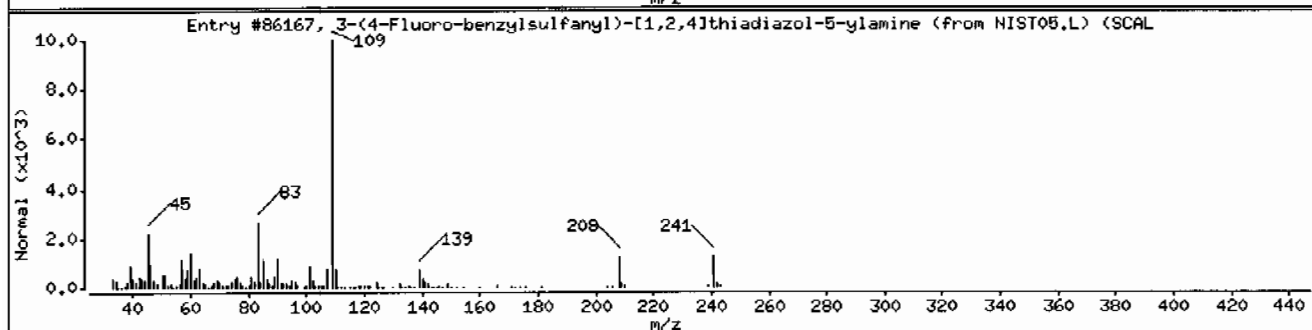
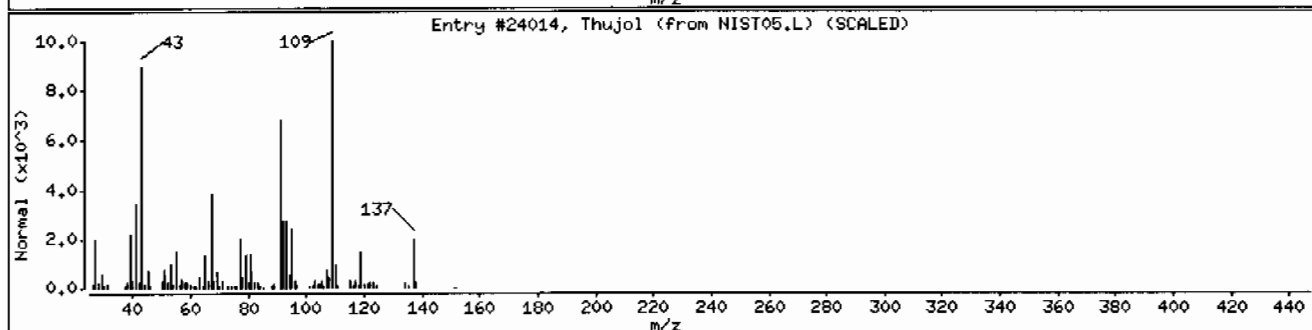
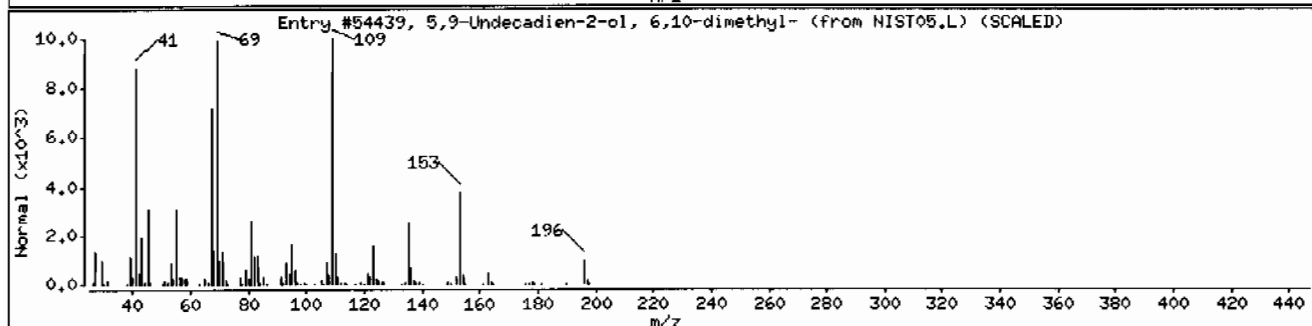
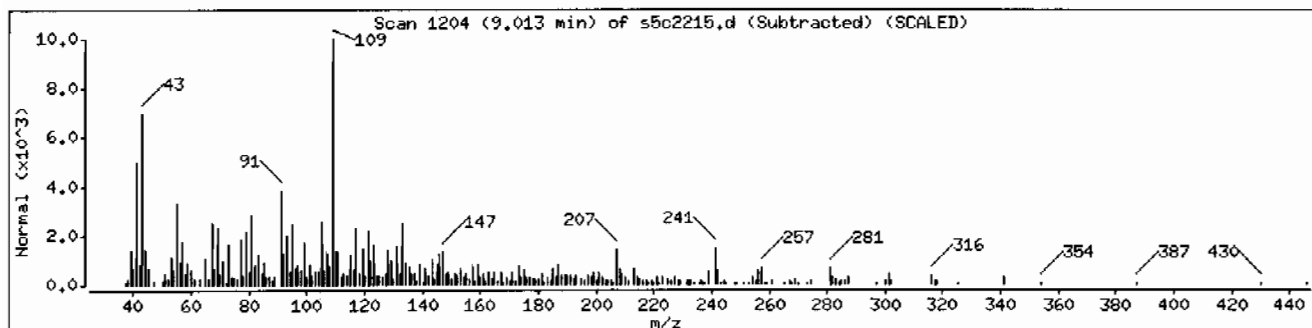
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
5,9-Undecadien-2-ol, 6,10-dimethyl-	53837-34-6	NIST05.L	54439	43	C13H24O	196
Thujol	1000152-08-2	NIST05.L	24014	43	C10H16O	152
3-(4-Fluoro-benzylsulfanyl)-[1,2,4]thiad	1000274-24-3	NIST05.L	86167	43	C9H8FN3S2	241



Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.i

Sample Info: 12485060041963086111SVH111LANL

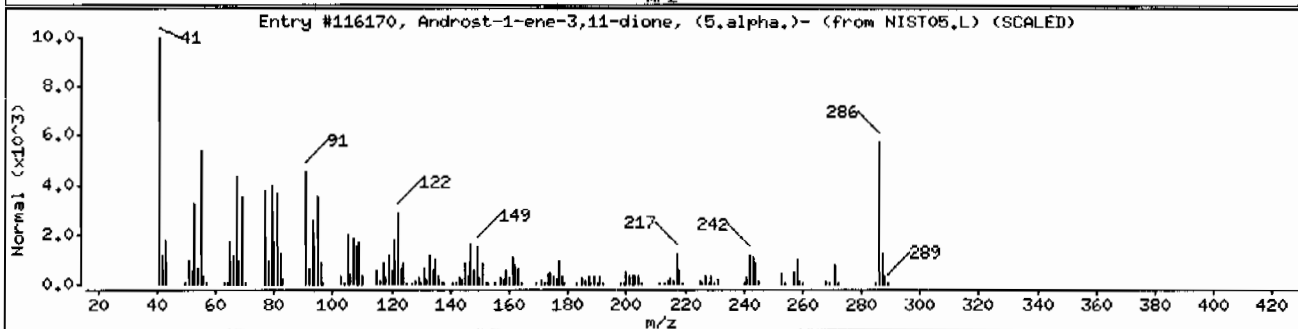
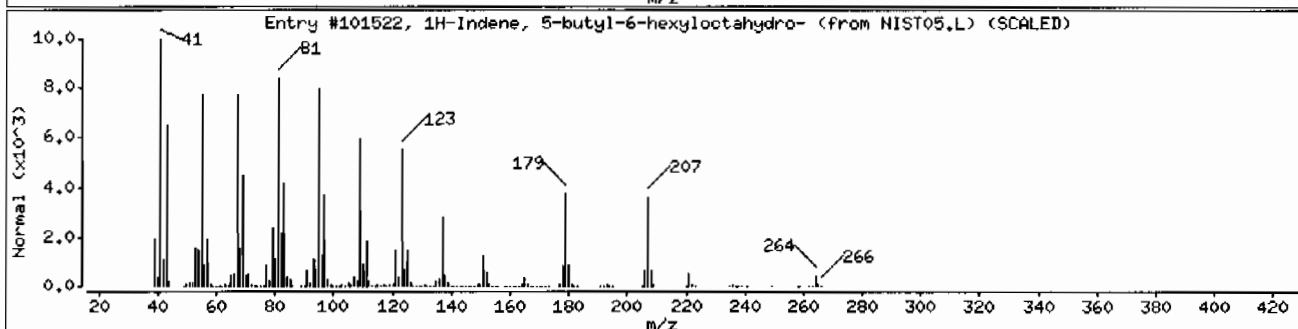
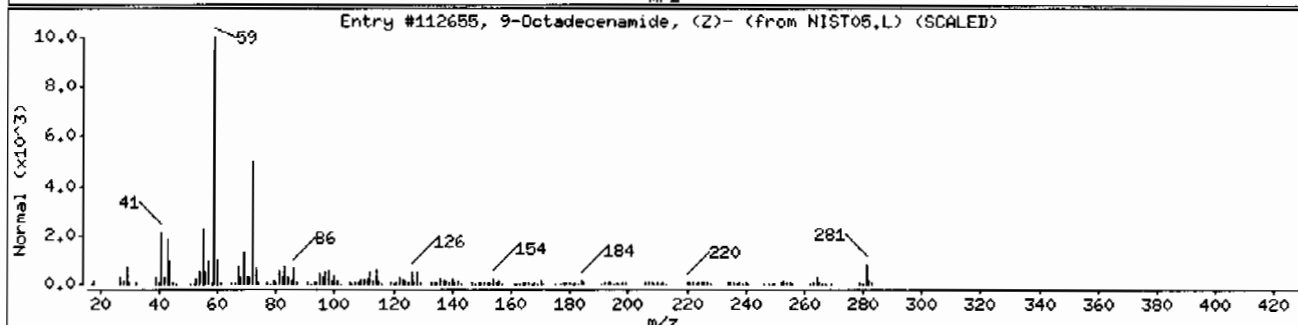
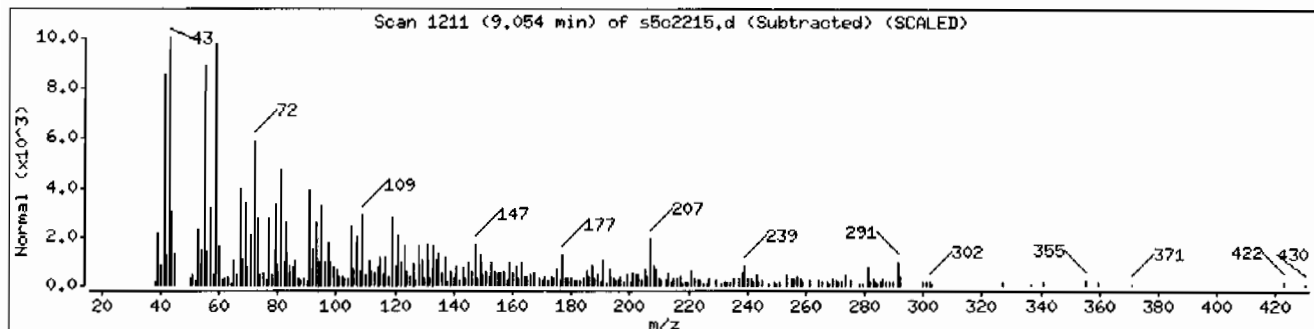
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenamide, (Z)-	301-02-0	NIST05.L	112655	89	C18H35NO	281
1H-Indene, 5-butyl-6-hexyloctahydro-	55044-36-5	NIST05.L	101522	47	C19H36	264
Androst-1-ene-3,11-dione, (5.alpha.)-	54498-86-1	NIST05.L	116170	45	C19H26O2	286



Date: 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.i

Sample Info: I248506004196308611SVH11ILANL

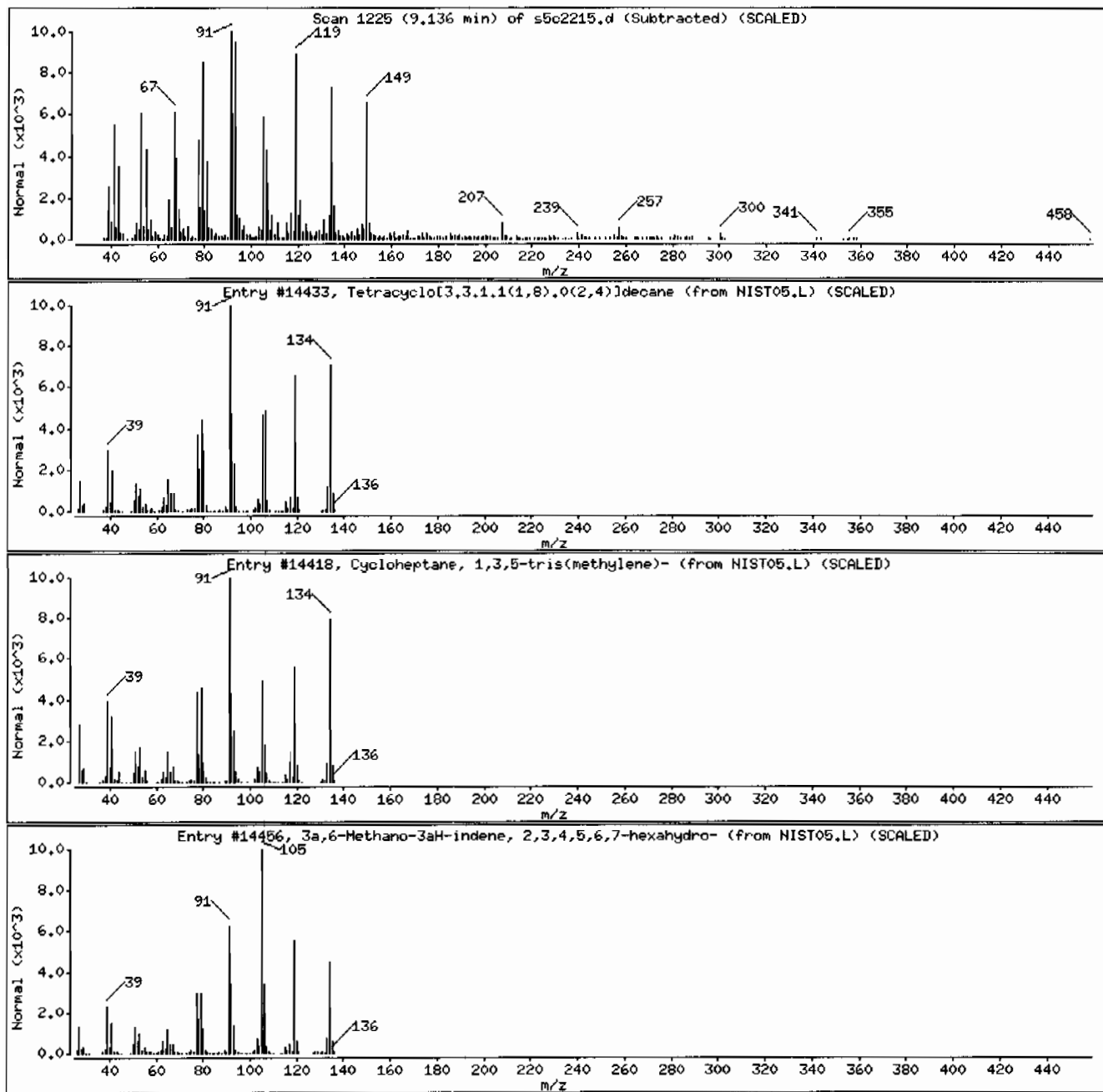
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Tetracyclo[3.3.1.1(1,8).0(2,4)]decane	1000185-58-7	NIST05.L	14433	38	C10H14	134
Cycloheptane, 1,3,5-tris(methylene)-	68284-24-2	NIST05.L	14418	38	C10H14	134
3a,6-Methano-3aH-indene, 2,3,4,5,6,7-hex	98640-10-9	NIST05.L	14456	38	C10H14	134



Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.1

Sample Info: I248506004196308611ISVM11ILANL

Volume Injected (uL): 0.5

Operator: RMB

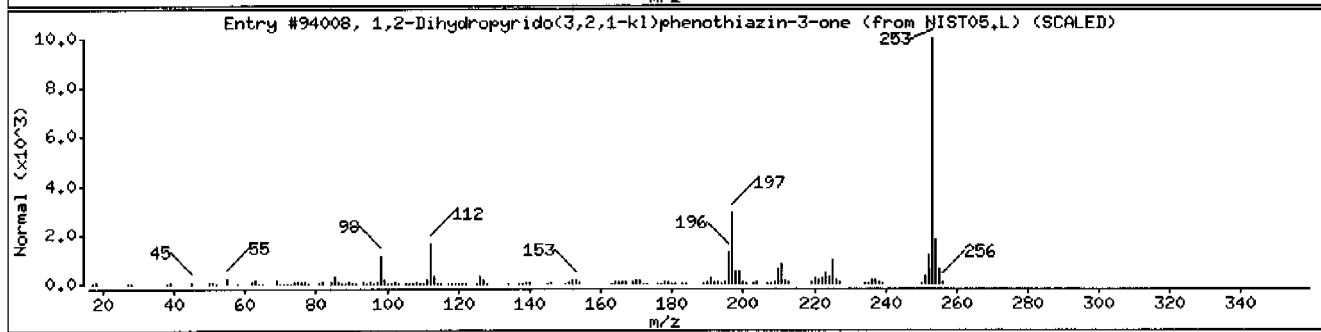
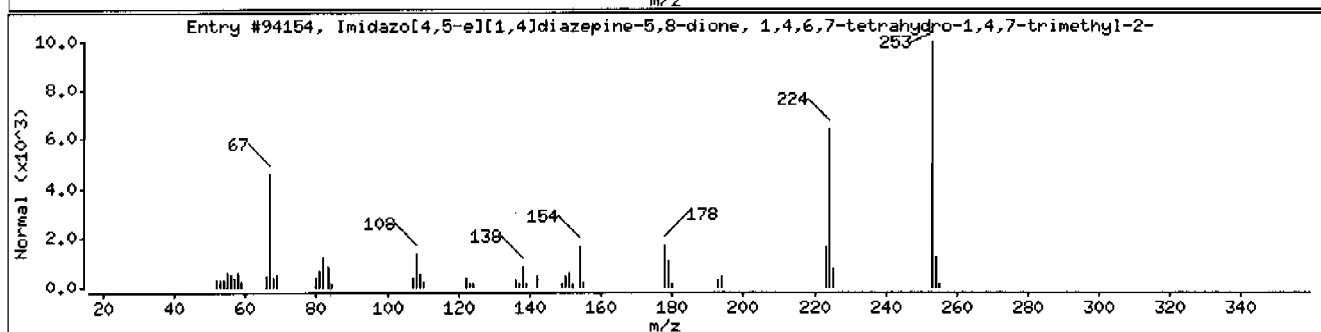
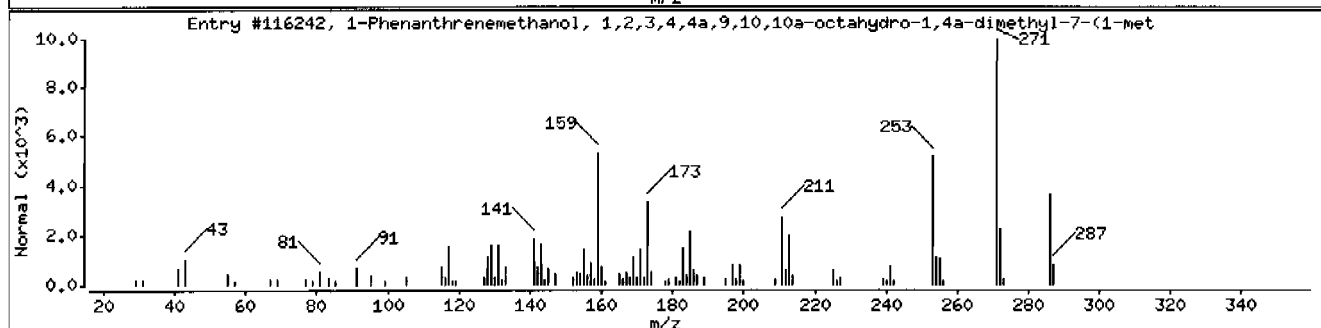
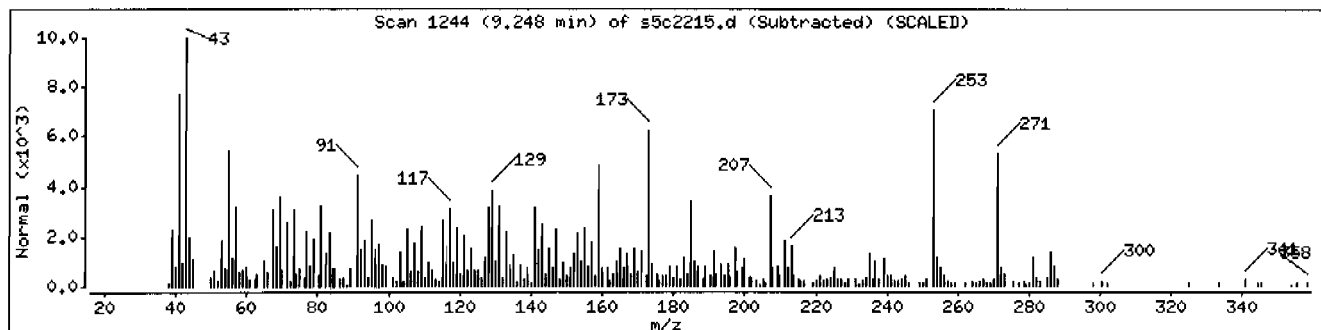
Column phase: J&amp;W DB-5MS

Column diameter: 0.20

## Library Search Compound Match

Unknown

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Phenanthrenemethanol, 1,2,3,4,4a,9,10,	24035-43-6	NIST05.L	116242	47	C20H30O	286
Imidazo[4,5-e][1,4]diazepine-5,8-dione,	148259-68-1	NIST05.L	94154	44	C9H11N5O4	253
1,2-Dihydropyrido[3,2,1-k]phenothiazin-	69513-42-4	NIST05.L	94008	41	C15H11NOS	253



Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.i

Sample Info: 12485060041963086111SVMI11LANL

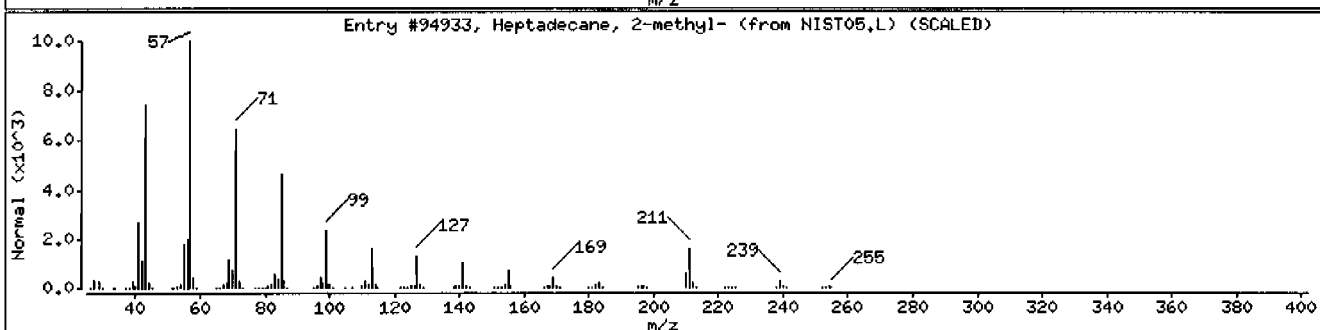
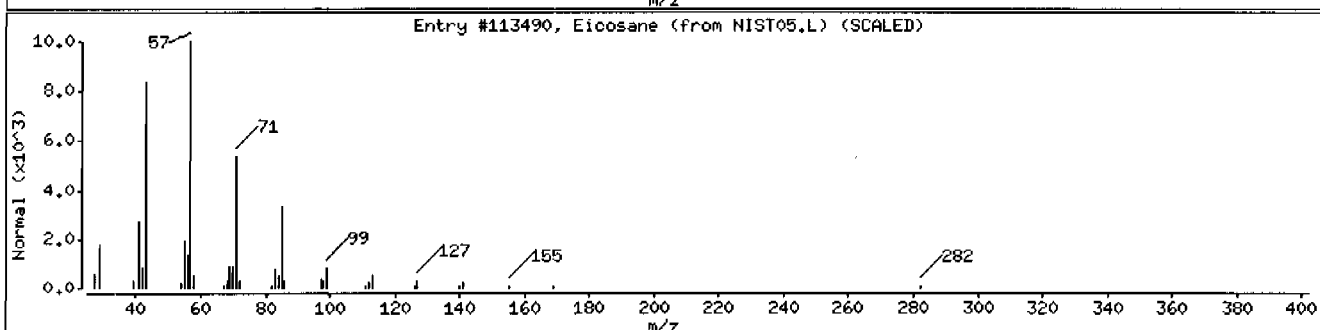
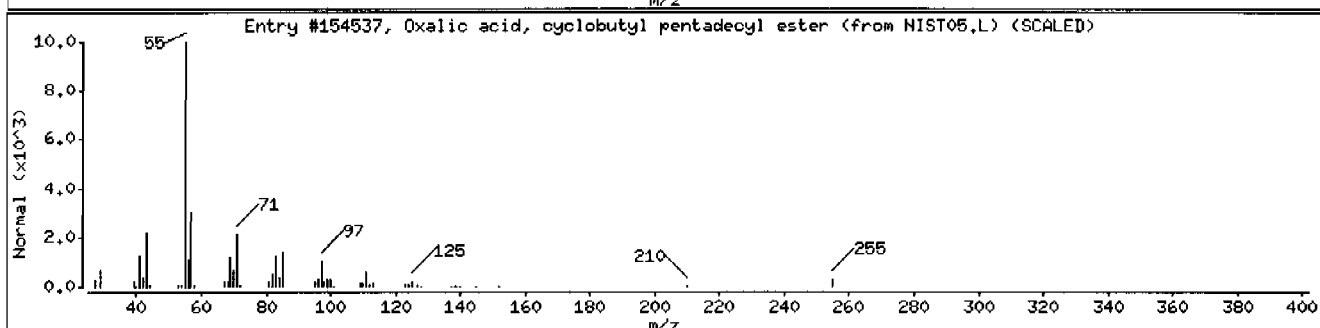
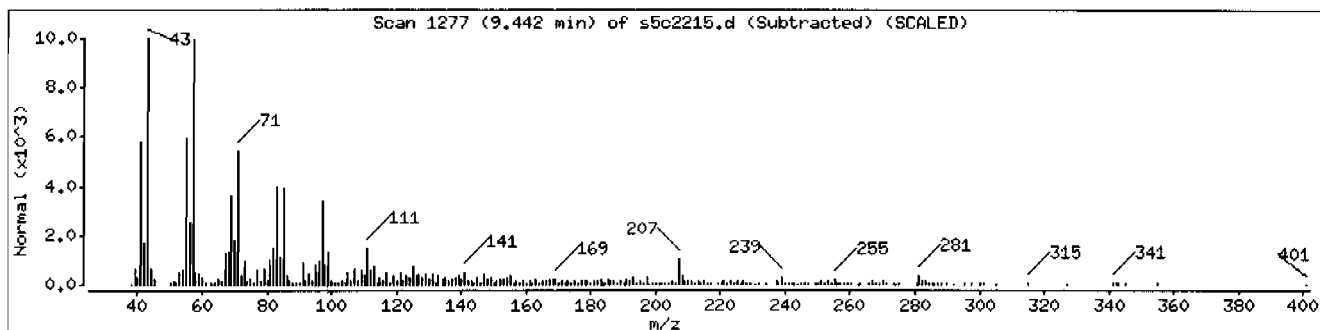
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Oxalic acid, cyclobutyl pentadecyl ester	1000309-70-5	NIST05.L	154537	90	C21H38O4	354
Eicosane	112-95-8	NIST05.L	113490	86	C20H42	282
Heptadecane, 2-methyl-	1560-89-0	NIST05.L	94933	84	C18H38	254



Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.i

Sample Info: I248506004196308611SVH11ILANL

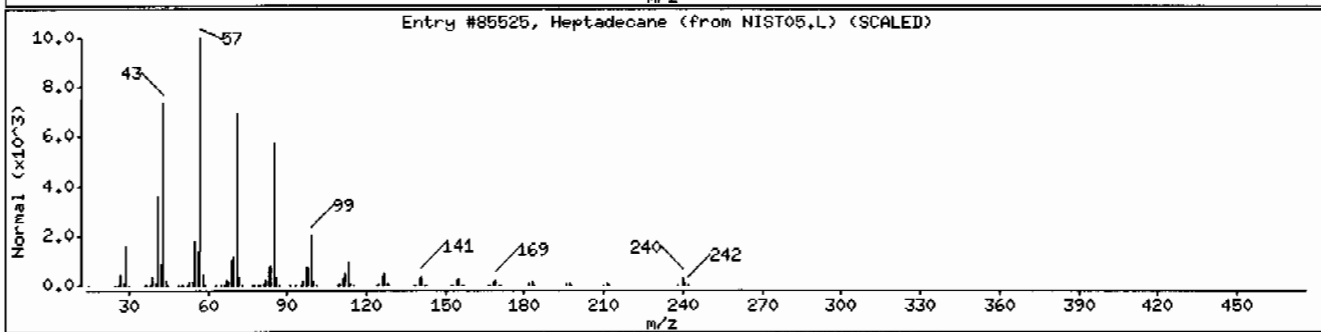
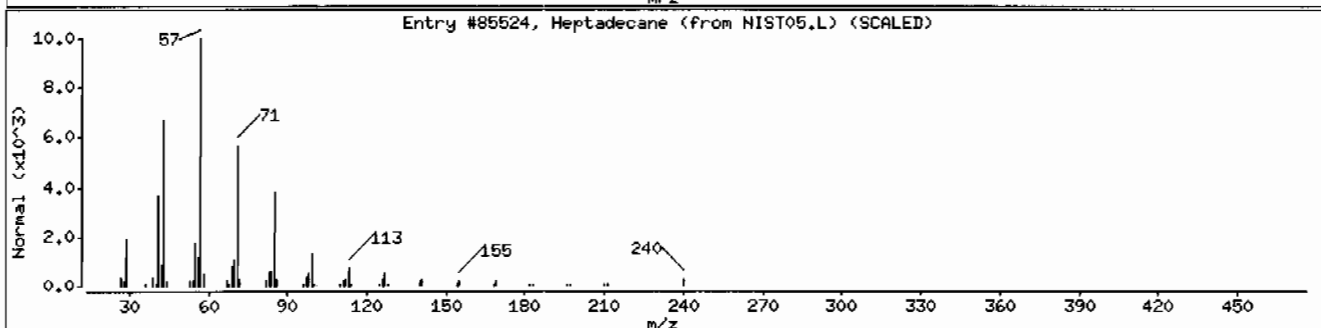
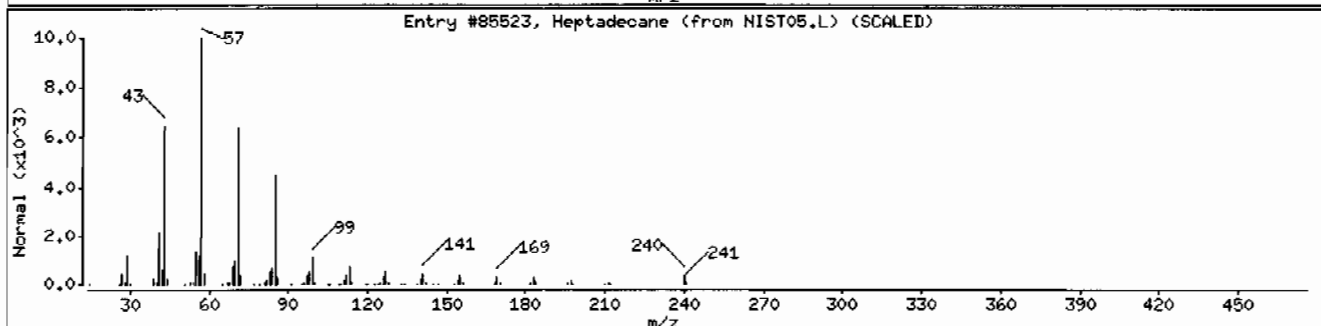
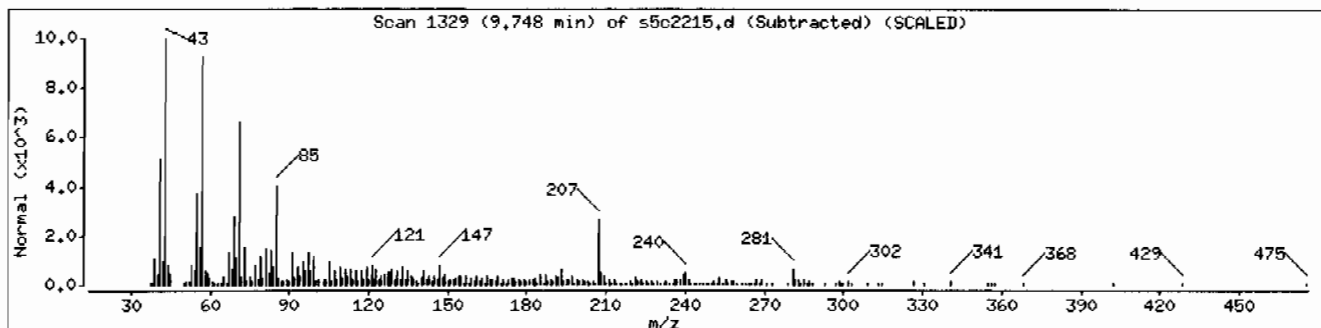
Volume Injected (uL): 0.5

Operator: RMB

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	97	C17H36	240
Heptadecane	629-78-7	NIST05.L	85524	96	C17H36	240
Heptadecane	629-78-7	NIST05.L	85525	92	C17H36	240



Date: 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.i

Sample Info: 1248506004196308611SVH111LANL

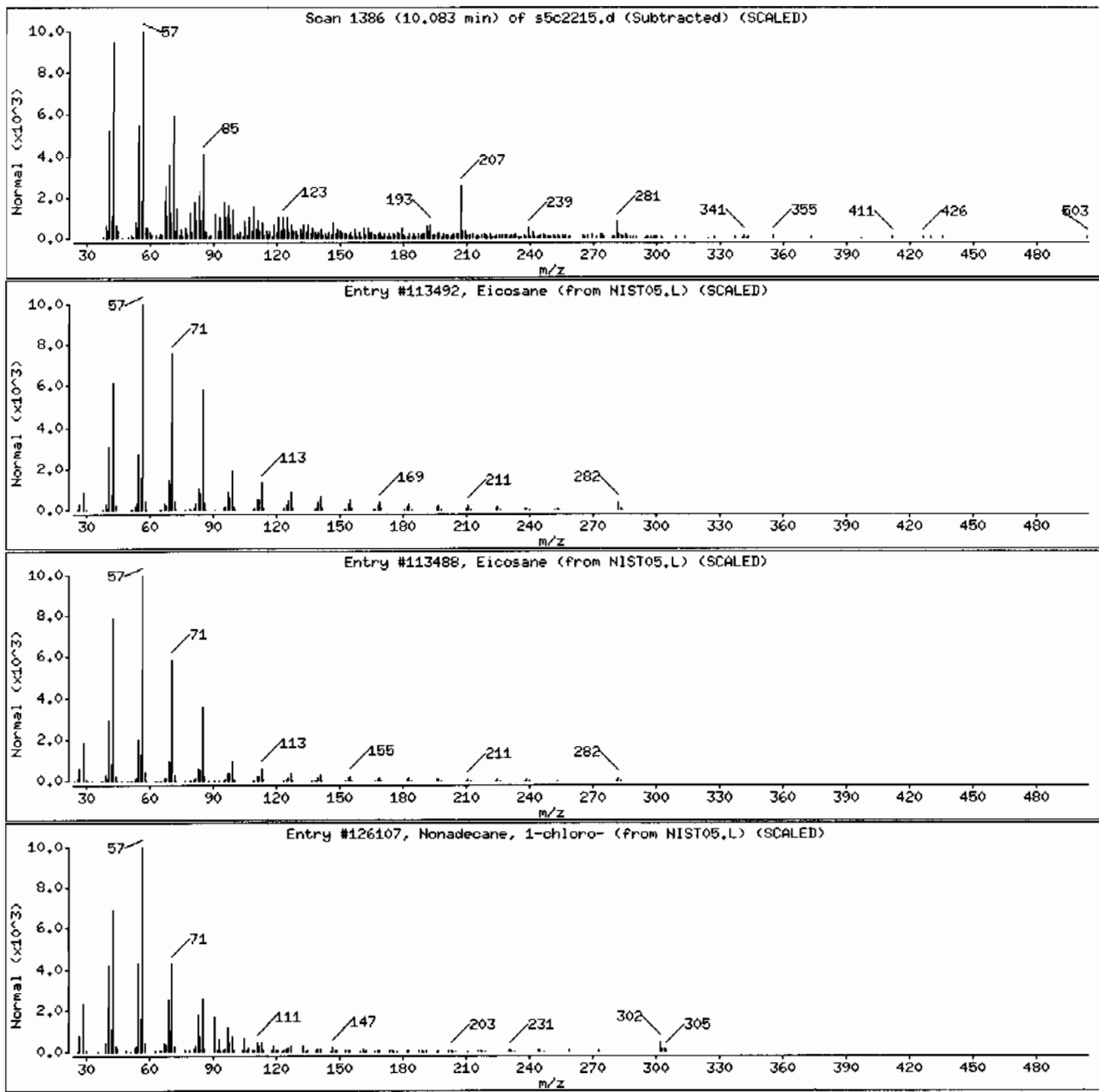
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Eicosane	112-95-8	NIST05.L	113492	95	C20H42	282
Eicosane	112-95-8	NIST05.L	113488	95	C20H42	282
Nonadecane, 1-chloro-	62016-76-6	NIST05.L	126107	95	C19H39Cl	302





Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.i

Sample Info: 12485060041963086111SVMI11LANL

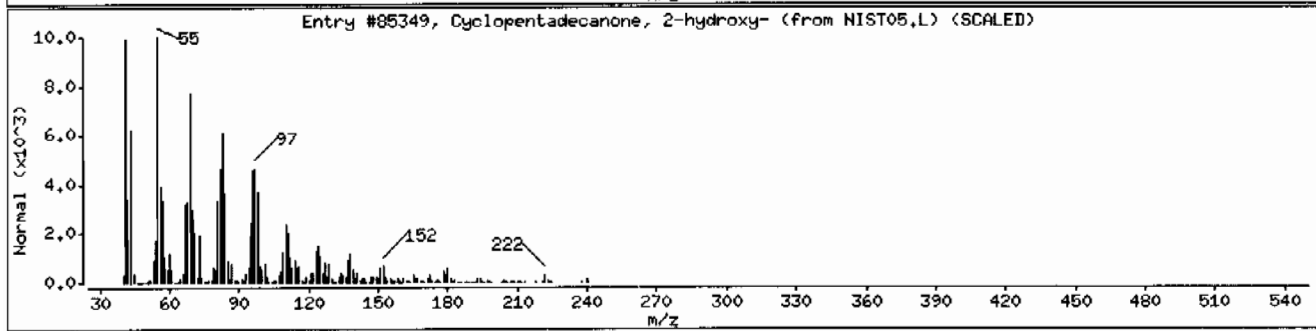
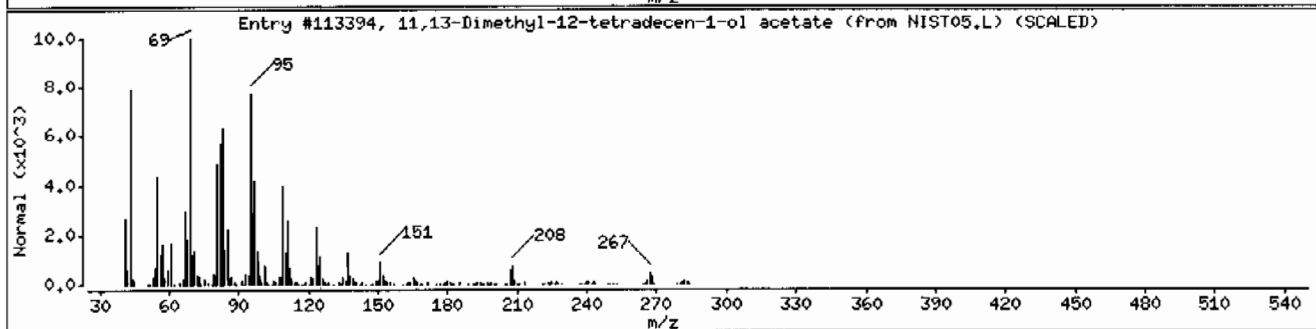
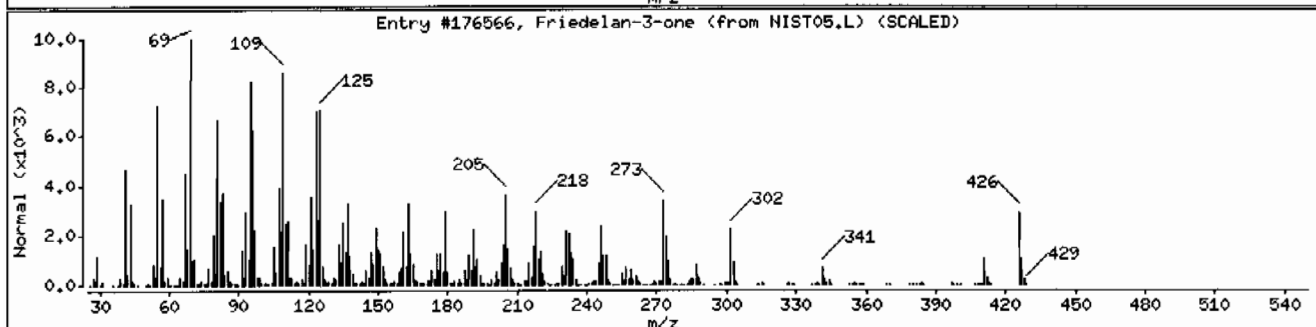
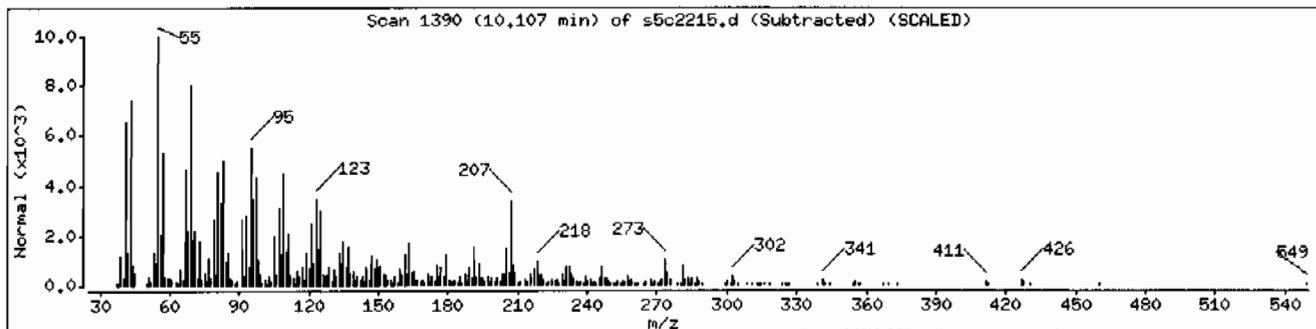
Volume Injected (uL): 0.5

Operator: RMB

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	96	C30H50O	426
11,13-Dimethyl-12-tetradecen-1-ol acetat	1000130-81-0	NIST05.L	113394	78	C18H34O2	282
Cyclopentadecanone, 2-hydroxy-	4727-18-8	NIST05.L	85349	50	C15H28O2	240



Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.i

Sample Info: 1248506004196308611ISVH11ILANL

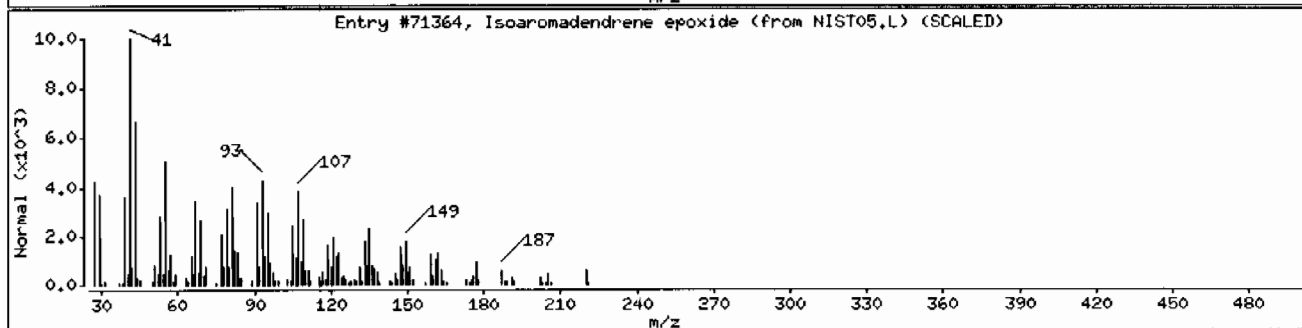
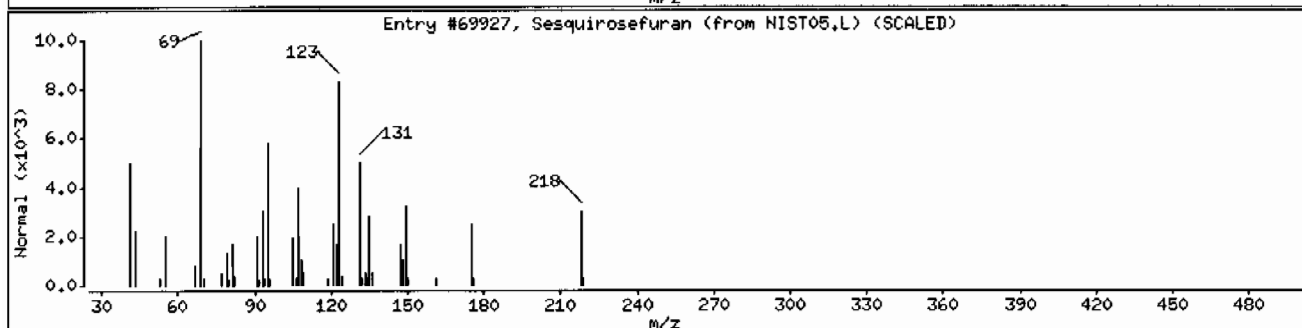
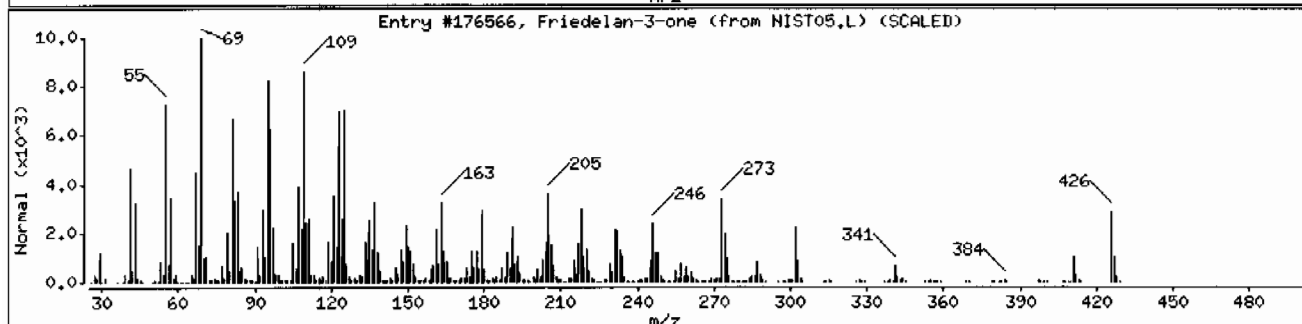
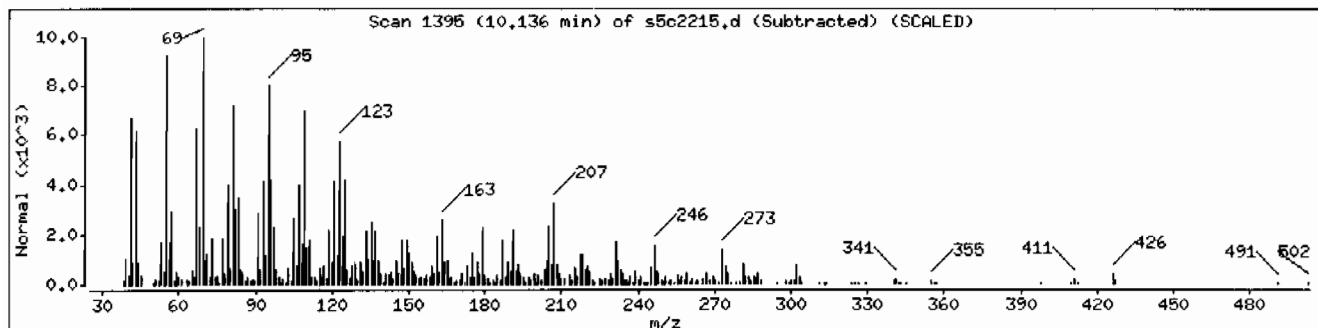
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Friedelan-3-one	559-74-0	NIST05.L	176566	95	C30H50O	426
Sesquirosefuran	39007-93-7	NIST05.L	69927	50	C15H22O	218
Isoaromadendrene epoxide	1000159-36-6	NIST05.L	71364	44	C15H24O	220



Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.i

Sample Info: I248506004196308611SVH111LANL

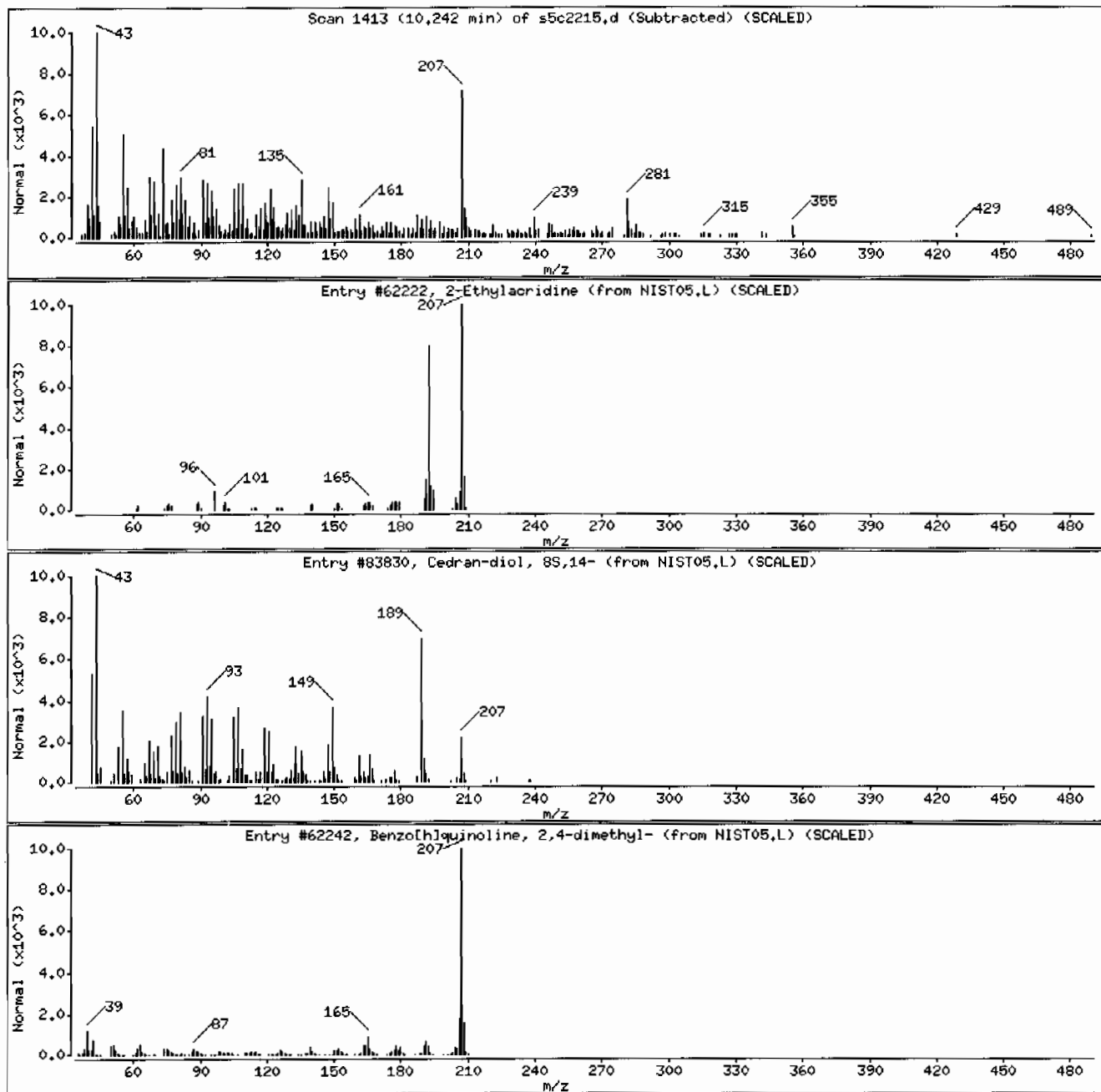
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Ethylacridine	55751-83-2	NIST05.L	62222	48	C15H13N	207
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	38	C15H26O2	238
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62242	35	C15H13N	207



Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.i

Sample Info: I248506004I9630861IISVH11ILANL

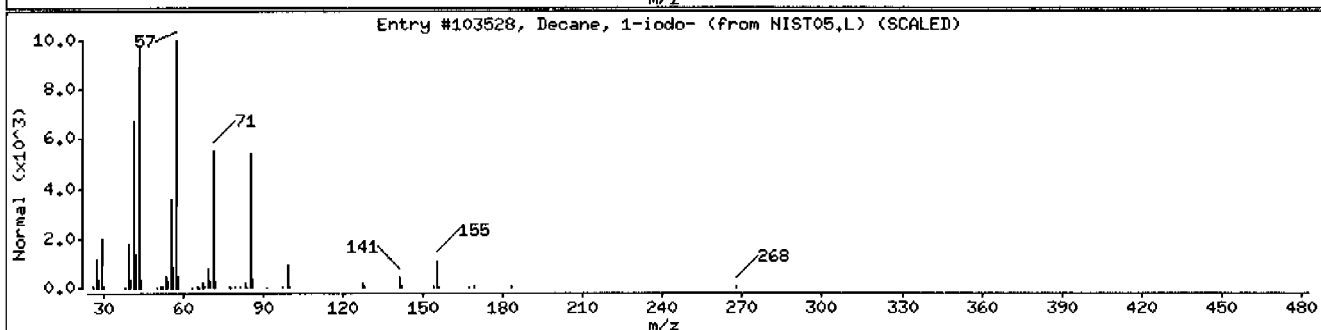
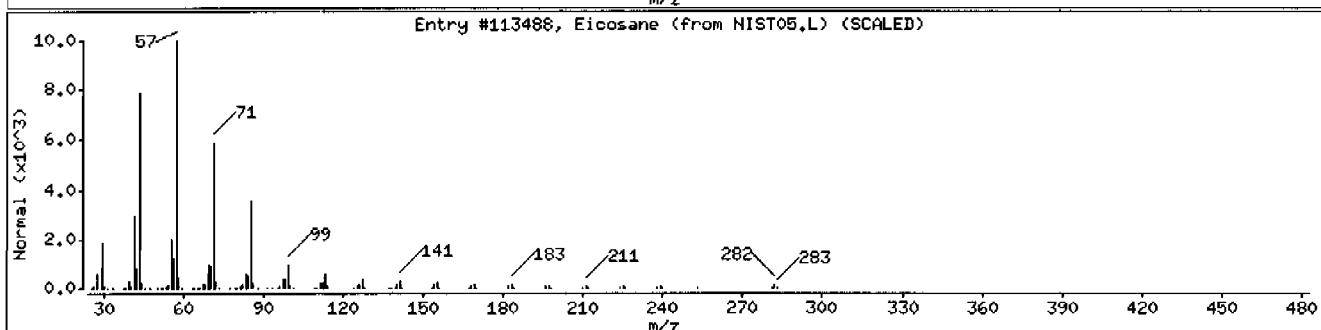
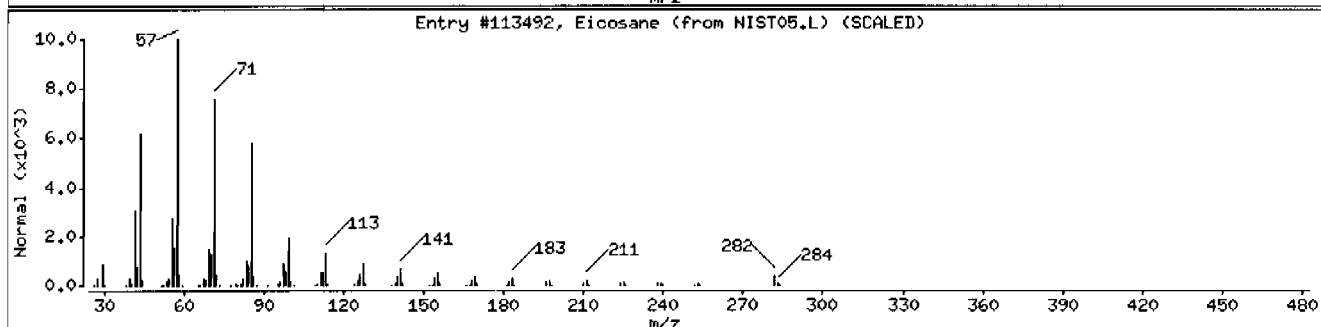
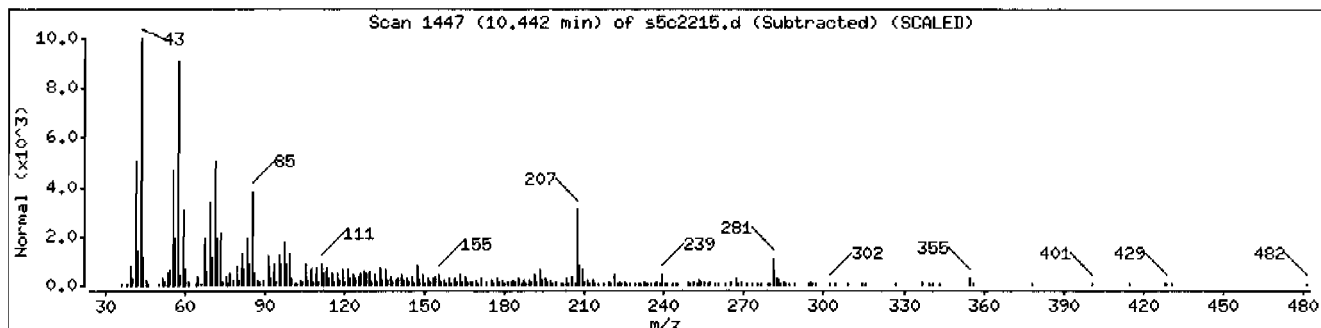
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Eicosane	112-95-8	NIST05.L	113492	94	C20H42	282
Eicosane	112-95-8	NIST05.L	113488	83	C20H42	282
Decane, 1-iodo-	2050-77-3	NIST05.L	103528	64	C10H21I	268



Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: HSD5.i

Sample Info: 1248506004196308611SVMI11LANL

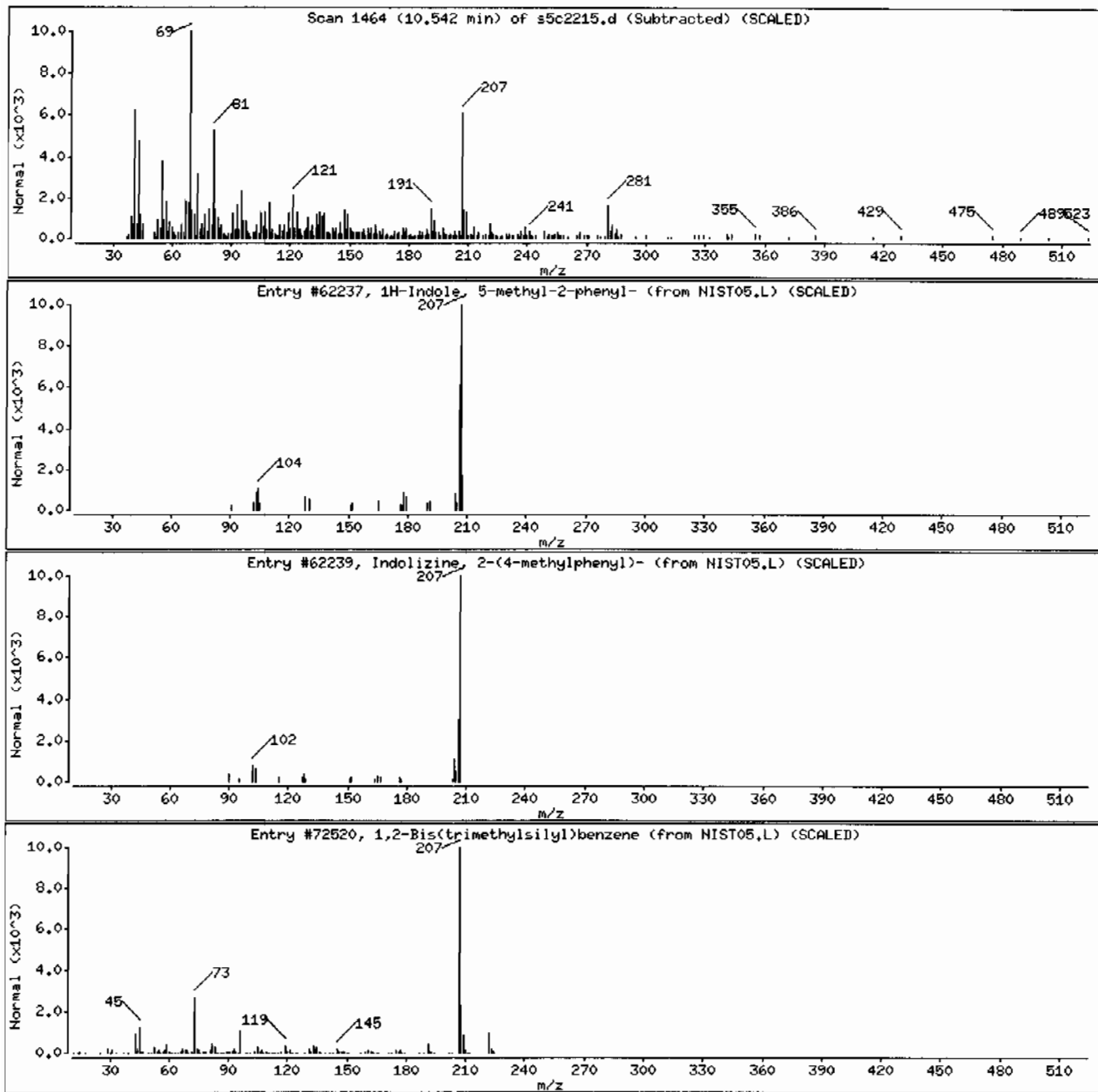
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1H-Indole, 5-methyl-2-phenyl-	13228-36-9	NIST05.L	62237	55	C <sub>15</sub> H <sub>13</sub> N	207
Indolizine, 2-(4-methylphenyl)-	7496-81-3	NIST05.L	62239	41	C <sub>15</sub> H <sub>13</sub> N	207
1,2-Bis(trimethylsilyl)benzene	17151-09-6	NIST05.L	72520	30	C <sub>12</sub> H <sub>22</sub> Si <sub>2</sub>	222



Date: 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.i

Sample Info: 12485060041963086111SVH111LANL

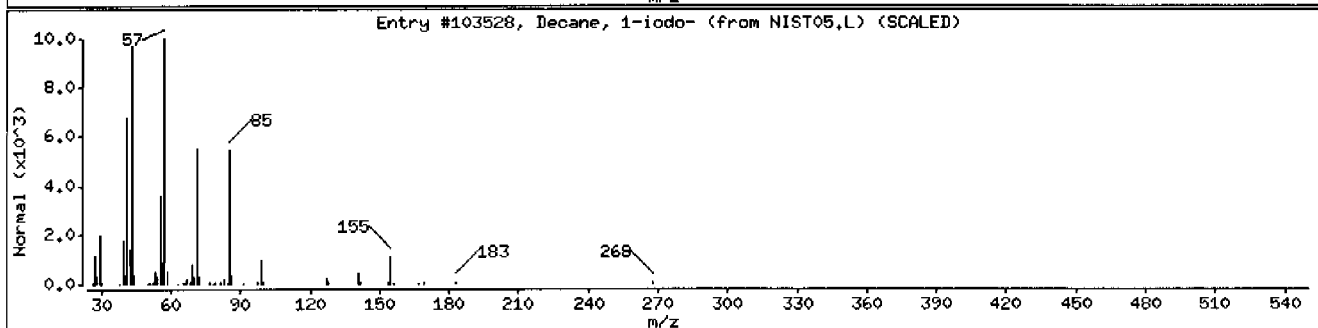
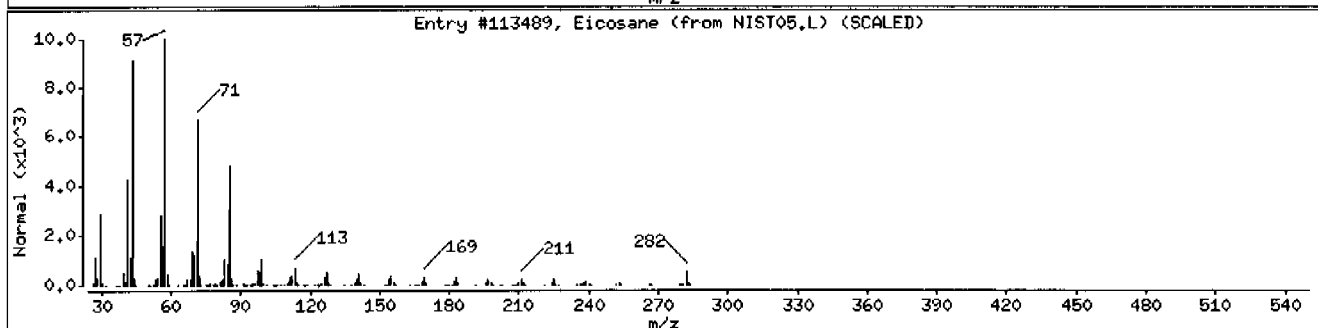
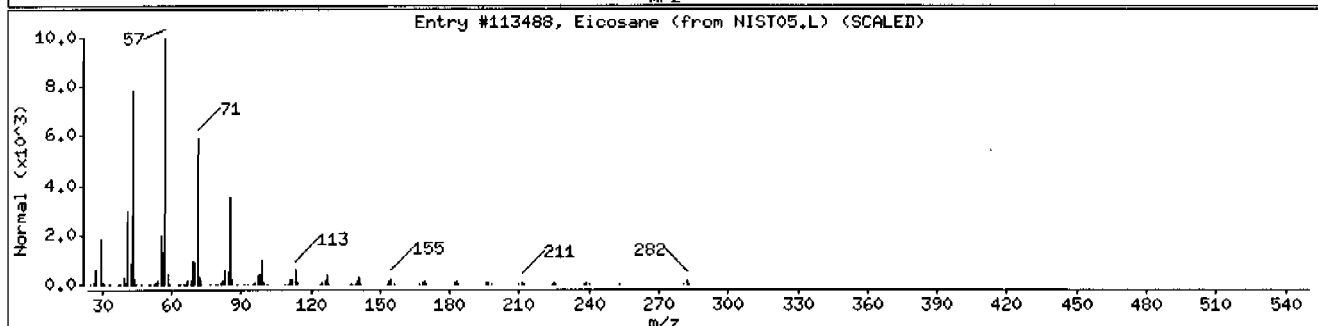
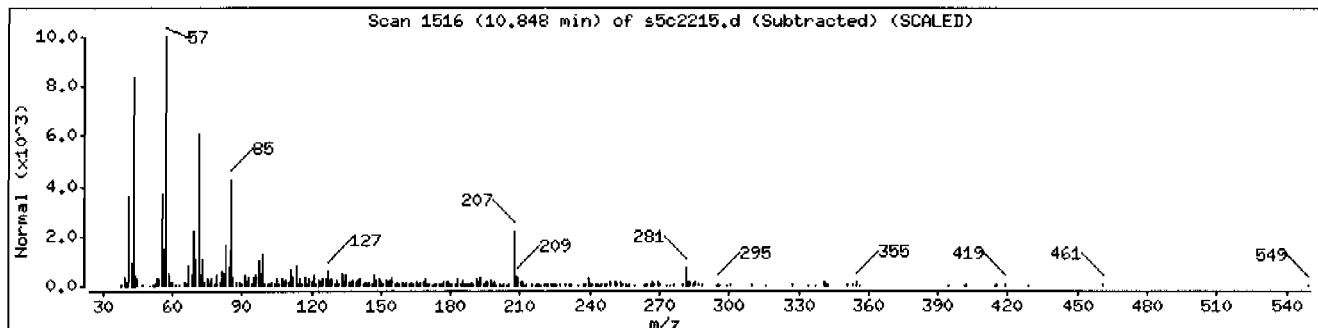
Volume Injected (uL): 0.5

Operator: RMB

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	113488	98	C20H42	282
Eicosane	112-95-8	NIST05.L	113489	96	C20H42	282
Decane, 1-iodo-	2050-77-3	NIST05.L	103528	83	C10H21I	268



Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: HSD5.i

Sample Info: 12485060041963086111SVH111LANL

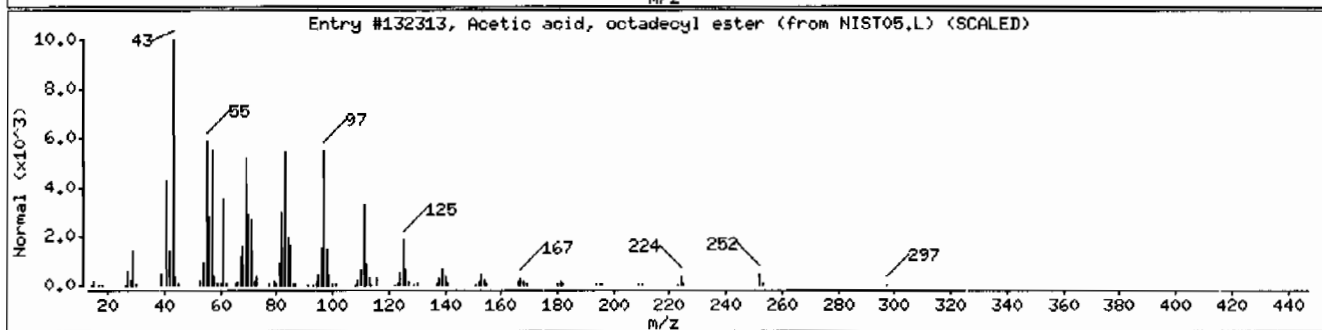
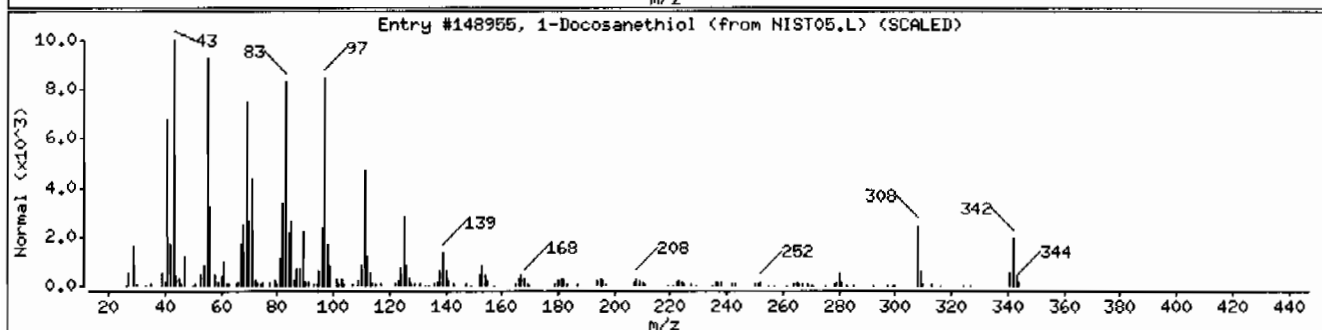
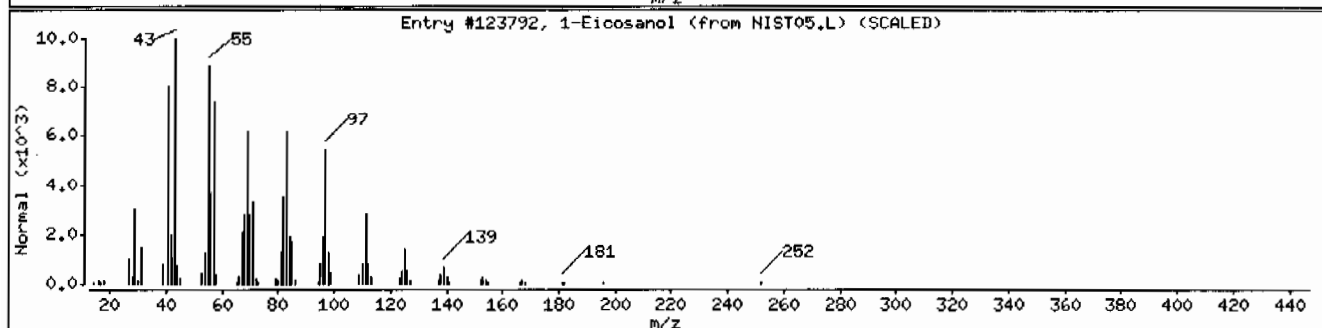
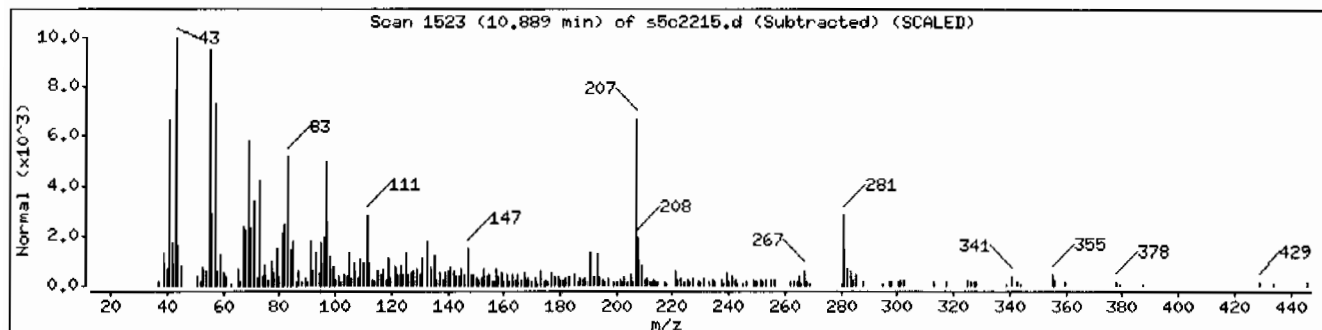
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Eicosanol	629-96-9	NIST05.L	123792	87	C20H42O	298
1-Docosanethiol	7773-83-3	NIST05.L	148955	64	C22H46S	342
Acetic acid, octadecyl ester	822-23-1	NIST05.L	132313	50	C20H40O2	312



Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.i

Sample Info: 12485060041963086111SVH111LANL

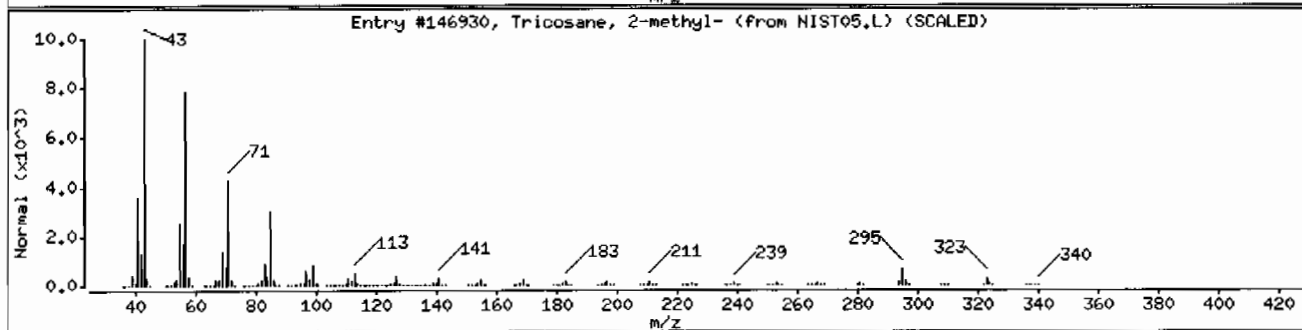
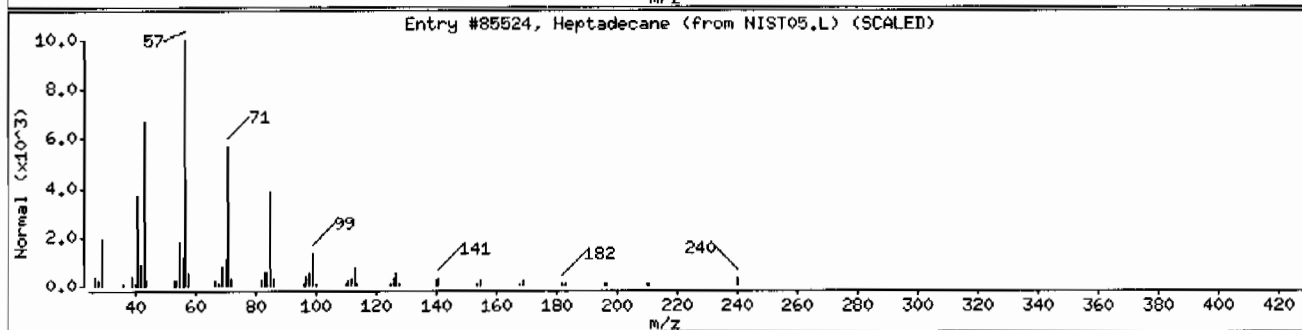
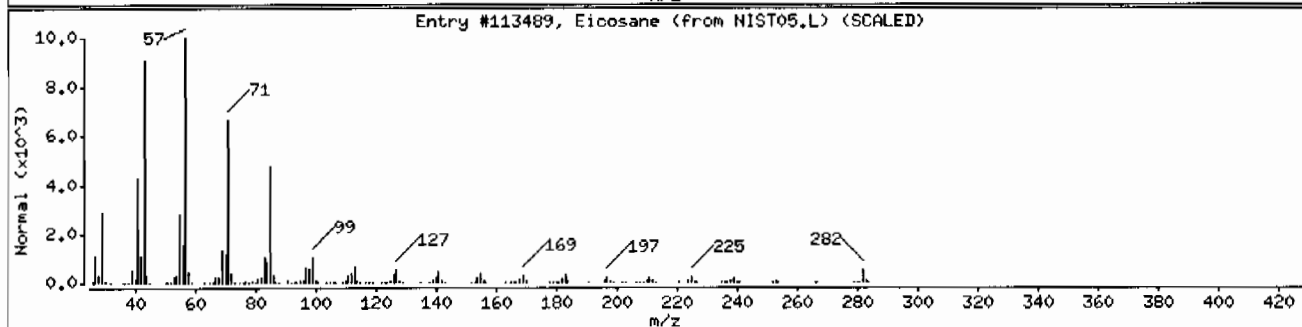
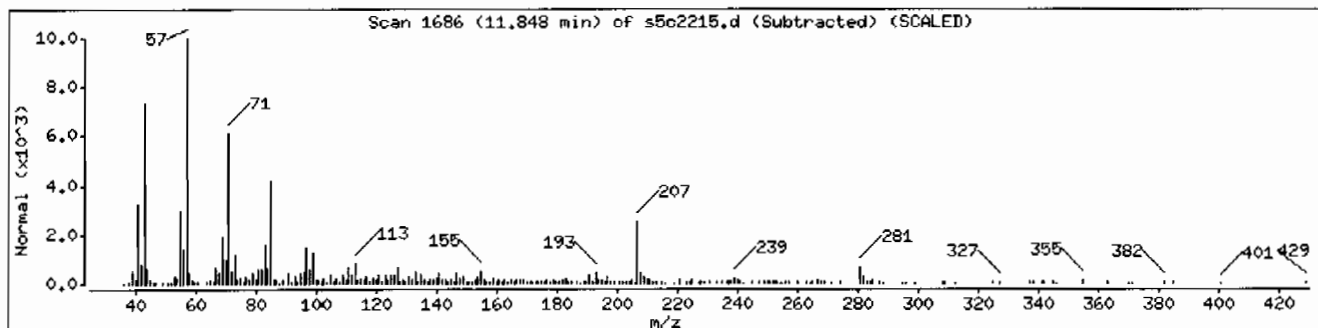
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Eicosane	112-95-8	NIST05.L	113489	97	C20H42	282
Heptadecane	629-78-7	NIST05.L	85524	95	C17H36	240
Tricosane, 2-methyl-	1928-30-9	NIST05.L	146930	95	C24H50	338





Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: HSD5.i

Sample Info: 12485060041963086111SVMI11LANL

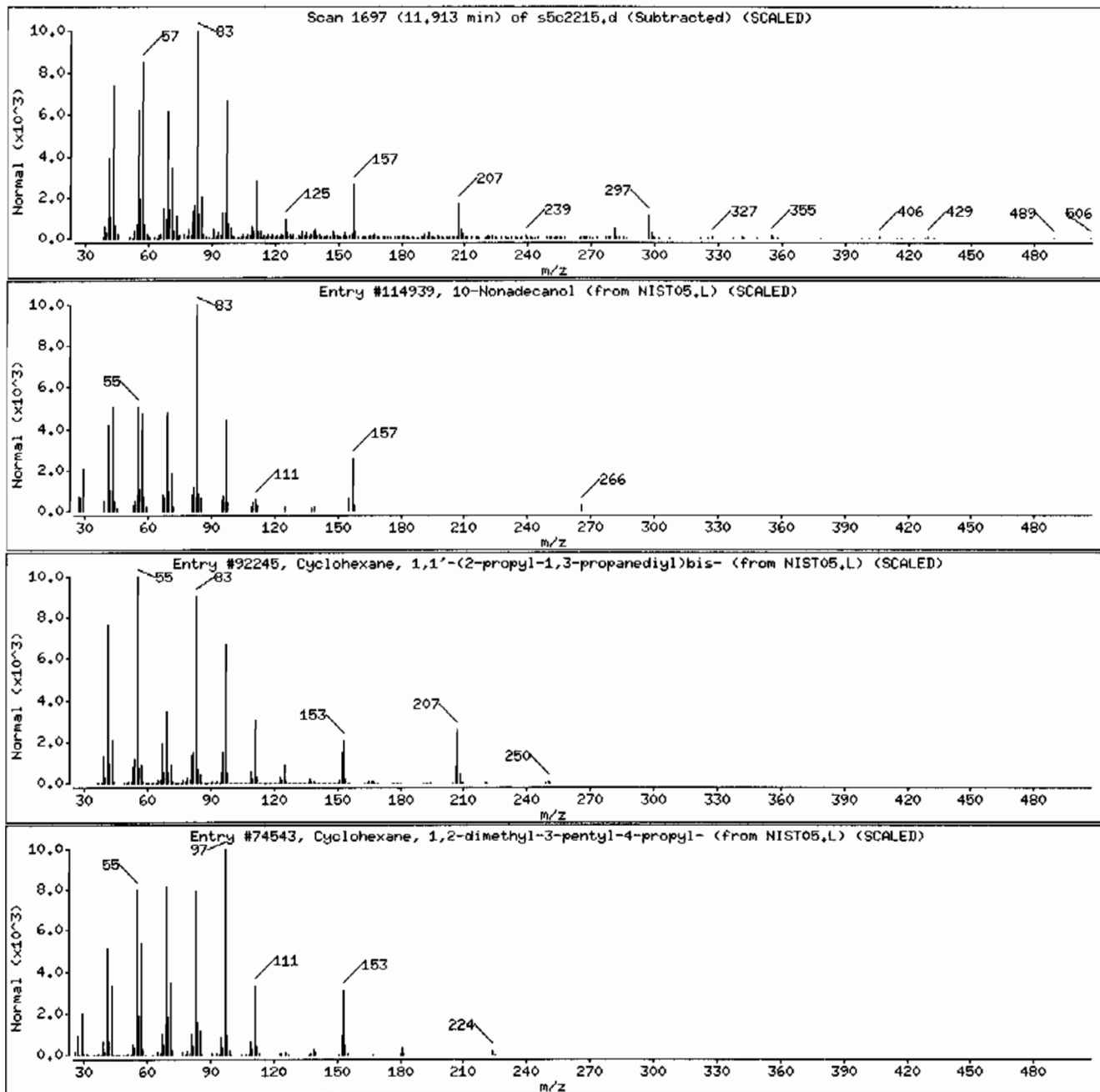
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
10-Nonadecanol	16840-84-9	NIST05.L	114939	58	C19H40O	284
Cyclohexane, 1,1'-(2-propyl-1,3-propanediol)bis-	55030-21-2	NIST05.L	92245	42	C18H34	250
Cyclohexane, 1,2-dimethyl-3-pentyl-4-propyl-	62376-17-4	NIST05.L	74543	41	C16H32	224



Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: HSD5.i

Sample Info: J2485060041963086111SVH111LANL

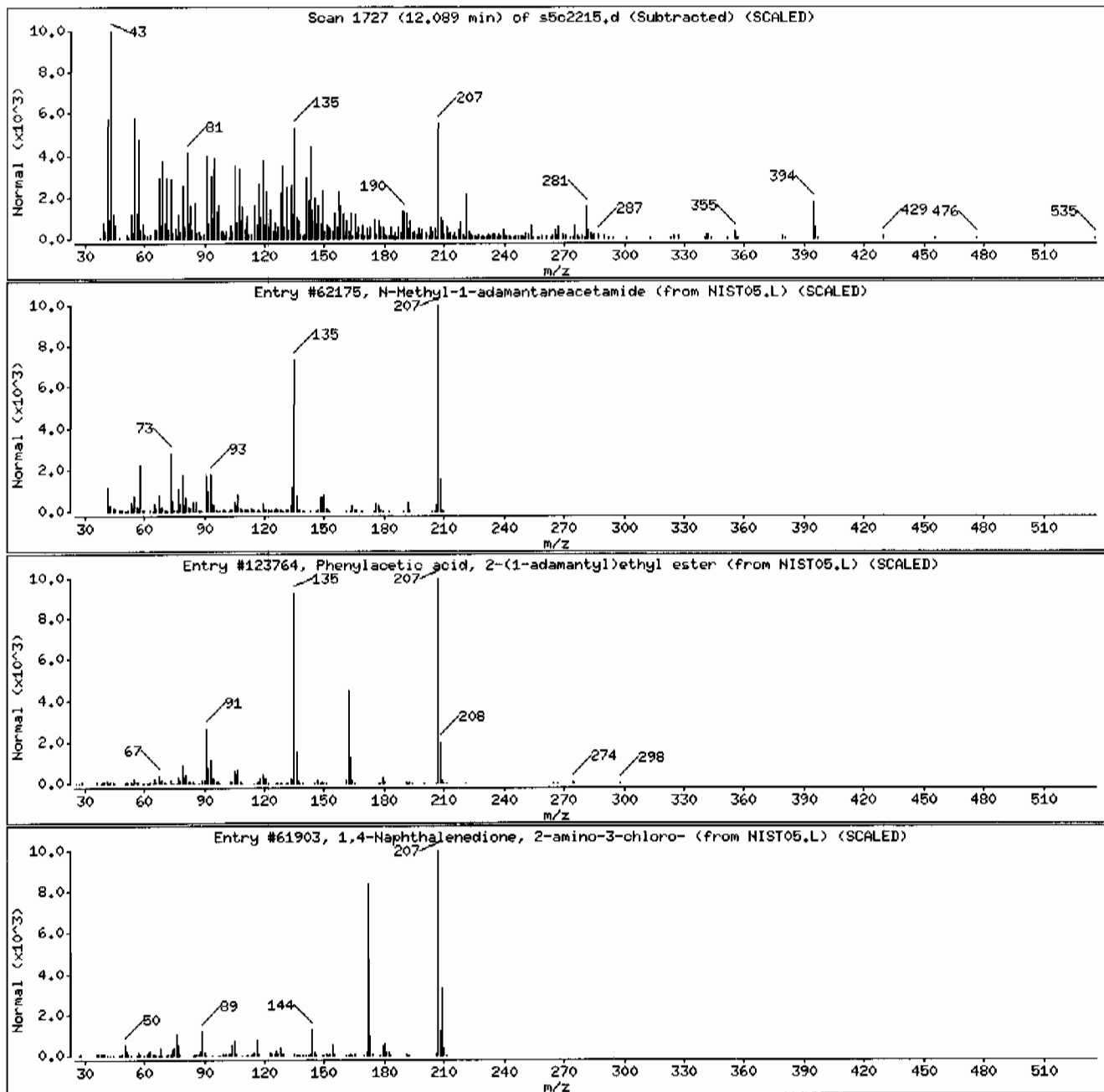
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
N-Methyl-1-adamantaneacetamide	31897-93-5	NIST05.L	62175	25	C13H21NO	207
Phenylacetic acid, 2-(1-adamantyl)ethyl	1000282-91-2	NIST05.L	123764	22	C20H26O2	298
1,4-Naphthalenedione, 2-amino-3-chloro-	2797-81-5	NIST05.L	61903	15	C10H6ClNO2	207



Date: 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.i

Sample Info: 1248506004196308611ISVH11ILANL

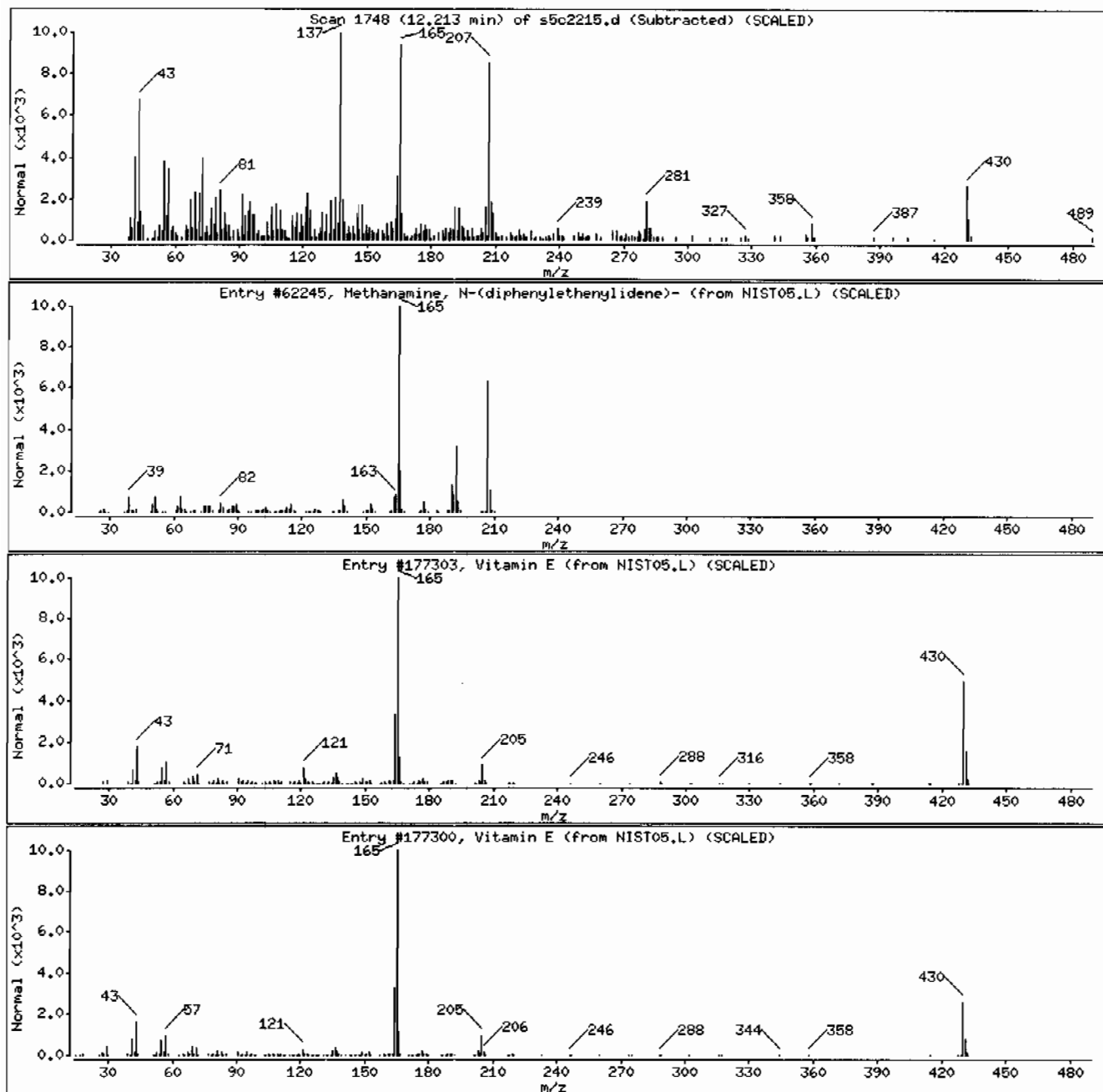
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Methanamine, N-(diphenylethenylidene)-	13911-54-1	NIST05.L	62245	41	C15H13N	207
Vitamin E	59-02-9	NIST05.L	177303	38	C29H50O2	430
Vitamin E	10191-41-0	NIST05.L	177300	38	C29H50O2	430



Date: 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.i

Sample Info: 12485060041963086111SVH111LANL

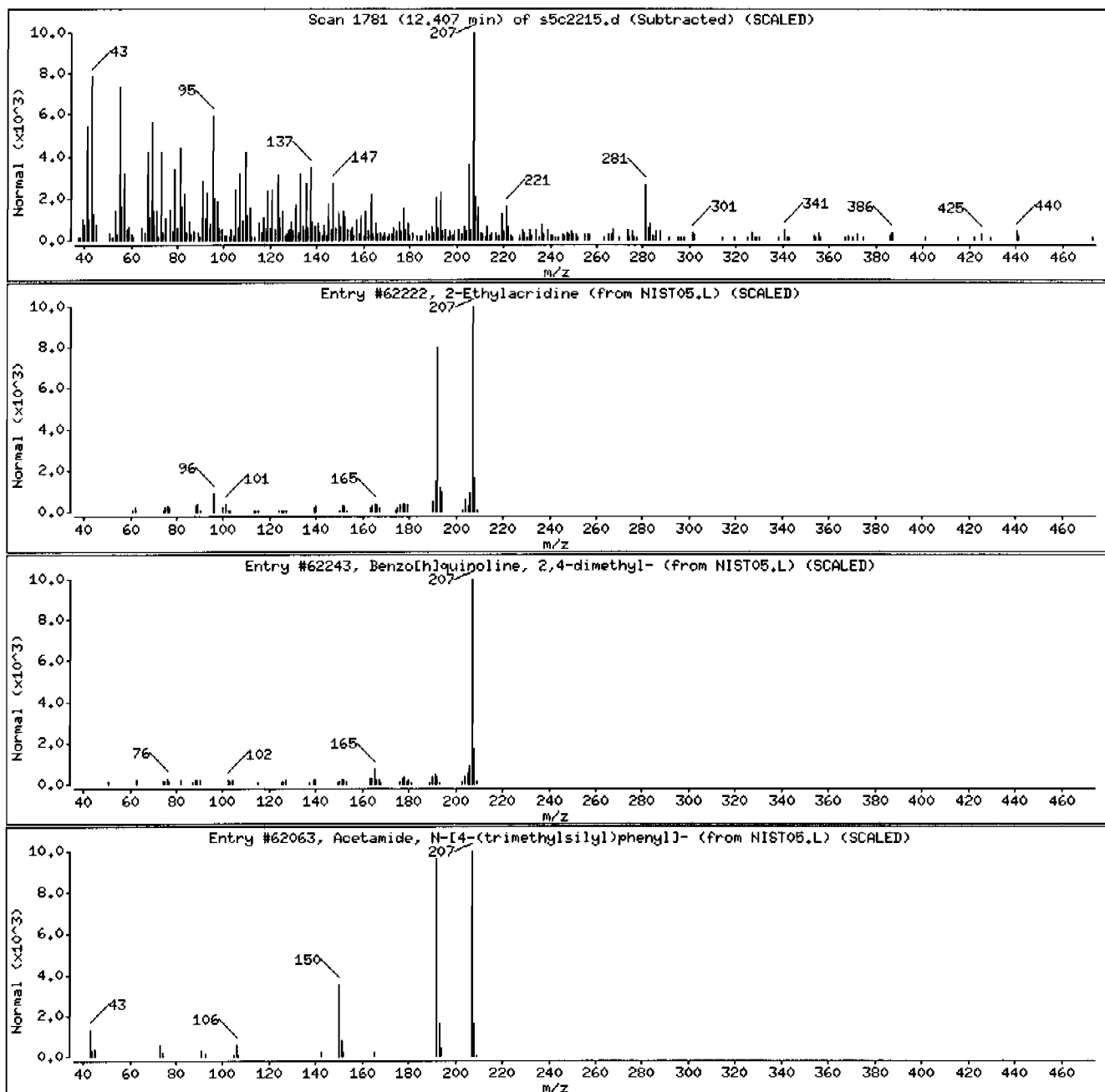
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Ethylacridine	55751-83-2	NIST05.L	62222	38	C15H13N	207
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	38	C15H13N	207
Acetamide, N-[4-(trimethylsilyl)phenyl]-	17983-71-0	NIST05.L	62063	30	C11H17NOSi	207



Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.i

Sample Info: 1248506004196308611ISVM11ILANL

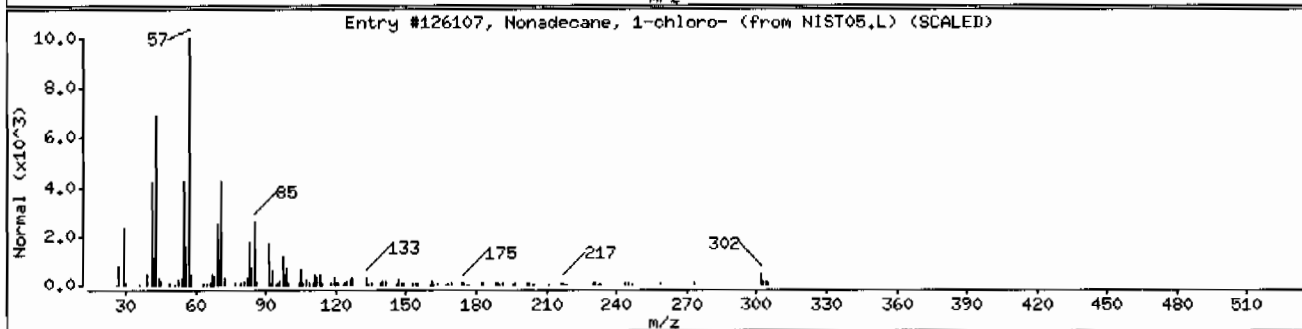
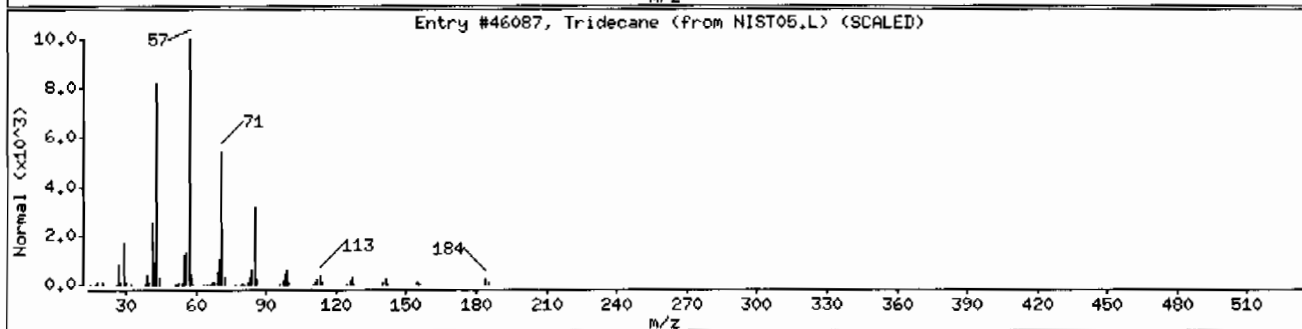
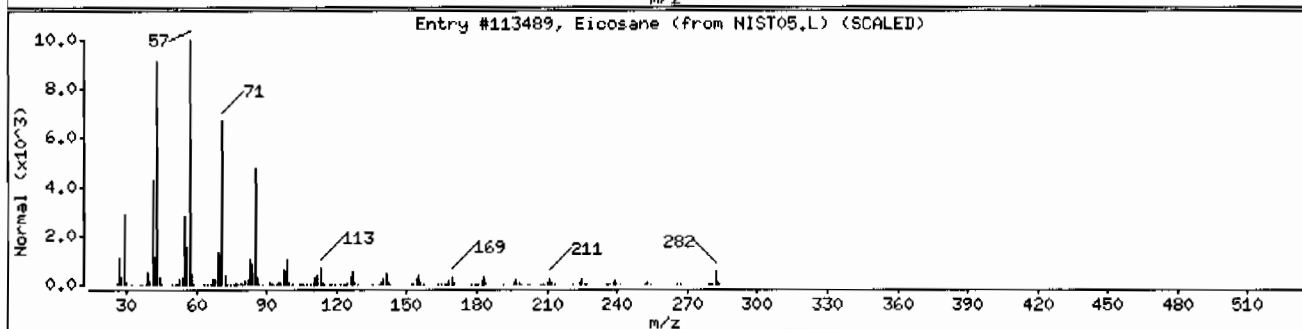
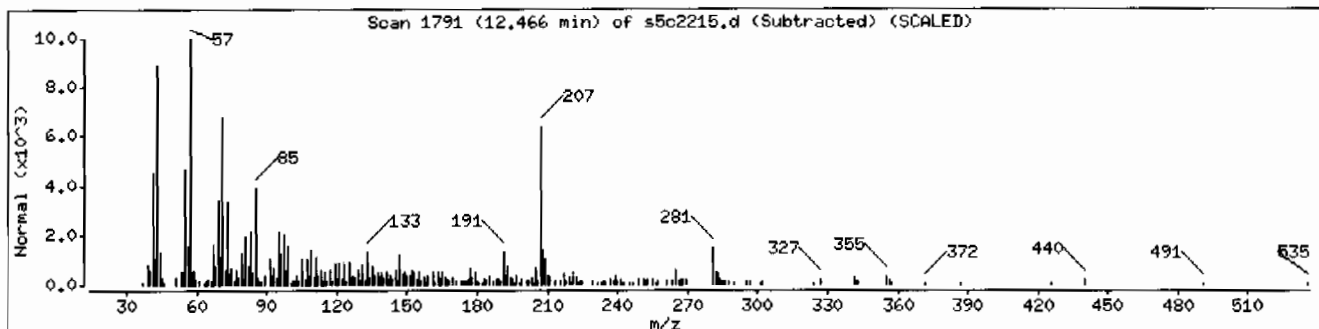
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Eicosane	112-95-8	NIST05.L	113489	81	C <sub>20</sub> H <sub>42</sub>	282
Tridecane	629-50-5	NIST05.L	46087	80	C <sub>13</sub> H <sub>28</sub>	184
Nonadecane, 1-chloro-	62016-76-6	NIST05.L	126107	60	C <sub>19</sub> H <sub>39</sub> Cl	302



Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.i

Sample Info: 1248506004196308611SVMI11LANL

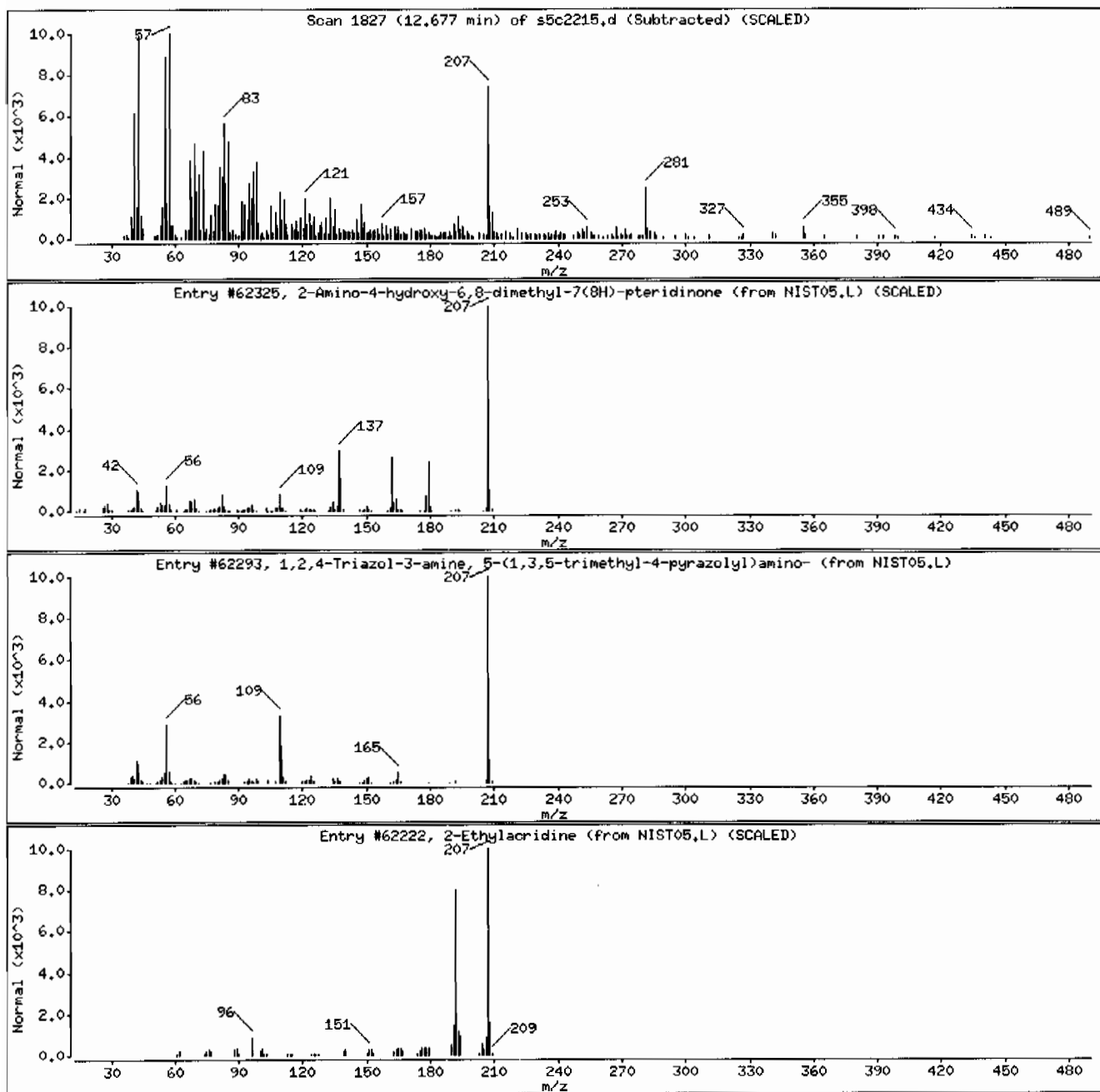
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Amino-4-hydroxy-6,8-dimethyl-7(8H)-pte	25477-64-9	NIST05.L	62325	25	C8H9N5O2	207
1,2,4-Triazol-3-amine, 5-(1,3,5-trimethy	1000264-16-7	NIST05.L	62293	25	C8H13N7	207
2-Ethylacridine	55751-83-2	NIST05.L	62222	22	C15H13N	207



Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.i

Sample Info: 1248506004196308611SVH111LANL

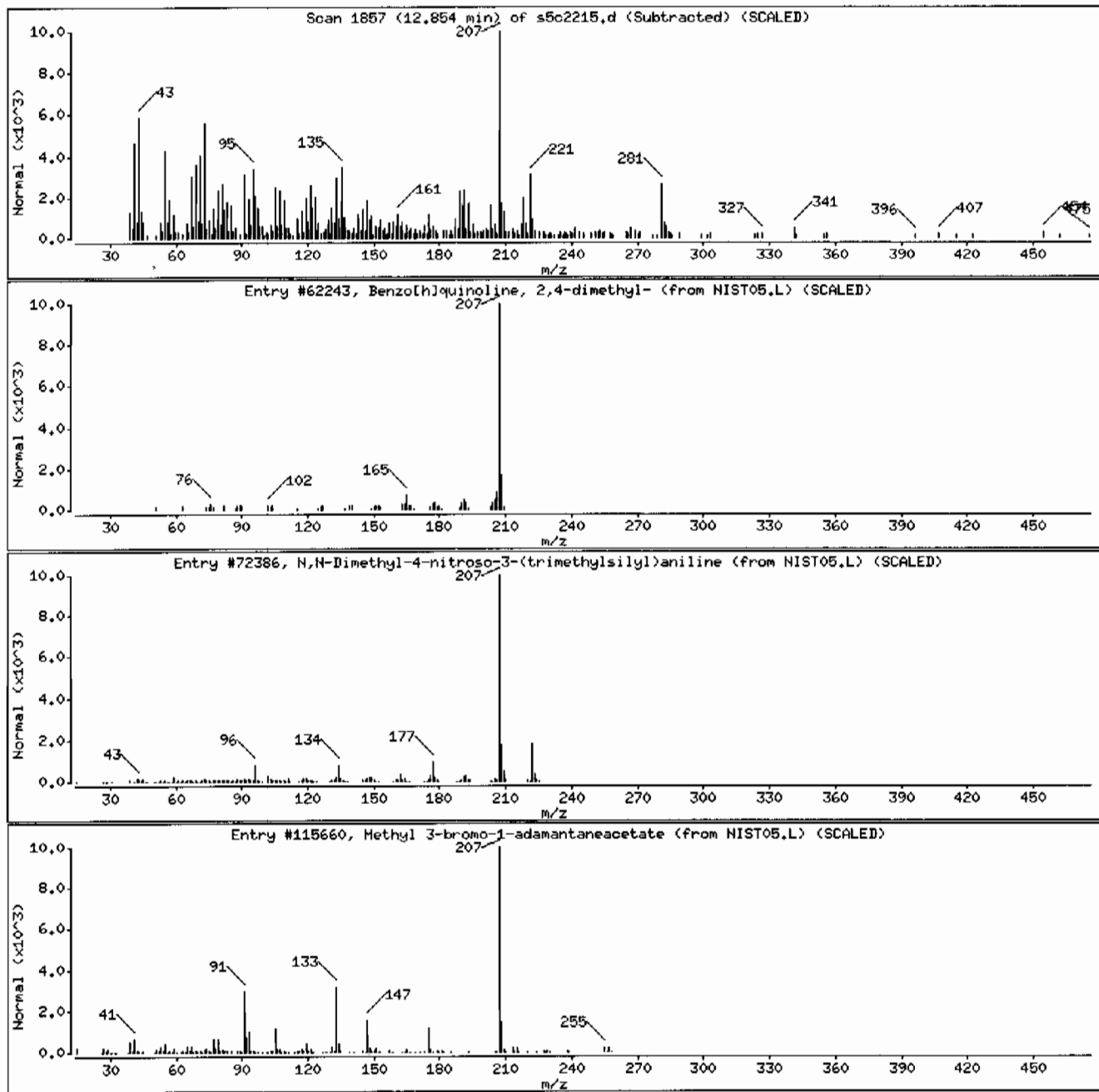
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	38	C15H13N	207
N,N-Dimethyl-4-nitroso-3-(trimethylsilyl)	17993-84-9	NIST05.L	72386	38	C11H18N2OSi	222
Methyl 3-bromo-1-adamantaneacetate	14575-01-0	NIST05.L	115660	35	C13H19BrO2	286



Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: HSD5.i

Sample Info: 1248506004196308611SVH11ILANL

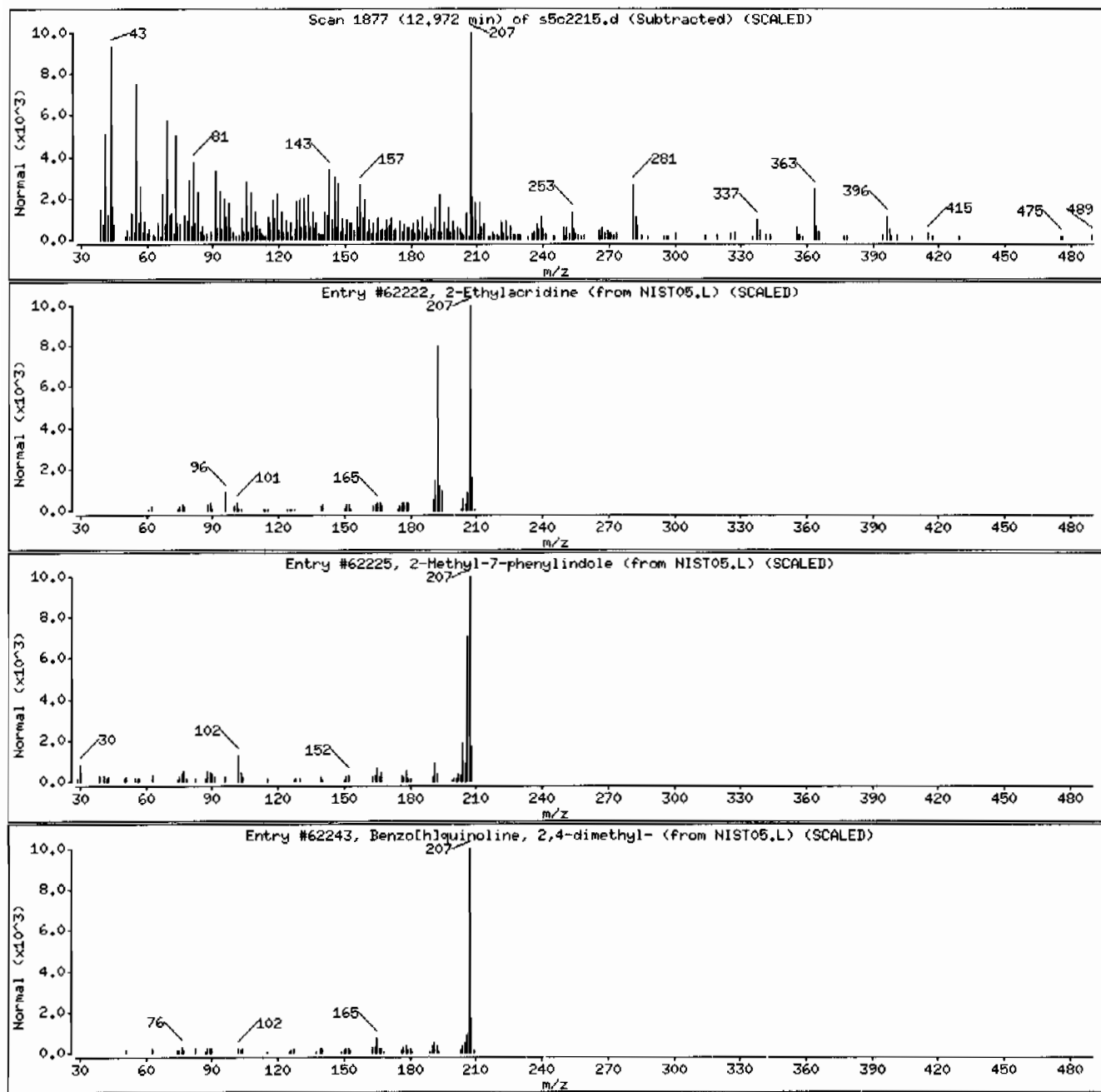
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Ethylacridine	55751-83-2	NIST05.L	62222	46	C15H13N	207
2-Methyl-7-phenylindole	1140-08-5	NIST05.L	62225	42	C15H13N	207
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	42	C15H13N	207





Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.i

Sample Info: I248506004196308611ISVH11ILANL

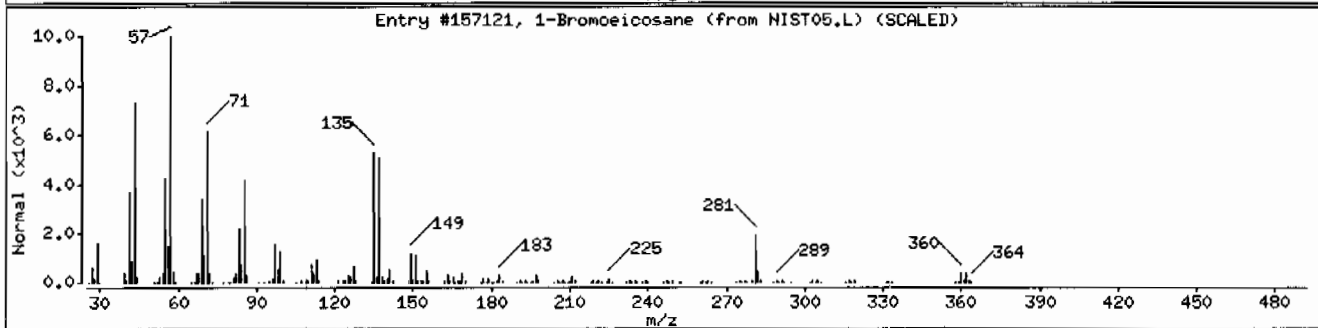
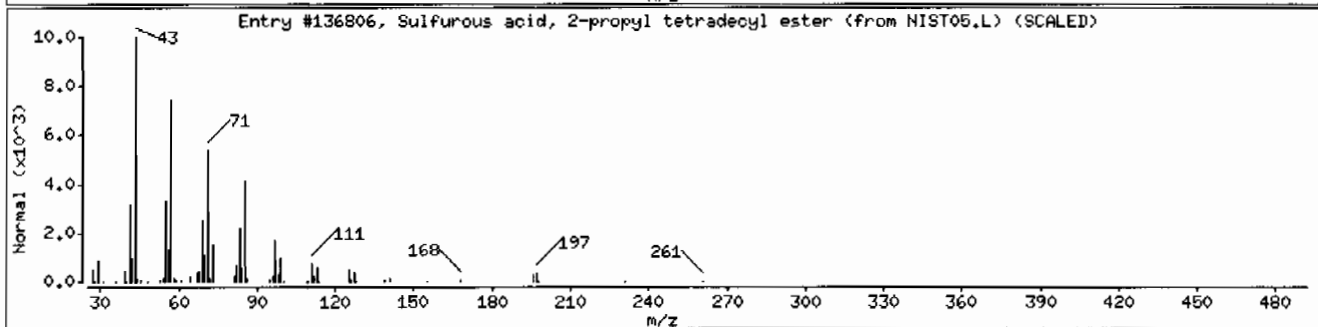
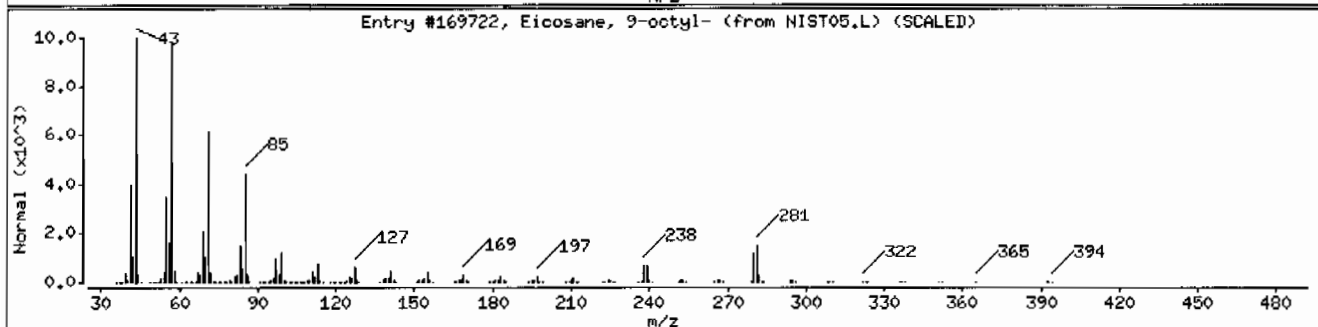
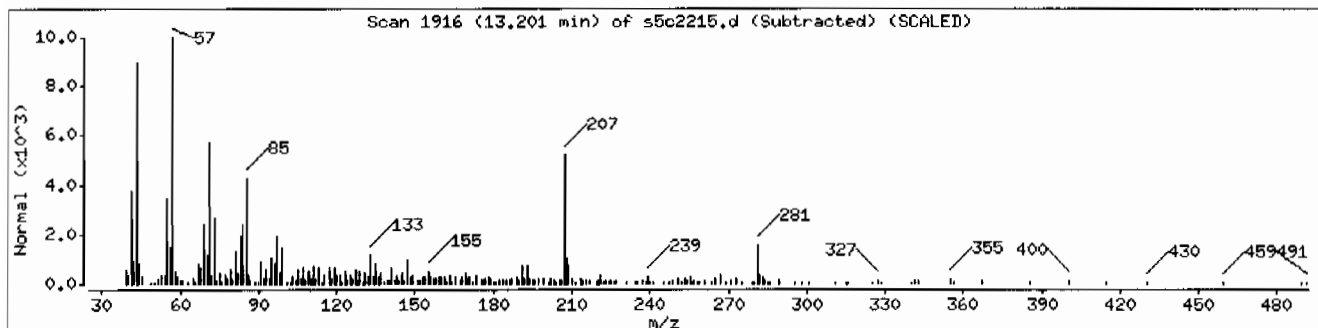
Volume Injected (uL): 0.5

Operator: RHB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Eicosane, 9-octyl-	13475-77-9	NIST05.L	169722	46	C28H58	394
Sulfurous acid, 2-propyl tetradecyl este	1000309-12-5	NIST05.L	136806	45	C17H36O3S	320
1-Bromoeicosane	4276-49-7	NIST05.L	157121	45	C20H41Br	360



Date : 22-MAR-2010 13:49

Client ID: RE36-10-7451

Instrument: MSD5.i

Sample Info: 12485060041963086111SVMI11LANL

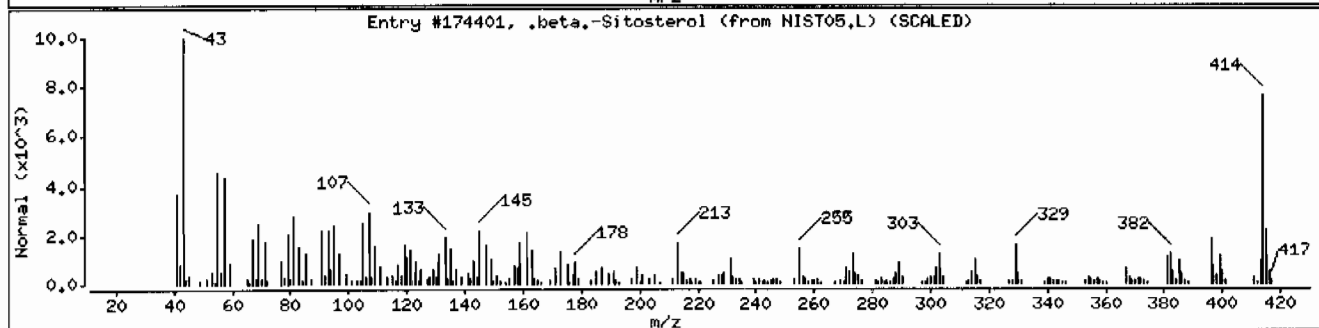
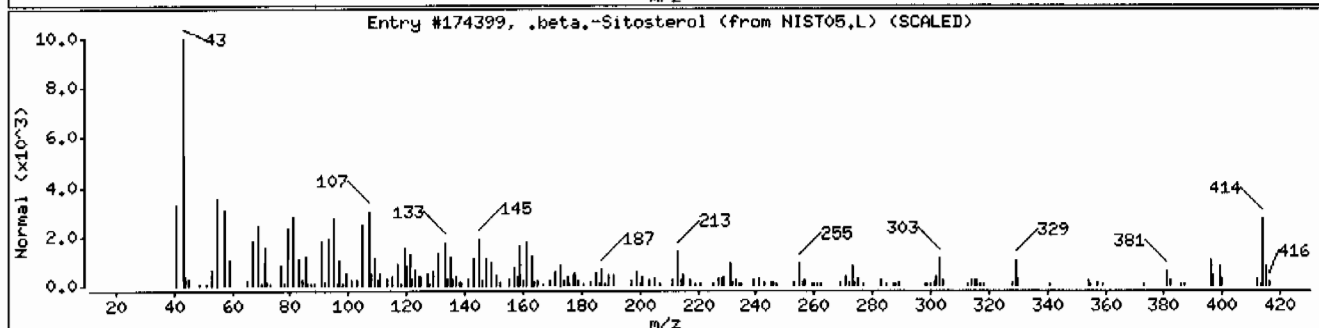
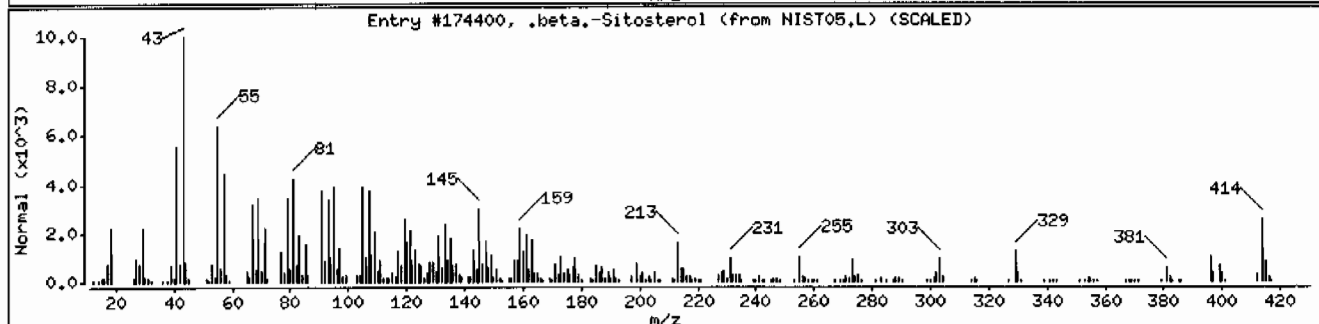
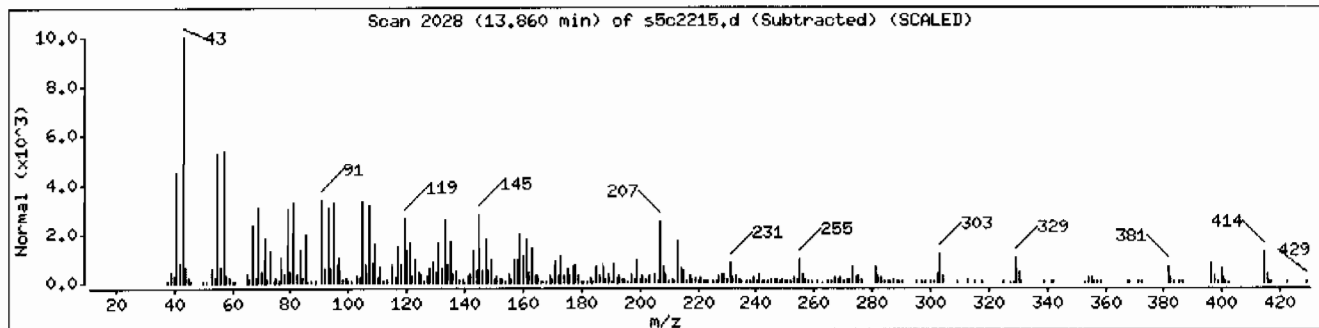
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174400	99	C29H50O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174399	97	C29H50O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174401	90	C29H50O	414



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506012	<b>Date Received:</b> 03/03/2010 08:50	<b>% Moisture:</b> 24.9
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7452	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 16:54	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.03 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2223.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	443	ug/kg	88.6	443
108-95-2	Phenol	U	443	ug/kg	88.6	443
95-57-8	2-Chlorophenol	U	443	ug/kg	88.6	443
106-46-7	1,4-Dichlorobenzene	U	443	ug/kg	88.6	443
621-64-7	N-Nitrosodipropylamine	U	443	ug/kg	88.6	443
59-50-7	4-Chloro-3-methylphenol	U	443	ug/kg	88.6	443
83-32-9	Acenaphthene	U	44.3	ug/kg	14.6	44.3
121-14-2	2,4-Dinitrotoluene	U	443	ug/kg	44.3	443
100-02-7	4-Nitrophenol	U	443	ug/kg	146	443
87-86-5	Pentachlorophenol	U	443	ug/kg	111	443
129-00-0	Pyrene	U	44.3	ug/kg	13.3	44.3
110-86-1	Pyridine	U	443	ug/kg	88.6	443
62-53-3	Aniline	U	443	ug/kg	133	443
111-44-4	bis(2-Chloroethyl) ether	U	443	ug/kg	88.6	443
541-73-1	1,3-Dichlorobenzene	U	443	ug/kg	88.6	443
100-51-6	Benzyl alcohol	U	443	ug/kg	133	443
95-50-1	1,2-Dichlorobenzene	U	443	ug/kg	88.6	443
108-60-1	bis(2-Chloroisopropyl) ether	U	443	ug/kg	88.6	443
95-48-7	o-Cresol	U	443	ug/kg	88.6	443
65794-96-9	m,p-Cresols	U	443	ug/kg	133	443
67-72-1	Hexachloroethane	U	443	ug/kg	88.6	443
98-95-3	Nitrobenzene	U	443	ug/kg	88.6	443
78-59-1	Isophorone	U	443	ug/kg	88.6	443
88-75-5	2-Nitrophenol	U	443	ug/kg	88.6	443
105-67-9	2,4-Dimethylphenol	U	443	ug/kg	155	443
111-91-1	bis(2-Chloroethoxy)methane	U	443	ug/kg	88.6	443
120-83-2	2,4-Dichlorophenol	U	443	ug/kg	88.6	443
65-85-0	Benzoic acid	U	886	ug/kg	222	886
91-20-3	Naphthalene	U	44.3	ug/kg	13.3	44.3
106-47-8	4-Chloroaniline	U	443	ug/kg	88.6	443
87-68-3	Hexachlorobutadiene	U	443	ug/kg	88.6	443
91-57-6	2-Methylnaphthalene	U	44.3	ug/kg	8.86	44.3
77-47-4	Hexachlorocyclopentadiene	U	443	ug/kg	88.6	443
88-06-2	2,4,6-Trichlorophenol	U	443	ug/kg	88.6	443
95-95-4	2,4,5-Trichlorophenol	U	443	ug/kg	88.6	443
91-58-7	2-Chloronaphthalene	U	44.3	ug/kg	14.6	44.3
88-74-4	2-Nitroaniline	U	443	ug/kg	88.6	443
99-09-2	o-Nitroaniline	U	443	ug/kg	88.6	443
	3-Nitroaniline					

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506012	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 24.9
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7452	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 16:54	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.03 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2223.d	<b>Column:</b> J&W DB-5MS	<b>Level:</b> LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
131-11-3	<i>m</i> -Nitroaniline					
606-20-2	Dimethylphthalate	U	443	ug/kg	88.6	443
208-96-8	2,6-Dinitrotoluene	U	443	ug/kg	44.3	443
51-28-5	Acenaphthylene	U	44.3	ug/kg	13.3	44.3
132-64-9	2,4-Dinitrophenol	U	886	ug/kg	168	886
84-66-2	Dibenzofuran	U	443	ug/kg	88.6	443
86-73-7	Diethylphthalate	U	443	ug/kg	88.6	443
7005-72-3	Fluorene	U	44.3	ug/kg	13.3	44.3
534-52-1	4-Chlorophenylphenylether	U	443	ug/kg	88.6	443
100-01-6	2-Methyl-4,6-dinitrophenol	U	443	ug/kg	88.6	443
	4-Nitroaniline	U	443	ug/kg	133	443
122-39-4	<i>p</i> -Nitroaniline					
122-66-7	Diphenylamine	U	443	ug/kg	88.6	443
	Azobenzene	U	443	ug/kg	88.6	443
101-55-3	<i>1,2</i> -Diphenylhydrazine					
118-74-1	4-Bromophenylphenylether	U	443	ug/kg	88.6	443
85-01-8	Hexachlorobenzene	U	443	ug/kg	88.6	443
120-12-7	Phenanthrene	U	44.3	ug/kg	13.3	44.3
84-74-2	Anthracene	U	44.3	ug/kg	8.86	44.3
206-44-0	Di-n-butylphthalate	U	443	ug/kg	88.6	443
85-68-7	Fluoranthene	U	44.3	ug/kg	13.3	44.3
56-55-3	Butylbenzylphthalate	U	443	ug/kg	88.6	443
91-94-1	Benzo(a)anthracene	U	44.3	ug/kg	13.3	44.3
218-01-9	3,3'-Dichlorobenzidine	U	443	ug/kg	133	443
117-81-7	Chrysene	U	44.3	ug/kg	13.3	44.3
117-84-0	bis(2-Ethylhexyl)phthalate	U	443	ug/kg	88.6	443
205-99-2	Di-n-octylphthalate	U	443	ug/kg	88.6	443
207-08-9	Benzo(b)fluoranthene	U	44.3	ug/kg	13.3	44.3
50-32-8	Benzo(k)fluoranthene	U	44.3	ug/kg	13.3	44.3
193-39-5	Benzo(a)pyrene	U	44.3	ug/kg	13.3	44.3
53-70-3	Indeno(1,2,3-cd)pyrene	U	44.3	ug/kg	13.3	44.3
191-24-2	Dibenzo(a,h)anthracene	U	44.3	ug/kg	13.3	44.3
120-82-1	Benzo(ghi)perylene	U	44.3	ug/kg	13.3	44.3
	1,2,4-Trichlorobenzene	U	443	ug/kg	88.6	443

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
7785-70-8	1R-.alpha.-Pinene	3.52	3270	ug/kg	97	NJ
127-91-3	.beta.-Pinene	3.77	2110	ug/kg	97	NJ

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 248506012	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 24.9
	<b>Client:</b> LANL010	<b>Project:</b> LANL01004
<b>Client ID:</b> RE36-10-7452	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.1	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 16:54	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.03 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2223.d	<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						
CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	5.8	3710	ug/kg	98	NJ
	Unknown	8.94	911	ug/kg		J
	Unknown	9.02	487	ug/kg		J
17974-57-1	(3E,5E,7E)-6-Methyl-8-(2,6,6-trimethyl-1	9.14	649	ug/kg	89	NJ
	Unknown	9.28	438	ug/kg		J
	Unknown	10.26	479	ug/kg		J
71502-22-2	9-Hexacosene	10.9	1550	ug/kg	99	NJ

Data File: /chem/MSD5.i/s032210.b/s5c2223.d  
Report Date: 23-Mar-2010 07:53

Page 1

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2223.d  
Lab Smp Id: 248506012 Client Smp ID: RE36-10-7452  
Inj Date : 22-MAR-2010 16:54  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |248506012|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 23  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	24.86220	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.949	3.950	(1.000)	257030	40.0000
* 29 Naphthalene-d8	136	4.813	4.821	(1.000)	1019332	40.0000
* 46 Acenaphthene-d10	164	6.072	6.078	(1.000)	615475	40.0000
* 67 Phenanthrene-d10	188	7.248	7.253	(1.000)	1131162	40.0000
* 91 Chrysene-d12	240	9.678	9.670	(1.000)	993472	40.0000
* 98 Perylene-d12	264	11.389	11.370	(1.000)	738511	40.0000
\$ 3 2-Fluorophenol	112	3.143	3.141	(0.796)	308096	48.0036 2130
\$ 5 Phenol-d5	99	3.666	3.666	(0.928)	407835	52.8691 2340
\$ 20 Nitrobenzene-d5	82	4.307	4.316	(0.895)	209225	27.6229 1220
\$ 39 2-Fluorobiphenyl	172	5.554	5.558	(0.915)	351013	22.8338 1010
\$ 60 2,4,6-Tribromophenol	329	6.672	6.675	(1.099)	118449	51.2389 2270
\$ 81 p-Terphenyl-d14	244	8.636	8.630	(0.892)	342922	20.7509 920

## ION RATIO REPORT

## SV REPORT

Data file: s5c2223.d

Report Date: 03/23/2010 07:04

Lab. ID: 248506012

SampleType: SAMPLE

Injection Date: 22-MAR-2010 16:54

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506012|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100310-01

Comment:

Method used: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	16174	3.77	3.74	80-120	100	( )
93	438530	3.77	3.74	219-279	2711	(Q)
-----						
6 Phenol		CAS#: 108-95-2				
94	62314	3.77	3.68	80-120	100	(T)
66	16558	3.77	3.67	23- 83	27	(T)
65	45974	3.77	3.68	0- 30	74	(QT)
-----						
7 bis(2-Chloroethyl) ether		CAS#: 111-44-4				
63	15868	3.77	3.75	80-120	100	( )
93	438530	3.77	3.75	119-179	2763	(Q)
95	9482	3.77	3.75	8- 68	60	( )
-----						
15 o-Cresol		CAS#: 95-48-7				
107	18497	3.91	4.07	80-120	100	(T)
108	3951	3.91	4.07	86-146	21	(QT)
77	90315	3.90	4.07	26- 86	488	(QT)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	29853	4.31	4.19	80-120	100	(T)
42	19436	4.31	4.19	44-104	65	(T)
-----						
22 Isophorone		CAS#: 78-59-1				
82	202467	4.31	4.48	80-120	100	(T)
138	512	4.43	4.48	0- 49	0	( )
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
<hr/>						
25 bis(2-Chloroethoxy)methane				CAS#: 111-91-1		
93	27746	4.59	4.60	80-120	100	( )
123	8790	4.58	4.60	0- 44	32	( )
95	37174	4.59	4.60	2- 62	134	(Q)
<hr/>						
27 Benzoic acid				CAS#: 65-85-0		
105	17809	4.59	4.59	80-120	100	( )
122	5708	4.58	4.59	45-105	32	(Q)
77	39999	4.59	4.59	48-108	225	(Q)
<hr/>						
33 4-Chloro-3-methylphenol				CAS#: 59-50-7		
107	15384	5.14	5.16	80-120	100	( )
144	223	5.16	5.16	0- 55	1	( )
142	772	5.17	5.16	49-109	5	(Q)
<hr/>						
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	61065	5.80	5.67	80-120	100	(T)
164	3891	5.80	5.67	3- 63	6	(T)
127	7583	5.80	5.67	11- 71	12	(T)
<hr/>						
42 o-Nitroaniline				CAS#: 88-74-4		
65	100490	5.80	5.73	80-120	100	(T)
92	115176	5.80	5.73	34- 94	115	(QT)
138	5801	5.80	5.73	74-134	6	(QT)
<hr/>						
43 Dimethylphthalate				CAS#: 131-11-3		
163	114407	6.07	5.84	80-120	100	(T)
164	615475	6.07	5.84	0- 40	538	(QT)
<hr/>						
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	80054	6.07	5.90	80-120	100	(T)
63	2267	6.07	5.89	62-122	3	(QT)
<hr/>						
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	80097	6.07	6.19	80-120	100	(T)
89	3002	6.07	6.19	51-111	4	(QT)
63	2198	6.07	6.19	24- 84	3	(QT)
<hr/>						
52 4-Nitrophenol				CAS#: 100-02-7		
139	461	6.12	6.12	80-120	100	( )
109	1507	6.16	6.12	63-123	326	(Q)
65	7431	6.07	6.11	71-131	1609	(Q)
<hr/>						
53 Fluorene				CAS#: 86-73-7		
166	6178	6.67	6.49	80-120	100	(T)
165	5215	6.67	6.49	62-122	84	(T)
167	2343	6.67	6.49	0- 44	38	(T)
<hr/>						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	117	6.62	6.51	80-120	100	(T)
105	3183	6.60	6.50	13- 73	2702	(QT)
51	1242	6.67	6.50	51-111	1054	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2223.d  
 Lab Smp Id: 248506012 Client Smp ID: RE36-10-7452  
 Inj Date : 22-MAR-2010 16:54  
 Operator : RMB Inst ID: MSD5.i  
 Smp Info : |248506012|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
 Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
 Als bottle: 23  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2193.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	24.86220	% moisture

Cpnd Variable

Local Compound Variable

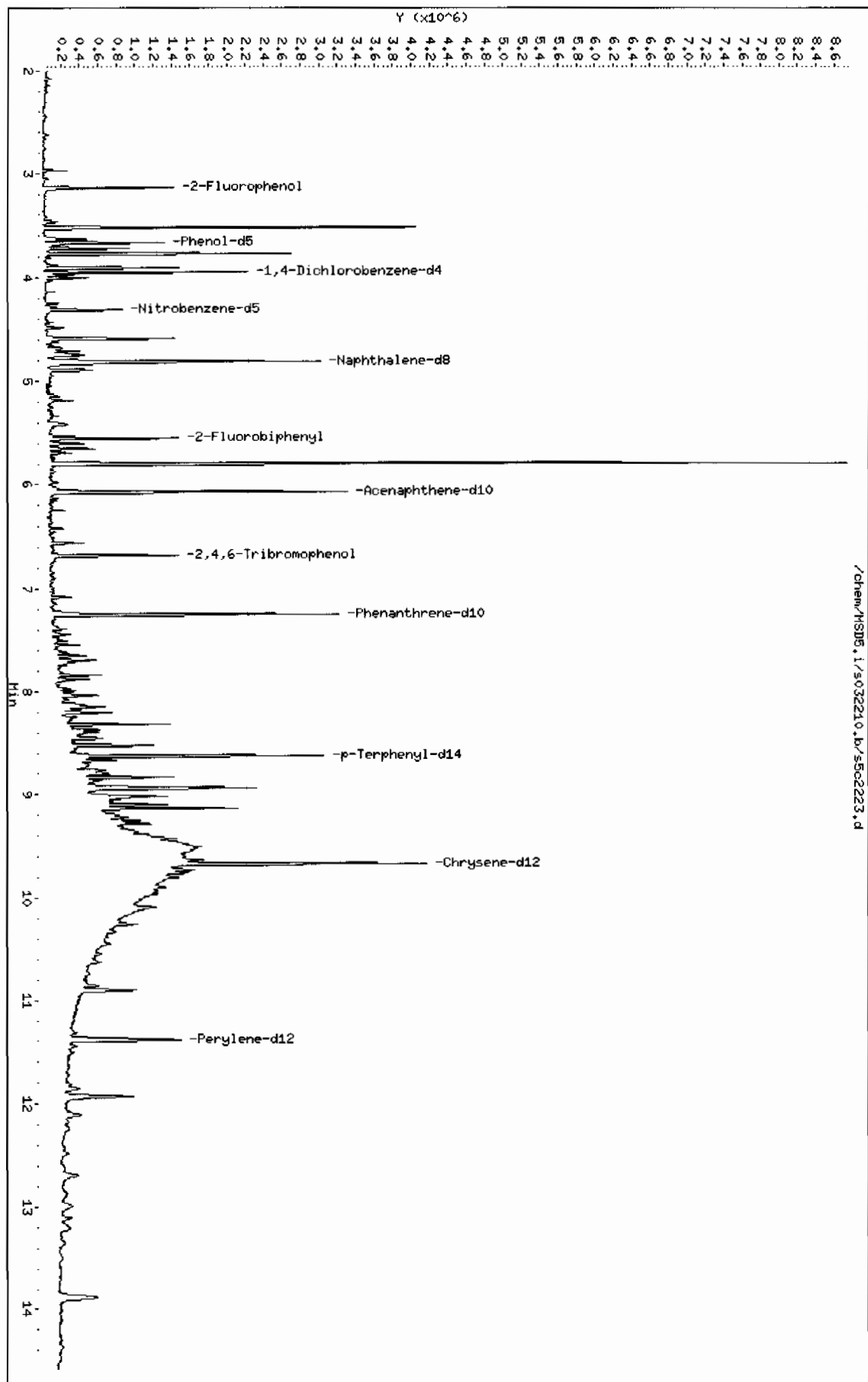
ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.949	1849950	40.000
* 46 Acenaphthene-d10	6.072	3045979	40.000
* 91 Chrysene-d12	9.678	7814543	40.000
* 98 Perylene-d12	11.389	2161435	40.000

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			
3.519	3417284	73.8891874	3270	97	NIST05.L	15188		10
.beta.-Pinene					CAS #: 127-91-3			
3.766	2198773	47.5422999	2110	97	NIST05.L	15171		10
1,4-Methanoazulene, decahydro-4,8,8-trim					CAS #: 475-20-7			
5.801	6380634	83.7908940	3710	98	NIST05.L	60024		46
Unknown					CAS #:			
8.936	4015977	20.5564219	911	0		0		91
Unknown					CAS #:			
9.019	2148330	10.9965747	487	0		0		91
(3E,5E,7E)-6-Methyl-8-(2,6,6-trimethyl-1					CAS #: 17974-57-1			
9.136	2858740	14.6329183	648	89	NIST05.L	97615		91
Unknown					CAS #:			
9.283	1930817	9.88319879	438	0		0		91
Unknown					CAS #:			
10.260	2109934	10.8000346	479	0		0		91
9-Hexacosene					CAS #: 71502-22-2			
10.901	1889109	34.9602617	1550	99	NIST05.L	159038		98

Data File: /chem/HSD5.1/s032210.b/s502223.d  
Date: 22-MAR-2010 16:54  
Client ID: RE36-10-7452  
Sample Info: 1248506012196306611SM111LPHL  
Volume Injected (uL): 0.5  
Column phase: J&W DB-SMS

Instrument: HSD5.1  
Operator: RMB  
Column diameter: 0.20



Date: 22-MAR-2010 16:54

Client ID: RE36-10-7452

Instrument: MSD5.i

Sample Info: 12485060121963086111SVH111LANL

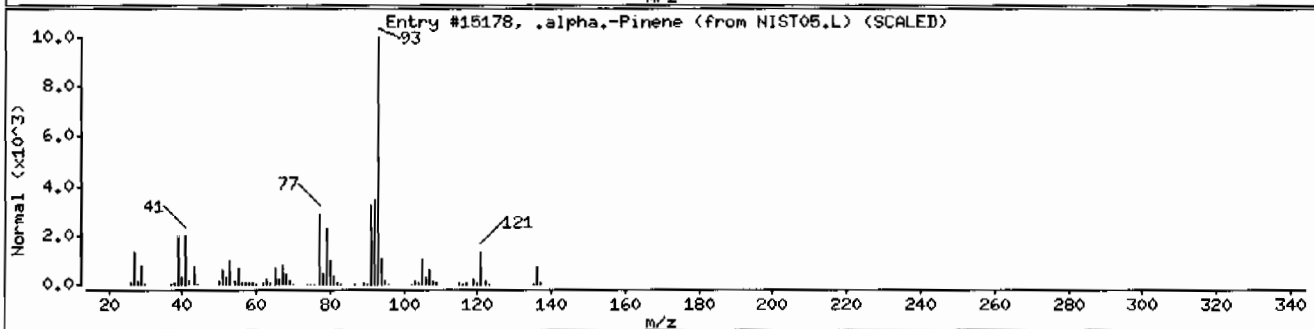
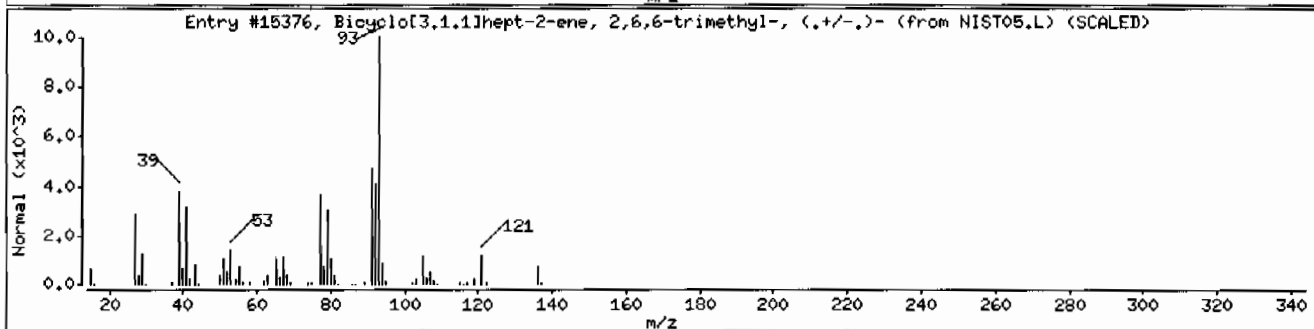
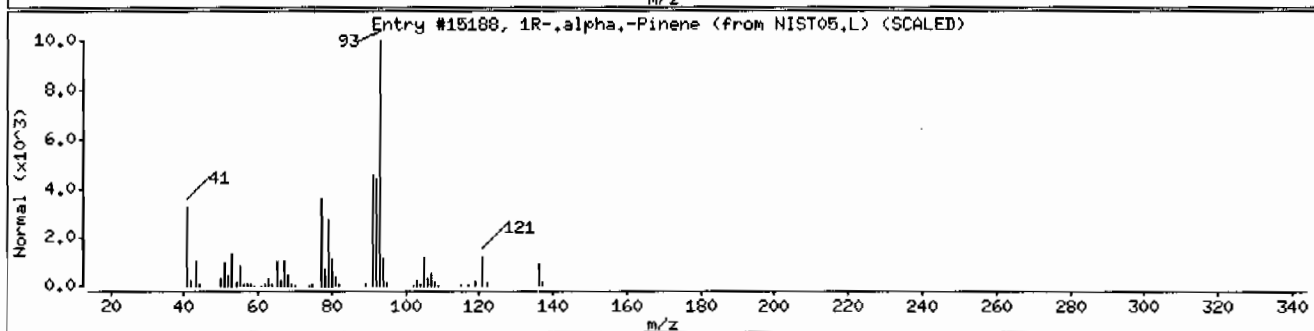
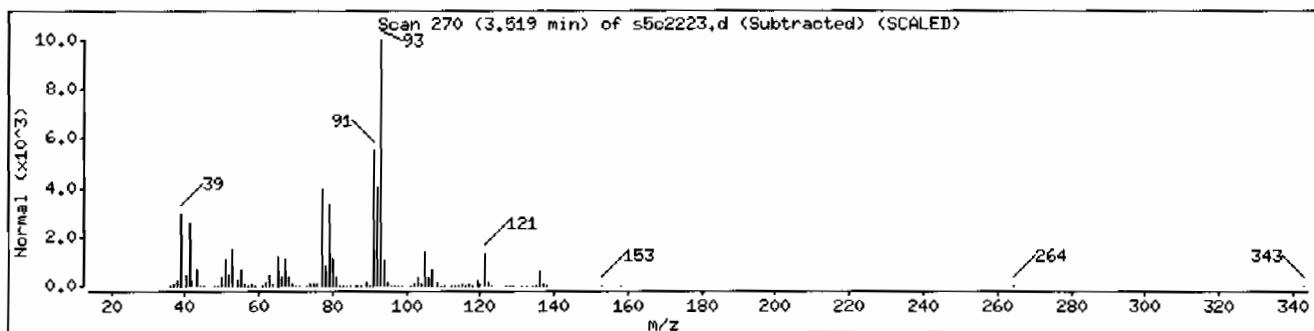
Volume Injected (uL): 0.5

Operator: RMB

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
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl-	2437-95-8	NIST05.L	15376	97	C10H16	136
.alpha.-Pinene	80-56-8	NIST05.L	15178	93	C10H16	136



Date : 22-MAR-2010 16:54

Client ID: RE36-10-7452

Instrument: MSD5.i

Sample Info: I248506012I9630861IISVMIIILANL

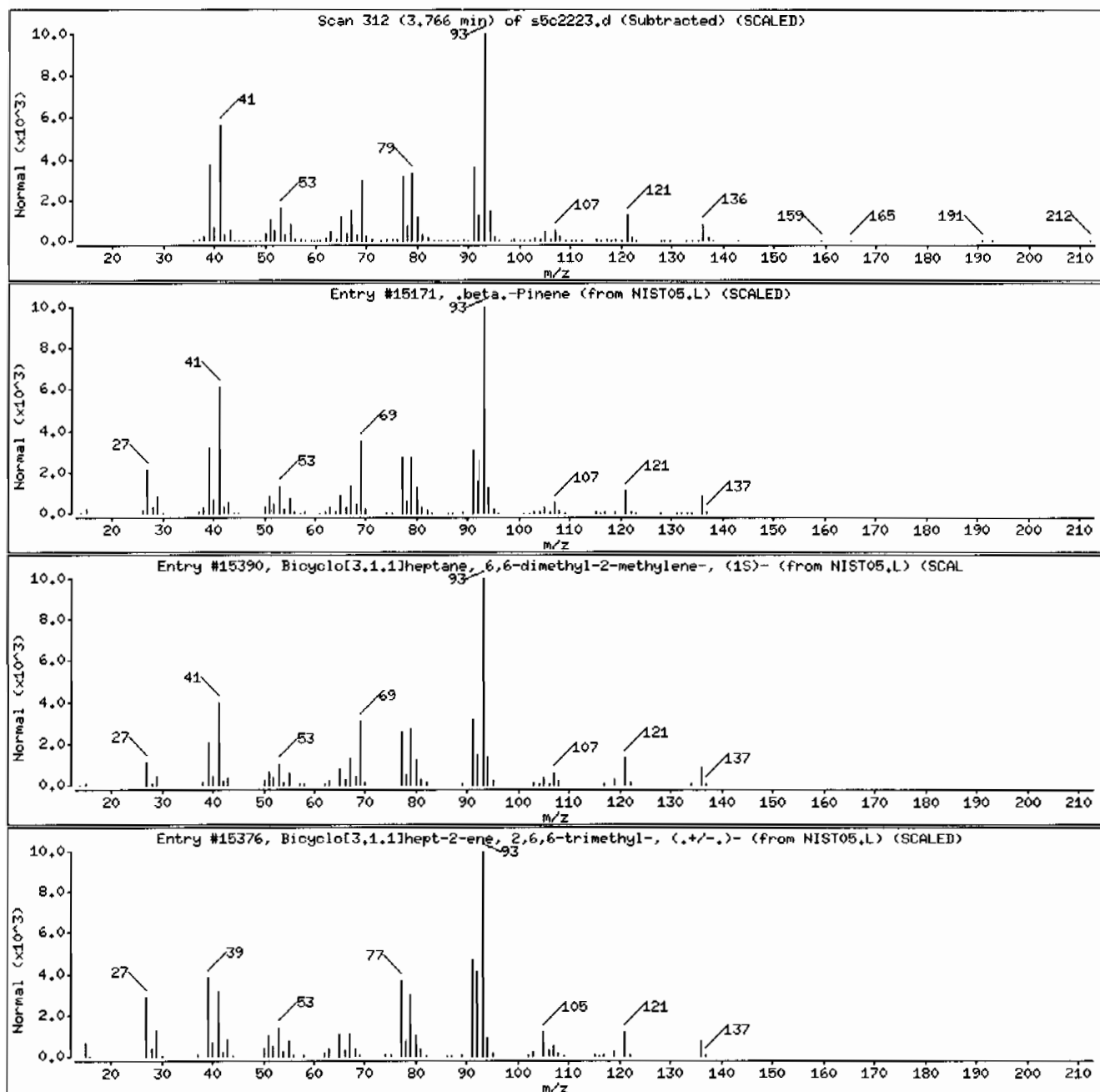
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
,beta.-Pinene	127-91-3	NIST05.L	15171	97	C10H16	136
Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-me	18172-67-3	NIST05.L	15390	97	C10H16	136
Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethy	2437-95-8	NIST05.L	15376	94	C10H16	136



Date : 22-MAR-2010 16:54

Client ID: RE36-10-7452

Instrument: MSD5.i

Sample Info: I248506012196308611ISVH11ILANL

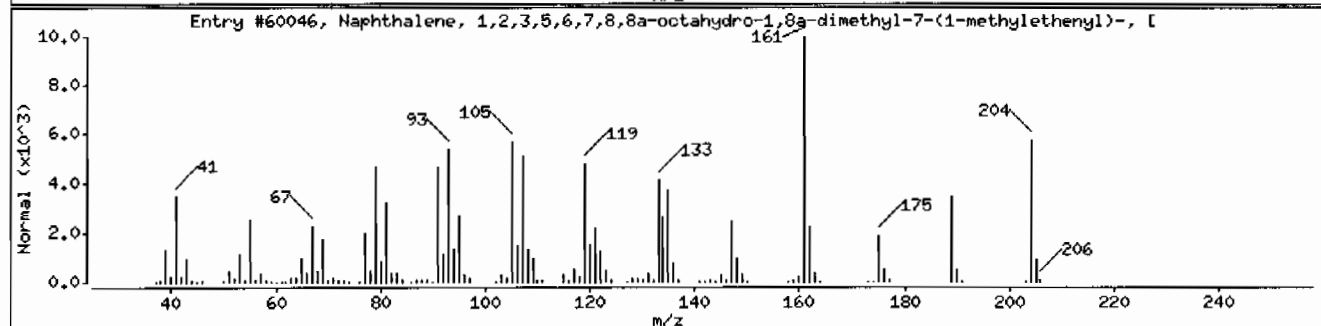
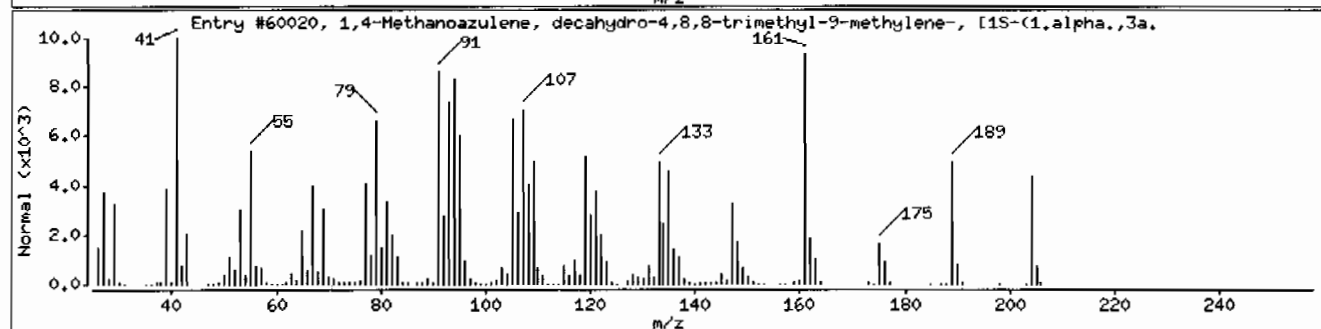
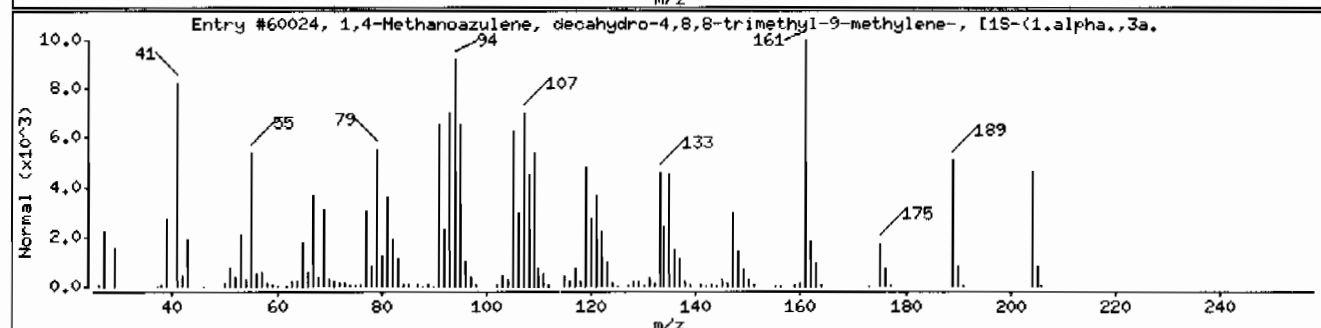
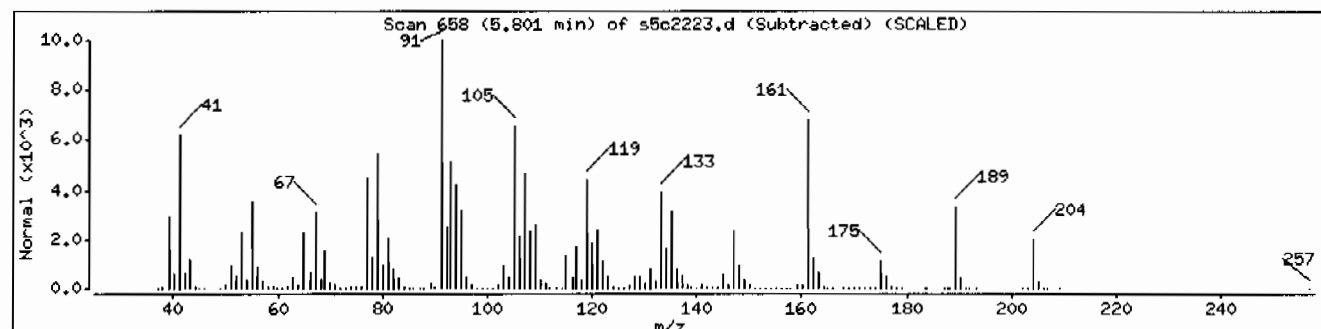
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60024	98	C15H24	204
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60020	96	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60046	96	C15H24	204



Date : 22-MAR-2010 16:54

Client ID: RE36-10-7452

Instrument: HSD5.i

Sample Info: 1248506012196308611ISVMI1ILANL

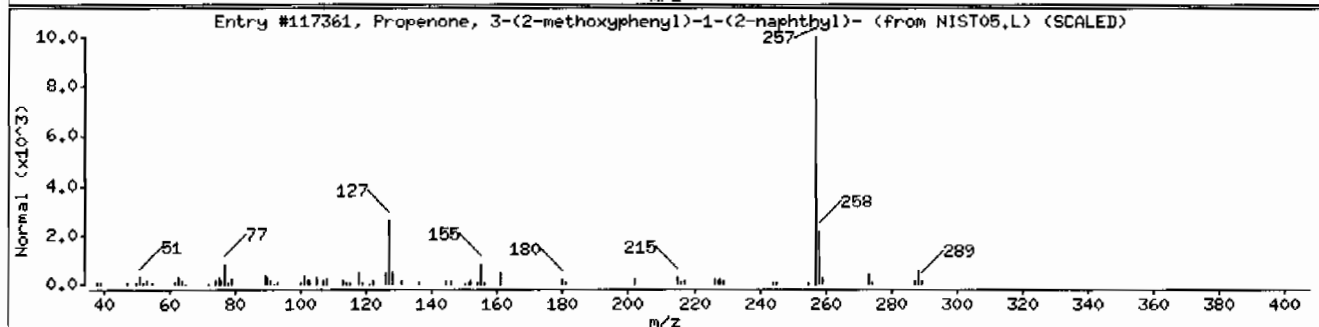
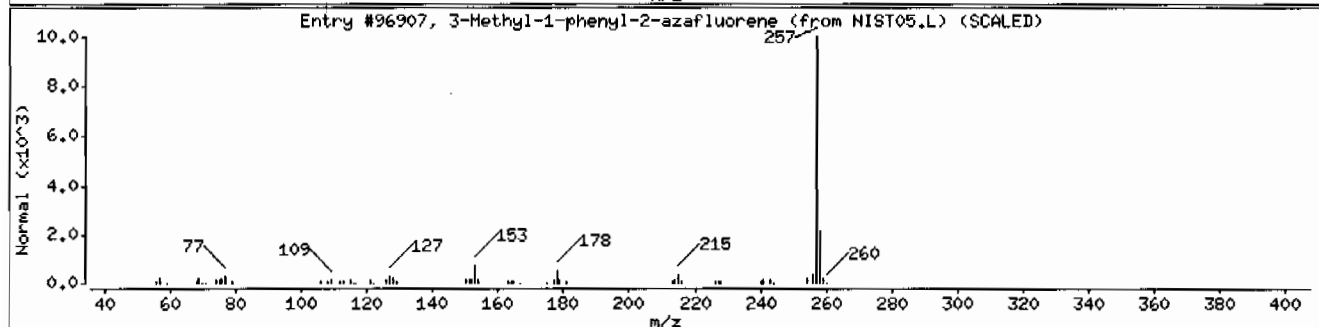
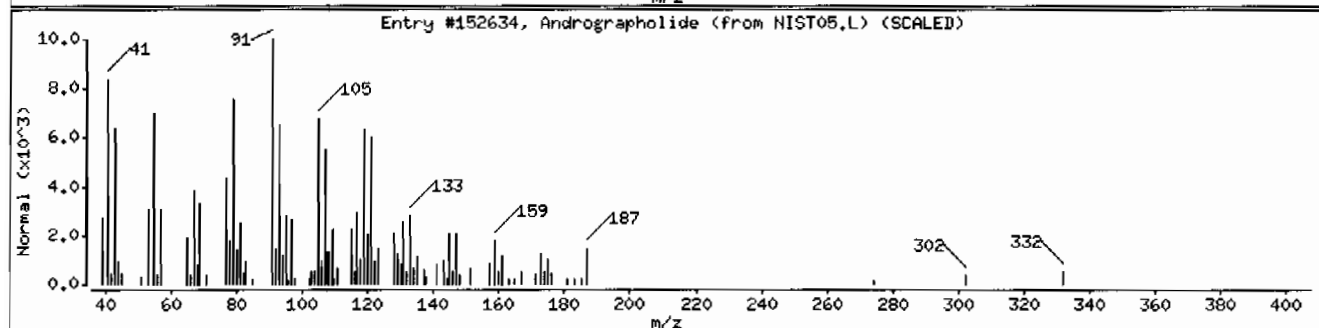
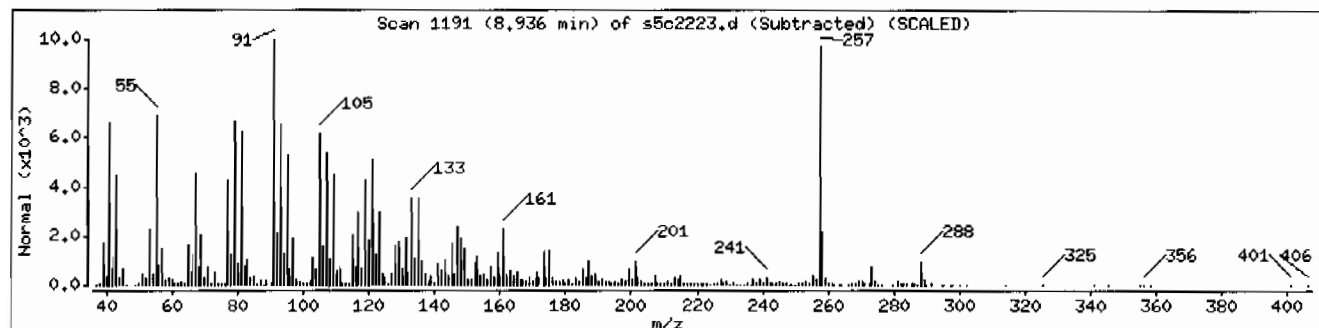
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Andrographolide	5508-58-7	NIST05.L	152634	38	C20H30O5	350
3-Methyl-1-phenyl-2-azafluorene	62578-39-6	NIST05.L	96907	35	C19H15N	257
Propenone, 3-(2-methoxyphenyl)-1-(2-naph	52601-56-6	NIST05.L	117361	30	C20H16O2	288





Date : 22-MAR-2010 16:54

Client ID: RE36-10-7452

Instrument: MSD5.i

Sample Info: 1248506012196308611|SVM11|LANL

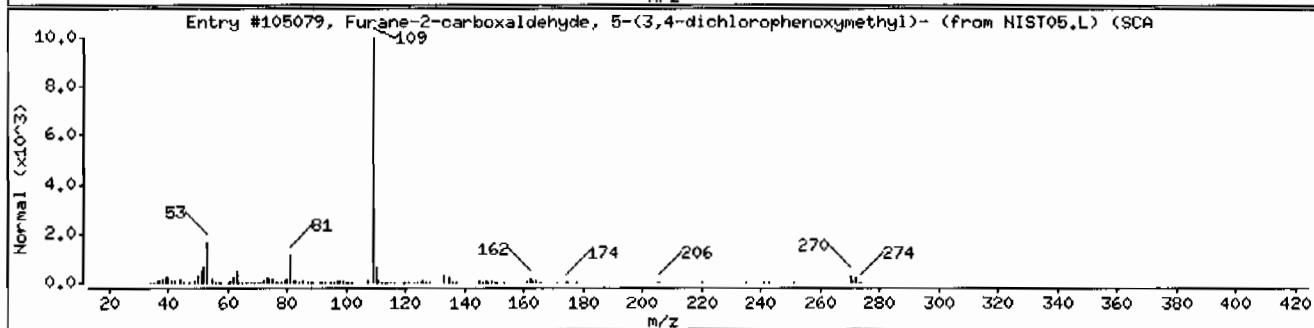
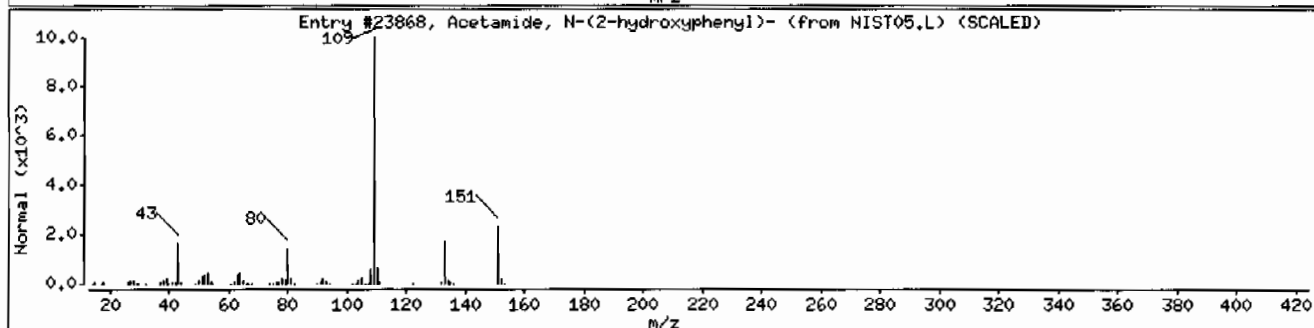
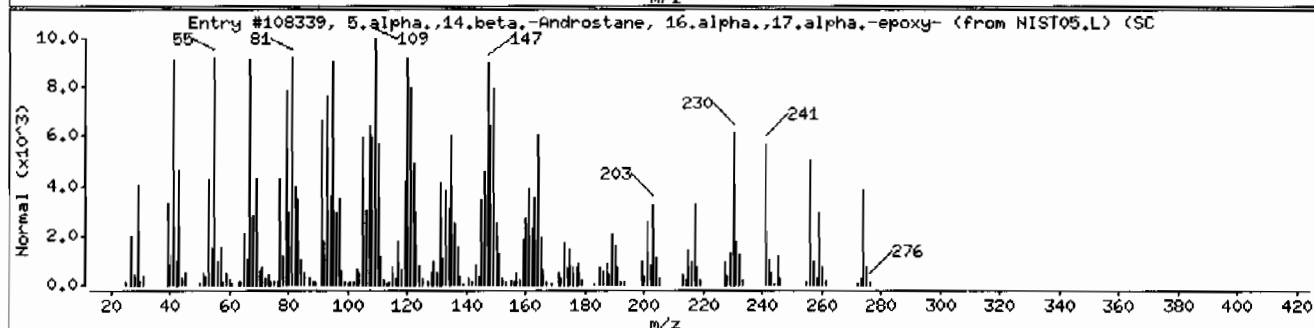
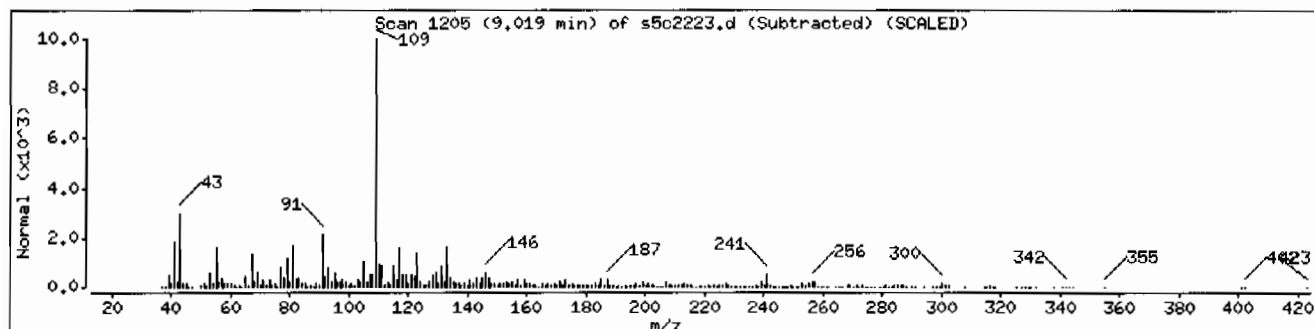
Volume Injected (UL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
5.alpha.,14.beta.-Androstane, 16.alpha.,	24174-25-2	NIST05.L	108339	59	C19H30O	274
Acetamide, N-(2-hydroxyphenyl)-	614-80-2	NIST05.L	23868	53	C8H9NO2	151
Furane-2-carboxaldehyde, 5-(3,4-dichloro	1000273-82-2	NIST05.L	105079	52	C12H8Cl2O3	270



Date : 22-MAR-2010 16:54

Client ID: RE36-10-7452

Instrument: MSD5.i

Sample Info: 1248506012196308611ISVMI11LANL

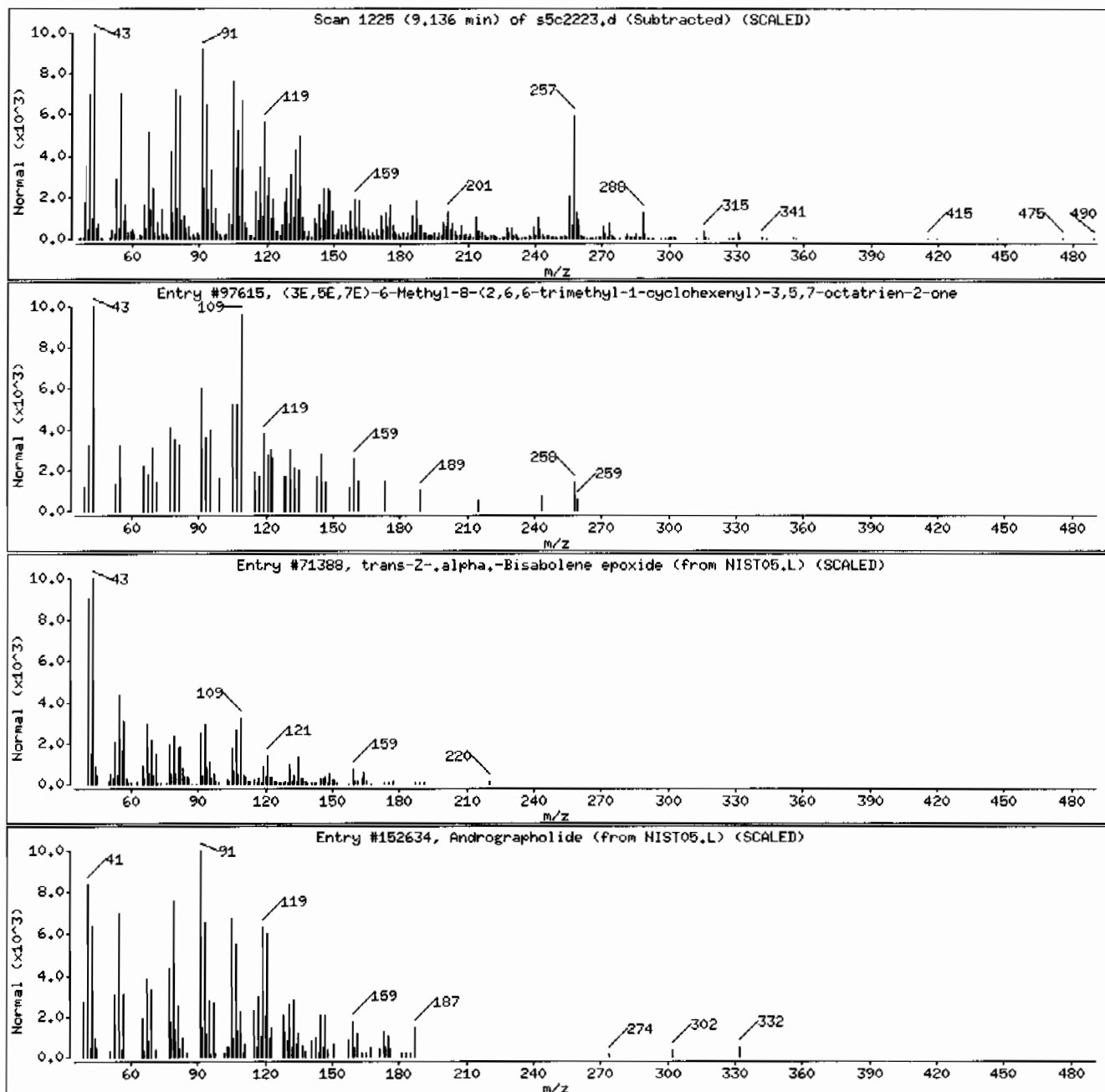
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
(3E,5E,7E)-6-Methyl-8-(2,6,6-trimethyl-1	17974-67-1	NIST05.L	97615	89	C18H26O	258
trans-2-.alpha.-Bisabolene epoxide	1000131-71-1	NIST05.L	71388	55	C15H24O	220
Andrographolide	5508-58-7	NIST05.L	152634	50	C20H30O5	350



Date : 22-MAR-2010 16:54

Client ID: RE36-10-7452

Instrument: HSD5.i

Sample Info: 12485060121963086111SVH111LANL

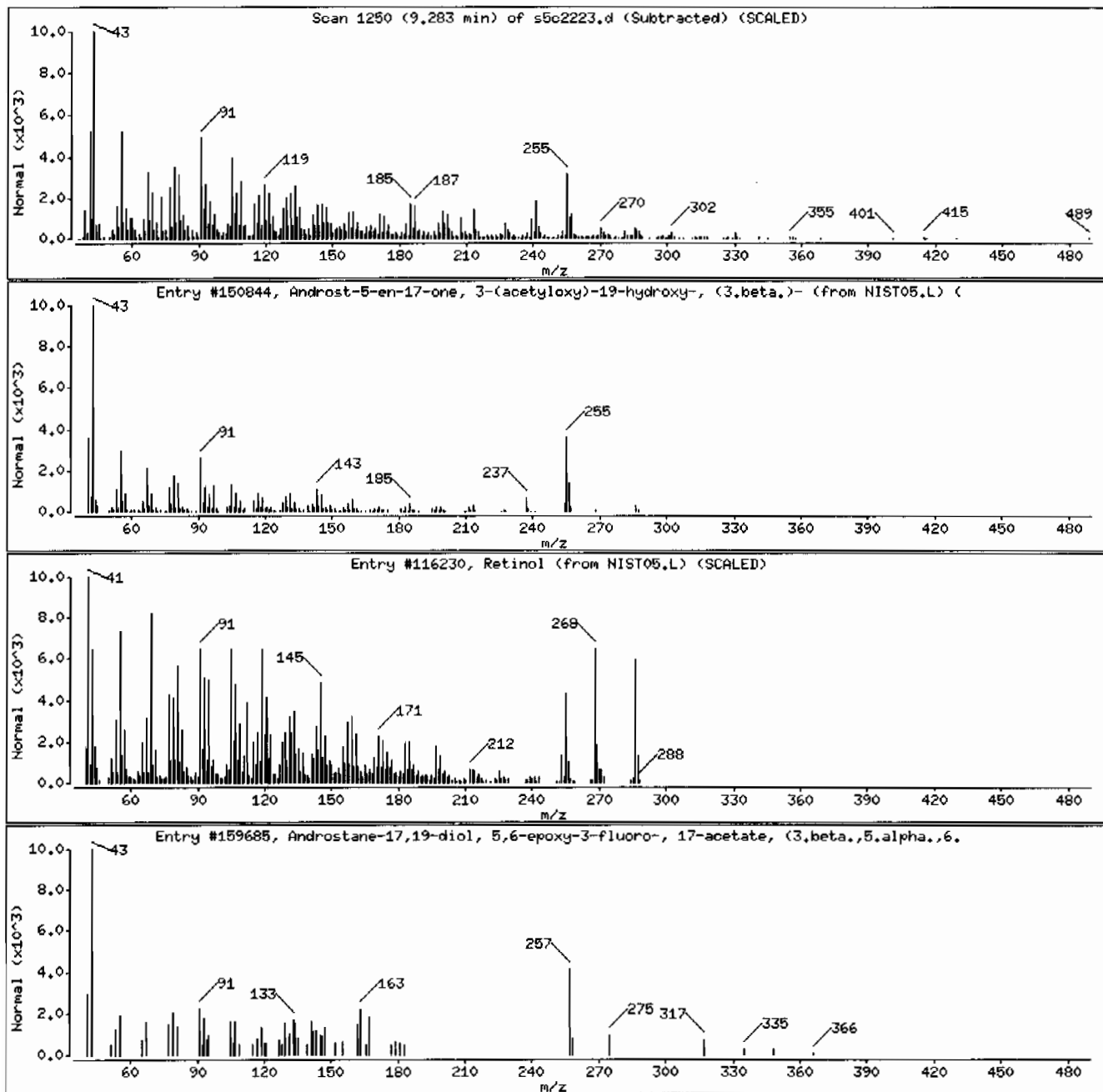
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Androst-5-en-17-one, 3-(acetyloxy)-19-hy	2857-42-3	NIST05.L	150844	25	C21H30O4	346
Retinol	68-26-8	NIST05.L	116230	18	C20H30O	286
Androstane-17,19-diol, 5,6-epoxy-3-fluor	40242-94-2	NIST05.L	159685	12	C21H31FO4	366



Date : 22-MAR-2010 16:54

Client ID: RE36-10-7452

Instrument: MSD5,i

Sample Info: 12485060121963086111SVH111LANL

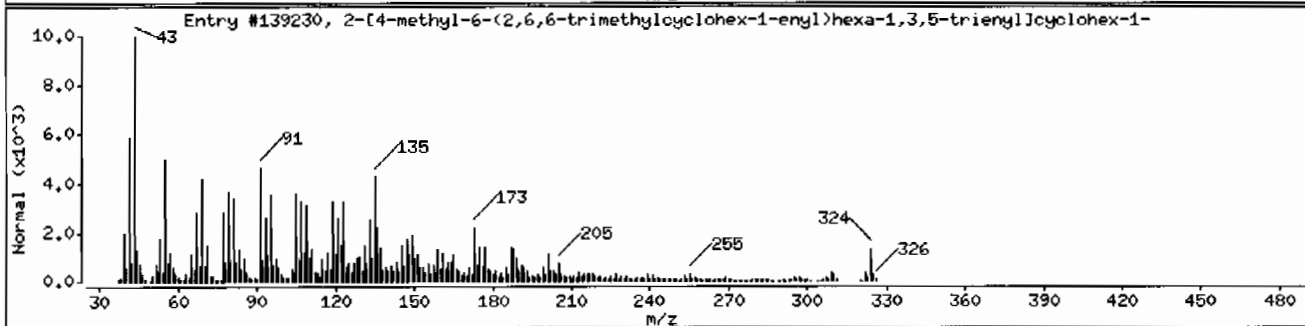
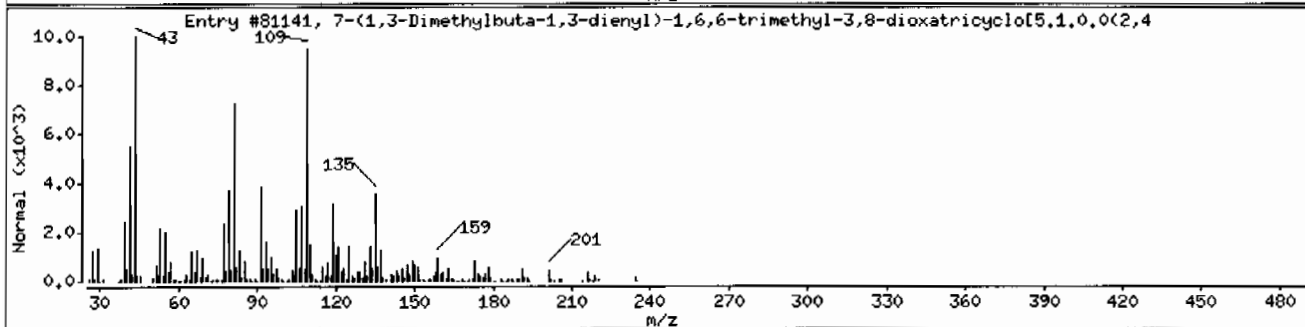
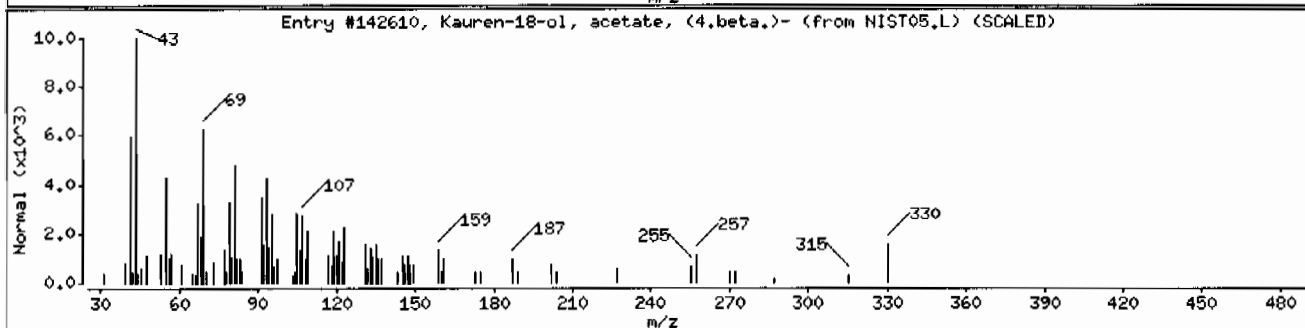
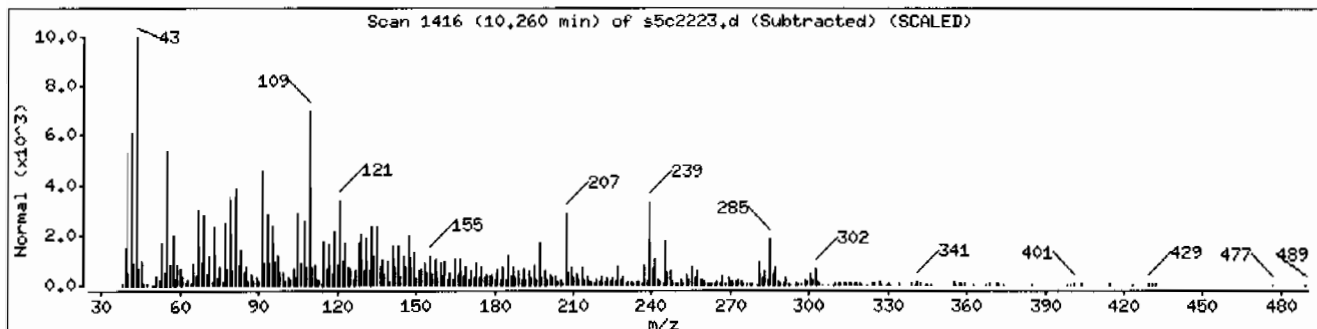
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Kauren-18-ol, acetate, (4,beta.)-	72150-74-4	NIST05.L	142610	56	C22H34O2	330
7-(1,3-Dimethylbuta-1,3-dienyl)-1,6,6-tr	1000190-22-7	NIST05.L	81141	51	C15H22O2	234
2-[4-methyl-6-(2,6,6-trimethylcyclohex-1	1000216-09-2	NIST05.L	139230	45	C23H32O	324



Date : 22-MAR-2010 16:54

Client ID: RE36-10-7452

Instrument: MSD5.i

Sample Info: I2485060121963086111SVH111LANL

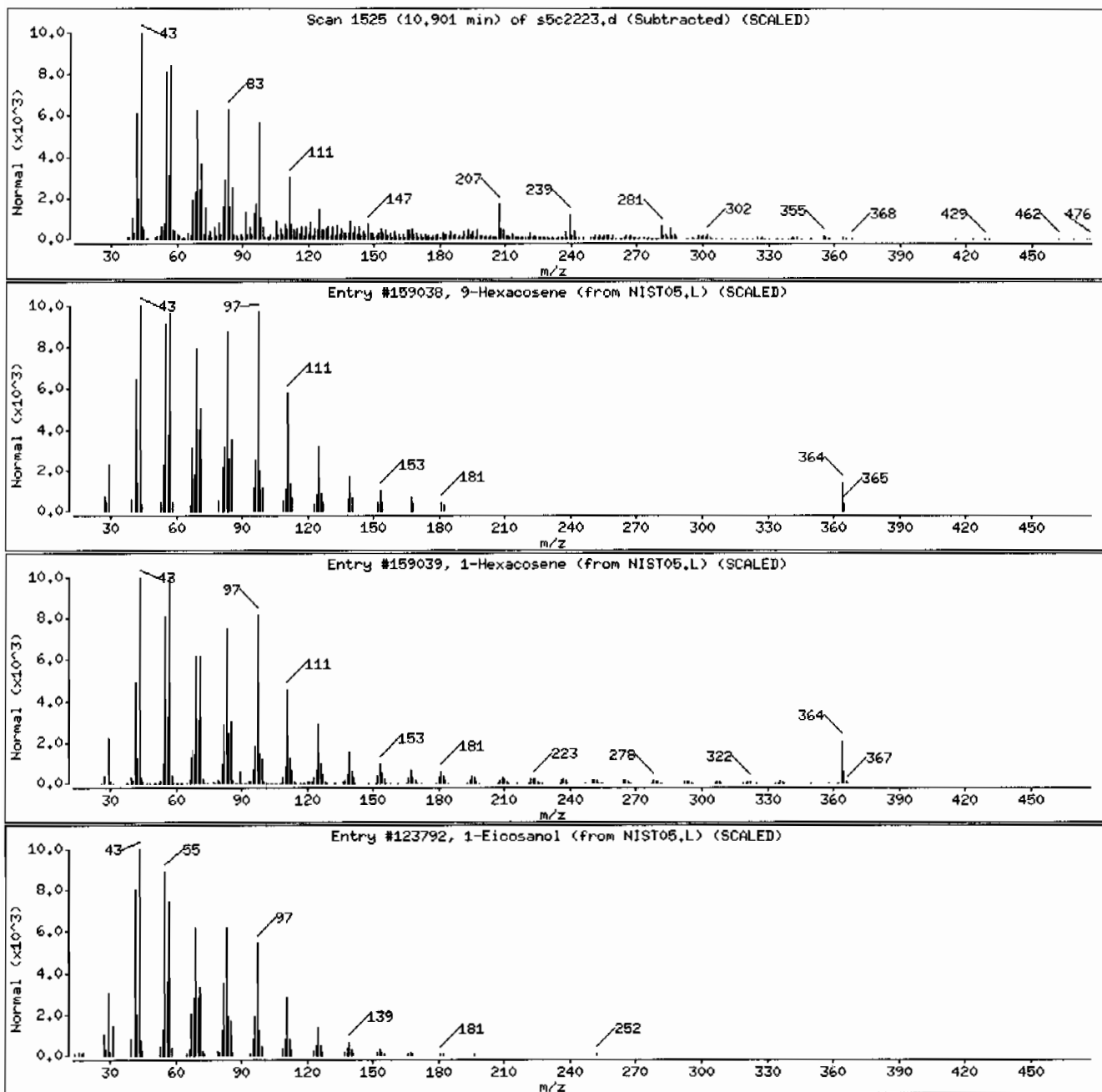
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Hexacosene	71502-22-2	NIST05.L	159038	99	C <sub>26</sub> H <sub>52</sub>	364
1-Hexacosene	18835-33-1	NIST05.L	159039	97	C <sub>26</sub> H <sub>52</sub>	364
1-Eicosanol	629-96-9	NIST05.L	123792	93	C <sub>20</sub> H <sub>42</sub> O	298



# 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,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.

# Indicates the calibration verification concentration level used

\* Usual calibration levels using SCAN methodology

\*\* This analyte included in this level at special client request.

(0210/Full list)

Report Date: 22-Mar-2010 11:21

### Calibration History

Method : /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Start Cal Date: 17-FEB-2010 19:16  
End Cal Date : 02-MAR-2010 14:42

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
18-FEB-2010 09:42	MEGAIICARE	/chem/MSD5.i/s021710.b/s5b1729.d
Cal Level: 2 , Cal Amount: 10.00000		
02-MAR-2010 11:50	BJCO	/chem/MSD5.i/s030210.b/s5c0203.d
18-FEB-2010 17:05	hex	/chem/MSD5.i/s021710.b/s5b1746.d
18-FEB-2010 14:22	pest	/chem/MSD5.i/s021710.b/s5b1739.d
18-FEB-2010 10:10	MEGAIICARE	/chem/MSD5.i/s021710.b/s5b1730.d
17-FEB-2010 22:47	nev	/chem/MSD5.i/s021710.b/s5b1720.d
17-FEB-2010 19:16	ap12	/chem/MSD5.i/s021710.b/s5b1711.d
Cal Level: 3 , Cal Amount: 20.00000		
02-MAR-2010 12:19	BJCO	/chem/MSD5.i/s030210.b/s5c0204.d
18-FEB-2010 17:28	hex	/chem/MSD5.i/s021710.b/s5b1747.d
18-FEB-2010 14:45	pest	/chem/MSD5.i/s021710.b/s5b1740.d
18-FEB-2010 10:39	MEGAIICARE	/chem/MSD5.i/s021710.b/s5b1731.d
17-FEB-2010 23:10	nev	/chem/MSD5.i/s021710.b/s5b1721.d
17-FEB-2010 19:38	ap12	/chem/MSD5.i/s021710.b/s5b1712.d
Cal Level: 4 , Cal Amount: 40.00000		
02-MAR-2010 12:48	BJCO	/chem/MSD5.i/s030210.b/s5c0205.d
18-FEB-2010 17:51	hex	/chem/MSD5.i/s021710.b/s5b1748.d
18-FEB-2010 15:08	pest	/chem/MSD5.i/s021710.b/s5b1741.d
18-FEB-2010 11:08	MEGAIICARE	/chem/MSD5.i/s021710.b/s5b1732.d
17-FEB-2010 23:33	nev	/chem/MSD5.i/s021710.b/s5b1722.d
17-FEB-2010 20:01	ap12	/chem/MSD5.i/s021710.b/s5b1713.d
Cal Level: 5 , Cal Amount: 50.00000		
02-MAR-2010 13:16	BJCO	/chem/MSD5.i/s030210.b/s5c0206.d
18-FEB-2010 18:14	hex	/chem/MSD5.i/s021710.b/s5b1749.d
18-FEB-2010 15:32	pest	/chem/MSD5.i/s021710.b/s5b1742.d
18-FEB-2010 11:35	MEGAIICARE	/chem/MSD5.i/s021710.b/s5b1733.d
17-FEB-2010 23:55	nev	/chem/MSD5.i/s021710.b/s5b1723.d
17-FEB-2010 20:24	ap12	/chem/MSD5.i/s021710.b/s5b1714.d
Cal Level: 6 , Cal Amount: 80.00000		
02-MAR-2010 13:45	BJCO	/chem/MSD5.i/s030210.b/s5c0207.d
18-FEB-2010 18:38	hex	/chem/MSD5.i/s021710.b/s5b1750.d
18-FEB-2010 15:55	pest	/chem/MSD5.i/s021710.b/s5b1743.d
18-FEB-2010 12:04	MEGAIICARE	/chem/MSD5.i/s021710.b/s5b1734.d
18-FEB-2010 00:18	nev	/chem/MSD5.i/s021710.b/s5b1724.d
17-FEB-2010 20:47	ap12	/chem/MSD5.i/s021710.b/s5b1715.d

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+-----+
+-----+
| Cal Level: 7 , Cal Amount: 100.00000
+-----+
|02-MAR-2010 14:14 |BJCO          |/chem/MSD5.i/s030210.b/s5c0208.d
|18-FEB-2010 19:01 |hex          |/chem/MSD5.i/s021710.b/s5b1751.d
|18-FEB-2010 16:18 |pest        |/chem/MSD5.i/s021710.b/s5b1744.d
|18-FEB-2010 12:32 |MEGAIICARE  |/chem/MSD5.i/s021710.b/s5b1735.d
|18-FEB-2010 00:41 |nev         |/chem/MSD5.i/s021710.b/s5b1725.d
|17-FEB-2010 21:10 |ap12        |/chem/MSD5.i/s021710.b/s5b1716.d
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+-----+
+-----+
| Cal Level: 8 , Cal Amount: 120.00000
+-----+
|02-MAR-2010 14:42 |BJCO          |/chem/MSD5.i/s030210.b/s5c0209.d
|18-FEB-2010 16:41 |pest        |/chem/MSD5.i/s021710.b/s5b1745.d
|18-FEB-2010 13:01 |MEGAIICARE  |/chem/MSD5.i/s021710.b/s5b1736.d
|18-FEB-2010 01:04 |nev         |/chem/MSD5.i/s021710.b/s5b1726.d
|17-FEB-2010 21:33 |ap12        |/chem/MSD5.i/s021710.b/s5b1717.d
+-----+

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# Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 4

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+-----+
| Ccal Level: 4 , Ccal Amount: 40.0
+-----+
|22-MAR-2010 10:18 |MEGAIICARE  |/chem/MSD5.i/s032210.b/s5c2206.d
+-----+
| Ccal Level: 4 , Ccal Amount: 40.0
+-----+
|22-MAR-2010 08:31 |MEGAIICARE  |/chem/MSD5.i/s032210.b/s5c2204.d
+-----+
| Ccal Level: 4 , Ccal Amount: 40.0
+-----+
|22-MAR-2010 07:43 |MEGAIICARE  |/chem/MSD5.i/s032210.b/s5c2202.d
+-----+

```

## GEL Laboratories LLC

## INITIAL CALIBRATION DATA

Start Cal Date : 17-FEB-2010 19:16  
 End Cal Date : 02-MAR-2010 14:42  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Cal Date : 22-Mar-2010 10:50 rmb

## Calibration File Names:

Level 1: /chem/MSD5.i/s021710.b/s5b1729.d  
 Level 2: /chem/MSD5.i/s030210.b/s5c0203.d  
 Level 3: /chem/MSD5.i/s030210.b/s5c0204.d  
 Level 4: /chem/MSD5.i/s030210.b/s5c0205.d  
 Level 5: /chem/MSD5.i/s030210.b/s5c0206.d  
 Level 6: /chem/MSD5.i/s030210.b/s5c0207.d  
 Level 7: /chem/MSD5.i/s030210.b/s5c0208.d  
 Level 8: /chem/MSD5.i/s030210.b/s5c0209.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 <sup>2</sup>
1 N-Methyl-N-nitrosomethylamine	++++ 0.56244	0.59945 0.56241	0.61336 0.61336	0.62822 0.62822	0.59239 0.59239	0.58779 0.58779	AVRG		0.59272		4.18088
2 Pyridine	++++ 0.94371	0.97900 0.97066	0.99919 0.99919	1.00952 1.00952	0.97693 0.97693	0.97715 0.97715	AVRG		0.97945		2.14999
4 Aniline	++++ 0.49739	0.56051 0.49455	0.56662 0.56662	0.54511 0.54511	0.52141 0.52141	0.51233 0.51233	AVRG		0.52827		5.56458
209 Benzaldehyde	++++ 0.66102	0.90936 0.64279	0.88744 0.88744	0.79590 0.79590	0.79839 0.79839	0.73229 0.73229	AVRG		0.77531		13.31818
6 Phenol	++++ 1.09598	1.29344 1.08137	1.31938 1.31938	1.25020 1.25020	1.20884 1.20884	1.15023 1.15023	AVRG		1.19992		7.82898

GEL Laboratories LLC  
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Start Cal Date : 17-FEB-2010 19:16  
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 Cal Date : 22-Mar-2010 10:50 rmb

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1 m2	%RSD or R^2
7 bis(2-Chloroethyl) ether	0.98957 0.77969	0.93125 0.76010	0.96558	0.92563	0.87779	0.82397	AVRG		0.98173	9.73737
8 2-Chlorophenol	++++ 0.98738	1.09193 0.98406	1.11961	1.09723	1.05357	1.02645	AVRG		1.05146	5.15906
203 n-Decane	++++ ++++	1.58515 ++++	1.51386	1.36367	1.25989	1.11391	AVRG		1.36730	13.91032
9 1,3-Dichlorobenzene	++++ 1.05710	1.28299 1.04657	1.28392	1.23427	1.18282	1.11711	AVRG		1.17211	8.58735
11 1,4-Dichlorobenzene	++++ 1.03612	1.26606 1.02524	1.25547	1.21887	1.15347	1.09402	AVRG		1.14989	8.76979
12 Benzyl alcohol	++++ 0.65001	0.60872 0.65345	0.68479	0.70465	0.67931	0.67333	AVRG		0.66489	4.66173
13 1,2-Dichlorobenzene	++++ 0.8892	1.18253 0.86722	1.17614	1.08894	1.02410	0.94823	AVRG		1.02530	12.64047
14 bis(2-Chloroisopropyl) ether	++++ 1.56634	2.10319 1.51052	2.07736	1.94656	1.83034	1.67304	AVRG		1.81534	13.19242
15 o-Cresol	++++ 0.63969	0.85334 0.63281	0.84015	0.80044	0.75785	0.67928	AVRG		0.74336	12.52414

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

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 Integrator : HP RTE  
 Method file : /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Cal Date : 22-Mar-2010 10:50 rmb

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
16 Acetophenone	++++ 1.02277	1.22361 1.03529	1.21775	1.5182	1.13380	1.06449	AVRG		1.11708		7.93364
17 N-Nitrosodipropylamine	0.64681 0.59175	0.66596 0.580071	0.68351	0.68572	0.63714	0.62720	AVRG		0.63977		6.13804
18 m,p-Cresols	++++ 1.03631	1.06638 1.04387	1.13041	1.12762	1.07581	1.07106	AVRG		1.07878		3.44666
19 Hexachloroethane	++++ 0.44100	0.51307 0.43691	0.52517	0.49977	0.48303	0.46443	AVRG		0.48048		7.18566
21 Nitrobenzene	++++ 0.24759	0.30969 0.23610	0.31291	0.29029	0.27691	0.26247	AVRG		0.27657		10.72895
22 Isophorone	++++ 0.48199	0.60897 0.47508	0.59692	0.55644	0.52883	0.50947	AVRG		0.53681		9.86673
23 2-Nitrophenol	++++ 0.12219	0.14882 0.11649	0.16959	0.14317	0.13722	0.13174	AVRG		0.13846		12.82860
24 2,4-Dimethylphenol	++++ 0.21155	0.30140 0.20374	0.28426	0.26340	0.24585	0.22745	AVRG		0.24823		14.81647
25 bis(2-Chloroethoxy)methane	++++ 0.27114	0.38101 0.26203	0.36874	0.33526	0.31553	0.28721	AVRG		0.31726		14.74275



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 Integrator : HP RTE  
 Method file : /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Cal Date : 22-Mar-2010 10:50 rmb

Compound	i	Level 1	10	Level 2	20	Level 3	40	Level 4	50	Level 5	80	Level 6	Curve	b	Coefficients	m1	m2	%RSD or R^2
			100		120													
				Level 7		Level 8												
26 2,4-Dichloropheno-	++++		0.23134		0.24292		0.23142		0.22207		0.21443		AVRG			0.22056		7.29649
		0.20243	0.19931															
27 Benzoic acid	++++		++++		57100		189937		263000		465509		ILINR		0.22356	0.16145		0.99749
		561491	665375															
28 1,2,4-Trichlorobenzene	++++		0.31533		0.30807		0.28116		0.26808		0.24718		AVRG			0.26776		13.47392
		0.23122	0.22323															
30 Naphthalene	1.03974		0.93353		0.90657		0.80747		0.76164		++++		AVRG			0.88979		12.29606
	++++		++++															
204 alpha-Terpineol	++++		0.27393		0.27282		0.23711		0.22436		0.20208		AVRG			0.24206		12.89632
	++++		++++															
31 4-Chloroaniline	++++		0.41366		0.39788		0.40075		0.38557		0.36352		AVRG			0.37597		8.51097
	0.34065		0.32977															
189 Caprolactam	++++		0.08914		0.09307		0.09020		0.09302		0.08829		AVRG			0.08910		3.77568
	0.08422		0.08577															
32 Hexachlorobutadiene	++++		0.17587		0.17867		0.16753		0.15901		0.15057		AVRG			0.15870		10.21703
	0.14217		0.13711															
33 4-Chloro-3-methylphenol	++++		0.22864		0.24218		0.23654		0.22587		0.21439		AVRG			0.22089		7.78780
	0.20219		0.19639															

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 Cal Date : 22-Mar-2010 10:50 rmb

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
34 2-Methylnaphthalene	0.64179 0.43365 ++++	0.60265 ++++	0.59281	0.53488	0.50844	0.46218	AVRG		0.53949		14.24998
35 1-Methylnaphthalene	0.64642 ++++	0.59012 ++++	0.58094	0.51918	0.49726	0.44454	AVRG		0.54641		13.35847
36 Hexachlorocyclopentadiene	0.22271 0.22271 0.20192	0.22750 0.20192	0.24706	0.25523	0.24198	0.23548	AVRG		0.23313		7.59472
208 1,1'-Biphenyl	0.96367 0.96367	1.29150 0.92841	1.25365	1.17846	1.14624	1.04688	AVRG		1.11469		12.61216
205 2,3-Dichloroaniline	0.43848 0.43848	0.56357 0.42115	0.56788	0.52893	0.50212	0.46383	AVRG		0.49799		11.81508
37 2,4,6-Trichlorophenol	0.24611 0.24611	0.26372 0.24339	0.28273	0.28657	0.27825	0.25927	AVRG		0.26572		6.53598
38 2,4,5-Trichlorophenol	0.29583 0.29583	0.30504 0.26856	0.32638	0.33637	0.32336	0.30373	AVRG		0.30847		7.37804
40 2-Chloronaphthalene	0.76959 0.76959	1.03123 0.75032	1.03377	0.94885	0.90954	0.82008	AVRG		0.92129		14.36453
42 o-Nitroaniline	0.27237 0.27237	0.28765 0.26549	0.30422	0.30163	0.28863	0.28057	AVRG		0.28579		4.99263

## GEL Laboratories LLC

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 Integrator : HP RTE  
 Method file : /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Cal Date : 22-Mar-2010 10:50 rmb

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	ml	Coefficients	m2	%RSD or R^2
41 m-Nitroaniline	++++ 0.22111	0.22762 0.21835	0.20159	0.22878	0.22715	0.22672	AVRG		0.22162			4.34345
43 Dimethylphthalate	++++ 0.94852	1.16805 0.93332	1.16840	1.09813	1.05106	0.99147	AVRG		0.05128			9.32005
44 2,6-Dinitrotoluene	++++ 0.23369	0.26345 0.22674	0.28041	0.26951	0.25927	0.24463	AVRG		0.25396			7.70709
45 Acenaphthylene	1.57352 1.15158	1.54940 1.10064	1.53782	1.40991	1.34196	1.21766	AVRG		1.36031			13.80533
47 Acenaphthene	1.03528 0.75256	0.98705 0.72657	0.99622	0.90197	0.87890	0.79597	AVRG		0.88432			13.26070
48 2,4-Dinitrophenol	++++ 161432	++++ 191318	11389	42069	62878	124662	ILINR	0.40150	0.09051			0.99820
49 Dibenzofuran	++++ 1.05165	1.39230 1.01512	1.37531	1.27493	1.21456	1.11135	AVRG		1.20503			12.55843
50 2,4-Dinitrotoluene	++++ 0.31304	0.31207 0.30523	0.33325	0.33958	0.33240	0.32430	AVRG		0.32369			4.29546
51 Diethylphthalate	++++ 0.89502	1.15364 0.87171	1.14435	1.07048	1.03158	0.94584	AVRG		1.01609			11.29347

GEL Laboratories LLC  
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 Cal Date : 22-Mar-2010 10:50 rmb

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m <sup>2</sup>	%RSD or R <sup>2</sup>
	100	120								
	Level 7	Level 8								
52 4-Nitrophenol	++++ 328243	17961 381256	51634 124782	160536 269276			LINR	0.1019	0.16272	0.99946
53 Fluorene	1.20287 0.88125	1.17429 0.8529	1.17310 1.07446	1.02426 0.92906			AVRG	1.03882	13.45814	
54 4-Chlorophenylphenylether	++++ 0.47237	0.61080 0.45994	0.60349 0.56200	0.53199 0.49869			AVRG	0.53418	11.3478	
55 2-Methyl-4,6-dinitrophenol	++++ 307034	89721 365964	31615 96759	131441 243993			LINR	0.24749	0.09188	0.99845
56 p-Nitroaniline	++++ 0.15153	0.17989 0.14633	0.15092 0.14228	0.13371 0.15595			AVRG	0.115152	9.54260	
133 Diphenylamine	++++ 0.42025	0.53894 0.41771	0.53217 0.49646	0.47285 0.44949			AVRG	0.47541	10.42970	
58 1,2-Diphenylhydrazine	++++ 0.49024	0.66886 0.47721	0.66488 1.23118	0.57709 1.11572			AVRG	0.57531	13.58954	
59 Tributylphosphate	++++ 0.95326	1.33679 0.89335	1.23118 0.19851	1.11572 0.19253			AVRG	1.09618	14.26603	
61 4-Bromophenylphenylether	++++ 0.17296	0.20707 0.17052	0.21071 0.19851	0.19253 0.19851			AVRG	0.19084	8.29836	

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 Cal Date : 22-Mar-2010 10:50 rmb

Compound	1	10	20	40	50	80	Coefficients	m2	%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	b		
	Level 7	Level 8							
63 Hexachlorobenzene	++++ 0.18020	0.22071 0.18071	0.21984	0.20683	0.19854	0.19192	AVRG	0.19982	8.42486
207 Atrazine	++++ 0.02535	0.04350 0.01465	0.04346	0.03555	0.02894	0.02158	AVRG	0.03043	36.05585
65 Pentachlorophenol	++++ 361316	18593 430620	55668	136644	183861	304627	LINR	0.10812	0.99822
206 n-Octadecane	++++ 0.27775	0.48133 0.26392	0.46114	0.38787	0.36659	0.30912	AVRG	0.36396	23.59467
68 Phenanthrene	1.03413	0.93921	0.94077	0.86339	0.82340	0.77005			
69 Anthracene	0.70827	0.69488					AVRG	0.84676	14.21685
	0.98975	0.95637	0.96274	0.87867	0.84896	0.79020			
72 Di-n-butylphthalate	0.72179	0.70439					AVRG	0.85661	12.88250
	++++	1.07824	1.07896	0.96891	0.94016	0.86100			
	0.78495	0.76294					AVRG	0.92502	13.90864
76 Fluoranthene	0.96613	0.99565	0.98775	0.89525	0.88576	0.82605			
	0.76077	0.74912					AVRG	0.88331	11.06237
77 Benzidine	++++	0.16496	0.17612	0.17533	0.18316	0.20399			
	++++	++++					AVRG	0.18071	8.04733

GEL Laboratories LLC  
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 Cal Date : 22-Mar-2010 10:50 rmb

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
79 Pyrene	1.22261	1.20757	1.22550	1.18785	1.07700	1.02203	AVRG		1.10528		10.90708
	0.95910	0.94056									
85 Butylbenzylphthalate	++++	0.46977	0.48666	0.48219	0.46135	0.43860	AVRG		0.45437		6.11141
	0.41592	0.42613									
89 Benzo(a)anthracene	1.01646	0.92461	0.93865	0.89978	0.87786	0.87368	AVRG		0.89454		7.54578
	0.80944	0.81582									
90 3,3'-Dichlorobenzidine	++++	0.25382	0.28702	0.27615	0.28032	0.27170	AVRG		0.27254		3.83263
	0.26982	0.26893									
92 Chrysene	0.93759	0.90738	0.90956	0.84654	0.82964	0.77165	AVRG		0.83356		9.75576
	0.73703	0.72911									
93 bis(2-Ethylhexyl)phthalate	0.44821	0.60552	0.62245	0.58201	0.57638	0.52529	AVRG		0.54345		11.43583
	0.48848	0.49930									
94 Di-n-octylphthalate	++++	1.07929	1.17121	1.15789	1.09227	1.04637	AVRG		1.09003		5.28671
	1.00988	1.07332									
95 Benzo(b)fluoranthene	0.88246	0.97102	0.98554	0.97118	0.96446	0.92774	AVRG		0.95543		3.77695
	0.94720	0.99386									
96 Benzo(k)fluoranthene	0.84893	0.98422	1.03228	0.98408	0.91666	0.94056	AVRG		0.93071		7.15968
	0.86684	0.86779									

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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	0.6603 0.80260	0.80988 0.80869	0.85077 0.83719	0.83719 0.83001	0.83001 0.82192	0.82192 0.82192	AVRG		0.80265		7.44986
99 Indeno(1,2,3-cd)pyrene	0.52612 0.66281	0.65869 0.67741	0.67275 0.65863	0.65863 0.73052	0.73052 0.70820	0.70820 0.70820	AVRG		0.66189		9.14897
100 Dibenzo(a,h)anthracene	0.39370 0.53204	0.52424 0.54374	0.52777 0.52429	0.52429 0.58896	0.58896 0.56028	0.56028 0.56028	AVRG		0.52438		10.92705
101 Benzo(ghi)perylene	0.49104 0.53956	0.55527 0.54719	0.56802 0.54248	0.54248 0.60883	0.60883 0.57208	0.57208 0.57208	AVRG		0.55306		6.06501
102 1,4-Dioxane	0.31782 0.17912	0.31430 0.17661	0.35909 0.19892	0.35098 0.17605	0.34610 0.17439	0.33462 0.18804	AVRG		0.34121		5.79435
103 Methyl methacrylate	0.17912 0.69099	0.17661 0.68370	0.17661 0.80028	0.17661 0.76060	0.17439 0.75276	0.18804 0.73096	AVRG		0.18410		5.46065
104 Ethyl methacrylate	0.69099 1.06218	0.68370 1.24054	0.80028 1.24905	0.76060 1.19804	0.75276 1.17640	0.73096 1.13348	AVRG		0.74729		6.61292
105 2-Picoline	1.06218 0.43393	1.24054 0.43987	1.24905 0.43780	1.19804 0.43606	1.17640 0.43908	1.13348 0.44516	AVRG		1.15797		6.99292
106 N-Nitrosomethylethylamine	0.43393 0.42388	0.43987 0.42388	0.43780 0.42388	0.43606 0.42388	0.43908 0.42388	0.44516 0.42388	AVRG		0.43654		1.51027

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 Cal Date : 22-Mar-2010 10:50 rmb

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 <sup>2</sup>
107 Methyl methanesulfonate	++++ 0.44840	0.52038 0.44983	0.50403 0.48841	0.47463 0.47366	AVRG				0.47991		5.56995
108 N-Nitrosodiethylamine	++++ 0.43216	0.44977 0.41974	0.45881 0.44946	0.44859 0.44277	AVRG						2.96107
109 Ethyl Methanesulfonate	++++ 0.57777	0.63224 0.57138	0.64143 0.62102	0.61469 0.60862	AVRG				0.60959		4.31824
110 Pentachloroethane	++++ 0.30923	0.33632 0.30787	0.32705 0.33423	0.33227 0.32232	AVRG				0.32418		3.59728
111 N-Nitrosopyrrolidine	++++ 0.42182	0.43551 0.40900	0.44313 0.56256	0.45719 0.54759	0.45762 0.54561	0.44664 0.52771	AVRG				4.11968
113 N-Nitrosomorpholine	++++ 0.51411	0.55679 0.49435	0.56256 1.67134	0.54759 1.59776	0.54561 1.55747	0.52771 1.48378	AVRG				4.60304
114 o-Toluidine	++++ 1.35677	1.69503 1.33818	1.67134 1.4453	1.59776 0.14352	1.55747 0.14222	1.48378 0.13673	AVRG				9.30854
115 N-Nitrosopiperidine	++++ 0.13202	0.1453 0.13174	0.14352 0.81047	0.14222 0.82938	0.14293 0.82627	0.13673 0.79285	AVRG				3.97348
116 a,a-Dimethylphenethylanine	++++ 0.79192	0.71049 0.79322	0.81047 0.79322	0.82938 0.79322	0.82627 0.79322	0.79285 0.79322	AVRG				5.02597



GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 17-FEB-2010 19:16  
 End Cal Date : 02-MAR-2010 14:42  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Cal Date : 22-Mar-2010 10:50 rmb

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 <sup>2</sup>
117 Triethyl-phosphorothioate	++++ 0.12884	0.15813 0.12334	0.15247 0.14558	0.1430	0.13615	AVRG			0.14083		8.83448
118 2,6-Dichlorophenol	++++ 0.20939	0.21455 0.20733	0.22501 0.22246	0.22523	0.21500	AVRG			0.21700		3.38172
119 Hexachloropropene	++++ 0.11417	0.09504 0.11181	0.09956 0.10386	0.11471	0.11290	AVRG			0.10744		7.36573
120 p-Phenylenediamine	++++ 0.20039	0.16374 0.12012	0.22021 0.22491	0.17794	0.14134	AVRG			0.17838		22.16677
121 N-Nitrosodi-n-butyl-anine	++++ 0.16235	0.23003 0.15461	0.19478 0.18166	0.17874	0.16401	AVRG			0.18088		14.15254
122 Safrrole	++++ 0.18402	0.21580 0.17893	0.21663 0.20415	0.20712	0.19160	AVRG			0.19975		7.54606
123 1,2,4,5-Tetrachlorobenzene	++++ 0.39066	0.49610 0.37513	0.48315 0.36103	0.44668	0.41521	AVRG			0.43728		10.42026
124 Isosafrole	++++ 0.31682	0.35343 0.30969	0.34698 0.38970	0.32872	0.27894	AVRG			0.33677		5.75949
125 1,4-Naphthoquinone	++++ ++++	0.38638 ++++	0.36105 0.32872	0.32872	0.27894	AVRG			0.34896		13.22411

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 Cal Date : 22-Mar-2010 10:50 rmb

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	m1	m2	%RSD or R^2
	Level 7	Level 8									
126 m-Dinitrobenzene	++++ 0.176861	0.167601 0.172871	0.184831	0.188301	0.185731	0.182211	AVRG		0.17977		4.21235
127 Pentachlorobenzene	++++ 0.380071	0.460991 0.375801	0.462151	0.436411	0.432461	0.398461	AVRG		0.420911		8.61405
128 1-Naphthylamine	++++ 0.713511	0.845161 0.692051	0.869861	0.813311	0.776711	0.731451	AVRG		0.777441		8.77218
129 2-Naphthylamine	++++ 0.736121	0.860511 0.698001	0.882651	0.726241	0.707431	0.706001	AVRG		0.759561		10.25115
130 2,3,4,6-Tetrachlorophenol	++++ 0.272541	0.247411 0.268861	0.283301	0.291761	0.287931	0.279691	AVRG		0.275931		5.412171
131 5-Nitro-o-toluidine	++++ 0.268471	0.255221 0.268161	0.277231	0.280531	0.284441	0.274461	AVRG		0.272641		3.565501
132 Thionazin	++++ 0.139611	0.168761 0.136821	0.168981	0.157541	0.158471	0.149341	AVRG		0.154221		8.364041
134 Sulfotepp	++++ 0.093431	0.111871 0.092891	0.112381	0.103991	0.103271	0.096071	AVRG		0.101991		8.028801
135 Phorate	++++ 0.311721	0.386301 0.304571	0.398321	0.351951	0.352371	0.320201	AVRG		0.346481		10.538001

## GEL Laboratories LLC

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 Method file : /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Cal Date : 22-Mar-2010 10:50 rmb

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
136 1,3,5-Trinitrobenzene	++++ 420057	27879 511784	62321	138005	184668	317537	LNLR	0.14691	0.12002		0.99898
137 Phenacetin	++++ 0.25084	0.25740 0.24923	0.26288	0.25633	0.25808	0.25389	AVRG		0.25552		1.81503
138 Diallylate	++++ 0.18406	0.24268 0.18141	0.23118	0.21289	0.21131	0.19400	AVRG		0.20822		11.17940
139 Dimethoate	++++ 0.20730	0.18753 0.20845	0.21705	0.21365	0.21474	0.21574	AVRG		0.20921		4.89230
140 4-Aminobiphenyl	++++ 0.42866	0.42202 0.34243	0.39708	0.46549	0.47014	0.40070	AVRG		0.41807		10.49744
141 Pentachloronitrobenzene	++++ 0.06161	0.07586 0.06082	0.07497	0.07407	0.07114	0.06805	AVRG		0.06950		8.97524
142 Pronamide	++++ 0.20323	0.28377 0.19611	0.27719	0.25332	0.24975	0.22233	AVRG		0.24382		14.34189
143 Dinoseb	++++ 4410.4	13292 523880	48187	140514	193666	350383	AVRG		0.23301		0.99890
144 Disulfoton	++++ 0.24006	0.23329 0.23567	0.30178	0.27318	0.27189	0.24759	LNLR	0.23301	0.13105		9.75078

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	b	Coefficients ml	m2	%RSD or R <sup>2</sup>
145 Methyl parathion	++++ 0.18344	0.15400 0.17997	0.17883	0.18251	0.18307	0.19030	AVRG		0.7883		6.43859
146 4-Nitroquinoline-1-oxide	++++ 0.01041	0.01359 0.01009	0.01494	0.01260	0.01210	0.01128	AVRG		0.01215		14.29948
147 Methapyrilene	++++ 0.29152	0.39440 0.28724	0.39995	0.35966	0.34538	0.32125	AVRG		0.34277		13.26316
148 Isodrin	++++ 0.08722	0.11464 0.08703	0.11378	0.10613	0.10368	0.09333	AVRG		0.10083		11.64190
149 Aramite	++++ 0.04502	0.05187 0.04554	0.05554	0.05498	0.05295	0.04815	AVRG		0.05058		8.59495
150 Kepone	++++ 0.07029	0.08219 0.07540	0.09254	0.08033	0.07563	0.07134	AVRG		0.07824		9.76196
151 p-(Dimethylamino)azobenzene	++++ 0.23504	0.26484 0.22478	0.27157	0.25681	0.25572	0.24680	AVRG		0.25079		6.57202
152 Chlorobenzilate	++++ 0.25537	0.30598 0.24823	0.29627	0.28655	0.28692	0.26455	AVRG		0.27769		7.84563
153 3,3'-Dimethylbenzidine	++++ 0.40575	0.38067 0.39091	0.41680	0.41737	0.42875	0.41190	AVRG		0.40745		4.07344



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 Method file : /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Cal Date : 22-Mar-2010 10:50 rmb

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	Coefficients m1	m2	%RSD or R^2
184 p-Benzoquinone	++++ 291170	18182 360514	47369	112994	138050	237801	LINEAR	0.16023	0.33794		0.99690
191 Parathion	++++ 0.06648	0.05709 0.06504	0.06758	0.06657	0.06638	0.06834	AVRG		0.06535		5.79671
192 Methoxychlor	++++ C.49362	0.47873 0.49379	0.53078	0.54724	0.54387	0.52822	AVRG		0.51661		5.30166
210 m-Toluidine	++++ 1.39916	1.28965 1.47314	1.43316	1.49604	1.47062	1.43667	AVRG		1.42835		4.82897
211 p-Toluidine	++++ 1.12061	1.24139 1.08014	1.11105	1.17949	1.13567	1.18236	AVRG		1.14939		4.75218
212 Cis Diallate	++++ 0.23098	0.25250 0.23432	0.25488	0.25041	0.24739	0.24019	AVRG		0.24438		3.80915
213 Trans Diallate	++++ 0.21654	0.28550 0.21342	0.27198	0.25046	0.24860	0.22824	AVRG		0.24496		1.17940
214 1,4-Dinitrobenzene	++++ 0.17872	0.16298 0.17954	0.17846	0.18754	0.18271	0.18093	AVRG		0.17870		4.25552
215 2-Ethoxyethanol	++++ 0.62804	0.63687 0.63575	0.67943	0.67851	0.65745	0.65220	AVRG		0.65261		3.15836

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Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	ml	m2	%RSD or R^2
216 Methylenebis(2-chloroaniline)	++++	0.3087	0.06479	0.06667	0.07863	0.08978	AVRG		0.07603		13.87040
229 2,2'-Dichlorobenzil	++++	0.63671	0.65119	0.62971	0.62032	0.57126	AVRG		0.59852		7.87986
230 4-Chlorothiobanisole	++++	0.29411	0.28302	0.28596	0.28706	0.26130	AVRG		0.27204		7.55990
231 4-Chlorothiophenol	++++	0.14651	0.18066	0.21093	0.21147	0.20592	AVRG		0.19416		12.10367
232 bis(p-Chlorophenyl)sulfone	++++	0.37480	0.36710	0.35670	0.35813	0.33302	AVRG		0.34686		6.60237
233 bis(p-Chlorophenyl)disulfide	++++	0.12785	0.12869	0.13235	0.13959	0.13091	AVRG		0.13110		3.09108
234 Diphenyl disulfide	++++	0.12850	0.12980	0.12980	0.22451	0.21365	AVRG		0.22095		6.32587
235 Diphenyl sulfide	++++	0.20813	0.20056	0.181962	0.76617	0.71309	AVRG		0.75054		9.90298
236 Phenyl sulfone	++++	0.67656	0.64652	0.43409	0.43022	0.40418	AVRG		0.41670		6.64510

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 Cal Date : 22-Mar-2010 10:50 rmb

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 <sup>2</sup>
237 Hydroxymethyl phthalimide	++++ 0.16918	0.22503 0.18397	0.20336	0.19063	0.19442	0.16988	AVRG		0.19093		10.24085
238 Phthalic acid	++++ 540921	21882 594964	55283	157178	228085	378911	LINR	0.22443	0.16210		0.99130
239 Thiophenol	++++ 1.03411	0.88684 1.00510	1.01585	1.10562	1.10579	1.07600	AVRG		1.03276		7.38021
240 bis(Chloromethyl)ether	++++ 0.77450	0.88604 0.77223	0.86081	0.82935	0.84065	0.83220	AVRG		0.82797		5.07562
241 Octachlorostyrene	++++ 0.07071	0.08239 0.06666	0.07887	0.07613	0.07682	0.07255	AVRG		0.07487		7.06925
242 1-Hexanol	++++ 0.72849	0.82598 0.72514	0.82477	++++	++++	0.76714	AVRG		0.77430		6.38762
243 Quinoline	++++ 0.48750	0.55874 0.46613	0.57090	++++	++++	0.49453	AVRG		0.51556		8.99415
244 2,4-Toluene DIsocyanate	++++ 210351	16043 229003	24181	++++	++++	157805	LINR	0.12362	0.11247		0.99784
245 5-Methylchrysene	++++ 0.48508	0.56483 0.47603	0.57397	++++	++++	0.50777	AVRG		0.52154		8.68872



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Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	m1	m2	%RSD or R^2
	100	120									
	Level 7	Level 8									
246 1-Nitropyrene	++++	28885	86519	++++	++++	416222	LINR	0.1556	0.1988		0.99932
	6.2852	676270									
247 Benzo(j)fluoranthene	++++	0.82031	0.82464	++++	++++	0.81917	AVRG		0.80817		2.53397
	0.80356	0.77347									
248 Dibenzo(a,j)acridine	++++	0.58457	0.63210	++++	++++	0.55845	AVRG		0.57910		5.46377
	0.56369	0.55669									
249 Dibenzo(a,h)acridine	++++	0.54819	0.61240	++++	++++	0.52518	AVRG		0.54771		6.84337
	0.52942	0.52337									
250 7H-Dibenzo(c,g)carbazole	++++	0.35509	0.42604	++++	++++	0.36354	AVRG		0.37875		7.30812
	0.37356	0.37554				485577					
251 Dibenzo(a,i)pyrene	++++	78977	181929	++++	++++		LINR	-0.13397	0.24759		0.99733
	682134	780308				0.24197					
252 Dibenzo(a,h)pyrene	++++	0.25585	0.32029	++++	++++		AVRG		0.26521		11.91173
	0.24771	0.26024				0.14912					
253 Dibenzo(a,i)pyrene	++++	0.14360	0.19016	++++	++++		AVRG		0.16033		11.41912
	0.15472	0.16406				0.28150					
IM 225 Trichlorophenols	++++	0.28438	0.30455	0.31147	0.30281		AVRG		0.28709		6.89936
	0.27037	0.25598									

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 Cal Date : 22-Mar-2010 10:50 rmb

Compound	1	10	20	40	50	80	Coefficients	m2	%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	
	100	120							
	Level 7	Level 8							
M 226 Tetrachlorophenois	++++	0.24741	0.28330	0.29176	0.28793	0.27969	AVRG		
	0.27254	0.26886						0.27593	5.41217
M 227 Benzo(b,k)fluoranthene	0.86569	0.97762	1.00891	0.97763	0.94056	0.93415	AVRG		
	0.90702	0.93083						0.94280	4.78473
M 228 TTO Sum Semivo.atiles	++++	++++	++++	++++	++++	++++	AVRG		
	++++	++++						0.000e+00	0.000e+00
I\$ 3 2-Fluorophenol	++++	0.99086	1.05035	1.04535	0.99789	0.98803	AVRG		
	0.95983	0.95981						0.99882	3.65929
I\$ 5 Pheno.-d5	++++	1.23180	1.30334	1.25825	1.19769	1.17114	AVRG		
	1.12444	1.11677						1.20049	5.74668
I\$ 187 2-Chlorophenol-d4	++++	++++	++++	++++	++++	++++	AVRG		
	++++	++++						0.000e+03	0.000e+00
I\$ 188 1,2-Dichlorobenzene-d4	++++	++++	++++	++++	++++	++++	AVRG		
	++++	++++						0.000e+00	0.000e+00
I\$ 20 Nitrobenzene-d5	++++	0.33121	0.33833	0.31828	0.30072	0.28872	AVRG		
	0.25789	0.24544						0.29723	11.97530
I\$ 39 2-Fluorobiphenyl	++++	1.17478	1.15197	1.06610	1.00180	0.91744	AVRG		
	0.85512	0.82626						0.99907	3.91733

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Cal Date : 22-Mar-2010 10:50 rmb

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients		%RSD or R^2
								m1	m2	
	100 Level 7	120 Level 8								
\$ 60 2,4,6-Tribromophenol	+++ 0.15387	0.12052 0.15366	0.14511 0.15820	0.15811 0.16220			AVRG	0.15024		9.42497
\$ 8: p-Terphenyl-d14	+++ 0.59225	0.72789 0.59600	0.73611 0.71572	0.62587 0.66374			AVRG	0.66537		9.33913

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD5.i Injection Date: 17-FEB-2010 22:24  
Lab File ID: s5b1719.d Init. Cal. Date(s): 17-FEB-2010 17-FEB-2010  
Analysis Type: WATER Init. Cal. Times: 19:16 21:33  
Lab Sample ID: WBN100120-08.1 Quant Type: ISTD  
Method: /chem/MSD5.i/s021710.b/MSD5-M8270C-021710.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.77531	0.66610	0.66610	0.000	-14.08658	60.00000	Averaged
16 Acetophenone	1.11708	1.11375	1.11375	0.000	-0.29805	60.00000	Averaged
189 Caprolactam	0.08910	0.09340	0.09340	0.000	4.82821	60.00000	Averaged
208 1,1'-Biphenyl	1.11469	1.17331	1.17331	0.000	5.25881	60.00000	Averaged
207 Atrazine	0.03043	0.03788	0.03788	0.000	24.47374	60.00000	Averaged
77 Benzidine	0.18071	0.19088	0.19088	0.000	5.62492	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27254	0.27539	0.27539	0.000	1.04784	60.00000	Averaged
102 1,4-Dioxane	0.34121	0.41076	0.41076	0.000	20.38338	60.00000	Averaged
103 Methyl methacrylate	0.18410	0.20881	0.20881	0.000	13.42215	60.00000	Averaged
104 Ethyl methacrylate	0.74729	0.88722	0.88722	0.000	18.72391	60.00000	Averaged
105 2-Picoline	1.15797	1.13661	1.13661	0.000	-1.84480	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.43654	0.43666	0.43666	0.000	0.02655	60.00000	Averaged
107 Methyl methanesulfonate	0.47991	0.51867	0.51867	0.000	8.07788	60.00000	Averaged
108 N-Nitrosodiethylamine	0.44277	0.43812	0.43812	0.000	-1.04951	60.00000	Averaged
109 Ethyl Methanesulfonate	0.60959	0.73875	0.73875	0.000	21.18778	60.00000	Averaged
110 Pentachloroethane	0.32418	0.44058	0.44058	0.000	35.90579	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.43870	0.43367	0.43367	0.000	-1.14641	60.00000	Averaged
113 N-Nitrosomorpholine	0.53553	0.51538	0.51538	0.000	-3.76250	60.00000	Averaged
114 o-Toluidine	1.52862	1.55052	1.55052	0.000	1.43292	60.00000	Averaged
115 N-Nitrosopiperidine	0.13910	0.13842	0.13842	0.000	-0.48910	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.79352	0.79219	0.79219	0.000	-0.16671	60.00000	Averaged
118 2,6-Dichlorophenol	0.21700	0.22250	0.22250	0.000	2.53346	60.00000	Averaged
119 Hexachloropropene	0.10744	0.16005	0.16005	0.000	48.96804	60.00000	Averaged
120 p-Phenylenediamine	0.17838	0.22515	0.22515	0.000	26.22190	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.18088	0.17970	0.17970	0.000	-0.65201	60.00000	Averaged
122 Safrole	0.19975	0.23440	0.23440	0.000	17.34544	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.43728	0.48128	0.48128	0.000	10.06213	60.00000	Averaged
124 Isosafrole	0.33677	0.44883	0.44883	0.000	33.27155	60.00000	Averaged
125 1,4-Naphthoquinone	0.34896	0.35041	0.35041	0.000	0.41429	60.00000	Averaged
127 Pentachlorobenzene	0.42091	0.44333	0.44333	0.000	5.32754	60.00000	Averaged
128 1-Naphthylamine	0.77744	0.81643	0.81643	0.000	5.01632	60.00000	Averaged
129 2-Naphthylamine	0.75956	0.75452	0.75452	0.000	-0.66464	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27264	0.27934	0.27934	0.000	2.45687	60.00000	Averaged
136 1,3,5-Trinitrobenzene	47.69126	40.00000	0.12546	0.000	19.22815	60.00000	Linear
137 Phenacetin	0.25552	0.27015	0.27015	0.000	5.72528	60.00000	Averaged
138 Diallate	0.20822	0.19580	0.19580	0.000	-5.96255	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD5.i Injection Date: 17-FEB-2010 22:24  
 Lab File ID: s5b1719.d Init. Cal. Date(s): 17-FEB-2010 17-FEB-2010  
 Analysis Type: WATER Init. Cal. Times: 19:16 21:33  
 Lab Sample ID: WBN100120-08.1 Quant Type: ISTD  
 Method: /chem/MSD5.i/s021710.b/MSD5-M8270C-021710.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
212 Cis Diallate	0.24438	0.30304	0.30304	0.000	24.00201	60.00000 Averaged
213 Trans Diallate	0.24496	0.23036	0.23036	0.000	-5.96255	60.00000 Averaged
140 4-Aminobiphenyl	0.41807	0.48397	0.48397	0.000	15.76188	60.00000 Averaged
141 Pentachloronitrobenzene	0.06950	0.07449	0.07449	0.000	7.18207	60.00000 Averaged
142 Pronamide	0.24082	0.25964	0.25964	0.000	7.81540	60.00000 Averaged
146 4-Nitroquinoline-1-oxide	0.01215	0.01518	0.01518	0.000	24.94966	60.00000 Averaged
147 Methapyrilene	0.34277	0.38065	0.38065	0.000	11.05046	60.00000 Averaged
148 Isodrin	0.10083	0.09493	0.09493	0.000	-5.85371	60.00000 Averaged
149 Aramite	0.05058	0.04605	0.04605	0.000	-8.94696	60.00000 Averaged
150 Kepone	0.07824	0.06961	0.06961	0.000	-11.03453	60.00000 Averaged
151 p-(Dimethylamino)azobenzene	0.25079	0.26074	0.26074	0.000	3.96708	60.00000 Averaged
152 Chlorobenzilate	0.27769	0.28288	0.28288	0.000	1.86913	60.00000 Averaged
153 3,3'-Dimethylbenzidine	0.40745	0.41464	0.41464	0.000	1.76434	60.00000 Averaged
155 2-Acetylaminofluorene	0.29875	0.30382	0.30382	0.000	1.69797	60.00000 Averaged
157 7,12Dimethylbenz(a)anthracene	0.43958	0.42652	0.42652	0.000	-2.97148	60.00000 Averaged
158 3-Methylcholanthrene	0.36797	0.37662	0.37662	0.000	2.34966	60.00000 Averaged

GEL Laboratories LLC

Data file : /chem/MSD5.i/s021710.b/s5b1719.d  
Lab Smp Id: WBN100120-08.1 Client Smp ID: AP12ICV  
Inj Date : 17-FEB-2010 22:24  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |WBN100120-08.1|40 PPM|1|SVM|1|AP12ICV  
Misc Info : |MSD8270|WBN100205-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD5.i/s021710.b/MSD5-M8270C-021710.m  
Meth Date : 18-Feb-2010 09:04 rmb Quant Type: ISTD  
Cal Date : 17-FEB-2010 21:33 Cal File: s5b1717.d  
Als bottle: 19 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: apl2.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vo \*Vi) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

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	3.972	3.972 (1.000)	389120	40.0000	
* 29 Naphthalene-d8	136	4.837	4.837 (1.000)	1392166	40.0000	
* 46 Acenaphthene-d10	164	6.095	6.095 (1.000)	829840	40.0000	
* 67 Phenanthrene-d10	188	7.278	7.278 (1.000)	1476420	40.0000	
* 91 Chrysene-d12	240	9.695	9.695 (1.000)	1391152	40.0000	
* 98 Perylene-d12	264	11.413	11.413 (1.000)	1122280	40.0000	
209 Benzaldehyde	77	3.696	3.696 (0.930)	259192	40.0000	34.4
16 Acetophenone	105	4.219	4.219 (1.062)	433381	40.0000	39.9
189 Caprolactam	113	5.113	5.113 (1.057)	130031	40.0000	41.9(H)
208 1,1'-Biphenyl	154	5.660	5.660 (0.929)	973656	40.0000	42.1
207 Atrazine	173	6.972	6.972 (0.958)	55926	40.0000	49.8
77 Benizidine	184	8.425	8.425 (0.869)	265539	40.0000	42.2
90 3,3'-Dichlorobenzidine	252	9.625	9.625 (0.993)	383112	40.0000	40.4

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ng/ul)	ON-COL (ng/ul)
102 1,4-Dioxane	88	2.296	2.296	(0.578)	159834	40.0000	48.2
103 Methyl methacrylate	100	2.290	2.290	(0.576)	81251	40.0000	45.4
104 Ethyl methacrylate	69	2.666	2.666	(0.671)	345234	40.0000	47.5
105 2-Picoline	93	2.860	2.860	(0.720)	442278	40.0000	39.3
106 N-Nitrosomethylethylamine	88	2.907	2.907	(0.732)	169912	40.0000	40.0
107 Methyl methanesulfonate	80	3.060	3.060	(0.770)	201826	40.0000	43.2
108 N-Nitrosodiethylamine	102	3.296	3.296	(0.830)	170481	40.0000	39.6
109 Ethyl Methanesulfonate	79	3.454	3.454	(0.870)	287463	40.0000	48.5
110 Pentachloroethane	167	3.796	3.796	(0.956)	171438	40.0000	54.4
111 N-Nitrosopyrrolidine	100	4.207	4.207	(1.059)	168751	40.0000	39.5 (Q)
113 N-Nitrosomorpholine	56	4.225	4.225	(1.064)	200545	40.0000	38.5
114 o-Toluidine	106	4.248	4.248	(1.070)	603339	40.0000	40.6
115 N-Nitrosopiperidine	114	4.448	4.448	(0.920)	192701	40.0000	39.8
116 a,a-Dimethylphenethylamine	58	4.731	4.731	(0.978)	1102864	40.0000	39.9 (H)
118 2,6-Dichlorophenol	162	4.878	4.878	(1.008)	309750	40.0000	41.0
119 Hexachloropropene	213	4.913	4.913	(1.016)	222814	40.0000	59.6
120 p-Phenylenediamine	108	5.113	5.113	(1.057)	313450	40.0000	50.5
121 N-Nitrosodi-n-butylamine	84	5.084	5.084	(1.051)	250176	40.0000	39.7 (Q)
122 Saffrole	162	5.248	5.248	(1.085)	326320	40.0000	46.9
123 1,2,4,5-Tetrachlorobenzene	216	5.454	5.454	(0.895)	399389	40.0000	44.0
124 Isosafrole	162	5.619	5.619	(0.922)	372453	40.0000	53.3
125 1,4-Naphthoquinone	158	5.807	5.807	(0.953)	290781	40.0000	40.2
127 Pentachlorobenzene	250	6.213	6.213	(1.019)	367894	40.0000	42.1
128 1-Naphthylamine	143	6.301	6.301	(1.034)	677510	40.0000	42.0
129 2-Naphthylamine	143	6.360	6.360	(1.043)	626128	40.0000	39.7
131 5-Nitro-o-toluidine	152	6.495	6.495	(1.066)	231809	40.0000	41.0
136 1,3,5-Trinitrobenzene	75	6.742	6.742	(0.926)	185235	40.0000	47.7
137 Phenacetin	108	6.795	6.795	(0.934)	398856	40.0000	42.3 (Q)
138 Diallate	86	6.784	6.784	(0.932)	289086	40.0000	37.6
212 Cis Diallate	86	6.860	6.860	(0.943)	67112	6.00000	7.4 (a)
213 Trans Diallate	86	6.784	6.784	(0.932)	289086	34.0000	32.0
140 4-Aminobiphenyl	169	7.089	7.089	(0.974)	714536	40.0000	46.3
141 Pentachloronitrobenzene	237	7.113	7.113	(0.977)	109985	40.0000	42.9 (Q)
142 Pronamide	173	7.101	7.101	(0.976)	383333	40.0000	43.1
146 4-Nitroquinoline-1-oxide	101	7.942	7.942	(1.091)	22405	40.0000	50.0
147 Methapyrilene	58	7.983	7.983	(1.097)	561997	40.0000	44.4
148 Isodrin	193	8.207	8.207	(1.128)	140152	40.0000	37.6
149 Aramite	185	8.607	8.607	(1.183)	67993	40.0000	36.4
150 Kepone	272	9.201	9.201	(1.264)	102775	40.0000	35.6
151 p-(Dimethylamino)azobenzene	120	8.783	8.783	(0.906)	362732	40.0000	41.6
152 Chlorobenzilate	251	8.819	8.819	(0.910)	393536	40.0000	40.7
153 3,3'-Dimethylbenzidine	212	9.101	9.101	(0.939)	576826	40.0000	40.7
155 2-Acetylaminofluorene	181	9.348	9.348	(0.964)	422662	40.0000	40.7
157 7,12Dimethylbenz(a)anthracene	256	10.854	10.854	(0.951)	478671	40.0000	38.8
158 3-Methylcholanthrene	268	11.830	11.830	(1.037)	422671	40.0000	40.9 (Q)

QC Flag Legend

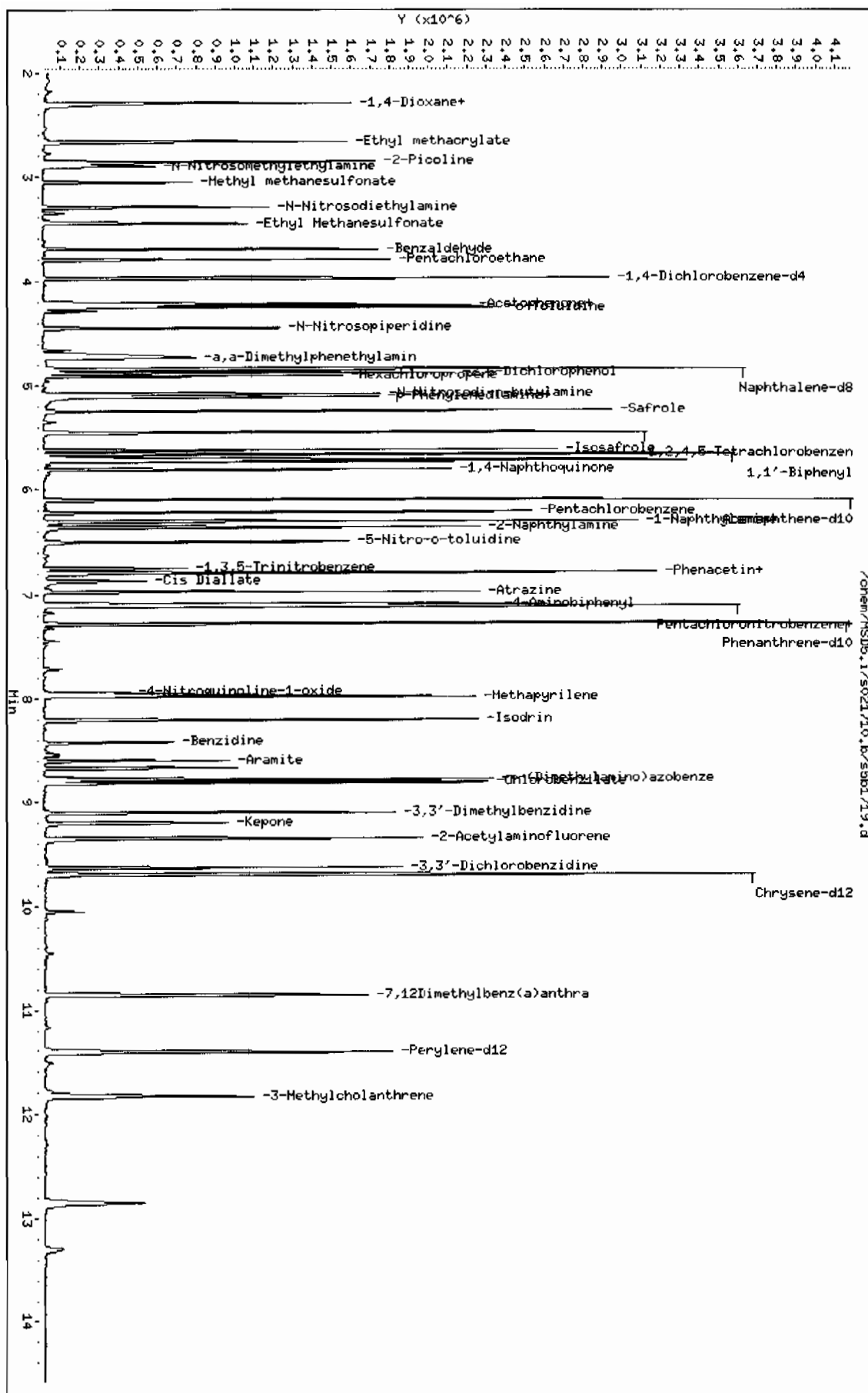
- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation (BLOQ).
- Q - Qualifier signal failed the ratio test.
- H - Operator selected an alternate compound hit.



Data File: /chem/MSD5.i/s021710.b/sbdl719.d  
 Date: 17-FEB-2010 22:24  
 Client ID: AP12ICV  
 Sample Info: MBN100120-08.1140 PPH1.1/SWH1.1/AP12ICV  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5HS

Instrument: MSD5.i  
 Operator: RHB  
 Column diameter: 0.20

/chem/MSD5.i/s021710.b/sbdl719.d



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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD5.i Injection Date: 18-FEB-2010 13:53  
Lab File ID: s5b1738.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010  
Analysis Type: WATER Init. Cal. Times: 19:16 19:01  
Lab Sample ID: WBN100215-09.1 Quant Type: ISTD  
Method: /chem/MSD5.i/s021710.b/MSD5-M8270C-021710.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
3 2-Fluorophenol	0.99882	1.00578	1.00578	0.000	0.69679	60.00000	Averaged
5 Phenol-d5	1.20049	1.16376	1.16376	0.000	-3.05957	60.00000	Averaged
20 Nitrobenzene-d5	0.29723	0.30777	0.30777	0.000	3.54729	60.00000	Averaged
39 2-Fluorobiphenyl	0.99907	1.03844	1.03844	0.000	3.94135	60.00000	Averaged
60 2,4,6-Tribromophenol	0.15024	0.15777	0.15777	0.000	5.01274	60.00000	Averaged
81 p-Terphenyl-d14	0.66537	0.72878	0.72878	0.000	9.53037	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.59272	0.56166	0.56166	0.000	-5.24024	60.00000	Averaged
2 Pyridine	0.97945	0.75240	0.75240	0.000	-23.18156	60.00000	Averaged
4 Aniline	0.52827	0.48579	0.48579	0.000	-8.04185	60.00000	Averaged
6 Phenol	1.19992	1.21345	1.21345	0.001	1.12750	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.88170	0.82199	0.82199	0.000	-6.77159	60.00000	Averaged
8 2-Chlorophenol	1.05146	1.03682	1.03682	0.000	-1.39281	60.00000	Averaged
203 n-Decane	1.36730	1.20027	1.20027	0.000	-12.21557	60.00000	Averaged
9 1,3-Dichlorobenzene	1.17211	1.19589	1.19589	0.000	2.02876	60.00000	Averaged
11 1,4-Dichlorobenzene	1.14989	1.14988	1.14988	0.001	-0.00078	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.02530	1.01387	1.01387	0.000	-1.11435	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.81534	1.79863	1.79863	0.000	-0.91998	60.00000	Averaged
12 Benzyl alcohol	0.66489	0.67243	0.67243	0.000	1.13399	60.00000	Averaged
15 o-Cresol	0.74336	0.68900	0.68900	0.000	-7.31395	60.00000	Averaged
18 m,p-Cresols	1.07878	1.07188	1.07188	0.000	-0.63915	60.00000	Averaged
17 N-Nitrosodipropylamine	0.63977	0.64509	0.64509	0.050	0.83137	60.00000	Averaged spcc
19 Hexachloroethane	0.48048	0.47064	0.47064	0.000	-2.04852	60.00000	Averaged
21 Nitrobenzene	0.27657	0.27199	0.27199	0.000	-1.65507	60.00000	Averaged
22 Isophorone	0.53681	0.50248	0.50248	0.000	-6.39671	60.00000	Averaged
23 2-Nitrophenol	0.13846	0.13956	0.13956	0.001	0.79106	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.24823	0.25224	0.25224	0.000	1.61470	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.31726	0.29560	0.29560	0.000	-6.82803	60.00000	Averaged
26 2,4-Dichlorophenol	0.22056	0.22516	0.22516	0.001	2.08287	20.00000	Averaged ccc
27 Benzoic acid	41.88266	40.00000	0.13296	0.000	4.70665	60.00000	Linear
28 1,2,4-Trichlorobenzene	0.26776	0.26199	0.26199	0.000	-2.15441	60.00000	Averaged
30 Naphthalene	0.88979	0.73738	0.73738	0.000	-17.12845	60.00000	Averaged
204 alpha-Terpineol	0.24206	0.20966	0.20966	0.000	-13.38476	60.00000	Averaged
31 4-Chloroaniline	0.37597	0.35549	0.35549	0.000	-5.44804	60.00000	Averaged
32 Hexachlorobutadiene	0.15870	0.16135	0.16135	0.001	1.66591	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.22089	0.22303	0.22303	0.001	0.96774	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.53949	0.51739	0.51739	0.000	-4.09644	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD5.i Injection Date: 18-FEB-2010 13:53  
 Lab File ID: s5b1738.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010  
 Analysis Type: WATER Init. Cal. Times: 19:16 19:01  
 Lab Sample ID: WBN100215-09.1 Quant Type: ISTD  
 Method: /chem/MSD5.i/s021710.b/MSD5-M8270C-021710.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
35 1-Methylnaphthalene	0.54641	0.48790	0.48790 0.000	-10.70882	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.23313	0.19679	0.19679 0.050	-15.58705	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.49799	0.48359	0.48359 0.000	-2.89148	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.26572	0.28054	0.28054 0.001	5.57632	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.30847	0.32672	0.32672 0.000	5.91868	60.00000	Averaged
40 2-Chloronaphthalene	0.92129	0.91455	0.91455 0.000	-0.73216	60.00000	Averaged
42 o-Nitroaniline	0.28579	0.27634	0.27634 0.000	-3.30856	60.00000	Averaged
41 m-Nitroaniline	0.22162	0.21808	0.21808 0.000	-1.59711	60.00000	Averaged
43 Dimethylphthalate	1.05128	1.02829	1.02829 0.000	-2.18699	60.00000	Averaged
44 2,6-Dinitrotoluene	0.25396	0.25073	0.25073 0.000	-1.26952	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32369	0.32344	0.32344 0.000	-0.07949	60.00000	Averaged
45 Acenaphthylene	1.36031	1.35442	1.35442 0.000	-0.43309	60.00000	Averaged
47 Acenaphthene	0.88432	0.84173	0.84173 0.001	-4.81614	20.00000	Averaged ccc
48 2,4-Dinitrophenol	38.63590	40.00000	0.05108 0.050	-3.41026	60.00000	Linear spcc
49 Dibenzofuran	1.20503	1.21770	1.21770 0.000	1.05150	60.00000	Averaged
51 Diethylphthalate	1.01609	1.01051	1.01051 0.000	-0.54899	60.00000	Averaged
52 4-Nitrophenol	41.33866	40.00000	0.15170 0.050	3.34664	60.00000	Linear spcc
53 Fluorene	1.03882	0.99087	0.99087 0.000	-4.61639	60.00000	Averaged
54 4-Chlorophenylphenylether	0.53418	0.52063	0.52063 0.000	-2.53677	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	45.58694	40.00000	0.08198 0.000	13.96736	60.00000	Linear
56 p-Nitroaniline	0.15152	0.16205	0.16205 0.000	6.94973	60.00000	Averaged
133 Diphenylamine	0.47541	0.47558	0.47558 0.001	0.03525	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.57531	0.57391	0.57391 0.000	-0.24382	60.00000	Averaged
61 4-Bromophenylphenylether	0.19084	0.18500	0.18500 0.000	-3.06124	60.00000	Averaged
63 Hexachlorobenzene	0.19982	0.19760	0.19760 0.000	-1.11055	60.00000	Averaged
65 Pentachlorophenol	42.06402	40.00000	0.09810 0.001	5.16004	20.00000	Linear ccc
206 n-Octadecane	0.36396	0.37165	0.37165 0.000	2.11236	60.00000	Averaged
68 Phenanthrene	0.84676	0.80835	0.80835 0.000	-4.53620	60.00000	Averaged
69 Anthracene	0.85661	0.83174	0.83174 0.000	-2.90311	60.00000	Averaged
72 Di-n-butylphthalate	0.92502	0.93906	0.93906 0.000	1.51732	60.00000	Averaged
76 Fluoranthene	0.88331	0.87578	0.87578 0.001	-0.85228	20.00000	Averaged ccc
79 Pyrene	1.10528	1.01985	1.01985 0.000	-7.72902	60.00000	Averaged
85 Butylbenzylphthalate	0.45437	0.44696	0.44696 0.000	-1.63213	60.00000	Averaged
89 Benzo(a)anthracene	0.89454	0.83845	0.83845 0.000	-6.27009	60.00000	Averaged
92 Chrysene	0.83356	0.81565	0.81565 0.000	-2.14930	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.54345	0.55544	0.55544 0.000	2.20639	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD5.i Injection Date: 18-FEB-2010 13:53  
Lab File ID: s5b1738.d Init. Cal. Date(s): 17-FEB-2010 18-FEB-2010  
Analysis Type: WATER Init. Cal. Times: 19:16 19:01  
Lab Sample ID: WBN100215-09.1 Quant Type: ISTD  
Method: /chem/MSD5.i/s021710.b/MSD5-M8270C-021710.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE	
			RRF40	RRF	%D / %DRIFT	%D / %DRIFT	
94 Di-n-octylphthalate	1.09003	1.04067	1.04067	0.001	-4.52889	20.00000	Averaged ccc
95 Benzo(b)fluoranthene	0.95543	0.91669	0.91669	0.000	-4.05472	60.00000	Averaged
96 Benzo(k)fluoranthene	0.93017	0.87526	0.87526	0.000	-5.90300	60.00000	Averaged
97 Benzo(a)pyrene	0.80265	0.78630	0.78630	0.001	-2.03662	20.00000	Averaged ccc
99 Indeno(1,2,3-cd)pyrene	0.66189	0.68009	0.68009	0.000	2.74984	60.00000	Averaged
100 Dibenzo(a,h)anthracene	0.52438	0.53850	0.53850	0.000	2.69346	60.00000	Averaged
101 Benzo(ghi)perylene	0.55306	0.55989	0.55989	0.000	1.23510	60.00000	Averaged
126 m-Dinitrobenzene	0.17977	0.18248	0.18248	0.000	1.50849	60.00000	Averaged
130 2,3,4,6-Tetrachlorophenol	0.27593	0.26564	0.26564	0.000	-3.72885	60.00000	Averaged
143 Dinoseb	38.12163	40.00000	0.09436	0.000	-4.69592	60.00000	Linear
173 Carbazole	0.61324	0.60385	0.60385	0.000	-1.53165	60.00000	Averaged
184 p-Benzoquinone	28.72159	40.00000	0.18850	0.000	-28.19603	60.00000	Linear
192 Methoxychlor	0.51661	0.51294	0.51294	0.000	-0.70961	60.00000	Averaged
211 p-Toluidine	1.14939	0.98483	0.98483	0.000	-14.31701	60.00000	Averaged
210 m-Toluidine	1.42835	1.37751	1.37751	0.000	-3.55943	60.00000	Averaged
26 Phthalic anhydride	0.11204	0.14837	0.14837	0.000	32.41934	60.00000	Averaged
179 Dibenzo(a,e)pyrene	0.20913	0.16552	0.16552	0.000	-20.85423	60.00000	Averaged
214 1,4-Dinitrobenzene	0.17870	0.18356	0.18356	0.000	2.72032	60.00000	Averaged
215 2-Ethoxyethanol	0.65261	0.65952	0.65952	0.000	1.05937	60.00000	Averaged
216 Methylenebis(2-chloroanilin	0.07603	0.09225	0.09225	0.000	21.33735	60.00000	Averaged
M 225 Trichlorophenols	0.28709	0.30363	0.30363	0.000	5.76021	60.00000	Averaged
M 226 Tetrachlorophenols	0.27593	0.26564	0.26564	0.000	-3.72885	60.00000	Averaged
M 227 Benzo(b,k)fluoranthene	0.94280	0.89598	0.89598	0.000	-4.96648	60.00000	Averaged

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Data file : /chem/MSD5.i/s021710.b/s5b1738.d  
Lab Smp Id: WBN100215-09.1 Client Smp ID: MEGAICV  
Inj Date : 18-FEB-2010 13:53  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |WBN100215-09.1|40 PPM|1|SVM|1|MEGAICV  
Misc Info : |MSD8270|WBN100205-01  
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
Method : /chem/MSD5.i/s021710.b/MSD5-M8270C-021710.m  
Meth Date : 19-Feb-2010 07:30 rmb Quant Type: ISTD  
Cal Date : 18-FEB-2010 17:51 Cal File: s5b1748.d  
Als bottle: 38 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: MEGAICARE.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vo \*Vi) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

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	3.974	3.974	(1.000)	419923	40.0000	
* 29 Naphthalene-d8		136	4.845	4.845	(1.000)	1623800	40.0000	
* 46 Acenaphthene-d10		164	6.107	6.107	(1.000)	899444	40.0000	
* 67 Phenanthrene-d10		188	7.282	7.282	(1.000)	1589292	40.0000	
* 91 Chrysene-d12		240	9.704	9.704	(1.000)	1399291	40.0000	
* 98 Perylene-d12		264	11.418	11.418	(1.000)	1150156	40.0000	
\$ 3 2-Fluorophenol		112	3.150	3.150	(0.793)	422351	40.0000	40.3
\$ 5 Phenol-d5		99	3.680	3.680	(0.926)	488690	40.0000	38.8
\$ 20 Nitrobenzene-d5		82	4.335	4.335	(0.895)	499758	40.0000	41.4
\$ 39 2-Fluorobiphenyl		172	5.587	5.587	(0.915)	934021	40.0000	41.6
\$ 60 2,4,6-Tribromophenol		329	6.704	6.704	(1.098)	141905	40.0000	42.0
\$ 81 p-Terphenyl-d14		244	8.664	8.664	(0.893)	1019775	40.0000	43.8
1 N-Methyl-N-nitrosomethylamine		74	2.457	2.457	(0.618)	235855	40.0000	37.9

Compounds	QUANT SIG						AMOUNTS	
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
2 Pyridine	79		2.491	2.491	(0.627)	315950	40.0000	30.7
4 Aniline	66		3.757	3.757	(0.945)	203995	40.0000	36.8
6 Phenol	94		3.690	3.690	(0.928)	509555	40.0000	40.4 (Q)
7 bis(2-Chloroethyl) ether	63		3.772	3.772	(0.949)	345173	40.0000	37.3
8 2-Chlorophenol	128		3.839	3.839	(0.966)	435384	40.0000	39.4
203 n-Decane	43		3.825	3.825	(0.962)	504022	40.0000	35.1
9 1,3-Dichlorobenzene	146		3.940	3.940	(0.992)	502181	40.0000	40.8
11 1,4-Dichlorobenzene	146		3.988	3.988	(1.004)	482863	40.0000	40.0
13 1,2-Dichlorobenzene	146		4.089	4.089	(1.029)	425749	40.0000	39.6
14 bis(2-Chloroisopropyl) ether	45		4.118	4.118	(1.036)	755288	40.0000	39.6
12 Benzyl alcohol	108		4.036	4.036	(1.016)	282370	40.0000	40.4
15 o-Cresol	107		4.085	4.085	(1.028)	289325	40.0000	37.1
18 m,p-Cresols	107		4.186	4.186	(1.053)	450109	40.0000	39.7
17 N-Nitrosodipropylamine	70		4.215	4.215	(1.061)	270888	40.0000	40.3
19 Hexachloroethane	117		4.320	4.320	(1.087)	197633	40.0000	39.2
21 Nitrobenzene	77		4.349	4.349	(0.898)	441657	40.0000	39.3
22 Isophorone	82		4.503	4.503	(0.929)	815921	40.0000	37.4
23 2-Nitrophenol	139		4.566	4.566	(0.942)	226610	40.0000	40.3
24 2,4-Dimethylphenol	122		4.552	4.552	(0.939)	409591	40.0000	40.6
25 bis(2-Chloroethoxy)methane	93		4.624	4.624	(0.954)	479994	40.0000	37.3
26 2,4-Dichlorophenol	162		4.725	4.725	(0.975)	365609	40.0000	40.8
27 Benzoic acid	105		4.609	4.609	(0.951)	215896	40.0000	41.9
28 1,2,4-Trichlorobenzene	180		4.792	4.792	(0.989)	425415	40.0000	39.1
30 Naphthalene	128		4.860	4.860	(1.003)	1197364	40.0000	33.1 (Q)
204 alpha-Terpineol	59		4.831	4.831	(0.997)	340445	40.0000	34.6
31 4-Chloroaniline	127		4.869	4.869	(1.005)	577243	40.0000	37.8
32 Hexachlorobutadiene	225		4.927	4.927	(1.017)	261998	40.0000	40.7
33 4-Chloro-3-methylphenol	107		5.178	5.178	(1.069)	362148	40.0000	40.4
34 2-Methylnaphthalene	142		5.341	5.341	(1.102)	840131	40.0000	38.4
35 1-Methylnaphthalene	142		5.414	5.414	(1.117)	792248	40.0000	35.7
36 Hexachlorocyclopentadiene	237		5.447	5.447	(0.892)	177000	40.0000	33.8
205 2,3-Dichloroaniline	161		5.534	5.534	(0.906)	434965	40.0000	38.8
37 2,4,6-Trichlorophenol	196		5.529	5.529	(0.905)	252327	40.0000	42.2
38 2,4,5-Trichlorophenol	196		5.553	5.553	(0.909)	293870	40.0000	42.4
40 2-Chloronaphthalene	162		5.698	5.698	(0.933)	822583	40.0000	39.7
42 o-Nitroaniline	65		5.751	5.751	(0.942)	248550	40.0000	38.7
41 m-Nitroaniline	138		6.049	6.049	(0.991)	196150	40.0000	39.4
43 Dimethylphthalate	163		5.861	5.861	(0.960)	924888	40.0000	39.1
44 2,6-Dinitrotoluene	165		5.914	5.914	(0.968)	225520	40.0000	39.5
50 2,4-Dinitrotoluene	165		6.213	6.213	(1.017)	290914	40.0000	40.0
45 Acenaphthylene	152		6.001	6.001	(0.983)	1218225	40.0000	39.8
47 Acenaphthene	154		6.131	6.131	(1.004)	757085	40.0000	38.1
48 2,4-Dinitrophenol	184		6.117	6.117	(1.002)	45947	40.0000	38.6
49 Dibenzofuran	168		6.251	6.251	(1.024)	1095256	40.0000	40.4
51 Diethylphthalate	149		6.372	6.372	(1.043)	908897	40.0000	39.8
52 4-Nitrophenol	139		6.131	6.131	(1.004)	136450	40.0000	41.3
53 Fluorene	166		6.516	6.516	(1.067)	891229	40.0000	38.2

Compounds	QUANT SIG			REL RT	RESPONSE	AMOUNTS	
	MASS	RT	EXP RT			CAL-AMT (ng/ul)	ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	6.492	6.492	(1.063)	468279	40.0000	39.0
55 2-Methyl-4,6-dinitrophenol	198	6.526	6.526	(0.896)	130283	40.0000	45.6
56 p-Nitroaniline	138	6.507	6.507	(1.065)	145751	40.0000	42.8
133 Diphenylamine	169	6.579	6.579	(0.903)	755834	40.0000	40.0
58 1,2-Diphenylhydrazine	77	6.617	6.617	(0.909)	912112	40.0000	39.9
61 4-Bromophenylphenylether	248	6.882	6.882	(0.945)	294018	40.0000	38.8
63 Hexachlorobenzene	284	6.954	6.954	(0.955)	314044	40.0000	39.6
65 Pentachlorophenol	266	7.104	7.104	(0.976)	155903	40.0000	42.1
206 n-Octadecane	57	7.094	7.094	(0.974)	590658	40.0000	40.8
68 Phenanthrene	178	7.301	7.301	(1.003)	1284707	40.0000	38.2
69 Anthracene	178	7.344	7.344	(1.009)	1321877	40.0000	38.8
72 Di-n-butylphthalate	149	7.701	7.701	(1.058)	1492438	40.0000	40.6
76 Fluoranthene	202	8.346	8.346	(1.146)	1391871	40.0000	39.6
79 Pyrene	202	8.563	8.563	(0.882)	1427067	40.0000	36.9
85 Butylbenzylphthalate	149	9.097	9.097	(0.937)	625424	40.0000	39.3
89 Benzo(a)anthracene	228	9.690	9.690	(0.998)	1173235	40.0000	37.5
92 Chrysene	228	9.726	9.726	(1.002)	1141329	40.0000	39.1
93 bis(2-Ethylhexyl)phthalate	149	9.622	9.622	(0.992)	777228	40.0000	40.9
94 Di-n-octylphthalate	149	10.291	10.291	(0.901)	1196930	40.0000	38.2
95 Benzo(b)fluoranthene	252	10.889	10.889	(0.954)	1054340	40.0000	38.4
96 Benzo(k)fluoranthene	252	10.927	10.927	(0.957)	1006686	40.0000	37.6
97 Benzo(a)pyrene	252	11.341	11.341	(0.993)	904369	40.0000	39.2
99 Indeno(1,2,3-cd)pyrene	276	13.238	13.238	(1.159)	782212	40.0000	41.1
100 Dibenzo(a,h)anthracene	278	13.258	13.258	(1.161)	619360	40.0000	41.1
101 Benzo(ghi)perylene	276	13.797	13.797	(1.208)	643960	40.0000	40.5
126 m-Dinitrobenzene	168	5.900	5.900	(0.966)	164133	40.0000	40.6
130 2,3,4,6-Tetrachlorophenol	232	6.328	6.328	(1.036)	238926	40.0000	38.5
143 Dinoseb	211	7.224	7.224	(0.992)	149971	40.0000	38.1
173 Carbazole	167	7.460	7.460	(1.024)	959697	40.0000	39.4
184 p-Benzoquinone	54	3.454	3.454	(0.869)	79157	40.0000	28.7
192 Methoxychlor	227	9.569	9.569	(0.986)	717755	40.0000	39.7
211 p-Toluidine	106	4.248	4.248	(1.069)	413552	40.0000	34.3
210 m-Toluidine	106	4.272	4.272	(1.075)	578447	40.0000	38.6
26 Phthalic anhydride	104	5.370	5.370	(1.108)	240919	40.0000	53.0
179 Dibenzo(a,e)pyrene	302	18.044	18.044	(1.580)	190375	40.0000	31.6
214 1,4-Dinitrobenzene	75	5.837	5.837	(0.956)	165101	40.0000	41.1 (H)
215 2-Ethoxyethanol	59	2.298	2.298	(0.578)	276948	40.0000	40.4
216 Methylenebis(2-chloroaniline)	231	9.627	9.627	(0.992)	129086	40.0000	48.5 (Q)
M 225 Trichlorophenols	196				546197	80.0000	84.6
M 226 Tetrachlorophenols	232				238926	40.0000	38.5
M 227 Benzo(b,k)fluoranthene	252				2061026	80.0000	76.0

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.  
H - Operator selected an alternate compound hit.

Data File: /chem/MSDS.i/s021710.b/s5b1738.d  
Date : 18-FEB-2010 13:53

Date : 18-FEB-2010 13:53

Client ID: MEGAICU

Sample Info: |MBN100215-09.1140 PPH|1|SVH|1|MEGAICV

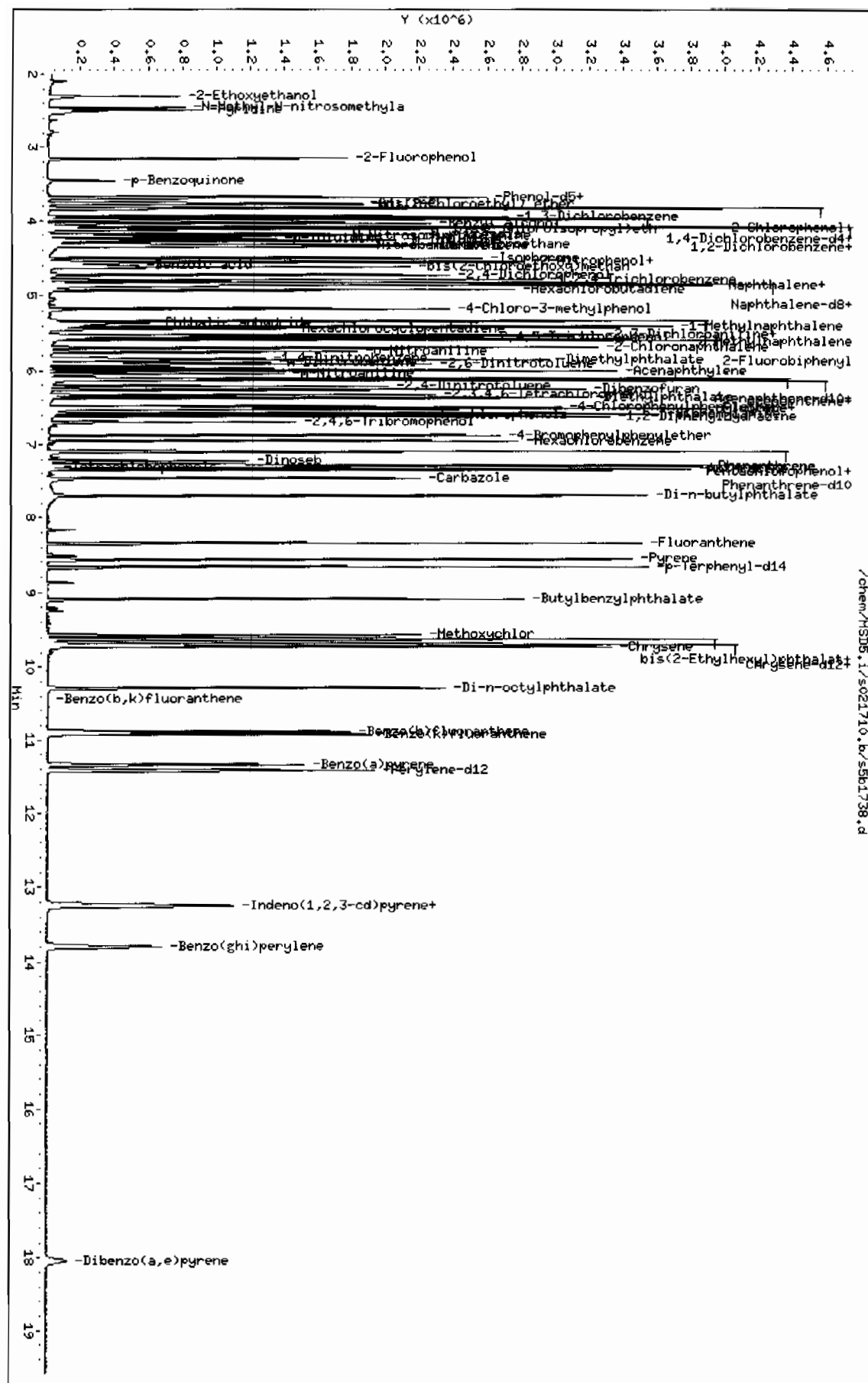
Volume Injected (ul): 0.5

Column phase: J&W DB-5MS

Instrument: MSD5.1

Operator: RMB

Column diameter: 0.20





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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD5.i Injection Date: 22-MAR-2010 10:18  
Lab File ID: s5c2206.d Init. Cal. Date(s): 17-FEB-2010 02-MAR-2010  
Analysis Type: WATER Init. Cal. Times: 19:16 14:42  
Lab Sample ID: WBN100129-05.5 Quant Type: ISTD  
Method: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
3 2-Fluorophenol	0.99882	1.07341	1.07341	0.000	7.46797	60.00000	Averaged
5 Phenol-d5	1.20049	1.32510	1.32510	0.000	10.37956	60.00000	Averaged
20 Nitrobenzene-d5	0.29723	0.30963	0.30963	0.000	4.17387	60.00000	Averaged
39 2-Fluorobiphenyl	0.99907	0.97121	0.97121	0.000	-2.78868	60.00000	Averaged
60 2,4,6-Tribromophenol	0.15024	0.14511	0.14511	0.000	-3.41663	60.00000	Averaged
81 p-Terphenyl-d14	0.66537	0.58099	0.58099	0.000	-12.68114	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.59272	0.67115	0.67115	0.000	13.23113	60.00000	Averaged
2 Pyridine	0.97945	1.07285	1.07285	0.000	9.53616	60.00000	Averaged
4 Aniline	0.52827	0.60121	0.60121	0.000	13.80552	60.00000	Averaged
6 Phenol	1.19992	1.35280	1.35280	0.001	12.74115	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.88170	0.95095	0.95095	0.000	7.85413	60.00000	Averaged
8 2-Chlorophenol	1.05146	1.17694	1.17694	0.000	11.93385	60.00000	Averaged
203 n-Decane	1.36730	1.24577	1.24577	0.000	-8.88809	60.00000	Averaged
9 1,3-Dichlorobenzene	1.17211	1.25715	1.25715	0.000	7.25575	60.00000	Averaged
11 1,4-Dichlorobenzene	1.14989	1.21203	1.21203	0.001	5.40405	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.02530	1.05651	1.05651	0.000	3.04437	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.81534	1.75317	1.75317	0.000	-3.42420	60.00000	Averaged
12 Benzyl alcohol	0.66489	0.74227	0.74227	0.000	11.63752	60.00000	Averaged
15 o-Cresol	0.74336	0.78582	0.78582	0.000	5.71084	60.00000	Averaged
18 m,p-Cresols	1.07878	1.18299	1.18299	0.000	9.65977	60.00000	Averaged
17 N-Nitrosodipropylamine	0.63977	0.76814	0.76814	0.050	20.06419	60.00000	Averaged spcc
19 Hexachloroethane	0.48048	0.53037	0.53037	0.000	10.38325	60.00000	Averaged
21 Nitrobenzene	0.27657	0.32387	0.32387	0.000	17.10372	60.00000	Averaged
22 Isophorone	0.53681	0.57209	0.57209	0.000	6.57177	60.00000	Averaged
23 2-Nitrophenol	0.13846	0.13477	0.13477	0.001	-2.66254	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.24823	0.25458	0.25458	0.000	2.55776	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.31726	0.32956	0.32956	0.000	3.87763	60.00000	Averaged
26 2,4-Dichlorophenol	0.22056	0.23104	0.23104	0.001	4.74919	20.00000	Averaged ccc
27 Benzoic acid	32.83031	40.00000	0.09642	0.000	-17.92423	60.00000	Linear
28 1,2,4-Trichlorobenzene	0.26776	0.27387	0.27387	0.000	2.28468	60.00000	Averaged
30 Naphthalene	0.88979	0.78738	0.78738	0.000	-11.50916	60.00000	Averaged
204 alpha-Terpineol	0.24206	0.22972	0.22972	0.000	-5.09635	60.00000	Averaged
31 4-Chloroaniline	0.37597	0.41084	0.41084	0.000	9.27290	60.00000	Averaged
32 Hexachlorobutadiene	0.15870	0.16532	0.16532	0.001	4.16662	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.22089	0.25438	0.25438	0.001	15.16384	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.53949	0.51257	0.51257	0.000	-4.98973	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD5.i Injection Date: 22-MAR-2010 10:18  
Lab File ID: s5c2206.d Init. Cal. Date(s): 17-FEB-2010 02-MAR-2010  
Analysis Type: WATER Init. Cal. Times: 19:16 14:42  
Lab Sample ID: WBN100129-05.5 Quant Type: ISTD  
Method: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
			RRF40	RRF	%D / %DRIFT	
35 1-Methylnaphthalene	0.54641	0.49709	0.49709 0.000	-9.02571	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.23313	0.20471	0.20471 0.050	-12.18881	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.49799	0.49883	0.49883 0.000	0.16779	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.26572	0.27336	0.27336 0.001	2.87481	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.30847	0.31416	0.31416 0.000	1.84489	60.00000	Averaged
40 2-Chloronaphthalene	0.92129	0.90597	0.90597 0.000	-1.66267	60.00000	Averaged
42 o-Nitroaniline	0.28579	0.32060	0.32060 0.000	12.17980	60.00000	Averaged
41 m-Nitroaniline	0.22162	0.14824	0.14824 0.000	-33.11176	60.00000	Averaged
43 Dimethylphthalate	1.05128	1.07467	1.07467 0.000	2.22502	60.00000	Averaged
44 2,6-Dinitrotoluene	0.25396	0.25408	0.25408 0.000	0.04702	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32369	0.33170	0.33170 0.000	2.47156	60.00000	Averaged
45 Acenaphthylene	1.36031	1.36840	1.36840 0.000	0.59496	60.00000	Averaged
47 Acenaphthene	0.88432	0.89315	0.89315 0.001	0.99938	20.00000	Averaged ccc
48 2,4-Dinitrophenol	52.69458	40.00000	0.08289 0.050	31.73645	60.00000	Linear spcc
49 Dibenzofuran	1.20503	1.23000	1.23000 0.000	2.07224	60.00000	Averaged
51 Diethylphthalate	1.01609	1.10704	1.10704 0.000	8.95161	60.00000	Averaged
52 4-Nitrophenol	50.27358	40.00000	0.18805 0.050	25.68394	60.00000	Linear spcc
53 Fluorene	1.03882	1.00928	1.00928 0.000	-2.84349	60.00000	Averaged
54 4-Chlorophenylphenylether	0.53418	0.51315	0.51315 0.000	-3.93824	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	45.53796	40.00000	0.08186 0.000	13.84489	60.00000	Linear
56 p-Nitroaniline	0.15152	0.14479	0.14479 0.000	-4.43934	60.00000	Averaged
133 Diphenylamine	0.47541	0.45570	0.45570 0.001	-4.14634	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.57531	0.68109	0.68109 0.000	18.38542	60.00000	Averaged
61 4-Bromophenylphenylether	0.19084	0.17467	0.17467 0.000	-8.47276	60.00000	Averaged
63 Hexachlorobenzene	0.19982	0.17846	0.17846 0.000	-10.69038	60.00000	Averaged
65 Pentachlorophenol	39.00324	40.00000	0.09014 0.001	-2.49191	20.00000	Linear ccc
206 n-Octadecane	0.36396	0.36142	0.36142 0.000	-0.69898	60.00000	Averaged
68 Phenanthrene	0.84676	0.83356	0.83356 0.000	-1.55952	60.00000	Averaged
69 Anthracene	0.85661	0.84822	0.84822 0.000	-0.97961	60.00000	Averaged
72 Di-n-butylphthalate	0.92502	1.04825	1.04825 0.000	13.32183	60.00000	Averaged
76 Fluoranthene	0.88331	0.91967	0.91967 0.001	4.11677	20.00000	Averaged ccc
79 Pyrene	1.10528	0.98861	0.98861 0.000	-10.55511	60.00000	Averaged
85 Butylbenzylphthalate	0.45437	0.48017	0.48017 0.000	5.67676	60.00000	Averaged
89 Benzo(a)anthracene	0.89454	0.86772	0.86772 0.000	-2.99761	60.00000	Averaged
92 Chrysene	0.83356	0.84108	0.84108 0.000	0.90176	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	0.54345	0.65701	0.65701 0.000	20.89556	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD5.i Injection Date: 22-MAR-2010 10:18  
Lab File ID: s5c2206.d Init. Cal. Date(s): 17-FEB-2010 02-MAR-2010  
Analysis Type: WATER Init. Cal. Times: 19:16 14:42  
Lab Sample ID: WBN100129-05.5 Quant Type: ISTD  
Method: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
94 Di-n-octylphthalate	1.09003	1.17709	1.17709	0.001	7.98632	20.00000	Averaged ccc
95 Benzo(b)fluoranthene	0.95543	0.93015	0.93015	0.000	-2.64587	60.00000	Averaged
96 Benzo(k)fluoranthene	0.93017	0.91564	0.91564	0.000	-1.56154	60.00000	Averaged
97 Benzo(a)pyrene	0.80265	0.85061	0.85061	0.001	5.97581	20.00000	Averaged ccc
99 Indeno(1,2,3-cd)pyrene	0.66189	0.87249	0.87249	0.000	31.81791	60.00000	Averaged
100 Dibenzo(a,h)anthracene	0.52438	0.69903	0.69903	0.000	33.30699	60.00000	Averaged
101 Benzo(ghi)perylene	0.55306	0.76359	0.76359	0.000	38.06629	60.00000	Averaged
126 m-Dinitrobenzene	0.17977	0.17843	0.17843	0.000	-0.74660	60.00000	Averaged
130 2,3,4,6-Tetrachlorophenol	0.27593	0.26452	0.26452	0.000	-4.13459	60.00000	Averaged
143 Dinoseb	44.68240	40.00000	0.11586	0.000	11.70599	60.00000	Linear
173 Carbazole	0.61324	0.39415	0.39415	0.000	-35.72719	60.00000	Averaged
184 p-Benzoquinone	27.22917	40.00000	0.17590	0.000	-31.92709	60.00000	Linear
192 Methoxychlor	0.51661	0.56667	0.56667	0.000	9.69021	60.00000	Averaged
211 p-Toluidine	1.14939	1.24106	1.24106	0.000	7.97574	60.00000	Averaged
210 m-Toluidine	1.42835	1.56386	1.56386	0.000	9.48728	60.00000	Averaged
26 Phthalic anhydride	0.11204	0.09363	0.09363	0.000	-16.43549	60.00000	Averaged
179 Dibenzo(a,e)pyrene	0.20913	0.40701	0.40701	0.000	94.61622	60.00000	Averaged <-
214 1,4-Dinitrobenzene	0.17870	0.24703	0.24703	0.000	38.23763	60.00000	Averaged
215 2-Ethoxyethanol	0.65261	0.60385	0.60385	0.000	-7.47103	60.00000	Averaged
216 Methylenebis(2-chloroanilin	0.07603	0.08152	0.08152	0.000	7.22723	60.00000	Averaged
M 225 Trichlorophenols	0.28709	0.29376	0.29376	0.000	2.32147	60.00000	Averaged
M 226 Tetrachlorophenols	0.27593	0.26452	0.26452	0.000	-4.13459	60.00000	Averaged
M 227 Benzo(b,k)fluoranthene	0.94280	0.92290	0.92290	0.000	-2.11098	60.00000	Averaged

Data File: /chem/MSD5.i/s032210.b/s5c2206.d  
 Report Date: 22-Mar-2010 11:45

Page 1

# GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2206.d  
 Lab Smp Id: WBN100129-05.5 Client Smp ID: MEGACVS  
 Inj Date : 22-MAR-2010 10:18  
 Operator : RMB Inst ID: MSD5.i  
 Smp Info : |WBN100129-05.5|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
 Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
 Als bottle: 6 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: MEGATTCARE.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vo \*Vi) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

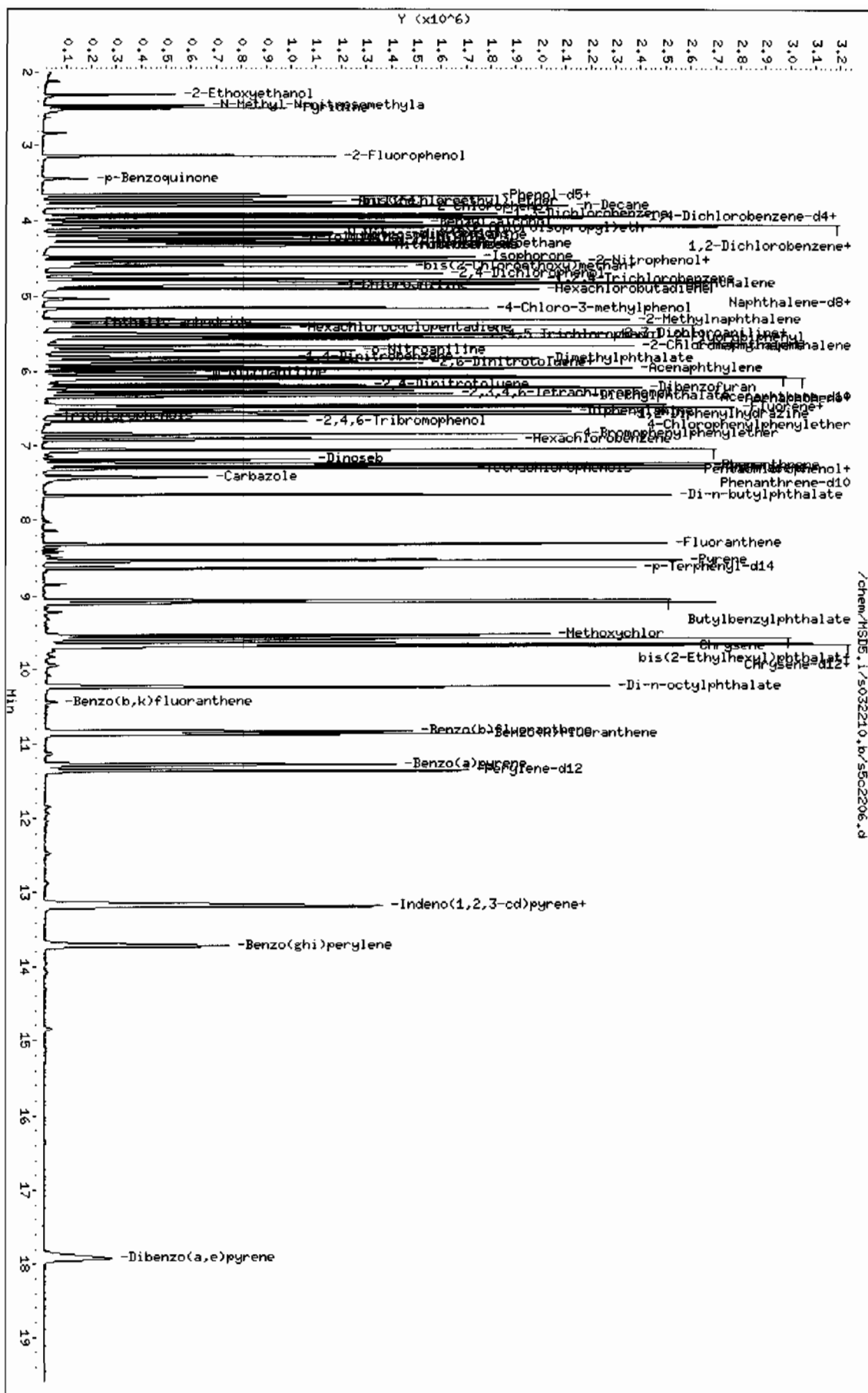
Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.950	3.950	(1.000)	253657	40.0000	
* 29 Naphthalene-d8	136	4.821	4.821	(1.000)	1010577	40.0000	
* 46 Acenaphthene-d10	164	6.078	6.078	(1.000)	572604	40.0000	
* 67 Phenanthrene-d10	188	7.253	7.253	(1.000)	1021744	40.0000	
* 91 Chrysene-d12	240	9.670	9.670	(1.000)	1027829	40.0000	
* 98 Perylene-d12	264	11.370	11.370	(1.000)	992950	40.0000	
\$ 3 2-Fluorophenol	112	3.141	3.141	(0.795)	272279	40.0000	43.0
\$ 5 Phenol-d5	99	3.666	3.666	(0.928)	336120	40.0000	44.2
\$ 20 Nitrobenzene-d5	82	4.316	4.316	(0.895)	312908	40.0000	41.7
\$ 39 2-Fluorobiphenyl	172	5.558	5.558	(0.914)	556116	40.0000	38.9
\$ 60 2,4,6-Tribromophenol	329	6.675	6.675	(1.098)	83088	40.0000	38.6
\$ 81 p-Terphenyl-d14	244	8.630	8.630	(0.892)	597160	40.0000	34.9
1 N-Methyl-N-nitrosomethylamine	74	2.457	2.457	(0.622)	170241	40.0000	45.3

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ng/ul)	ON-COL (ng/ul)
2 Pyridine	79	2.491	2.491	(0.631)	272137	40.0000	43.8
4 Aniline	66	3.738	3.738	(0.946)	152500	40.0000	45.5
6 Phenol	94	3.675	3.675	(0.930)	343148	40.0000	45.1 (Q)
7 bis(2-Chloroethyl) ether	63	3.747	3.747	(0.949)	241214	40.0000	43.1
8 2-Chlorophenol	128	3.815	3.815	(0.966)	298540	40.0000	44.8
203 n-Decane	43	3.796	3.796	(0.961)	315998	40.0000	36.4
9 1,3-Dichlorobenzene	146	3.916	3.916	(0.991)	318886	40.0000	42.9
11 1,4-Dichlorobenzene	146	3.964	3.964	(1.004)	307441	40.0000	42.2
13 1,2-Dichlorobenzene	146	4.065	4.065	(1.029)	267992	40.0000	41.2
14 bis(2-Chloroisopropyl) ether	45	4.094	4.094	(1.037)	444705	40.0000	38.6
12 Benzyl alcohol	108	4.017	4.017	(1.017)	188282	40.0000	44.6
15 o-Cresol	107	4.065	4.065	(1.029)	199328	40.0000	42.3
18 m,p-Cresols	107	4.166	4.166	(1.055)	300073	40.0000	43.9
17 N-Nitrosodipropylamine	70	4.190	4.190	(1.061)	194843	40.0000	48.0
19 Hexachloroethane	117	4.296	4.296	(1.088)	134533	40.0000	44.2
21 Nitrobenzene	77	4.330	4.330	(0.898)	327296	40.0000	46.8
22 Isophorone	82	4.479	4.479	(0.929)	578144	40.0000	42.6
23 2-Nitrophenol	139	4.542	4.542	(0.942)	136199	40.0000	38.9
24 2,4-Dimethylphenol	122	4.532	4.532	(0.940)	257276	40.0000	41.0
25 bis(2-Chloroethoxy)methane	93	4.600	4.600	(0.954)	333050	40.0000	41.6
26 2,4-Dichlorophenol	162	4.701	4.701	(0.975)	233481	40.0000	41.9
27 Benzoic acid	105	4.585	4.585	(0.951)	97439	40.0000	32.8
28 1,2,4-Trichlorobenzene	180	4.768	4.768	(0.989)	276770	40.0000	40.9
30 Naphthalene	128	4.836	4.836	(1.003)	795712	40.0000	35.4 (Q)
204 alpha-Terpineol	59	4.807	4.807	(0.997)	232152	40.0000	38.0
31 4-Chloroaniline	127	4.850	4.850	(1.006)	415181	40.0000	43.7
32 Hexachlorobutadiene	225	4.898	4.898	(1.016)	167066	40.0000	41.7
33 4-Chloro-3-methylphenol	107	5.158	5.158	(1.070)	257073	40.0000	46.1
34 2-Methylnaphthalene	142	5.317	5.317	(1.103)	517988	40.0000	38.0
35 1-Methylnaphthalene	142	5.389	5.389	(1.118)	502352	40.0000	36.4
36 Hexachlorocyclopentadiene	237	5.418	5.418	(0.891)	117218	40.0000	35.1
205 2,3-Dichloroaniline	161	5.515	5.515	(0.907)	285631	40.0000	40.1
37 2,4,6-Trichlorophenol	196	5.505	5.505	(0.906)	156526	40.0000	41.1
38 2,4,5-Trichlorophenol	196	5.529	5.529	(0.910)	179888	40.0000	40.7
40 2-Chloronaphthalene	162	5.669	5.669	(0.933)	518764	40.0000	39.3
42 o-Nitroaniline	65	5.726	5.726	(0.942)	183578	40.0000	44.9
41 m-Nitroaniline	138	6.025	6.025	(0.991)	84881	40.0000	26.8
43 Dimethylphthalate	163	5.837	5.837	(0.960)	615361	40.0000	40.9
44 2,6-Dinitrotoluene	165	5.895	5.895	(0.970)	145485	40.0000	40.0
50 2,4-Dinitrotoluene	165	6.194	6.194	(1.019)	189930	40.0000	41.0
45 Acenaphthylene	152	5.977	5.977	(0.983)	783554	40.0000	40.2
47 Acenaphthene	154	6.102	6.102	(1.004)	511423	40.0000	40.4
48 2,4-Dinitrophenol	184	6.097	6.097	(1.003)	47466	40.0000	52.7
49 Dibenzofuran	168	6.227	6.227	(1.025)	704305	40.0000	40.8
51 Diethylphthalate	149	6.348	6.348	(1.044)	633898	40.0000	43.6
52 4-Nitrophenol	139	6.117	6.117	(1.006)	107680	40.0000	50.3
53 Fluorene	166	6.487	6.487	(1.067)	577920	40.0000	38.9

Compounds	QUANT SIG					AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	6.463	6.463	(1.063)	293829	40.0000	38.4
55 2-Methyl-4,6-dinitrophenol	198	6.507	6.507	(0.897)	83643	40.0000	45.5
56 p-Nitroaniline	138	6.487	6.487	(1.067)	82907	40.0000	38.2
133 Diphenylamine	169	6.555	6.555	(0.904)	465608	40.0000	38.3
58 1,2-Diphenylhydrazine	77	6.588	6.588	(0.908)	695897	40.0000	47.4
61 4-Bromophenylphenylether	248	6.853	6.853	(0.945)	178470	40.0000	36.6
63 Hexachlorobenzene	284	6.926	6.926	(0.955)	182338	40.0000	35.7
65 Pentachlorophenol	266	7.075	7.075	(0.975)	92100	40.0000	39.0
206 n-Octadecane	57	7.060	7.060	(0.973)	369275	40.0000	39.7
68 Phenanthrene	178	7.272	7.272	(1.003)	851682	40.0000	39.4
69 Anthracene	178	7.316	7.316	(1.009)	866660	40.0000	39.6
72 Di-n-butylphthalate	149	7.672	7.672	(1.058)	1071046	40.0000	45.3
76 Fluoranthene	202	8.317	8.317	(1.147)	939670	40.0000	41.6
79 Pyrene	202	8.534	8.534	(0.882)	1016126	40.0000	35.8
85 Butylbenzylphthalate	149	9.064	9.064	(0.937)	493530	40.0000	42.3
89 Benzo(a)anthracene	228	9.656	9.656	(0.998)	891871	40.0000	38.8
92 Chrysene	228	9.694	9.694	(1.002)	864487	40.0000	40.4
93 bis(2-Ethylhexyl)phthalate	149	9.584	9.584	(0.991)	675295	40.0000	48.4
94 Di-n-octylphthalate	149	10.243	10.243	(0.901)	1168789	40.0000	43.2
95 Benzo(b)fluoranthene	252	10.845	10.845	(0.954)	923596	40.0000	38.9
96 Benzo(k)fluoranthene	252	10.879	10.879	(0.957)	909188	40.0000	39.4
97 Benzo(a)pyrene	252	11.293	11.293	(0.993)	844616	40.0000	42.4
99 Indeno(1,2,3-cd)pyrene	276	13.166	13.166	(1.158)	866340	40.0000	52.7
100 Dibenzo(a,h)anthracene	278	13.190	13.190	(1.160)	694103	40.0000	53.3
101 Benzo(ghi)perylene	276	13.725	13.725	(1.207)	758204	40.0000	55.2
126 m-Dinitrobenzene	168	5.881	5.881	(0.968)	102169	40.0000	39.7
130 2,3,4,6-Tetrachlorophenol	232	6.304	6.304	(1.037)	151464	40.0000	38.3
143 Dinoseb	211	7.195	7.195	(0.992)	118378	40.0000	44.7
173 Carbazole	167	7.431	7.431	(1.025)	402720	40.0000	25.7
184 p-Benzoquinone	54	3.439	3.439	(0.871)	44617	40.0000	27.2
192 Methoxychlor	227	9.535	9.535	(0.986)	582438	40.0000	43.9
211 p-Toluidine	106	4.229	4.229	(1.071)	314803	40.0000	43.2
210 m-Toluidine	106	4.248	4.248	(1.076)	396684	40.0000	43.8
26 Phthalic anhydride	104	5.351	5.351	(1.110)	94619	40.0000	33.4
179 Dibenzo(a,e)pyrene	302	17.919	17.919	(1.576)	404140	40.0000	77.8
214 1,4-Dinitrobenzene	75	5.818	5.818	(0.957)	141449	40.0000	55.3
215 2-Ethoxyethanol	59	2.303	2.303	(0.583)	153171	40.0000	37.0
216 Methylenecbis(2-chloroaniline)	231	9.598	9.598	(0.993)	83792	40.0000	42.9(Q)
M 225 Trichlorophenols	196				336414	80.0000	81.8
M 226 Tetrachlorophenols	232				151464	40.0000	38.3
M 227 Benzo(b,k)fluoranthene	252				1832784	80.0000	78.3

## QC Flag Legend

Q - Qualifier signal failed the ratio test.



Data File: /chem/MSD5.1/s032210.b/s032206.d  
 Date: 22-MAR-2010 10:18  
 Client ID: MECHCVS  
 Sample Info: 1MBN100129-05.5140 PPM11SUM11MECHCVS  
 Volume Injected (uL): 0.5  
 Column Phase: J&W DB-SMS

Instrument: MSD5.1  
 Operator: RHB  
 Column diameter: 0.20

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD5.i Injection Date: 22-MAR-2010 10:46  
Lab File ID: s5c2207.d Init. Cal. Date(s): 17-FEB-2010 02-MAR-2010  
Analysis Type: WATER Init. Cal. Times: 19:16 14:42  
Lab Sample ID: WBN100312-03.5 Quant Type: ISTD  
Method: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.77531	0.90302	0.90302 0.000	16.47119	60.00000	Averaged
16 Acetophenone	1.11708	1.20271	1.20271 0.000	7.66557	60.00000	Averaged
189 Caprolactam	0.08910	0.08602	0.08602 0.000	-3.46059	60.00000	Averaged
208 1,1'-Biphenyl	1.11469	1.10456	1.10456 0.000	-0.90867	60.00000	Averaged
207 Atrazine	0.03043	0.03806	0.03806 0.000	25.07634	60.00000	Averaged
77 Benzidine	0.18071	0.09973	0.09973 0.000	-44.81469	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27254	0.27279	0.27279 0.000	0.09483	60.00000	Averaged
102 1,4-Dioxane	0.34121	0.37407	0.37407 0.000	9.63032	60.00000	Averaged
103 Methyl methacrylate	0.18410	0.20465	0.20465 0.000	11.16231	60.00000	Averaged
104 Ethyl methacrylate	0.74729	0.80569	0.80569 0.000	7.81395	60.00000	Averaged
105 2-Picoline	1.15797	1.18026	1.18026 0.000	1.92459	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.43654	0.47881	0.47881 0.000	9.68353	60.00000	Averaged
107 Methyl methanesulfonate	0.47991	0.57413	0.57413 0.000	19.63349	60.00000	Averaged
108 N-Nitrosodiethylamine	0.44277	0.48477	0.48477 0.000	9.48589	60.00000	Averaged
109 Ethyl Methanesulfonate	0.60959	0.67101	0.67101 0.000	10.07537	60.00000	Averaged
110 Pentachloroethane	0.32418	0.33313	0.33313 0.000	2.76030	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.43870	0.51061	0.51061 0.000	16.39136	60.00000	Averaged
113 N-Nitrosomorpholine	0.53553	0.55438	0.55438 0.000	3.52003	60.00000	Averaged
114 o-Toluidine	1.52862	1.53865	1.53865 0.000	0.65597	60.00000	Averaged
115 N-Nitrosopiperidine	0.13910	0.13428	0.13428 0.000	-3.46269	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.79352	0.72095	0.72095 0.000	-9.14444	60.00000	Averaged
118 2,6-Dichlorophenol	0.21700	0.21773	0.21773 0.000	0.33588	60.00000	Averaged
119 Hexachloropropene	0.10744	0.10091	0.10091 0.000	-6.07507	60.00000	Averaged
120 p-Phenylenediamine	0.17838	0.23212	0.23212 0.000	30.12506	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.18088	0.18935	0.18935 0.000	4.68065	60.00000	Averaged
122 Safrole	0.19975	0.18621	0.18621 0.000	-6.78061	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.43728	0.41000	0.41000 0.000	-6.24003	60.00000	Averaged
124 Isosafrole	0.33677	0.32256	0.32256 0.000	-4.21993	60.00000	Averaged
125 1,4-Naphthoquinone	0.34896	0.35533	0.35533 0.000	1.82546	60.00000	Averaged
127 Pentachlorobenzene	0.42091	0.37636	0.37636 0.000	-10.58462	60.00000	Averaged
128 1-Naphthylamine	0.77744	0.81049	0.81049 0.000	4.25211	60.00000	Averaged
129 2-Naphthylamine	0.75956	0.90209	0.90209 0.000	18.76395	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27264	0.26651	0.26651 0.000	-2.24872	60.00000	Averaged
136 1,3,5-Trinitrobenzene	51.42397	40.00000	0.13666 0.000	28.55993	60.00000	Linear
137 Phenacetin	0.25552	0.28113	0.28113 0.000	10.02032	60.00000	Averaged
138 Diallate	0.20822	0.21294	0.21294 0.000	2.26716	60.00000	Averaged



GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD5.i Injection Date: 22-MAR-2010 10:46  
Lab File ID: s5c2207.d Init. Cal. Date(s): 17-FEB-2010 02-MAR-2010  
Analysis Type: WATER Init. Cal. Times: 19:16 14:42  
Lab Sample ID: WBN100312-03.5 Quant Type: ISTD  
Method: /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m

COMPOUND	RRF / AMOUNT	RF40	CCAL	MIN	MAX	CURVE TYPE
212 Cis Diallate	0.24438	0.24168	0.24168	0.000	-1.10742	Averaged
213 Trans Diallate	0.24496	0.25051	0.25051	0.000	2.26716	Averaged
140 4-Aminobiphenyl	0.41807	0.42183	0.42183	0.000	0.89969	Averaged
141 Pentachloronitrobenzene	0.06950	0.08593	0.08593	0.000	23.63453	Averaged
142 Pronamide	0.24082	0.24555	0.24555	0.000	1.96566	Averaged
146 4-Nitroquinoline-1-oxide	0.01215	0.01850	0.01850	0.000	52.32434	Averaged
147 Methapyrilene	0.34277	0.41528	0.41528	0.000	21.15339	Averaged
148 Isodrin	0.10083	0.10446	0.10446	0.000	3.59961	Averaged
149 Aramite	0.05058	0.04228	0.04228	0.000	-16.40355	Averaged
150 Kepone	0.07824	0.08057	0.08057	0.000	2.96751	Averaged
151 p-(Dimethylamino)azobenzene	0.25079	0.28059	0.28059	0.000	11.88298	Averaged
152 Chlorobenzilate	0.27769	0.27325	0.27325	0.000	-1.60056	Averaged
153 3,3'-Dimethylbenzidine	0.40745	0.33220	0.33220	0.000	-18.46807	Averaged
155 2-Acetylaminofluorene	0.29875	0.30774	0.30774	0.000	3.00898	Averaged
157 7,12Dimethylbenz(a)anthracene	0.43958	0.42558	0.42558	0.000	-3.18448	Averaged
158 3-Methylcholanthrene	0.36797	0.38432	0.38432	0.000	4.44241	Averaged

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2207.d  
 Lab Smp Id: WBN100312-03.5 Client Smp ID: AP12CVS  
 Inj Date : 22-MAR-2010 10:46  
 Operator : RMB Inst ID: MSD5.i  
 Smp Info : |WBN100312-03.5|40 PPM|1|SVM|1|AP12CVS  
 Misc Info : |MSD8270|WBN100310-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Meth Date : 22-Mar-2010 11:32 rmb Quant Type: ISTD  
 Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
 Als bottle: 7 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: ap12.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vo \*Vi) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT S1G				AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT ON-COL
	=====	==	=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	152	3.949	3.949	(1.000)	275675	40.0000
* 29 Naphthalene-d8	136	4.813	4.813	(1.000)	1030243	40.0000
* 46 Acenaphthene-d10	164	6.072	6.072	(1.000)	608411	40.0000
* 67 Phenanthrene-d10	188	7.248	7.248	(1.000)	1086440	40.0000
* 91 Chrysene-d12	240	9.660	9.660	(1.000)	1058705	40.0000
* 98 Perylene-d12	264	11.360	11.360	(1.000)	971563	40.0000
209 Benzaldehyde	77	3.672	3.672	(0.930)	248939	40.0000 46.6
16 Acetophenone	105	4.196	4.196	(1.063)	331556	40.0000 43.1
189 Caprolactam	113	5.090	5.090	(1.057)	88618	40.0000 38.6
208 1,1'-Biphenyl	154	5.637	5.637	(0.928)	672025	40.0000 39.6
207 Atrazine	173	6.942	6.942	(0.958)	41353	40.0000 50.0
77 Benizidine	184	8.401	8.401	(0.870)	105581	40.0000 22.1
90 3,3'-Dichlorobenzidine	252	9.595	9.595	(0.993)	288809	40.0000 40.0

Compounds	QUANT SIG			RESPONSE	AMOUNTS	
	MASS	RT	EXP RT REL RT		CAL-AMT (ng/ul)	ON-COL (ng/ul)
102 1,4-Dioxane	88	2.308	2.308 (0.584)	103121	40.0000	43.8
103 Methyl methacrylate	100	2.296	2.296 (0.581)	56416	40.0000	44.5
104 Ethyl methacrylate	69	2.660	2.660 (0.674)	222108	40.0000	43.1
105 2-Picoline	93	2.855	2.855 (0.723)	325368	40.0000	40.8
106 N-Nitrosomethylethylamine	88	2.896	2.896 (0.733)	131997	40.0000	43.9
107 Methyl methanesulfonate	80	3.049	3.049 (0.772)	158273	40.0000	47.8
108 N-Nitrosodiethylamine	102	3.278	3.278 (0.830)	133638	40.0000	43.8
109 Ethyl Methanesulfonate	79	3.431	3.431 (0.869)	184981	40.0000	44.0
110 Pentachloroethane	167	3.772	3.772 (0.955)	91835	40.0000	41.1
111 N-Nitrosopyrrolidine	100	4.184	4.184 (1.060)	140763	40.0000	46.6(Q)
113 N-Nitrosomorpholine	56	4.207	4.207 (1.066)	152829	40.0000	41.4
114 o-Toluidine	106	4.225	4.225 (1.070)	424166	40.0000	40.3
115 N-Nitrosopiperidine	114	4.425	4.425 (0.919)	138343	40.0000	38.6
116 a,a-Dimethylphenethylamine	58	4.666	4.666 (0.969)	742757	40.0000	36.3
118 2,6-Dichlorophenol	162	4.854	4.854 (1.009)	224311	40.0000	40.1
119 Hexachloropropene	213	4.884	4.884 (1.015)	103963	40.0000	37.6
120 p-Phenylenediamine	108	5.096	5.096 (1.059)	239135	40.0000	52.0
121 N-Nitrosodi-n-butylamine	84	5.054	5.054 (1.050)	195075	40.0000	41.9(Q)
122 Saffrole	162	5.225	5.225 (1.086)	191837	40.0000	37.3
123 1,2,4,5-Tetrachlorobenzene	216	5.425	5.425 (0.893)	249447	40.0000	37.5
124 Isosaffrole	162	5.596	5.596 (0.922)	196251	40.0000	38.3
125 1,4-Naphthoquinone	158	5.784	5.784 (0.953)	216187	40.0000	40.7
127 Pentachlorobenzene	250	6.190	6.190 (1.019)	228979	40.0000	35.8
128 1-Naphthylamine	143	6.278	6.278 (1.034)	493113	40.0000	41.7
129 2-Naphthylamine	143	6.337	6.337 (1.044)	548841	40.0000	47.5
131 5-Nitro-o-toluidine	152	6.472	6.472 (1.066)	162149	40.0000	39.1
136 1,3,5-Trinitrobenzene	75	6.731	6.731 (0.929)	148475	40.0000	51.4
137 Phenacetin	108	6.766	6.766 (0.933)	305426	40.0000	44.0(Q)
138 Diallate	86	6.754	6.754 (0.932)	231344	40.0000	40.9
212 Cis Diallate	86	6.831	6.831 (0.942)	39385	6.00000	5.9(a)
213 Trans Diallate	86	6.754	6.754 (0.932)	231344	34.0000	34.8
140 4-Aminobiphenyl	169	7.060	7.060 (0.974)	458294	40.0000	40.4
141 Pentachloronitrobenzene	237	7.078	7.078 (0.976)	93357	40.0000	49.4(Q)
142 Pronamide	173	7.072	7.072 (0.976)	266775	40.0000	40.8
146 4-Nitroquinoline-1-oxide	101	7.919	7.919 (1.093)	20099	40.0000	60.9
147 Methapyrilene	58	7.948	7.948 (1.097)	451175	40.0000	48.5
148 Isodrin	193	8.172	8.172 (1.127)	113488	40.0000	41.4
149 Aramite	185	8.572	8.572 (1.183)	45936	40.0000	33.4
150 Kepone	272	9.160	9.160 (1.264)	87531	40.0000	41.2
151 p-(Dimethylamino)azobenzene	120	8.754	8.754 (0.906)	297067	40.0000	44.8
152 Chlorobenzilate	251	8.784	8.784 (0.909)	289291	40.0000	39.4
153 3,3'-Dimethylbenzidine	212	9.072	9.072 (0.939)	351704	40.0000	32.6
155 2-Acetylaminofluorene	181	9.319	9.319 (0.965)	325804	40.0000	41.2
157 7,12Dimethylbenz(a)anthracene	256	10.807	10.807 (0.951)	413478	40.0000	38.7
158 3-Methylcholanthrene	268	11.766	11.766 (1.036)	373390	40.0000	41.8(Q)

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/MS05.i/s032210.b/s032207.d

Date: 22-MAR-2010 10:46

Client ID: AP12CWS

Sample Info: IWBH00312-03.E140 PPH11SVH11AP12CWS

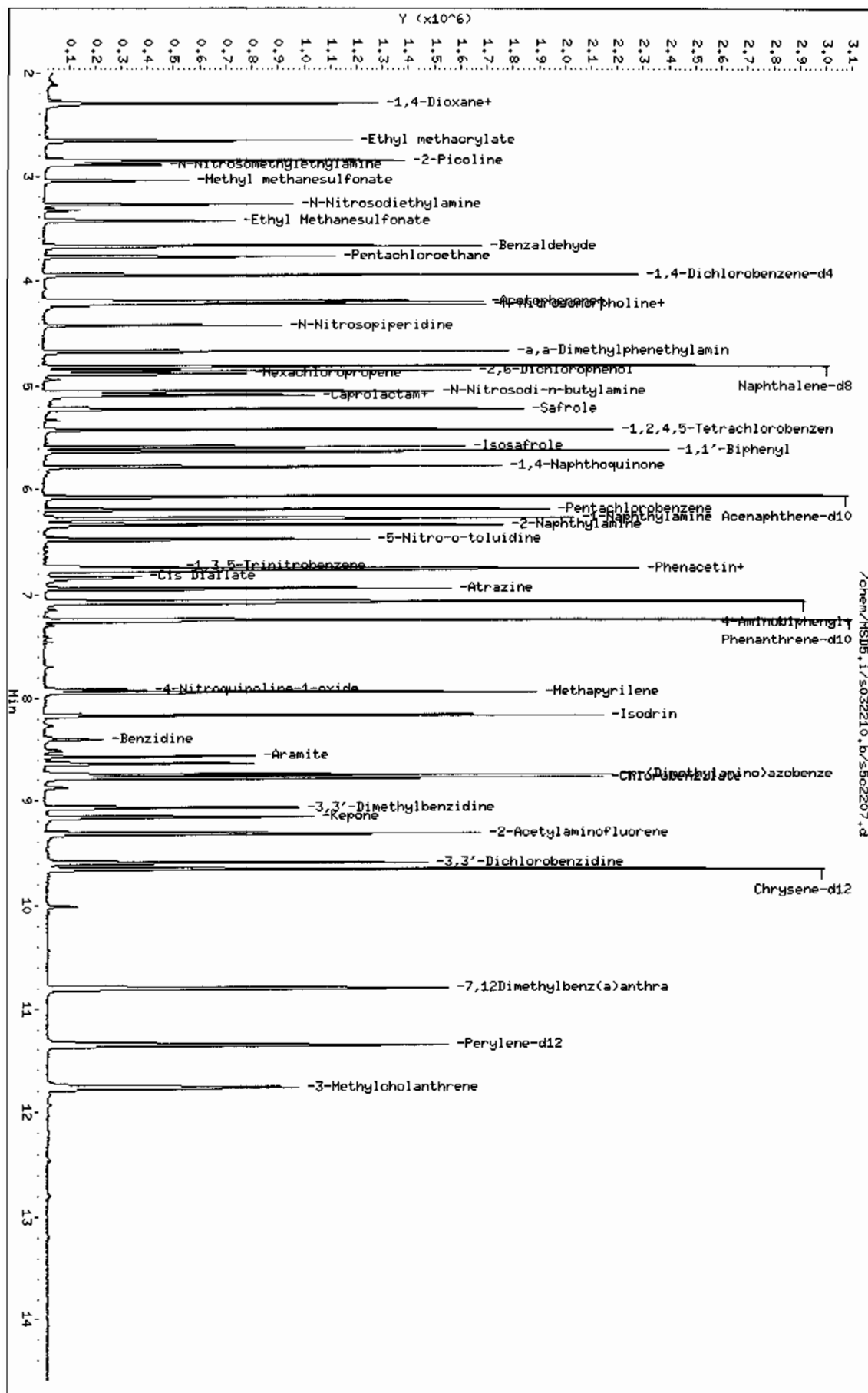
Volume Injected (uL): 0.5

Column phase: J&W DB-5HS

Instrument: MS05.i

Operator: RMB

Column diameter: 0.20



# QC Data

Data File: /chem/MSD5.i/s021710.b/s5b1701.d

Page 1

Date : 17-FEB-2010 14:51

Client ID: DFTPP

Instrument: MSD5.i

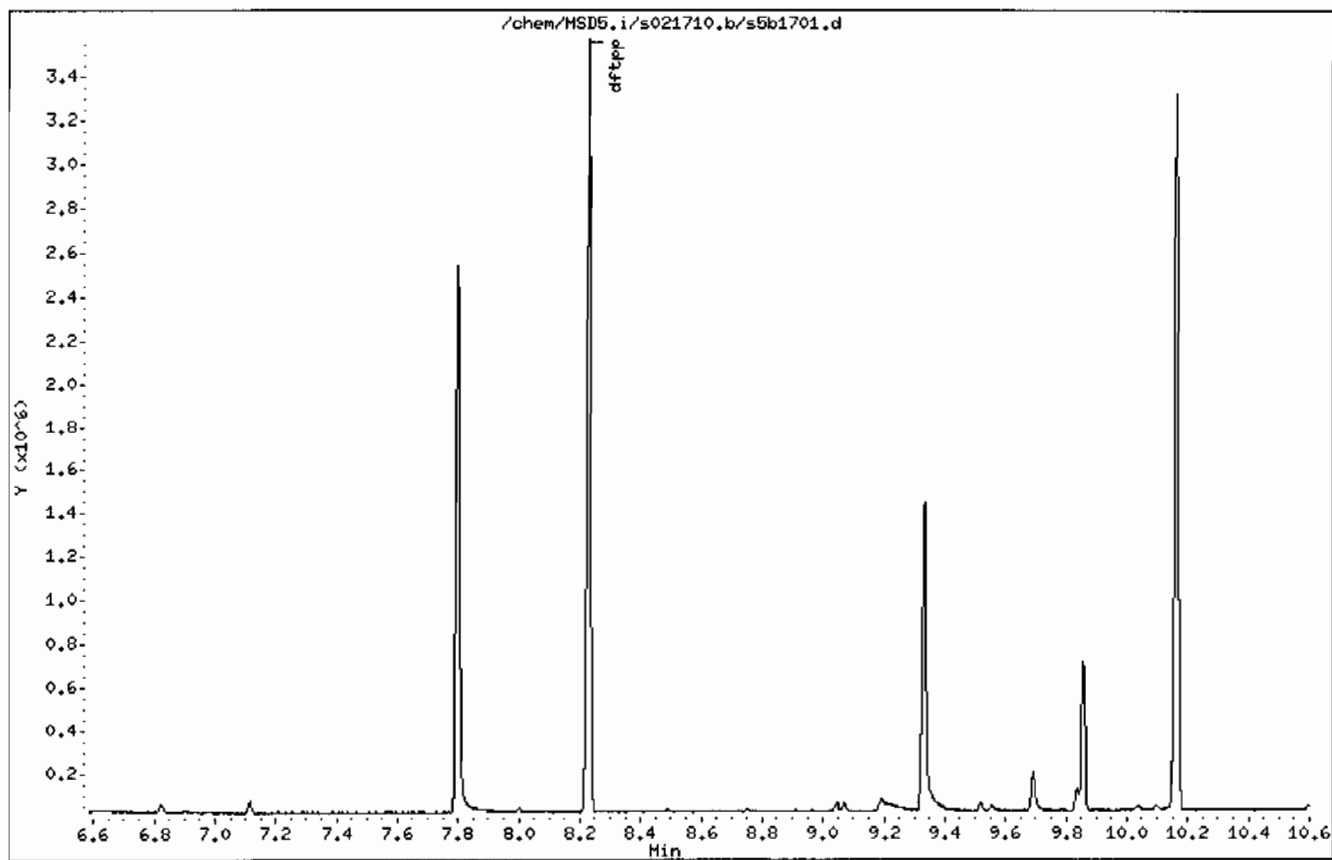
Sample Info: IWBH100207-01150PPH111SVHF111DFTPP

Volume Injected (uL): 1.0

Operator: rmb

Column phase: Phenomenex ZB-5HS

Column diameter: 0.20



Date : 17-FEB-2010 14:51

Client ID: DFTPP

Instrument: MSD5.i

Sample Info: IWBNI00207-01150PPH11SVMF11DFTPP

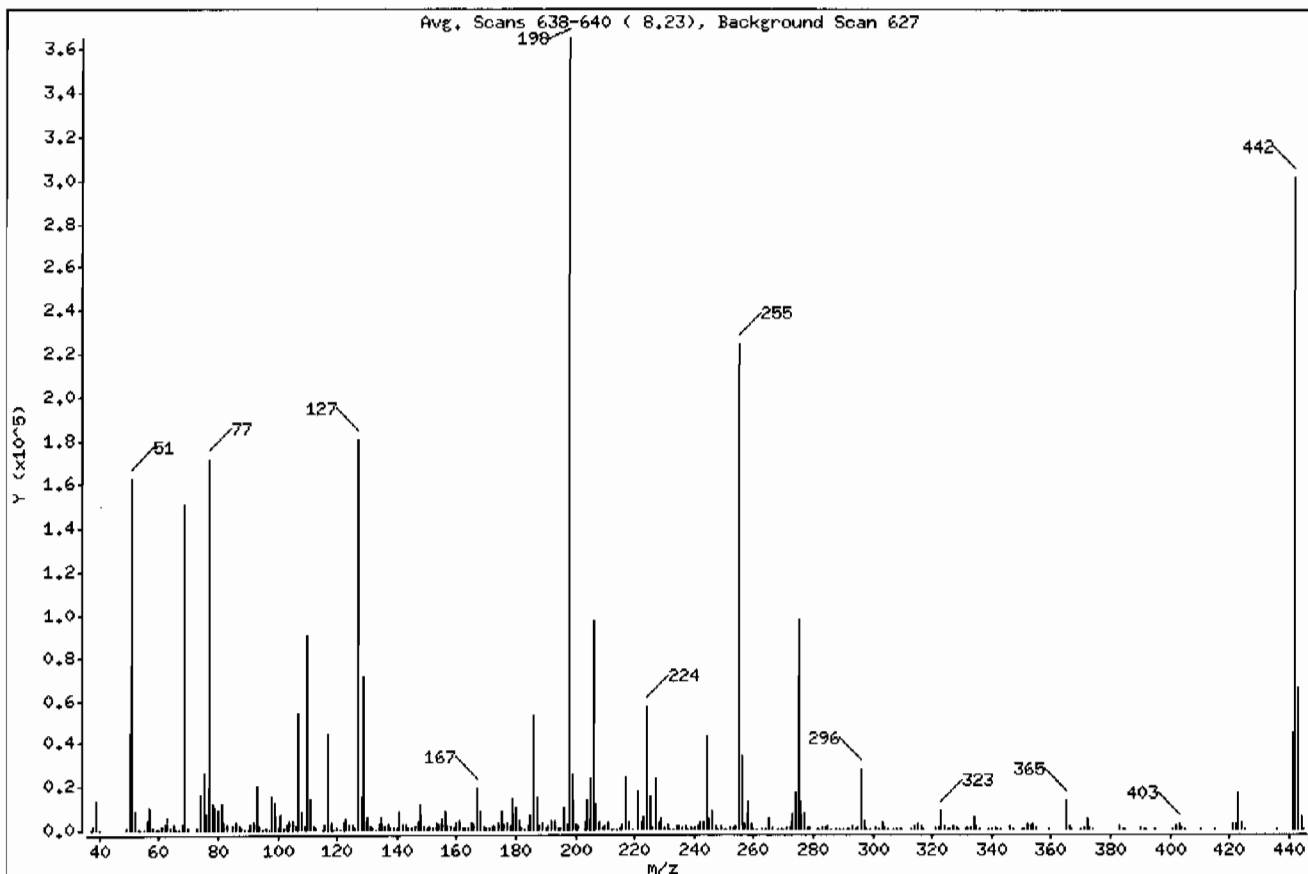
Volume Injected (uL): 1.0

Operator: rmb

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	44.51
68	Less than 2.00% of mass 69	0.60 ( 1.45)
69	Mass 69 relative abundance	41.28
70	Less than 2.00% of mass 69	0.16 ( 0.39)
127	40.00 - 60.00% of mass 198	49.41
197	Less than 1.00% of mass 198	0.59
199	5.00 - 9.00% of mass 198	6.97
275	10.00 - 30.00% of mass 198	26.65
365	Greater than 1.00% of mass 198	3.62
441	Present, but less than mass 443	12.08
442	Greater than 40.00% of mass 198	82.57
443	17.00 - 23.00% of mass 442	17.93 ( 21.71)



Date : 17-FEB-2010 14:51

Client ID: DFTPP

Instrument: HSD5.i

Sample Info: IWBNI00207-01I50PPH1I1SVHF1I1DFTPP

Volume Injected (uL): 1.0

Operator: rmb

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s5b1701.d

Spectrum: Avg. Scans 638-640 ( 8,23), Background Scan 627

Location of Maximum: 198.00

Number of points: 321

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	361	130.00	5987	212.00	300	298.00	254
38.00	1969	131.00	1344	213.00	172	299.00	47
39.00	13265	132.00	804	214.00	53	301.00	427
40.00	48	133.00	147	215.00	1077	302.00	385
49.00	1063	134.00	2184	216.00	2121	303.00	3761
50.00	44552	135.00	5531	217.00	24160	304.00	987
51.00	162560	136.00	1866	218.00	3405	305.00	70
52.00	8132	137.00	2662	219.00	319	307.00	52
53.00	182	138.00	673	221.00	17368	308.00	315
54.00	207	139.00	486	222.00	3248	309.00	214
55.00	136	140.00	769	223.00	5707	310.00	317
56.00	4399	141.00	8763	224.00	57488	313.00	242
57.00	10417	142.00	2838	225.00	14714	314.00	1413
58.00	482	143.00	2408	226.00	1090	315.00	2813
59.00	149	144.00	442	227.00	23544	316.00	1684
60.00	29	145.00	451	228.00	3156	317.00	293
61.00	1661	146.00	1412	229.00	4889	321.00	918
62.00	2267	147.00	4615	230.00	651	322.00	466
63.00	6260	148.00	11368	231.00	2130	323.00	8498
64.00	923	149.00	1963	232.00	390	324.00	1931
65.00	2891	150.00	727	233.00	359	325.00	154
66.00	340	151.00	1300	234.00	1584	326.00	244
67.00	149	152.00	447	235.00	1627	327.00	1440
68.00	2192	153.00	3027	236.00	1163	328.00	838
69.00	150784	154.00	2235	237.00	1820	329.00	221
70.00	581	155.00	4948	238.00	195	331.00	76
73.00	1034	156.00	8083	239.00	1100	332.00	625
74.00	15925	157.00	1566	240.00	739	333.00	886
75.00	25632	158.00	1724	241.00	1754	334.00	5481
76.00	7798	159.00	1237	242.00	3036	335.00	1601
77.00	171392	160.00	3019	243.00	3095	336.00	66
78.00	12055	161.00	4454	244.00	43056	339.00	111
79.00	10339	162.00	1256	245.00	5342	340.00	110
80.00	9252	163.00	444	246.00	8278	341.00	1148
81.00	12036	164.00	538	247.00	1675	342.00	228

Date : 17-FEB-2010 14:51

Client ID: DFTPP

Instrument: HSD5.i

Sample Info: IWBNI00207-01I50PPH11SVHF11IDFTPP

Volume Injected (uL): 1.0

Operator: rmb

Column phase: Phenomenex ZB-SHS

Column diameter: 0.20

Data File: s5b1701.d

Spectrum: Avg. Scans 638-640 ( 8.23), Background Scan 627

Location of Maximum: 198.00

Number of points: 321

m/z	Y	m/z	Y	m/z	Y	m/z	Y
-----							
82.00	3057	165.00	3477	248.00	367	343.00	48
83.00	2803	166.00	2848	249.00	1622	346.00	1902
85.00	1758	167.00	18976	250.00	348	347.00	292
86.00	3636	168.00	8785	251.00	407	350.00	120
87.00	1475	169.00	1487	252.00	524	351.00	148
-----							
88.00	636	170.00	581	253.00	935	352.00	2700
89.00	339	171.00	635	254.00	1285	353.00	1763
90.00	46	172.00	1588	255.00	223808	354.00	2694
91.00	2851	173.00	2079	256.00	33528	355.00	548
92.00	3628	174.00	3675	257.00	2631	359.00	237
-----							
93.00	20472	175.00	8268	258.00	12715	365.00	13239
94.00	1304	176.00	2190	259.00	2130	366.00	1964
95.00	288	177.00	3105	260.00	324	367.00	127
96.00	1052	178.00	1370	261.00	318	370.00	174
97.00	299	179.00	13901	263.00	49	371.00	710
-----							
98.00	15208	180.00	9993	264.00	405	372.00	4778
99.00	12219	181.00	4379	265.00	5063	373.00	1122
100.00	1114	182.00	657	266.00	1045	374.00	52
101.00	6339	183.00	413	268.00	151	383.00	1395
102.00	441	184.00	1296	269.00	49	384.00	284
-----							
103.00	2221	185.00	6675	270.00	325	385.00	56
104.00	4430	186.00	52656	271.00	426	390.00	670
105.00	3953	187.00	15425	272.00	739	391.00	366
106.00	1544	188.00	1650	273.00	6863	392.00	233
107.00	53360	189.00	3117	274.00	17208	395.00	44
-----							
108.00	8197	190.00	658	275.00	97336	401.00	401
109.00	1356	191.00	1377	276.00	12347	402.00	1862
110.00	91024	192.00	4441	277.00	7588	403.00	2900
111.00	14377	193.00	4369	278.00	1228	404.00	1074
112.00	1793	194.00	838	279.00	425	405.00	83
-----							
113.00	647	195.00	724	281.00	48	410.00	116
115.00	211	196.00	9824	282.00	131	415.00	43
116.00	2613	197.00	2157	283.00	894	421.00	2180
117.00	44624	198.00	365248	284.00	703	422.00	2251
118.00	2997	199.00	25440	285.00	1722	423.00	16528

Date : 17-FEB-2010 14:51

Client ID: DFTPP

Instrument: HSD5.i

Sample Info: IWBNI00207-01I50PPH1IISVMFI1IDFTPP

Volume Injected (uL): 1.0

Operator: rmb

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s5b1701.d

Spectrum: Avg. Scans 638-640 ( 8,23), Background Scan 627

Location of Maximum: 198.00

Number of points: 321

m/z	Y	m/z	Y	m/z	Y	m/z	Y
119.00	313	200.00	2259	286.00	307	424.00	3199
120.00	561	201.00	1725	288.00	72	425.00	383
121.00	383	203.00	3016	289.00	417	436.00	59
122.00	3459	204.00	13781	290.00	312	441.00	44128
123.00	5215	205.00	23504	291.00	173	442.00	301568
124.00	2572	206.00	97768	292.00	399	443.00	65480
125.00	2202	207.00	11724	293.00	1788	444.00	5798
126.00	551	208.00	3271	294.00	366	445.00	233
127.00	180480	209.00	1106	295.00	509		
128.00	14726	210.00	1625	296.00	27920		
129.00	71424	211.00	3508	297.00	3986		

Data File: /chem/MSD5.i/s021710.b/s5b1727.d

Page 1

Date : 18-FEB-2010 08:43

Client ID: DFTPP

Instrument: MSD5.i

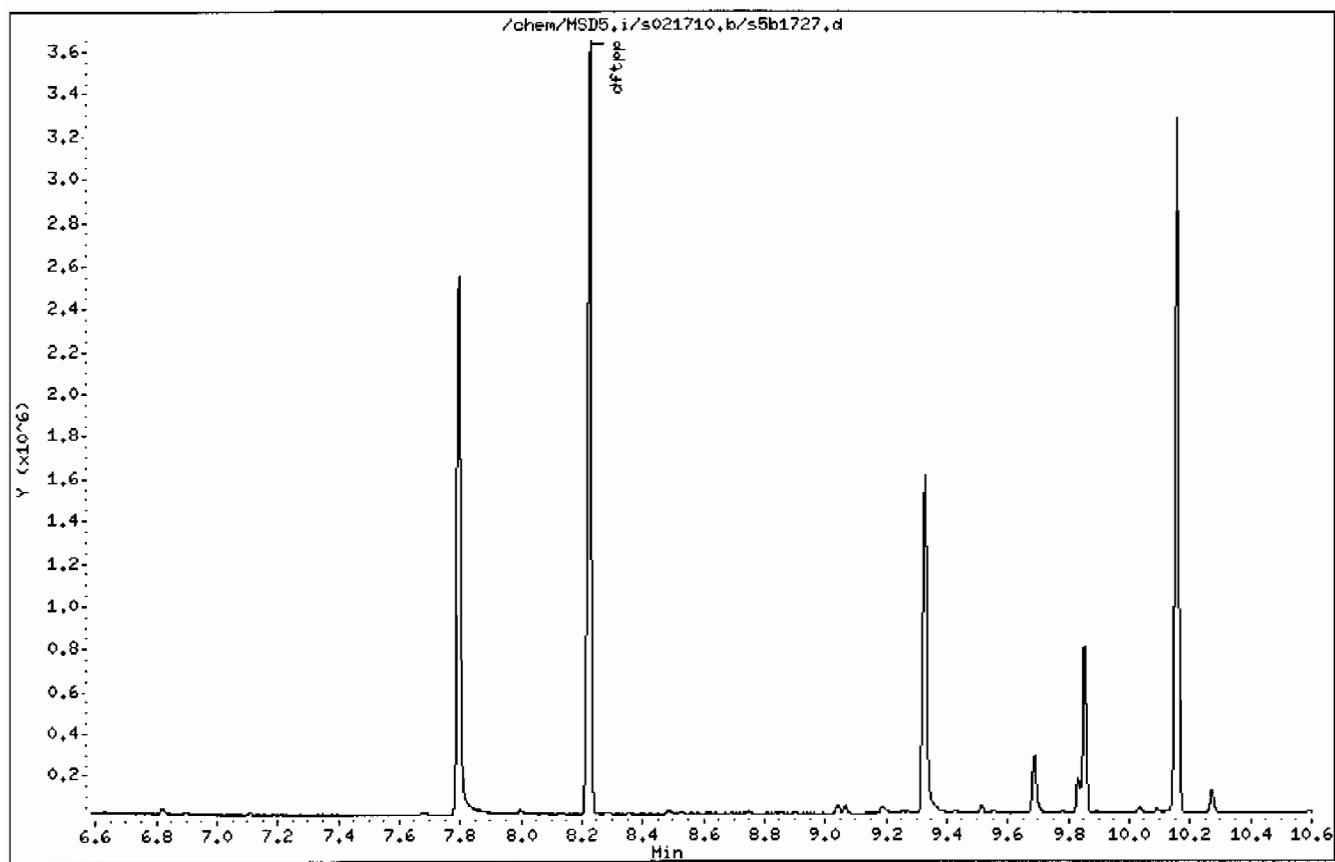
Sample Info: HWBN100207-01150PPH111SVHF111DFTPP

Volume Injected (uL): 1.0

Operator: rmb

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20



Date : 18-FEB-2010 08:43

Client ID: DFTTP

Instrument: MSD5.i

Sample Info: IWBH100207-01150PPH11SVHF111DFTTP

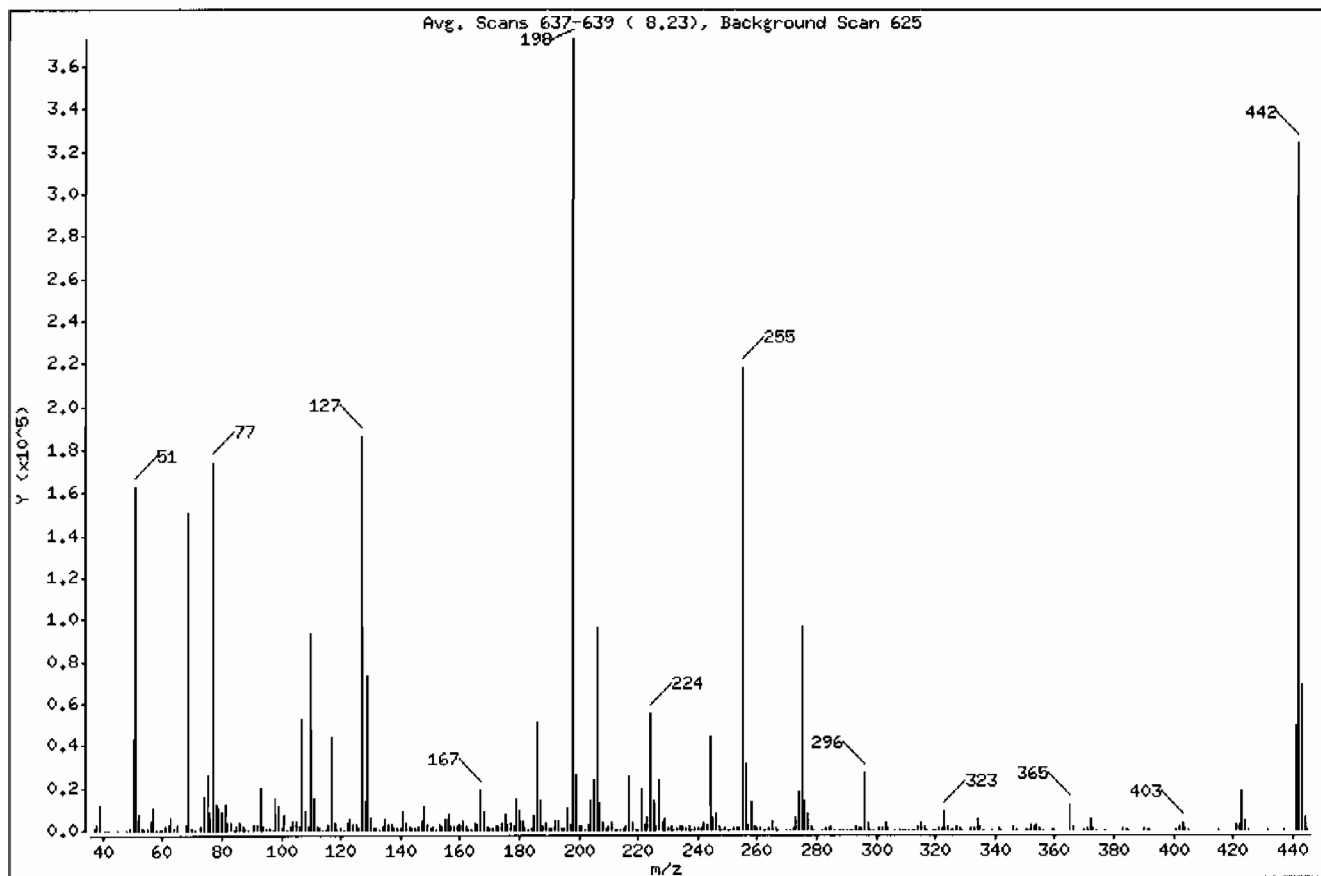
Volume Injected (uL): 1.0

Operator: rmb

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	43.61
68	Less than 2.00% of mass 69	0.66 ( 1.63)
69	Mass 69 relative abundance	40.56
70	Less than 2.00% of mass 69	0.20 ( 0.50)
127	40.00 - 60.00% of mass 198	49.98
197	Less than 1.00% of mass 198	0.64
199	5.00 - 9.00% of mass 198	6.93
275	10.00 - 30.00% of mass 198	25.73
365	Greater than 1.00% of mass 198	3.23
441	Present, but less than mass 443	13.22
442	Greater than 40.00% of mass 198	86.90
443	17.00 - 23.00% of mass 442	18.31 ( 21.08)

Date : 18-FEB-2010 08:43

Client ID: DFTPP

Instrument: HSD5.i

Sample Info: IMBN100207-01150PPH11SVHF11IDFTPP

Volume Injected (uL): 1.0

Operator: rmb

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s5b1727.d

Spectrum: Avg, Scans 637-639 ( 8.23), Background Scan 625

Location of Maximum: 198.00

Number of points: 326

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	539	128.00	14119	210.00	1361	297.00	3812
38.00	2192	129.00	73040	211.00	3331	298.00	172
39.00	12292	130.00	5822	212.00	268	299.00	132
41.00	23	131.00	1184	213.00	326	301.00	450
42.00	189	132.00	1082	214.00	79	302.00	440
45.00	196	133.00	91	215.00	1093	303.00	3020
48.00	143	134.00	1948	216.00	1924	304.00	764
49.00	1042	135.00	5335	217.00	24576	306.00	83
50.00	42928	136.00	2453	218.00	3333	308.00	397
51.00	162560	137.00	2712	219.00	330	309.00	358
52.00	7848	138.00	490	220.00	194	310.00	278
53.00	449	139.00	484	221.00	18432	311.00	49
54.00	59	140.00	933	222.00	2577	312.00	45
55.00	970	141.00	8840	223.00	5903	313.00	333
56.00	4328	142.00	3050	224.00	54456	314.00	1402
57.00	9982	143.00	2099	225.00	13650	315.00	3341
58.00	359	144.00	649	226.00	1337	316.00	1911
59.00	44	145.00	582	227.00	22984	317.00	245
60.00	41	146.00	1577	228.00	3218	319.00	41
61.00	1726	147.00	4452	229.00	4940	320.00	157
62.00	2229	148.00	10896	230.00	506	321.00	949
63.00	5605	149.00	2255	231.00	1943	322.00	445
64.00	734	150.00	553	232.00	292	323.00	8864
65.00	2800	151.00	1446	233.00	454	324.00	1641
68.00	2460	152.00	327	234.00	1460	325.00	213
69.00	151168	153.00	2912	235.00	1560	326.00	115
70.00	760	154.00	2124	236.00	1133	327.00	1634
71.00	215	155.00	5432	237.00	1930	328.00	1137
73.00	1310	156.00	7521	238.00	231	329.00	108
74.00	15766	157.00	1550	239.00	960	332.00	577
75.00	25320	158.00	1909	240.00	668	333.00	757
76.00	8191	159.00	1487	241.00	1130	334.00	5438
77.00	173760	160.00	2911	242.00	3017	335.00	1394
78.00	11845	161.00	4281	243.00	2745	336.00	164
79.00	10657	162.00	1429	244.00	44064	339.00	115

Date : 18-FEB-2010 08:43

Client ID: DFTPP

Instrument: MSD5.i

Sample Info: INBN100207-01150PPH11SVMF11/DFTPP

Volume Injected (uL): 1.0

Operator: rmb

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s5b1727.d

Spectrum: Avg. Scans 637-639 ( 8.23), Background Scan 625

Location of Maximum: 198.00

Number of points: 326

m/z	Y	m/z	Y	m/z	Y	m/z	Y
80.00	8642	163.00	275	245.00	5736	341.00	872
81.00	12269	164.00	379	246.00	8116	342.00	260
82.00	3002	165.00	3001	247.00	1577	346.00	1733
83.00	3046	166.00	2641	248.00	379	347.00	311
84.00	240	167.00	18632	249.00	1239	350.00	88
85.00	2009	168.00	8696	250.00	319	351.00	152
86.00	3315	169.00	1407	251.00	364	352.00	2711
87.00	1465	170.00	591	252.00	441	353.00	2120
88.00	619	171.00	796	253.00	1082	354.00	2703
89.00	266	172.00	1603	254.00	1253	355.00	520
91.00	2674	173.00	2114	255.00	217216	356.00	44
92.00	2918	174.00	3506	256.00	31232	359.00	353
93.00	19824	175.00	7357	257.00	2430	360.00	59
94.00	1521	176.00	2187	258.00	12681	365.00	12045
95.00	433	177.00	3355	259.00	2138	366.00	1910
96.00	841	178.00	1407	260.00	462	370.00	265
97.00	216	179.00	14277	261.00	434	371.00	686
98.00	14963	180.00	9735	262.00	44	372.00	4885
99.00	11067	181.00	4082	263.00	217	373.00	1282
100.00	1178	182.00	941	264.00	473	374.00	48
101.00	6668	183.00	338	265.00	4376	377.00	45
102.00	358	184.00	1033	266.00	837	383.00	1156
103.00	2068	185.00	6522	267.00	65	384.00	364
104.00	4014	186.00	50200	270.00	252	385.00	91
105.00	4028	187.00	13718	271.00	402	390.00	632
106.00	1546	188.00	1542	272.00	525	391.00	391
107.00	52656	189.00	3160	273.00	6207	392.00	287
108.00	8274	190.00	656	274.00	17784	401.00	206
109.00	1606	191.00	1217	275.00	95912	402.00	2063
110.00	93368	192.00	4509	276.00	13465	403.00	3070
111.00	14556	193.00	4570	277.00	7732	404.00	861
112.00	1577	194.00	899	278.00	1376	405.00	161
113.00	739	195.00	519	279.00	247	415.00	59
114.00	52	196.00	9978	282.00	198	421.00	2541
115.00	272	197.00	2375	283.00	900	422.00	2569

Date : 18-FEB-2010 08:43

Client ID: DFTPP

Instrument: MSD5.i

Sample Info: IWBNI00207-01I50PPH11ISVMF11IDFTPP

Volume Injected (uL): 1.0

Operator: rmb

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s5b1727.d

Spectrum: Avg. Scans 637-639 ( 8,23), Background Scan 625

Location of Maximum: 198.00

Number of points: 326

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	2784	198.00	372736	284.00	794	423.00	17968
117.00	44104	199.00	25840	285.00	1398	424.00	3949
118.00	3386	200.00	2010	286.00	252	425.00	310
119.00	343	201.00	1697	288.00	41	432.00	59
120.00	753	202.00	399	289.00	281	437.00	58
121.00	303	203.00	2749	290.00	350	441.00	49264
122.00	3428	204.00	13386	291.00	337	442.00	323904
123.00	4848	205.00	23312	292.00	364	443.00	68264
124.00	2331	206.00	95880	293.00	1924	444.00	6205
125.00	2270	207.00	12604	294.00	448	445.00	343
126.00	676	208.00	3299	295.00	596		
127.00	186304	209.00	1027	296.00	26816		



Data File: /chem/MSD5.i/s032210.b/s5c2205.d

Page 1

Date : 22-MAR-2010 10:05

Client ID: DFTPP

Instrument: MSD5.i

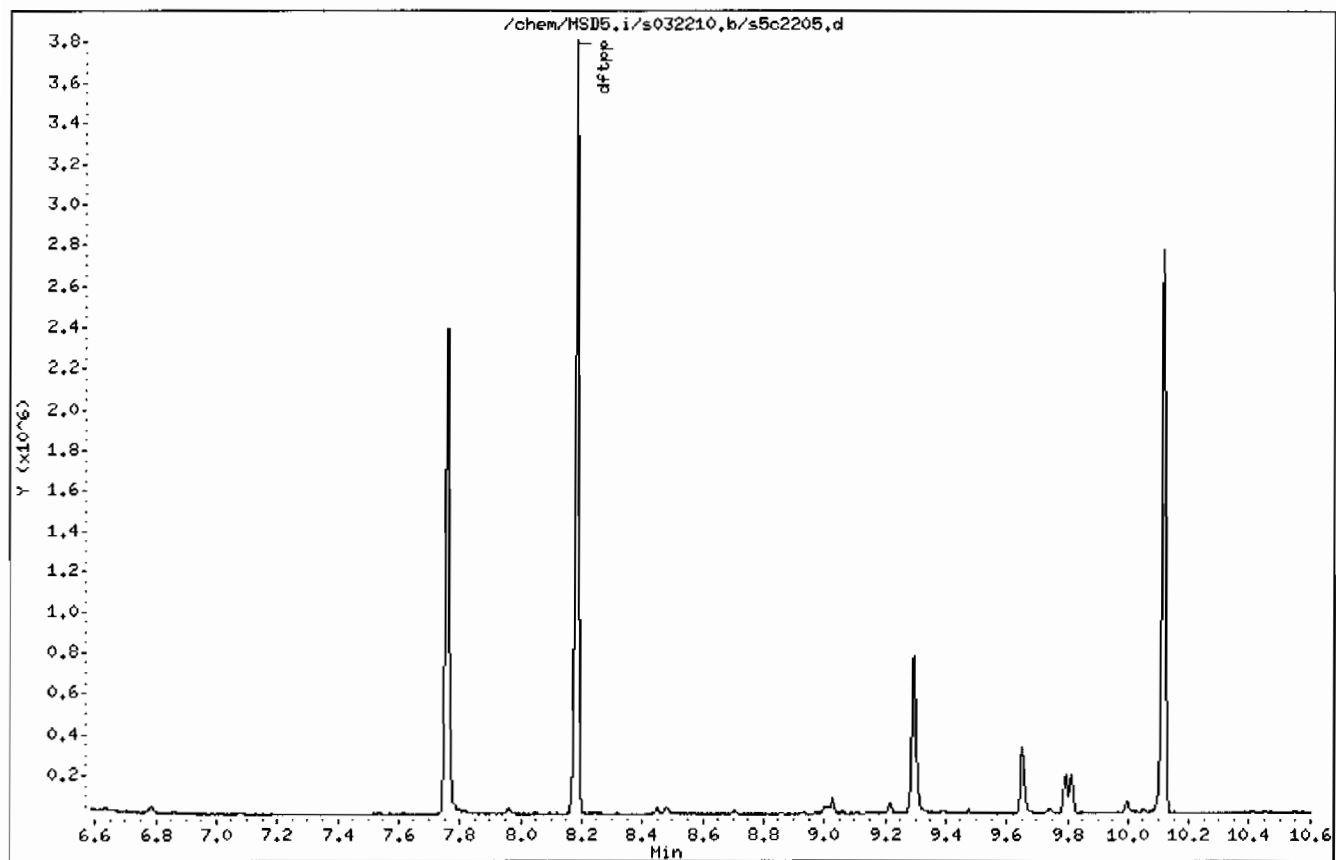
Sample Info: IWBNI00306-01.2150PPMI11SVHF11IDFTPP

Volume Injected (uL): 1.0

Operator: rmb

Column phase: Phenomenex ZB-5MS

Column diameter: 0,20



Date : 22-MAR-2010 10:05

Client ID: DFTPP

Instrument: MSD5.i

Sample Info: IWBH100306-01,2150PPH11SVHF11DFTPP

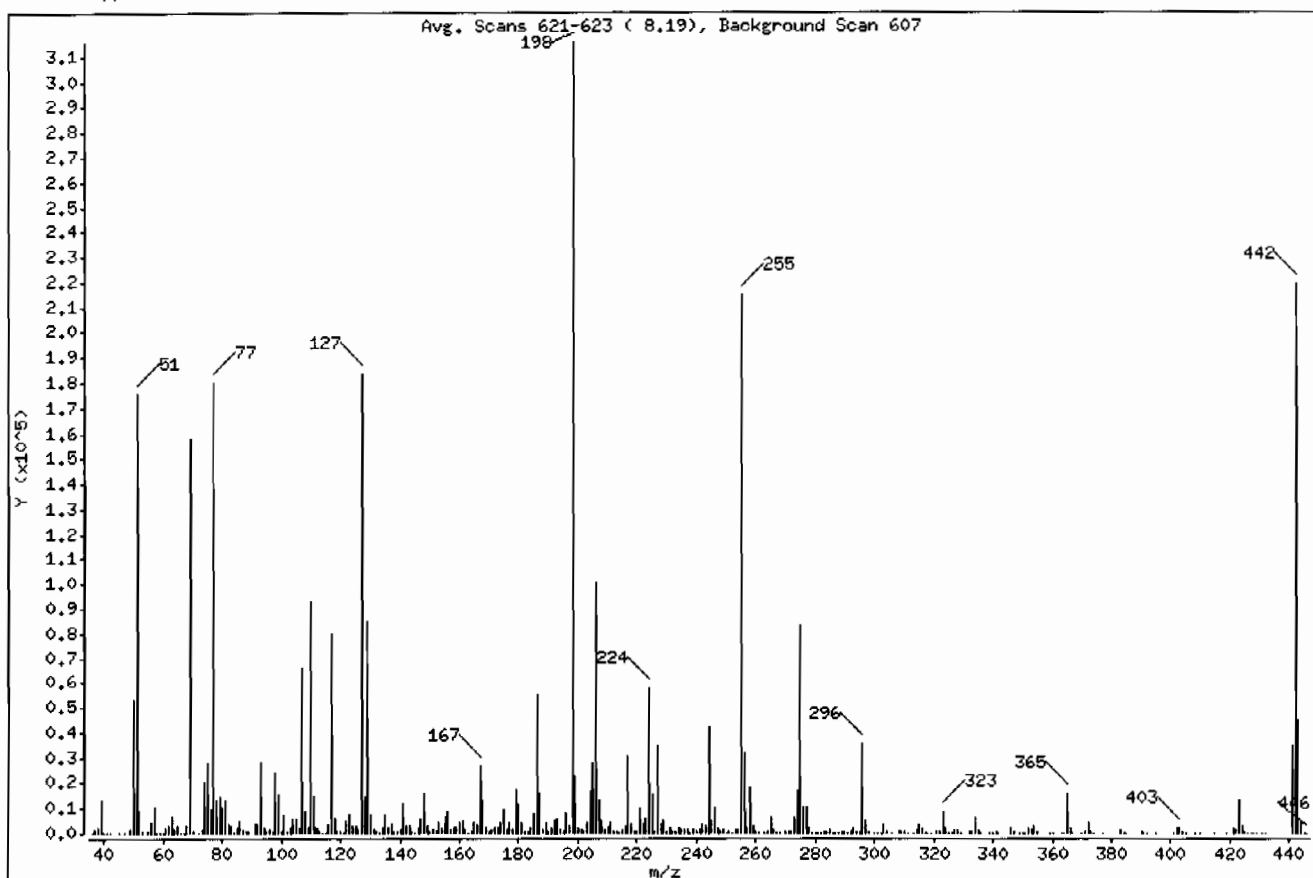
Volume Injected (uL): 1.0

Operator: rmb

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	55.63
68	Less than 2.00% of mass 69	0.86 ( 1.71)
69	Mass 69 relative abundance	50.13
70	Less than 2.00% of mass 69	0.28 ( 0.57)
127	40.00 - 60.00% of mass 198	58.08
197	Less than 1.00% of mass 198	0.88
199	5.00 - 9.00% of mass 198	7.12
275	10.00 - 30.00% of mass 198	26.37
365	Greater than 1.00% of mass 198	5.09
441	Present, but less than mass 443	10.92
442	Greater than 40.00% of mass 198	69.51
443	17.00 - 23.00% of mass 442	14.21 ( 20.44)

Date : 22-MAR-2010 10:05

Client ID: DFTPP

Instrument: HSD5.i

Sample Info: IWBNI00306-01,2150PPH11|SVMF11|DFTPP

Volume Injected (uL): 1.0

Operator: rmb

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s5c2205.d

Spectrum: Avg. Scans 621-623 ( 8.19), Background Scan 607

Location of Maximum: 198.00

Number of points: 344

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	120	130.00	7309	217.00	30216	309.00	381
37.00	1356	131.00	1801	218.00	3387	310.00	564
38.00	2108	132.00	839	219.00	545	311.00	72
39.00	13317	133.00	86	220.00	451	313.00	269
40.00	145	134.00	2537	221.00	9925	314.00	1187
41.00	150	135.00	7089	222.00	3529	315.00	3895
42.00	47	136.00	2265	223.00	5727	316.00	2243
45.00	201	137.00	3288	224.00	57712	317.00	263
47.00	66	138.00	825	225.00	15063	318.00	81
49.00	1517	139.00	408	226.00	1042	319.00	206
50.00	52992	140.00	1361	227.00	34536	321.00	784
51.00	175616	141.00	11969	228.00	3885	322.00	416
52.00	8790	142.00	3259	229.00	4817	323.00	8486
53.00	443	143.00	2738	230.00	823	324.00	1902
55.00	937	144.00	655	231.00	2017	325.00	151
56.00	4669	145.00	346	232.00	560	326.00	323
57.00	10095	146.00	2227	233.00	510	327.00	1813
58.00	353	147.00	5479	234.00	2346	328.00	1129
59.00	59	148.00	15640	235.00	1734	329.00	198
60.00	54	149.00	3150	236.00	1584	332.00	884
61.00	2022	150.00	506	237.00	1635	333.00	1011
62.00	2812	151.00	1515	238.00	179	334.00	6386
63.00	6453	152.00	632	239.00	1156	335.00	1633
64.00	1293	153.00	4085	240.00	937	336.00	162
65.00	2543	154.00	2399	241.00	1539	339.00	86
66.00	196	155.00	6726	242.00	3367	340.00	79
67.00	237	156.00	8445	243.00	3261	341.00	963
68.00	2702	157.00	1444	244.00	41880	342.00	245
69.00	158272	158.00	2211	245.00	5172	346.00	2329
70.00	895	159.00	1893	246.00	10470	347.00	374
72.00	88	160.00	4186	247.00	2075	349.00	77
73.00	1371	161.00	4946	248.00	451	350.00	82
74.00	20520	162.00	1322	249.00	1627	351.00	46
75.00	27656	163.00	29	250.00	215	352.00	2514
76.00	9568	164.00	566	251.00	532	353.00	1812

Date : 22-MAR-2010 10:05

Client ID: DFTPP

Instrument: MSD5.i

Sample Info: IWBH100306-01.2150PPH111SVHF111DFTPP

Volume Injected (uL): 1.0

Operator: rmb

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s5c2205.d

Spectrum: Avg. Scans 621-623 ( 8.19), Background Scan 607

Location of Maximum: 198.00

Number of points: 344

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	179840	165.00	4515	252.00	319	354.00	3064
78.00	12891	166.00	3605	253.00	1398	355.00	437
79.00	14424	167.00	26912	254.00	1320	359.00	170
80.00	10225	168.00	13367	255.00	214528	360.00	43
81.00	12713	169.00	2027	256.00	32256	363.00	81
82.00	3545	170.00	750	257.00	2448	364.00	46
83.00	2902	171.00	1201	258.00	17880	365.00	16056
84.00	69	172.00	1834	259.00	2604	366.00	1864
85.00	1875	173.00	2433	260.00	618	367.00	84
86.00	4977	174.00	4583	261.00	312	370.00	355
87.00	1677	175.00	9723	263.00	258	371.00	636
88.00	444	176.00	1399	264.00	516	372.00	4049
89.00	424	177.00	4056	265.00	6579	373.00	981
91.00	3296	178.00	1480	266.00	1166	374.00	153
92.00	3801	179.00	17408	267.00	344	377.00	109
93.00	28272	180.00	11312	268.00	170	383.00	1473
94.00	2062	181.00	4108	270.00	381	384.00	347
95.00	456	182.00	831	271.00	395	385.00	63
96.00	1119	183.00	674	272.00	694	390.00	585
97.00	529	184.00	1965	273.00	6313	391.00	356
98.00	23904	185.00	7785	274.00	16848	392.00	288
99.00	14920	186.00	54936	275.00	83248	395.00	49
100.00	850	187.00	15992	276.00	10172	401.00	242
101.00	7406	188.00	1599	277.00	10285	402.00	1868
102.00	452	189.00	4504	278.00	1873	403.00	2199
103.00	2359	190.00	801	279.00	319	404.00	872
104.00	5781	191.00	1914	280.00	47	405.00	112
105.00	5867	192.00	5183	281.00	93	408.00	85
106.00	1985	193.00	5587	282.00	199	410.00	48
107.00	66232	194.00	1155	283.00	984	415.00	181
108.00	9036	195.00	514	284.00	754	419.00	51
109.00	2167	196.00	8231	285.00	1574	421.00	1882
110.00	92888	197.00	2778	286.00	139	422.00	1493
111.00	14736	198.00	315712	287.00	61	423.00	13258
112.00	2369	199.00	22488	288.00	96	424.00	2651

Date : 22-MAR-2010 10:05

Client ID: DFTPP

Instrument: HSD5.i

Sample Info: IWBNI00306-01,2150PFMI1ISVMF11IDFTPP

Volume Injected (uL): 1.0

Operator: rmb

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s5c2205.d

Spectrum: Avg. Scans 621-623 ( 8.19), Background Scan 607

Location of Maximum: 198.00

Number of points: 344

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	805	200.00	2121	289.00	465	425.00	364
114.00	164	201.00	1366	290.00	506	426.00	241
115.00	214	202.00	485	291.00	110	427.00	146
116.00	3612	203.00	4079	292.00	403	428.00	60
117.00	79576	204.00	16872	293.00	2167	429.00	315
118.00	5568	205.00	27584	294.00	548	431.00	281
119.00	487	206.00	100792	295.00	797	432.00	53
120.00	916	207.00	13385	296.00	35256	441.00	34480
121.00	309	208.00	4791	297.00	4981	442.00	219456
122.00	5180	209.00	1329	298.00	575	443.00	44856
123.00	7379	210.00	2034	300.00	49	444.00	4373
124.00	3202	211.00	4586	301.00	310	445.00	199
125.00	2685	212.00	572	302.00	283	446.00	71
126.00	1096	213.00	407	303.00	3854		
127.00	183360	214.00	252	304.00	789		
128.00	14456	215.00	1482	306.00	46		
129.00	85024	216.00	2806	308.00	420		

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193  
Lab Sample ID: 1202066110  
Client Sample: QC for batch 963080  
Client ID: MB for batch 963080  
Batch ID: 963086  
Run Date: 03/22/2010 11:09  
Prep Date: 03/10/2010 12:33  
Data File: s5c2208.d

Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: SOIL  
Project: QC  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
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**

SDG Number: 10-2193		Matrix: SOIL
Lab Sample ID: 1202066110		
Client Sample: QC for batch 963080	Client: LANL010	Project: QC
Client ID: MB for batch 963080	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 11:09	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30 g	Final Volume: 1 mL
Data File: s5c2208.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
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

**Tentatively Identified Compound Summary**

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	2.98	312	ug/kg		JA

Data File: /chem/MSD5.i/s032210.b/s5c2208.d  
 Report Date: 22-Mar-2010 11:50

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Data file : /chem/MSD5.i/s032210.b/s5c2208.d  
 Lab Smp Id: 1202066110 Client Smp ID: SBLK01  
 Inj Date : 22-MAR-2010 11:09  
 Operator : RMB Inst ID: MSD5.i  
 Smp Info : |1202066110|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
 Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
 Als bottle: 8 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2193.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% 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	3.943	3.950	(1.000)	263318	40.0000
* 29 Naphthalene-d8	136	4.807	4.821	(1.000)	1009397	40.0000
* 46 Acenaphthene-d10	164	6.066	6.078	(1.000)	589214	40.0000
* 67 Phenanthrene-d10	188	7.242	7.253	(1.000)	1042663	40.0000
* 91 Chrysene-d12	240	9.660	9.670	(1.000)	1010082	40.0000
* 98 Perylene-d12	264	11.360	11.370	(1.000)	936795	40.0000
\$ 3 2-Fluorophenol	112	3.143	3.141	(0.797)	369729	56.2309
\$ 5 Phenol-d5	99	3.654	3.666	(0.927)	447083	56.5729
\$ 20 Nitrobenzene-d5	82	4.301	4.316	(0.895)	221025	29.4680
\$ 39 2-Fluorobiphenyl	172	5.554	5.559	(0.916)	414241	28.1479
\$ 60 2,4,6-Tribromophenol	329	6.666	6.675	(1.099)	111487	50.3767
\$ 81 p-Terphenyl-d14	244	8.625	8.630	(0.893)	547778	32.6021



Data File: /chem/MSD5.i/s032210.b/s5c2208.d  
Report Date: 22-Mar-2010 11:50

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Data file : /chem/MSD5.i/s032210.b/s5c2208.d  
Lab Smp Id: 1202066110 Client Smp ID: SBLK01  
Inj Date : 22-MAR-2010 11:09  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |1202066110|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 8 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.943	1863094	40.000

CONCENTRATIONS				QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY
=====	=====	=====	=====	=====	=====	=====

Unknown Aldol Condensate				CAS #:		
2.978	435338	9.34655521	312	0	0	10

Data File: /chem/MSD5.i/s032210.b/s5c2208.d

Date: 22-MAR-2010 11:09

Client ID: SBLK01

Sample Info: 11202066110196308611/SW111/SBLK01

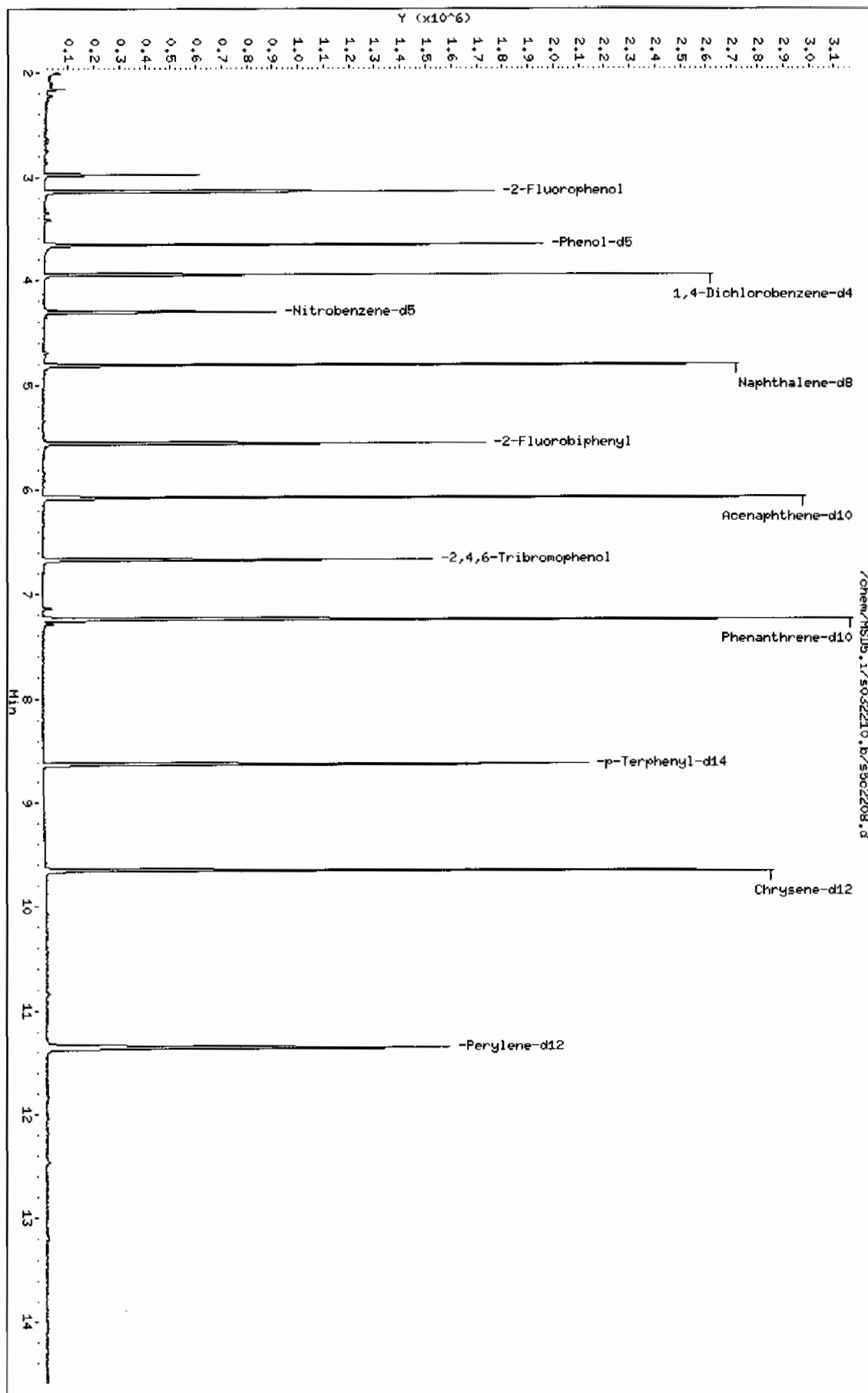
Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD5.i

Operator: RMB

Column diameter: 0.20



Date : 22-MAR-2010 11:09

Client ID: SBLK01

Instrument: MSD5.i

Sample Info: I12020661101963086111SVMI11SBLK01

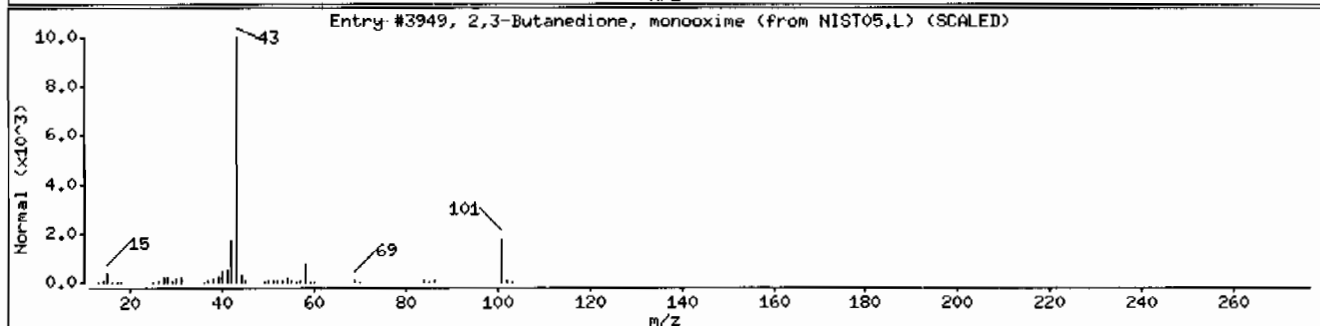
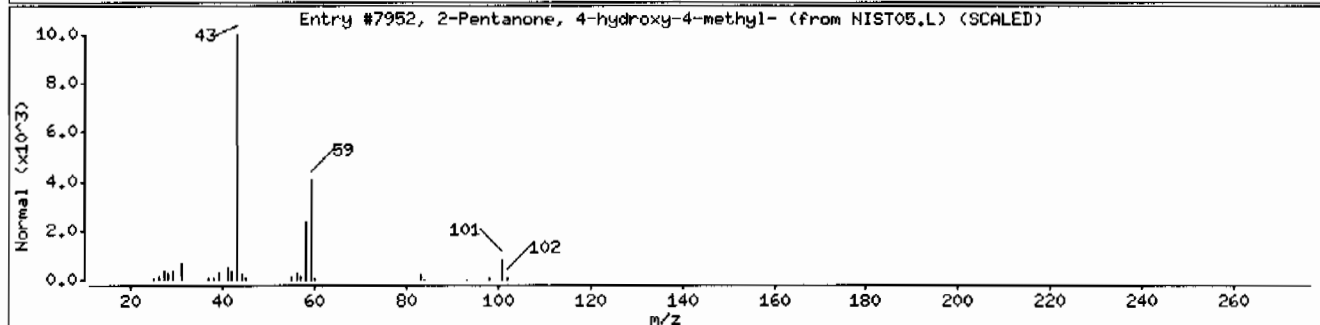
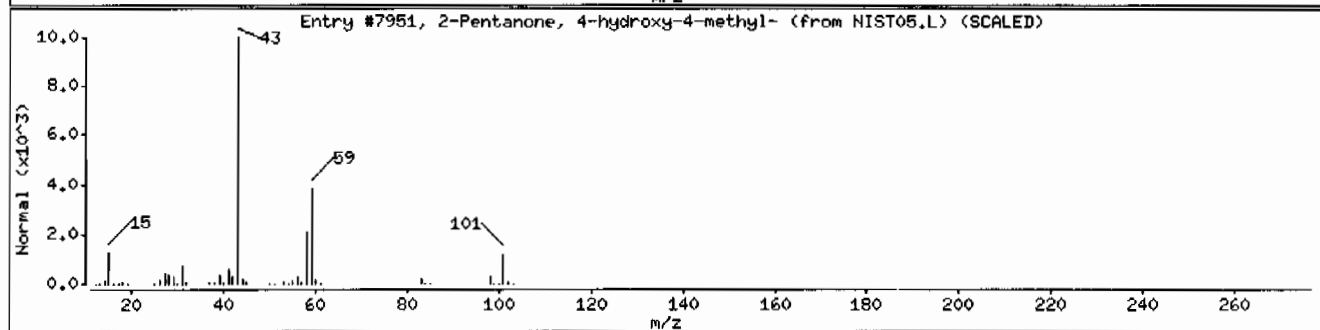
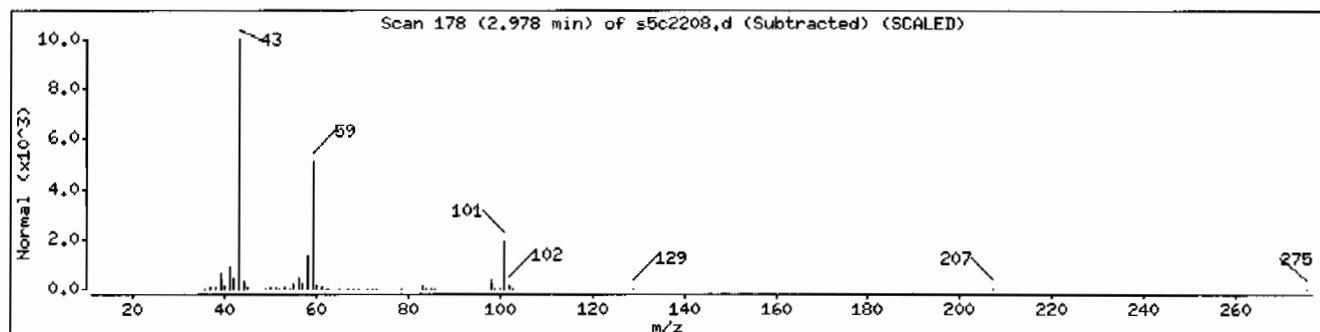
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	45	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	40	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	35	C4H7NO2	101



Semi-Volatile  
Certificate of Analysis  
Sample Summary

SDG Number: 10-2193  
Lab Sample ID: 1202066111  
Client Sample: QC for batch 963080  
Client ID: LCS for batch 963080  
Batch ID: 963086  
Run Date: 03/22/2010 11:32  
Prep Date: 03/10/2010 12:33  
Data File: s5c2209.d

Client: LANL010  
Method: SW846 8270C  
Inst: MSD5.I  
Analyst: RMB  
Aliquot: 30 g  
Column: J&W DB-5MS

Matrix: SOIL  
Project: QC  
SOP Ref: GL-OA-E-009  
Dilution: 1  
Inj. Vol: .5 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1160	ug/kg	66.7	333
108-95-2	Phenol		1220	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1350	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1080	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1430	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1450	ug/kg	66.7	333
83-32-9	Acenaphthene		1160	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1260	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1600	ug/kg	110	333
87-86-5	Pentachlorophenol		1290	ug/kg	83.3	333
129-00-0	Pyrene		1130	ug/kg	10.0	33.3
110-86-1	Pyridine		1170	ug/kg	66.7	333
62-53-3	Aniline		1180	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1180	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1080	ug/kg	66.7	333
100-51-6	Benzyl alcohol		1350	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1140	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl) ether		1130	ug/kg	66.7	333
95-48-7	o-Cresol		1390	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1470	ug/kg	100	333
67-72-1	Hexachloroethane		1100	ug/kg	66.7	333
98-95-3	Nitrobenzene		1380	ug/kg	66.7	333
78-59-1	Isophorone		1310	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1170	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1230	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1190	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1310	ug/kg	66.7	333
65-85-0	Benzoic acid		2920	ug/kg	167	667
91-20-3	Naphthalene		1040	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1120	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1170	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1200	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		841	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1260	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1240	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1150	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1300	ug/kg	66.7	333
99-09-2	o-Nitroaniline					
	3-Nitroaniline		1270	ug/kg	66.7	333

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193		Matrix: SOIL
Lab Sample ID: 1202066111		
Client Sample: QC for batch 963080	Client: LANL010	Project: QC
Client ID: LCS for batch 963080	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 11:32	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30 g	Final Volume: 1 mL
Data File: s5c2209.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		1320	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1210	ug/kg	33.3	333
208-96-8	Accnaphthylene		1240	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1540	ug/kg	127	667
132-64-9	Dibenzofuran		1230	ug/kg	66.7	333
84-66-2	Diethylphthalate		1400	ug/kg	66.7	333
86-73-7	Fluorene		1080	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1180	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1350	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1540	ug/kg	100	333
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine		1240	ug/kg	66.7	333
122-66-7	Azobenzene		1530	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1100	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1060	ug/kg	66.7	333
85-01-8	Phenanthrene		1210	ug/kg	10.0	33.3
120-12-7	Anthracene		1240	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1470	ug/kg	66.7	333
206-44-0	Fluoranthene		1330	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1450	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1260	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1180	ug/kg	100	333
218-01-9	Chrysene		1280	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1700	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1480	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1260	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1280	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1350	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1570	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1630	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1620	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1150	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2209.d  
 Lab Smp Id: 1202066111 Client Smp ID: SBLK01LCS  
 Inj Date : 22-MAR-2010 11:32  
 Operator : RMB Inst ID: MSD5.i  
 Smp Info : |1202066111|963086|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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
 Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
 Als bottle: 9 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2193.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% 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	3.943	3.950	(1.000)	253770	40.0000
* 29 Naphthalene-d8	136	4.813	4.821	(1.000)	1016198	40.0000
* 46 Acenaphthene-d10	164	6.072	6.078	(1.000)	596451	40.0000
* 67 Phenanthrene-d10	188	7.248	7.253	(1.000)	1067876	40.0000
* 91 Chrysene-d12	240	9.666	9.670	(1.000)	1040125	40.0000
* 98 Perylene-d12	264	11.366	11.370	(1.000)	962336	40.0000
\$ 3 2-Fluorophenol	112	3.143	3.141	(0.797)	443018	69.9121 2330
\$ 5 Phenol-d5	99	3.660	3.666	(0.928)	524470	68.8622 2300
\$ 20 Nitrobenzene-d5	82	4.307	4.316	(0.895)	286399	37.9285 1260
\$ 39 2-Fluorobiphenyl	172	5.554	5.558	(0.915)	504093	33.8378 1130
\$ 60 2,4,6-Tribromophenol	329	6.672	6.675	(1.099)	145631	65.0067 2170
\$ 81 p-Terphenyl-d14	244	8.631	8.630	(0.893)	644852	37.2712 1240

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
6 Phenol		94	3.672	3.675	(0.931)	278905	36.6373	1220 (Q)
8 2-Chlorophenol		128	3.813	3.815	(0.967)	270377	40.5317	1350
11 1,4-Dichlorobenzene		146	3.954	3.964	(1.003)	235388	32.2661	1080
17 N-Nitrosodipropylamine		70	4.184	4.190	(1.061)	174336	42.9520	1430 (Q)
28 1,2,4-Trichlorobenzene		180	4.760	4.768	(0.989)	235272	34.5870	1150
33 4-Chloro-3-methylphenol		107	5.160	5.158	(1.072)	243418	43.3774	1440
47 Acenaphthene		154	6.095	6.102	(1.004)	459866	34.8746	1160
50 2,4-Dinitrotoluene		165	6.184	6.194	(1.018)	182494	37.8092	1260
52 4-Nitrophenol		139	6.113	6.117	(1.007)	106574	47.9698	1600
65 Pentachlorophenol		266	7.072	7.075	(0.976)	95641	38.7810	1290
79 Pyrene		202	8.531	8.534	(0.883)	970266	33.7594	1120
2 Pyridine		79	2.507	2.491	(0.636)	218994	35.2426	1170
4 Aniline		66	3.731	3.738	(0.946)	118926	35.4843	1180
7 bis(2-Chloroethyl) ether		63	3.743	3.747	(0.949)	197815	35.3639	1180
9 1,3-Dichlorobenzene		146	3.913	3.916	(0.993)	240242	32.3073	1080
12 Benzyl alcohol		108	4.013	4.017	(1.018)	170317	40.3763	1340
13 1,2-Dichlorobenzene		146	4.060	4.065	(1.030)	222065	34.1389	1140
14 bis(2-Chloroisopropyl) ether		45	4.084	4.094	(1.036)	392017	34.0383	1130
15 o-Cresol		107	4.066	4.065	(1.031)	196464	41.6582	1390
18 m,p-Cresols		107	4.160	4.166	(1.055)	301808	44.0978	1470
19 Hexachloroethane		117	4.290	4.296	(1.088)	101039	33.1459	1100
21 Nitrobenzene		77	4.319	4.330	(0.897)	290503	41.3458	1380
22 Isophorone		82	4.472	4.479	(0.929)	535914	39.2964	1310
23 2-Nitrophenol		139	4.537	4.542	(0.943)	123061	34.9849	1170
24 2,4-Dimethylphenol		122	4.525	4.532	(0.940)	232394	36.8507	1230
25 bis(2-Chloroethoxy) methane		93	4.596	4.600	(0.955)	287353	35.6517	1190
26 2,4-Dichlorophenol		162	4.696	4.701	(0.976)	219608	39.1921	1310
27 Benzoic acid		105	4.601	4.585	(0.956)	322453	87.5571	2920
30 Naphthalene		128	4.831	4.836	(1.004)	703647	31.1278	1040
31 4-Chloroaniline		127	4.843	4.850	(1.006)	322347	33.7481	1120
32 Hexachlorobutadiene		225	4.890	4.898	(1.016)	141481	35.0907	1170
34 2-Methylnaphthalene		142	5.307	5.317	(1.103)	494533	36.0826	1200
36 Hexachlorocyclopentadiene		237	5.413	5.418	(0.892)	87710	25.2316	841
37 2,4,6-Trichlorophenol		196	5.501	5.505	(0.906)	150006	37.8593	1260
38 2,4,5-Trichlorophenol		196	5.531	5.529	(0.911)	171281	37.2380	1240
40 2-Chloronaphthalene		162	5.666	5.669	(0.933)	473403	34.4603	1150
42 o-Nitroaniline		65	5.725	5.726	(0.943)	165617	38.8632	1300
41 m-Nitroaniline		138	6.019	6.025	(0.991)	125470	37.9682	1260
43 Dimethylphthalate		163	5.825	5.837	(0.959)	620932	39.6105	1320
44 2,6-Dinitrotoluene		165	5.884	5.895	(0.969)	138002	36.4427	1210
45 Acenaphthylene		152	5.972	5.977	(0.984)	751976	37.0724	1240
48 2,4-Dinitrophenol		184	6.095	6.097	(1.004)	40522	46.0847	1540 (Q)
49 Dibenzofuran		168	6.219	6.227	(1.024)	665511	37.0375	1230
51 Diethylphthalate		149	6.342	6.348	(1.045)	636389	42.0026	1400
53 Fluorene		166	6.484	6.487	(1.068)	499588	32.2519	1080
54 4-Chlorophenylphenylether		204	6.460	6.463	(1.064)	282844	35.5094	1180
55 2-Methyl-4,6-dinitrophenol		198	6.501	6.507	(0.897)	75026	40.4858	1350

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/ul)	FINAL (ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
56 p-Nitroaniline	138	6.484	6.487	(1.068)	104098	46.0755	1540
133 Diphenylamine	169	6.548	6.555	(0.903)	471067	37.1153	1240
58 1,2-Diphenylhydrazine	77	6.584	6.588	(0.908)	707255	46.0480	1530
61 4-Bromophenylphenylether	248	6.848	6.853	(0.945)	168624	33.0969	1100
63 Hexachlorobenzene	284	6.919	6.926	(0.955)	169183	31.7147	1060
68 Phenanthrene	178	7.266	7.272	(1.002)	821742	36.3507	1210
69 Anthracene	178	7.307	7.316	(1.008)	854044	37.3454	1240
72 Di-n-butylphthalate	149	7.666	7.672	(1.058)	1087875	44.0520	1470
76 Fluoranthene	202	8.313	8.317	(1.147)	939751	39.8510	1330
85 Butylbenzylphthalate	149	9.060	9.064	(0.937)	514426	43.5396	1450
89 Benzo(a)anthracene	228	9.648	9.656	(0.998)	876545	37.6834	1260
90 3,3'-Dichlorobenzidine	252	9.595	9.595	(0.993)	250434	35.3382	1180
92 Chrysene	228	9.689	9.694	(1.002)	832935	38.4279	1280
93 bis(2-Ethylhexyl)phthalate	149	9.583	9.584	(0.991)	721020	51.0222	1700
94 Di-n-octylphthalate	149	10.242	10.243	(0.901)	1167921	44.5355	1480
95 Benzo(b)fluoranthene	252	10.836	10.845	(0.953)	871994	37.9356	1260
96 Benzo(k)fluoranthene	252	10.872	10.879	(0.957)	859365	38.4016	1280
97 Benzo(a)pyrene	252	11.283	11.293	(0.993)	782074	40.5001	1350
99 Indeno(1,2,3-cd)pyrene	276	13.154	13.166	(1.157)	752013	47.2250	1570
100 Dibenzo(a,h)anthracene	278	13.177	13.190	(1.159)	617074	48.9133	1630
101 Benzo(ghi)perylene	276	13.707	13.725	(1.206)	647621	48.6725	1620
1 N-Methyl-N-nitrosomethylamine	74	2.466	2.457	(0.626)	130911	34.8133	1160

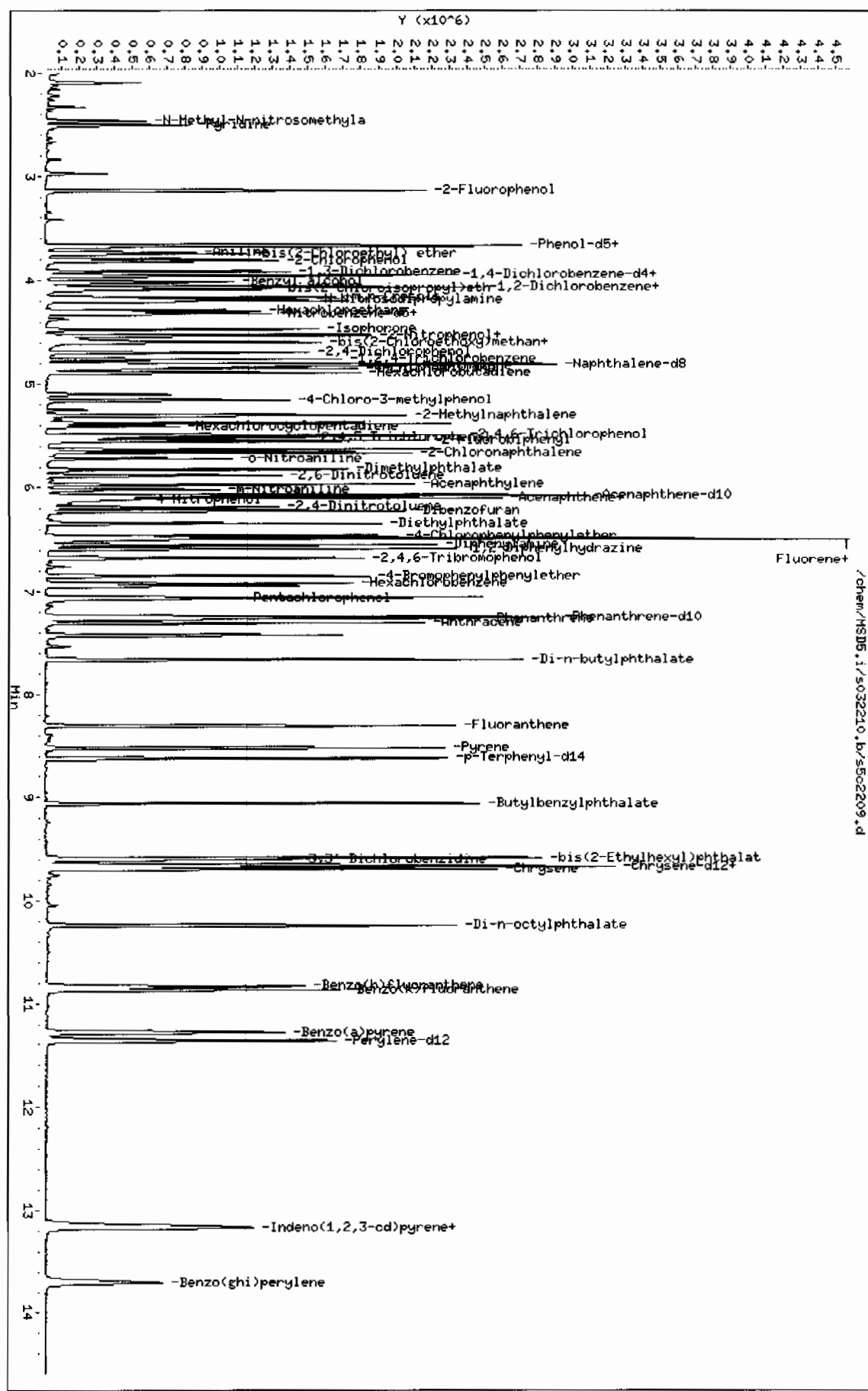
# QC Flag Legend

Q - Qualifier signal failed the ratio test.



Data File: /chem/MSDB.i/s032210.b/s502209.d  
 Date : 22-MAR-2010 11:32  
 Client ID: SBLK01LCS  
 Sample Info: 1120206611196308611SVH11SBLK01LCS  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-5MS

Instrument: MSD5.i  
 Operator: RMB  
 Column diameter: 0.20



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: J0-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 1202066112	Date Received: 03/03/2010 08:50	% Moisture: 22.9
Client Sample: QC for batch 963080	Client: LANL010	Project: QC
Client ID: RE36-10-7407MS	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 12:18	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.01 g	Final Volume: 1 mL
Data File: s5c2211.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		1270	ug/kg	86.4	432
108-95-2	Phenol		1400	ug/kg	86.4	432
95-57-8	2-Chlorophenol		1480	ug/kg	86.4	432
106-46-7	1,4-Dichlorobenzene		938	ug/kg	86.4	432
621-64-7	N-Nitrosodipropylamine		1530	ug/kg	86.4	432
59-50-7	4-Chloro-3-methylphenol		1640	ug/kg	86.4	432
83-32-9	Acenaphthene		1310	ug/kg	14.3	43.2
121-14-2	2,4-Dinitrotoluene		1350	ug/kg	43.2	432
100-02-7	4-Nitrophenol		1790	ug/kg	143	432
87-86-5	Pentachlorophenol		1570	ug/kg	108	432
129-00-0	Pyrene		1240	ug/kg	13.0	43.2
110-86-1	Pyridine		1150	ug/kg	86.4	432
62-53-3	Aniline		468	ug/kg	130	432
111-44-4	bis(2-Chloroethyl) ether		1130	ug/kg	86.4	432
541-73-1	1,3-Dichlorobenzene		908	ug/kg	86.4	432
100-51-6	Benzyl alcohol		1500	ug/kg	130	432
95-50-1	1,2-Dichlorobenzene		1040	ug/kg	86.4	432
108-60-1	bis(2-Chloroisopropyl) ether		1140	ug/kg	86.4	432
95-48-7	o-Cresol		1460	ug/kg	86.4	432
65794-96-9	m,p-Cresols		1230	ug/kg	130	432
67-72-1	Hexachloroethane		944	ug/kg	86.4	432
98-95-3	Nitrobenzene		1480	ug/kg	86.4	432
78-59-1	Isophorone		1420	ug/kg	86.4	432
88-75-5	2-Nitrophenol		1370	ug/kg	86.4	432
105-67-9	2,4-Dimethylphenol		1150	ug/kg	151	432
111-91-1	bis(2-Chloroethoxy)methane		1290	ug/kg	86.4	432
120-83-2	2,4-Dichlorophenol		1480	ug/kg	86.4	432
65-85-0	Benzoic acid		4560	ug/kg	216	864
91-20-3	Naphthalene		1070	ug/kg	13.0	43.2
106-47-8	4-Chloroaniline		758	ug/kg	86.4	432
87-68-3	Hexachlorobutadiene		1040	ug/kg	86.4	432
91-57-6	2-Methylnaphthalene		1300	ug/kg	8.64	43.2
77-47-4	Hexachlorocyclopentadiene		660	ug/kg	86.4	432
88-06-2	2,4,6-Trichlorophenol		1470	ug/kg	86.4	432
95-95-4	2,4,5-Trichlorophenol		1450	ug/kg	86.4	432
91-58-7	2-Chloronaphthalene		1250	ug/kg	14.3	43.2
88-74-4	2-Nitroaniline		1460	ug/kg	86.4	432
99-09-2	<i>o</i> -Nitroaniline					
	3-Nitroaniline		1020	ug/kg	86.4	432

**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 1202066112	Date Received: 03/03/2010 08:50	%Moisture: 22.9
Client Sample: QC for batch 963080	Client: LANL010	Project: QC
Client ID: RE36-10-7407MS	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.I	Dilution: 1
Run Date: 03/22/2010 12:18	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.01 g	Final Volume: 1 mL
Data File: s5c2211.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		1470	ug/kg	86.4	432
606-20-2	Dimethylphthalate		1350	ug/kg	43.2	432
208-96-8	2,6-Dinitrotoluene		1320	ug/kg	13.0	43.2
51-28-5	Acenaphthylene		1630	ug/kg	164	864
132-64-9	2,4-Dinitrophenol		1350	ug/kg	86.4	432
84-66-2	Dibenzofuran		1540	ug/kg	86.4	432
86-73-7	Diethylphthalate		1200	ug/kg	13.0	43.2
7005-72-3	Fluorene		1290	ug/kg	86.4	432
534-52-1	4-Chlorophenylphenylether		1450	ug/kg	86.4	432
100-01-6	2-Methyl-4,6-dinitrophenol		1170	ug/kg	130	432
122-39-4	4-Nitroaniline		1240	ug/kg	86.4	432
122-66-7	<i>p</i> -Nitroaniline		1720	ug/kg	86.4	432
101-55-3	Diphenylamine		1210	ug/kg	86.4	432
118-74-1	Azobenzene		1170	ug/kg	86.4	432
85-01-8	<i>1,2</i> -Diphenylhydrazine		1290	ug/kg	13.0	43.2
120-12-7	4-Bromophenylphenylether		1270	ug/kg	8.64	43.2
84-74-2	Hexachlorobenzene		1500	ug/kg	86.4	432
206-44-0	Phenanthrene		1280	ug/kg	13.0	43.2
85-68-7	Anthracene		1540	ug/kg	86.4	432
56-55-3	Butylbenzylphthalate		1210	ug/kg	13.0	43.2
91-94-1	Benzo(a)anthracene		432	ug/kg	130	432
218-01-9	3,3'-Dichlorobenzidine	U	1270	ug/kg	13.0	43.2
117-81-7	Chrysene		1680	ug/kg	86.4	432
117-84-0	bis(2-Ethylhexyl)phthalate		1610	ug/kg	86.4	432
205-99-2	Di-n-octylphthalate		1270	ug/kg	13.0	43.2
207-08-9	Benzo(b)fluoranthene		1250	ug/kg	13.0	43.2
50-32-8	Benzo(k)fluoranthene		1260	ug/kg	13.0	43.2
193-39-5	Benzo(a)pyrene		1210	ug/kg	13.0	43.2
53-70-3	Indeno(1,2,3-cd)pyrene		1310	ug/kg	13.0	43.2
191-24-2	Dibenzo(a,h)anthracene		1180	ug/kg	13.0	43.2
120-82-1	Benzo(ghi)perylene		1180	ug/kg	86.4	432
	1,2,4-Trichlorobenzene					

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2211.d  
 Lab Smp Id: 1202066112 Client Smp ID: RE36-10-7407MS  
 Inj Date : 22-MAR-2010 12:18  
 Operator : RMB Inst ID: MSD5.i  
 Smp Info : |1202066112|96308611|SVM|1|LANL06001MS  
 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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
 Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
 Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
 Als bottle: 11 QC Sample: MS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2193.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	22.85850	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG			RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT REL RT		ON-COLUMN	FINAL
					(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.943	3.950 (1.000)	279434	40.0000	
* 29 Naphthalene-d8	136	4.813	4.821 (1.000)	1114292	40.0000	
* 46 Acenaphthene-d10	164	6.072	6.078 (1.000)	652596	40.0000	
* 67 Phenanthrene-d10	188	7.248	7.253 (1.000)	1149047	40.0000	
* 91 Chrysene-d12	240	9.666	9.670 (1.000)	975905	40.0000	
* 98 Perylene-d12	264	11.366	11.370 (1.000)	800952	40.0000	
\$ 3 2-Fluorophenol	112	3.143	3.141 (0.797)	419288	60.0903	2600
\$ 5 Phenol-d5	99	3.660	3.666 (0.928)	511844	61.0323	2640
\$ 20 Nitrobenzene-d5	82	4.307	4.316 (0.895)	270888	32.7162	1410
\$ 39 2-Fluorobiphenyl	172	5.554	5.558 (0.915)	466096	28.5954	1240
\$ 60 2,4,6-Tribromophenol	329	6.672	6.675 (1.099)	142870	58.2876	2520
\$ 81 p-Terphenyl-d14	244	8.625	8.630 (0.892)	505030	31.1106	1340

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.672	3.675	(0.931)	271857	32.4317	1400 (Q)
8 2-Chlorophenol	128	3.813	3.815	(0.967)	251160	34.1930	1480
11 1,4-Dichlorobenzene	146	3.954	3.964	(1.003)	174527	21.7263	938
17 N-Nitrosodipropylamine	70	4.178	4.190	(1.060)	158694	35.5073	1530 (Q)
28 1,2,4-Trichlorobenzene	180	4.760	4.768	(0.989)	202914	27.2041	1180
33 4-Chloro-3-methylphenol	107	5.166	5.158	(1.073)	233024	37.8696	1640
47 Acenaphthene	154	6.095	6.102	(1.004)	437070	30.2942	1310
50 2,4-Dinitrotoluene	165	6.184	6.194	(1.018)	165103	31.2634	1350
52 4-Nitrophenol	139	6.119	6.117	(1.008)	99494	41.5240	1790
65 Pentachlorophenol	266	7.072	7.075	(0.976)	95727	36.3756	1570
79 Pyrene	202	8.531	8.534	(0.883)	775161	28.7457	1240
2 Pyridine	79	2.507	2.491	(0.636)	182713	26.7034	1150
4 Aniline	66	3.731	3.738	(0.946)	39954	10.8263	468 (Q)
7 bis(2-Chloroethyl) ether	63	3.743	3.747	(0.949)	160500	26.0579	1120 (Q)
9 1,3-Dichlorobenzene	146	3.913	3.916	(0.993)	172200	21.0303	908
12 Benzyl alcohol	108	4.013	4.017	(1.018)	161745	34.8227	1500
13 1,2-Dichlorobenzene	146	4.060	4.065	(1.030)	173139	24.1727	1040
14 bis(2-Chloroisopropyl) ether	45	4.084	4.094	(1.036)	334097	26.3449	1140
15 o-Cresol	107	4.066	4.065	(1.031)	175228	33.7429	1460
18 m,p-Cresols	107	4.160	4.166	(1.055)	215458	28.5897	1230
19 Hexachloroethane	117	4.290	4.296	(1.088)	73343	21.8507	944
21 Nitrobenzene	77	4.319	4.330	(0.897)	263818	34.2424	1480
22 Isophorone	82	4.472	4.479	(0.929)	492552	32.9374	1420
23 2-Nitrophenol	139	4.537	4.542	(0.943)	122039	31.6399	1370
24 2,4-Dimethylphenol	122	4.525	4.532	(0.940)	184412	26.6679	1150
25 bis(2-Chloroethoxy) methane	93	4.590	4.600	(0.954)	262919	29.7485	1280
26 2,4-Dichlorophenol	162	4.696	4.701	(0.976)	209978	34.1747	1480
27 Benzoic acid	105	4.607	4.585	(0.957)	434228	105.488	4560
30 Naphthalene	128	4.825	4.836	(1.002)	611440	24.6676	1060
31 4-Chloroaniline	127	4.831	4.850	(1.004)	183681	17.5376	758
32 Hexachlorobutadiene	225	4.890	4.898	(1.016)	105951	23.9650	1040
34 2-Methylnaphthalene	142	5.307	5.317	(1.103)	450858	30.0000	1300
36 Hexachlorocyclopentadiene	237	5.413	5.418	(0.892)	58133	15.2846	660
37 2,4,6-Trichlorophenol	196	5.501	5.505	(0.906)	147587	34.0441	1470
38 2,4,5-Trichlorophenol	196	5.531	5.529	(0.911)	169369	33.6544	1450
40 2-Chloronaphthalene	162	5.666	5.669	(0.933)	433603	28.8477	1250
42 o-Nitroaniline	65	5.725	5.726	(0.943)	158130	33.9141	1460
41 m-Nitroaniline	138	6.019	6.025	(0.991)	85169	23.5554	1020
43 Dimethylphthalate	163	5.825	5.837	(0.959)	585017	34.1088	1470
44 2,6-Dinitrotoluene	165	5.884	5.895	(0.969)	129837	31.3368	1350
45 Acenaphthylene	152	5.972	5.977	(0.984)	680384	30.6571	1320
48 2,4-Dinitrophenol	184	6.095	6.097	(1.004)	32147	37.8304	1630 (Q)
49 Dibenzofuran	168	6.219	6.227	(1.024)	614656	31.2643	1350
51 Diethylphthalate	149	6.342	6.348	(1.045)	592712	35.7543	1540
53 Fluorene	166	6.484	6.487	(1.068)	469435	27.6981	1200
54 4-Chlorophenylphenylether	204	6.460	6.463	(1.064)	259668	29.7951	1290
55 2-Methyl-4,6-dinitrophenol	198	6.501	6.507	(0.897)	62453	33.5613	1450

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng/ul)	(ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
56 p-Nitroaniline	138	6.484	6.487	(1.068)	66690	26.9786	1160
133 Diphenylamine	169	6.548	6.555	(0.903)	392067	28.7087	1240
58 1,2-Diphenylhydrazine	77	6.584	6.588	(0.908)	656199	39.7058	1720
61 4-Bromophenylphenylether	248	6.848	6.853	(0.945)	154134	28.1156	1210
63 Hexachlorobenzene	284	6.919	6.926	(0.955)	156018	27.1808	1170
68 Phenanthrene	178	7.266	7.272	(1.002)	725199	29.8139	1290
69 Anthracene	178	7.313	7.316	(1.009)	725489	29.4830	1270
72 Di-n-butylphthalate	149	7.666	7.672	(1.058)	921438	34.6766	1500
76 Fluoranthene	202	8.313	8.317	(1.147)	751024	29.5981	1280
85 Butylbenzylphthalate	149	9.060	9.064	(0.937)	394545	35.5907	1540
89 Benzo(a)anthracene	228	9.654	9.656	(0.999)	613047	28.0897	1210
92 Chrysene	228	9.689	9.694	(1.002)	598104	29.4097	1270
93 bis(2-Ethylhexyl)phthalate	149	9.583	9.584	(0.991)	517053	38.9965	1680
94 Di-n-octylphthalate	149	10.242	10.243	(0.901)	813207	37.2576	1610
95 Benzo(b)fluoranthene	252	10.836	10.845	(0.953)	560590	29.3021	1260
96 Benzo(k)fluoranthene	252	10.872	10.879	(0.957)	537043	28.8337	1240
97 Benzo(a)pyrene	252	11.283	11.293	(0.993)	468789	29.1679	1260
99 Indeno(1,2,3-cd)pyrene	276	13.154	13.166	(1.157)	372008	28.0685	1210
100 Dibenzo(a,h)anthracene	278	13.166	13.190	(1.158)	318723	30.3546	1310
101 Benzo(ghi)perylene	276	13.701	13.725	(1.205)	302719	27.3352	1180
1 N-Methyl-N-nitrosomethylamine	74	2.466	2.457	(0.626)	121363	29.3101	1270

#### QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSDS.i/s032210.b/s032211.d

Date: 22-MAR-2010 12:18

Client ID: RE36-10-7407MS

Sample Info: 1120206612196308611SVH11LPLN06001MS

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

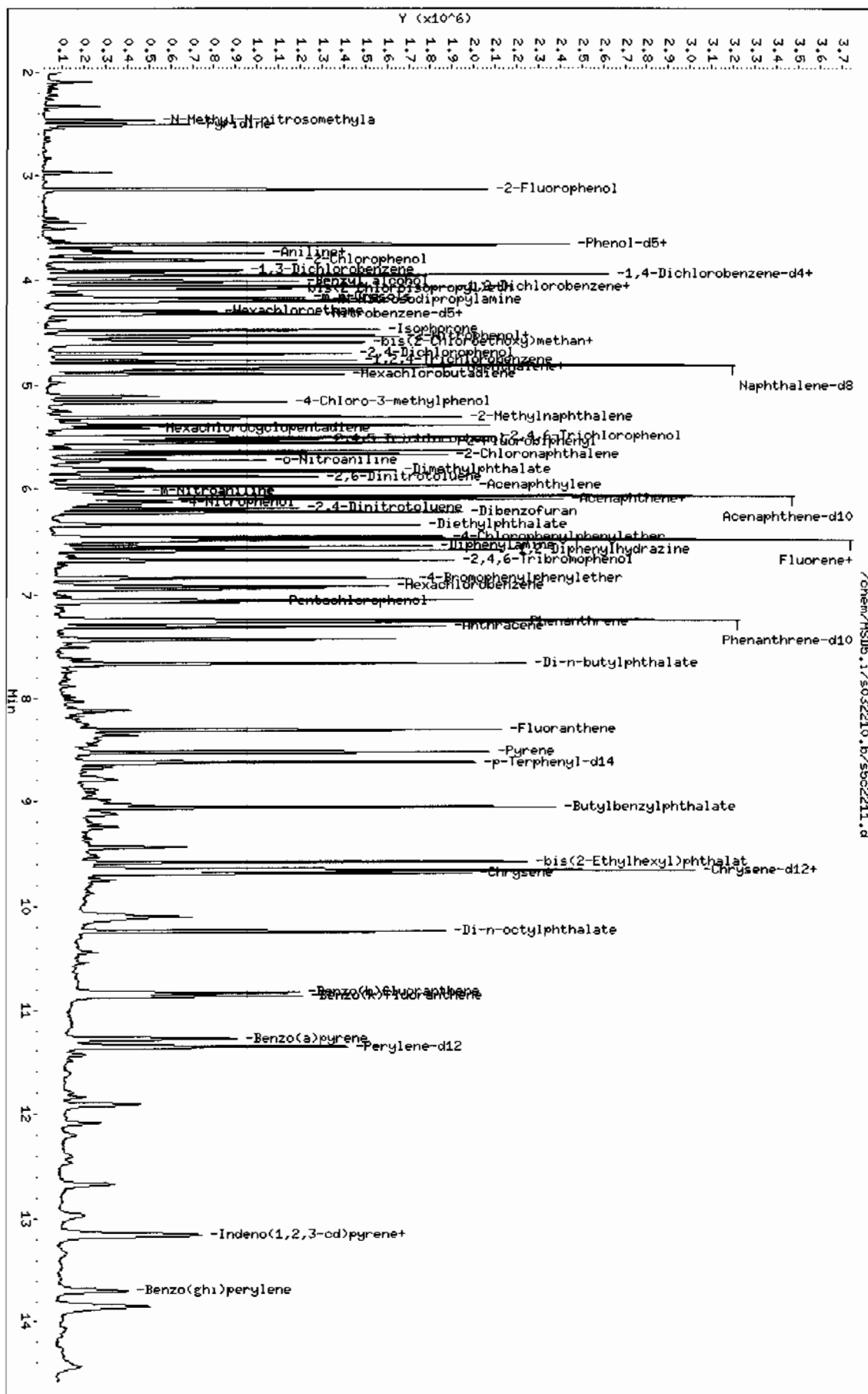
Instrument: MSD5.i

Operator: RMB

Column diameter: 0.20

/chem/MSDS.i/s032210.b/s032211.d

Page 1



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

SDG Number: 10-2193	Date Collected: 02/25/2010 12:00	Matrix: R
Lab Sample ID: 1202066113	Date Received: 03/03/2010 08:50	%Moisture: 22.9
Client Sample: QC for batch 963080	Client: LANL010	Project: QC
Client ID: RE36-10-7407MSD	Method: SW846 8270C	SOP Ref: GL-OA-E-009
Batch ID: 963086	Inst: MSD5.1	Dilution: 1
Run Date: 03/22/2010 12:41	Analyst: RMB	Inj. Vol: .5 uL
Prep Date: 03/10/2010 12:33	Aliquot: 30.01 g	Final Volume: 1 mL
Data File: s5c2212.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		1310	ug/kg	86.4	432
108-95-2	Phenol		1490	ug/kg	86.4	432
95-57-8	2-Chlorophenol		1620	ug/kg	86.4	432
106-46-7	1,4-Dichlorobenzene		991	ug/kg	86.4	432
621-64-7	N-Nitrosodipropylamine		1630	ug/kg	86.4	432
59-50-7	4-Chloro-3-methylphenol		1800	ug/kg	86.4	432
83-32-9	Acenaphthene		1380	ug/kg	14.3	43.2
121-14-2	2,4-Dinitrotoluene		1480	ug/kg	43.2	432
100-02-7	4-Nitrophenol		1970	ug/kg	143	432
87-86-5	Pentachlorophenol		1650	ug/kg	108	432
129-00-0	Pyrene		1250	ug/kg	13.0	43.2
110-86-1	Pyridine		1160	ug/kg	86.4	432
62-53-3	Aniline		529	ug/kg	130	432
111-44-4	bis(2-Chloroethyl) ether		1180	ug/kg	86.4	432
541-73-1	1,3-Dichlorobenzene		943	ug/kg	86.4	432
100-51-6	Benzyl alcohol		1600	ug/kg	130	432
95-50-1	1,2-Dichlorobenzene		1120	ug/kg	86.4	432
108-60-1	bis(2-Chloroisopropyl)ether		1180	ug/kg	86.4	432
95-48-7	o-Cresol		1660	ug/kg	86.4	432
65794-96-9	m,p-Cresols		1370	ug/kg	130	432
67-72-1	Hexachloroethane		972	ug/kg	86.4	432
98-95-3	Nitrobenzene		1610	ug/kg	86.4	432
78-59-1	Isophorone		1530	ug/kg	86.4	432
88-75-5	2-Nitrophenol		1440	ug/kg	86.4	432
105-67-9	2,4-Dimethylphenol		1320	ug/kg	151	432
111-91-1	bis(2-Chloroethoxy)methane		1410	ug/kg	86.4	432
120-83-2	2,4-Dichlorophenol		1570	ug/kg	86.4	432
65-85-0	Benzoic acid		4680	ug/kg	216	864
91-20-3	Naphthalene		1160	ug/kg	13.0	43.2
106-47-8	4-Chloroaniline		889	ug/kg	86.4	432
87-68-3	Hexachlorobutadiene		1140	ug/kg	86.4	432
91-57-6	2-Methylnaphthalene		1360	ug/kg	8.64	43.2
77-47-4	Hexachlorocyclopentadiene		718	ug/kg	86.4	432
88-06-2	2,4,6-Trichlorophenol		1560	ug/kg	86.4	432
95-95-4	2,4,5-Trichlorophenol		1570	ug/kg	86.4	432
91-58-7	2-Chloronaphthalene		1320	ug/kg	14.3	43.2
88-74-4	2-Nitroaniline		1550	ug/kg	86.4	432
99-09-2	3-Nitroaniline		1130	ug/kg	86.4	432



**Semi-Volatile  
Certificate of Analysis  
Sample Summary**

<b>SDG Number:</b> 10-2193	<b>Date Collected:</b> 02/25/2010 12:00	<b>Matrix:</b> R
<b>Lab Sample ID:</b> 1202066113	<b>Date Received:</b> 03/03/2010 08:50	<b>%Moisture:</b> 22.9
<b>Client Sample:</b> QC for batch 963080	<b>Client:</b> LANL010	<b>Project:</b> QC
<b>Client ID:</b> RE36-10-7407MSD	<b>Method:</b> SW846 8270C	<b>SOP Ref:</b> GL-OA-E-009
<b>Batch ID:</b> 963086	<b>Inst:</b> MSD5.I	<b>Dilution:</b> 1
<b>Run Date:</b> 03/22/2010 12:41	<b>Analyst:</b> RMB	<b>Inj. Vol:</b> .5 uL
<b>Prep Date:</b> 03/10/2010 12:33	<b>Aliquot:</b> 30.01 g	<b>Final Volume:</b> 1 mL
<b>Data File:</b> s5c2212.d	<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		1580	ug/kg	86.4	432
606-20-2	2,6-Dinitrotoluene		1440	ug/kg	43.2	432
208-96-8	Acenaphthylene		1430	ug/kg	13.0	43.2
51-28-5	2,4-Dinitrophenol		1860	ug/kg	164	864
132-64-9	Dibenzofuran		1430	ug/kg	86.4	432
84-66-2	Diethylphthalate		1660	ug/kg	86.4	432
86-73-7	Fluorene		1260	ug/kg	13.0	43.2
7005-72-3	4-Chlorophenylphenylether		1370	ug/kg	86.4	432
534-52-1	2-Methyl-4,6-dinitrophenol		1610	ug/kg	86.4	432
100-01-6	4-Nitroaniline		1590	ug/kg	130	432
	<i>p</i> -Nitroaniline					
122-39-4	Diphenylamine		1340	ug/kg	86.4	432
122-66-7	Azobenzene		1770	ug/kg	86.4	432
	<i>1,2</i> -Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1250	ug/kg	86.4	432
118-74-1	Hexachlorobenzene		1180	ug/kg	86.4	432
85-01-8	Phenanthrene		1350	ug/kg	13.0	43.2
120-12-7	Anthracene		1320	ug/kg	8.64	43.2
84-74-2	Di-n-butylphthalate		1600	ug/kg	86.4	432
206-44-0	Fluoranthene		1350	ug/kg	13.0	43.2
85-68-7	Butylbenzylphthalate		1580	ug/kg	86.4	432
56-55-3	Benzo(a)anthracene		1260	ug/kg	13.0	43.2
91-94-1	3,3'-Dichlorobenzidine	U	432	ug/kg	130	432
218-01-9	Chrysene		1320	ug/kg	13.0	43.2
117-81-7	bis(2-Ethylhexyl)phthalate		1690	ug/kg	86.4	432
117-84-0	Di-n-octylphthalate		1630	ug/kg	86.4	432
205-99-2	Benzo(b)fluoranthene		1420	ug/kg	13.0	43.2
207-08-9	Benzo(k)fluoranthene		1220	ug/kg	13.0	43.2
50-32-8	Benzo(a)pyrene		1330	ug/kg	13.0	43.2
193-39-5	Indeno(1,2,3-cd)pyrene		1350	ug/kg	13.0	43.2
53-70-3	Dibenzo(a,h)anthracene		1430	ug/kg	13.0	43.2
191-24-2	Benzo(ghi)perylene		1300	ug/kg	13.0	43.2
120-82-1	1,2,4-Trichlorobenzene		1250	ug/kg	86.4	432

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032210.b/s5c2212.d  
Lab Smp Id: 1202066113 Client Smp ID: RE36-10-7407MSD  
Inj Date : 22-MAR-2010 12:41  
Operator : RMB Inst ID: MSD5.i  
Smp Info : |1202066113|963086|1|SVM|1|LANL06001MSD  
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/MSD5.i/s032210.b/MSD5-M8270C-030210.m  
Meth Date : 22-Mar-2010 11:45 rmb Quant Type: ISTD  
Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
Als bottle: 12 QC Sample: MSD  
Dil Factor: 1.00000  
Integrator: HP RTE Compound Sublist: 10-2193.sub  
Target Version: 3.50  
Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	22.85850	% 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	3.943	3.950	(1.000)	277919	40.0000	
* 29 Naphthalene-d8		136	4.813	4.821	(1.000)	1096271	40.0000	
* 46 Acenaphthene-d10		164	6.072	6.078	(1.000)	652022	40.0000	
* 67 Phenanthrene-d10		188	7.248	7.253	(1.000)	1170646	40.0000	
* 91 Chrysene-d12		240	9.672	9.670	(1.000)	1055077	40.0000	
* 98 Perylene-d12		264	11.366	11.370	(1.000)	871989	40.0000	
\$ 3 2-Fluorophenol		112	3.143	3.141	(0.797)	445522	64.1983	2770
\$ 5 Phenol-d5		99	3.666	3.666	(0.930)	534501	64.0814	2770
\$ 20 Nitrobenzene-d5		82	4.307	4.316	(0.895)	289478	35.5360	1540
\$ 39 2-Fluorobiphenyl		172	5.554	5.558	(0.915)	484375	29.7430	1280
\$ 60 2,4,6-Tribromophenol		329	6.672	6.675	(1.099)	152309	62.1931	2690
\$ 81 p-Terphenyl-d14		244	8.630	8.630	(0.892)	558061	31.7977	1370

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
							(ng/ul)	(ug/Kg)
6 Phenol		94	3.672	3.675 (0.931)		287778	34.5182	1490(Q)
8 2-Chlorophenol		128	3.813	3.815 (0.967)		273219	37.3989	1620
11 1,4-Dichlorobenzene		146	3.954	3.964 (1.003)		183359	22.9503	991
17 N-Nitrosodipropylamine		70	4.178	4.190 (1.060)		167469	37.6750	1630(Q)
28 1,2,4-Trichlorobenzene		180	4.760	4.768 (0.989)		211591	28.8337	1240
33 4-Chloro-3-methylphenol		107	5.166	5.158 (1.073)		251817	41.5965	1800
47 Acenaphthene		154	6.095	6.102 (1.004)		462000	32.0503	1380
50 2,4-Dinitrotoluene		165	6.184	6.194 (1.018)		180172	34.1467	1480
52 4-Nitrophenol		139	6.125	6.117 (1.009)		110096	45.5540	1970
65 Pentachlorophenol		266	7.078	7.075 (0.976)		103080	38.2008	1650
79 Pyrene		202	8.530	8.534 (0.882)		844698	28.9738	1250
2 Pyridine		79	2.507	2.491 (0.636)		183136	26.9113	1160
4 Aniline		66	3.731	3.738 (0.946)		44923	12.2393	529(Q)
1 bis(2-Chloroethyl) ether		63	3.743	3.747 (0.949)		166823	27.2320	1180
9 1,3-Dichlorobenzene		146	3.913	3.916 (0.993)		177816	21.8346	943
12 Benzyl alcohol		108	4.013	4.017 (1.018)		171609	37.1476	1600
13 1,2-Dichlorobenzene		146	4.060	4.065 (1.030)		184442	25.8912	1120
14 bis(2-Chloroisopropyl)ether		45	4.084	4.094 (1.036)		344961	27.3498	1180
15 o-Cresol		107	4.066	4.065 (1.031)		198484	38.4296	1660
18 m,p-Cresols		107	4.166	4.166 (1.057)		237976	31.7499	1370
19 Hexachloroethane		117	4.290	4.296 (1.088)		75105	22.4976	972
21 Nitrobenzene		77	4.319	4.330 (0.897)		281985	37.2021	1610
22 Isophorone		82	4.472	4.479 (0.929)		520862	35.4030	1530
23 2-Nitrophenol		139	4.537	4.542 (0.943)		126182	33.2518	1440
24 2,4-Dimethylphenol		122	4.531	4.532 (0.941)		207257	30.4643	1320
25 bis(2-Chloroethoxy)methane		93	4.595	4.600 (0.955)		283392	32.5921	1410
26 2,4-Dichlorophenol		162	4.701	4.701 (0.977)		220317	36.4468	1570
27 Benzoic acid		105	4.613	4.585 (0.958)		440176	108.420	4680
30 Naphthalene		128	4.831	4.836 (1.004)		652835	26.7706	1160
31 4-Chloroaniline		127	4.831	4.850 (1.004)		212108	20.5847	889
32 Hexachlorobutadiene		225	4.890	4.898 (1.016)		114890	26.4141	1140
34 2-Methylnaphthalene		142	5.307	5.317 (1.103)		466133	31.5263	1360
36 Hexachlorocyclopentadiene		237	5.413	5.418 (0.892)		63144	16.6167	718
37 2,4,6-Trichlorophenol		196	5.501	5.505 (0.906)		156311	36.0882	1560
38 2,4,5-Trichlorophenol		196	5.537	5.529 (0.912)		182488	36.2931	1570
40 2-Chloronaphthalene		162	5.666	5.669 (0.933)		459200	30.5775	1320
42 o-Nitroaniline		65	5.725	5.726 (0.943)		166696	35.7827	1540
41 m-Nitroaniline		138	6.025	6.025 (0.992)		94232	26.0851	1130
43 Dimethylphthalate		163	5.831	5.837 (0.960)		625210	36.4842	1580
44 2,6-Dinitrotoluene		165	5.884	5.895 (0.969)		138340	33.4186	1440
45 Acenaphthylene		152	5.972	5.977 (0.984)		733318	33.0713	1430
48 2,4-Dinitrophenol		184	6.095	6.097 (1.004)		39690	42.9624	1860(Q)
49 Dibenzofuran		168	6.219	6.227 (1.024)		651201	33.1523	1430
51 Diethylphthalate		149	6.342	6.348 (1.045)		635088	38.3443	1660
53 Fluorene		166	6.484	6.487 (1.068)		493896	29.1670	1260
54 4-Chlorophenylphenylether		204	6.460	6.463 (1.064)		276175	31.7170	1370
55 2-Methyl-4,6-dinitrophenol		198	6.501	6.507 (0.897)		73585	37.2648	1610

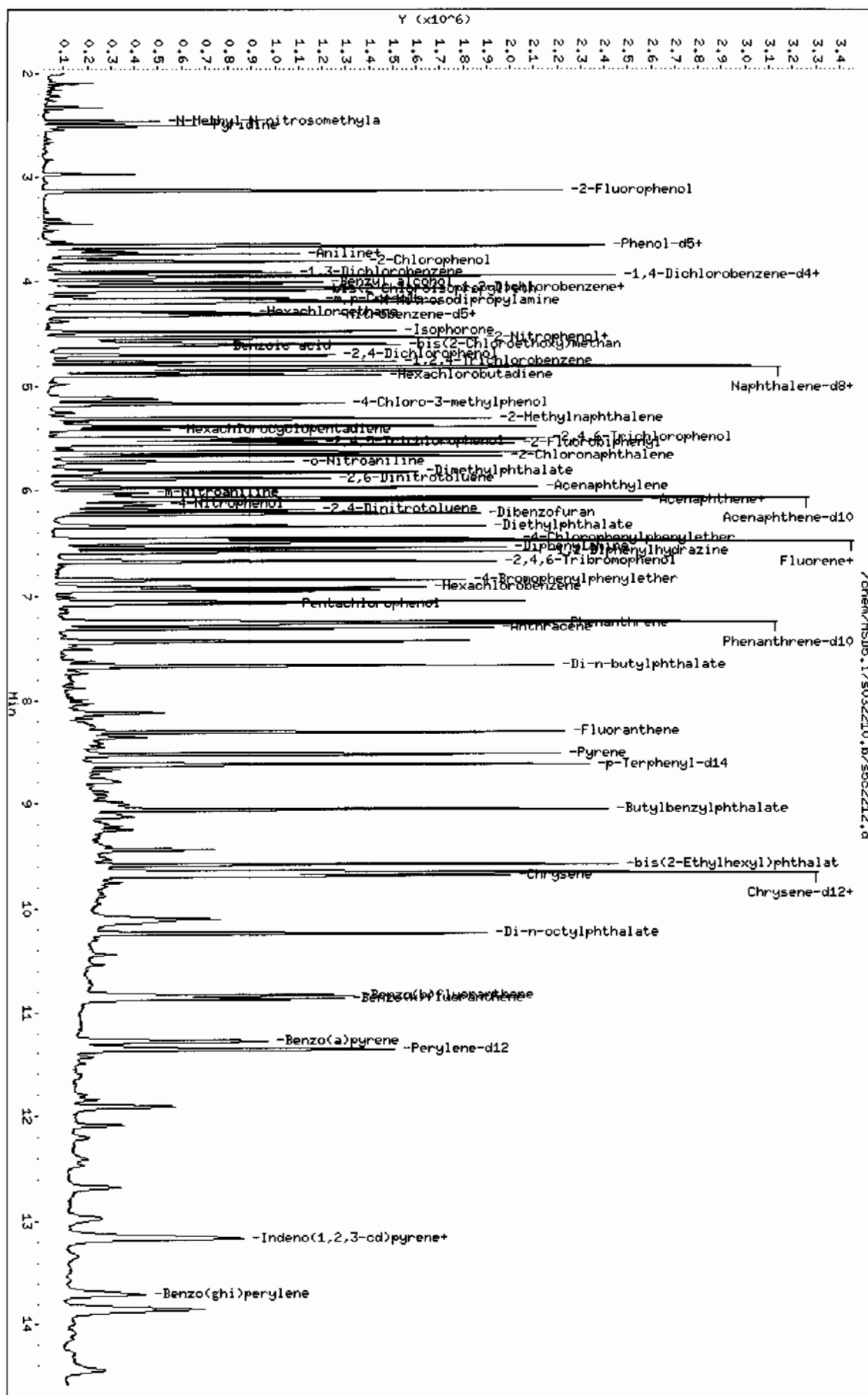
Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN	FINAL
	MASS					(ng/ul)	(ug/Kg)
=====	=====	==	=====	=====	=====	=====	=====
56 p-Nitroaniline	138	6.489	6.487	(1.069)	90662	36.7086	1580
133 Diphenylamine	169	6.548	6.555	(0.903)	433183	31.1341	1340
58 1,2-Diphenylhydrazine	77	6.584	6.588	(0.908)	689712	40.9636	1770
61 4-Bromophenylphenylether	248	6.848	6.853	(0.945)	161164	28.8557	1250
63 Hexachlorobenzene	284	6.919	6.926	(0.955)	160036	27.3663	1180
68 Phenanthrene	178	7.266	7.272	(1.002)	777253	31.3643	1350
69 Anthracene	178	7.313	7.316	(1.009)	767567	30.6174	1320
72 Di-n-butylphthalate	149	7.666	7.672	(1.058)	1003408	37.0646	1600
76 Fluoranthene	202	8.313	8.317	(1.147)	807220	31.2258	1350
85 Butylbenzylphthalate	149	9.060	9.064	(0.937)	437544	36.5077	1580
89 Benzo(a)anthracene	228	9.654	9.656	(0.998)	687090	29.1200	1260
92 Chrysene	228	9.689	9.694	(1.002)	672093	30.5679	1320
93 bis(2-Ethylhexyl)phthalate	149	9.583	9.584	(0.991)	562462	39.2380	1690
94 Di-n-octylphthalate	149	10.242	10.243	(0.901)	899347	37.8474	1630
95 Benzo(b)fluoranthene	252	10.842	10.845	(0.954)	683956	32.8380	1420
96 Benzo(k)fluoranthene	252	10.877	10.879	(0.957)	570821	28.1506	1220
97 Benzo(a)pyrene	252	11.289	11.293	(0.993)	537476	30.7173	1330
99 Indeno(1,2,3-cd)pyrene	276	13.160	13.166	(1.158)	452265	31.3440	1350
100 Dibenzo(a,h)anthracene	278	13.177	13.190	(1.159)	378815	33.1385	1430
101 Benzo(ghi)perylene	276	13.712	13.725	(1.206)	363722	30.1681	1300
1 N-Methyl-N-nitrosomethylamine	74	2.466	2.457	(0.626)	125055	30.3663	1310

# QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSDS.i/s032210.b/s032212.d  
 Date: 22-MAR-2010 12:41  
 Client ID: RES6-10-7407MSD  
 Sample Info: 1120206613196308611SVH11.LANL06001MSD  
 Volume Injected (uL): 0.5  
 Column phase: J&W DB-SMS

Instrument: MSD5.i  
 Operator: RMB  
 Column diameter: 0.20



# Miscellaneous Data

# Prep Logbook

## Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 963080      Verified by: \_\_\_\_\_  
 Analyst: Robin Hunt      Lab SOP: GL-OA-E-010 REV# 18  
 Method: SW846 3550B      Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202066110 MB	10-MAR-2010 12:33:00	30	1	0.03333
1202066111 LCS	10-MAR-2010 12:33:00	30	1	0.03333
248506001	10-MAR-2010 12:33:00	30	1	0.03333
1202066112 MS (248506001)	10-MAR-2010 12:33:00	30.01	1	0.03332
1202066113 MSD (248506001)	10-MAR-2010 12:33:00	30.01	1	0.03332
248506002	10-MAR-2010 12:33:00	30.05	1	0.03328
248506003	10-MAR-2010 12:33:00	30.02	1	0.03331
248506004	10-MAR-2010 12:33:00	30.09	1	0.03323
248506005	10-MAR-2010 12:33:00	30	1	0.03333
248506006	10-MAR-2010 12:33:00	30.01	1	0.03332
248506007	10-MAR-2010 12:33:00	30.03	1	0.0333
248506008	10-MAR-2010 12:33:00	30.05	1	0.03328
248506009	10-MAR-2010 12:33:00	30.04	1	0.03329
248506010	10-MAR-2010 12:33:00	30	1	0.03333
248506011	10-MAR-2010 12:33:00	30.05	1	0.03328
248506012	10-MAR-2010 12:33:00	30.03	1	0.0333
248506013	10-MAR-2010 12:33:00	30.05	1	0.03328
248506014	10-MAR-2010 12:33:00	30.01	1	0.03332
248506015	10-MAR-2010 12:33:00	30.06	1	0.03327
248506016	10-MAR-2010 12:33:00	30.02	1	0.03331
248506017	10-MAR-2010 12:33:00	30	1	0.03333
248506018	10-MAR-2010 12:33:00	30.09	1	0.03323
248506019	10-MAR-2010 12:33:00	30.02	1	0.03331
248506020	10-MAR-2010 12:33:00	30.05	1	0.03328

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202066111	BNA LCS w/o Benzidine 50ppm	UE100302-14	1	mL	Verified By: JAM
LCS	1202066111	BENZIDINE LCS	UE100302-22	1	mL	Final Solvent: CH2Cl2
MS	1202066112	BNA LCS w/o Benzidine 50ppm	UE100302-14	1	mL	
MS	1202066112	BENZIDINE LCS	UE100302-22	1	mL	
MSD	1202066113	BNA LCS w/o Benzidine 50ppm	UE100302-14	1	mL	
MSD	1202066113	BENZIDINE LCS	UE100302-22	1	mL	
SURR	All	BNA for all Surrogate	UE100301-10	1	mL	
REGNT	All	Acetone	1273739-B1	150	mL	
REGNT	All	Methylene Chloride	1281955-D	150	mL	
SOURC	All	SODIUM SULFATE	1274910	30	g	

# GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD5

DATE: 02/17/2010 METHOD: 8270C MSD5-DFTPP8270D.m OPERATOR: rmb REVIEWED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT: 1253574-D  
Multiplier Voltage: 1494 Emv Extr. Injection Volume: 0.5, 1.0 ul  
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100205-01  
CALIBRATION & QC INFORMATION:  
Initial Calibration Dates: See Calibration History and Standard Logbook.  
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD5.i/s021710.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
Is5b1701-D.d	WBN100207-01	rmb	17-FEB-2010 14:51	150PPM	Is021710	1	1.0 DFTPP	
Is5b1701.d	WBN100207-01	rmb	17-FEB-2010 14:51	150PPM	s021710	1	1.0 DFTPP	
Is5b1702.d	Instrument blank	RMB	17-FEB-2010 15:05	1	Is021710	1	1.0	
Is5b1703.d	WBN100215-08	RMB	17-FEB-2010 15:27	11 PPM	Is021210	1	1.0 MEGACAL001	DOSE
Is5b1704.d	WBN100215-07	RMB	17-FEB-2010 15:56	110 PPM	Is021710	1	1.0 MEGACAL010	DOSE
Is5b1705.d	WBN100215-06	RMB	17-FEB-2010 16:25	120 PPM	Is021710	1	1.0 MEGACAL020	DOSE
Is5b1706.d	WBN100215-05.1	RMB	17-FEB-2010 16:53	140 PPM	s021710	1	1.0 MEGACAL040	DOSE
Is5b1707.d	WBN100215-04	RMB	17-FEB-2010 17:22	150 PPM	Is021710	1	1.0 MEGACAL050	DOSE
Is5b1708.d	WBN100215-03	RMB	17-FEB-2010 17:50	180 PPM	Is021710	1	1.0 MEGACAL080	DOSE
Is5b1709.d	WBN100215-02	RMB	17-FEB-2010 18:19	1100 PPM	Is021710	1	1.0 MEGACAL100	DOSE
Is5b1710.d	WBN100215-01	RMB	17-FEB-2010 18:47	1120 PPM	Is021710	1	1.0 MEGACAL120	DOSE
Is5b1711.d	WBN100120-01	RMB	17-FEB-2010 19:16	110 PPM	Is021710	1	1.0 AP12ICAL010	
Is5b1712.d	WBN100120-02	RMB	17-FEB-2010 19:38	120 PPM	Is021710	1	1.0 AP12ICAL020	
Is5b1713.d	WBN100120-03.1	RMB	17-FEB-2010 20:01	140 PPM	s021710	1	1.0 AP12ICAL040	
Is5b1714.d	WBN100120-04	RMB	17-FEB-2010 20:24	150 PPM	s021710	1	1.0 AP12ICAL050	
Is5b1715.d	WBN100120-05	RMB	17-FEB-2010 20:47	180 PPM	Is021710	1	1.0 AP12ICAL080	
Is5b1716.d	WBN100120-06	RMB	17-FEB-2010 21:10	1100 PPM	Is021710	1	1.0 AP12ICAL100	
Is5b1717.d	WBN100120-07	RMB	17-FEB-2010 21:33	1120 PPM	Is021710	1	1.0 AP12ICAL120	
Is5b1718.d	WBN100215-09.1	RMB	17-FEB-2010 21:56	140 PPM	Is021710	1	1.0 MEGACV	DOSE



Is5b1719-625.d\WBN100120-08.1	RMB	17-FEB-2010 22:24	140 PPM	Is021710	1.0 AP12ICV	AP12ICV - 625 - 021710
Is5b1719-82700.d\WBN100120-08.1	RMB	17-FEB-2010 22:24	140 PPM	Is021710	1.0 AP12ICV	AP12ICV - 82700 - 021710
Is5b1719.d	RMB	17-FEB-2010 22:24	140 PPM	Is021710	1.0 AP12ICV	AP12ICV - 82700 - 021710
Is5b1720-TEST.d\UBN100127-01	RMB	17-FEB-2010 22:47	110 PPM	Is021710	1.0 NEV010	
Is5b1720.d	RMB	17-FEB-2010 22:47	110 PPM	Is021710	1.0 NEV010	
Is5b1721.d	RMB	17-FEB-2010 23:10	120 PPM	Is021710	1.0 NEV020	
Is5b1722.d	RMB	17-FEB-2010 23:33	140 PPM	Is021710	1.0 NEV040	
Is5b1723.d	RMB	17-FEB-2010 23:55	150 PPM	Is021710	1.0 NEV050	
Is5b1724.d	RMB	18-FEB-2010 00:18	180 PPM	Is021710	1.0 NEV080	
Is5b1725.d	RMB	18-FEB-2010 00:41	1100 PPM	Is021710	1.0 NEV100	
Is5b1726.d	RMB	18-FEB-2010 01:04	1120 PPM	Is021710	1.0 NEV120	
Is5b1727-D.d\WBN100237-01	RMB	18-FEB-2010 08:43	150 PPM	Is021710	1.0 DFTPP	
Is5b1727.d	RMB	18-FEB-2010 08:43	150 PPM	Is021710	1.0 DFTPP	
Is5b1728.d	RMB	18-FEB-2010 09:19	110 PPM	Is021710	1.0	
Is5b1729.d	RMB	18-FEB-2010 09:42	11 PPM	Is021710	1.0 MEGAICAL001	
Is5b1730-TEST.d\WBN100215-07	RMB	18-FEB-2010 10:10	110 PPM	Is021710	1.0 MEGAICAL010	
Is5b1730.d	RMB	18-FEB-2010 10:10	110 PPM	Is021710	1.0 MEGAICAL010	
Is5b1731-TEST.d\WBN100215-06	RMB	18-FEB-2010 10:39	120 PPM	Is021710	1.0 MEGAICAL020	
Is5b1731.d	RMB	18-FEB-2010 10:39	120 PPM	Is021710	1.0 MEGAICAL020	
Is5b1732.d	RMB	18-FEB-2010 11:08	140 PPM	Is021710	1.0 MEGAICAL040	
Is5b1733.d	RMB	18-FEB-2010 11:35	150 PPM	Is021710	1.0 MEGAICAL050	
Is5b1734.d	RMB	18-FEB-2010 12:04	180 PPM	Is021710	1.0 MEGAICAL080	
Is5b1735.d	RMB	18-FEB-2010 12:32	1100 PPM	Is021710	1.0 MEGAICAL100	
Is5b1736.d	RMB	18-FEB-2010 13:01	1120 PPM	Is021710	1.0 MEGAICAL120	
Is5b1737.d	RMB	18-FEB-2010 13:30	110 PPM	Is021710	1.0	
Is5b1738-625.d\WBN100215-09.1	RMB	18-FEB-2010 13:53	140 PPM	Is021710	1.0 MEGAICV	MEGAICV - 625 - 021710
Is5b1738-82700.d\WBN100215-09.1	RMB	18-FEB-2010 13:53	140 PPM	Is021710	1.0 MEGAICV	MEGAICV - 82700 - 021710

1s5b1738-BOE.d\WBN100215-09.1	IRMB	18-FEB-2010 13:53	140 PPM	1s021710	1.0 MEGAICV	MEGAICV - 80E - 021710
1s5b1738.d	WBN100215-09.1	18-FEB-2010 13:53	140 PPM	1s021710	1.0 MEGAICV	MEGAICV - 8270C - 021710
1s5b1739.d	WBN100205-25	18-FEB-2010 14:22	10 PPM	1s021710	1.0 PESTICAL01	
1s5b1740.d	WBN100205-24	18-FEB-2010 14:45	120 PPM	1s021710	1.0 PESTICAL02C	
1s5b1741.d	WBN100205-23.1	18-FEB-2010 15:08	140 PPM	1s021710	1.0 PESTICAL0401	
1s5b1742.d	WBN100205-22	18-FEB-2010 15:32	150 PPM	1s021710	1.0 PESTICAL0501	
1s5b1743.d	WBN100205-21	18-FEB-2010 15:55	180 PPM	1s021710	1.0 PESTICAL080	
1s5b1744.d	WBN100205-20	18-FEB-2010 16:18	1010 PPM	1s021710	1.0 PESTICAL1001	
1s5b1745.d	WBN100205-19	18-FEB-2010 16:41	1120 PPM	1s021710	1.0 PESTICAL1201	
1s5b1746.d	WBN100120-16	18-FEB-2010 17:05	1500 PPM	1s021710	1.0 HEXICAL5001	
1s5b1747.d	WBN100120-15	18-FEB-2010 17:28	1000 PPM	1s021710	1.0 HEXICAL10001	
1s5b1748.d	WBN100120-14	18-FEB-2010 17:51	11250 PPM	1s021710	1.0 HEXICAL1250	
1s5b1749.d	WBN100120-13	18-FEB-2010 18:14	11500 PPM	1s021710	1.0 HEXICAL15001	
1s5b1750.d	WBN100120-12	18-FEB-2010 18:38	11750 PPM	1s021710	1.0 HEXICAL17501	
1s5b1751.d	UBN090828-26.1	18-FEB-2010 19:01	12000 PPM	1s021710	1.0 HEXICAL20001	
1s5b1752-625.d\WBN100205-26.1	IRMB	18-FEB-2010 19:24	140 PPM	1s021710	1.0 PESTICV	PESTICV - 625 - 021710
1s5b1752-8270D.d\WBN100205-26.1	IRMB	18-FEB-2010 19:24	140 PPM	1s021710	1.0 PESTICV	PESTICV - 8270D - 021710
1s5b1752.d	WBN100205-26.1	18-FEB-2010 19:24	140 PPM	1s021710	1.0 PESTICV	PESTICV - 8270C - 021710
1s5b1753-625.d\WBN100103-10.4	IRMB	18-FEB-2010 19:47	11250 PPM	1s021710	1.0 HEXICV	HEXICV - 625 - 021710
1s5b1753-8270D.d\WBN100103-10.4	IRMB	18-FEB-2010 19:47	11250 PPM	1s021710	1.0 HEXICV	HEXICV - 8270D - 021710
1s5b1753.d	WBN100103-10.4	18-FEB-2010 19:47	11250 PPM	1s021710	1.0 HEXICV	HEXICV - 8270C - 021710

Instrument Batch: /chem/MSD5.i/s021710.b

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# GEL ORGANIC RUN LOG

INSTRUMENT ID: MSD5

DATE: 03/22/2010

METHOD: 8270C MSD5-DFTPPx.m

OPERATOR: rmb

REVIEWED BY:

DATE: \_\_\_\_\_

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT: 1266705-D

Multiplier Voltage: 1529 Emv Extr. Injection Volume: 0.5, 1.0 uL

DFTPP Solution ID: WBN100306-01.2 Internal Std ID: WBN100310-01

CALIBRATION & QC INFORMATION:

Initial Calibration Dates: See Calibration History and Standard Logbook.

Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD5.i/s032210.b

Data File	GL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s5c2201.d	WBN100306-01.2	rmb	122-MAR-2010 07:30	1502PM	s032210	1.0	DFTPP	DUSE
s5c2202.d	WBN100129-05.5	rmb	122-MAR-2010 07:43	140 PPM	s032210	1.0	MEGACVS	DUSE - fail IS - raise Ev
s5c2203.d	WBN100306-01.2	rmb	122-MAR-2010 08:16	1502PM	s032210	1.0	DFTPP	DUSE
s5c2204.d	WBN100129-05.5	rmb	122-MAR-2010 08:31	140 PPM	s032210	1.0	MEGACVS	DUSE - fail - clear IP
s5c2205.d	WBN100306-01.2	rmb	122-MAR-2010 10:05	1502PM	s032210	1.0	DFTPP	
s5c2206.d	WBN100129-05.5	rmb	122-MAR-2010 10:18	140 PPM	s032210	1.0	MEGACVS	253657
s5c2207.d	WBN100312-03.5	rmb	122-MAR-2010 10:46	140 PPM	s032210	1.0	AP-2CVS	
s5c2208.d	1202066110	rmb	122-MAR-2010 11:09	1963086	110-2193	1.0	SELK01	
s5c2209.d	1202066111	rmb	122-MAR-2010 11:32	1963086	110-2193	1.0	SELK01LCS	
s5c2210.d	248506001	rmb	122-MAR-2010 11:55	1963086	110-2193	1.0	LANL	
s5c2211.d	1202066112	rmb	122-MAR-2010 12:18	1963086	110-2193	1.0	LANL0630.MSI	
s5c2212.d	1202066113	rmb	122-MAR-2010 12:41	1963086	110-2193	1.0	LANL0630.MSI	
s5c2213.d	248506002	rmb	122-MAR-2010 13:04	1963086	110-2193	1.0	LANL	
s5c2214.d	248506003	rmb	122-MAR-2010 13:27	1963086	110-2193	1.0	LANL	
s5c2215.d	248506004	rmb	122-MAR-2010 13:49	1963086	110-2193	1.0	LANL	
s5c2216.d	248506005	rmb	122-MAR-2010 14:13	1963086	110-2193	1.0	LANL	
s5c2217.d	248506006	rmb	122-MAR-2010 14:35	1963086	110-2193	1.0	LANL	
s5c2218.d	248506007	rmb	122-MAR-2010 14:58	1963086	110-2193	1.0	LANL	
s5c2219.d	248506008	rmb	122-MAR-2010 15:21	1963086	110-2193	1.0	LANL	

!s5c2220.d	!248506009	!RMB	!22-MAR-2010 15:44	!963086	!10-2193	!1.0!LANL	!
!s5c2221.d	!248506010	!RMB	!22-MAR-2010 16:07	!963086	!10-2193	!1.0!LANL	!
!s5c2222.d	!248506011	!RMB	!22-MAR-2010 16:30	!963086	!10-2193	!1.0!LANL	!
!s5c2223.d	!248506012	!RMB	!22-MAR-2010 16:54	!963086	!10-2193	!1.0!LANL	!
!s5c2224.d	!248506013	!RMB	!22-MAR-2010 17:16	!963086	!10-2193	!1.0!LANL	!
!s5c2225.d	!248506014	!RMB	!22-MAR-2010 17:39	!963086	!10-2193	!1.0!LANL	!
!s5c2226.d	!248506015	!RMB	!22-MAR-2010 18:02	!963086	!10-2193	!1.0!LANL	!
!s5c2227.d	!248506016	!RMB	!22-MAR-2010 18:25	!963086	!10-2193	!1.0!LANL	!
!s5c2228.d	!248506017	!RMB	!22-MAR-2010 18:48	!963086	!10-2193	!1.0!LANL	!
!s5c2229.d	!248506018	!RMB	!22-MAR-2010 19:11	!963086	!10-2193	!1.0!LANL	!
!s5c2230.d	!248506019	!RMB	!22-MAR-2010 19:34	!963086	!10-2193	!1.0!LANL	!
!s5c2231.d	!248506020	!RMB	!22-MAR-2010 19:57	!963086	!10-2193	!1.0!LANL	! Fail IS - confirmed by s5c2321

### DATA EXCEPTION REPORT

<b>Mo. Day Yr.</b> 24-MAR-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> SEM/VOA GC/MS	<b>Test / Method:</b> SW846 8270C	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 963086	<b>Sample Numbers:</b> See Below		

**Potentially affected work order(s)(SDG):** 248506(10-2193)

**Application Issues:**

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for MSD/PSD

**Specification and Requirements**

**Exception Description:**

1. The MS (1202066112) and MSD (1202066113) each displayed failing recoveries for 3,3'Dichlorobenzidine. Please see the spike recovery report for the specific failures.
2. The MS (1202066112)/MSD (1202066113) RPD value for p-Nitroaniline failed. Please see the spike recovery report for the specific value.

**DER Disposition:**

1. As the failures duplicated, they were attributed to sample matrix interference and the data have been.

2. As the individual MS and MSD recoveries for that analyte were acceptable, the data have been reported un-qualified for the RPD value failure.

**Originator's Name:**

Richard Bomar 24-MAR-10

**Data Validator/Group Leader:**

Daniel Beacham 29-MAR-10

Data File: /chem/MSD5.i/s032310.b/s5c2321.d  
Report Date: 24-Mar-2010 07:42

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GEL Laboratories LLC

Data file : /chem/MSD5.i/s032310.b/s5c2321.d

Lab Smp Id: 248506020 Client Smp ID: RE36-10-7439

Inj Date : 23-MAR-2010 17:41

Operator : RMB Inst ID: MSD5.i

Smp Info : |248506020|963086|1|SVM|1|LANL

Misc Info : |MSD8270\_S|WBN100319-01

Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film

Method : /chem/MSD5.i/s032310.b/MSD5-M8270C-030210.m

Meth Date : 23-Mar-2010 11:25 rmb Quant Type: ISTD

Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d

Als bottle: 21

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: 10-2193.sub

Target Version: 3.50

Processing Host: kilroy

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	18.08490	% moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG			RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT REL RT		ON-COLUMN	FINAL
	=====	==	=====	=====	(ng/ul)	(ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.931	3.940 (1.000)	206318	40.0000	
* 29 Naphthalene-d8	136	4.801	4.807 (1.000)	785705	40.0000	
* 46 Acenaphthene-d10	164	6.054	6.063 (1.000)	448778	40.0000	
* 67 Phenanthrene-d10	188	7.231	7.238 (1.000)	763823	40.0000	
* 91 Chrysene-d12	240	9.648	9.661 (1.000)	458929	40.0000	
* 98 Perylene-d12	264	11.336	11.355 (1.000)	294546	40.0000	
\$ 3 2-Fluorophenol	112	3.131	3.131 (0.796)	349565	67.8520	2760
\$ 5 Phenol-d5	99	3.649	3.656 (0.928)	459315	74.1779	3010
\$ 20 Nitrobenzene-d5	82	4.296	4.301 (0.895)	233703	40.0291	1630
\$ 39 2-Fluorobiphenyl	172	5.543	5.548 (0.915)	428645	38.2412	1550
\$ 60 2,4,6-Tribromophenol	329	6.654	6.665 (1.099)	122450	72.6450	2950
\$ 81 p-Terphenyl-d14	244	8.613	8.620 (0.893)	399128	52.2835	2120

Compounds	QUANT SIG					CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ug/Kg)
47 Acenaphthene	154	6.078	6.088	(1.004)	4064	0.40961	16.6(a)
79 Pyrene	202	8.513	8.524	(0.882)	89133	7.02881	286
27 Benzoic acid	105	4.548	4.566	(0.947)	14813	13.6132	553(a)
68 Phenanthrene	178	7.248	7.262	(1.002)	77986	4.82306	196
69 Anthracene	178	7.290	7.306	(1.008)	8828	0.53969	21.9(a)
76 Fluoranthene	202	8.295	8.307	(1.147)	103879	6.15861	250
89 Benzo(a)anthracene	228	9.631	9.646	(0.998)	24805	2.41688	98.2
92 Chrysene	228	9.672	9.685	(1.002)	30752	3.21550	131
95 Benzo(b)fluoranthene	252	10.819	10.831	(0.954)	26610	3.78226	154(Q)
96 Benzo(k)fluoranthene	252	10.848	10.869	(0.957)	7730	1.12856	45.8(Q)
97 Benzo(a)pyrene	252	11.260	11.278	(0.993)	11737	1.96582	80.7(Q)
99 Indeno(1,2,3-cd)pyrene	276	13.119	13.147	(1.157)	7717	1.58332	64.3
101 Benzo(ghi)perylene	276	13.666	13.710	(1.205)	6304	1.54793	62.9(Q)

#### QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.

## ION RATIO REPORT

## SV REPORT

Data file: s5c2321.d

Report Date: 03/24/2010 07:36

Lab. ID: 248506020

SampleType: SAMPLE

Injection Date: 23-MAR-2010 17:41

Operator: RMB

Instrument: MSD5.i

Sample Info: |248506020|963086|1|SVM|1|LANL

Miscellaneous Info: |MSD8270\_S|WBN100319-01

Comment:

Method used: /chem/MSD5.i/s032310.b/MSD5-M8270C-030210.m

Dilution Factor= 1.0

Integrator: HP RTE

Compound Sublist: 10-2193

Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
4 Aniline		CAS#: 62-53-3				
66	30346	3.65	3.72	80-120	100	(T)
93	5887	3.61	3.72	236-296	19	(QT)
-----						
6 Phenol		CAS#: 108-95-2				
94	17014	3.51	3.67	80-120	100	(T)
66	4288	3.51	3.67	27- 87	25	(QT)
65	15517	3.51	3.67	0- 30	91	(QT)
-----						
7 bis(2-Chloroethyl) ether		CAS#: 111-44-4				
63	10301	3.93	3.74	80-120	100	(T)
93	2421	3.93	3.74	109-169	24	(QT)
95	298	3.93	3.74	9- 69	3	(QT)
-----						
15 o-Cresol		CAS#: 95-48-7				
107	10438	3.89	4.06	80-120	100	(T)
108	2711	3.89	4.06	90-150	26	(QT)
77	56068	3.89	4.06	26- 86	537	(QT)
-----						
17 N-Nitrosodipropylamine		CAS#: 621-64-7				
70	34223	4.30	4.18	80-120	100	(T)
42	21821	4.30	4.18	46-106	64	(T)
-----						
27 Benzoic acid		CAS#: 65-85-0				
105	14813	4.55	4.57	80-120	100	( )
122	12041	4.55	4.57	40-100	81	( )
77	11695	4.55	4.57	30- 90	79	( )
-----						



MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	21376	5.78	5.66	80-120	100	(T)
164	1346	5.78	5.66	3- 63	6	(T)
127	3023	5.78	5.66	12- 72	14	(T)
-----						
42 o-Nitroaniline				CAS#: 88-74-4		
65	35462	5.78	5.72	80-120	100	(T)
92	39270	5.78	5.72	35- 95	111	(QT)
138	2078	5.78	5.72	77-137	6	(QT)
-----						
43 Dimethylphthalate				CAS#: 131-11-3		
163	83331	6.06	5.82	80-120	100	(T)
164	449099	6.05	5.83	0- 40	539	(QT)
-----						
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	57743	6.05	5.88	80-120	100	(T)
63	683	6.05	5.88	65-125	1	(QT)
-----						
47 Acenaphthene				CAS#: 83-32-9		
154	4064	6.08	6.09	80-120	100	( )
153	3474	6.08	6.09	71-131	85	( )
152	1778	6.08	6.09	16- 76	44	( )
-----						
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	57743	6.05	6.18	80-120	100	(T)
89	1958	6.06	6.18	54-114	3	(QT)
63	721	6.05	6.18	28- 88	1	(QT)
-----						
52 4-Nitrophenol				CAS#: 100-02-7		
139	466	6.14	6.11	80-120	100	( )
109	1469	6.13	6.11	58-118	315	(Q)
65	2491	6.11	6.11	74-134	534	(Q)
-----						
53 Fluorene				CAS#: 86-73-7		
166	4288	6.47	6.48	80-120	100	( )
165	3537	6.47	6.48	62-122	83	( )
167	1551	6.47	6.48	0- 44	36	( )
-----						
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	889	6.65	6.49	80-120	100	(T)
105	2582	6.66	6.49	15- 75	290	(QT)
51	1137	6.65	6.49	52-112	128	(QT)
-----						
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	8124	6.65	6.84	80-120	100	(T)
141	73609	6.65	6.84	63-123	906	(QT)
250	17196	6.65	6.84	68-128	212	(QT)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
65 Pentachlorophenol			CAS#: 87-86-5			
266	562	7.06	7.07	80-120	100	( )
264	173	7.06	7.07	32- 92	31	(Q)
268	400	7.06	7.07	34- 94	71	( )
-----						
68 Phenanthrene			CAS#: 85-01-8			
178	77986	7.25	7.26	80-120	100	( )
179	12797	7.25	7.26	0- 46	16	( )
176	15465	7.25	7.26	0- 49	20	( )
-----						
69 Anthracene			CAS#: 120-12-7			
178	8828	7.29	7.31	80-120	100	( )
179	3047	7.29	7.31	0- 46	35	( )
176	1374	7.29	7.31	0- 49	16	( )
-----						
76 Fluoranthene			CAS#: 206-44-0			
202	103879	8.30	8.31	80-120	100	( )
203	18883	8.30	8.31	0- 47	18	( )
101	11548	8.30	8.30	0- 40	11	( )
-----						
79 Pyrene			CAS#: 129-00-0			
202	89133	8.51	8.52	80-120	100	( )
200	18938	8.51	8.52	0- 51	21	( )
101	13373	8.51	8.52	0- 42	15	( )
-----						
85 Butylbenzylphthalate			CAS#: 85-68-7			
149	28498	9.12	9.05	80-120	100	(T)
91	43686	9.12	9.05	49-109	153	(QT)
206	461	9.11	9.05	0- 49	2	( )
-----						
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	24805	9.63	9.65	80-120	100	( )
226	6648	9.64	9.65	0- 57	27	( )
229	8285	9.63	9.65	0- 50	33	( )
-----						
92 Chrysene			CAS#: 218-01-9			
228	30752	9.67	9.68	80-120	100	( )
229	7478	9.67	9.68	0- 51	24	( )
226	8911	9.67	9.68	0- 60	29	( )
-----						
95 Benzo(b)fluoranthene			CAS#: 205-99-2			
252	26610	10.82	10.83	80-120	100	( )
253	6791	10.82	10.83	0- 52	26	( )
125	17124	10.82	10.83	0- 40	64	(Q)
-----						
96 Benzo(k)fluoranthene			CAS#: 207-08-9			
252	7730	10.85	10.87	80-120	100	( )
253	2621	10.84	10.87	0- 52	34	( )
125	16517	10.82	10.87	0- 40	214	(Q)
-----						

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
=====						
97 Benzo(a)pyrene		CAS#: 50-32-8				
252	11737	11.26	11.28	80-120	100	( )
253	3764	11.25	11.28	0- 52	32	( )
125	4214	11.25	11.28	0- 30	36	(Q)
-----						
99 Indeno(1,2,3-cd)pyrene		CAS#: 193-39-5				
276	7717	13.12	13.15	80-120	100	( )
138	2118	13.11	13.16	0- 56	27	( )
-----						
100 Dibenzo(a,h)anthracene		CAS#: 53-70-3				
278	2079	13.13	13.17	80-120	100	( )
139	1913	13.09	13.17	0- 30	92	(QT)
-----						
101 Benzo(ghi)perylene		CAS#: 191-24-2				
276	6304	13.67	13.71	80-120	100	( )
138	2016	13.66	13.70	0- 30	32	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD5.i/s032310.b/s5c2321.d  
 Lab Smp Id: 248506020 Client Smp ID: RE36-10-7439  
 Inj Date : 23-MAR-2010 17:41  
 Operator : RMB Inst ID: MSD5.i  
 Smp Info : |248506020|963086|1|SVM|1|LANL  
 Misc Info : |MSD8270\_S|WBN100319-01  
 Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film  
 Method : /chem/MSD5.i/s032310.b/MSD5-M8270C-030210.m  
 Meth Date : 23-Mar-2010 11:25 rmb Quant Type: ISTD  
 Cal Date : 02-MAR-2010 14:42 Cal File: s5c0209.d  
 Als bottle: 21  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 10-2193.sub  
 Target Version: 3.50  
 Processing Host: kilroy

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	18.08490	% moisture

Cpnd Variable

Local Compound Variable

ISTD	RT	AREA	AMOUNT
=====	=====	=====	=====
* 10 1,4-Dichlorobenzene-d4	3.931	1458515	40.000
* 46 Acenaphthene-d10	6.054	2083100	40.000
* 91 Chrysene-d12	9.648	1756787	40.000
* 98 Perylene-d12	11.336	950457	40.000

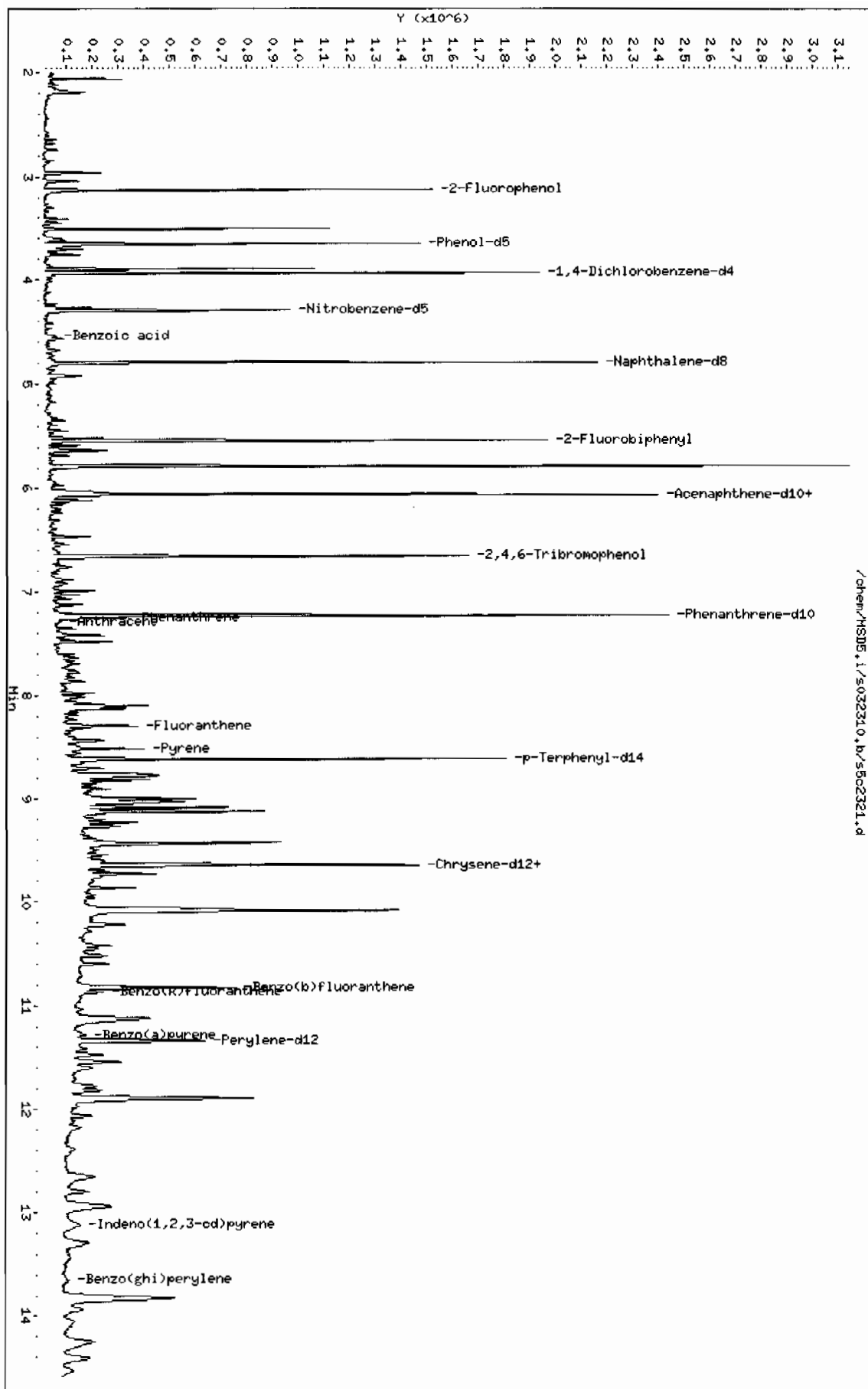
CONCENTRATIONS					QUANT		
RT	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
=====	=====	=====	=====	=====	=====	=====	=====

RT	CONCENTRATIONS			QUAL	QUANT		
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	CPND #
1R-.alpha.-Pinene					CAS #: 7785-70-8		
3.507	790333	21.6749952	880	96	NIST05.L	15188	10
Cyclopropane, 1,1-dimethyl-2-(3-methyl-1					CAS #: 68998-21-0		
3.890	734849	20.1533304	819	95	NIST05.L	15385	10
1,4-Methanoazulene, decahydro-4,8,8-trim					CAS #: 475-20-7		
5.784	2346584	45.0594454	1830	99	NIST05.L	60023	46
17-Pentatriacontene					CAS #: 6971-40-0		
8.772	722107	16.4415280	668	91	NIST05.L	183897	91
Unknown					CAS #:		
8.813	369248	8.40734493	342	0		0	91
Unknown					CAS #:		
8.995	779694	17.7527314	721	0		0	91
Unknown					CAS #:		
9.019	937455	21.3447692	867	0		0	91
1-Phenanthrenecarboxylic acid, 1,2,3,4,4					CAS #: 1235-74-1		
9.078	701437	15.9709146	649	86	NIST05.L	133618	91
Unknown					CAS #:		
9.119	920508	20.9589016	851	0		0	91
Unknown					CAS #:		
9.225	327517	7.45717988	303	0		0	91
Unknown					CAS #:		
9.266	327526	7.45738057	303	0		0	91
1-Docosene					CAS #: 1599-67-3		
9.431	1295100	29.4879278	1200	99	NIST05.L	129889	91
Cedran-diol, 8S,14-					CAS #: 62600-05-9		
9.731	463562	10.5547788	429	89	NIST05.L	83830	91
Unknown					CAS #:		
9.866	432298	9.84291846	400	0		0	91
Eicosane					CAS #: 112-95-8		
10.066	789507	17.9761492	730	96	NIST05.L	113490	91

RT	CONCENTRATIONS			QUAL	QUANT		CPND #
	AREA	ON-COL (ng/ul)	FINAL (ug/Kg)		LIBRARY	LIB ENTRY	
Unknown					CAS #:		
10.083	2207018	50.2512248	2040	0		0	91
Unknown					CAS #:		
10.225	580388	13.2147609	537	0		0	91
Unknown					CAS #:		
10.425	398305	9.06894620	368	0		0	91
2,6,10,14,18,22-Tetracosahexaene, 2,6,10					CAS #: 111-02-4		
10.525	330637	13.9148512	565	98	NIST05.L	173571	98
E-8-Hexadecen-1-ol acetate					CAS #: 1000131-01-1		
10.601	346963	14.6019522	593	83	NIST05.L	113365	98
Unknown					CAS #:		
11.125	1121062	47.1798937	1920	0		0	98
Oxirane, hexadecyl-					CAS #: 7390-81-0		
11.536	398512	16.7713807	681	94	NIST05.L	104256	98
Unknown					CAS #:		
11.889	1570491	66.0941184	2680	0		0	98
Unknown					CAS #:		
12.654	380307	16.0052281	650	0		0	98
Ergosterol					CAS #: 57-87-4		
12.948	643361	27.0758413	1100	89	NIST05.L	170282	98
Unknown					CAS #:		
13.295	361135	15.1983631	617	0		0	98
.beta.-Sitosterol					CAS #: 83-46-5		
13.824	1414839	59.5435070	2420	92	NIST05.L	174399	98
Unknown					CAS #:		
14.248	503962	21.2092381	862	0		0	98
Unknown					CAS #:		
14.413	348040	14.6472656	595	0		0	98

Data File: /chem/MSDS.i/5032310.b/5032321.d  
 Date: 23-MAR-2010 17:41  
 Client ID: RE36-10-7439  
 Sample Info: 1249506020196308611SVH11LNL  
 Volume Injected (uL): 0.5  
 Column phase: 3uM DB-5MS

Instrument: MSD5.i  
 Operator: RHB  
 Column diameter: 0.20



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVH111LANL

Volume Injected (uL): 0.5

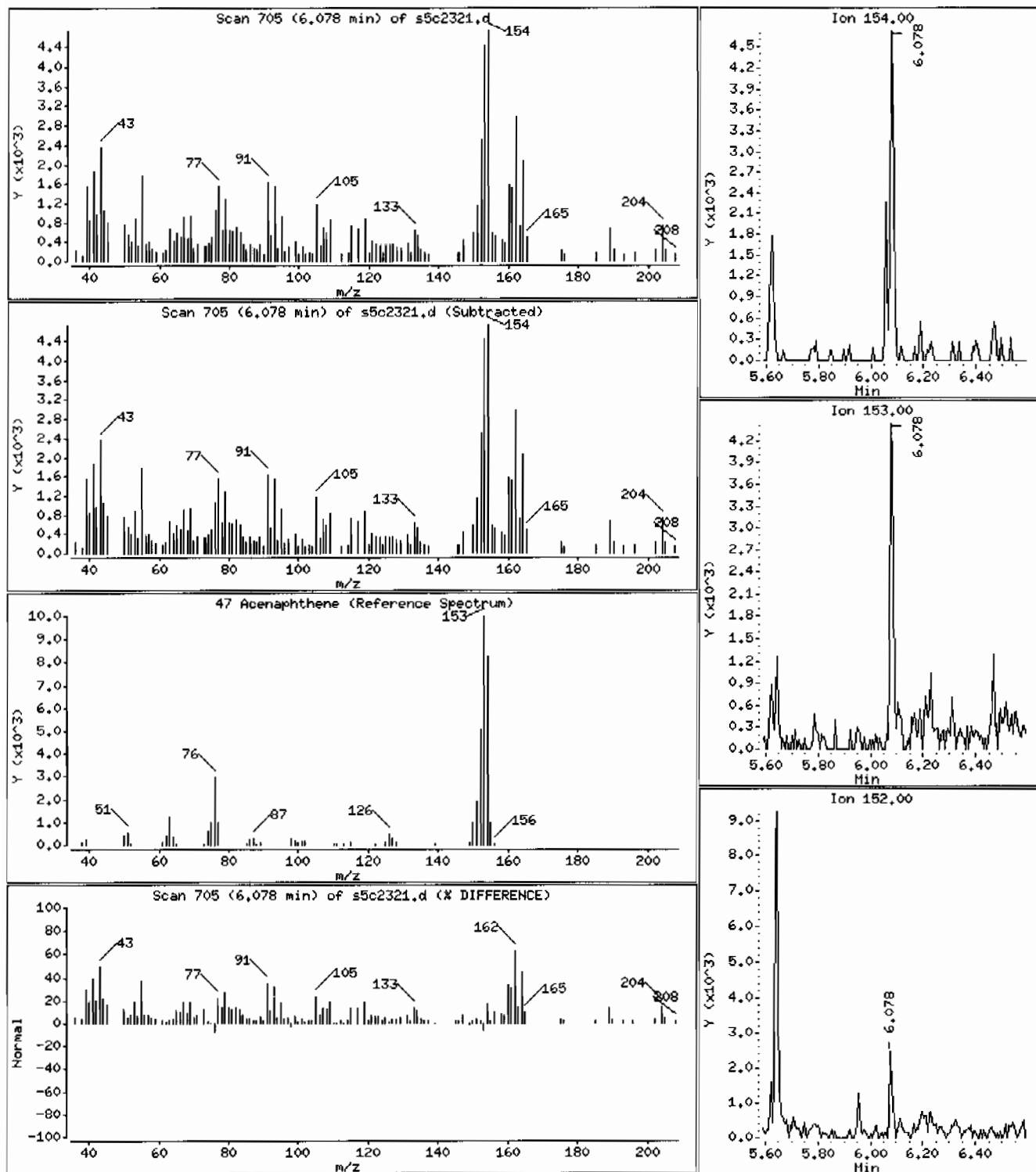
Operator: RHB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

47 Acenaphthene

Concentration: 16.6 ug/Kg





Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: I248506020196308611SVH11ILANL

Volume Injected (uL): 0.5

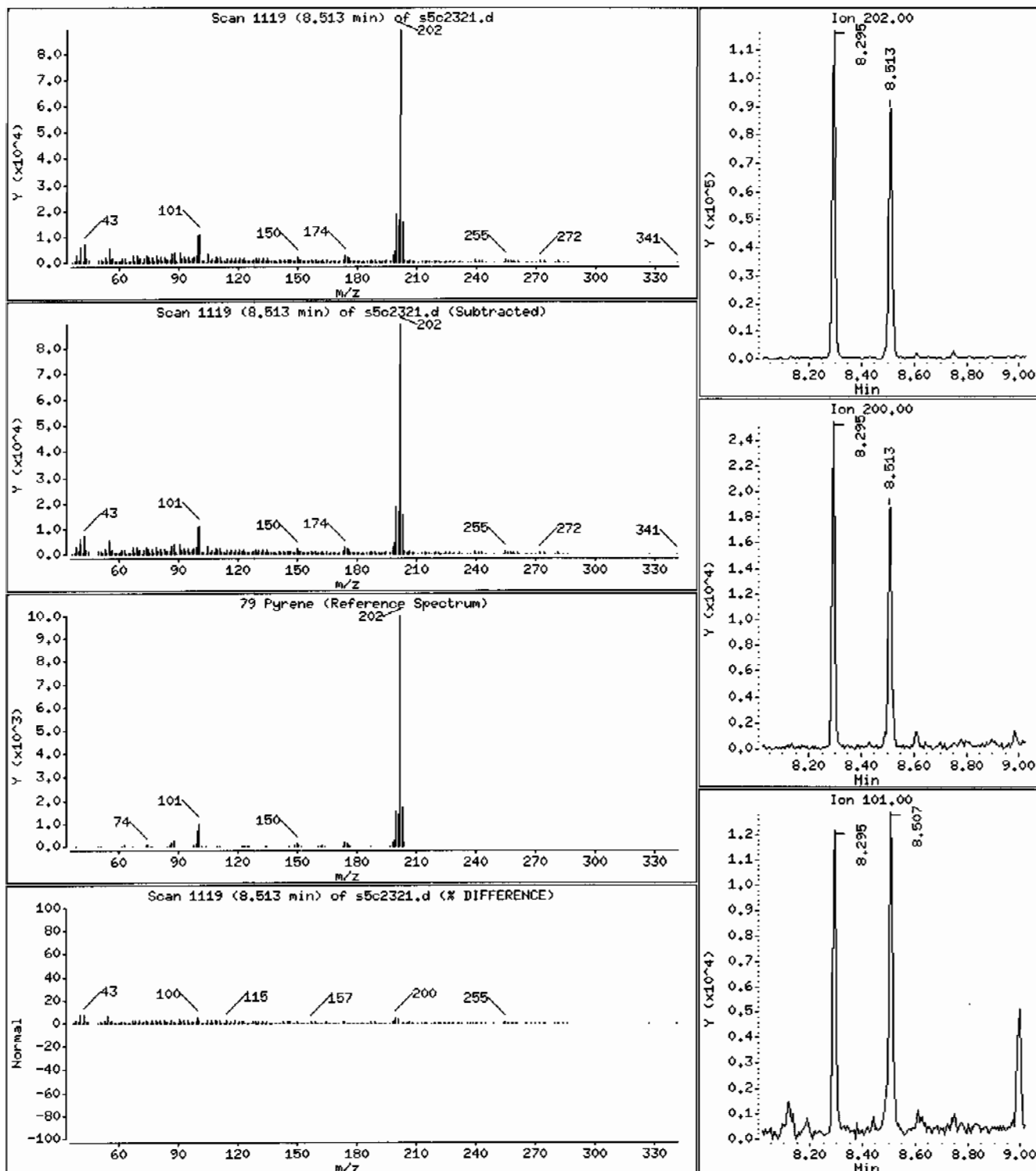
Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 286 ug/Kg



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: 1248506020196308611|SVH11|LANL

Volume Injected (uL): 0.5

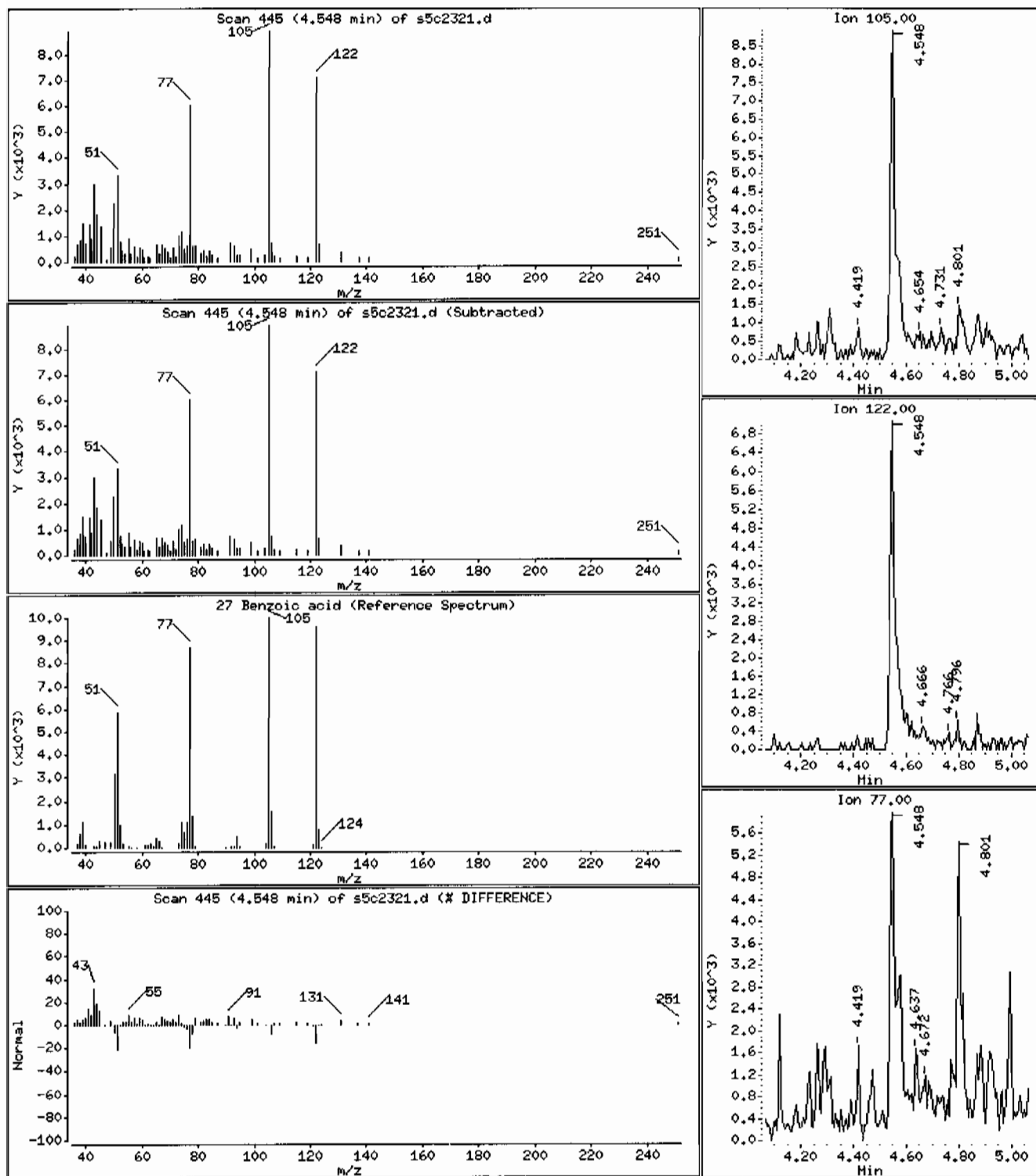
Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

27 Benzoic acid

Concentration: 553 ug/Kg



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVH111LANL

Volume Injected (uL): 0.5

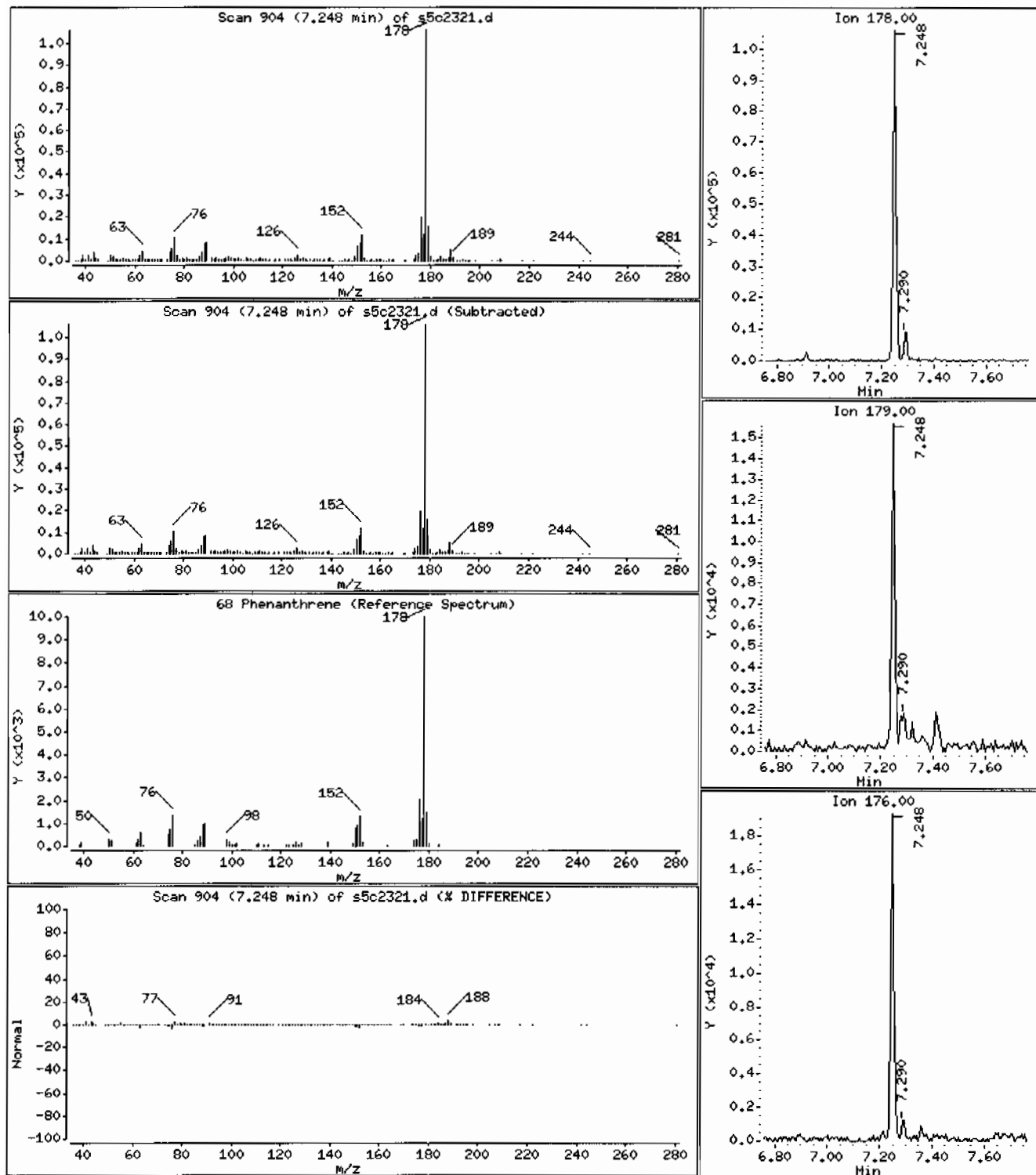
Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 196 ug/Kg



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVMI11LANL

Volume Injected (uL): 0.5

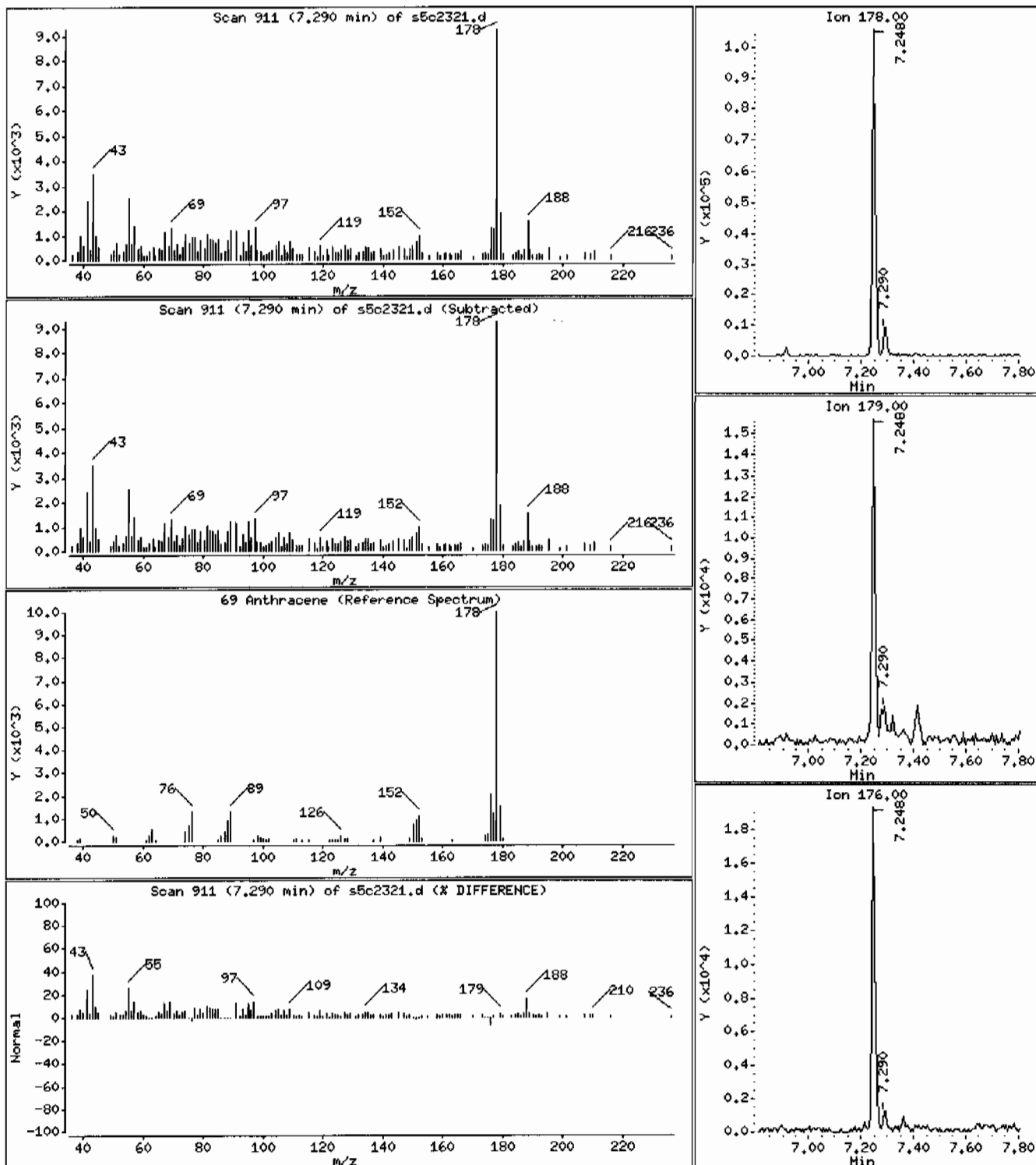
Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

69 Anthracene

Concentration: 21.9 ug/Kg



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVH111LANL

Volume Injected (uL): 0.5

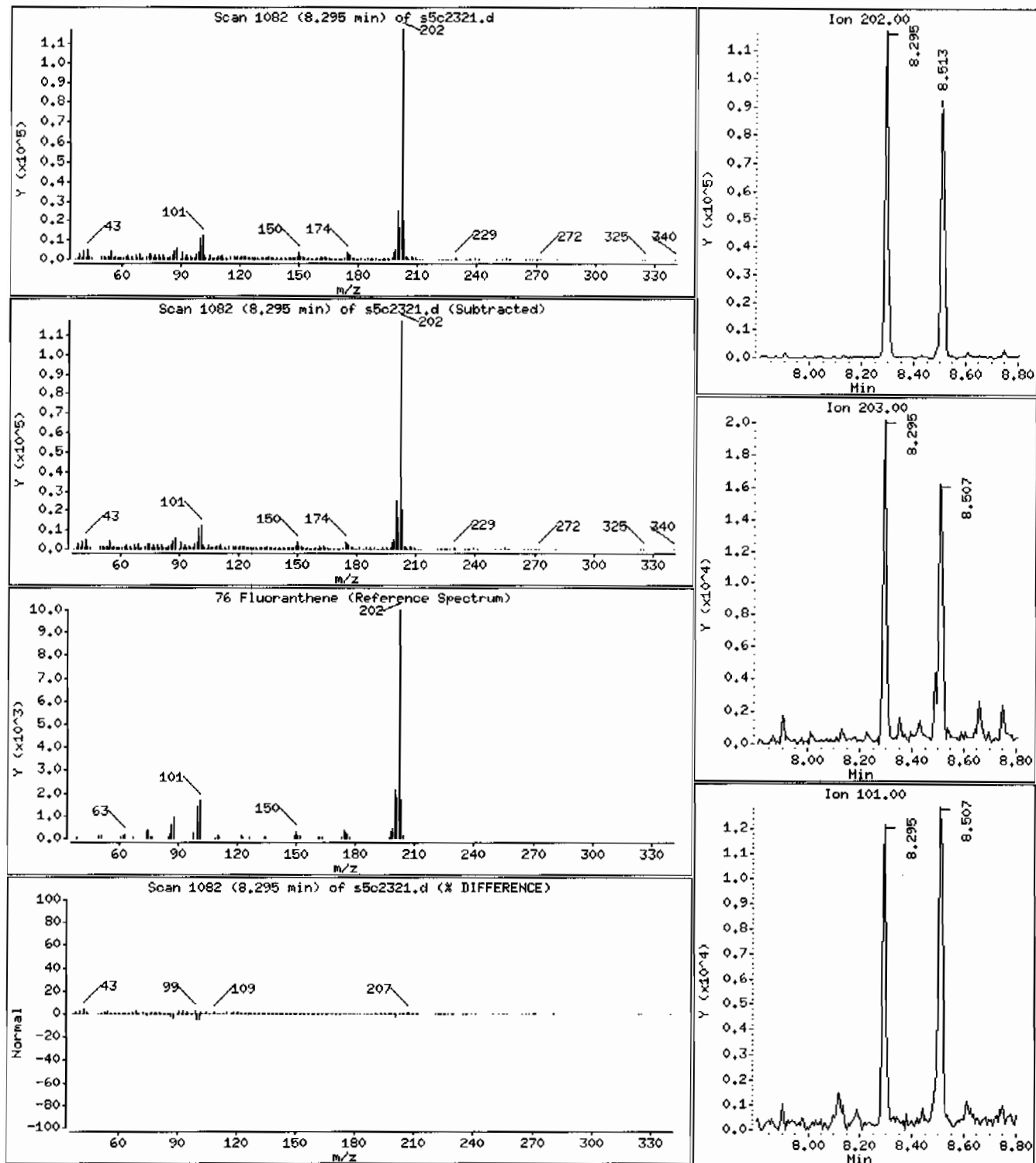
Operator: RHB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 250 ug/Kg



Date: 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVH111LANL

Volume Injected (uL): 0.5

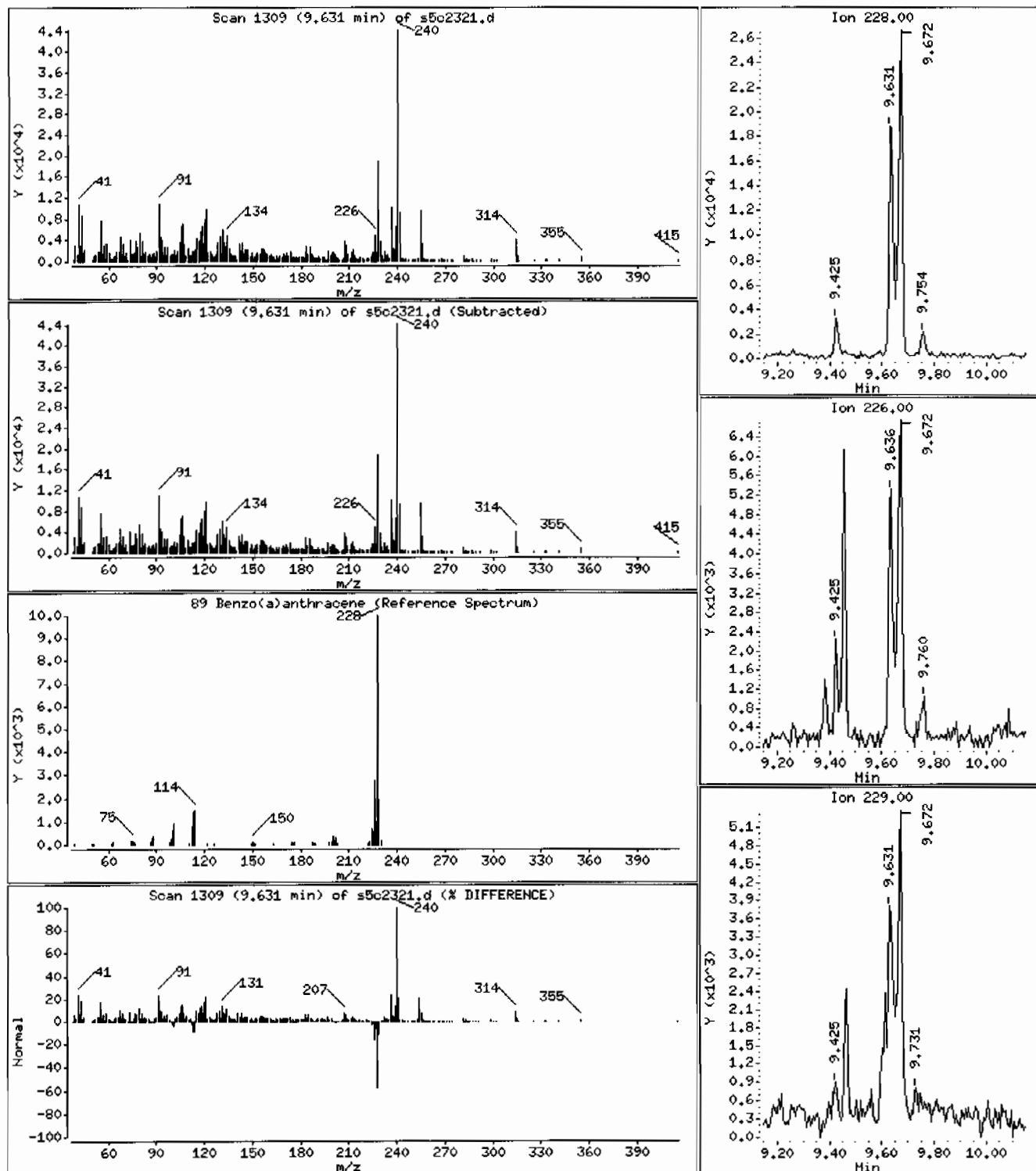
Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

89 Benzo(a)anthracene

Concentration: 98.2 ug/Kg



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVMI11LANL

Volume Injected (uL): 0.5

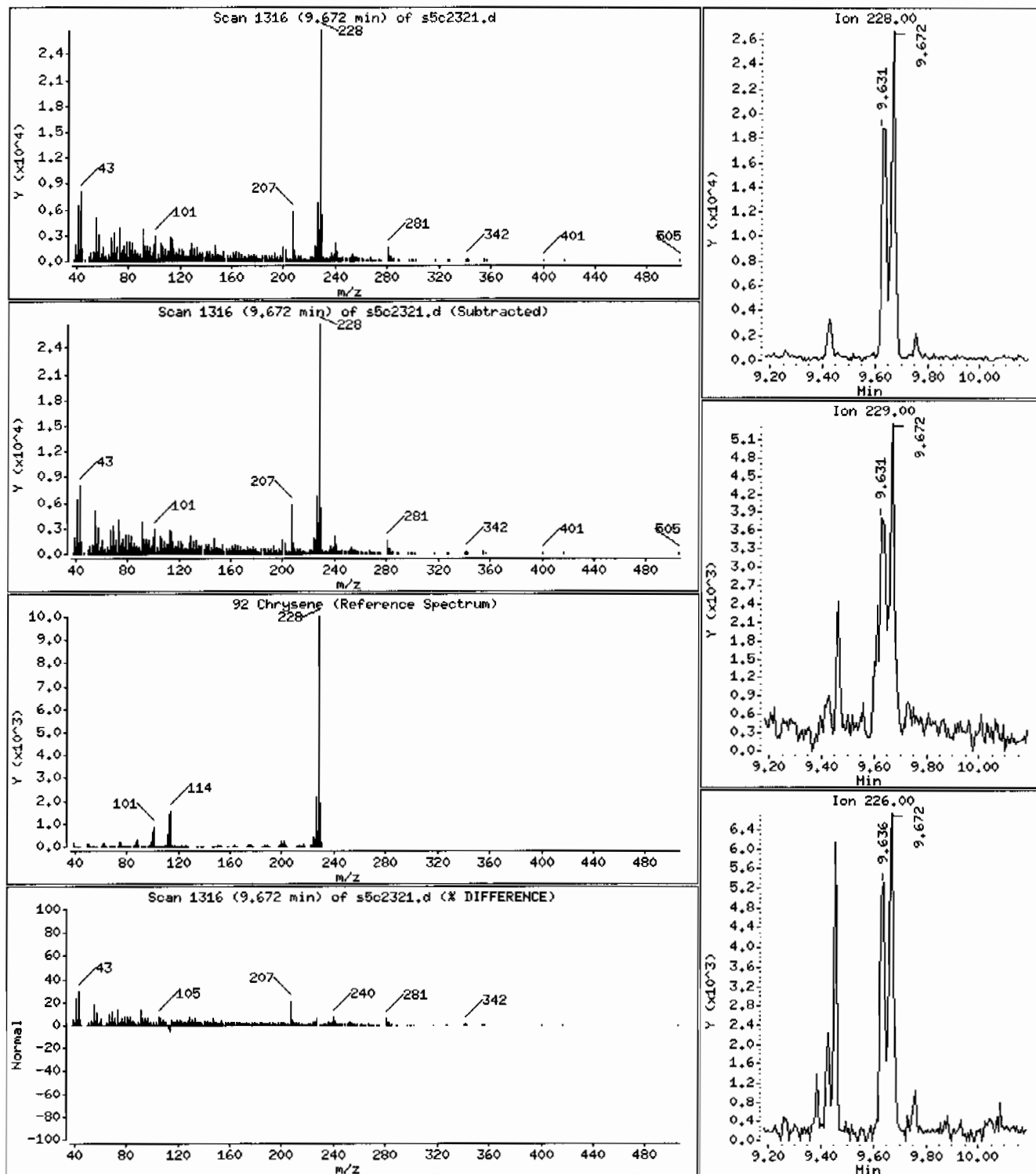
Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 131 ug/Kg



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: I2485060201963086111SVH111LANL

Volume Injected (uL): 0.5

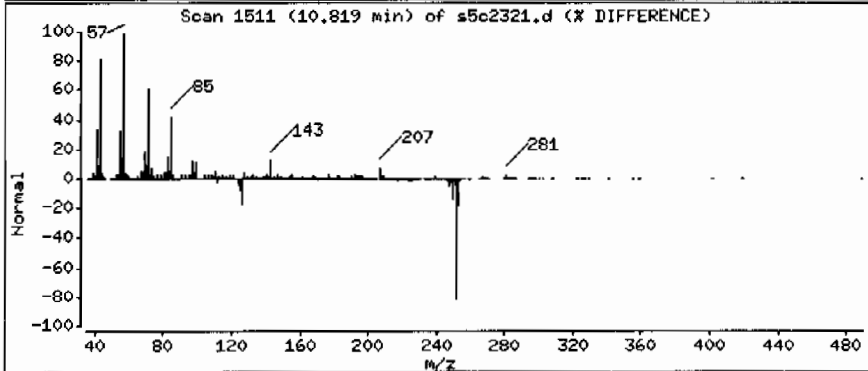
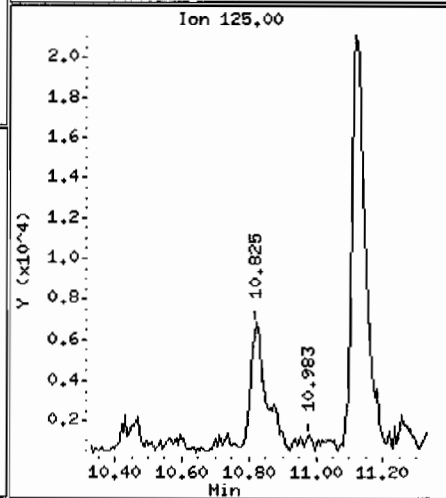
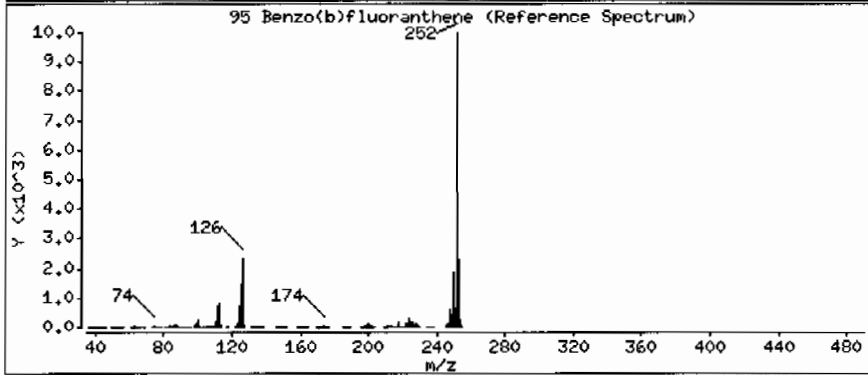
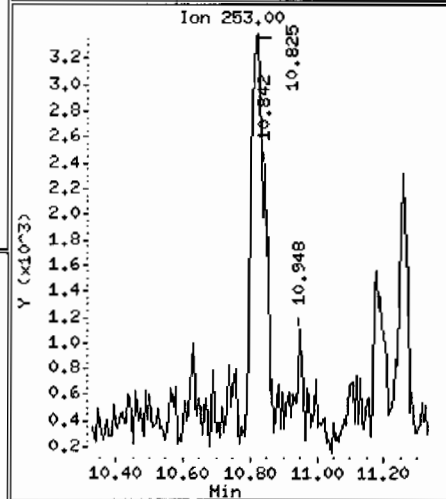
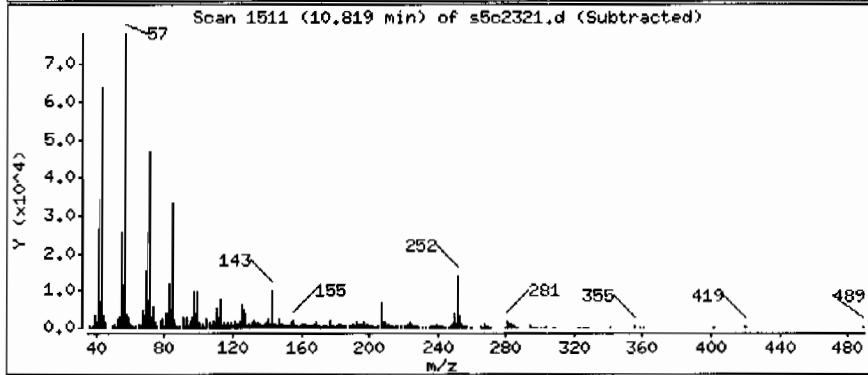
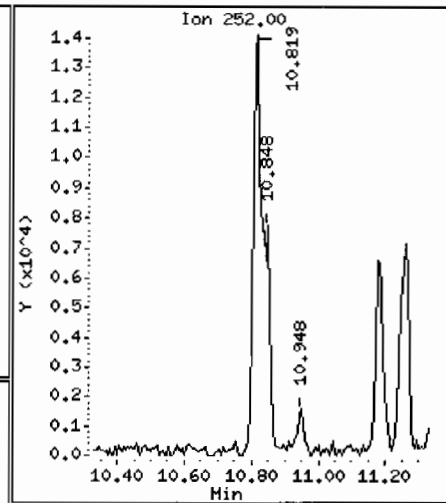
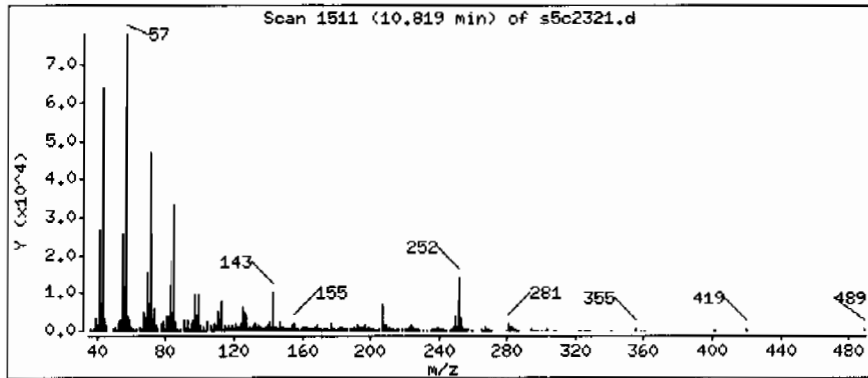
Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 154 ug/Kg





Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVH111LANL

Volume Injected (uL): 0.5

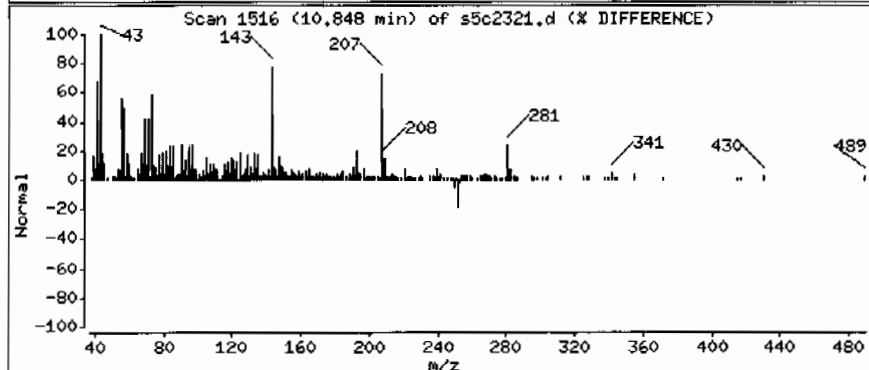
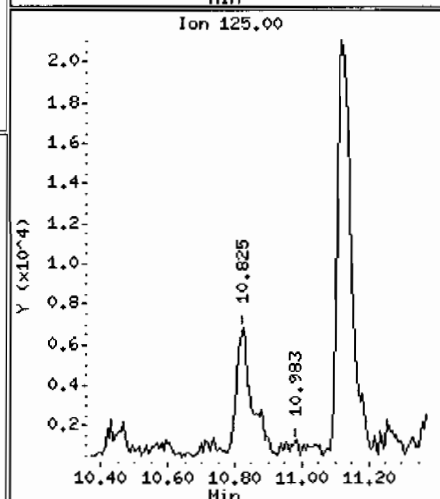
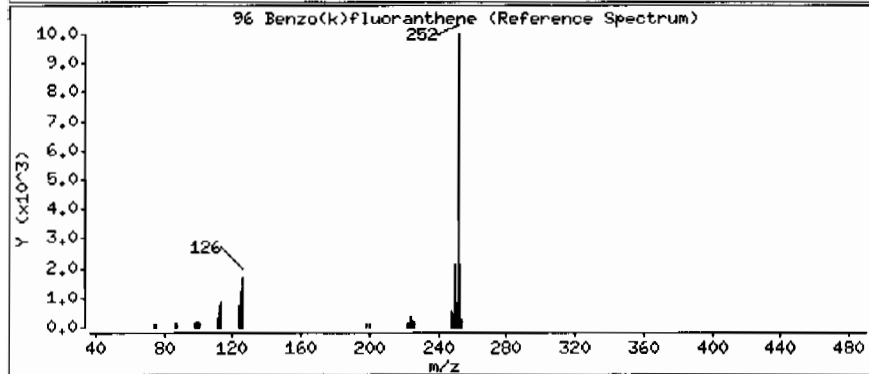
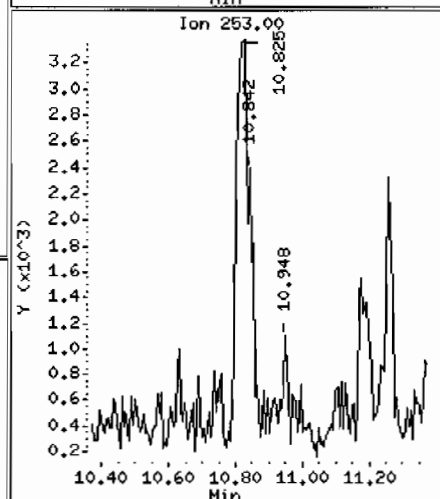
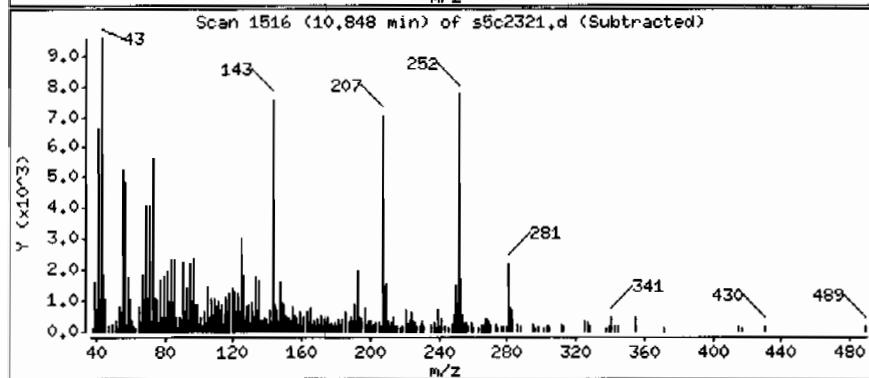
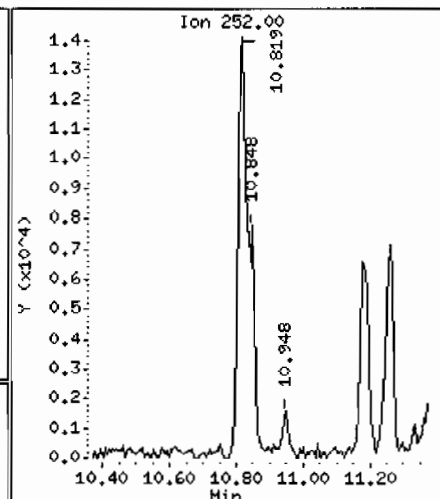
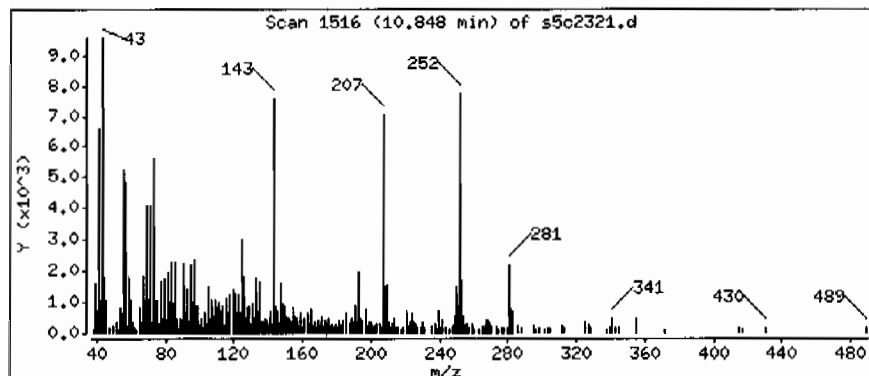
Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

96 Benzo(k)fluoranthene

Concentration: 45.8 ug/Kg



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: HSD5.1

Sample Info: I2485060201963086111SVH111LANL

Volume Injected (uL): 0.5

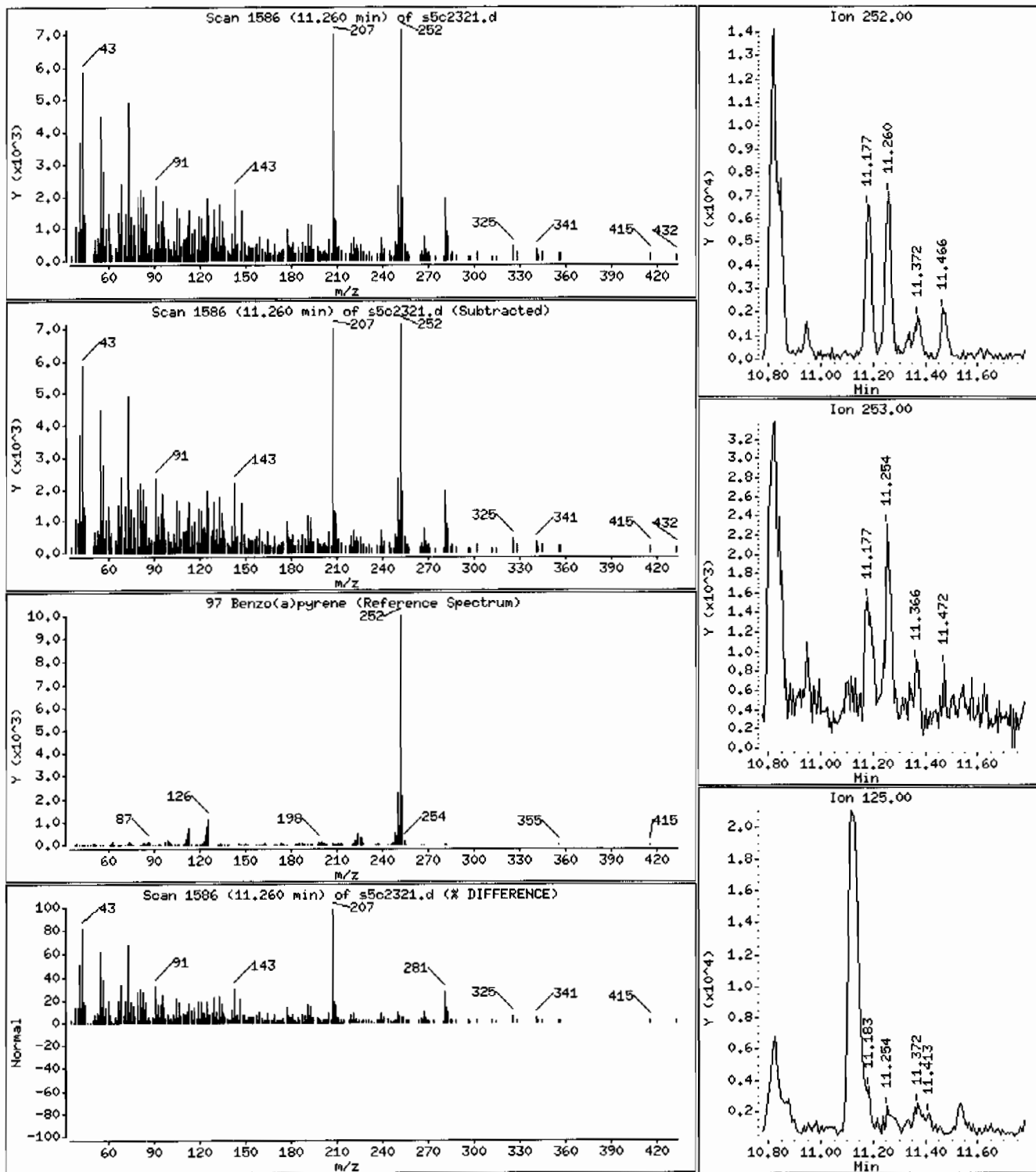
Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

97 Benzo(a)pyrene

Concentration: 80.7 ug/Kg



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: I248506020|96308611|SVMI1|LANL

Volume Injected (uL): 0.5

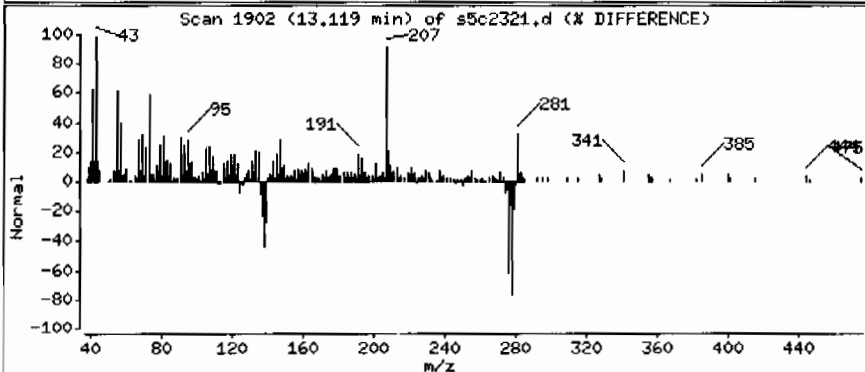
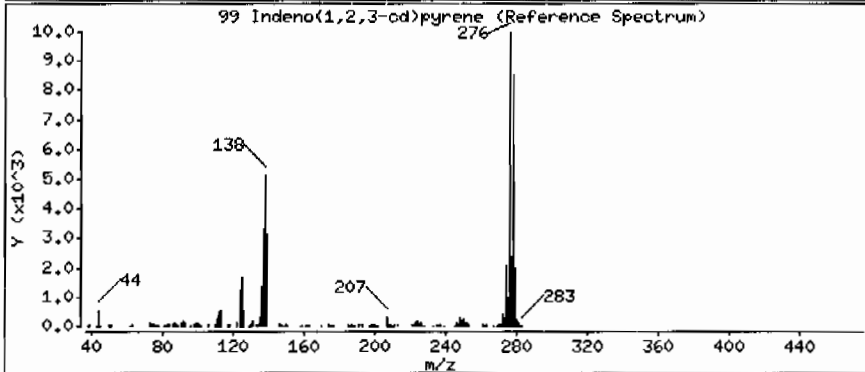
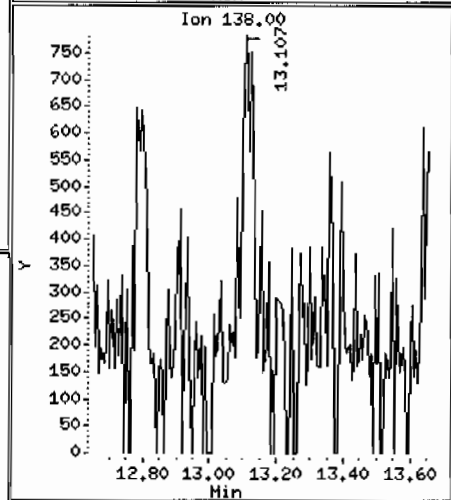
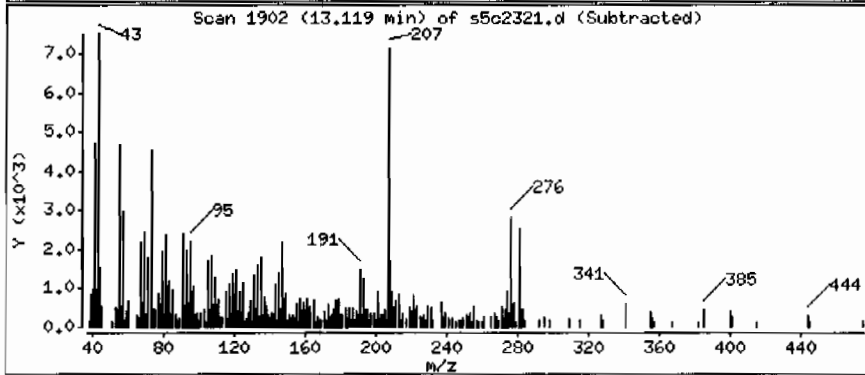
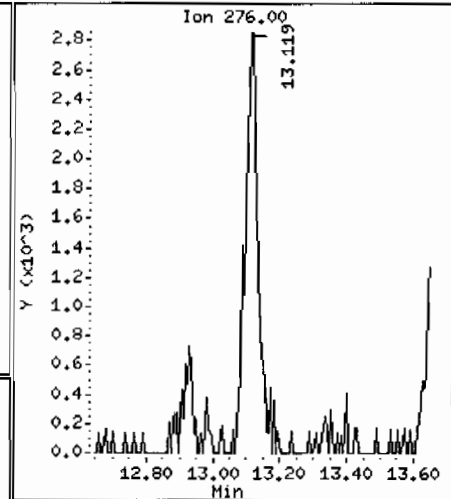
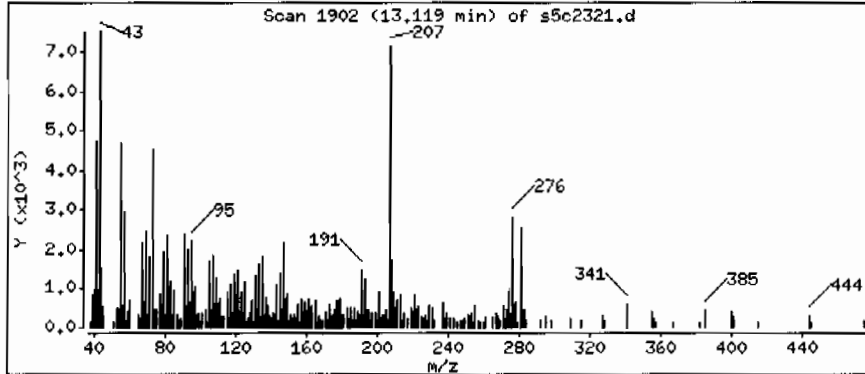
Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 64.3 ug/Kg



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: 12485060201963086111SVH111LANL

Volume Injected (uL): 0.5

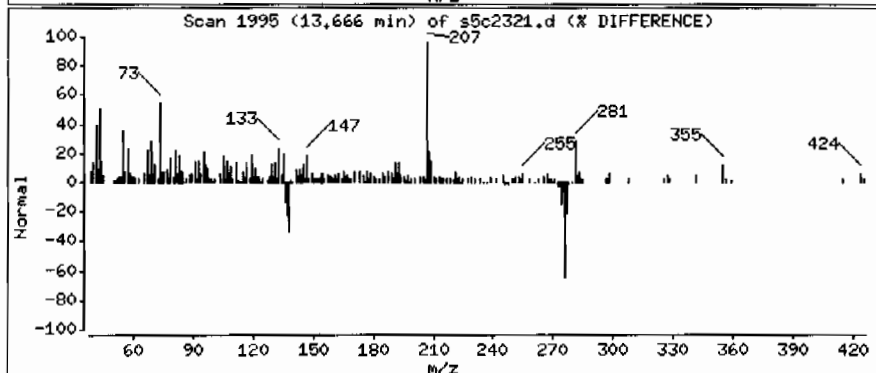
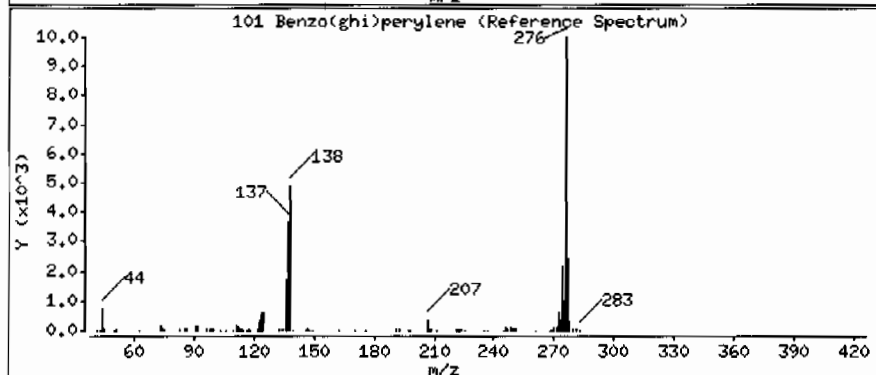
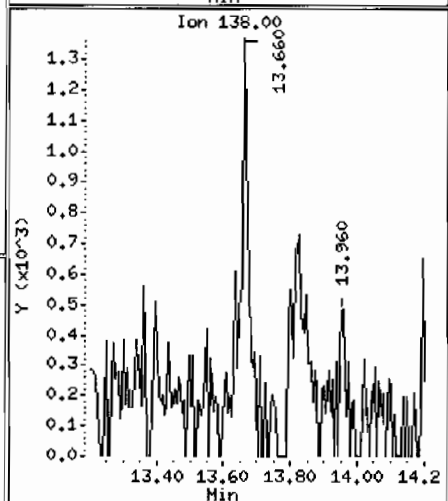
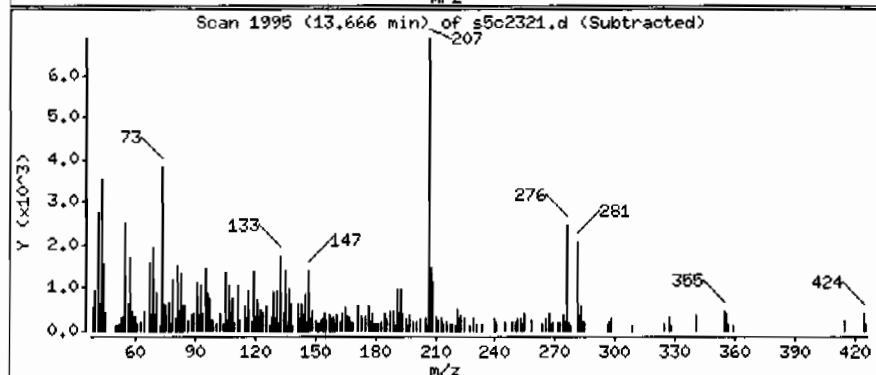
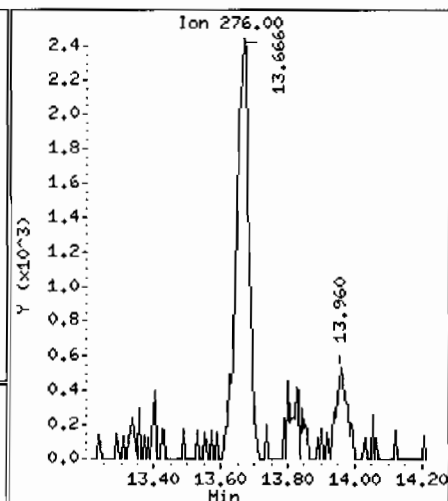
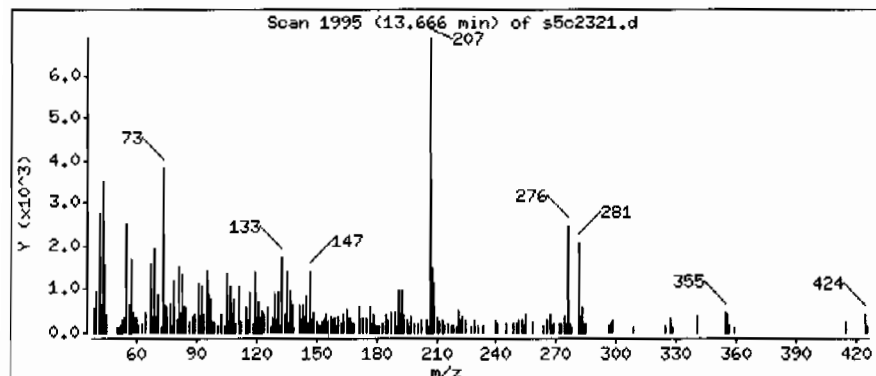
Operator: RHB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

101 Benzo(ghi)perylene

Concentration: 62.9 ug/Kg



Data File: /chem/MSD5.i/s032310.b/s5c2321.d

Page 1

Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 1248506020196308611SVH111LANL

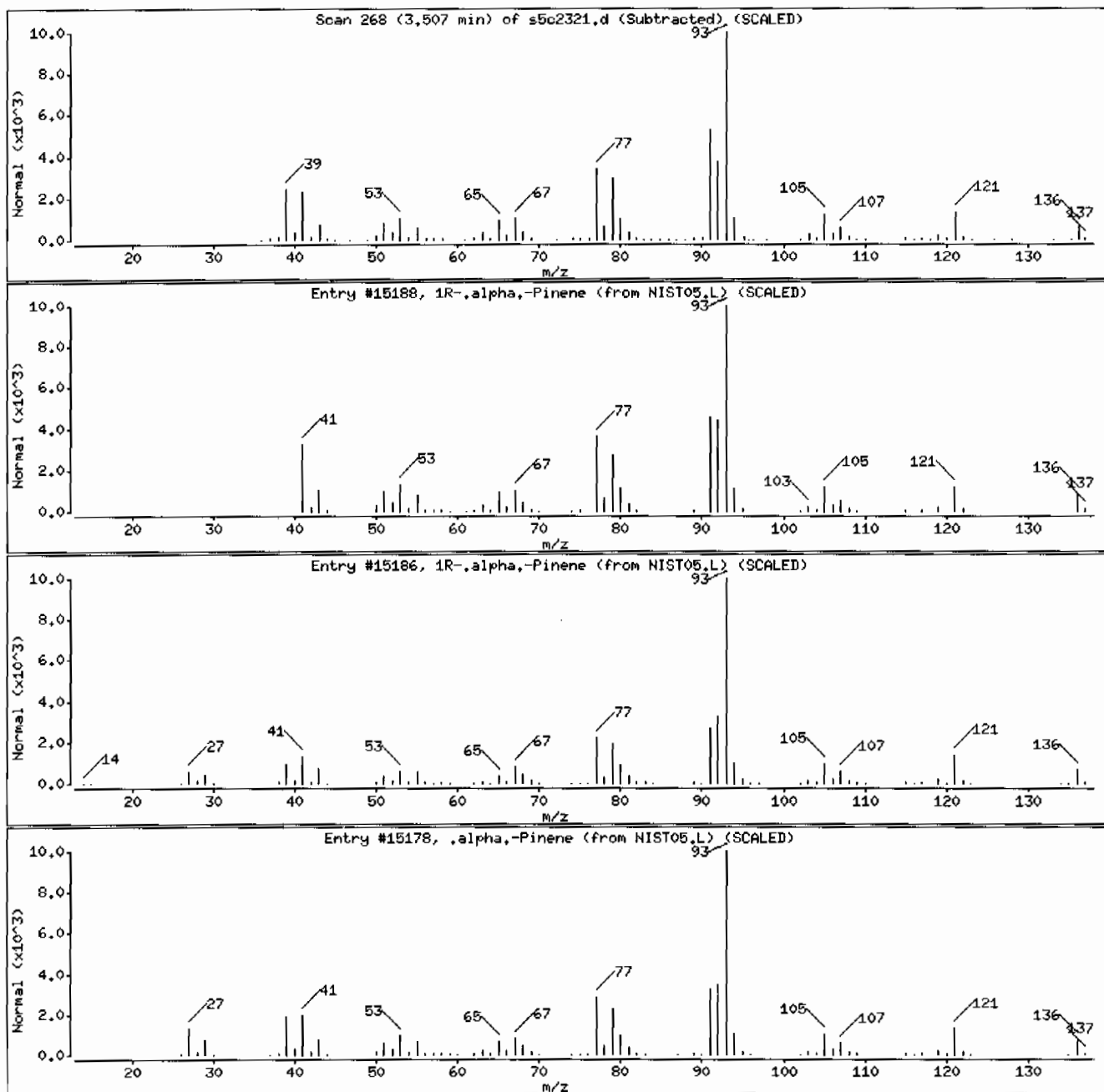
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&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	96	C10H16	136
1R-.alpha.-Pinene	7785-70-8	NIST05.L	15186	96	C10H16	136
.alpha.-Pinene	80-56-8	NIST05.L	15178	95	C10H16	136



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 1248506020196308611SVH11/LANL

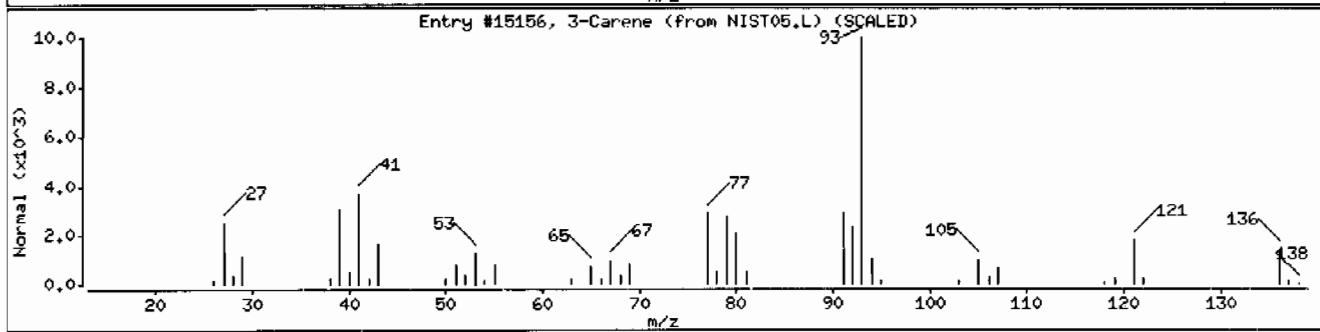
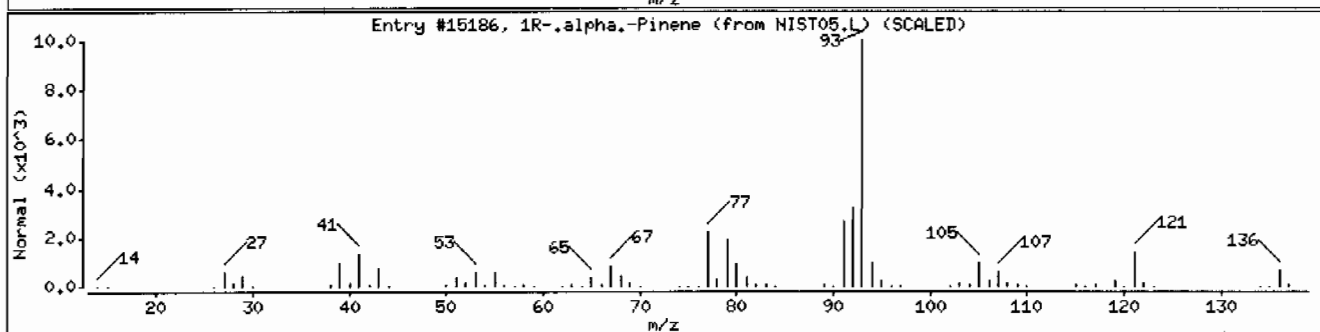
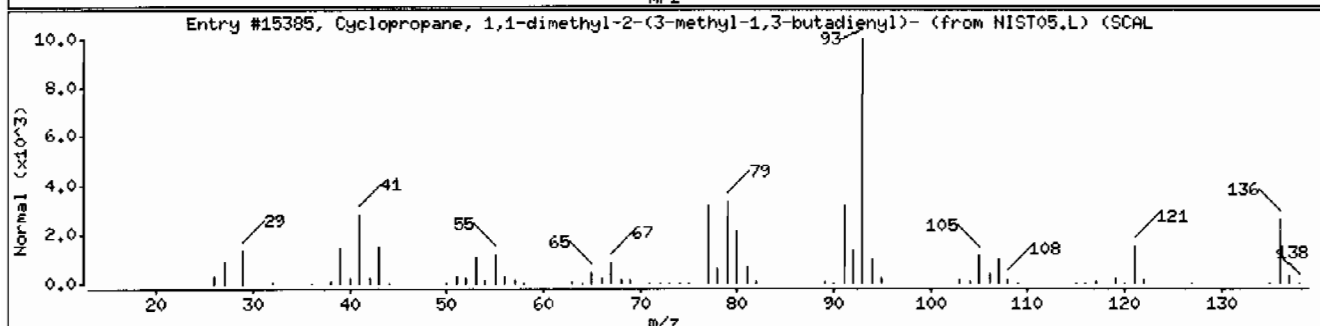
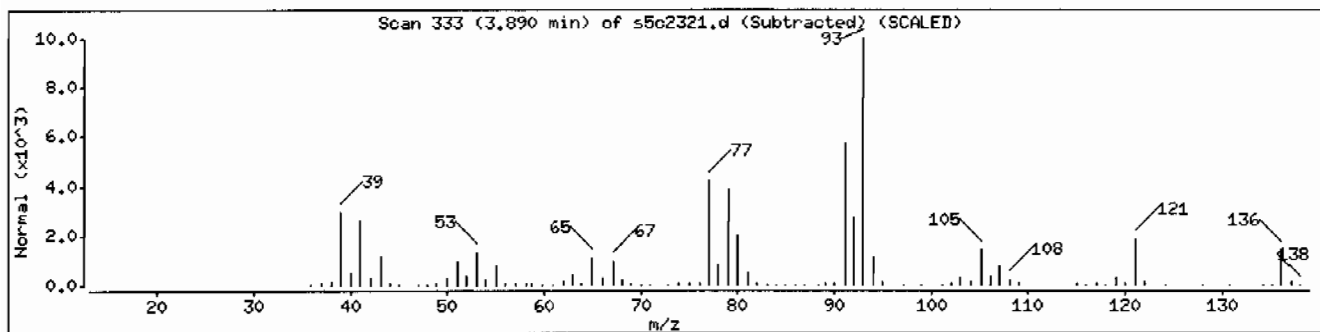
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclopropane, 1,1-dimethyl-2-(3-methyl-1	68998-21-0	NIST05.L	15385	95	C10H16	136
1R-.alpha.-Pinene	7785-70-8	NIST05.L	15186	95	C10H16	136
3-Carene	13466-78-9	NIST05.L	15156	94	C10H16	136



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVH111LANL

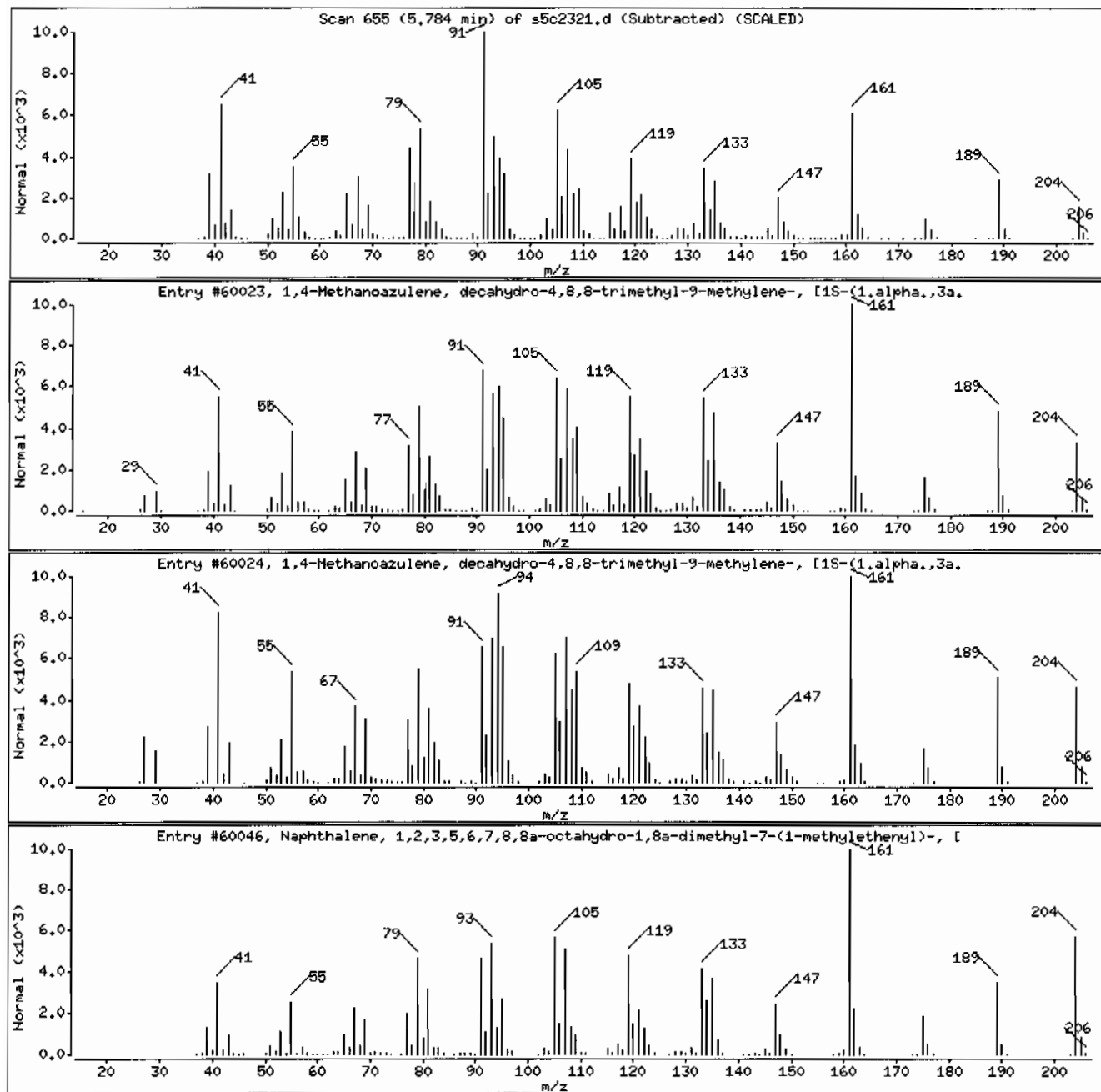
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60023	99	C15H24	204
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60024	97	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60046	93	C15H24	204



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVMI11LANL

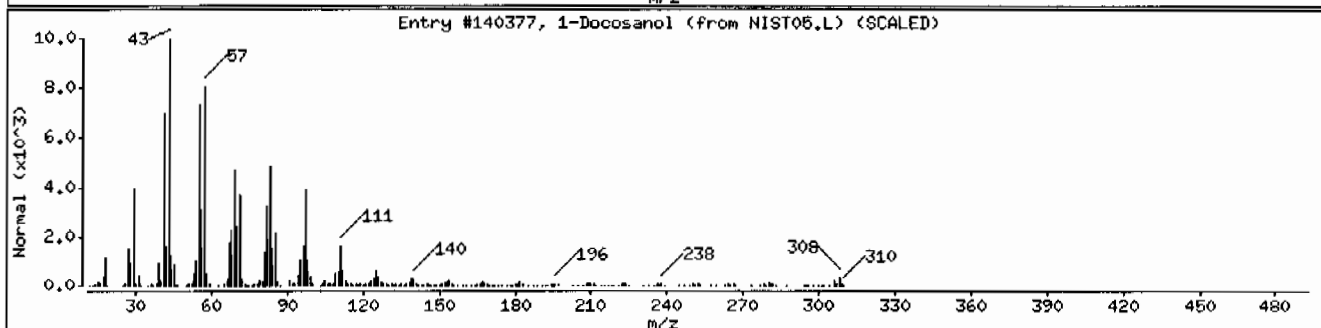
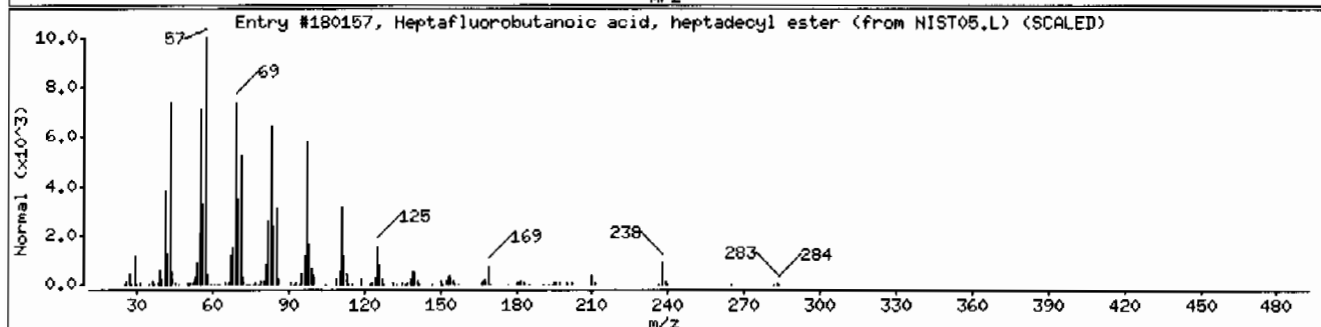
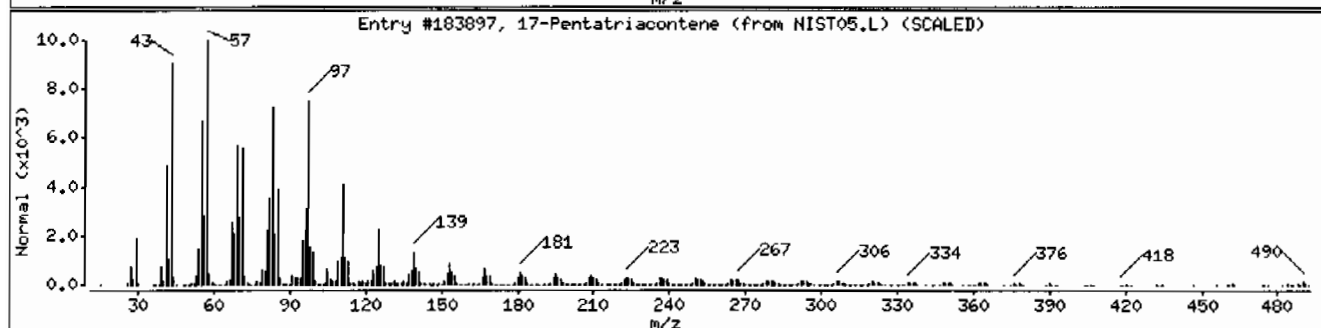
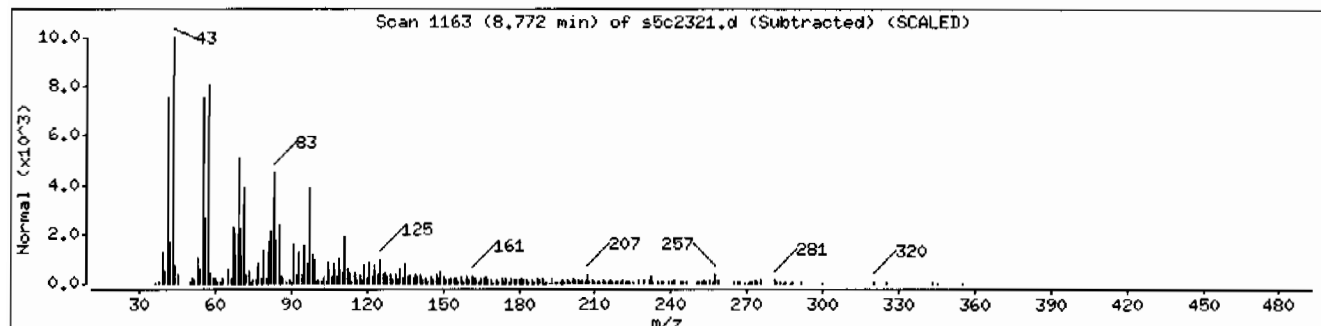
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
17-Pentatriacontene	6971-40-0	NIST05.L	183897	91	C35H70	491
Heptafluorobutanoic acid, heptadecyl est	1000282-97-3	NIST05.L	180157	91	C21H35F7O2	452
1-Docosanol	661-19-8	NIST05.L	140377	90	C22H46O	326





Date: 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: I2485060201963086111SVH111LANL

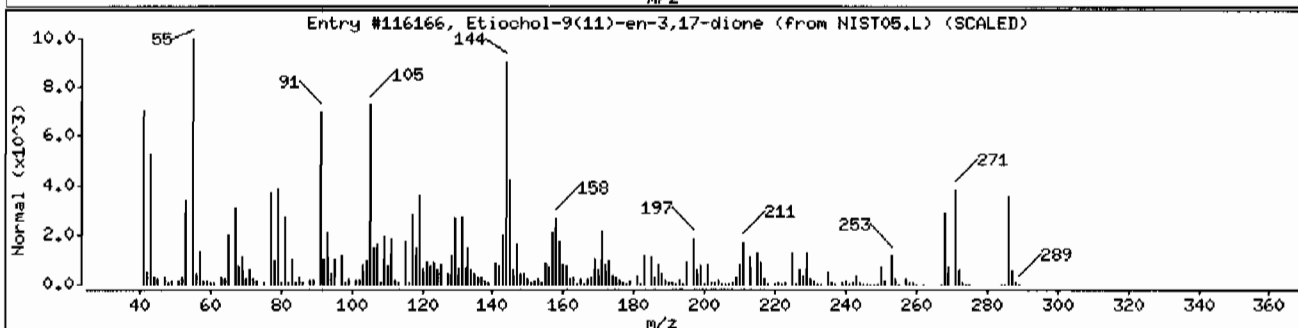
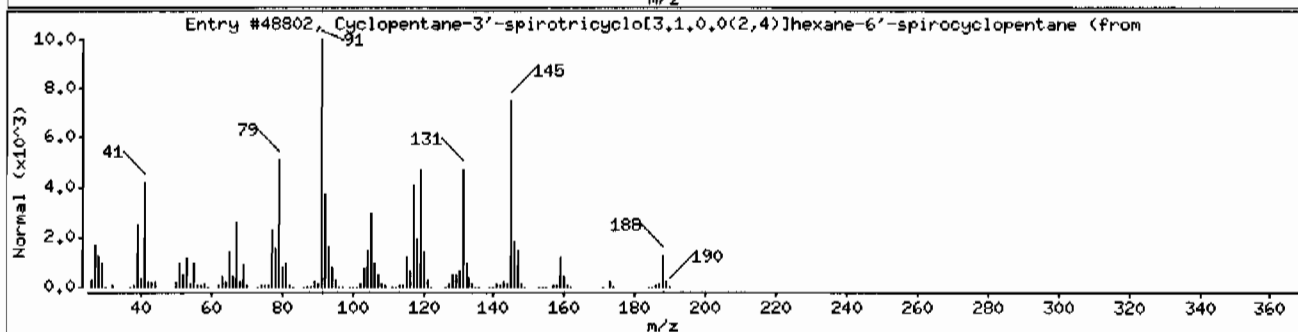
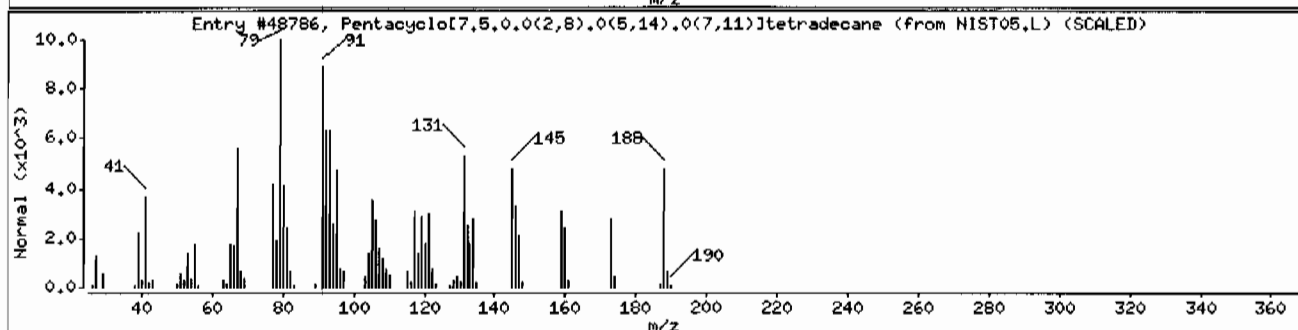
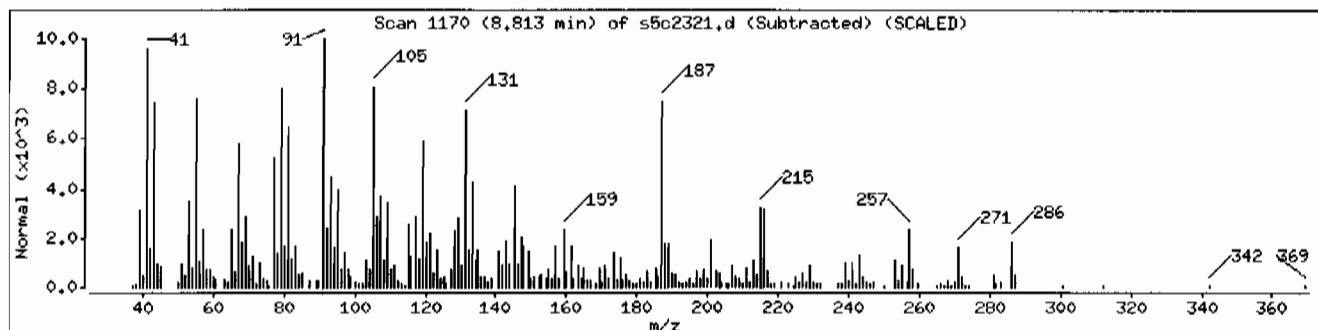
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Pentacyclo[7.5.0.0(2,8).0(5,14).0(7,11)]	79772-15-9	NIST05.L	48786	45	C <sub>14</sub> H <sub>20</sub>	188
Cyclopentane-3'-spirotricyclo[3.1.0.0(2,	78578-93-5	NIST05.L	48802	38	C <sub>14</sub> H <sub>20</sub>	188
Etiocol-9(11)-en-3,17-dione	1000128-32-7	NIST05.L	116166	35	C <sub>19</sub> H <sub>26</sub> O <sub>2</sub>	286



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.1

Sample Info: 1248506020196308611SVH11LANL

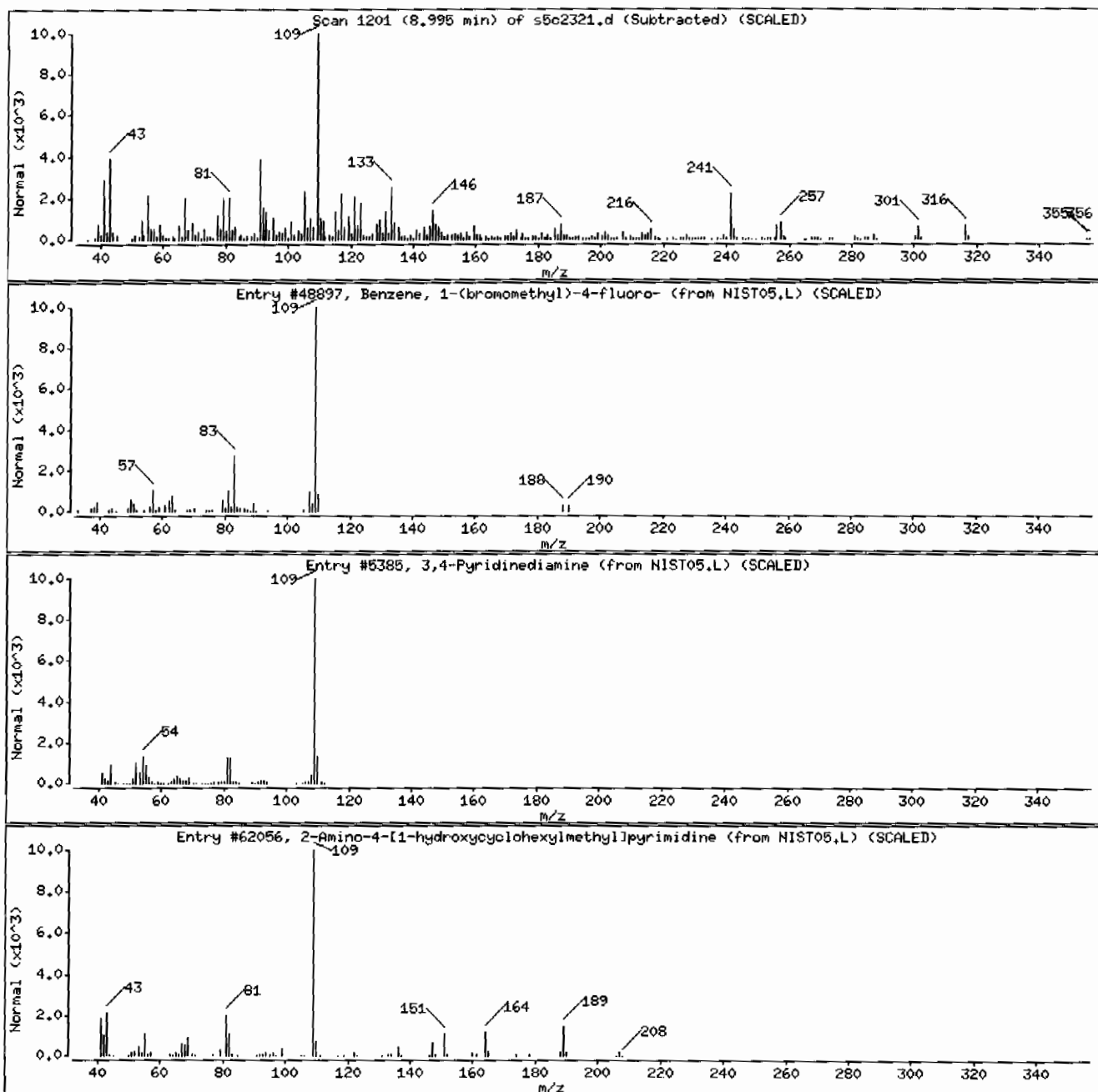
Volume Injected (uL): 0.5

Operator: RMB

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-(bromomethyl)-4-fluoro-	459-46-1	NIST05.L	48897	30	C7H6BrF	188
3,4-Pyridinediamine	54-96-6	NIST05.L	5385	30	C5H7N3	109
2-Amino-4-[1-hydroxycyclohexylmethyl]pyr	50324-60-2	NIST05.L	62056	30	C11H17N3O	207



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: I2485060201963086111SVH111LANL

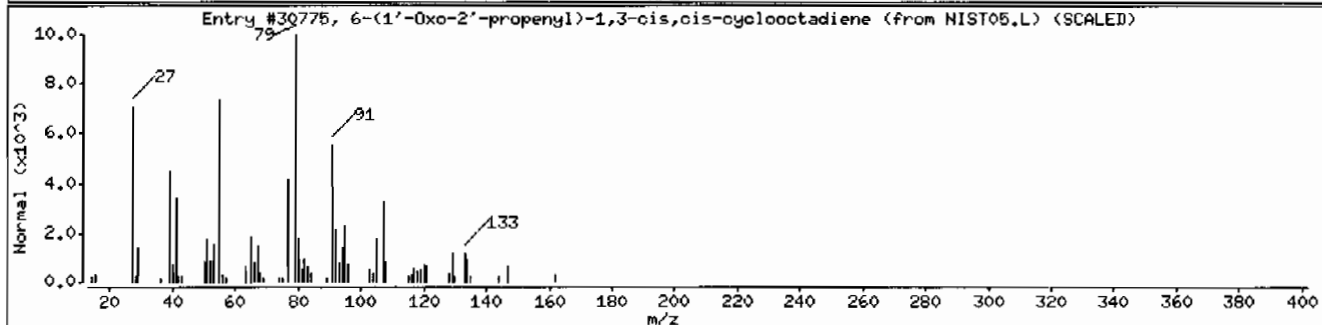
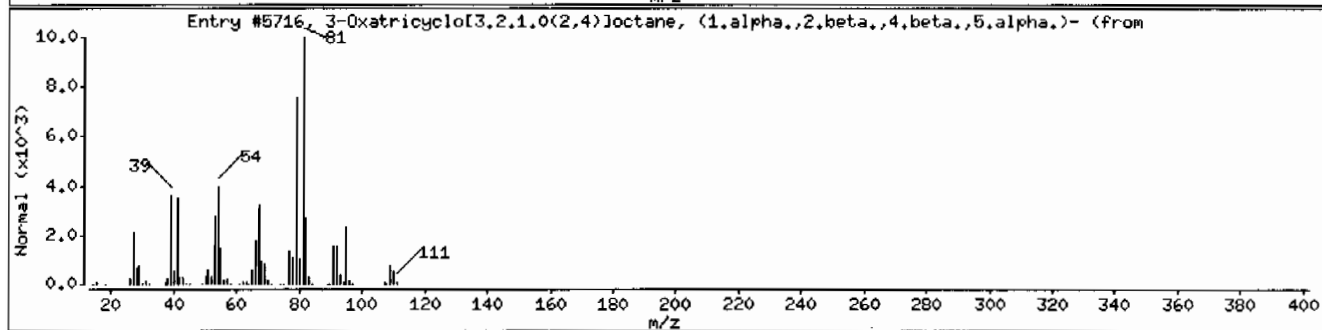
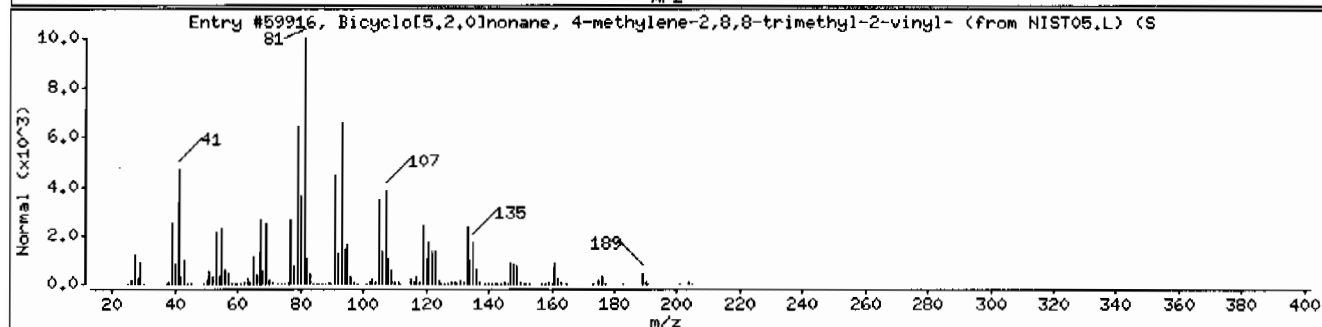
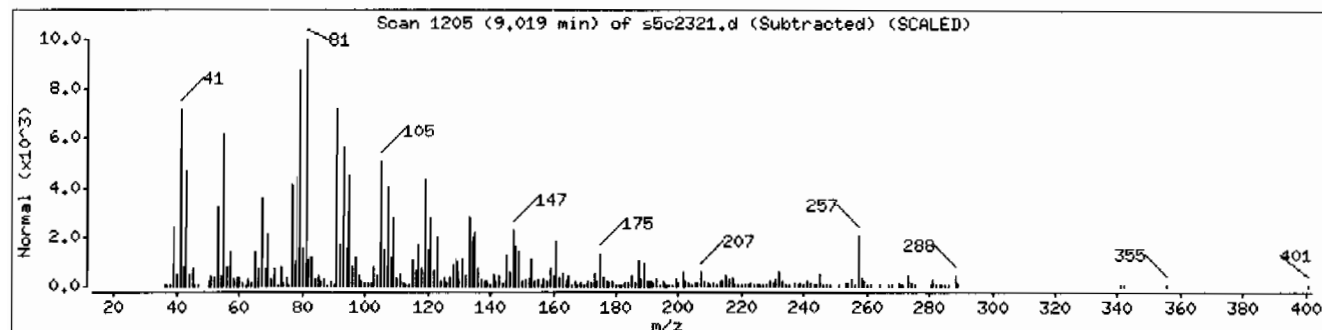
Volume Injected (uL): 0.5

Operator: RHB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Bicyclo[5.2.0]nonane, 4-methylene-2,8,8-	1000159-38-2	NIST05.L	59916	64	C15H24	204
3-Oxatricyclo[3.2.1.0(2,4)]octane, (1.alpha.	3146-39-2	NIST05.L	5716	41	C7H10O	110
6-(1'-Oxo-2'-propenyl)-1,3-cis,cis-cyclo	138146-05-1	NIST05.L	30775	30	C11H14O	162



Date: 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVH111LANL

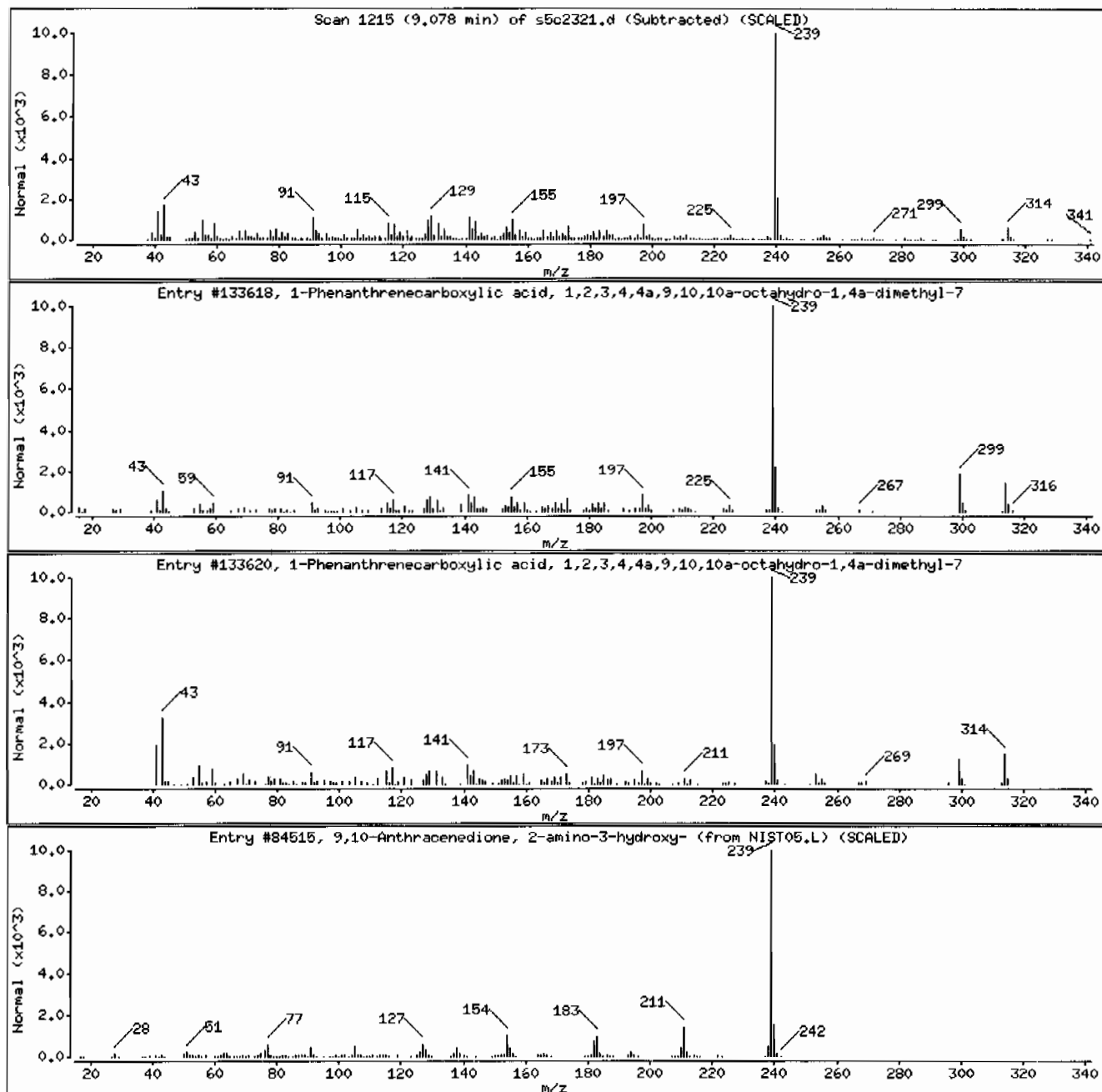
Volume Injected (uL): 0.5

Operator: RMB

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	86	C21H30O2	314
1-Phenanthrenecarboxylic acid, 1,2,3,4,4	1235-74-1	NIST05.L	133620	64	C21H30O2	314
9,10-Anthracenedione, 2-amino-3-hydroxy-	117-77-1	NIST05.L	84515	53	C14H9NO3	239



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 1248506020196308611SVH11ILANL

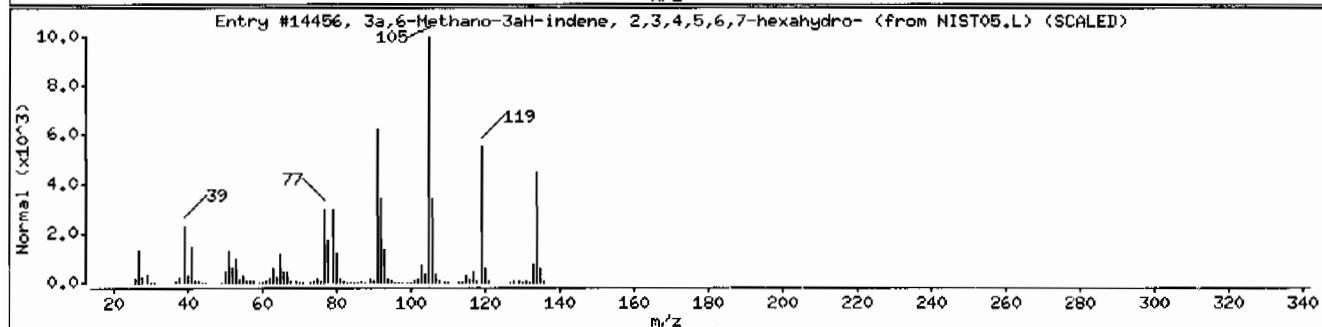
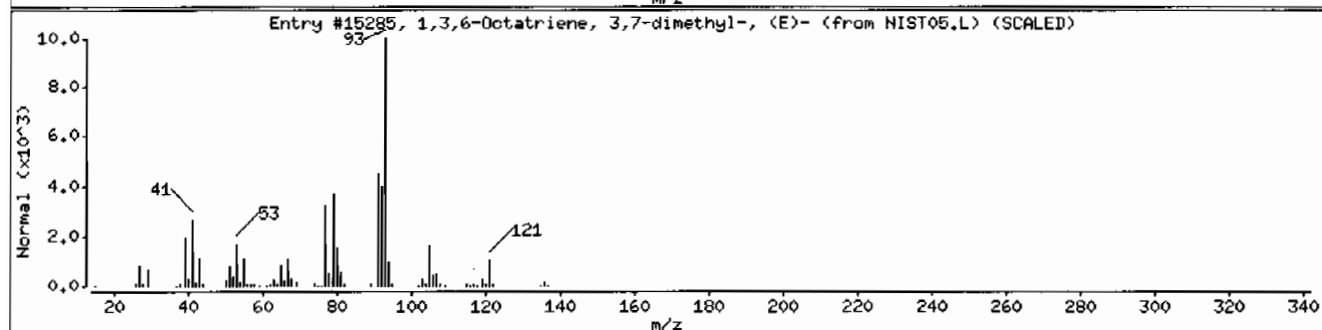
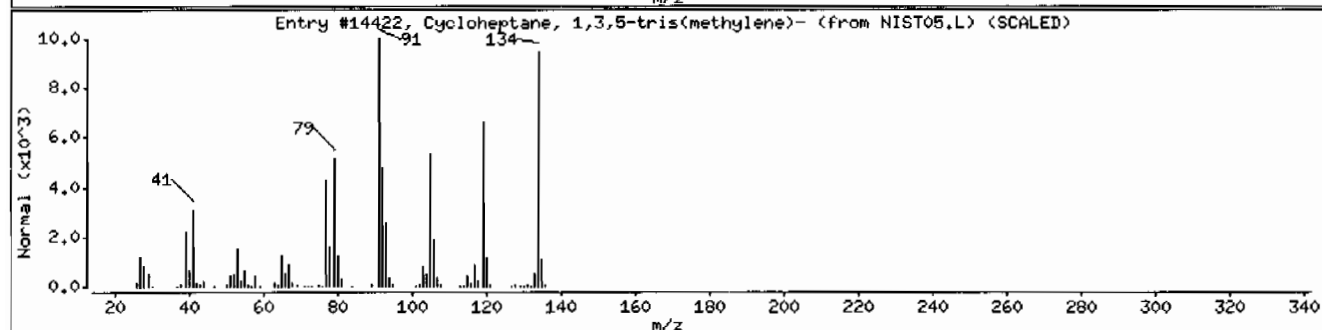
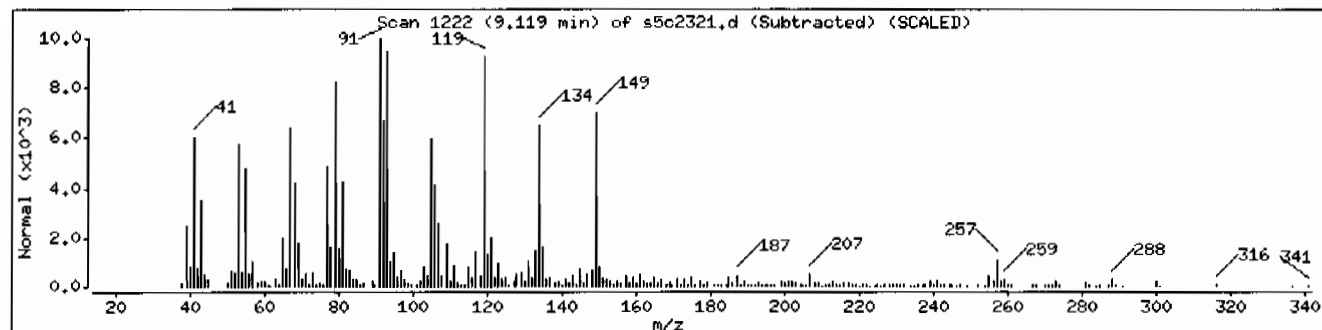
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cycloheptane, 1,3,5-tris(methylene)-	68284-24-2	NIST05.L	14422	45	C10H14	134
1,3,6-Octatriene, 3,7-dimethyl-, (E)-	3779-61-1	NIST05.L	15285	43	C10H16	136
3a,6-Methano-3aH-indene, 2,3,4,5,6,7-hex	98640-10-9	NIST05.L	14456	42	C10H14	134



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: 12485060201963086111SVH111LANL

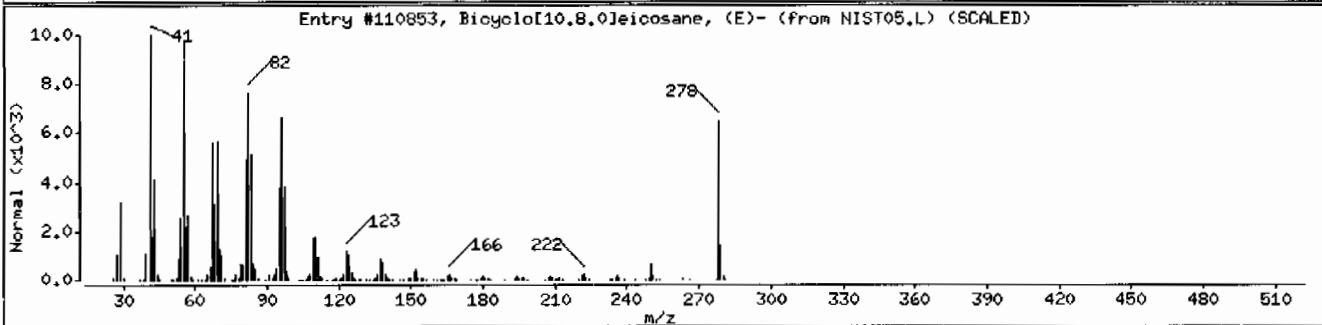
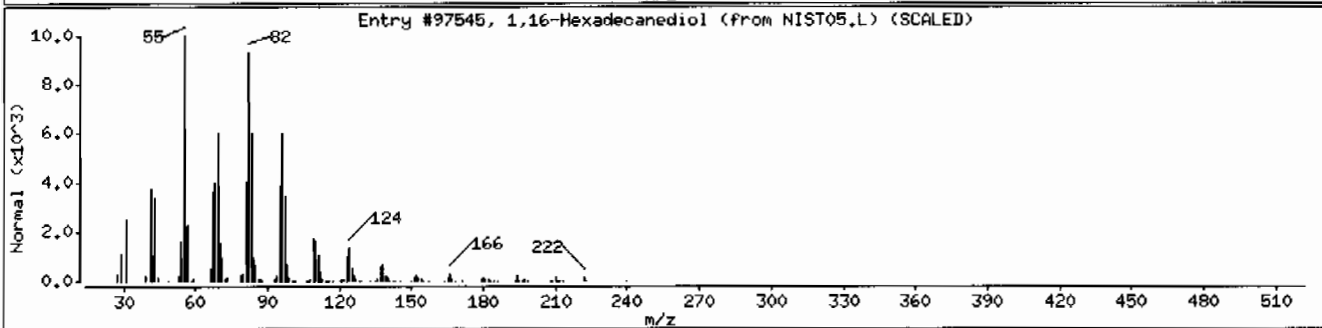
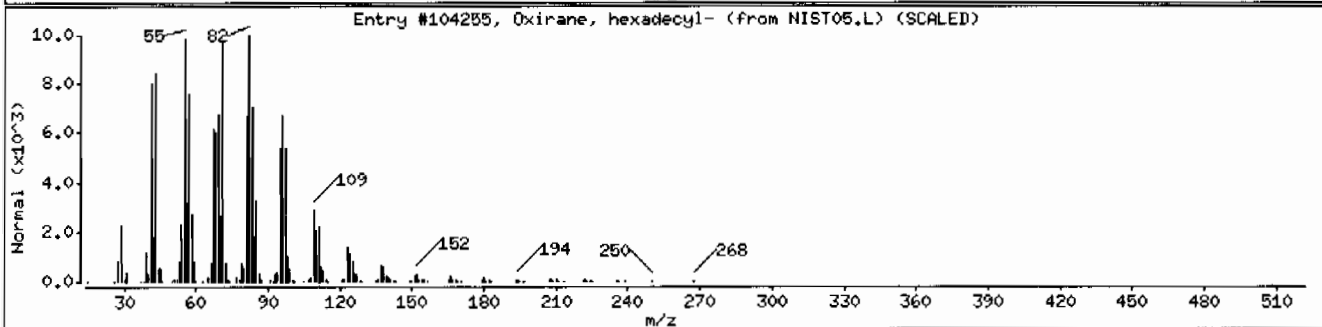
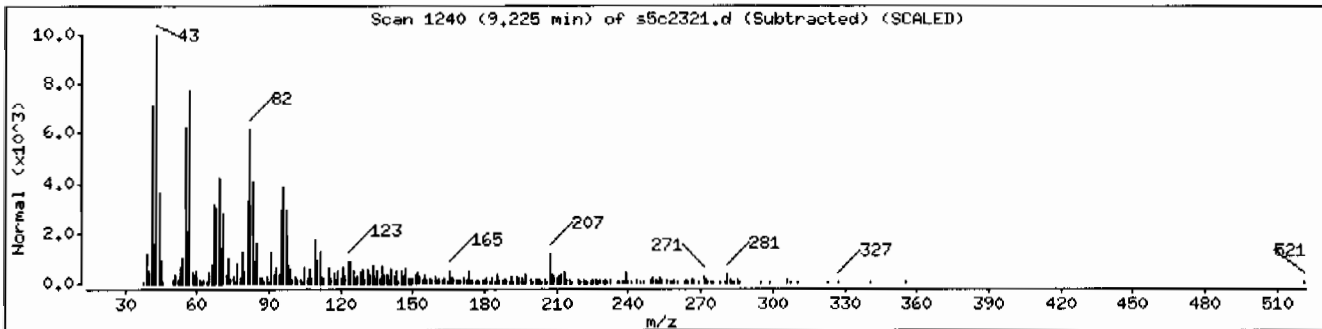
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Oxirane, hexadecyl-	7390-81-0	NIST05.L	104255	81	C18H36O	268
1,16-Hexadecanediol	7735-42-4	NIST05.L	97545	81	C16H34O2	268
Bicyclo[10.8.0]eicosane, (E)-	1000155-85-0	NIST05.L	110853	74	C20H38	278



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: 12485060201963086111SVH111LANL

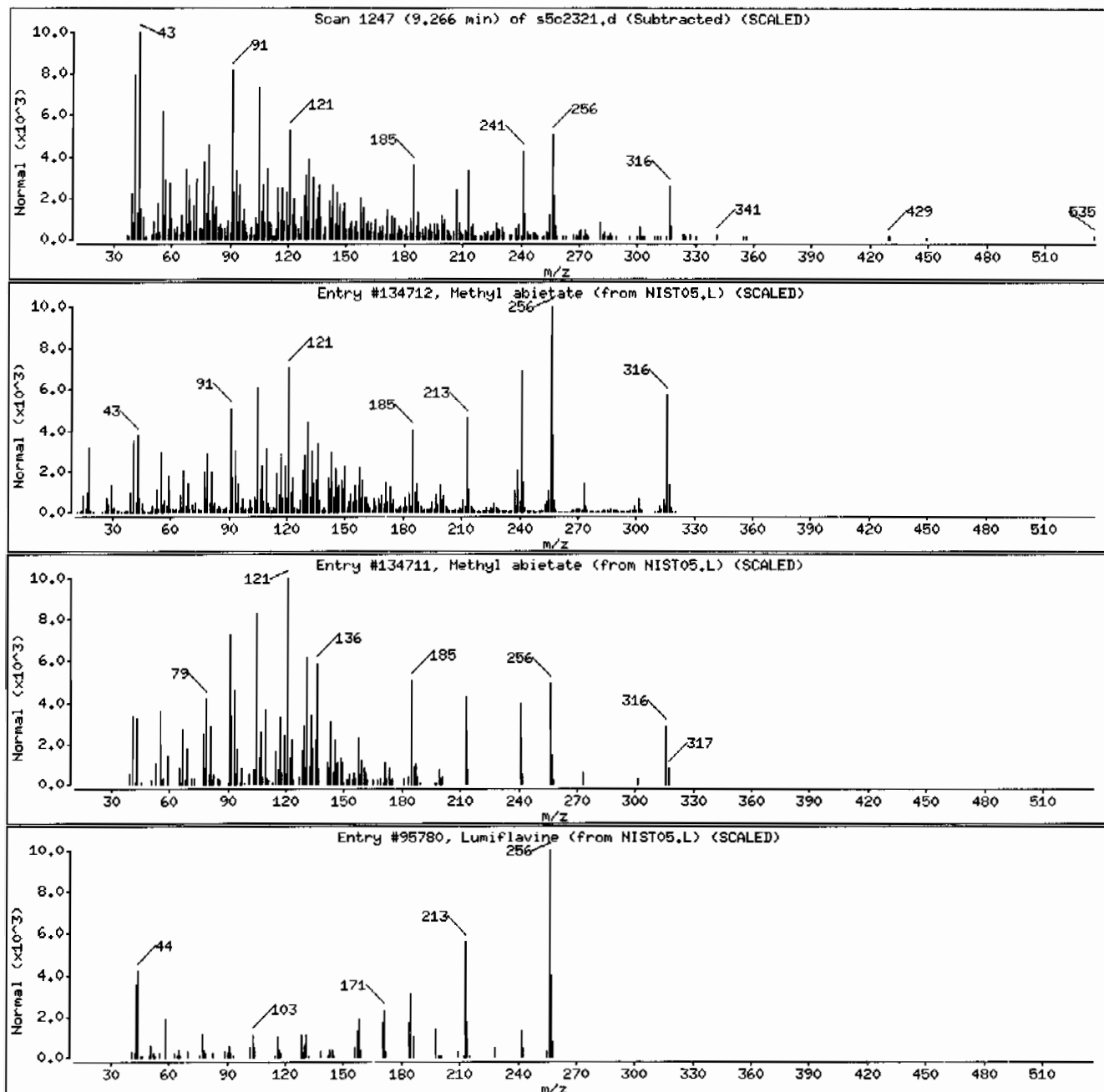
Volume Injected (uL): 0.5

Operator: RHB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Methyl abietate	127-25-3	NIST05.L	134712	68	C21H32O2	316
Methyl abietate	127-25-3	NIST05.L	134711	50	C21H32O2	316
Lumiflavine	1088-56-8	NIST05.L	95780	38	C13H12N4O2	256



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: 1248506020196308611SVH111LANL

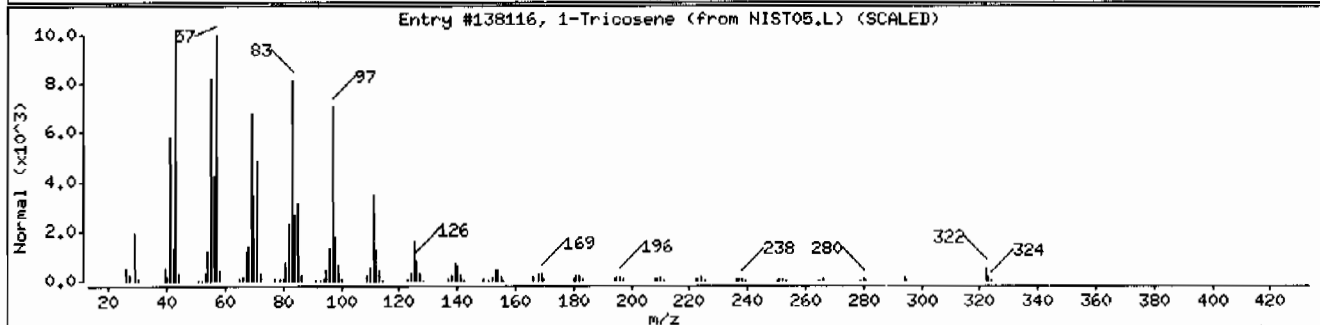
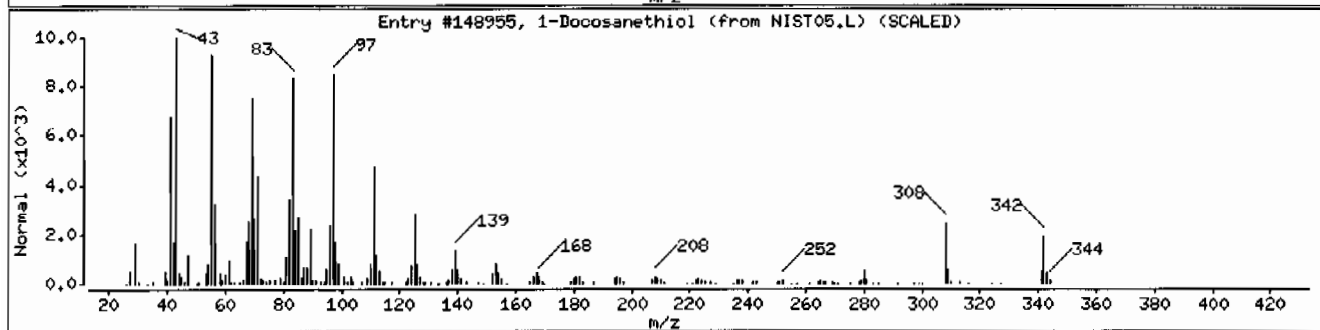
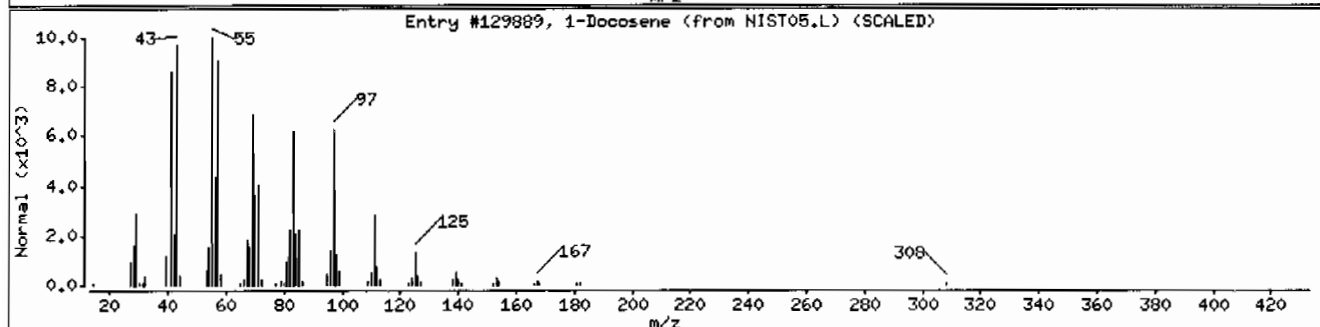
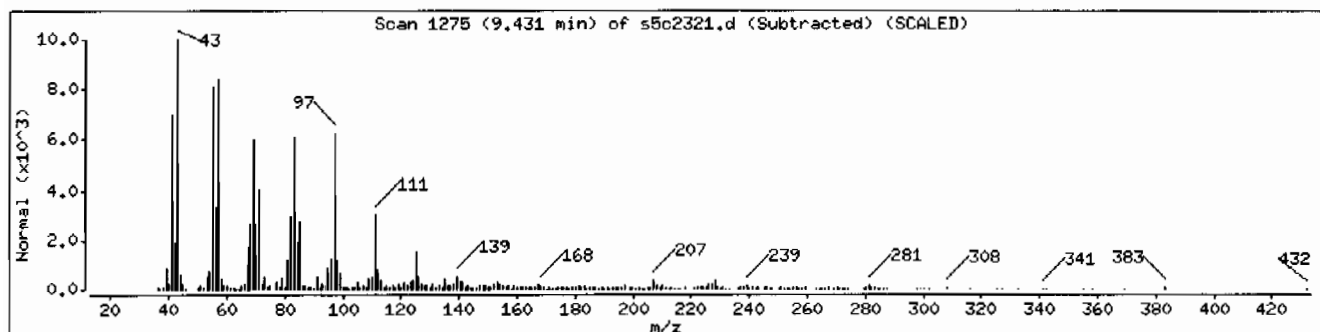
Volume Injected (uL): 0.5

Operator: RMB

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	129889	99	C22H44	308
1-Docosanethiol	7773-83-3	NIST05.L	148955	94	C22H46S	342
1-Tricosene	18835-32-0	NIST05.L	138116	91	C23H46	322





Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: 1248506020196308611SVH11ILANL

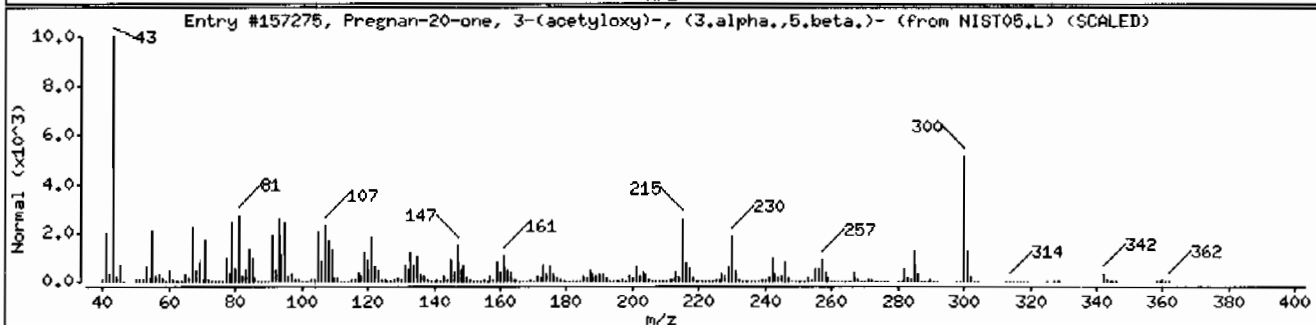
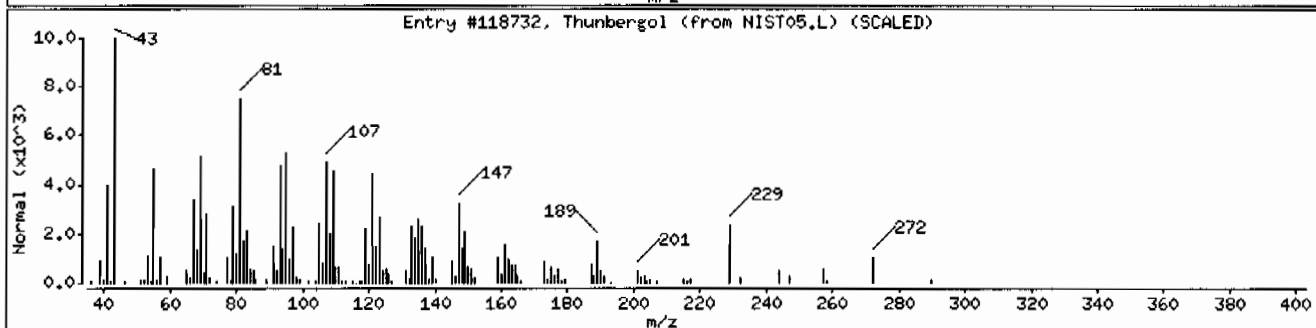
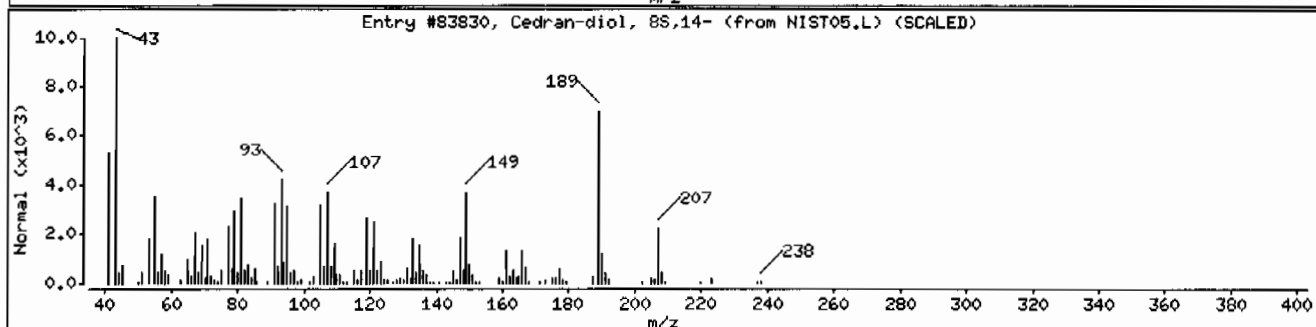
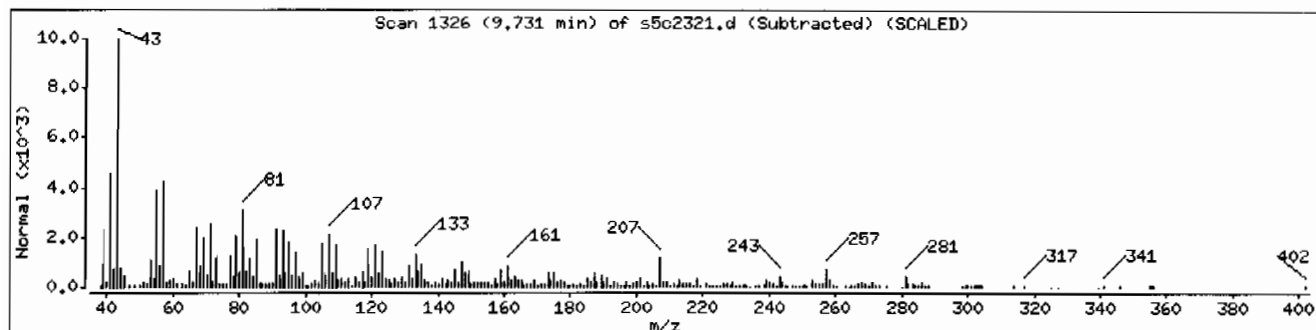
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cedran-diol, 8S,14-	62600-05-9	NIST05.L	83830	89	C15H26O2	238
Thunbergol	25269-17-4	NIST05.L	118732	62	C20H34O	290
Pregnan-20-one, 3-(acetyloxy)-, (3.alpha.	1491-77-6	NIST05.L	157275	59	C23H36O3	360



Date: 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 1248506020196308611SVH111LANL

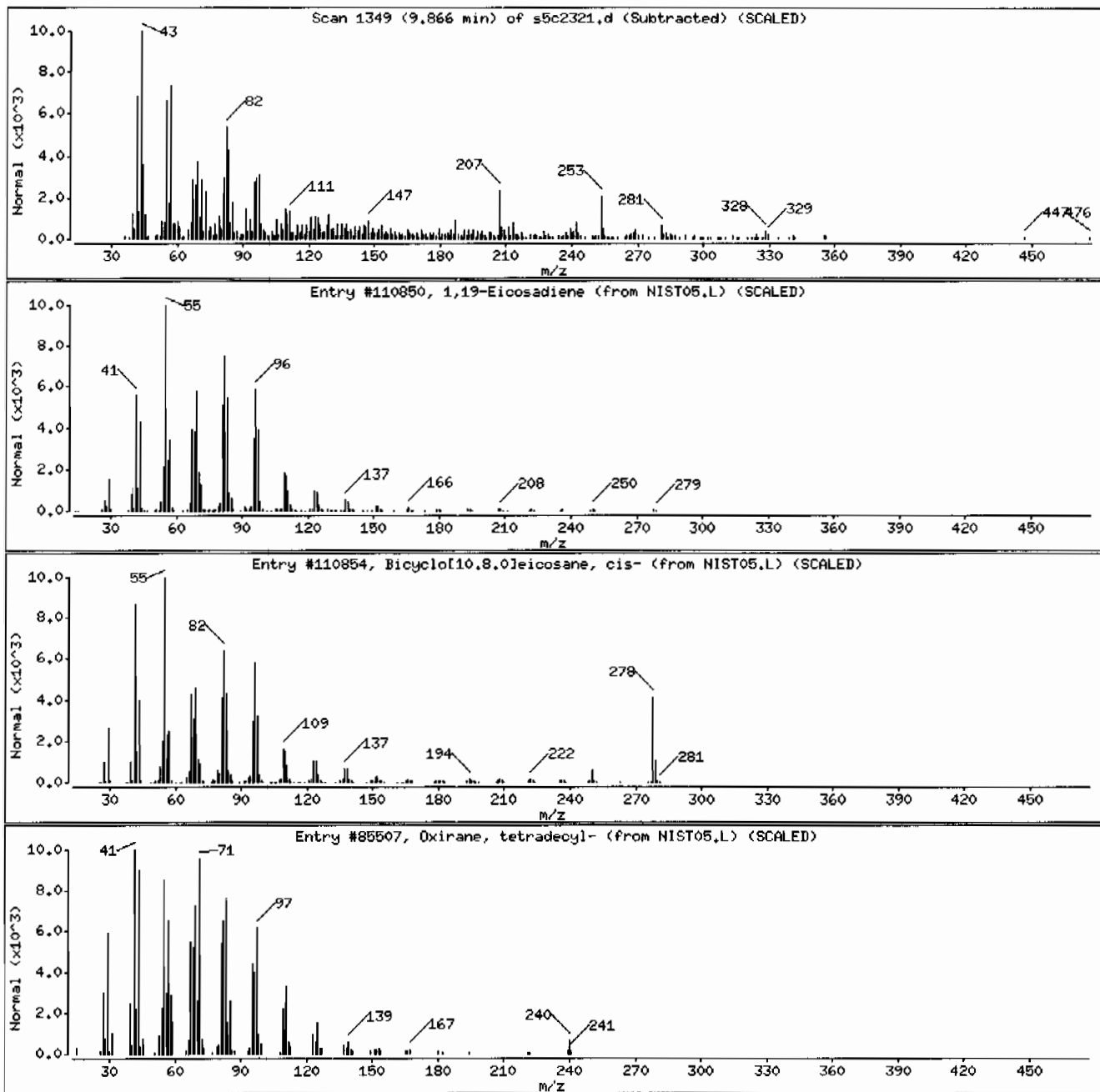
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,19-Eicosadiene	14811-95-1	NIST05.L	110850	70	C20H38	278
Bicyclo[10.8.0]eicosane, cis-	1000155-82-2	NIST05.L	110854	55	C20H38	278
Oxirane, tetradecyl-	7320-37-8	NIST05.L	85507	55	C16H32O	240



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: I2485060201963086111SVH111LANL

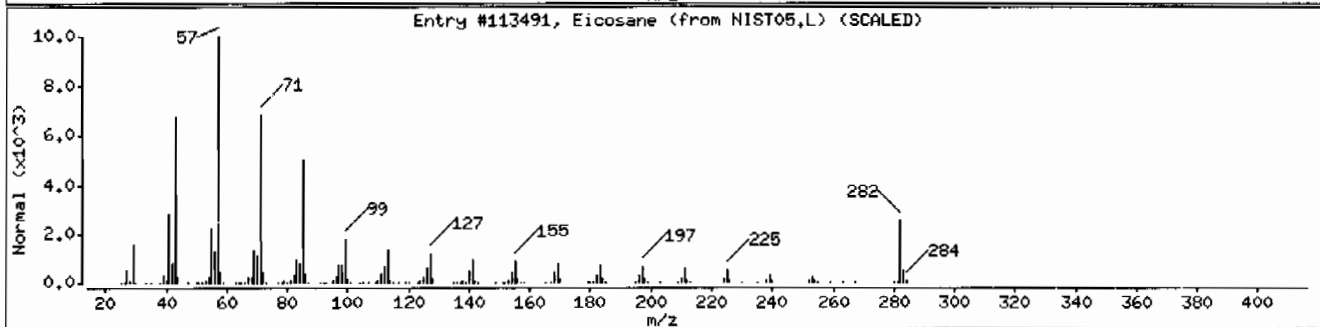
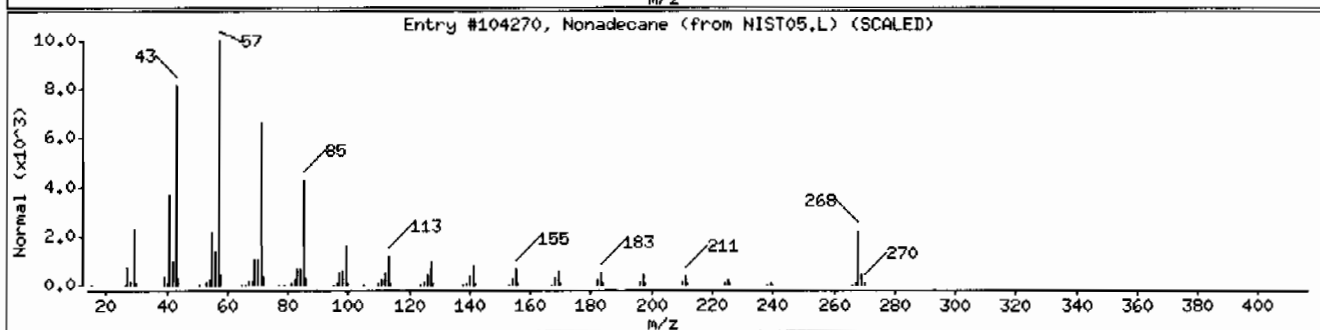
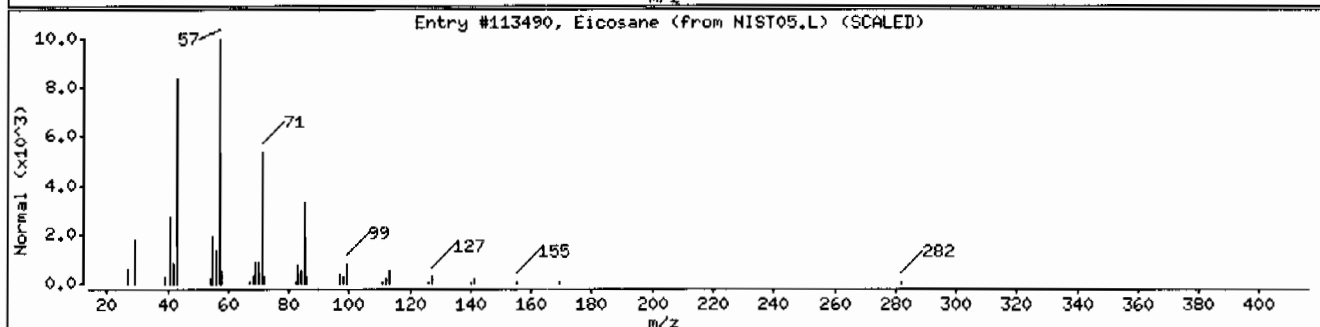
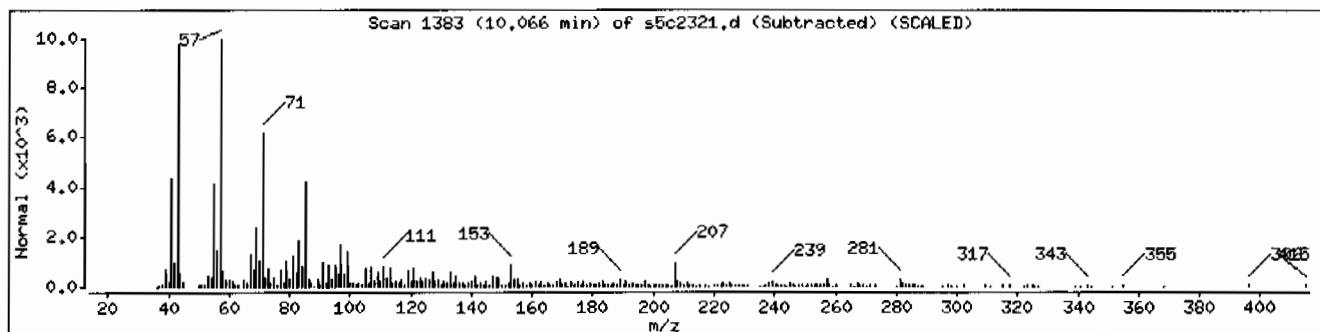
Volume Injected (uL): 0.5

Operator: RMB

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	113490	96	C20H42	282
Nonadecane	629-92-5	NIST05.L	104270	96	C19H40	268
Eicosane	112-95-8	NIST05.L	113491	93	C20H42	282



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVH111LANL

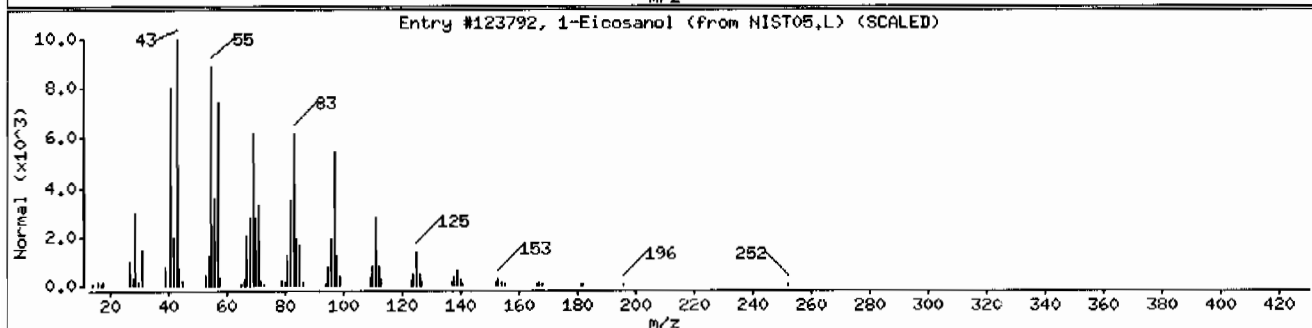
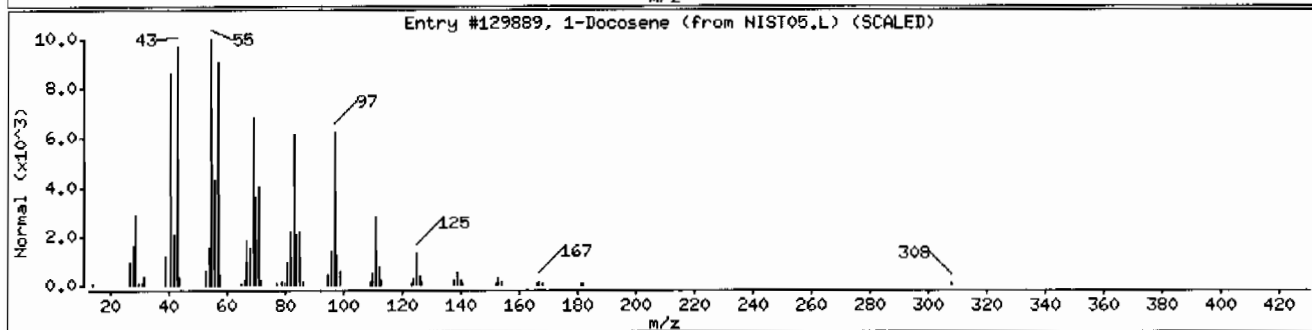
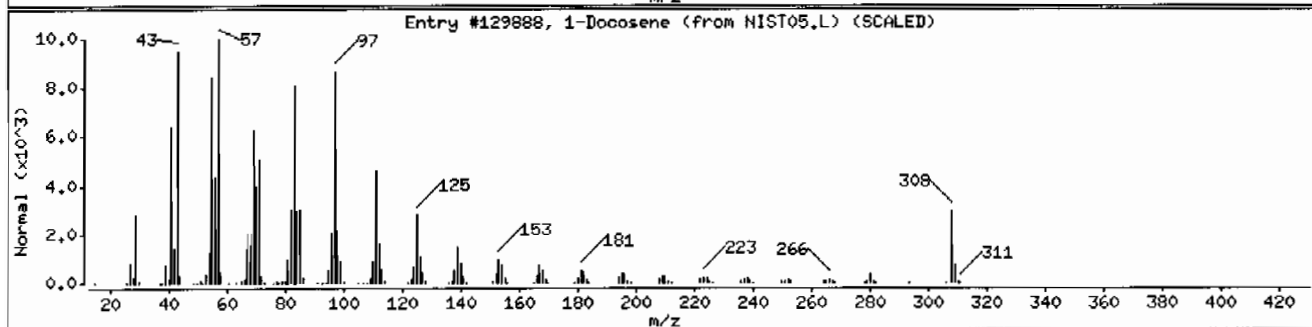
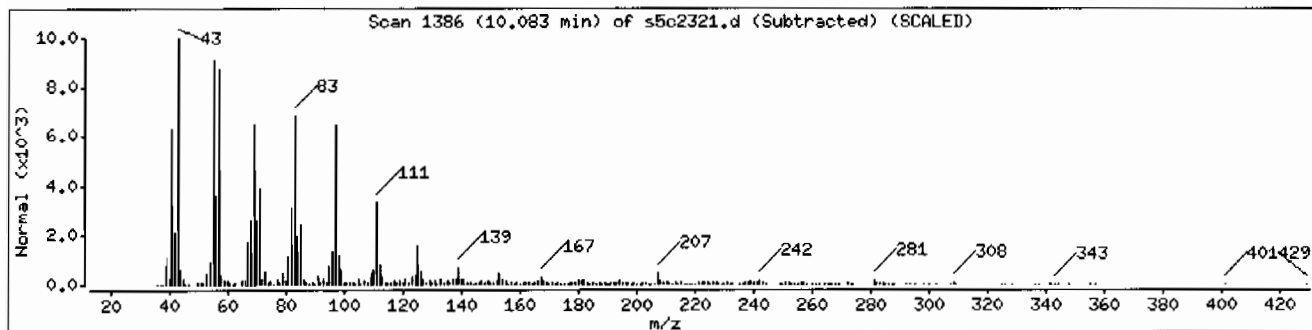
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1-Docosene	1599-67-3	NIST05.L	129888	99	C22H44	308
1-Docosene	1599-67-3	NIST05.L	129889	97	C22H44	308
1-Eicosanol	629-96-9	NIST05.L	123792	93	C20H42O	298



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: I248506020196308611SVH111LANL

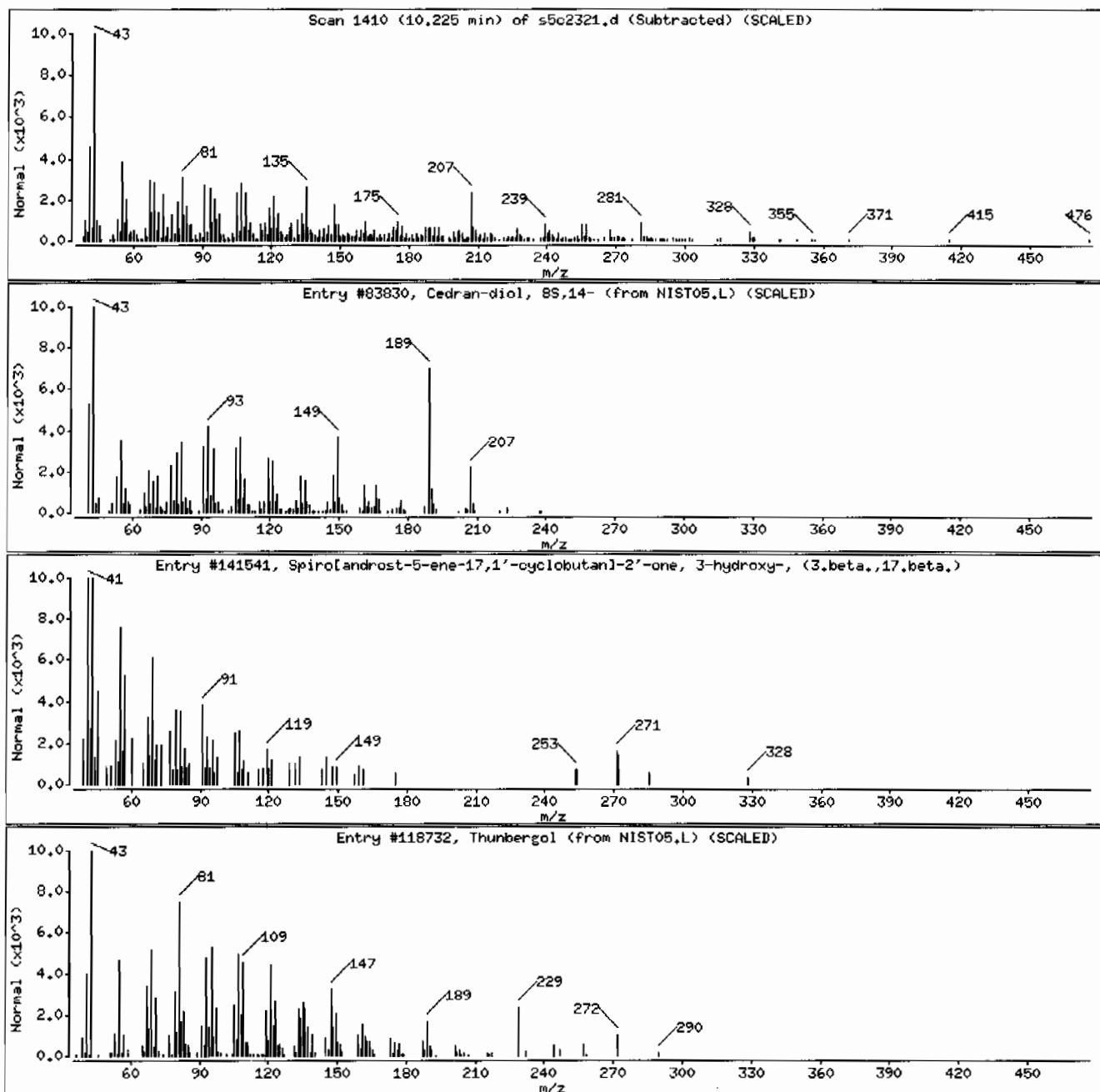
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cedran-diol, 8S,14-	62600-06-9	NIST05.L	83830	45	C15H26O2	238
Spiro[androst-5-ene-17,1'-cyclobutan]-2'	60534-16-9	NIST05.L	141541	42	C22H32O2	328
Thunbergol	25269-17-4	NIST05.L	118732	30	C20H34O	290



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: 12485060201963086111SVH111LANL

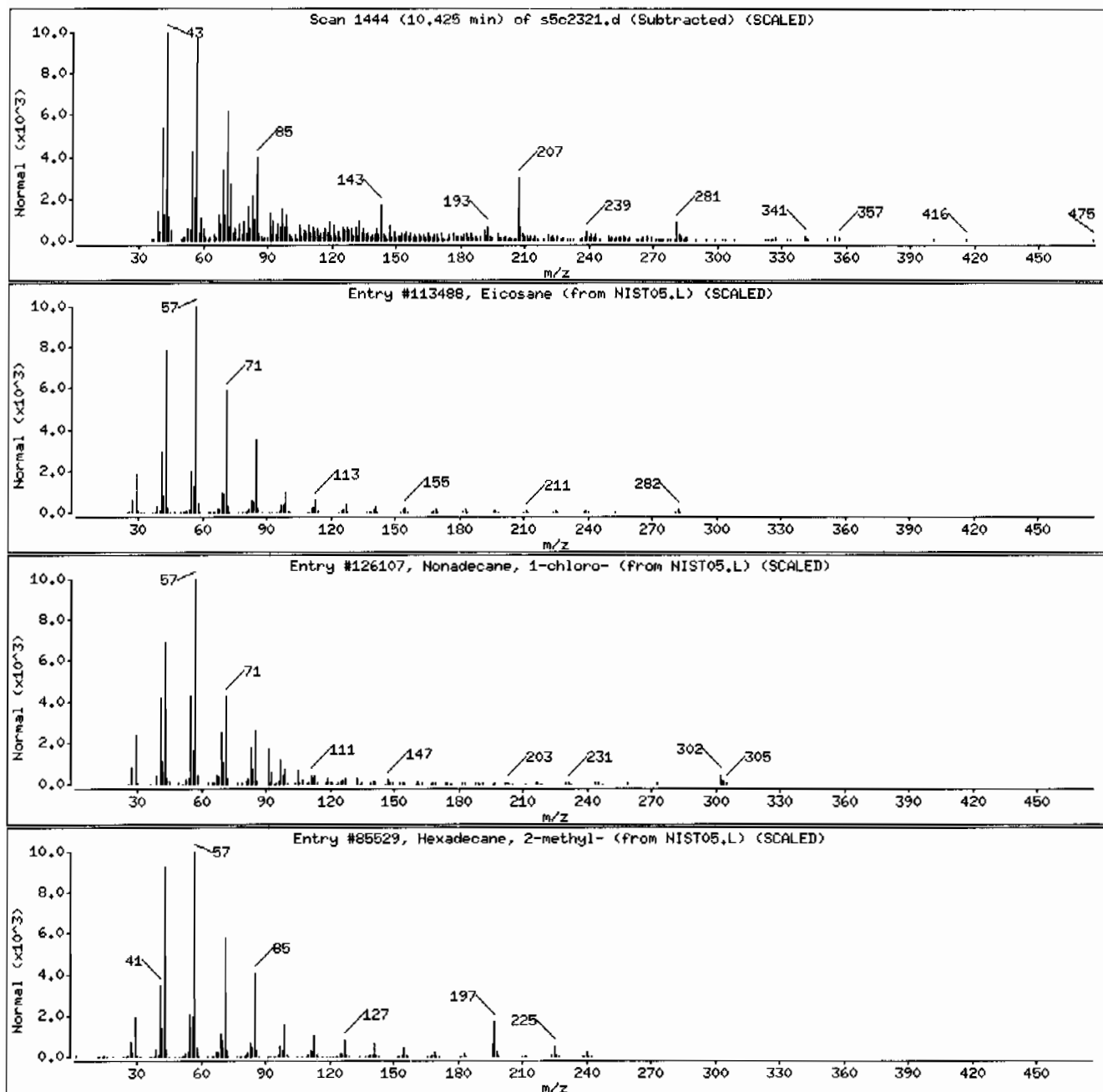
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Eicosane	112-95-8	NIST05.L	113488	87	C20H42	282
Nonadecane, 1-chloro-	62016-76-6	NIST05.L	126107	87	C19H39Cl	302
Hexadecane, 2-methyl-	1560-92-5	NIST05.L	85529	70	C17H36	240



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVMI11LANL

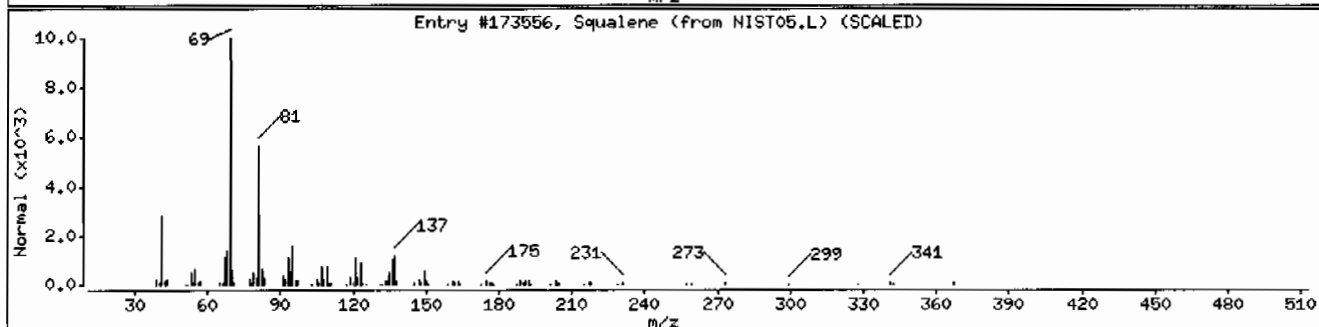
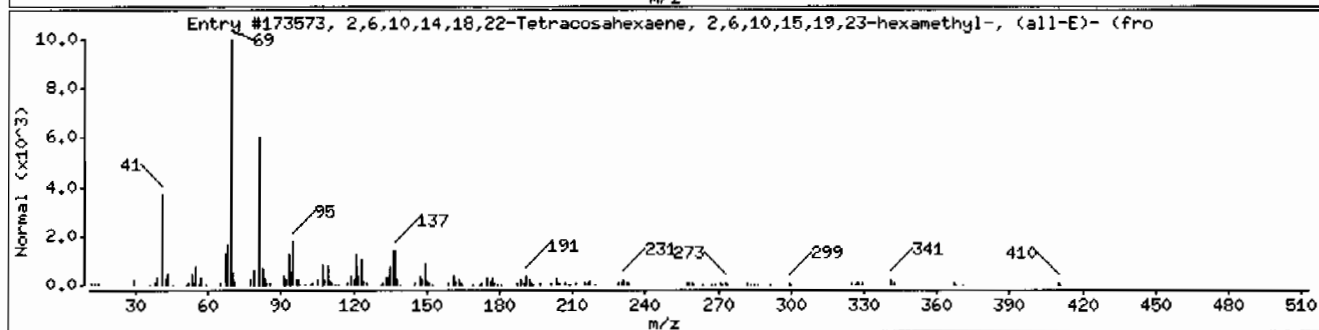
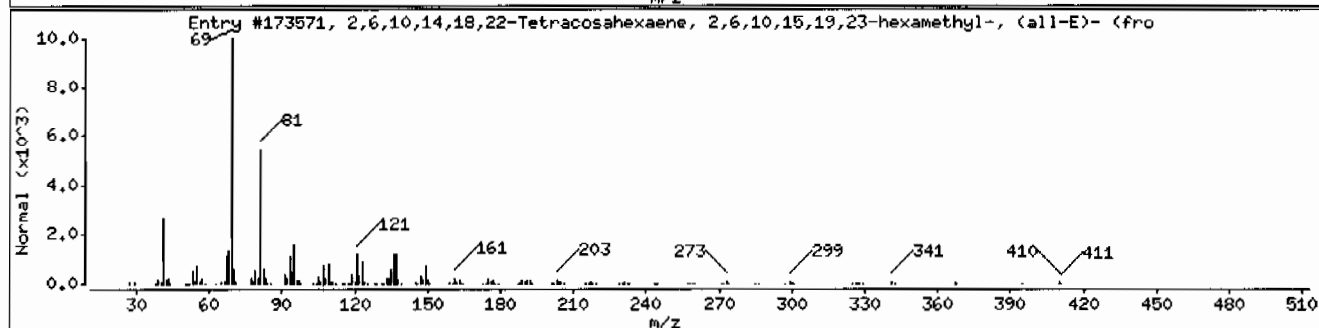
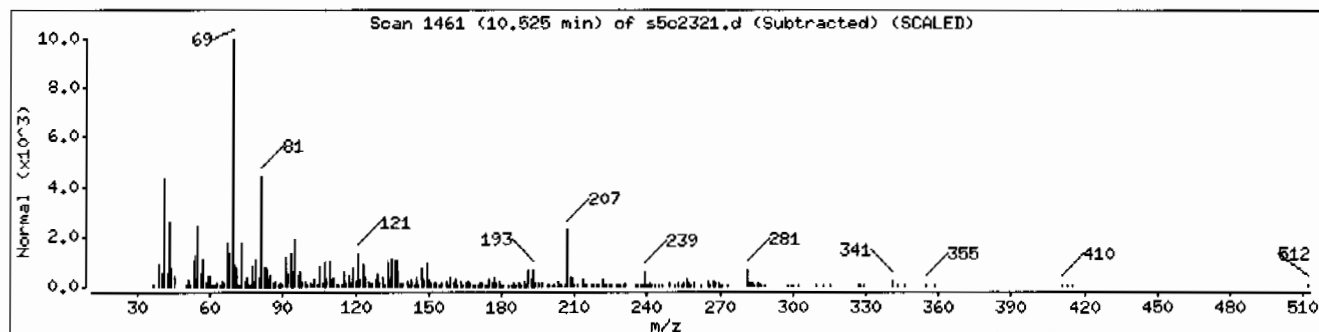
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2,6,10,14,18,22-Tetracosahexaene, 2,6,10	111-02-4	NIST05.L	173571	98	C30H50	410
2,6,10,14,18,22-Tetracosahexaene, 2,6,10	111-02-4	NIST05.L	173573	98	C30H50	410
Squalene	7683-64-9	NIST05.L	173556	68	C30H50	410



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 1248506020196308611SVH11LANL

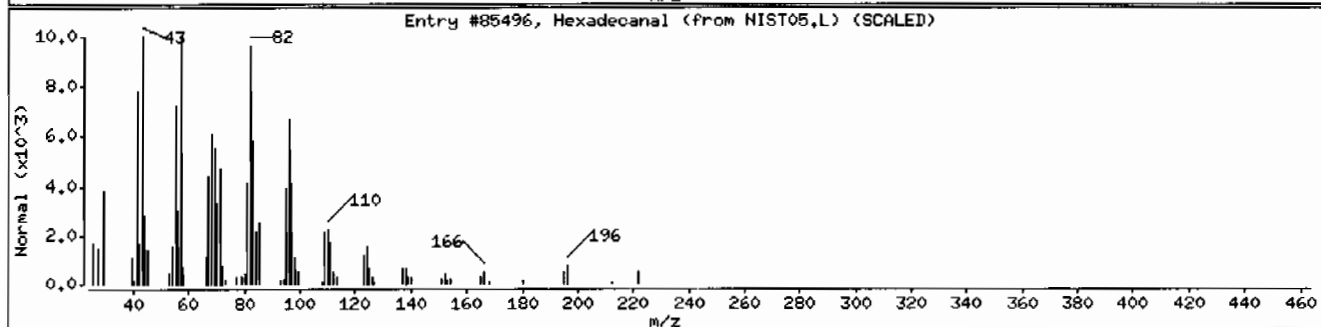
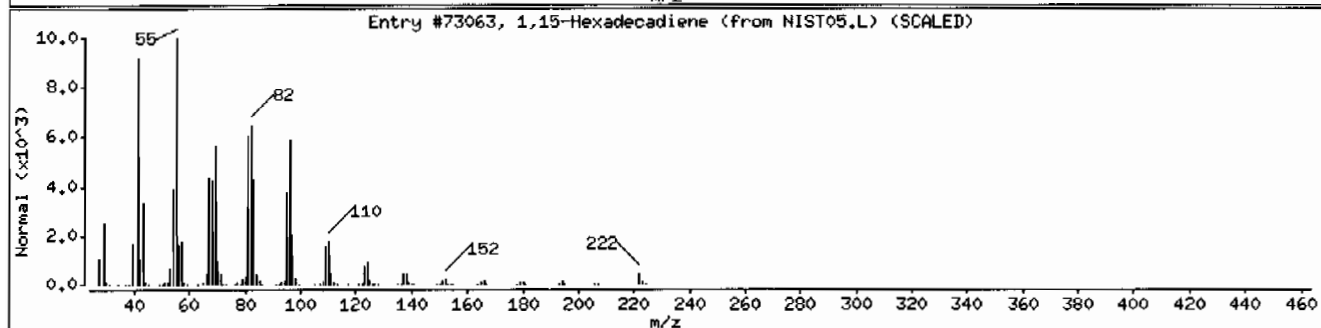
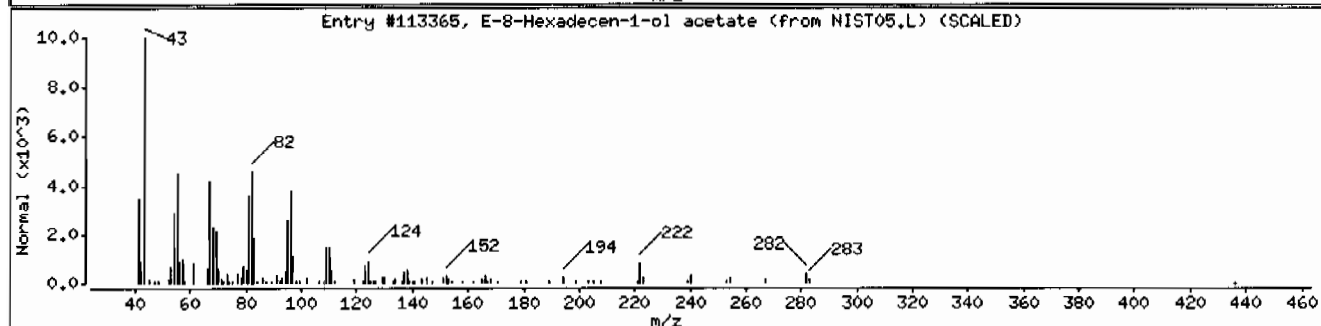
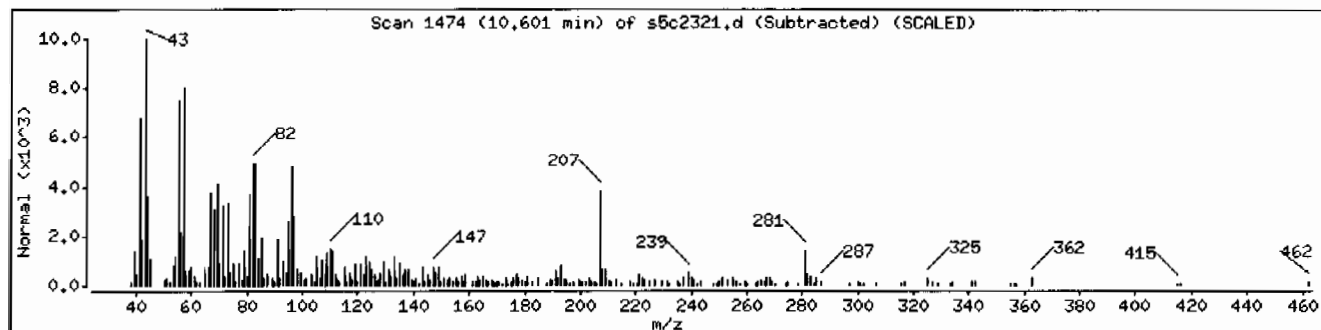
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
E-8-Hexadecen-1-ol acetate	1000131-01-1	NIST05.L	113365	83	C18H34O2	282
1,15-Hexadecadiene	21964-81-2	NIST05.L	73063	64	C16H30	222
Hexadecanal	629-80-1	NIST05.L	85496	60	C16H32O	240





Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVMI11LANL

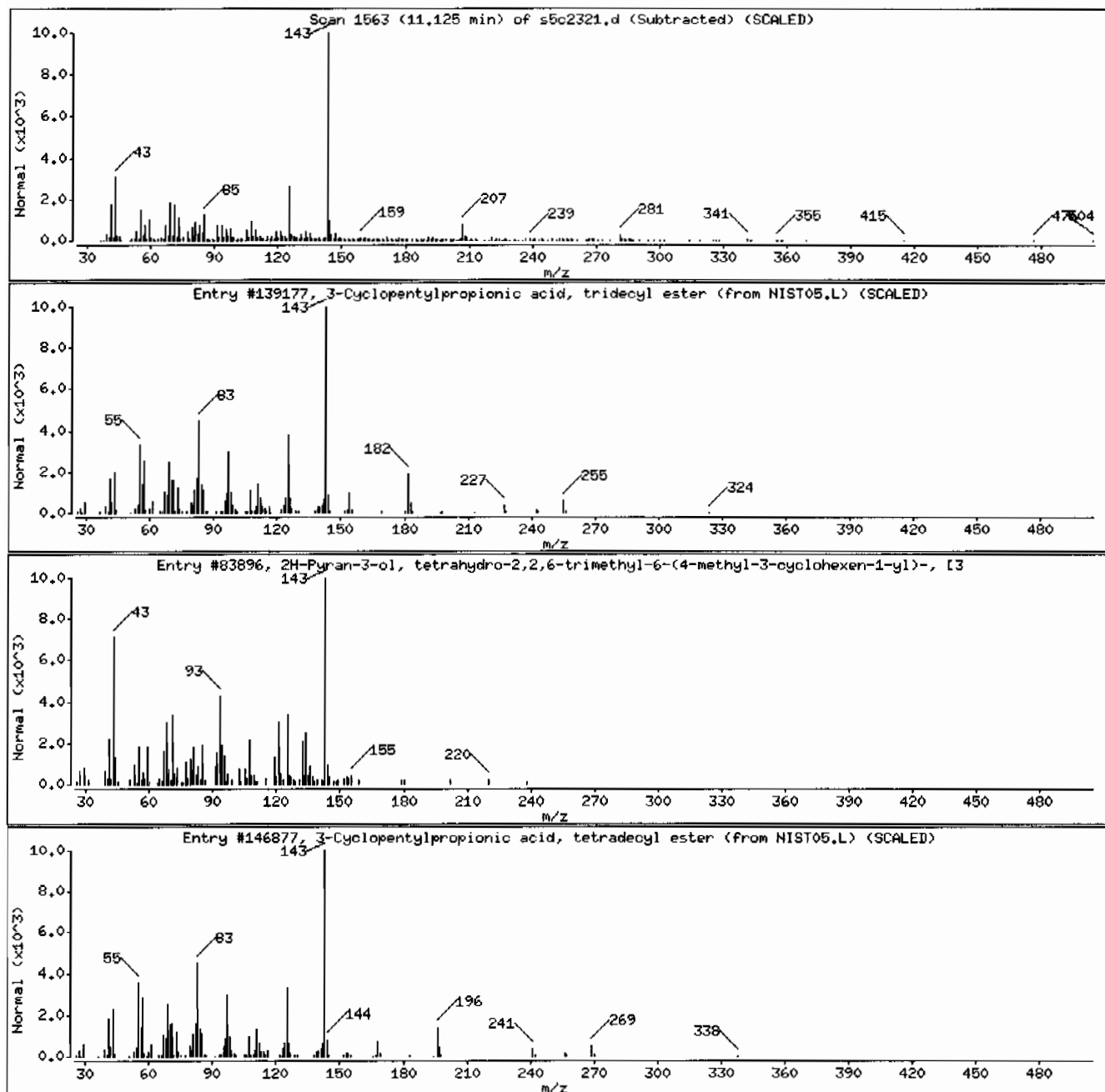
Volume Injected (uL): 0.5

Operator: RHB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
3-Cyclopentylpropionic acid, tridecyl es	1000292-33-7	NIST05.L	139177	56	C21H40O2	324
2H-Pyran-3-ol, tetrahydro-2,2,6-trimethy	22567-36-8	NIST05.L	83896	56	C15H26O2	238
3-Cyclopentylpropionic acid, tetradecyl	1000292-33-8	NIST05.L	146877	56	C22H42O2	338



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: I248506020196308611SVH11LANL

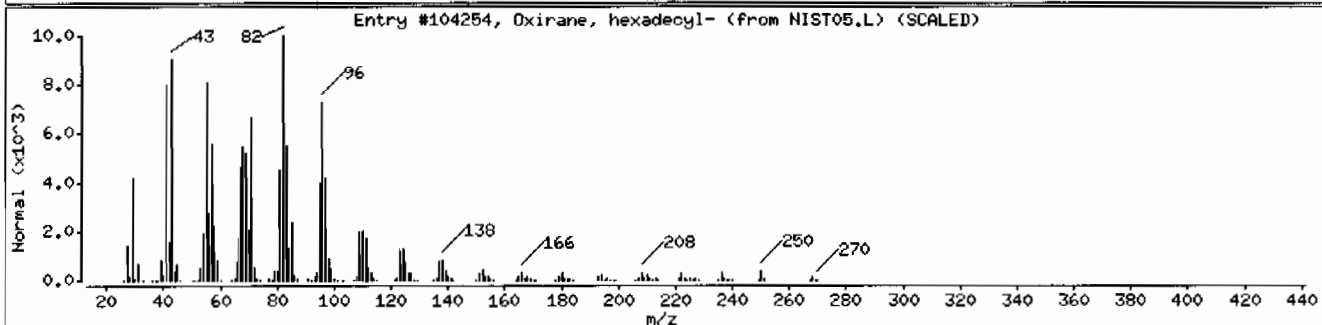
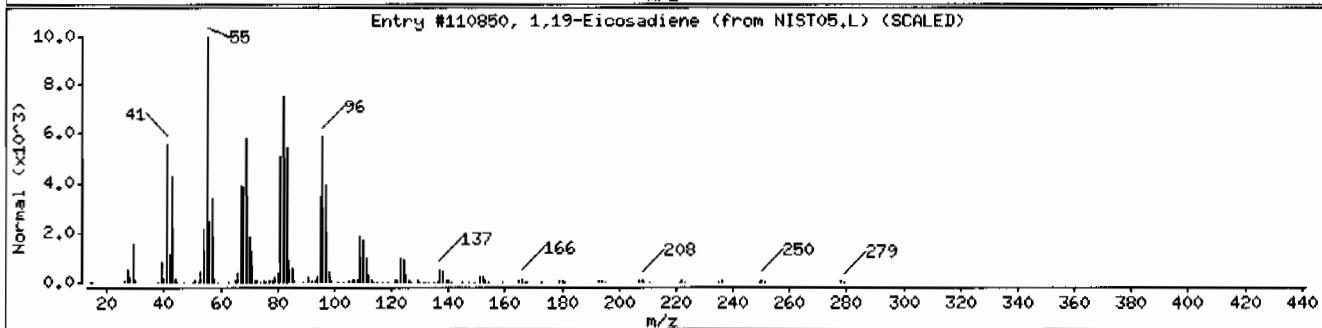
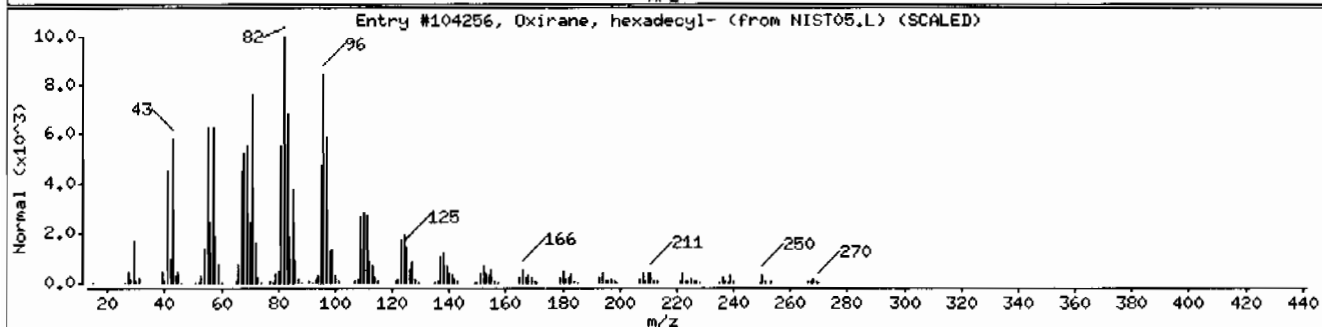
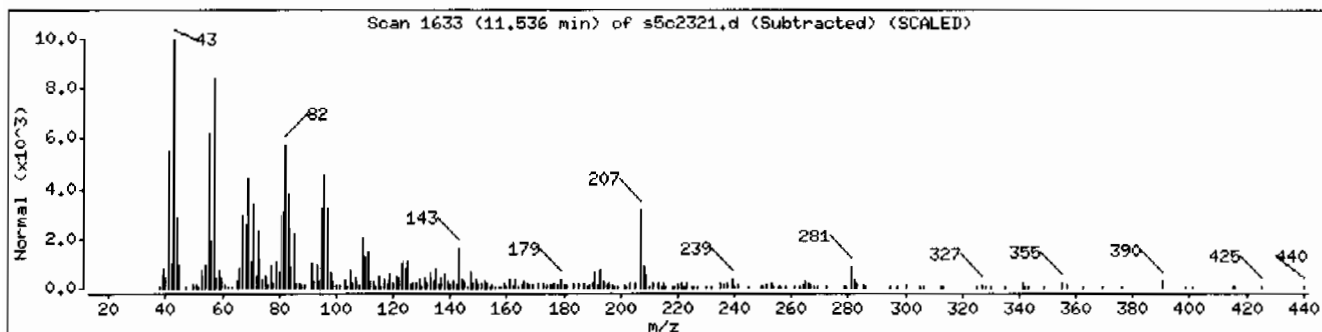
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Oxirane, hexadecyl-	7390-81-0	NIST05.L	104256	94	C18H36O	268
1,19-Eicosadiene	14811-95-1	NIST05.L	110850	93	C20H38	278
Oxirane, hexadecyl-	7390-81-0	NIST05.L	104254	93	C18H36O	268



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: 1248506020196308611SVH111LANL

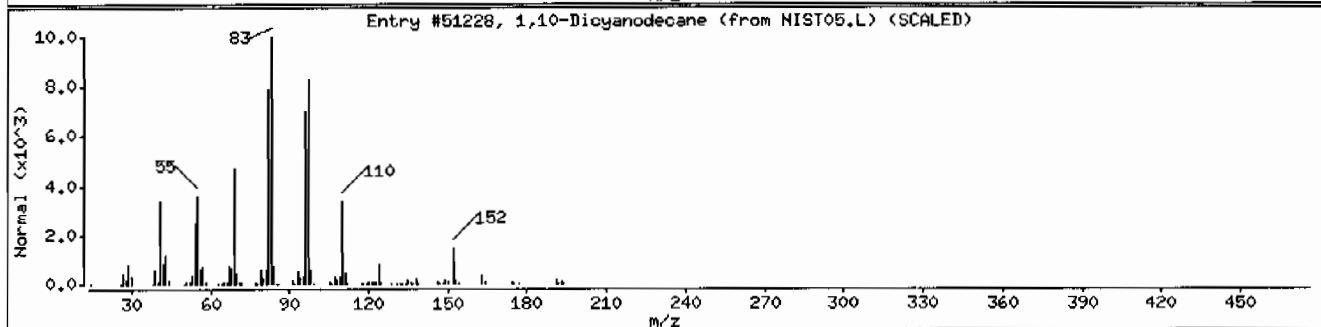
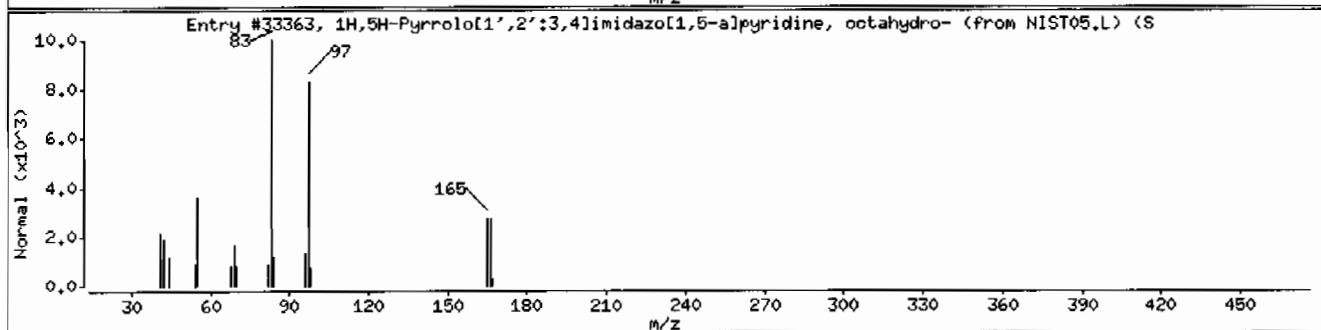
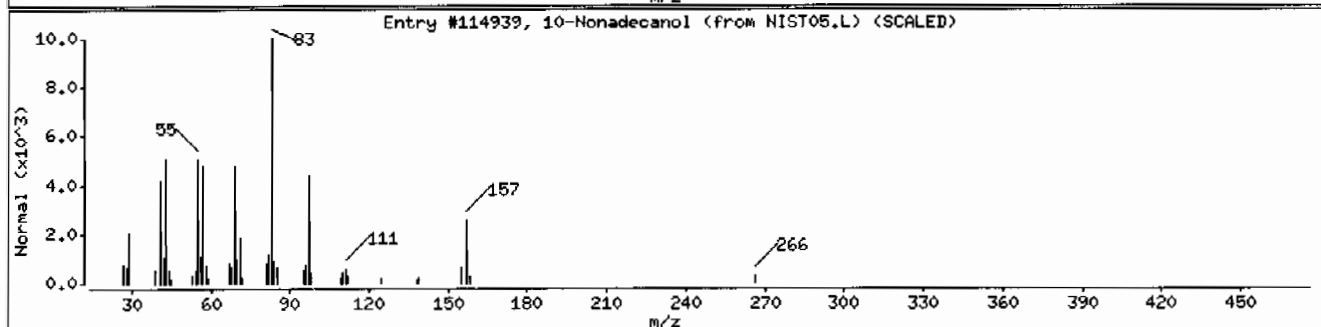
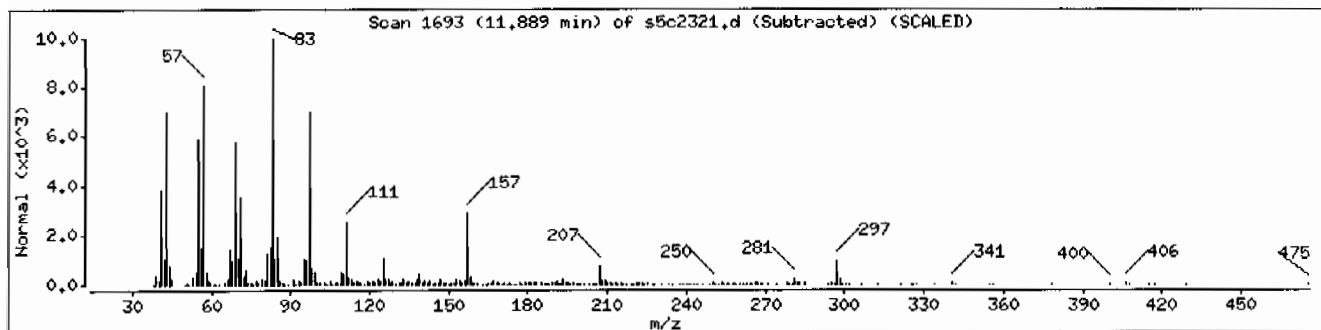
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
10-Nonadecanol	16840-84-9	NIST05.L	114939	64	C19H40O	284
1H,5H-Pyrrolo[1',2':3,4]imidazo[1,5-a]py	54966-11-9	NIST05.L	33363	60	C10H18N2	166
1,10-Dicyanodecane	4543-66-2	NIST05.L	51228	46	C12H20N2	192



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVMI11LANL

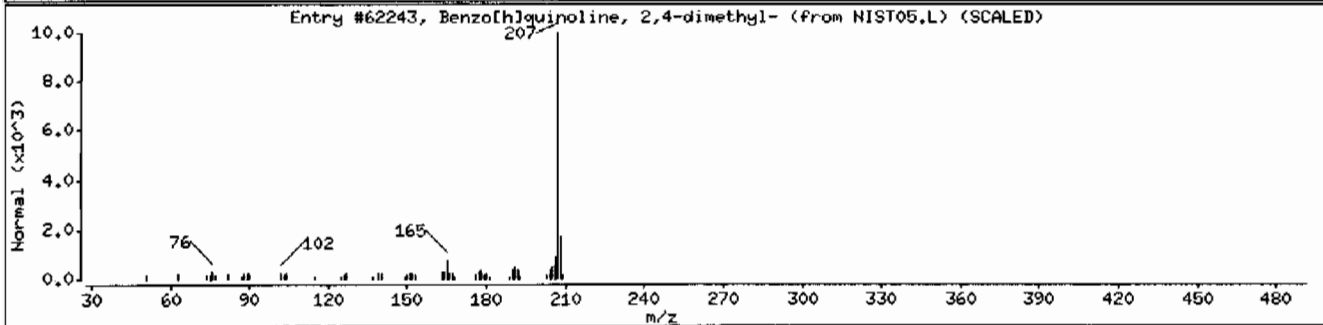
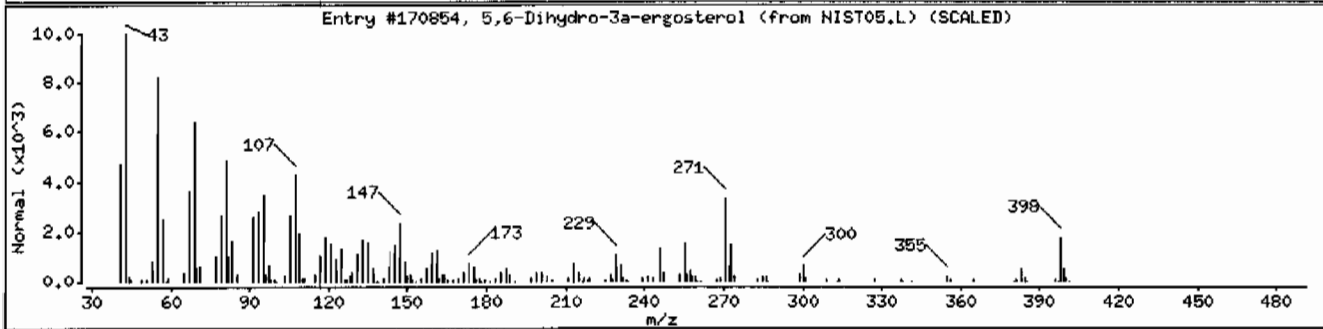
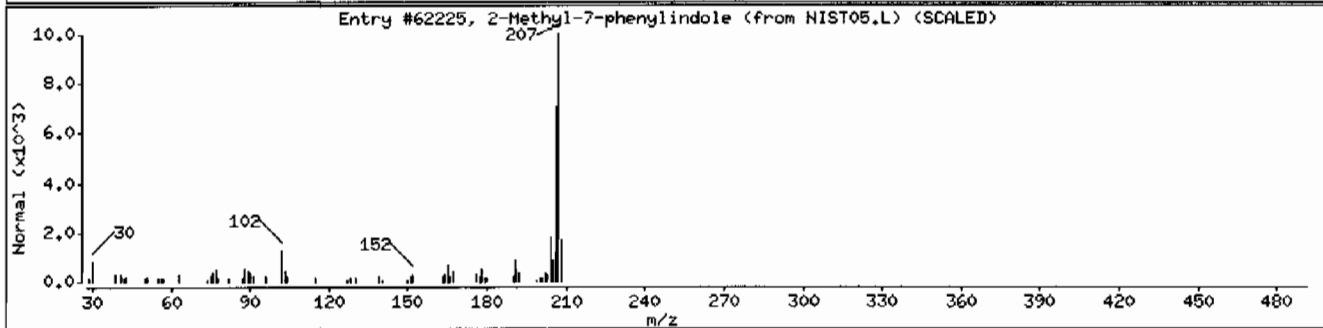
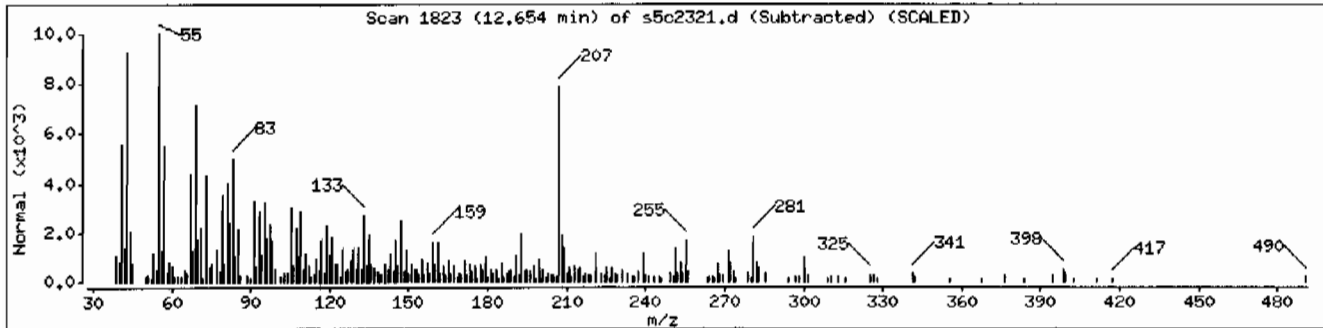
Volume Injected (uL): 0.5

Operator: RMB

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-7-phenylindole	1140-08-5	NIST05.L	62225	42	C15H13N	207
5,6-Dihydro-3a-ergosterol	1000253-60-4	NIST05.L	170854	41	C28H46O	398
Benzo[h]quinoline, 2,4-dimethyl-	605-67-4	NIST05.L	62243	38	C15H13N	207



Date: 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVH111LANL

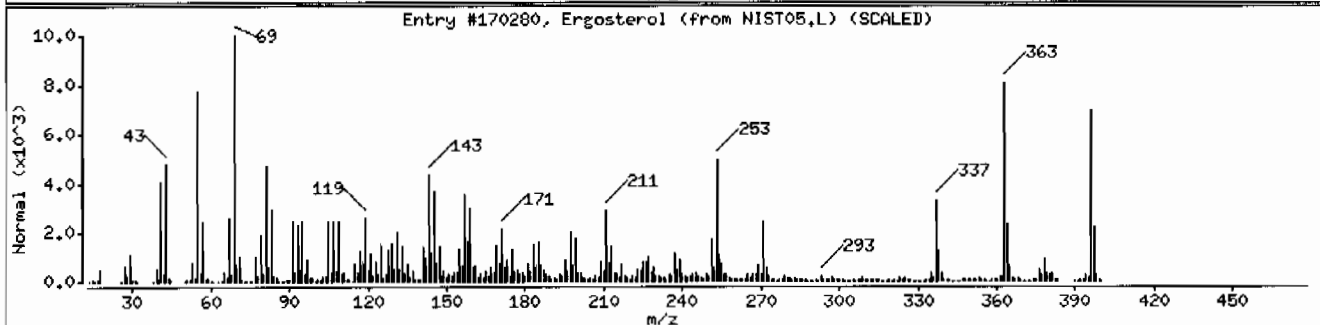
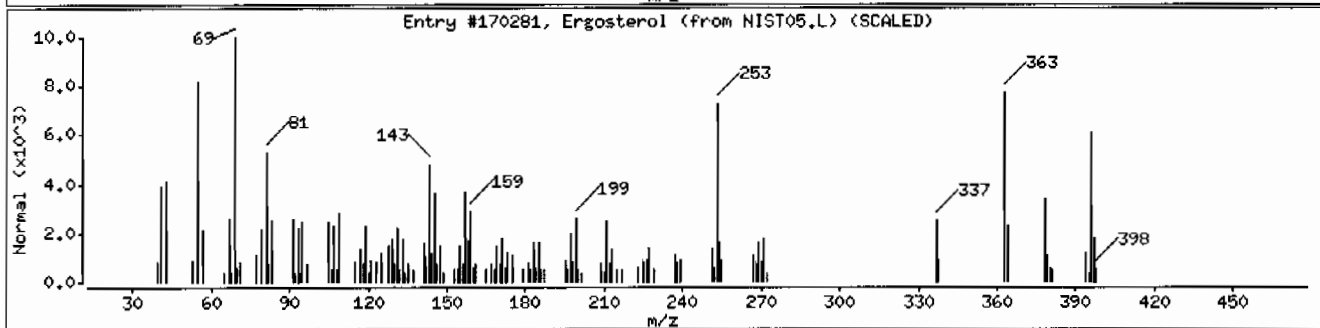
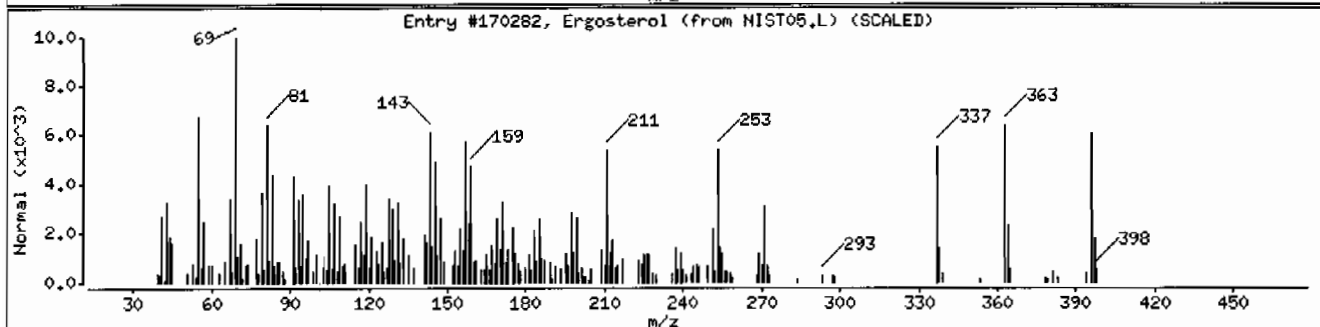
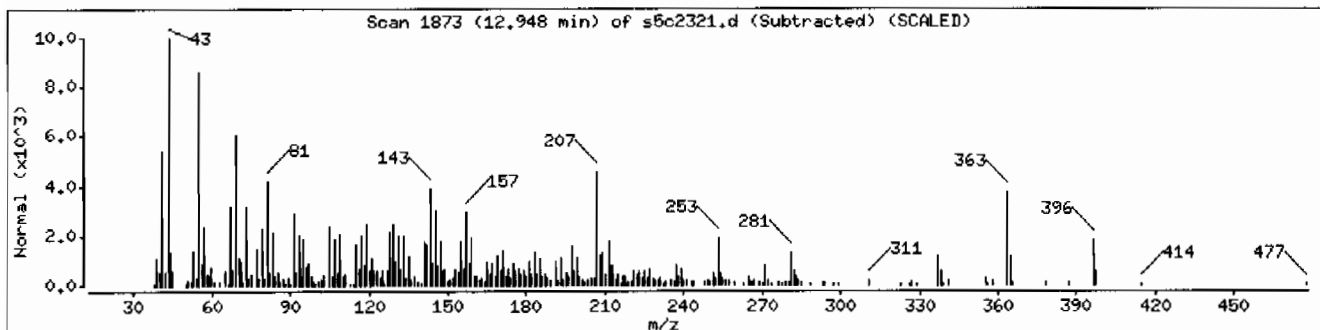
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ergosterol	57-87-4	NIST05.L	170282	89	C <sub>28</sub> H <sub>44</sub> O	396
Ergosterol	57-87-4	NIST05.L	170281	58	C <sub>28</sub> H <sub>44</sub> O	396
Ergosterol	57-87-4	NIST05.L	170280	42	C <sub>28</sub> H <sub>44</sub> O	396



Date: 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: HSD5.i

Sample Info: 12485060201963086111SVMI11LANL

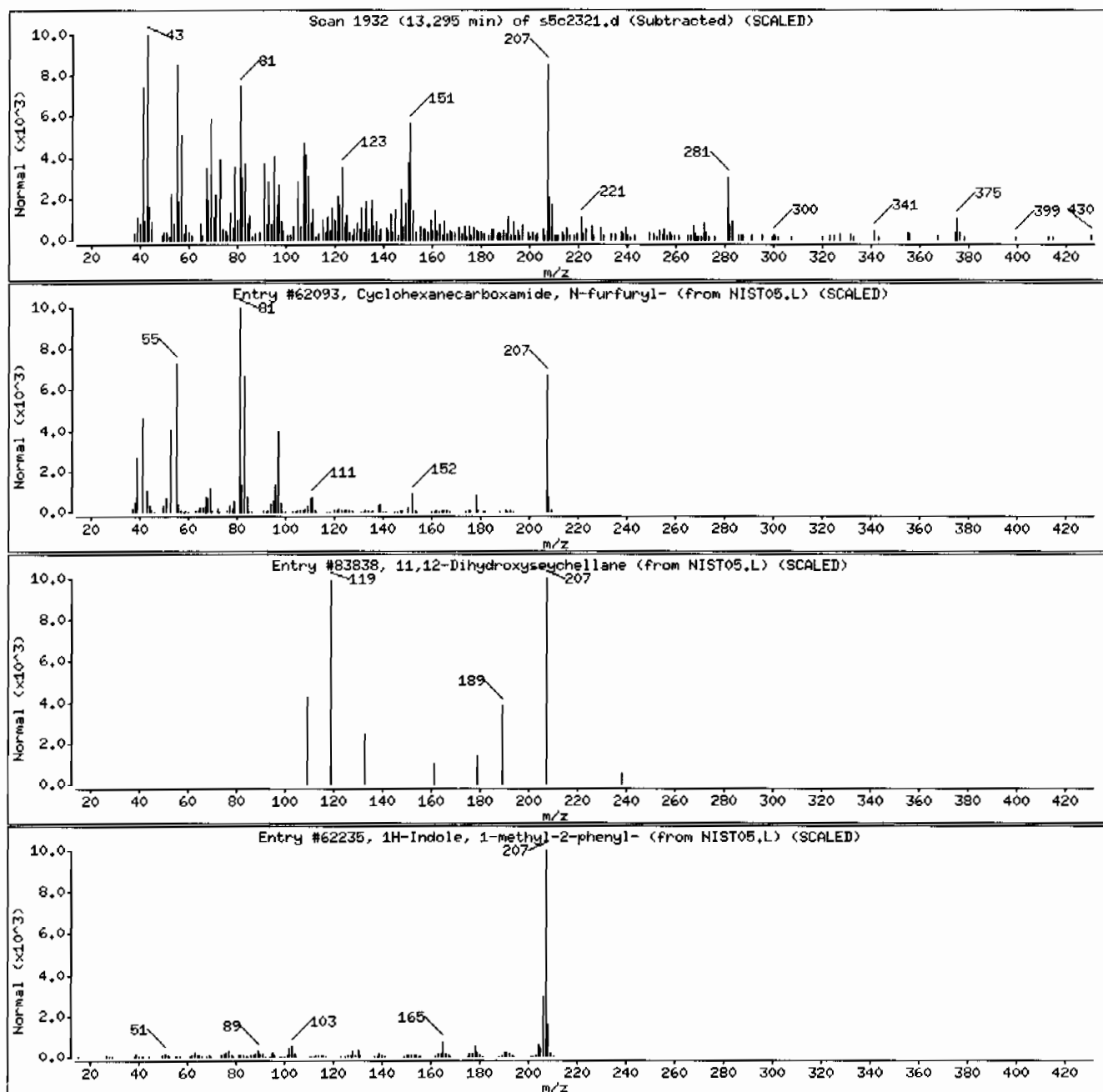
Volume Injected (UL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Cyclohexanecarboxamide, N-furfuryl-	6341-32-8	NIST05.L	62093	41	C12H17NO2	207
11,12-Dihydroxyseychellane	55823-65-9	NIST05.L	83838	35	C15H26O2	238
1H-Indole, 1-methyl-2-phenyl-	3558-24-5	NIST05.L	62235	25	C15H13N	207



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 1248506020196308611ISVH11LANL

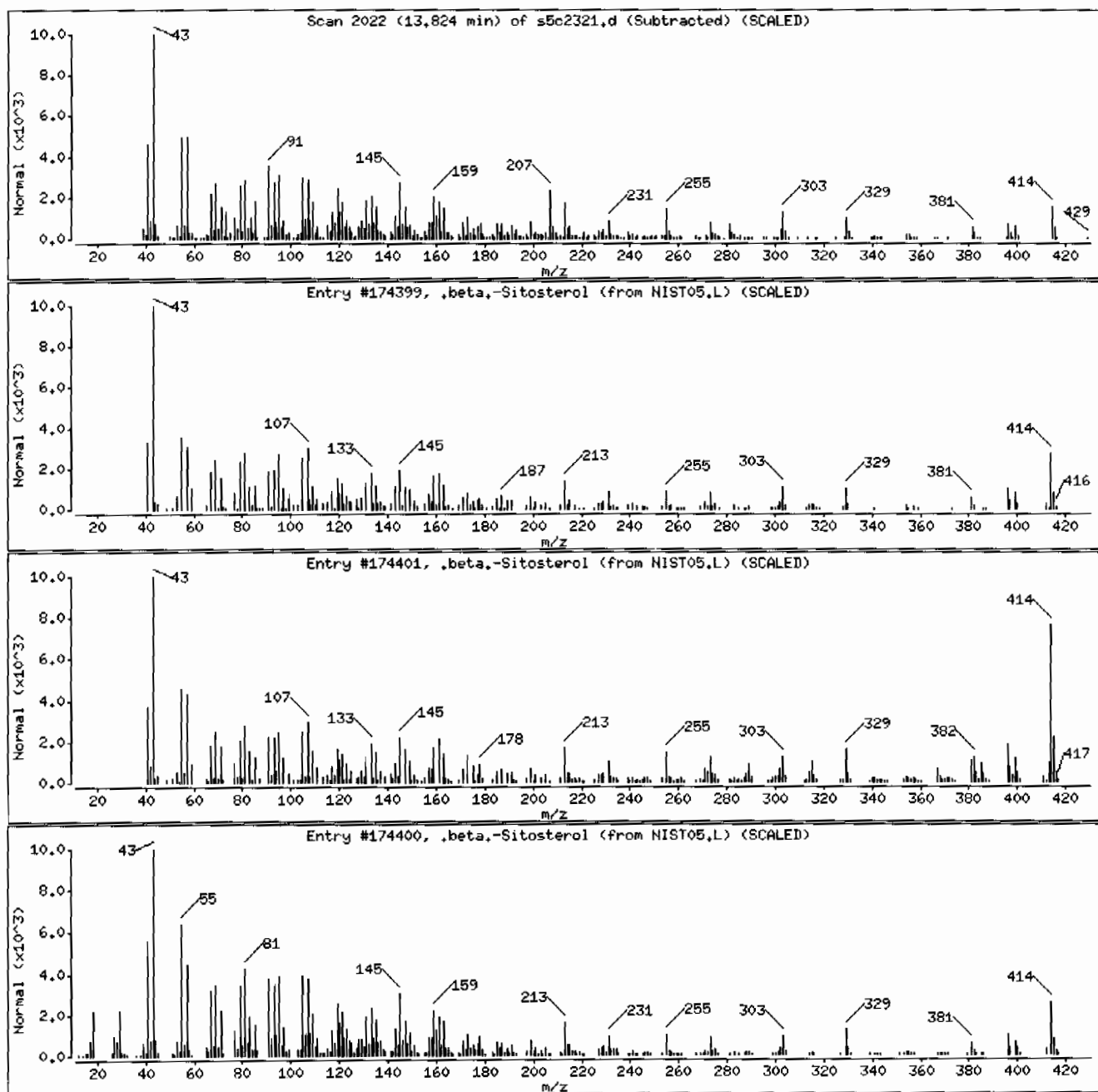
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
.beta.-Sitosterol	83-46-5	NIST05.L	174399	92	C29H50O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174401	90	C29H50O	414
.beta.-Sitosterol	83-46-5	NIST05.L	174400	90	C29H50O	414



Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 12485060201963086111SVH111LANL

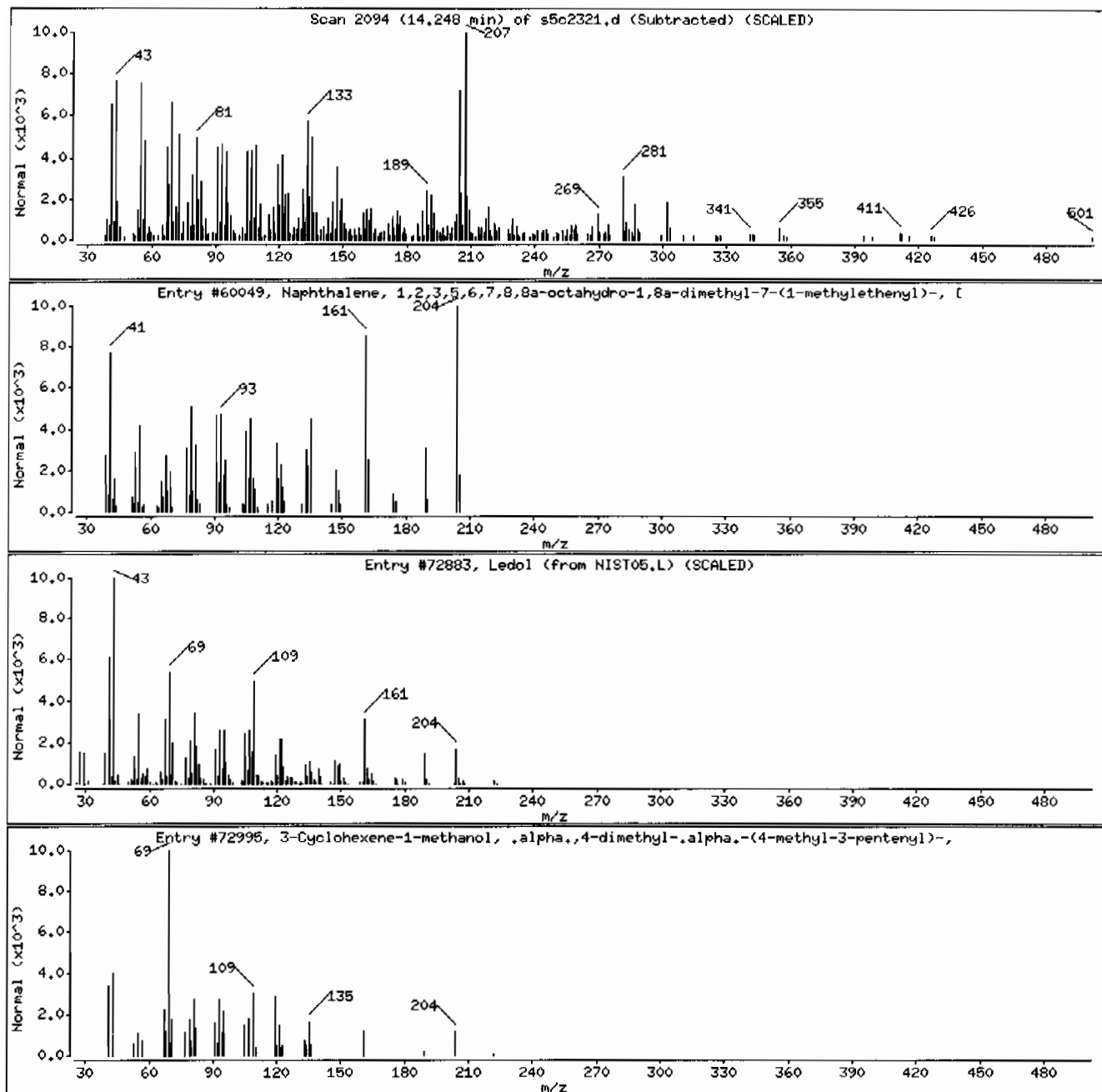
Volume Injected (uL): 0.5

Operator: RMB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60049	56	C15H24	204
Ledol	577-27-5	NIST05.L	72883	35	C15H26O	222
3-Cyclohexene-1-methanol, .alpha.,4-dine	23178-88-3	NIST05.L	72995	30	C15H26O	222





Date : 23-MAR-2010 17:41

Client ID: RE36-10-7439

Instrument: MSD5.i

Sample Info: 1248506020196308611ISVM11ILANL

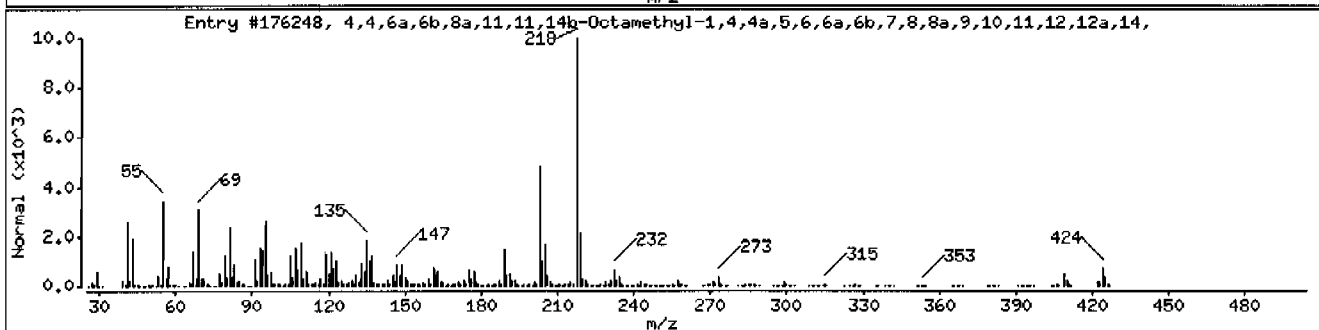
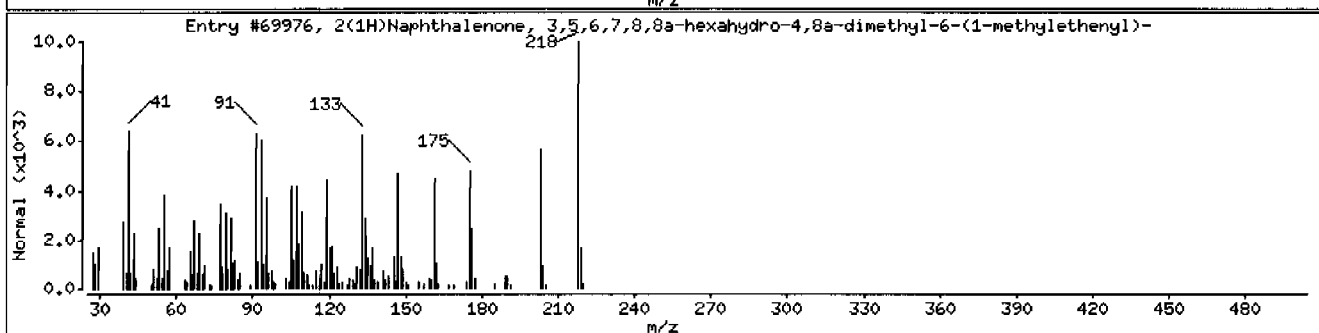
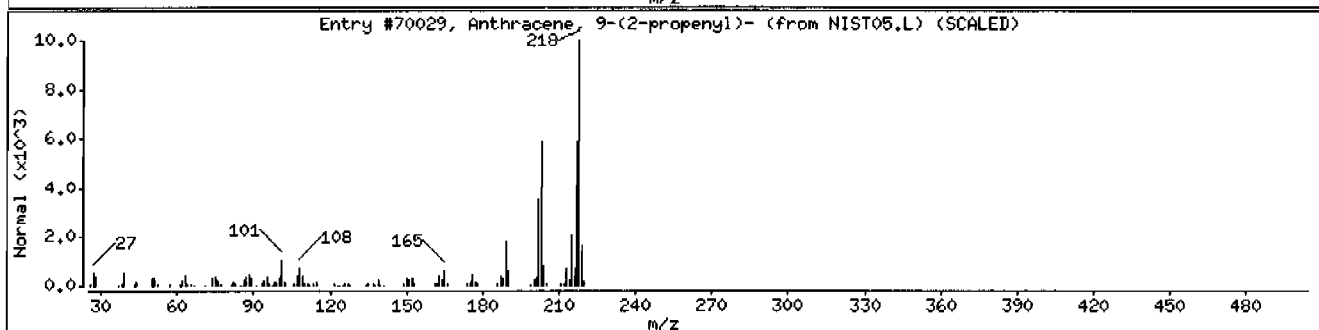
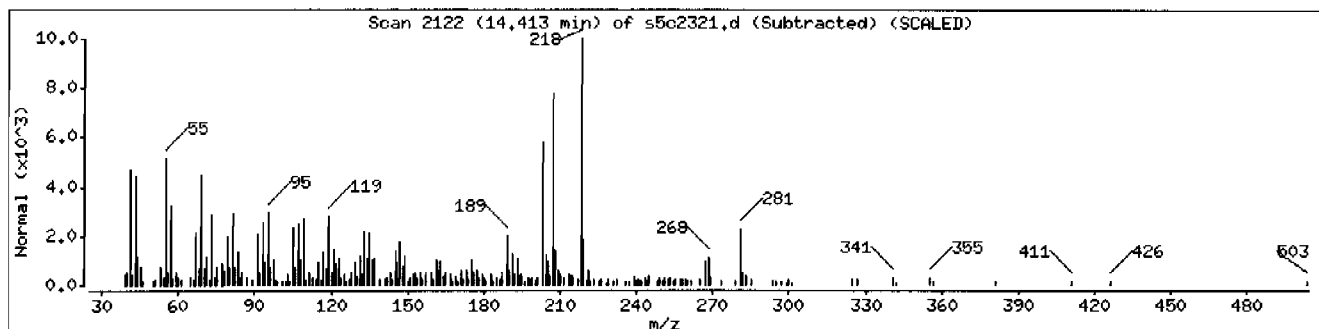
Volume Injected (uL): 0.5

Operator: RHB

Column phase: J&amp;W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Anthracene, 9-(2-propenyl)-	23707-65-5	NIST05.L	70029	62	C17H14	218
2(1H)Naphthalenone, 3,5,6,7,8,8a-hexahyd	1000188-66-5	NIST05.L	69976	60	C15H22O	218
4,4,6a,6b,8a,11,11,14b-Octamethyl-1,4,4a	1000194-62-4	NIST05.L	176248	43	C30H48O	424



# LC/MS/MS EXPLOSIVES ANALYSIS

**LC/MS/MS Case Narrative  
Los Alamos National Laboratory (LANL)  
SDG 10-2193**

**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:** 960986

**Prep Batch Number:** 960982

**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>
248506001	RE36-10-7407
248506002	RE36-10-7421
248506003	RE36-10-7422
248506004	RE36-10-7451
248506005	RE36-10-7449
248506006	RE36-10-7445
248506007	RE36-10-7450
248506008	RE36-10-7444
248506009	RE36-10-7448
248506010	RE36-10-7447
248506011	RE36-10-7443
248506012	RE36-10-7452
248506013	RE36-10-7437
248506014	RE36-10-7440
248506015	RE36-10-7435
248506016	RE36-10-7441
248506017	RE36-10-7442
248506018	RE36-10-7436
248506019	RE36-10-7438
248506020	RE36-10-7439
1202061204	Method Blank (MB)
1202061205	Laboratory Control Sample (LCS)
1202061206	248506001(RE36-10-7407) Matrix Spike (MS)
1202061207	248506001(RE36-10-7407) Matrix Spike Duplicate (MSD)

**Preparation/Analytical Method Verification**

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

## **Primary Analyte Analysis**

### **Calibration Information**

#### **Initial Calibration**

All initial calibration requirements for this analysis have been met for this SDG.

#### **Calibration Verification Standard Requirements**

All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

#### **Calibration Blank Requirements**

All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

#### **CRI Requirements**

All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

### **Quality Control (QC) Information**

#### **Method Blank (MB) Statement**

The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

#### **Surrogate Recoveries**

All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

#### **Laboratory Control Sample (LCS) Recovery**

The LCS recovered Tetra at 11.5%. The limits are 51-112%. The LCS recovered 2-Amino-4,6-dinitrotoluene at 133%. The limits are 90-130%. A re-extraction was not performed on the samples because they were more than two times out of the holding period specified by the method. The data are reported. Please see data exception report 825226.

#### **QC Sample Designation**

Sample 248506001 (RE36-10-7407) was chosen for matrix spike and matrix spike duplicate analysis.

#### **Matrix Spike (MS) Recovery Statement**

The MS did not meet acceptance criteria for the recovery of multiple spiked analytes. Please refer to Form 3 of the Data Package for a list of recoveries. The MSD duplicated the failures which may be attributed to matrix interference. Please see data exception report 825226.

#### **Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD did not meet acceptance criteria for the recovery of multiple spiked analytes. Please refer to Form 3 of the Data Package for a list of recoveries. The MS duplicated the failures which may be attributed to matrix interference. Please see data exception report 825226.

#### **MS/MSD Relative Percent Difference (RPD) Statement**

The MS/MSD RPD for 1,3,5-Trinitrobenzene was 44.7%. The limit is 30%. Both the MS and MSD had failing recoveries for 1,3,5-Trinitrobenzene. The RPD failure may be attributed to matrix interference in the sample or non-homogeneity of the sample. Please see data exception report 825226.

#### **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**

QC Samples (RE36-10-7407MS) and 1202061207 (RE36-10-7407MSD) were re-analyzed out of holding for the Primary analyte analysis. The analytical holding times for these samples in this batch were exceeded due to limitations of instrument capacity. However, these samples were analyzed within two times the analytical holding time of the method. The client was notified of this situation and is in agreement to receive these qualified data. The data are reported. Please see data exception report 825226. 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**

QC samples 1202061205 (LCS), (RE36-10-7407MS) and 1202061207 (RE36-10-7407MSD) were re-analyzed due to failing acceptance criteria. The last re-analysis in each case passed acceptance criteria and is reported.

##### **Secondary Analyte Analysis**

#### **Calibration Information**

##### **Initial Calibration**

All initial calibration requirements for this analysis have been met for this SDG.

##### **Calibration Verification Standard Requirements**

All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

##### **Calibration Blank Requirements**

All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

##### **CRI Requirements**

All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

#### **Quality Control (QC) Information**

##### **Method Blank (MB) Statement**

The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

**Surrogate Recoveries**

All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

**Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries were within the established acceptance limits.

**QC Sample Designation**

Sample 248506001 (RE36-10-7407) was chosen for matrix spike and matrix spike duplicate analysis.

**Matrix Spike (MS) Recovery Statement**

The MS spike recoveries were within the established acceptance limits.

**Matrix Spike Duplicate (MSD) Recovery Statement**

The MSD spike recoveries were within the established acceptance limits.

**MS/MSD Relative Percent Difference (RPD) Statement**

The RPD(s) between the MS and MSD met the acceptance limits.

**Internal Standard (ISTD) Acceptance**

The internal standards were not added to the secondary analyte extracts.

**Technical Information****Holding Time Specifications**

All samples in this SDG in this analytical batch for this analysis met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

**Preparation/Analytical Method Verification**

All procedures were performed as stated in the SOP.

**Sample Dilutions**

According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

**Sample Re-extraction/Re-analysis**

Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

**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 825226 was generated for this SDG.

The LCS recovered Tetryl at 11.5%. The limits are 51-112%. The LCS recovered 2-Amino-4,6-dinitrotoluene at 133%. The limits are 90-130%. A re-extraction was not performed on the samples because they were more than two times out of the holding period specified by the method. The data are reported.

The MS did not meet acceptance criteria for the recovery of multiple spiked analytes. Please refer to Form 3 of the Data Package for a list of recoveries. The MSD duplicated the failures which may be attributed to matrix interference.

The MS/MSD RPD for 1,3,5-Trinitrobenzene was 44.7%. The limit is 30%. Both the MS and MSD had failing recoveries for 1,3,5-Trinitrobenzene. The RPD failure may be attributed to matrix interference in the sample or non-homogeneity of the sample.

QC Samples (RE36-10-7407MS) and 1202061207 (RE36-10-7407MSD) were re-analyzed out of holding for the Primary analyte analysis. The analytical holding times for these samples in this batch were exceeded to limitations of instrument capacity. However, these samples were analyzed within two times the analytical holding time of the method. The client was notified of this situation and is in agreement to receive these qualified data. The data are reported.

#### **Manual Integrations**

Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

#### **Flagging Convention**

The 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: Robert M. Mace Date: 05/07/10



# SAMPLE DATA SUMMARY

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7407

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506001

Sample Amount 2

Moisture: 22.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415035.wiff

Date Analyzed: 16-APR-10 00:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

\*Concentration =

Instrument Value	X	$\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$	X	Dilution Factor
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1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7407

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506001

Sample Amount 2

Moisture: 22.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090016.wiff

Date Analyzed: 09-APR-10 11:10

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: RE36-10-7421

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506002

Sample Amount 2

Moisture: 15.0

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415038.wiff

Date Analyzed: 16-APR-10 02:07

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: RE36-10-7421

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506002

Sample Amount 2

Moisture: 15.0

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090019.wiff

Date Analyzed: 09-APR-10 11:57

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: RE36-10-7422

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506003

Sample Amount 2

Moisture: 5.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415039.wiff

Date Analyzed: 16-APR-10 02:33

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	<u>Concentrated Extract Volume</u>	X	Dilution
		<u>Sample Amount</u>		Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7422

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506003

Sample Amount 2

Moisture: 5.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090020.wiff

Date Analyzed: 09-APR-10 12:13

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: RE36-10-7451

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506004

Sample Amount 2

Moisture: 39.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415040.wiff

Date Analyzed: 16-APR-10 02:59

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



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7451

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506004

Sample Amount 2

Moisture: 39.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090021.wiff

Date Analyzed: 09-APR-10 12:29

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: RE36-10-7449

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506005

Sample Amount 2

Moisture: 17.8

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415041.wiff

Date Analyzed: 16-APR-10 03:25

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: RE36-10-7449

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506005

Sample Amount 2

Moisture: 17.8

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090022.wiff

Date Analyzed: 09-APR-10 12:44

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: RE36-10-7445

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506006

Sample Amount 2

Moisture: 25.6

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415042.wiff

Date Analyzed: 16-APR-10 03:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7445

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506006

Sample Amount 2

Moisture: 25.6

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090023.wiff

Date Analyzed: 09-APR-10 13:00

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: RE36-10-7450

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506007

Sample Amount 2

Moisture: 9.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415046.wiff

Date Analyzed: 16-APR-10 05:35

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

\*Concentration =

Instrument Value	X	$\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$	X	Dilution Factor
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1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7450

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506007

Sample Amount 2

Moisture: 9.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090027.wiff

Date Analyzed: 09-APR-10 14:03

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: RE36-10-7444

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506008

Sample Amount 2

Moisture: 20.6

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415047.wiff

Date Analyzed: 16-APR-10 06:01

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: RE36-10-7444

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506008

Sample Amount 2

Moisture: 20.6

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090028.wiff

Date Analyzed: 09-APR-10 14:18

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: RE36-10-7448

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506009

Sample Amount 2

Moisture: 17.5

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415048.wiff

Date Analyzed: 16-APR-10 06:27

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	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: RE36-10-7448

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506009

Sample Amount 2

Moisture: 17.5

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090029.wiff

Date Analyzed: 09-APR-10 14:34

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: RE36-10-7447

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506010

Sample Amount 2

Moisture: 28.5

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415049.wiff

Date Analyzed: 16-APR-10 06:53

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: RE36-10-7447

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506010

Sample Amount 2

Moisture: 28.5

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090030.wiff

Date Analyzed: 09-APR-10 14:50

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: RE36-10-7443

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506011

Sample Amount 2

Moisture: 25.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415050.wiff

Date Analyzed: 16-APR-10 07:19

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: RE36-10-7443

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506011

Sample Amount 2

Moisture: 25.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090031.wiff

Date Analyzed: 09-APR-10 15:06

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: RE36-10-7452

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506012

Sample Amount 2

Moisture: 24.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415051.wiff

Date Analyzed: 16-APR-10 07:45

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: RE36-10-7452

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506012

Sample Amount 2

Moisture: 24.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090032.wiff

Date Analyzed: 09-APR-10 15:21

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: RE36-10-7437

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506013

Sample Amount 2

Moisture: 16.3

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415052.wiff

Date Analyzed: 16-APR-10 08:11

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
		<u>Sample Amount</u>		Factor

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7437

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506013

Sample Amount 2

Moisture: 16.3

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090033.wiff

Date Analyzed: 09-APR-10 15:37

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: RE36-10-7440

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506014

Sample Amount 2

Moisture: 8.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415053.wiff

Date Analyzed: 16-APR-10 08:37

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: RE36-10-7440

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506014

Sample Amount 2

Moisture: 8.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090034.wiff

Date Analyzed: 09-APR-10 15:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7435

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506015

Sample Amount 2

Moisture: 30.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415054.wiff

Date Analyzed: 16-APR-10 09:02

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: RE36-10-7435

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506015

Sample Amount 2

Moisture: 30.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090035.wiff

Date Analyzed: 09-APR-10 16:08

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: RE36-10-7441

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506016

Sample Amount 2

Moisture: 22.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415055.wiff

Date Analyzed: 16-APR-10 09:28

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: RE36-10-7441

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506016

Sample Amount 2

Moisture: 22.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090036.wiff

Date Analyzed: 09-APR-10 16:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument	X	<u>Concentrated Extract Volume</u>	X	Dilution
Value		<u>Sample Amount</u>		Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7442

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506017

Sample Amount 2

Moisture: 13.3

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415059.wiff

Date Analyzed: 16-APR-10 11:13

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: RE36-10-7442

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506017

Sample Amount 2

Moisture: 13.3

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090040.wiff

Date Analyzed: 09-APR-10 17:27

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7436

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506018

Sample Amount 2

Moisture: 21.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415060.wiff

Date Analyzed: 16-APR-10 11:39

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: RE36-10-7436

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506018

Sample Amount 2

Moisture: 21.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090041.wiff

Date Analyzed: 09-APR-10 17:43

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

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7438

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506019

Sample Amount 2

Moisture: 5.3

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415061.wiff

Date Analyzed: 16-APR-10 12:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

\*Concentration =

Instrument Value	X	Concentrated Extract Volume	X	Dilution Factor
		Sample Amount		

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7438

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506019

Sample Amount 2

Moisture: 5.3

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090042.wiff

Date Analyzed: 09-APR-10 17:58

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument 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: RE36-10-7439

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506020

Sample Amount 2

Moisture: 18.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415062.wiff

Date Analyzed: 16-APR-10 12:31

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: RE36-10-7439

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506020

Sample Amount 2

Moisture: 18.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090043.wiff

Date Analyzed: 09-APR-10 18:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

# QUALITY CONTROL SUMMARY

# High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEI

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
248506001	RE36-10-7407	102	70 - 144	
248506001	RE36-10-7407	99.6	70 - 144	
248506002	RE36-10-7421	99.6	70 - 144	
248506002	RE36-10-7421	101	70 - 144	
248506003	RE36-10-7422	99.2	70 - 144	
248506003	RE36-10-7422	106	70 - 144	
248506004	RE36-10-7451	96	70 - 144	
248506004	RE36-10-7451	100	70 - 144	
248506005	RE36-10-7449	94	70 - 144	
248506005	RE36-10-7449	106	70 - 144	
248506006	RE36-10-7445	96	70 - 144	
248506006	RE36-10-7445	107	70 - 144	
248506007	RE36-10-7450	96.4	70 - 144	
248506007	RE36-10-7450	108	70 - 144	
248506008	RE36-10-7444	100	70 - 144	
248506008	RE36-10-7444	102	70 - 144	
248506009	RE36-10-7448	99.2	70 - 144	
248506009	RE36-10-7448	107	70 - 144	
248506010	RE36-10-7447	94	70 - 144	
248506010	RE36-10-7447	106	70 - 144	
248506011	RE36-10-7443	101	70 - 144	
248506011	RE36-10-7443	104	70 - 144	
248506012	RE36-10-7452	99.6	70 - 144	
248506012	RE36-10-7452	102	70 - 144	
248506013	RE36-10-7437	97.2	70 - 144	
248506013	RE36-10-7437	106	70 - 144	
248506014	RE36-10-7440	108	70 - 144	
248506014	RE36-10-7440	105	70 - 144	
248506015	RE36-10-7435	93.2	70 - 144	
248506015	RE36-10-7435	107	70 - 144	
248506016	RE36-10-7441	88.4	70 - 144	
248506016	RE36-10-7441	103	70 - 144	
248506017	RE36-10-7442	92.4	70 - 144	
248506017	RE36-10-7442	104	70 - 144	
248506018	RE36-10-7436	86.8	70 - 144	
248506018	RE36-10-7436	102	70 - 144	
248506019	RE36-10-7438	115	70 - 144	

# High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
248506019	RE36-10-7438	104	70 - 144	
248506020	RE36-10-7439	96.4	70 - 144	
248506020	RE36-10-7439	101	70 - 144	
1202061204	MB for batch 960982	90.8	70 - 144	
1202061204	MB for batch 960982	99.6	70 - 144	
1202061205	LCS for batch 960982	107	70 - 144	
1202061205	LCS for batch 960982	97.2	70 - 144	
1202061206	RE36-10-7407(248506001MS)	99.6	70 - 144	
1202061206	RE36-10-7407(248506001MS)	102	70 - 144	
1202061207	RE36-10-7407(248506001MSD)	88.8	70 - 144	
1202061207	RE36-10-7407(248506001MSD)	88.4	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) 10-2193

Extract Batch Code: 960982

Date Extracted: 10-MAR-10

GEL LCS ID: 1202061205

GEL LCSDUP ID:

Analysis Date/Time: 22-APR-10 06:32

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
o-Nitrotoluene	5000	5240	105								72 - 119
2-Amino-4,6-dinitrotoluene	5000	6650	133	*							90 - 130
HMX	5000	4600	92								58 - 138
PETN	5000	5840	117								64 - 137
m-Nitrotoluene	5000	3960	79.2								73 - 118
m-Dinitrobenzene	5000	4640	92.8								83 - 122
Tetryl	5000	574	11.5	*							51 - 112
RDX	5000	6140	123								81 - 137
Nitrobenzene	5000	4490	89.8								71 - 122
4-Amino-2,6-dinitrotoluene	5000	4730	94.6								84 - 130
2,6-Dinitrotoluene	5000	4970	99.4								89 - 120
1,3,5-Trinitrobenzene	5000	3780	75.6								69 - 126
2,4,6-Trinitrotoluene	5000	4310	86.2								73 - 149
2,4-Dinitrotoluene	5000	5350	107								87 - 137
p-Nitrotoluene	5000	5000	100								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) 10-2193

Extract Batch Code: 960982

Date Extracted: 10-MAR-10

GEL LCS ID: 1202061205

GEL LCSDUP ID:

Analysis Date/Time: 09-APR-10 10:54

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	4240	84.8					52 - 114
2,6-Diamino-4-nitrotoluene	5000	4350	87					64 - 122
3,5-Dinitroaniline	5000	4700	94					70 - 127
TATB	5000	4950	99					28 - 162
tris(o-cresyl) phosphate	5000	4920	98.4					84 - 119

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

# High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE36-10-7407

Lab Code: GEL

GEL Job No (SDG) 10-2193

Extract Batch Code: 960982

Date Extracted: 10-MAR-10

GEL Spike ID: 1202061206

GEL SpikeDup ID: 1202061207

Analysis Date/Time: 22-APR-10 21:10

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	2300	46 *	1460	29.2 *	44.7 *	30	50 - 140
2,4,6-Trinitrotoluene	5000	0	3000	60 *	2600	52 *	14.3	30	76 - 144
2,4-Dinitrotoluene	5000	0	5340	107	4590	91.8	15.1	30	86 - 135
2,6-Dinitrotoluene	5000	0	5140	103	4390	87.8 *	15.7	30	90 - 118
2-Amino-4,6-dinitrotoluene	5000	0	4500	90	4030	80.6 *	11	30	85 - 137
4-Amino-2,6-dinitrotoluene	5000	0	3350	67 *	2580	51.6 *	26	30	72 - 143
HMX	5000	0	3870	77.4	4410	88.2	13	30	51 - 144
Nitrobenzene	5000	0	4930	98.6	4250	85	14.8	30	70 - 122
PETN	5000	0	5140	103	5310	106	3.25	30	60 - 140
RDX	5000	0	4460	89.2	4820	96.4	7.76	30	59 - 152
Tetryl	5000	0	0	0 *	0	0 *	0	30	36 - 124
m-Dinitrobenzene	5000	43.6	5030	99.7	4440	87.9	12.5	30	85 - 118
m-Nitrotoluene	5000	0	4880	97.6	4480	89.6	8.55	30	70 - 120
o-Nitrotoluene	5000	0	4980	99.6	4410	88.2	12.1	30	69 - 123
p-Nitrotoluene	5000	0	5030	101	4300	86	15.6	30	65 - 133

#Column to be used to flag recovery and RPD values with an asterisk

# High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE36-10-7407

Lab Code: GEL

GEL Job No (SDG) 10-2193

Extract Batch Code: 960982

Date Extracted: 10-MAR-10

GEL Spike ID: 1202061206

GEL SpikeDup ID: 1202061207

Analysis Date/Time: 09-APR-10 11:26

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	5000	0	3580	71.6	3520	70.4	1.69	26	34 - 135
2,6-Diamino-4-nitrotoluene	5000	0	4580	91.6	4120	82.4	10.6	30	55 - 130
3,5-Dinitroaniline	5000	0	4670	93.4	4260	85.2	9.18	30	73 - 129
tris(o-cresyl) phosphate	5000	39.9	5040	100	4580	90.8	9.56	30	72 - 127
TATB	5000	0	4300	86	5030	101	15.6	30	29 - 155

#Column to be used to flag recovery and RPD values with an asterisk



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 15-APR-10 10:07

GEL Data File: EXP0415001.wiff

Instrument ID: LCMSMS

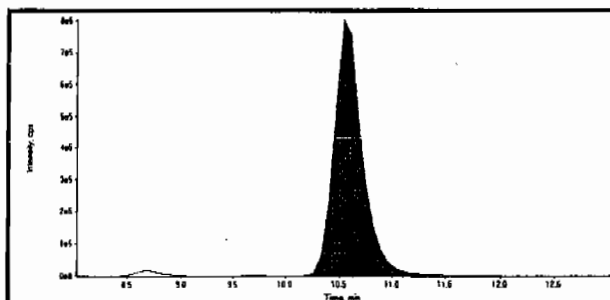
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

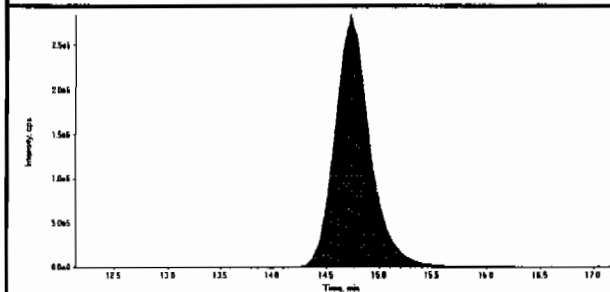
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

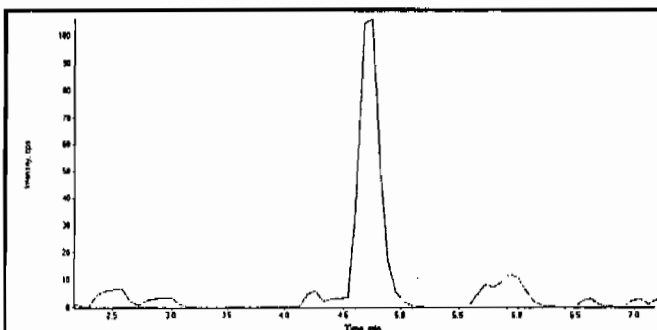
Data File	EXP0415001.wiff	Acquisition Date	4/15/2010 10:07:41 AM
Sample Name	XIBLK01	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



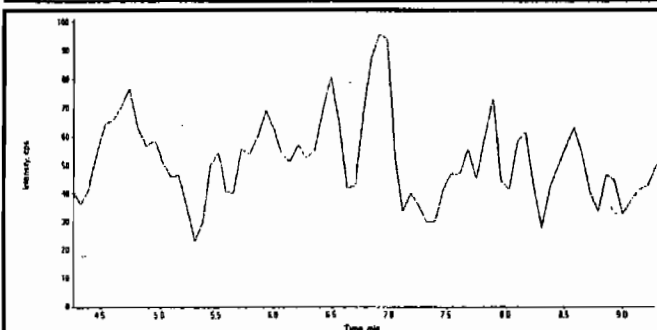
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	14900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	66100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten:* LER 4/23/10 4hmc 04/23/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415001.wiff	<b>Acquisition Date</b>	4/15/2010 10:07:41 AM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

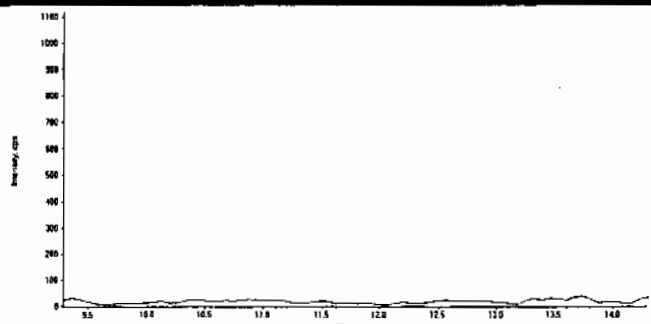
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

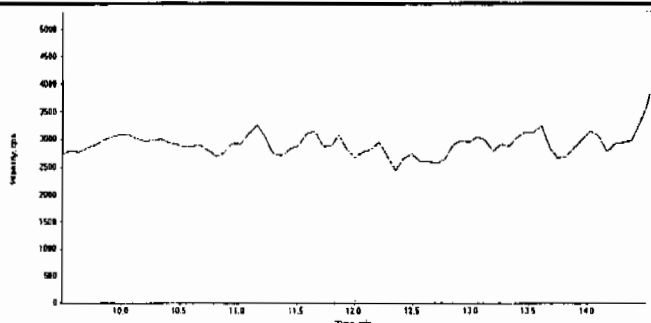
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415001.wiff	<b>Acquisition Date</b>	4/15/2010 10:07:41 AM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

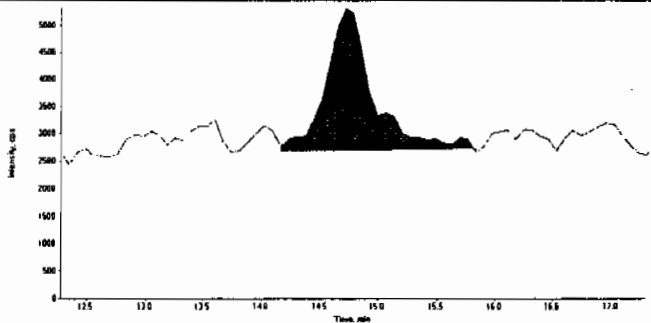
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

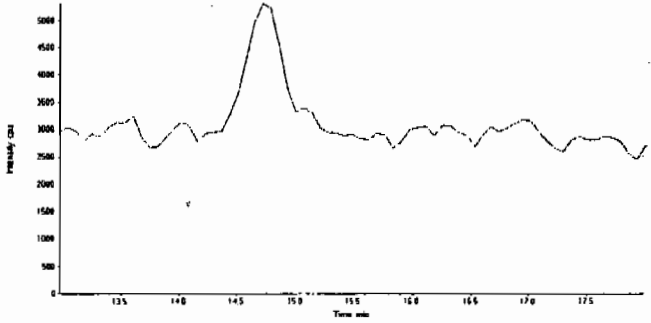
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.7
	Area Counts:	7.61e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415001.wiff	<b>Acquisition Date</b>	4/15/2010 10:07:41 AM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.0
	<b>Area Counts:</b>	3.16e+003
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415001.wiff	<b>Acquisition Date</b>	4/15/2010 10:07:41 AM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 15-APR-10 10:33

GEL Data File: EXP0415002.wiff

Instrument ID: LCMSMS

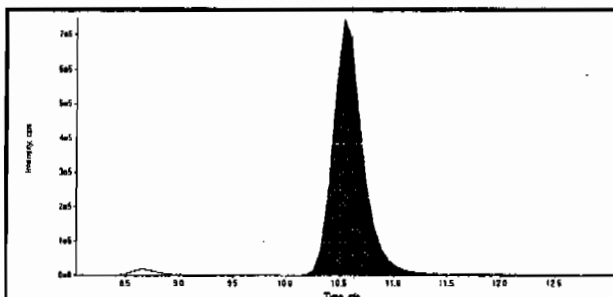
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

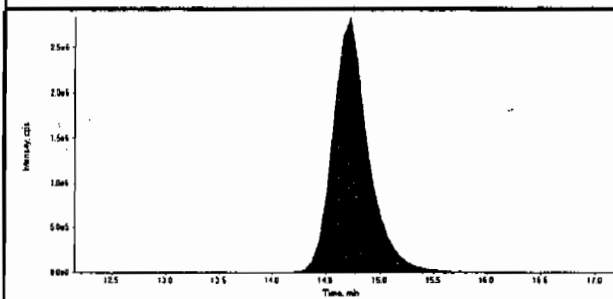
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

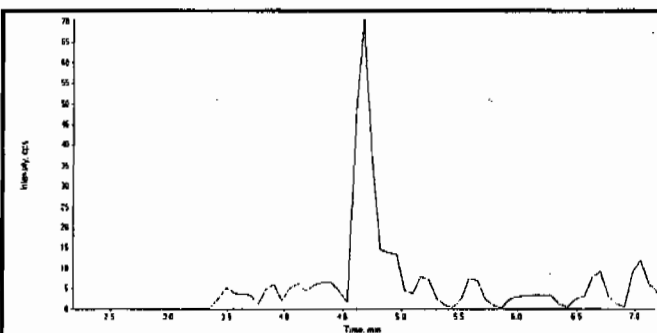
Data File	EXP0415002.wiff	Acquisition Date	4/15/2010 10:33:25 AM
Sample Name	XIBLK01	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	-041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



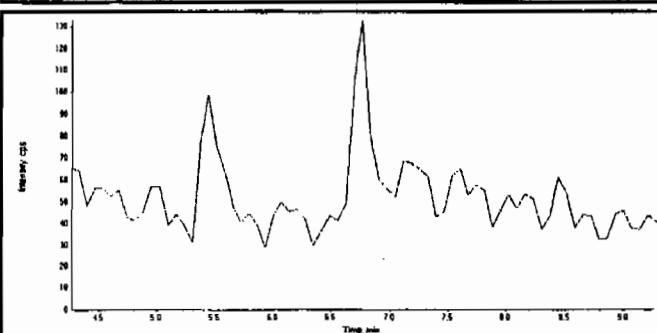
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	14400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	65600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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LER  
4/23/10



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415002.wiff	<b>Acquisition Date</b>	4/15/2010 10:33:25 AM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415002.wiff	<b>Acquisition Date</b>	4/15/2010 10:33:25 AM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.6
	<b>Area Counts:</b>	1.01e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415002.wiff	<b>Acquisition Date</b>	4/15/2010 10:33:25 AM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

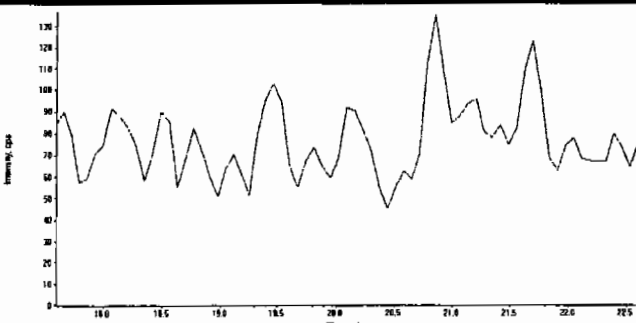
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

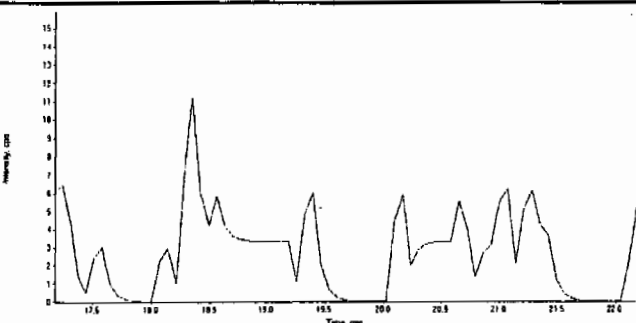
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LCMSMS#3

<b>Data File</b>	EXP0415002.wiff	<b>Acquisition Date</b>	4/15/2010 10:33:25 AM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 20-APR-10 14:19

GEL Data File: EXP0420001.wiff

Instrument ID: LCMSMS

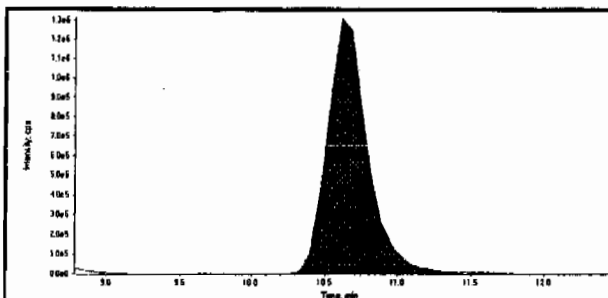
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	1.61
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	.257
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

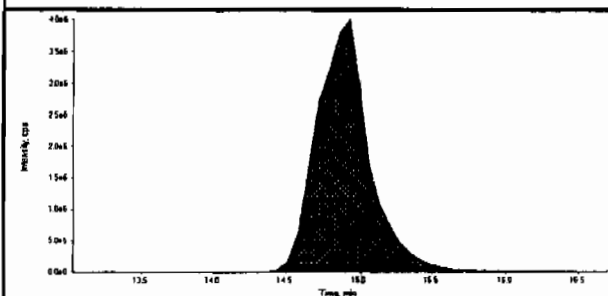
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

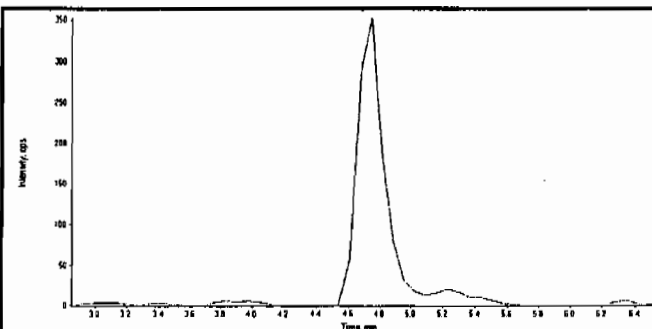
Data File	EXP0420001.wiff	Acquisition Date	4/20/2010 2:19:05 PM
Sample Name	XIBLK01	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



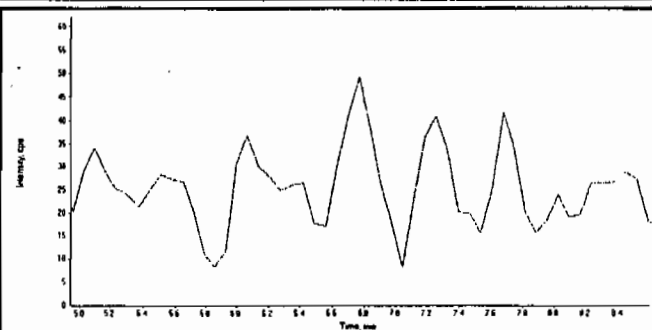
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	25300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	102000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

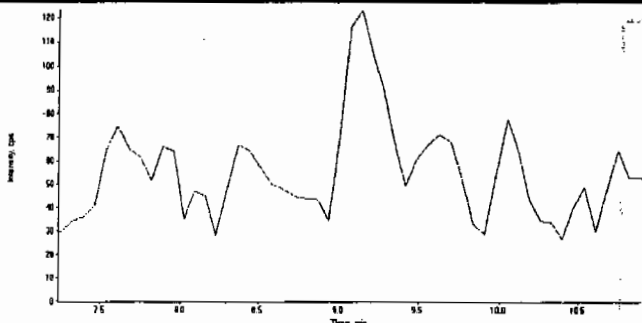
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GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

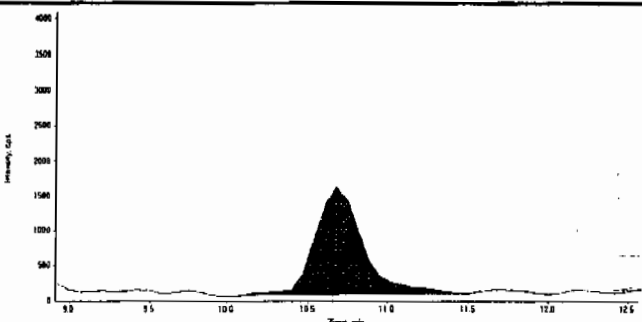
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LCMSMS#3

<b>Data File</b>	EXP0420001.wiff	<b>Acquisition Date</b>	4/20/2010 2:19:05 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch/Dilution/Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

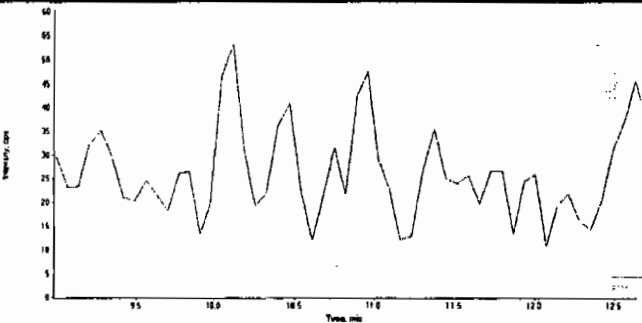
  

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

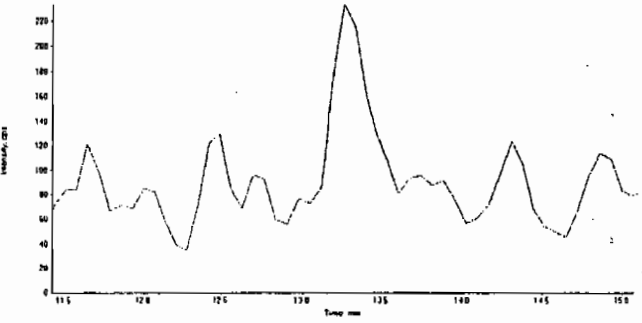
  

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	3.35e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	0.257 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

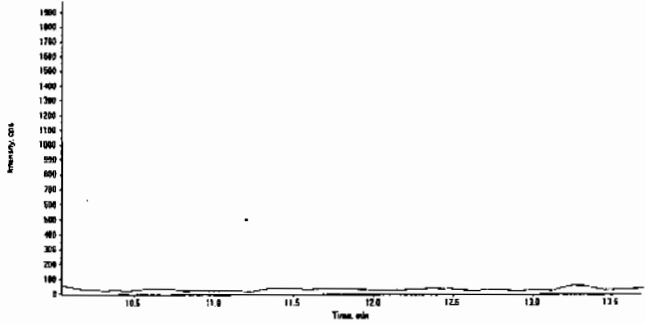
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

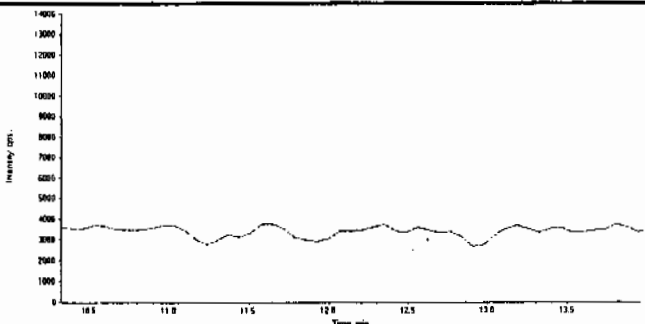
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420001.wiff	<b>Acquisition Date</b>	4/20/2010 2:19:05 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

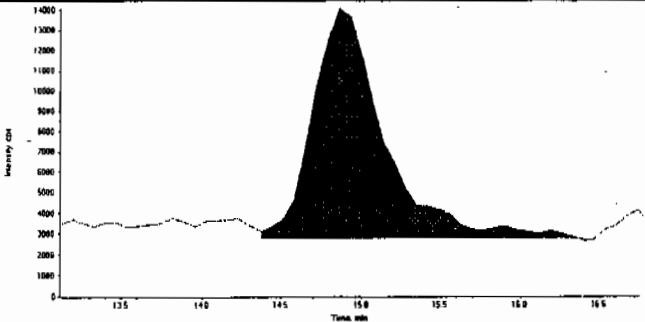
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

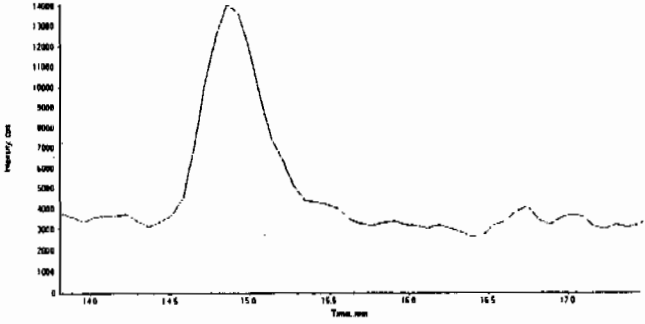
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	14.9
	Area Counts:	3.56e+005
	Manual Modification	No
	Amount:	1.61 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420001.wiff	<b>Acquisition Date</b>	4/20/2010 2:19:05 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	19.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420001.wiff	<b>Acquisition Date</b>	4/20/2010 2:19:05 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 20-APR-10 14:44

GEL Data File: EXP0420002.wiff

Instrument ID: LCMSMS

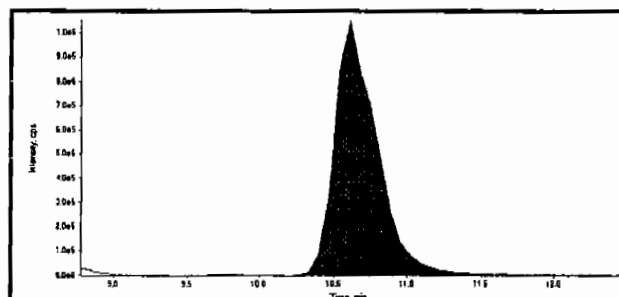
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	.765
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	.341
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

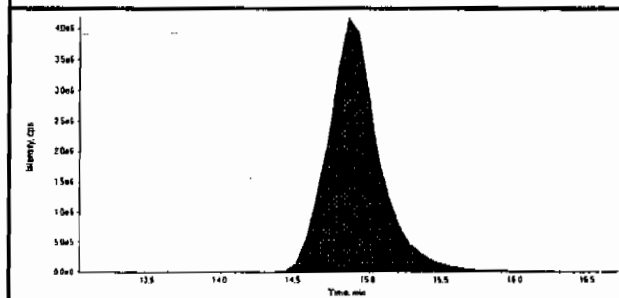
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

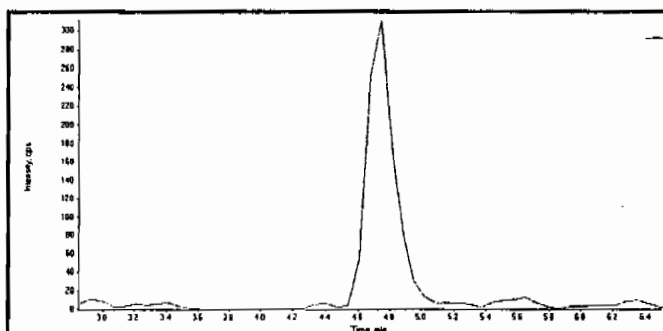
Data File	EXP0420002.wiff	Acquisition Date	4/20/2010 2:44:57 PM
Sample Name	XIBLK01	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



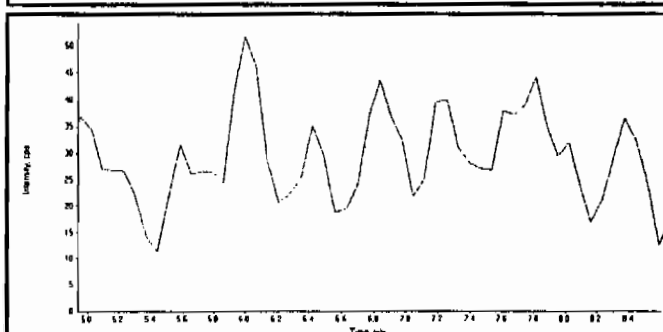
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	21100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	101000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDY (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten signatures and dates:*  
 04/29/10  
 4/28/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420002.wiff	<b>Acquisition Date</b>	4/20/2010 2:44:57 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	3.71e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	0.341 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

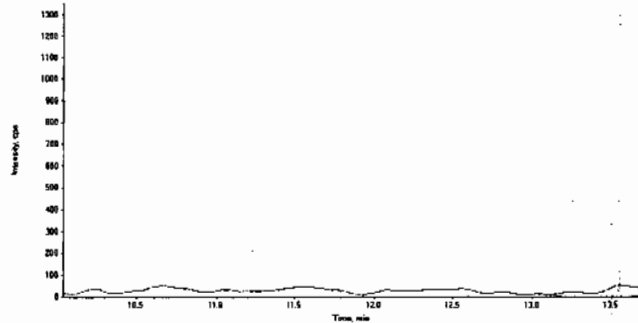
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

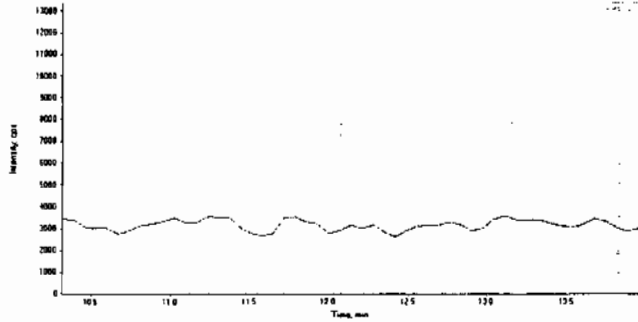
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420002.wiff	<b>Acquisition Date</b>	4/20/2010 2:44:57 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

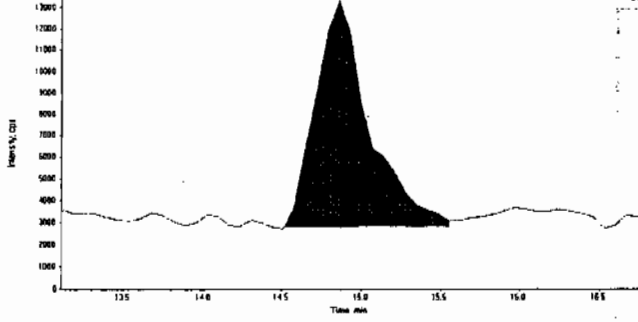
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

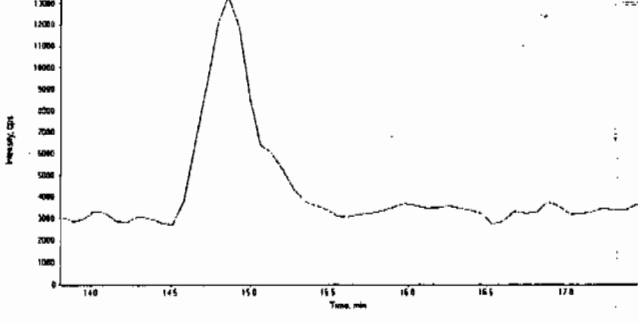
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	14.9
	Area Counts:	2.47e+005
	Manual Modification	No
	Amount:	0.765 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420002.wiff	<b>Acquisition Date</b>	4/20/2010 2:44:57 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

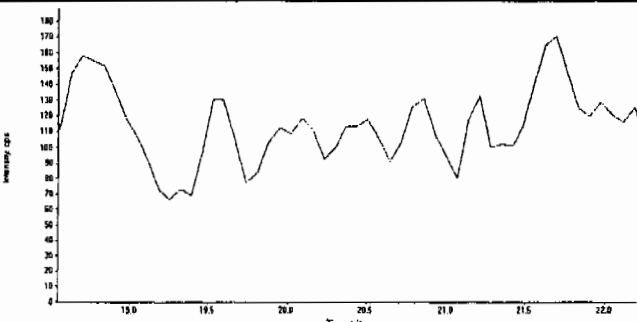
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

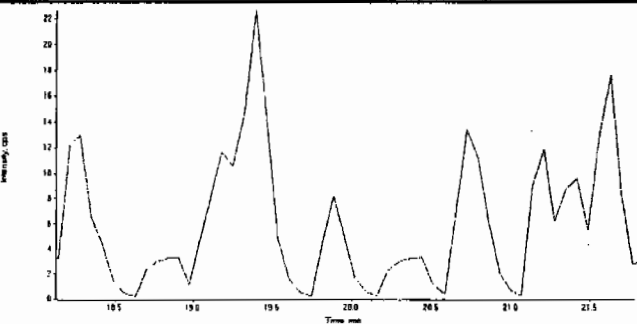
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LCMSMS#3

<b>Data File</b>	EXP0420002.wiff	<b>Acquisition Date</b>	4/20/2010 2:44:57 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 22-APR-10 15:59

GEL Data File: EXP0422001.wiff

Instrument ID: LCMSMS

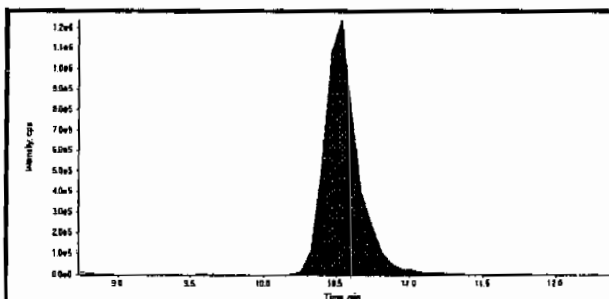
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
DNX	0	0
MNX	0	0
TNX	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	.0202
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

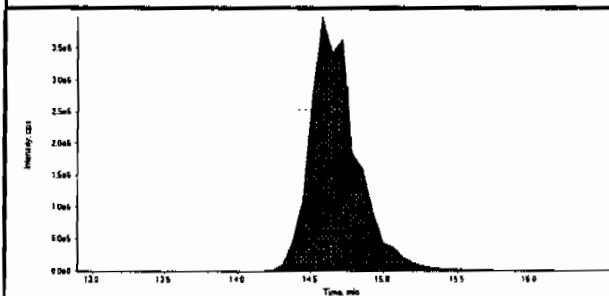
Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Data File	EXP0422001.wiff	Acquisition Date	4/22/2010 3:59:15 PM
Sample Name	XIBLK01	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



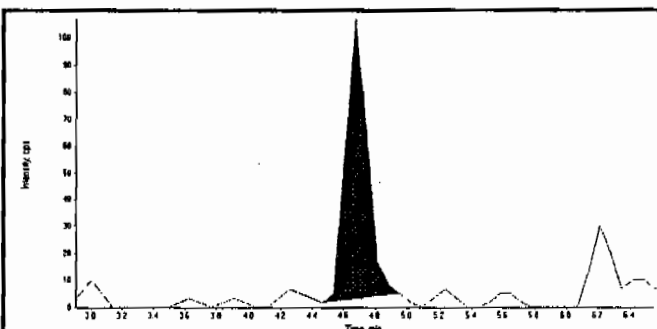
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	19500000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

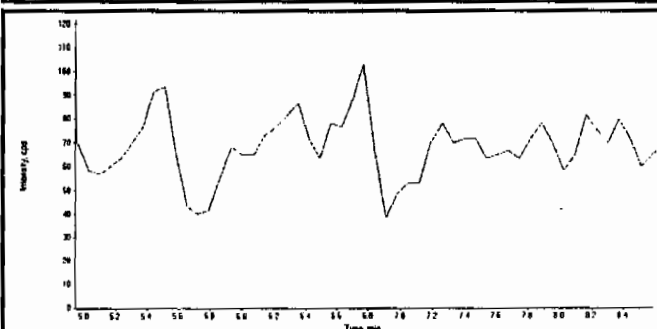


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.60
Area Counts:	88900000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.73
Actual RT:	4.68
Area Counts:	1.00e+003
Manual Modification	No
Amount:	0.0202 (ng/mL)
% Accuracy:	N/A



Compound Name:	RDY (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*4/22/10  
AS/6/110  
Jan  
5/5/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422001.wiff	<b>Acquisition Date</b>	4/22/2010 3:59:15 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	TNX (219.0/45.0 amu)
	Expected RT:	5.06
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	DNX (235.0/45.0 amu)
	Expected RT:	5.41
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	MNX (251.0/46.0 amu)
	Expected RT:	6.08
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.03
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422001.wiff	<b>Acquisition Date</b>	4/22/2010 3:59:15 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.2
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422001.wiff	<b>Acquisition Date</b>	4/22/2010 3:59:15 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.7
	<b>Area Counts:</b>	2.71e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

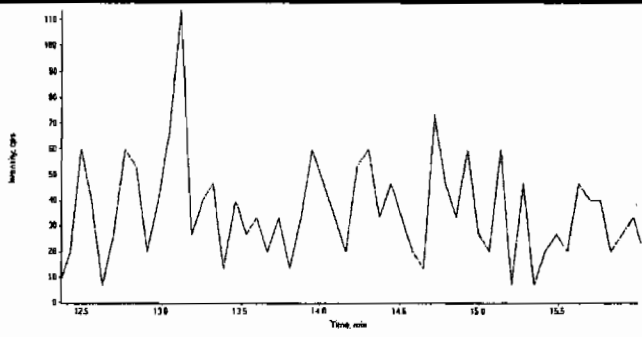
	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.2
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

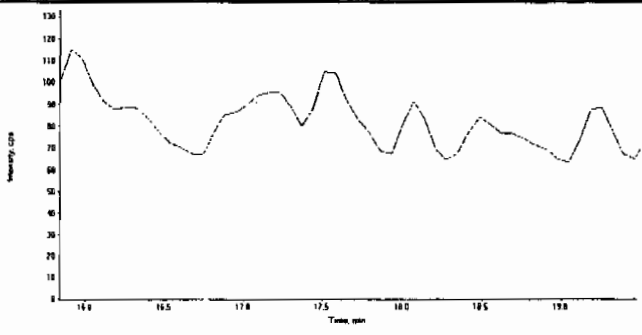
Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422001.wiff	<b>Acquisition Date</b>	4/22/2010 3:59:15 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

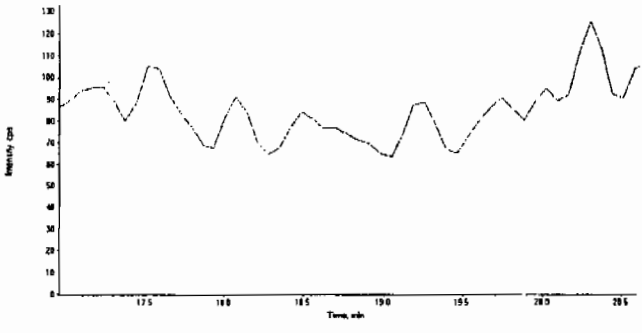
  

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

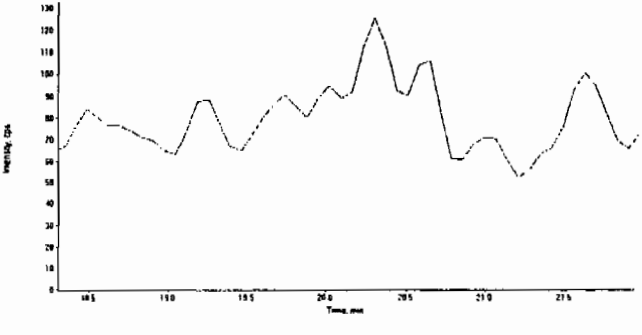
  

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

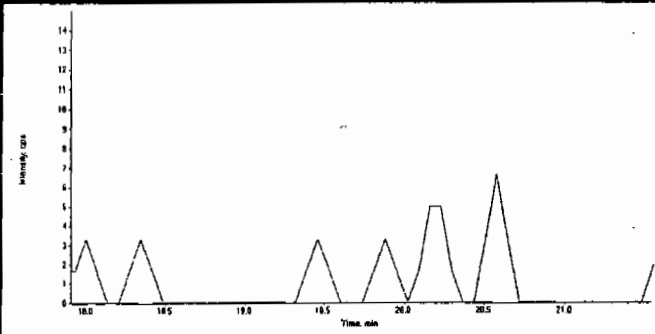
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Data File	EXP0422001.wiff	Acquisition Date	4/22/2010 3:59:15 PM
Sample Name	XIBLK01	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown
		Compound Name:	PETN (361.1/62.0 amu)
		Expected RT:	19.7
		Actual RT:	0.00
		Area Counts:	0.00e+000
		Manual Modification	No
		Amount:	N/A (ng/mL)
		% Accuracy:	N/A

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 22-APR-10 16:25

GEL Data File: EXP0422002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

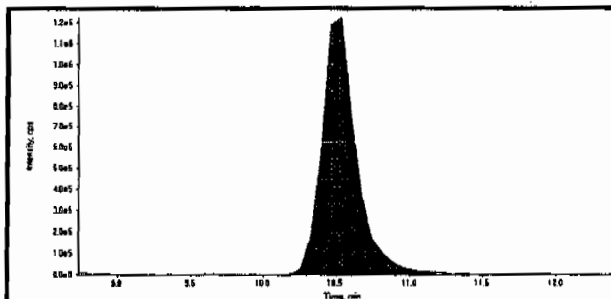
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
DNX	0	0
MNX	0	0
TNX	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	.0339
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

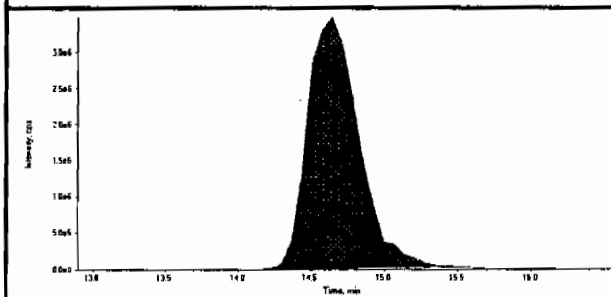
Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Data File	EXP0422002.wiff	Acquisition Date	4/22/2010 4:25:10 PM
Sample Name	XIBLK01	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



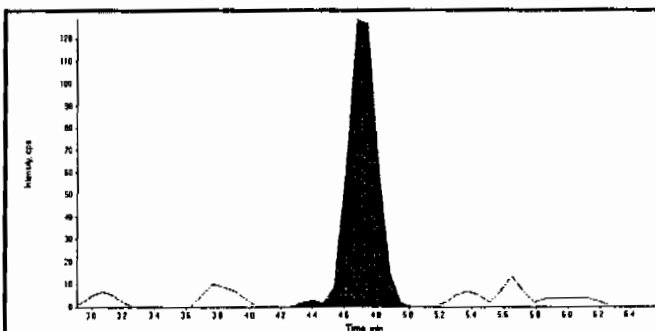
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	19700000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

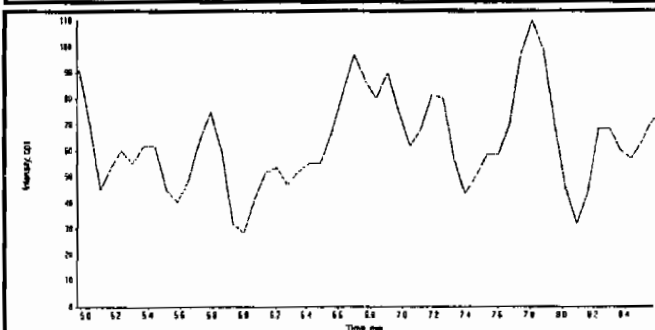


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.60
Area Counts:	84700000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.73
Actual RT:	4.71
Area Counts:	1.70e+003
Manual Modification	No
Amount:	0.0339 (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten:*  
Amu 05/06/10  
Ler  
5/6/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422002.wiff	<b>Acquisition Date</b>	4/22/2010 4:25:10 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	TNX (219.0/45.0 amu)
	Expected RT:	5.06
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	DNX (235.0/45.0 amu)
	Expected RT:	5.41
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	MNX (251.0/46.0 amu)
	Expected RT:	6.08
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.03
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422002.wiff	<b>Acquisition Date</b>	4/22/2010 4:25:10 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.2
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422002.wiff	<b>Acquisition Date</b>	4/22/2010 4:25:10 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.6
	<b>Area Counts:</b>	2.53e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.2
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422002.wiff	<b>Acquisition Date</b>	4/22/2010 4:25:10 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

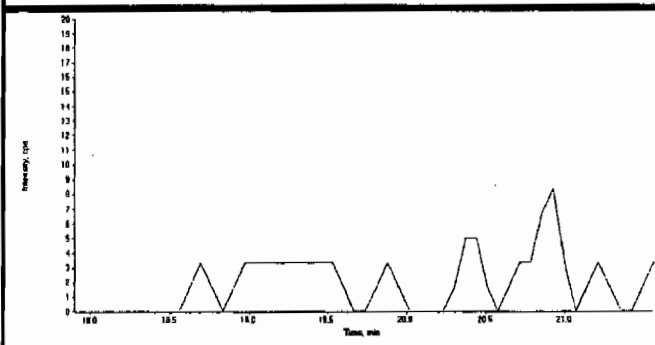
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422002.wiff	<b>Acquisition Date</b>	4/22/2010 4:25:10 PM
<b>Sample Name</b>	XIBLK01	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown
		<b>Compound Name:</b>	PETN (361.1/62.0 amu)
		<b>Expected RT:</b>	19.7
		<b>Actual RT:</b>	0.00
		<b>Area Counts:</b>	0.00e+000
		<b>Manual Modification</b>	No
		<b>Amount:</b>	N/A (ng/mL)
		<b>% Accuracy:</b>	N/A

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 09-APR-10 07:14

GEL Data File: EXS04090001.wiff

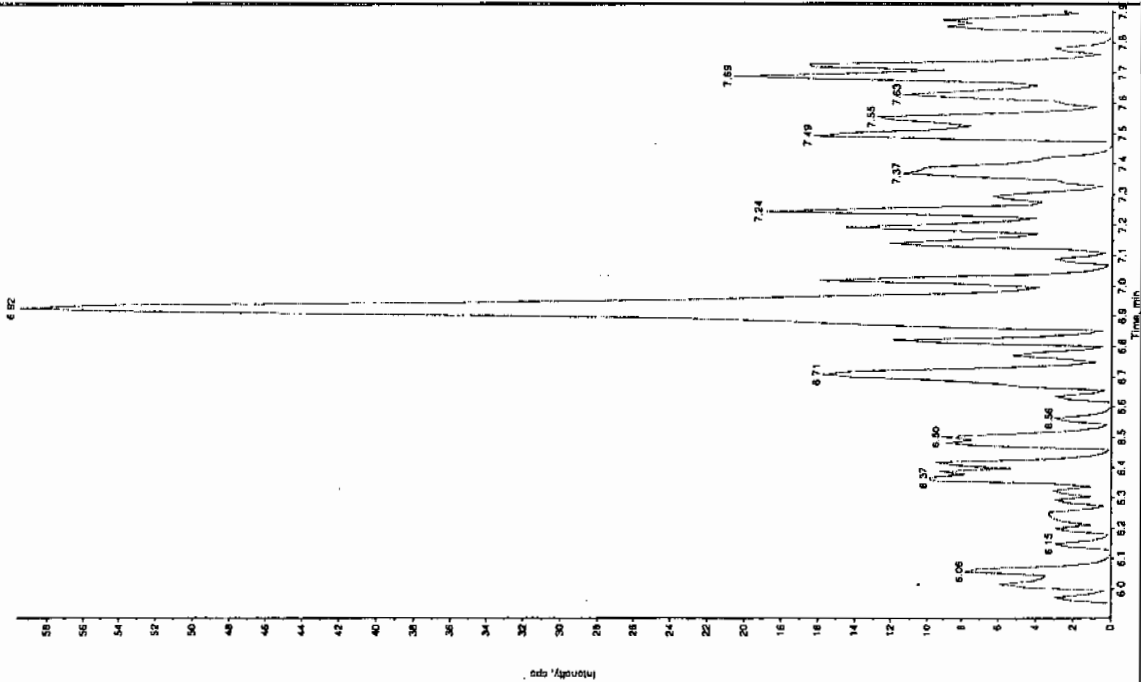
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	2.08
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ken 4/12/10

Sample Name: "XIBLK01" Sample ID: "TILER" File: "EXS04090001.wiff"  
 Peak Name: "35-Dinitroresin" Mass(es): "182.046.0 amu"  
 Comment: "LOMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 7:14:41 AM  
 Modified: No



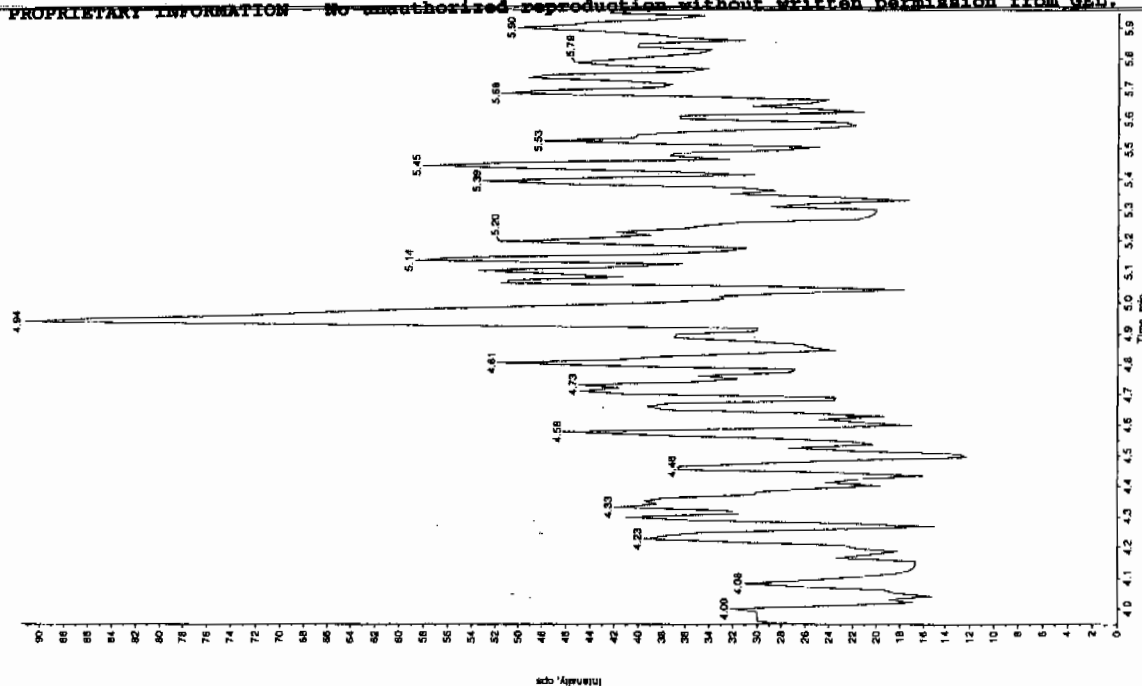
Sample Name: "XIBLK01" Sample ID: "TILER" File: "EXS04090001.wiff"  
 Peak Name: "35-Dinitroresin" Mass(es): "182.046.0 amu"  
 Comment: "LOMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 7:14:41 AM  
 Modified: No

Ken 4/12/10



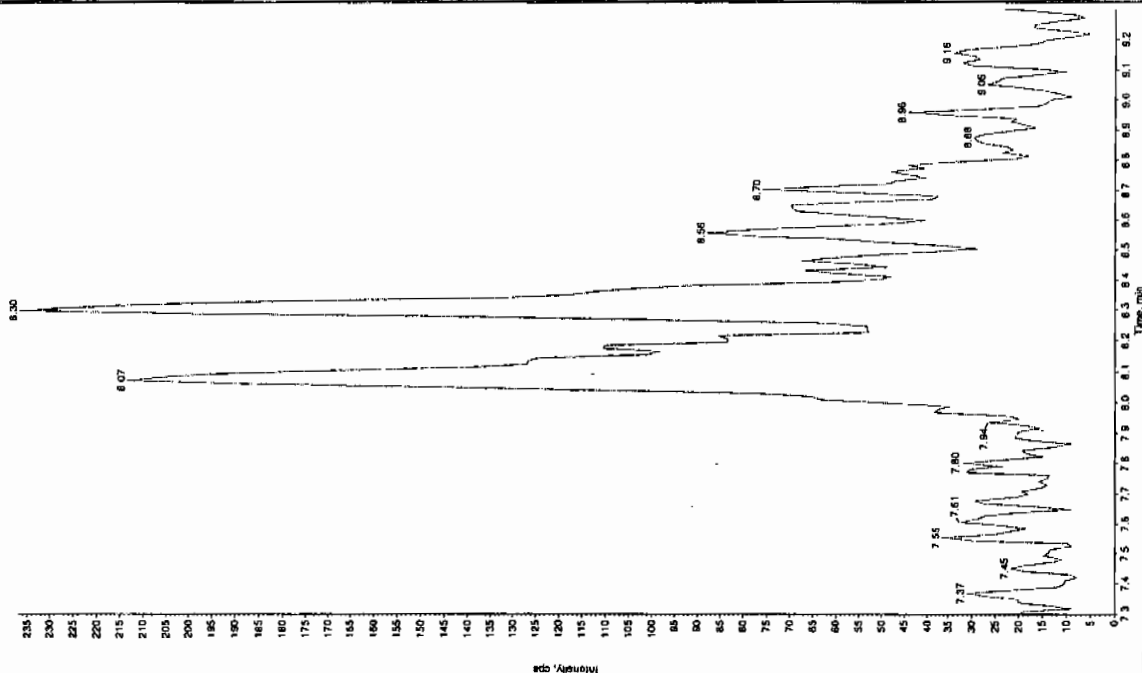
Sample Name: "XIBLK01" Sample ID: "TILER" File: "EXS04090001.wif"  
 Peak Name: "26-Diamino-4-nitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 7:14:41 AM  
 Modified: No



Sample Name: "XIBLK01" Sample ID: "TILER" File: "EXS04090001.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1151.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 7:14:41 AM  
 Modified: No



Sample Name: "XIBLK01" Sample ID: "11LER" File: "EXS04090001.wif"  
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"  
Comment: "ICMSEXP B" Annotation: ""

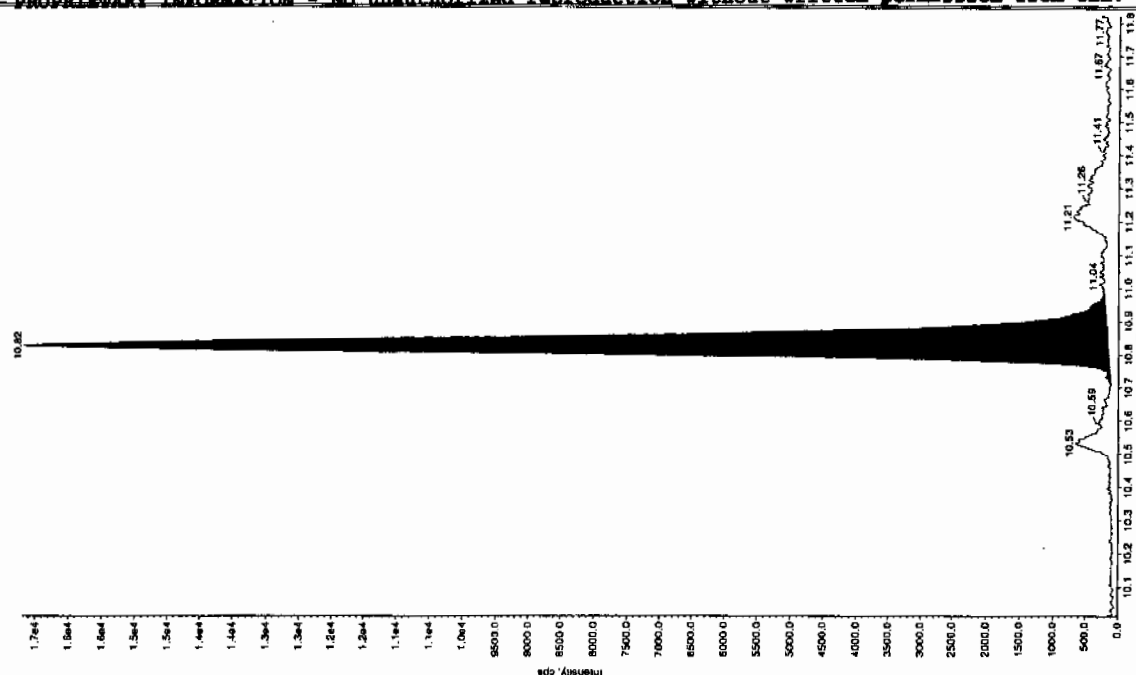
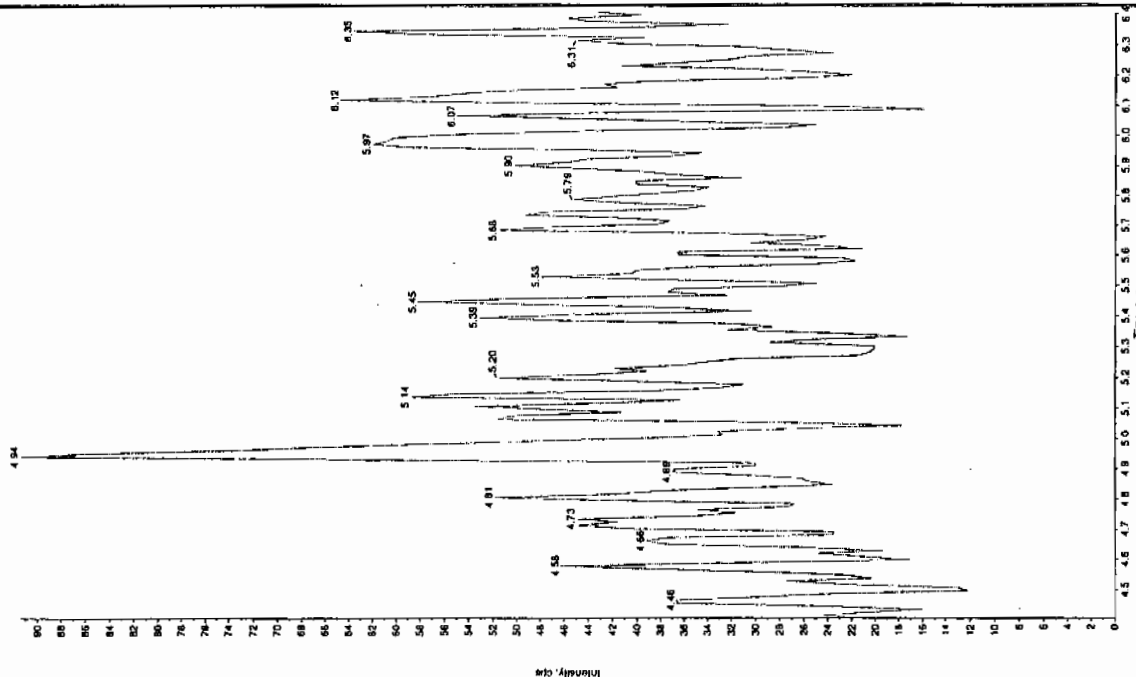
Sample Index:	1
Sample Type:	Unknown
Concentration:	X/A
Calculated Conc:	0.00
ng/mL	
ig. Date:	4/9/2010
eq. Time:	7:19:41 AM
Modified:	No

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 2.08 ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 7:14:41 AM

```

      Modified: NO
      Algorithm: IntelliQuan - IQA
      Min. Peak Height: 8000.00 cps
      Min. Peak Width: 0.00 sec
      Smoothing Width: 3 points
      RT Window: 30.0 sec
      Expected RT: 10.8 min
      Use Relative RT: NO
      Int. Type: Valley
      Retention Time: 10.8 min
      Area: 6.47e+004 counts
      Peak Height: 16537.569 cps
      Start Time: 11.0 min
      End Time: 10.7 min

```



Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 09-APR-10 07:30

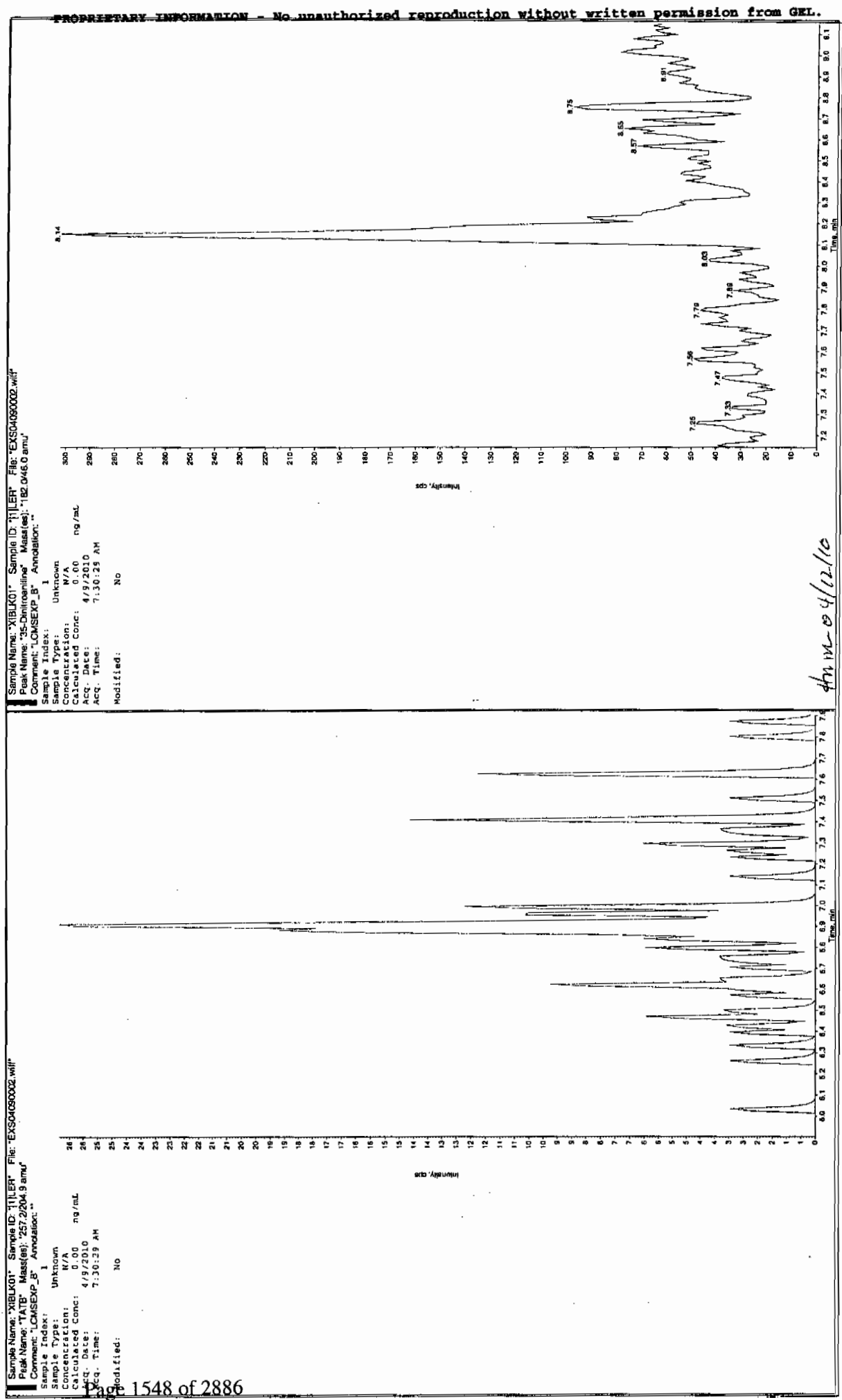
GEL Data File: EXS04090002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	1.56
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

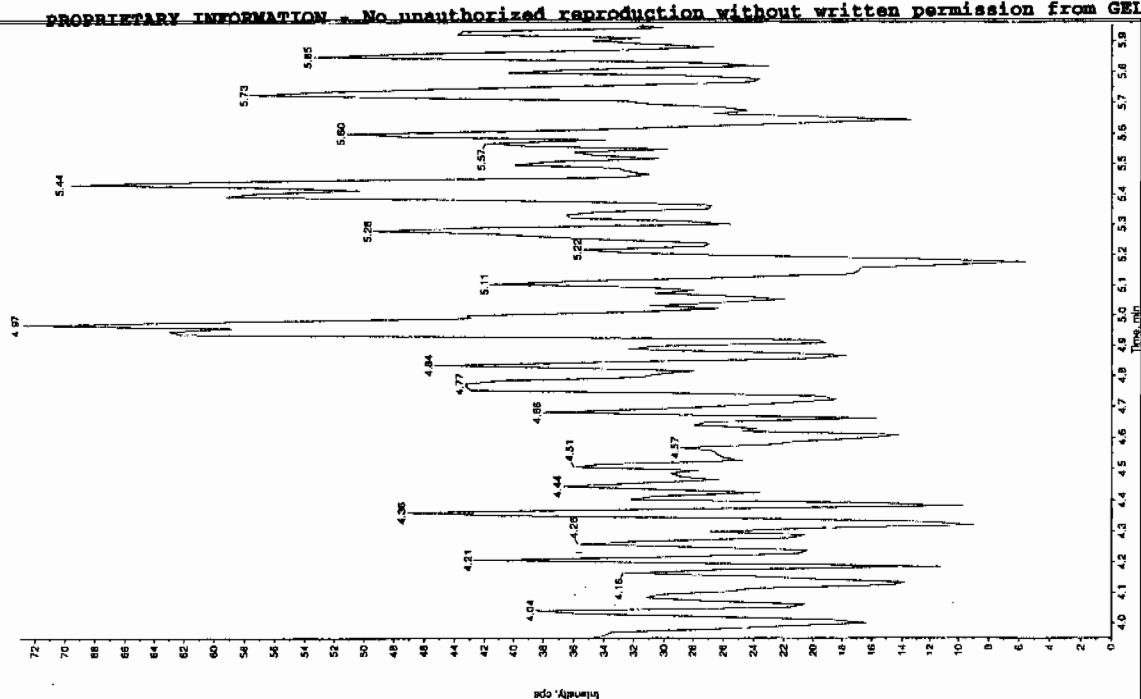
Jan 4/12/10



Jan 4/12/10

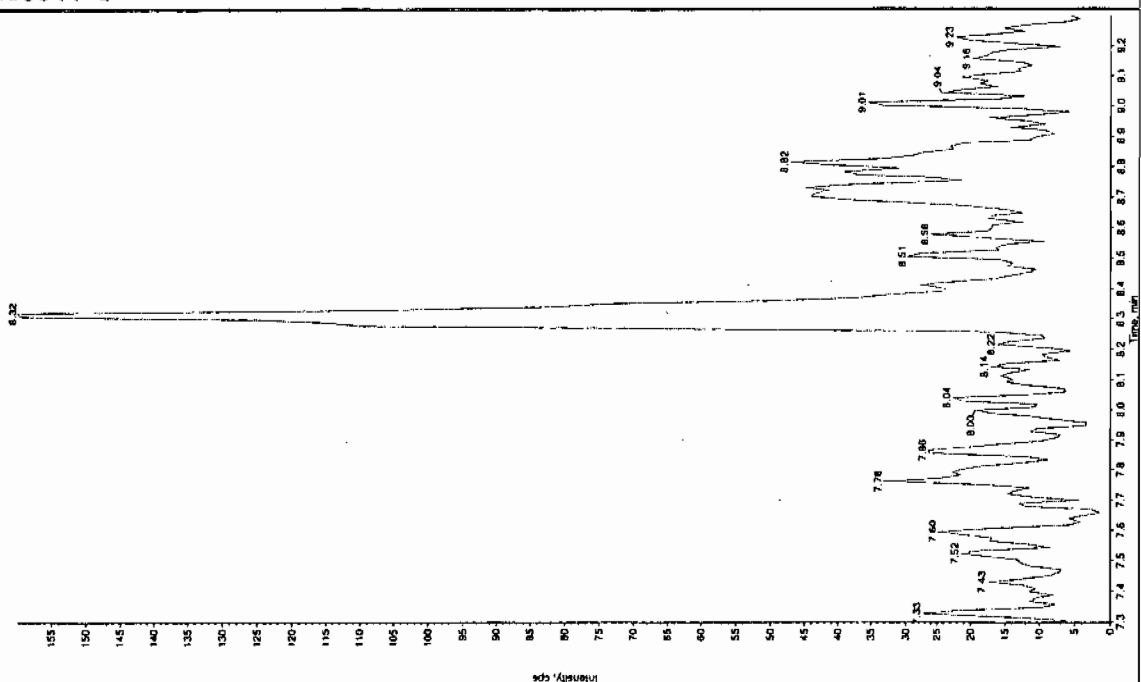
Sample Name: "XIBUK01" Sample ID: "111ER" File: "EXS04090002.wif"  
 Peak Name: "26-Diamino-4-nitrobenzene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 4/9/2010  
 Acq. Date: 7:30:29 AM  
 Acq. Time: 7:30:29 AM  
 Modified: No



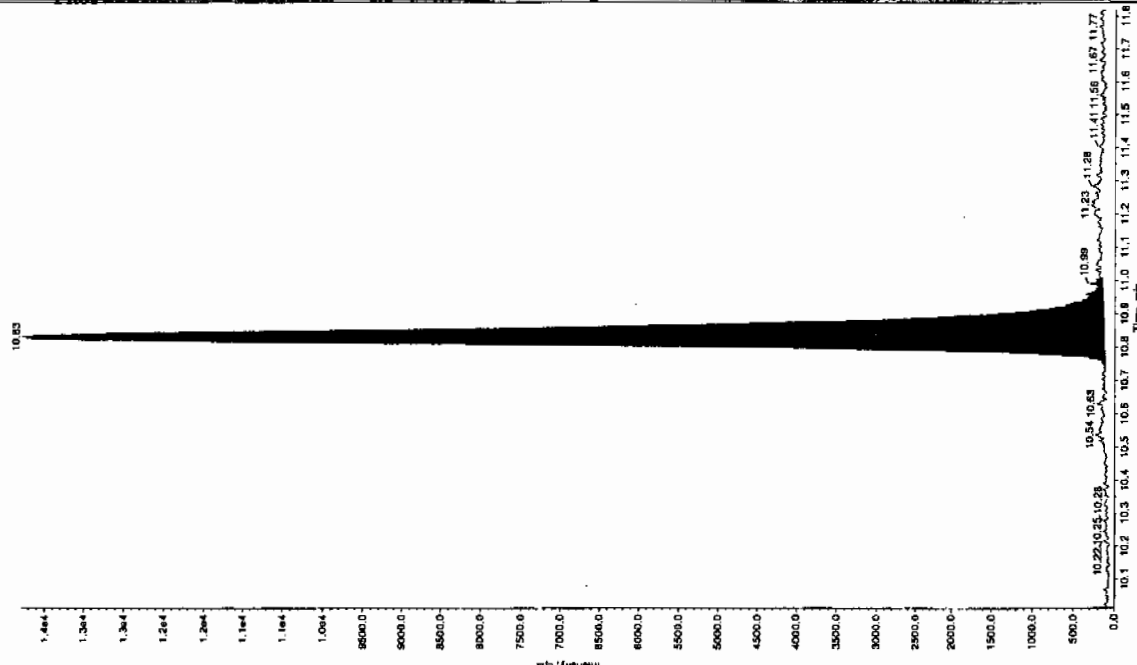
Sample Name: "XIBUK01" Sample ID: "111ER" File: "EXS04090002.wif"  
 Peak Name: "26-Diamino-4-nitrobenzene" Mass(es): "162.151.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 4/9/2010  
 Acq. Date: 7:30:29 AM  
 Acq. Time: 7:30:29 AM  
 Modified: No



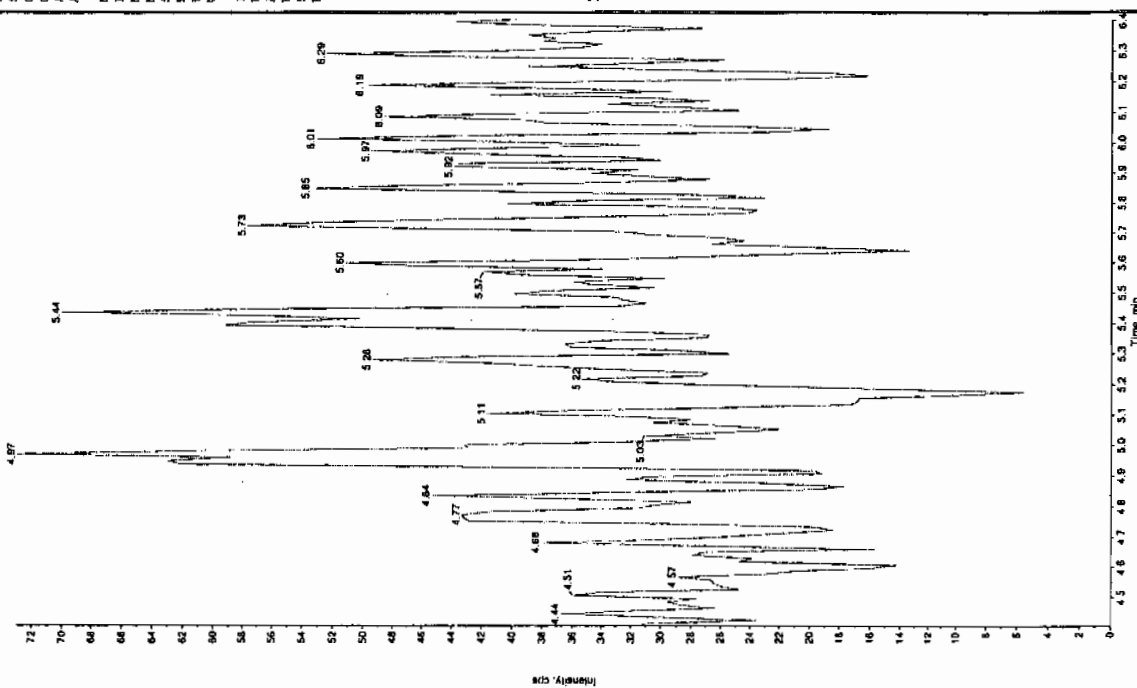
Sample Name: 'XBLK01' Sample ID: 'TILER' File: 'EX504060002.wml'  
 Peak Name: 'Tris(o-cresyl) phosphate' Mass(es): '369.151.0 amu'  
 Comment: 'LCMSEXP\_B' Annotation: ''

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 1.56 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 7:30:29 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 5.40e+004 counts  
 Height: 13667.690 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



Sample Name: 'XBLK01' Sample ID: 'TILER' File: 'EX504060002.wml'  
 Peak Name: '24-Diamino-6-nitrotoluene' Mass(es): '166.046.0 amu'  
 Comment: 'LCMSEXP\_B' Annotation: ''

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 7:30:29 AM  
 Modified: No



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 15-APR-10 13:35

GEL Data File: EXP0415009.wiff

Instrument ID: LCMSMS

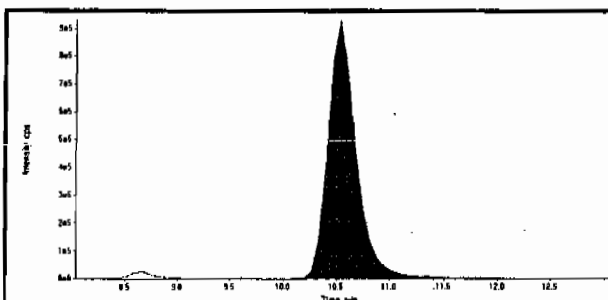
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

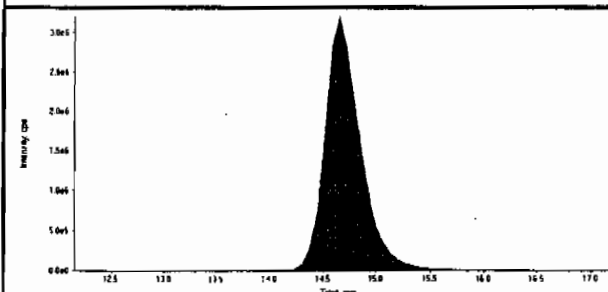
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415009.wiff	Acquisition Date	4/15/2010 1:35:02 PM
Sample Name	XIBLK02	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



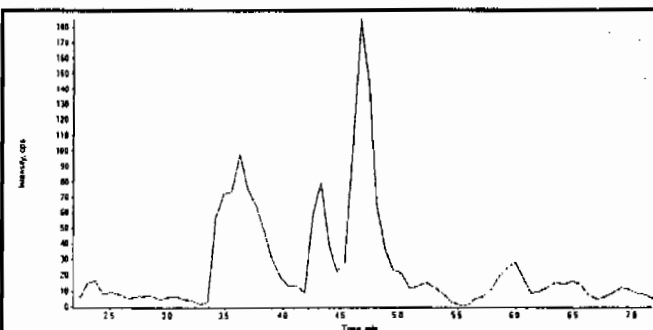
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	17200000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

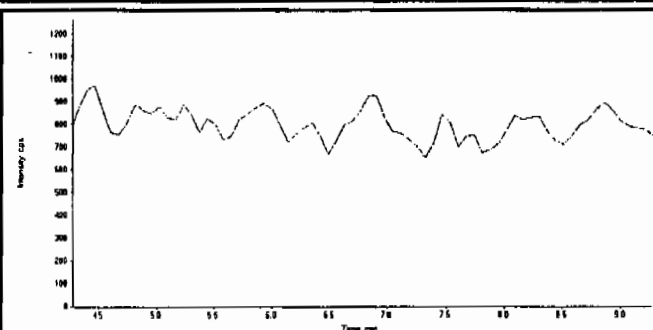


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.60
Area Counts:	75000000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten notes:*  
HMX 4/23/10  
RDX 4/23/10



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415009.wiff	<b>Acquisition Date</b>	4/15/2010 1:35:02 PM
<b>Sample Name</b>	XIBLK02	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

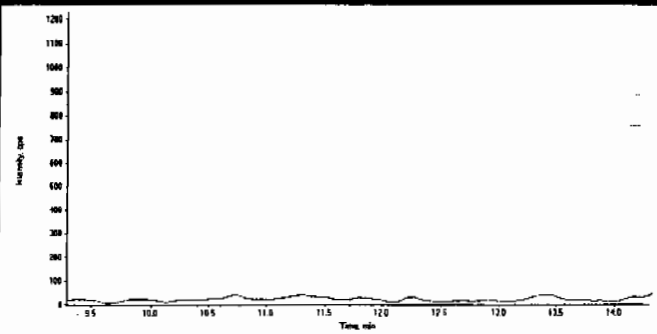
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	7.76e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
 GEL SOP GL-OA-E-056, Method 8321A-Modified

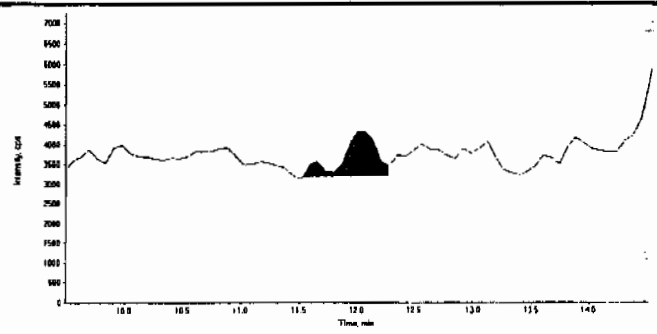
Printed: 22/04/2010 4:04:00 PM  
 LCMSMS#3

<b>Data File</b>	EXP0415009.wiff	<b>Acquisition Date</b>	4/15/2010 1:35:02 PM
<b>Sample Name</b>	XIBLK02	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

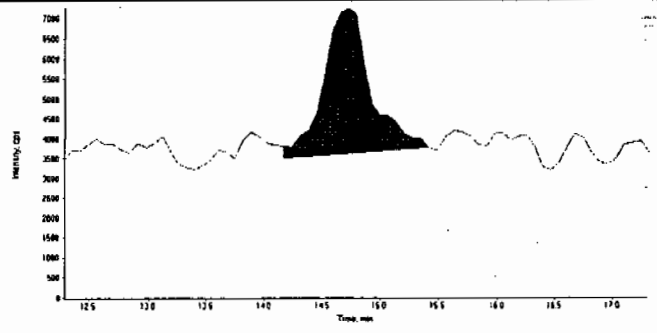
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

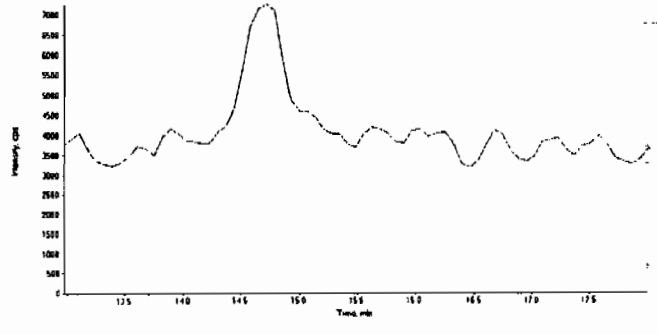
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.0
	Area Counts:	2.48e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.7
	Area Counts:	1.08e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

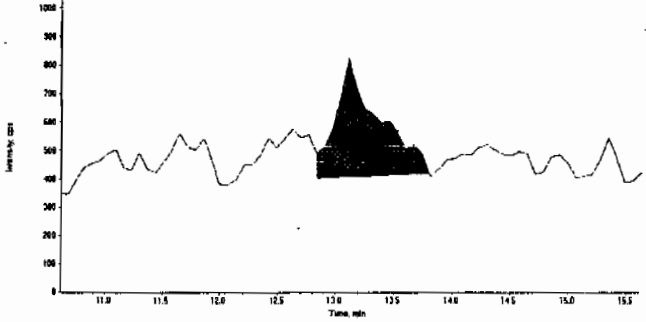
  

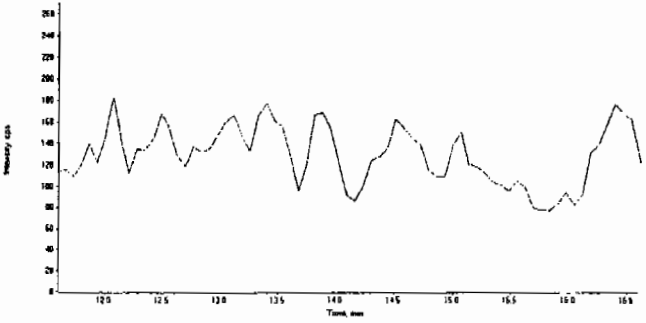
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

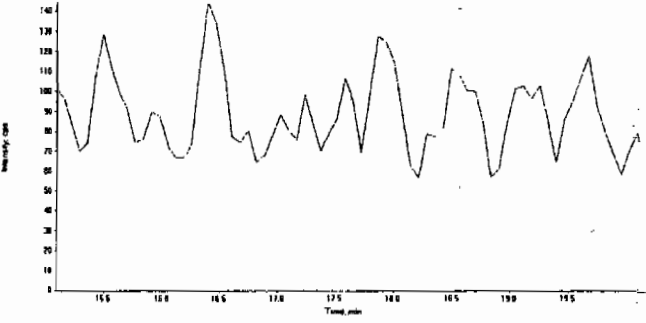
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

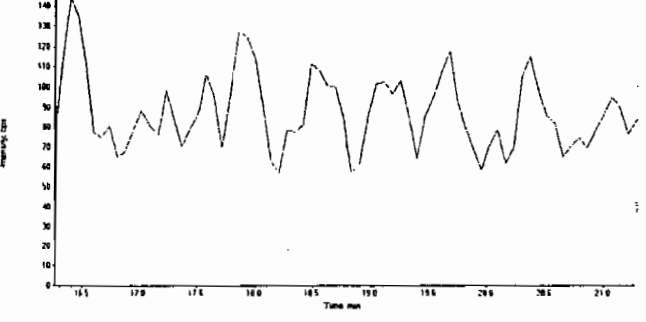
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LCMSMS#3

Data File	EXP0415009.wiff	Acquisition Date	4/15/2010 1:35:02 PM
Sample Name	XIBLK02	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

	Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.1
	Area Counts:	1.11e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

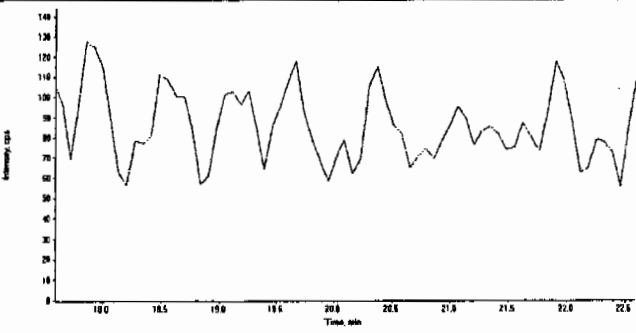
	Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

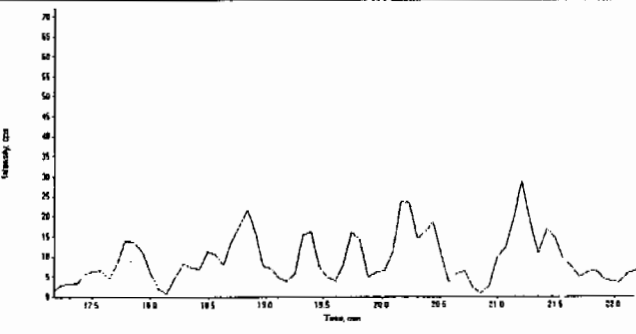
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LCMSMS#3

<b>Data File</b>	EXP0415009.wiff	<b>Acquisition Date</b>	4/15/2010 1:35:02 PM
<b>Sample Name</b>	XIBLK02	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 15-APR-10 14:27

GEL Data File: EXP0415011.wiff

Instrument ID: LCMSMS

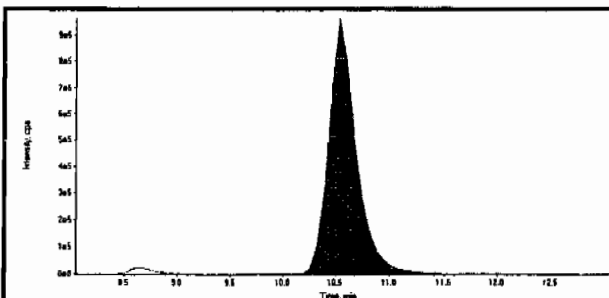
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	4.37
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

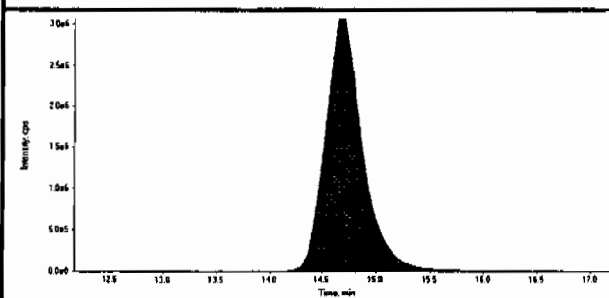
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

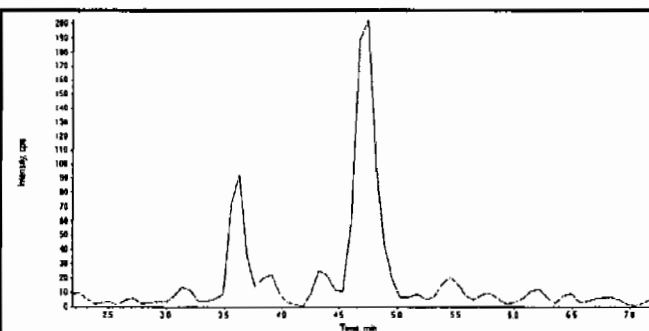
Data File	EXP0415011.wiff	Acquisition Date	4/15/2010 2:27:07 PM
Sample Name	XIBLK03	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



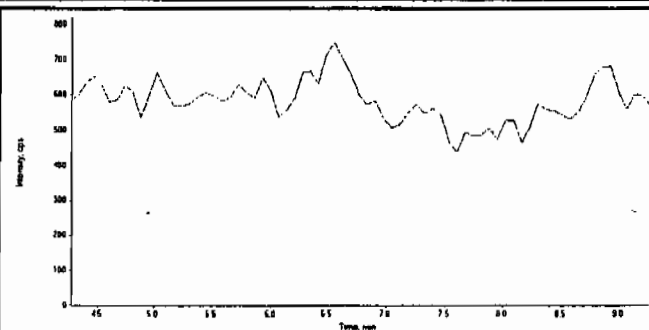
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	17200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.60
Area Counts:	74900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



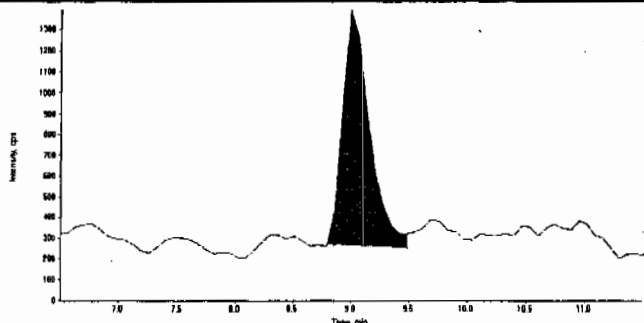
Compound Name:	RDY (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

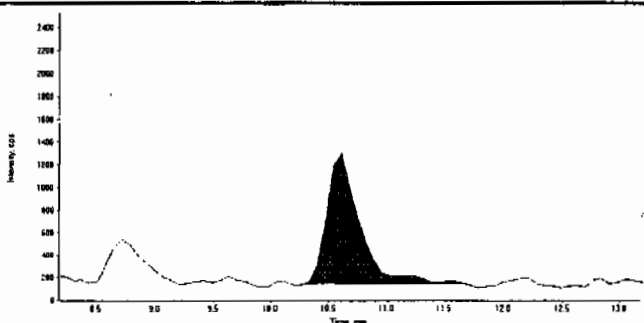
*Handwritten:*  
Hmw 04/23/10  
Ler 4/23/10

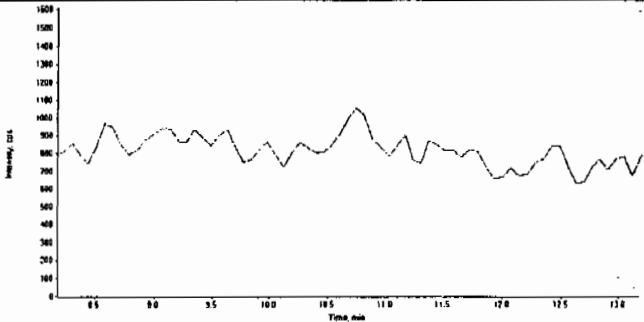
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

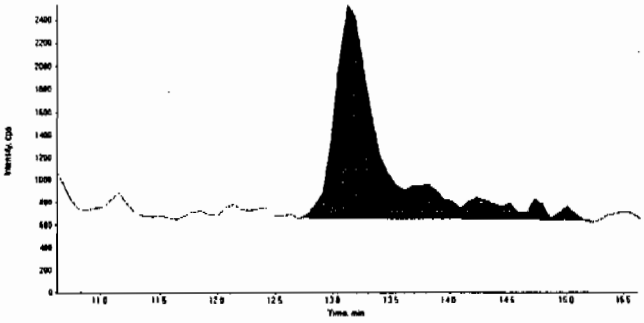
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415011.wiff	Acquisition Date	4/15/2010 2:27:07 PM
Sample Name	XIBLK03	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	9.00
	Area Counts:	1.86e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.6
	Area Counts:	2.36e+004
	Manual Modification	No
	Amount:	4.37 (ng/mL)
	% Accuracy:	N/A

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

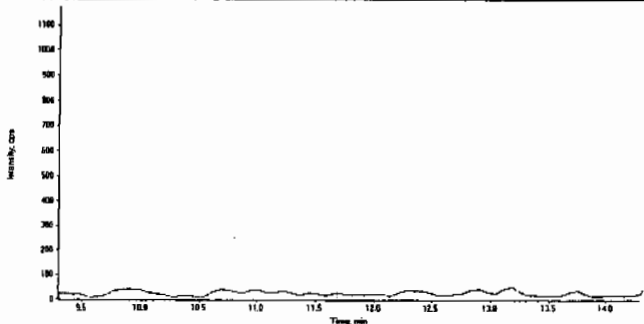
	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	13.1
	Area Counts:	5.58e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

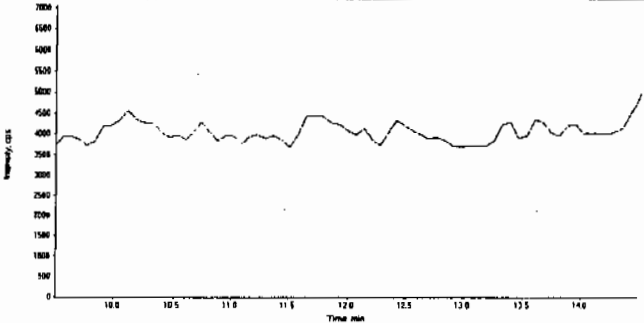
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415011.wiff	<b>Acquisition Date</b>	4/15/2010 2:27:07 PM
<b>Sample Name</b>	XIBLK03	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

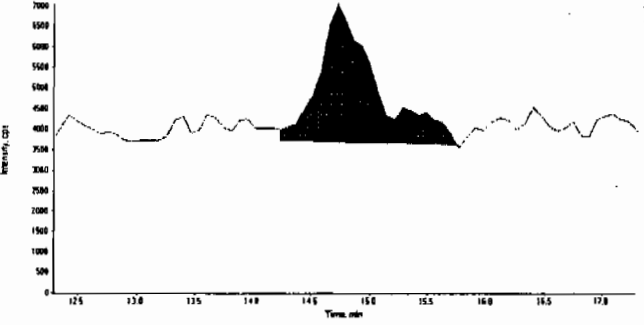
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

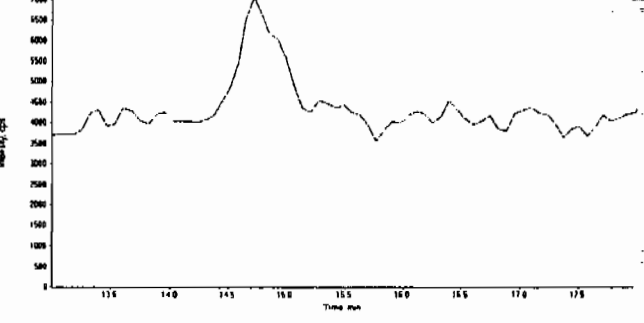
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.7
	<b>Area Counts:</b>	1.16e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415011.wiff	<b>Acquisition Date</b>	4/15/2010 2:27:07 PM
<b>Sample Name</b>	XIBLK03	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.1
	Area Counts:	1.23e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415011.wiff	<b>Acquisition Date</b>	4/15/2010 2:27:07 PM
<b>Sample Name</b>	XIBLK03	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 15-APR-10 16:10

GEL Data File: EXP0415015.wiff

Instrument ID: LCMSMS

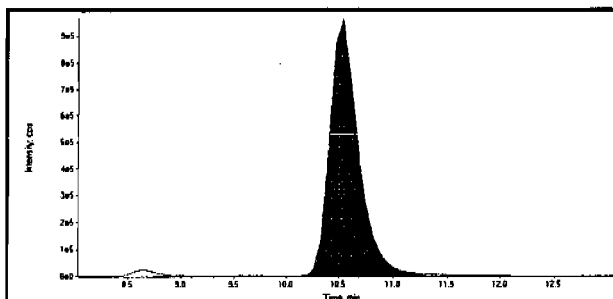
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	4.34
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

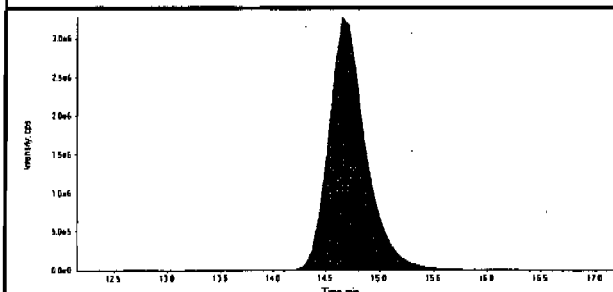
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

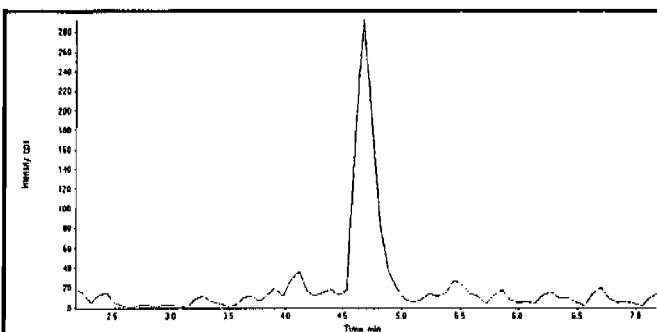
Data File	EXP0415015.wiff	Acquisition Date	4/15/2010 4:10:55 PM
Sample Name	XIBLK04	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



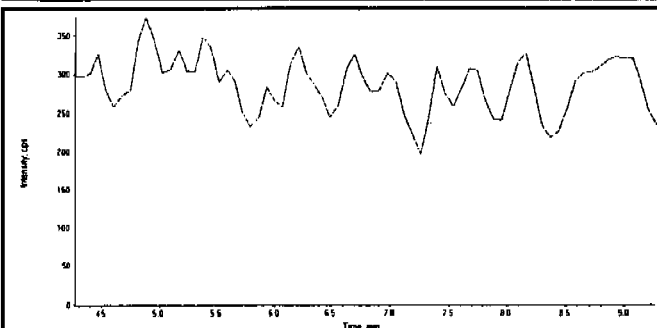
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	18200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.60
Area Counts:	79300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDY (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten:*  
Hmxy 04/23/10  
Lan 4/23/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415015.wiff	<b>Acquisition Date</b>	4/15/2010 4:10:55 PM
<b>Sample Name</b>	XIBLK04	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.6
	Area Counts:	2.11e+004
	Manual Modification	No
	Amount:	4.34 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

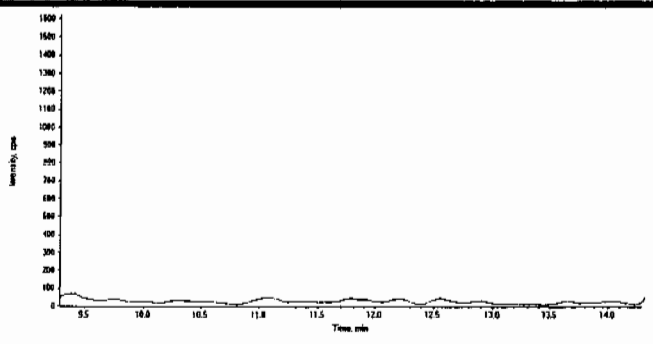
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	13.1
	Area Counts:	2.79e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

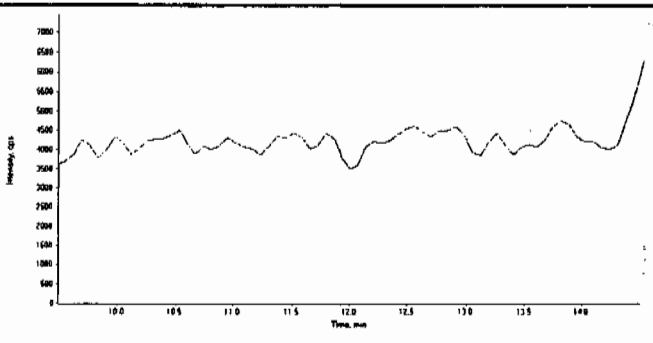
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415015.wiff	<b>Acquisition Date</b>	4/15/2010 4:10:55 PM
<b>Sample Name</b>	XIBLK04	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

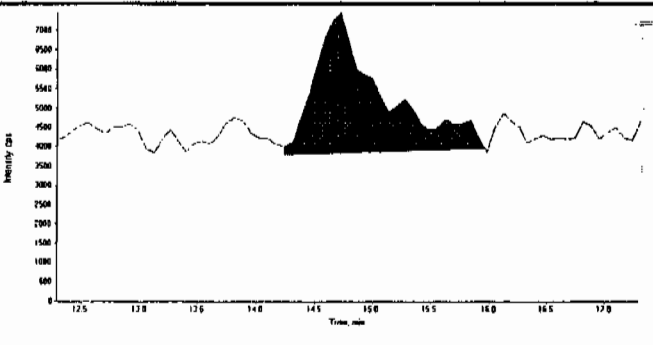
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

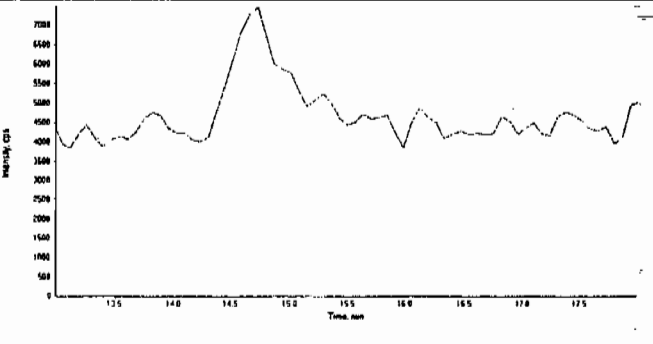
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.7
	<b>Area Counts:</b>	1.49e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415015.wiff	<b>Acquisition Date</b>	4/15/2010 4:10:55 PM
<b>Sample Name</b>	XIBLK04	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	6.69e+003
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415015.wiff	<b>Acquisition Date</b>	4/15/2010 4:10:55 PM
<b>Sample Name</b>	XIBLK04	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 15-APR-10 17:02

GEL Data File: EXP0415017.wiff

Instrument ID: LCMSMS

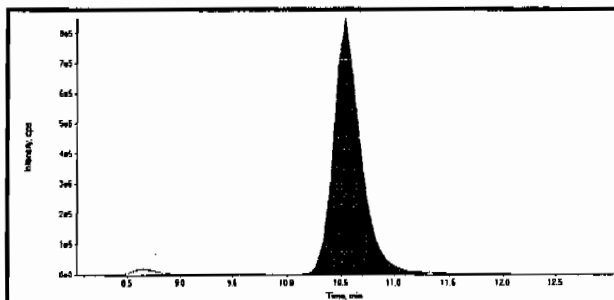
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

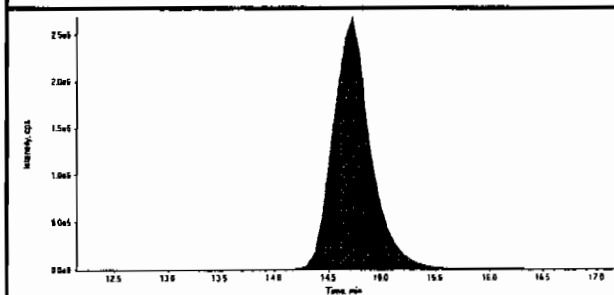
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

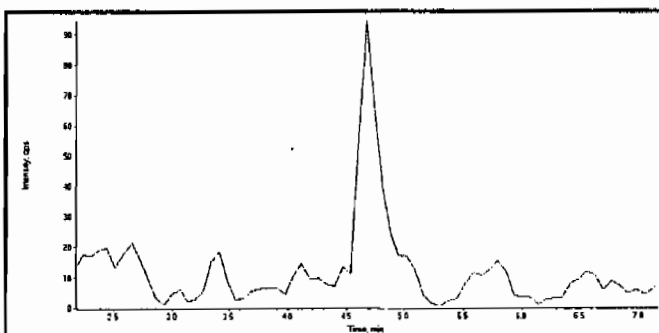
Data File	EXP0415017.wiff	Acquisition Date	4/15/2010 5:02:43 PM
Sample Name	XIBLK05	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



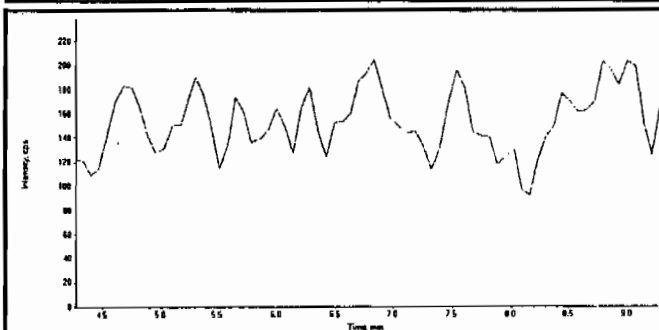
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	15200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	66500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDY (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten signature: HMX 04/15/10 LAR 4/15/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415017.wiff	<b>Acquisition Date</b>	4/15/2010 5:02:43 PM
<b>Sample Name</b>	XIBLK05	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

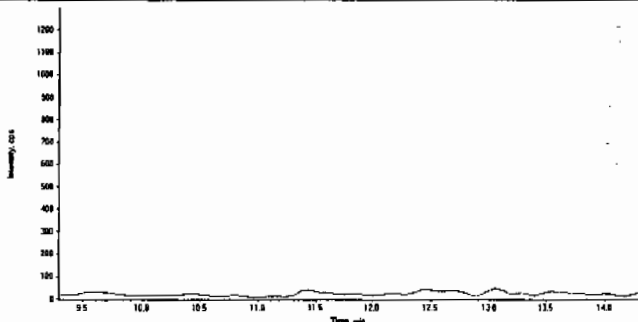
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

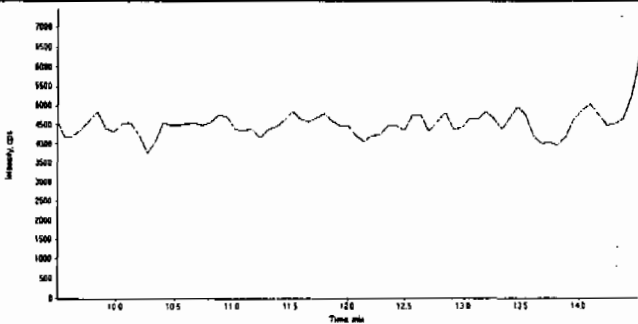
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415017.wiff	<b>Acquisition Date</b>	4/15/2010 5:02:43 PM
<b>Sample Name</b>	XIBLK05	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

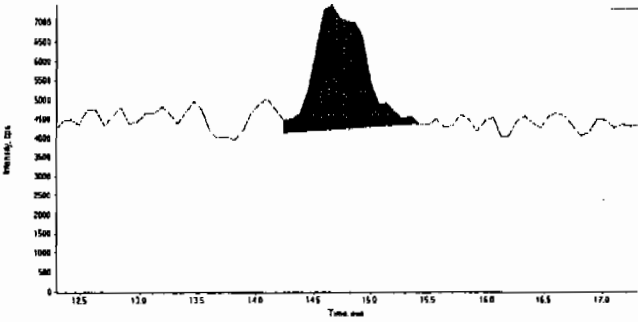
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

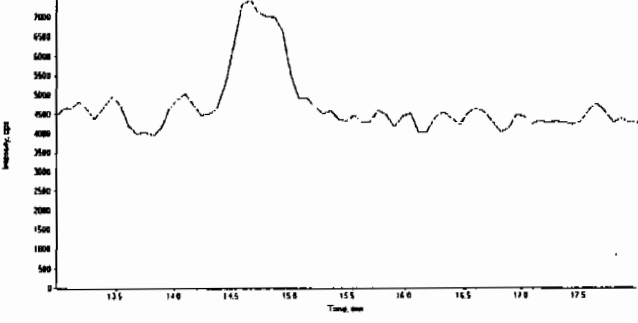
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.6
	Area Counts:	1.04e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415017.wiff	<b>Acquisition Date</b>	4/15/2010 5:02:43 PM
<b>Sample Name</b>	XIBLK05	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415017.wiff	Acquisition Date	4/15/2010 5:02:43 PM
Sample Name	XIBLK05	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 15-APR-10 17:54

GEL Data File: EXP0415019.wiff

Instrument ID: LCMSMS

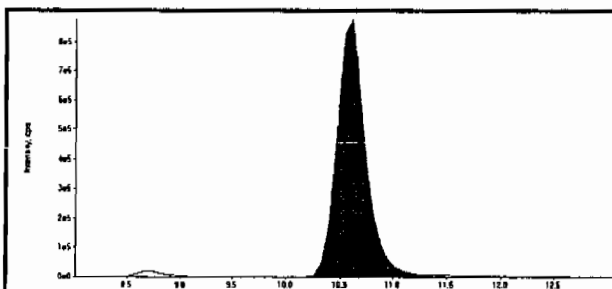
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	4.35
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

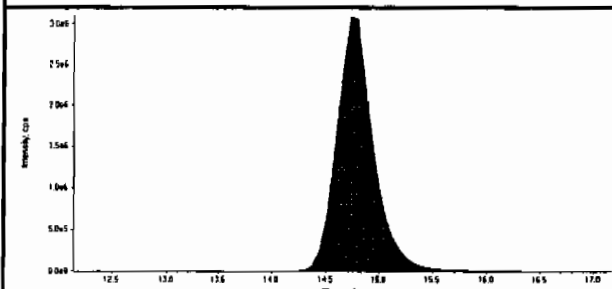
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

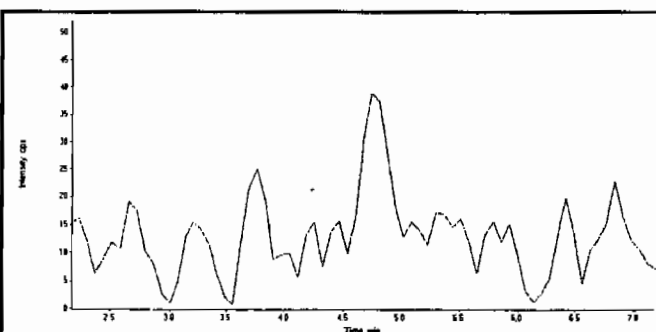
Data File	EXP0415019.wiff	Acquisition Date	4/15/2010 5:54:33 PM
Sample Name	XIBLK06	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



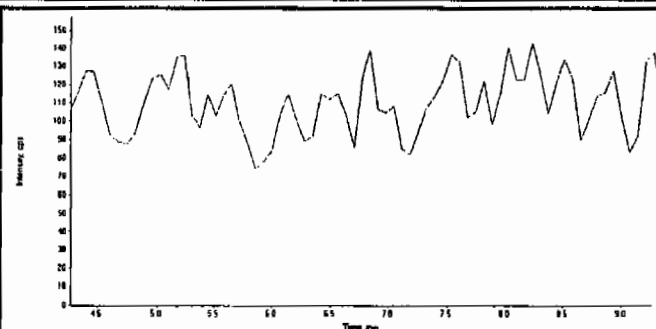
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	16700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	75000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten signature: HMC 04/23/10 LER 4/23/10*

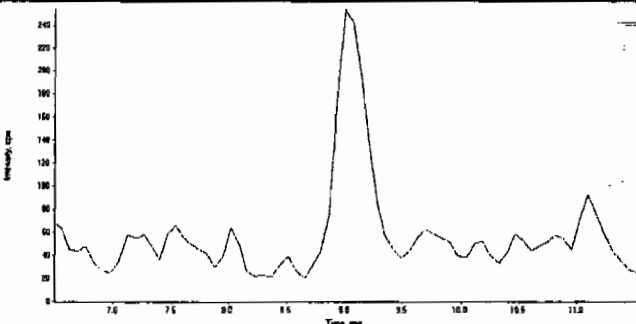


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

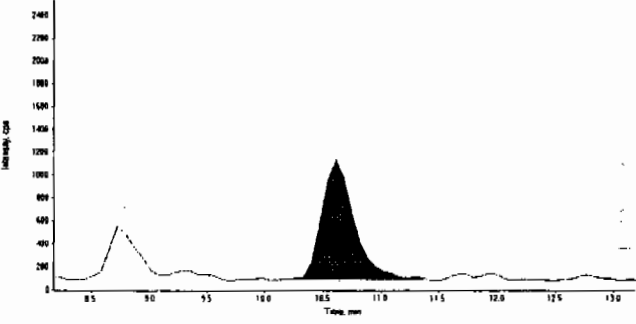
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415019.wiff	<b>Acquisition Date</b>	4/15/2010 5:54:33 PM
<b>Sample Name</b>	XIBLK06	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

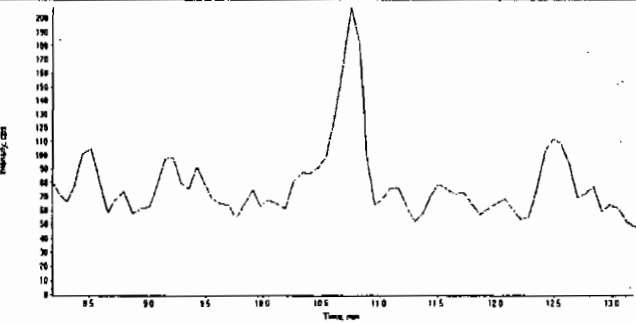
  

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

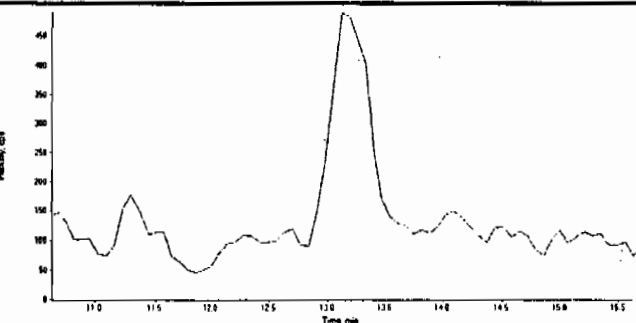
  

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.6
	<b>Area Counts:</b>	2.08e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	4.35 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415019.wiff	Acquisition Date	4/15/2010 5:54:33 PM
Sample Name	XIBLK06	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

	Compound Name:	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.7
	Area Counts:	1.07e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415019.wiff	<b>Acquisition Date</b>	4/15/2010 5:54:33 PM
<b>Sample Name</b>	XIBLK06	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

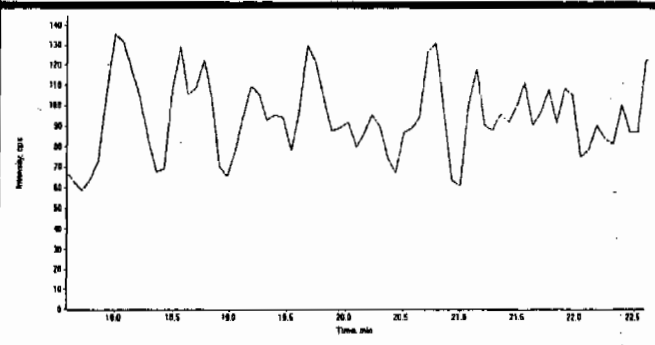
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

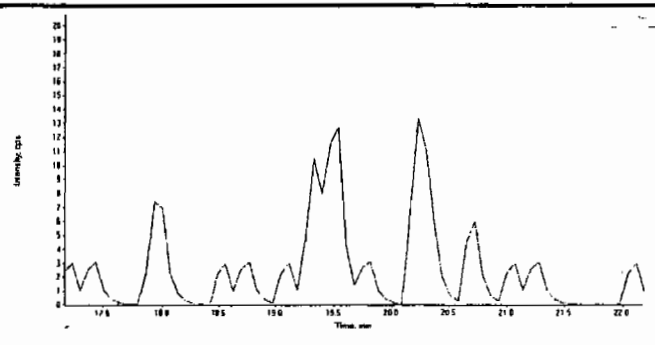
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LCMSMS#3

<b>Data File</b>	EXP0415019.wiff	<b>Acquisition Date</b>	4/15/2010 5:54:33 PM
<b>Sample Name</b>	XIBLK06	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 15-APR-10 18:46

GEL Data File: EXP0415021.wiff

Instrument ID: LCMSMS

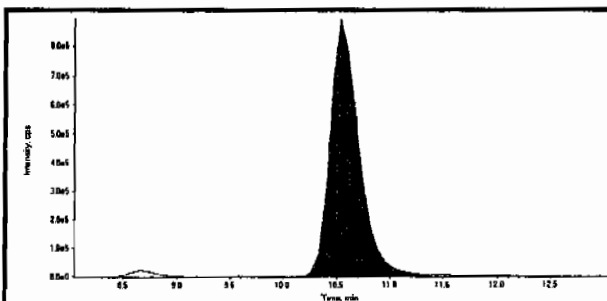
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

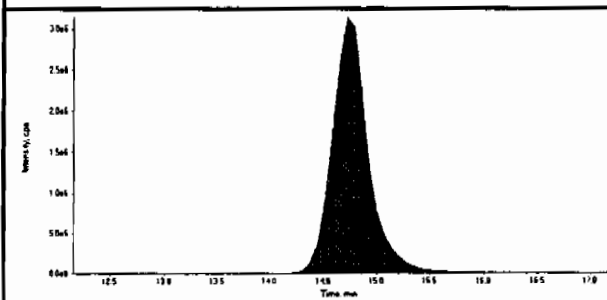
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

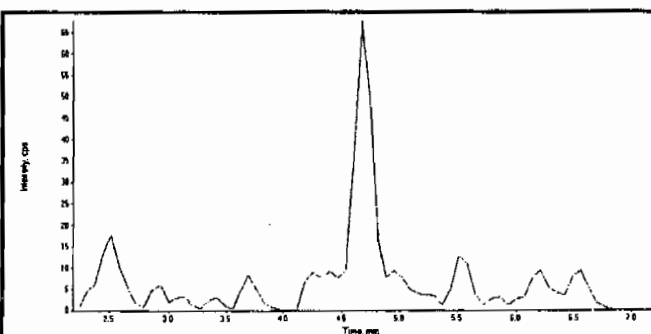
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Sample Name	XIBLK07	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



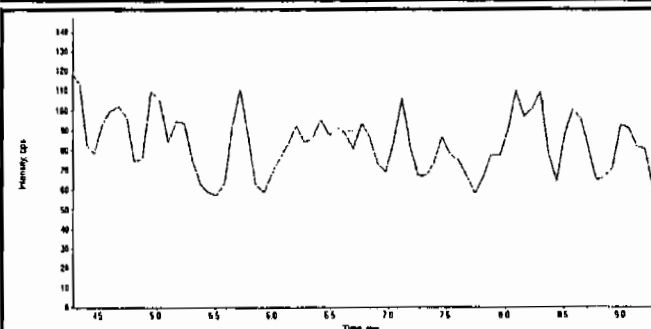
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	17100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	74400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

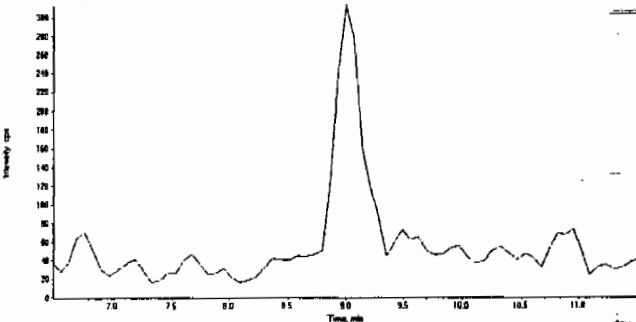
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GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

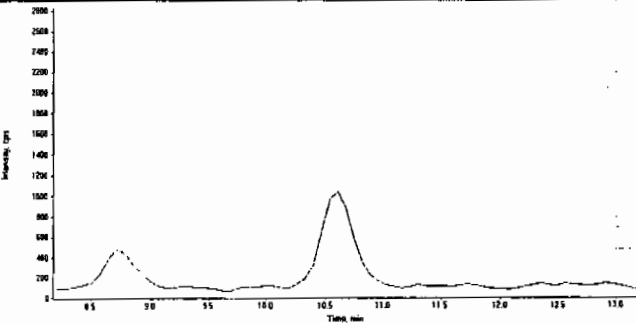
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LCMSMS#3

Data File	EXP0415021.wiff	Acquisition Date	4/15/2010 6:46:25 PM
Sample Name	XIBLK07	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

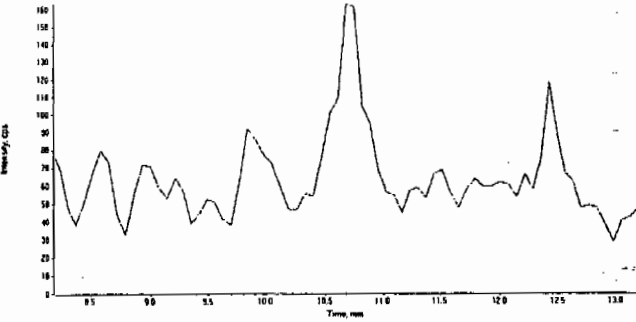
  

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

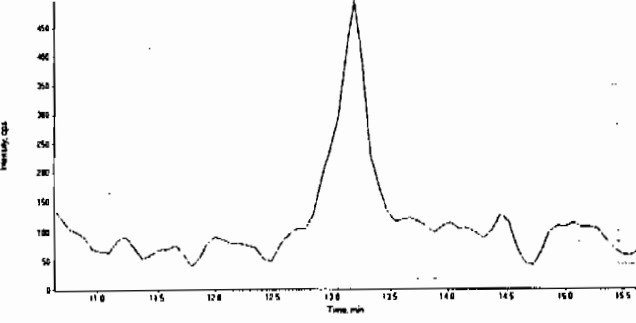
  

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

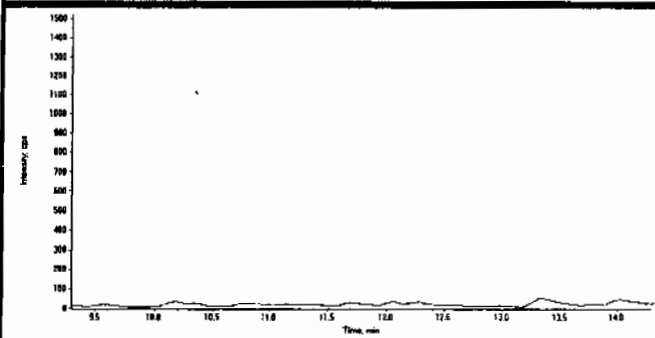
	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

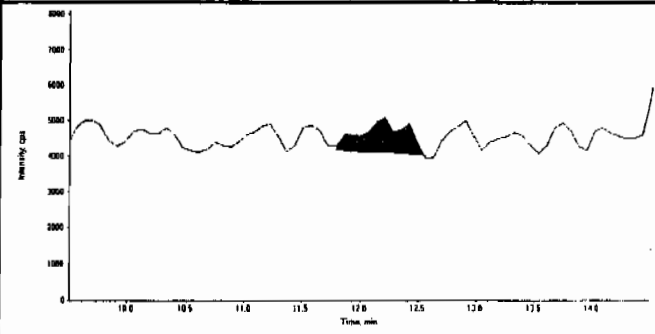
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LCMSMS#3

<b>Data File</b>	EXP0415021.wiff	<b>Acquisition Date</b>	4/15/2010 6:46:25 PM
<b>Sample Name</b>	XIBLK07	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

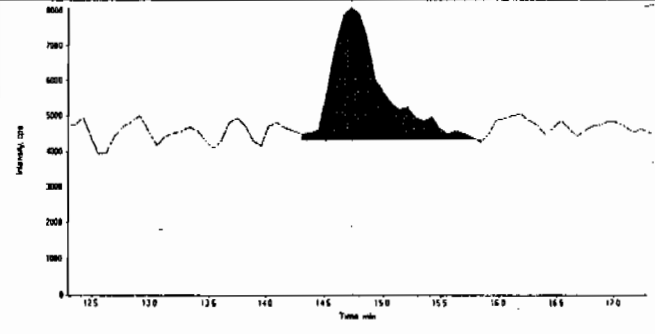
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

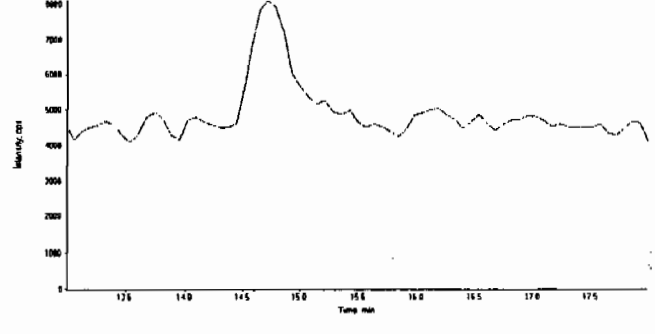
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.2
	<b>Area Counts:</b>	2.76e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.7
	<b>Area Counts:</b>	1.14e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415021.wiff	<b>Acquisition Date</b>	4/15/2010 6:46:25 PM
<b>Sample Name</b>	XIBLK07	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

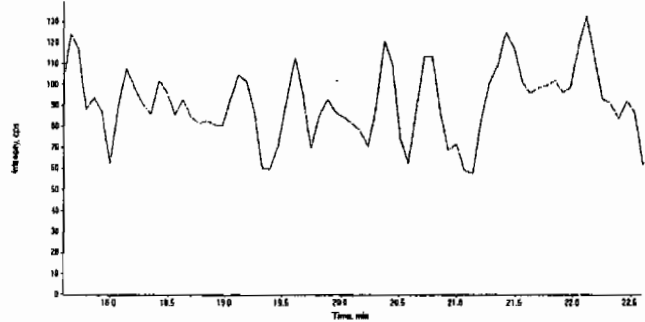
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

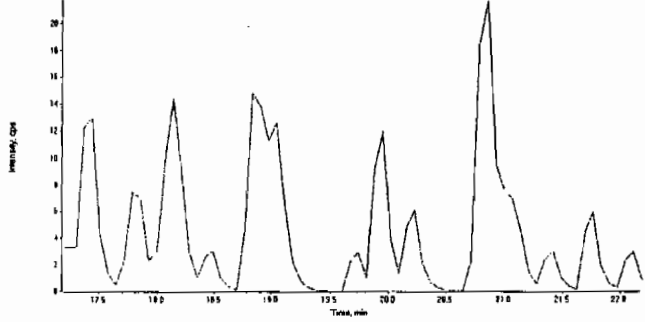
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415021.wiff	<b>Acquisition Date</b>	4/15/2010 6:46:25 PM
<b>Sample Name</b>	XIBLK07	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 15-APR-10 20:04

GEL Data File: EXP0415024.wiff

Instrument ID: LCMSMS

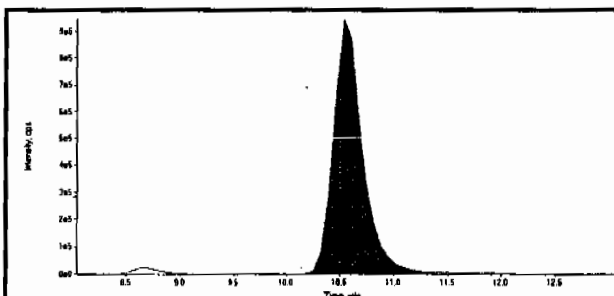
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	4.38
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

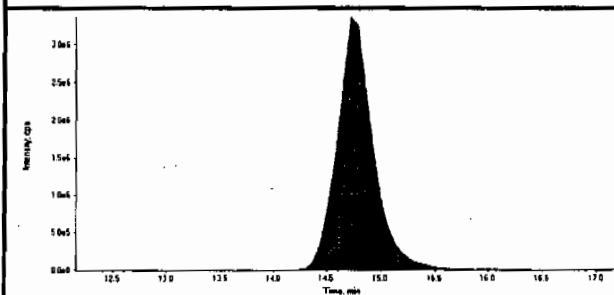
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415024.wiff	Acquisition Date	4/15/2010 8:04:18 PM
Sample Name	XIBLK08	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



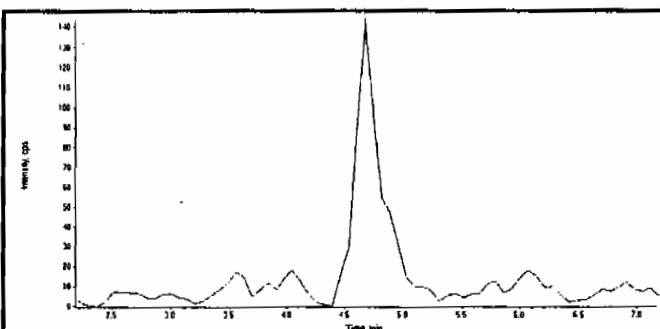
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	17900000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

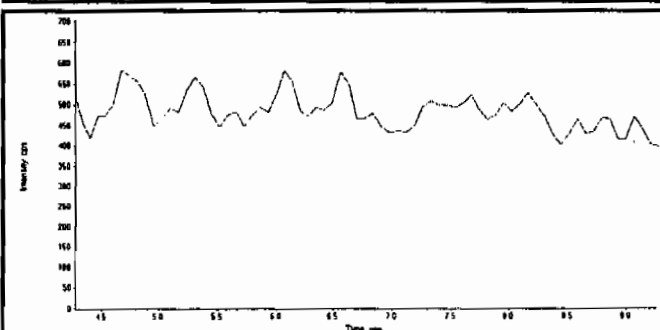


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	78900000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten signature and date: 4/15/2010*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

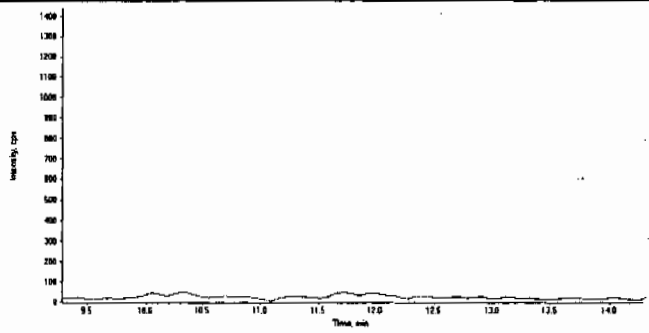
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Sample Name: XIBLK08		Acquisition Method: 8321.dam	
Batch Dilution Analyst:  1 LER		Result Table: 041510.rdb	
Procedure Code: LCMSEXP_B		Sample Type: Unknown	
	Compound Name:		135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:		9.00
	Actual RT:		0.00
	Area Counts:		0.00e+000
	Manual Modification		No
	Amount:		N/A (ng/mL)
	% Accuracy:		N/A
	Compound Name:		13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:		10.7
	Actual RT:		10.6
	Area Counts:		2.58e+004
	Manual Modification		No
	Amount:		4.38 (ng/mL)
	% Accuracy:		N/A
	Compound Name:		Tetryl (241.0/180.8 amu)
	Expected RT:		10.7
	Actual RT:		0.00
	Area Counts:		0.00e+000
	Manual Modification		No
	Amount:		N/A (ng/mL)
	% Accuracy:		N/A
	Compound Name:		246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:		13.1
	Actual RT:		13.2
	Area Counts:		2.92e+004
	Manual Modification		No
	Amount:		N/A (ng/mL)
	% Accuracy:		N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

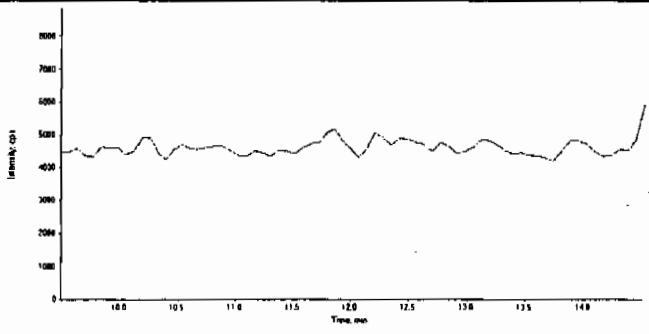
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LCMSMS#3

<b>Data File</b>	EXP0415024.wiff	<b>Acquisition Date</b>	4/15/2010 8:04:18 PM
<b>Sample Name</b>	XIBLK08	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

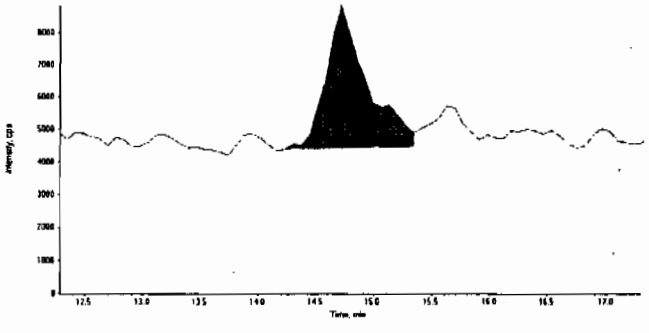
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

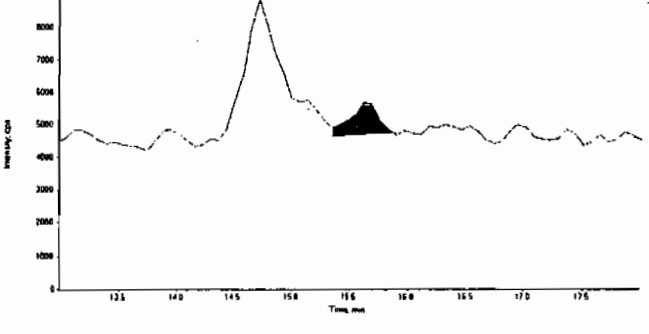
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.7
	<b>Area Counts:</b>	1.12e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

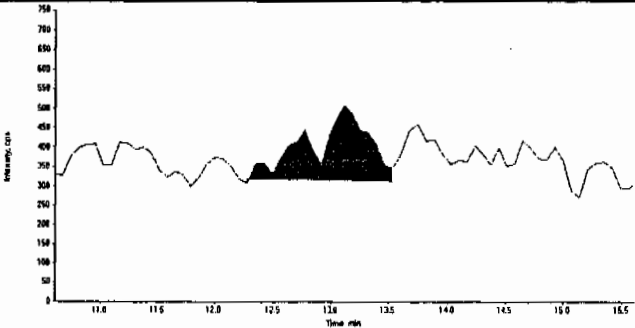
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	15.6
	<b>Area Counts:</b>	1.80e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

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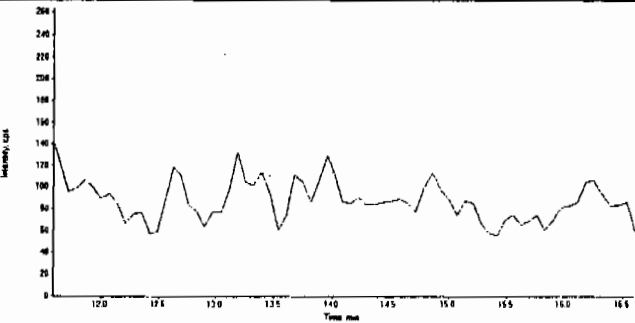
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LCMSMS#3

<b>Data File</b>	EXP0415024.wiff	<b>Acquisition Date</b>	4/15/2010 8:04:18 PM
<b>Sample Name</b>	XIBLK08	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

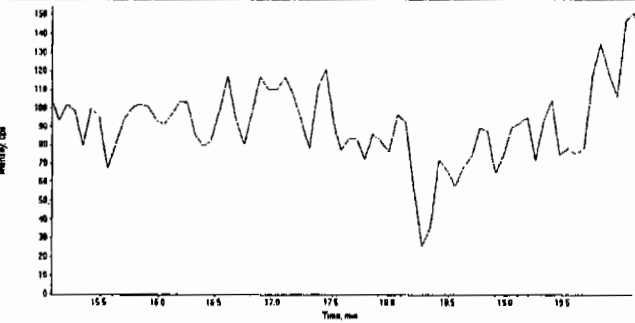
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.1
	<b>Area Counts:</b>	6.87e+003
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A


  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

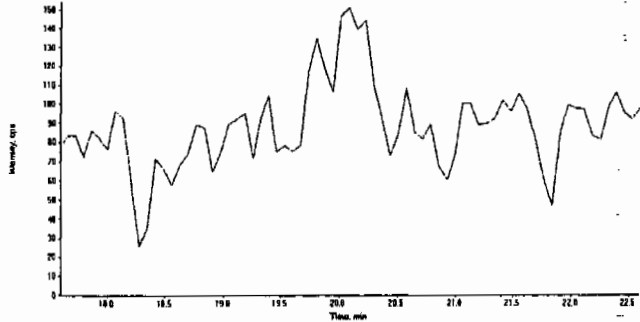
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

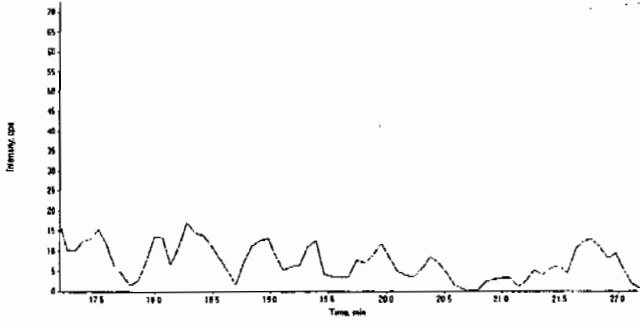
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LCMSMS#3

Data File	EXP0415024.wiff	Acquisition Date	4/15/2010 8:04:18 PM
Sample Name	XIBLK08	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 15-APR-10 23:05

GEL Data File: EXP0415031.wiff

Instrument ID: LCMSMS

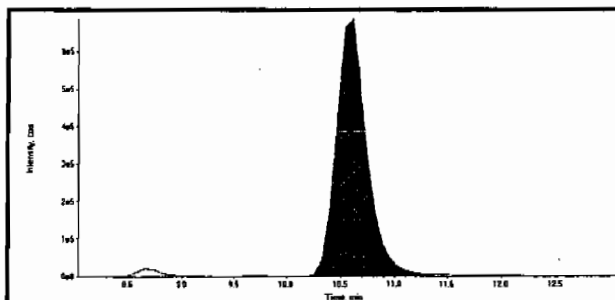
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

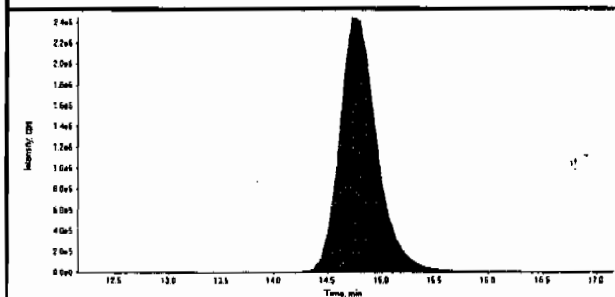
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

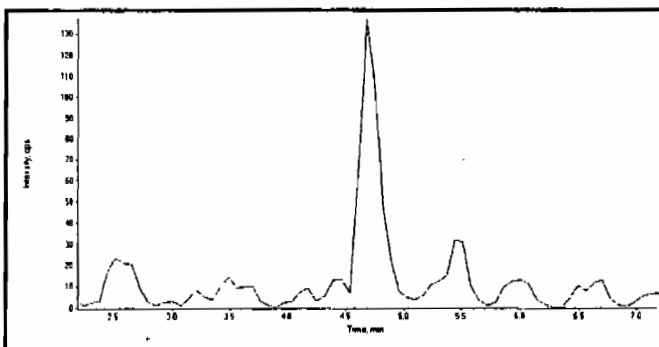
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Sample Name	XIBLK09	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



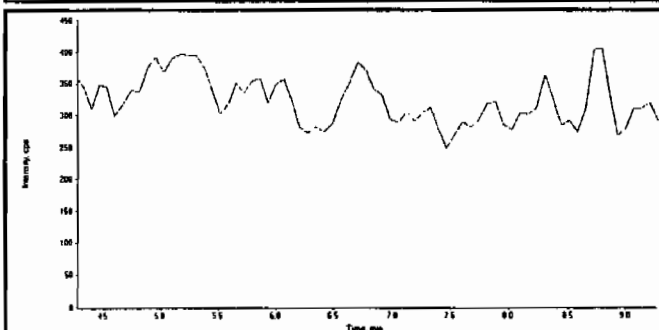
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	13600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	59500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



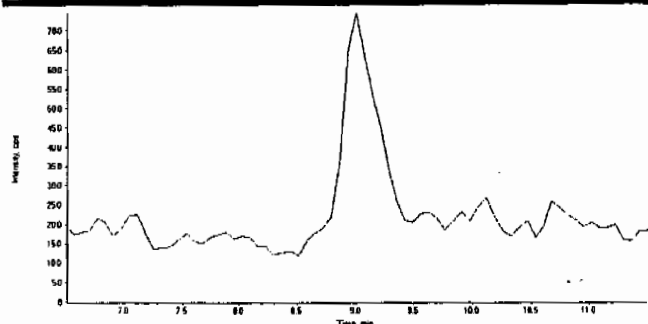
Compound Name:	RDY (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten:*  
4/15/2010  
Star  
4/23/10

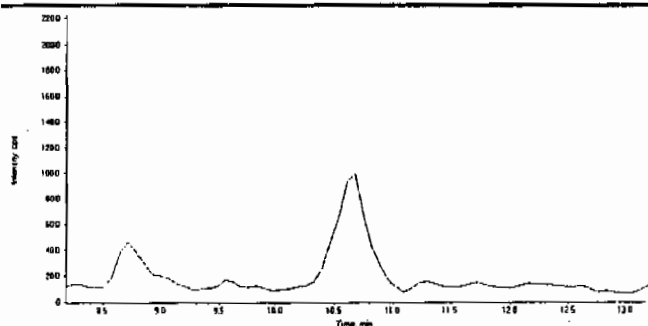
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

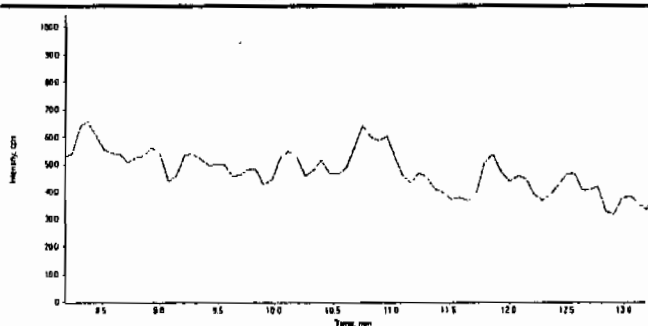
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Sample Name	XIBLK09	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



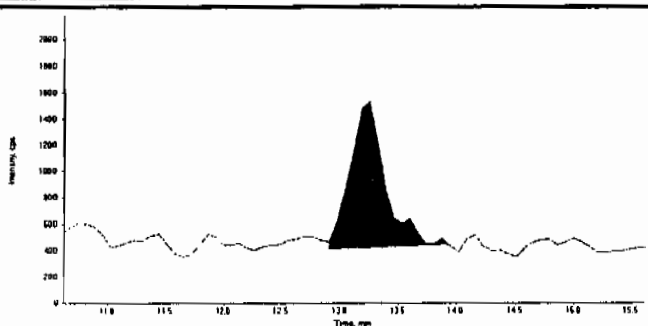
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

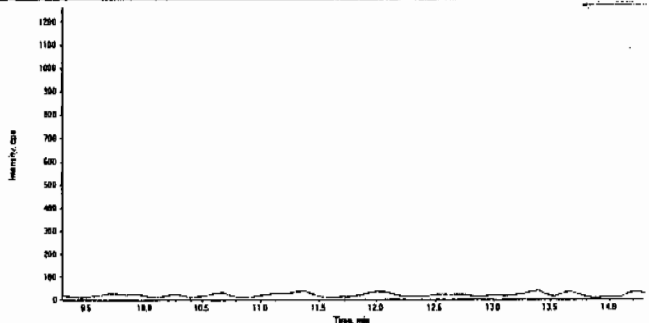


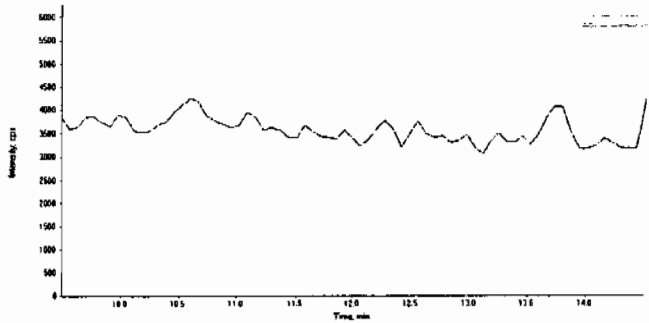
Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.3
Area Counts:	2.37e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

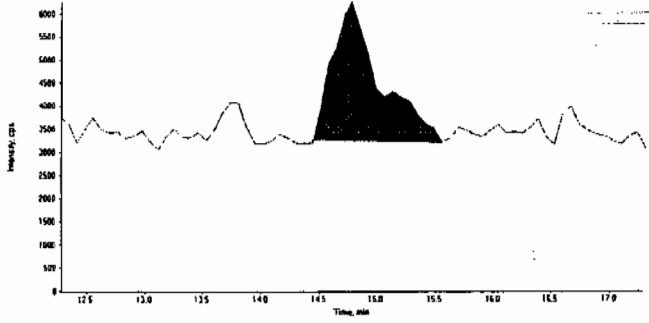
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

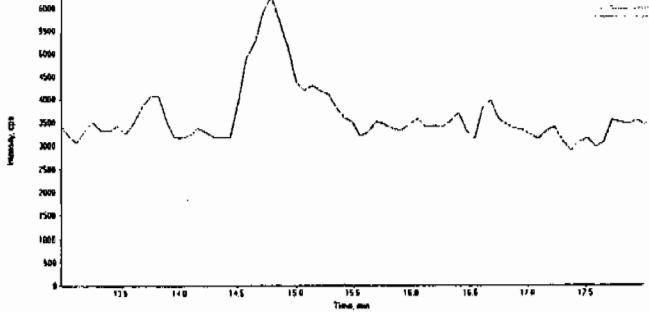
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415031.wiff	Acquisition Date	4/15/2010 11:05:36 PM
Sample Name	XIBLK09	Acquisition Method	8321.dam
Batch/Dilution/Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

	Compound Name:	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.8
	Area Counts:	8.79e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

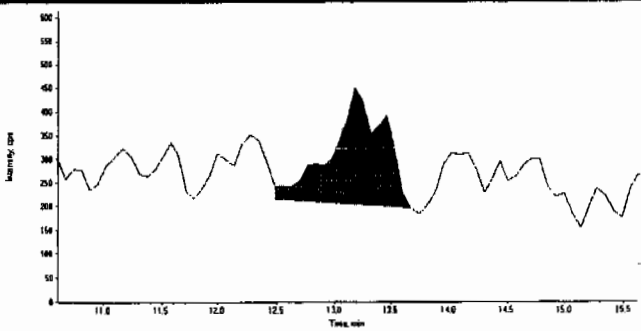
	Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

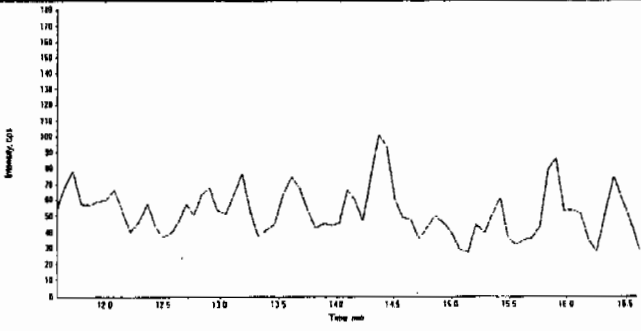
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415031.wiff	<b>Acquisition Date</b>	4/15/2010 11:05:36 PM
<b>Sample Name</b>	XIBLK09	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

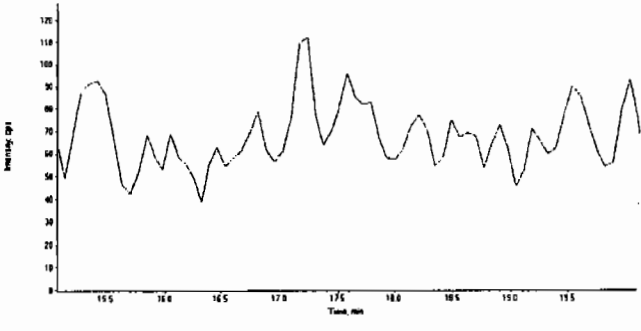
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	8.08e+003
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

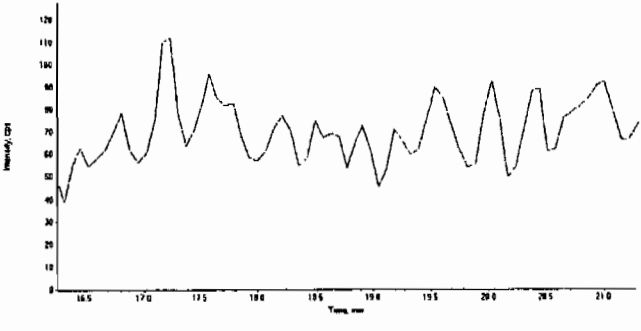
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

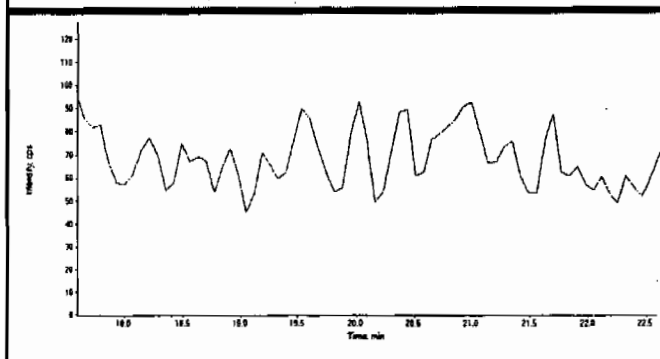
  

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

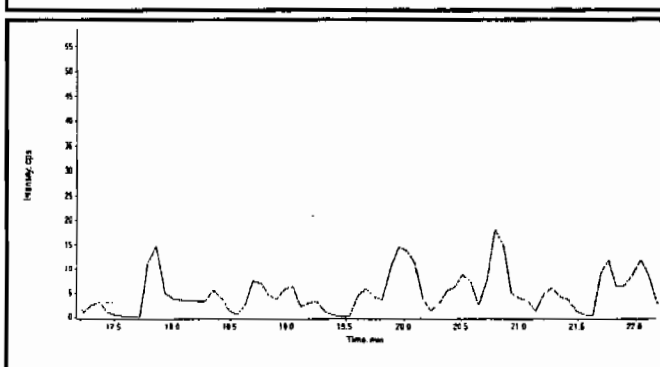
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415031.wiff	Acquisition Date	4/15/2010 11:05:36 PM
Sample Name	XIBLK09	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

4A  
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 16-APR-10 04:43

GEL Data File: EXP0415044.wiff

Instrument ID: LCMSMS

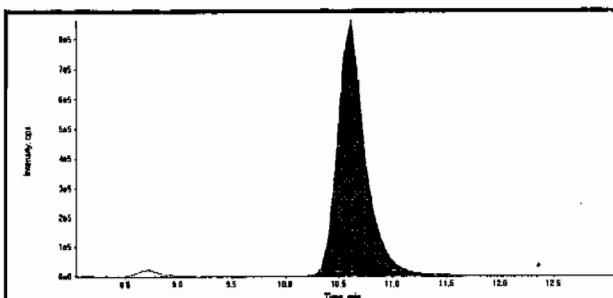
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	4.4
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

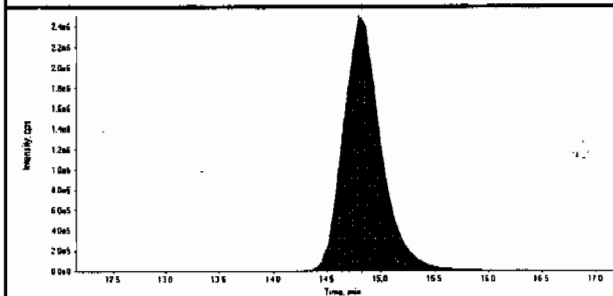
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

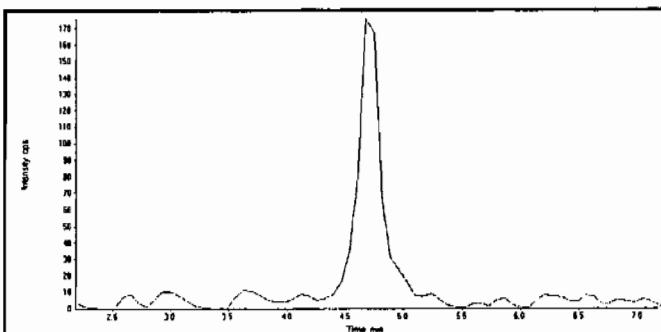
Data File	EXP0415044.wiff	Acquisition Date	4/16/2010 4:43:22 AM
Sample Name	XIBLK10	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



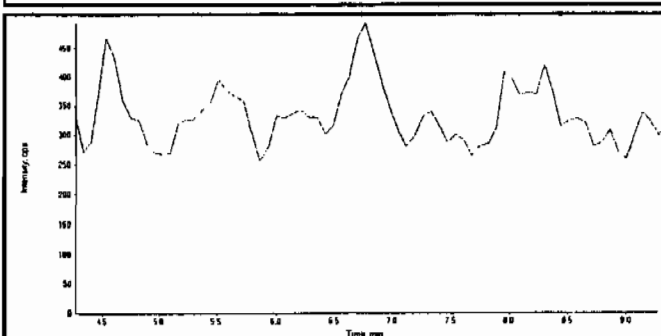
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	15700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	62400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten signatures and dates:*  
HMX 04/23/10  
RDX 4/23/10



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415044.wiff	<b>Acquisition Date</b>	4/16/2010 4:43:22 AM
<b>Sample Name</b>	XIBLK10	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.6
	Area Counts:	2.46e+004
	Manual Modification	No
	Amount:	4.40 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

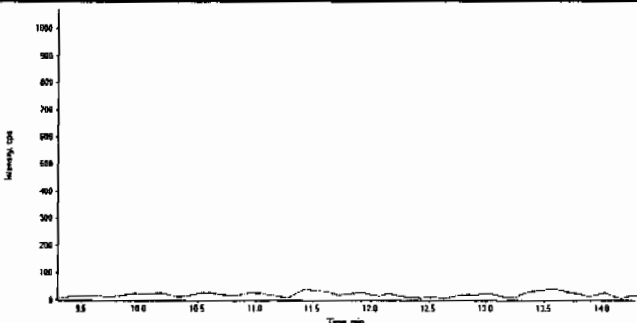
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	3.19e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

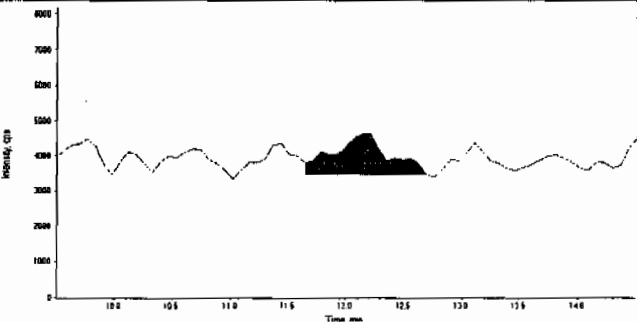
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415044.wiff	Acquisition Date	4/16/2010 4:43:22 AM
Sample Name	XIBLK10	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

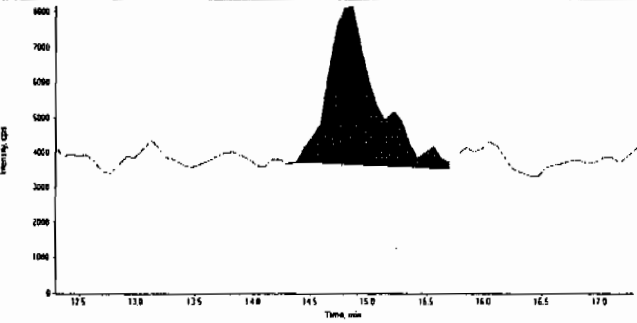
  

	Compound Name:	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

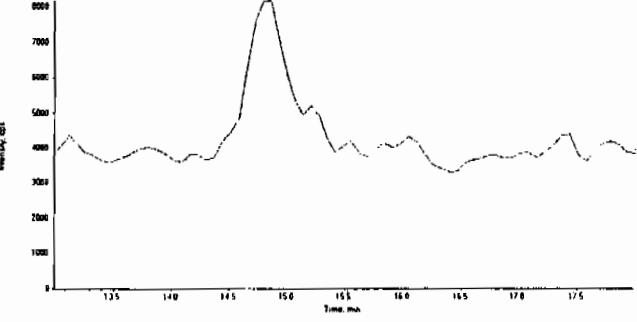
  

	Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.2
	Area Counts:	4.12e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.9
	Area Counts:	1.36e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415044.wiff	<b>Acquisition Date</b>	4/16/2010 4:43:22 AM
<b>Sample Name</b>	XIBLK10	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.3
	Area Counts:	6.06e+003
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

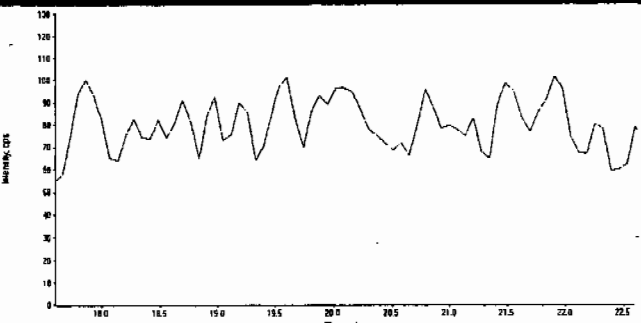
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

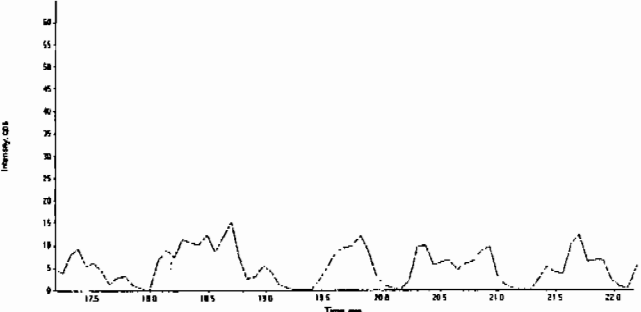
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415044.wiff	<b>Acquisition Date</b>	4/16/2010 4:43:22 AM
<b>Sample Name</b>	XIBLK10	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 16-APR-10 10:20

GEL Data File: EXP0415057.wiff

Instrument ID: LCMSMS

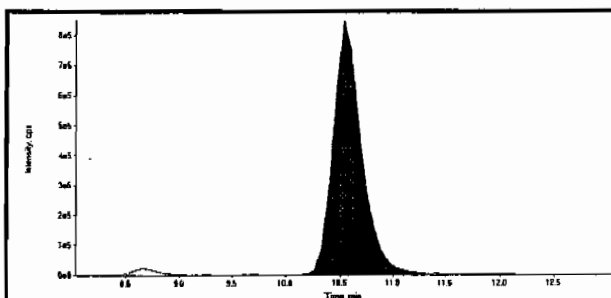
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	4.4
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

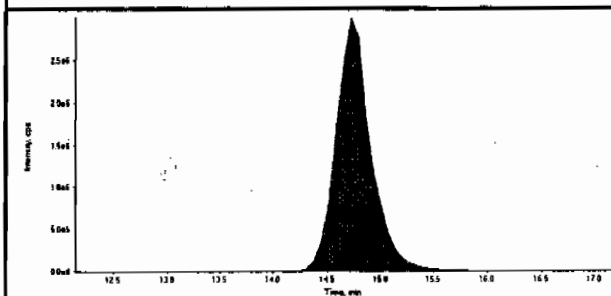
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

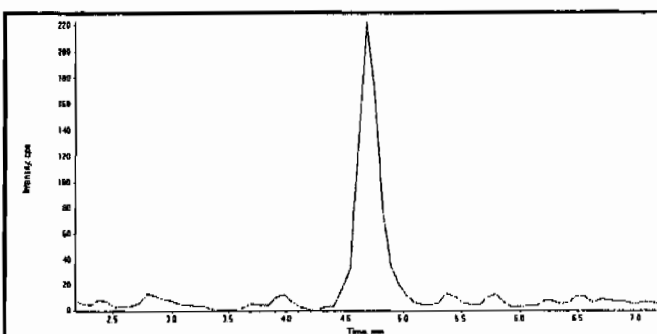
Data File	EXP0415057.wiff	Acquisition Date	4/16/2010 10:20:56 AM
Sample Name	XIBLK11	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



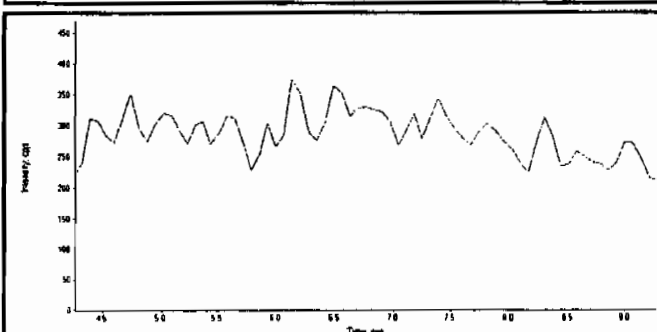
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	15800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	69200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten signature: LER 4/23/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415057.wiff	<b>Acquisition Date</b>	4/16/2010 10:20:56 AM
<b>Sample Name</b>	XIBLK11	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.6
	Area Counts:	2.47e+004
	Manual Modification	No
	Amount:	4.40 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

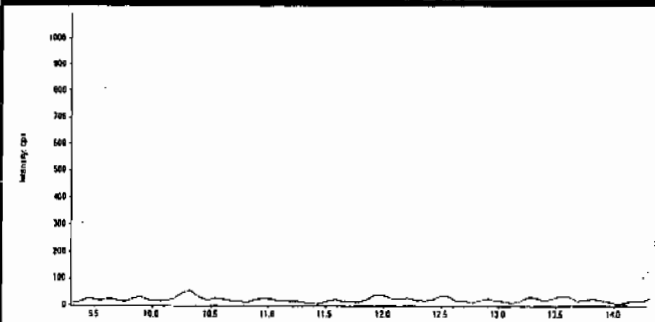
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	3.48e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

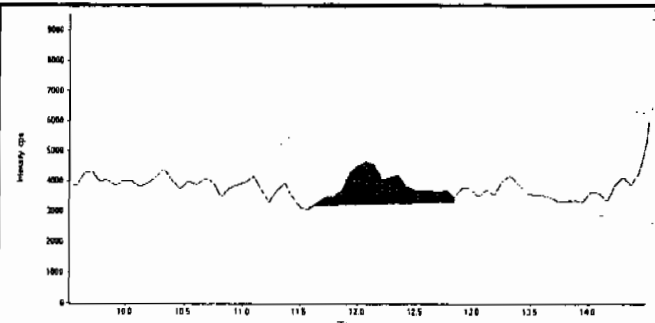
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415057.wiff	<b>Acquisition Date</b>	4/16/2010 10:20:56 AM
<b>Sample Name</b>	XIBLK11	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

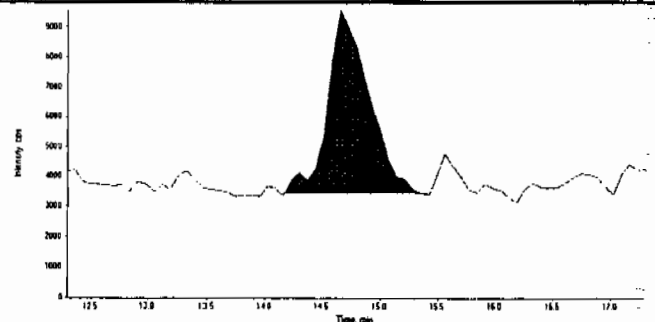
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

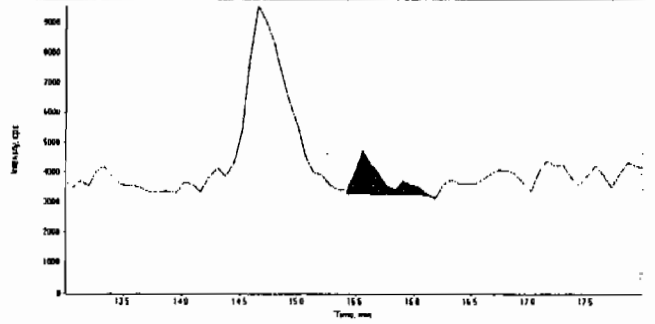
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	5.00e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.6
	<b>Area Counts:</b>	1.53e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	15.6
	<b>Area Counts:</b>	2.41e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415057.wiff	<b>Acquisition Date</b>	4/16/2010 10:20:56 AM
<b>Sample Name</b>	XIBLK11	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.3
	<b>Area Counts:</b>	3.37e+003
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

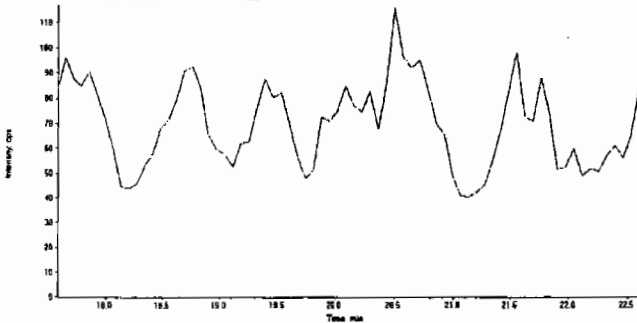
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

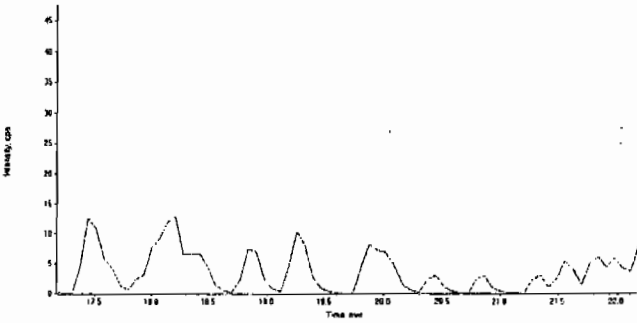
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415057.wiff	<b>Acquisition Date</b>	4/16/2010 10:20:56 AM
<b>Sample Name</b>	XIBLK11	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 16-APR-10 13:23

GEL Data File: EXP0415064.wiff

Instrument ID: LCMSMS

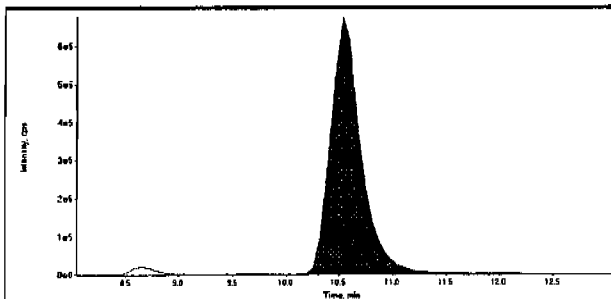
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	4.41
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

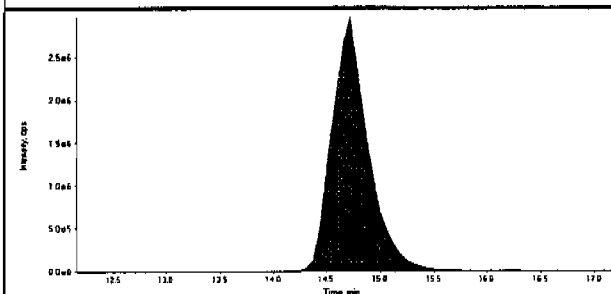
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

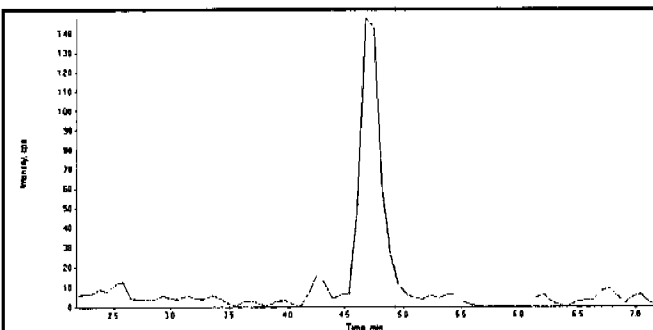
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Sample Name	XIBLK12	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



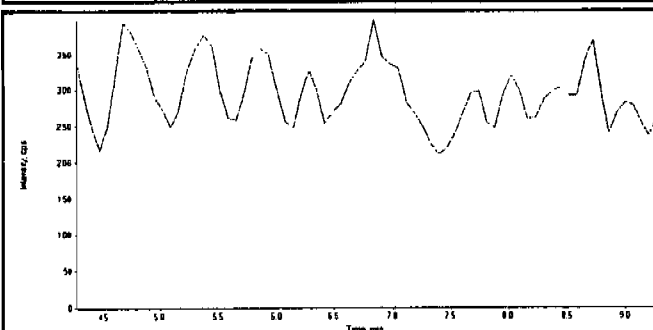
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	13500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	70400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDY (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*4mm 04/23/10  
Jen 4/23/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

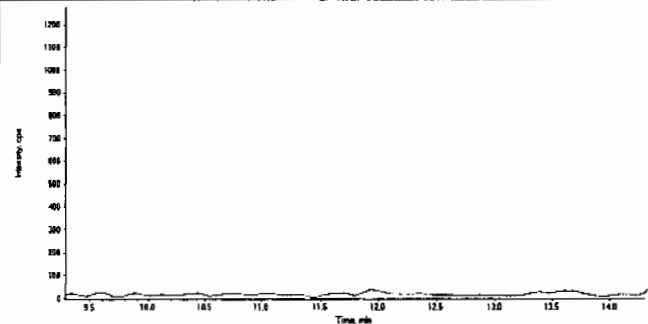
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Sample Name XIBLK12		Acquisition Method 8321.dam	
Batch Dilution Analyst  1 LER		Result Table 041510.rdb	
Procedure Code LCMSEXP_B		Sample Type Unknown	
	Compound Name: 135-Trinitrobenzene (213.0/182.8 amu)		
	Expected RT: 9.00		
	Actual RT: 0.00		
	Area Counts: 0.00e+000		
	Manual Modification No		
	Amount: N/A (ng/mL)		
	% Accuracy: N/A		
	Compound Name: 13-Dinitrobenzene (168.0/137.9 amu)		
	Expected RT: 10.7		
	Actual RT: 10.6		
	Area Counts: 2.21e+004		
	Manual Modification No		
	Amount: 4.41 (ng/mL)		
	% Accuracy: N/A		
	Compound Name: Tetryl (241.0/180.8 amu)		
	Expected RT: 10.7		
	Actual RT: 0.00		
	Area Counts: 0.00e+000		
	Manual Modification No		
	Amount: N/A (ng/mL)		
	% Accuracy: N/A		
	Compound Name: 246-Trinitrotoluene (227.1/209.8 amu)		
	Expected RT: 13.1		
	Actual RT: 13.2		
	Area Counts: 3.14e+004		
	Manual Modification No		
	Amount: N/A (ng/mL)		
	% Accuracy: N/A		

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

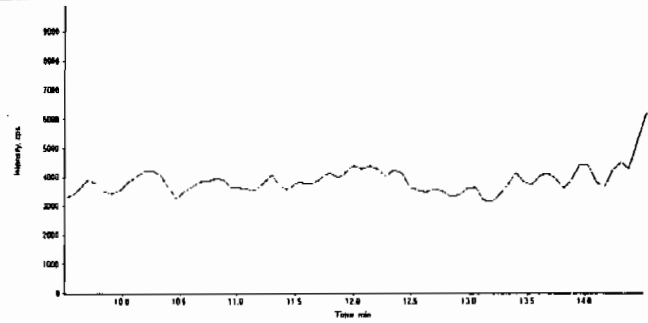
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415064.wiff	<b>Acquisition Date</b>	4/16/2010 1:23:06 PM
<b>Sample Name</b>	XIBLK12	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

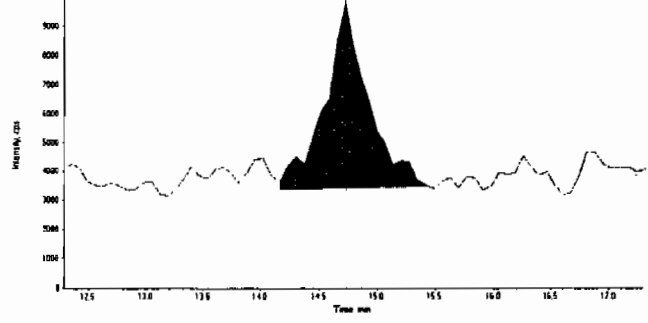
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

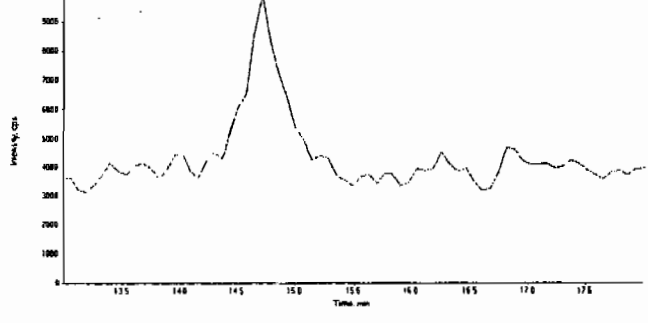
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.7
	<b>Area Counts:</b>	1.72e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415064.wiff	<b>Acquisition Date</b>	4/16/2010 1:23:06 PM
<b>Sample Name</b>	XIBLK12	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.1
	<b>Area Counts:</b>	6.78e+003
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415064.wiff	<b>Acquisition Date</b>	4/16/2010 1:23:06 PM
<b>Sample Name</b>	XIBLK12	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 20-APR-10 17:46

GEL Data File: EXP0420009.wiff

Instrument ID: LCMSMS

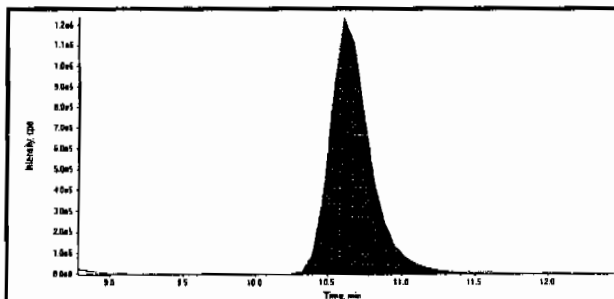
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	.929
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	.28
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

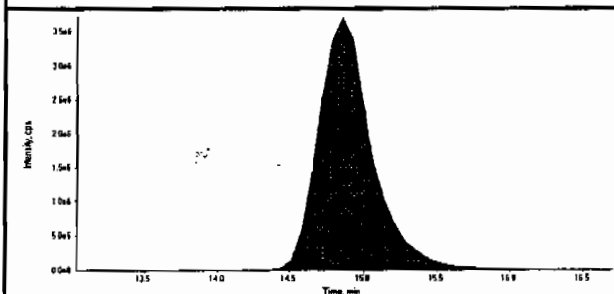
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

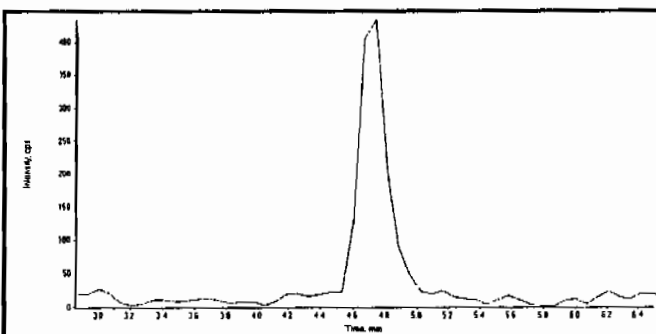
Data File	EXP0420009.wiff	Acquisition Date	4/20/2010 5:46:16 PM
Sample Name	XIBLK02	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



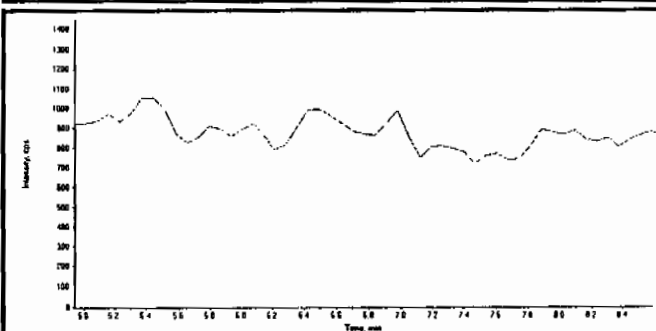
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	22900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	93600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*See 4/29/10 HMX 04/29/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420009.wiff	<b>Acquisition Date</b>	4/20/2010 5:46:16 PM
<b>Sample Name</b>	XIBLK02	<b>Acquisition Method</b>	8321.dam
<b>Batch/Dilution/Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	9.07
	<b>Area Counts:</b>	3.30e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	3.30e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	0.280 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

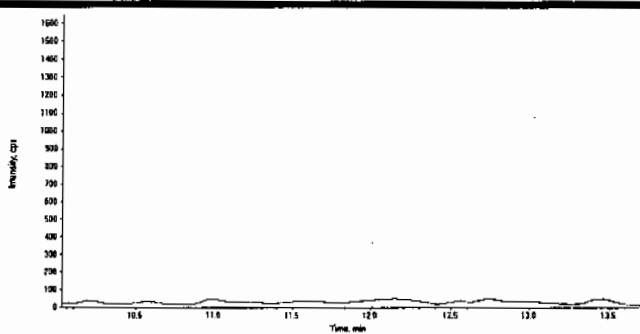
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.3
	<b>Area Counts:</b>	4.16e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

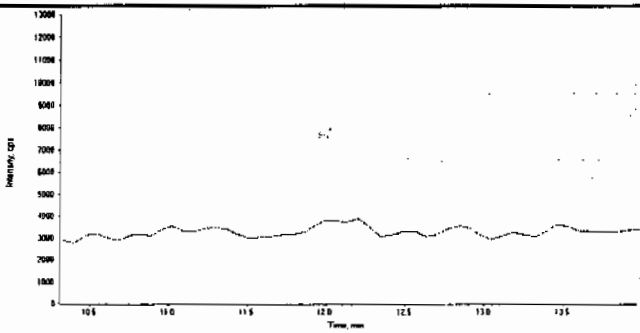
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420009.wiff	<b>Acquisition Date</b>	4/20/2010 5:46:16 PM
<b>Sample Name</b>	XIBLK02	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

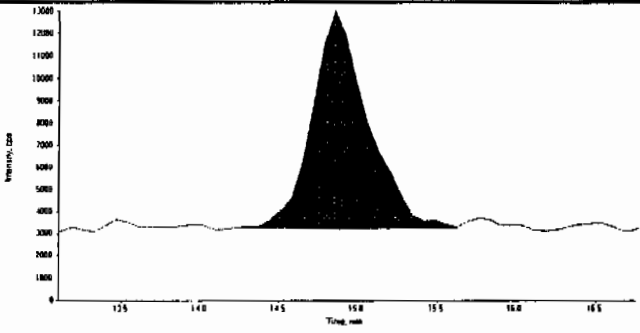
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.9
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

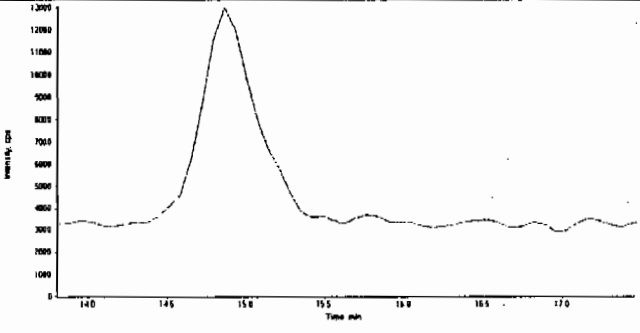
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.9
	<b>Actual RT:</b>	14.9
	<b>Area Counts:</b>	2.48e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	0.929 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420009.wiff	<b>Acquisition Date</b>	4/20/2010 5:46:16 PM
<b>Sample Name</b>	XIBLK02	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

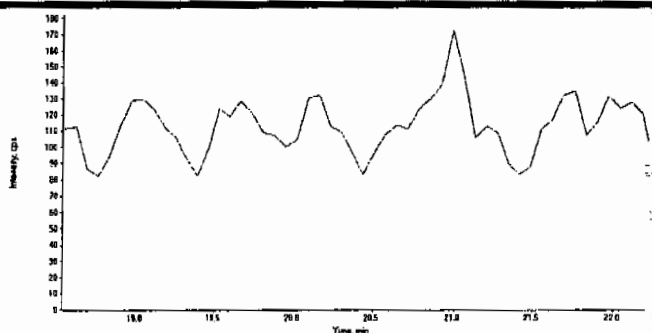
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	19.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

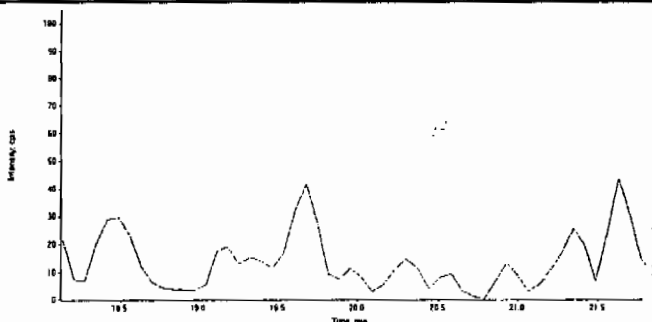
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LCMSMS#3

Data File EXP0420009.wiff  
Sample Name XIBLK02  
Batch|Dilution|Analyst |1|LER  
Procedure Code LCMSEXP\_B

Acquisition Date 4/20/2010 5:46:16 PM  
Acquisition Method 8321.dam  
Result Table 042010.rdb  
Sample Type Unknown



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 20-APR-10 18:38

GEL Data File: EXP0420011.wiff

Instrument ID: LCMSMS

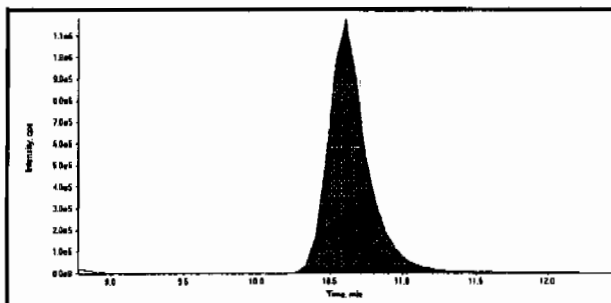
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	1.09
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	.266
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

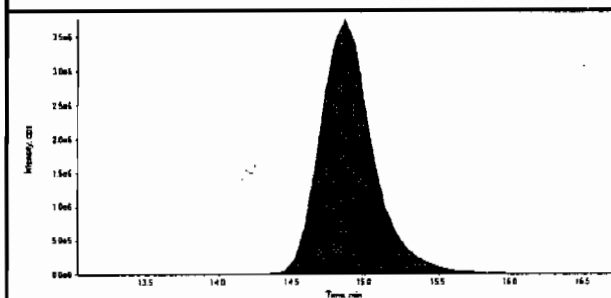
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420011.wiff	Acquisition Date	4/20/2010 6:38:17 PM
Sample Name	XIBLK03	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



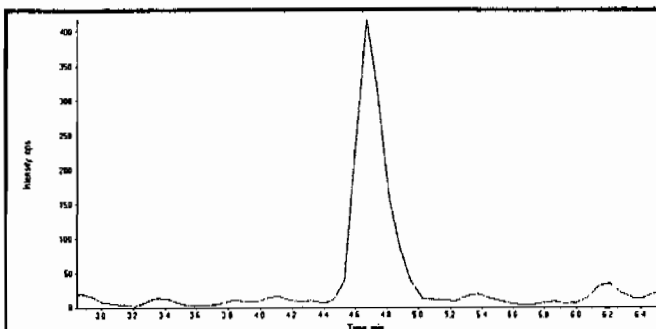
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	21800000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

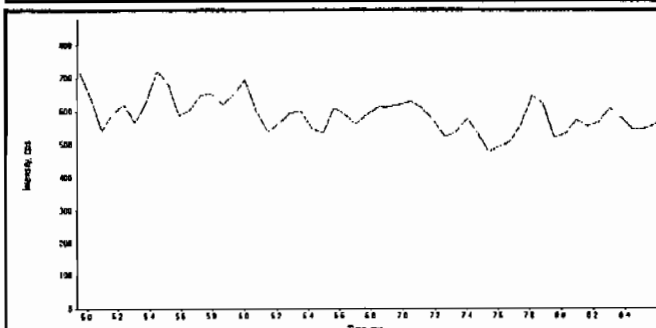


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	96200000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten:*  
HMX 4/29/10  
JAN 4/29/10



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420011.wiff	<b>Acquisition Date</b>	4/20/2010 6:38:17 PM
<b>Sample Name</b>	XIBLK03	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	2.98e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	0.266 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

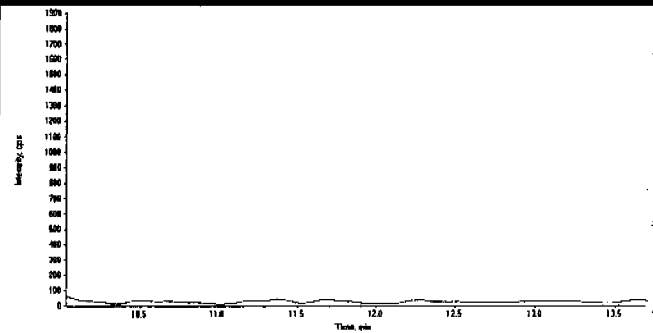
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.3
	<b>Area Counts:</b>	4.64e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

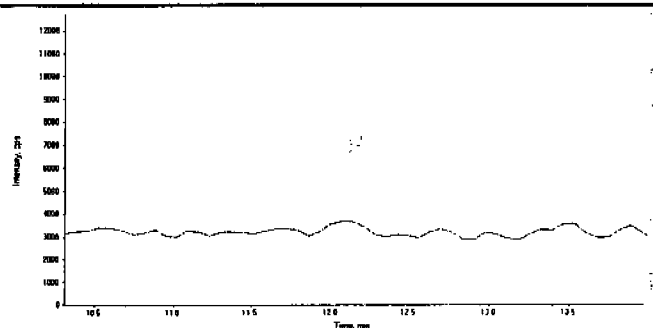
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420011.wiff	<b>Acquisition Date</b>	4/20/2010 6:38:17 PM
<b>Sample Name</b>	XIBLK03	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

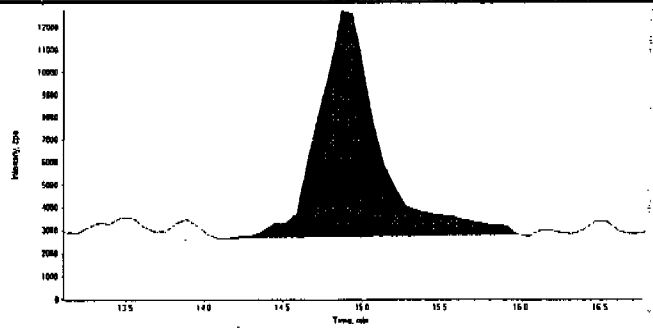
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

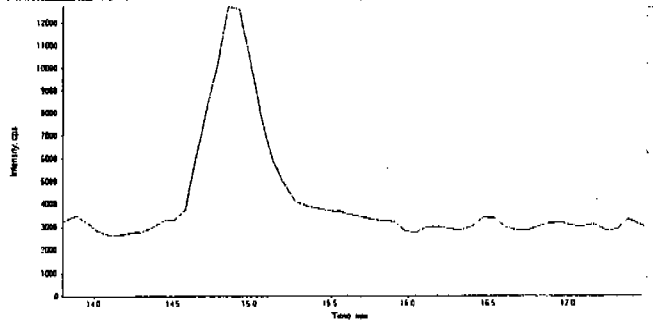
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	14.9
	Area Counts:	2.74e+005
	Manual Modification	No
	Amount:	1.09 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420011.wiff	Acquisition Date	4/20/2010 6:38:17 PM
Sample Name	XIBLK03	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

	Compound Name:	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

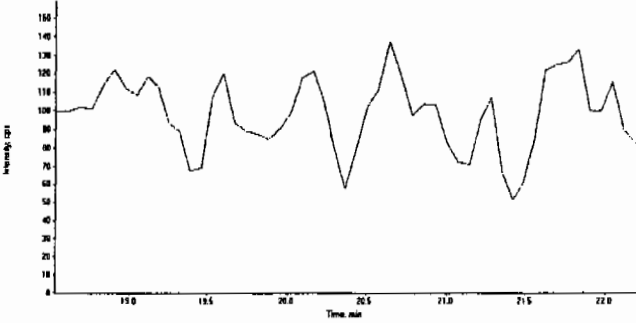
	Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

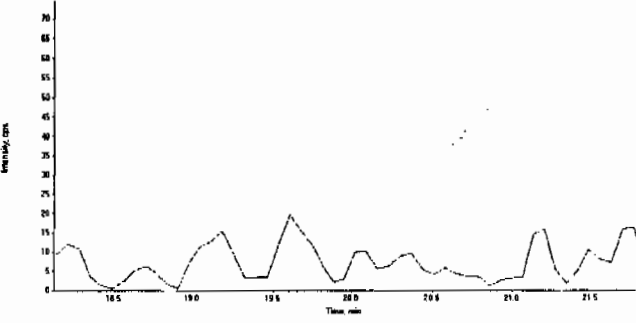
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420011.wiff	<b>Acquisition Date</b>	4/20/2010 6:38:17 PM
<b>Sample Name</b>	XIBLK03	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 21-APR-10 00:15

GEL Data File: EXP0420024.wiff

Instrument ID: LCMSMS

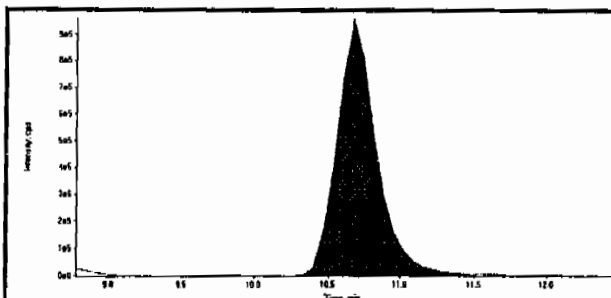
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	.812
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	.326
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

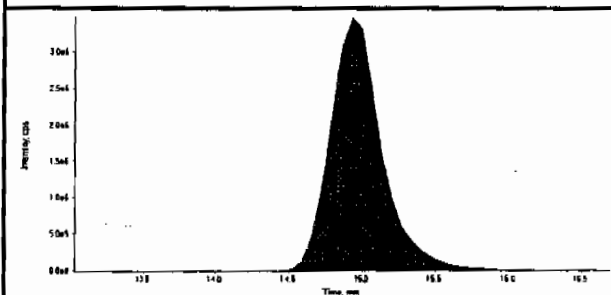
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420024.wiff	Acquisition Date	4/21/2010 12:15:34 AM
Sample Name	XIBLK04	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



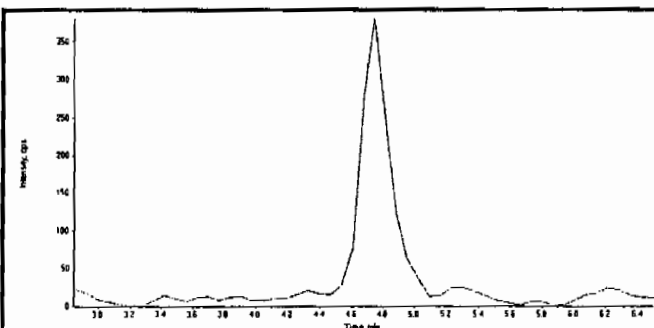
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	18300000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

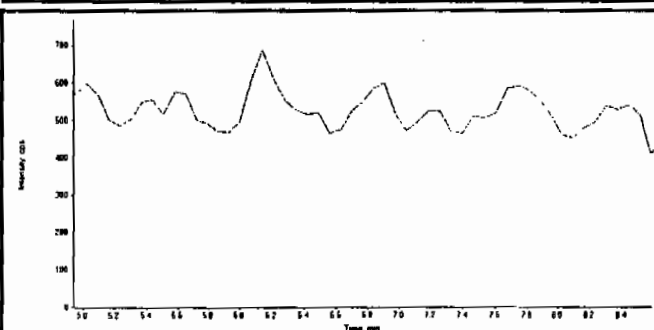


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	86800000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten:*  
4/21/10  
LER  
4/22/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420024.wiff	<b>Acquisition Date</b>	4/21/2010 12:15:34 AM
<b>Sample Name</b>	XIBLK04	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.07
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	3.07e+004
	Manual Modification	No
	Amount:	0.326 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

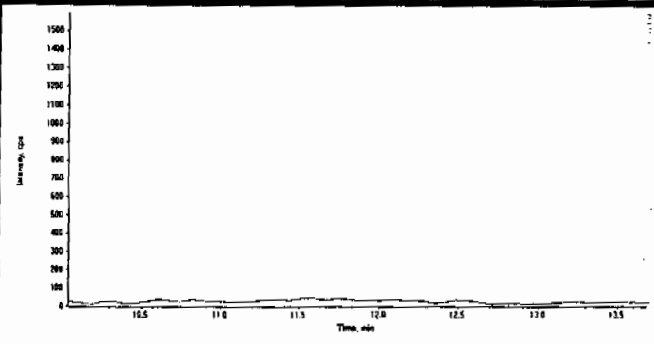
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	3.61e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

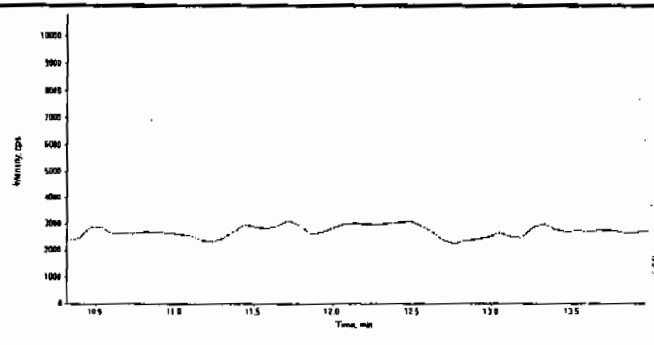
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420024.wiff	<b>Acquisition Date</b>	4/21/2010 12:15:34 AM
<b>Sample Name</b>	XIBLK04	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

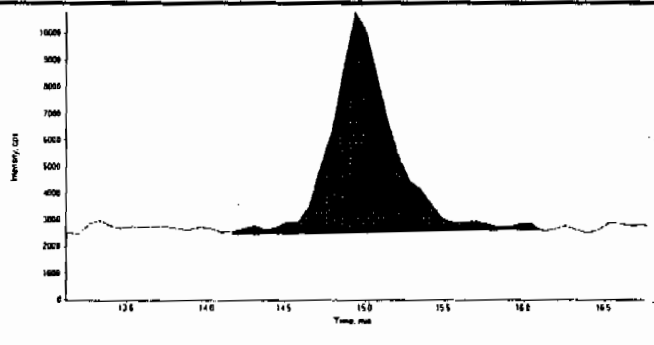
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.9
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

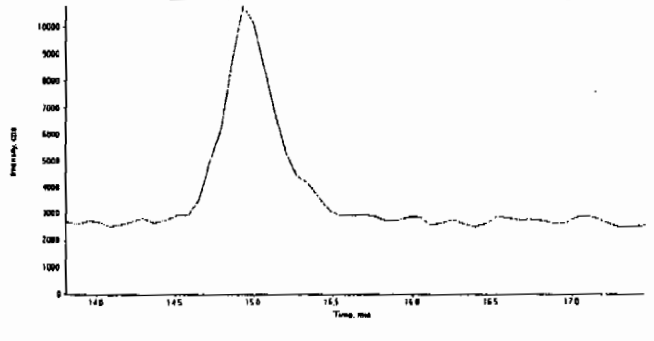
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.9
	<b>Actual RT:</b>	14.9
	<b>Area Counts:</b>	2.17e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	0.812 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420024.wiff	<b>Acquisition Date</b>	4/21/2010 12:15:34 AM
<b>Sample Name</b>	XIBLK04	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

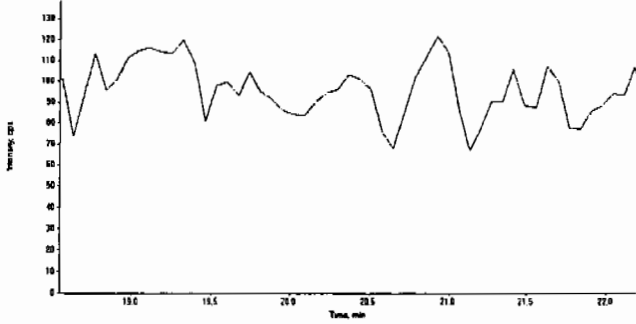
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	19.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

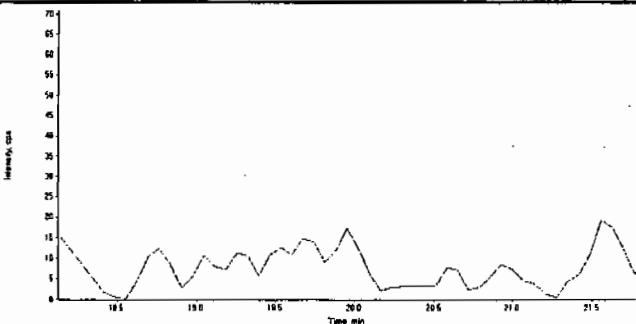
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420024.wiff	Acquisition Date	4/21/2010 12:15:34 AM
Sample Name	XIBLK04	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.4
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	20.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 21-APR-10 01:59

GEL Data File: EXP0420028.wiff

Instrument ID: LCMSMS

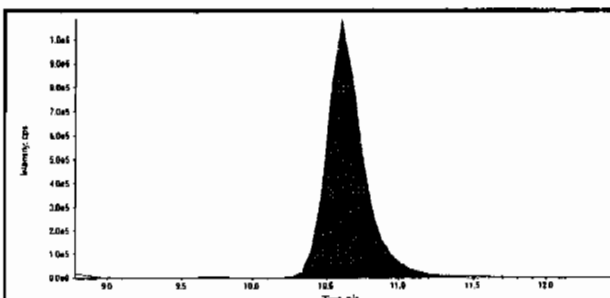
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	.89
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	.286
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

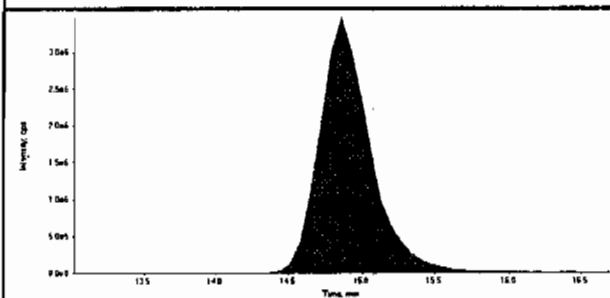
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420028.wiff	Acquisition Date	4/21/2010 1:59:15 AM
Sample Name	XIBLK05	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



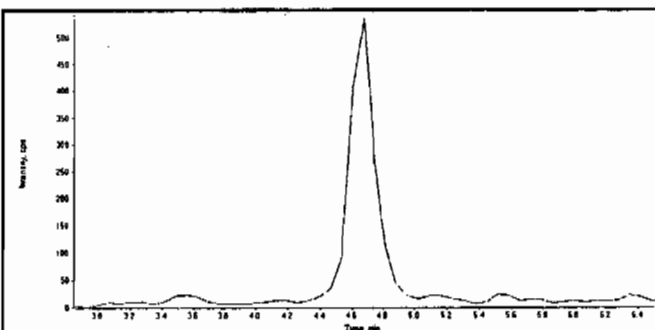
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	18800000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

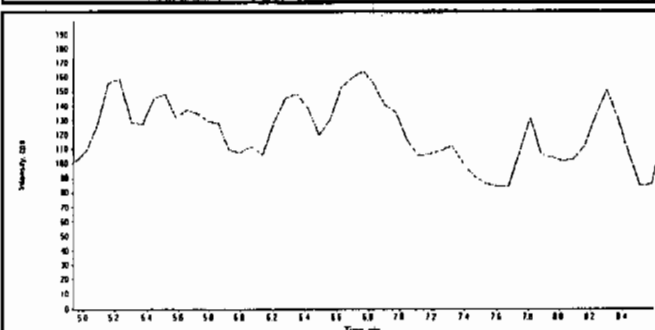


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	84400000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

4/21/10

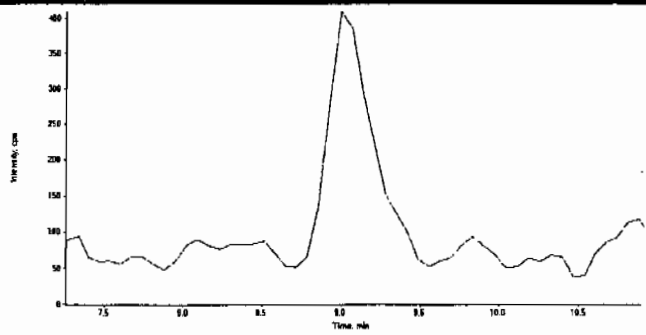
4/21/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

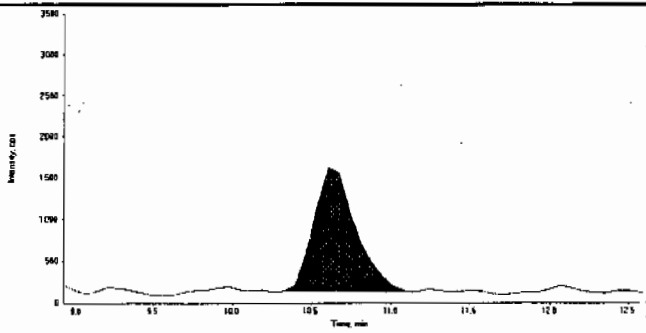
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File EXP0420028.wiff		Acquisition Date	4/21/2010 1:59:15 AM
Sample Name XIBLK05		Acquisition Method	8321.dam
Batch Dilution Analyst  1 LER		Result Table	042010.rdb
Procedure Code LCMSEXP_B		Sample Type	Unknown

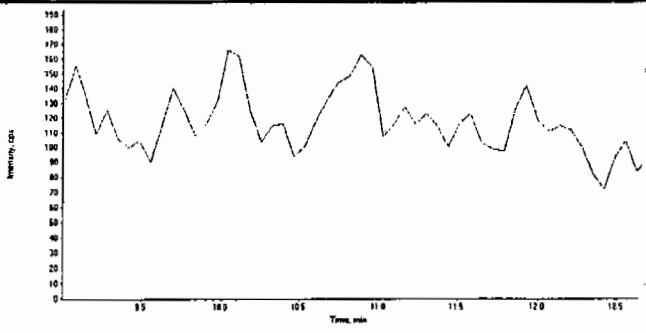
  

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.07
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

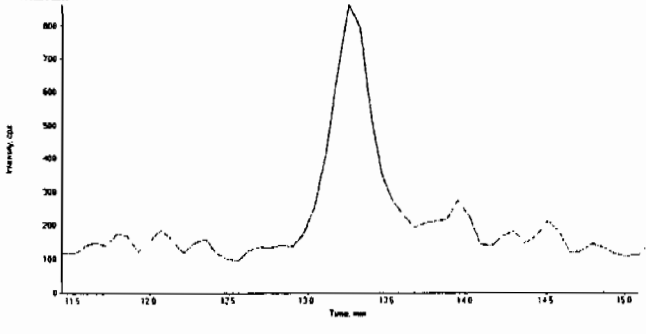
  

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.6
	Area Counts:	2.77e+004
	Manual Modification	No
	Amount:	0.286 (ng/mL)
	% Accuracy:	N/A

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.3
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420028.wiff	<b>Acquisition Date</b>	4/21/2010 1:59:15 AM
<b>Sample Name</b>	XIBLK05	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.9
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.9
	<b>Actual RT:</b>	14.9
	<b>Area Counts:</b>	2.19e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	0.890 (ng/mL)
	<b>% Accuracy:</b>	N/A

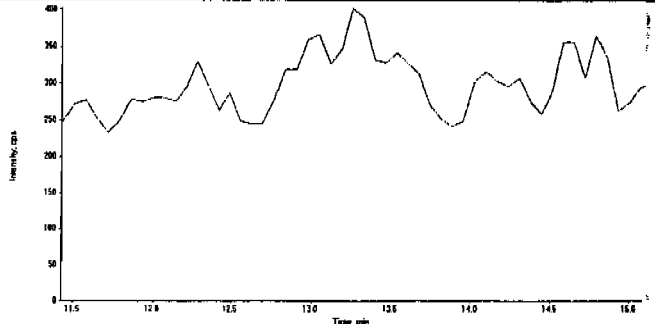
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

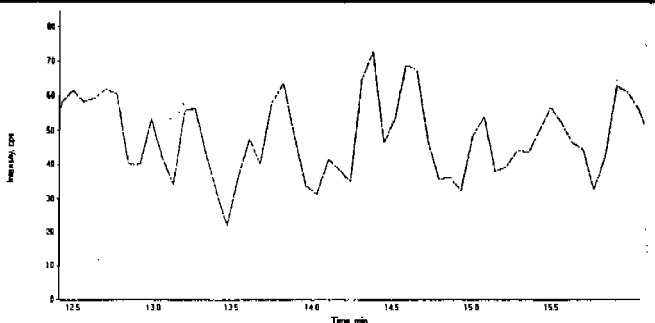
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420028.wiff	<b>Acquisition Date</b>	4/21/2010 1:59:15 AM
<b>Sample Name</b>	XIBLK05	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

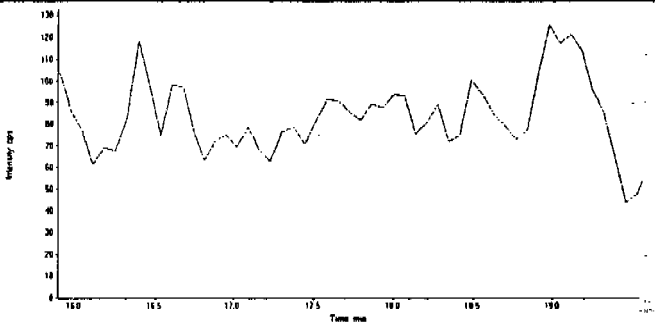
  

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

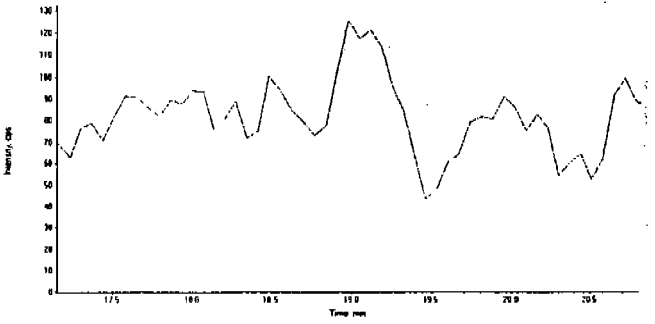
  

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

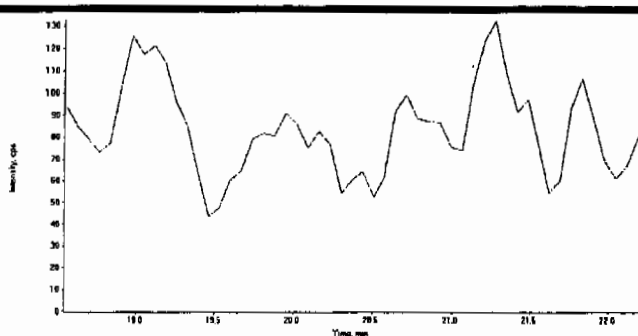
  

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

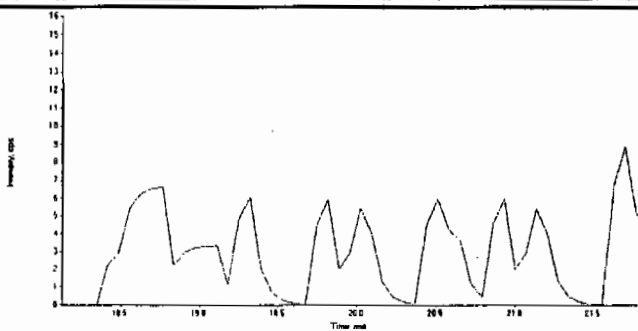
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420028.wiff	Acquisition Date	4/21/2010 1:59:15 AM
Sample Name	XIBLK05	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 21-APR-10 05:52

GEL Data File: EXP0420037.wiff

Instrument ID: LCMSMS

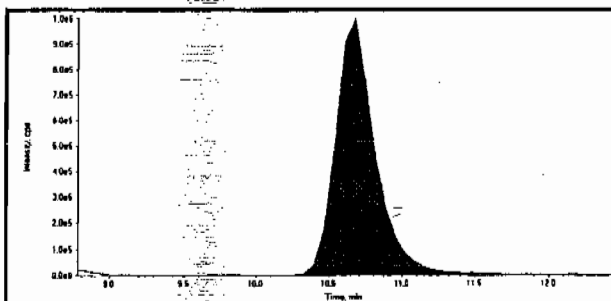
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	.477
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	.308
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

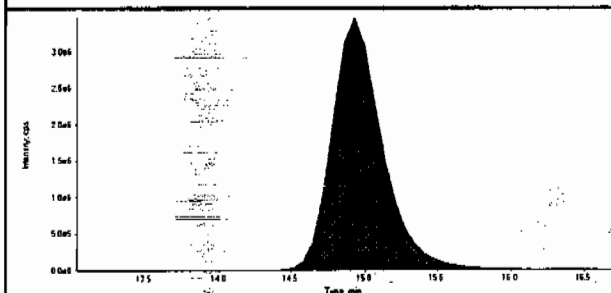
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420037.wiff	Acquisition Date	4/21/2010 5:52:48 AM
Sample Name	XIBLK06	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



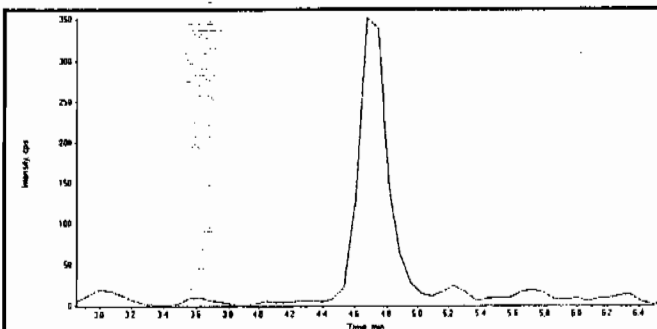
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	18600000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

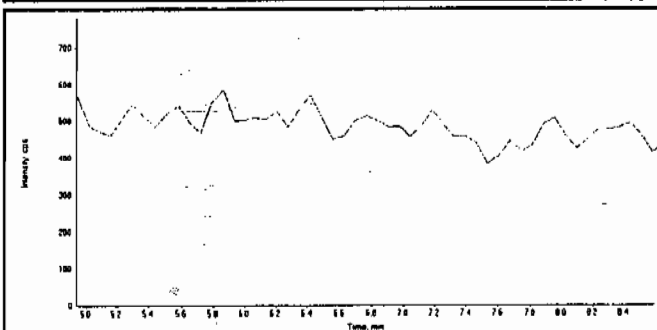


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	83700000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*done 4/29/10  
Lar 4/29/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420037.wiff	<b>Acquisition Date</b>	4/21/2010 5:52:48 AM
<b>Sample Name</b>	XIBLK06	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	2.95e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	0.308 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

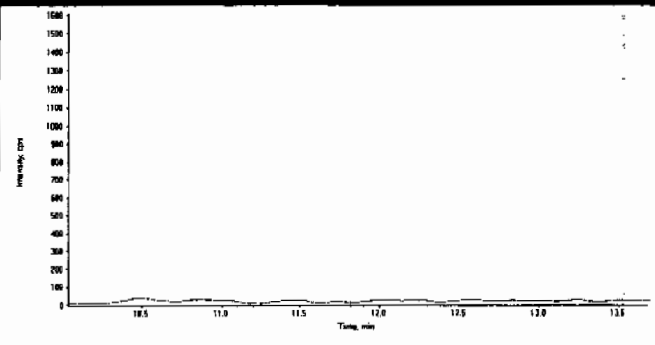
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.3
	<b>Area Counts:</b>	3.43e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

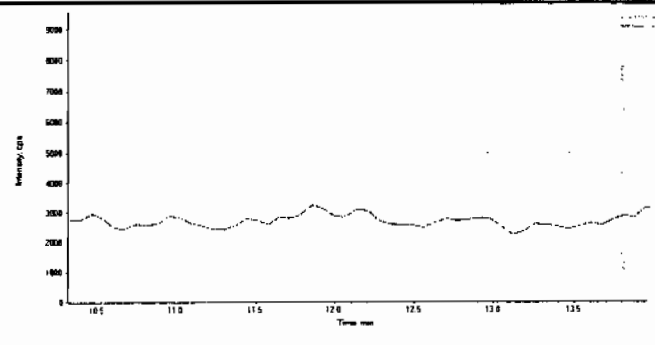
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420037.wiff	<b>Acquisition Date</b>	4/21/2010 5:52:48 AM
<b>Sample Name</b>	XIBLK06	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

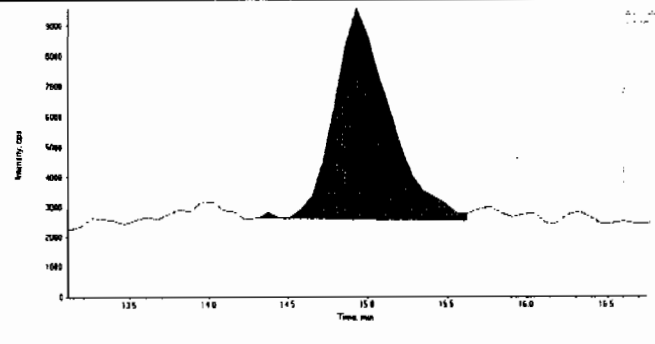
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

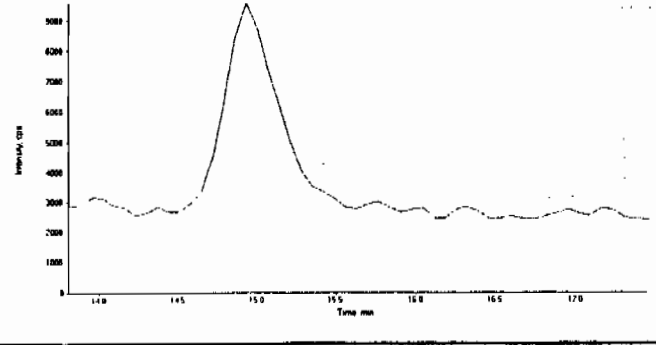
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	14.9
	Area Counts:	1.75e+005
	Manual Modification	No
	Amount:	0.477 (ng/mL)
	% Accuracy:	N/A

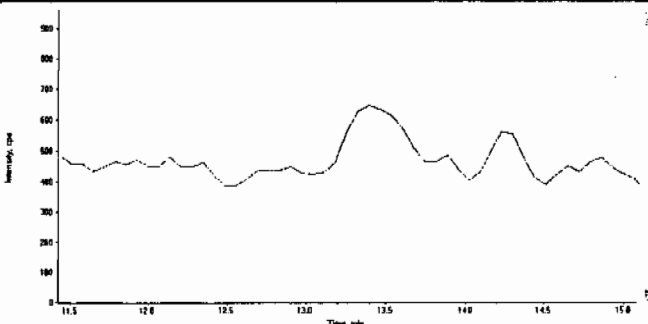
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

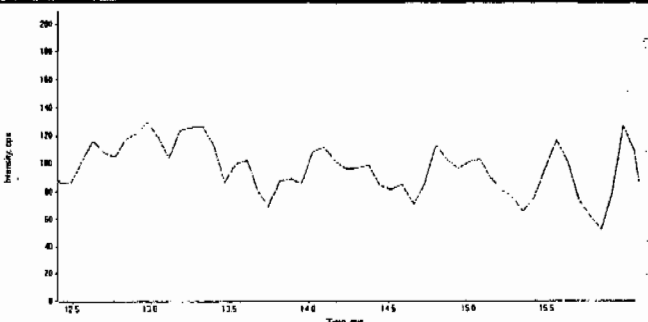
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420037.wiff	<b>Acquisition Date</b>	4/21/2010 5:52:48 AM
<b>Sample Name</b>	XIBLK06	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

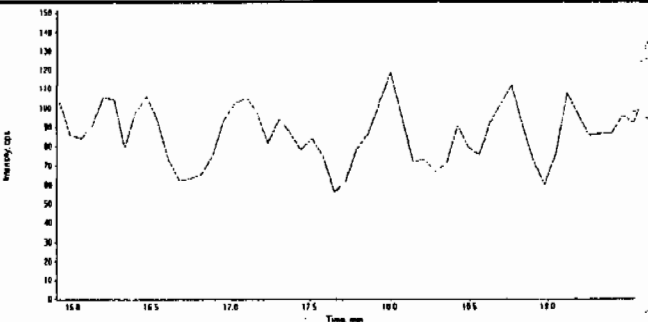
  

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

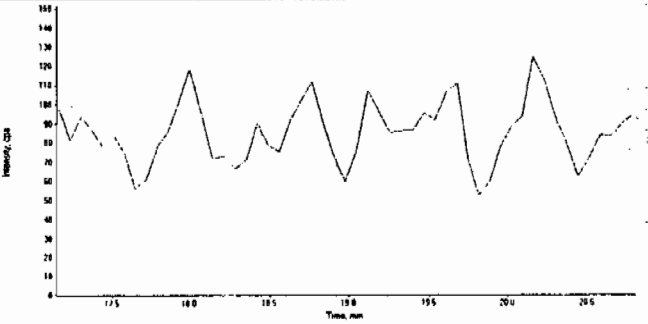
  

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420037.wiff	<b>Acquisition Date</b>	4/21/2010 5:52:48 AM
<b>Sample Name</b>	XIBLK06	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 21-APR-10 11:30

GEL Data File: EXP0420050.wiff

Instrument ID: LCMSMS

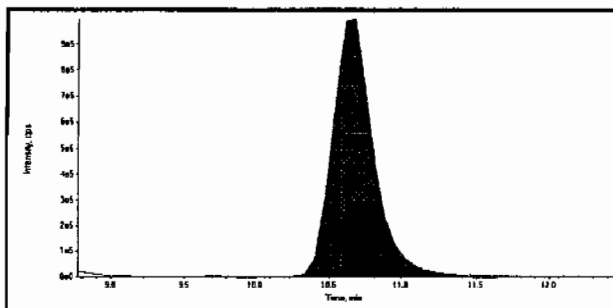
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	.88
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	.339
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

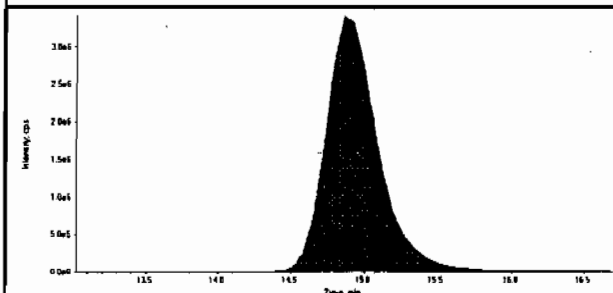
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420050.wiff	Acquisition Date	4/21/2010 11:30:12 AM
Sample Name	XIBLK07	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



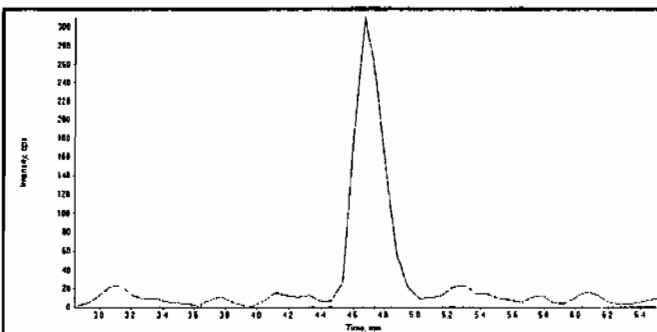
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	20000000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

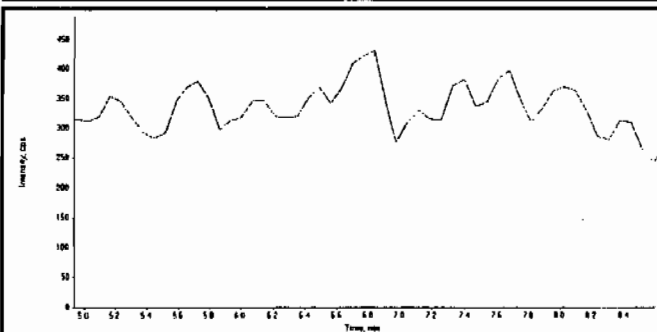


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	86200000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten:* 4/29/10  
*Signature:* Lar  
4/29/10



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420050.wiff	<b>Acquisition Date</b>	4/21/2010 11:30:12 AM
<b>Sample Name</b>	XIBLK07	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	3.48e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	0.339 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

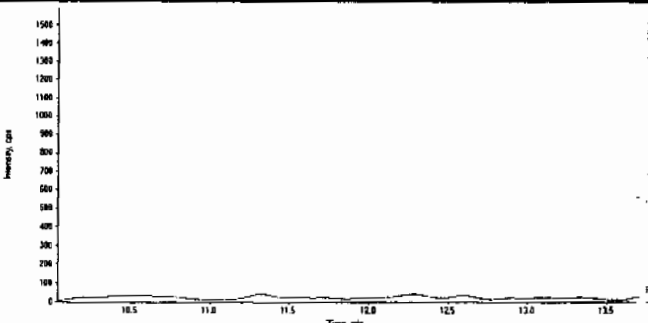
  

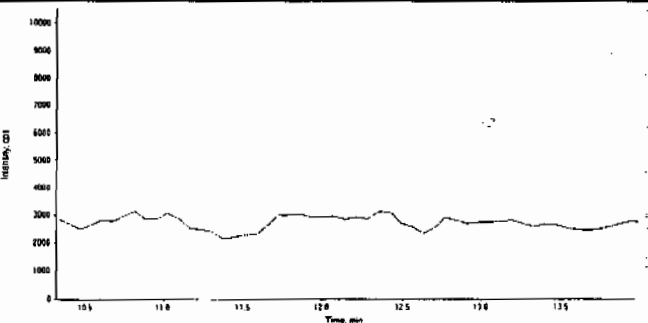
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.3
	<b>Area Counts:</b>	5.03e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

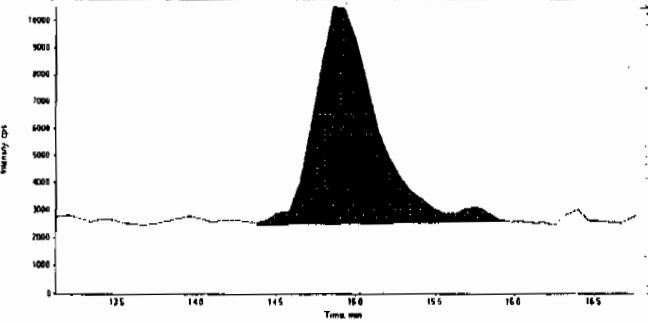
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

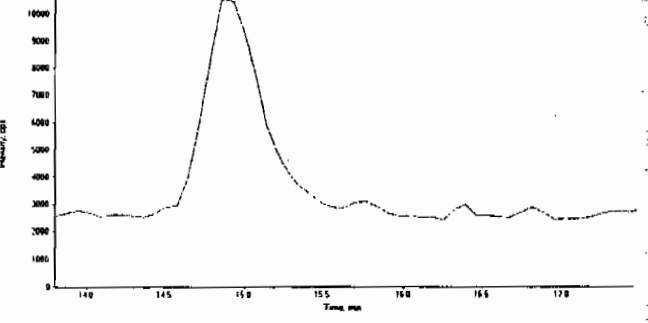
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420050.wiff	Acquisition Date	4/21/2010 11:30:12 AM
Sample Name	XIBLK07	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

	Compound Name:	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	14.9
	Area Counts:	2.23e+005
	Manual Modification	No
	Amount:	0.880 (ng/mL)
	% Accuracy:	N/A

	Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420050.wiff	<b>Acquisition Date</b>	4/21/2010 11:30:12 AM
<b>Sample Name</b>	XIBLK07	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

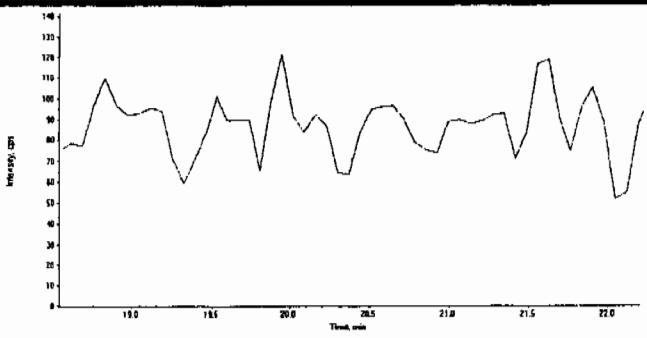
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	19.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

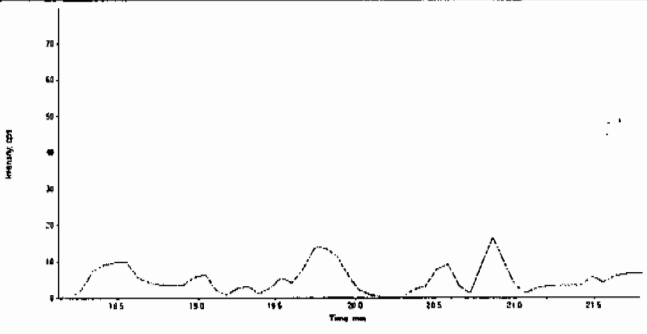
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LCMSMS#3

<b>Data File</b>	EXP0420050.wiff	<b>Acquisition Date</b>	4/21/2010 11:30:12 AM
<b>Sample Name</b>	XIBLK07	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.4
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	Expected RT:	20.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 21-APR-10 14:57

GEL Data File: EXP0420058.wiff

Instrument ID: LCMSMS

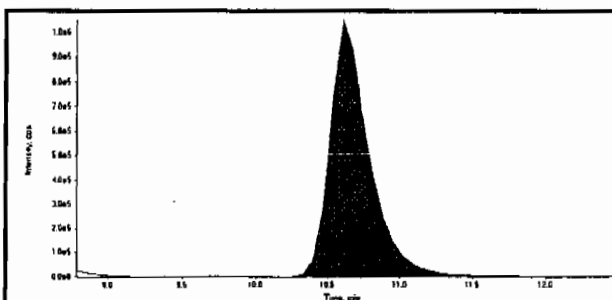
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	1.28
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	.319
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

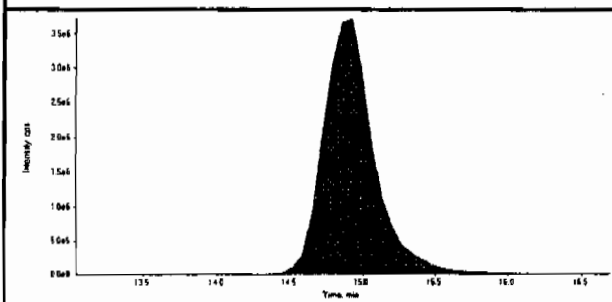
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

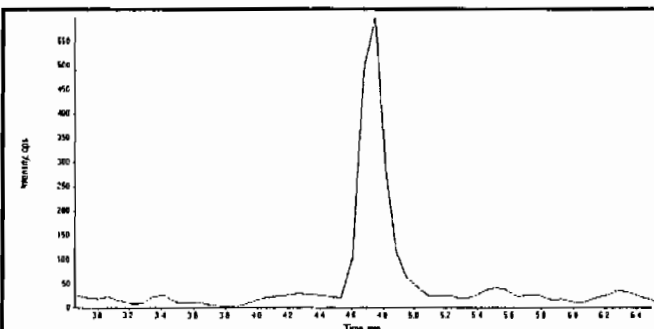
Data File	EXP0420058.wiff	Acquisition Date	4/21/2010 2:57:45 PM
Sample Name	XIBLK08	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



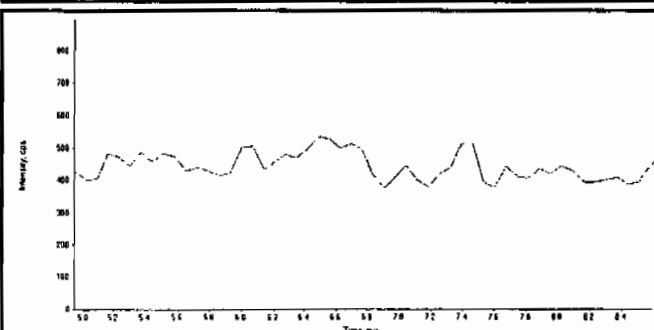
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	19900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	91600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0:00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten signature and date:*  
4/29/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420058.wiff	<b>Acquisition Date</b>	4/21/2010 2:57:45 PM
<b>Sample Name</b>	XIBLK08	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.07
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	3.26e+004
	Manual Modification	No
	Amount:	0.319 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

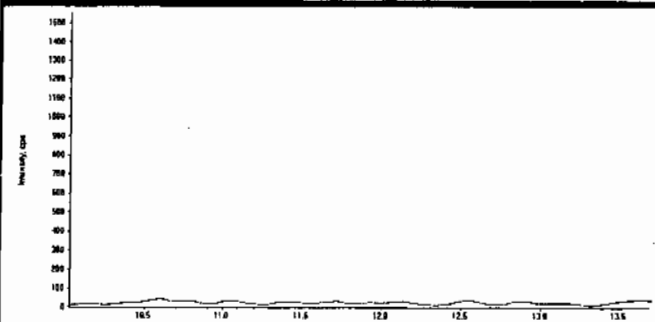
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	3.62e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

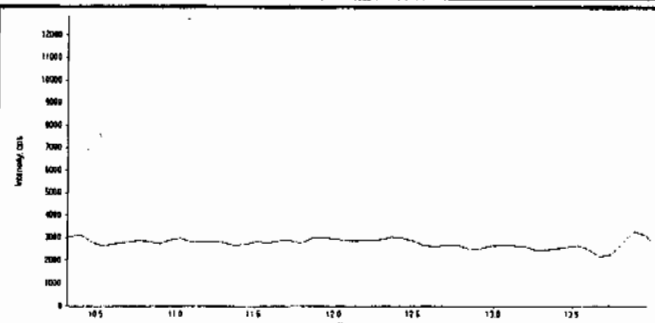
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420058.wiff	<b>Acquisition Date</b>	4/21/2010 2:57:45 PM
<b>Sample Name</b>	XIBLK08	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

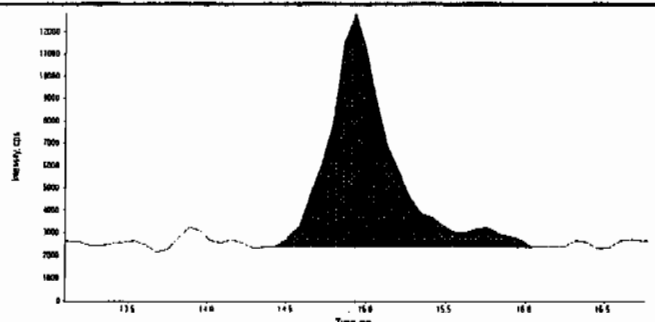
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

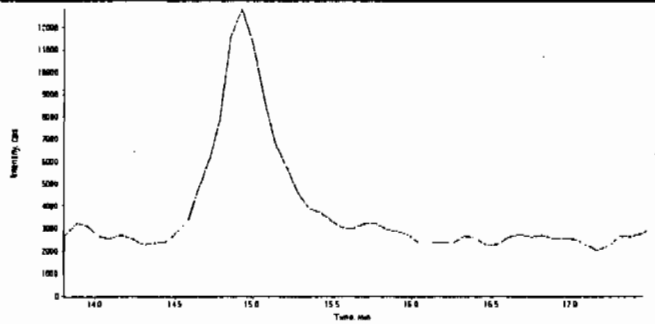
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	14.9
	Area Counts:	2.82e+005
	Manual Modification	No
	Amount:	1.28 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

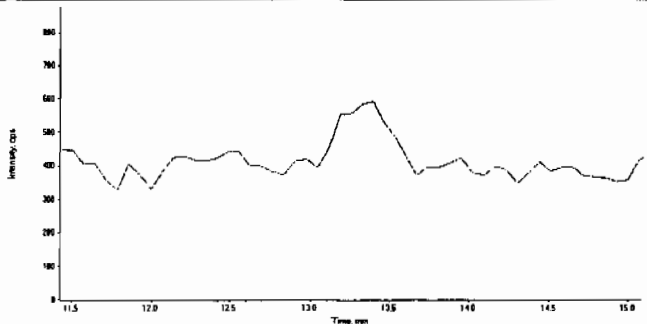


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

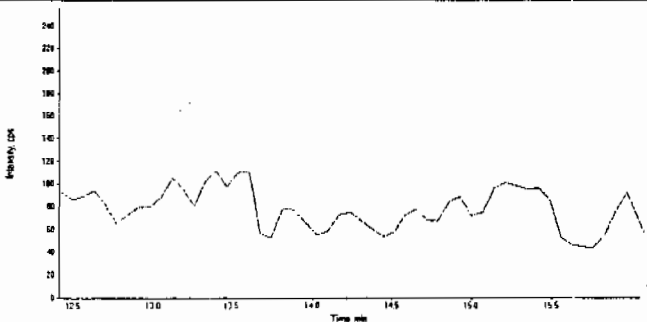
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420058.wiff	<b>Acquisition Date</b>	4/21/2010 2:57:45 PM
<b>Sample Name</b>	XIBLK08	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

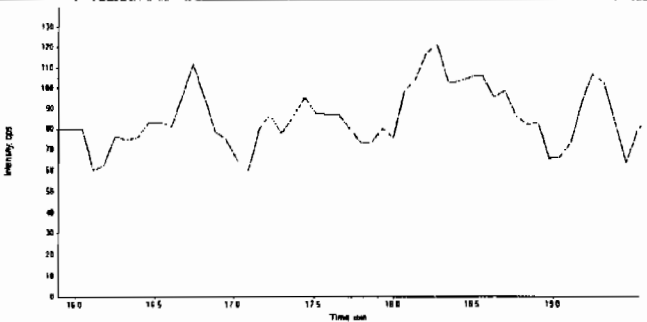
  

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

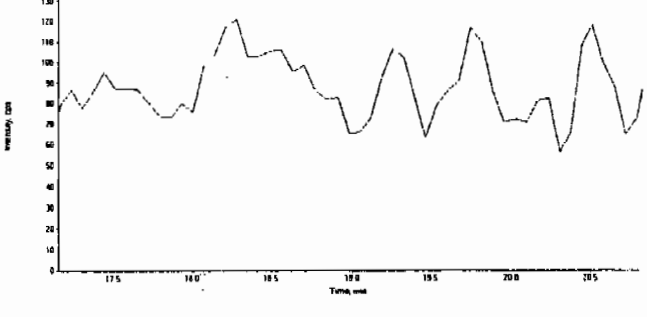
  

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

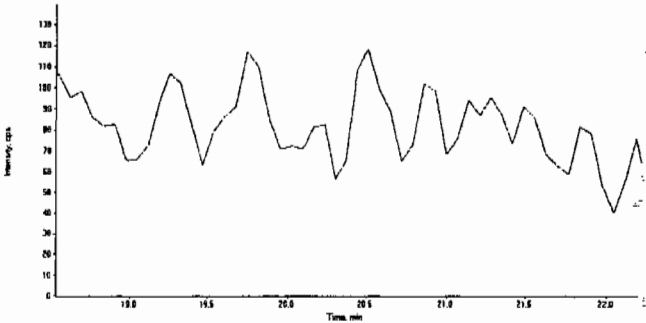
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

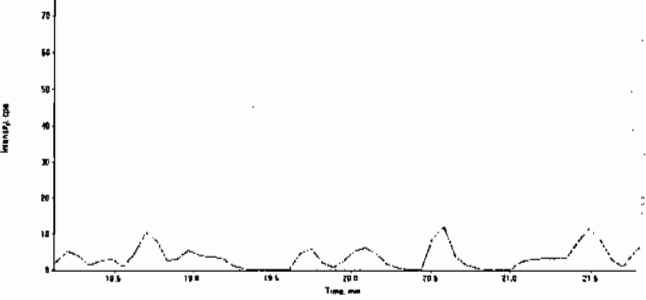
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420058.wiff	<b>Acquisition Date</b>	4/21/2010 2:57:45 PM
<b>Sample Name</b>	XIBLK08	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 21-APR-10 19:17

GEL Data File: EXP0420068.wiff

Instrument ID: LCMSMS

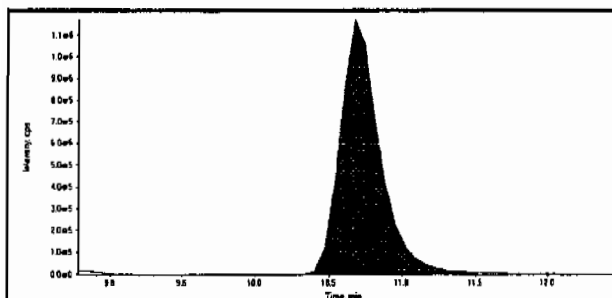
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	.914
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	.275
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

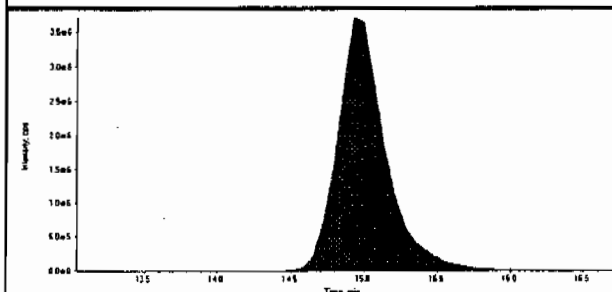
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420068.wiff	Acquisition Date	4/21/2010 7:17:30 PM
Sample Name	XIBLK09	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



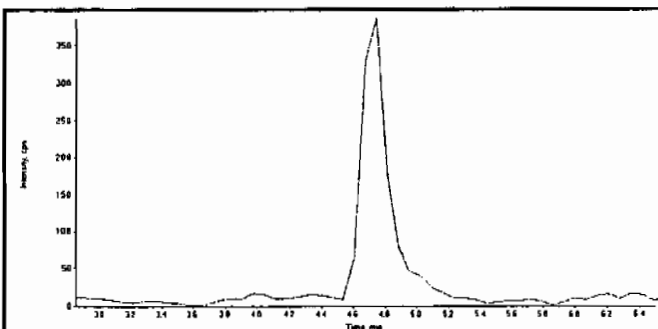
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	22400000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

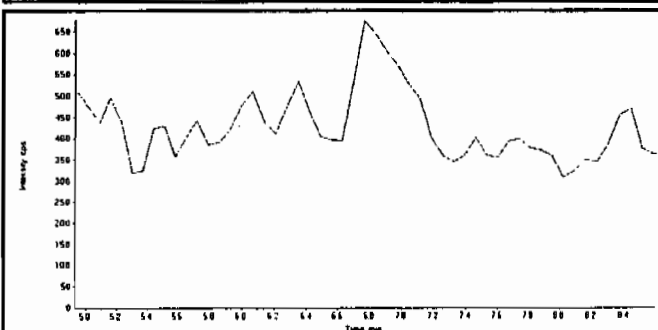


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	86100000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten signature and date:*  
4/29/10  
4/29/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420068.wiff	<b>Acquisition Date</b>	4/21/2010 7:17:30 PM
<b>Sample Name</b>	XIBLK09	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	3.17e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	0.275 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

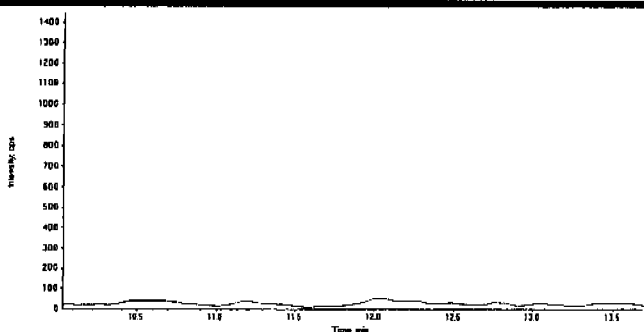
  

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.4
	<b>Area Counts:</b>	3.57e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

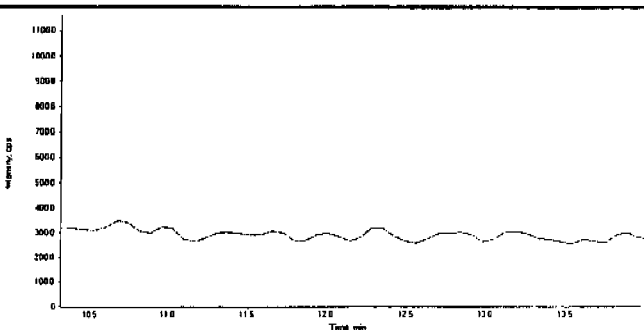
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

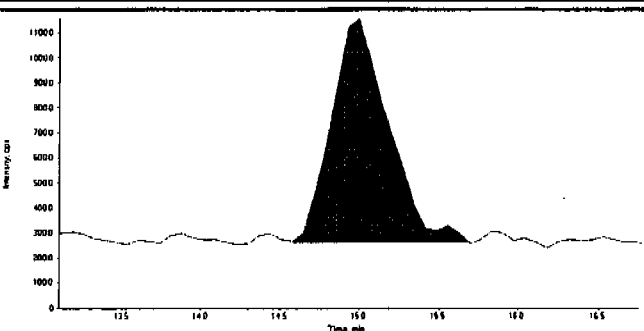
Data File	EXP0420068.wiff	Acquisition Date	4/21/2010 7:17:30 PM
Sample Name	XIBLK09	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



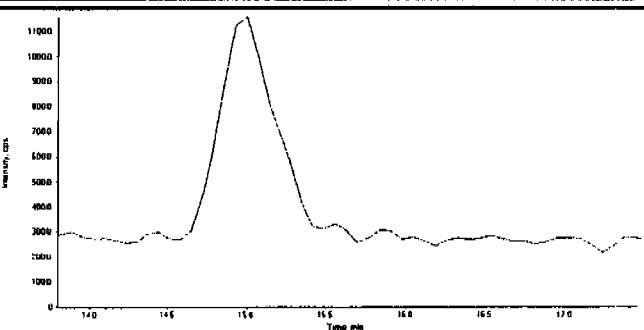
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.9
Actual RT:	15.0
Area Counts:	2.26e+005
Manual Modification	No
Amount:	0.914 (ng/mL)
% Accuracy:	N/A



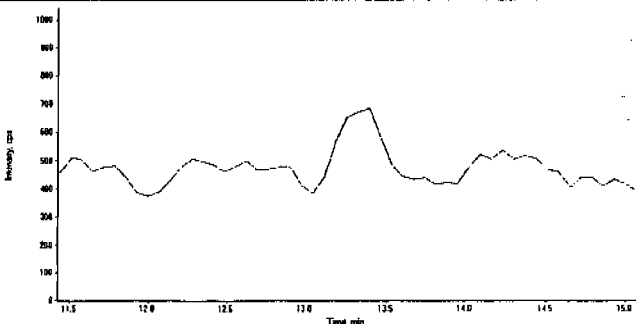
Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

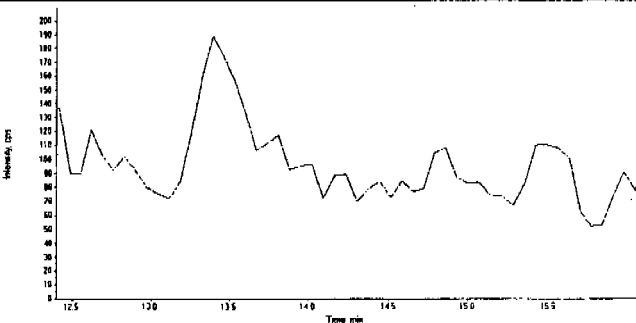
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420068.wiff	<b>Acquisition Date</b>	4/21/2010 7:17:30 PM
<b>Sample Name</b>	XIBLK09	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

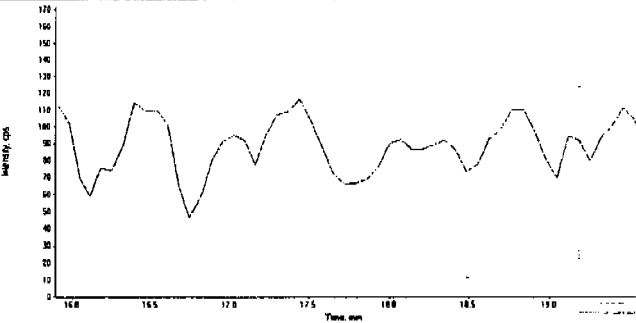
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

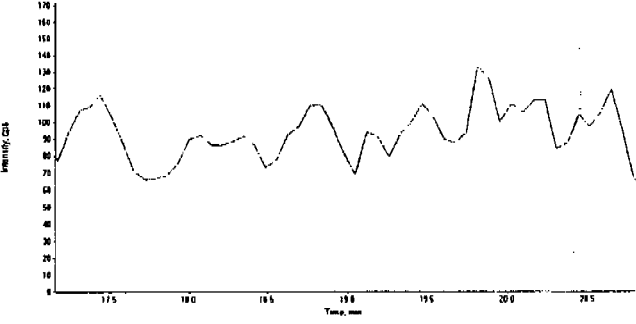
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

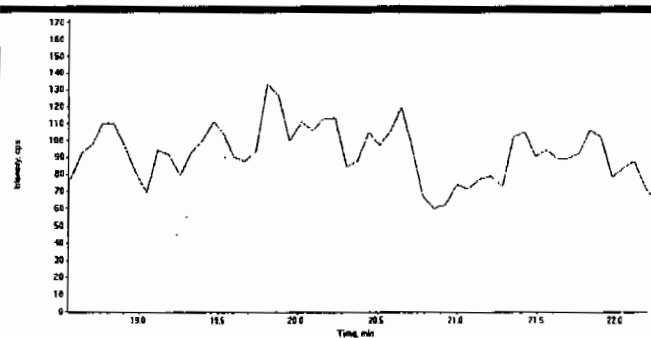
  

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	19.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

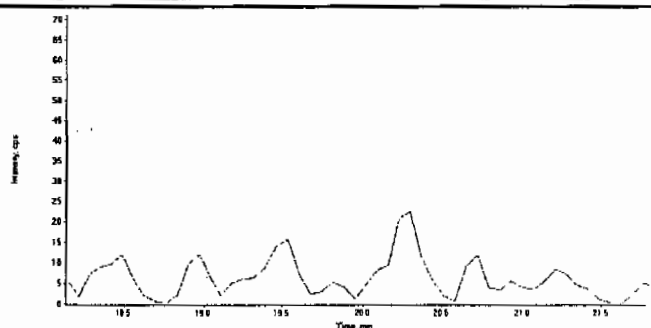
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420068.wiff	Acquisition Date	4/21/2010 7:17:30 PM
Sample Name	XIBLK09	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 22-APR-10 00:54

GEL Data File: EXP0420081.wiff

Instrument ID: LCMSMS

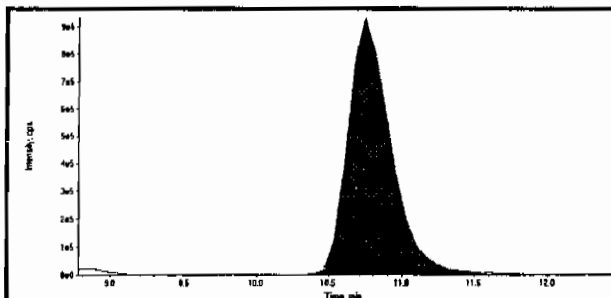
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	1.35
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	.305
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

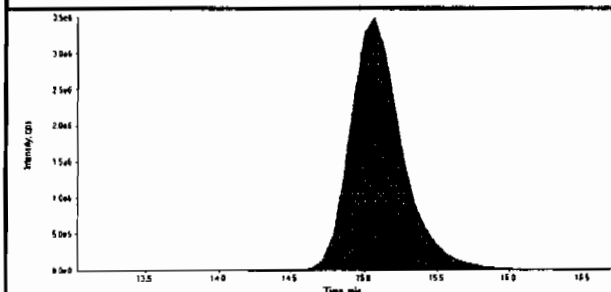
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

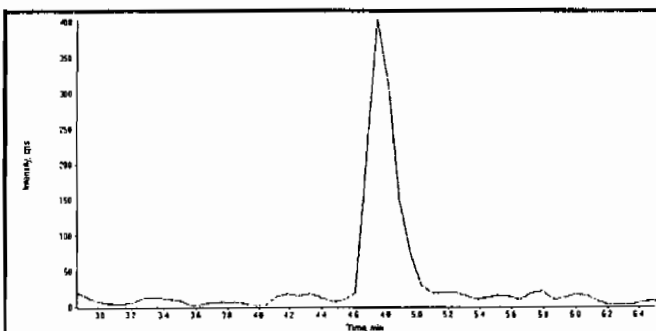
Data File	EXP0420081.wiff	Acquisition Date	4/22/2010 12:54:43 AM
Sample Name	XIBLK10	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



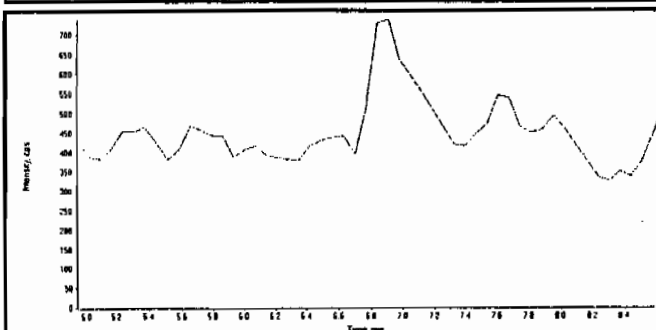
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	18900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	15.10
Area Counts:	86500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Jan 4/22/10 #mm 04/29/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420081.wiff	<b>Acquisition Date</b>	4/22/2010 12:54:43 AM
<b>Sample Name</b>	XIBLK10	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.8
	<b>Area Counts:</b>	2.98e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	0.305 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

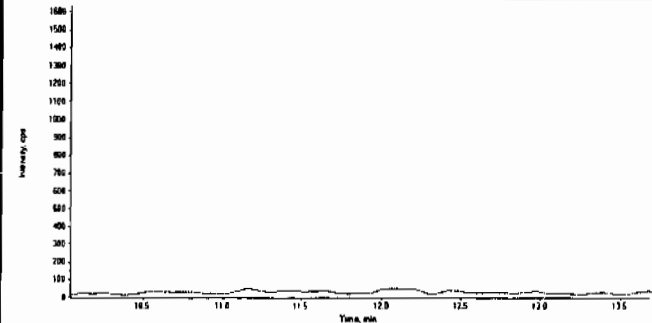
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.5
	<b>Area Counts:</b>	5.81e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

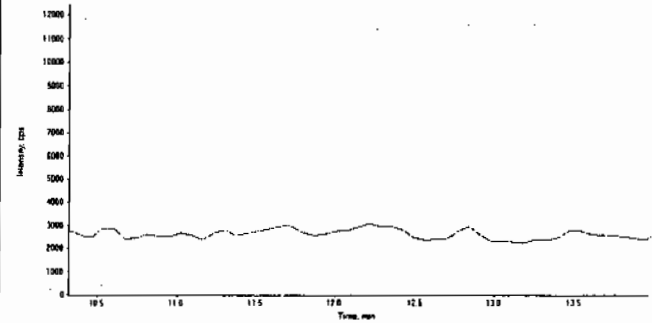
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420081.wiff	<b>Acquisition Date</b>	4/22/2010 12:54:43 AM
<b>Sample Name</b>	XIBLK10	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

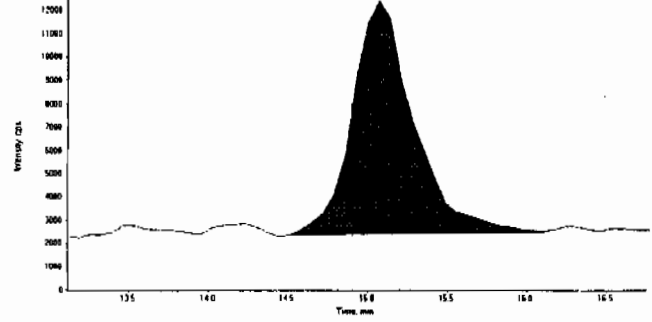
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

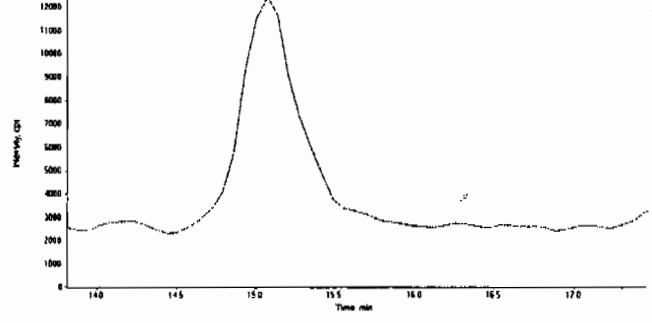
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	15.1
	Area Counts:	2.73e+005
	Manual Modification	No
	Amount:	1.35 (ng/mL)
	% Accuracy:	N/A

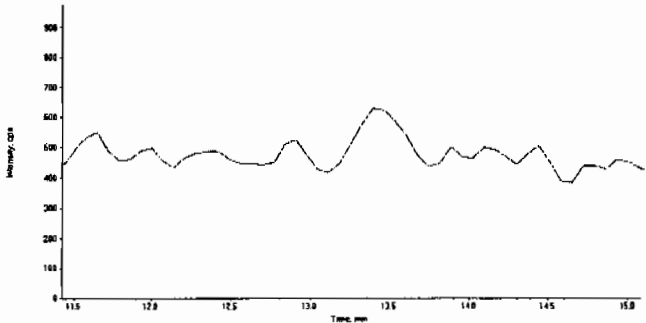
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

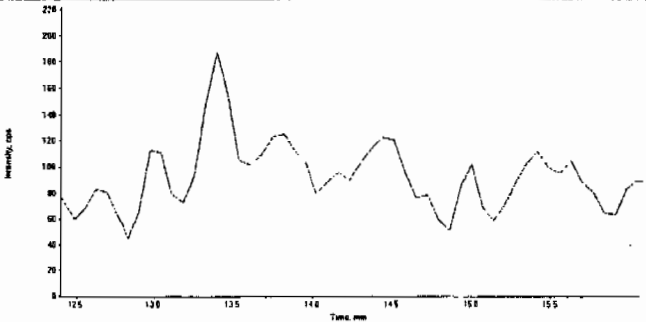
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420081.wiff	<b>Acquisition Date</b>	4/22/2010 12:54:43 AM
<b>Sample Name</b>	XIBLK10	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

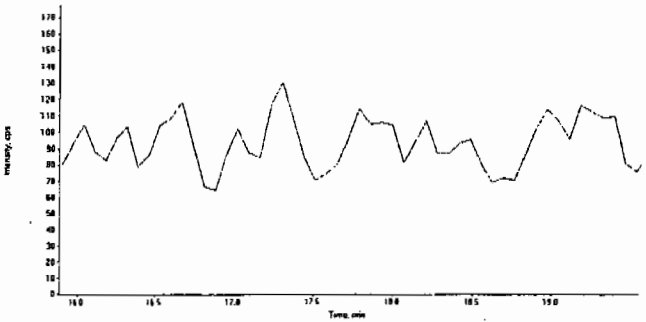
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

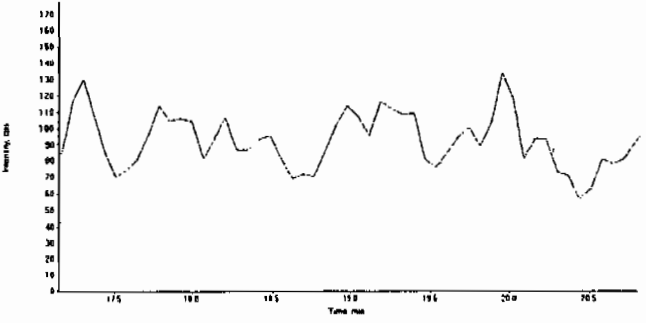
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

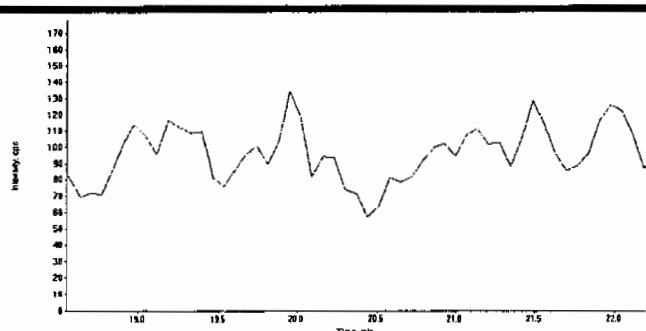
  

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	19.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

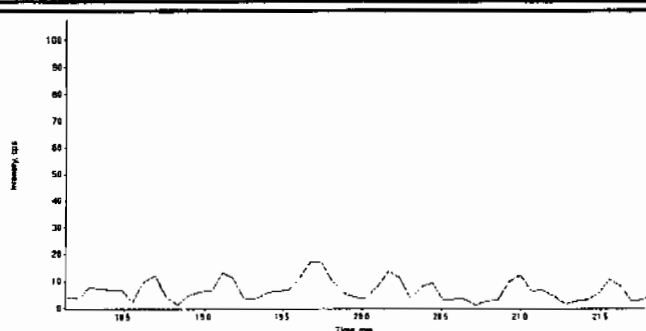
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420081.wiff	Acquisition Date	4/22/2010 12:54:43 AM
Sample Name	XIBLK10	Acquisition Method	8321.dam
Batch/Dilution/Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 22-APR-10 05:40

GEL Data File: EXP0420092.wiff

Instrument ID: LCMSMS

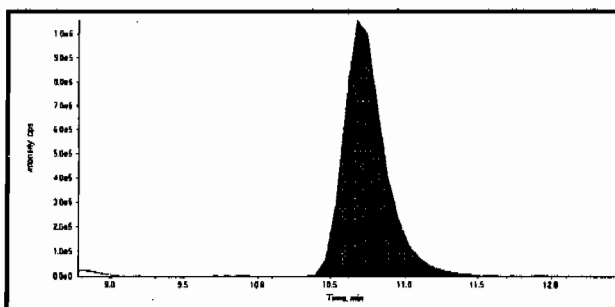
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	1.2
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	.288
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

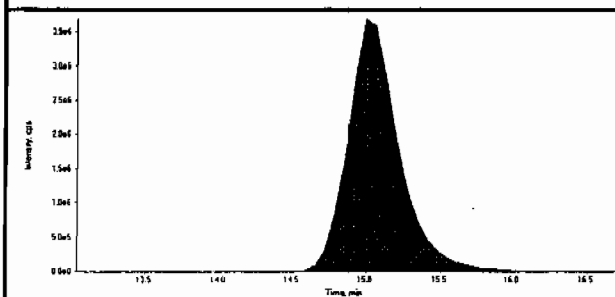
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420092.wiff	Acquisition Date	4/22/2010 5:40:29 AM
Sample Name	XIBLK11	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



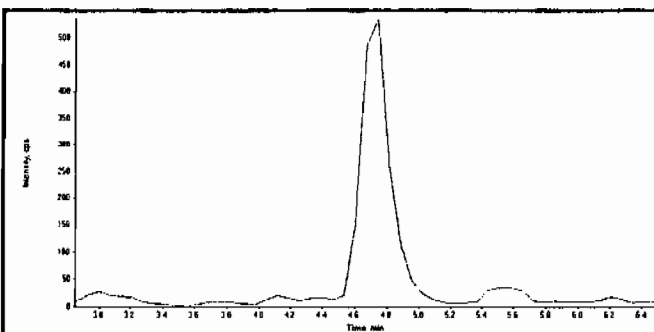
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	20400000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

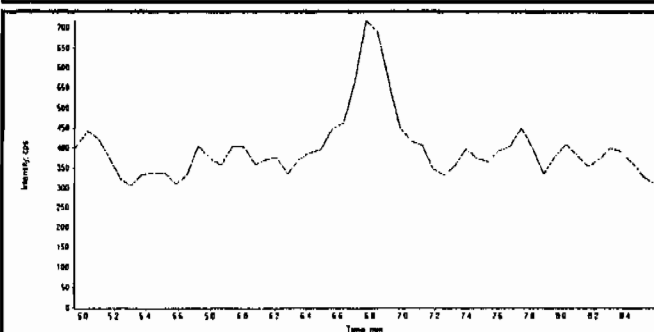


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	15.00
Area Counts:	88700000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*See 4/29/10 HMX 04/29/10*



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420092.wiff	<b>Acquisition Date</b>	4/22/2010 5:40:29 AM
<b>Sample Name</b>	XIBLK11	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.07
	Actual RT:	9.14
	Area Counts:	1.70e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	3.03e+004
	Manual Modification	No
	Amount:	0.288 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

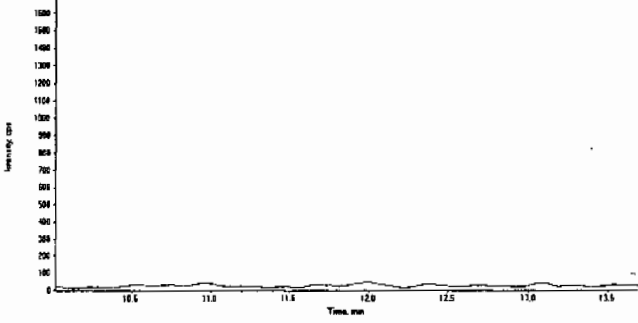
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.3
	Actual RT:	13.5
	Area Counts:	4.56e+004
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

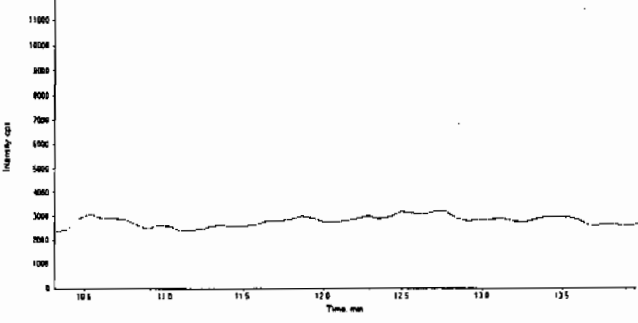
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420092.wiff	<b>Acquisition Date</b>	4/22/2010 5:40:29 AM
<b>Sample Name</b>	XIBLK11	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

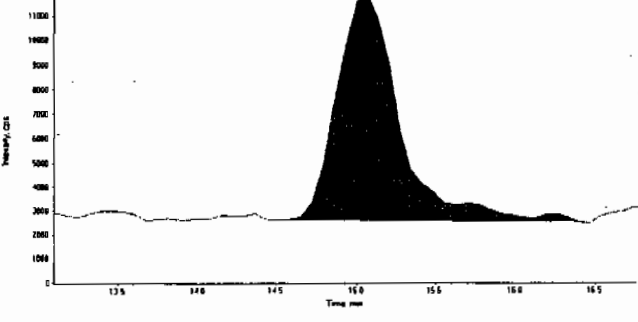
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

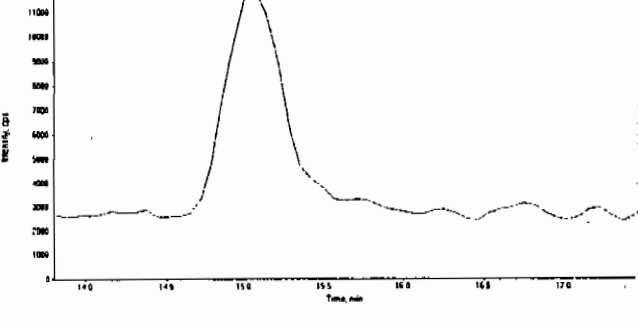
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	15.1
	Area Counts:	2.64e+005
	Manual Modification	No
	Amount:	1.20 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420092.wiff	<b>Acquisition Date</b>	4/22/2010 5:40:29 AM
<b>Sample Name</b>	XIBLK11	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	19.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420092.wiff	<b>Acquisition Date</b>	4/22/2010 5:40:29 AM
<b>Sample Name</b>	XIBLK11	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 22-APR-10 09:08

GEL Data File: EXP0420100.wiff

Instrument ID: LCMSMS

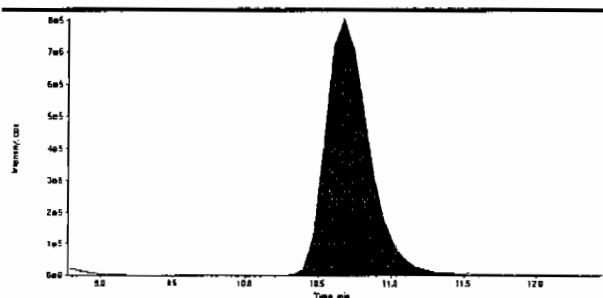
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	1.21
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	.339
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

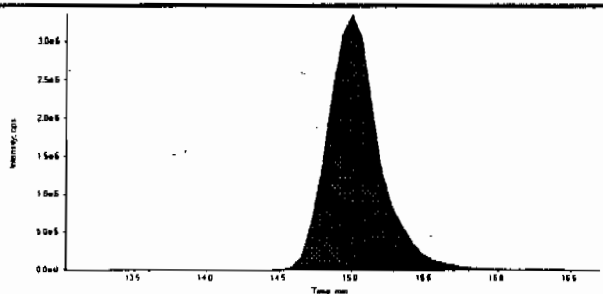
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

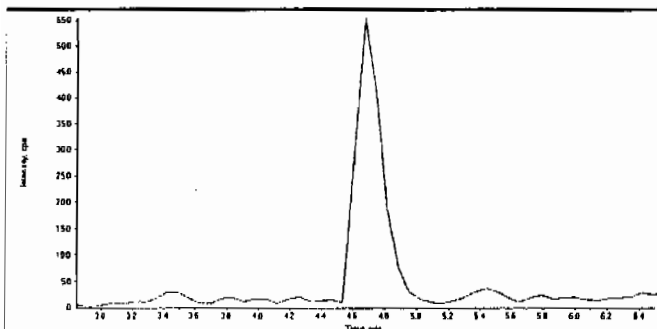
Data File	EXP0420100.wiff	Acquisition Date	4/22/2010 9:08:38 AM
Sample Name	XIBLK12	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



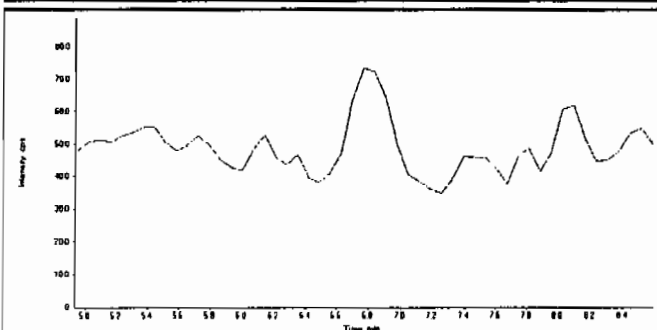
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	16900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	15.00
Area Counts:	83300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



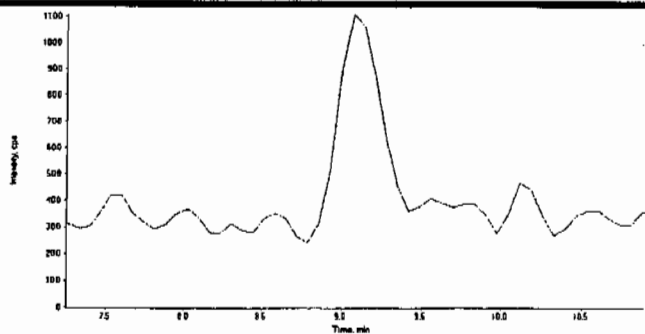
Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*LER*  
*4/29/10*  
*4/29/10*

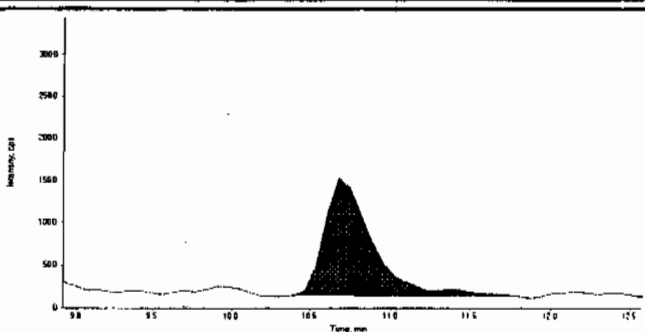
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

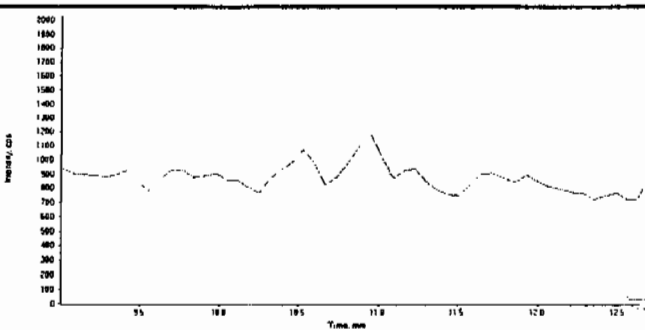
Data File	EXP0420100.wiff	Acquisition Date	4/22/2010 9:08:38 AM
Sample Name	XIBLK12	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



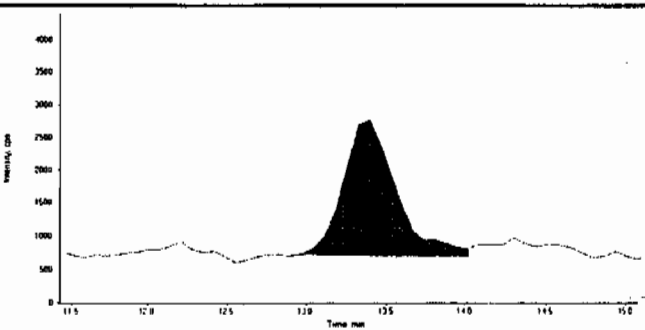
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.07
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	2.96e+004
Manual Modification	No
Amount:	0.339 (ng/mL)
% Accuracy:	N/A



Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



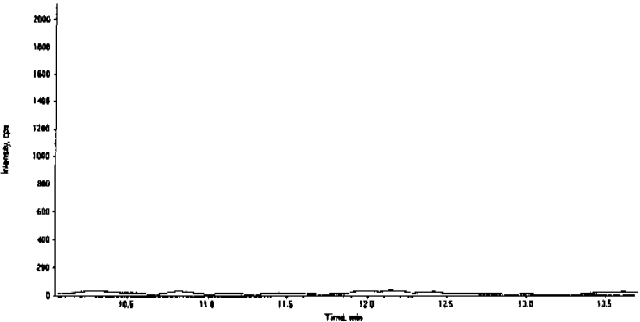
Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	13.4
Area Counts:	4.83e+004
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

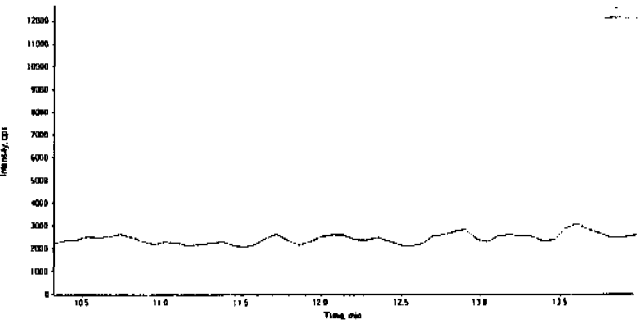
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420100.wiff	<b>Acquisition Date</b>	4/22/2010 9:08:38 AM
<b>Sample Name</b>	XIBLK12	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

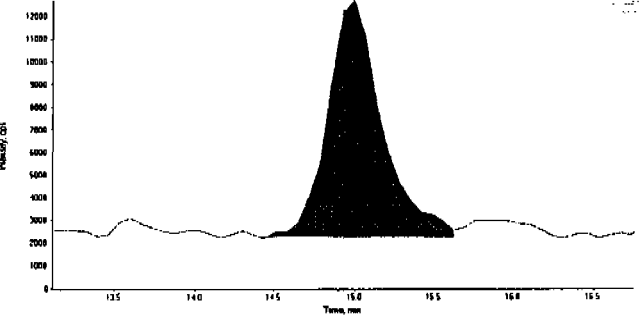
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.9
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

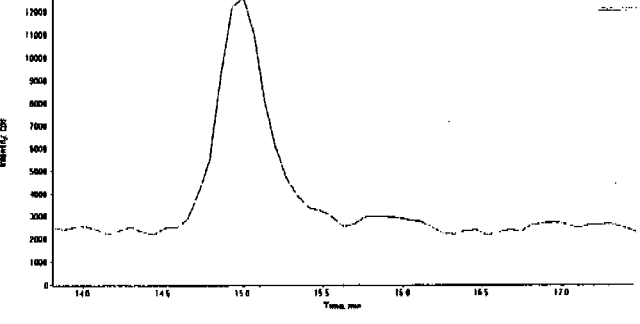
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.9
	<b>Actual RT:</b>	15.0
	<b>Area Counts:</b>	2.49e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	1.21 (ng/mL)
	<b>% Accuracy:</b>	N/A

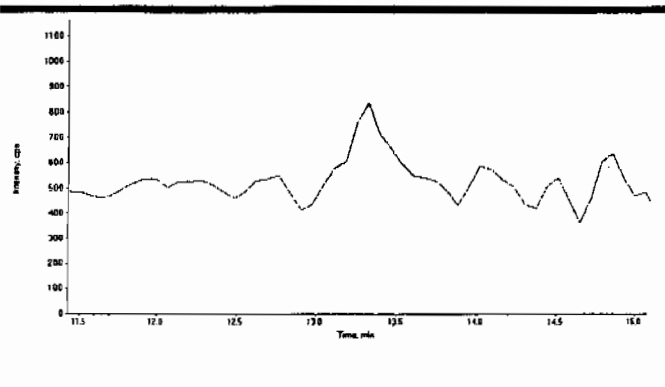
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

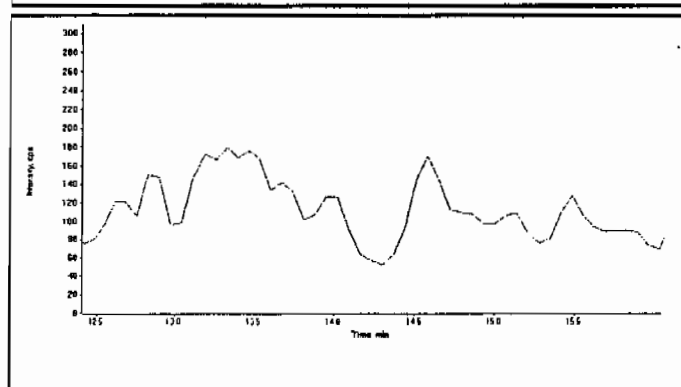


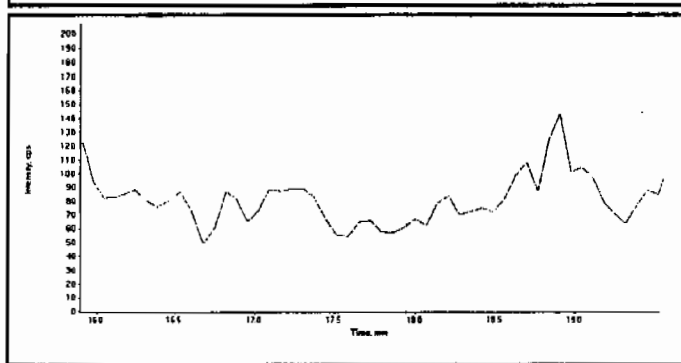
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

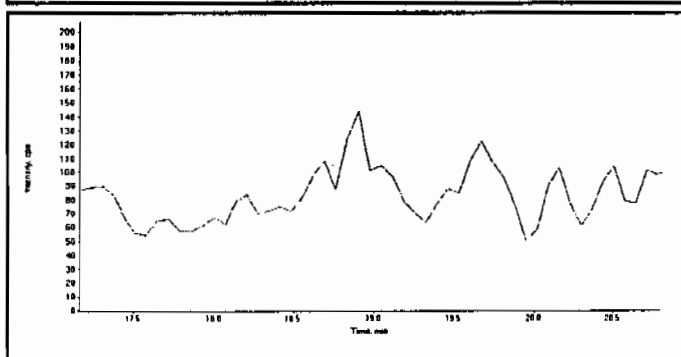
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420100.wiff	Acquisition Date	4/22/2010 9:08:38 AM
Sample Name	XIBLK12	Acquisition Method	8321.dam
Batch/Dilution/Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

	Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420100.wiff	<b>Acquisition Date</b>	4/22/2010 9:08:38 AM
<b>Sample Name</b>	XIBLK12	<b>Acquisition Method</b>	8321.dam
<b>Batch/Dilution/Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 22-APR-10 19:26

GEL Data File: EXP0422009.wiff

Instrument ID: LCMSMS

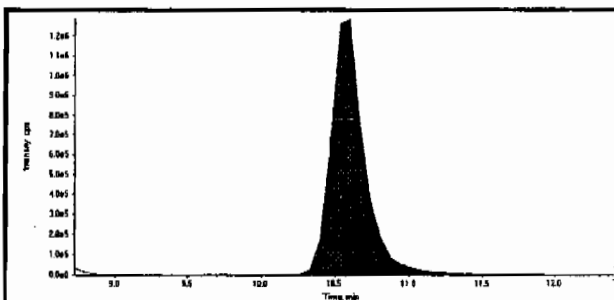
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
DNX	0	0
MXN	0	0
TNX	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	.0671
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

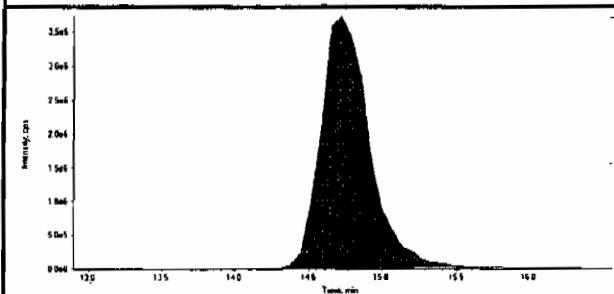
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

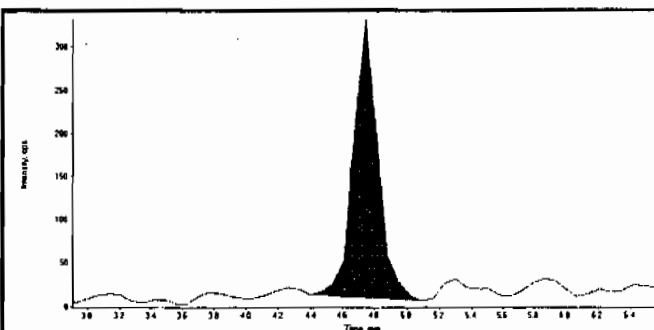
Data File	EXP0422009.wiff	Acquisition Date	4/22/2010 7:26:29 PM
Sample Name	XIBLK02	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



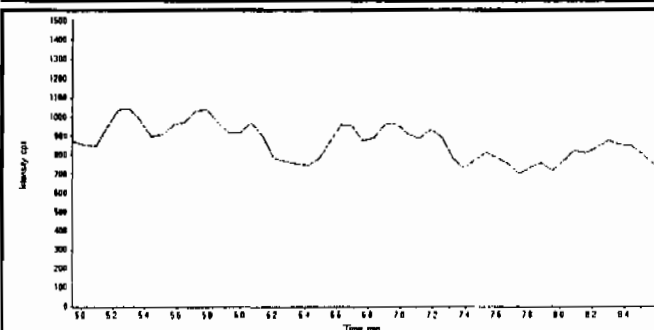
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	20600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.70
Area Counts:	87500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.73
Actual RT:	4.74
Area Counts:	3.53e+003
Manual Modification	No
Amount:	0.0671 (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422009.wiff	<b>Acquisition Date</b>	4/22/2010 7:26:29 PM
<b>Sample Name</b>	XIBLK02	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	TNX (219.0/45.0 amu)
	<b>Expected RT:</b>	5.06
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	DNX (235.0/45.0 amu)
	<b>Expected RT:</b>	5.41
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	MNX (251.0/46.0 amu)
	<b>Expected RT:</b>	6.08
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.03
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422009.wiff	<b>Acquisition Date</b>	4/22/2010 7:26:29 PM
<b>Sample Name</b>	XIBLK02	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.2
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

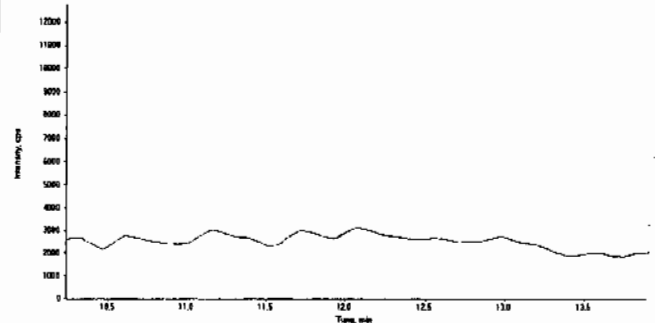
	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

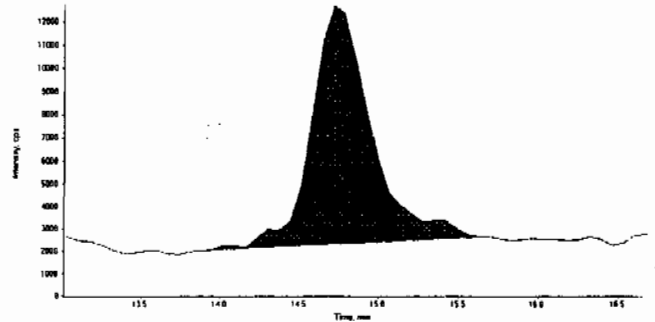
Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422009.wiff	<b>Acquisition Date</b>	4/22/2010 7:26:29 PM
<b>Sample Name</b>	XIBLK02	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

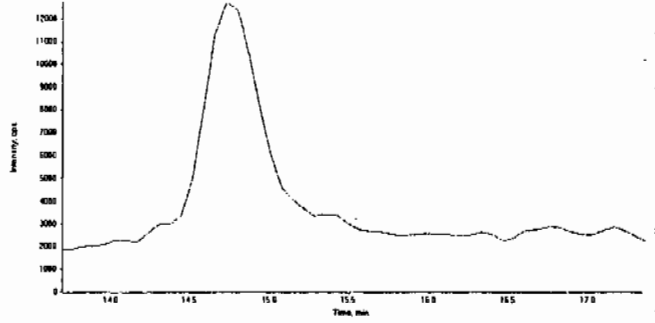
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

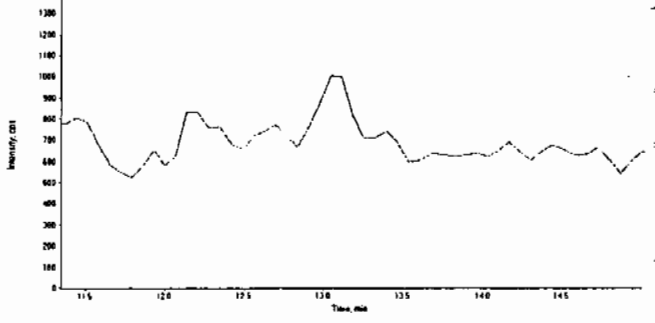
  

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.7
	Area Counts:	2.83e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.2
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422009.wiff	<b>Acquisition Date</b>	4/22/2010 7:26:29 PM
<b>Sample Name</b>	XIBLK02	<b>Acquisition Method</b>	8321.dam
<b>Batch/Dilution/Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

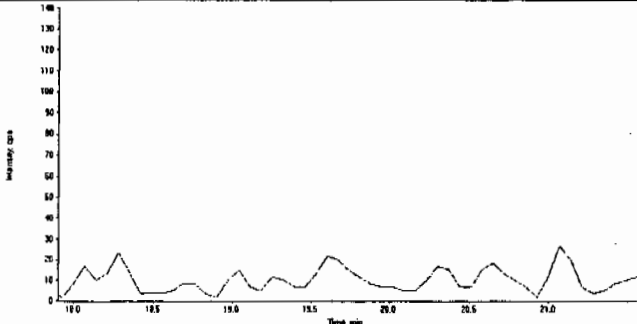
  

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Data File	EXP0422009.wiff	Acquisition Date	4/22/2010 7:26:29 PM
Sample Name	XIBLK02	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown
		Compound Name:	PETN (361.1/62.0 amu)
		Expected RT:	19.7
		Actual RT:	0.00
		Area Counts:	0.00e+000
		Manual Modification	No
		Amount:	N/A (ng/mL)
		% Accuracy:	N/A

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 22-APR-10 20:18

GEL Data File: EXP0422011.wiff

Instrument ID: LCMSMS

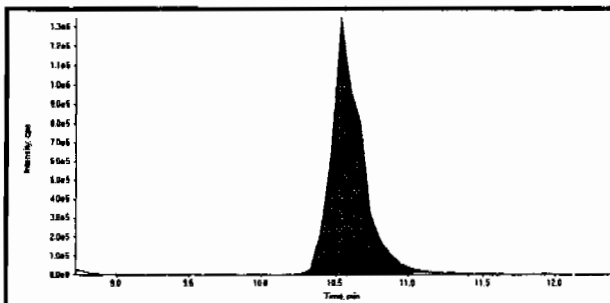
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
DNX	0	0
MXN	0	0
TNX	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	.0482
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

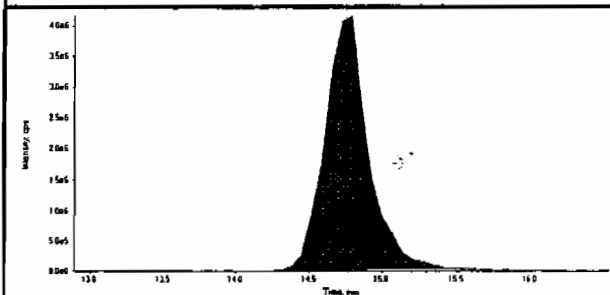
Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Data File	EXP0422011.wiff	Acquisition Date	4/22/2010 8:18:23 PM
Sample Name	XIBLK03	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



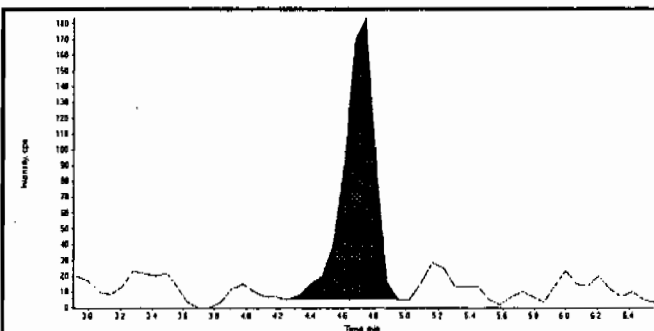
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	19900000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

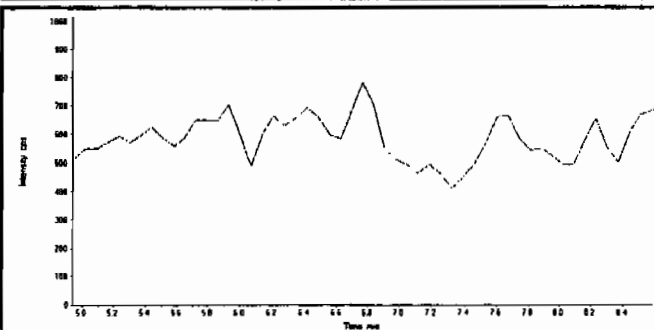


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	87600000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.73
Actual RT:	4.72
Area Counts:	2.46e+003
Manual Modification	No
Amount:	0.0482 (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Jan 5/5/10 HNW 05/06/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422011.wiff	<b>Acquisition Date</b>	4/22/2010 8:18:23 PM
<b>Sample Name</b>	XIBLK03	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	TNX (219.0/45.0 amu)
	Expected RT:	5.06
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	DNX (235.0/45.0 amu)
	Expected RT:	5.41
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	MNX (251.0/46.0 amu)
	Expected RT:	6.08
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.03
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422011.wiff	<b>Acquisition Date</b>	4/22/2010 8:18:23 PM
<b>Sample Name</b>	XIBLK03	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.2
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

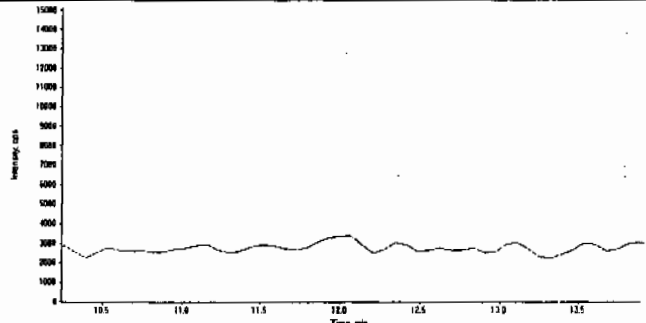
	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

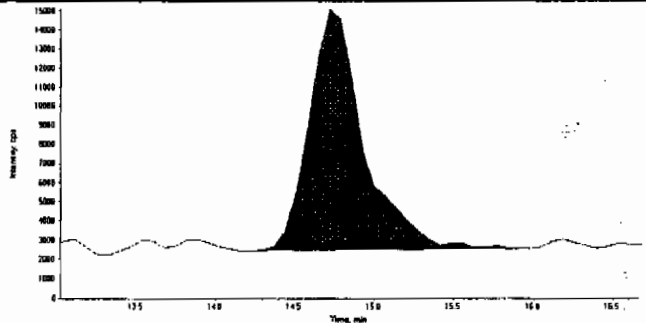
Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422011.wiff	<b>Acquisition Date</b>	4/22/2010 8:18:23 PM
<b>Sample Name</b>	XIBLK03	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

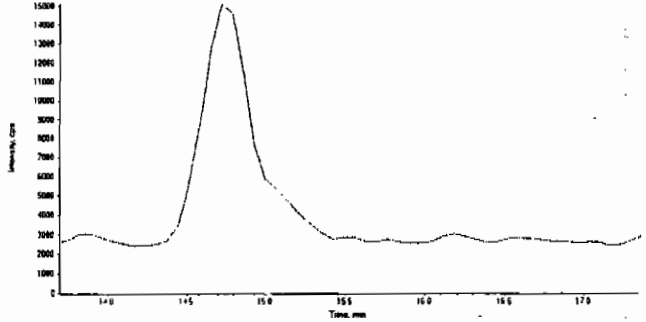
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

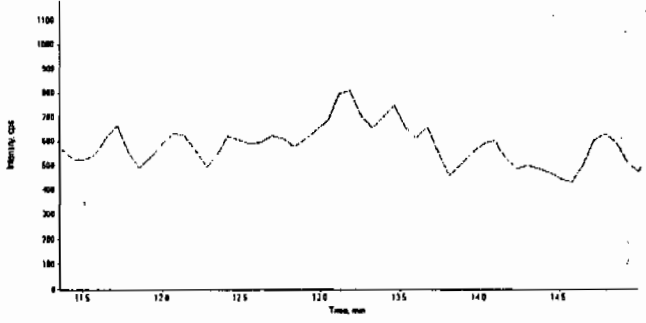
  

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.7
	Area Counts:	3.06e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.2
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422011.wiff	<b>Acquisition Date</b>	4/22/2010 8:18:23 PM
<b>Sample Name</b>	XIBLK03	<b>Acquisition Method</b>	8321.dam
<b>Batch/Dilution/Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

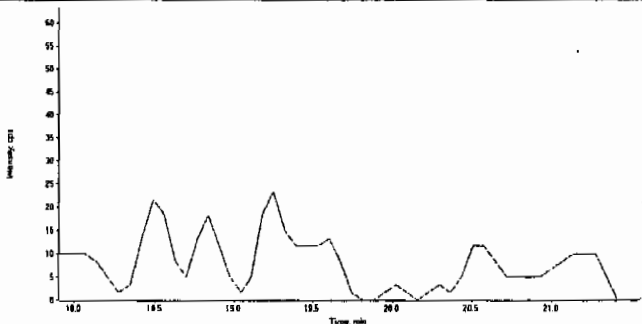
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Data File	EXP0422011.wiff	Acquisition Date	4/22/2010 8:18:23 PM
Sample Name	XIBLK03	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown
		Compound Name:	PETN (361.1/62.0 amu)
		Expected RT:	19.7
		Actual RT:	0.00
		Area Counts:	0.00e+000
		Manual Modification	No
		Amount:	N/A (ng/mL)
		% Accuracy:	N/A



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 22-APR-10 22:53

GEL Data File: EXP0422017.wiff

Instrument ID: LCMSMS

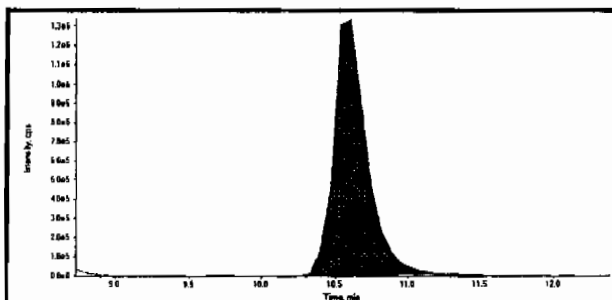
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
DNX	0	0
MNX	0	0
TNX	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	.0449
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

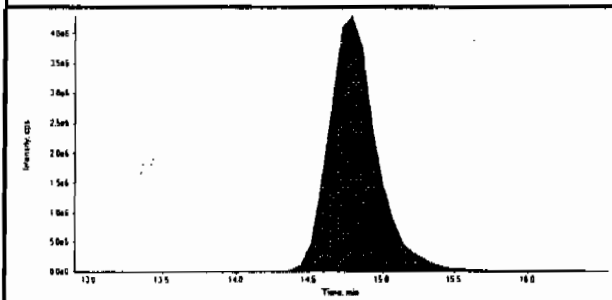
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

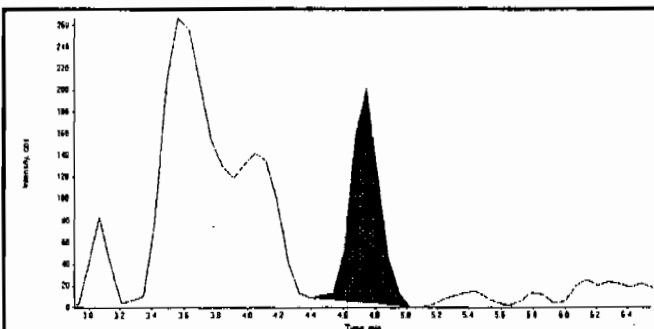
Data File	EXP0422017.wiff	Acquisition Date	4/22/2010 10:53:56 PM
Sample Name	XIBLK04	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown



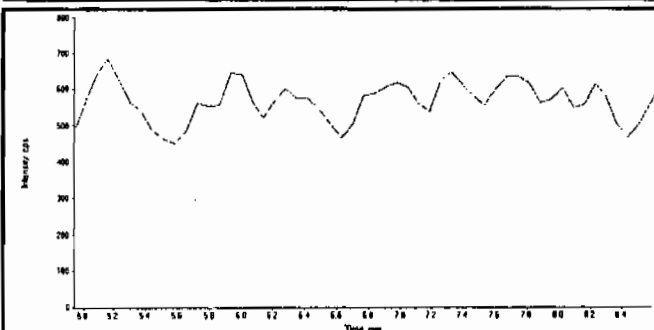
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	21400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	97500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.73
Actual RT:	4.73
Area Counts:	2.46e+003
Manual Modification	No
Amount:	0.0449 (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten:*  
05/06/10  
JLW  
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GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Data File	EXP0422017.wiff	Acquisition Date	4/22/2010 10:53:56 PM
Sample Name	XIBLK04	Acquisition Method	8321.dam
Batch/Dilution/Analyst	1 LER	Result Table	042210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

	Compound Name:	TNX (219.0/45.0 amu)
	Expected RT:	5.06
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	DNX (235.0/45.0 amu)
	Expected RT:	5.41
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	MNX (251.0/46.0 amu)
	Expected RT:	6.08
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.03
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422017.wiff	<b>Acquisition Date</b>	4/22/2010 10:53:56 PM
<b>Sample Name</b>	XIBLK04	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.2
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422017.wiff	<b>Acquisition Date</b>	4/22/2010 10:53:56 PM
<b>Sample Name</b>	XIBLK04	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.8
	Area Counts:	3.55e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

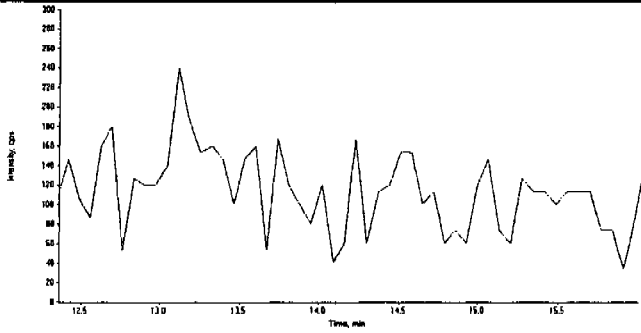
	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.2
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

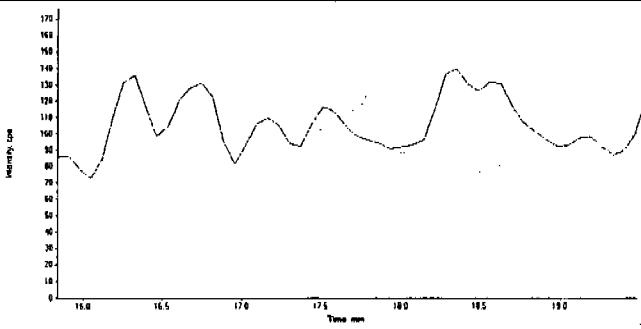
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LCMSMS#3

<b>Data File</b>	EXP0422017.wiff	<b>Acquisition Date</b>	4/22/2010 10:53:56 PM
<b>Sample Name</b>	XIBLK04	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_B	<b>Sample Type</b>	Unknown

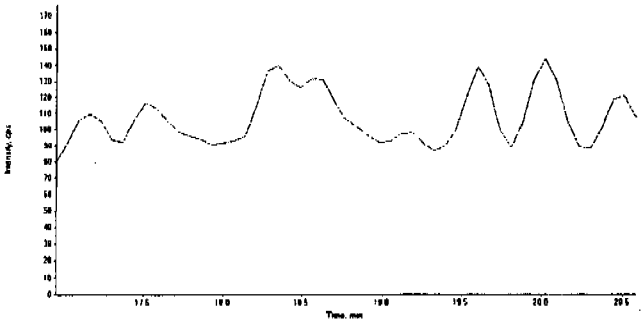
  

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

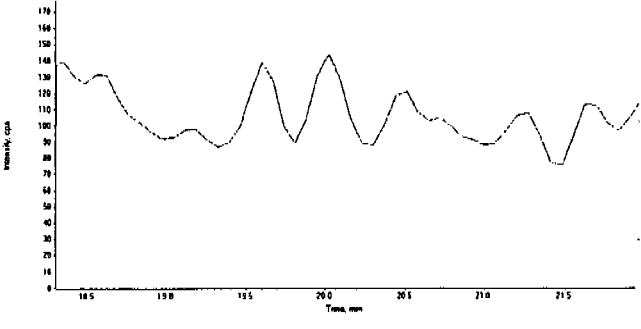
  

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

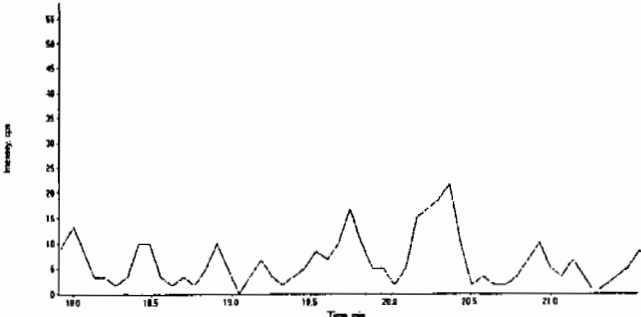
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Data File	EXP0422017.wiff	Acquisition Date	4/22/2010 10:53:56 PM
Sample Name	XIBLK04	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown
		Compound Name:	PETN (361.1/62.0 amu)
		Expected RT:	19.7
		Actual RT:	0.00
		Area Counts:	0.00e+000
		Manual Modification	No
		Amount:	N/A (ng/mL)
		% Accuracy:	N/A

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 09-APR-10 09:36

GEL Data File: EXS04090010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	13
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0



Jan 4/12/10

Sample Name: "XIBLK02" Sample ID: "TILLER" File: "EXS04080010.wiff"

Peak Name: "TATB" Mass(es): "257.2/204.9 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

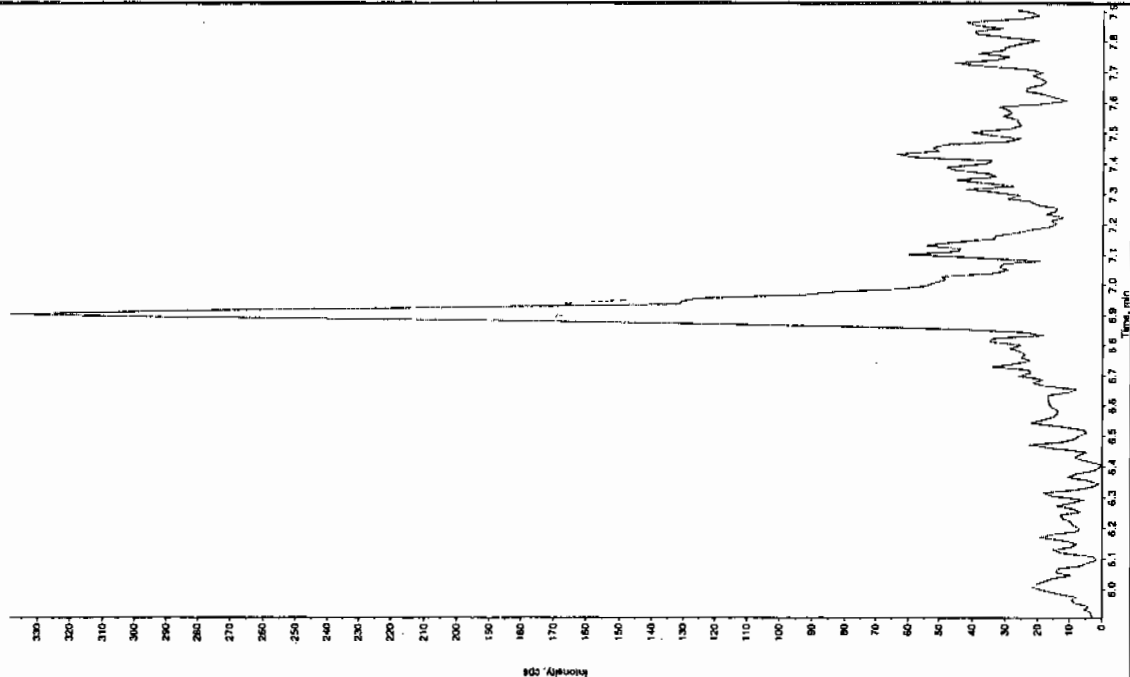
Concentration: N/A ng/mL

Calculated Conc: 0.00

Acq. Date: 4/9/2010

Acq. Time: 9:36:11 AM

Modified: No



Sample Name: "XIBLK02" Sample ID: "TILLER" File: "EXS04080010.wiff"

Peak Name: "35-Dinitroaniline" Mass(es): "182.0/16.0 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

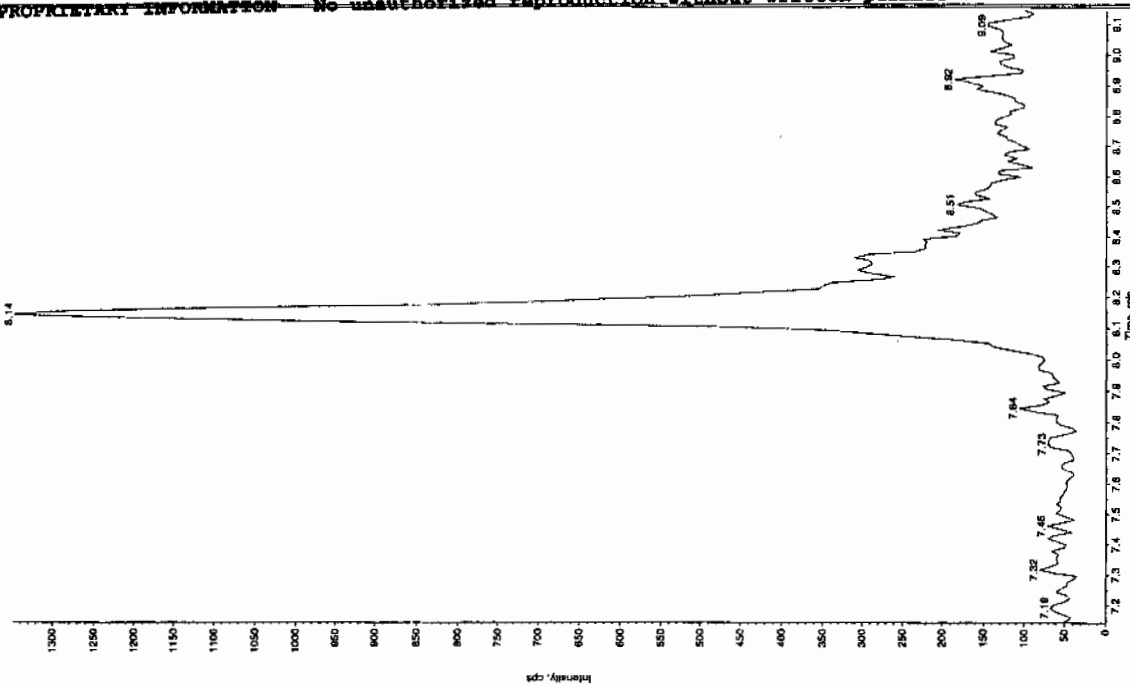
Concentration: N/A ng/mL

Calculated Conc: 0.00

Acq. Date: 4/9/2010

Acq. Time: 9:36:11 AM

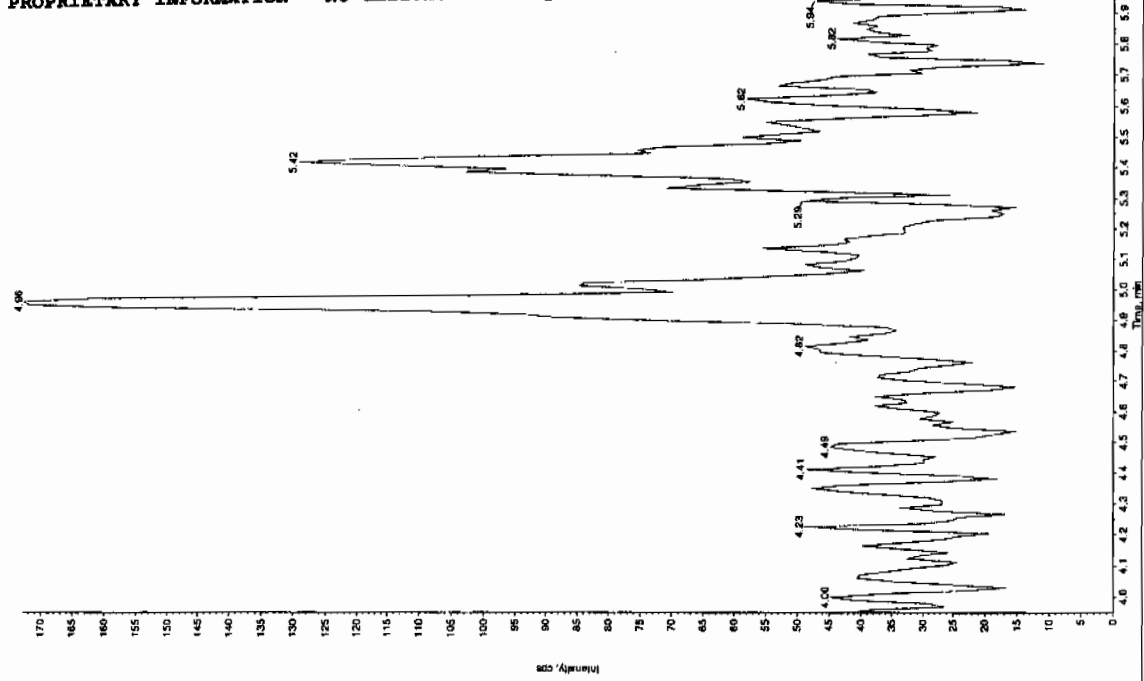
Modified: No



Amw-04/12/10

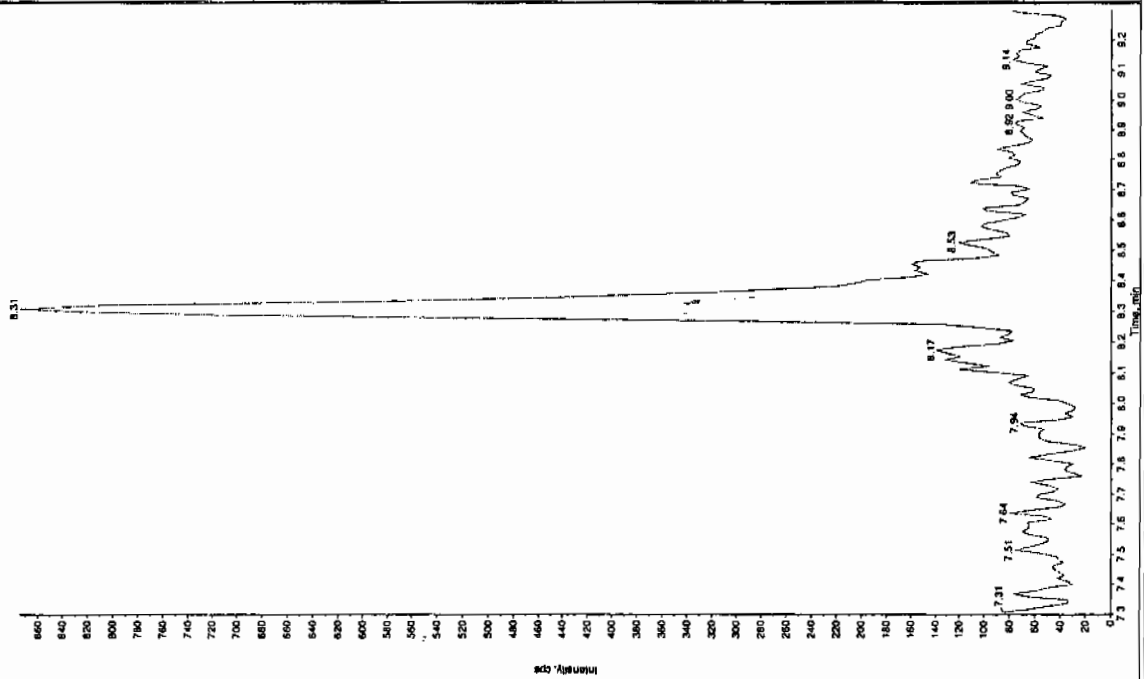
Sample Name: "XBLK02" Sample ID: "111EP" File: "EX504090010.will"  
 Peak Name: "25-Dimethoxy-4-nitrofluorene" Mass(es): "186.046.0 amu"  
 Comment: "LCMSXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 9:36:11 AM  
 Modified: No



Sample Name: "XBLK02" Sample ID: "111EP" File: "EX504090010.will"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1151.9 amu"  
 Comment: "LCMSXP\_B" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 9:36:11 AM  
 Modified: No

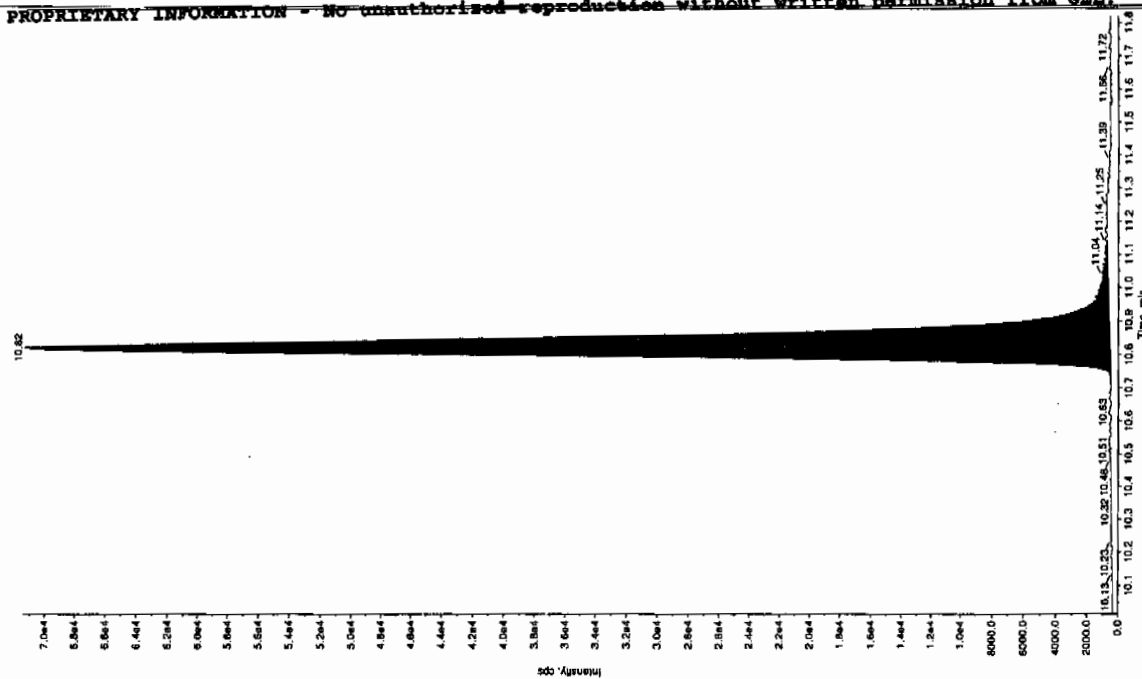
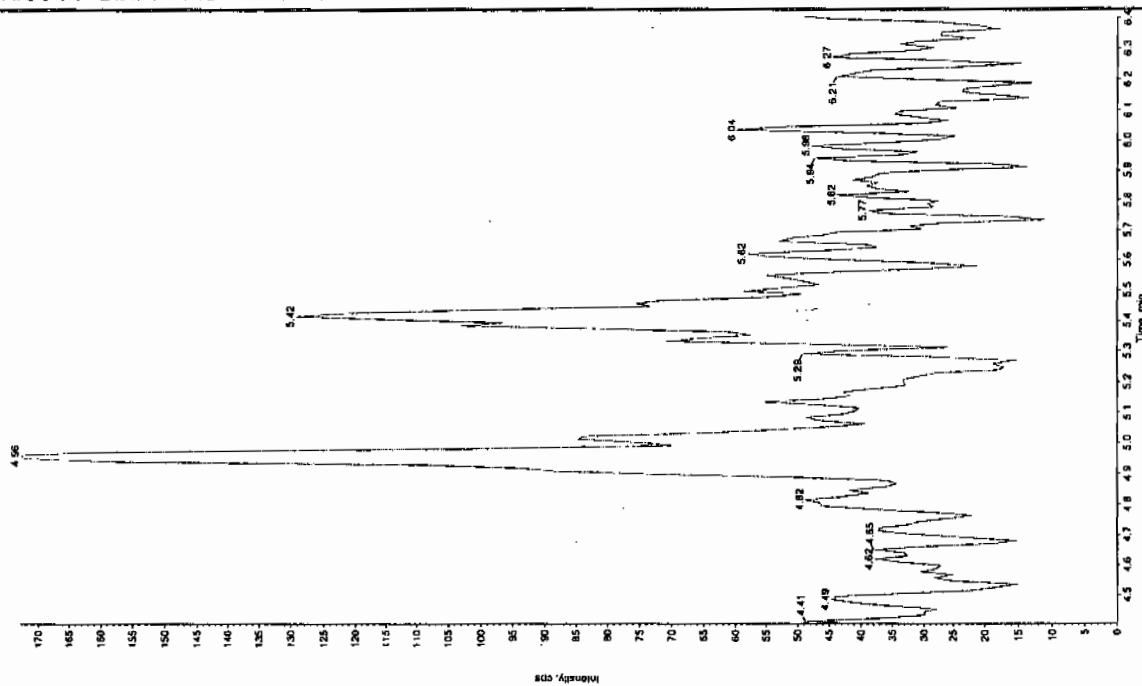


Sample Name: "XBLK02" Sample ID: "TILER" File: "EXS04090010.wit"  
 Peak Name: "24-Diethyl-6-nitrophenol" Mass(es): "369.1910 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 13.0 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 9:36:11 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 2.50e+005 counts  
 Height: 70883.965 cps  
 Start Time: 10.7 min  
 End Time: 11.1 min

Sample Name: "XBLK02" Sample ID: "TILER" File: "EXS04090010.wit"  
 Peak Name: "24-Diethyl-6-nitrophenol" Mass(es): "166.0460 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 9:36:11 AM  
 Modified: No



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 09-APR-10 10:07

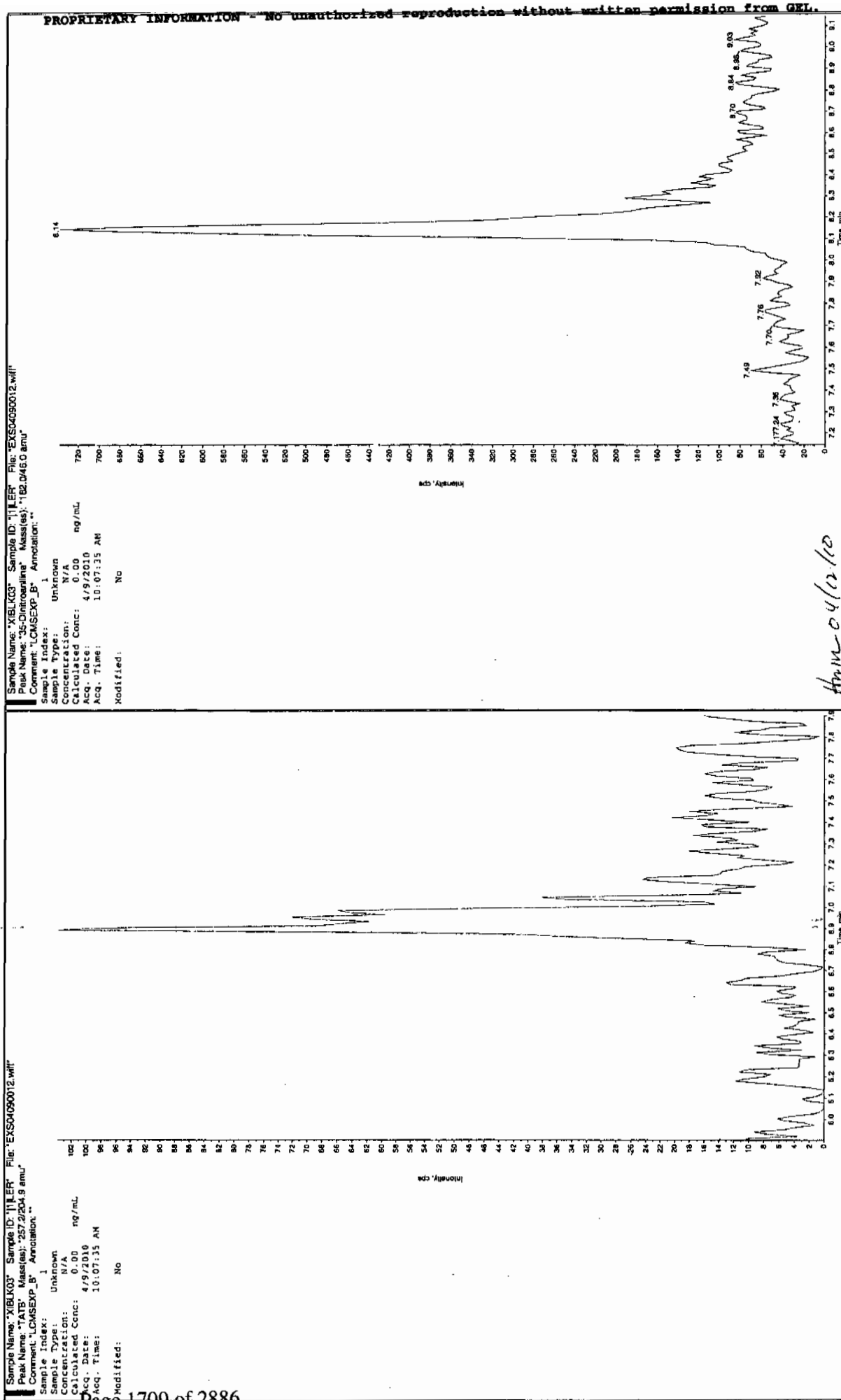
GEL Data File: EXS04090012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	7.48
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

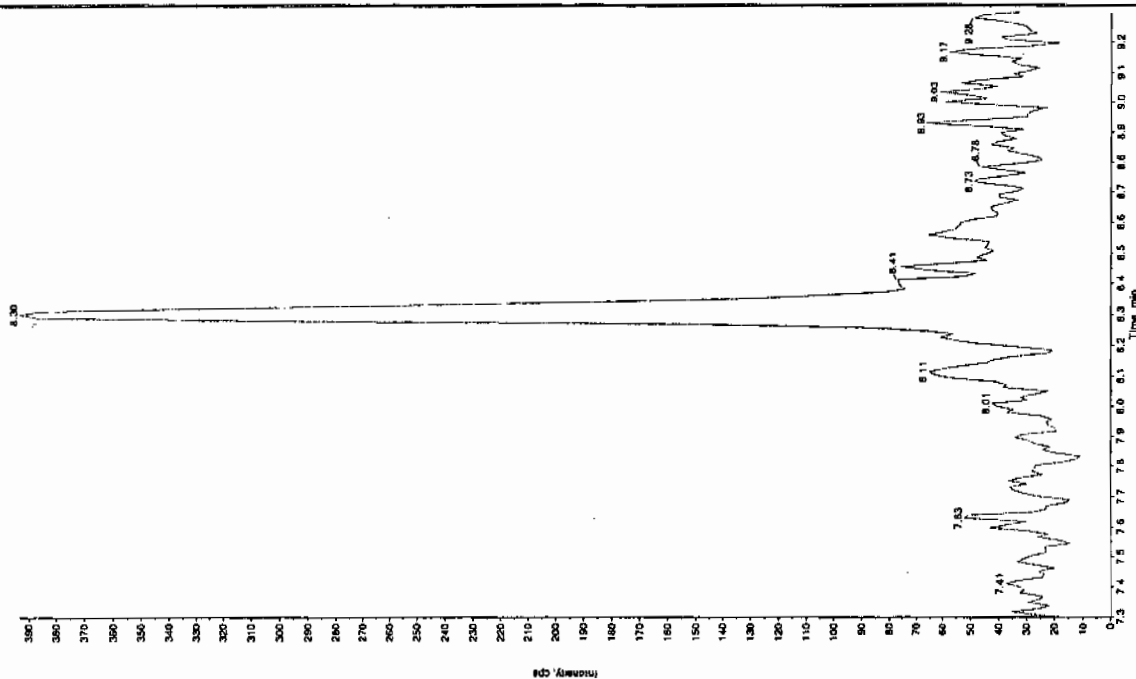
Scan 4/12/10



Amu 04/12/10

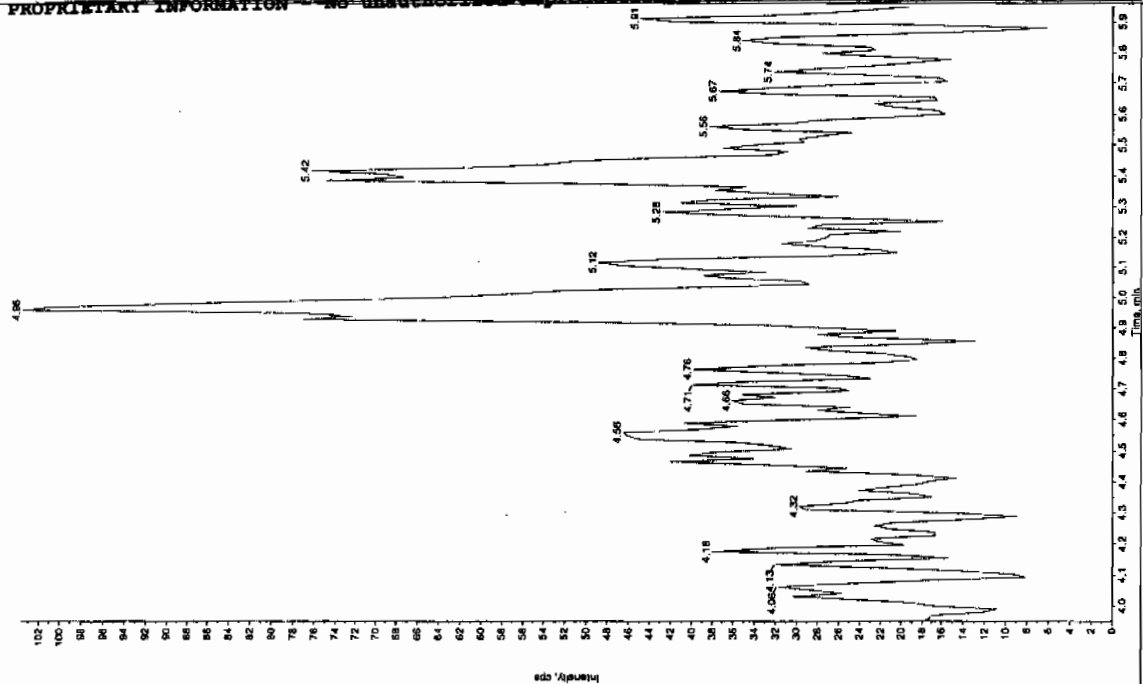
Sample Name: "XIBLK03" Sample ID: "TILER" File: "EXS04080012.wit"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.3 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 10:07:35 AM  
 Modified: No



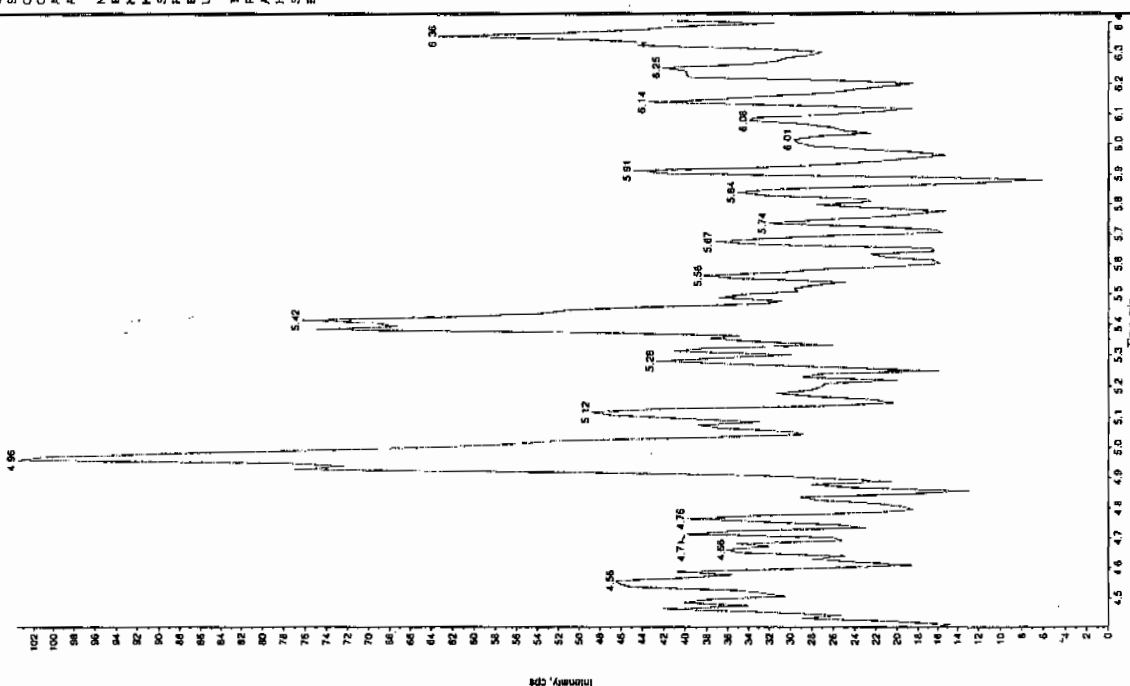
Sample Name: "XIBLK03" Sample ID: "TILER" File: "EXS04080012.wit"  
 Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 10:07:35 AM  
 Modified: No



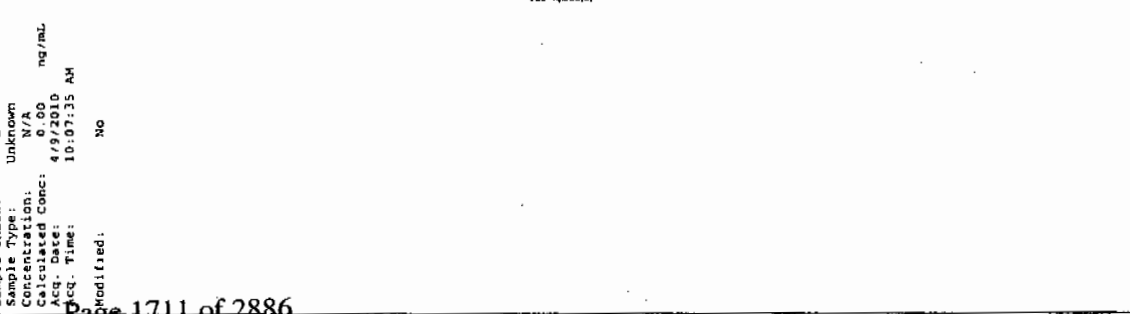
Sample Name: 'XIBLK03' Sample ID: '111ER' File: 'EXS04090012.wif'  
 Peak Name: '10.0-peak' Mass(es): '353.1/91.0 amu'  
 Comment: 'LCMSEXP.B' Annotation: ''

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 4/9/2010  
 Acq. Date: 10-07-35 AM  
 Acq. Time: 10-07-35 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Height: 1.76e+001 counts  
 Width: 4366182 cps  
 Start Time: 10.7 min  
 End Time: 11.1 min



Sample Name: 'XIBLK03' Sample ID: '111ER' File: 'EXS04090012.wif'  
 Peak Name: '24-Diamino-6-nitroguanine' Mass(es): '166.046.0 amu'  
 Comment: 'LCMSEXP.B' Annotation: ''

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 4/9/2010  
 Acq. Date: 10-07-35 AM  
 Acq. Time: 10-07-35 AM  
 Modified: No



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 09-APR-10 13:31

GEL Data File: EXS04090025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

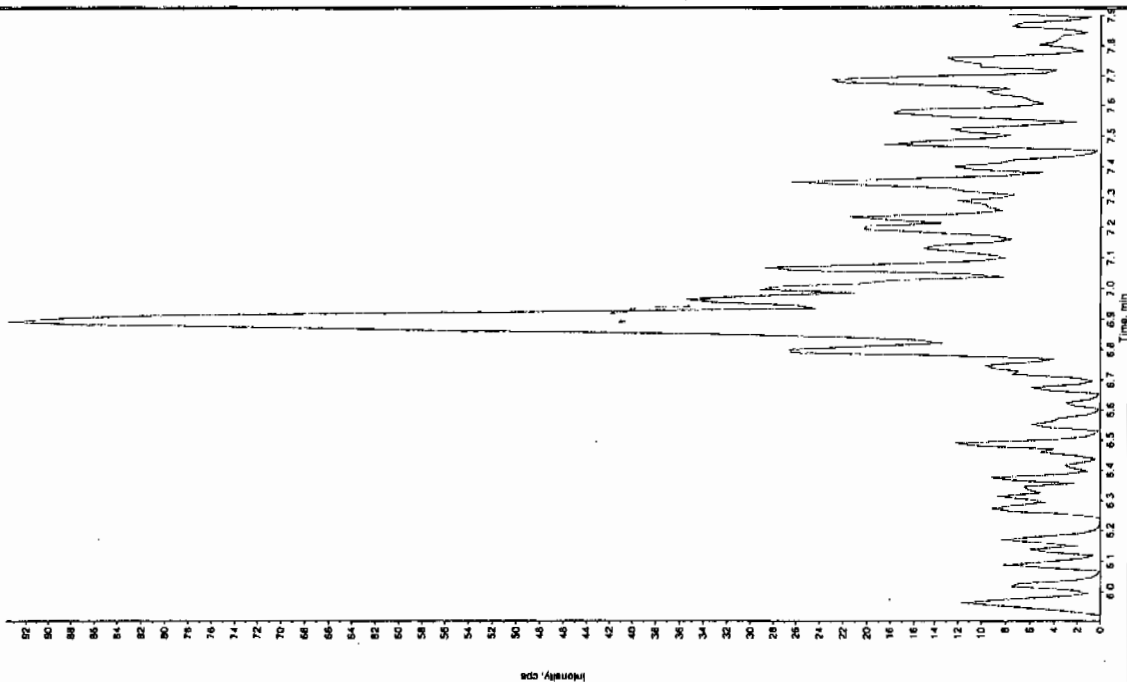
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	4.56
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0



Ren 4/12/10

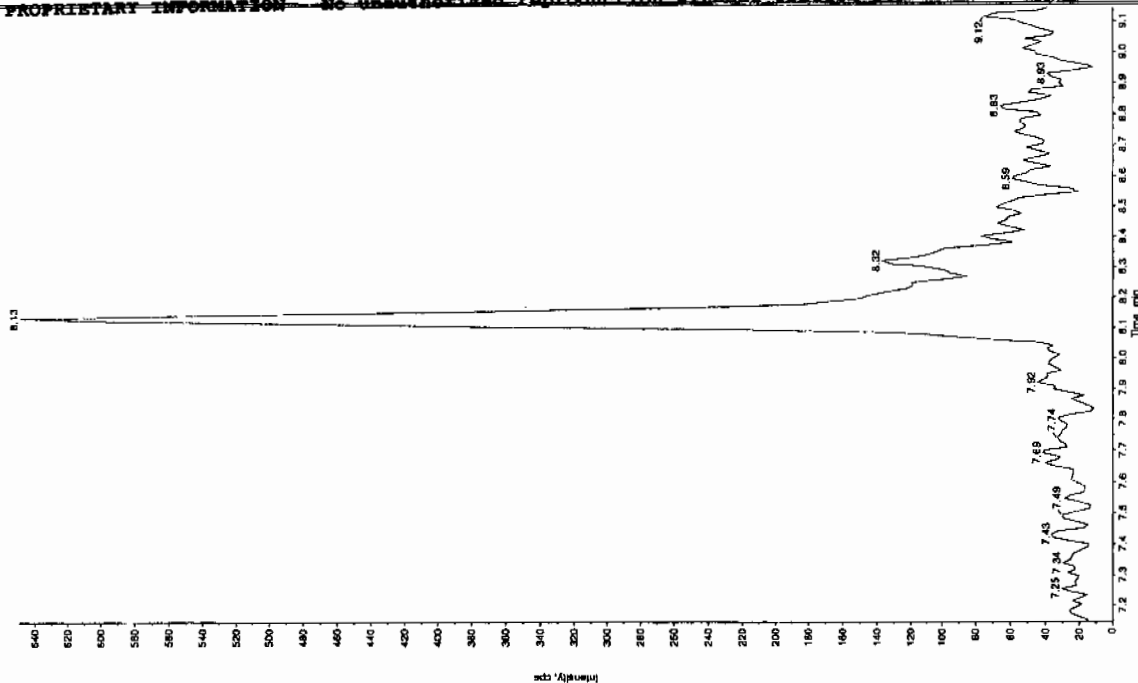
Sample Name: "XIBLK04" Sample ID: "11LER" File: "EXSD04090025.wif"  
 Peak Name: "TATB" Mass(es): "257.2/204.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 1:31:51 PM  
 Modified: No



Sample Name: "XIBLK04" Sample ID: "11LER" File: "EXSD04090025.wif"  
 Peak Name: "35-Dinitroaniline" Mass(es): "182.0/145.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

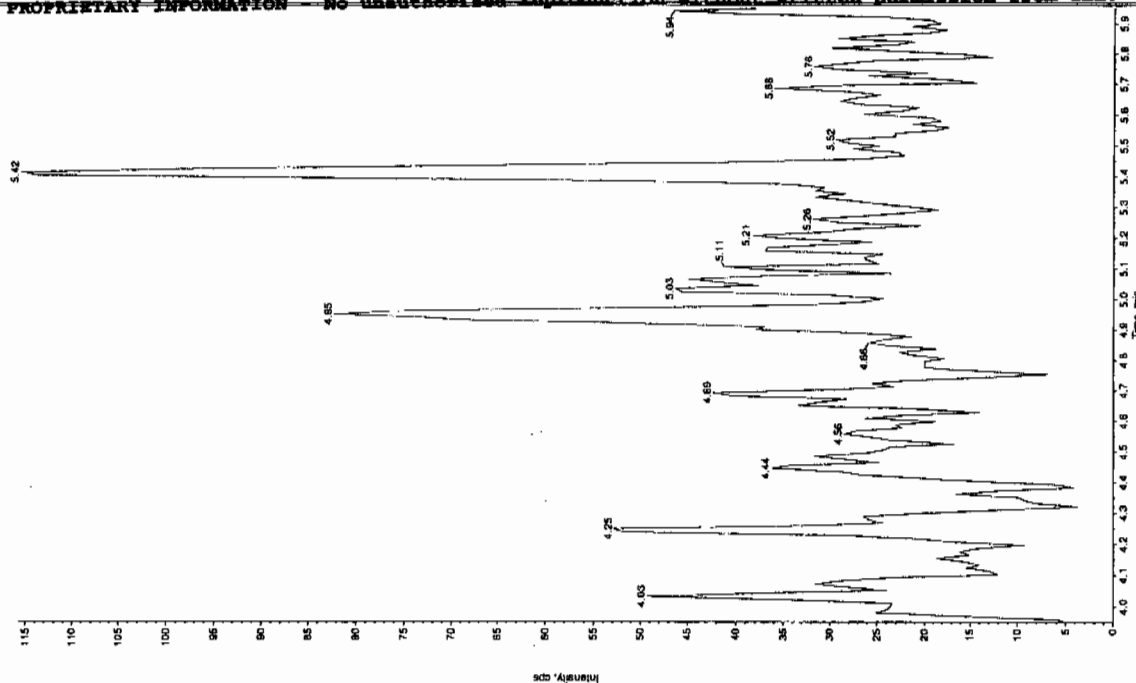
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 1:31:51 PM  
 Modified: No



Ren 04/12/10

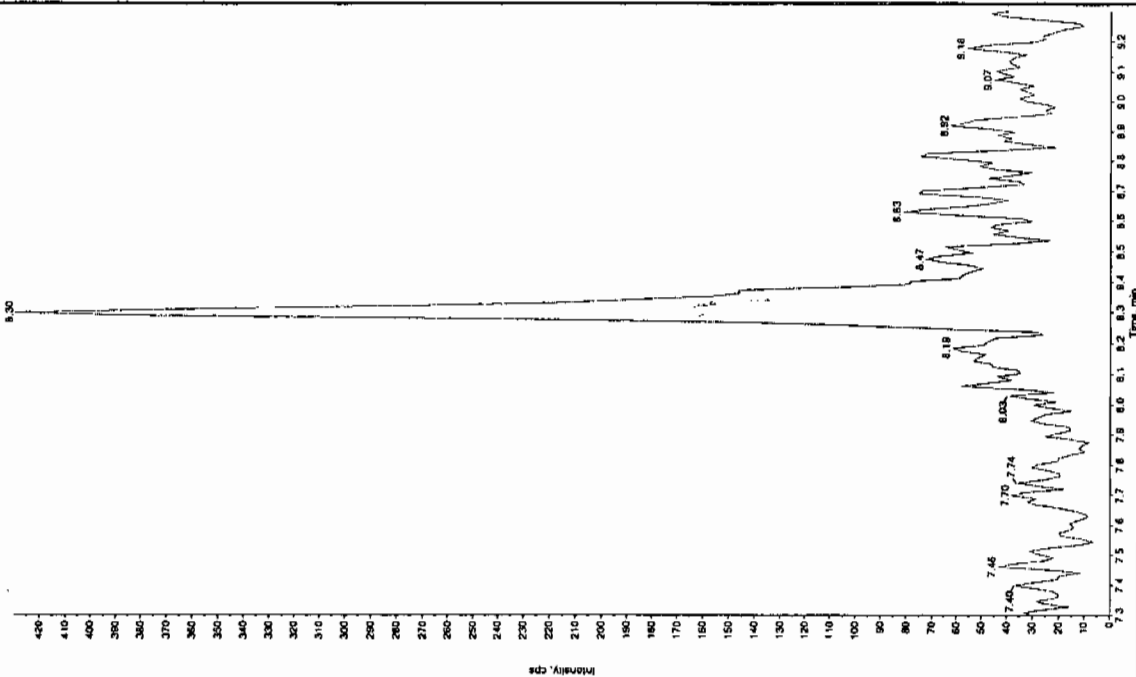
Sample Name: "XIBLX04" Sample ID: "111ER" File: "EXS04080025.wif"  
 Peak Name: "26-Dinitrotoluene" Mass(es): "186.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 1:31:51 PM  
 Modified: No



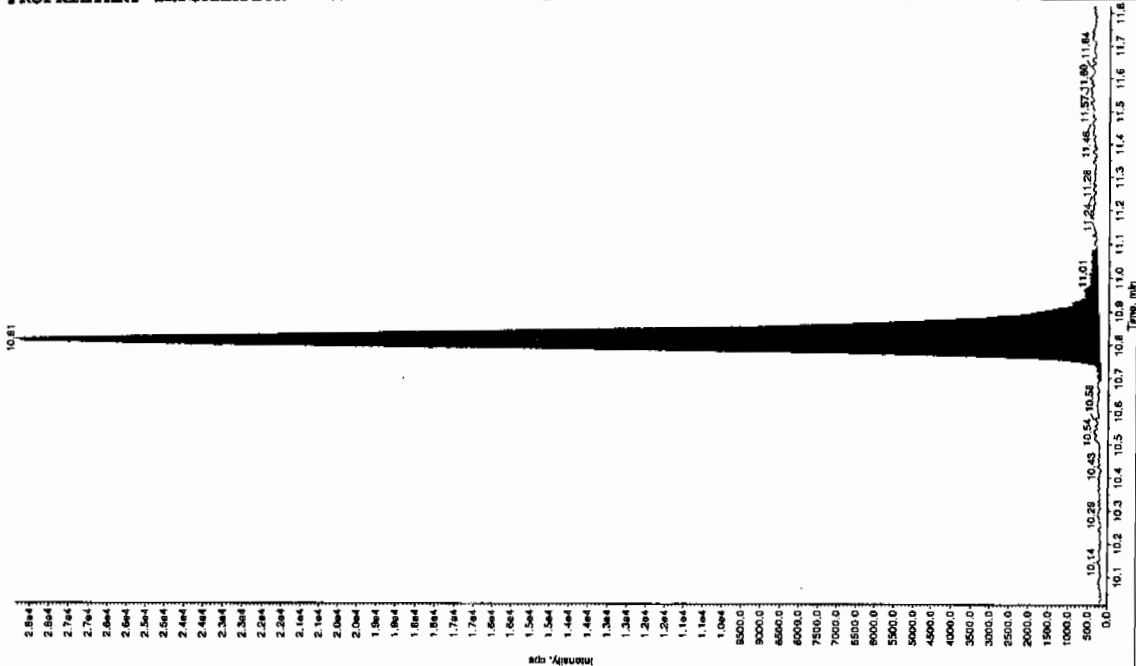
Sample Name: "XIBLX04" Sample ID: "111ER" File: "EXS04080025.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 1:31:51 PM  
 Modified: No



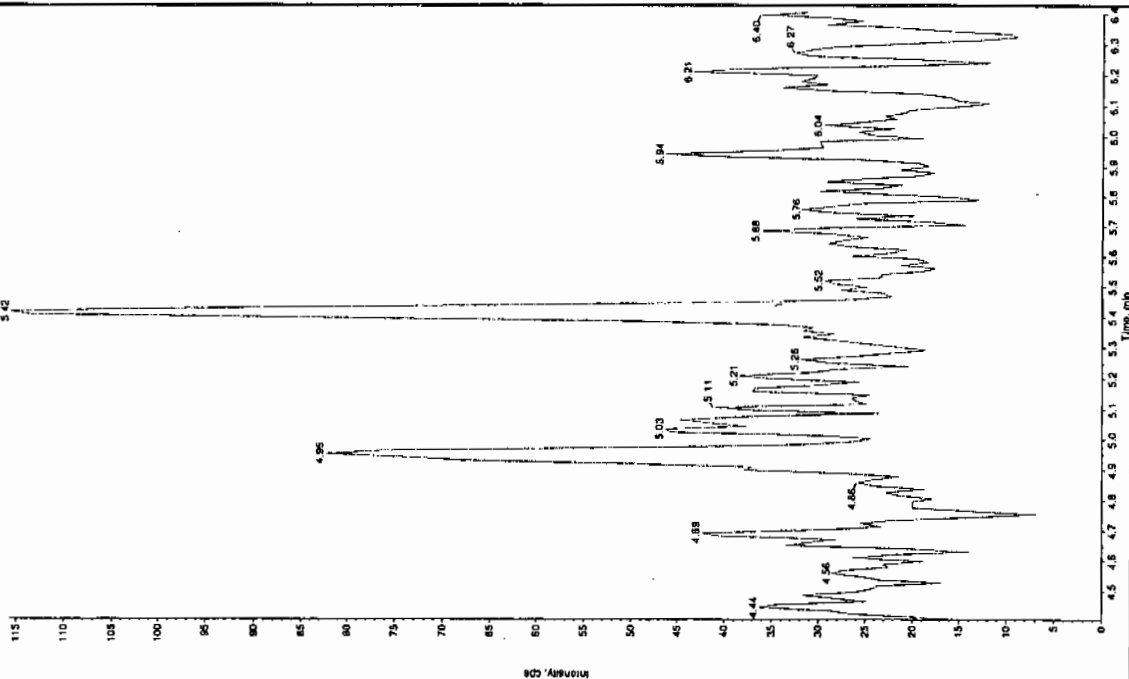
Sample Name: "XBLK04" Sample ID: "11LER" File: "EXSD090025.wiff"  
 Peak Name: "tris(2-oxo-5-oxo-1,2,3,4-tetrahydro-6H-pyrimidin-6-yl)phosphate" Mass(es): "369.191.0 amu"

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 4/9/2010  
 Acq. Date: 1:31:51 PM  
 Acq. Time: 1:31:51 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 1.16e+005 counts  
 Height: 28150.688 cps  
 Start Time: 10.7 min  
 End Time: 11.1 min



Sample Name: "XBLK04" Sample ID: "11LER" File: "EXSD090025.wiff"  
 Peak Name: "24-Diamino-6-nitrothiophene" Mass(es): "165.046.0 amu"

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 1:31:51 PM  
 Modified: No



\*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): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 09-APR-10 16:56

GEL Data File: EXS04090038.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.81
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

See 4/12/10

Sample Name: "XIBLK05" Sample ID: "JILR" File: "EX0400038.wiff"

Peak Name: "JATB" Mass(es): "257.2204.9 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

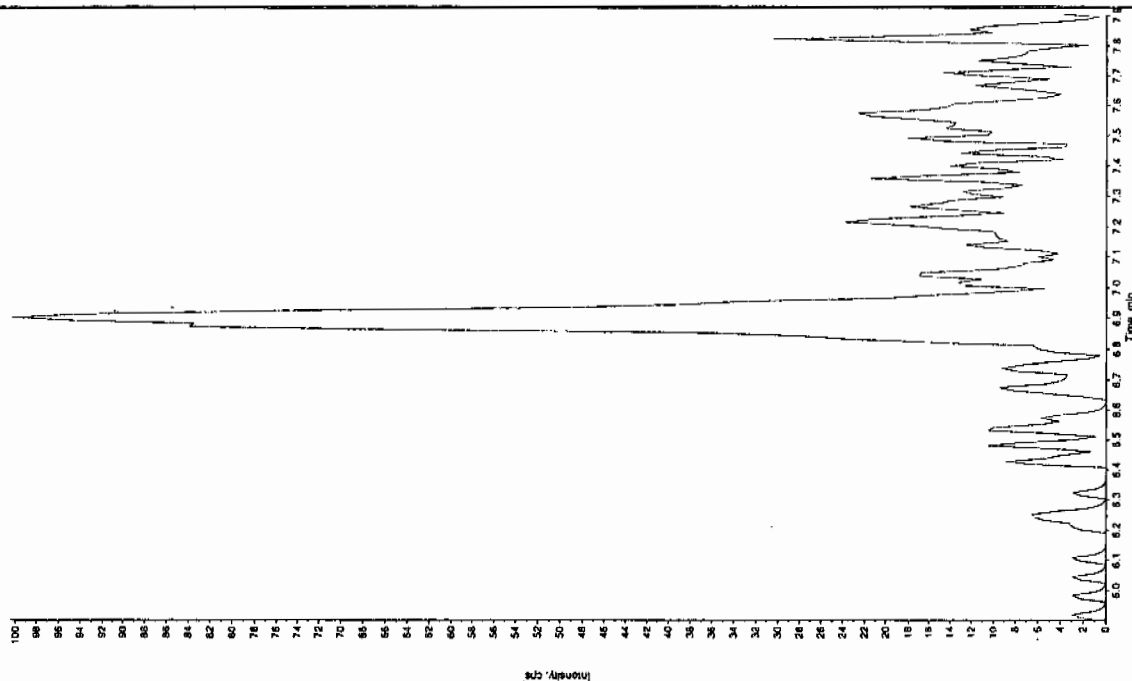
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 4/9/2010

Acq. Time: 4:56:00 PM

Modified: No



Sample Name: "XIBLK05" Sample ID: "JILR" File: "EX0400038.wiff"

Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"

Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1

Sample Type: Unknown

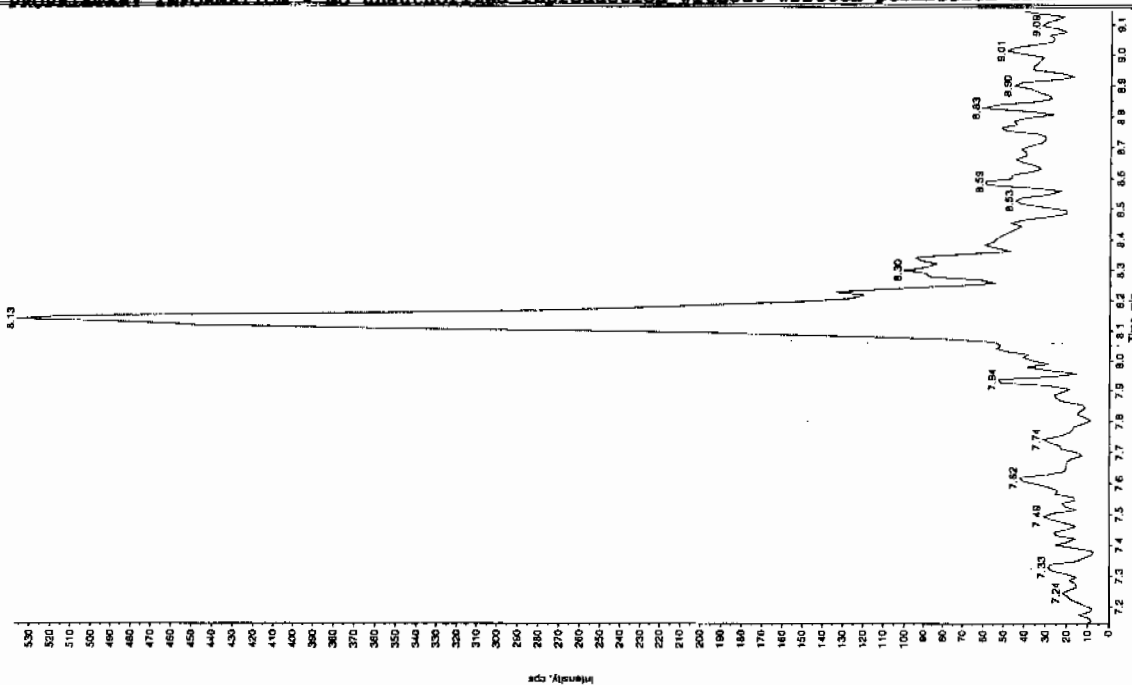
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 4/9/2010

Acq. Time: 4:56:00 PM

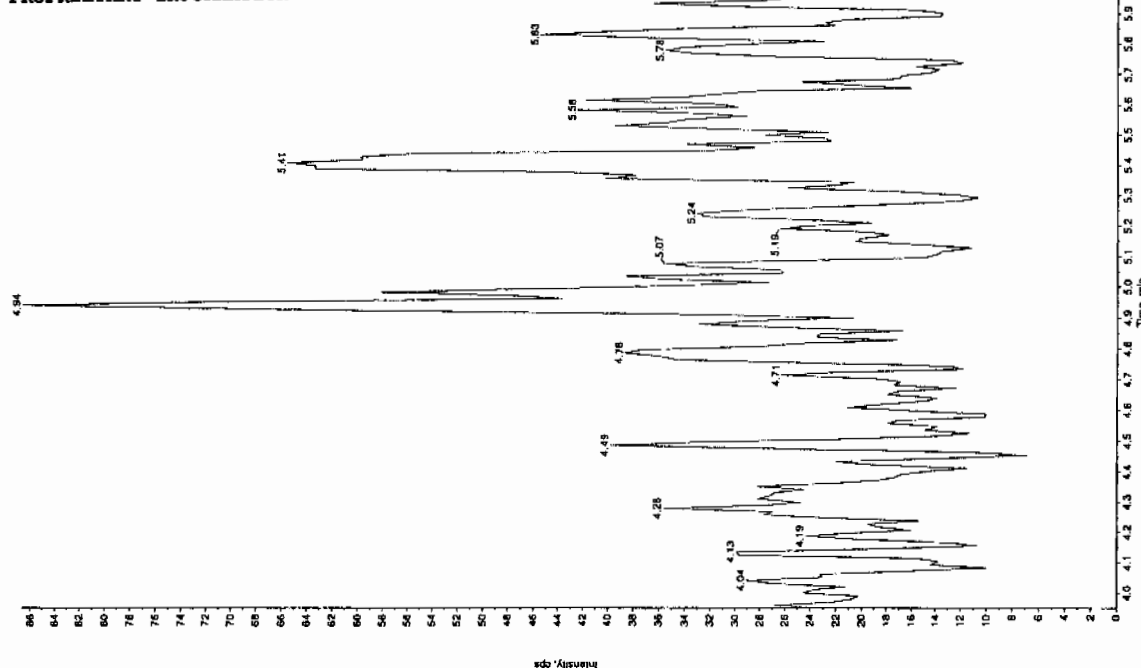
Modified: No



See 4/12/10

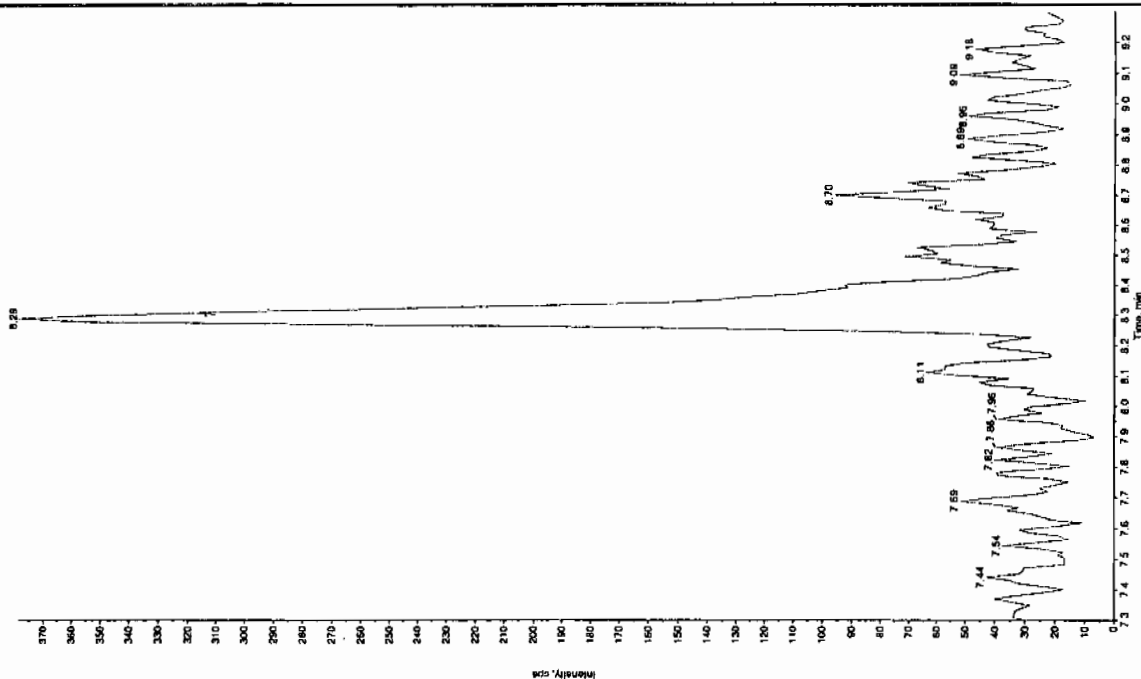
Sample Name: "XIBLK05" Sample ID: "111ER" File: "EXS04050038.wiff"  
 Peak Name: "25-Diamino-4-nitrotoluene" Mass(es): "155.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/9/2010  
 Acq. Time: 4:56:00 PM  
 Modified: No



Sample Name: "XIBLK05" Sample ID: "111ER" File: "EXS04050038.wiff"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.1151.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

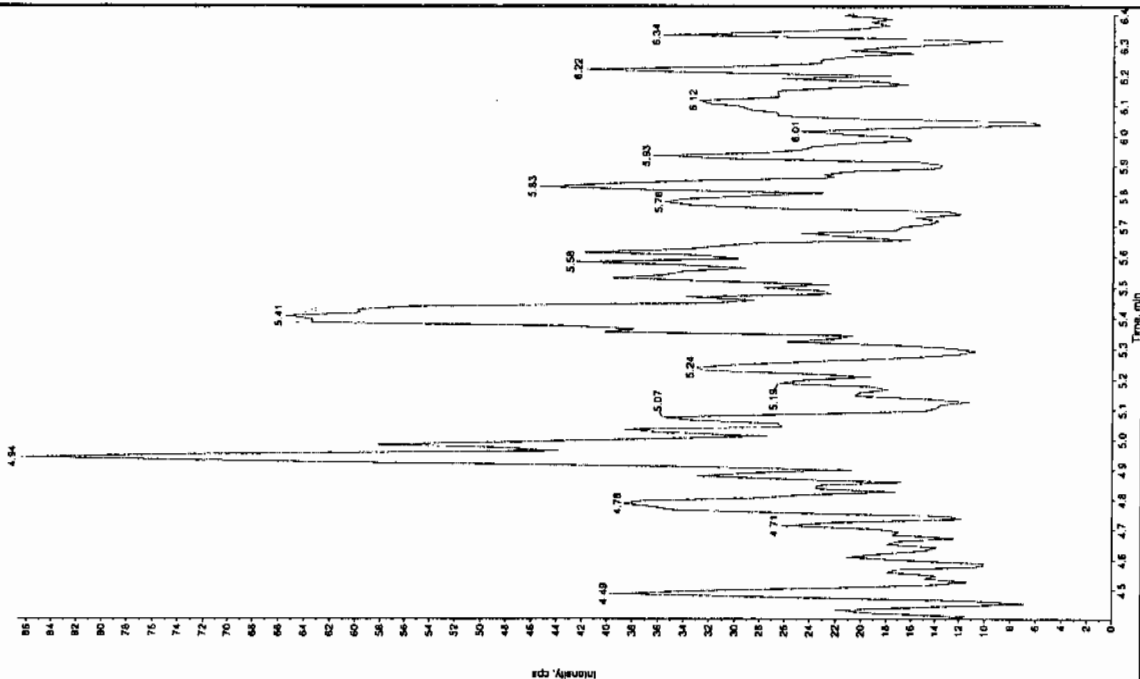
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/9/2010  
 Acq. Time: 4:56:00 PM  
 Modified: No



Sample Name: "XBLK05" Sample ID: "11LFR" File: "EXS04090038.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.046.0 amu"  
 Comment: "LCMSEXP\_g" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 4:56:00 PM  
 Modified: No

Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Ret. Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 1.00e+005 counts  
 Height: 25470.665 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 09-APR-10 18:30

GEL Data File: EXS04090044.wiff

Instrument ID: LCMSMS

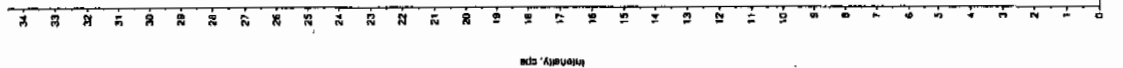
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	1.88
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

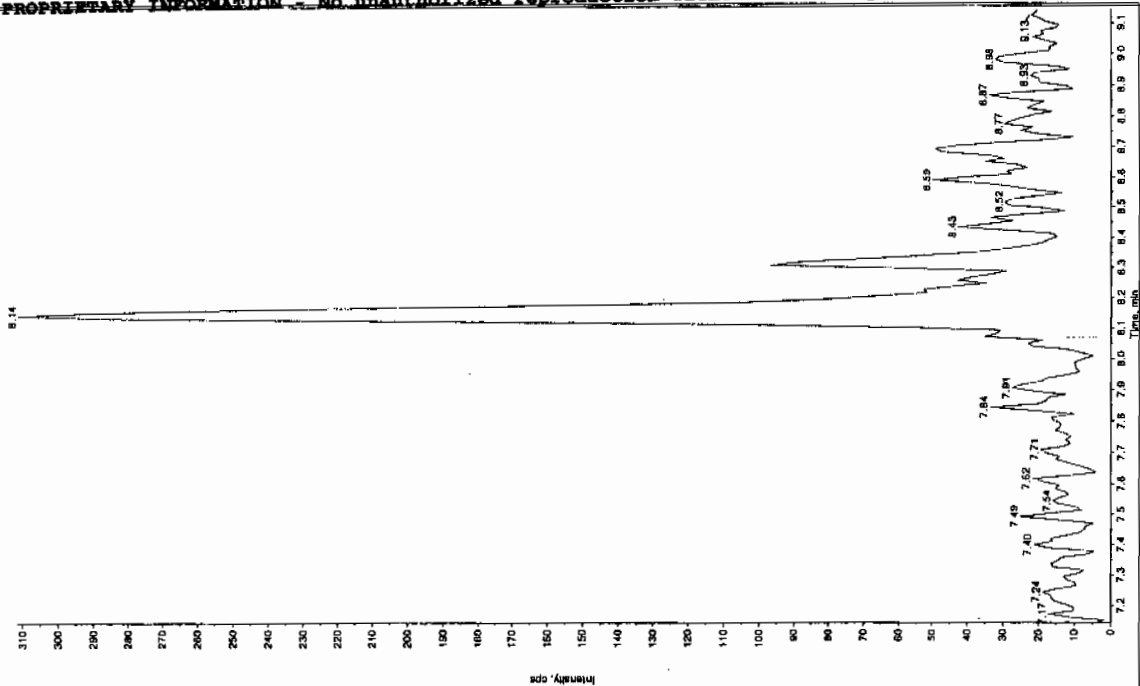


Jan 4/12/10

Sample Name: "XIBLK06" Sample ID: "TILER" File: "EXS04060044.wif"  
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 6:30:16 PM  
 Modified: No



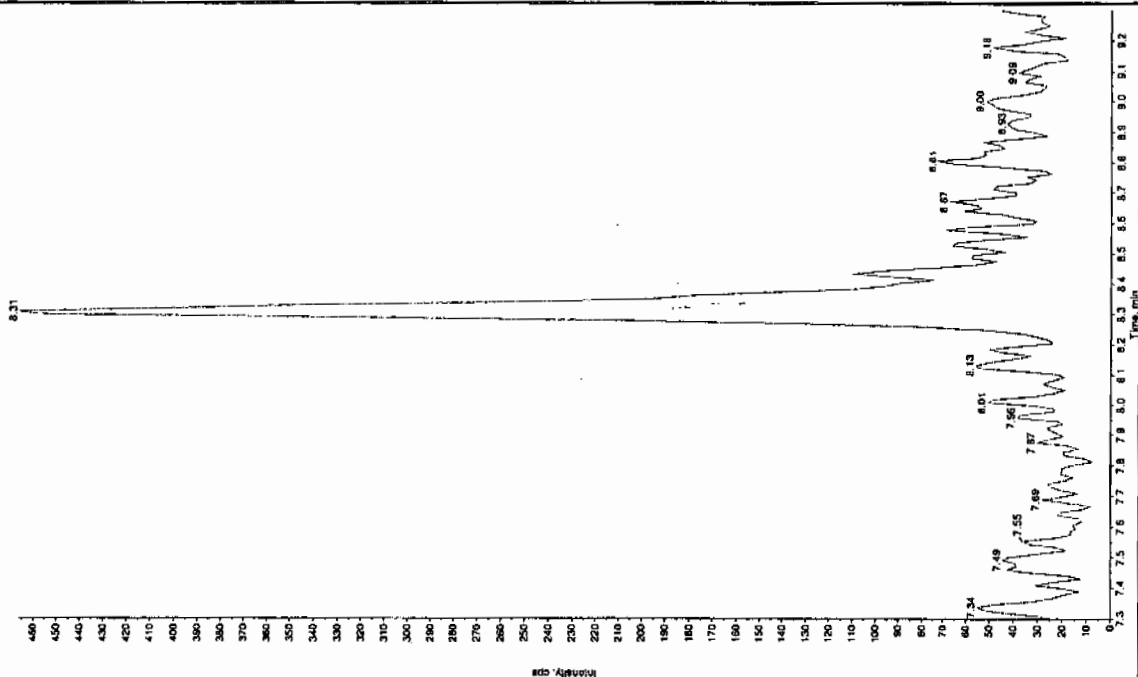
Sample Name: "XIBLK06" Sample ID: "TILER" File: "EXS04060044.wif"  
 Peak Name: "35-Dihydroquinoline" Mass(es): "182.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 6:30:16 PM  
 Modified: No



Jan 4/12/10

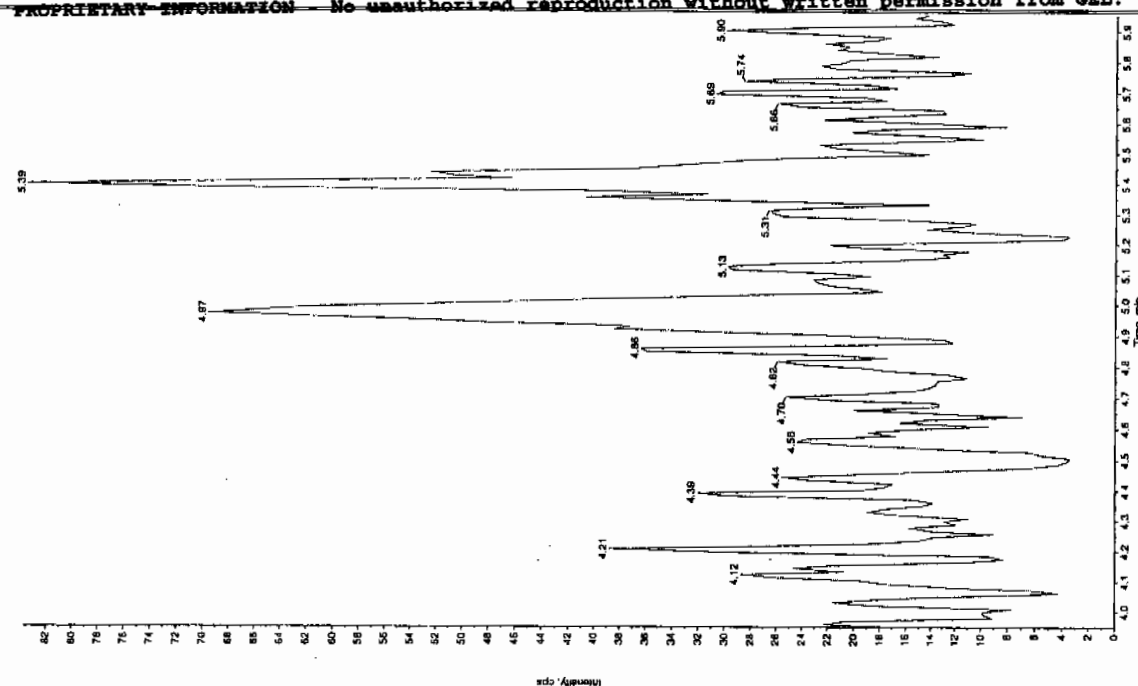
Sample Name: "XBLX06" Sample ID: "1111" File: "EXS0408004.wif"  
 Peak Name: "34-Dinitro-4-nitrobenzene" Mass(es): "182.1151.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

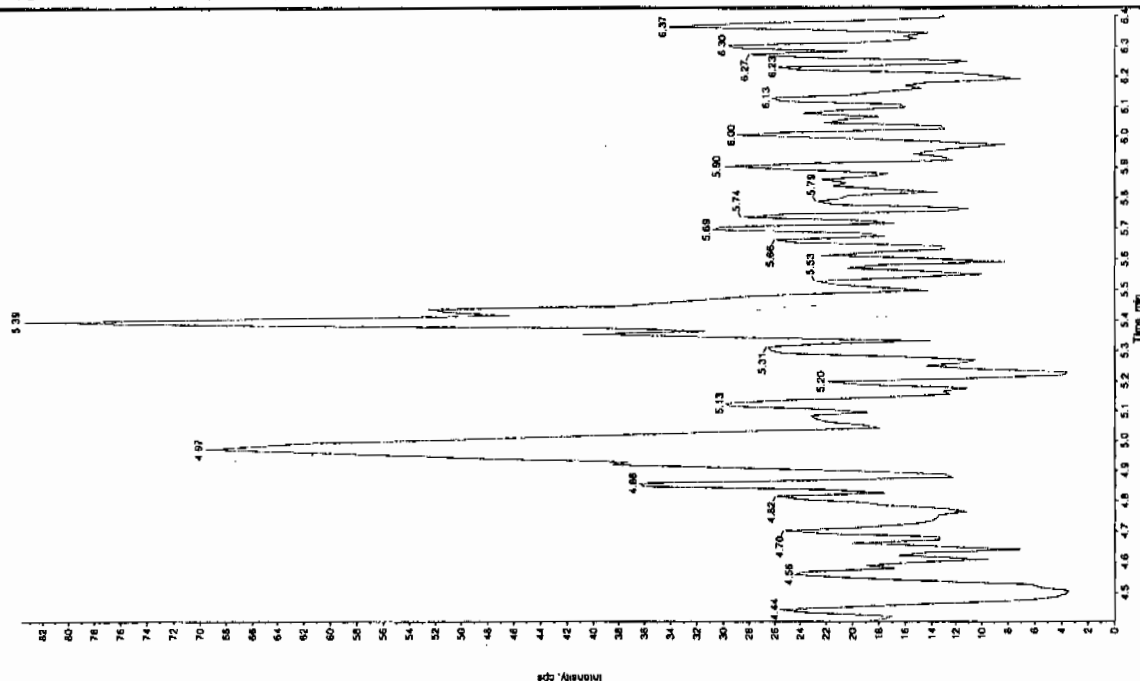
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/9/2010  
 Acq. Date: 6:30:18 PM  
 Acq. Time: 6:30:18 PM  
 Modified: No



Sample Name: "XBLX06" Sample ID: "1111" File: "EXS0408004.wif"  
 Peak Name: "26-Dinitro-4-nitrobenzene" Mass(es): "166.0465.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/9/2010  
 Acq. Date: 6:30:18 PM  
 Acq. Time: 6:30:18 PM  
 Modified: No





4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2193

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 09-APR-10 20:20

GEL Data File: EXS04090051.wiff

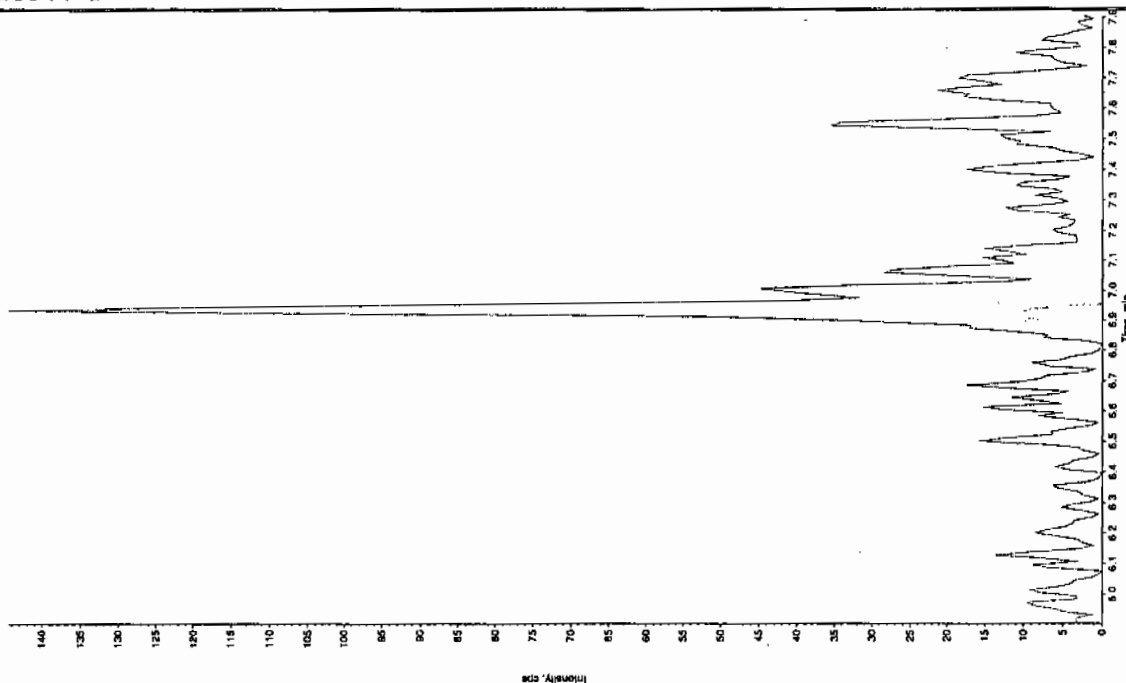
Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

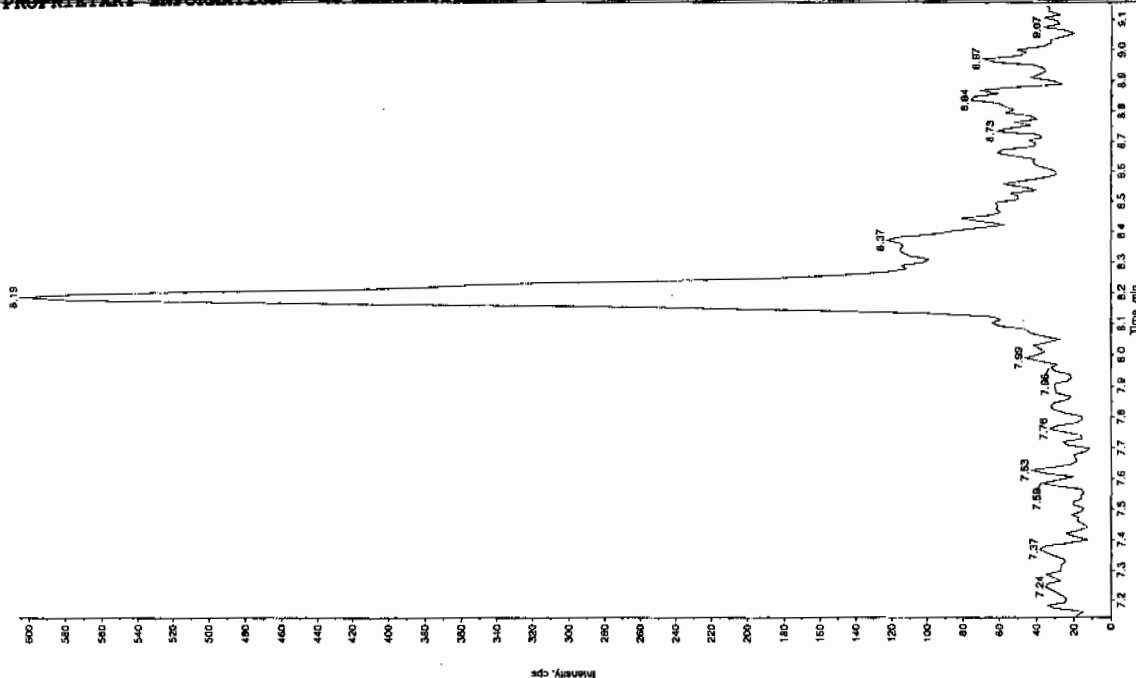
Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	4.71
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

See 4/12/10

Sample Name: "XIBLK07" Sample ID: "JILER" File: "EXS04080051.wif"  
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 8:20:11 PM  
 Modified: No



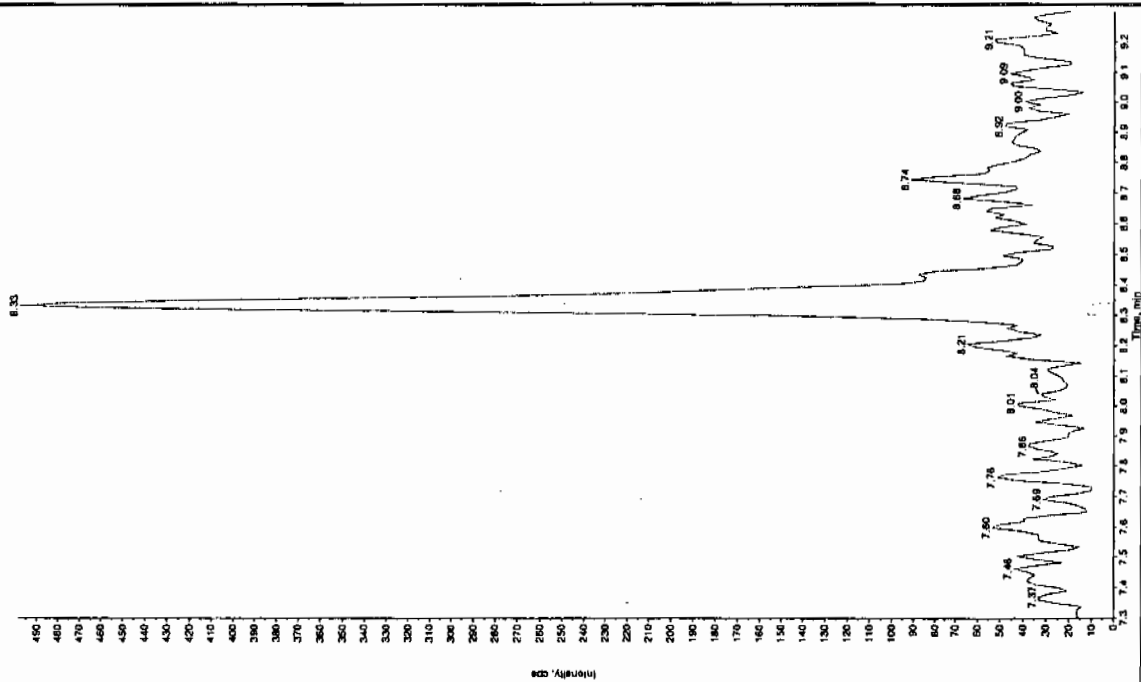
Sample Name: "XIBLK07" Sample ID: "JILER" File: "EXS04080051.wif"  
 Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 8:20:11 PM  
 Modified: No



See 4/12/10

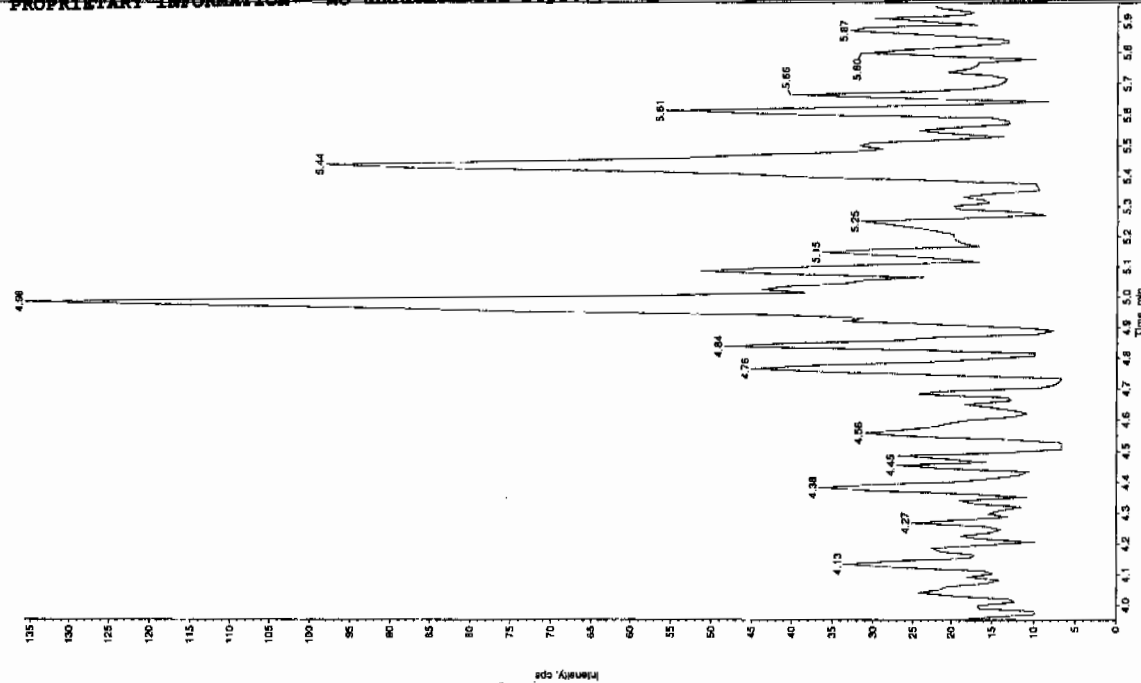
Sample Name: "XBLK07" Sample ID: "111ER" File: "EXS04080051.will"  
 Peak Name: "25-Dinitro-4-nitrotoluene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/9/2010  
 Acq. Date: 8:20:11 PM  
 Modified: No



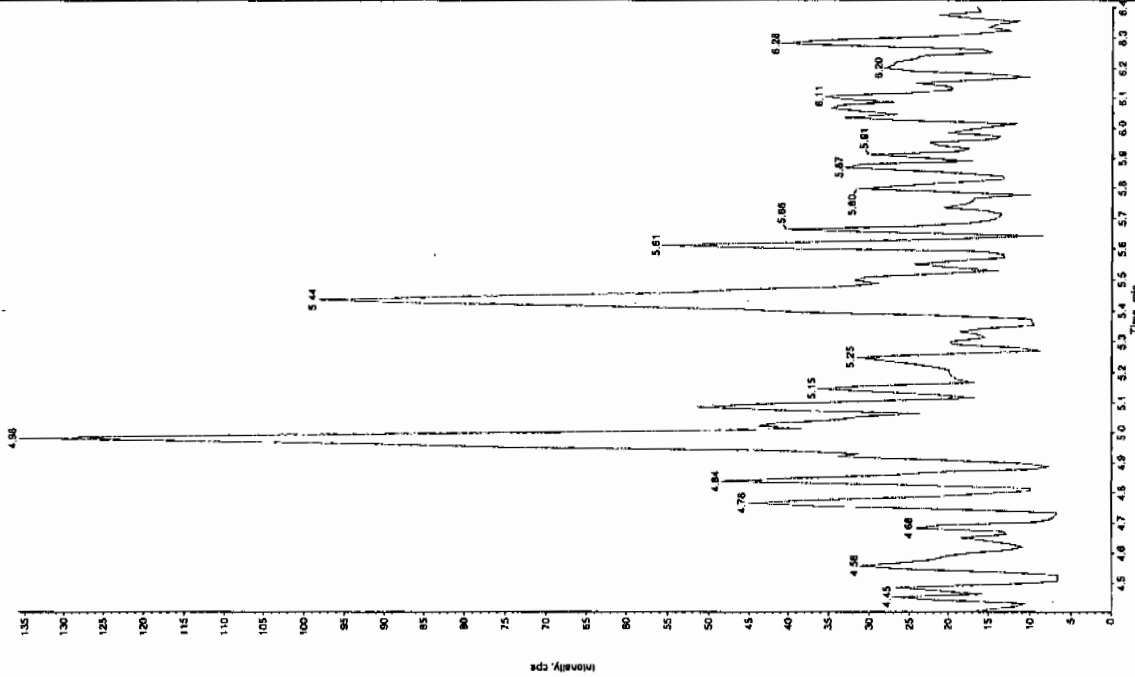
Sample Name: "XBLK07" Sample ID: "111ER" File: "EXS04080051.will"  
 Peak Name: "25-Dinitro-4-nitrotoluene" Mass(es): "166.0/46.0 amu"  
 Comment: "LCMSEXP\_B" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/9/2010  
 Acq. Date: 8:20:11 PM  
 Modified: No



Sample Name: "XBLK07" Sample ID: "JILLER" File: "EX04080051.wif"  
 Peak Name: "16S,046.0 and 16S,046.0" Mass(es): "16S,046.0 and 16S,046.0"  
 Comment: "LCMSEXP\_B1 Annotation"

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 4.31 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 8:20:11 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.9 min  
 Area: 1.19e+005 counts  
 Height: 29275.728 cps  
 Start Time: 10.8 min  
 End Time: 11.2 min



Sample Name: "XBLK07" Sample ID: "JILLER" File: "EX04080051.wif"  
 Peak Name: "24,046.0 and 24,046.0" Mass(es): "24,046.0 and 24,046.0"  
 Comment: "LCMSEXP\_B1 Annotation"

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 8:20:11 PM  
 Modified: No

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			16516666.667	10.5	73466666.667	14.65
Upper Limit			21471666.6671	11	95506666.6671	15.15
Lower Limit			11561666.6669	10	51426666.6669	14.15
MB for batch 960982	15-apr-10 23:57	EXP0415033.w	15100000	10.5	67500000	14.8
RE36-10-7407	16-apr-10 00:49	EXP0415035.w	14700000	10.6	64700000	14.8
RE36-10-7421	16-apr-10 02:07	EXP0415038.w	15300000	10.5	69500000	14.8
RE36-10-7422	16-apr-10 02:33	EXP0415039.w	15800000	10.6	67400000	14.8
RE36-10-7451	16-apr-10 02:59	EXP0415040.w	14900000	10.6	68900000	14.8
RE36-10-7449	16-apr-10 03:25	EXP0415041.w	15400000	10.5	68600000	14.8
RE36-10-7445	16-apr-10 03:51	EXP0415042.w	15000000	10.5	60100000	14.8
RE36-10-7450	16-apr-10 05:35	EXP0415046.w	14300000	10.6	68100000	14.8
RE36-10-7444	16-apr-10 06:01	EXP0415047.w	14500000	10.6	64400000	14.9
RE36-10-7448	16-apr-10 06:27	EXP0415048.w	15000000	10.6	64400000	14.8
RE36-10-7447	16-apr-10 06:53	EXP0415049.w	15000000	10.5	66800000	14.8
RE36-10-7443	16-apr-10 07:19	EXP0415050.w	14400000	10.5	67100000	14.8
RE36-10-7452	16-apr-10 07:45	EXP0415051.w	14500000	10.6	67700000	14.8
RE36-10-7437	16-apr-10 08:11	EXP0415052.w	15600000	10.6	66700000	14.8
RE36-10-7440	16-apr-10 08:37	EXP0415053.w	13900000	10.6	68100000	14.7
RE36-10-7435	16-apr-10 09:02	EXP0415054.w	14100000	10.6	67600000	14.8
RE36-10-7441	16-apr-10 09:28	EXP0415055.w	14000000	10.5	70100000	14.7
RE36-10-7442	16-apr-10 11:13	EXP0415059.w	14800000	10.5	76000000	14.7
RE36-10-7436	16-apr-10 11:39	EXP0415060.w	16400000	10.6	79700000	14.7
RE36-10-7438	16-apr-10 12:05	EXP0415061.w	14100000	10.5	67400000	14.6
RE36-10-7439	16-apr-10 12:31	EXP0415062.w	15300000	10.6	70200000	14.7
	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			23400000	10.617	102216666.667	14.867
Upper Limit			30420000	11.117	132881666.667	15.367
Lower Limit			16380000	10.117	71551666.6669	14.367
LCS for batch 960982	22-apr-10 06:32	EXP0420094.w	18900000	10.7	78500000	15.1



# High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			18016666.667	10.5	82483333.333	14.65
Upper Limit			23421666.6671	11	107228333.333	15.15
Lower Limit			12611666.6669	10	57738333.3331	14.15
RE36-10-7407(248506001MS)	22-apr-10 21:10	EXP0422013.w	19300000	10.5	92200000	14.7
RE36-10-7407(248506001MSD)	22-apr-10 21:36	EXP0422014.w	19800000	10.6	89800000	14.8

IS1 (DNB) = 1,3-Dinitrobenzene-d4

IS2 (DNT) = 2,6-Dinitrotoluene-d3

Area Upper Limit = + 30% of average IS area from multipoint calibration

Area Lower Limit = - 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT

RT Lower Limit = -0.5 of average multipoint RT

# Column used to flag values outside QC limits with an asterisk

\* Values outside of QC limits

# SAMPLE DATA

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7407

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506001

Sample Amount 2

Moisture: 22.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415035.wiff

Date Analyzed: 16-APR-10 00:49

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

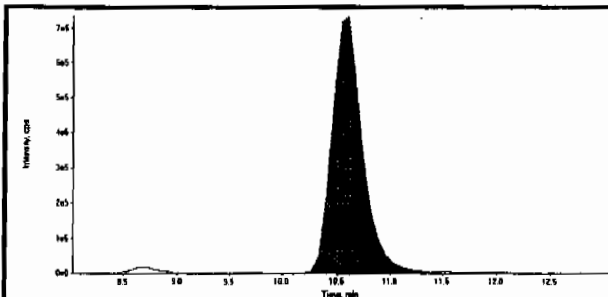
\*Concentration =

Instrument				
Value	X	<u>Concentrated Extract Volume</u>	X	Dilution
		<u>Sample Amount</u>		Factor

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

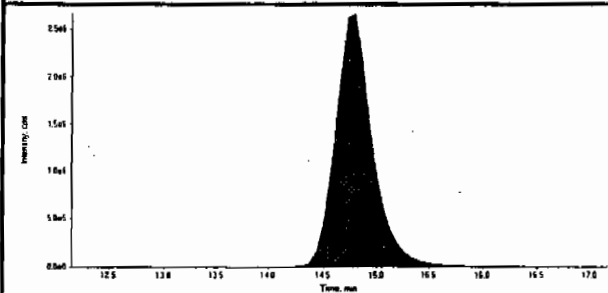
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415035.wiff	Acquisition Date	4/16/2010 12:49:23 AM
Sample Name	248506001	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



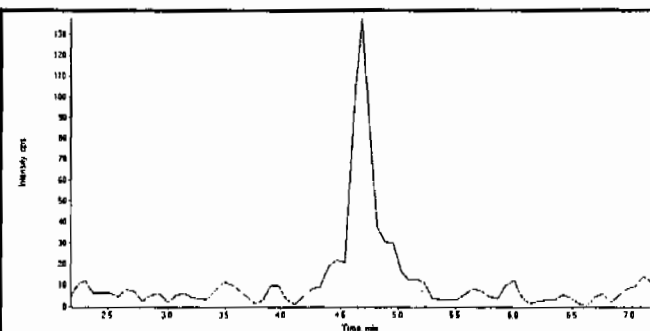
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	14700000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

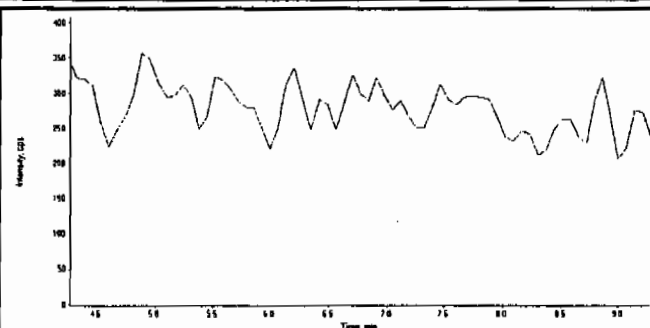


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	64700000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Jan*  
*4/23/10*  
*Hume*  
*04/23/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415035.wiff	<b>Acquisition Date</b>	4/16/2010 12:49:23 AM
<b>Sample Name</b>	248506001	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.6
	<b>Area Counts:</b>	1.95e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	4.36 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

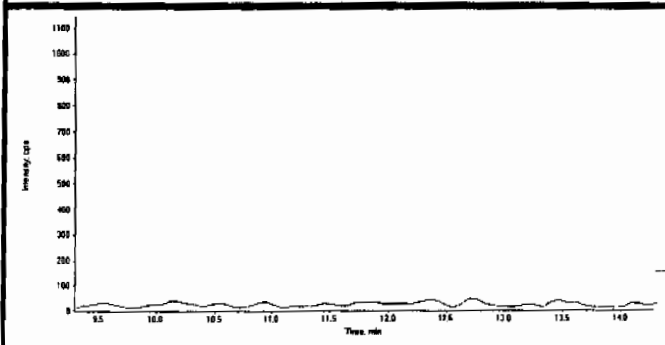
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

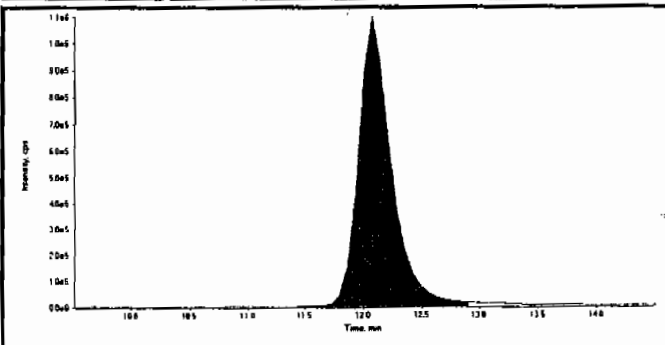
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415035.wiff	<b>Acquisition Date</b>	4/16/2010 12:49:23 AM
<b>Sample Name</b>	248506001	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

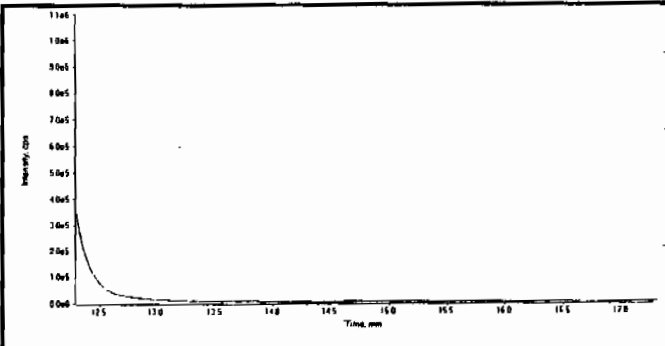
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

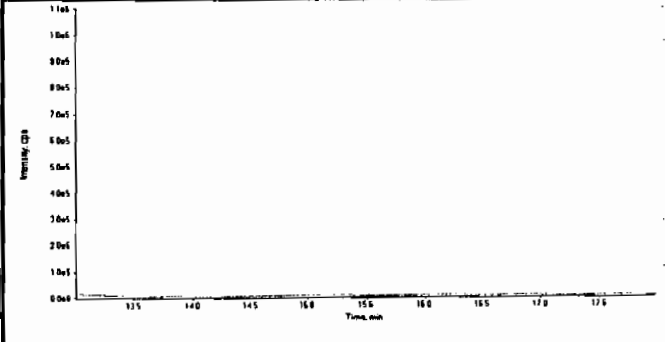
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	2.16e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	254. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.8
	<b>Area Counts:</b>	1.57e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

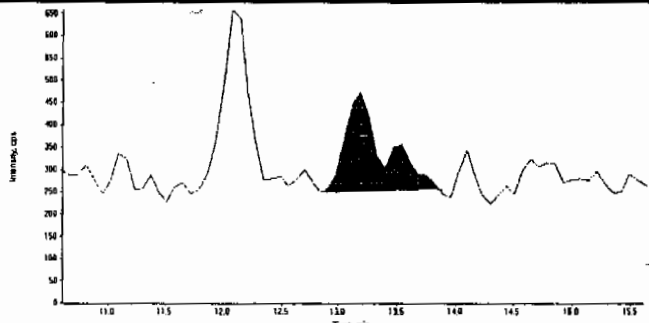
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

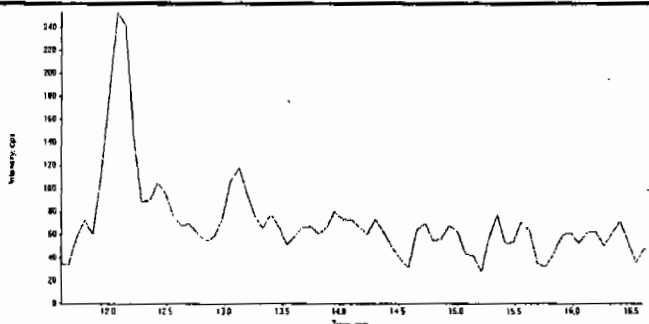
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415035.wiff	Acquisition Date	4/16/2010 12:49:23 AM
Sample Name	248506001	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

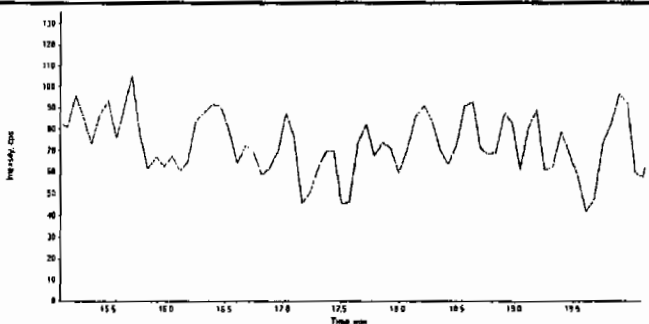
  

	Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	5.09e+003
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

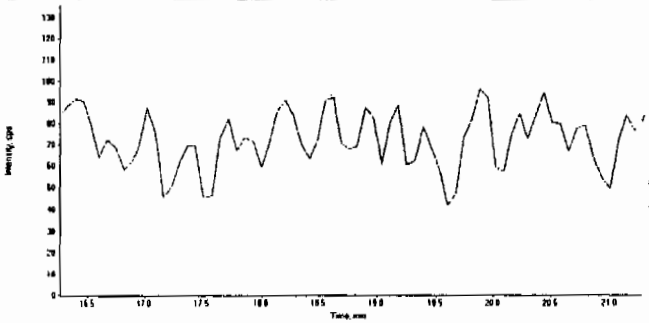
  

	Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415035.wiff	<b>Acquisition Date</b>	4/16/2010 12:49:23 AM
<b>Sample Name</b>	248506001	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7407

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506001

Sample Amount 2

Moisture: 22.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090016.wiff

Date Analyzed: 09-APR-10 11:10

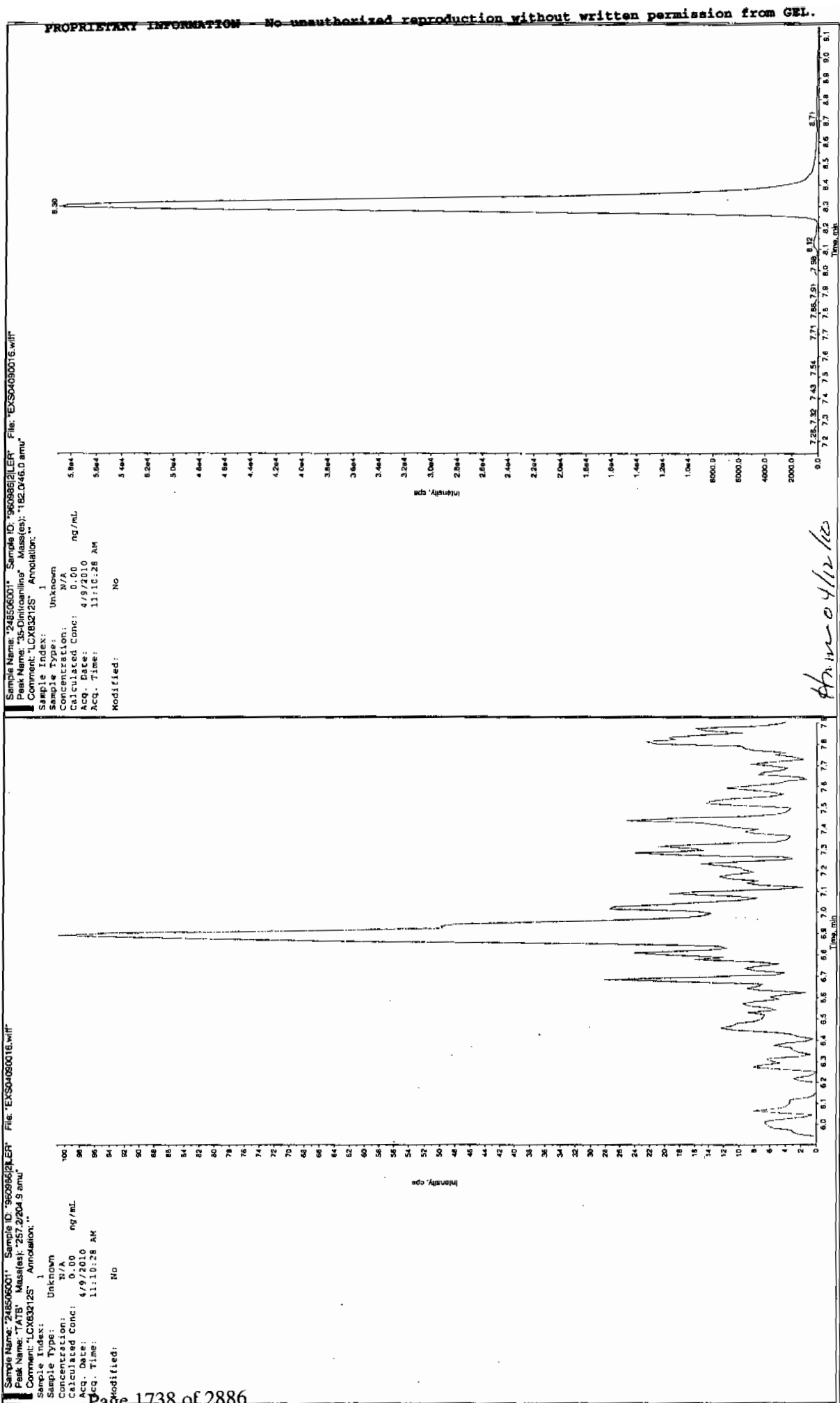
Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

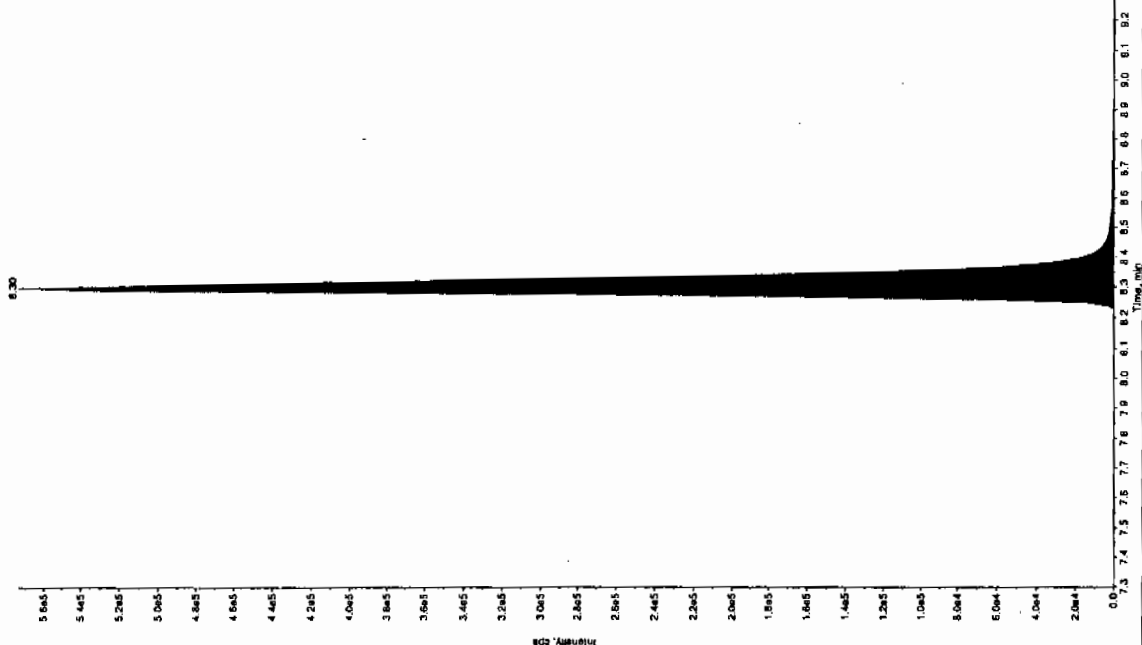
See 4/12/10



thru 4/12/10

Sample Name: "248506001" Sample ID: "96098621LER" File: "EX504060016.wif"  
 Peak Name: "26-Diamino-4-nitrofluorene" Mass(es): "156.0/46.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 11:10:28 AM  
 Modified: No



Sample Name: "248506001" Sample ID: "96098621LER" File: "EX504060016.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCX832125" Annotation: ""

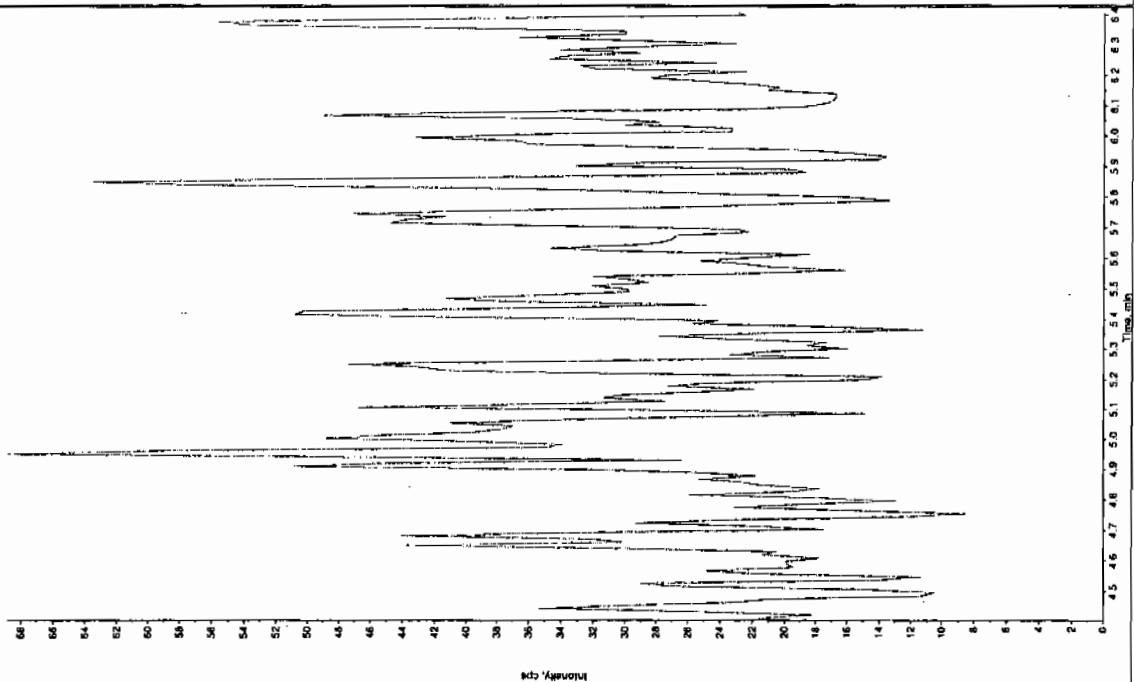
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 249.  
 Acq. Date: 4/9/2010  
 Acq. Time: 11:10:28 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - ICA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Window: 30.0 sec  
 Expected RT: 8.30 min  
 Use Relative RT: No  
 Det. Type: Valley  
 Retention Time: 8.30 min  
 Counts: 2.23e+006 counts  
 Weight: 574051.311 cps  
 Start Time: 8.17 min  
 End Time: 8.89 min

Sample Name: "248506001" Sample ID: "96099921LER" File: "EX504090016.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.000 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 11:10:28 AM  
 Modified: No

Method: No  
 Acquisition: IntelligQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 1.04e+005 counts  
 Height: 2647.170 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



Sample Name: "248506001" Sample ID: "96099921LER" File: "EX504090016.wif"  
 Peak Name: "tris(2-cyanoethyl) phosphite" Mass(es): "385.191.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 3.99 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 11:10:28 AM  
 Modified: No

Method: No  
 Acquisition: IntelligQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 1.04e+005 counts  
 Height: 2647.170 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7421

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506002

Sample Amount 2

Moisture: 15.0

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415038.wiff

Date Analyzed: 16-APR-10 02:07

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

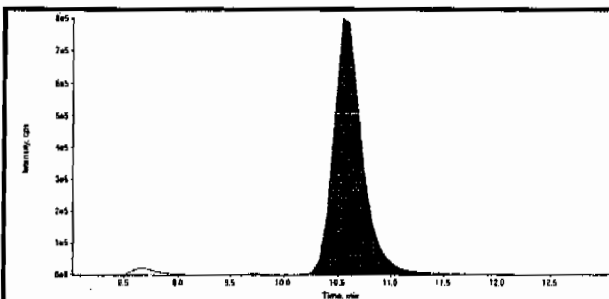
\*Concentration =

Instrument Value	X	Concentrated Extract Volume	X	Dilution Factor
		Sample Amount		

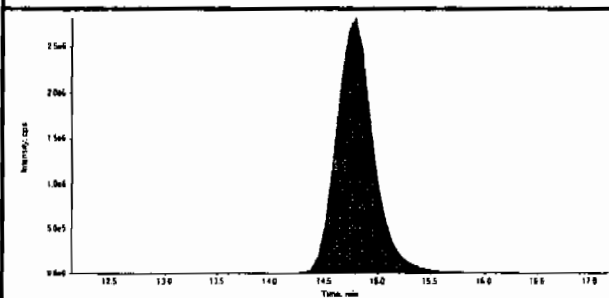
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

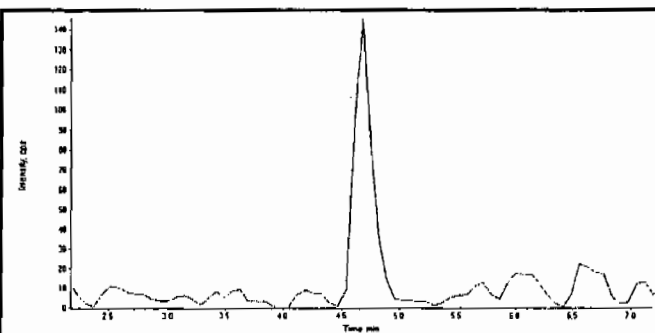
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Sample Name	248506002	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



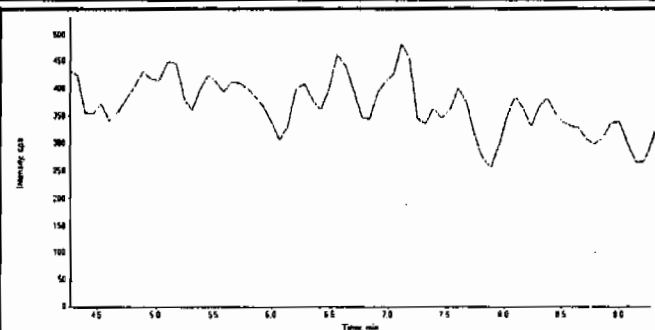
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	15300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	69500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten:* 4/23/10 4:10 04/23/10

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Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415038.wiff	Acquisition Date	4/16/2010 2:07:21 AM
Sample Name	248506002	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

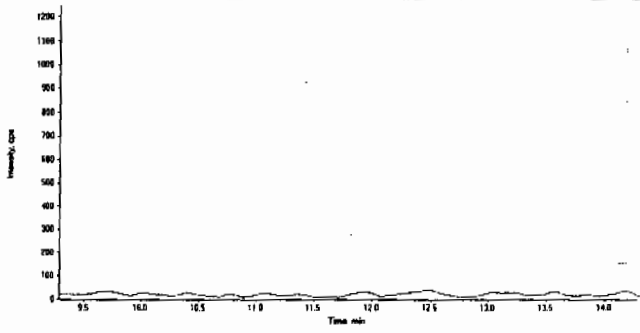
  

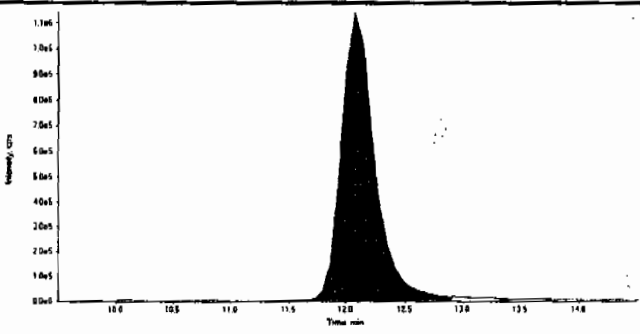
	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

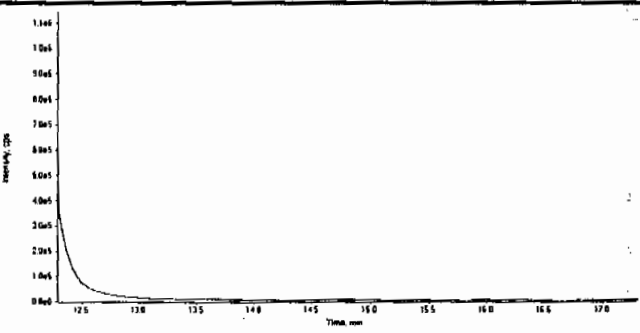
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

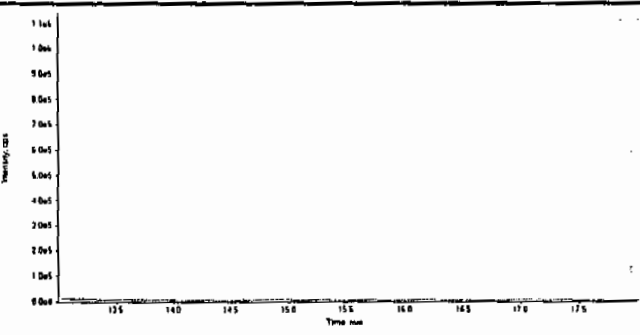
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415038.wiff	Acquisition Date	4/16/2010 2:07:21 AM
Sample Name	248506002	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

	Compound Name:	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	2.28e+007
	Manual Modification	No
	Amount:	249. (ng/mL)
	% Accuracy:	N/A

	Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.7
	Area Counts:	1.70e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A



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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415038.wiff	<b>Acquisition Date</b>	4/16/2010 2:07:21 AM
<b>Sample Name</b>	248506002	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.3
	Area Counts:	5.43e+003
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415038.wiff	<b>Acquisition Date</b>	4/16/2010 2:07:21 AM
<b>Sample Name</b>	248506002	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7421

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506002

Sample Amount 2

Moisture: 15.0

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090019.wiff

Date Analyzed: 09-APR-10 11:57

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

Sample Name: "248506002" Sample ID: "960986[2]LIR" File: "EXS04090019.wif"

Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"

Comment: "LCX832125" Annotation: "

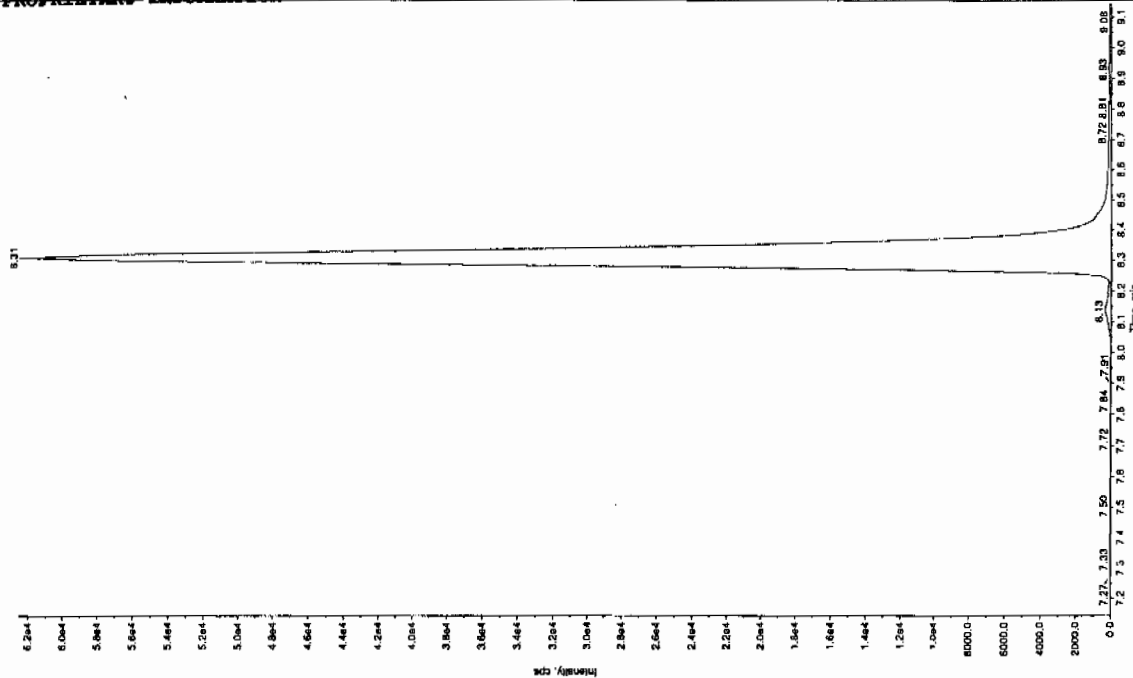
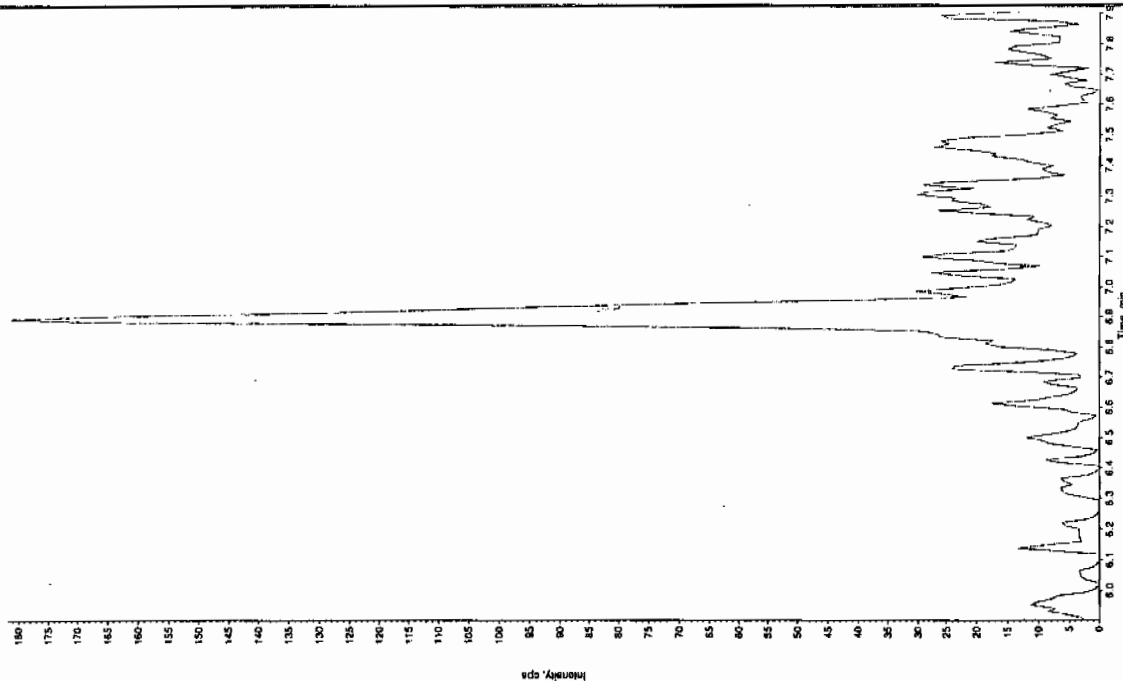
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 11:57:37 AM  
 Modified: No

Sample Name: "248506002" Sample ID: "960986[2]LIR" File: "EXS04090019.wif"

Peak Name: "TATB" Mass(es): "257.2204.9 amu"

Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 11:57:37 AM  
 Modified: No

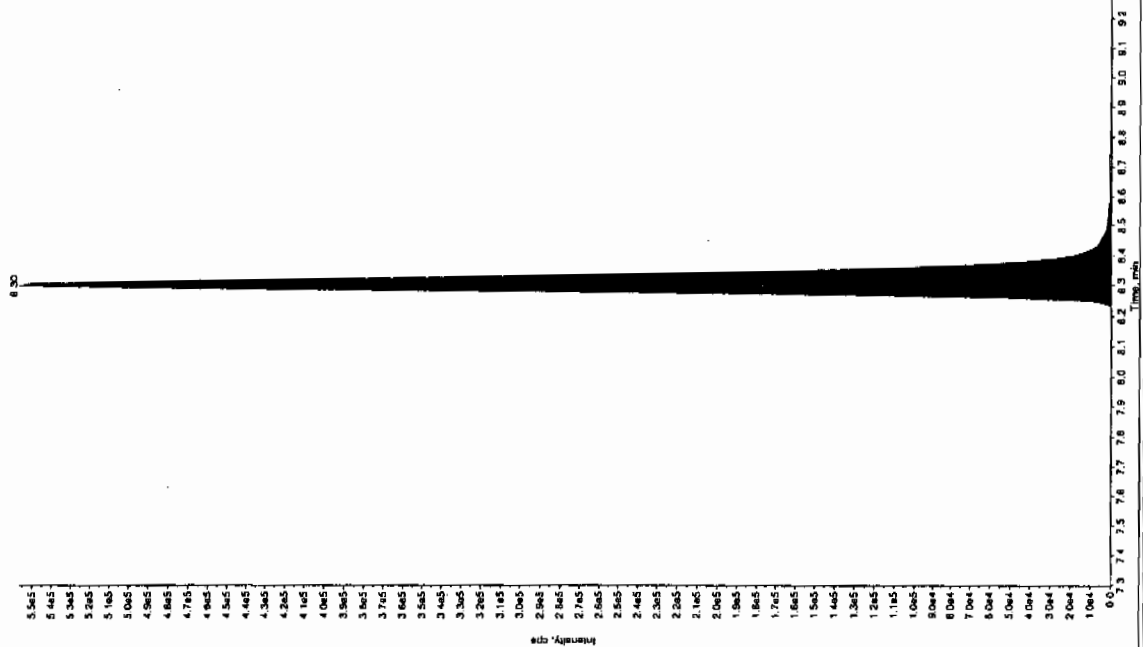


Scan 4/12/10

Amw 4/12/10

Sample Name: "24505002" Sample ID: "96096821LER" File: "EXS04060019.wif"  
 Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCX83212S" Annotation: ""

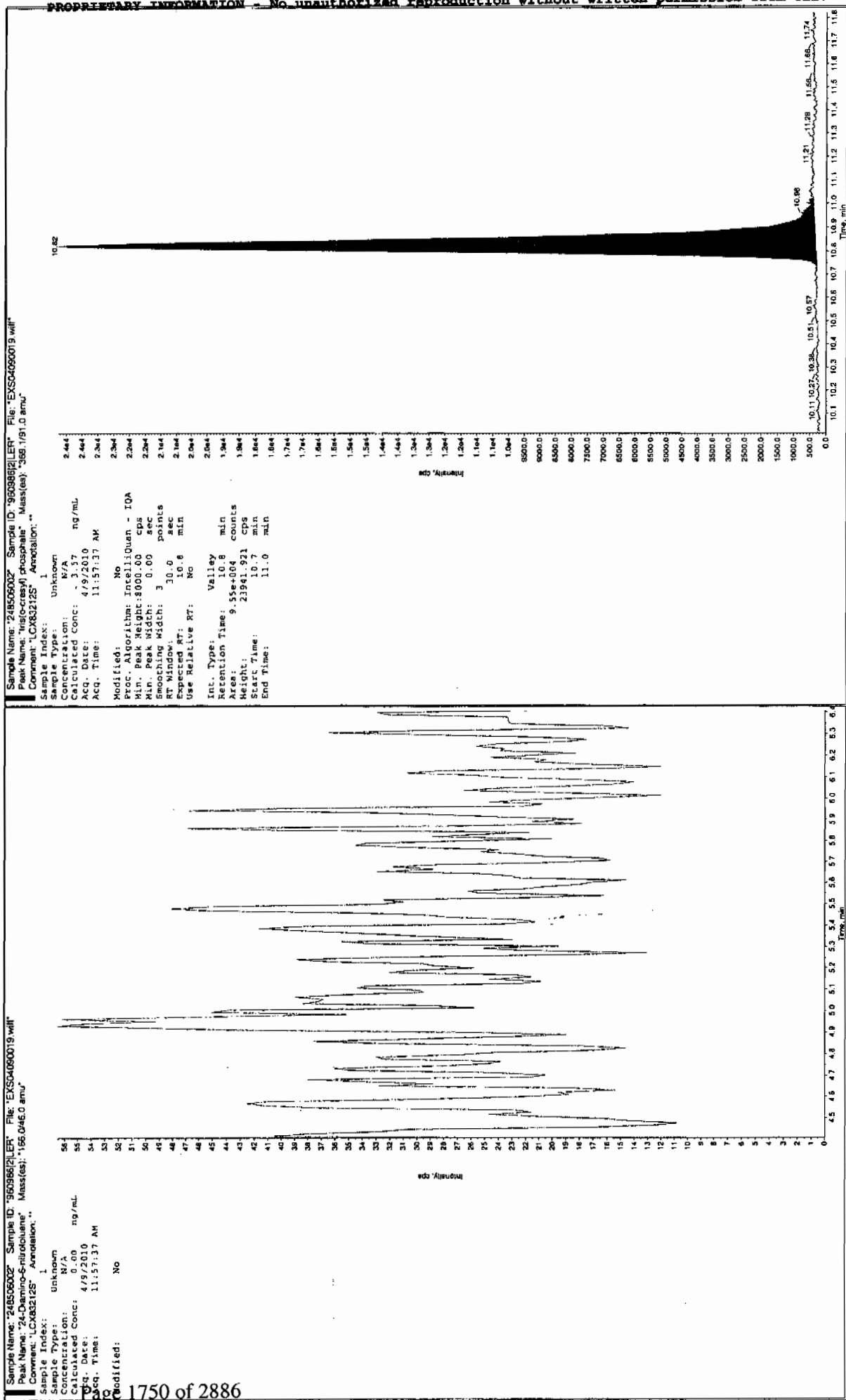
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 11:57:37 AM  
 Modified: No



Sample Name: "24505002" Sample ID: "96096821LER" File: "EXS04060019.wif"  
 Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 11:57:37 AM  
 Modified: No

Proc. Algorithm: InCellQuan - TOA  
 Min. Peak Height: 160.00 cps  
 Min. Peak Width: 0.00 sec  
 Max. Peak Width: 30.0 points  
 Expected RT: 8.30 min  
 Type Relative RT: No  
 Ret. Type: Valley  
 Retention Time: 8.30 min  
 Height: 2.26e+006 counts  
 Start Time: 8.22 min  
 End Time: 8.36 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7422

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506003

Sample Amount 2

Moisture: 5.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415039.wiff

Date Analyzed: 16-APR-10 02:33

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

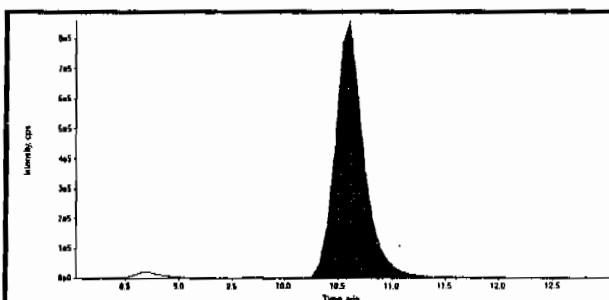
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

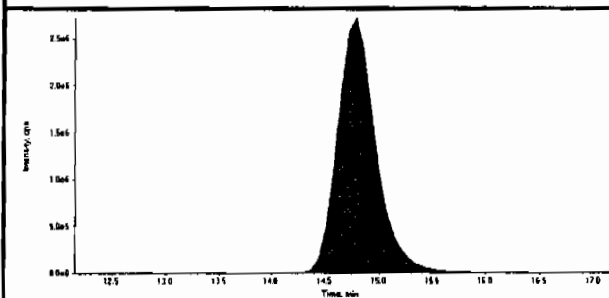
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

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LCMSMS#3

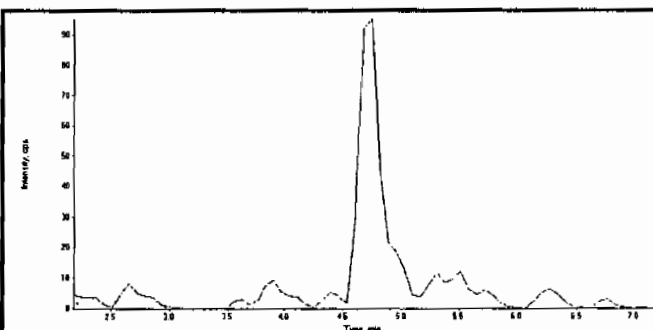
Data File	EXP0415039.wiff	Acquisition Date	4/16/2010 2:33:27 AM
Sample Name	248506003	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



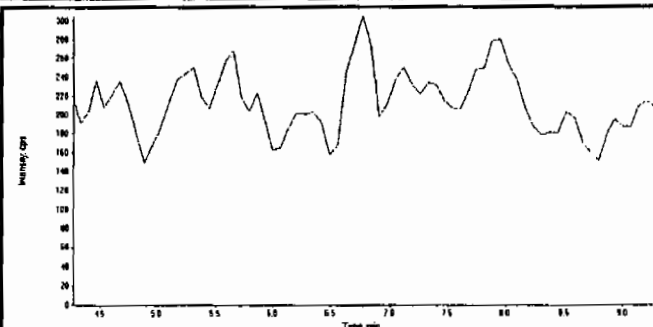
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	15800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	67400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Handwritten:* Lar 4/23/10  
Hm 04/23/10



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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415039.wiff	<b>Acquisition Date</b>	4/16/2010 2:33:27 AM
<b>Sample Name</b>	248506003	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

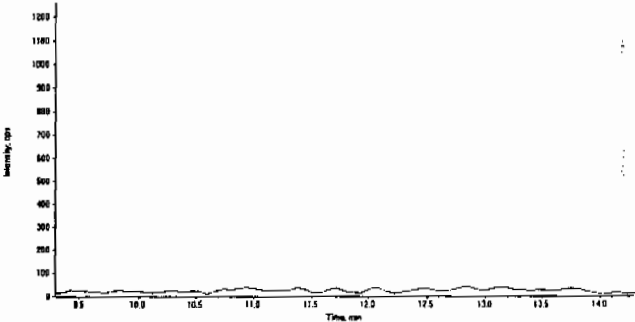
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

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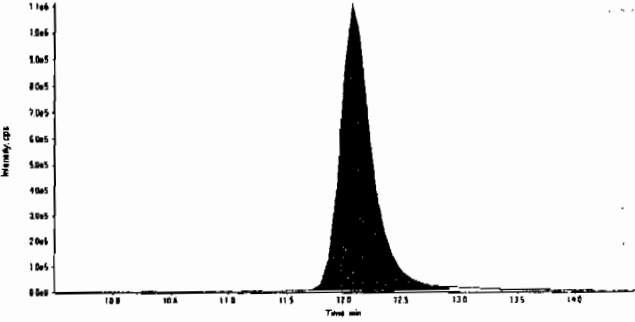
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415039.wiff	<b>Acquisition Date</b>	4/16/2010 2:33:27 AM
<b>Sample Name</b>	248506003	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

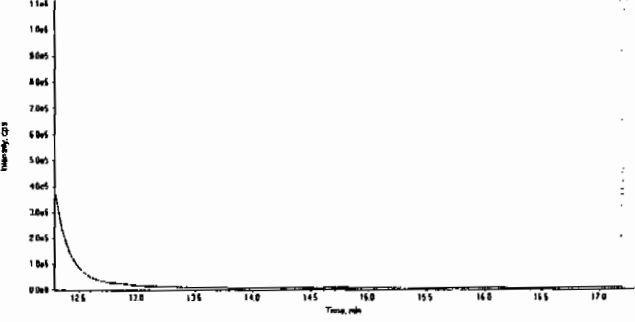
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

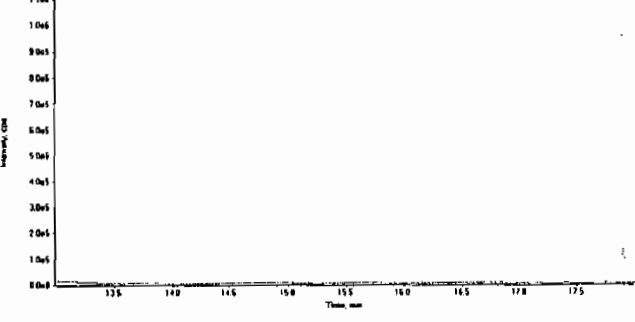
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	2.20e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	248. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.7
	<b>Area Counts:</b>	1.26e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415039.wiff	<b>Acquisition Date</b>	4/16/2010 2:33:27 AM
<b>Sample Name</b>	248506003	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415039.wiff	<b>Acquisition Date</b>	4/16/2010 2:33:27 AM
<b>Sample Name</b>	248506003	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7422

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506003

Sample Amount 2

Moisture: 5.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090020.wiff

Date Analyzed: 09-APR-10 12:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

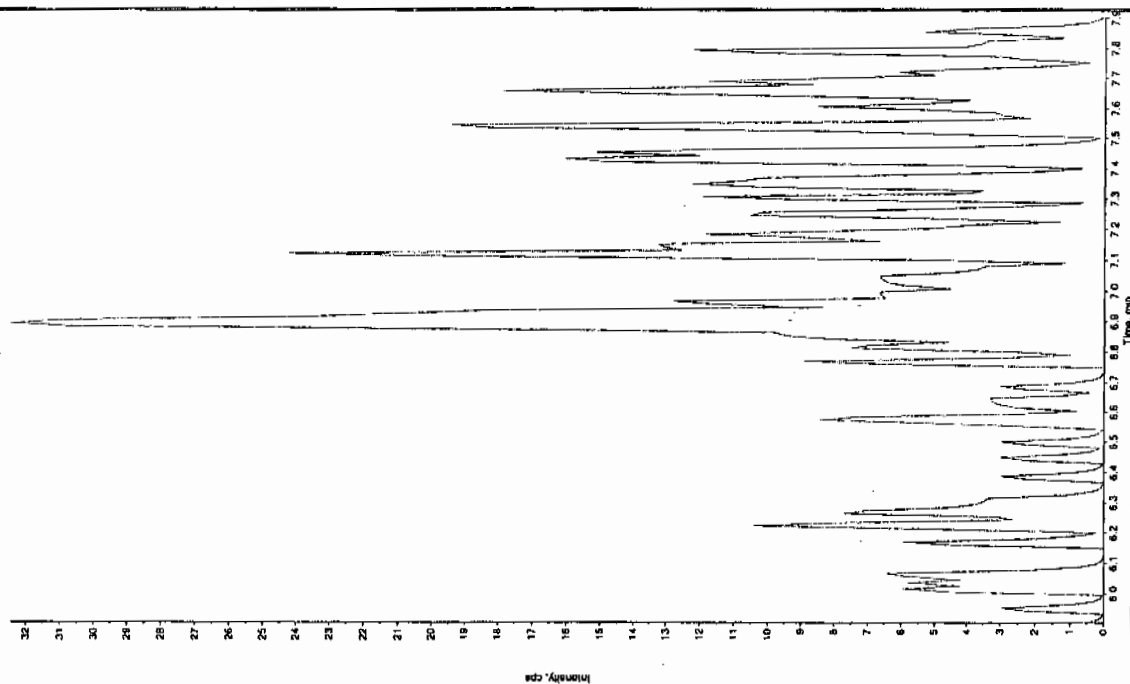
See 4/12/10

Sample Name: "248506003" Sample ID: "96098821LER" File: "EXS04090020.wif"

Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"

Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 12:13:19 PM  
 Modified: No



Sample Name: "248506003" Sample ID: "96098821LER" File: "EXS04090020.wif"

Peak Name: "TATB" Mass(es): "257.2204.9 amu"

Comment: "LCX83212S" Annotation: "

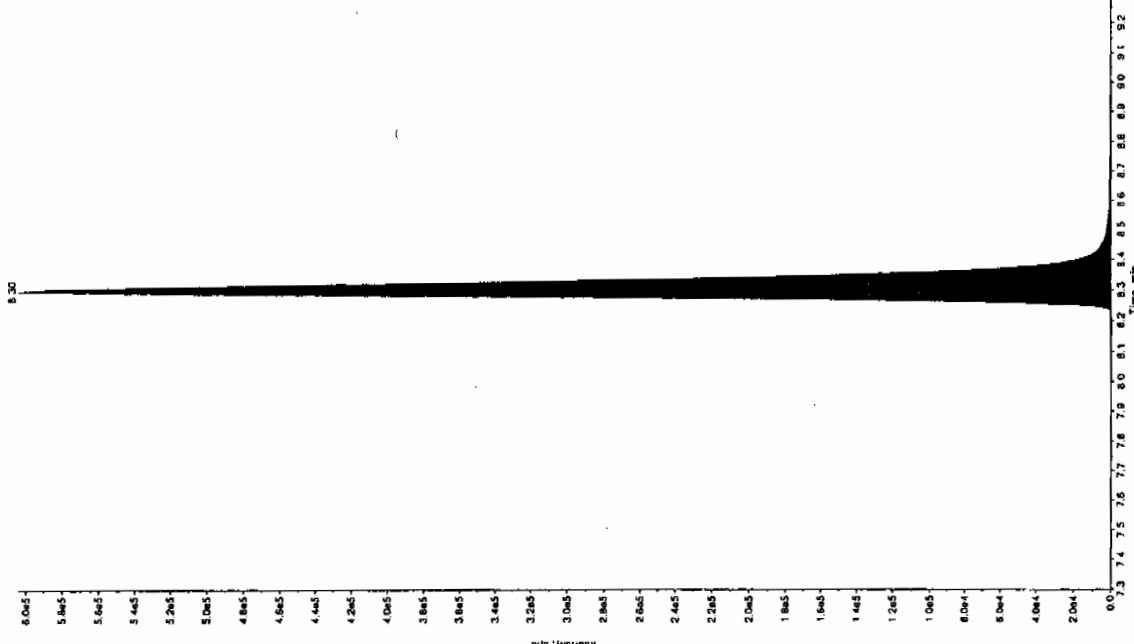
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 12:13:19 PM  
 Modified: No



See 4/12/10

Sample Name: "248506003" Sample ID: "96098621LER" File: "EXS04090020.wif"  
 Peak Name: "25-Diamino-4-nitrotoluene" Mass(es): "186.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ug/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 12:13:19 PM  
 Modified: No

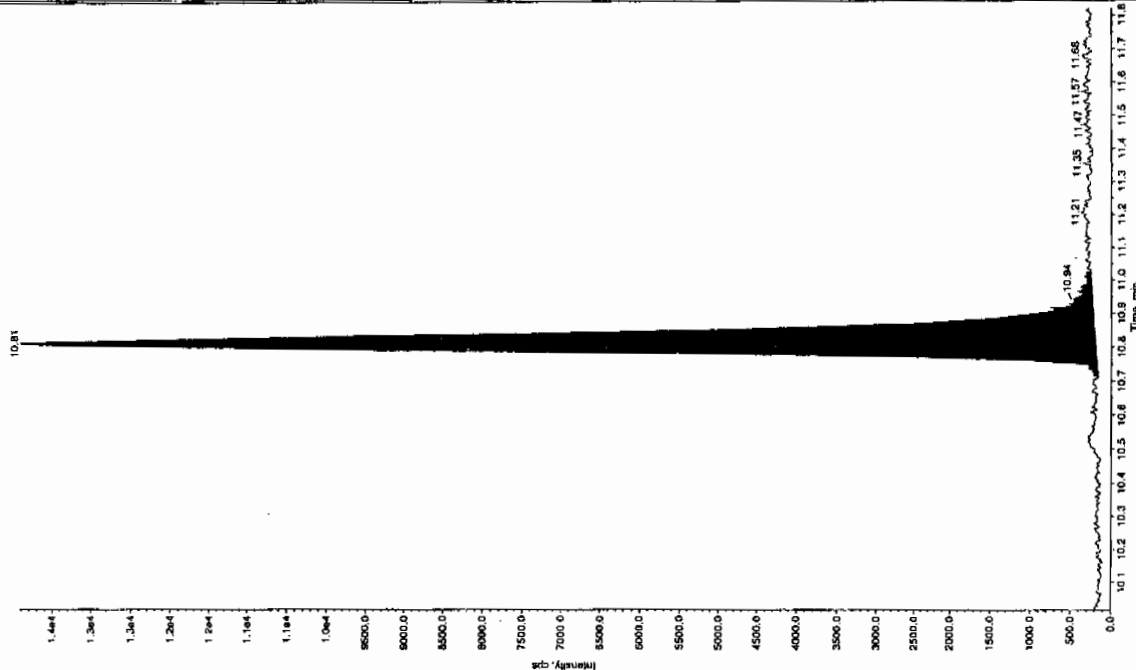


Sample Name: "248506003" Sample ID: "96098621LER" File: "EXS04090020.wif"  
 Peak Name: "34-Dinitrotoluene" Mass(es): "182.17151.9 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 265.00 ug/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 12:13:19 PM  
 Modified: No  
 Peak Name: "34-Dinitrotoluene" - IOA  
 Peak Height: 1460.00 cps  
 Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Window: 30.0 sec  
 Expected RT: 8.30 min  
 Use Relative RT: No  
 Ac. Type: Valley  
 Retention Time: 8.30 min  
 Counts: 2.37e+006  
 Weight: 603980.286 cps  
 Start Time: 8.22 min  
 End Time: 8.76 min

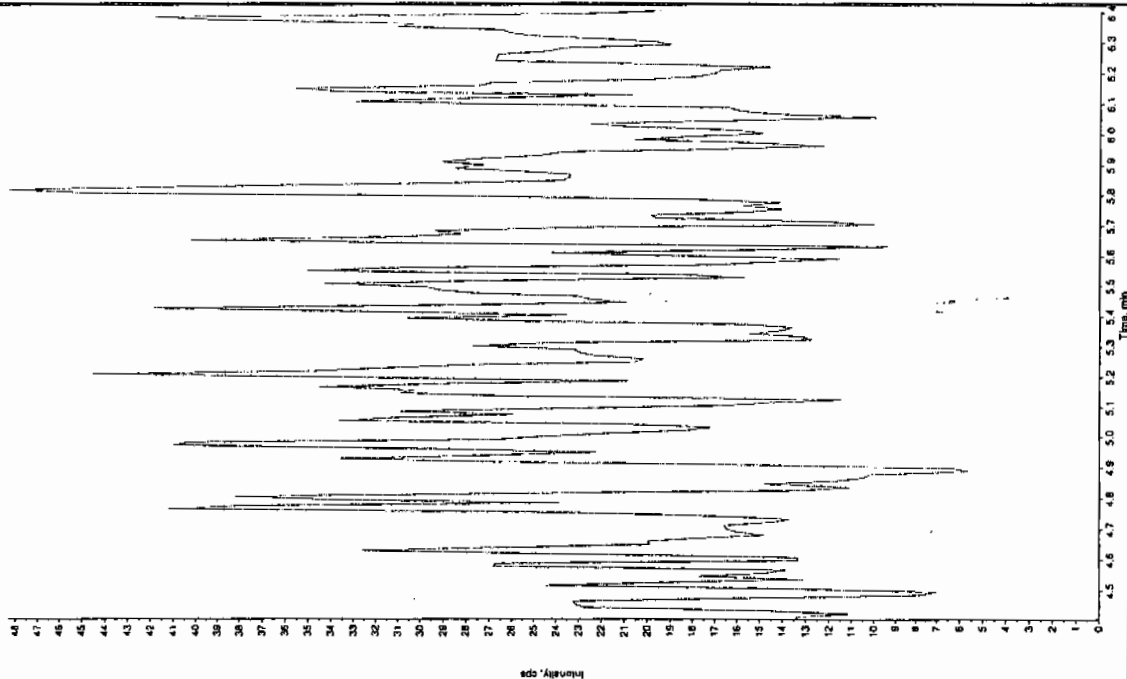
Sample Name: "24850603" Sample ID: "96098621.ER" File: "EXS04090020.wif"  
 Peak Name: "tris(2-cyanoethyl) phosphite" Mass(es): "365.191.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 1.63 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 12:13:19 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 3.00 sec  
 Smoothing Width: 3.00 points  
 Resolution: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 5.55e+004 counts  
 Height: 13734.132 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



Sample Name: "24850603" Sample ID: "96098621.ER" File: "EXS04090020.wif"  
 Peak Name: "24-Diamino-6-nitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 12:13:19 PM  
 Modified: No





1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7451

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506004

Sample Amount 2

Moisture: 39.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415040.wiff

Date Analyzed: 16-APR-10 02:59

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

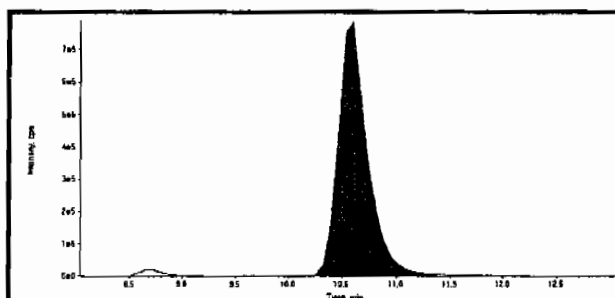
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

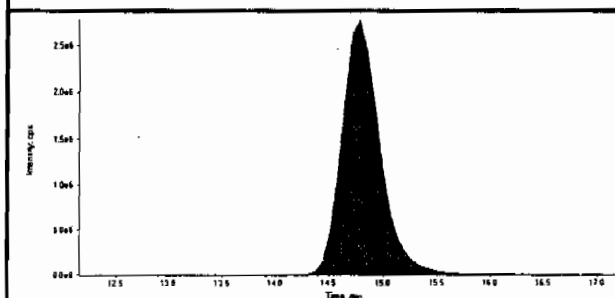
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

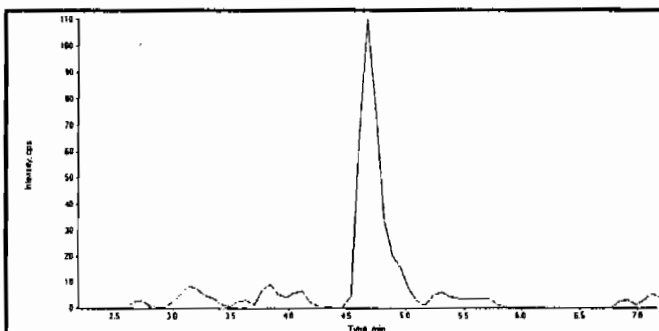
Data File	EXP0415040.wiff	Acquisition Date	4/16/2010 2:59:26 AM
Sample Name	248506004	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



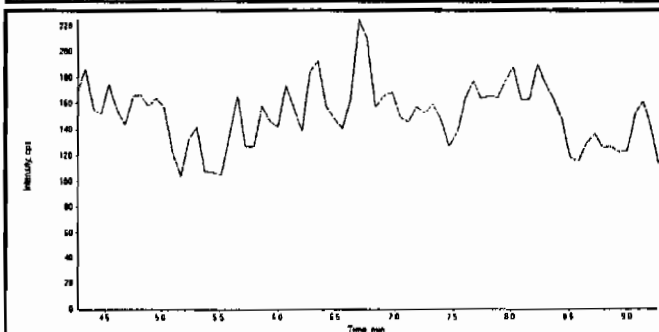
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	14900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	68900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Jan*  
*4/23/10*

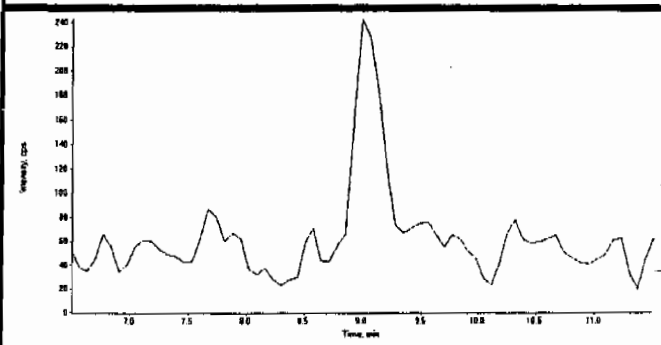
*Hime*  
*04/23/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

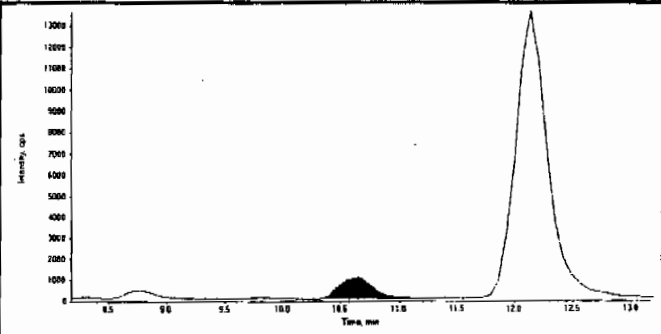
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415040.wiff	Acquisition Date	4/16/2010 2:59:26 AM
Sample Name	248506004	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

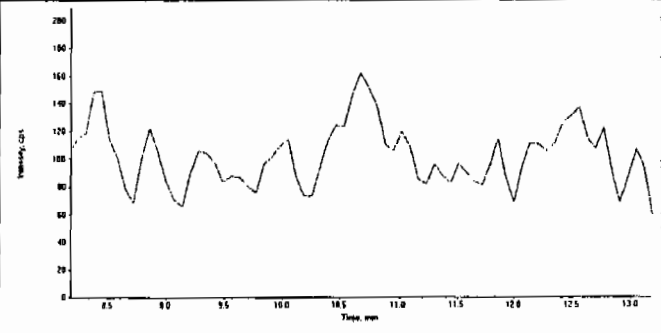
  

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

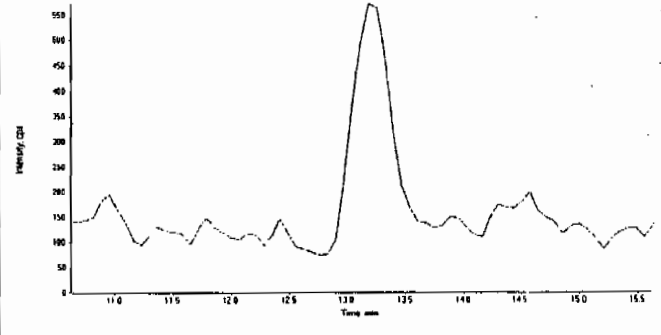
  

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	2.20e+004
	Manual Modification	No
	Amount:	4.39 (ng/mL)
	% Accuracy:	N/A

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

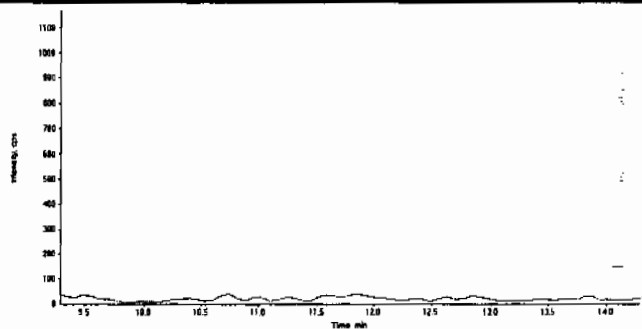
	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

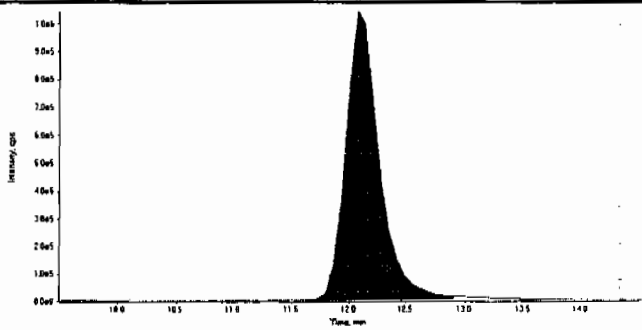
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415040.wiff	<b>Acquisition Date</b>	4/16/2010 2:59:26 AM
<b>Sample Name</b>	248506004	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

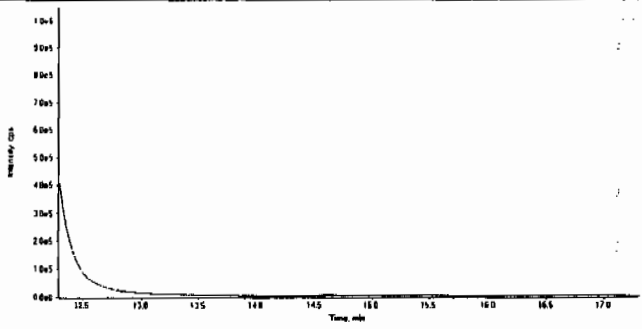
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

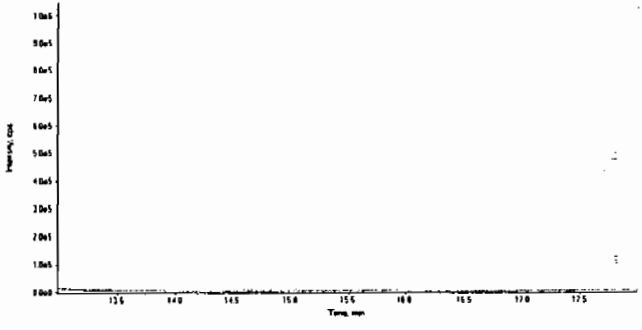
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	2.18e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	240. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.7
	<b>Area Counts:</b>	2.03e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415040.wiff	Acquisition Date	4/16/2010 2:59:26 AM
Sample Name	248506004	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

	Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	7.80e+003
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

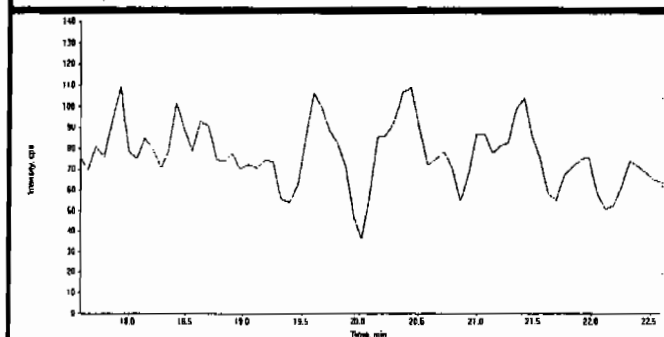
  

	Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

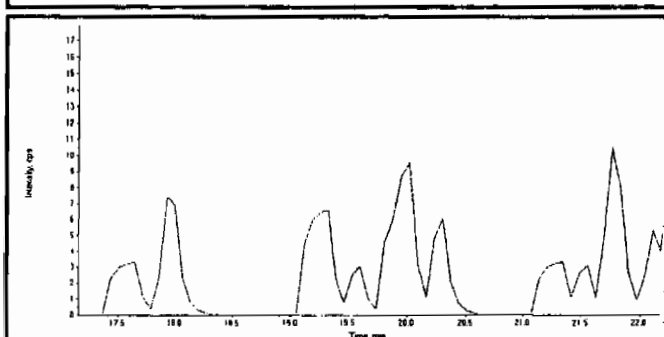
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415040.wiff	Acquisition Date	4/16/2010 2:59:26 AM
Sample Name	248506004	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7451

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506004

Sample Amount 2

Moisture: 39.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090021.wiff

Date Analyzed: 09-APR-10 12:29

Units: ug/kg

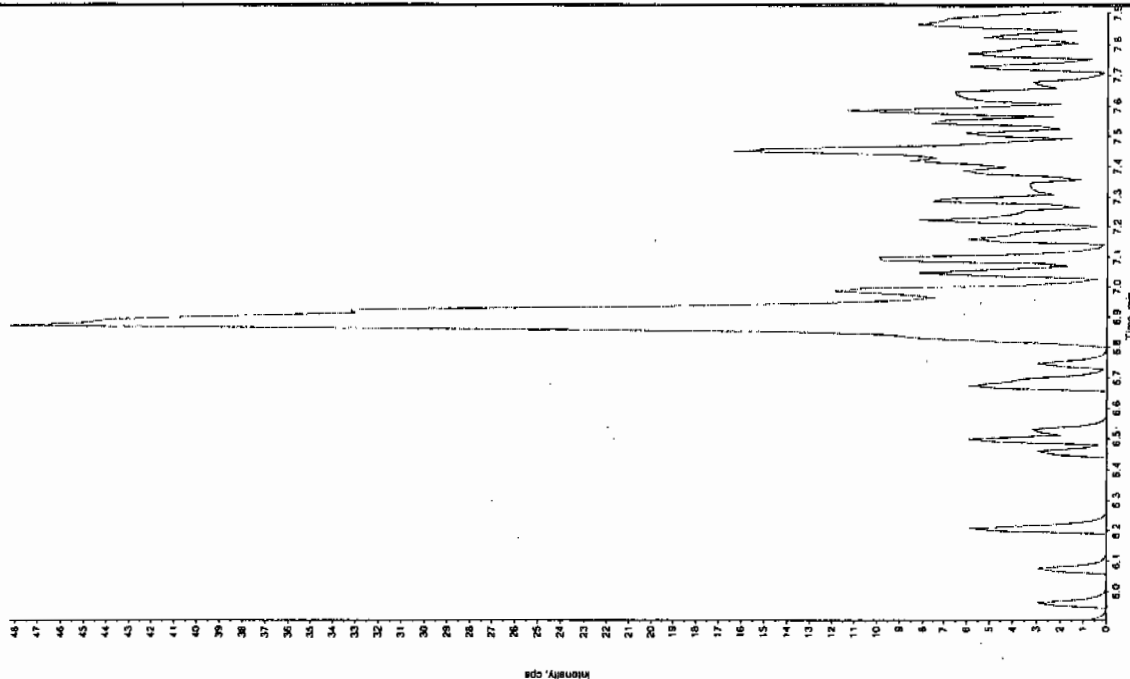
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

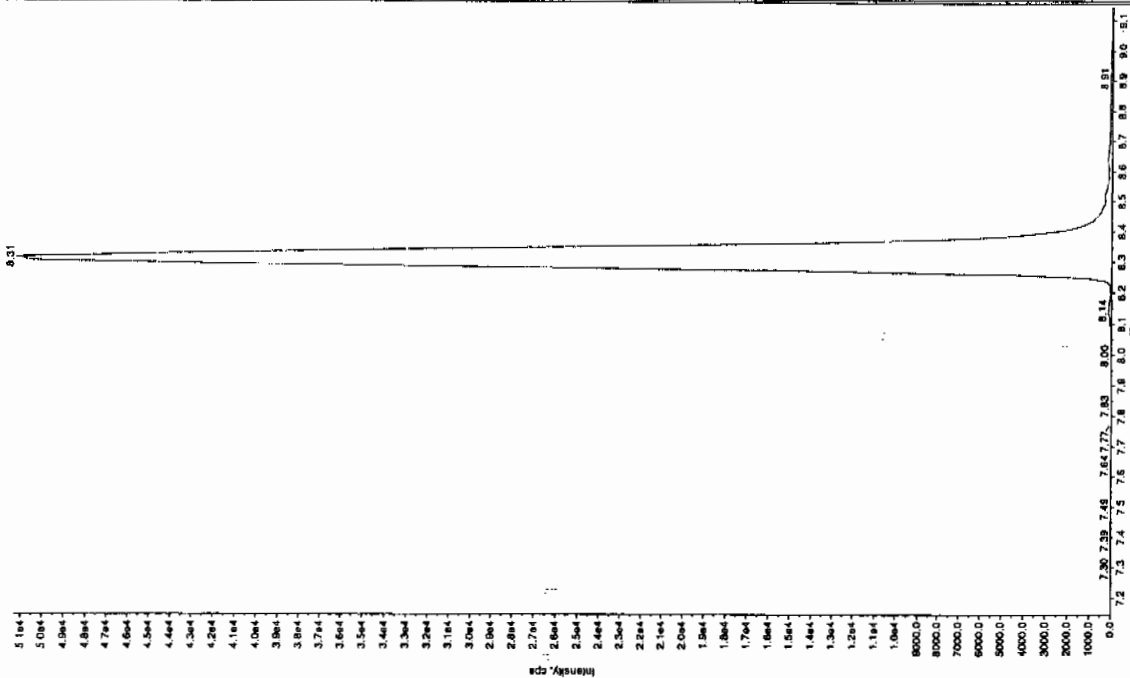
Sample Name: "24650604" Sample ID: "95098921" File: "EXS0400021.wif"  
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 12:29:02 PM  
 Modified: No



Sample Name: "24650604" Sample ID: "95098921" File: "EXS0400021.wif"  
 Peak Name: "3S-Dinitroaniline" Mass(es): "182.046.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 12:29:02 PM  
 Modified: No



Run 4/12/10

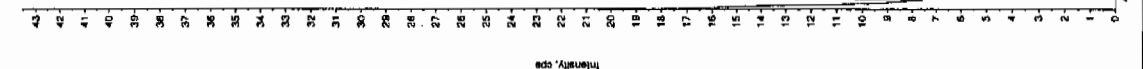
4/12/10



Sample Name: "248506004" Sample ID: "950985[2]ER" File: "EXSD4090021.wif"  
 Peak Name: "28-Diamino-4-nitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 4/9/2010 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 12:29:02 PM  
 Modified: No

Intensity, cps



Sample Name: "248506004" Sample ID: "950985[2]ER" File: "EXSD4090021.wif"  
 Peak Name: "34-Oxofluorene" Mass(es): "182.1715.9 amu"  
 Comment: "LCX832125" Annotation: ""

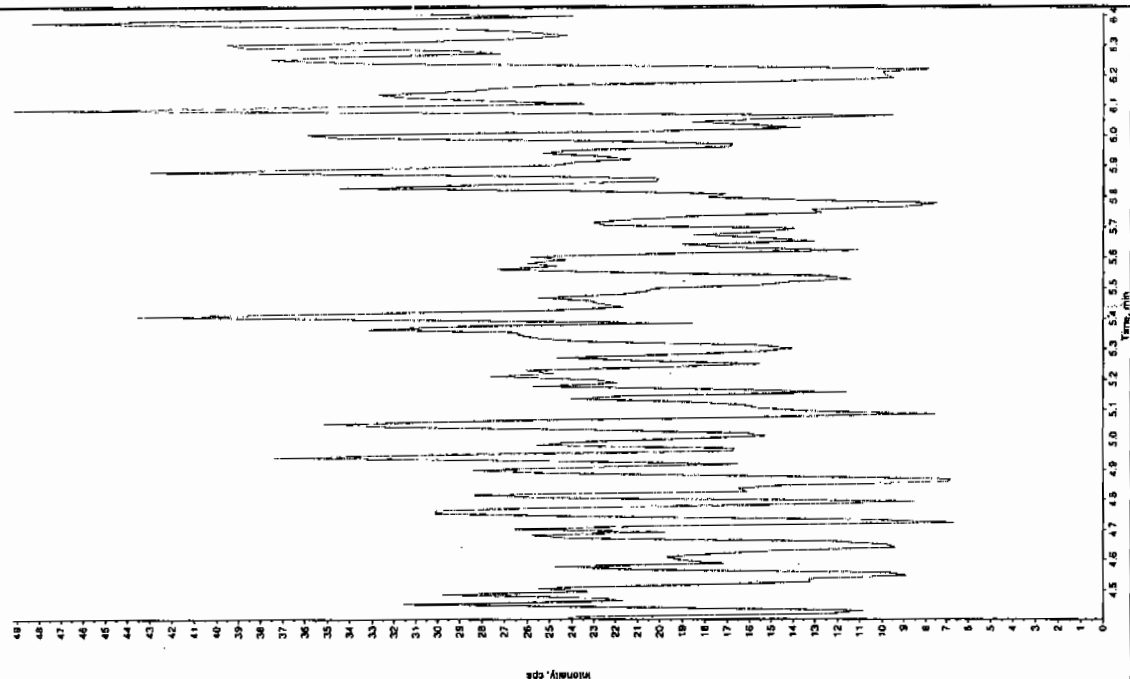
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 210 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 12:29:02 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 8.30 min  
 Use Relative RT: No  
 Type: Valley  
 Retention Time: 2.246000 min  
 Peak: 2.246000 min  
 Start Time: 8.20 min  
 End Time: 8.82 min

Intensity, cps



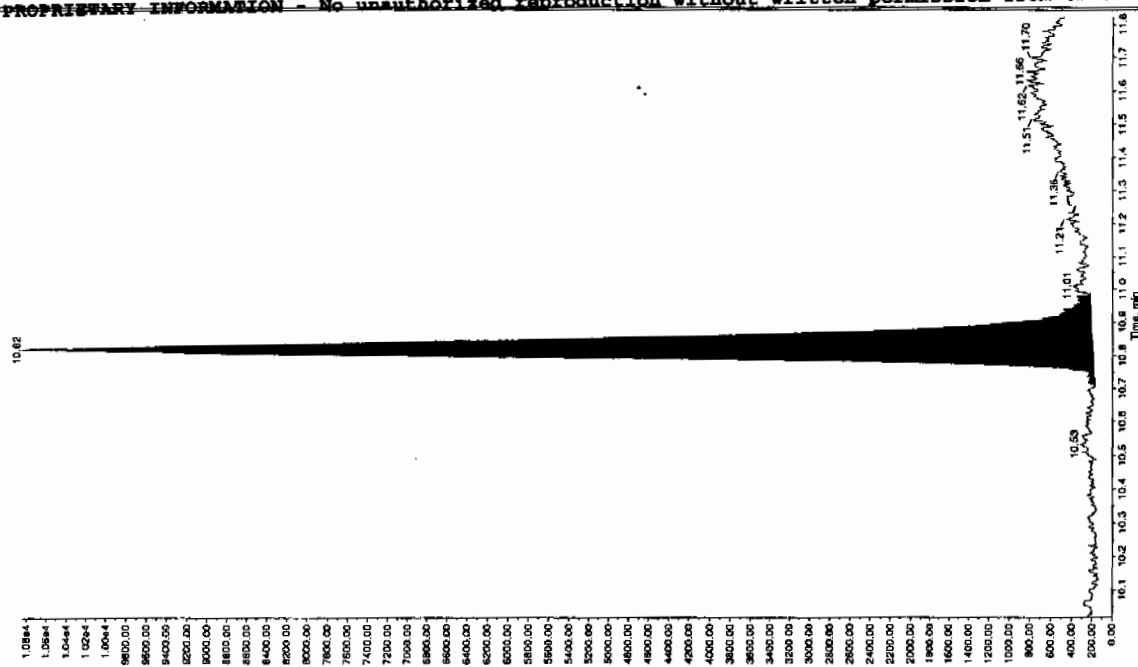
Sample Name: "248006004" Sample ID: "96098621LER" File: "EX504090021.wif"  
 Peak Name: "24-Diamino-5-nitrofluorene" Mass(es): "155.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 12:29:02 PM  
 Modified: NO



Sample Name: "248006004" Sample ID: "96098621LER" File: "EX504090021.wif"  
 Peak Name: "Indo-cresyl phosphate" Mass(es): "369.191.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.948 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 12:29:02 PM  
 Modified: NO  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3.0 points  
 Retention: 10.8 min  
 Expected RT: 10.8 min  
 Use Relative RT: NO  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 4.14e+004 counts  
 Height: 10652.069 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7449

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506005

Sample Amount 2

Moisture: 17.8

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415041.wiff

Date Analyzed: 16-APR-10 03:25

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

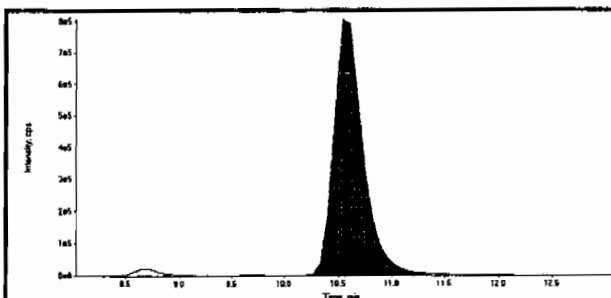
\*Concentration =

Instrument	X	Concentrated Extract Volume	X	Dilution
Value		Sample Amount		Factor

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

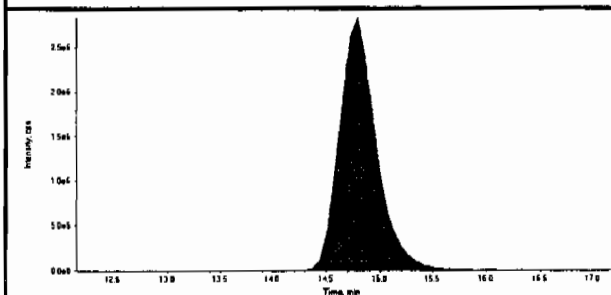
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415041.wiff	Acquisition Date	4/16/2010 3:25:24 AM
Sample Name	248506005	Acquisition Method	8321.dam
Batch/Dilution/Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



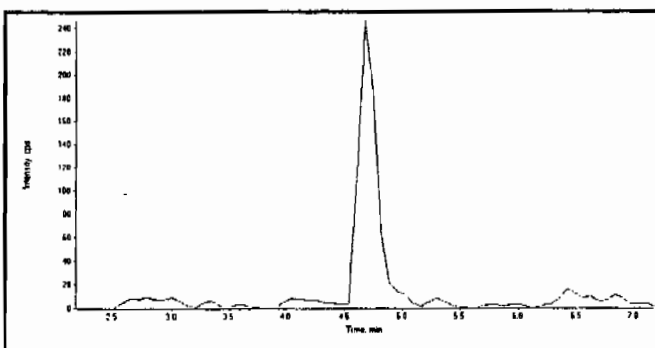
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	15400000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

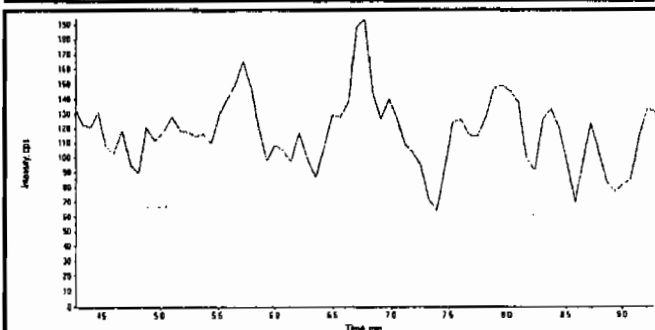


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	68600000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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04/23/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415041.wiff	<b>Acquisition Date</b>	4/16/2010 3:25:24 AM
<b>Sample Name</b>	248506005	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	~960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.6
	<b>Area Counts:</b>	2.17e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	4.38 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

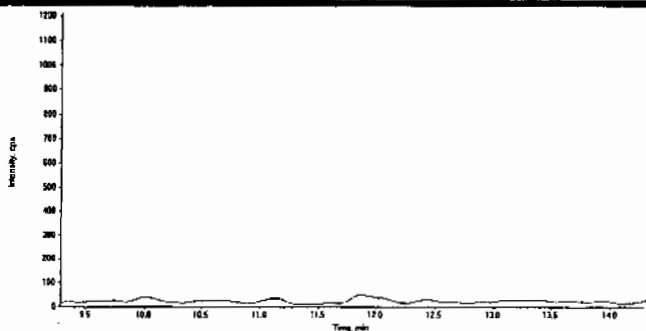
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

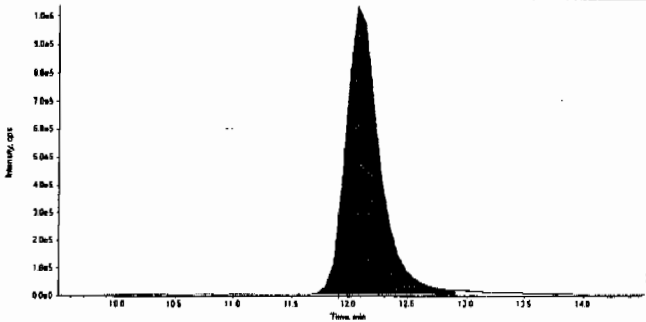
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415041.wiff	<b>Acquisition Date</b>	4/16/2010 3:25:24 AM
<b>Sample Name</b>	248506005	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

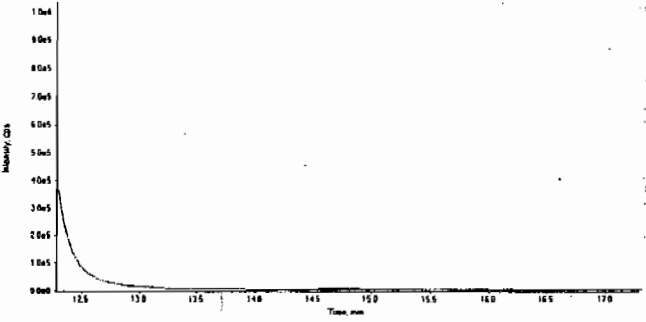
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

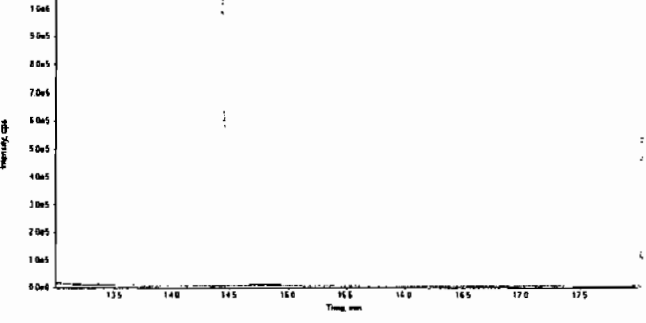
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	2.13e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	235. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.8
	<b>Area Counts:</b>	1.47e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

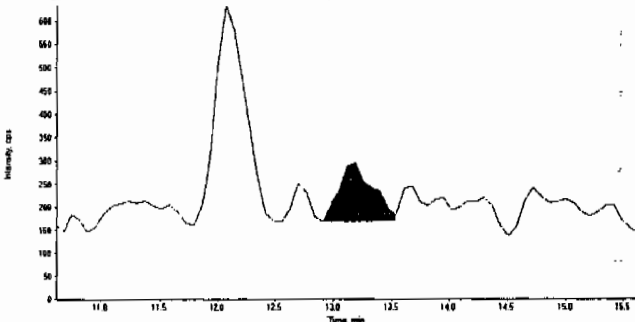
  

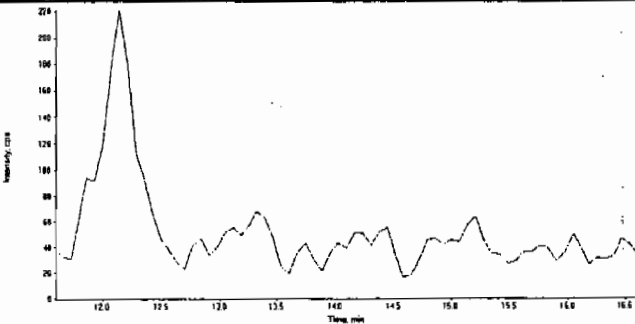
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

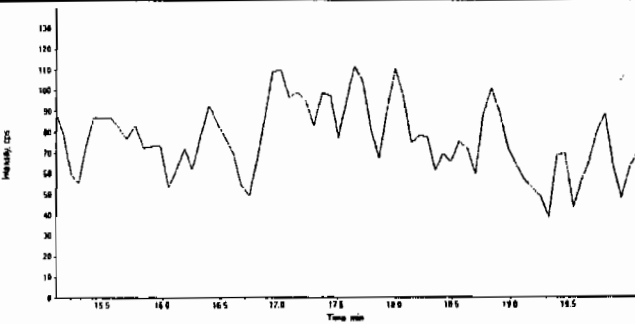
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

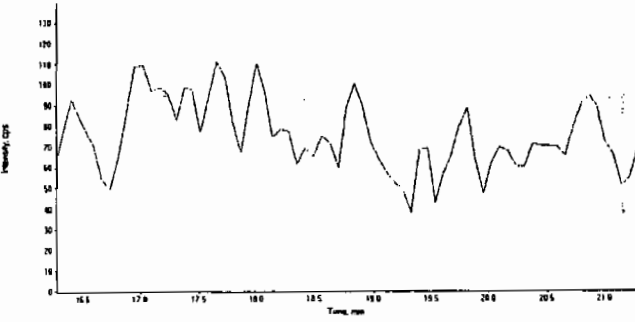
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415041.wiff	Acquisition Date	4/16/2010 3:25:24 AM
Sample Name	248506005	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

	Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	2.62e+003
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

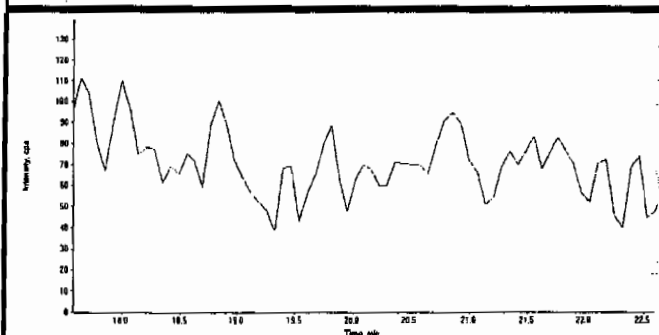
	Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

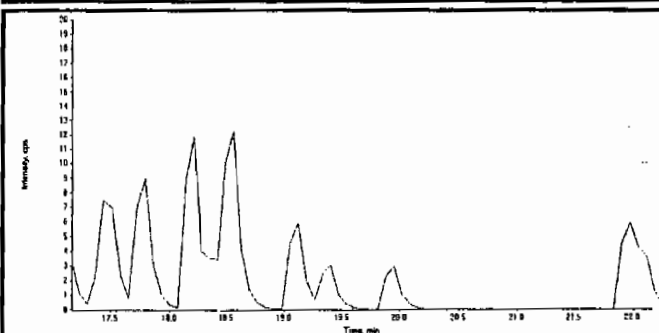
GEL Laboratories, LLC  
 GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
 LCMSMS#3

Data File	EXP0415041.wiff	Acquisition Date	4/16/2010 3:25:24 AM
Sample Name	248506005	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7449

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506005

Sample Amount 2

Moisture: 17.8

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090022.wiff

Date Analyzed: 09-APR-10 12:44

Units: ug/kg

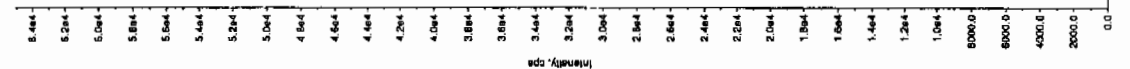
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

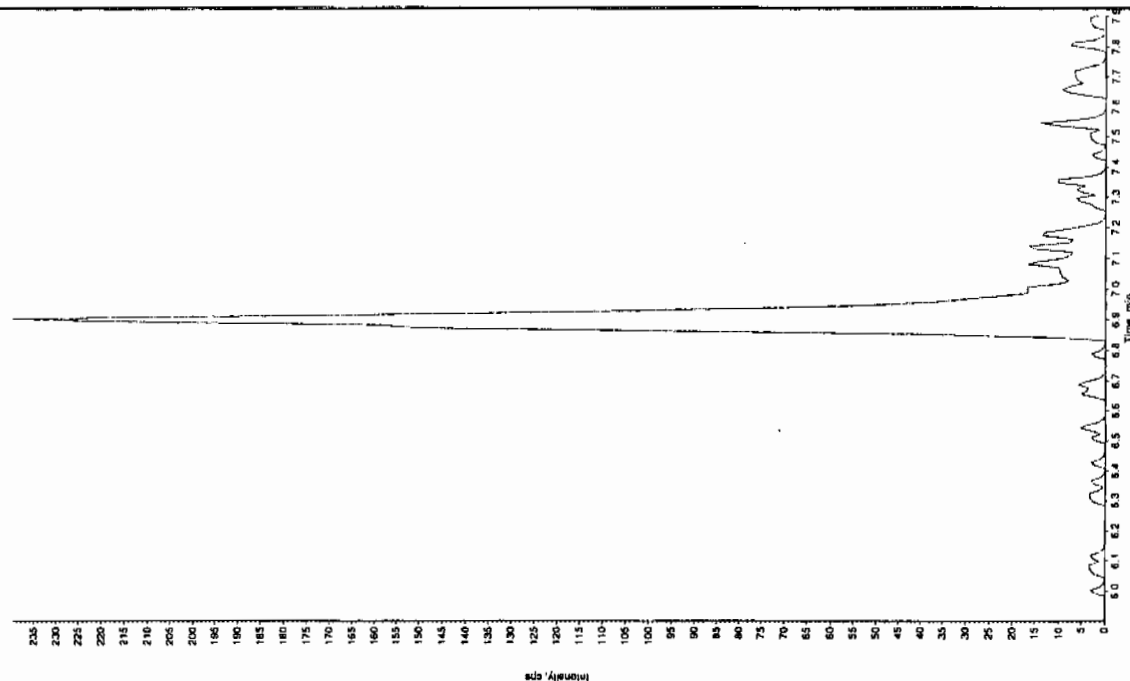
Sample Name: "24850605" Sample ID: "96098621.ER" File: "EXS0409022.wiff"  
 Peak Name: "35-Dinitroaniline" Mass(es): "182.0465.0 amu"  
 Comment: "LCX83212S" Annotation: ""

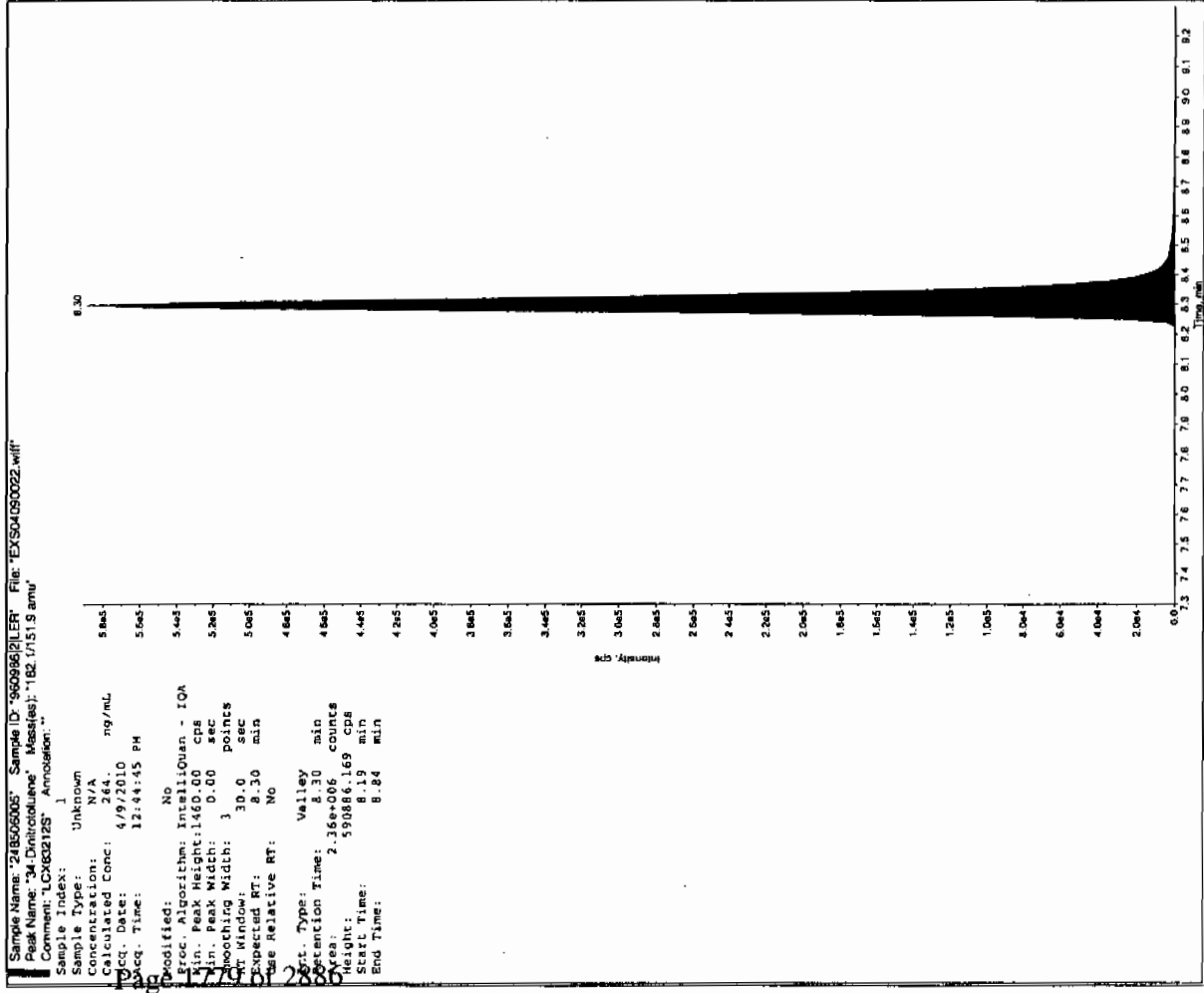
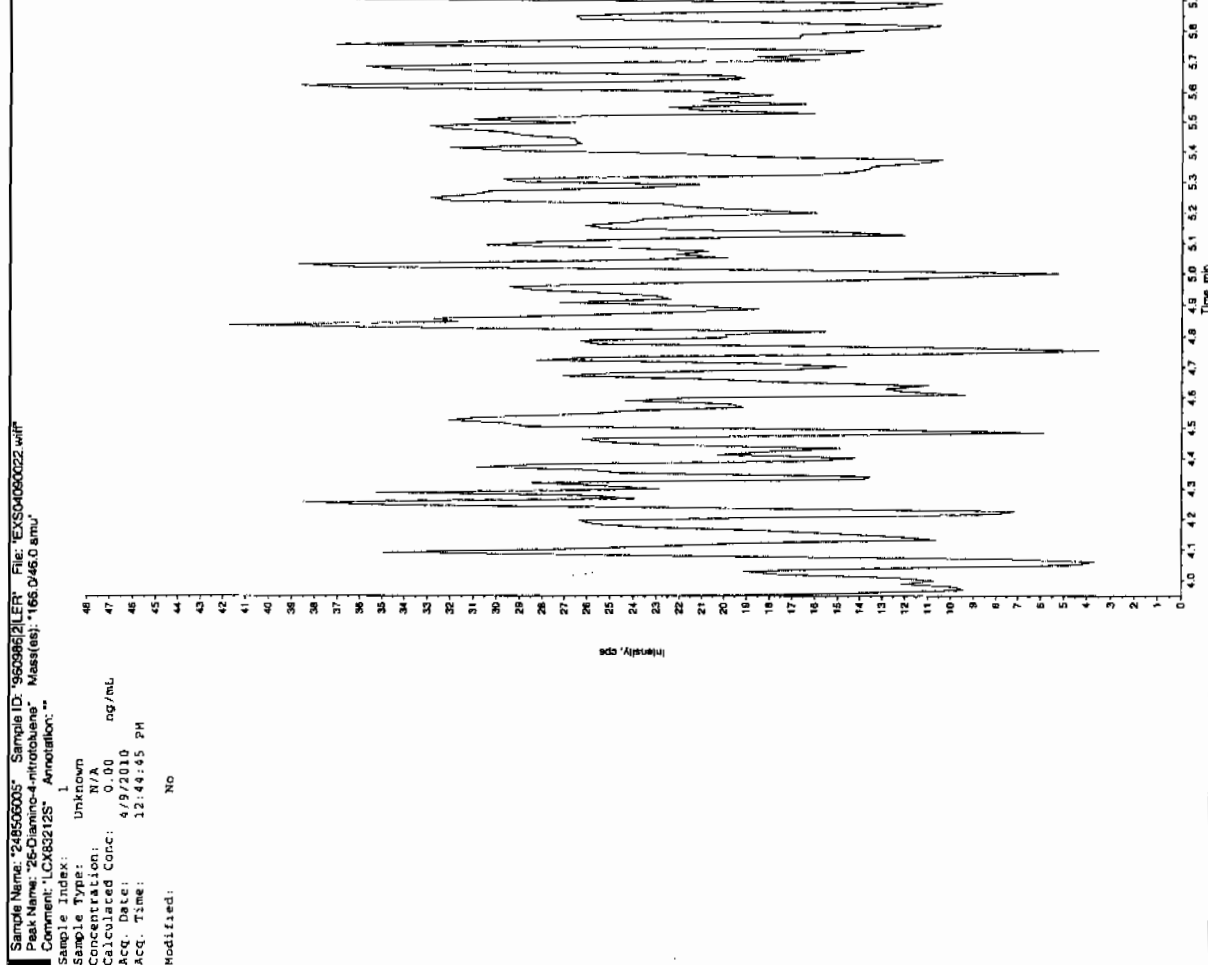
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 12:44:45 PM  
 Modified: No



Sample Name: "24850605" Sample ID: "96098621.ER" File: "EXS0409022.wiff"  
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
 Comment: "LCX83212S" Annotation: ""

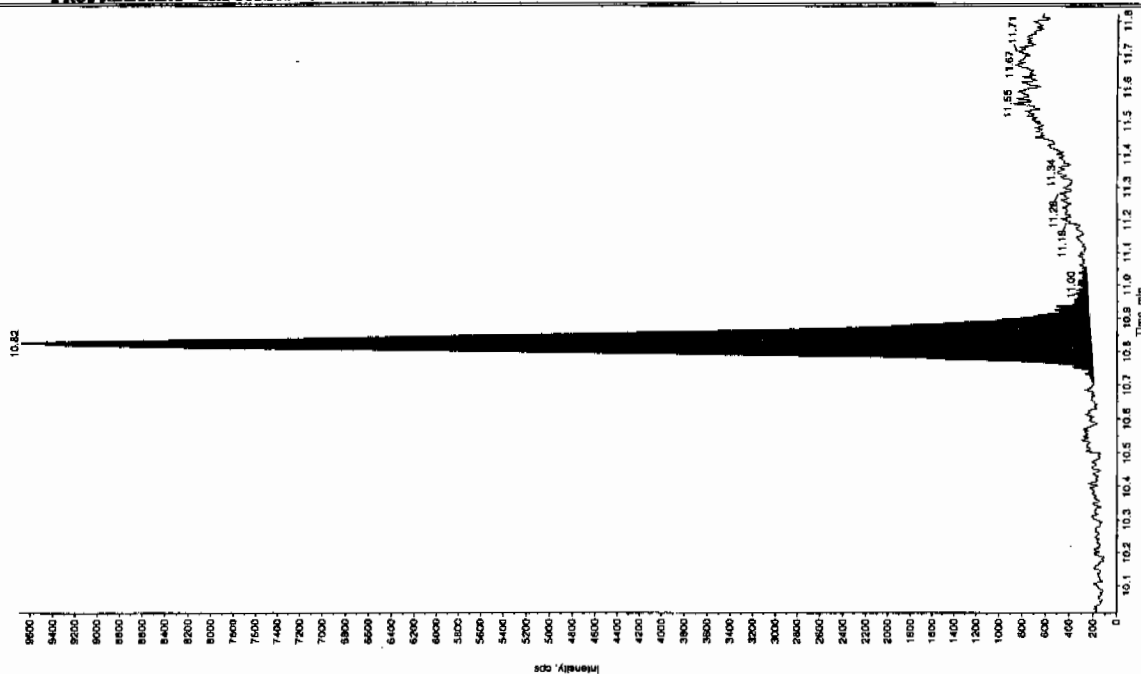
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 12:44:45 PM  
 Modified: No





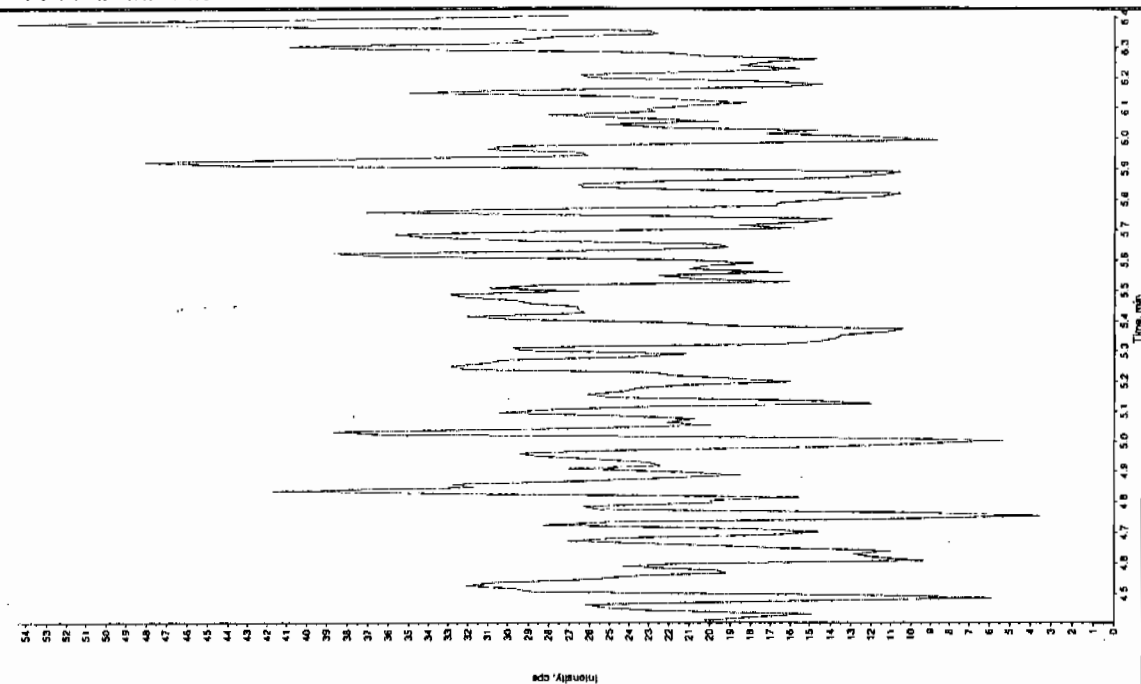
Sample Name: "24650505" Sample ID: "965662JLER" File: "EX504080022.wif"  
 Peak Name: "di(n-butyl) phosphate" Mass(es): "369.191.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 4/9/2010 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 12:44:45 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IGA  
 Min. Peak Height: 3000.00 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: 3.76e+004 counts  
 Height: 9472.089 cps  
 Start Time: 10.7 min  
 End Time: 11.1 min



Sample Name: "24650505" Sample ID: "965662JLER" File: "EX504080022.wif"  
 Peak Name: "24-Dinitro-6-nitrofluorene" Mass(es): "166.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 12:44:45 PM  
 Modified: No



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7445

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506006

Sample Amount 2

Moisture: 25.6

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415042.wiff

Date Analyzed: 16-APR-10 03:51

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

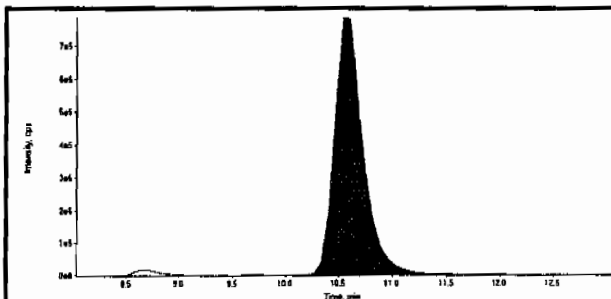
\*Concentration =

Instrument Value	X	<u>Concentrated Extract Volume</u>	X	Dilution Factor
		<u>Sample Amount</u>		

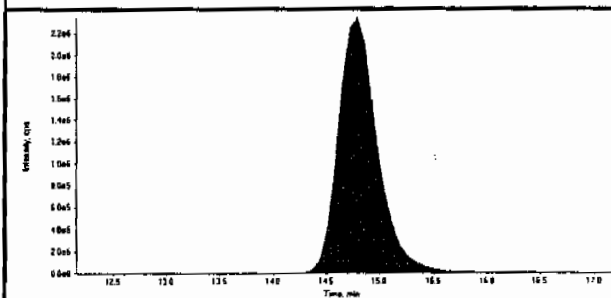
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

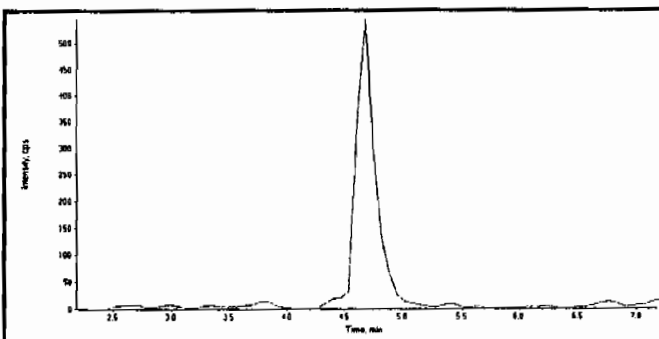
Data File	EXP0415042.wiff	Acquisition Date	4/16/2010 3:51:21 AM
Sample Name	248506006	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



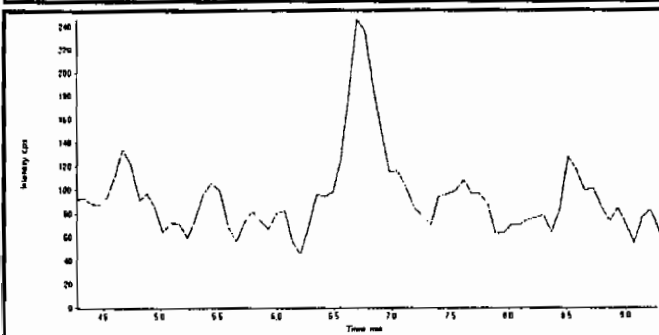
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	15000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	60100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415042.wiff	<b>Acquisition Date</b>	4/16/2010 3:51:21 AM
<b>Sample Name</b>	248506006	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	2.34e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	4.40 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

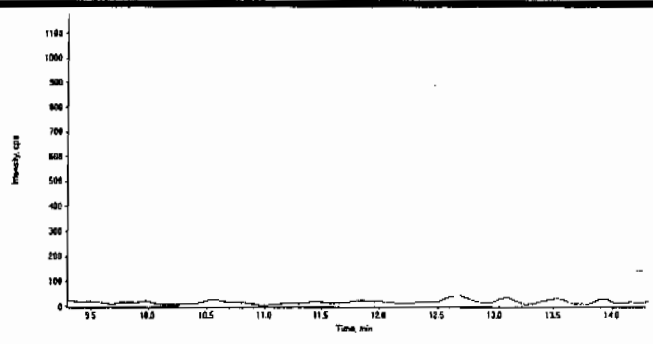
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

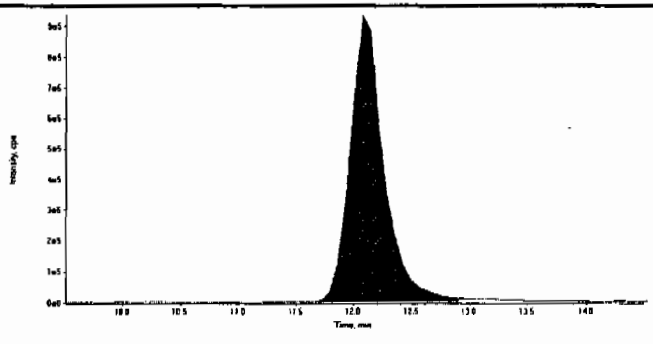
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415042.wiff	<b>Acquisition Date</b>	4/16/2010 3:51:21 AM
<b>Sample Name</b>	248506006	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

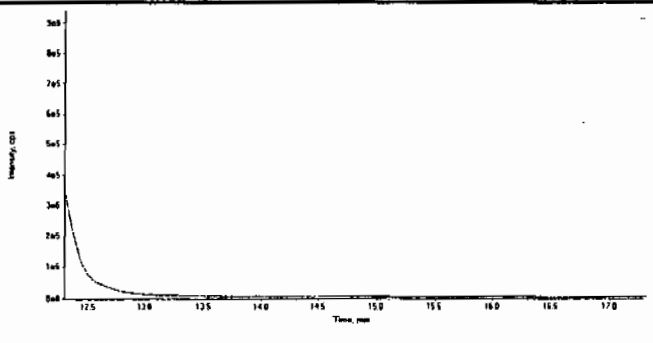
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

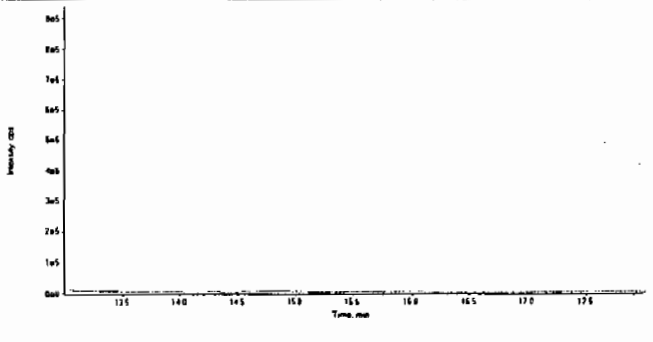
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	1.89e+007
	Manual Modification	No
	Amount:	240. (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.8
	Area Counts:	1.52e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415042.wiff	<b>Acquisition Date</b>	4/16/2010 3:51:21 AM
<b>Sample Name</b>	248506006	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.3
	<b>Area Counts:</b>	2.74e+003
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415042.wiff	<b>Acquisition Date</b>	4/16/2010 3:51:21 AM
<b>Sample Name</b>	248506006	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7445

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506006

Sample Amount 2

Moisture: 25.6

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090023.wiff

Date Analyzed: 09-APR-10 13:00

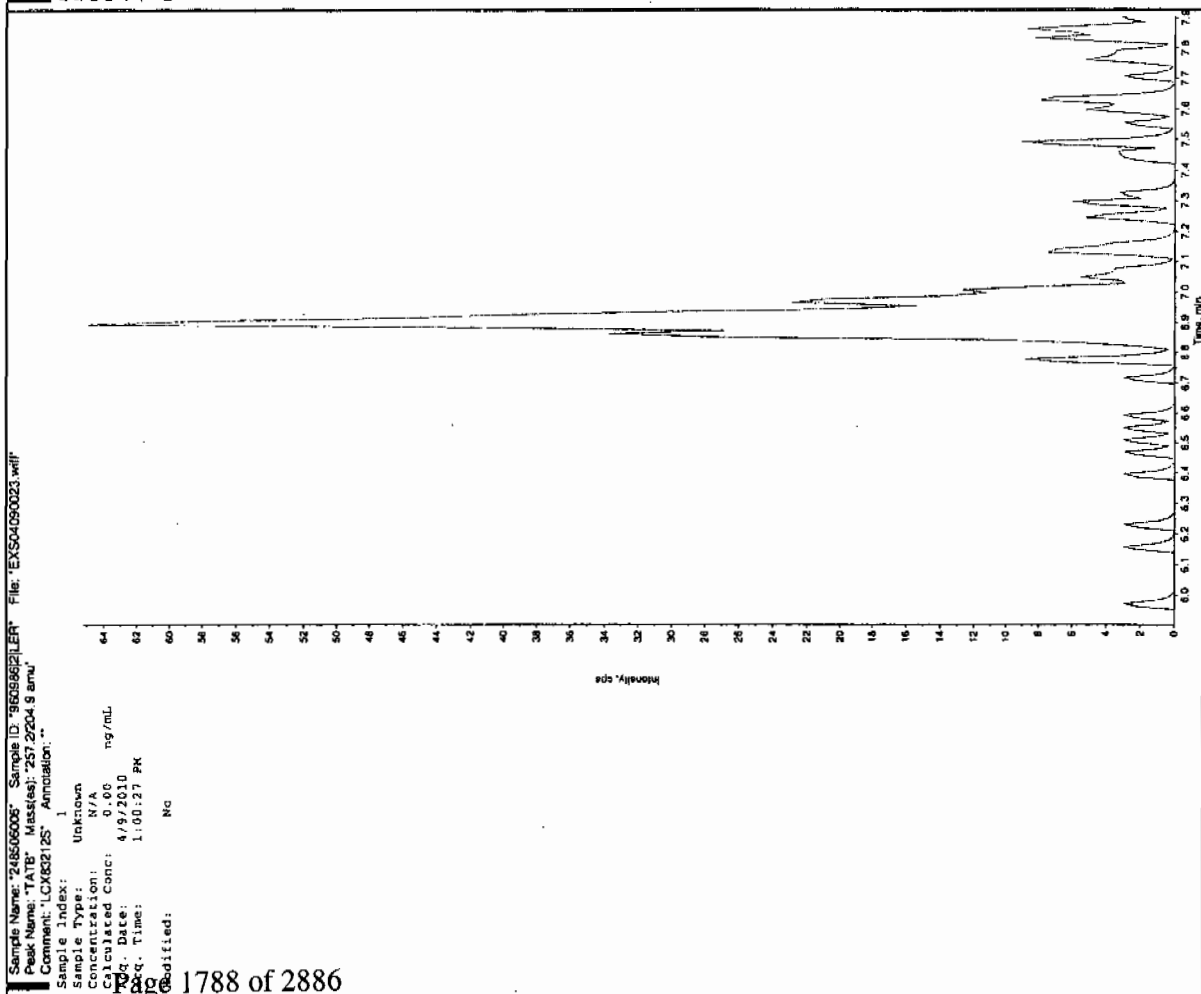
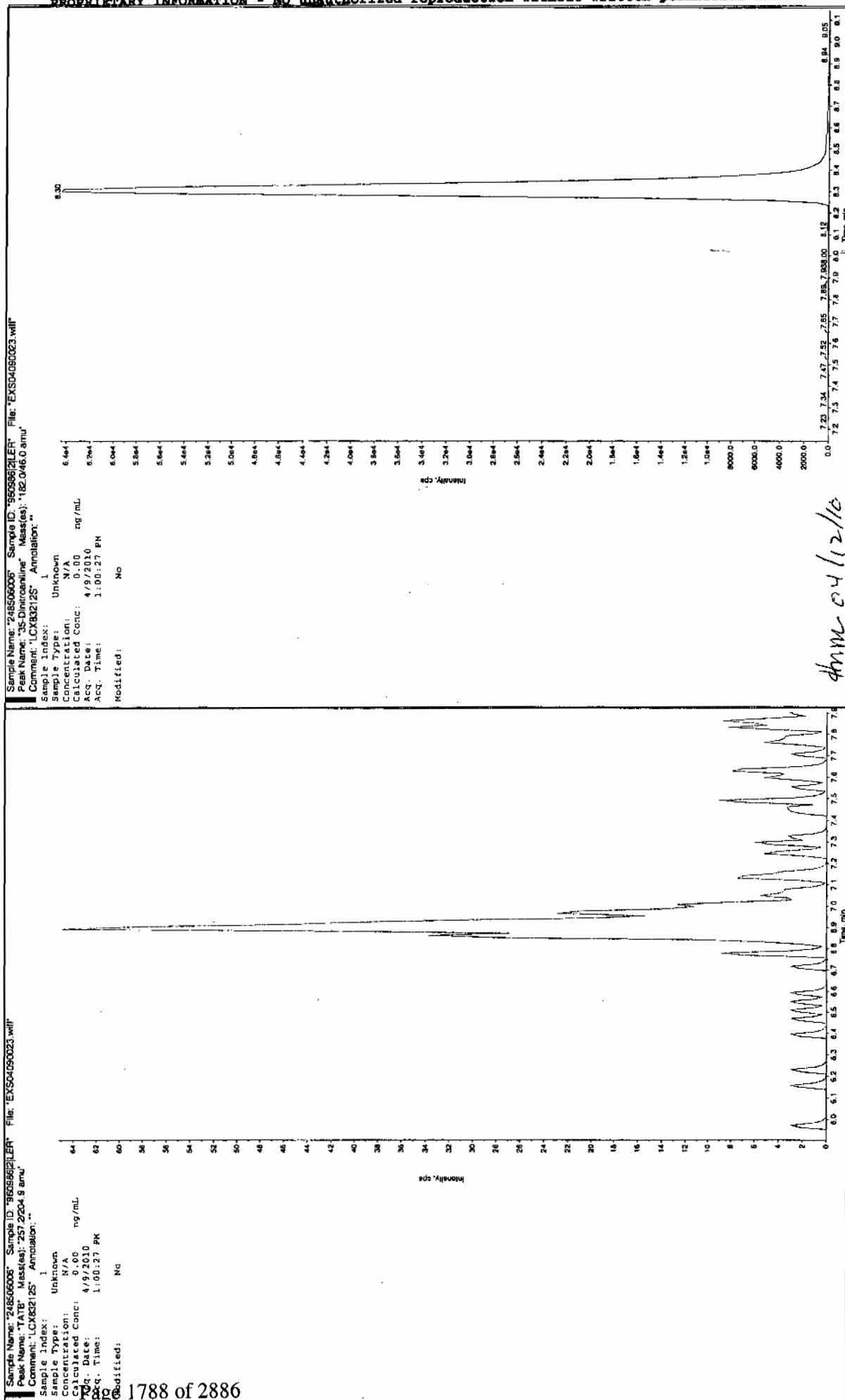
Units: ug/kg

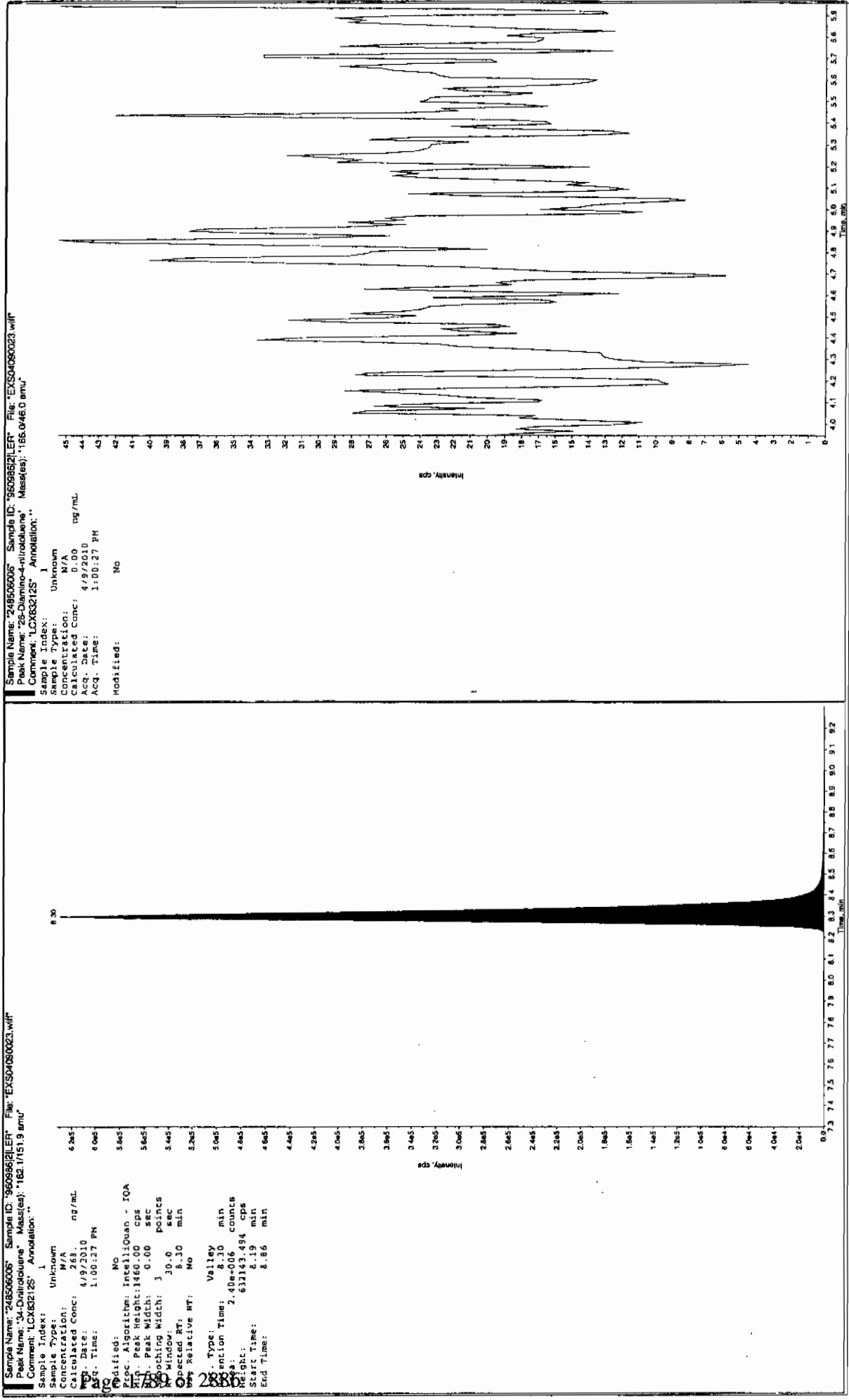
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

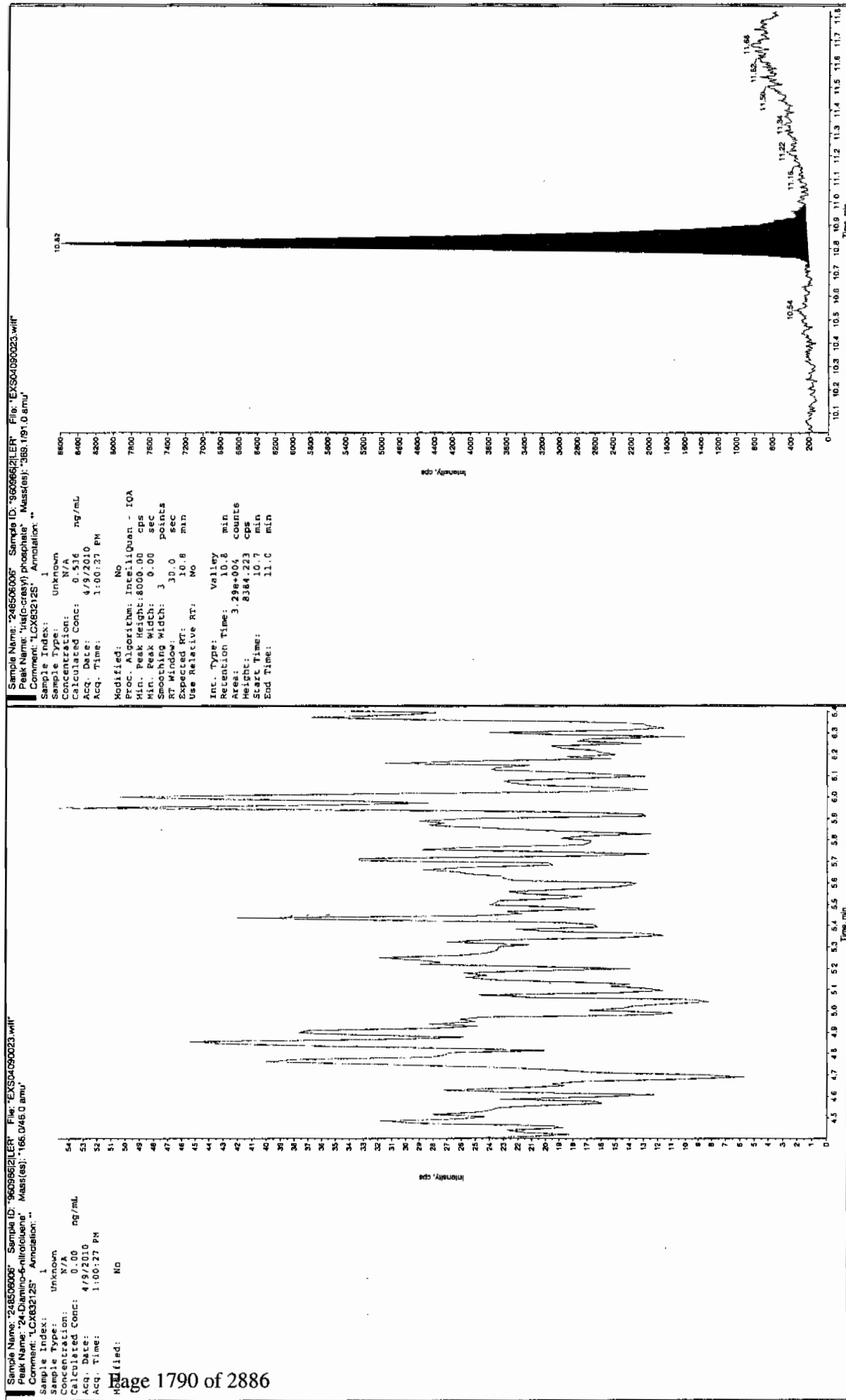
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

San 4/12/10







\*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: RE36-10-7450

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506007

Sample Amount 2

Moisture: 9.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415046.wiff

Date Analyzed: 16-APR-10 05:35

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

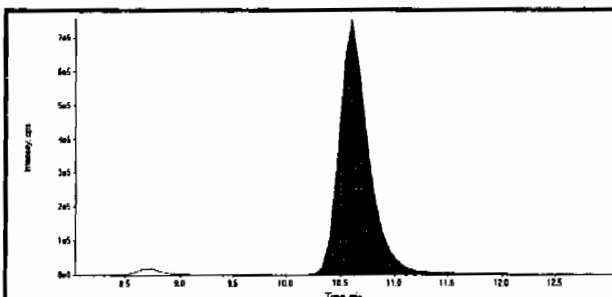
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

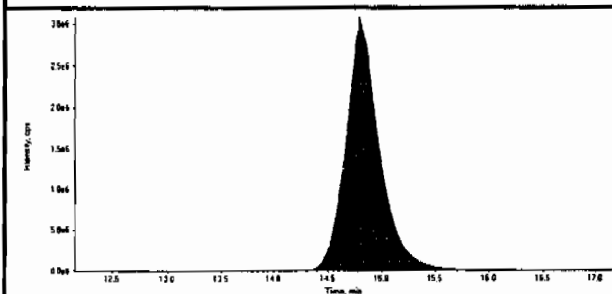
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415046.wiff	Acquisition Date	4/16/2010 5:35:24 AM
Sample Name	248506007	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



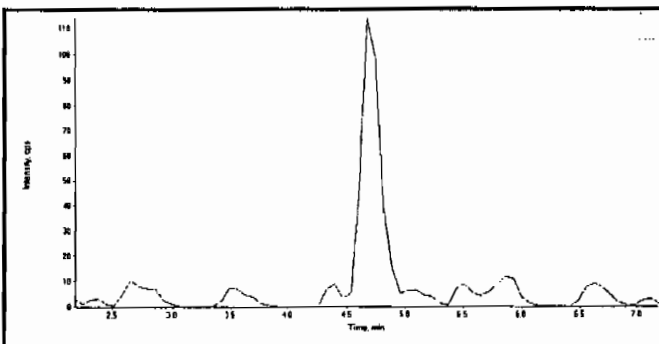
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	14300000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

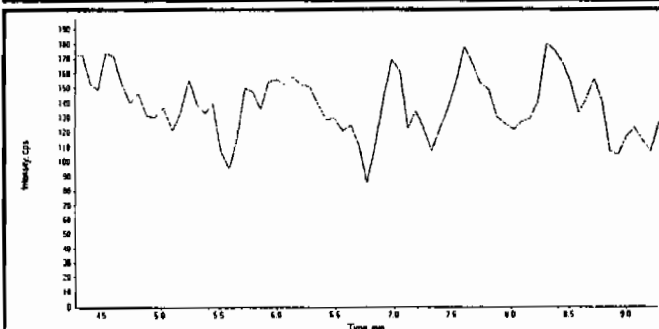


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	68100000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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04/23/10*



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415046.wiff	<b>Acquisition Date</b>	4/16/2010 5:35:24 AM
<b>Sample Name</b>	248506007	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.6
	<b>Area Counts:</b>	2.16e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	4.39 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

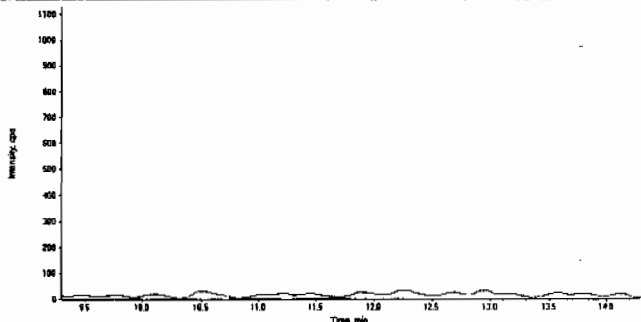
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

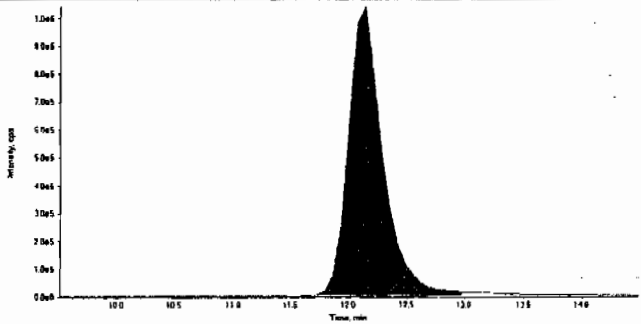
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415046.wiff	<b>Acquisition Date</b>	4/16/2010 5:35:24 AM
<b>Sample Name</b>	248506007	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

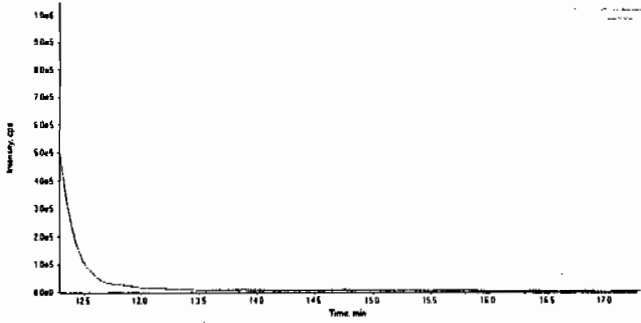
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

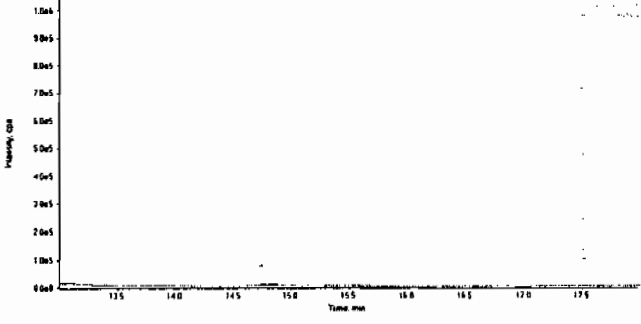
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	2.16e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	241. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.8
	<b>Area Counts:</b>	1.76e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415046.wiff	<b>Acquisition Date</b>	4/16/2010 5:35:24 AM
<b>Sample Name</b>	248506007	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

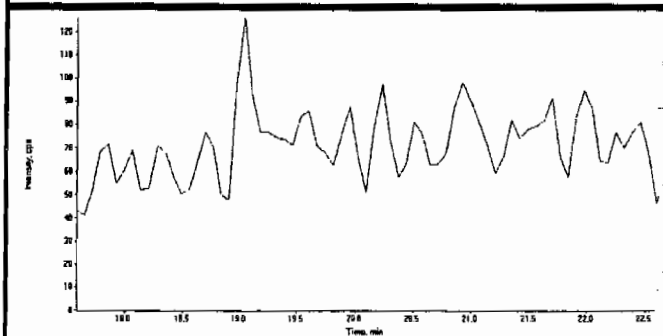
  

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

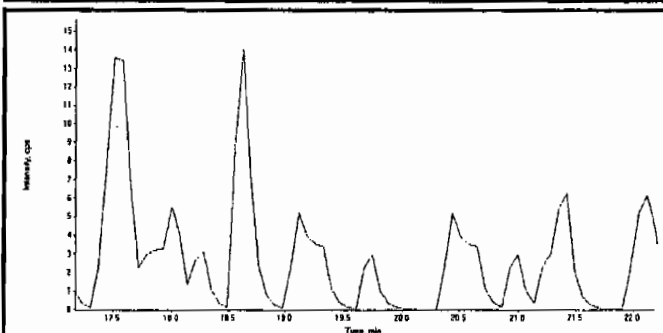
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415046.wiff	Acquisition Date	4/16/2010 5:35:24 AM
Sample Name	248506007	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.fdb
Procedure Code	LCX8321_S	Sample Type	Unknown



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7450

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506007

Sample Amount 2

Moisture: 9.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090027.wiff

Date Analyzed: 09-APR-10 14:03

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

Jan 4/12/10

Sample Name: "248506007" Sample ID: "96098621ER" File: "EX504090027.wiff"

Peak Name: "TATB" Mass(es): 257.2/204.9 amu

Comment: "LCX83212S" Annotation: "

Sample Index: 1

Sample Type: Unknown

Concentration: N/A

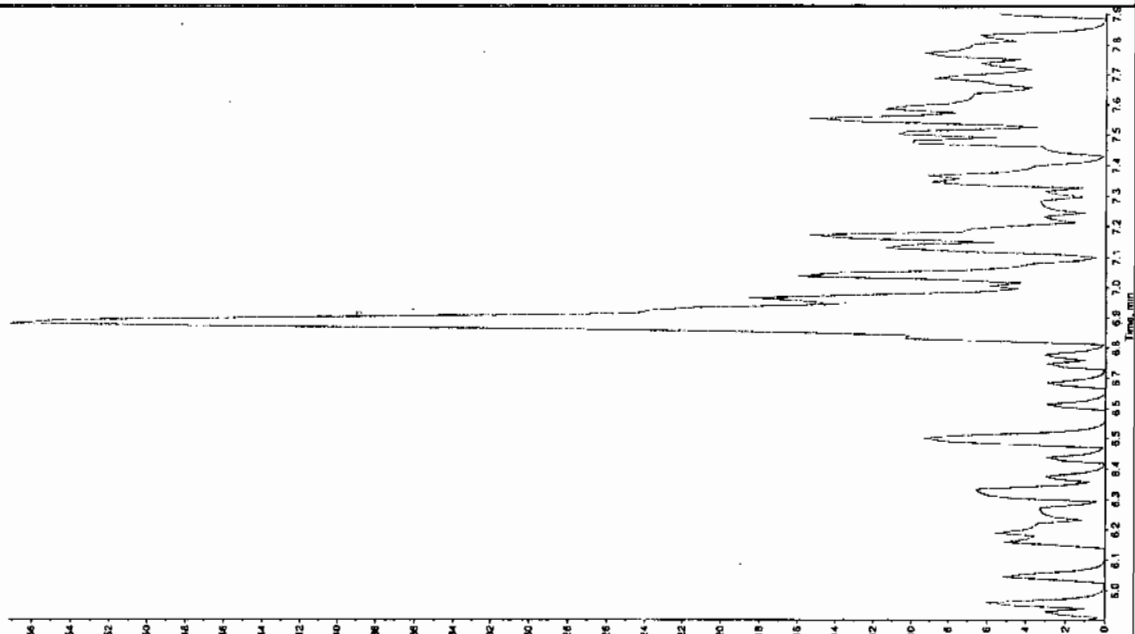
Calculated Conc: 0.00 ng/mL

Acq. Date: 4/9/2010

Acq. Time: 2:03:15 PM

Modified: No

Intensity, cps



Sample Name: "248506007" Sample ID: "96098621ER" File: "EX504090027.wiff"

Peak Name: "35-Dinitroaniline" Mass(es): 182.0/166.0 amu

Comment: "LCX83212S" Annotation: "

Sample Index: 1

Sample Type: Unknown

Concentration: N/A

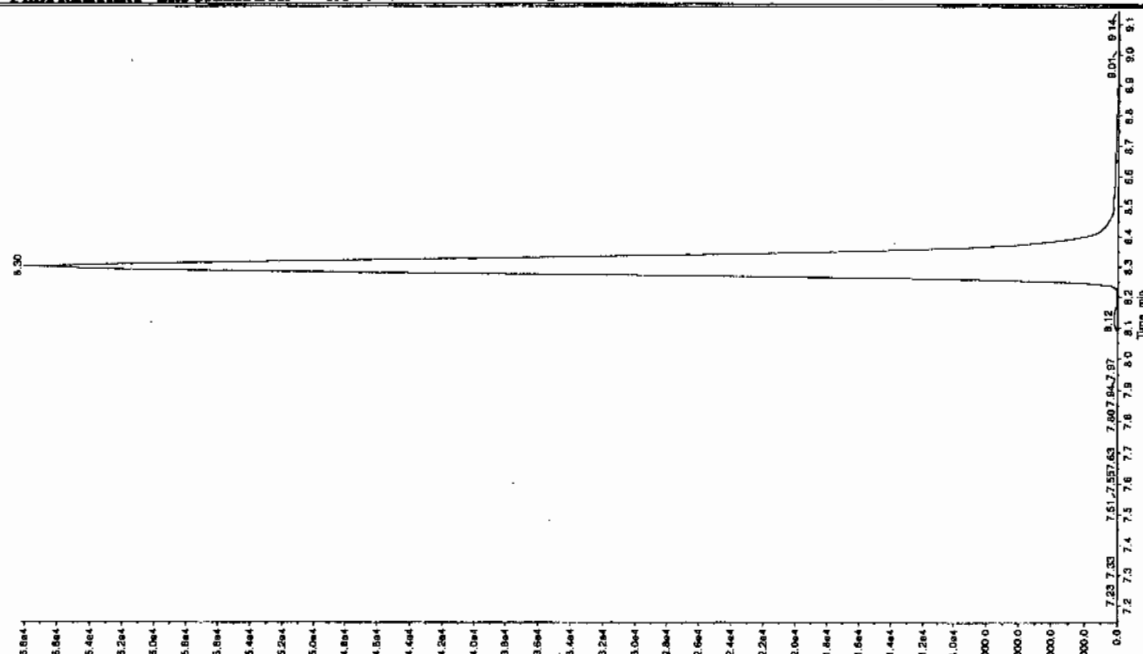
Calculated Conc: 0.00 ng/mL

Acq. Date: 4/9/2010

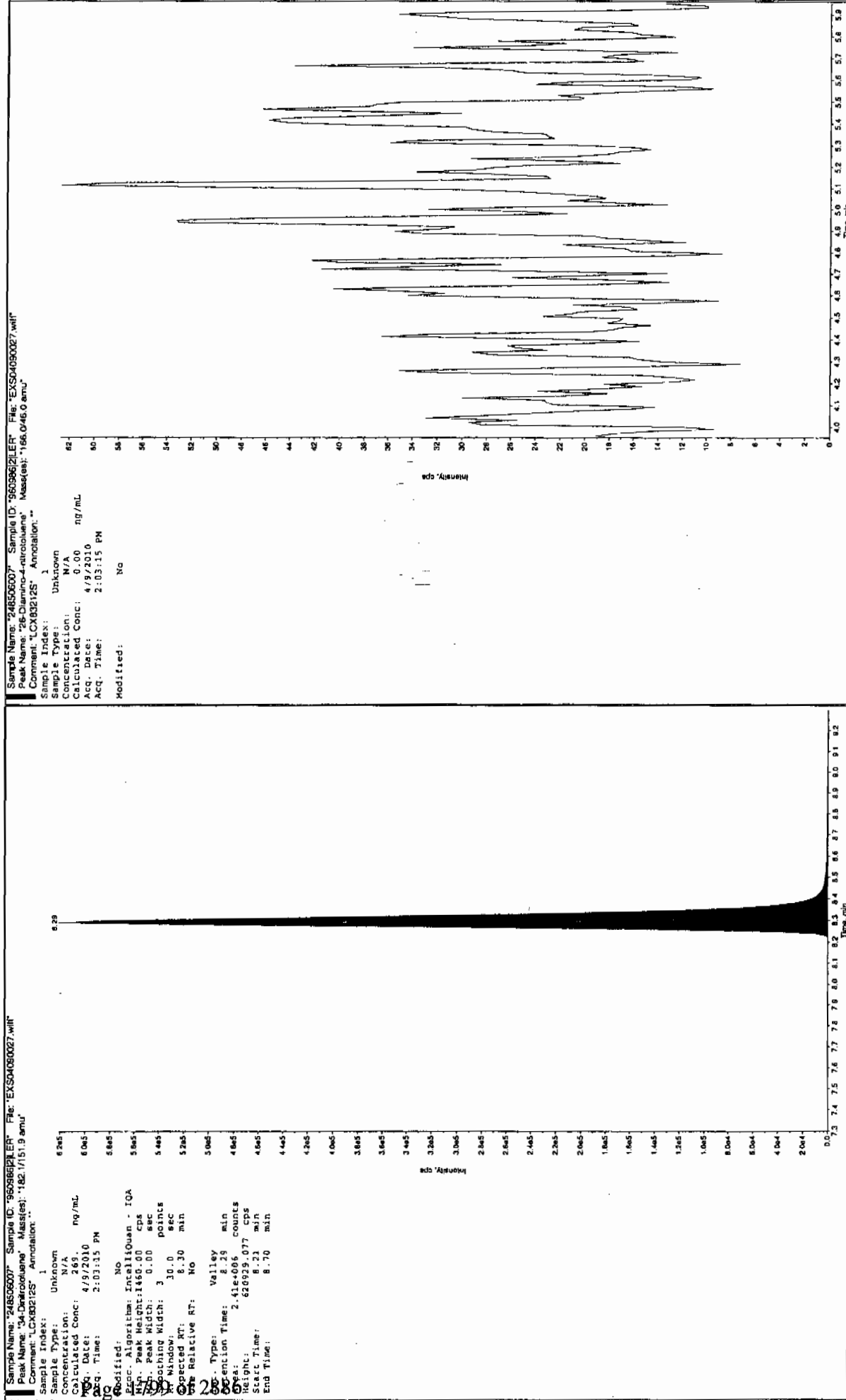
Acq. Time: 2:03:15 PM

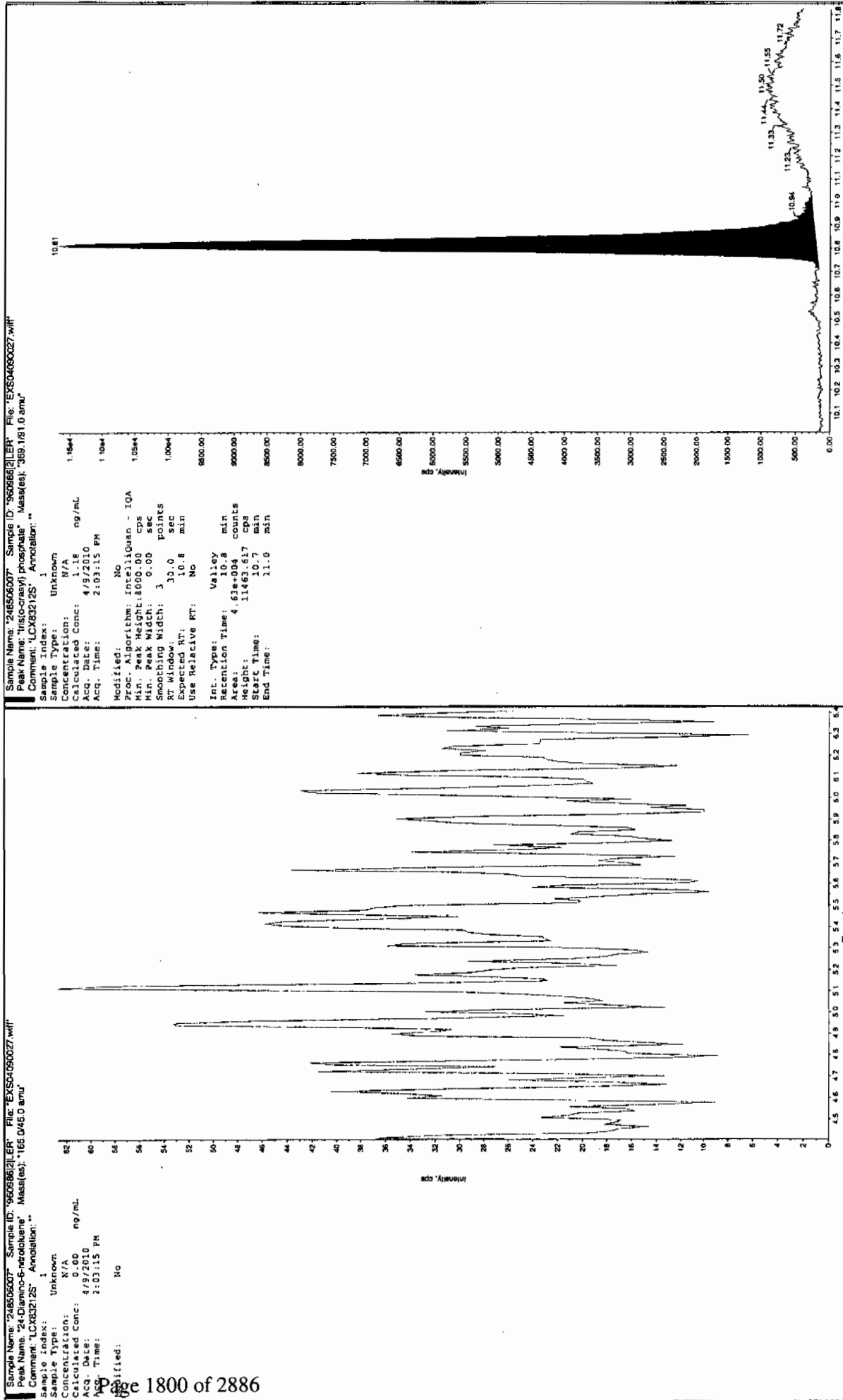
Modified: No

Intensity, cps



Jan 4/12/10







1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7444

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506008

Sample Amount 2

Moisture: 20.6

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415047.wiff

Date Analyzed: 16-APR-10 06:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

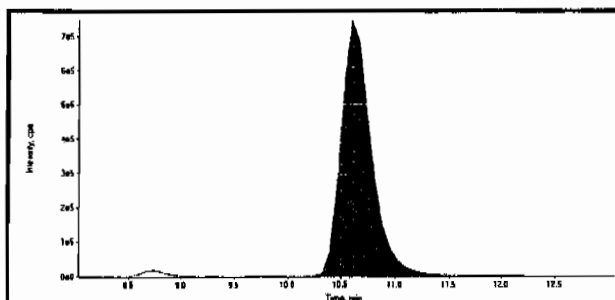
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

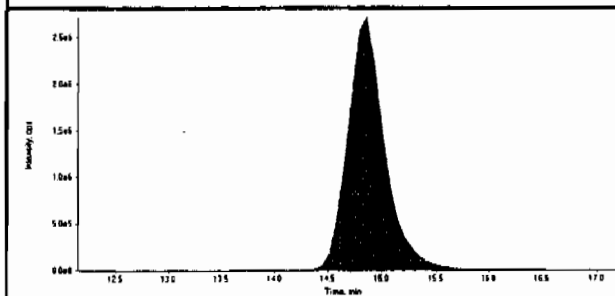
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

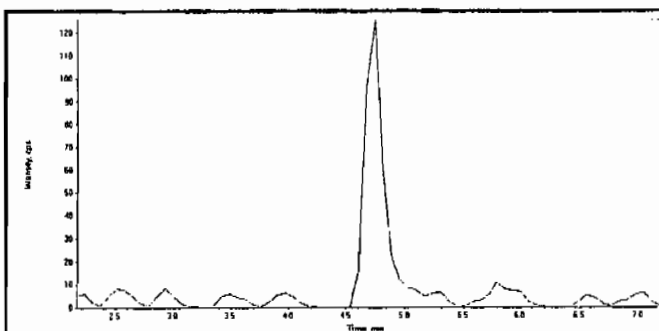
Data File	EXP0415047.wiff	Acquisition Date	4/16/2010 6:01:19 AM
Sample Name	248506008	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



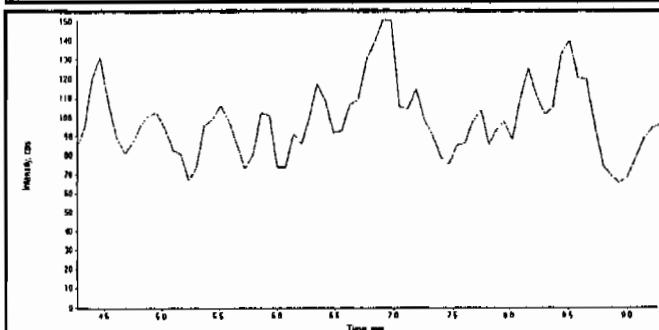
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	14500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.90
Area Counts:	64400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*LER*  
4/23/10

*Amu*  
04/23/10

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415047.wiff	<b>Acquisition Date</b>	4/16/2010 6:01:19 AM
<b>Sample Name</b>	248506008	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	2.16e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	4.39 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415047.wiff	<b>Acquisition Date</b>	4/16/2010 6:01:19 AM
<b>Sample Name</b>	248506008	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	2.12e+007
	Manual Modification	No
	Amount:	251. (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.9
	Area Counts:	1.62e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

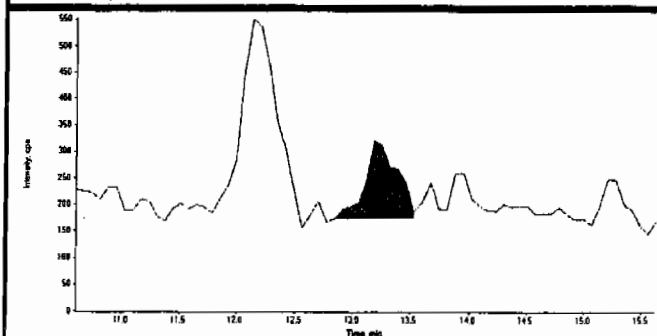
  

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

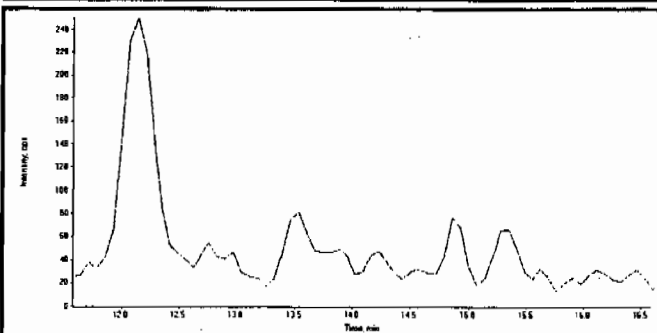
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

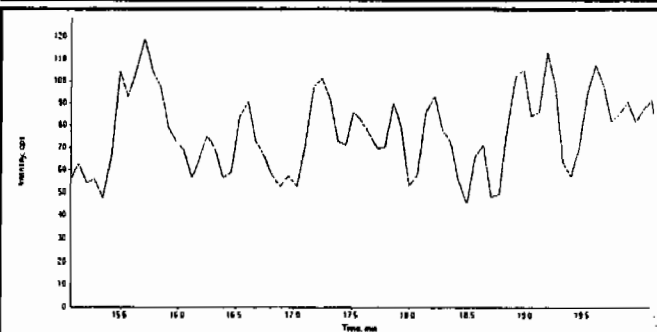
Data File	EXP0415047.wiff	Acquisition Date	4/16/2010 6:01:19 AM
Sample Name	248506008	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



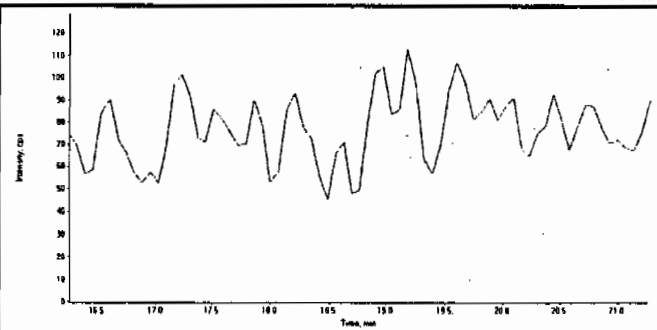
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.93e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



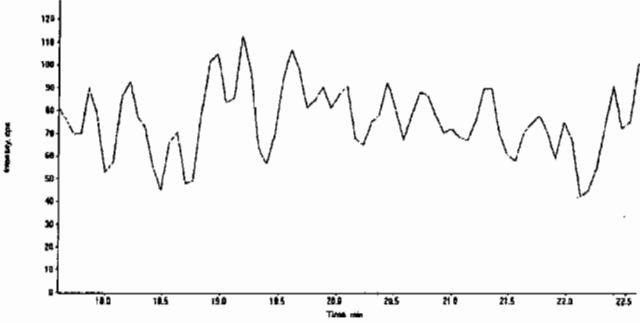
Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

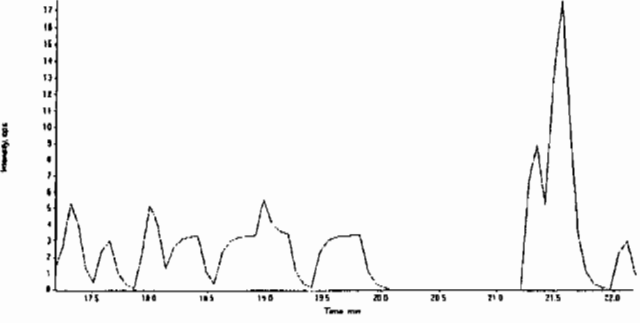
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415047.wiff	<b>Acquisition Date</b>	4/16/2010 6:01:19 AM
<b>Sample Name</b>	248506008	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7444

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506008

Sample Amount 2

Moisture: 20.6

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090028.wiff

Date Analyzed: 09-APR-10 14:18

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

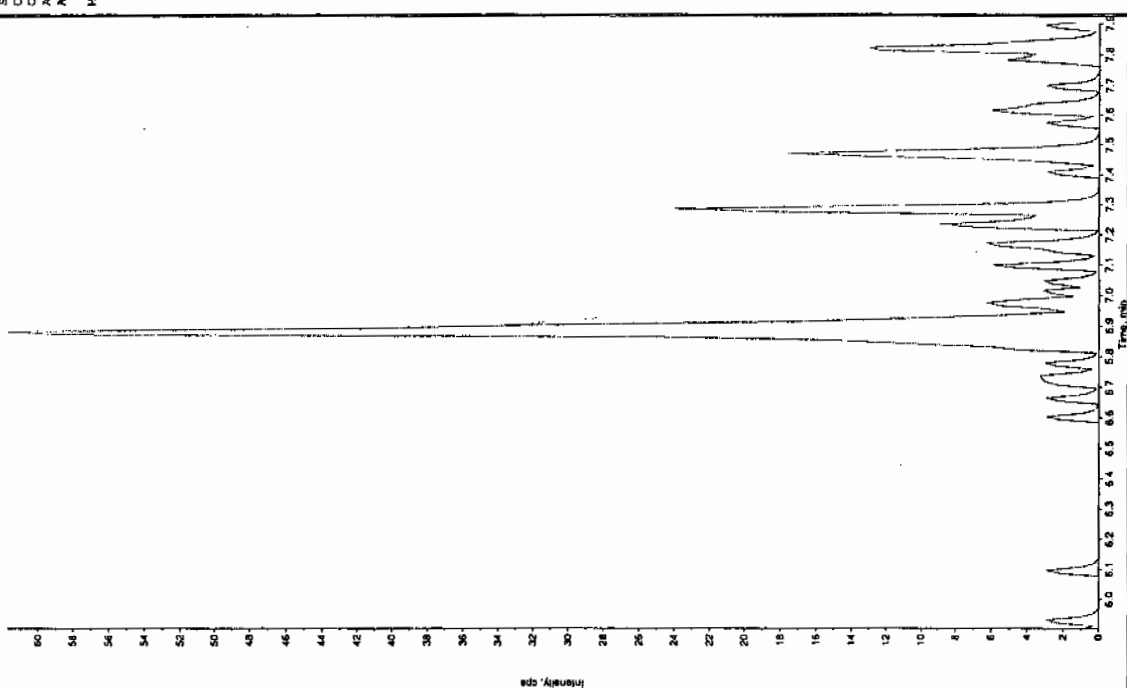
\*Concentration =

Instrument	X	<u>Concentrated Extract Volume</u>	X	Dilution
Value		<u>Sample Amount</u>		Factor

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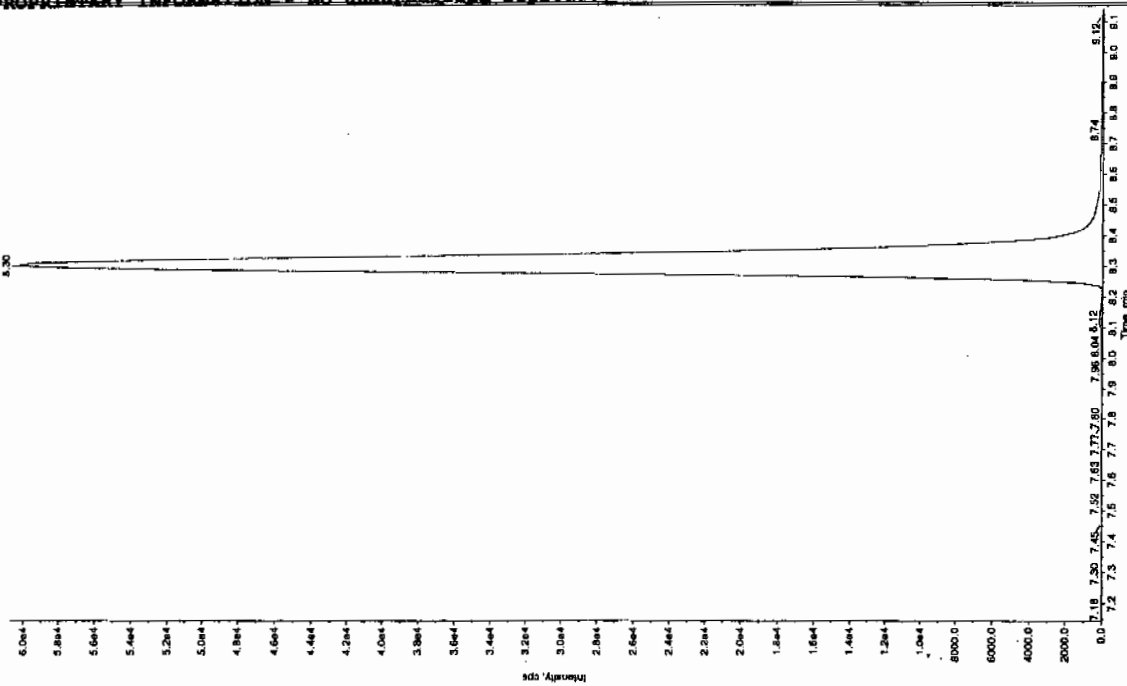
Sample Name: "248505008" Sample ID: "960946[P]ER" File: "EXS04090028.wif"  
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/9/2010  
 Acq. Date: 2:18:58 PM  
 Acq. Time: 2:18:58 PM  
 Modified: No



Sample Name: "248505008" Sample ID: "960946[P]ER" File: "EXS04090028.wif"  
 Peak Name: "35-Dihydroquinone" Mass(es): "182.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/9/2010  
 Acq. Date: 2:18:58 PM  
 Acq. Time: 2:18:58 PM  
 Modified: No

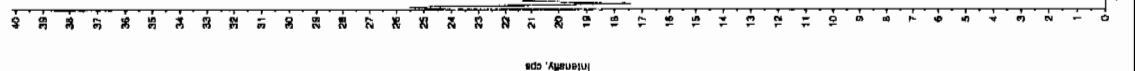


Jan 4/12/10



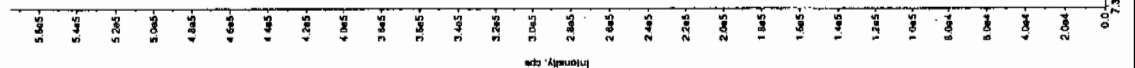
Sample Name: "246506008" Sample ID: "S6098921ER" File: "EXS04090028.wif"  
 Peak Name: "26-Diethyl-4-nitrobenzene" Mass(es): "166.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/9/2010  
 Acq. Date: 2:18:58 PM  
 Acq. Time: 2:18:58 PM  
 Modified: No



Sample Name: "246506008" Sample ID: "S6098921ER" File: "EXS04090028.wif"  
 Peak Name: "34-Dinitrobenzene" Mass(es): "162.041.9 amu"  
 Comment: "LCX832125" Annotation: ""

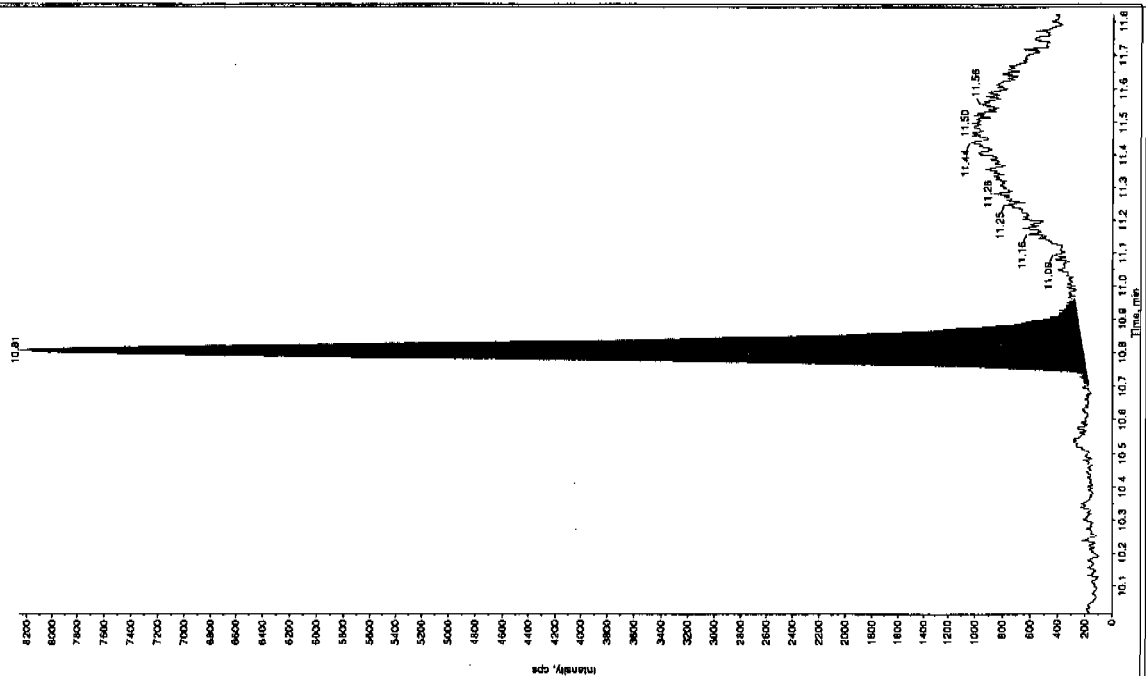
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 254 ng/mL  
 Calculated Conc: 4/9/2010  
 Acq. Date: 2:18:58 PM  
 Acq. Time: 2:18:58 PM  
 Modified: No



Proc. Algorithm: InCelliQuan - IOA  
 Min. Peak Height: 1450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Acquisition Window: 30.0 sec  
 Selected RT: 8.30 min  
 Relative RT: No  
 Peak Type: Valley  
 Retention Time: 8.30 min  
 Height: 2.27e+006 counts  
 Area: 575172.807 cps  
 Width: 0.41 min  
 End Time: 8.81 min

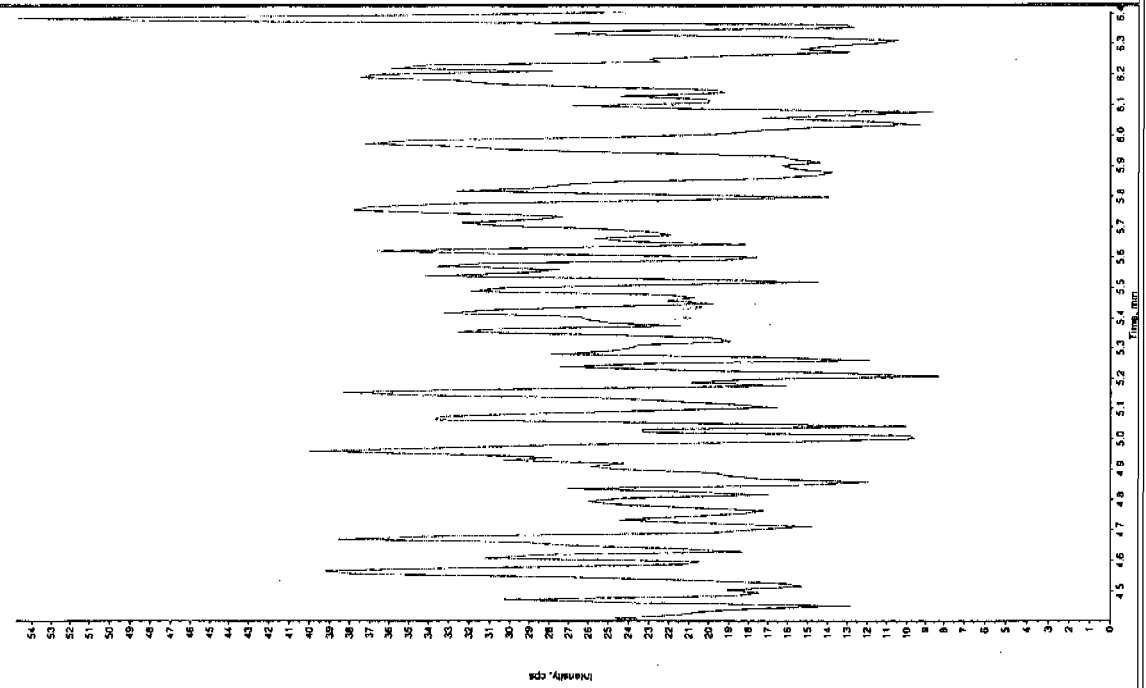
Sample Name: "246506008" Sample ID: "96098521ER" File: "EXS0409002B.wif"  
 Peak Name: "Int(O-cresyl) phosphate" Mass(es): "369.1/91.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.473 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 2:18:58 PM  
 Modified: No  
 Proc Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000 cps  
 Min. Peak Width: 3.00 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: 3.16e+004 counts  
 Height: 8042.788 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



Sample Name: "246506008" Sample ID: "96098521ER" File: "EXS0409002B.wif"  
 Peak Name: "24-Diamino-5-nitrofluorene" Mass(es): "165.046.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 2:18:58 PM  
 Modified: No  
 Proc Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 8000 cps  
 Min. Peak Width: 3.00 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: 3.16e+004 counts  
 Height: 8042.788 cps  
 Start Time: 10.7 min  
 End Time: 11.0 min



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7448

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506009

Sample Amount 2

Moisture: 17.5

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415048.wiff

Date Analyzed: 16-APR-10 06:27

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

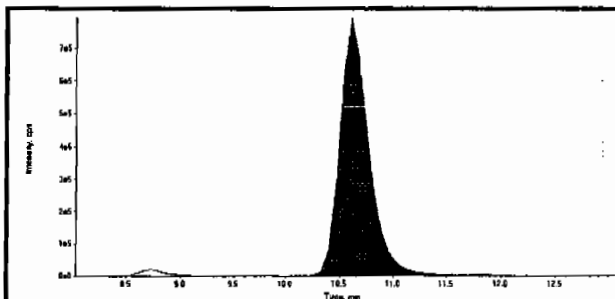
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

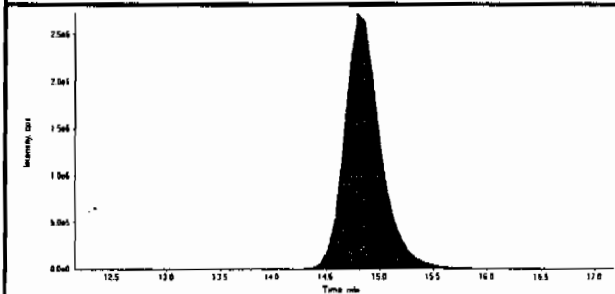
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

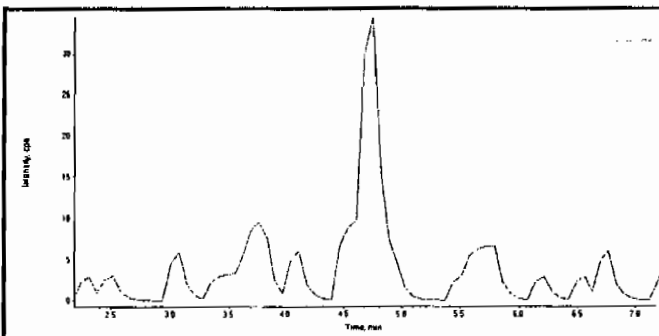
Data File	EXP0415048.wiff	Acquisition Date	4/16/2010 6:27:20 AM
Sample Name	248506009	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



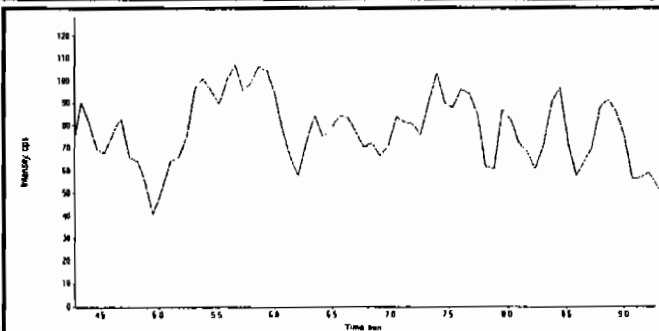
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	15000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	64400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Jan 4/23/10*

*Hmm 04/23/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415048.wiff	<b>Acquisition Date</b>	4/16/2010 6:27:20 AM
<b>Sample Name</b>	248506009	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	2.00e+004
	Manual Modification	No
	Amount:	4.37 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

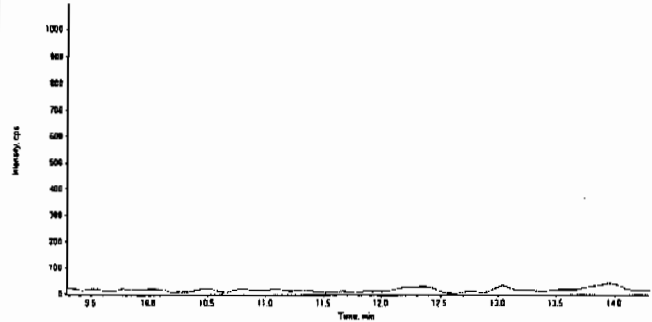
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

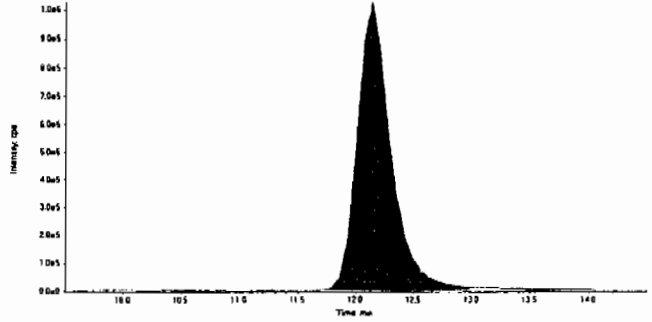
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415048.wiff	<b>Acquisition Date</b>	4/16/2010 6:27:20 AM
<b>Sample Name</b>	248506009	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

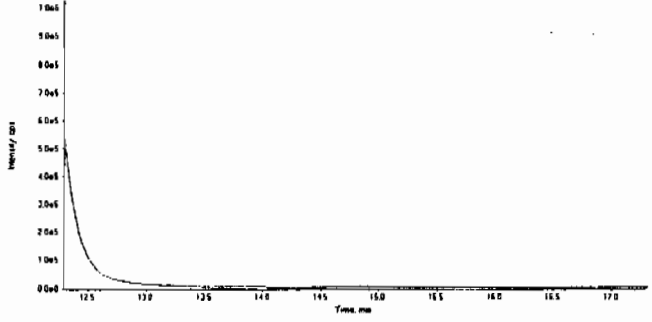
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

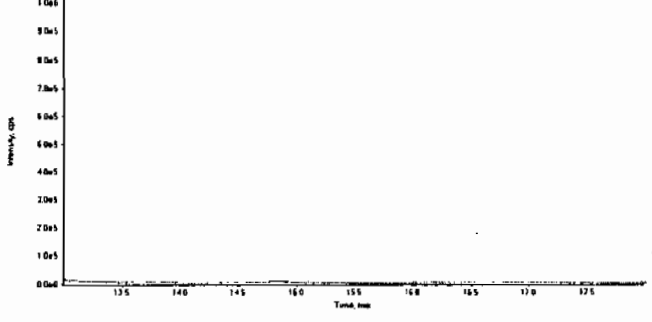
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	2.10e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	248. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.9
	<b>Area Counts:</b>	2.09e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

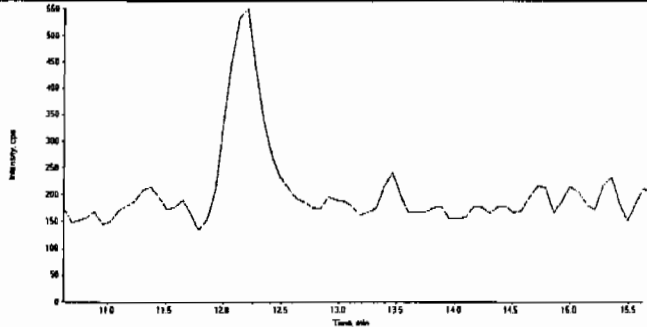
  

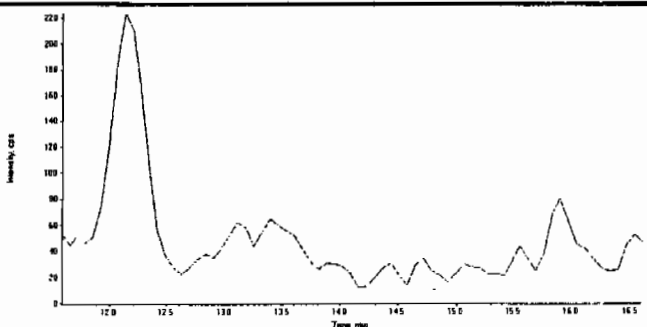
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

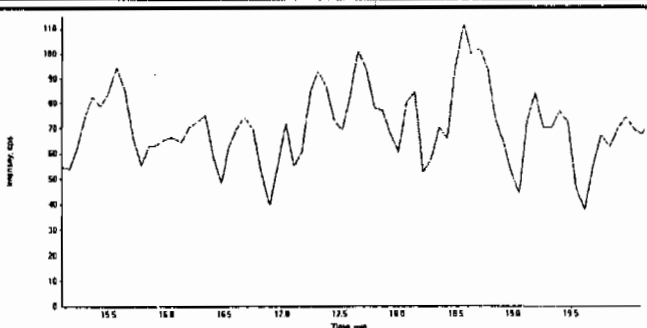
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

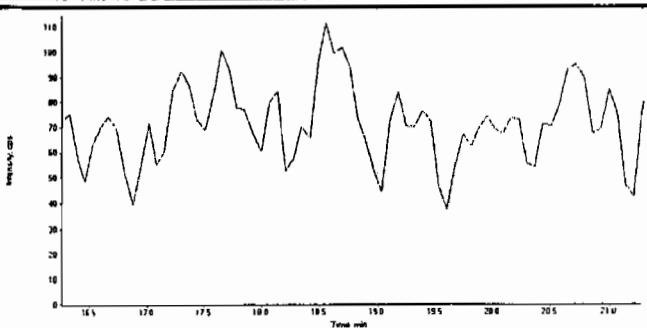
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415048.wiff	Acquisition Date	4/16/2010 6:27:20 AM
Sample Name	248506009	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

	Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415048.wiff	<b>Acquisition Date</b>	4/16/2010 6:27:20 AM
<b>Sample Name</b>	248506009	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7448

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506009

Sample Amount 2

Moisture: 17.5

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090029.wiff

Date Analyzed: 09-APR-10 14:34

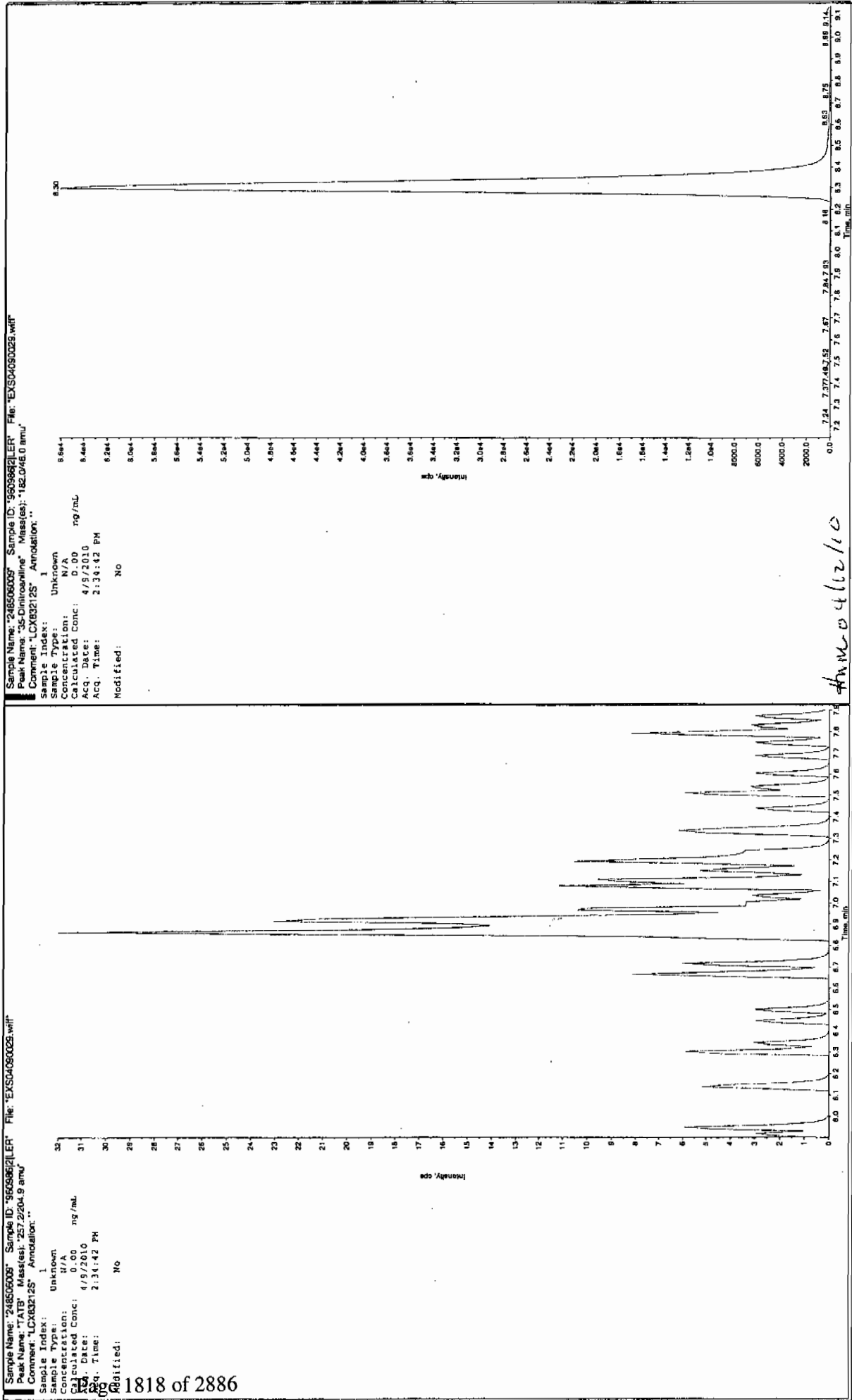
Units: ug/kg

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

Run 4/12/10

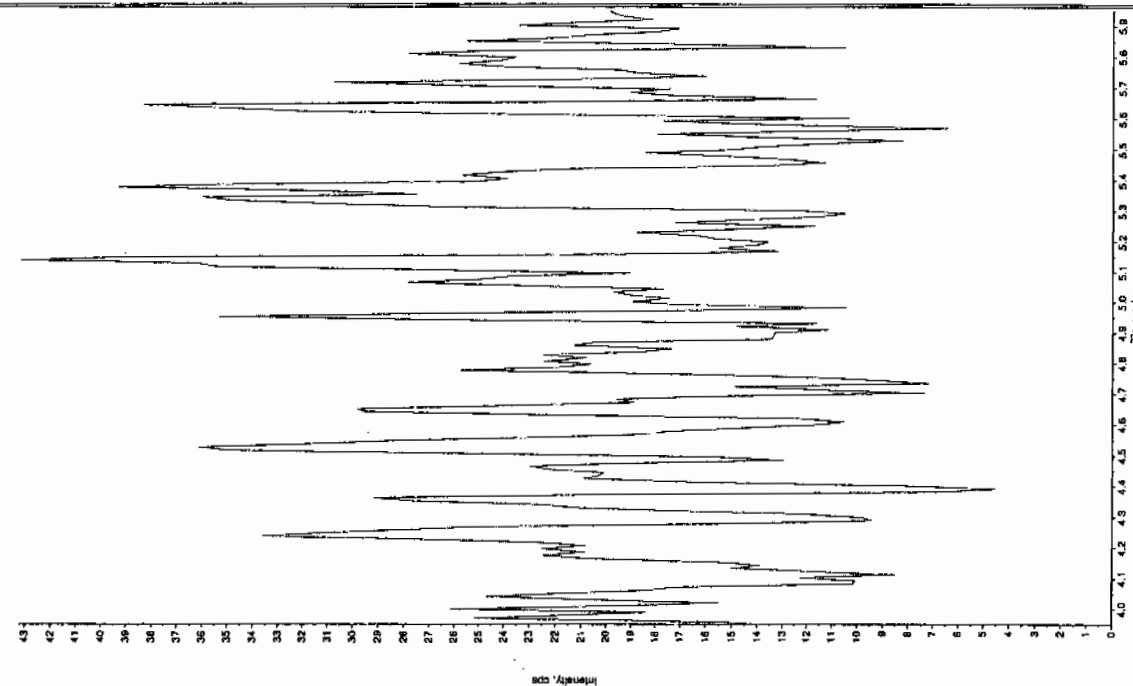
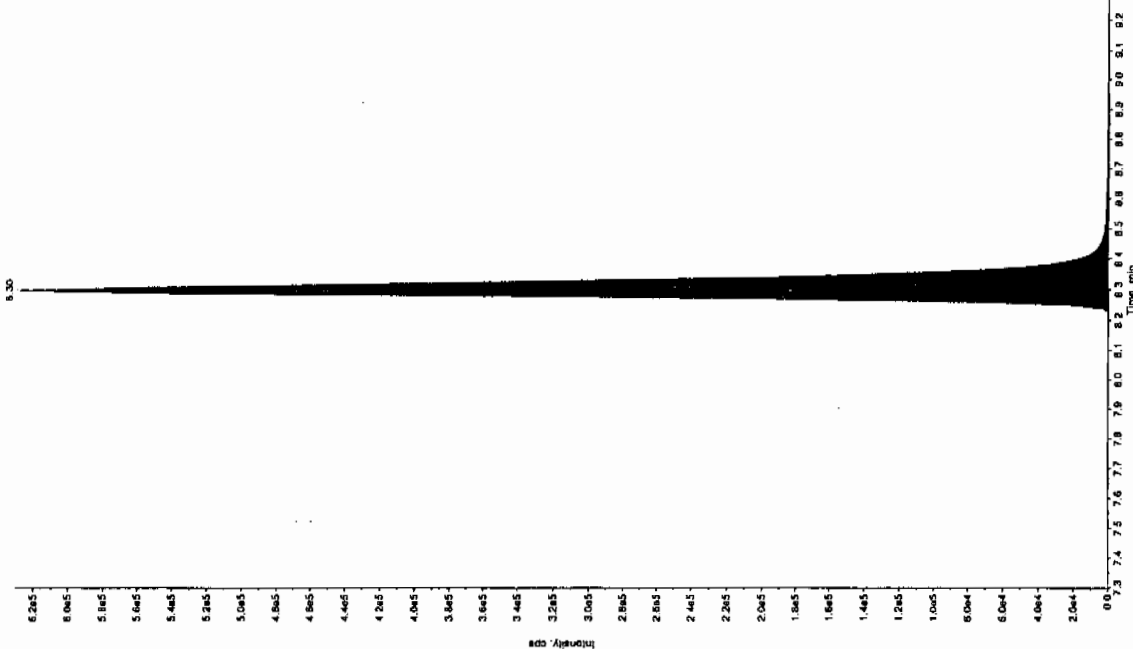


Sample Name: "248506009" Sample ID: "9699821LER" File: "EXS04060029.wif"  
 Peak Name: "TATB" Mass(es): "162.046.0 amu"  
 Concentration: "0.00" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 2:34:42 PM  
 Modified: No

Sample Name: "248506009" Sample ID: "9699821LER" File: "EXS04060029.wif"  
 Peak Name: "TATB" Mass(es): "162.046.0 amu"  
 Concentration: "0.00" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 2:34:42 PM  
 Modified: No

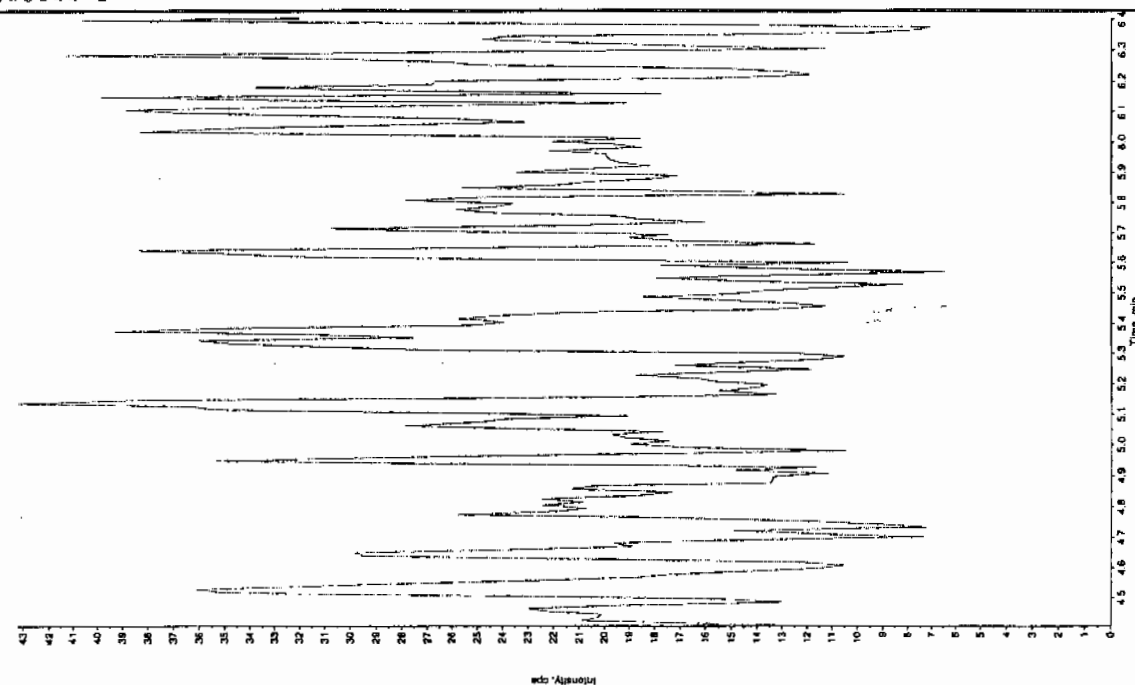
Run 4/12/10

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	ng/mL
Calculated Conc:	267.	
Acq. Date:	4/9/2010	
Acq. Time:	2:34:42 PM	
Modified:	NO	
Test Algorithm:	IntelliQuan - TOA	
MO Peak Height:	1460.00	cps
MO Peak Width:	0.00	sec
Smoothing Width:	3.00	points
Rolling Window:	30.0	sec
Decayed RT:	2.30	min
Relative RT:	NO	
MO Type:	Valley	
Retention Time:	2.396000	min
Height:	629797.729	CPDS
Start Time:	8.21	min
End Time:	8.70	min

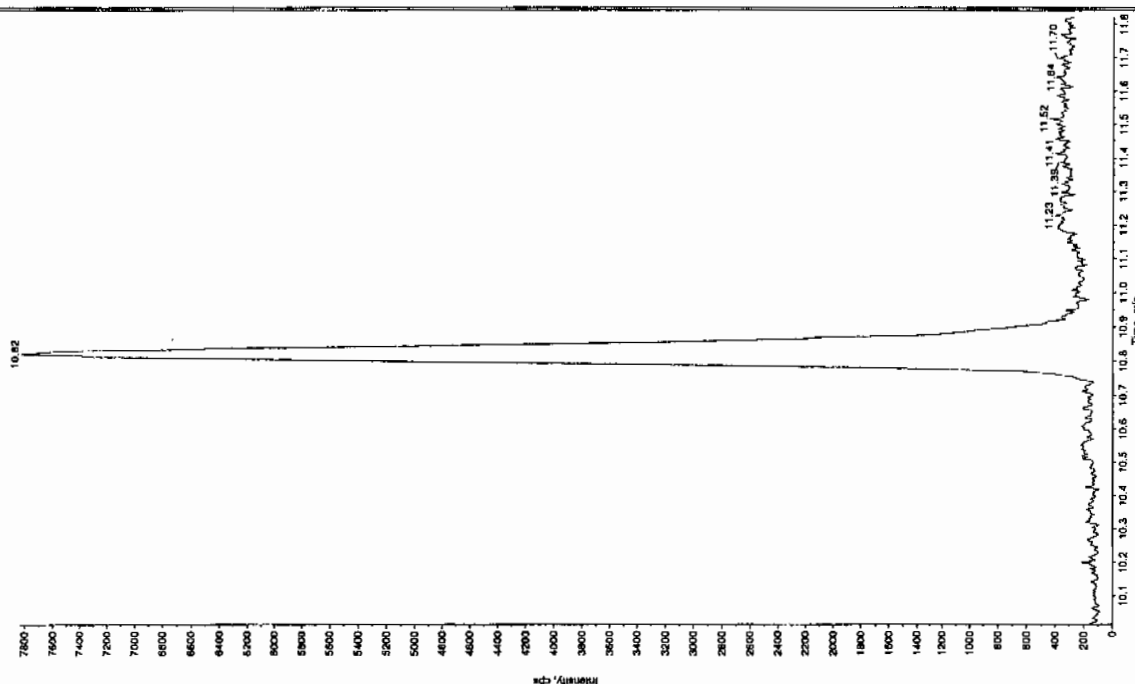


Sample Name: "248505009" Sample ID: "960986111" File: "EX50409029.wit"  
 Peak Name: "nicotinic acid phosphate" Mass(es): 365.181.0 amu  
 Comment: "LCX332125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/9/2010  
 Acq. Date: 2:34:42 PM  
 Acq. Time: 2:34:42 PM  
 Modified: No



Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/9/2010  
 Acq. Date: 2:34:42 PM  
 Acq. Time: 2:34:42 PM  
 Modified: No



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7447

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506010

Sample Amount 2

Moisture: 28.5

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415049.wiff

Date Analyzed: 16-APR-10 06:53

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

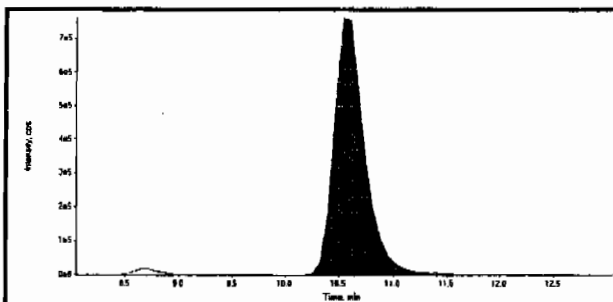
\*Concentration =

Instrument Value	X	<u>Concentrated Extract Volume</u>	X	Dilution Factor
		<u>Sample Amount</u>		

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

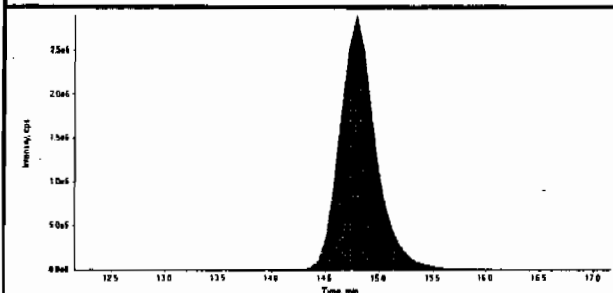
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415049.wiff	Acquisition Date	4/16/2010 6:53:20 AM
Sample Name	248506010	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



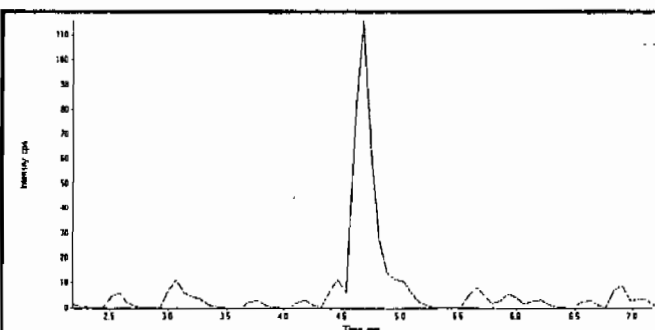
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	15000000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

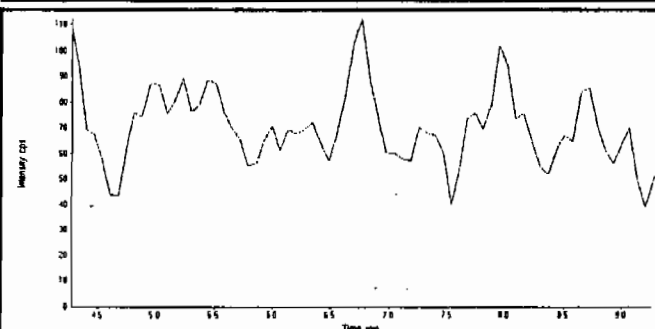


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	66800000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

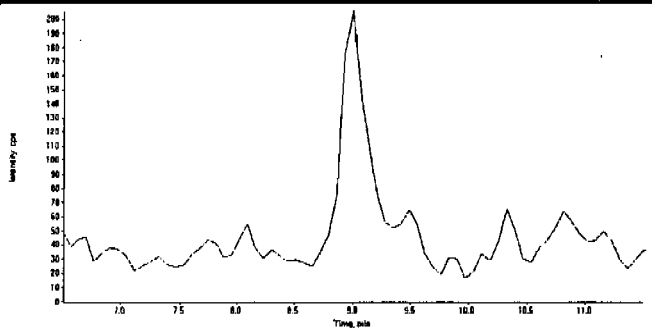
*See 4/23/10*

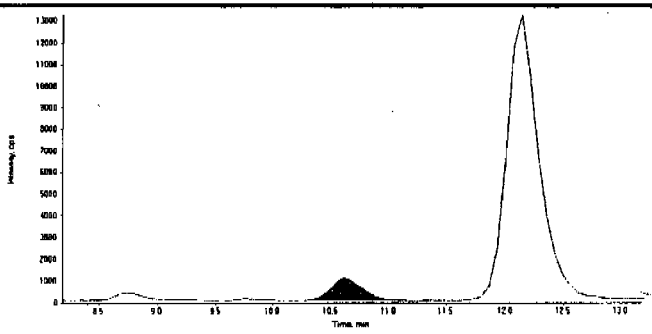
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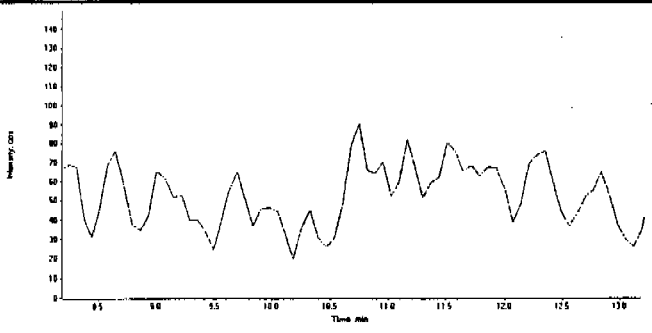
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

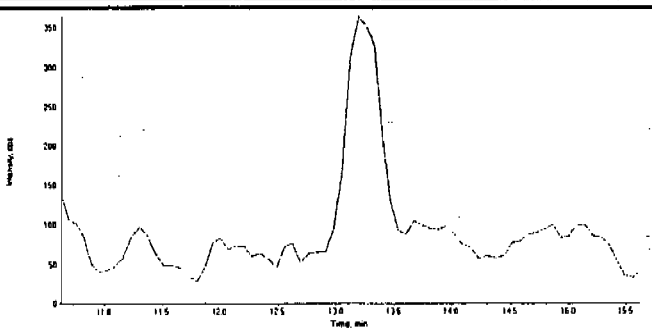
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LCMSMS#3

Data File	EXP0415049.wiff	Acquisition Date	4/16/2010 6:53:20 AM
Sample Name	248506010	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.6
	Area Counts:	2.05e+004
	Manual Modification	No
	Amount:	4.37 (ng/mL)
	% Accuracy:	N/A

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

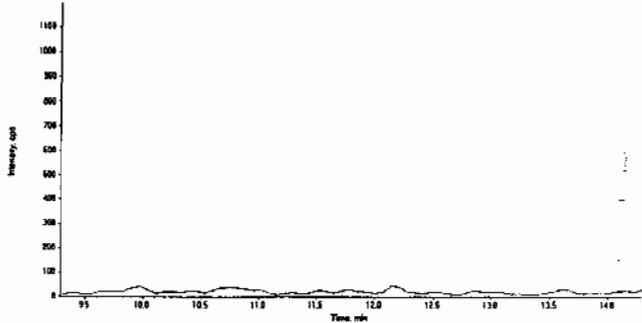
	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

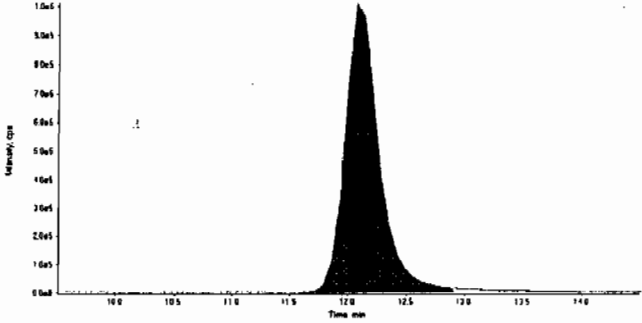
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415049.wiff	<b>Acquisition Date</b>	4/16/2010 6:53:20 AM
<b>Sample Name</b>	248506010	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

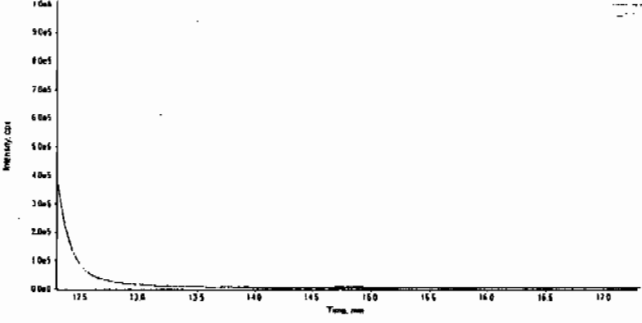
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

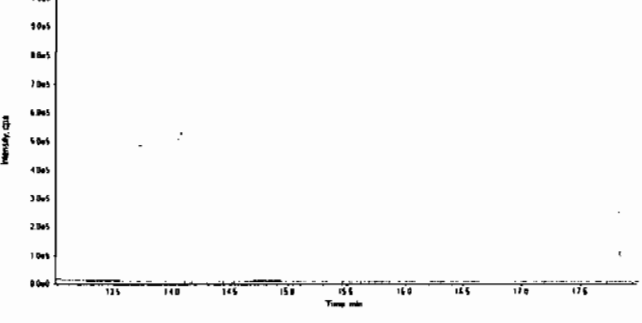
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	2.06e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	235. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.8
	<b>Area Counts:</b>	1.37e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415049.wiff	<b>Acquisition Date</b>	4/16/2010 6:53:20 AM
<b>Sample Name</b>	248506010	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

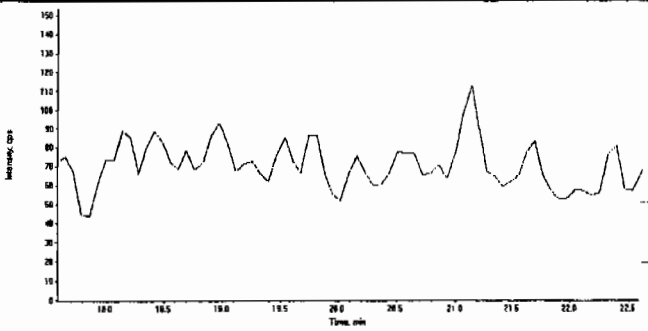
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

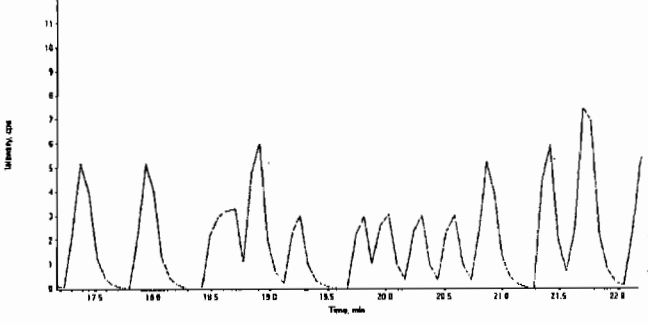
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415049.wiff	<b>Acquisition Date</b>	4/16/2010 6:53:20 AM
<b>Sample Name</b>	248506010	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7447

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506010

Sample Amount 2

Moisture: 28.5

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090030.wiff

Date Analyzed: 09-APR-10 14:50

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

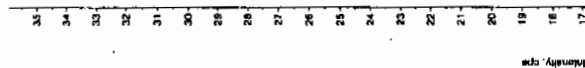
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Run 4/12/10

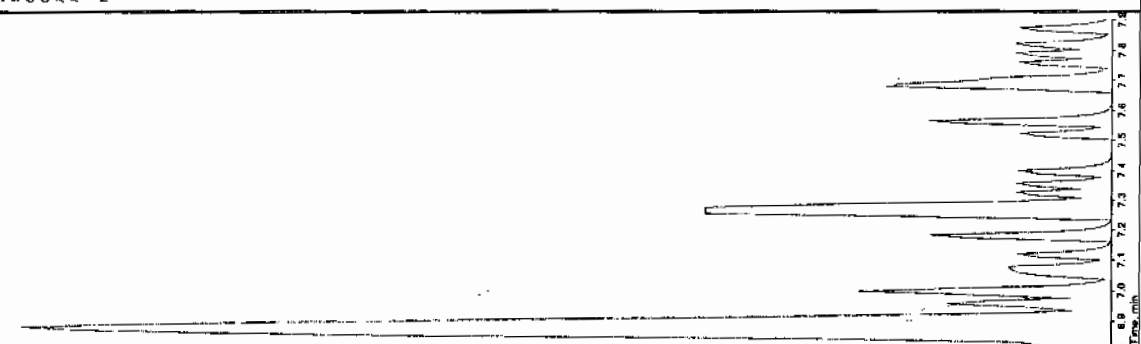
Sample Name: "248506010" Sample ID: "96098621ER" File: "EXS04090030.wif"  
 Peak Name: "TAIB" Mass(es): "257.2204.9 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 2:50:24 PM  
 Modified: No



Sample Name: "248506010" Sample ID: "96098621ER" File: "EXS04090030.wif"  
 Peak Name: "35-Dihydroquinoline" Mass(es): "182.046.0 amu"  
 Comment: "LCX83212S" Annotation: ""

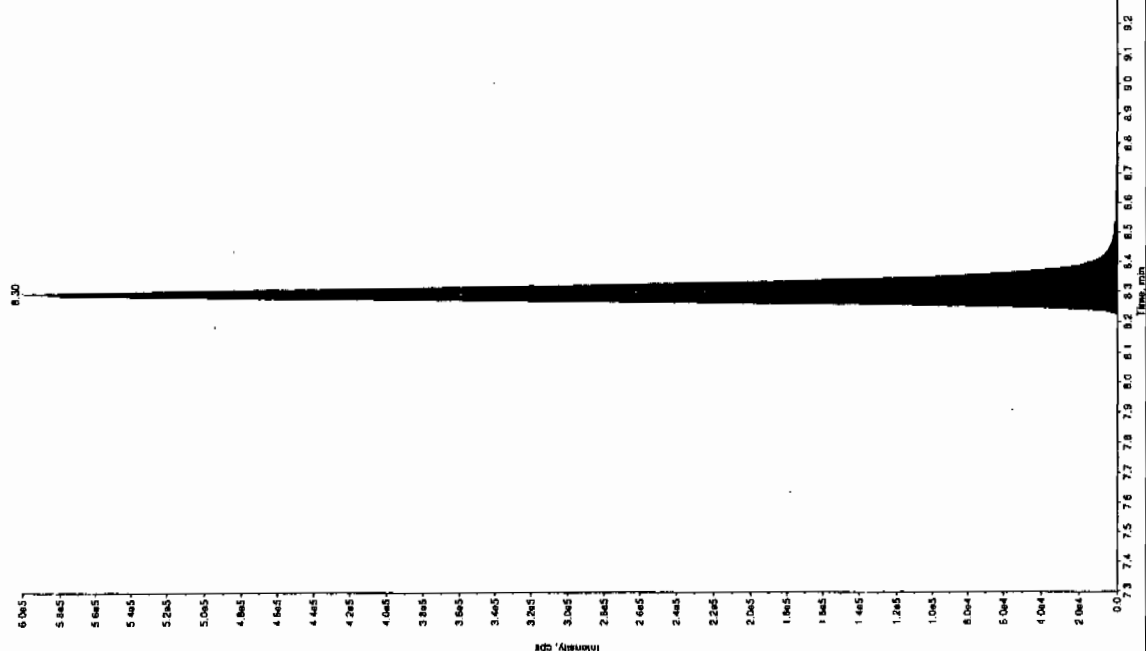
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 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 2:50:24 PM  
 Modified: No



Run 4/12/10

Sample Name: "248506010" Sample ID: "96098621EP" File: "EX504090030.wif"  
 Peak Name: "26-Dinitrofluorene" Mass(es): "182.17151.9 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 2:50:24 PM  
 Modified: No

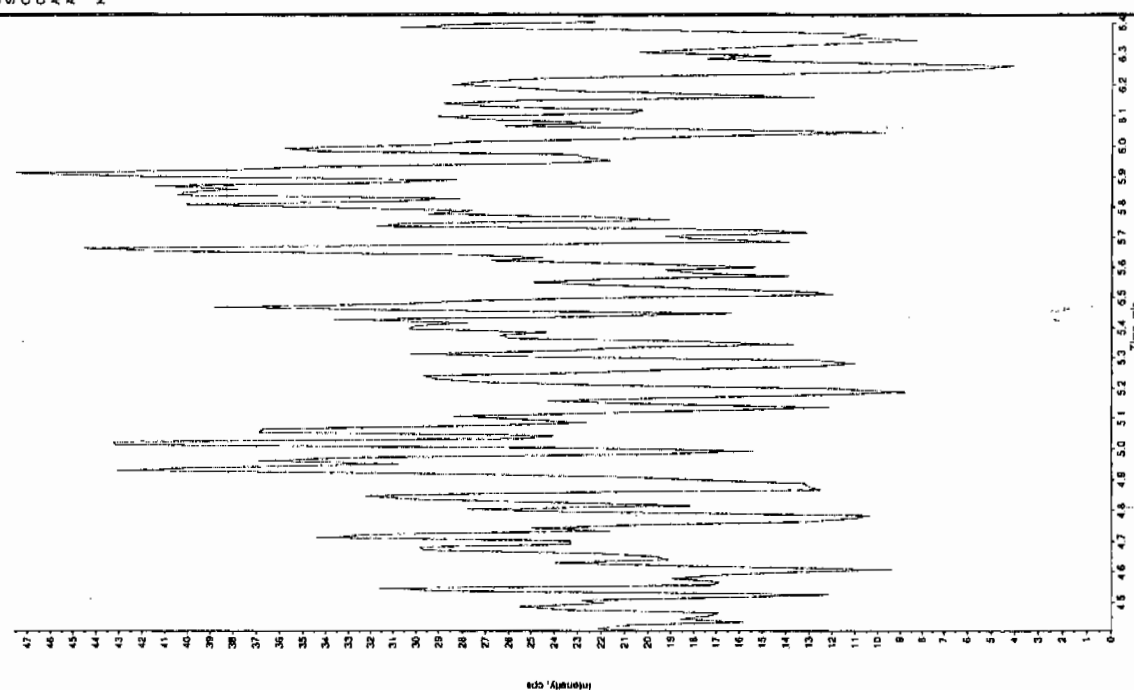


Proc. Algorithm: IntelliQuan - IOA  
 n. Peak Height: 1850.00 cps  
 n. Peak Width: 0.00 sec  
 n. Peak Area: 330.0 points  
 n. Peak RT: 8.30 min  
 n. Relative RT: No  
 n. Type: Valley  
 Retention Time: 8.30 min  
 Peak: 2.37e+006 counts  
 Height: 600549.316 cps  
 Start Time: 8.20 min  
 End Time: 8.79 min

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

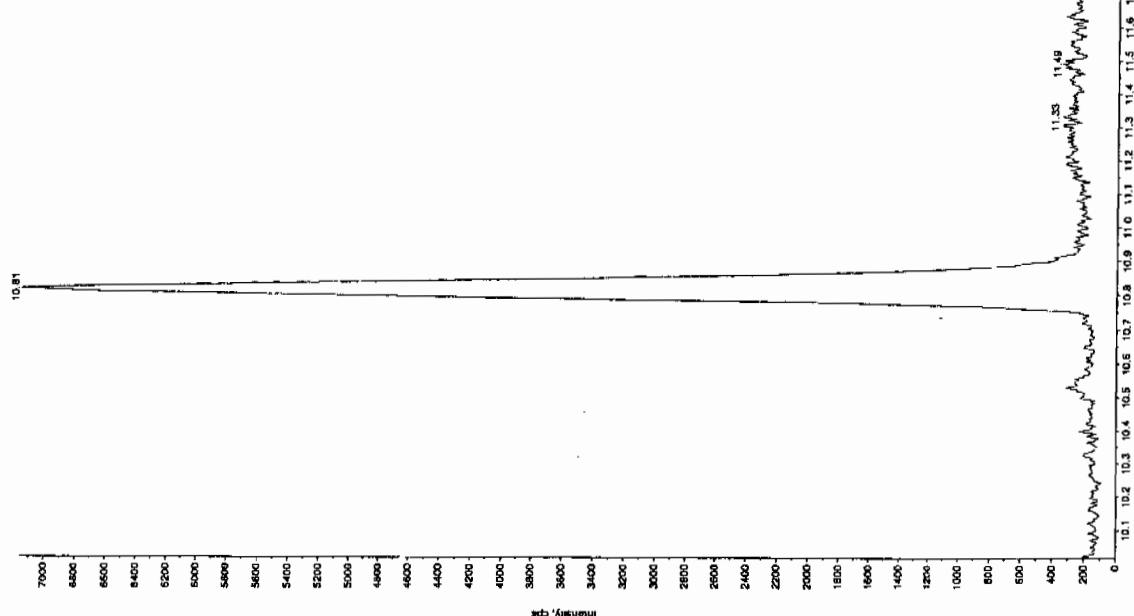
Sample Name: "248506010" Sample ID: "96098621.ER" File: "EXS04090030.wif"  
 Peak Name: "bis(o-cresyl) phosphate" Mass(es): "568.191.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 2:50:24 PM  
 Modified: No



Sample Name: "248506010" Sample ID: "96098621.ER" File: "EXS04090030.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 2:50:24 PM  
 Modified: No



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7443

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506011

Sample Amount 2

Moisture: 25.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415050.wiff

Date Analyzed: 16-APR-10 07:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

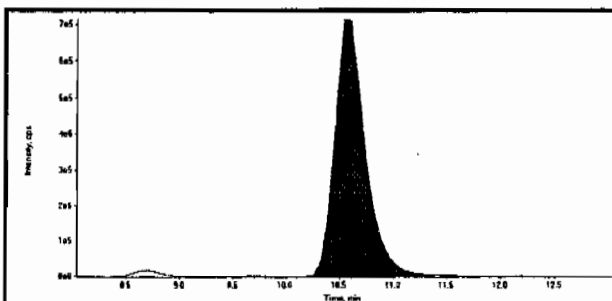
\*Concentration =

Instrument Value	X	$\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$	X	Dilution Factor
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GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

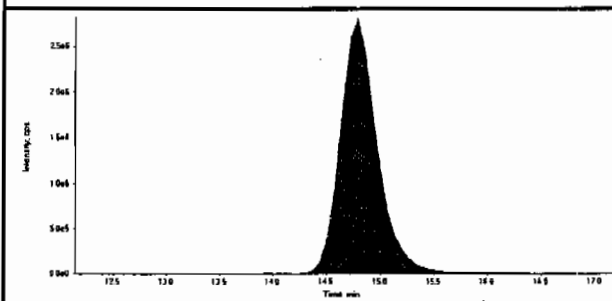
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415050.wiff	Acquisition Date	4/16/2010 7:19:14 AM
Sample Name	248506011	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER *	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



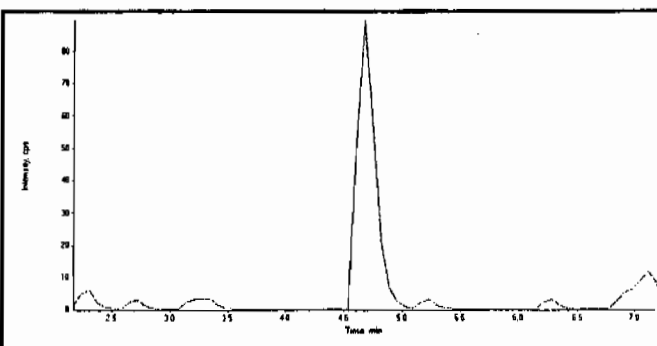
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	14400000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

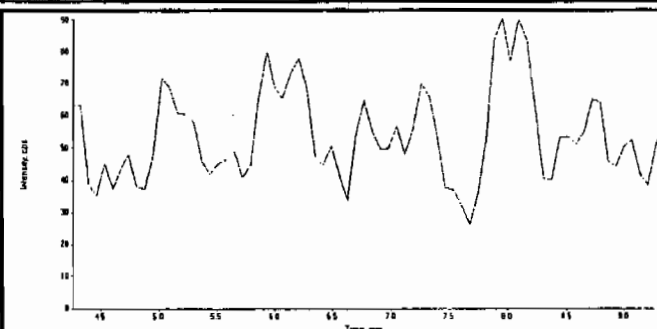


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	67100000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*OK*  
4/23/10

*Hume*  
04/23/10



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415050.wiff	<b>Acquisition Date</b>	4/16/2010 7:19:14 AM
<b>Sample Name</b>	248506011	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.6
	<b>Area Counts:</b>	2.28e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	4.41 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

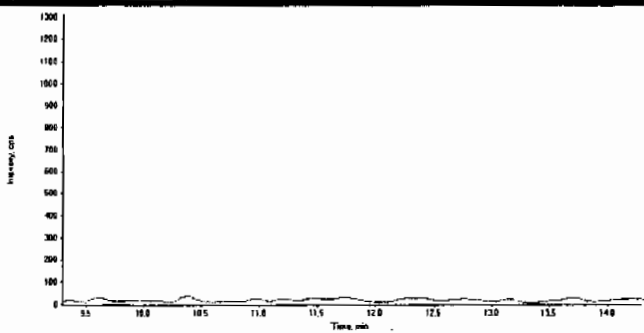
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

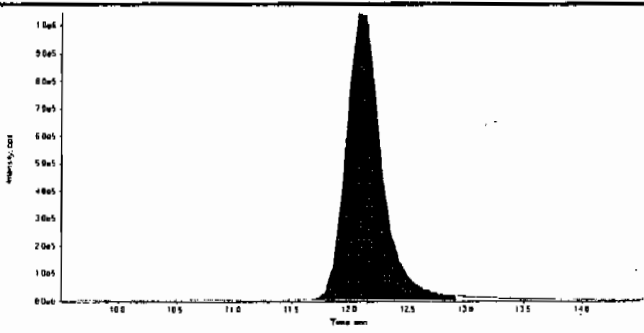
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LCMSMS#3

<b>Data File</b>	EXP0415050.wiff	<b>Acquisition Date</b>	4/16/2010 7:19:14 AM
<b>Sample Name</b>	248506011	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

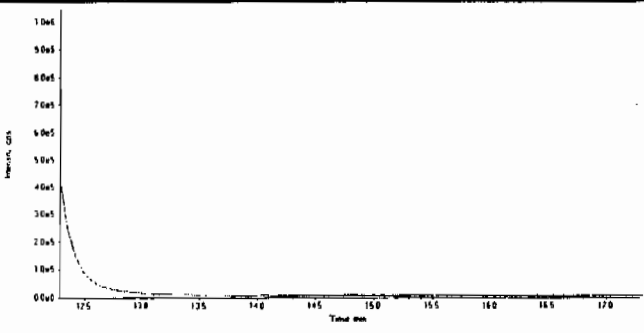
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

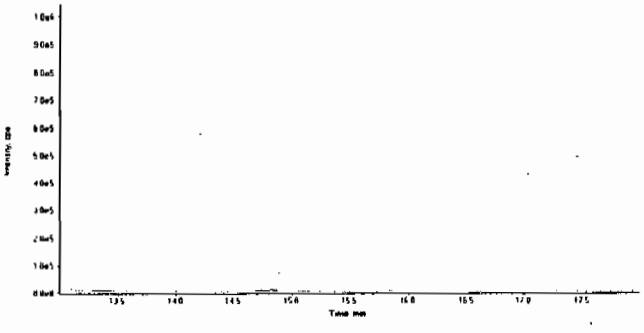
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	2.22e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	252. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.8
	<b>Area Counts:</b>	1.86e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415050.wiff	<b>Acquisition Date</b>	4/16/2010 7:19:14 AM
<b>Sample Name</b>	248506011	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

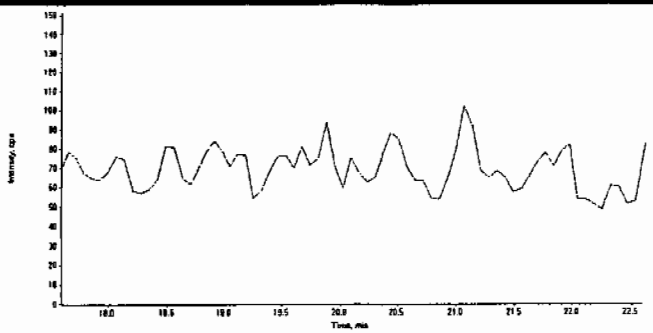
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

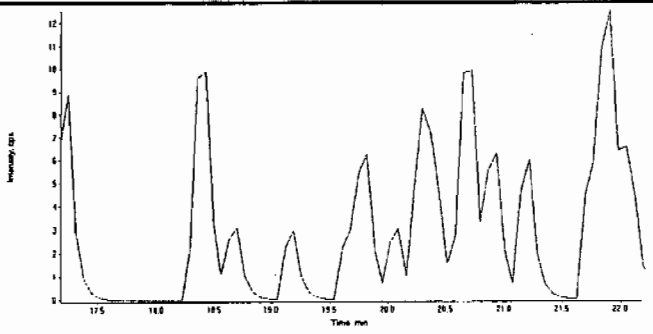
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415050.wiff	<b>Acquisition Date</b>	4/16/2010 7:19:14 AM
<b>Sample Name</b>	248506011	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7443

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506011

Sample Amount 2

Moisture: 25.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090031.wiff

Date Analyzed: 09-APR-10 15:06

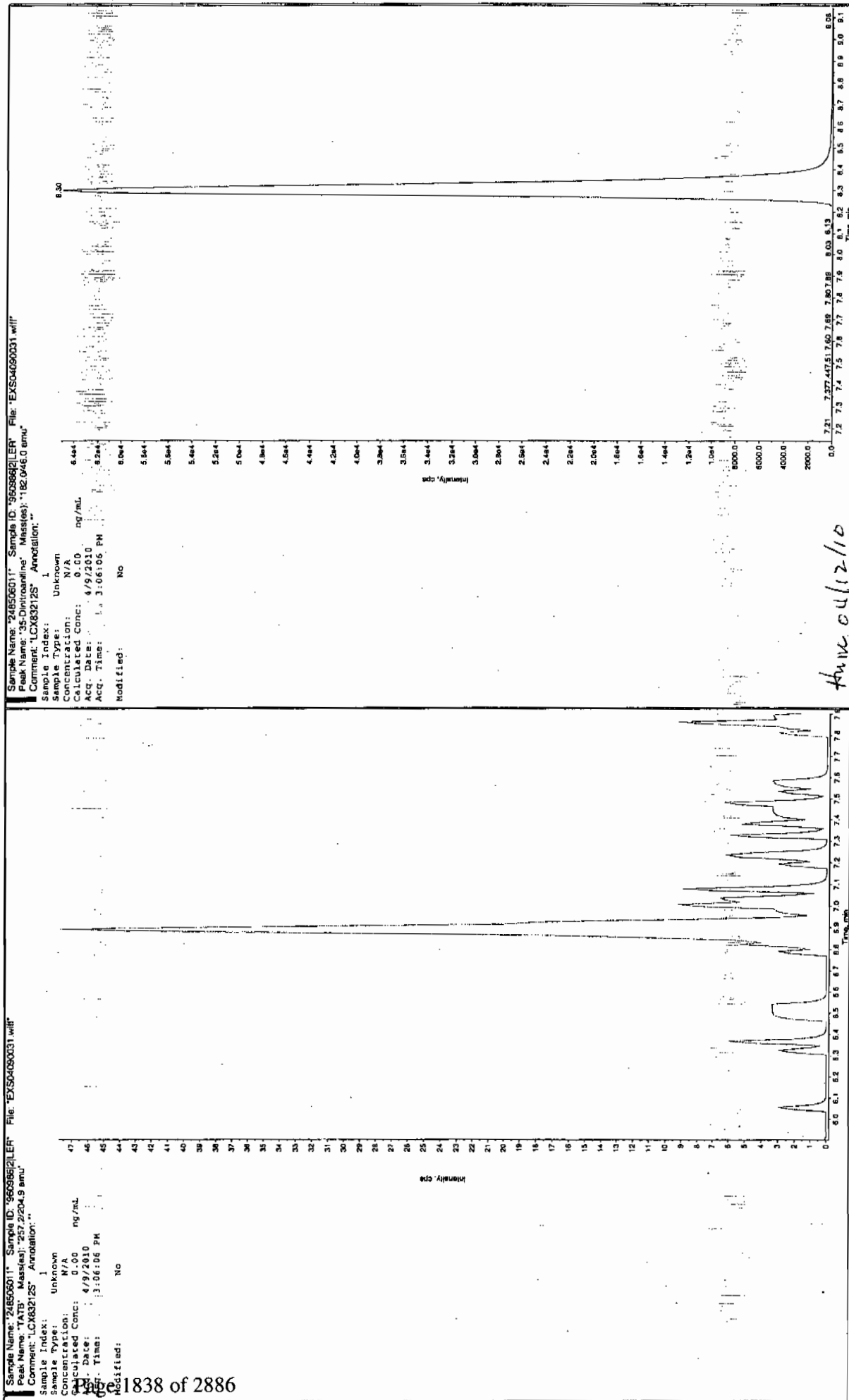
Units: ug/kg

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

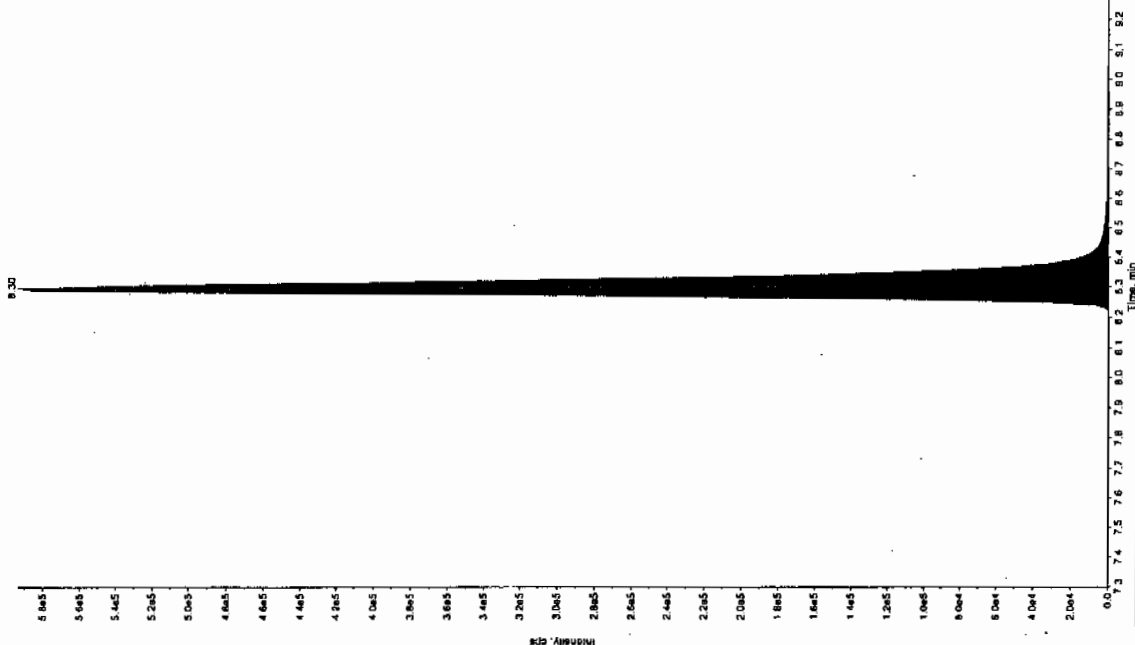
San 4/12/10



San 4/12/10

Sample Name: "248506011" Sample ID: "9609621.ER" File: "EXS04090031.wif"  
 Peak Name: "26-Diethyl-4-ethylbenzoate" Mass(es): "166.046.0 amu"  
 Comment: "LCX83212S" Annotation: ""

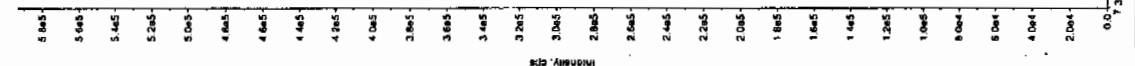
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 Sample Type: Unknown  
 Concentration: N/A  
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 Acq. Date: 4/9/2010  
 Acq. Time: 3:06:06 PM  
 Modified: No



Sample Name: "248506011" Sample ID: "9609621.ER" File: "EXS04090031.wif"  
 Peak Name: "34-Diethyl-4-ethylbenzoate" Mass(es): "182.1161.9 amu"  
 Comment: "LCX83212S" Annotation: ""

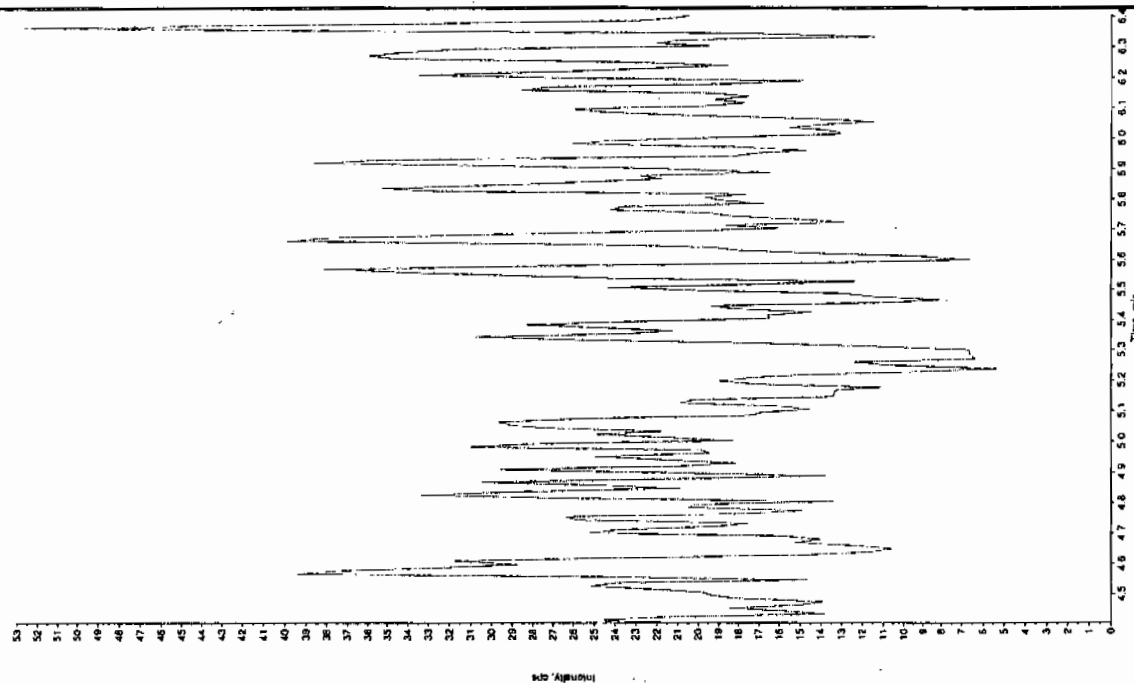
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 261. ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 3:06:06 PM  
 Modified: No

Proc. Algorithm: IntelliQuan - IQA  
 Peak Height: 1460.00 cps  
 Peak Width: 0.00 sec  
 Sampling Width: 36.0 points  
 Peak Width: 36.0 sec  
 Peak RT: 8.30 min  
 Up Relative RT: No  
 Type: Valley  
 Retention Time: 8.30 min  
 Area: 2.34E+006 counts  
 Height: 593717.712 cps  
 Start Time: 8.14 min  
 End Time: 8.61 min

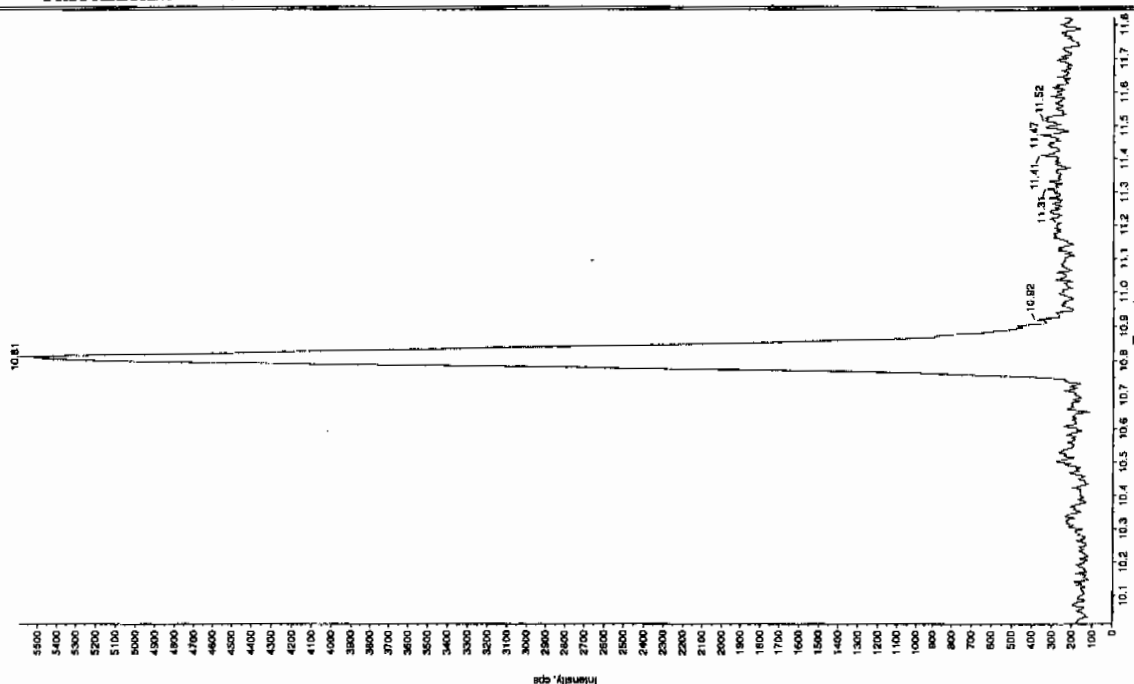


Sample Name: "248506011" Sample ID: "96099621.ER" File: "EXS04080031.wiff"  
 Peak Name: "Inis(b-cresyl) phosphate" Mass(es): "369.151.0 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 3:06:06 PM  
 Modified: No



Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 3:06:06 PM  
 Modified: No





1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7452

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506012

Sample Amount 2

Moisture: 24.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415051.wiff

Date Analyzed: 16-APR-10 07:45

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

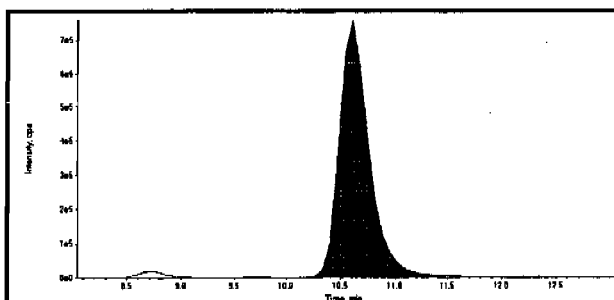
\*Concentration =

Instrument				
Value	X	<u>Concentrated Extract Volume</u>	X	Dilution
		<u>Sample Amount</u>		Factor

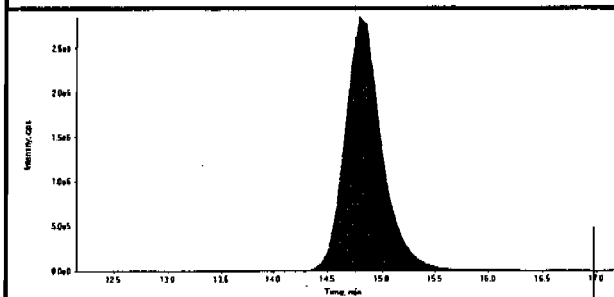
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

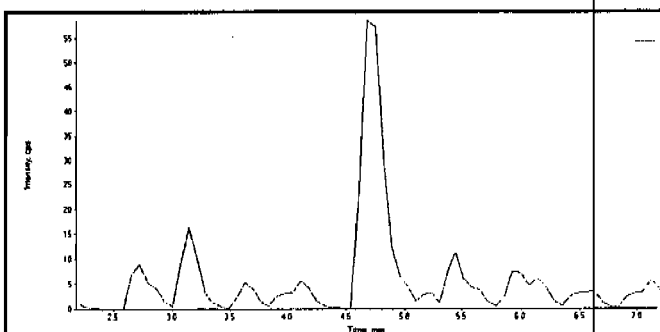
Data File	EXP0415051.wiff	Acquisition Date	4/16/2010 7:45:11 AM
Sample Name	248506012	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



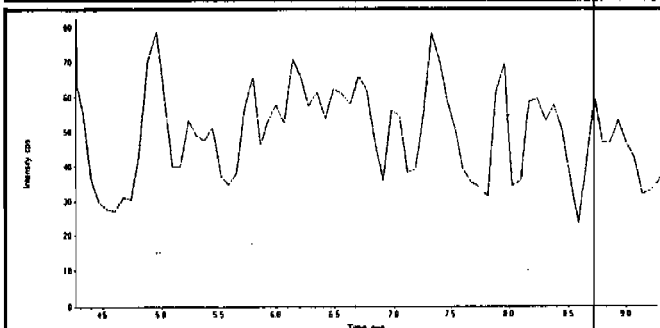
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	14500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	67700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4/23/10

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04/23/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415051.wiff	<b>Acquisition Date</b>	4/16/2010 7:45:11 AM
<b>Sample Name</b>	248506012	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.6
	Area Counts:	2.19e+004
	Manual Modification	No
	Amount:	4.39 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

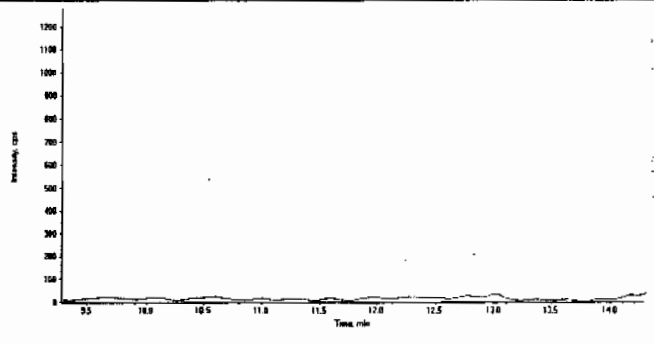
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

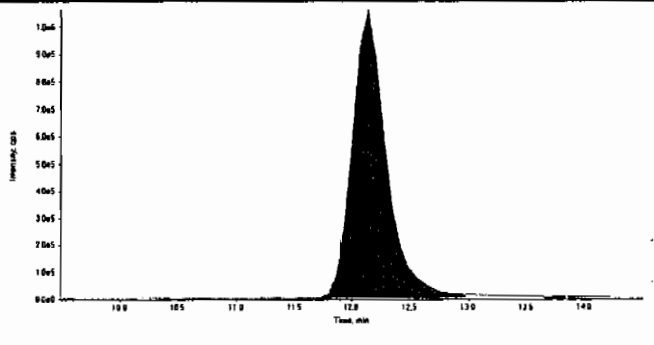
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415051.wiff	<b>Acquisition Date</b>	4/16/2010 7:45:11 AM
<b>Sample Name</b>	248506012	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

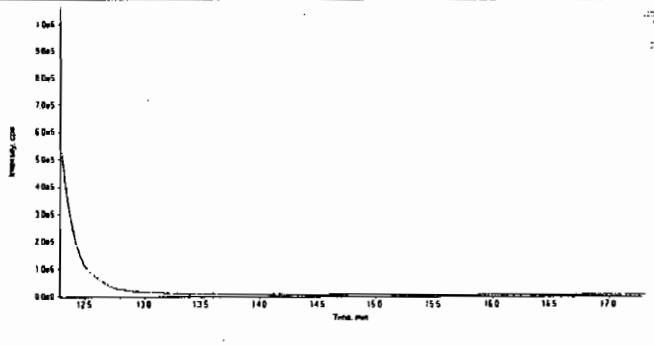
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

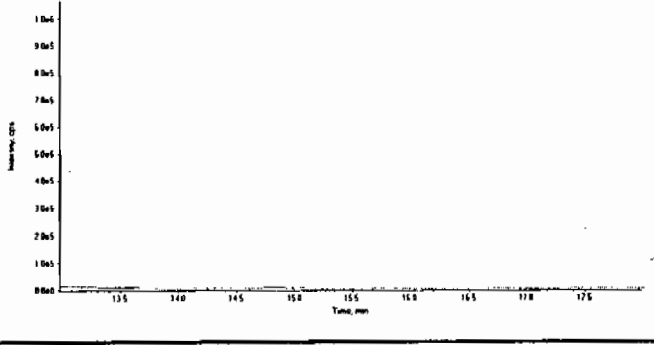
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	2.22e+007
	Manual Modification	No
	Amount:	249. (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.8
	Area Counts:	1.45e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	.000e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415051.wiff	<b>Acquisition Date</b>	4/16/2010 7:45:11 AM
<b>Sample Name</b>	248506012	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

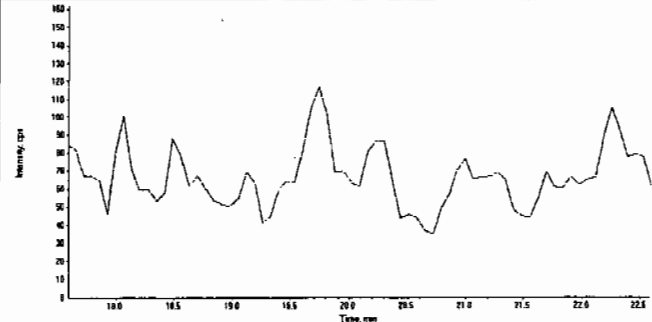
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

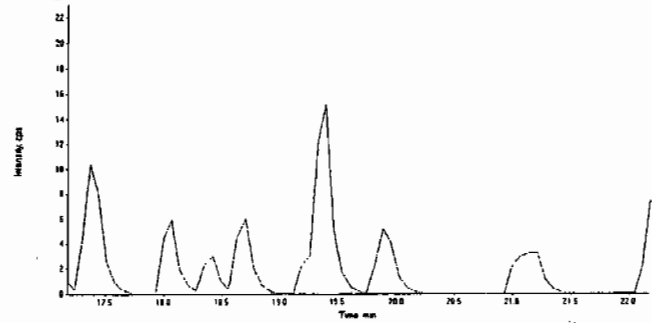
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415051.wiff	<b>Acquisition Date</b>	4/16/2010 7:45:11 AM
<b>Sample Name</b>	248506012	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7452

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506012

Sample Amount 2

Moisture: 24.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090032.wiff

Date Analyzed: 09-APR-10 15:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

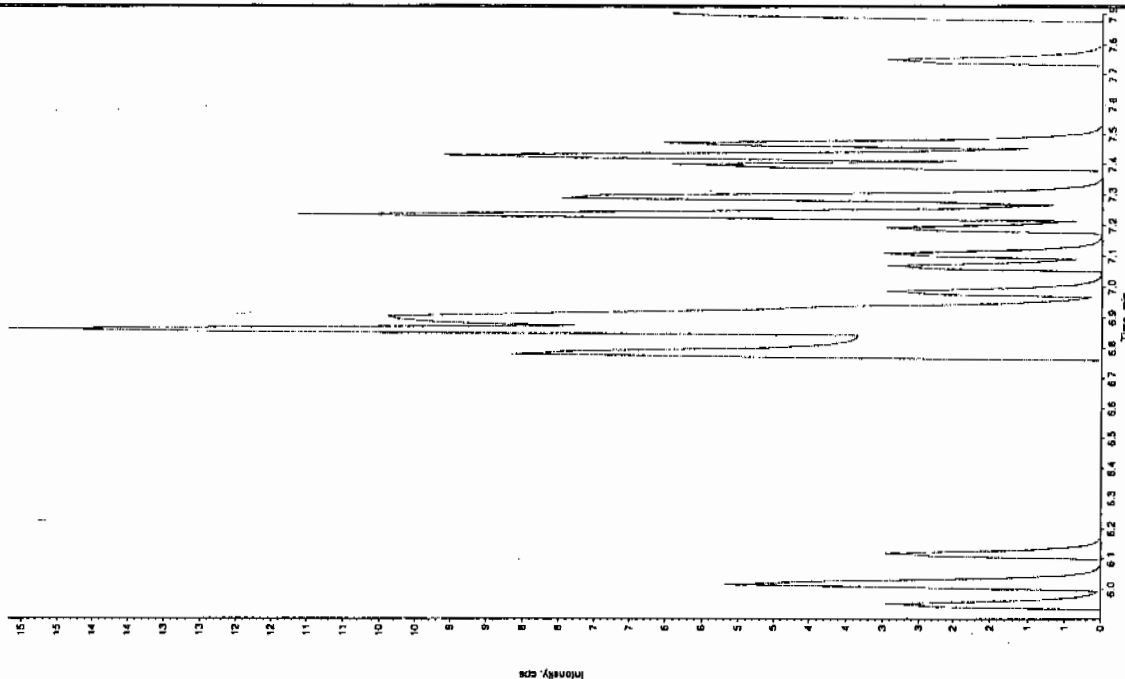
\*Concentration =

Instrument	X	<u>Concentrated Extract Volume</u>	X	Dilution
Value		<u>Sample Amoun</u>		Factor

dan 4/12/10

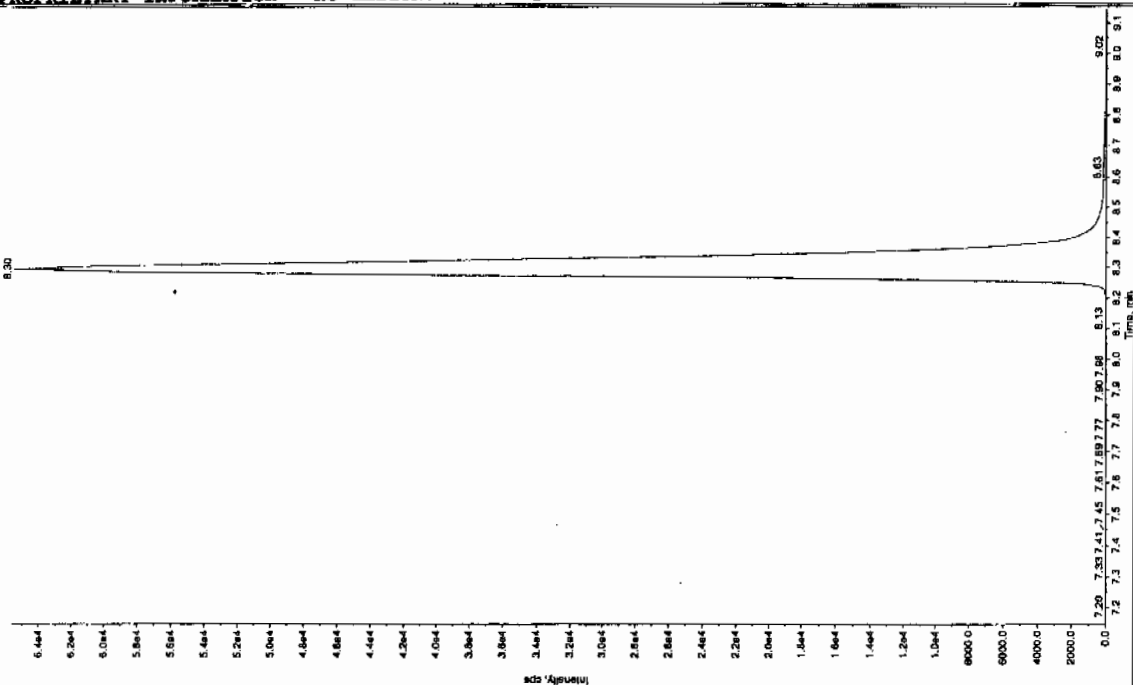
Sample Name: "248506012" Sample ID: "S60986311ER" File: "EX504090032.wif"  
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 3:21:49 PM  
 Modified: No



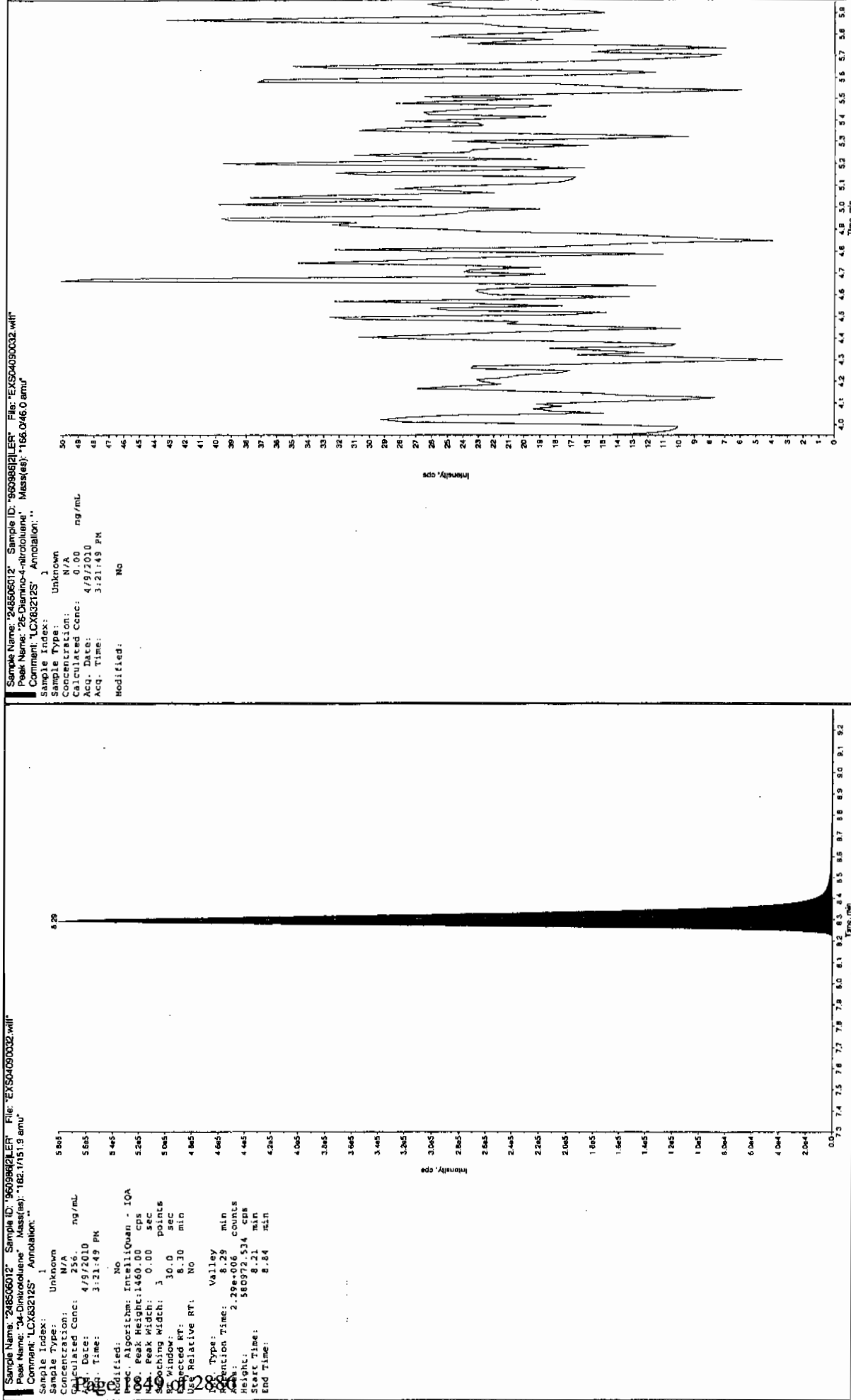
Sample Name: "248506012" Sample ID: "S60986311ER" File: "EX504090032.wif"  
 Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 3:21:49 PM  
 Modified: No



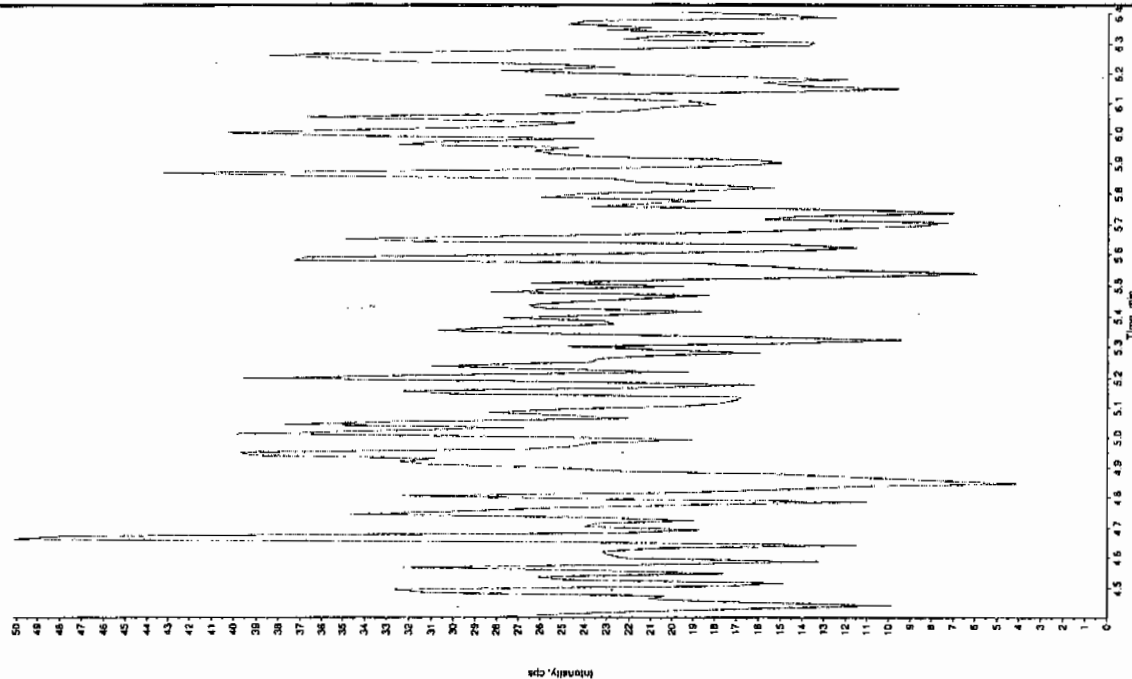
dan 4/12/10





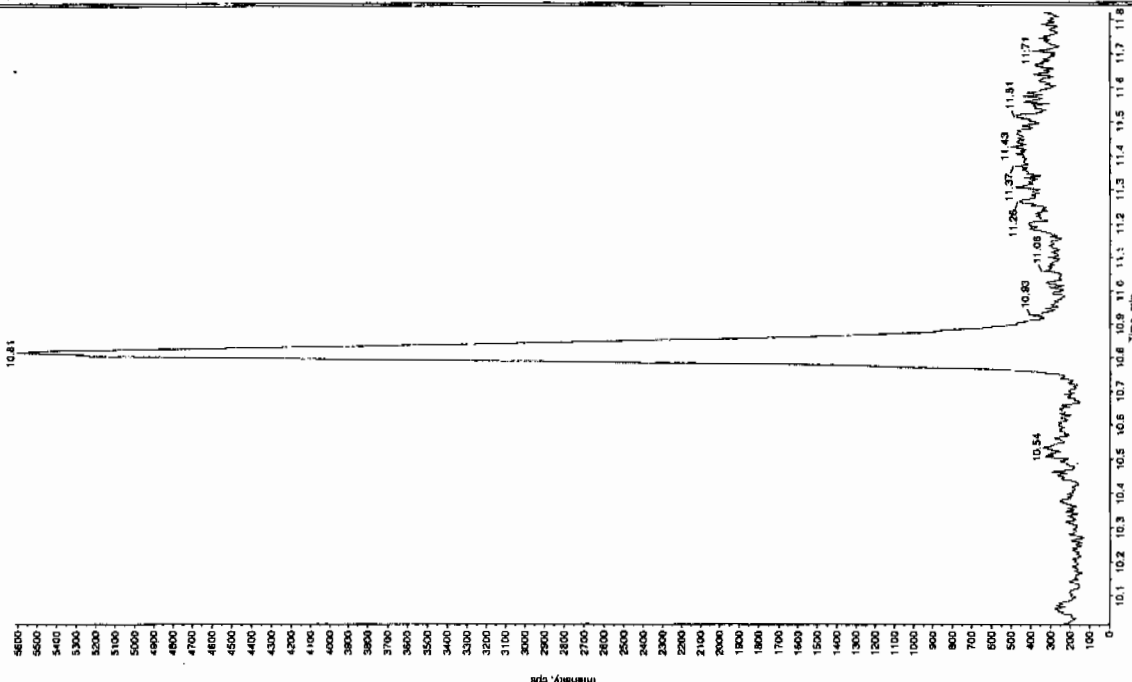
Sample Name: "248506012" Sample ID: "950986121.ER" File: "EXS04090032.wif"  
 Peak Name: "4-Chloro-6-nitroindole" Mass(es): "186.046.0 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 3:21:49 PM  
 Modified: No



Sample Name: "248506012" Sample ID: "950986121.ER" File: "EXS04090032.wif"  
 Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1791.0 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 3:21:49 PM  
 Modified: No



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7437

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506013

Sample Amount 2

Moisture: 16.3

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415052.wiff

Date Analyzed: 16-APR-10 08:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

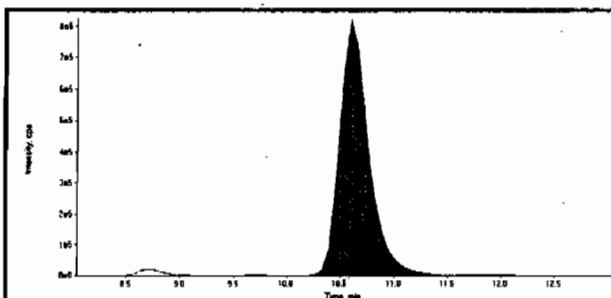
\*Concentration =

Instrument Value	X	Concentrated Extract Volume	X	Dilution Factor
		Sample Amount		

GEL Laboratories, LLC  
 GEL SOP GL-OA-E-056, Method 8321A-Modified

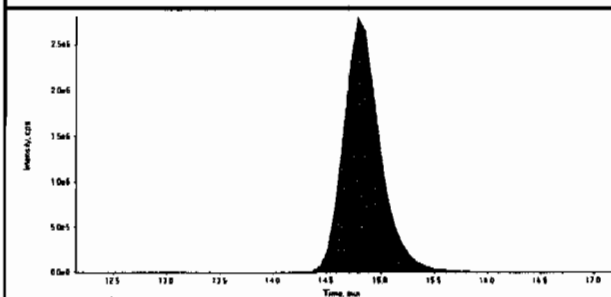
Printed: 22/04/2010 4:04:00 PM  
 LCMSMS#3

Data File	EXP0415052.wiff	Acquisition Date	4/16/2010 8:11:13 AM
Sample Name	248506013	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



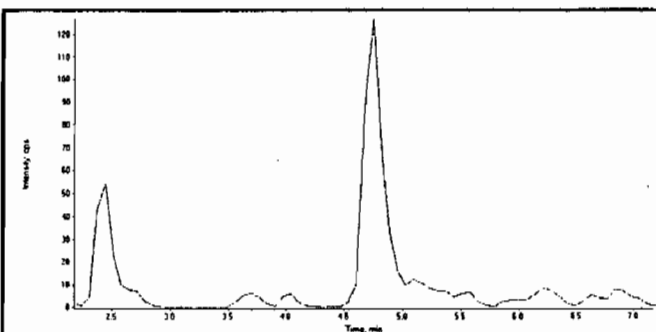
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	15600000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

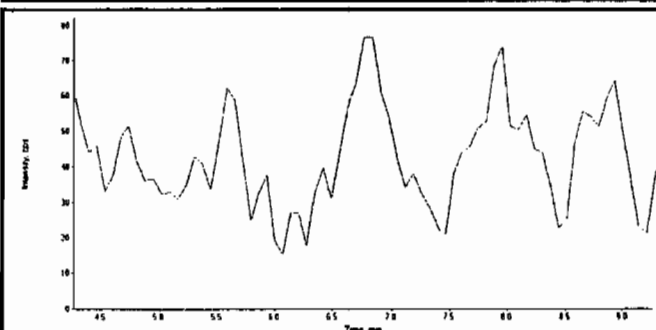


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	66700000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*See 4/23/10*

*Amu 04/23/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415052.wiff	<b>Acquisition Date</b>	4/16/2010 8:11:13 AM
<b>Sample Name</b>	248506013	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	2.29e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	4.39 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

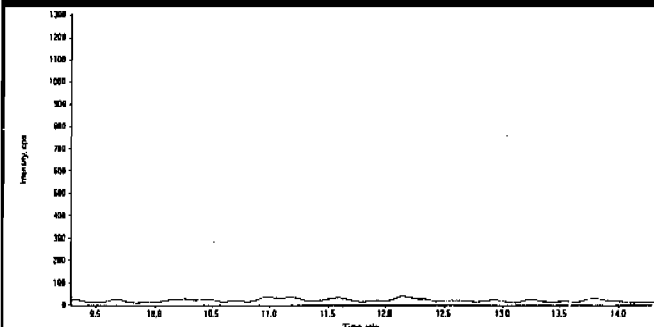
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

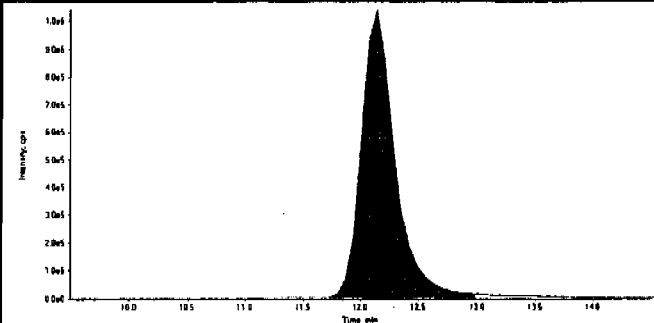
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415052.wiff	<b>Acquisition Date</b>	4/16/2010 8:11:13 AM
<b>Sample Name</b>	248506013	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

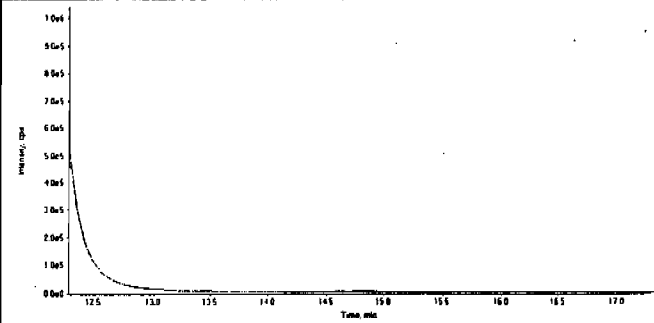
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

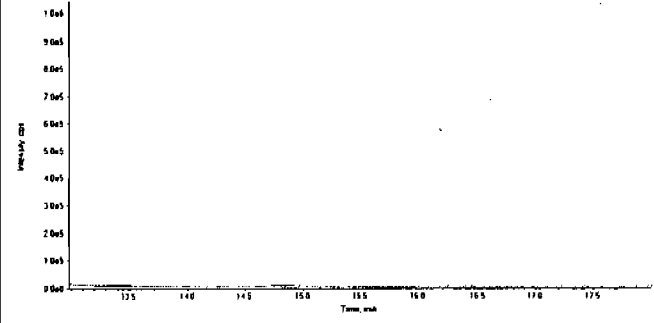
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	2.13e+007
	Manual Modification	No
	Amount:	243. (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.9
	Area Counts:	1.63e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

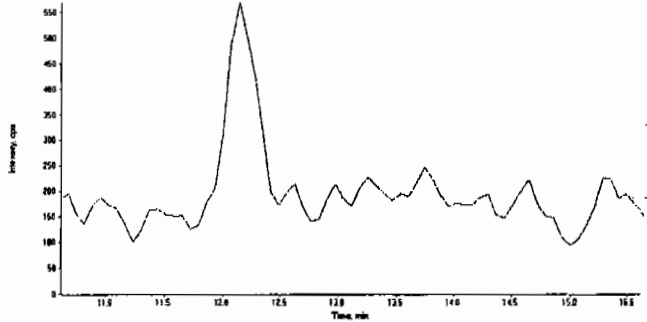
  

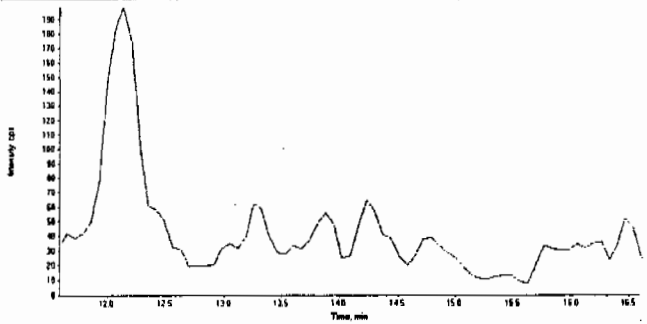
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

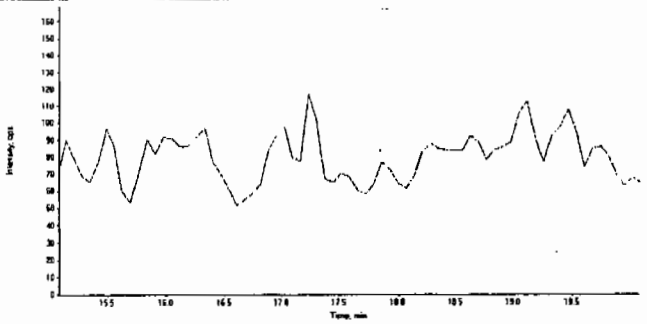
GEL Laboratories, LLC  
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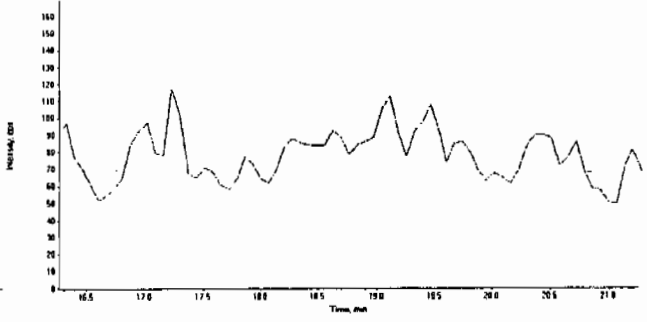
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LCMSMS#3

Data File	EXP0415052.wiff	Acquisition Date	4/16/2010 8:11:13 AM
Sample Name	248506013	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

	Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

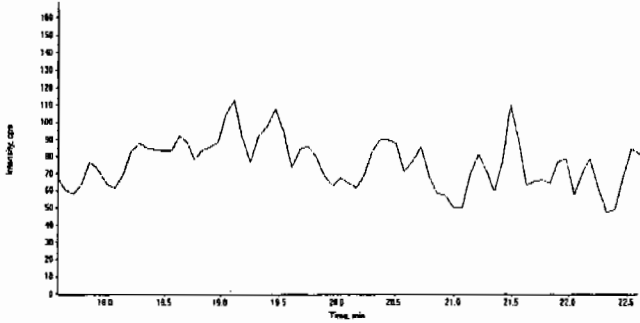
	Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

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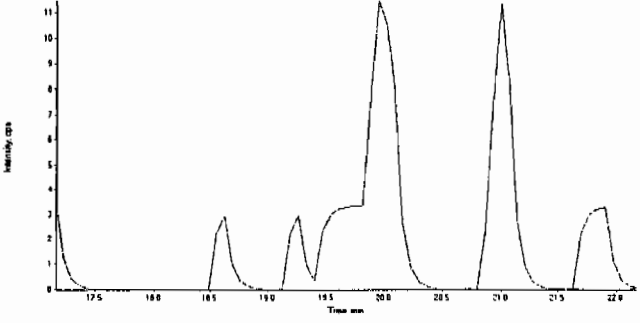
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415052.wiff	<b>Acquisition Date</b>	4/16/2010 8:11:13 AM
<b>Sample Name</b>	248506013	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7437

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506013

Sample Amount 2

Moisture: 16.3

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090033.wiff

Date Analyzed: 09-APR-10 15:37

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

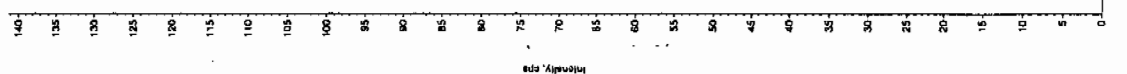
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

San 4/12/10

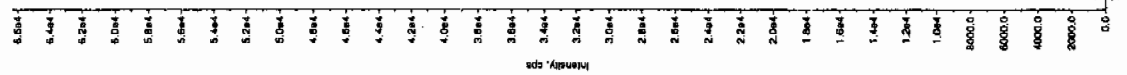
Sample Name: "248506013" Sample ID: "96098621ER" File: "EXS04090033.wiff"  
 Peak Name: "TATB" Mass(es): "257.2/204.9 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 3:37:31 PM  
 Modified: No

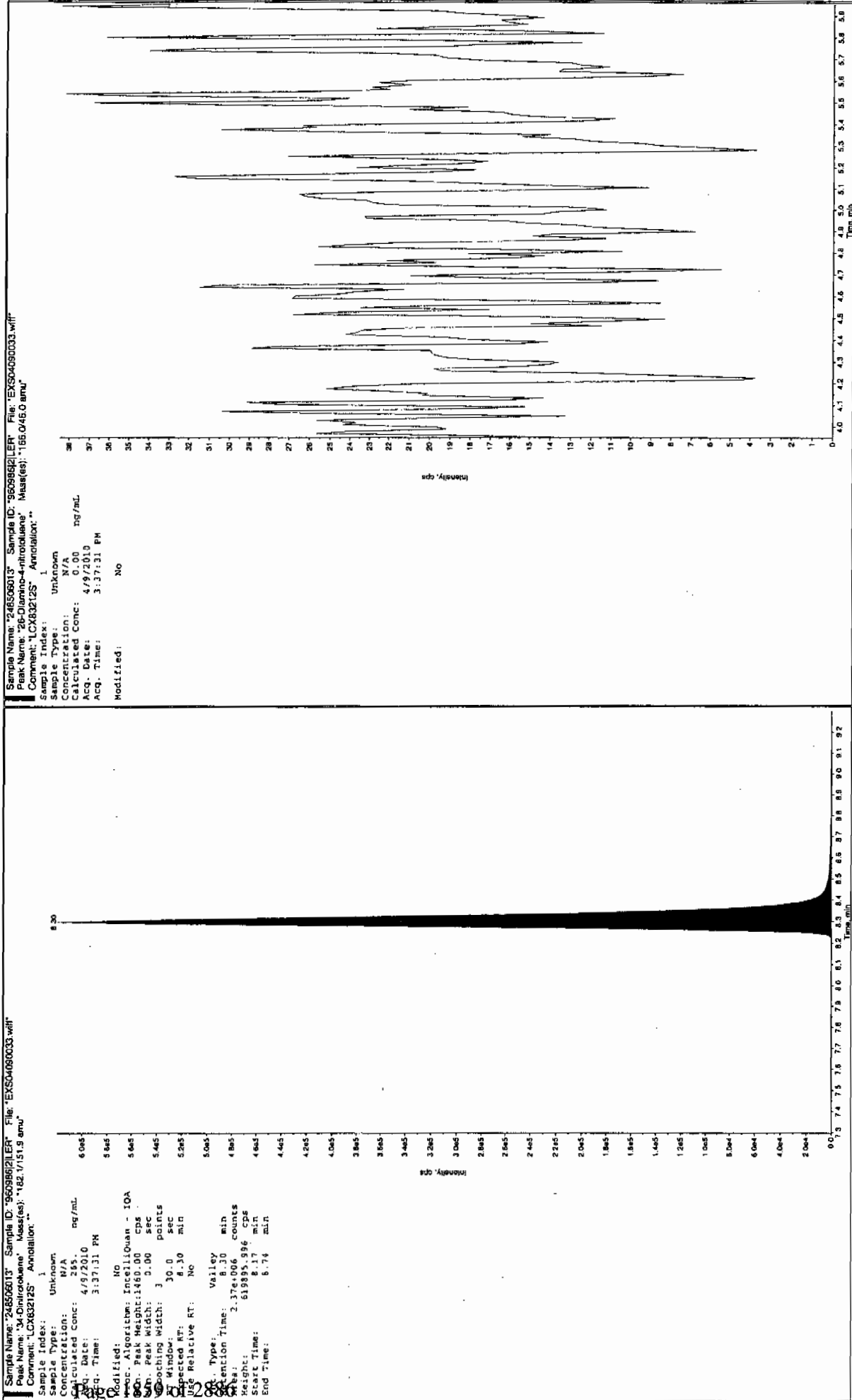


Sample Name: "248506013" Sample ID: "96098621ER" File: "EXS04090033.wiff"  
 Peak Name: "35-Dinitroaniline" Mass(es): "182.0/166.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 3:37:31 PM  
 Modified: No

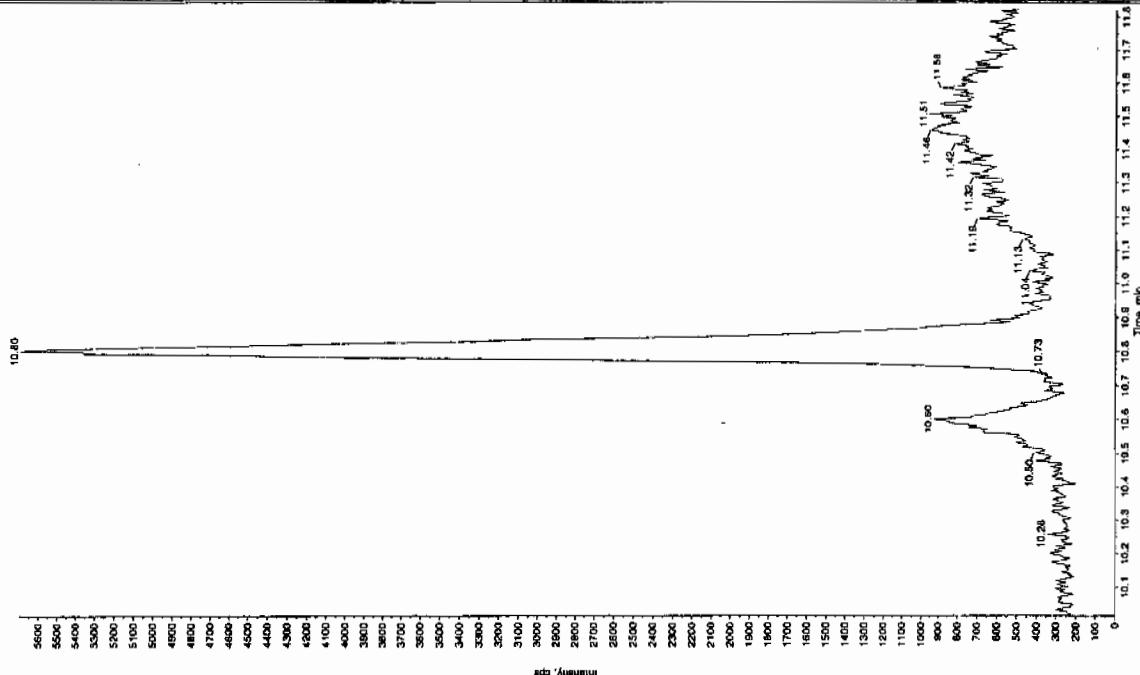


San 4/12/10



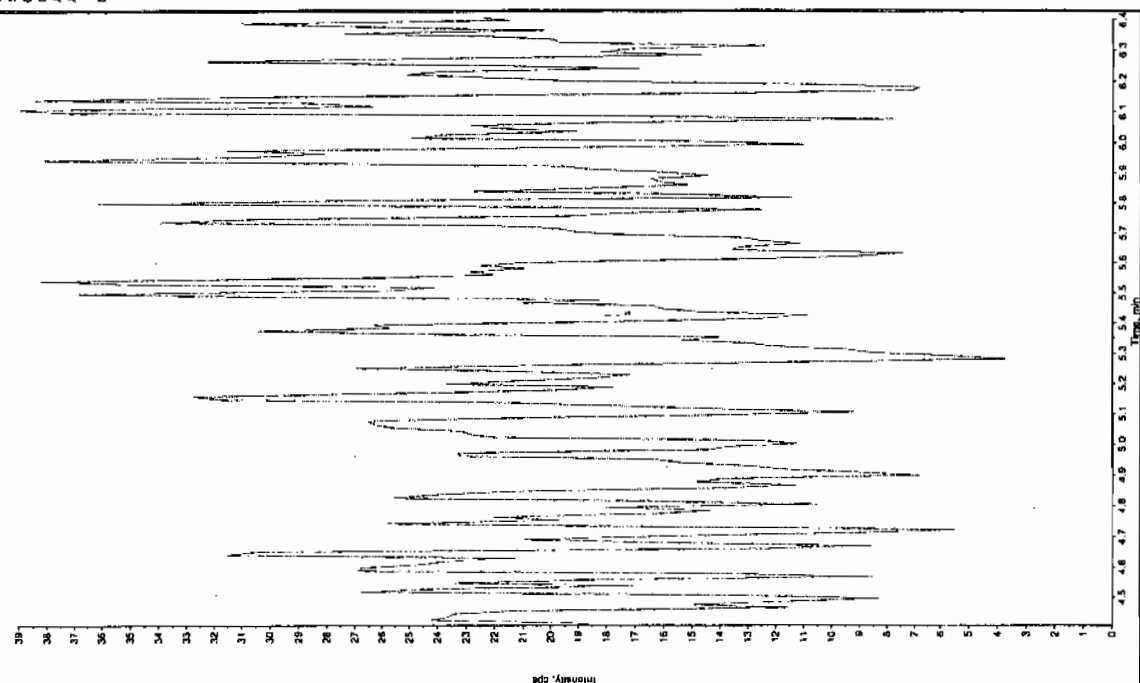
Sample Name: "248506013" Sample ID: "960996212" File: "EXS040900033.wif"  
 Peak Name: "tris(cresyl) phosphate" Mass(es): "369.1791.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 3:37:31 PM  
 Modified: No



Sample Name: "248506013" Sample ID: "960996212" File: "EXS040900033.wif"  
 Peak Name: "24-Diamino-5-Nitroindole" Mass(es): "166.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 3:37:31 PM  
 Modified: No



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7440

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506014

Sample Amount 2

Moisture: 8.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415053.wiff

Date Analyzed: 16-APR-10 08:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

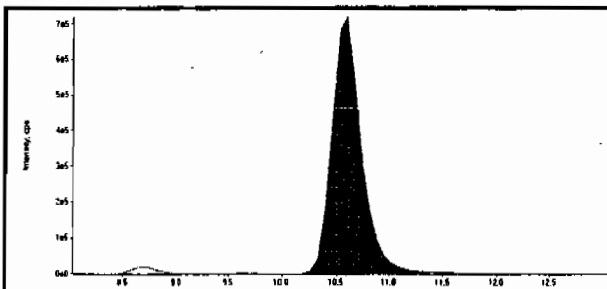
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

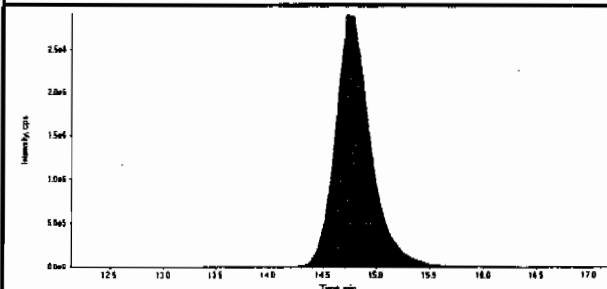
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

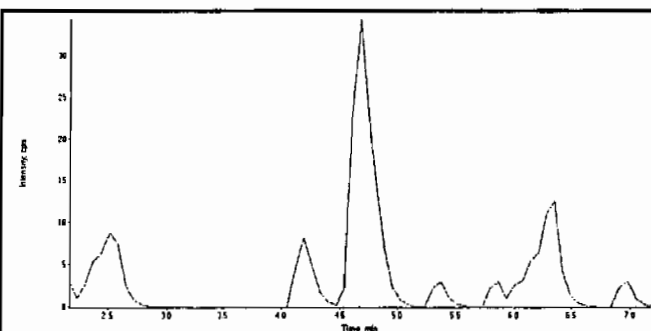
Data File	EXP0415053.wiff	Acquisition Date	4/16/2010 8:37:05 AM
Sample Name	248506014	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



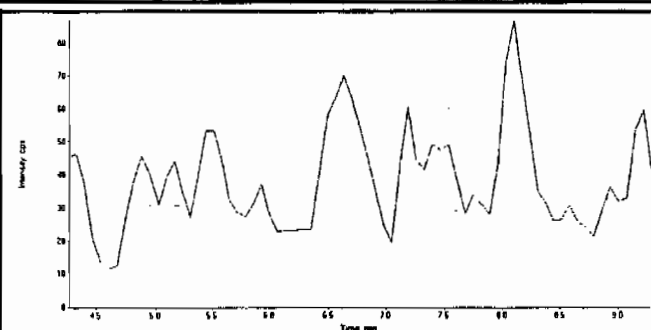
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	13900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	68100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*LER*  
4/23/10

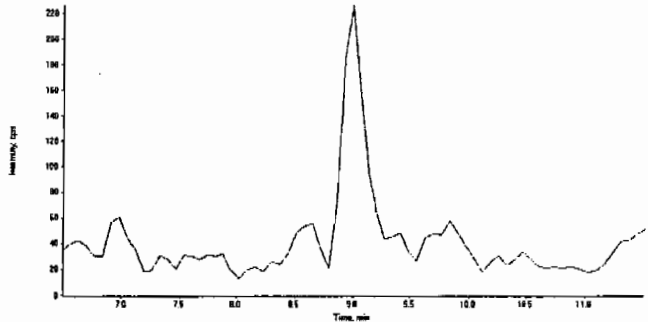
*HMC*  
04/23/10  
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GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

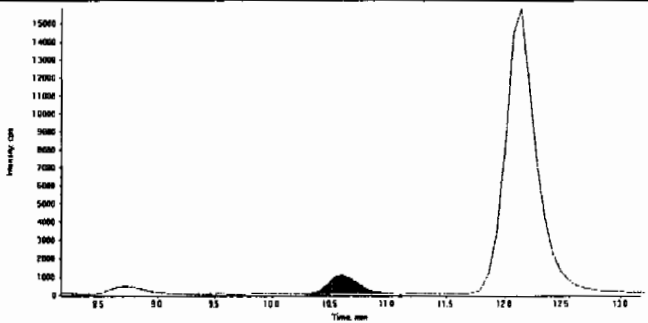
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415053.wiff	<b>Acquisition Date</b>	4/16/2010 8:37:05 AM
<b>Sample Name</b>	248506014	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

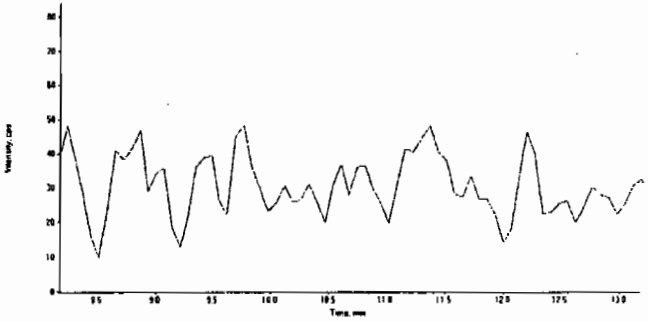
  

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

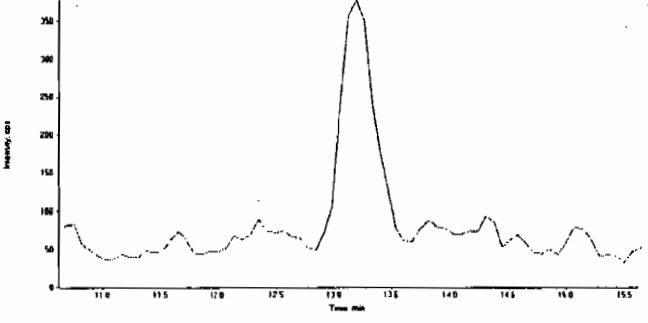
  

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.6
	Area Counts:	1.95e+004
	Manual Modification	No
	Amount:	4.38 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

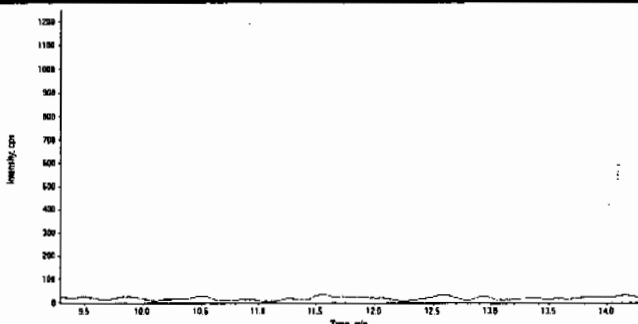
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

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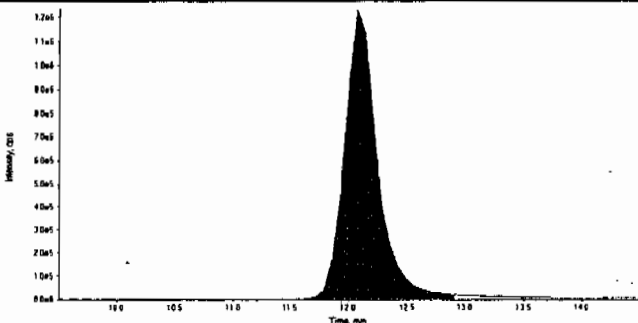
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415053.wiff	<b>Acquisition Date</b>	4/16/2010 8:37:05 AM
<b>Sample Name</b>	248506014	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

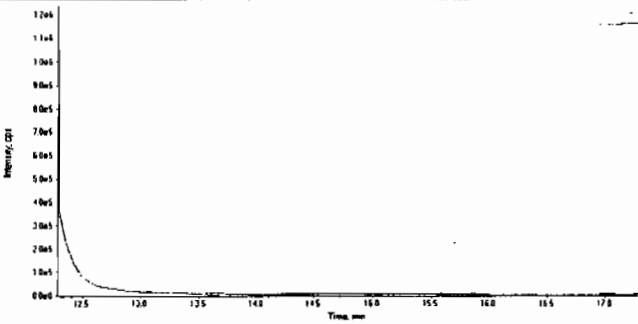
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

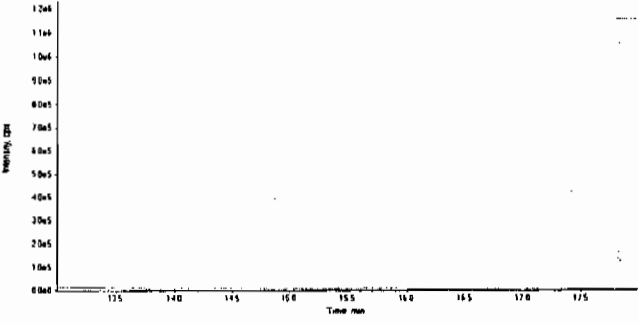
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	2.40e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	269. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.7
	<b>Area Counts:</b>	1.10e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415053.wiff	<b>Acquisition Date</b>	4/16/2010 8:37:05 AM
<b>Sample Name</b>	248506014	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415053.wiff	<b>Acquisition Date</b>	4/16/2010 8:37:05 AM
<b>Sample Name</b>	248506014	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7440

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506014

Sample Amount 2

Moisture: 8.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090034.wiff

Date Analyzed: 09-APR-10 15:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Jan 4/12/10

Sample Name: "24606014" Sample ID: "96098821ER" File: "EXS04090004.wif"  
 Peak Name: "3D-Ornidomine" Mass(es): "182.046.0 amu"  
 Comment: "LCX632125" Annotation:

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 3:53:12 PM  
 Modified: No

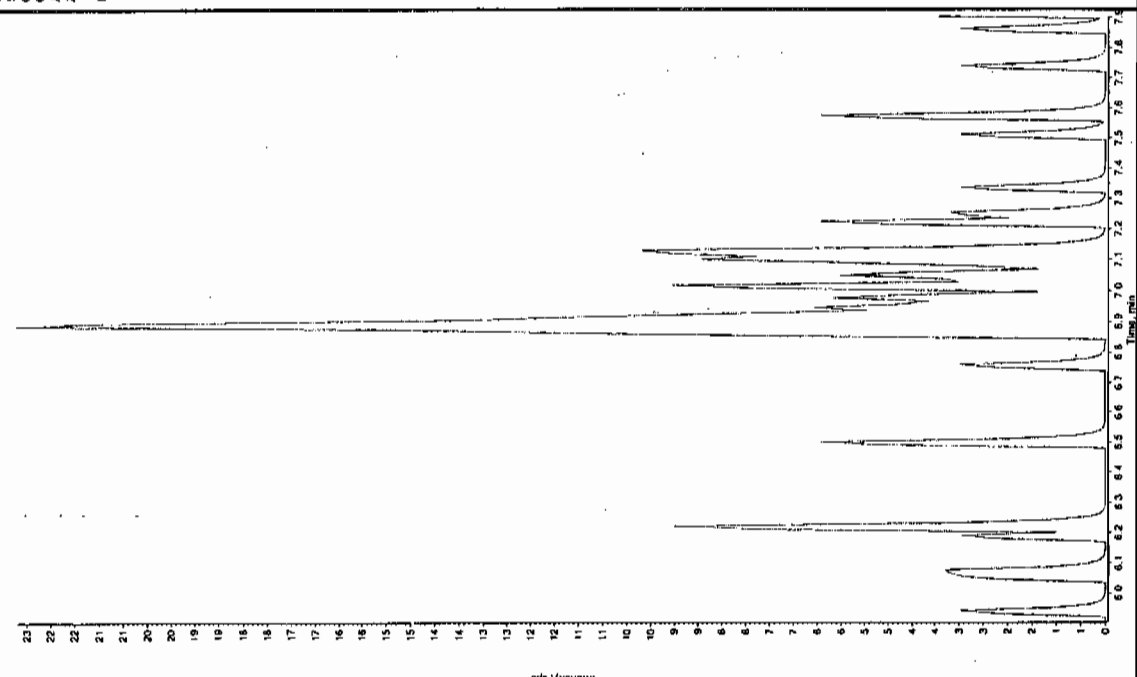
8.444 8.264 6.064 5.864 5.664 5.464 5.264 5.064 4.864 4.664 4.464 4.264 4.064 3.864 3.664 3.464 3.264 3.064 2.864 2.664 2.464 2.264 2.064 1.864 1.664 1.464 1.264 1.064 8000.0 6000.0 4000.0 2000.0

Intensity, cps

Jan 4/12/10

Sample Name: "24606014" Sample ID: "96098821ER" File: "EXS04090004.wif"  
 Peak Name: "1ATB" Mass(es): "257.2204.9 amu"  
 Comment: "LCX632125" Annotation:

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 3:53:12 PM  
 Modified: No



Intensity, cps

23

22

21

20

19

18

17

16

15

14

13

12

11

10

9

8

7

6

5

4

3

2

1

0

6.0

6.1

6.2

6.3

6.4

6.5

6.6

6.7

6.8

6.9

7.0

7.1

7.2

7.3

7.4

7.5

7.6

7.7

7.8

Time, min

257.2204.9 amu

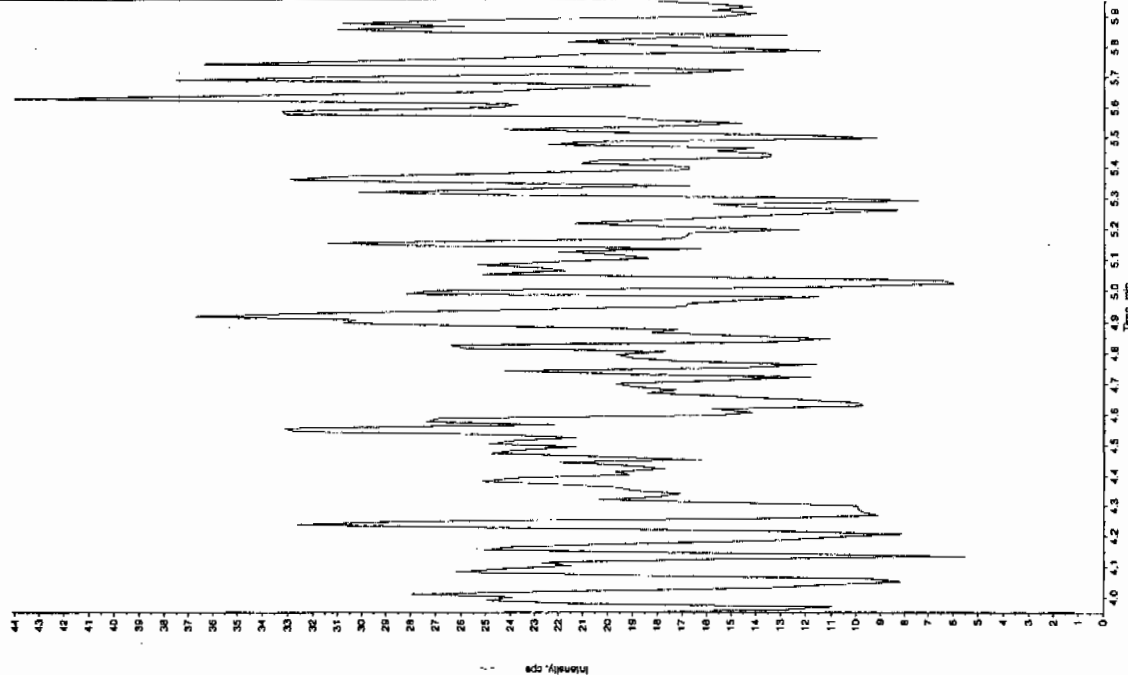
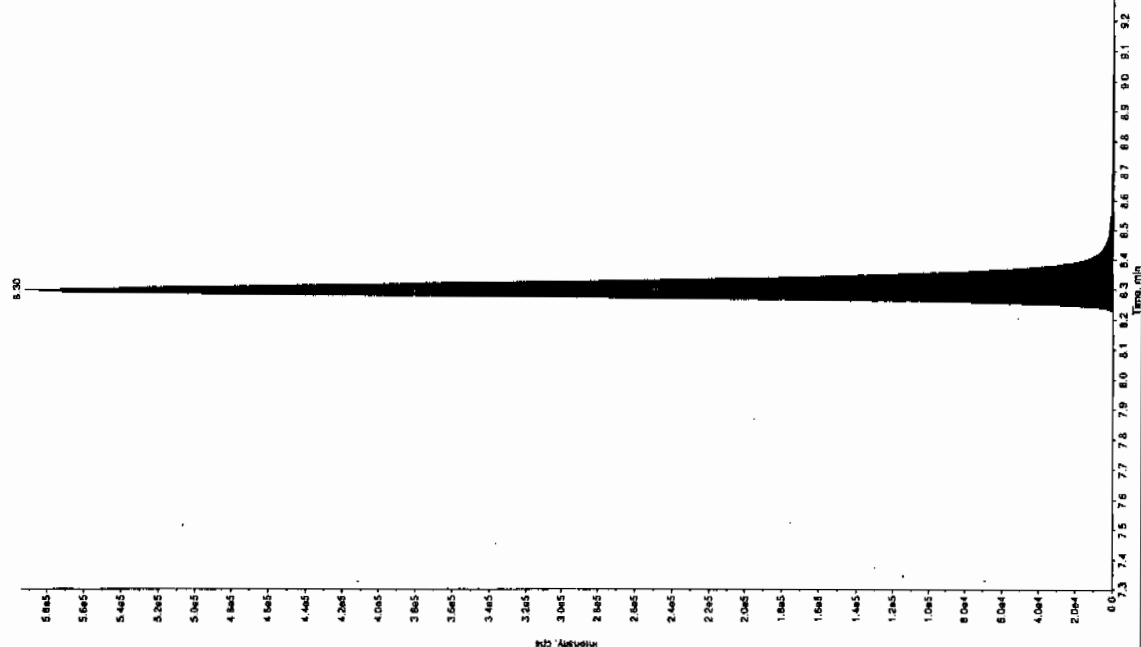
1868 of 2886

Sample Index: 1  
Sample Type: Unknown  
Concentration: N/A  
Calculated Conc: 262. ng/mL  
Date: 4/9/2010  
Req. Time: 3:53:12 PM

```

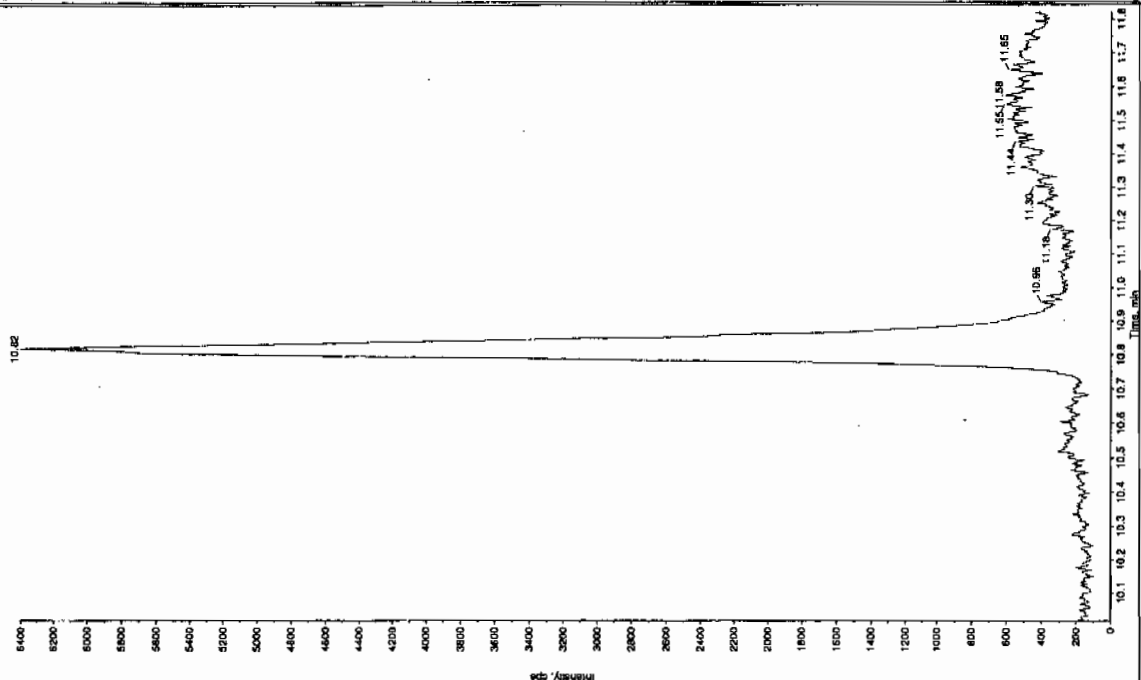
Modified: No
Spec. Algorithms: IntelliQuan - IDA
Cps: 000 peak Height: 1460.00 cps
Sec: 000 peak Width: 0.00 sec
Spectrum: 000 Peak Width: 0.00 sec
Smoothing Width: 3 points
Window: 30-0 min
Selected RT: 8.30 min
Ret. Alternative RT: No
Type: Valley
Retention Time: 8.30 min
Height: 2.34e+006 counts
Area: 594206.421
Start Time: 2.17 min
End Time: 2.83 min

```



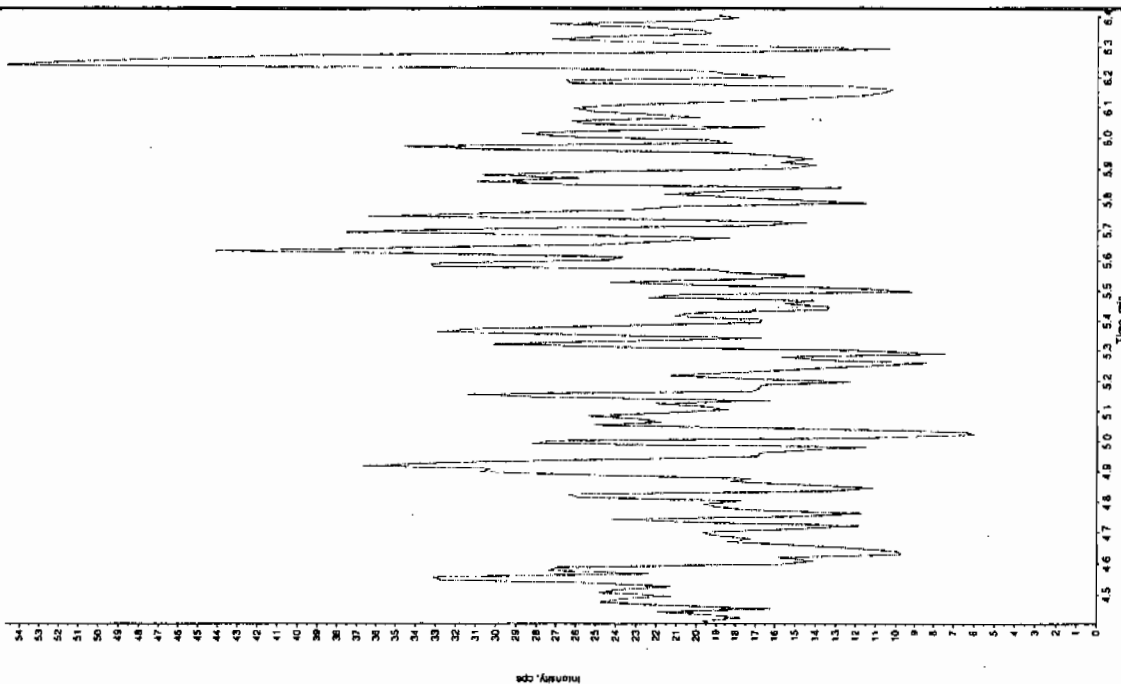
Sample Name: "248506014" Sample ID: "96098621LER" File: "EXS04090034.wif"  
 Peak Name: "tris(2-cresyl) phosphate" Mass(es): "369.1/91.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 3:53:12 PM  
 Modified: No



Sample Name: "248506014" Sample ID: "96098621LER" File: "EXS04090034.wif"  
 Peak Name: "24-Diamino-6-methylouine" Mass(es): "166.0/46.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 3:53:12 PM  
 Modified: No



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7435

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506015

Sample Amount 2

Moisture: 30.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415054.wiff

Date Analyzed: 16-APR-10 09:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

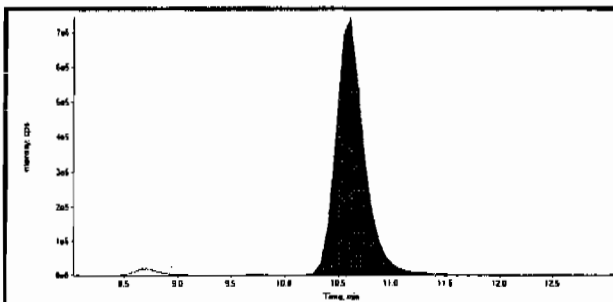
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

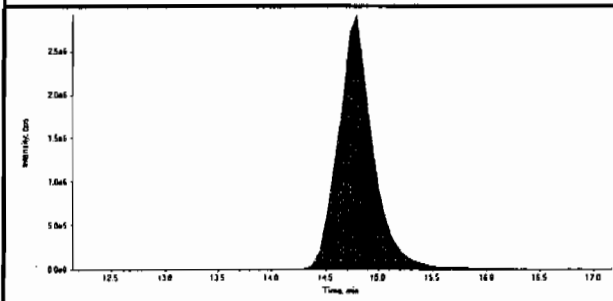
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

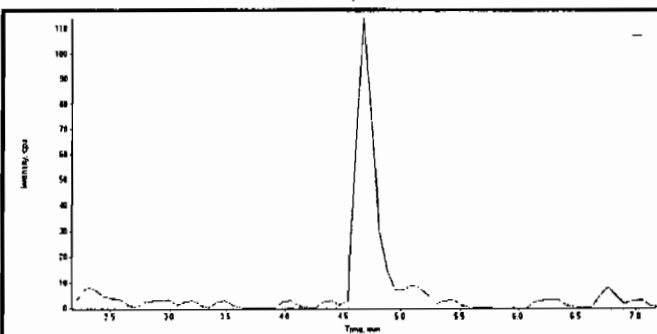
Data File	EXP0415054.wiff	Acquisition Date	4/16/2010 9:02:57 AM
Sample Name	248506015	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



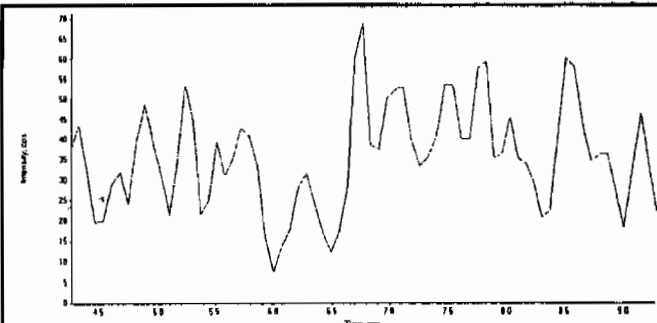
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	14100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	67600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*See 4/23/10*

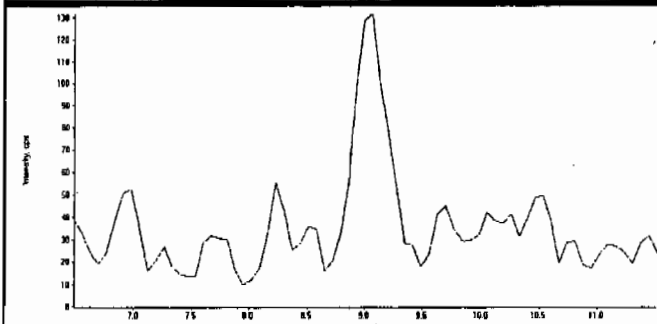
*Hine 04/23/10*

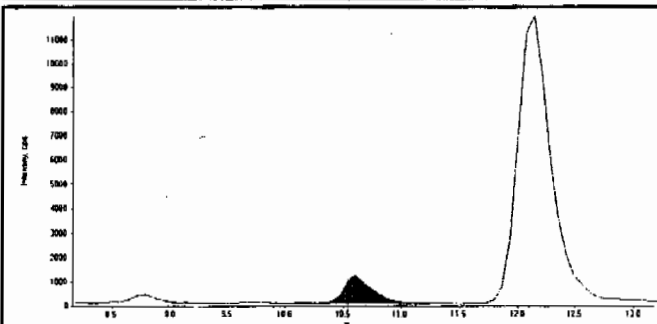


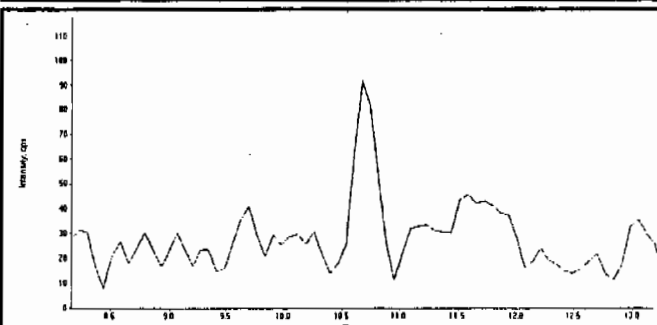
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

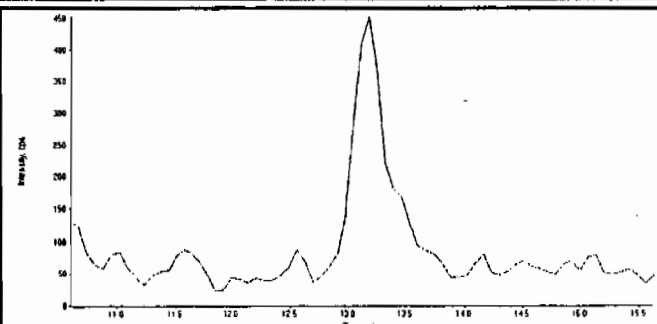
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LCMSMS#3

Data File	EXP0415054.wiff	Acquisition Date	4/16/2010 9:02:57 AM
Sample Name	248506015	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.6
	Area Counts:	2.16e+004
	Manual Modification	No
	Amount:	4.40 (ng/mL)
	% Accuracy:	N/A

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

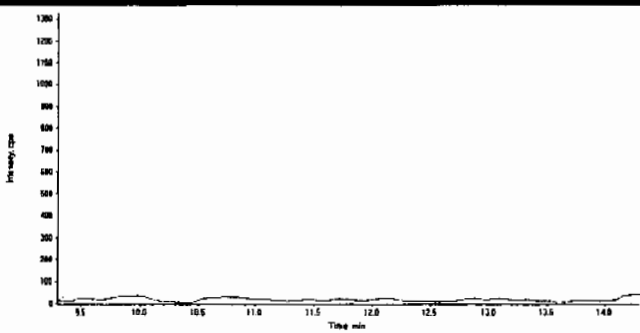
	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

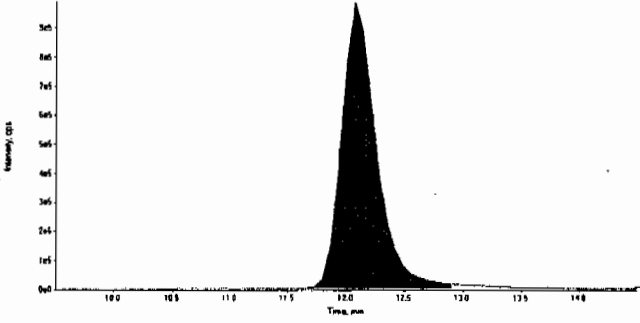
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415054.wiff	Acquisition Date	4/16/2010 9:02:57 AM
Sample Name	248506015	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

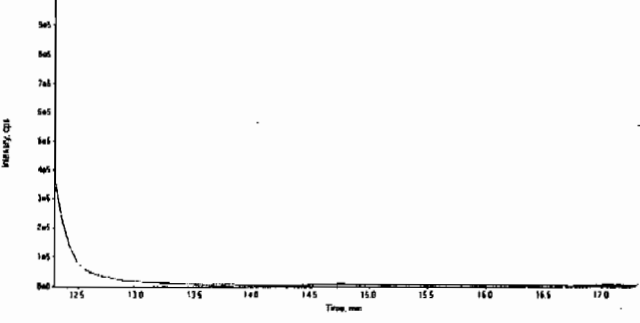
  

	Compound Name:	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

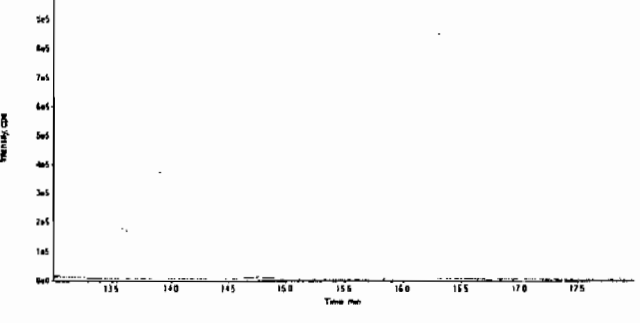
  

	Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	2.07e+007
	Manual Modification	No
	Amount:	233. (ng/mL)
	% Accuracy:	N/A

	Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.8
	Area Counts:	1.61e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415054.wiff	<b>Acquisition Date</b>	4/16/2010 9:02:57 AM
<b>Sample Name</b>	248506015	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415054.wiff	<b>Acquisition Date</b>	4/16/2010 9:02:57 AM
<b>Sample Name</b>	248506015	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7435

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506015

Sample Amount 2

Moisture: 30.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090035.wiff

Date Analyzed: 09-APR-10 16:08

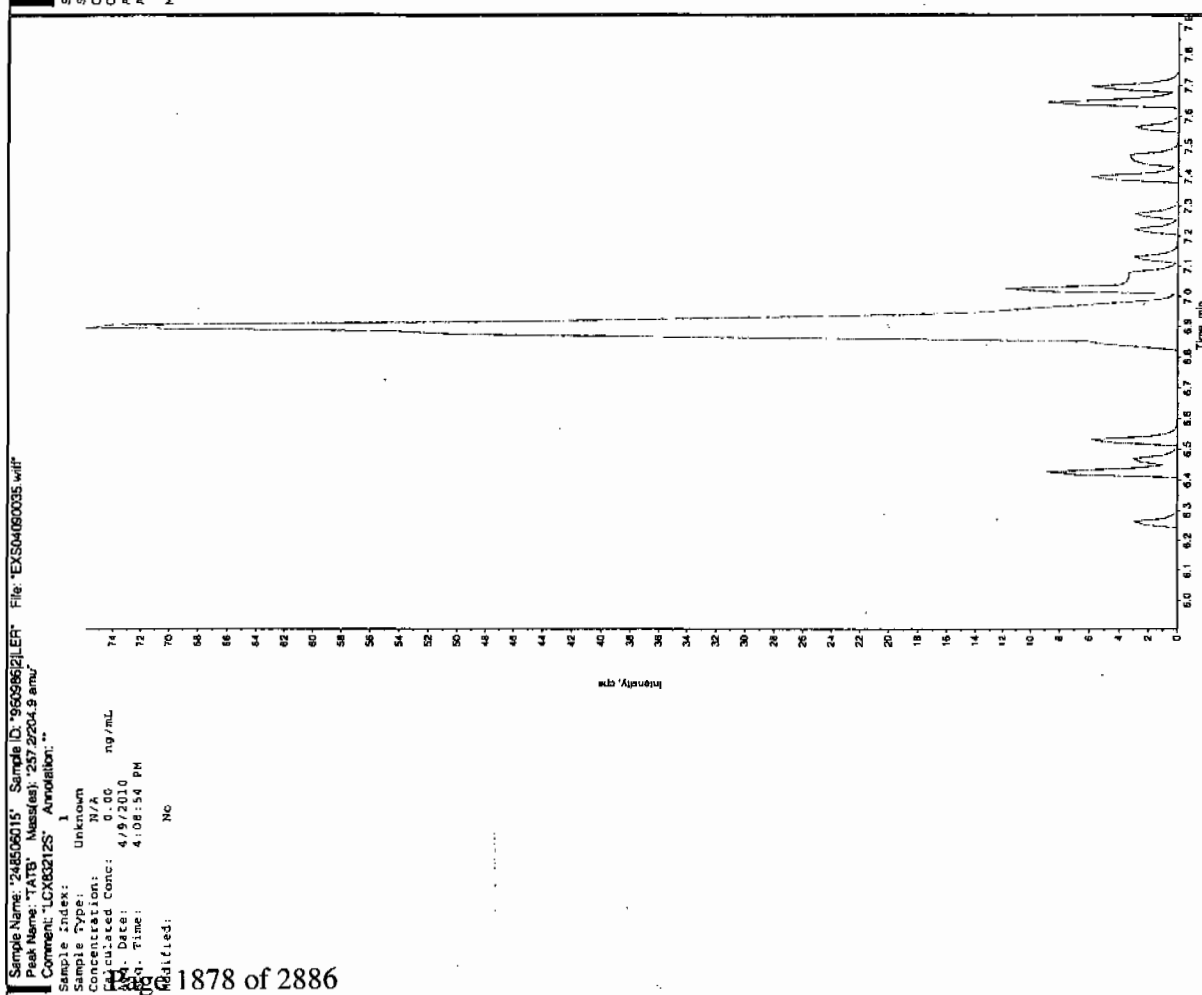
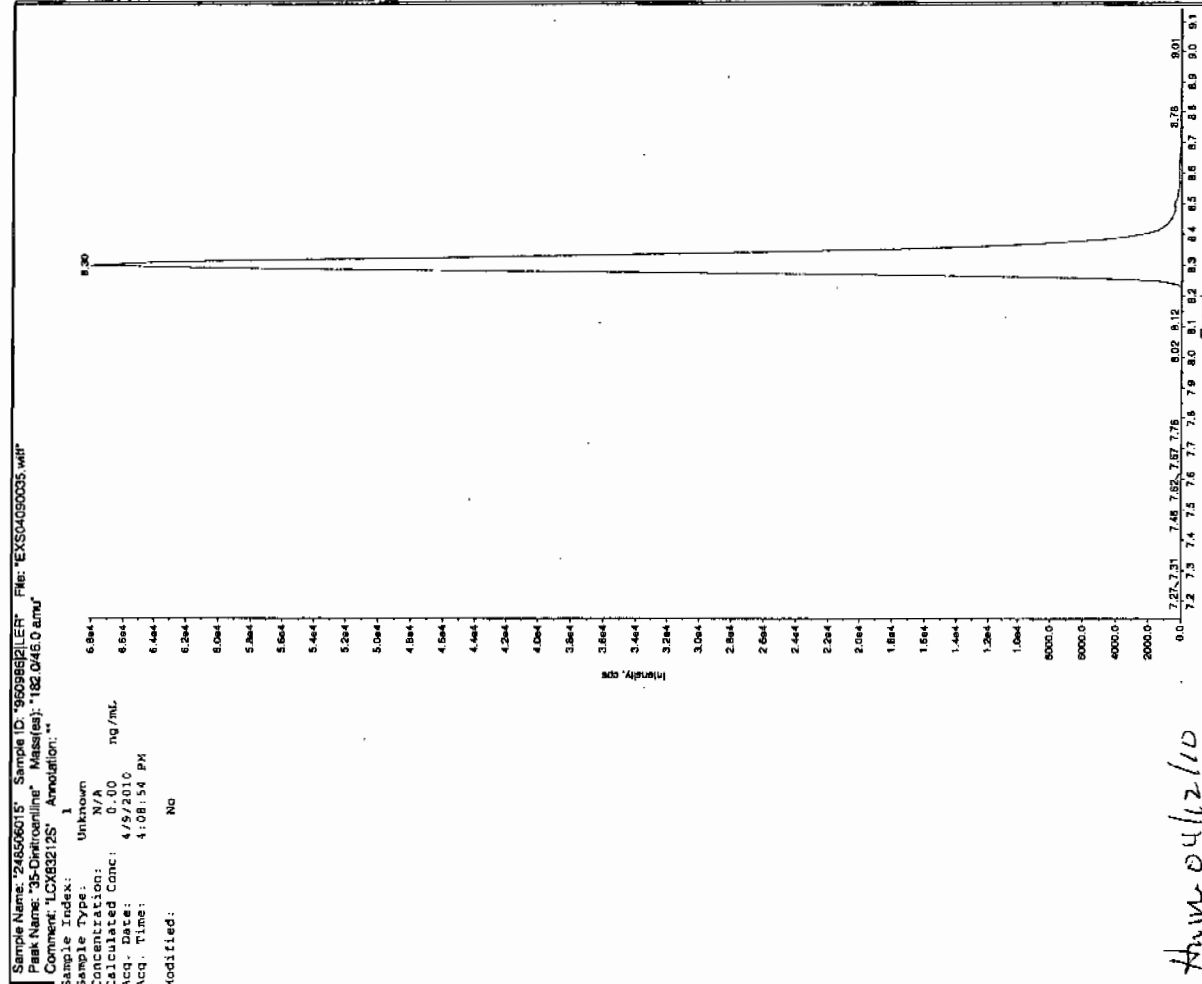
Units: ug/kg

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 =

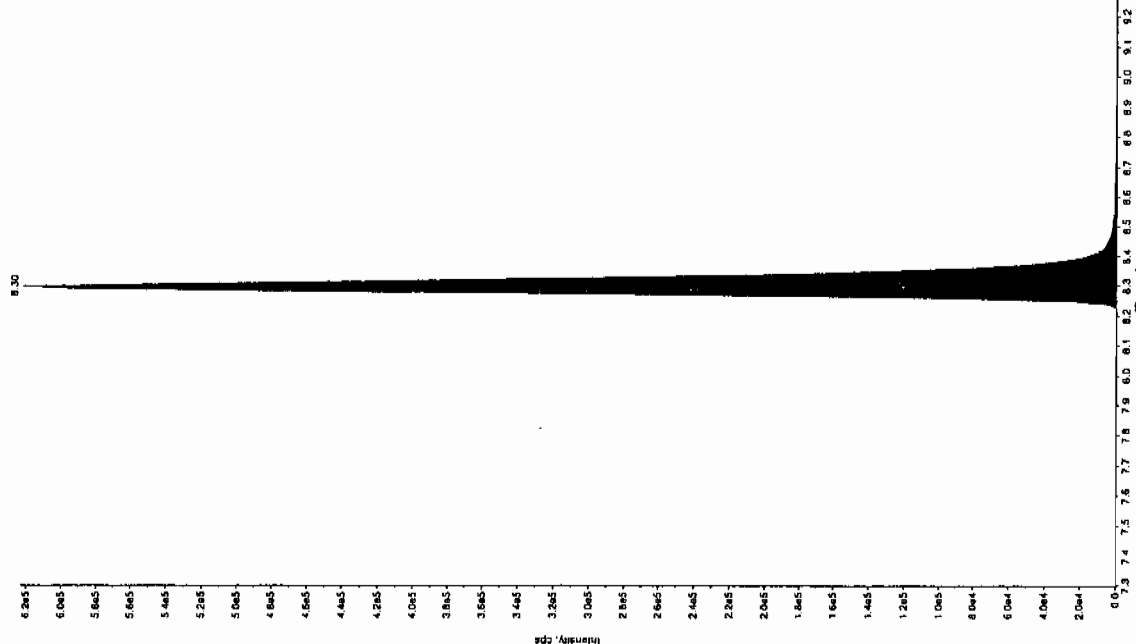
Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Ren 4/12/10



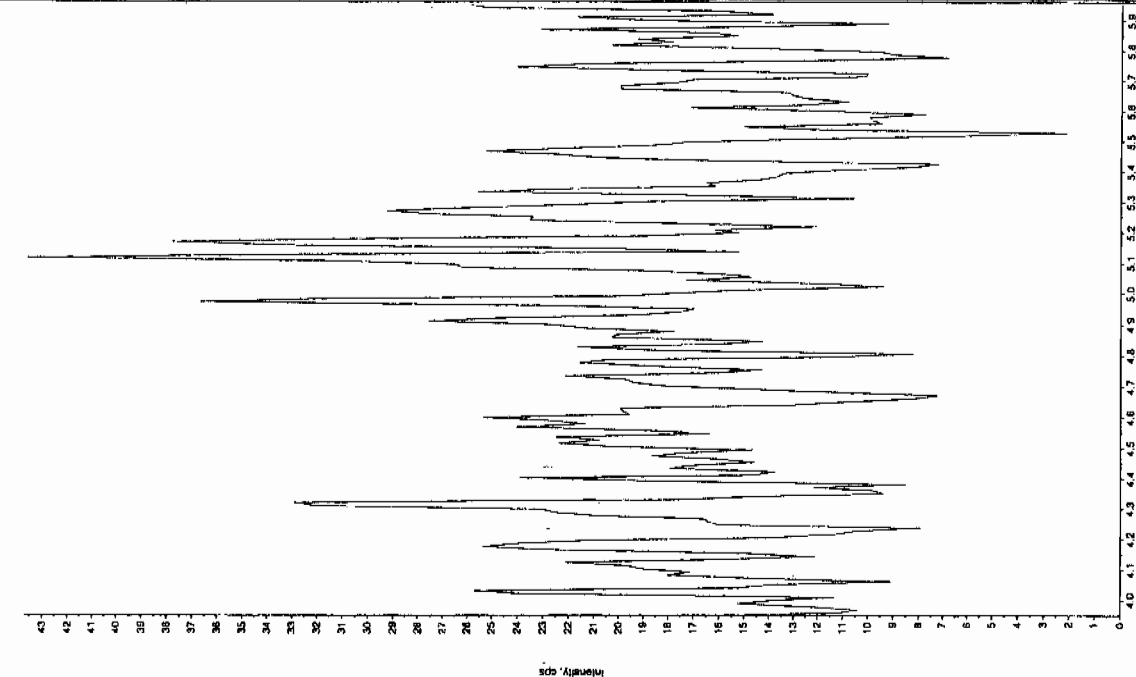
Sample Name: "246506015" Sample ID: "960986121ER" File: "EXS04090035.wiff"  
 Peak Name: "24-Dinitrofluorene" Mass(es): "182.11513 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/9/2010  
 Acq. Date: 4/9/2010  
 Acq. Time: 4:08:54 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Peak Height: 1460.00 cps  
 Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 8.30 min  
 Use Relative RT: No  
 Det. Type: Valley  
 Retention Time: 8.30 min  
 Count Rate: 2.40e+06 counts/sec  
 Mass(es): 182.11513 amu  
 Start Time: 8.13 min  
 End Time: 8.77 min



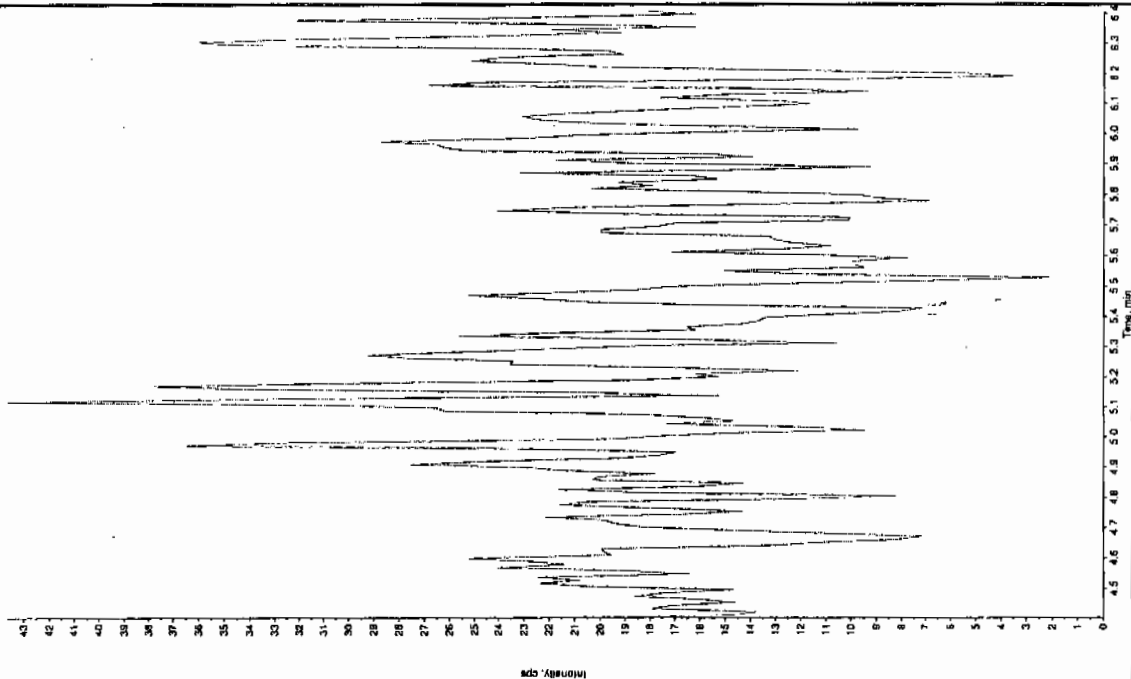
Sample Name: "246506015" Sample ID: "960986121ER" File: "EXS04090035.wiff"  
 Peak Name: "26-Dinitro-4-nitrotoluene" Mass(es): "186.0460 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 4/9/2010  
 Acq. Date: 4/9/2010  
 Acq. Time: 4:08:54 PM  
 Modified: No



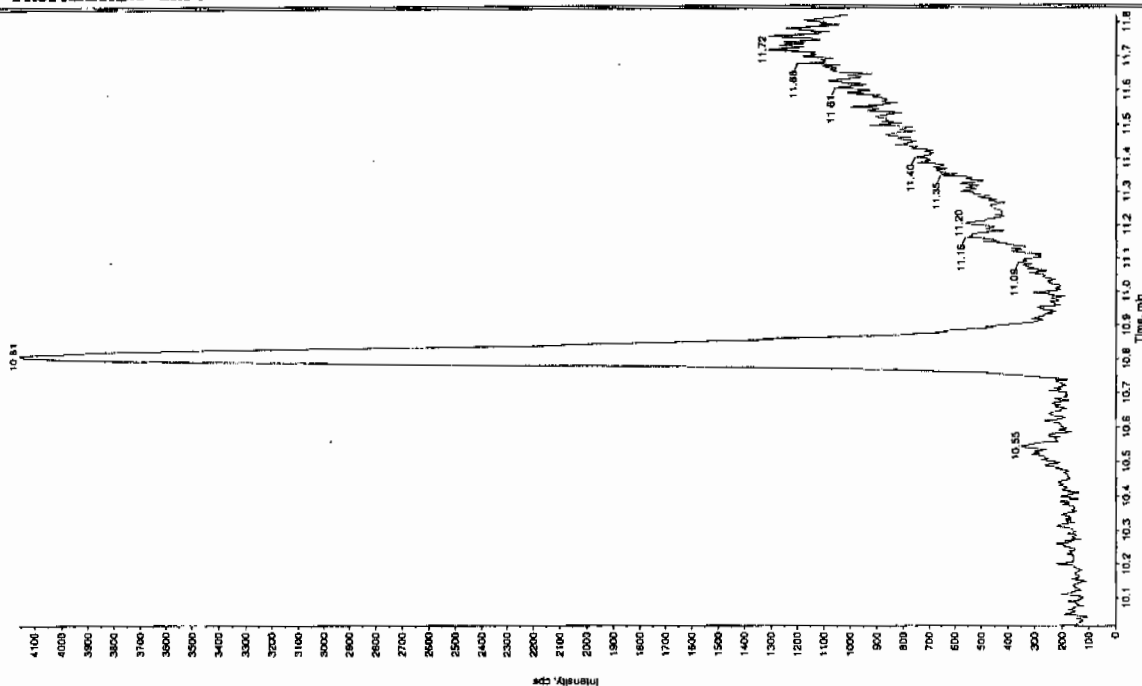
Sample Name: "248506015" Sample ID: "9508862121ER" File: "EXS040900035.will"  
 Peak Name: "24-Diamino-Enniobolene" Mass(es): "166.046.0 amu"  
 Comment: "LCX632125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/9/2010  
 Acq. Time: 4:08:54 PM  
 Modified: No



Sample Name: "248506015" Sample ID: "9508862121ER" File: "EXS040900035.will"  
 Peak Name: "11g(o-cresyl) phosphate" Mass(es): "369.191.0 amu"  
 Comment: "LCX632125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/9/2010  
 Acq. Time: 4:08:54 PM  
 Modified: No





1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7441

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506016

Sample Amount 2

Moisture: 22.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415055.wiff

Date Analyzed: 16-APR-10 09:28

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

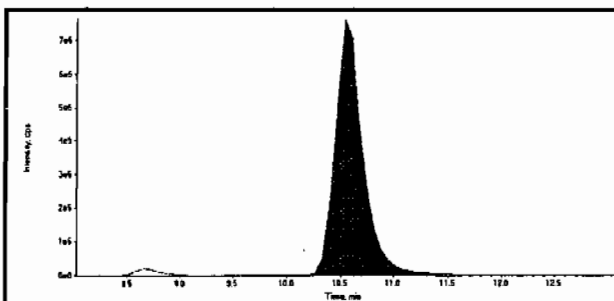
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

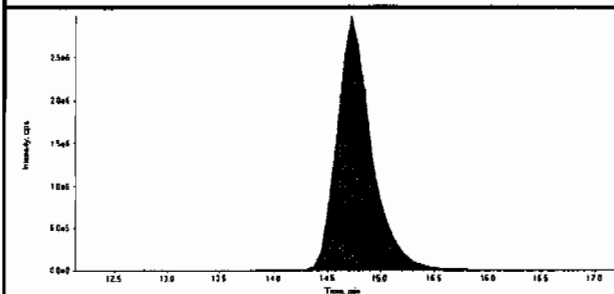
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

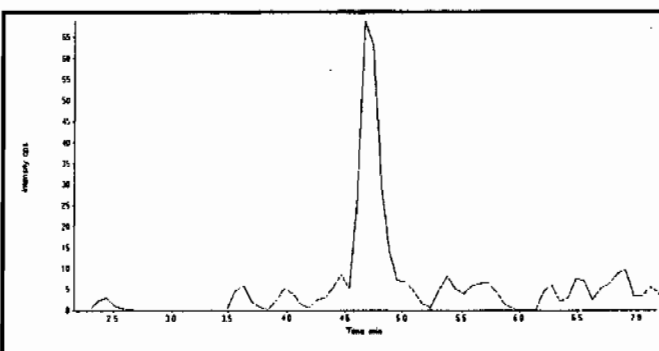
Data File	EXP0415055.wiff	Acquisition Date	4/16/2010 9:28:54 AM
Sample Name	248506016	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



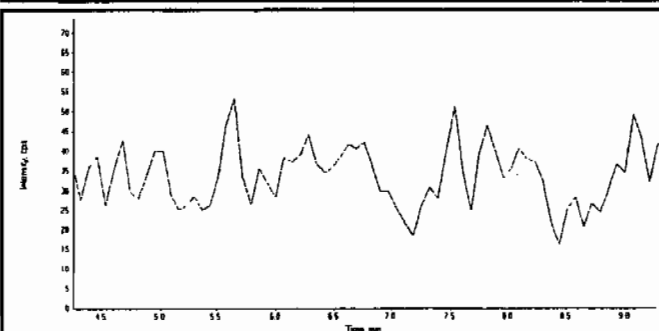
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	14000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	70100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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04/23/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415055.wiff	<b>Acquisition Date</b>	4/16/2010 9:28:54 AM
<b>Sample Name</b>	248506016	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.6
	Area Counts:	2.06e+004
	Manual Modification	No
	Amount:	4.39 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

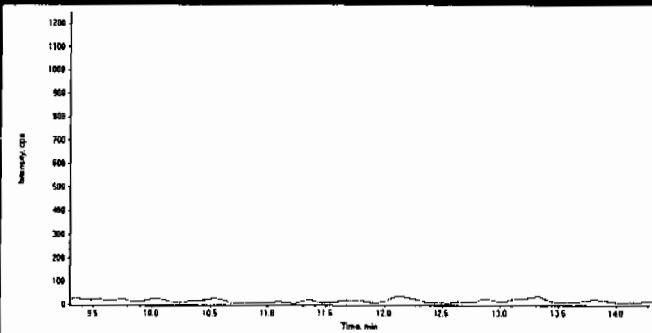
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

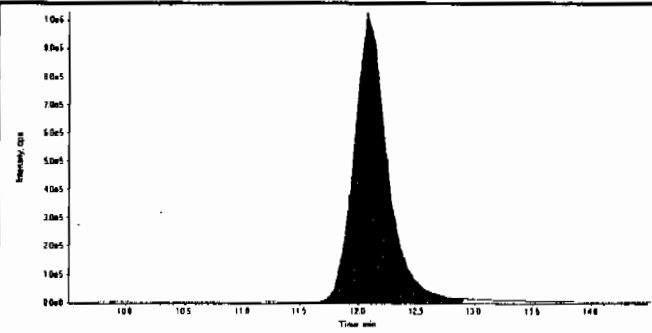
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415055.wiff	<b>Acquisition Date</b>	4/16/2010 9:28:54 AM
<b>Sample Name</b>	248506016	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

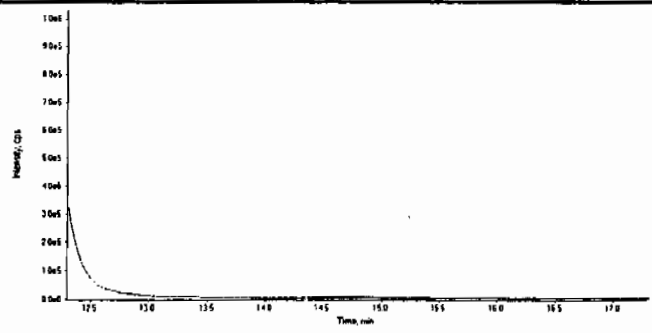
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

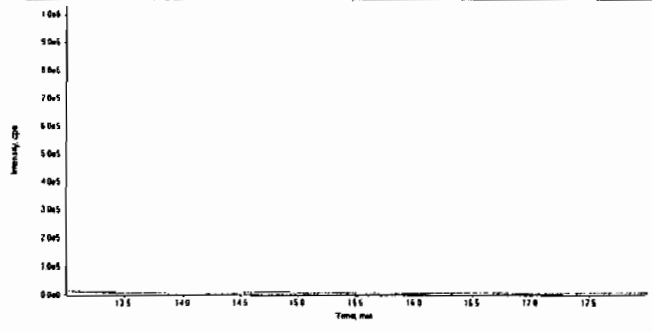
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	2.04e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	221. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.7
	<b>Area Counts:</b>	2.48e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415055.wiff	<b>Acquisition Date</b>	4/16/2010 9:28:54 AM
<b>Sample Name</b>	248506016	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	3.51e+003
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

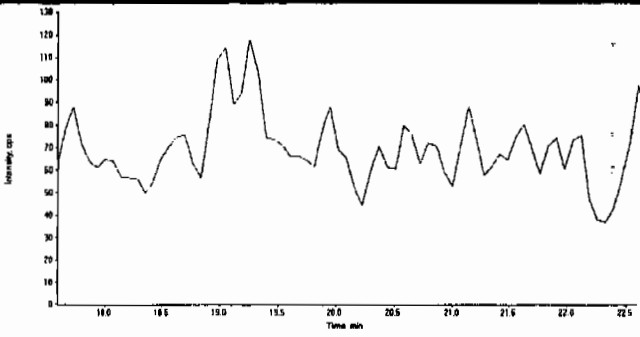
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

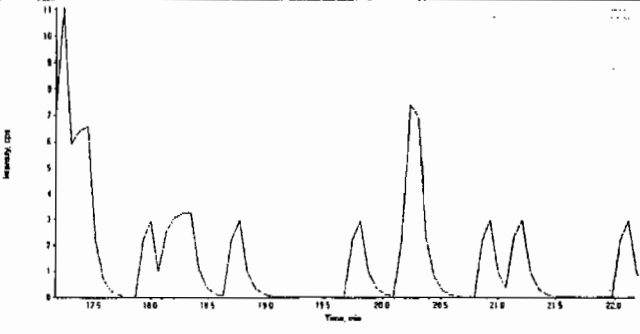
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415055.wiff	<b>Acquisition Date</b>	4/16/2010 9:28:54 AM
<b>Sample Name</b>	248506016	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7441

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506016

Sample Amount 2

Moisture: 22.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090036.wiff

Date Analyzed: 09-APR-10 16:24

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

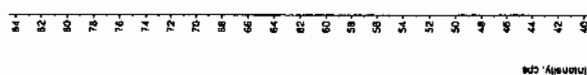
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

RAW 4/12/10

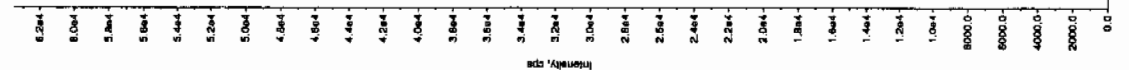
Sample Name: "248506016" Sample ID: "95098621LER" File: "EXS04090036.wif"  
 Peak Name: "TATB" Mass(es): "257.2204.9 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 4:24:35 PM  
 Modified: No



Sample Name: "248506016" Sample ID: "95098621LER" File: "EXS04090036.wif"  
 Peak Name: "35-Dimethylamine" Mass(es): "102.0465.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 4:24:35 PM  
 Modified: No

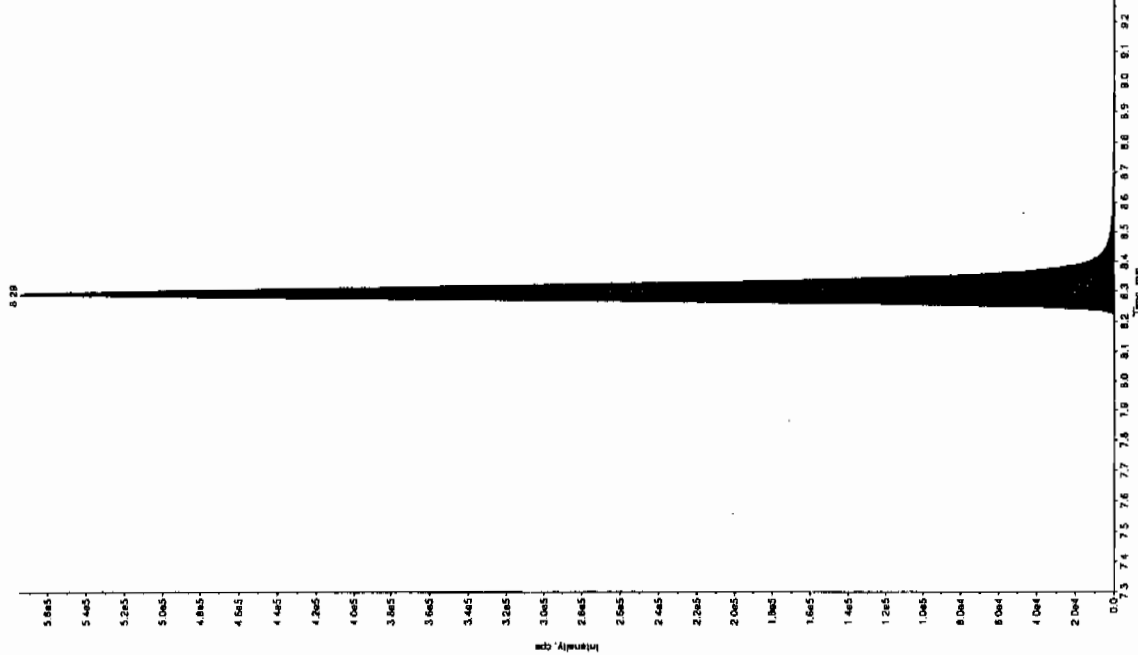


RAW 4/12/10



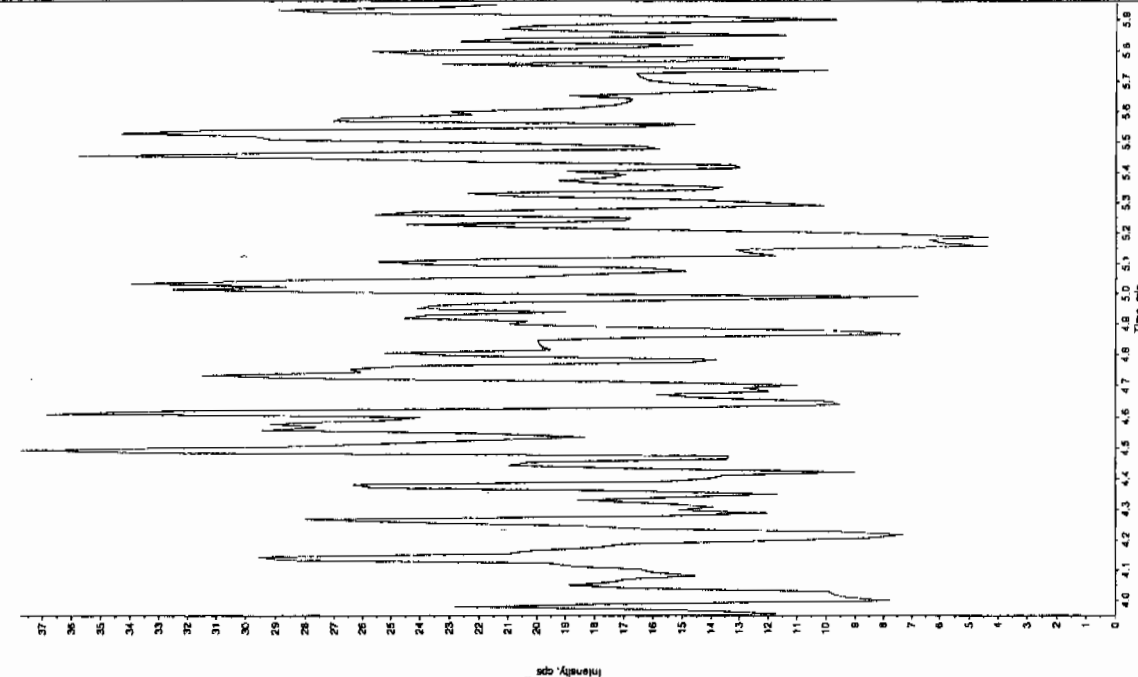
Sample Name: "248506016" Sample ID: "96098821LER" File: "EXS04090036.wif"  
 Peak Name: "34-Diamino-4-nitrofluorene" Mass(es): "182.1751.9 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Calculated Conc: 257 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 4:24:35 PM  
 Modified: No  
 Method: IntelligQuan - IQA  
 Peak Height: 1460.00 cps  
 Peak Width: 6.00 sec  
 Window: 30.0 points  
 Selected RT: 8.30 min  
 Relative RT: No  
 Type: Valley  
 Retention Time: 8.30 min  
 Counts: 576085.022  
 Height: 8.21 min  
 Start Time: 8.67 min  
 End Time:



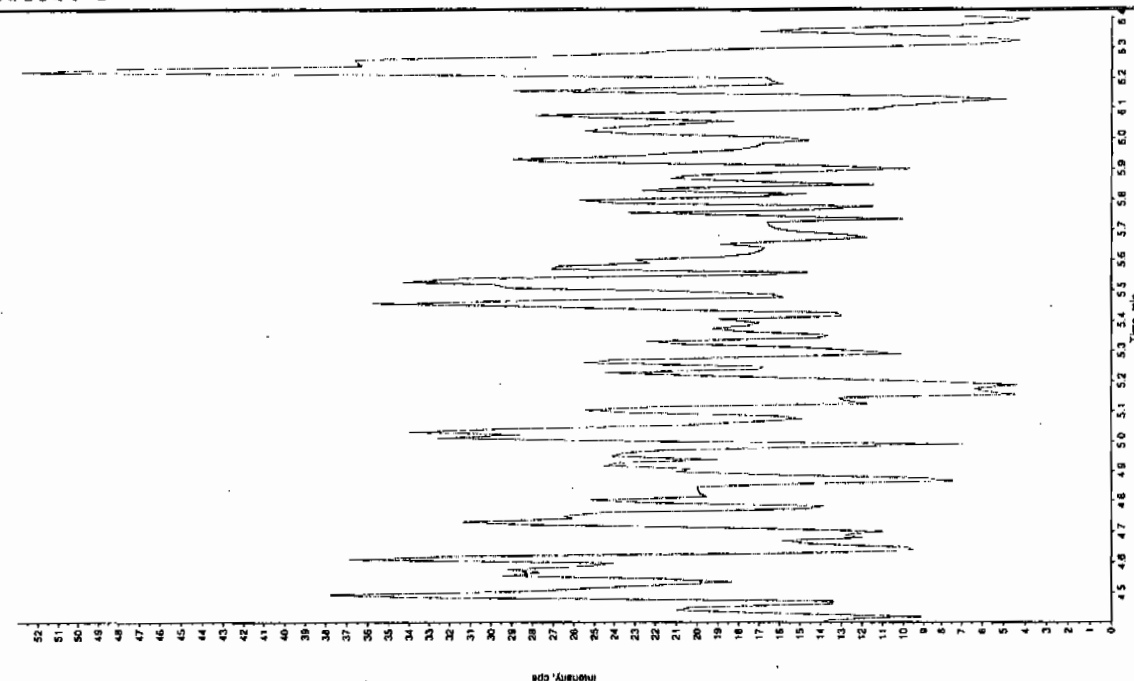
Sample Name: "248506016" Sample ID: "96098821LER" File: "EXS04090036.wif"  
 Peak Name: "26-Diamino-4-nitrofluorene" Mass(es): "166.0480 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 4:24:35 PM  
 Modified: No

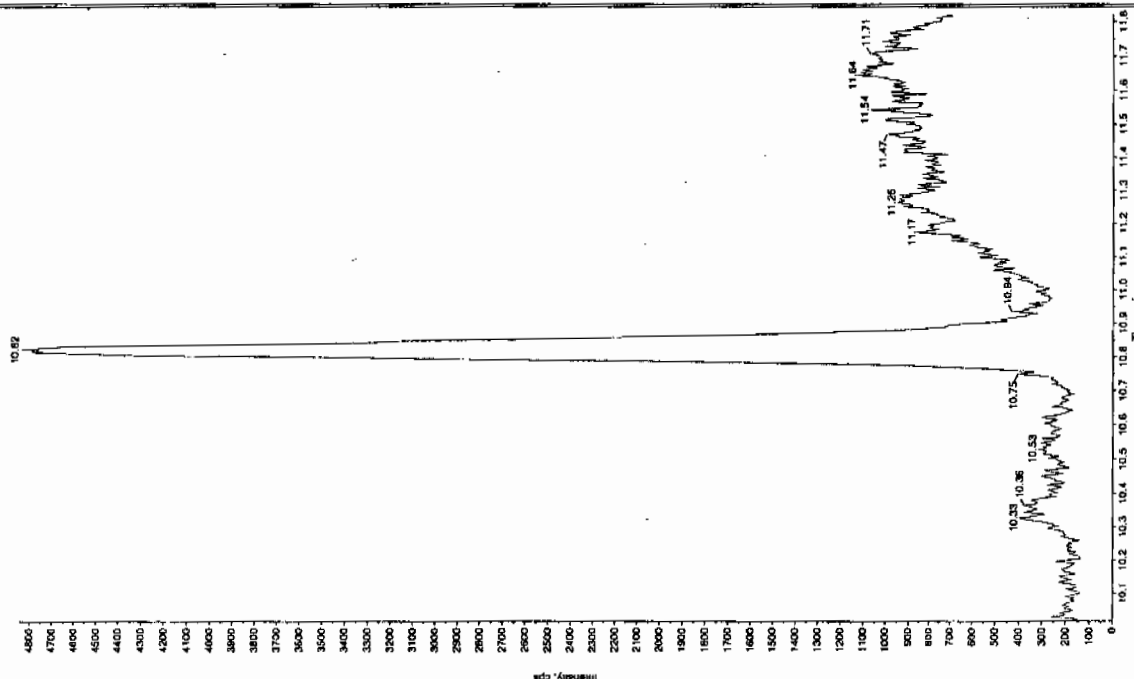


Sample Name: "24850616" Sample ID: "96096621.ER" File: "EXS04090036.wiff"  
 Peak Name: "Isis(crazy) phosphate" Mass(es): "568.191.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 4:24:35 PM  
 Modified: No



Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 4:24:35 PM  
 Modified: No



Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 4:24:35 PM  
 Modified: No

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7442

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506017

Sample Amount 2

Moisture: 13.3

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415059.wiff

Date Analyzed: 16-APR-10 11:13

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

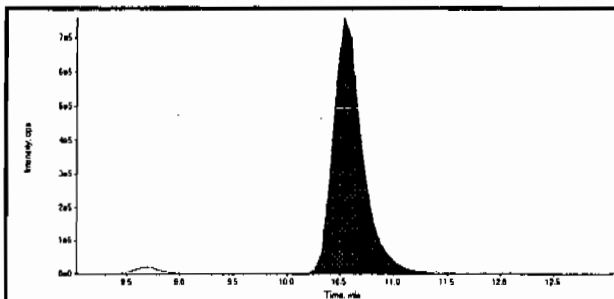
\*Concentration =

Instrument Value	X	<u>Concentrated Extract Volume</u>	X	Dilution Factor
		<u>Sample Amount</u>		

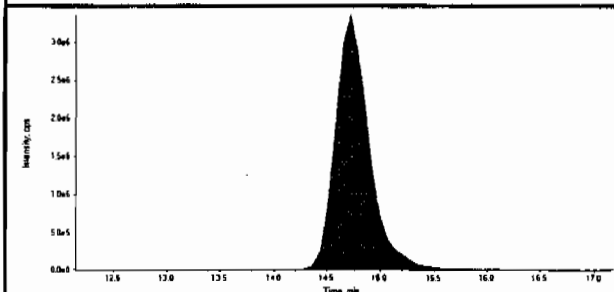
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

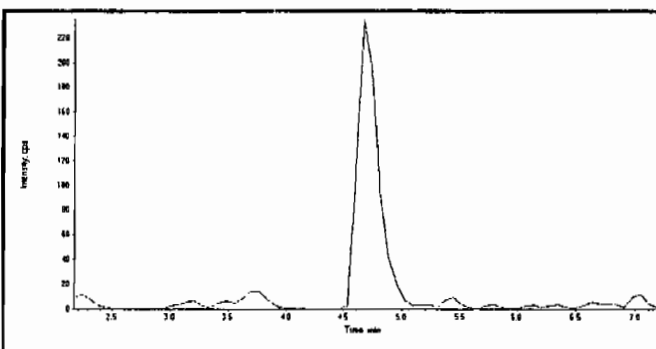
Data File	EXP0415059.wiff	Acquisition Date	4/16/2010 11:13:06 AM
Sample Name	248506017	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



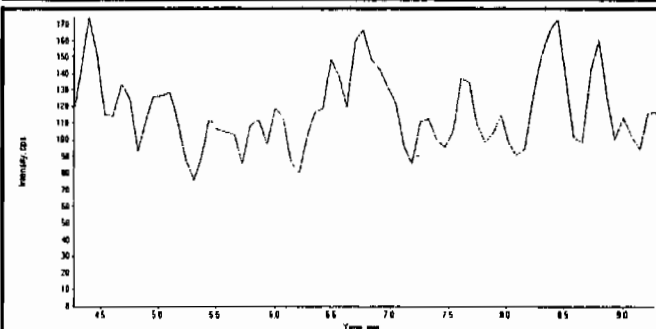
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	14800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	76000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4/23/10

Hmm  
04/23/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415059.wiff	<b>Acquisition Date</b>	4/16/2010 11:13:06 AM
<b>Sample Name</b>	248506017	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.6
	Area Counts:	2.34e+004
	Manual Modification	No
	Amount:	4.40 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415059.wiff	<b>Acquisition Date</b>	4/16/2010 11:13:06 AM
<b>Sample Name</b>	248506017	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	2.31e+007
	Manual Modification	No
	Amount:	231. (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.8
	Area Counts:	1.46e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415059.wiff	<b>Acquisition Date</b>	4/16/2010 11:13:06 AM
<b>Sample Name</b>	248506017	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

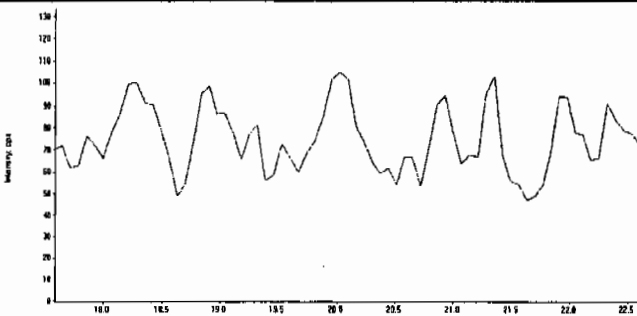
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

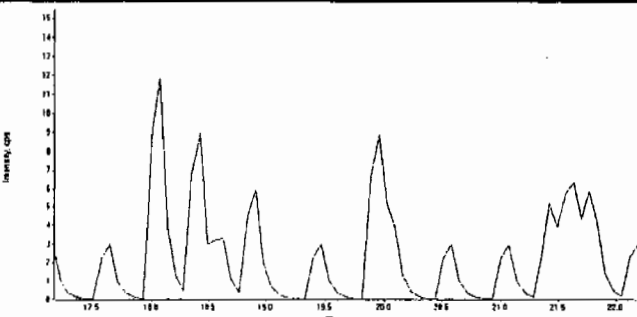
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415059.wiff	Acquisition Date	4/16/2010 11:13:06 AM
Sample Name	248506017	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7442

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506017

Sample Amount 2

Moisture: 13.3

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090040.wiff

Date Analyzed: 09-APR-10 17:27

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

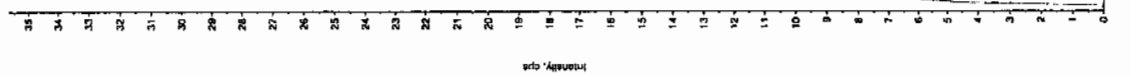
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Jan 4/12/10

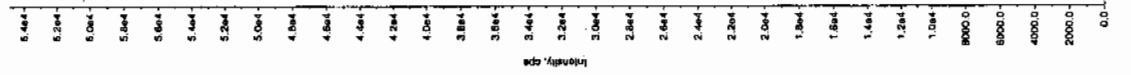
Sample Name: "248506017" Sample ID: "960986[2]LRF" File: "EXS04090040.wif"  
 Peak Name: "TATB" Mass(es): "257.2/204.9 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 5:27:24 PM  
 Modified: No



Sample Name: "248506017" Sample ID: "960986[2]LRF" File: "EXS04090040.wif"  
 Peak Name: "35-Dinitroaniline" Mass(es): "182.0/165.0 amu"  
 Comment: "LCX83212S" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 5:27:24 PM  
 Modified: No



Jan 4/12/10

Sample Name: "248506017" Sample ID: "9609862JLER" File: "EXS04090040.will"  
Peak Name: "34-Dinitrotoluene" Mass(es): "162.1/151.9 amu"

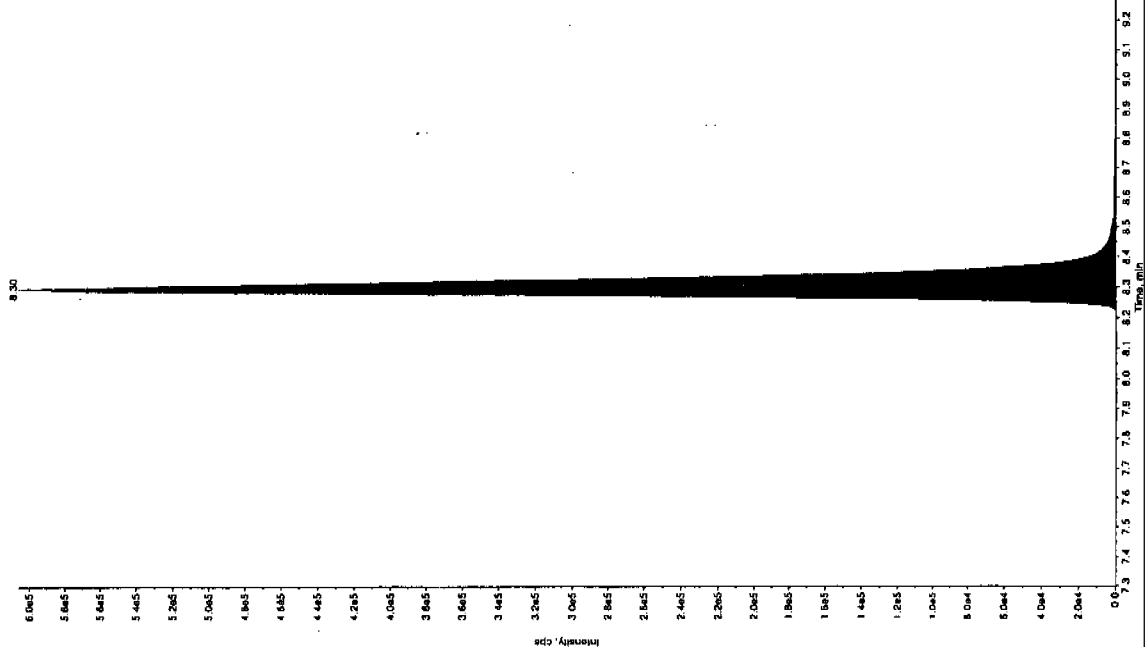
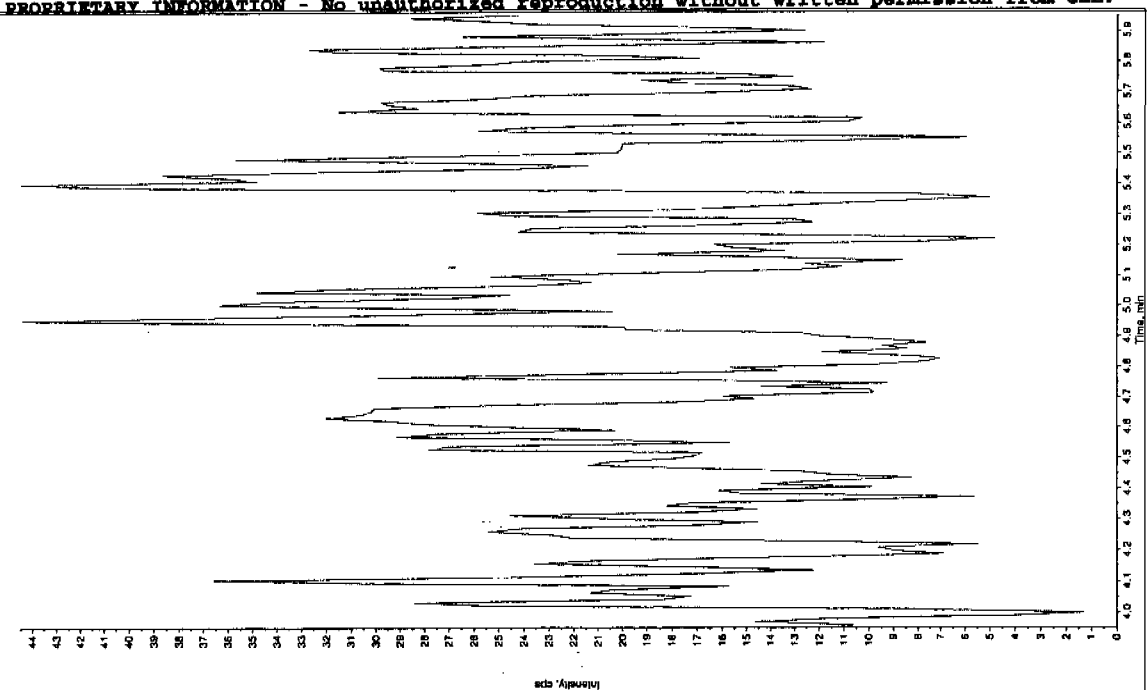
Comment: 'LCX83212S' Annotation: \*\*

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00
Acq. Date:	4/9/2010
Acq. Time:	5:27:24 PM
Modified:	No

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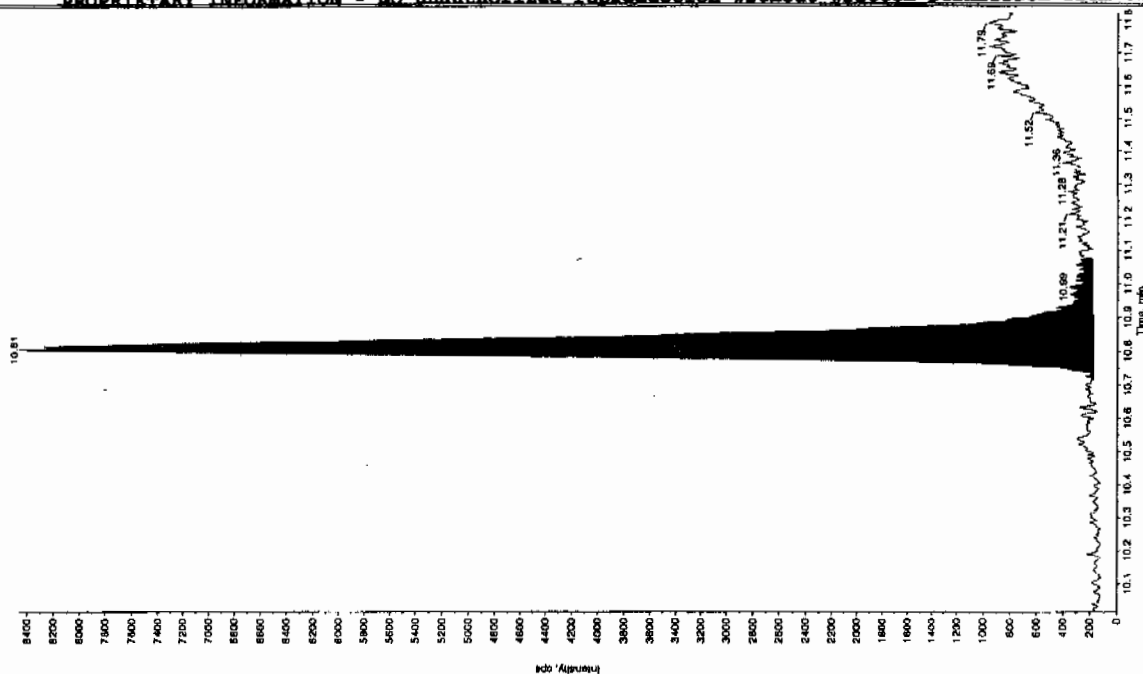
Sample Index: 1
Sample Type: Unknown
Concentration: 249 ng/mL
Conc: 249
Acq. Date: 4/19/2010
Acq. Time: 5:17:24 PM
Modified: NO
Processor: Algorithm: IntelliCoun - IOA
Peak Height: 1460.00 cps
Peak Width: 3.0-5.0 points
Sweeping Width: 30.0 sec
RT Window: 30.0 min
Expected RT: 8.30 min
Use Relative RT: NO
RT: 8.85 min
RT Type: Valley
Retention Time: 2.17e+06 min
Height: 505705.872 counts
Start Time: 8.17 min
End Time: 8.85 min

```



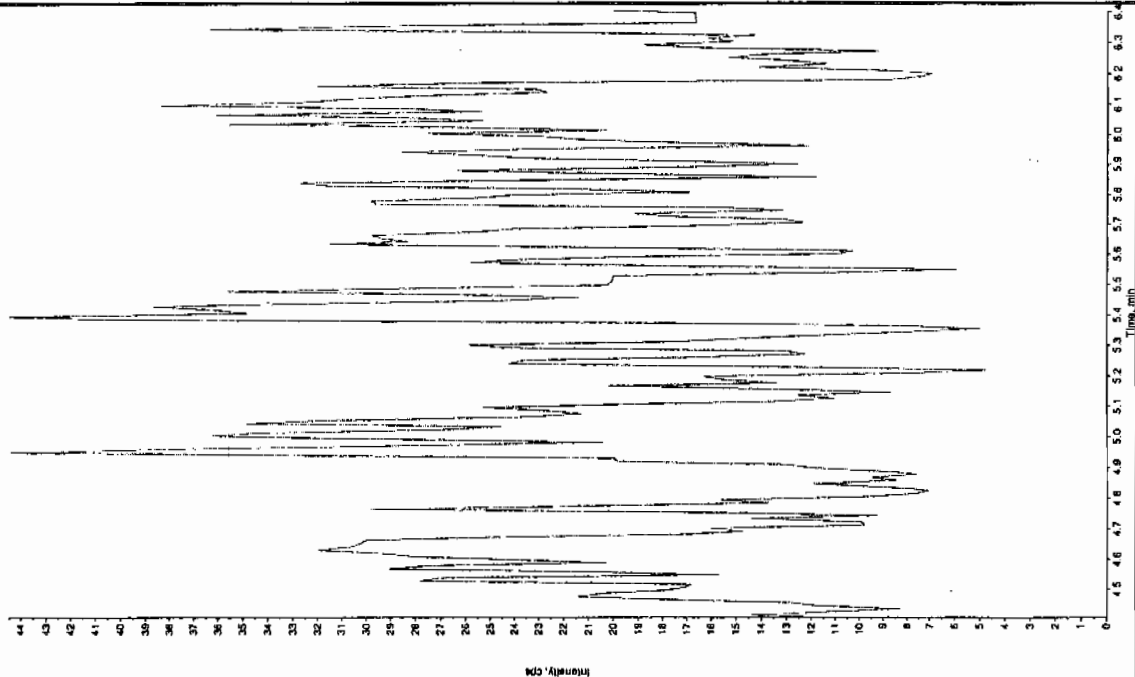
Sample Name: "248506017" Sample ID: "96098921ER" File: "EX504090040.wif"  
 Peak Name: "tris(2-ethyl phosphato)" Mass(es): "369.191.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.649 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 5:27:24 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Run Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 3.52e+004 counts  
 Height: 8281.518 cps  
 Start Time: 10.7 min  
 End Time: 11.1 min



Sample Name: "248506017" Sample ID: "96098921ER" File: "EX504090040.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 5:27:24 PM  
 Modified: No



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7436

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506018

Sample Amount 2

Moisture: 21.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415060.wiff

Date Analyzed: 16-APR-10 11:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

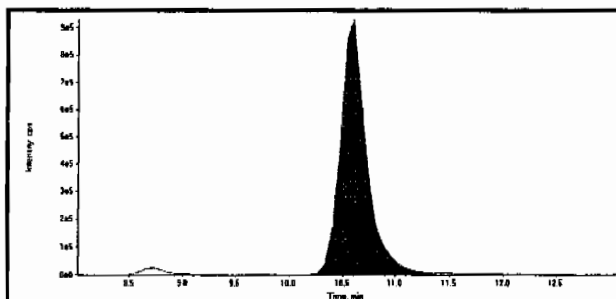
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

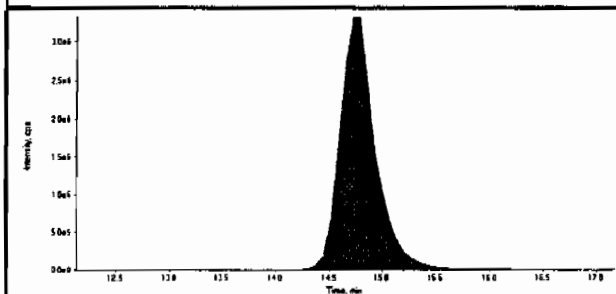
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

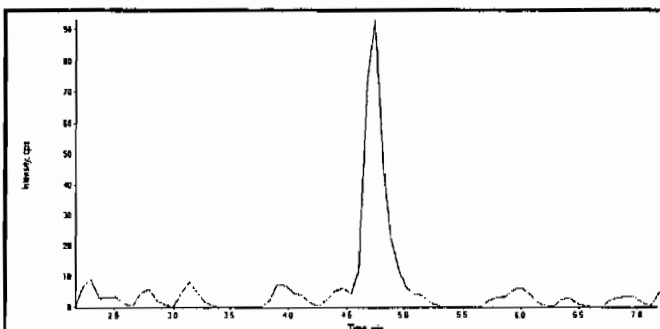
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Sample Name	248506018	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



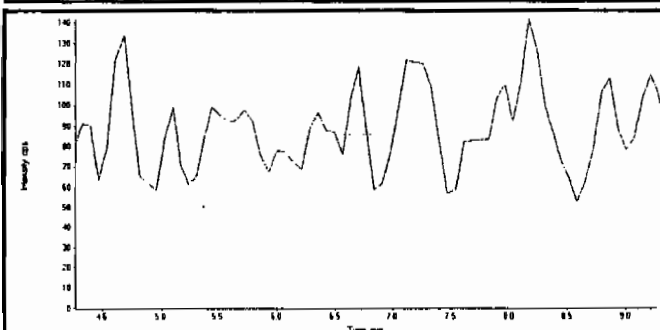
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	16400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	79700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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04/23/10

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415060.wiff	<b>Acquisition Date</b>	4/16/2010 11:39:13 AM
<b>Sample Name</b>	248506018	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

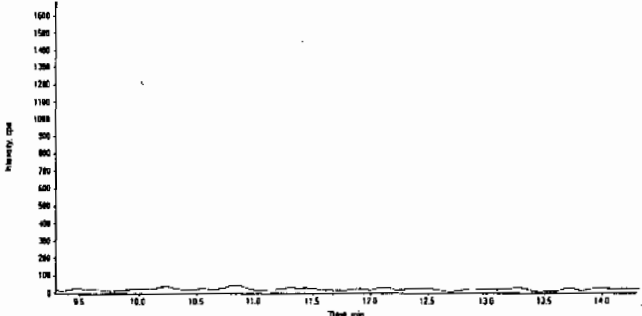
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

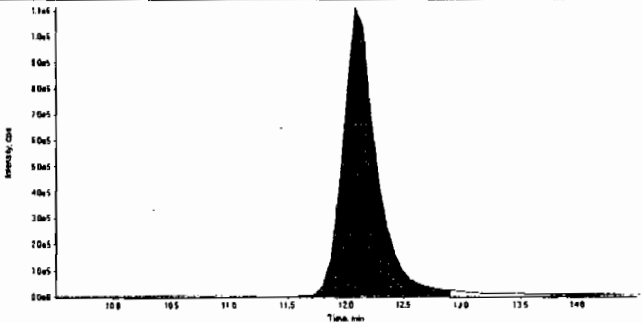
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LCMSMS#3

<b>Data File</b>	EXP0415060.wiff	<b>Acquisition Date</b>	4/16/2010 11:39:13 AM
<b>Sample Name</b>	248506018	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

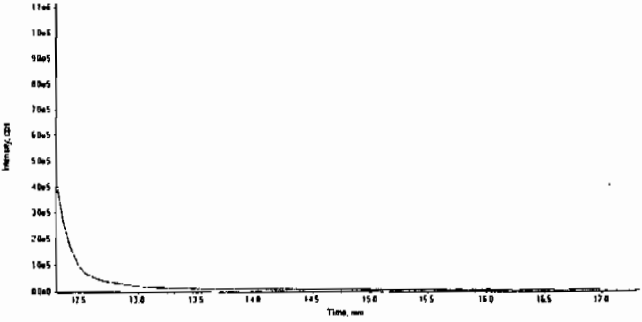
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

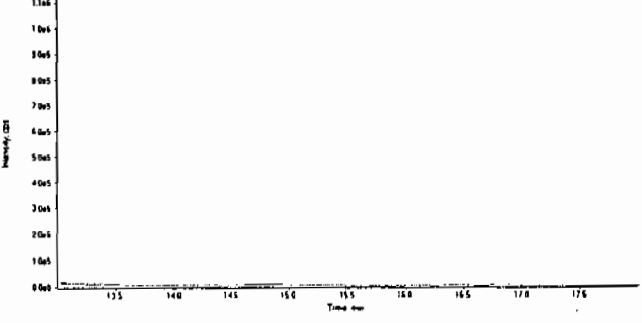
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	2.28e+007
	Manual Modification	No
	Amount:	217. (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.7
	Area Counts:	2.50e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

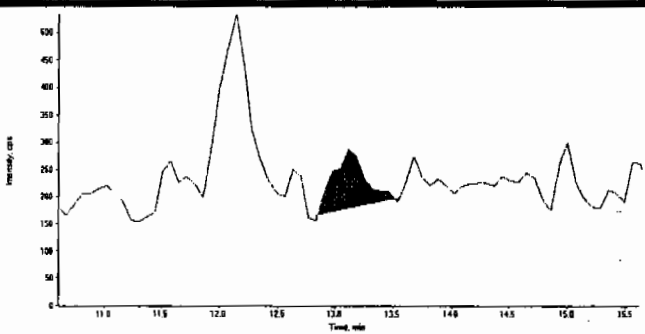


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

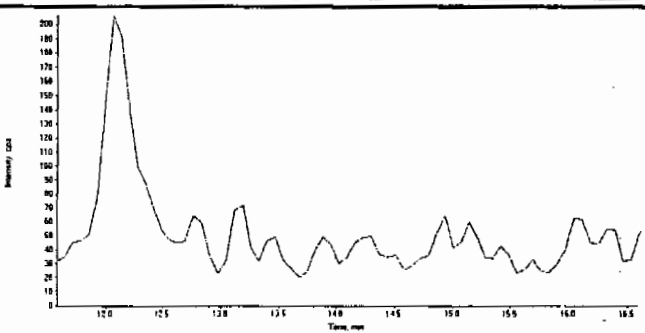
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LCMSMS#3

<b>Data File</b>	EXP0415060.wiff	<b>Acquisition Date</b>	4/16/2010 11:39:13 AM
<b>Sample Name</b>	248506018	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

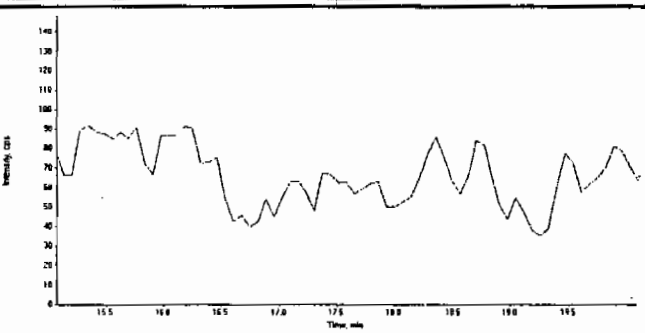
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.1
	Area Counts:	2.03e+003
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

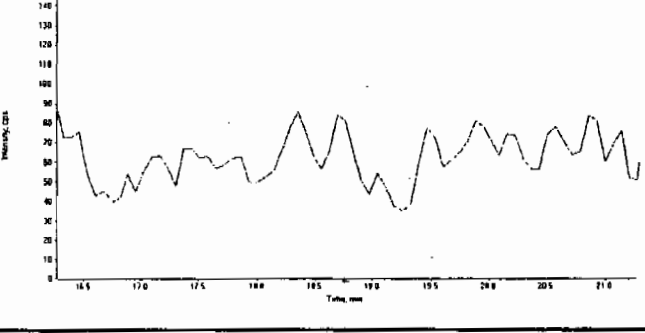
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

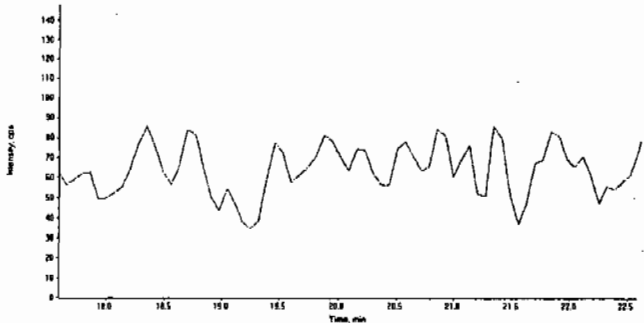
  

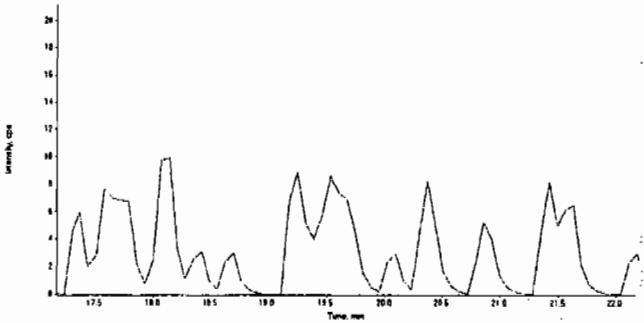
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415060.wiff	Acquisition Date	4/16/2010 11:39:13 AM
Sample Name	248506018	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7436

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506018

Sample Amount 2

Moisture: 21.4

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090041.wiff

Date Analyzed: 09-APR-10 17:43

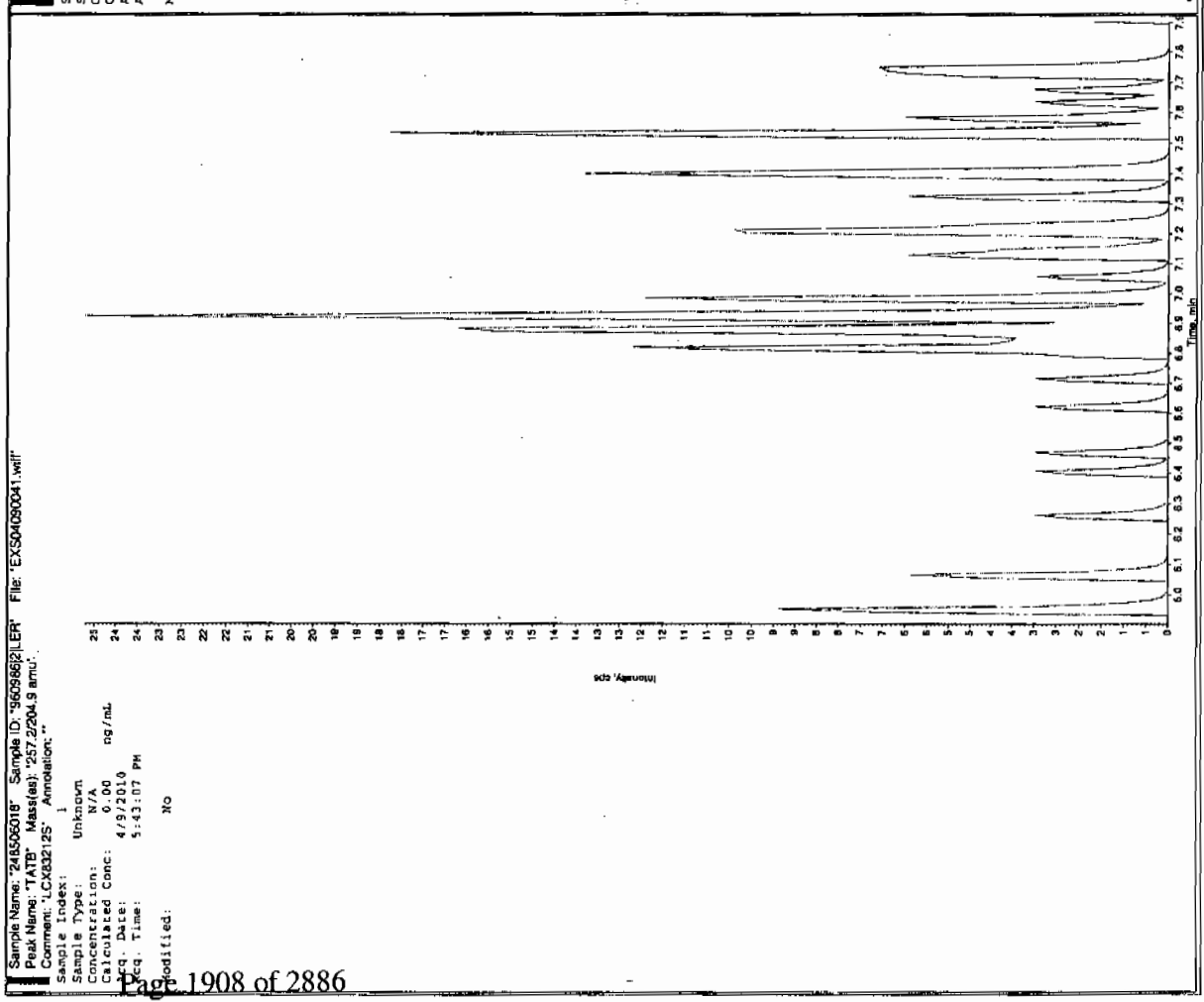
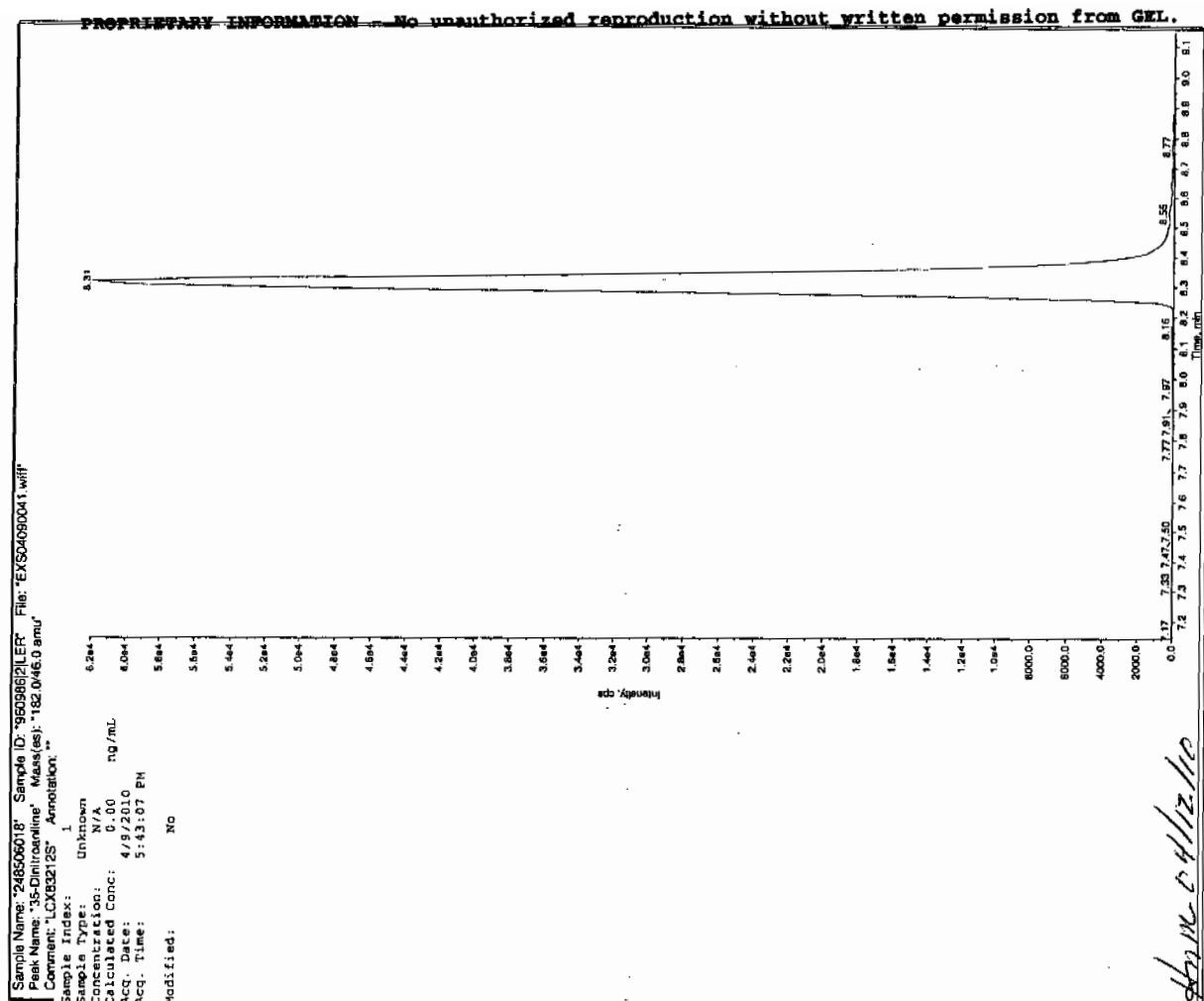
Units: ug/kg

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	X	<u>Concentrated Extract Volume</u>	X	Dilution
Value		<u>Sample Amount</u>		Factor

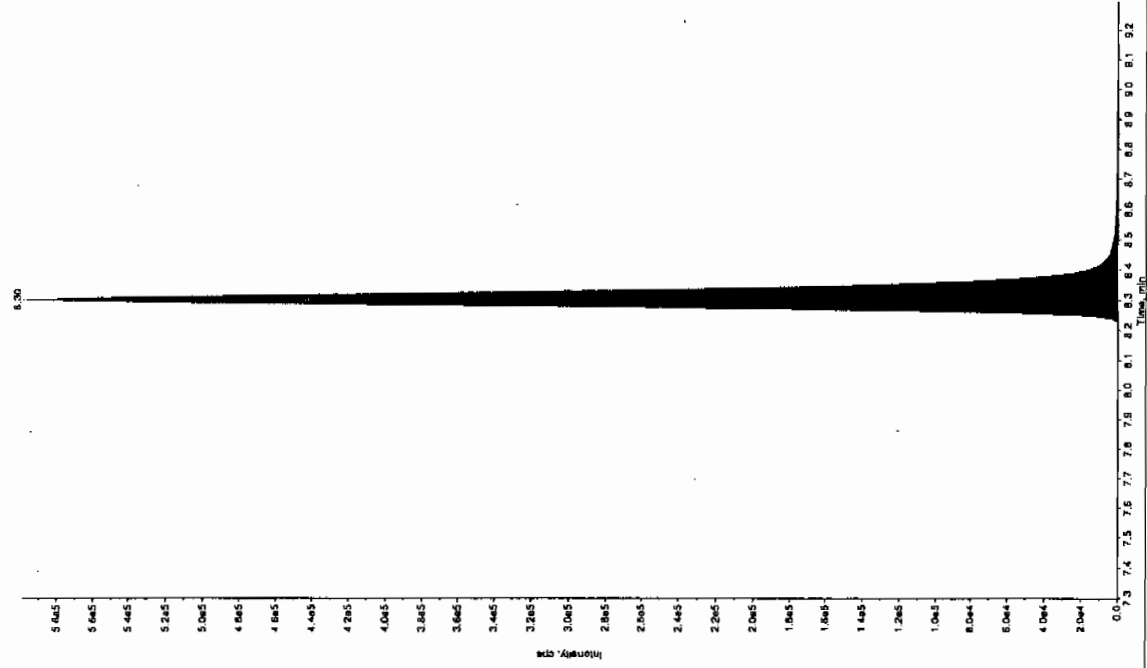
Run 4/12/10



Run 4/12/10

Sample Name: "248506018" Sample ID: "9609869JL1ER" File: "EX504080041.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/9/2010  
 Acq. Time: 5:43:07 PM  
 Modified: No



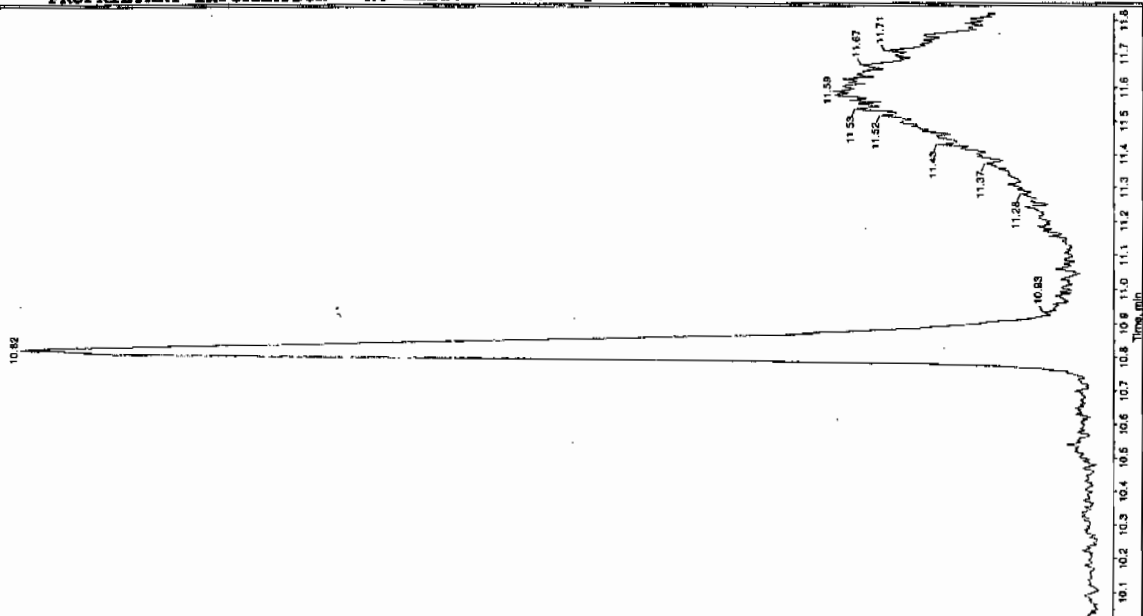
Sample Name: "248506018" Sample ID: "9609869JL1ER" File: "EX504080041.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 255. ng/mL  
 Calculated Conc: 255.  
 Acq. Date: 4/9/2010  
 Acq. Time: 5:43:07 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 8.30 min  
 Observed Relative RT: No  
 Obs. Type: Valley  
 Retention Time: 8.30 min  
 Area: 2.28e+006 counts  
 Height: 599531.067 cps  
 Start Time: 8.21 min  
 End Time: 8.70 min

Sample Name: "248506018" Sample ID: "96090621LER" File: "EXS04090041.wif"  
 Peak Name: "bis(o-cresyl) phosphat" Mass(es): "369.19; 0 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 5:43:07 PM  
 Modified: NO

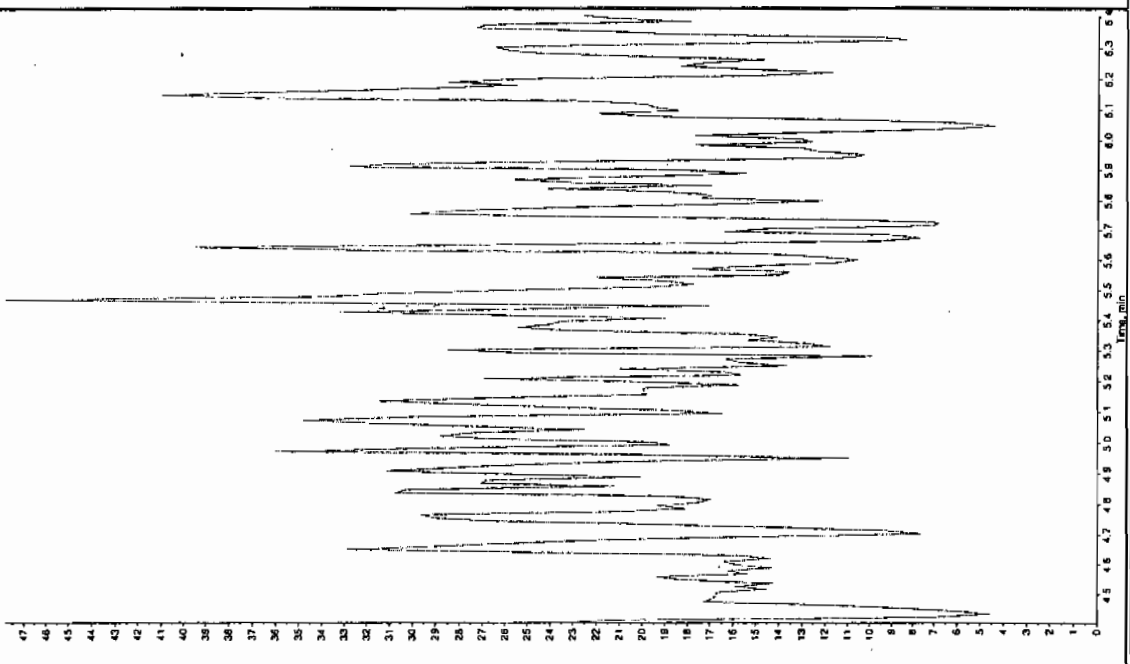
Intensity, cps



Sample Name: "248506018" Sample ID: "96090621LER" File: "EXS04090041.wif"  
 Peak Name: "24-Diamino-6-nitrobenzine" Mass(es): "166.046 0 amu"  
 Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 5:43:07 PM  
 Modified: NO

Intensity, cps



1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7438

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506019

Sample Amount 2

Moisture: 5.3

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415061.wiff

Date Analyzed: 16-APR-10 12:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

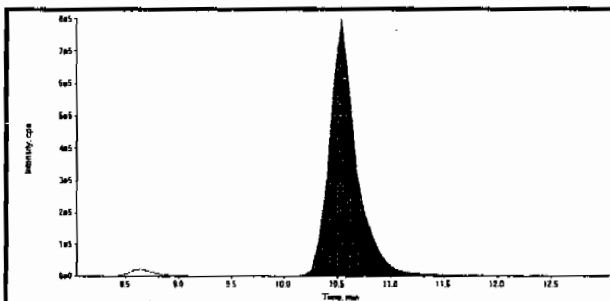
\*Concentration =

Instrument				
Value	X	Concentrated Extract Volume	X	Dilution
		Sample Amount		Factor

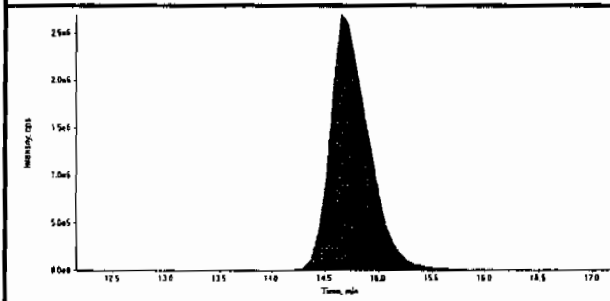
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

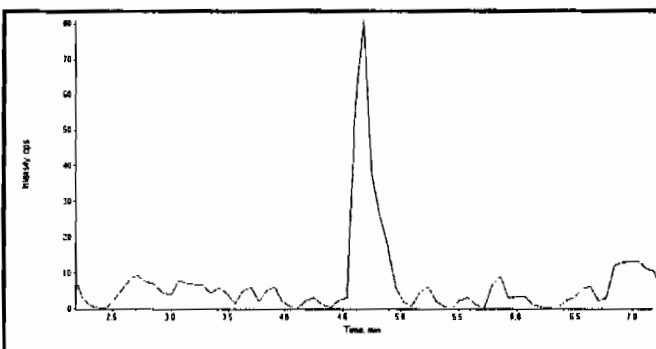
Data File	EXP0415061.wiff	Acquisition Date	4/16/2010 12:05:11 PM
Sample Name	248506019	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



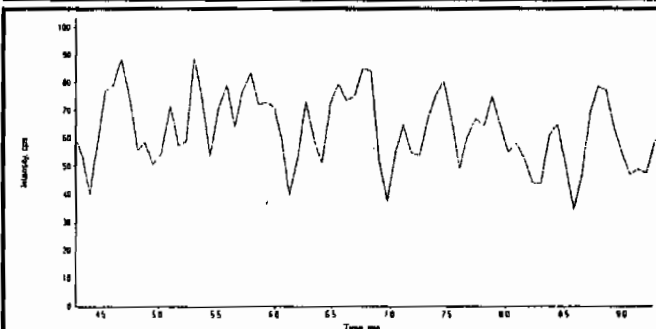
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	14100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.60
Area Counts:	67400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Jan  
4/23/10

Amie  
04/23/10

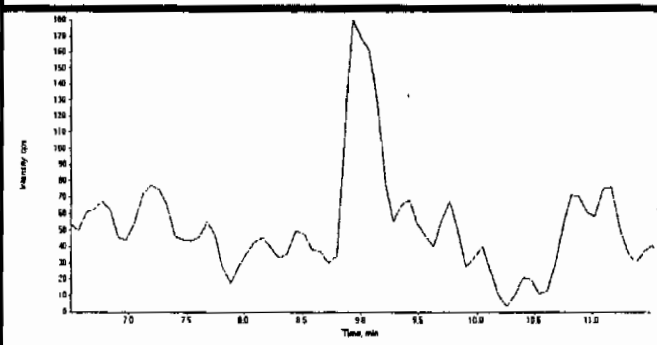


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

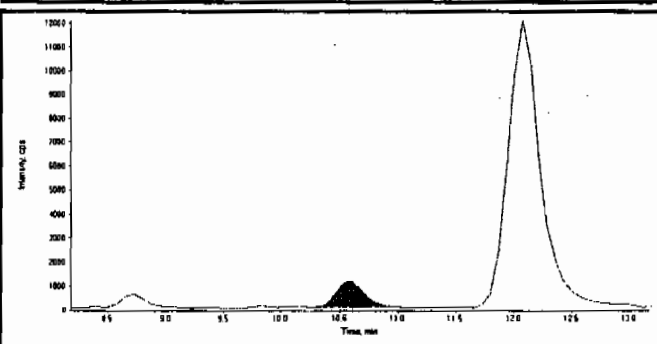
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415061.wiff	<b>Acquisition Date</b>	4/16/2010 12:05:11 PM
<b>Sample Name</b>	248506019	<b>Acquisition Method</b>	8321.dam
<b>Batch/Dilution/Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

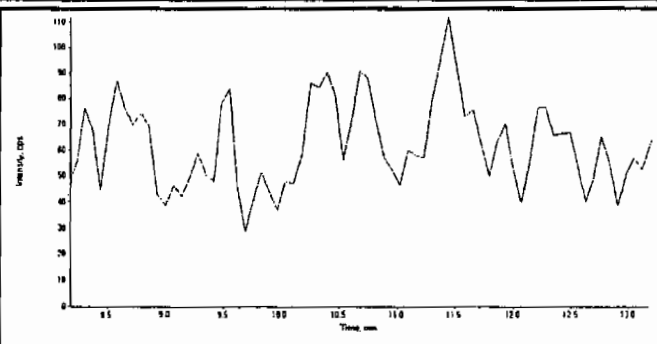
  

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

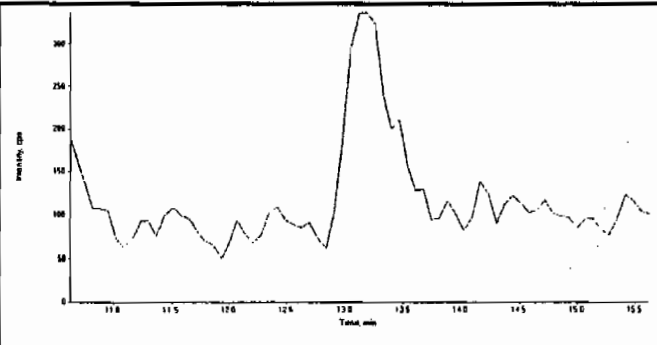
  

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.6
	Area Counts:	1.90e+004
	Manual Modification	No
	Amount:	4.37 (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

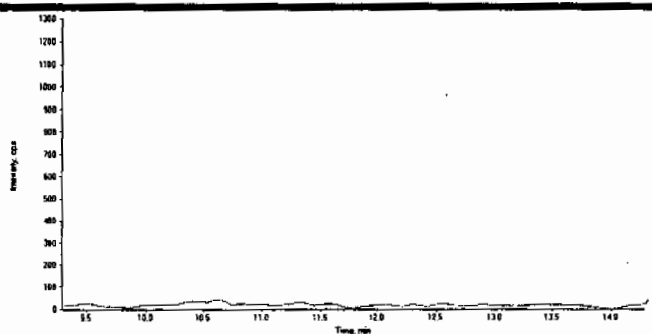
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

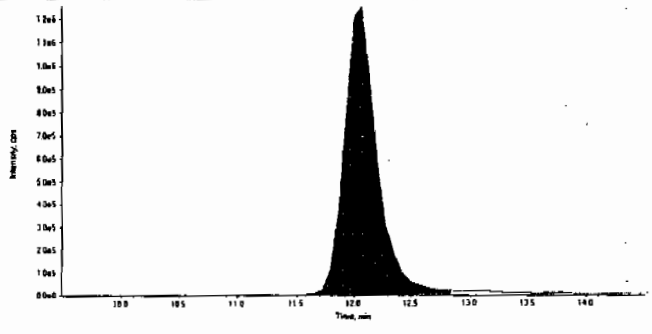
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415061.wiff	<b>Acquisition Date</b>	4/16/2010 12:05:11 PM
<b>Sample Name</b>	248506019	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

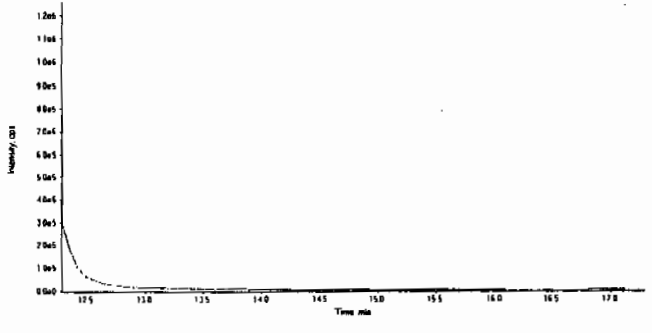
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

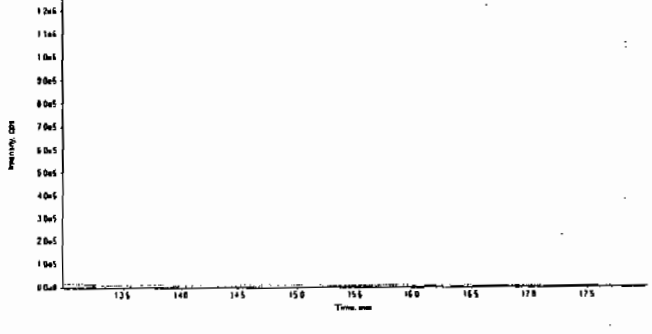
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	2.55e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	288. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.7
	<b>Area Counts:</b>	2.60e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415061.wiff	<b>Acquisition Date</b>	4/16/2010 12:05:11 PM
<b>Sample Name</b>	248506019	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

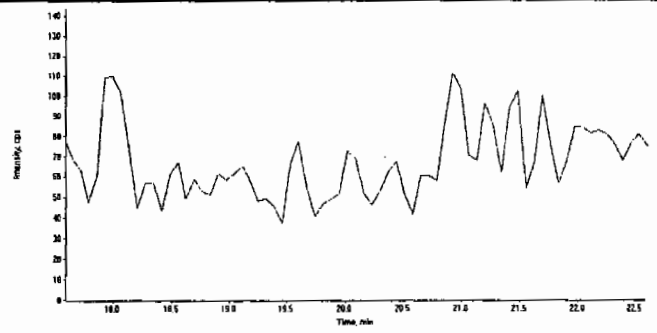
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

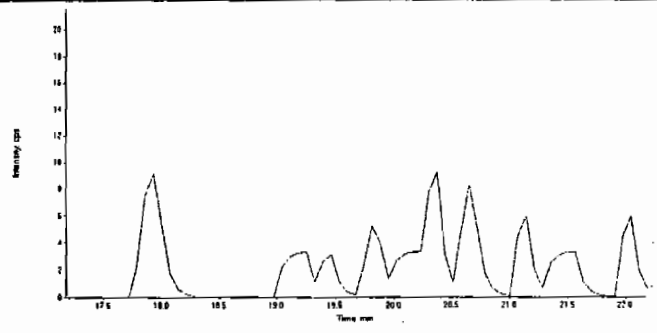
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415061.wiff	<b>Acquisition Date</b>	4/16/2010 12:05:11 PM
<b>Sample Name</b>	248506019	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7438

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506019

Sample Amount 2

Moisture: 5.3

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090042.wiff

Date Analyzed: 09-APR-10 17:58

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

San 4/12/10

Sample Name: "248506019" Sample ID: "96098621.ER" File: "EXS04050042.wif"

Peak Name: "TATB" Mass(es): "257.2204.9 amu"

Comment: "LCX83212S" Annotation: ""

Sample Index: 1

Sample Type: Unknown

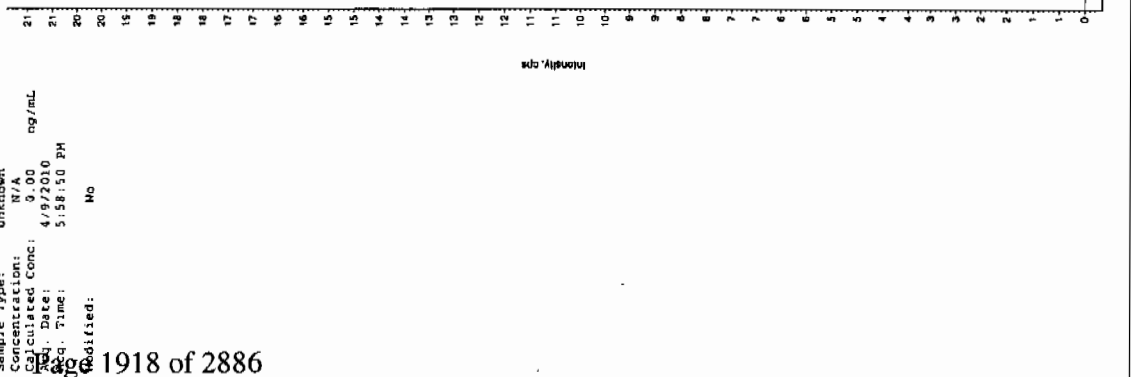
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 4/9/2010

Acq. Time: 5:58:50 PM

Modified: No



Sample Name: "248506019" Sample ID: "96098621.ER" File: "EXS04050042.wif"

Peak Name: "35-Dinitroaniline" Mass(es): "182.0465.0 amu"

Comment: "LCX83212S" Annotation: ""

Sample Index: 1

Sample Type: Unknown

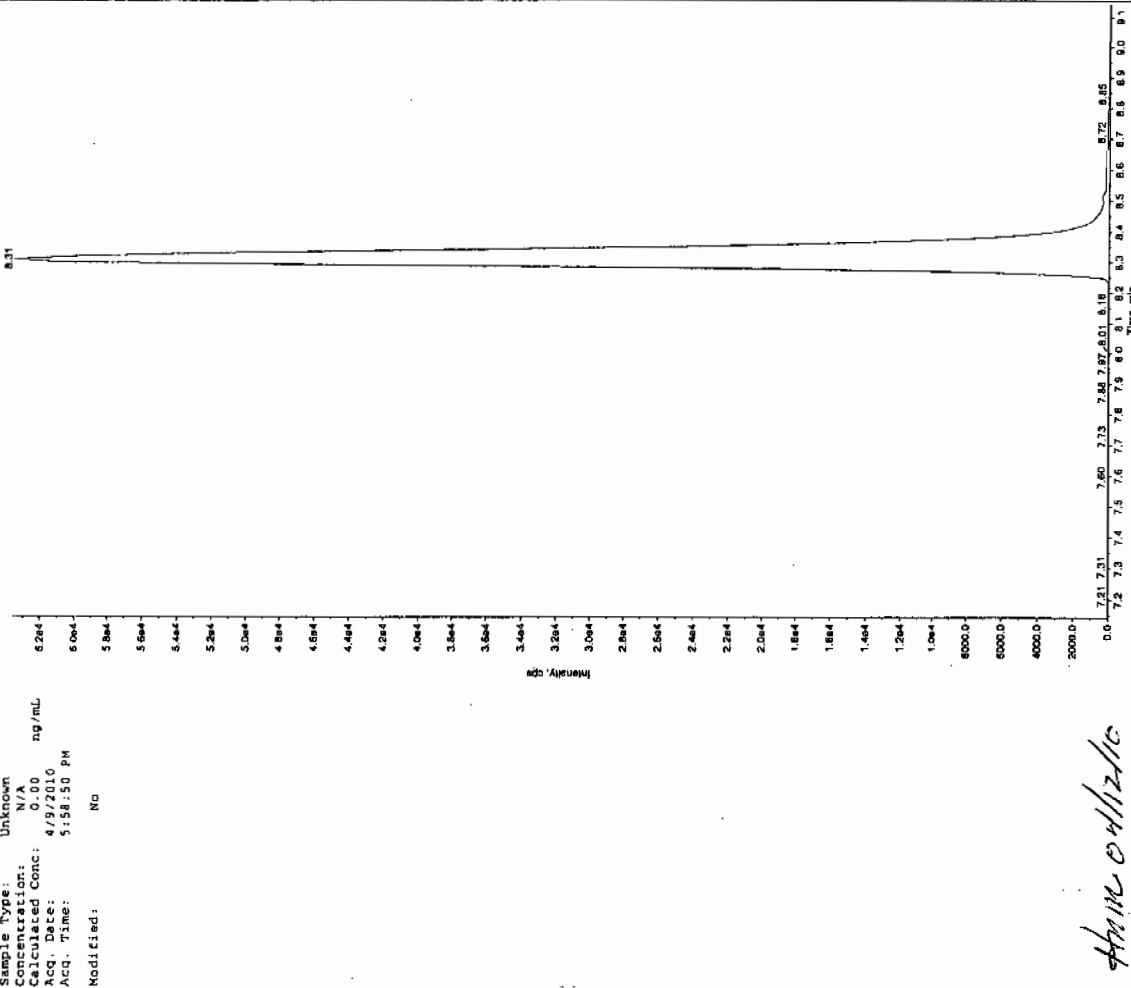
Concentration: N/A

Calculated Conc: 0.00 ng/mL

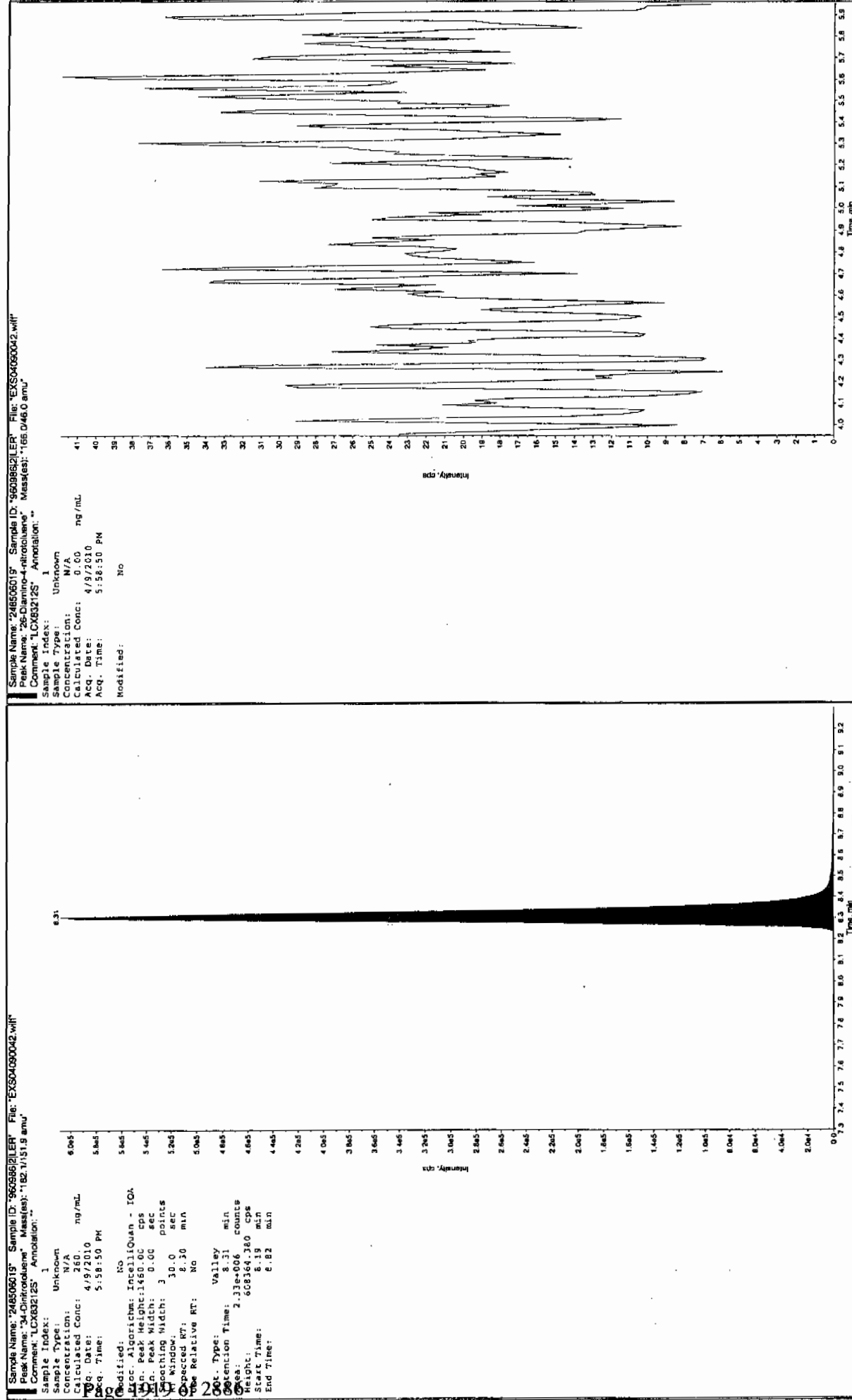
Acq. Date: 4/9/2010

Acq. Time: 5:58:50 PM

Modified: No



San 4/12/10



Sample Name: "248506019" Sample ID: "96098621ER" File: "EX504090042.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCX83212S" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 5:58:50 PM  
 Modified: No

Sample Name: "248506019" Sample ID: "96098621ER" File: "EX504090042.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.1/151.9 amu"  
 Comment: "LCX83212S" Annotation: ""  
 Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 260.0 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 5:58:50 PM  
 Modified: No  
 Proc. Algorithm: IntCellQuan - IOA  
 Min. Peak Height: 1450.00 cps  
 Min. Peak Width: 3.00 sec  
 Ret. Width: 30.0 sec  
 Expected RT: 8.30 min  
 Relative RT: No  
 Det. Type: Valley  
 Retention Time: 8.31 min  
 Area: 2.33e+006 counts  
 Height: 608364.280 cps  
 Start Time: 8.19 min  
 End Time: 8.82 min

Sample Name: "248506019" Sample ID: "960986[2] ER" File: "EXS04060042.wif"

Peak Name: "Tris(o-cresyl) phosphite" Mass(es): "369.191.0 amu"

Comment: "LCX832125" Annotation: ""

Sample Index: 1

Sample Type: Unknown

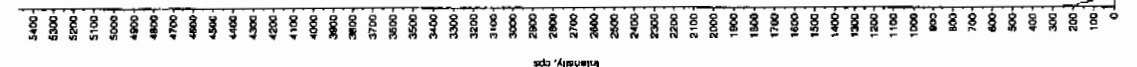
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 4/9/2010

Acq. Time: 5:58:50 PM

Modified: No



Sample Name: "248506019" Sample ID: "960986[2] ER" File: "EXS04060042.wif"

Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "186.046.0 amu"

Comment: "LCX832125" Annotation: ""

Sample Index: 1

Sample Type: Unknown

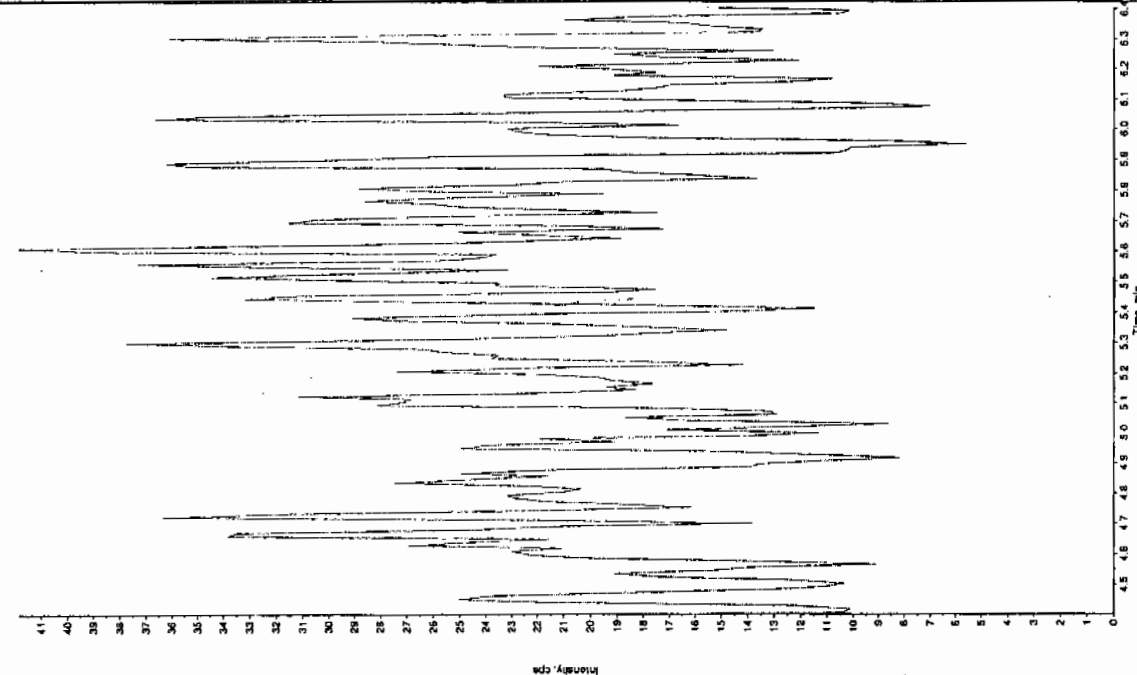
Concentration: N/A

Calculated Conc: 0.00 ng/mL

Acq. Date: 4/9/2010

Acq. Time: 5:58:50 PM

Modified: No





1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7439

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506020

Sample Amount 2

Moisture: 18.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415062.wiff

Date Analyzed: 16-APR-10 12:31

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

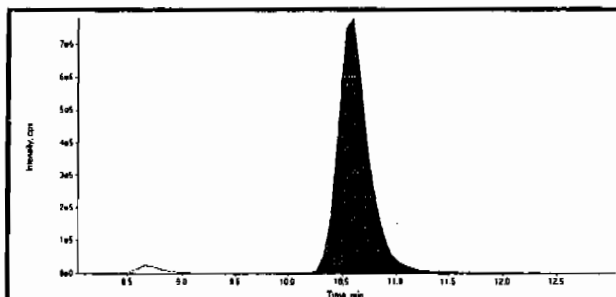
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

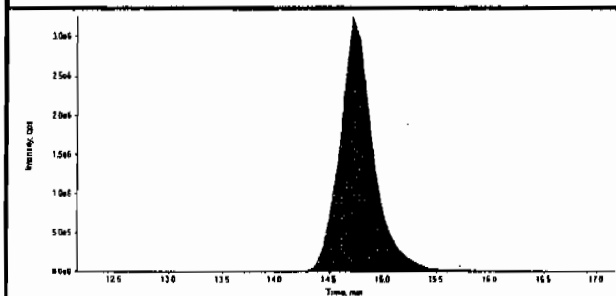
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

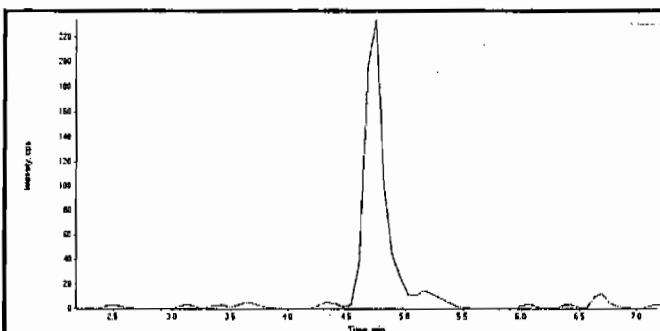
Data File	EXP0415062.wiff	Acquisition Date	4/16/2010 12:31:09 PM
Sample Name	248506020	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



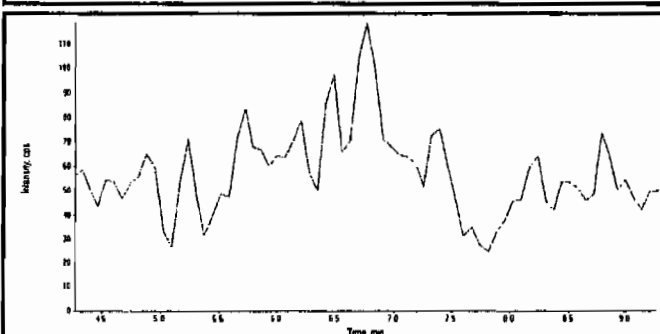
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	15300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	70200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*Jan 4/23/10*

*Amu 04/23/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415062.wiff	<b>Acquisition Date</b>	4/16/2010 12:31:09 PM
<b>Sample Name</b>	248506020	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

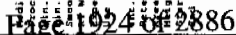
	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A



\*GEL SOP GL-0A-E-056, Method 8321A-Modified LCM SMS#3

after Jan 4/03/10

Sample Name: 24305020 Sample ID: 90508421 File: EXP015082.wif

Peak Name: 34-dinitrophenyl Mes(4e) 182.046.0 amu

Concentration: 241.0 ng/mL

Sample Type: Unknown

Calculated Conc: 241.0 ng/mL

Acq. Time: 12:31:03 PM

Acq. Date: 1/3/10

Acq. Time: 12:31:03 PM

Acq. Date: 1/3/10

Acq. Time: 12:31:03 PM

Acq. Date: 1/3/10

Acq. Time: 12:31:03 PM

Acq. Date: 1/3/10

Acq. Time: 12:31:03 PM

Acq. Date: 1/3/10

Acq. Time: 12:31:03 PM

Acq. Date: 1/3/10

Acq. Time: 12:31:03 PM

Acq. Date: 1/3/10

Acq. Time: 12:31:03 PM

Acq. Date: 1/3/10

Acq. Time: 12:31:03 PM

Acq. Date: 1/3/10

Acq. Time: 12:31:03 PM

Acq. Date: 1/3/10

Acq. Time: 12:31:03 PM

Acq. Date: 1/3/10

Acq. Time: 12:31:03 PM

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Acq. Time: 12:31:03 PM

Acq. Date: 1/3/10

Acq. Time: 12:31:03 PM

Acq. Date: 1/3/10

Acq. Time: 12:31:03 PM

Acq. Date: 1/3/10

Acq. Time: 12:31:03 PM

Acq. Date: 1/3/10

Acq. Time: 12:31:03 PM

Acq. Date: 1/3/10

Acq. Time: 12:31:03 PM

Acq. Date: 1/3/10

Acq. Time: 12:31:03 PM

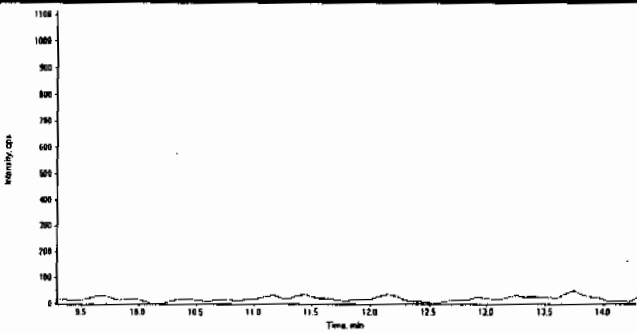
Acq. Date: 1/3/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

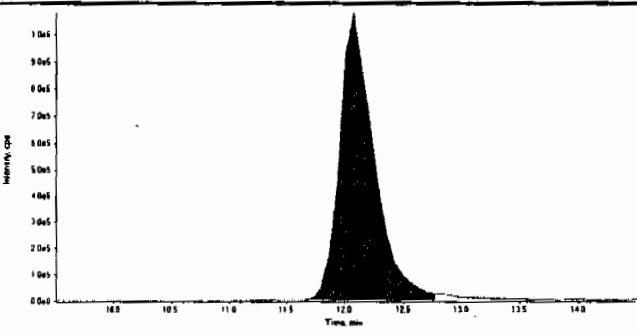
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415062.wiff	<b>Acquisition Date</b>	4/16/2010 12:31:09 PM
<b>Sample Name</b>	248506020	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

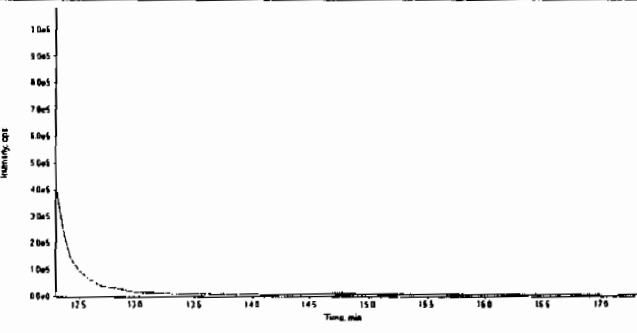
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

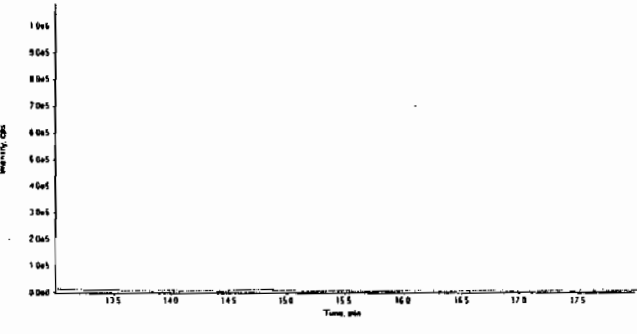
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	2.22e+007
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	241. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.7
	<b>Area Counts:</b>	2.22e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415062.wiff	<b>Acquisition Date</b>	4/16/2010 12:31:09 PM
<b>Sample Name</b>	248506020	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

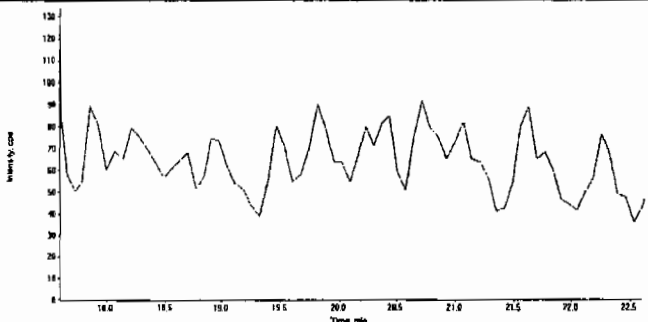
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

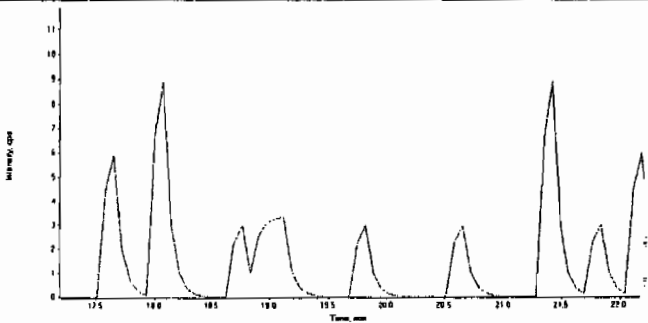
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415062.wiff	Acquisition Date	4/16/2010 12:31:09 PM
Sample Name	248506020	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A



1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7439

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 248506020

Sample Amount 2

Moisture: 18.1

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090043.wiff

Date Analyzed: 09-APR-10 18:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

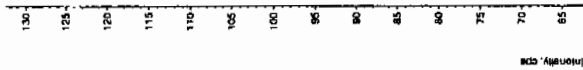
Run 4/12/10

Sample Name: "248506020" Sample ID: "96098621ER" File: "EXS04060043.will"

Peak Name: "TATB" Mass(es): "257 2204 9 amu"

Comment: "LCX83212S" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 6:14:33 PM  
 Modified: No



Sample Name: "248506020" Sample ID: "96098621ER" File: "EXS04060043.will"

Peak Name: "3S-Dinitroaniline" Mass(es): "182 046 0 amu"

Comment: "LCX83212S" Annotation: "

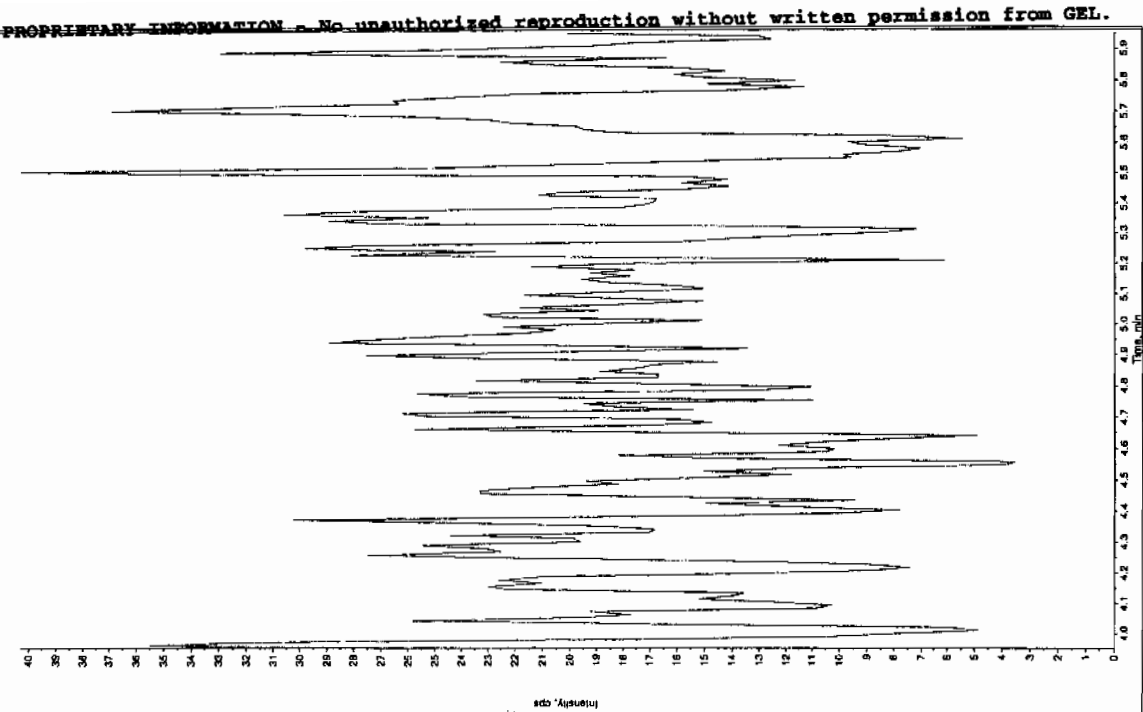
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 6:14:33 PM  
 Modified: No



Run 4/12/10

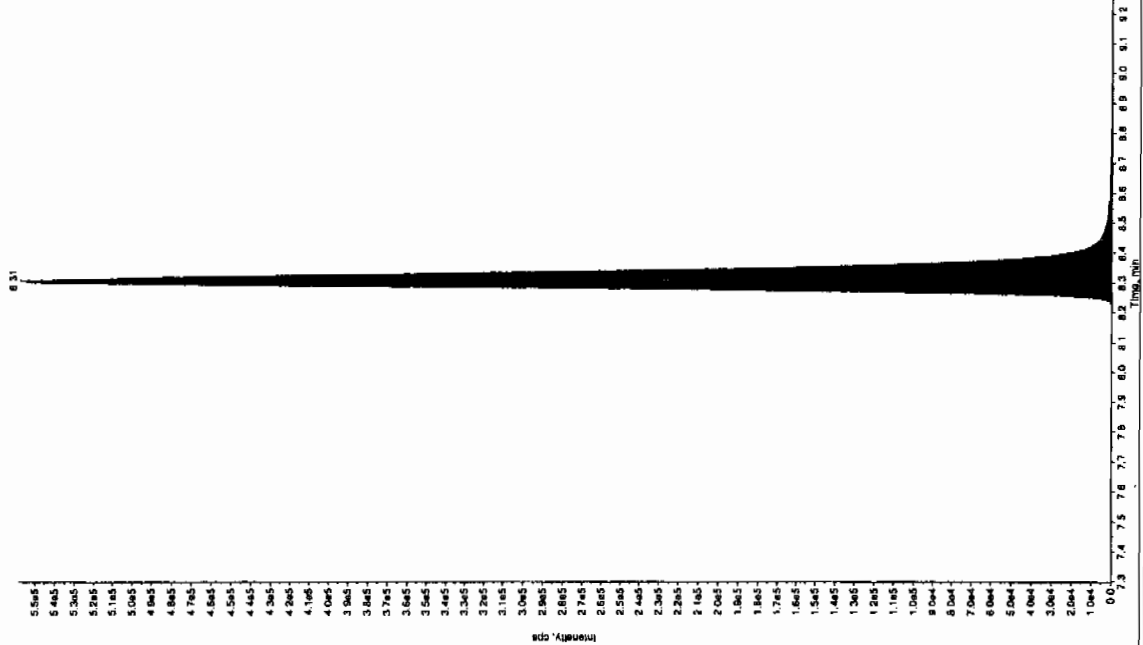
Sample Name: "248506020" Sample ID: "960989[2]LER" File: "EX504050043.wif"  
 Peak Name: "26-Diantho-4-nitrobutene" Mass(es): "166.045.0 amu"  
 Comment: "LCX832125" Annotation: ""

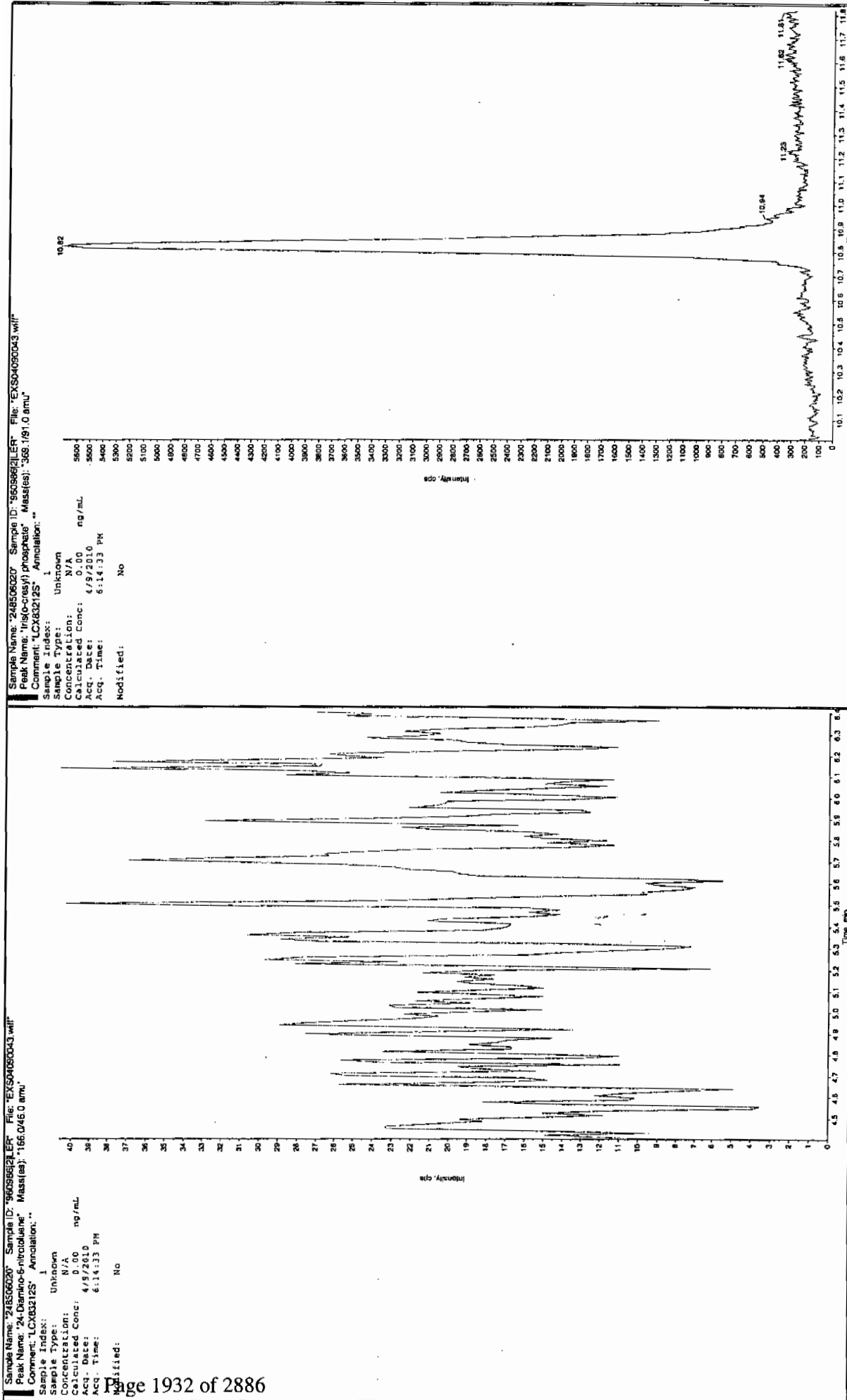
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/9/2010  
 Acq. Time: 6:14:33 PM  
 Modified: No



Sample Name: "248506020" Sample ID: "960989[2]LER" File: "EX504050043.wif"  
 Peak Name: "34-Diantho-4-nitrobutene" Mass(es): "182.17151.9 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A ng/mL  
 Calculated Conc: 0.00  
 Acq. Date: 4/9/2010  
 Acq. Time: 6:14:33 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 1450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 8.30 min  
 Use Relative RT: No  
 Ac. Type: Valley  
 Retention Time: 8.31 min  
 Area: 2.27e+006 counts  
 Height: 558068970 cps  
 Start Time: 8.22 min  
 End Time: 8.71 min





# 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	na	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

Form 6

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2193

Lab Code: GEL

Run Date: 09-APR-10 15-APR-10 20-APR-10 22-APR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

	50	51	52	53	54	55	Ave RF	RSD	Q
Calibration Level:	EXP0415003.w	EXP0415004.w	EXP0415005.w	EXP0415006.w	EXP0415007.w	EXP0415008.w			
Data File:									
Parroname									
2-Amino-4,6-dinitrotoluene	.017	.018	.019	.02	.019	.02	0.019	5.27	

Q column used to flag RSD values outside of Limit (>20%)

\* Values outside of QC Limit

Form 6

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2193

Lab Code: GEL

Run Date: 09-APR-10.15-APR-10.20-APR-10.22-APR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Linear

Calibration Level:		50	51	52	53	54	55	Slope	Intercept	COD	Q
Data File:		EXP0415003.w	EXP0415004.w	EXP0415005.w	EXP0415006.w	EXP0415007.w	EXP0415008.w				
Parname											
2,4-Dinitrotoluene		867000	1320000	6590000	12700000	23100000	31000000	.201	.004	.9975	
2,6-Dinitrotoluene		2230000	4090000	16300000	32600000	64900000	76800000	.519	.015	.9989	
3,4-Dinitrotoluene		1280000	2680000	10100000	19600000	38300000	49000000	.645	.006	.9996	
4-Amino-2,6-dinitrotoluene		1700000	3380000	12800000	27100000	51600000	67400000	.442	.004	.9991	
HMX		831000	1760000	6640000	13400000	26200000	35900000	1.02	.003	.9994	
Nitrobenzene		77500	169000	654000	1230000	2760000	3530000	.103	-.001	.9995	
PETN		14800	29600	126000	246000	478000	609000	.004	0	.9995	
RDX		453000	926000	3250000	6800000	13900000	17500000	.513	.005	.9996	

Linear fit :  $Y=mx +b$   
where b is Intercept and m is slope

COD is Coefficient of Determination

Q column used to flag COD values outside of Limit (<0.990)

\* Values outside of QC Limit



# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2193

Lab Code: GEL

Run Date: 09-APR-10.15-APR-10.20-APR-10.22-APR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	50	51	52	53	54	55	X	X^2	Intercept	COD	Q
Data File:	EXP0415003.wiff	EXP0415004.wiff	EXP0415005.wiff	EXP0415006.wiff	EXP0415007.wiff	EXP0415008.wiff					
Parname:											
1,3,5-Trinitrobenzene	6270000	12600000	47100000	84900000	139000000	167000000	.035	7.66	-1.44	.9996	
2,4,6-Trinitrotoluene	12200000	23700000	80500000	146000000	227000000	262000000	.045	2.88	-.594	.999	
Tetryl	2050000	4060000	14900000	29900000	60000000	74300000	-.02	2.53	-.176	.9998	
m-Dinitrobenzene	2530000	5200000	18300000	35700000	68300000	80900000	-.027	3.2	-.41	.9996	
m-Nitrotoluene	21000	42200	167000	350000	704000	912000	0	.00581	0	.9997	
o-Nitrotoluene	27900	53800	227000	473000	918000	1170000	0	.0082	0	.9996	
p-Nitrotoluene	14800	30500	123000	256000	492000	601000	0	.00471	0	.9998	

Quadratic Fit:  $y = Ax^2 + Bx + C$   
 where  $X^2$  column above is coefficient A  
 X column above is coefficient B  
 intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)

\* Values outside of QC Limit

041510ICAL

Peak Name: 13-Dinitrobenzene-d4  
Use as Internal Standard  
Q1/Q3 Masses: 172.05/46.10 amu  
Peak Name: 26-Dinitrotoluene-d3  
Use as Internal Standard  
Q1/Q3 Masses: 184.99/155.00 amu

Peak Name: HMX  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 341.20/46.00 amu

Fit	Linear	Weighting	None	Iterate No
Intercept		0.00321		
Slope		1.02		
Correlation coefficient		0.9994		
Use Area				

Peak Name: RDX  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 267.01/46.10 amu

Fit	Linear	Weighting	None	Iterate No
Intercept		0.00478		
Slope		0.513		
Correlation coefficient		0.9996		
Use Area				

Peak Name: 135-Trinitrobenzene  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 212.97/182.80 amu

Fit	Quadratic	Weighting	None	Iterate No
a0		0.035		
a1		7.66		
a2		-1.44		
Correlation coefficient		0.9996		
Use Area				

Peak Name: 13-Dinitrobenzene  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 167.95/137.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0		-0.0265		

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041510ICAL

a1 3.2  
a2 -0.41  
Correlation coefficient 0.9996  
Use Area

Peak Name: Tetryl  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 240.95/180.80 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-0.0195			
a1	2.53			
a2	-0.176			
Correlation coefficient 0.9998				
Use Area				

Peak Name: 246-Trinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 227.12/209.80 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	0.0447			
a1	2.88			
a2	-0.594			
Correlation coefficient 0.9990				
Use Area				

Peak Name: Nitrobenzene  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 123.04/46.00 amu

Fit	Linear	Weighting	None	Iterate No
Intercept		-0.00109		
Slope	0.103			
Correlation coefficient 0.9995				
Use Area				

Peak Name: 34-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Linear	Weighting	None	Iterate No
Intercept		0.00614		
Slope	0.645			

041510ICAL

Correlation coefficient 0.9996  
Use Area

Peak Name: 26-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Linear	Weighting	None	Iterate	No
Intercept		0.0148			
Slope		0.519			
Correlation coefficient		0.9989			
Use Area					

Peak Name: 24-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Linear	Weighting	None	Iterate	No
Intercept		0.00445			
Slope		0.201			
Correlation coefficient		0.9975			
Use Area					

Peak Name: 4-Amino-26-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 197.02/167.00 amu

Fit	Linear	Weighting	None	Iterate	No
Intercept		0.00386			
Slope		0.442			
Correlation coefficient		0.9991			
Use Area					

Peak Name: 2-Amino-46-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 197.02/180.00 amu

Fit	Mean Response Factor	Weighting	None	Iterate	No
Factor	0.0187				
Standard deviation	0.000985				
%RSD	5.27				
Use Area					

Peak Name: 2-Nitrotoluene

041510ICAL

Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 137.00/46.00 amu

Fit	Quadratic	weighting	None	Iterate No
a0	-4.27e-005			
a1	0.0082			
a2	-0.000221			
Correlation coefficient 0.9996				
Use Area				

Peak Name: 4-Nitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 137.00/46.00 amu

Fit	Quadratic	weighting	None	Iterate No
a0	-5.61e-005			
a1	0.00471			
a2	-0.000341			
Correlation coefficient 0.9998				
Use Area				

Peak Name: 3-Nitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 137.00/46.00 amu

Fit	Quadratic	weighting	None	Iterate No
a0	6.71e-006			
a1	0.00581			
a2	0.000115			
Correlation coefficient 0.9997				
Use Area				

Peak Name: PETN  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 361.06/62.00 amu

Fit	Linear	weighting	None	Iterate No
Intercept	6.18e-005			
Slope	0.00403			
Correlation coefficient 0.9995				
Use Area				

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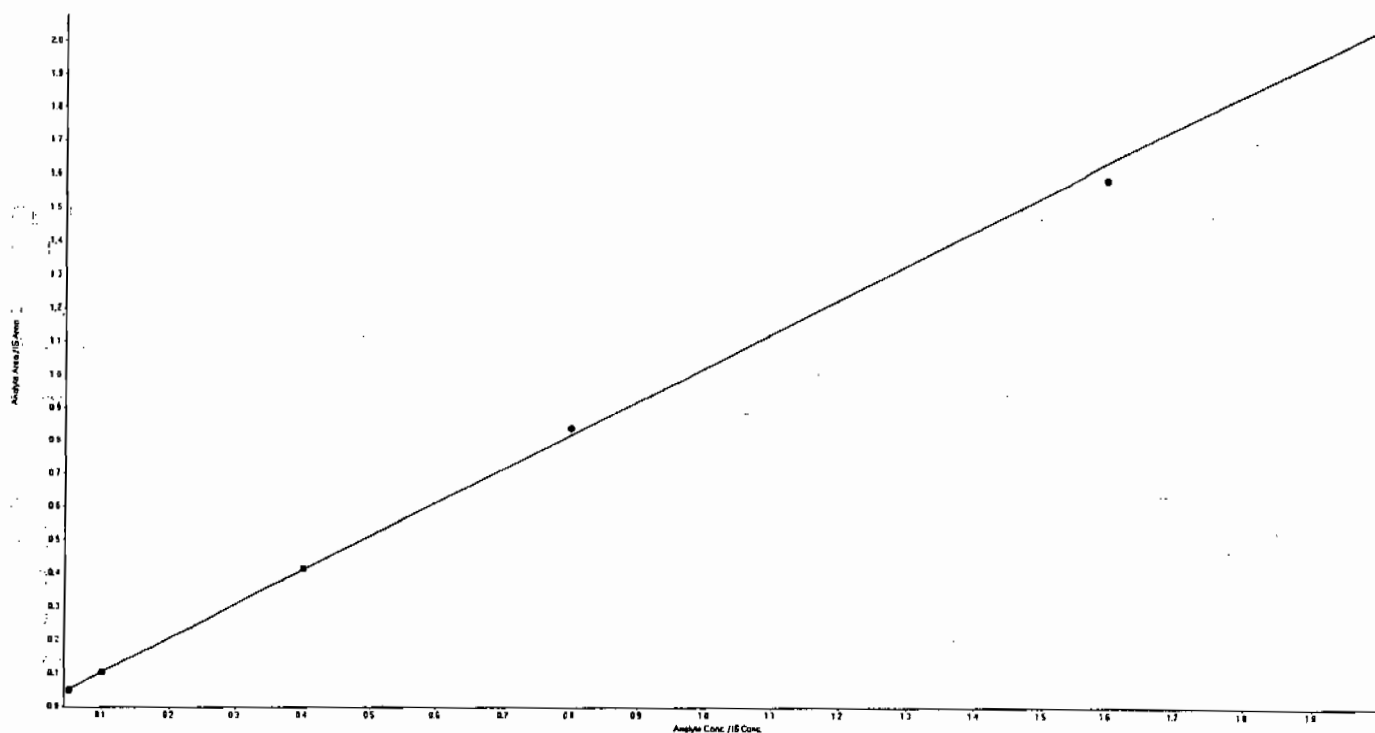
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LCMSMS#3

041510.rdb

Analyte Name: HMX

Regression Equation:  $y = 1.02x + 0.00321$  ( $r = 0.9994$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	23.21	92.8
50	49.57	99.1
200	201.75	100.9
400	409.94	102.5
800	773.96	96.7
1000	1016.57	101.7



*Handwritten:* Hmx 04/23/10

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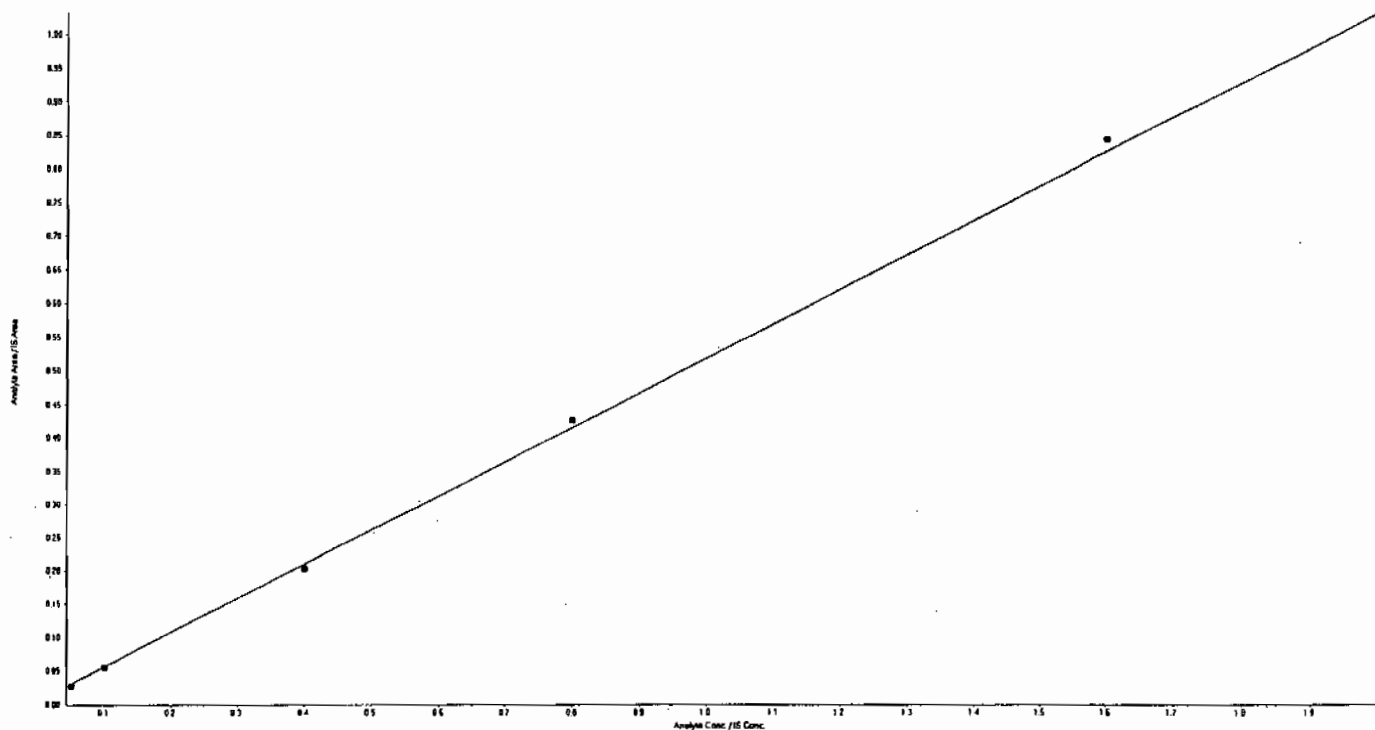
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Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Analyte Name: RDX

Regression Equation:  $y = 0.513x + 0.00478$  ( $r = 0.9996$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	22.20	88.8
50	48.80	97.6
200	192.85	96.4
400	410.51	102.6
800	816.45	102.1
1000	984.20	98.4



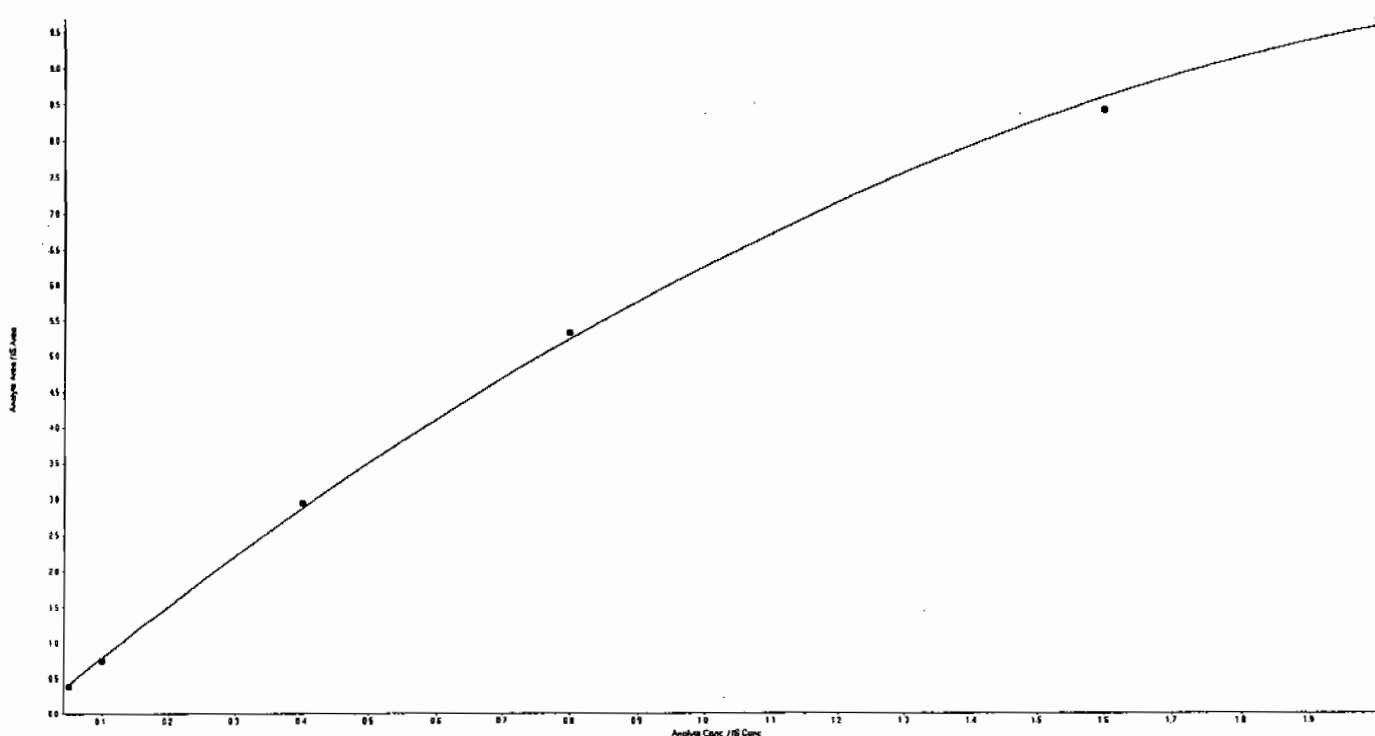
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Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Analyte Name: 135-Trinitrobenzene

Regression Equation:  $y = -1.44x^2 + 7.66x + 0.035$  ( $r = 0.9996$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	22.81	91.2
50	47.16	94.3
200	205.62	102.8
400	407.70	101.9
800	771.39	96.4
1000	1027.28	102.7





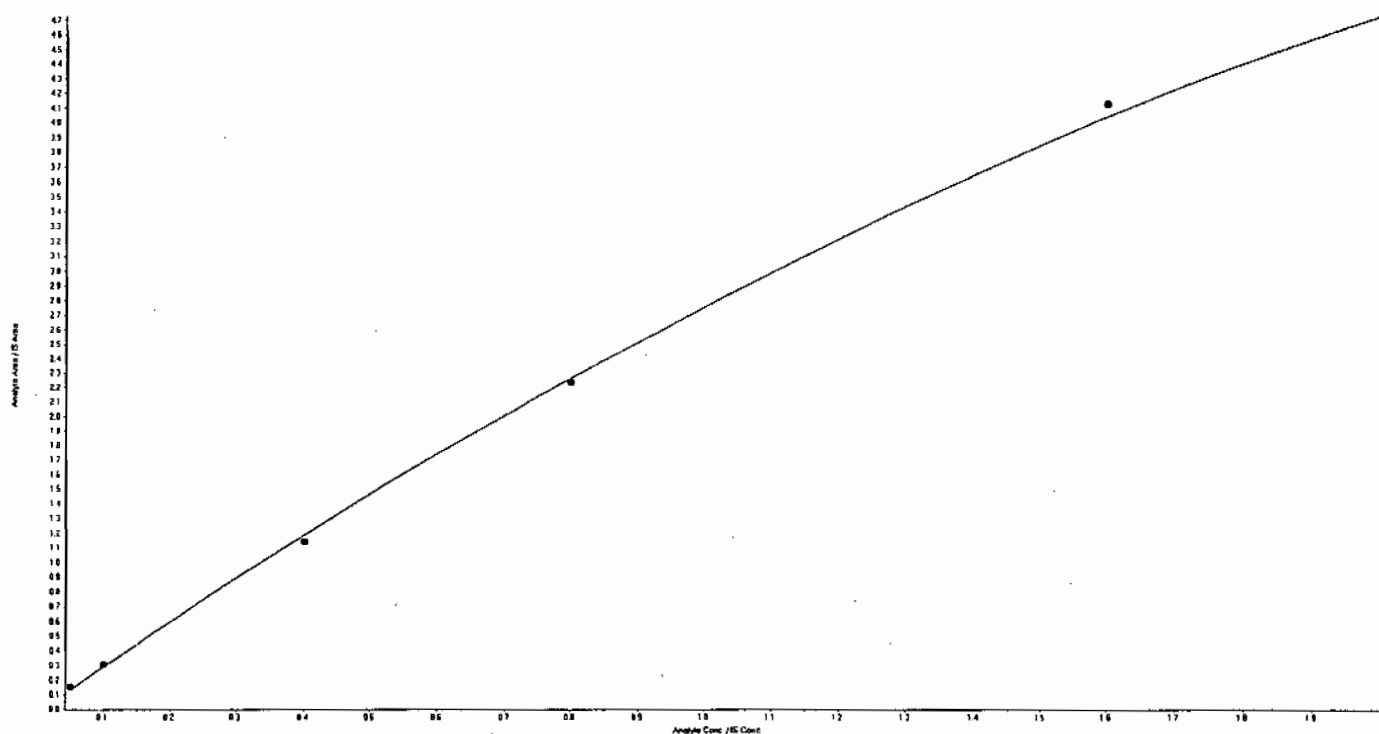
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Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Analyte Name: 13-Dinitrobenzene

Regression Equation:  $y = -0.41 x^2 + 3.2 x + -0.0265$  ( $r = 0.9996$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	28.40	113.6
50	53.05	106.1
200	192.08	96.0
400	393.60	98.4
800	822.94	102.9
1000	984.77	98.5



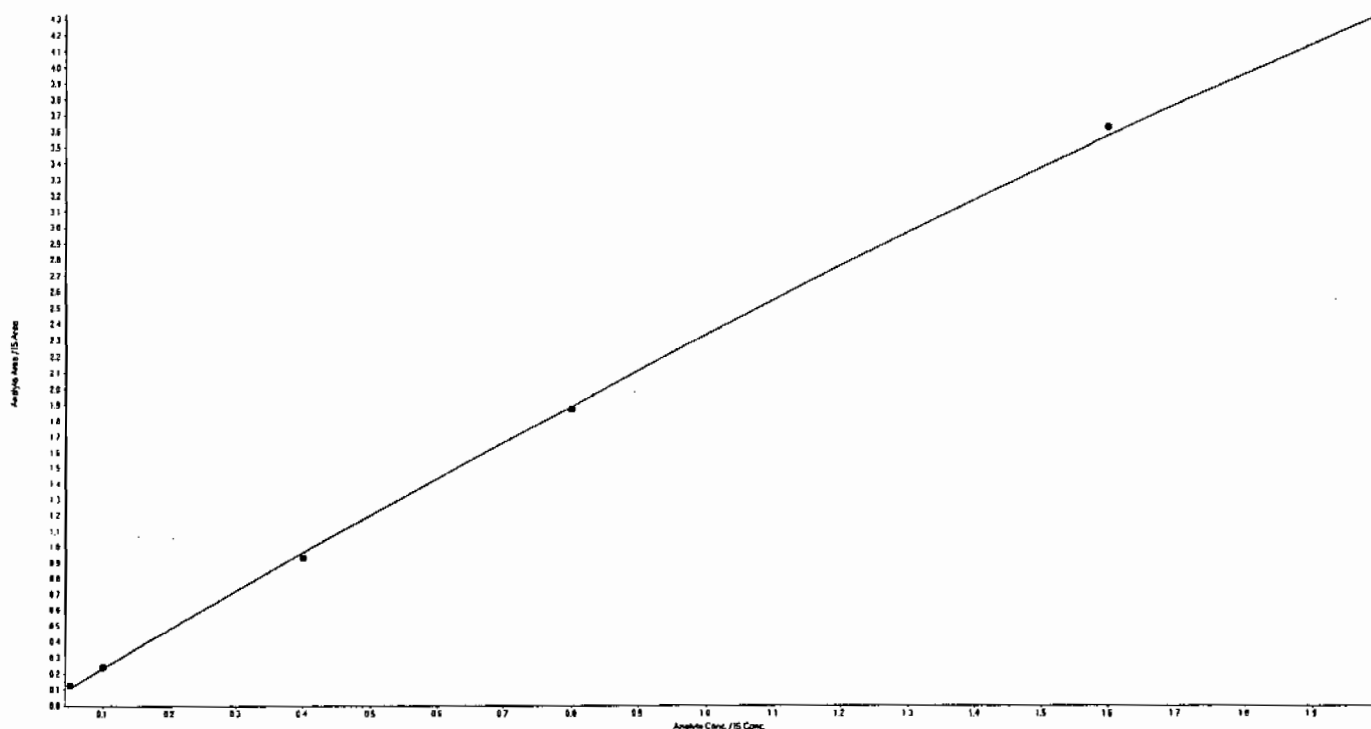
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Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Analyte Name: Tetryl

Regression Equation:  $y = -0.176 x^2 + 2.53 x + -0.0195$  ( $r = 0.9998$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	28.71	114.8
50	51.78	103.6
200	192.93	96.5
400	396.12	99.0
800	813.89	101.7
1000	991.58	99.2



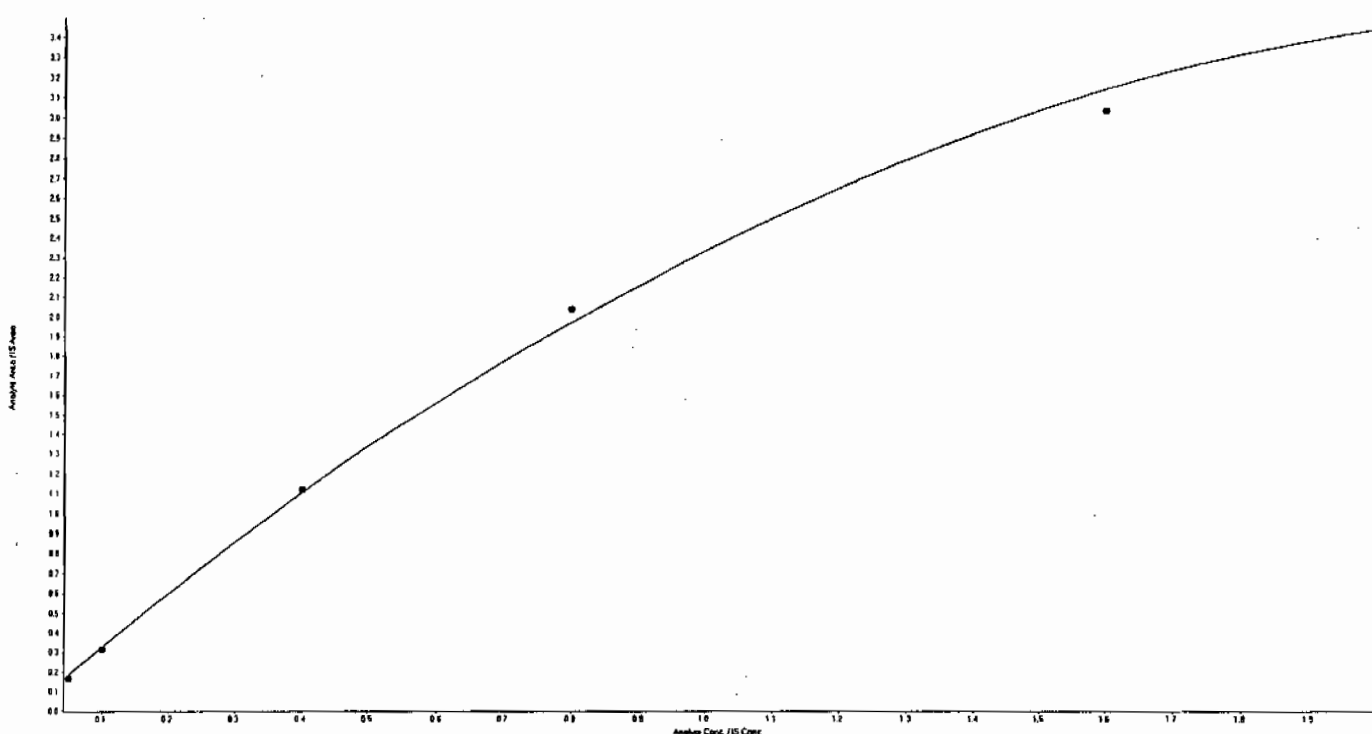
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Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Analyte Name: 246-Trinitrotoluene

Regression Equation:  $y = -0.594 x^2 + 2.88 x + 0.0447$  ( $r = 0.9990$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	21.79	87.1
50	47.74	95.5
200	202.87	101.4
400	417.45	104.4
800	748.56	93.6
1000	1067.10	106.7



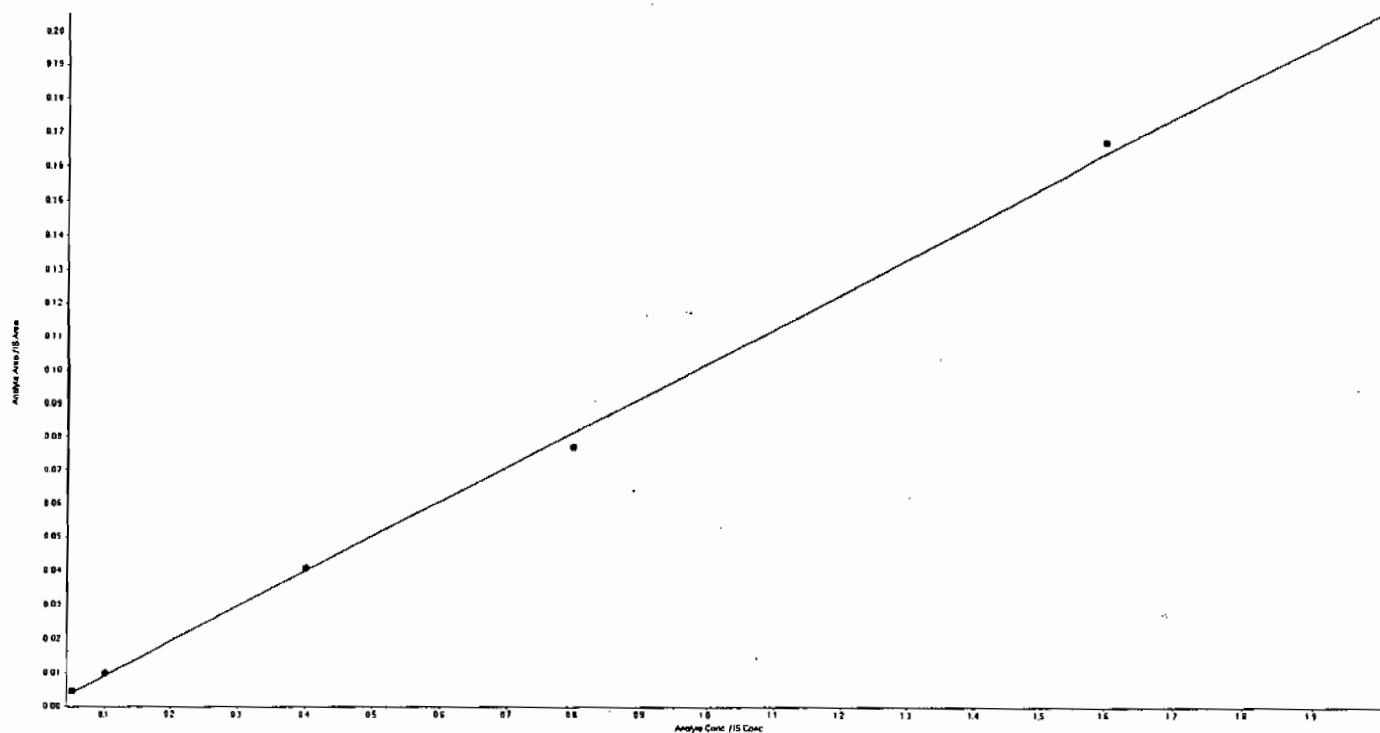
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Printed: 22/04/2010 4:04:00 PM  
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Analyte Name: Nitrobenzene

Regression Equation:  $y = 0.103x + -0.00109$  ( $r = 0.9995$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	28.17	112.7
50	53.97	107.9
200	203.53	101.8
400	378.57	94.6
800	815.80	102.0
1000	994.95	99.5



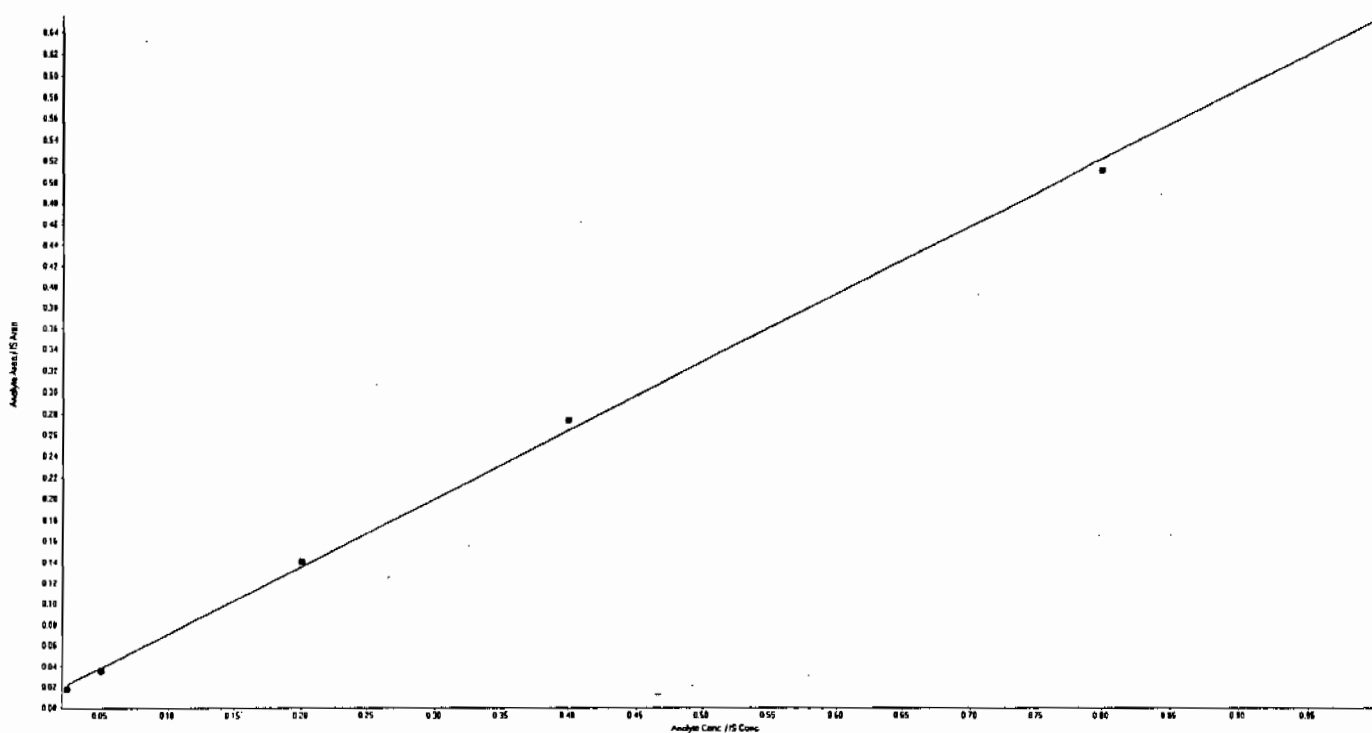
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Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Analyte Name: 34-dinitrotoluene

Regression Equation:  $y = 0.645x + 0.00614$  ( $r = 0.9996$ )

Expected Concentration	Calculated Concentration	% Accuracy
12.5	8.95	71.6
25	22.89	91.6
100	103.77	103.8
200	206.98	103.5
400	391.32	97.8
500	503.60	100.7



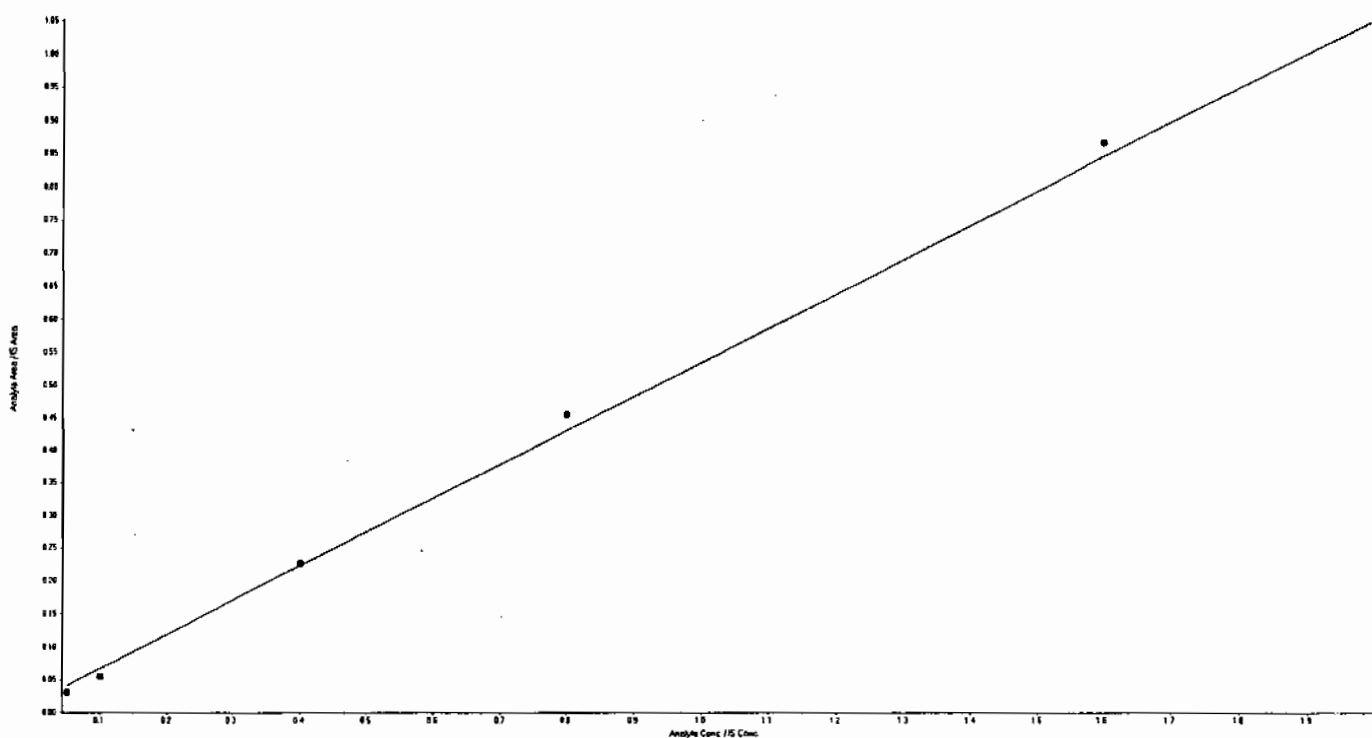
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LCMSMS#3

Analyte Name: 26-dinitrotoluene

Regression Equation:  $y = 0.519x + 0.0148$  ( $r = 0.9989$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	15.37	61.5
50	38.13	76.3
200	203.13	101.6
400	423.68	105.9
800	819.75	102.5
1000	974.94	97.5



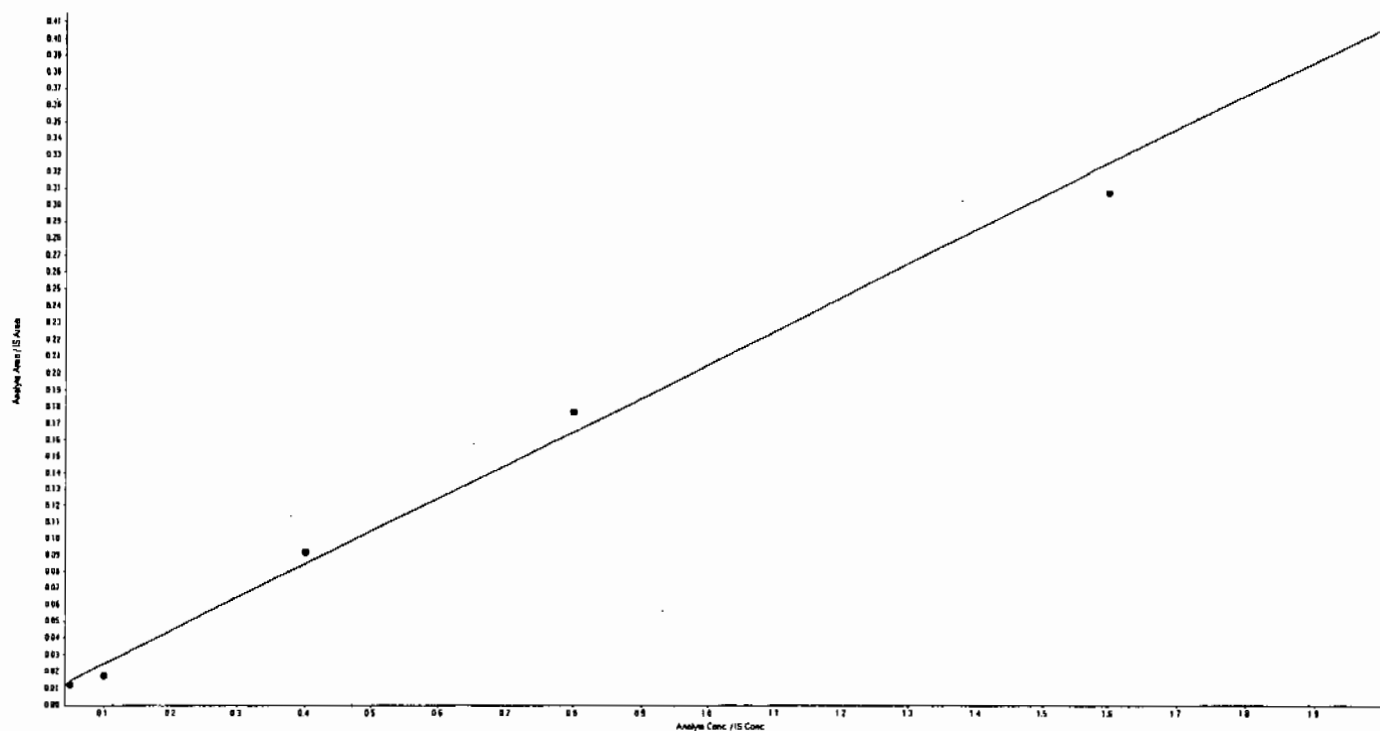
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Analyte Name: 24-dinitrotoluene

Regression Equation:  $y = 0.201x + 0.00445$  ( $r = 0.9975$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	18.76	75.0
50	32.56	65.1
200	216.87	108.4
400	430.36	107.6
800	754.67	94.3
1000	1021.77	102.2



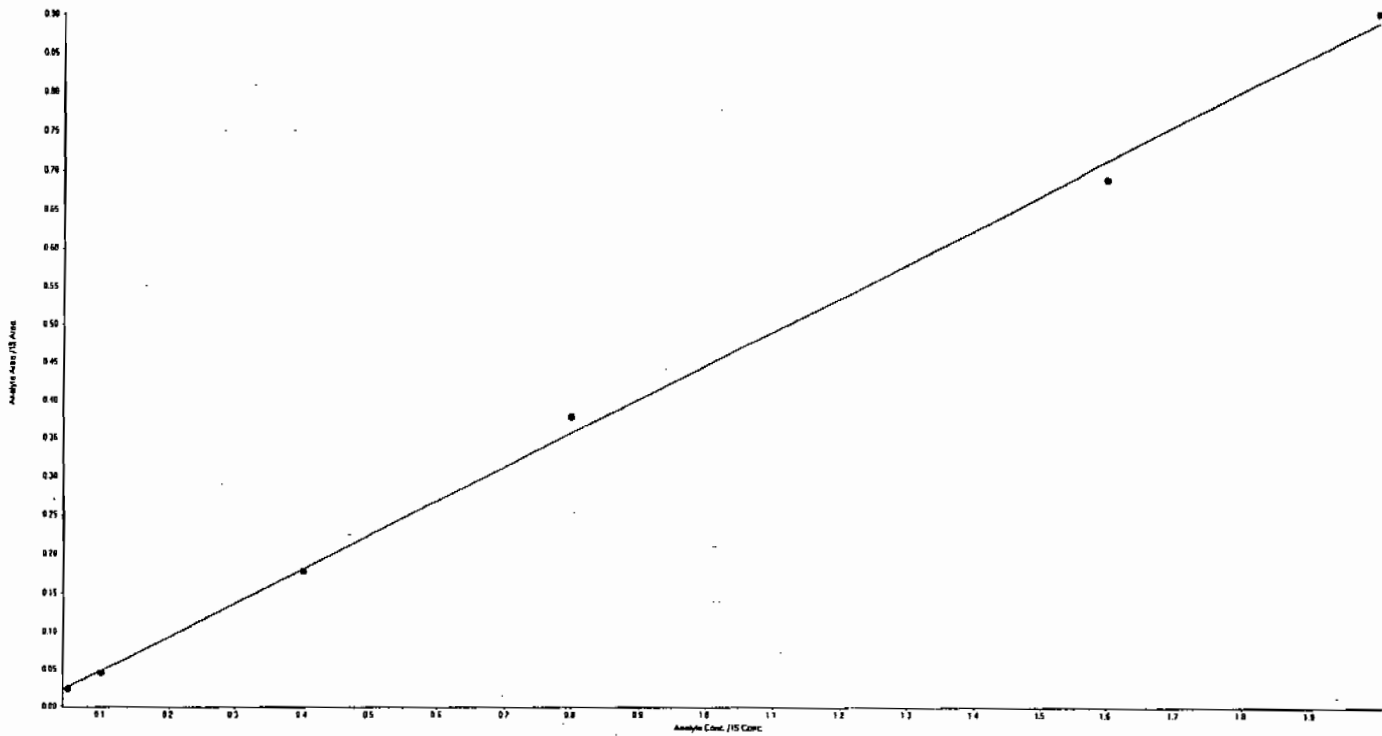
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LCMSMS#3

Analyte Name: 4-Amino-2,6-dinitrotoluene

Regression Equation:  $y = 0.442x + 0.00386$  ( $r = 0.9991$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	22.27	89.1
50	46.50	93.0
200	196.33	98.2
400	423.88	106.0
800	772.93	96.6
1000	1013.08	101.3





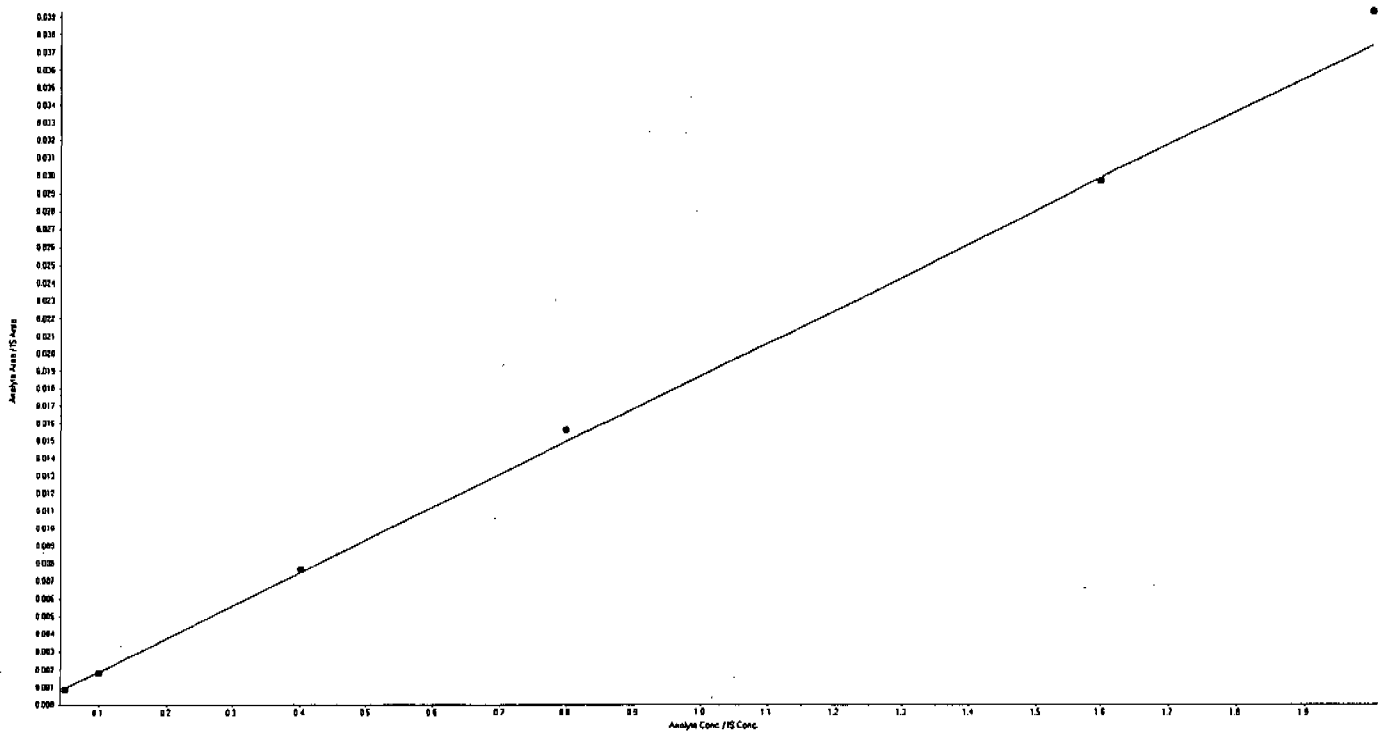
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Analyte Name: 2-Amino-4,6-dinitrotoluene

Regression Equation:  $y = 0.0187x$  (std. dev. = 0.000985)

Expected Concentration	Calculated Concentration	% Accuracy
25	22.74	91.0
50	48.81	97.6
200	204.97	102.5
400	417.42	104.4
800	795.55	99.4
1000	1051.25	105.1



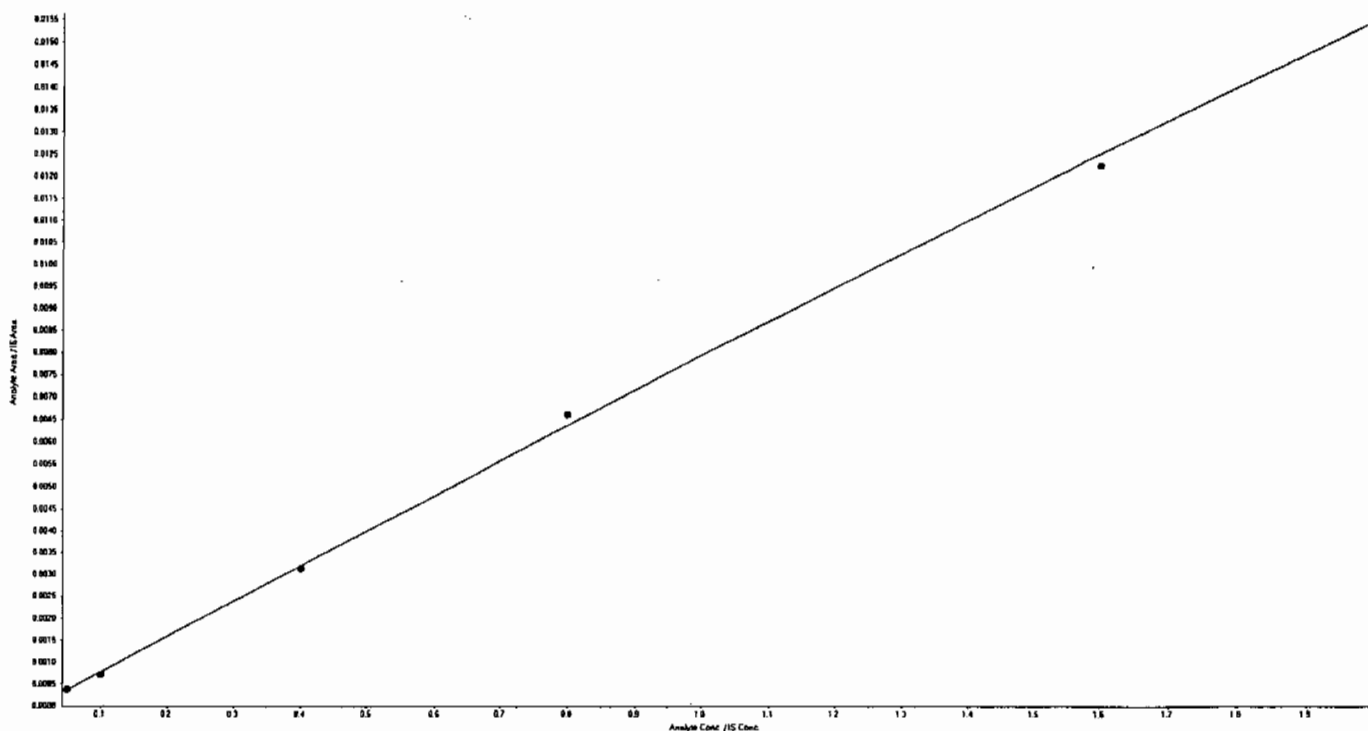
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Printed: 22/04/2010 4:04:00 PM  
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Analyte Name: 2-Nitrotoluene

Regression Equation:  $y = -0.000221 x^2 + 0.0082 x + -4.27e-005$  ( $r = 0.9996$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	26.12	104.5
50	46.36	92.7
200	196.64	98.3
400	414.45	103.6
800	781.93	97.7
1000	1009.54	101.0



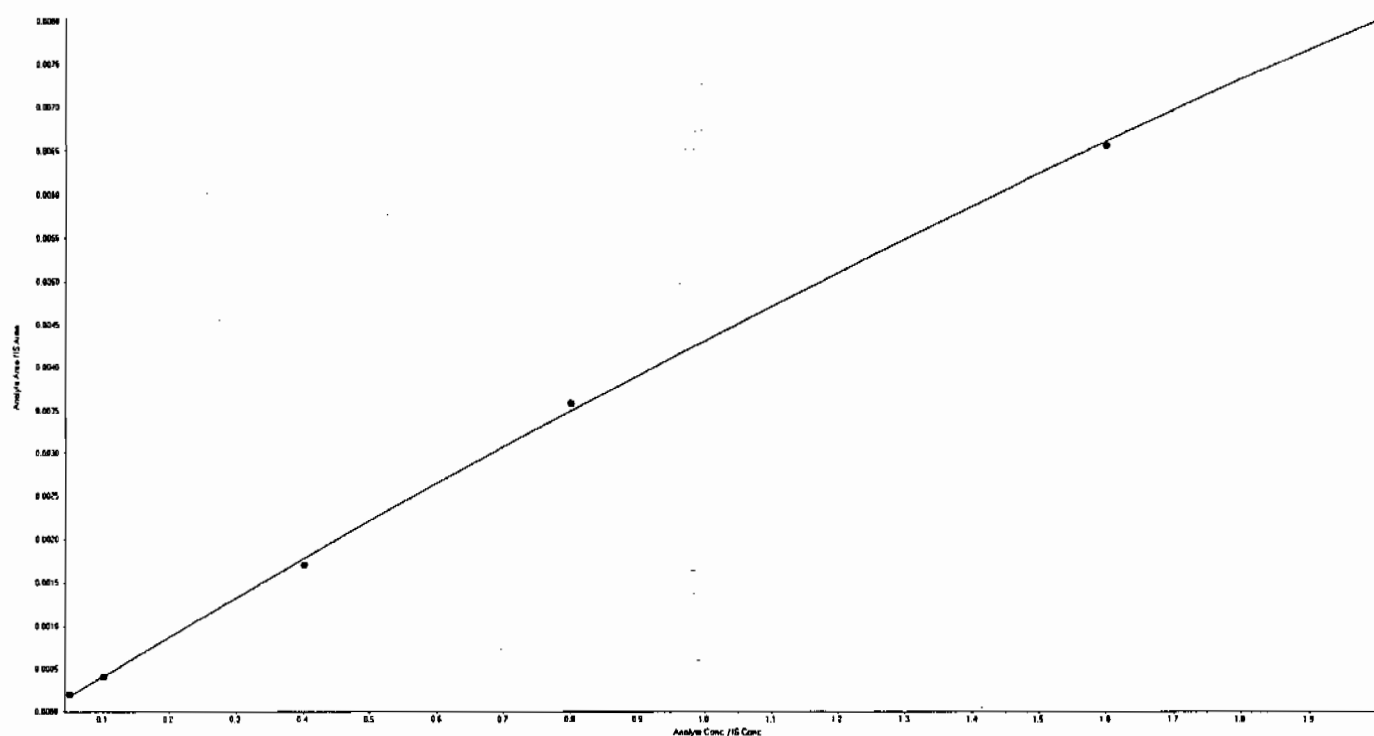
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Printed: 22/04/2010 4:04:00 PM  
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Analyte Name: 4-Nitrotoluene

Regression Equation:  $y = -0.000341 x^2 + 0.00471 x + -5.61e-005$  ( $r = 0.9998$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	27.70	110.8
50	49.39	98.8
200	191.73	95.9
400	410.15	102.5
800	792.37	99.0
1000	1003.71	100.4



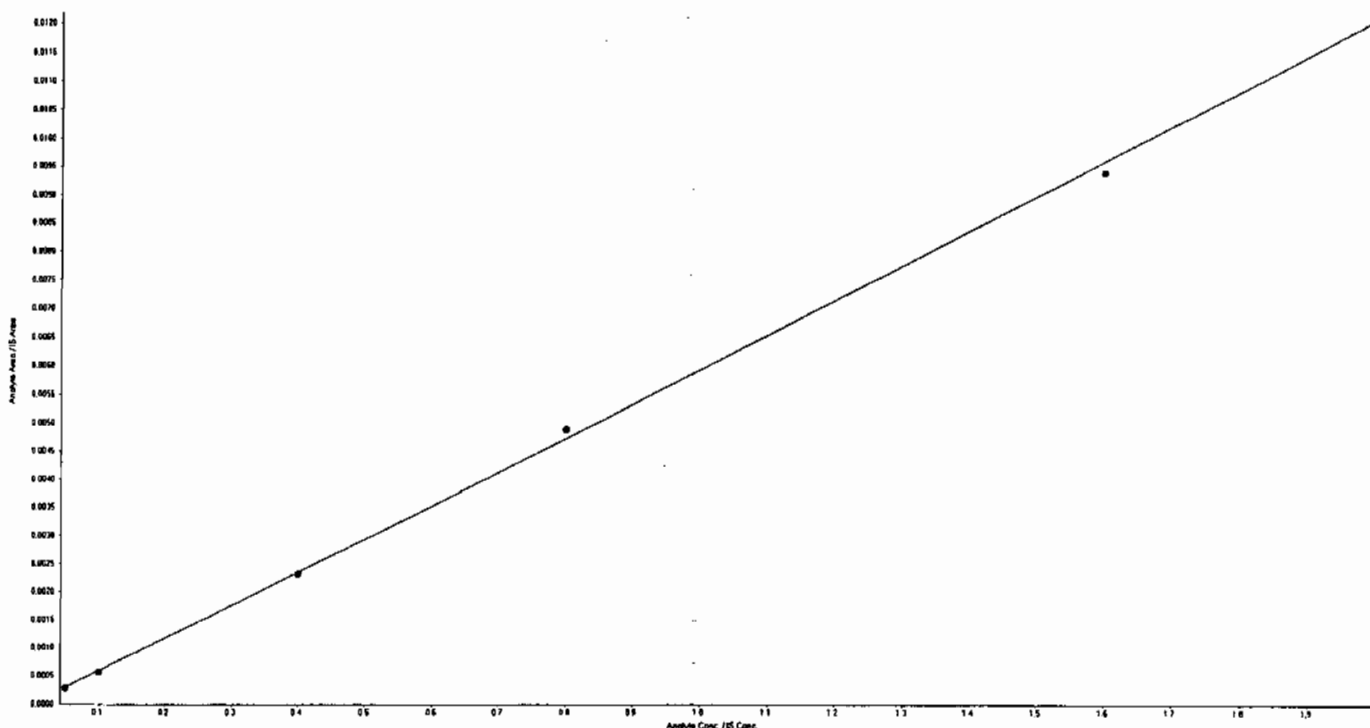
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LCMSMS#3

Analyte Name: 3-Nitrotoluene

Regression Equation:  $y = 0.000115 x^2 + 0.00581 x + 6.71e-006$  ( $r = 0.9997$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	24.38	97.5
50	47.62	95.2
200	197.68	98.8
400	413.33	103.3
800	783.56	97.9
1000	1008.41	100.8



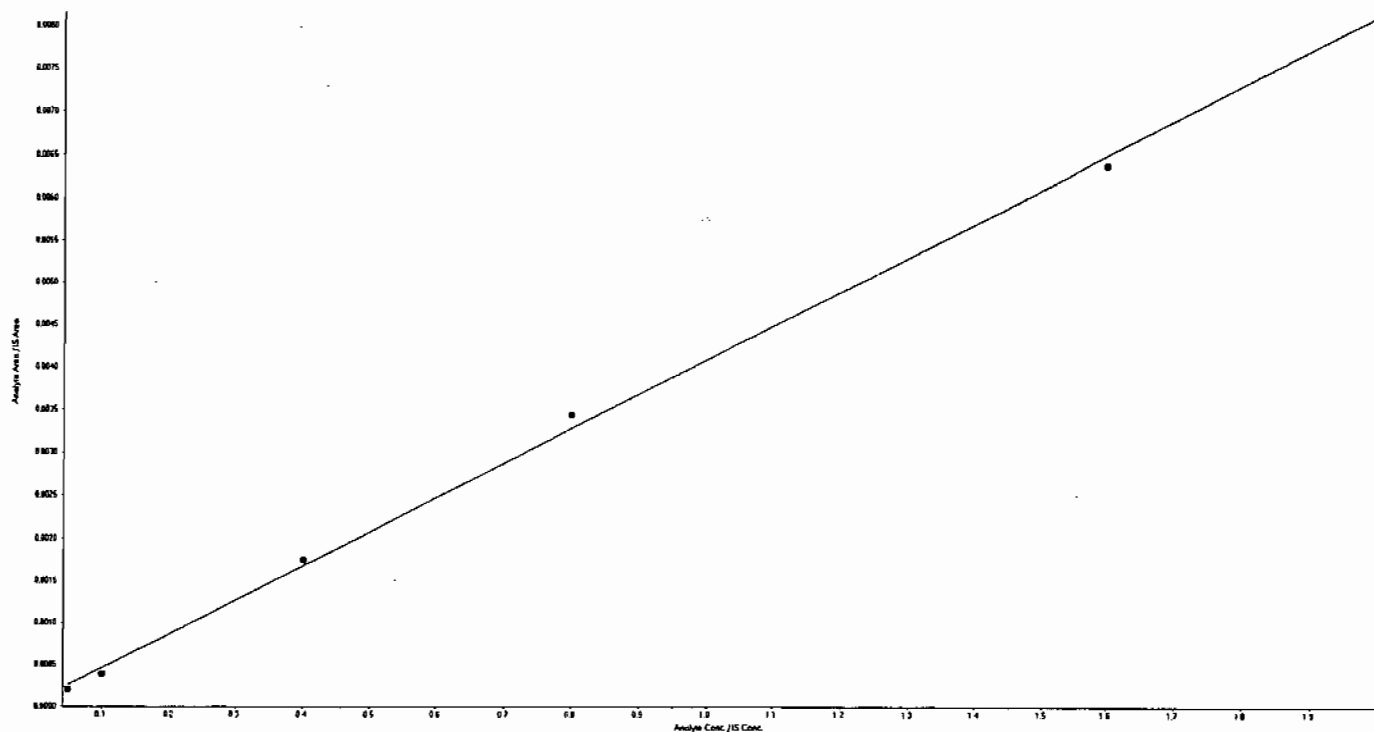
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Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Analyte Name: PETN

Regression Equation:  $y = 0.00403x + 6.18e-005$  ( $r = 0.9995$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	17.73	70.9
50	41.26	82.5
200	208.61	104.3
400	419.29	104.8
800	784.66	98.1
1000	1003.45	100.3



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0415010.wiff

Analysis Date: 15-APR-10 14:01

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	577	96	
2,4,6-Trinitrotoluene	600	546	91	
2,4-Dinitrotoluene	600	585	98	
2,6-Dinitrotoluene	600	553	92	
2-Amino-4,6-dinitrotoluene	600	500	83	
3,4-Dinitrotoluene	300	294	98	
4-Amino-2,6-dinitrotoluene	600	575	96	
HMX	600	488	81	
Nitrobenzene	600	623	104	
PETN	600	536	89	
RDX	600	589	98	
Tetryl	600	585	98	
m-Dinitrobenzene	600	591	99	
m-Nitrotoluene	600	495	83	
o-Nitrotoluene	600	526	88	
p-Nitrotoluene	600	570	95	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

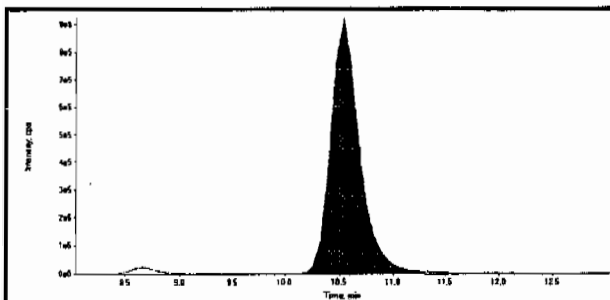
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

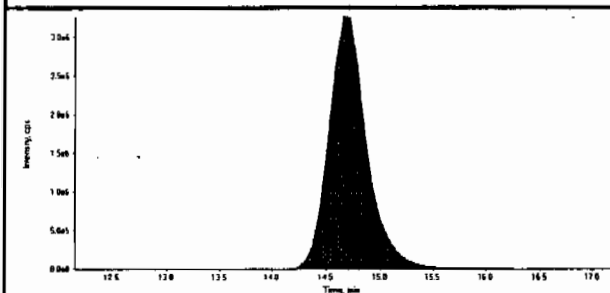
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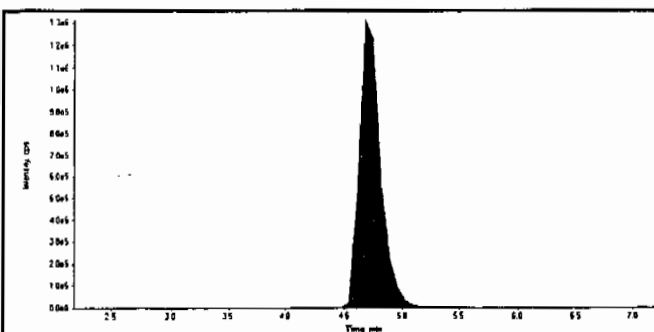
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Sample Name	WXX100415-56ICV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



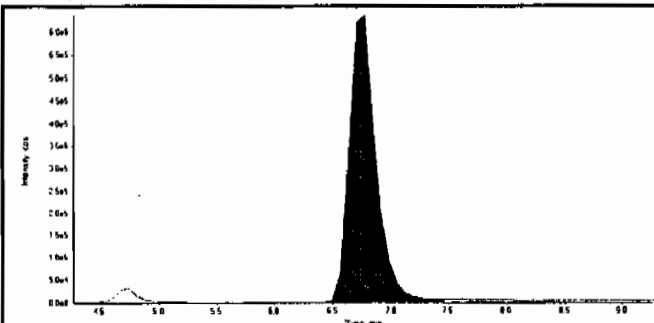
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	16900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.60
Area Counts:	80800000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



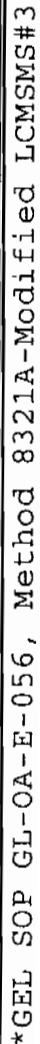
Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.69e+007
Manual Modification	No
Amount:	488. (ng/mL)
% Accuracy:	81.40

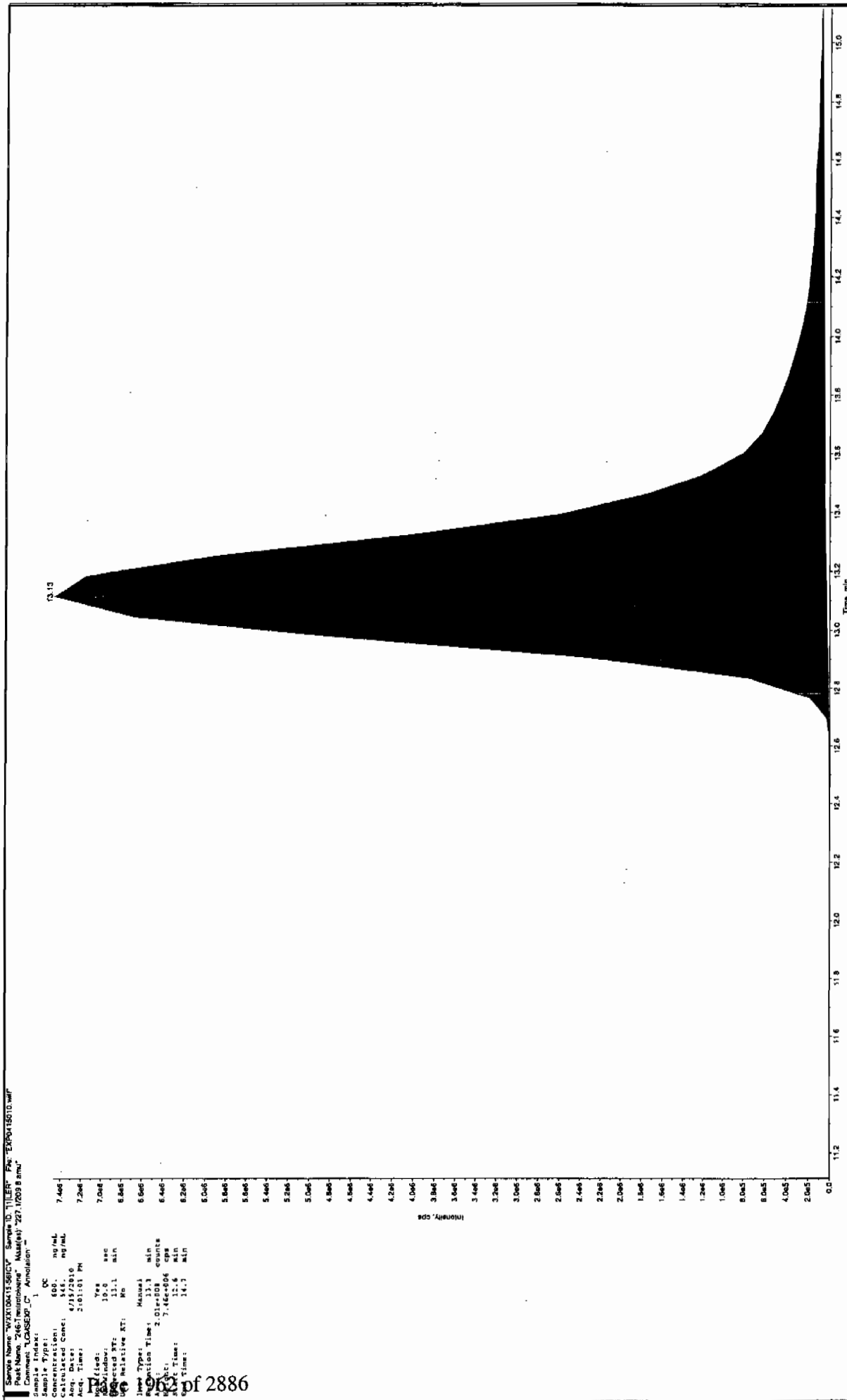


Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.03e+007
Manual Modification	No
Amount:	589. (ng/mL)
% Accuracy:	98.20

*Handwritten signature: 4/23/10*







\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415010.wiff	Acquisition Date	4/15/2010 2:01:01 PM
Sample Name	WXX100415-56ICV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	9.00
	Area Counts:	1.18e+008
	Manual Modification	No
	Amount:	577. (ng/mL)
	% Accuracy:	96.20

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	5.39e+007
	Manual Modification	No
	Amount:	591. (ng/mL)
	% Accuracy:	98.60

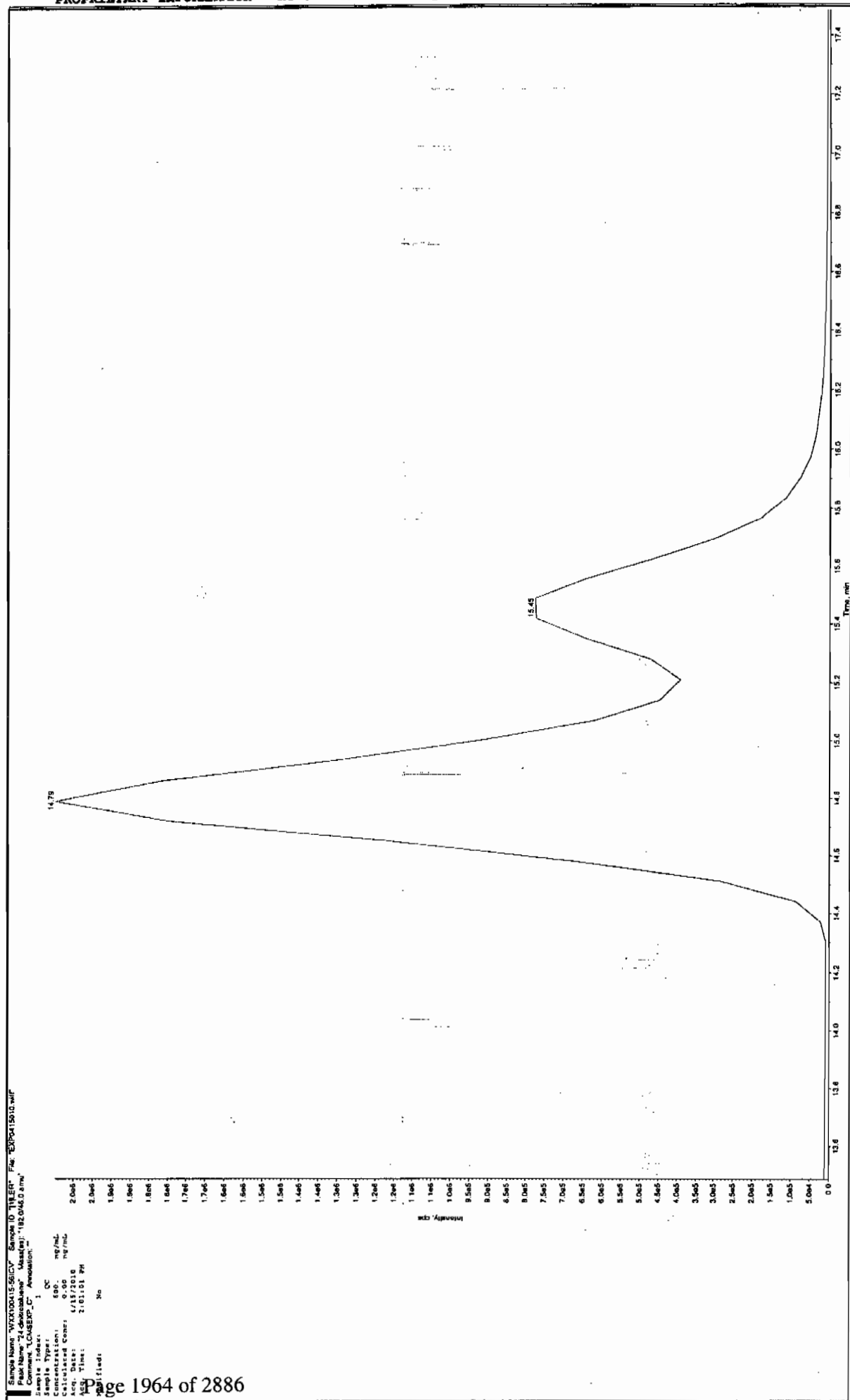
  

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	4.57e+007
	Manual Modification	No
	Amount:	585. (ng/mL)
	% Accuracy:	97.50

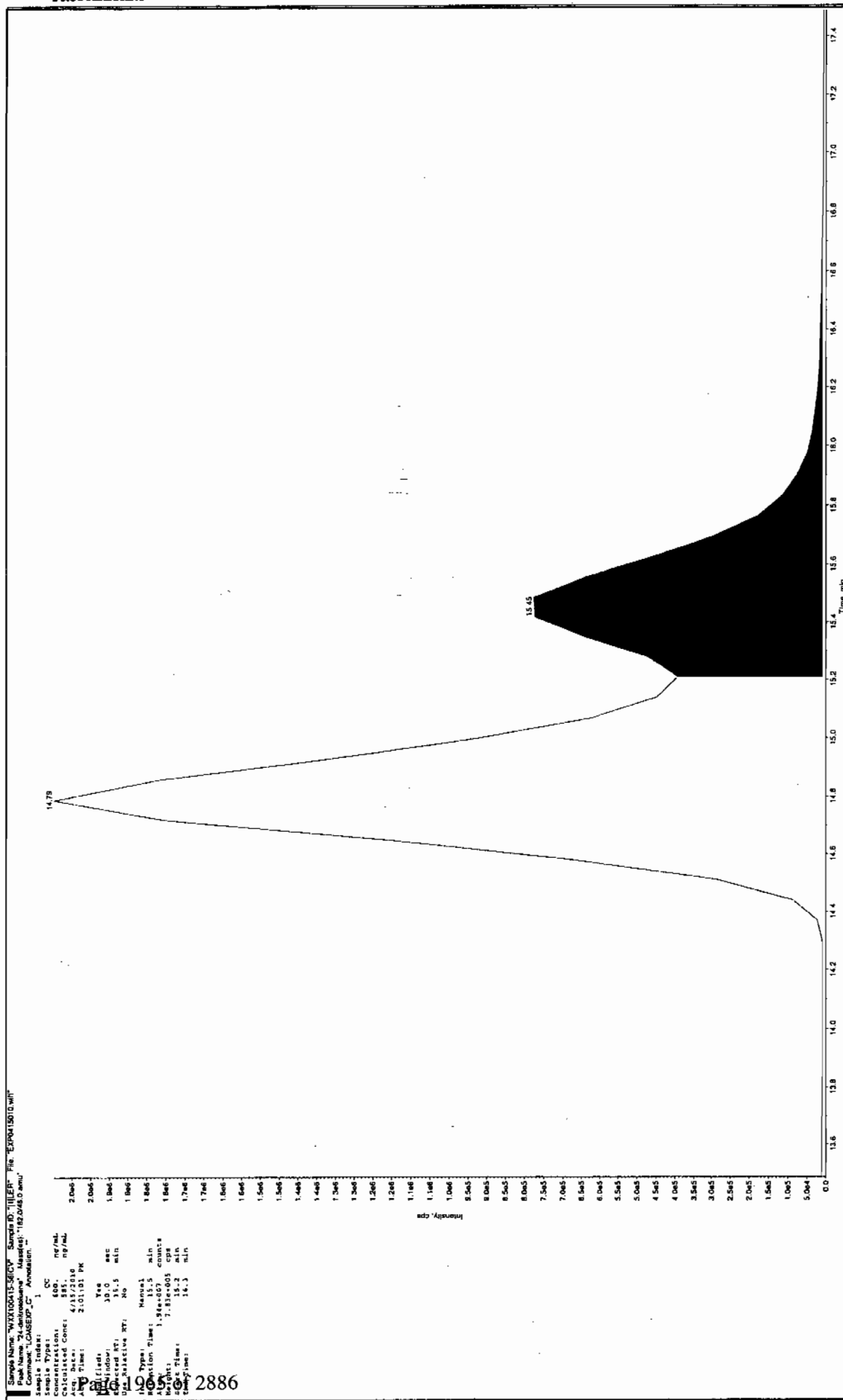
  

	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	13.1
	Area Counts:	2.01e+008
	Manual Modification	Yes
	Amount:	546. (ng/mL)
	% Accuracy:	91.00

Before Jan 4/23/10



after scan 4/23/10



Sample Name: "WAX100415-361CV" Sample ID: "HLEP" File: "EXP0415010.WIT"

Peak Name: "24-dehydrocholesterol" Mass(es): "182.048.0 amu"

Comment: "LCMS/MS" Annotation: "

Sample Index: 1

Sample Name: "WAX100415-361CV"

Sample ID: "HLEP"

Sample File: "EXP0415010.WIT"

Sample Concentration: 500.00 ng/mL

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Sample Concentration: 500.00 ng/mL

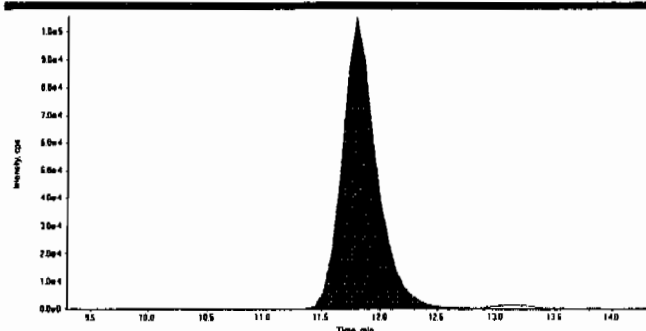
Sample Concentration: 500.00 ng/mL

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

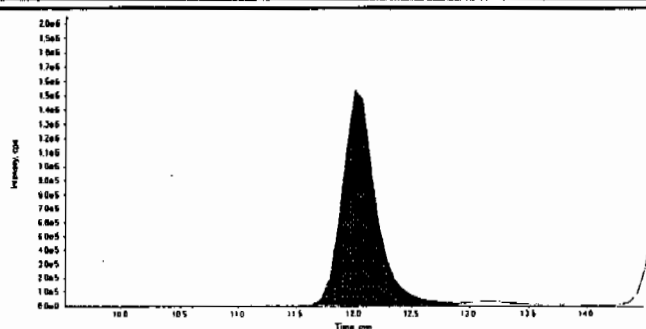
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

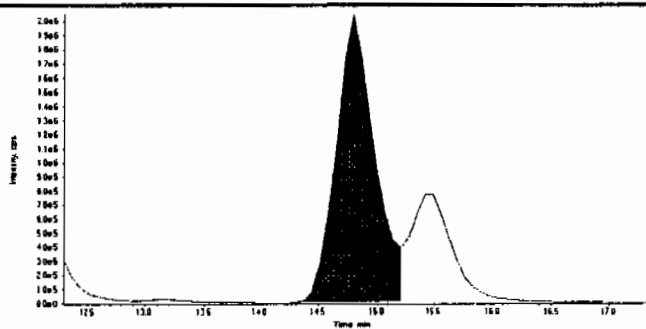
Data File	EXP0415010.wiff	Acquisition Date	4/15/2010 2:01:01 PM
Sample Name	WXX100415-56ICV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



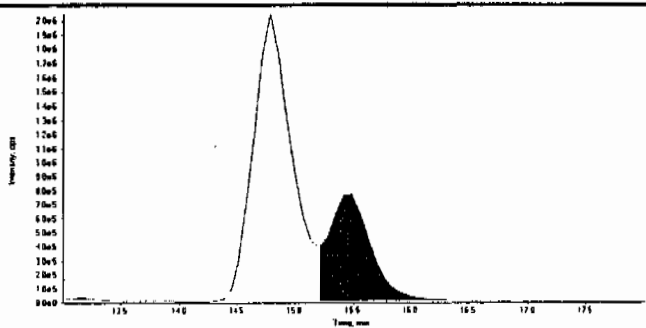
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.8
Area Counts:	2.16e+006
Manual Modification	No
Amount:	623. (ng/mL)
% Accuracy:	104.00



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.0
Area Counts:	3.11e+007
Manual Modification	No
Amount:	294. (ng/mL)
% Accuracy:	98.00



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.8
Area Counts:	4.76e+007
Manual Modification	No
Amount:	553. (ng/mL)
% Accuracy:	92.10



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.5
Area Counts:	1.94e+007
Manual Modification	Yes
Amount:	585. (ng/mL)
% Accuracy:	97.50

Before Jan 4/23/10

Sample Name: WAX100415-5610V Sample ID: 118187 File: EXP041510.mlf  
Peak Name: 2-Amino-48-dinitrochloroacetic acid  
Comment: LCMSDEP\_C Annotation: 1187.02160.0.0.0.0

Sample Index: 1 QC

Concentration: 600.0 ng/mL

Acq. Date: 4/15/2010

Acq. Time: 2101101 PM

Modified: No

Proc. Algorithm: Intelliquan - IQA

Peak Height: 150.00 cps

Peak Width: 3.00 min

Smoothing Width: 3.00 min

Bandwidth: 30.0 Hz

Reference RT: 14.1 min

Observed RT: 14.1 min

Positive RT: No

Peak Type: Valley

Retention Time: 14.1 min

Concentration: 600.0 ng/mL

Peak Width: 3.00 min

Smoothing Width: 3.00 min

Bandwidth: 30.0 Hz

Reference RT: 14.1 min

Observed RT: 14.1 min

Positive RT: No

Peak Type: Valley

Retention Time: 14.1 min

Concentration: 600.0 ng/mL

Peak Width: 3.00 min

Smoothing Width: 3.00 min

Bandwidth: 30.0 Hz

Reference RT: 14.1 min

Observed RT: 14.1 min

Positive RT: No

Peak Type: Valley

Retention Time: 14.1 min

Concentration: 600.0 ng/mL

Peak Width: 3.00 min

Smoothing Width: 3.00 min

Bandwidth: 30.0 Hz

Reference RT: 14.1 min

Observed RT: 14.1 min

Positive RT: No

Peak Type: Valley

Retention Time: 14.1 min

Concentration: 600.0 ng/mL

Peak Width: 3.00 min

Smoothing Width: 3.00 min

Bandwidth: 30.0 Hz

Reference RT: 14.1 min

Observed RT: 14.1 min

Positive RT: No

Peak Type: Valley

13.11

14.10

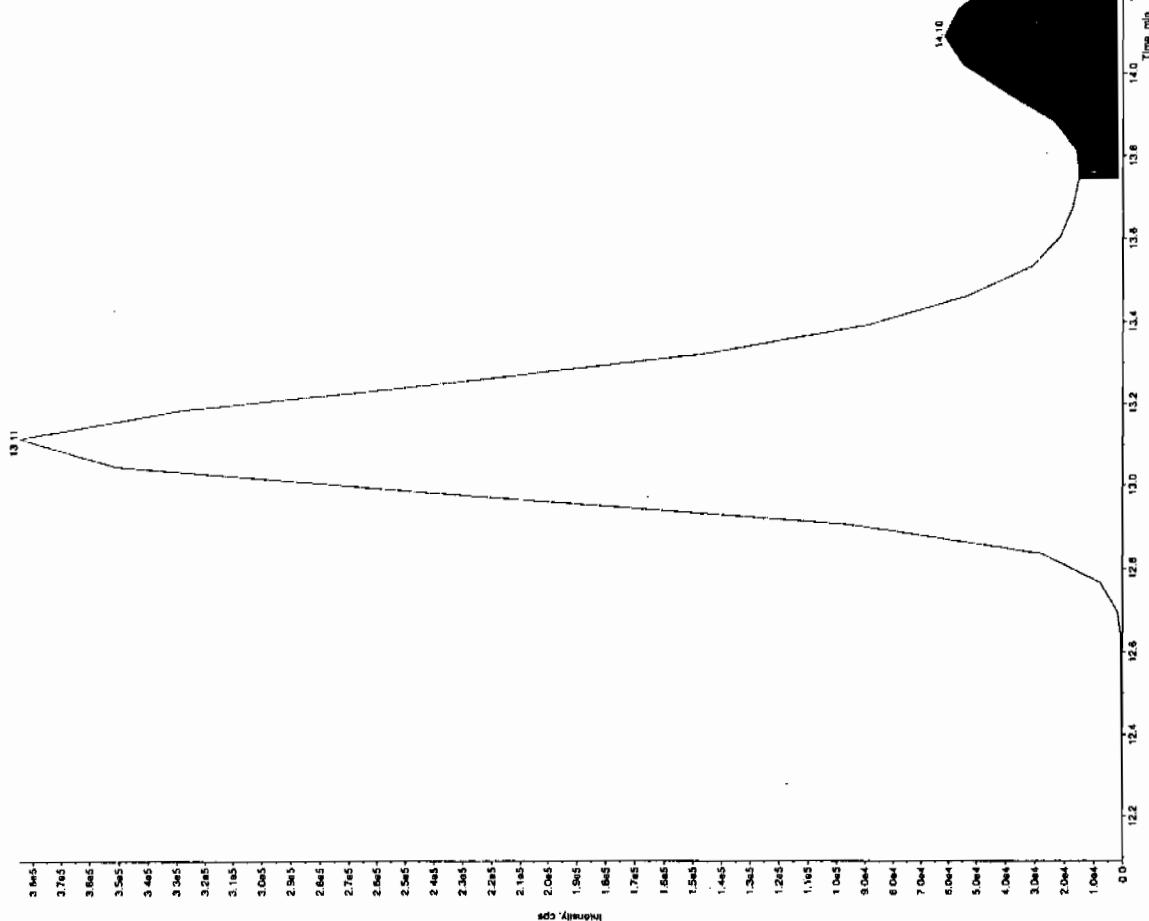
Time, min

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/23/10

Sample Name: WXX100415.SRVP Sample ID: 11111111 File: EXP041510.mlf  
Peak Name: 2-Amino-46-dinitrochlorethane Masses: 197.0180 amu  
Comment: LCMS-EXP-C- Annotation: -

Sample Index: 1  
Concentration: 500 ng/mL  
Acq. Date: 4/15/2010  
Acq. Time: 11:01:01 PM  
Validated: Yes  
Window: 30.0 sec  
Expected RT: 14.1 min  
Observed RT: 13.7 min  
Relative RT: No  
Manual: 3.465  
Injection Time: 14.1 min  
Injection Volume: 5.0 µL  
Flow Rate: 1.0 mL/min  
Total Time: 15.0 min



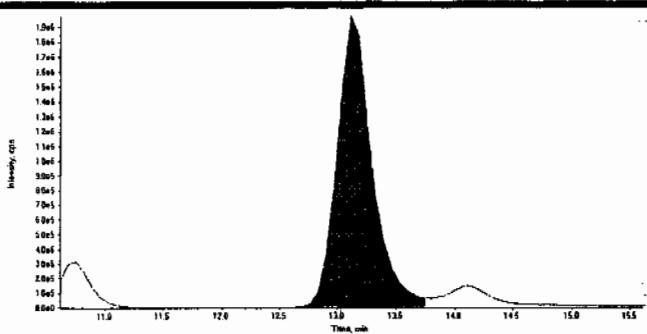


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GEL SOP GL-OA-E-056, Method 8321A-Modified

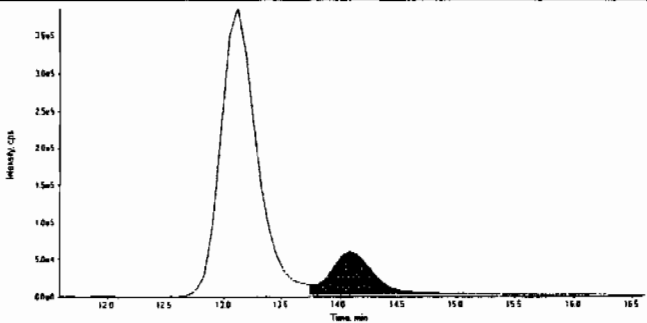
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415010.wiff	<b>Acquisition Date</b>	4/15/2010 2:01:01 PM
<b>Sample Name</b>	WXX100415-56ICV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

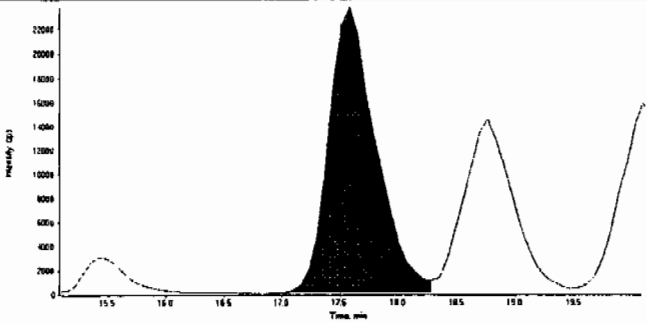
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.1
	Area Counts:	4.14e+007
	Manual Modification	No
	Amount:	575. (ng/mL)
	% Accuracy:	95.80

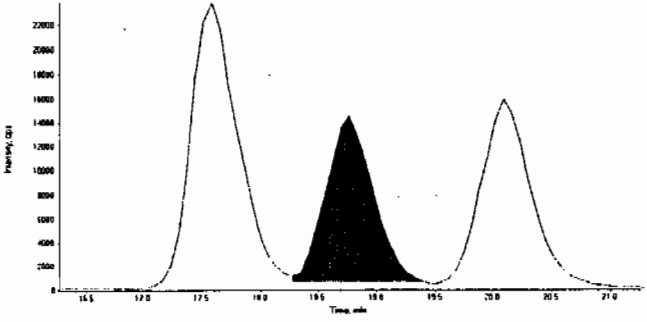
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	14.1
	Area Counts:	1.51e+006
	Manual Modification	Yes
	Amount:	500. (ng/mL)
	% Accuracy:	83.30

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	17.6
	Area Counts:	6.74e+005
	Manual Modification	No
	Amount:	526. (ng/mL)
	% Accuracy:	87.70

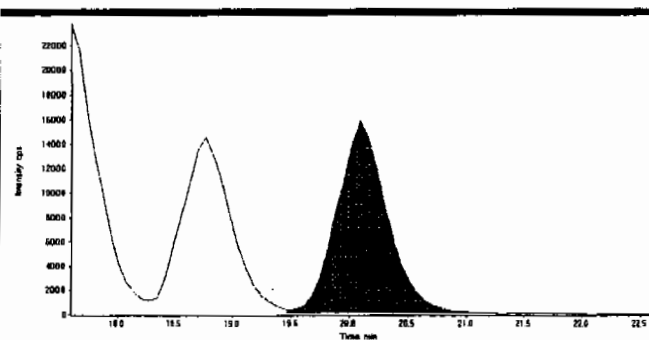
  

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.8
	Area Counts:	3.94e+005
	Manual Modification	No
	Amount:	570. (ng/mL)
	% Accuracy:	95.00

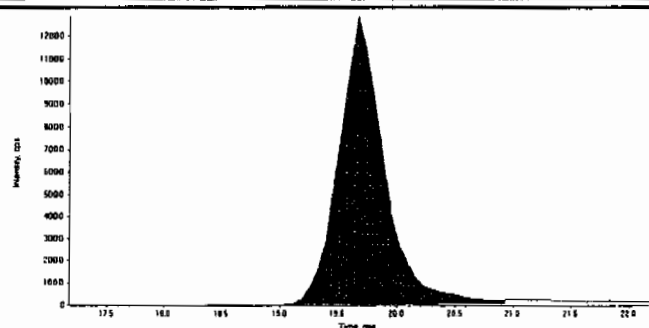
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415010.wiff	Acquisition Date	4/15/2010 2:01:01 PM
Sample Name	WXX100415-561CV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.1
Area Counts:	4.75e+005
Manual Modification	No
Amount:	495. (ng/mL)
% Accuracy:	82.50



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.7
Area Counts:	3.54e+005
Manual Modification	No
Amount:	536. (ng/mL)
% Accuracy:	89.30

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/15/10  
 Time of Injection 1401  
 Standard Number WXX100415-56ICV  
 Data File EXP0415010a

HMX	81.4	✓
RDX	98.2	✓
135-Trinitrobenzene	96.2	
13-Dinitrobenzene	98.6	
Tetryl	97.5	
246-Trinitrotoluene	91.0	
Nitrobenzene	104.0	
34-dinitrotoluene	98.0	
26-dinitrotoluene	92.1	
24-dinitrotoluene	97.5	
4-Amino-26-dinitrotoluene	95.8	
2-Amino-46-dinitrotoluene	83.3	
2-Nitrotoluene	87.7	
4-Nitrotoluene	95.0	
3-Nitrotoluene	82.5	
PETN	89.3	
TOTAL	✓ 1488.1	<i>Handwritten: 1488.1</i>
AVERAGE	✓ 93.0	ICV Limits 85-115%
		CRI Limits 70-130%
		CCV Limits 85-115%
No single analyte > +/- 60%		

*San*  
*4/15/10*

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2193

Lab Code: GEL

Run Date: 09-APR-10.15-APR-10.20-APR-10.22-APR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Paramname	50	51	52	53	54	55	Ave RF	RSD	Q
Calibration Level:	EXP0420003.w	EXP0420004.w	EXP0420005.w	EXP0420006.w	EXP0420007.w	EXP0420008.w			
Data File:									
2,4-Dinitrotoluene	.239	.203	.195	.209	.21	.174	0.205	10.3	
2-Amino-4,6-dinitrotoluene	.016	.014	.016	.015	.016	.016	0.016	5.56	
HMX	.944	1.21	1.05	1.01	1.27	.97	1.076	12.4	
RDX	.446	.506	.631	.55	.678	.508	0.553	15.7	
Tetryl	2.09	2.06	2.2	1.97	2.29	1.88	2.082	7.28	
m-Dinitrobenzene	2.45	2.69	3.02	2.61	2.46	2.23	2.577	10.5	

Q column used to flag RSD values outside of Limit (>20%)

\* Values outside of QC Limit

Form 6

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC      GEL Job No: 10-2193      Run Date: 09-APR-10 15-APR-10 20-APR-10 22-APR-10

Lab Code: GEL      Method: 8321A Modified      HPLC Column: Phenomenex Ultracarb 5 ODS(20)

LCMSMS Instrument ID: LCMSMS3

Calibration Type: Linear

Calibration Level:		50	51	52	53	54	55	Slope	Intercept	COD	Q
Data File:		EXP0420003.w	EXP0420004.w	EXP0420005.w	EXP0420006.w	EXP0420007.w	EXP0420008.w				
Parname											
1,3,5-Trinitrobenzene		8870000	17200000	57700000	102000000	170000000	188000000	5.36	.169	.9995	
3,4-Dinitrotoluene		1720000	3960000	14000000	28600000	51900000	65800000	.66	.006	.9983	
4-Amino-2,6-dinitrotoluene		2090000	5020000	17600000	37200000	61500000	87700000	.423	.005	.9988	
Nitrobenzene		118000	272000	917000	2120000	3840000	4770000	.112	0	.9928	
PETN		20800	46500	180000	330000	700000	939000	.005	0	.999	
m-Nitrotoluene		31700	65200	271000	522000	1090000	1380000	.007	0	.9982	
p-Nitrotoluene		42200	99700	340000	647000	1470000	1910000	.01	0	.9975	
p-Nitrotoluene		23800	49100	181000	379000	742000	954000	.005	0	.9989	

Linear fit:  $Y = mx + b$   
 where b is Intercept and m is slope

COD is Coefficient of Determination

Q column used to flag COD values outside of Limit ( $<0.990$ )

\* Values outside of QC Limit

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC      GEL Job No: 10-2193  
 Lab Code: GEL      Run Date: 09-APR-10.15-APR-10.20-APR-10.22-APR-10  
 LCMSMS Instrument ID: LCMSMS3      Method: 8321A Modified      HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	50	51	52	53	54	55	X	X^2	Intercept	COD	Q
Data File:	EXP0420003.wiff	EXP0420004.wiff	EXP0420005.wiff	EXP0420006.wiff	EXP0420007.wiff	EXP0420008.wiff					
Parname:											
2,4,6-Trinitrotoluene	16300000	32000000	113000000	190000000	267000000	299000000	.001	3	-.766	.9999	
2,6-Dinitrotoluene	3090000	6530000	25700000	45300000	77100000	102000000	.002	.612	-.059	.9999	

Quadratic Fit:  $y = Ax^2 + Bx + C$   
 where X^2 column above is coefficient A  
 X column above is coefficient B  
 intercept is C  
 COD is Coefficient of Determination  
 Q column used to flag COD outside of Limit (<0.990)  
 \* Values outside of QC Limit

042010ICAL

Peak Name: 13-Dinitrobenzene-d4  
Use as Internal Standard  
Q1/Q3 Masses: 172.05/46.10 amu  
Peak Name: 26-Dinitrotoluene-d3  
Use as Internal Standard  
Q1/Q3 Masses: 184.99/155.00 amu

Peak Name: HMX  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 341.20/46.00 amu

Fit Factor	Mean Response	Factor	Weighting	None	Iterate No
Standard deviation		0.133			
%RSD		12.4			
Use Area					

Peak Name: RDX  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 267.01/46.10 amu

Fit Factor	Mean Response	Factor	Weighting	None	Iterate No
Standard deviation		0.0866			
%RSD		15.7			
Use Area					

Peak Name: 135-Trinitrobenzene  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 212.97/182.80 amu

Fit Intercept	Linear	Weighting	None	Iterate No
Slope		0.169		
Correlation coefficient		0.9995		
Use Area				

Peak Name: 13-Dinitrobenzene  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 167.95/137.90 amu

Fit Factor	Mean Response	Factor	Weighting	None	Iterate No
Standard deviation		0.271			

*Handwritten:*  
Jury 01/28/10  
Hmw 04/29/10

042010ICAL

%RSD 10.5  
Use Area

Peak Name: Tetra  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 240.95/180.80 amu

Fit	Mean Response Factor	Weighting	None	Iterate No
Factor	2.08			
Standard deviation	0.152			
%RSD	7.28			
Use Area				

Peak Name: 246-Trinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 227.12/209.80 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	0.00125			
a1	3			
a2	-0.766			
Correlation coefficient	0.9999			
Use Area				

Peak Name: Nitrobenzene  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 123.04/46.00 amu

Fit	Linear	Weighting	None	Iterate No
Intercept	-7.36e-005			
Slope	0.112			
Correlation coefficient	0.9928			
Use Area				

Peak Name: 34-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Linear	Weighting	None	Iterate No
Intercept	0.00621			
Slope	0.66			
Correlation coefficient	0.9983			
Use Area				

Page 2



042010ICAL

Peak Name: 26-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	0.00151			
a1	0.612			
a2	-0.0585			
Correlation coefficient 0.9999				
Use Area				

Peak Name: 24-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Mean Response Factor	Weighting	None	Iterate No
Factor	0.205			
Standard deviation	0.0212			
%RSD	10.3			
Use Area				

Peak Name: 4-Amino-26-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 197.02/167.00 amu

Fit	Linear	Weighting	None	Iterate No
Intercept	0.00487			
Slope	0.423			
Correlation coefficient 0.9988				
Use Area				

Peak Name: 2-Amino-46-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 197.02/180.00 amu

Fit	Mean Response Factor	Weighting	None	Iterate No
Factor	0.0155			
Standard deviation	0.000861			
%RSD	5.56			
Use Area				

Peak Name: 2-Nitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 137.00/46.00 amu

Page 3

042010ICAL

Fit Linear Weighting None Iterate No  
Intercept -0.000364  
Slope 0.00961  
Correlation coefficient 0.9975  
Use Area

Peak Name: 4-Nitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 137.00/46.00 amu

Fit Linear Weighting None Iterate No  
Intercept -5.35e-005  
Slope 0.00481  
Correlation coefficient 0.9989  
Use Area

Peak Name: 3-Nitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 137.00/46.00 amu

Fit Linear Weighting None Iterate No  
Intercept -0.000131  
Slope 0.007  
Correlation coefficient 0.9982  
Use Area

Peak Name: PETN  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 361.06/62.00 amu

Fit Linear Weighting None Iterate No  
Intercept -0.000128  
Slope 0.00467  
Correlation coefficient 0.9990  
Use Area

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

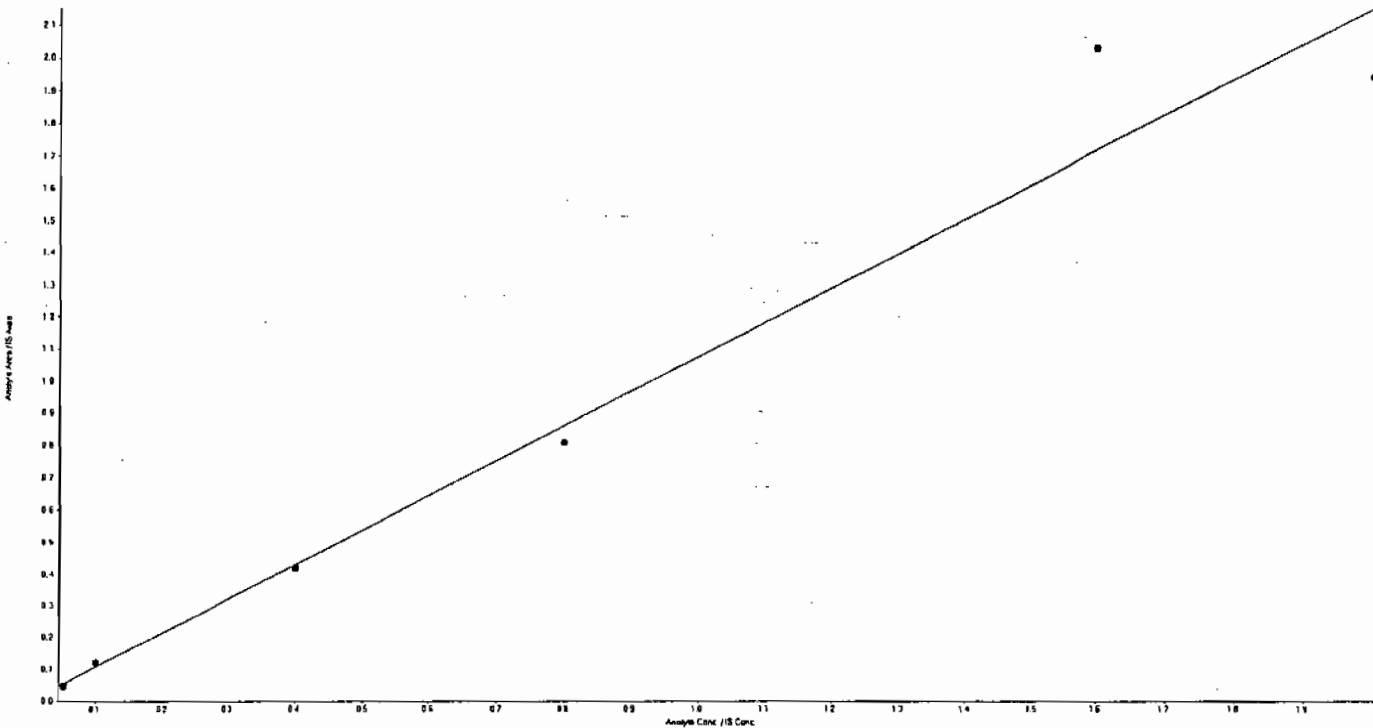
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LCMSMS#3

042010.rdb

Analyte Name: HMX

Regression Equation:  $y = 1.07 x$  (std. dev. = 0.133)

Expected Concentration	Calculated Concentration	% Accuracy
25	21.97	87.9
50	56.29	112.6
200	195.16	97.6
400	374.92	93.7
800	943.21	117.9
1000	903.20	90.3



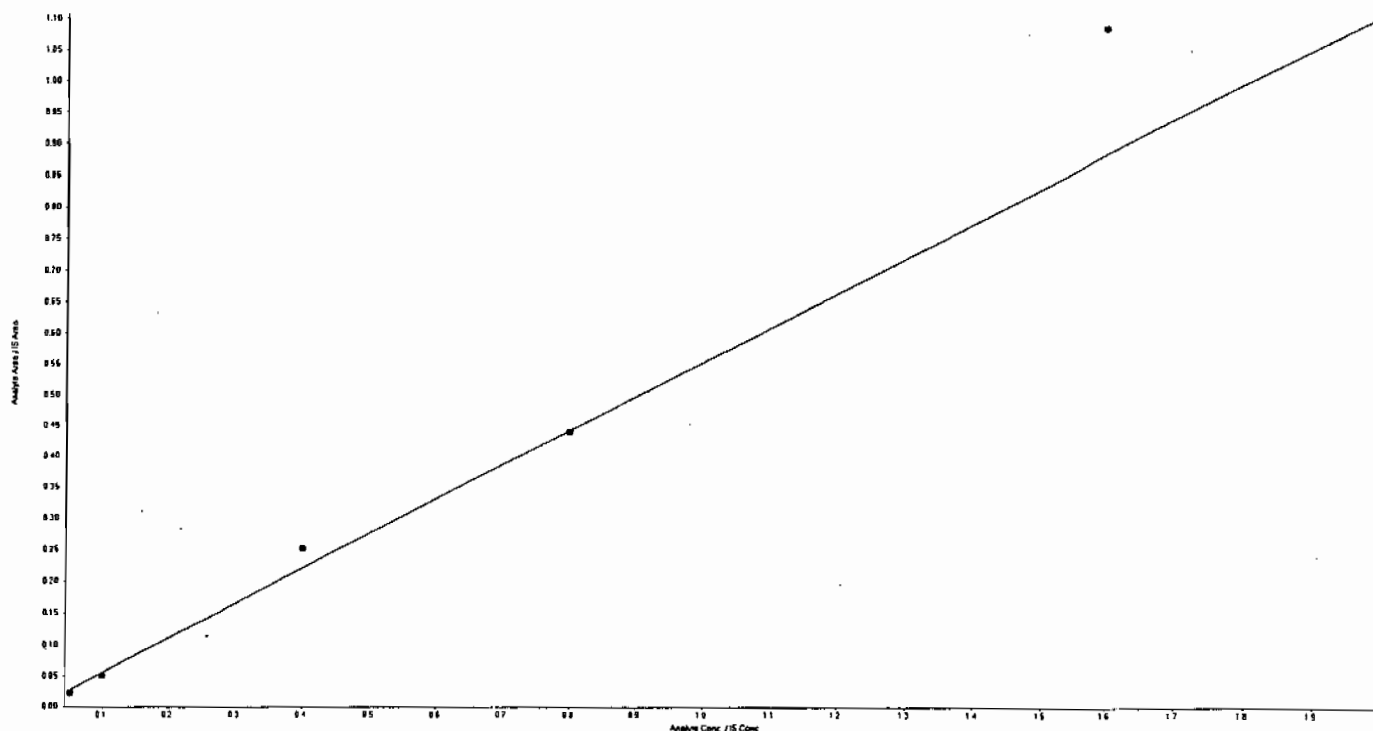
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: RDX

Regression Equation:  $y = 0.553x$  (std. dev. = 0.0866)

Expected Concentration	Calculated Concentration	% Accuracy
25	20.15	80.6
50	45.74	91.5
200	227.96	114.0
400	397.87	99.5
800	981.23	122.7
1000	918.34	91.8



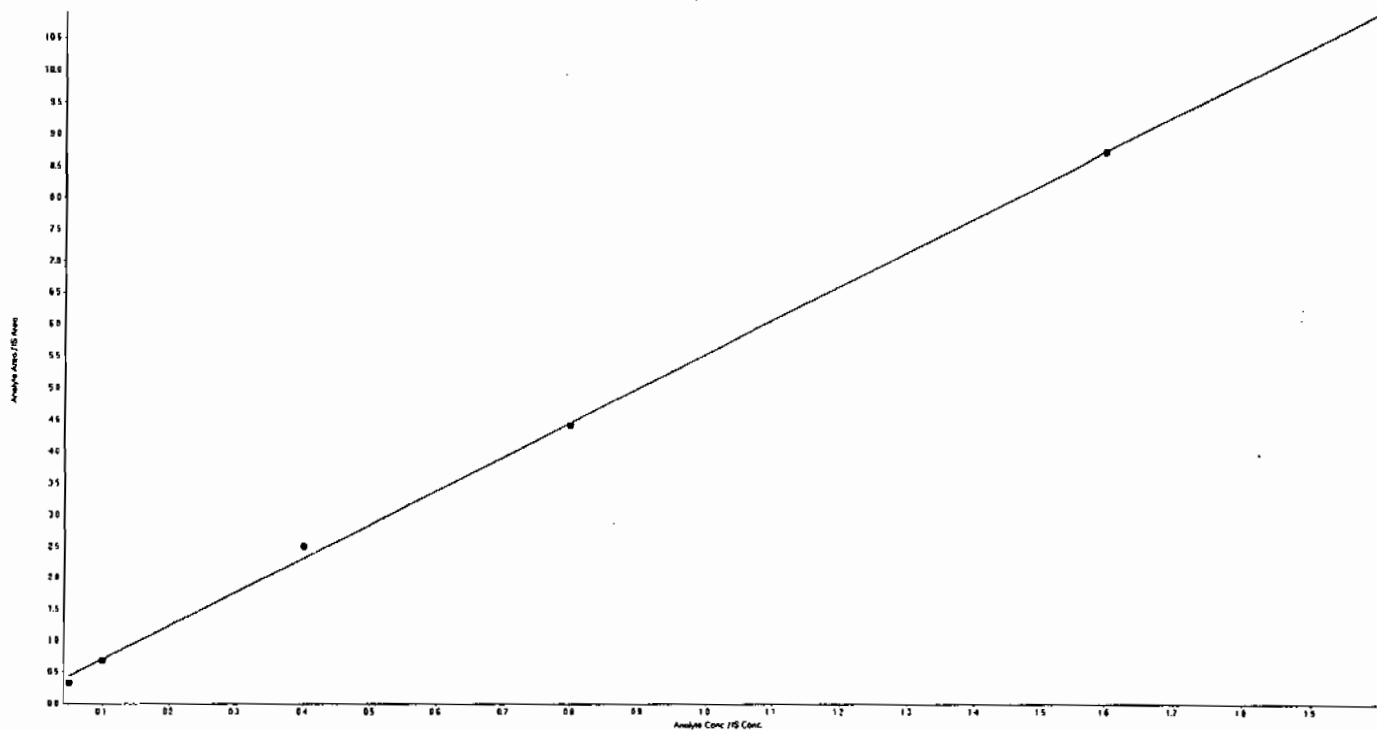
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: 135-Trinitrobenzene

Regression Equation:  $y = 5.36x + 0.169$  ( $r = 0.9995$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	15.11	60.5
50	48.52	97.0
200	217.02	108.5
400	396.40	99.1
800	797.95	99.7



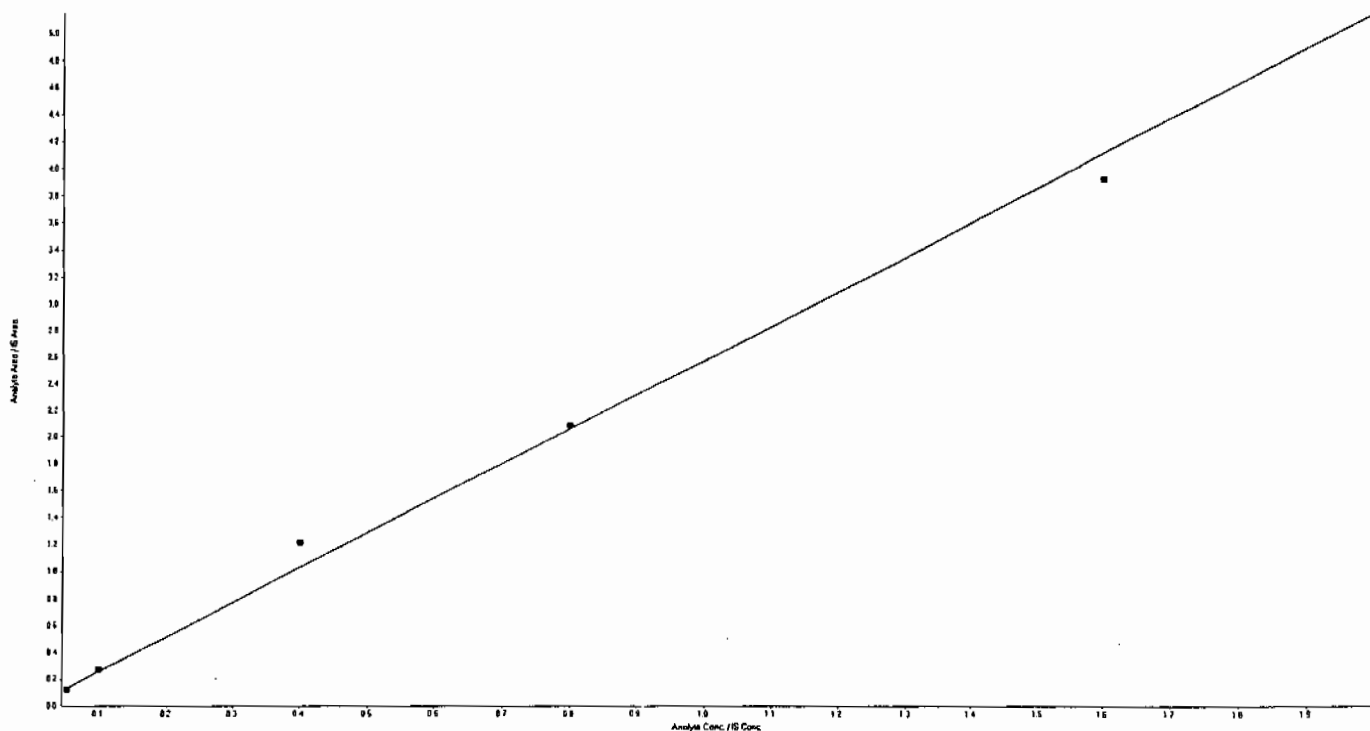
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: 13-Dinitrobenzene

Regression Equation:  $y = 2.58 x$  (std. dev. = 0.271)

Expected Concentration	Calculated Concentration	% Accuracy
25	23.78	95.1
50	52.24	104.5
200	234.72	117.4
400	405.22	101.3
800	762.14	95.3
1000	864.77	86.5



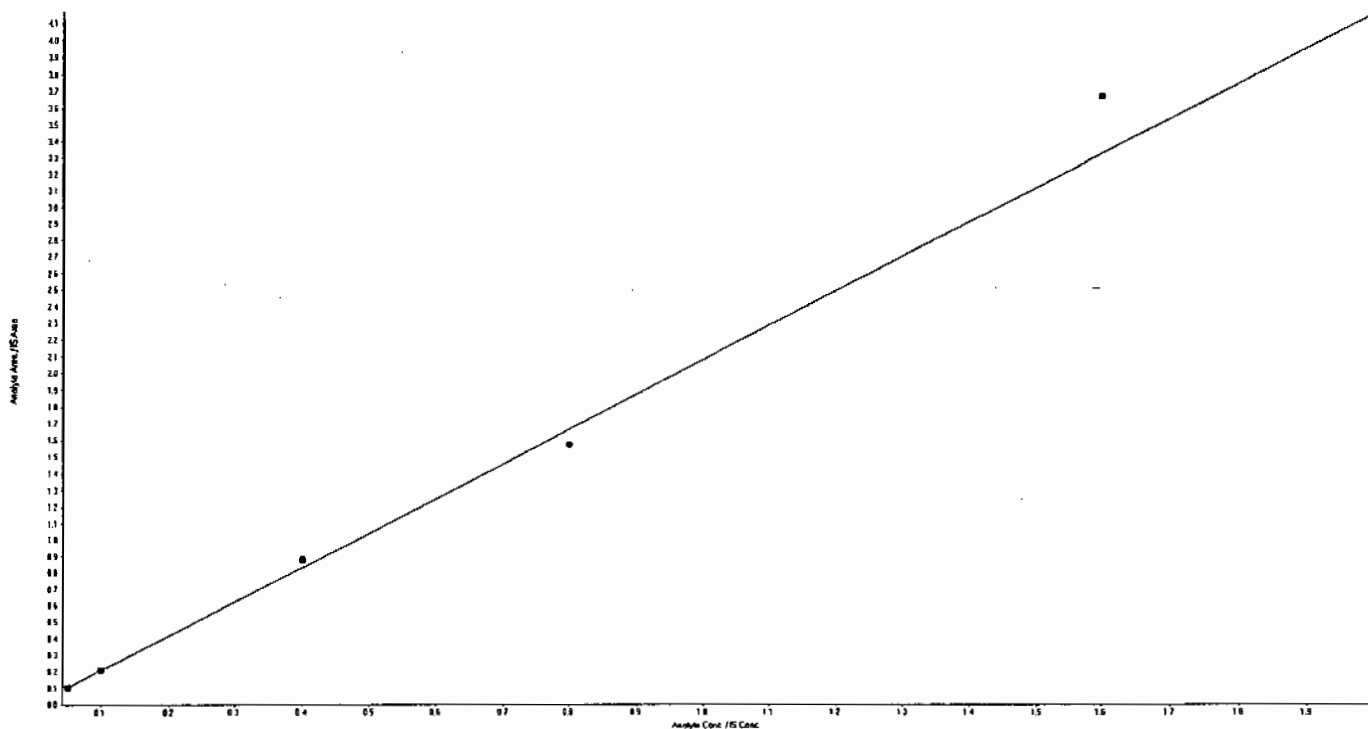
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: Tetryl

Regression Equation:  $y = 2.08x$  (std. dev. = 0.152)

Expected Concentration	Calculated Concentration	% Accuracy
25	25.13	100.5
50	49.47	98.9
200	211.40	105.7
400	377.69	94.4
800	881.74	110.2
1000	902.01	90.2



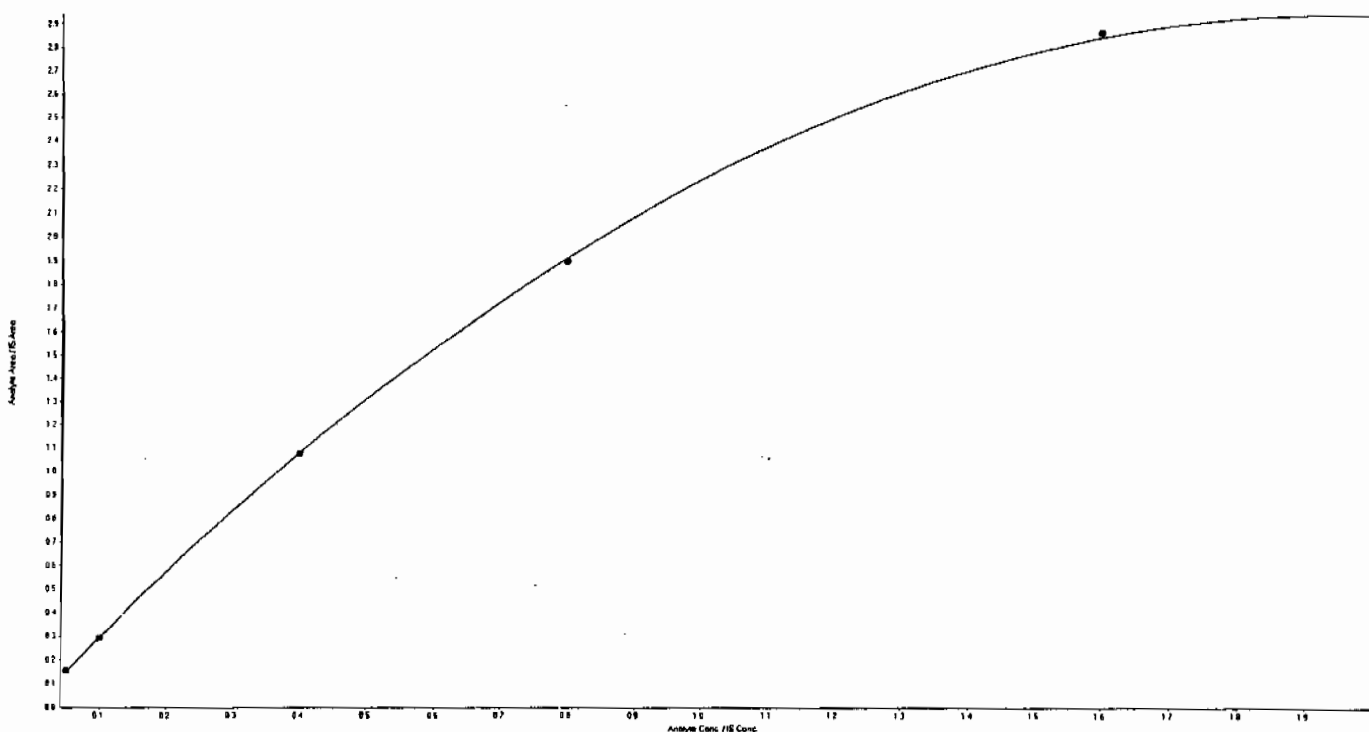
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: 246-Trinitrotoluene

Regression Equation:  $y = -0.766 x^2 + 3 x + 0.00125$  ( $r = 0.9999$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	26.14	104.6
50	49.80	99.6
200	199.55	99.8
400	396.28	99.1
800	820.60	102.6
1000	914.99	91.5





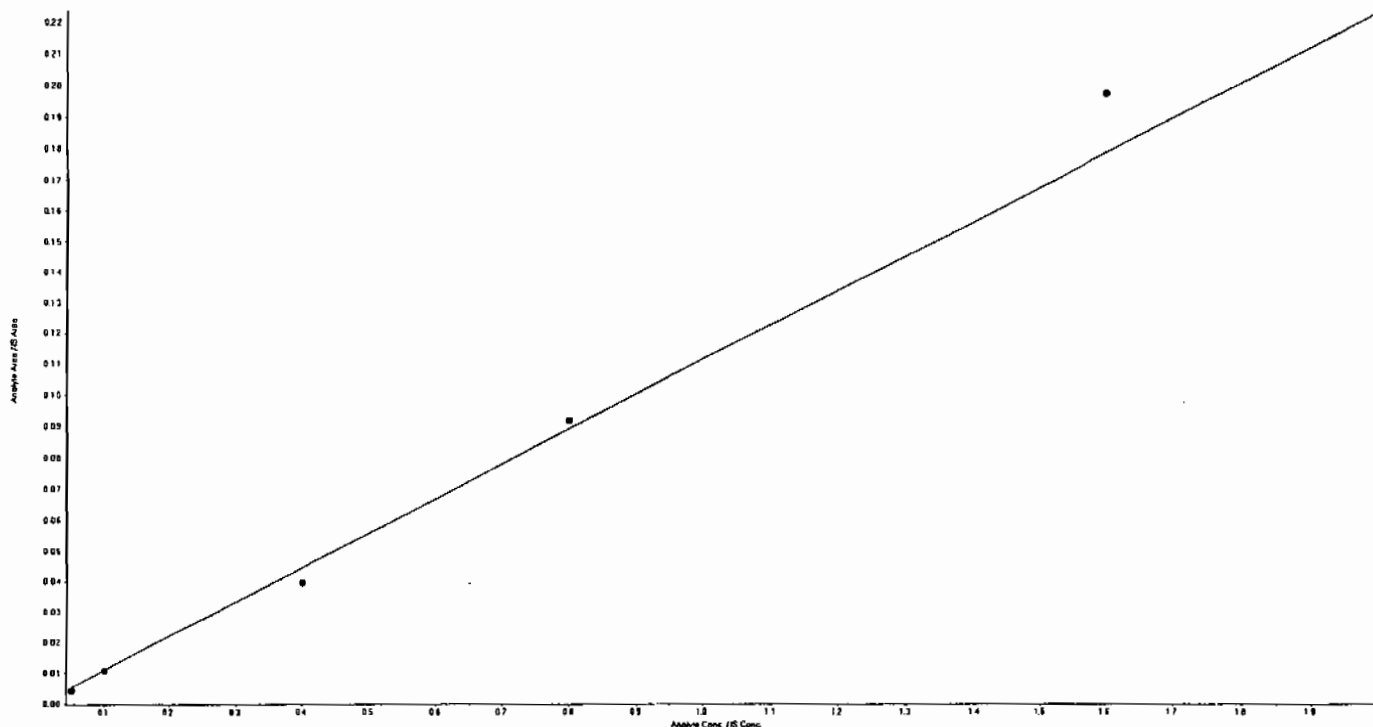
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: Nitrobenzene

Regression Equation:  $y = 0.112x + -7.36e-005$  ( $r = 0.9928$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	20.12	80.5
50	49.14	98.3
200	177.86	88.9
400	411.03	102.8
800	883.32	110.4
1000	933.52	93.4



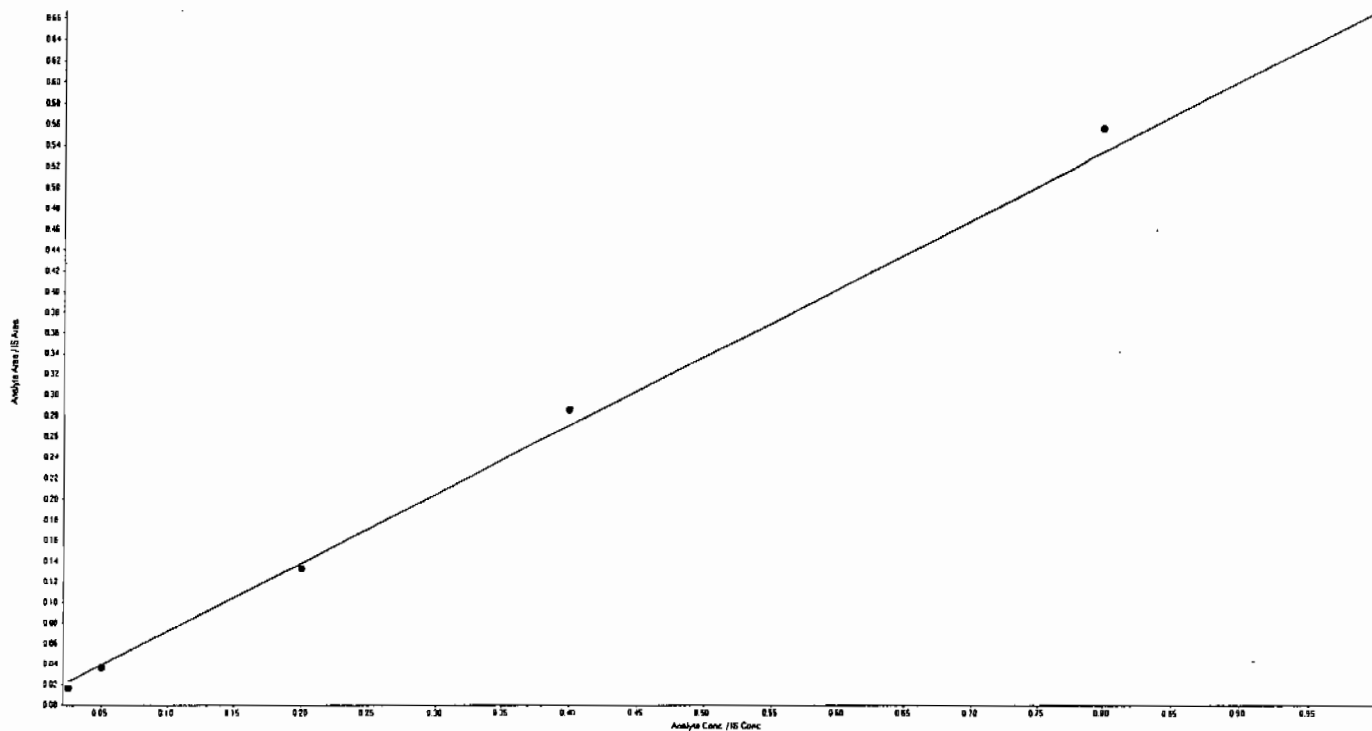
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: 34-dinitrotoluene

Regression Equation:  $y = 0.66x + 0.00621$  ( $r = 0.9983$ )

Expected Concentration	Calculated Concentration	% Accuracy
12.5	7.78	62.2
25	22.73	90.9
100	95.92	95.9
200	211.19	105.6
400	416.54	104.1
500	483.34	96.7



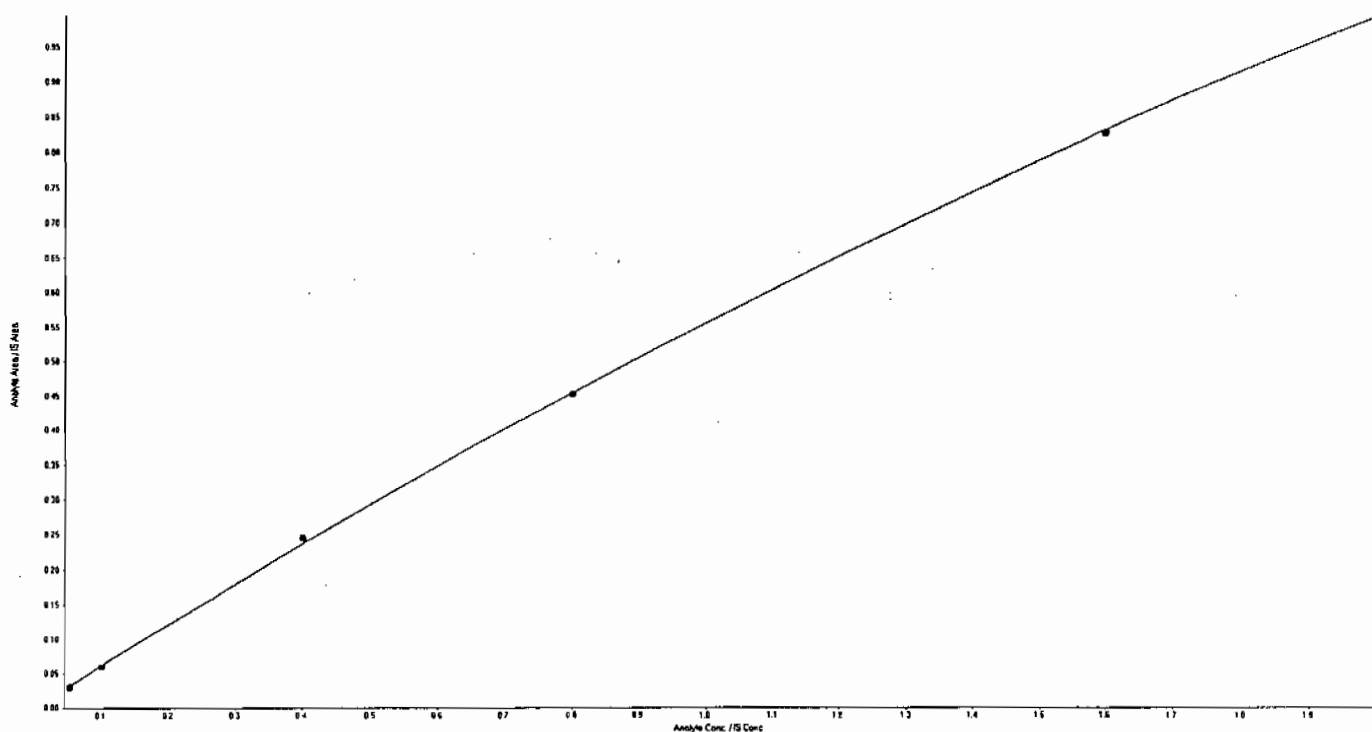
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: 26-dinitrotoluene

Regression Equation:  $y = -0.0585 x^2 + 0.612 x + 0.00151$  ( $r = 0.9999$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	23.08	92.3
50	48.08	96.2
200	206.95	103.5
400	398.53	99.6
800	794.68	99.3
1000	1003.75	100.4



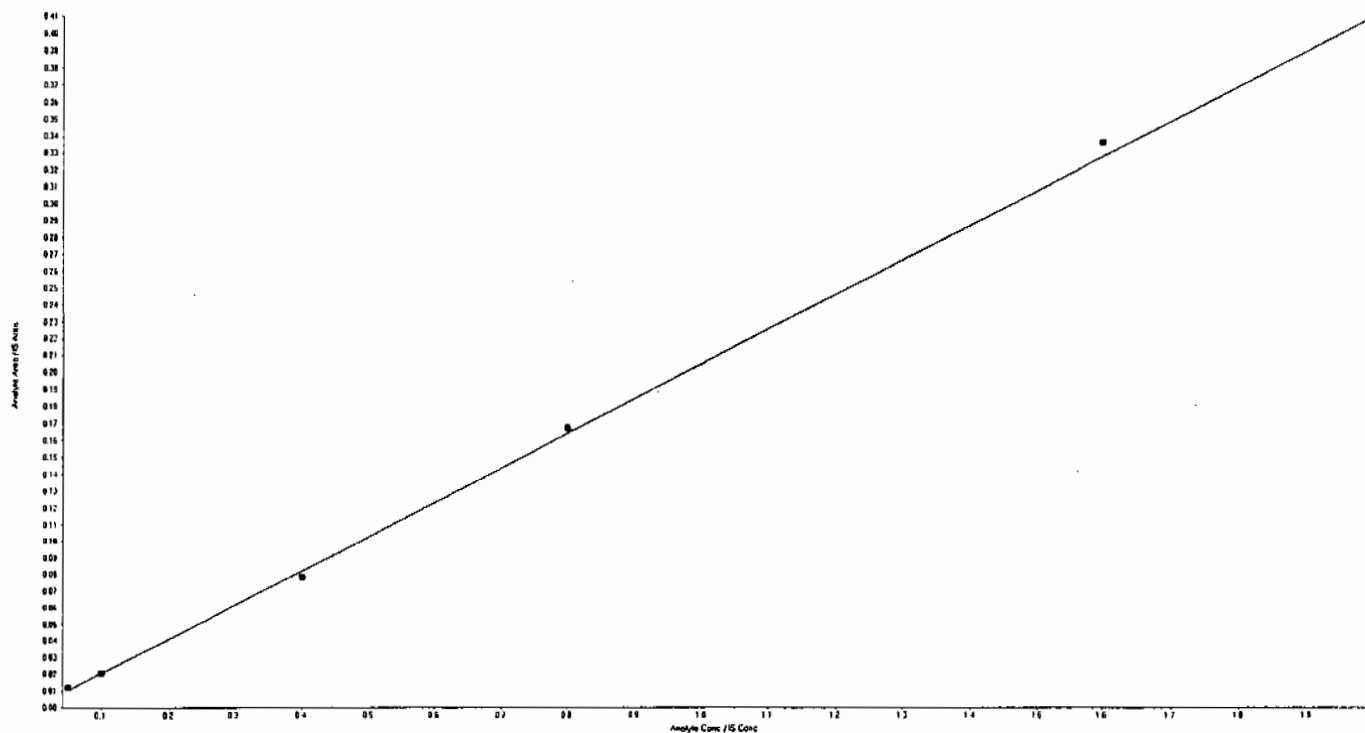
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GEL SOP GL-OA-E-056, Method 8321A-Modified

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LCMSMS#3

Analyte Name: 24-dinitrotoluene

Regression Equation:  $y = 0.205 x$  (std. dev. = 0.0212)

Expected Concentration	Calculated Concentration	% Accuracy
25	29.12	116.5
50	49.48	99.0
200	190.53	95.3
400	407.68	101.9
800	819.95	102.5
1000	848.75	84.9



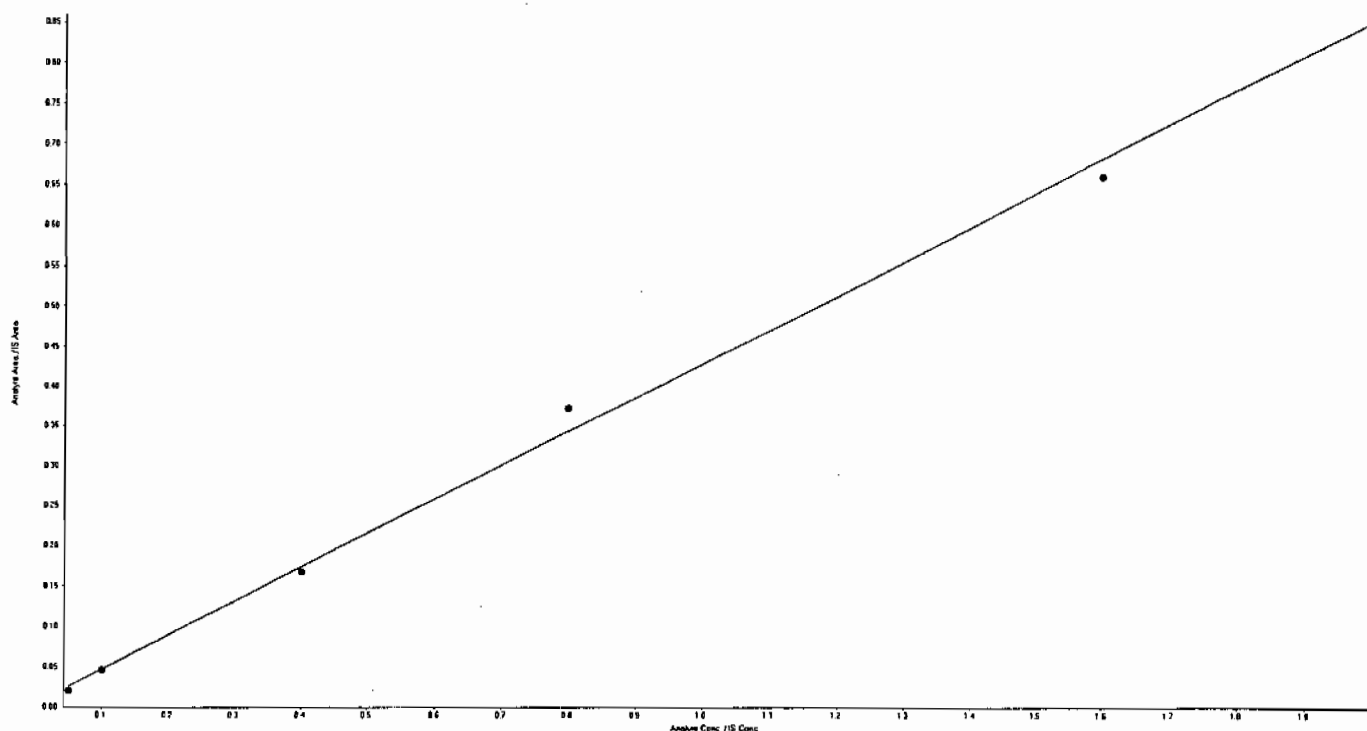
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LCMSMS#3

Analyte Name: 4-Amino-26-dinitrotoluene

Regression Equation:  $y = 0.423x + 0.00487$  ( $r = 0.9988$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	17.94	71.8
50	48.56	97.1
200	191.88	95.9
400	433.47	108.4
800	773.30	96.7
1000	1009.84	101.0



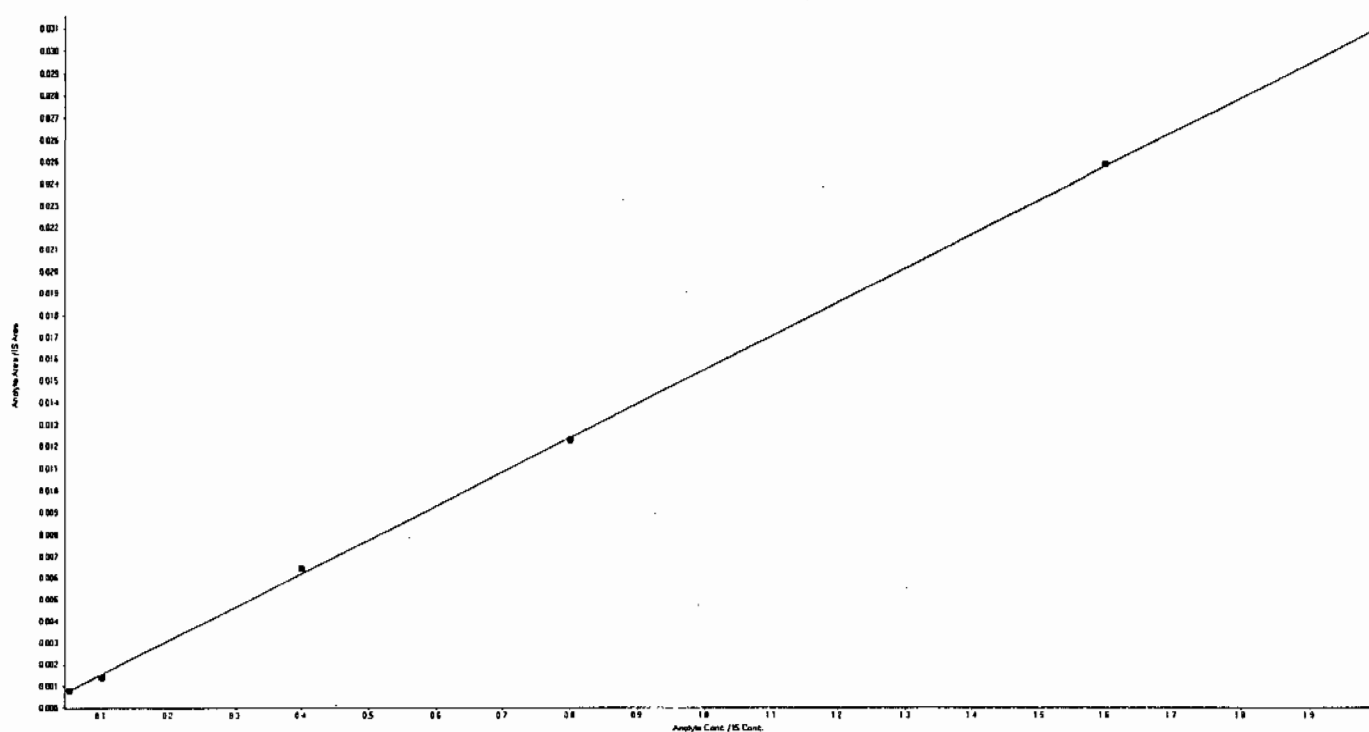
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Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: 2-Amino-4,6-dinitrotoluene

Regression Equation:  $y = 0.0155x$  (std. dev. = 0.000861)

Expected Concentration	Calculated Concentration	% Accuracy
25	26.30	105.2
50	44.85	89.7
200	208.15	104.1
400	395.59	98.9
800	801.88	100.2
1000	1018.99	101.9



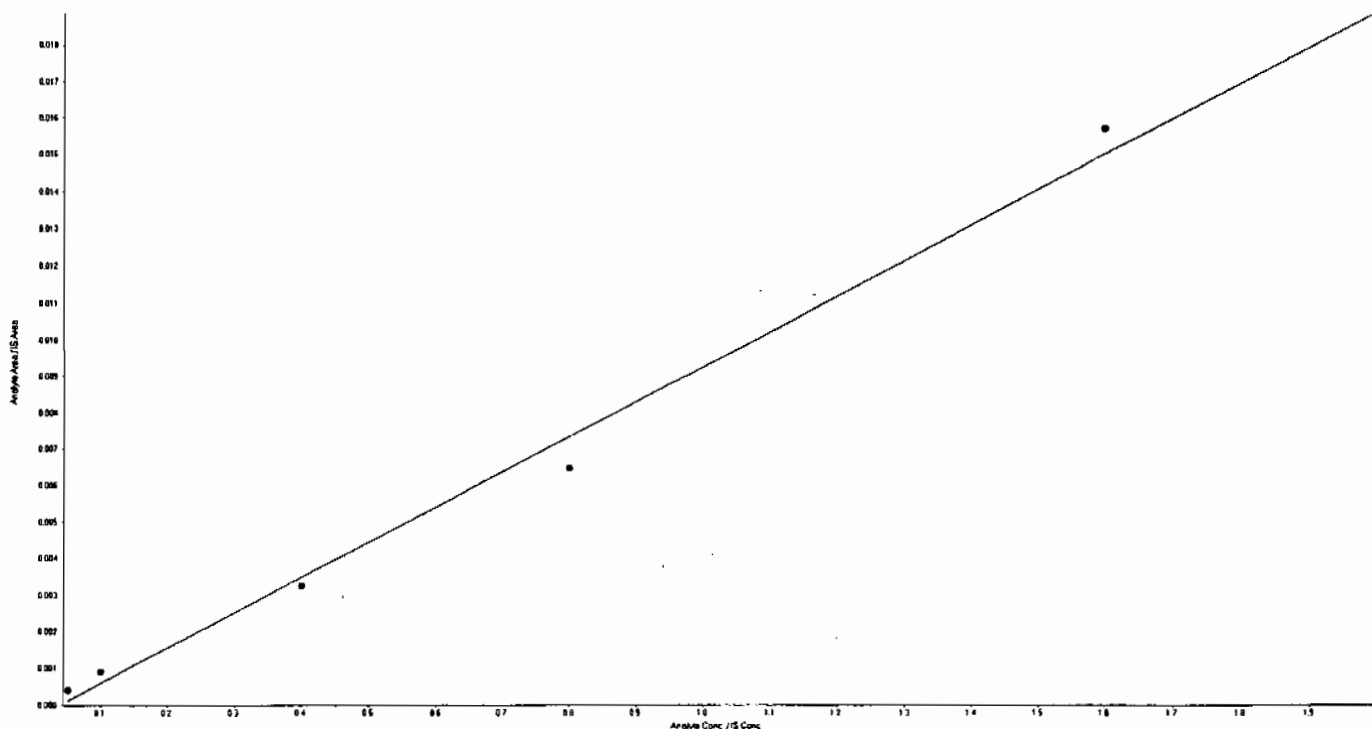
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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: 2-Nitrotoluene

Regression Equation:  $y = 0.00961x + -0.000364$  ( $r = 0.9975$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	40.01	160.0
50	66.43	132.9
200	187.42	93.7
400	354.47	88.6
800	835.68	104.5
1000	990.98	99.1



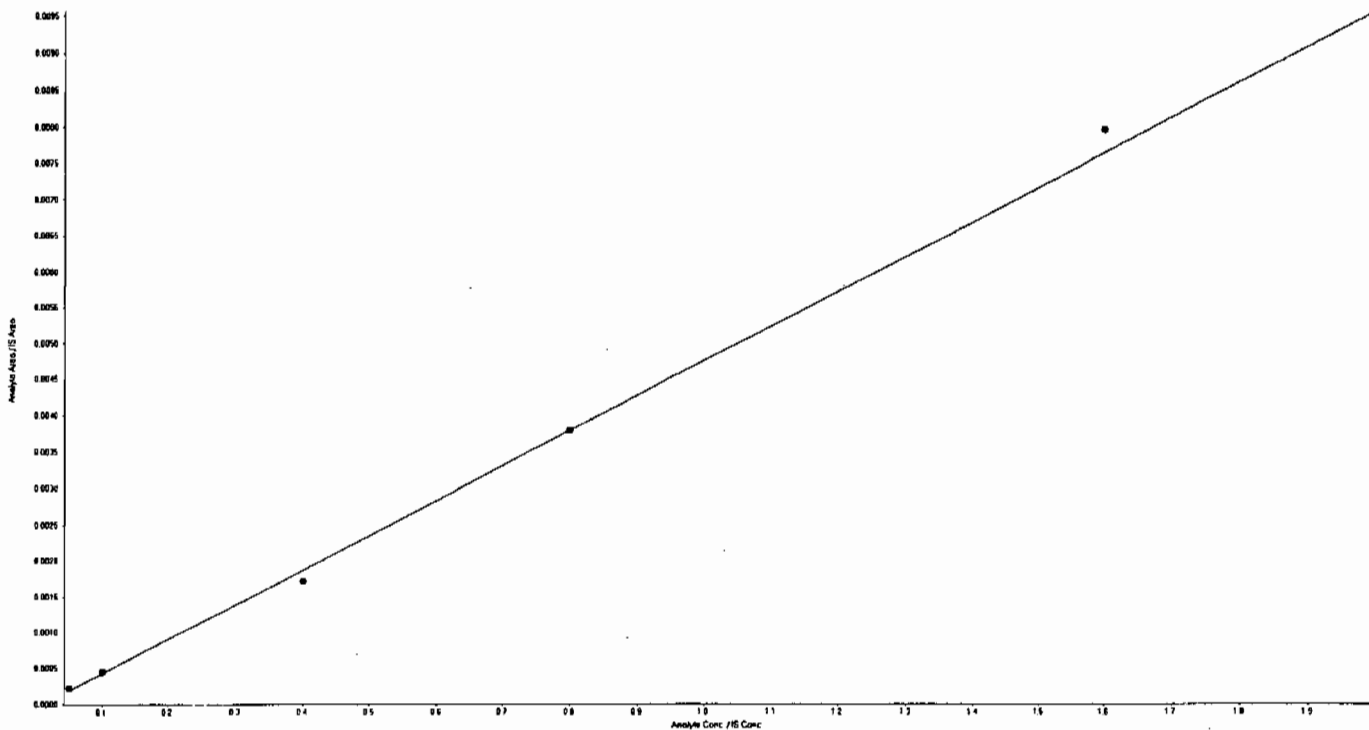
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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: 4-Nitrotoluene

Regression Equation:  $y = 0.00481x + -5.35e-005$  ( $r = 0.9989$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	29.27	117.1
50	52.35	104.7
200	184.53	92.3
400	399.15	99.8
800	832.47	104.1
1000	977.23	97.7





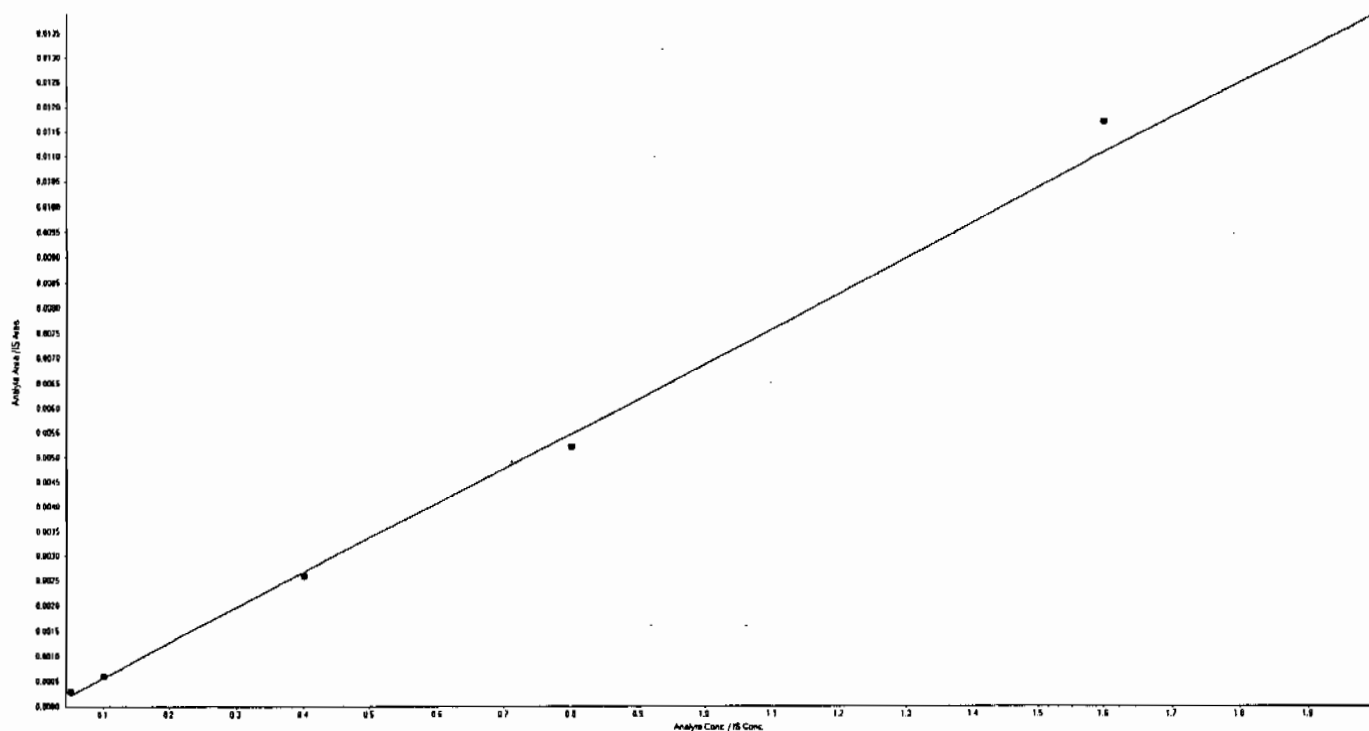
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Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: 3-Nitrotoluene

Regression Equation:  $y = 0.007x + -0.000131$  ( $r = 0.9982$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	31.06	124.2
50	51.93	103.9
200	193.71	96.9
400	381.07	95.3
800	843.24	105.4
1000	973.99	97.4



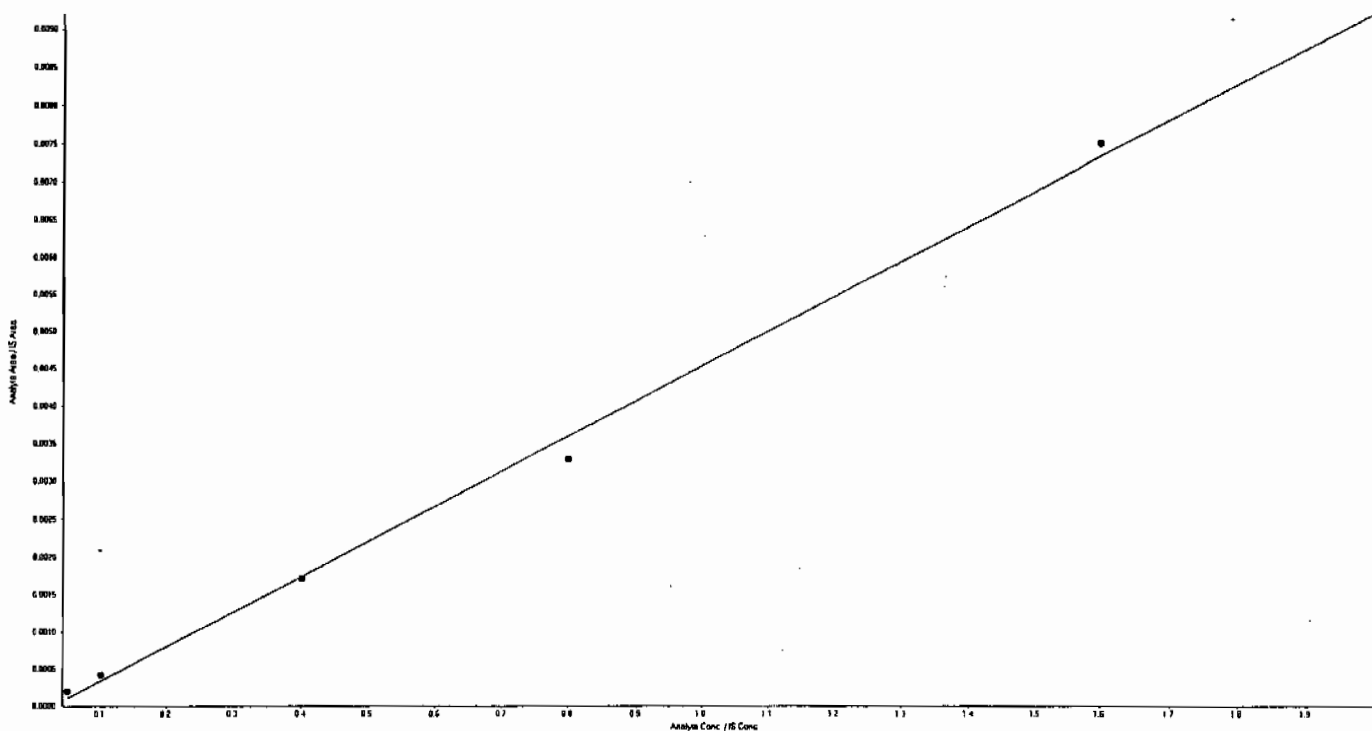
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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Analyte Name: PETN

Regression Equation:  $y = 0.00467x + -0.000128$  ( $r = 0.9990$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	35.10	140.4
50	59.36	118.7
200	197.38	98.7
400	366.63	91.7
800	816.93	102.1
1000	999.61	100.0



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0420010.wiff

Analysis Date: 20-APR-10 18:12

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	542	90	
2,4,6-Trinitrotoluene	600	557	93	
2,4-Dinitrotoluene	600	620	103	
2,6-Dinitrotoluene	600	571	95	
2-Amino-4,6-dinitrotoluene	600	624	104	
3,4-Dinitrotoluene	300	295	98	
4-Amino-2,6-dinitrotoluene	600	675	113	
HMX	600	503	84	
Nitrobenzene	600	583	97	
PETN	600	587	98	
RDX	600	557	93	
Tetryl	600	611	102	
m-Dinitrobenzene	600	564	94	
m-Nitrotoluene	600	622	104	
o-Nitrotoluene	600	601	100	
p-Nitrotoluene	600	659	110	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

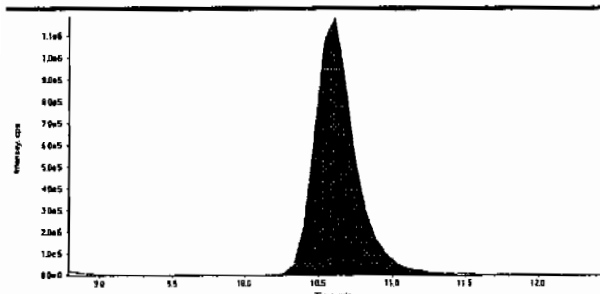
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

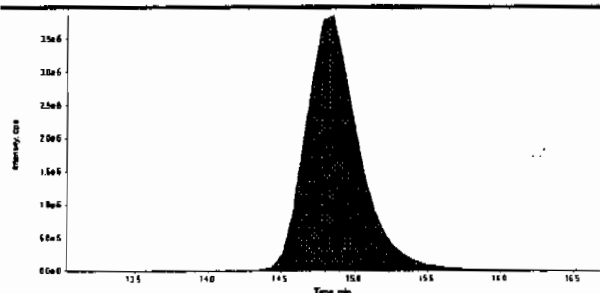
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GEL SOP GL-OA-E-056, Method 8321A-Modified

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LCMSMS#3

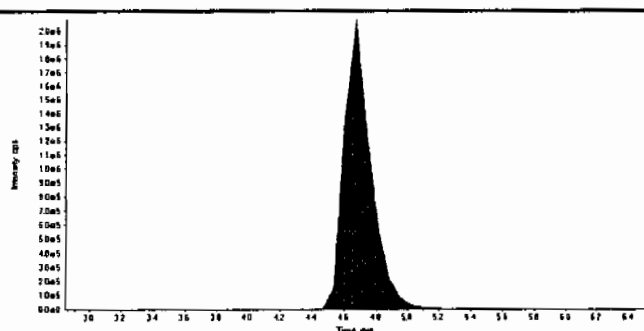
Data File	EXP0420010.wiff	Acquisition Date	4/20/2010 6:12:10 PM
Sample Name	WXX100420-56ICV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



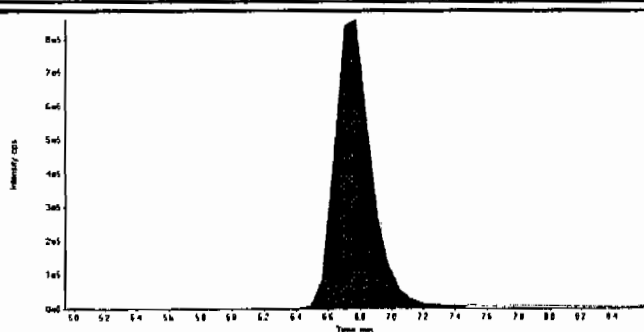
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	22500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	97300000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	2.43e+007
Manual Modification	No
Amount:	503. (ng/mL)
% Accuracy:	83.80



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.39e+007
Manual Modification	No
Amount:	557. (ng/mL)
% Accuracy:	92.80

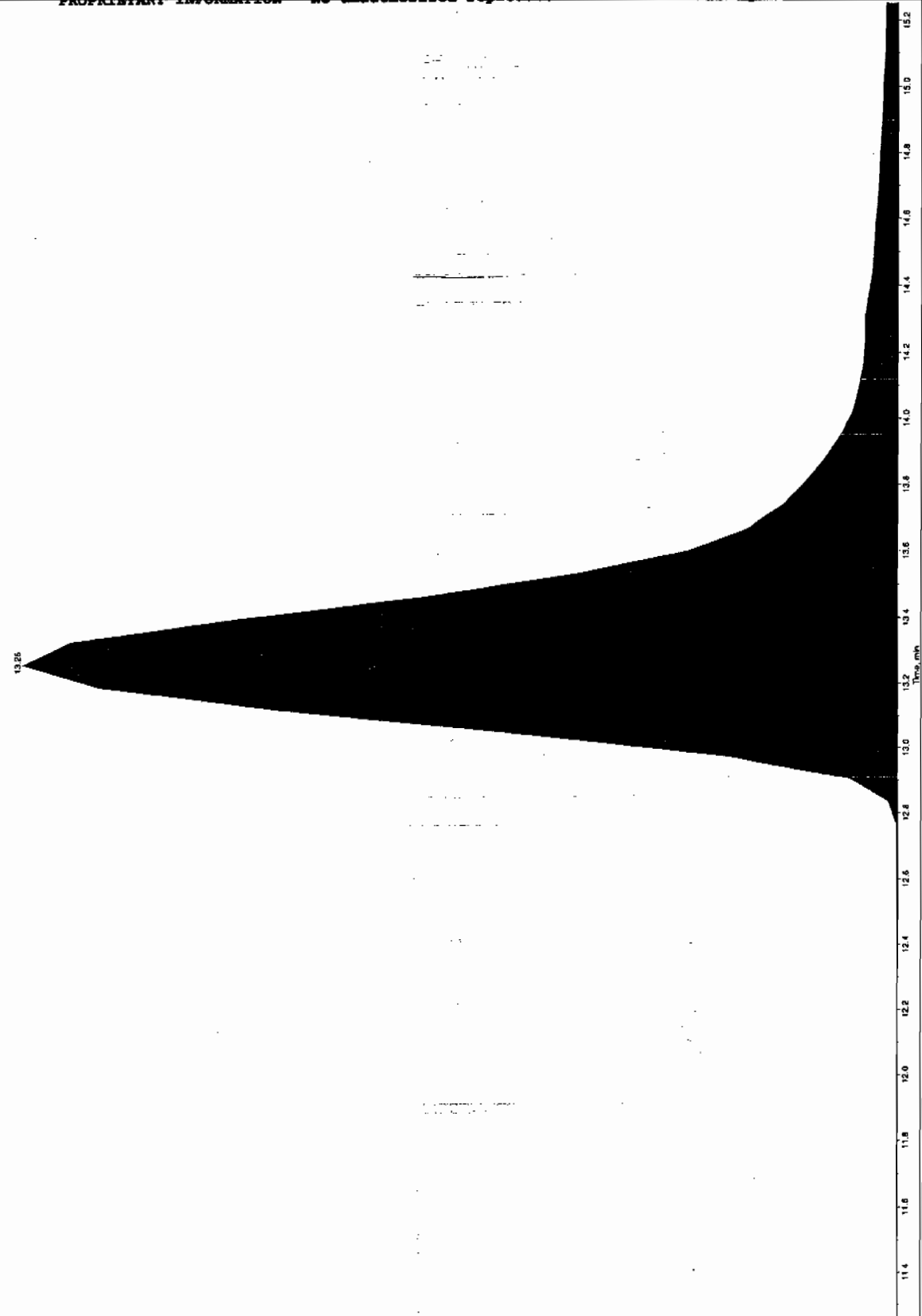
*for 4/20/10 thru 04/29/10*

Before Jan 4/28/10

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Sample Name: "WXX100420-5610" Sample ID: "11111" File: "EPM420010.mpl"  
Peak Name: "246-Tetrakis" Masses: "227.1209 9 amu"  
Sample: "GLADEN-C" Annotation: ""

Concentration: 600. ng/mL  
Calculated Conc: 4720.110 ng/mL  
Acq. Time: 6:12:10 PM  
Peak Type: 1 QC  
Peak Name: "246-Tetrakis"  
Peak Height: 1000.00 cps  
Peak Width: 8.00 sec  
Smoothing Width: 3.00 points  
RT Window: 40.0 sec  
Retention Time: 12.8 min  
Peak Relative RT: 17.2 min



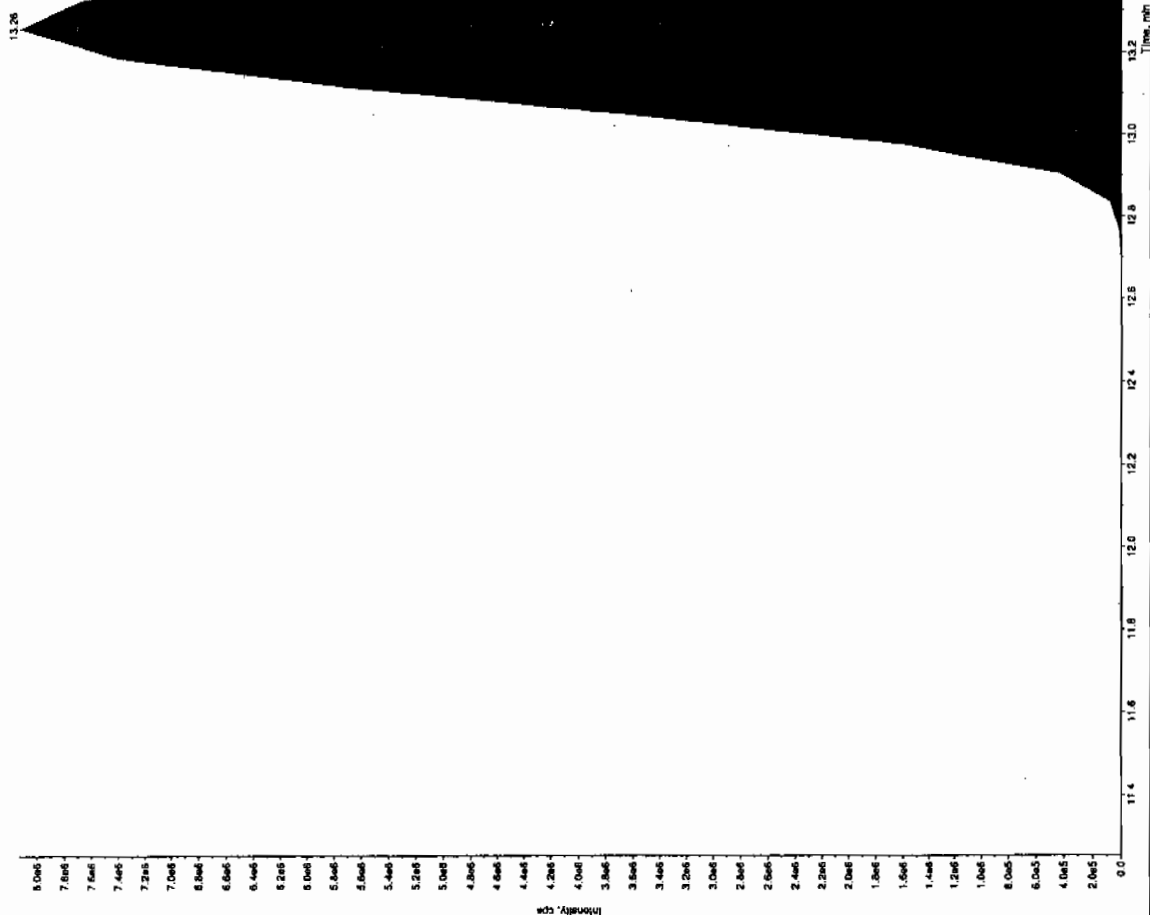
1997-2010 2886

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 412810

Sample Name: 2412100505-0567 Sample ID: 2412100505-0567 File: EXP0420010.wif  
Peak Name: 2412100505-0567 Peak Number: 1 Retention Time: 13.26 min  
Comment: LCMSEXP\_C Annotation

Sample Index: 1  
Sample Type: QC  
Sample Concentration: 500 ng/mL  
Calculated Conc: 551 ng/mL  
Acq. Date: 4/20/2010  
Acq. Time: 6:12:10 PM  
Modified: Yes  
Injection Volume: 10 µL  
Injection Time: 13.3 min  
Retention Time: 13.3 min  
Acq. Time: 6:12:10 PM  
Acq. Time: 12.4 min  
Acq. Time: 14.2 min

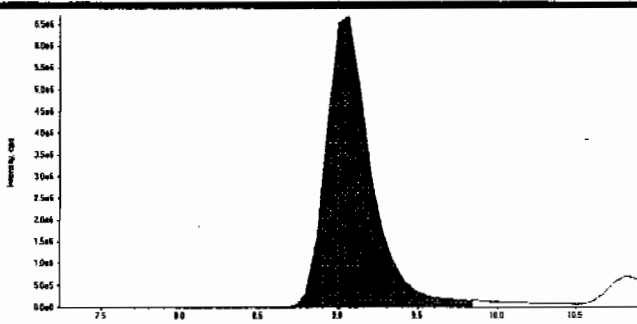


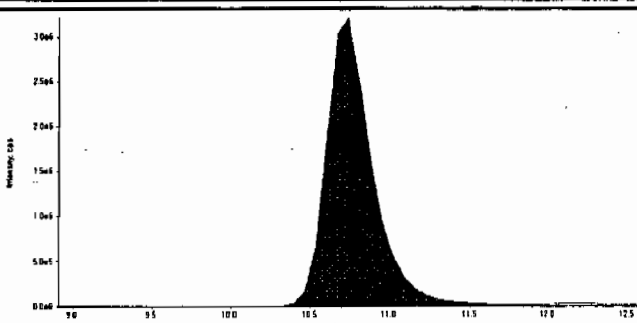
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

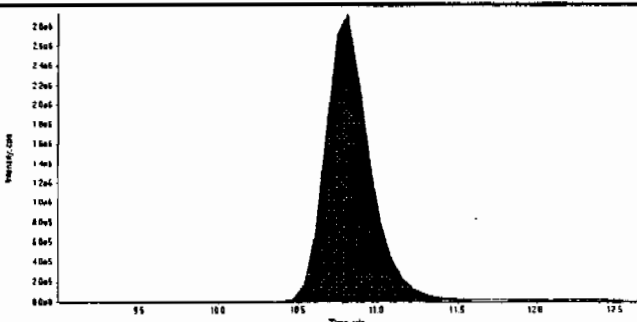
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GEL SOP GL-OA-E-056, Method 8321A-Modified

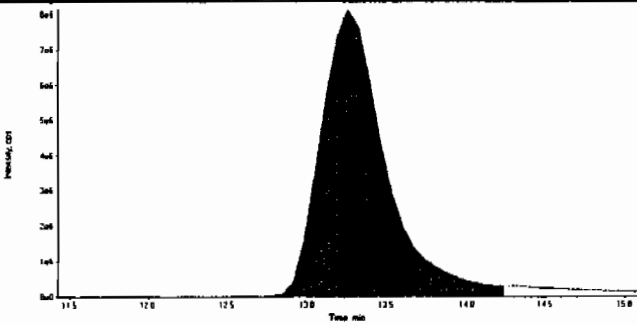
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LCMSMS#3

Data File		EXP0420010.wiff	Acquisition Date		4/20/2010 6:12:10 PM
Sample Name		WXX100420-56ICV	Acquisition Method		8321.dam
Batch Dilution Analyst		1 LER	Result Table		042010.rdb
Procedure Code		LCMSEXP_C	Sample Type		Quality Control

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.07
	Actual RT:	9.07
	Area Counts:	1.35e+008
	Manual Modification	No
	Amount:	542. (ng/mL)
	% Accuracy:	90.40

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	6.54e+007
	Manual Modification	No
	Amount:	564. (ng/mL)
	% Accuracy:	94.00

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.8
	Actual RT:	10.8
	Area Counts:	5.72e+007
	Manual Modification	No
	Amount:	611. (ng/mL)
	% Accuracy:	102.00

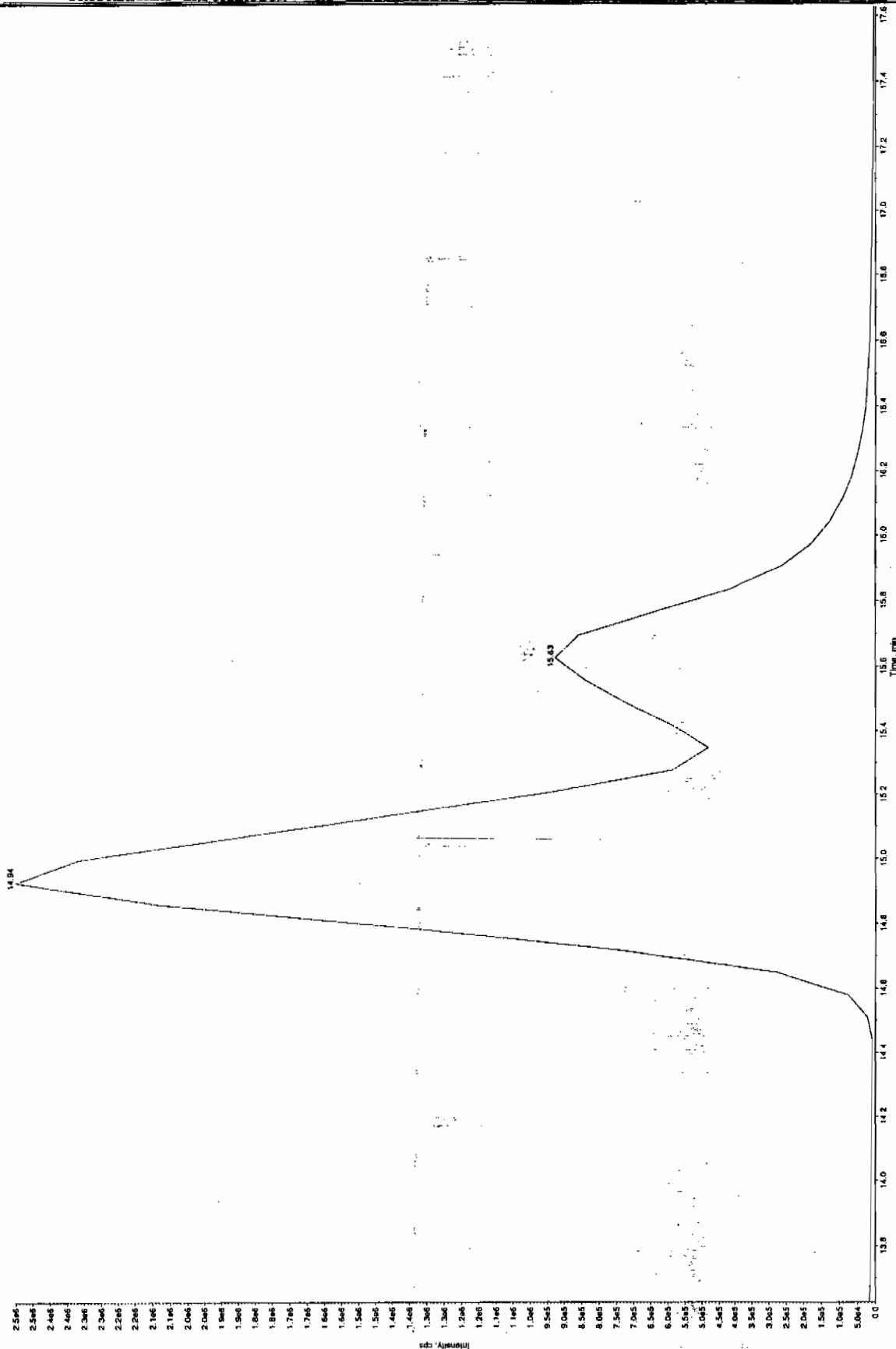
	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	2.33e+008
	Manual Modification	Yes
	Amount:	557. (ng/mL)
	% Accuracy:	92.80



Before Jan 4/28/10

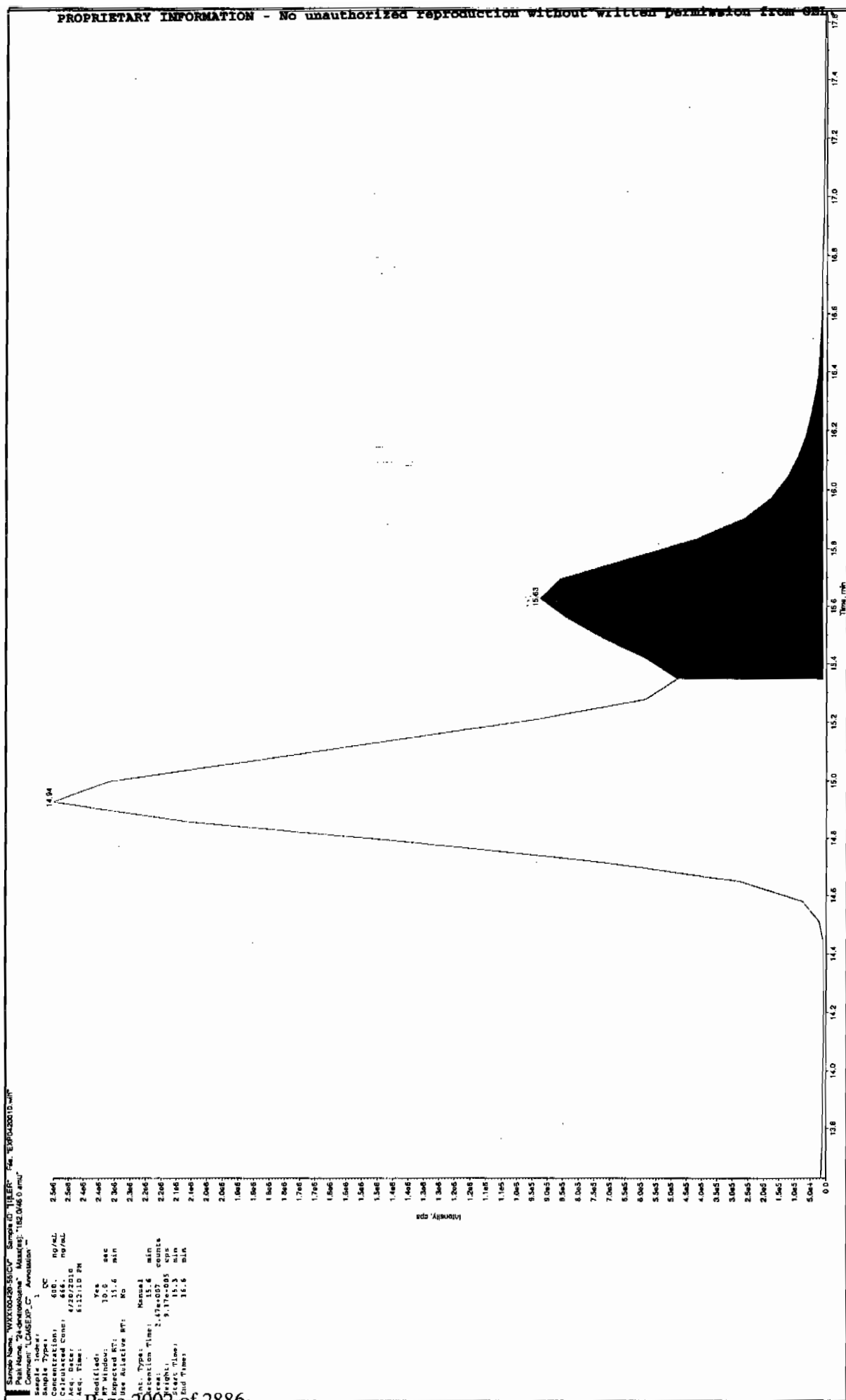
Sample Name: 8321A-E-056-07 Sample ID: 8321A-E-056-07 File: 8321A-E-056-07.wif  
Peak Name: "Unlabeled" Mass(es): 182.046 Da

Sample Index: 1  
Sample Type: GC  
Sample Concentration: 0.50 ng/mL  
Acq. Date: 4/20/2010  
Acq. Time: 6:12:10 PM  
Modified: Yes



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

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LCMSMS#3

<b>Data File</b>	EXP0420010.wiff	<b>Acquisition Date</b>	4/20/2010 6:12:10 PM
<b>Sample Name</b>	WXX100420-56ICV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	11.9
	Area Counts:	2.93e+006
	Manual Modification	No
	Amount:	583. (ng/mL)
	% Accuracy:	97.20

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.1
	Area Counts:	3.85e+007
	Manual Modification	No
	Amount:	295. (ng/mL)
	% Accuracy:	98.30

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	14.9
	Area Counts:	6.08e+007
	Manual Modification	No
	Amount:	571. (ng/mL)
	% Accuracy:	95.20

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	15.6
	Area Counts:	2.47e+007
	Manual Modification	Yes
	Amount:	620. (ng/mL)
	% Accuracy:	103.00



after Dec 4/28/00

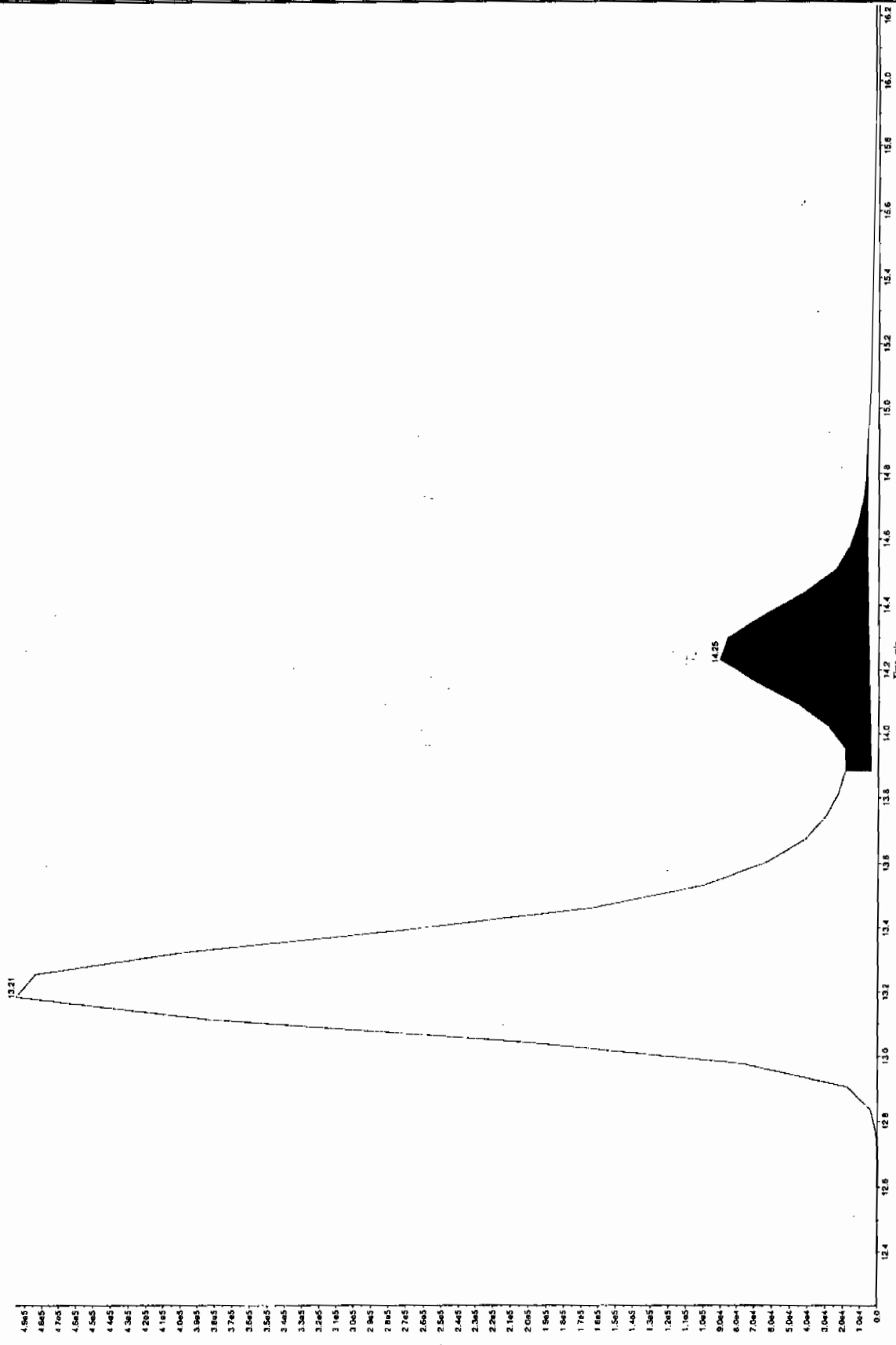
Sample Name: WY10028-SECIF Sample ID: WY10028-SECIF File: WY10028-SECIF.mrt  
Peak Name: 2-Amino-2-deoxyribose Manual: 197.04165.6.mrt

Comment: 'LCMS-SECIF' Acquisition -

Sample Index:

Sample Type: GC  
Injection Volume: 500 µl  
Injection Concentration: 4.565 mg/ml  
Calculated Conc: 4.565 mg/ml  
Acq Date: 4/20/2010  
Acq Time: 6:12:19 PM  
Acq File: 4700  
Acq Method: Yes  
Acq Window: 60.0 sec  
Acq Filter: 16.2 min  
Acq Resolution: 4.565  
Acq Acquisition RT: 4.445  
Acq Type: Manual  
Acq Injection Time: 4.345  
Acq Retention Time: 14.3 min  
Acq Acquisition Time: 1.98e-005 seconds  
Acq Acquisition Time: 5.17e-004 seconds  
Acq Acquisition Time: 11.9 min  
Acq Acquisition Time: 14.8 min

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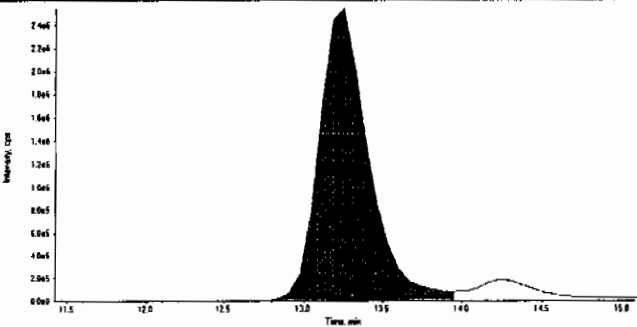


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GEL SOP GL-OA-E-056, Method 8321A-Modified

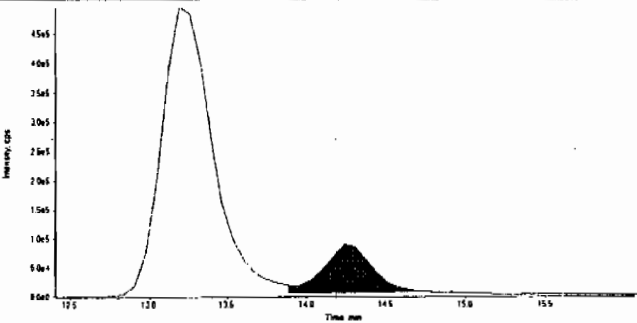
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LCMSMS#3

<b>Data File</b>	EXP0420010.wiff	<b>Acquisition Date</b>	4/20/2010 6:12:10 PM
<b>Sample Name</b>	WXX100420-56ICV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

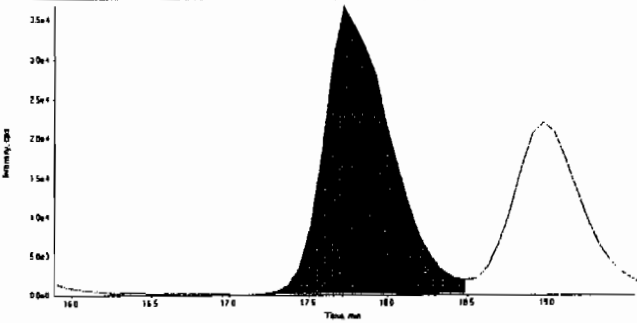
  

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	5.61e+007
	Manual Modification	No
	Amount:	675. (ng/mL)
	% Accuracy:	113.00

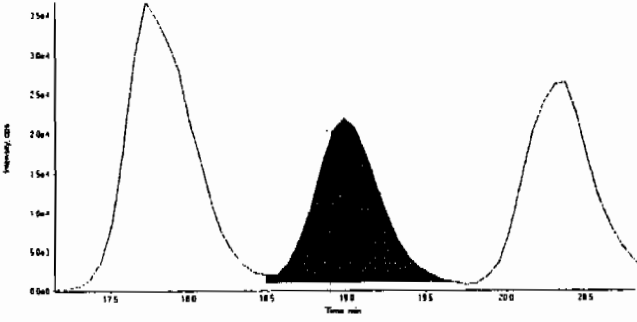
  

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.3
	Area Counts:	1.88e+006
	Manual Modification	Yes
	Amount:	624. (ng/mL)
	% Accuracy:	104.00

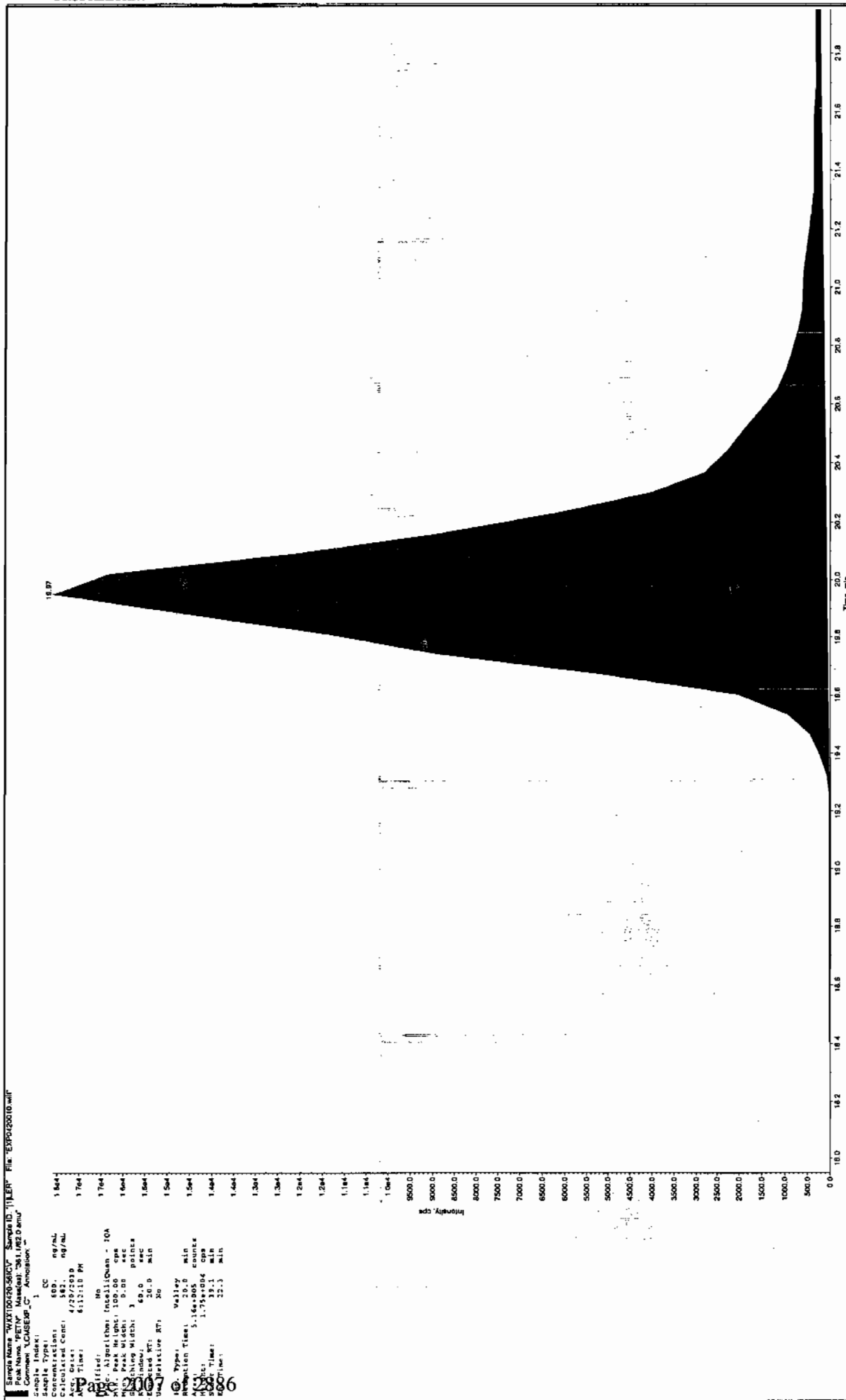
  

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	17.7
	Area Counts:	1.09e+006
	Manual Modification	No
	Amount:	601. (ng/mL)
	% Accuracy:	100.00

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	19.0
	Area Counts:	6.12e+005
	Manual Modification	No
	Amount:	659. (ng/mL)
	% Accuracy:	110.00

Before Dec 4/29/10



Sample Name: "WAT10120-5610" Sample ID: "1111" File: "EXP020010.wif"

Peak Name: "PETN" Mass(es): "361.062 0.000"

Comment: "LCMSMS-C" Annotation: "

Sample Index: 1

Sample Type: GC

Concentration: 500 ng/mL

Calculated Conc: 500 ng/mL

Acq. Date: 4/29/2009

Acq. Time: 8:12:10 PM

Peak: 1

Retention Time: 19.37 min

Peak Width: 100.00 cps

Peak Width: 3.000 points

Peak Width: 60.0 sec

Peak Width: 20.0 min

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\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/29/10

Sample Name: "W101001020-561V" Sample ID: "111ER" File: "EXP000101.wif"

Peak Name: "PE1N" Massless: "361.1622 0 amu"

Concentration: "LCMS3P\_C" Annotation: " "

Sample Type: "OC"

Concentration: 690. ng/mL

Calculated Conc: 595. ng/mL

Acq Date: 4/29/2010

Acq Time: 6:11:10 PM

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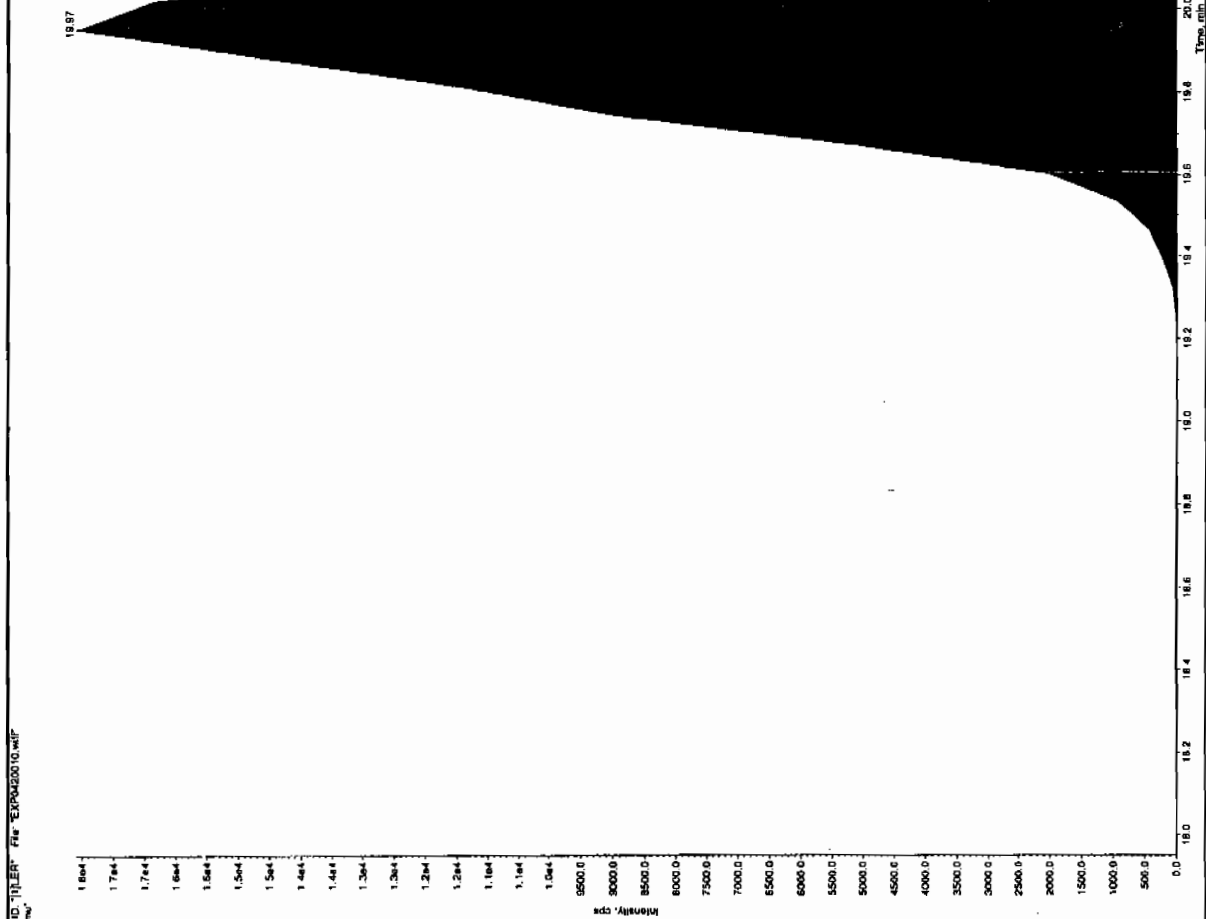
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\*GEL SOP GL-0A-E-056, Method 8321A-Modified LCMSMS#3

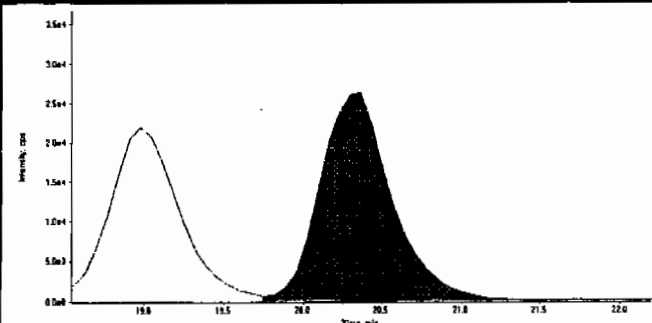


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

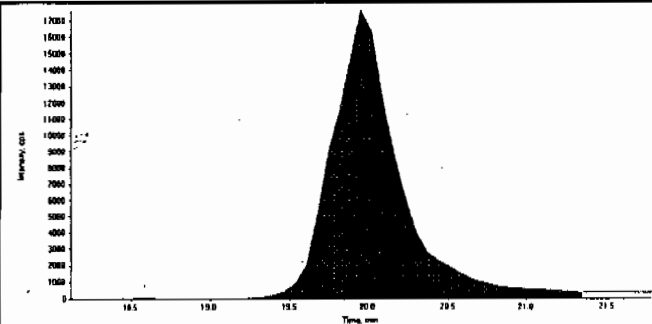
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LCMSMS#3

<b>Data File</b>	EXP0420010.wiff	<b>Acquisition Date</b>	4/20/2010 6:12:10 PM
<b>Sample Name</b>	WXX100420-56ICV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	20.4
	<b>Area Counts:</b>	8.35e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	622. (ng/mL)
	<b>% Accuracy:</b>	104.00

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	20.0
	<b>Area Counts:</b>	5.20e+005
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	587. (ng/mL)
	<b>% Accuracy:</b>	97.80

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/20/10  
 Time of Injection 1812  
 Standard Number WXX100420-56ICV  
 Data File EXP0420010a

HMX	83.8
RDX	92.8
135-Trinitrobenzene	90.4
13-Dinitrobenzene	94.0
Tetryl	102.0
246-Trinitrotoluene	92.8
Nitrobenzene	97.2
34-dinitrotoluene	98.3
26-dinitrotoluene	95.2
24-dinitrotoluene	103.0
4-Amino-26-dinitrotoluene	113.0
2-Amino-46-dinitrotoluene	104.0
2-Nitrotoluene	100.0
4-Nitrotoluene	110.0
3-Nitrotoluene	104.0
PETN	97.8

TOTAL

1578.3

*1578.3*

AVERAGE

98.6

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Jan 4/20/10*

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2193

Lab Code: GEL

Run Date: 09-APR-10.15-APR-10.20-APR-10.22-APR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Parname	50	51	52	53	54	55	Ave RF	RSD	Q
Calibration Level:	EXP0422003.wi	EXP0422004.wi	EXP0422005.wi	EXP0422006.wi	EXP0422007.wi	EXP0422008.wi			
Data File:									
2-Amino-4,6-dinitrotoluene	.018	.017	.018	.017	.017	.02	0.018	5.77	
DNX	.776	.775	.7	.783	.611	.632	0.713	10.8	
HMX	1.49	1.46	1.14	1.45	1.09	1.06	1.282	15.9	
MXN	.373	.45	.359	.373	.352	.347	0.376	10.1	
PETN	.003	.005	.005	.004	.004	.005	0.004	12.2	
RDX	.669	.564	.618	.703	.579	.734	0.645	10.7	
TNX	.802	.893	.708	.83	.679	.739	0.775	10.4	
m-Dinitrobenzene	3	3.06	2.44	2.98	2.5	2.55	2.755	10.4	
m-Nitrotoluene	.007	.007	.007	.007	.007	.007	0.007	3.18	
o-Nitrotoluene	.01	.009	.01	.008	.01	.011	0.010	8.26	
p-Nitrotoluene	.005	.005	.006	.005	.006	.006	0.006	7.94	

Q column used to flag RSD values outside of Limit (>20%)

\* Values outside of QC Limit

Form 6

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2193

Lab Code: GEL

Run Date: 09-APR-10.15-APR-10.20-APR-10.22-APR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Linear

Calibration Level:		50	51	52	53	54	55	Slope	Intercept	COD	Q
Data File:		EXP0422003.w	EXP0422004.w	EXP0422005.w	EXP0422006.w	EXP0422007.w	EXP0422008.w				
Parname											
2,4-Dinitrotoluene		968000	1900000	6910000	11700000	27900000	33200000	.194	.002	.9977	
2,6-Dinitrotoluene		2590000	4170000	19100000	40100000	75800000	89900000	.527	.018	.999	
3,4-Dinitrotoluene		1580000	2540000	12900000	24100000	48100000	57100000	.669	.011	.9991	
4-Amino-2,6-dinitrotoluene		1970000	3530000	16000000	32900000	63600000	79500000	.46	.007	.9997	
Nitrobenzene		102000	169000	815000	1880000	3670000	4630000	.125	-.001	.9973	
Tetryl		2240000	4280000	15800000	29500000	64200000	75800000	2.04	.048	.9996	

Linear fit:  $Y=mx + b$   
where b is Intercept and m is slope

COD is Coefficient of Determination

Q column used to flag COD values outside of Limit (<0.990)

\* Values outside of QC Limit

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2193

Lab Code: GEL

Run Date: 09-APR-10,15-APR-10,20-APR-10,22-APR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	50	51	52	53	54	55	X	X^2	Intercept	COD	Q
Data File:	EXP0422003.wiff	EXP0422004.wiff	EXP0422005.wiff	EXP0422006.wiff	EXP0422007.wiff	EXP0422008.wiff					
Parname:											
1,3,5-Trinitrobenzene	7590000	14700000	56700000	100000000	154000000	187000000	.153	7.8	-1.5	.9931	
2,4,6-Trinitrotoluene	14900000	25600000	94100000	167000000	242000000	286000000	.111	2.64	-536	.9961	

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

042210ICAL

Peak Name: 13-Dinitrobenzene-d4  
Use as Internal Standard  
Q1/Q3 Masses: 172.05/46.10 amu  
Peak Name: 26-Dinitrotoluene-d3  
Use as Internal Standard  
Q1/Q3 Masses: 184.99/155.00 amu

Peak Name: HMX  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 341.20/46.00 amu  
Fit Mean Response Factor Weighting None Iterate No  
Factor 1.28  
Standard deviation 0.203  
%RSD 15.9  
Use Area

Peak Name: RDX  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 267.01/46.10 amu  
Fit Mean Response Factor Weighting None Iterate No  
Factor 0.644  
Standard deviation 0.0686  
%RSD 10.7  
Use Area

Peak Name: TNX  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 219.00/45.00 amu

Fit Mean Response Factor Weighting None Iterate No  
Factor 0.775  
Standard deviation 0.0808  
%RSD 10.4  
Use Area

Peak Name: DNX  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 235.00/45.00 amu

Fit Mean Response Factor Weighting None Iterate No  
Factor 0.713  
Standard deviation 0.0772

Page 1

042210ICAL

%RSD 10.8  
Use Area

Peak Name: MNX

Internal Standard: 13-Dinitrobenzene-d4

Q1/Q3 Masses: 251.00/46.00 amu

Fit	Mean Response Factor	Weighting	None	Iterate No
Factor	0.376			

Standard deviation 0.0379

%RSD 10.1

Use Area

Peak Name: 135-Trinitrobenzene

Internal Standard: 13-Dinitrobenzene-d4

Q1/Q3 Masses: 212.97/182.80 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	0.153			
a1	7.8			
a2	-1.5			

Correlation coefficient 0.9931

Use Area

Peak Name: 13-Dinitrobenzene

Internal Standard: 13-Dinitrobenzene-d4

Q1/Q3 Masses: 167.95/137.90 amu

Fit	Mean Response Factor	Weighting	None	Iterate No
Factor	2.76			

Standard deviation 0.286

%RSD 10.4

Use Area

Peak Name: Tetra[

Internal Standard: 13-Dinitrobenzene-d4

Q1/Q3 Masses: 240.95/180.80 amu

Fit	Linear	Weighting	None	Iterate No
Intercept	0.0484			
Slope	2.04			

Correlation coefficient 0.9996

Use Area

042210ICAL

Peak Name: 246-Trinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 227.12/209.80 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	0.111			
a1	2.64			
a2	-0.536			
Correlation coefficient 0.9961				
Use Area				

Peak Name: Nitrobenzene  
Internal Standard: 13-Dinitrobenzene-d4  
Q1/Q3 Masses: 123.04/46.00 amu

Fit	Linear	Weighting	None	Iterate No
Intercept	-0.000721			
Slope	0.125			
Correlation coefficient 0.9973				
Use Area				

Peak Name: 34-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Linear	Weighting	None	Iterate No
Intercept	0.0106			
Slope	0.669			
Correlation coefficient 0.9991				
Use Area				

Peak Name: 26-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Linear	Weighting	None	Iterate No
Intercept	0.0183			
Slope	0.527			
Correlation coefficient 0.9990				
Use Area				

Peak Name: 24-dinitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 182.00/46.00 amu

Page 3



042210ICAL

Fit	Linear	Weighting	None	Iterate	No
Intercept		0.00181			
Slope		0.194			
Correlation coefficient		0.9977			
Use Area					
Peak Name: 4-Amino-26-dinitrotoluene					
Internal Standard: 26-Dinitrotoluene-d3					
Q1/Q3 Masses: 197.02/167.00 amu					
Fit	Linear	Weighting	None	Iterate	No
Intercept		0.00704			
Slope		0.46			
Correlation coefficient		0.9997			
Use Area					
Peak Name: 2-Amino-46-dinitrotoluene					
Internal Standard: 26-Dinitrotoluene-d3					
Q1/Q3 Masses: 197.02/180.00 amu					
Fit	Mean Response	Factor	Weighting	None	Iterate
Factor		0.018			No
Standard deviation		0.00104			
%RSD		5.77			
Use Area					
Peak Name: 2-Nitrotoluene					
Internal Standard: 26-Dinitrotoluene-d3					
Q1/Q3 Masses: 137.00/46.00 amu					
Fit	Mean Response	Factor	Weighting	None	Iterate
Factor		0.00962			No
Standard deviation		0.000794			
%RSD		8.26			
Use Area					
Peak Name: 4-Nitrotoluene					
Internal Standard: 26-Dinitrotoluene-d3					
Q1/Q3 Masses: 137.00/46.00 amu					
Fit	Mean Response	Factor	Weighting	None	Iterate
Factor		0.00541			No
Standard deviation		0.000429			

042210ICAL

%RSD 7.94  
Use Area

Peak Name: 3-Nitrotoluene  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 137.00/46.00 amu

Fit	Mean Response Factor	Weighting	None	Iterate No
Factor	0.00689			
Standard deviation	0.000219			
%RSD	3.18			
Use Area				

Peak Name: PETN  
Internal Standard: 26-Dinitrotoluene-d3  
Q1/Q3 Masses: 361.06/62.00 amu

Fit	Mean Response Factor	Weighting	None	Iterate No
Factor	0.00438			
Standard deviation	0.000534			
%RSD	12.2			
Use Area				

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

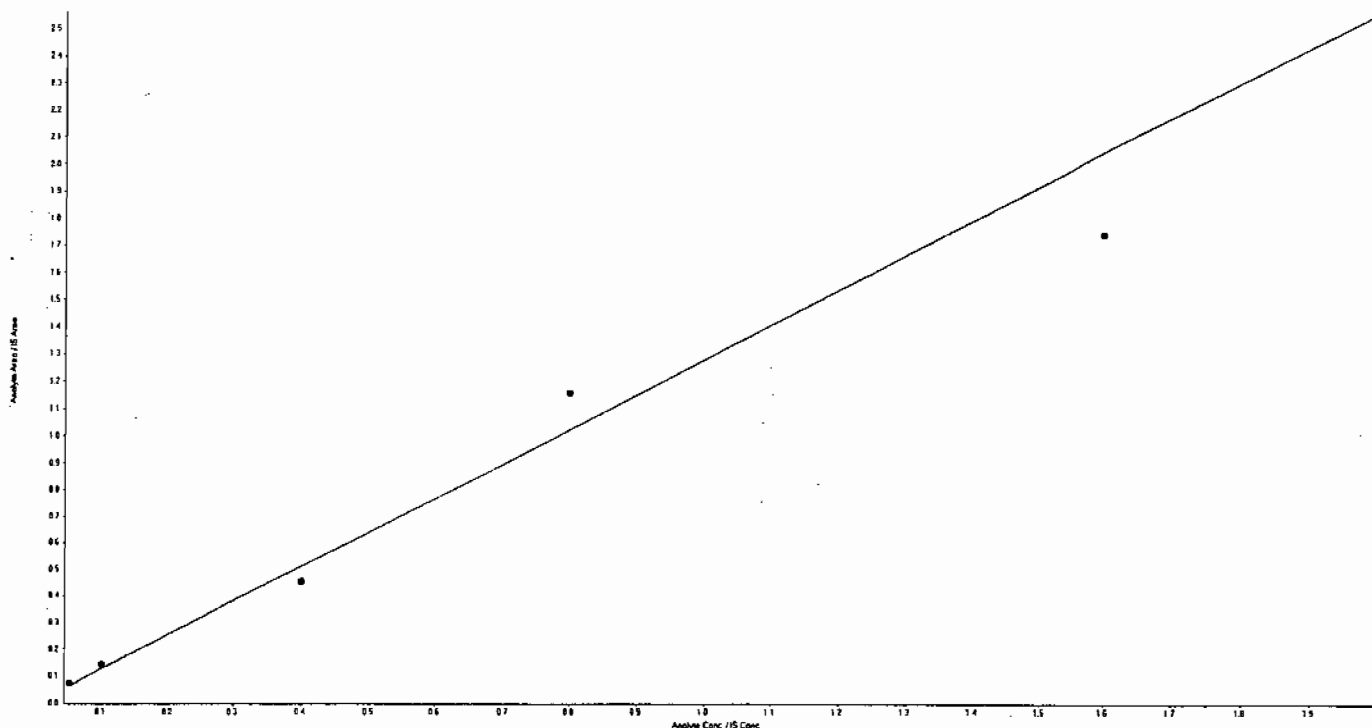
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LCMSMS#3

042210.rdb

Analyte Name: HMX

Regression Equation:  $y = 1.28x$  (std. dev. = 0.203)

Expected Concentration	Calculated Concentration	% Accuracy
25	29.07	116.3
50	56.89	113.8
200	178.25	89.1
400	452.04	113.0
800	680.02	85.0
1000	827.98	82.8



HMX  
05/06/10

Jan  
5/5/10

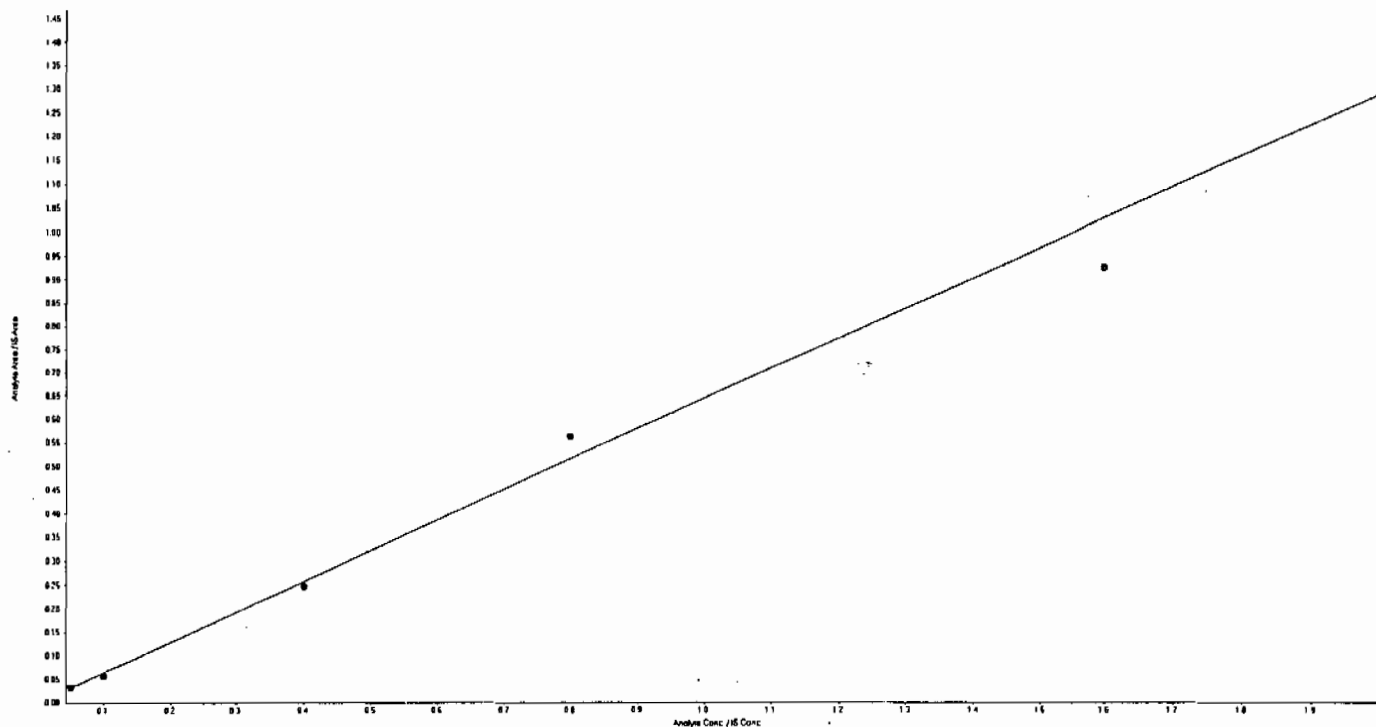
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Analyte Name: RDX

Regression Equation:  $y = 0.644 x$  (std. dev. = 0.0686)

Expected Concentration	Calculated Concentration	% Accuracy
25	25.96	103.9
50	43.75	87.5
200	191.71	95.9
400	436.22	109.1
800	718.52	89.8
1000	1139.14	113.9



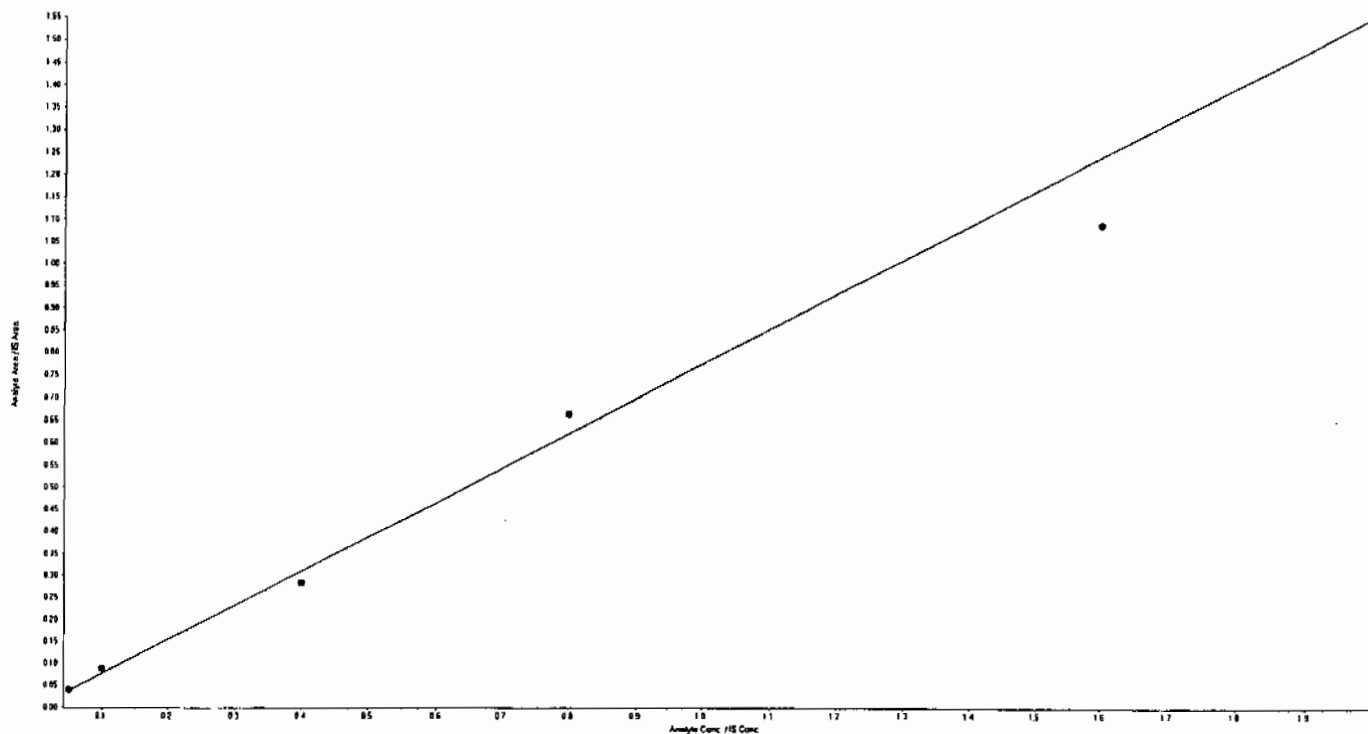
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Analyte Name: TNX

Regression Equation:  $y = 0.775 x$  (std. dev. = 0.0808)

Expected Concentration	Calculated Concentration	% Accuracy
25	25.87	103.5
50	57.59	115.2
200	182.58	91.3
400	428.20	107.0
800	701.14	87.6
1000	953.46	95.3



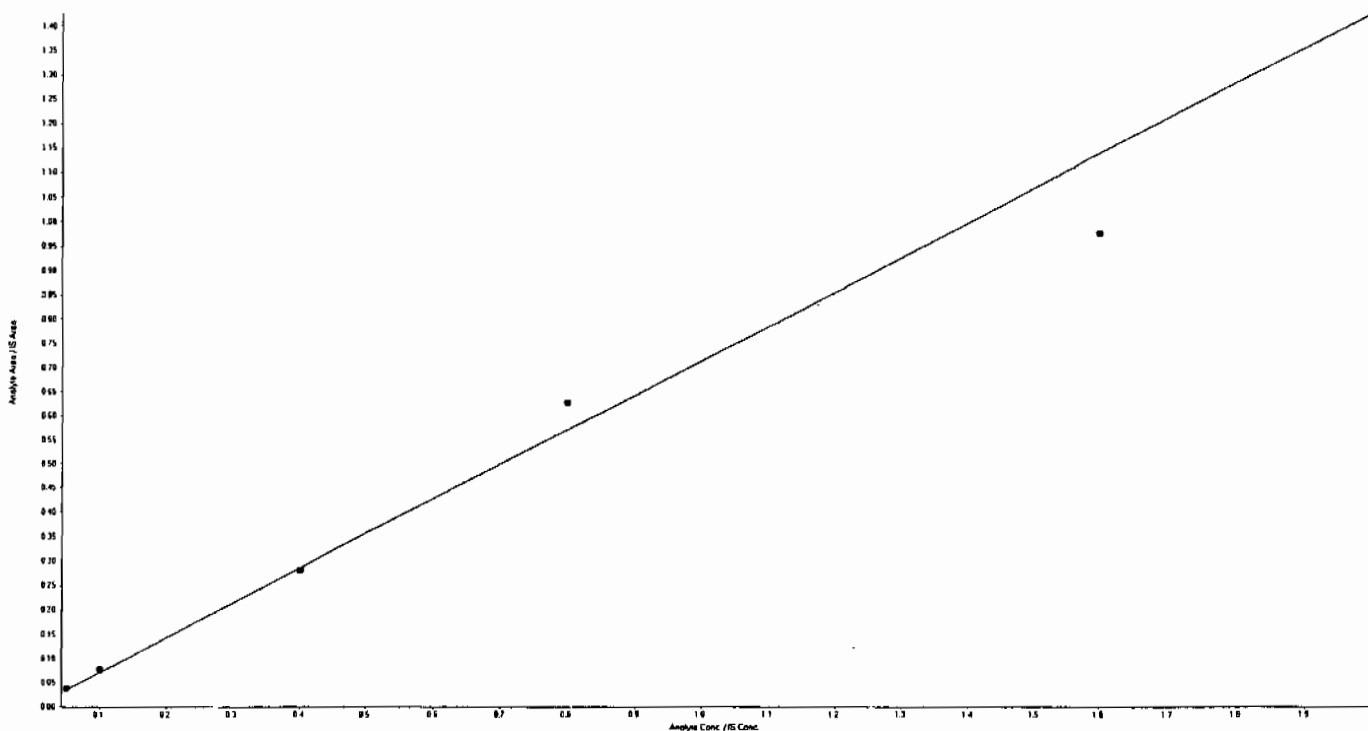
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Analyte Name: DNX

Regression Equation:  $y = 0.713x$  (std. dev. = 0.0772)

Expected Concentration	Calculated Concentration	% Accuracy
25	27.23	108.9
50	54.37	108.7
200	196.28	98.1
400	439.19	109.8
800	686.10	85.8
1000	886.40	88.6



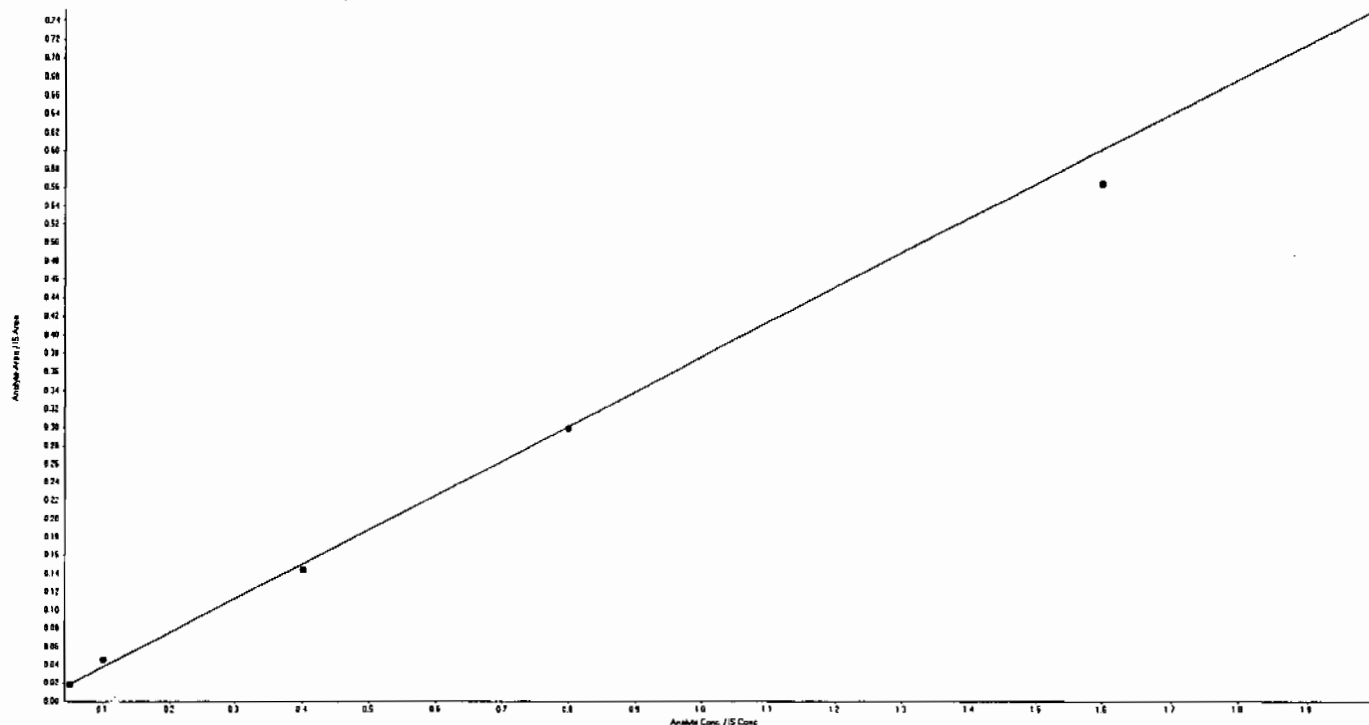
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Analyte Name: MNX

Regression Equation:  $y = 0.376 x$  (std. dev. = 0.0379)

Expected Concentration	Calculated Concentration	% Accuracy
25	24.82	99.3
50	59.89	119.8
200	191.15	95.6
400	396.63	99.2
800	749.78	93.7
1000	924.77	92.5



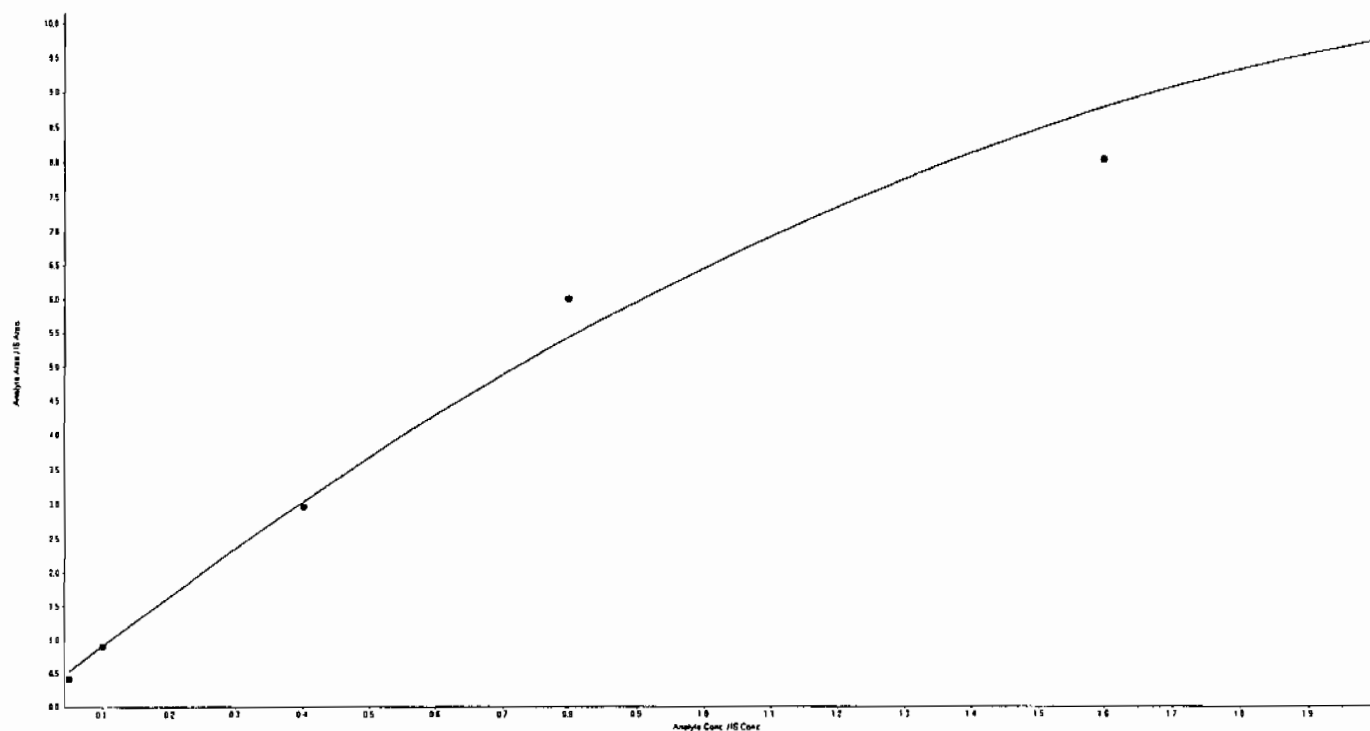
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Analyte Name: 135-Trinitrobenzene

Regression Equation:  $y = -1.5x^2 + 7.8x + 0.153$  ( $r = 0.9931$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	16.97	67.9
50	49.20	98.4
200	194.52	97.3
400	454.30	113.6
800	686.41	85.8
1000	1146.65	114.7





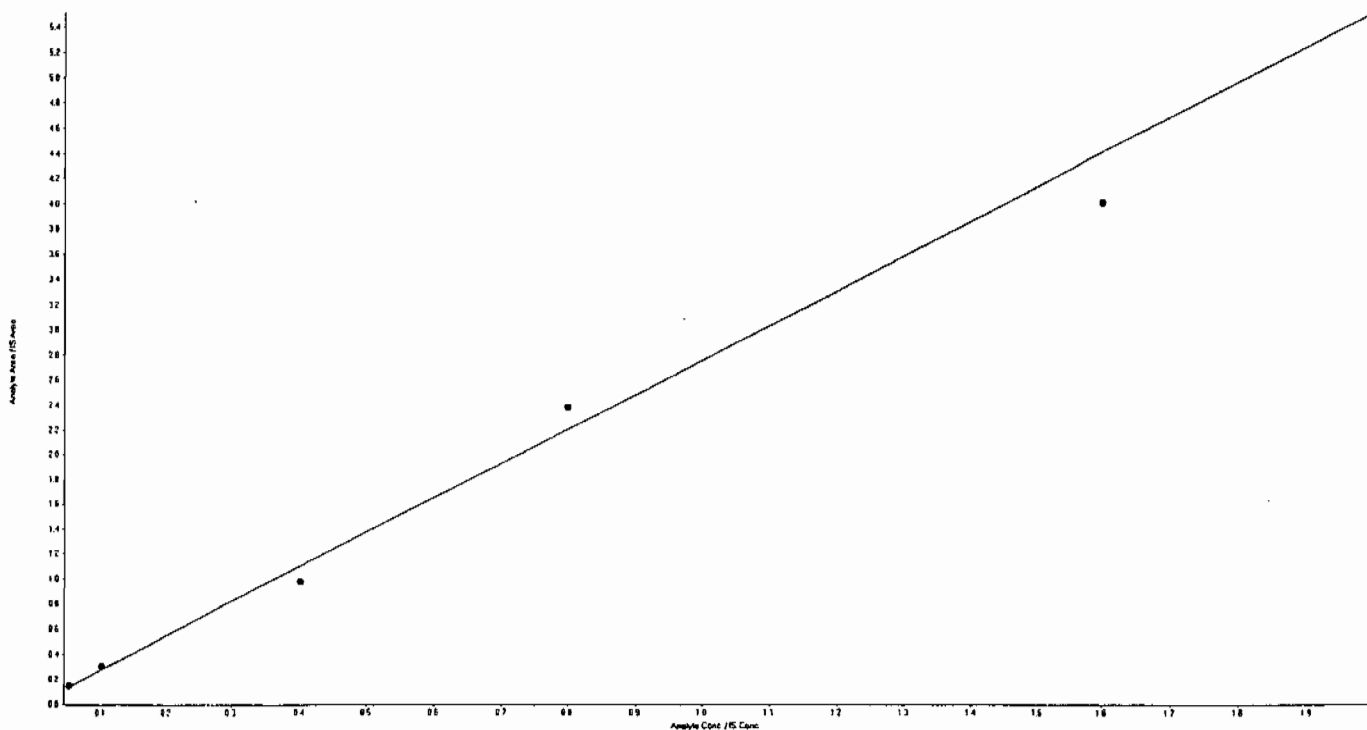
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Analyte Name: 13-Dinitrobenzene

Regression Equation:  $y = 2.76 x$  (std. dev. = 0.286)

Expected Concentration	Calculated Concentration	% Accuracy
25	27.21	108.8
50	55.55	111.1
200	177.19	88.6
400	432.37	108.1
800	726.54	90.8
1000	925.41	92.5



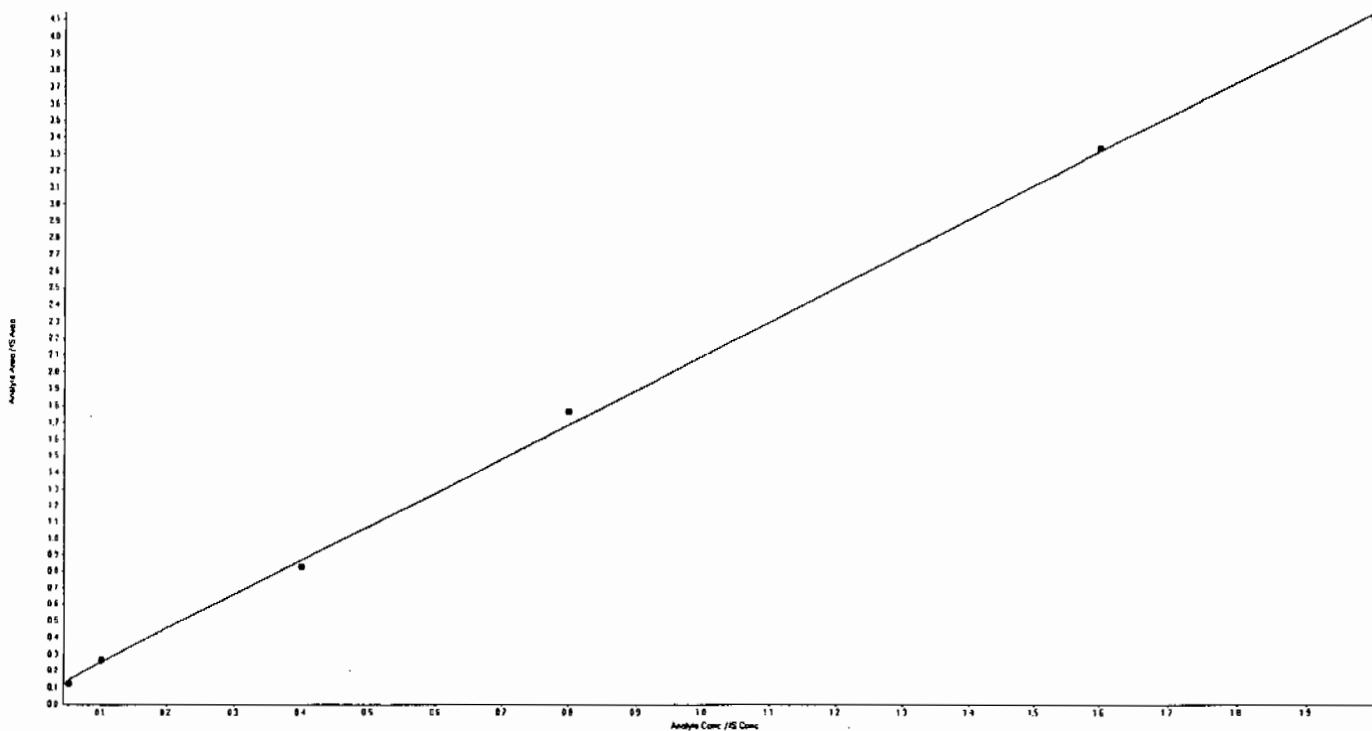
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Analyte Name: Tetryl

Regression Equation:  $y = 2.04x + 0.0484$  ( $r = 0.9996$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	18.19	72.7
50	52.65	105.3
200	189.69	94.8
400	419.19	104.8
800	804.31	100.5
1000	990.98	99.1



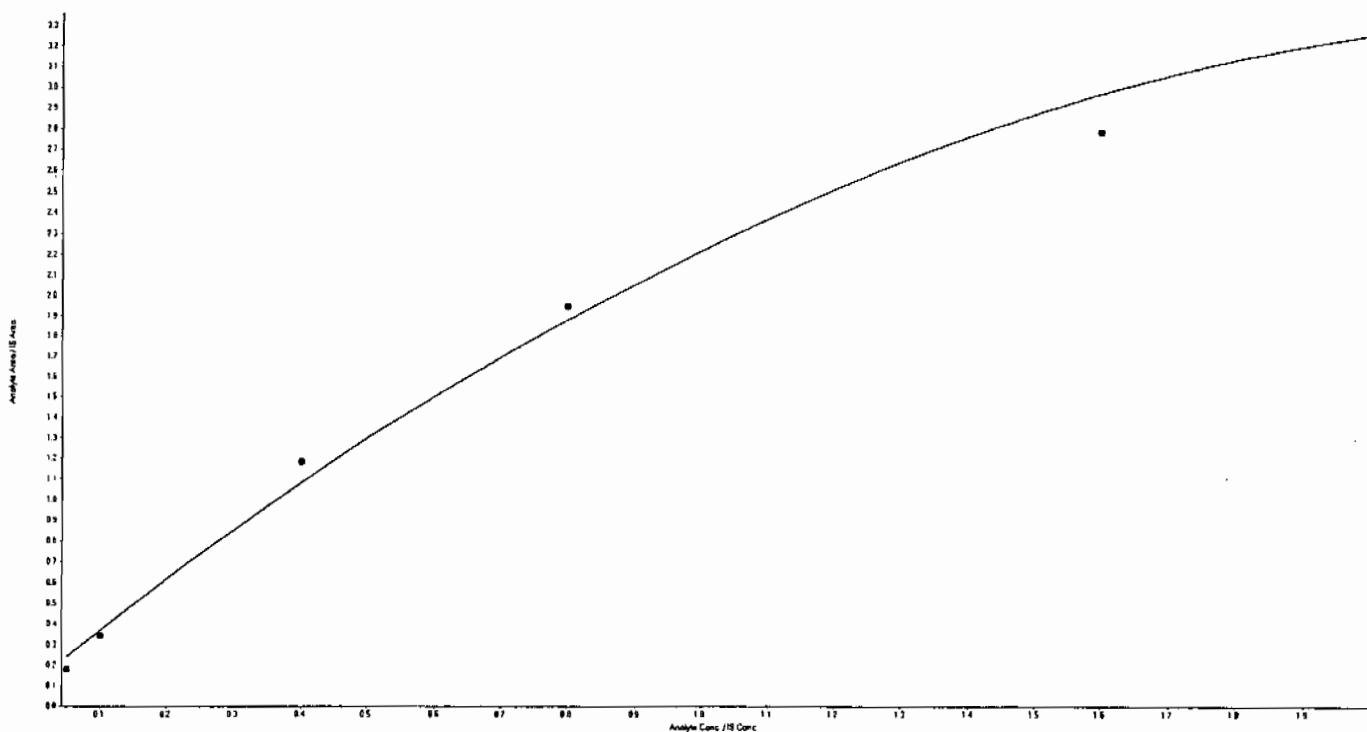
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Analyte Name: 246-Trinitrotoluene

Regression Equation:  $y = -0.536 x^2 + 2.64 x + 0.111$  ( $r = 0.9961$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	13.09	52.4
50	44.87	89.7
200	223.50	111.7
400	418.92	104.7
800	709.30	88.7
1000	1158.85	115.9



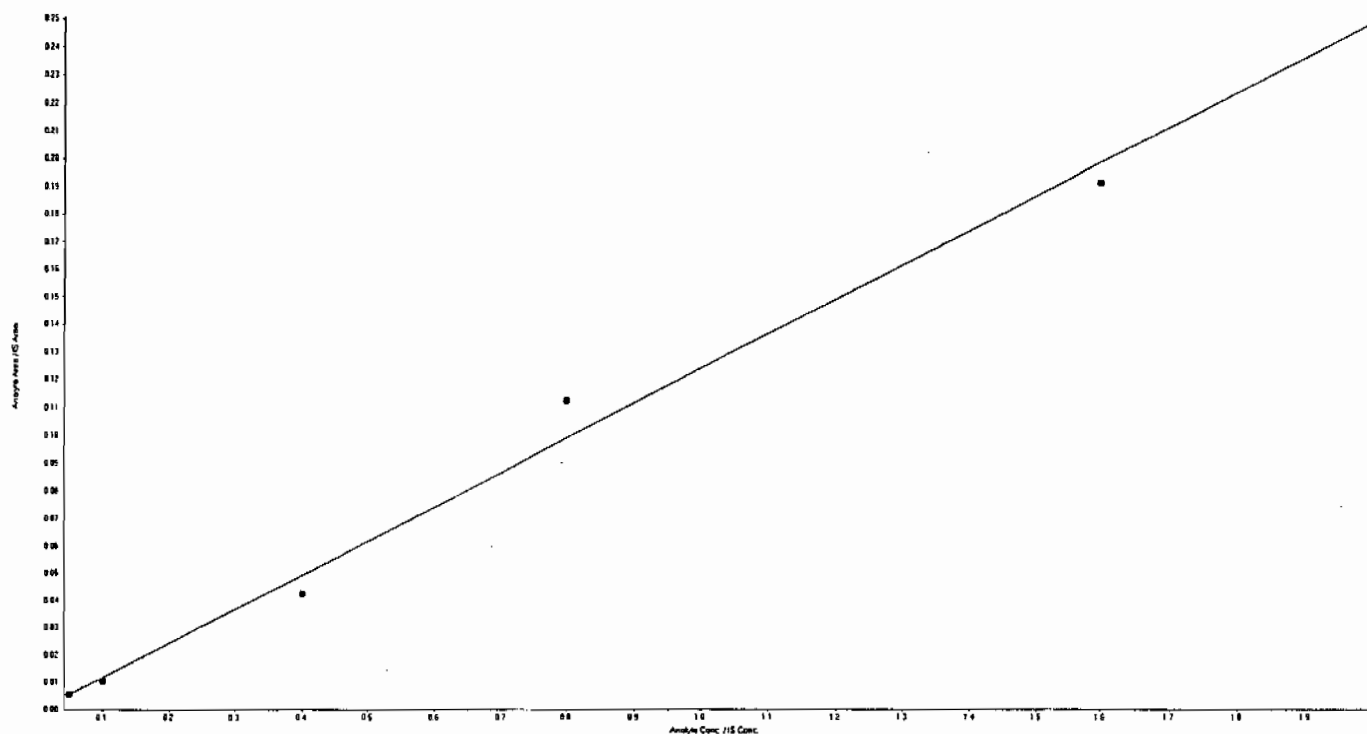
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Analyte Name: Nitrobenzene

Regression Equation:  $y = 0.125x + -0.000721$  ( $r = 0.9973$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	25.22	100.9
50	44.81	89.6
200	173.56	86.8
400	453.02	113.3
800	770.27	96.3
1000	1008.12	100.8



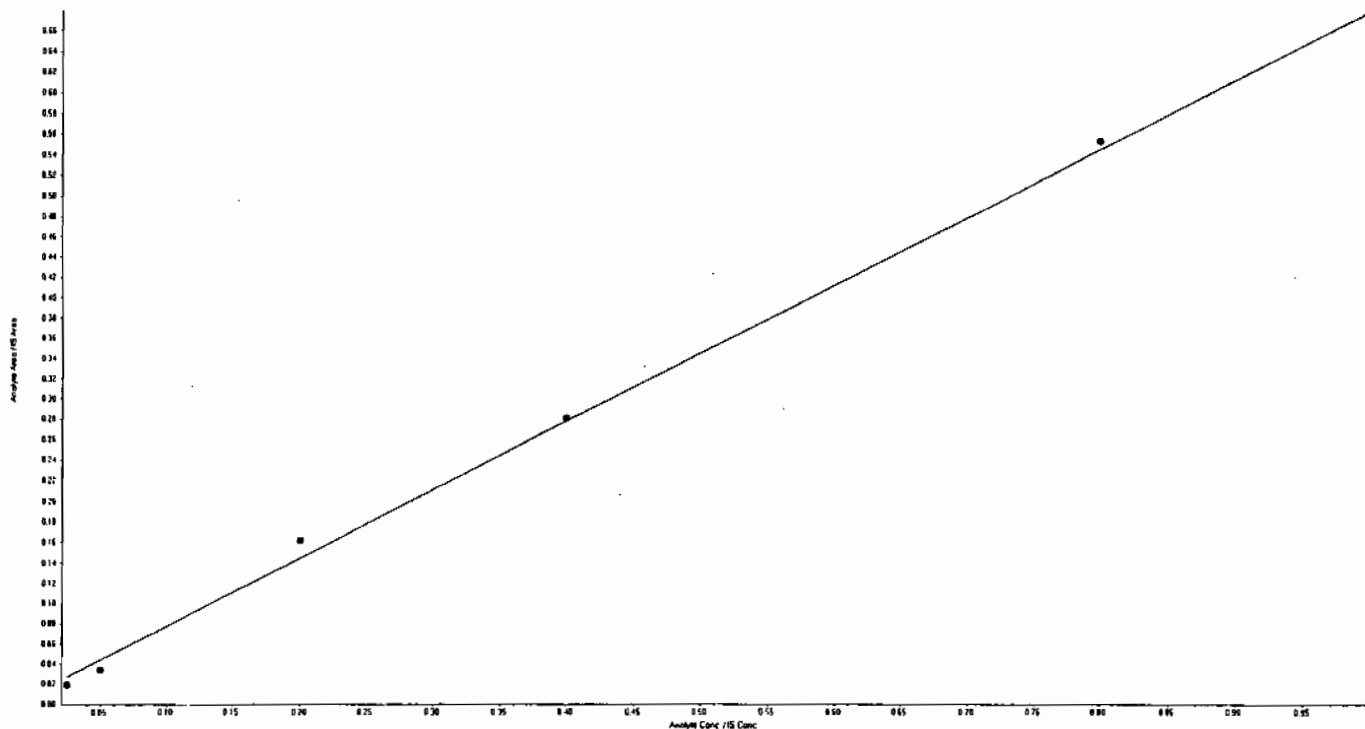
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Analyte Name: 34-dinitrotoluene

Regression Equation:  $y = 0.669x + 0.0106$  ( $r = 0.9991$ )

Expected Concentration	Calculated Concentration	% Accuracy
12.5	6.33	50.6
25	17.49	70.0
100	113.12	113.1
200	202.51	101.3
400	405.72	101.4
500	492.32	98.5



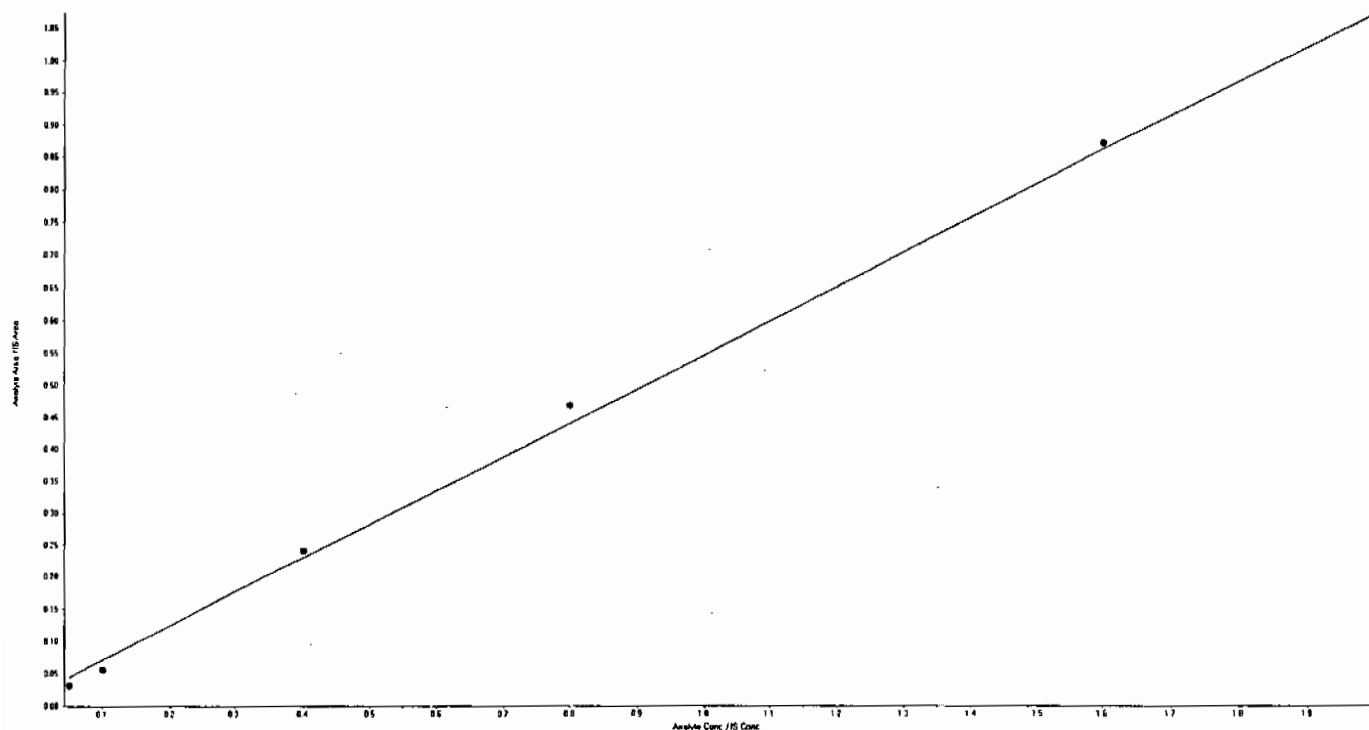
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Analyte Name: 26-dinitrotoluene

Regression Equation:  $y = 0.527x + 0.0183$  ( $r = 0.9990$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	12.24	49.0
50	35.71	71.4
200	210.23	105.1
400	426.79	106.7
800	808.80	101.1
1000	981.23	98.1



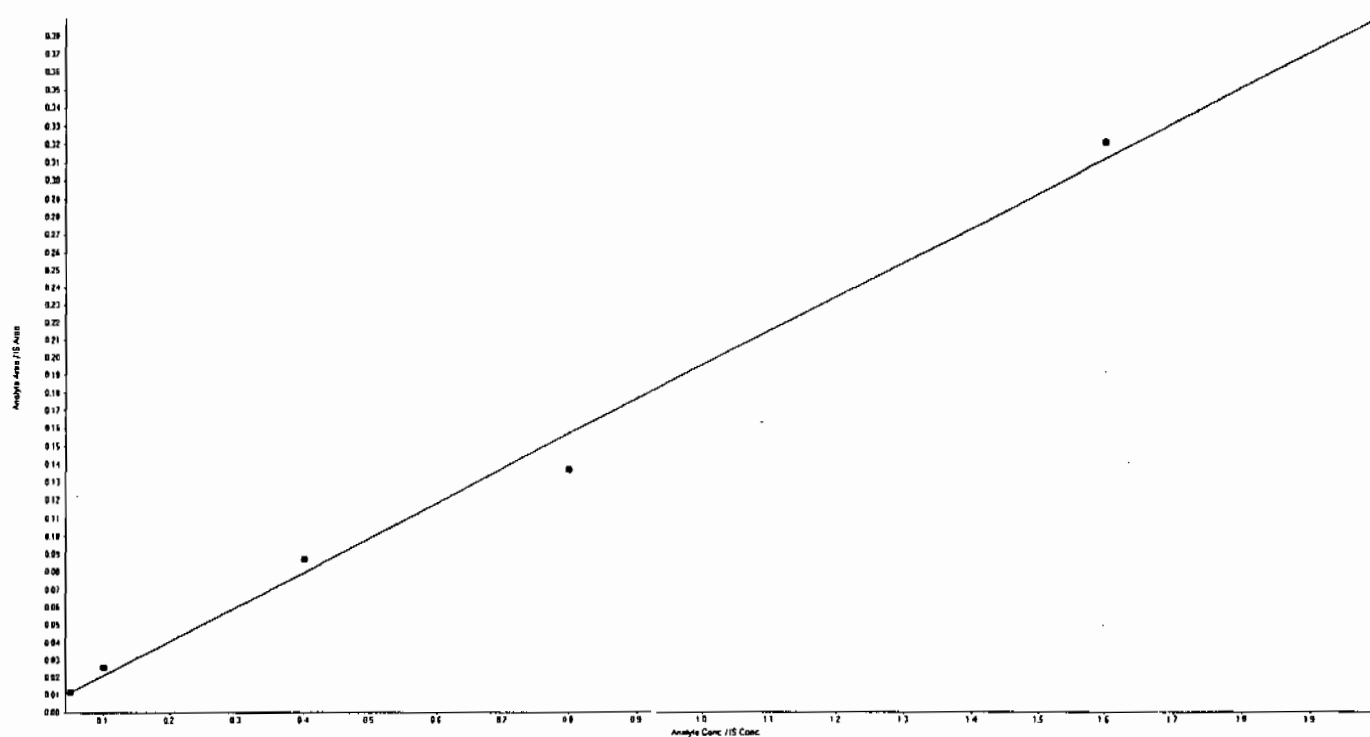
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Analyte Name: 24-dinitrotoluene

Regression Equation:  $y = 0.194x + 0.00181$  ( $r = 0.9977$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	25.43	101.7
50	61.03	122.1
200	219.38	109.7
400	348.21	87.1
800	823.35	102.9
1000	997.60	99.8



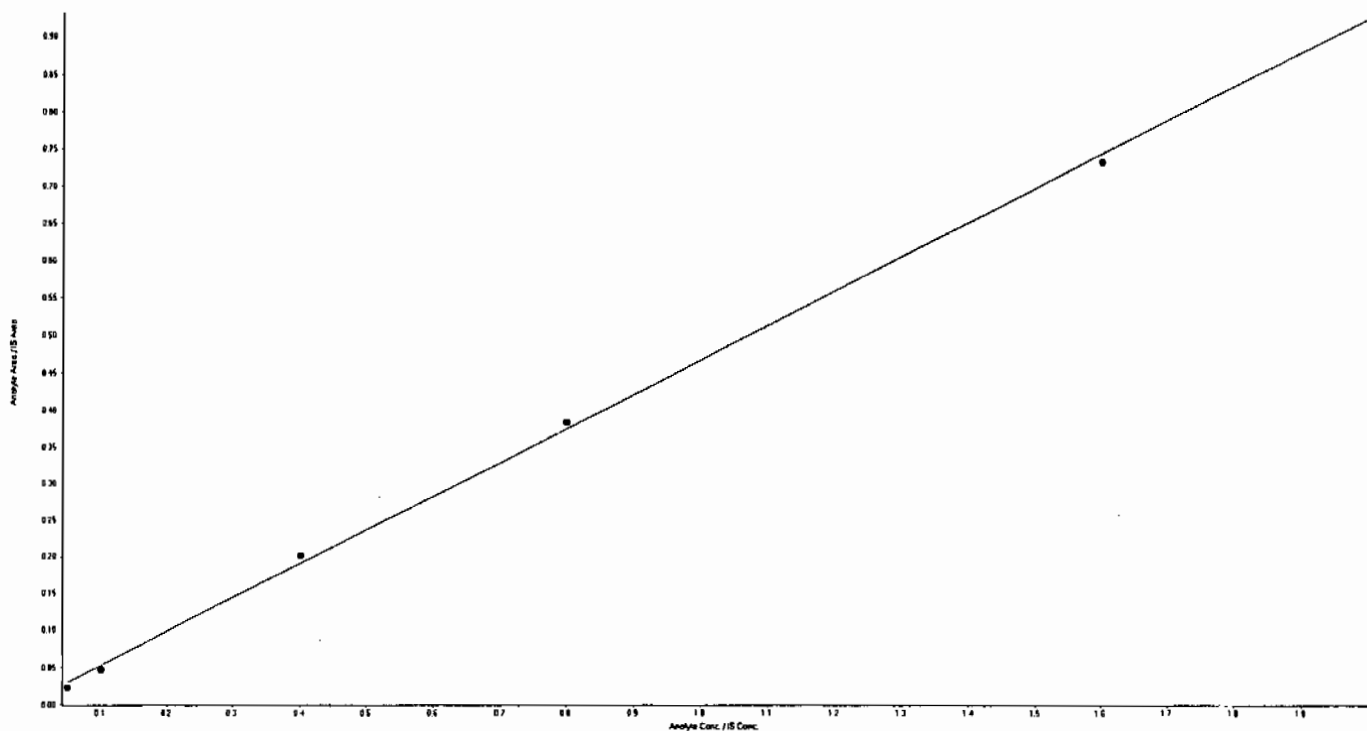
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Analyte Name: 4-Amino-2,6-dinitrotoluene

Regression Equation:  $y = 0.46x + 0.00704$  ( $r = 0.9997$ )

Expected Concentration	Calculated Concentration	% Accuracy
25	18.18	72.7
50	43.83	87.7
200	211.50	105.8
400	409.78	102.4
800	787.17	98.4
1000	1004.53	100.5





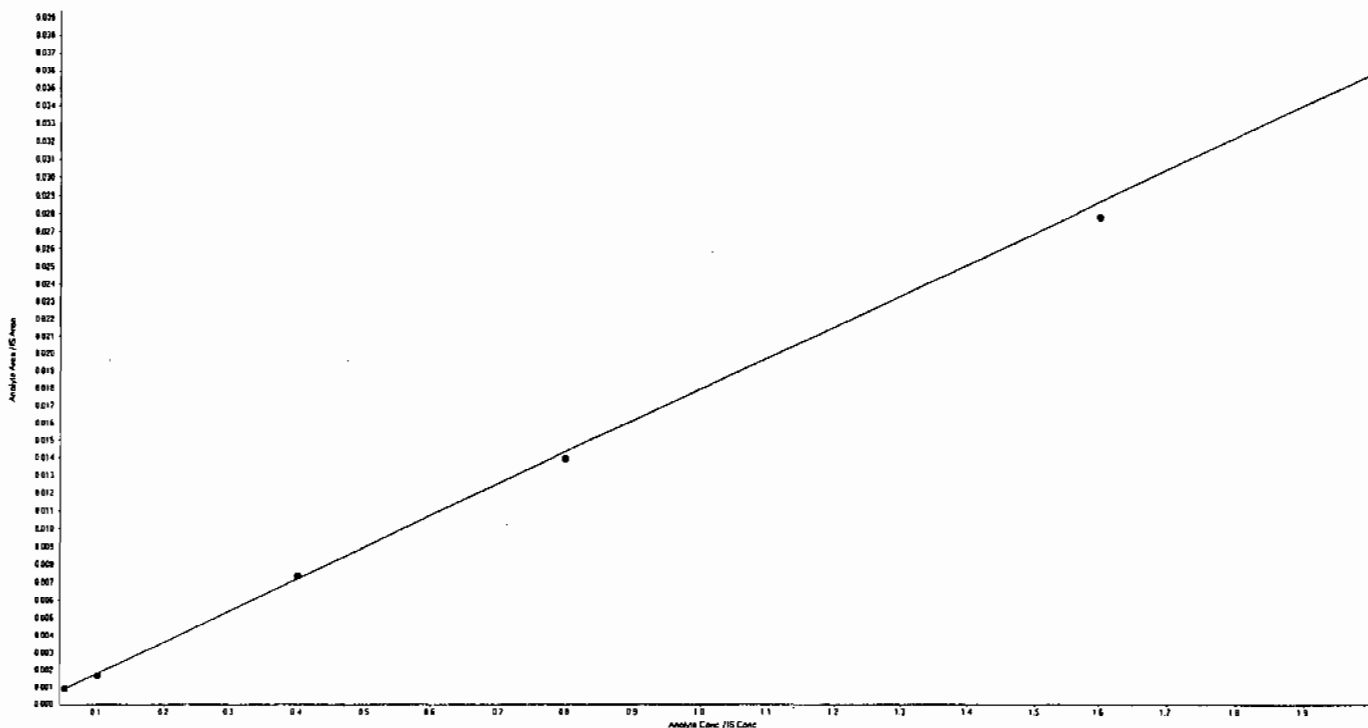
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Analyte Name: 2-Amino-4,6-dinitrotoluene

Regression Equation:  $y = 0.018x$  (std. dev. = 0.00104)

Expected Concentration	Calculated Concentration	% Accuracy
25	25.29	101.1
50	46.60	93.2
200	204.65	102.3
400	387.58	96.9
800	774.25	96.8
1000	1096.55	109.7



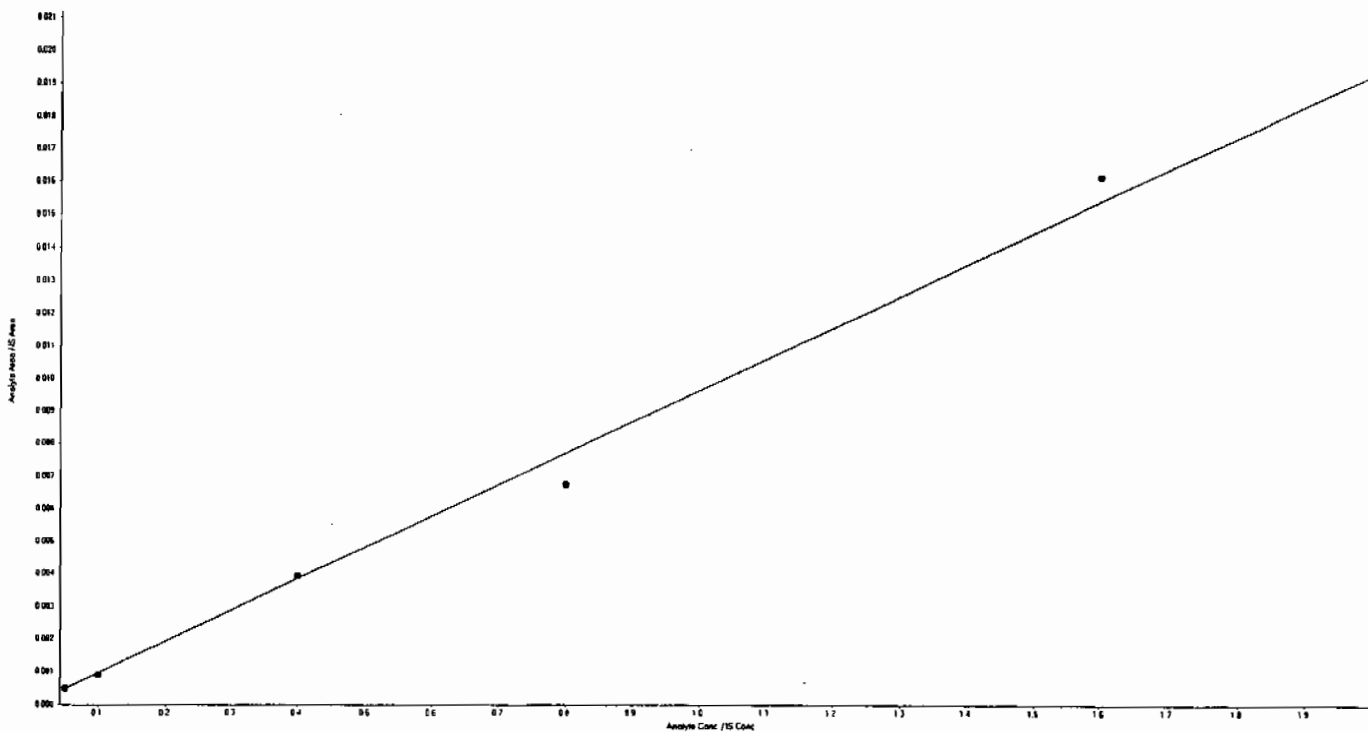
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Analyte Name: 2-Nitrotoluene

Regression Equation:  $y = 0.00962 x$  (std. dev. = 0.000794)

Expected Concentration	Calculated Concentration	% Accuracy
25	25.80	103.2
50	46.63	93.3
200	203.46	101.7
400	348.99	87.2
800	837.78	104.7
1000	1098.59	109.9



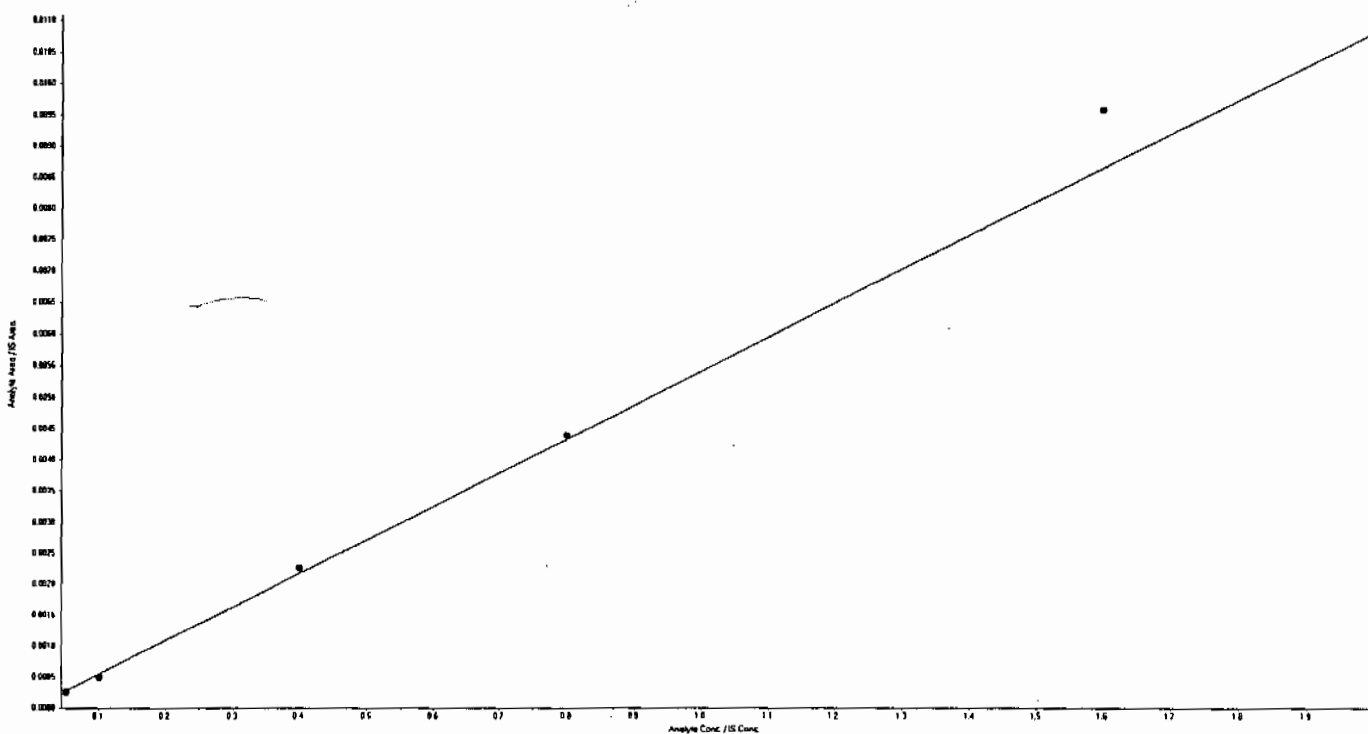
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Analyte Name: 4-Nitrotoluene

Regression Equation:  $y = 0.00541 x$  (std. dev. = 0.000429)

Expected Concentration	Calculated Concentration	% Accuracy
25	22.86	91.4
50	44.95	89.9
200	208.22	104.1
400	405.76	101.4
800	885.94	110.7
1000	1023.71	102.4



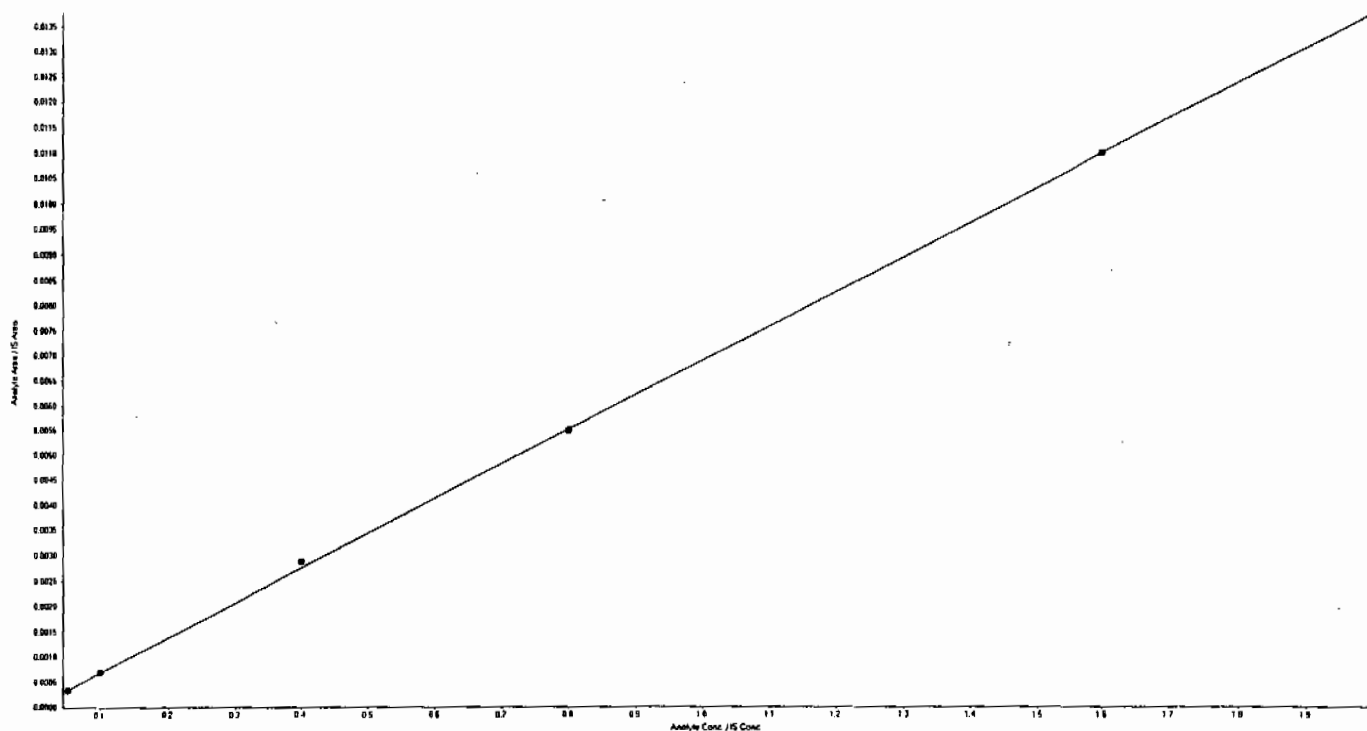
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Analyte Name: 3-Nitrotoluene

Regression Equation:  $y = 0.00689x$  (std. dev. = 0.000219)

Expected Concentration	Calculated Concentration	% Accuracy
25	24.39	97.6
50	51.25	102.5
200	209.16	104.6
400	398.39	99.6
800	799.26	99.9
1000	958.41	95.8



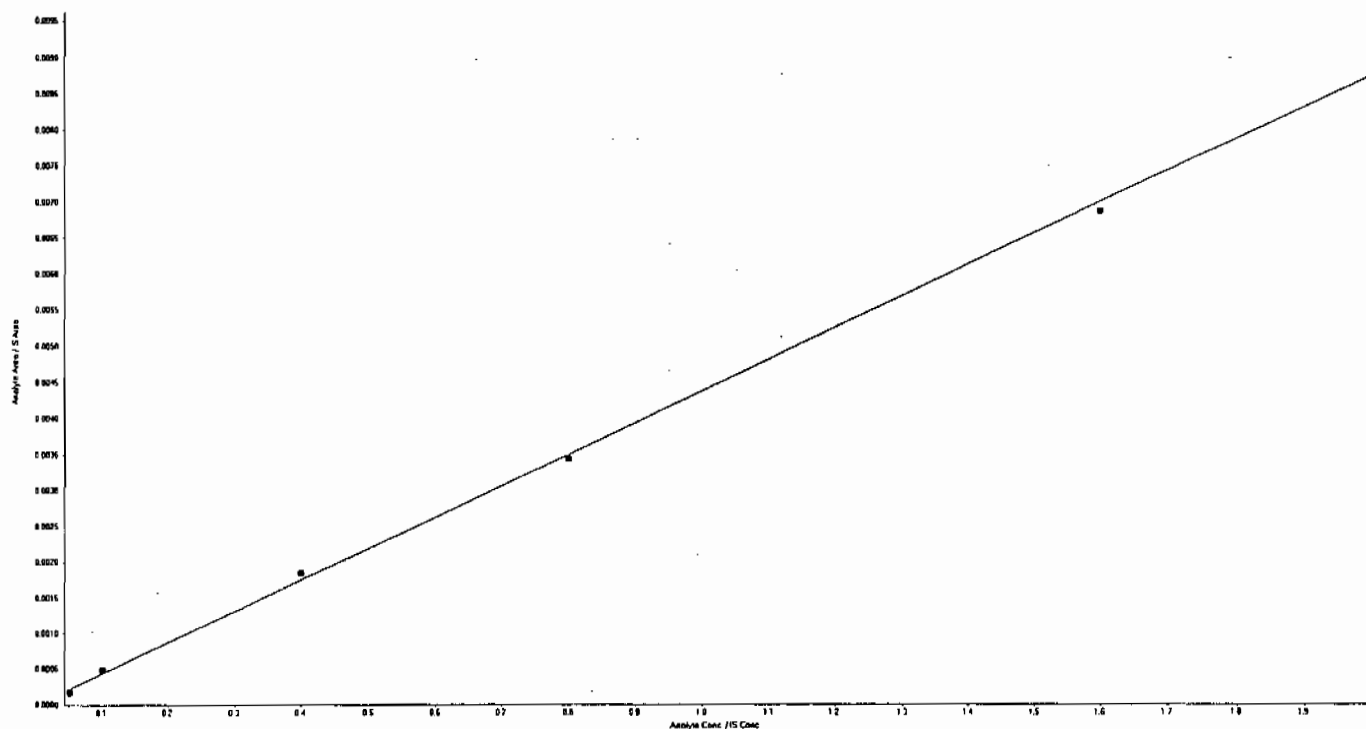
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Analyte Name: PETN

Regression Equation:  $y = 0.00438x$  (std. dev. = 0.000534)

Expected Concentration	Calculated Concentration	% Accuracy
25	19.42	77.7
50	55.30	110.6
200	211.04	105.5
400	393.09	98.3
800	784.48	98.1
1000	1098.47	109.8



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0422010.wiff

Analysis Date: 22-APR-10 19:52

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	615	102	
2,4,6-Trinitrotoluene	600	651	109	
2,4-Dinitrotoluene	600	685	114	
2,6-Dinitrotoluene	600	594	99	
2-Amino-4,6-dinitrotoluene	600	583	97	
3,4-Dinitrotoluene	300	298	99	
4-Amino-2,6-dinitrotoluene	600	626	104	
DNX	600	591	98	
HMX	600	534	89	
MXN	600	649	108	
Nitrobenzene	600	564	94	
PETN	600	634	106	
RDX	600	625	104	
TNX	600	645	107	
Tetryl	600	605	101	
m-Dinitrobenzene	600	603	100	
m-Nitrotoluene	600	588	98	
o-Nitrotoluene	600	600	100	
p-Nitrotoluene	600	632	105	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

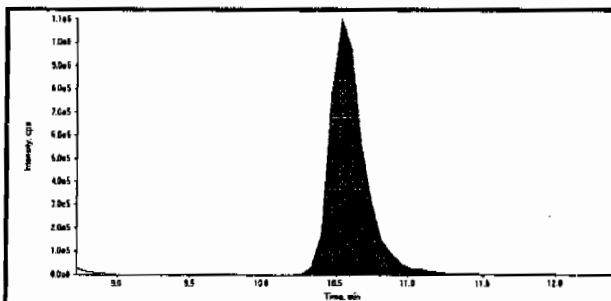
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

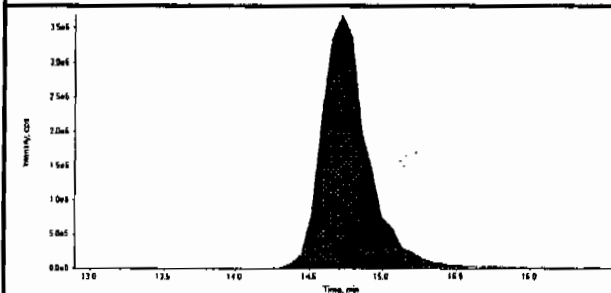
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

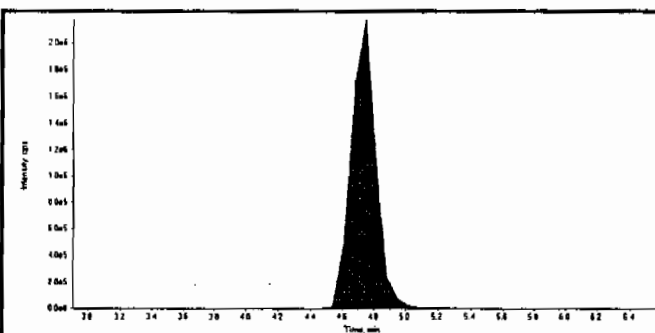
Data File	EXP0422010.wiff	Acquisition Date	4/22/2010 7:52:20 PM
Sample Name	WXX100422-56ICV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



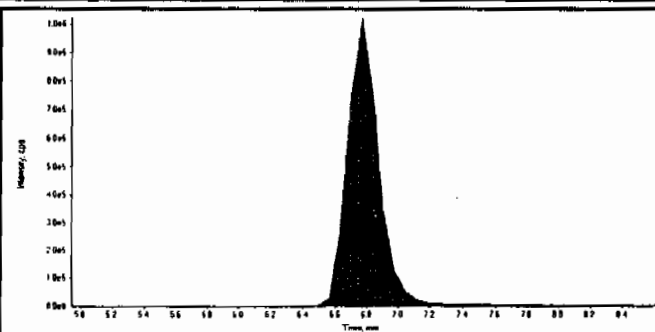
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	18000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.70
Area Counts:	81000000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.73
Actual RT:	4.73
Area Counts:	2.46e+007
Manual Modification	No
Amount:	534. (ng/mL)
% Accuracy:	89.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.45e+007
Manual Modification	No
Amount:	625. (ng/mL)
% Accuracy:	104.00

*far 5/5/10*  
*HW 05/06/10*



Before Jan 515710

Sample Name: WXX00432-561V Sample ID: 111111 File: EXP022010.wif

Peak Name: TMR Mass(es): 218.045.0 amu

Comment: LCMS-EXP-C Acquisition

Sample Type: 1

Sample Concentration: 10000

Sample Volume: 100

Sample Weight: 100

Sample Date: 6/22/2010

Sample Time: 11:12:10 PM

Sample Location: 10000

Sample ID: 10000

Sample Name: WXX00432-561V

Sample Mass(es): 218.045.0 amu

Sample Comment: LCMS-EXP-C Acquisition

Sample Type: 1

Sample Concentration: 10000

Sample Volume: 100

Sample Weight: 100

Sample Date: 6/22/2010

Sample Time: 11:12:10 PM

Sample Location: 10000

Sample ID: 10000

Sample Name: WXX00432-561V

Sample Mass(es): 218.045.0 amu

Sample Comment: LCMS-EXP-C Acquisition

Sample Type: 1

Sample Concentration: 10000

Sample Volume: 100

Sample Weight: 100

Sample Date: 6/22/2010

Sample Time: 11:12:10 PM

Sample Location: 10000

Sample ID: 10000

Sample Name: WXX00432-561V

Sample Mass(es): 218.045.0 amu

Sample Comment: LCMS-EXP-C Acquisition

Sample Type: 1

Sample Concentration: 10000

Sample Volume: 100

Sample Weight: 100

Sample Date: 6/22/2010

Sample Time: 11:12:10 PM

Sample Location: 10000

Sample ID: 10000

Sample Name: WXX00432-561V

Sample Mass(es): 218.045.0 amu

Sample Comment: LCMS-EXP-C Acquisition

Sample Type: 1

Sample Concentration: 10000

Sample Volume: 100

Sample Weight: 100

Sample Date: 6/22/2010

Sample Time: 11:12:10 PM

Sample Location: 10000

Sample ID: 10000

Sample Name: WXX00432-561V

Sample Mass(es): 218.045.0 amu

Sample Comment: LCMS-EXP-C Acquisition

Sample Type: 1

Sample Concentration: 10000

Sample Volume: 100

Sample Weight: 100

Sample Date: 6/22/2010

Sample Time: 11:12:10 PM

Sample Location: 10000

Sample ID: 10000

Sample Name: WXX00432-561V

Sample Mass(es): 218.045.0 amu

Sample Comment: LCMS-EXP-C Acquisition

Sample Type: 1

Sample Concentration: 10000

Sample Volume: 100

Sample Weight: 100

Sample Date: 6/22/2010

Sample Time: 11:12:10 PM

Sample Location: 10000

Sample ID: 10000

Sample Name: WXX00432-561V

Sample Mass(es): 218.045.0 amu

Sample Comment: LCMS-EXP-C Acquisition

Sample Type: 1

Sample Concentration: 10000

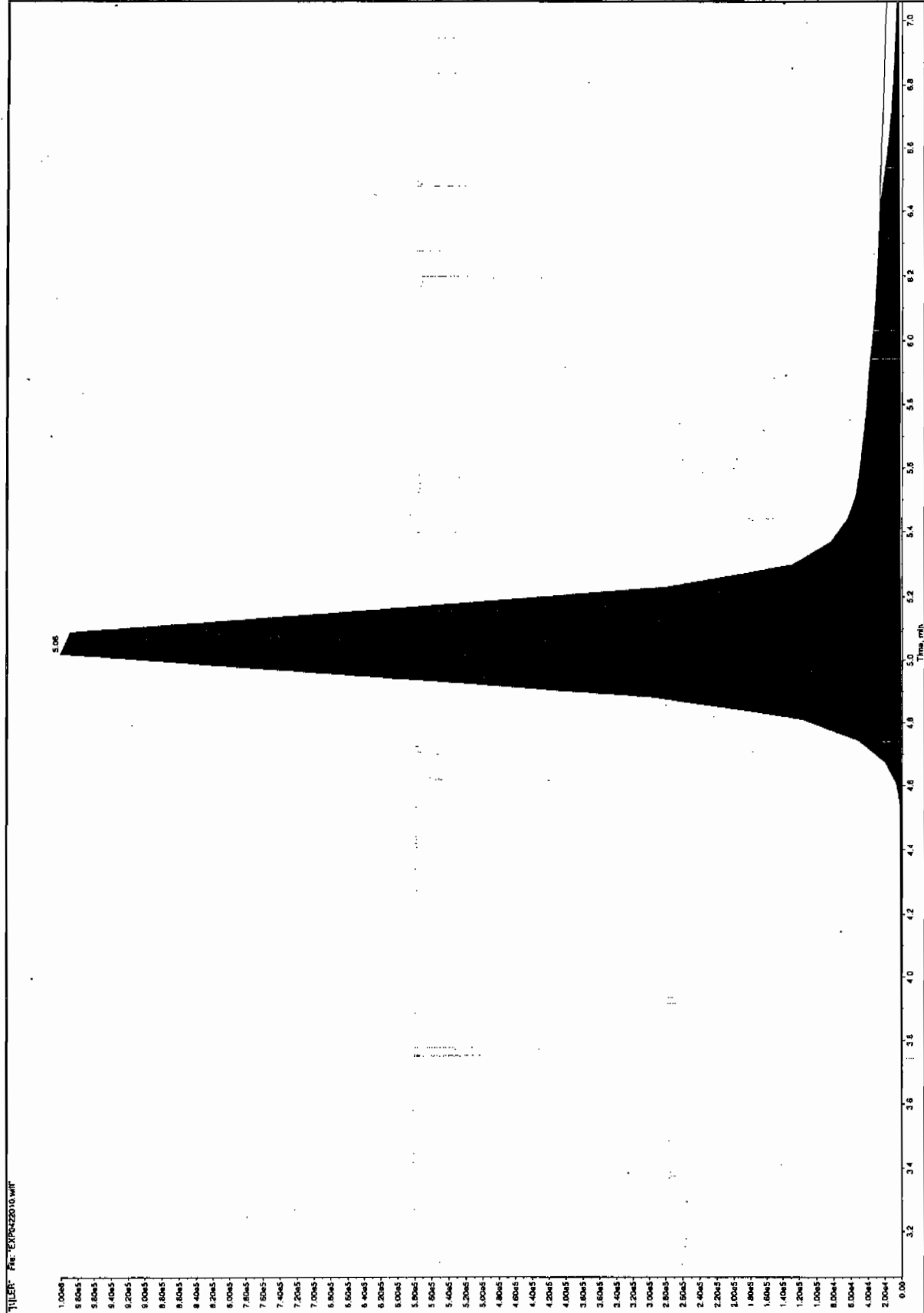
Sample Volume: 100

Sample Weight: 100

Sample Date: 6/22/2010

Sample Time: 11:12:10 PM

Sample Location: 10000



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 5/10

Sample Name: WAT10042-2607 Sample ID: 111111 File: EXP0422610.vaf

Sample Index: 1  
Concentration: 100.00 ng/mL  
Acq. Date: 4/23/2010  
Acq. Time: 7:12:20 PM

Modified: Yes  
Rel. Time: 5.06 min  
Rel. RT: No

Method: Manual  
Injection Time: 5.06 min  
Height: 1.00e+007 counts  
Area: 1.03e+008 cps  
Time: 5.06 min  
Time: 5.06 min

Intensity: cps

Time: min

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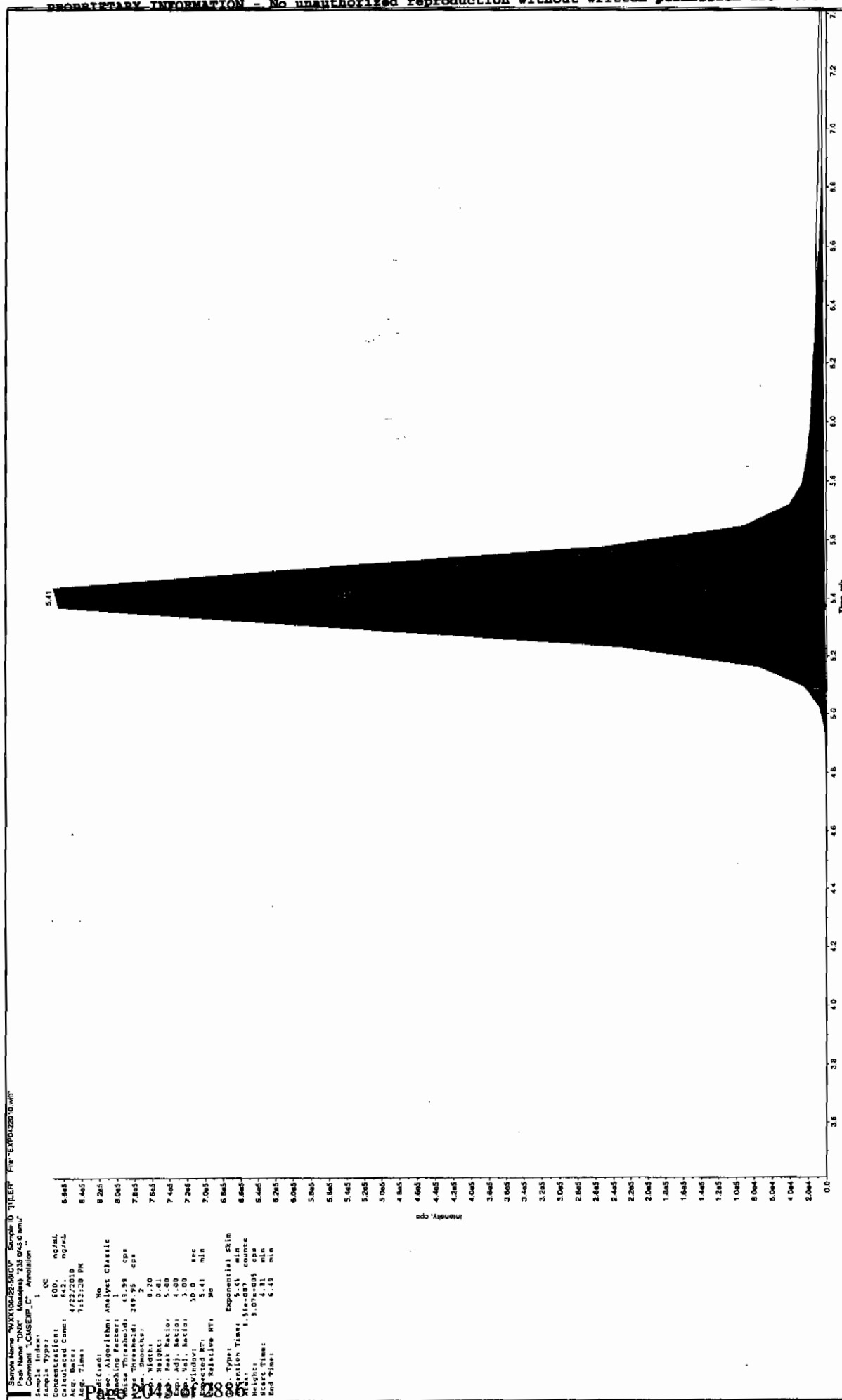
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\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 515100

Sample Name: WAX10022-36CV Sample ID: T11ER File: E352422010.wif

Peak Name: "DUC" Mass(es): 735.045.0 amu

Comment: "LCMS-EP" Annotation: "

Sample Type: 1 CC

Concentration: 600. ng/mL

Calculated Conc: 621. ng/mL

Acq. Date: 6/22/2018

Acq. Time: 7:52:20 PM

Acq. Time: 8:20:00

Acq. Time: 8:05:00

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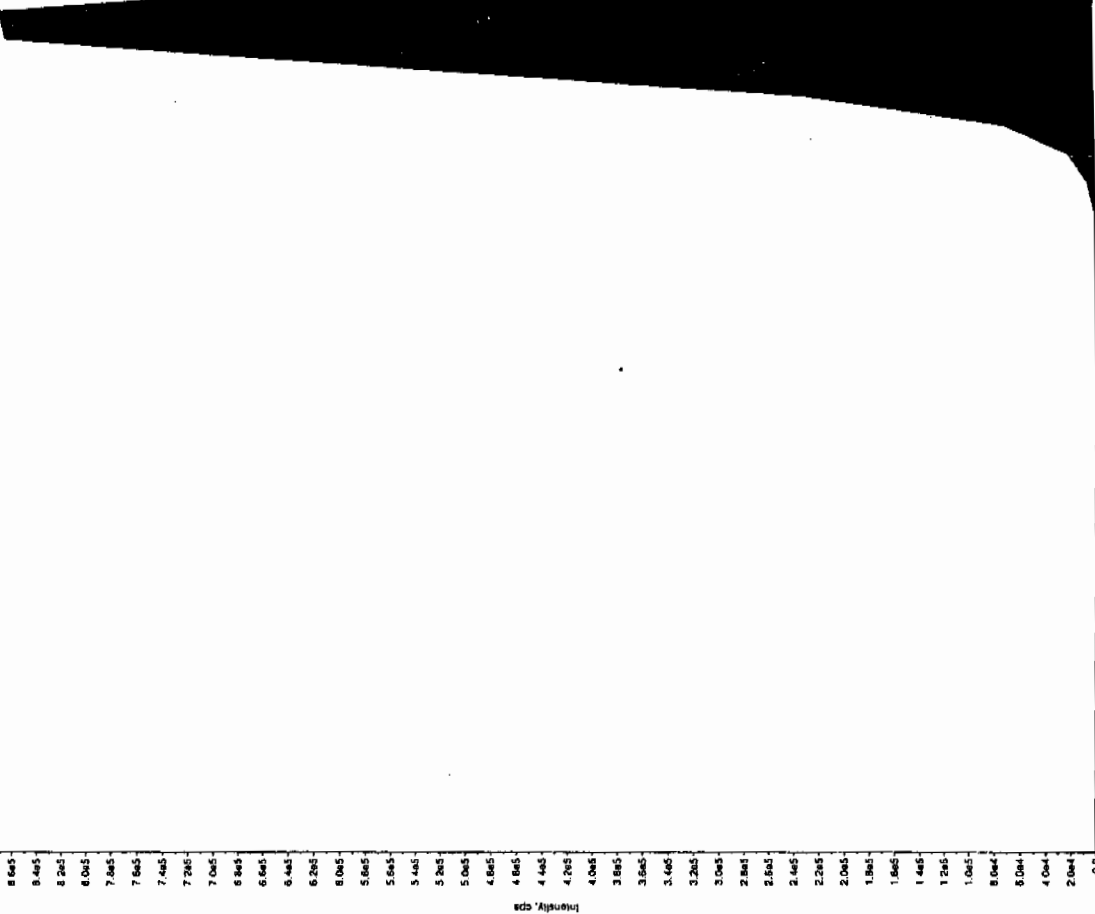
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Acq. Time: 8:05:00

Acq. Time: 8:05:00

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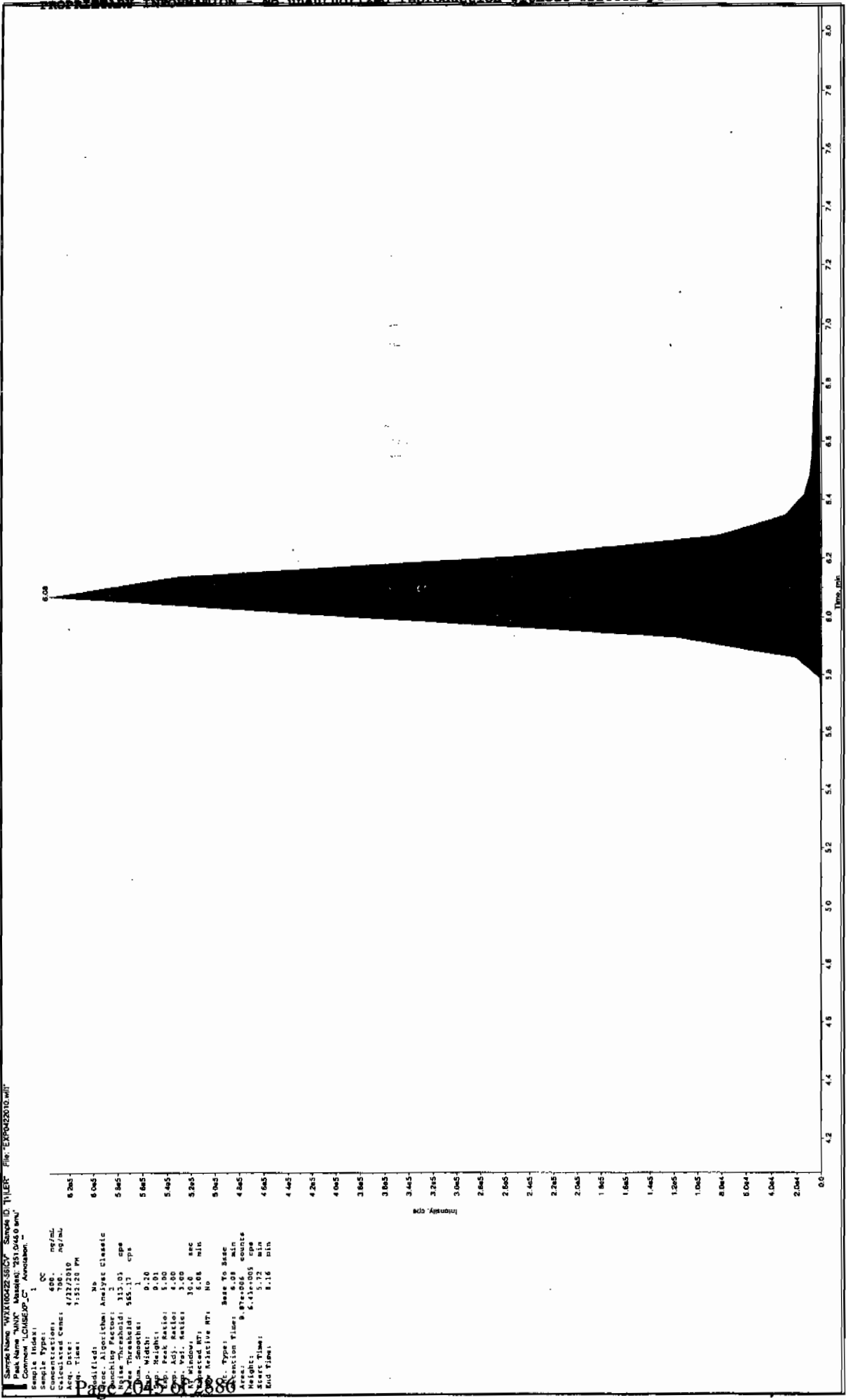
5.41



Time, min

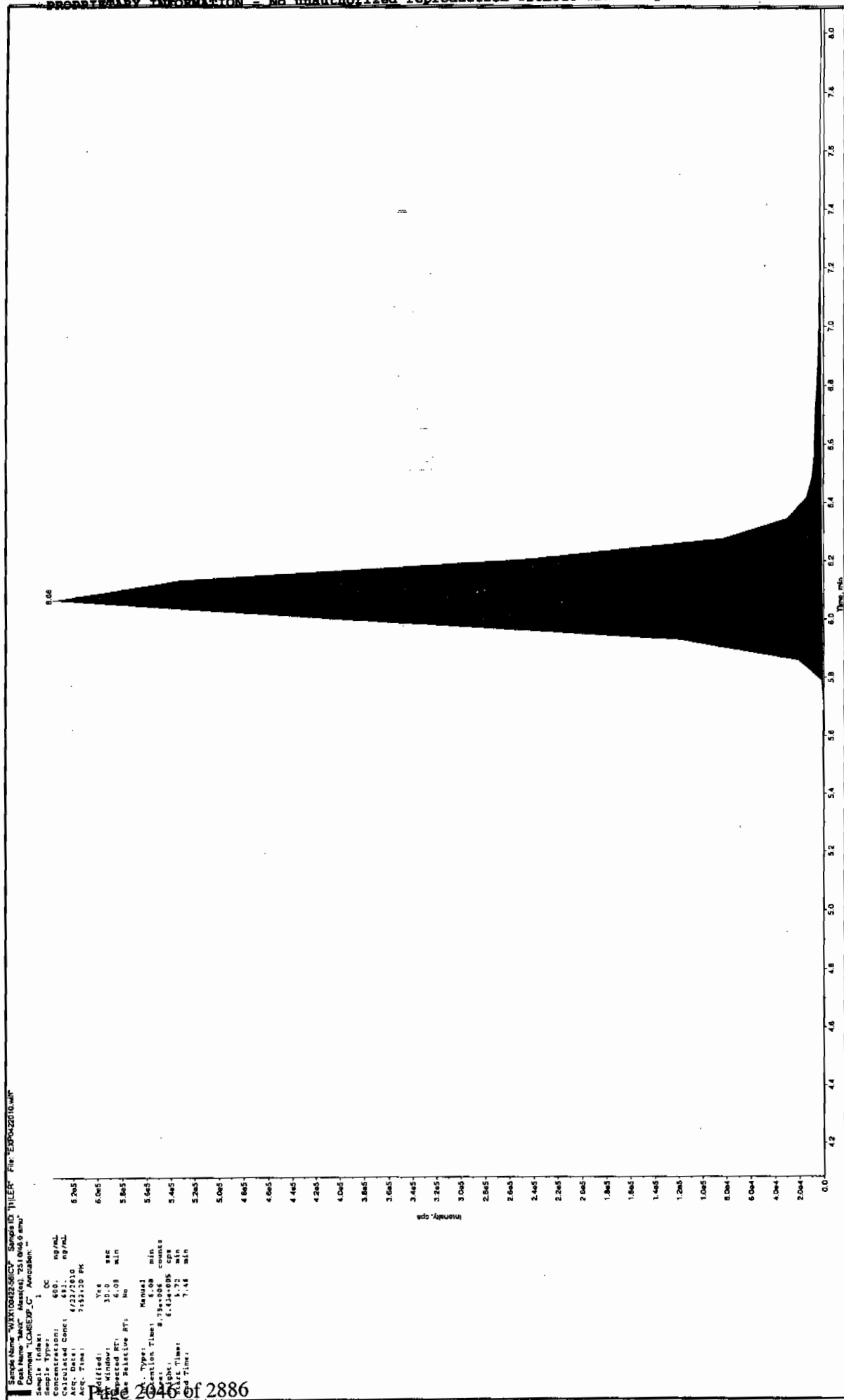
Intensity, cps

Before Jan 51510



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after den 575710



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Data File	EXP0422010.wiff	Acquisition Date	4/22/2010 7:52:20 PM
Sample Name	WXX100422-56ICV	Acquisition Method	8321.dam
Batch/Dilution/Analyst	1 LER	Result Table	042210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	TNX (219.0/45.0 amu)
	Expected RT:	5.06
	Actual RT:	5.06
	Area Counts:	1.80e+007
	Manual Modification	Yes
	Amount:	645. (ng/mL)
	% Accuracy:	107.00

	Compound Name:	DNX (235.0/45.0 amu)
	Expected RT:	5.41
	Actual RT:	5.41
	Area Counts:	1.52e+007
	Manual Modification	Yes
	Amount:	591. (ng/mL)
	% Accuracy:	98.40

	Compound Name:	MNX (251.0/46.0 amu)
	Expected RT:	6.08
	Actual RT:	6.08
	Area Counts:	8.79e+006
	Manual Modification	Yes
	Amount:	649. (ng/mL)
	% Accuracy:	108.00

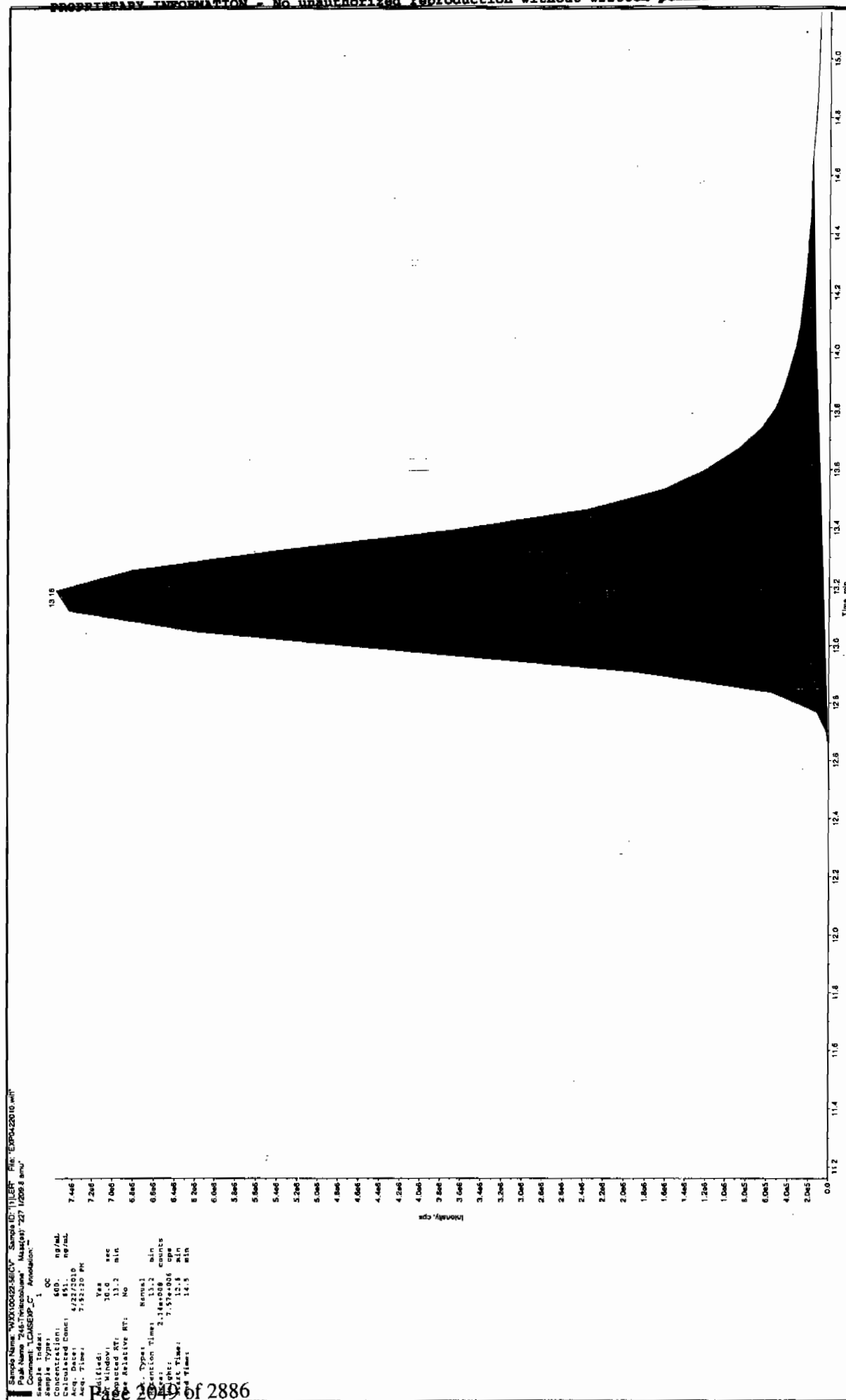
  

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.03
	Actual RT:	9.03
	Area Counts:	1.35e+008
	Manual Modification	No
	Amount:	615. (ng/mL)
	% Accuracy:	102.00





after Dec 5/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Data File	EXP0422010.wiff	Acquisition Date	4/22/2010 7:52:20 PM
Sample Name	WXX100422-561CV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	5.99e+007
	Manual Modification	No
	Amount:	603. (ng/mL)
	% Accuracy:	100.00

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	4.54e+007
	Manual Modification	No
	Amount:	605. (ng/mL)
	% Accuracy:	101.00

	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.2
	Actual RT:	13.2
	Area Counts:	2.14e+008
	Manual Modification	Yes
	Amount:	651. (ng/mL)
	% Accuracy:	109.00

	Compound Name:	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	11.8
	Area Counts:	2.52e+006
	Manual Modification	No
	Amount:	564. (ng/mL)
	% Accuracy:	93.90

Before Jan 5/87

Sample Name: "XXXX100425-5810" Sample ID: "TILER" File: "EXP422010.wif"  
 Post Name: "L-Asparagine-26-dimethylolurea" Method: "197.0163.0.amu"

Concentration: 500.00 ng/mL  
 Calculated Conc: 521.10 ng/mL  
 Acq. Time: 71:21:20 PM

Sample Type: 1 QC  
 Modified: 20  
 Analysis: Analyst Classic

Threshold Factor: 1  
 Pulse Threshold: 478.54 cps  
 Area Threshold: 3352.71 cps

Peak Width: 0.20  
 Peak Height: 0.01  
 Peak Ratio: 5.00

Peak Area: 1.00  
 Peak Ratio: 5.00  
 Peak Area: 1.00

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Peak Area: 1.00  
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Peak Area: 1.00  
 Peak Ratio: 5.00  
 Peak Area: 1.00

Peak Area: 1.00  
 Peak Ratio: 5.00  
 Peak Area: 1.00

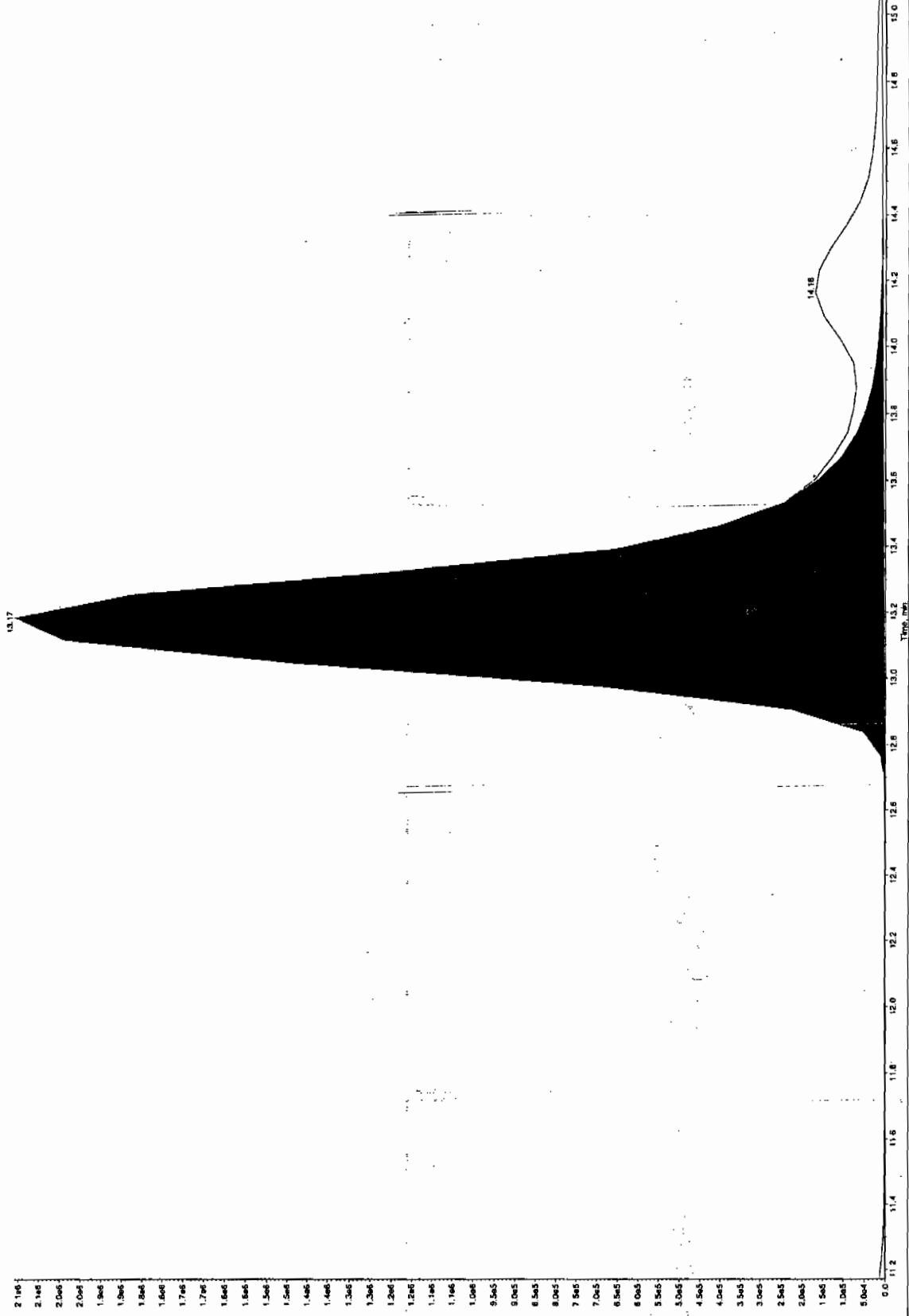
Peak Area: 1.00  
 Peak Ratio: 5.00  
 Peak Area: 1.00

Peak Area: 1.00  
 Peak Ratio: 5.00  
 Peak Area: 1.00

Peak Area: 1.00  
 Peak Ratio: 5.00  
 Peak Area: 1.00

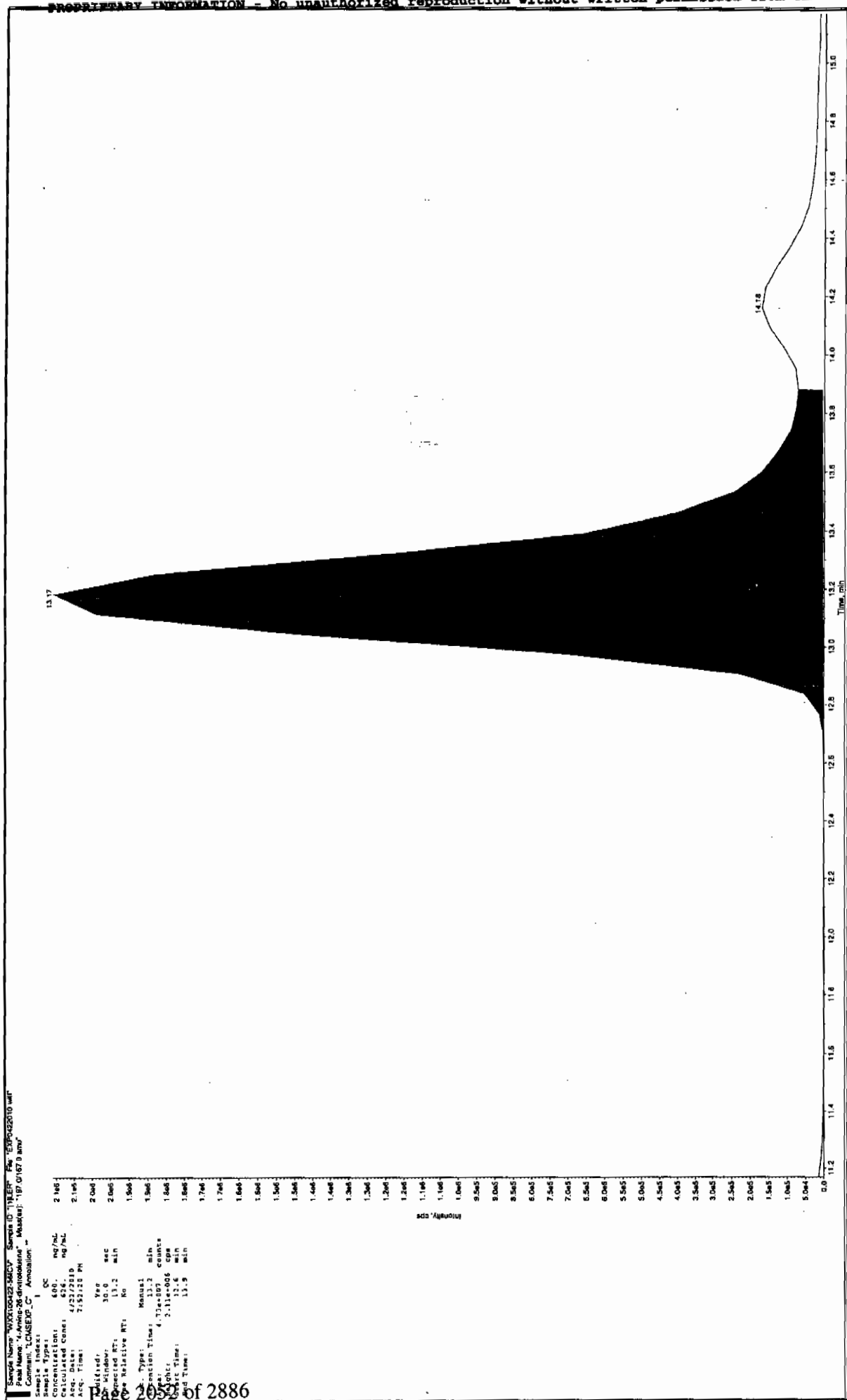
Peak Area: 1.00  
 Peak Ratio: 5.00  
 Peak Area: 1.00

Peak Area: 1.00  
 Peak Ratio: 5.00  
 Peak Area: 1.00



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 57600



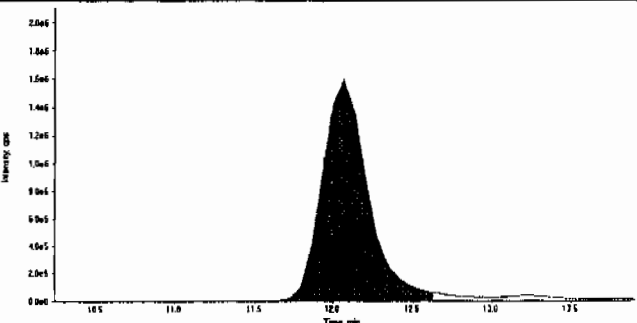
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

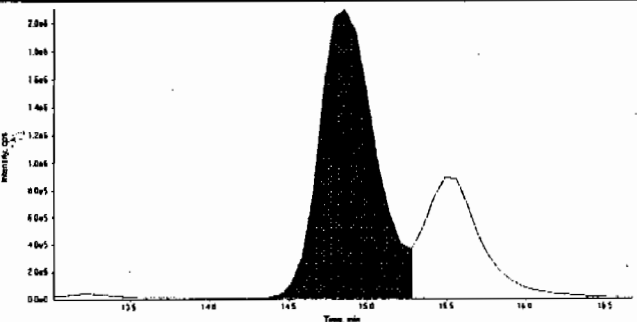
Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422010.wiff	<b>Acquisition Date</b>	4/22/2010 7:52:20 PM
<b>Sample Name</b>	WXX100422-56ICV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

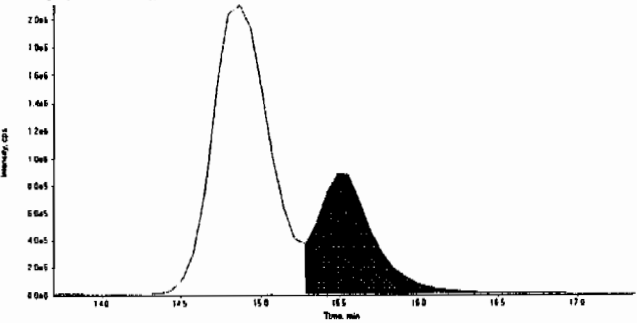
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.1
	Area Counts:	3.31e+007
	Manual Modification	No
	Amount:	298. (ng/mL)
	% Accuracy:	99.20

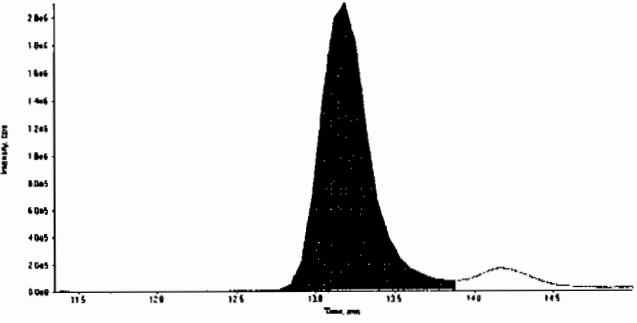
  

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.8
	Area Counts:	5.23e+007
	Manual Modification	No
	Amount:	594. (ng/mL)
	% Accuracy:	99.10

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.5
	Area Counts:	2.17e+007
	Manual Modification	No
	Amount:	685. (ng/mL)
	% Accuracy:	114.00

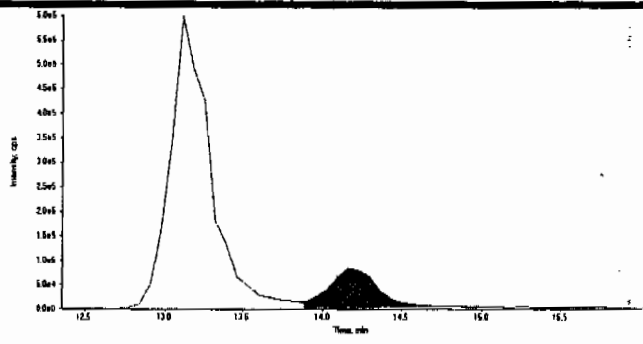
	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.2
	Actual RT:	13.2
	Area Counts:	4.73e+007
	Manual Modification	Yes
	Amount:	626. (ng/mL)
	% Accuracy:	104.00

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

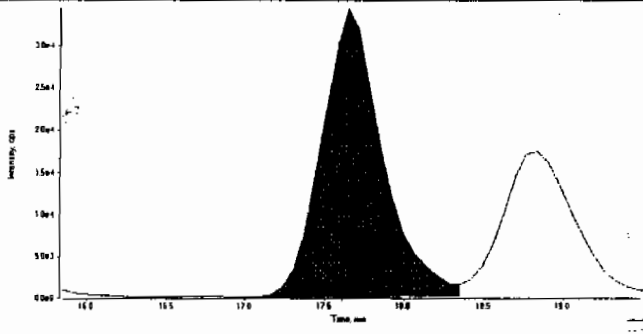
Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422010.wiff	<b>Acquisition Date</b>	4/22/2010 7:52:20 PM
<b>Sample Name</b>	WXX100422-56ICV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

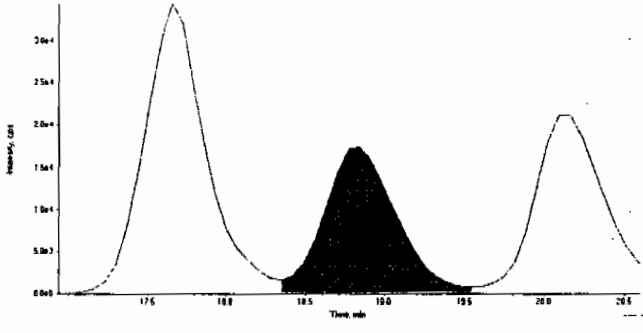
  

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.2
	Area Counts:	1.70e+006
	Manual Modification	No
	Amount:	583. (ng/mL)
	% Accuracy:	97.20

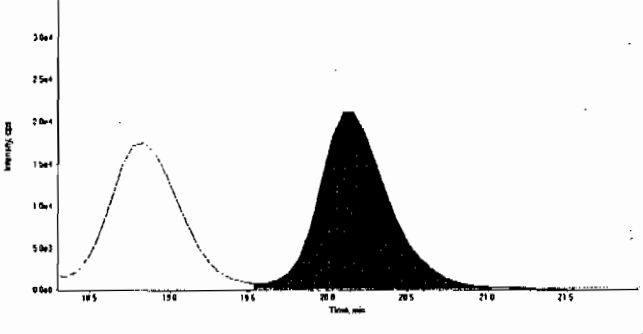
  

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	17.7
	Area Counts:	9.35e+005
	Manual Modification	No
	Amount:	600. (ng/mL)
	% Accuracy:	100.00

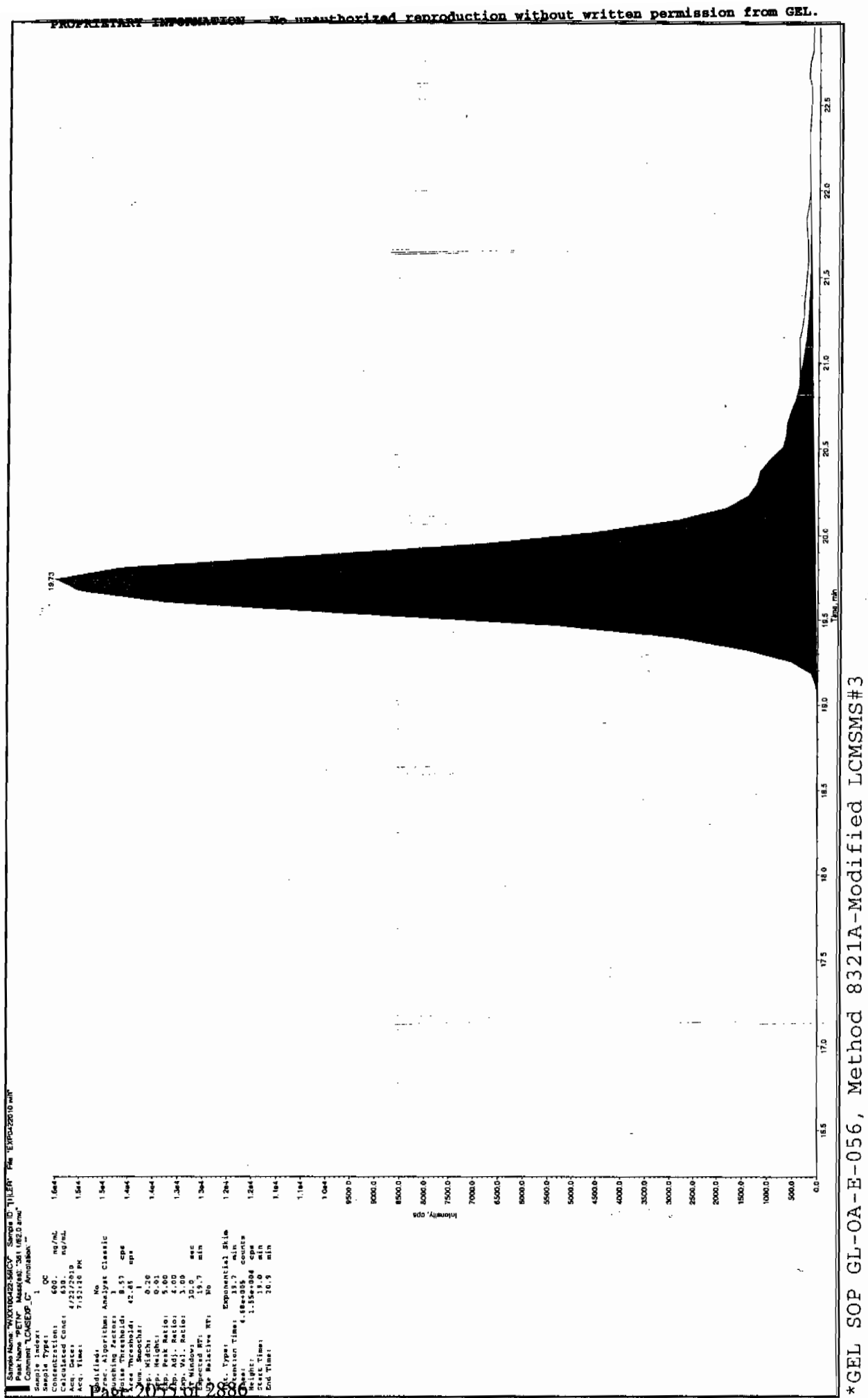
  

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.8
	Area Counts:	5.54e+005
	Manual Modification	No
	Amount:	632. (ng/mL)
	% Accuracy:	105.00

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	20.1
	Area Counts:	6.56e+005
	Manual Modification	No
	Amount:	588. (ng/mL)
	% Accuracy:	98.00

Before Jan 5/10



after Jan 5/5/10

Sample Name: WAX1002560V Sample ID: THER File: EXP0022010.wit

Peak Name: PETN Mass(es): 181.1462.0 amu

Comment: LCMEXP\_C Annotation: 2

Sample Type: 1 OC

Concentration: 600. ng/mL

Calculated Conc: 600. ng/mL

Acq. Date: 1/22/10

Acq. Time: 2:52:20 PM

Acq. Time: 2:52:20 PM

Modified: Yes

Acq. Window: 10.0 sec

Acq. Rate: 10.0 cps

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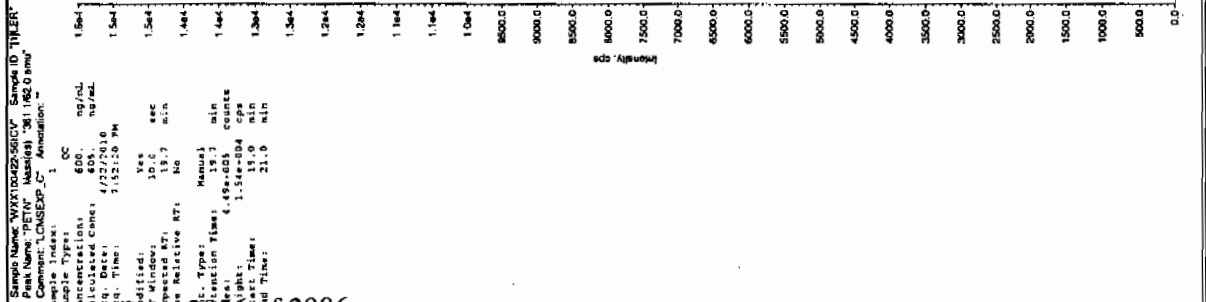
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Acq. Rate: 10.0 cps

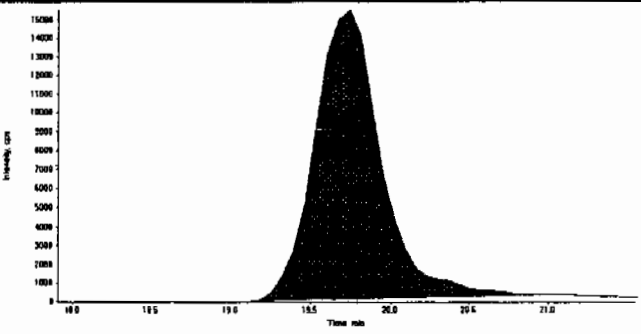
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GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422010.wiff	<b>Acquisition Date</b>	4/22/2010 7:52:20 PM
<b>Sample Name</b>	WXX100422-56ICV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control
		<b>Compound Name:</b>	PETN (361.1/62.0 amu)
		<b>Expected RT:</b>	19.7
		<b>Actual RT:</b>	19.7
		<b>Area Counts:</b>	4.49e+005
		<b>Manual Modification</b>	Yes
		<b>Amount:</b>	634. (ng/mL)
		<b>% Accuracy:</b>	106.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/22/10  
 Time of Injection 1952  
 Standard Number WXX100422-56ICV  
 Data File EXP0422010a

HMX	89.0
RDX	104.0
TNX	107.0
DNX	98.4
MNX	108.0
135-Trinitrobenzene	102.0
13-Dinitrobenzene	100.0
Tetryl	101.0
246-Trinitrotoluene	109.0
Nitrobenzene	93.9
34-dinitrotoluene	99.2
26-dinitrotoluene	99.1
24-dinitrotoluene	114.0
4-Amino-26-dinitrotoluene	104.0
2-Amino-46-dinitrotoluene	97.2
2-Nitrotoluene	100.0
4-Nitrotoluene	105.0
3-Nitrotoluene	98.0
PETN	106.0

TOTAL

1934.8

AVERAGE

✓ 101.8

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*hmm 5/6/10*

*OK  
5/6/10*

# Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2193

Lab Code: GEL

Run Date: 09-APR-10.15-APR-10.20-APR-10.22-APR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H80

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS04090003.wiff	EXS04090004.wiff	EXS04090005.wiff	EXS04090006.wiff	EXS04090007.wiff	EXS04090008.wiff	EXS04090009.wiff					
Parname:												
2,4-Diamino-6-nitrotoluene	112000	220000	544000	1100000	1620000	2230000	4010000	-24500	2380	-1.79	.9997	
2,6-Diamino-4-nitrotoluene	147000	294000	719000	1410000	1970000	2660000	4780000	11600	2860	-.237	.9999	
3,4-Dinitrotoluene	210000	426000	1050000	2120000	3190000	4160000	7740000	-52900	9640	-1.85	.9984	
3,5-Dinitroaniline	359000	708000	1780000	3300000	5260000	6700000	11100000	-93100	7830	-1.11	.9995	
TATB	38200	78800	218000	443000	728000	975000	1920000	-24000	1000	-.014	.9997	
tris(o-cresyl) phosphate	1060000	2050000	5040000	9430000	13600000	17700000	28800000	21900	20600	-3.12	1	

Quadratic Fit:  $y = Ax^2 + Bx + C$   
 where  $X^2$  column above is coefficient A  
 X column above is coefficient B  
 intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)

\* Values outside of QC Limit

040910ICAL

Peak Name: TATB  
No Internal Standard  
Q1/Q3 Masses: 257.20/204.90 amu  
Fit Quadratic  
a0 -2.4e+004  
a1 1e+003  
a2 -0.0139  
Correlation coefficient 0.9997  
Use Area

None Iterate No

Peak Name: 35-Dinitroaniline  
No Internal Standard  
Q1/Q3 Masses: 182.00/46.00 amu

Fit Quadratic  
a0 -9.31e+004  
a1 7.83e+003  
a2 -1.11  
Correlation coefficient 0.9995  
Use Area

None Iterate No

Peak Name: 34-Dinitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 182.08/151.90 amu

Fit Quadratic  
a0 -5.29e+004  
a1 9.64e+003  
a2 -1.85  
Correlation coefficient 0.9984  
Use Area

None Iterate No

Peak Name: 26-Diamino-4-nitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 165.97/46.00 amu

Fit Quadratic  
a0 1.16e+004  
a1 2.86e+003  
a2 -0.237  
Correlation coefficient 0.9999  
Use Area

None Iterate No

Peak Name: 24-Diamino-6-nitrotoluene  
No Internal Standard  
Q1/Q3 Masses: 165.97/46.00 amu

Page 1

*See*  
*4/12/10*

*done*  
*04/12/10*

040910ICAL

Iterate No

None

Weighting

Quadratic

a0 -2.45e+004

a1 2.38e+003

a2 -0.179

Correlation coefficient 0.9997

Use Area

Peak Name: tris(o-cresyl) phosphate

No Internal Standard

Q1/Q3 Masses: 369.15/91.00 amu

Iterate No

None

Weighting

Quadratic

a0 2.19e+004

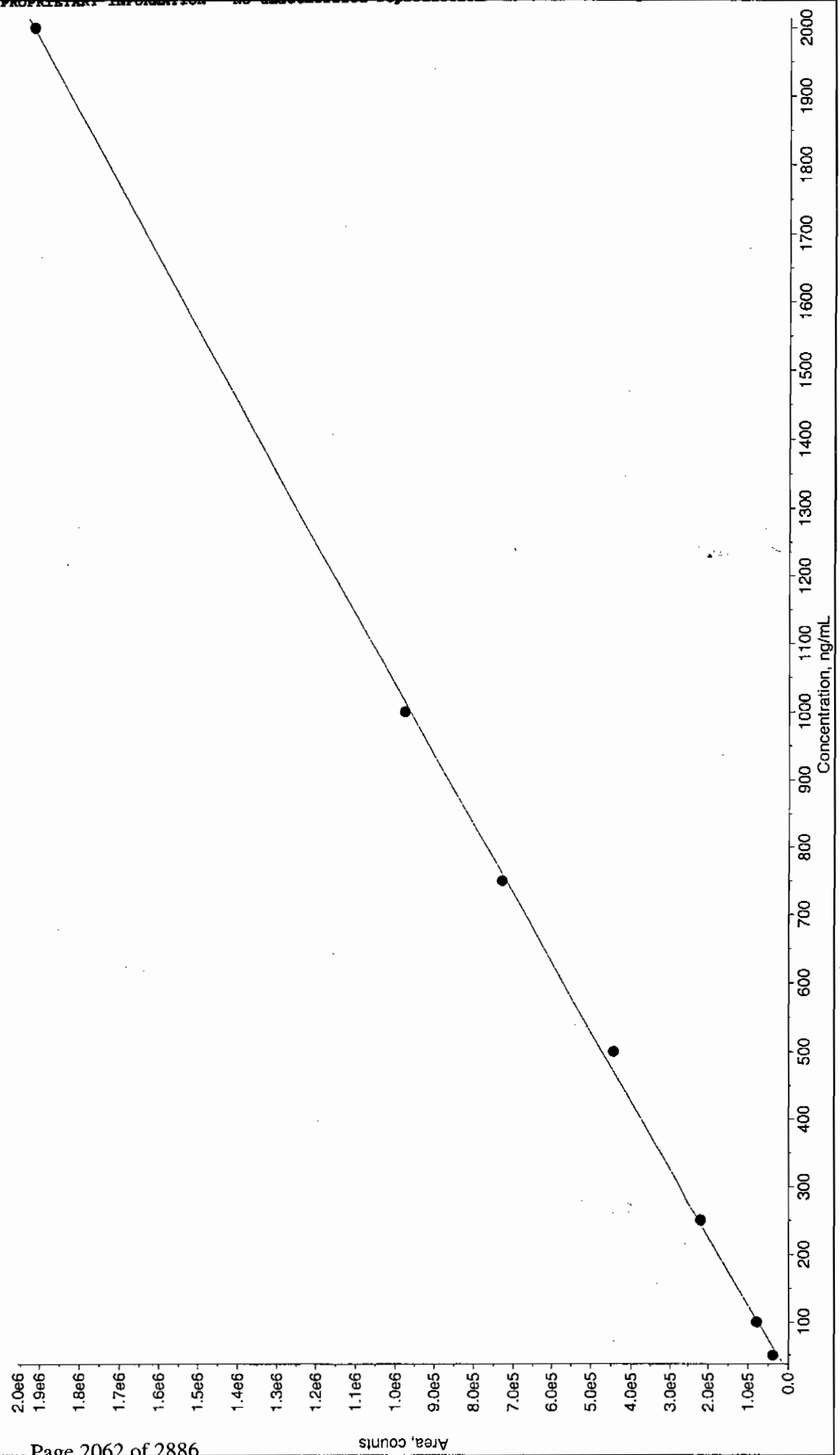
a1 2.06e+004

a2 -3.12

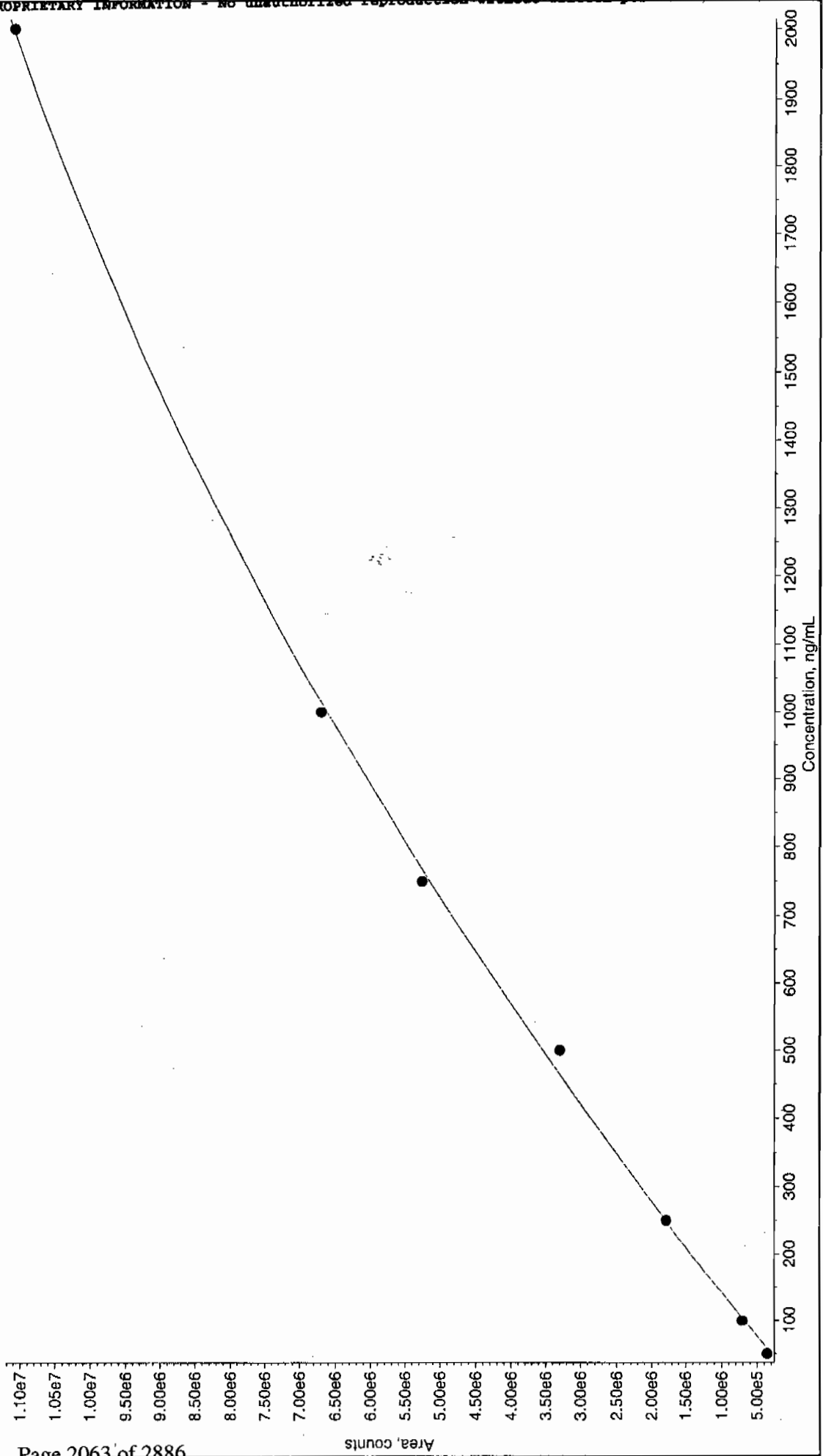
Correlation coefficient 1.0000

Use Area

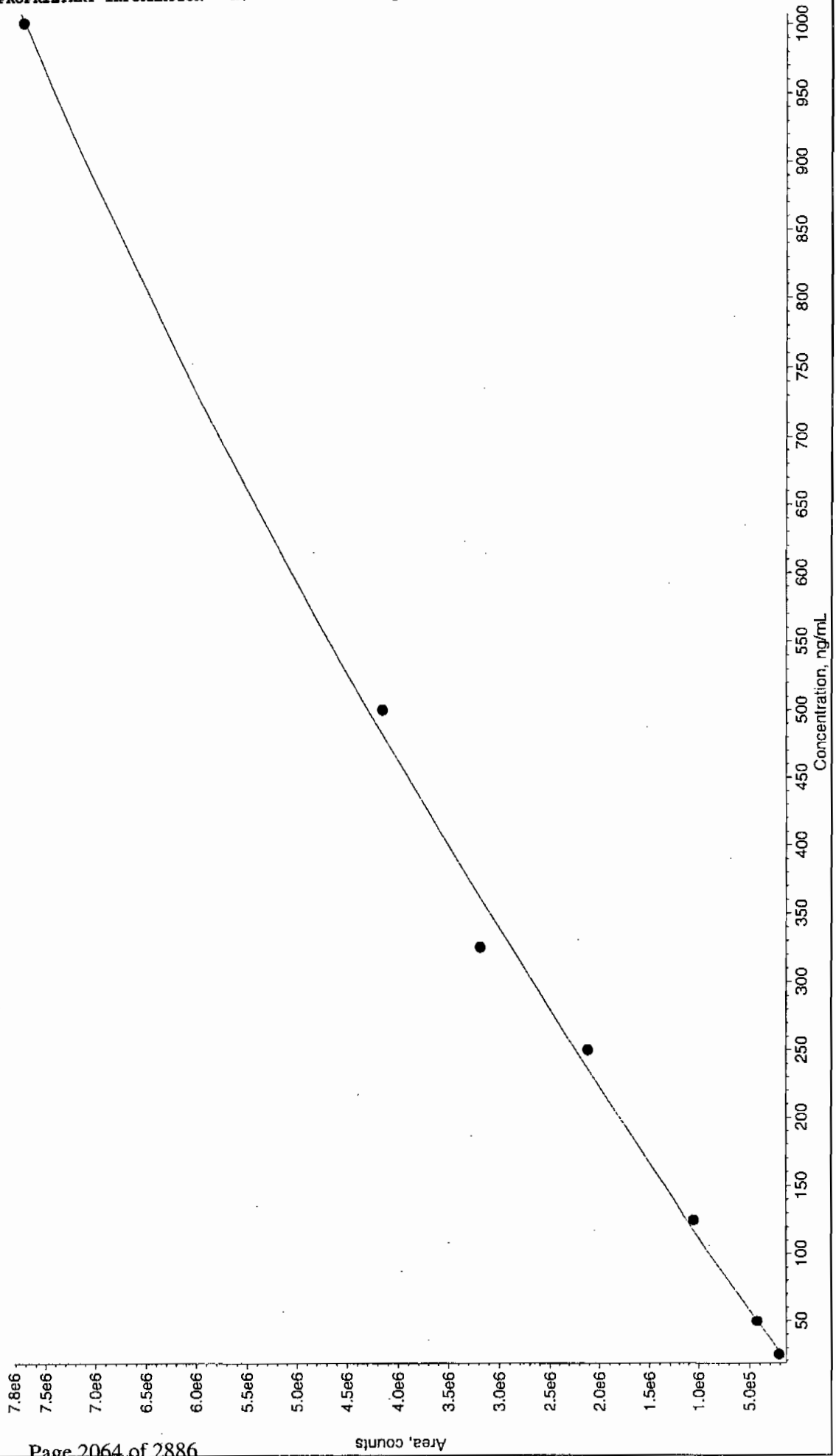
040910.rdb (TATB): "Quadratic" Regression ("No" weighting):  $y = -0.0139 x^2 + 1e+003 x + -2.4e+004$  ( $r = 0.9997$ )



040910.rdb (35-Dinitroaniline): "Quadratic" Regression ("No" weighting):  $y = -1.11 \times 10^{-7} x^2 + 7.83 \times 10^{-5} x + -9.31 \times 10^4$  ( $r = 0.9995$ )

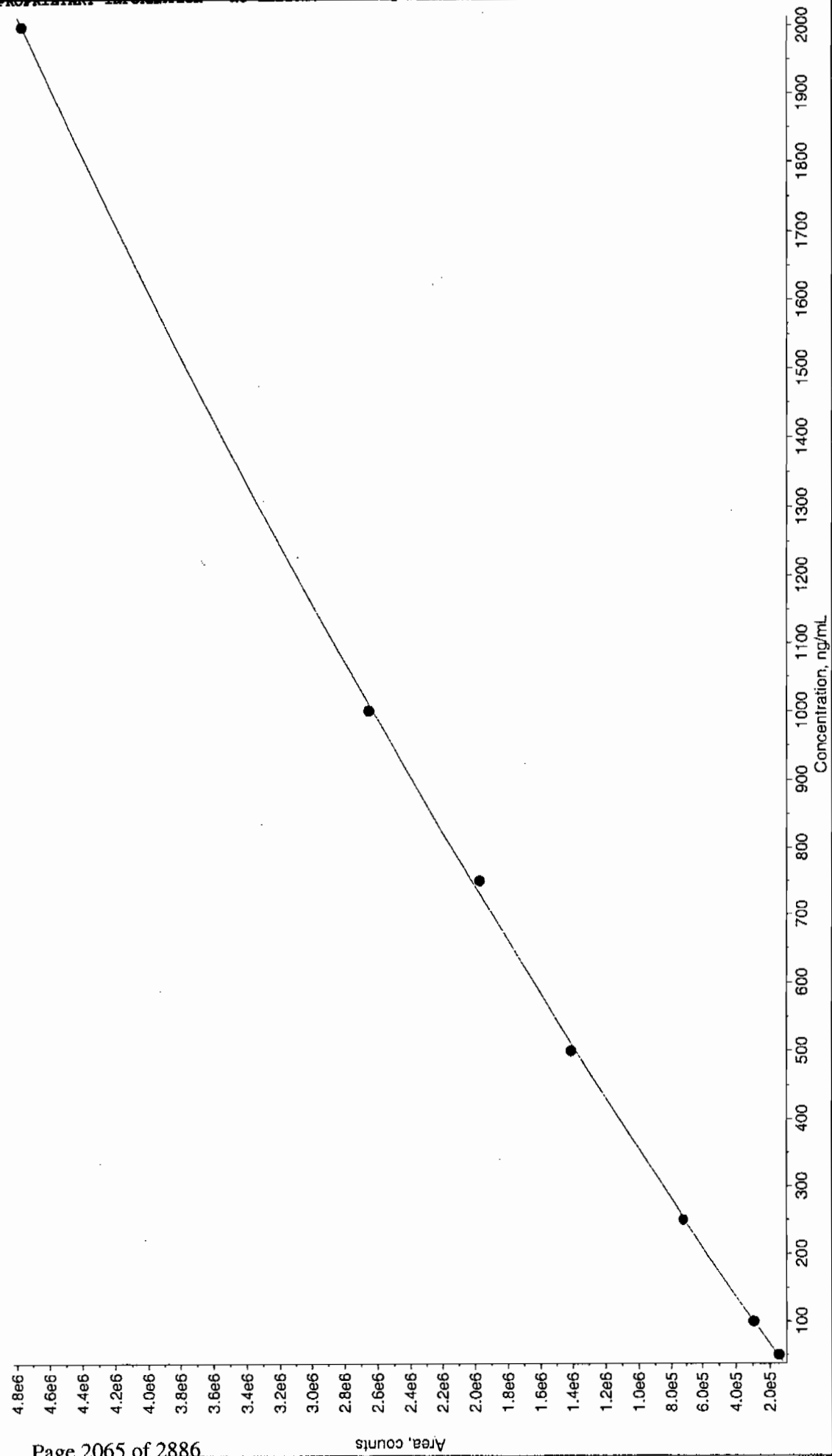


040910.rdb (34-Dinitrotoluene): "Quadratic" Regression ("No" weighting):  $y = -1.85 x^2 + 9.64e+003 x + -5.29e+004$  ( $r = 0.9984$ )

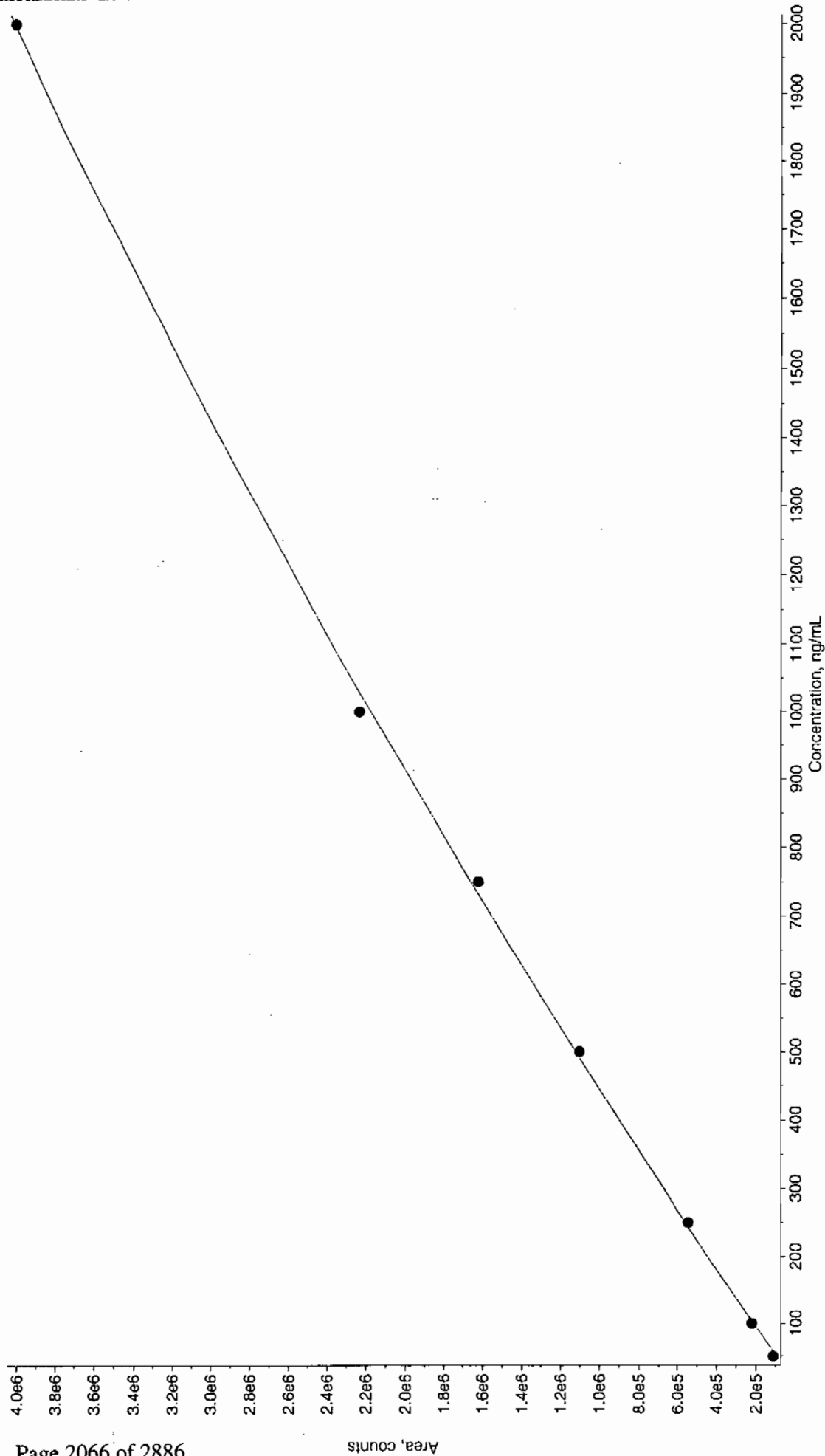




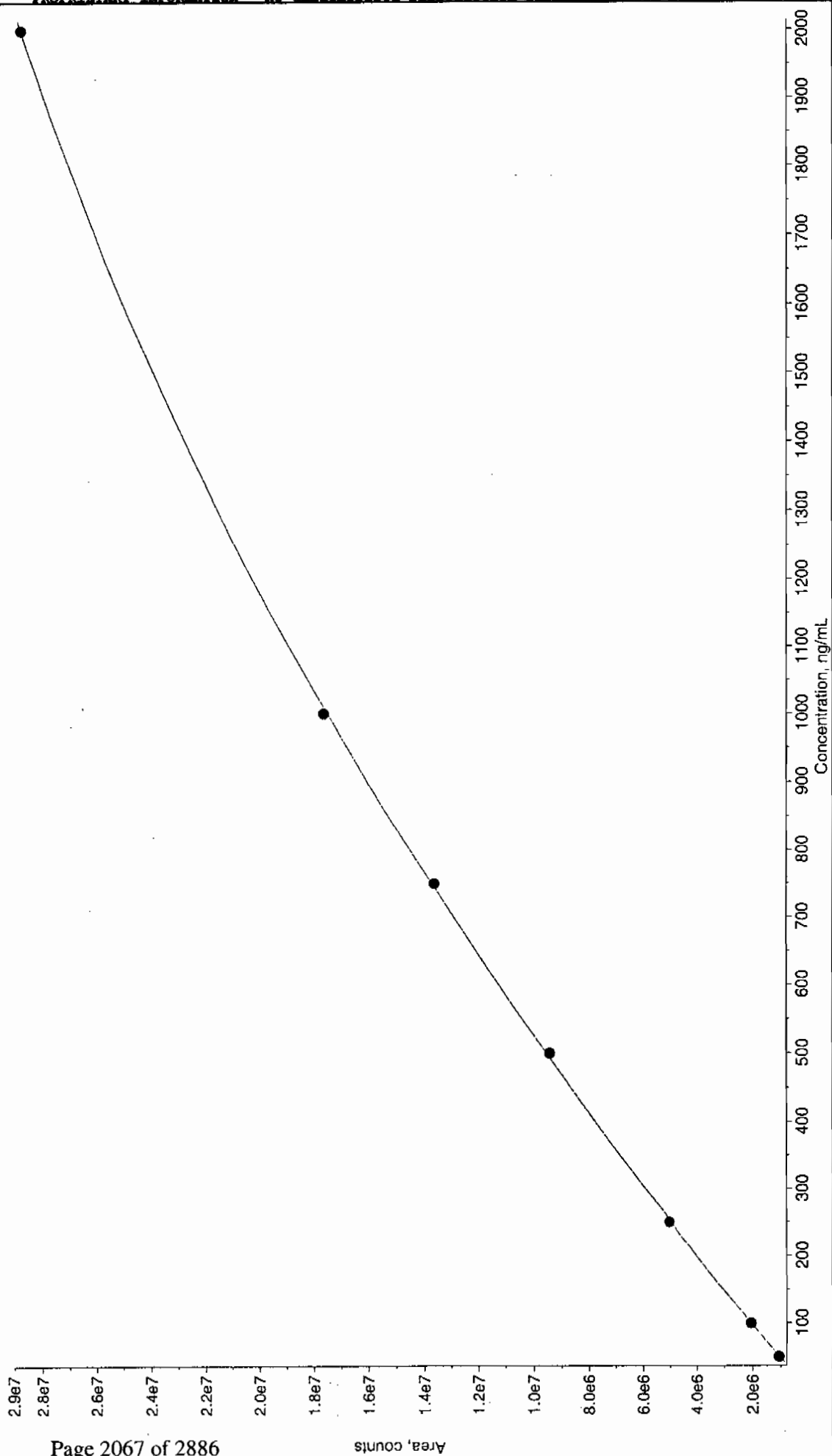
040910.rdb (26-Diamino-4-nitrotoluene): "No" weighting):  $y = -0.237 x^2 + 2.86e+003 x + 1.16e+004$  ( $r = 0.9999$ )



040910.rdb (24-Diamino-6-nitrotoluene): "Quadratic" Regression ("No" weighting):  $y = -0.179 x^2 + 2.38e+003 x + -2.45e+004$  ( $r = 0.9997$ )



040910.rdb (tris(o-cresyl) phosphate): "Quadratic" Regression ("No" weighting):  $y = -3.12 x^2 + 2.06e+004 x + 2.19e+004$  ( $r = 1.0000$ )



# Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS04090011.wiff

Analysis Date: 09-APR-10 09:51

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	462	92	
2,6-Diamino-4-nitrotoluene	500	477	95	
3,4-Dinitrotoluene	250	230	92	
3,5-Dinitroaniline	500	456	91	
TATB	500	482	97	
tris(o-cresyl) phosphate	500	504	101	

## Recovery Limits:

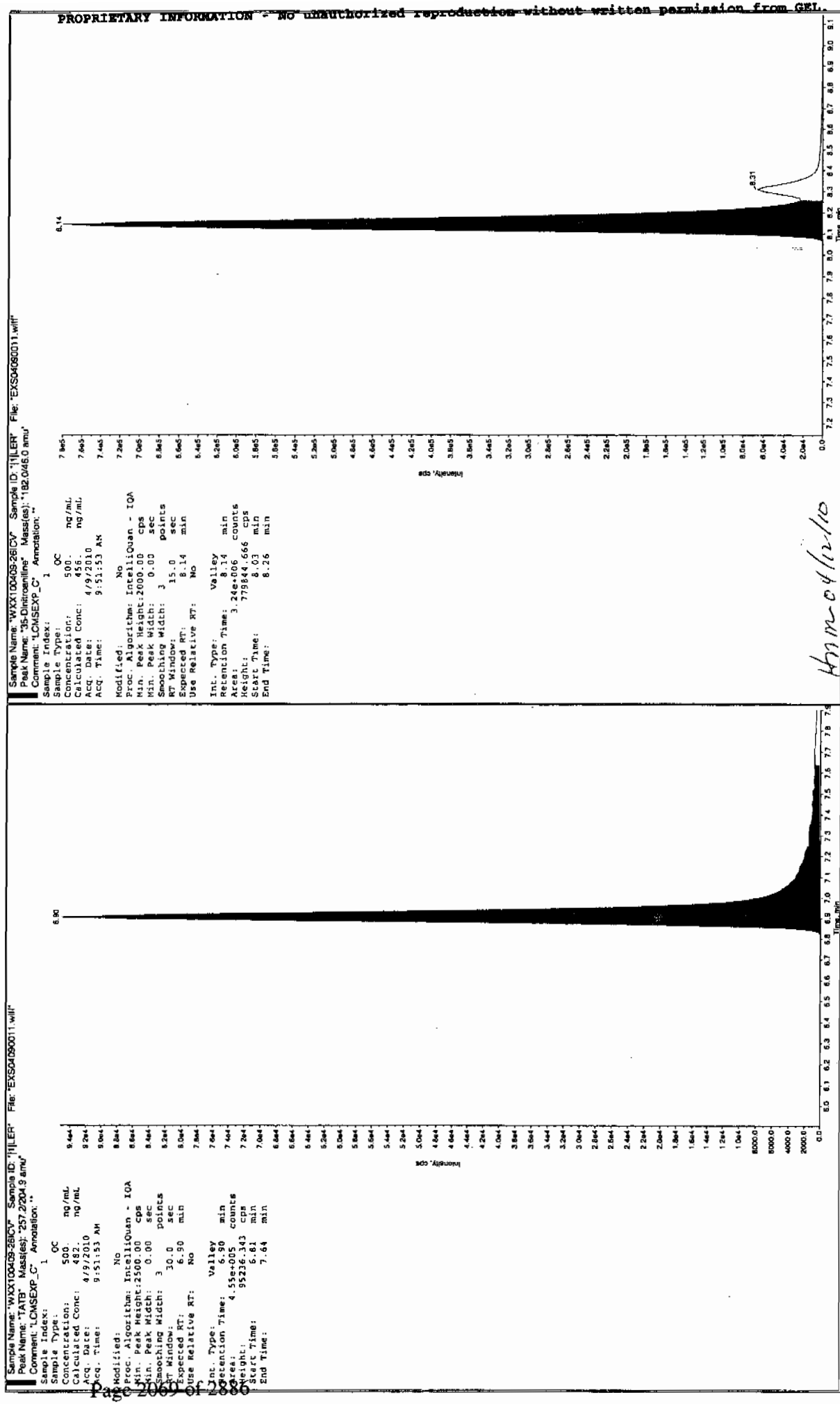
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

for 4/12/10



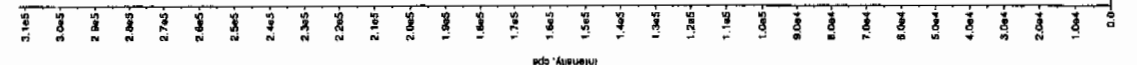
Hy m-04/12/10

Sample Name: "WXX100409-261C" Sample ID: "HILER" File: "EX504090011.wif"  
 Peak Name: "26-Diamino-4-nitrofluorene" Mass(es): "166.0/46.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 477. ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 9:51:53 AM

Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 4.95 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 4.95 min  
 Area: 1.32e+006 counts  
 Height: 311597.504 cps  
 Start Time: 4.85 min  
 End Time: 5.23 min

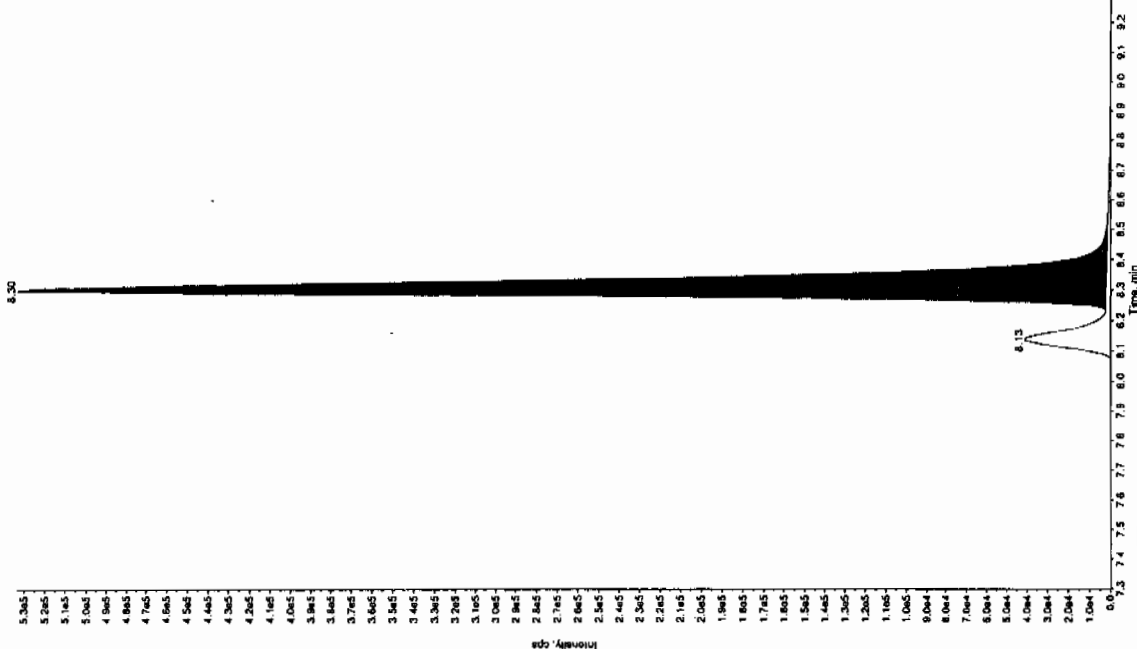


Sample Name: "WXX100409-261C" Sample ID: "HILER" File: "EX504090011.wif"  
 Peak Name: "34-Diamino-4-nitrofluorene" Mass(es): "162.1/151.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: QC  
 Concentration: 250. ng/mL  
 Calculated Conc: 230. ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 9:51:53 AM

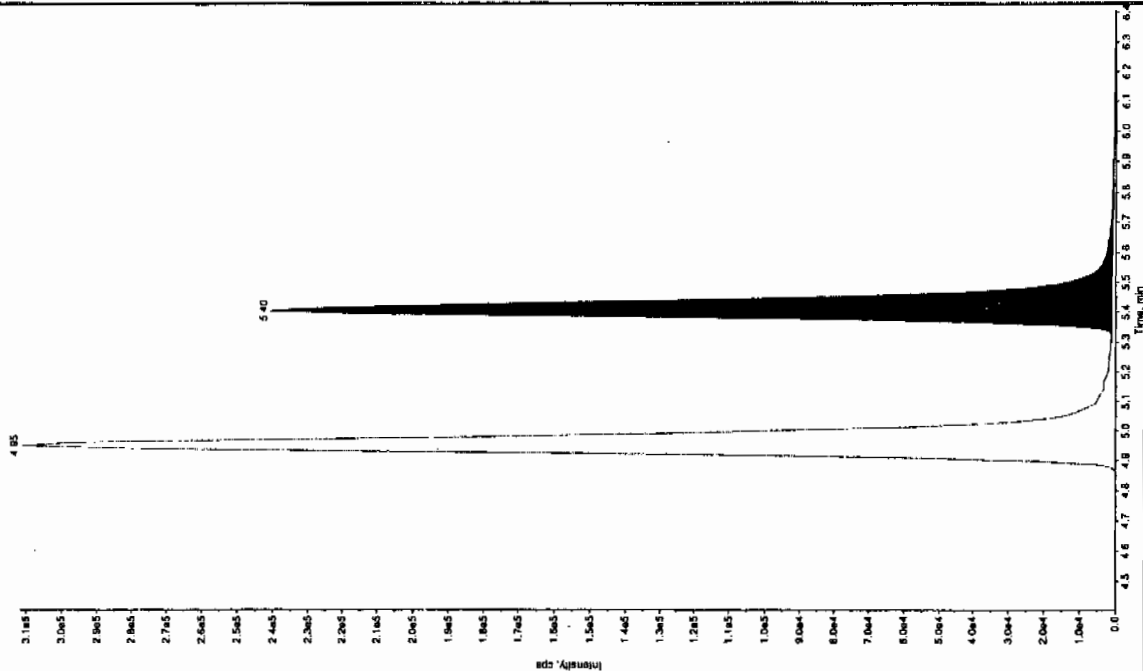
Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 150.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 8.30 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 8.30 min  
 Area: 2.07e+006 counts  
 Height: 531213.501 cps  
 Start Time: 8.23 min  
 End Time: 8.67 min



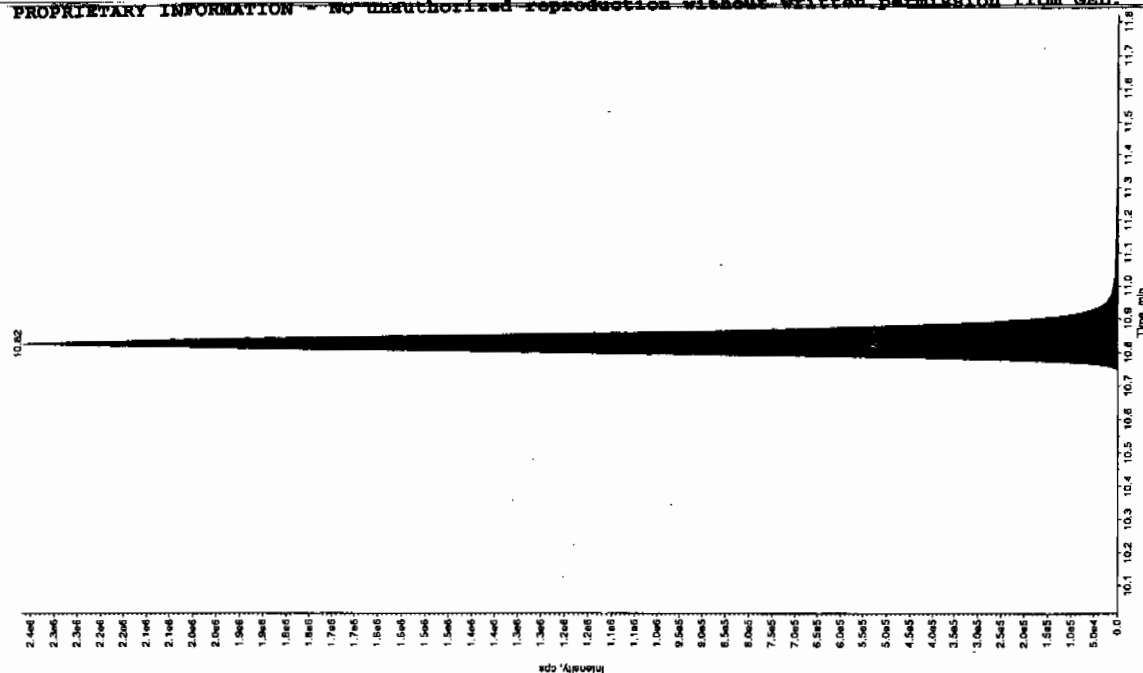
Sample Name: "WXX100409-26CV" Sample ID: "11LER" File: "EXS04090011.wiff"  
Peak Name: "24-Diamino-6-nitrocoumarin" Mass(es): "166.046.0 amu"  
Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: OC  
Concentration: 500. ng/mL  
Calculated Conc: 462. ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 9:51:53 AM  
Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 350.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 5.40 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 5.40 min  
Area: 1.04e+006 counts  
Height: 21989.145 cps  
Start Time: 5.32 min  
End Time: 5.63 min



Sample Name: "WXX100409-26CV" Sample ID: "11LER" File: "EXS04090011.wiff"  
Peak Name: "tris(2-chloroethyl) phosphite" Mass(es): "389.191.0 amu"  
Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
Sample Type: OC  
Concentration: 500. ng/mL  
Calculated Conc: 504. ng/mL  
Acq. Date: 4/9/2010  
Acq. Time: 9:51:53 AM  
Modified: No  
Proc. Algorithm: IntelliQuan - IOA  
Min. Peak Height: 8000.00 cps  
Min. Peak Width: 0.00 sec  
Smoothing Width: 3 points  
RT Window: 30.0 sec  
Expected RT: 10.8 min  
Use Relative RT: No  
Int. Type: Valley  
Retention Time: 10.8 min  
Area: 9.61e+006 counts  
Height: 2366707.275 cps  
Start Time: 10.7 min  
End Time: 11.2 min



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0415012.wiff

Analysis Date: 15-APR-10 14:53

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	36.2	91	
2,4,6-Trinitrotoluene	40	38	95	
2,4-Dinitrotoluene	40	31.4	79	
2,6-Dinitrotoluene	40	33.2	83	
2-Amino-4,6-dinitrotoluene	40	33.9	85	
3,4-Dinitrotoluene	20	16.9	85	
4-Amino-2,6-dinitrotoluene	40	35.7	89	
HMX	40	38	95	
Nitrobenzene	40	43.3	108	
PETN	40	36.7	92	
RDX	40	37	93	
Tetryl	40	38.5	96	
m-Dinitrobenzene	40	38.9	97	
m-Nitrotoluene	40	38.1	95	
o-Nitrotoluene	40	41.4	104	
p-Nitrotoluene	40	40.9	102	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

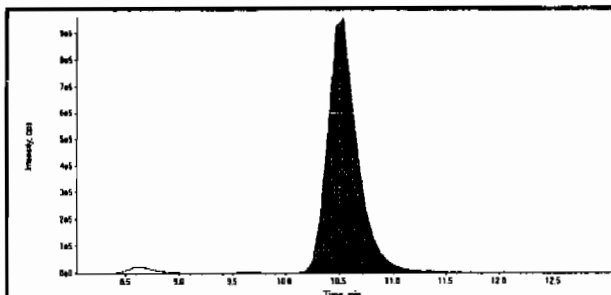
\* Value outside of Recovery Limits



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

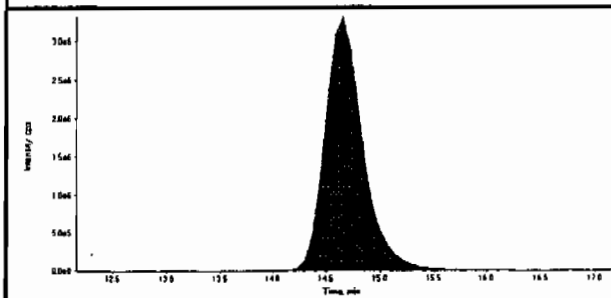
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415012.wiff	Acquisition Date	4/15/2010 2:53:00 PM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



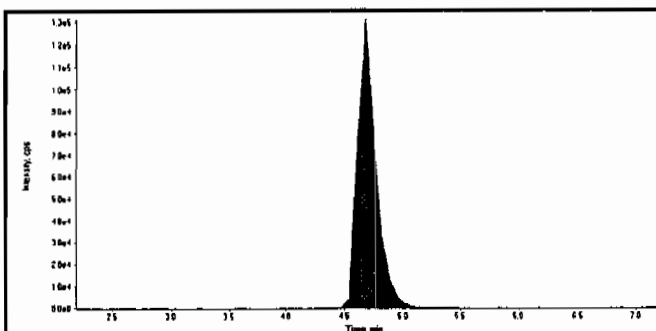
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	18300000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

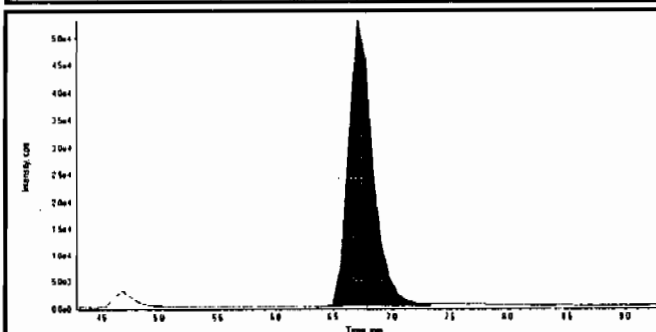


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.60
Area Counts:	81400000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.47e+006
Manual Modification	No
Amount:	38.0 (ng/mL)
% Accuracy:	94.90



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.70
Area Counts:	7.82e+005
Manual Modification	No
Amount:	37.0 (ng/mL)
% Accuracy:	92.60

Handwritten signatures and dates: HMC 4/23/10, LAR 4/23/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415012.wiff	<b>Acquisition Date</b>	4/15/2010 2:53:00 PM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	9.00
	<b>Area Counts:</b>	1.06e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	36.2 (ng/mL)
	<b>% Accuracy:</b>	90.60

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.6
	<b>Area Counts:</b>	4.02e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	38.9 (ng/mL)
	<b>% Accuracy:</b>	97.30

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	3.18e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	38.5 (ng/mL)
	<b>% Accuracy:</b>	96.30

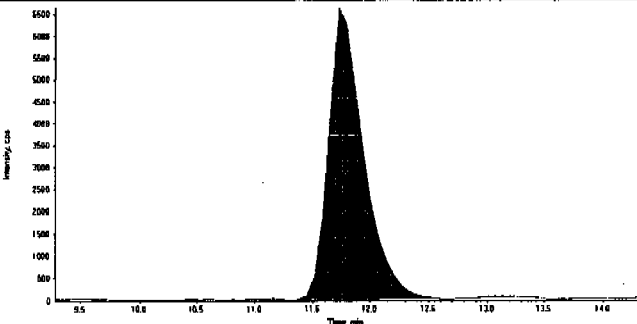
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.1
	<b>Area Counts:</b>	2.12e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	38.0 (ng/mL)
	<b>% Accuracy:</b>	95.00

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

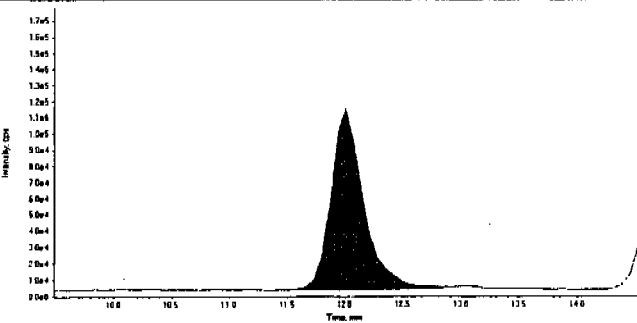
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415012.wiff	<b>Acquisition Date</b>	4/15/2010 2:53:00 PM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

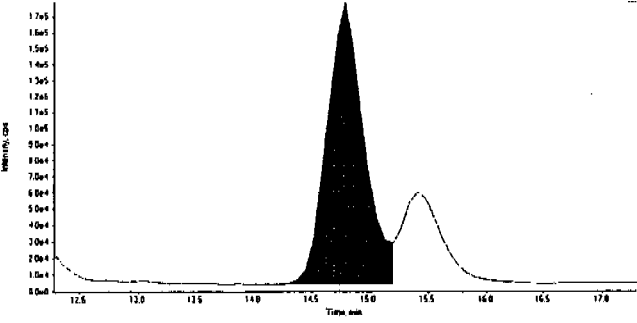
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	11.7
	<b>Area Counts:</b>	1.43e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	43.3 (ng/mL)
	<b>% Accuracy:</b>	108.00

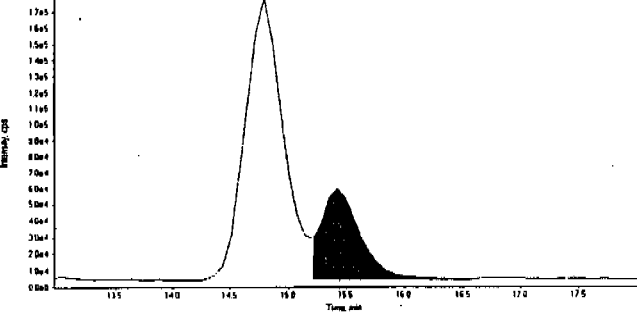
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.0
	<b>Area Counts:</b>	2.28e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	16.9 (ng/mL)
	<b>% Accuracy:</b>	84.60

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.8
	<b>Area Counts:</b>	4.01e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	33.2 (ng/mL)
	<b>% Accuracy:</b>	82.90

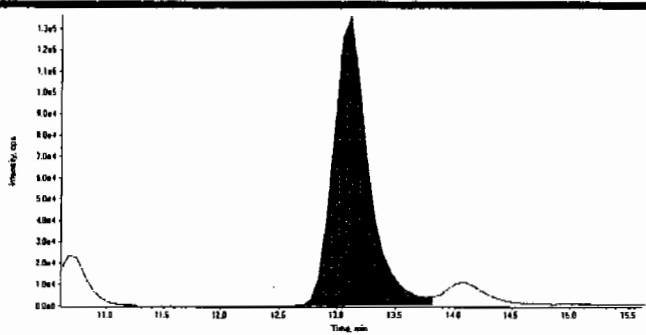
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	15.4
	<b>Area Counts:</b>	1.39e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	31.4 (ng/mL)
	<b>% Accuracy:</b>	78.50

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

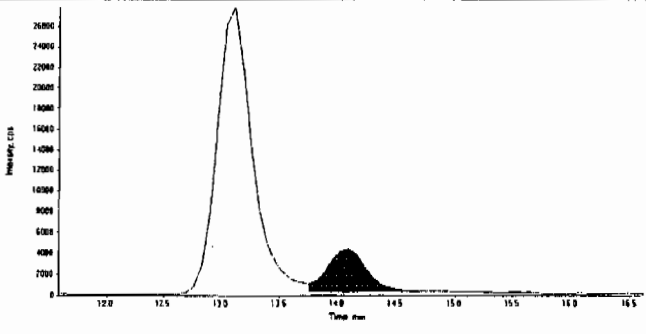
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415012.wiff	<b>Acquisition Date</b>	4/15/2010 2:53:00 PM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

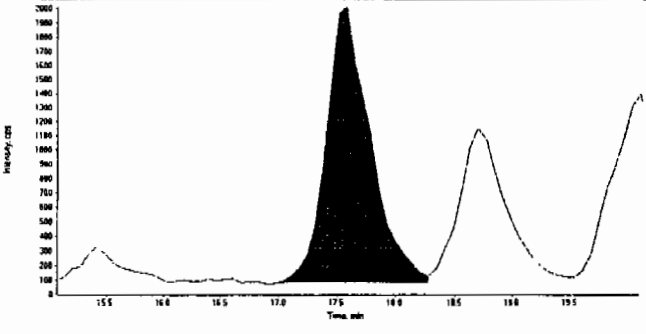
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.1
	Area Counts:	2.89e+006
	Manual Modification	No
	Amount:	35.7 (ng/mL)
	% Accuracy:	89.30

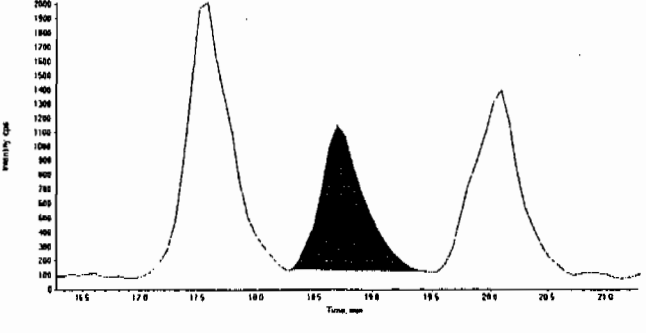
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	14.1
	Area Counts:	1.03e+005
	Manual Modification	No
	Amount:	33.9 (ng/mL)
	% Accuracy:	84.60

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	17.6
	Area Counts:	5.17e+004
	Manual Modification	No
	Amount:	41.4 (ng/mL)
	% Accuracy:	104.00

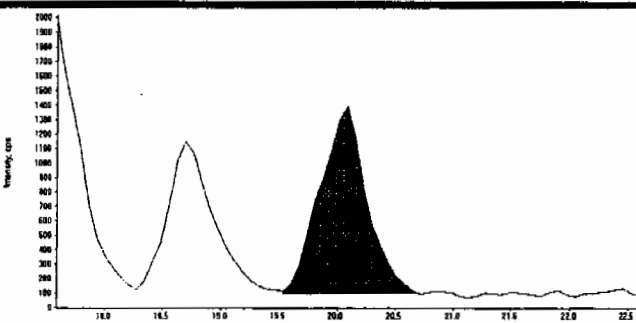
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.7
	Area Counts:	2.66e+004
	Manual Modification	No
	Amount:	40.9 (ng/mL)
	% Accuracy:	102.00

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

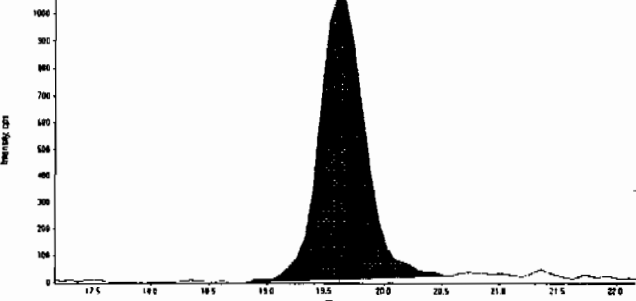
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415012.wiff	Acquisition Date	4/15/2010 2:53:00 PM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	20.1
	Area Counts:	3.67e+004
	Manual Modification	No
	Amount:	38.1 (ng/mL)
	% Accuracy:	95.40

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	19.6
	Area Counts:	2.91e+004
	Manual Modification	No
	Amount:	36.7 (ng/mL)
	% Accuracy:	91.80

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/15/10  
 Time of Injection 1453  
 Standard Number WXX100415-57CRI  
 Data File EXP0415012a

HMX	94.9
RDX	92.6
135-Trinitrobenzene	90.6
13-Dinitrobenzene	97.3
Tetryl	96.3
246-Trinitrotoluene	95.0
Nitrobenzene	108.0
34-dinitrotoluene	84.6
26-dinitrotoluene	82.9
24-dinitrotoluene	78.5
4-Amino-26-dinitrotoluene	89.3
2-Amino-46-dinitrotoluene	84.6
2-Nitrotoluene	104.0
4-Nitrotoluene	102.0
3-Nitrotoluene	95.4
PETN	91.8

TOTAL

1487.8

AVERAGE

93.0

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*OK*  
4/23/10

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0415023.wiff

Analysis Date: 15-APR-10 19:38

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	525	87	
2,4,6-Trinitrotoluene	600	545	91	
2,4-Dinitrotoluene	600	570	95	
2,6-Dinitrotoluene	600	570	95	
2-Amino-4,6-dinitrotoluene	600	593	99	
3,4-Dinitrotoluene	300	291	97	
4-Amino-2,6-dinitrotoluene	600	640	107	
HMX	600	520	87	
Nitrobenzene	600	601	100	
PETN	600	663	111	
RDX	600	629	105	
Tetryl	600	529	88	
m-Dinitrobenzene	600	543	91	
m-Nitrotoluene	600	613	102	
o-Nitrotoluene	600	592	99	
p-Nitrotoluene	600	629	105	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

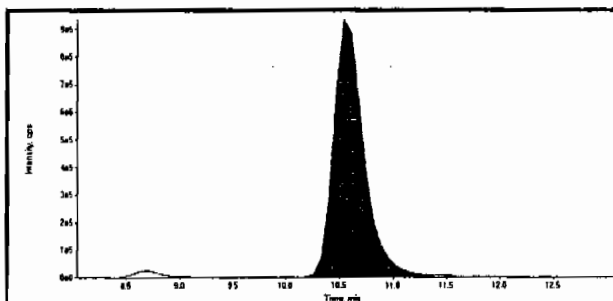
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

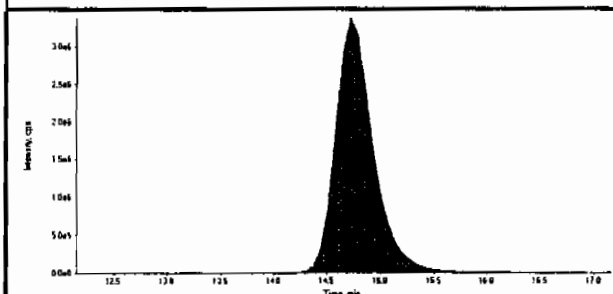
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415023.wiff	Acquisition Date	4/15/2010 7:38:20 PM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



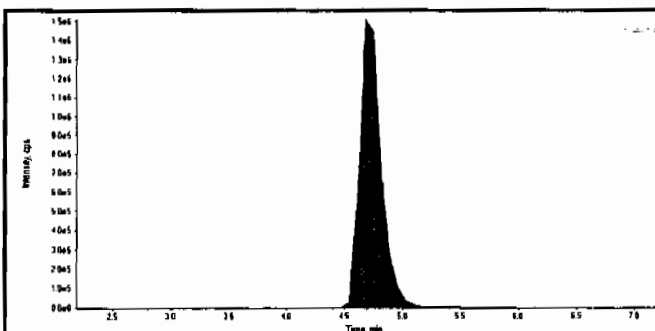
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	18500000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

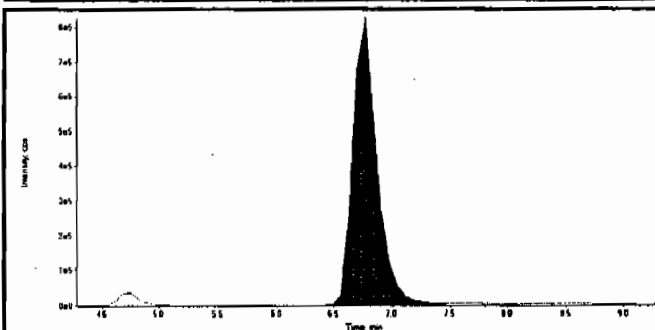


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	82900000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.97e+007
Manual Modification	No
Amount:	520. (ng/mL)
% Accuracy:	86.70



Compound Name:	RDY (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.21e+007
Manual Modification	No
Amount:	629. (ng/mL)
% Accuracy:	105.00

*4/15/10*

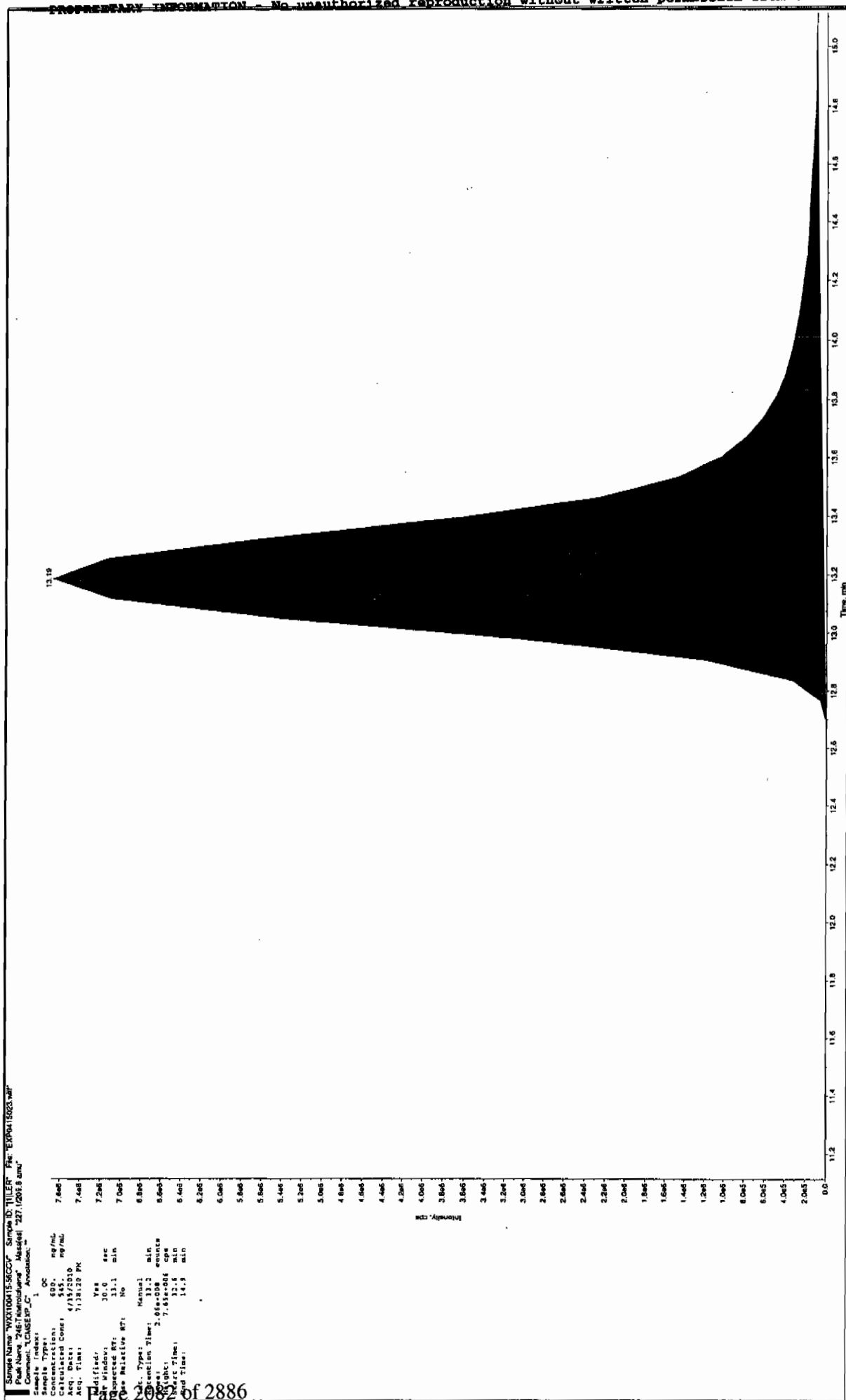
*4/15/10*



Before Dec 4/23/10



after Dec 4/23/10



\*GEL SOP GL-0A-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415023.wiff	<b>Acquisition Date</b>	4/15/2010 7:38:20 PM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	9.00
	<b>Area Counts:</b>	1.20e+008
	<b>Manual Modification</b>	No
	<b>Amount:</b>	525. (ng/mL)
	<b>% Accuracy:</b>	87.40

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	5.50e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	543. (ng/mL)
	<b>% Accuracy:</b>	90.60

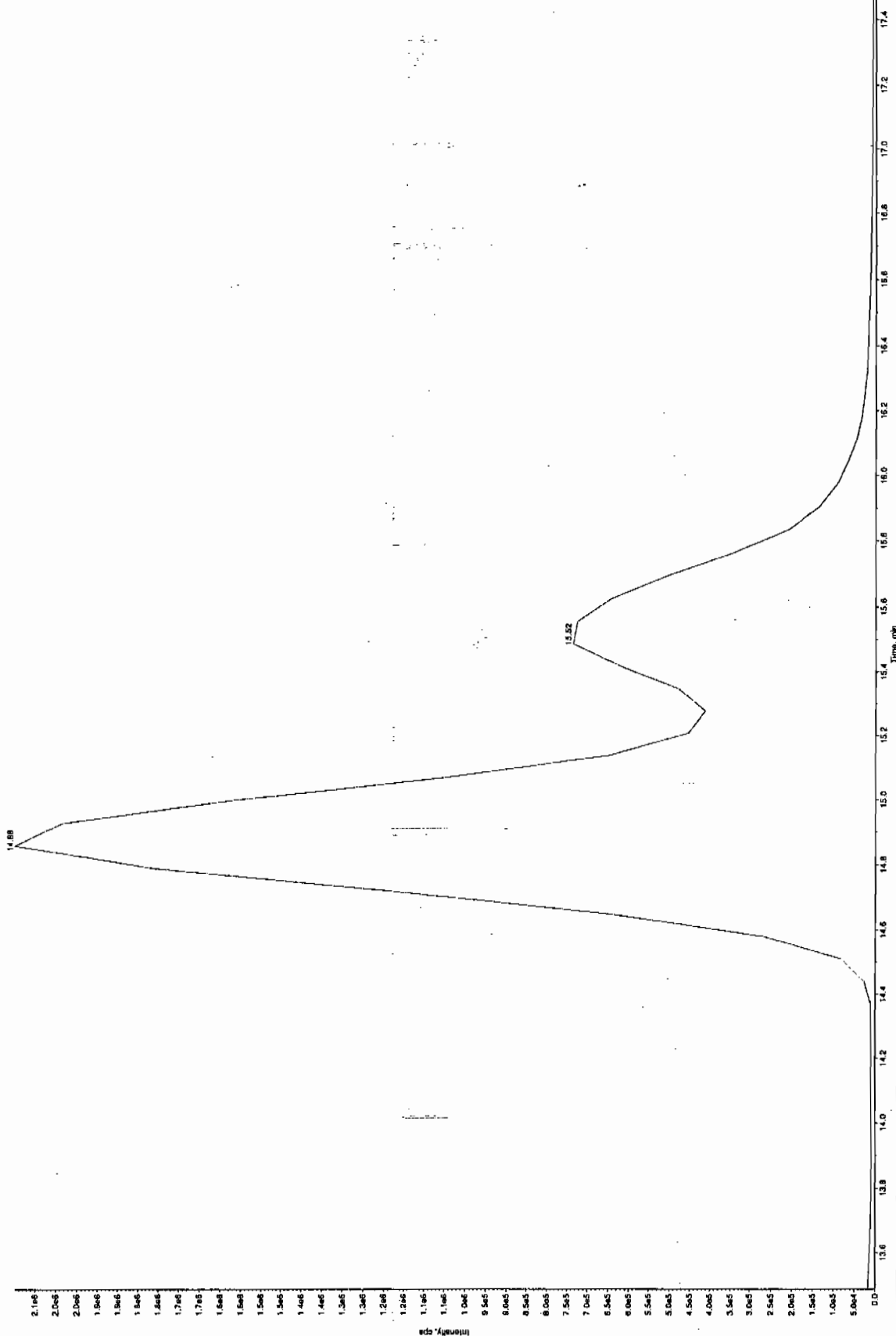
  

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	4.56e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	529. (ng/mL)
	<b>% Accuracy:</b>	88.20

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	2.06e+008
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	545. (ng/mL)
	<b>% Accuracy:</b>	90.80

Sample Name: "WJ-D00145-560CV" Sample ID: "T1L5R" File: "E00415023.wit"  
Peak Name: "2X1-D00145-560CV" MassDet: "1182.0446 D amu"  
Comment: "LCMSEXP\_C" Association: "  
Sample Index: 1  
Sample Type: QC  
Calculated Conc: 600 ng/mL  
Calculated Conc: 0.00 ng/mL  
Acq. Date: 4/15/2013  
Acq. Time: 7:18:20 PM



\*GEL SOP GL-0A-E-056, Method 8321A-Modified LCMSMS#3

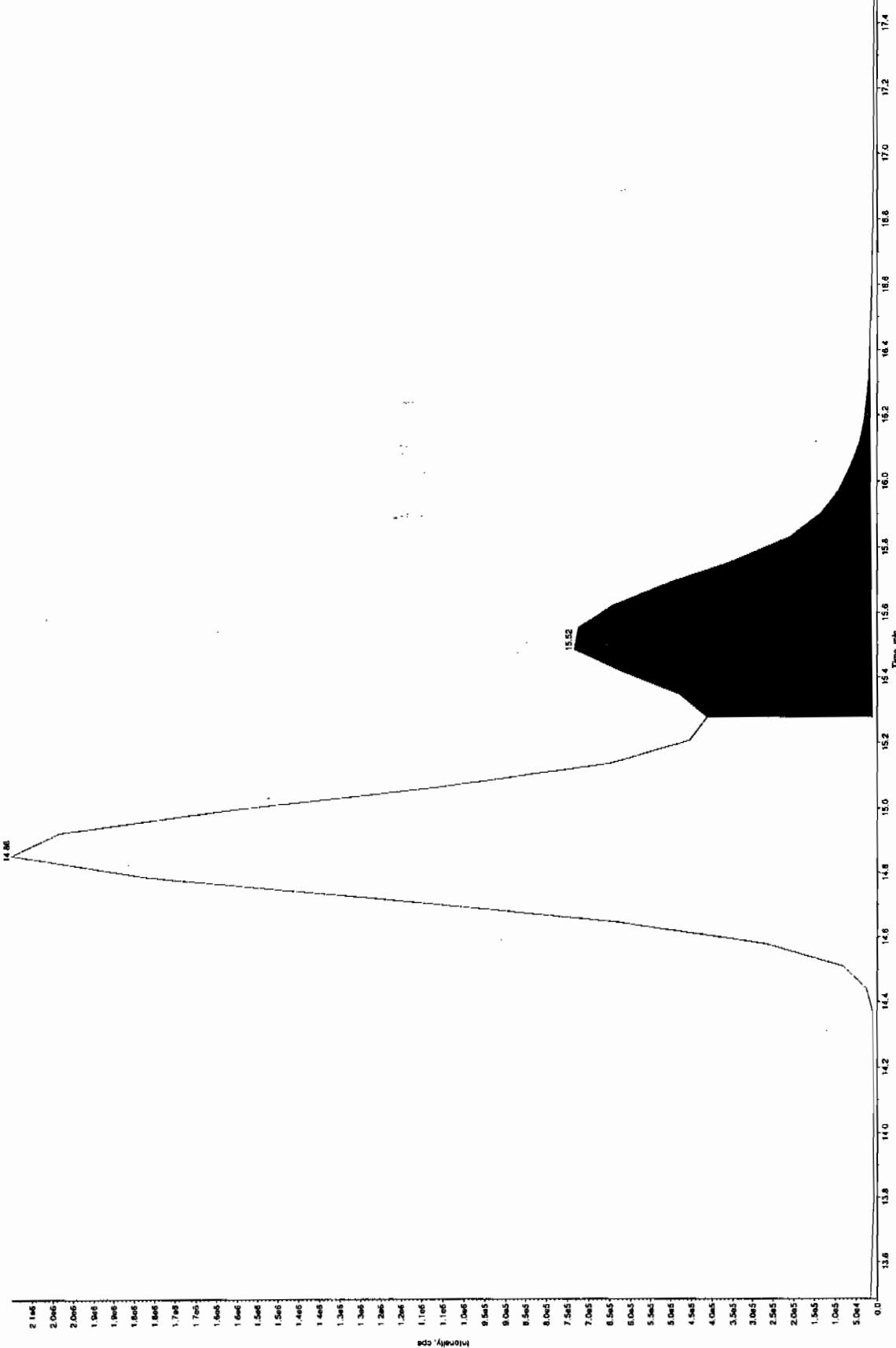
after Jan 4/23/10

Sample Name: WXYZ0015-560V Sample ID: 118187 File: E:\0015023.wif

Peak Name: "N-dichloroamine" Nameless: 142.046 0.000

Comment: "LONASEP\_C" Annotation: "

Sample Index: 1  
 Concentration: 600. ng/mL  
 Calculated Conc: 970. ng/mL  
 Acq. Date: 4/15/2010  
 Acq. Time: 7:13:52 PM  
 Diluted: Yes  
 Window: 30.0 sec  
 Expected RT: 15.5 min  
 New Relative RT: No  
 RT Type: Manual  
 Retention Time: 15.5 min  
 Offset: 1.81 sec  
 Offset: 7.32 sec  
 Offset: 15.3 min  
 Offset: 16.4 min



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415023.wiff	<b>Acquisition Date</b>	4/15/2010 7:38:20 PM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	11.8
	<b>Area Counts:</b>	2.28e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	601. (ng/mL)
	<b>% Accuracy:</b>	100.00

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	3.16e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	291. (ng/mL)
	<b>% Accuracy:</b>	97.10

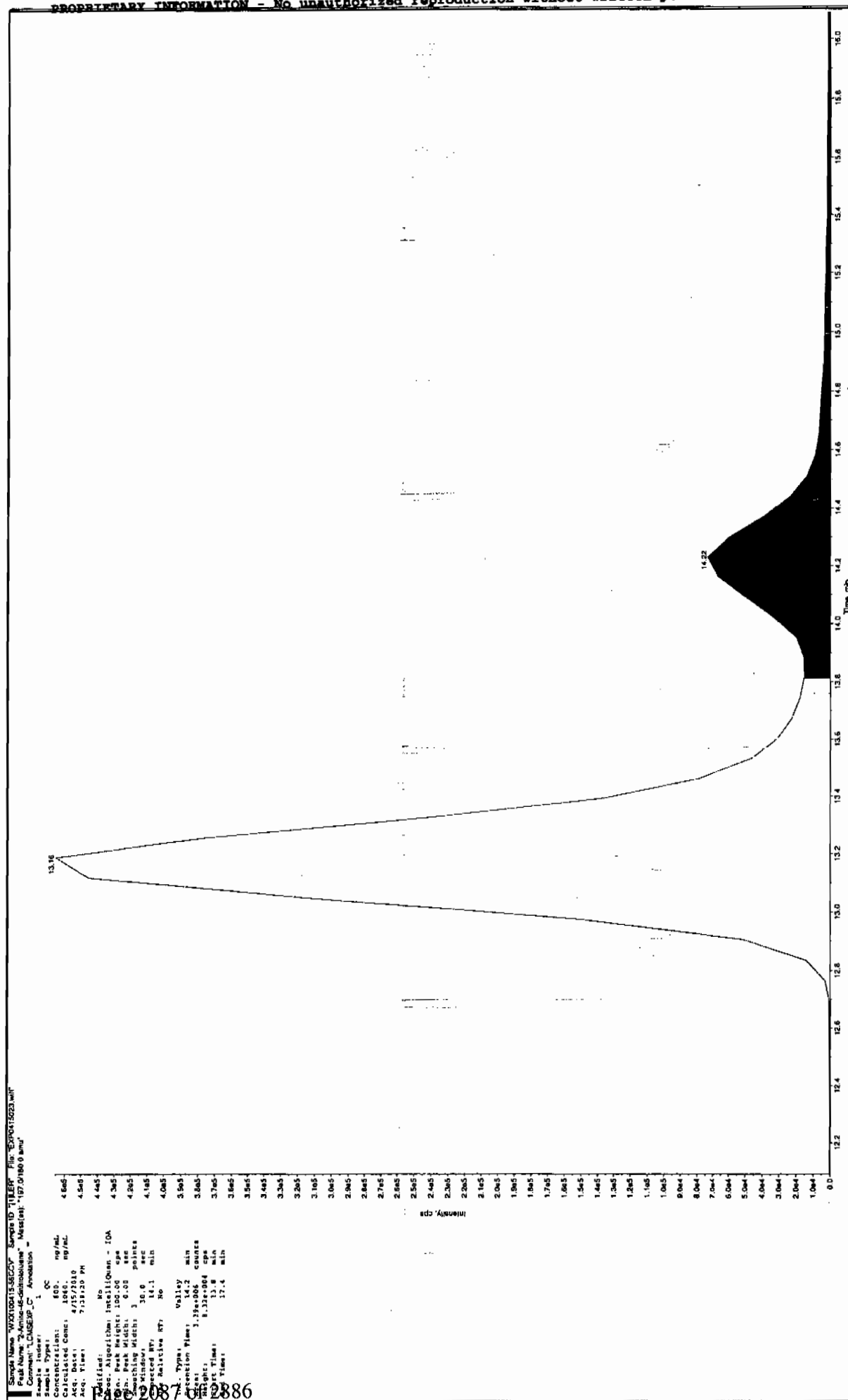
  

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.9
	<b>Area Counts:</b>	5.03e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	570. (ng/mL)
	<b>% Accuracy:</b>	95.00

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	15.5
	<b>Area Counts:</b>	1.93e+007
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	570. (ng/mL)
	<b>% Accuracy:</b>	95.00

Before Jan 4/23/10



Sample Name: "W0100415-36CCY" Sample ID: "T1L8" File: "EXP0415023.w" Peak Name: "2-Amino-6-Glutamine" Method: "197.0180.0 kmu"

Comment: "LCMS-SP\_C" Annotation: "1" OC

Sample Type: "1" OC

Concentration: 400. ng/mL

Calculated Conc: 1000. ng/mL

Acq. Date: 7/15/2010

Acq. Time: 7:59:20 PM

Validated: No

Method: Algorithm: IntellQuan - ICA

Peak Width: 1.00 sec

Peak Width: 3.00 sec

Peak Width: 10.00 sec

Peak Width: 30.0 sec

Peak Width: 1.00 min

Peak Width: 1.00 min

Peak Width: 1.00 min

Peak Width: 1.00 min

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Peak Width: 1.00 min

Peak Width: 1.00 min

Peak Width: 1.00 min

Peak Width: 1.00 min

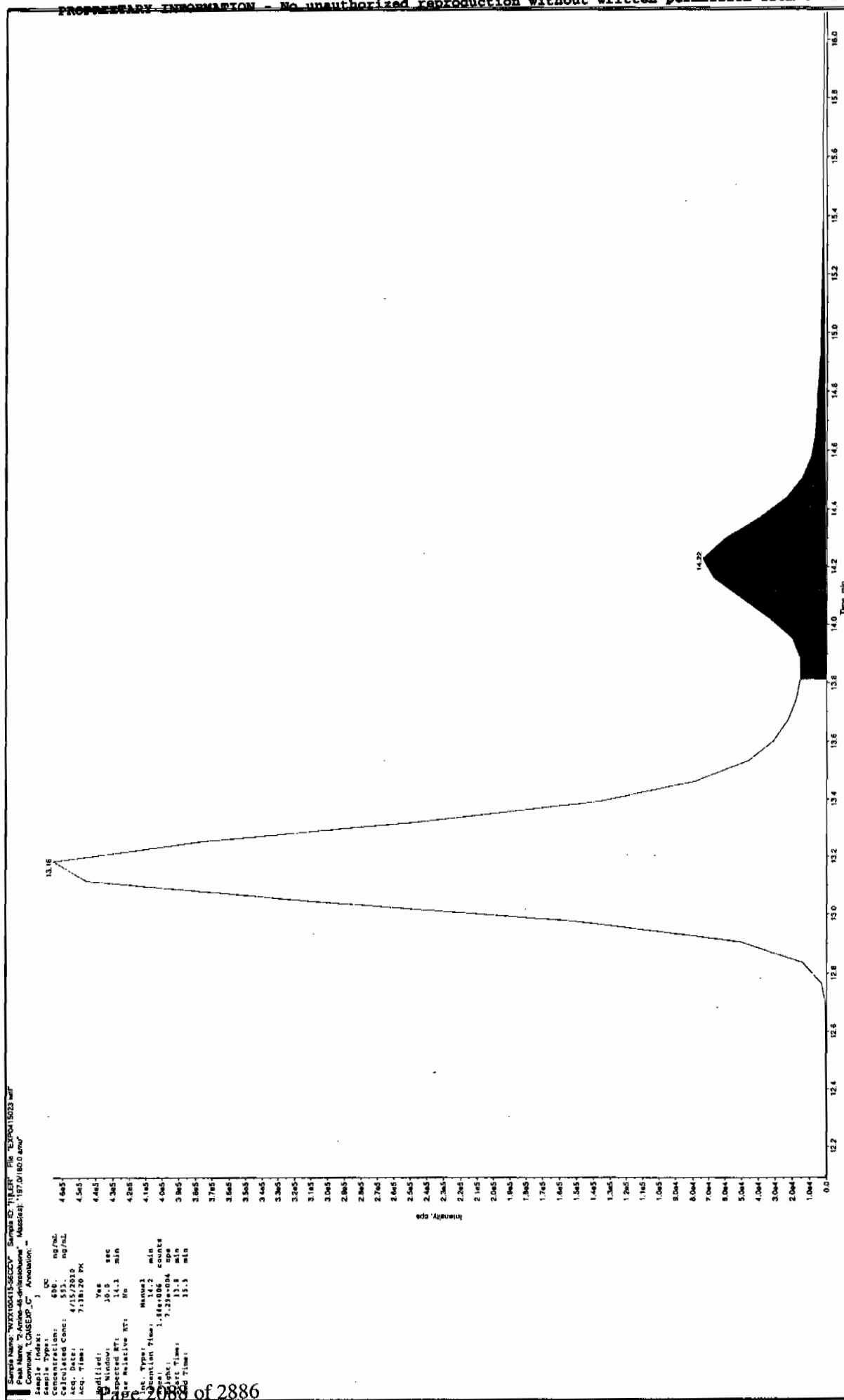
Peak Width: 1.00 min

Peak Width: 1.00 min

Peak Width: 1.00 min

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/23/10



Sample Name: "WXX100415-SEC01" Sample ID: "JLIER" File: "EPR0415023.wif"

Peak Name: "2-Amino-4,6-dinitrophenol" Mass(es): "187.01600 amu"

Command: "LCMSDEP\_C" Annotation: "

Sample Index: 1

Concentration: 530 ng/mL

Calculated Conc: 533 ng/mL

Acq. Date: 4/15/2009

Acq. Time: 7:19:20 PM

Modified: Yes

Window: 10.0 sec

Expected RT: 14.1 min

Observed RT: 13.1 min

Ret. Type: Manual

Retention Time: 13.1 min

Acquisition Time: 1.00 min

Injection Volume: 1.00 µL

Flow Rate: 0.20 mL/min

Start Time: 13.1 min

End Time: 13.1 min

Page 1 of 2886

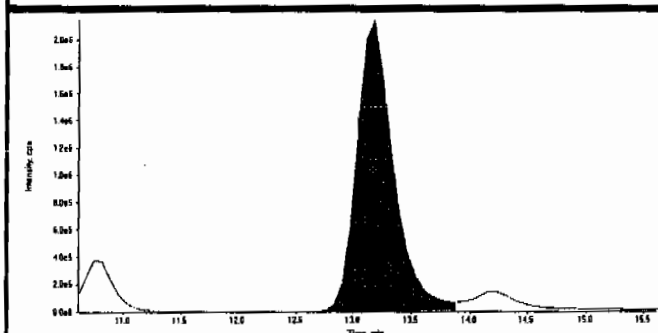
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



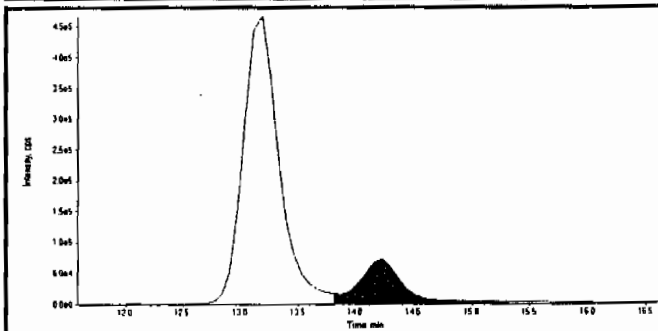
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

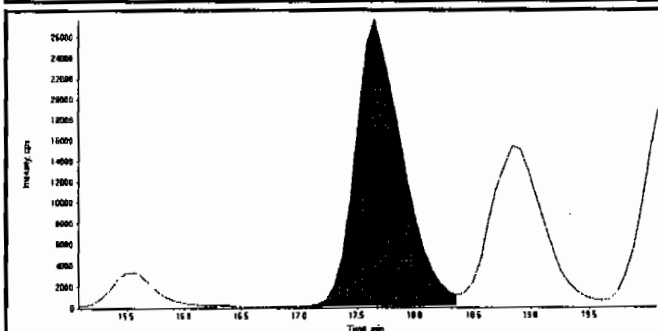
Data File	EXP0415023.wiff	Acquisition Date	4/15/2010 7:38:20 PM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



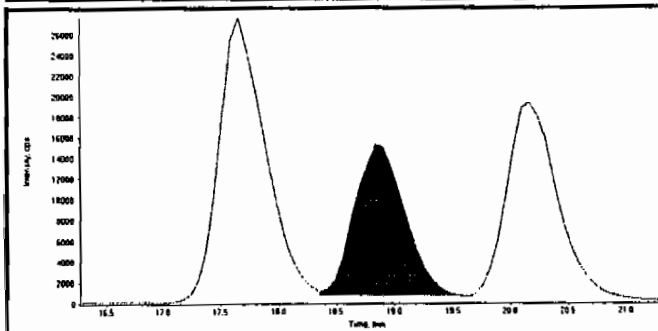
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	4.73e+007
Manual Modification	No
Amount:	640. (ng/mL)
% Accuracy:	107.00



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.1
Actual RT:	14.2
Area Counts:	1.84e+006
Manual Modification	Yes
Amount:	593. (ng/mL)
% Accuracy:	98.80

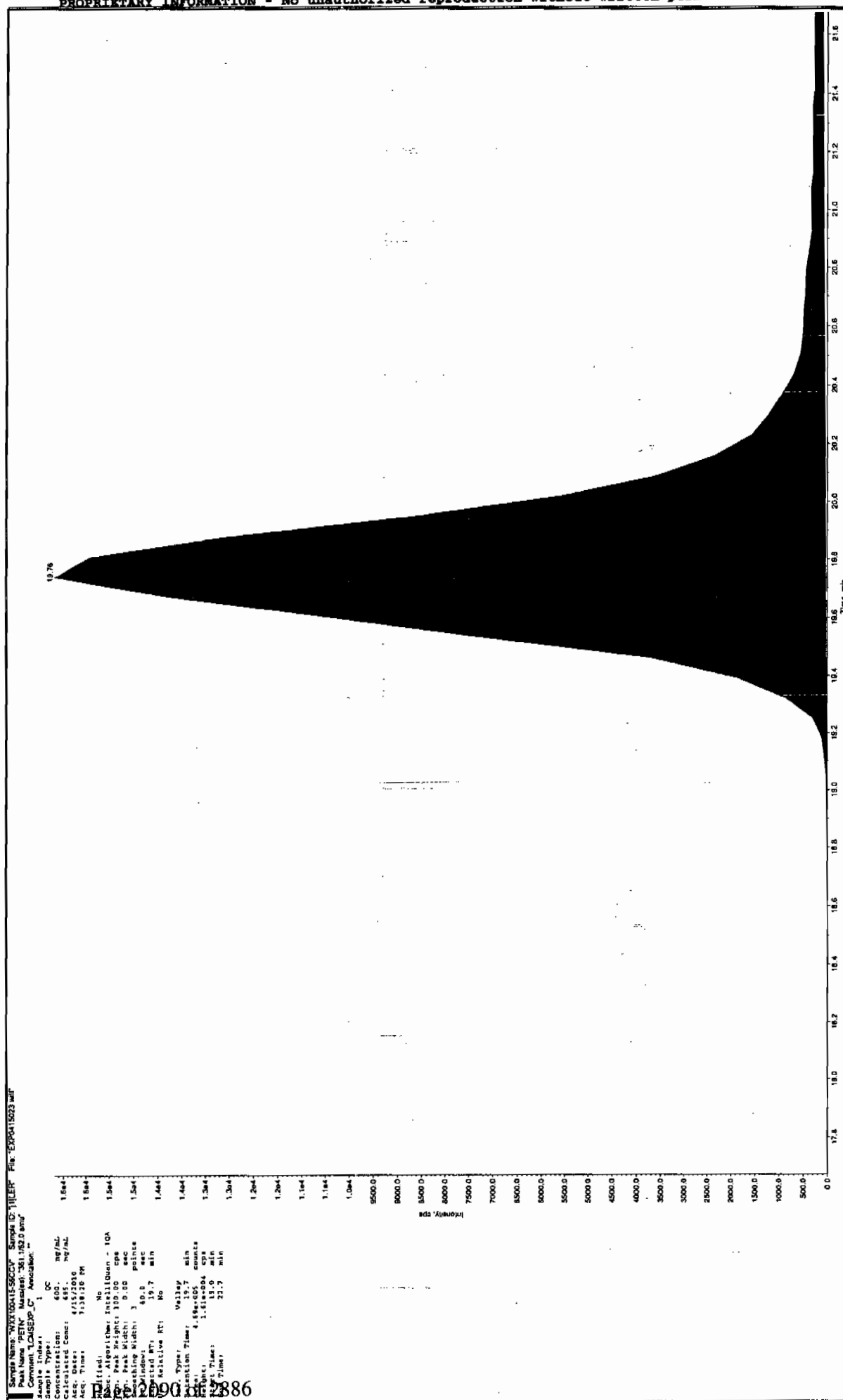


Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.6
Area Counts:	7.76e+005
Manual Modification	No
Amount:	592. (ng/mL)
% Accuracy:	98.70



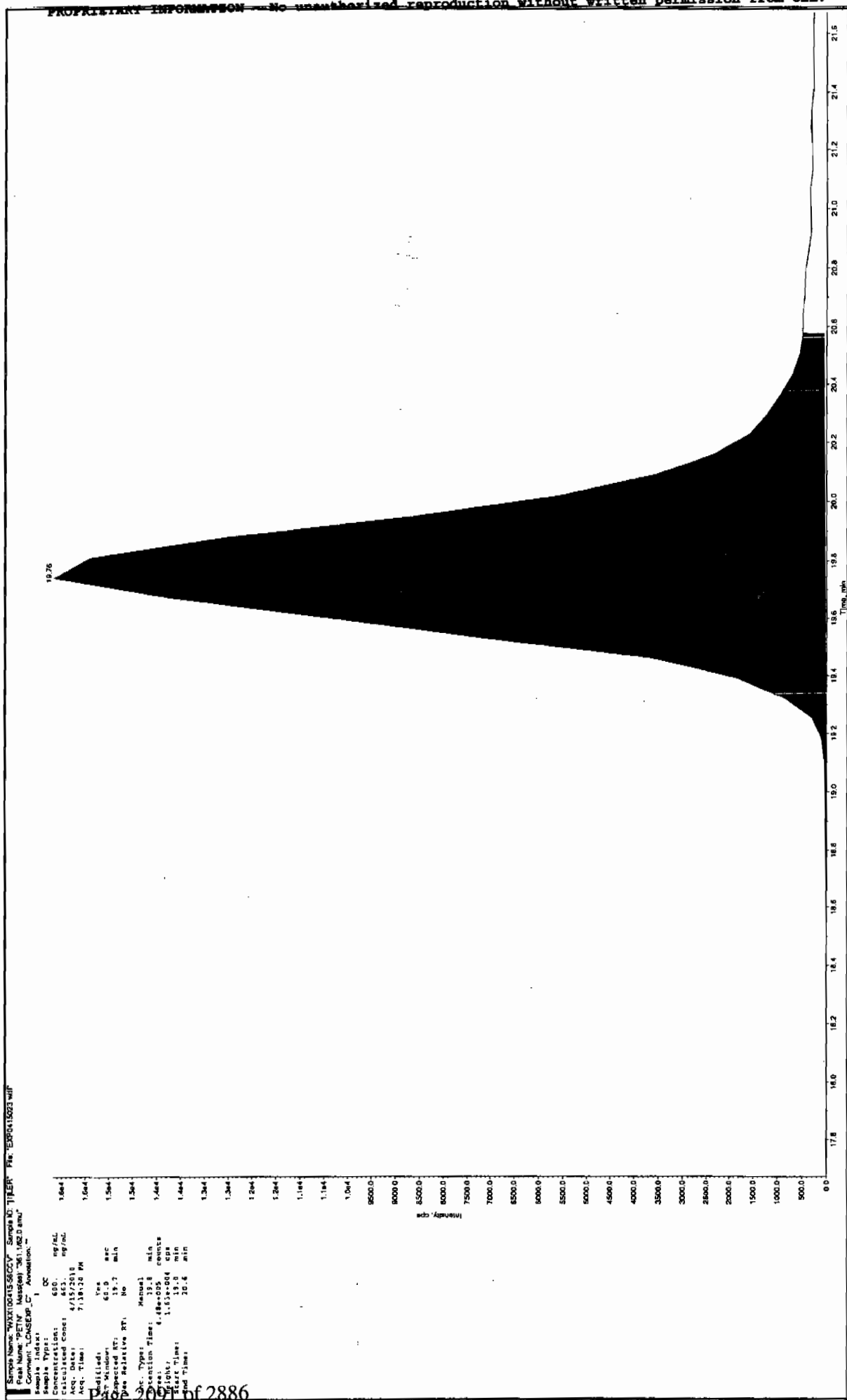
Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.8
Actual RT:	18.8
Area Counts:	4.42e+005
Manual Modification	No
Amount:	629. (ng/mL)
% Accuracy:	105.00

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\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after run 4/23/10



Sample Name: WAX100415-5600V Sample ID: T100415-5600V File: EXP0415023.wif

Peak Name: PETN Mass(es): 361.14620 amu

Compound: C<sub>10</sub>H<sub>8</sub>N<sub>2</sub>O<sub>4</sub> Atomic Weight: 220.19

Sample Type: 1 QC

Concentration: 600.0 ng/mL

Calculated Conc: 600.0 ng/mL

Acq. Time: 4/15/2010 7:13:12 PM

Acq. Time: 7:13:12 PM

Validated: Yes

QC Type: Manual

Retention Time: 19.7 min

Acquisition Time: 19.8 min

Integration: 4.48e+005 counts

Height: 1.63e+004 cps

Start Time: 19.8 min

End Time: 20.6 min

QC Relative RT: No

QC Type: Manual

Retention Time: 19.8 min

Acquisition Time: 19.8 min

Integration: 4.48e+005 counts

Height: 1.63e+004 cps

Start Time: 19.8 min

End Time: 20.6 min

QC Relative RT: No

QC Type: Manual

Retention Time: 19.8 min

Acquisition Time: 19.8 min

Integration: 4.48e+005 counts

Height: 1.63e+004 cps

Start Time: 19.8 min

End Time: 20.6 min

QC Relative RT: No

QC Type: Manual

Retention Time: 19.8 min

Acquisition Time: 19.8 min

Integration: 4.48e+005 counts

Height: 1.63e+004 cps

Start Time: 19.8 min

End Time: 20.6 min

QC Relative RT: No

QC Type: Manual

Retention Time: 19.8 min

Acquisition Time: 19.8 min

Integration: 4.48e+005 counts

Height: 1.63e+004 cps

Start Time: 19.8 min

End Time: 20.6 min

QC Relative RT: No

QC Type: Manual

Retention Time: 19.8 min

Acquisition Time: 19.8 min

Integration: 4.48e+005 counts

Height: 1.63e+004 cps

Start Time: 19.8 min

End Time: 20.6 min

QC Relative RT: No

QC Type: Manual

Retention Time: 19.8 min

Acquisition Time: 19.8 min

Integration: 4.48e+005 counts

Height: 1.63e+004 cps

Start Time: 19.8 min

End Time: 20.6 min

QC Relative RT: No

QC Type: Manual

Retention Time: 19.8 min

Acquisition Time: 19.8 min

Integration: 4.48e+005 counts

Height: 1.63e+004 cps

Start Time: 19.8 min

End Time: 20.6 min

QC Relative RT: No

QC Type: Manual

Retention Time: 19.8 min

Acquisition Time: 19.8 min

Integration: 4.48e+005 counts

Height: 1.63e+004 cps

Start Time: 19.8 min

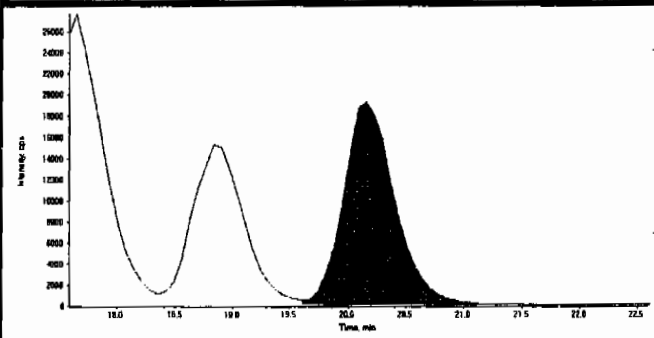
End Time: 20.6 min

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

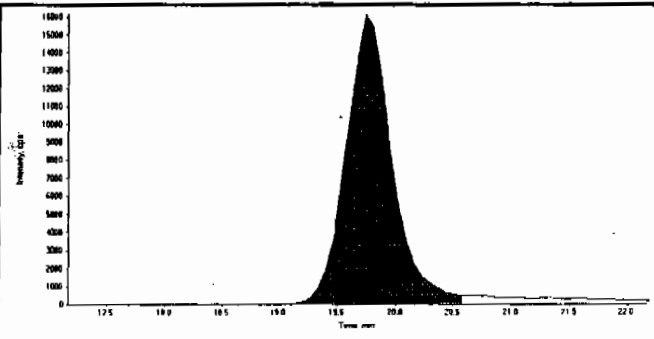
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415023.wiff	<b>Acquisition Date</b>	4/15/2010 7:38:20 PM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	20.2
	Area Counts:	6.05e+005
	Manual Modification	No
	Amount:	613. (ng/mL)
	% Accuracy:	102.00

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	19.8
	Area Counts:	4.48e+005
	Manual Modification	Yes
	Amount:	663. (ng/mL)
	% Accuracy:	111.00

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/15/10  
 Time of Injection 1938  
 Standard Number WXX100415-56CCV  
 Data File EXP0415023a

HMX	86.7
RDX	105.0
135-Trinitrobenzene	87.4
13-Dinitrobenzene	90.6
Tetryl	88.2
246-Trinitrotoluene	90.8
Nitrobenzene	100.0
34-dinitrotoluene	97.1
26-dinitrotoluene	95.0
24-dinitrotoluene	95.0
4-Amino-26-dinitrotoluene	107.0
2-Amino-46-dinitrotoluene	98.8
2-Nitrotoluene	98.7
4-Nitrotoluene	105.0
3-Nitrotoluene	102.0
PETN	111.0

TOTAL

✓ 1558.3

*Hum 04/23/10*

AVERAGE

✓ 97.4

ICV Limits 85-115%

- CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Lar*  
*4/22/10*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0415025.wiff

Analysis Date: 15-APR-10 20:30

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	38.5	96	
2,4,6-Trinitrotoluene	40	37.9	95	
2,4-Dinitrotoluene	40	34.4	86	
2,6-Dinitrotoluene	40	29.9	75	
2-Amino-4,6-dinitrotoluene	40	36.5	91	
3,4-Dinitrotoluene	20	16.9	85	
4-Amino-2,6-dinitrotoluene	40	38.1	95	
HMX	40	41.3	103	
Nitrobenzene	40	44.6	112	
PETN	40	36	90	
RDX	40	41.4	104	
Tetryl	40	38.9	97	
m-Dinitrobenzene	40	41.3	103	
m-Nitrotoluene	40	38.5	96	
o-Nitrotoluene	40	44.9	112	
p-Nitrotoluene	40	45.7	114	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

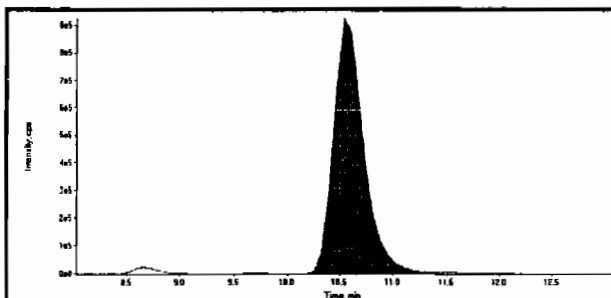
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

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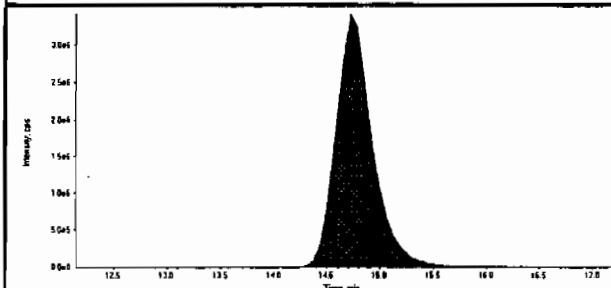
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415025.wiff	Acquisition Date	4/15/2010 8:30:11 PM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



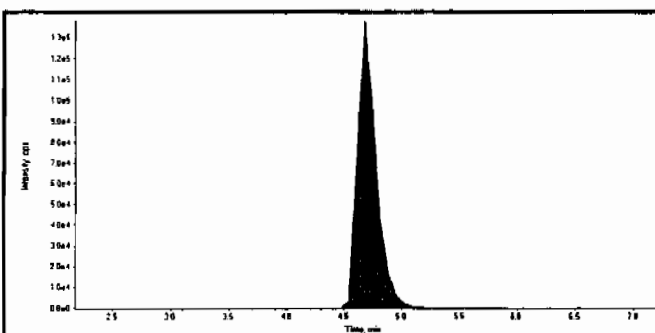
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	18400000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

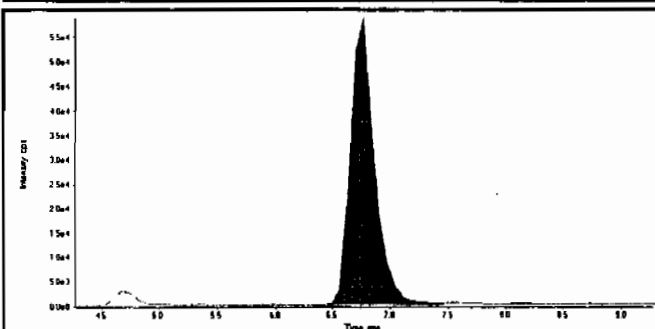


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	82600000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.61e+006
Manual Modification	No
Amount:	41.3 (ng/mL)
% Accuracy:	103.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	8.72e+005
Manual Modification	No
Amount:	41.4 (ng/mL)
% Accuracy:	104.00

HW  
04/27/10

LER  
4/27/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415025.wiff	<b>Acquisition Date</b>	4/15/2010 8:30:11 PM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	9.00
	Area Counts:	1.14e+007
	Manual Modification	No
	Amount:	38.5 (ng/mL)
	% Accuracy:	96.20

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	4.32e+006
	Manual Modification	No
	Amount:	41.3 (ng/mL)
	% Accuracy:	103.00

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	3.25e+006
	Manual Modification	No
	Amount:	38.9 (ng/mL)
	% Accuracy:	97.30

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	2.15e+007
	Manual Modification	No
	Amount:	37.9 (ng/mL)
	% Accuracy:	94.70



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415025.wiff	<b>Acquisition Date</b>	4/15/2010 8:30:11 PM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch/Dilution/Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	11.8
	Area Counts:	1.49e+005
	Manual Modification	No
	Amount:	44.6 (ng/mL)
	% Accuracy:	112.00

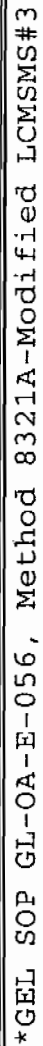
	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	2.31e+006
	Manual Modification	No
	Amount:	16.9 (ng/mL)
	% Accuracy:	84.50

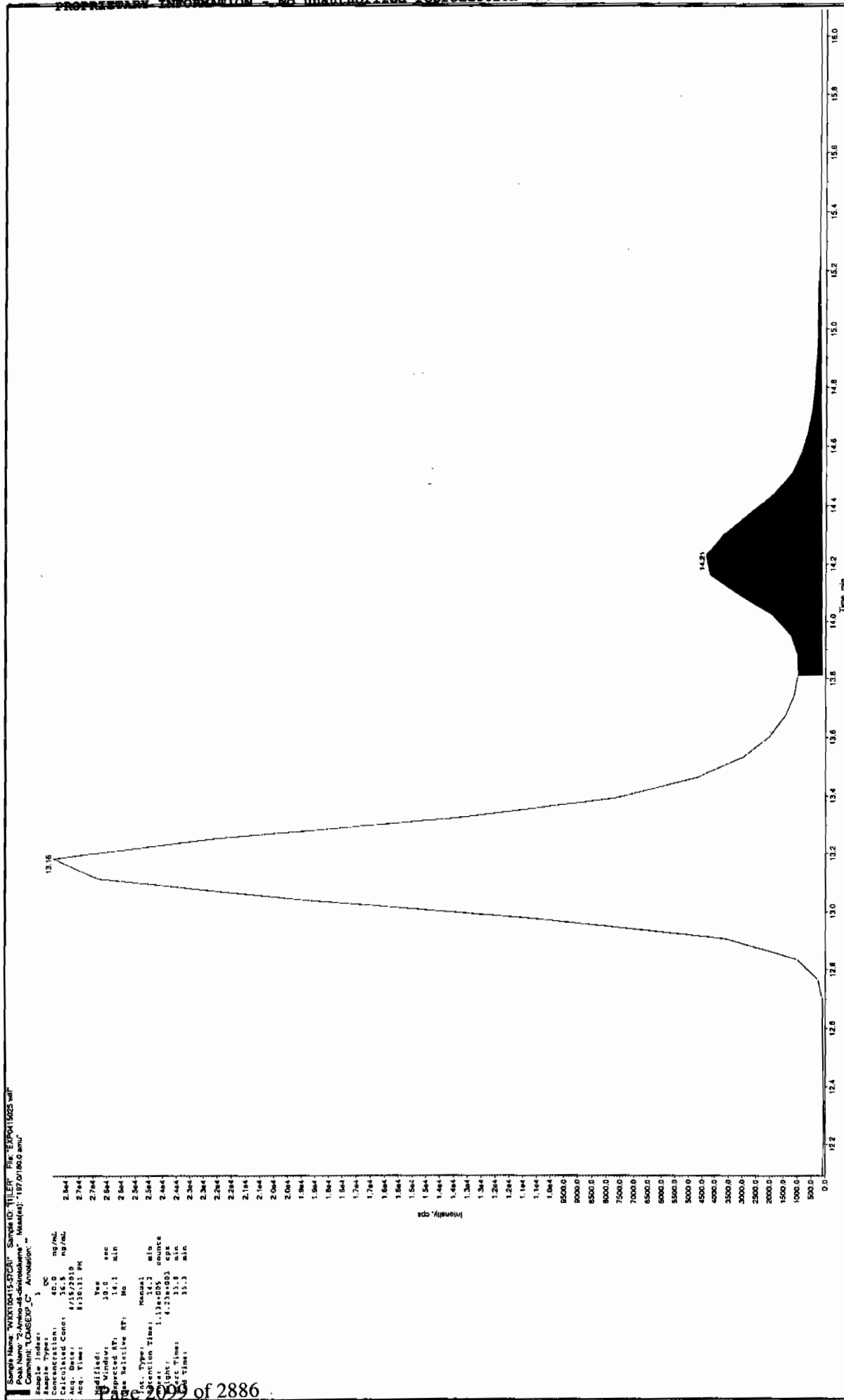
	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.9
	Area Counts:	3.79e+006
	Manual Modification	No
	Amount:	29.9 (ng/mL)
	% Accuracy:	74.60

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.6
	Area Counts:	1.51e+006
	Manual Modification	No
	Amount:	34.4 (ng/mL)
	% Accuracy:	86.10



after Jan 4/23/10



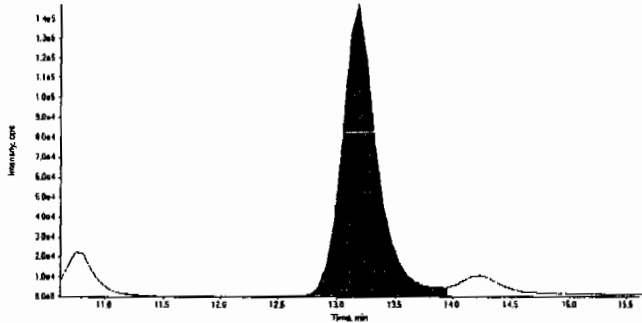
Sample Name: WXX100415-57CA1 Sample ID: TILER File: EXP011625.wf  
 Peak Name: 2-Amino-48-cholesterol Mass(es): 187.0(180.0 amu)  
 Comment: "LOASEXP\_C" Annotation: -

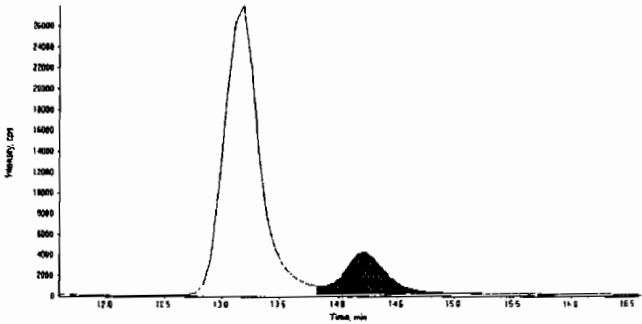
Sample Index: 1  
 Concentration: 40.0 ng/mL  
 Calculated Conc: 36.5 ng/mL  
 Acq. Date: 4/15/2010  
 Acq. Time: 8:10:11 PM  
 Modified: Yes  
 Is Window: 10.0 sec  
 Is Relative RT: No  
 Is Type: Manual  
 Retention Time: 13.16 min  
 Weight: 1.13e-005  
 Weight: 4.23e-003  
 Ret Time: 33.3 min  
 Ret Time: 33.3 min

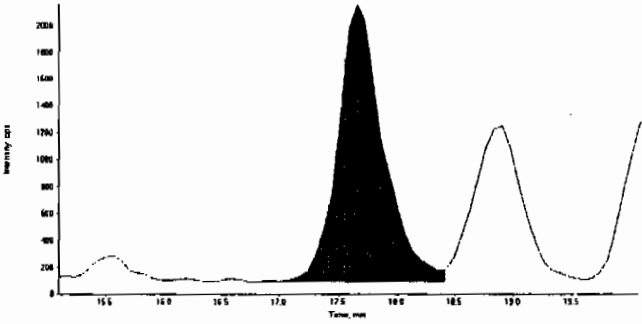
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

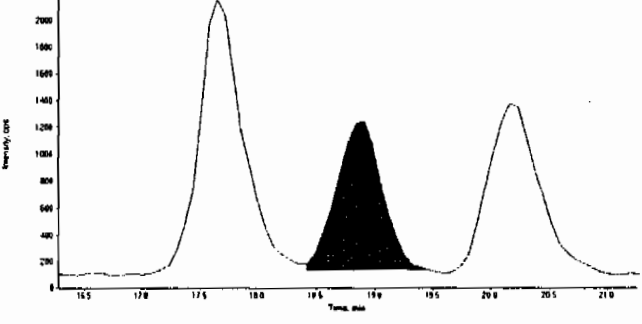
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415025.wiff	Acquisition Date	4/15/2010 8:30:11 PM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	3.10e+006
	Manual Modification	No
	Amount:	38.1 (ng/mL)
	% Accuracy:	95.20

	Compound Name:	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	14.2
	Area Counts:	1.13e+005
	Manual Modification	Yes
	Amount:	36.5 (ng/mL)
	% Accuracy:	91.30

	Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	17.6
	Area Counts:	5.72e+004
	Manual Modification	No
	Amount:	44.9 (ng/mL)
	% Accuracy:	112.00

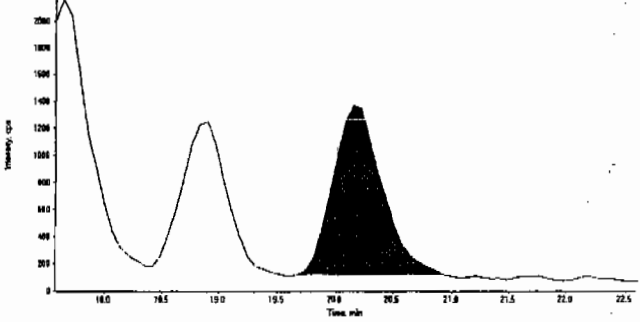
	Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.9
	Area Counts:	3.08e+004
	Manual Modification	No
	Amount:	45.7 (ng/mL)
	% Accuracy:	114.00

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

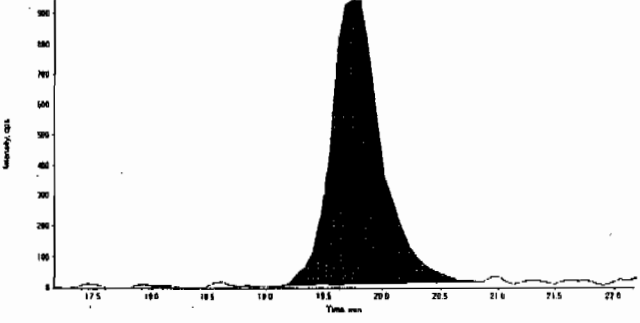
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415025.wiff	Acquisition Date	4/15/2010 8:30:11 PM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	20.2
	Area Counts:	3.76e+004
	Manual Modification	No
	Amount:	38.5 (ng/mL)
	% Accuracy:	96.30

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	19.7
	Area Counts:	2.91e+004
	Manual Modification	No
	Amount:	36.0 (ng/mL)
	% Accuracy:	90.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/15/10  
 Time of Injection 2030  
 Standard Number WXX100415-57CRI  
 Data File EXP0415025a

HMX	103.0
RDX	104.0
135-Trinitrobenzene	96.2
13-Dinitrobenzene	103.0
Tetryl	97.3
246-Trinitrotoluene	94.7
Nitrobenzene	112.0
34-dinitrotoluene	84.5
26-dinitrotoluene	74.6
24-dinitrotoluene	86.1
4-Amino-26-dinitrotoluene	95.2
2-Amino-46-dinitrotoluene	91.3
2-Nitrotoluene	112.0
4-Nitrotoluene	114.0
3-Nitrotoluene	96.3
PETN	90.0

TOTAL

✓ 1554.2

*Handwritten:* HMM 04/23/10

AVERAGE

✓ 97.1

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Handwritten:* Jan 4/23/10

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0415030.wiff

Analysis Date: 15-APR-10 22:39

LCMSMS ID: 1189

Column ID: Sphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	635	106	
2,4,6-Trinitrotoluene	600	620	103	
2,4-Dinitrotoluene	600	631	105	
2,6-Dinitrotoluene	600	558	93	
2-Amino-4,6-dinitrotoluene	600	607	101	
3,4-Dinitrotoluene	300	289	96	
4-Amino-2,6-dinitrotoluene	600	660	110	
HMX	600	563	94	
Nitrobenzene	600	623	104	
PETN	600	708	118	
RDX	600	672	112	
Tetryl	600	647	108	
m-Dinitrobenzene	600	618	103	
m-Nitrotoluene	600	545	91	
o-Nitrotoluene	600	586	98	
p-Nitrotoluene	600	618	103	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

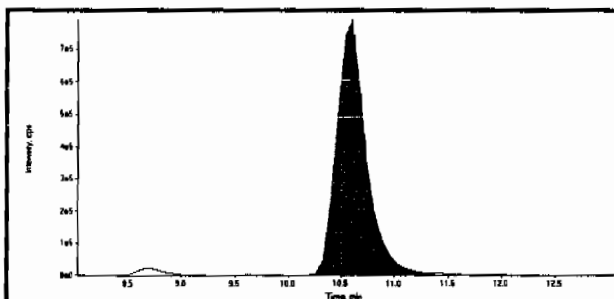
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

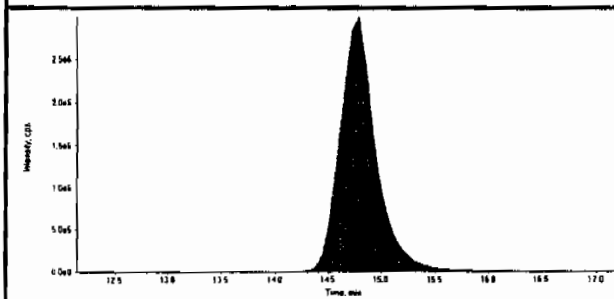
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415030.wiff	Acquisition Date	4/15/2010 10:39:38 PM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



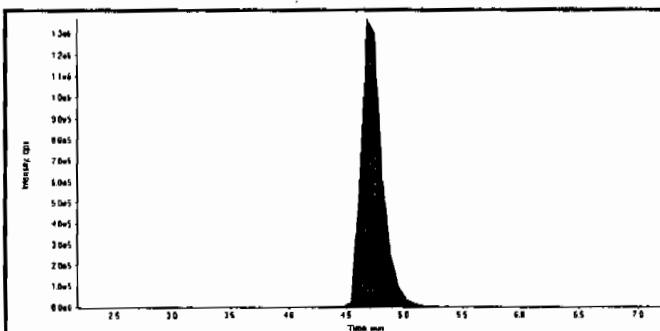
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	15500000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

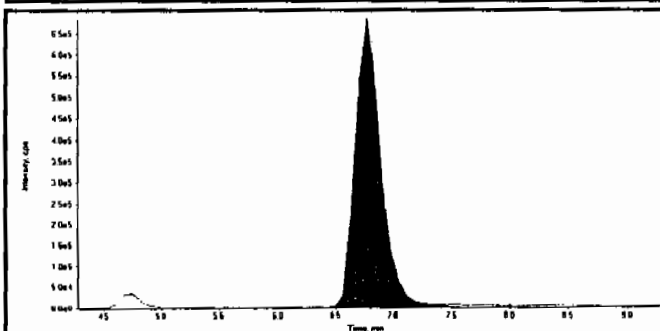


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	71300000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.79e+007
Manual Modification	No
Amount:	563. (ng/mL)
% Accuracy:	93.80



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.08e+007
Manual Modification	No
Amount:	672. (ng/mL)
% Accuracy:	112.00

*Time 04/23/10*

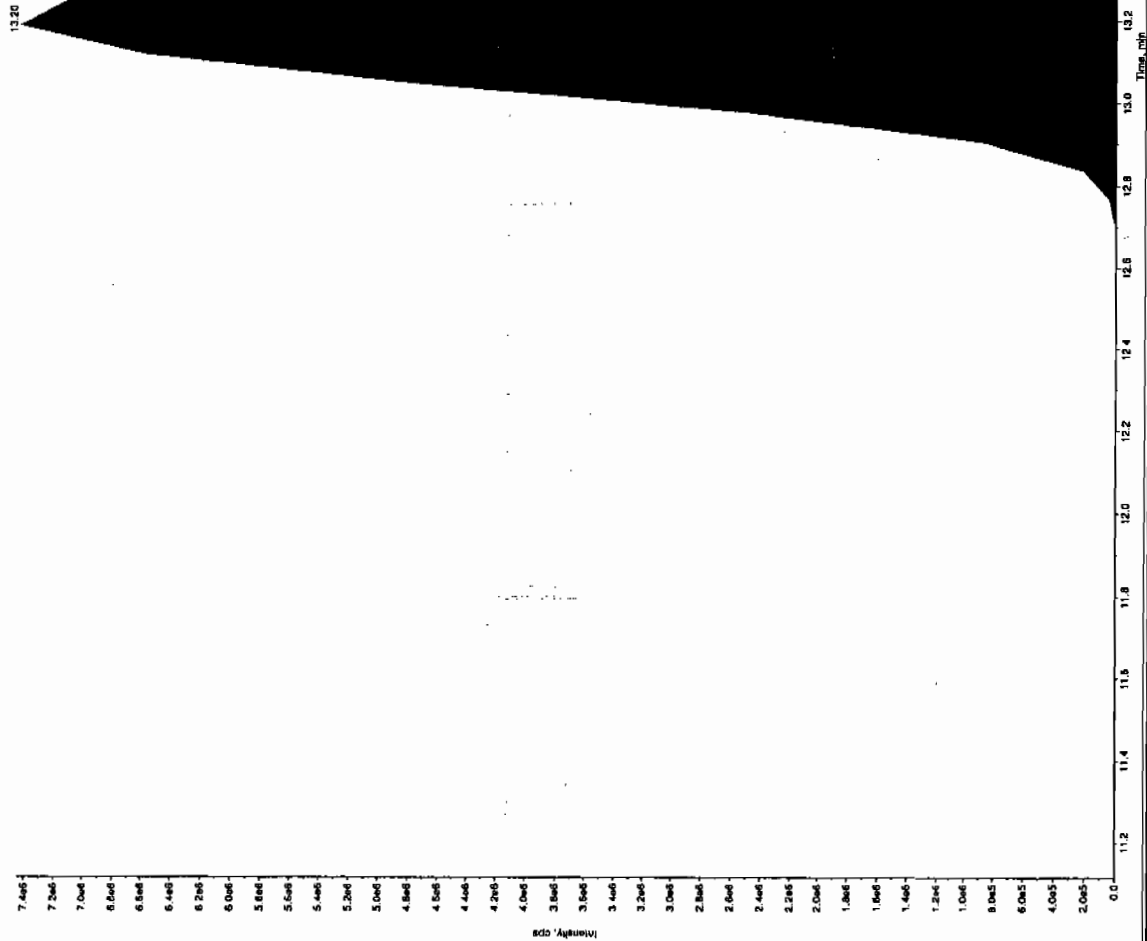
*Ler 4/23/10*



Before Scan 4/23/10

Sample Name: 8321A-E-056  
Peak Name: 246-Tributylamine  
Comment: "LCMS-EXP\_C" Annotation: "1"

Sample Index: 1  
Sample Type: QC  
Sample Concentration: 400 ng/mL  
Calculated Conc: 707 ng/mL  
Acq. Date: 4/15/2010  
Acq. Time: 16:15:18 PM  
Injection Volume: 10.0 µL  
Injection Speed: 10.0 µL/min  
Injection Pressure: 13.1 min  
Injection Temperature: 13.1 min  
Injection Relative RT: No  
Injection Type: Valley  
Injection Retention Time: 13.2 min  
Injection Counts: 2.09e+008  
Injection Peak Area: 7.45e+006  
Injection Peak Width: 12.5 min  
Injection Time: 13.4 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Ken 4/23/10

Sample Name: "XXXX004155600V" Sample ID: "TILIER" File: "EXP04150300.wif"

Peak Name: "248-Tributylamine" Mass(es): "227.1209 & 229.1209"

Comment: "LCMS-EXP\_C" Annotation: "1"

Sample Type: "QC"

Concentration: "600" ng/mL

Calculated Conc: "420" ng/mL

Acq. Date: "4/23/10"

Acq. Time: "10:35:13 PM"

Edited: "Yes"

Rel. RT: "3.12" min

Reported RT: "3.12" min

Rel. RT: "No"

Method: "Method 1"

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

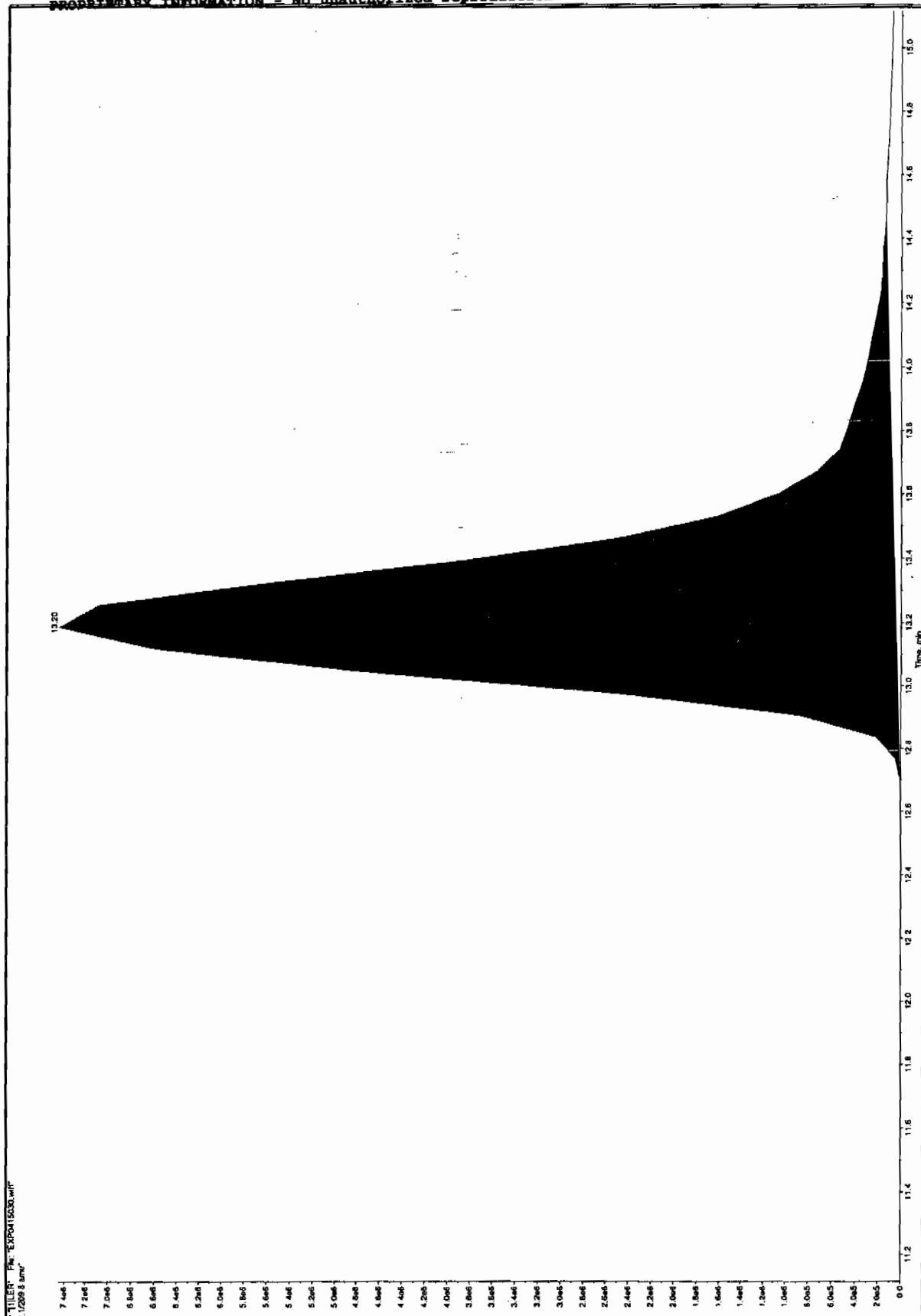
Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min

Acq. Time: "3.12" min



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415030.wiff	<b>Acquisition Date</b>	4/15/2010 10:39:38 PM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch/Dilution/Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	9.07
	<b>Area Counts:</b>	1.16e+008
	<b>Manual Modification</b>	No
	<b>Amount:</b>	635. (ng/mL)
	<b>% Accuracy:</b>	106.00

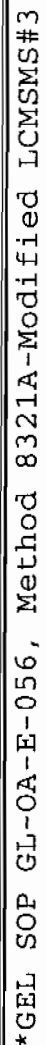
	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	5.13e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	618. (ng/mL)
	<b>% Accuracy:</b>	103.00

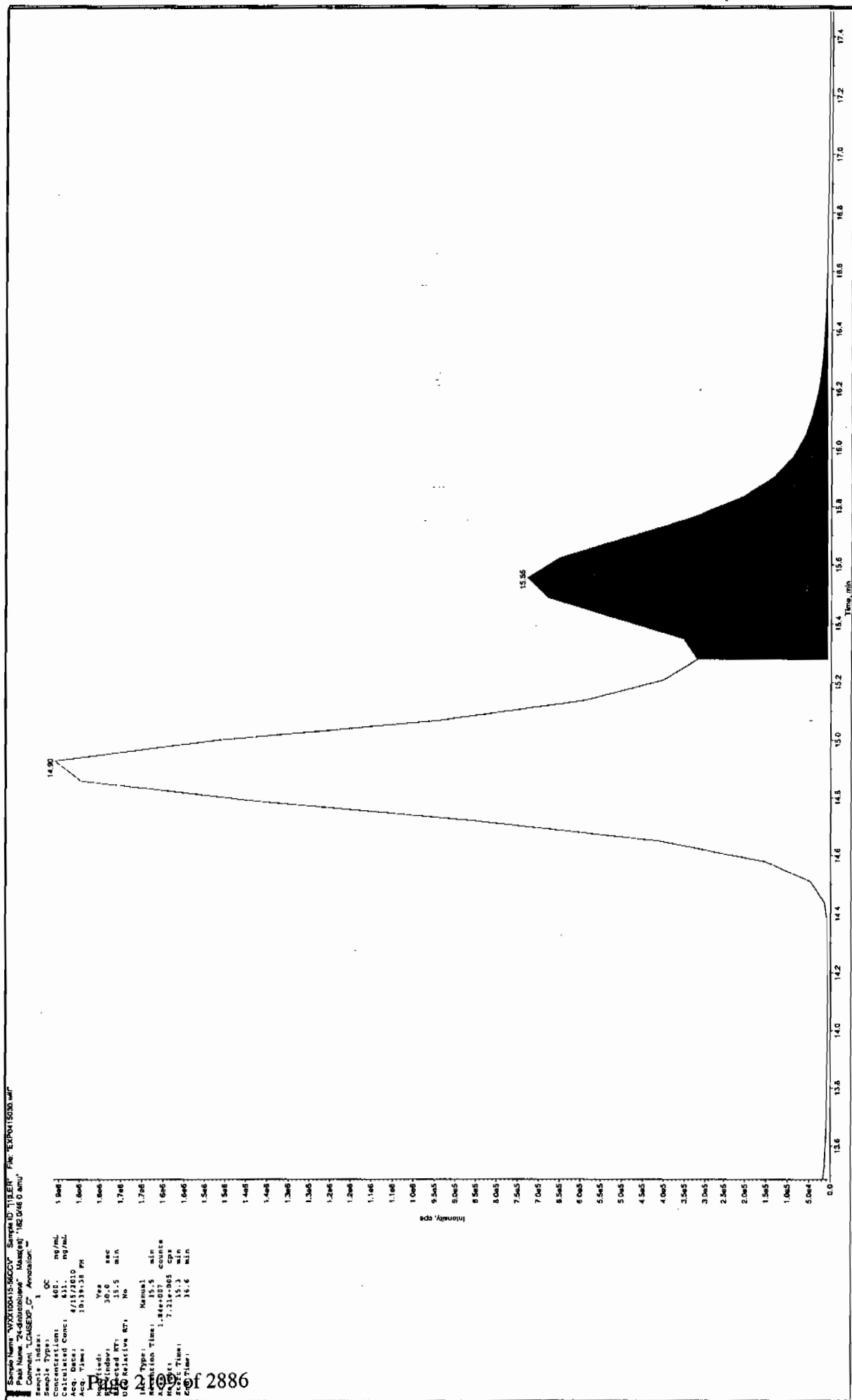
	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	4.60e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	647. (ng/mL)
	<b>% Accuracy:</b>	108.00

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	1.93e+008
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	620. (ng/mL)
	<b>% Accuracy:</b>	103.00



after Jan 4/23/10



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415030.wiff	<b>Acquisition Date</b>	4/15/2010 10:39:38 PM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	11.9
	Area Counts:	1.98e+006
	Manual Modification	No
	Amount:	623. (ng/mL)
	% Accuracy:	104.00

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	2.70e+007
	Manual Modification	No
	Amount:	289. (ng/mL)
	% Accuracy:	96.20

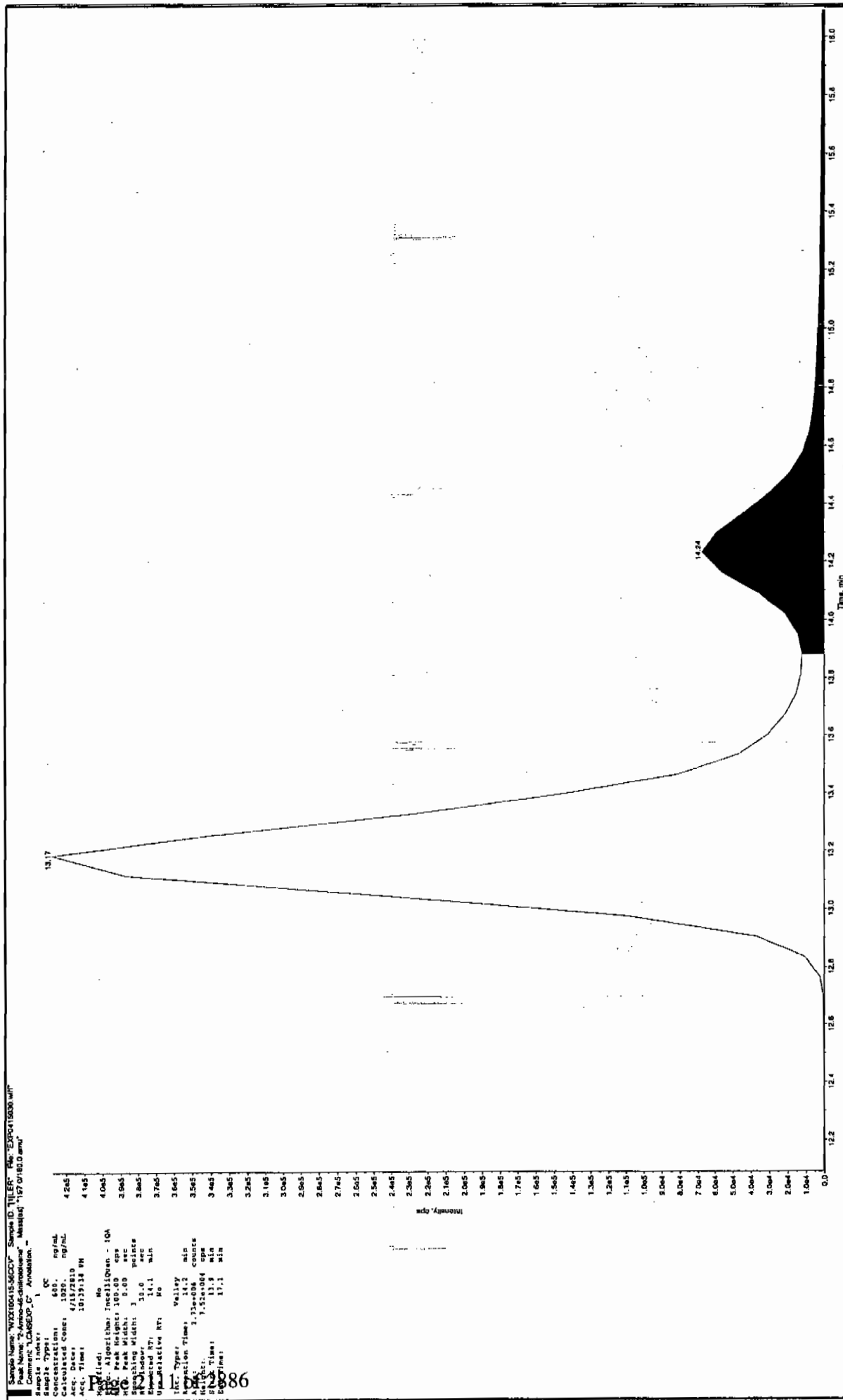
  

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.9
	Area Counts:	4.23e+007
	Manual Modification	No
	Amount:	558. (ng/mL)
	% Accuracy:	93.00

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.5
	Area Counts:	1.84e+007
	Manual Modification	Yes
	Amount:	631. (ng/mL)
	% Accuracy:	105.00

Before Jan 4/23/10

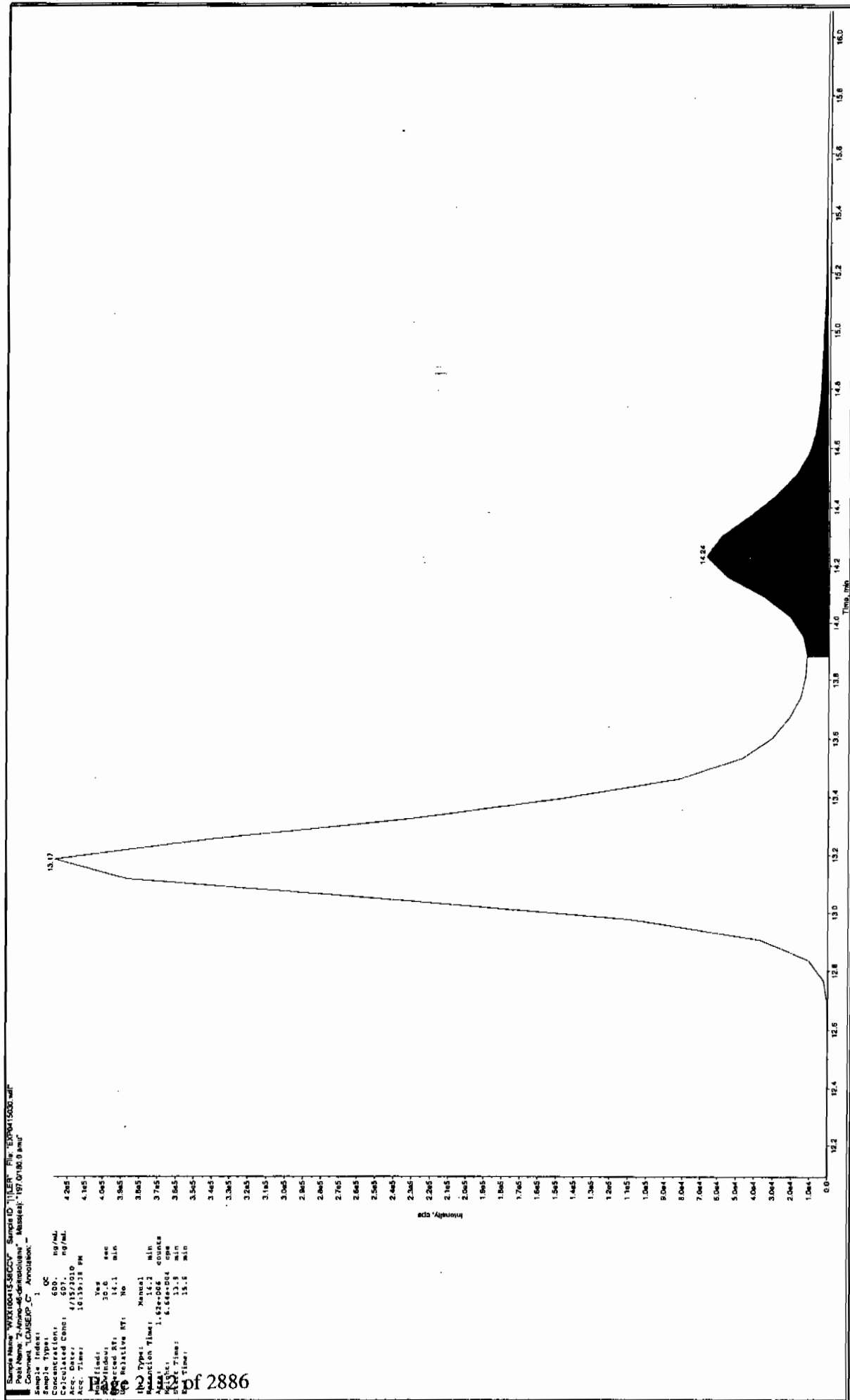


Sample Name: "W2X10015-0003" Sample ID: "TILER" File: "EXP0415030.wif"  
 Path: "C:\Program Files\Agilent\MSDCHEM\MSDCHEM\127.01610.ms" Method: "LCMSMS-05" Acquisition: "1" Annotation: "1"

Sample Index:  
 Sample Name: "W2X10015-0003" Sample ID: "TILER" File: "EXP0415030.wif"  
 Path: "C:\Program Files\Agilent\MSDCHEM\MSDCHEM\127.01610.ms" Method: "LCMSMS-05" Acquisition: "1" Annotation: "1"

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after run 4/23/10



Sample Name: 900100015.DJPG Run ID: 111557 Run: 100015000.wpf  
Peak Name: 2-Amino-4-ethylthiophene Molecular Weight: 107.0960 g/mol

Comment: LCMS/MS C1 Acetone: -

Sample Index: 1

Sample Type: GC

Sample Concentration: 500 ng/mL

Calculated Conc: 500 ng/mL

Acq. Date: 4/15/2010

Acq. Time: 16:39:38 PM

Method: Yes

Method: 30.0 sec

Method: 14.1 min

Method: 3.9e5

Method: 3.8e5

Method: 3.7e5

Method: 3.6e5

Method: 3.5e5

Method: 3.4e5

Method: 3.3e5

Method: 3.2e5

Method: 3.1e5

Method: 3.0e5

Method: 2.9e5

Method: 2.8e5

Method: 2.7e5

Method: 2.6e5

Method: 2.5e5

Method: 2.4e5

Method: 2.3e5

Method: 2.2e5

Method: 2.1e5

Method: 2.0e5

Method: 1.9e5

Method: 1.8e5

Method: 1.7e5

Method: 1.6e5

Method: 1.5e5

Method: 1.4e5

Method: 1.3e5

Method: 1.2e5

Method: 1.1e5

Method: 1.0e5

Method: 9.0e4

Method: 8.0e4

Method: 7.0e4

Method: 6.0e4

Method: 5.0e4

Method: 4.0e4

Method: 3.0e4

Method: 2.0e4

Method: 1.0e4

Page 2 of 2886

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

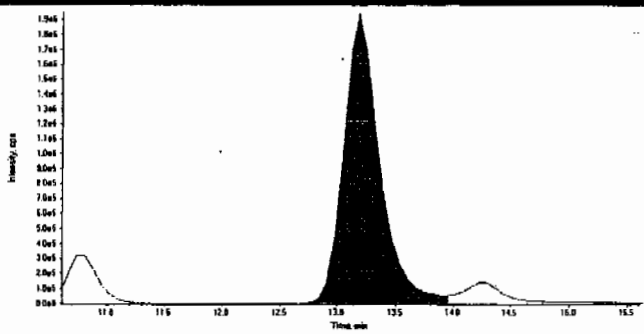


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

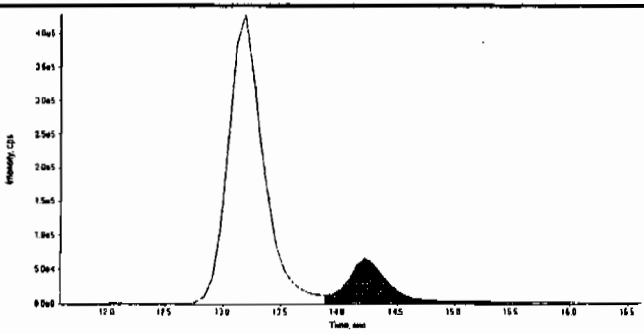
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415030.wiff	<b>Acquisition Date</b>	4/15/2010 10:39:38 PM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

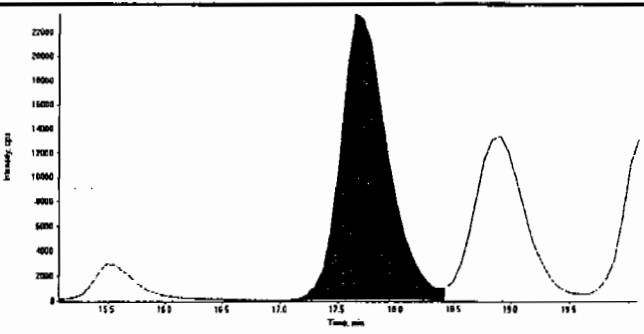
  

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	4.19e+007
	Manual Modification	No
	Amount:	660. (ng/mL)
	% Accuracy:	110.00

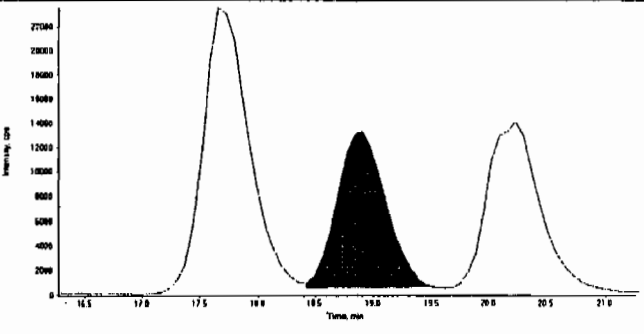
  

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	14.2
	Area Counts:	1.62e+006
	Manual Modification	Yes
	Amount:	607. (ng/mL)
	% Accuracy:	101.00

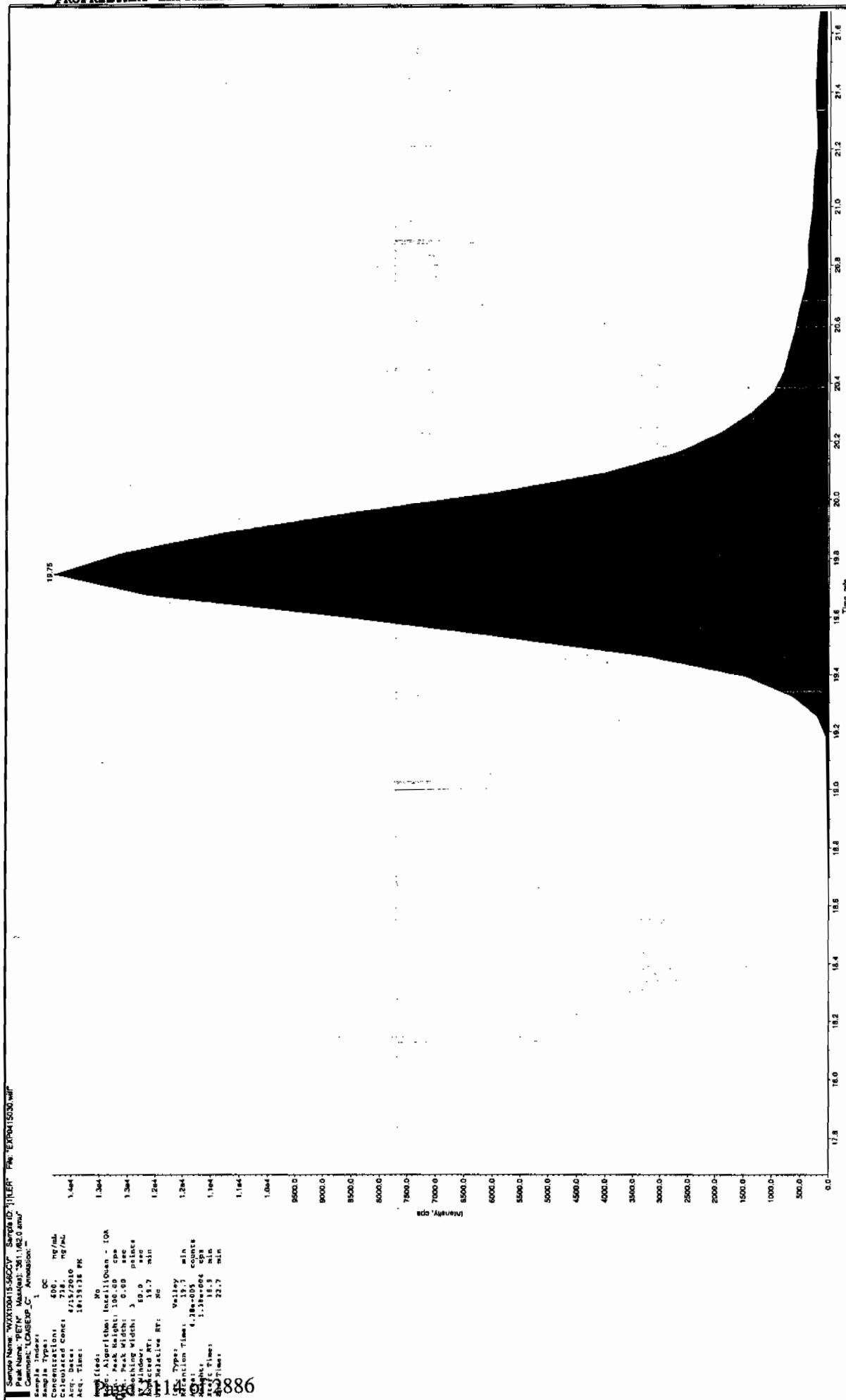
  

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	17.6
	Area Counts:	6.60e+005
	Manual Modification	No
	Amount:	586. (ng/mL)
	% Accuracy:	97.60

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.9
	Area Counts:	3.74e+005
	Manual Modification	No
	Amount:	618. (ng/mL)
	% Accuracy:	103.00

Bufo dar 4/23/00



Sample Name: MAX10015.56207 Sample ID: 111111 File: EXPR15030.wif

Peak Name: PETN Mass(es): 351.142.0 amu

Comment: LCMSEXP\_C Annotation: -

Sample Type: 1 OC

Concentration: 400. ng/mL

Calculated Conc: 718.0 ng/mL

Acq. Time: 4/23/00 15:03:00

Acq. Time: 18:13:18 PK

Method: No

Integration: No

Integration: No

Integration: No

Integration: No

Integration: No

Integration: No

Integration: No

Integration: No

Integration: No

Integration: No

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Integration: No

Integration: No

Integration: No

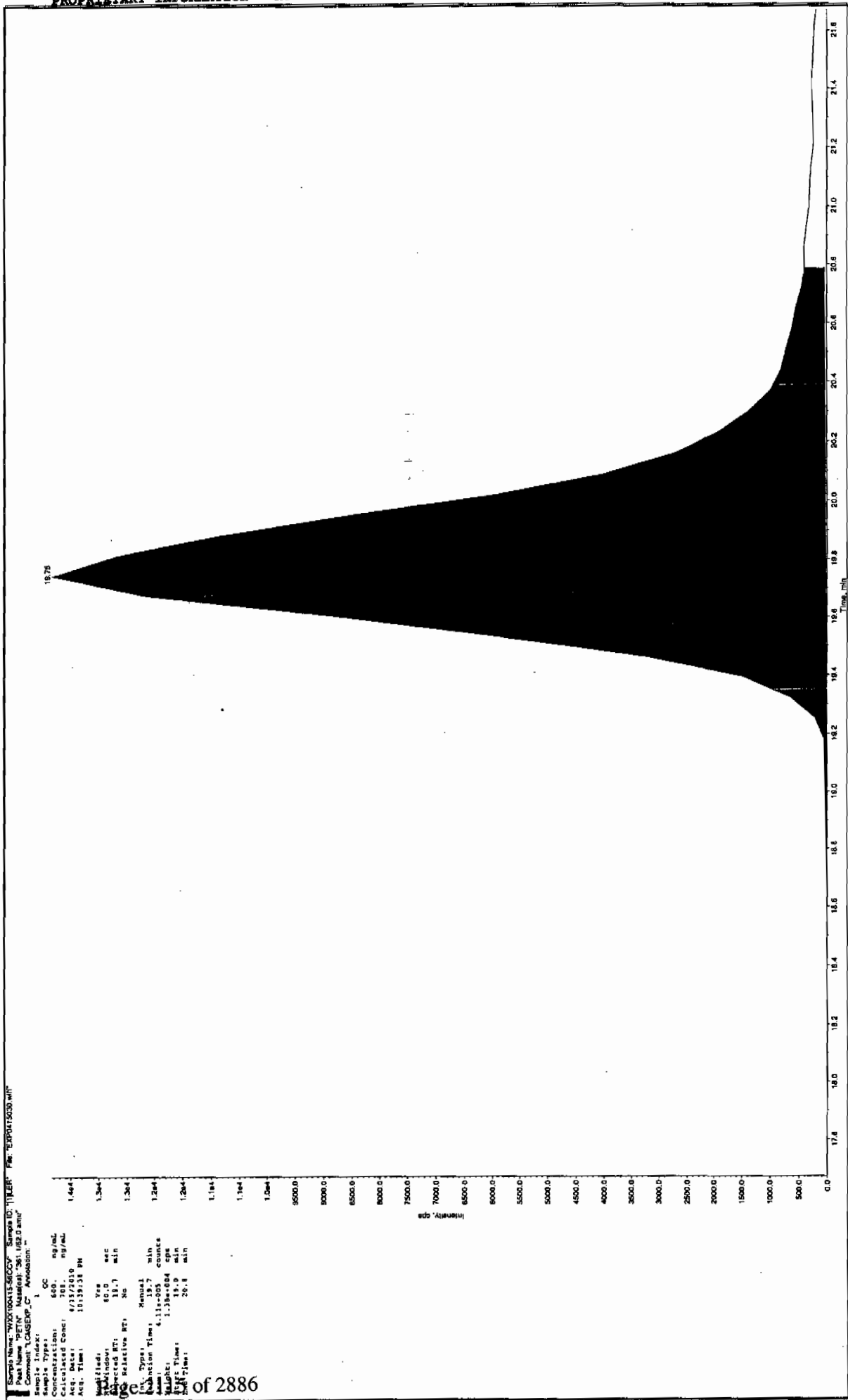
Integration: No

Integration: No

Integration: No

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/23/10



Sample Name: WXYZ000115-60007 Sample ID: 11567 File: EXP0115030.mrt  
Peak Name: PETN Mass(es): 91.052.0 amu  
Comment: "CAUSEP\_C" Annotation: "

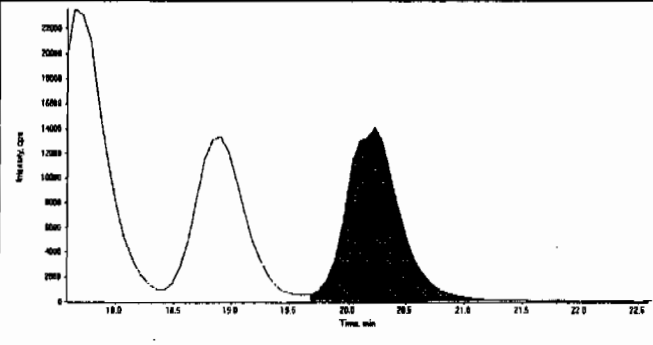
Sample Index: 1  
Concentration: 500 ng/mL  
Calculated Conc: 708 ng/mL  
Acq. Date: 4/7/2010  
Acq. Time: 10:39:38 PM  
Modified: Yes  
Injection Volume: 50.0 µL  
Injection Speed: 10.0 µL/min  
Injection Time: 18.7 min  
Retention Time: 18.7 min  
Peak Time: 18.7 min  
Peak Width: 1.1340004 min  
Peak Area: 1.244  
Peak Time: 20.8 min

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

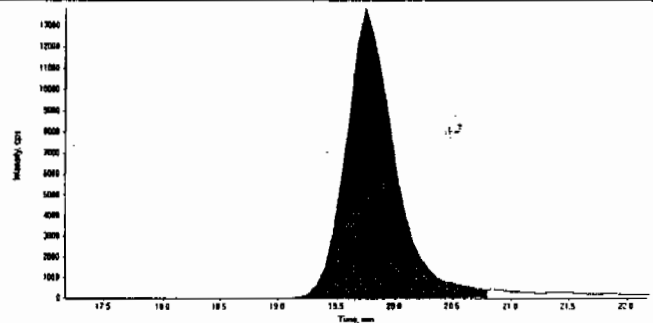
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415030.wiff	<b>Acquisition Date</b>	4/15/2010 10:39:38 PM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	20.2
	<b>Area Counts:</b>	4.62e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	545. (ng/mL)
	<b>% Accuracy:</b>	90.90

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	19.7
	<b>Area Counts:</b>	4.11e+005
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	708. (ng/mL)
	<b>% Accuracy:</b>	118.00

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/15/10  
 Time of Injection 2239  
 Standard Number WXX100415-56CCV  
 Data File EXP0415030a

HMX	93.8
RDX	112.0
135-Trinitrobenzene	106.0
13-Dinitrobenzene	103.0
Tetryl	108.0
246-Trinitrotoluene	103.0
Nitrobenzene	104.0
34-dinitrotoluene	96.2
26-dinitrotoluene	93.0
24-dinitrotoluene	105.0
4-Amino-26-dinitrotoluene	110.0
2-Amino-46-dinitrotoluene	101.0
2-Nitrotoluene	97.6
4-Nitrotoluene	103.0
3-Nitrotoluene	90.9
PETN	118.0

TOTAL

1644.5

AVERAGE

102.8

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Jan 4/15/10*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0415032.wiff

Analysis Date: 15-APR-10 23:31

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	40	100	
2,4,6-Trinitrotoluene	40	40.3	101	
2,4-Dinitrotoluene	40	28.6	72	
2,6-Dinitrotoluene	40	33.6	84	
2-Amino-4,6-dinitrotoluene	40	37.9	95	
3,4-Dinitrotoluene	20	17.2	86	
4-Amino-2,6-dinitrotoluene	40	42.6	107	
HMX	40	48.3	121	
Nitrobenzene	40	47.8	119	
PETN	40	46.6	116	
RDX	40	41.6	104	
Tetryl	40	41	103	
m-Dinitrobenzene	40	43.7	109	
m-Nitrotoluene	40	44.7	112	
o-Nitrotoluene	40	44.7	112	
p-Nitrotoluene	40	46.3	116	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

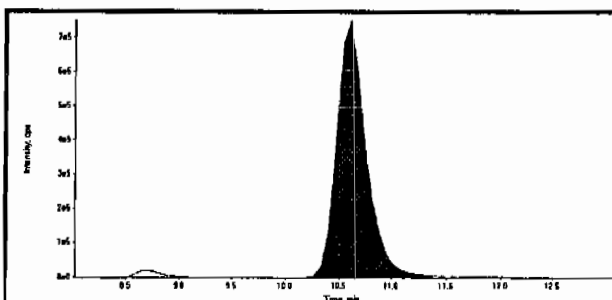
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

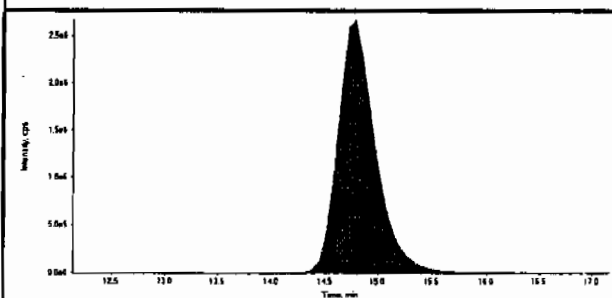
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

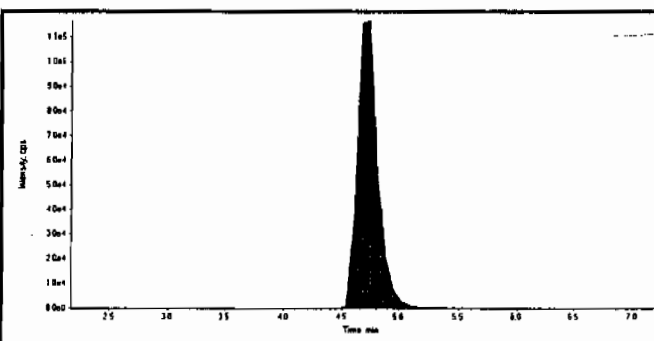
Data File	EXP0415032.wiff	Acquisition Date	4/15/2010 11:31:31 PM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



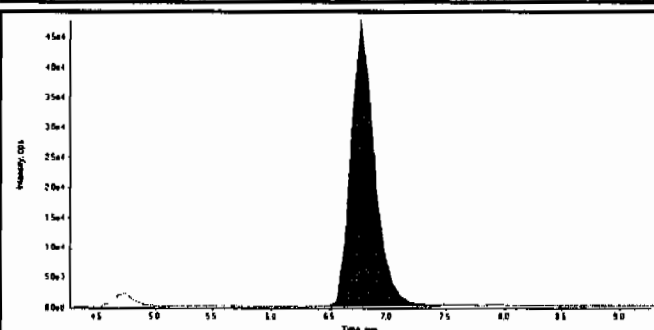
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	14800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	66800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	1.50e+006
Manual Modification	No
Amount:	48.3 (ng/mL)
% Accuracy:	121.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	7.00e+005
Manual Modification	No
Amount:	41.6 (ng/mL)
% Accuracy:	104.00

*done 04/23/10*

*San 4/23/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415032.wiff	<b>Acquisition Date</b>	4/15/2010 11:31:31 PM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch/Dilution/Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	9.07
	<b>Area Counts:</b>	9.42e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	40.0 (ng/mL)
	<b>% Accuracy:</b>	100.00

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	3.68e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	43.7 (ng/mL)
	<b>% Accuracy:</b>	109.00

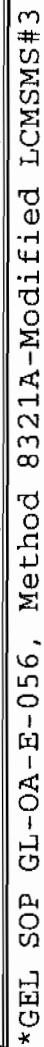
  

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.8
	<b>Area Counts:</b>	2.75e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	41.0 (ng/mL)
	<b>% Accuracy:</b>	103.00

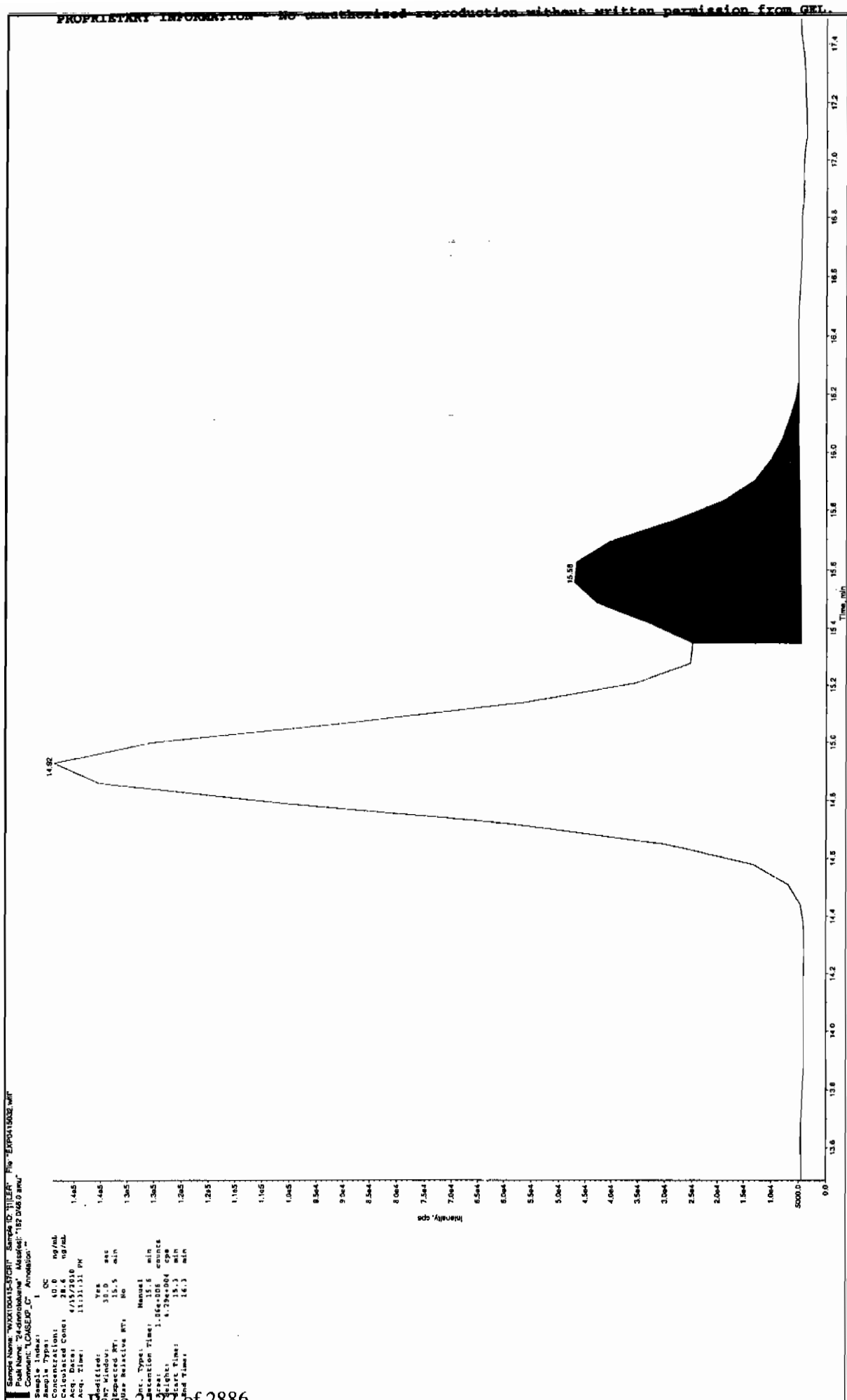
  

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	1.82e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	40.3 (ng/mL)
	<b>% Accuracy:</b>	101.00





after Lys 4/23/10



Sample Name: "WYX100415-37081" Sample ID: "11111" File: "EXP0415032.wif"  
 Peak Name: "24-dimethylolane" Mass(es): "182.046.0 amu"  
 Comment: "LCMS007\_C" Annotation: "  
 Sample Index: 1 QC  
 Sample Type: 10.0 ng/mL  
 Concentration: 28.6 ng/mL  
 Acq. Date: 4/15/2010  
 Acq. Time: 11:31:31 PM  
 Modified: Yes  
 RT Window: 31.0 sec  
 Expected RT: 15.5 min  
 Delay Relative RT: No  
 Int. Type: Manual  
 Retention Time: 15.5 min  
 Total: 1.06e+008 counts  
 Peak: 1.12e+008 counts  
 Start Time: 15.3 min  
 End Time: 16.3 min

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415032.wiff	<b>Acquisition Date</b>	4/15/2010 11:31:31 PM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	11.9
	<b>Area Counts:</b>	1.29e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	47.8 (ng/mL)
	<b>% Accuracy:</b>	119.00

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.0
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	1.89e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	17.2 (ng/mL)
	<b>% Accuracy:</b>	85.80

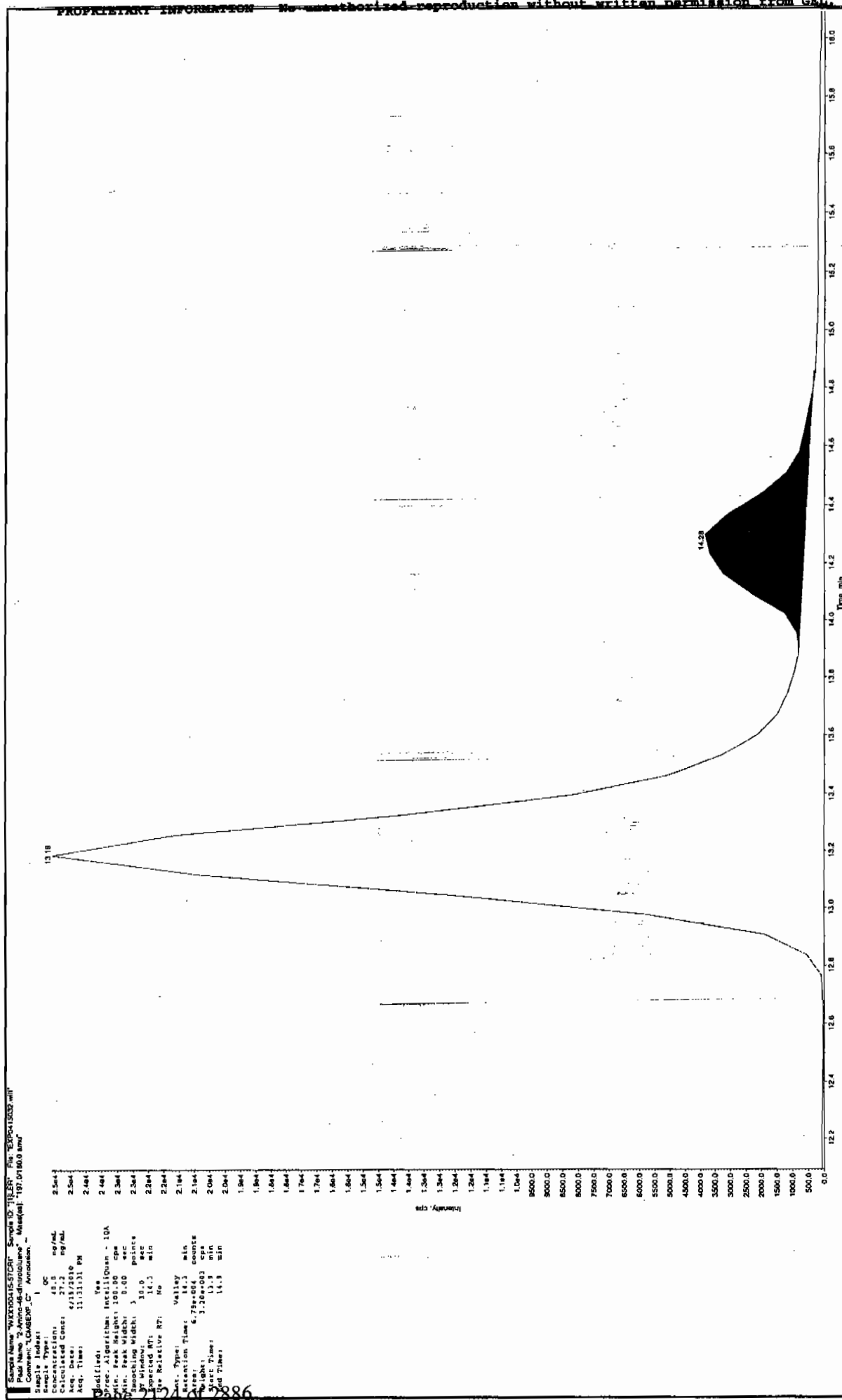
  

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.9
	<b>Area Counts:</b>	3.32e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	33.6 (ng/mL)
	<b>% Accuracy:</b>	84.00

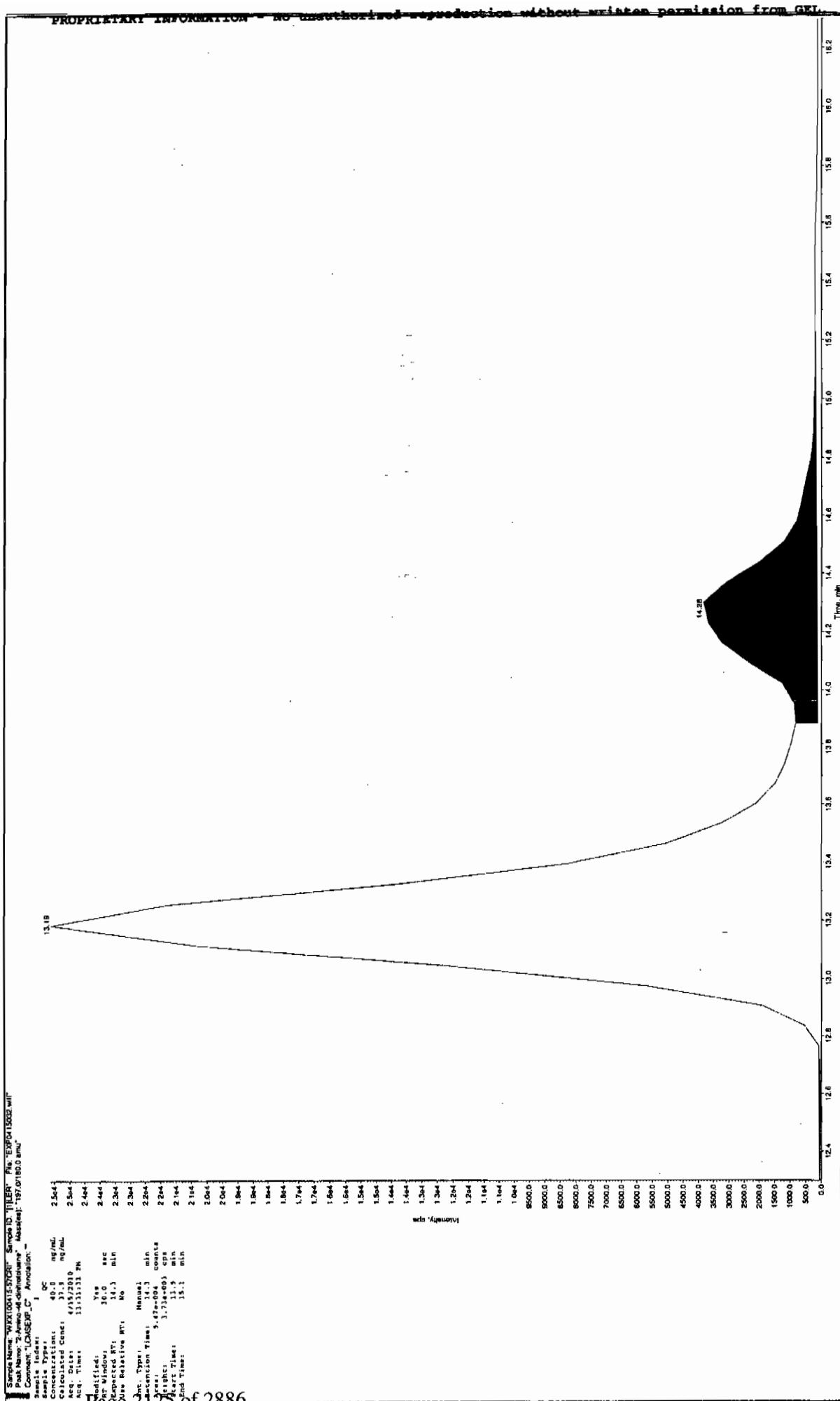
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	15.6
	<b>Area Counts:</b>	1.06e+006
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	28.6 (ng/mL)
	<b>% Accuracy:</b>	71.50

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\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/23/0



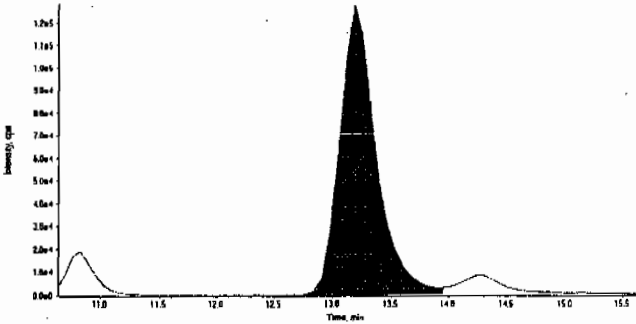
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

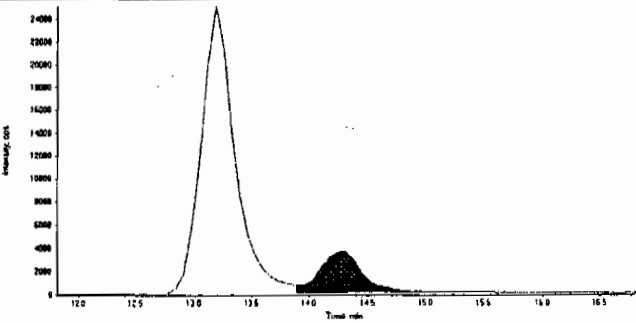
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415032.wiff	<b>Acquisition Date</b>	4/15/2010 11:31:31 PM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXPC	<b>Sample Type</b>	Quality Control

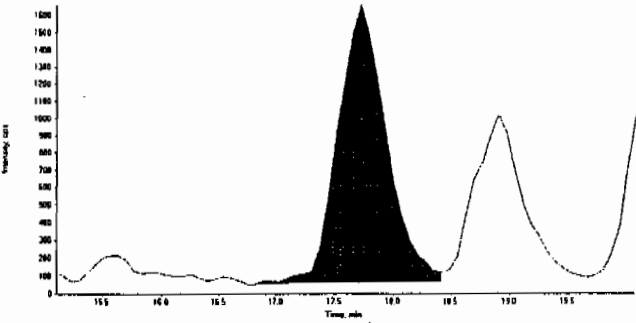
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	2.78e+006
	Manual Modification	No
	Amount:	42.6 (ng/mL)
	% Accuracy:	107.00

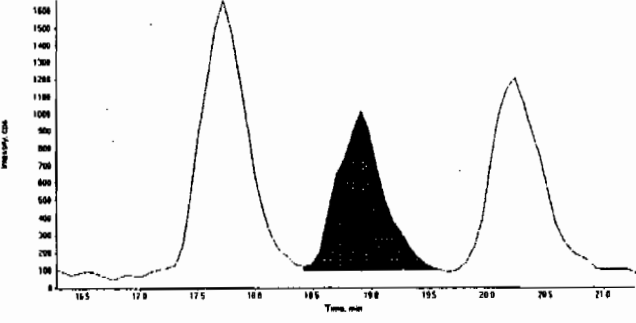
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.3
	Actual RT:	14.3
	Area Counts:	9.47e+004
	Manual Modification	Yes
	Amount:	37.9 (ng/mL)
	% Accuracy:	94.80

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	17.7
	Area Counts:	4.60e+004
	Manual Modification	No
	Amount:	44.7 (ng/mL)
	% Accuracy:	112.00

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.9
	Area Counts:	2.52e+004
	Manual Modification	No
	Amount:	46.3 (ng/mL)
	% Accuracy:	116.00

Before Jan 4/23/10

Sample Name: "XXX100415-57GR" Sample ID: "TILR" File: "EXP0415032.wit"

Peak Name: "PETH" Masses: "361.162 6 amu"

Sample Index: "1" Acquisition: "11/13/2010 11:33:21 PM"

Sample Type: "OC"

Concentration: "48.0 mg/mL"

Calculated Conc: "47.5 mg/mL"

Acq. Time: "11/13/2010 11:33:21 PM"

Modified: "11/13/2010 11:33:21 PM"

Method: "HPLC"

Peak Height: "100.00 cps"

Peak Width: "5.08 sec"

Smoothing Width: "3 points"

Integration: "60.0 points"

Retention Time: "19.7 min"

Relative RT: "No"

Peak Type: "Valley"

Retention Time: "19.7 min"

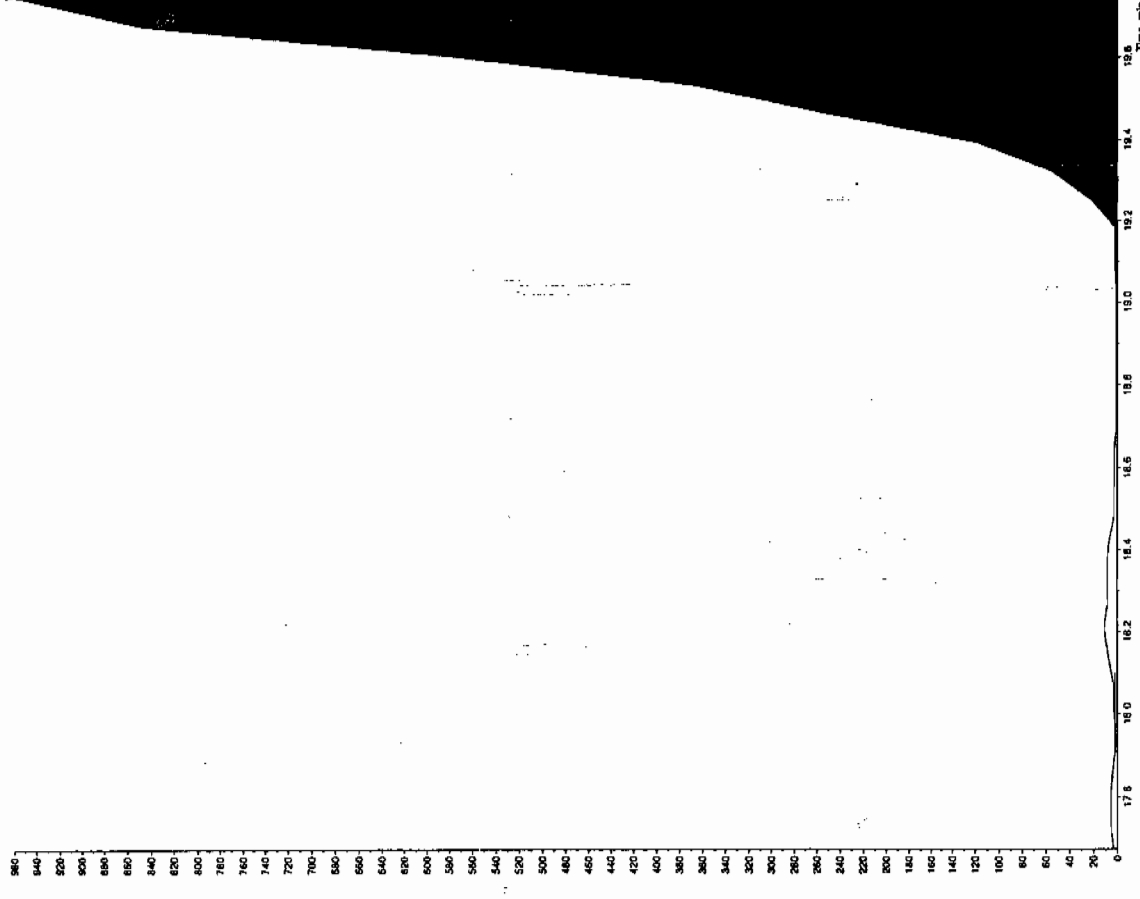
Height: "1.03e-004 counts"

Height: "5.59e-002 cps"

Retention Time: "19.0 min"

Retention Time: "21.5 min"

19.77



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/23/10

Sample Name: "WAX100415-57-GE" Sample ID: "1181" File: "EXF0415032.wif"

Full Name: "WAX100415-57-GE" Sample ID: "1181" File: "EXF0415032.wif"

Concentration: 40.0 ng/mL

Acq. Date: 4/15/2010

Acq. Time: 11:11:11 PM

Modified: Yes

RT Min: 19.7

Expected RT: 19.7

Relative RT: No

Int. Type: Manual

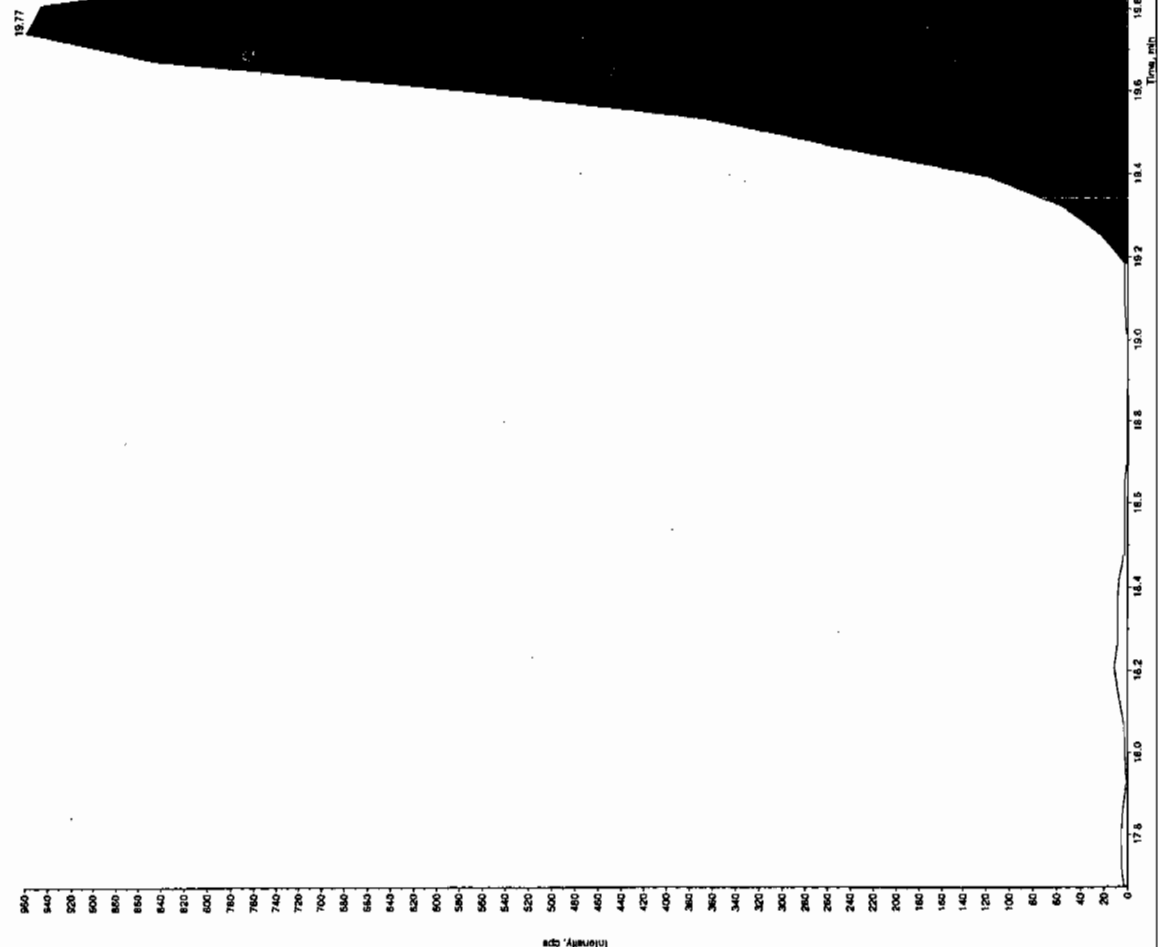
Retention Time: 19.8 min

Height: 3.02e+008 counts

Width: 9.59e+002 cps

Area: 2.97e+008

WCL Time: 20.6 min



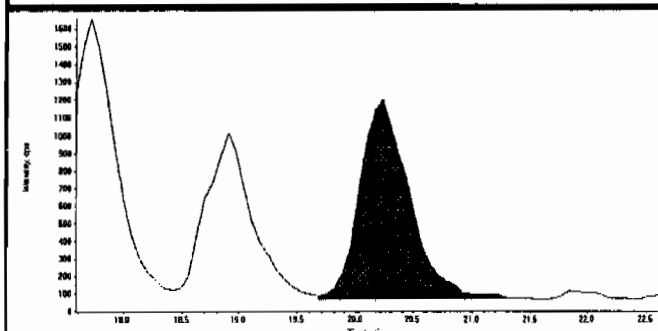
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



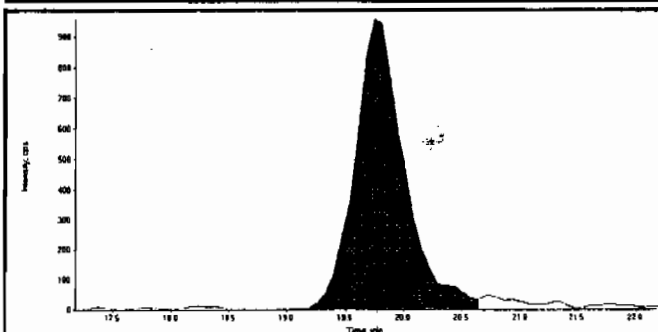
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415032.wiff	Acquisition Date	4/15/2010 11:31:31 PM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	3.52e+004
Manual Modification	No
Amount:	44.7 (ng/mL)
% Accuracy:	112.00



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.8
Area Counts:	2.92e+004
Manual Modification	Yes
Amount:	46.6 (ng/mL)
% Accuracy:	116.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/15/10  
 Time of Injection 2331  
 Standard Number WXX100415-5ZCRI  
 Data File EXP0415032a

HMX	121.0
RDX	104.0
135-Trinitrobenzene	100.0
13-Dinitrobenzene	109.0
Tetryl	103.0
246-Trinitrotoluene	101.0
Nitrobenzene	119.0
34-dinitrotoluene	85.8
26-dinitrotoluene	84.0
24-dinitrotoluene	71.5
4-Amino-26-dinitrotoluene	107.0
2-Amino-46-dinitrotoluene	94.8
2-Nitrotoluene	112.0
4-Nitrotoluene	116.0
3-Nitrotoluene	112.0
PETN	116.0

TOTAL

✓ 1656.1 *done 4/15/10*

AVERAGE

ICV Limits 85-115%

✓ 103.5 CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Done 4/15/10*

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0415043.wiff

Analysis Date: 16-APR-10 04:17

LCMSMS ID: 1189

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	653	109	
2,4,6-Trinitrotoluene	600	588	98	
2,4-Dinitrotoluene	600	592	99	
2,6-Dinitrotoluene	600	572	95	
2-Amino-4,6-dinitrotoluene	600	602	100	
3,4-Dinitrotoluene	300	261	87	
4-Amino-2,6-dinitrotoluene	600	624	104	
HMX	600	608	101	
Nitrobenzene	600	628	105	
PETN	600	756	126	
RDX	600	680	113	
Tetryl	600	640	107	
m-Dinitrobenzene	600	588	98	
m-Nitrotoluene	600	568	95	
o-Nitrotoluene	600	584	97	
p-Nitrotoluene	600	660	110	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

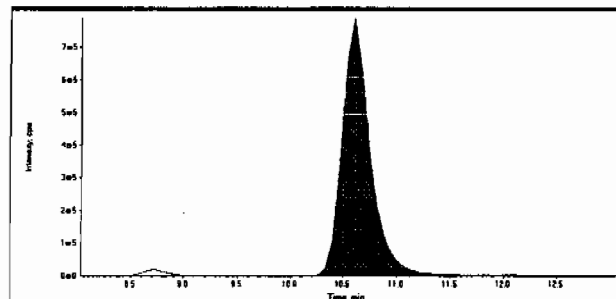
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

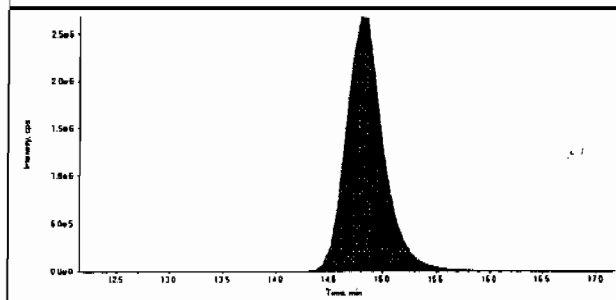
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

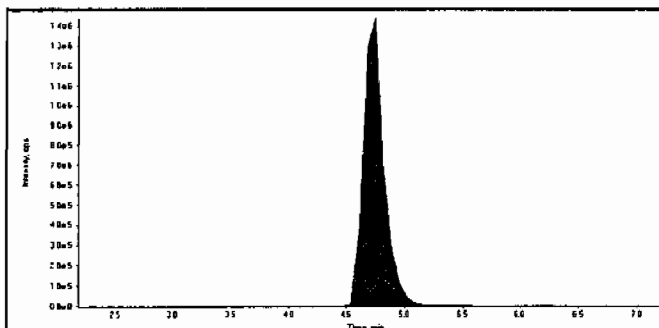
Data File	EXP0415043.wiff	Acquisition Date	4/16/2010 4:17:22 AM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



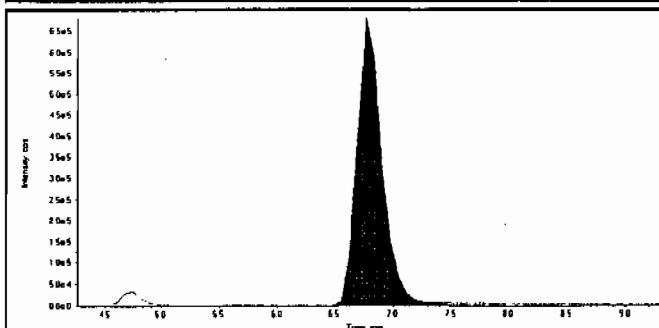
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	14500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	66000000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



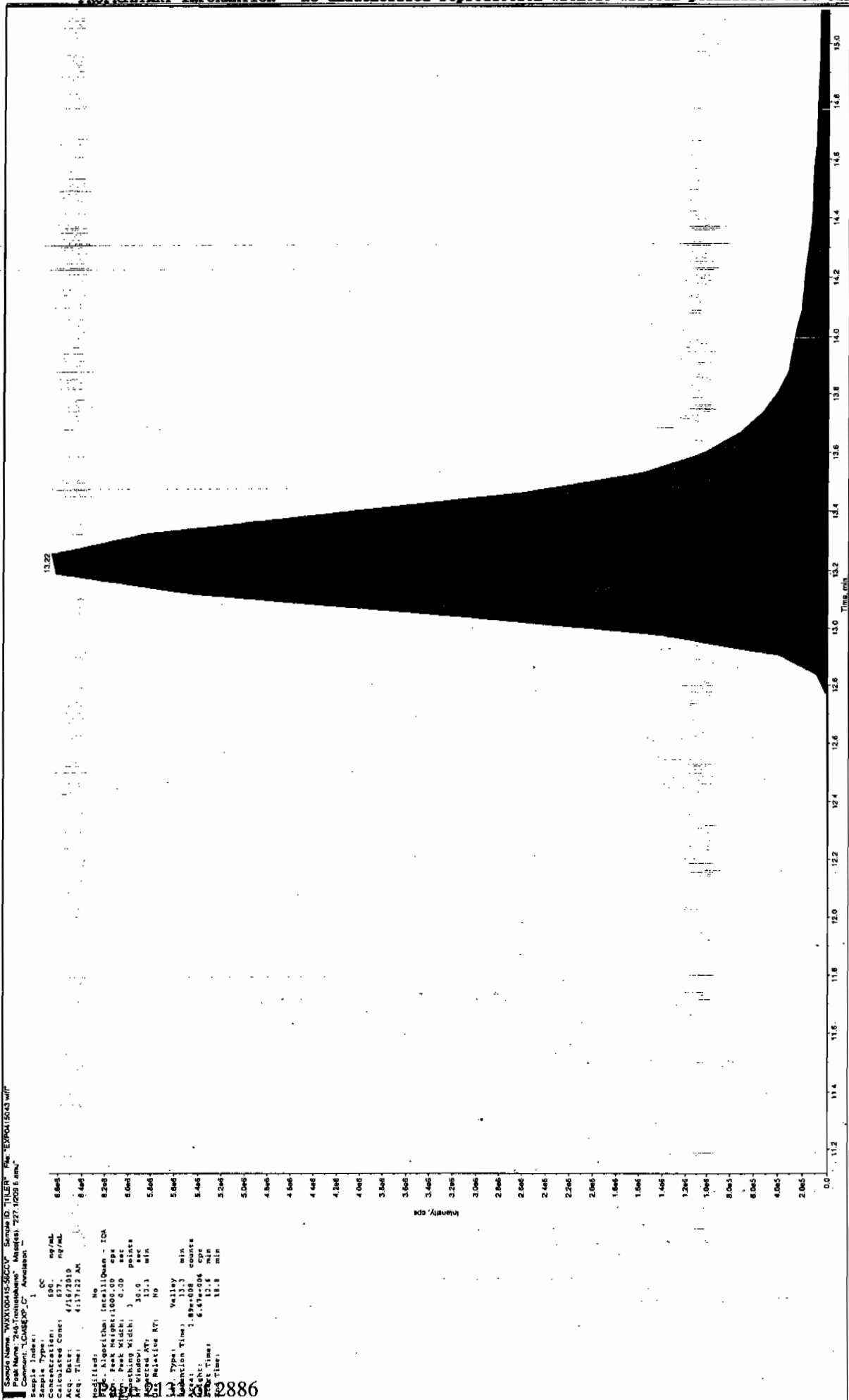
Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	1.81e+007
Manual Modification	No
Amount:	608. (ng/mL)
% Accuracy:	101.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.02e+007
Manual Modification	No
Amount:	680. (ng/mL)
% Accuracy:	113.00

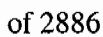
*Handwritten signatures and dates:*  
Hnm 04/23/10  
Lar 4/23/10

Began Hex 4/23/10



Sample Name: WXX100415-562CV Sample ID: TILER File: EPR041563.wif  
 Peak Name: 245-Tetrachloro- Mass(es): 227.12055 e.m.u.  
 Comment: LCMSXP\_C Annotation:  
 Sample Type: 1 OC  
 Concentration: 596 ng/mL  
 Calculated Conc: 577 ng/mL  
 Acq. Date: 4/16/2010  
 Acq. Time: 4:17:22 AM  
 Modified: No  
 PG: Algorithm: IntCalQuan - TOA  
 Resolution: 18000 Hz  
 Peak Width: 3.00 sec  
 Smoothing Width: 3.00 points  
 RF Window: 30.0 sec  
 Peak Area: 12.1 min  
 Peak Time: 13.22 min  
 Peak Type: Valley  
 Retention Time: 13.22 min  
 Peak Width: 1.89 sec  
 Peak Area: 6.45e+004 cps  
 Peak Time: 13.22 min  
 Peak Time: 13.22 min  
 Peak Time: 13.22 min

\*GEL SOP GL-0A-E-056, Method 8321A-Modified LCMSMS#3



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415043.wiff	<b>Acquisition Date</b>	4/16/2010 4:17:22 AM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.00
	Actual RT:	9.07
	Area Counts:	1.10e+008
	Manual Modification	No
	Amount:	653. (ng/mL)
	% Accuracy:	109.00

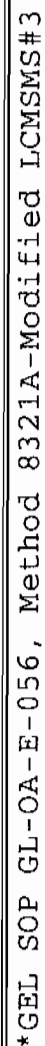
	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	4.60e+007
	Manual Modification	No
	Amount:	588. (ng/mL)
	% Accuracy:	98.00

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	10.8
	Area Counts:	4.25e+007
	Manual Modification	No
	Amount:	640. (ng/mL)
	% Accuracy:	107.00

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	1.73e+008
	Manual Modification	Yes
	Amount:	588. (ng/mL)
	% Accuracy:	98.00

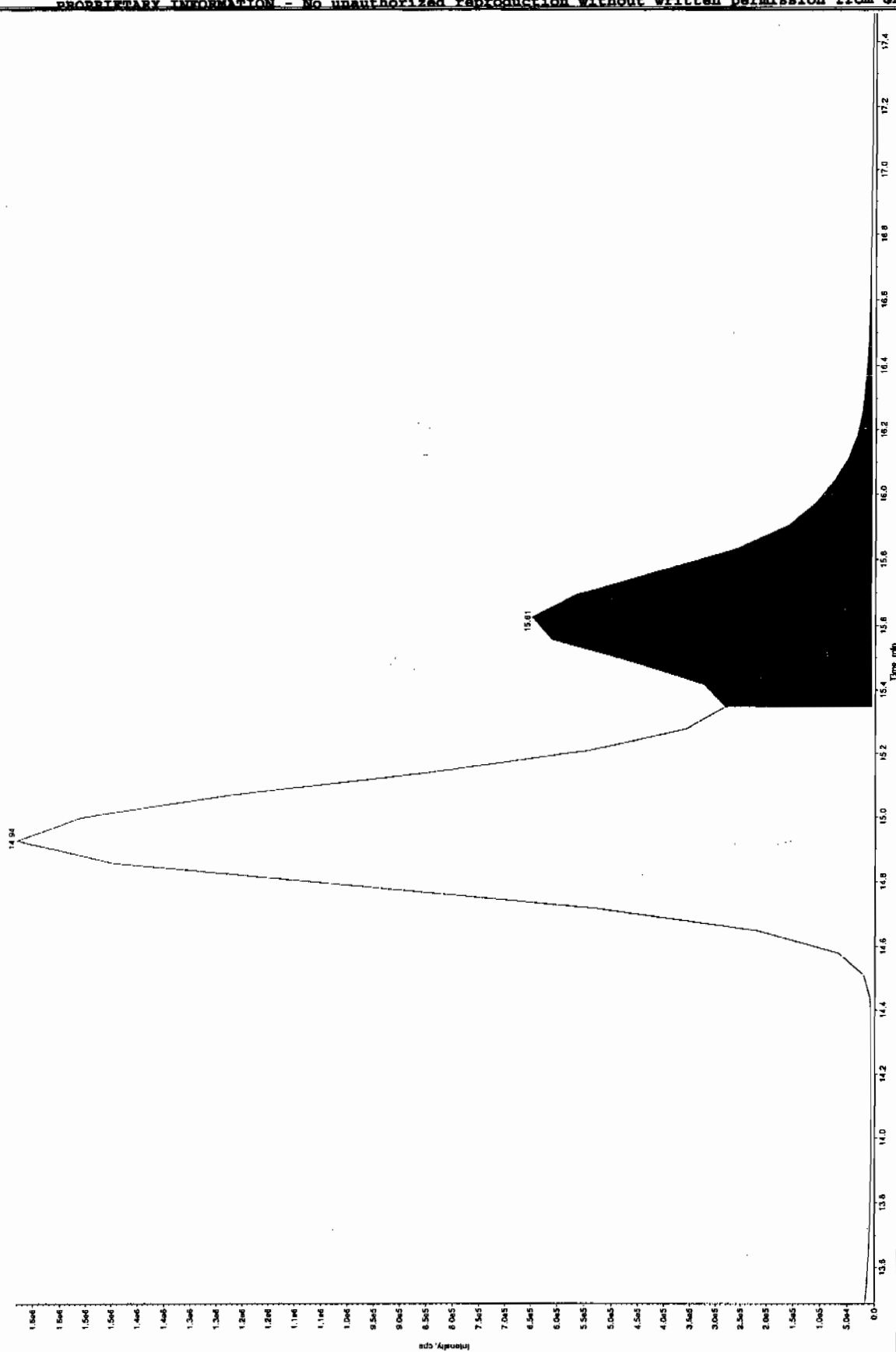




after Jan 4/23/10

Sample Name: WXX10041550207 Sample ID: TILER File: EXP04155023.will  
 Comment: LCMSSEP\_C Annotation: 102.148 0.000

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500 ng/ml  
 Calculated Conc: 500 ng/ml  
 Acq. Date: 4/16/2010  
 Acq. Time: 4:17:22 AM  
 Modified: Yes  
 RT Window: 30.0 sec  
 Expected RT: 15.5 min  
 RT Relative RT: No  
 Acq. Type: Manual  
 Injection Time: 15.4 min  
 Start: 1.00e-007 counts  
 End: 8.14e-005 counts  
 Peak Time: 15.3 min  
 End Time: 16.7 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415043.wiff	<b>Acquisition Date</b>	4/16/2010 4:17:22 AM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	11.9
	Area Counts:	1.86e+006
	Manual Modification	No
	Amount:	628. (ng/mL)
	% Accuracy:	105.00

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	2.26e+007
	Manual Modification	No
	Amount:	261. (ng/mL)
	% Accuracy:	86.90

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.9
	Area Counts:	4.02e+007
	Manual Modification	No
	Amount:	572. (ng/mL)
	% Accuracy:	95.30

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.6
	Area Counts:	1.60e+007
	Manual Modification	Yes
	Amount:	592. (ng/mL)
	% Accuracy:	98.60



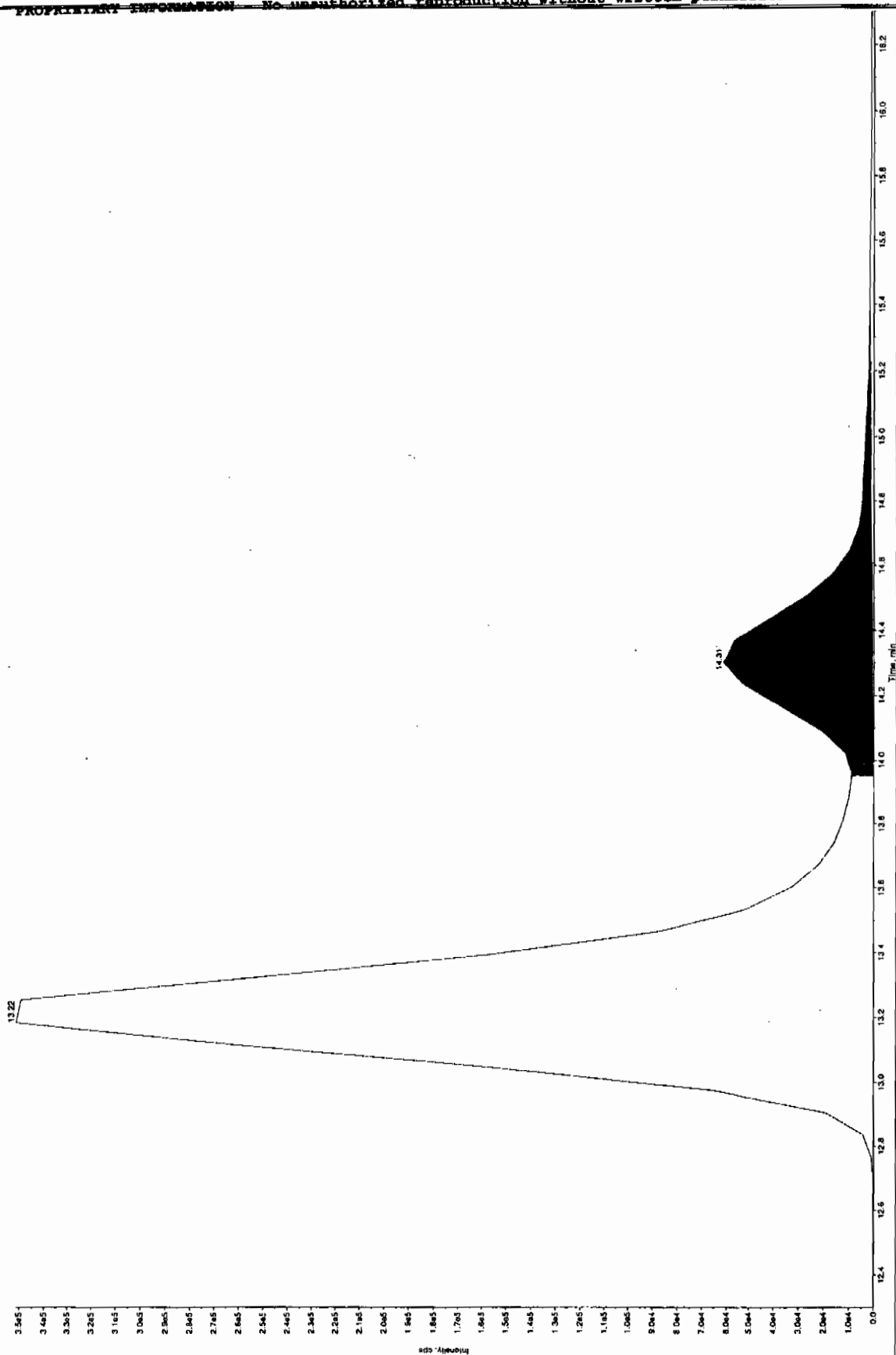
after Jan 4/23/10

Sample Name: WXT0015-56007 Sample ID: 11157 File: EXP0115043.wif

Peak Name: 7-Amino-4-chlorobiphenyl Neat(s): 197.0160 D arm

Comment: LCMS-EXP-C Acquisition

Sample Index: 1  
 Concentration: 500 ng/mL  
 Calculated Conc: 592 ng/mL  
 Acq. Date: 4/15/2010  
 Acq. Time: 4:11:22 AM  
 Modified: Yes  
 In Window: 10.0 sec  
 Sampled RT: 14.1 min  
 Gate Relative RT: 90  
 Det. Type: Manual  
 Retention Time: 14.1 min  
 Peak Width: 1.48 sec  
 Peak Height: 8.10e+004 cps  
 Peak Area: 14.0 min  
 Peak Time: 15.5 min



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415043.wiff	<b>Acquisition Date</b>	4/16/2010 4:17:22 AM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	3.67e+007
	Manual Modification	No
	Amount:	624. (ng/mL)
	% Accuracy:	104.00

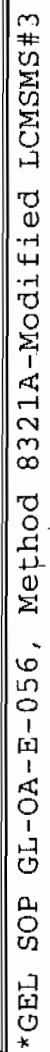
	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.3
	Actual RT:	14.3
	Area Counts:	1.49e+006
	Manual Modification	Yes
	Amount:	602. (ng/mL)
	% Accuracy:	100.00

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	17.7
	Area Counts:	6.10e+005
	Manual Modification	No
	Amount:	584. (ng/mL)
	% Accuracy:	97.30

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.9
	Area Counts:	3.68e+005
	Manual Modification	No
	Amount:	660. (ng/mL)
	% Accuracy:	110.00



after scan 4/23/10

Sample Name: "WY100415-SEC01" Sample ID: "TLER" File: "E:\P0415043.wif"

Peak Name: "PE1M" Mass: 181.1820 amu

Concentration: "LOASEXP\_C" Annotation: "

Sample Index: 1

Concentration: 600 ng/mL

Calculated Conc: 754 ng/mL

Acq. Date: 4/18/2010

Acq. Time: 4:17:22 AM

Calculated: Yes

Expected RT: 60.0 sec

Run Window: 19.7 min

Acq. Relative RT: No

Acq. Type: Manual

Retention Time: 19.8 min

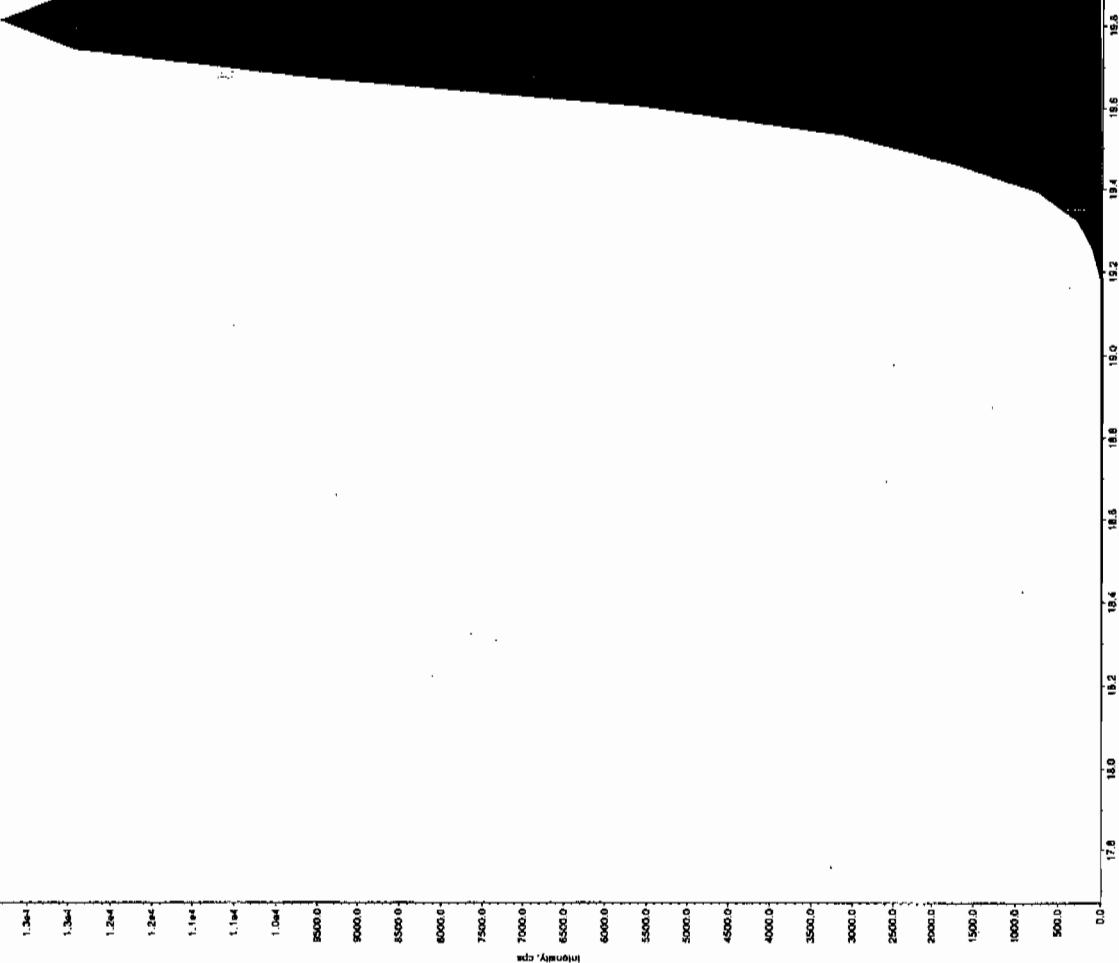
Area: 6.04e+05 counts

Height: 1.11e+04

Peak Time: 19.1 min

Peak Width: 21.0 min

10.91

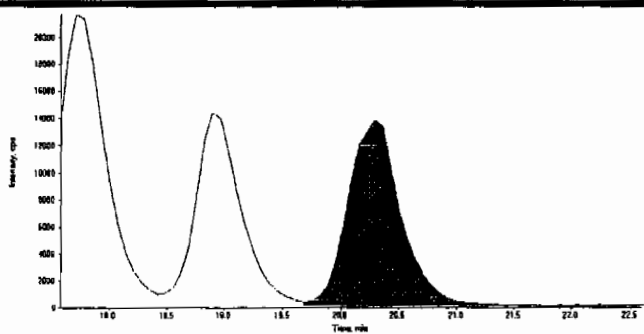


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GEL SOP GL-OA-E-056, Method 8321A-Modified

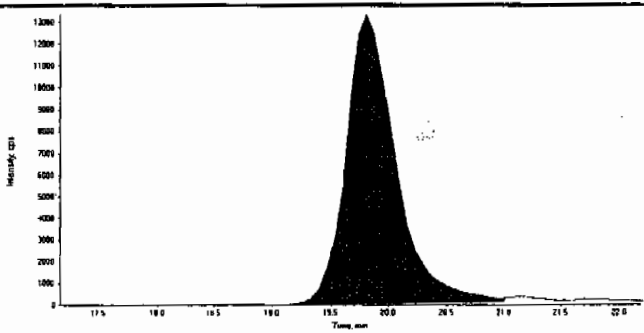
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415043.wiff	<b>Acquisition Date</b>	4/16/2010 4:17:22 AM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	20.3
	Area Counts:	4.46e+005
	Manual Modification	No
	Amount:	568. (ng/mL)
	% Accuracy:	94.70

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	19.8
	Area Counts:	4.06e+005
	Manual Modification	Yes
	Amount:	756. (ng/mL)
	% Accuracy:	126.00



# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/16/10  
 Time of Injection 0417  
 Standard Number WXX100415-56CCV  
 Data File EXP0415043a

HMX	101.0
RDX	113.0
135-Trinitrobenzene	109.0
13-Dinitrobenzene	98.0
Tetryl	107.0
246-Trinitrotoluene	98.0
Nitrobenzene	105.0
34-dinitrotoluene	86.9
26-dinitrotoluene	95.3
24-dinitrotoluene	98.6
4-Amino-26-dinitrotoluene	104.0
2-Amino-46-dinitrotoluene	100.0
2-Nitrotoluene	97.3
4-Nitrotoluene	110.0
3-Nitrotoluene	94.7
PETN	126.0

TOTAL

✓ 1643.8

*4/16/10*

AVERAGE

✓ 102.7

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*For 4/16/10*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0415045.wiff

Analysis Date: 16-APR-10 05:09

LCMSMS ID: 1189

Column ID: Sphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	40.2	100	
2,4,6-Trinitrotoluene	40	39.1	98	
2,4-Dinitrotoluene	40	34.2	86	
2,6-Dinitrotoluene	40	32.6	82	
2-Amino-4,6-dinitrotoluene	40	38.6	97	
3,4-Dinitrotoluene	20	18.2	91	
4-Amino-2,6-dinitrotoluene	40	41.4	104	
HMX	40	45.4	114	
Nitrobenzene	40	46.4	116	
PETN	40	47.4	118	
RDX	40	44.6	112	
Tetryl	40	43.3	108	
m-Dinitrobenzene	40	44.3	111	
m-Nitrotoluene	40	44.7	112	
o-Nitrotoluene	40	43.9	110	
p-Nitrotoluene	40	46.7	117	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

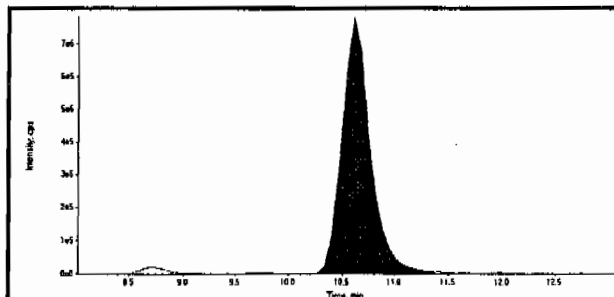
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

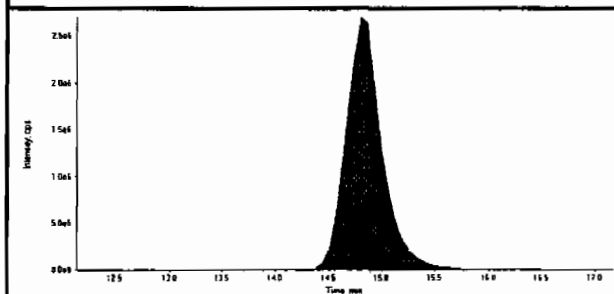
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

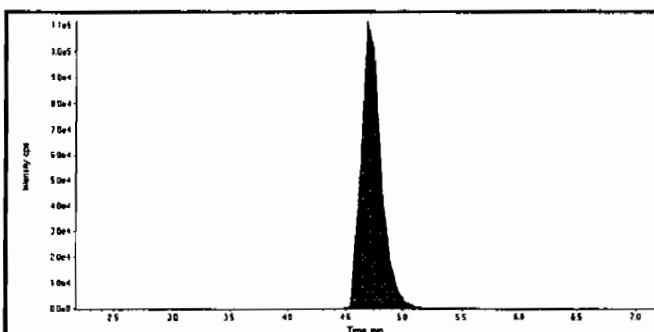
Data File	EXP0415045.wiff	Acquisition Date	4/16/2010 5:09:20 AM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



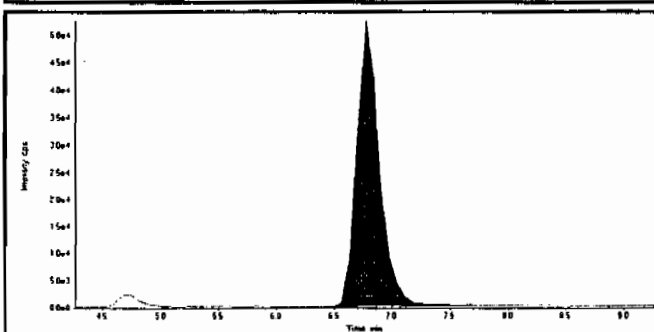
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	14700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	65400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.41e+006
Manual Modification	No
Amount:	45.4 (ng/mL)
% Accuracy:	114.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	7.44e+005
Manual Modification	No
Amount:	44.6 (ng/mL)
% Accuracy:	112.00

*Handwritten:*  
4/23/10  
Lar  
4/23/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415045.wiff	<b>Acquisition Date</b>	4/16/2010 5:09:20 AM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	9.07
	<b>Area Counts:</b>	9.42e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	40.2 (ng/mL)
	<b>% Accuracy:</b>	100.00

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	3.73e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	44.3 (ng/mL)
	<b>% Accuracy:</b>	111.00

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.8
	<b>Area Counts:</b>	2.91e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	43.3 (ng/mL)
	<b>% Accuracy:</b>	108.00

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	1.74e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	39.1 (ng/mL)
	<b>% Accuracy:</b>	97.70

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415045.wiff	<b>Acquisition Date</b>	4/16/2010 5:09:20 AM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	11.9
	Area Counts:	1.25e+005
	Manual Modification	No
	Amount:	46.4 (ng/mL)
	% Accuracy:	116.00

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	1.93e+006
	Manual Modification	No
	Amount:	18.2 (ng/mL)
	% Accuracy:	90.90

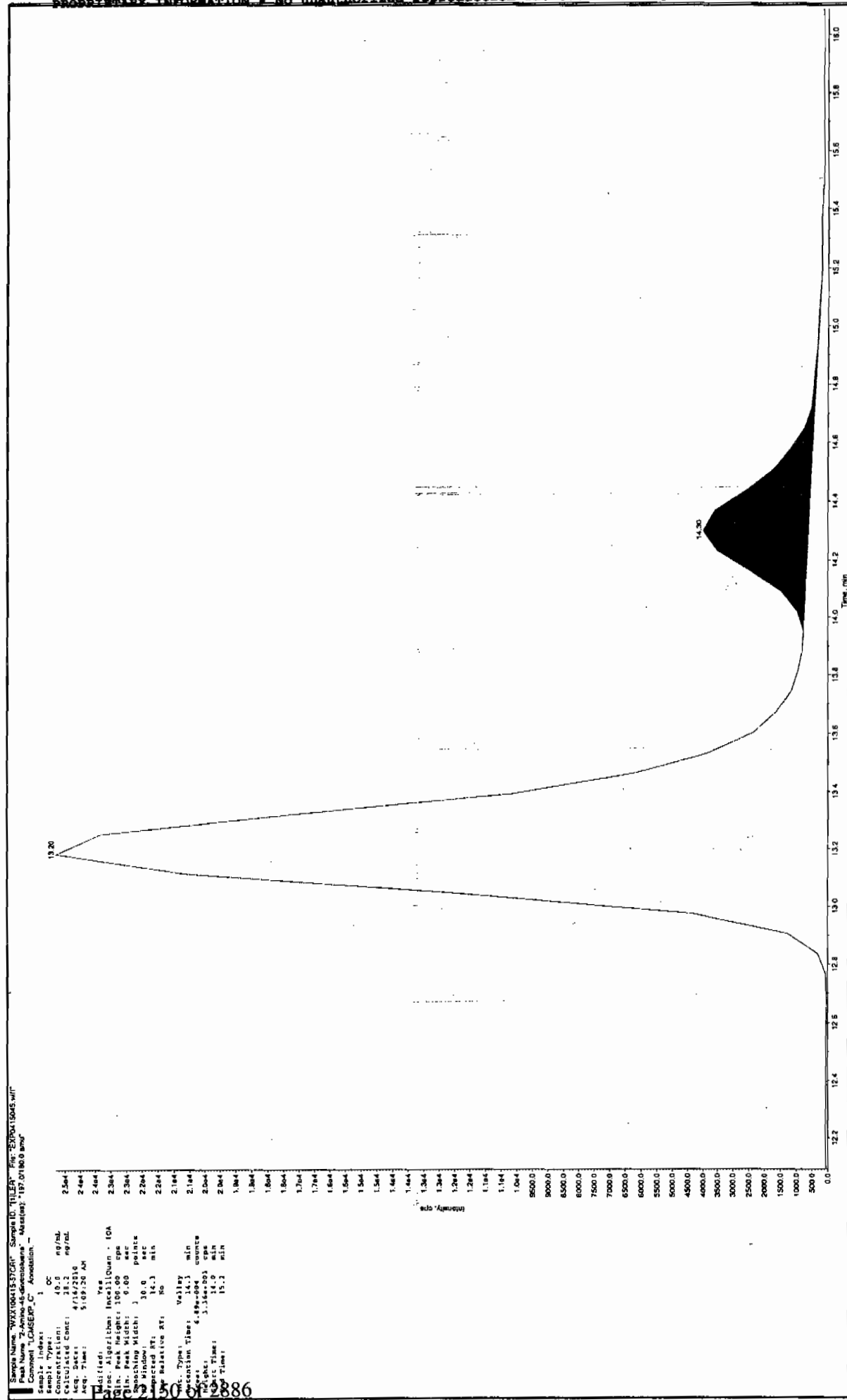
  

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.9
	Area Counts:	3.18e+006
	Manual Modification	No
	Amount:	32.6 (ng/mL)
	% Accuracy:	81.50

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.6
	Area Counts:	1.19e+006
	Manual Modification	No
	Amount:	34.2 (ng/mL)
	% Accuracy:	85.50

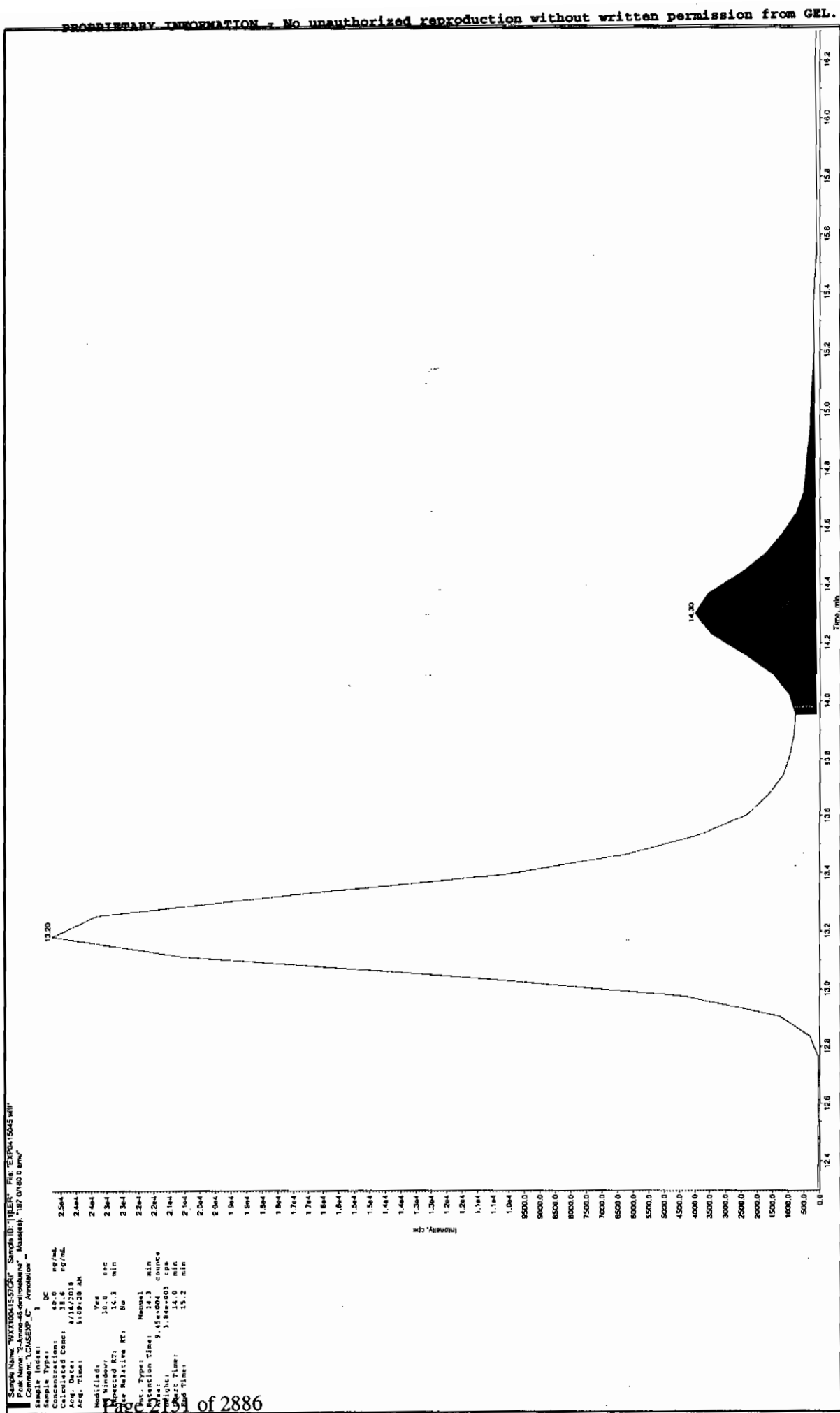
Before Jan 4/23/10



Sample Name: WXX100415-57GR Sample ID: TULEP File: EXPR015045.wit  
Peak Name: 2,4-Dichlorophenoxyacetic acid  
Acquisition: 12/16/2009 11:00:00 AM  
Sample Index: 1  
Sample Type: OC  
Concentration: 40.0 ug/mL  
Calculated Conc: 47.622310 ug/mL  
Acq. Time: 5.09120 AM  
Peak Height: 100.00 cps  
Peak Width: 0.00 sec  
Acquisition Width: 30.0 points  
Acquisition Rate: 10.0 cps  
Peak Time: 14.3 min  
Relative RT: No  
Type: Valley  
Retention Time: 14.3 min  
Height: 4.49e+004 counts  
Width: 3.36e+003 cps  
Area: 14.0 min  
Time: 15.3 min

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after ran 4/23/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415045.wiff	<b>Acquisition Date</b>	4/16/2010 5:09:20 AM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	2.65e+006
	Manual Modification	No
	Amount:	41.4 (ng/mL)
	% Accuracy:	104.00

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.3
	Actual RT:	14.3
	Area Counts:	9.45e+004
	Manual Modification	Yes
	Amount:	38.6 (ng/mL)
	% Accuracy:	96.60

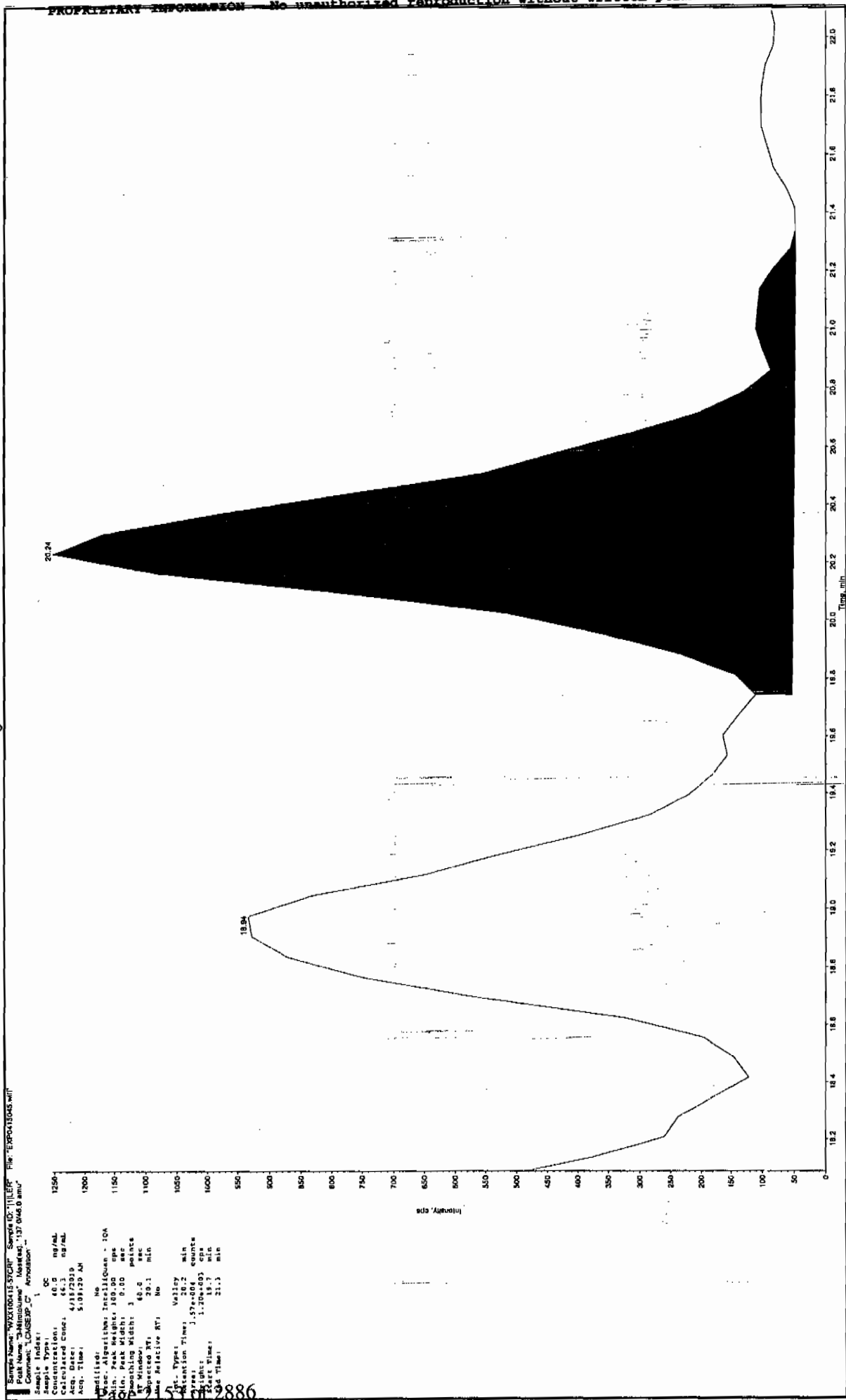
	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	17.7
	Area Counts:	4.42e+004
	Manual Modification	No
	Amount:	43.9 (ng/mL)
	% Accuracy:	110.00

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	19.0
	Area Counts:	2.49e+004
	Manual Modification	No
	Amount:	46.7 (ng/mL)
	% Accuracy:	117.00

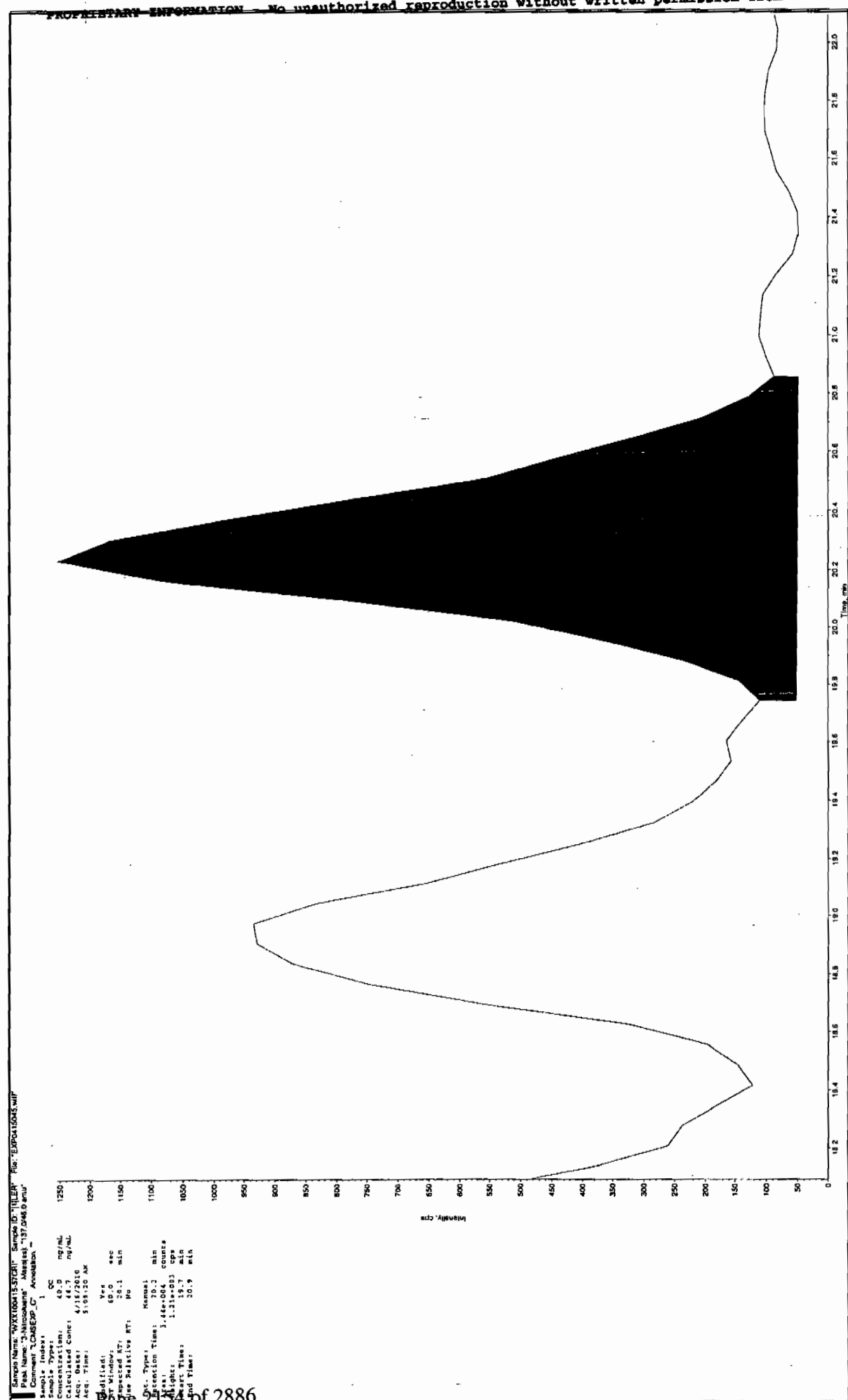


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*GEL SOP GL-OA-E-056, Method 8321A-Modified	LCMSMS#3
---	----------

after decr 4/23/10



Sample Name: "NXY100415.0701" Sample ID: "111111" File: "EXP04150415.mpl"

Peak Name: "NXY100415.0701" Method: "111111" Method: "111111"

Comment: "LMSXP\_C" Annotation: "

Sample Index: 1

Sample Type: 45.0

Calculated Conc: 44.7

Acq. Date: 4/15/2010

Acq. Time: 5:05:10 AM

Modified: Yes

Expected RT: 20.1 min

Observed RT: 20.9 min

Peak Name: "NXY100415.0701"

Peak Type: Manual

Retention Time: 20.9 min

Area: 3.44e+004

Height: 1.23e+003

Start Time: 19.7 min

End Time: 20.9 min

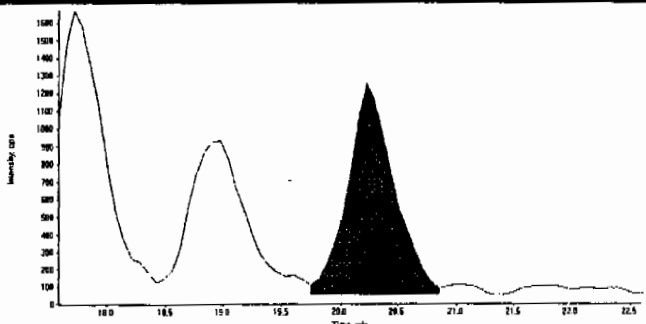
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

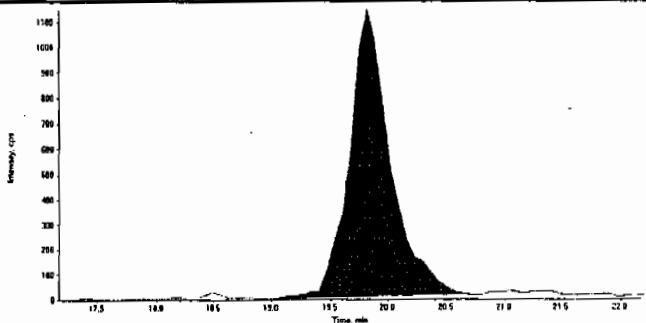
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415045.wiff	Acquisition Date	4/16/2010 5:09:20 AM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	20.2
	Area Counts:	3.44e+004
	Manual Modification	Yes
	Amount:	44.7 (ng/mL)
	% Accuracy:	112.00

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	19.8
	Area Counts:	2.90e+004
	Manual Modification	No
	Amount:	47.4 (ng/mL)
	% Accuracy:	118.00

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/16/10  
 Time of Injection 0509  
 Standard Number WXX100415-57CRI  
 Data File EXP0415045a

HMX	114.0
RDX	112.0
135-Trinitrobenzene	100.0
13-Dinitrobenzene	111.0
Tetryl	108.0
246-Trinitrotoluene	97.7
Nitrobenzene	116.0
34-dinitrotoluene	90.9
26-dinitrotoluene	81.5
24-dinitrotoluene	85.5
4-Amino-26-dinitrotoluene	104.0
2-Amino-46-dinitrotoluene	96.6
2-Nitrotoluene	110.0
4-Nitrotoluene	117.0
3-Nitrotoluene	112.0
PETN	118.0

TOTAL

✓ 1674.2

*hmm 04/23/10*

ICV Limits 85-115%

AVERAGE

✓ 104.6

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*for 4/22/10*

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0415056.wiff

Analysis Date: 16-APR-10 09:54

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	636	106	
2,4,6-Trinitrotoluene	600	617	103	
2,4-Dinitrotoluene	600	623	104	
2,6-Dinitrotoluene	600	588	98	
2-Amino-4,6-dinitrotoluene	600	632	105	
3,4-Dinitrotoluene	300	292	97	
4-Amino-2,6-dinitrotoluene	600	685	114	
HMX	600	662	110	
Nitrobenzene	600	573	96	
PETN	600	719	120	
RDX	600	704	117	
Tetryl	600	674	112	
m-Dinitrobenzene	600	560	93	
m-Nitrotoluene	600	648	108	
o-Nitrotoluene	600	647	108	
p-Nitrotoluene	600	696	116	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

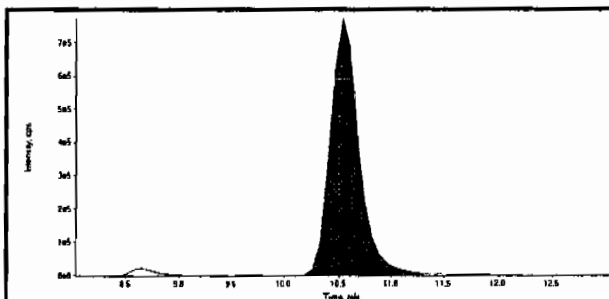
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

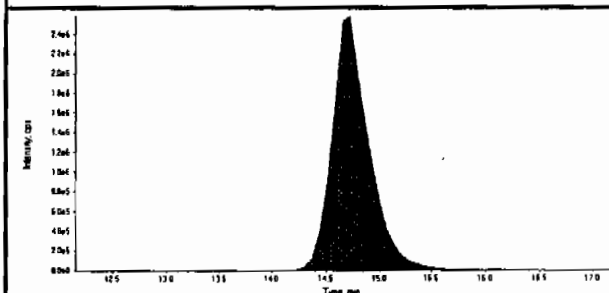
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

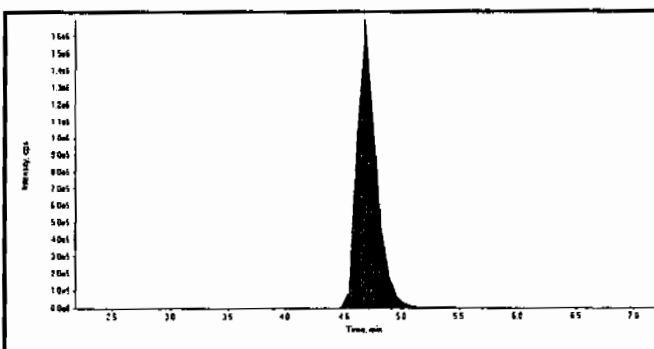
Data File	EXP0415056.wiff	Acquisition Date	4/16/2010 9:54:54 AM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



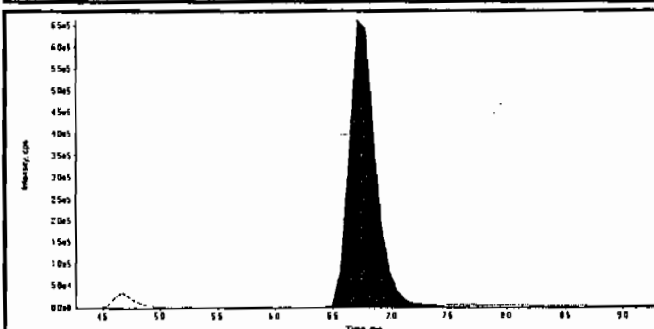
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	14500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	62300000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.96e+007
Manual Modification	No
Amount:	662. (ng/mL)
% Accuracy:	110.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.70
Area Counts:	1.05e+007
Manual Modification	No
Amount:	704. (ng/mL)
% Accuracy:	117.00

*Handwritten notes:*  
HMX 04/23/10  
RDX 4/23/10

Before Jan 4/28/10

Sample Name: "XXXXX00415-5600" Sample ID: "TILER" File: "EXP0415056.wit"

Concentration: "LCMSMS" Method: "221.1208.8 amu"

Sample Type: "QC"

Concentration: 400. ng/mL

Calculated Conc: 4714.0010 ng/mL

Acq. Time: 9:54:14 AM

Peak 1:

Retention Time: 12.1 min

Peak Height: 1098.00 cps

Peak Width: 0.00 sec

Smoothing Width: 3.00 points

Baseline: 10.0 cps

Peak RT: 12.1 min

Peak Relative RT: No

Peak Type: Valley

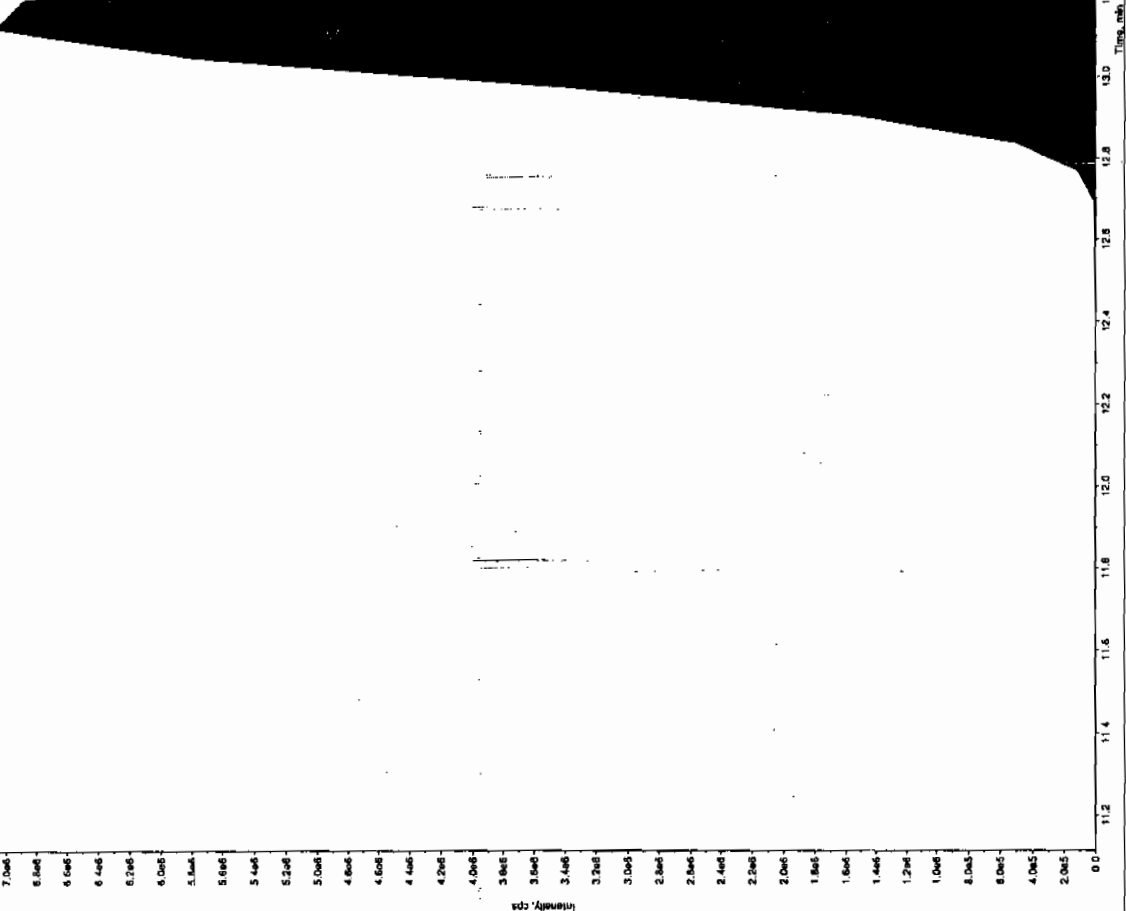
Peak Width: 1.07e-08 counts

Peak Height: 7.08e-006 cps

Peak RT: 12.1 min

Peak Relative RT: 10.4 min

13.14



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

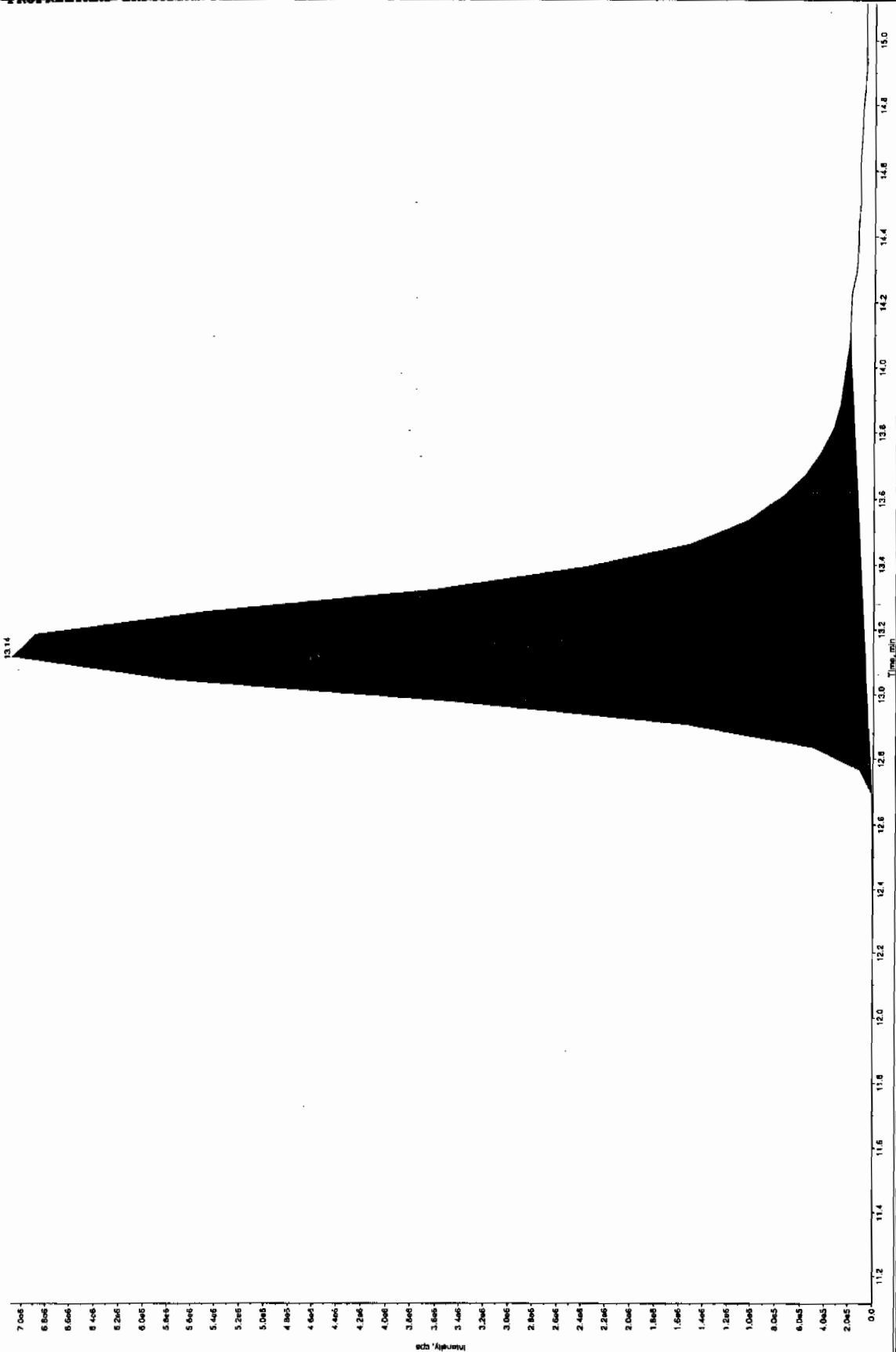
Page 24 5903886

after Jan 4/23/10

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Sample Name: 8321A-E-056  
Peak Name: 8321A-E-056  
Comment: 8321A-E-056

Sample Index:  
Sample Type: GC  
Sample Name: 8321A-E-056  
Acq. Date: 4/14/2010  
Acq. Time: 9:54:14 AM  
Modified: Yes  
Acq. Window: 10.0 sec  
Acq. Rate: 13.1 min  
Acq. Resolution: No  
Acq. Type: Manual  
Acq. Time: 13.1 min  
Acq. Rate: 1.48e+008 counts  
Acq. Resolution: 7.11e+008  
Acq. Time: 12.8 min  
Acq. Resolution: 16.1 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415056.wiff	<b>Acquisition Date</b>	4/16/2010 9:54:54 AM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	9.00
	<b>Area Counts:</b>	1.08e+008
	<b>Manual Modification</b>	No
	<b>Amount:</b>	636. (ng/mL)
	<b>% Accuracy:</b>	106.00

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	4.41e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	560. (ng/mL)
	<b>% Accuracy:</b>	93.40

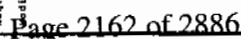
  

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	4.45e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	674. (ng/mL)
	<b>% Accuracy:</b>	112.00

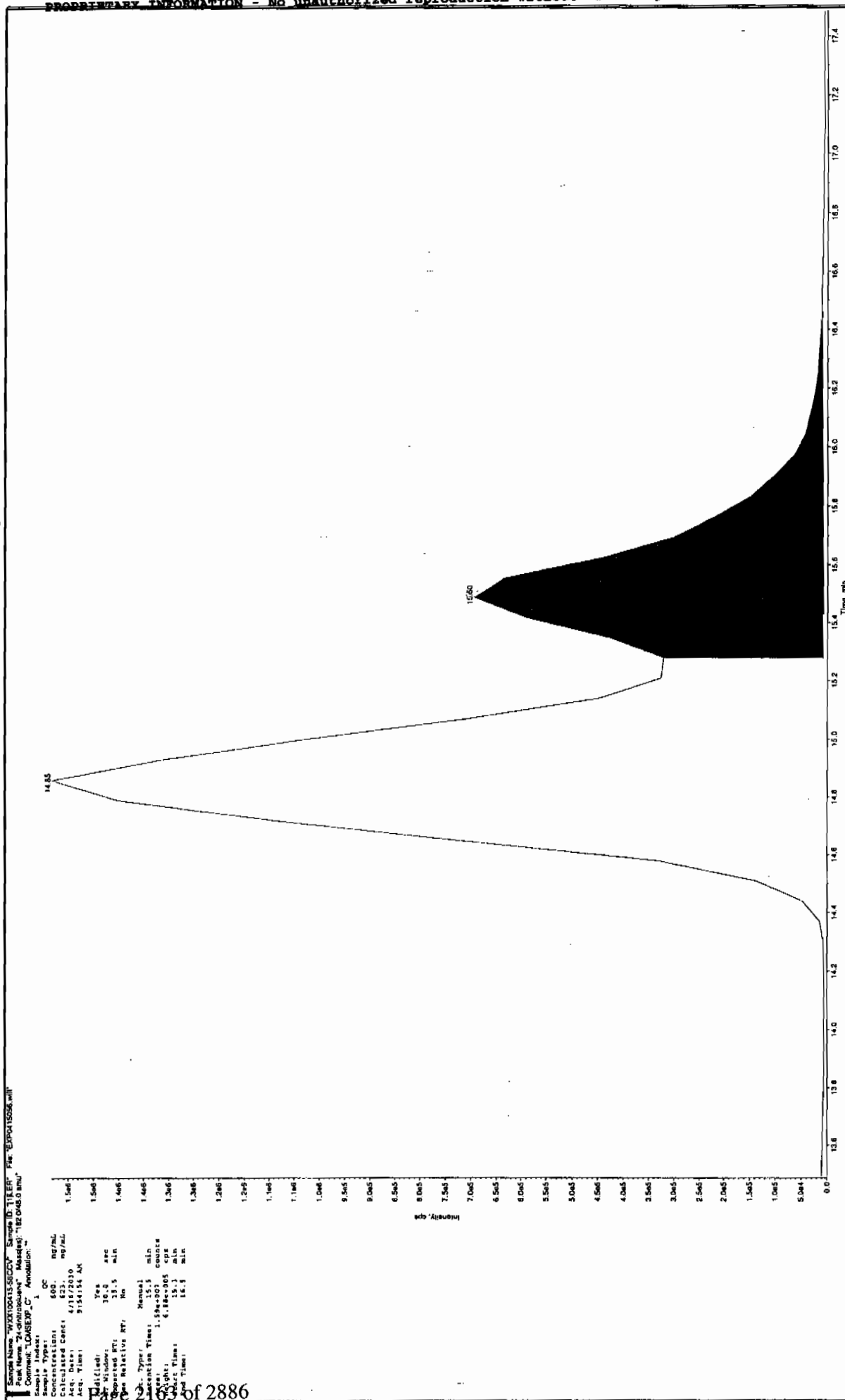
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.1
	<b>Area Counts:</b>	1.68e+008
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	617. (ng/mL)
	<b>% Accuracy:</b>	103.00

Before Jan 4/23/10



\*GEL SOP. GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Scan 42310



Sample Name: "92X100415.SGUV" Sample ID: "118.87" File: "EXP0415556.mpl"

Peak Name: "24-aminobutanol" Mass(es): "182.048.0 amu"

Comment: "LASEXP\_C" Annotation: "

Sample Index: 1 QC

Concentration: 600 ng/mL

Calculated Conc: 623. ng/mL

Acq. Date: 4/16/2010

Acq. Time: 9:34:54 AM

Validated: Yes

Exp. Window: 10.0 sec

Observed RT: 15.5 min

Exp. Relative RT: No

Conc. Type: Manual

Injection Time: 15.5 min

Height: 1.18e-001 cps

Weight: 6.88e-005 cps

Acq. Time: 15.3 min

Exp. Time: 16.3 min

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415056.wiff	<b>Acquisition Date</b>	4/16/2010 9:54:54 AM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	11.8
	Area Counts:	1.70e+006
	Manual Modification	No
	Amount:	573. (ng/mL)
	% Accuracy:	95.50

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.0
	Area Counts:	2.39e+007
	Manual Modification	No
	Amount:	292. (ng/mL)
	% Accuracy:	97.40

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.9
	Area Counts:	3.90e+007
	Manual Modification	No
	Amount:	588. (ng/mL)
	% Accuracy:	98.10

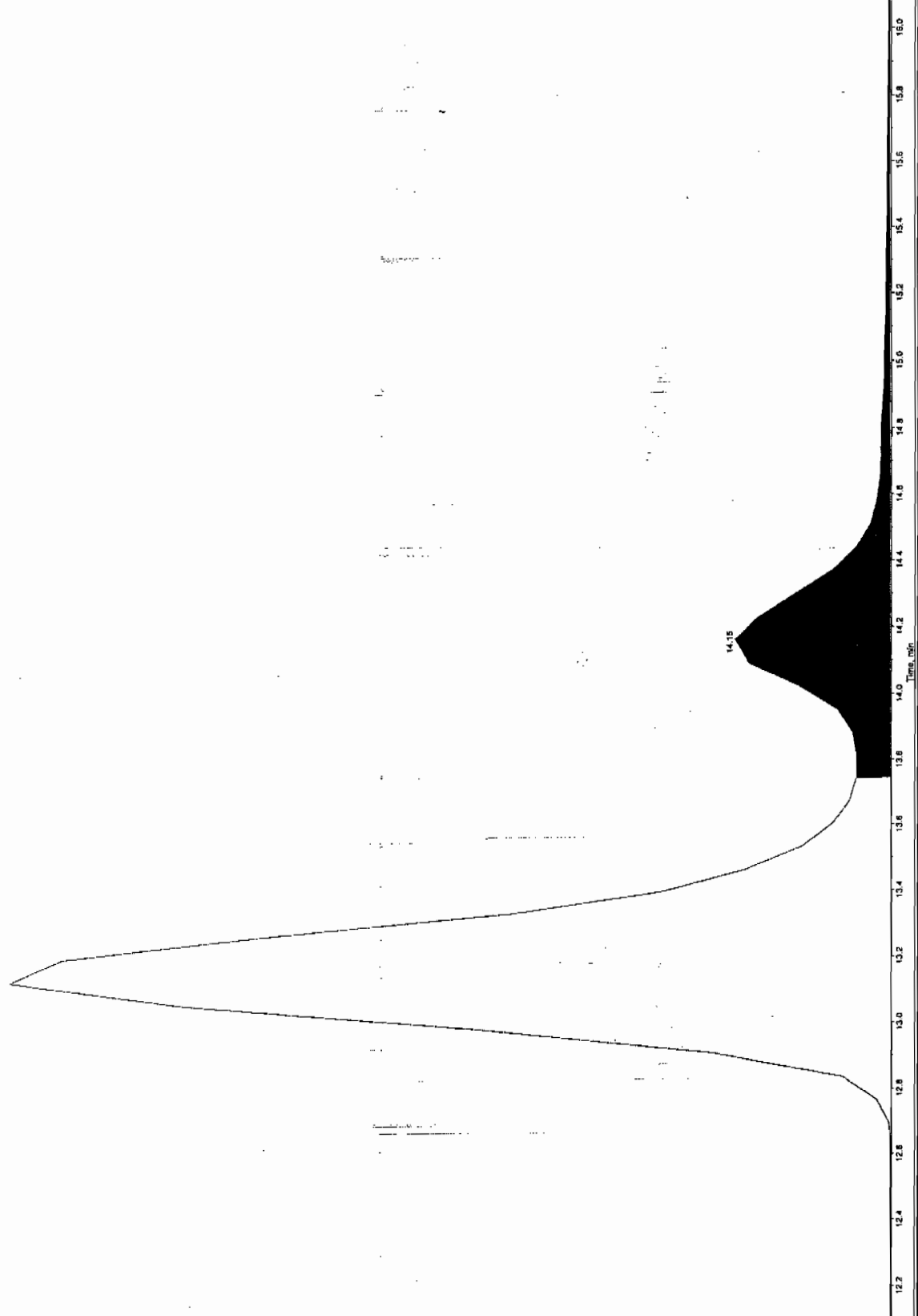
  

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.5
	Area Counts:	1.59e+007
	Manual Modification	Yes
	Amount:	623. (ng/mL)
	% Accuracy:	104.00

Before Jan 4/23/10

Sample Name: WXX100155820V Sample ID: 118187 File: EXP0115056.wif  
 Peak Name: 2-Amino-4-chlorobenzoic Acid  
 Comment: LCMSERP\_C Acquisition - 197 0180.0 amu

Sample Type: 1 QC  
 Concentration: 500.00 ng/mL  
 Calculated Conc: 700.00 ng/mL  
 Acq. Time: 6/7/2010 9:44:54 AM  
 Modified: No  
 Rec. Algorithm: Integ. Quan - 10A  
 Peak Width: 10.00 sec  
 Peak Height: 3.00 points  
 Smoothing Width: 3.00 points  
 Window: 50.0 sec  
 Retention Time: 14.15 min  
 Ret. Type: Valley  
 Retention Time: 14.15 min  
 Height: 6.18e-004 cps  
 Peak Time: 13.7 min  
 Peak Time: 14.4 min

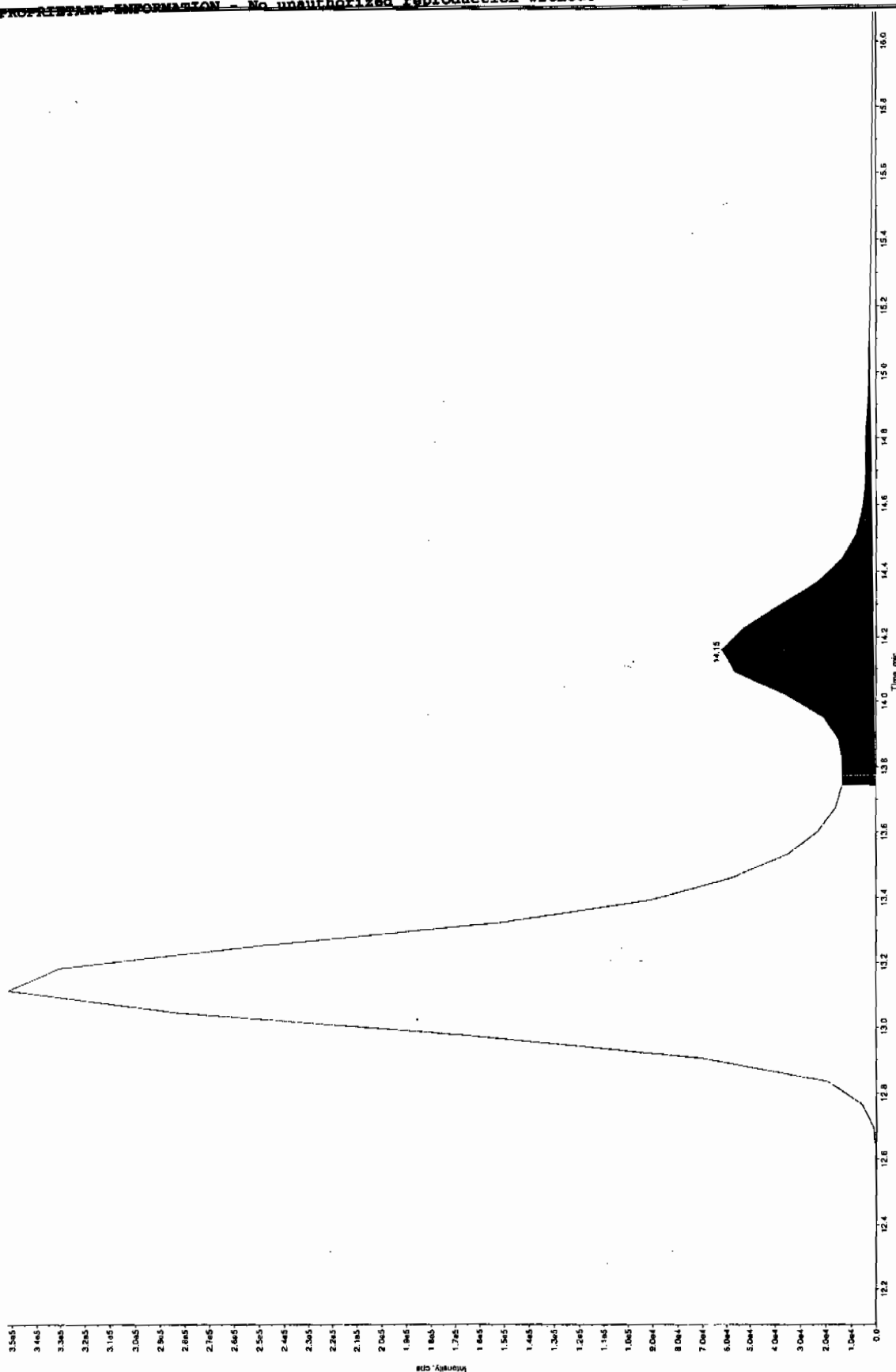


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/23/10

Sample Name: WXYZ00415-5620V Sample ID: TULER File: EXP0415665.wif  
 Peak Name: 15.156 min  
 Concentration: 1.0000000000000000  
 Component: 15.156 min  
 Component: 15.156 min

Sample Index: 1  
 Sample Type: QC  
 Concentration: 699.0000000000000000  
 Concentration: 699.0000000000000000  
 Acq. Date: 4/16/2010  
 Acq. Time: 9:54:44 AM  
 Modified: Yes  
 pH Window: 10.0 sec  
 Expected RT: 14.1 min  
 Base Relative RT: No  
 RT Type: Manual  
 Retention Time: 14.2 min  
 Area: 1.47e-006 counts  
 Height: 6.14e-004 cps  
 Width: 1.1 min  
 Std Time: 11.1 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415056.wiff	<b>Acquisition Date</b>	4/16/2010 9:54:54 AM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.1
	<b>Area Counts:</b>	3.80e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	685. (ng/mL)
	<b>% Accuracy:</b>	114.00

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	14.2
	<b>Area Counts:</b>	1.47e+006
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	632. (ng/mL)
	<b>% Accuracy:</b>	105.00

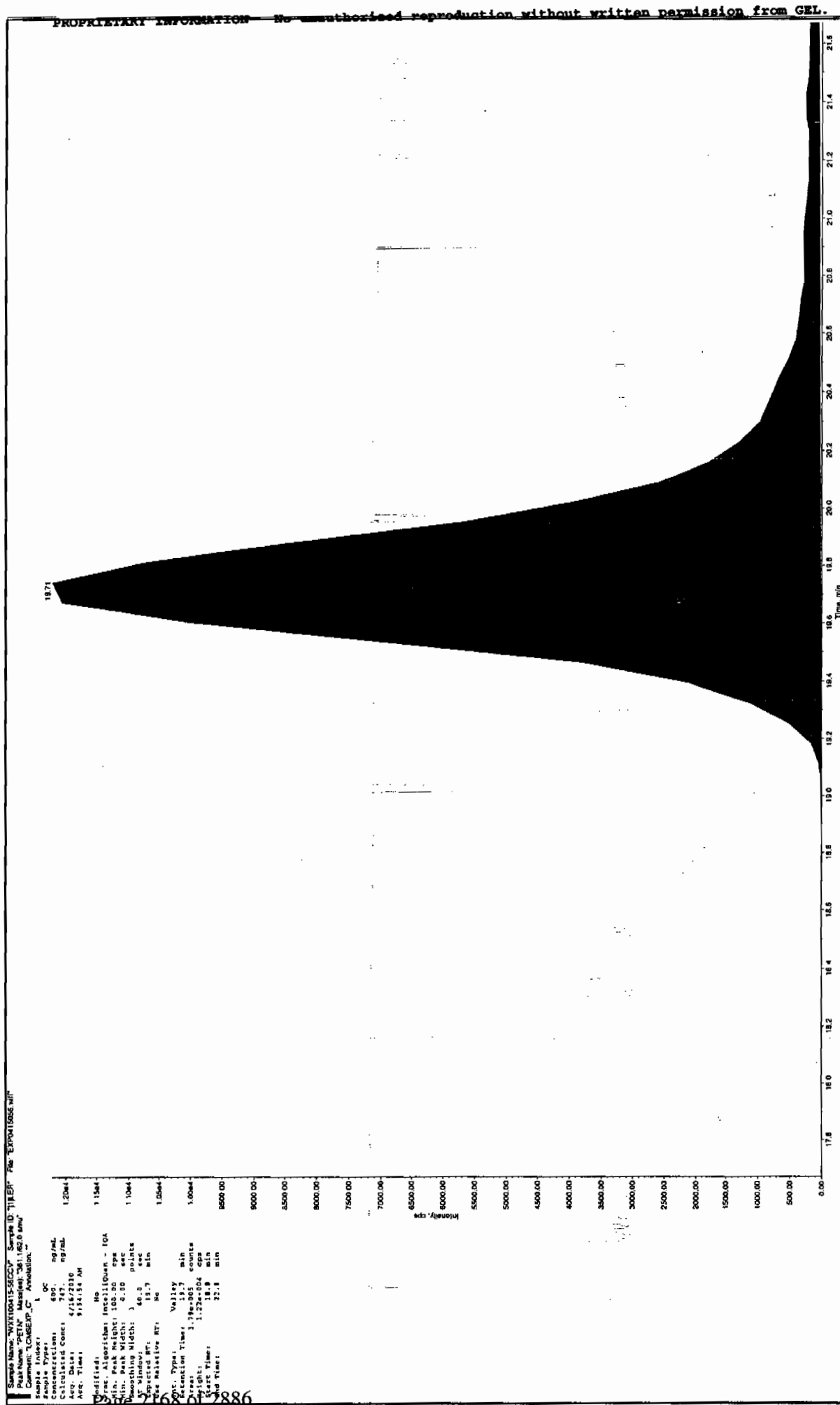
  

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	17.6
	<b>Area Counts:</b>	6.35e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	647. (ng/mL)
	<b>% Accuracy:</b>	108.00

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	18.8
	<b>Area Counts:</b>	3.64e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	696. (ng/mL)
	<b>% Accuracy:</b>	116.00

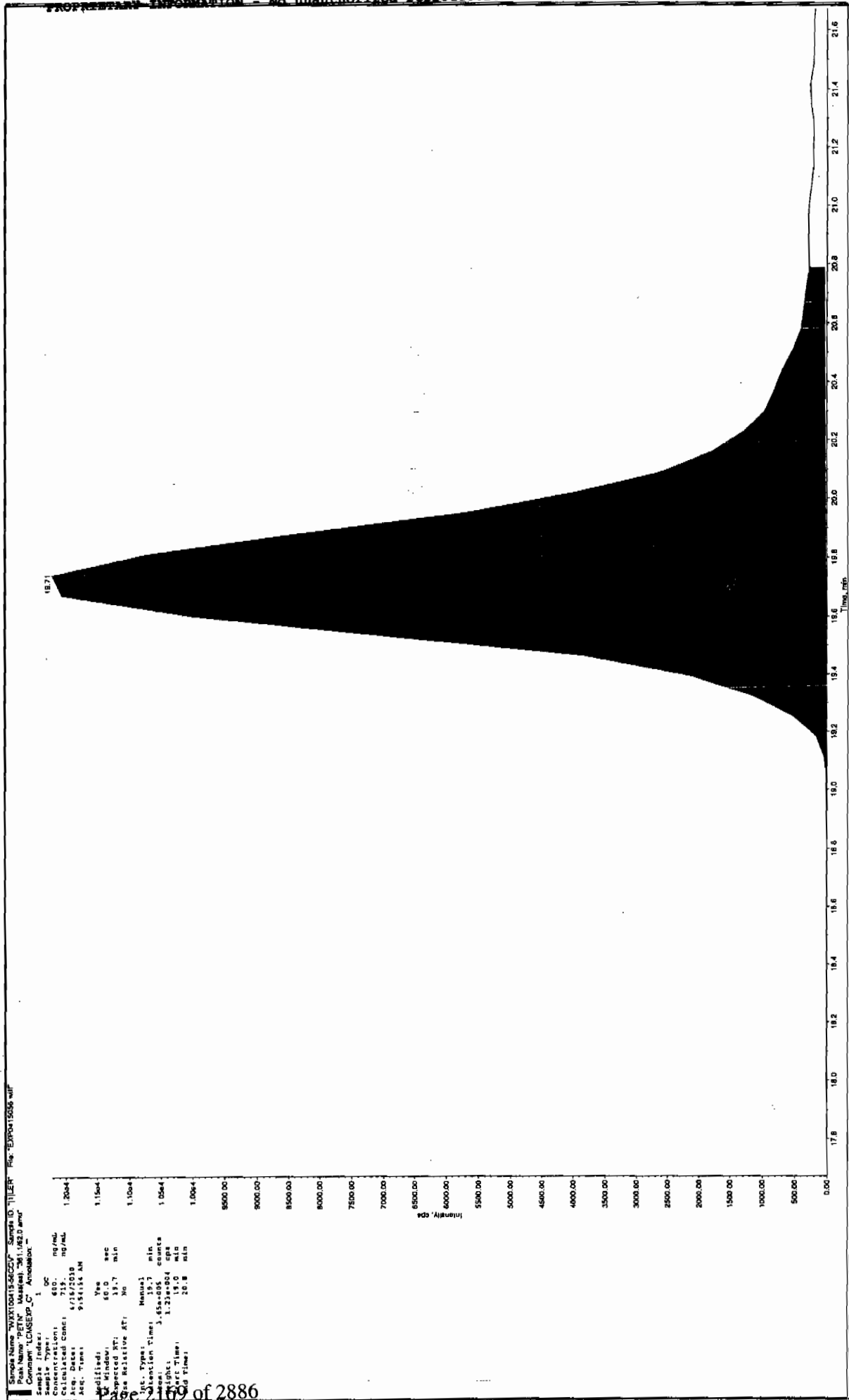
Before Jan 4/20/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



after Jan 4/23/10



Sample Name: WXX100415-56227 Sample ID: 11111111 File: EXP0415036.wif

Peak Name: PETN Masses: 76.1, 162.0 amu

Concentration: 1.0000000000000000

Concentration: 1.0000000000000000

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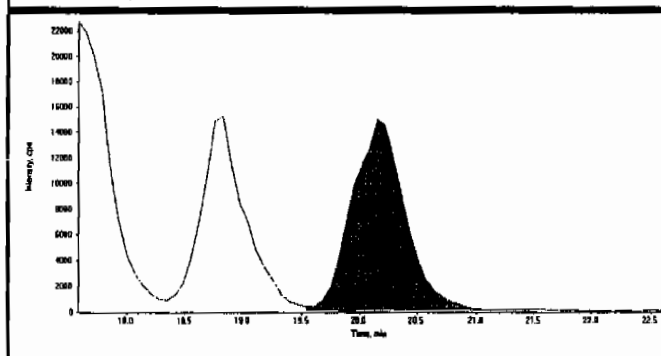
Concentration: 1.0000000000000000

Concentration: 1.0000000000000000

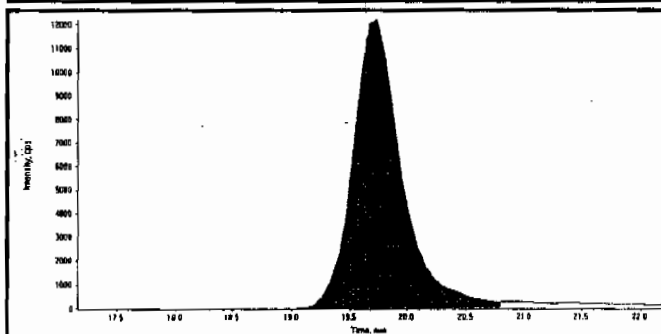
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415056.wiff	Acquisition Date	4/16/2010 9:54:54 AM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	4.81e+005
Manual Modification	No
Amount:	648. (ng/mL)
% Accuracy:	108.00



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.7
Actual RT:	19.7
Area Counts:	3.65e+005
Manual Modification	Yes
Amount:	719. (ng/mL)
% Accuracy:	120.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/16/10  
 Time of Injection 0954  
 Standard Number WXX100415-56CCV  
 Data File EXP0415056a

HMX	110.0
RDX	117.0
135-Trinitrobenzene	106.0
13-Dinitrobenzene	93.4
Tetryl	112.0
246-Trinitrotoluene	103.0
Nitrobenzene	95.5
34-dinitrotoluene	97.4
26-dinitrotoluene	98.1
24-dinitrotoluene	104.0
4-Amino-26-dinitrotoluene	114.0
2-Amino-46-dinitrotoluene	105.0
2-Nitrotoluene	108.0
4-Nitrotoluene	116.0
3-Nitrotoluene	108.0
PETN	120.0

TOTAL

1707.4

*Handwritten signature*

AVERAGE

106.7

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Handwritten signature*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0415058.wiff

Analysis Date: 16-APR-10 10:46

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	36	90	
2,4,6-Trinitrotoluene	40	42.2	106	
2,4-Dinitrotoluene	40	37.3	93	
2,6-Dinitrotoluene	40	37.8	95	
2-Amino-4,6-dinitrotoluene	40	37.3	93	
3,4-Dinitrotoluene	20	21.6	108	
4-Amino-2,6-dinitrotoluene	40	39.7	99	
HMX	40	46.5	116	
Nitrobenzene	40	47.9	120	
PETN	40	41.4	103	
RDX	40	43.1	108	
Tetryl	40	40.4	101	
m-Dinitrobenzene	40	42.3	106	
m-Nitrotoluene	40	42	105	
o-Nitrotoluene	40	46.5	116	
p-Nitrotoluene	40	49	123	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

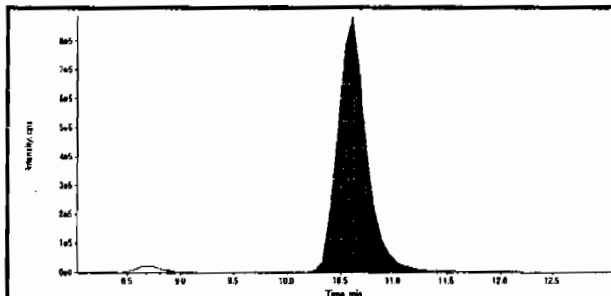
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

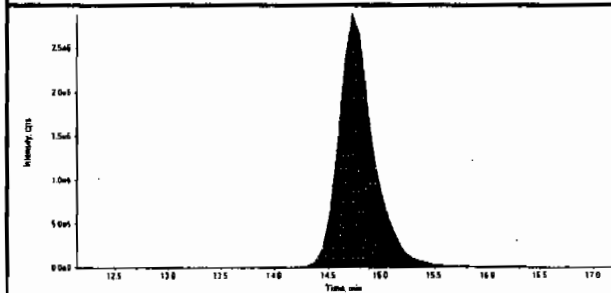
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LCMSMS#3

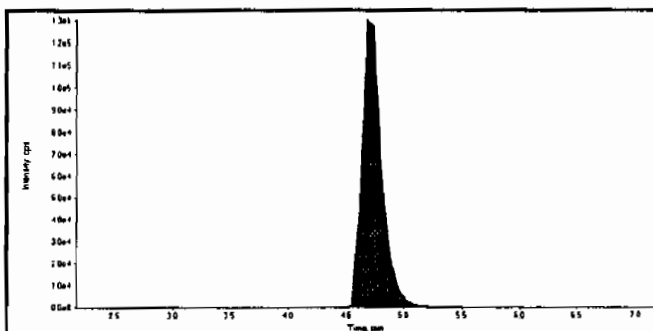
Data File	EXP0415058.wiff	Acquisition Date	4/16/2010 10:46:59 AM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



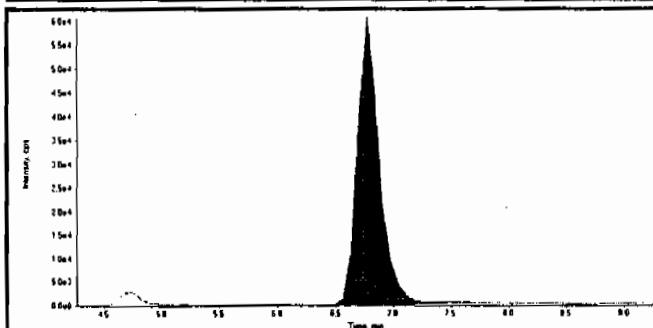
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	16900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	67100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.66e+006
Manual Modification	No
Amount:	46.5 (ng/mL)
% Accuracy:	116.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	8.30e+005
Manual Modification	No
Amount:	43.1 (ng/mL)
% Accuracy:	108.00

*Handwritten:* Hmx 04/23/10

*Handwritten:* Jax 4/23/10

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LCMSMS#3

<b>Data File</b>	EXP0415058.wiff	<b>Acquisition Date</b>	4/16/2010 10:46:59 AM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch/Dilution/Analyst</b>	1 1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	9.00
	<b>Area Counts:</b>	9.81e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	36.0 (ng/mL)
	<b>% Accuracy:</b>	90.00

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	4.08e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	42.3 (ng/mL)
	<b>% Accuracy:</b>	106.00

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	3.11e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	40.4 (ng/mL)
	<b>% Accuracy:</b>	101.00

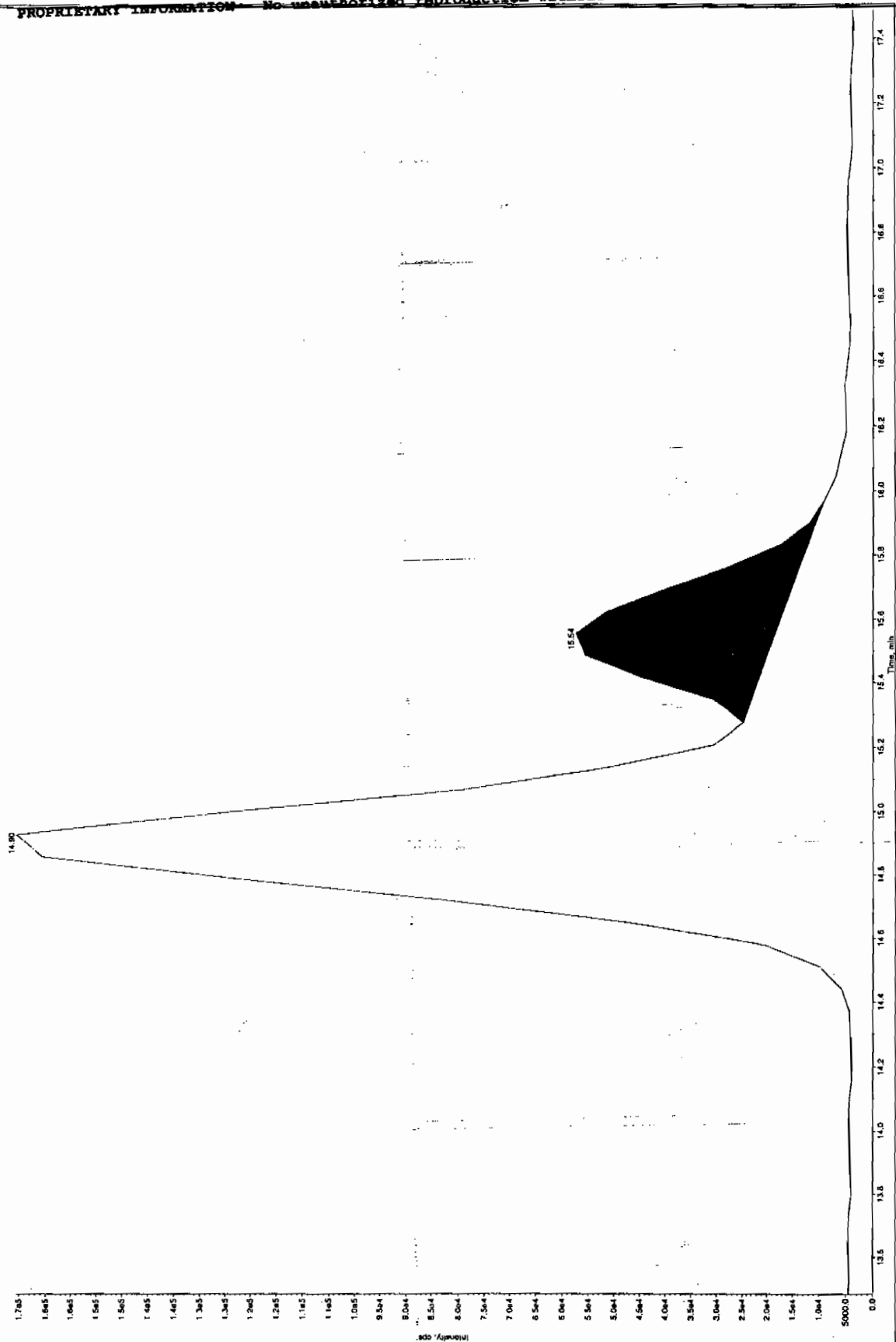
  

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	1.91e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	42.2 (ng/mL)
	<b>% Accuracy:</b>	106.00

Before Jan 4/23/10

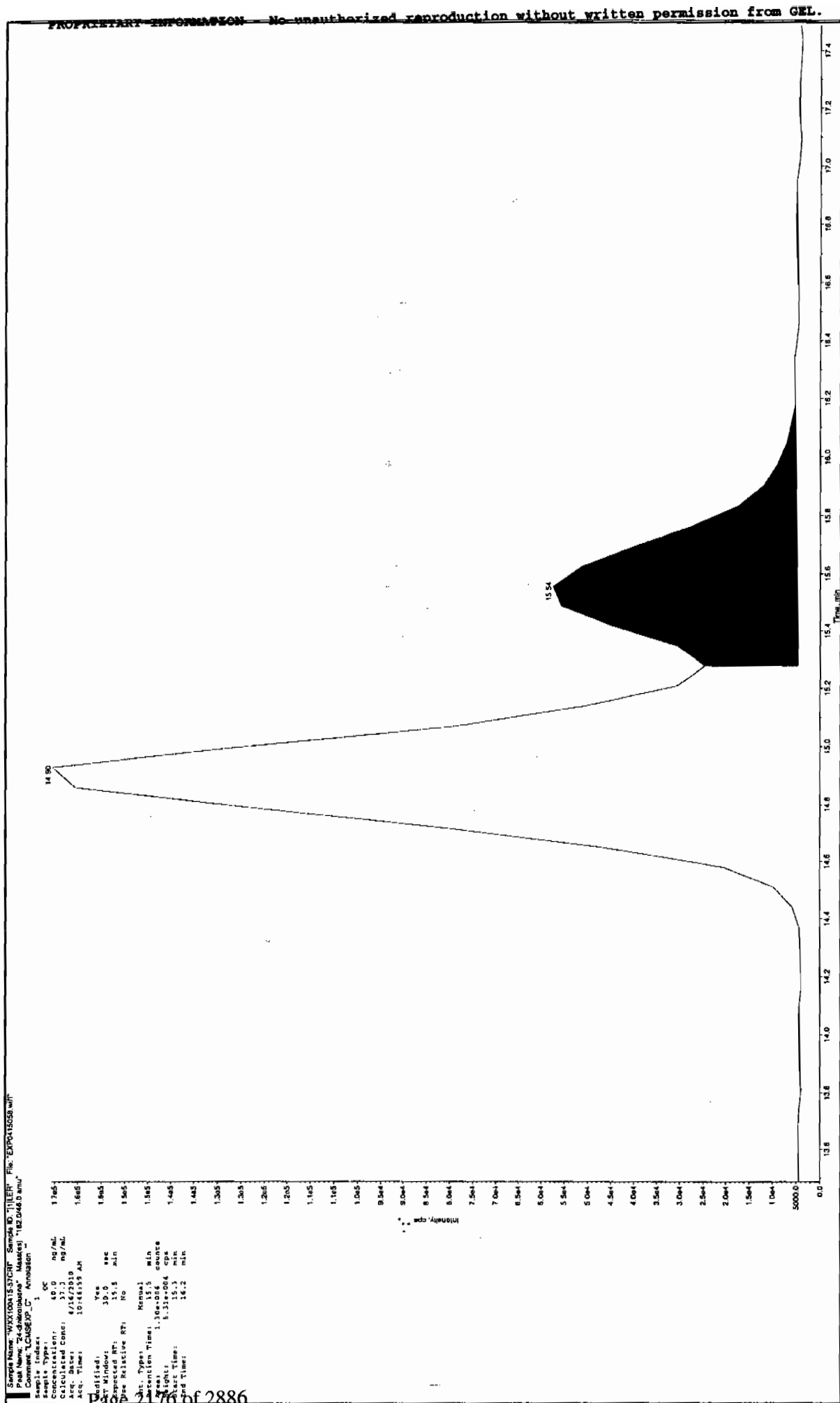
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Sample Name: 9072200415-3701 Sample ID: 11111111 File: E000415038.mf  
Peak Name: 2,4-dinitrophenol Mass(m/z): 122.0460 amu  
Concentration: 40.0 ng/mL  
Sample Index: 1  
Sample Type: OC  
Concentration: 40.0 ng/mL  
Acquisition Date: 4/15/2010  
Acq. Time: 10:46:59 AM  
Modified: 7/5/2010  
Injection Volume: 10 µL  
Injection Speed: 1000.00 cps  
Injection Time: 0.00 sec  
Sampling Width: 3.00 points  
Peak Width: 10.0 sec  
Peak Height: 15.5 min  
Connected RT: 15.5 min  
Use Relative RT: No  
Valley Type: Valley  
Valley Time: 15.5 min  
Retention Time: 15.5 min  
Height: 1.91e-004 cps  
Width: 15.5 min  
Start Time: 15.5 min  
End Time: 16.0 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/23/10





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Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415058.wiff	<b>Acquisition Date</b>	4/16/2010 10:46:59 AM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	11.8
	Area Counts:	1.49e+005
	Manual Modification	No
	Amount:	47.9 (ng/mL)
	% Accuracy:	120.00

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	2.28e+006
	Manual Modification	No
	Amount:	21.6 (ng/mL)
	% Accuracy:	108.00

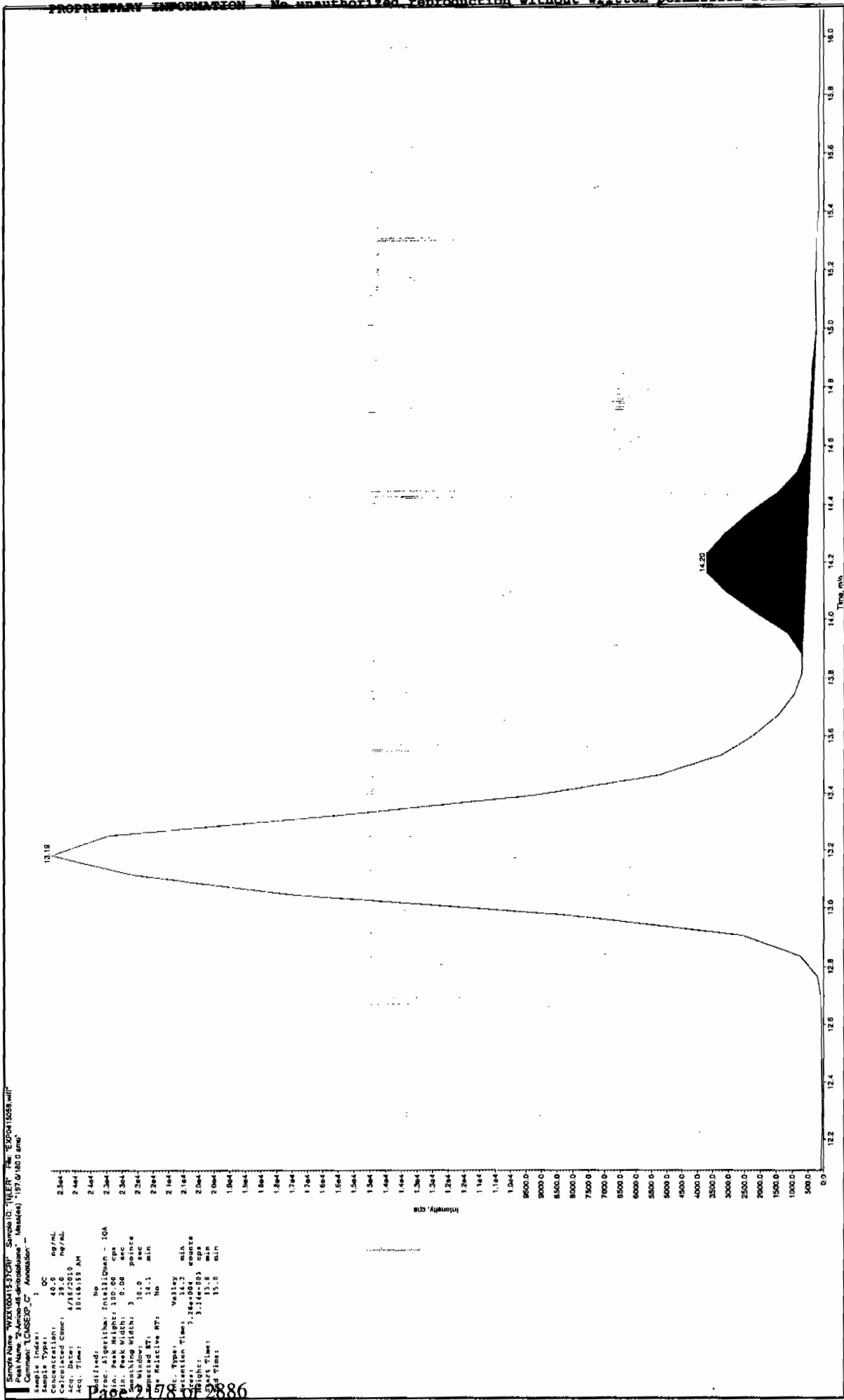
  

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.9
	Area Counts:	3.63e+006
	Manual Modification	No
	Amount:	37.8 (ng/mL)
	% Accuracy:	94.50

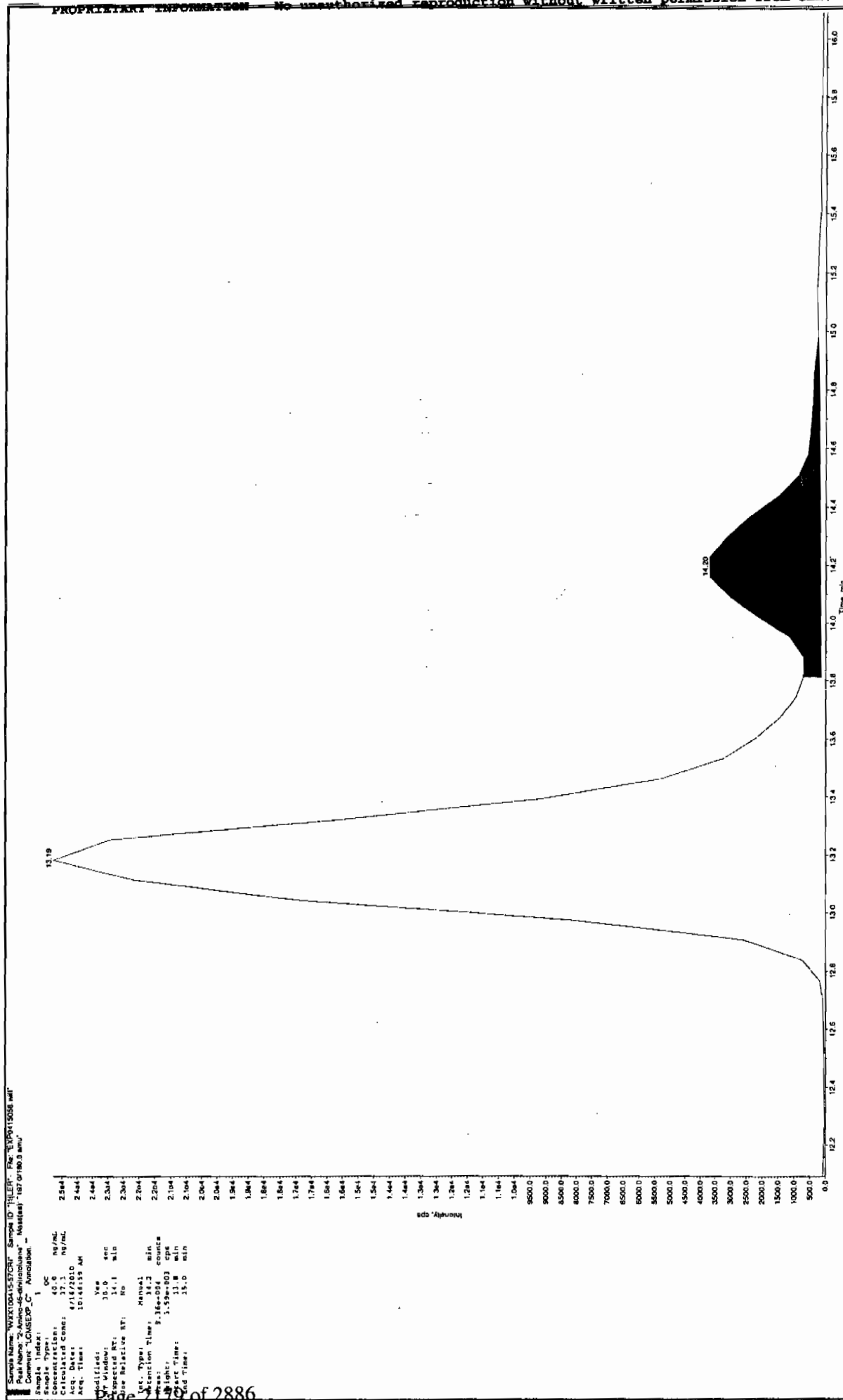
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.5
	Area Counts:	1.30e+006
	Manual Modification	Yes
	Amount:	37.3 (ng/mL)
	% Accuracy:	93.30

Before Dec 4/73/10



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Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415058.wiff	<b>Acquisition Date</b>	4/16/2010 10:46:59 AM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.2
	Area Counts:	2.62e+006
	Manual Modification	No
	Amount:	39.7 (ng/mL)
	% Accuracy:	99.40

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	14.2
	Area Counts:	9.36e+004
	Manual Modification	Yes
	Amount:	37.3 (ng/mL)
	% Accuracy:	93.40

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	17.7
	Area Counts:	4.82e+004
	Manual Modification	No
	Amount:	46.5 (ng/mL)
	% Accuracy:	116.00

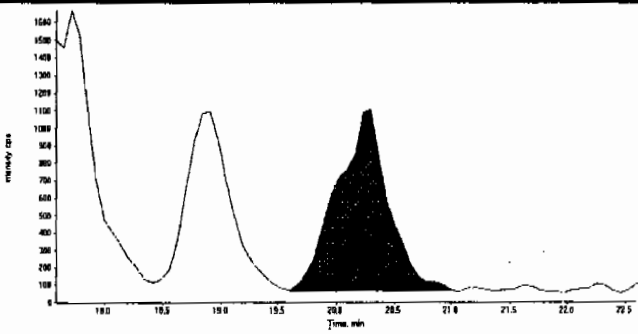
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.9
	Area Counts:	2.70e+004
	Manual Modification	No
	Amount:	49.0 (ng/mL)
	% Accuracy:	123.00

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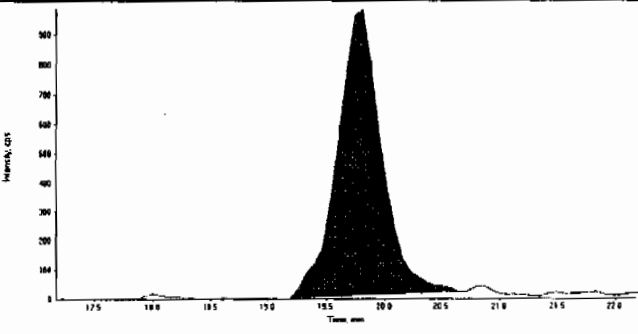
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415058.wiff	<b>Acquisition Date</b>	4/16/2010 10:46:59 AM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	20.3
	<b>Area Counts:</b>	3.32e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	42.0 (ng/mL)
	<b>% Accuracy:</b>	105.00

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	19.8
	<b>Area Counts:</b>	2.65e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	41.4 (ng/mL)
	<b>% Accuracy:</b>	103.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/16/10  
 Time of Injection 1046  
 Standard Number WXX100415-57CRI  
 Data File EXP0415058a

HMX	116.0
RDX	108.0
135-Trinitrobenzene	90.0
13-Dinitrobenzene	106.0
Tetryl	101.0
246-Trinitrotoluene	106.0
Nitrobenzene	120.0
34-dinitrotoluene	108.0
26-dinitrotoluene	94.5
24-dinitrotoluene	93.3
4-Amino-26-dinitrotoluene	99.4
2-Amino-46-dinitrotoluene	93.4
2-Nitrotoluene	116.0
4-Nitrotoluene	123.0
3-Nitrotoluene	105.0
PETN	103.0

TOTAL

✓ 1682.6

*Handwritten:* Hmx 04/23/10

AVERAGE

✓ 105.2

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Handwritten signature:* Jax 4/23/10

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0415063.wiff

Analysis Date: 16-APR-10 12:57

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	644	107	
2,4,6-Trinitrotoluene	600	631	105	
2,4-Dinitrotoluene	600	610	102	
2,6-Dinitrotoluene	600	642	107	
2-Amino-4,6-dinitrotoluene	600	580	97	
3,4-Dinitrotoluene	300	239	80	
4-Amino-2,6-dinitrotoluene	600	605	101	
HMX	600	646	108	
Nitrobenzene	600	579	97	
PETN	600	710	118	
RDX	600	748	125	
Tetryl	600	587	98	
m-Dinitrobenzene	600	564	94	
m-Nitrotoluene	600	606	101	
o-Nitrotoluene	600	538	90	
p-Nitrotoluene	600	610	102	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

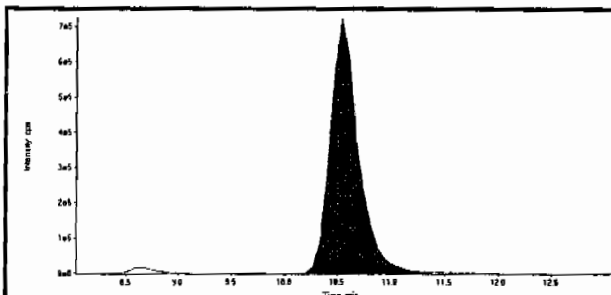
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

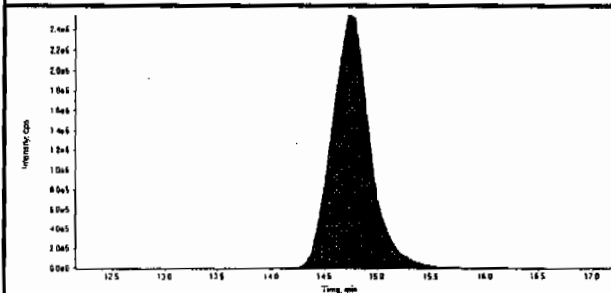
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LCMSMS#3

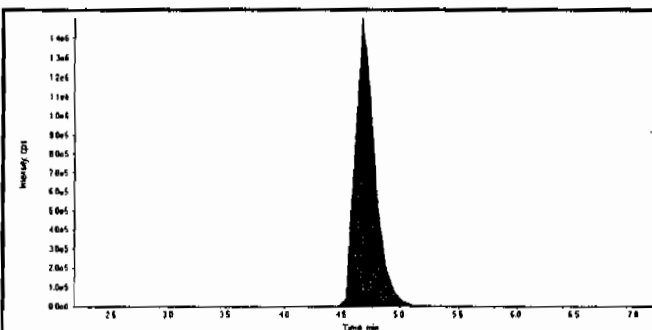
Data File	EXP0415063.wiff	Acquisition Date	4/16/2010 12:57:07 PM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



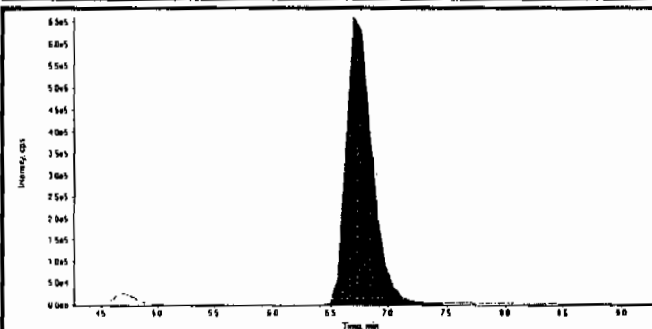
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	13700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	66000000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.80e+007
Manual Modification	No
Amount:	646. (ng/mL)
% Accuracy:	108.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.70
Area Counts:	1.06e+007
Manual Modification	No
Amount:	748. (ng/mL)
% Accuracy:	125.00

*LER*  
4/23/10

*Hmm*  
04/23/10



Before Jan 4/23/10

Sample Name: "WAX10015-5600" Sample ID: "1111" File: "EXP015003.wat"

Peak Name: "746-Tinibolone" Mass(es): "227.17296 amu"

Comment: "LCMS-IT-2" Annotation: "

Sample Index: 1

Concentration: 400. ng/mL

Calculated Conc: 718. ng/mL

Acq. Date: 1/11/2010

Acq. Time: 11:11:01 PM

Modified: No

Proc. Algorithm: Intelligram - ION

Peak Width: 0.00 sec

Smoothing Width: 3 points

3rd Window: 30.0 sec

Expected RT: 13.1 min

Actual RT: 13.1 min

Peak Width: 0.00 sec

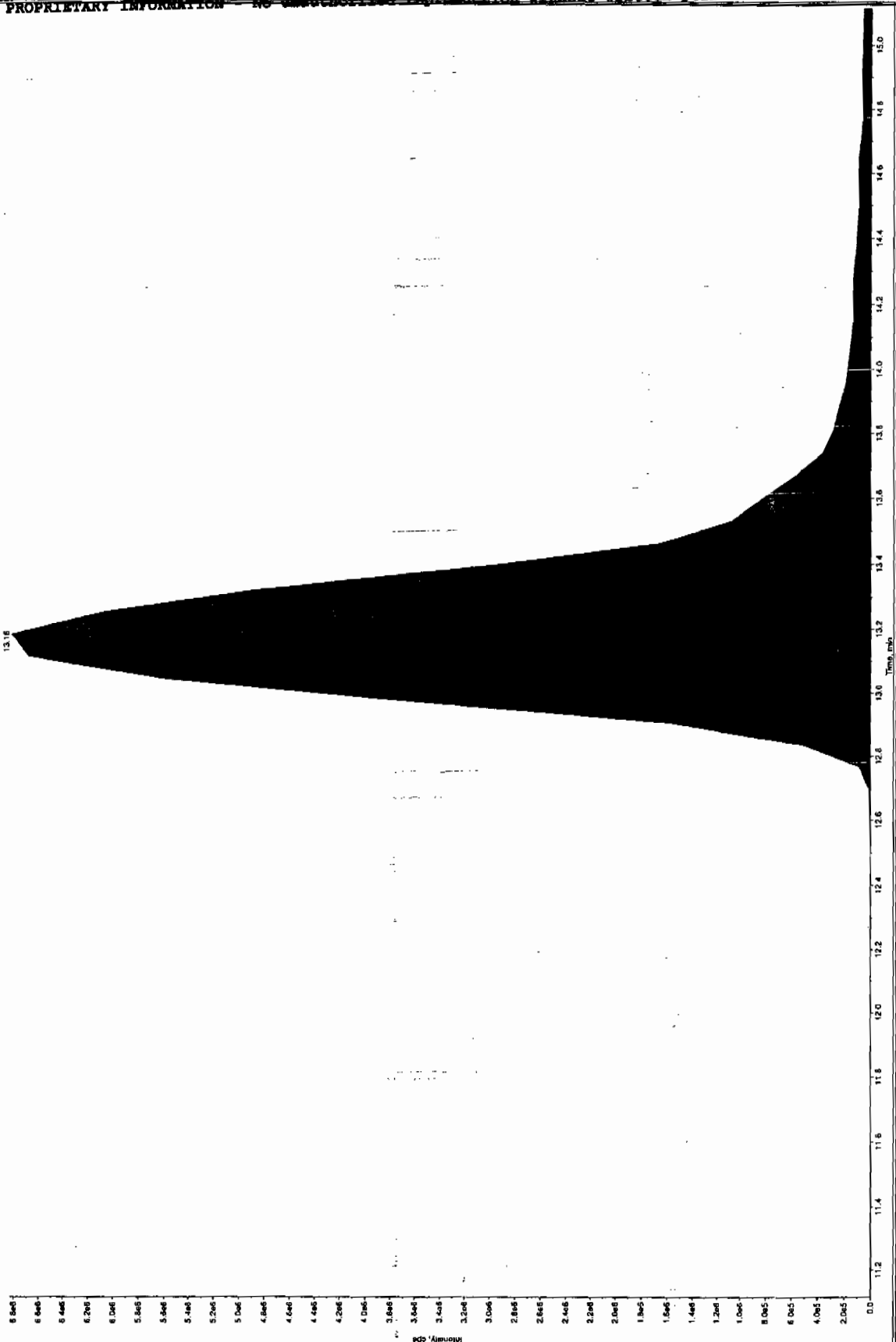
Retention Time: 13.2 min

Area: 1.84e+008 counts

Height: 8.1e+004 counts

Start Time: 12.5 min

End Time: 16.3 min



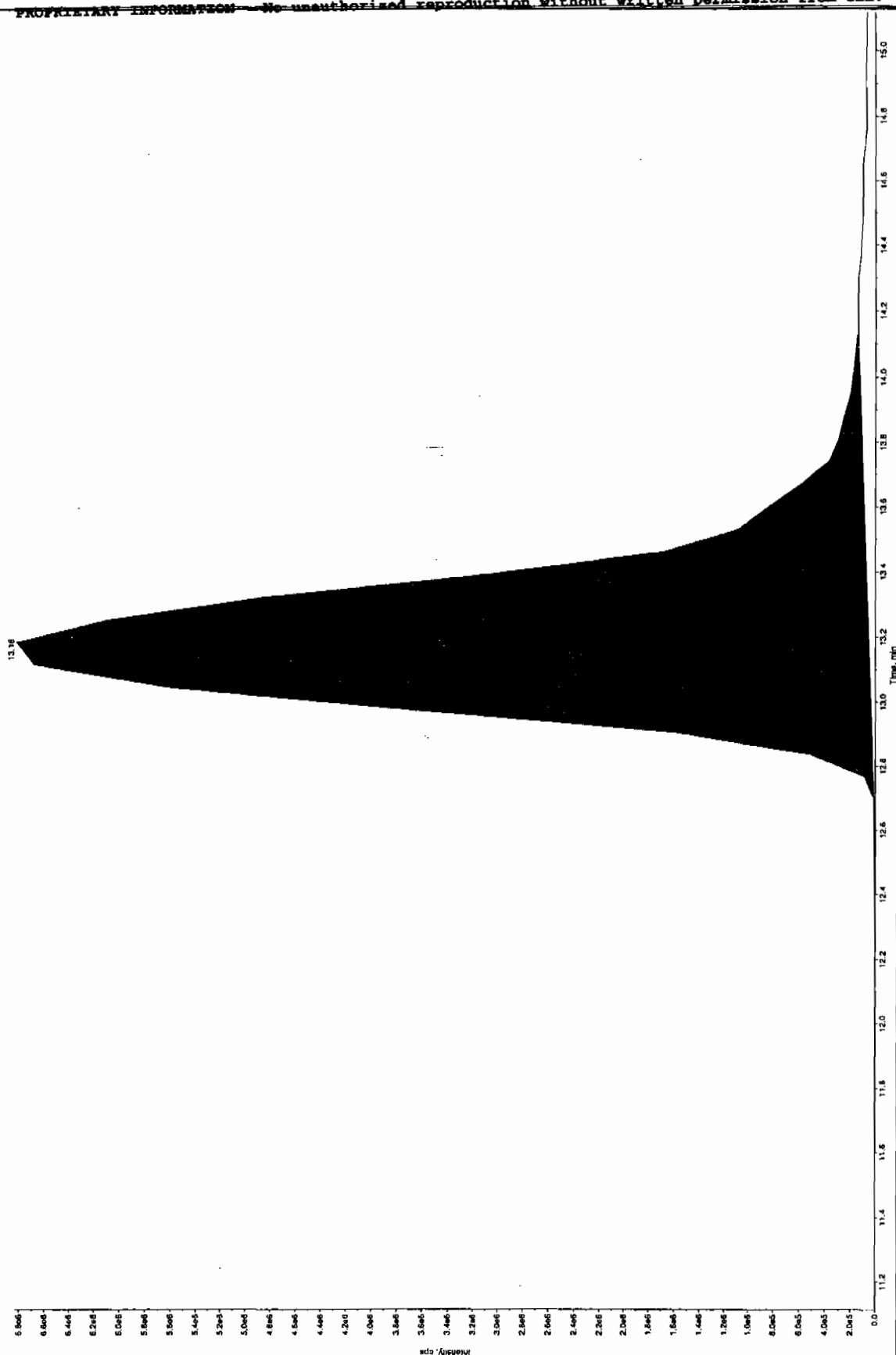
after Jan 4/23/10

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Sample Name: "W21100415-5620" Sample ID: "1111" File: "EXP015043.w" Path Name: "246-Triisobutylene" Method: "221-12018.8.m" Comment: "LOASEXP\_C" Annotation: "

Sample Index: 1  
Sample Type: GC  
Concentration: 500. ng/mL  
Calculated Conc: 511. ng/mL  
Acq. Date: 4/16/2010  
Acq. Time: 12:57:07 PM  
Modified: Yes  
Acq. Window: 10.0 sec  
Expected RT: 11.3 min  
Observed RT: 11.3 min  
Yt. Type: Manual  
Injection Time: 11.2 min  
Retention Time: 11.2 min  
Peak Width: 1.81 sec  
Peak Area: 6147806  
Start Time: 12.6 min  
End Time: 14.2 min

13.18



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415063.wiff	<b>Acquisition Date</b>	4/16/2010 12:57:07 PM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	9.00
	<b>Area Counts:</b>	1.03e+008
	<b>Manual Modification</b>	No
	<b>Amount:</b>	644. (ng/mL)
	<b>% Accuracy:</b>	107.00

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	4.18e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	564. (ng/mL)
	<b>% Accuracy:</b>	93.90

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	3.70e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	587. (ng/mL)
	<b>% Accuracy:</b>	97.90

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	1.81e+008
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	631. (ng/mL)
	<b>% Accuracy:</b>	105.00

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415063.wiff	<b>Acquisition Date</b>	4/16/2010 12:57:07 PM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	11.9
	Area Counts:	1.62e+006
	Manual Modification	No
	Amount:	579. (ng/mL)
	% Accuracy:	96.50

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	2.08e+007
	Manual Modification	No
	Amount:	239. (ng/mL)
	% Accuracy:	79.80

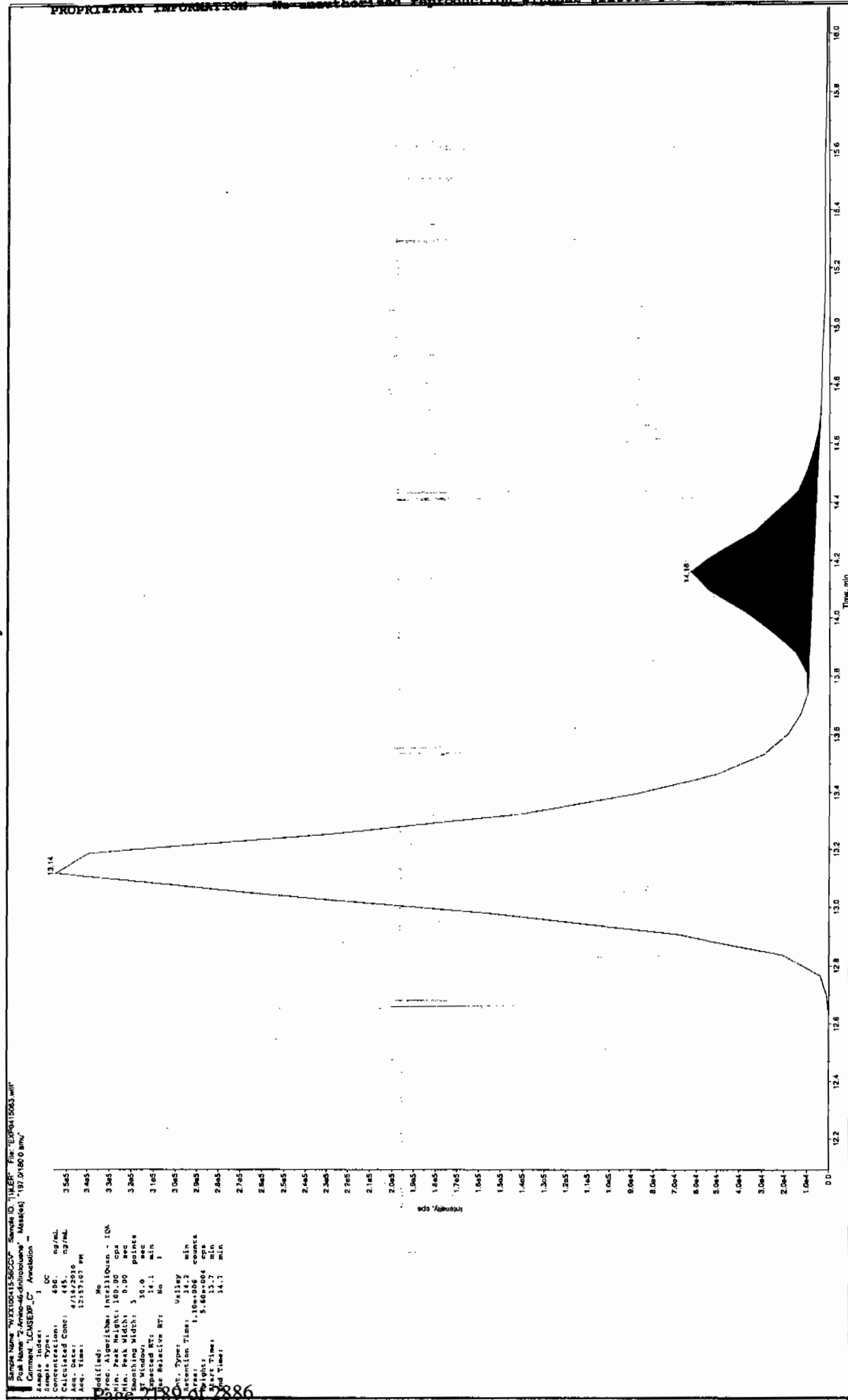
  

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.9
	Area Counts:	4.49e+007
	Manual Modification	No
	Amount:	642. (ng/mL)
	% Accuracy:	107.00

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.5
	Area Counts:	1.65e+007
	Manual Modification	No
	Amount:	610. (ng/mL)
	% Accuracy:	102.00

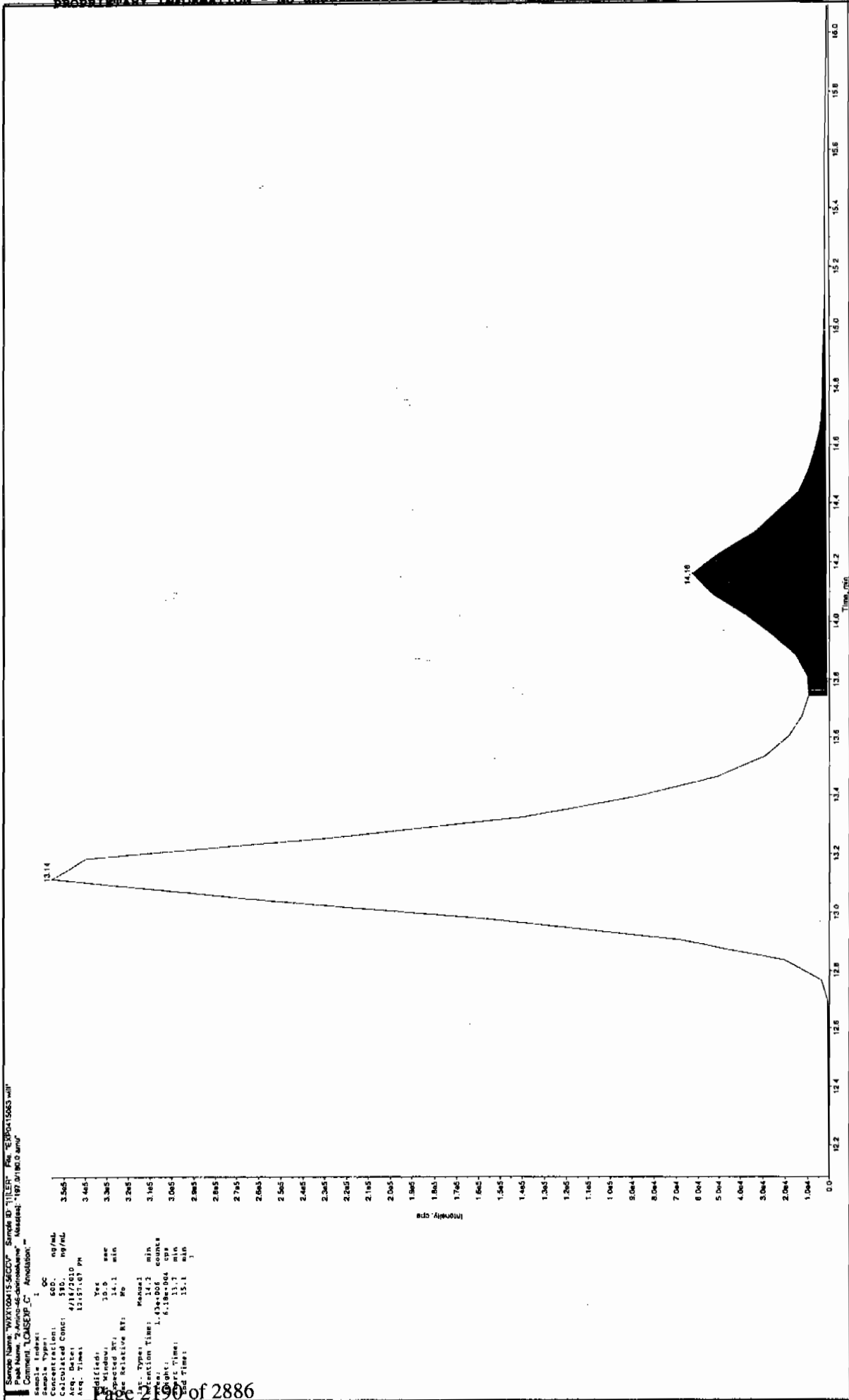
Before Jan 4/23/10



Sample Name: "WXX100415-5625" Sample ID: "114EP" File: "EXP0415003.wif"  
 Peak Name: "2-Amino-6-chlorobenzoic acid" Mass(es): "197.01800 amu"  
 Sample Type: 1 CC  
 Concentration: 498. ng/mL  
 Calculated Conc: 477.450 ng/mL  
 Acq. Time: 12:57:07 PM  
 Retention Time: 13.14 min  
 Peak Width: 0.00 sec  
 Baseline Width: 10.0 points  
 1st Width: 10.0 sec  
 2nd Width: 10.0 sec  
 1st Relative RT: 10.0  
 2nd Relative RT: 10.0  
 Ret. Type: Valley  
 Retention Time: 13.14 min  
 Peak Height: 1.00-096 cps  
 Peak Width: 5.60-064 cps  
 1st Width: 13.7 min  
 2nd Width: 14.7 min

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after run 4/23/10



Sample Name: "NXT100415 SEC01" Sample ID: "111111" Run: "EXP0415003.mpl"

Peak Name: "2-Amino-4,6-dimethylbenzoic acid" Mass: 187.07160 amu

Comment: "LOASEXP\_C" Annotation: "

Sample Index: 1  
 Concentration: 500 ng/mL  
 Calculated Conc: 510 ng/mL  
 Acq. Date: 4/16/2010  
 Acq. Time: 12:57:07 PM  
 Modified: Yes  
 Expected RT: 14.1 min  
 RT: 14.1 min  
 RT Error: 0.0 min  
 Manual: Manual  
 Retention Time: 14.1 min  
 Peak Width: 0.1 min  
 Peak Area: 1.4e6 counts  
 Peak Height: 6.18e-064  
 Start Time: 13.1 min  
 End Time: 15.1 min

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415063.wiff	<b>Acquisition Date</b>	4/16/2010 12:57:07 PM
<b>Sample Name</b>	WXX100415-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.1
	Area Counts:	3.56e+007
	Manual Modification	No
	Amount:	605. (ng/mL)
	% Accuracy:	101.00

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	14.2
	Area Counts:	1.43e+006
	Manual Modification	Yes
	Amount:	580. (ng/mL)
	% Accuracy:	96.60

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	17.6
	Area Counts:	5.63e+005
	Manual Modification	No
	Amount:	538. (ng/mL)
	% Accuracy:	89.60

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.8
	Area Counts:	3.43e+005
	Manual Modification	No
	Amount:	610. (ng/mL)
	% Accuracy:	102.00





after Jan 4/23/10

Sample Name: WXX100415-5622V Sample ID: T1LER File: EXP0415003.wif

Comment: LCMSMS\_C Annotation: -

Sample Type: 1 QC

Concentration: 490 ng/mL

Calculated Conc: 710 ng/mL

Acq. Date: 1/15/2010

Acq. Time: 12:57:01 PM

Modified: Yes

Acq. Method: MS

Acq. Mode: MS

Acq. Rel. RT: No

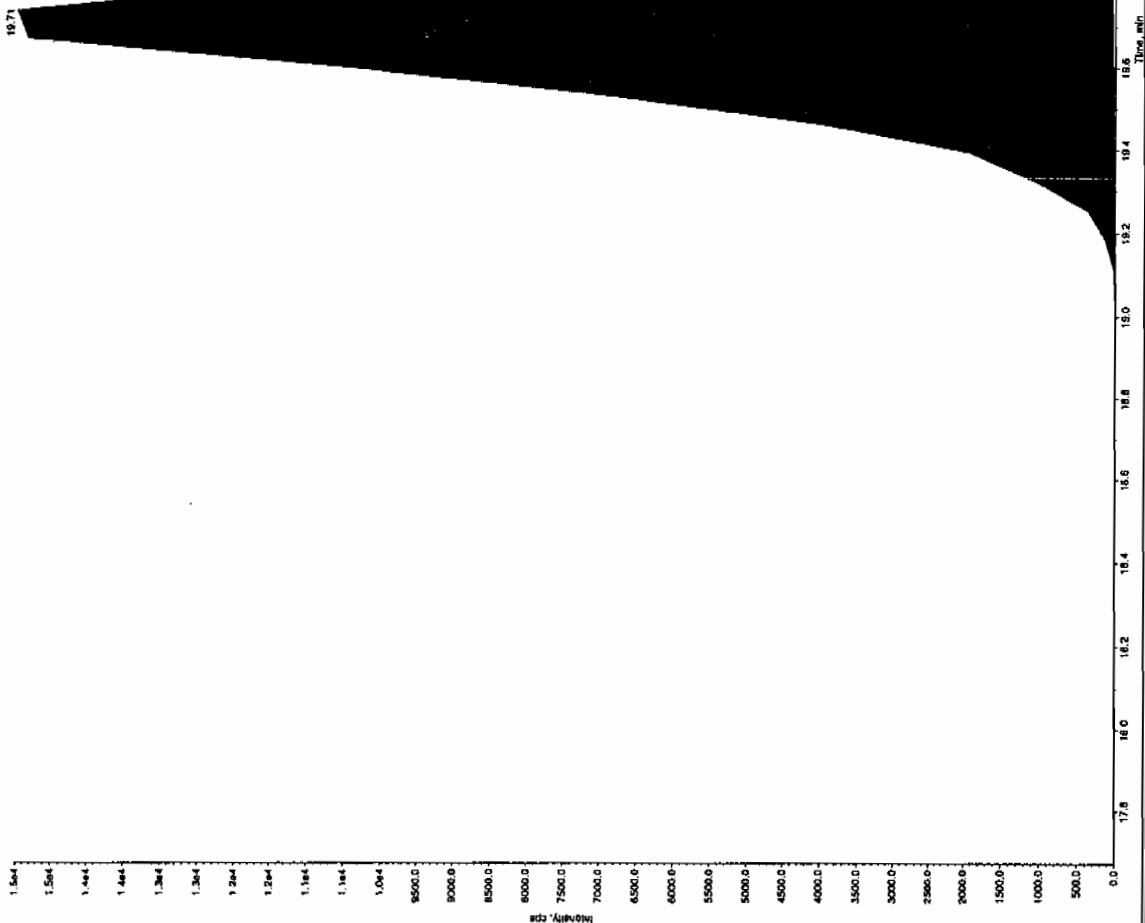
Acq. Type: Manual

Acq. Time: 1.42e+005 min

Acq. Time: 1.54e+004 min

Acq. Time: 19.0 min

Acq. Time: 20.6 min



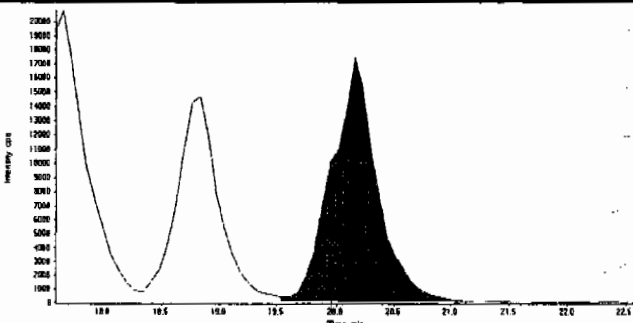
\*GEL SOP GL-0A-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

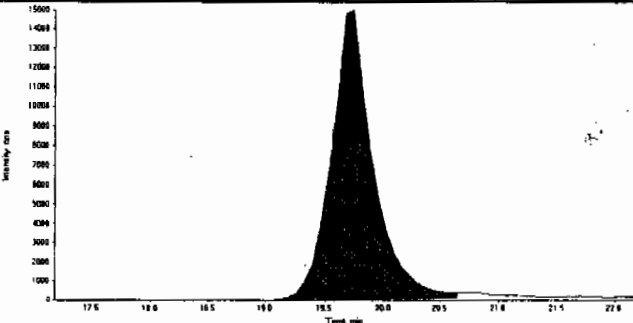
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415063.wiff	Acquisition Date	4/16/2010 12:57:07 PM
Sample Name	WXX100415-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	20.2
	Area Counts:	4.76e+005
	Manual Modification	No
	Amount:	606. (ng/mL)
	% Accuracy:	101.00

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	19.7
	Area Counts:	3.82e+005
	Manual Modification	Yes
	Amount:	710. (ng/mL)
	% Accuracy:	118.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/16/10  
 Time of Injection 1257  
 Standard Number WXX100415-56CCV  
 Data File EXP0415063a

HMX	108.0
RDX	125.0
135-Trinitrobenzene	107.0
13-Dinitrobenzene	93.9
Tetryl	97.9
246-Trinitrotoluene	105.0
Nitrobenzene	96.5
34-dinitrotoluene	79.8
26-dinitrotoluene	107.0
24-dinitrotoluene	102.0
4-Amino-26-dinitrotoluene	101.0
2-Amino-46-dinitrotoluene	96.6
2-Nitrotoluene	89.6
4-Nitrotoluene	102.0
3-Nitrotoluene	101.0
PETN	118.0

TOTAL

1630.3

*done 04/23/10*

AVERAGE

101.9

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Jan 4/24/10*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0415065.wiff

Analysis Date: 16-APR-10 13:49

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	32.3	81	
2,4,6-Trinitrotoluene	40	30.6	77	
2,4-Dinitrotoluene	40	28.5	71	
2,6-Dinitrotoluene	40	35.4	89	
2-Amino-4,6-dinitrotoluene	40	36.8	92	
3,4-Dinitrotoluene	20	15.1	75	
4-Amino-2,6-dinitrotoluene	40	30.4	76	
HMX	40	45.5	114	
Nitrobenzene	40	37.4	93	
PETN	40	32.2	81	
RDX	40	38.2	96	
Tetryl	40	34.3	86	
m-Dinitrobenzene	40	38.8	97	
m-Nitrotoluene	40	38.9	97	
o-Nitrotoluene	40	36.2	91	
p-Nitrotoluene	40	46.3	116	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

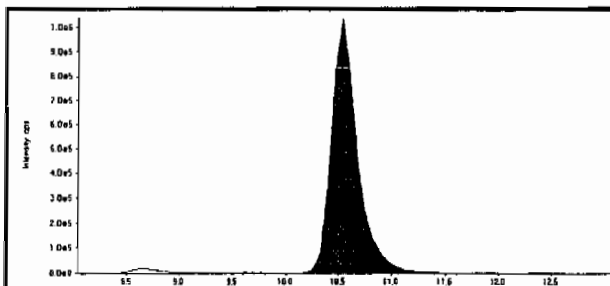
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

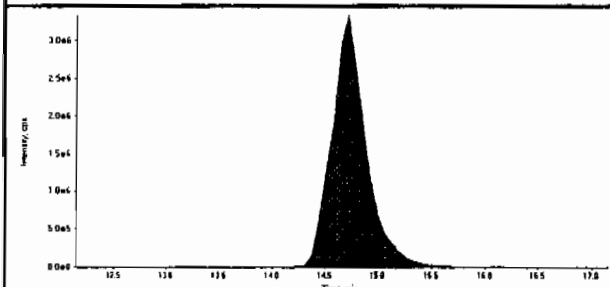
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

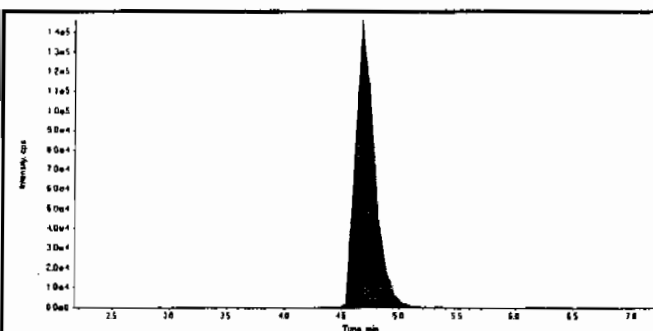
Data File	EXP0415065.wiff	Acquisition Date	4/16/2010 1:49:00 PM
Sample Name	WXX100415-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	041510.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



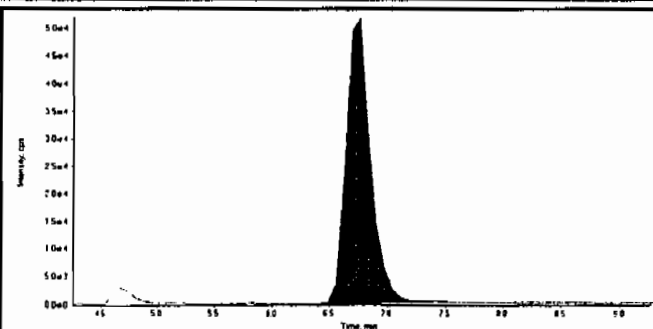
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	17800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.70
Area Counts:	76300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.71e+006
Manual Modification	No
Amount:	45.5 (ng/mL)
% Accuracy:	114.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	7.84e+005
Manual Modification	No
Amount:	38.2 (ng/mL)
% Accuracy:	95.60

*Handwritten:* OK 4/23/10 Hnm 04/23/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415065.wiff	<b>Acquisition Date</b>	4/16/2010 1:49:00 PM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.00
	<b>Actual RT:</b>	9.00
	<b>Area Counts:</b>	9.33e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	32.3 (ng/mL)
	<b>% Accuracy:</b>	80.80

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	3.90e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	38.8 (ng/mL)
	<b>% Accuracy:</b>	96.90

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	2.72e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	34.3 (ng/mL)
	<b>% Accuracy:</b>	85.70

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.1
	<b>Area Counts:</b>	1.67e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	30.6 (ng/mL)
	<b>% Accuracy:</b>	76.50

Before Jan 4/23/10

Sample Name: "WXX210041537CH" Sample ID: "TILER" File: "EXP01503.wif"

Peak Name: "3,4-dichlorobenzene" Masses: "162.043 6 amu"

Method: "LCMSMS" Acquisition: "Full Scan"

Sample Index: 1

Sample Type: QC

Concentration: 10.0 ng/mL

Acquisition Date: 4/14/2010

Acq. Time: 3:45:00 PM

Acq. Time: 1:02:00

Identified: No

Retention Time: 12.0 min

Peak Height: 100.00 cps

Peak Width: 0.00 sec

Smoothing Width: 3 points

Baseline: 40.0 cps

Expected RT: 12.0 min

Relative RT: No

Peak Type: Valley

Retention Time: 12.0 min

Peak: 2.01e+005 counts

Height: 1.04e+005 cps

Start Time: 11.2 min

End Time: 13.0 min

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after Dec 4/23/10

Sample Name: WXX1001150001 - Sample ID: WXX1001150001 - File: WXX1001150001.wml

Retention Time: 11.6 min

Comment: LCMSEXP.C - Acquisition

Sample Index: 1

Sample Type: OC

Concentration: 10.645 ng/mL

Calculated Conc: 10.645 ng/mL

Acq. Date: 4/15/2010

Acq. Time: 1:43:00 PM

Modified: Yes

RT Window: 60.0 sec

Selected RT: 12.0 min

Relative RT: No

Integration Time: 12.0 min

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GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415065.wiff	<b>Acquisition Date</b>	4/16/2010 1:49:00 PM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	11.8
	Area Counts:	1.18e+005
	Manual Modification	No
	Amount:	37.4 (ng/mL)
	% Accuracy:	93.40

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.0
	Area Counts:	1.95e+006
	Manual Modification	Yes
	Amount:	15.1 (ng/mL)
	% Accuracy:	75.30

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.8
	Area Counts:	3.94e+006
	Manual Modification	No
	Amount:	35.4 (ng/mL)
	% Accuracy:	88.60

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.5
	Area Counts:	1.22e+006
	Manual Modification	No
	Amount:	28.5 (ng/mL)
	% Accuracy:	71.40

Before Dec 4/23/10

Sample Name: "20000015-056" Sample ID: "1156" File: "2000015056.wif"  
 Peak Name: "2-Amino-2-hydroxypropane" Method: "197 01480.0 dm"

Comment: "LCMSMS\_C" Annotation: "

Sample Index:

Sample Type: GC

Sample Weight: 40.0 ng/mL

Calculated Conc: 40.0 ng/mL

Acq. Date: 4/18/2010

Acq. Time: 1:49:00 PM

Modified: No

Proc. Algorithm: IntelliQuan - ICA

Peak Height: 100.00 cps

Peak Width: 3.00 points

Baseline Width: 30.0 sec

Window: 30.0 sec

Selected RT: 14.1 min

Relative RT: No

Type: Valley

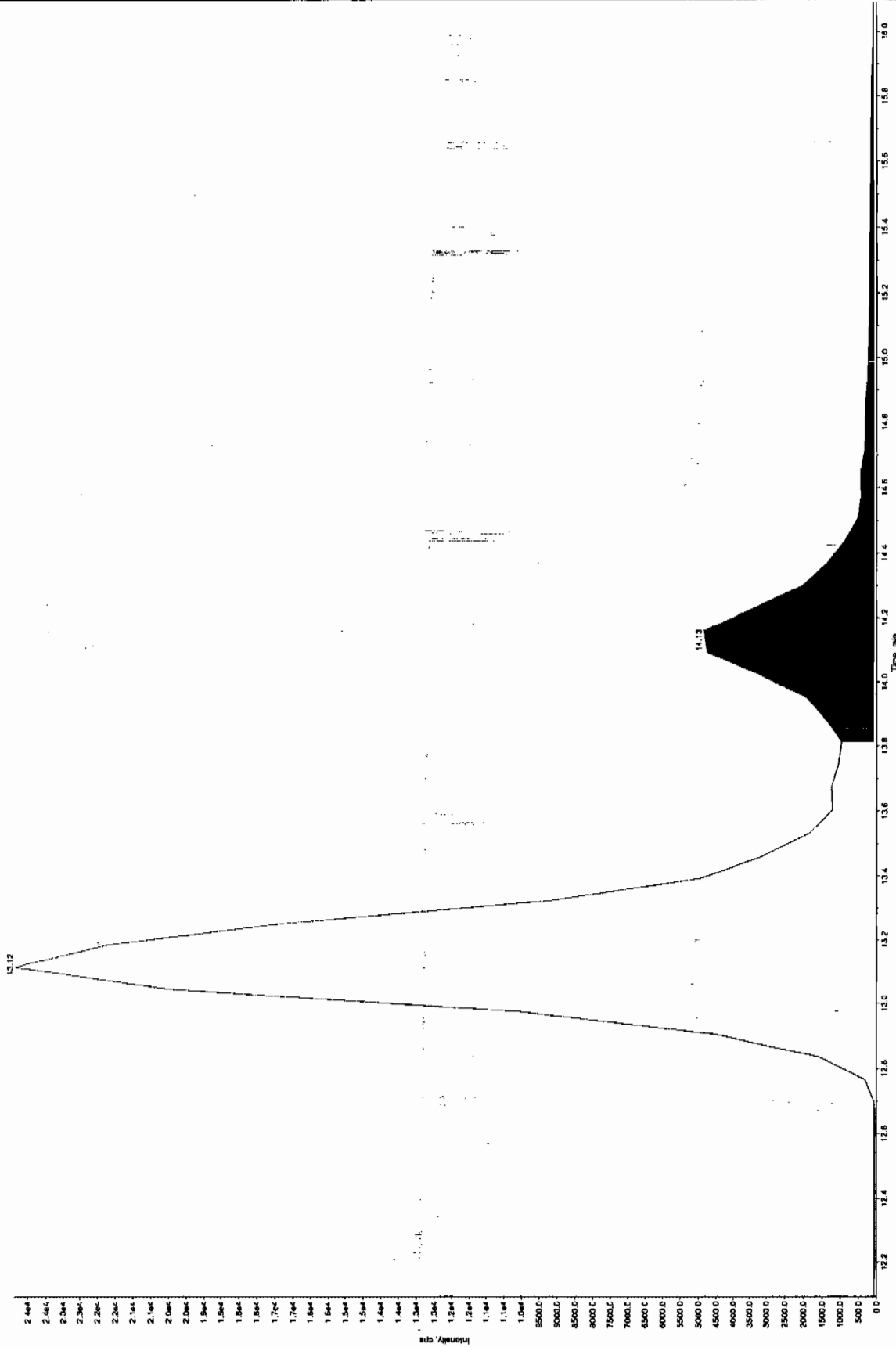
Retention Time: 14.2 min

Area: 1.17e+005 counts

Height: 4.79e+003 cps

Start Time: 13.8 min

End Time: 14.1 min

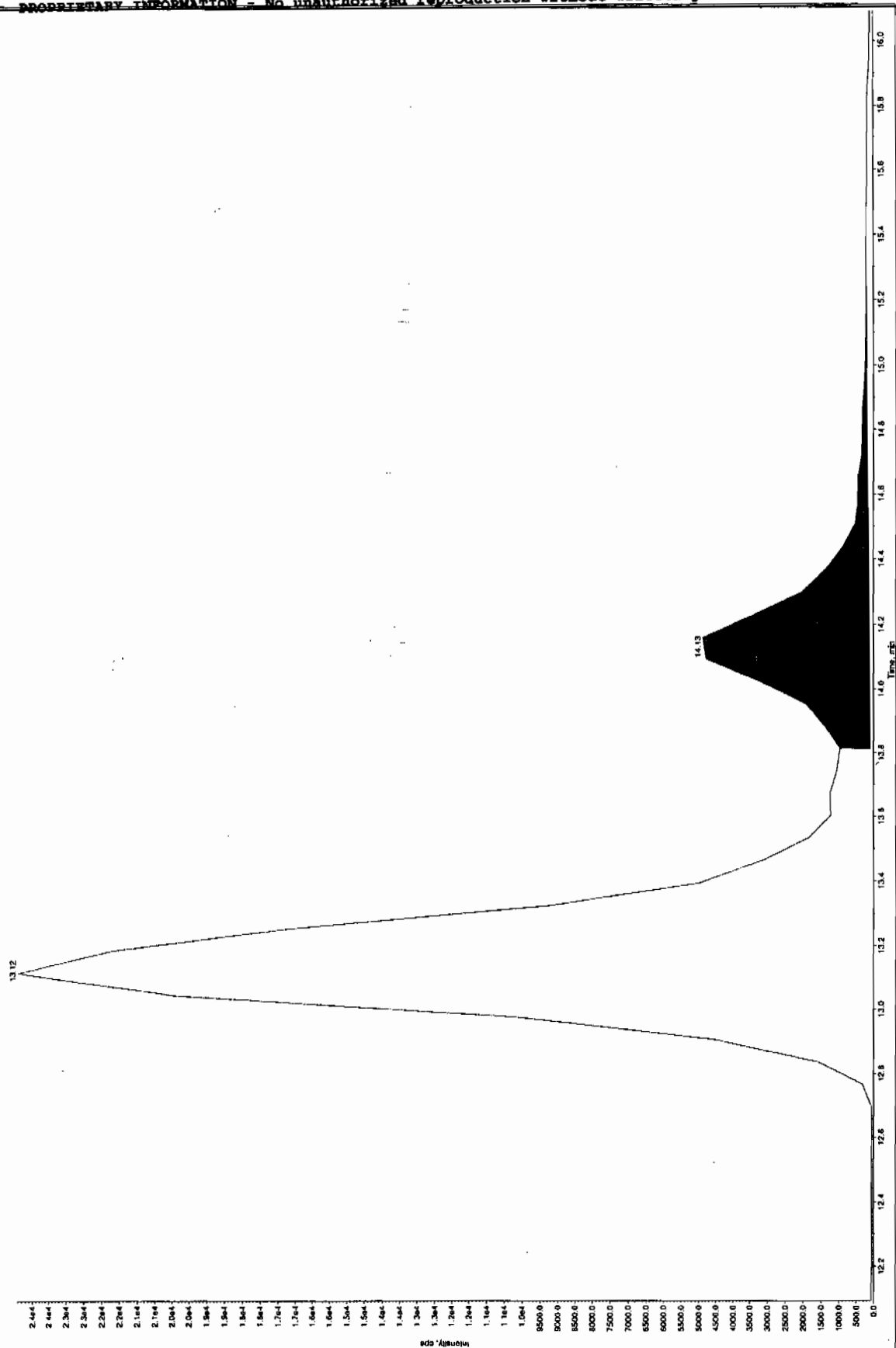


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after dec 4/23/10

Sample Name: "XXXX00415703" Sample ID: "TITER" File: "EXP015005.wif"  
 Sample Concentration: 100.0 ng/mL  
 Sample Type: "CAUSEPO\_C" Annotation: " "

Sample Index: 1  
 Concentration: 100.0 ng/mL  
 Acquisition Date: 4/16/2010  
 Acquisition Time: 1:49:00 PM  
 Modified: Yes  
 Window: 30.0 sec  
 Expected RT: 14.1 min  
 Sample Relative RT: No  
 Name: " " Type: "Normal"  
 Retention Time: 14.1 min  
 Counts: 1.03e+005  
 Count Rate: 4.52e+003 cps  
 Acquisition Time: 12.2 min  
 End Time: 12.2 min



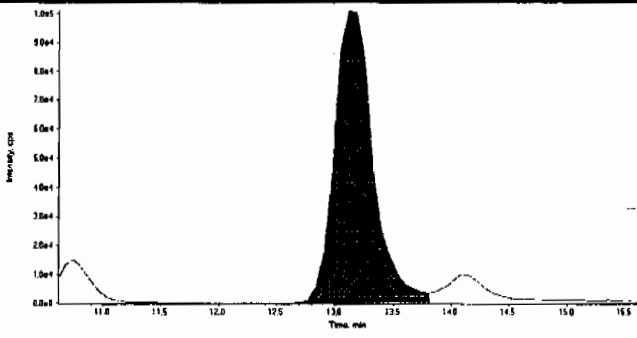
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

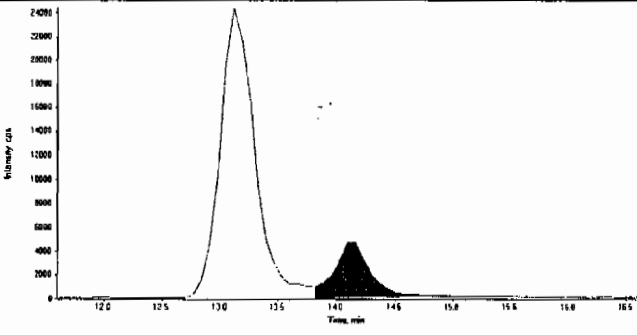
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415065.wiff	<b>Acquisition Date</b>	4/16/2010 1:49:00 PM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

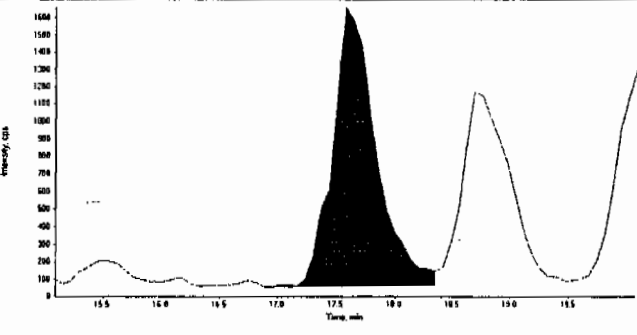
  

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.1
	Actual RT:	13.1
	Area Counts:	2.35e+006
	Manual Modification	No
	Amount:	30.4 (ng/mL)
	% Accuracy:	75.90

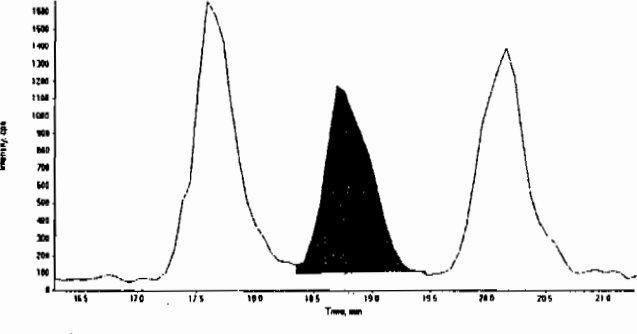
  

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.1
	Actual RT:	14.1
	Area Counts:	1.05e+005
	Manual Modification	Yes
	Amount:	36.8 (ng/mL)
	% Accuracy:	92.10

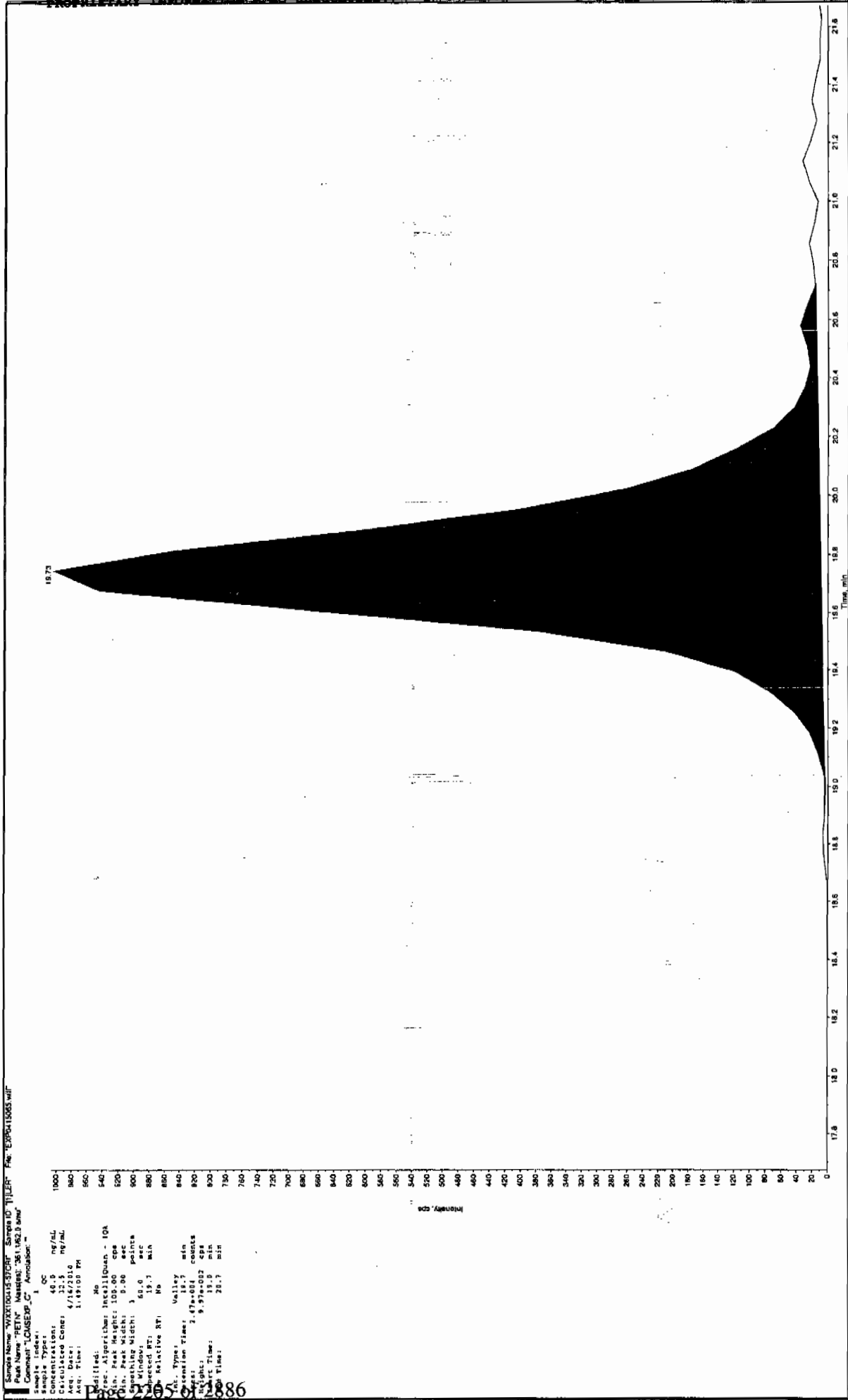
  

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.6
	Actual RT:	17.6
	Area Counts:	4.20e+004
	Manual Modification	No
	Amount:	36.2 (ng/mL)
	% Accuracy:	90.50

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.7
	Area Counts:	2.89e+004
	Manual Modification	No
	Amount:	46.3 (ng/mL)
	% Accuracy:	116.00

Before Jan 4/23/10



Sample Name: WXX10015301F Sample ID: 111111 File: EPR041003.wif

Peak Name: PETN Masses: 261.162.0 amu

Comment: LCMSMS\_C Annotation: -

Sample Index: 1 QC

Concentration: 48.9 ng/mL

Calculated Conc: 32.5 ng/mL

Acq. Date: 4/16/2010

Acq. Time: 1:48:05 PM

Modified: No

Proc. Algorithm: IntellQuan - 10A

Min. Peak Height: 100.00 cps

Min. Peak Width: 1.00 points

Smoothing Width: 3.00 points

Window: 60.0 sec

Advanced RT: 13.7 min

Min. Relative RT: No

Min. Type: Valley

Retention Time: 18.7 min

Height: 47.0 cps

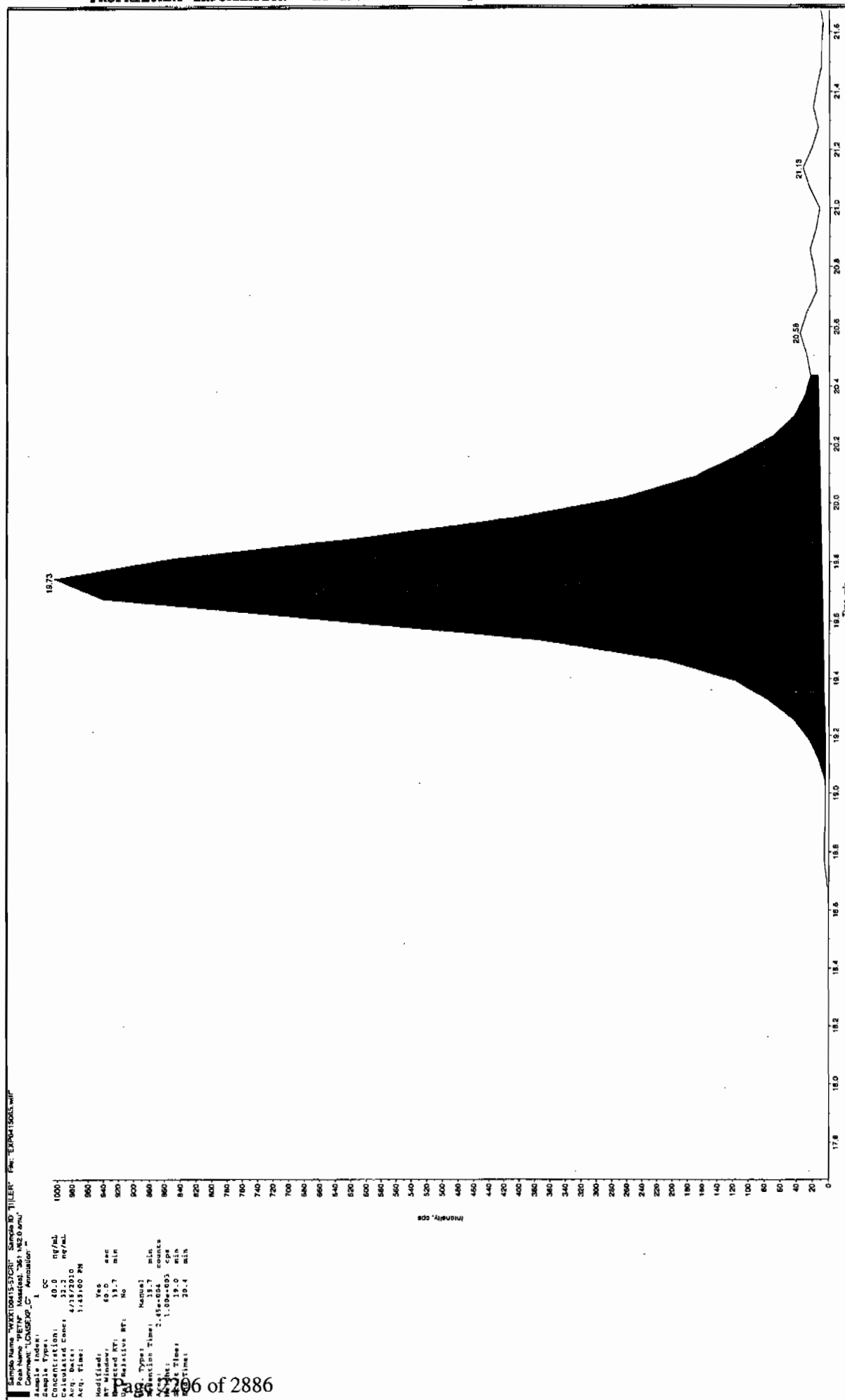
Area: 2.47e-012

Height: 9.97e-012 cps

Start Time: 13.0 min

End Time: 28.7 min

after Jan 4/23/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

Sample Name: "WAX100415.ETC" Sample ID: "TILIER" File: "EXTRA15005.wif"

Peak Name: "PETHF" Mass(es): "35; 162.0 amu"

Comment: "LCMSMS\_C" Annotation: "

Sample Type: "1" OC

Concentration: 40.0 ng/mL

Calculated Conc: 33.2 ng/mL

Q: 4.07E-05

ACT Time: 1.43160 PM

Modified: Yes

Revised: 19.0 min

Revised RT: 19.7 min

Relative RT: No

Type: Manual

Injection Time: min

Acq. Rate: 2.45E+004 counts

Acq. Rate: 1.00E+003 cps

Acq. Time: 19.0 min

Acq. Time: 20.4 min

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415065.wiff	<b>Acquisition Date</b>	4/16/2010 1:49:00 PM
<b>Sample Name</b>	WXX100415-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	20.2
	Area Counts:	3.51e+004
	Manual Modification	No
	Amount:	38.9 (ng/mL)
	% Accuracy:	97.30

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	Expected RT:	19.7
	Actual RT:	19.7
	Area Counts:	2.45e+004
	Manual Modification	Yes
	Amount:	32.2 (ng/mL)
	% Accuracy:	80.60

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/16/10  
 Time of Injection 1349  
 Standard Number WXX100415-57CRL  
 Data File EXP0415065a

HMX	114.0
RDX	95.6
135-Trinitrobenzene	80.8
13-Dinitrobenzene	96.9
Tetryl	85.7
246-Trinitrotoluene	76.5
Nitrobenzene	93.4
34-dinitrotoluene	75.3
26-dinitrotoluene	88.6
24-dinitrotoluene	71.4
4-Amino-26-dinitrotoluene	75.9
2-Amino-46-dinitrotoluene	92.1
2-Nitrotoluene	90.5
4-Nitrotoluene	116.0
3-Nitrotoluene	97.3
PETN	80.6

TOTAL

1430.6

AVERAGE

89.4

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Far*  
4/21/10



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0420012.wiff

Analysis Date: 20-APR-10 19:04

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	39.6	99	
2,4,6-Trinitrotoluene	40	42.4	106	
2,4-Dinitrotoluene	40	44.7	112	
2,6-Dinitrotoluene	40	41.2	103	
2-Amino-4,6-dinitrotoluene	40	31.5	79	
3,4-Dinitrotoluene	20	15.8	79	
4-Amino-2,6-dinitrotoluene	40	35.5	89	
HMX	40	46.2	115	
Nitrobenzene	40	33.7	84	
PETN	40	54.2	136	
RDX	40	43.8	109	
Tetryl	40	46.1	115	
m-Dinitrobenzene	40	42.3	106	
m-Nitrotoluene	40	41.3	103	
o-Nitrotoluene	40	51.9	130	
p-Nitrotoluene	40	38.8	97	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

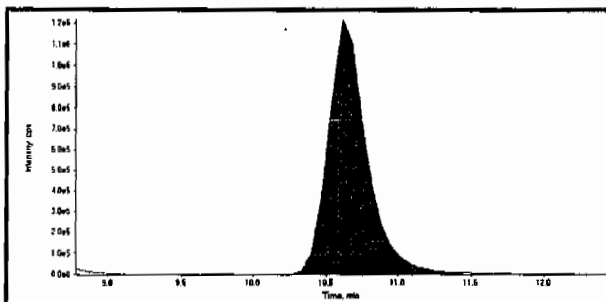
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

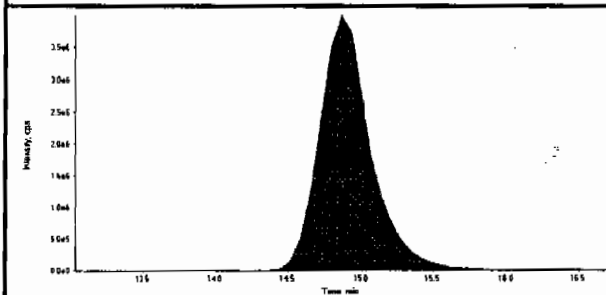
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

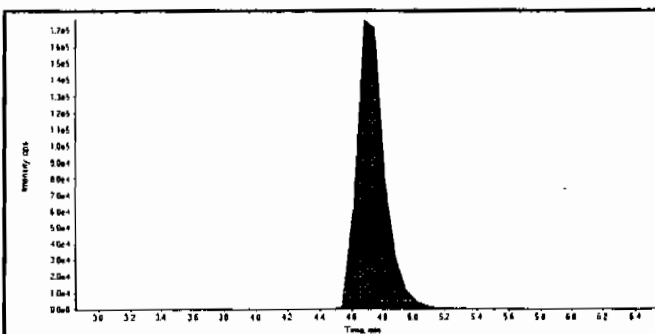
Data File	EXP0420012.wiff	Acquisition Date	4/20/2010 7:04:13 PM
Sample Name	WXX100420-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



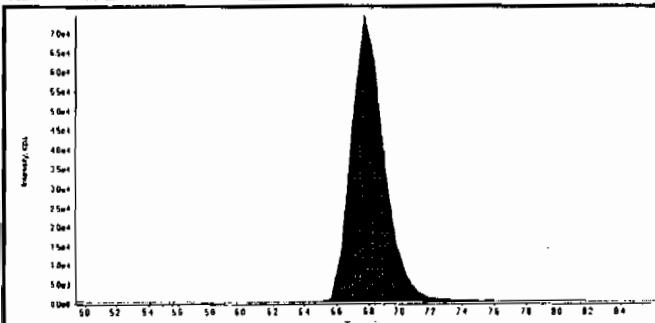
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	22900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	99300000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



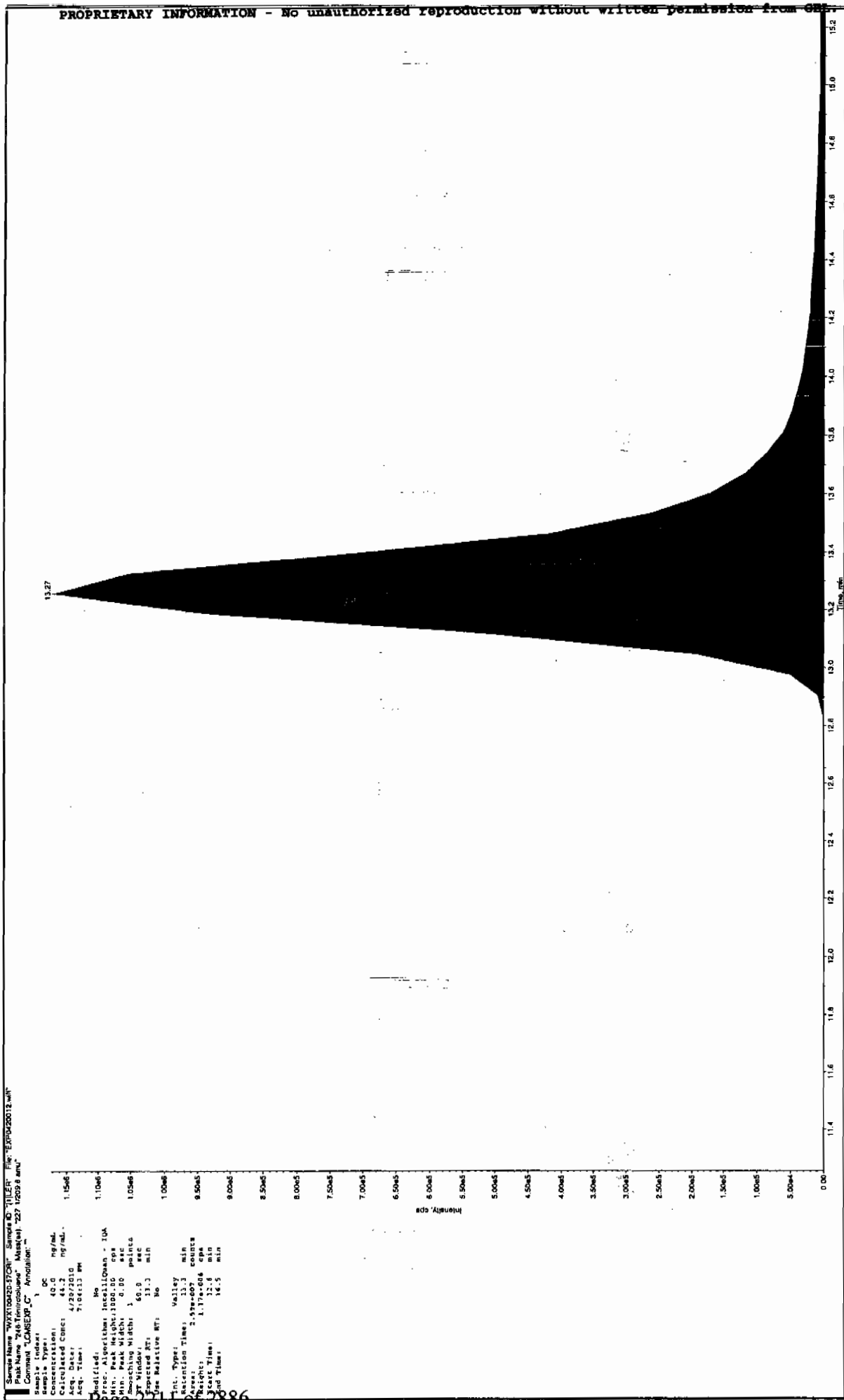
Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	2.27e+006
Manual Modification	No
Amount:	46.2 (ng/mL)
% Accuracy:	115.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.11e+006
Manual Modification	No
Amount:	43.8 (ng/mL)
% Accuracy:	109.00

*Law*  
*4/29/10* *thru* *04/29/10*

Before Lan 4/28/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after run 4/28/10

PROPRIETARY INFORMATION - NO UNAUTHORIZED REPRODUCTION WITHOUT WRITTEN PERMISSION FROM GIL

Sample Name: 8321A-056  
File Path: 8321A-056  
Method: 8321A-Modified LCMSMS#3

Sample Index:

Sample Type: QC

Calculated Conc: 43.4 ng/mL

Acq. Date: 6/20/2010

Acq. Time: 10:41:13 PM

Modified: Yes

Use Relative RT: No

Int. Type: Manual

Retention Time: 13.3 min

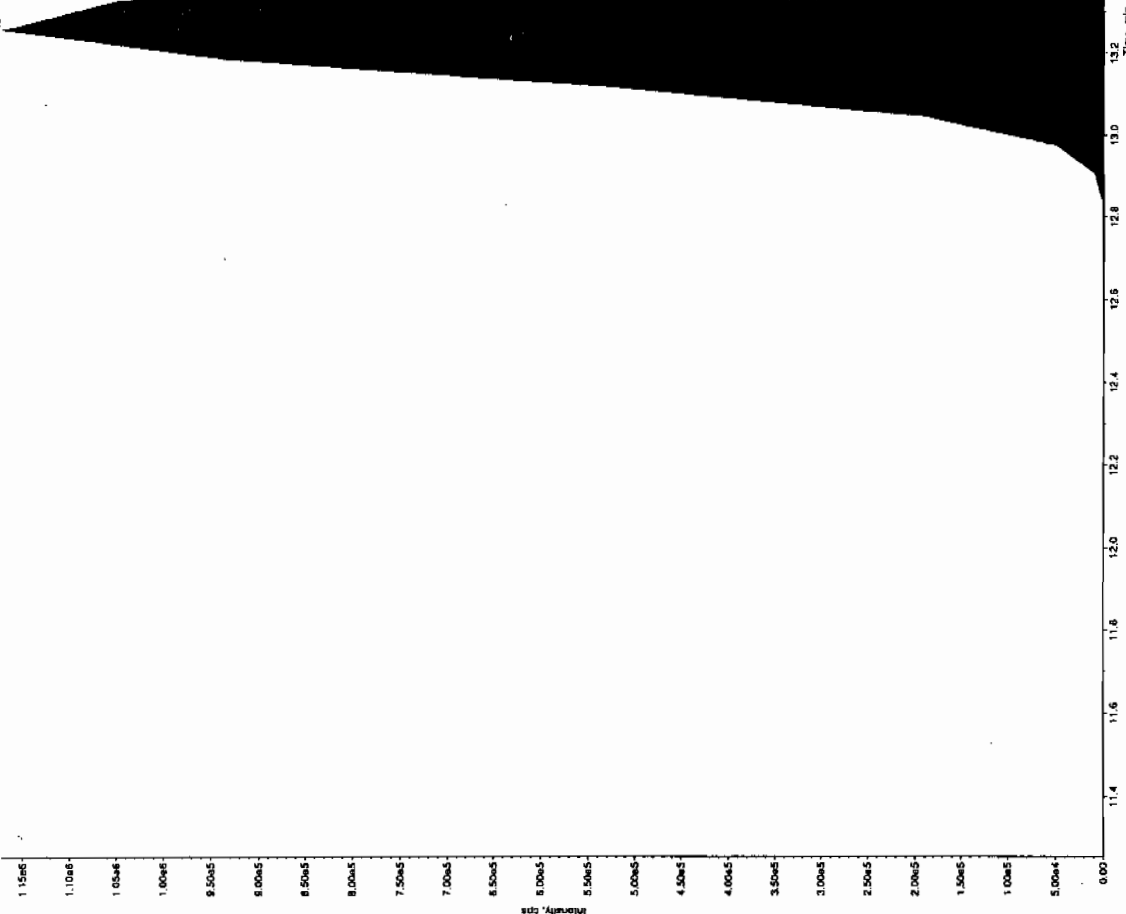
Area: 3.48e+007 counts

Height: 1.18e+006 cps

Width: 12.2 min

Band Time: 14.2 min

13.27



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420012.wiff	<b>Acquisition Date</b>	4/20/2010 7:04:13 PM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.07
	Actual RT:	9.07
	Area Counts:	1.36e+007
	Manual Modification	No
	Amount:	39.6 (ng/mL)
	% Accuracy:	99.00

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	4.98e+006
	Manual Modification	No
	Amount:	42.3 (ng/mL)
	% Accuracy:	106.00

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.8
	Actual RT:	10.8
	Area Counts:	4.39e+006
	Manual Modification	No
	Amount:	46.1 (ng/mL)
	% Accuracy:	115.00

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	2.48e+007
	Manual Modification	Yes
	Amount:	42.4 (ng/mL)
	% Accuracy:	106.00

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420012.wiff	<b>Acquisition Date</b>	4/20/2010 7:04:13 PM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.9
	<b>Actual RT:</b>	11.9
	<b>Area Counts:</b>	1.71e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	33.7 (ng/mL)
	<b>% Accuracy:</b>	84.30

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.1
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	2.69e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	15.8 (ng/mL)
	<b>% Accuracy:</b>	79.00

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.9
	<b>Actual RT:</b>	15.0
	<b>Area Counts:</b>	5.12e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	41.2 (ng/mL)
	<b>% Accuracy:</b>	103.00

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.6
	<b>Actual RT:</b>	15.6
	<b>Area Counts:</b>	1.82e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	44.7 (ng/mL)
	<b>% Accuracy:</b>	112.00

Before Jan 4/28/10

Sample Name: "WXX100105-3701" Sample ID: "TILER" File: "EXP0420012.mf"

Peak Name: "Zn-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100"

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

Acq. Time: 7:04:13 PM

Sample Index: 1

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

Acq. Time: 7:04:13 PM

Sample Index: 1

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

Acq. Time: 7:04:13 PM

Sample Index: 1

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

Acq. Time: 7:04:13 PM

Sample Index: 1

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

Acq. Time: 7:04:13 PM

Sample Index: 1

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

Acq. Time: 7:04:13 PM

Sample Index: 1

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

Acq. Time: 7:04:13 PM

Sample Index: 1

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

Acq. Time: 7:04:13 PM

Sample Index: 1

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

Acq. Time: 7:04:13 PM

Sample Index: 1

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

Acq. Time: 7:04:13 PM

Sample Index: 1

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

Acq. Time: 7:04:13 PM

Sample Index: 1

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

Acq. Time: 7:04:13 PM

Sample Index: 1

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

Acq. Time: 7:04:13 PM

Sample Index: 1

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

Acq. Time: 7:04:13 PM

Sample Index: 1

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

Acq. Time: 7:04:13 PM

Sample Index: 1

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

Acq. Time: 7:04:13 PM

Sample Index: 1

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

Acq. Time: 7:04:13 PM

Sample Index: 1

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

Acq. Time: 7:04:13 PM

Sample Index: 1

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

Acq. Time: 7:04:13 PM

Sample Index: 1

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

Acq. Time: 7:04:13 PM

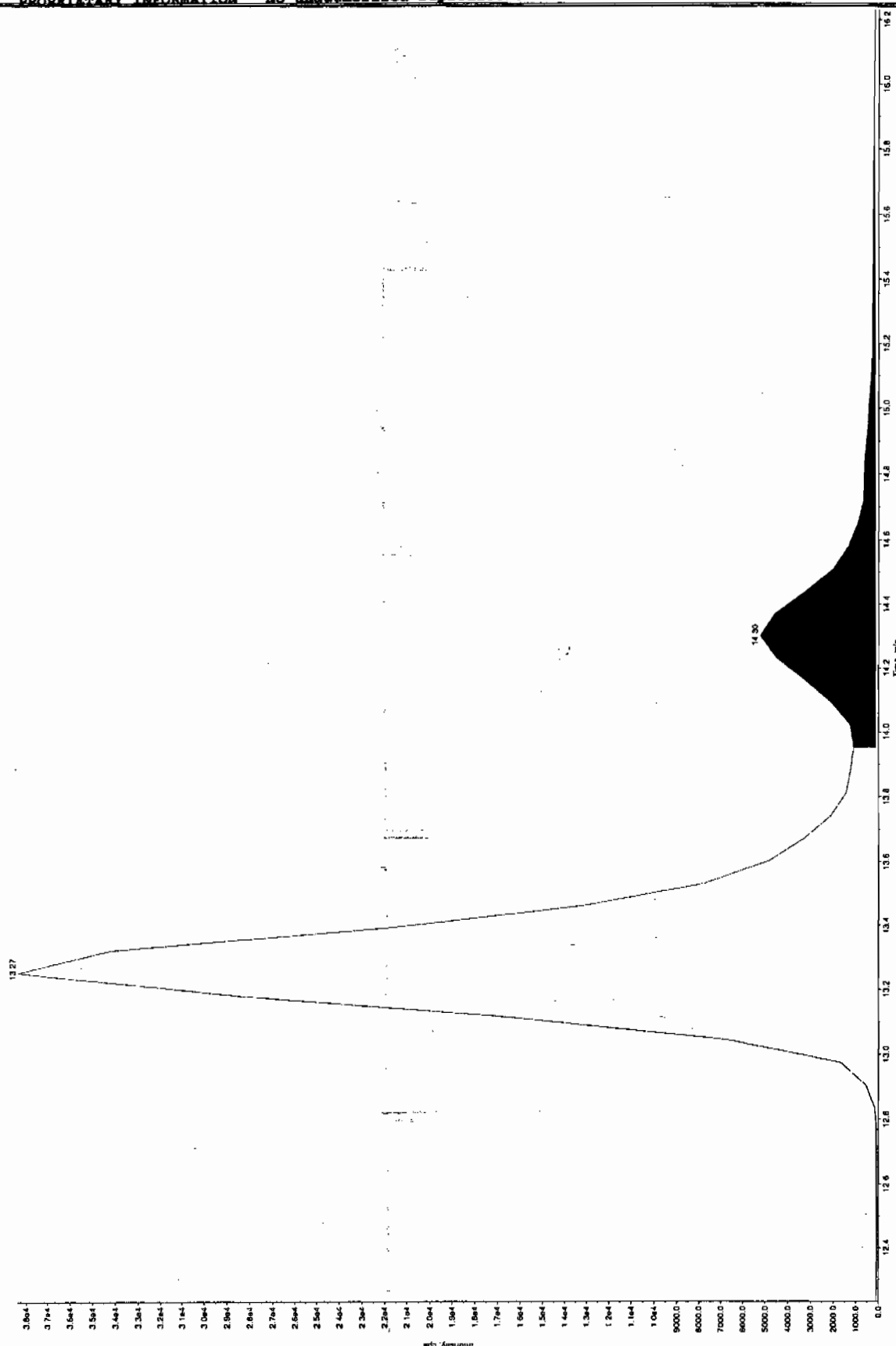
Sample Index: 1

Concentration: 40.0 ng/mL

Acq. Date: 4/20/2010

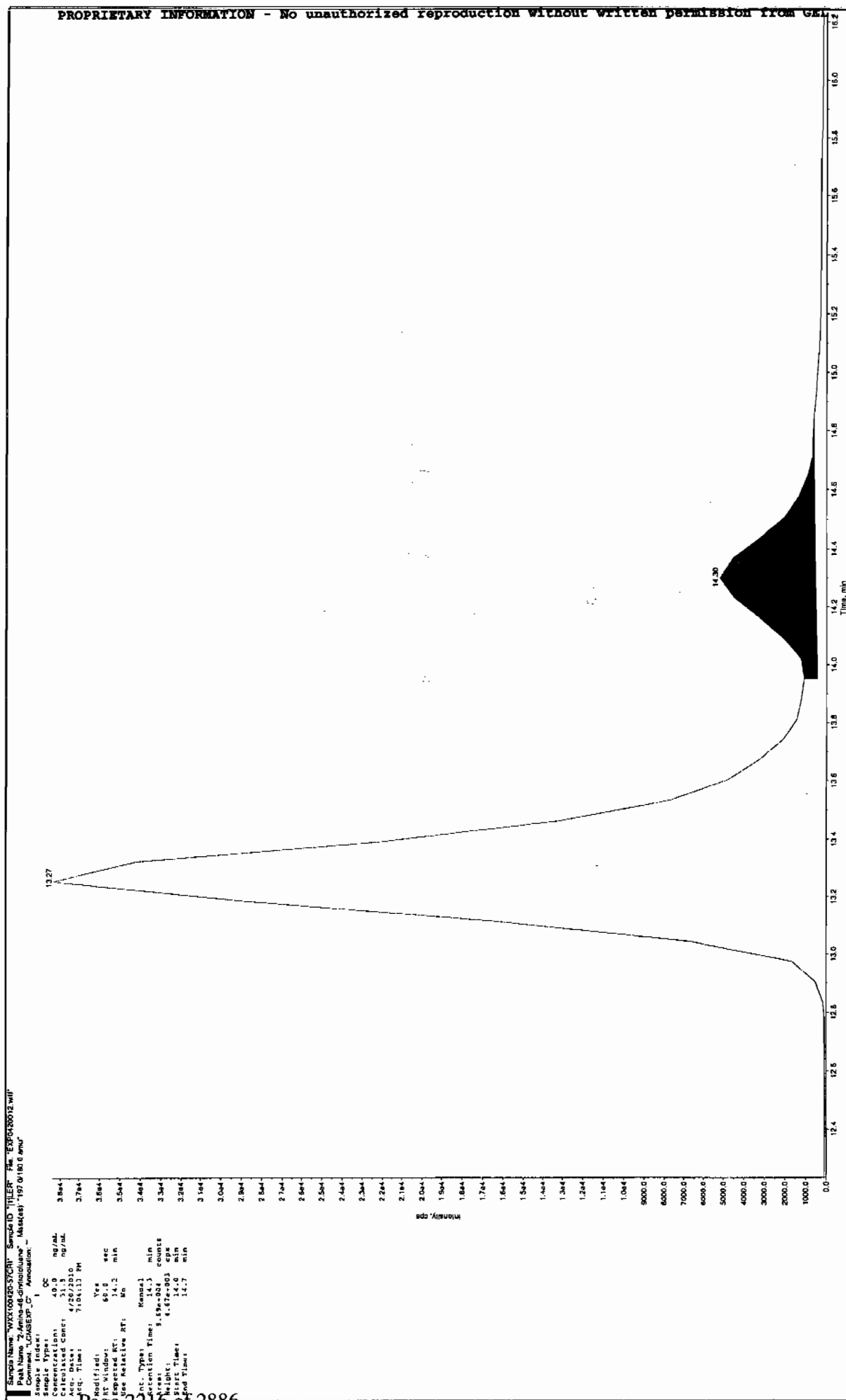
Acq. Time: 7:04:13 PM

Sample Index: 1



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Dec 4/28/10



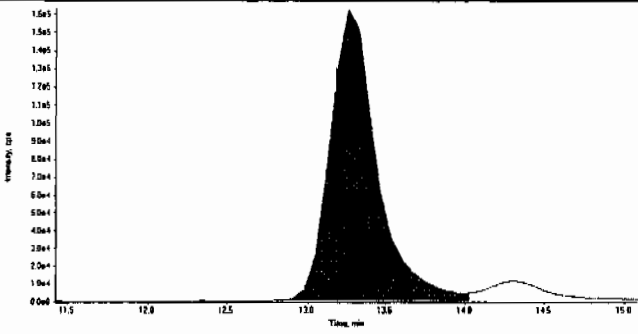


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

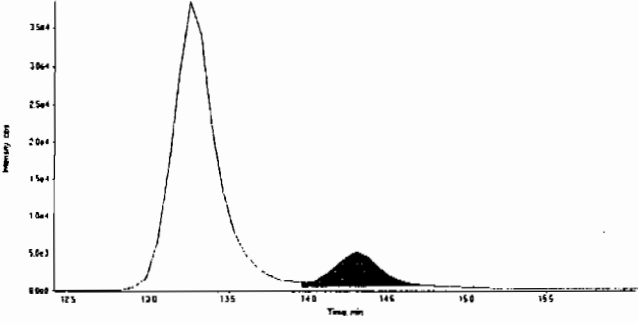
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420012.wiff	<b>Acquisition Date</b>	4/20/2010 7:04:13 PM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

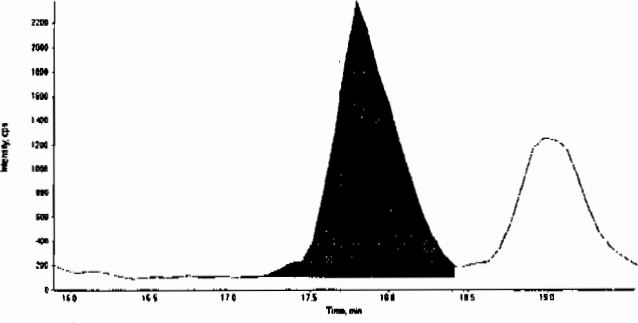
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	3.46e+006
	Manual Modification	No
	Amount:	35.5 (ng/mL)
	% Accuracy:	88.70

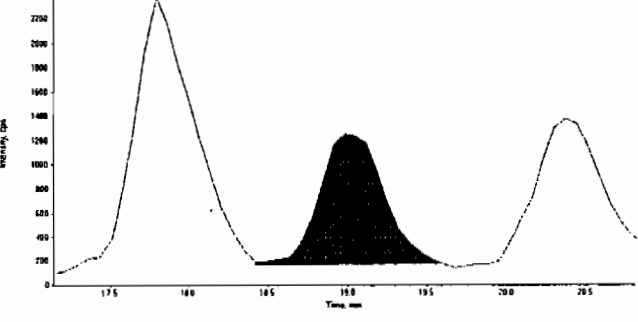
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.3
	Area Counts:	9.69e+004
	Manual Modification	Yes
	Amount:	31.5 (ng/mL)
	% Accuracy:	78.80

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	17.8
	Area Counts:	6.28e+004
	Manual Modification	No
	Amount:	51.9 (ng/mL)
	% Accuracy:	130.00

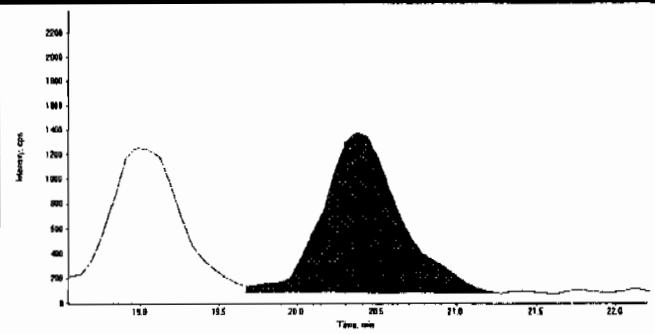
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	19.0
	Area Counts:	3.17e+004
	Manual Modification	No
	Amount:	38.8 (ng/mL)
	% Accuracy:	97.00

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

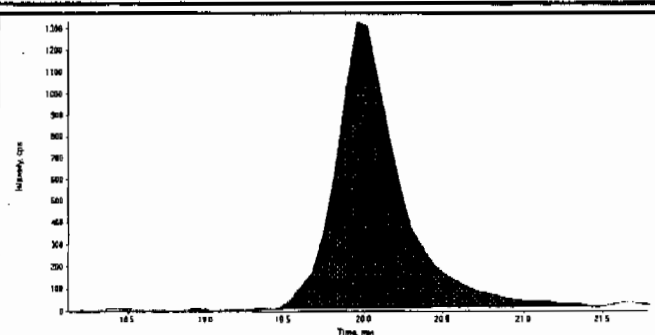
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420012.wiff	<b>Acquisition Date</b>	4/20/2010 7:04:13 PM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	20.4
	<b>Area Counts:</b>	4.44e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	41.3 (ng/mL)
	<b>% Accuracy:</b>	103.00

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	20.0
	<b>Area Counts:</b>	3.75e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	54.2 (ng/mL)
	<b>% Accuracy:</b>	136.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/20/10  
 Time of Injection 1904  
 Standard Number WXX100420-57CRI  
 Data File EXP0420012a

HMX	115.0
RDX	109.0
135-Trinitrobenzene	99.0
13-Dinitrobenzene	106.0
Tetryl	115.0
246-Trinitrotoluene	106.0
Nitrobenzene	84.3
34-dinitrotoluene	79.0
26-dinitrotoluene	103.0
24-dinitrotoluene	112.0
4-Amino-26-dinitrotoluene	88.7
2-Amino-46-dinitrotoluene	78.8
2-Nitrotoluene	130.0
4-Nitrotoluene	97.0
3-Nitrotoluene	103.0
PETN	136.0

TOTAL

1661.8

*Handwritten:* HMM 04/29/10

AVERAGE

✓ 103.9

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Handwritten:* Jan 4/28/10

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0420023.wiff

Analysis Date: 20-APR-10 23:49

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	631	105	
2,4,6-Trinitrotoluene	600	567	95	
2,4-Dinitrotoluene	600	595	99	
2,6-Dinitrotoluene	600	555	93	
2-Amino-4,6-dinitrotoluene	600	603	101	
3,4-Dinitrotoluene	300	288	96	
4-Amino-2,6-dinitrotoluene	600	694	116	
HMX	600	610	102	
Nitrobenzene	600	650	108	
PETN	600	624	104	
RDX	600	748	125	
Tetryl	600	664	111	
m-Dinitrobenzene	600	599	100	
m-Nitrotoluene	600	528	88	
o-Nitrotoluene	600	583	97	
p-Nitrotoluene	600	573	96	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

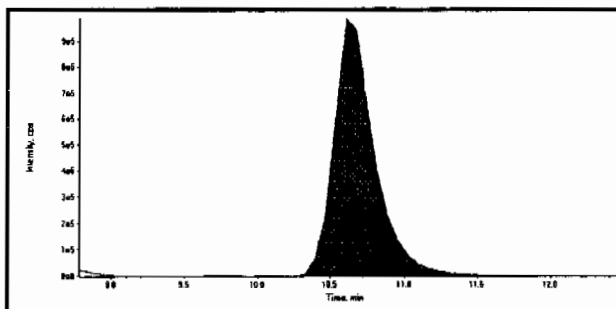
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

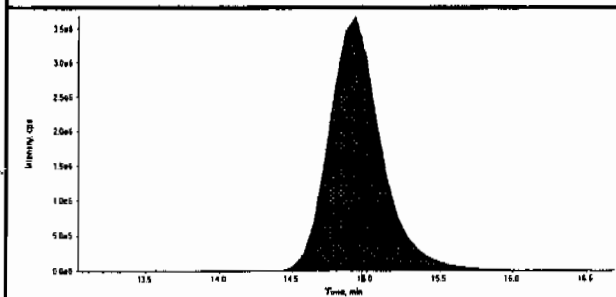
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420023.wiff	Acquisition Date	4/20/2010 11:49:37 PM
Sample Name	WXX100420-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



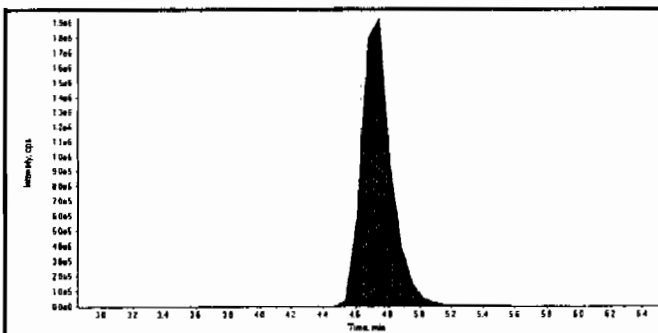
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	19000000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

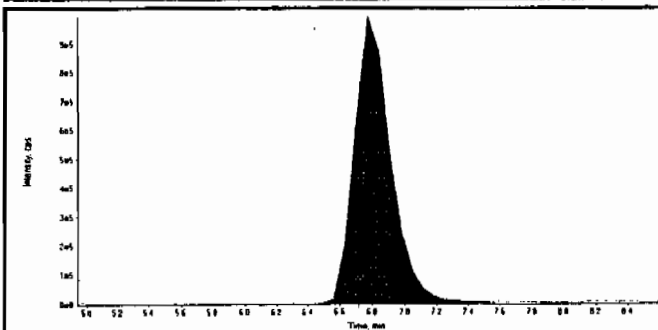


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	89500000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	2.48e+007
Manual Modification	No
Amount:	610. (ng/mL)
% Accuracy:	102.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.57e+007
Manual Modification	No
Amount:	748. (ng/mL)
% Accuracy:	125.00

*For 4/29/10*  
*Amr 6/24/10*

Before Jan 4/28/10

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Sample Name: WYX10020-56CCV - Sample ID: 11111111 - File: EPO-10023.wif  
Peak Name: WYX10020-56CCV - Peak ID: 11111111 - Method: 8321A-Modified LCMSMS#3  
Compound: LAMSEPP-C - Annotation: 1

Sample Index:

Sample Type: GC

Concentration: 500 ng/mL

Concentration: 500 ng/mL

Acq. Date: 4/26/2010

Acq. Time: 11:48:37 PM

Modified:

Peak Name: WYX10020-56CCV - Peak ID: 11111111 - Method: 8321A-Modified LCMSMS#3

Compound: LAMSEPP-C - Annotation: 1

Sample Index:

Sample Type: GC

Concentration: 500 ng/mL

Concentration: 500 ng/mL

Acq. Date: 4/26/2010

Acq. Time: 11:48:37 PM

Modified:

Peak Name: WYX10020-56CCV - Peak ID: 11111111 - Method: 8321A-Modified LCMSMS#3

Compound: LAMSEPP-C - Annotation: 1

Sample Index:

Sample Type: GC

Concentration: 500 ng/mL

Concentration: 500 ng/mL

Acq. Date: 4/26/2010

Acq. Time: 11:48:37 PM

Modified:

Peak Name: WYX10020-56CCV - Peak ID: 11111111 - Method: 8321A-Modified LCMSMS#3

Compound: LAMSEPP-C - Annotation: 1

Sample Index:

Sample Type: GC

Concentration: 500 ng/mL

Concentration: 500 ng/mL

Acq. Date: 4/26/2010

Acq. Time: 11:48:37 PM

Modified:

Peak Name: WYX10020-56CCV - Peak ID: 11111111 - Method: 8321A-Modified LCMSMS#3

Compound: LAMSEPP-C - Annotation: 1

Sample Index:

Sample Type: GC

Concentration: 500 ng/mL

Concentration: 500 ng/mL

Acq. Date: 4/26/2010

Acq. Time: 11:48:37 PM

Modified:

Peak Name: WYX10020-56CCV - Peak ID: 11111111 - Method: 8321A-Modified LCMSMS#3

Compound: LAMSEPP-C - Annotation: 1

Sample Index:

Sample Type: GC

Concentration: 500 ng/mL

Concentration: 500 ng/mL

Acq. Date: 4/26/2010

Acq. Time: 11:48:37 PM

Modified:

Peak Name: WYX10020-56CCV - Peak ID: 11111111 - Method: 8321A-Modified LCMSMS#3

Compound: LAMSEPP-C - Annotation: 1

Sample Index:

Sample Type: GC

Concentration: 500 ng/mL

Concentration: 500 ng/mL

Acq. Date: 4/26/2010

Acq. Time: 11:48:37 PM

Modified:

Peak Name: WYX10020-56CCV - Peak ID: 11111111 - Method: 8321A-Modified LCMSMS#3

Compound: LAMSEPP-C - Annotation: 1

Sample Index:

Sample Type: GC

Concentration: 500 ng/mL

Concentration: 500 ng/mL

Acq. Date: 4/26/2010

Acq. Time: 11:48:37 PM

Modified:

Peak Name: WYX10020-56CCV - Peak ID: 11111111 - Method: 8321A-Modified LCMSMS#3

Compound: LAMSEPP-C - Annotation: 1

Sample Index:

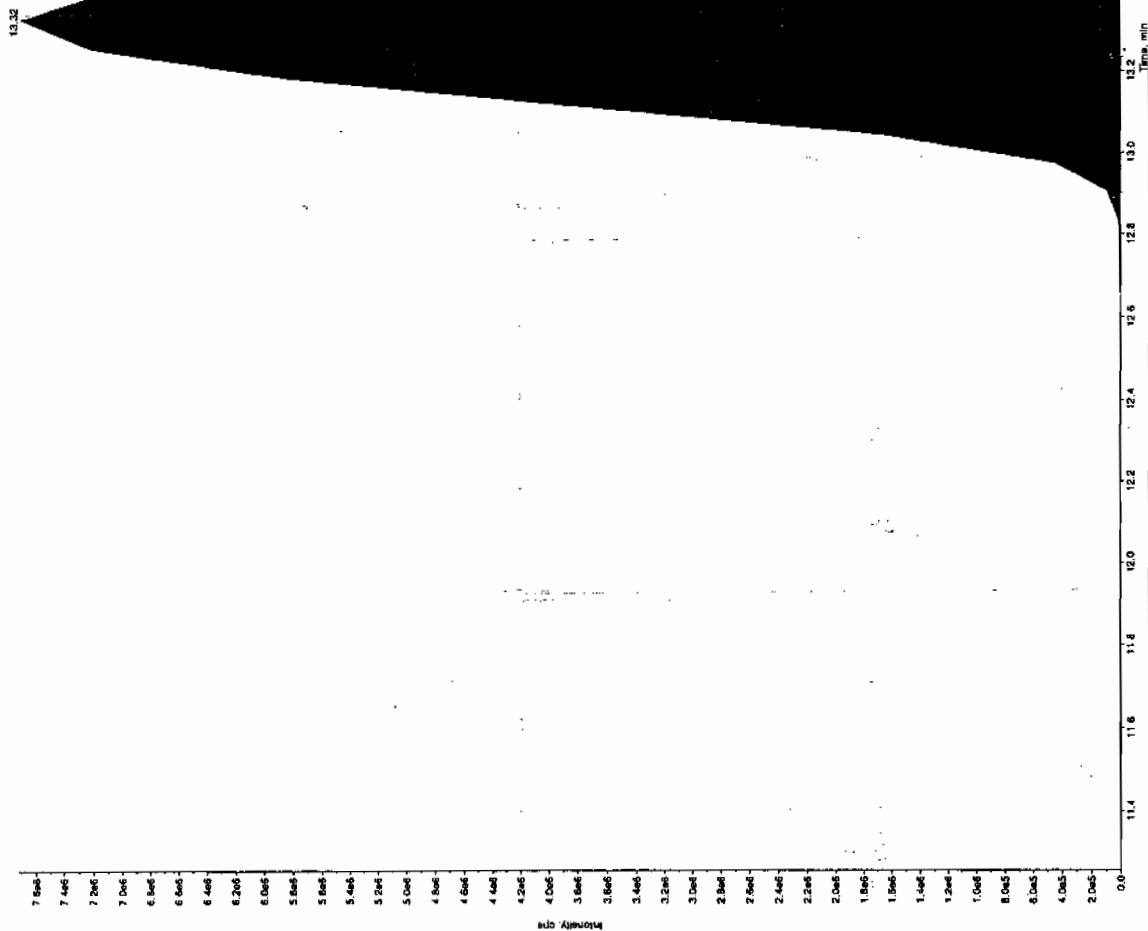
Sample Type: GC

Concentration: 500 ng/mL

Concentration: 500 ng/mL

Acq. Date: 4/26/2010

Acq. Time: 11:48:37 PM



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420023.wiff	<b>Acquisition Date</b>	4/20/2010 11:49:37 PM
<b>Sample Name</b>	WXX100420-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.07
	Actual RT:	9.07
	Area Counts:	1.32e+008
	Manual Modification	No
	Amount:	631. (ng/mL)
	% Accuracy:	105.00

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	5.85e+007
	Manual Modification	No
	Amount:	599. (ng/mL)
	% Accuracy:	99.80

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.8
	Actual RT:	10.8
	Area Counts:	5.25e+007
	Manual Modification	No
	Amount:	664. (ng/mL)
	% Accuracy:	111.00

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	2.16e+008
	Manual Modification	Yes
	Amount:	567. (ng/mL)
	% Accuracy:	94.50



Before Dec 4/28/10

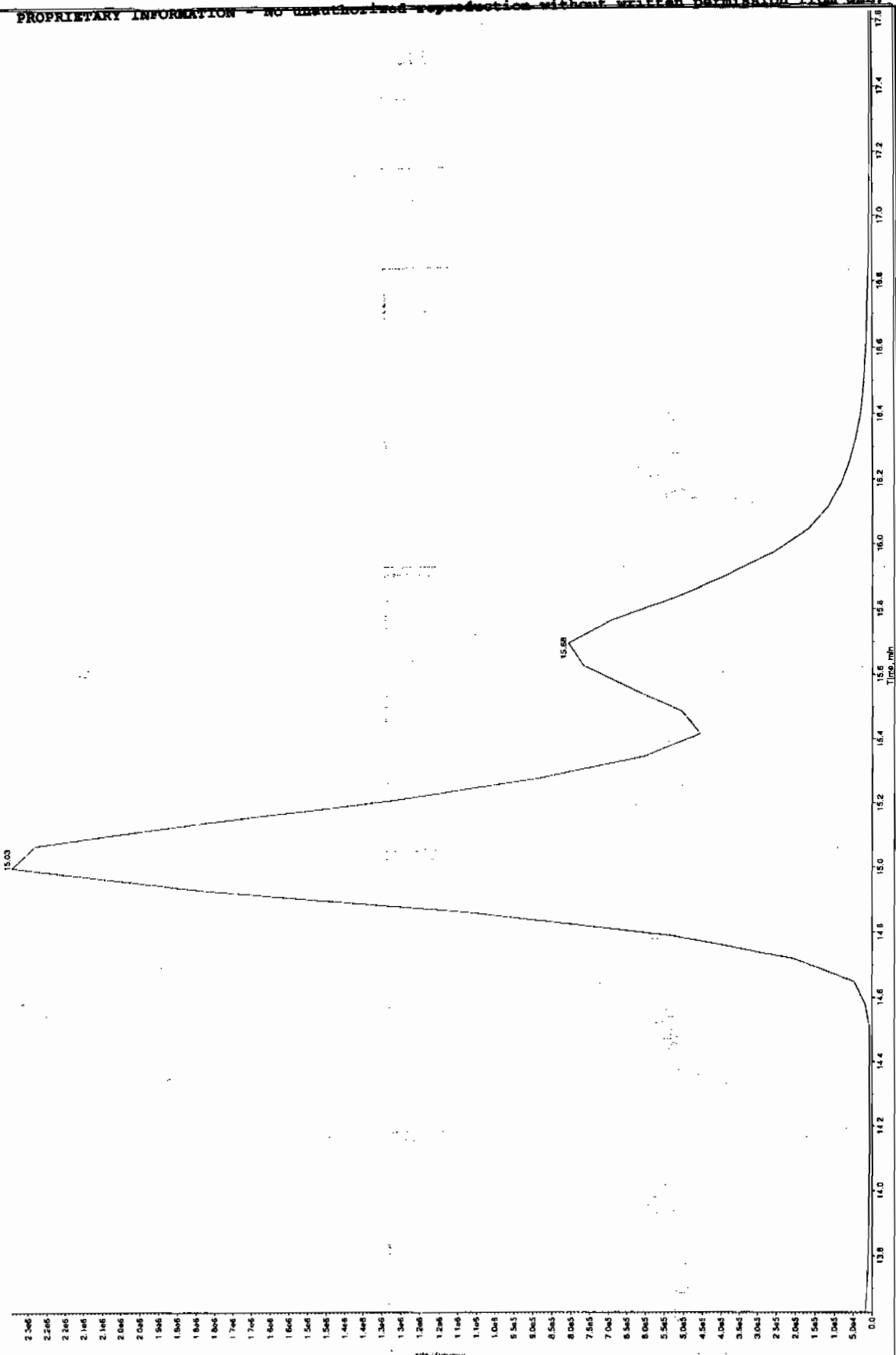
PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WZ100403 5M20V" Sample ID: "111111" File: "EXP020003.wif"

Peak Name: "24-desmethoxy" Mass(es): "162.046 0 amu"

Comment: "LCMS-EXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: QC  
 Sample Concentration: 680 ng/mL  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/28/2010  
 Acq. Time: 11:43:37 PM  
 Modified: 1 No



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420023.wiff	<b>Acquisition Date</b>	4/20/2010 11:49:37 PM
<b>Sample Name</b>	WXX100420-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.9
	<b>Actual RT:</b>	11.9
	<b>Area Counts:</b>	2.75e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	650. (ng/mL)
	<b>% Accuracy:</b>	108.00

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.1
	<b>Actual RT:</b>	12.2
	<b>Area Counts:</b>	3.45e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	288. (ng/mL)
	<b>% Accuracy:</b>	95.80

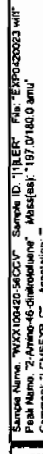
  

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.9
	<b>Actual RT:</b>	15.0
	<b>Area Counts:</b>	5.45e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	555. (ng/mL)
	<b>% Accuracy:</b>	92.50

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.6
	<b>Actual RT:</b>	15.7
	<b>Area Counts:</b>	2.18e+007
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	595. (ng/mL)
	<b>% Accuracy:</b>	99.10

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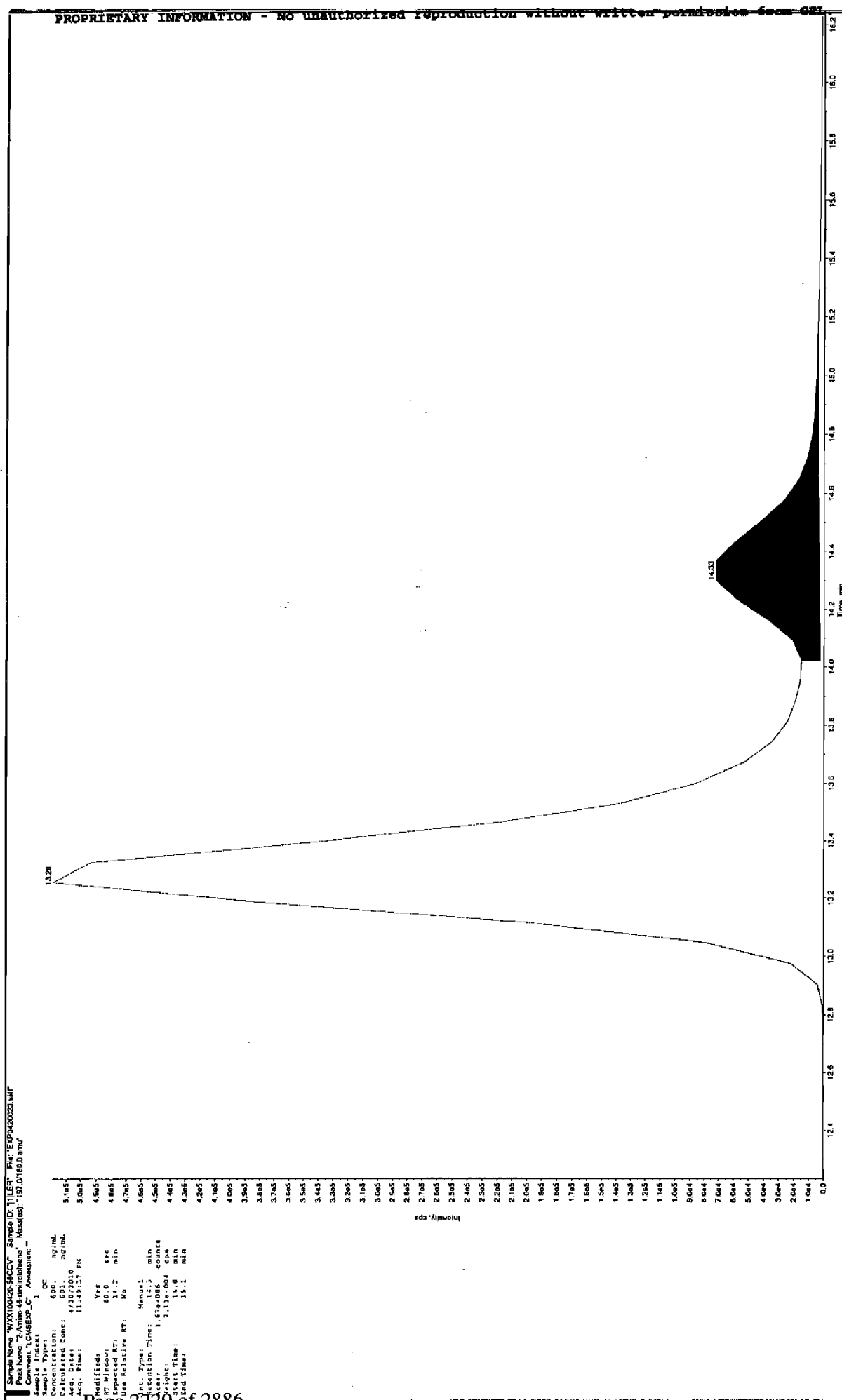


Sample Index	Sample Type	Concentration	Conc. Units	Acq. Time	Acq. Units	Int. Type	Int. Time	Ext. Time	Ext. Units
1	QC	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
2	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
3	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
4	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
5	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
6	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
7	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
8	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
9	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
10	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
11	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
12	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
13	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
14	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
15	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
16	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
17	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
18	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
19	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
20	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
21	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
22	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
23	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
24	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
25	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
26	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
27	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
28	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
29	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
30	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
31	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
32	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
33	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
34	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
35	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
36	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
37	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
38	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
39	Concentrated	600	ng/mL	11:05:10	10.00	Wavelet	14.3	min	2.56
40	Concentrated	600	ng/mL	11:05:10	10				

Page 2228 of 2886

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/28/20



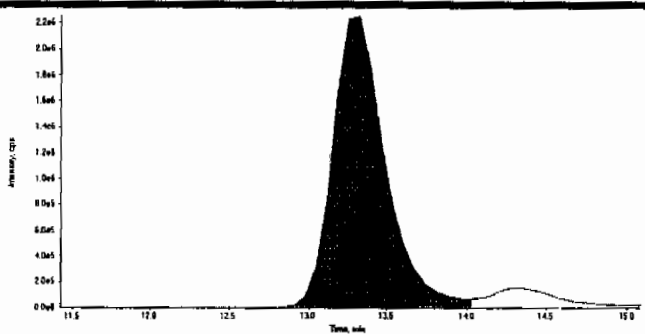
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

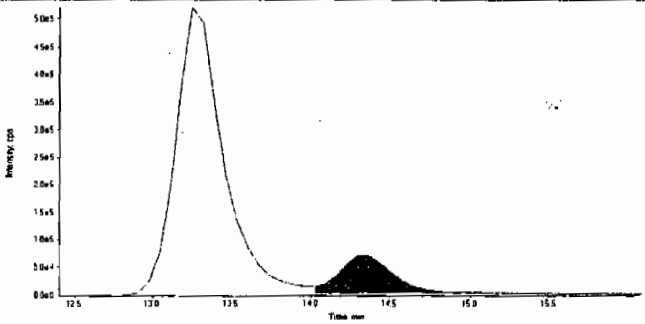
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420023.wiff	<b>Acquisition Date</b>	4/20/2010 11:49:37 PM
<b>Sample Name</b>	WXX100420-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

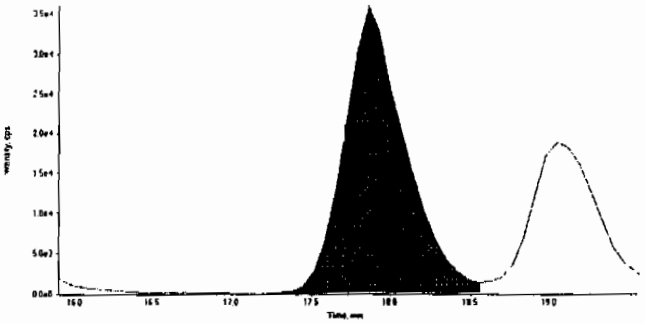
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	5.29e+007
	Manual Modification	No
	Amount:	694. (ng/mL)
	% Accuracy:	116.00

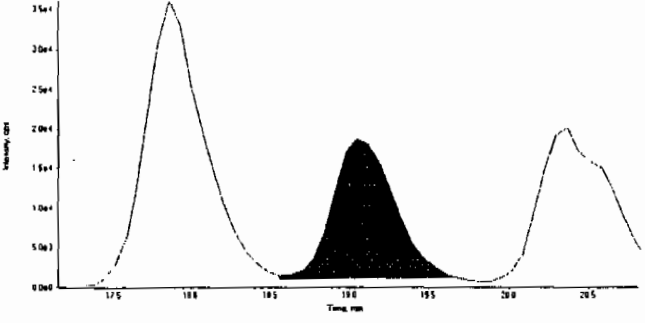
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.3
	Area Counts:	1.67e+006
	Manual Modification	Yes
	Amount:	603. (ng/mL)
	% Accuracy:	101.00

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	17.9
	Area Counts:	9.70e+005
	Manual Modification	No
	Amount:	583. (ng/mL)
	% Accuracy:	97.10

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	19.0
	Area Counts:	4.88e+005
	Manual Modification	No
	Amount:	573. (ng/mL)
	% Accuracy:	95.50

Before 4/19/10

Sample Name: "WAX10020-5600" Sample ID: "1111" File: "EXP020023.wif"

Peak Name: "PETN" Mass(es): "561.192.0 amu"

Comment: "LCMSEMP\_C" Association: "

Sample Type: "1" OC

Concentration: 600. ng/mL

Calculated Conc: 633. ng/mL

Acq. Date: 4/20/2010

Acq. Time: 11:19:37 PM

Modified: No

Int. Type: Valley

Resolution Time: 5.09e-005

Height: 1.67e-004

Area: 19.3

Area Time: 21.5

Area Relative RT: No

Smoothing Width: 3

Window: 60.0

Peak Width: 0.00

Peak Height: 100.00

Peak Width: 0.00

Peak Height: 100.00

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Peak Height: 100.00

Peak Width: 0.00

Peak Height: 100.00

Peak Width: 0.00

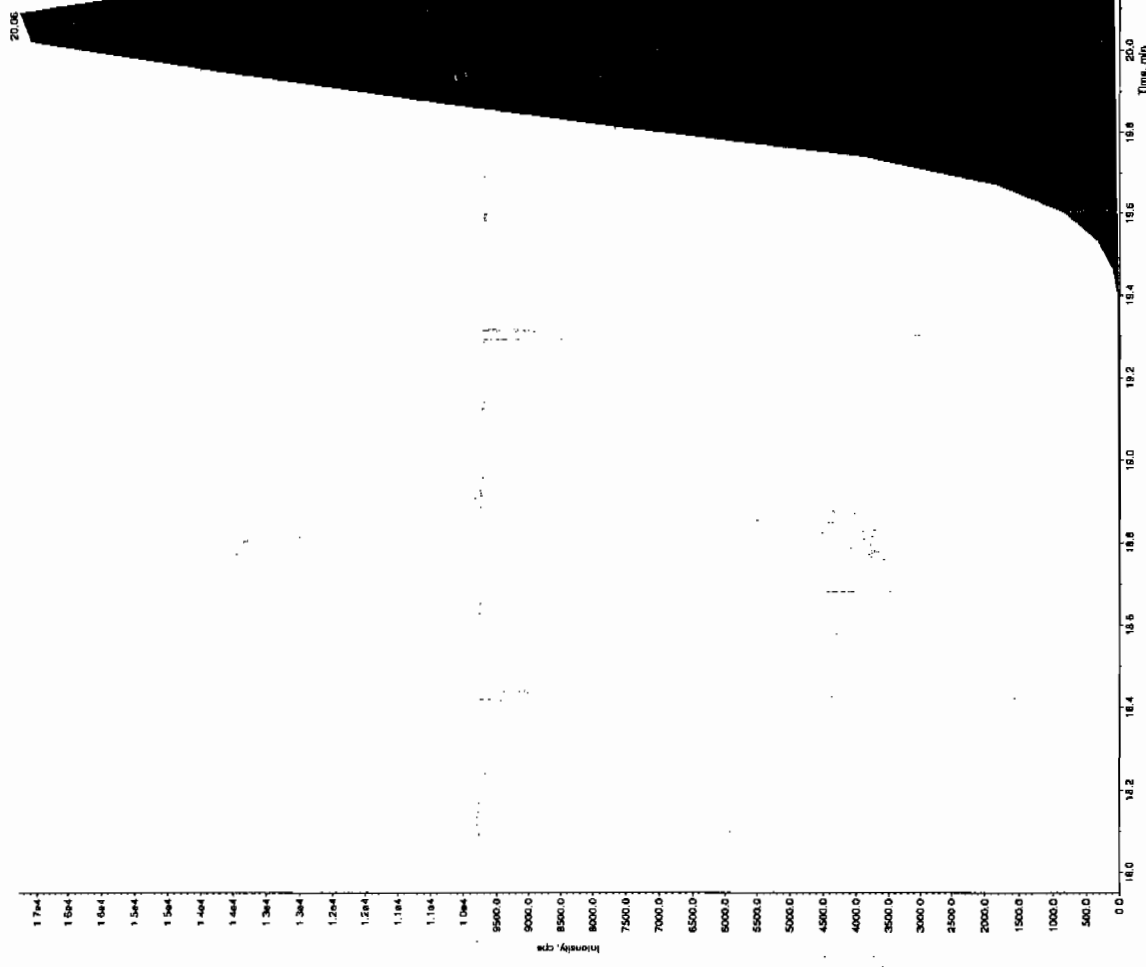
Peak Height: 100.00

Peak Width: 0.00

Peak Height: 100.00

Peak Width: 0.00

Peak Height: 100.00

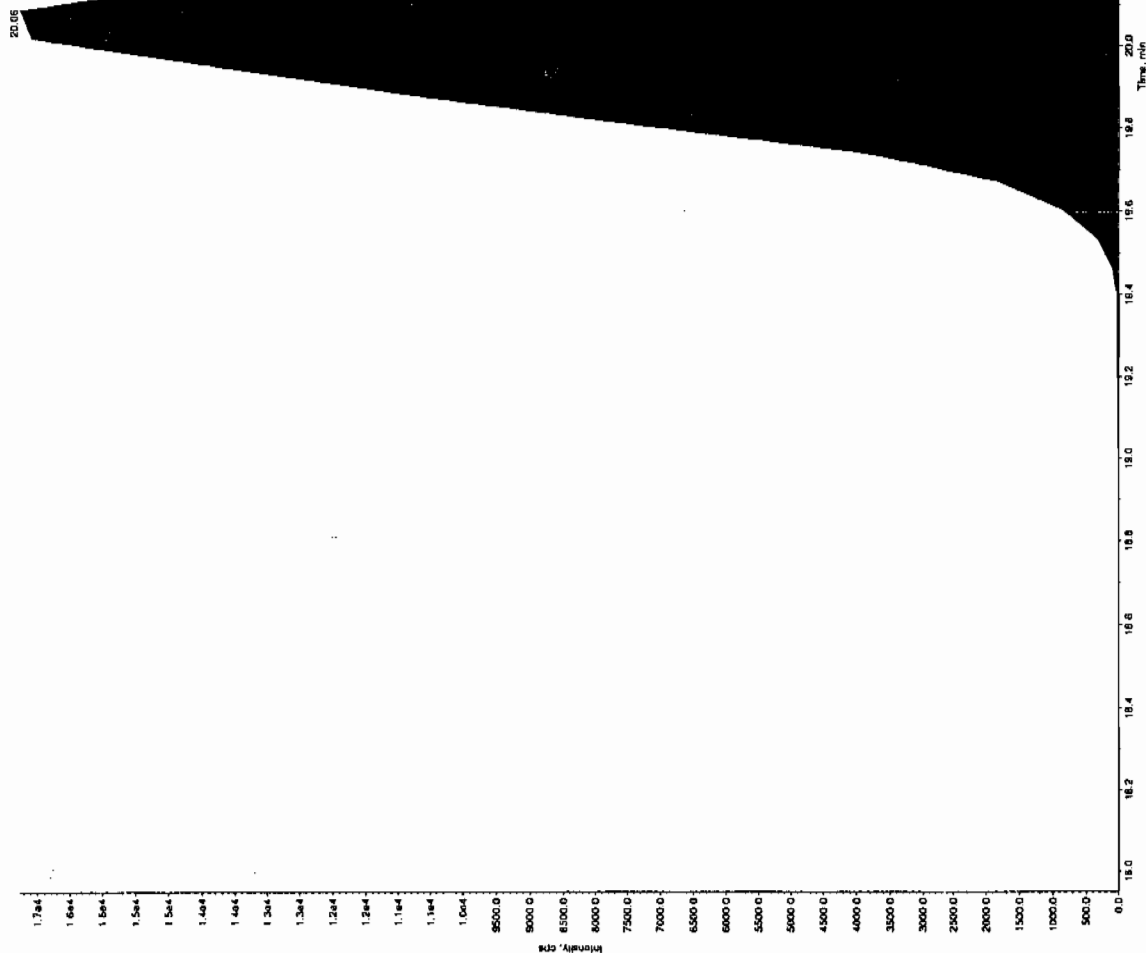


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Sample Name "WXX100420-36GCV" Sample ID "T11LER" File "EXP0420023.wif"  
Peak Name: "PETN" Mass(es) "361.182 0 amu"  
Comment "LOUSEXP\_C" Annotation: ""

Sample Index:	1	QC
Concentrations	500	
Estimated Conc:	47027510	
Acq. Date:	21/07/2010	
Acq. Time:	21:55:37 PM	
Modified:	Yes	
Port Window:	60.0	sec
Expected RT:	20.0	min
Use Relative RT:	No	
Int. Type:	Manual	
Integration Time:	20	min
Counts:	5,146,005	counts
Height:	1,718,005	cps
Start Time:	19.4	min
End Time:	21.1	min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

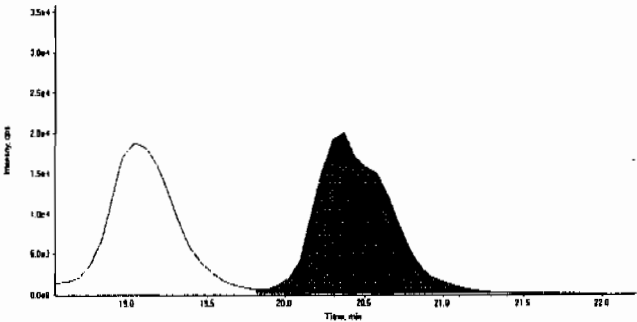


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

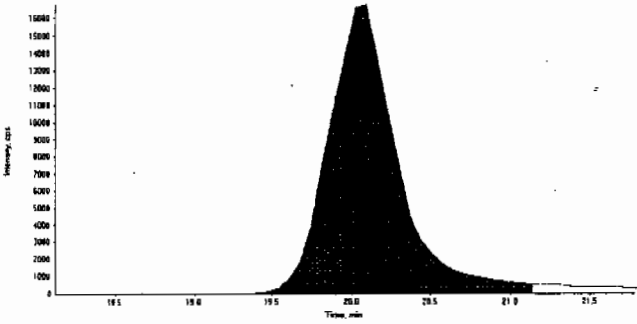
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420023.wiff	Acquisition Date	4/20/2010 11:49:37 PM
Sample Name	WXX100420-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.4
	Actual RT:	20.4
	Area Counts:	6.50e+005
	Manual Modification	No
	Amount:	528. (ng/mL)
	% Accuracy:	88.00

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	20.0
	Actual RT:	20.1
	Area Counts:	5.10e+005
	Manual Modification	Yes
	Amount:	624. (ng/mL)
	% Accuracy:	104.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/20/10  
 Time of Injection 2349  
 Standard Number WXX100420-56CCV  
 Data File EXP0420023a

HMX	102.0
RDX	125.0
135-Trinitrobenzene	105.0
13-Dinitrobenzene	99.8
Tetryl	111.0
246-Trinitrotoluene	94.5
Nitrobenzene	108.0
34-dinitrotoluene	95.8
26-dinitrotoluene	92.5
24-dinitrotoluene	99.1
4-Amino-26-dinitrotoluene	116.0
2-Amino-46-dinitrotoluene	101.0
2-Nitrotoluene	97.1
4-Nitrotoluene	95.5
3-Nitrotoluene	88.0
PETN	104.0

TOTAL

1634.3

*4/29/10*

AVERAGE

102.1

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Lar*  
*4/28/10*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0420025.wiff

Analysis Date: 21-APR-10 00:41

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	40.3	101	
2,4,6-Trinitrotoluene	40	40.1	100	
2,4-Dinitrotoluene	40	38.9	97	
2,6-Dinitrotoluene	40	37.2	93	
2-Amino-4,6-dinitrotoluene	40	38.7	97	
3,4-Dinitrotoluene	20	15.7	79	
4-Amino-2,6-dinitrotoluene	40	40	100	
HMX	40	46.7	117	
Nitrobenzene	40	35.1	88	
PETN	40	56.8	142	
RDX	40	50.2	126	
Tetryl	40	49.5	124	
m-Dinitrobenzene	40	41.7	104	
m-Nitrotoluene	40	42.4	106	
o-Nitrotoluene	40	51	127	
p-Nitrotoluene	40	39.3	98	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

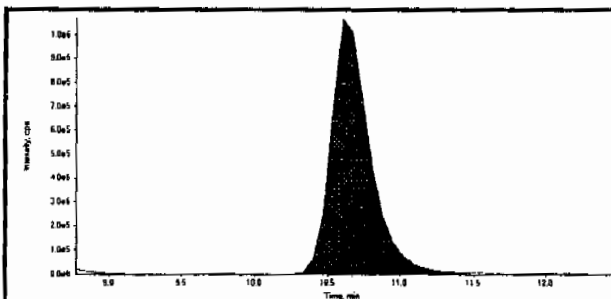
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

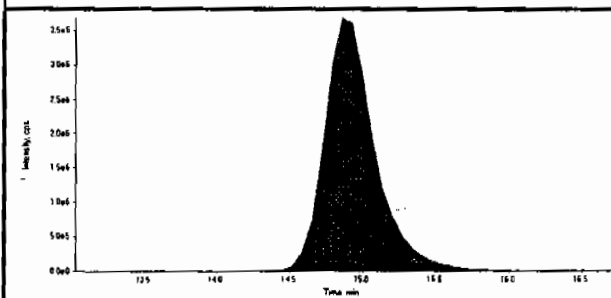
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420025.wiff	Acquisition Date	4/21/2010 12:41:22 AM
Sample Name	WXX100420-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



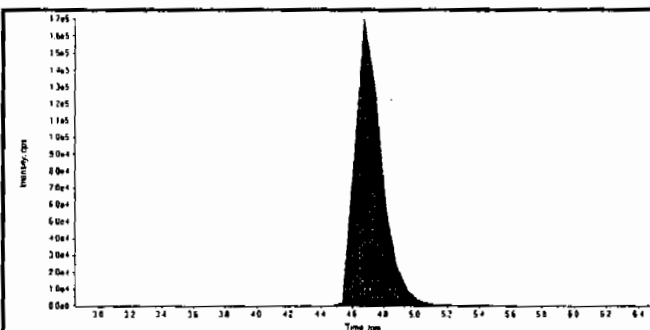
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	20300000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

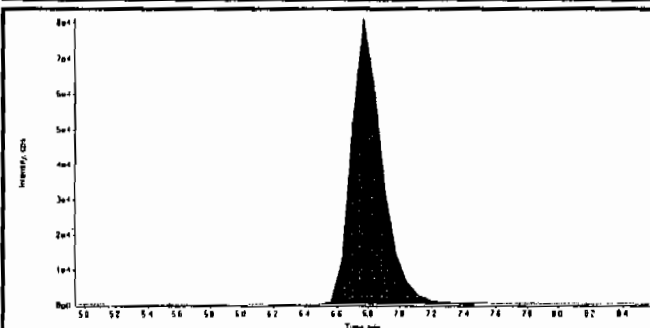


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	90500000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



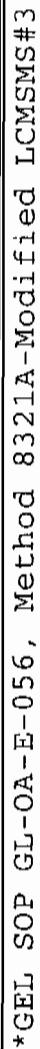
Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	2.03e+006
Manual Modification	No
Amount:	46.7 (ng/mL)
% Accuracy:	117.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.13e+006
Manual Modification	No
Amount:	50.2 (ng/mL)
% Accuracy:	126.00

*Jan 4/29/10*  
*hmc 04/29/10*

Before Jan 4/28/00



after day 4/28/10

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Sample Name: "WXX1004205-57CH" Sample ID: "TILER" File: "EXP042005.wif"

Peak Name: "246-Turbinolone" Mass(es): "227.1209.8 amu"

Comment: "LCMSMS-C" Annotation: "

Sample Text: "1 QC"

Concentration: 40.0 ng/mL

Acq. Date: 4/27/2010

Acq. Time: 12:41:12 AM

Modified: Yes

RT Window: 60.0 sec

Expected RT: 15.3 min

Use Relative RT: No

Int. Type: Manual

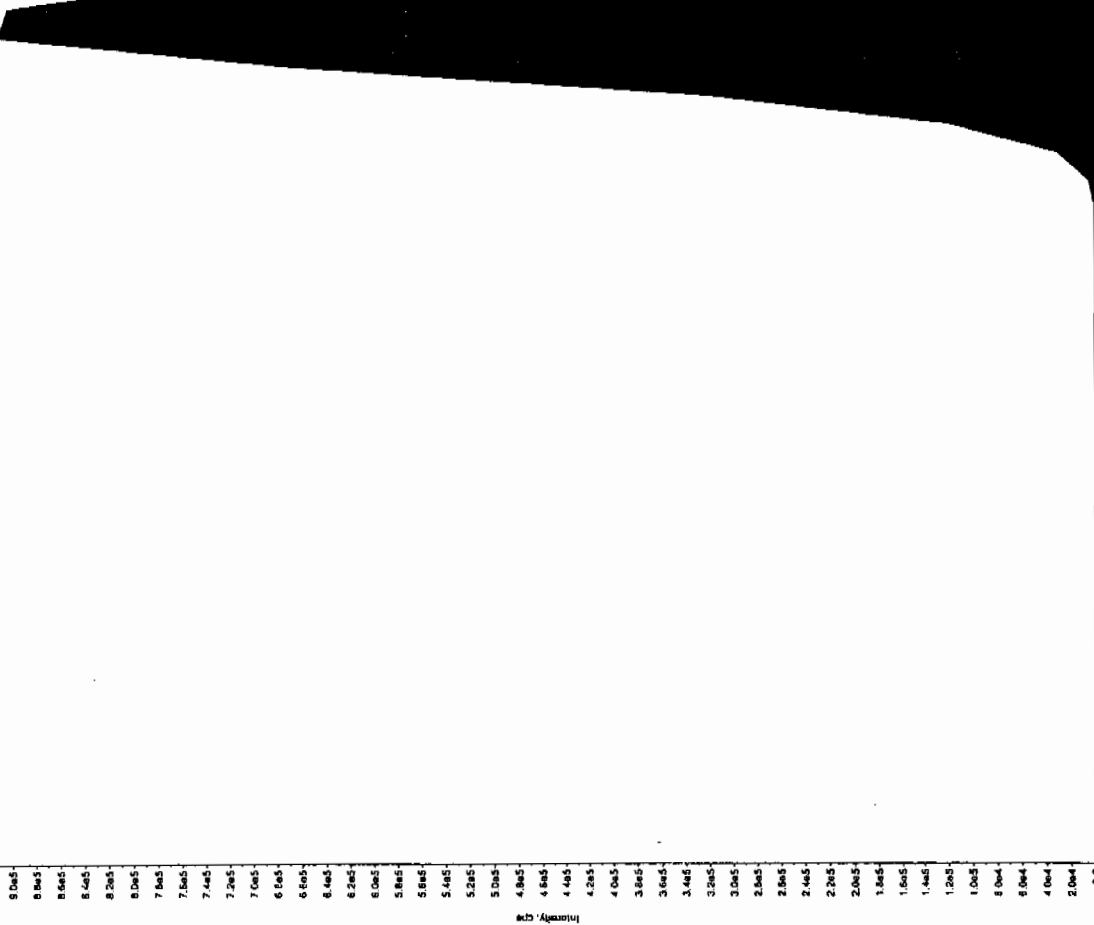
Retention Time: 15.3 min

Weight: 3.15e-11 g

Start Time: 9:45:00 PM

End Time: 12.5 min

13.28



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420025.wiff	<b>Acquisition Date</b>	4/21/2010 12:41:22 AM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	9.07
	<b>Area Counts:</b>	1.22e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	40.3 (ng/mL)
	<b>% Accuracy:</b>	101.00

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	4.35e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	41.7 (ng/mL)
	<b>% Accuracy:</b>	104.00

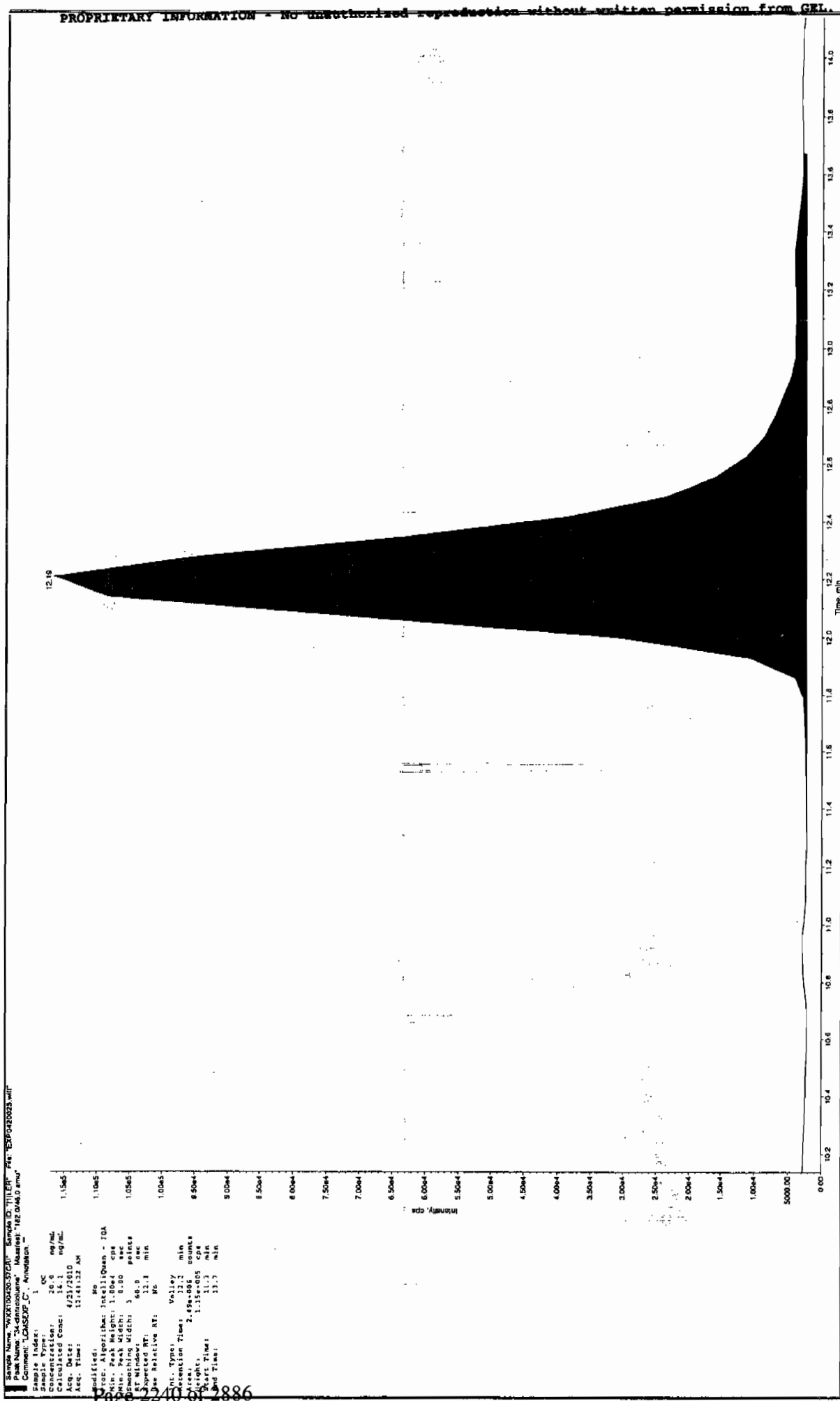
  

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	10.9
	<b>Area Counts:</b>	4.18e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	49.5 (ng/mL)
	<b>% Accuracy:</b>	124.00

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.3
	<b>Area Counts:</b>	2.15e+007
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	40.1 (ng/mL)
	<b>% Accuracy:</b>	100.00

Before Scan 428100



\*GEL SOP, GL-OA-E-056, Method 8321A-Modified LCMSMS#3



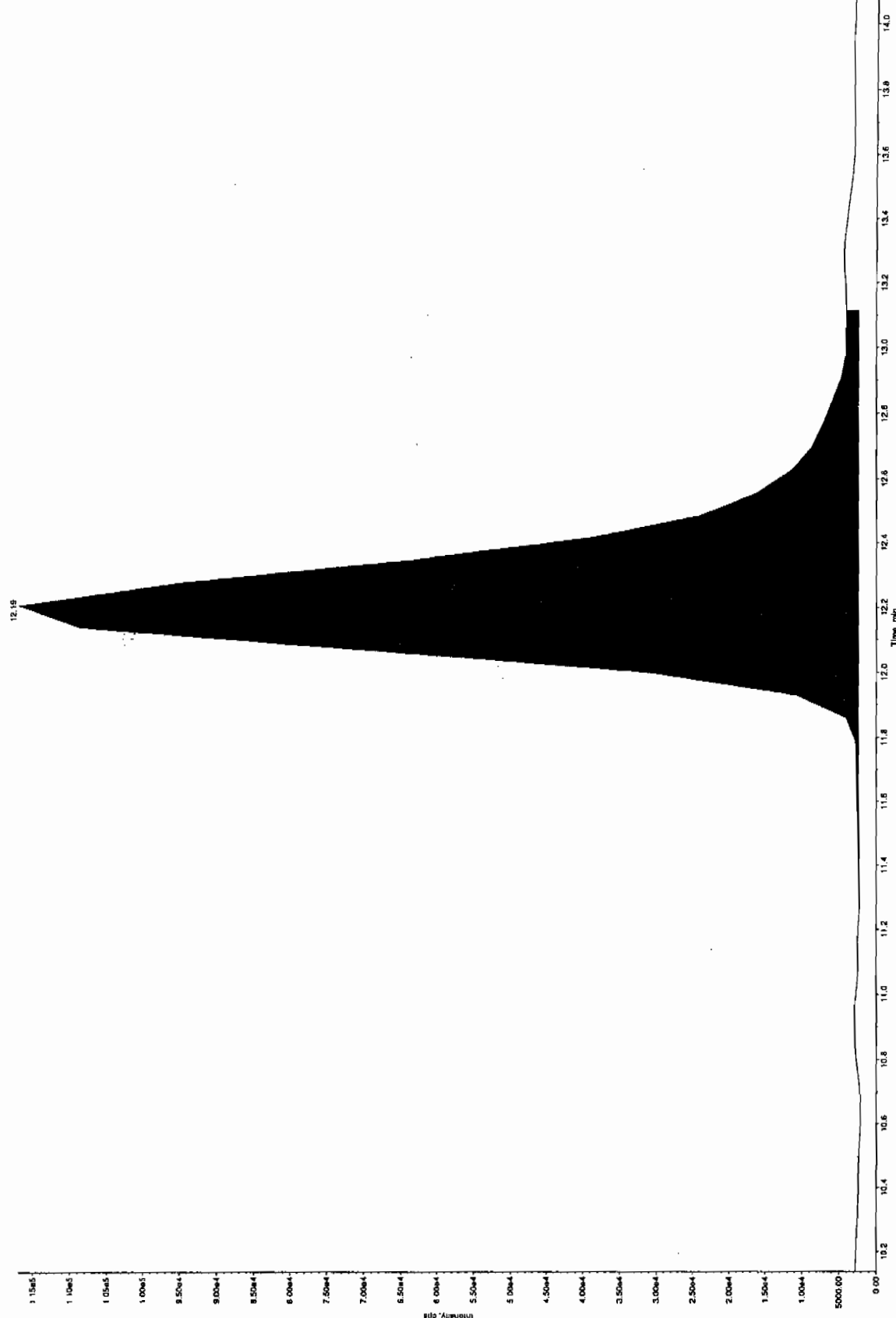
after scan 42810

Sample Name: WXX06420-57C.RT Sample ID: 7111.RT File: EXP0420025.wit

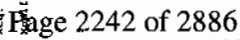
Peak Name: 24-dihydrodione Mass(es): 182.045.0 amu

Comment: LCMS/MS\_C Annotation: --

Sample Index: 1 QC  
 Concentration: 25.0 ng/mL  
 Calculated Conc: 35.7 ng/mL  
 Acq. Date: 4/21/2010  
 Acq. Time: 11:41:21 AM  
 Modified: Yes  
 RT Window: 60.0 sec  
 Expected RT: 12.1 min  
 Use Relative RT: No  
 Int. Type: Manual  
 Retention Time: 12.1 min  
 Peak Width: 2.46 min  
 Height: 1.15e+005  
 Start Time: 11.6 min  
 End Time: 13.1 min

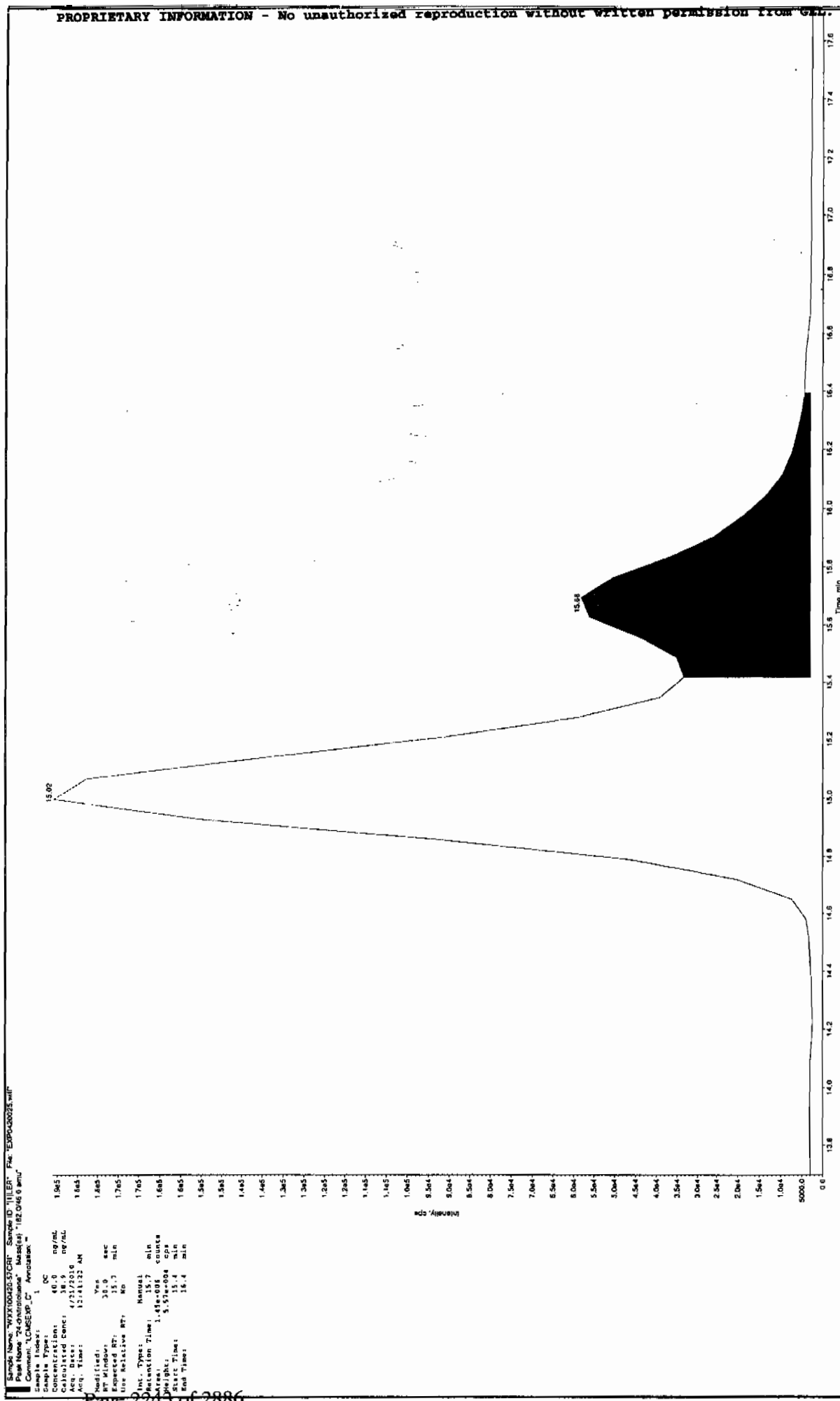


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Dec 4/28/10



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\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420025.wiff	Acquisition Date	4/21/2010 12:41:22 AM
Sample Name	WXX100420-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	11.9
	Area Counts:	1.58e+005
	Manual Modification	No
	Amount:	35.1 (ng/mL)
	% Accuracy:	87.90

	Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.2
	Area Counts:	2.44e+006
	Manual Modification	Yes
	Amount:	15.7 (ng/mL)
	% Accuracy:	78.60

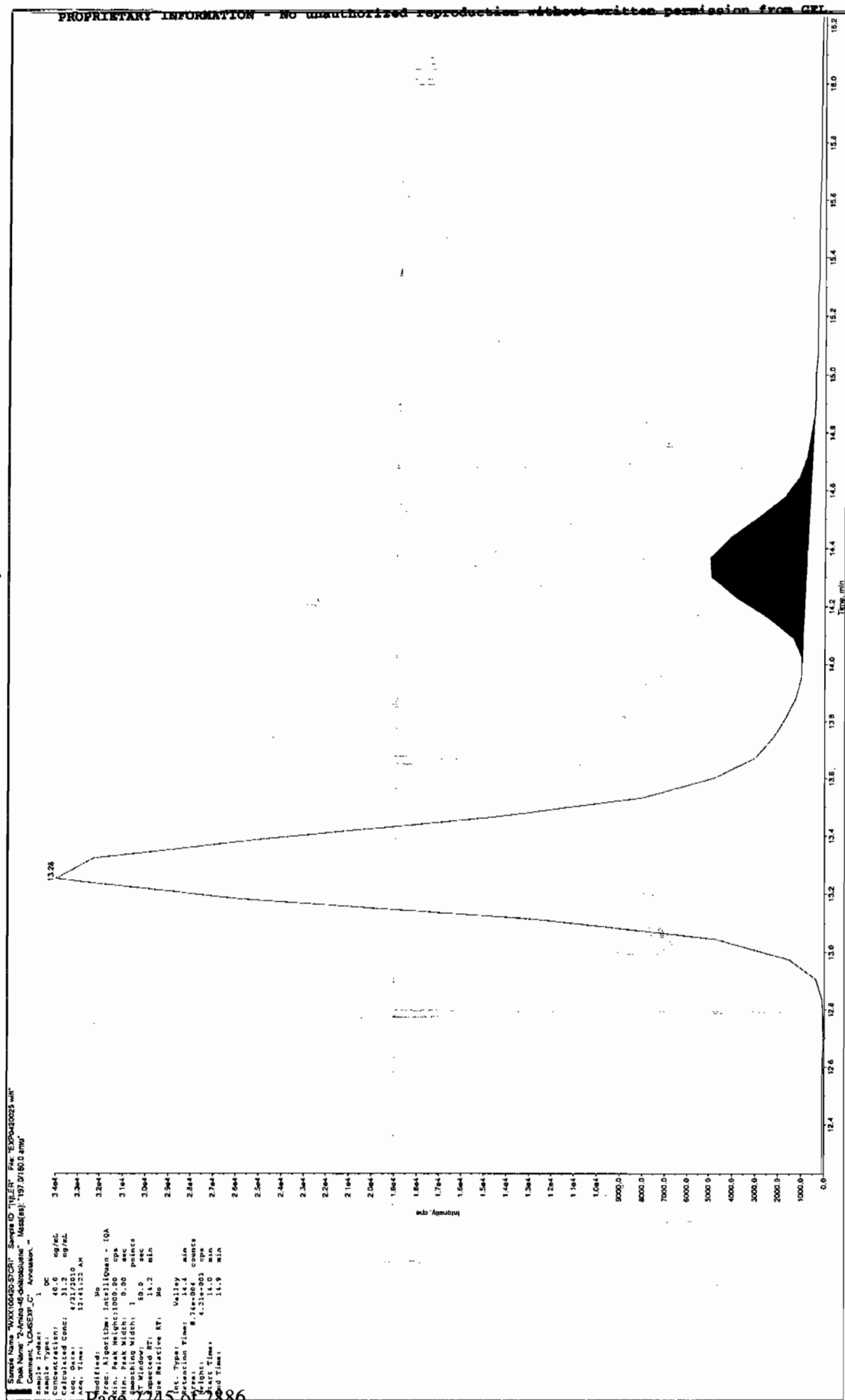
  

	Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	15.0
	Area Counts:	4.23e+006
	Manual Modification	No
	Amount:	37.2 (ng/mL)
	% Accuracy:	92.90

	Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.7
	Actual RT:	15.7
	Area Counts:	1.45e+006
	Manual Modification	Yes
	Amount:	38.9 (ng/mL)
	% Accuracy:	97.30

Before Sea 4/28/10



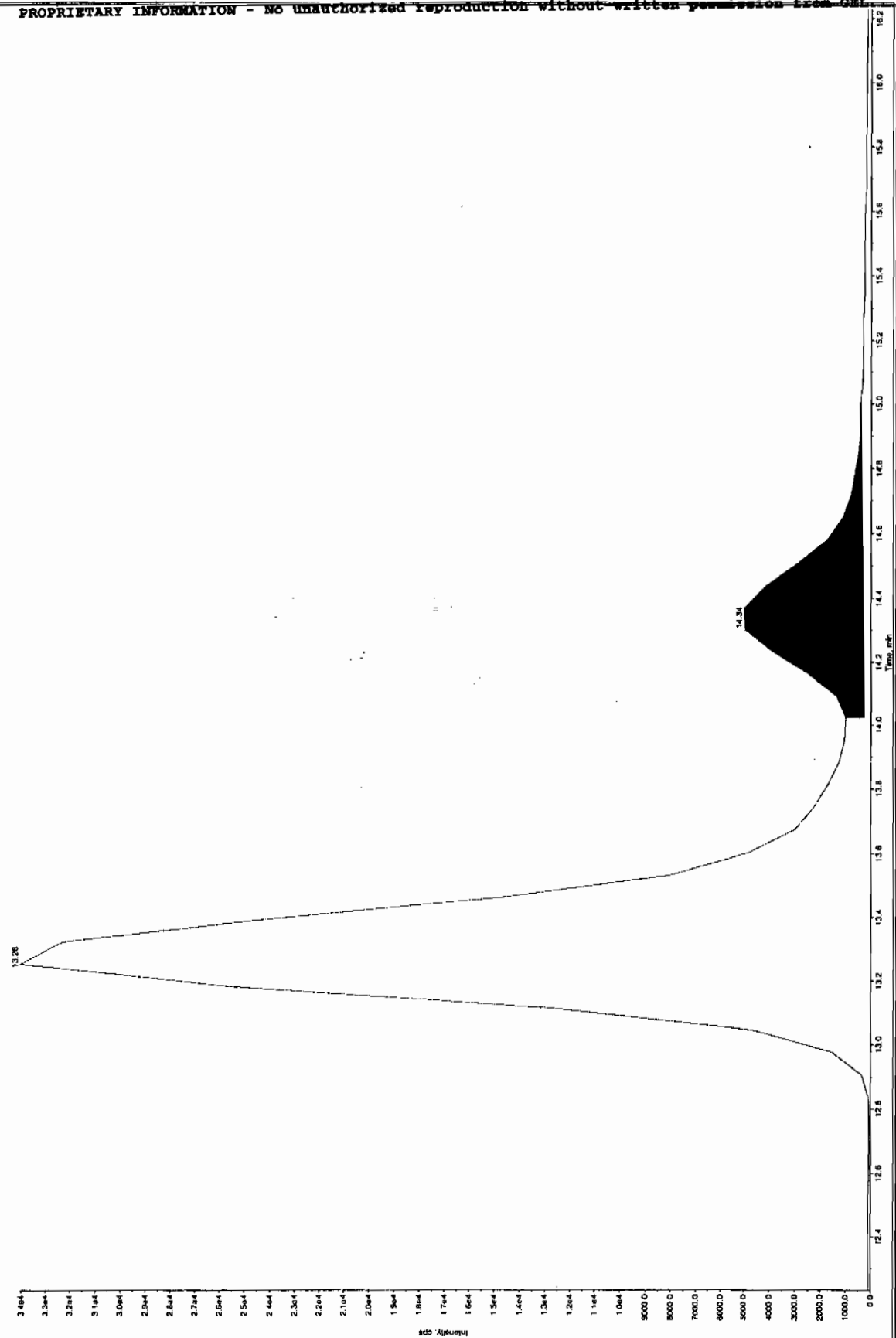
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/2010

Sample Name: WXT10026-STR1 Sample ID: T1L1R1 File: EXP020025.wit

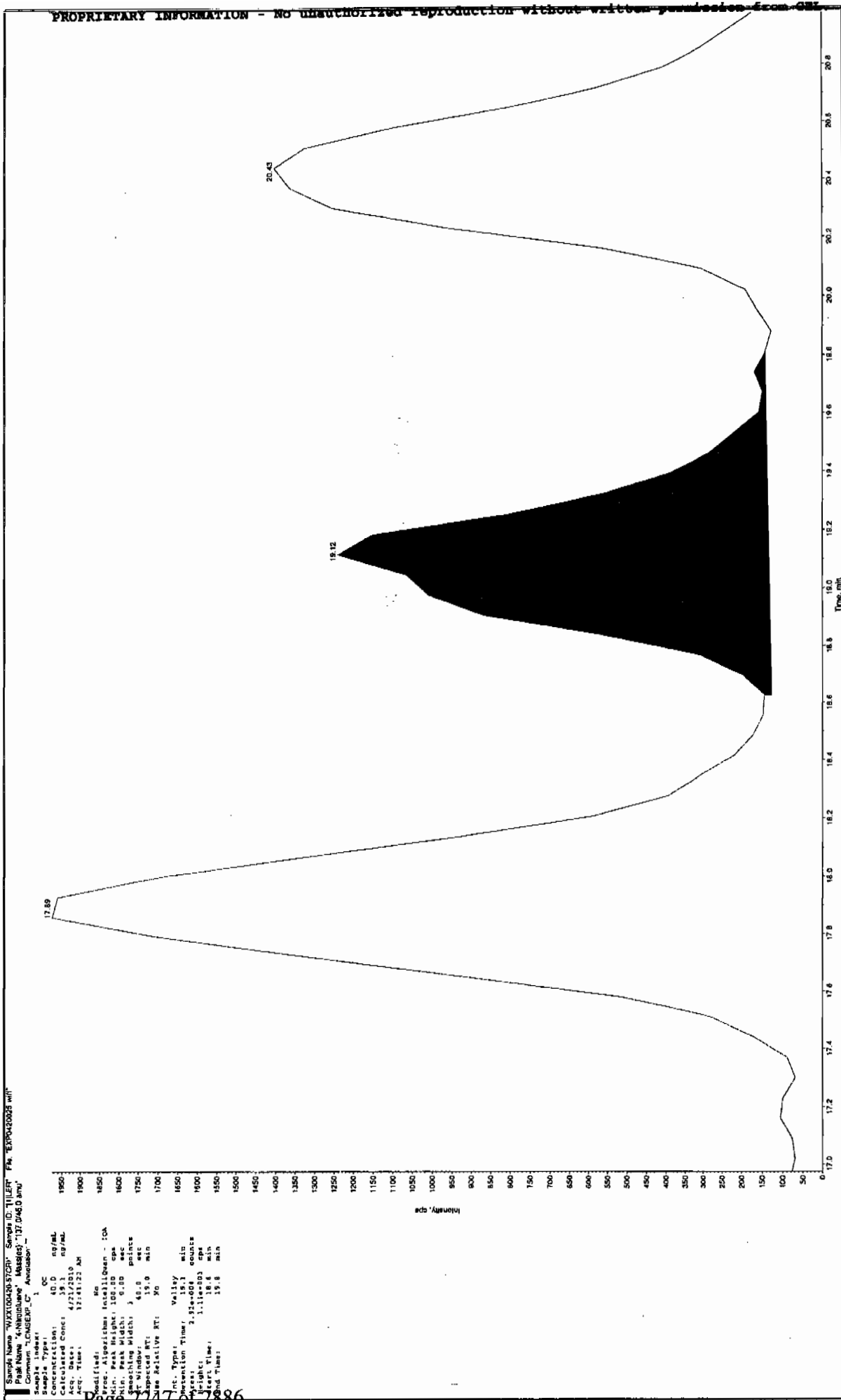
Comment: "LCMS/EXP-C" Annotation: "197.D/180.0 nm"

Sample Type: 1 GC  
Concentration: 40.0 ng/mL  
Calculated Conc: 18.7 ng/mL  
Acq. Date: 12/11/09  
Acq. Time: 12:11:22 AM  
Modified: Yes  
Expected RT: 14.2 min  
Use Relative RT: No  
Acq. Type: Manual  
Injection Time: 14.1 min  
Weight: 1.09e-005 counts  
Start Time: 14.0 min  
End Time: 14.9 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

Before Jan 4/28/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/2010

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Sample Name: W2X10020-57.CRI Sample ID: 118.EP File: EXP020023.wif

Peak Name: 4-aminobiphenyl Molecule: 137 base 0 amu

Concentration: 49.0 ng/mL

Calculated Conc: 42310.0 ng/mL

Acq. Time: 12:41:23 AM

Modifed: Yes

Acq. Method: SEC

Ext. Method: No

Use Relative NT: No

Int. Type: Manual

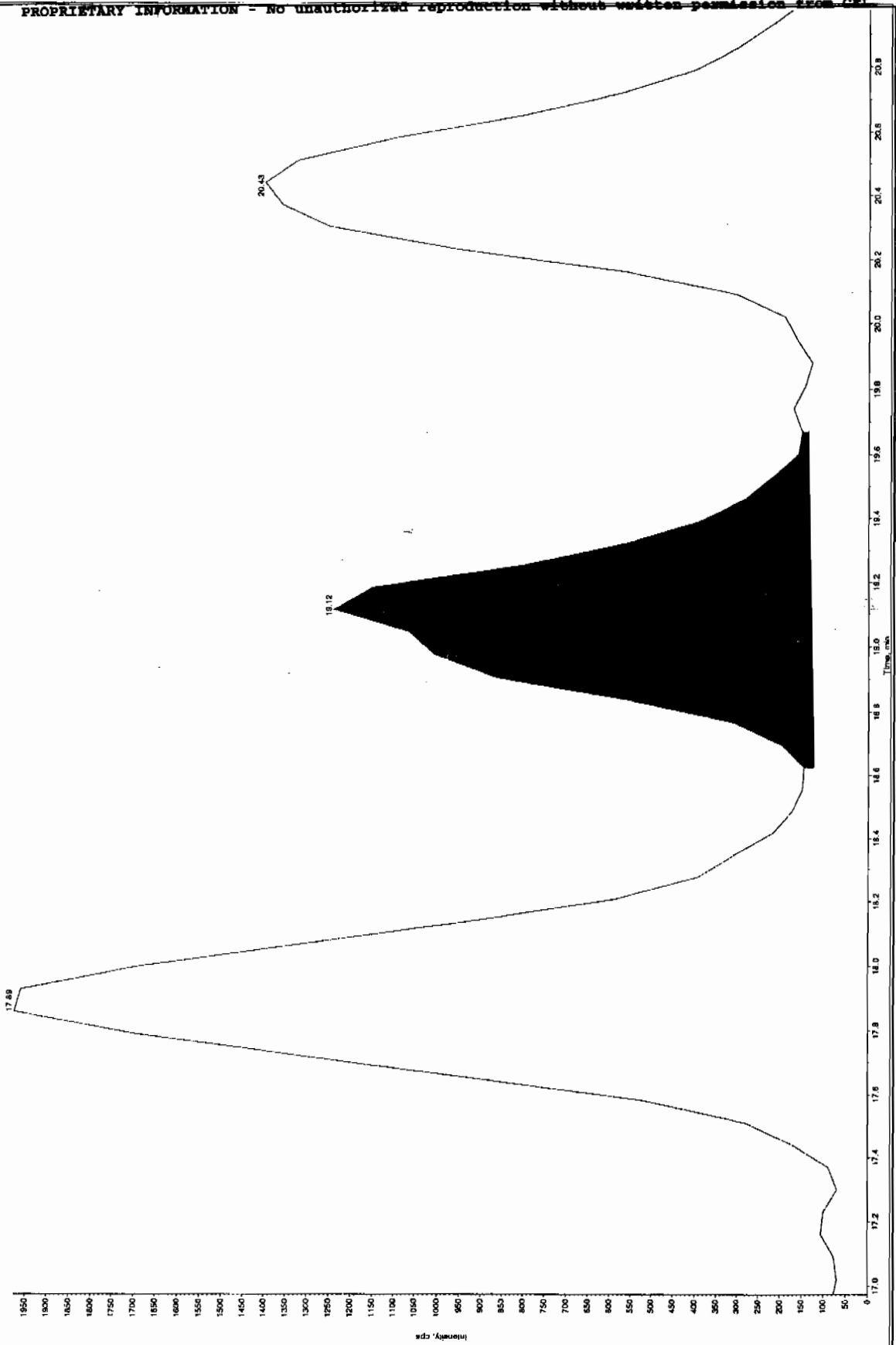
Acq. On Time: 17:50

Acq. On Time: 2.94e-001 counts

Height: 1.12e-003 cps

Start Time: 18.4 min

End Time: 19.7 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420025.wiff	<b>Acquisition Date</b>	4/21/2010 12:41:22 AM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.3
	<b>Area Counts:</b>	3.51e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	40.0 (ng/mL)
	<b>% Accuracy:</b>	100.00

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	14.3
	<b>Area Counts:</b>	1.09e+005
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	38.7 (ng/mL)
	<b>% Accuracy:</b>	96.90

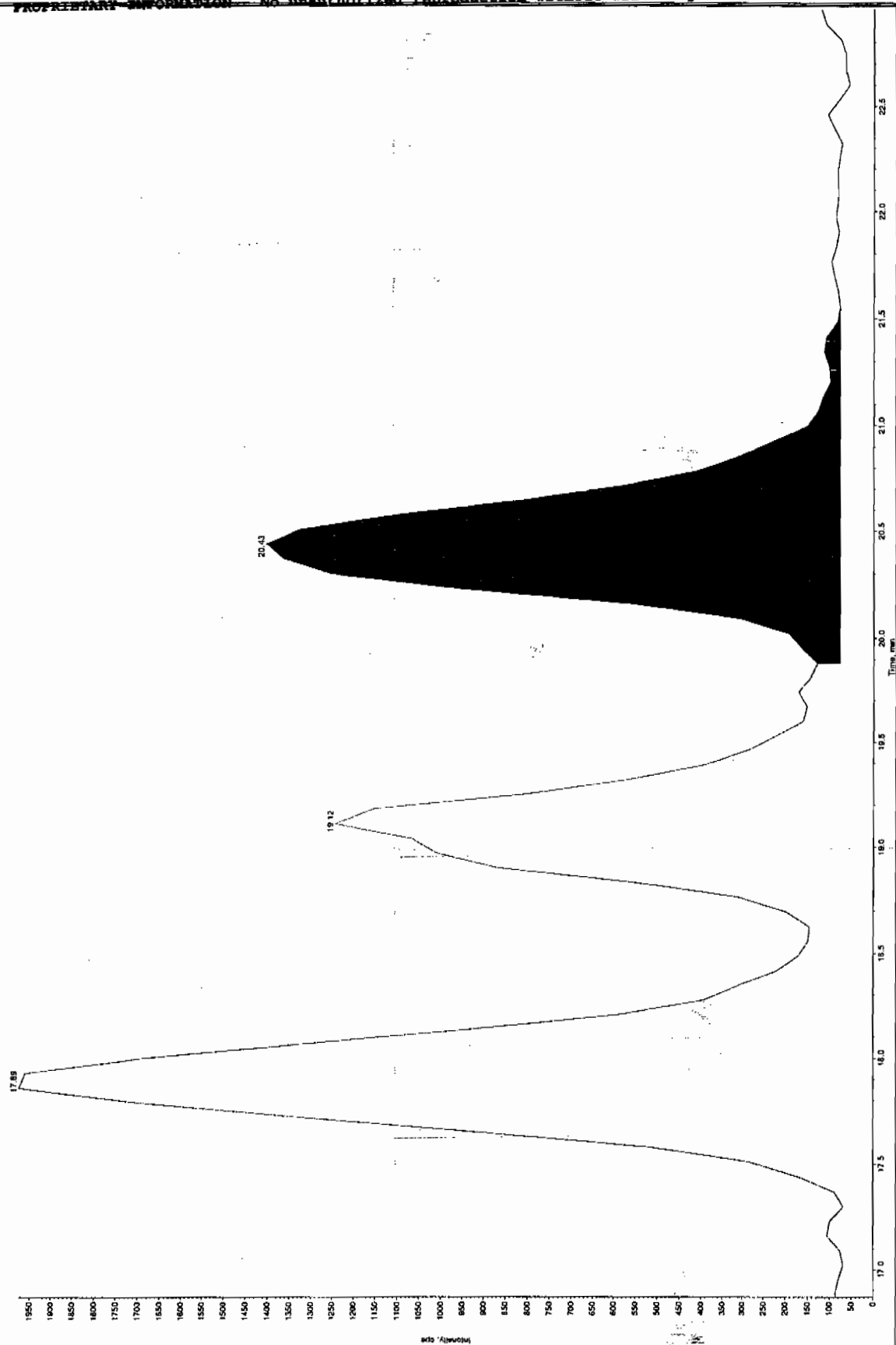
  

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	17.9
	<b>Area Counts:</b>	5.58e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	51.0 (ng/mL)
	<b>% Accuracy:</b>	127.00

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	19.0
	<b>Actual RT:</b>	19.1
	<b>Area Counts:</b>	2.94e+004
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	39.3 (ng/mL)
	<b>% Accuracy:</b>	98.20

Sample Name: "XXX100420-57GRF" Sample ID: "111ER" File: "EXP0420025.wif"  
Peak Name: "3-Aluolulene" Mass(es): "137.046 0 amu"  
Comment: "LCMS-XP\_C" Annotation: ""

[illegible]

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



Before Jan 4/2010

Sample Name: "GL-056-056" Sample ID: "GL-056-056" File: "GL-056-056.wif"

Peak Name: "PETN" MassDet: "M1:162.0.amu"

Comment: "LOMBARD" Annotation: "

Sample Index: 1

Concentration: 45.0 ng/mL

Calculated Conc: 55.2 ng/mL

Acq. Date: 4/21/2010

Acq. Time: 12:41:22 AM

Modified: No

Proc. Algorithm: Intelligent - 10A

Min. Peak Width: 100.00 cps

Min. Peak Width: 3.00 points

Smoothing Width: 3.00 points

RT Window: 60.0 sec

Expected RT: 20.6 min

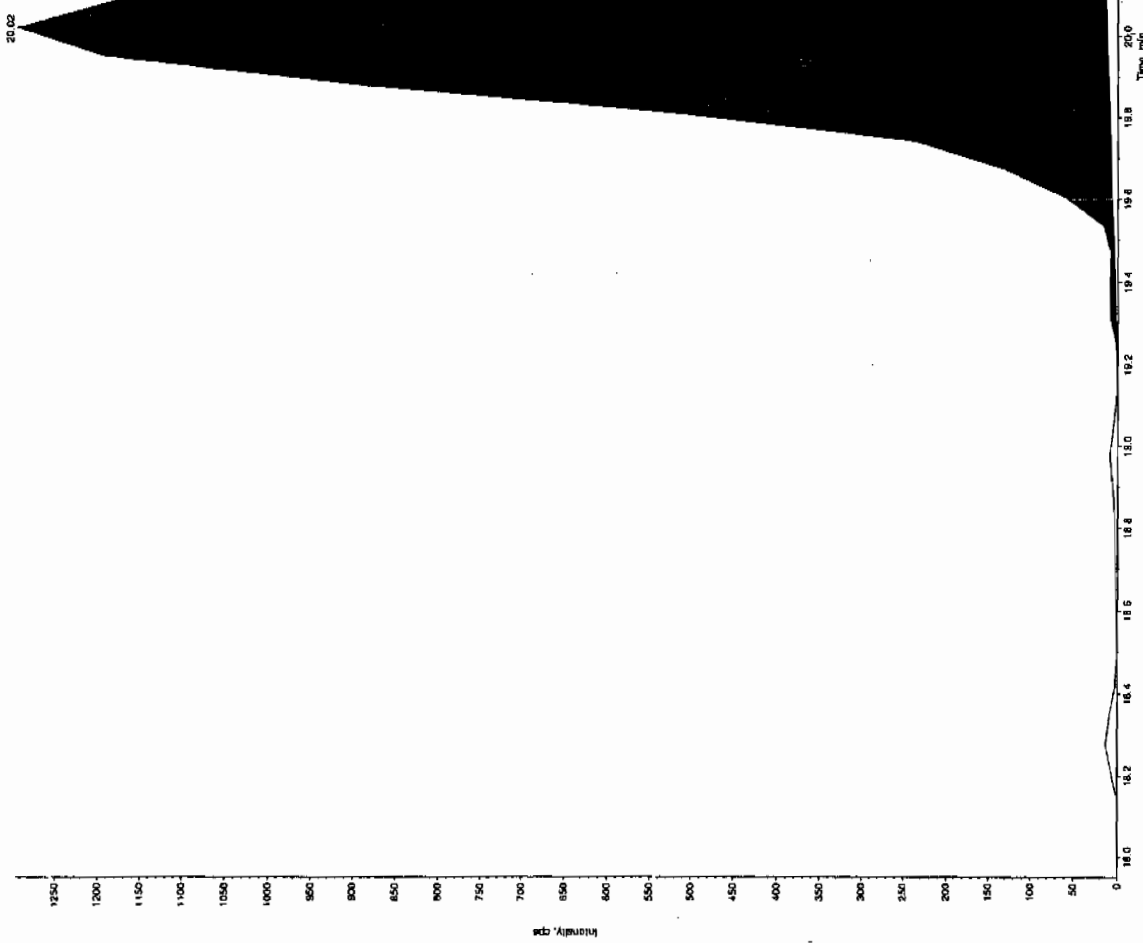
Peak Retention RT: No

Int. Type: Valley

Retention Time: 20.0 min

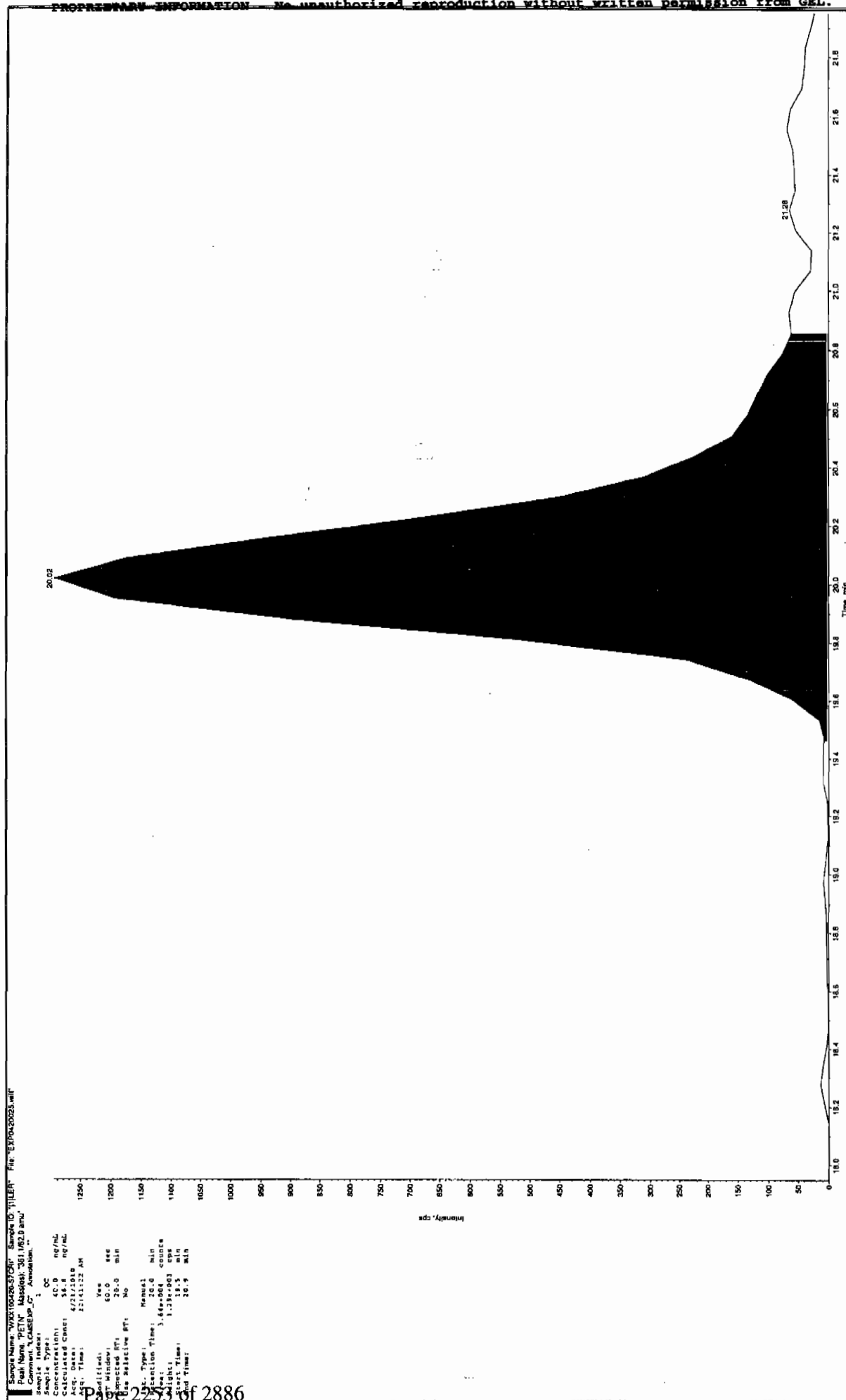
Start Time: 1.00 min

End Time: 21.1 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after den 4/29/10



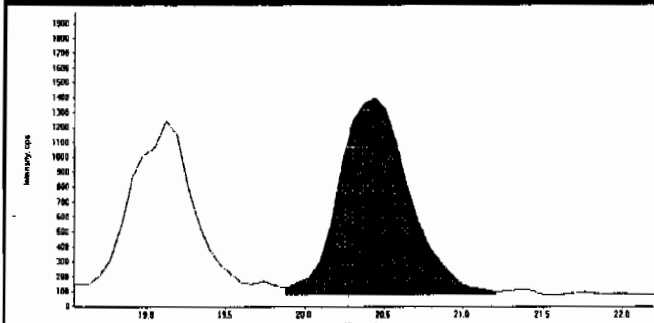
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

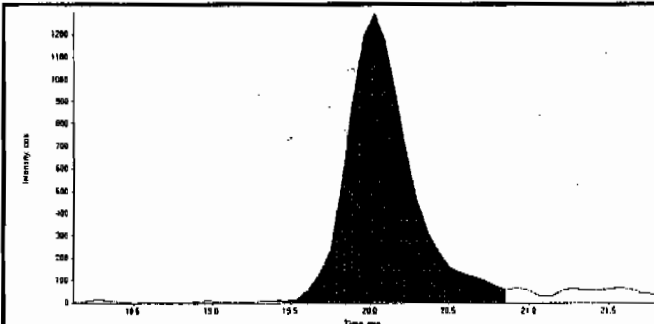
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420025.wiff	<b>Acquisition Date</b>	4/21/2010 12:41:22 AM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	20.4
	<b>Area Counts:</b>	4.19e+004
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	42.4 (ng/mL)
	<b>% Accuracy:</b>	106.00

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	20.0
	<b>Area Counts:</b>	3.64e+004
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	56.8 (ng/mL)
	<b>% Accuracy:</b>	142.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/21/10  
 Time of Injection 0041  
 Standard Number WXX100420-57CRI  
 Data File EXP0420025a

HMX	117.0
RDX	126.0
135-Trinitrobenzene	101.0
13-Dinitrobenzene	104.0
Tetryl	124.0
246-Trinitrotoluene	100.0
Nitrobenzene	87.9
34-dinitrotoluene	78.6
26-dinitrotoluene	92.9
24-dinitrotoluene	97.3
4-Amino-26-dinitrotoluene	100.0
2-Amino-46-dinitrotoluene	96.9
2-Nitrotoluene	127.0
4-Nitrotoluene	98.2
3-Nitrotoluene	106.0
PETN	142.0

TOTAL 1698.8

AVERAGE

ICV Limits 85-115%
✓ 106.2 CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

*Lau*  
4/28/10

*Hmm*  
4/29/10

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0420036.wiff

Analysis Date: 21-APR-10 05:26

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	635	106	
2,4,6-Trinitrotoluene	600	658	110	
2,4-Dinitrotoluene	600	596	99	
2,6-Dinitrotoluene	600	547	91	
2-Amino-4,6-dinitrotoluene	600	682	114	
3,4-Dinitrotoluene	300	296	99	
4-Amino-2,6-dinitrotoluene	600	738	123	
HMX	600	583	97	
Nitrobenzene	600	626	104	
PETN	600	634	106	
RDX	600	645	107	
Tetryl	600	856	143	*
m-Dinitrobenzene	600	597	100	
m-Nitrotoluene	600	539	90	
o-Nitrotoluene	600	561	93	
p-Nitrotoluene	600	575	96	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

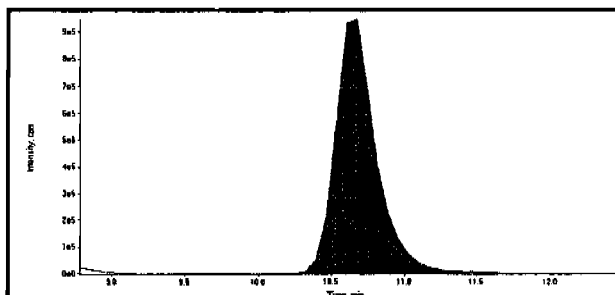
\* Value outside of Recovery Limits



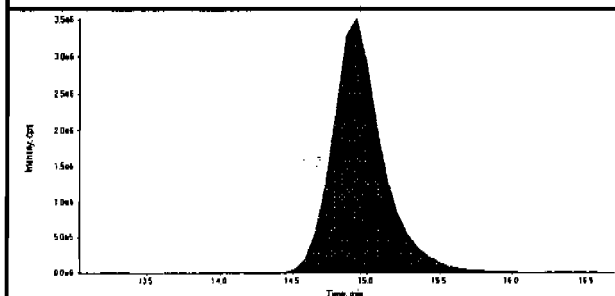
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

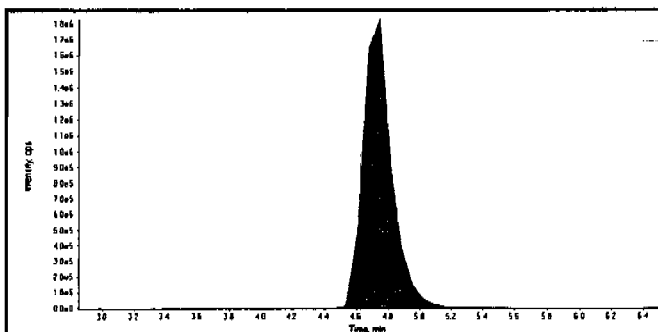
Data File	EXP0420036.wiff	Acquisition Date	4/21/2010 5:26:43 AM
Sample Name	WXX100420-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



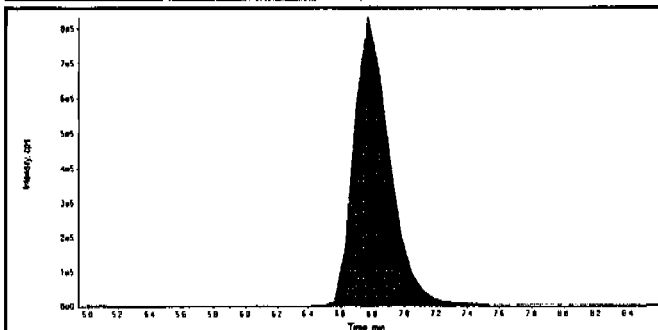
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	18400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	83800000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	2.31e+007
Manual Modification	No
Amount:	583. (ng/mL)
% Accuracy:	97.20

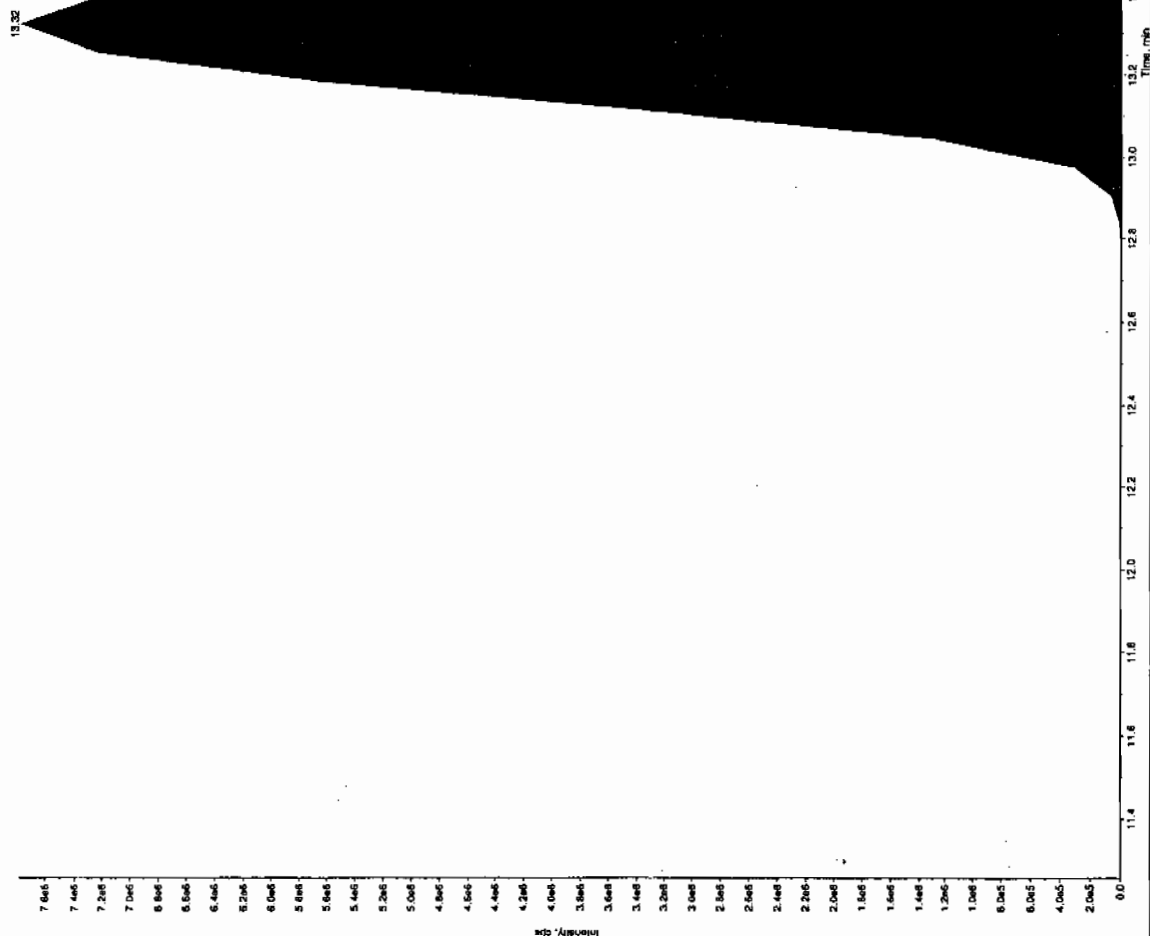


Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.32e+007
Manual Modification	No
Amount:	645. (ng/mL)
% Accuracy:	107.00

*See 4/29/10 HMX 04/29/10*



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Sample Name: "WXX100420-S8CCV" Sample ID: "11LEA" File: "EXP0420036.wif"  
Peak Name: "246-Trinitrocluvane" Mass(es): "227 1209 8 amu"

Comment: "LCMSEXP\_C" Annotation: \*\*

Comment: "LCMEXP\_C" Annotation: "

Sample Index: 1

**Sample Type:**

Conc'd (ng/mL)	Calculated Conc'd (ng/mL)
670.	458.

Acq. Date: 4/21/2010

Acq. Time: 5:26:43 AM

Modified:	Yes

RT, min	sec
60.0	sec

Expected RT	15.2 min
15.2 min	15.2 min

ON 11M WATERWAY

Mc. Type: Manual

Retention time: 13.3 min

7.794-006 500

Start Time: 12.0 min

14.5 min

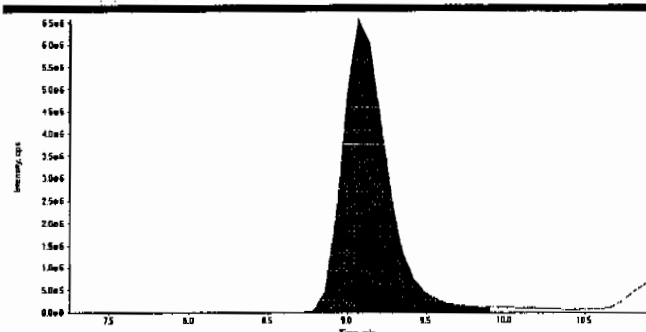
Page 2259 of 2886

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

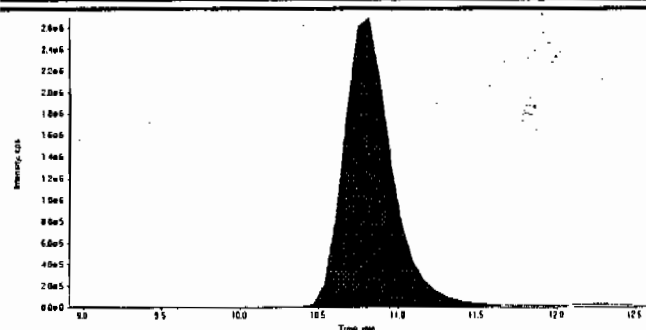
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

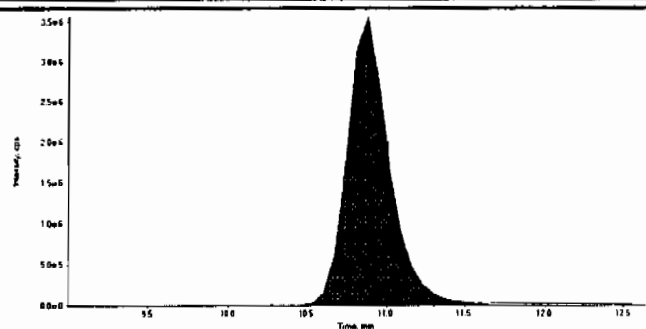
Data File	EXP0420036.wiff	Acquisition Date	4/21/2010 5:26:43 AM
Sample Name	WXX100420-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



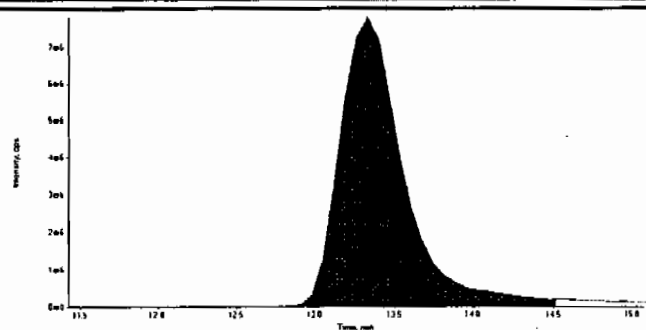
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.07
Actual RT:	9.07
Area Counts:	1.29e+008
Manual Modification	No
Amount:	635. (ng/mL)
% Accuracy:	106.00



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.8
Area Counts:	5.67e+007
Manual Modification	No
Amount:	597. (ng/mL)
% Accuracy:	99.50

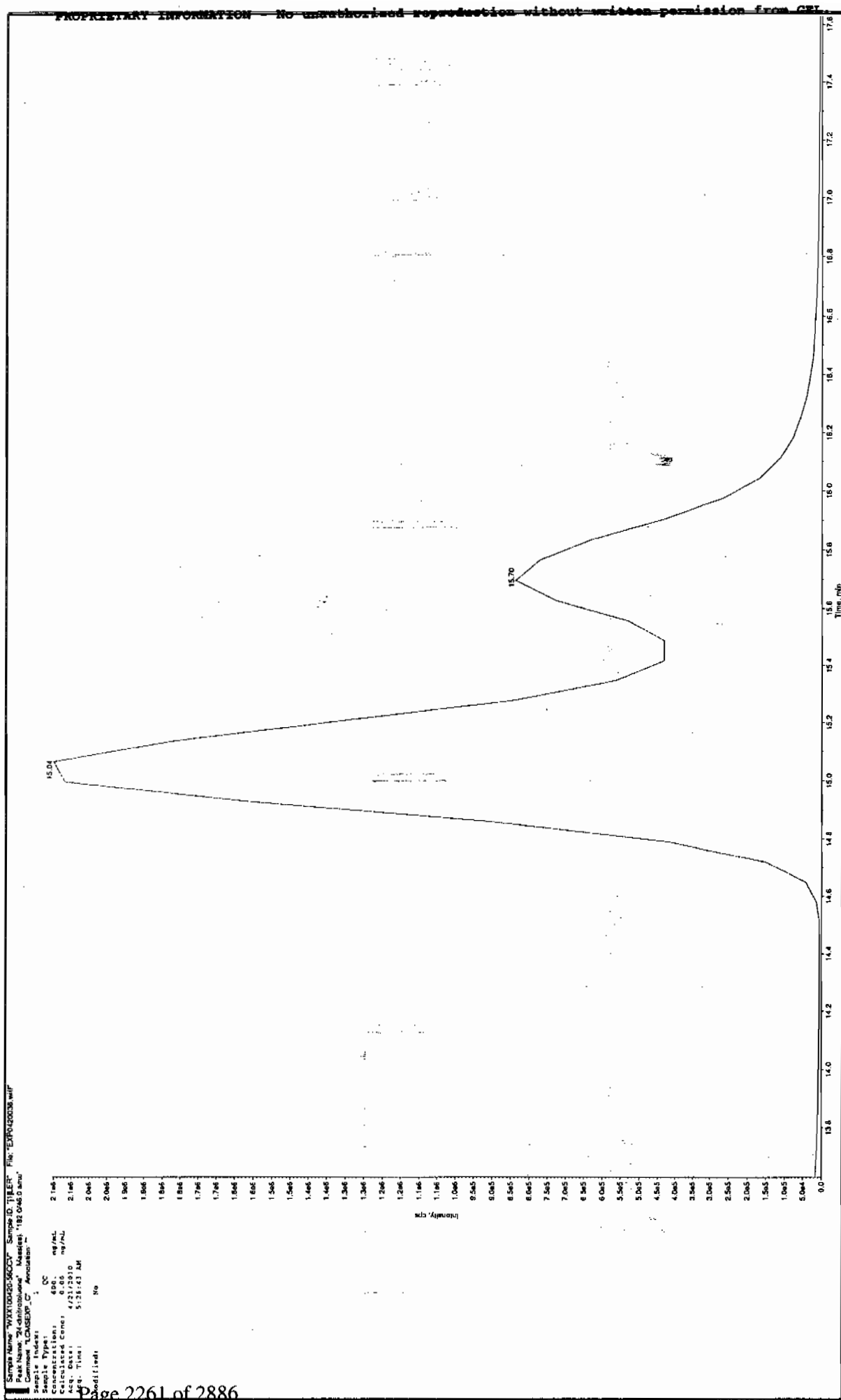


Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.8
Actual RT:	10.9
Area Counts:	6.58e+007
Manual Modification	No
Amount:	856. (ng/mL)
% Accuracy:	143.00

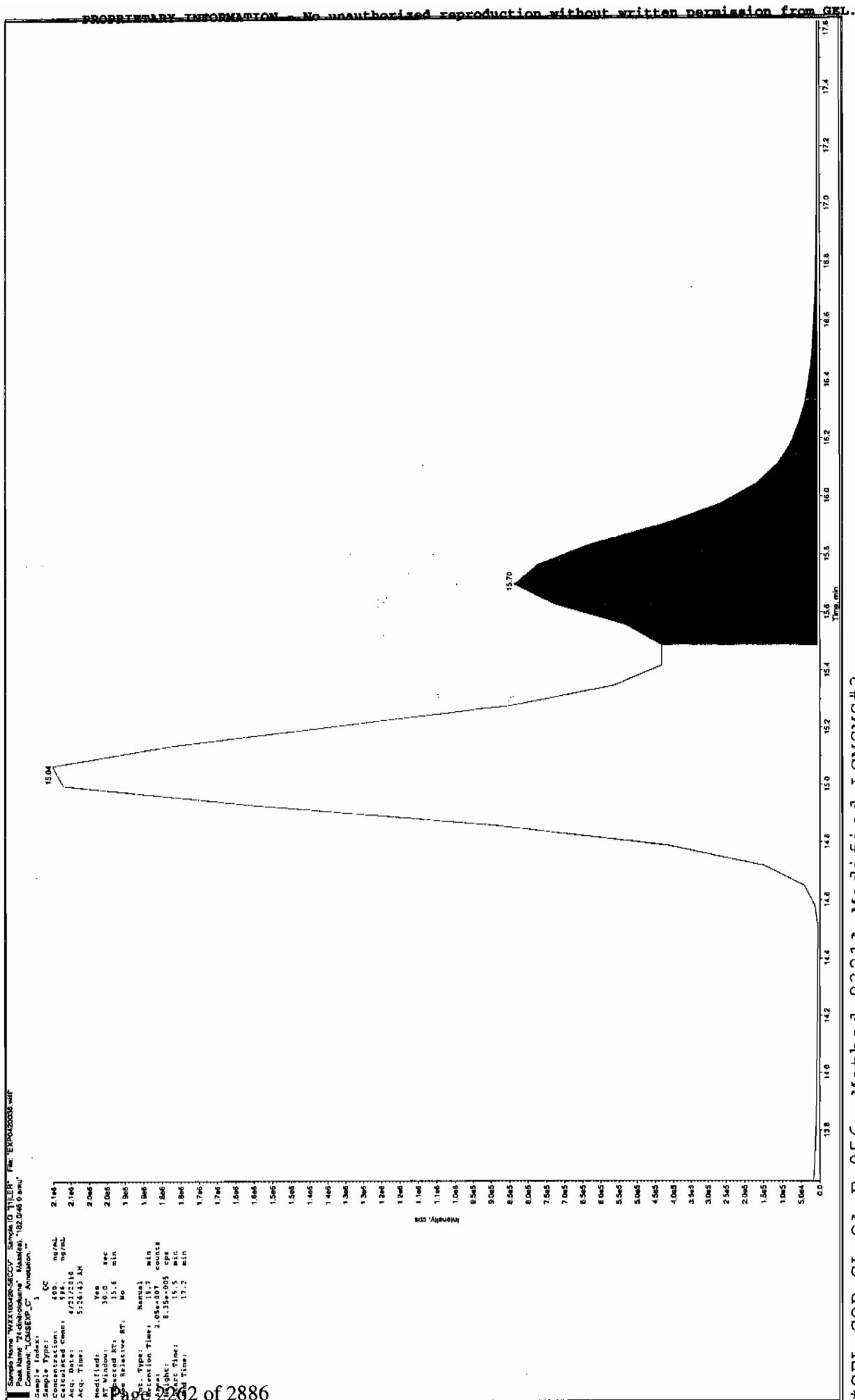


Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	13.3
Area Counts:	2.20e+008
Manual Modification	Yes
Amount:	658. (ng/mL)
% Accuracy:	110.00

Before Jan 4/28/10



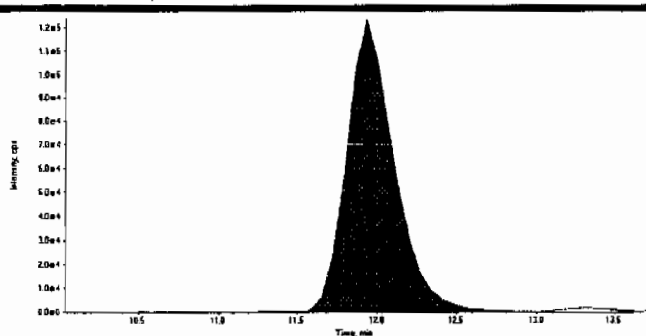
After Jan 4/28/10



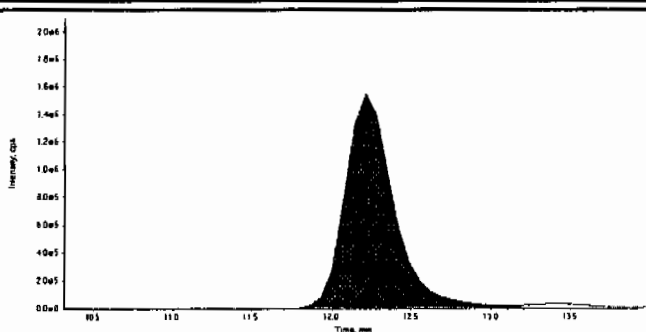
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

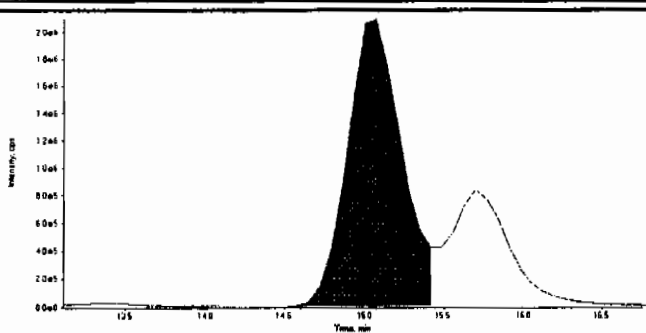
Data File	EXP0420036.wiff	Acquisition Date	4/21/2010 5:26:43 AM
Sample Name	WXX100420-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



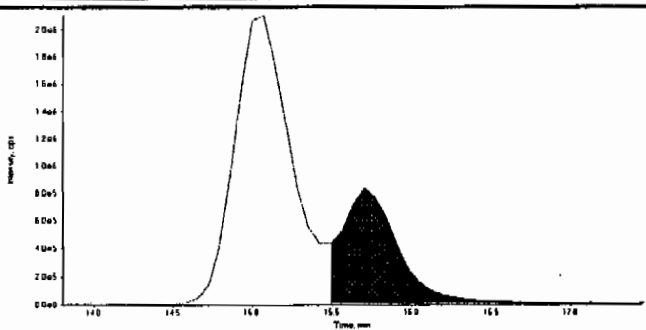
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	11.9
Area Counts:	2.58e+006
Manual Modification	No
Amount:	626. (ng/mL)
% Accuracy:	104.00



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	3.33e+007
Manual Modification	No
Amount:	296. (ng/mL)
% Accuracy:	98.60

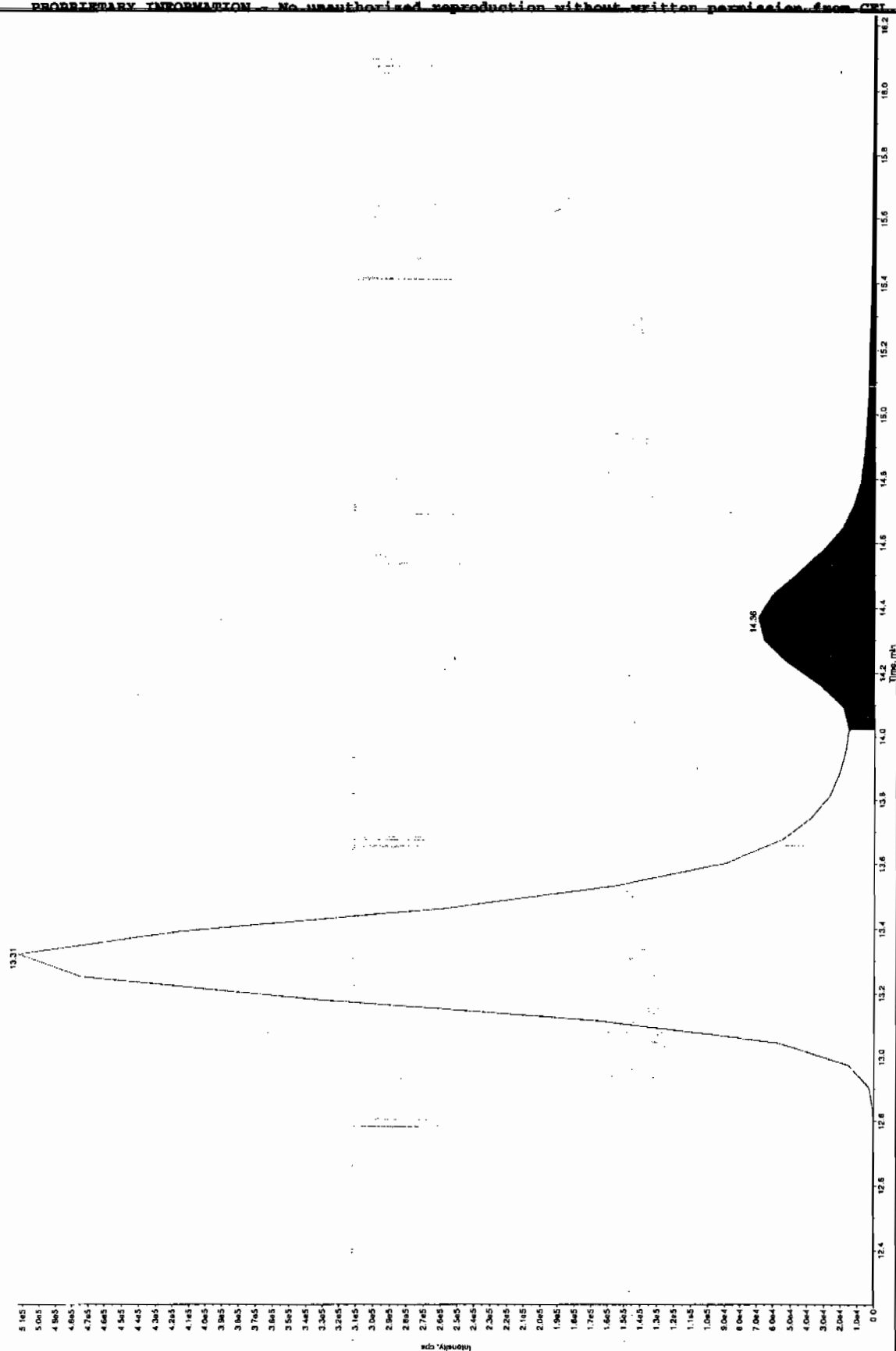


Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.9
Actual RT:	15.1
Area Counts:	5.04e+007
Manual Modification	No
Amount:	547. (ng/mL)
% Accuracy:	91.20



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.7
Area Counts:	2.05e+007
Manual Modification	Yes
Amount:	596. (ng/mL)
% Accuracy:	99.30

Sample Name: "WXX100420-56CCV" Sample ID: "11LEA" File: "EXP0420036.will"  
Peak Name: "2-Amino-4,5-dichlorotoluene" Mass(es): "197.0/180.0 amu"

[illegible]

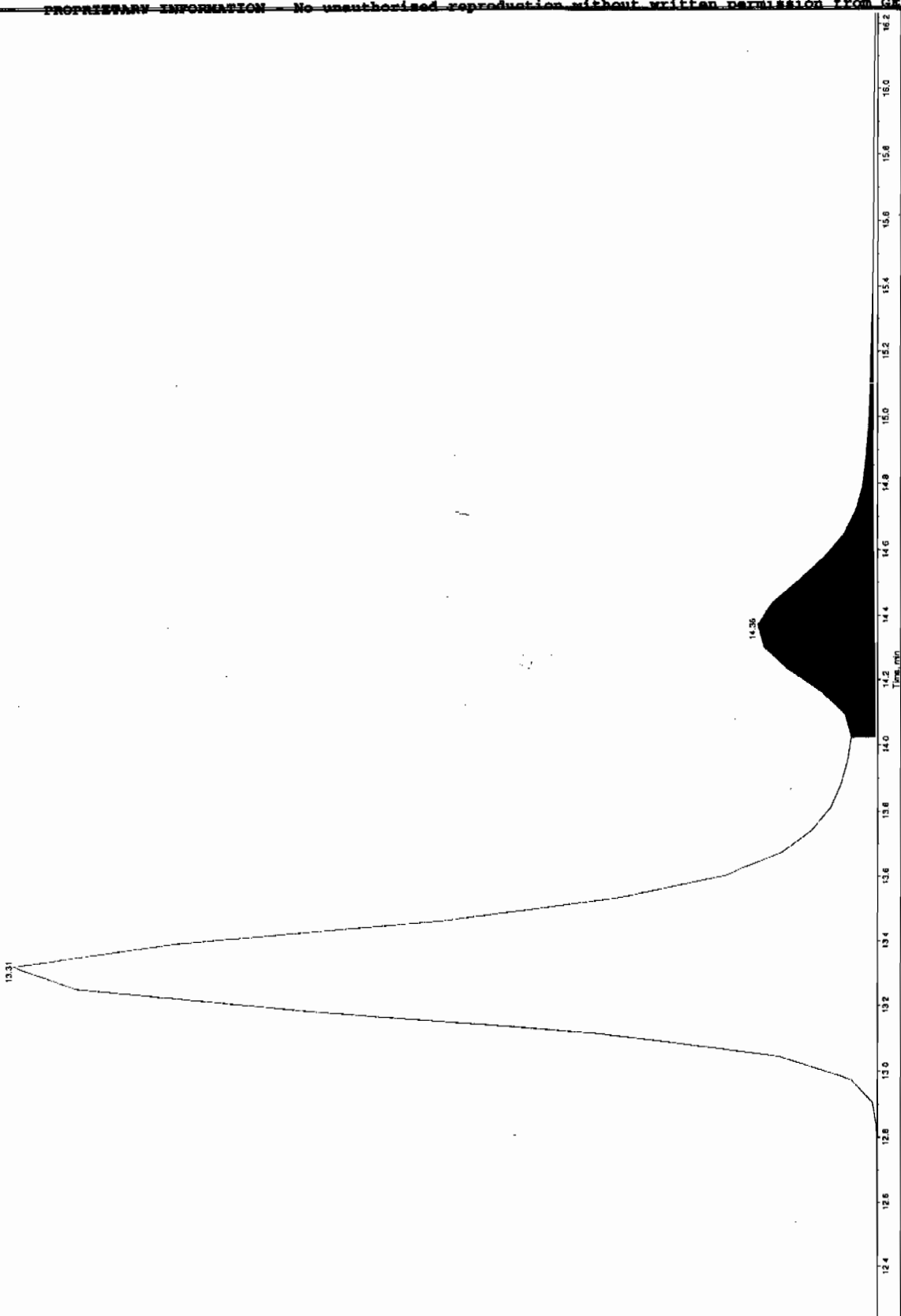
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



after Dec 4/28/10

Sample Name: "WV1020203-056" Sample ID: "11111" File: "WV1020203-056.wif"  
Path: "N:\Data\8321A-Modified\Method: "107 00100 0.000"  
Comment: "LCASEXP\_C" Acquisition: "1"

Sample Index: 1  
Sample Type: CC  
Concentration: 482.00  
Calculated Conc: 482.00  
Acq. Date: 4/21/2010  
Acq. Time: 5:16:43 AM  
Modified: Yes  
RT Window: 48.0 sec  
Expected RT: 14.2 min  
Injection Volume: 10.0 µl  
Injection Rate: 10.0 µl/min  
Int. Type: Manual  
Retention Time: 14.2 min  
Peak: 1.71e05  
Height: 6.10e4  
Area: 14.0 min  
Width: 13.4 min



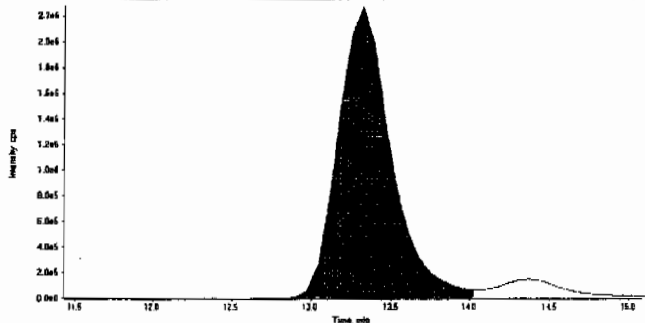
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

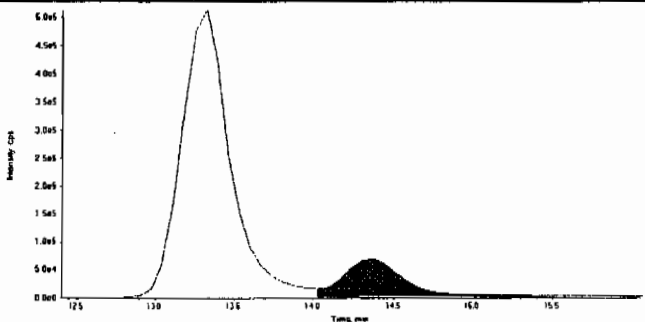
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420036.wiff	<b>Acquisition Date</b>	4/21/2010 5:26:43 AM
<b>Sample Name</b>	WXX100420-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

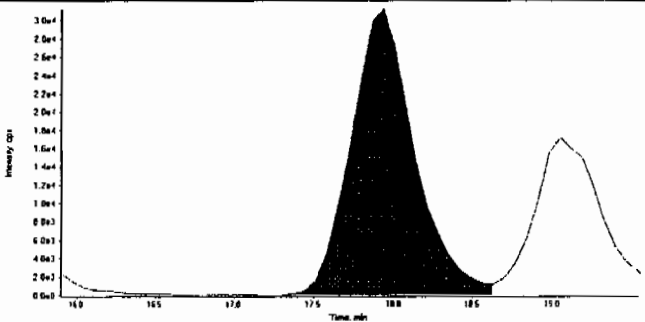
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	5.28e+007
	Manual Modification	No
	Amount:	738. (ng/mL)
	% Accuracy:	123.00

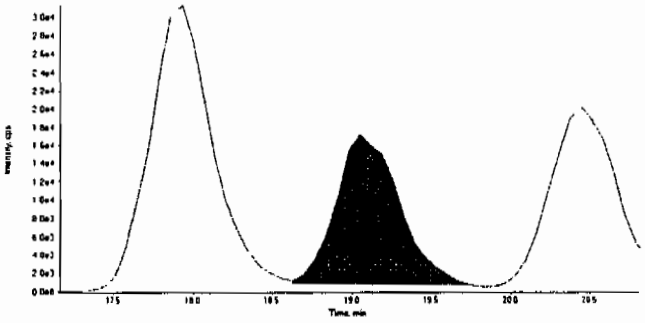
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.4
	Area Counts:	1.77e+006
	Manual Modification	Yes
	Amount:	682. (ng/mL)
	% Accuracy:	114.00

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	17.9
	Area Counts:	8.73e+005
	Manual Modification	No
	Amount:	561. (ng/mL)
	% Accuracy:	93.40

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	19.0
	Area Counts:	4.59e+005
	Manual Modification	No
	Amount:	575. (ng/mL)
	% Accuracy:	95.90

Before Jan 4/2010

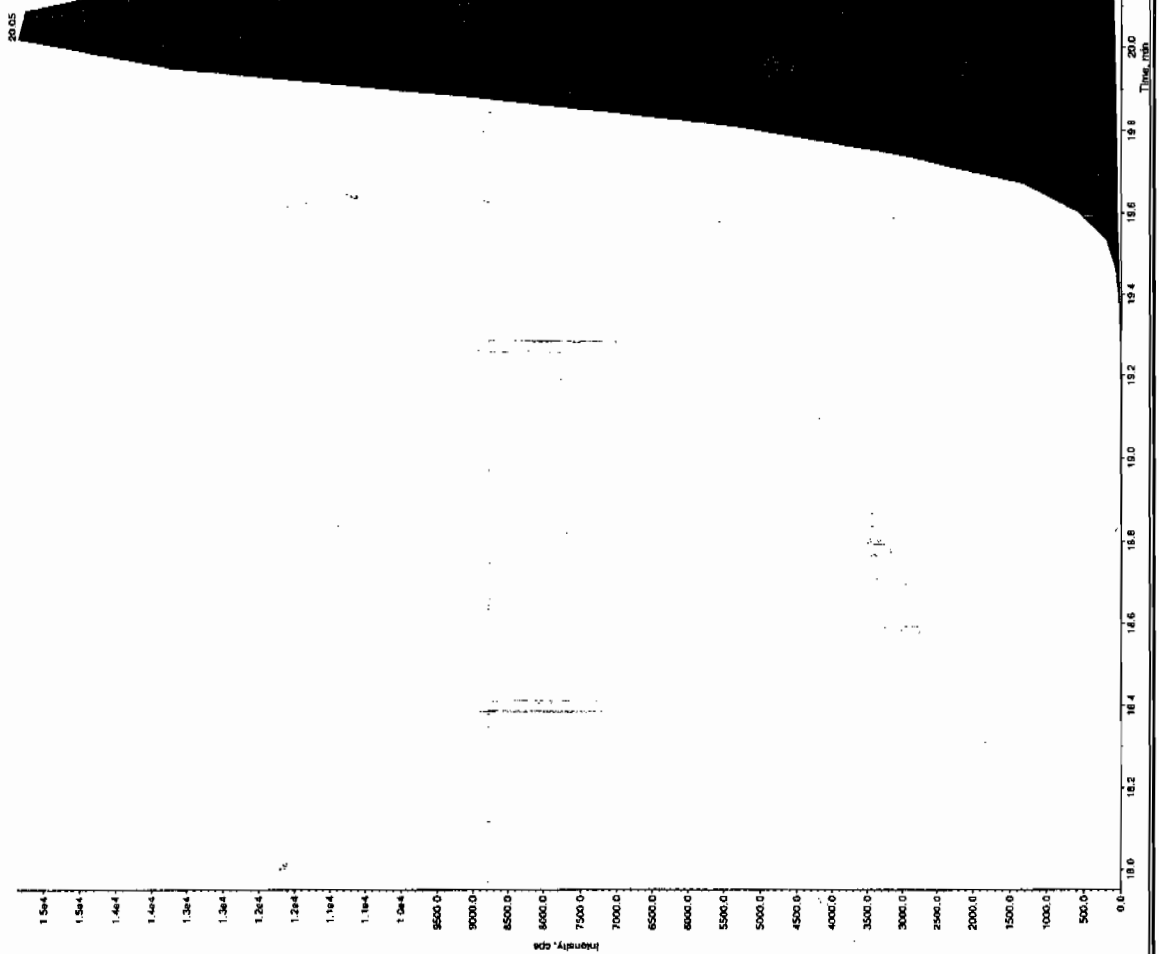
PROPRIETARY INFORMATION No unauthorized reproduction without written permission from GMI.

Sample Name: WMSV0202040007 Sample ID: TILLEN File: WMSV0202040007.wif  
Peak Name: PPTAC Method: 361.182.0 dmw  
Comment: LCMS0202040007 Association: -

Sample Index: 1  
Sample Type: GC  
Sample Name: 600 ng/mL  
Calculated Conc: 613 ng/mL  
Acq. Date: 4/21/2010  
Acq. Time: 5:26:43 AM

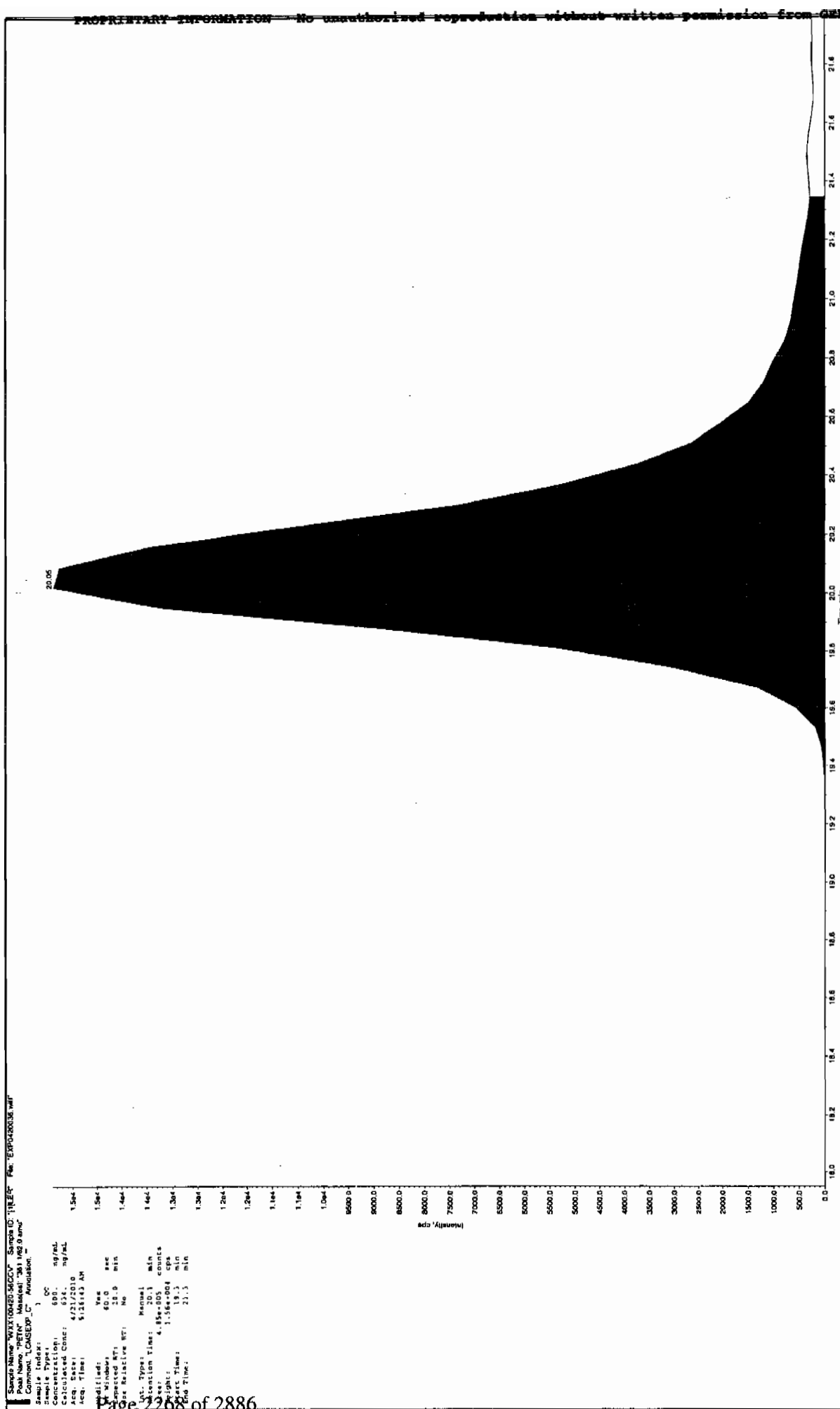
Modified: No  
Proc. Algorithm: IntelliView - 10A  
Min. Peak Height: 100.00 cps  
Min. Peak Width: 3.00 sec  
Min. Peak Area: 100.00 sec  
Min. Peak Volume: 100.00 sec  
Min. Peak Mass: 100.00 sec  
Min. Peak Length: 100.00 sec  
Min. Peak Area: 100.00 sec  
Min. Peak Volume: 100.00 sec  
Min. Peak Mass: 100.00 sec

Expected RT: 20.0 min  
Observed RT: 21.6 min  
Retention Time: 20.0 min  
Area: 4.73e+005 counts  
Height: 1.13e+006 cps  
Width: 1.19 min  
Start Time: 21.6 min  
End Time: 21.6 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after den 4/19/10



Sample Name: 8321A-E-056, Screen ID: 114147, File: E8321A-E-056.wif  
 Position: 100.00, Method: 8321A-E-056, Comment: LCMSMS#3

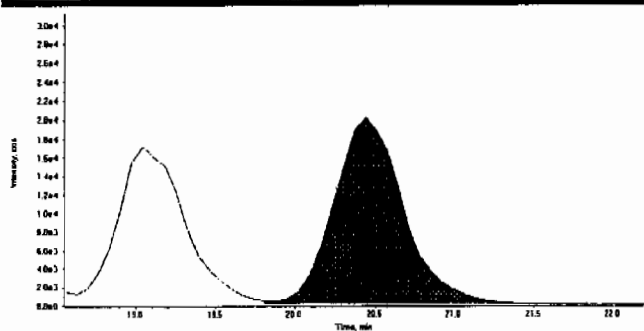
Sample Index: 600  
 Sample Type: 600  
 Calculated Conc: 600  
 Acq. Date: 4/21/2010  
 Acq. Time: 5:28:13 AM  
 Modified: Yes  
 Ret. Time: 20.05  
 Acq. Window: 60.0 sec  
 Expected RT: 20.05 min  
 Size Relative WT: No  
 Int. Type: Manual  
 Retention Time: 20.05 min  
 Counts: 4.85e+005  
 Start Time: 18.5 min  
 End Time: 21.5 min

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

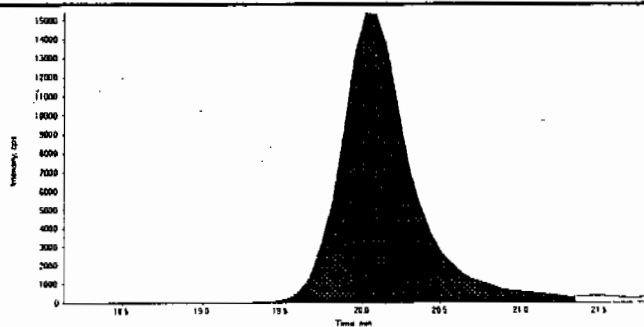
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420036.wiff	Acquisition Date	4/21/2010 5:26:43 AM
Sample Name	WXX100420-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.4
Actual RT:	20.4
Area Counts:	6.22e+005
Manual Modification	No
Amount:	539. (ng/mL)
% Accuracy:	89.90



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	20.1
Area Counts:	4.85e+005
Manual Modification	Yes
Amount:	634. (ng/mL)
% Accuracy:	106.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/21/10  
 Time of Injection 0526  
 Standard Number WXX100420-56CCV  
 Data File EXP0420036a

HMX	97.2
RDX	107.0
135-Trinitrobenzene	106.0
13-Dinitrobenzene	99.5
Tetryl	143.0
246-Trinitrotoluene	110.0
Nitrobenzene	104.0
34-dinitrotoluene	98.6
26-dinitrotoluene	91.2
24-dinitrotoluene	99.3
4-Amino-26-dinitrotoluene	123.0
2-Amino-46-dinitrotoluene	114.0
2-Nitrotoluene	93.4
4-Nitrotoluene	95.9
3-Nitrotoluene	89.9
PETN	106.0

TOTAL

✓ 1678.0

*WXX 04/24/10*

AVERAGE

✓ 104.9

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Jan  
4/28/10*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0420038.wiff

Analysis Date: 21-APR-10 06:18

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	39.5	99	
2,4,6-Trinitrotoluene	40	41.4	103	
2,4-Dinitrotoluene	40	43.6	109	
2,6-Dinitrotoluene	40	37.3	93	
2-Amino-4,6-dinitrotoluene	40	34	85	
3,4-Dinitrotoluene	20	16	80	
4-Amino-2,6-dinitrotoluene	40	40.3	101	
HMX	40	55.2	138	
Nitrobenzene	40	34.2	86	
PETN	40	50.5	126	
RDX	40	44.4	111	
Tetryl	40	58.8	147	
m-Dinitrobenzene	40	42.7	107	
m-Nitrotoluene	40	39.4	99	
o-Nitrotoluene	40	49.4	124	
p-Nitrotoluene	40	38.5	96	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

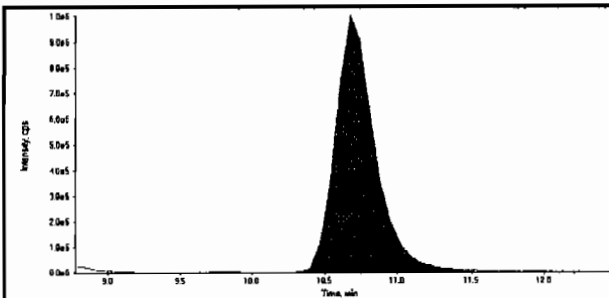
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

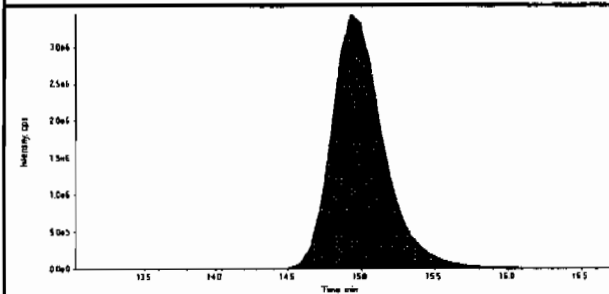
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

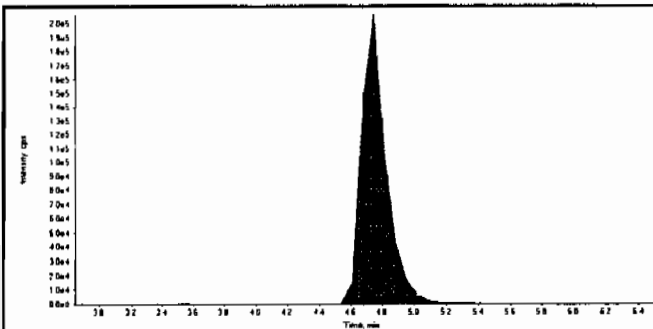
Data File	EXP0420038.wiff	Acquisition Date	4/21/2010 6:18:45 AM
Sample Name	WXX100420-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



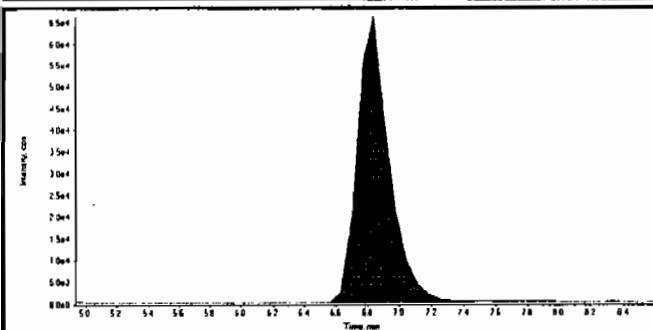
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	19200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	87200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	2.28e+006
Manual Modification	No
Amount:	55.2 (ng/mL)
% Accuracy:	138.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.84
Area Counts:	9.45e+005
Manual Modification	No
Amount:	44.4 (ng/mL)
% Accuracy:	111.00

*OK*  
4/29/10  
*Amw*  
04/29/10



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420038.wiff	<b>Acquisition Date</b>	4/21/2010 6:18:45 AM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	9.14
	<b>Area Counts:</b>	1.14e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	39.5 (ng/mL)
	<b>% Accuracy:</b>	98.90

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.8
	<b>Area Counts:</b>	4.23e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	42.7 (ng/mL)
	<b>% Accuracy:</b>	107.00

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	10.9
	<b>Area Counts:</b>	4.71e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	58.8 (ng/mL)
	<b>% Accuracy:</b>	147.00

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.3
	<b>Area Counts:</b>	2.13e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	41.4 (ng/mL)
	<b>% Accuracy:</b>	103.00

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420038.wiff	<b>Acquisition Date</b>	4/21/2010 6:18:45 AM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	12.0
	Area Counts:	1.46e+005
	Manual Modification	No
	Amount:	34.2 (ng/mL)
	% Accuracy:	85.50

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.3
	Area Counts:	2.39e+006
	Manual Modification	No
	Amount:	16.0 (ng/mL)
	% Accuracy:	80.20

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	15.1
	Area Counts:	4.09e+006
	Manual Modification	No
	Amount:	37.3 (ng/mL)
	% Accuracy:	93.30

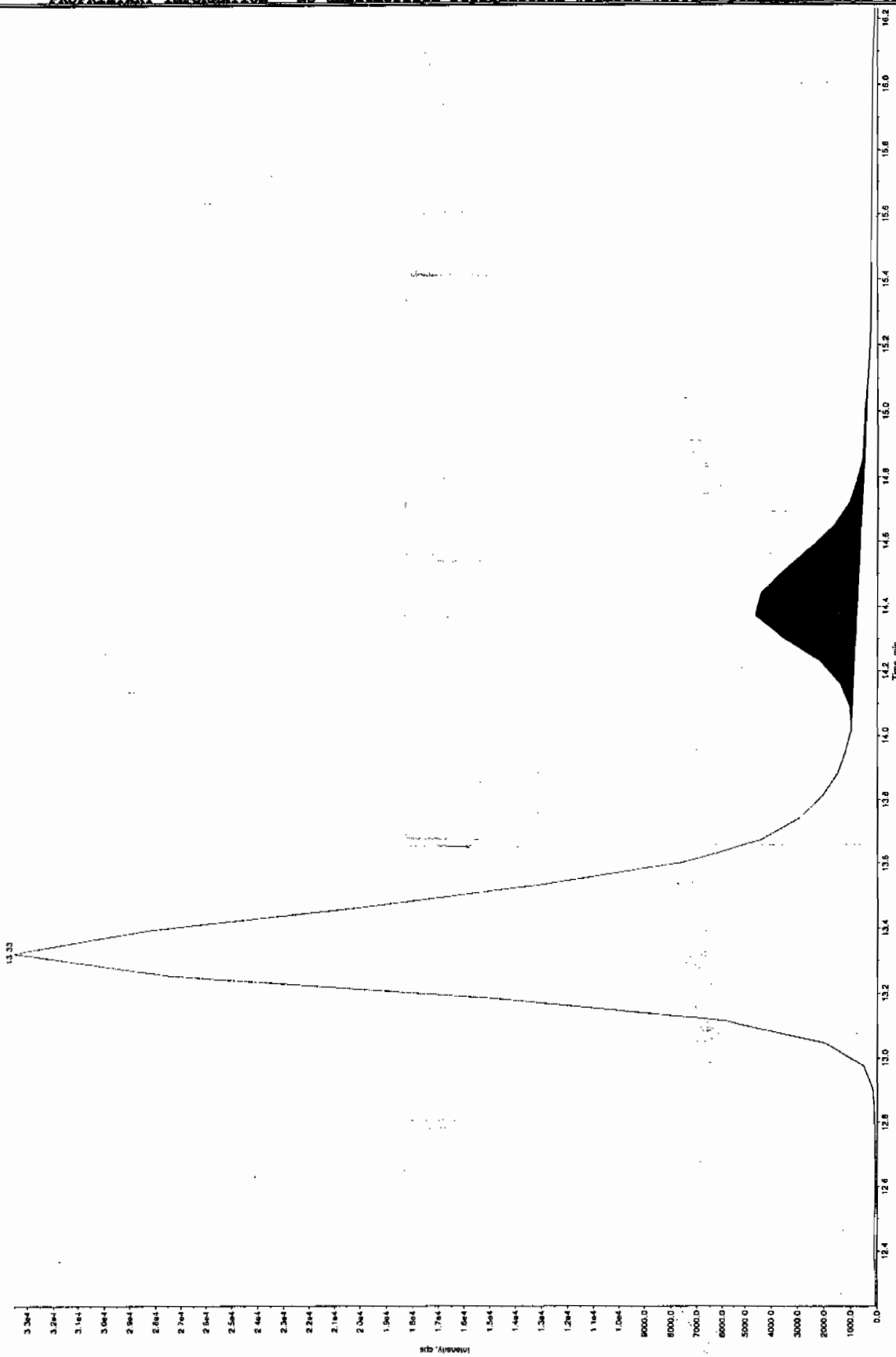
  

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	15.8
	Area Counts:	1.56e+006
	Manual Modification	No
	Amount:	43.6 (ng/mL)
	% Accuracy:	109.00

Before Jan 4/28/10

Sample Name: 8321A-Modified LCMSMS#3  
 Peak Name: 2-Amino-2-deoxy-2,3,4,5-tetra-O-acetyl-D-glucose  
 Mass: 334.0460 g/mol

Sample Index: 1  
 Sample Type: DC  
 Concentration: 25.2 ng/mL  
 Calculated Conc: 25.2 ng/mL  
 Acq. Date: 4/21/2010  
 Acq. Time: 6:18:15 AM  
 Modified: No  
 Algorithm: IntelliQuan - IOA  
 Peak Height: 100.00 cps  
 Peak Width: 0.08 sec  
 Peak Area: 3.064  
 Window: 60.0 sec  
 Retention Time: 14.2 min  
 Relative RT: No  
 Type: Valley  
 Retention Time: 14.4 min  
 Area: 7.88e-004 counts  
 Signal: 3.89e-003 cps  
 Noise: 14.0 mV  
 Baseline Time: 15.1 min  
 Page 2275 of 2886



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after dea 4/28/10

Sample Name: "GL-0A-E-056" Sample ID: "GL-0A-E-056" File: "GL-0A-E-056.wif"

Peak Name: "1,4-Bis(4-methylphenyl)-2,5-bis(4-methylphenyl)benzene" Molecular Weight: 326.44 g/mol

Common Name: "LCASEP-C" Annotation: -

Sample Index:

Sample Type: 40 GC ng/mL

Sample ID: 4/21/2010 ng/mL

Acq. Date: 4/21/2010

Acq. Time: 6:18:45 AM

Modified: Yes

Method: 40.0 sec

Injection Volume: 10.0 µL

Injection Port: 10.0 µL

Injection Temperature: 10.0 µL

Injection Time: 10.0 µL

Injection Rate: 10.0 µL

Injection Pressure: 10.0 µL

Injection Flow: 10.0 µL

Injection Volume: 10.0 µL

Injection Port: 10.0 µL

Injection Temperature: 10.0 µL

Injection Time: 10.0 µL

Injection Rate: 10.0 µL

Injection Pressure: 10.0 µL

Injection Flow: 10.0 µL

Injection Volume: 10.0 µL

Injection Port: 10.0 µL

Injection Temperature: 10.0 µL

Injection Time: 10.0 µL

Injection Rate: 10.0 µL

Injection Pressure: 10.0 µL

Injection Flow: 10.0 µL

Injection Volume: 10.0 µL

Injection Port: 10.0 µL

Injection Temperature: 10.0 µL

Injection Time: 10.0 µL

Injection Rate: 10.0 µL

Injection Pressure: 10.0 µL

Injection Flow: 10.0 µL

Injection Volume: 10.0 µL

Injection Port: 10.0 µL

Injection Temperature: 10.0 µL

Injection Time: 10.0 µL

Injection Rate: 10.0 µL

Injection Pressure: 10.0 µL

Injection Flow: 10.0 µL

Injection Volume: 10.0 µL

Injection Port: 10.0 µL

Injection Temperature: 10.0 µL

Injection Time: 10.0 µL

Injection Rate: 10.0 µL

Injection Pressure: 10.0 µL

Injection Flow: 10.0 µL

Injection Volume: 10.0 µL

Injection Port: 10.0 µL

Injection Temperature: 10.0 µL

Injection Time: 10.0 µL

Injection Rate: 10.0 µL

Injection Pressure: 10.0 µL

Injection Flow: 10.0 µL

Injection Volume: 10.0 µL

Injection Port: 10.0 µL

Injection Temperature: 10.0 µL

Injection Time: 10.0 µL

Injection Rate: 10.0 µL

Injection Pressure: 10.0 µL

Injection Flow: 10.0 µL

Injection Volume: 10.0 µL

Injection Port: 10.0 µL

Injection Temperature: 10.0 µL

Injection Time: 10.0 µL

Injection Rate: 10.0 µL

Injection Pressure: 10.0 µL

Injection Flow: 10.0 µL

Injection Volume: 10.0 µL

Injection Port: 10.0 µL

Injection Temperature: 10.0 µL

Injection Time: 10.0 µL

Injection Rate: 10.0 µL

Injection Pressure: 10.0 µL

Injection Flow: 10.0 µL

Injection Volume: 10.0 µL

Injection Port: 10.0 µL

Injection Temperature: 10.0 µL

Injection Time: 10.0 µL

Injection Rate: 10.0 µL

Injection Pressure: 10.0 µL

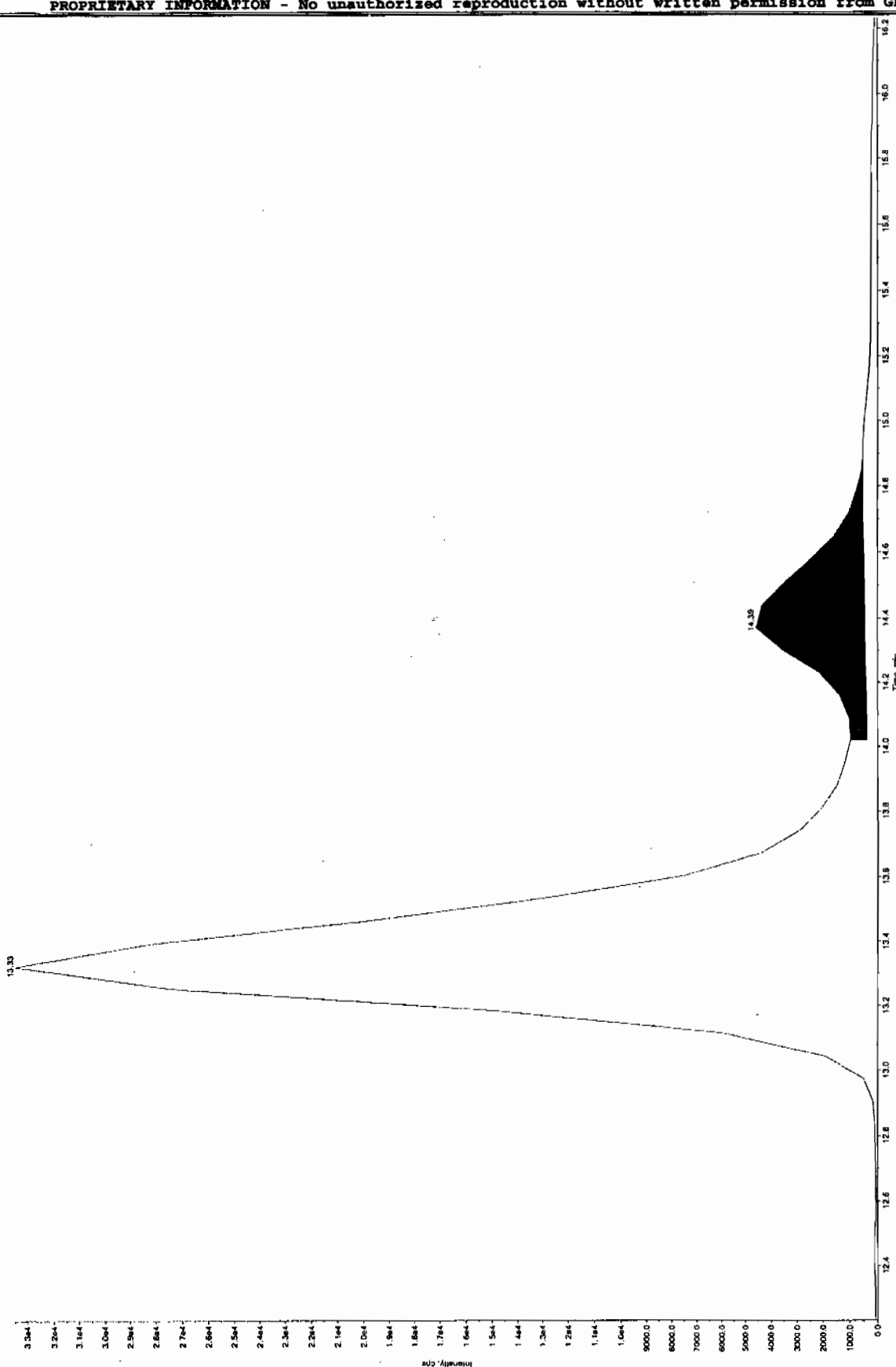
Injection Flow: 10.0 µL

Injection Volume: 10.0 µL

Injection Port: 10.0 µL

Injection Temperature: 10.0 µL

Injection Time: 10.0 µL



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420038.wiff	<b>Acquisition Date</b>	4/21/2010 6:18:45 AM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	3.40e+006
	Manual Modification	No
	Amount:	40.3 (ng/mL)
	% Accuracy:	101.00

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.4
	Area Counts:	9.18e+004
	Manual Modification	Yes
	Amount:	34.0 (ng/mL)
	% Accuracy:	85.00

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	17.9
	Area Counts:	5.11e+004
	Manual Modification	No
	Amount:	49.4 (ng/mL)
	% Accuracy:	124.00

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	19.1
	Area Counts:	2.76e+004
	Manual Modification	No
	Amount:	38.5 (ng/mL)
	% Accuracy:	96.20

Before Jan 4/2010

Sample Name: "PETN" Masses: "361 162.0 amu"

Comment: "CASEP\_C" Annotation: "C"

Sample Type: "1 OC"

Concentration: 40.0 ng/mL

Calculated Conc: 4731.039 ng/mL

Acq. Time: 5:18:15 AM

Modified: "NO" Over: "IOA"

Dec. 1.00 sec

Min. Peak Width: 100.00 sec

Notching Width: 1.00 points

Dec. 1.00 sec

Relative RT: 20.0 min

Dec. 1.00 sec

Valley

Acquisition Time: 21.1 min

Height: 1.15e-024 counts

Dec. 1.00 sec

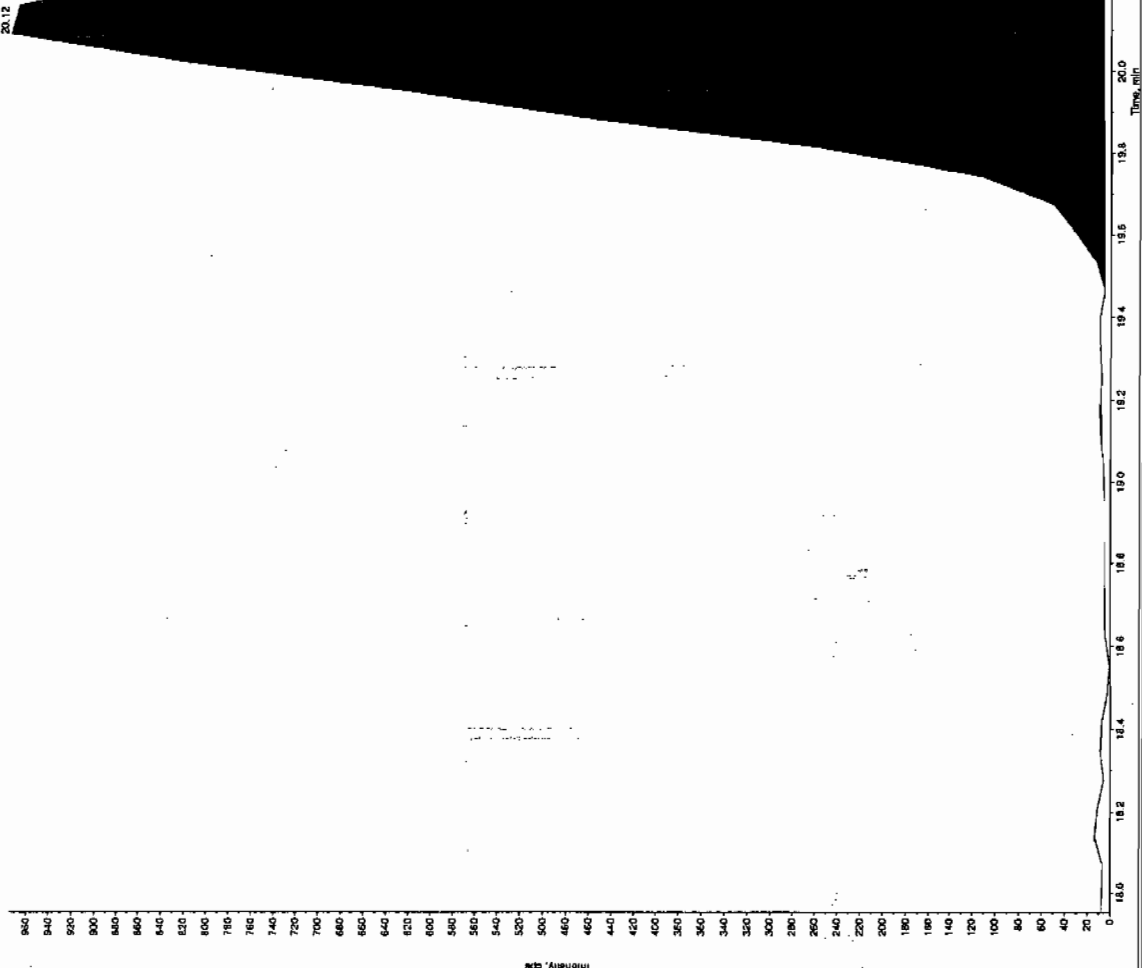
Height: 9.67e-002 cps

Dec. 1.00 sec

Height: 15.5 min

Dec. 1.00 sec

Height: 21.8 min



20178 of 2186

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after denaturation

Sample Name: "XXXXXX-056-056" Sample ID: "TILER" File: "EXP0420038.wif"

Peak Name: "TILER" Method: "501 100.0 nm"

Sample Index: 1 Acquisition: 1

Sample Type: OC

Concentration: 40.0 ng/mL

Injection Volume: 10.0 µL

Acq. Date: 4/21/2010

Acq. Time: 6:18:45 AM

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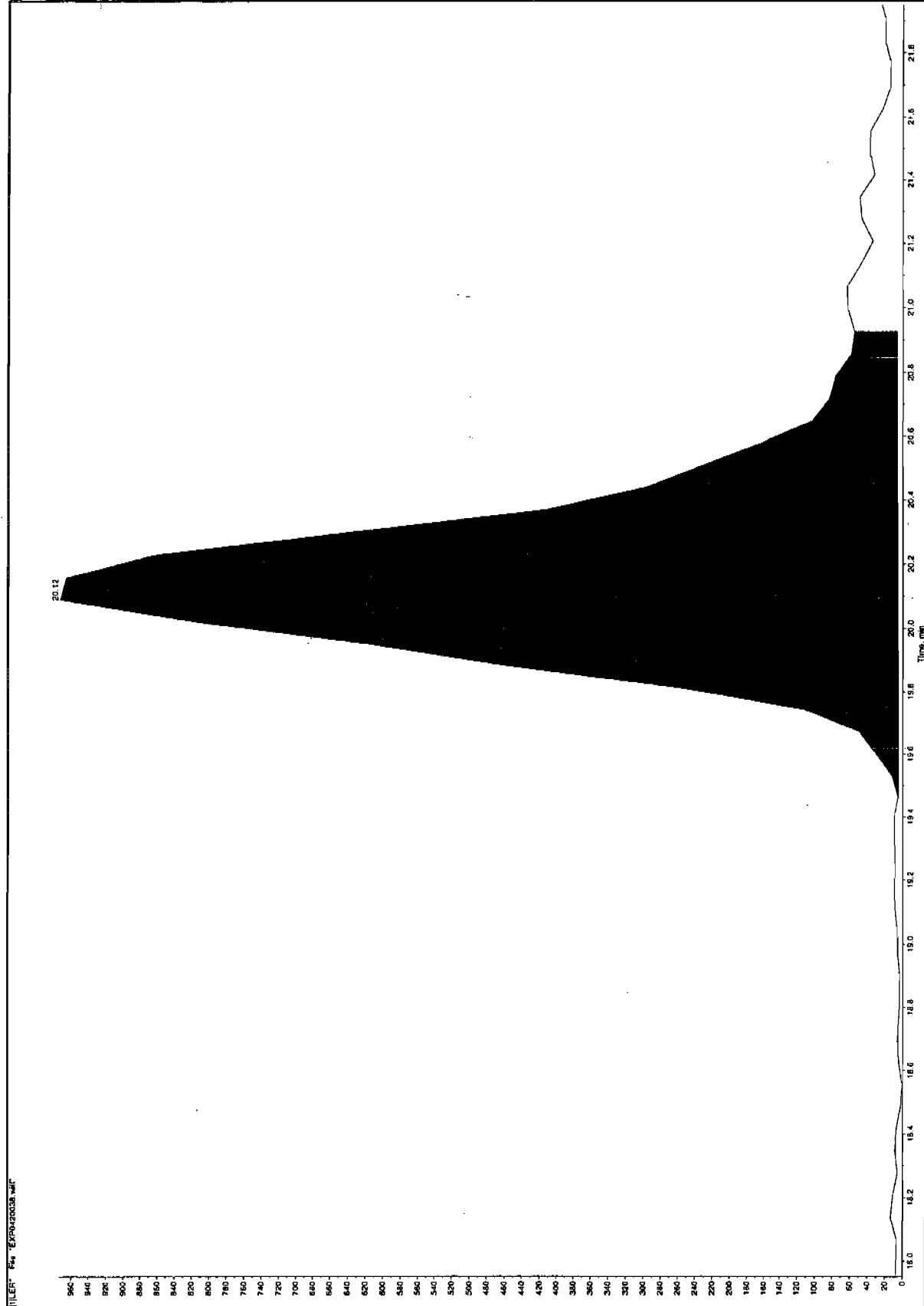
Acq. Time: 6:18:45 AM

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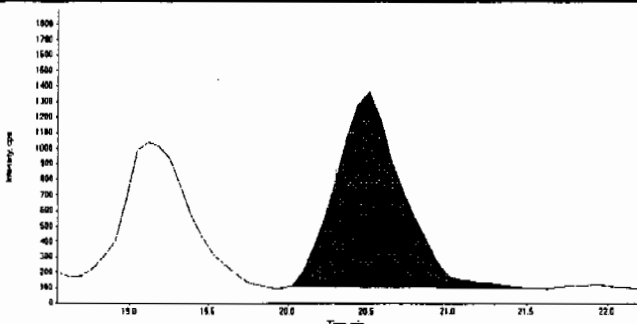
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

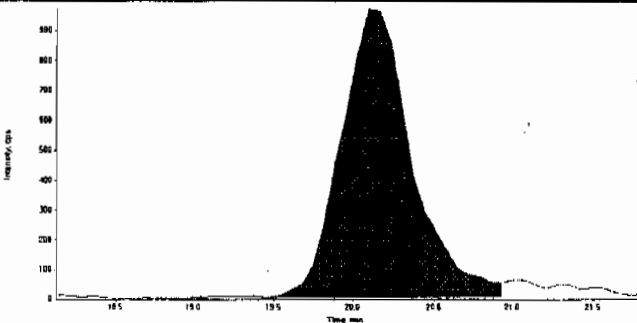
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420038.wiff	<b>Acquisition Date</b>	4/21/2010 6:18:45 AM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	20.5
	<b>Area Counts:</b>	3.67e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	39.4 (ng/mL)
	<b>% Accuracy:</b>	98.50

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	20.1
	<b>Area Counts:</b>	2.99e+004
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	50.5 (ng/mL)
	<b>% Accuracy:</b>	126.00



GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/21/10  
 Time of Injection 0618  
 Standard Number WXX100420-57CRI  
 Data File EXP0420038a

HMX	138.0
RDX	111.0
135-Trinitrobenzene	98.9
13-Dinitrobenzene	107.0
Tetryl	147.0
246-Trinitrotoluene	103.0
Nitrobenzene	85.5
34-dinitrotoluene	80.2
26-dinitrotoluene	93.3
24-dinitrotoluene	109.0
4-Amino-26-dinitrotoluene	101.0
2-Amino-46-dinitrotoluene	85.0
2-Nitrotoluene	124.0
4-Nitrotoluene	96.2
3-Nitrotoluene	98.5
PETN	126.0

TOTAL

1703.6

*Handwritten:* HMC 04/29/10

AVERAGE

106.5

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Handwritten:* JAR 4/28/10

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0420049.wiff

Analysis Date: 21-APR-10 11:04

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	626	104	
2,4,6-Trinitrotoluene	600	610	102	
2,4-Dinitrotoluene	600	595	99	
2,6-Dinitrotoluene	600	547	91	
2-Amino-4,6-dinitrotoluene	600	637	106	
3,4-Dinitrotoluene	300	288	96	
4-Amino-2,6-dinitrotoluene	600	689	115	
HMX	600	533	89	
Nitrobenzene	600	612	102	
PETN	600	582	97	
RDX	600	702	117	
Tetryl	600	689	115	
m-Dinitrobenzene	600	600	100	
m-Nitrotoluene	600	545	91	
o-Nitrotoluene	600	594	99	
p-Nitrotoluene	600	611	102	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

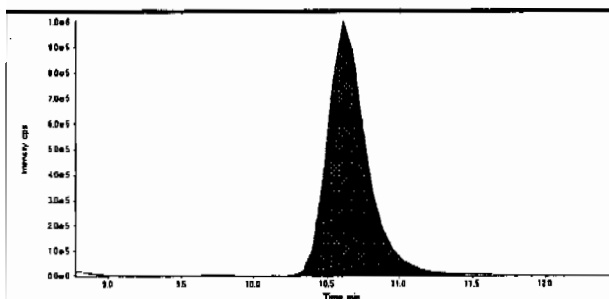
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

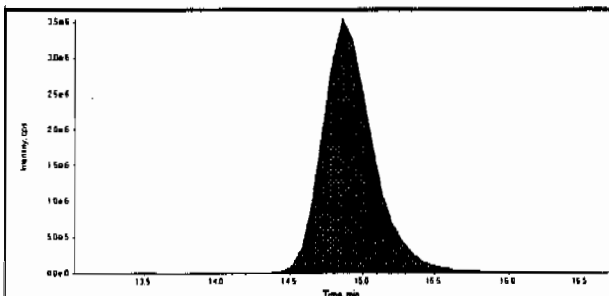
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

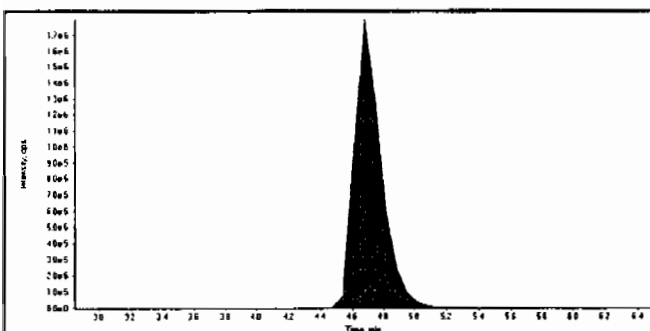
Data File	EXP0420049.wiff	Acquisition Date	4/21/2010 11:04:08 AM
Sample Name	WXX100420-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



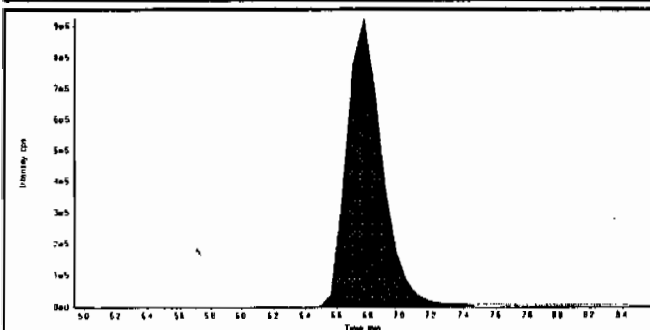
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	19000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	86900000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	2.18e+007
Manual Modification	No
Amount:	533. (ng/mL)
% Accuracy:	88.90



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.48e+007
Manual Modification	No
Amount:	702. (ng/mL)
% Accuracy:	117.00

*Handwritten signature: Ler 4/21/10*

Before Jan 4/28/10

Sample Name: 90X100420-SEC-1 Sample ID: 90X100420-SEC-1 File: 90X100420-SEC-1.wif  
 Peak Name: 748-Triiodoamine Mass(es): 229.1008 amu

Comment: LCMS-EXP-C7 Annotation: -

Sample Index: 1

Sample Type: GC

Acq. Date: 4/21/2010

Acq. Time: 11:04:08 AM

Peak Name: 748-Triiodoamine

Peak Height: 1000.00 cps

Peak Width: 3.00 sec

Peak Area: 60.0 sec

Peak Index: 60.0

Peak RT: 13.3 min

Peak Type: Valley

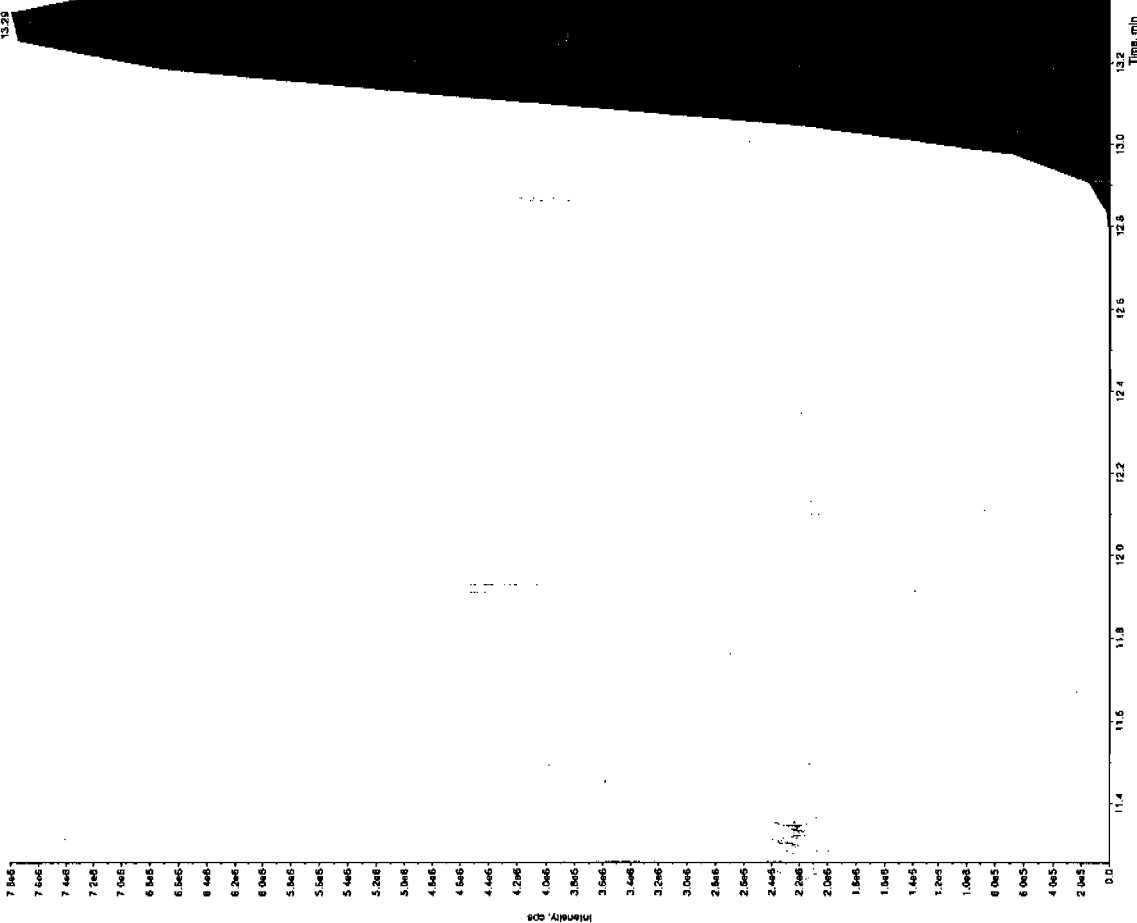
Retention Time: 13.3 min

Height: 2.37e+008 counts

Area: 7.81e+004 cps

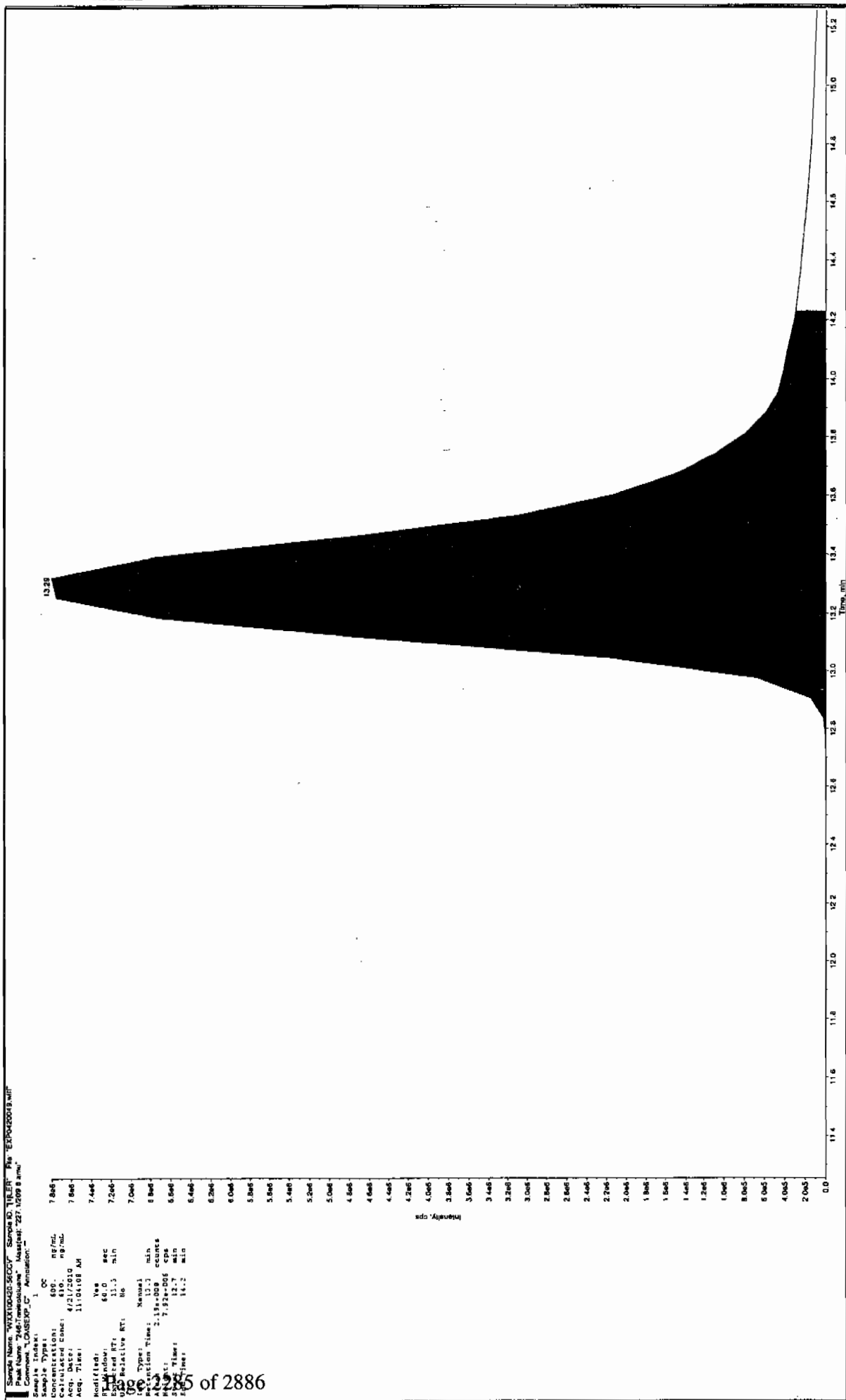
Width: 3.00 sec

Time: 13.3 min



Page 2384 of 2386

after Scan 42810



Sample Name: WXT10000-SEC07 Sample ID: THER File: EXP0000018.wif  
 Path: C:\Program Files\Agilent\ChemStation\LCMSMS\1\2010\04\11\1104108.M  
 Comment: 1,200SEP\_07 Acquisition: 1

Sample Index: 1  
 Sample Type: 406 ng/mL  
 Concentration: 406 ng/mL  
 Acq. Date: 4/21/2010  
 Acq. Time: 11:04:08 AM  
 Modified: Yes  
 In Window: 40.0 sec  
 Excluded RT: 11.1 min  
 RT Relative RT: No  
 RT Type: Manual  
 Retention Time: 13.1 min  
 Acquisition Time: 2.15e+009 counts  
 Peak Time: 7.22e+006 cps  
 Peak Width: 14.2 min  
 Peak Area: 14.2 min

13.28 of 2886

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420049.wiff	<b>Acquisition Date</b>	4/21/2010 11:04:08 AM
<b>Sample Name</b>	WXX100420-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	9.07
	<b>Area Counts:</b>	1.31e+008
	<b>Manual Modification</b>	No
	<b>Amount:</b>	626. (ng/mL)
	<b>% Accuracy:</b>	104.00

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	5.88e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	600. (ng/mL)
	<b>% Accuracy:</b>	100.00

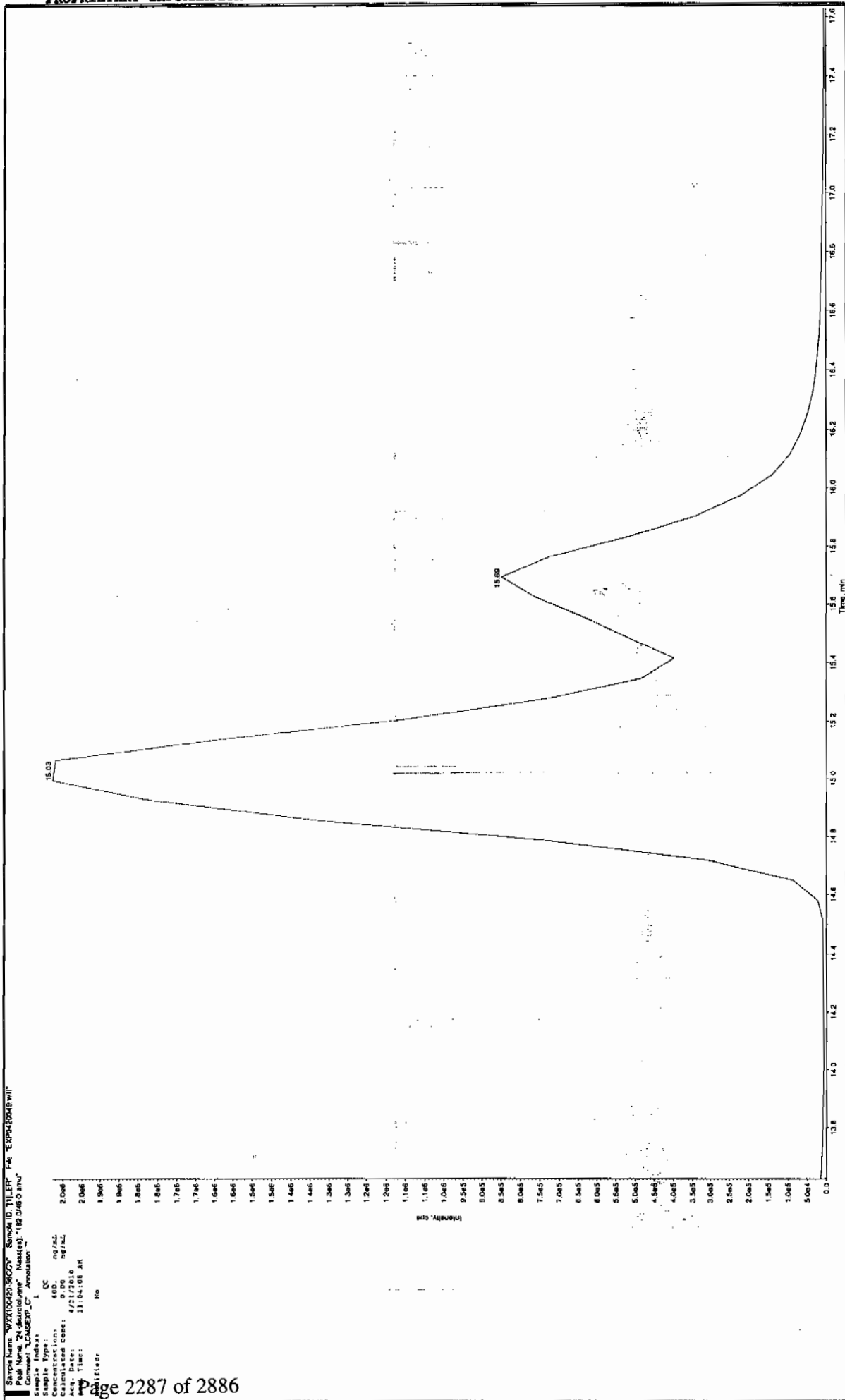
  

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	10.8
	<b>Area Counts:</b>	5.46e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	689. (ng/mL)
	<b>% Accuracy:</b>	115.00

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.3
	<b>Area Counts:</b>	2.19e+008
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	610. (ng/mL)
	<b>% Accuracy:</b>	102.00

Before Jan 4/810



after Jan 4/28/10



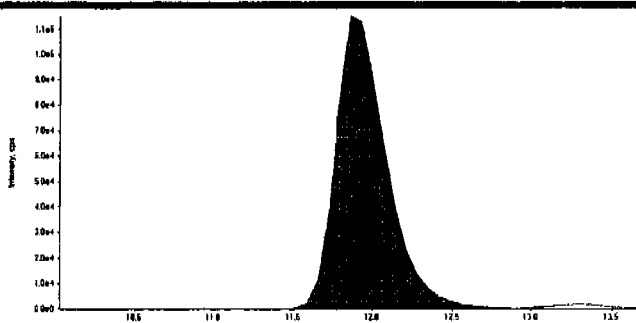
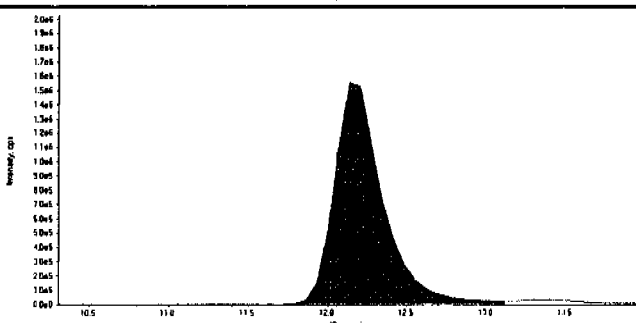
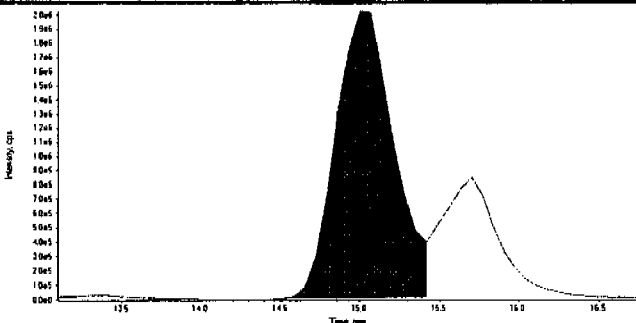
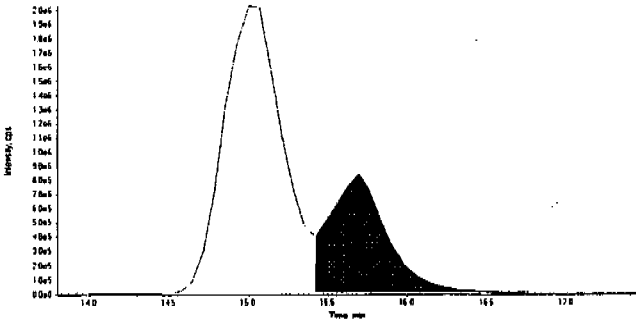
Page 2288 of 2886

\*GEL SOP GL-0A-E-056, Method 8321A-Modified LCMSMS#3



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File		EXP0420049.wiff	Acquisition Date		4/21/2010 11:04:08 AM
Sample Name		WXX100420-56CCV	Acquisition Method		8321.dam
Batch Dilution Analyst		1 LER	Result Table		042010.rdb
Procedure Code		LCMSEXP_C	Sample Type		Quality Control
			Compound Name:		Nitrobenzene (123.0/46.0 amu)
			Expected RT:		11.9
			Actual RT:		11.9
			Area Counts:		2.60e+006
			Manual Modification		No
			Amount:		612. (ng/mL)
			% Accuracy:		102.00
			Compound Name:		34-dinitrotoluene (182.0/46.0 amu)
			Expected RT:		12.1
			Actual RT:		12.1
			Area Counts:		3.35e+007
			Manual Modification		No
			Amount:		288. (ng/mL)
			% Accuracy:		95.90
			Compound Name:		26-dinitrotoluene (182.0/46.0 amu)
			Expected RT:		14.9
			Actual RT:		15.0
			Area Counts:		5.22e+007
			Manual Modification		No
			Amount:		547. (ng/mL)
			% Accuracy:		91.20
			Compound Name:		24-dinitrotoluene (182.0/46.0 amu)
			Expected RT:		15.6
			Actual RT:		15.7
			Area Counts:		2.12e+007
			Manual Modification		Yes
			Amount:		595. (ng/mL)
			% Accuracy:		99.20

Before Jan 4/28/00

Sample Name: "XXXX-0020-5600" Sample ID: "1111" File: "EXP042008.wif"

Peak Name: "2-Amino-6-chloroindane" Mass(es): "187.0780 D amu"

Comment: "LCMS-EXP-0" Acquisition: "1"

Sample Type: "QC"

Concentration: 500. ng/mL

Calculated Conc: 718. ng/mL

Acq Date: 11/04/08 AM

App: "1"

Method: "1"

Injection Volume: 100

Injection Speed: 1000

Injection Width: 3.00 sec

Injection Points: 60.0 points

Injection Rate: 60.0 sec

Injection Delay: 14.2 min

Injection RT: No

Injection Type: Valley

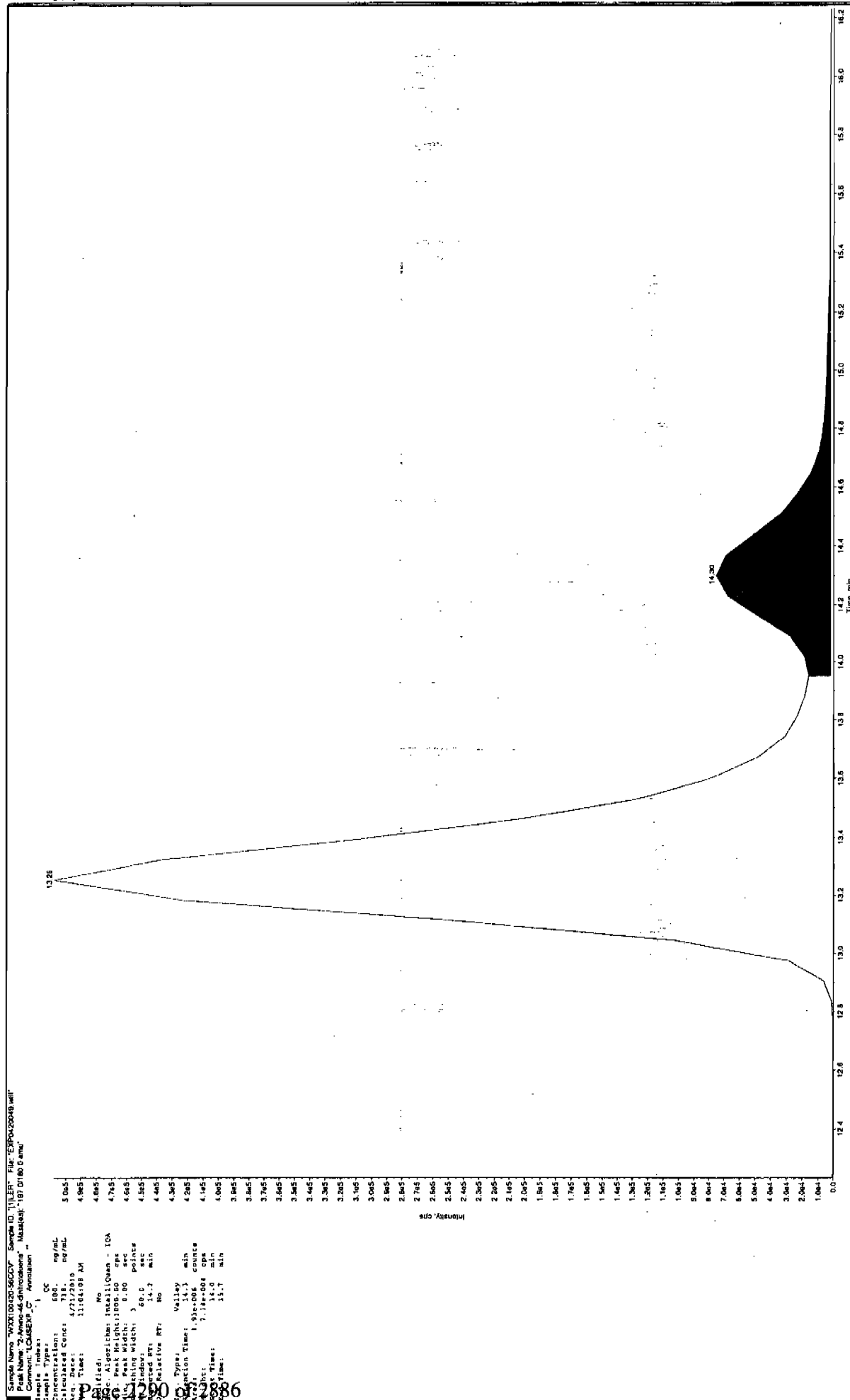
Injection Time: 1.91e+006 min

Injection Count: 1.91e+006 counts

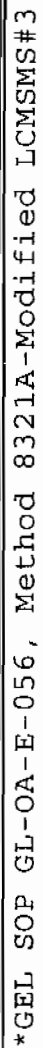
Injection Rate: 7.18e+004 cps

Injection Time: 14.0 min

Injection Delay: 11.7 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

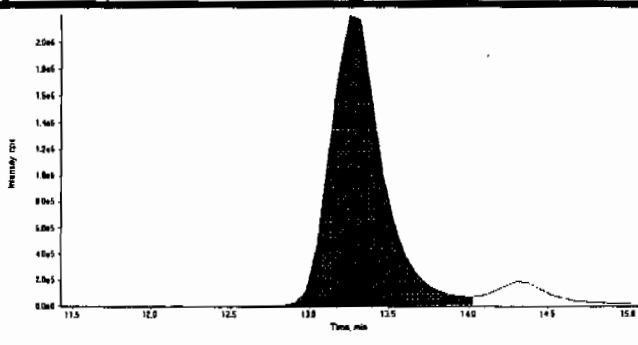


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

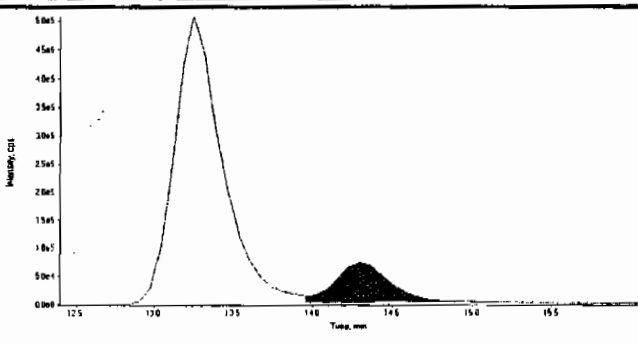
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420049.wiff	<b>Acquisition Date</b>	4/21/2010 11:04:08 AM
<b>Sample Name</b>	WXX100420-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

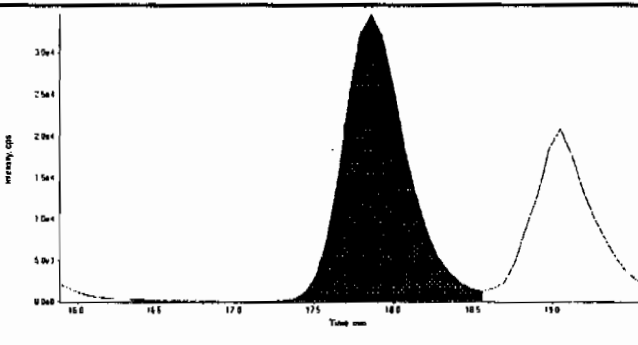
  

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	5.10e+007
	Manual Modification	No
	Amount:	689. (ng/mL)
	% Accuracy:	115.00

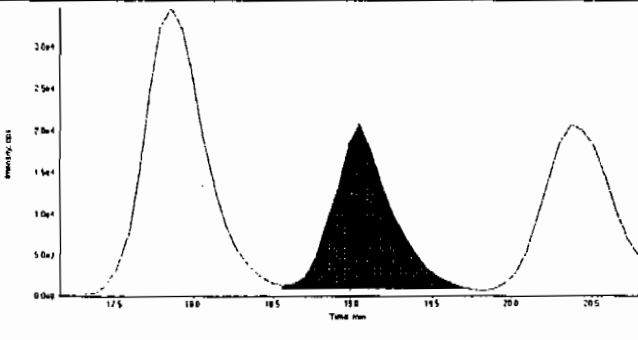
  

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.3
	Area Counts:	1.71e+006
	Manual Modification	Yes
	Amount:	637. (ng/mL)
	% Accuracy:	106.00

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	17.9
	Area Counts:	9.60e+005
	Manual Modification	No
	Amount:	594. (ng/mL)
	% Accuracy:	99.00

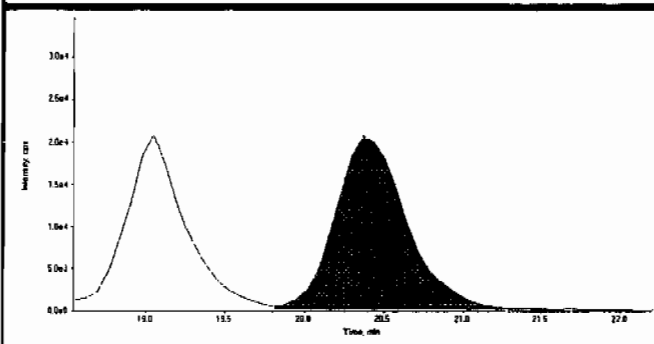
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	19.0
	Area Counts:	5.06e+005
	Manual Modification	No
	Amount:	611. (ng/mL)
	% Accuracy:	102.00

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

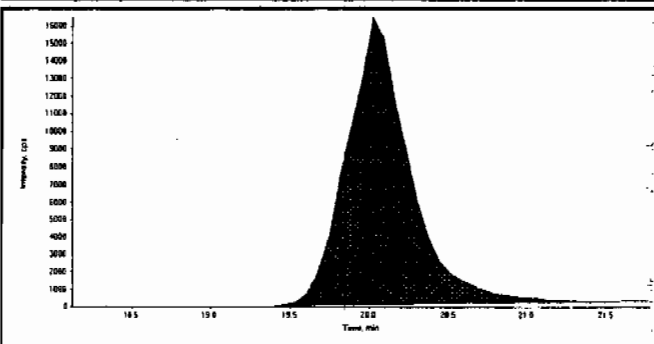
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420049.wiff	<b>Acquisition Date</b>	4/21/2010 11:04:08 AM
<b>Sample Name</b>	WXX100420-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	20.4
	<b>Area Counts:</b>	6.52e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	545. (ng/mL)
	<b>% Accuracy:</b>	90.90

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	20.0
	<b>Area Counts:</b>	4.61e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	582. (ng/mL)
	<b>% Accuracy:</b>	97.10

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/21/10  
 Time of Injection 1104  
 Standard Number WXX100420-56CCV  
 Data File EXP0420049a

HMX	88.9
RDX	117.0
135-Trinitrobenzene	104.0
13-Dinitrobenzene	100.0
Tetryl	115.0
246-Trinitrotoluene	102.0
Nitrobenzene	102.0
34-dinitrotoluene	95.9
26-dinitrotoluene	91.2
24-dinitrotoluene	99.2
4-Amino-26-dinitrotoluene	115.0
2-Amino-46-dinitrotoluene	106.0
2-Nitrotoluene	99.0
4-Nitrotoluene	102.0
3-Nitrotoluene	90.9
PETN	97.1

TOTAL

✓ 1625.2 *Hmm 04/29/10*

AVERAGE

✓ 101.6	ICV Limits 85-115%
	-CRI Limits 70-130%
	CCV Limits 85-115%
No single analyte > +/- 60%	

*for 4/28/10*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0420051.wiff

Analysis Date: 21-APR-10 11:56

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	40.1	100	
2,4,6-Trinitrotoluene	40	38.8	97	
2,4-Dinitrotoluene	40	41.9	105	
2,6-Dinitrotoluene	40	35.1	88	
2-Amino-4,6-dinitrotoluene	40	35	88	
3,4-Dinitrotoluene	20	14.8	74	
4-Amino-2,6-dinitrotoluene	40	36.1	90	
HMX	40	51.1	128	
Nitrobenzene	40	32.7	82	
PETN	40	47.8	119	
RDX	40	48.1	120	
Tetryl	40	46.1	115	
m-Dinitrobenzene	40	43.5	109	
m-Nitrotoluene	40	40.8	102	
o-Nitrotoluene	40	46.3	116	
p-Nitrotoluene	40	35.1	88	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

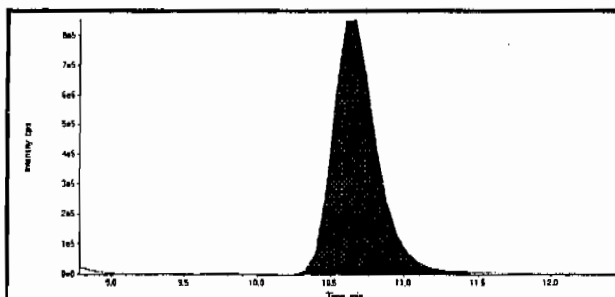
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

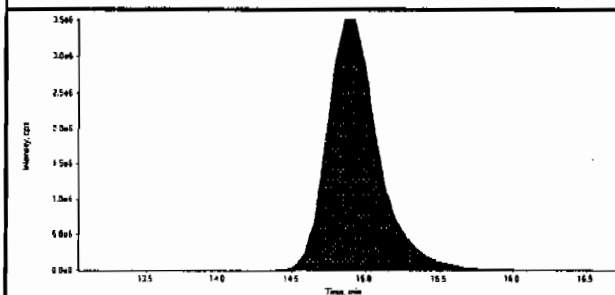
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420051.wiff	Acquisition Date	4/21/2010 11:56:14 AM
Sample Name	WXX100420-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



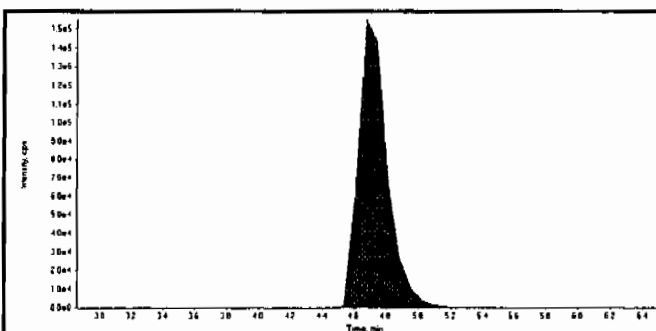
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	18000000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

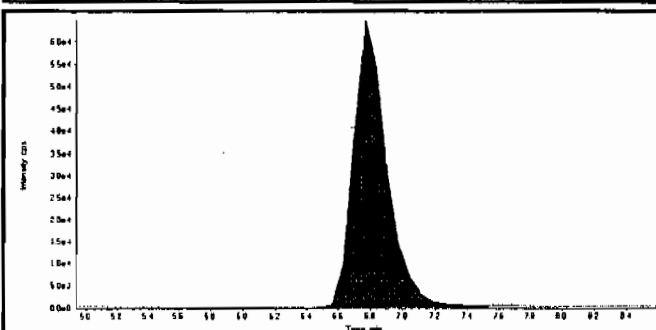


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	87700000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	1.98e+006
Manual Modification	No
Amount:	51.1 (ng/mL)
% Accuracy:	128.00

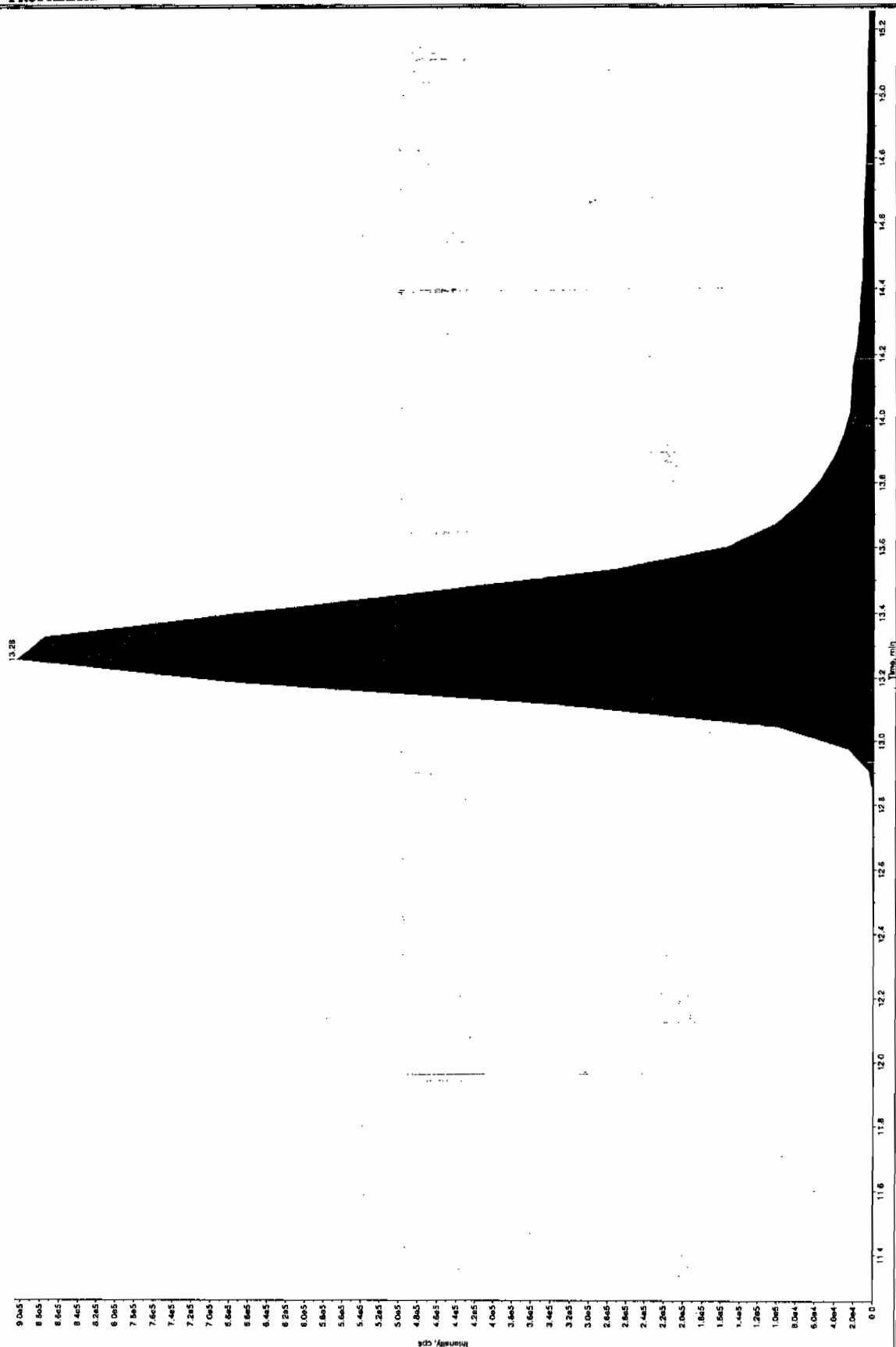


Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	9.57e+005
Manual Modification	No
Amount:	48.1 (ng/mL)
% Accuracy:	120.00

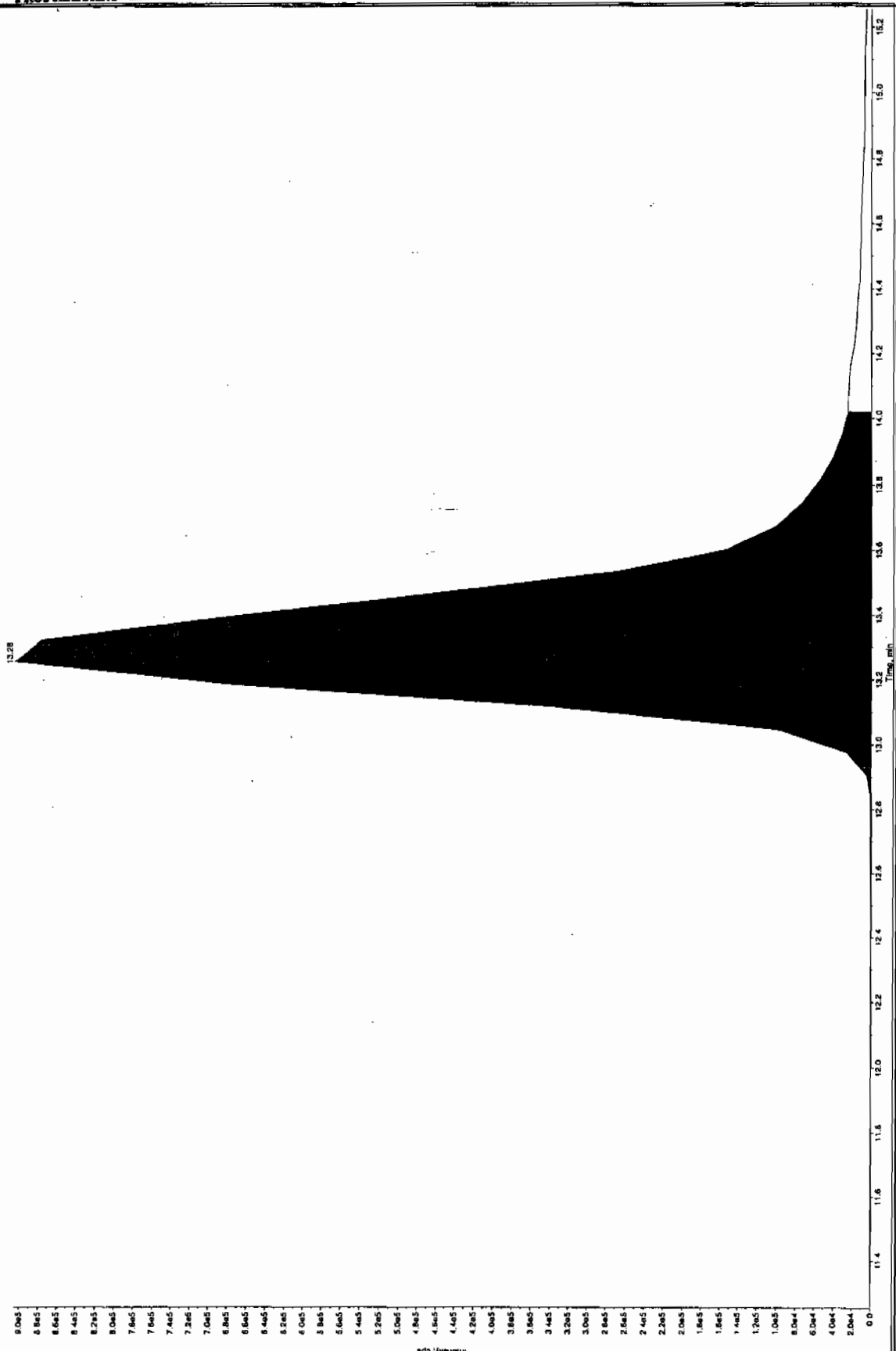
*Handwritten:* 4/29/10  
*Signature:* [Signature]  
4/29/10



Before Jan 4/28/10

[illegible]

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



Sample Name: "WXX100420-S7C91" Sample ID: "P1LER" File: "EXP0420051.wif"  
Peak Name: "246-Tinindololuseno" Mass(es) "227.1209.8 amu"

[illegible]

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420051.wiff	Acquisition Date	4/21/2010 11:56:14 AM
Sample Name	WXX100420-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.07
	Actual RT:	9.07
	Area Counts:	1.08e+007
	Manual Modification	No
	Amount:	40.1 (ng/mL)
	% Accuracy:	100.00

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	4.04e+006
	Manual Modification	No
	Amount:	43.5 (ng/mL)
	% Accuracy:	109.00

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.8
	Actual RT:	10.9
	Area Counts:	3.45e+006
	Manual Modification	No
	Amount:	46.1 (ng/mL)
	% Accuracy:	115.00

	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	2.02e+007
	Manual Modification	Yes
	Amount:	38.8 (ng/mL)
	% Accuracy:	97.10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420051.wiff	<b>Acquisition Date</b>	4/21/2010 11:56:14 AM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	11.9
	Area Counts:	1.30e+005
	Manual Modification	No
	Amount:	32.7 (ng/mL)
	% Accuracy:	81.90

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.1
	Area Counts:	2.26e+006
	Manual Modification	No
	Amount:	14.8 (ng/mL)
	% Accuracy:	73.90

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	15.0
	Area Counts:	3.87e+006
	Manual Modification	No
	Amount:	35.1 (ng/mL)
	% Accuracy:	87.70

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	15.7
	Area Counts:	1.51e+006
	Manual Modification	No
	Amount:	41.9 (ng/mL)
	% Accuracy:	105.00

Before Jan 4/2010

Sample Name: "WXX100420-57CH" Sample ID: "TIER" File: "EPM0420031.wif"

Peak Name: "2-Amino-6-dimethylbenzene" Masses: "197.01803 amu"

Method: "LCMSMS" Acquisition: "MS/MS"

Sample Type: "CC"

Concentration: "10.0 ng/mL"

Calculated Conc: "10.0 ng/mL"

Acq. Time: "11:56:13 AM"

Peak Height: "1000.00 cps"

Peak Width: "0.00 sec"

Smoothing Width: "3.00 points"

Retention Time: "14.2 min"

Expected RT: "14.2 min"

Relative RT: "No"

Peak Type: "Valley"

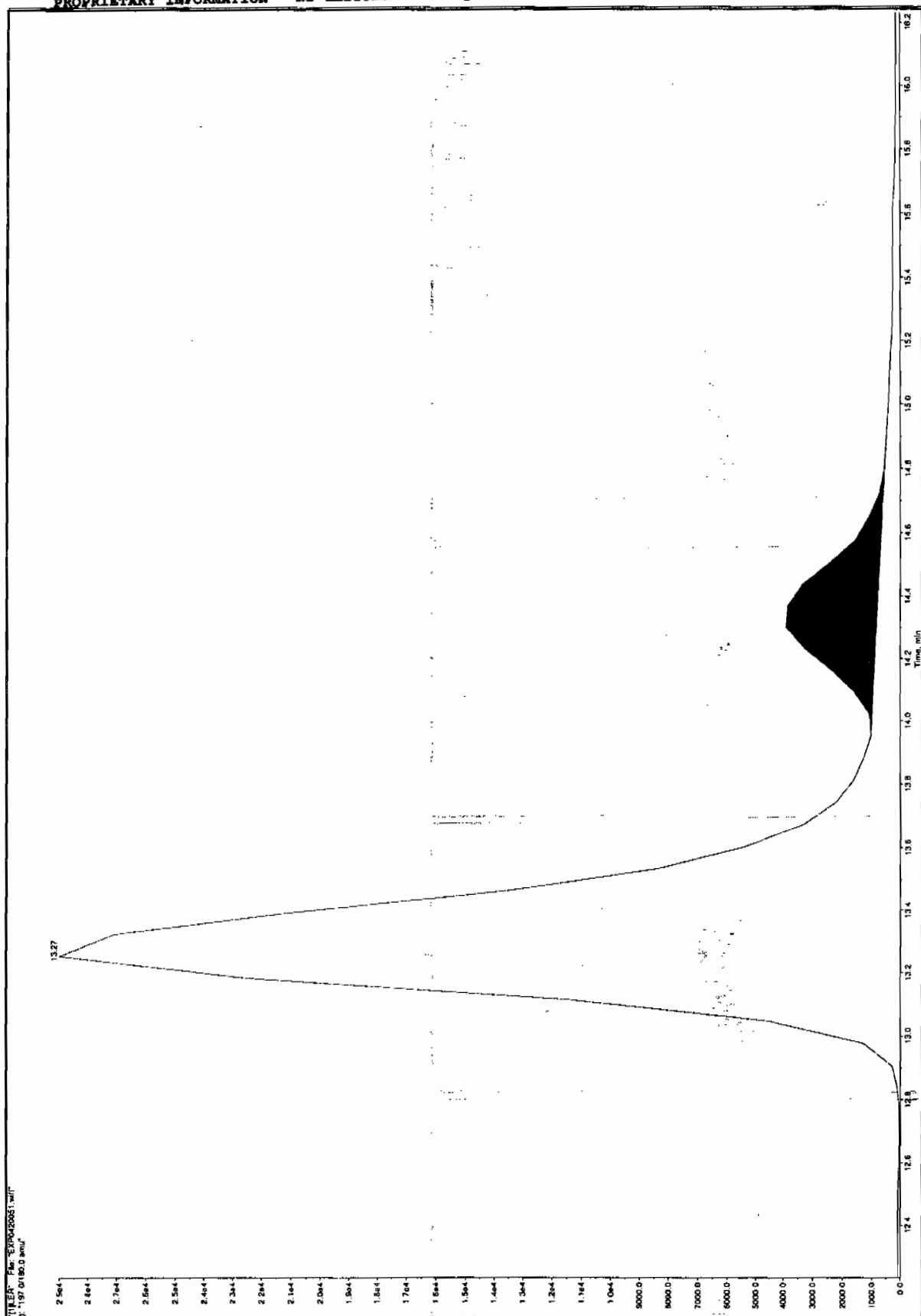
Retention Time: "14.2 min"

Abundance: "6.81e+004 counts"

Height: "3.08e+003 cps"

Acq. Time: "14.2 min"

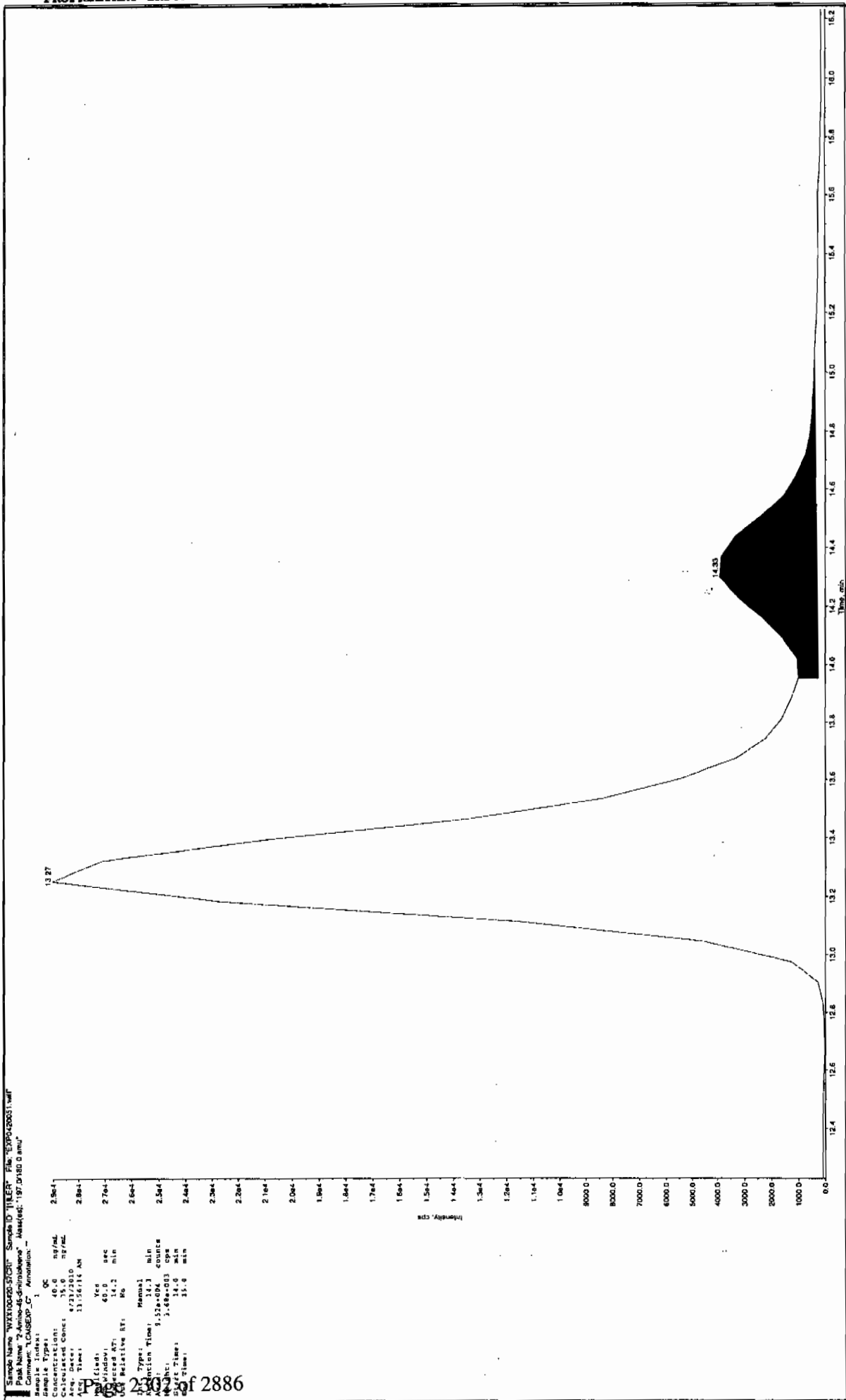
Scan Time: "14.2 min"



001012886

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/28/10



Sample Name: "WXX100425-57031" Sample ID: "TILER" File: "EXP0420031.wf"

Peak Name: "2-Amino-4S-dimethylolurea" Mass(es): "197.0480 0 amu"

Comment: "LCMSXP\_C" Annotation: "

Sample Index: 1 QC

Concentration: 40.0 ng/mL

Calculated Conc: 15.0 ng/mL

Acq. Date: 4/23/2010

Run Time: 11:55:11 AM

Peak Time: 13.27 min

Peak Width: 40.0 sec

Peak Width: 40.0 sec

Peak Width: 40.0 sec

Peak Width: 40.0 sec

Peak Width: 40.0 sec

Peak Width: 40.0 sec

Peak Width: 40.0 sec

Peak Width: 40.0 sec

Peak Width: 40.0 sec

Peak Width: 40.0 sec

Peak Width: 40.0 sec

Peak Width: 40.0 sec

Peak Width: 40.0 sec

Peak Width: 40.0 sec

Peak Width: 40.0 sec

Peak Width: 40.0 sec

Peak Width: 40.0 sec

Peak Width: 40.0 sec

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Peak Width: 40.0 sec

Peak Width: 40.0 sec

Peak Width: 40.0 sec

Peak Width: 40.0 sec

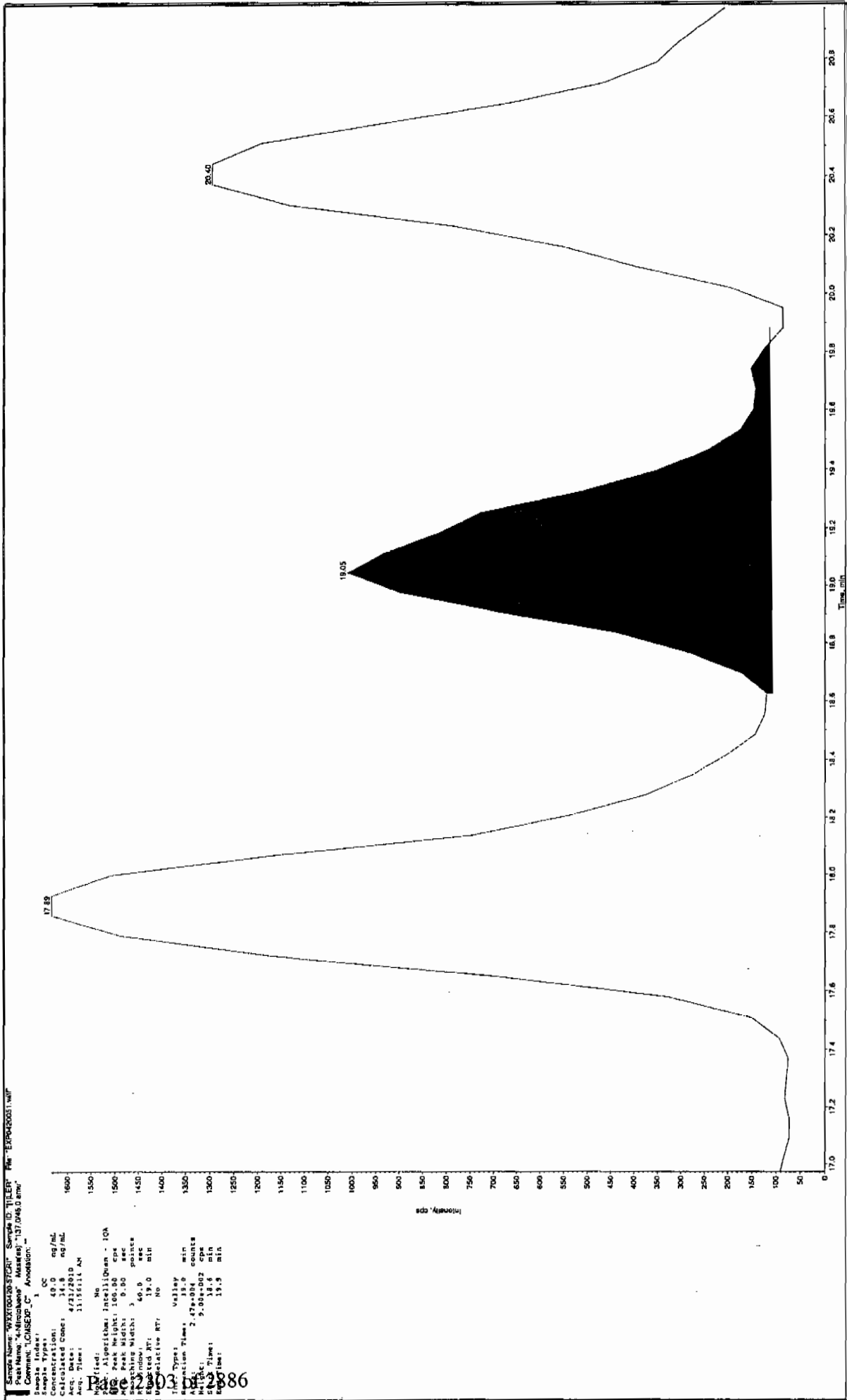
Peak Width: 40.0 sec

Peak Width: 40.0 sec

Peak Width: 40.0 sec

Peak Width: 40.0 sec

Before 4/28/10



Sample Name: 9925000100-571217 Sample ID: 11151111 File: EXP04200311.wif

Peak Name: 4-Nitrocholine Mass(es): 137.046.0 amu

Comment: LCMSSEP\_C Acquisition: -

Sample Index: 1

Concentration: 49.0 ng/mL

Calculated Conc: 34.8 ng/mL

Acq. Date: 4/21/2010

Acq. Time: 11:15:11 AM

Method: No

Peak Width: 1.00 sec

Search Width: 3.00 points

Window: 66.0 sec

Retention RT: 19.0 min

Relative RT: No

Peak Type: valley

Retention Time: 19.0 min

Height: 1500 cps

Area: 2.47e+002 cps

Width: 9.00e-002 min

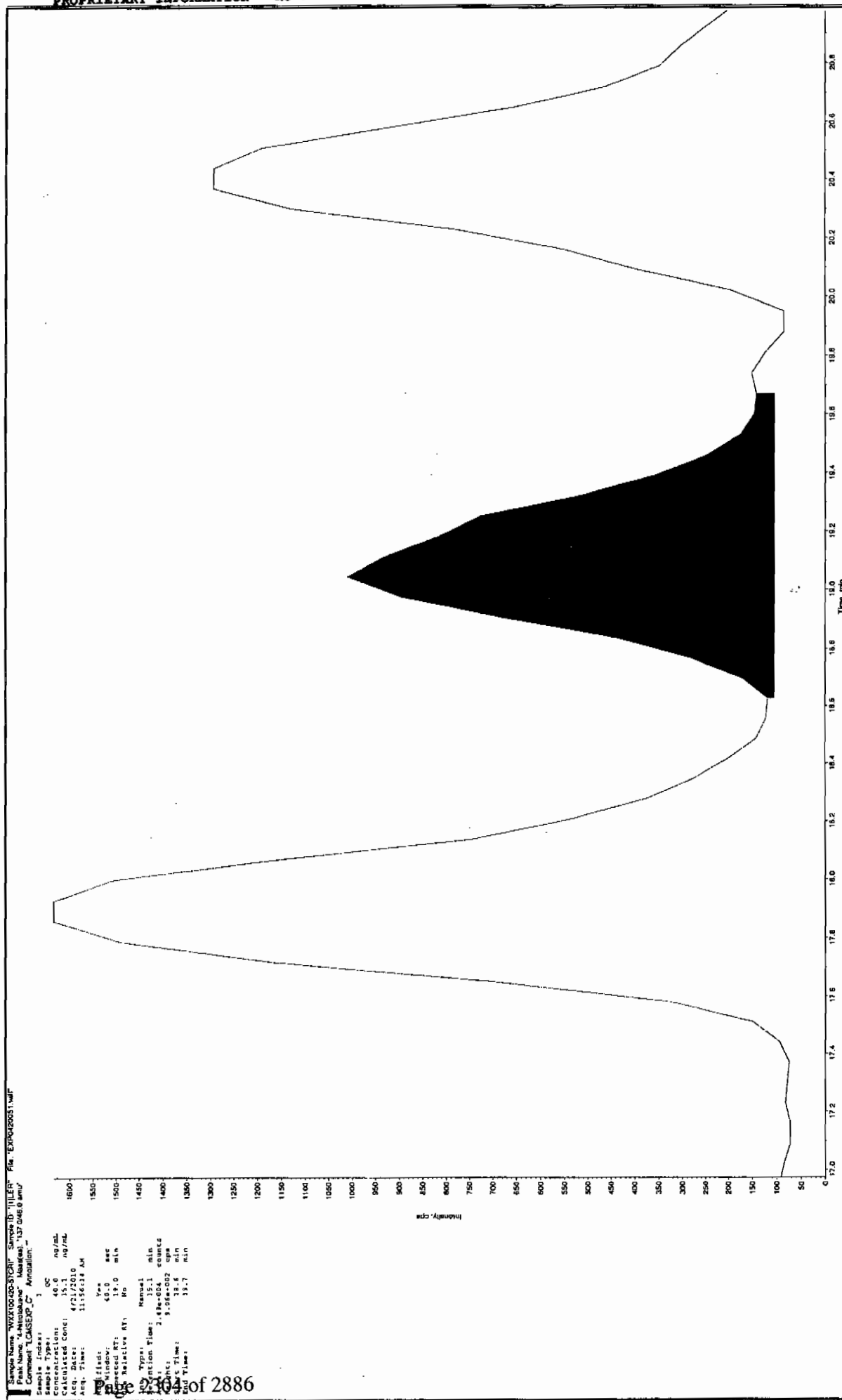
Time: 18.6 min

Time: 19.9 min

8321A-Modified LCMSMS#3

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after 4th run



Sample Name: "WVX10042051" Sample ID: "1111" File: "EXP042051.wif"  
 Peak Name: "4-Nitrophenol" Mass(es): "137.0468 g/mol"  
 Comment: "LCMS-EXP\_C" Annotation: "-"

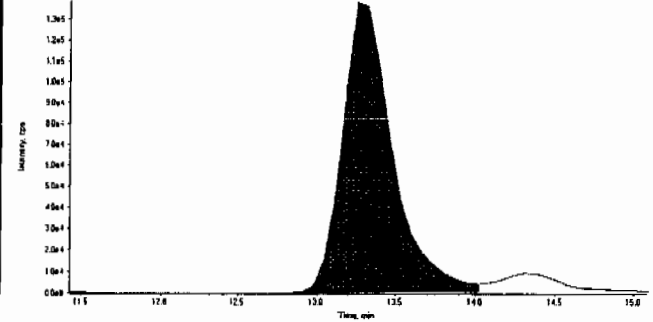
Sample Index: 1  
 Sample Type: 46.0 ng/mL  
 Calculated Conc: 35.1 ng/mL  
 Acq. Date: 4/21/2010  
 Acq. Time: 11:56:14 AM  
 Method: Yes  
 Window: 46.0 sec  
 Processed RT: 19.0 min  
 Retention Time: 19.0 min  
 Manual: No  
 Peak Type: Manual  
 Retention Time: 15.1 min  
 Peak Name: "4-Nitrophenol"  
 Mass(es): "137.0468 g/mol"  
 Peak Time: 15.1 min  
 End Time: 13.7 min

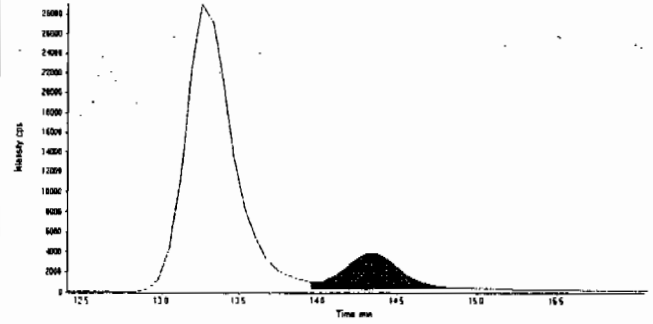


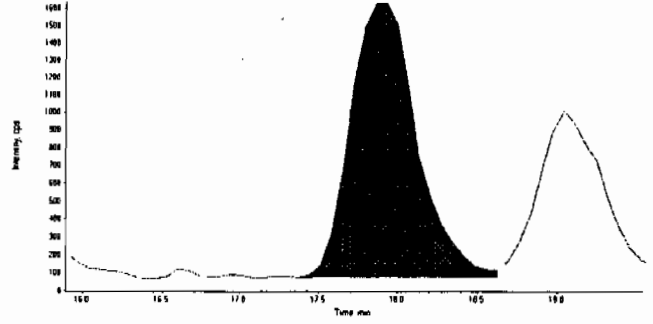
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

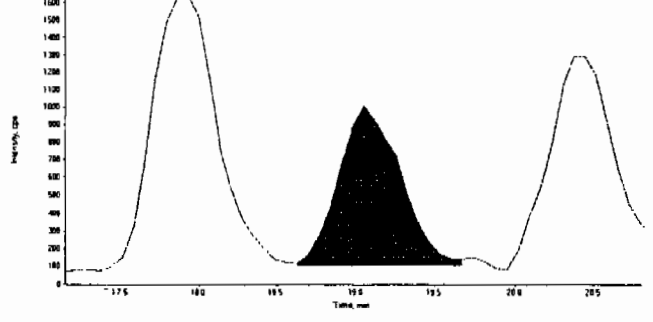
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420051.wiff	Acquisition Date	4/21/2010 11:56:14 AM
Sample Name	WXX100420-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	3.10e+006
	Manual Modification	No
	Amount:	36.1 (ng/mL)
	% Accuracy:	90.10

	Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.3
	Area Counts:	9.52e+004
	Manual Modification	Yes
	Amount:	35.0 (ng/mL)
	% Accuracy:	87.60

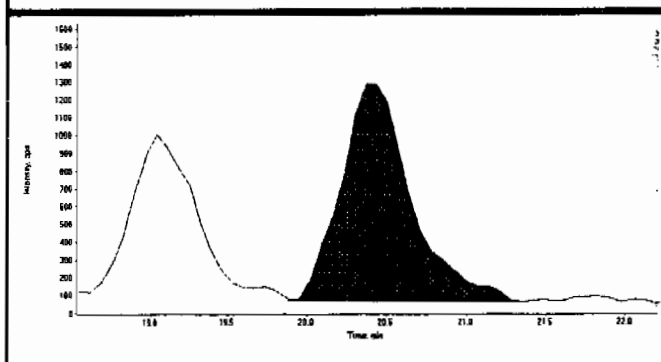
	Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	17.9
	Area Counts:	4.61e+004
	Manual Modification	No
	Amount:	46.3 (ng/mL)
	% Accuracy:	116.00

	Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	19.1
	Area Counts:	2.49e+004
	Manual Modification	Yes
	Amount:	35.1 (ng/mL)
	% Accuracy:	87.70

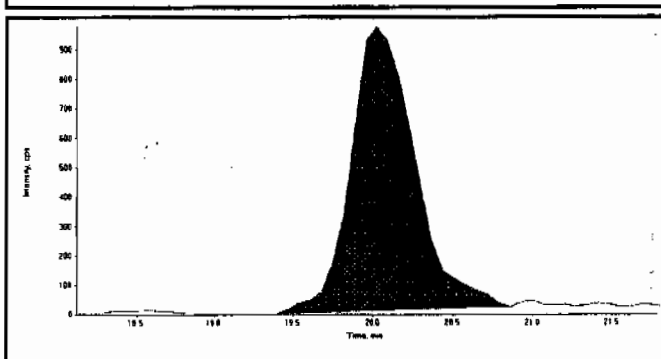
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420051.wiff	Acquisition Date	4/21/2010 11:56:14 AM
Sample Name	WXX100420-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.4
Actual RT:	20.4
Area Counts:	3.86e+004
Manual Modification	No
Amount:	40.8 (ng/mL)
% Accuracy:	102.00



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	20.0
Area Counts:	2.79e+004
Manual Modification	No
Amount:	47.8 (ng/mL)
% Accuracy:	119.00

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/21/10  
 Time of Injection 1156  
 Standard Number WXX100420-57CRI  
 Data File EXP0420051a

HMX	128.0
RDX	120.0
135-Trinitrobenzene	100.0
13-Dinitrobenzene	109.0
Tetryl	115.0
246-Trinitrotoluene	97.1
Nitrobenzene	81.9
34-dinitrotoluene	73.9
26-dinitrotoluene	87.7
24-dinitrotoluene	105.0
4-Amino-26-dinitrotoluene	90.1
2-Amino-46-dinitrotoluene	87.6
2-Nitrotoluene	116.0
4-Nitrotoluene	87.7
3-Nitrotoluene	102.0
PETN	119.0

TOTAL

✓ 1620.0

ICV Limits 85-115%

AVERAGE

✓ 101.3

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*See 4/28/10*

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0420057.wiff

Analysis Date: 21-APR-10 14:31

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	697	116	
2,4,6-Trinitrotoluene	600	443	74	
2,4-Dinitrotoluene	600	637	106	
2,6-Dinitrotoluene	600	535	89	
2-Amino-4,6-dinitrotoluene	600	483	81	
3,4-Dinitrotoluene	300	276	92	
4-Amino-2,6-dinitrotoluene	600	561	94	
HMX	600	643	107	
Nitrobenzene	600	582	97	
PETN	600	504	84	
RDX	600	799	133	*
Tetryl	600	615	102	
m-Dinitrobenzene	600	605	101	
m-Nitrotoluene	600	437	73	
o-Nitrotoluene	600	331	55	*
p-Nitrotoluene	600	350	58	*

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

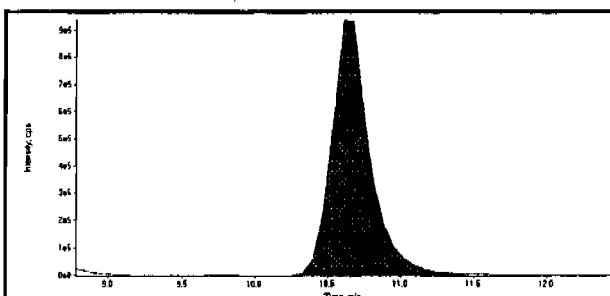
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

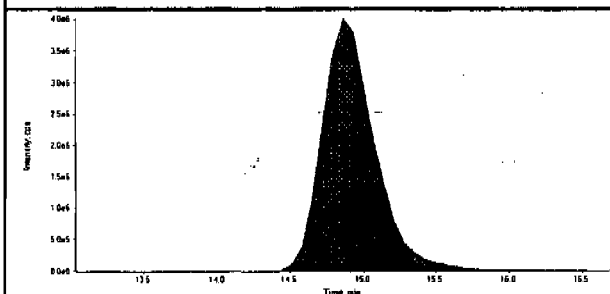
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

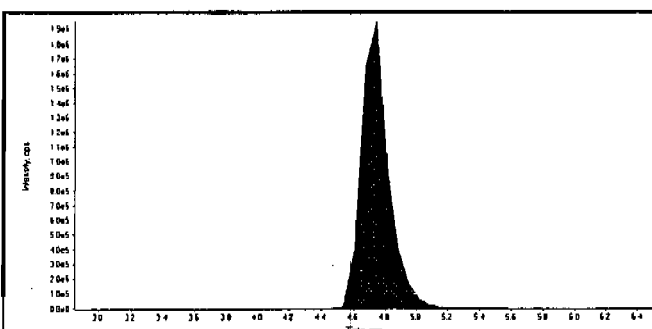
Data File	EXP0420057.wiff	Acquisition Date	4/21/2010 2:31:51 PM
Sample Name	WXX100420-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



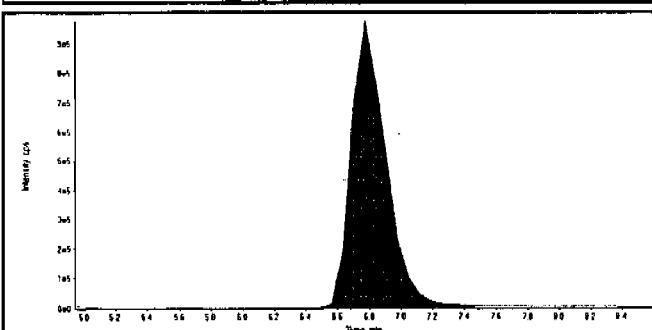
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	17200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	101000000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



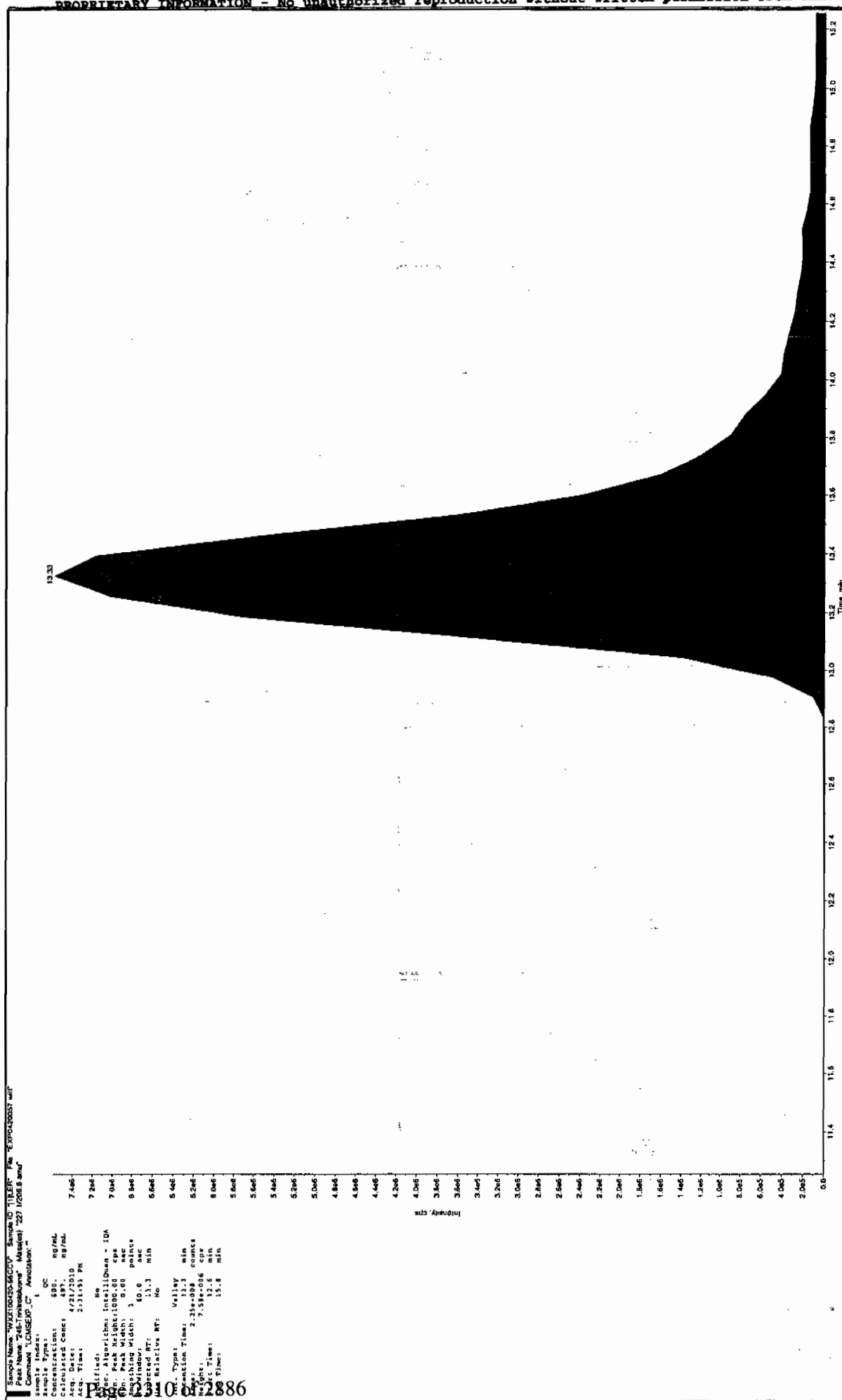
Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	2.37e+007
Manual Modification	No
Amount:	643. (ng/mL)
% Accuracy:	107.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.52e+007
Manual Modification	No
Amount:	799. (ng/mL)
% Accuracy:	133.00

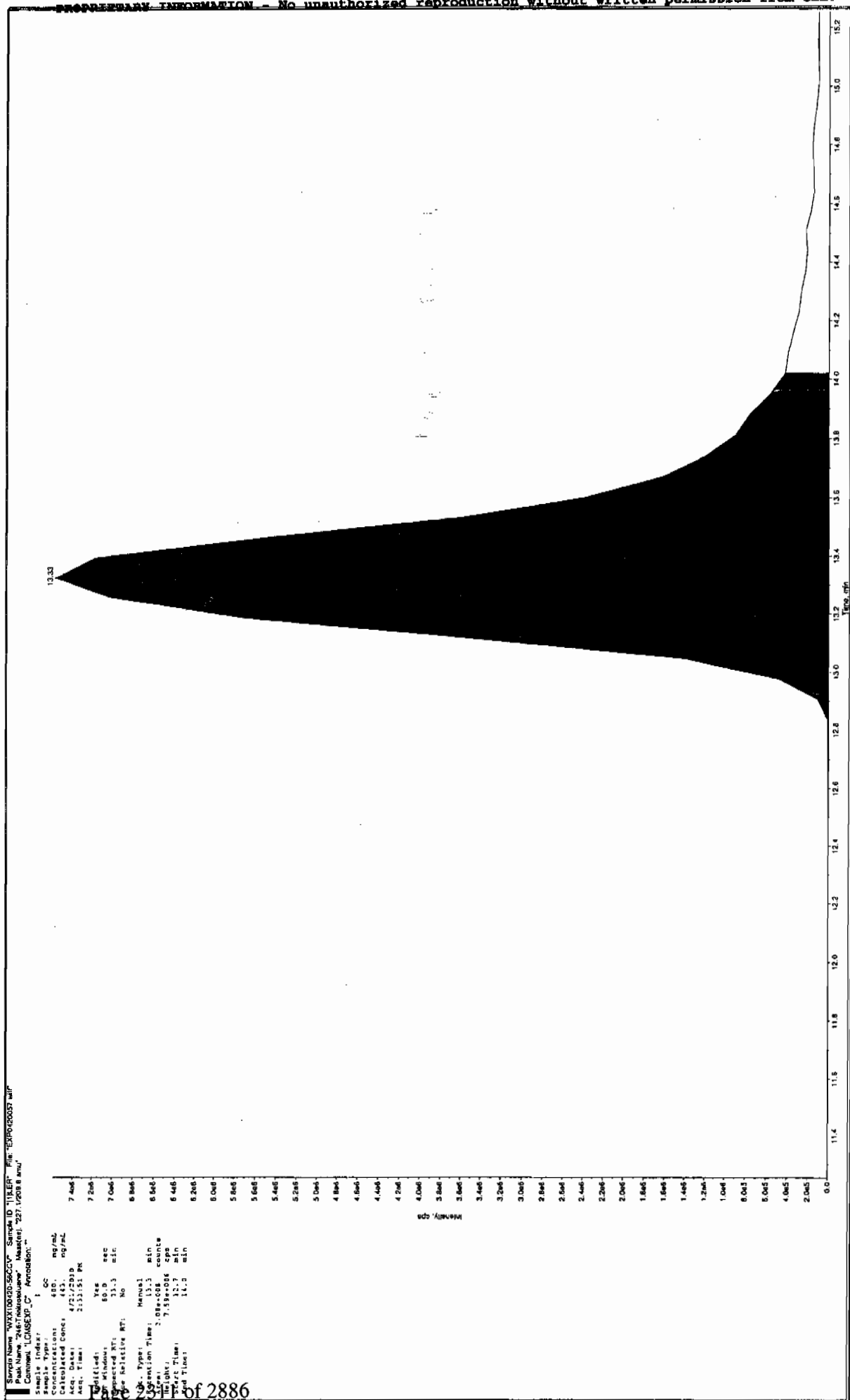
*lar*  
4/29/10 #1111  
04/29/10

Before Jan 4/87/10



\*GEL SOP GL-0A-E-056, Method 8321A-Modified LCMSMS#3

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\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420057.wiff	Acquisition Date	4/21/2010 2:31:51 PM
Sample Name	WXX100420-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.07
	Actual RT:	9.07
	Area Counts:	1.31e+008
	Manual Modification	No
	Amount:	697. (ng/mL)
	% Accuracy:	116.00

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	5.35e+007
	Manual Modification	No
	Amount:	605. (ng/mL)
	% Accuracy:	101.00

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.8
	Actual RT:	10.8
	Area Counts:	4.39e+007
	Manual Modification	No
	Amount:	615. (ng/mL)
	% Accuracy:	102.00

	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	2.08e+008
	Manual Modification	Yes
	Amount:	443. (ng/mL)
	% Accuracy:	73.80



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420057.wiff	<b>Acquisition Date</b>	4/21/2010 2:31:51 PM
<b>Sample Name</b>	WXX100420-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.9
	<b>Actual RT:</b>	11.9
	<b>Area Counts:</b>	2.23e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	582. (ng/mL)
	<b>% Accuracy:</b>	97.00

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.1
	<b>Actual RT:</b>	12.2
	<b>Area Counts:</b>	3.74e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	276. (ng/mL)
	<b>% Accuracy:</b>	91.90

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.9
	<b>Actual RT:</b>	15.0
	<b>Area Counts:</b>	5.95e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	535. (ng/mL)
	<b>% Accuracy:</b>	89.10

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.6
	<b>Actual RT:</b>	15.6
	<b>Area Counts:</b>	2.64e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	637. (ng/mL)
	<b>% Accuracy:</b>	106.00

Before Dec 4/28/10

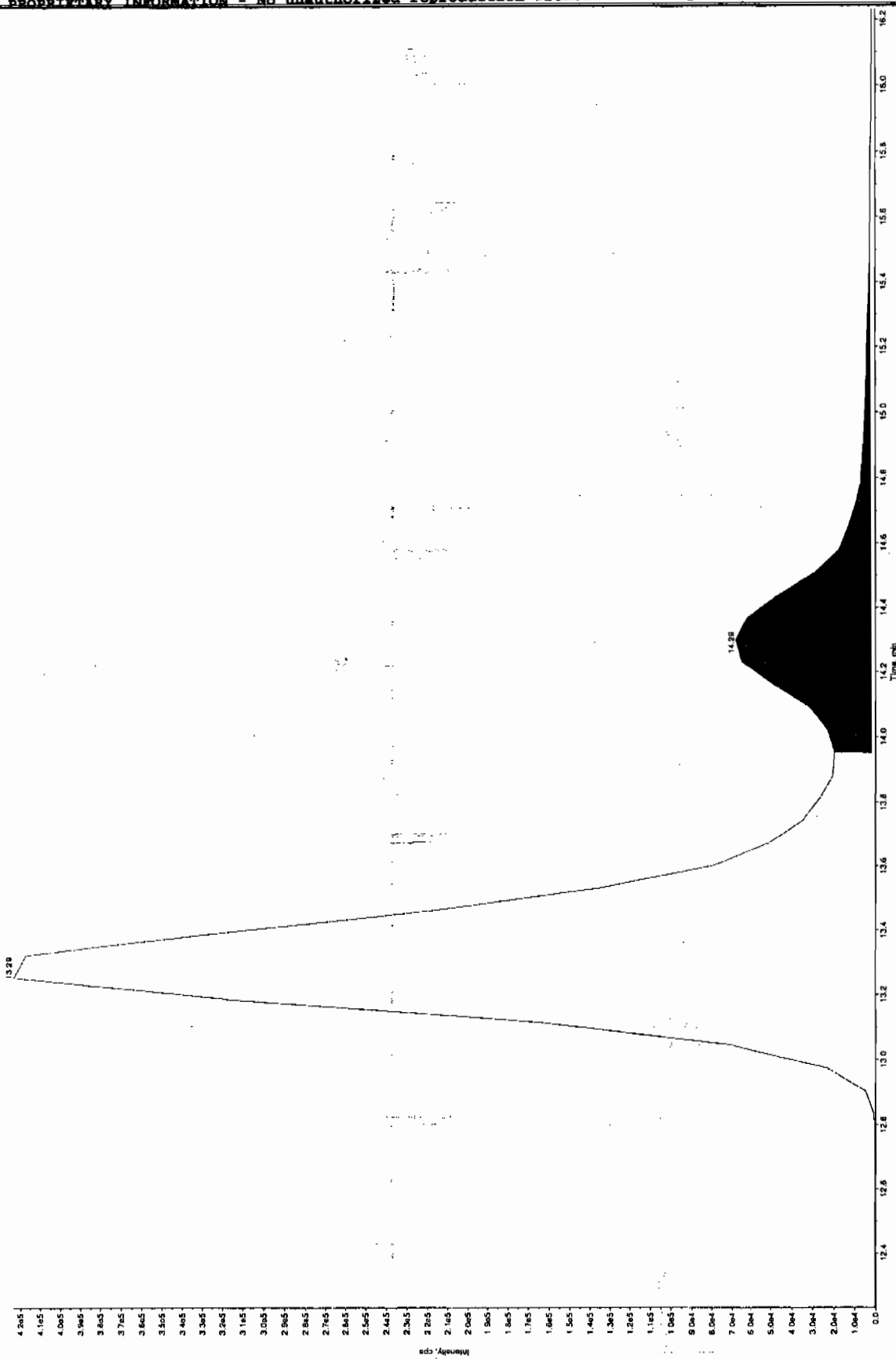
Sample Name: 8321A-Modified LCMSMS#3  
 Peak Name: 7.4min-4.0min-10.0min  
 Comment: "LCMSMS-C" Annotation -

Sample Index: 1

Sample Type: QC  
 Calculated Conc: 586. ng/mL  
 Acq. Date: 4/21/2010  
 Acq. Time: 2:11:51 PM

Modified: No  
 Peak Name: 7.4min-4.0min-10.0min  
 Peak Height: 100.00 cps  
 Peak Width: 5.00 points  
 Notching Width: 5.00 points  
 Window: 80.0 sec  
 Selected RT: 14.2 min  
 Relative RT: No

RT Type: Valley  
 Retention Time: 14.2 min  
 Width: 1.81e-004  
 Height: 8.16e-004  
 RT Time: 14.0 min  
 Time: 15.5 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

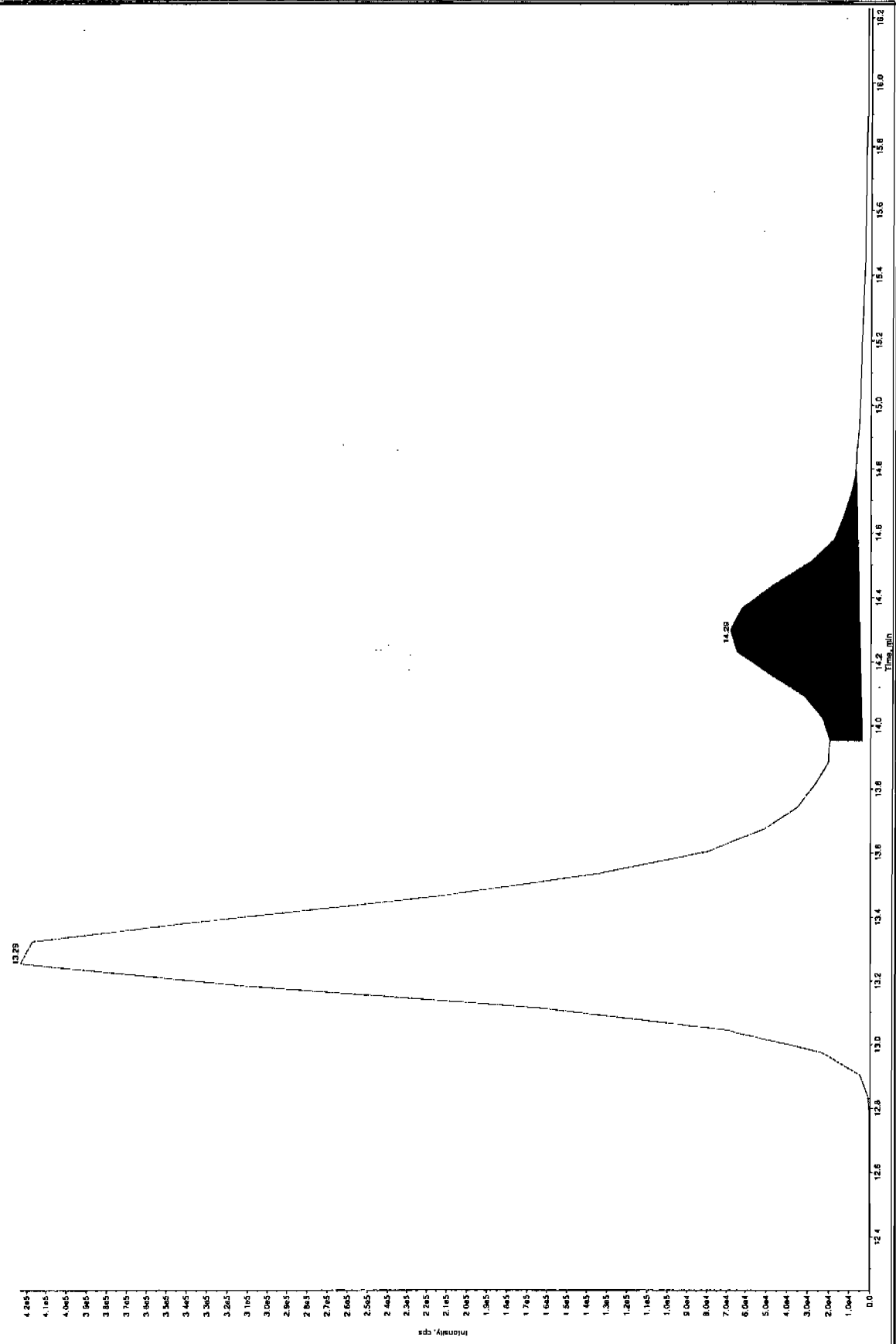
after dec 4/28/10

Sample Name: W22100420-SCCV Sample ID: T11ER File: EXP020037.MIF

Peak Name: 2-Amino-4-oximino-6-aminocyclohex-2-ene-1-carboxamide

Mass(es): 197.0180.0 amu

Concentration: 400.0 ng/mL  
 Calculated Conc: 473122.0 ng/mL  
 Assay Time: 2:31:51 PM  
 Modified: Yes  
 Date: 10/0  
 Injected RT: 14.2 min  
 Use Relative RT: No  
 Type: Manual  
 Injection Time: 14.3 min  
 Peak: 1.51e-006 counts  
 Height: 6.28e-004 cps  
 Area: 14.0 min  
 Ret Time: 14.8 min

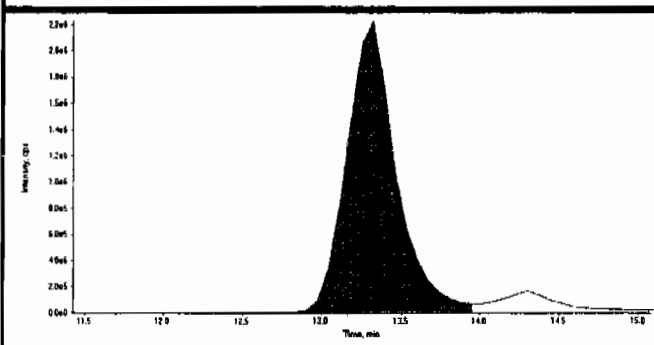


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

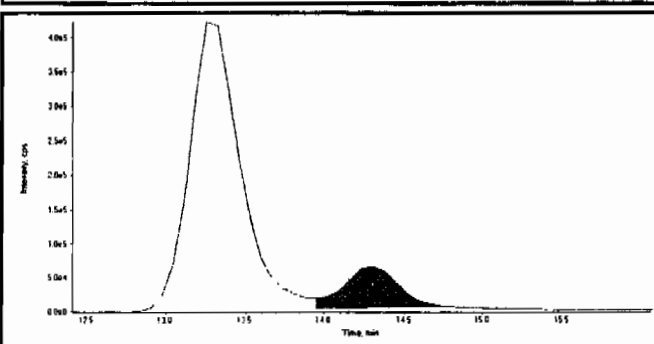
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420057.wiff	Acquisition Date	4/21/2010 2:31:51 PM
Sample Name	WXX100420-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

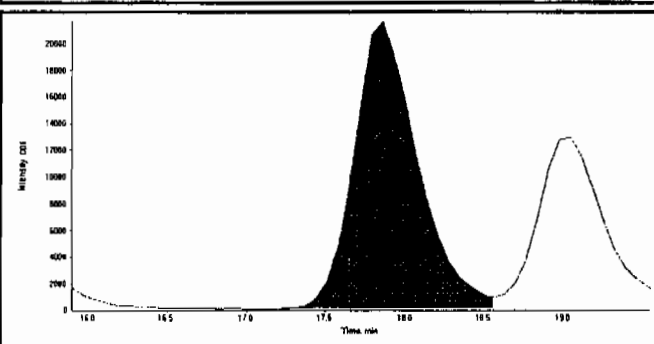
  

	Compound Name:	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	4.85e+007
	Manual Modification	No
	Amount:	561. (ng/mL)
	% Accuracy:	93.50

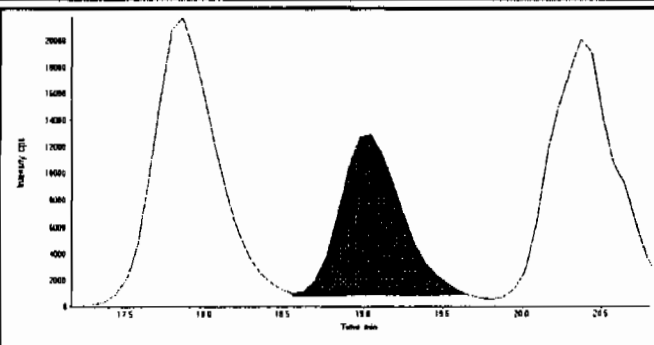
  

	Compound Name:	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.3
	Area Counts:	1.51e+006
	Manual Modification	Yes
	Amount:	483. (ng/mL)
	% Accuracy:	80.50

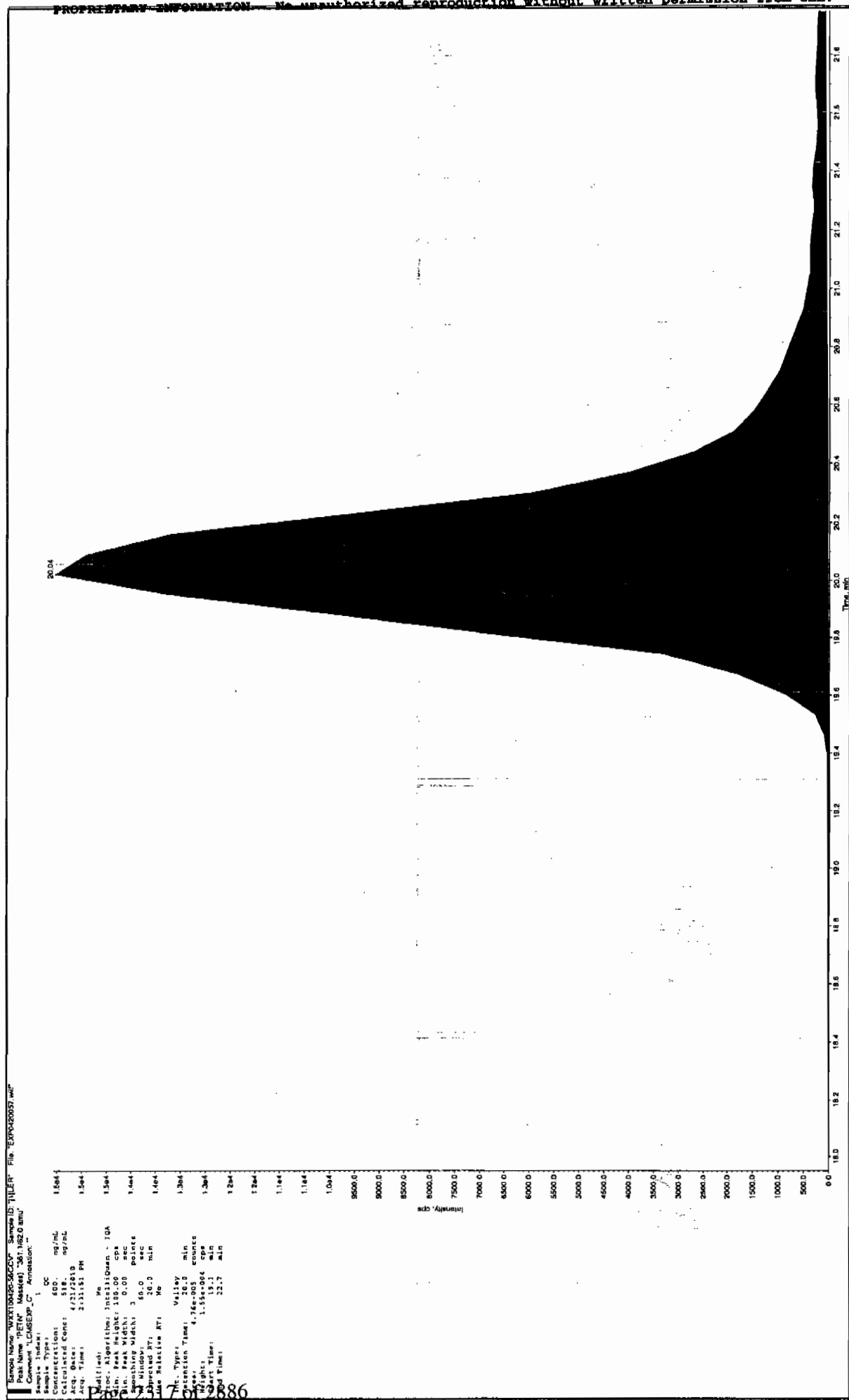
  

	Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	17.9
	Area Counts:	6.05e+005
	Manual Modification	No
	Amount:	331. (ng/mL)
	% Accuracy:	55.10

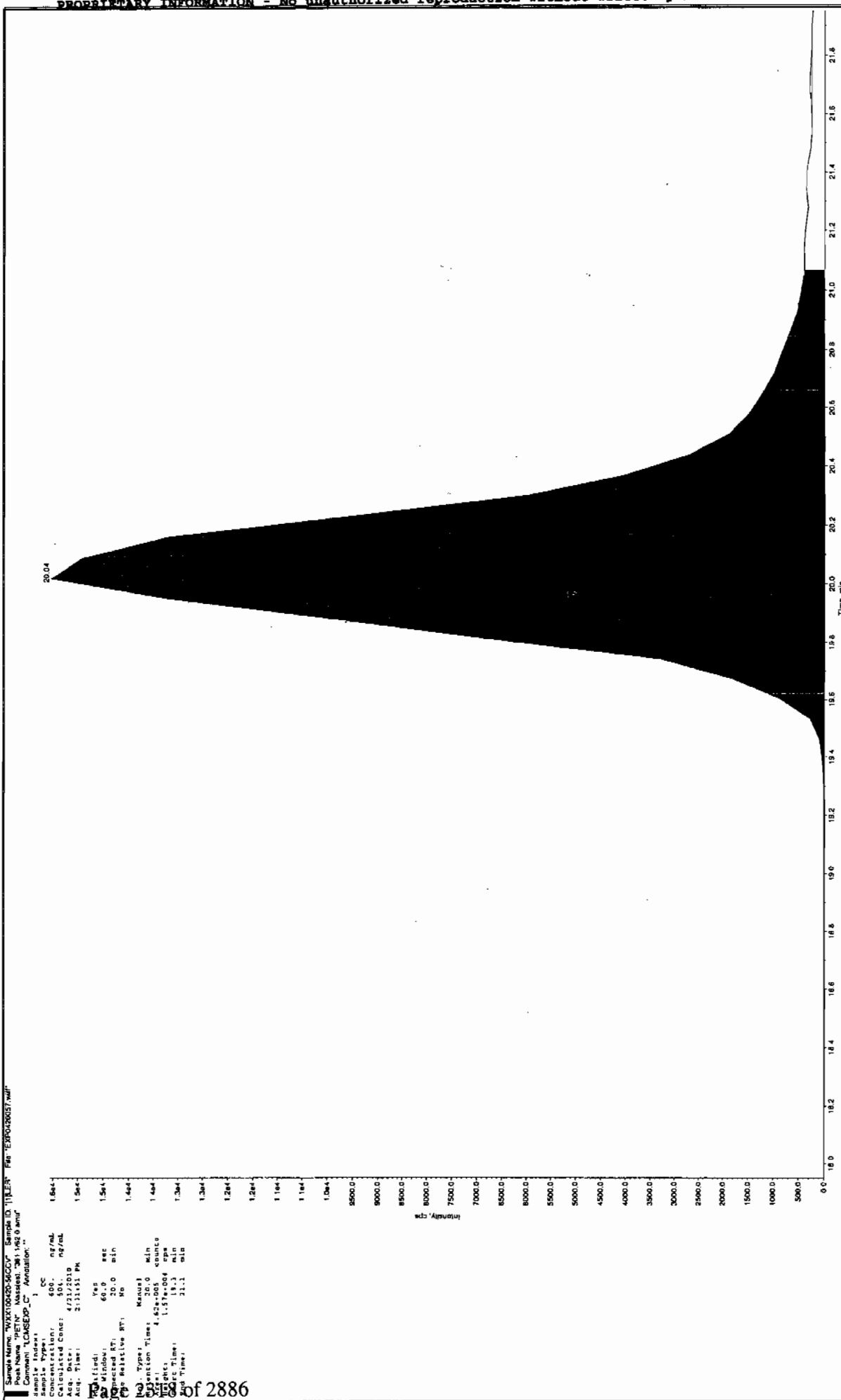
	Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	19.0
	Area Counts:	3.35e+005
	Manual Modification	No
	Amount:	350. (ng/mL)
	% Accuracy:	58.30

Before Jan 4/1900



\*GEL SOP GL-0A-E-056, Method 8321A-Modified LCMSMS#3

after den 4/20/10



Sample Name: WAX10000-54007 Sample ID: 111537 File: EXP000057.nml

Peak Name: "PE1" Masses: 361.1432 0 amu

Compound: "LCMSDEP\_C" Annotation: "

Sample Inset:

Concentration: 500. ng/ml

Calculated Conc: 500. ng/ml

Acq. Date: 4/21/2019

Acq. Time: 21:11:51 PM

QC:

QC Window: 60.0 sec

QC Window: 20.0 min

QC Window: 20.0 min

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QC Window: 20.0 min

QC Window: 20.0 min

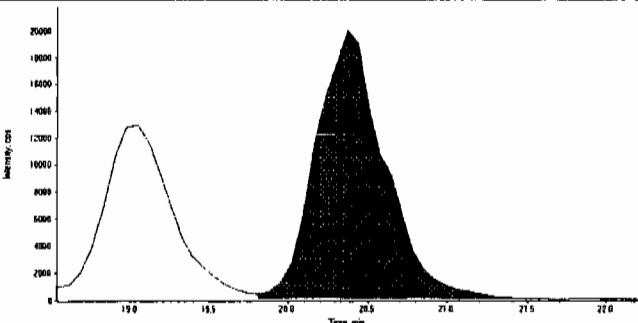
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

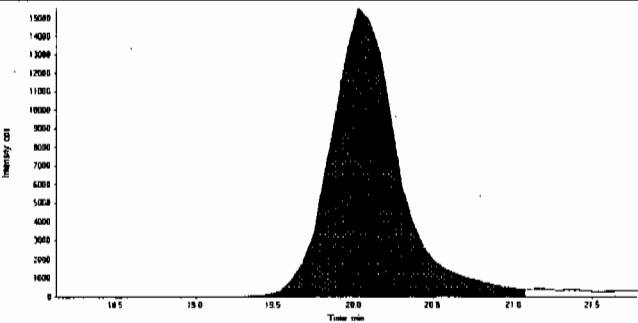
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420057.wiff	<b>Acquisition Date</b>	4/21/2010 2:31:51 PM
<b>Sample Name</b>	WXX100420-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	20.4
	<b>Area Counts:</b>	6.05e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	437. (ng/mL)
	<b>% Accuracy:</b>	72.80

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	20.0
	<b>Area Counts:</b>	4.62e+005
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	504. (ng/mL)
	<b>% Accuracy:</b>	84.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/21/10  
 Time of Injection 1431  
 Standard Number WXX100420-56CCV  
 Data File EXP0420057a

HMX	107.0
RDX	133.0
135-Trinitrobenzene	116.0
13-Dinitrobenzene	101.0
Tetryl	102.0
246-Trinitrotoluene	73.8
Nitrobenzene	97.0
34-dinitrotoluene	91.9
26-dinitrotoluene	89.1
24-dinitrotoluene	106.0
4-Amino-26-dinitrotoluene	93.5
2-Amino-46-dinitrotoluene	80.5
2-Nitrotoluene	55.1
4-Nitrotoluene	58.3
3-Nitrotoluene	72.8
PETN	84.0

TOTAL

✓ 1461.0 *thru 04/24/10*

AVERAGE

✓ 91.3

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Jan  
4/28/10*



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0420059.wiff

Analysis Date: 21-APR-10 15:23

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	60.9	152	*
2,4,6-Trinitrotoluene	40	44.5	111	
2,4-Dinitrotoluene	40	44.2	111	
2,6-Dinitrotoluene	40	36.6	92	
2-Amino-4,6-dinitrotoluene	40	39	98	
3,4-Dinitrotoluene	20	15	75	
4-Amino-2,6-dinitrotoluene	40	38.9	97	
HMX	40	43.4	108	
Nitrobenzene	40	43.7	109	
PETN	40	42	105	
RDX	40	39.9	100	
Tetryl	40	43.4	108	
m-Dinitrobenzene	40	44.3	111	
m-Nitrotoluene	40	37.7	94	
o-Nitrotoluene	40	51.1	128	
p-Nitrotoluene	40	41.5	104	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

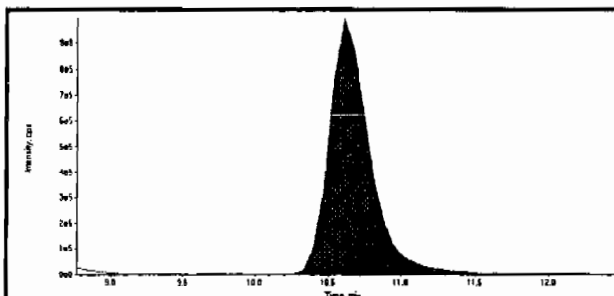
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

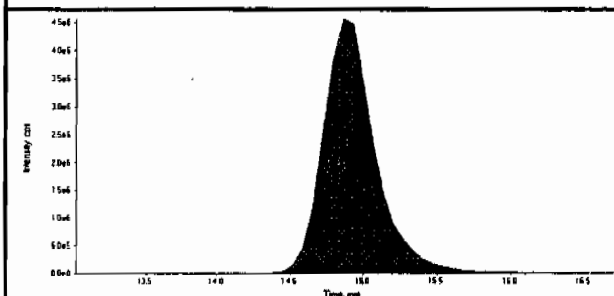
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

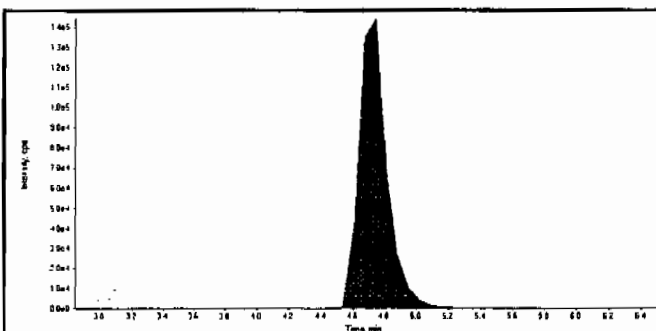
Data File	EXP0420059.wiff	Acquisition Date	4/21/2010 3:23:33 PM
Sample Name	WXX100420-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



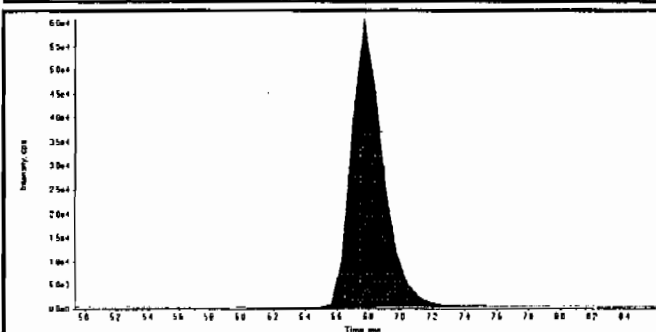
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	19500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	115000000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



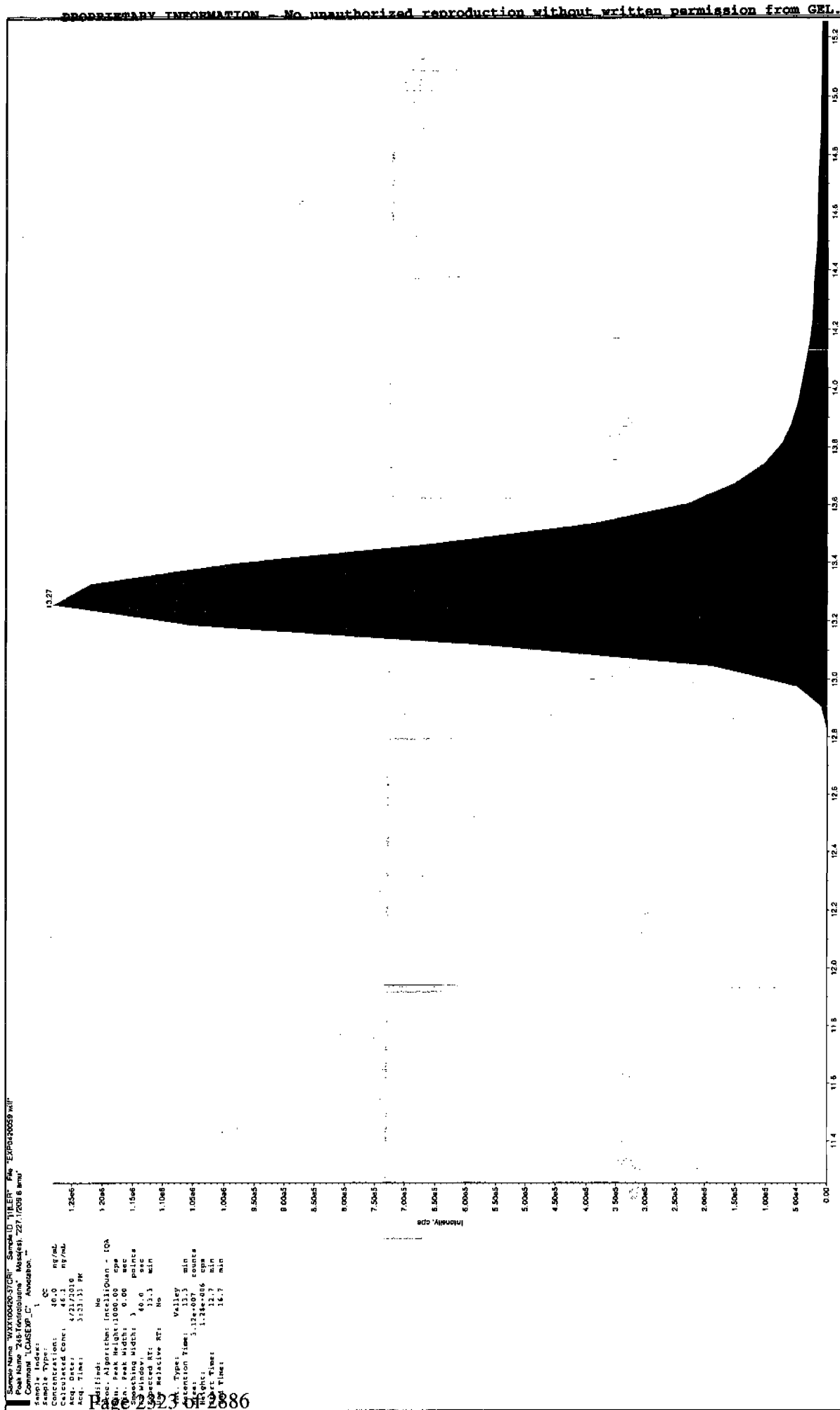
Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	1.81e+006
Manual Modification	No
Amount:	43.4 (ng/mL)
% Accuracy:	108.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	8.59e+005
Manual Modification	No
Amount:	39.9 (ng/mL)
% Accuracy:	99.70

*Handwritten signatures and dates:*  
JLW 4/29/10  
Hmw 04/29/10

Before Jan 4/28/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Scan 4/28/10

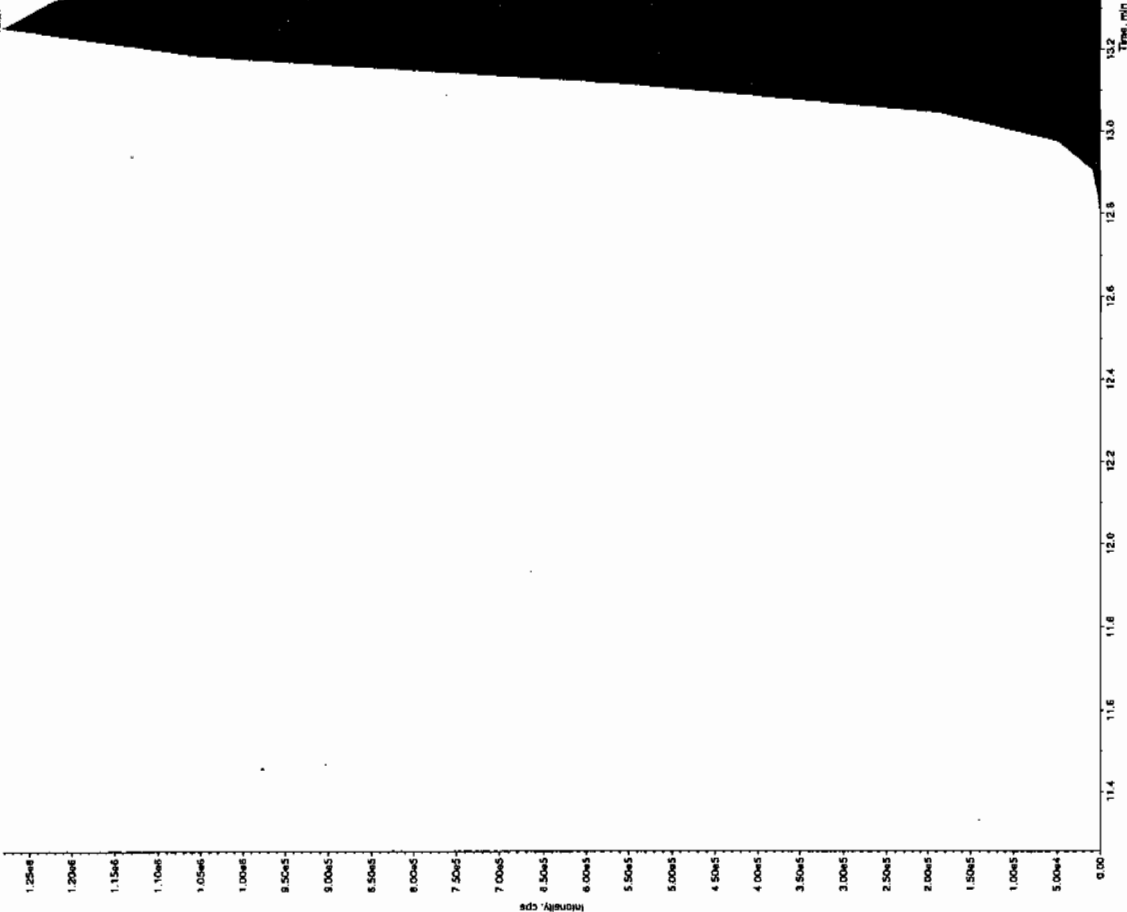
Sample Name: "XX100261505" Sample ID: "1115" File: "EXP043059.wif"

Peak Name: "243-Tetradekane" Method: "221 1208.8 nm"

Comment: "LCMS-EXP-C" Annotation: "

Sample Index: 1  
 Sample Type: QC  
 Concentration: 40.0 µg/mL  
 Calculated Conc: 44.5 µg/mL  
 Acq. Date: 4/21/2010  
 Acq. Time: 3:23:33 PM  
 Diluted: Yes  
 Window: 60.0 sec  
 Projected RT: 13.3 min  
 Relative RT: No  
 N2 Type: Manual  
 Injection Time: 33.3 min  
 N2 Time: 3.01e+007 counts  
 N2 Conc: 1.23e+006 cps  
 N2 Time: 13.7 min  
 N2 Time: 34.1 min

13.27



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420059.wiff	<b>Acquisition Date</b>	4/21/2010 3:23:33 PM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	9.07
	<b>Area Counts:</b>	1.60e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	60.9 (ng/mL)
	<b>% Accuracy:</b>	152.00

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	4.44e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	44.3 (ng/mL)
	<b>% Accuracy:</b>	111.00

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	10.8
	<b>Area Counts:</b>	3.51e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	43.4 (ng/mL)
	<b>% Accuracy:</b>	108.00

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.3
	<b>Area Counts:</b>	3.01e+007
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	44.5 (ng/mL)
	<b>% Accuracy:</b>	111.00

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420059.wiff	<b>Acquisition Date</b>	4/21/2010 3:23:33 PM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.9
	<b>Actual RT:</b>	11.9
	<b>Area Counts:</b>	1.88e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	43.7 (ng/mL)
	<b>% Accuracy:</b>	109.00

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.1
	<b>Actual RT:</b>	12.2
	<b>Area Counts:</b>	2.99e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	15.0 (ng/mL)
	<b>% Accuracy:</b>	75.10

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.9
	<b>Actual RT:</b>	15.0
	<b>Area Counts:</b>	5.27e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	36.6 (ng/mL)
	<b>% Accuracy:</b>	91.50

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.6
	<b>Actual RT:</b>	15.6
	<b>Area Counts:</b>	2.08e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	44.2 (ng/mL)
	<b>% Accuracy:</b>	111.00

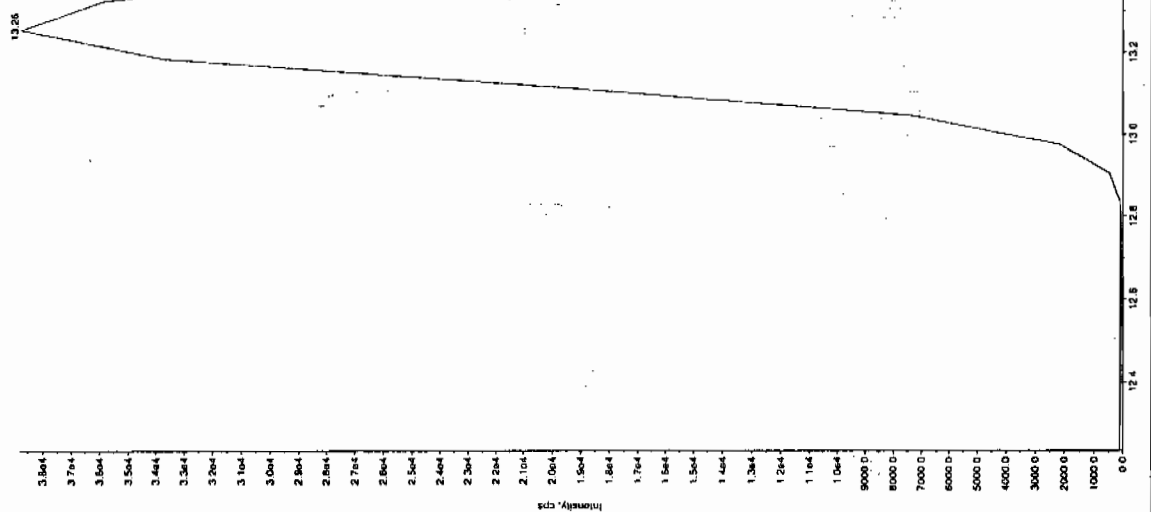
Before Jan 4/28/10

Sample Name: "W2X100420-57CR" Sample ID: "L1E1" File: "EXP020035.wil"  
 Peak Name: "L1E1" Retention Time: 13.26 min  
 Peak Name: "L1E2" Retention Time: 14.26 min

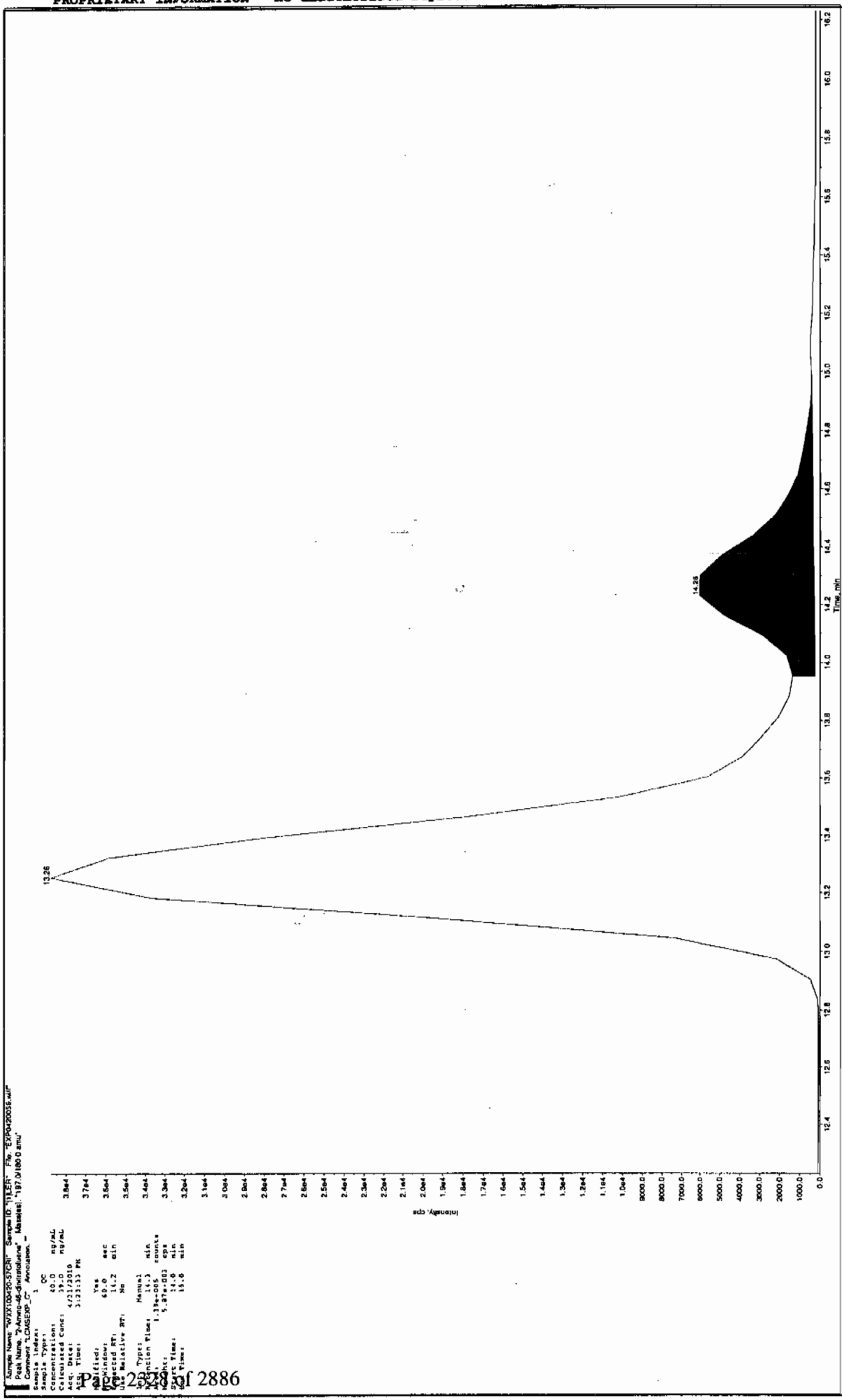
Sample Type: QC  
 Concentration: 40.0 ng/mL  
 Acquisition Date: 4/21/2010  
 Acquisition Time: 1:23:13 PM

Method: MS  
 Peak Height: 100.00 cps  
 Peak Width: 0.00 sec  
 Smoothing Width: 3.00 points  
 Smoothing: 10.00 points  
 Retention Time: 14.2 min  
 Relative RT: 100.00%

System: Valley  
 Retention Time: 14.2 min  
 Peak Height: 1.57e+005 counts  
 Peak Width: 3.87e+003 cps  
 Smoothing Width: 1.00 points  
 Smoothing: 15.00 points



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

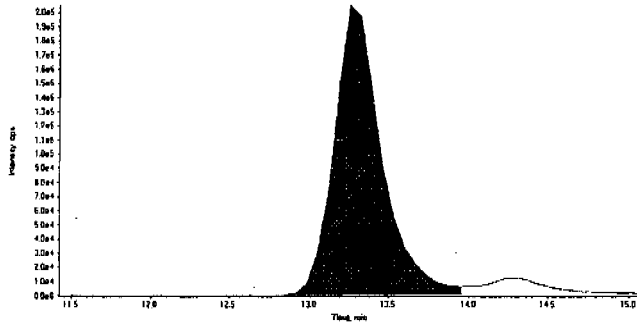


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

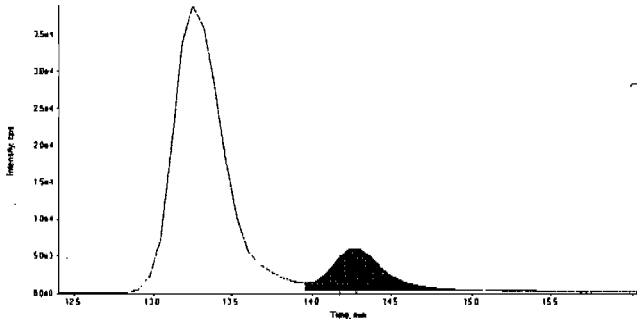
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420059.wiff	<b>Acquisition Date</b>	4/21/2010 3:23:33 PM
<b>Sample Name</b>	WXX100420-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

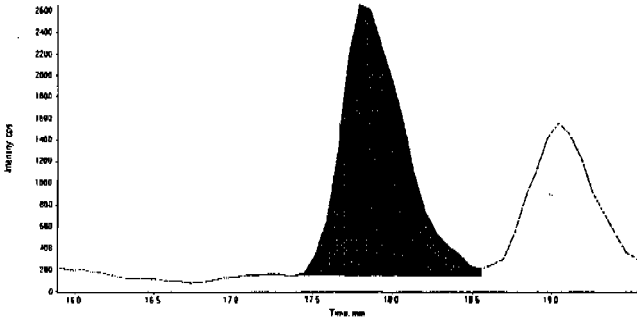
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	4.33e+006
	Manual Modification	No
	Amount:	38.9 (ng/mL)
	% Accuracy:	97.30

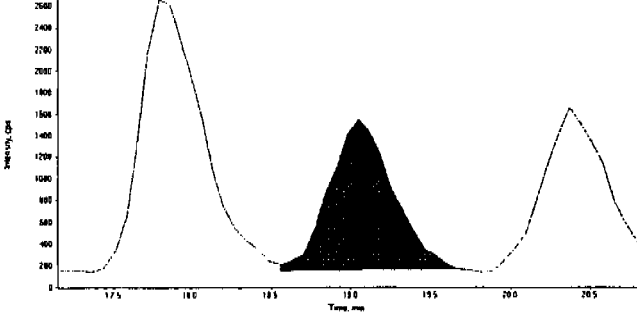
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.3
	Area Counts:	1.39e+005
	Manual Modification	Yes
	Amount:	39.0 (ng/mL)
	% Accuracy:	97.60

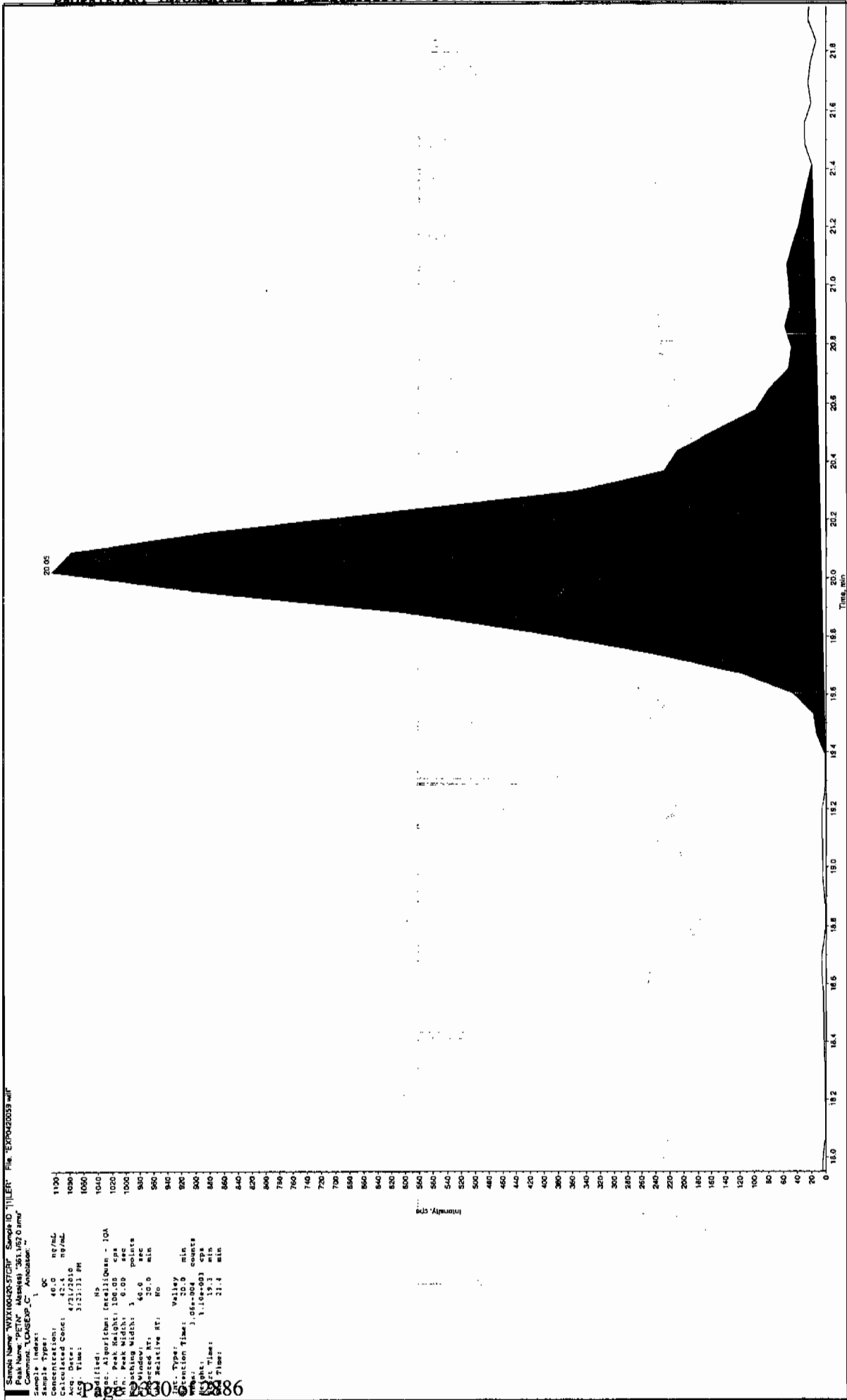
  

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	17.8
	Area Counts:	7.08e+004
	Manual Modification	No
	Amount:	51.1 (ng/mL)
	% Accuracy:	128.00

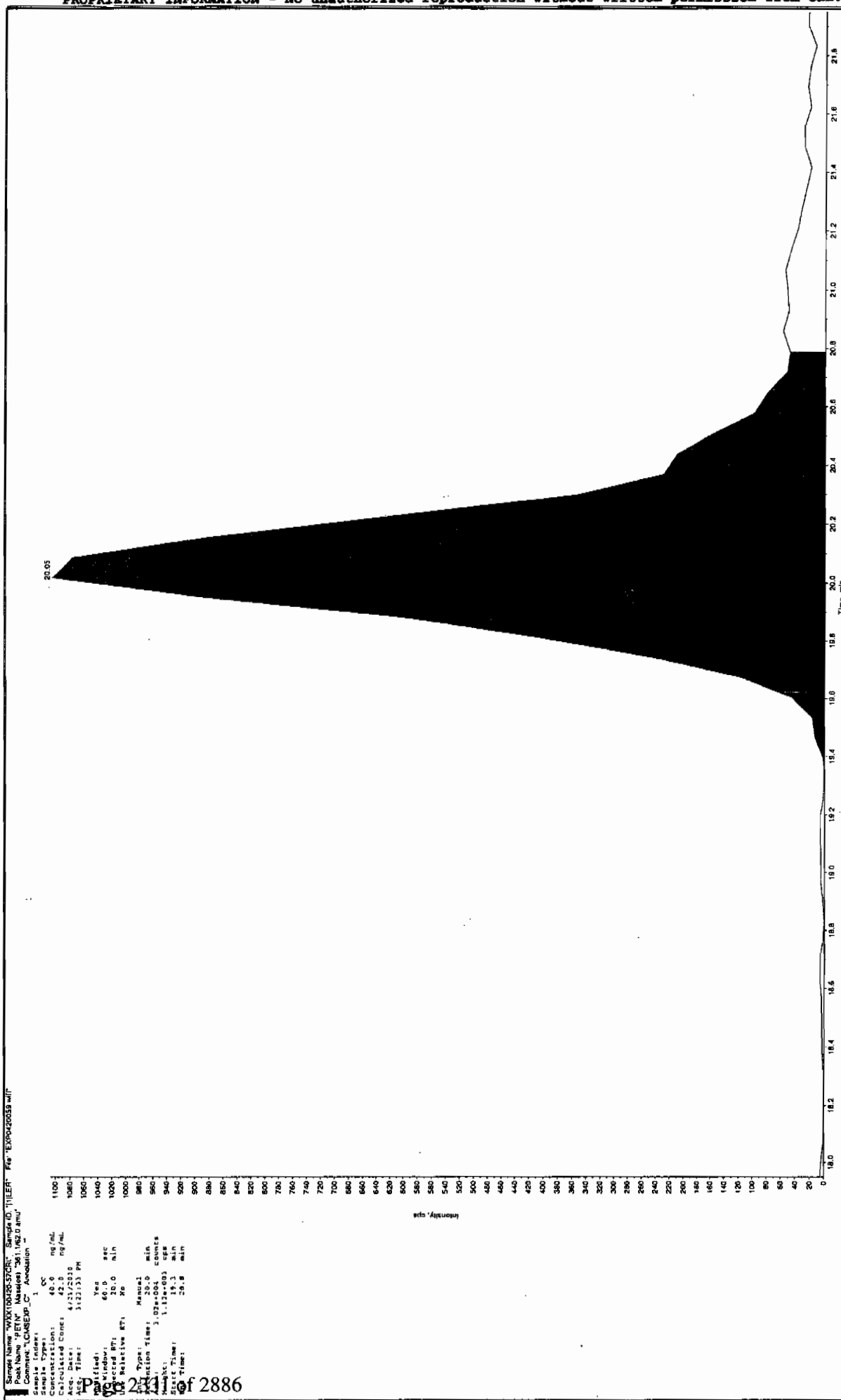
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	19.0
	Area Counts:	3.97e+004
	Manual Modification	No
	Amount:	41.5 (ng/mL)
	% Accuracy:	104.00

Before Jan 4/20/00



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after denaturation



Sample Name: WXX100053701; Sample ID: 11111111; File: E00042059.wif

Peak Name: PETN; Mass(es): 361.1462.0 amu

Comment: LCMS/MS; Acquisition: 1

Sample Index: 1

Concentration: 40.0 ng/mL

Calculated Conc: 42.0 ng/mL

Acq. Date: 4/11/2018

Acq. Time: 3:22:13 PM

Acq. File: 1040

Acq. Path: 1040

Acq. Window: 40.0 sec

Acq. Method: 20.0 min

Acq. Type: Manual

Acq. Version: 1.0

Acq. Date: 4/11/2018

Acq. Time: 3:22:13 PM

Acq. File: 1040

Acq. Path: 1040

Acq. Window: 40.0 sec

Acq. Method: 20.0 min

Acq. Type: Manual

Acq. Version: 1.0

Acq. Date: 4/11/2018

Acq. Time: 3:22:13 PM

Acq. File: 1040

Acq. Path: 1040

Acq. Window: 40.0 sec

Acq. Method: 20.0 min

Acq. Type: Manual

Acq. Version: 1.0

Acq. Date: 4/11/2018

Acq. Time: 3:22:13 PM

Acq. File: 1040

Acq. Path: 1040

Acq. Window: 40.0 sec

Acq. Method: 20.0 min

Acq. Type: Manual

Acq. Version: 1.0

Acq. Date: 4/11/2018

Acq. Time: 3:22:13 PM

Acq. File: 1040

Acq. Path: 1040

Acq. Window: 40.0 sec

Acq. Method: 20.0 min

Acq. Type: Manual

Acq. Version: 1.0

Acq. Date: 4/11/2018

Acq. Time: 3:22:13 PM

Acq. File: 1040

Acq. Path: 1040

Acq. Window: 40.0 sec

Acq. Method: 20.0 min

Acq. Type: Manual

Acq. Version: 1.0

Acq. Date: 4/11/2018

Acq. Time: 3:22:13 PM

Acq. File: 1040

Acq. Path: 1040

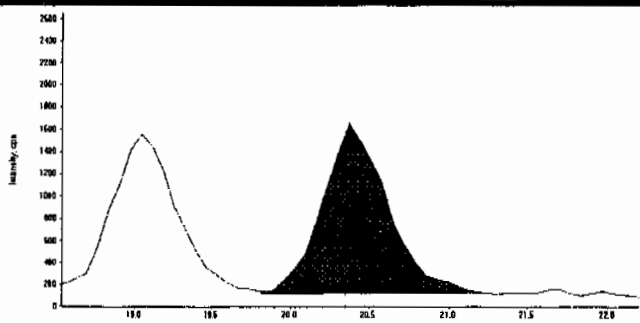
Acq. Window: 40.0 sec

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

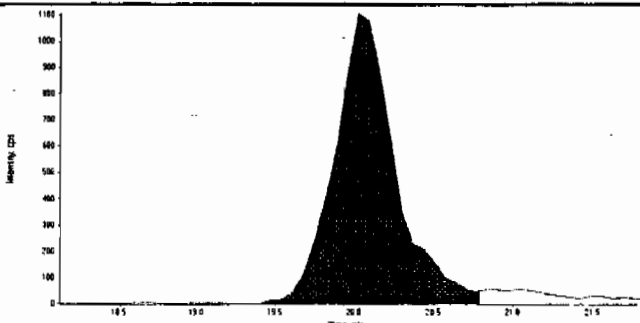
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420059.wiff	Acquisition Date	4/21/2010 3:23:33 PM
Sample Name	WXX100420-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.4
	Actual RT:	20.4
	Area Counts:	4.56e+004
	Manual Modification	No
	Amount:	37.7 (ng/mL)
	% Accuracy:	94.30

	Compound Name:	PETN (361.1/62.0 amu)
	Expected RT:	20.0
	Actual RT:	20.0
	Area Counts:	3.02e+004
	Manual Modification	Yes
	Amount:	42.0 (ng/mL)
	% Accuracy:	105.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/21/10  
 Time of Injection 1523  
 Standard Number WXX100420-57CRI  
 Data File EXP0420059a

HMX	108.0
RDX	99.7
135-Trinitrobenzene	152.0
13-Dinitrobenzene	111.0
Tetryl	108.0
246-Trinitrotoluene	111.0
Nitrobenzene	109.0
34-dinitrotoluene	75.1
26-dinitrotoluene	91.5
24-dinitrotoluene	111.0
4-Amino-26-dinitrotoluene	97.3
2-Amino-46-dinitrotoluene	97.6
2-Nitrotoluene	128.0
4-Nitrotoluene	104.0
3-Nitrotoluene	94.3
PETN	105.0

TOTAL

✓ 1702.5	<i>done 04/29/10</i>
	ICV Limits 85-115%
✓ 106.4	CRI Limits 70-130%
	CCV Limits 85-115%
No single analyte > +/- 60%	

AVERAGE

*Ken*  
*4/28/10*

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0420067.wiff

Analysis Date: 21-APR-10 18:51

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	747	124	
2,4,6-Trinitrotoluene	600	645	108	
2,4-Dinitrotoluene	600	620	103	
2,6-Dinitrotoluene	600	526	88	
2-Amino-4,6-dinitrotoluene	600	615	103	
3,4-Dinitrotoluene	300	262	87	
4-Amino-2,6-dinitrotoluene	600	642	107	
HMX	600	705	117	
Nitrobenzene	600	562	94	
PETN	600	579	97	
RDX	600	616	103	
Tetryl	600	699	116	
m-Dinitrobenzene	600	606	101	
m-Nitrotoluene	600	509	85	
o-Nitrotoluene	600	506	84	
p-Nitrotoluene	600	561	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%

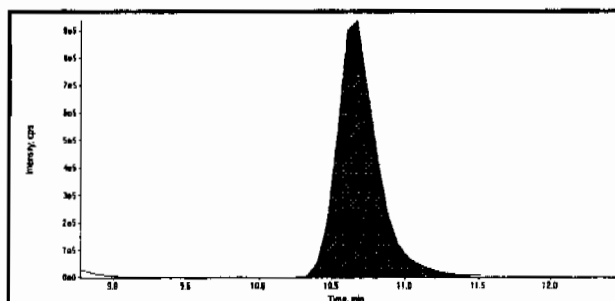
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

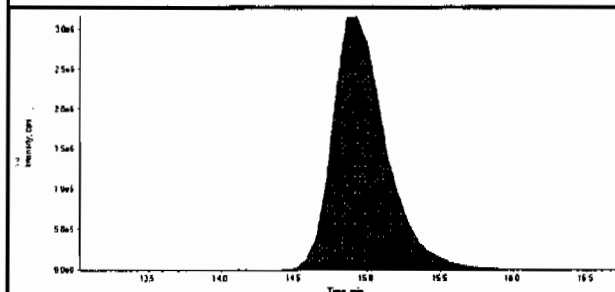
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420067.wiff	Acquisition Date	4/21/2010 6:51:29 PM
Sample Name	WXX100421-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



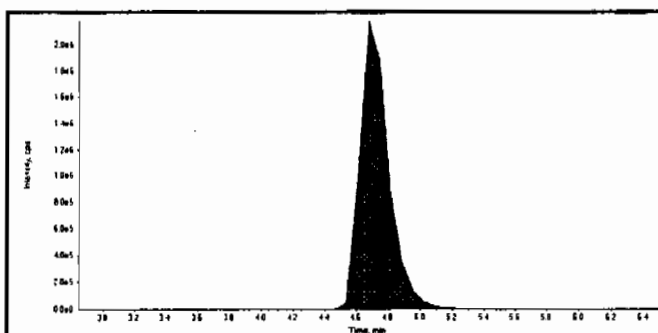
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	18100000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

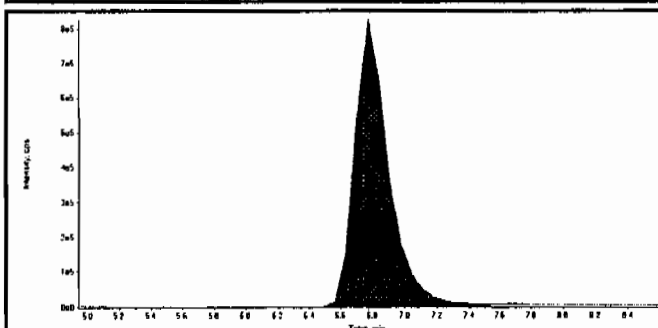


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	81300000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	2.74e+007
Manual Modification	No
Amount:	705. (ng/mL)
% Accuracy:	117.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.23e+007
Manual Modification	No
Amount:	616. (ng/mL)
% Accuracy:	103.00

*don*  
*4/29/10*  
*thm*  
*04/29/10*

Before Jan 4/28/10

Sample Name: "WXX100431560CV" Sample ID: "JILLER" File: "EPR020087.mn"

Peak Name: "245.7 Nitrobenzene" Mass(es): "227.1/209.8 amu"

Channel: "LCMS-EXP\_C" Annotation: "

Sample Index: 1

Concentration: 500 ng/mL

Calculated Conc: 733. ng/mL

Acq. Date: 4/23/2010

Acq. Time: 6:31:29 PM

Method: No

Spec. Algorithm: InelliQuan - IQA

Peak Width: 3.00 points

Smoothing Width: 3.00 points

Window: 60.0 sec

Expected RT: 11.3 min

Observed RT: 6.865 min

Retention Time: 6.406 min

Peak Type: Valley

Integration Time: 11.1 min

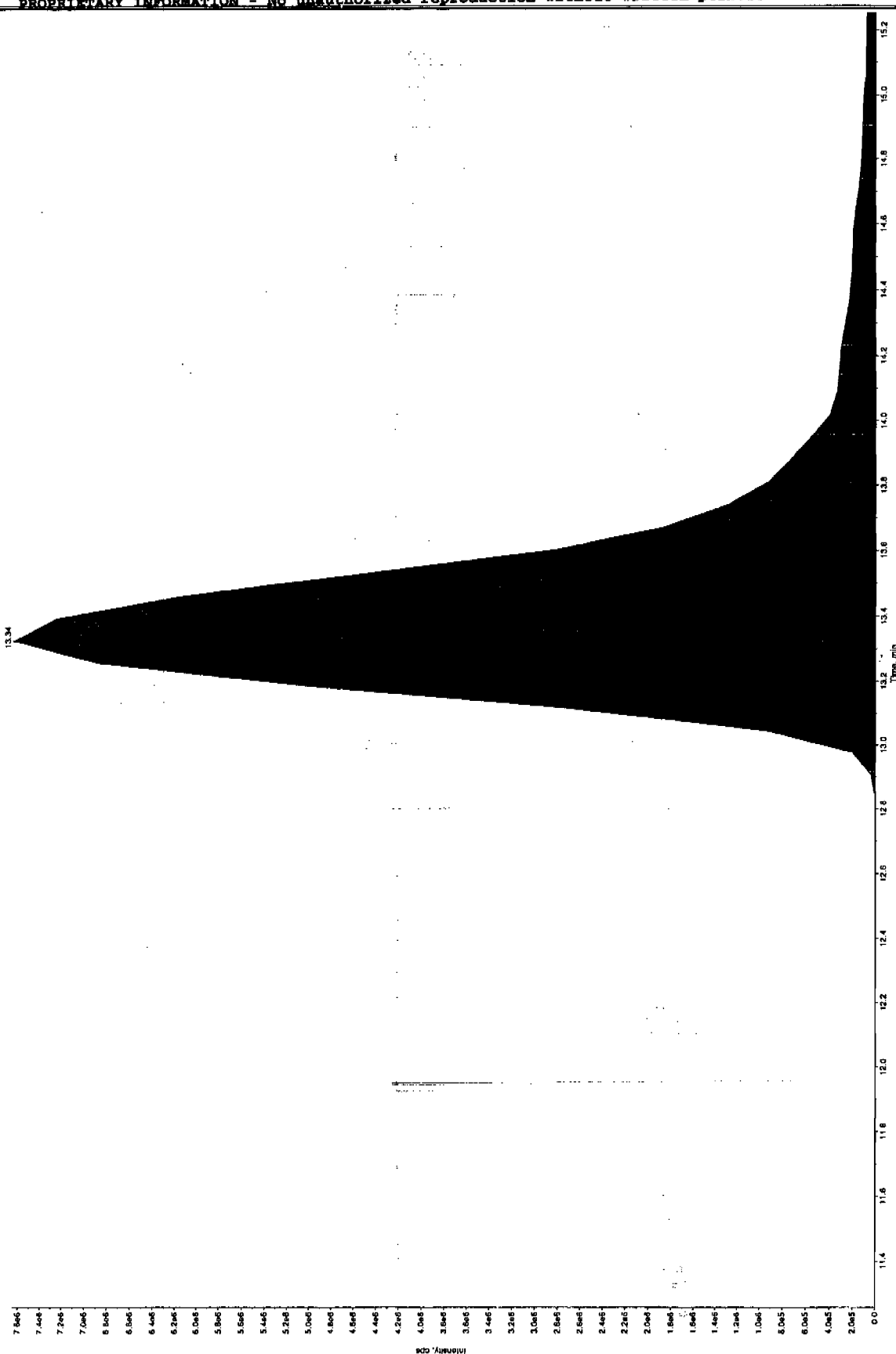
Height: 2744000 counts

Area: 7.44e+06

Peak Time: 12.7 min

Time: 16.0 min

13.34



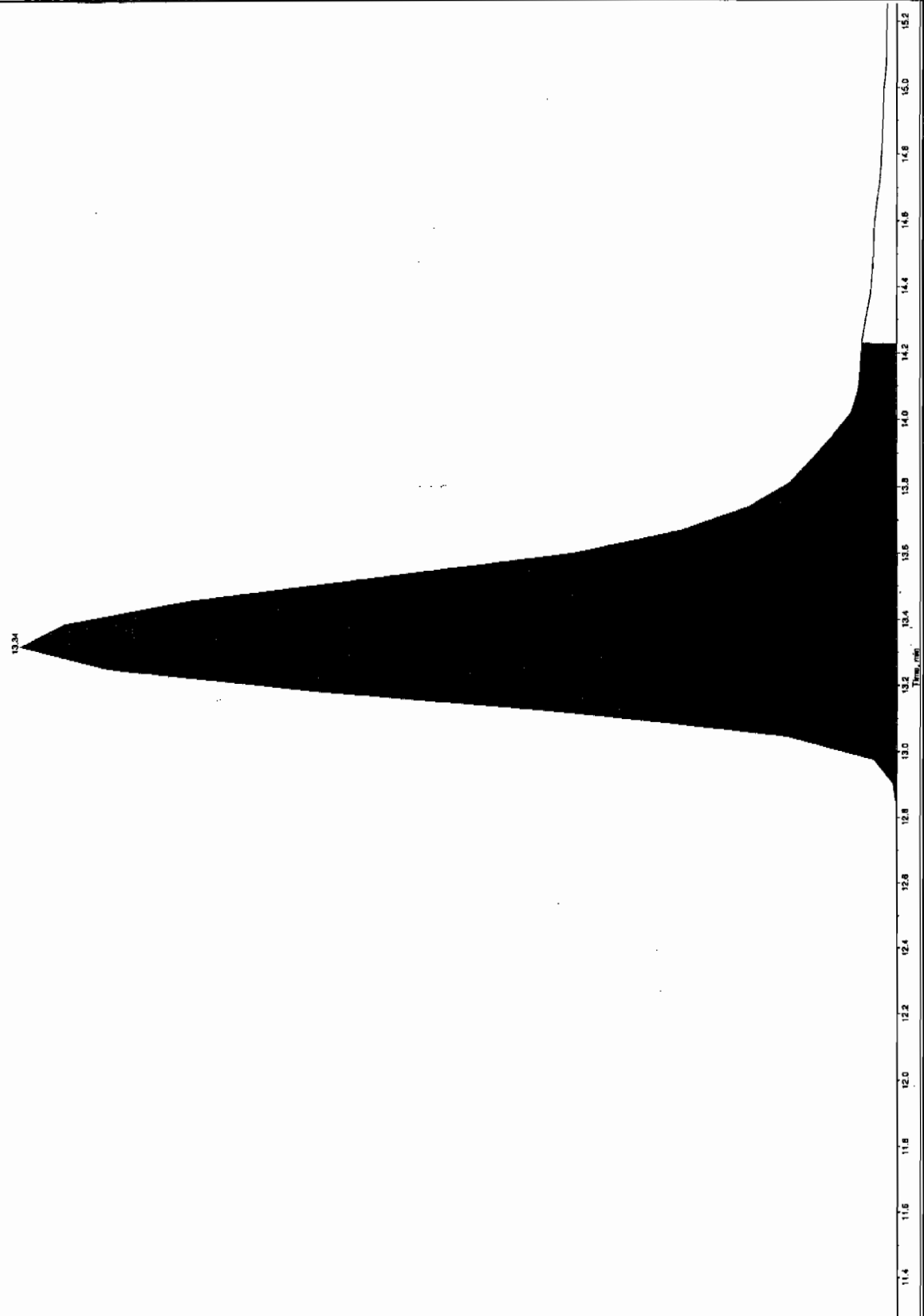
\*GEL SOP GL-OA-E-056; Method 8321A-Modified LCMSMS#3



after 4/28/10

Sample Name: WXX100421-56CCV Sample ID: 11111111 File: EXP0420087.wif  
 Peak Name: 245-Tributylamine Masses: 227.1208.8 amu  
 Comment: LCMSMS\_C Acquisition: 11/11/11

Sample Type: 1 QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 445. ng/mL  
 Acquisition Time: 6:51:19 PM  
 Acquisition Date: 11/11/11  
 Method: 8321A-Modified LCMSMS#3  
 Start Time: 7:55:00.000 cpa  
 Stop Time: 12:18 min  
 Run Time: 147.2 min  
 Relative RT: 11.2 min  
 Manual: Manual  
 Injection Time: 2.11e+008 counts  
 Injection Volume: 10 µL  
 Injection Concentration: 5000 ng/mL  
 Injection Rate: 5000 ng/min  
 Injection Pressure: 10.0 psi  
 Injection Temperature: 10.0 °C  
 Injection Humidity: 10.0 %  
 Injection Flow: 1.0 mL/min  
 Injection Solvent: 100% MeOH  
 Injection Matrix: 100% MeOH  
 Injection Reagent: 100% MeOH  
 Injection Additive: 100% MeOH  
 Injection Buffer: 100% MeOH  
 Injection Salt: 100% MeOH  
 Injection Acid: 100% MeOH  
 Injection Base: 100% MeOH  
 Injection Other: 100% MeOH

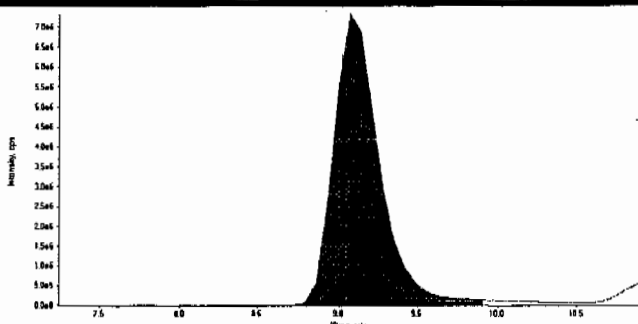


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

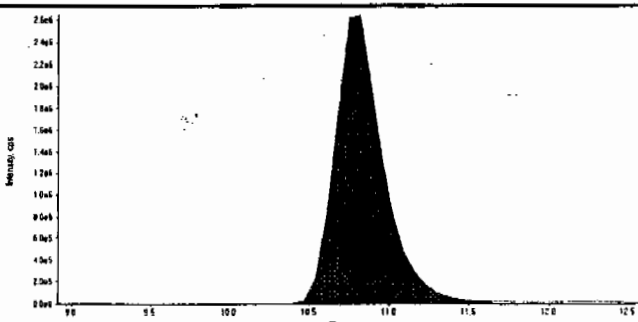
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File EXP0420067.wiff		Acquisition Date	4/21/2010 6:51:29 PM
Sample Name WXX100421-56CCV		Acquisition Method	8321.dam
Batch Dilution Analyst  1 LER		Result Table	042010.rdb
Procedure Code LCMSEXP_C		Sample Type	Quality Control

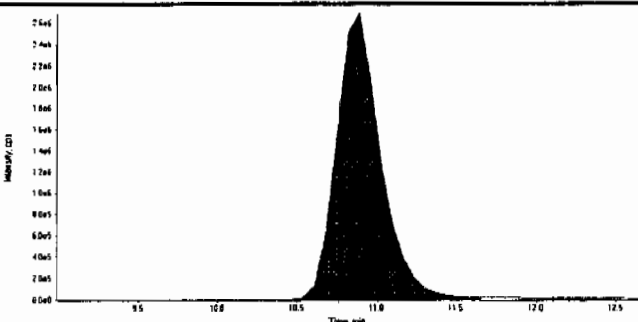
  

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.07
	Actual RT:	9.07
	Area Counts:	1.48e+008
	Manual Modification	No
	Amount:	747. (ng/mL)
	% Accuracy:	124.00

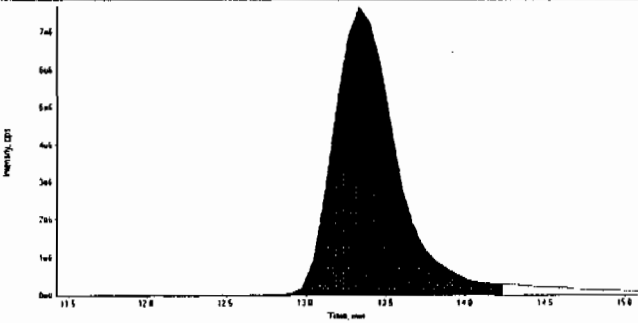
  

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.8
	Area Counts:	5.65e+007
	Manual Modification	No
	Amount:	606. (ng/mL)
	% Accuracy:	101.00

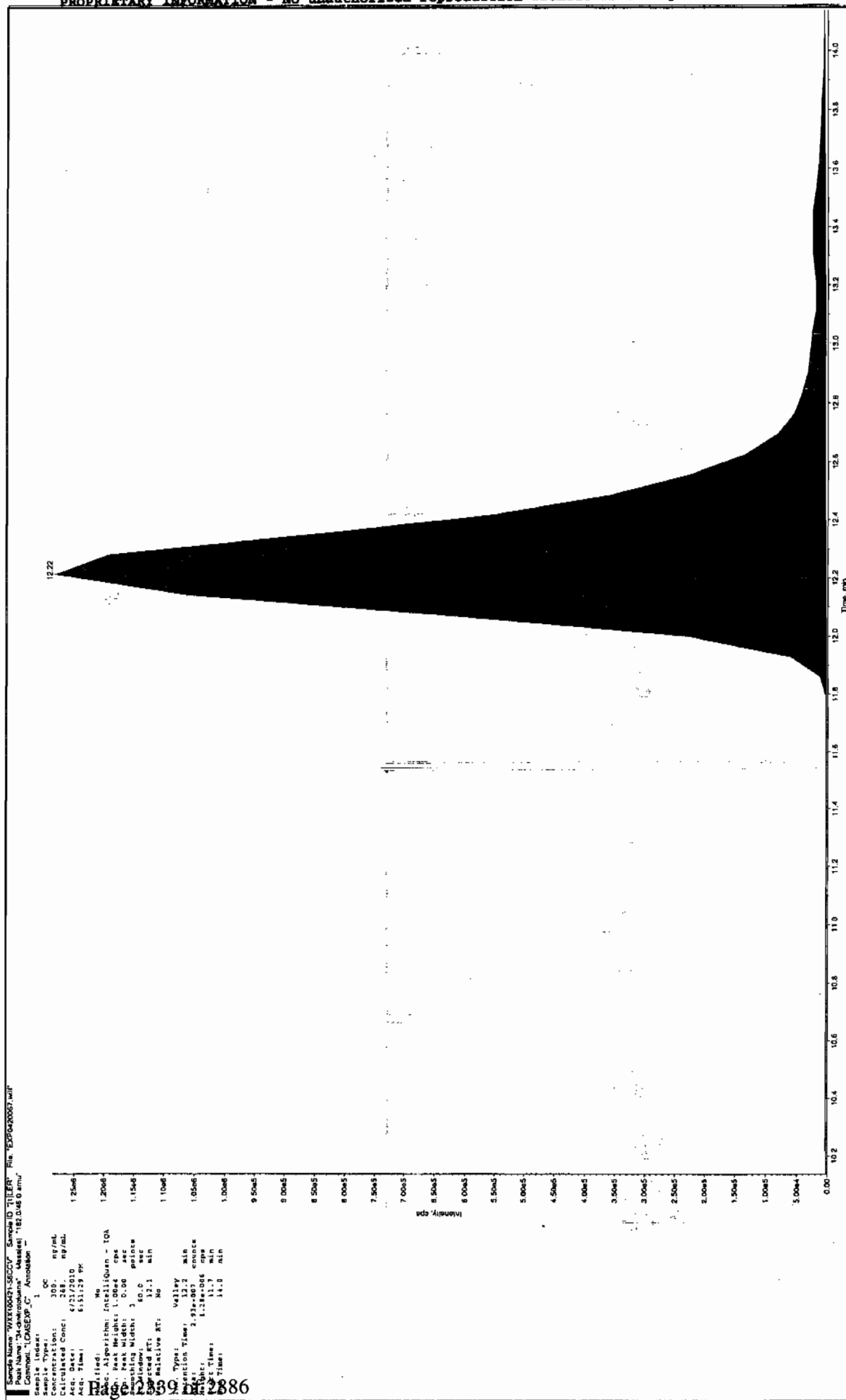
  

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.8
	Actual RT:	10.9
	Area Counts:	5.27e+007
	Manual Modification	No
	Amount:	699. (ng/mL)
	% Accuracy:	116.00

	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	2.11e+008
	Manual Modification	Yes
	Amount:	645. (ng/mL)
	% Accuracy:	108.00

Before Sep 4/28/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/28/10

Sample Name: "J1X10000-5620P" Sample ID: "J1LEP" File: "EPC42007.MP"

Peak Name: "4-dimethylamine" Mass(es): "182.046.0 amu"

Comment: "LCMS-EXP-C" Annotation: ""

Sample Index: 1

Sample Type: GC

Concentration: 200 ng/ml

Calculated Conc: 262 ng/ml

Acq. Date: 4/21/2010

Acq. Time: 6:51:29 PM

Acq. Method: Yes

Acq. Window: 60.0 sec

Acq. Delay: 12.1 min

Acq. Derivative RT: No

Acq. Type: Manual

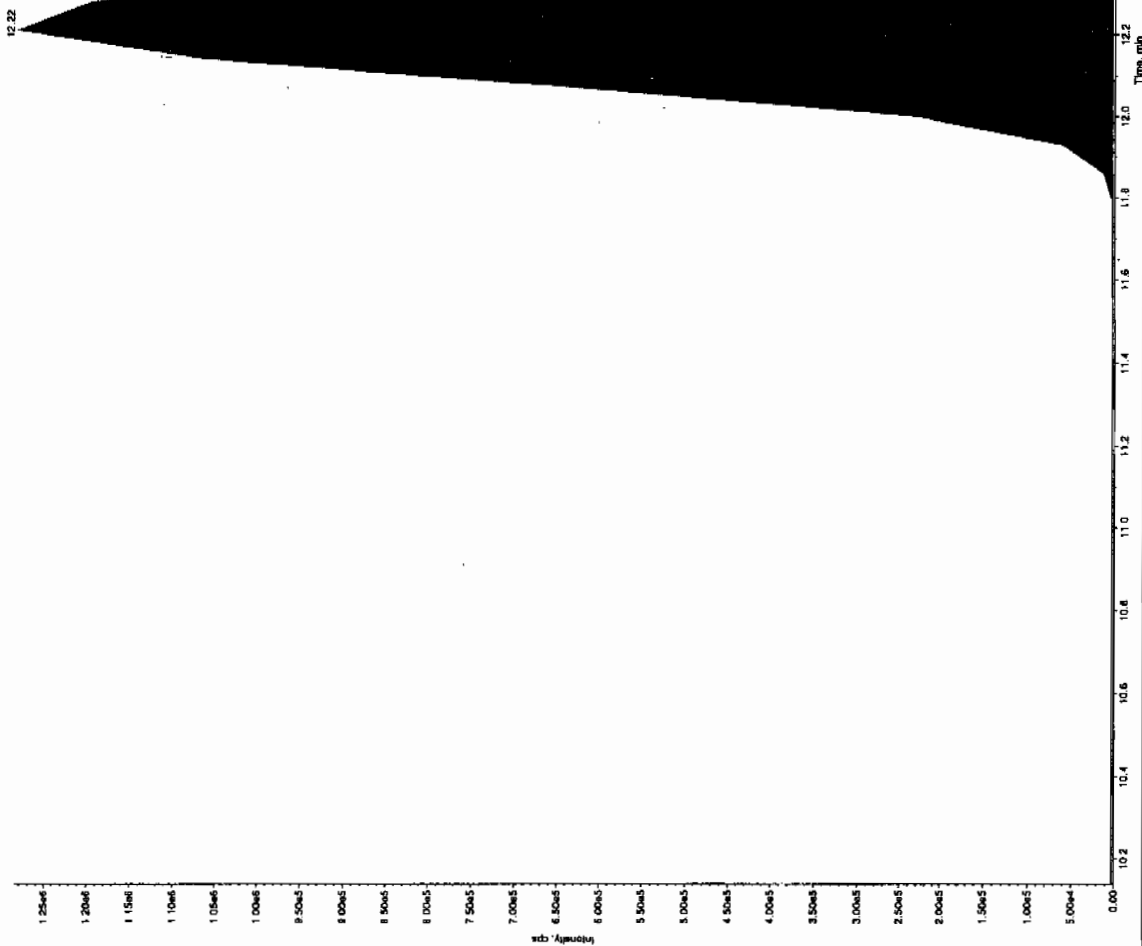
Acq. Retention Time: 12.2 min

Acq. Delay: 2.86e+0096 counts

Acq. Delay: 1.35e+006 min

Acq. Delay: 11.7 min

Acq. Delay: 11.1 min



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\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420067.wiff	<b>Acquisition Date</b>	4/21/2010 6:51:29 PM
<b>Sample Name</b>	WXX100421-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	11.9
	Area Counts:	2.27e+006
	Manual Modification	No
	Amount:	562. (ng/mL)
	% Accuracy:	93.70

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.2
	Area Counts:	2.86e+007
	Manual Modification	Yes
	Amount:	262. (ng/mL)
	% Accuracy:	87.30

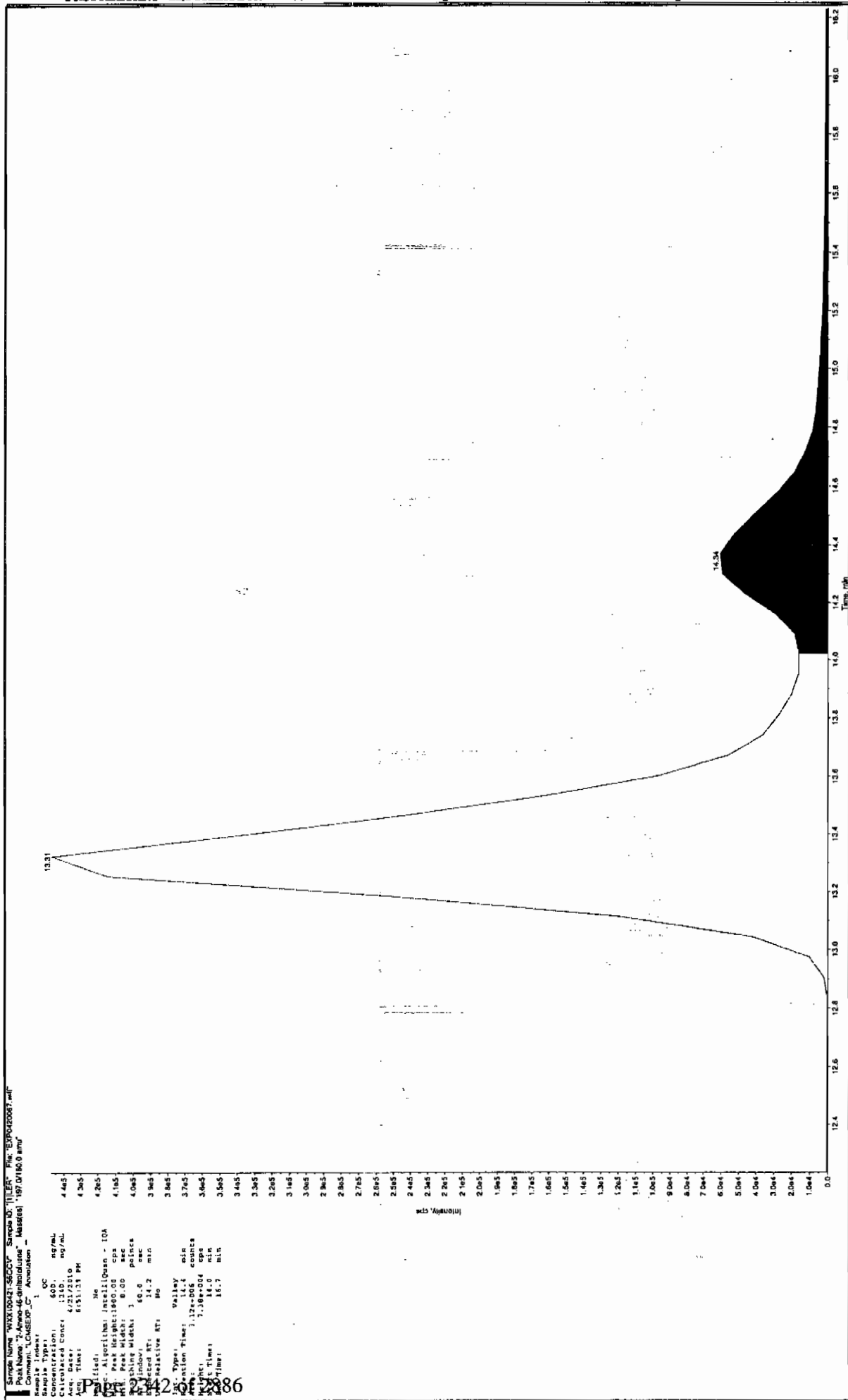
  

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.9
	Actual RT:	15.1
	Area Counts:	4.73e+007
	Manual Modification	No
	Amount:	526. (ng/mL)
	% Accuracy:	87.70

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	15.7
	Area Counts:	2.07e+007
	Manual Modification	No
	Amount:	620. (ng/mL)
	% Accuracy:	103.00

Before Dec 4/28/10



Sample Name: WXYZ10421-62007 Sample ID: 11111111 File: EXP002007.mlf  
 Peak Name: "1,4-bis(4-aminophenyl)-2,5-dimethylbenzene" Mass(es): 197.07160.0 amu  
 Command: "LCMSDEP\_C" Annotation =

Sample Index: 1  
 Sample Name: 1  
 Sample Type: 1  
 Sample Date: 4/22/2010  
 Sample Time: 8:51:13 PM  
 Sample Location: 1  
 Sample Concentration: 600.0 ng/mL  
 Sample Volume: 10.0 µL  
 Sample Weight: 6.00 mg  
 Sample Purity: 60.0 %  
 Sample RT: 14.2 min  
 Sample RT Error: 0.1 min  
 Sample RT Min: 14.1 min  
 Sample RT Max: 14.3 min  
 Sample RT Std Dev: 0.1 min  
 Sample RT CV: 0.7 %  
 Sample RT Type: Valley  
 Sample RT Action Time: 14.4 min  
 Sample RT Delay Time: 1.12 min  
 Sample RT Total Time: 15.52 min  
 Sample RT Time: 14.0 min  
 Sample RT Time: 16.7 min

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/28/10

Sample Name: "W1X100421-SEC01" Sample ID: "T1L01" File: "EXP042007.mpl"

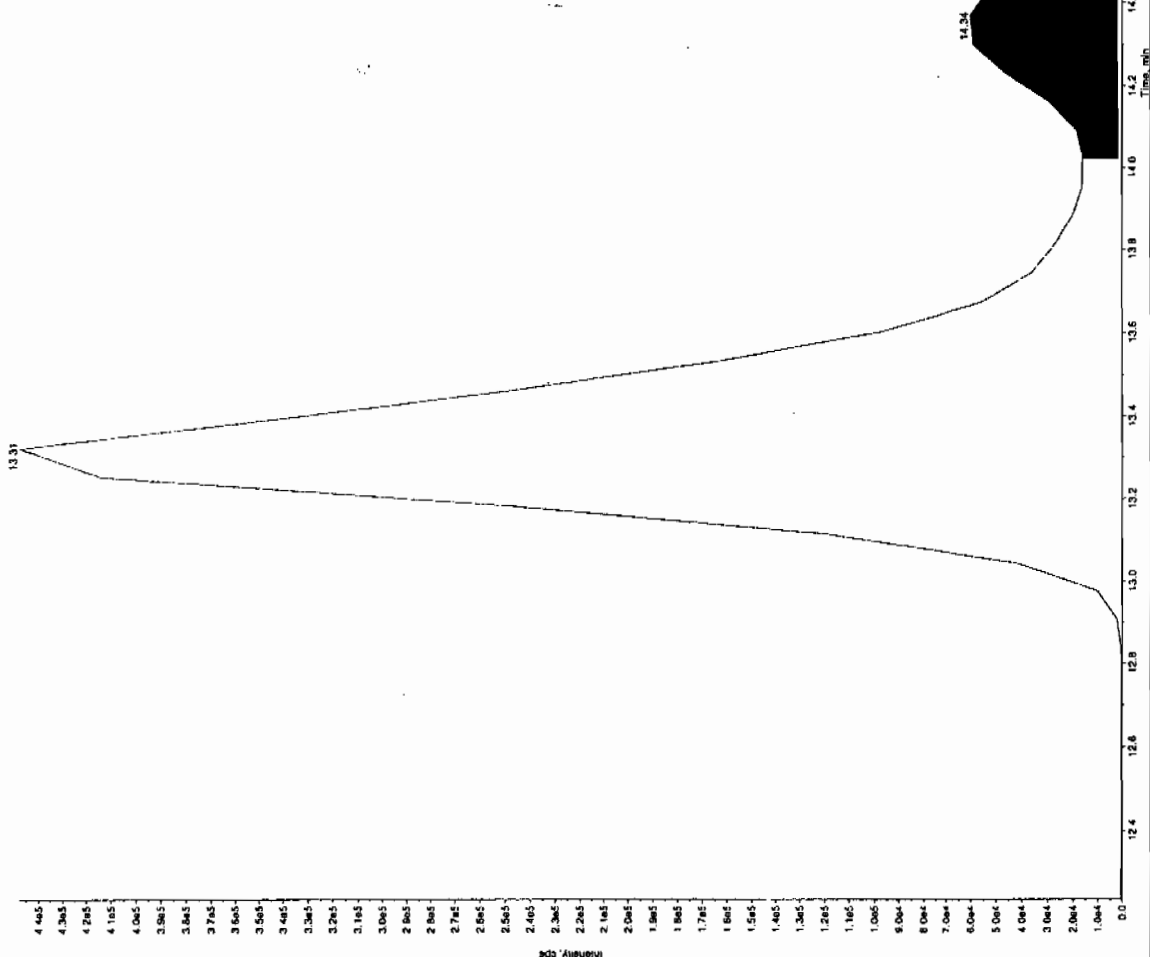
Peak Name: "2-Amino-4-dimethylamine" Mass(es): "197.07180.0 amu"

Channel: "LCMS01-C" Acquisition:

Sample Type: 1 QC  
Concentration: 600. ng/mL  
Calculated Conc: 615.0 ng/mL  
Acq. Time: 6/15/10 PM

Peak 1:  
Found: Yes  
Height: 615.0 cps  
Width: 14.0 min  
Retention RT: 14.34 min  
Relative RT: No

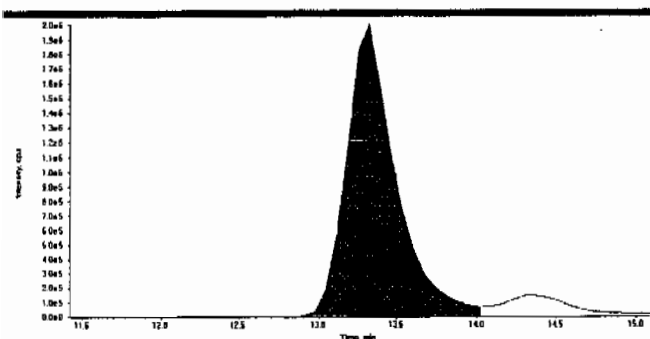
Peak 2:  
Type: Manual  
Retention Time: 13.31 min  
Height: 1.55E+006 counts  
Width: 5.32E+004 cps  
Start Time: 14.0 min  
End Time: 15.2 min



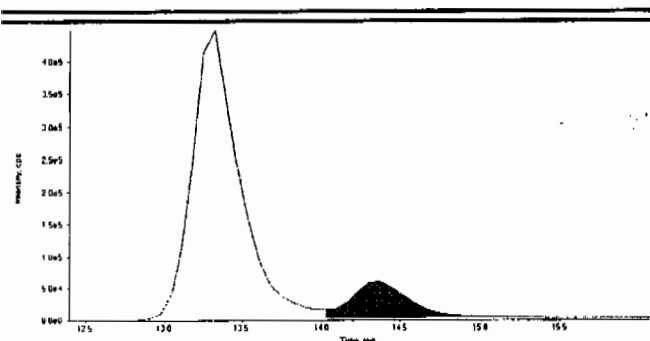
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

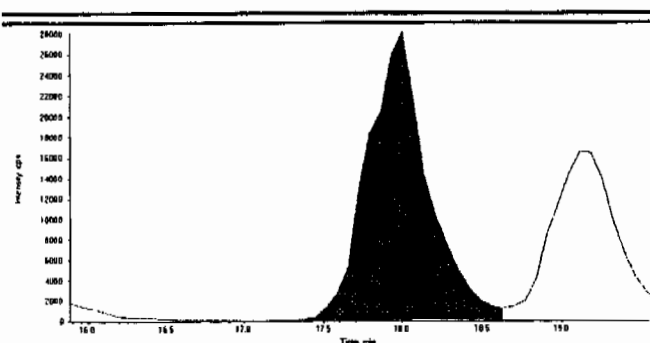
Data File	EXP0420067.wiff	Acquisition Date	4/21/2010 6:51:29 PM
Sample Name	WXX100421-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



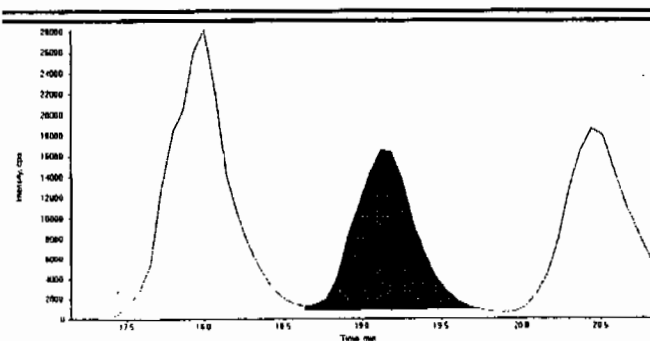
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	13.3
Area Counts:	4.46e+007
Manual Modification	No
Amount:	642. (ng/mL)
% Accuracy:	107.00



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.2
Actual RT:	14.3
Area Counts:	1.55e+006
Manual Modification	Yes
Amount:	615. (ng/mL)
% Accuracy:	103.00



Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.7
Actual RT:	18.0
Area Counts:	7.61e+005
Manual Modification	No
Amount:	506. (ng/mL)
% Accuracy:	84.30



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	19.1
Area Counts:	4.35e+005
Manual Modification	No
Amount:	561. (ng/mL)
% Accuracy:	93.50



Before Jan 4/19/10

Sample Name: 8321A-E-056, Scan ID: 1182, File: 8321A-E-056.wif

Sample Index: 1

Sample Type: GC

Sample Concentration: 1.44e-05

Sample Volume: 1.00

Acq. Date: 4/21/2016

Acq. Time: 6:53:13 PM

Modified: No

File: Algorithm: IntelliQuan - ICA

Peak Height: 100.00 cps

Peak Width: 0.00 sec

Peak Area: 0.00

Peak Width: 0.00 sec

Peak Area: 0.00

Peak Width: 0.00 sec

Peak Area: 0.00

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Peak Width: 0.00 sec

Peak Area: 0.00

Peak Width: 0.00 sec

Peak Area: 0.00

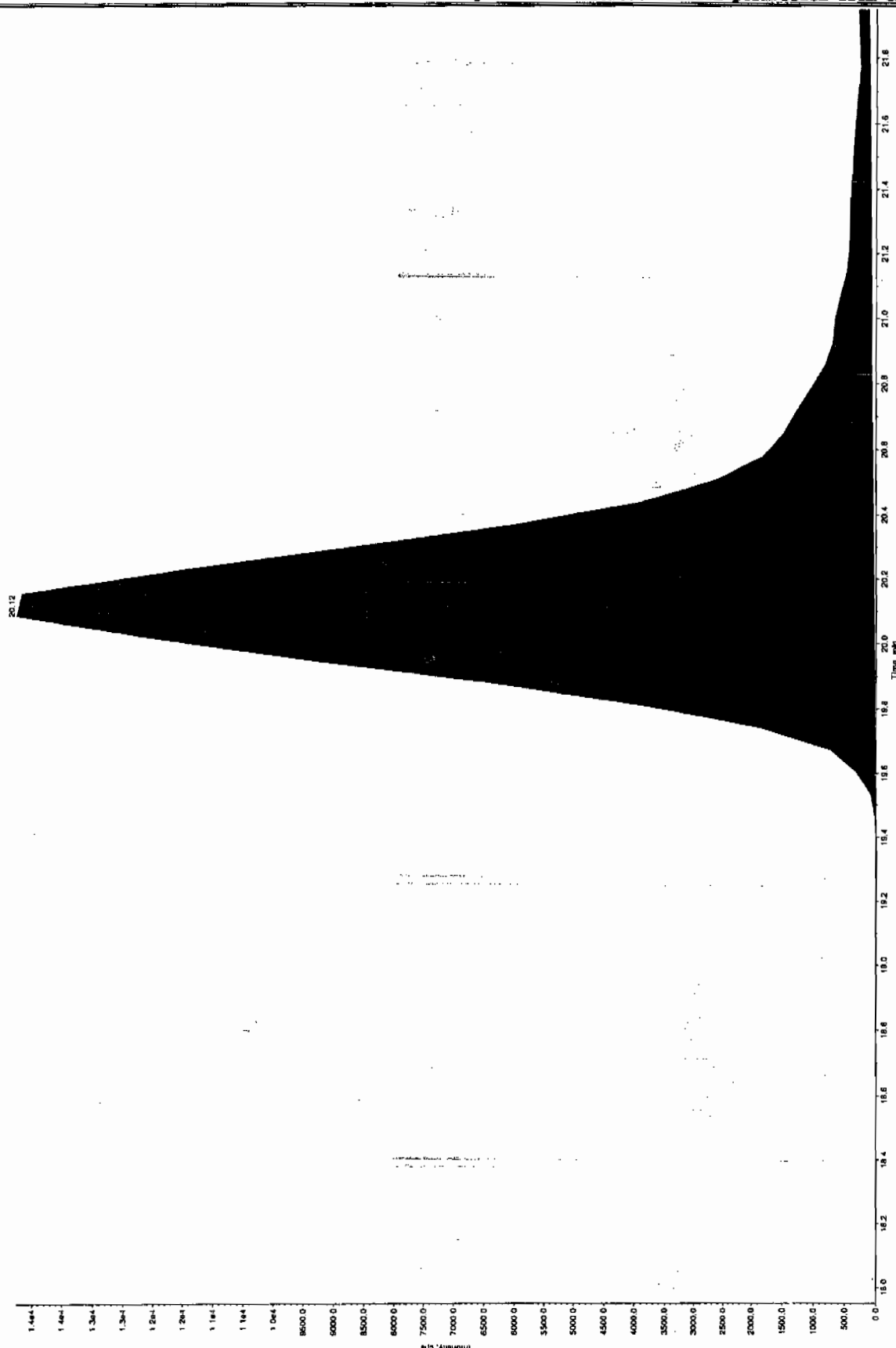
Peak Width: 0.00 sec

Peak Area: 0.00

Peak Width: 0.00 sec

Peak Area: 0.00

Peak Width: 0.00 sec



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

8886



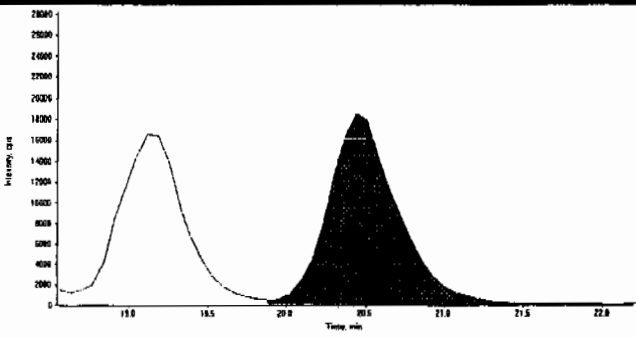
\*GEL SOP GL-0A-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

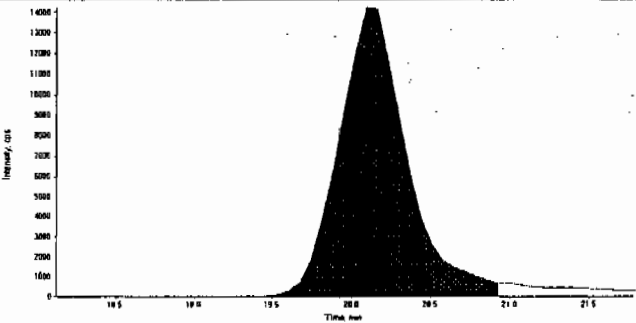
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420067.wiff	<b>Acquisition Date</b>	4/21/2010 6:51:29 PM
<b>Sample Name</b>	WXX100421-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	20.4
	<b>Area Counts:</b>	5.70e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	509. (ng/mL)
	<b>% Accuracy:</b>	84.90

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	20.1
	<b>Area Counts:</b>	4.29e+005
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	579. (ng/mL)
	<b>% Accuracy:</b>	96.50

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/21/10  
 Time of Injection 1851  
 Standard Number WXX100421-56CCV  
 Data File EXP0420067a

HMX	117.0
RDX	103.0
135-Trinitrobenzene	124.0
13-Dinitrobenzene	101.0
Tetryl	116.0
246-Trinitrotoluene	108.0
Nitrobenzene	93.7
34-dinitrotoluene	87.3
26-dinitrotoluene	87.7
24-dinitrotoluene	103.0
4-Amino-26-dinitrotoluene	107.0
2-Amino-46-dinitrotoluene	103.0
2-Nitrotoluene	84.3
4-Nitrotoluene	93.5
3-Nitrotoluene	84.9
PETN	96.5

TOTAL

✓ 1609.9

*HMC 04/29/10*

AVERAGE

✓ 100.6

ICV Limits 85-115%

-GRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*See 4/28/10*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0420069.wiff

Analysis Date: 21-APR-10 19:43

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	33.4	84	
2,4,6-Trinitrotoluene	40	41.5	104	
2,4-Dinitrotoluene	40	40.5	101	
2,6-Dinitrotoluene	40	44.9	112	
2-Amino-4,6-dinitrotoluene	40	37.1	93	
3,4-Dinitrotoluene	20	18.9	95	
4-Amino-2,6-dinitrotoluene	40	36.4	91	
HMX	40	42.8	107	
Nitrobenzene	40	41.1	103	
PETN	40	53.2	133	
RDX	40	34.8	87	
Tetryl	40	36.9	92	
m-Dinitrobenzene	40	39.1	98	
m-Nitrotoluene	40	43	107	
o-Nitrotoluene	40	54.1	135	
p-Nitrotoluene	40	41.7	104	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

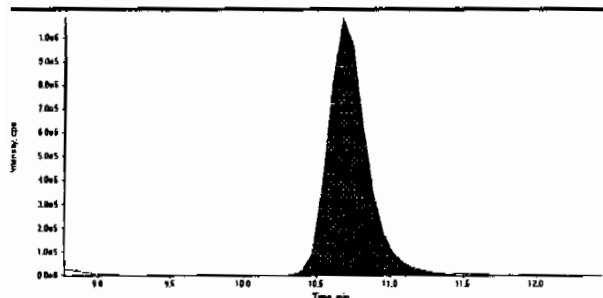
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

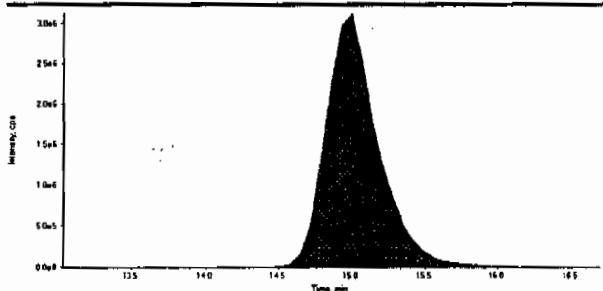
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

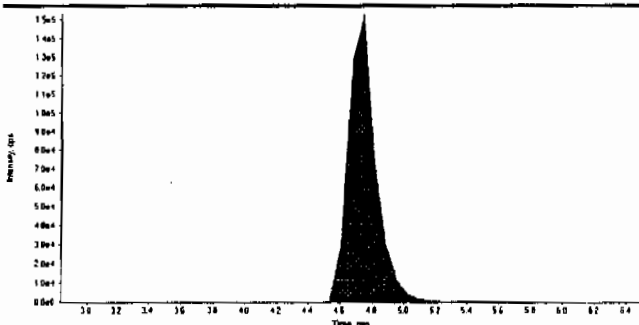
Data File	EXP0420069.wiff	Acquisition Date	4/21/2010 7:43:23 PM
Sample Name	WXX100421-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



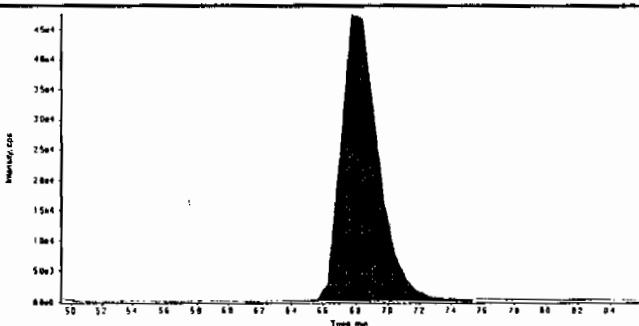
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	19800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	15.00
Area Counts:	77500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	1.82e+006
Manual Modification	No
Amount:	42.8 (ng/mL)
% Accuracy:	107.00



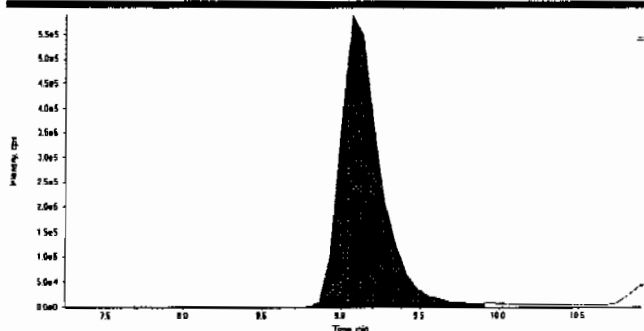
Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	7.61e+005
Manual Modification	No
Amount:	34.8 (ng/mL)
% Accuracy:	86.90

*Handwritten:* Anne 04/29/10 Jax 4/29/10

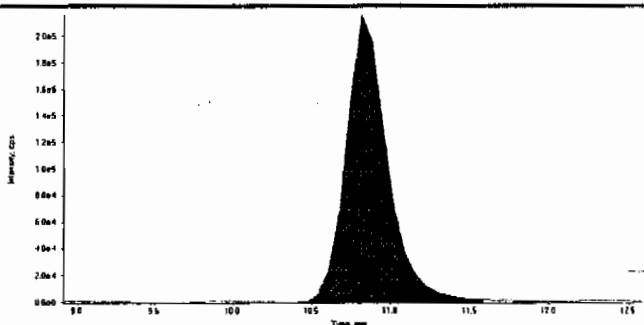
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

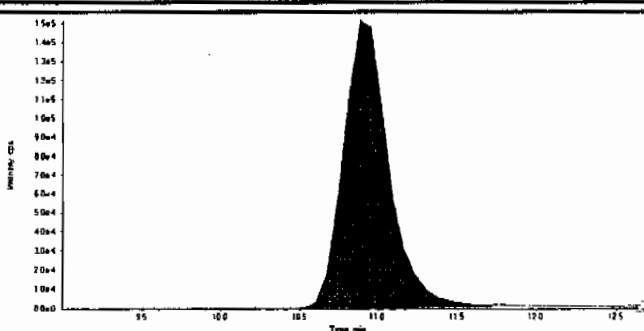
Data File	EXP0420069.wiff	Acquisition Date	4/21/2010 7:43:23 PM
Sample Name	WXX100421-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



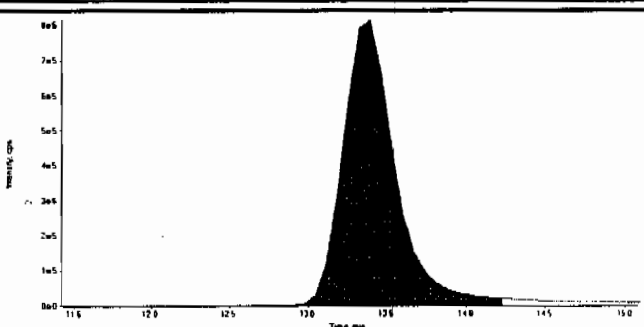
Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.07
Actual RT:	9.07
Area Counts:	1.04e+007
Manual Modification	No
Amount:	33.4 (ng/mL)
% Accuracy:	83.60



Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.8
Area Counts:	3.98e+006
Manual Modification	No
Amount:	39.1 (ng/mL)
% Accuracy:	97.60

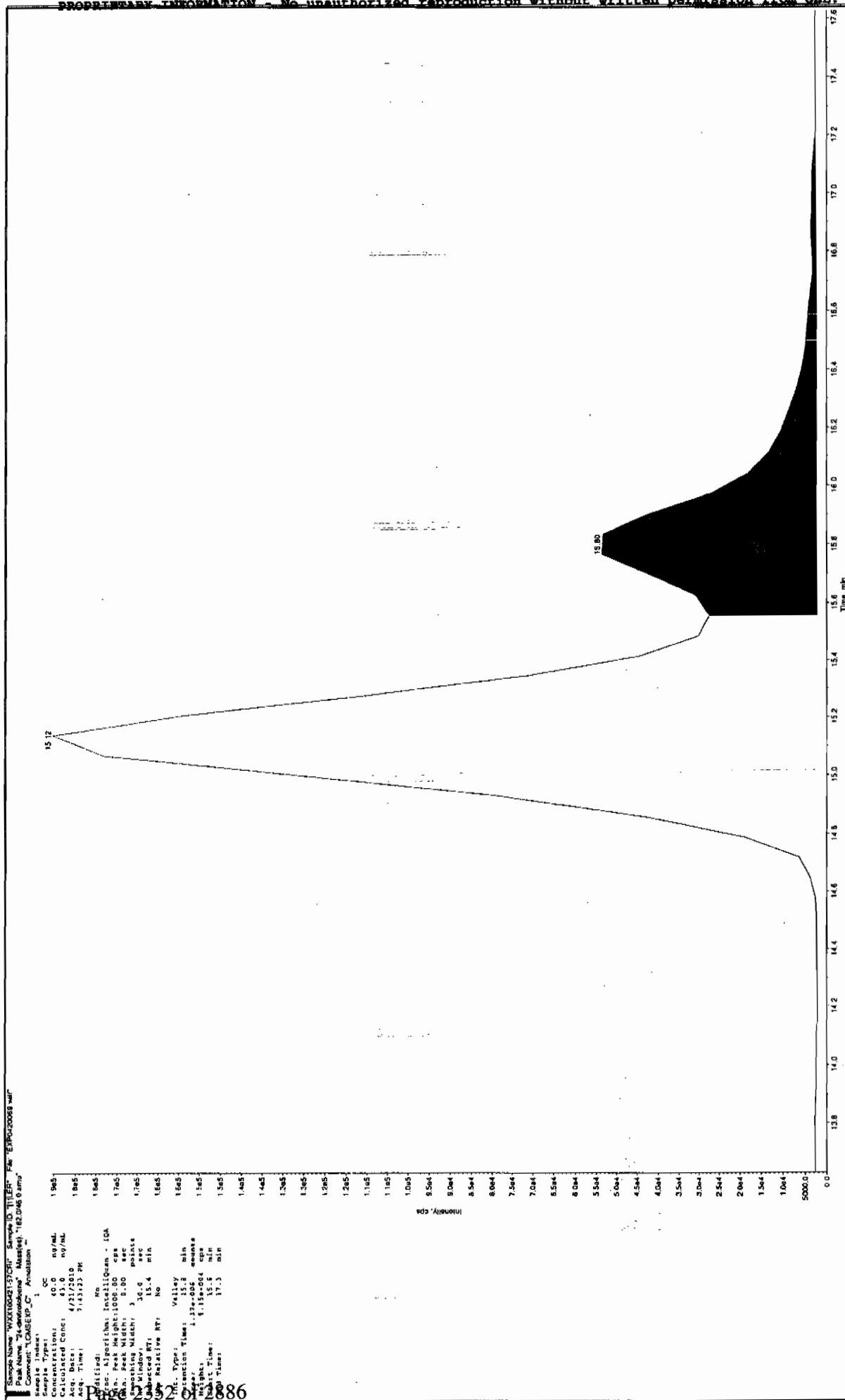


Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.8
Actual RT:	10.9
Area Counts:	3.04e+006
Manual Modification	No
Amount:	36.9 (ng/mL)
% Accuracy:	92.20



Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	13.4
Area Counts:	1.90e+007
Manual Modification	No
Amount:	41.5 (ng/mL)
% Accuracy:	104.00

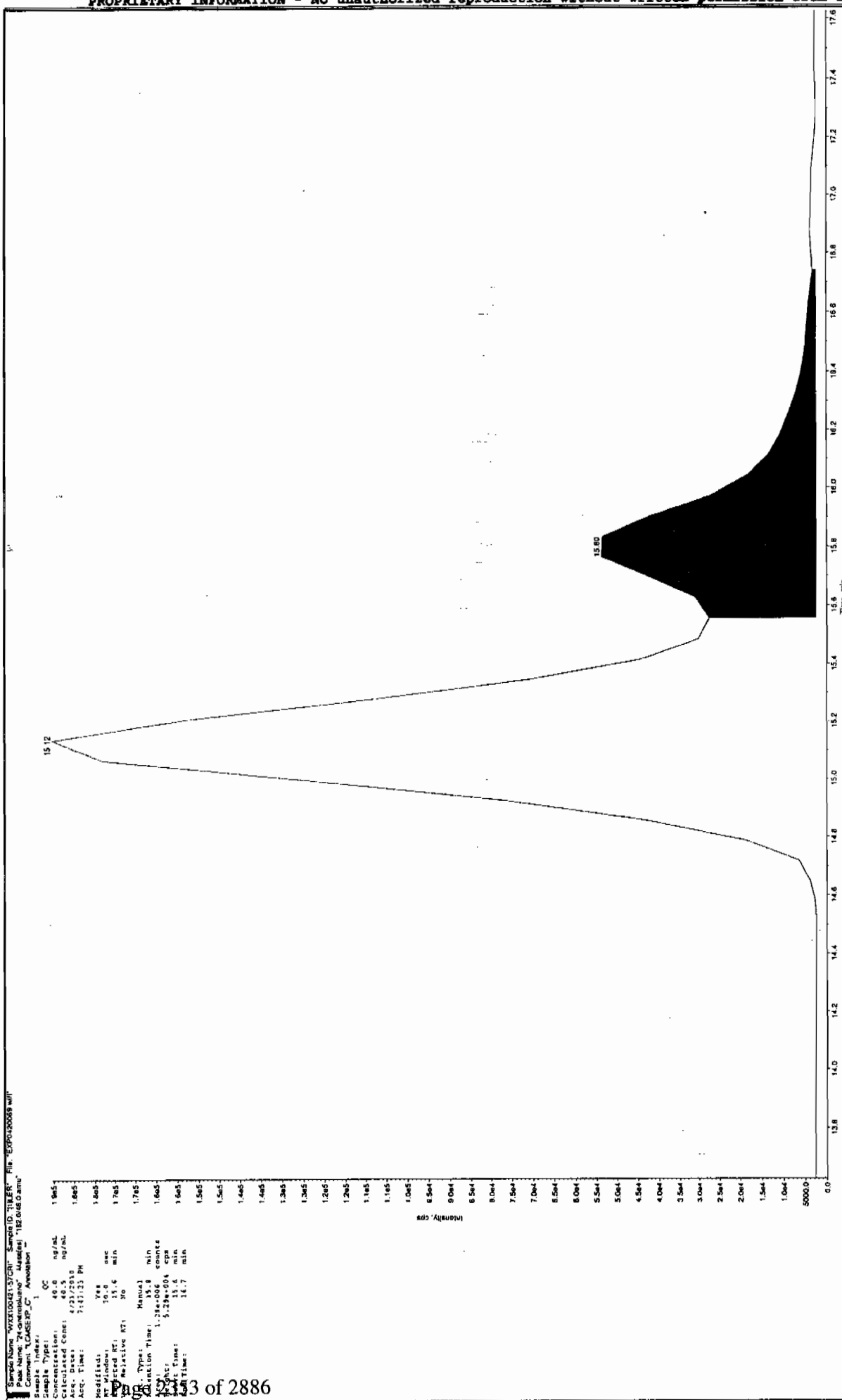
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\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCM SMS#3



After Jan 4/25/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

Sample Name: WAX10042137GR Sample ID: T18.R File: EXP0120059.wiff  
 Peak Name: 74-chlorobutane Mass(es): 182.046.0 amu  
 Comment: LCMSMS\_C Acquisition =  
 Sample Type: 1 QC  
 Concentration: 40.0 ng/mL  
 Calculated Conc: 40.5 ng/mL  
 Acq. Dates: 4/21/2010  
 Acq. Time: 7:47:23 PM  
 Modified: Yes  
 RT Window: 10.0 sec  
 RT: 15.12 min  
 Relative RT: No  
 Manual: 17.05  
 Acquisition Time: 1.00  
 Acquisition Time: 1.38e+006 counts  
 Noise: 5.29e+004 cps  
 Peak Time: 15.12 min  
 End Time: 14.7 min

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420069.wiff	<b>Acquisition Date</b>	4/21/2010 7:43:23 PM
<b>Sample Name</b>	WXX100421-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	12.0
	Area Counts:	1.80e+005
	Manual Modification	No
	Amount:	41.1 (ng/mL)
	% Accuracy:	103.00

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.3
	Area Counts:	2.42e+006
	Manual Modification	No
	Amount:	18.9 (ng/mL)
	% Accuracy:	94.60

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.1
	Actual RT:	15.1
	Area Counts:	4.34e+006
	Manual Modification	Yes
	Amount:	44.9 (ng/mL)
	% Accuracy:	112.00

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	15.8
	Area Counts:	1.29e+006
	Manual Modification	Yes
	Amount:	40.5 (ng/mL)
	% Accuracy:	101.00

Before Jan 4/28/10

Sample Name: 8321A-056, Method 8321A-Modified LCMSMS#3

Sample Index: 1

Sample Type: QC

Concentration: 25.5 ng/mL

Acq. Date: 7/21/2010

Acq. Time: 7:41:23 PM

Modified: No

Method: Algorithm: IntegriQuant - IQA

Peak Height: 1000.00 cps

Peak Width: 0.00 sec

Peak Area: 1.000000

Peak Width: 3.40 sec

Peak Area: 1.000000

Peak Width: 14.2 min

Peak Area: 1.000000

Peak Width: 14.2 min

Peak Area: 1.000000

Peak Width: 14.2 min

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Peak Width: 14.2 min

Peak Area: 1.000000

Peak Width: 14.2 min

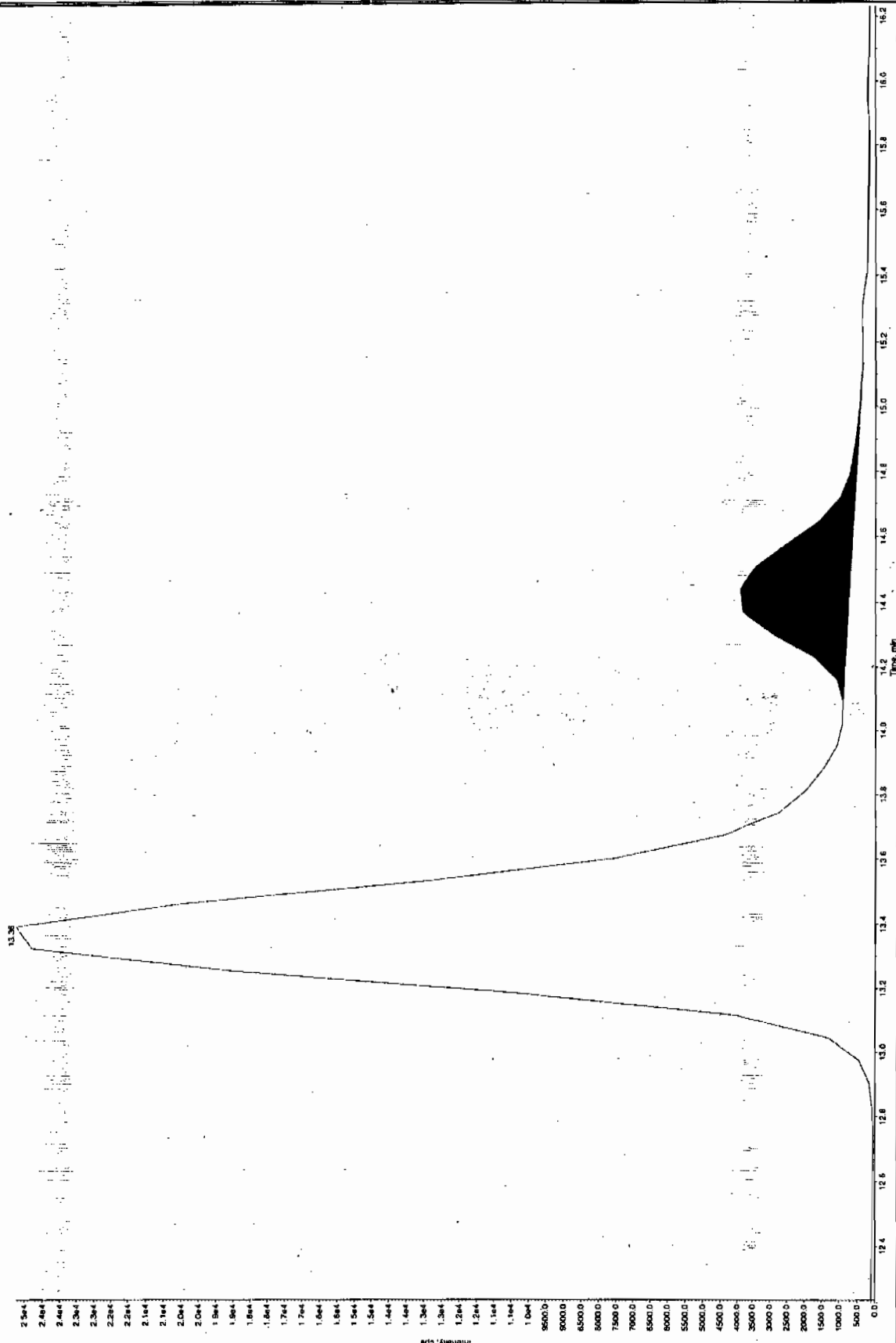
Peak Area: 1.000000

Peak Width: 14.2 min

Peak Area: 1.000000

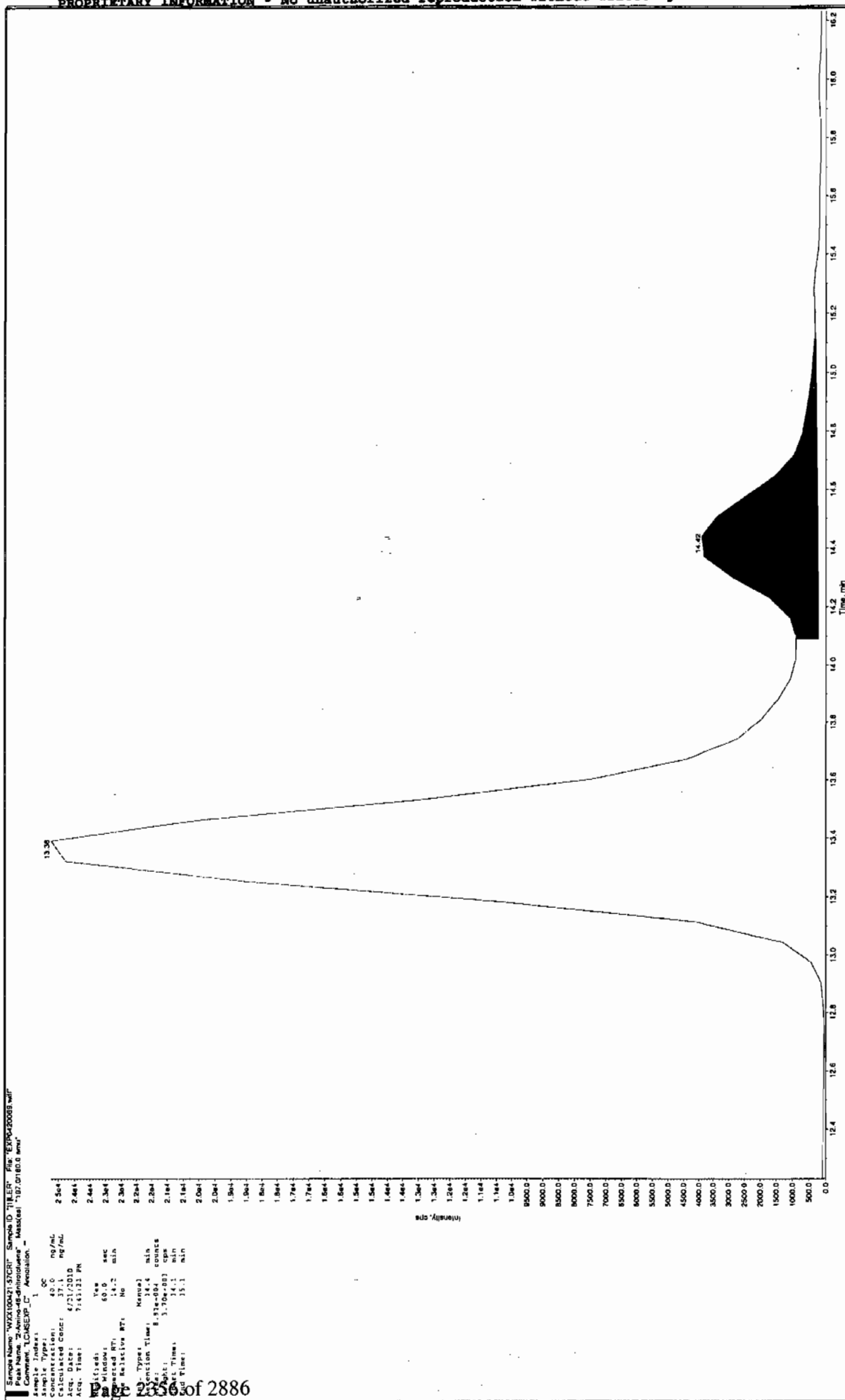
Peak Width: 14.2 min

Peak Area: 1.000000



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Len 46281.0



Sample Name: WXX100421.57CH1 Sample ID: TILER File: EXP022008.wif  
 Peak Name: 2-Amino-6-dinitrofluorene Mass(es): 197.07180.0 amu  
 Comment: LCMS-EXP-1 Acquisition: 1

Sample Name: WXX100421.57CH1  
 Sample ID: TILER  
 Concentration: 40.0 ng/mL  
 Calculated Conc: 37.1 ng/mL  
 Acq. Date: 7/21/2010  
 Acq. Time: 7:41:22 PM  
 Method: Yes  
 MS Window: 60.0 sec  
 MS Scan Rate: 14.2 min  
 MS Resolution: No  
 Relative RT: No

Page 2006 of 2886

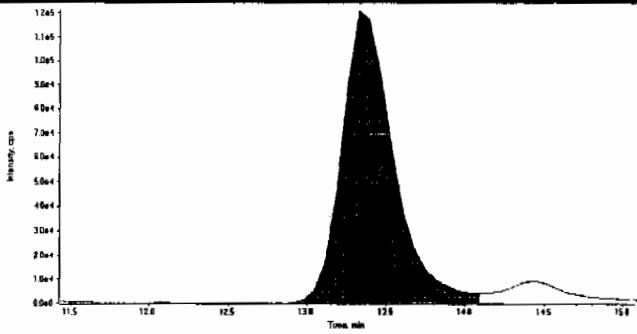
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

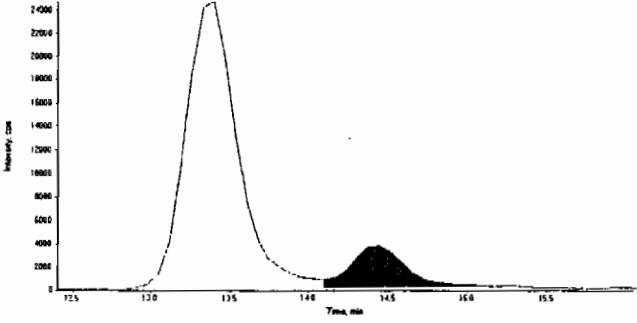
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420069.wiff	<b>Acquisition Date</b>	4/21/2010 7:43:23 PM
<b>Sample Name</b>	WXX100421-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

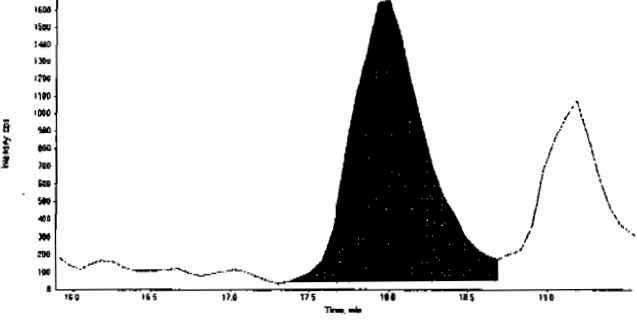
  

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	13.3
	Area Counts:	2.76e+006
	Manual Modification	No
	Amount:	36.4 (ng/mL)
	% Accuracy:	90.90

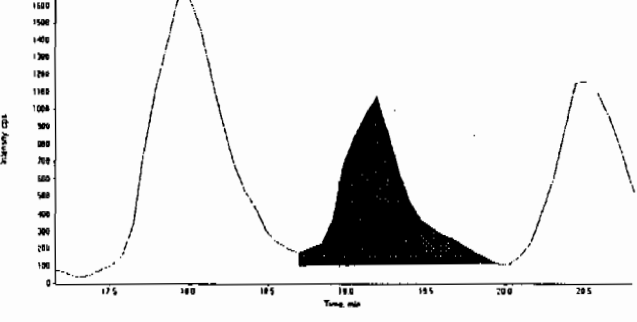
  

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.4
	Area Counts:	8.91e+004
	Manual Modification	Yes
	Amount:	37.1 (ng/mL)
	% Accuracy:	92.80

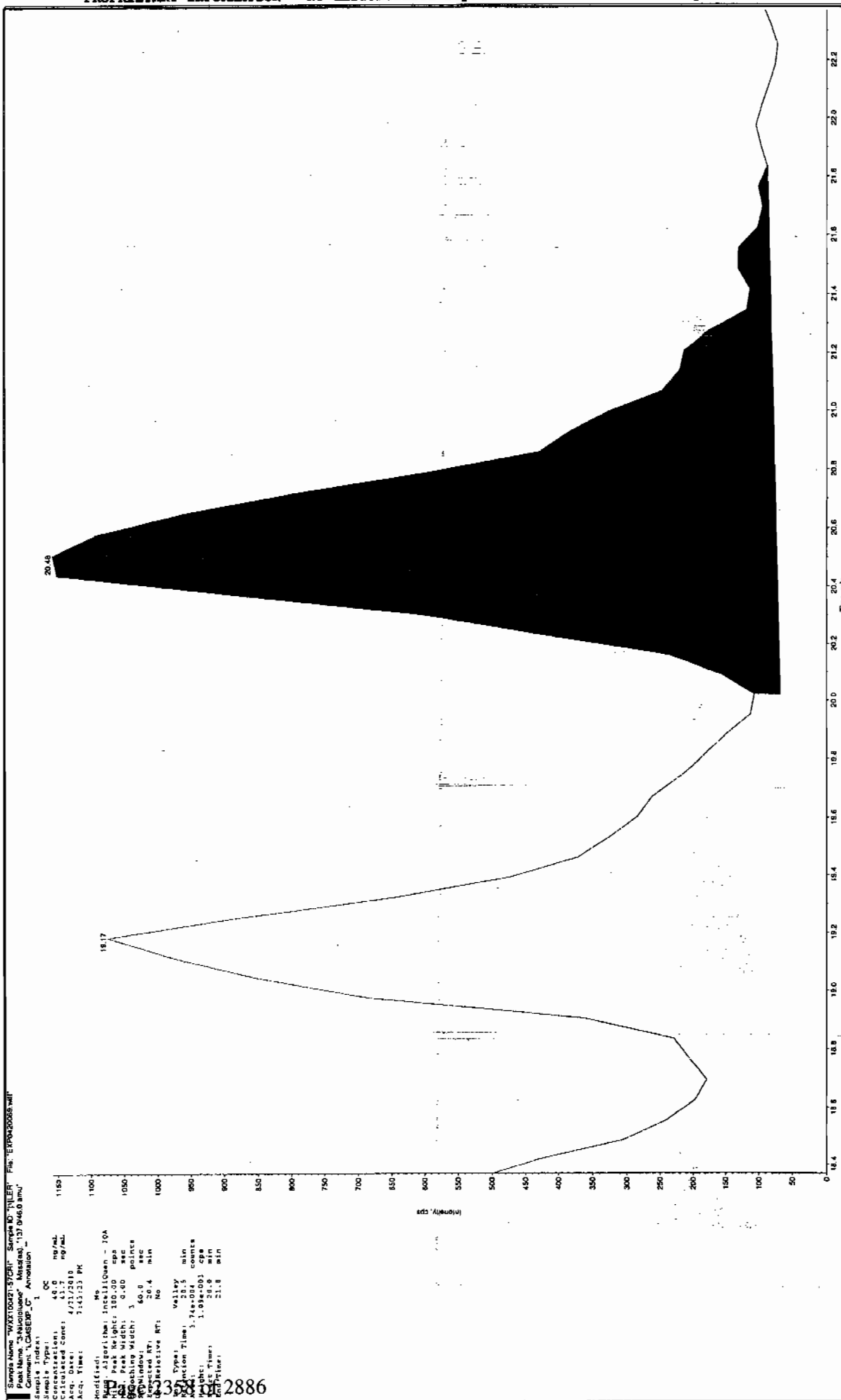
  

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	18.0
	Area Counts:	5.24e+004
	Manual Modification	No
	Amount:	54.1 (ng/mL)
	% Accuracy:	135.00

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	19.2
	Area Counts:	2.69e+004
	Manual Modification	No
	Amount:	41.7 (ng/mL)
	% Accuracy:	104.00

after sea 4/28/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

Sample Name: "WAY10001" Sample ID: "11111" File: "E:\0020068.mpl"

Peak Name: "3-Methylglutamate" Molecular Weight: 137.046.0 amu

Comment: "LCMSMS-C" Annotation: "

Sample Index: 1

Sample Type: GC

Sample Concentration: 40.0 ng/mL

Calculated Concentration: 41.7 ng/mL

Acq. Date: 4/21/2010

Acq. Time: 7:43:23 PM

Modified: No

Method: Algorithm: Inlet/Outlet - 70A

Peak Weight: 100.0 cps

Peak Width: 1.00 points

Baseline Width: 3.00 points

Window: 60.0 sec

Requested RT: 20.4 min

Observed RT: 20.4 min

Derivative RT: No

Peak Type: Valley

Retention Time: 20.5 min

Height: 3.14e+001 cps

Width: 1.00e+001 cps

Area: 20.8 min

End Time: 21.8 min

Integration: 21.8 min

Integration: 21.8 min

Integration: 21.8 min

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Integration: 21.8 min

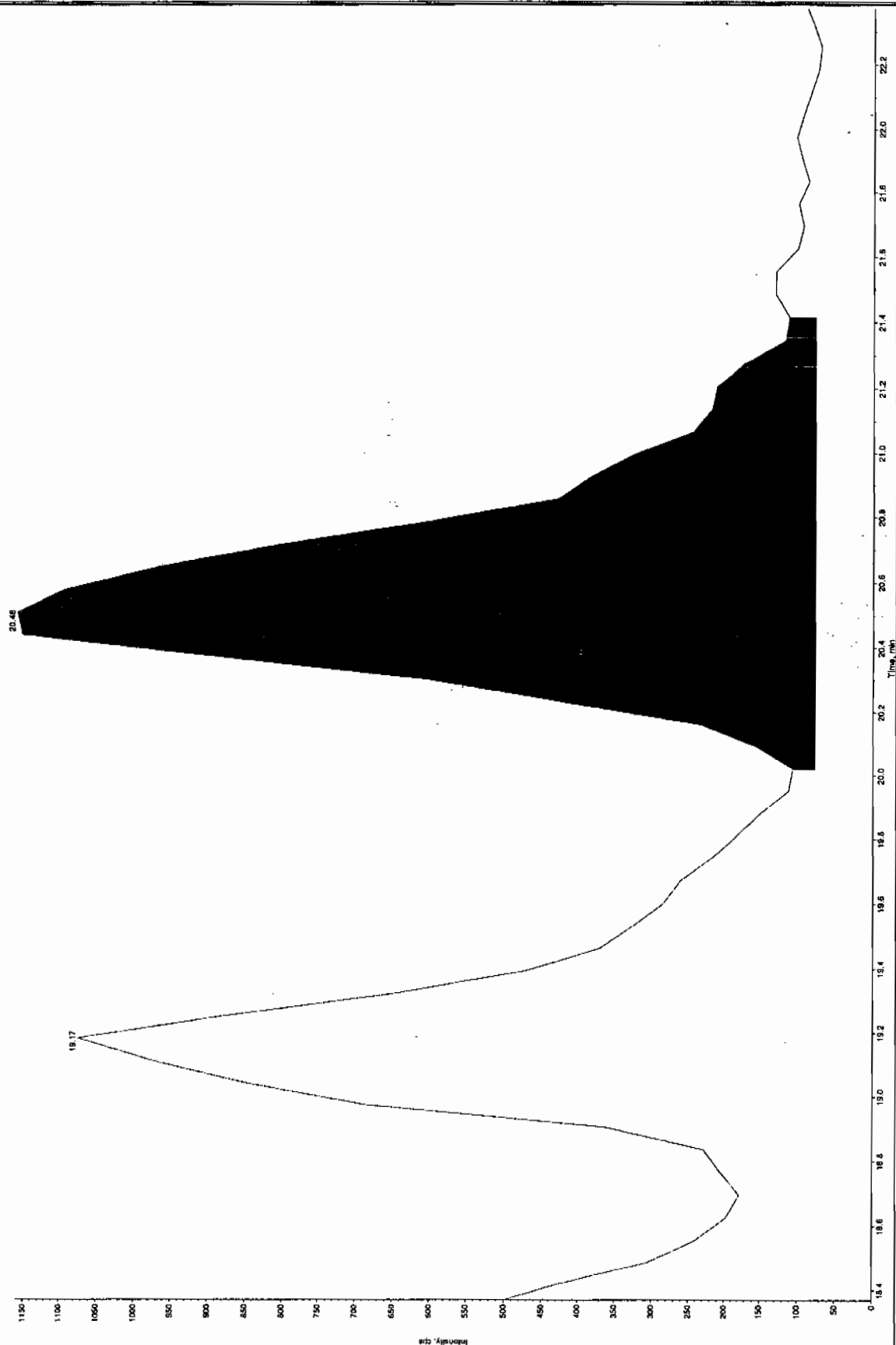
Integration: 21.8 min

Integration: 21.8 min

after Dec 4/28/10

Sample Name: "LUNY/0421-570R" Sample ID: "LUNY" File: "EXP0420028.wif"  
 Peak Name: "LUNY/0421-570R" Method: "137 G46.0 END"  
 Command: "LUNY/0421-570R" Annotation: ""

Sample Index: 1  
 Sample Type: OC  
 Concentration: 40.0 ng/mL  
 Calculated Conc: 40.0 ng/mL  
 Acq. Date: 4/21/2010  
 Acq. Time: 7:43:23 PM  
 Modified: Yes  
 Rejected RT: 60.0 sec  
 User Relative RT: No  
 RT Type: Manual  
 Retention Time: 20.5 min  
 Acquisition Time: 1.46e+004 counts  
 Peak Area: 1.09e+003  
 Peak Time: 20.5 min  
 Peak Width: 21.4 min

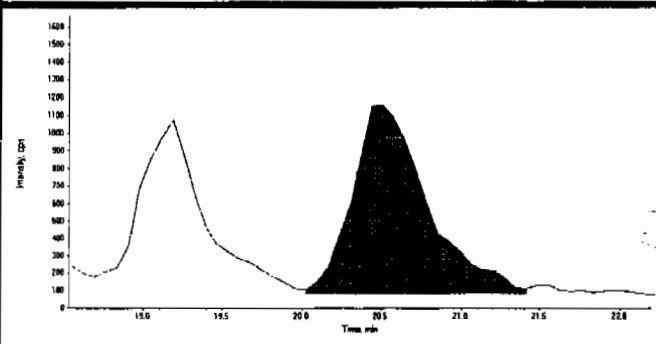


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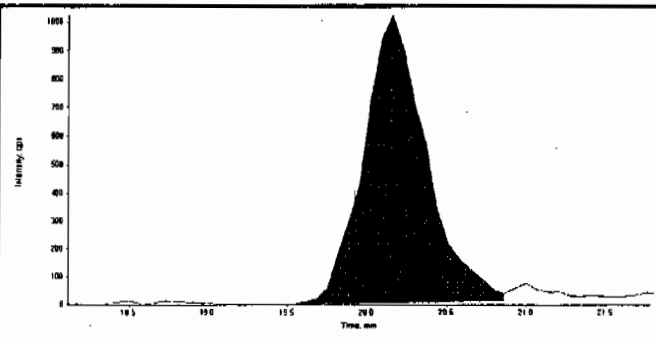
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420069.wiff	<b>Acquisition Date</b>	4/21/2010 7:43:23 PM
<b>Sample Name</b>	WXX100421-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	20.5
	<b>Area Counts:</b>	3.65e+004
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	43.0 (ng/mL)
	<b>% Accuracy:</b>	107.00

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	20.2
	<b>Area Counts:</b>	2.86e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	53.2 (ng/mL)
	<b>% Accuracy:</b>	133.00



GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/21/10  
 Time of Injection 1943  
 Standard Number WXX100421-57CRI  
 Data File EXP0420069a

HMX	107.0
RDX	86.9
135-Trinitrobenzene	83.6
13-Dinitrobenzene	97.6
Tetryl	92.2
246-Trinitrotoluene	104.0
Nitrobenzene	103.0
34-dinitrotoluene	94.6
26-dinitrotoluene	112.0
24-dinitrotoluene	101.0
4-Amino-26-dinitrotoluene	90.9
2-Amino-46-dinitrotoluene	92.8
2-Nitrotoluene	135.0
4-Nitrotoluene	104.0
3-Nitrotoluene	107.0
PETN	133.0

TOTAL

✓ 1644.6

*Handwritten:* HMX 04/21/10

AVERAGE

✓ 102.8

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Handwritten:* Jan 4/28/10

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXP0420080.wiff

Analysis Date: 22-APR-10 00:28

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	619	103	
2,4,6-Trinitrotoluene	600	616	103	
2,4-Dinitrotoluene	600	620	103	
2,6-Dinitrotoluene	600	601	100	
2-Amino-4,6-dinitrotoluene	600	683	114	
3,4-Dinitrotoluene	300	279	93	
4-Amino-2,6-dinitrotoluene	600	649	108	
HMX	600	591	99	
Nitrobenzene	600	598	100	
PETN	600	621	104	
RDX	600	643	107	
Tetryl	600	576	96	
m-Dinitrobenzene	600	621	104	
m-Nitrotoluene	600	500	83	
o-Nitrotoluene	600	623	104	
p-Nitrotoluene	600	604	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%

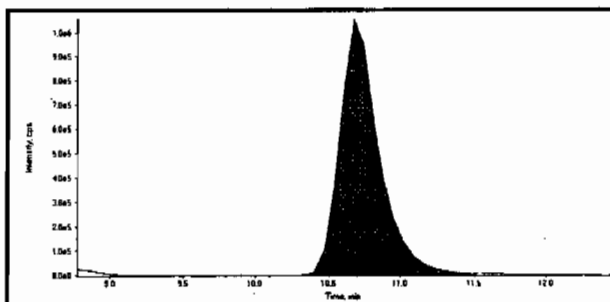
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

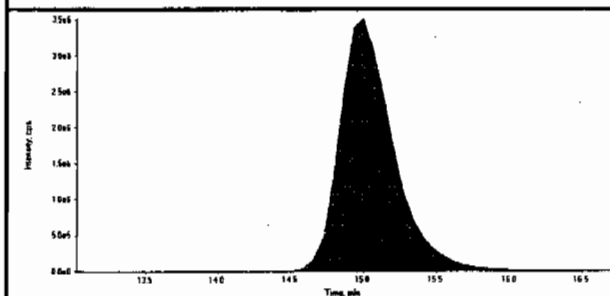
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

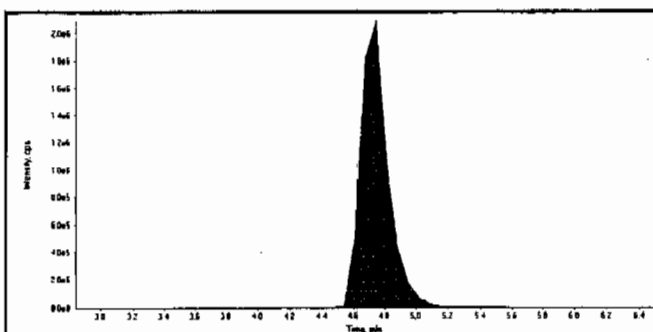
Data File	EXP0420080.wiff	Acquisition Date	4/22/2010 12:28:49 AM
Sample Name	WXX100421-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



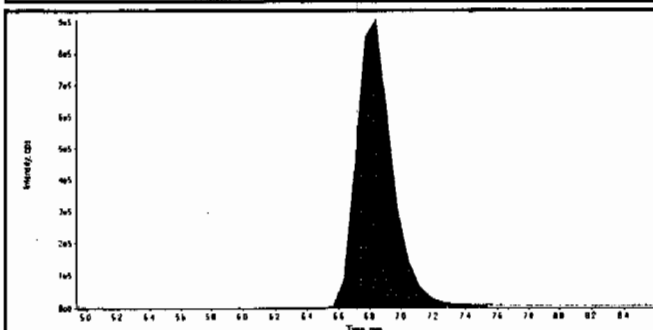
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	20500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	15.00
Area Counts:	92300000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	2.61e+007
Manual Modification	No
Amount:	591. (ng/mL)
% Accuracy:	98.50



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.84
Area Counts:	1.46e+007
Manual Modification	No
Amount:	643. (ng/mL)
% Accuracy:	107.00

*Handwritten:* Hmx 04/22/10

*Handwritten:* Jlar 4/29/10





GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420080.wiff	<b>Acquisition Date</b>	4/22/2010 12:28:49 AM
<b>Sample Name</b>	WXX100421-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	9.14
	<b>Area Counts:</b>	1.40e+008
	<b>Manual Modification</b>	No
	<b>Amount:</b>	619. (ng/mL)
	<b>% Accuracy:</b>	103.00

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.8
	<b>Area Counts:</b>	6.57e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	621. (ng/mL)
	<b>% Accuracy:</b>	104.00

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	11.0
	<b>Area Counts:</b>	4.93e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	576. (ng/mL)
	<b>% Accuracy:</b>	96.10

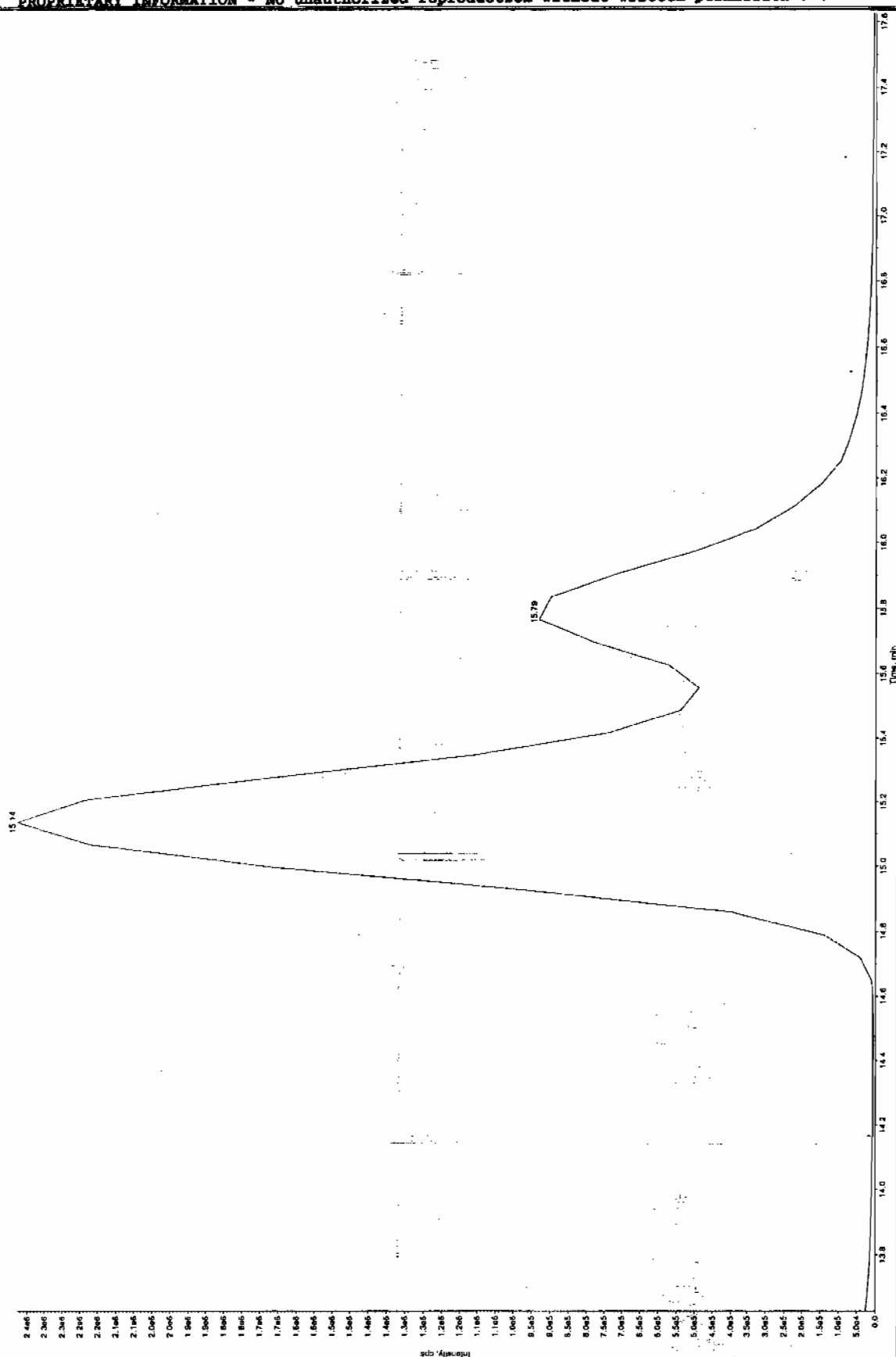
  

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.4
	<b>Area Counts:</b>	2.34e+008
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	616. (ng/mL)
	<b>% Accuracy:</b>	103.00

Before Jan 4/28/10

Sample Name: WXX100215000V Sample ID: TILER File: EPR020000.wit  
 Acquisition Method: 152.004.0 amu  
 Compound: TOLUENE C<sub>7</sub> Acquisition: 1

Sample Index: 1  
 Sample Type: GC  
 Concentration: 400.00 ng/mL  
 Concentration: 2.300 ng/mL  
 Acq. Date: 4/22/2010  
 Acq. Time: 12:28:19 AM  
 Method: 152.004.0 amu  
 Modified: No



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Dec 4/28/10

Sample Name: "WXX100421-5600V" Sample ID: "TILER" File: "EP0420080.wit"

Peak Name: "Zincobutene" MassDet: "162.046.0 amu"

Sample Index: 1

Sample Type: QC

Concentration: 600 ng/mL

Acquisition Date: 4/22/2010

Acq. Time: 12:28:45 AM

Injection Volume: 10.0 µL

Injection Port: 11.6 min

Injection Temp: 11.6 min

Injection Pressure: 11.6 min

Injection Flow: 11.6 min

Injection Rate: 11.6 min

Injection Time: 11.6 min

Injection Volume: 11.6 min

Injection Port: 11.6 min

Injection Temp: 11.6 min

Injection Pressure: 11.6 min

Injection Flow: 11.6 min

Injection Rate: 11.6 min

Injection Time: 11.6 min

Injection Volume: 11.6 min

Injection Port: 11.6 min

Injection Temp: 11.6 min

Injection Pressure: 11.6 min

Injection Flow: 11.6 min

Injection Rate: 11.6 min

Injection Time: 11.6 min

Injection Volume: 11.6 min

Injection Port: 11.6 min

Injection Temp: 11.6 min

Injection Pressure: 11.6 min

Injection Flow: 11.6 min

Injection Rate: 11.6 min

Injection Time: 11.6 min

Injection Volume: 11.6 min

Injection Port: 11.6 min

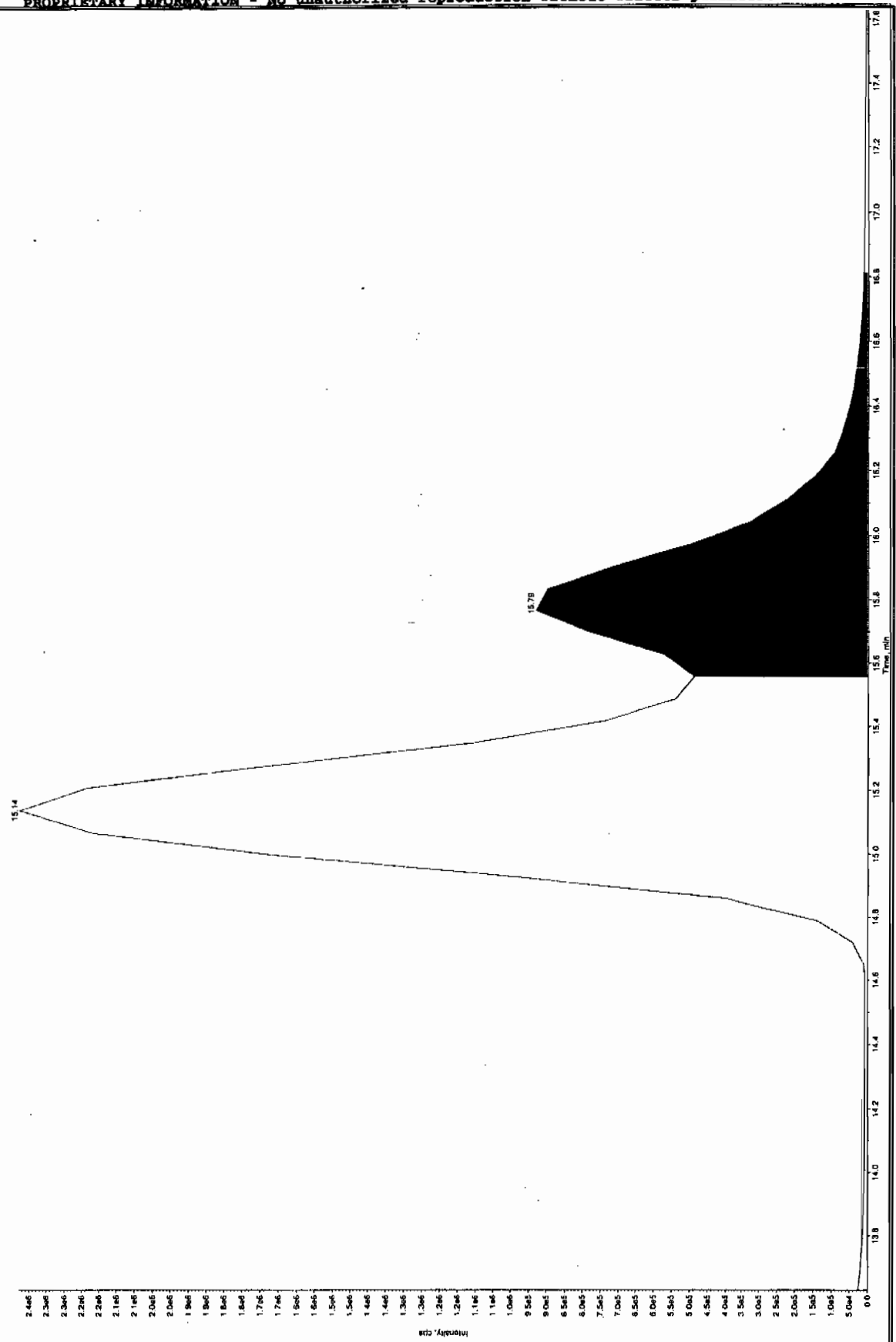
Injection Temp: 11.6 min

Injection Pressure: 11.6 min

Injection Flow: 11.6 min

Injection Rate: 11.6 min

Injection Time: 11.6 min



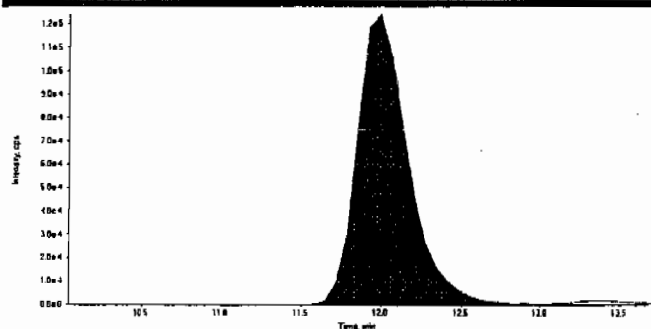
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



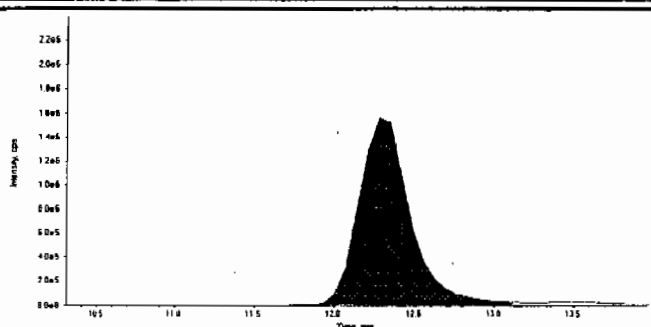
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

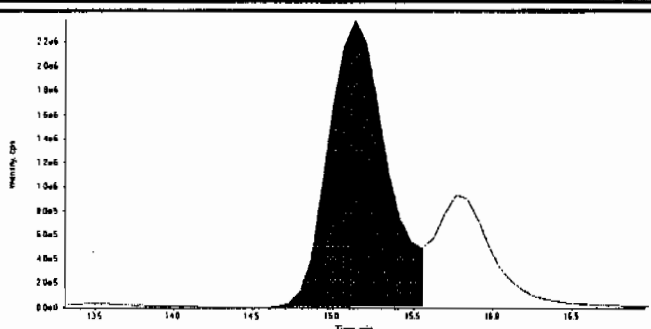
Data File	EXP0420080.wiff	Acquisition Date	4/22/2010 12:28:49 AM
Sample Name	WXX100421-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



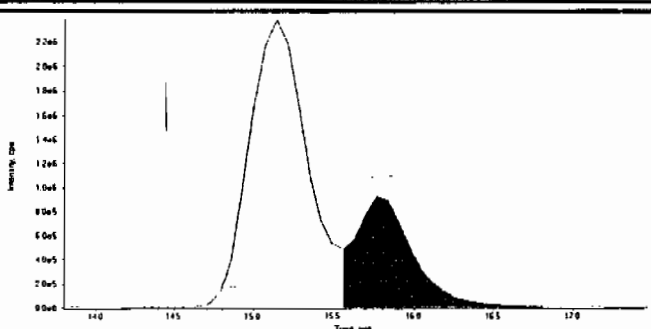
Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	12.0
Area Counts:	2.74e+006
Manual Modification	No
Amount:	598. (ng/mL)
% Accuracy:	99.70



Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.3
Area Counts:	3.46e+007
Manual Modification	No
Amount:	279. (ng/mL)
% Accuracy:	93.10



Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.1
Actual RT:	15.1
Area Counts:	6.03e+007
Manual Modification	Yes
Amount:	601. (ng/mL)
% Accuracy:	100.00



Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.8
Area Counts:	2.35e+007
Manual Modification	Yes
Amount:	620. (ng/mL)
% Accuracy:	103.00

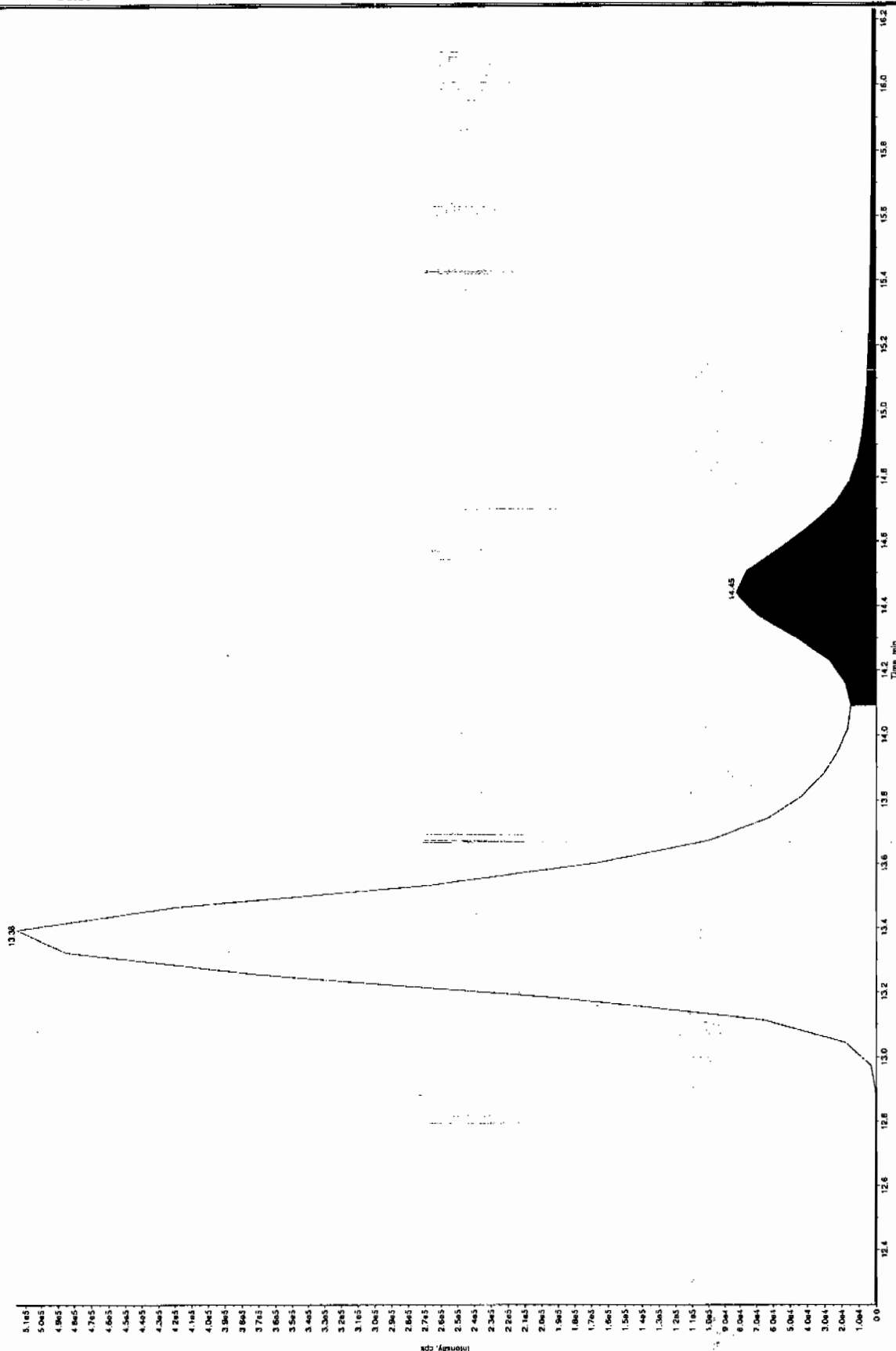
Before Jan 4/28/10

Sample Name: WAX10021-600V Sample ID: 111111 File: EXP0-00000.mf  
 Peak Name: 2-Amino-6-dimethylamino-7-methyl-2H-pyrimidin-4(1H)-one  
 Compound: LCMSEPT\_C Annotation: 187.0160.0 amu

Concentration: 5.1e5  
 Calculated Conc: 118000 ng/mL  
 Sample Type: 1 CC  
 ACQ: 11/11/11 12:12:18.19 AN

Modified: 11/11/11 12:12:18.19 AN  
 Peak Height: 1000.00 cps  
 Peak Width: 0.00 sec  
 Retention Time: 14.45 min  
 Acquisition Time: 17.5 min

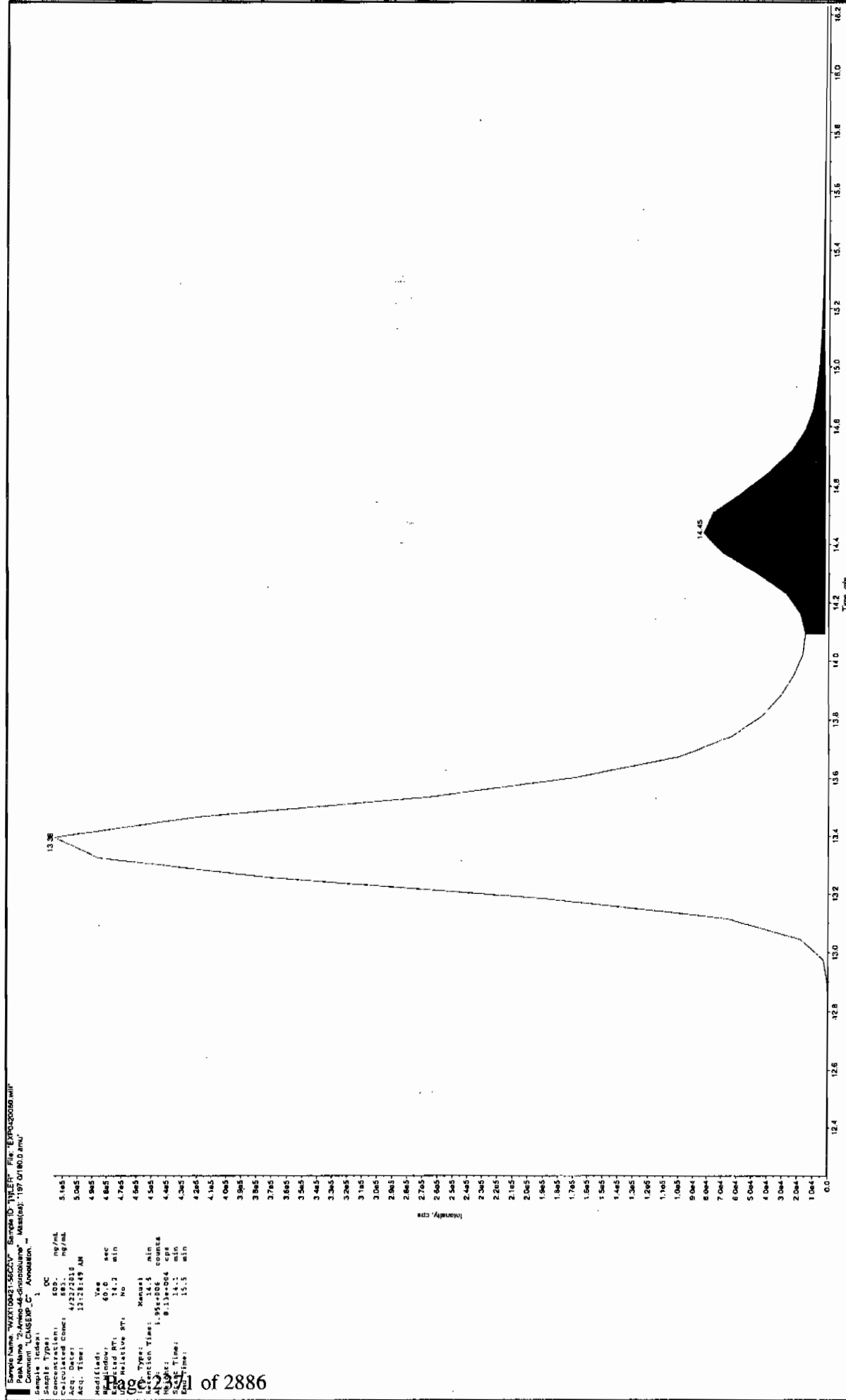
Peak Type: Valley  
 Acquisition Time: 17.5 min  
 Retention Time: 14.45 min  
 Peak Name: 2-Amino-6-dimethylamino-7-methyl-2H-pyrimidin-4(1H)-one



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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after Jan 4/28/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

Sample Name: "WAT100421-5002V" Sample ID: "WAT100421-5002V" File: "EXP000000.wif"

Peak Name: "2-Amino-6-chloropurine" Mass(es): "197.0/180.0 amu"

Comment: "LCMSMS\_C" Annotation: "1"

Concentration: 500. ng/mL

Calculated Conc: 593.119 ng/mL

Acq. Time: 13:28:19 AM

Modified: Yes

Method: 8321A

Retention Time: 14.45 min

Relative RT: 11.2 min

Acq. Time: 13:28:19 AM

Modified: Yes

Method: 8321A

Retention Time: 14.45 min

Relative RT: 11.2 min

Acq. Time: 13:28:19 AM

Modified: Yes

Method: 8321A

Retention Time: 14.45 min

Relative RT: 11.2 min

Acq. Time: 13:28:19 AM

Modified: Yes

Method: 8321A

Retention Time: 14.45 min

Relative RT: 11.2 min

Acq. Time: 13:28:19 AM

Modified: Yes

Method: 8321A

Retention Time: 14.45 min

Relative RT: 11.2 min

Acq. Time: 13:28:19 AM

Modified: Yes

Method: 8321A

Retention Time: 14.45 min

Relative RT: 11.2 min

Acq. Time: 13:28:19 AM

Modified: Yes

Method: 8321A

Retention Time: 14.45 min

Relative RT: 11.2 min

Acq. Time: 13:28:19 AM

Modified: Yes

Method: 8321A

Retention Time: 14.45 min

Relative RT: 11.2 min

Acq. Time: 13:28:19 AM

Modified: Yes

Method: 8321A

Retention Time: 14.45 min

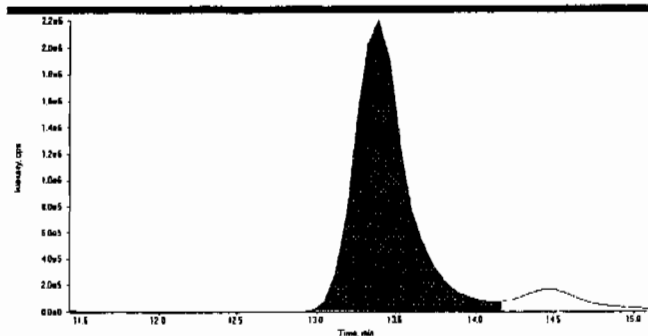
Relative RT: 11.2 min

Acq. Time: 13:28:19 AM

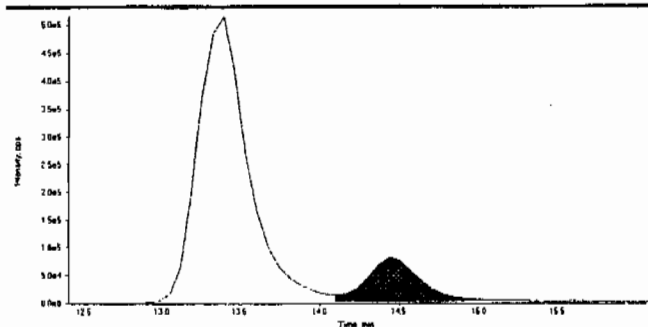
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

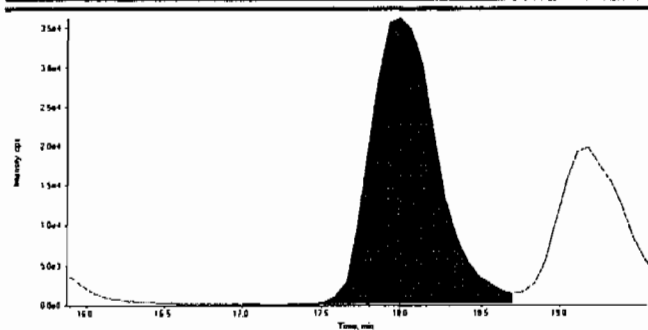
Data File	EXP0420080.wiff	Acquisition Date	4/22/2010 12:28:49 AM
Sample Name	WXX100421-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



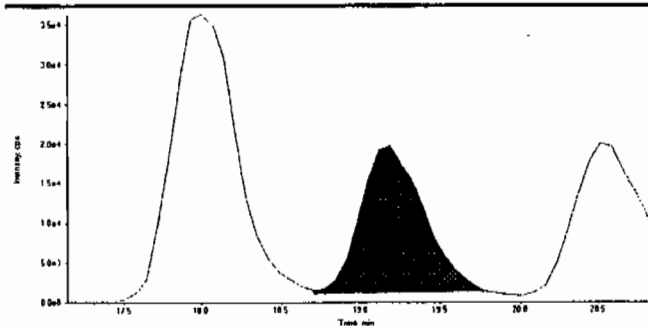
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	13.4
Area Counts:	5.12e+007
Manual Modification	No
Amount:	649. (ng/mL)
% Accuracy:	108.00



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.2
Actual RT:	14.5
Area Counts:	1.95e+006
Manual Modification	Yes
Amount:	683. (ng/mL)
% Accuracy:	114.00

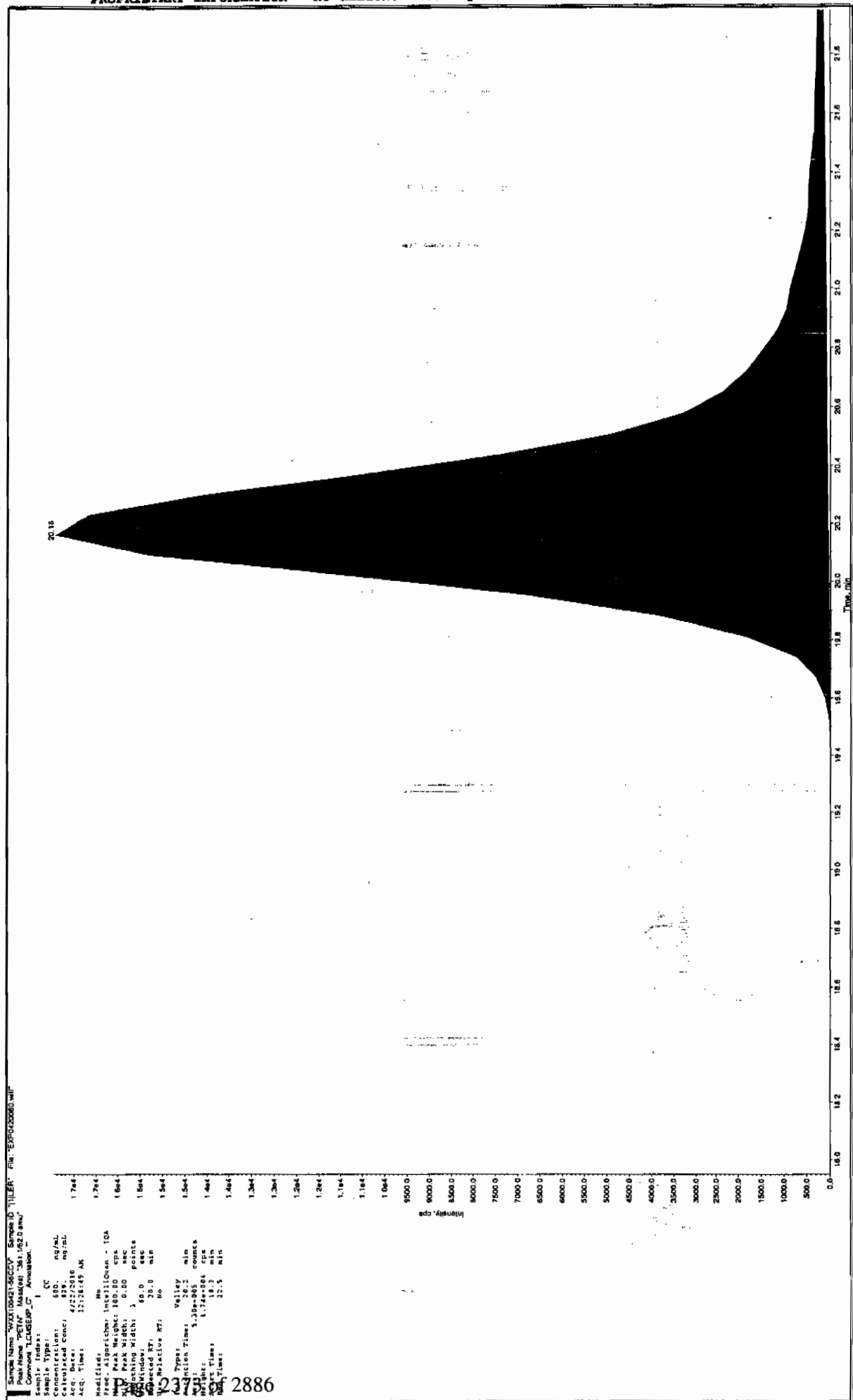


Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.7
Actual RT:	18.0
Area Counts:	1.07e+006
Manual Modification	No
Amount:	623. (ng/mL)
% Accuracy:	104.00



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	19.2
Area Counts:	5.31e+005
Manual Modification	No
Amount:	604. (ng/mL)
% Accuracy:	101.00

Before Scan 4/24/00



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

Sample Name: "WXXI 00421-56CCY" Sample ID: "HILIER" File: "EXP0420000.wif"  
 Peak Name: "PE1M" Mass(es): "361.062.0 amu"  
 Compound: "LCMSMS#3" Annotation: ""

Sample Type: 1 QC  
 Concentration: 600. ng/mL  
 Calculated Conc: 629. ng/mL  
 Acq. Time: 12:28:49 AK

Method: LCMSMS Int: Chem - TOA  
 Mass: 361.062  
 Peak Width: 0.50 sec  
 Peak Width: 0.50 points  
 Window: 60.0 sec  
 Retention: 19.2 min  
 Relative RT: No

Acq. Type: Valley  
 Acquisition Time: 1.564 min  
 Mass: 361.062  
 Height: 1.74e+064 cps  
 Ret. Time: 19.2 min  
 Run Time: 22.5 min

237594 2886



Sample Name: "WXX100421-56CCV" Sample ID:  
Peak Name: "PETN" Mass(es): "361.182.0 amu"

```

- Comment: LCASEP_C' Annotation:
- Sample Index: 1
- Sample Type: OC
- Concentration: 500.0 mg/mL
- Concentration Units: mg/mL
- Date Acq: 4/22/2010
- Date Conc: 12/28/09 AM
- Date Rec: 12/28/09 AM
- Yes No Sec Min
- Filtered: 81.0 min
- Window: 2.0 min
- Retention Time: 23.74 min
- Retention Time: 23.74 min
- Type: Manual
- Retention Time: 23.74 min
- Name: 5-sec-0505
- Sample Name: 175-004
- Sample Type: 21.3 min
- Sample Weight: 21.3 mg
- Sample Volume: 21.3 mL

```

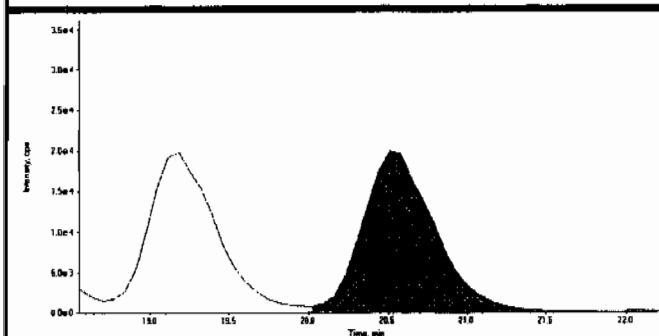
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\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

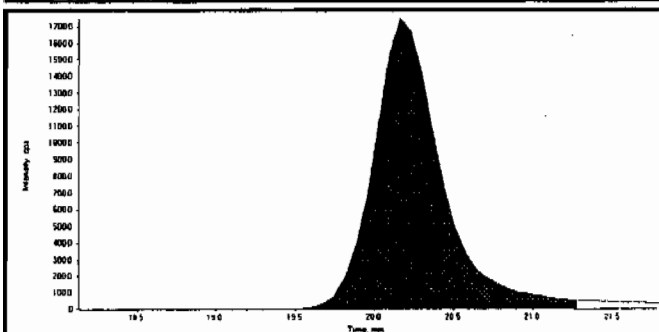
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420080.wiff	Acquisition Date	4/22/2010 12:28:49 AM
Sample Name	WXX100421-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.4
Actual RT:	20.5
Area Counts:	6.35e+005
Manual Modification	No
Amount:	500. (ng/mL)
% Accuracy:	83.40



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	20.2
Area Counts:	5.24e+005
Manual Modification	Yes
Amount:	621. (ng/mL)
% Accuracy:	104.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/22/10  
 Time of Injection 0028  
 Standard Number WXX100421-56CCV  
 Data File EXP0420080a

HMX	98.5
RDX	107.0
135-Trinitrobenzene	103.0
13-Dinitrobenzene	104.0
Tetryl	96.1
246-Trinitrotoluene	103.0
Nitrobenzene	99.7
34-dinitrotoluene	93.1
26-dinitrotoluene	100.0
24-dinitrotoluene	103.0
4-Amino-26-dinitrotoluene	108.0
2-Amino-46-dinitrotoluene	114.0
2-Nitrotoluene	104.0
4-Nitrotoluene	101.0
3-Nitrotoluene	83.4
PETN	104.0

TOTAL

✓ 1621.8

*thm 4/29/10*

AVERAGE

✓ 101.4

ICV Limits 85-115%

GRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Run  
4/28/10*



7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0420082.wiff

Analysis Date: 22-APR-10 01:20

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	39.1	98	
2,4,6-Trinitrotoluene	40	42.9	107	
2,4-Dinitrotoluene	40	44.3	111	
2,6-Dinitrotoluene	40	36.6	92	
2-Amino-4,6-dinitrotoluene	40	39.9	100	
3,4-Dinitrotoluene	20	16.2	81	
4-Amino-2,6-dinitrotoluene	40	37.7	94	
HMX	40	46	115	
Nitrobenzene	40	35.4	89	
PETN	40	52.6	132	
RDX	40	38.3	96	
Tetryl	40	42.7	107	
m-Dinitrobenzene	40	39.7	99	
m-Nitrotoluene	40	40.5	101	
o-Nitrotoluene	40	56.1	140	
p-Nitrotoluene	40	37.8	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%

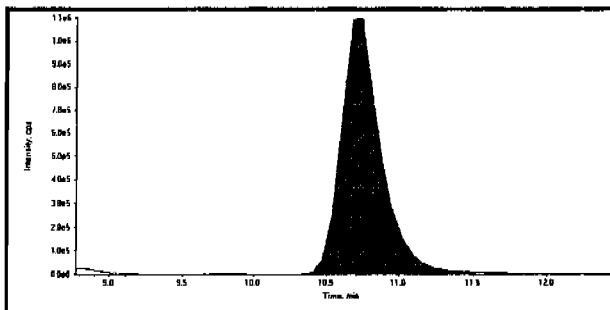
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

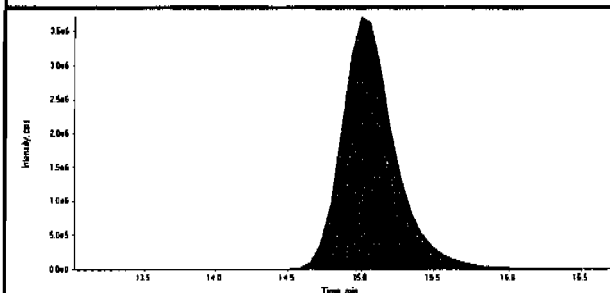
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

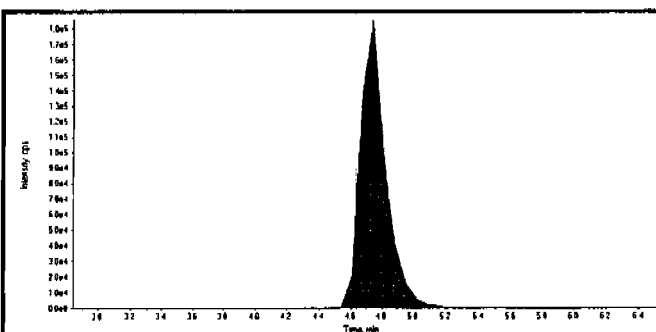
Data File	EXP0420082.wiff	Acquisition Date	4/22/2010 1:20:35 AM
Sample Name	WXX100421-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



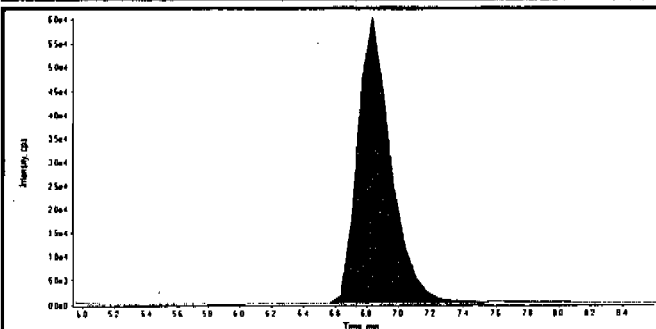
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	21500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	15.00
Area Counts:	95700000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	2.12e+006
Manual Modification	No
Amount:	46.0 (ng/mL)
% Accuracy:	115.00

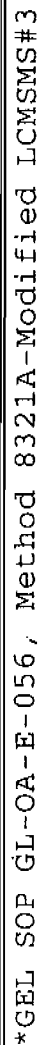


Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.84
Area Counts:	9.10e+005
Manual Modification	No
Amount:	38.3 (ng/mL)
% Accuracy:	95.70

*Handwritten:* LER 4/29/10 HMX 04/29/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420082.wiff	<b>Acquisition Date</b>	4/22/2010 1:20:35 AM
<b>Sample Name</b>	WXX100421-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.07
	Actual RT:	9.14
	Area Counts:	1.26e+007
	Manual Modification	No
	Amount:	39.1 (ng/mL)
	% Accuracy:	97.80

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.8
	Area Counts:	4.40e+006
	Manual Modification	No
	Amount:	39.7 (ng/mL)
	% Accuracy:	99.20

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.8
	Actual RT:	11.0
	Area Counts:	3.82e+006
	Manual Modification	No
	Amount:	42.7 (ng/mL)
	% Accuracy:	107.00

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.3
	Actual RT:	13.4
	Area Counts:	2.43e+007
	Manual Modification	Yes
	Amount:	42.9 (ng/mL)
	% Accuracy:	107.00

Before Jan 4/28/10

Sample Name: WAT100421.57251 Sample ID: 111251 File: E100420022.mf

Peak Name: "24-chlorobutanoic" Mass(es): 182.046 g/mol

Comment: "LCMS-EXP\_C" Annotation: "

Sample Index: 1

Sample Type: OC

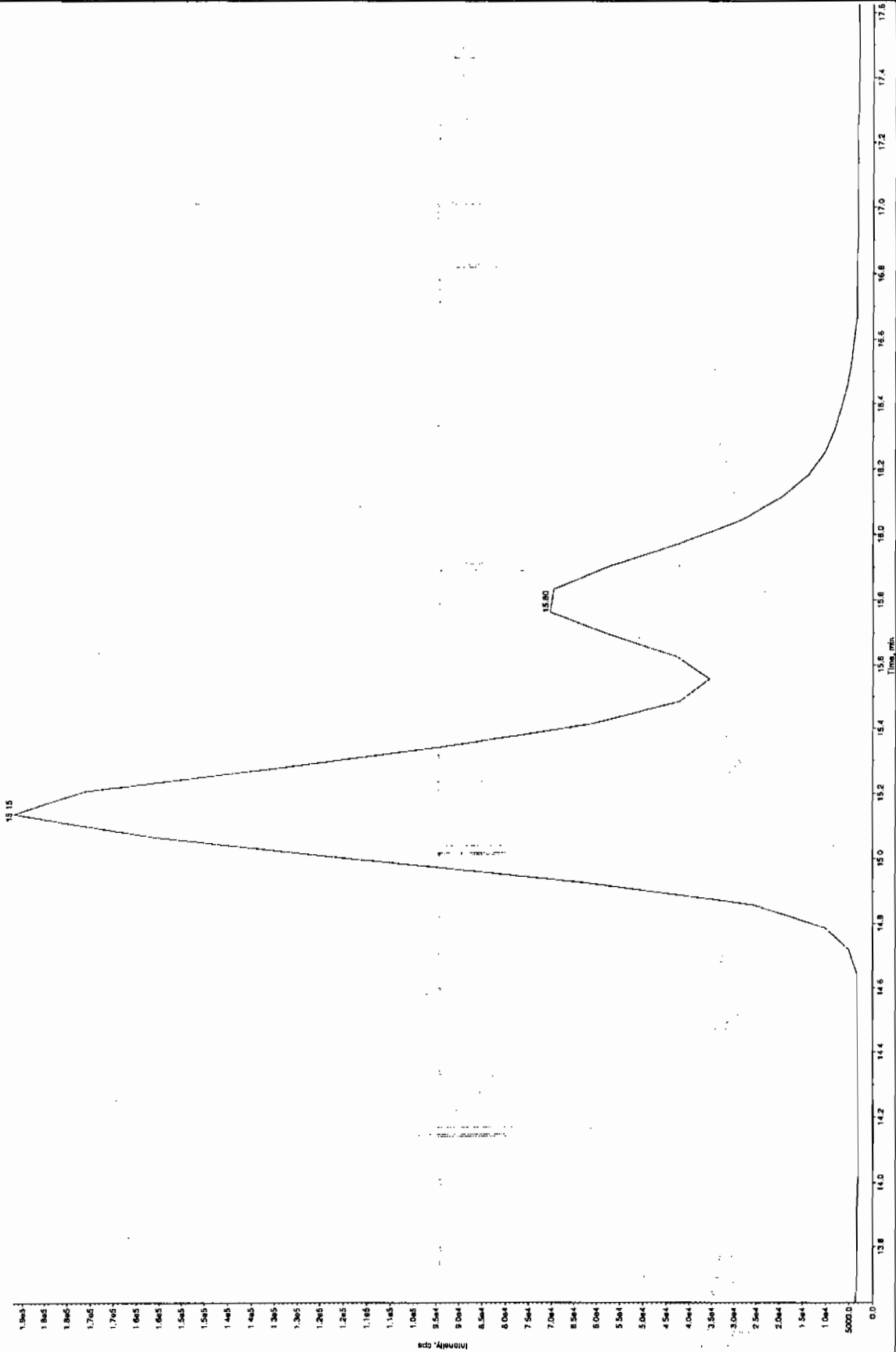
Concentration: 40 ng/mL

Calculated Conc: 0.50 ng/mL

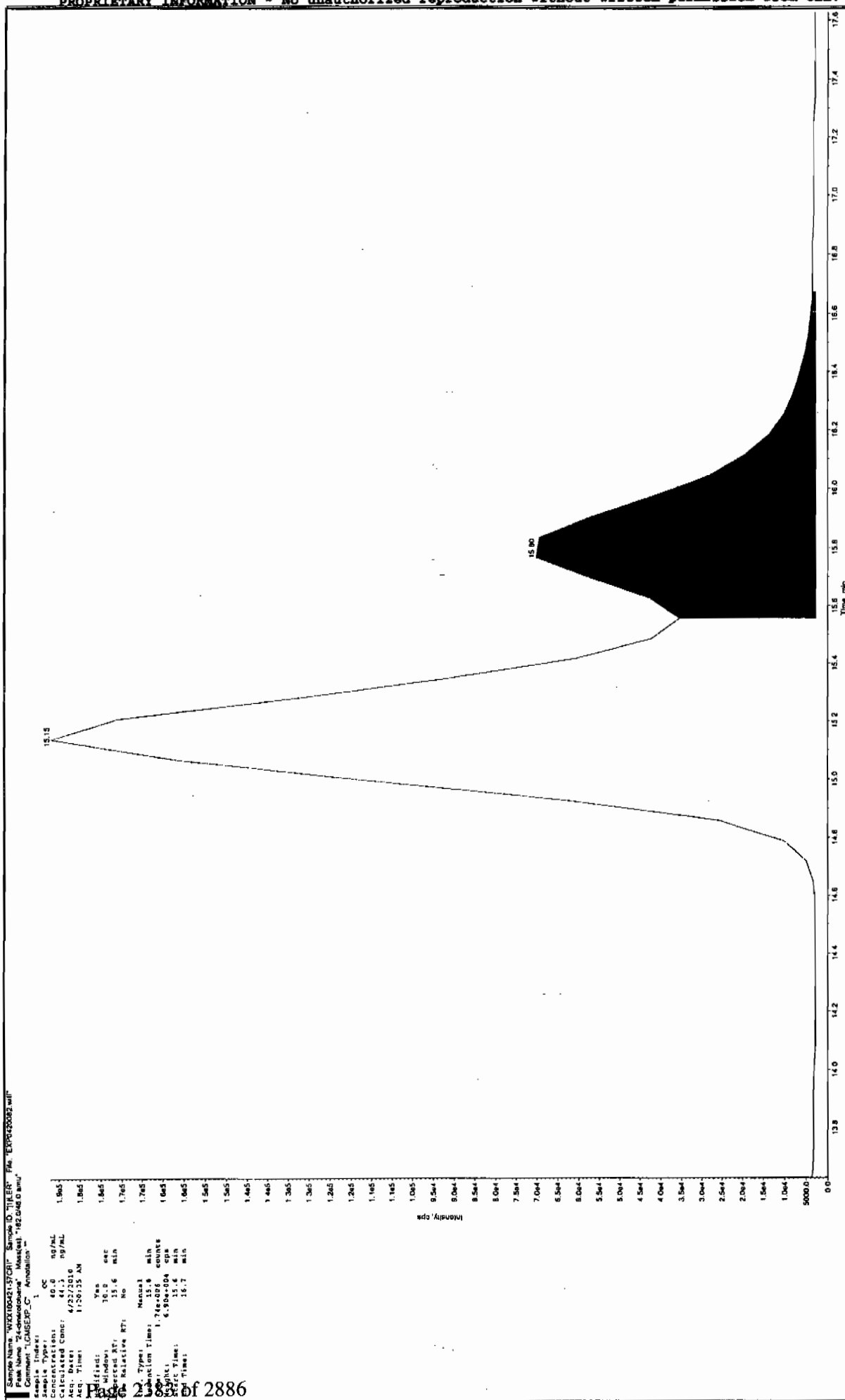
Acq. Date: 4/22/2010

Acq. Time: 1:20:15 AM

Valid: No



After Sea 4/28/00



Sample Name: "NICKEL" Sample ID: "14.15" File: "EXP00002.wif"

Peak Name: "24-chloroquinone" Molecular Weight: 182.046 g/mol

Comment: "LCMS-EXP-C" Annotation: ""

Sample Index: 1

Concentration: 40.0 ng/mL

Calculated Conc: 44.1 ng/mL

Acq. Date: 4/22/2000

Acq. Time: 17:20:25 AM

Modified: Yes

Integration Window: 10.0 sec

Integration RT: 15.6 min

Integration RT: 17.05

Type: Manual

Retention Time: 15.6 min

Integration Time: 17.05 min

Integration Time: 15.4 min

Integration Time: 15.7 min

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420082.wiff	<b>Acquisition Date</b>	4/22/2010 1:20:35 AM
<b>Sample Name</b>	WXX100421-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	12.0
	Area Counts:	1.69e+005
	Manual Modification	No
	Amount:	35.4 (ng/mL)
	% Accuracy:	88.60

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.3
	Area Counts:	2.64e+006
	Manual Modification	No
	Amount:	16.2 (ng/mL)
	% Accuracy:	81.00

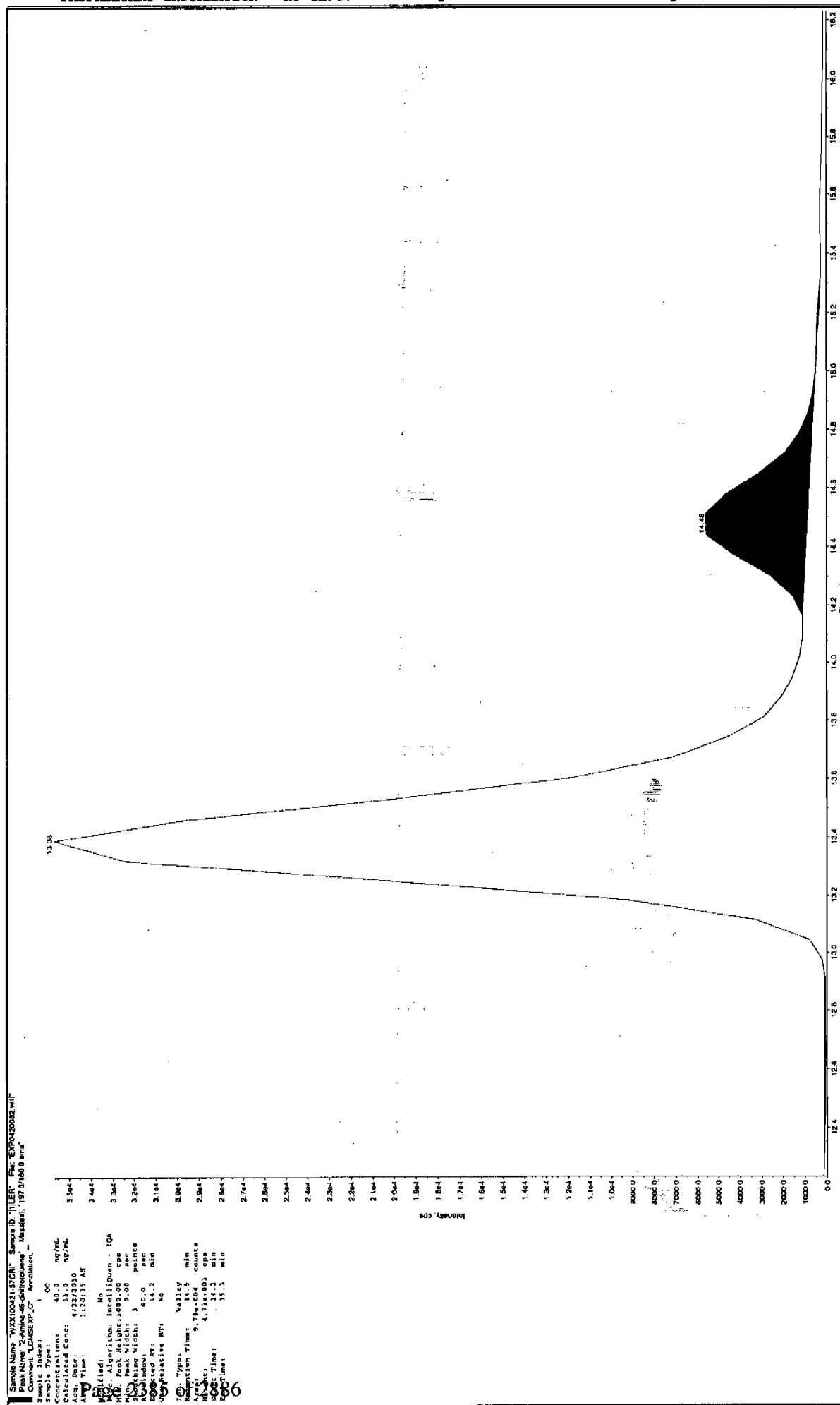
	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.1
	Actual RT:	15.1
	Area Counts:	4.41e+006
	Manual Modification	Yes
	Amount:	36.6 (ng/mL)
	% Accuracy:	91.60

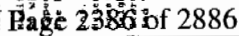
	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	15.8
	Area Counts:	1.74e+006
	Manual Modification	Yes
	Amount:	44.3 (ng/mL)
	% Accuracy:	111.00



Before Dec 4/28/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



\*GEL SOP GL-0A-E-056, Method 8321A-Modified LCMSMS#3

Before Dec 4/18/10

Sample Name: "WXX00421-STR" Sample ID: "1111" File: "EXP000002.wit"

Peak Name: "2-Nitrofluorene" Retention: "13.046.0 min"

Concentration: "1.32e+003 cps"

Sample Type: "DC"

Concentration: "10.0 ng/mL"

Calculated Conc: "1.32e+003 cps"

Acq. Date: "4/2/2010"

Acq. Time: "11:20:15 AM"

Modified: "No"

Peak Name: "2-Nitrofluorene"

Peak Height: "100.00 cps"

Peak Width: "9.00 sec"

Peak Area: "3.00e+003 cps"

Peak Width: "9.00 sec"

Peak Area: "3.00e+003 cps"

Peak Width: "9.00 sec"

Peak Area: "3.00e+003 cps"

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Peak Area: "3.00e+003 cps"

Peak Width: "9.00 sec"

Peak Area: "3.00e+003 cps"

Peak Width: "9.00 sec"

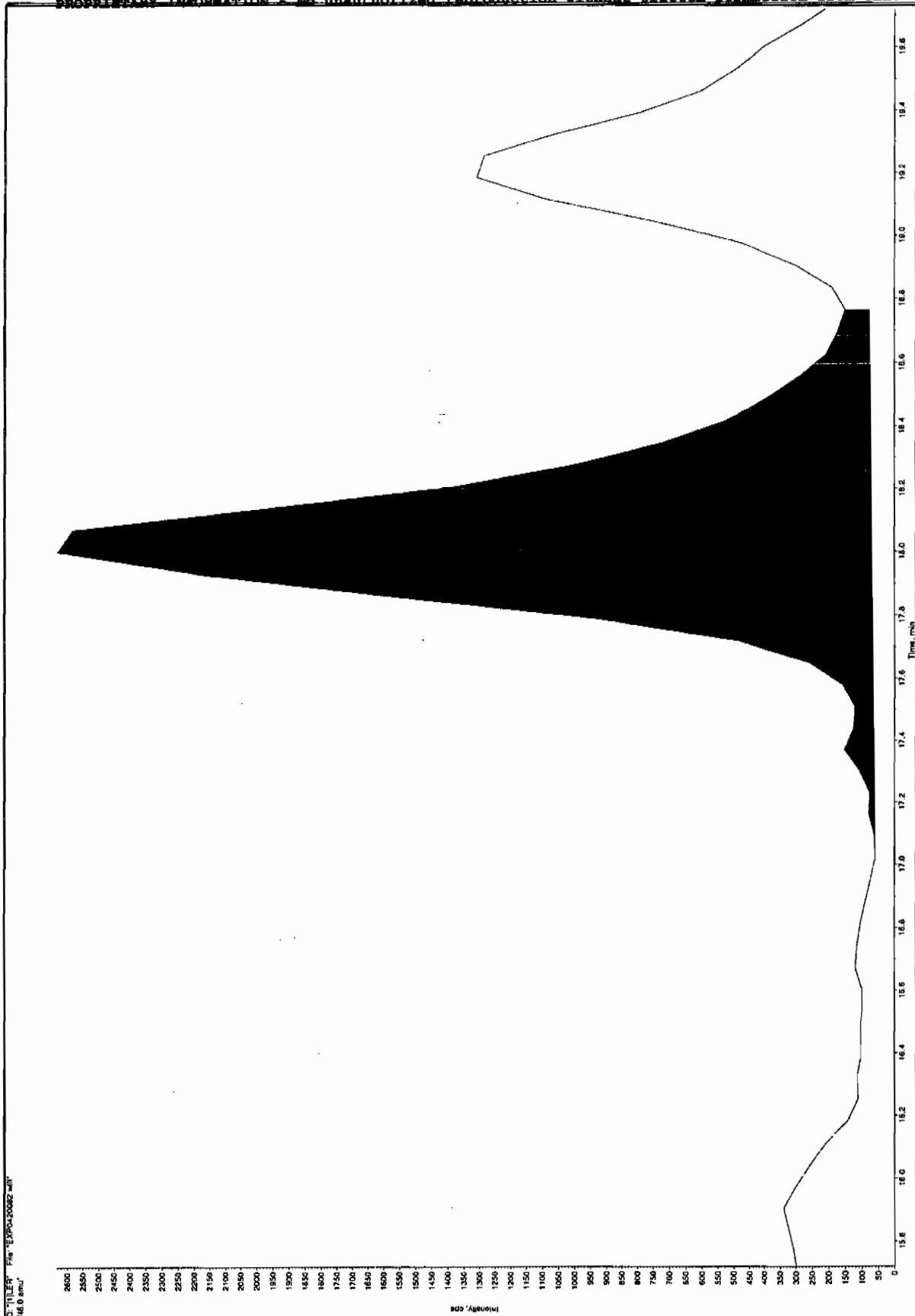
Peak Area: "3.00e+003 cps"

Peak Width: "9.00 sec"

Peak Area: "3.00e+003 cps"

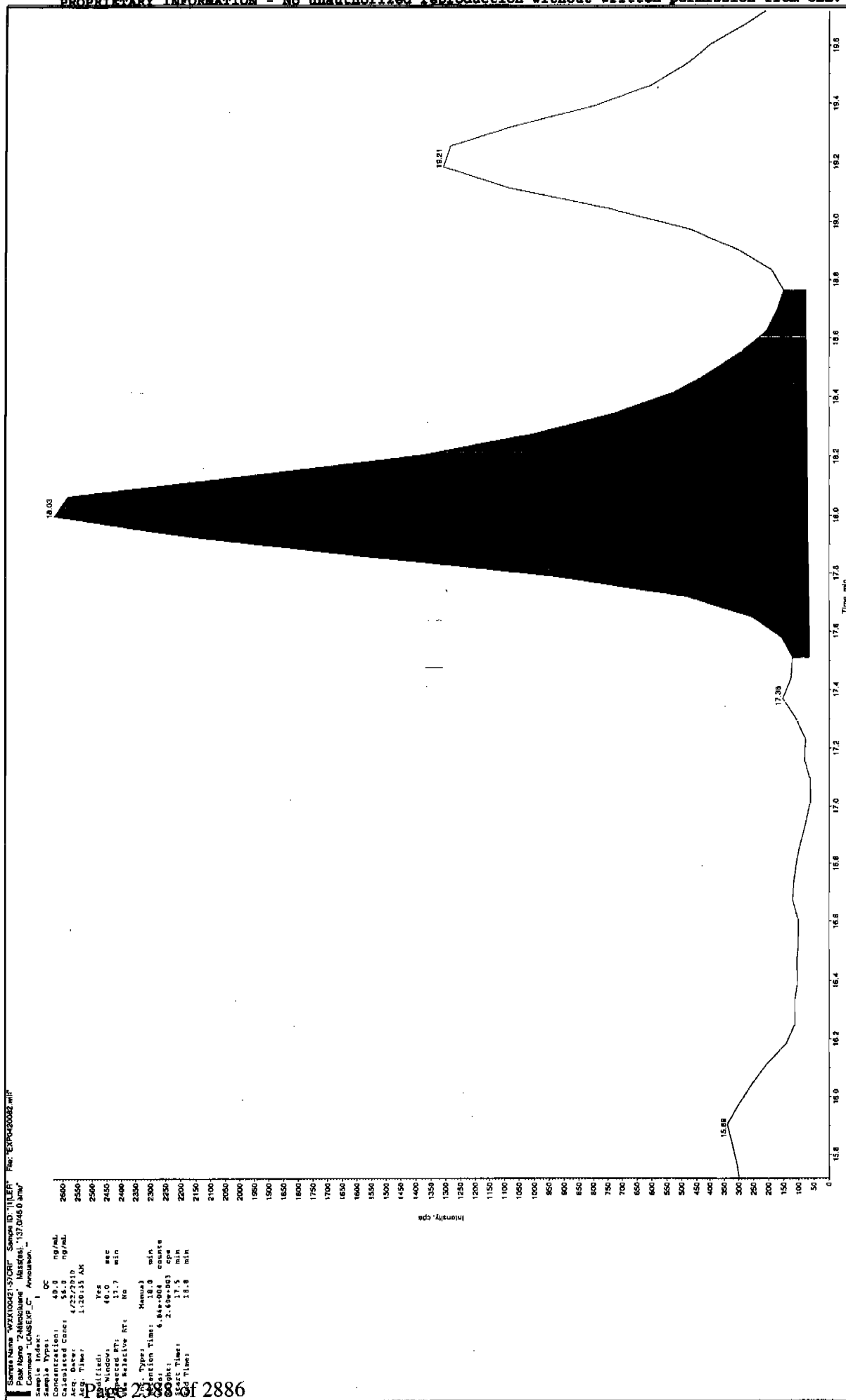
Peak Width: "9.00 sec"

Peak Area: "3.00e+003 cps"



\*GEL SOP GL-0A-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/28/10



File: "EXP042008.wif"

Sample Name: "02X100421-570R" Source ID: "111ER"

Peak Name: "2-Methylolane" Mass(es): "137.0746.0 amu"

Comment: "LCASEXP\_C" Annotation: "

Sample Index:

Sample Type: "OC"

Concentration: "40.0 ng/mL"

Calculated Conc: "54.0 ng/mL"

Acq. Date: "4/23/2010"

Acq. Time: "1:20:35 AM"

Ref. Time: "1:20:35 AM"

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Ref. Time: "1:20:35 AM"

Before  
After

Sample Name: "WJX000421-SYGR" Sample ID: "111ER" File: "E:\P04200022.wif"

Peak Name: "4-Nitrothiophene" Mass(es): "137.046 0 amu"

Comment: "LCMS-EXP\_C" Annotation: "

Sample Index: 1

Concentration: 40.9 ng/mL

Calculated Conc: 37.3 ng/mL

Acq. Date: 4/22/2019

Acq. Time: 1:20:19 AM

Peak(s): 1

Peak Name: 4-Nitrothiophene

Peak Retention Time: 17.38 min

Peak Width: 1.00 sec

Peak Area: 1000000

Peak Height: 60.0 sec

Peak Width: 1.00 min

Peak Area: 1000000

Peak Height: 60.0 sec

Peak Width: 1.00 min

Peak Area: 1000000

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Peak Area: 1000000

Peak Height: 60.0 sec

Peak Width: 1.00 min

Peak Area: 1000000

Peak Height: 60.0 sec

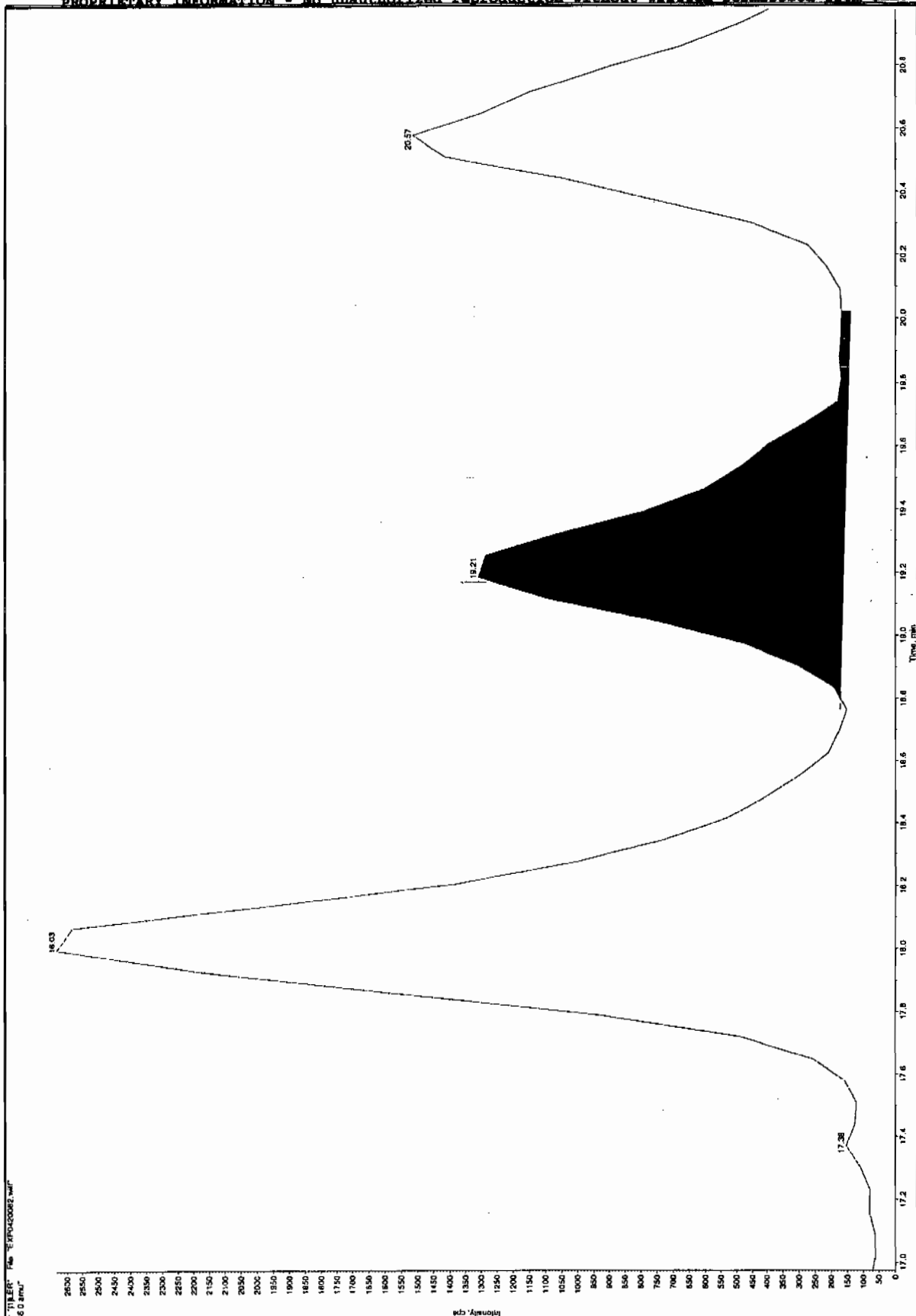
Peak Width: 1.00 min

Peak Area: 1000000

Peak Height: 60.0 sec

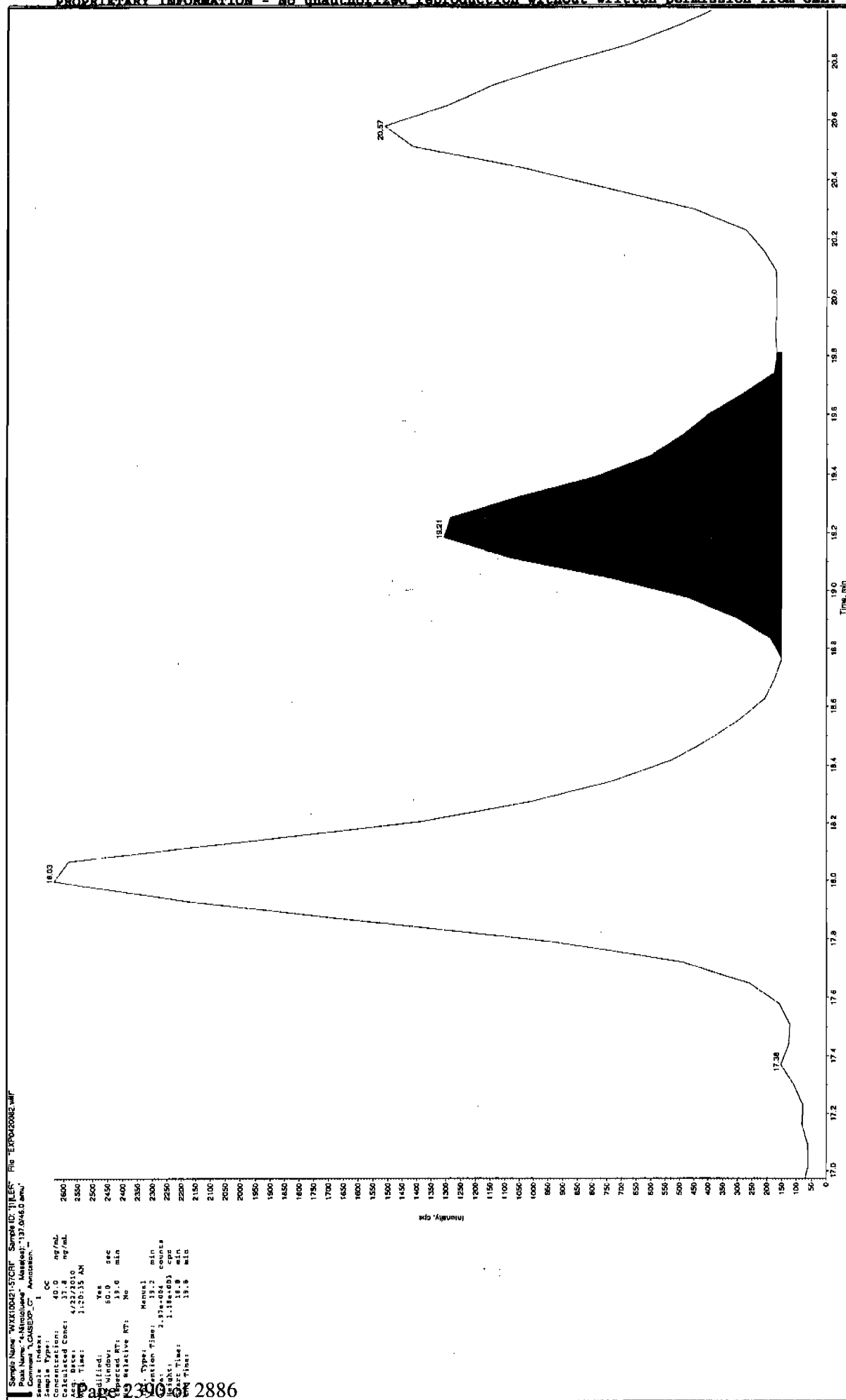
Peak Width: 1.00 min

Peak Area: 1000000



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/28/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420082.wiff	<b>Acquisition Date</b>	4/22/2010 1:20:35 AM
<b>Sample Name</b>	WXX100421-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	13.4
	Area Counts:	3.52e+006
	Manual Modification	No
	Amount:	37.7 (ng/mL)
	% Accuracy:	94.30

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.5
	Area Counts:	1.18e+005
	Manual Modification	Yes
	Amount:	39.9 (ng/mL)
	% Accuracy:	99.80

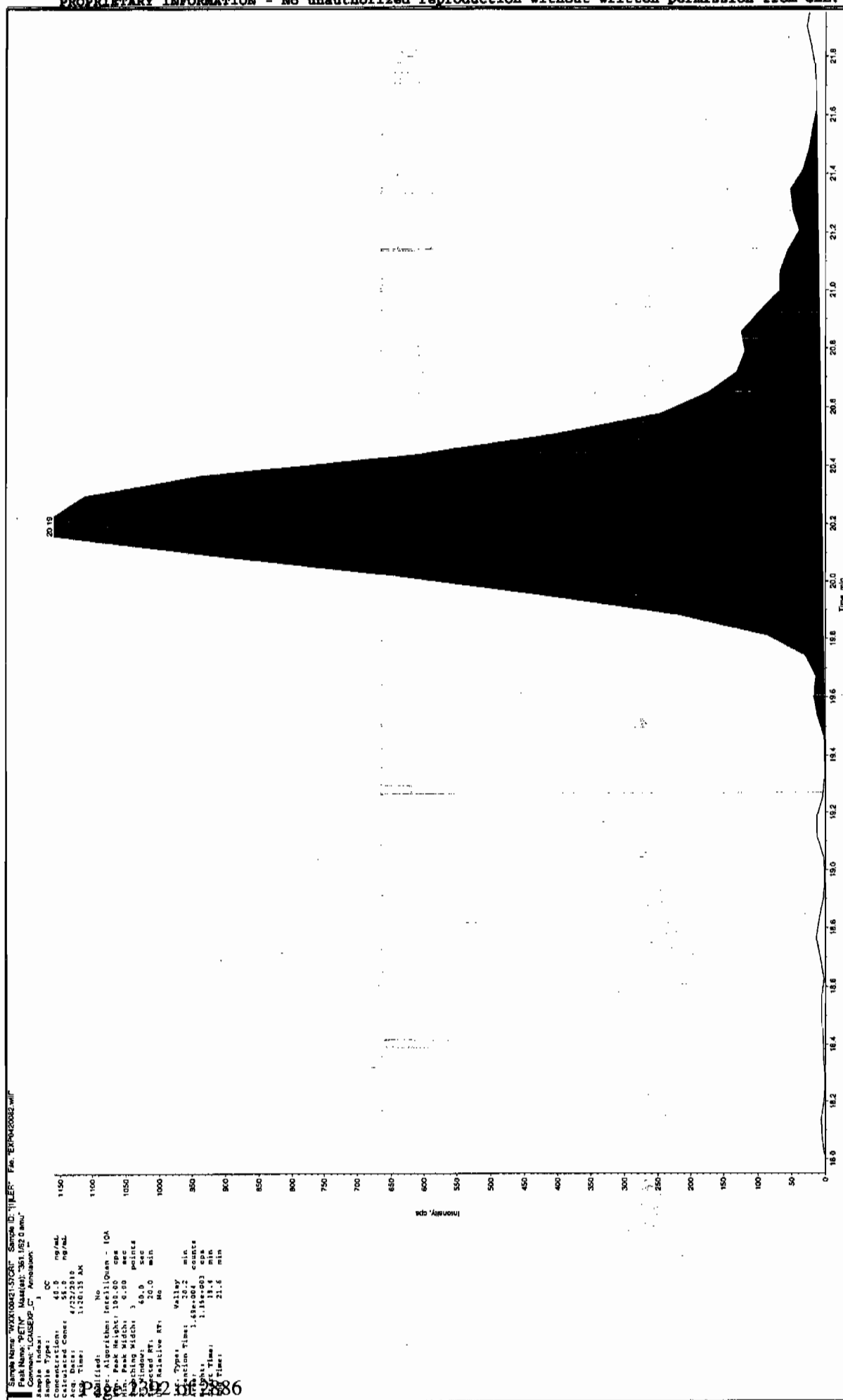
  

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	18.0
	Area Counts:	6.84e+004
	Manual Modification	Yes
	Amount:	56.1 (ng/mL)
	% Accuracy:	140.00

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	19.2
	Area Counts:	2.97e+004
	Manual Modification	Yes
	Amount:	37.8 (ng/mL)
	% Accuracy:	94.60

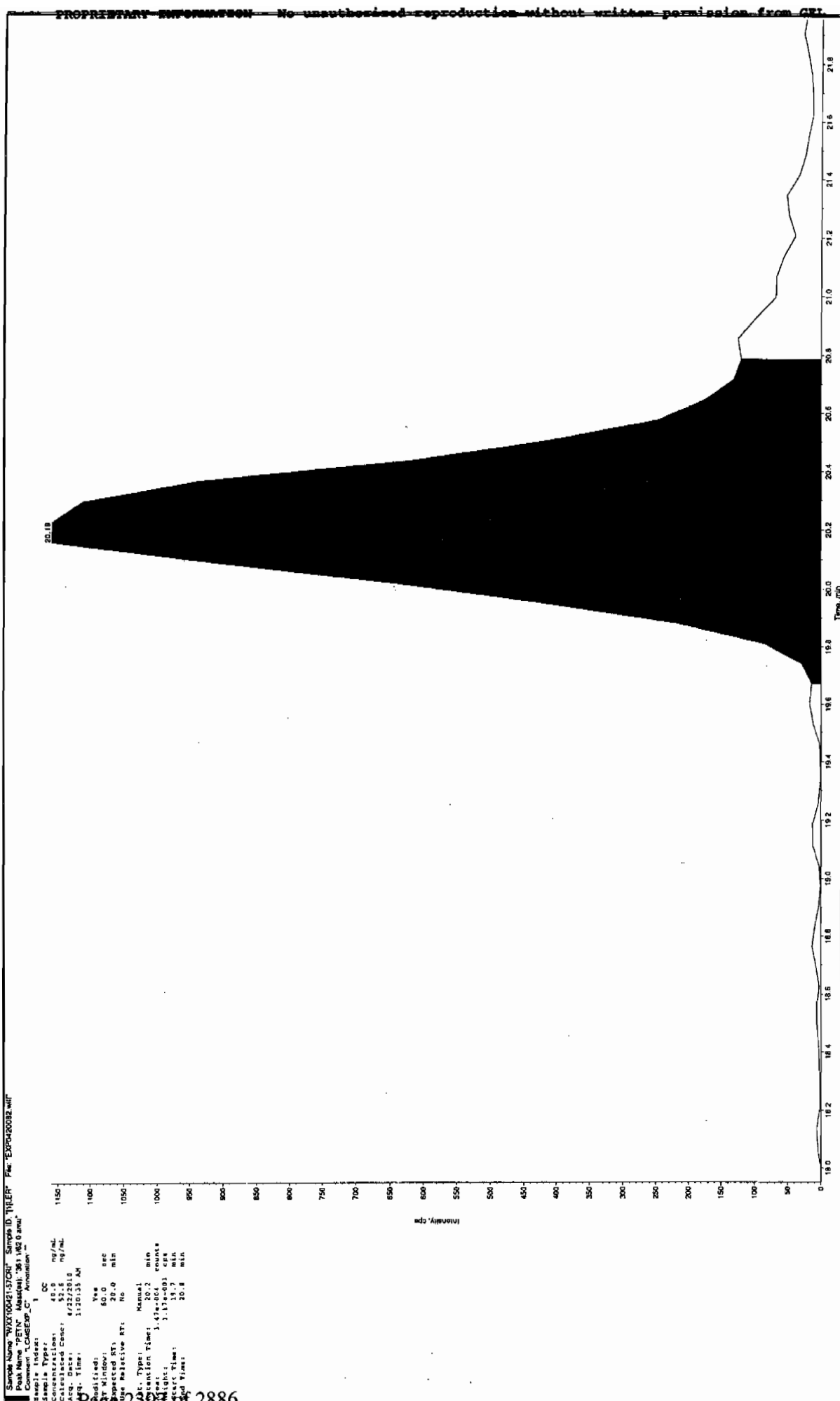
**PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.**



\*GEL SOP GL-0A-E-056, Method 8321A-Modified LCMSMS#3



after Jan 4/29/10



Sample Name: "WXX1004E157C01" Sample ID: "T1L01" File: "EXP0420032.mif"

Peak Name: "PETN" Mass(es): "361.182 0 amu"

Comment: "LCMS-EXP\_C" Annotation: "

Sample Index: 1 QC  
 Concentration: 48.0 ng/mL  
 Calculated Conc: 52.6 ng/mL  
 Acq. Date: 4/22/2010  
 Acq. Time: 11:20:55 AM

Method: Yes  
 Retention Time: 20.2 min  
 Expected RT: 20.0 min  
 Method: No

Acq. Type: Manual  
 Retention Time: 20.2 min  
 Peak Width: 0.1 min  
 Peak Height: 1.1E+001 cps  
 Start Time: 18.7 min  
 End Time: 20.8 min

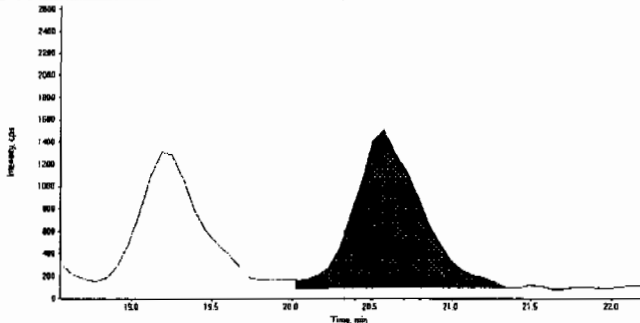
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

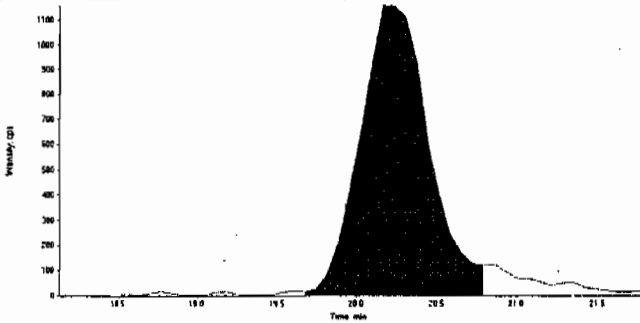
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420082.wiff	<b>Acquisition Date</b>	4/22/2010 1:20:35 AM
<b>Sample Name</b>	WXX100421-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	20.6
	<b>Area Counts:</b>	4.18e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	40.5 (ng/mL)
	<b>% Accuracy:</b>	101.00

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	20.2
	<b>Area Counts:</b>	3.47e+004
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	52.6 (ng/mL)
	<b>% Accuracy:</b>	132.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/22/10  
 Time of Injection 0120  
 Standard Number WXX100421-57CRI  
 Data File EXP0420082a

HMX	115.0
RDX	95.7
135-Trinitrobenzene	97.8
13-Dinitrobenzene	99.2
Tetryl	107.0
246-Trinitrotoluene	107.0
Nitrobenzene	88.6
34-dinitrotoluene	81.0
26-dinitrotoluene	91.6
24-dinitrotoluene	111.0
4-Amino-26-dinitrotoluene	94.3
2-Amino-46-dinitrotoluene	99.8
2-Nitrotoluene	140.0
4-Nitrotoluene	94.6
3-Nitrotoluene	101.0
PETN	132.0

TOTAL

✓ 1655.6

*hmm 04/29/10*

AVERAGE

✓ 103.5

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*246  
4/28/10*

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0420091.wiff

Analysis Date: 22-APR-10 05:14

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	622	104	
2,4,6-Trinitrotoluene	600	565	94	
2,4-Dinitrotoluene	600	565	94	
2,6-Dinitrotoluene	600	606	101	
2-Amino-4,6-dinitrotoluene	600	661	110	
3,4-Dinitrotoluene	300	291	97	
4-Amino-2,6-dinitrotoluene	600	694	116	
HMX	600	694	116	
Nitrobenzene	600	663	110	
PETN	600	693	116	
RDX	600	757	126	
Tetryl	600	629	105	
m-Dinitrobenzene	600	601	100	
m-Nitrotoluene	600	592	99	
o-Nitrotoluene	600	590	98	
p-Nitrotoluene	600	589	98	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene, 2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

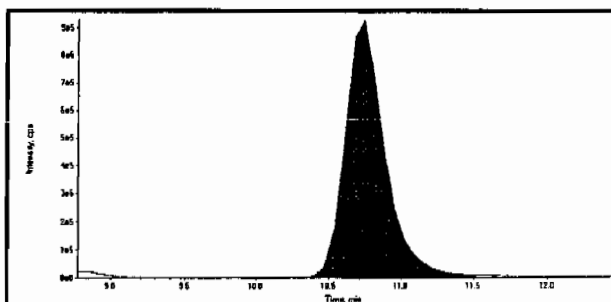
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

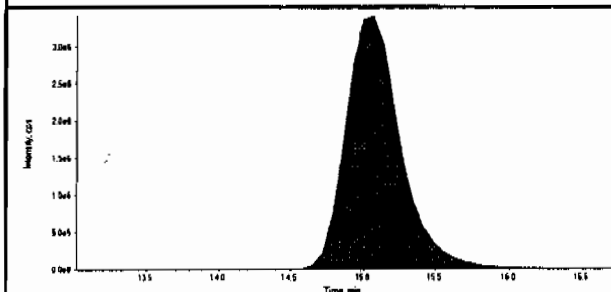
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

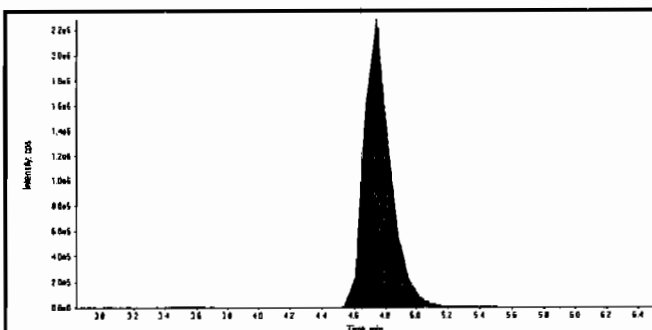
Data File	EXP0420091.wiff	Acquisition Date	4/22/2010 5:14:29 AM
Sample Name	WXX100421-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



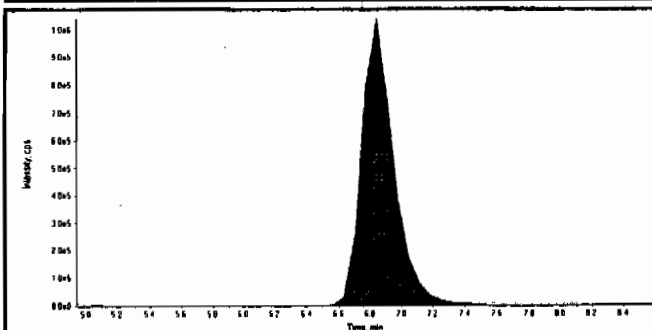
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	17900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	15.10
Area Counts:	91800000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	2.67e+007
Manual Modification	No
Amount:	694. (ng/mL)
% Accuracy:	116.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.84
Area Counts:	1.50e+007
Manual Modification	No
Amount:	757. (ng/mL)
% Accuracy:	126.00

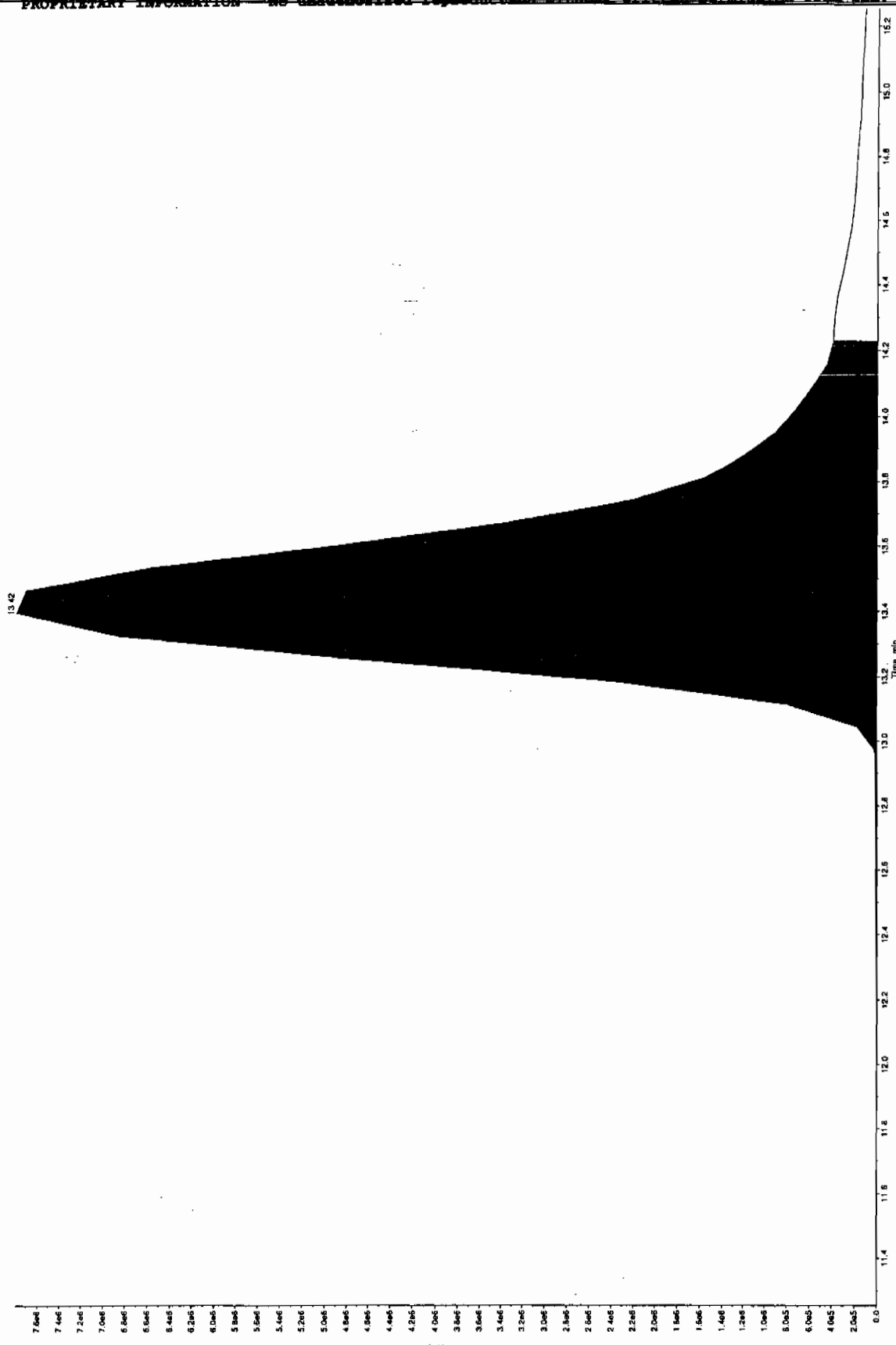
*LER*  
*4/29/10* *dhm*  
*04/29/10*



After Jan 4/18/10

Sample Name: 721100421-50567 Sample ID: 721100421-50567 File: EXP0400001.wif  
 Path: C:\Program Files\Agilent\LCMS\721100421-50567\721100421-50567.wif  
 Comment: LCMS-EXP\_07 Acquisition

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500 ng/mL  
 Calibration Conc: 505 ng/mL  
 Acq. Date: 4/22/2010 7:56  
 Acq. Time: 5:14:25 AM  
 Modified: Yes  
 RT Window: 40.0 sec  
 Expected RT: 13.3 min  
 Base Relative RT: No  
 Det. Type: Manual  
 Retention Time: 13.4 min  
 Area: 2.25e+008 counts  
 Height: 7.91e+006 cps  
 Width: 1.4 min  
 End Time: 14.2 min



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420091.wiff	<b>Acquisition Date</b>	4/22/2010 5:14:29 AM
<b>Sample Name</b>	WXX100421-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	9.14
	<b>Area Counts:</b>	1.23e+008
	<b>Manual Modification</b>	No
	<b>Amount:</b>	622. (ng/mL)
	<b>% Accuracy:</b>	104.00

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.9
	<b>Area Counts:</b>	5.55e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	601. (ng/mL)
	<b>% Accuracy:</b>	100.00

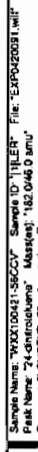
  

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	11.0
	<b>Area Counts:</b>	4.69e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	629. (ng/mL)
	<b>% Accuracy:</b>	105.00

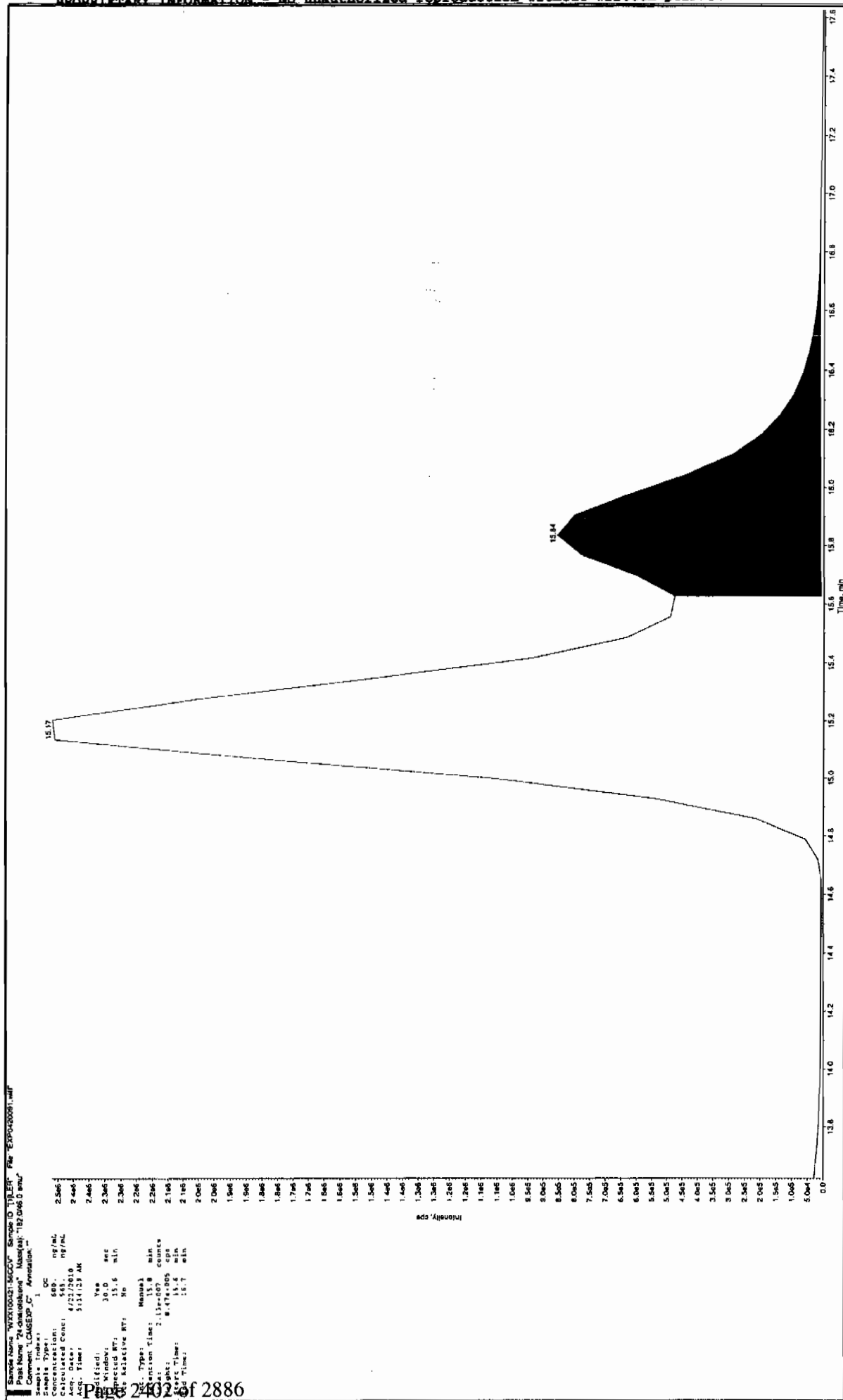
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.4
	<b>Area Counts:</b>	2.22e+008
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	565. (ng/mL)
	<b>% Accuracy:</b>	94.10





Sample Index:	QC	ng/mL
Sample Type:		
Concentration:	0.00	2.5e6
Calculated Conc:	0.00	2.4e6
Acq. Date:	4/22/2010	
Acq. Time:	5:10:29 AM	2.4e6
QC	No	

after Jan 4/28/10



Sample Name: WXX100421-5600V Sample ID: 101181 File: EDP0420091.mf  
 Past Name: 24-chlorobutene Mass(es): 182.046 0 amu  
 Comment: LCMS-EXP\_C Annotation: --

Sample Index: 1  
 Concentration: 500 ng/mL  
 Acq. Date: 4/22/2010  
 Acq. Time: 5:14:12 PM  
 Diluted: Yes  
 Window: 30.0 sec  
 Expected RT: 15.6 min  
 RT: 15.6 min  
 RT Relative RT: No  
 Type: Manual  
 Injection Time: 15.8 min  
 Peak: 2.11e6 cps  
 Peak: 8.47e6 cps  
 Peak Time: 15.4 min  
 Peak Time: 15.7 min

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420091.wiff	<b>Acquisition Date</b>	4/22/2010 5:14:29 AM
<b>Sample Name</b>	WXX100421-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	12.0
	Area Counts:	2.65e+006
	Manual Modification	No
	Amount:	663. (ng/mL)
	% Accuracy:	110.00

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.3
	Area Counts:	3.59e+007
	Manual Modification	No
	Amount:	291. (ng/mL)
	% Accuracy:	97.10

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.2
	Actual RT:	15.2
	Area Counts:	6.03e+007
	Manual Modification	Yes
	Amount:	606. (ng/mL)
	% Accuracy:	101.00

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	15.8
	Area Counts:	2.13e+007
	Manual Modification	Yes
	Amount:	565. (ng/mL)
	% Accuracy:	94.20

Before Jan 4/28/10

Sample Name: "WAX1000315600" Sample ID: "TILER" File: "EXP020001.wif"

Peak Name: "2-Amino-4-nitrophenol" Mass(es): "187.0760.0 amu"

Comment: "LCMS001" Acquisition: "187.0760.0 amu"

Sample Type: "QC"

Concentration: "500.000" ng/mL

Calculated Conc: "4.71500" ng/mL

Acq. Time: "5:11:29 AM"

Modified: "No"

Acquisition: "Ion"

Peak Width: "0.00" sec

Sampling Width: "0.00" sec

Resolution: "60.0" Hz

Acquired RT: "14.2" min

Relative RT: "No"

Acq. Type: "Valley"

Acq. Time: "4.834-005" counts

Acq. Rate: "1.00e+005" cps

Acq. Time: "14.2" min

Acq. Time: "11.8" min

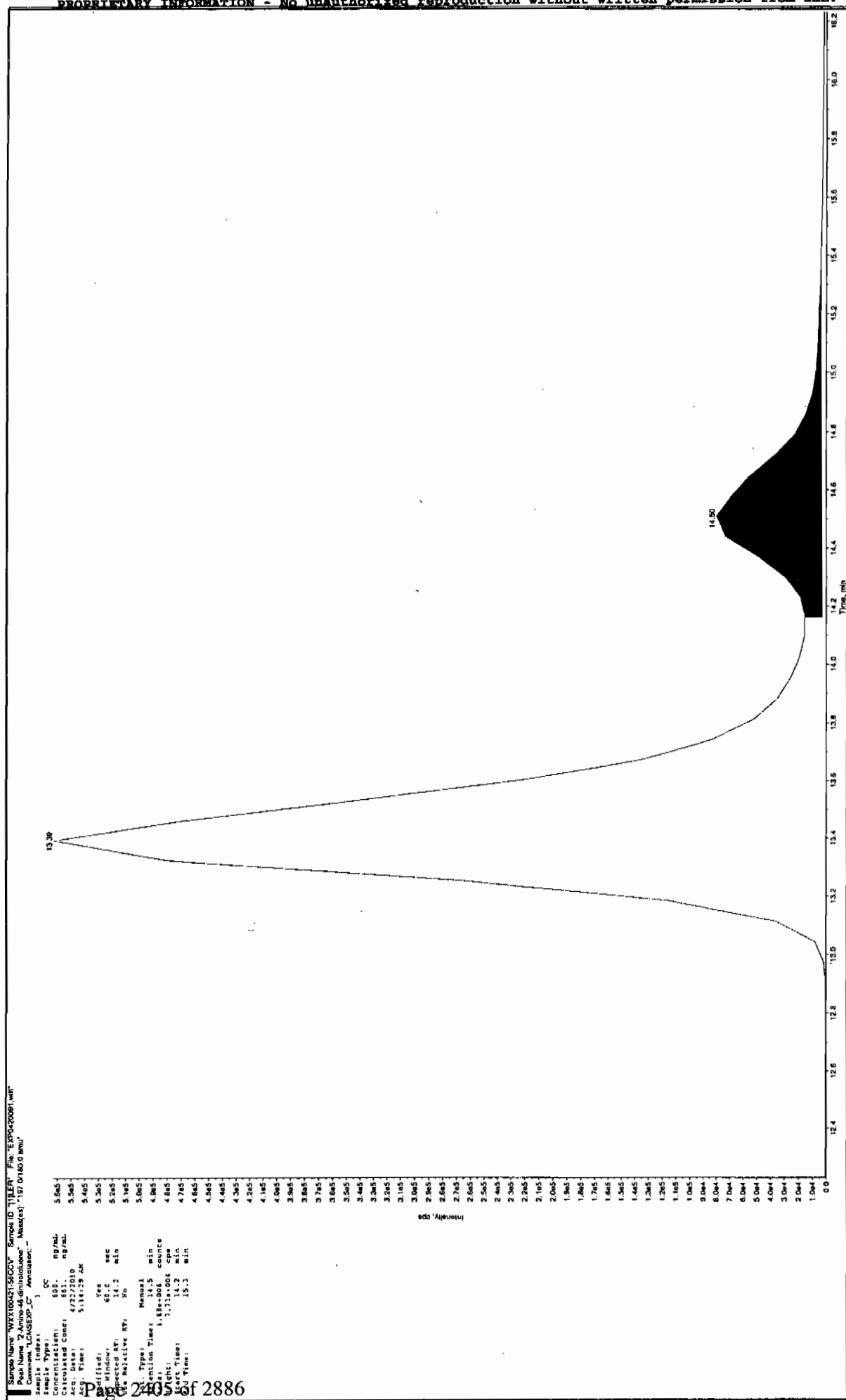
13.39

14.50

Intensity, cps

Time, min

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



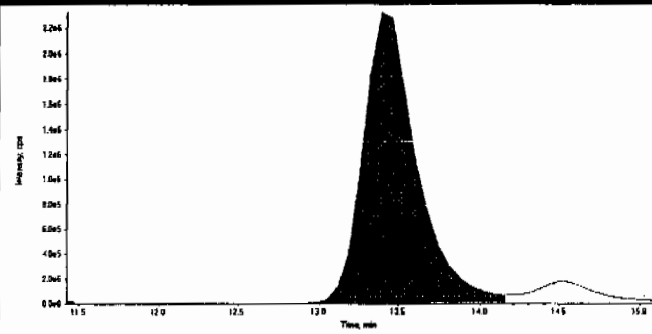
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

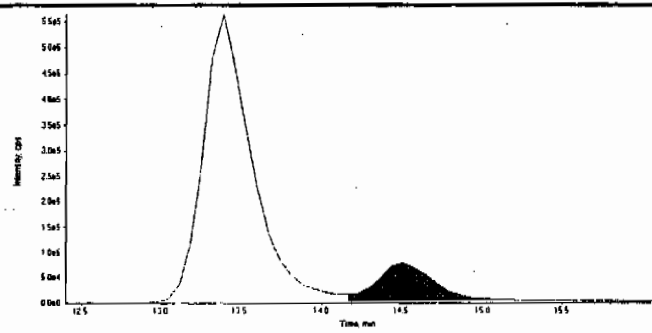
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420091.wiff	<b>Acquisition Date</b>	4/22/2010 5:14:29 AM
<b>Sample Name</b>	WXX100421-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

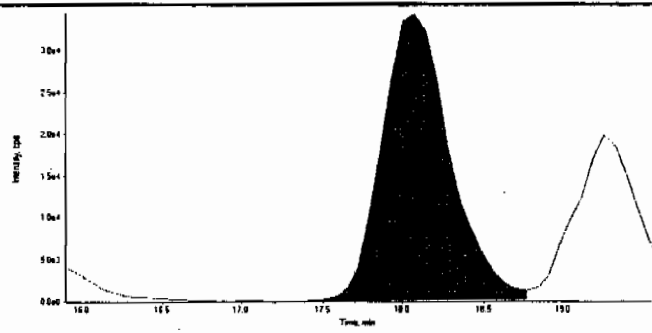
  

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	13.4
	Area Counts:	5.44e+007
	Manual Modification	No
	Amount:	694. (ng/mL)
	% Accuracy:	116.00

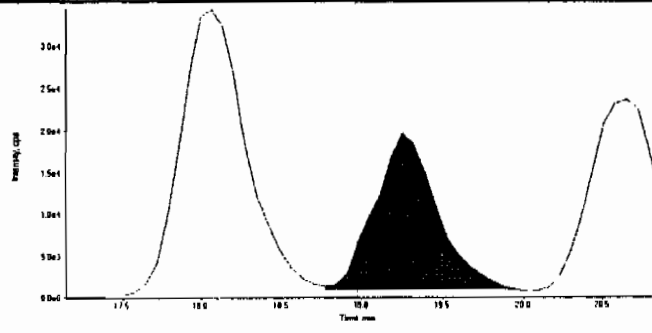
  

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.5
	Area Counts:	1.88e+006
	Manual Modification	Yes
	Amount:	661. (ng/mL)
	% Accuracy:	110.00

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	18.1
	Area Counts:	1.01e+006
	Manual Modification	No
	Amount:	590. (ng/mL)
	% Accuracy:	98.30

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	19.3
	Area Counts:	5.15e+005
	Manual Modification	No
	Amount:	589. (ng/mL)
	% Accuracy:	98.10

Before Jan 4/2010

Sample Name: WXX10041-SEC07 Sample ID: T11ER File: E00410009.wif

Peak Name: PETN Mass(es): 361.182.0 amu

Comment: LONDERP\_C Acquisition

Sample Type: 1 QC

Concentration: 600. ng/mL

Calculated Conc: 47250.0 ng/mL

Acq. Time: 5/14/2008 AM

Modified: No

Acq. Method: Ion Chrom - 10A

Min. Peak Width: 100.00 cps

Min. Peak Width: 0.00 sec

Acquisition Width: 3 points

Acquisition Width: 60.0 sec

Acquisition Width: 10.0 min

Acquisition Width: 10.0 min

Acquisition Width: 10.0 min

Acquisition Width: 10.0 min

Acquisition Width: 10.0 min

Acquisition Width: 10.0 min

Acquisition Width: 10.0 min

Acquisition Width: 10.0 min

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Acquisition Width: 10.0 min

Acquisition Width: 10.0 min

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Acquisition Width: 10.0 min

Acquisition Width: 10.0 min

Acquisition Width: 10.0 min

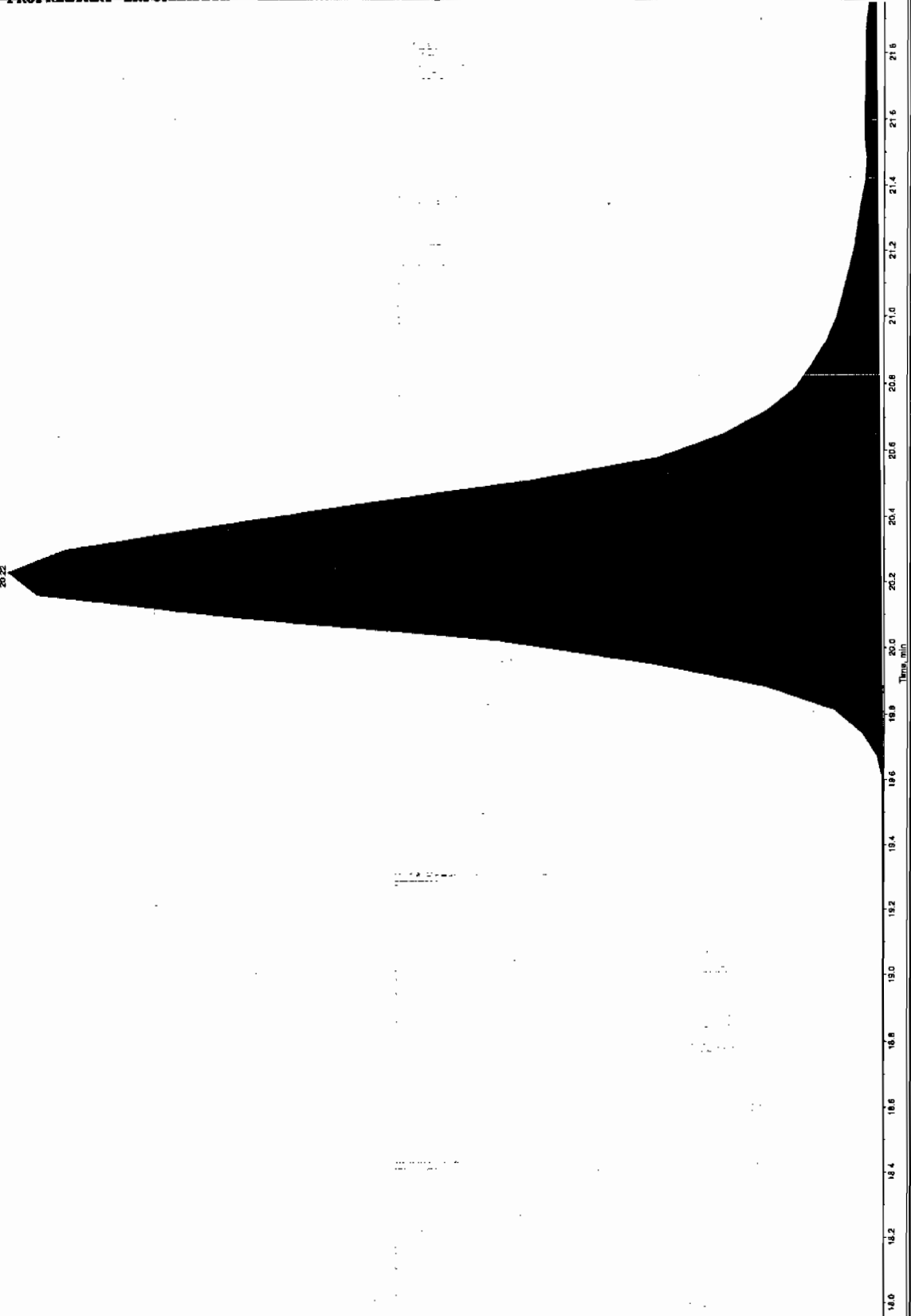
Acquisition Width: 10.0 min

Acquisition Width: 10.0 min

Acquisition Width: 10.0 min

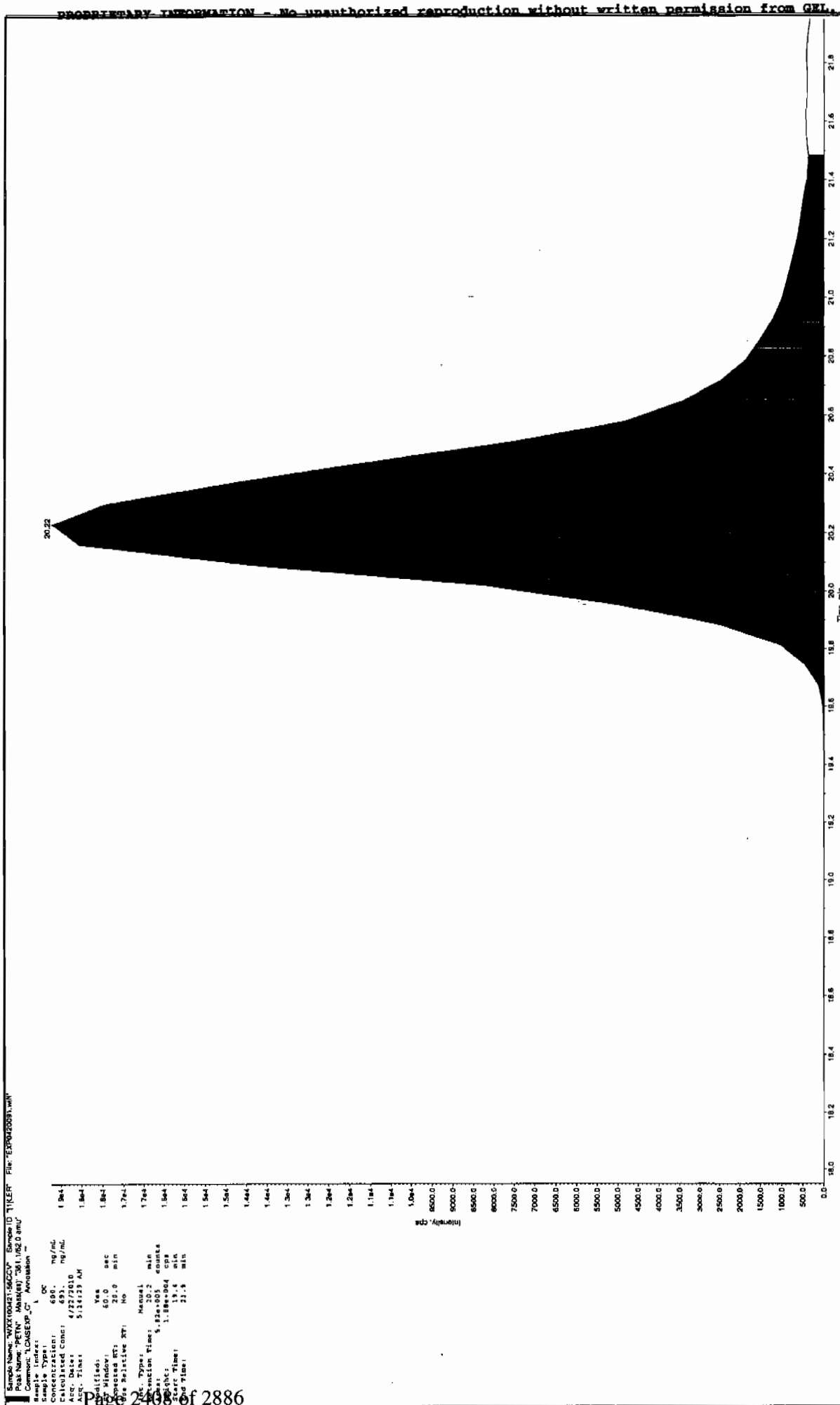
Acquisition Width: 10.0 min

Intensity: cps



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after San Analo

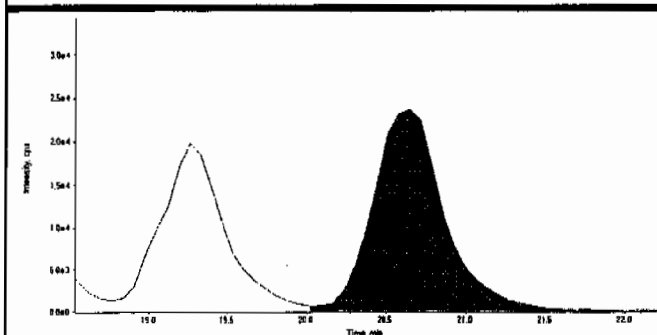




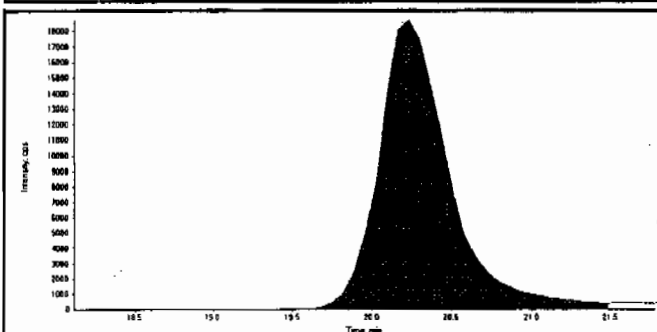
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420091.wiff	Acquisition Date	4/22/2010 5:14:29 AM
Sample Name	WXX100421-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.4
Actual RT:	20.6
Area Counts:	7.50e+005
Manual Modification	No
Amount:	592. (ng/mL)
% Accuracy:	98.70



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	20.2
Area Counts:	5.82e+005
Manual Modification	Yes
Amount:	693. (ng/mL)
% Accuracy:	116.00

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/22/10  
 Time of Injection 0514  
 Standard Number WXX100421-56CCV  
 Data File EXP0420091a

HMX	116.0
RDX	126.0
135-Trinitrobenzene	104.0
13-Dinitrobenzene	100.0
Tetryl	105.0
246-Trinitrotoluene	94.1
Nitrobenzene	110.0
34-dinitrotoluene	97.1
26-dinitrotoluene	101.0
24-dinitrotoluene	94.2
4-Amino-26-dinitrotoluene	116.0
2-Amino-46-dinitrotoluene	110.0
2-Nitrotoluene	98.3
4-Nitrotoluene	98.1
3-Nitrotoluene	98.7
PETN	116.0

TOTAL

✓ 1684.5

*4/29/10*

AVERAGE

✓ 105.3

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*See  
4/28/10*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0420093.wiff

Analysis Date: 22-APR-10 06:06

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	34	85	
2,4,6-Trinitrotoluene	40	40.8	102	
2,4-Dinitrotoluene	40	37.7	94	
2,6-Dinitrotoluene	40	39.6	99	
2-Amino-4,6-dinitrotoluene	40	35.4	89	
3,4-Dinitrotoluene	20	16.3	81	
4-Amino-2,6-dinitrotoluene	40	36.1	90	
HMX	40	49.6	124	
Nitrobenzene	40	25.9	65	
PETN	40	54.2	136	
RDX	40	46.5	116	
Tetryl	40	40.4	101	
m-Dinitrobenzene	40	44.2	110	
m-Nitrotoluene	40	45.7	114	
o-Nitrotoluene	40	53.9	135	
p-Nitrotoluene	40	36.6	91	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

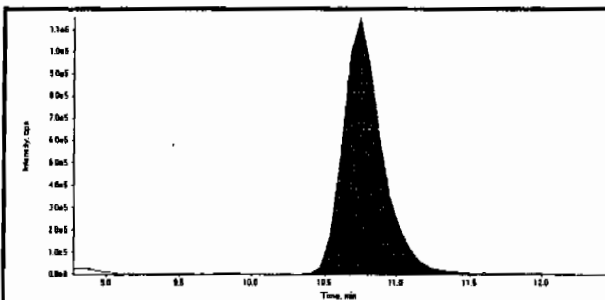
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

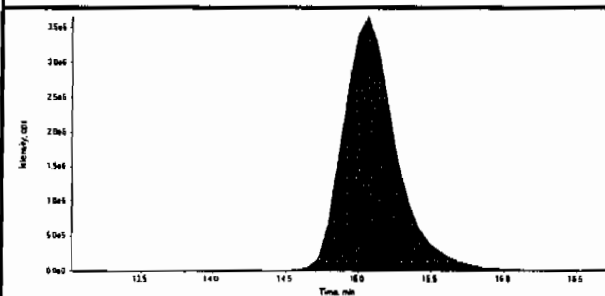
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

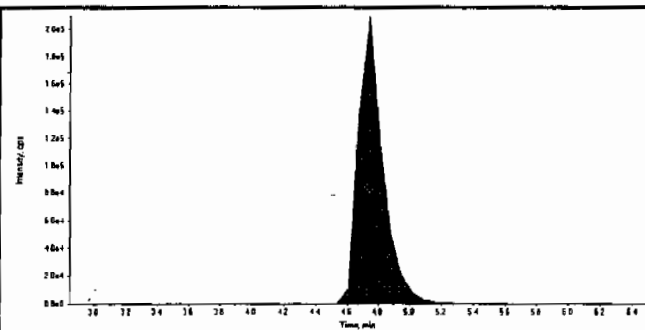
Data File	EXP0420093.wiff	Acquisition Date	4/22/2010 6:06:25 AM
Sample Name	WXX100421-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



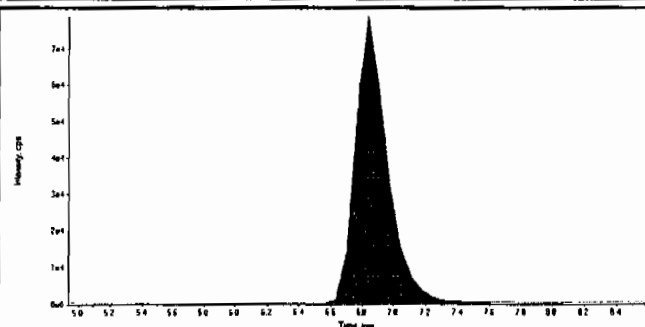
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	22100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	15.10
Area Counts:	94100000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



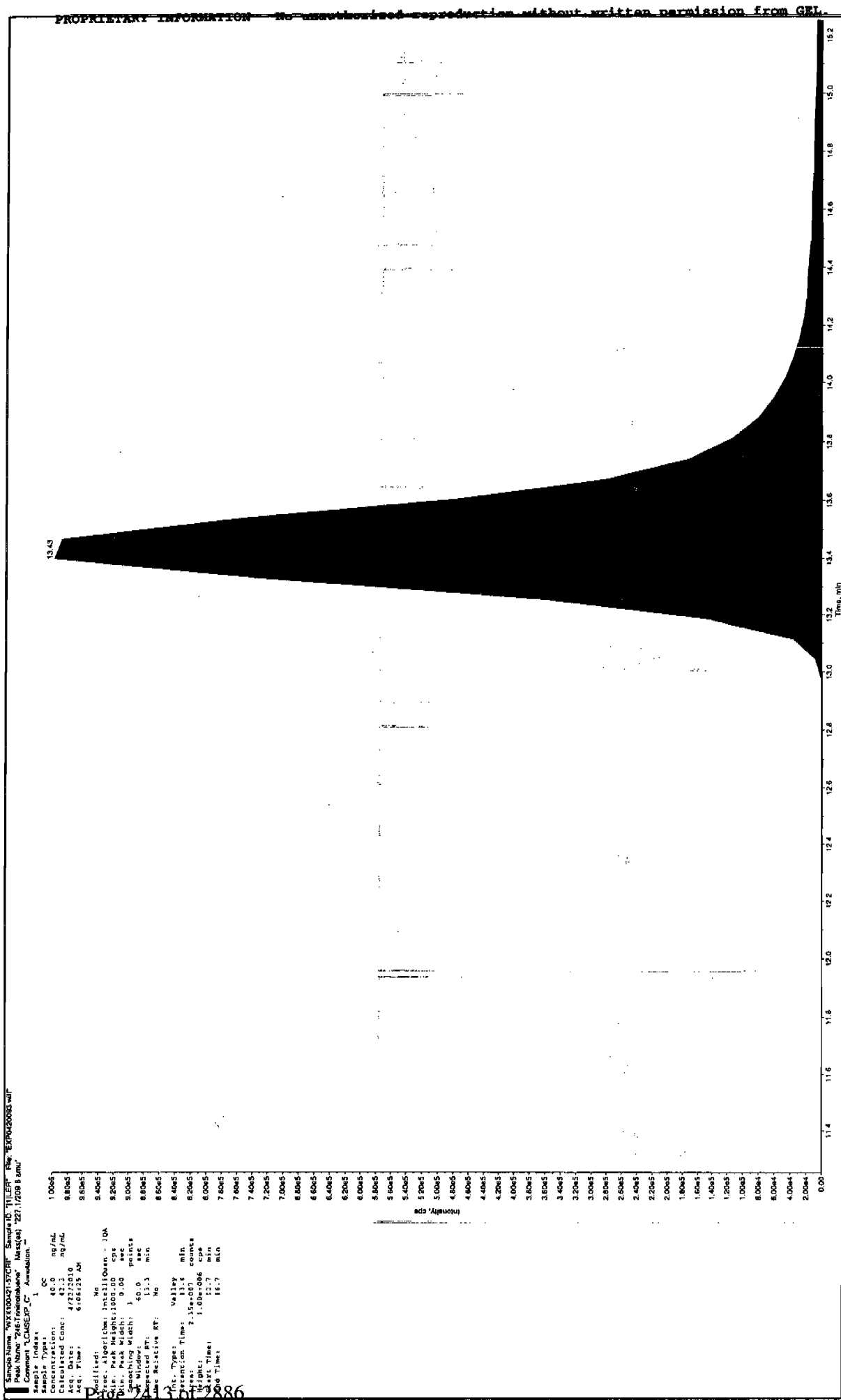
Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	2.35e+006
Manual Modification	No
Amount:	49.6 (ng/mL)
% Accuracy:	124.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.84
Area Counts:	1.13e+006
Manual Modification	No
Amount:	46.5 (ng/mL)
% Accuracy:	116.00

*San 4/29/10* *Amc 04/29/10*

Before Jan 4/81



Sample Index: 1  
 Sample Type: OC  
 Concentration: 40.0 ng/mL  
 Estimated Conc: 4727.010 ng/mL  
 Date: 6/27/2010  
 Acq. Time: 6:06:25 AM

Modified: MS  
 Method: IntSilioum - 10A  
 Min. Peak Height: 100.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 1.00 points  
 Resolution: 60.0  
 Expected RT: 13.3 min  
 Mass Relative RT: No

Peak Type: Valley  
 Retention Time: 13.4 min  
 Height: 2.15e+003 counts  
 Width: 1.00e+006 cps  
 Start Time: 12.7 min  
 End Time: 13.7 min

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420093.wiff	<b>Acquisition Date</b>	4/22/2010 6:06:25 AM
<b>Sample Name</b>	WXX100421-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	9.14
	<b>Area Counts:</b>	1.18e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	34.0 (ng/mL)
	<b>% Accuracy:</b>	85.00

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.9
	<b>Area Counts:</b>	5.02e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	44.2 (ng/mL)
	<b>% Accuracy:</b>	110.00

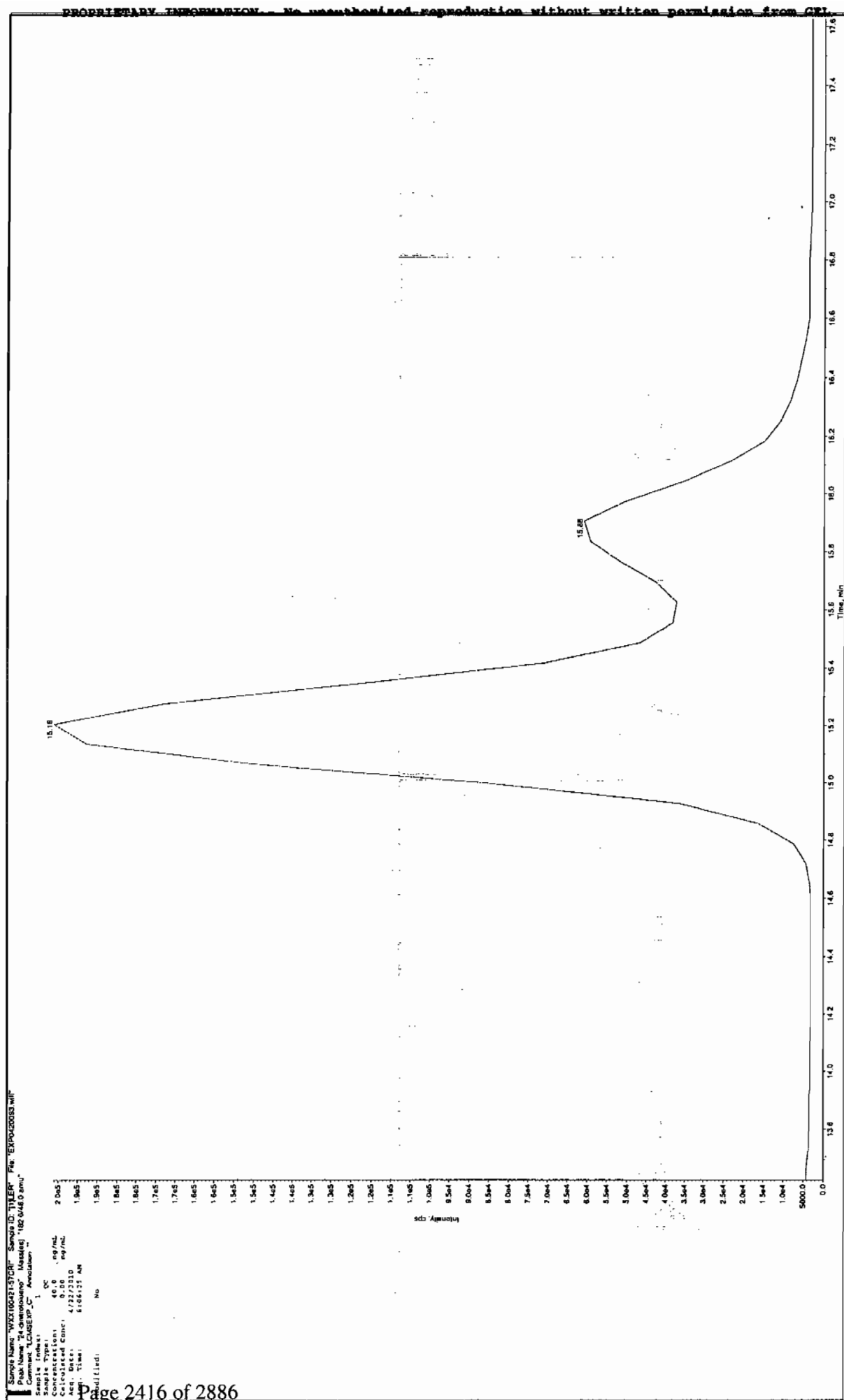
  

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	11.0
	<b>Area Counts:</b>	3.71e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	40.4 (ng/mL)
	<b>% Accuracy:</b>	101.00

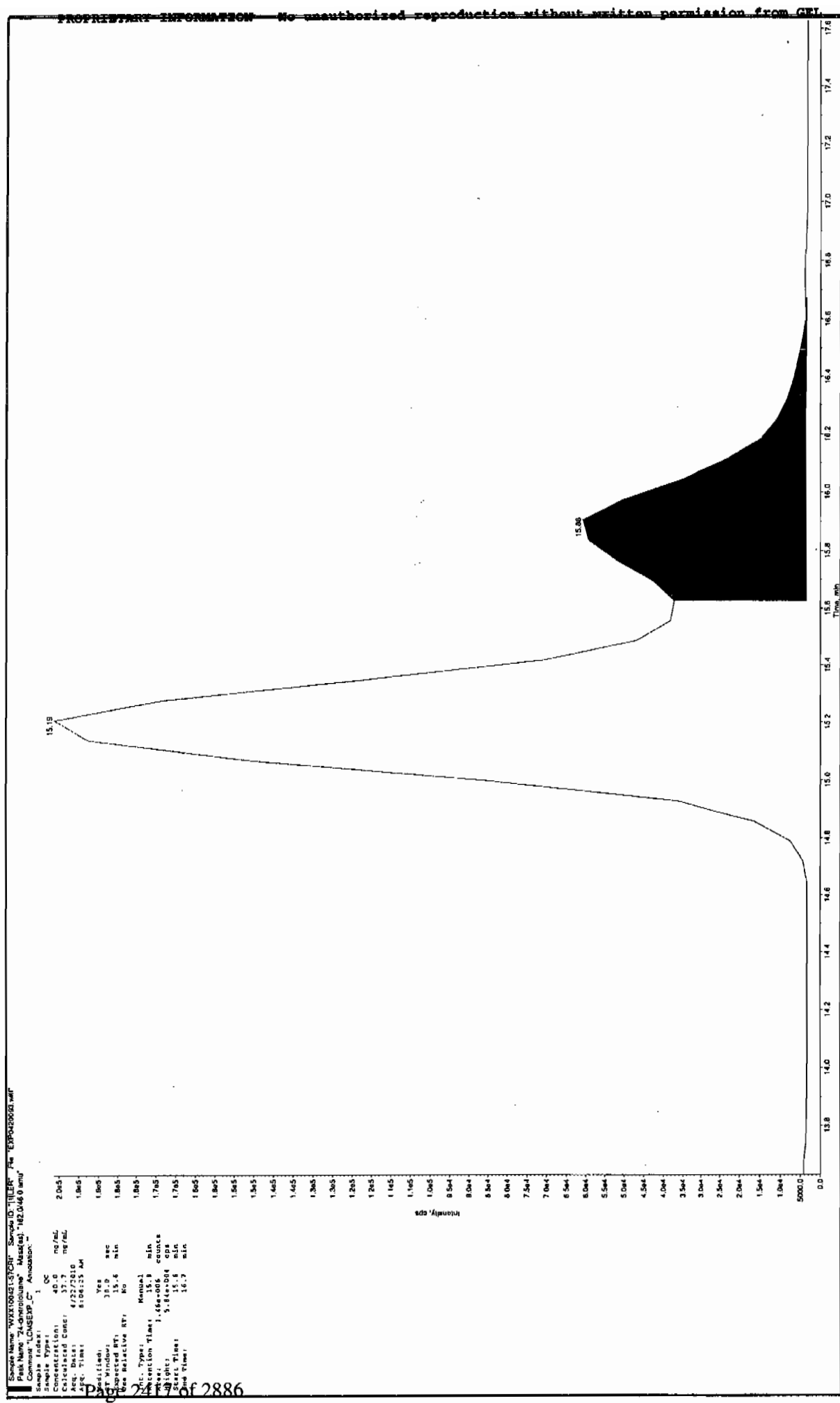
	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.4
	<b>Area Counts:</b>	2.27e+007
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	40.8 (ng/mL)
	<b>% Accuracy:</b>	102.00

Before Jan 4/81





after Jan 4/28/10



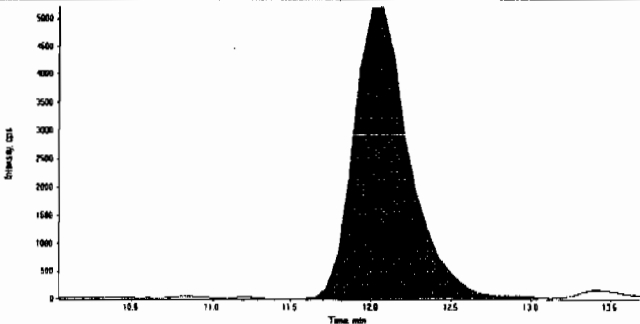
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

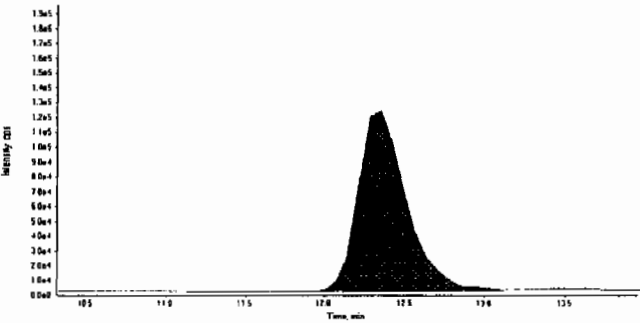
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420093.wiff	<b>Acquisition Date</b>	4/22/2010 6:06:25 AM
<b>Sample Name</b>	WXX100421-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

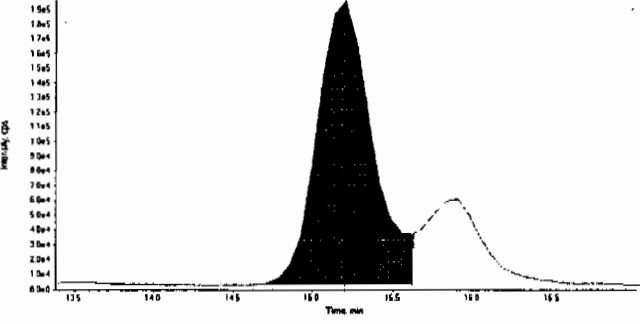
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.9
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	1.26e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	25.9 (ng/mL)
	<b>% Accuracy:</b>	64.60

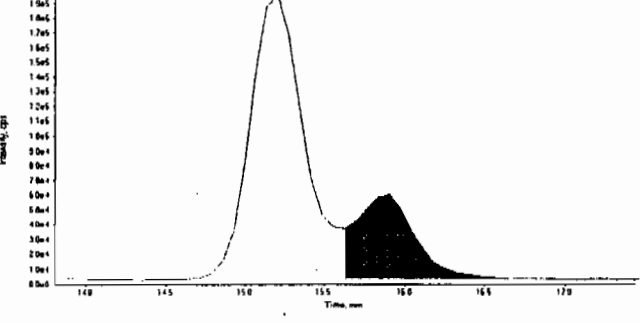
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.1
	<b>Actual RT:</b>	12.3
	<b>Area Counts:</b>	2.61e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	16.3 (ng/mL)
	<b>% Accuracy:</b>	81.30

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.2
	<b>Actual RT:</b>	15.2
	<b>Area Counts:</b>	4.67e+006
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	39.6 (ng/mL)
	<b>% Accuracy:</b>	98.90

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.6
	<b>Actual RT:</b>	15.9
	<b>Area Counts:</b>	1.46e+006
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	37.7 (ng/mL)
	<b>% Accuracy:</b>	94.30

Before Dec 4/28/10

Sample Name: "VZXX00021-57CR" Sample ID: "TLER" File: "EXP0000031.wit"

Peak Name: "2-Amino-6-dimethylolurea" Mass(es): "197.0/180.0 amu"

Comment: "LCMS-EXP-C" Acquisition: "197.0/180.0 amu"

Sample Type: 1 CC

Concentration: 40.0 ng/mL

Calculated Conc: 29.0 ng/mL

ASD Time: 6106:25 AM

Peak Name: "2-Amino-6-dimethylolurea" - TCA

Peak Height: 100.00 cps

Peak Width: 0.00 sec

Baseline Width: 3.00 points

Window: 60.0 sec

Resolution: 14.2 Min

Relative RT: No

Type: Valley

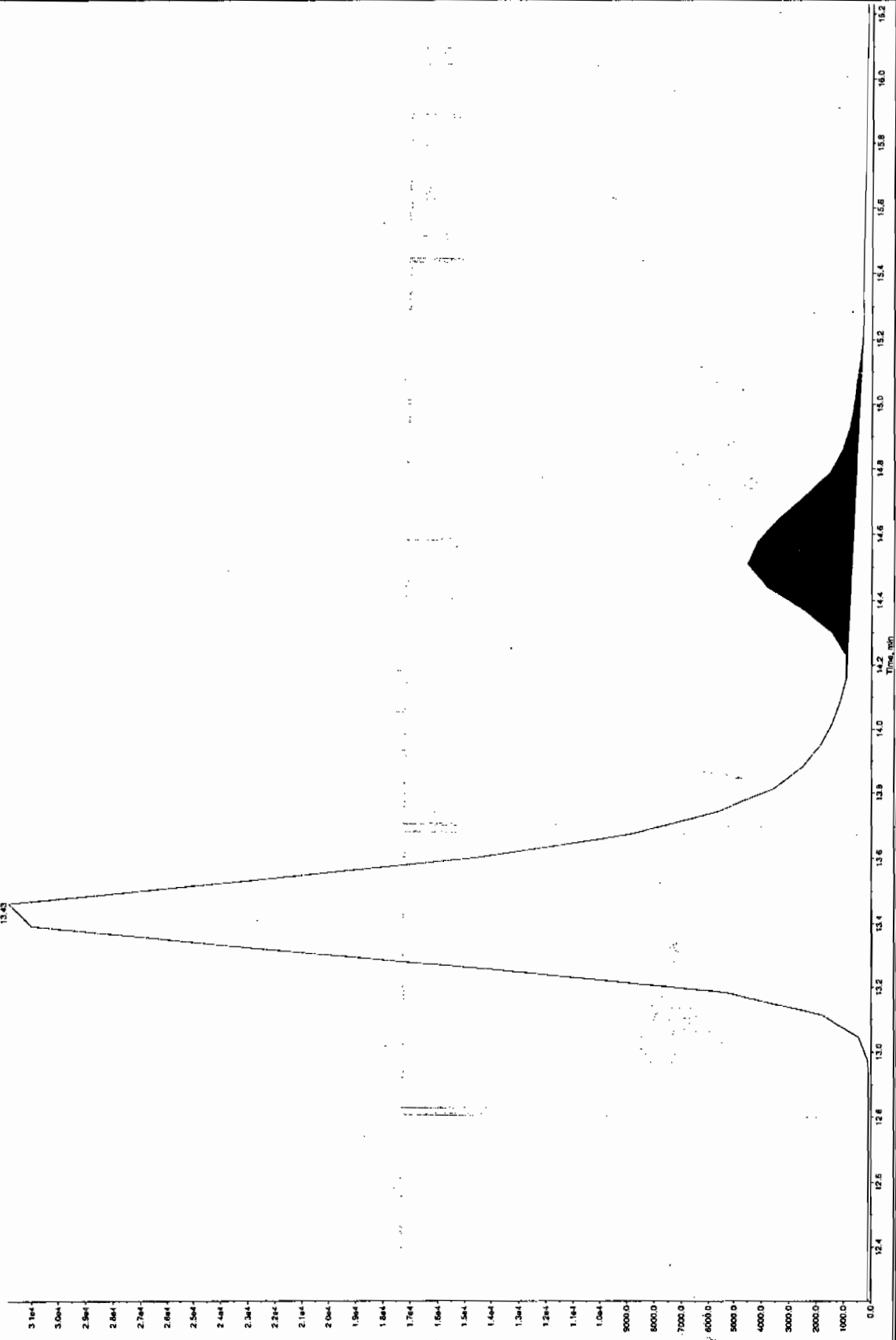
Retention Time: 13.4 min

Height: 8.15e+004 counts

Width: 3.00e+003 cps

Time: 16.2 min

Time: 15.3 min

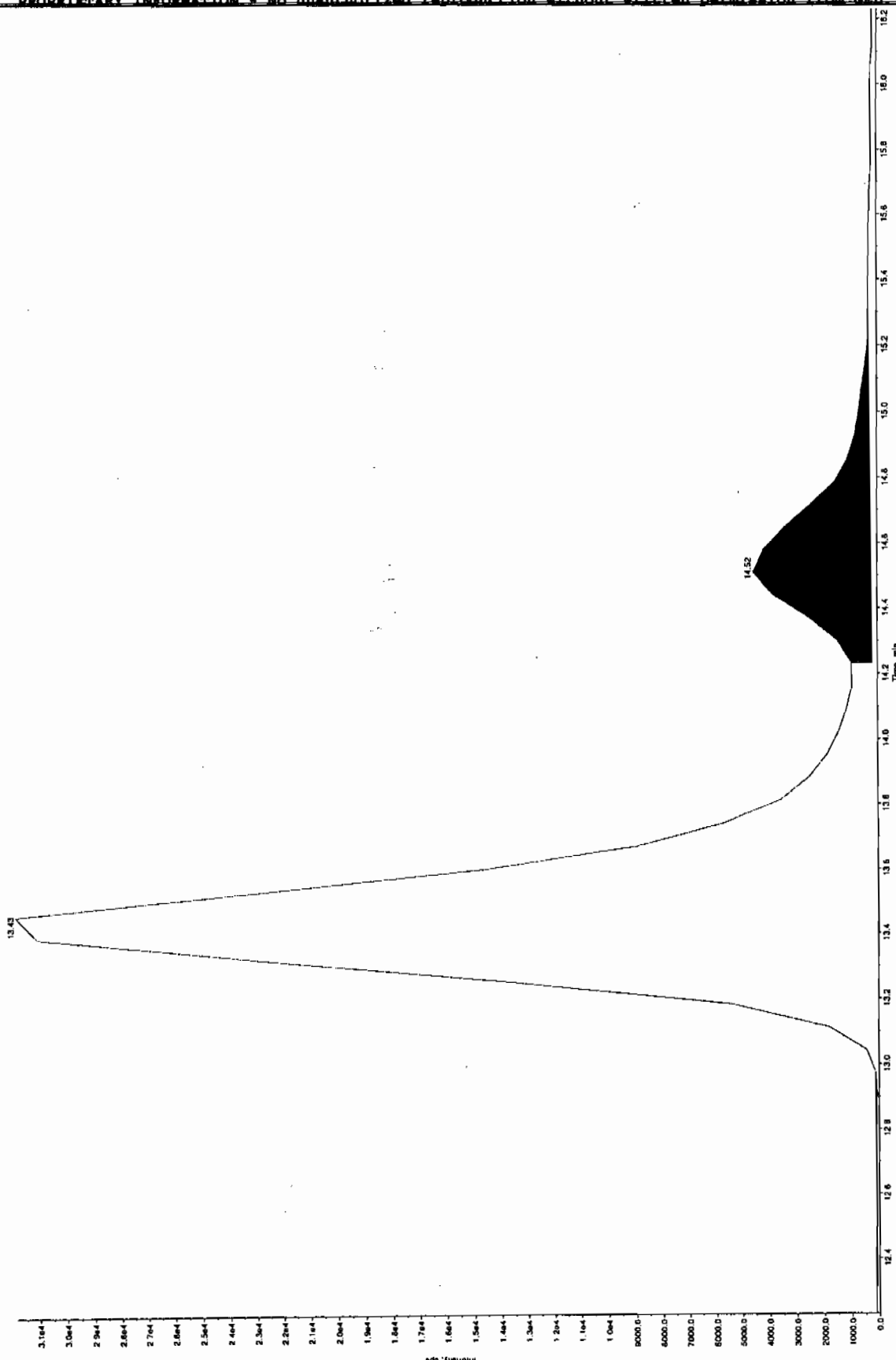


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

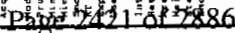
after Jan-4/28/10

Sample Name: W021003157011 Sample ID: 111111 File: EXP040003.wif  
Peak Name: 2-Amino-4-dimethylamine Masses: 187.0/180.0 amu

Sample Index: 1 GC  
Concentration: 40.0 ng/mL  
Calculated Conc: 35.4 ng/mL  
Acq. Date: 4/22/2010  
Acq. Time: 8:08:15 AM  
Inj. Volume: 1.0 µL  
Inj. Type: Manual  
Inj. Speed: 10.0 µL/min  
Inj. Pressure: 1.00e+05 psi  
Inj. Temperature: 14.2 min  
Inj. Time: 14.2 min  
Inj. Time: 15.3 min



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\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

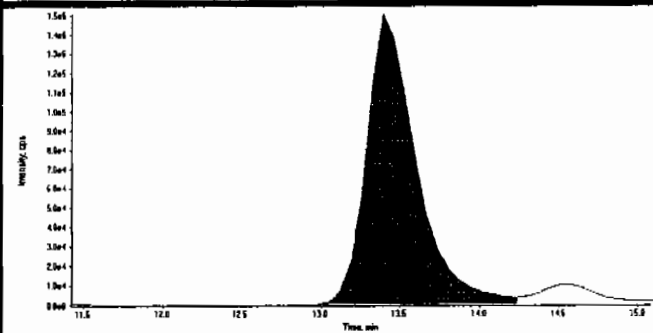


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

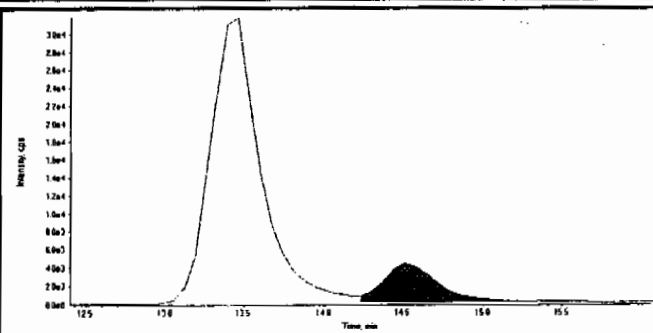
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420093.wiff	<b>Acquisition Date</b>	4/22/2010 6:06:25 AM
<b>Sample Name</b>	WXX100421-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

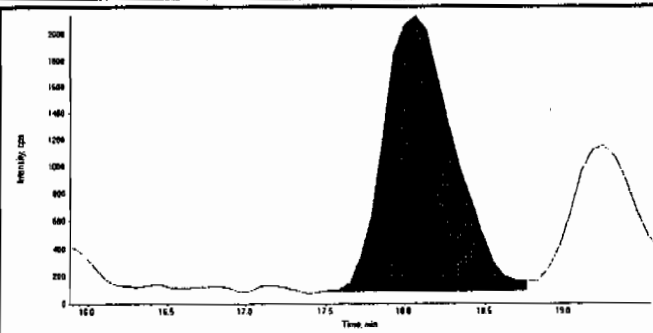
  

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	13.4
	Area Counts:	3.34e+006
	Manual Modification	No
	Amount:	36.1 (ng/mL)
	% Accuracy:	90.30

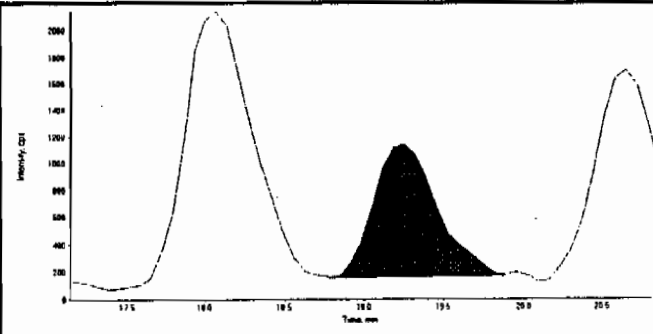
  

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.5
	Area Counts:	1.03e+005
	Manual Modification	Yes
	Amount:	35.4 (ng/mL)
	% Accuracy:	88.50

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	18.1
	Area Counts:	6.32e+004
	Manual Modification	No
	Amount:	53.9 (ng/mL)
	% Accuracy:	135.00

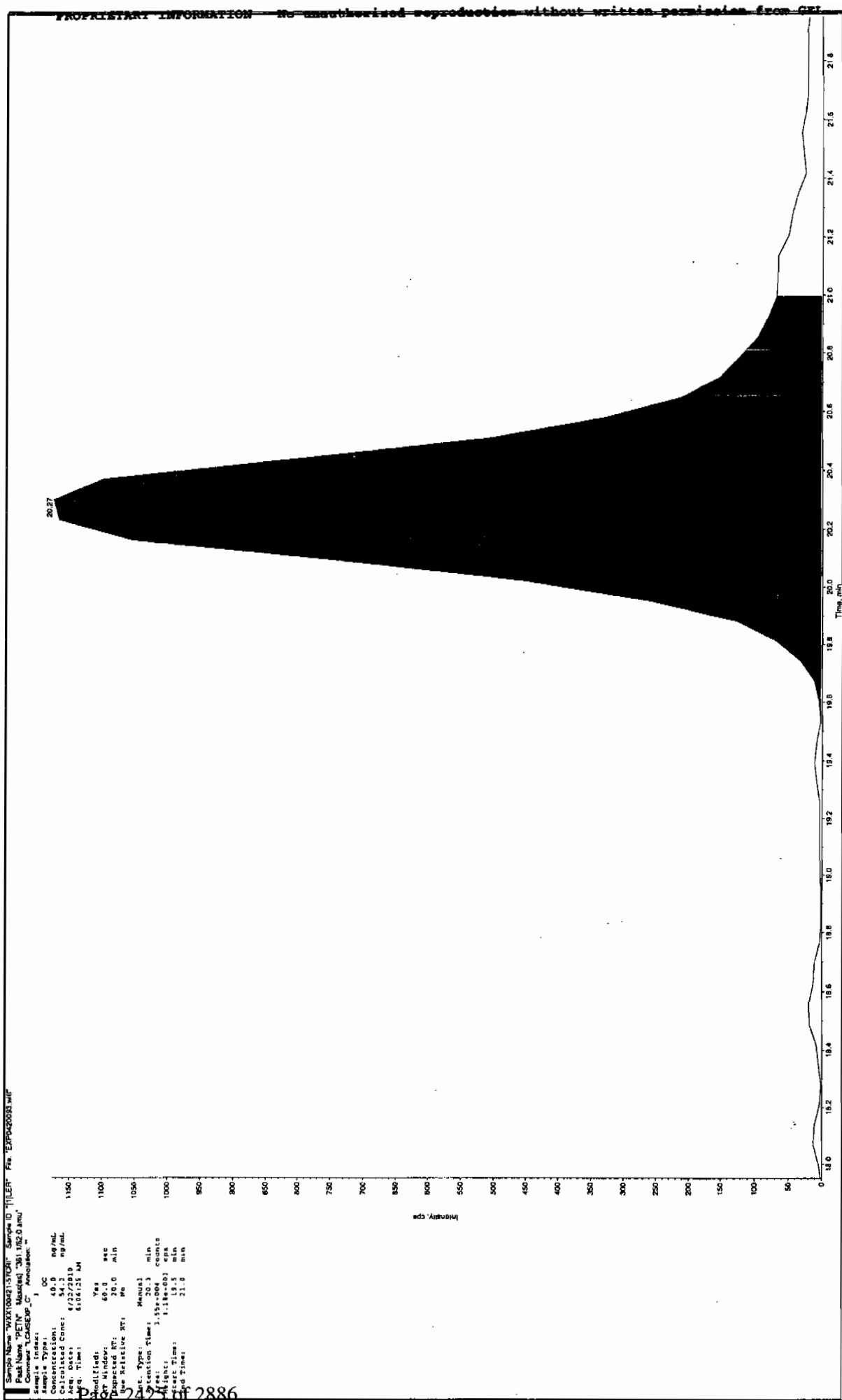
  

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	19.2
	Area Counts:	2.81e+004
	Manual Modification	Yes
	Amount:	36.6 (ng/mL)
	% Accuracy:	91.40





after den 4/29/10



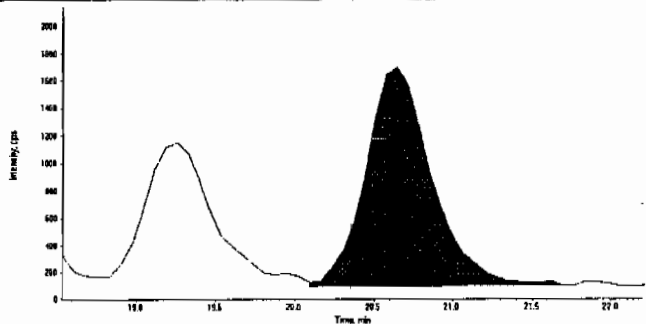
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

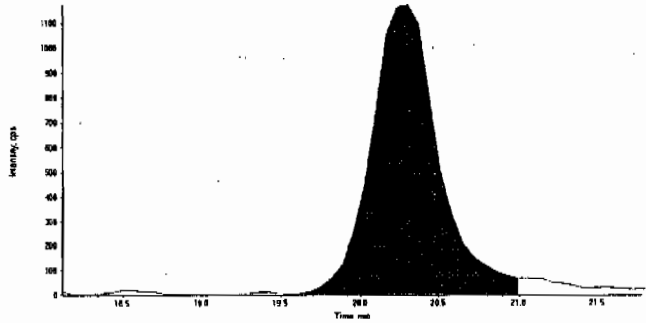
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420093.wiff	<b>Acquisition Date</b>	4/22/2010 6:06:25 AM
<b>Sample Name</b>	WXX100421-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	20.6
	<b>Area Counts:</b>	4.79e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	45.7 (ng/mL)
	<b>% Accuracy:</b>	114.00

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	20.3
	<b>Area Counts:</b>	3.55e+004
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	54.2 (ng/mL)
	<b>% Accuracy:</b>	136.00

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/22/10  
 Time of Injection 0606  
 Standard Number WXX100421-57CRI  
 Data File EXP0420093a

HMX	124.0
RDX	116.0
135-Trinitrobenzene	85.0
13-Dinitrobenzene	110.0
Tetryl	101.0
246-Trinitrotoluene	102.0
Nitrobenzene	64.6
34-dinitrotoluene	81.3
26-dinitrotoluene	98.9
24-dinitrotoluene	94.3
4-Amino-26-dinitrotoluene	90.3
2-Amino-46-dinitrotoluene	88.5
2-Nitrotoluene	135.0
4-Nitrotoluene	91.4
3-Nitrotoluene	114.0
PETN	136.0

TOTAL

✓ 1632.3

*hmm 04/29/10*

AVERAGE

✓ 102.0

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Jan  
4/28/10*

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0420099.wiff

Analysis Date: 22-APR-10 08:42

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	657	110	
2,4,6-Trinitrotoluene	600	705	117	
2,4-Dinitrotoluene	600	567	94	
2,6-Dinitrotoluene	600	536	89	
2-Amino-4,6-dinitrotoluene	600	679	113	
3,4-Dinitrotoluene	300	281	94	
4-Amino-2,6-dinitrotoluene	600	706	118	
HMX	600	578	96	
Nitrobenzene	600	608	101	
PETN	600	729	121	
RDX	600	824	137	*
Tetryl	600	624	104	
m-Dinitrobenzene	600	592	99	
m-Nitrotoluene	600	622	104	
o-Nitrotoluene	600	555	92	
p-Nitrotoluene	600	836	139	*

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

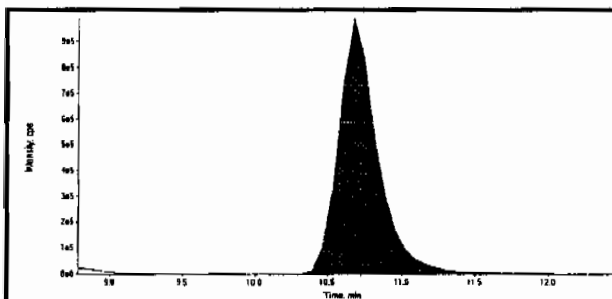
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

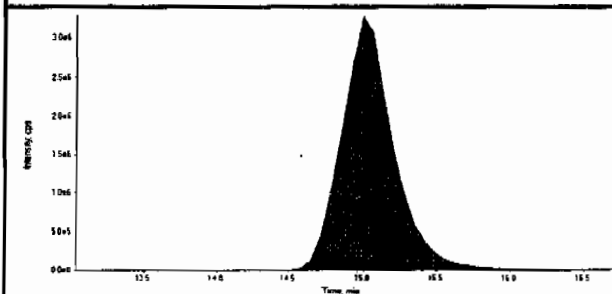
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

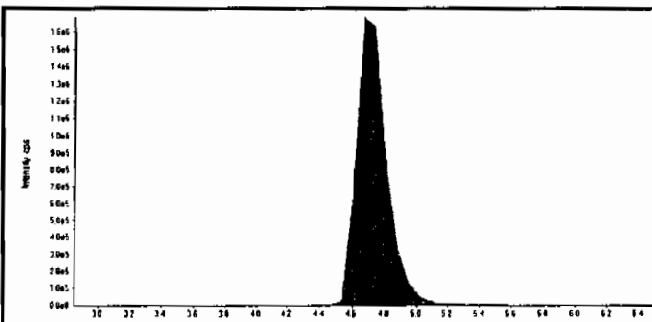
Data File	EXP0420099.wiff	Acquisition Date	4/22/2010 8:42:36 AM
Sample Name	WXX100421-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



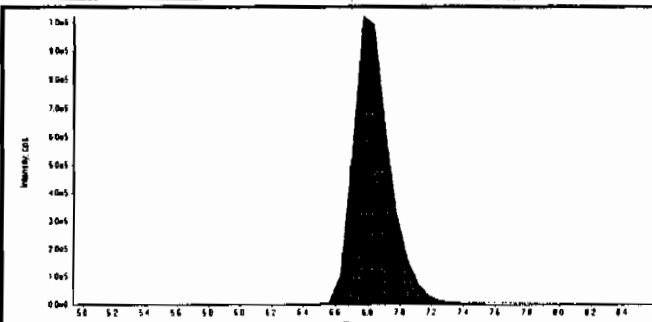
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	17900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	15.00
Area Counts:	80100000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



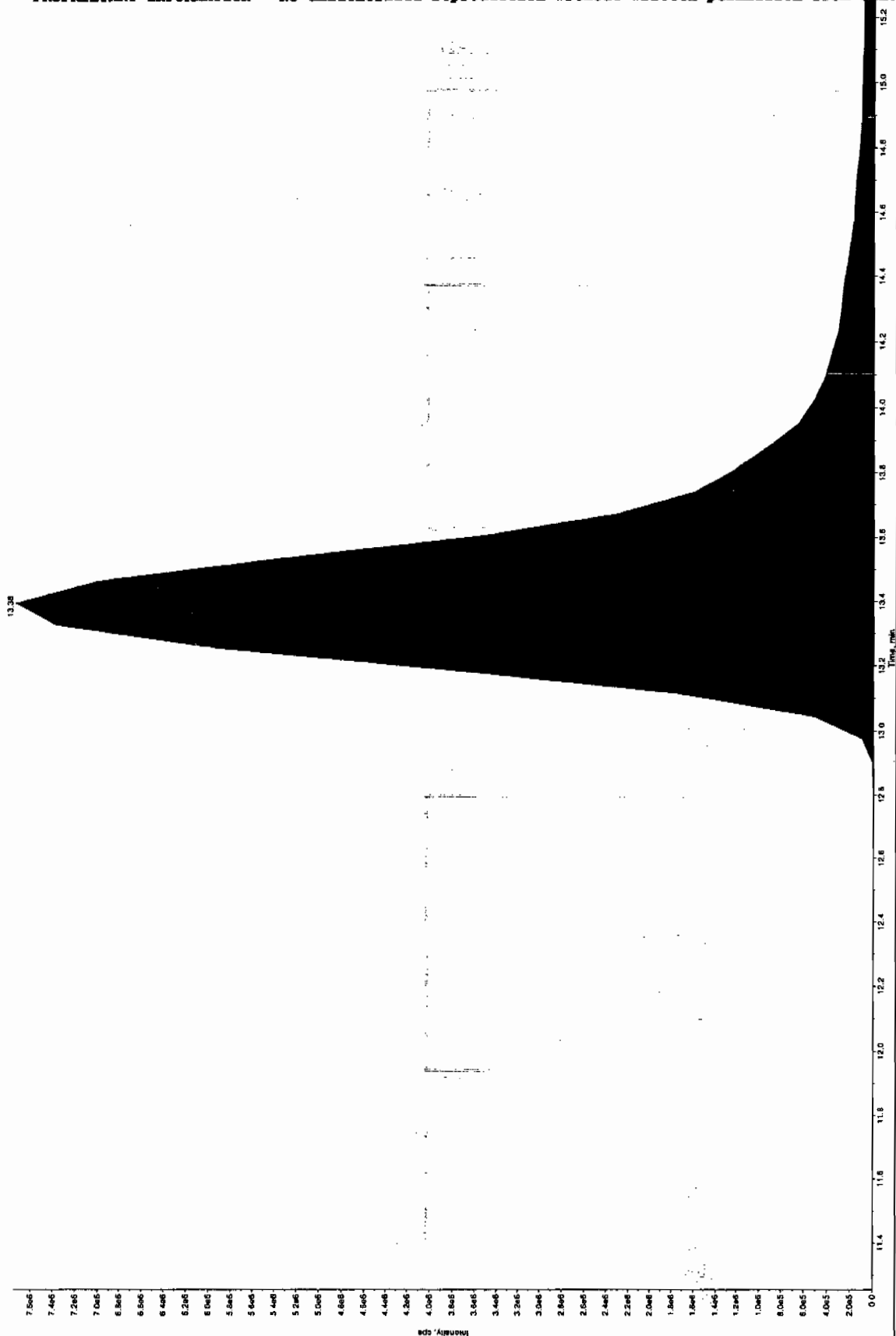
Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.67
Area Counts:	2.23e+007
Manual Modification	No
Amount:	578. (ng/mL)
% Accuracy:	96.30



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.77
Area Counts:	1.64e+007
Manual Modification	No
Amount:	824. (ng/mL)
% Accuracy:	137.00

*Handwritten:*  
4/29/10  
4/29/10

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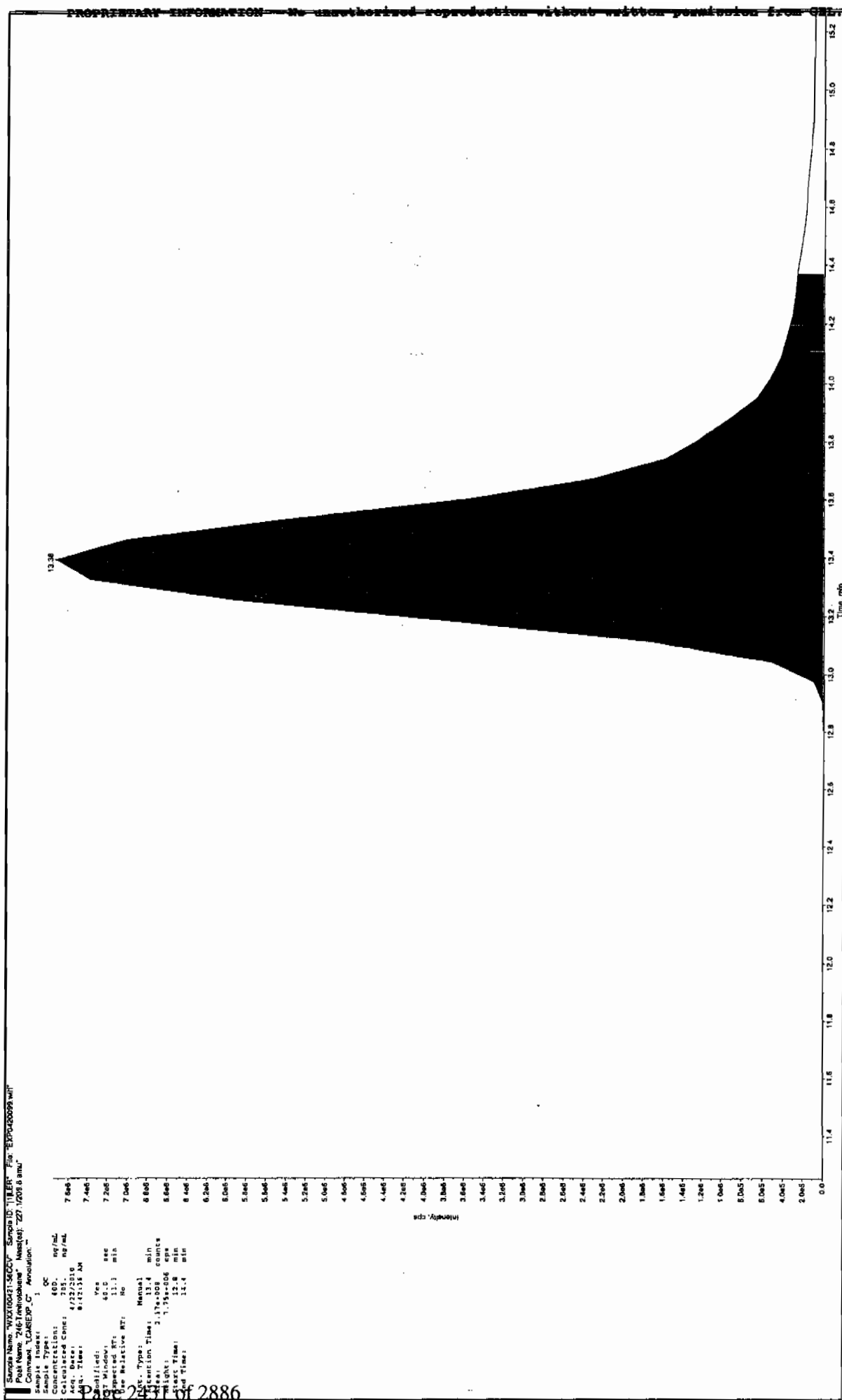


Sample Name: "WXY100421-56CCV" Sample ID: "11LER" File: "EXP0420089.wif"  
 Past Name: "246-Tinilidubene" Mass(es): "227 1209.8 amu"  
 Comment: "LOWEXP\_C" Annotation: ""

[illegible]

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after scan 4/28/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420099.wiff	<b>Acquisition Date</b>	4/22/2010 8:42:36 AM
<b>Sample Name</b>	WXX100421-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	9.07
	<b>Area Counts:</b>	1.29e+008
	<b>Manual Modification</b>	No
	<b>Amount:</b>	657. (ng/mL)
	<b>% Accuracy:</b>	110.00

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.8
	<b>Area Counts:</b>	5.48e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	592. (ng/mL)
	<b>% Accuracy:</b>	98.70

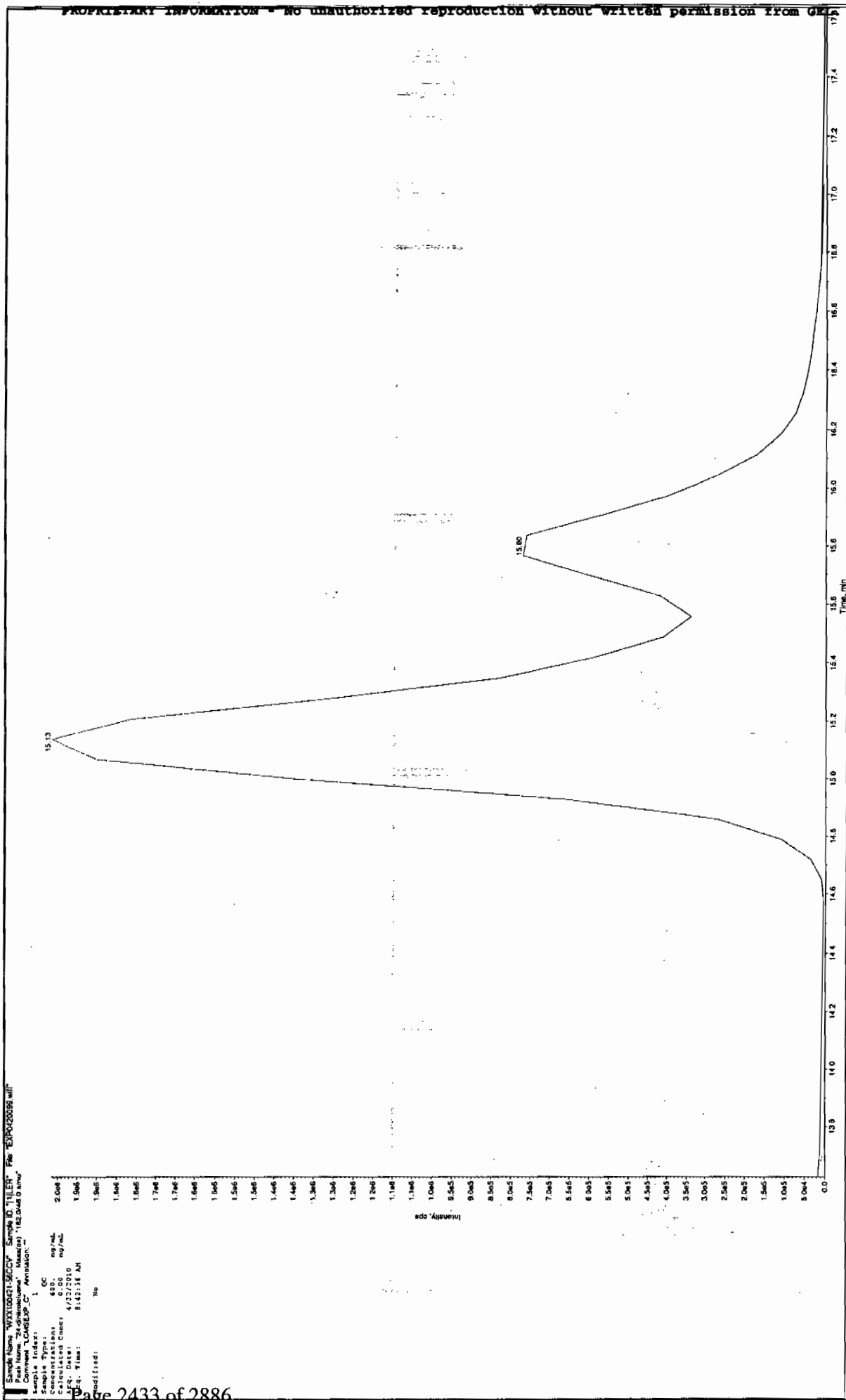
	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	10.9
	<b>Area Counts:</b>	4.66e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	624. (ng/mL)
	<b>% Accuracy:</b>	104.00

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.4
	<b>Area Counts:</b>	2.17e+008
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	705. (ng/mL)
	<b>% Accuracy:</b>	117.00

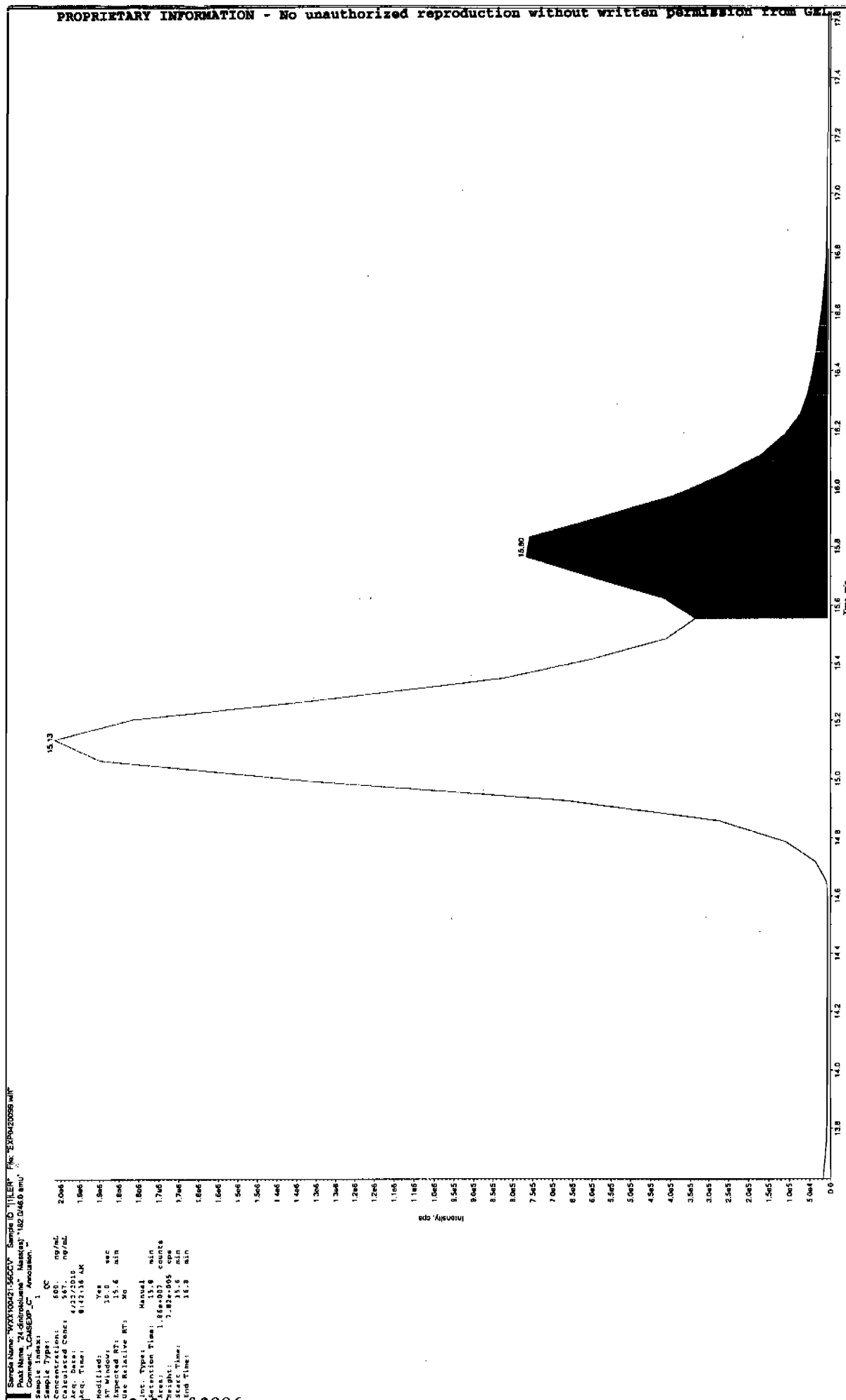


Before Jan 4/28/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after  
Before

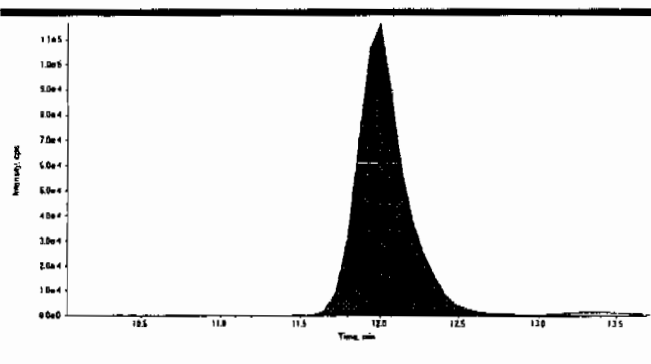


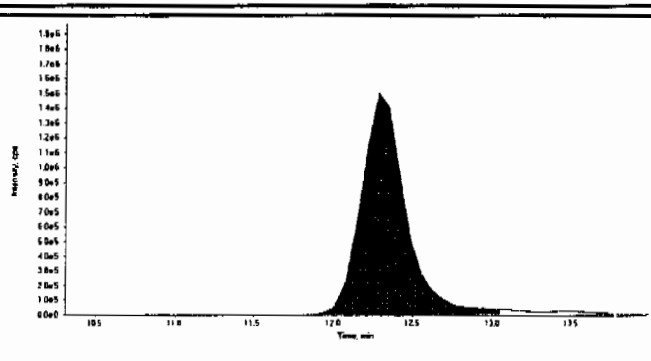
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

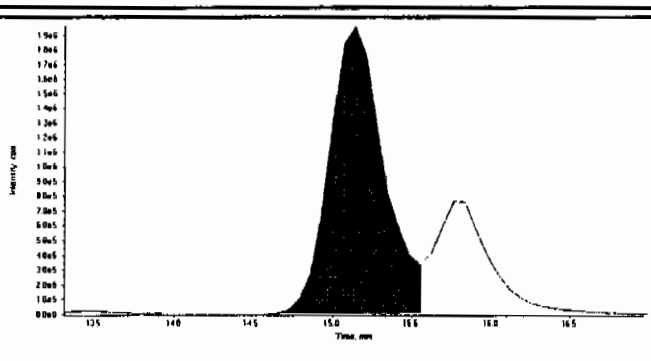
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

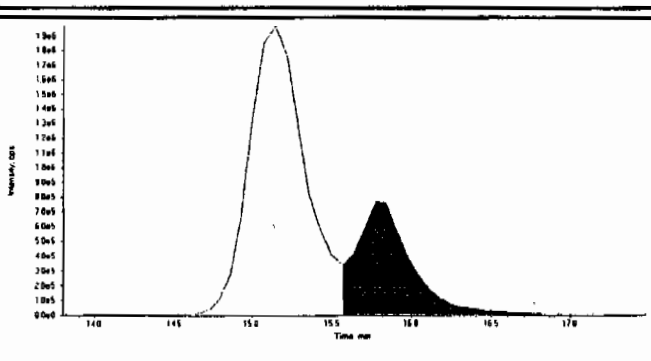
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

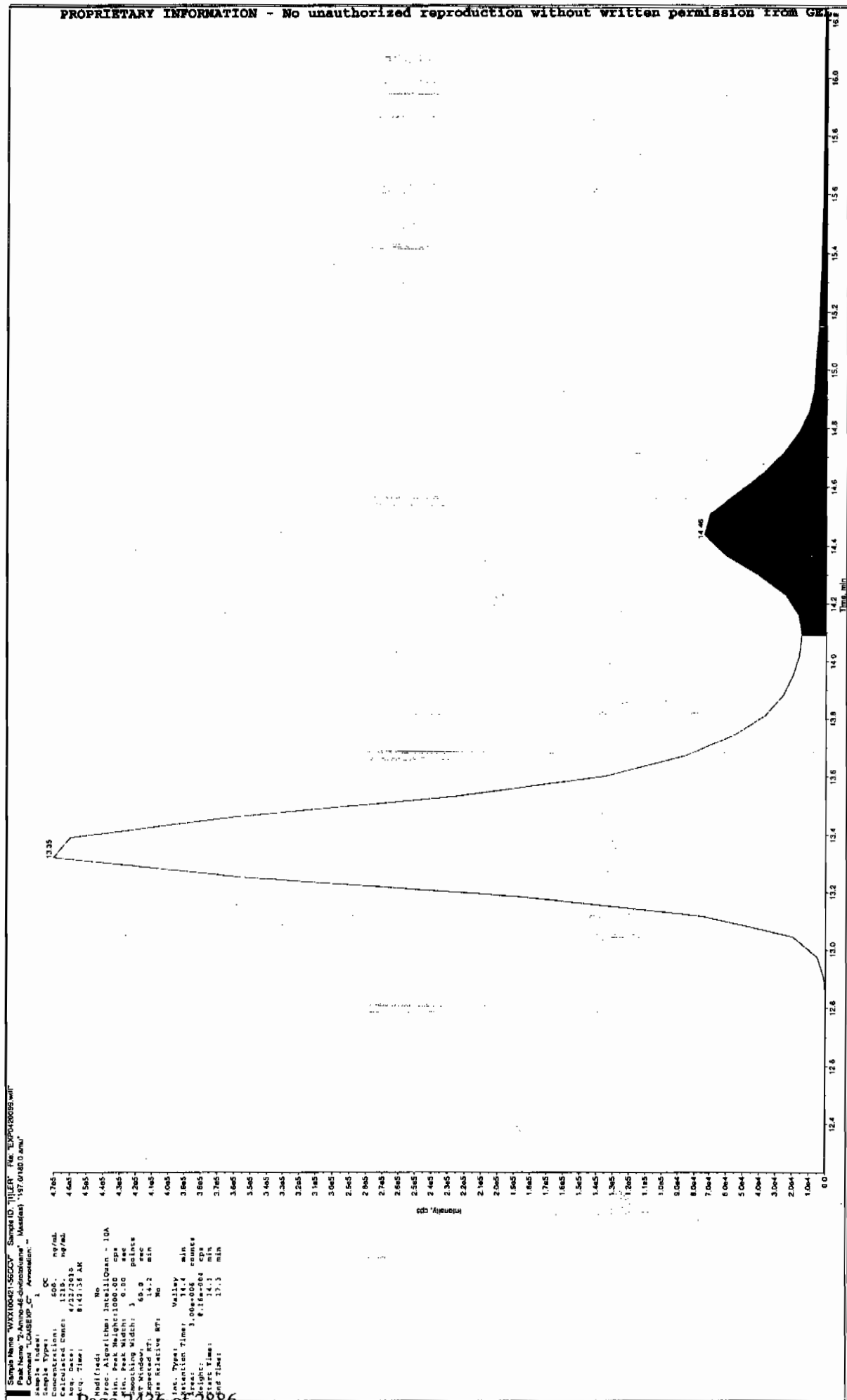
Data File	EXP0420099.wiff	Acquisition Date	4/22/2010 8:42:36 AM
Sample Name	WXX100421-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	12.0
	Area Counts:	2.44e+006
	Manual Modification	No
	Amount:	608. (ng/mL)
	% Accuracy:	101.00

	Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.3
	Area Counts:	3.02e+007
	Manual Modification	No
	Amount:	281. (ng/mL)
	% Accuracy:	93.50

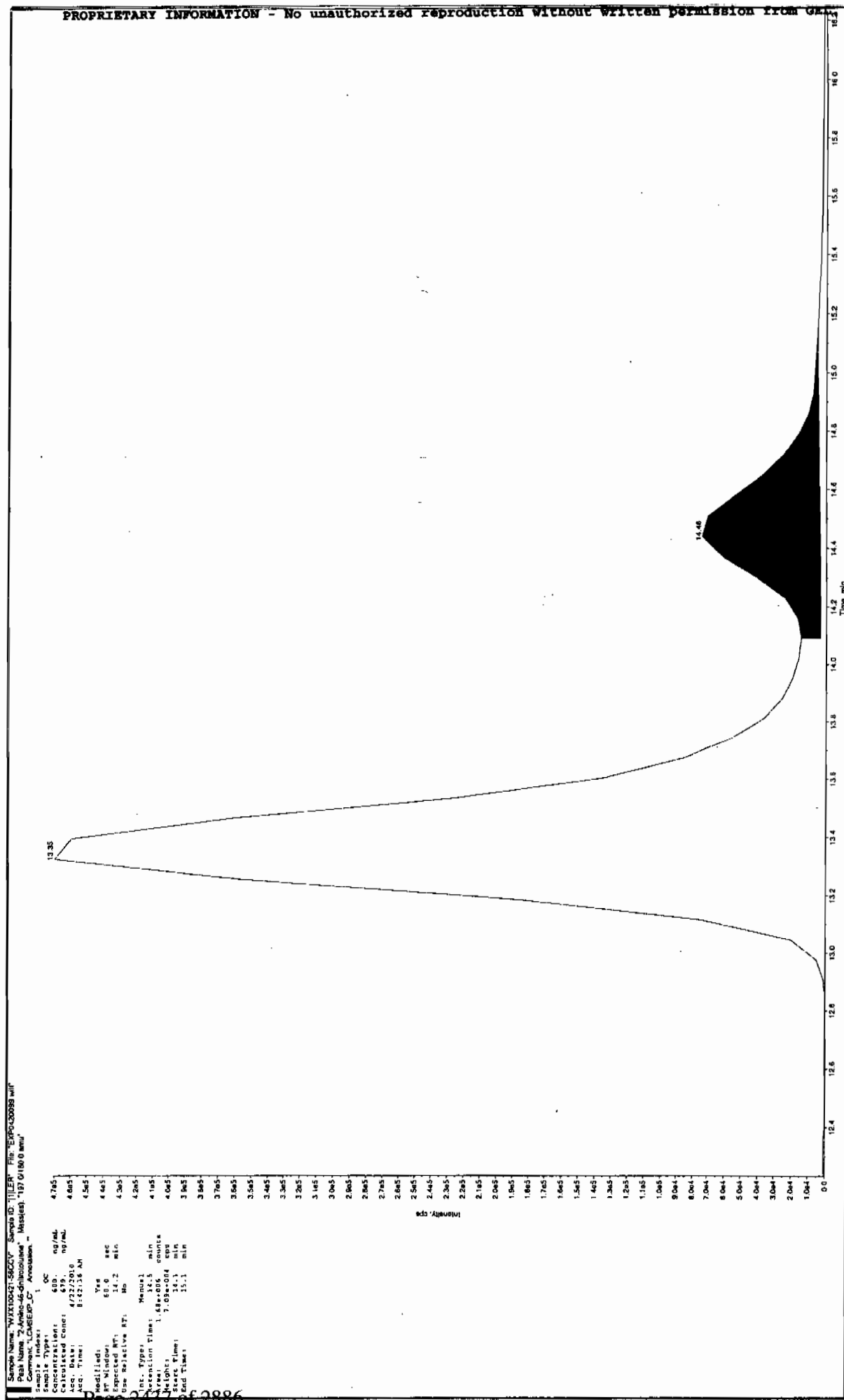
	Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.1
	Actual RT:	15.1
	Area Counts:	4.73e+007
	Manual Modification	Yes
	Amount:	536. (ng/mL)
	% Accuracy:	89.40

	Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	15.8
	Area Counts:	1.86e+007
	Manual Modification	Yes
	Amount:	567. (ng/mL)
	% Accuracy:	94.40



\*GEL SOP GL-0A-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/19/10



Sample Name: 511110247-5500V Sample ID: 11111111 File: 511110247-5500V.mf  
 Acquisition: 4/22/2010 8:42:16 AM  
 Comments: LCMSE-57 Acquisition: 1

Sample Index: 1  
 Sample Type: GC  
 Sample Concentration: 619.00 ng/mL  
 Calculated Conc: 619.00 ng/mL  
 Acq. Date: 4/22/2010  
 Acq. Time: 8:42:16 AM  
 Modified: Yes  
 RT Window: 60.0 sec  
 Use Relative RT: No  
 Method: Manual  
 Retention Time: 14.5 min  
 Peak Area: 1.48e006 counts  
 Peak Height: 1.07e004 cps  
 Start Time: 14.1 min  
 End Time: 15.1 min

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420099.wiff	<b>Acquisition Date</b>	4/22/2010 8:42:36 AM
<b>Sample Name</b>	WXX100421-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.4
	<b>Area Counts:</b>	4.82e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	706. (ng/mL)
	<b>% Accuracy:</b>	118.00

	<b>Compound Name:</b>	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	14.5
	<b>Area Counts:</b>	1.68e+006
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	679. (ng/mL)
	<b>% Accuracy:</b>	113.00

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	17.9
	<b>Area Counts:</b>	8.25e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	555. (ng/mL)
	<b>% Accuracy:</b>	92.40

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	19.0
	<b>Actual RT:</b>	19.2
	<b>Area Counts:</b>	6.39e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	836. (ng/mL)
	<b>% Accuracy:</b>	139.00

Before for 4/19/10

Sample Name: WXX100421-56207 Sample ID: T1E1R File: EPR042008.wif

Peak Name: PETN MaxRet: 21.1620 min

Concentration: 1.00

Sample Type: 1.00

Concentration: 400.00 ng/mL

Calculated Conc: 378.00 ng/mL

Acq. Time: 8:12:16 AM

Acq. Time: 8:12:16 AM

Modified: No

Proc. Algorithm: FullScan - 10A

Peak Width: 10.00 sec

Peak Width: 10.00 sec

Smoothing Width: 3.00 points

Peak Window: 60.0 sec

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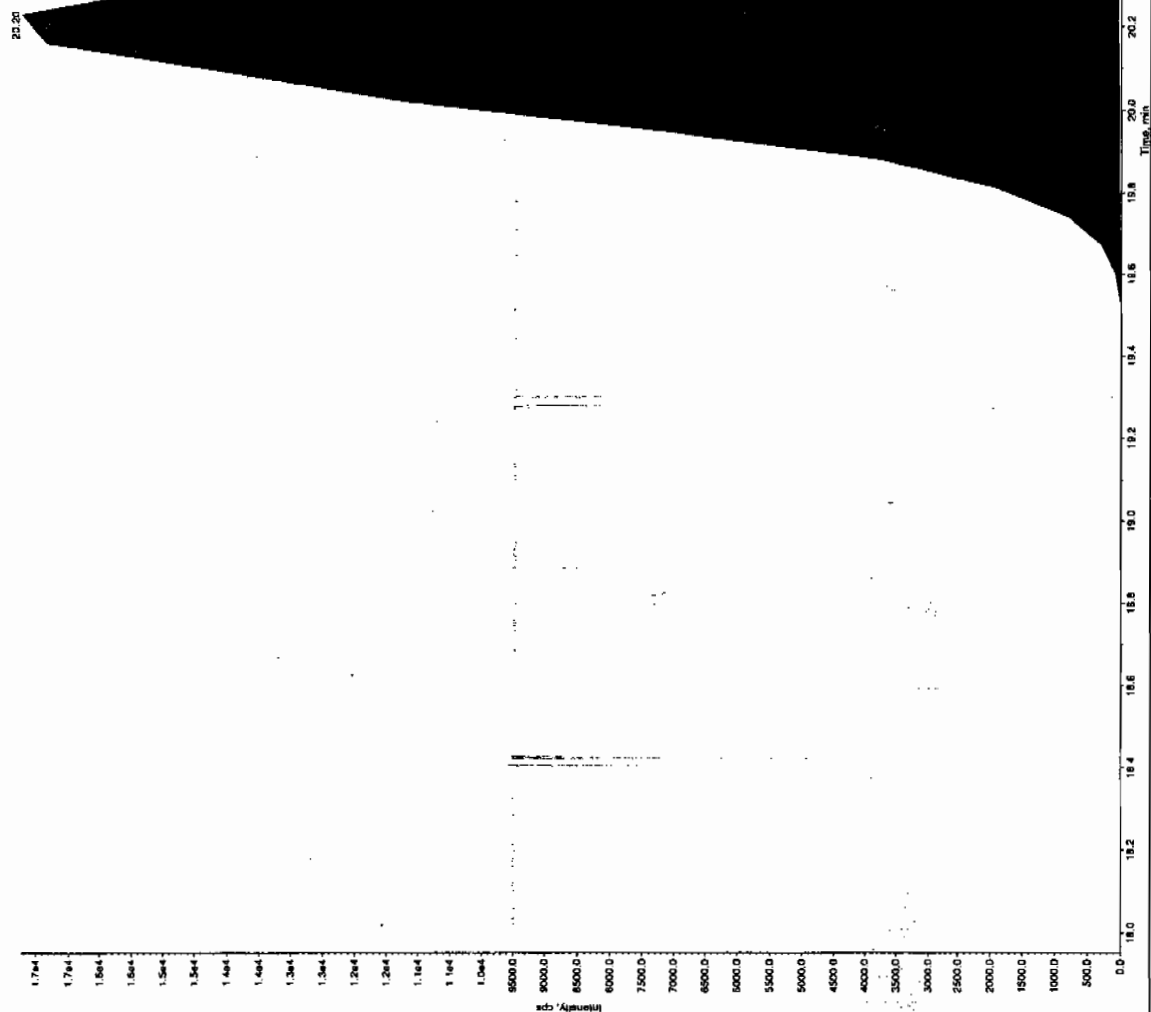
Peak Window: 60.0 sec

Peak Window: 60.0 sec

Peak Window: 60.0 sec

Peak Window: 60.0 sec

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



after Scan 419/10

Sample Name: WAT0042156.D\\ Sample ID: 118187 File: EXP002009.mpl

Peak Name: PETM Method: 381.162.0.mpl

Comment: LCMS000\_C Annotation: -

Sample Index: 1

Sample Type: 400 ng/ml

Calculated Conc: 729 ng/ml

Acq. Date: 4/22/2010

Acq. Time: 8:12:16 AM

Modified: Yes

Expected RT: 20.0 min

Var Relative RT: No

Int. Type: Manual

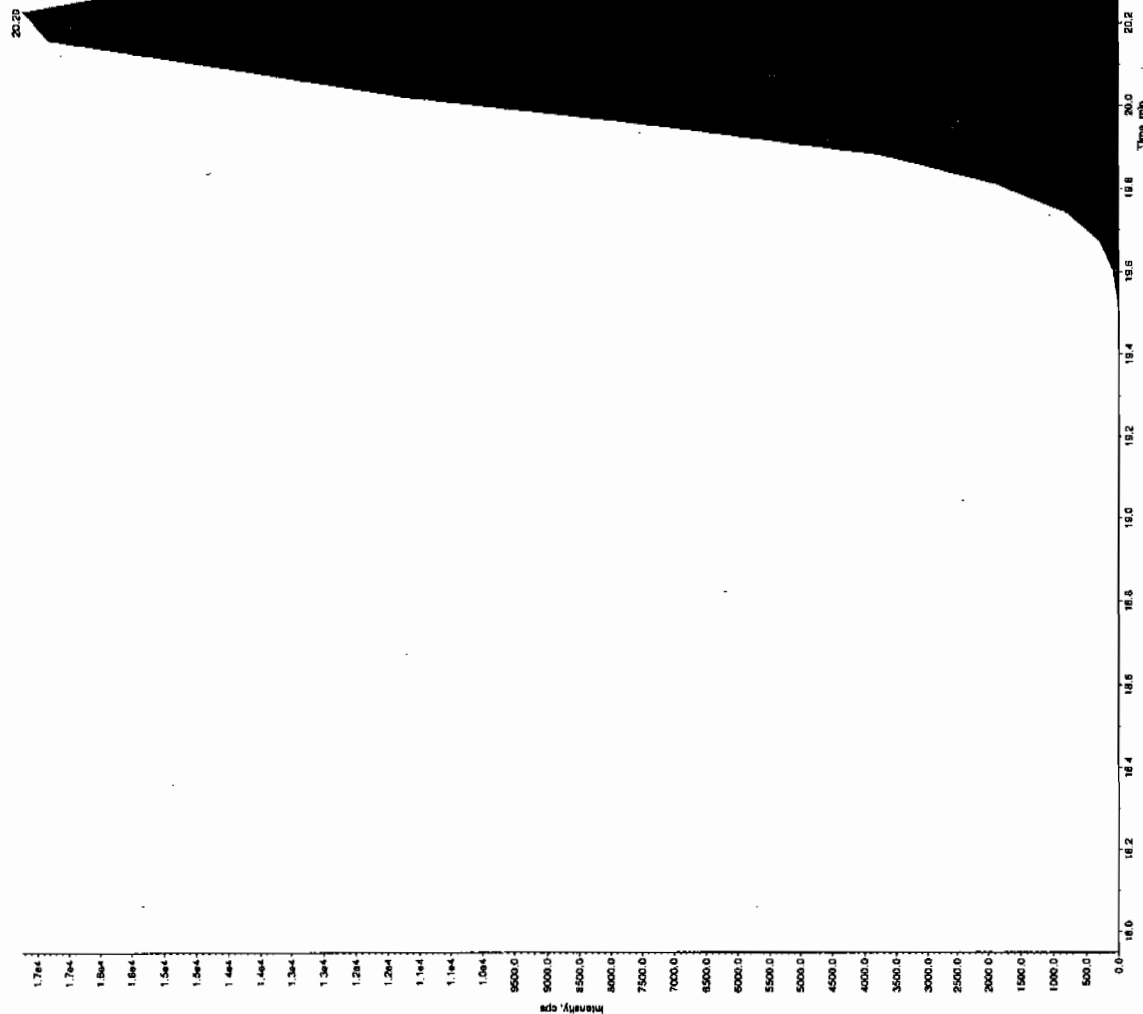
Retention Time: 20.2 min

Area: 316,000 counts

Height: 1,191,004

Start Time: 19.5 min

End Time: 21.6 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

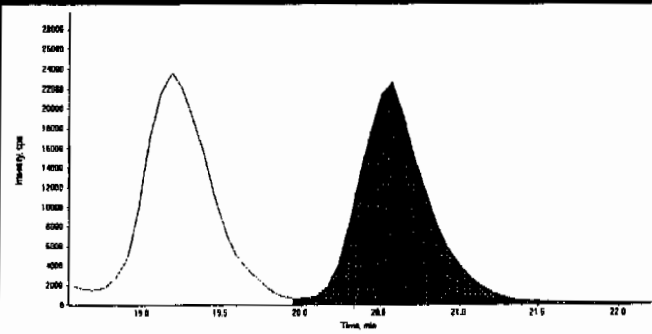


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

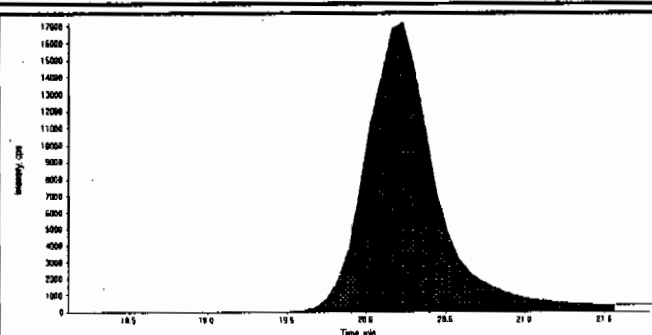
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420099.wiff	<b>Acquisition Date</b>	4/22/2010 8:42:36 AM
<b>Sample Name</b>	WXX100421-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	20.6
	<b>Area Counts:</b>	6.87e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	622. (ng/mL)
	<b>% Accuracy:</b>	104.00

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	20.2
	<b>Area Counts:</b>	5.34e+005
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	729. (ng/mL)
	<b>% Accuracy:</b>	121.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/22/10  
 Time of Injection 0842  
 Standard Number WXX100421-56CCV  
 Data File EXP0420099a

HMX	96.3
RDX	137.0
135-Trinitrobenzene	110.0
13-Dinitrobenzene	98.7
Tetryl	104.0
246-Trinitrotoluene	117.0
Nitrobenzene	101.0
34-dinitrotoluene	93.5
26-dinitrotoluene	89.4
24-dinitrotoluene	94.4
4-Amino-26-dinitrotoluene	118.0
2-Amino-46-dinitrotoluene	113.0
2-Nitrotoluene	92.4
4-Nitrotoluene	139.0
3-Nitrotoluene	104.0
PETN	121.0

TOTAL

1728.7

*dhm 04/24/10*

AVERAGE

108.0

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*See 4/28/10*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0420101.wiff

Analysis Date: 22-APR-10 09:34

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	46.1	115	
2,4,6-Trinitrotoluene	40	46.7	117	
2,4-Dinitrotoluene	40	47.7	119	
2,6-Dinitrotoluene	40	41.6	104	
2-Amino-4,6-dinitrotoluene	40	40.1	100	
3,4-Dinitrotoluene	20	18	90	
4-Amino-2,6-dinitrotoluene	40	40	100	
HMX	40	51.5	129	
Nitrobenzene	40	33.4	84	
PETN	40	53.8	135	
RDX	40	44.5	111	
Tetryl	40	43	108	
m-Dinitrobenzene	40	45.3	113	
m-Nitrotoluene	40	43.1	108	
o-Nitrotoluene	40	56.5	141	
p-Nitrotoluene	40	41.5	104	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

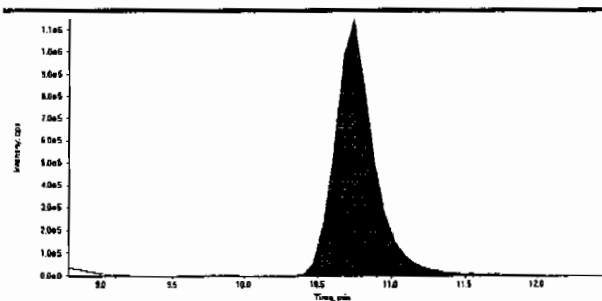
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

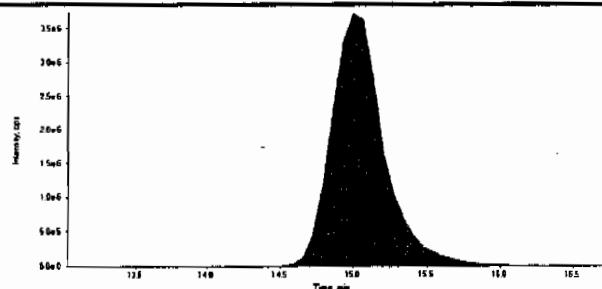
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

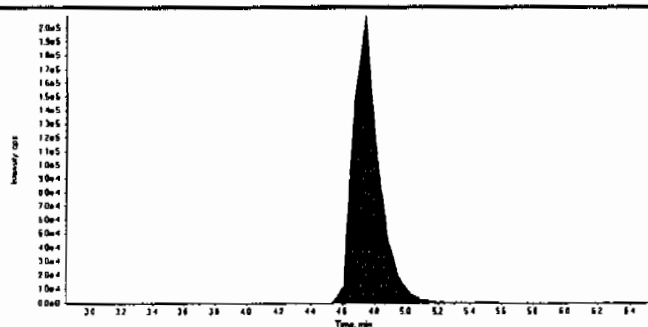
Data File	EXP0420101.wiff	Acquisition Date	4/22/2010 9:34:37 AM
Sample Name	WXX100421-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



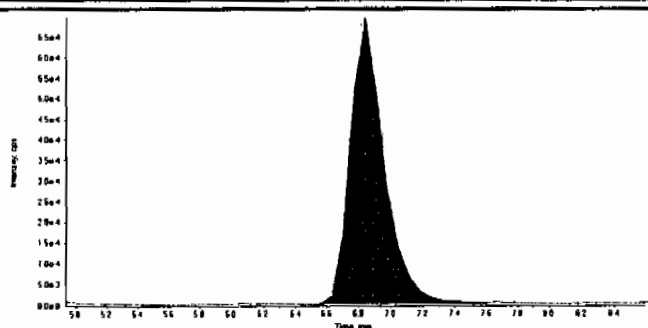
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	21000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	15.00
Area Counts:	93400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	2.32e+006
Manual Modification	No
Amount:	51.5 (ng/mL)
% Accuracy:	129.00



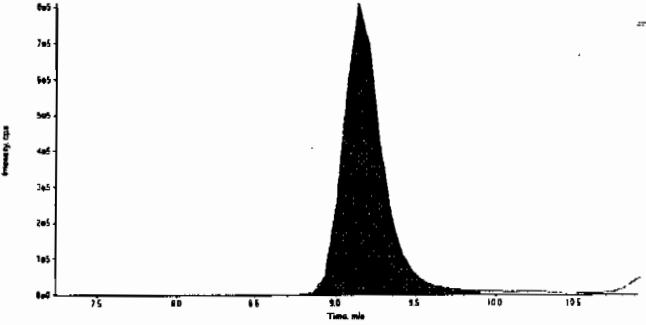
Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.84
Area Counts:	1.03e+006
Manual Modification	No
Amount:	44.5 (ng/mL)
% Accuracy:	111.00

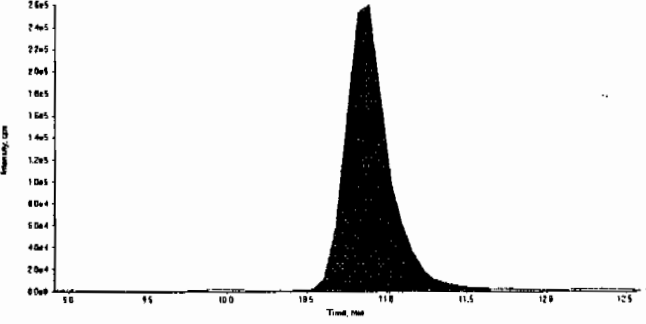
*for 4/29/10 HMX 04/29/10*

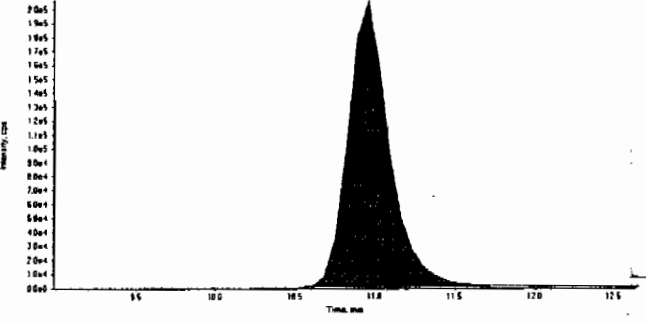
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

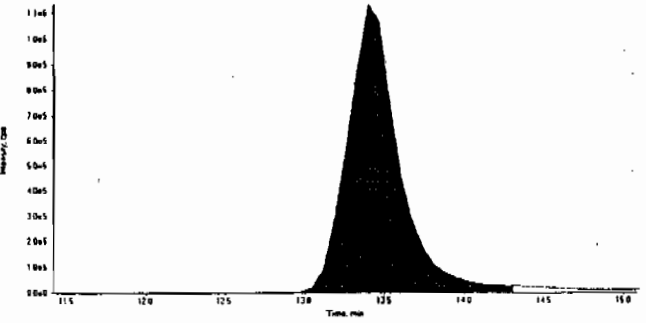
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420101.wiff	Acquisition Date	4/22/2010 9:34:37 AM
Sample Name	WXX100421-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.07
	Actual RT:	9.14
	Area Counts:	1.39e+007
	Manual Modification	No
	Amount:	46.1 (ng/mL)
	% Accuracy:	115.00

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.9
	Area Counts:	4.90e+006
	Manual Modification	No
	Amount:	45.3 (ng/mL)
	% Accuracy:	113.00

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.8
	Actual RT:	11.0
	Area Counts:	3.76e+006
	Manual Modification	No
	Amount:	43.0 (ng/mL)
	% Accuracy:	108.00

	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.3
	Actual RT:	13.4
	Area Counts:	2.57e+007
	Manual Modification	No
	Amount:	46.7 (ng/mL)
	% Accuracy:	117.00

Before Dec 4/28/10

Sample Name: W12100021-5701 Sample ID: 111111 File: E:\00020101.wif

Peak Name: 24-chlorotoluene Mass(es): 182.046 G amu

Comment: LCMS-EXP-C Annotation: -

Sample Index: 1

Sample Type: 49.0 ng/mL

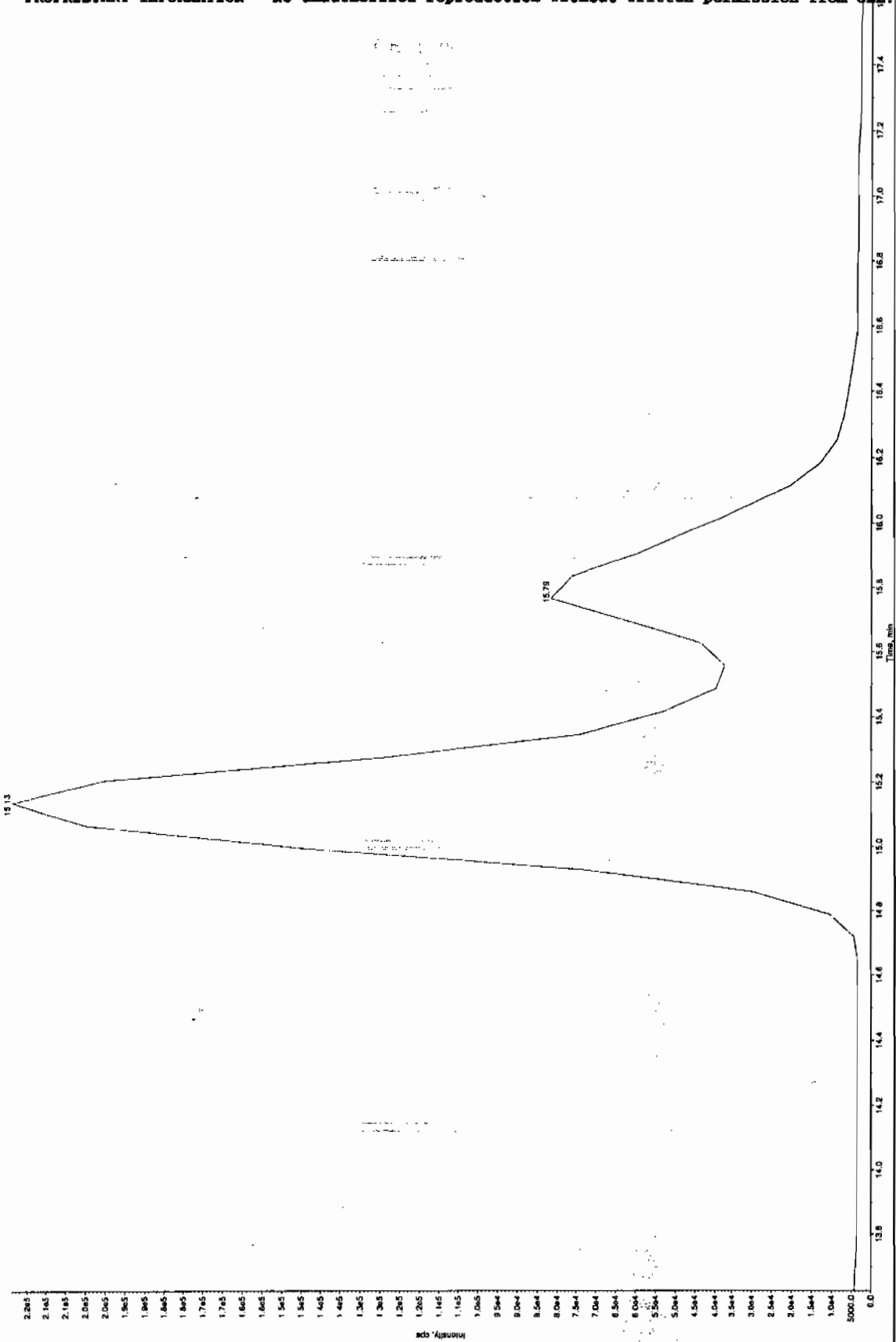
Sample Concentration: 0.50 ng/mL

Calculated Concentration: 2.285

Acq. Date: 4/22/2010

Acq. Time: 13:11:37 AM

Modified: No

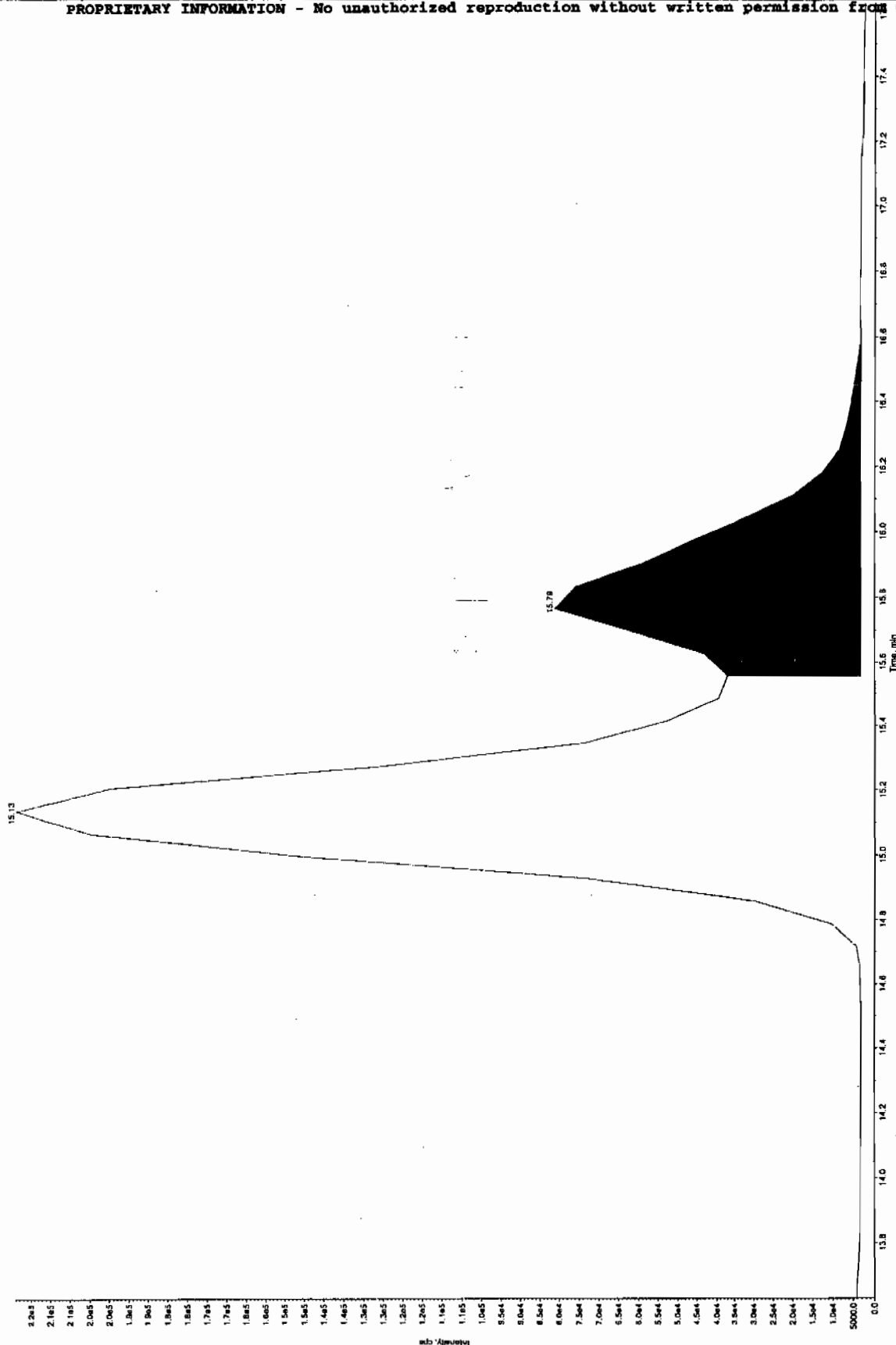


\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after over 4128100

Sample Name: 8321A-E-056, Sample ID: 711107, File: EXP0000101.will  
 Peak Name: "Lactose", Method: "182.040.0.000"

Sample Index: 40.0 ng/mL  
 Concentration: 47.7 ng/mL  
 Calculated Conc: 47.727210  
 Acq. Date: 4/22/2010  
 Acq. Time: 9:14:17 AM  
 Modified: Yes  
 RT Window: 10.0 sec  
 Expected RT: 15.6 min  
 User Relative RT: No  
 Int. Type: Manual  
 Retention Time: 15.8 min  
 Peak Width: 0.05 min  
 Peak Area: 1.024e+04  
 Start Time: 15.6 min  
 End Time: 16.6 min

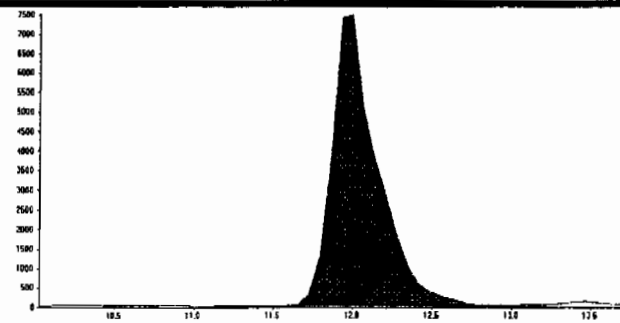


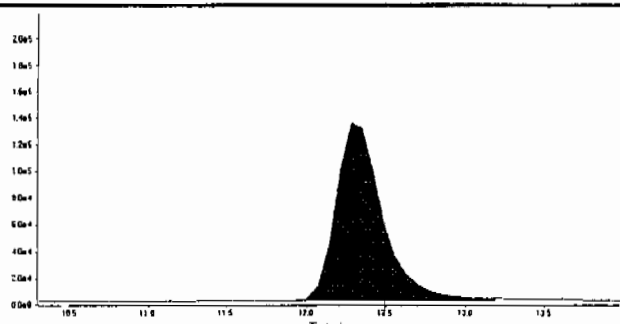
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

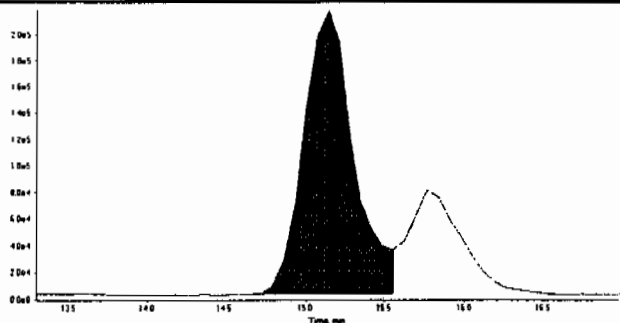
IEL Laboratories, LLC  
IEL SOP GL-OA-E-056, Method 8321A-Modified

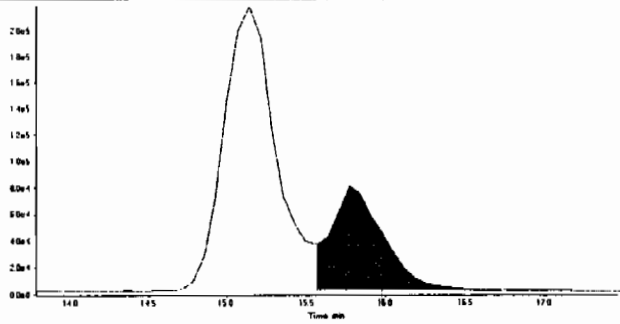
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420101.wiff	Acquisition Date	4/22/2010 9:34:37 AM
Sample Name	WXX100421-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042010.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

	Compound Name:	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.9
	Actual RT:	12.0
	Area Counts:	1.55e+005
	Manual Modification	No
	Amount:	33.4 (ng/mL)
	% Accuracy:	83.50

	Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.3
	Area Counts:	2.80e+006
	Manual Modification	No
	Amount:	18.0 (ng/mL)
	% Accuracy:	90.20

	Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.1
	Actual RT:	15.1
	Area Counts:	4.86e+006
	Manual Modification	Yes
	Amount:	41.6 (ng/mL)
	% Accuracy:	104.00

	Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.6
	Actual RT:	15.8
	Area Counts:	1.83e+006
	Manual Modification	Yes
	Amount:	47.7 (ng/mL)
	% Accuracy:	119.00



after 4/28/10

Sample Name: WXX100421-57081 Sample ID: TILER File: EXP020101.wif  
 Peak Name: 2-Amino-6-chlorobenzoic Acid  
 Concentration: 40.0 ng/mL  
 Calculated Conc: 47271010 ng/mL  
 Date: 4/22/2010  
 Acq. Time: 9:16:37 AM

Sample Type: DC  
 Sample Index: 1

Concentration: 40.0 ng/mL  
 Calculated Conc: 47271010 ng/mL  
 Date: 4/22/2010  
 Acq. Time: 9:16:37 AM

Modified: 4/22/2010  
 Method: 8321A-Modified LCMSMS#3

Min. Peak Height: 1000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 Peak Delay: 0.00 sec  
 Expected RT: 14.2 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 14.2 min  
 Area: 9.98e+008 counts  
 Height: 4.94e+002 cps  
 Ret. Time: 14.2 min  
 End Time: 15.2 min

13.3

14.43

Intensity cps

Time min

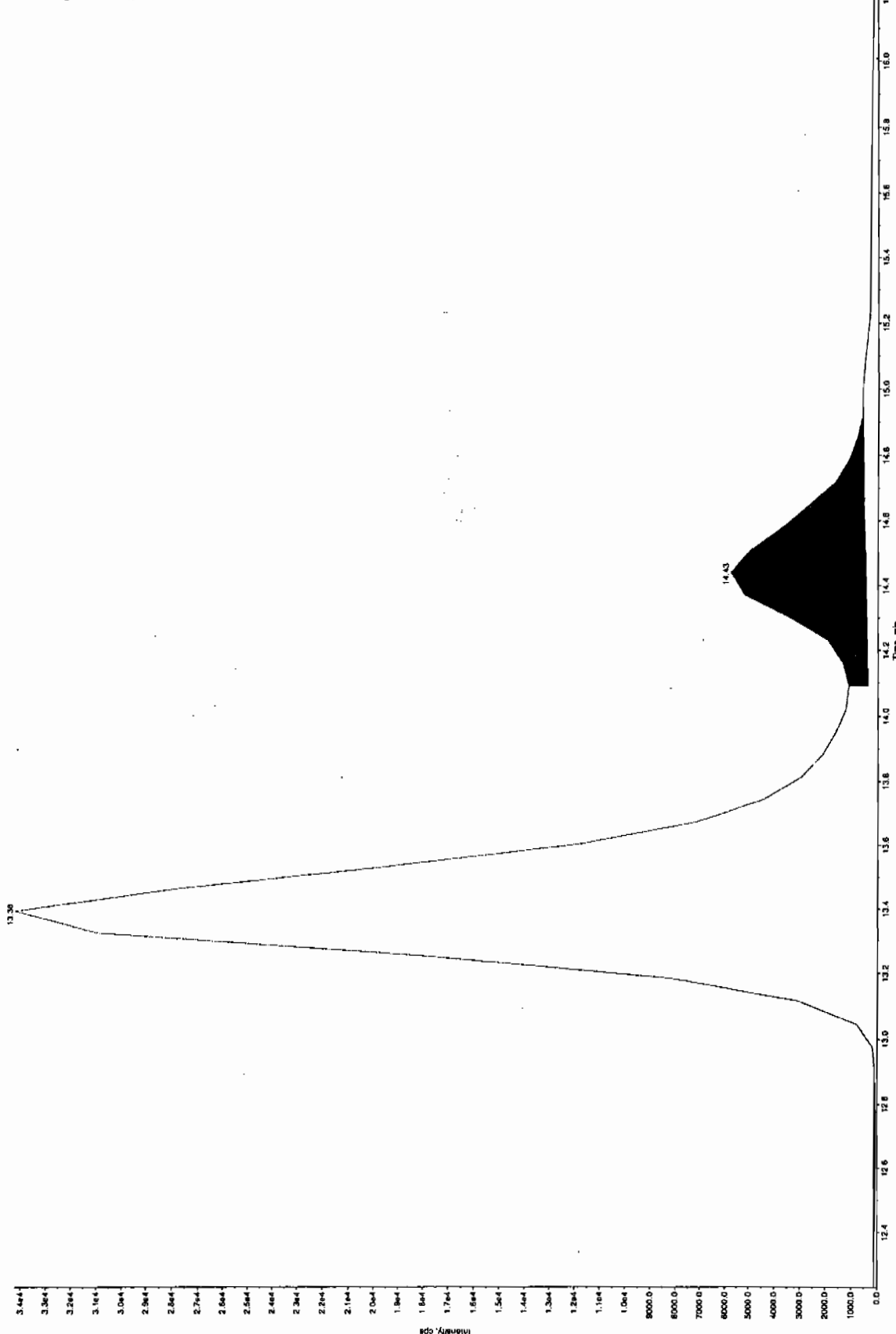
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after 30a 412810

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: 8321A-E-056, Sample ID: 8321A-E-056, File: 8321A-E-056.D  
Peak Name: 7-Amino-4-chlorodioxane, Molecular Weight: 167.04160 g/mol  
Comment: LCMS/MS, C, Annotation: -

Sample Index: 1  
Sample Name: 8321A-E-056, Sample ID: 8321A-E-056, File: 8321A-E-056.D  
Sample Type: 40.3 ng/mL  
Calculated Conc: 40.3 ng/mL  
Acq. Date: 4/22/2010  
Acq. Time: 3:34:37 AM  
Modified: Yes  
RT Window: 60.0 sec  
Expected RT: 14.2 min  
Use Relative RT: No  
Int. Type: Manual  
Retention Time: 14.4 min  
Peak Width: 1.6 min  
Peak Area: 1.1e+003  
Start Time: 14.1 min  
End Time: 14.9 min



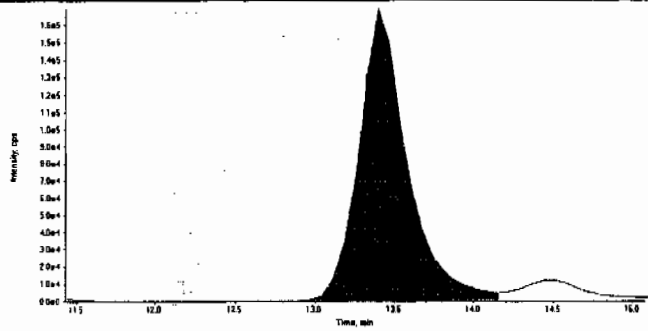
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

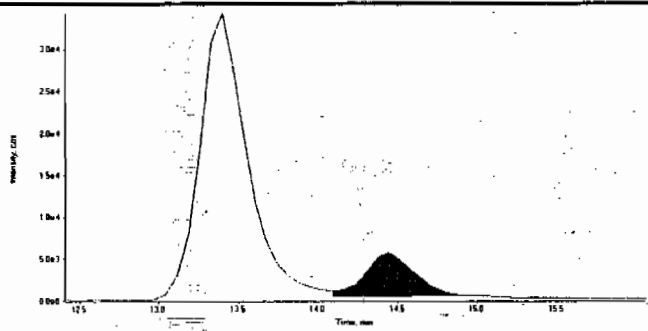
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420101.wiff	<b>Acquisition Date</b>	4/22/2010 9:34:37 AM
<b>Sample Name</b>	WXX100421-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

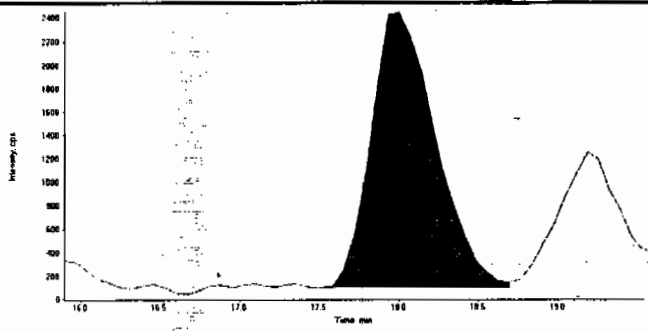
  

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.3
	Actual RT:	13.4
	Area Counts:	3.61e+006
	Manual Modification	No
	Amount:	40.0 (ng/mL)
	% Accuracy:	99.90

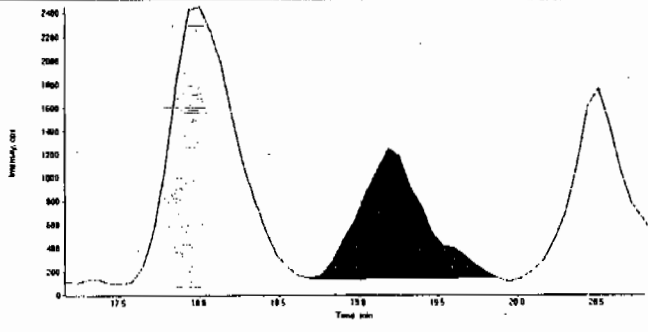
  

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.4
	Area Counts:	1.16e+005
	Manual Modification	Yes
	Amount:	40.1 (ng/mL)
	% Accuracy:	100.00

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	18.0
	Area Counts:	6.74e+004
	Manual Modification	No
	Amount:	56.5 (ng/mL)
	% Accuracy:	141.00

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	19.0
	Actual RT:	19.2
	Area Counts:	3.23e+004
	Manual Modification	No
	Amount:	41.5 (ng/mL)
	% Accuracy:	104.00

Before for 4/28/10

Sample Name: WXX10047150HR Sample ID: TILER File: EPM020101.wif

Peak Name: 3,4-Dichlorobenzonitrile Assay: 131.046.0 nm

Concentration: 40.0 ng/mL

Sample Type: DC

Acq. Date: 4/22/2010

Acq. Time: 9:24:17 AM

Peak: 1

Retention Time: 19.20 min

Peak Height: 100.00 cps

Peak Width: 9.00 sec

Peak Area: 100.00 points

Peak Width: 9.00 points

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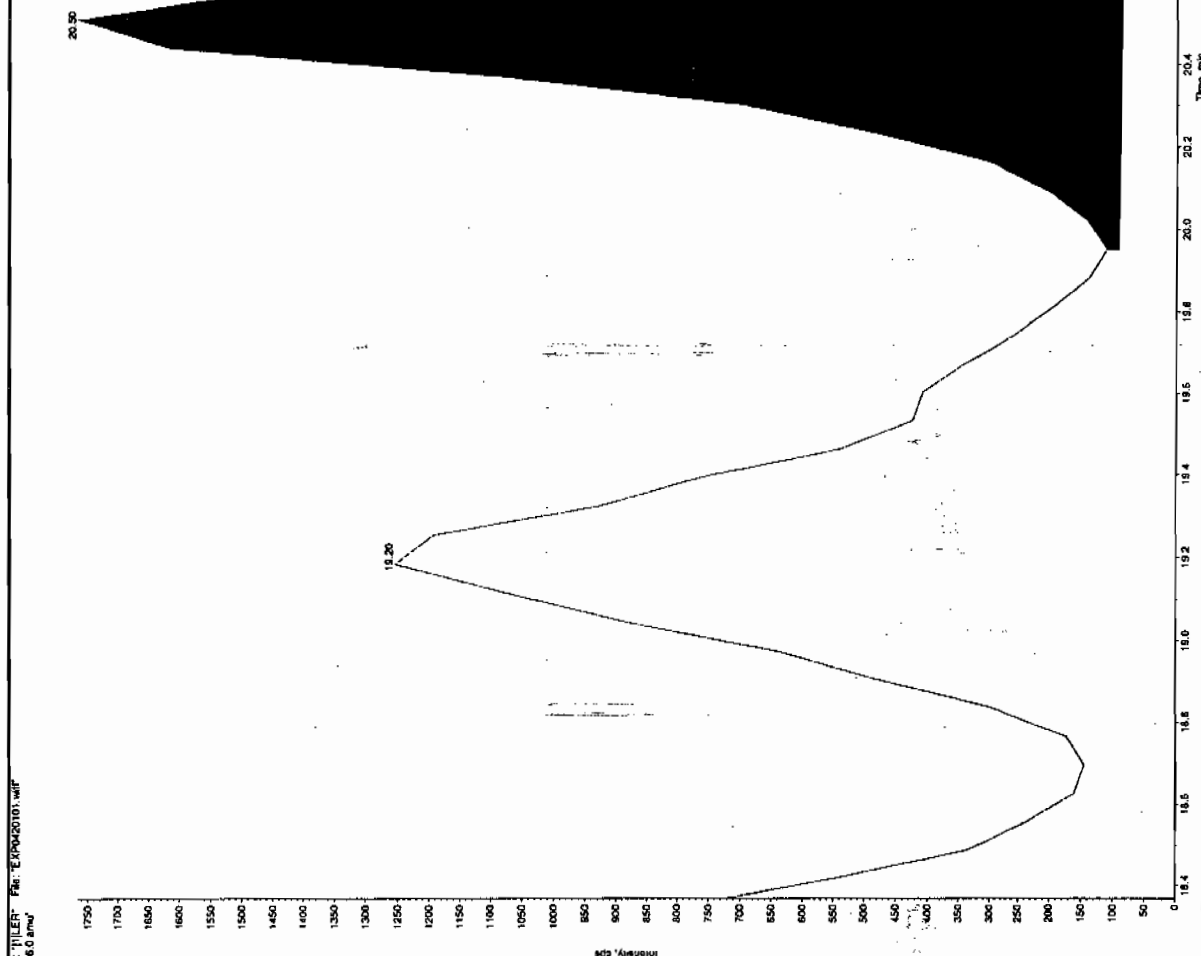
Peak Width: 9.00 points

Peak Width: 9.00 points

Peak Width: 9.00 points

Peak Width: 9.00 points

Peak Width: 9.00 points



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after 4/28/10

Sample Name: WYX10041-37C17 Sample ID: T11E17 File: WYX10041-37C17.wif

Peak Name: 34Indoligne Masses: 137.048.0 amu

Concentration: 40.0 ng/mL

Sample Type: 1 CC

Concentration: 40.0 ng/mL

Calculated Conc: 4/21/2010

Acq. Time: 9:24:33 AM

Acq. Time: 9:24:33 AM

Modified: Yes

RT: 20.4 min

RT: 20.4 min

Relative RT: No

Relative RT: No

Int. Type: Manual

Int. Type: Manual

Integration Time: 20.5 min

Integration Time: 20.5 min

Height: 1.68e+003 cps

Height: 1.68e+003 cps

Width: 20.0 min

Width: 20.0 min

Area: 21.1 min

Area: 21.1 min

20.50

19.20

Intensity, cps

Time, min

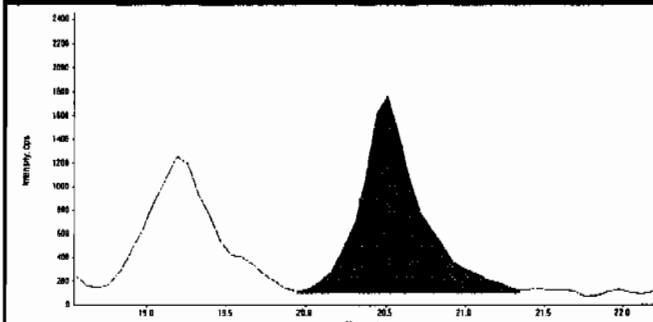
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

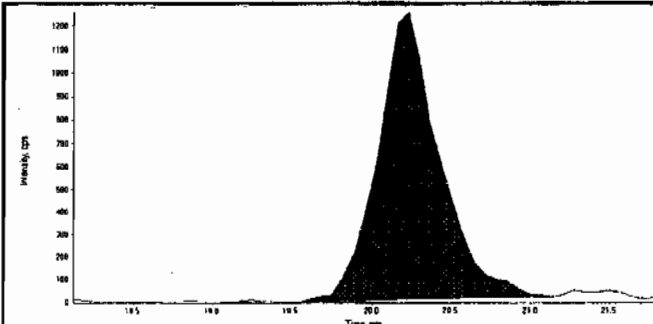
Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420101.wiff	<b>Acquisition Date</b>	4/22/2010 9:34:37 AM
<b>Sample Name</b>	WXX100421-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.4
	<b>Actual RT:</b>	20.5
	<b>Area Counts:</b>	4.41e+004
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	43.1 (ng/mL)
	<b>% Accuracy:</b>	108.00

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	20.0
	<b>Actual RT:</b>	20.2
	<b>Area Counts:</b>	3.49e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	53.8 (ng/mL)
	<b>% Accuracy:</b>	135.00

# GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/22/10  
 Time of Injection 0934  
 Standard Number WXX100421-57CRI  
 Data File EXP0420101a

HMX	129.0
RDX	111.0
135-Trinitrobenzene	115.0
13-Dinitrobenzene	113.0
Tetryl	108.0
246-Trinitrotoluene	117.0
Nitrobenzene	83.5
34-dinitrotoluene	90.2
26-dinitrotoluene	104.0
24-dinitrotoluene	119.0
4-Amino-26-dinitrotoluene	99.9
2-Amino-46-dinitrotoluene	100.0
2-Nitrotoluene	141.0
4-Nitrotoluene	104.0
3-Nitrotoluene	108.0
PETN	135.0

TOTAL

/ 1777.6

*Hum 04/29/10*

AVERAGE

/ 111.1

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Lee  
4/28/10*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0422012.wiff

Analysis Date: 22-APR-10 20:44

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	34.4	86	
2,4,6-Trinitrotoluene	40	32.5	81	
2,4-Dinitrotoluene	40	44.1	110	
2,6-Dinitrotoluene	40	29.8	75	
2-Amino-4,6-dinitrotoluene	40	35.4	88	
3,4-Dinitrotoluene	20	14.4	72	
4-Amino-2,6-dinitrotoluene	40	33.8	84	
DNX	40	44.4	111	
HMX	40	44.2	111	
MXN	40	43.6	109	
Nitrobenzene	40	40.5	101	
PETN	40	39	98	
RDX	40	37.7	94	
TNX	40	45.8	115	
Tetryl	40	36.3	91	
m-Dinitrobenzene	40	43.7	109	
m-Nitrotoluene	40	40.6	102	
o-Nitrotoluene	40	41.9	105	
p-Nitrotoluene	40	45.3	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

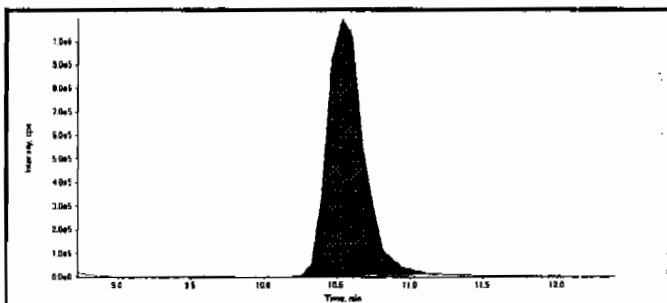
\* Value outside of Recovery Limits



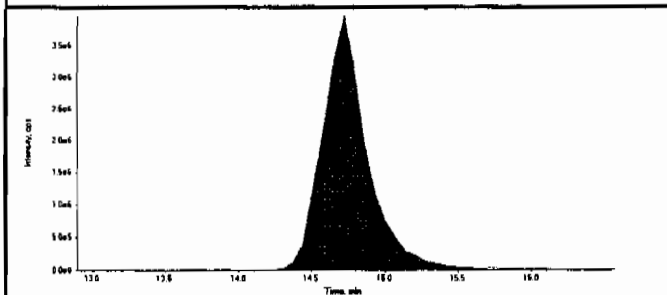
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

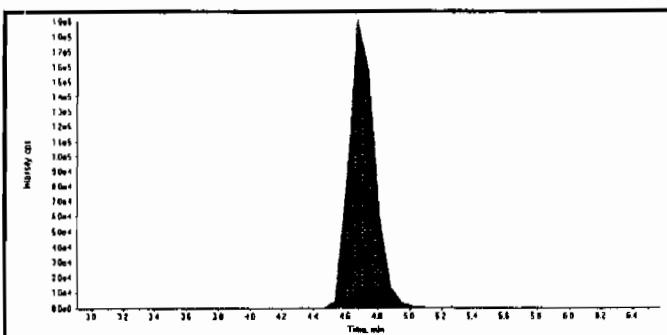
Data File	EXP0422012.wiff	Acquisition Date	4/22/2010 8:44:11 PM
Sample Name	WXX100422-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



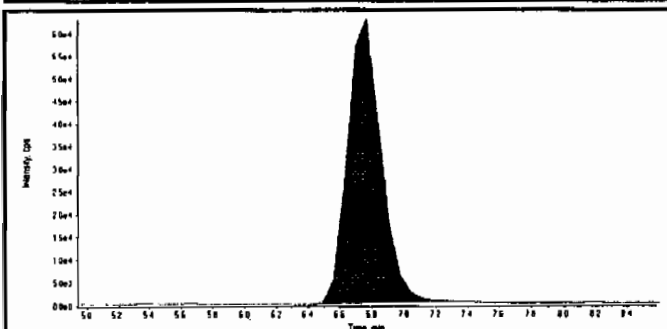
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	19000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.70
Area Counts:	81400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.73
Actual RT:	4.69
Area Counts:	2.14e+006
Manual Modification	No
Amount:	44.2 (ng/mL)
% Accuracy:	111.00



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.75
Area Counts:	9.21e+005
Manual Modification	No
Amount:	37.7 (ng/mL)
% Accuracy:	94.20

*for 51510 Hmx 05/06/10*

Before Jan 5/5/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: WAX10042570201 Sample ID: 11111111 File: E:\SP0422012.wif

Peak Name: WAXC Mass(es): 751.046 0 amu

Comment: LCMSDEP\_C Acquisition: 1

Sample Type: 1 OC

Concentration: 40.9 ng/mL

Calculated Conc: 45.7 ng/mL

Area: 4722910

Area Threshold: 585.17 cps

Area: 4004

Area: 3804

Area: 3804

Area: 3704

Area: 3604

Area: 3504

Area: 3404

Area: 3304

Area: 3204

Area: 3104

Area: 3004

Area: 2904

Area: 2804

Area: 2704

Area: 2604

Area: 2504

Area: 2404

Area: 2304

Area: 2204

Area: 2104

Area: 2004

Area: 1904

Area: 1804

Area: 1704

Area: 1604

Area: 1504

Area: 1404

Area: 1304

Area: 1204

Area: 1104

Area: 1004

Area: 900.0

Area: 800.0

Area: 700.0

Area: 600.0

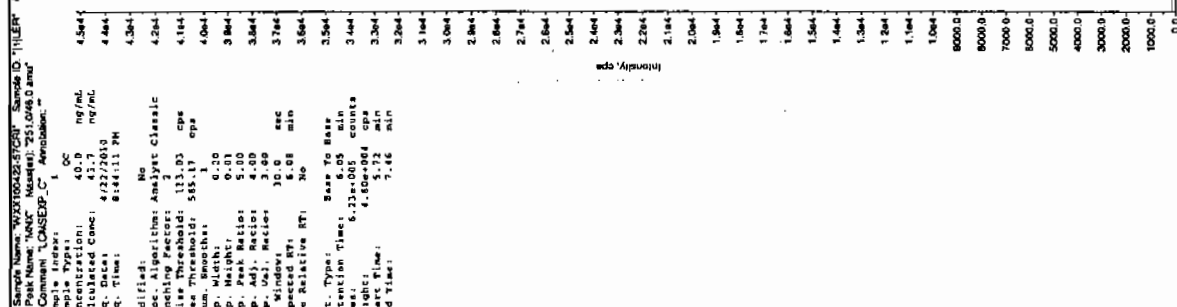
Area: 500.0

Area: 400.0

Area: 300.0

Area: 200.0

Area: 100.0



after Jan 5/10

Sample Name: "WXX100422-37C1" Sample ID: "111111" File: "EXP0422012.wif"

Peak Name: "MNP" Mass(es): "151.046.0 amu"

Concentration: "1.00" ng/mL

Sample Type: "1.00" ng/mL

Acq. Time: "8:44:11 PM"

Concentration: "45.5" ng/mL

Acq. Time: "8:44:11 PM"

Concentration: "45.5" ng/mL

Acq. Time: "8:44:11 PM"

Concentration: "45.5" ng/mL

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Concentration: "45.5" ng/mL

Acq. Time: "8:44:11 PM"

Concentration: "45.5" ng/mL

Acq. Time: "8:44:11 PM"

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422012.wiff	<b>Acquisition Date</b>	4/22/2010 8:44:11 PM
<b>Sample Name</b>	WXX100422-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	TNX (219.0/45.0 amu)
	Expected RT:	5.06
	Actual RT:	5.03
	Area Counts:	1.35e+006
	Manual Modification	No
	Amount:	45.8 (ng/mL)
	% Accuracy:	115.00

	<b>Compound Name:</b>	DNX (235.0/45.0 amu)
	Expected RT:	5.41
	Actual RT:	5.37
	Area Counts:	1.20e+006
	Manual Modification	No
	Amount:	44.4 (ng/mL)
	% Accuracy:	111.00

	<b>Compound Name:</b>	MNX (251.0/46.0 amu)
	Expected RT:	6.08
	Actual RT:	6.05
	Area Counts:	6.22e+005
	Manual Modification	Yes
	Amount:	43.6 (ng/mL)
	% Accuracy:	109.00

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.03
	Actual RT:	9.02
	Area Counts:	1.29e+007
	Manual Modification	No
	Amount:	34.4 (ng/mL)
	% Accuracy:	86.10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422012.wiff	<b>Acquisition Date</b>	4/22/2010 8:44:11 PM
<b>Sample Name</b>	WXX100422-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	4.57e+006
	Manual Modification	No
	Amount:	43.7 (ng/mL)
	% Accuracy:	109.00

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	3.73e+006
	Manual Modification	No
	Amount:	36.3 (ng/mL)
	% Accuracy:	90.70

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.2
	Actual RT:	13.2
	Area Counts:	2.28e+007
	Manual Modification	No
	Amount:	32.5 (ng/mL)
	% Accuracy:	81.30

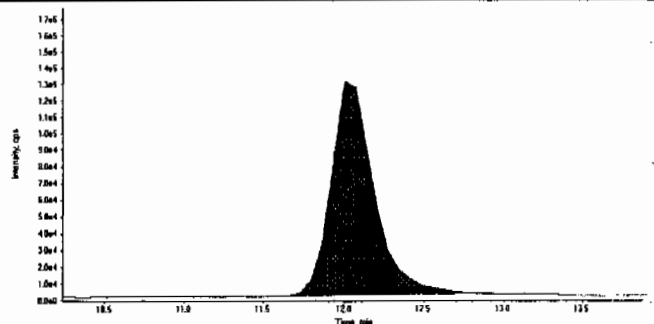
	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	11.8
	Area Counts:	1.78e+005
	Manual Modification	No
	Amount:	40.5 (ng/mL)
	% Accuracy:	101.00

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

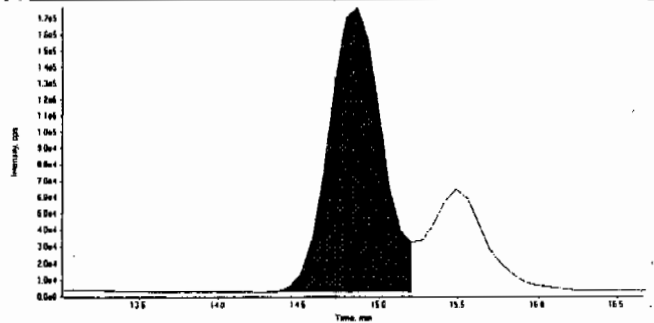
Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422012.wiff	<b>Acquisition Date</b>	4/22/2010 8:44:11 PM
<b>Sample Name</b>	WXX100422-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

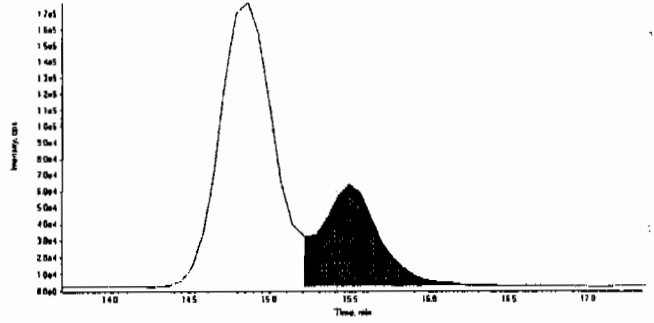
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.0
	Area Counts:	2.44e+006
	Manual Modification	No
	Amount:	14.4 (ng/mL)
	% Accuracy:	72.10

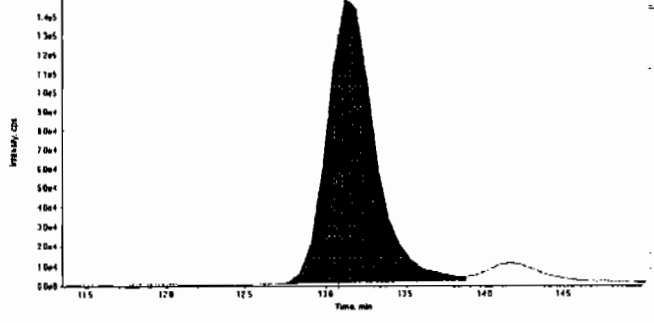
  

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.8
	Area Counts:	4.05e+006
	Manual Modification	No
	Amount:	29.8 (ng/mL)
	% Accuracy:	74.50

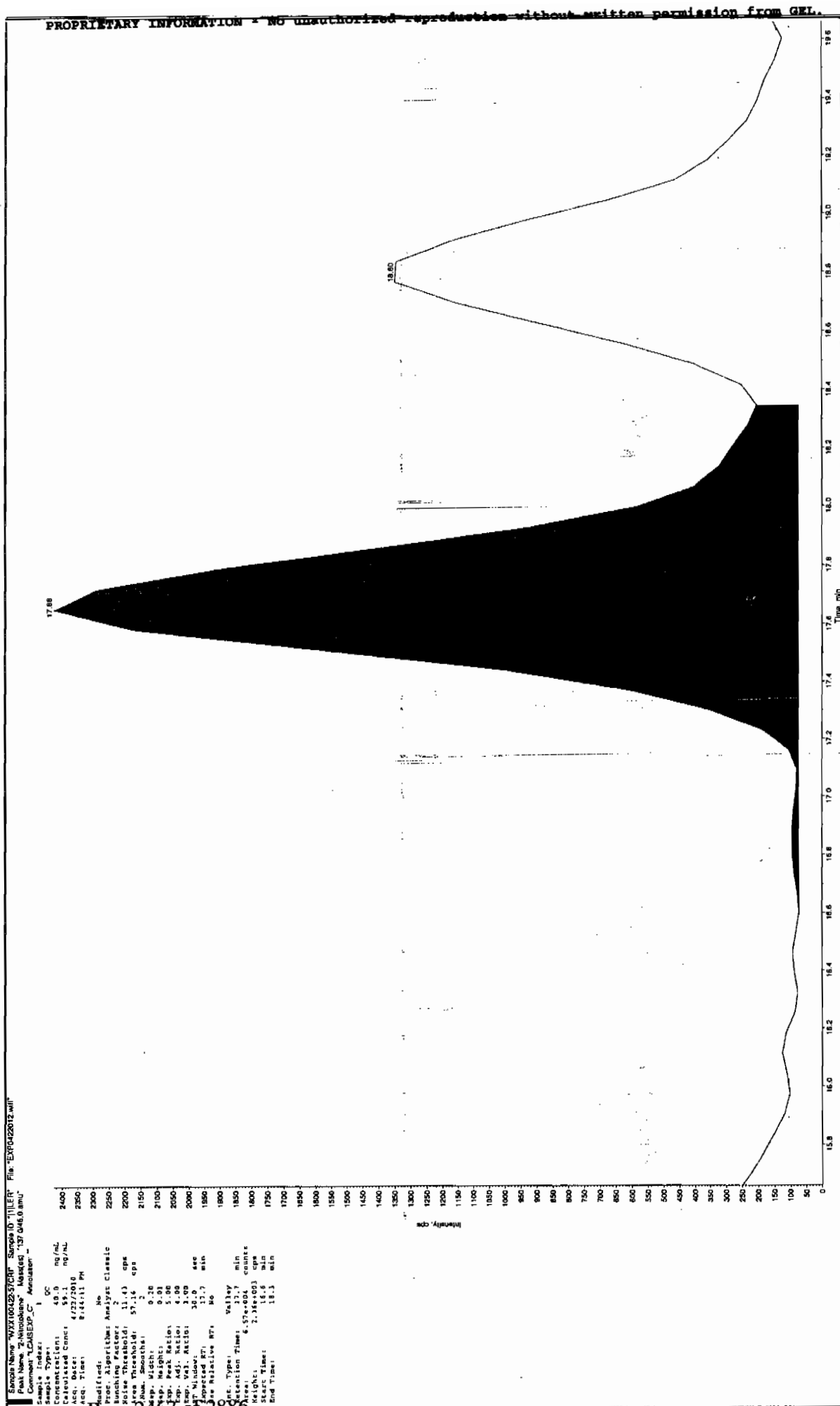
  

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.5
	Area Counts:	1.54e+006
	Manual Modification	No
	Amount:	44.1 (ng/mL)
	% Accuracy:	110.00

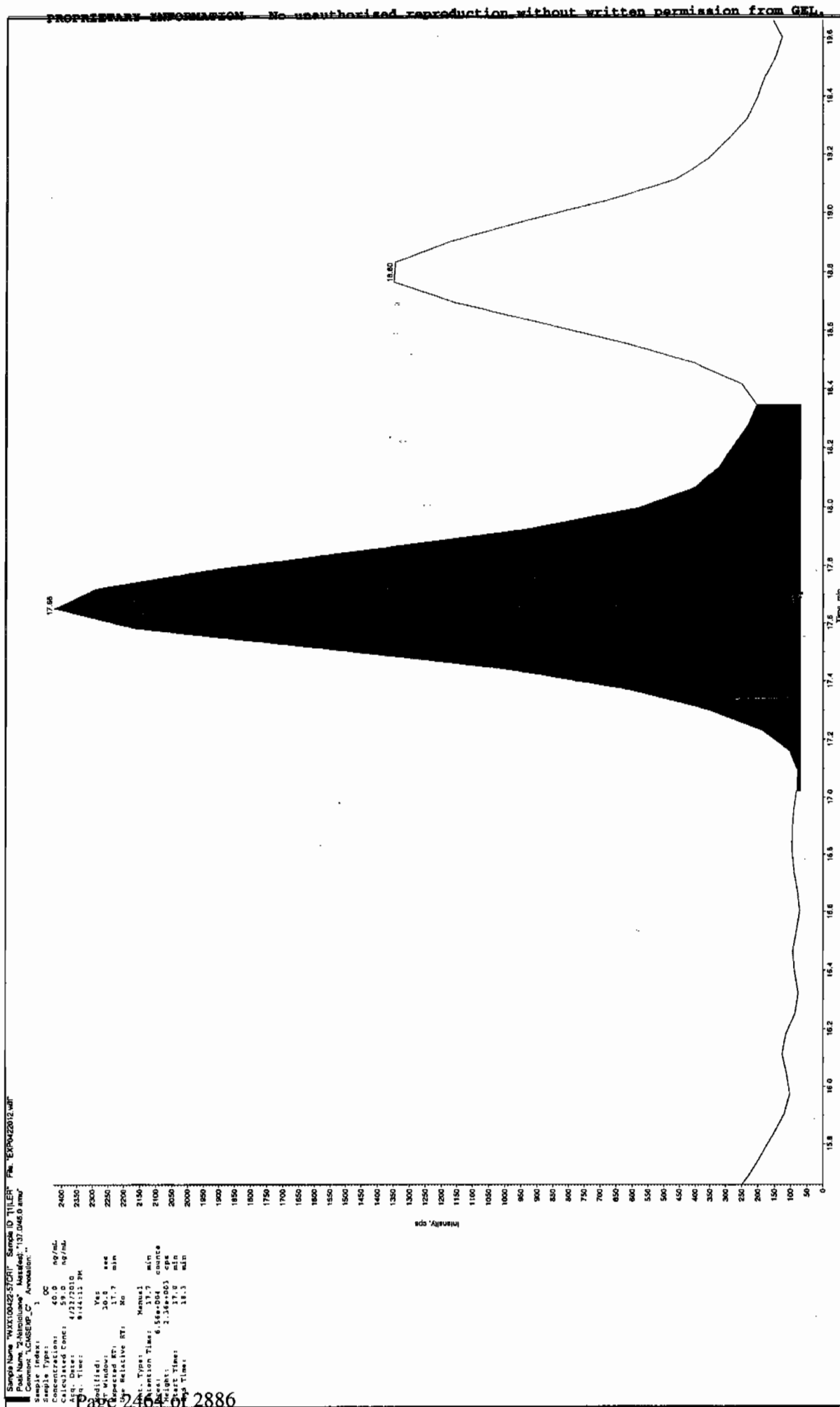
	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.2
	Actual RT:	13.1
	Area Counts:	3.10e+006
	Manual Modification	No
	Amount:	33.8 (ng/mL)
	% Accuracy:	84.40

Before Scan 51510



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after run 51310



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

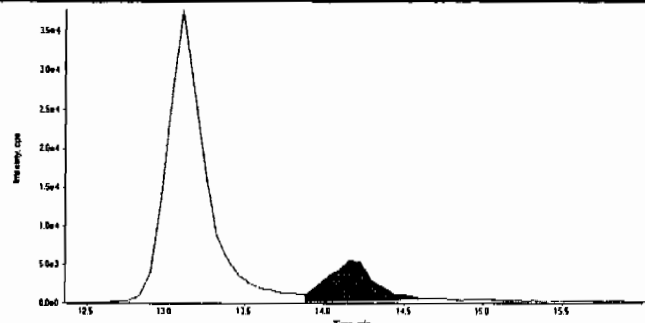


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

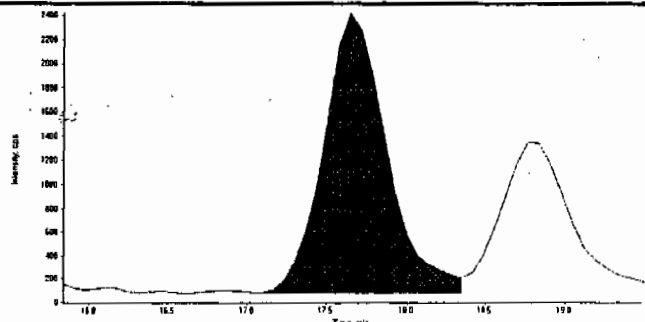
Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422012.wiff	<b>Acquisition Date</b>	4/22/2010 8:44:11 PM
<b>Sample Name</b>	WXX100422-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

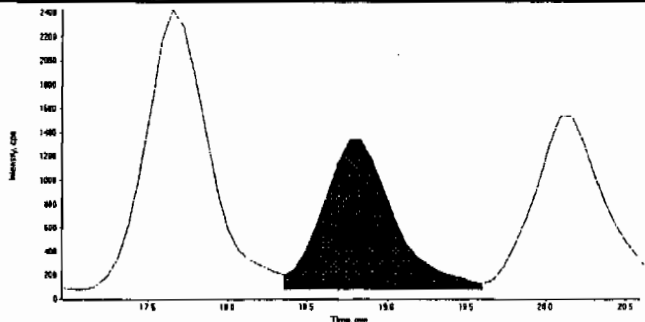
  

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.2
	Area Counts:	1.03e+005
	Manual Modification	No
	Amount:	35.4 (ng/mL)
	% Accuracy:	88.40

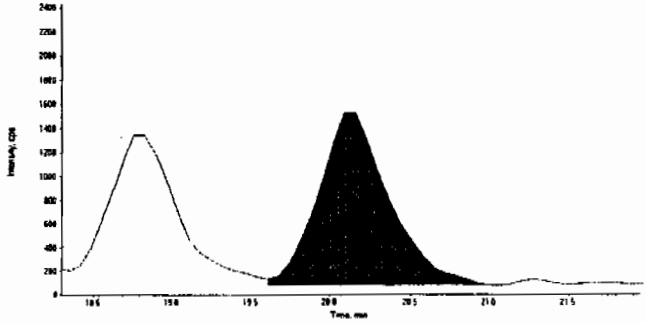
  

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	17.7
	Area Counts:	6.56e+004
	Manual Modification	Yes
	Amount:	41.9 (ng/mL)
	% Accuracy:	105.00

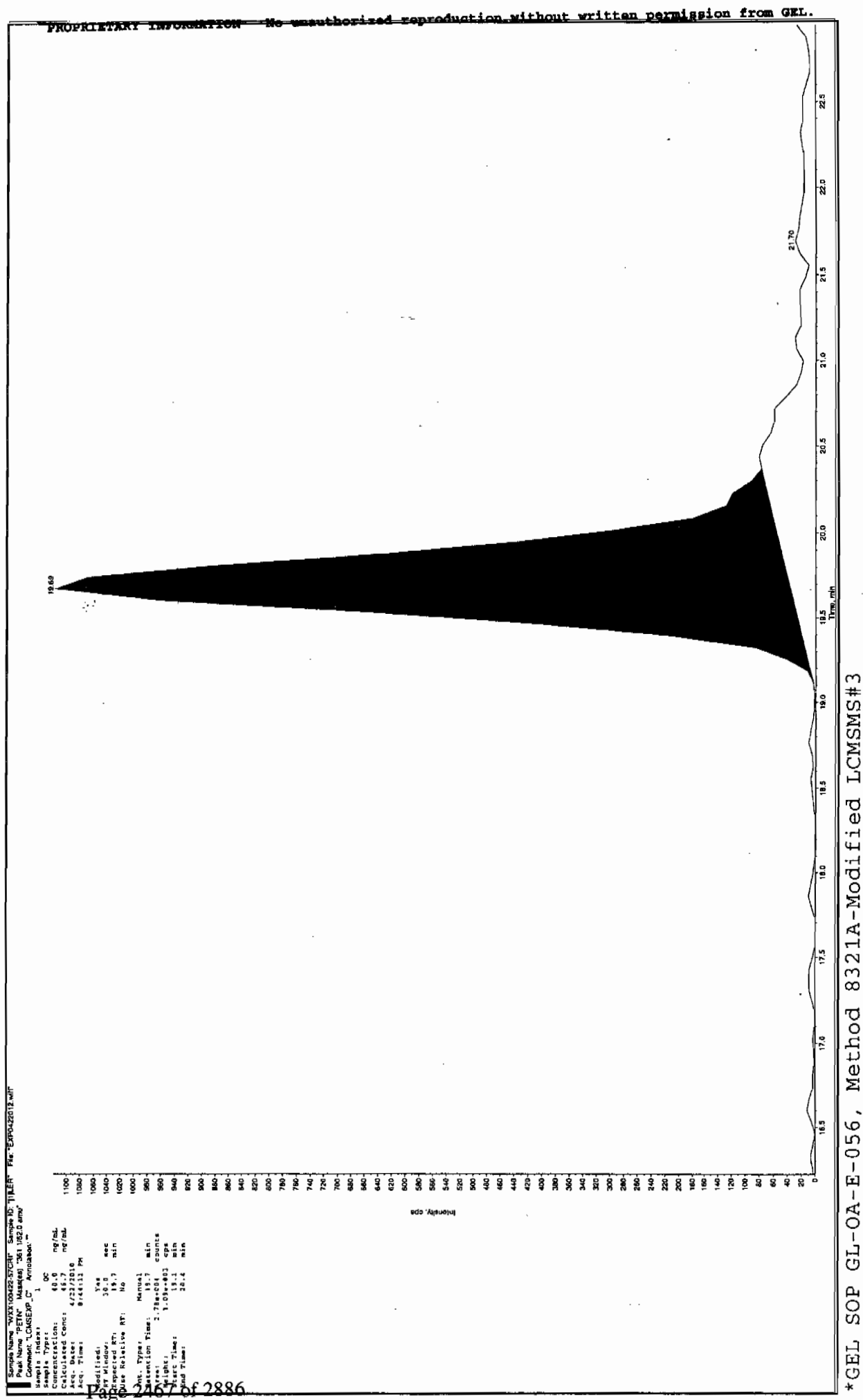
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.8
	Area Counts:	3.99e+004
	Manual Modification	No
	Amount:	45.3 (ng/mL)
	% Accuracy:	113.00

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	20.1
	Area Counts:	4.56e+004
	Manual Modification	No
	Amount:	40.6 (ng/mL)
	% Accuracy:	102.00

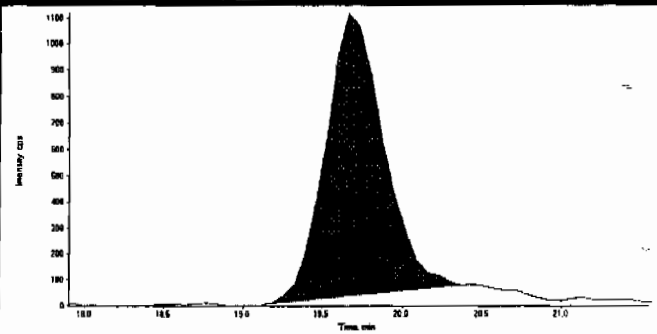


after Run 51510



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Data File	EXP0422012.wiff	Acquisition Date	4/22/2010 8:44:11 PM
Sample Name	WXX100422-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control
		Compound Name:	PETN (361.1/62.0 amu)
		Expected RT:	19.7
		Actual RT:	19.7
		Area Counts:	2.78e+004
		Manual Modification	Yes
		Amount:	39.0 (ng/mL)
		% Accuracy:	97.60

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/22/10  
 Time of Injection 2044  
 Standard Number WXX100422-57CRI  
 Data File EXP0422012a

HMX	111.0
RDX	94.2
TNX	115.0
DNX	111.0
MNX	109.0
135-Trinitrobenzene	86.1
13-Dinitrobenzene	109.0
Tetryl	90.7
246-Trinitrotoluene	81.3
Nitrobenzene	101.0
34-dinitrotoluene	72.1
26-dinitrotoluene	74.5
24-dinitrotoluene	110.0
4-Amino-26-dinitrotoluene	84.4
2-Amino-46-dinitrotoluene	88.4
2-Nitrotoluene	105.0
4-Nitrotoluene	113.0
3-Nitrotoluene	102.0
PETN	97.6

TOTAL

1855.3

*dmwosk*

AVERAGE

✓ 97.6

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*See  
5/5/10*

7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0422016.wiff

Analysis Date: 22-APR-10 22:28

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	601	100	
2,4,6-Trinitrotoluene	600	646	108	
2,4-Dinitrotoluene	600	681	114	
2,6-Dinitrotoluene	600	602	100	
2-Amino-4,6-dinitrotoluene	600	584	97	
3,4-Dinitrotoluene	300	315	105	
4-Amino-2,6-dinitrotoluene	600	673	112	
DNX	600	607	101	
HMX	600	512	85	
MNX	600	656	109	
Nitrobenzene	600	626	104	
PETN	600	659	110	
RDX	600	613	102	
TNX	600	616	103	
Tetryl	600	660	110	
m-Dinitrobenzene	600	601	100	
m-Nitrotoluene	600	636	106	
o-Nitrotoluene	600	609	101	
p-Nitrotoluene	600	645	107	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

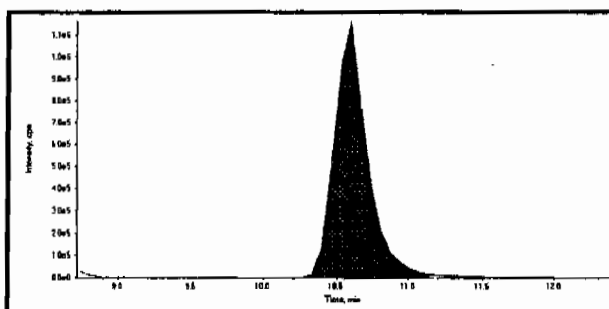
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

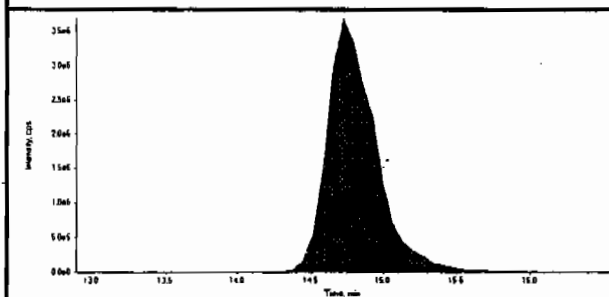
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

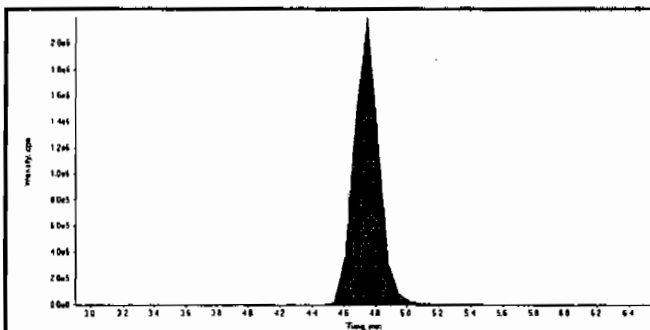
Data File	EXP0422016.wiff	Acquisition Date	4/22/2010 10:28:01 PM
Sample Name	WXX100422-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



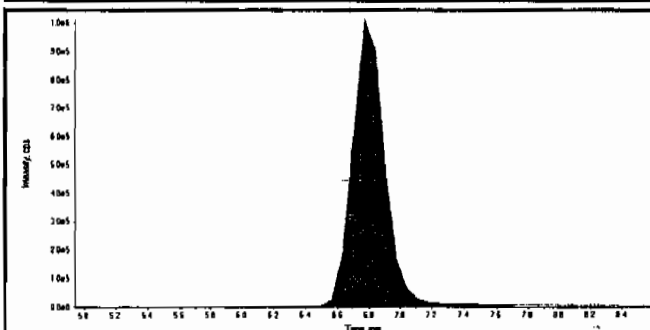
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	18600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.70
Area Counts:	85700000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.73
Actual RT:	4.74
Area Counts:	2.44e+007
Manual Modification	No
Amount:	512. (ng/mL)
% Accuracy:	85.40



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.79
Area Counts:	1.47e+007
Manual Modification	No
Amount:	613. (ng/mL)
% Accuracy:	102.00

*Handwritten signatures and dates:*  
 Ler 5/5/10  
 HMC 05/04/10

Before Jan 5/5/10

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Sample Name: "XXXX00025-5600" Sample ID: "11151" File: "EXP0422018.mpl"

Peak Name: "TUNIC" Mass(es): "251.046.0 amu"

Sample Index: 1

Sample Type: 4 DC

Concentration: 600 ng/mL

Acquisition Date: 4/22/2010

Acquisition Time: 10:28:01 PM

Acquisition Method: LC/MS/MS

Acquisition Parameters:

Injection Volume: 10 µL

Injection Speed: 10 µL/min

Injection Pressure: 113.01 psi

Injection Temperature: 565.17 °C

Injection Volume: 0.10 µL

Injection Weight: 0.01 µg

Injection Peak Ratio: 5.00

Injection Peak Ratio: 5.00

Injection Peak Ratio: 3.00

Injection Peak Ratio: 3.00

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Injection Peak Ratio: 3.00

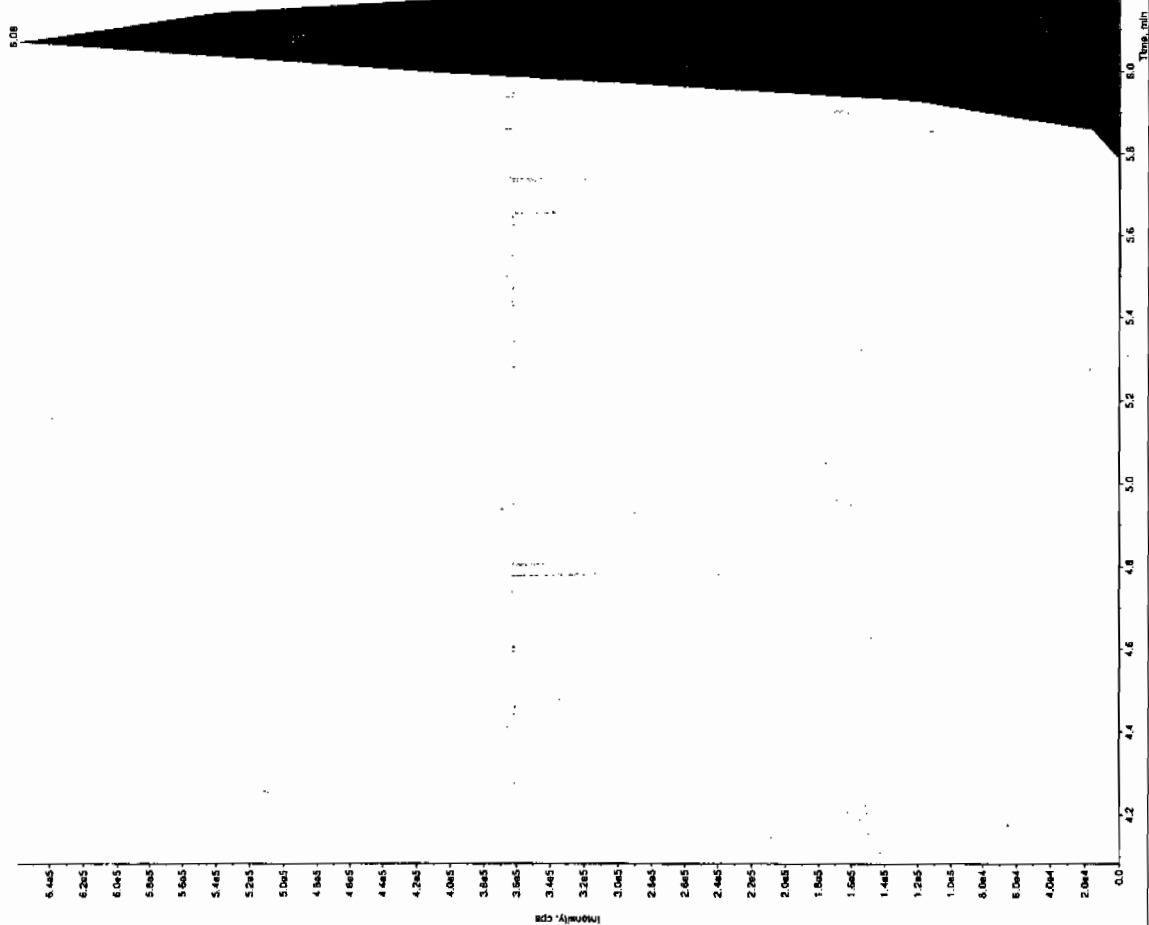
Injection Peak Ratio: 3.00

Injection Peak Ratio: 3.00

Injection Peak Ratio: 3.00

Injection Peak Ratio: 3.00

Injection Peak Ratio: 3.00



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



after Jan 5/16

Sample Name: WAT100422-SECUV Sample ID: TILER File: EXP042016.wif

Peak Name: "MOC" Mass(es): 231.0460 amu

Comment: "LCMS-EXP-C" Annotation: -

Sample Index: 1

Concentration: 800 ng/mL

Acq. Date: 4/22/2010

Acq. Time: 10:28:01 PM

Modified: Yes

Acq. Method: 30.0 sec

Acq. Window: 6.08 min

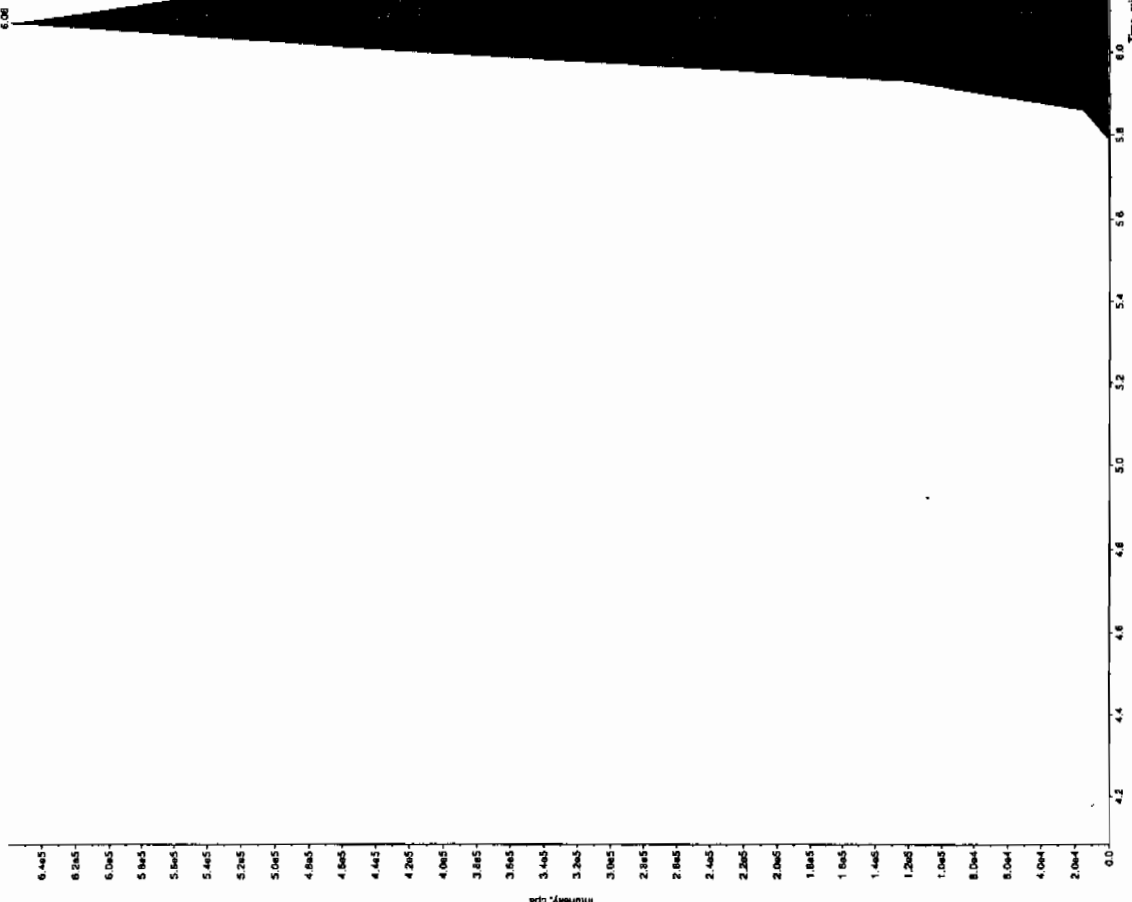
Flow Relative RT: No

Retention Time: 6.08 min

Count: 3.144E+005

Start Time: 5.72 min

End Time: 7.25 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422016.wiff	<b>Acquisition Date</b>	4/22/2010 10:28:01 PM
<b>Sample Name</b>	WXX100422-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	TNX (219.0/45.0 amu)
	Expected RT:	5.06
	Actual RT:	5.07
	Area Counts:	1.78e+007
	Manual Modification	No
	Amount:	616. (ng/mL)
	% Accuracy:	103.00

	<b>Compound Name:</b>	DNX (235.0/45.0 amu)
	Expected RT:	5.41
	Actual RT:	5.41
	Area Counts:	1.61e+007
	Manual Modification	No
	Amount:	607. (ng/mL)
	% Accuracy:	101.00

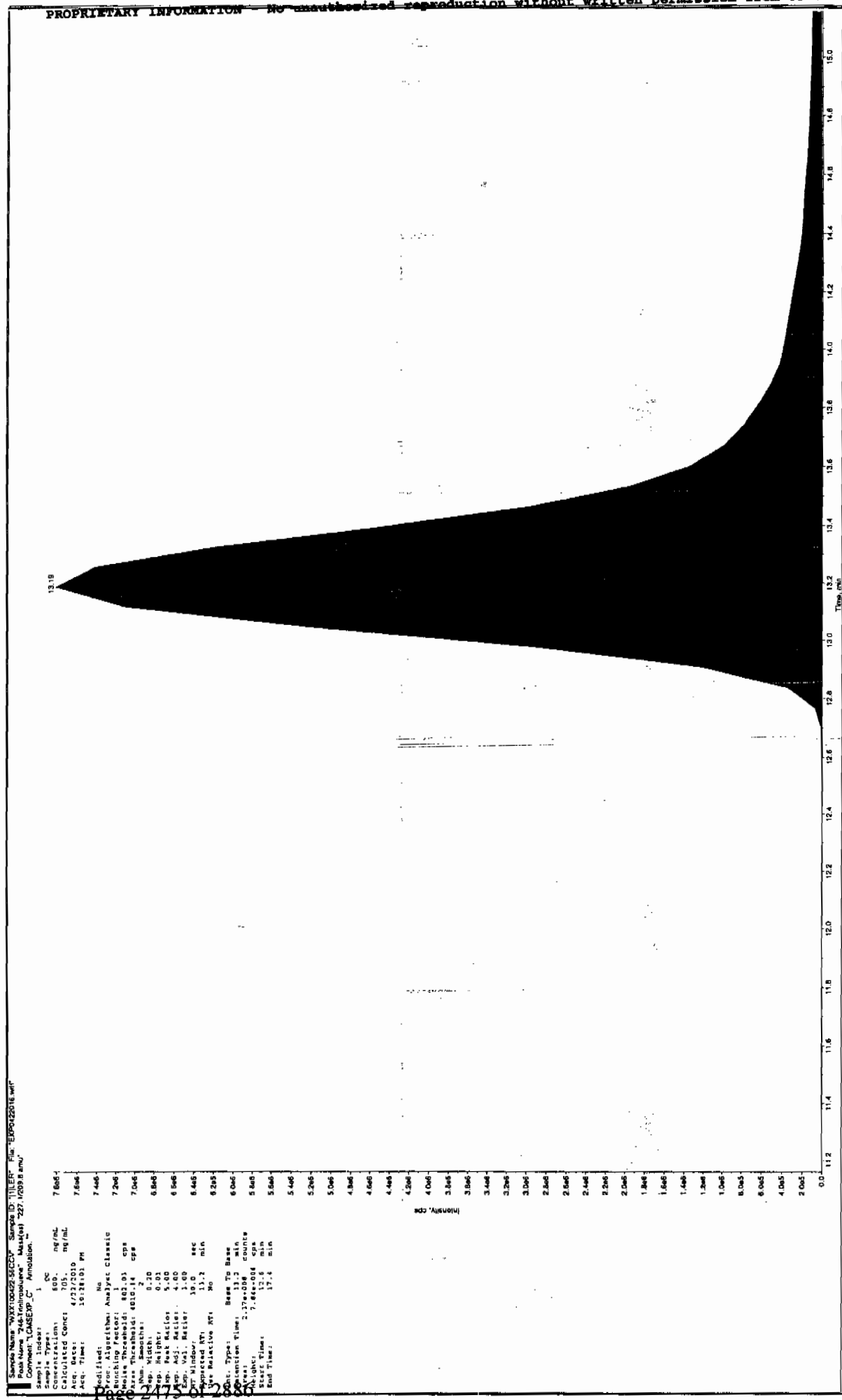
  

	<b>Compound Name:</b>	MNX (251.0/46.0 amu)
	Expected RT:	6.08
	Actual RT:	6.08
	Area Counts:	9.16e+006
	Manual Modification	Yes
	Amount:	656. (ng/mL)
	% Accuracy:	109.00

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.03
	Actual RT:	9.05
	Area Counts:	1.37e+008
	Manual Modification	No
	Amount:	601. (ng/mL)
	% Accuracy:	100.00

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\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



GEL Laboratories, LLC  
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Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422016.wiff	<b>Acquisition Date</b>	4/22/2010 10:28:01 PM
<b>Sample Name</b>	WXX100422-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	6.16e+007
	Manual Modification	No
	Amount:	601. (ng/mL)
	% Accuracy:	100.00

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	10.8
	Area Counts:	5.10e+007
	Manual Modification	No
	Amount:	660. (ng/mL)
	% Accuracy:	110.00

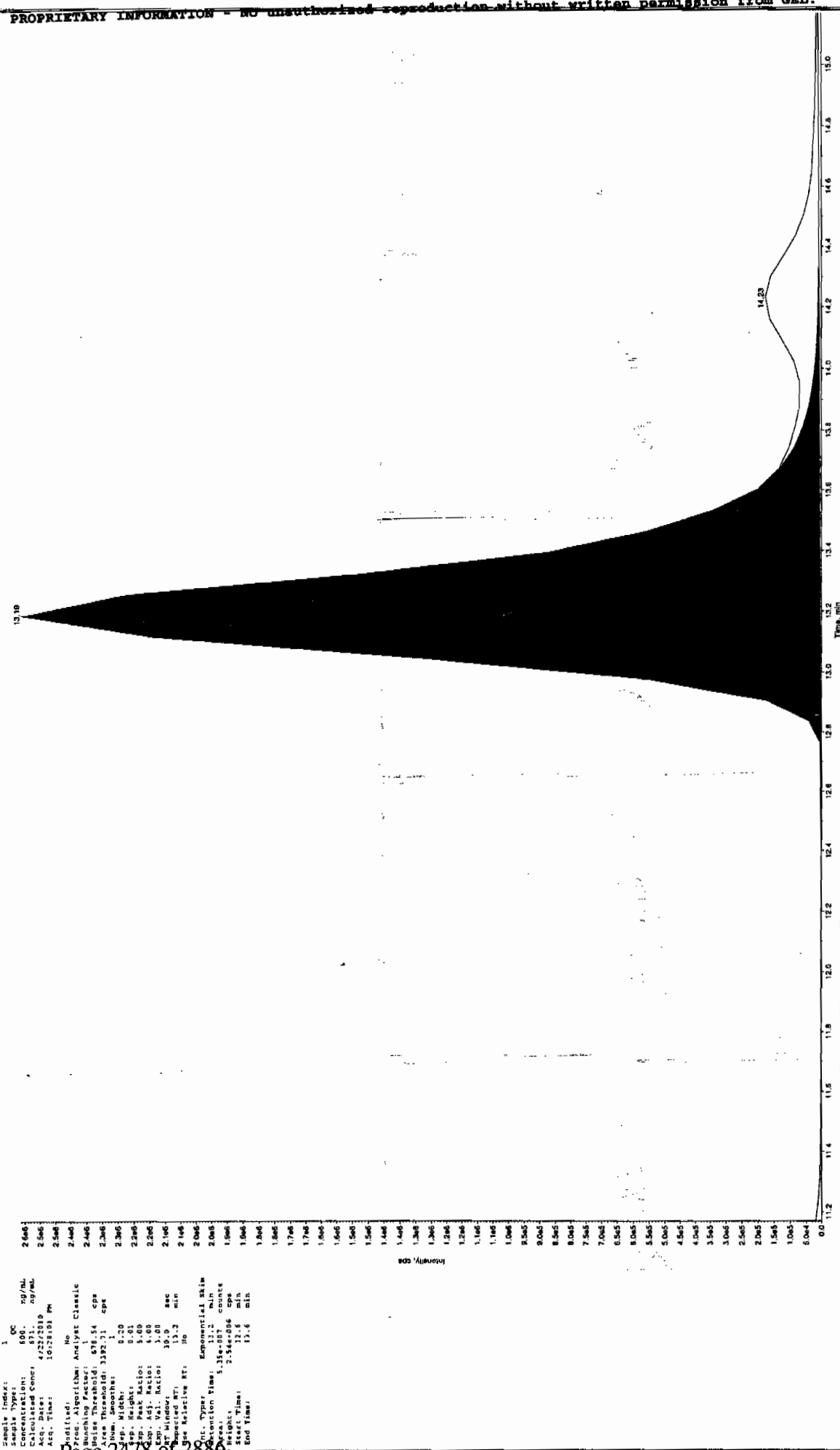
  

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.2
	Actual RT:	13.2
	Area Counts:	2.25e+008
	Manual Modification	Yes
	Amount:	646. (ng/mL)
	% Accuracy:	108.00

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	11.8
	Area Counts:	2.89e+006
	Manual Modification	No
	Amount:	626. (ng/mL)
	% Accuracy:	104.00

Before



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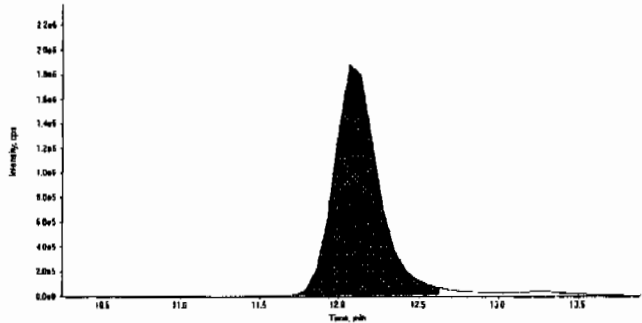


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GEL SOP GL-OA-E-056, Method 8321A-Modified

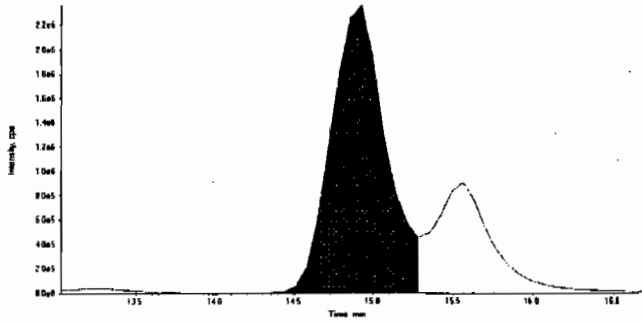
Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422016.wiff	<b>Acquisition Date</b>	4/22/2010 10:28:01 PM
<b>Sample Name</b>	WXX100422-56CCV	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

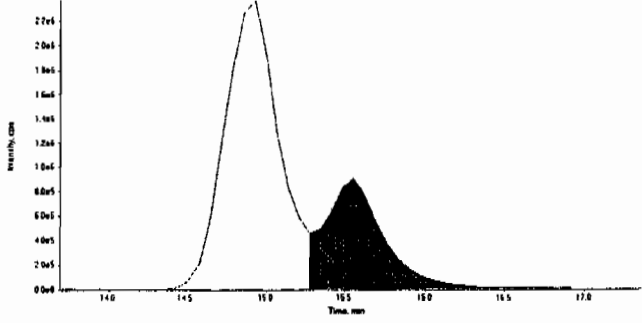
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.1
	Area Counts:	3.70e+007
	Manual Modification	No
	Amount:	315. (ng/mL)
	% Accuracy:	105.00

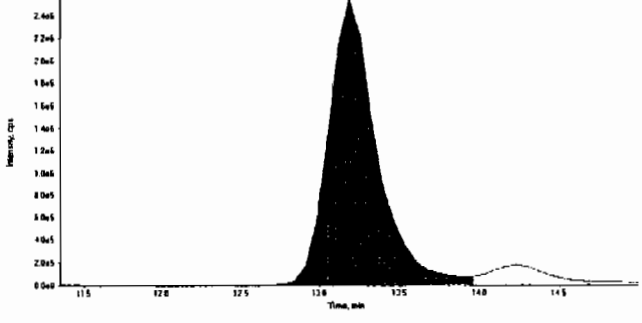
  

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.9
	Area Counts:	5.60e+007
	Manual Modification	No
	Amount:	602. (ng/mL)
	% Accuracy:	100.00

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.5
	Area Counts:	2.28e+007
	Manual Modification	No
	Amount:	681. (ng/mL)
	% Accuracy:	114.00

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.2
	Actual RT:	13.2
	Area Counts:	5.37e+007
	Manual Modification	Yes
	Amount:	673. (ng/mL)
	% Accuracy:	112.00

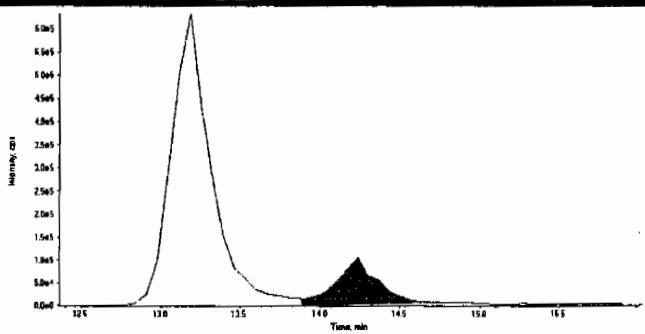


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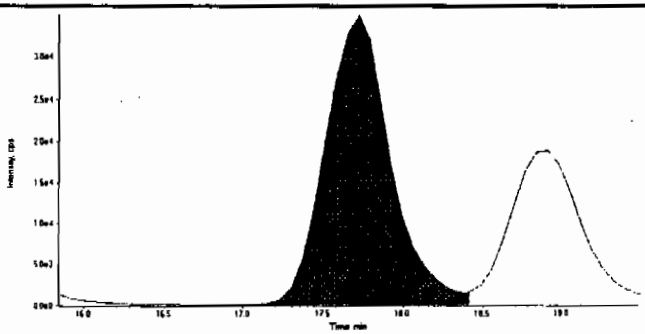
Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Data File	EXP0422016.wiff	Acquisition Date	4/22/2010 10:28:01 PM
Sample Name	WXX100422-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

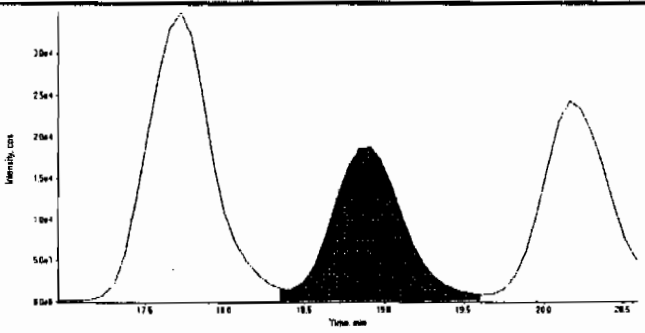
  

	Compound Name:	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.2
	Area Counts:	1.80e+006
	Manual Modification	No
	Amount:	584. (ng/mL)
	% Accuracy:	97.30

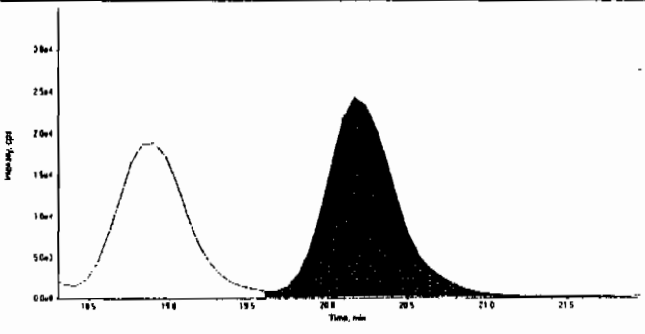
  

	Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	17.7
	Area Counts:	1.00e+006
	Manual Modification	No
	Amount:	609. (ng/mL)
	% Accuracy:	101.00

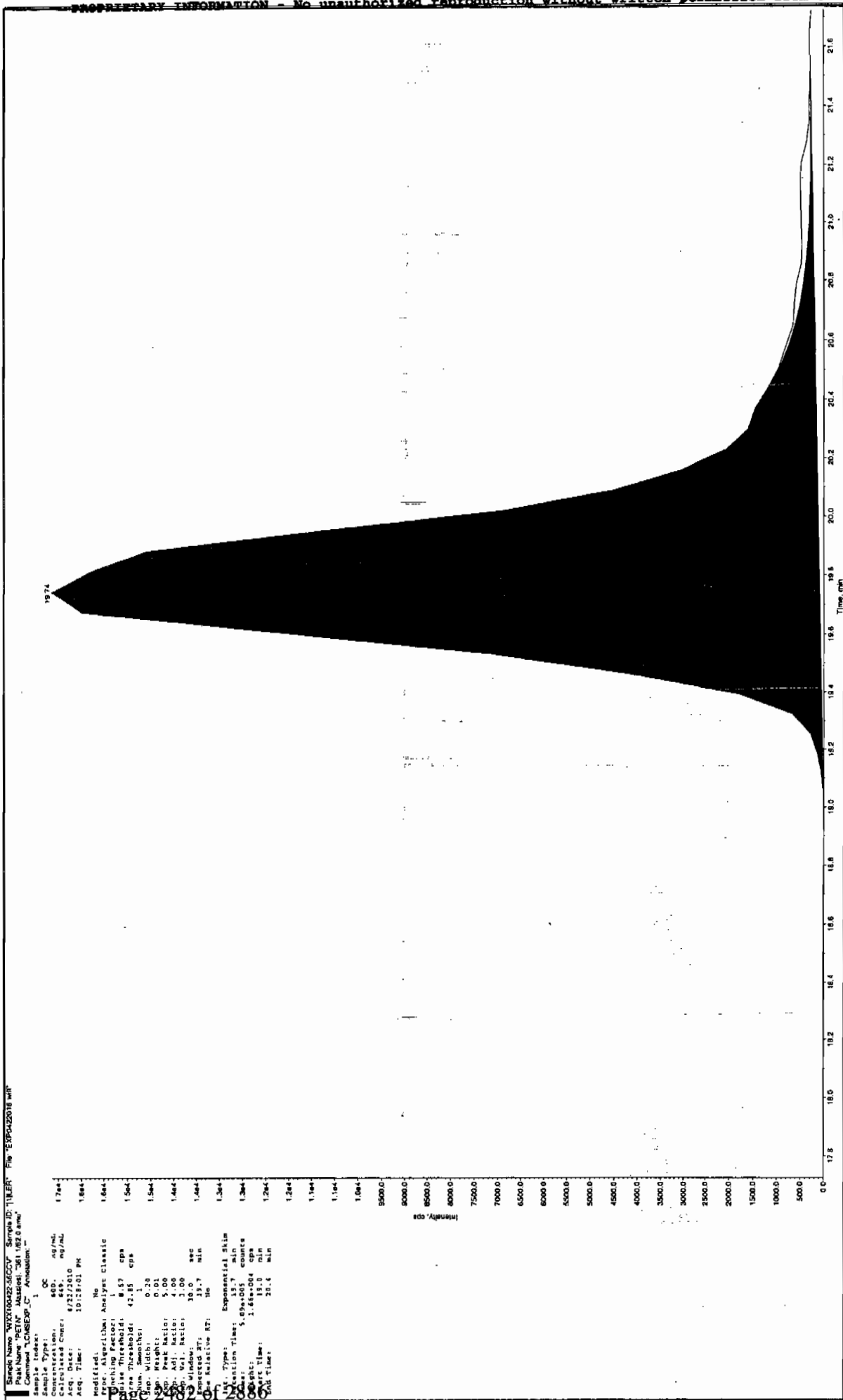
  

	Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.9
	Area Counts:	5.98e+005
	Manual Modification	No
	Amount:	645. (ng/mL)
	% Accuracy:	107.00

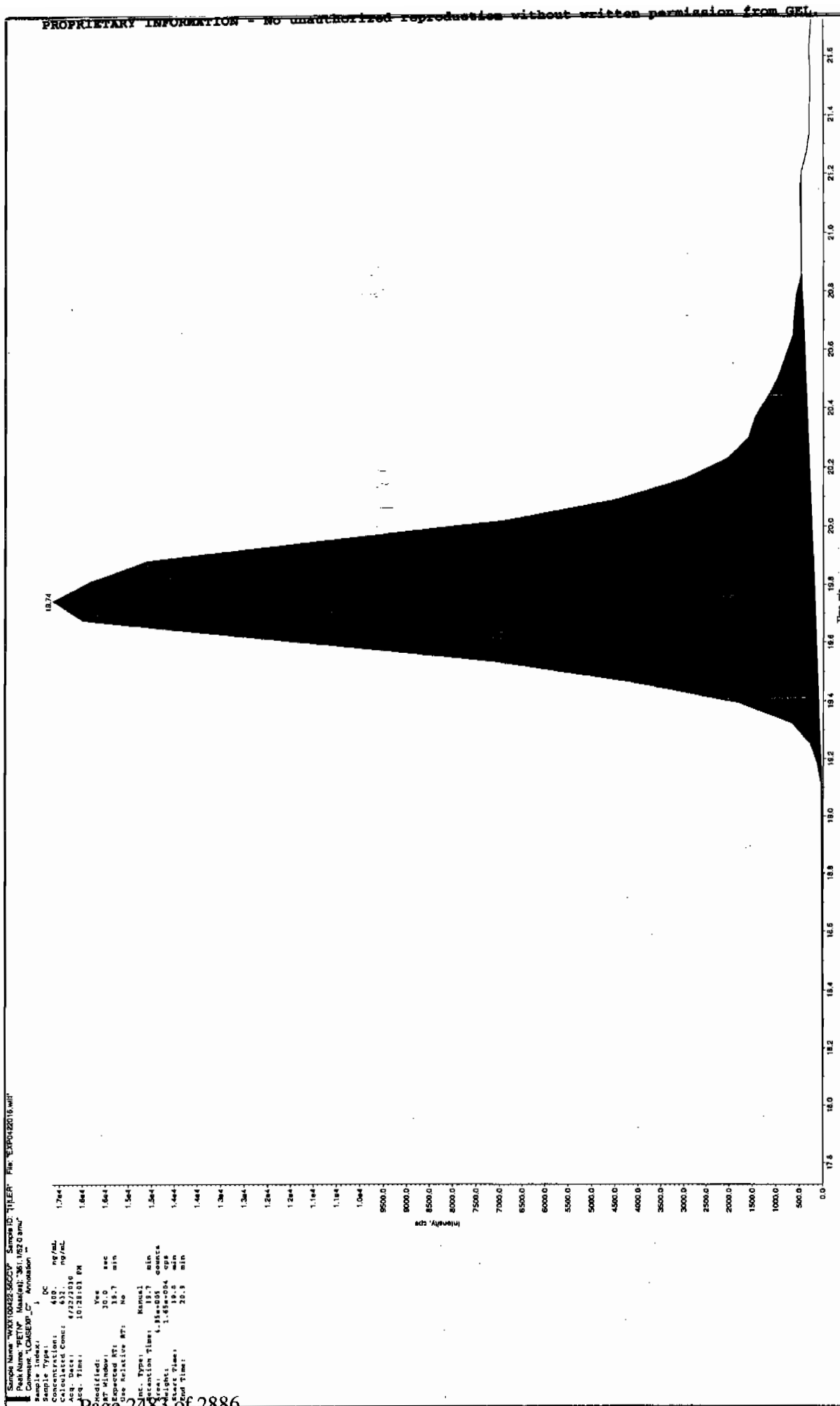
	Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	20.2
	Area Counts:	7.52e+005
	Manual Modification	No
	Amount:	636. (ng/mL)
	% Accuracy:	106.00

Before 8/4/5/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

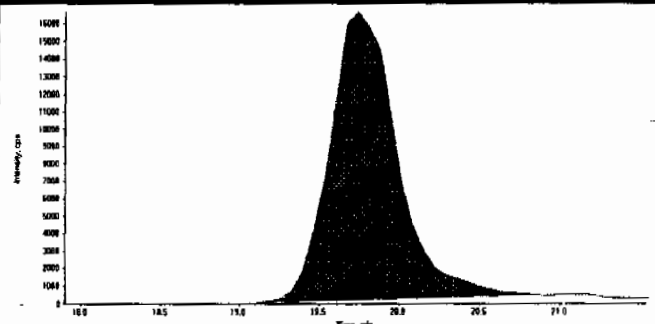
after run 515110



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GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Data File	EXP0422016.wiff	Acquisition Date	4/22/2010 10:28:01 PM
Sample Name	WXX100422-56CCV	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control
		Compound Name:	PETN (361.1/62.0 amu)
		Expected RT:	19.7
		Actual RT:	19.7
		Area Counts:	4.95e+005
		Manual Modification	Yes
		Amount:	659. (ng/mL)
		% Accuracy:	110.00

GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/22/10  
 Time of Injection 2228  
 Standard Number WXX100422-56CCV  
 Data File EXP0422016a

HMX	85.4
RDX	102.0
TNX	103.0
DNX	101.0
MNX	109.0
135-Trinitrobenzene	100.0
13-Dinitrobenzene	100.0
Tetryl	110.0
246-Trinitrotoluene	108.0
Nitrobenzene	104.0
34-dinitrotoluene	105.0
26-dinitrotoluene	100.0
24-dinitrotoluene	114.0
4-Amino-26-dinitrotoluene	112.0
2-Amino-46-dinitrotoluene	97.3
2-Nitrotoluene	101.0
4-Nitrotoluene	107.0
3-Nitrotoluene	106.0
PETN	110.0

TOTAL

1974.7

*Amos 5/6/10*

AVERAGE

✓ 103.9

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*for 5/5/10*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0422018.wiff

Analysis Date: 22-APR-10 23:19

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	31.5	79	
2,4,6-Trinitrotoluene	40	26.6	67	
2,4-Dinitrotoluene	40	36.3	91	
2,6-Dinitrotoluene	40	31.1	78	
2-Amino-4,6-dinitrotoluene	40	35.2	88	
3,4-Dinitrotoluene	20	13.9	69	
4-Amino-2,6-dinitrotoluene	40	34.3	86	
DNX	40	40.9	102	
HMX	40	36.9	92	
MNX	40	45.8	114	
Nitrobenzene	40	40.9	102	
PETN	40	36	90	
RDX	40	36.5	91	
TNX	40	36	90	
Tetryl	40	36.9	92	
m-Dinitrobenzene	40	40.9	102	
m-Nitrotoluene	40	37.9	95	
o-Nitrotoluene	40	40.2	100	
p-Nitrotoluene	40	42	105	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

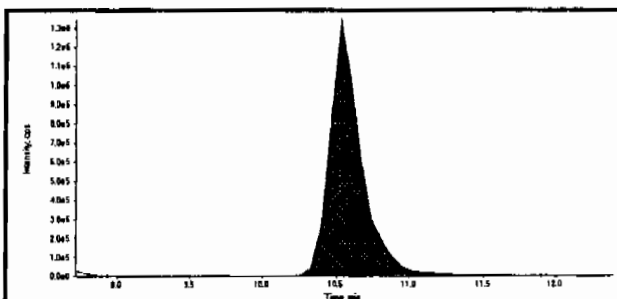
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

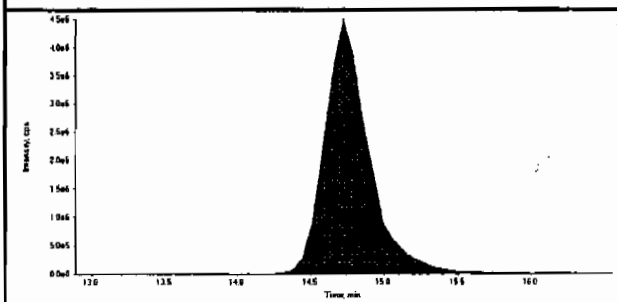
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

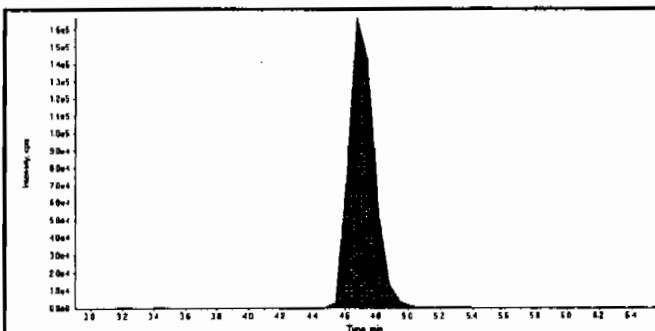
Data File	EXP0422018.wiff	Acquisition Date	4/22/2010 11:19:52 PM
Sample Name	WXX100422-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control



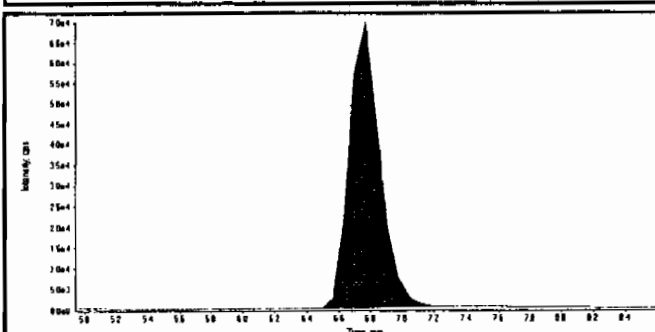
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	20400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.70
Area Counts:	94800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.73
Actual RT:	4.70
Area Counts:	1.92e+006
Manual Modification	No
Amount:	36.9 (ng/mL)
% Accuracy:	92.10



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.75
Area Counts:	9.57e+005
Manual Modification	No
Amount:	36.5 (ng/mL)
% Accuracy:	91.20

*Handwritten signatures and dates:*  
Jen 5/11/10  
HMM 05/06/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422018.wiff	<b>Acquisition Date</b>	4/22/2010 11:19:52 PM
<b>Sample Name</b>	WXX100422-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	TNX (219.0/45.0 amu)
	Expected RT:	5.06
	Actual RT:	5.04
	Area Counts:	1.14e+006
	Manual Modification	No
	Amount:	36.0 (ng/mL)
	% Accuracy:	90.00

	<b>Compound Name:</b>	DNX (235.0/45.0 amu)
	Expected RT:	5.41
	Actual RT:	5.38
	Area Counts:	1.19e+006
	Manual Modification	No
	Amount:	40.9 (ng/mL)
	% Accuracy:	102.00

	<b>Compound Name:</b>	MNX (251.0/46.0 amu)
	Expected RT:	6.08
	Actual RT:	6.06
	Area Counts:	7.01e+005
	Manual Modification	No
	Amount:	45.8 (ng/mL)
	% Accuracy:	114.00

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.03
	Actual RT:	9.02
	Area Counts:	1.30e+007
	Manual Modification	No
	Amount:	31.5 (ng/mL)
	% Accuracy:	78.60



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422018.wiff	<b>Acquisition Date</b>	4/22/2010 11:19:52 PM
<b>Sample Name</b>	WXX100422-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	4.60e+006
	Manual Modification	No
	Amount:	40.9 (ng/mL)
	% Accuracy:	102.00

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	10.8
	Area Counts:	4.06e+006
	Manual Modification	No
	Amount:	36.9 (ng/mL)
	% Accuracy:	92.30

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.2
	Actual RT:	13.2
	Area Counts:	2.37e+007
	Manual Modification	No
	Amount:	26.6 (ng/mL)
	% Accuracy:	66.50

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	11.8
	Area Counts:	1.93e+005
	Manual Modification	No
	Amount:	40.9 (ng/mL)
	% Accuracy:	102.00

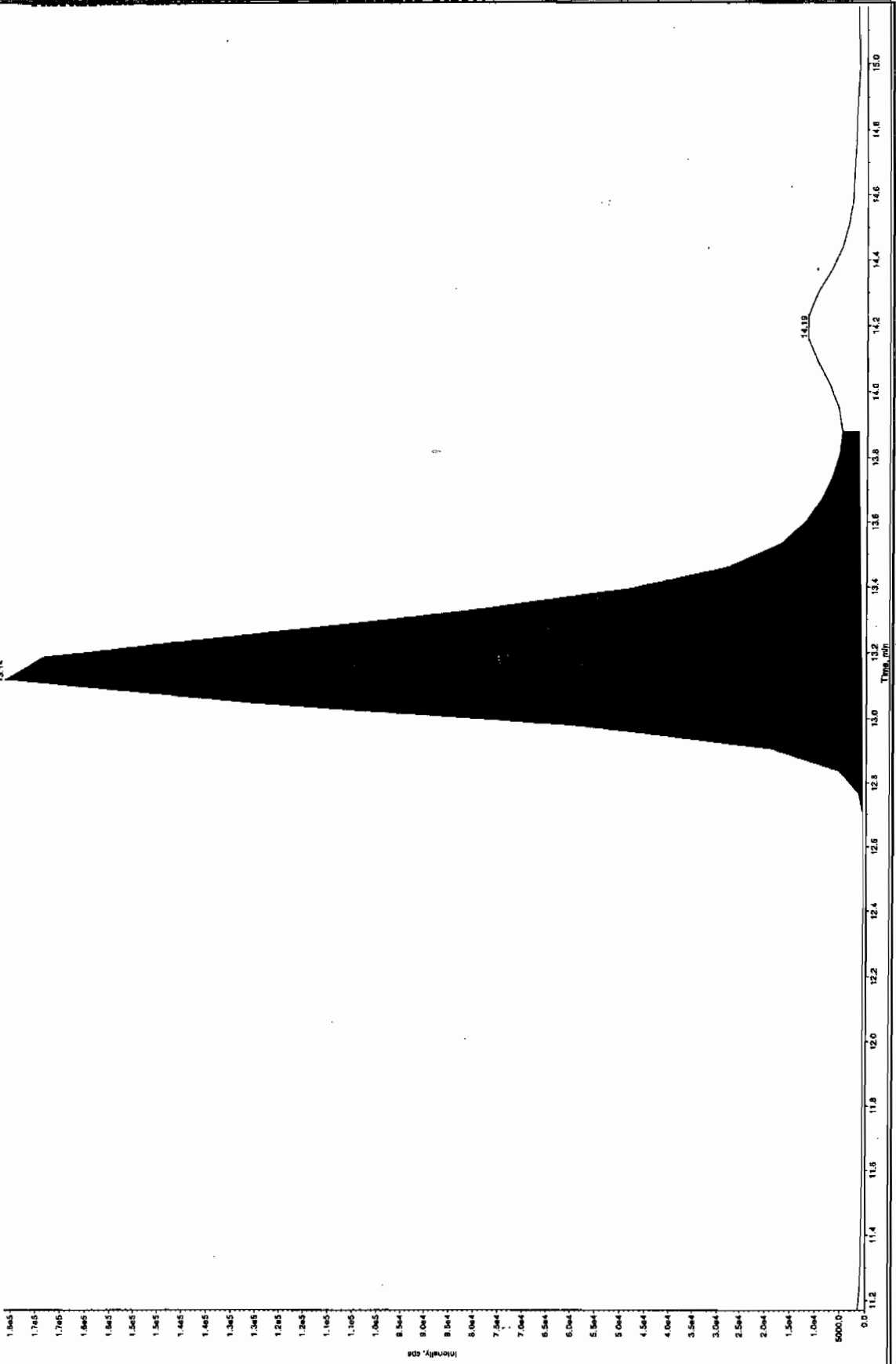


WV - VICH 3/15/10

PROCESSED INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: WXX100425-37GR Sample ID: 111ER File: EXP042019.wf  
Full Name: WXX100425-37GR Sample ID: 111ER File: EXP042019.wf  
Concentration: 1.765 mg/mL  
Acq. Date: 4/22/2010  
Acq. Time: 11:19:52 PM  
Modified: Yes  
RT Window: 30.0 sec  
Acq. Type: Manual  
Acquisition Time: 13.1 min  
Integration: 1.64e+06 counts  
Signal: 2.73e+06 cps  
Baseline: 1.1e+05 cps  
Total Time: 13.9 min

Sample Index: 1  
Sample Type: QC  
Concentration: 1.765 mg/mL  
Acq. Date: 4/22/2010  
Acq. Time: 11:19:52 PM  
Modified: Yes  
RT Window: 30.0 sec  
Acq. Type: Manual  
Acquisition Time: 13.1 min  
Integration: 1.64e+06 counts  
Signal: 2.73e+06 cps  
Baseline: 1.1e+05 cps  
Total Time: 13.9 min



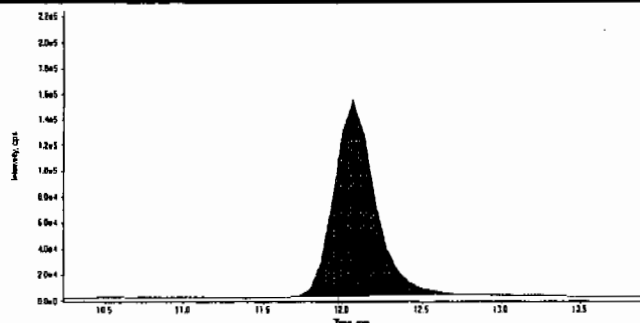
\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

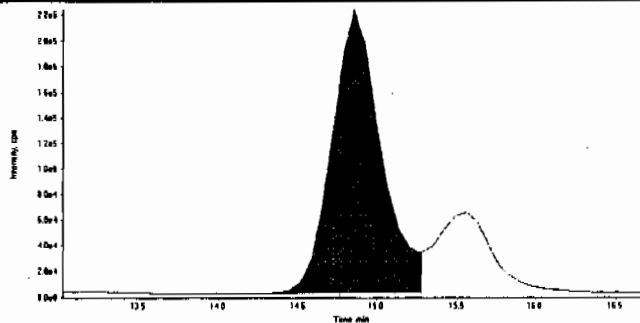
Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422018.wiff	<b>Acquisition Date</b>	4/22/2010 11:19:52 PM
<b>Sample Name</b>	WXX100422-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

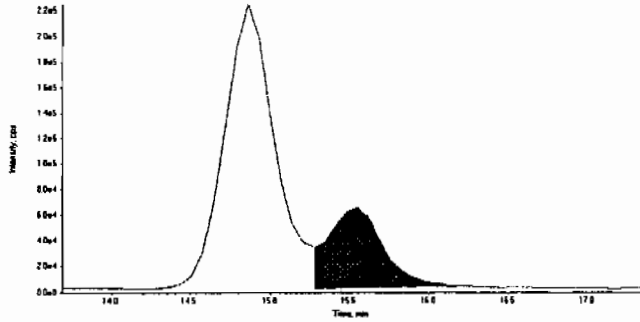
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.1
	Area Counts:	2.77e+006
	Manual Modification	No
	Amount:	13.9 (ng/mL)
	% Accuracy:	69.30

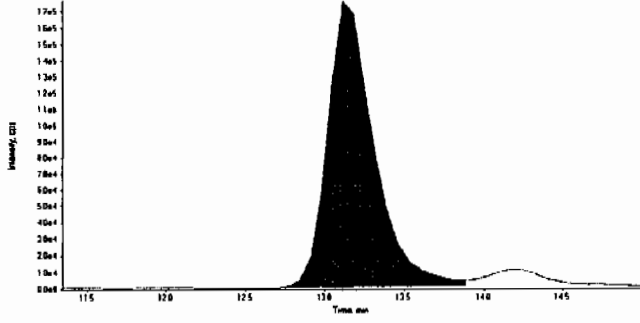
  

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.9
	Area Counts:	4.85e+006
	Manual Modification	No
	Amount:	31.1 (ng/mL)
	% Accuracy:	77.70

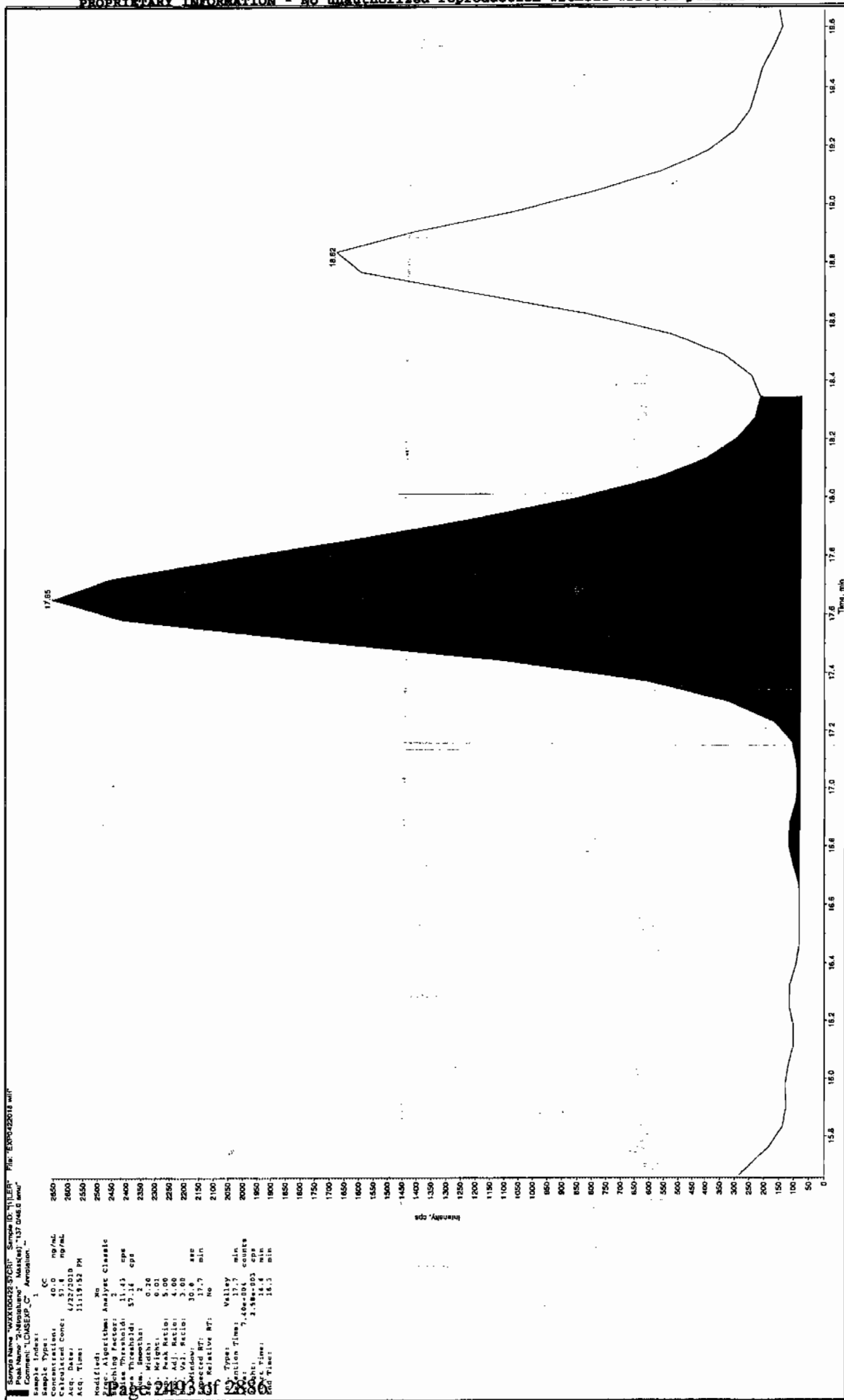
  

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.5
	Area Counts:	1.51e+006
	Manual Modification	No
	Amount:	36.3 (ng/mL)
	% Accuracy:	90.70

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.2
	Actual RT:	13.1
	Area Counts:	3.66e+006
	Manual Modification	Yes
	Amount:	34.3 (ng/mL)
	% Accuracy:	85.70

Before Jan 5/10



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

upper kan 5/5/10

Sample Name: "WXX100422-SPG1" Sample ID: "TLER" File: "EXP042018.wil"

Peak Name: "Peak 1" Retention Time: 17.7 min

Concentration: 137.044.0 mg/L

Sample Index: 1

Sample Type: DC

Concentration: 137.044.0 mg/L

Acq. Date: 6/22/2010

Acq. Time: 11:19:52 PM

Modified: Yes

Method: 3D.0

Acq. Method: 3D.0

Acq. Relative RT: 17.7 min

Acq. Type: Manual

Retention Time: 17.7 min

Acq. Time: 7.31e+004 counts

Acq. Time: 2.58e+003 cps

Acq. Time: 18.3 min

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Acq. Time: 18.3 min

Acq. Time: 18.3 min

Acq. Time: 18.3 min

Acq. Time: 18.3 min

Acq. Time: 18.3 min

17.65

18.82

Time, min

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422018.wiff	<b>Acquisition Date</b>	4/22/2010 11:19:52 PM
<b>Sample Name</b>	WXX100422-57CRI	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	1 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCMSEXP_C	<b>Sample Type</b>	Quality Control

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	Expected RT:	14.2
	Actual RT:	14.2
	Area Counts:	1.20e+005
	Manual Modification	No
	Amount:	35.2 (ng/mL)
	% Accuracy:	88.10

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	17.7
	Actual RT:	17.7
	Area Counts:	7.33e+004
	Manual Modification	Yes
	Amount:	40.2 (ng/mL)
	% Accuracy:	100.00

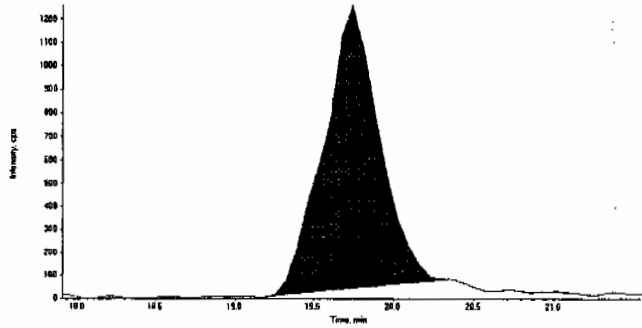
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	18.8
	Actual RT:	18.8
	Area Counts:	4.31e+004
	Manual Modification	No
	Amount:	42.0 (ng/mL)
	% Accuracy:	105.00

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	Expected RT:	20.1
	Actual RT:	20.2
	Area Counts:	4.95e+004
	Manual Modification	No
	Amount:	37.9 (ng/mL)
	% Accuracy:	94.70

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Data File	EXP0422018.wiff	Acquisition Date	4/22/2010 11:19:52 PM
Sample Name	WXX100422-57CRI	Acquisition Method	8321.dam
Batch Dilution Analyst	1 LER	Result Table	042210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control
		Compound Name:	PETN (361.1/62.0 amu)
		Expected RT:	19.7
		Actual RT:	19.7
		Area Counts:	2.98e+004
		Manual Modification	No
		Amount:	36.0 (ng/mL)
		% Accuracy:	89.90



GRAND MEAN AVERAGE

Vendor: Restek  
 Date of Analysis 04/22/10  
 Time of Injection 2319  
 Standard Number WXX100422-57CRI  
 Data File EXP0422018a

HMX	92.1
RDX	91.2
TNX	90.0
DNX	102.0
MNX	114.0
135-Trinitrobenzene	78.6
13-Dinitrobenzene	102.0
Tetryl	92.3
246-Trinitrotoluene	66.5
Nitrobenzene	102.0
34-dinitrotoluene	69.3
26-dinitrotoluene	77.7
24-dinitrotoluene	90.7
4-Amino-26-dinitrotoluene	85.7
2-Amino-46-dinitrotoluene	88.1
2-Nitrotoluene	100.0
4-Nitrotoluene	105.0
3-Nitrotoluene	94.7
PETN	89.9

TOTAL

1731.8

AVERAGE

✓ 91.1

ICV Limits 85-115%

CRI Limits 70-130%

CCV Limits 85-115%

No single analyte > +/- 60%

*Annex 05/06/10*

*Star 5/15/10*

7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXS04090013.wiff

Analysis Date: 09-APR-10 10:23

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	98	98	
2,6-Diamino-4-nitrotoluene	100	83.7	84	
3,4-Dinitrotoluene	50	49	98	
3,5-Dinitroaniline	100	102	102	
TATB	100	102	102	
tris(o-cresyl) phosphate	100	104	104	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,

2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Jan 4/12/10

Sample Name: "WXX100408-270R" Sample ID: "JILER" File: "EXS04080013.wit"

Peak Name: "TATB" Mass(es): 257.2204.9 amu

Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: QC

Concentration: 100. ng/mL

Calculated Conc: 102. ng/mL

Acq. Date: 4/9/2010

Acq. Time: 10:23:17 AM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 2500.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 30.0 sec

Expected RT: 6.90 min

Use Relative RT: No

Inc. Type: Valley

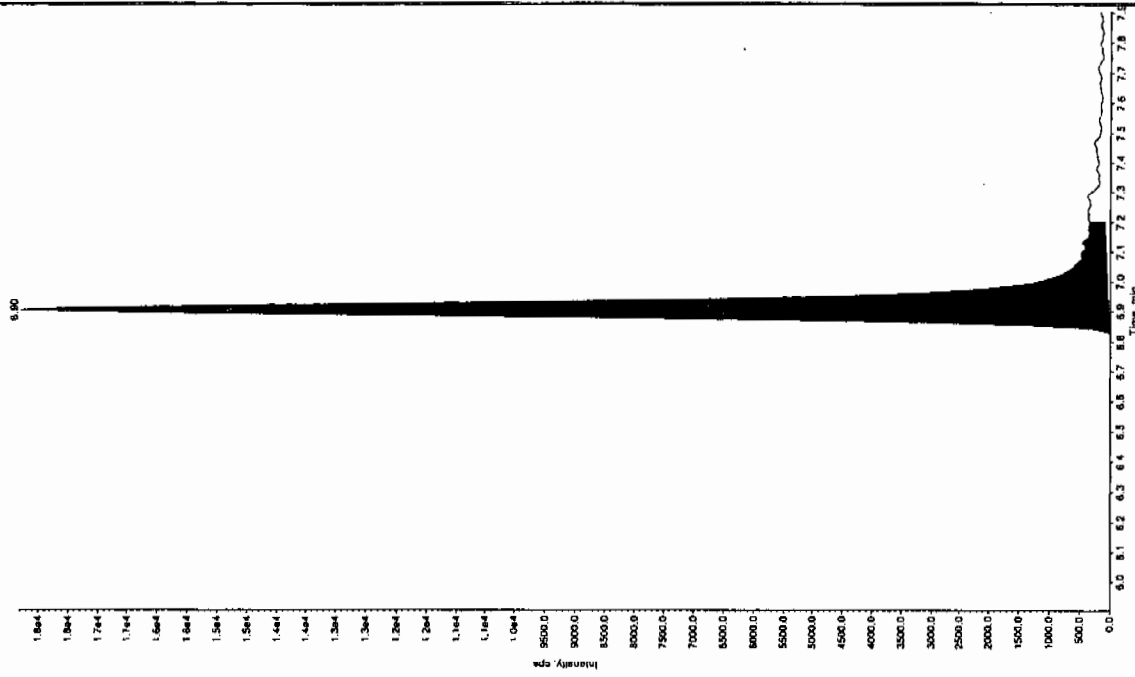
Retention Time: 6.90 min

Area: 7.77e+004 counts

Height: 10280.00 cps

Start Time: 6.82 min

End Time: 7.20 min



Sample Name: "WXX100408-270R" Sample ID: "JILER" File: "EXS04080013.wit"

Peak Name: "35-Dinitroaniline" Mass(es): "182.0446.0 amu"

Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1

Sample Type: QC

Concentration: 100. ng/mL

Calculated Conc: 102. ng/mL

Acq. Date: 4/9/2010

Acq. Time: 10:23:17 AM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 2000.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 15.0 sec

Expected RT: 8.14 min

Use Relative RT: No

Inc. Type: Valley

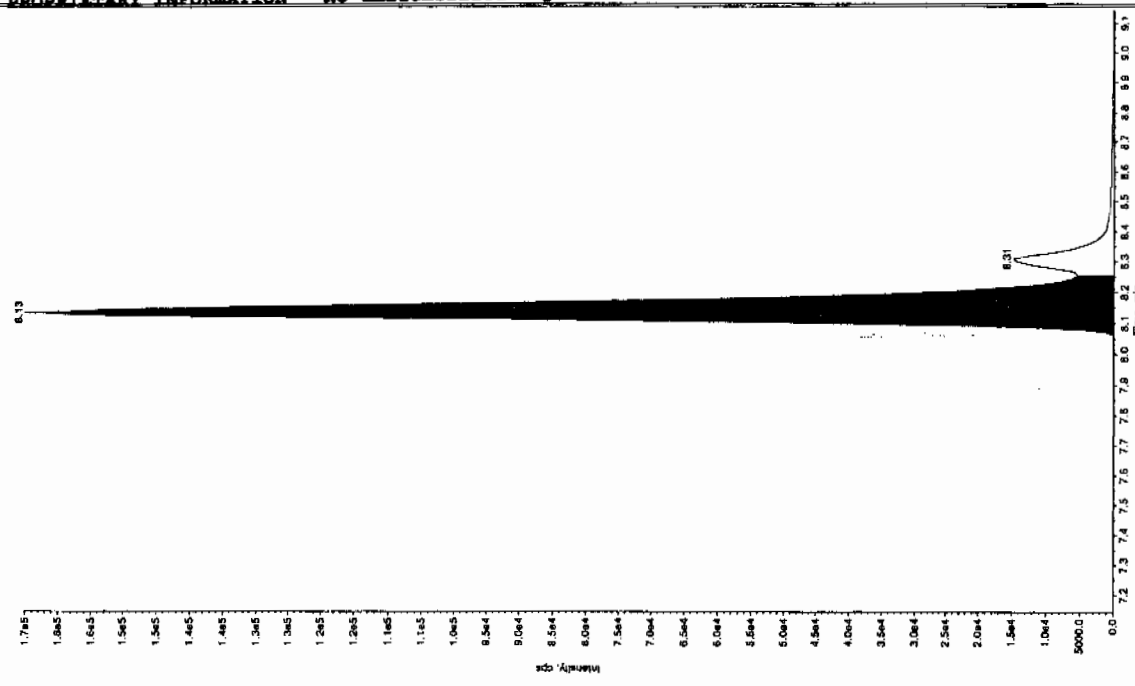
Retention Time: 8.13 min

Area: 6.91e+005 counts

Height: 165135.025 cps

Start Time: 8.03 min

End Time: 8.26 min



Annex 4/12/10

Sample Name: 'WXX100408-27CR' Sample ID: '11LER' File: 'EXS04080013.wif'

Peak Name: '34-Chlorobutene' Mass(es): '182.1/151.9 amu'

Comment: 'LCMSEXP\_C' Annotation: ''

Sample Index: 1

Sample Type: OC

Concentration: 50.0 ng/mL

Calculated Conc: 49.7200 ng/mL

Acq. Date: 4/9/2010

Acq. Time: 10:23:17 AM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 1460.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 30.0 sec

Expected RT: 8.30 min

Use Relative RT: No

Int. Type: Valley

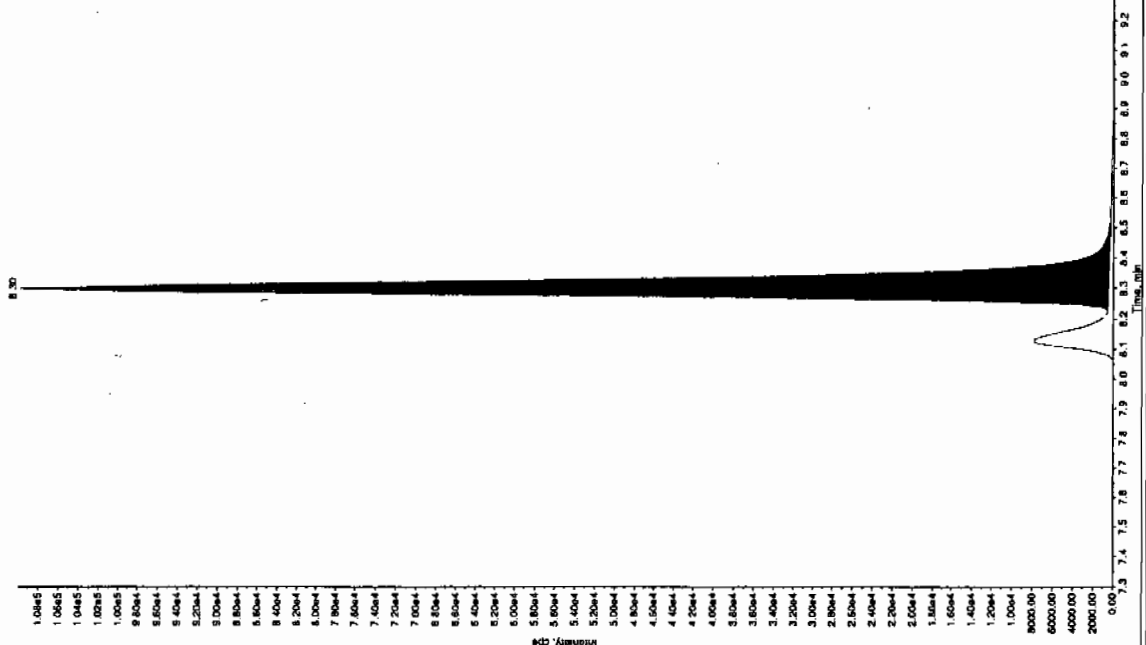
Retention Time: 8.30 min

Area: 4.15e+005 counts

Height: 109477.501 cps

Start Time: 8.23 min

End Time: 8.30 min



Sample Name: 'WXX100408-27CR' Sample ID: '11LER' File: 'EXS04080013.wif'

Peak Name: '26-Diamino-4-nitrotoluene' Mass(es): '166.0/46.0 amu'

Comment: 'LCMSEXP\_C' Annotation: ''

Sample Index: 1

Sample Type: OC

Concentration: 100. ng/mL

Calculated Conc: 83.7 ng/mL

Acq. Date: 4/9/2010

Acq. Time: 10:23:17 AM

Modified: No

Proc. Algorithm: IntelliQuan - IOA

Min. Peak Height: 450.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 30.0 sec

Expected RT: 4.95 min

Use Relative RT: No

Int. Type: Valley

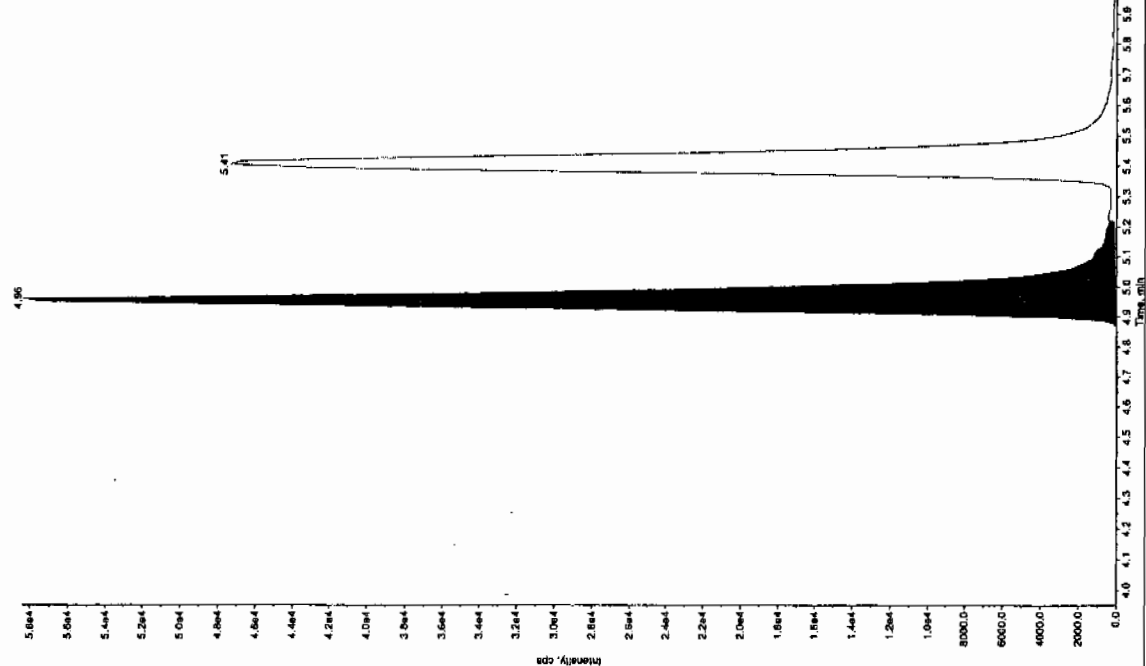
Retention Time: 4.96 min

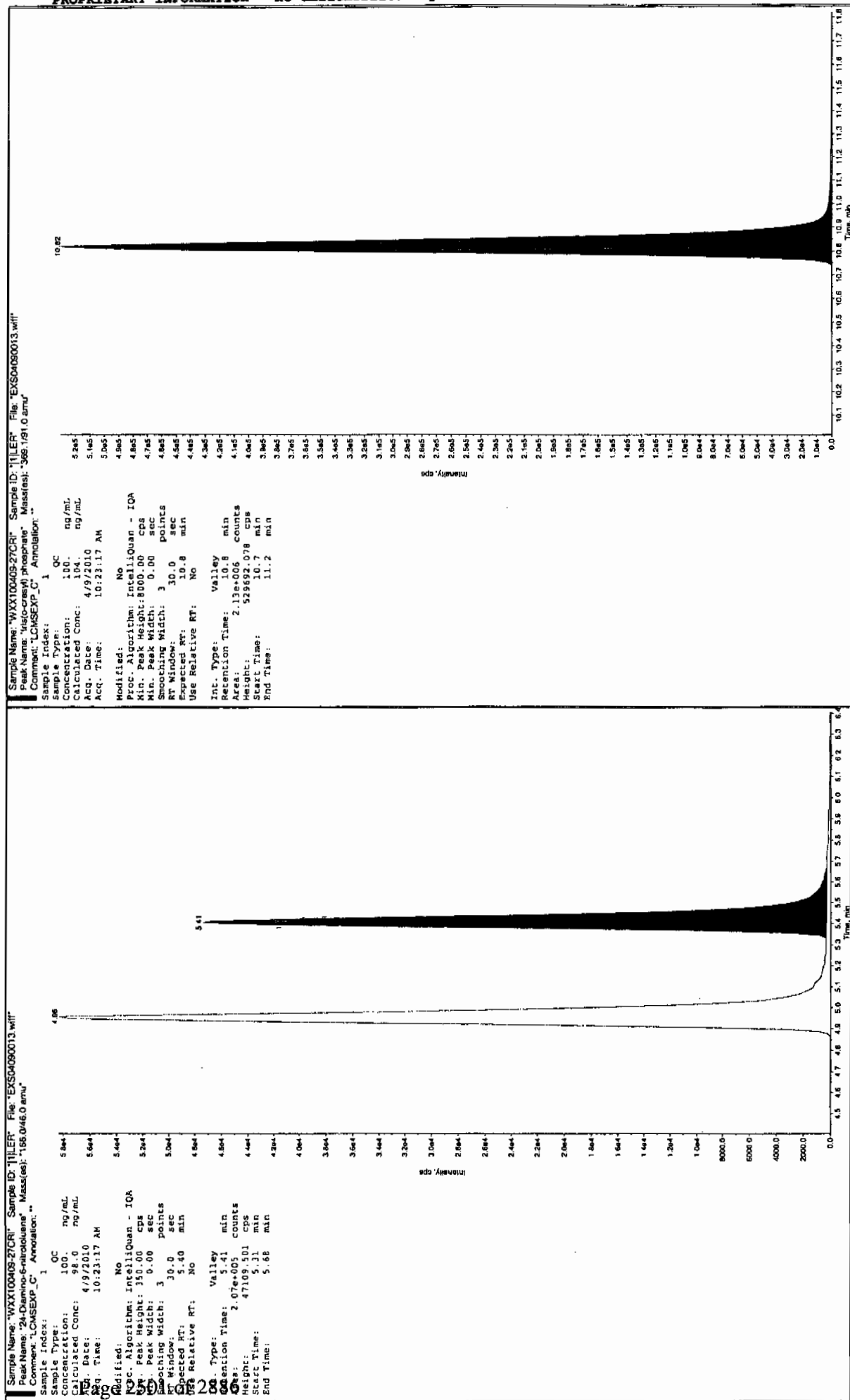
Area: 2.49e+005 counts

Height: 58330.886 cps

Start Time: 4.83 min

End Time: 5.22 min





7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04090024.wiff

Analysis Date: 09-APR-10 13:16

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	489	98	
2,6-Diamino-4-nitrotoluene	500	521	104	
3,4-Dinitrotoluene	250	232	93	
3,5-Dinitroaniline	500	500	100	
TATB	500	508	102	
tris(o-cresyl) phosphate	500	507	101	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

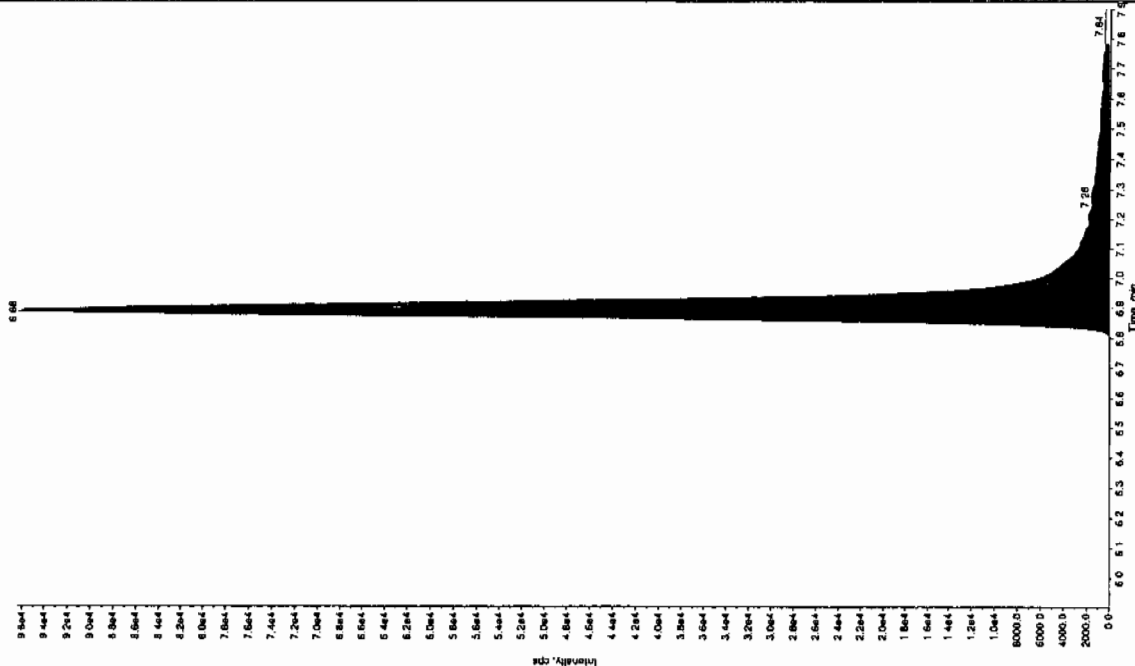
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

for 4/12/10

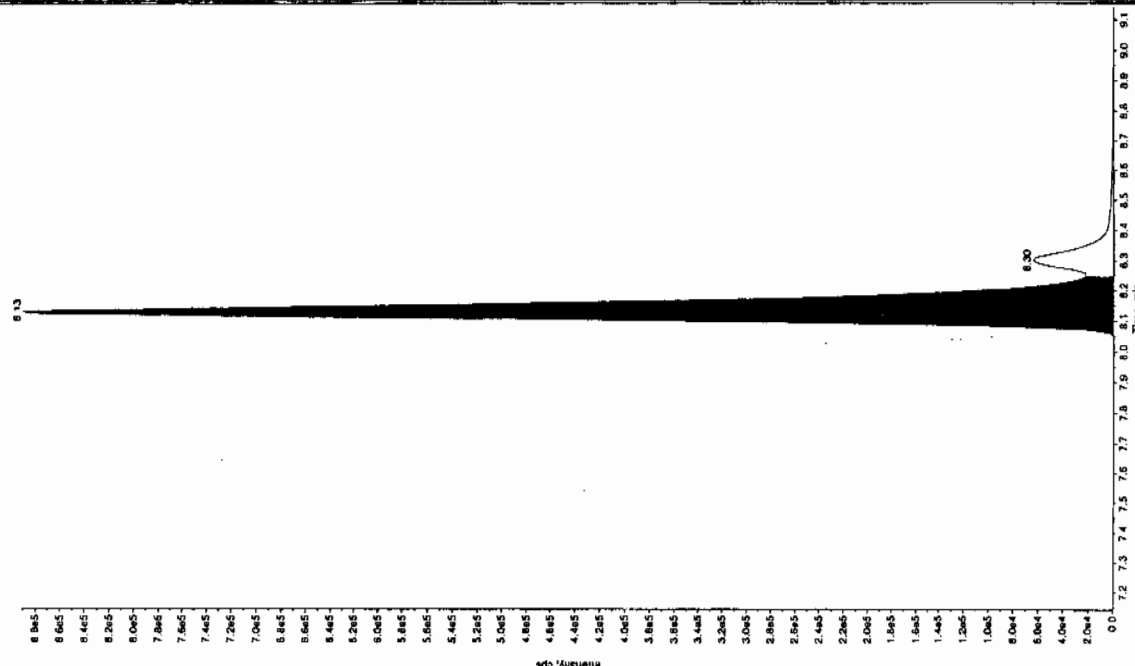
Sample Name: "WXX100409-260CV" Sample ID: "HILLER" File: "EXS04090024.wif"  
 Peak Name: "TATB" Mass(es): "257 2704.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 500. ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 1:16:09 PM  
 Modified: NO  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2500.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3.0 points  
 RT Window: 30.0 sec  
 Expected RT: 6.90 min  
 Use Relative RT: NO  
 Int. Type: Valley  
 Retention Time: 6.88 min  
 Area: 4.80e+005 counts  
 Height: 56336.630 cps  
 Start Time: 6.79 min  
 End Time: 7.78 min



Sample Name: "WXX100409-260CV" Sample ID: "HILLER" File: "EXS04090024.wif"  
 Peak Name: "3S Ochrinoline" Mass(es): "182.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

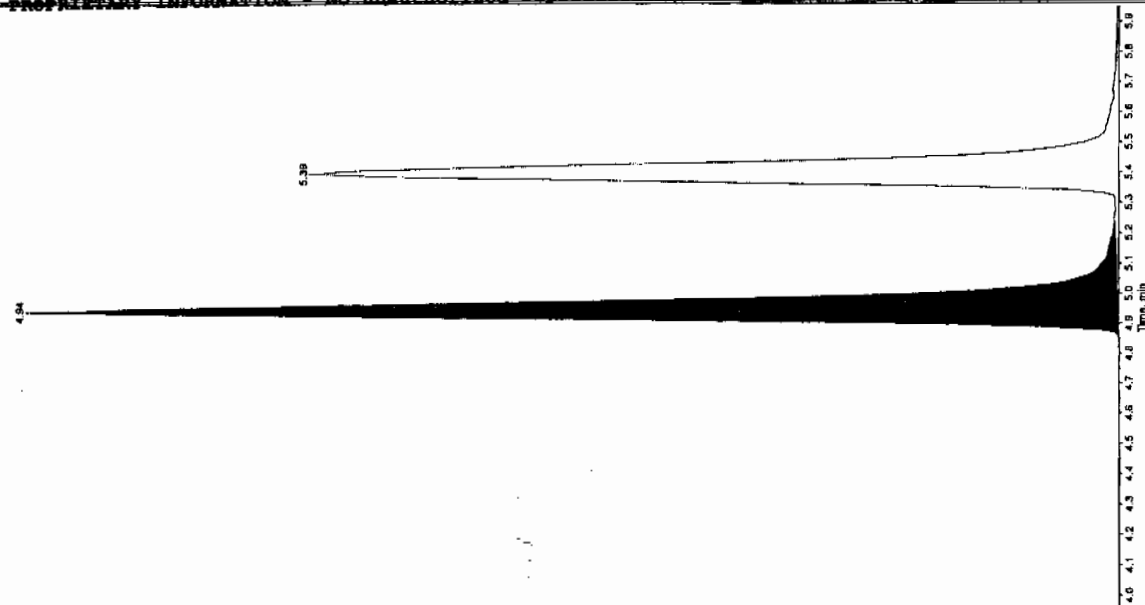
Sample Index: 1  
 Sample Type: QC  
 Concentration: 500. ng/mL  
 Calculated Conc: 500. ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 1:16:09 PM  
 Modified: NO  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3.0 points  
 RT Window: 15.0 sec  
 Expected RT: 8.14 min  
 Use Relative RT: NO  
 Int. Type: Valley  
 Retention Time: 8.13 min  
 Area: 3.54e+006 counts  
 Height: 890738.464 cps  
 Start Time: 8.04 min  
 End Time: 8.25 min



for 4/12/10

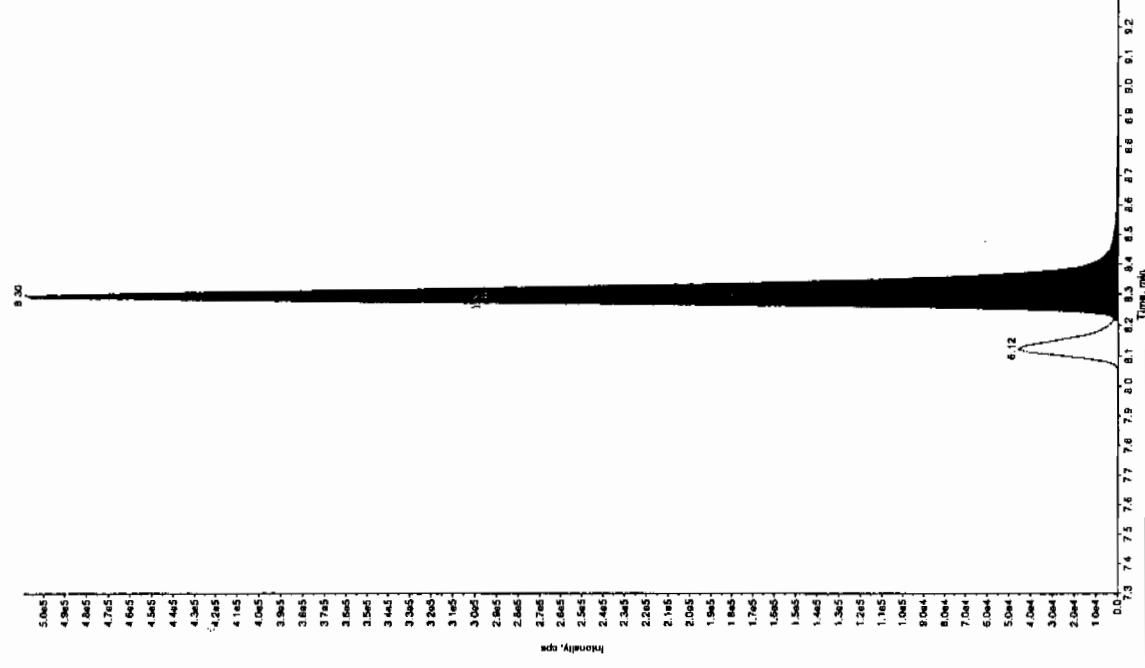
Sample Name: "WXX100409-260CV" Sample ID: "111ER" File: "EX504090024.wif"  
 Peak Name: "25-Dimethylnitrobenzene" Mass(es): "166.046.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1 QC  
 Sample Type: 3465  
 Concentration: 500. ng/mL  
 Calculated Conc: 521. ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 1:16:09 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 4.95 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.94 min  
 Area: 1.44e+006 counts  
 Height: 340326.263 cps  
 Start Time: 4.84 min  
 End Time: 5.24 min

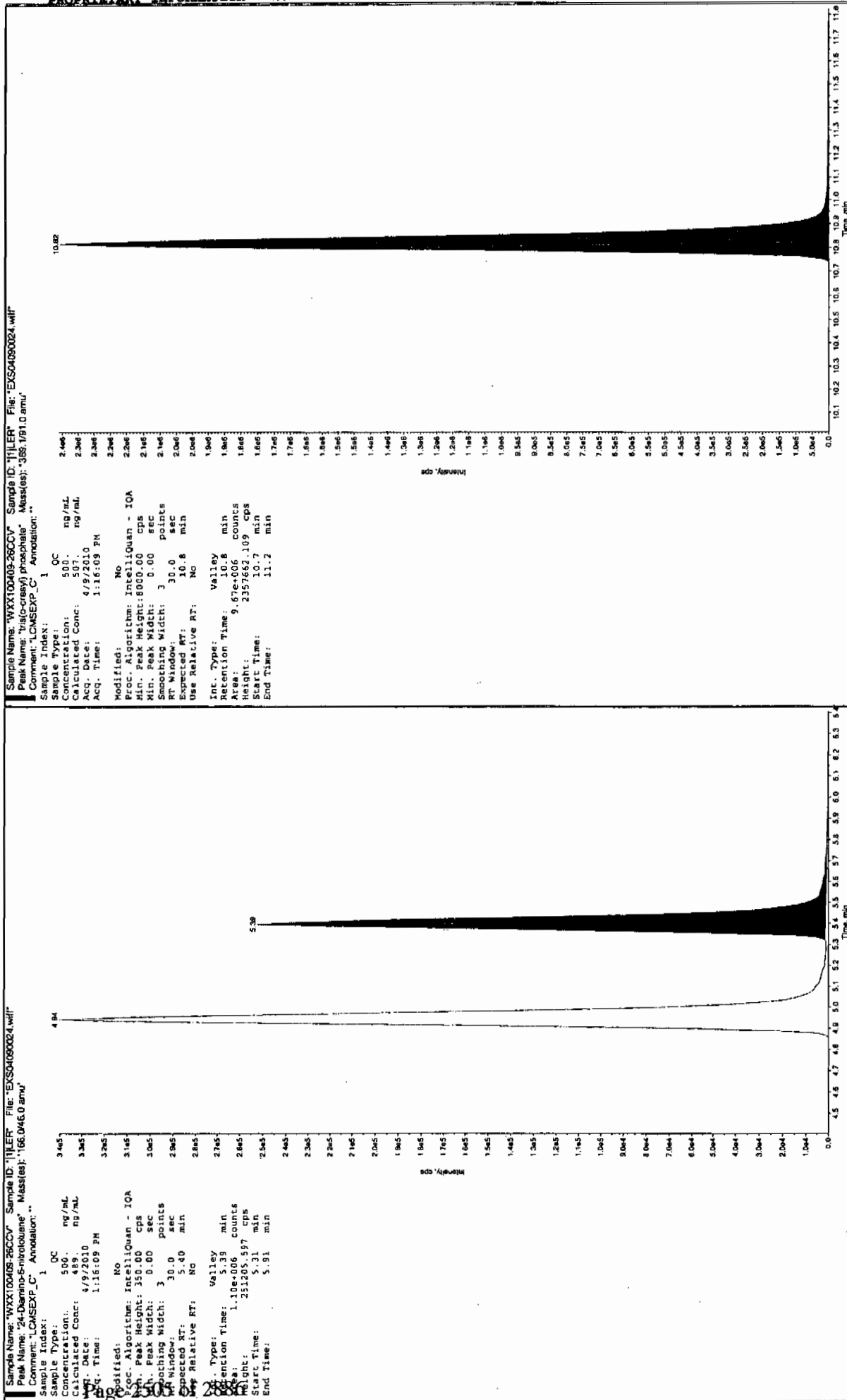


Sample Name: "WXX100409-260CV" Sample ID: "111ER" File: "EX504090024.wif"  
 Peak Name: "34-Dinitrobenzene" Mass(es): "182.1151.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1 QC  
 Sample Type: 3465  
 Concentration: 250. ng/mL  
 Calculated Conc: 232. ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 1:16:09 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 8.30 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.30 min  
 Area: 2.08e+006 counts  
 Height: 509094.391 cps  
 Start Time: 8.22 min  
 End Time: 8.77 min







7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04090026.wiff

Analysis Date: 09-APR-10 13:47

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	101	101	
2,6-Diamino-4-nitrotoluene	100	84.4	84	
3,4-Dinitrotoluene	50	50.1	100	
3,5-Dinitroaniline	100	103	103	
TATB	100	106	106	
tris(o-cresyl) phosphate	100	103	103	

Recovery Limits:

3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

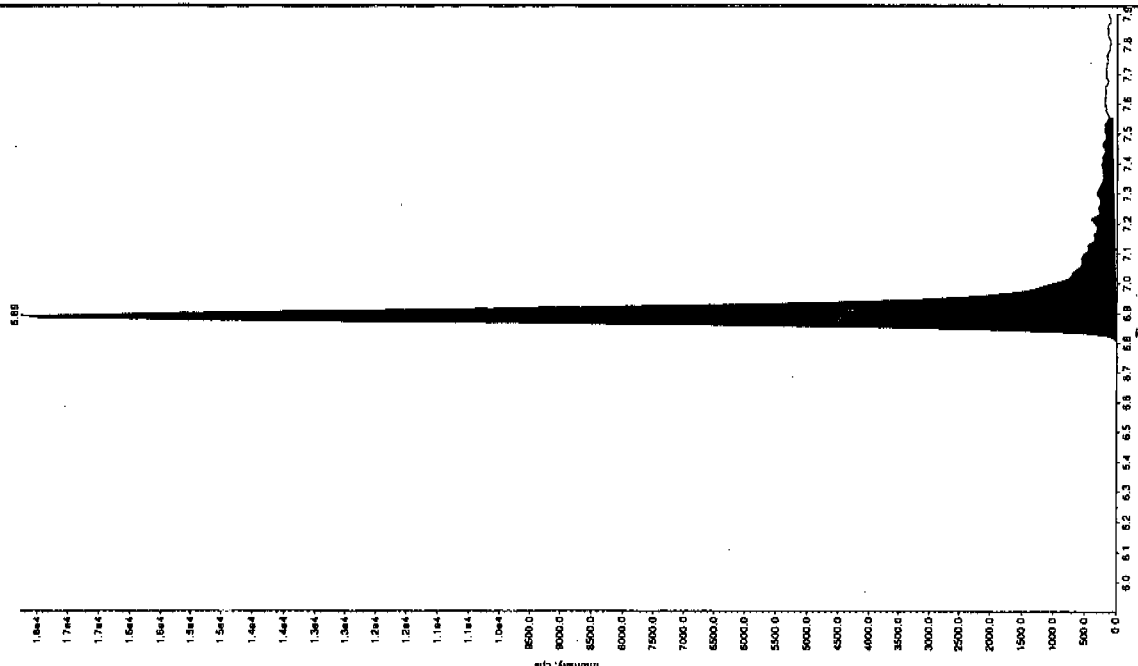
Alan 4/12/10

Sample Name: "WXX100409-2709" Sample ID: "11LER" File: "EXS04090026.wif"  
 Peak Name: "35-Dinitrochlorine" Mass(es): "257.2204.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: "

Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 103. ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 1:47:34 PM

Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2500.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 8.90 min  
 Use Relative RT: No

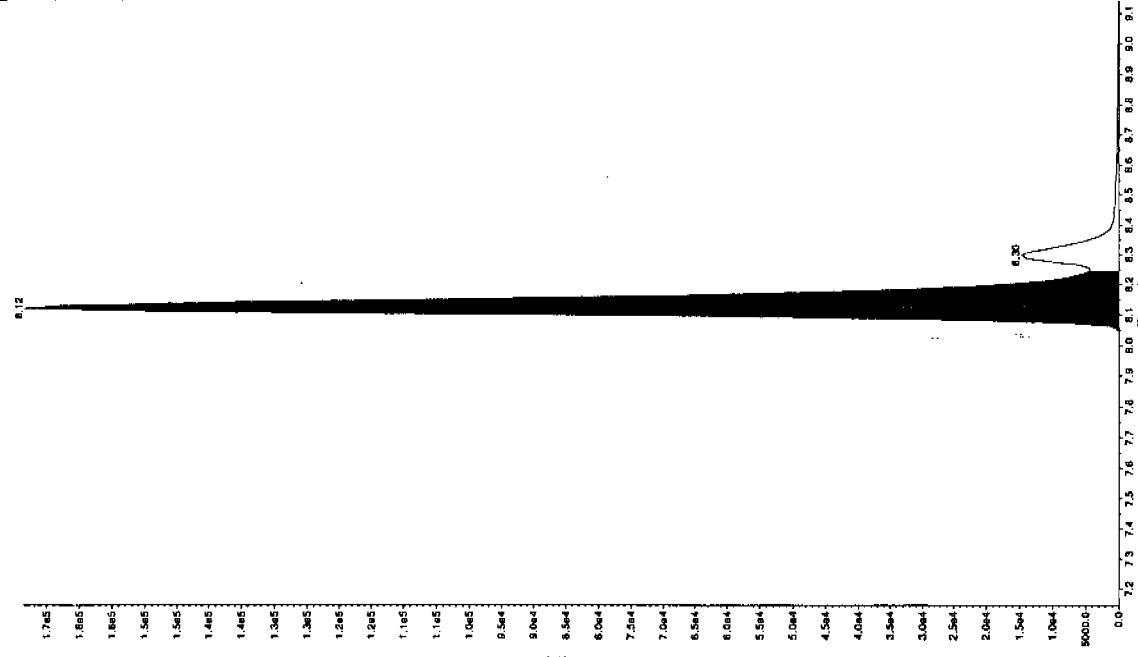
Int. Type: Valley  
 Retention Time: 8.89 min  
 Area: 8.20e+004 counts  
 Height: 17771.448 cps  
 Start Time: 6.80 min  
 End Time: 7.55 min



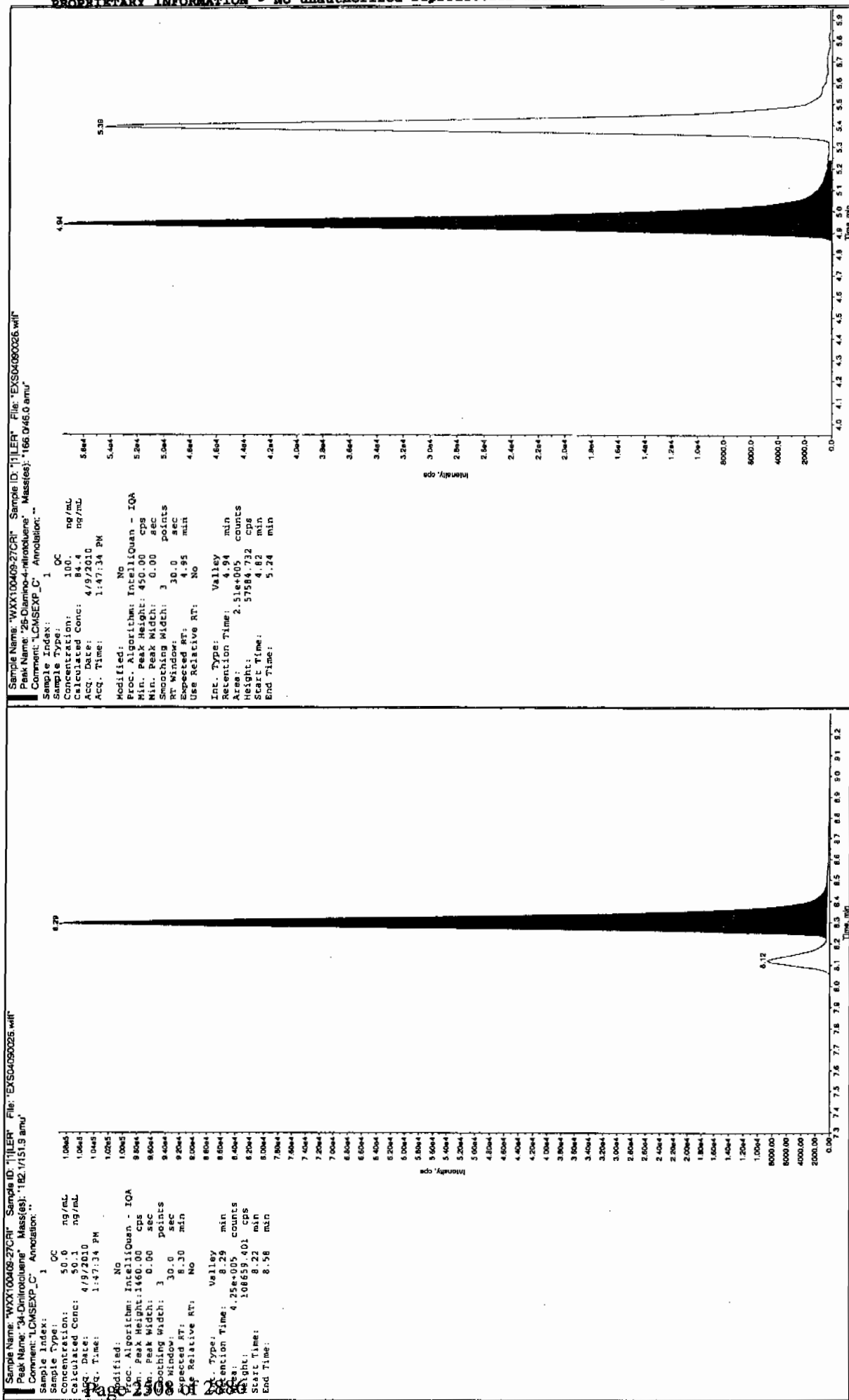
Sample Index: 1  
 Sample Type: QC  
 Concentration: 100. ng/mL  
 Calculated Conc: 103. ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 1:47:34 PM

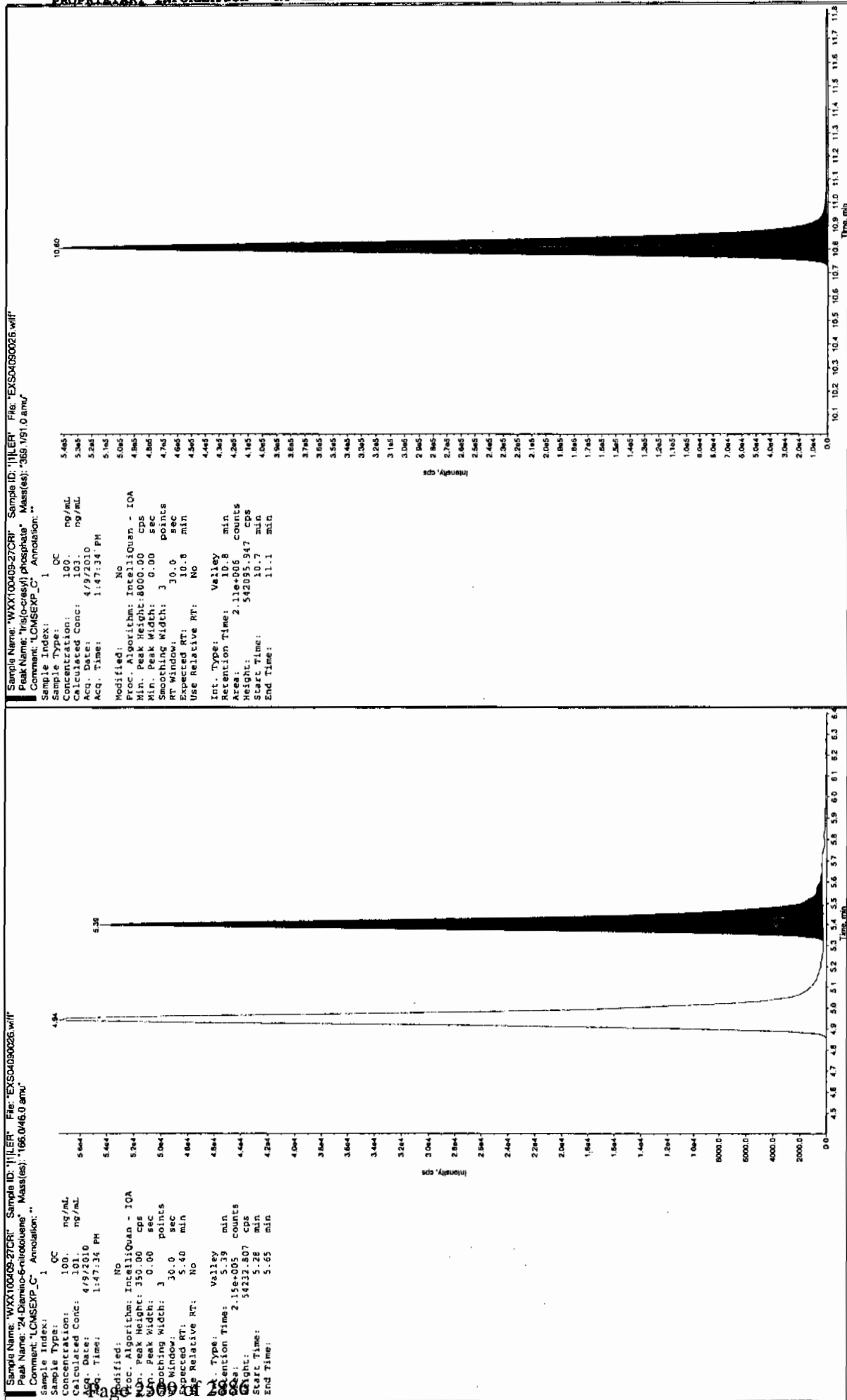
Modified: No  
 Proc. Algorithm: IntelliQuan - IOA  
 Min. Peak Height: 2000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec  
 Expected RT: 8.14 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 8.12 min  
 Area: 6.99e+005 counts  
 Height: 16681.943 cps  
 Start Time: 8.03 min  
 End Time: 8.23 min



Alan 4/12/10





7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04090037.wiff

Analysis Date: 09-APR-10 16:40

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	489	98	
2,6-Diamino-4-nitrotoluene	500	476	95	
3,4-Dinitrotoluene	250	234	94	
3,5-Dinitroaniline	500	483	97	
TATB	500	490	98	
tris(o-cresyl) phosphate	500	499	100	

Recovery Limits:

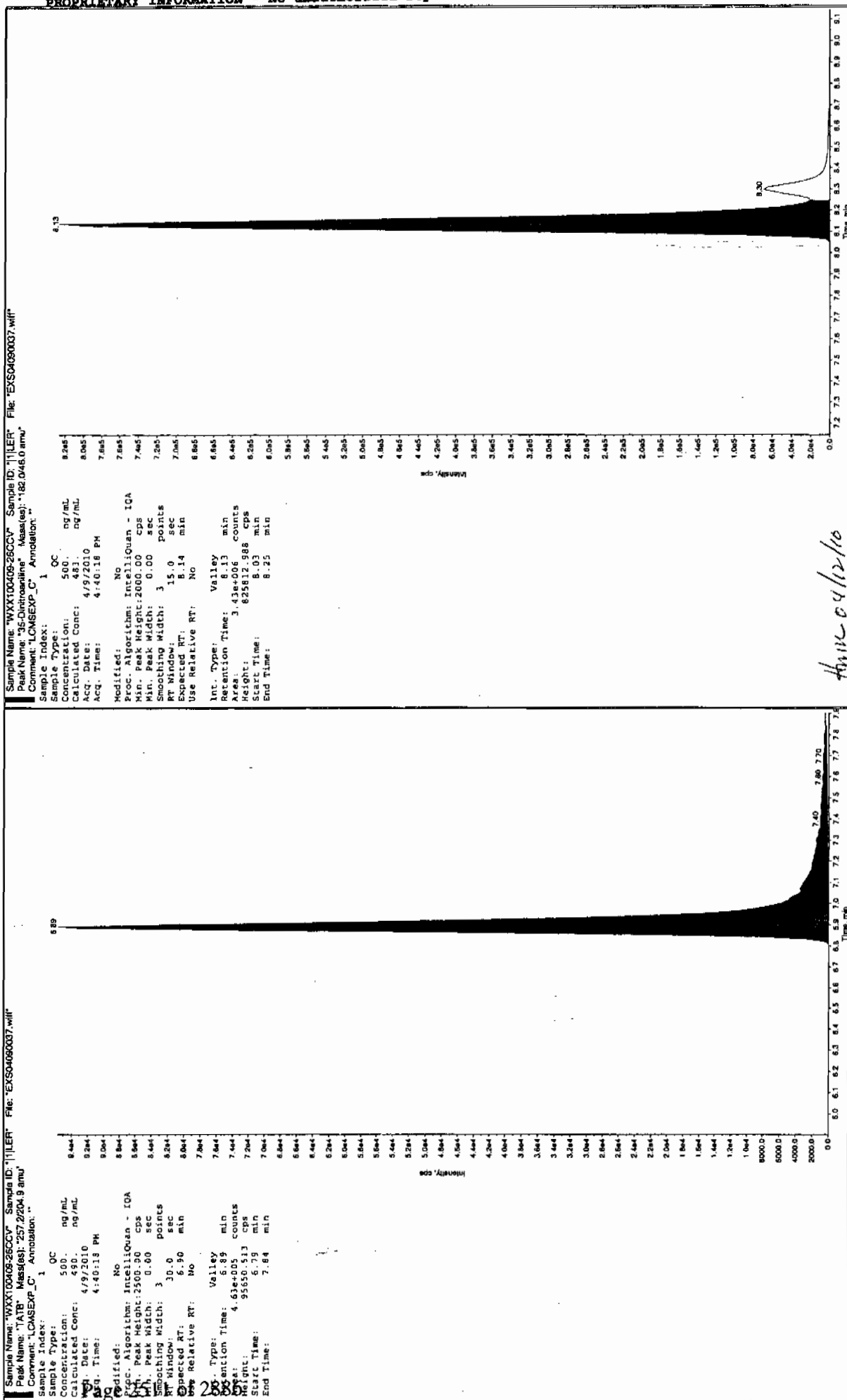
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

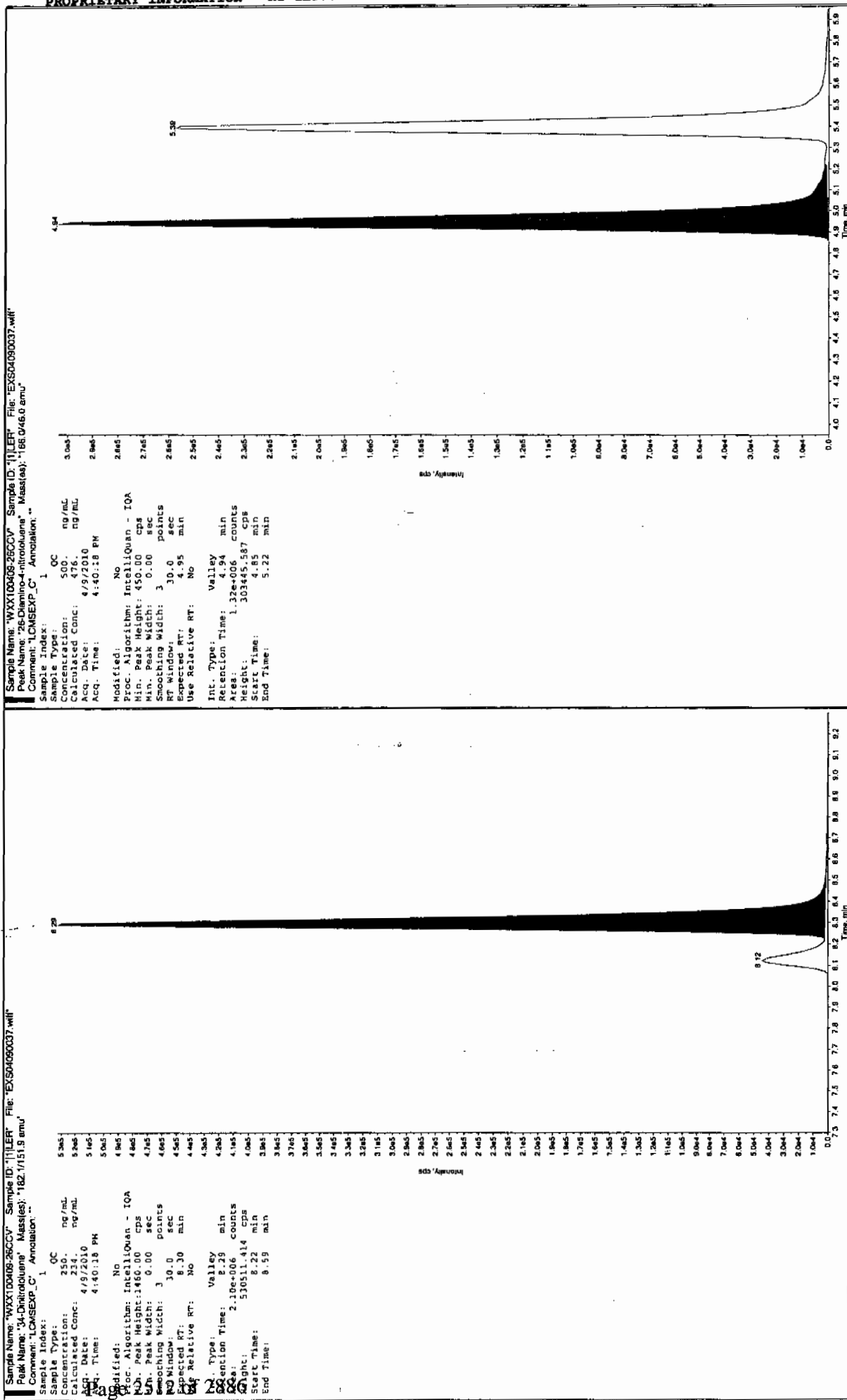
# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

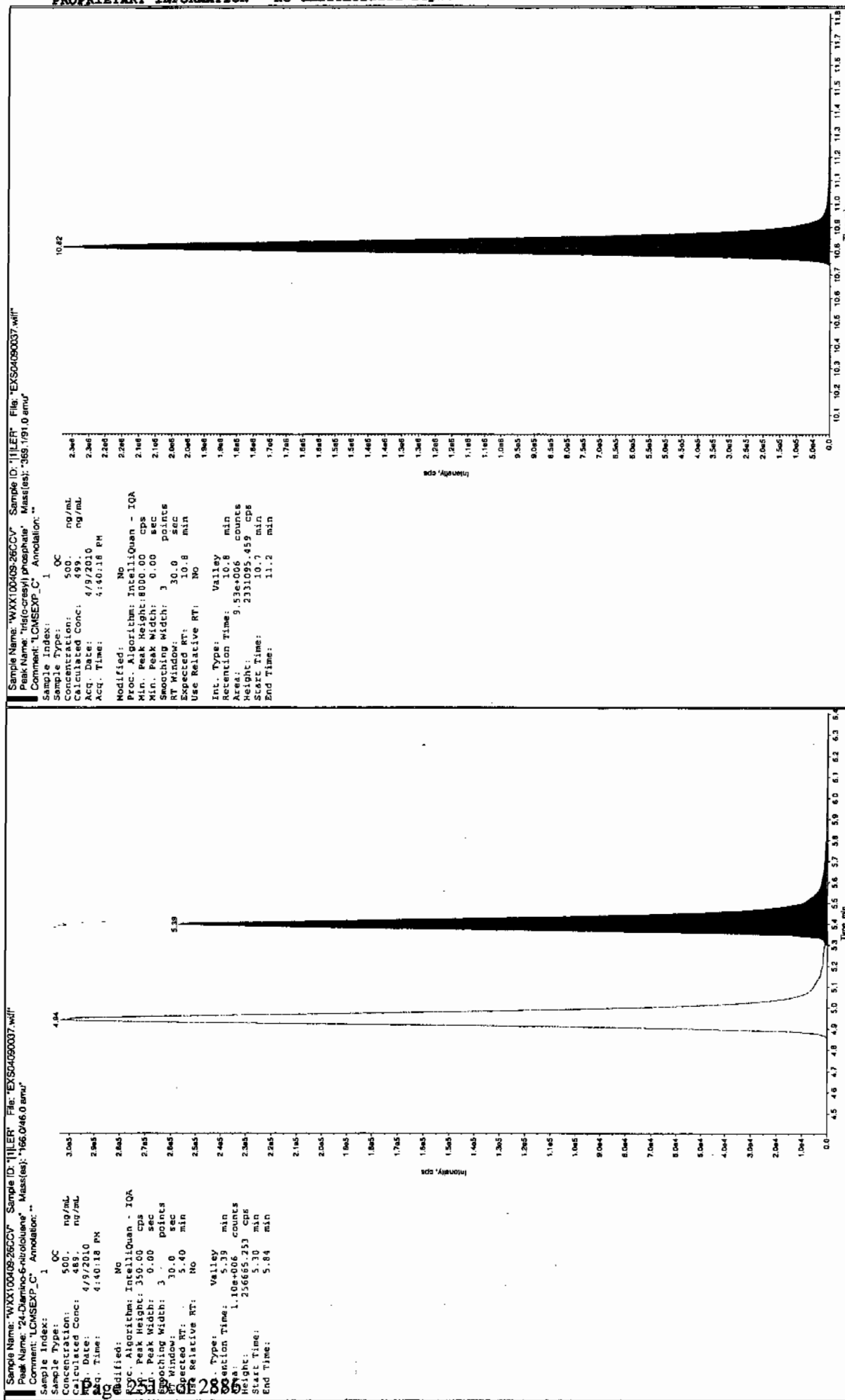
See 4/12/10



4/12/10







7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXS04090039.wiff

Analysis Date: 09-APR-10 17:11

LCMSMS ID: 1358

Column ID: Sphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	100	100	
2,6-Diamino-4-nitrotoluene	100	93.3	93	
3,4-Dinitrotoluene	50	49.5	99	
3,5-Dinitroaniline	100	108	108	
TATB	100	105	105	
tris(o-cresyl) phosphate	100	102	102	

Recovery Limits:

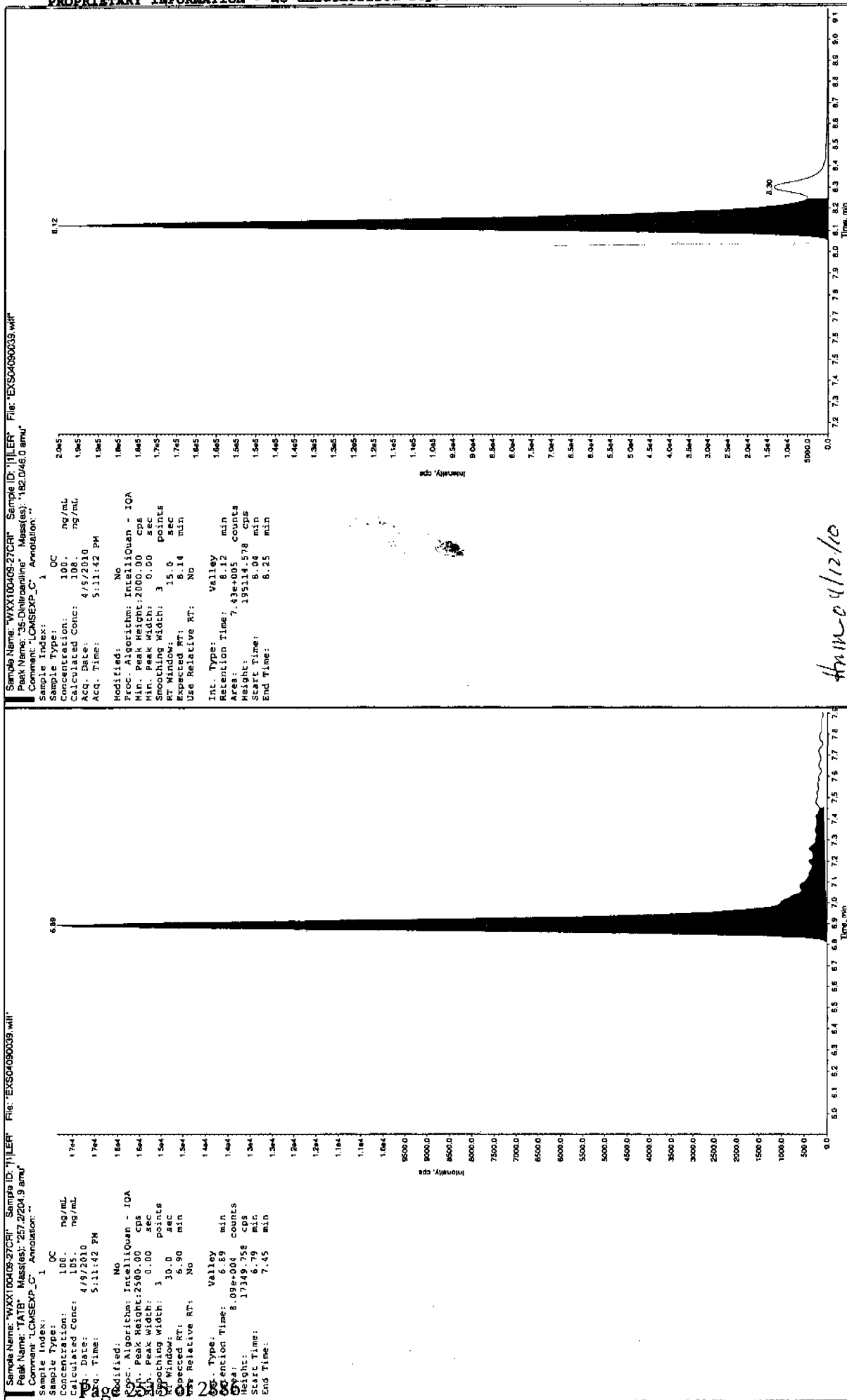
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

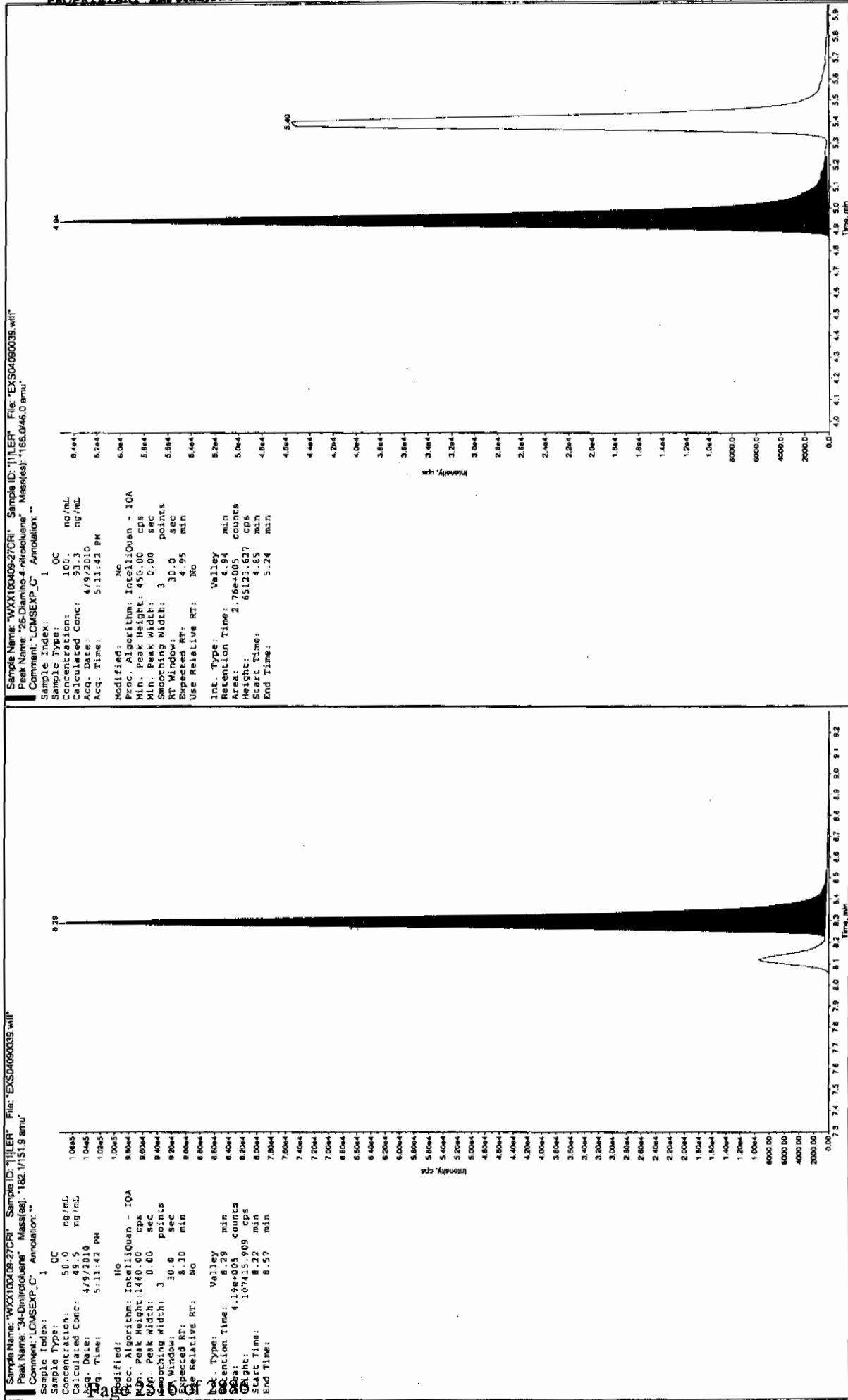
# Column used to flag Recovery outside of Limits

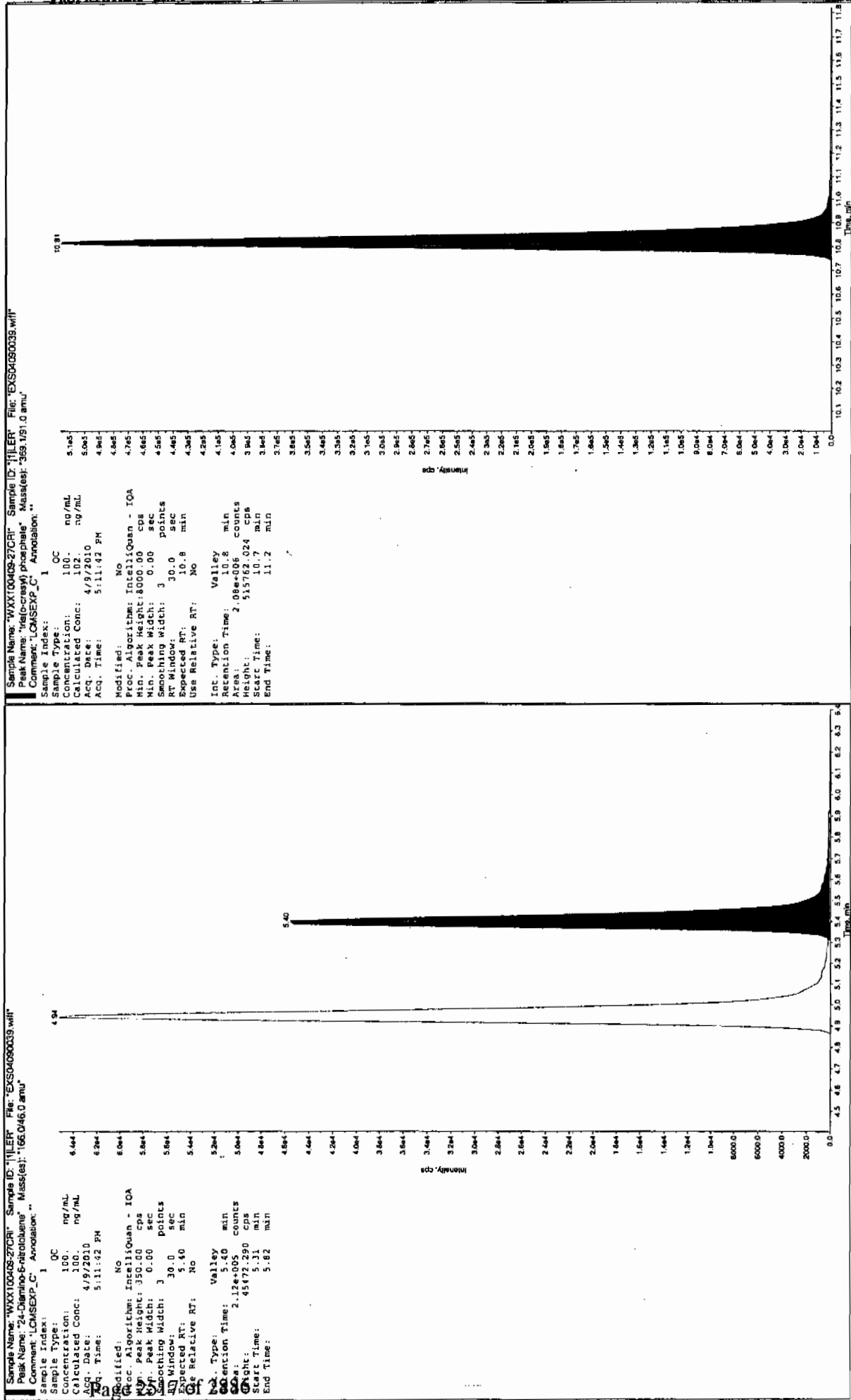
\* Value outside of Recovery Limits

Jan 4/12/10



Jan 4/12/10





7A  
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04090050.wiff

Analysis Date: 09-APR-10 20:04

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	565	113	
2,6-Diamino-4-nitrotoluene	500	531	106	
3,4-Dinitrotoluene	250	242	97	
3,5-Dinitroaniline	500	520	104	
TATB	500	503	101	
tris(o-cresyl) phosphate	500	507	101	

Recovery Limits:

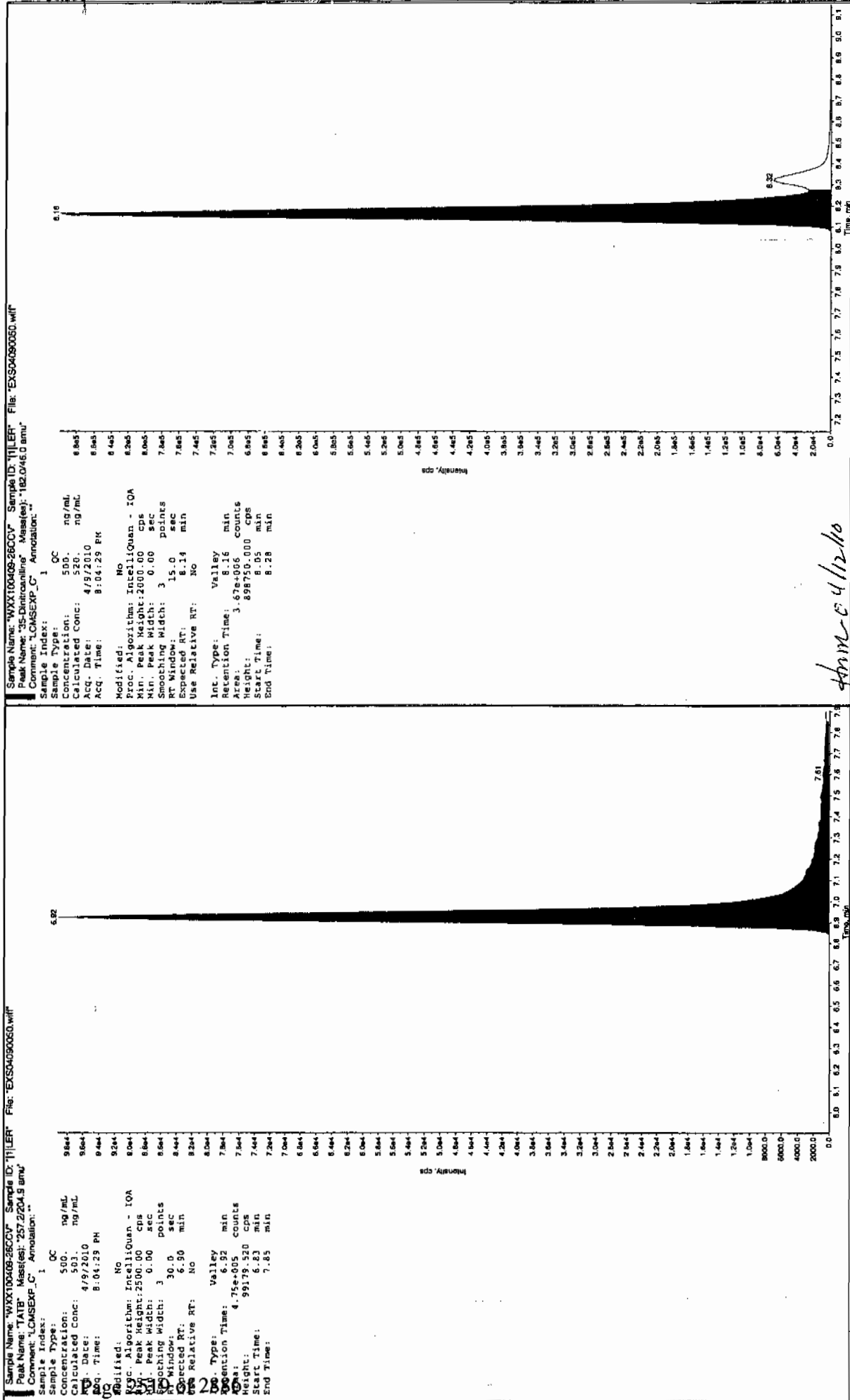
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 70-130%

Other Target Analytes 80-120%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

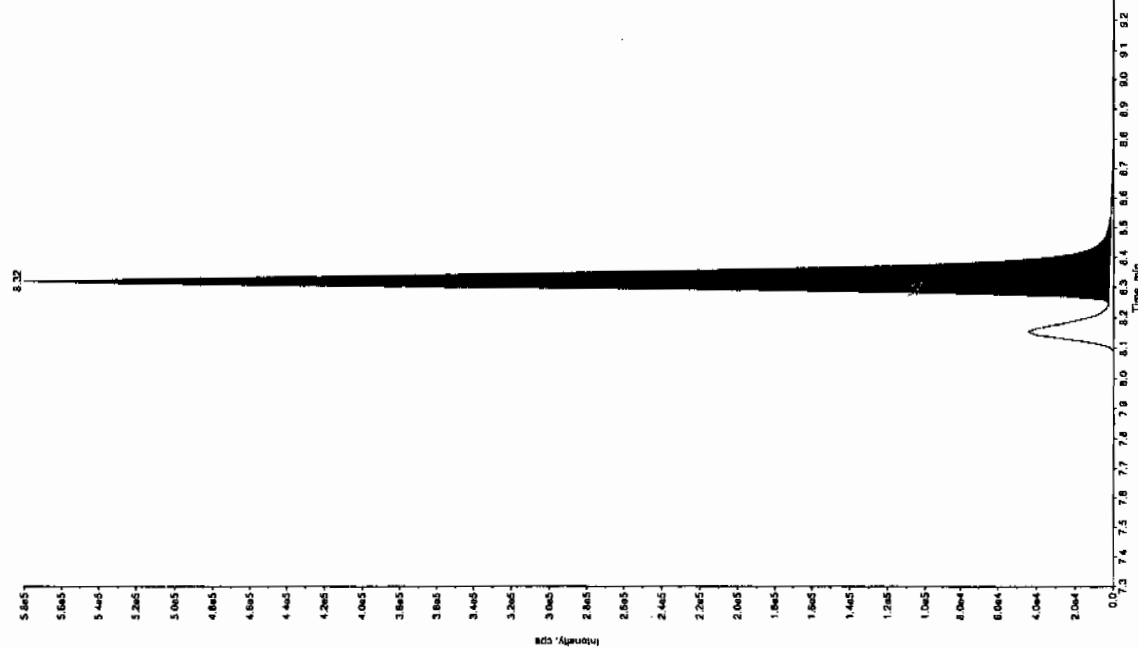
See 4/12/10



See 4/12/10

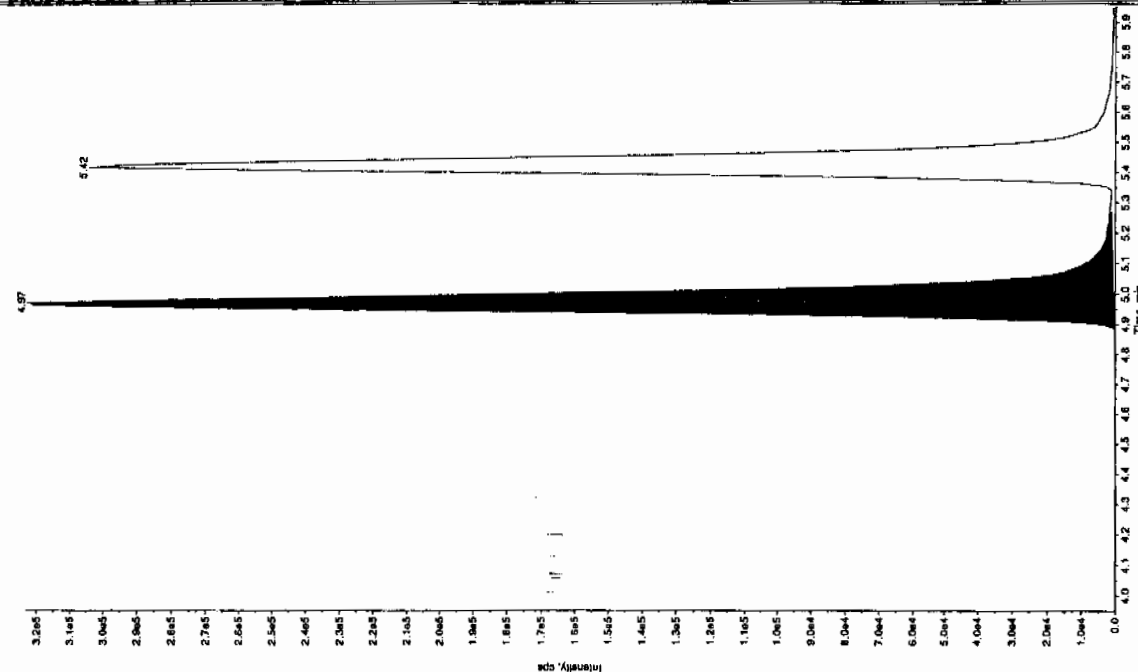
Sample Name: "WXX100409-26CCV" Sample ID: "11LER" File: "EXS04090550.wif"  
 Peak Name: "34-Dinitrofluorene" Mass(es): "182.17151.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: OC  
 Concentration: 250. ng/mL  
 Calculated Conc: 242. ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 8:04:29 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 1466.00 cps  
 Min. Peak Width: 3.00 sec  
 Smoothing Width: 30.0 points  
 GC Window: 30.0 sec  
 Expected RT: 8.30 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.32 min  
 Area: 2.17e+006 counts  
 Height: 57844.971 cps  
 Start Time: 8.25 min  
 End Time: 8.67 min

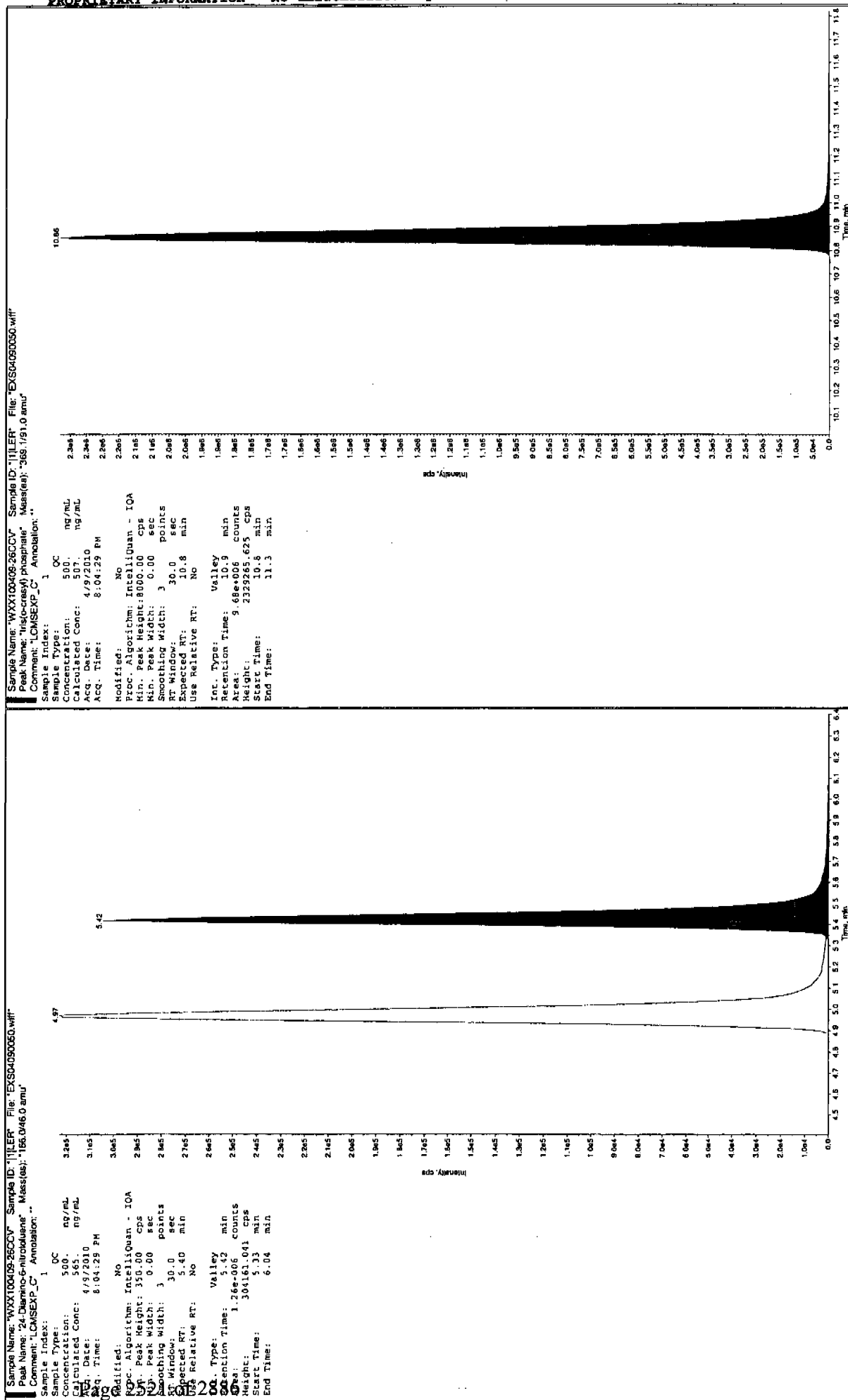


Sample Name: "WXX100409-26CCV" Sample ID: "11LER" File: "EXS04090550.wif"  
 Peak Name: "26-Diamino-4-nitrofluorene" Mass(es): "186.0465.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: OC  
 Concentration: 500. ng/mL  
 Calculated Conc: 531. ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 8:04:29 PM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 450.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 30.0 points  
 GC Window: 30.0 sec  
 Expected RT: 4.95 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.97 min  
 Area: 1.46e+006 counts  
 Height: 322838.928 cps  
 Start Time: 4.87 min  
 End Time: 5.27 min







7B  
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2193

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04090052.wiff

Analysis Date: 09-APR-10 20:35

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	101	101	
2,6-Diamino-4-nitrotoluene	100	94.7	95	
3,4-Dinitrotoluene	50	50.3	101	
3,5-Dinitroaniline	100	105	105	
TATB	100	109	109	
tris(o-cresyl) phosphate	100	102	102	

Recovery Limits:

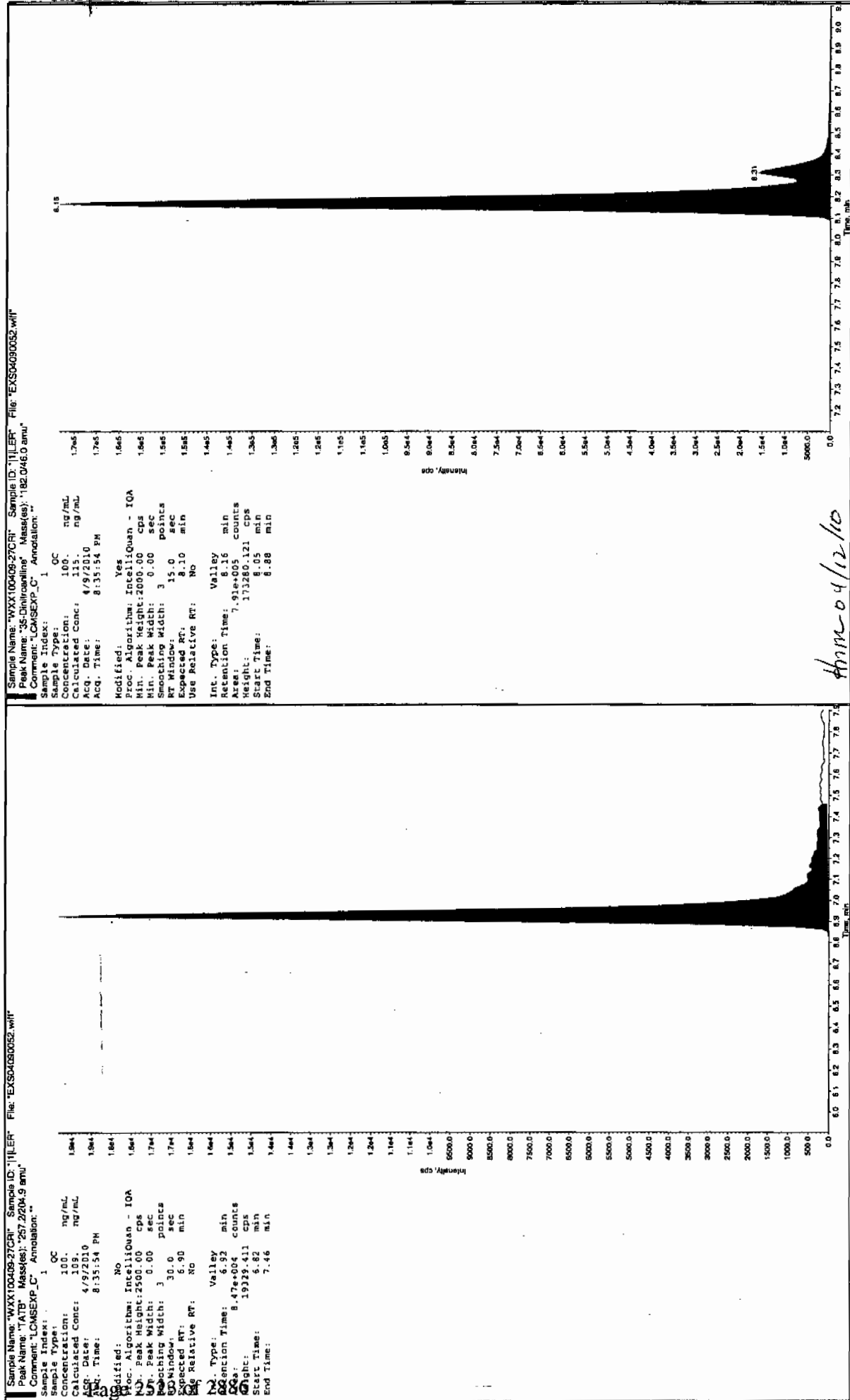
3,4-Dinitrotoluene (Surrogate), TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,  
2,4-Diamino-6-nitrotoluene 50-150%

Other Target Analytes 70-130%

# Column used to flag Recovery outside of Limits

\* Value outside of Recovery Limits

Before Jan 4/12/10

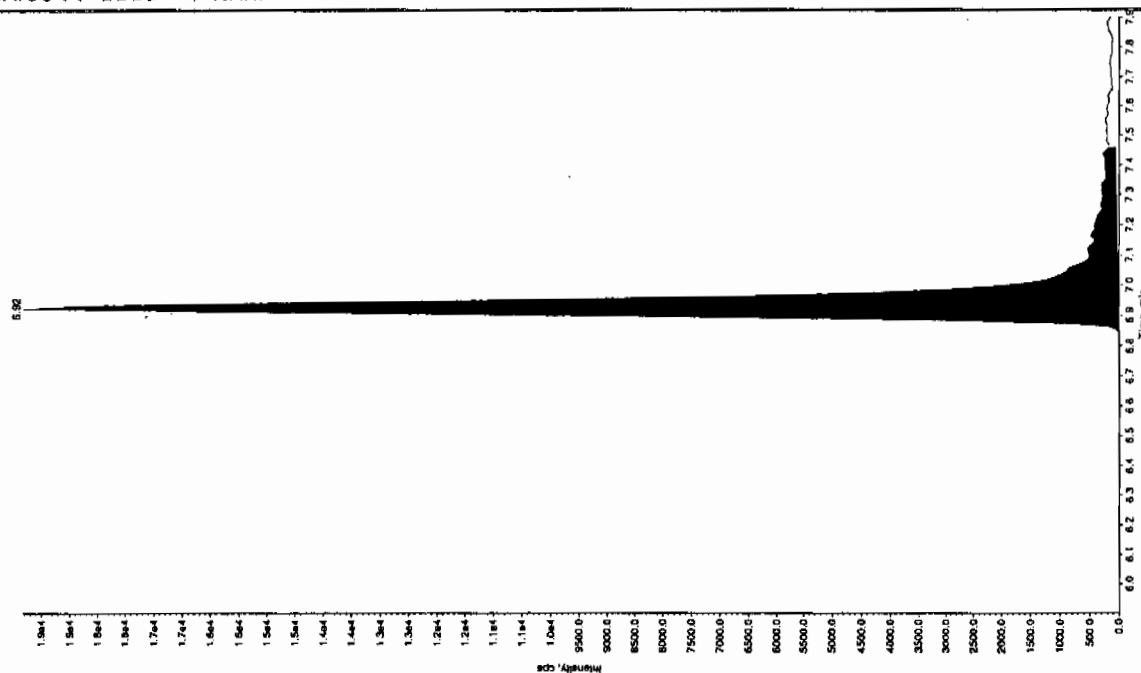


After 04/12/10

After Jan 4/12/10

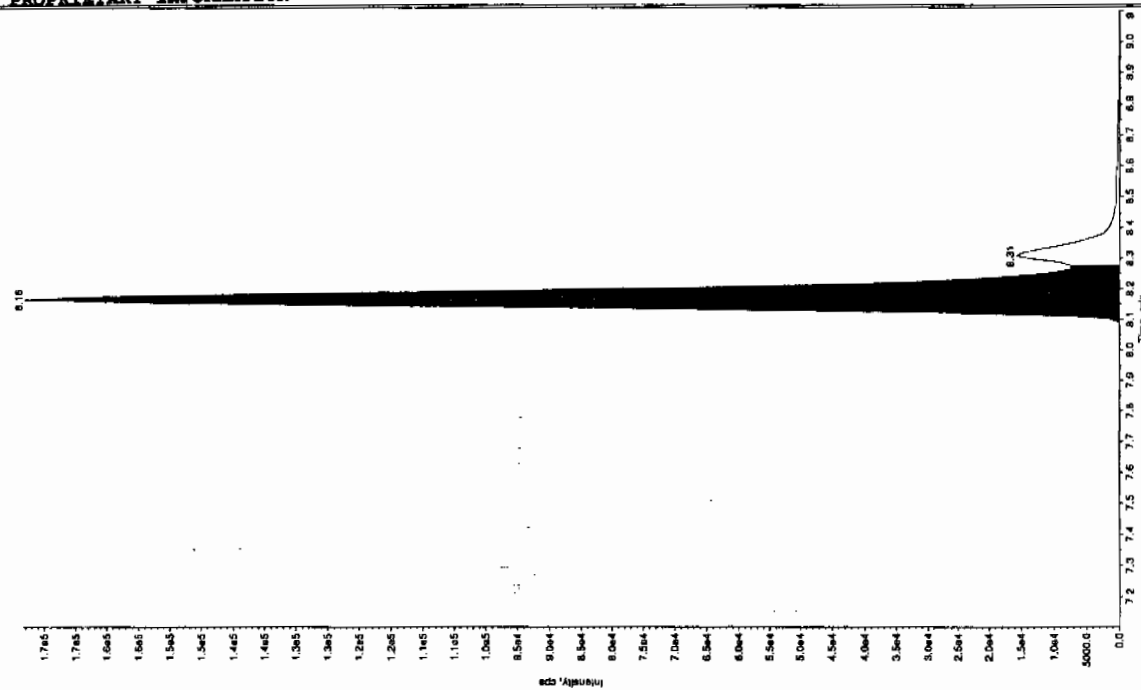
Sample Name: "WXX100409-27CR" Sample ID: "111ER" File: "EXS04090052.wif"  
 Peak Name: "TATB" Mass(es): "257.20204.9 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

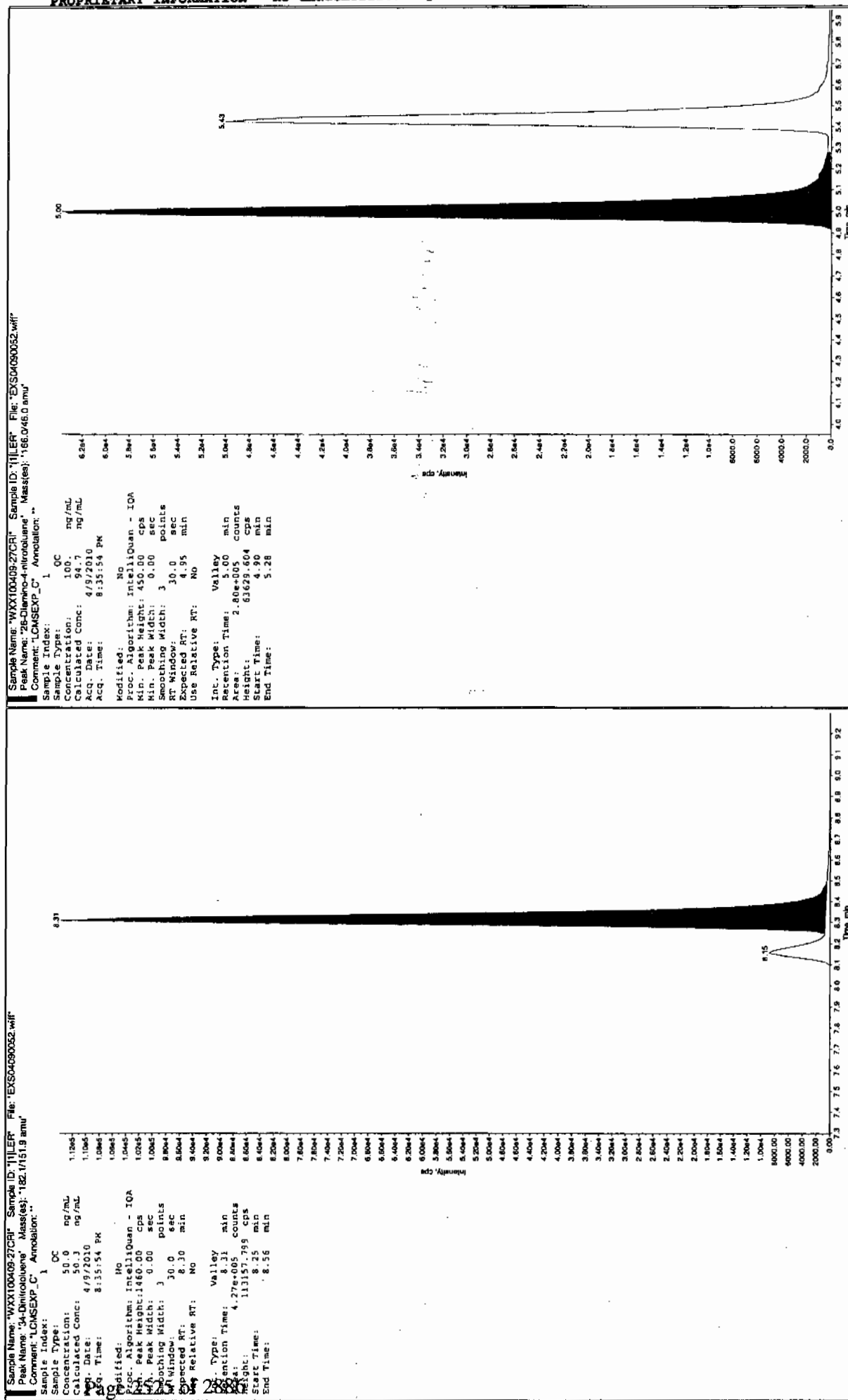
Sample Index: 1  
 Sample Type: OC  
 Concentration: 100. ng/mL  
 Calculated Conc: 109. ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 8:35:54 PM  
 Modified: No  
 RT Window: 30.0 sec  
 Expected RT: 6.30 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 6.92 min  
 Peak Height: 19129.411 counts  
 Start Time: 6.82 min  
 End Time: 7.46 min

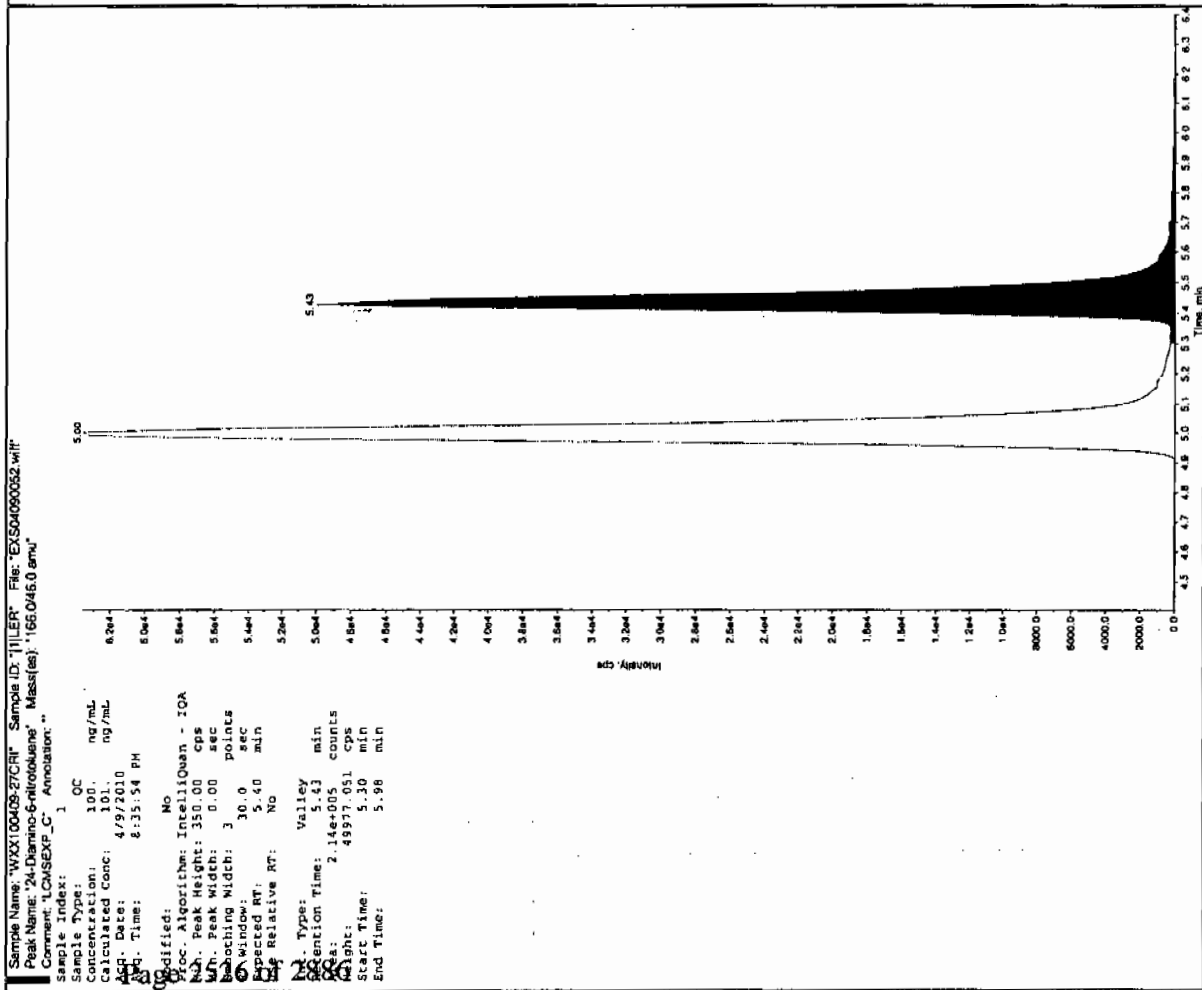
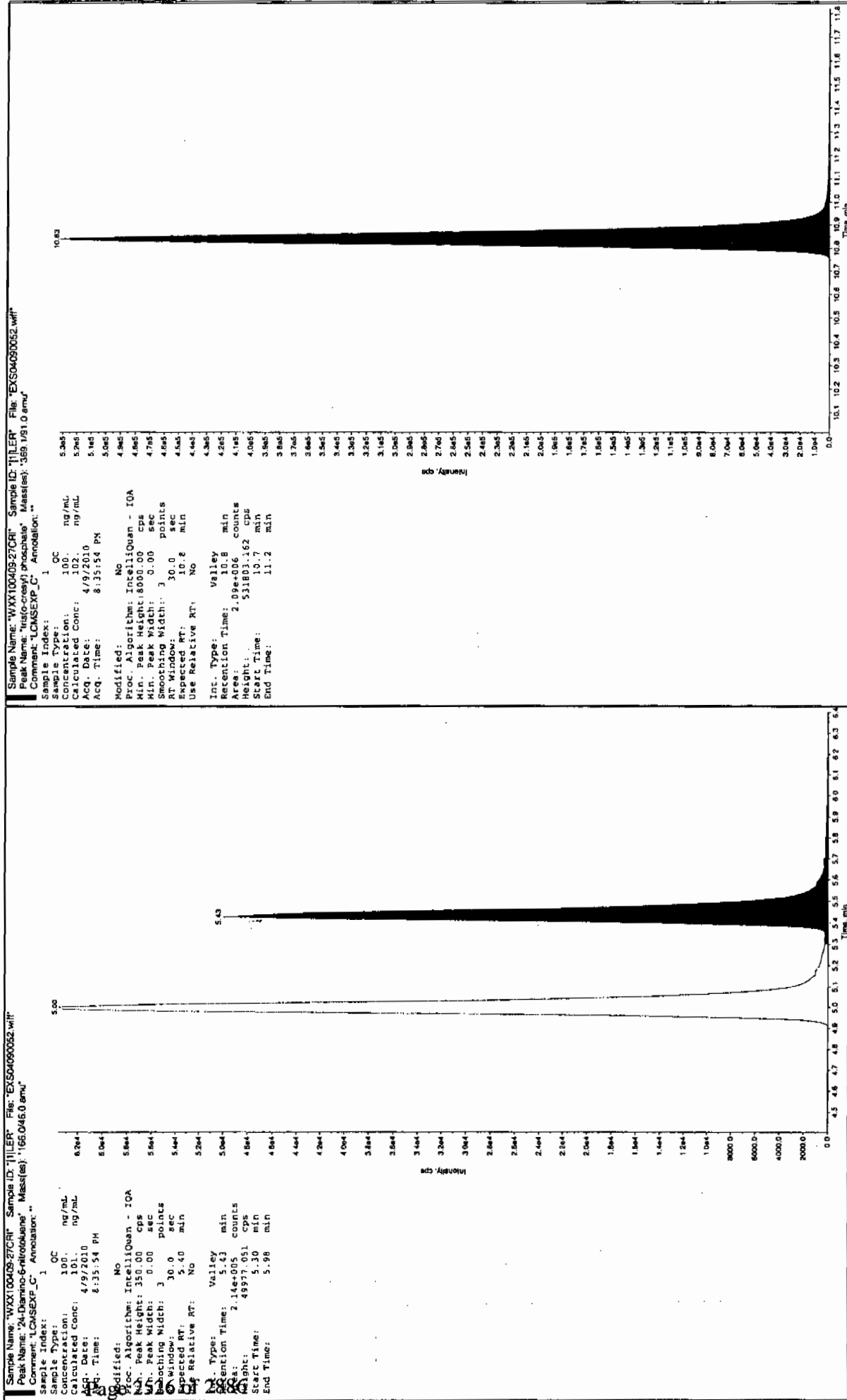


Sample Name: "WXX100409-27CR" Sample ID: "111ER" File: "EXS04090052.wif"  
 Peak Name: "3S-Dioxinoline" Mass(es): "182.0465.0 amu"  
 Comment: "LCMSEXP\_C" Annotation: ""

Sample Index: 1  
 Sample Type: OC  
 Concentration: 100. ng/mL  
 Calculated Conc: 105. ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 8:35:54 PM  
 Modified: Yes  
 RT Window: 15.0 sec  
 Expected RT: 8.10 min  
 Use Relative RT: No  
 Int. Type: Manual  
 Retention Time: 8.17 min  
 Peak Height: 7.17e+007 counts  
 Start Time: 8.07 min  
 End Time: 8.28 min







# QUALITY CONTROL DATA

1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 960982

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 1202061204

Sample Amount 2

Moisture:

Amount Units g

Date Received: 04-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0415033.wiff

Date Analyzed: 15-APR-10 23:57

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

\*Concentration =

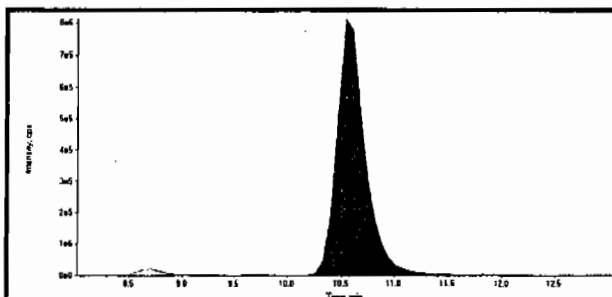
Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

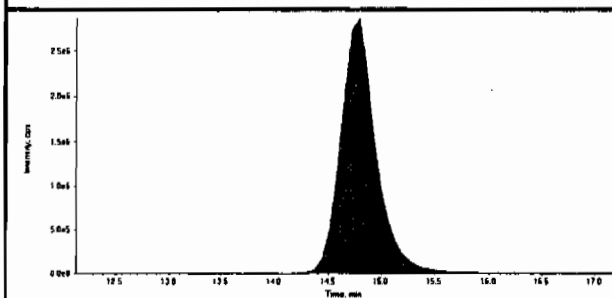
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

Data File	EXP0415033.wiff	Acquisition Date	4/15/2010 11:57:34 PM
Sample Name	1202061204	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	041510.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



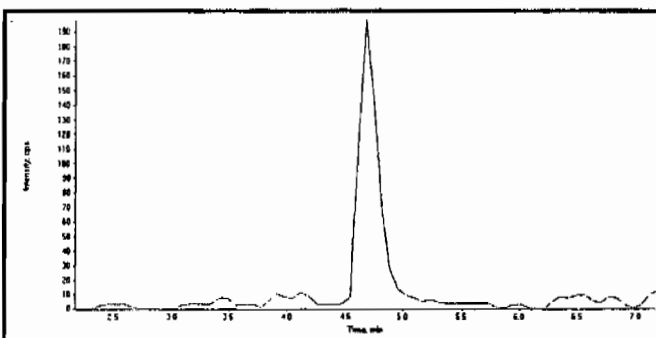
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	15100000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries

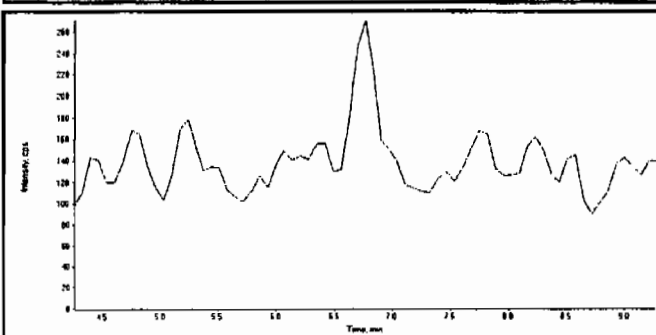


Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.60
Actual RT:	14.80
Area Counts:	67500000.00
Manual Modification	No
Amount:	500.00(ng/mL)

Please refer to Form 8 for a list of Internal Standard Recoveries



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

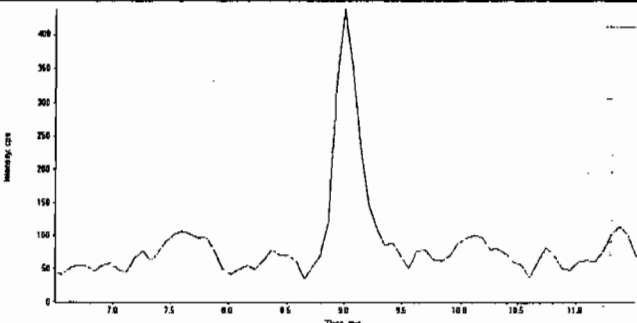
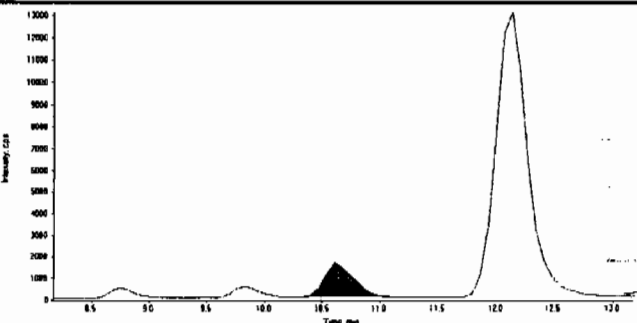
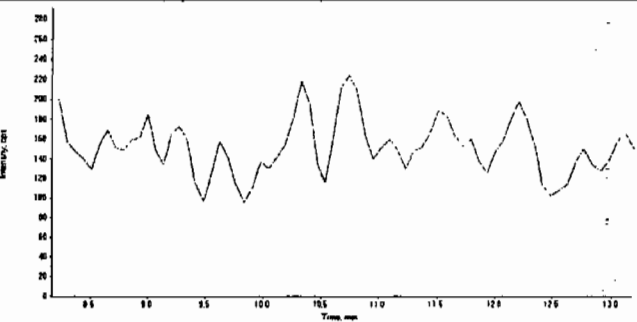
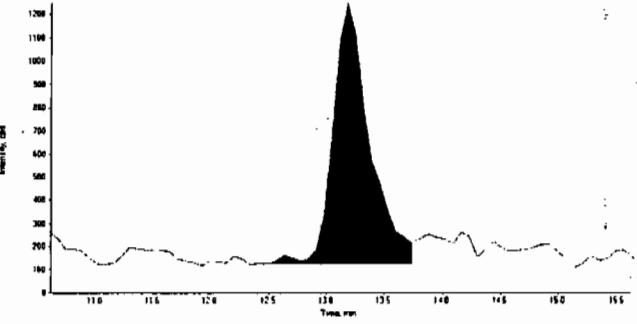


Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

*lar*  
4/23/10  
*thw*  
04/23/10

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

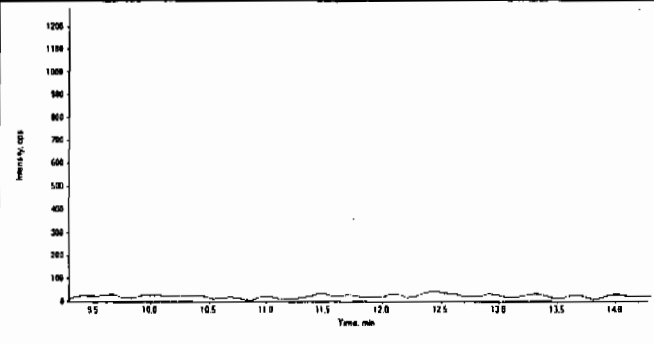
<b>Data File</b> EXP0415033.wiff		<b>Acquisition Date</b> 4/15/2010 11:57:34 PM	
<b>Sample Name</b> 1202061204		<b>Acquisition Method</b> 8321.dam	
<b>Batch Dilution Analyst</b> 960986 2 LER		<b>Result Table</b> 041510.rdb	
<b>Procedure Code</b> LCX8321_S		<b>Sample Type</b> Unknown	
	<b>Compound Name:</b> 135-Trinitrobenzene (213.0/182.8 amu)		
	<b>Expected RT:</b>		9.00
	<b>Actual RT:</b>		0.00
	<b>Area Counts:</b>		0.00e+000
	<b>Manual Modification</b>		No
	<b>Amount:</b>		N/A (ng/mL)
	<b>% Accuracy:</b>		N/A
	<b>Compound Name:</b> 13-Dinitrobenzene (168.0/137.9 amu)		
	<b>Expected RT:</b>		10.7
	<b>Actual RT:</b>		10.6
	<b>Area Counts:</b>		2.87e+004
	<b>Manual Modification</b>		No
	<b>Amount:</b>		4.45 (ng/mL)
	<b>% Accuracy:</b>		N/A
	<b>Compound Name:</b> Tetryl (241.0/180.8 amu)		
	<b>Expected RT:</b>		10.7
	<b>Actual RT:</b>		0.00
	<b>Area Counts:</b>		0.00e+000
	<b>Manual Modification</b>		No
	<b>Amount:</b>		N/A (ng/mL)
	<b>% Accuracy:</b>		N/A
	<b>Compound Name:</b> 246-Trinitrotoluene (227.1/209.8 amu)		
	<b>Expected RT:</b>		13.1
	<b>Actual RT:</b>		13.2
	<b>Area Counts:</b>		2.54e+004
	<b>Manual Modification</b>		No
	<b>Amount:</b>		N/A (ng/mL)
	<b>% Accuracy:</b>		N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

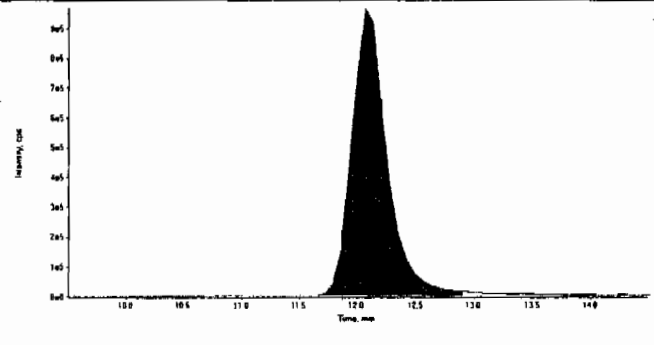
Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415033.wiff	<b>Acquisition Date</b>	4/15/2010 11:57:34 PM
<b>Sample Name</b>	1202061204	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

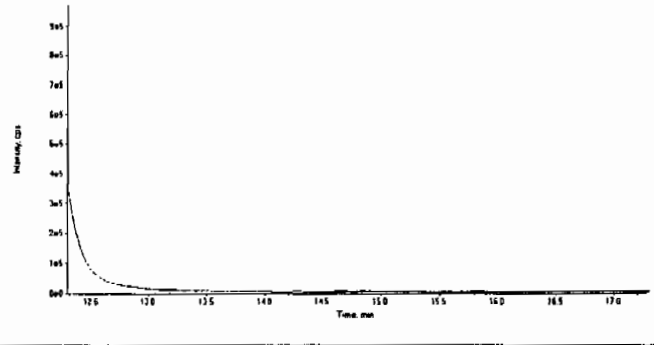
  

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

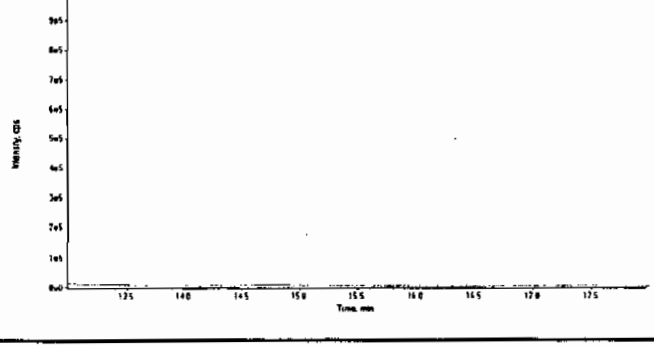
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.0
	Actual RT:	12.1
	Area Counts:	2.02e+007
	Manual Modification	No
	Amount:	227. (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.7
	Area Counts:	1.75e+005
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415033.wiff	<b>Acquisition Date</b>	4/15/2010 11:57:34 PM
<b>Sample Name</b>	1202061204	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	4-Amino-2,6-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.1
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	5.08e+003
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.6
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 22/04/2010 4:04:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0415033.wiff	<b>Acquisition Date</b>	4/15/2010 11:57:34 PM
<b>Sample Name</b>	1202061204	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	041510.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	PETN (361.1/62.0 amu)
	<b>Expected RT:</b>	19.7
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 960982

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 1202061204

Sample Amount 2

Moisture:

Amount Units g

Date Received: 04-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090014.wiff

Date Analyzed: 09-APR-10 10:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

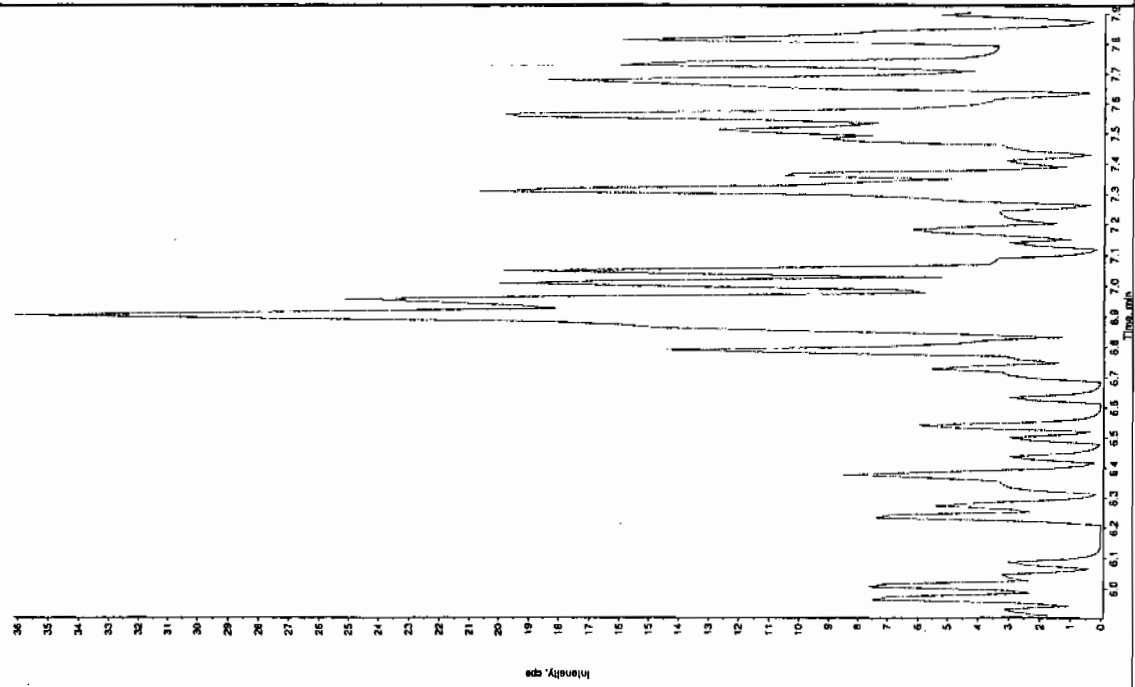
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Jan 4/12/10

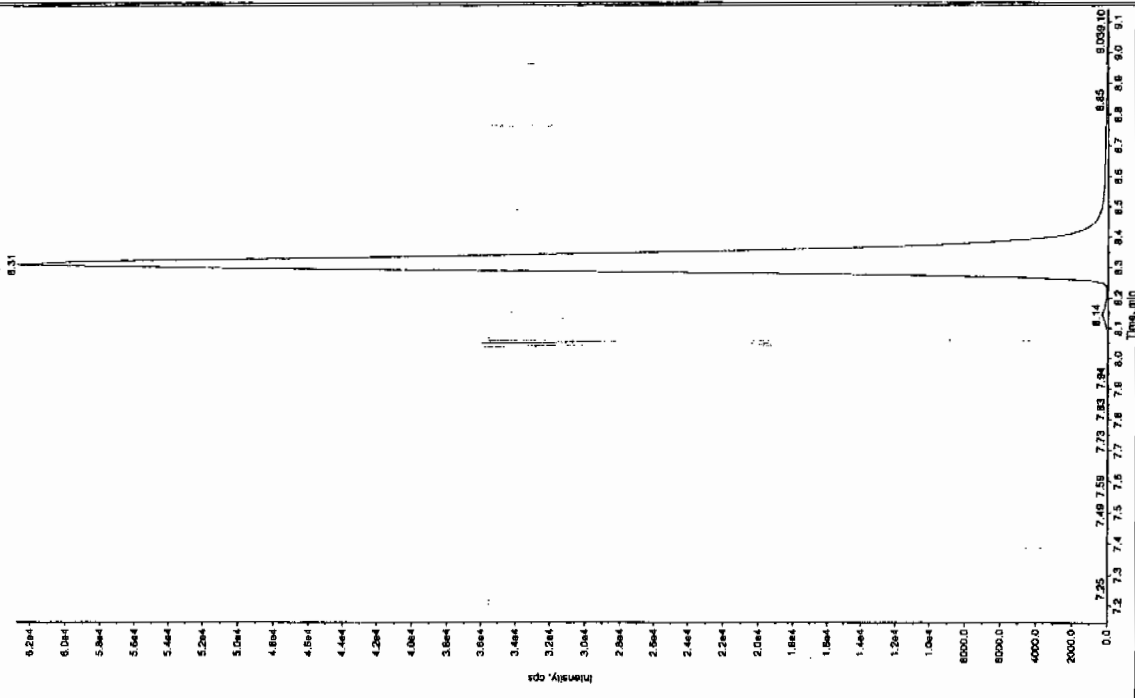
Sample Name: "1202061204" Sample ID: "96086621LER" File: "EXS04090014.wif"  
 Peak Name: "TATB" Mass(es): "257.2/204.9 amu"  
 Comment: "LCX832125" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 10:39:02 AM  
 Modified: No

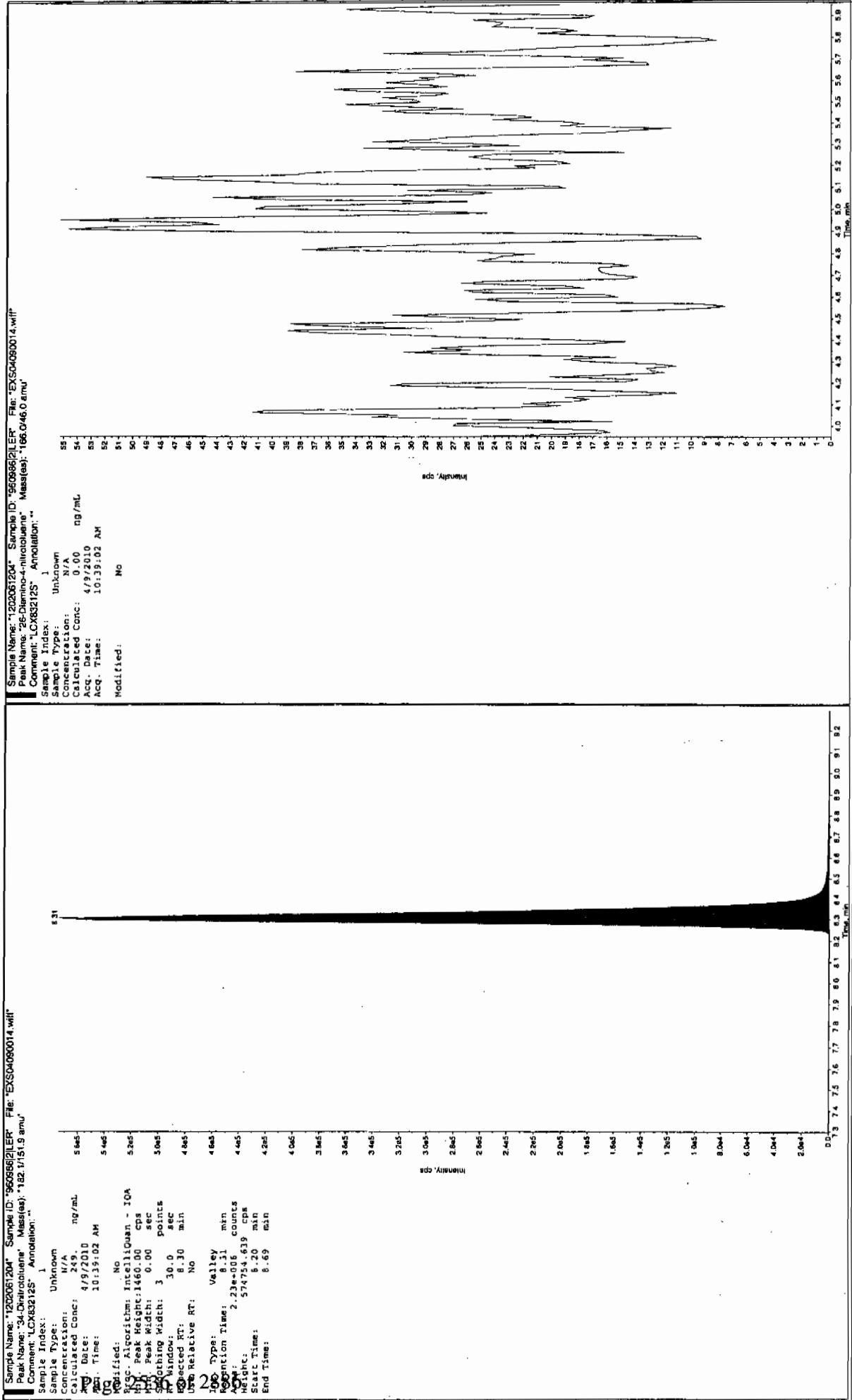


Sample Name: "1202061204" Sample ID: "96086621LER" File: "EXS04090014.wif"  
 Peak Name: "TATB" Mass(es): "182.0/85.0 amu"  
 Comment: "LCX832125" Annotation: "

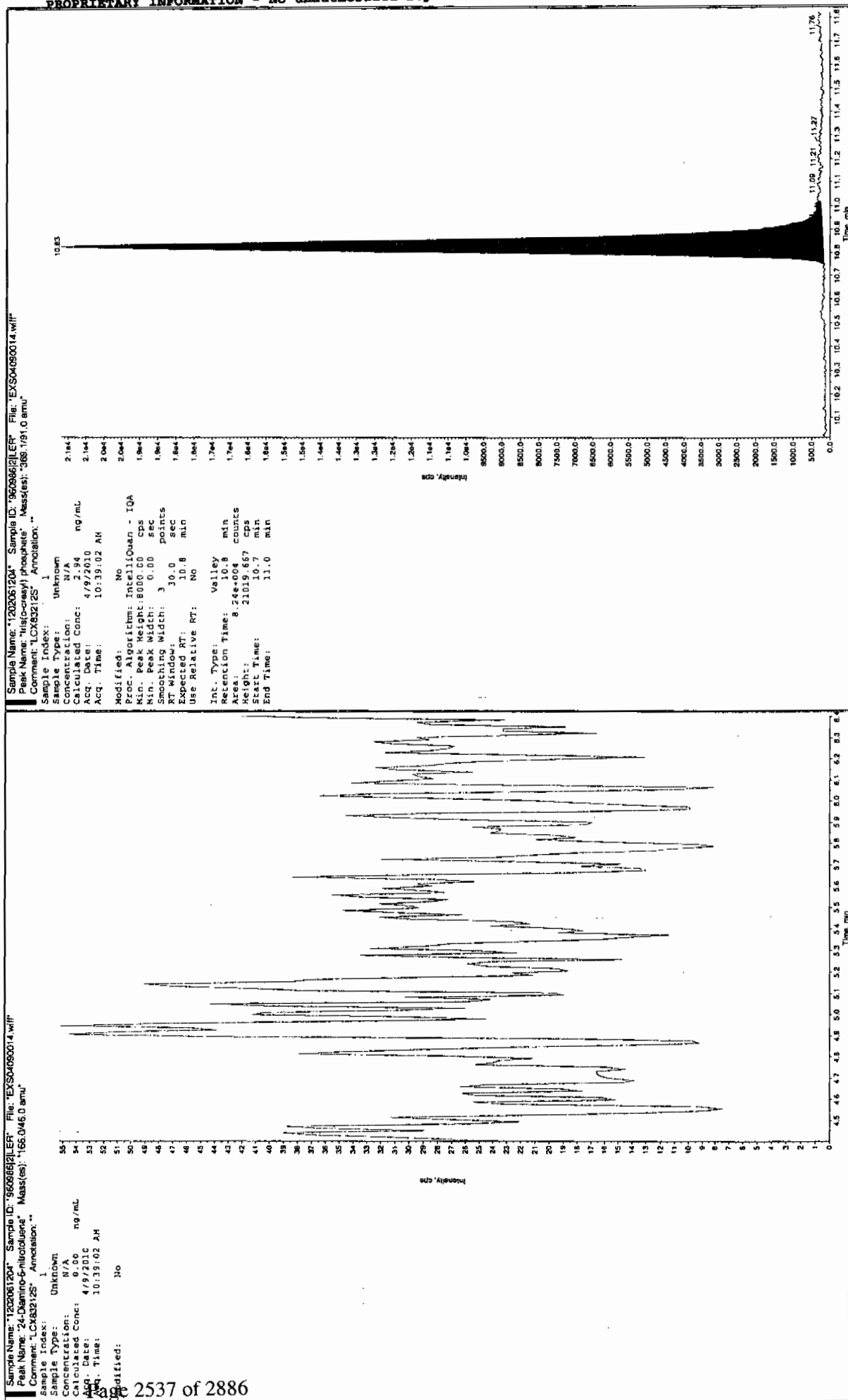
Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 0.00 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 10:39:02 AM  
 Modified: No



Jan 4/12/10







1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 960982

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 1202061205

Sample Amount 2

Moisture:

Amount Units g

Date Received: 04-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0420094.wiff

Date Analyzed: 22-APR-10 06:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4310	
121-14-2	2,4-Dinitrotoluene	5350	
121-82-4	RDX	6140	
19406-51-0	4-Amino-2,6-dinitrotoluene	4730	
2691-41-0	HMX	4600	
35572-78-2	2-Amino-4,6-dinitrotoluene	6650	
479-45-8	Tetryl	574	
606-20-2	2,6-Dinitrotoluene	4970	
78-11-5	PETN	5840	
88-72-2	o-Nitrotoluene	5240	
98-95-3	Nitrobenzene	4490	
99-08-1	m-Nitrotoluene	3960	
99-35-4	1,3,5-Trinitrobenzene	3780	
99-65-0	m-Dinitrobenzene	4640	
99-99-0	p-Nitrotoluene	5000	

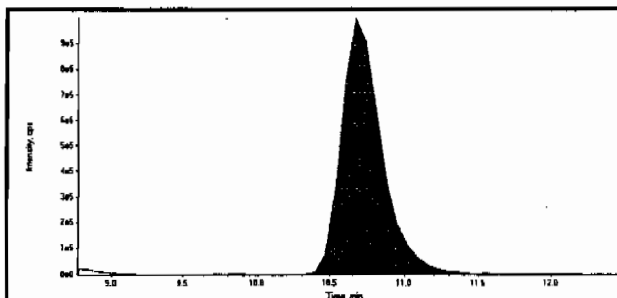
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

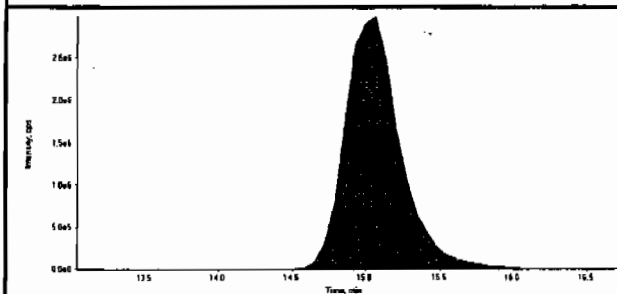
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

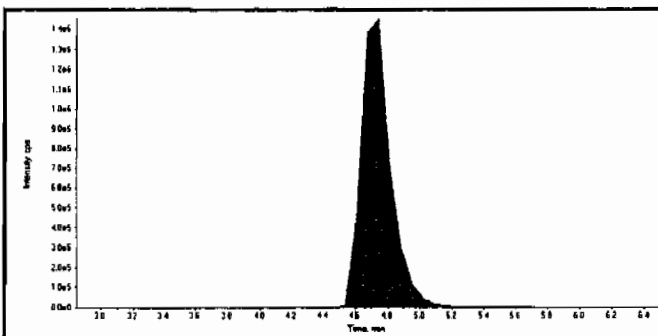
Data File	EXP0420094.wiff	Acquisition Date	4/22/2010 6:32:29 AM
Sample Name	1202061205	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	042010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



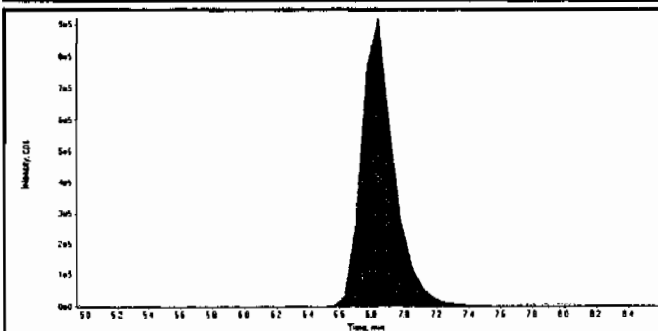
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	18900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	15.10
Area Counts:	78500000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.67
Actual RT:	4.74
Area Counts:	1.87e+007
Manual Modification	No
Amount:	460. (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.84
Area Counts:	1.29e+007
Manual Modification	No
Amount:	614. (ng/mL)
% Accuracy:	N/A

*See 4/29/10 HMX 04/29/10*

Before Ser 428110

Sample Name: 1202081205 Sample ID: 9509062107 File: E:\PC\GC0034.wi  
 Acquisition: 4/22/2010 6:12:29 AM Method: LCM321.D

Sample Index: Unknown  
 Concentration: 500 ng/mL  
 Acquisition: 4/22/2010 6:12:29 AM  
 Acquisition: 4/22/2010 6:12:29 AM

Peak Data:  
 Peak No. 1  
 Peak Height: 1000.00 cps  
 Peak Width: 0.00 sec  
 Peak Area: 1000.00 cps  
 Peak RT: 13.40 min  
 Peak Label: 13.40 min

Integration:  
 Integration: 13.40 min  
 Acquisition: 4/22/2010 6:12:29 AM  
 Acquisition: 4/22/2010 6:12:29 AM

Peak Data:  
 Peak No. 2  
 Peak Height: 1000.00 cps  
 Peak Width: 0.00 sec  
 Peak Area: 1000.00 cps  
 Peak RT: 13.40 min  
 Peak Label: 13.40 min

Integration:  
 Integration: 13.40 min  
 Acquisition: 4/22/2010 6:12:29 AM  
 Acquisition: 4/22/2010 6:12:29 AM

Peak Data:  
 Peak No. 3  
 Peak Height: 1000.00 cps  
 Peak Width: 0.00 sec  
 Peak Area: 1000.00 cps  
 Peak RT: 13.40 min  
 Peak Label: 13.40 min

Integration:  
 Integration: 13.40 min  
 Acquisition: 4/22/2010 6:12:29 AM  
 Acquisition: 4/22/2010 6:12:29 AM

Peak Data:  
 Peak No. 4  
 Peak Height: 1000.00 cps  
 Peak Width: 0.00 sec  
 Peak Area: 1000.00 cps  
 Peak RT: 13.40 min  
 Peak Label: 13.40 min

Integration:  
 Integration: 13.40 min  
 Acquisition: 4/22/2010 6:12:29 AM  
 Acquisition: 4/22/2010 6:12:29 AM

Peak Data:  
 Peak No. 5  
 Peak Height: 1000.00 cps  
 Peak Width: 0.00 sec  
 Peak Area: 1000.00 cps  
 Peak RT: 13.40 min  
 Peak Label: 13.40 min

Integration:  
 Integration: 13.40 min  
 Acquisition: 4/22/2010 6:12:29 AM  
 Acquisition: 4/22/2010 6:12:29 AM

Peak Data:  
 Peak No. 6  
 Peak Height: 1000.00 cps  
 Peak Width: 0.00 sec  
 Peak Area: 1000.00 cps  
 Peak RT: 13.40 min  
 Peak Label: 13.40 min

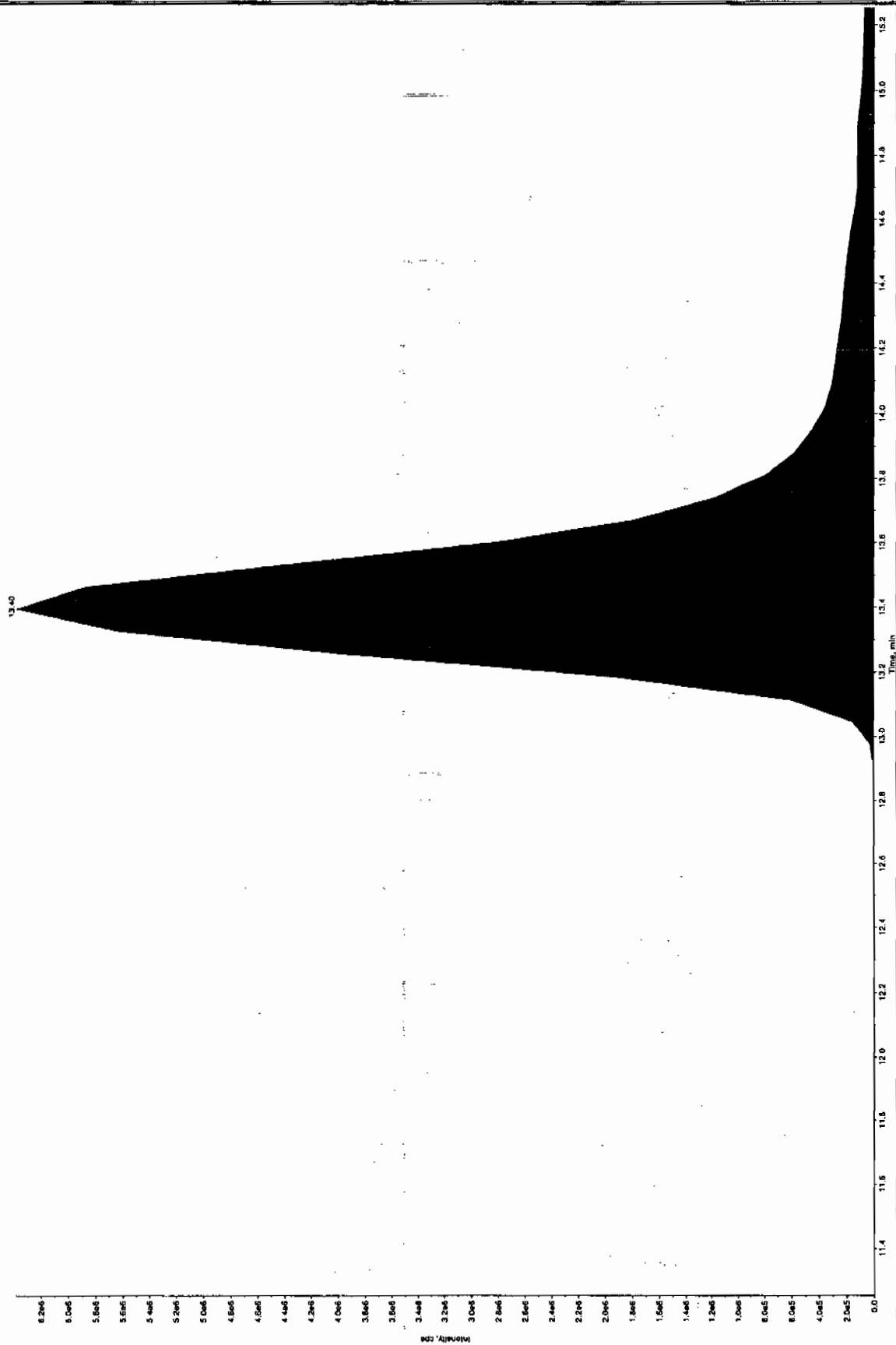
Integration:  
 Integration: 13.40 min  
 Acquisition: 4/22/2010 6:12:29 AM  
 Acquisition: 4/22/2010 6:12:29 AM

Peak Data:  
 Peak No. 7  
 Peak Height: 1000.00 cps  
 Peak Width: 0.00 sec  
 Peak Area: 1000.00 cps  
 Peak RT: 13.40 min  
 Peak Label: 13.40 min

Integration:  
 Integration: 13.40 min  
 Acquisition: 4/22/2010 6:12:29 AM  
 Acquisition: 4/22/2010 6:12:29 AM

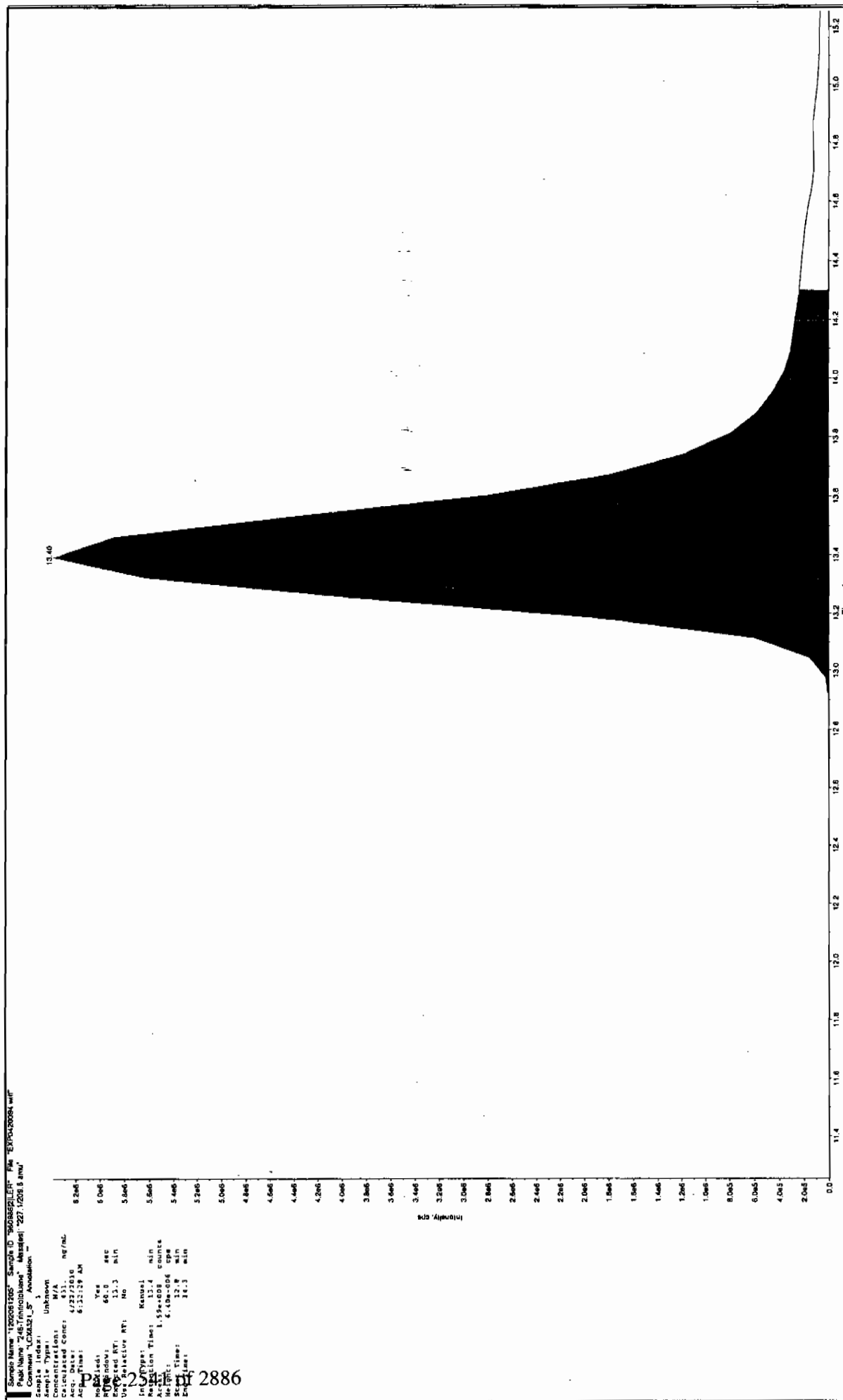
Peak Data:  
 Peak No. 8  
 Peak Height: 1000.00 cps  
 Peak Width: 0.00 sec  
 Peak Area: 1000.00 cps  
 Peak RT: 13.40 min  
 Peak Label: 13.40 min

Integration:  
 Integration: 13.40 min  
 Acquisition: 4/22/2010 6:12:29 AM  
 Acquisition: 4/22/2010 6:12:29 AM



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Scan 428160



Sample Name: 1900051005 Sample ID: 1900051005 File: EXP000004.wif  
 Peak Name: "245 (methylated)" Methylated: 227.1208 g/mol  
 Comment: "LCMS321\_5" Annotation: "

Sample Index: 1  
 Sample Type: Unknown  
 Acquisition Date: 4/22/2010  
 Acquisition Time: 6:12:19 AM  
 Calculated Conc: 8.2e4  
 Expected RT: 13.3 min  
 Observed RT: 13.4 min  
 Used in Analysis: No  
 Integration Type: Manual  
 Integration Time: 13.4 min  
 Acquisition Time: 1.59e+008 counts  
 Acquisition Time: 6.45e+008 counts  
 Scan Time: 12.8 min  
 Scan Time: 14.3 min

2886

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420094.wiff	<b>Acquisition Date</b>	4/22/2010 6:32:29 AM
<b>Sample Name</b>	1202061205	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.07
	<b>Actual RT:</b>	9.14
	<b>Area Counts:</b>	7.99e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	378. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.8
	<b>Area Counts:</b>	4.53e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	464. (ng/mL)
	<b>% Accuracy:</b>	N/A

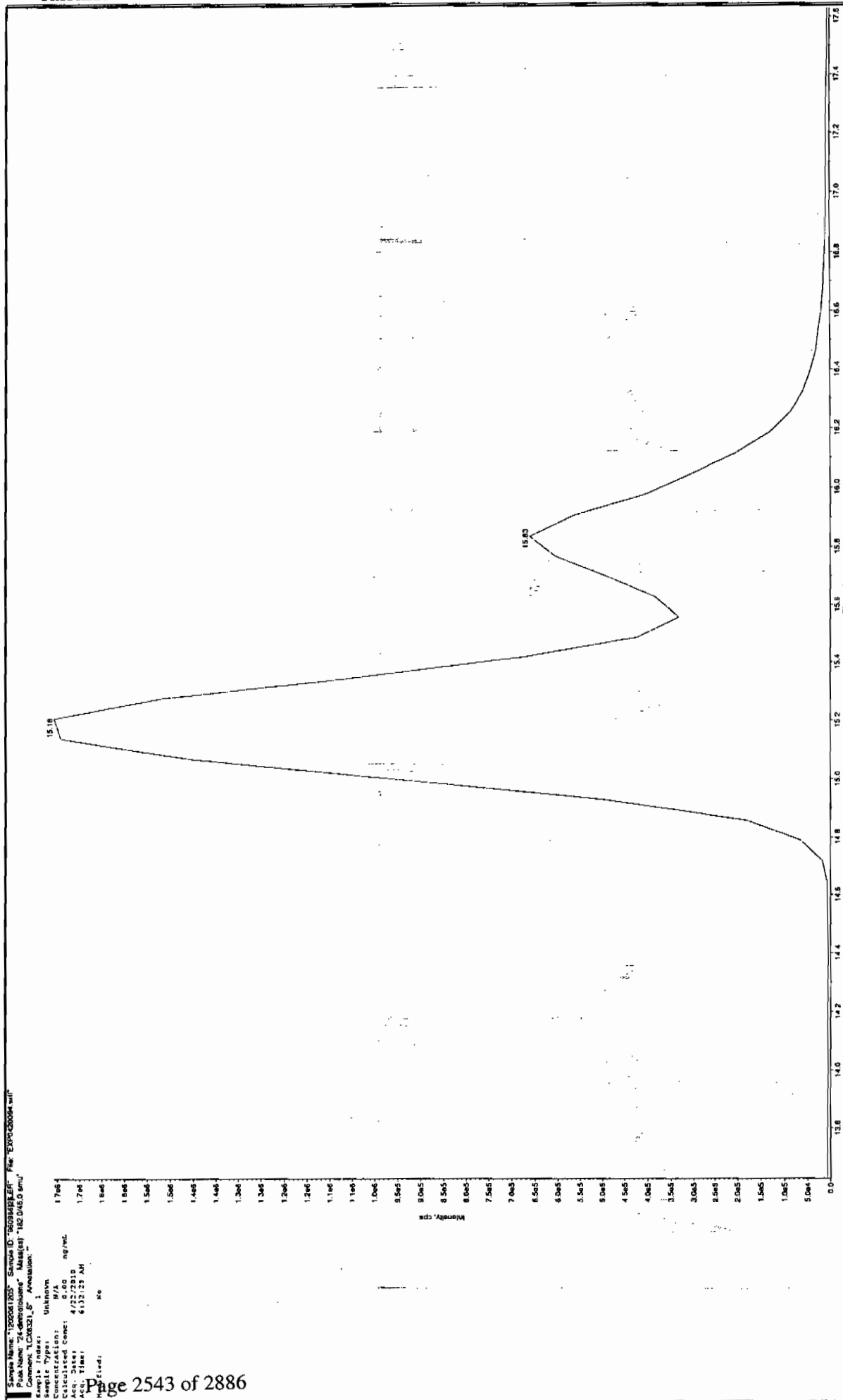
  

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.8
	<b>Actual RT:</b>	11.0
	<b>Area Counts:</b>	4.52e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	57.4 (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.3
	<b>Actual RT:</b>	13.4
	<b>Area Counts:</b>	1.59e+008
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	431. (ng/mL)
	<b>% Accuracy:</b>	N/A

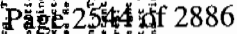
Before Dec 4/28/10



Sample Name: 1202041105 - Sample ID: 1202041105 - File: EXP000004.wif  
 Peak Name: 1202041105 - Abundance: 162.045.6.000  
 Comment: 1202041105 - Abundance: 162.045.6.000

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 0.00 ng/mL  
 Acq. Date: 4/22/2010  
 Acq. Time: 6:12:23 AM  
 Method: 1202041105

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0420094.wiff	<b>Acquisition Date</b>	4/22/2010 6:32:29 AM
<b>Sample Name</b>	1202061205	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	042010.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.9
	<b>Actual RT:</b>	12.0
	<b>Area Counts:</b>	1.90e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	449. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.1
	<b>Actual RT:</b>	12.3
	<b>Area Counts:</b>	2.83e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	268. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.2
	<b>Actual RT:</b>	15.2
	<b>Area Counts:</b>	4.34e+007
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	497. (ng/mL)
	<b>% Accuracy:</b>	N/A

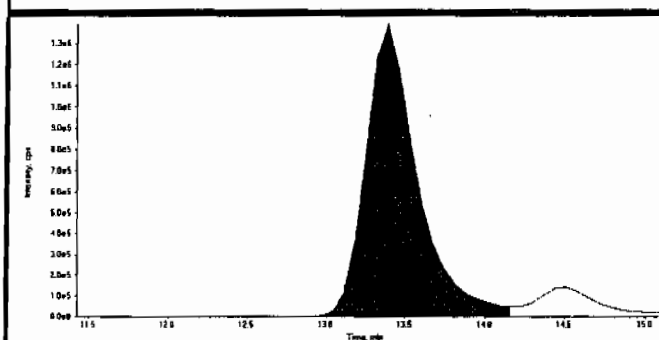
  

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.6
	<b>Actual RT:</b>	15.8
	<b>Area Counts:</b>	1.72e+007
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	535. (ng/mL)
	<b>% Accuracy:</b>	N/A

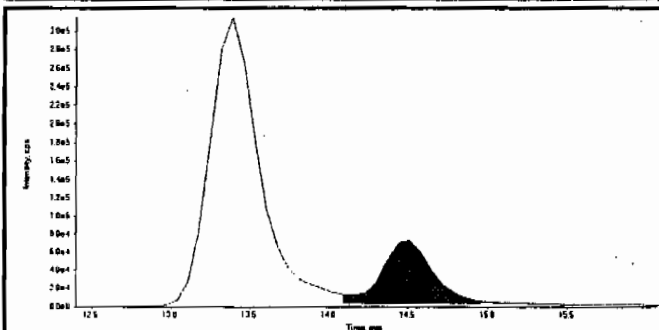
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

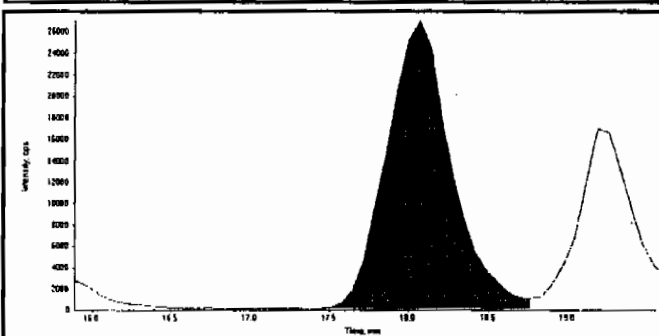
Data File	EXP0420094.wiff	Acquisition Date	4/22/2010 6:32:29 AM
Sample Name	1202061205	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	042010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



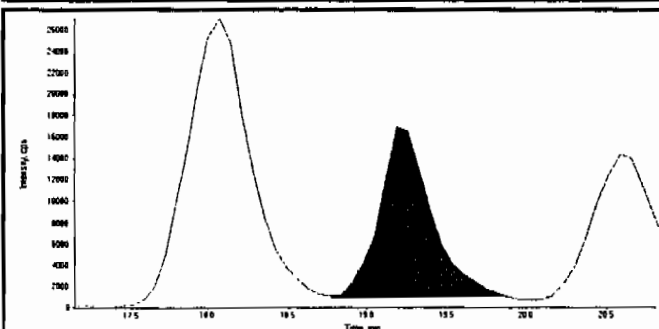
Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	13.4
Area Counts:	3.18e+007
Manual Modification	No
Amount:	473. (ng/mL)
% Accuracy:	N/A



Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.2
Actual RT:	14.5
Area Counts:	1.62e+006
Manual Modification	No
Amount:	665. (ng/mL)
% Accuracy:	N/A

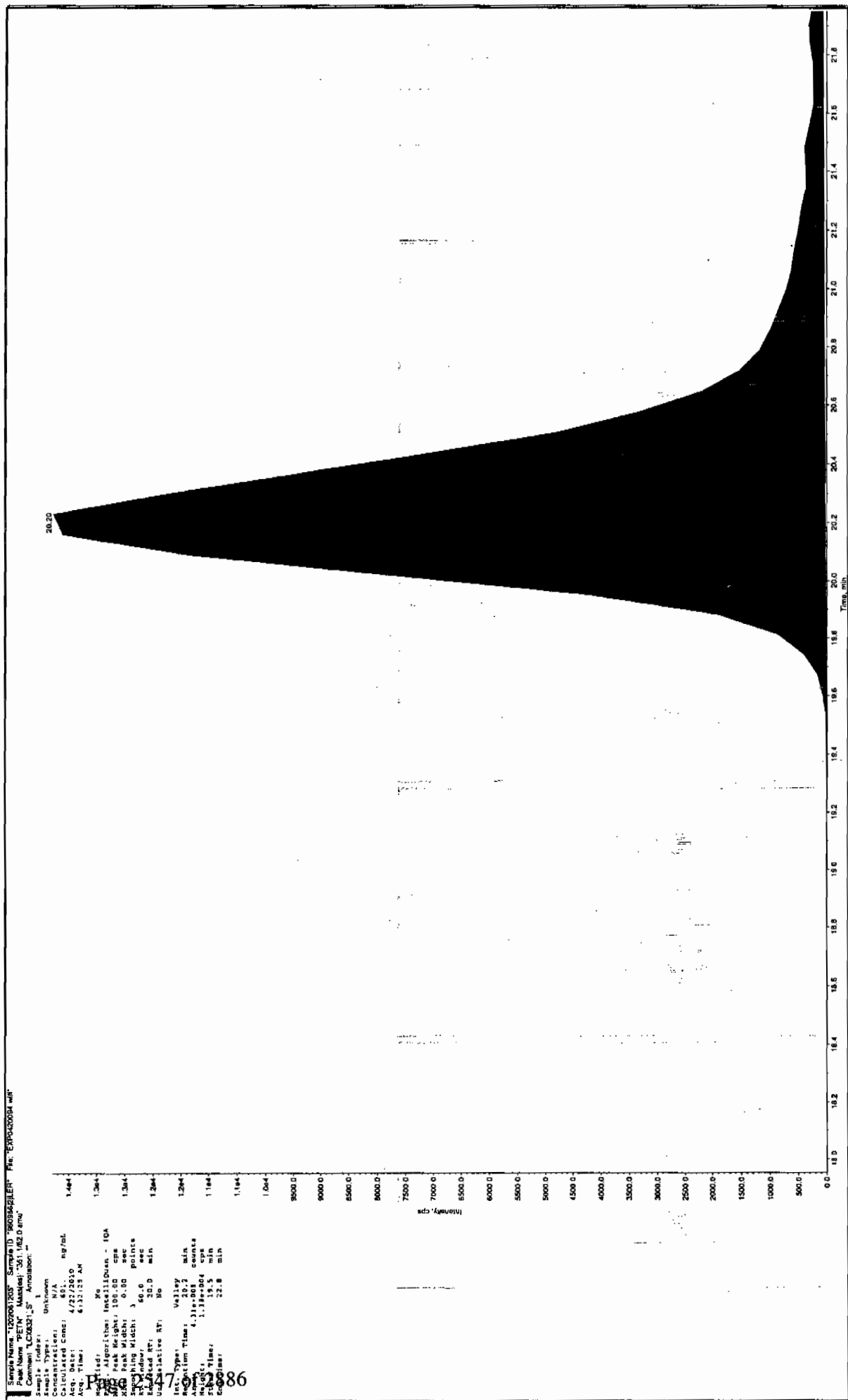


Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.7
Actual RT:	18.1
Area Counts:	7.63e+005
Manual Modification	No
Amount:	524. (ng/mL)
% Accuracy:	N/A



Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	19.2
Area Counts:	3.73e+005
Manual Modification	No
Amount:	500. (ng/mL)
% Accuracy:	N/A

Before Jan 4/29/10.



Sample Name: "1202081205" Sample ID: "26035621ER" File: "EXP020084.wif"

Peak Name: "PEM" Mass(es): "531.162.0 amu"

Comment: "LCMS331\_S" Annotation: "

Sample Type: "Unknown"

Concentration: "N/A"

Calculated Conc: "4.22E+010"

Acq. Time: "6:32:13 AM"

Method: "MS, Liqueur - IGA"

Peak Height: "100.00 cps"

Peak Width: "0.00 sec"

Sampling Width: "3.00 points"

Bandwidth: "50.0 sec"

Resolution: "50.0 min"

Unlabeled RT: "No"

Int. Type: "Valley"

Acquisition Time: "4.31E+001 counts"

Height: "1.33E+004 cps"

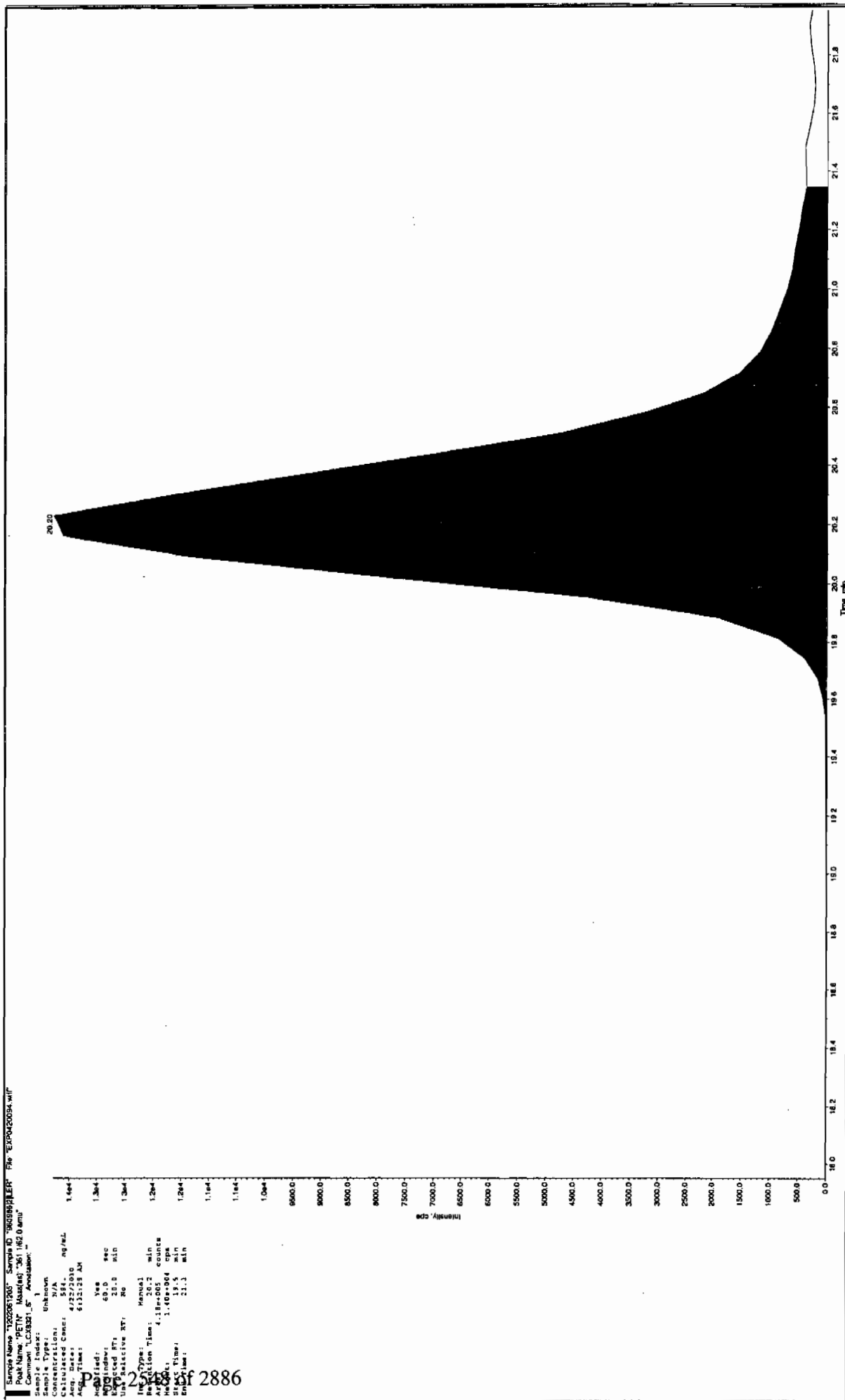
Peak Time: "19.5 min"

Exp. Time: "22.8 min"

Fig 244703086

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after Jan 4/29/10



Sample Name: 1202061203 Sample ID: 18008881203 File: E:\P020004.wif

Peak Name: 'PE1N' Mass(es): '361' (62.0 amu)

Component: 'LCX321\_5' Annotation: ''

Sample Index: 1 Unit: ng/mL

Concentration: 554

Acq. Date: 4/22/2010

Acq. Time: 5:12:12 AM

Modified: Yes

Integration: 60.0 sec

Integration: 20.0 min

Integration: 1.3e4

Integration: 1.3e4

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Integration: 1.3e4

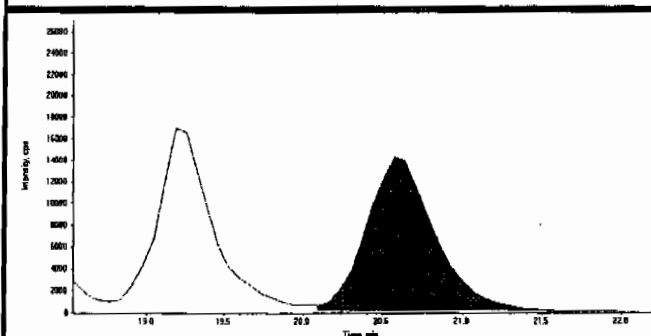
Integration: 1.3e4

Integration: 1.3e4

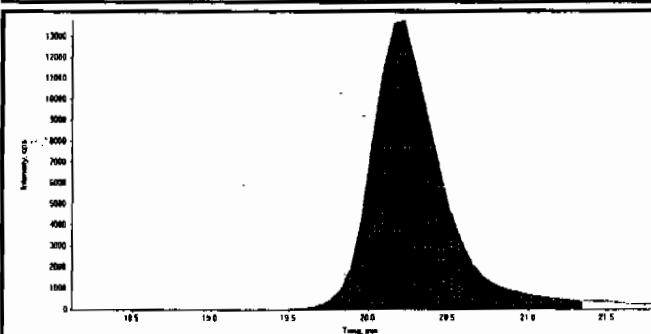
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 28/04/2010 4:35:00 PM  
LCMSMS#3

Data File	EXP0420094.wiff	Acquisition Date	4/22/2010 6:32:29 AM
Sample Name	1202061205	Acquisition Method	8321.dam
Batch/Dilution/Analyst	960986 2 LER	Result Table	042010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.4
Actual RT:	20.6
Area Counts:	4.25e+005
Manual Modification	No
Amount:	396. (ng/mL)
% Accuracy:	N/A



Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	20.2
Area Counts:	4.18e+005
Manual Modification	Yes
Amount:	584. (ng/mL)
% Accuracy:	N/A

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 960982

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 1202061205

Sample Amount 2

Moisture:

Amount Units g

Date Received: 04-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090015.wiff

Date Analyzed: 09-APR-10 10:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	4950	
59229-75-3	2,6-Diamino-4-nitrotoluene	4350	
618-87-1	3,5-Dinitroaniline	4700	
6629-29-4	2,4-Diamino-6-nitrotoluene	4240	
78-30-8	tris(o-cresyl) phosphate	4920	

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Jan 4/12/10

Sample Name: "1202061205" Sample ID: "95098621ER" File: "EXS04090015.wif"

Peak Name: "35-Dinitroaniline" Mass(es): "182.046.0 amu"

Comment: "LCX632125" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: N/A

Calculated Conc: 470.0

Acq. Date: 4/9/2010

Acq. Time: 10:54:45 AM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 2000.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 15.0 sec

Expected RT: 8.14 min

Use Relative RT: No

Int. Type: Valley

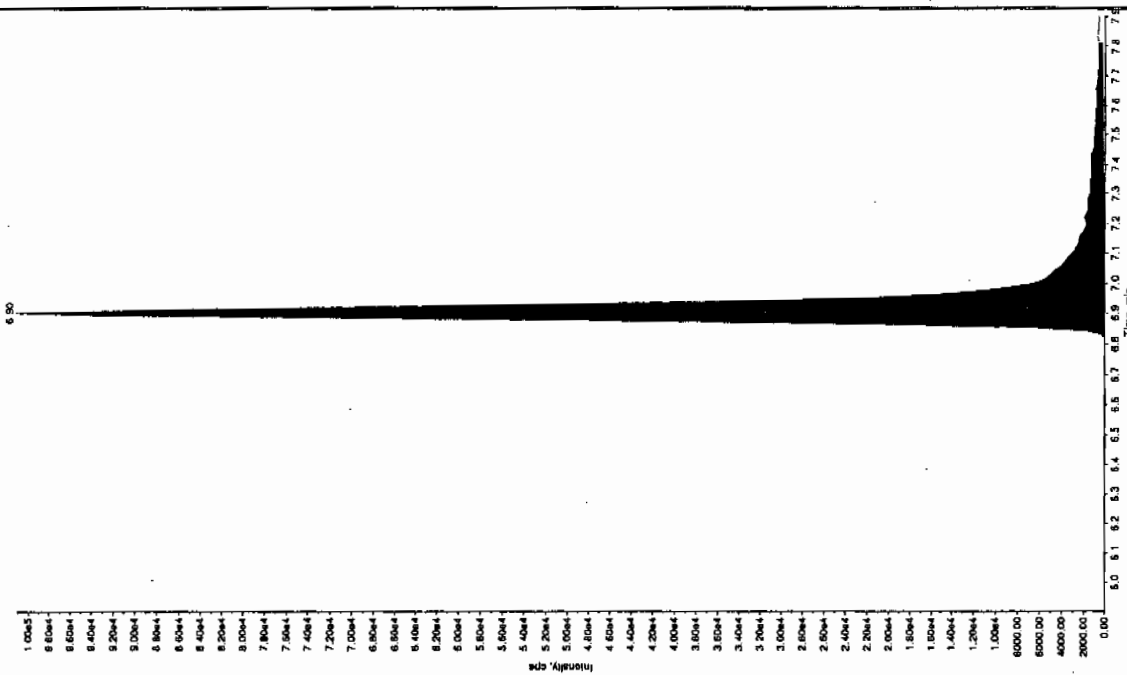
Retention Time: 8.14 min

Area: 3.34e+006 counts

Height: 811967.041 cps

Start Time: 8.06 min

End Time: 8.26 min



Sample Name: "1202061205" Sample ID: "95098621ER" File: "EXS04090015.wif"

Peak Name: "TATB" Mass(es): "257.2704.9 amu"

Comment: "LCX832125" Annotation: ""

Sample Index: 1

Sample Type: Unknown

Concentration: N/A

Calculated Conc: 495.0

Acq. Date: 4/9/2010

Acq. Time: 10:54:45 AM

Modified: No

Proc. Algorithm: IntelliQuan - IQA

Min. Peak Height: 2500.00 cps

Min. Peak Width: 0.00 sec

Smoothing Width: 3 points

RT Window: 30.0 sec

Expected RT: 6.90 min

Use Relative RT: No

Int. Type: Valley

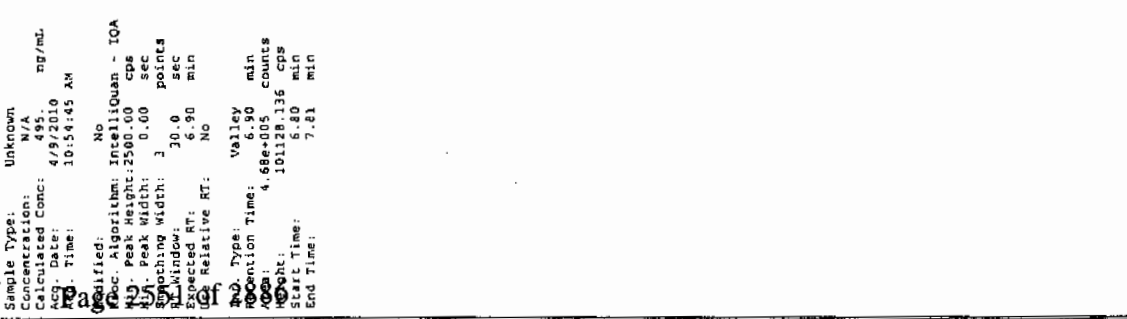
Retention Time: 6.90 min

Area: 4.68e+005 counts

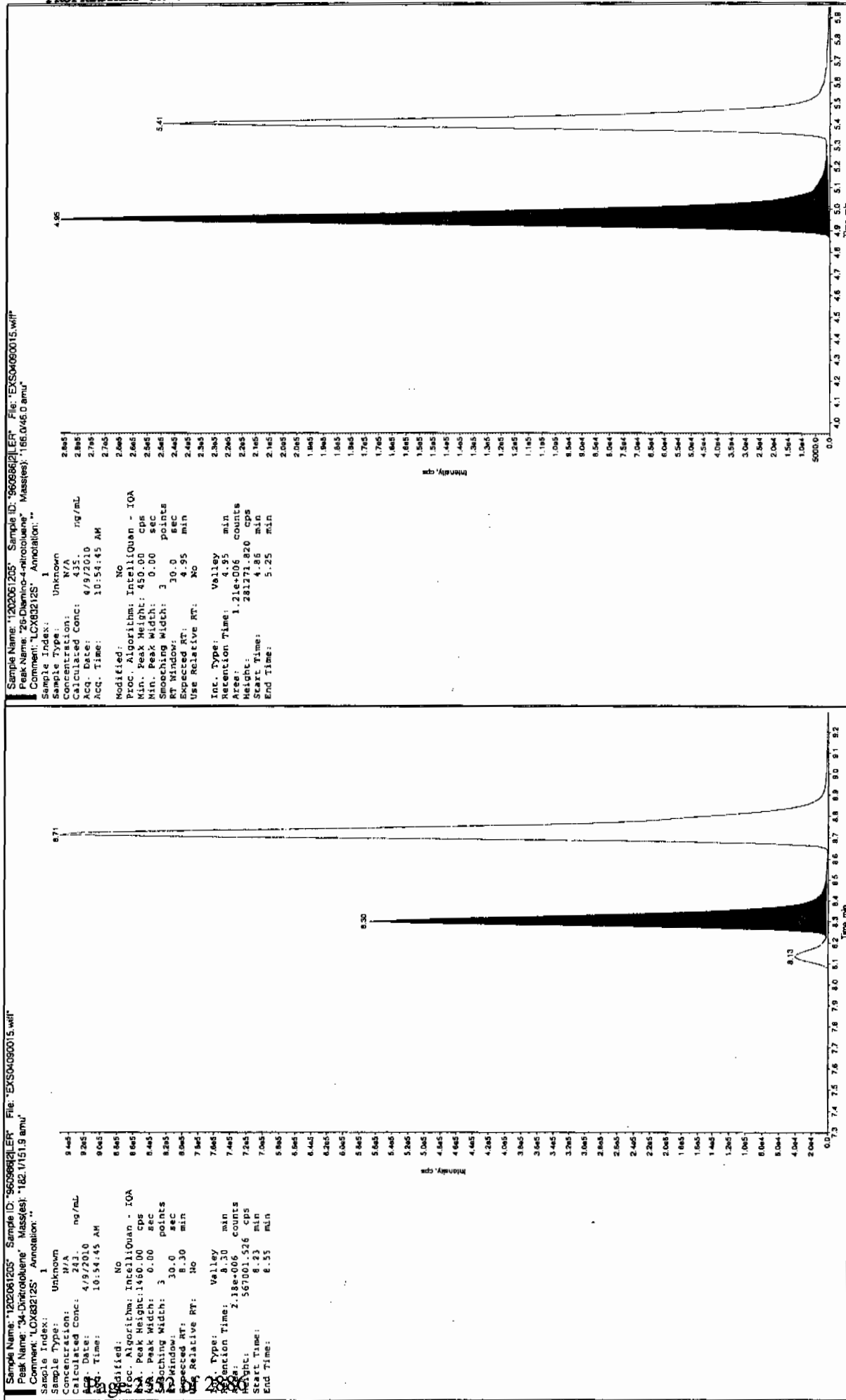
Height: 101128.136 cps

Start Time: 5.80 min

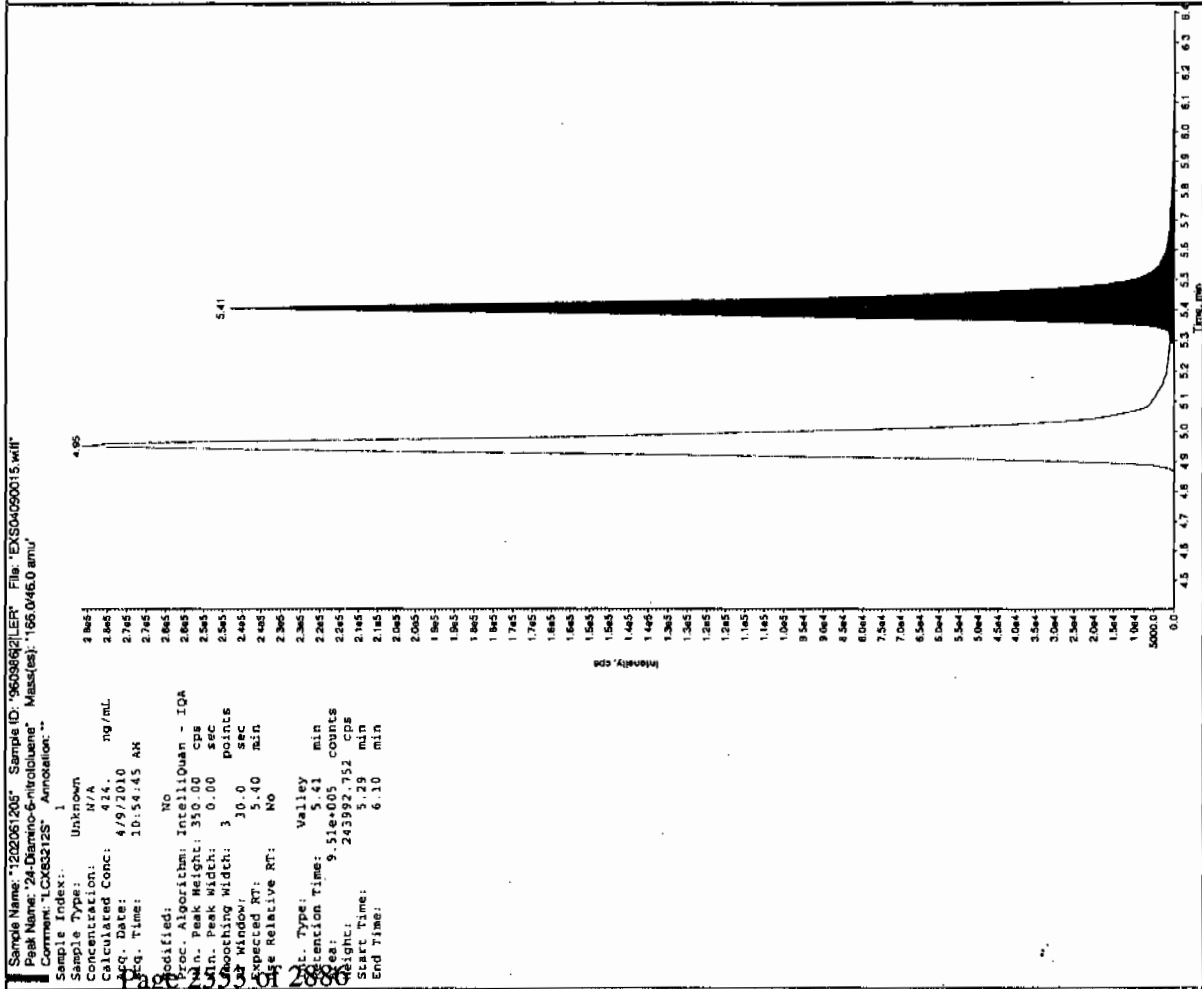
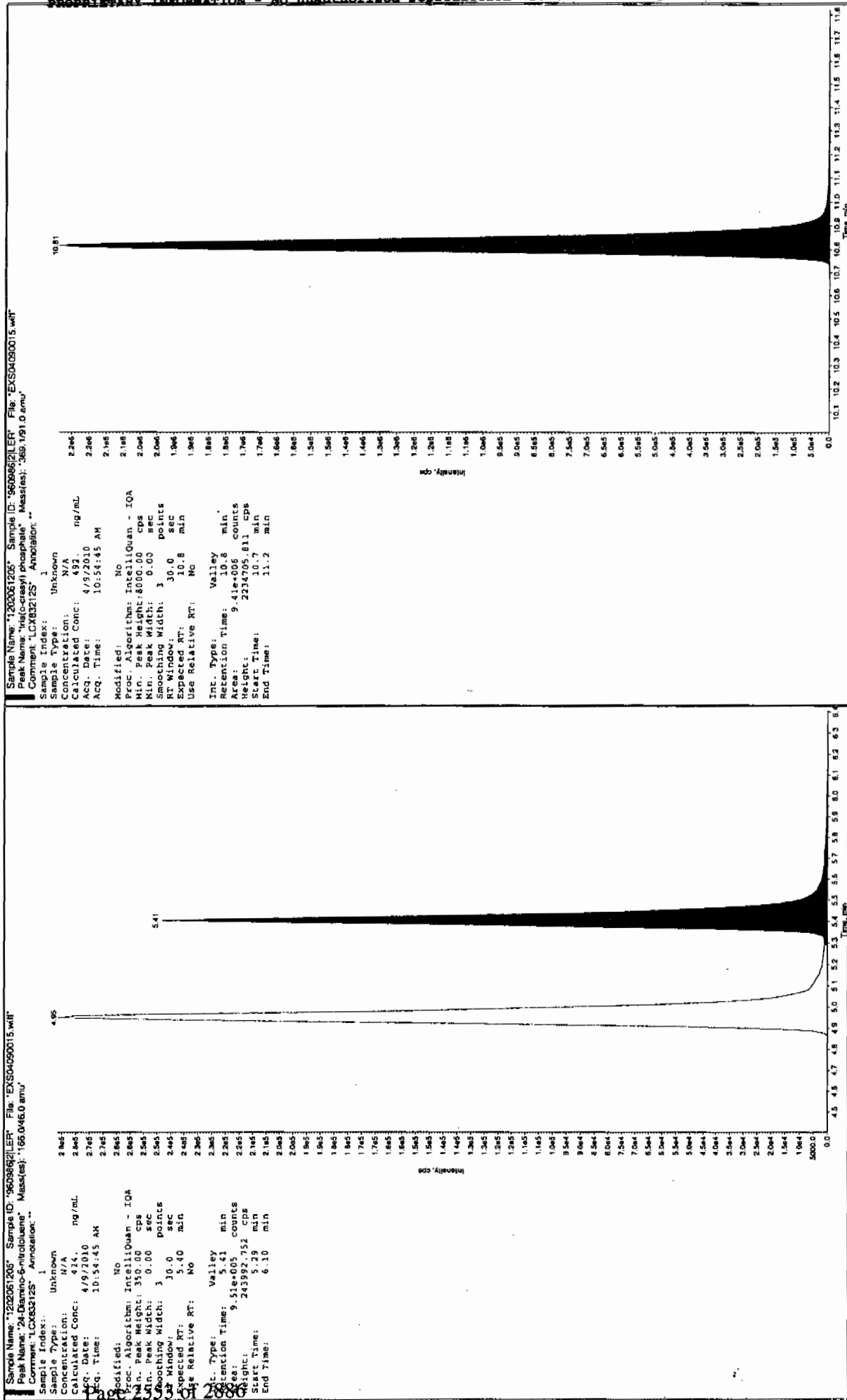
End Time: 7.61 min



Am 04/12/10







1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7407(248506001MS)

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 1202061206

Sample Amount 2

Moisture: 22.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0422013.wiff

Date Analyzed: 22-APR-10 21:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	3000	H
121-14-2	2,4-Dinitrotoluene	5340	H
121-82-4	RDX	4460	H
19406-51-0	4-Amino-2,6-dinitrotoluene	3350	H
2691-41-0	HMX	3870	H
35572-78-2	2-Amino-4,6-dinitrotoluene	4500	H
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	5140	H
78-11-5	PETN	5140	H
88-72-2	o-Nitrotoluene	4980	H
98-95-3	Nitrobenzene	4930	H
99-08-1	m-Nitrotoluene	4880	H
99-35-4	1,3,5-Trinitrobenzene	2300	H
99-65-0	m-Dinitrobenzene	5030	H
99-99-0	p-Nitrotoluene	5030	H

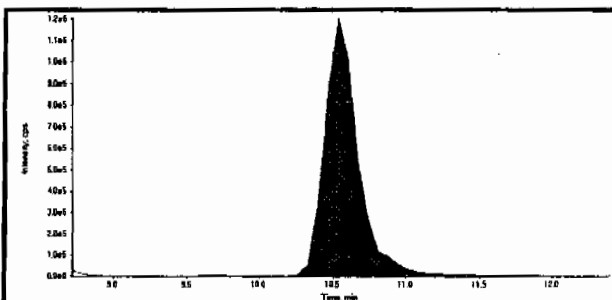
\*Concentration =

Instrument Value	X	$\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$	X	Dilution Factor
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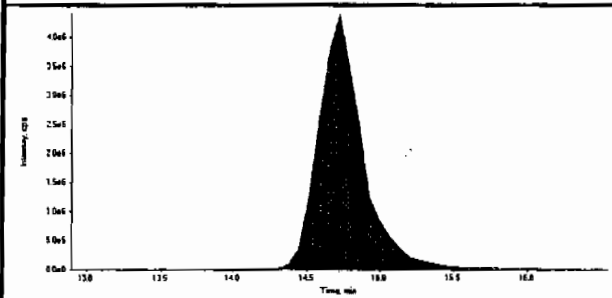
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

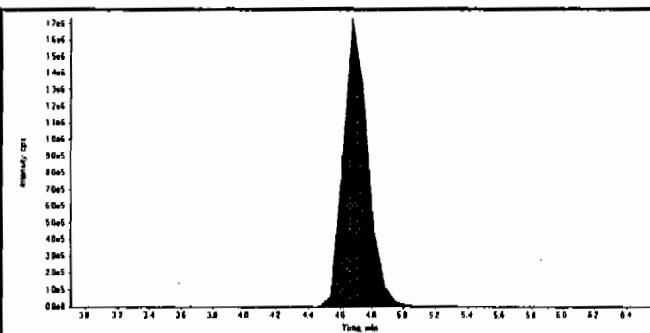
Data File	EXP0422013.wiff	Acquisition Date	4/22/2010 9:10:16 PM
Sample Name	1202061206	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	042210.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



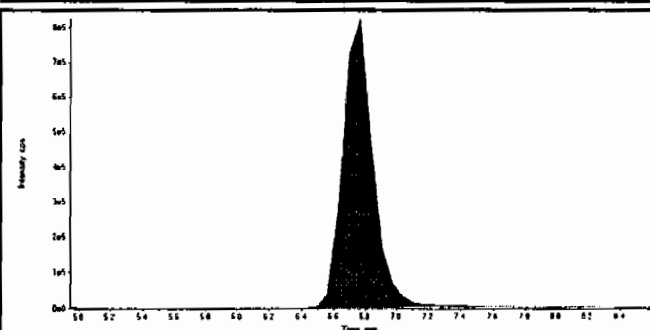
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	19300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.70
Area Counts:	92200000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.73
Actual RT:	4.69
Area Counts:	1.91e+007
Manual Modification	No
Amount:	387. (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.75
Area Counts:	1.11e+007
Manual Modification	No
Amount:	446. (ng/mL)
% Accuracy:	N/A

*LER*  
*5/5/10*  
*Howe*  
*05/04/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422013.wiff	<b>Acquisition Date</b>	4/22/2010 9:10:16 PM
<b>Sample Name</b>	1202061206	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	TNX (219.0/45.0 amu)
	<b>Expected RT:</b>	5.06
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	DNX (235.0/45.0 amu)
	<b>Expected RT:</b>	5.41
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	MNX (251.0/46.0 amu)
	<b>Expected RT:</b>	6.08
	<b>Actual RT:</b>	0.00
	<b>Area Counts:</b>	0.00e+000
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	<b>Expected RT:</b>	9.03
	<b>Actual RT:</b>	9.01
	<b>Area Counts:</b>	6.61e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	230. (ng/mL)
	<b>% Accuracy:</b>	N/A



after for 515110

Sample Name: "202061006" Sample ID: "96039492ER" File: "E05042013.wif"

Peak Name: "202061006" Masses: "227.17209.6 amu"

Sample Index: 1

Sample Type: Unknown

Concentration: 100 ng/mL

Acq. Date: 4/22/2010

Acq. Time: 9:10:16 PM

Injection: 10.0 sec

Injection Volume: 10.0 sec

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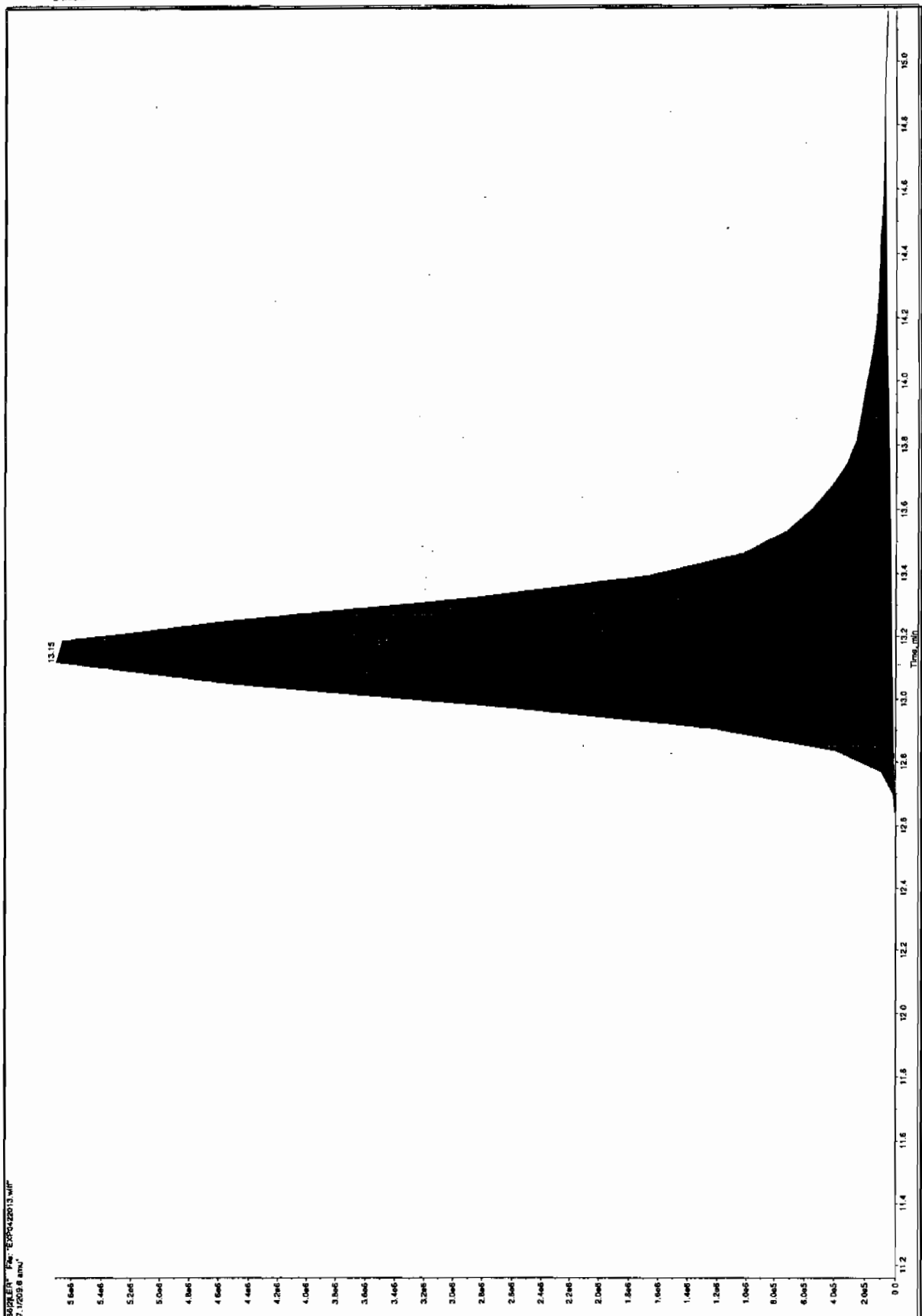
Injection Rate: 10.0 sec

Injection Volume: 10.0 sec

Injection Rate: 10.0 sec

Injection Volume: 10.0 sec

Injection Rate: 10.0 sec



Page 2558 of 2886

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422013.wiff	<b>Acquisition Date</b>	4/22/2010 9:10:16 PM
<b>Sample Name</b>	1202061206	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	13-Dinitrobenzene (168.0/137.9 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	5.36e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	503. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	Tetryl (241.0/180.8 amu)
	<b>Expected RT:</b>	10.7
	<b>Actual RT:</b>	10.7
	<b>Area Counts:</b>	1.46e+004
	<b>Manual Modification</b>	No
	<b>Amount:</b>	N/A (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	246-Trinitrotoluene (227.1/209.8 amu)
	<b>Expected RT:</b>	13.2
	<b>Actual RT:</b>	13.1
	<b>Area Counts:</b>	1.39e+008
	<b>Manual Modification</b>	Yes
	<b>Amount:</b>	300. (ng/mL)
	<b>% Accuracy:</b>	N/A

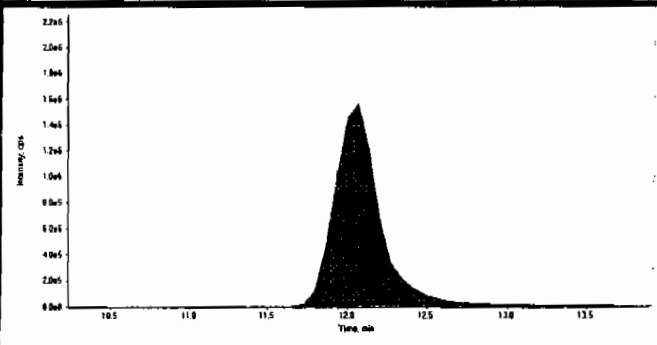
	<b>Compound Name:</b>	Nitrobenzene (123.0/46.0 amu)
	<b>Expected RT:</b>	11.8
	<b>Actual RT:</b>	11.8
	<b>Area Counts:</b>	2.36e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	493. (ng/mL)
	<b>% Accuracy:</b>	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

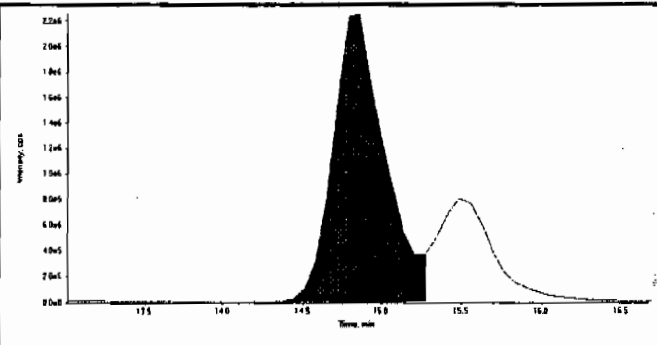
Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422013.wiff	<b>Acquisition Date</b>	4/22/2010 9:10:16 PM
<b>Sample Name</b>	1202061206	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

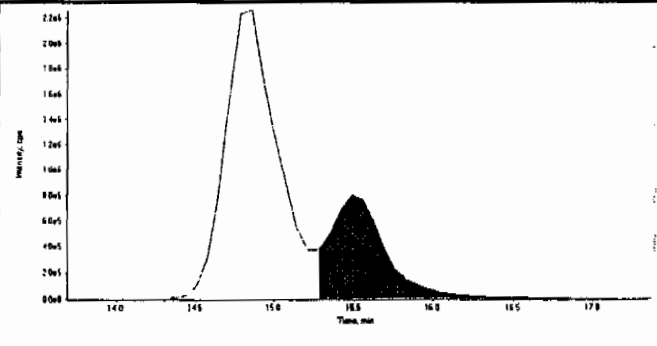
  

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	12.1
	Actual RT:	12.1
	Area Counts:	3.16e+007
	Manual Modification	No
	Amount:	249. (ng/mL)
	% Accuracy:	N/A

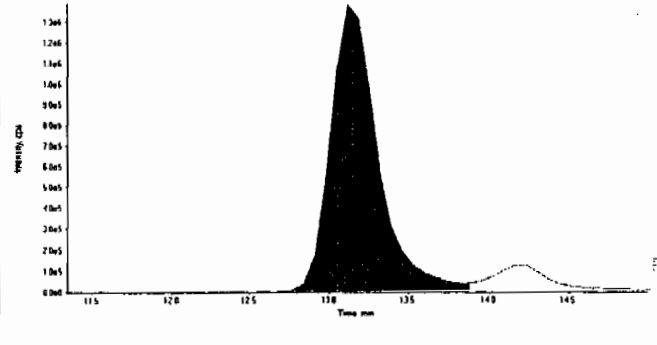
  

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	14.8
	Actual RT:	14.8
	Area Counts:	5.17e+007
	Manual Modification	No
	Amount:	514. (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	Expected RT:	15.5
	Actual RT:	15.5
	Area Counts:	1.93e+007
	Manual Modification	No
	Amount:	534. (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	Expected RT:	13.2
	Actual RT:	13.1
	Area Counts:	2.91e+007
	Manual Modification	No
	Amount:	335. (ng/mL)
	% Accuracy:	N/A

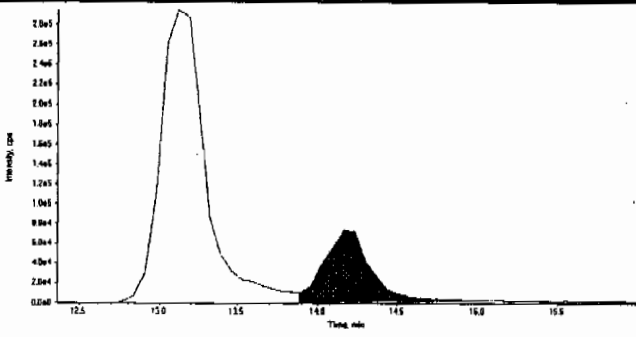


GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

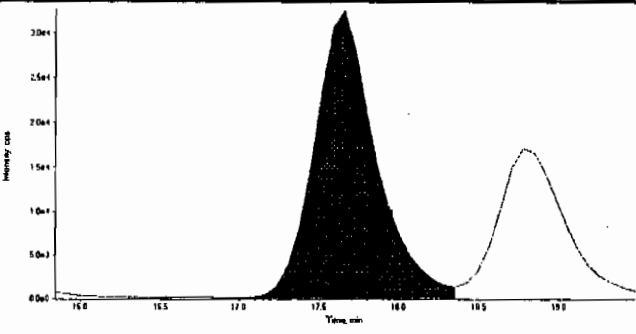
Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422013.wiff	<b>Acquisition Date</b>	4/22/2010 9:10:16 PM
<b>Sample Name</b>	1202061206	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

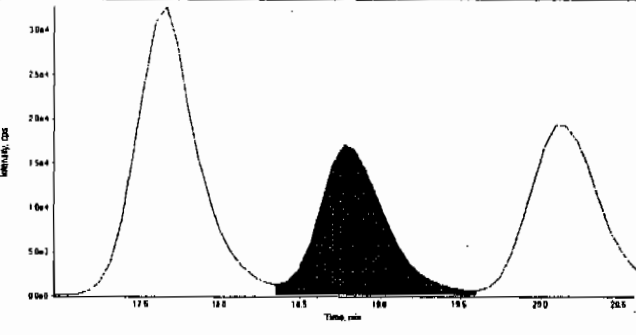
  

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	14.2
	<b>Area Counts:</b>	1.49e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	450. (ng/mL)
	<b>% Accuracy:</b>	N/A

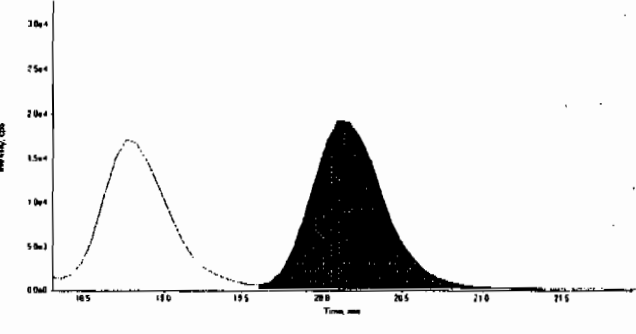
  

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	17.6
	<b>Area Counts:</b>	8.84e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	498. (ng/mL)
	<b>% Accuracy:</b>	N/A

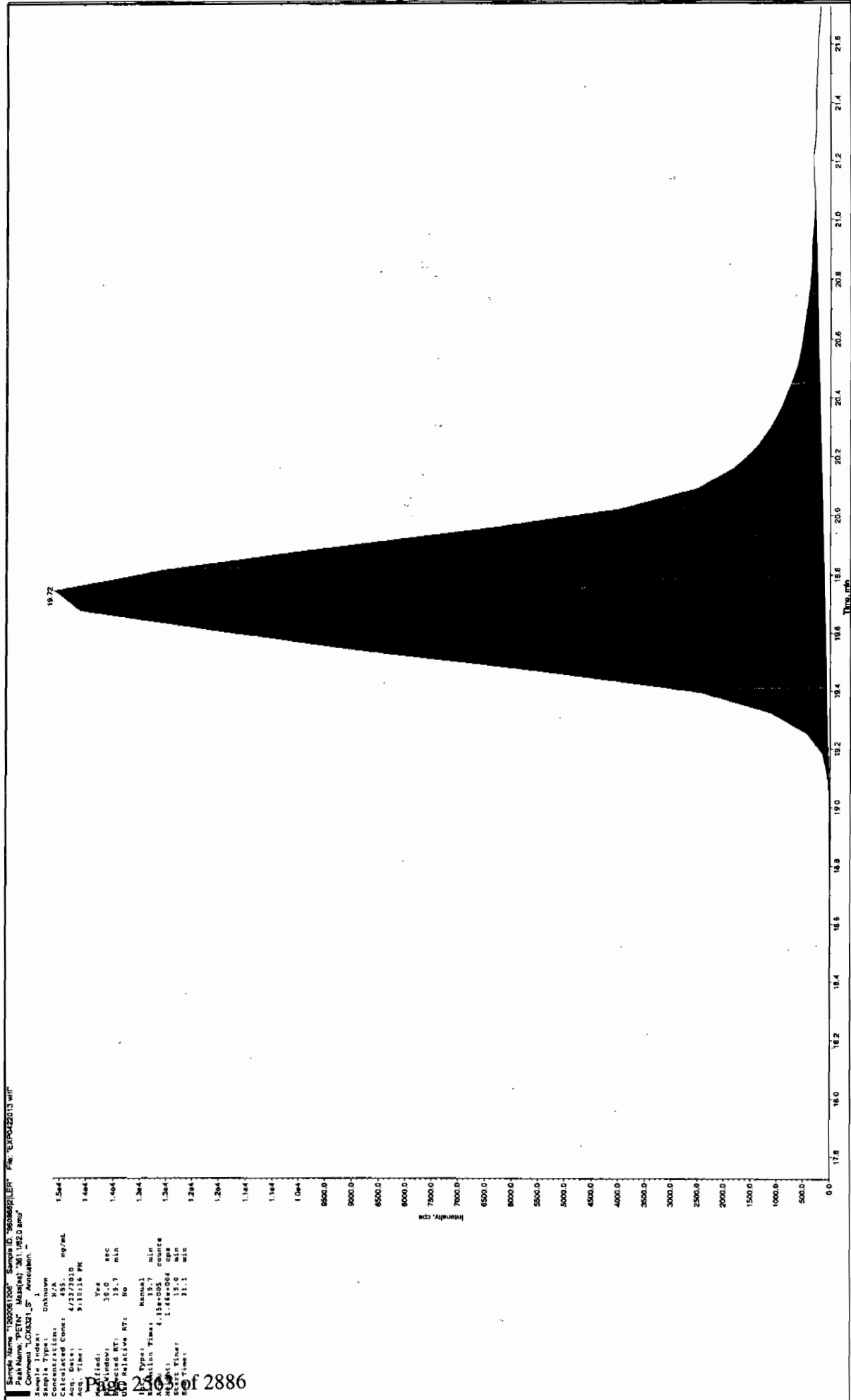
	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	18.8
	<b>Area Counts:</b>	5.01e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	503. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	20.1
	<b>Area Counts:</b>	6.20e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	488. (ng/mL)
	<b>% Accuracy:</b>	N/A



after scan 51510



Sample Name: 1202061200 Sample ID: 1202061200 File: E:\PM22013.wif

Peak Name: PETN Mass(es): 361.1622 amu

Comment: LC03321\_S Annotation: -

Sample Index: 1

Sample Name: Unknown

Concentration: 3/A

Calculated Conc: 195

Acq. Date: 2/22/2010

Acq. Time: 21:01:16 PM

Acq. Method: Yes

Acq. Window: 35.0 sec

Acq. Delay: 15.7 min

Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

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Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

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Acq. Delay RT: 30

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Acq. Delay RT: 30

Acq. Delay RT: 30

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Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

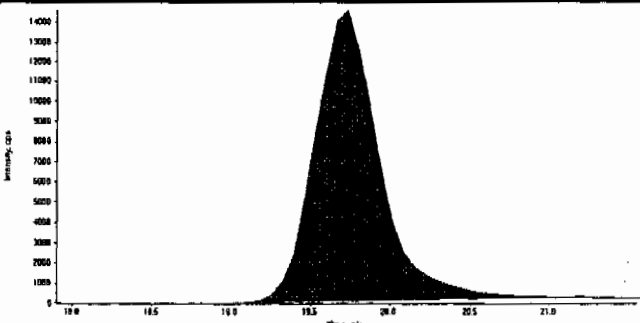
Acq. Delay RT: 30

Acq. Delay RT: 30

Acq. Delay RT: 30

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Data File	EXP0422013.wiff	Acquisition Date	4/22/2010 9:10:16 PM
Sample Name	1202061206	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	042210.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown
		Compound Name:	PETN (361.1/62.0 amu)
		Expected RT:	19.7
		Actual RT:	19.7
		Area Counts:	4.15e+005
		Manual Modification	Yes
		Amount:	514. (ng/mL)
		% Accuracy:	N/A

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7407(248506001MS)

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 1202061206

Sample Amount 2

Moisture: 22.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090017.wiff

Date Analyzed: 09-APR-10 11:26

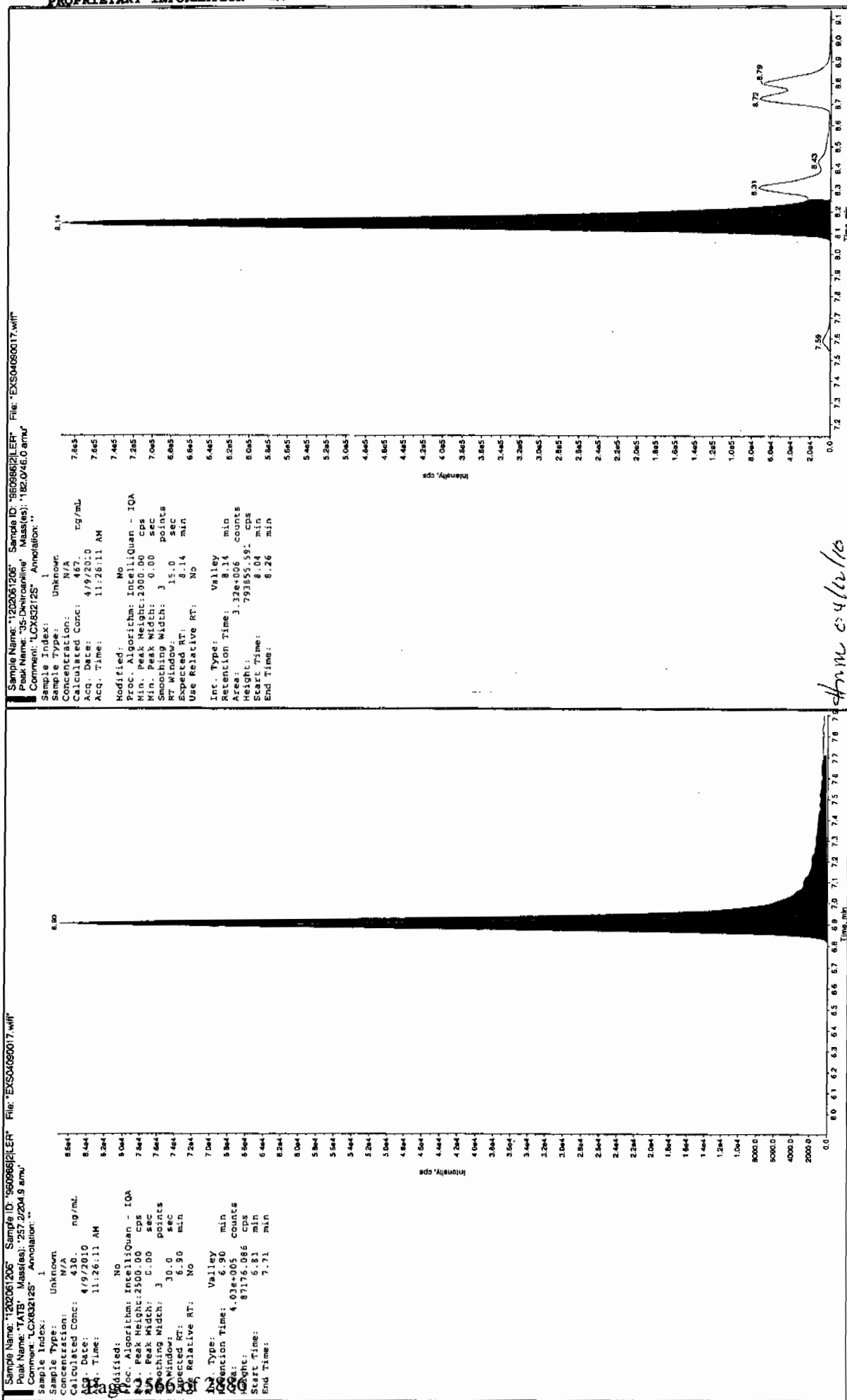
Units: ug/kg

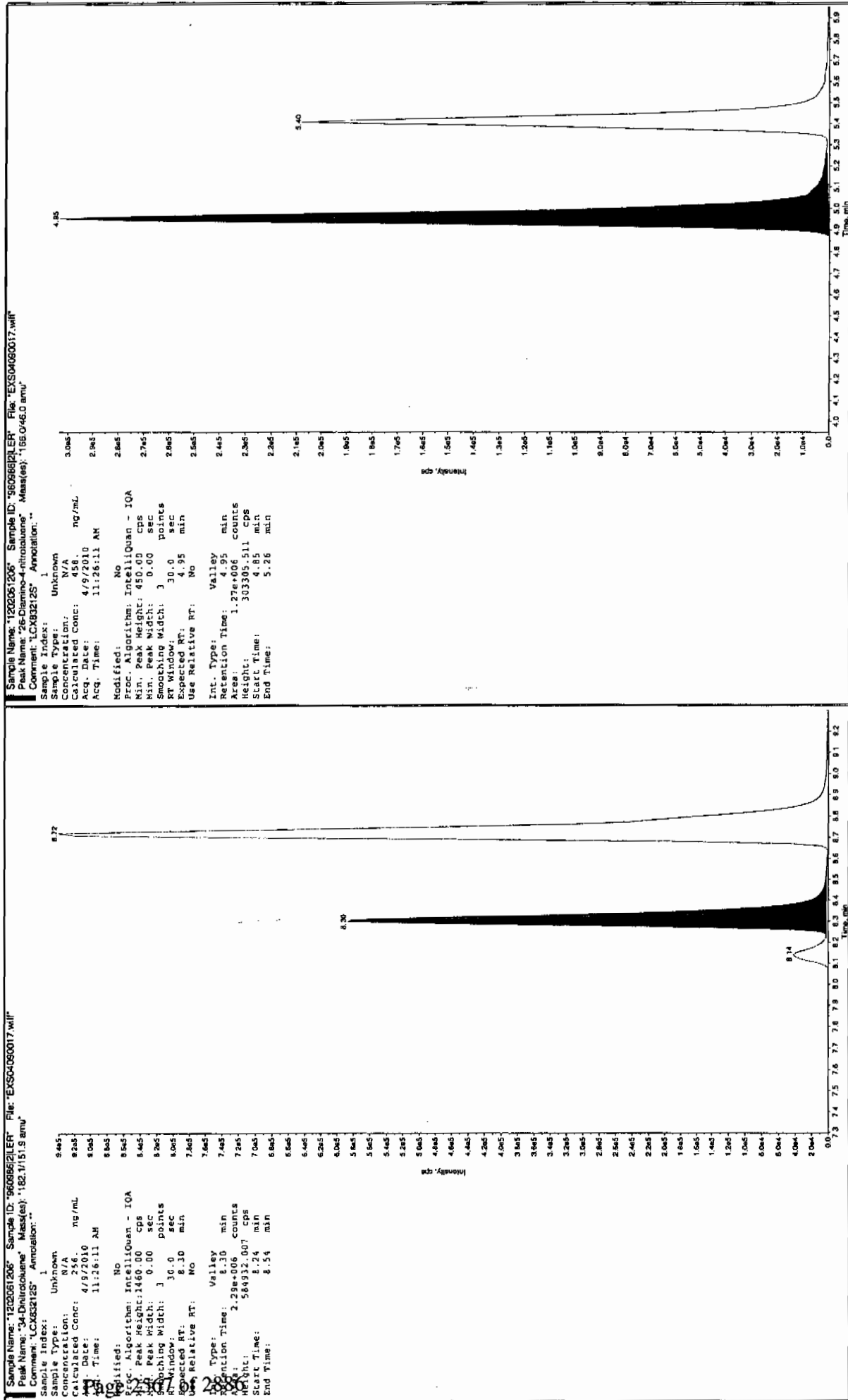
Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	4300	
59229-75-3	2,6-Diamino-4-nitrotoluene	4580	
618-87-1	3,5-Dinitroaniline	4670	
6629-29-4	2,4-Diamino-6-nitrotoluene	3580	
78-30-8	tris(o-cresyl) phosphate	5040	

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

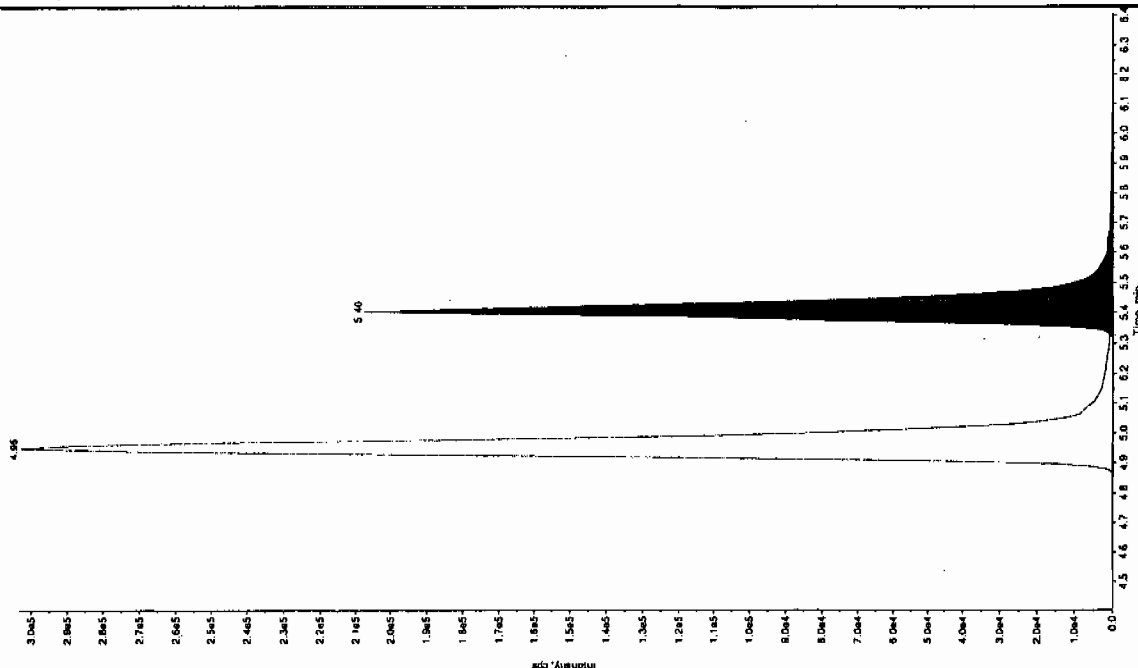
Jan 4/12/10





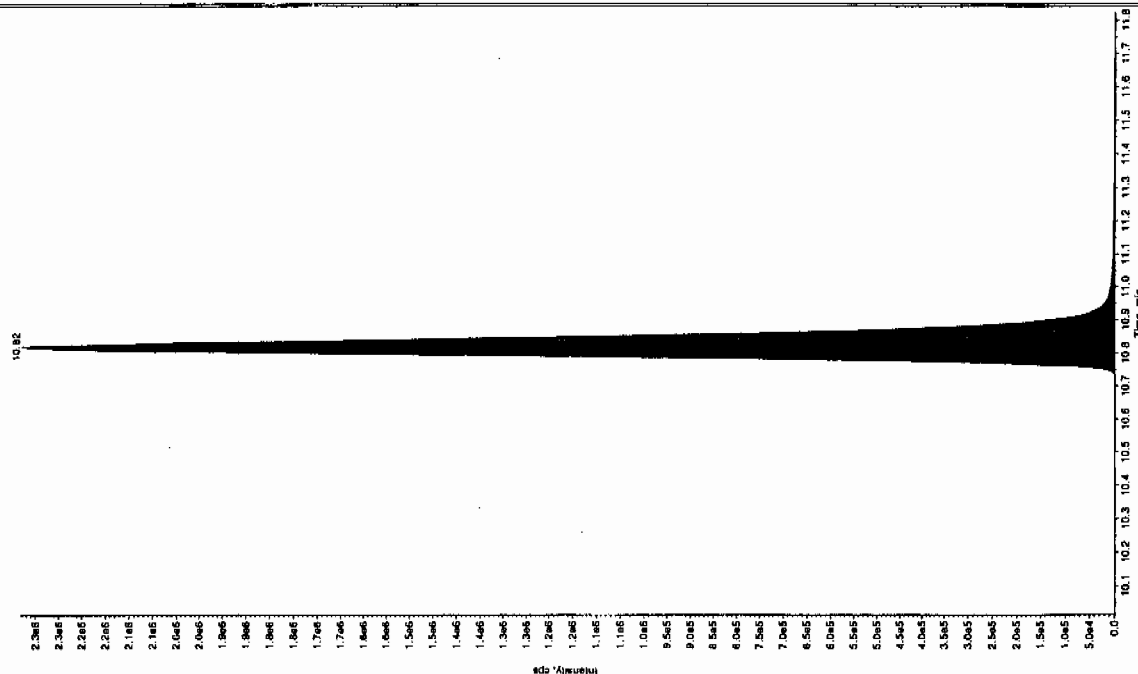
Sample Name: "1202051205" Sample ID: "85098921L" File: "EXS04080017.wif"  
 Peak Name: "24-Diamino-6-methylthio" Mass(es): "166.046.0 m/z"  
 Comment: "LCX83212S" Annulation: "

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 358. ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 11:26:11 AM  
 Modified: NO  
 Proc. Algorithm: InCelliQuan - IQA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 1 points  
 RT Window: 30.0 sec  
 Expected RT: 5.40 min  
 Use Relative RT: NO  
 Int. Type: Valley  
 Retention Time: 5.40 min  
 Area: 8.05e+005 counts  
 Height: 207564.713 cps  
 Start Time: 5.32 min  
 End Time: 5.90 min



\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 504. ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 11:26:11 AM  
 Modified: NO  
 Proc. Algorithm: InCelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: NO  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 9.61e+006 counts  
 Height: 2311410.889 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min





1  
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7407(248506001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 1202061207

Sample Amount 2

Moisture: 22.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0422014.wiff

Date Analyzed: 22-APR-10 21:36

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	2600	H
121-14-2	2,4-Dinitrotoluene	4590	H
121-82-4	RDX	4820	H
19406-51-0	4-Amino-2,6-dinitrotoluene	2580	H
2691-41-0	HMX	4410	H
35572-78-2	2-Amino-4,6-dinitrotoluene	4030	H
479-45-8	Tetryl	500	HU
606-20-2	2,6-Dinitrotoluene	4390	H
78-11-5	PETN	5310	H
88-72-2	o-Nitrotoluene	4410	H
98-95-3	Nitrobenzene	4250	H
99-08-1	m-Nitrotoluene	4480	H
99-35-4	1,3,5-Trinitrobenzene	1460	H
99-65-0	m-Dinitrobenzene	4440	H
99-99-0	p-Nitrotoluene	4300	H

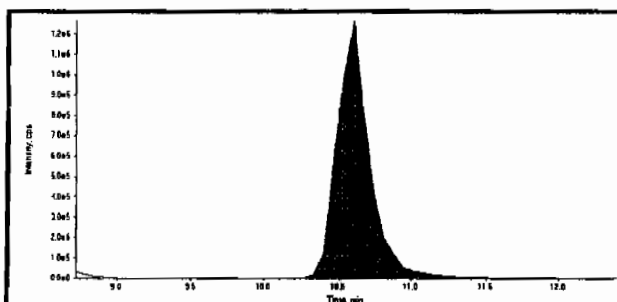
\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

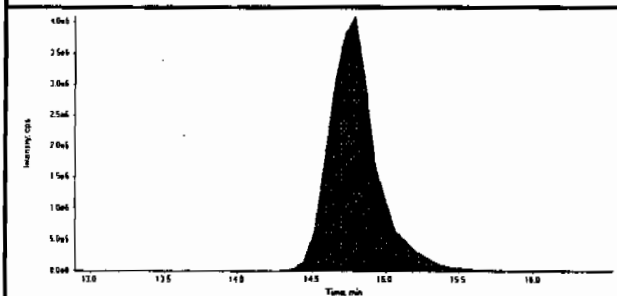
GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

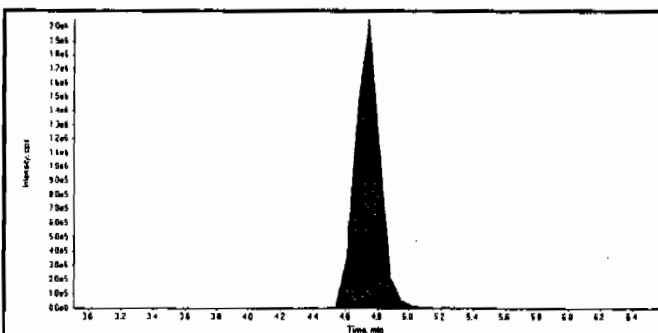
Data File	EXP0422014.wiff	Acquisition Date	4/22/2010 9:36:15 PM
Sample Name	1202061207	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	042210.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown



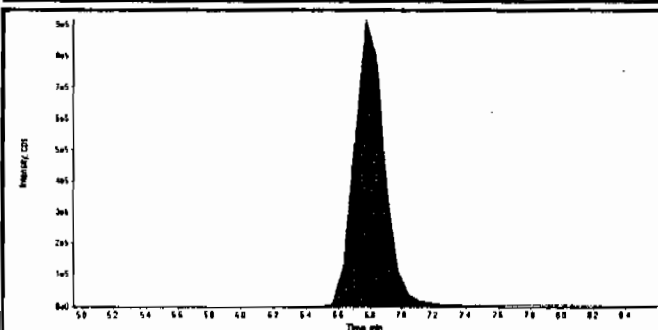
Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	19800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	89800000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	



Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.73
Actual RT:	4.74
Area Counts:	2.23e+007
Manual Modification	No
Amount:	441. (ng/mL)
% Accuracy:	N/A



Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.77
Actual RT:	6.79
Area Counts:	1.23e+007
Manual Modification	No
Amount:	482. (ng/mL)
% Accuracy:	N/A

*LER*  
*5/5/10*

*HNW*  
*05/07/10*

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422014.wiff	<b>Acquisition Date</b>	4/22/2010 9:36:15 PM
<b>Sample Name</b>	1202061207	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	TNX (219.0/45.0 amu)
	Expected RT:	5.06
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	DNX (235.0/45.0 amu)
	Expected RT:	5.41
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

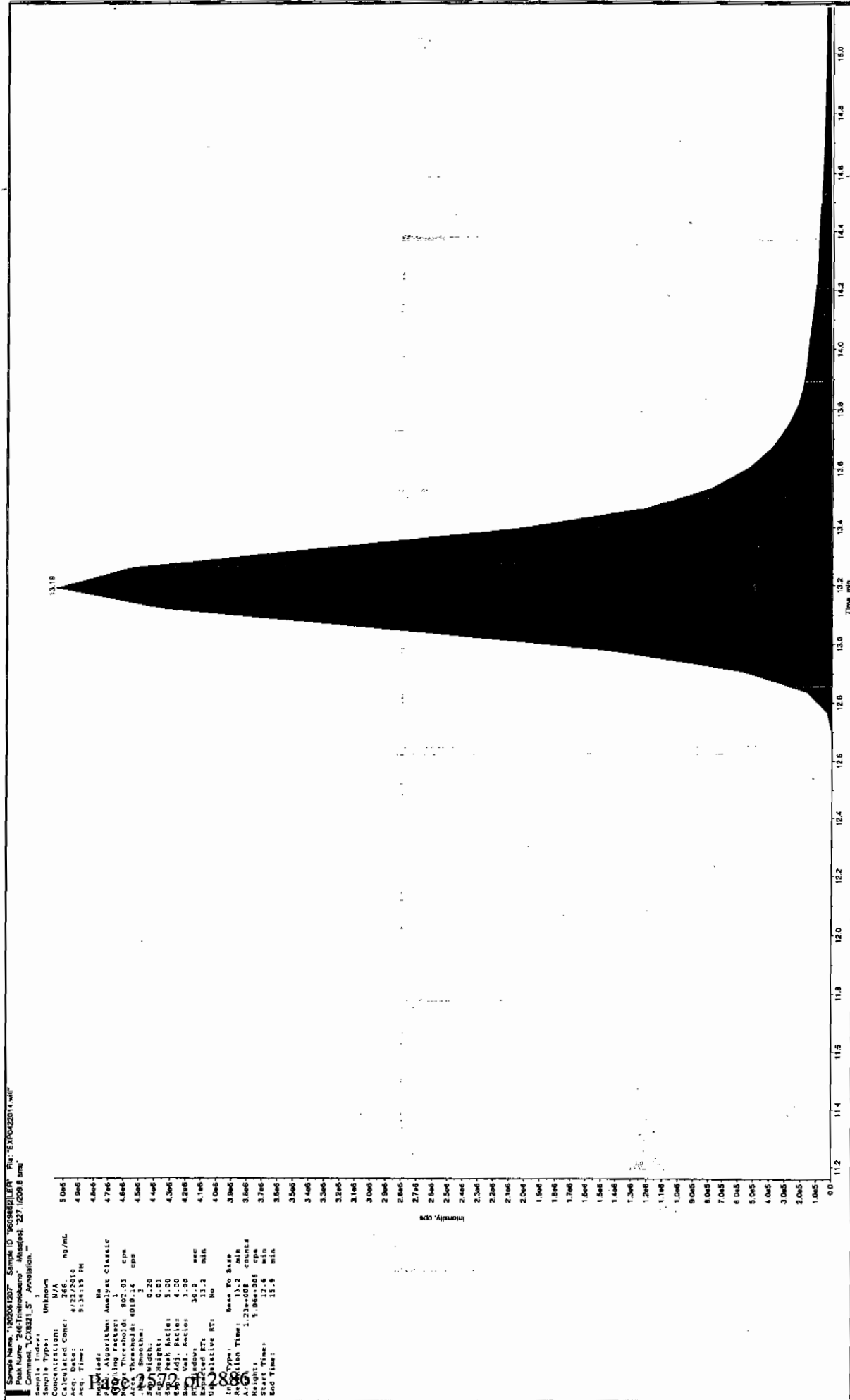
  

	<b>Compound Name:</b>	MNX (251.0/46.0 amu)
	Expected RT:	6.08
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	<b>Compound Name:</b>	135-Trinitrobenzene (213.0/182.8 amu)
	Expected RT:	9.03
	Actual RT:	9.04
	Area Counts:	4.54e+007
	Manual Modification	No
	Amount:	146. (ng/mL)
	% Accuracy:	N/A

Before 844 515710



Sample Name: 1200081207 Sample ID: 8056861117 File: E:\0422014.mf

Peak Name: 246-TritonX-100 Masses: 227.1209.8 amu

Command: LC8321.S Annotation: =

Sample Index: 1

Sample Name: 1200081207

Sample ID: 8056861117

File: E:\0422014.mf

Peak Name: 246-TritonX-100

Masses: 227.1209.8 amu

Command: LC8321.S

Annotation: =

Sample Index: 1

Sample Name: 1200081207

Sample ID: 8056861117

File: E:\0422014.mf

Peak Name: 246-TritonX-100

Masses: 227.1209.8 amu

Command: LC8321.S

Annotation: =

Sample Index: 1

Sample Name: 1200081207

Sample ID: 8056861117

File: E:\0422014.mf

Peak Name: 246-TritonX-100

Masses: 227.1209.8 amu

Command: LC8321.S

Annotation: =

Sample Index: 1

Sample Name: 1200081207

Sample ID: 8056861117

File: E:\0422014.mf

Peak Name: 246-TritonX-100

Masses: 227.1209.8 amu

Command: LC8321.S

Annotation: =

Sample Index: 1

Sample Name: 1200081207

Sample ID: 8056861117

File: E:\0422014.mf

Peak Name: 246-TritonX-100

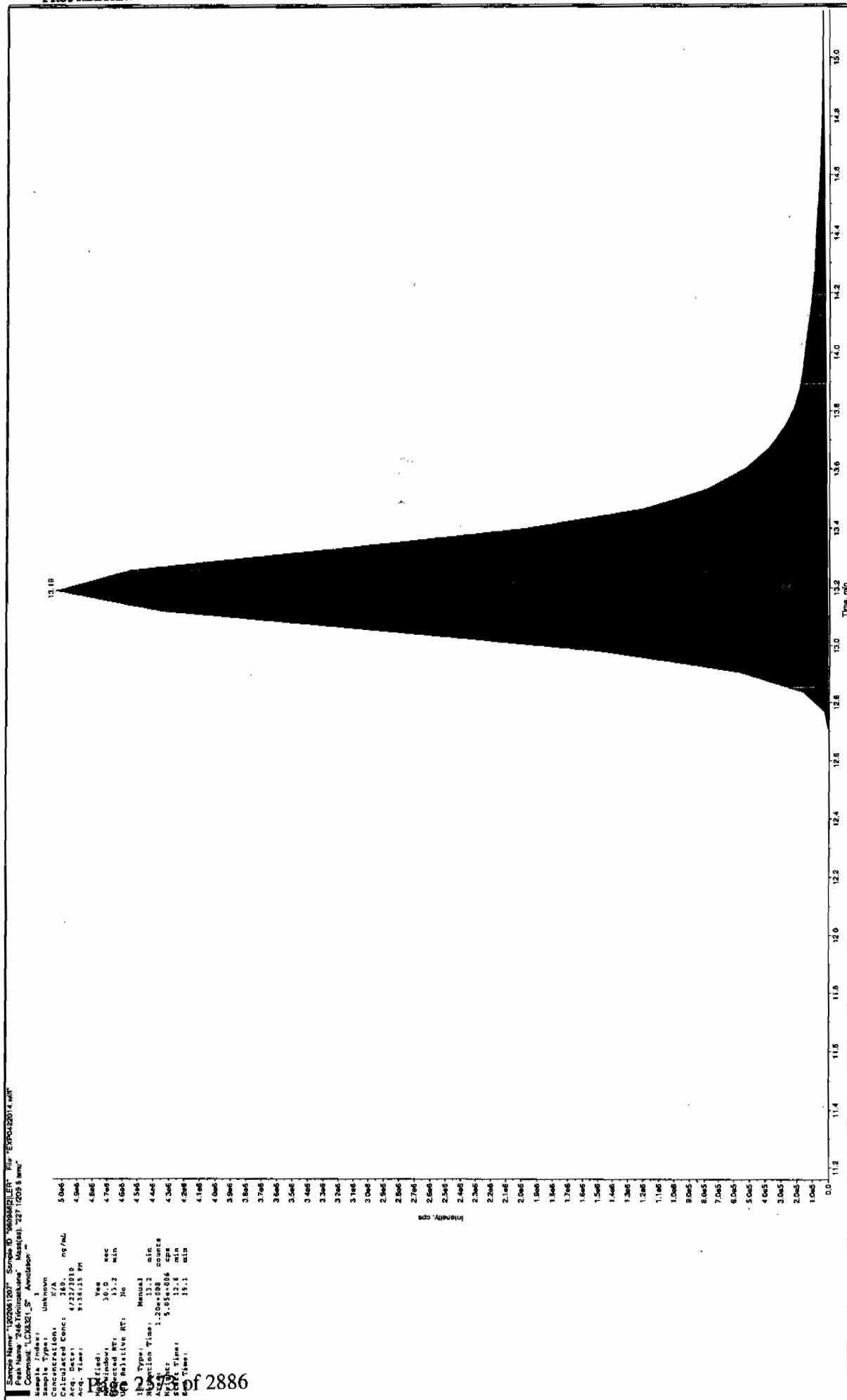
Masses: 227.1209.8 amu

Command: LC8321.S

Annotation: =

\*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

after scan 57510



Sample Name: 1202041207 Sample ID: 960304021207 File: E:\P0122014.wit  
 Peak Name: 246-Trinitrochlore Mass(es): 227 (209.8 amu)  
 Command: LCMS321\_S Acquisition =

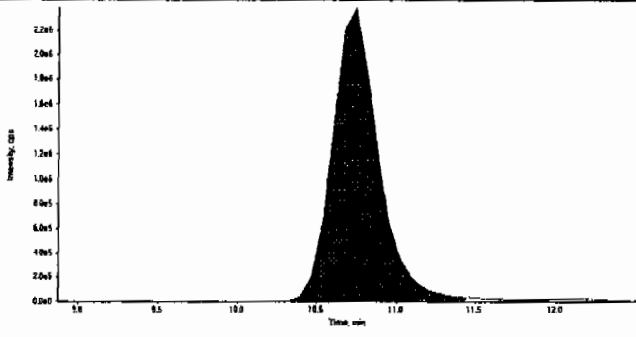
Sample Index: 1  
 Sample Name: 1202041207  
 Concentration: 5.0e4  
 Acq. Date: 4/22/2019  
 Acq. Time: 9:15:15 PM  
 Calculated Conc: 246.0  
 Verified: Yes  
 Window: 30.0 sec  
 Scan Rate: 10.2 min  
 Retention RT: 30  
 Peak Type: Manual  
 Retention Time: 13.2 min  
 Peak Name: 246-Trinitrochlore  
 Mass(es): 227 (209.8 amu)  
 Peak Time: 12.6 min  
 Peak Time: 15.1 min

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

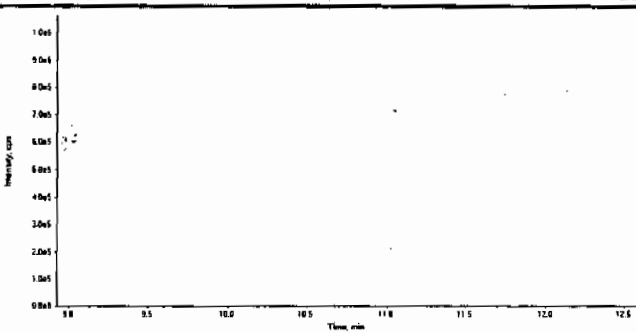
Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Data File EXP0422014.wiff		Acquisition Date	4/22/2010 9:36:15 PM
Sample Name 1202061207		Acquisition Method	8321.dam
Batch Dilution Analyst 960986 2 LER		Result Table	042210.rdb
Procedure Code LCX8321_S		Sample Type	Unknown

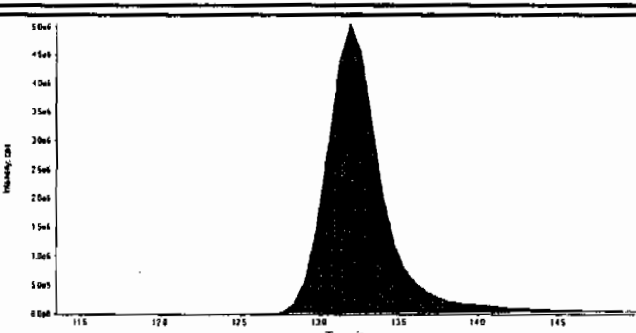
  

	Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
	Expected RT:	10.7
	Actual RT:	10.7
	Area Counts:	4.85e+007
	Manual Modification	No
	Amount:	444. (ng/mL)
	% Accuracy:	N/A

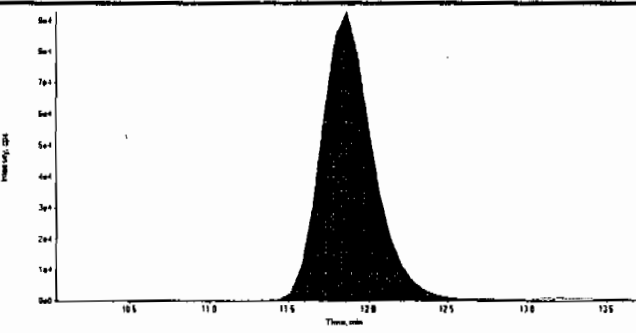
  

	Compound Name:	Tetryl (241.0/180.8 amu)
	Expected RT:	10.7
	Actual RT:	0.00
	Area Counts:	0.00e+000
	Manual Modification	No
	Amount:	N/A (ng/mL)
	% Accuracy:	N/A

	Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
	Expected RT:	13.2
	Actual RT:	13.2
	Area Counts:	1.20e+008
	Manual Modification	Yes
	Amount:	260. (ng/mL)
	% Accuracy:	N/A

	Compound Name:	Nitrobenzene (123.0/46.0 amu)
	Expected RT:	11.8
	Actual RT:	11.8
	Area Counts:	2.08e+006
	Manual Modification	No
	Amount:	425. (ng/mL)
	% Accuracy:	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422014.wiff	<b>Acquisition Date</b>	4/22/2010 9:36:15 PM
<b>Sample Name</b>	1202061207	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

	<b>Compound Name:</b>	34-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	12.1
	<b>Actual RT:</b>	12.1
	<b>Area Counts:</b>	2.76e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	222. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	26-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	14.8
	<b>Actual RT:</b>	14.9
	<b>Area Counts:</b>	4.32e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	439. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	24-dinitrotoluene (182.0/46.0 amu)
	<b>Expected RT:</b>	15.5
	<b>Actual RT:</b>	15.6
	<b>Area Counts:</b>	1.61e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	459. (ng/mL)
	<b>% Accuracy:</b>	N/A

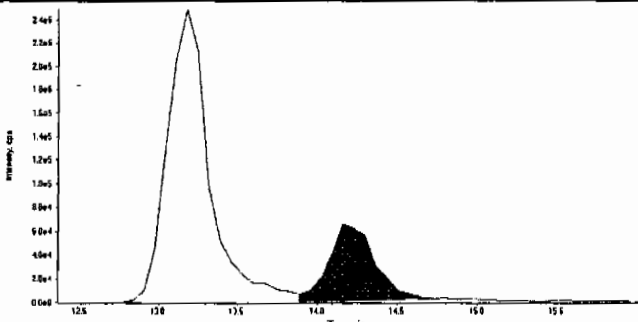
	<b>Compound Name:</b>	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
	<b>Expected RT:</b>	13.2
	<b>Actual RT:</b>	13.2
	<b>Area Counts:</b>	2.19e+007
	<b>Manual Modification</b>	No
	<b>Amount:</b>	258. (ng/mL)
	<b>% Accuracy:</b>	N/A

GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

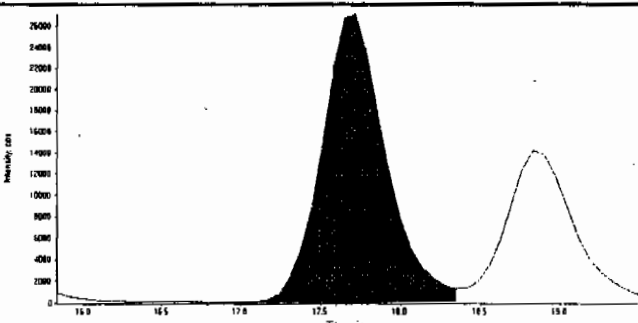
Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

<b>Data File</b>	EXP0422014.wiff	<b>Acquisition Date</b>	4/22/2010 9:36:15 PM
<b>Sample Name</b>	1202061207	<b>Acquisition Method</b>	8321.dam
<b>Batch Dilution Analyst</b>	960986 2 LER	<b>Result Table</b>	042210.rdb
<b>Procedure Code</b>	LCX8321_S	<b>Sample Type</b>	Unknown

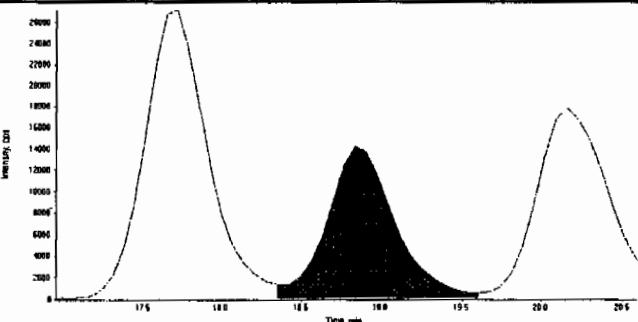
  

	<b>Compound Name:</b>	2-Amino-4,6-dinitrotoluene (197.0/180.0 amu)
	<b>Expected RT:</b>	14.2
	<b>Actual RT:</b>	14.2
	<b>Area Counts:</b>	1.30e+006
	<b>Manual Modification</b>	No
	<b>Amount:</b>	403. (ng/mL)
	<b>% Accuracy:</b>	N/A

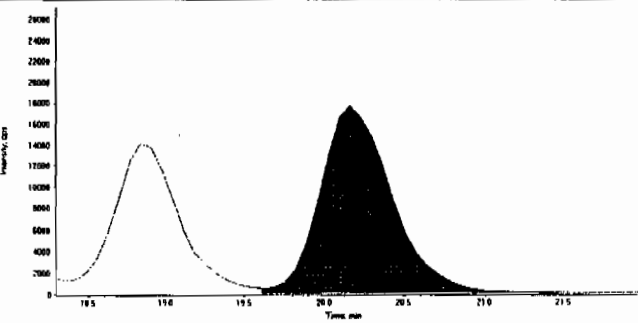
  

	<b>Compound Name:</b>	2-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	17.7
	<b>Actual RT:</b>	17.7
	<b>Area Counts:</b>	7.62e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	441. (ng/mL)
	<b>% Accuracy:</b>	N/A

	<b>Compound Name:</b>	4-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	18.8
	<b>Actual RT:</b>	18.9
	<b>Area Counts:</b>	4.18e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	430. (ng/mL)
	<b>% Accuracy:</b>	N/A

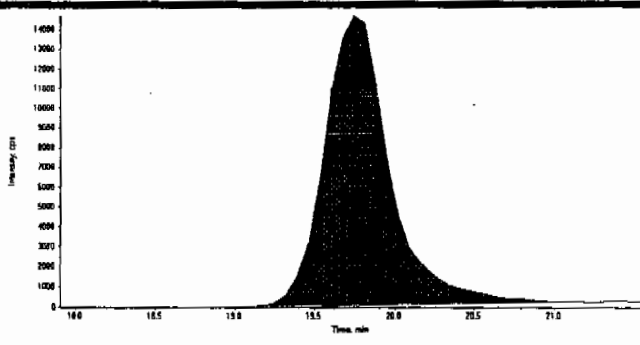
  

	<b>Compound Name:</b>	3-Nitrotoluene (137.0/46.0 amu)
	<b>Expected RT:</b>	20.1
	<b>Actual RT:</b>	20.2
	<b>Area Counts:</b>	5.54e+005
	<b>Manual Modification</b>	No
	<b>Amount:</b>	448. (ng/mL)
	<b>% Accuracy:</b>	N/A



GEL Laboratories, LLC  
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 05/05/2010 1:49:00 PM  
LCMSMS#3

Data File	EXP0422014.wiff	Acquisition Date	4/22/2010 9:36:15 PM
Sample Name	1202061207	Acquisition Method	8321.dam
Batch Dilution Analyst	960986 2 LER	Result Table	042210.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown
		Compound Name:	PETN (361.1/62.0 amu)
		Expected RT:	19.7
		Actual RT:	19.8
		Area Counts:	4.17e+005
		Manual Modification	No
		Amount:	531. (ng/mL)
		% Accuracy:	N/A

1

# High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE36-10-7407(248506001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-2193

Matrix: SOIL

GEL Sample ID: 1202061207

Sample Amount 2

Moisture: 22.9

Amount Units g

Date Received: 03-MAR-10

Extraction Type Sonication

Extraction Batch ID: 960982

Concentrated Extract Volume (mL) 10

Date Extracted: 10-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04090018.wiff

Date Analyzed: 09-APR-10 11:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5030	
59229-75-3	2,6-Diamino-4-nitrotoluene	4120	
618-87-1	3,5-Dinitroaniline	4260	
6629-29-4	2,4-Diamino-6-nitrotoluene	3520	
78-30-8	tris(o-cresyl) phosphate	4580	

\*Concentration =

Instrument Value X  $\frac{\text{Concentrated Extract Volume}}{\text{Sample Amount}}$  X Dilution Factor

Scan 4/12/10

Sample Name: '1202061207' Sample ID: '960986[2]ER' File: 'EXS04090018.wif'  
 Peak Name: 'TATB' Mass(es): '257.2204.9 amu'  
 Comment: 'LCX832125' Annotation: ''

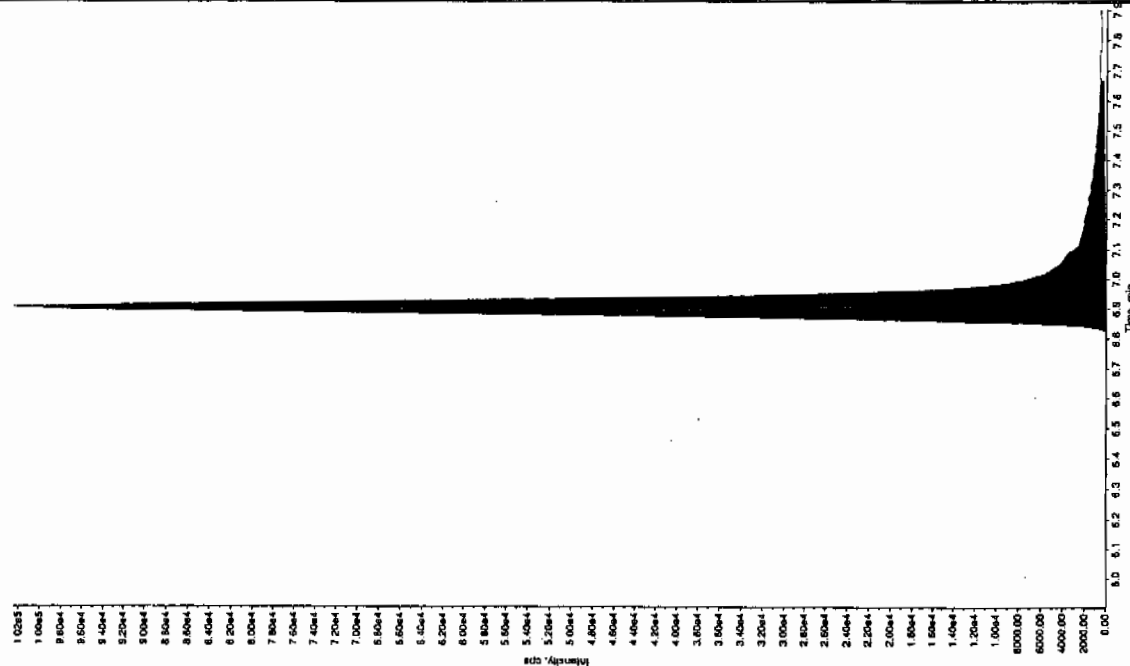
Sample Index: 1

Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 4/9/2010  
 Acq. Date: 4/9/2010  
 Acq. Time: 11:41:54 AM

Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 2500.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec

Expected RT: 6.90 min  
 Use Relative RT: No

Int. Type: Valley  
 Retention Time: 6.90 min  
 Area: 4.75e+005 counts  
 Height: 102479.46 cps  
 Start Time: 6.80 min  
 End Time: 7.07 min



Sample Name: '1202061207' Sample ID: '960986[2]ER' File: 'EXS04090018.wif'  
 Peak Name: '35-Dinitroaniline' Mass(es): '182.046.0 amu'  
 Comment: 'LCX832125' Annotation: ''

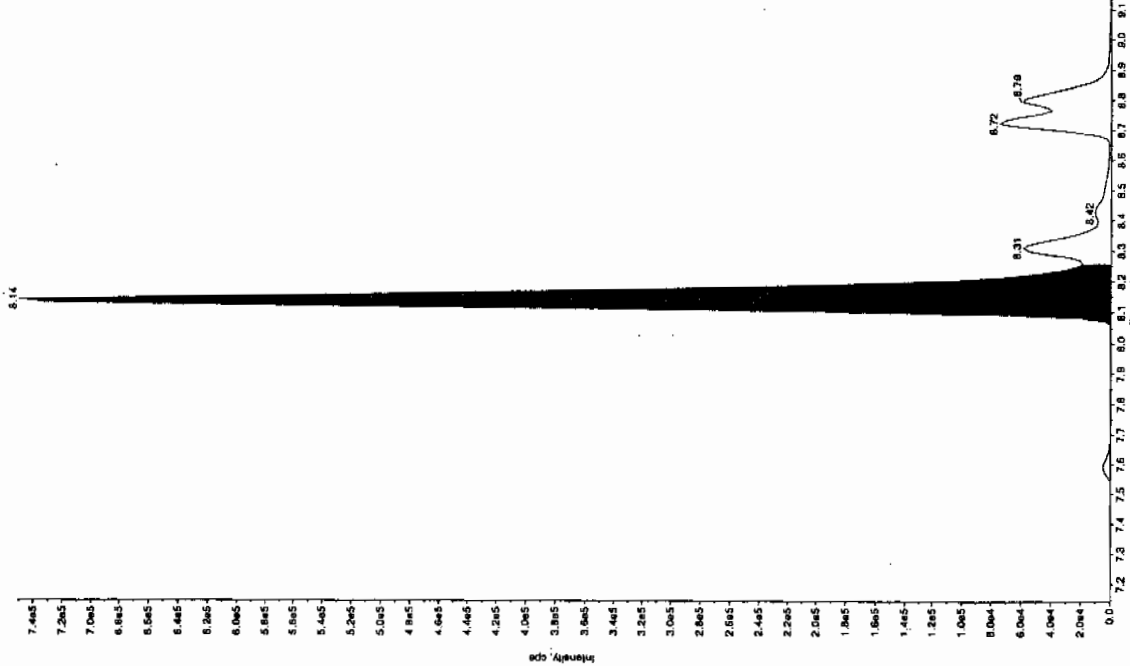
Sample Index: 1

Sample Type: Unknown  
 Concentration: N/A  
 Calculated Conc: 426.  
 Acq. Date: 4/9/2010  
 Acq. Time: 11:41:54 AM

Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 2000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 15.0 sec

Expected RT: 8.14 min  
 Use Relative RT: No

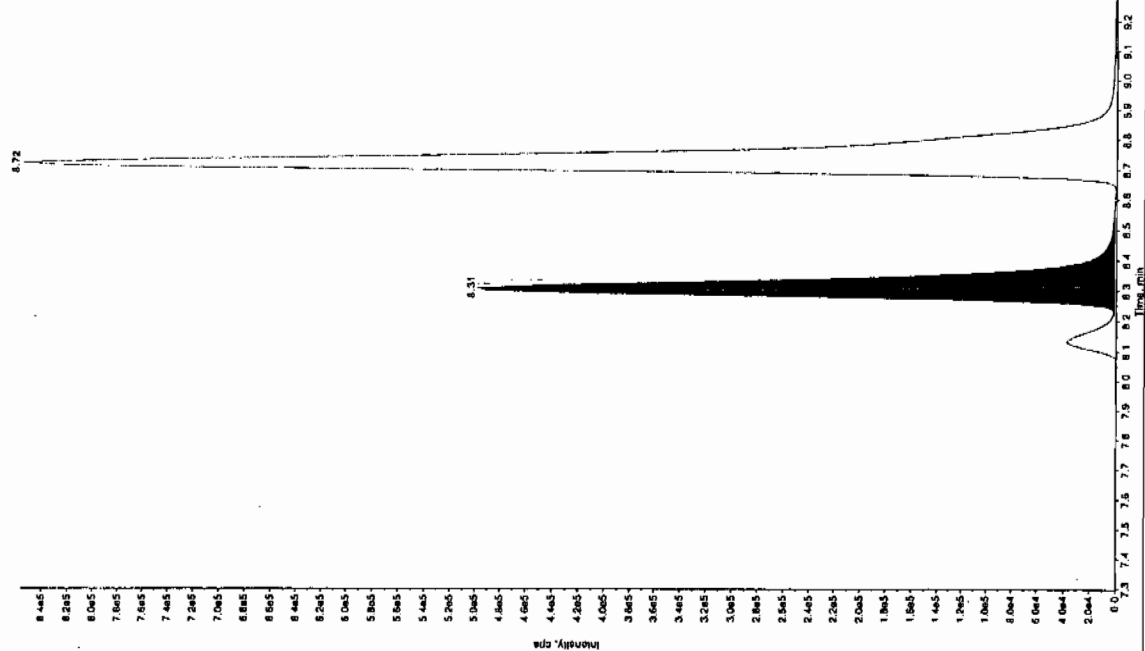
Int. Type: Valley  
 Retention Time: 8.14 min  
 Area: 3.04e+005 counts  
 Height: 750103.394 cps  
 Start Time: 8.04 min  
 End Time: 8.26 min



Scan 4/12/10

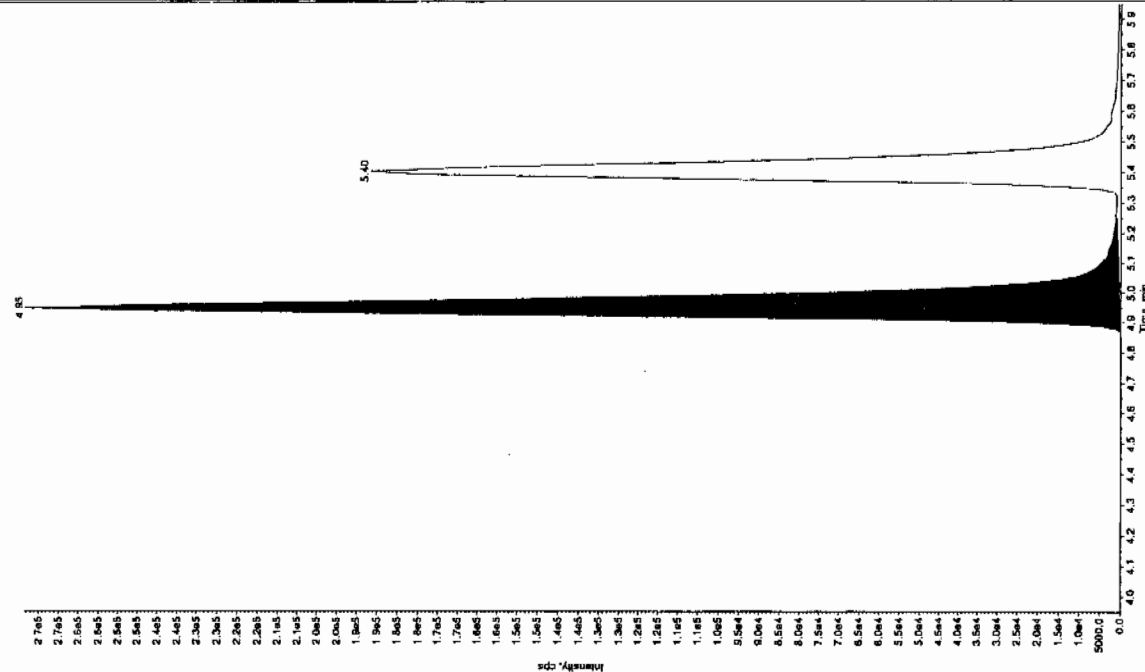
Sample Name: "1202061207" Sample ID: "96098621ER" File: "EXS04090018.wif"  
 Peak Name: "34-Chlorocouene" Mass(es): "102.1715.9 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 221 ng/mL  
 Acq. Date: 4/9/2010  
 Acq. Time: 11:41:54 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 1460.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 8.30 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 8.31 min  
 Area: 1.98e+006 counts  
 Height: 49664.714 cps  
 Start Time: 8.23 min  
 End Time: 8.35 min



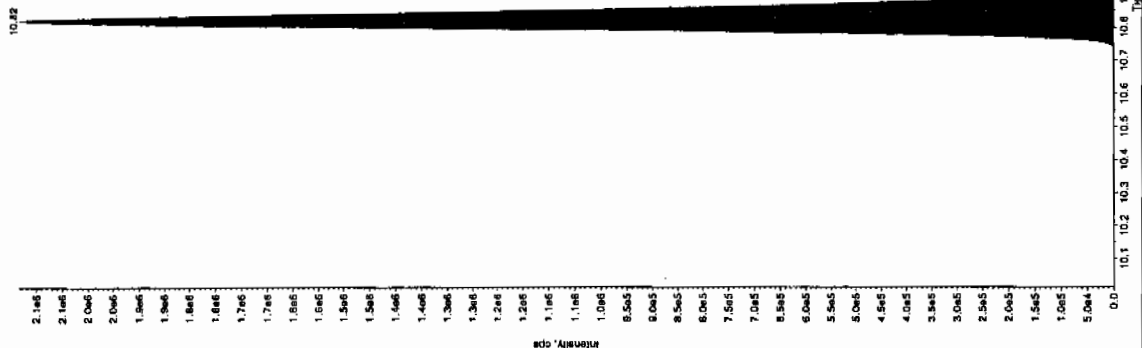
Sample Name: "1202061207" Sample ID: "96098621ER" File: "EXS04090018.wif"  
 Peak Name: "26-Diamino-4-nitrocouene" Mass(es): "166.046.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: N/A  
 Acq. Date: 4/9/2010  
 Acq. Time: 11:41:54 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: 4.95 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 4.95 min  
 Area: 1.15e+006 counts  
 Height: 27313.026 cps  
 Start Time: 4.86 min  
 End Time: 5.25 min



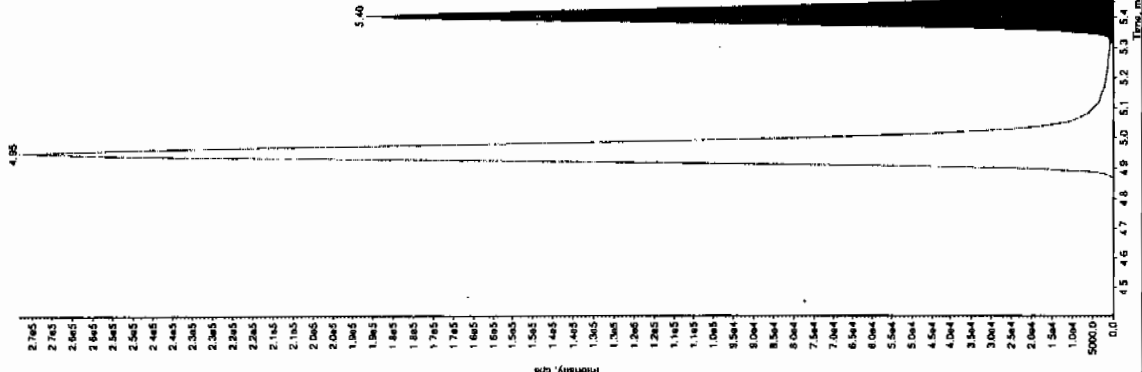
Sample Name: "1202061207" Sample ID: "95098621LER" File: "EXS04090018.wif"  
 Peak Name: "tri(n-o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 458 ng/mL  
 Calculated Conc: 4/9/2010  
 Acq. Date: 11:41:54 AM  
 Acq. Time: 11:41:54 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 8000.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 10.8 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 10.8 min  
 Area: 8.80e+005 counts  
 Height: 21331.043 cps  
 Start Time: 10.7 min  
 End Time: 11.2 min



Sample Name: "1202061207" Sample ID: "95098621LER" File: "EXS04090018.wif"  
 Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"  
 Comment: "LCX832125" Annotation: ""

Sample Index: 1  
 Sample Type: Unknown  
 Concentration: 352 ng/mL  
 Calculated Conc: 4/9/2010  
 Acq. Date: 11:41:54 AM  
 Acq. Time: 11:41:54 AM  
 Modified: No  
 Proc. Algorithm: IntelliQuan - IQA  
 Min. Peak Height: 350.00 cps  
 Min. Peak Width: 0.00 sec  
 Smoothing Width: 3 points  
 RT Window: 30.0 sec  
 Expected RT: 5.40 min  
 Use Relative RT: No  
 Int. Type: Valley  
 Retention Time: 5.40 min  
 Area: 7.92e+005 counts  
 Height: 128493.607 cps  
 Start Time: 5.31 min  
 End Time: 5.51 min



# MISCELLANEOUS DATA

# Prep Logbook

## Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 960982 Verified by: Lab SOP: GL-OA-E-033 REV# 17  
 Analyst: Sirena White Instrument: Semi-Volatiles Manual  
 Method: SW846 8330 PREP

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202061204 MB	10-MAR-2010 20:19:00	2	10	5
1202061205 LCS	10-MAR-2010 20:19:00	2	10	5
248506001	10-MAR-2010 20:19:00	2	10	5
1202061206 MS (248506001)	10-MAR-2010 20:19:00	2	10	5
1202061207 MSD (248506001)	10-MAR-2010 20:19:00	2	10	5
248506002	10-MAR-2010 20:19:00	2	10	5
248506003	10-MAR-2010 20:19:00	2	10	5
248506004	10-MAR-2010 20:19:00	2	10	5
248506005	10-MAR-2010 20:19:00	2	10	5
248506006	10-MAR-2010 20:19:00	2	10	5
248506007	10-MAR-2010 20:19:00	2	10	5
248506008	10-MAR-2010 20:19:00	2	10	5
248506009	10-MAR-2010 20:19:00	2	10	5
248506010	10-MAR-2010 20:19:00	2	10	5
248506011	10-MAR-2010 20:19:00	2	10	5
248506012	10-MAR-2010 20:19:00	2	10	5
248506013	10-MAR-2010 20:19:00	2	10	5
248506014	10-MAR-2010 20:19:00	2	10	5
248506015	10-MAR-2010 20:19:00	2	10	5
248506016	10-MAR-2010 20:19:00	2	10	5
248506017	10-MAR-2010 20:19:00	2	10	5
248506018	10-MAR-2010 20:19:00	2	10	5
248506019	10-MAR-2010 20:19:00	2	10	5
248506020	10-MAR-2010 20:19:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202061205	8321 Explosives LCS	INX100225-03	1	mL	Final Solvent: ACN
LCS	1202061205	8321 LANL Explosives Mix 10mg/L	UNX100223-03-03	1	mL	
MS	1202061206	8321 Explosives LCS	INX100225-03	1	mL	
MS	1202061206	8321 LANL Explosives Mix 10mg/L	UNX100223-03-03	1	mL	
MSD	1202061207	8321 Explosives LCS	INX100225-03	1	mL	
MSD	1202061207	8321 LANL Explosives Mix 10mg/L	UNX100223-03-03	1	mL	
SURR	All	3,4-Dinitrotoluene (8330 Sur.) 100ppm	INP100309-02	05	mL	

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#3

Date: 4/15/10

Method: 8321A-Modified

Extr. Injection Volume: 10uL

Int. Std.: UXX100324-02.3

Sequence Number: 041510

Mobile Phase Lot#: 1301905, 1297752

Initial Calibration Date: 041510 Standard-Samp Reagent Lot#: 1293274, 1299881

Reviewed By: *hmc*

Date: *4/23/10*

SOP: GL-OA-E-056 Rev.12

Alt Check Std. ID: WXX100415-56

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXP0415001.wiff	XIBLK01	LER	4/15/2010 10:07			1		USE	B
EXP0415002.wiff	XIBLK01	LER	4/15/2010 10:33			1		USE	B
EXP0415003.wiff	WXXICAL-50	LER	4/15/2010 10:59			1		USE	I
EXP0415004.wiff	WXXICAL-51	LER	4/15/2010 11:25			1		USE	I
EXP0415005.wiff	WXXICAL-52	LER	4/15/2010 11:51			1		USE	I
EXP0415006.wiff	WXXICAL-53	LER	4/15/2010 12:17			1		USE	I
EXP0415007.wiff	WXXICAL-54	LER	4/15/2010 12:43			1		USE	I
EXP0415008.wiff	WXXICAL-55	LER	4/15/2010 13:09			1		USE	I
EXP0415009.wiff	XIBLK02	LER	4/15/2010 13:35			1		USE	B
EXP0415010.wiff	WXXICV	LER	4/15/2010 14:01			1		USE	C
EXP0415011.wiff	XIBLK03	LER	4/15/2010 14:27			1		USE	B
EXP0415012.wiff	WXXCRI	LER	4/15/2010 14:53			1		USE	C
EXP0415013.wiff	1202045807	LER	4/15/2010 15:19	954365	10-1872	2	LANL	USE	S
EXP0415014.wiff	247200001	LER	4/15/2010 15:45	954365	10-1872	20	LANL	USE	S
EXP0415015.wiff	XIBLK04	LER	4/15/2010 16:10			1		USE	B
EXP0415016.wiff	247200002	LER	4/15/2010 16:36	954365	10-1872	20	LANL	USE	S
EXP0415017.wiff	XIBLK05	LER	4/15/2010 17:02			1		USE	B
EXP0415018.wiff	247200006	LER	4/15/2010 17:28	954365	10-1872	20	LANL	USE	S
EXP0415019.wiff	XIBLK06	LER	4/15/2010 17:54			1		USE	B
EXP0415020.wiff	247200007	LER	4/15/2010 18:20	954365	10-1872	2	LANL	USE	S
EXP0415021.wiff	XIBLK07	LER	4/15/2010 18:46			1		USE	B
EXP0415022.wiff	1202055010	LER	4/15/2010 19:12	958251	10-2065	2	LANL	USE	S
EXP0415023.wiff	WXXCCV	LER	4/15/2010 19:38			1		USE	C
EXP0415024.wiff	XIBLK08	LER	4/15/2010 20:04			1		USE	B
EXP0415025.wiff	WXXCRI	LER	4/15/2010 20:30			1		USE	C
EXP0415026.wiff	248048017	LER	4/15/2010 20:56	958251	10-2065	2	LANL	USE	S
EXP0415027.wiff	248048018	LER	4/15/2010 21:22	958251	10-2065	2	LANL	USE	S
EXP0415028.wiff	248048019	LER	4/15/2010 21:47	958251	10-2065	2	LANL	USE	S
EXP0415029.wiff	248048020	LER	4/15/2010 22:13	958251	10-2065	2	LANL	USE	S
EXP0415030.wiff	WXXCCV	LER	4/15/2010 22:39			1		USE	C





EXP0415068.wiff	248514001	LER	4/16/2010 15:06	961033	10-2196	2	LANL	USE	S
EXP0415069.wiff	248514002	LER	4/16/2010 15:32	961033	10-2196	2	LANL	USE	S
EXP0415070.wiff	248514003	LER	4/16/2010 15:58	961033	10-2196	2	LANL	USE	S
EXP0415071.wiff	248517001	LER	4/16/2010 16:24	961033	10-2198	2	LANL	USE	S
EXP0415072.wiff	248519001	LER	4/16/2010 16:50	961033	10-2199	2	LANL	USE	S
EXP0415073.wiff	248519002	LER	4/16/2010 17:17	961033	10-2199	2	LANL	USE	S
EXP0415074.wiff	248519003	LER	4/16/2010 17:43	961033	10-2199	2	LANL	USE	S
EXP0415075.wiff	248519004	LER	4/16/2010 18:08	961033	10-2199	2	LANL	USE	S
EXP0415076.wiff	WXXCCV	LER	4/16/2010 18:34			1		USE	C
EXP0415077.wiff	XIBLK13	LER	4/16/2010 19:00			1		USE	B
EXP0415078.wiff	WXXCRI	LER	4/16/2010 19:26			1		USE	C
EXP0415079.wiff	248519005	LER	4/16/2010 19:52	961033	10-2199	2	LANL	DUSE-RA	S
EXP0415080.wiff	248519006	LER	4/16/2010 20:18	961033	10-2199	2	LANL	DUSE-RA	S
EXP0415081.wiff	248519007	LER	4/16/2010 20:44	961033	10-2199	2	LANL	DUSE-RA	S
EXP0415082.wiff	248519008	LER	4/16/2010 21:10	961033	10-2199	2	LANL	DUSE-RA	S
EXP0415083.wiff	248519009	LER	4/16/2010 21:36	961033	10-2199	2	LANL	DUSE-RA	S
EXP0415084.wiff	248519010	LER	4/16/2010 22:02	961033	10-2199	2	LANL	DUSE-RA	S
EXP0415085.wiff	248519011	LER	4/16/2010 22:28	961033	10-2199	2	LANL	DUSE-RA	S
EXP0415086.wiff	248526001	LER	4/16/2010 22:54	961033	10-2202	2	LANL	DUSE-RA	S
EXP0415087.wiff	1202061321	LER	4/16/2010 23:20	961033	10-2202	2	LANL	DUSE-RA	S
EXP0415088.wiff	1202061322	LER	4/16/2010 23:46	961033	10-2202	2	LANL	DUSE-RA	S
EXP0415089.wiff	WXXCCV	LER	4/17/2010 0:12			1		DUSE	C
EXP0415090.wiff	XIBLK14	LER	4/17/2010 0:38			1		DUSE	B
EXP0415091.wiff	WXXCRI	LER	4/17/2010 1:04			1		DUSE	C
EXP0415092.wiff	248048006	LER	4/17/2010 1:30	958251	10-2065	2	LANL	DUSE-RA	S
EXP0415093.wiff	248048011	LER	4/17/2010 1:56	958251	10-2065	20	LANL	DUSE-RA	S
EXP0415094.wiff	XIBLK15	LER	4/17/2010 2:22			1		DUSE	B
EXP0415095.wiff	248048012	LER	4/17/2010 2:48	958251	10-2065	2	LANL	DUSE-RA	S
EXP0415096.wiff	WXXCCV	LER	4/17/2010 3:14			1		DUSE	C
EXP0415097.wiff	XIBLK16	LER	4/17/2010 3:40			1		DUSE	B
EXP0415098.wiff	WXXCRI	LER	4/17/2010 4:06			1		DUSE	C
EXP0415099.wiff	1202061439	LER	4/17/2010 4:32	961091	VARIOUS	2	LANL	DUSE-RA	S
EXP0415100.wiff	1202061440	LER	4/17/2010 4:58	961091	VARIOUS	2	LANL	DUSE-RA	S
EXP0415101.wiff	248542003	LER	4/17/2010 5:24	961091	10-2225	2	LANL	DUSE-RA	S
EXP0415102.wiff	248546004	LER	4/17/2010 5:50	961091	10-2219	2	LANL	DUSE-RA	S
EXP0415103.wiff	1202061441	LER	4/17/2010 6:16	961091	10-2219	2	LANL	DUSE-RA	S
EXP0415104.wiff	1202061442	LER	4/17/2010 6:42	961091	10-2219	2	LANL	DUSE-RA	S

EXP0415105.wiff	248546009	LER	4/17/2010 7:08	961091	10-2219	2	LANL	DUSE-RA	S
EXP0415106.wiff	WXXCCV	LER	4/17/2010 7:34			1		USE	C
EXP0415107.wiff	XIBLK17	LER	4/17/2010 8:00			1		USE	B
EXP0415108.wiff	WXXCRI	LER	4/17/2010 8:26			1		USE	C
EXP0415109.wiff	1202057288	LER	4/17/2010 8:52	959257	10-2128	2	LANL	USE	S
EXP0415110.wiff	1202057289	LER	4/17/2010 9:18	959257	10-2128	2	LANL	USE	S
EXP0415111.wiff	248232001	LER	4/17/2010 9:44	959257	10-2128	2	LANL	USE	S
EXP0415112.wiff	1202057290	LER	4/17/2010 10:10	959257	10-2128	2	LANL	USE	S
EXP0415113.wiff	1202057291	LER	4/17/2010 10:36	959257	10-2128	2	LANL	USE	S
EXP0415114.wiff	248232002	LER	4/17/2010 11:01	959257	10-2128	2	LANL	USE	S
EXP0415115.wiff	248232003	LER	4/17/2010 11:27	959257	10-2128	2	LANL	USE	S
EXP0415116.wiff	248232004	LER	4/17/2010 11:53	959257	10-2128	2	LANL	USE	S
EXP0415117.wiff	248232005	LER	4/17/2010 12:19	959257	10-2128	2	LANL	USE	S
EXP0415118.wiff	248232006	LER	4/17/2010 12:45	959257	10-2128	2	LANL	USE	S
EXP0415119.wiff	WXXCCV	LER	4/17/2010 13:11			1		USE	C
EXP0415120.wiff	XIBLK18	LER	4/17/2010 13:37			1		USE	B
EXP0415121.wiff	WXXCRI	LER	4/17/2010 14:03			1		USE	C
EXP0415122.wiff	248232007	LER	4/17/2010 14:29	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415123.wiff	248232008	LER	4/17/2010 14:55	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415124.wiff	248232009	LER	4/17/2010 15:21	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415125.wiff	248232010	LER	4/17/2010 15:47	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415126.wiff	248232011	LER	4/17/2010 16:13	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415127.wiff	248232012	LER	4/17/2010 16:39	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415128.wiff	248232013	LER	4/17/2010 17:05	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415129.wiff	248232014	LER	4/17/2010 17:31	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415130.wiff	248232015	LER	4/17/2010 17:57	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415131.wiff	248232016	LER	4/17/2010 18:23	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415132.wiff	WXXCCV	LER	4/17/2010 18:49			1		DUSE	C
EXP0415133.wiff	XIBLK19	LER	4/17/2010 19:15			1		DUSE	B
EXP0415134.wiff	WXXCRI	LER	4/17/2010 19:40			1		DUSE	C
EXP0415135.wiff	248232017	LER	4/17/2010 20:07	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415136.wiff	248232018	LER	4/17/2010 20:33	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415137.wiff	248232019	LER	4/17/2010 20:59	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415138.wiff	248232020	LER	4/17/2010 21:24	959257	10-2128	2	LANL	DUSE-RA	S
EXP0415139.wiff	WXXCCV	LER	4/17/2010 21:50			1		DUSE	C
EXP0415140.wiff	XIBLK20	LER	4/17/2010 22:16			1		DUSE	B
EXP0415141.wiff	WXXCRI	LER	4/17/2010 22:42			1		DUSE	C

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#3

Date: 4/20/10  
 Extr. Injection Volume: 10uL  
 Sequence Number: 042010  
 Initial Calibration Date: 042010  
 Method: 8321A-Modified  
 Int. Std.: UXX100412-01.1  
 Mobile Phase Lot#: 1301905, 1297752  
 Standard-Samp Reagent Lot#: 1299881, 1293274

Reviewed BY: *anne*  
 Date: *04/29/10*  
 SOP: GL-OA-E-056 Rev. 12  
 Alt Check Std. ID: WXX100420-56

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXP0420001.wiff	XIBLK01	LER	4/20/2010 14:19			1		USE	B
EXP0420002.wiff	XIBLK01	LER	4/20/2010 14:44			1		USE	B
EXP0420003.wiff	WXXICAL-50	LER	4/20/2010 15:10			1		USE	I
EXP0420004.wiff	WXXICAL-51	LER	4/20/2010 15:36			1		USE	I
EXP0420005.wiff	WXXICAL-52	LER	4/20/2010 16:02			1		USE	I
EXP0420006.wiff	WXXICAL-53	LER	4/20/2010 16:28			1		USE	I
EXP0420007.wiff	WXXICAL-54	LER	4/20/2010 16:54			1		USE	I
EXP0420008.wiff	WXXICAL-55	LER	4/20/2010 17:20			1		USE	I
EXP0420009.wiff	XIBLK02	LER	4/20/2010 17:46			1		USE	B
EXP0420010.wiff	WXXICV	LER	4/20/2010 18:12			1		USE	C
EXP0420011.wiff	XIBLK03	LER	4/20/2010 18:38			1		USE	B
EXP0420012.wiff	WXXCRI	LER	4/20/2010 19:04			1		USE	C
EXP0420013.wiff	248519005	LER	4/20/2010 19:30	961033	10-2199	2	LANL	USE	S
EXP0420014.wiff	248519006	LER	4/20/2010 19:56	961033	10-2199	2	LANL	USE	S
EXP0420015.wiff	248519007	LER	4/20/2010 20:22	961033	10-2199	2	LANL	USE	S
EXP0420016.wiff	248519008	LER	4/20/2010 20:48	961033	10-2199	2	LANL	USE	S
EXP0420017.wiff	248519009	LER	4/20/2010 21:13	961033	10-2199	2	LANL	USE	S
EXP0420018.wiff	248519010	LER	4/20/2010 21:39	961033	10-2199	2	LANL	USE	S
EXP0420019.wiff	248519011	LER	4/20/2010 22:05	961033	10-2199	2	LANL	USE	S
EXP0420020.wiff	248526001	LER	4/20/2010 22:31	961033	10-2202	2	LANL	USE	S
EXP0420021.wiff	1202061321	LER	4/20/2010 22:57	961033	10-2202	2	LANL	USE	S
EXP0420022.wiff	1202061322	LER	4/20/2010 23:23	961033	10-2202	2	LANL	USE	S
EXP0420023.wiff	WXXCCV	LER	4/20/2010 23:49			1		USE	C
EXP0420024.wiff	XIBLK04	LER	4/21/2010 0:15			1		USE	B
EXP0420025.wiff	WXXCRI	LER	4/21/2010 0:41			1		USE	C
EXP0420026.wiff	248048006	LER	4/21/2010 1:07	958251	10-2065	2	LANL	USE	S
EXP0420027.wiff	248048011	LER	4/21/2010 1:33	958251	10-2065	20	LANL	USE	S
EXP0420028.wiff	XIBLK05	LER	4/21/2010 1:59			1		USE	B
EXP0420029.wiff	248048012	LER	4/21/2010 2:25	958251	10-2065	2	LANL	USE	S
EXP0420030.wiff	1202061439	LER	4/21/2010 2:51	961091	VARIOUS	2	LANL	USE	S

EXP0420031.wiff	1202061440	LER	4/21/2010 3:17	961091	VARIOUS	2	LANL	USE	S
EXP0420032.wiff	248542003	LER	4/21/2010 3:43	961091	10-2225	2	LANL	USE	S
EXP0420033.wiff	248546004	LER	4/21/2010 4:08	961091	10-2219	2	LANL	USE	S
EXP0420034.wiff	1202061441	LER	4/21/2010 4:34	961091	10-2219	2	LANL	USE	S
EXP0420035.wiff	1202061442	LER	4/21/2010 5:00	961091	10-2219	2	LANL	USE	S
EXP0420036.wiff	WXXCCV	LER	4/21/2010 5:26			1		USE	C
EXP0420037.wiff	XIBLK06	LER	4/21/2010 5:52			1		USE	B
EXP0420038.wiff	WXXCRI	LER	4/21/2010 6:18			1		USE	C
EXP0420039.wiff	248546009	LER	4/21/2010 6:44	961091	10-2219	2	LANL	USE	S
EXP0420040.wiff	248232007	LER	4/21/2010 7:10	959257	10-2128	2	LANL	USE	S
EXP0420041.wiff	248232008	LER	4/21/2010 7:36	959257	10-2128	2	LANL	USE	S
EXP0420042.wiff	248232009	LER	4/21/2010 8:02	959257	10-2128	2	LANL	USE	S
EXP0420043.wiff	248232010	LER	4/21/2010 8:28	959257	10-2128	2	LANL	USE	S
EXP0420044.wiff	248232011	LER	4/21/2010 8:54	959257	10-2128	2	LANL	USE	S
EXP0420045.wiff	248232012	LER	4/21/2010 9:20	959257	10-2128	2	LANL	USE	S
EXP0420046.wiff	248232013	LER	4/21/2010 9:46	959257	10-2128	2	LANL	USE	S
EXP0420047.wiff	248232014	LER	4/21/2010 10:12	959257	10-2128	2	LANL	USE	S
EXP0420048.wiff	248232015	LER	4/21/2010 10:38	959257	10-2128	2	LANL	USE	S
EXP0420049.wiff	WXXCCV	LER	4/21/2010 11:04			1		USE	C
EXP0420050.wiff	XIBLK07	LER	4/21/2010 11:30			1		USE	B
EXP0420051.wiff	WXXCRI	LER	4/21/2010 11:56			1		USE	C
EXP0420052.wiff	248232016	LER	4/21/2010 12:22	959257	10-2128	2	LANL	USE	S
EXP0420053.wiff	248232017	LER	4/21/2010 12:48	959257	10-2128	2	LANL	USE	S
EXP0420054.wiff	248232018	LER	4/21/2010 13:14	959257	10-2128	2	LANL	USE	S
EXP0420055.wiff	248232019	LER	4/21/2010 13:39	959257	10-2128	2	LANL	USE	S
EXP0420056.wiff	248232020	LER	4/21/2010 14:05	959257	10-2128	2	LANL	USE	S
EXP0420057.wiff	WXXCCV	LER	4/21/2010 14:31			1		USE	C
EXP0420058.wiff	XIBLK08	LER	4/21/2010 14:57			1		USE	B
EXP0420059.wiff	WXXCRI	LER	4/21/2010 15:23			1		USE	C
EXP0420060.wiff	1202064978	LER	4/21/2010 15:49	962559	10-2248	2	LANL	DUSE-RA	S
EXP0420061.wiff	1202064979	LER	4/21/2010 16:15	962559	10-2248	2	LANL	DUSE-RA	S
EXP0420062.wiff	1202066190	LER	4/21/2010 16:41	962559	10-2248	2	LANL	USE	S
EXP0420063.wiff	248664002	LER	4/21/2010 17:07	962559	10-2248	2	LANL	USE	S
EXP0420064.wiff	248664007	LER	4/21/2010 17:33	962559	10-2248	2	LANL	DUSE-RA	S
EXP0420065.wiff	248664012	LER	4/21/2010 17:59	962559	10-2248	2	LANL	USE	S
EXP0420066.wiff	248664018	LER	4/21/2010 18:25	962559	10-2248	2	LANL	USE	S
EXP0420067.wiff	WXXCCV	LER	4/21/2010 18:51			1		USE	C



EXP0420105.wiff	1202064538	LER	4/22/2010 11:18	962415	10-2233	2	LANL	DUSE-MISC	S
EXP0420106.wiff	248628006	LER	4/22/2010 11:44	962415	10-2233	2	LANL	USE	S
EXP0420107.wiff	WXXCCV	LER	4/22/2010 12:10			1		USE	C
EXP0420108.wiff	XIBLK13	LER	4/22/2010 12:36			1		USE	B
EXP0420109.wiff	WXXCRI	LER	4/22/2010 13:02			1		USE	C

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#3

Date: 4/22/10

Method: 8321A-Modified

Extr. Injection Volume: 10uL

int. Std.: UXX100412-01.1 & UXX100412-01.2

Sequence Number: 042210

Mobile Phase Lot#: 1303672, 1297752

Initial Calibration Date: 042210

Standard-Samp Reagent Lot#: 1299881, 1293274

Reviewed BY: *Amal*  
Date: *2/10/2010*

SOP: GL-OA-E-056 Rev.12  
Alt Check Std. ID: WXX100422-56 & WXX100423-56

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXP0422001.wiff	XIBLK01	LER	4/22/2010 15:59			1		USE	B
EXP0422002.wiff	XIBLK01	LER	4/22/2010 16:25			1		USE	B
EXP0422003.wiff	WXXICAL-50	LER	4/22/2010 16:51			1		USE	I
EXP0422004.wiff	WXXICAL-51	LER	4/22/2010 17:16			1		USE	I
EXP0422005.wiff	WXXICAL-52	LER	4/22/2010 17:42			1		USE	I
EXP0422006.wiff	WXXICAL-53	LER	4/22/2010 18:08			1		USE	I
EXP0422007.wiff	WXXICAL-54	LER	4/22/2010 18:34			1		USE	I
EXP0422008.wiff	WXXICAL-55	LER	4/22/2010 19:00			1		USE	I
EXP0422009.wiff	XIBLK02	LER	4/22/2010 19:26			1		USE	B
EXP0422010.wiff	WXXICV	LER	4/22/2010 19:52			1		USE	C
EXP0422011.wiff	XIBLK03	LER	4/22/2010 20:18			1		USE	B
EXP0422012.wiff	WXXCRI	LER	4/22/2010 20:44			1		USE	C
EXP0422013.wiff	1202061206	LER	4/22/2010 21:10	960986	10-2193	2	LANL	USE	S
EXP0422014.wiff	1202061207	LER	4/22/2010 21:36	960986	10-2193	2	LANL	USE	S
EXP0422015.wiff	248232020	LER	4/22/2010 22:02	959257	10-2128	20	LANL	USE	S
EXP0422016.wiff	WXXCCV	LER	4/22/2010 22:28			1		USE	C
EXP0422017.wiff	XIBLK04	LER	4/22/2010 22:53			1		USE	B
EXP0422018.wiff	WXXCRI	LER	4/22/2010 23:19			1		USE	C
EXP0422019.wiff	1202065075	LER	4/22/2010 23:45	962587	248826	2	PNTX	USE	S
EXP0422020.wiff	1202065076	LER	4/23/2010 0:11	962587	248826	2	PNTX	USE	S
EXP0422021.wiff	248826002	LER	4/23/2010 0:37	962587	248826	2	PNTX	USE	S
EXP0422022.wiff	1202065077	LER	4/23/2010 1:03	962587	248826	2	PNTX	USE	S
EXP0422023.wiff	1202065078	LER	4/23/2010 1:29	962587	248826	2	PNTX	USE	S
EXP0422024.wiff	248826003	LER	4/23/2010 1:55	962587	248826	2	PNTX	USE	S
EXP0422025.wiff	248826004	LER	4/23/2010 2:21	962587	248826	2	PNTX	USE	S
EXP0422026.wiff	WXXCCV	LER	4/23/2010 2:47			1		USE	C
EXP0422027.wiff	XIBLK05	LER	4/23/2010 3:13			1		USE	B
EXP0422028.wiff	WXXCRI	LER	4/23/2010 3:39			1		USE	C
EXP0422029.wiff	1202065097	LER	4/23/2010 4:05	962598	248857	2	PNTX	USE	S
EXP0422030.wiff	1202065098	LER	4/23/2010 4:31	962598	248857	2	PNTX	USE	S



EXP0422031.wiff	248857002	LER	4/23/2010 4:57	962598	248857	2	PNTX	USE	S
EXP0422032.wiff	1202065099	LER	4/23/2010 5:23	962598	248857	2	PNTX	USE	S
EXP0422033.wiff	1202065100	LER	4/23/2010 5:49	962598	248857	2	PNTX	USE	S
EXP0422034.wiff	248857003	LER	4/23/2010 6:15	962598	248857	2	PNTX	USE	S
EXP0422035.wiff	248857004	LER	4/23/2010 6:41	962598	248857	2	PNTX	DUSE-RA	S
EXP0422036.wiff	WXXCCV	LER	4/23/2010 7:07			1		USE	C
EXP0422037.wiff	XIBLK06	LER	4/23/2010 7:33			1		USE	B
EXP0422038.wiff	WXXCRI	LER	4/23/2010 7:59			1		USE	C
EXP0422039.wiff	1202069809	LER	4/23/2010 8:25	964763	249264	2	PNTX	USE	S
EXP0422040.wiff	1202069810	LER	4/23/2010 8:51	964763	249264	2	PNTX	USE	S
EXP0422041.wiff	249264002	LER	4/23/2010 9:17	964763	249264	2	PNTX	USE	S
EXP0422042.wiff	1202069811	LER	4/23/2010 9:43	964763	249264	2	PNTX	USE	S
EXP0422043.wiff	1202069812	LER	4/23/2010 10:08	964763	249264	2	PNTX	USE	S
EXP0422044.wiff	249264003	LER	4/23/2010 10:34	964763	249264	2	PNTX	USE	S
EXP0422045.wiff	249264004	LER	4/23/2010 11:00	964763	249264	2	PNTX	USE	S
EXP0422046.wiff	WXXCCV	LER	4/23/2010 11:26			1		USE	C
EXP0422047.wiff	XIBLK07	LER	4/23/2010 11:52			1		USE	B
EXP0422048.wiff	WXXCRI	LER	4/23/2010 12:18			1		USE	C
EXP0422049.wiff	1202071427	LER	4/23/2010 12:44	965394	249336	2	PNTX	DUSE-RA	S
EXP0422050.wiff	1202071428	LER	4/23/2010 13:10	965394	249336	2	PNTX	USE	S
EXP0422051.wiff	249336002	LER	4/23/2010 13:36	965394	249336	2	PNTX	DUSE-RA	S
EXP0422052.wiff	1202071429	LER	4/23/2010 14:02	965394	249336	2	PNTX	USE	S
EXP0422053.wiff	1202071430	LER	4/23/2010 14:28	965394	249336	2	PNTX	USE	S
EXP0422054.wiff	249336003	LER	4/23/2010 14:54	965394	249336	2	PNTX	USE	S
EXP0422055.wiff	WXXCCV	LER	4/23/2010 15:20			1		USE	C
EXP0422056.wiff	XIBLK08	LER	4/23/2010 15:46			1		USE	B
EXP0422057.wiff	WXXCRI	LER	4/23/2010 16:12			1		USE	C
EXP0422058.wiff	1202080990	LER	4/23/2010 16:38	969246	249935	2	PNTX	USE	S
EXP0422059.wiff	1202080991	LER	4/23/2010 17:04	969246	249935	2	PNTX	USE	S
EXP0422060.wiff	249935002	LER	4/23/2010 17:30	969246	249935	2	PNTX	USE	S
EXP0422061.wiff	1202080992	LER	4/23/2010 17:56	969246	249935	2	PNTX	USE	S
EXP0422062.wiff	1202080993	LER	4/23/2010 18:22	969246	249935	2	PNTX	USE	S
EXP0422063.wiff	249935003	LER	4/23/2010 18:48	969246	249935	2	PNTX	USE	S
EXP0422064.wiff	249935004	LER	4/23/2010 19:14	969246	249935	2	PNTX	DUSE-RA	S
EXP0422065.wiff	249935005	LER	4/23/2010 19:40	969246	249935	2	PNTX	USE	S
EXP0422066.wiff	249935006	LER	4/23/2010 20:06	969246	249935	2	PNTX	DUSE-RA	S
EXP0422067.wiff	WXXCCV	LER	4/23/2010 20:32			1		USE	C

[illegible]

EXP0422105.wiff	XIBLK14	LER	4/24/2010 12:59		1	USE	B
EXP0422106.wiff	WXXCRI	LER	4/24/2010 13:25		1	USE	C
EXP0422107.wiff	248857004	LER	4/24/2010 13:51	962598	248857	PNTX	S
EXP0422108.wiff	249935004	LER	4/24/2010 14:17	969246	249935	PNTX	S
EXP0422109.wiff	249935006	LER	4/24/2010 14:43	969246	249935	PNTX	S
EXP0422110.wiff	250008004	LER	4/24/2010 15:09	969962	250008	PNTX	S
EXP0422111.wiff	248826004	LER	4/24/2010 15:35	962587	248826	PNTX	S
EXP0422112.wiff	XIBLK15	LER	4/24/2010 16:01		1	USE	B
EXP0422113.wiff	248857003	LER	4/24/2010 16:27	962598	248857	PNTX	S
EXP0422114.wiff	XIBLK16	LER	4/24/2010 16:53		1	USE	B
EXP0422115.wiff	249264004	LER	4/24/2010 17:19	964763	249264	PNTX	S
EXP0422116.wiff	XIBLK17	LER	4/24/2010 17:45		1	USE	B
EXP0422117.wiff	WXXCCV	LER	4/24/2010 18:11		1	USE	C
EXP0422118.wiff	XIBLK18	LER	4/24/2010 18:37		1	USE	B
EXP0422119.wiff	WXXCRI	LER	4/24/2010 19:03		1	USE	C
EXP0422120.wiff	249935003	LER	4/24/2010 19:29	969246	249935	PNTX	S
EXP0422121.wiff	XIBLK19	LER	4/24/2010 19:55		1	USE	B
EXP0422122.wiff	249935005	LER	4/24/2010 20:21	969246	249935	PNTX	S
EXP0422123.wiff	XIBLK20	LER	4/24/2010 20:47		1	USE	B
EXP0422124.wiff	250008003	LER	4/24/2010 21:13	969962	250008	PNTX	S
EXP0422125.wiff	XIBLK21	LER	4/24/2010 21:38		1	USE	B
EXP0422126.wiff	WXXCCV	LER	4/24/2010 22:04		1	USE	C
EXP0422127.wiff	XIBLK22	LER	4/24/2010 22:30		1	USE	B
EXP0422128.wiff	WXXCRI	LER	4/24/2010 22:56		1	USE	C

GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS4

Date: 04/09/10  
 Extr. Injection Volume: 10uL  
 Sequence Number: 040910exs  
 Initial Calibration Date: 040910

Method: 8321A-Modified  
 Int. Std.: N/A  
 Mobile Phase Lot#: 1269686, 1293224  
 Standard-Samp Reagent Lot#: 1292884, 1284736

Reviewed By: *hank*  
 Date: *04/12/10*  
 SOP: GL-OA-E-056 Rev. 12  
 Alt Check Std. ID: WXX100409-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS04090001.wiff	XIBLK01	LER	4/9/2010 7:14			1		USE	B
EXS04090002.wiff	XIBLK01	LER	4/9/2010 7:30			1		USE	B
EXS04090003.wiff	WXXICAL-19	LER	4/9/2010 7:46			1		USE	I
EXS04090004.wiff	WXXICAL-20	LER	4/9/2010 8:01			1		USE	I
EXS04090005.wiff	WXXICAL-21	LER	4/9/2010 8:17			1		USE	I
EXS04090006.wiff	WXXICAL-22	LER	4/9/2010 8:33			1		USE	I
EXS04090007.wiff	WXXICAL-23	LER	4/9/2010 8:49			1		USE	I
EXS04090008.wiff	WXXICAL-24	LER	4/9/2010 9:04			1		USE	I
EXS04090009.wiff	WXXICAL-25	LER	4/9/2010 9:20			1		USE	I
EXS04090010.wiff	XIBLK02	LER	4/9/2010 9:36			1		USE	B
EXS04090011.wiff	WXXICV	LER	4/9/2010 9:51			1		USE	C
EXS04090012.wiff	XIBLK03	LER	4/9/2010 10:07			1		USE	B
EXS04090013.wiff	WXXCRI	LER	4/9/2010 10:23			1		USE	C
EXS04090014.wiff	1202061204	LER	4/9/2010 10:39	960986	10-2193	2	LANL	USE	S
EXS04090015.wiff	1202061205	LER	4/9/2010 10:54	960986	10-2193	2	LANL	USE	S
EXS04090016.wiff	248506001	LER	4/9/2010 11:10	960986	10-2193	2	LANL	USE	S
EXS04090017.wiff	1202061206	LER	4/9/2010 11:26	960986	10-2193	2	LANL	USE	S
EXS04090018.wiff	1202061207	LER	4/9/2010 11:41	960986	10-2193	2	LANL	USE	S
EXS04090019.wiff	248506002	LER	4/9/2010 11:57	960986	10-2193	2	LANL	USE	S
EXS04090020.wiff	248506003	LER	4/9/2010 12:13	960986	10-2193	2	LANL	USE	S
EXS04090021.wiff	248506004	LER	4/9/2010 12:29	960986	10-2193	2	LANL	USE	S
EXS04090022.wiff	248506005	LER	4/9/2010 12:44	960986	10-2193	2	LANL	USE	S
EXS04090023.wiff	248506006	LER	4/9/2010 13:00	960986	10-2193	2	LANL	USE	S
EXS04090024.wiff	WXXCCV	LER	4/9/2010 13:16			1		USE	C
EXS04090025.wiff	XIBLK04	LER	4/9/2010 13:31			1		USE	B
EXS04090026.wiff	WXXCRI	LER	4/9/2010 13:47			1		USE	C
EXS04090027.wiff	248506007	LER	4/9/2010 14:03	960986	10-2193	2	LANL	USE	S
EXS04090028.wiff	248506008	LER	4/9/2010 14:18	960986	10-2193	2	LANL	USE	S
EXS04090029.wiff	248506009	LER	4/9/2010 14:34	960986	10-2193	2	LANL	USE	S
EXS04090030.wiff	248506010	LER	4/9/2010 14:50	960986	10-2193	2	LANL	USE	S

EXS04090031.wiff	248506011	LER	4/9/2010 15:06	960986	10-2193	2	LANL	USE	S
EXS04090032.wiff	248506012	LER	4/9/2010 15:21	960986	10-2193	2	LANL	USE	S
EXS04090033.wiff	248506013	LER	4/9/2010 15:37	960986	10-2193	2	LANL	USE	S
EXS04090034.wiff	248506014	LER	4/9/2010 15:53	960986	10-2193	2	LANL	USE	S
EXS04090035.wiff	248506015	LER	4/9/2010 16:08	960986	10-2193	2	LANL	USE	S
EXS04090036.wiff	248506016	LER	4/9/2010 16:24	960986	10-2193	2	LANL	USE	S
EXS04090037.wiff	WXXCCV	LER	4/9/2010 16:40			1		USE	C
EXS04090038.wiff	XIBLK05	LER	4/9/2010 16:56			1		USE	B
EXS04090039.wiff	WXXCRI	LER	4/9/2010 17:11			1		USE	C
EXS04090040.wiff	248506017	LER	4/9/2010 17:27	960986	10-2193	2	LANL	USE	S
EXS04090041.wiff	248506018	LER	4/9/2010 17:43	960986	10-2193	2	LANL	USE	S
EXS04090042.wiff	248506019	LER	4/9/2010 17:58	960986	10-2193	2	LANL	USE	S
EXS04090043.wiff	248506020	LER	4/9/2010 18:14	960986	10-2193	2	LANL	USE	S
EXS04090044.wiff	XIBLK06	LER	4/9/2010 18:30			1		USE	B
EXS04090045.wiff	1202061319	LER	4/9/2010 18:45	961033	VARIOUS	2	LANL	USE	S
EXS04090046.wiff	1202061320	LER	4/9/2010 19:01	961033	VARIOUS	2	LANL	USE	S
EXS04090047.wiff	248514001	LER	4/9/2010 19:17	961033	10-2196	2	LANL	USE	S
EXS04090048.wiff	248514002	LER	4/9/2010 19:33	961033	10-2196	2	LANL	USE	S
EXS04090049.wiff	248514003	LER	4/9/2010 19:48	961033	10-2196	2	LANL	USE	S
EXS04090050.wiff	WXXCCV	LER	4/9/2010 20:04			1		USE	C
EXS04090051.wiff	XIBLK07	LER	4/9/2010 20:20			1		USE	B
EXS04090052.wiff	WXXCRI	LER	4/9/2010 20:35			1		USE	C
EXS04090053.wiff	248517001	LER	4/9/2010 20:51	961033	10-2198	2	LANL	USE	S
EXS04090054.wiff	248519001	LER	4/9/2010 21:07	961033	10-2199	2	LANL	USE	S
EXS04090055.wiff	248519002	LER	4/9/2010 21:23	961033	10-2199	2	LANL	USE	S
EXS04090056.wiff	248519003	LER	4/9/2010 21:38	961033	10-2199	2	LANL	USE	S
EXS04090057.wiff	248519004	LER	4/9/2010 21:54	961033	10-2199	2	LANL	USE	S
EXS04090058.wiff	248519005	LER	4/9/2010 22:10	961033	10-2199	2	LANL	USE	S
EXS04090059.wiff	248519006	LER	4/9/2010 22:25	961033	10-2199	2	LANL	USE	S
EXS04090060.wiff	248519007	LER	4/9/2010 22:41	961033	10-2199	2	LANL	USE	S
EXS04090061.wiff	248519008	LER	4/9/2010 22:57	961033	10-2199	2	LANL	USE	S
EXS04090062.wiff	248519009	LER	4/9/2010 23:12	961033	10-2199	2	LANL	USE	S
EXS04090063.wiff	WXXCCV	LER	4/9/2010 23:28			1		USE	C
EXS04090064.wiff	XIBLK08	LER	4/9/2010 23:44			1		USE	B
EXS04090065.wiff	WXXCRI	LER	4/10/2010 0:00			1		USE	C
EXS04090066.wiff	248519010	LER	4/10/2010 0:15	961033	10-2199	2	LANL	USE	S
EXS04090067.wiff	248519011	LER	4/10/2010 0:31	961033	10-2199	2	LANL	USE	S

EXS04090068.wiff	248526001	LER	4/10/2010 0:47	961033	10-2202	2	LANL	USE	S
EXS04090069.wiff	1202061321	LER	4/10/2010 1:02	961033	10-2202	2	LANL	USE	S
EXS04090070.wiff	1202061322	LER	4/10/2010 1:18	961033	10-2202	2	LANL	USE	S
EXS04090071.wiff	WXXCCV	LER	4/10/2010 1:34			1		USE	C
EXS04090072.wiff	XIBLK09	LER	4/10/2010 1:49			1		USE	B
EXS04090073.wiff	WXXCRI	LER	4/10/2010 2:05			1		USE	C

GEL Laboratories LLC  
Form GEL-DER

DER Report No.: 825226  
Revision No.: 1

### DATA EXCEPTION REPORT

<b>Mo. Day Yr.</b> 06-MAY-10	<b>Division:</b> Industrial	<b>Quality Criteria:</b> Specifications	<b>Type:</b> Process
<b>Instrument Type:</b> LC-MS/MS	<b>Test / Method:</b> SW846 8321A Modified	<b>Matrix Type:</b> Solid	<b>Client Code:</b> LANL
<b>Batch ID:</b> 960986	<b>Sample Numbers:</b> See Below		
<b>Potentially affected work order(s)(SDG): 248506(10-2193)</b> <b>Application Issues:</b> Sample Analyzed out of Holding Failed Recovery for MSD/PSD Failed Recovery for LCS/LCSD Failed Recovery for MS/PS Failed RPD for MS/MSD, or PS/PSD			
<b>Specification and Requirements Exception Description:</b>		<b>DER Disposition:</b>	
1. The analytical holding times for the samples 1202061206(MS) and 1202061207(MSD) were exceeded due to limitations of instrument capacity.  2. The LCS(1202061205) did not meet acceptance criteria for the recovery of Tetra at 11.5% and for 2-Amino-4,6-dinitrotoluene at 133%. The limits are 51-112% and 90-130% respectively.  3. The MS(1202061206) did not meet acceptance criteria for the recovery of multiple spiked analytes. Please refer to Form 3 of the Data Package for a list of recoveries.  4. The MSD(1202061207) did not meet acceptance criteria for the recovery of multiple spiked analytes. Please refer to Form 3 of the Data Package for a list of recoveries.  5. The MS(1202061206)/MSD(1202061207) did not meet acceptance criteria for RPD limits for 1,3,5-Trinitrobenzene at 44.7%. The limit is 30%.		1. These samples were analyzed within two times the analytical holding time of the method. The client was notified of this situation and is in agreement to receive these qualified data. The discrepancy is noted in the case narrative.  2. A re-extraction was not performed on the samples because they were more than two times out of the holding period specified by the method. The data are reported.  3. The MSD(1202061207) duplicated the failures which may be attributed to matrix interference.  4. The MS(1202061206) duplicated the failures which may be attributed to matrix interference.  5. Both the MS(1202061206) and MSD(1202061207) had failing recoveries for 1,3,5-Trinitrobenzene. The RPD failure may be attributed to matrix interference in the sample or non-homogeneity of the sample.	

**Originator's Name:**

Lynne Russell

06-MAY-10

**Data Validator/Group Leader:**

Herbert Maier

06-MAY-10

# GC SEMIVOLATILE PCB ANALYSIS



**PCB Case Narrative**  
**Los Alamos National Laboratory (LANL)**  
**SDG 10-2193**

**Method/Analysis Information**

**Procedure:** Analysis of Polychlorinated Biphenyls by ECD  
**Analytical Method:** SW846 8082  
**Prep Method:** SW846 3550B  
**Analytical Batch Number:** 965975, 967354  
**Prep Batch Number:** 965974, 967352

**Sample Analysis**

The following samples were analyzed using the analytical protocol as established in SW846 8082:

<b>Sample ID</b>	<b>Client ID</b>
248506001	RE36-10-7407
248506003	RE36-10-7422
1202072978	Method Blank (MB) (Batch 965975)
1202072979	Laboratory Control Sample (LCS) (Batch 965975)
1202072980	248506001(RE36-10-7407) Matrix Spike (MS) (Batch 965975)
1202072981	248506001(RE36-10-7407) Matrix Spike Duplicate (MSD) (Batch 965975)
248506002	RE36-10-7421
1202076239	Method Blank (MB) (Batch 967354)
1202076240	Laboratory Control Sample (LCS) (Batch 967354)
1202076241	248815001(RE46-10-13867) Matrix Spike (MS) (Batch 967354)
1202076242	248815001(RE46-10-13867) Matrix Spike Duplicate (MSD) (Batch 967354)

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 inverted in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

**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(s) analyzed with this SDG met the acceptance criteria.

**Surrogate Recoveries**

All surrogate recoveries were within the established acceptance criteria for this SDG.

**Laboratory Control Sample (LCS) Recovery**

The LCS spike recoveries met the acceptance limits.

**QC Sample Designation**

Sample 248506001 (RE36-10-7407) was selected for the matrix spike and matrix spike duplicate analysis in batch 965975.

A LANL sample of similar matrix associated with another SDG (#10-2298) was selected for the matrix spike and matrix spike duplicate analysis in batch 967354. 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**

The samples in this SDG did not require dilutions.

**Sample Re-extraction/Re-analysis**

Sample 248506002 (RE36-10-7421) was extracted and analyzed twice. The second analysis was reported.

## **Miscellaneous Information**

### **Electronic Package Comment**

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

### **Data Exception (DER) Documentation**

Data Exception Report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

### **Manual Integration**

Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

### **Additional Comments**

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

## **System Configuration**

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

<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: Jimmi Cao

Date: 3/30/10

## Roadmap for LANL 10-2193 PCB

This roadmap was analyzed by yip00818 on 03-23-2010, 09:02.

This roadmap was packaged by yml on 03-29-2010, 17:16.

This roadmap was validated by jim01140 on 03-30-2010, 09:38.

Front Sample Column

exclude	manual	datafile	smplid	sampletype	injdte	injtime	sublist	clientid	dilution	prepbatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i/031810.b/058f5801.d	248506001	sample	18-MAR-2010	16:54	10-2193.sub	RE36-10-7407	1.00000	965975	UPLOAD BOTH COLUMNS, USE HIGHER
<input checked="" type="checkbox"/>	N	/chem/ecd1a.i/031810.b/061f6101.d	248506002	sample	18-MAR-2010	17:32	10-2193.sub	RE36-10-7421	1.00000	965975	RE SURROGATE LOW
<input type="checkbox"/>	N	/chem/ecd1a.i/032210.b/043b4301.d	248506002	sample	22-MAR-2010	15:01	10-2193.sub	RE36-10-7421	1.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i/031810.b/062b6201.d	248506003	sample	18-MAR-2010	17:45	10-2193.sub	RE36-10-7422	1.00000	965975	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smplid	sampletype	injdte	injtime	sublist	clientid	dilution	prepbatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i/031810.b/058f5801.d	248506001	sample	18-MAR-2010	16:54	10-2193.sub	RE36-10-7407	1.00000	965975	UPLOAD BOTH COLUMNS, USE HIGHER
<input checked="" type="checkbox"/>	N	/chem/ecd1a.i/031810.b/061f6101.d	248506002	sample	18-MAR-2010	17:32	10-2193.sub	RE36-10-7421	1.00000	965975	RE SURROGATE LOW
<input type="checkbox"/>	N	/chem/ecd1a.i/032210.b/043b4301.d	248506002	sample	22-MAR-2010	15:01	10-2193.sub	RE36-10-7421	1.00000	967354	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i/031810.b/062b6201.d	248506003	sample	18-MAR-2010	17:45	10-2193.sub	RE36-10-7422	1.00000	965975	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smplid	sampletype	injdte	injtime	sublist	clientid	dilution	prepbatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i/031810.b/037c701-3.d	1202072978	mb	18-MAR-2010	12:38	10-2193.sub	PBLK01	1.00000	965975	
<input type="checkbox"/>	N	/chem/ecd1a.i/032210.b/041f101-1.d	1202076239	mb	22-MAR-2010	14:36	10-2193.sub	PBLK02	1.00000	967354	
<input type="checkbox"/>	N	/chem/ecd1a.i/031810.b/038f3801-3.d	1202072979	lcs	18-MAR-2010	12:48	10-2193.sub	PBLK01LCS	1.00000	965975	
<input type="checkbox"/>	N	/chem/ecd1a.i/032210.b/042f4201-1.d	1202076240	lcs	22-MAR-2010	14:49	10-2193.sub	PBLK02LCS	1.00000	967354	
<input type="checkbox"/>	N	/chem/ecd1a.i/031810.b/059f5901.d	1202072980	ms	18-MAR-2010	17:07	10-2193.sub	RE36-10-7407MS	1.00000	965975	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i/031810.b/060f6001.d	1202072981	msd	18-MAR-2010	17:20	10-2193.sub	RE36-10-7407MSD	1.00000	965975	UPLOAD BOTH COLUMNS, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smplid	sampletype	injdte	injtime	sublist	clientid	dilution	prepbatchid	comment
<input type="checkbox"/>	N	/chem/ecd1a.i/031810.b/037c701-3.d	1202072978	mb	18-MAR-2010	12:38	10-2193.sub	PBLK01	1.00000	965975	
<input type="checkbox"/>	N	/chem/ecd1a.i/032210.b/041f101-1.d	1202076239	mb	22-MAR-2010	14:36	10-2193.sub	PBLK02	1.00000	967354	
<input type="checkbox"/>	N	/chem/ecd1a.i/031810.b/038f3801-3.d	1202072979	lcs	18-MAR-2010	12:48	10-2193.sub	PBLK01LCS	1.00000	965975	
<input type="checkbox"/>	N	/chem/ecd1a.i/032210.b/042f4201-1.d	1202076240	lcs	22-MAR-2010	14:49	10-2193.sub	PBLK02LCS	1.00000	967354	
<input type="checkbox"/>	N	/chem/ecd1a.i/031810.b/059f5901.d	1202072980	ms	18-MAR-2010	17:07	10-2193.sub	RE36-10-7407MS	1.00000	965975	UPLOAD BOTH COLUMNS, USE HIGHER
<input type="checkbox"/>	N	/chem/ecd1a.i/031810.b/060f6001.d	1202072981	msd	18-MAR-2010	17:20	10-2193.sub	RE36-10-7407MSD	1.00000	965975	UPLOAD BOTH COLUMNS, USE HIGHER

# SAMPLE DATA SUMMARY

**PCB**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2193  
Lab Sample ID: 248506001

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.1  
Analyst: YS1  
Aliquot: 30 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 22.9  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
Inj. Vol: 1 uL  
Final Volume: 1 mL  
Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.32	ug/kg	1.44	4.32	1
11104-28-2	Aroclor-1221	U	4.32	ug/kg	1.44	4.32	1
11141-16-5	Aroclor-1232	U	4.32	ug/kg	1.44	4.32	1
53469-21-9	Aroclor-1242	U	4.32	ug/kg	1.44	4.32	1
12672-29-6	Aroclor-1248	U	4.32	ug/kg	1.44	4.32	1
11097-69-1	Aroclor-1254		18.5	ug/kg	1.44	4.32	1
11096-82-5	Aroclor-1260		13.0	ug/kg	1.44	4.32	1



**PCB**  
**Certificate of Analysis**  
**Sample Summary**

Page 1 of 1

SDG Number: 10-2193  
Lab Sample ID: 248506002

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.18 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 15  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
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	3.90	ug/kg	1.30	3.90	1
11104-28-2	Aroclor-1221	U	3.90	ug/kg	1.30	3.90	1
11141-16-5	Aroclor-1232	U	3.90	ug/kg	1.30	3.90	1
53469-21-9	Aroclor-1242	U	3.90	ug/kg	1.30	3.90	1
12672-29-6	Aroclor-1248	U	3.90	ug/kg	1.30	3.90	1
11097-69-1	Aroclor-1254		44.4	ug/kg	1.30	3.90	1
11096-82-5	Aroclor-1260		34.0	ug/kg	1.30	3.90	1

## PCB

Page 1 of 1

Certificate of Analysis  
Sample Summary

SDG Number: 10-2193

Lab Sample ID: 248506003

Client ID: RE36-10-7422

Batch ID: 965975

Run Date: 03/18/2010 17:45

Prep Date: 03/17/2010 11:22

Data File: 062f6201.d

062b6201.d

Date Collected: 02/25/2010 12:00

Date Received: 03/03/2010 08:50

Client: LANL010

Method: SW846 8082

Inst: ECD1A.1

Analyst: YS1

Aliquot: 30 g

Column: 1 CLP1

2 CLP2

Matrix: R

%Moisture: 5.9

Project: LANL01004

SOP Ref: GL-OA-E-040

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

Level: LOW

CAS No.	Parinname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.54	ug/kg	1.18	3.54	1
11104-28-2	Aroclor-1221	U	3.54	ug/kg	1.18	3.54	1
11141-16-5	Aroclor-1232	U	3.54	ug/kg	1.18	3.54	1
53469-21-9	Aroclor-1242	U	3.54	ug/kg	1.18	3.54	1
12672-29-6	Aroclor-1248	U	3.54	ug/kg	1.18	3.54	1
11097-69-1	Aroclor-1254		4.30	ug/kg	1.18	3.54	1
11096-82-5	Aroclor-1260	J	3.10	ug/kg	1.18	3.54	1

# QUALITY CONTROL SUMMARY

PCB  
Surrogate Recovery Report

Page 1 of 1

SDG Number: 10-2193

Matrix Type: SOLID

CAP Column (1) : CLP1

CAP Column (2) : CLP2

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202072978	MB for batch 965974	74	74	68	78
1202072979	LCS for batch 965974	77	77	81	80
248506001	RE36-10-7407	48	47	50	51
1202072980	RE36-10-7407MS	54	53	51	53
1202072981	RE36-10-7407MSD	52	51	44	52
248506003	RE36-10-7422	52	52	57	58
1202076239	MB for batch 967352	84	80	84	85
1202076240	LCS for batch 967352	86	82	87	87
248506002	RE36-10-7421	58	56	47	59

## Surrogate

## Acceptance Limits

4CMX = 4cmx

(32%-120%)

DCB = Decachlorobiphenyl

(30%-116%)

\* Recovery outside Acceptance Limits

# Column to be used to flag recovery values

D Sample Diluted

PCB

Page 1 of 1

**Quality Control Summary  
Spike Recovery Report**

SDG Number: 10-2193

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 965974

Matrix: SOIL

Lab Sample ID: J202072979

Instrument: ECD1A.I

Analysis Date: 03/18/2010 12:48

Dilution: 1

Analyst: YS1

Prep Batch ID: 965974

Inj. Vol: 1 uL

Batch ID: 965975

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	23.4	70	39-102
11096-82-5	LCS Aroclor-1260	33.3	0.0	26.4	79	45-118

PCB

Page 1 of 1

**Quality Control Summary  
Spike Recovery Report****SDG Number: 10-2193****Sample Type: Laboratory Control Sample****Client ID: LCS for batch 967352****Matrix: SOIL****Lab Sample ID:1202076240****Instrument: ECD1A.I****Analysis Date: 03/22/2010 14:49****Dilution: 1****Analyst: YS1****Prep Batch ID: 967352****Inj. Vol: 1 uL****Batch ID: 967354**

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS Aroclor-1016	33.3	0.0	26.7	80	39-102
11096-82-5	LCS Aroclor-1260	33.3	0.0	29.2	88	45-118

PCB

Page 1 of 2

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2193

Client ID: RE36-10-7407MS

Lab Sample ID:1202072980

Instrument: ECD1A.I

Analyst: YS1

Inj. Vol: 1 uL

Sample Type: Matrix Spike

Matrix: R

%Moisture: 22.9

Analysis Date: 03/18/2010 17:07

Dilution: 1

Prep Batch II 965974

Batch ID: 965975

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS Aroclor-1016	43.2	0.00 U	21.5	50	23-119
11096-82-5	MS Aroclor-1260	43.2	13.0	33.6	48	28-124

## PCB

Page 2 of 2

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2193

Client ID: RE36-10-7407MSD

Lab Sample ID:1202072981

Instrument: ECD1A.I

Analyst: YS1

Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate

Matrix: R

%Moisture: 22.9

Analysis Date: 03/18/2010 17:20

Dilution: 1

Prep Batch II 965974

Batch ID: 965975

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	43.2	0.00 U	20.6	48	23-119	4	0-28
11096-82-5	MSD Aroclor-1260	43.2	13.0	34.7	50	28-124	3	0-30



PCB

Page 1 of 2

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2298

Sample Type: Matrix Spike

Client ID: RE46-10-13867MS

Matrix: S

Lab Sample ID:1202076241

%Moisture: 7.9

Instrument: ECD1A.I

Analysis Date: 03/22/2010 15:27

Dilution: 1

Analyst: YS1

Prep Batch ID: 967352

Inj. Vol: 1 uL

Batch ID: 967354

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS Aroclor-1016	36.2	0.00 U	30.0	83	23-119
11096-82-5	MS Aroclor-1260	36.2	0.00 U	34.8	96	28-124

PCB

Page 2 of 2

Quality Control Summary  
Spike Recovery Report

SDG Number: 10-2298

Sample Type: Matrix Spike Duplicate

Client ID: RE46-10-13867MSD

Matrix: S

Lab Sample ID:1202076242

%Moisture: 7.9

Instrument: ECD1A.I

Analysis Date: 03/22/2010 15:39

Dilution: 1

Analyst: YS1

Prep Batch ID: 967352

Inj. Vol: 1 uL

Batch ID: 967354

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	36.1	0.00 U	28.2	78	23-119	6	0-28
11096-82-5	MSD Aroclor-1260	36.1	0.00 U	33.5	93	28-124	4	0-30

## Method Blank Summary

Page 1 of 1

SDG Number:	10-2193	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 965974	Instrument ID:	ECD1A.I_2	Data File:	037b3701-1.d
Lab Sample ID:	1202072978		ECD1A.I_1		037f3701-1.d
Column:	CLP2	Prep Date:	03/17/2010 11:22	Analyzed:	03/18/10 12:38
	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 965974	1202072979	038f3801-1.d 038b3801-1.d	03/18/10	1248
02 RE36-10-7407	248506001	058f5801.d 058h5801.d	03/18/10	1654
03 RE36-10-7407MS	1202072980	059f5901.d 059b5901.d	03/18/10	1707
04 RE36-10-7407MSD	1202072981	060f6001.d 060b6001.d	03/18/10	1720
05 RE36-10-7422	248506003	062f6201.d 062b6201.d	03/18/10	1745

## Method Blank Summary

Page 1 of 1

SDG Number:	10-2193	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 967352	Instrument ID:	ECD1A.J_2	Data File:	041b4101-1.d
Lab Sample ID:	1202076239		ECD1A.J_1		041f4101-1.d
Column:	CLP2	Prep Date:	03/21/2010 11:56	Analyzed:	03/22/10 14:36
	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 967352	1202076240	042f4201-1.d 042b4201-1.d	03/22/10	1449
02 RE36-10-7421	248506002	043f4301.d 043b4301.d	03/22/10	1501

# SAMPLE DATA

**PCB**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2193  
Lab Sample ID: 248506001

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
%Moisture: 22.9  
Project: LANL01004  
SOP Ref: GL-OA-E-040  
Dilution: 1  
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	4.32	ug/kg	1.44	4.32	1
11104-28-2	Aroclor-1221	U	4.32	ug/kg	1.44	4.32	1
11141-16-5	Aroclor-1232	U	4.32	ug/kg	1.44	4.32	1
53469-21-9	Aroclor-1242	U	4.32	ug/kg	1.44	4.32	1
12672-29-6	Aroclor-1248	U	4.32	ug/kg	1.44	4.32	1
11097-69-1	Aroclor-1254		18.5	ug/kg	1.44	4.32	1
11096-82-5	Aroclor-1260		13.0	ug/kg	1.44	4.32	1

Data File: /chem/ecdl1a.i/031810.b/058f5801.d  
Report Date: 19-Mar-2010 08:45

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031810.b/058f5801.d

Lab Smp Id: 248506001

Client Smp ID: RE36-10-7407

Inj Date : 18-MAR-2010 16:54

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |248506001|1|

Misc Info : |ECD82P\_1S|965975|SVA|LANL|SOIL|RE36-10-7407|

Comment :

Method : /chem/ecdl1a.i/031810.b/ECD1-F-8082-031110b.m

Meth Date : 19-Mar-2010 06:23 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 58

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-2193.sub

Target Version: 3.50

Sample Matrix: Soil

Processing Host: hpclp1

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	22.85850	% 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	
1.911	1.910	0.001	37310183 95.7843	4.1	80.00- 120.00	100.00
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3	
5.215	5.215	0.000	29646031 99.8417	4.3	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1	
3.206	3.207	-0.001	3092223 233.165	10.1	80.00- 120.00	100.00 (M)
3.360	3.362	-0.002	6061984 339.925	14.7	112.77- 152.77	196.04
3.594	3.596	-0.002	8117145 362.837	15.7	151.79- 191.79	262.50
3.756	3.758	-0.002	8172246 495.586	21.4	105.45- 145.45	264.28

CONCENTRATIONS							
RT	EXP RT	DLT RT	ON-COL	FINAL	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	
6 Aroclor-1254 (continued)							
3.864	3.867	-0.003	11328211	709.591	30.7 106.56-	146.56	366.35
Average of Peak Concentrations =				18.5			
-----							
7 Aroclor-1260				CAS #: 11096-82-5			
3.702	3.704	-0.002	6104591	333.037	14.4 80.00-	120.00	100.00 (M)
3.864	3.866	-0.002	11328211	421.282	18.2 126.99-	166.99	185.57
4.027	4.028	-0.001	17275454	610.110	26.4 134.29-	174.29	282.99
4.095	4.096	-0.001	1652502	102.272	4.4 68.76-	108.76	27.07
4.235	4.239	-0.004	715327	42.5469	1.8 72.09-	112.09	11.72
Average of Peak Concentrations =				13.0			
-----							

#### QC Flag Legend

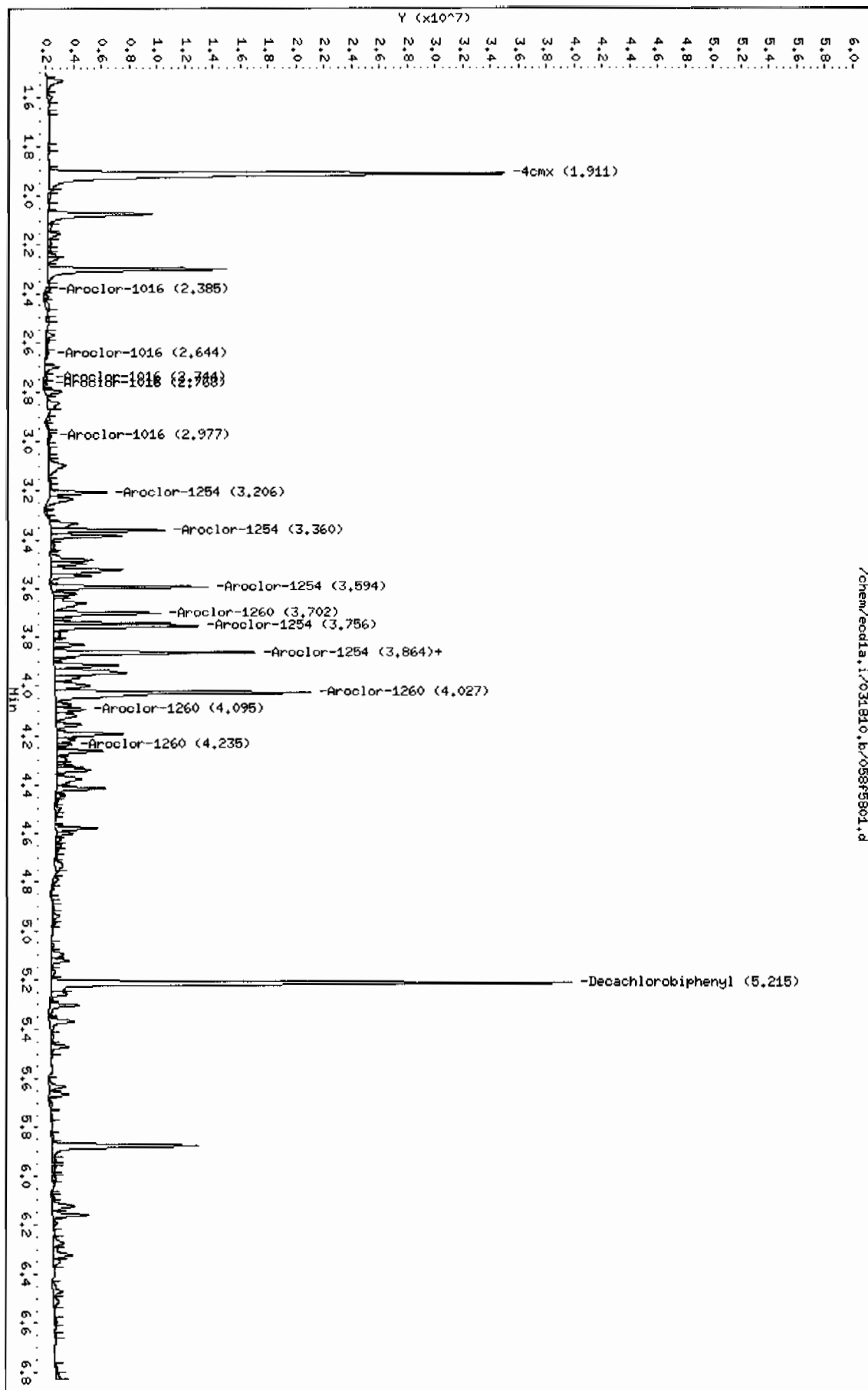
M - Compound response manually integrated.



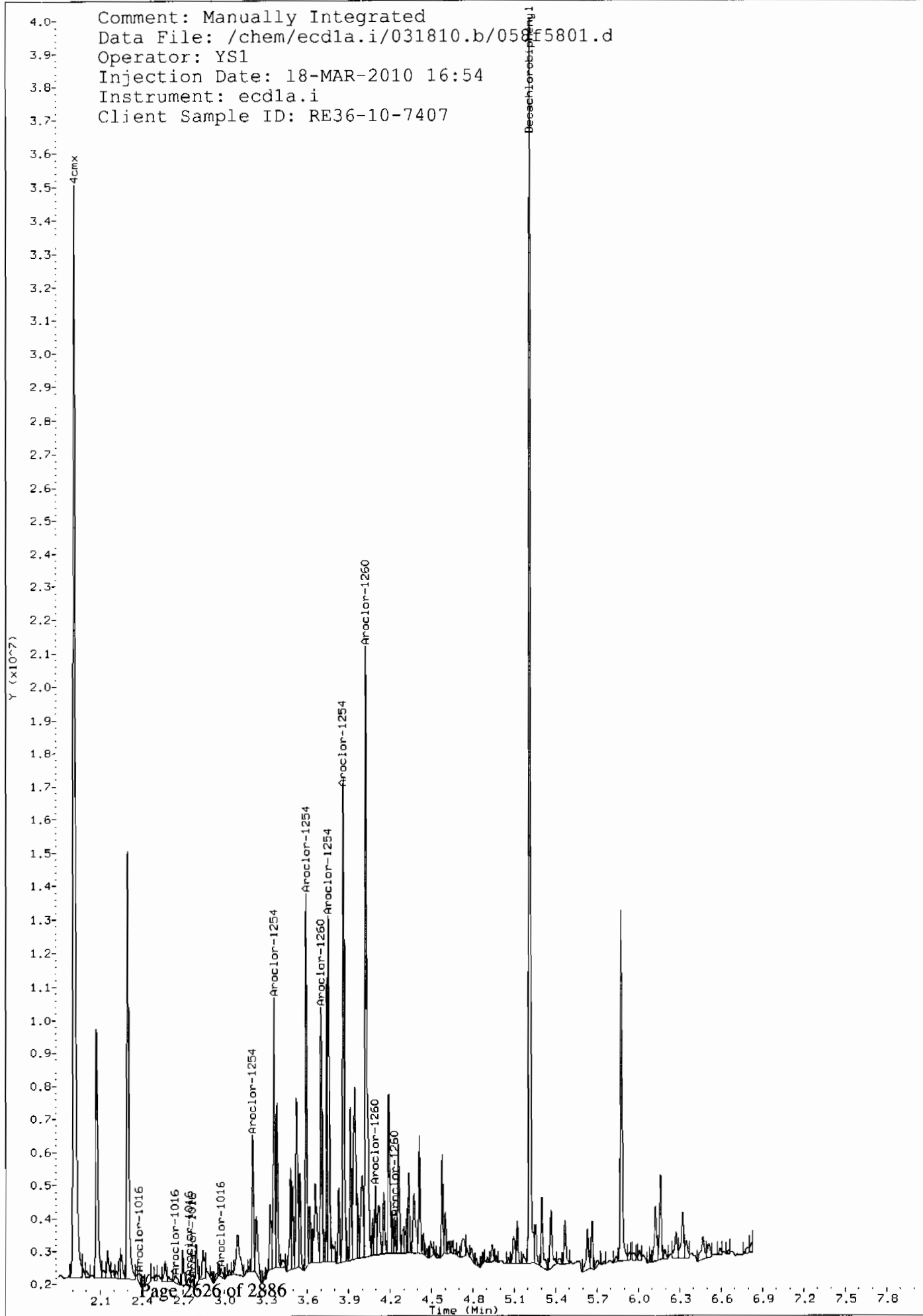
Data File: /chem/eodia.i/031810.b/058f5501.d  
 Date: 18-Mar-2010 16:54  
 Client ID: RE36-10-7407  
 Sample Info: 124850600111  
 Volume Injected (uL): 1.0  
 Column phase: CLP1

Instrument: eodia.i  
 Operator: YSI  
 Column diameter: 0.25

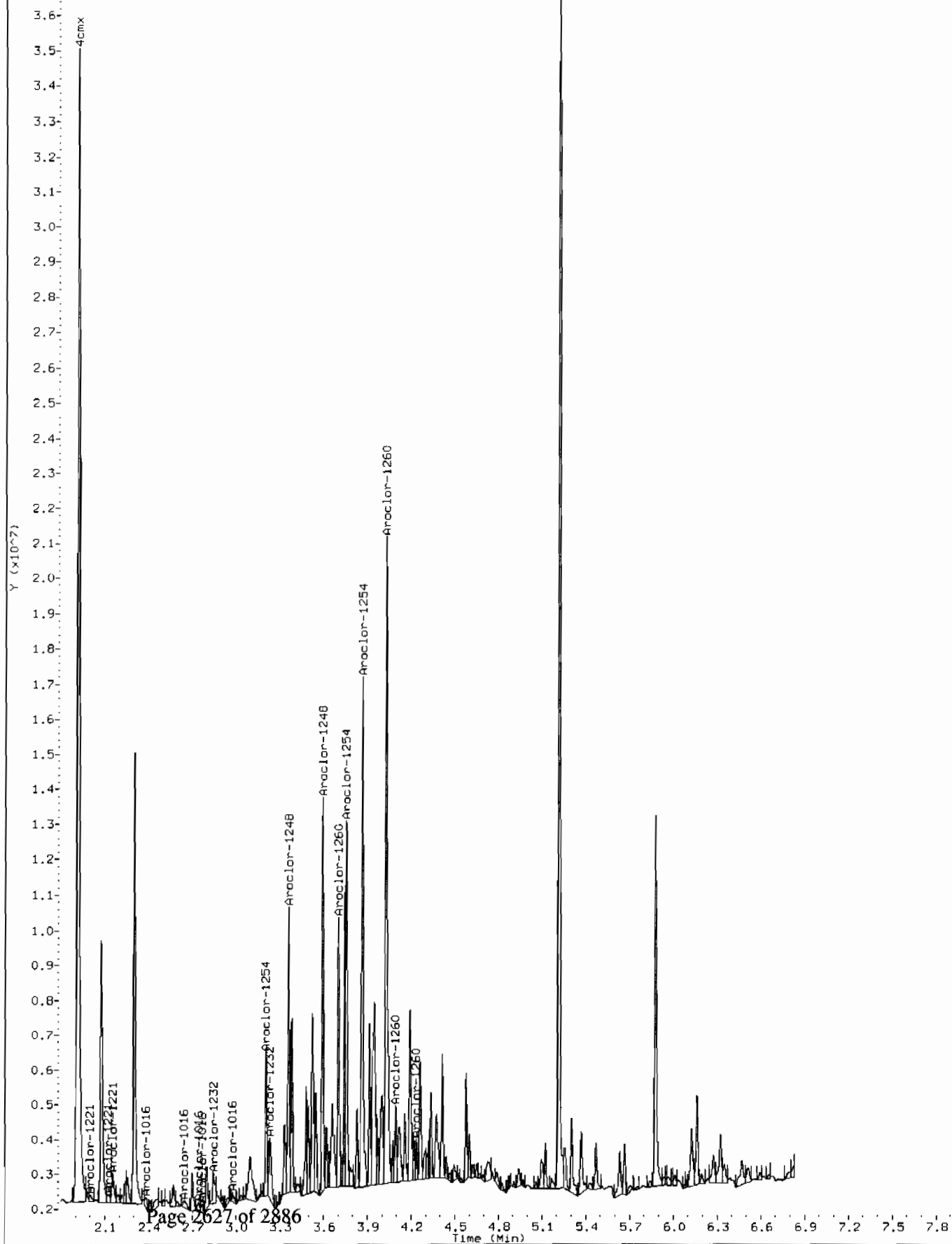
/chem/eodia.i/031810.b/058f5501.d



Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/031810.b/058f5801.d  
Operator: YSl  
Injection Date: 18-MAR-2010 16:54  
Instrument: ecd1a.i  
Client Sample ID: RE36-10-7407



Comment: Before manual integration  
Data File: /chem/ecdla.i/031810.b/original-058f5801.d  
Operator: YS1  
Injection Date: 18-MAR-2010 16:54  
Instrument: ecdla.i  
Client Sample ID: RE36-10-7407



Data File: /chem/ecdl1.i/031810.b/058b5801.d  
Report Date: 19-Mar-2010 08:43

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1.i/031810.b/058b5801.d

Lab Smp Id: 248506001

Client Smp ID: RE36-10-7407

Inj Date : 18-MAR-2010 16:54

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |248506001|1|

Misc Info : |ECD82P\_1S|965975|SVA|LANL|SOIL|RE36-10-7407|

Comment :

Method : /chem/ecdl1.i/031810.b/ECD1-B-8082-031110b.m

Meth Date : 19-Mar-2010 08:33 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 58

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-2193.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	22.85850	% 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						
2.269	2.269	0.000	24861358	94.7704	4.1 80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3						
5.911	5.912	-0.001	19119249	102.147	4.4 80.00- 120.00	100.00
-----						
6 Aroclor-1254 CAS #: 11097-69-1						
3.373	3.373	0.000	482098	80.0665	3.4 80.00- 120.00	100.00 (M)
3.794	3.795	-0.001	2294511	212.066	9.2 161.66- 201.66	475.94
3.910	3.912	-0.002	4556014	381.780	16.5 179.37- 219.37	945.04
4.185	4.187	-0.002	6206038	377.455	16.3 258.64- 298.64	1287.30

CONCENTRATIONS							
			ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	
6 Aroclor-1254 (continued)							
4.322	4.324	-0.002	5155141	425.499	18.4	186.15-	226.15 1069.31
Average of Peak Concentrations =				12.8			
-----							
7 Aroclor-1260				CAS #: 11096-82-5			
4.302	4.304	-0.002	5655411	432.363	18.7	80.00-	120.00 100.00 (M)
4.427	4.428	-0.001	6293459	404.749	17.5	101.47-	141.47 111.28
4.694	4.694	0.000	1739059	146.188	6.3	71.27-	111.27 43.46
4.867	4.867	0.000	967016	78.6882	3.4	74.83-	114.83 17.10
5.014	5.014	0.000	2112748	80.0446	3.4	189.25-	229.25 37.36
Average of Peak Concentrations =				9.9			
-----							

#### QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdl1.i/031810.b/058b5801.d

Date: 18-Mar-2010 16:54

Client ID: RE36-10-7407

Sample Info: 124850600111

Volume Injected (uL): 1.0

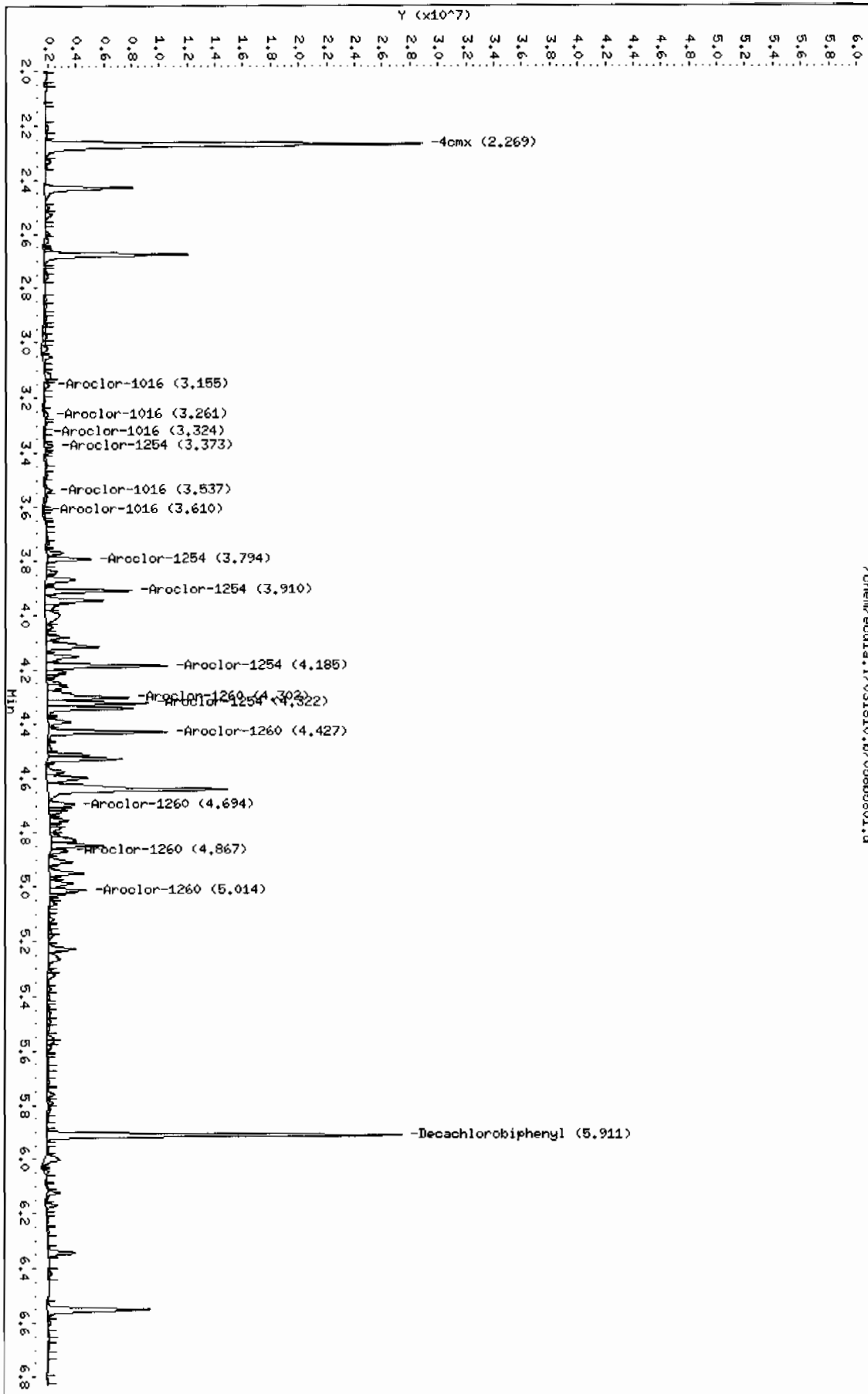
Column phase: CLP2

Instrument: ecdl1.i

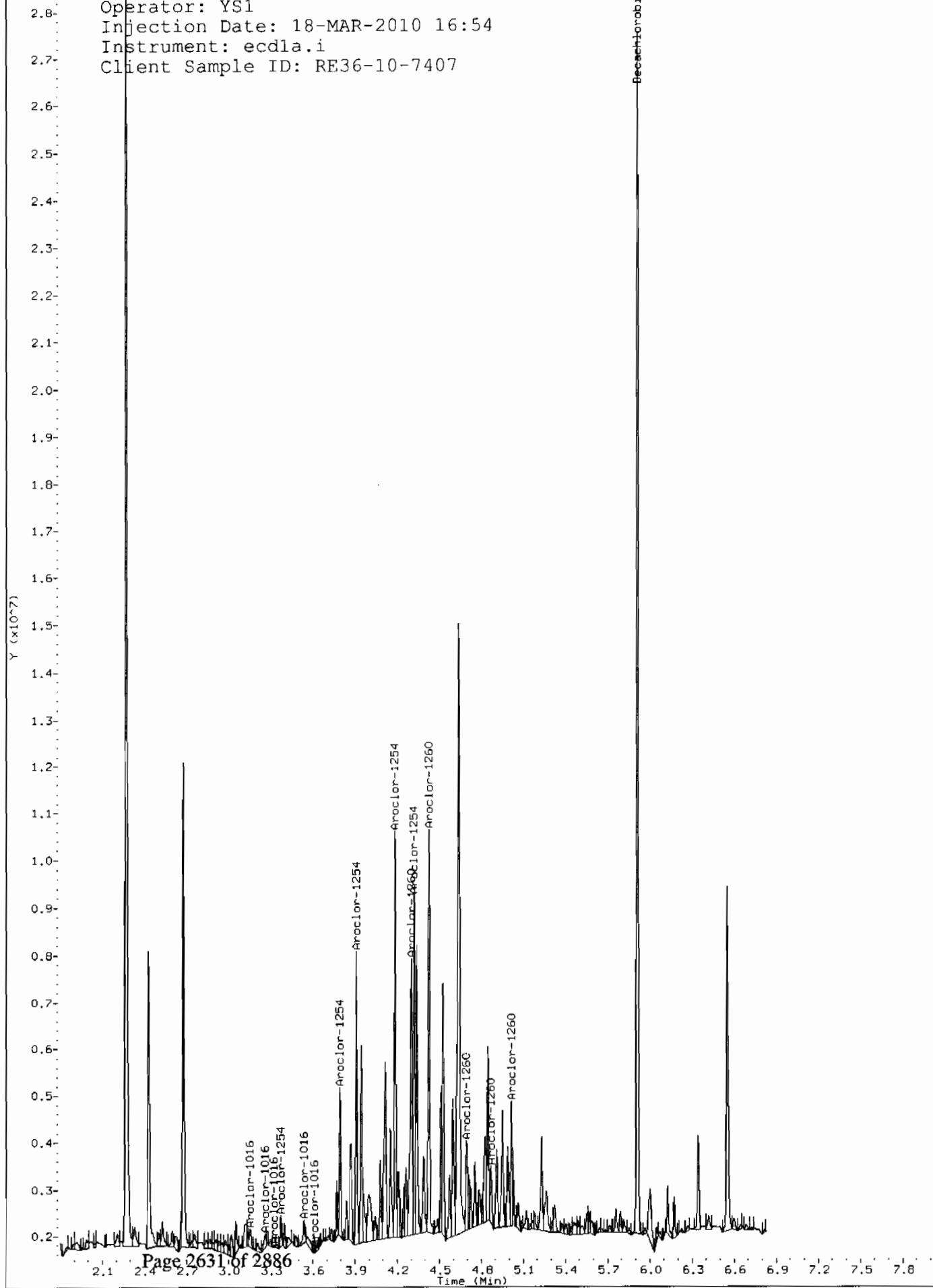
Operator: YSI

Column diameter: 0.25

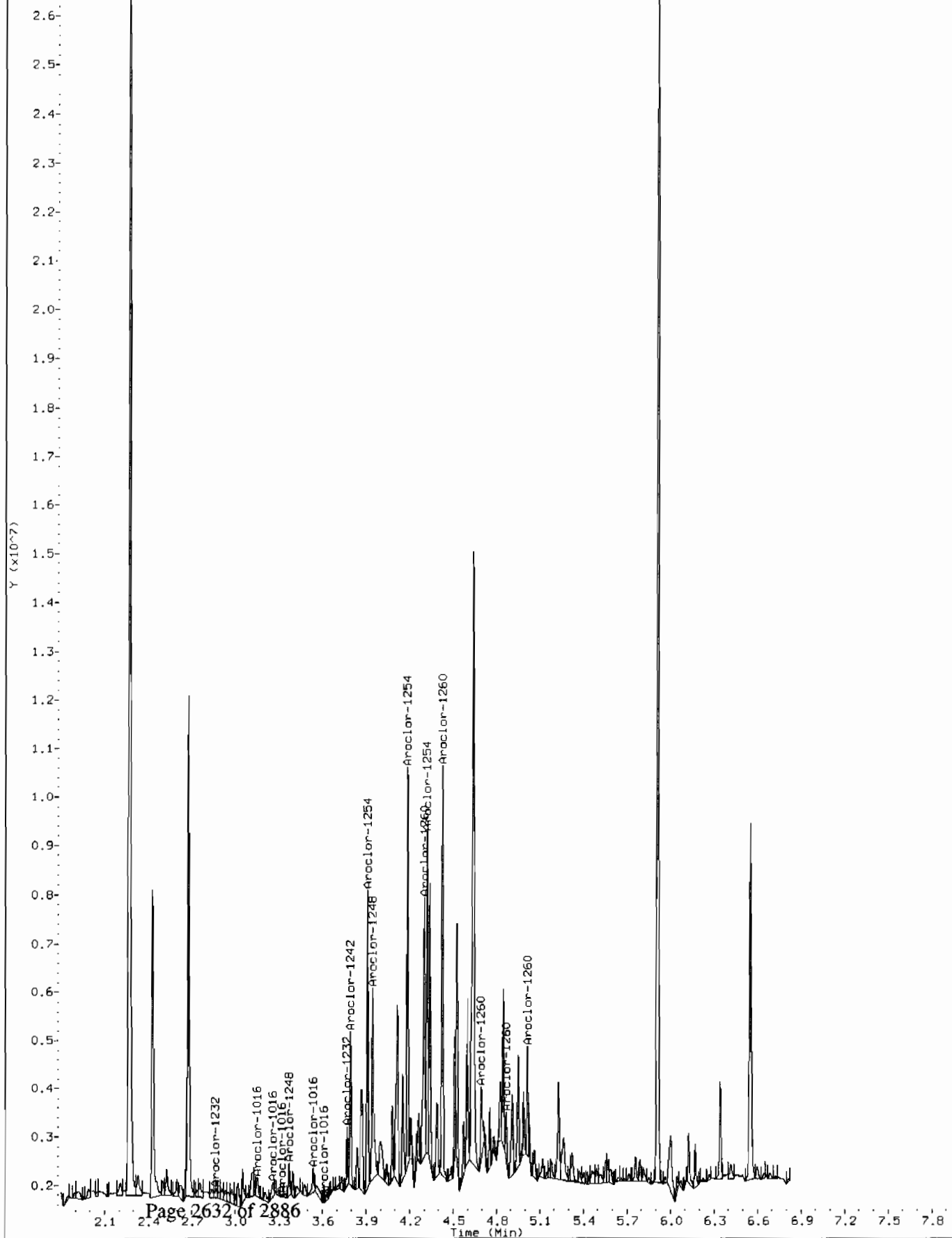
Page 1



Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/031810.b/058b5801.d  
Operator: YS1  
Injection Date: 18-MAR-2010 16:54  
Instrument: ecdl1a.i  
Client Sample ID: RE36-10-7407



Beachtop Brewery





## PCB

Page 1 of 1

## Certificate of Analysis

## Sample Summary

SDG Number: 10-2193

Lab Sample ID: 248506002

Client ID: RE36-10-7421

Batch ID: 967354

Run Date: 03/22/2010 15:01

Prep Date: 03/21/2010 11:56

Data File: 043f4301.d

043b4301.d

Date Collected: 02/25/2010 12:00

Date Received: 03/03/2010 08:50

Client: LANL010

Method: SW846 8082

Inst: ECD1A.I

Analyst: YSI

Aliquot: 30.18 g

Column: 1 CLP1

2 CLP2

Matrix: R

%Moisture: 15

Project: LANL01004

SOP Ref: GL-OA-E-040

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.90	ug/kg	1.30	3.90	1
11104-28-2	Aroclor-1221	U	3.90	ug/kg	1.30	3.90	1
11141-16-5	Aroclor-1232	U	3.90	ug/kg	1.30	3.90	1
53469-21-9	Aroclor-1242	U	3.90	ug/kg	1.30	3.90	1
12672-29-6	Aroclor-1248	U	3.90	ug/kg	1.30	3.90	1
11097-69-1	Aroclor-1254		44.4	ug/kg	1.30	3.90	1
11096-82-5	Aroclor-1260		34.0	ug/kg	1.30	3.90	1

Report Date: 23-Mar-2010 07:43

## GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/032210.b/043f4301.d

Lab Smp Id: 248506002

Client Smp ID: RE36-10-7421

Inj Date : 22-MAR-2010 15:01

Operator : YSl

Inst ID: ecd1a.i

Smp Info : |248506002|1|

Misc Info : |ECD82P\_1S|967354|SVA|LANL|SOIL|RE36-10-7421|||

Comment :

Method : /chem/ecdl1a.i/032210.b/ECD1-F-8082-031110b.m

Meth Date : 23-Mar-2010 06:36 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 43

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-2193.sub

Target Version: 3.50

Sample Matrix: Soil

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	14.95190	% Moisture

Cpnd Variable

Local Compound Variable

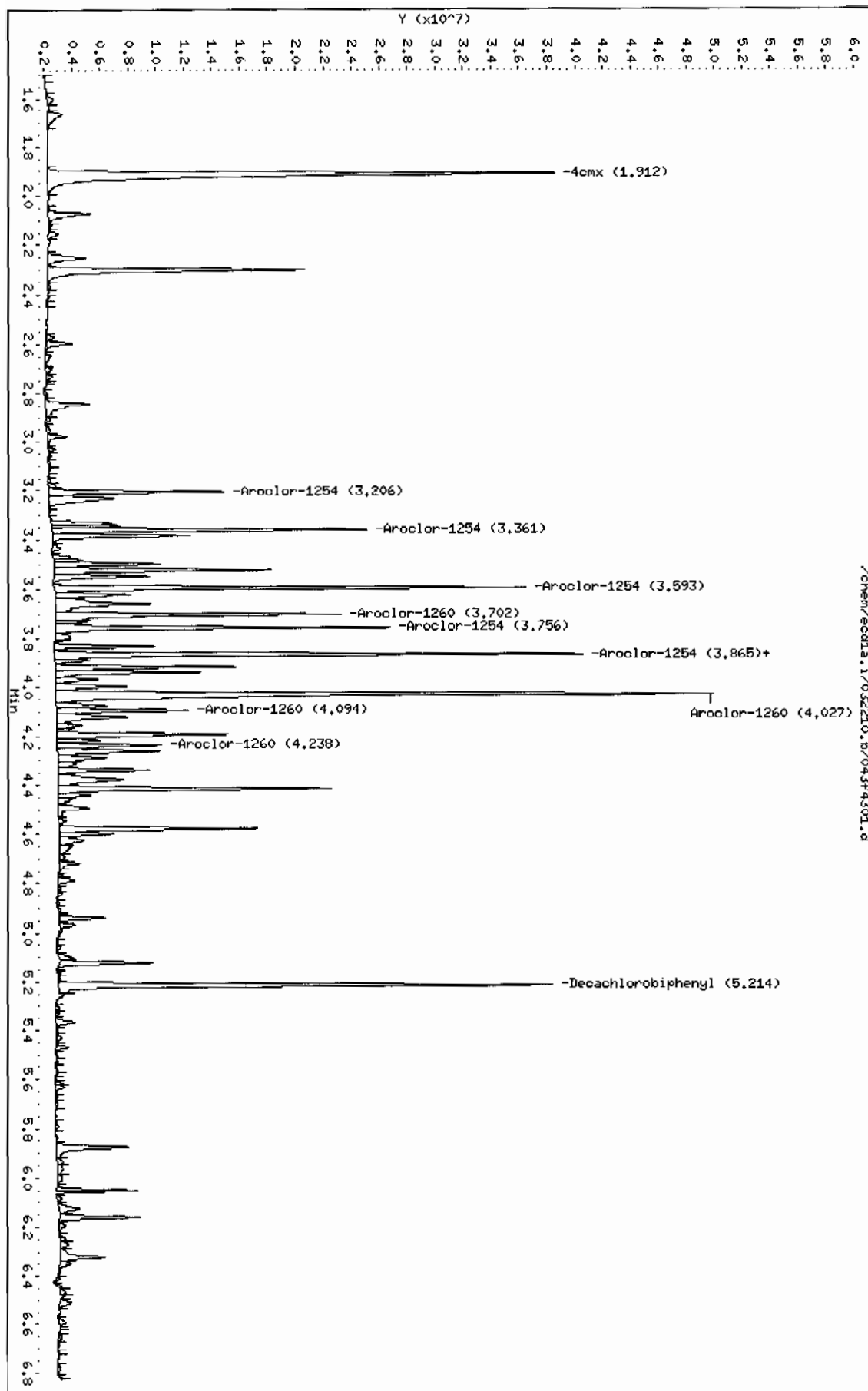
## CONCENTRATIONS

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	ON-COL	FINAL	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx				CAS #: 877-09-8			
1.912	1.911	0.001	44920086 115.321	4.5	80.00- 120.00	100.00	
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.214	5.216	-0.002	27833964 93.7390	3.6	80.00- 120.00	100.00	
6 Aroclor-1254				CAS #: 11097-69-1			
3.206	3.207	-0.001	9655540 728.063	28.4	80.00- 120.00	100.00	
3.361	3.362	-0.001	16789920 941.492	36.7	113.84- 153.84	173.89	
3.593	3.596	-0.003	23812204 1064.41	41.5	154.72- 194.72	246.62	
3.756	3.758	-0.002	18738066 1136.33	44.3	109.40- 149.40	194.07	
3.865	3.867	-0.002	29143596 1825.53	71.1	108.11- 148.11	301.83	
Average of Peak Concentrations =				44.4			

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO
---	-----	-----	-----	-----	-----	-----	-----	-----
7 Aroclor-1260					CAS #: 11096-82-5			
3.702	3.704	-0.002	16107009	878.720	34.2	80.00-	120.00	100.00
3.865	3.866	-0.001	29143596	1083.81	42.2	128.74-	168.74	180.94
4.027	4.028	-0.001	45406701	1603.61	62.5	138.95-	178.95	281.91
4.094	4.096	-0.002	7388494	457.269	17.8	69.61-	109.61	45.87
4.238	4.240	-0.002	5827521	346.615	13.5	72.96-	112.96	36.18
Average of Peak Concentrations =					34.0			

Data File: /chem/ecdda.i/032210.b/043f4301.d  
 Date : 22-MAR-2010 15:01  
 Client ID: RE36-10-7421  
 Sample Info: 124850600211  
 Volume Injected (uL): 1.0  
 Column phase: CLP1

Instrument: ecdda.i  
 Operator: YSI  
 Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
 Data file : /chem/ecdl1a.i/032210.b/043b4301.d  
 Lab Smp Id: 248506002 Client Smp ID: RE36-10-7421  
 Inj Date : 22-MAR-2010 15:01  
 Operator : YSl Inst ID: ecd1a.i  
 Smp Info : |248506002|1|  
 Misc Info : |ECD82P\_1S|967354|SVA|LANL|SOIL|RE36-10-7421|||  
 Comment :  
 Method : /chem/ecdl1a.i/032210.b/ECD1-B-8082-031110b.m  
 Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
 Als bottle: 43  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 10-2193.sub  
 Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	14.95190	% Moisture

Cpnd Variable Local Compound Variable

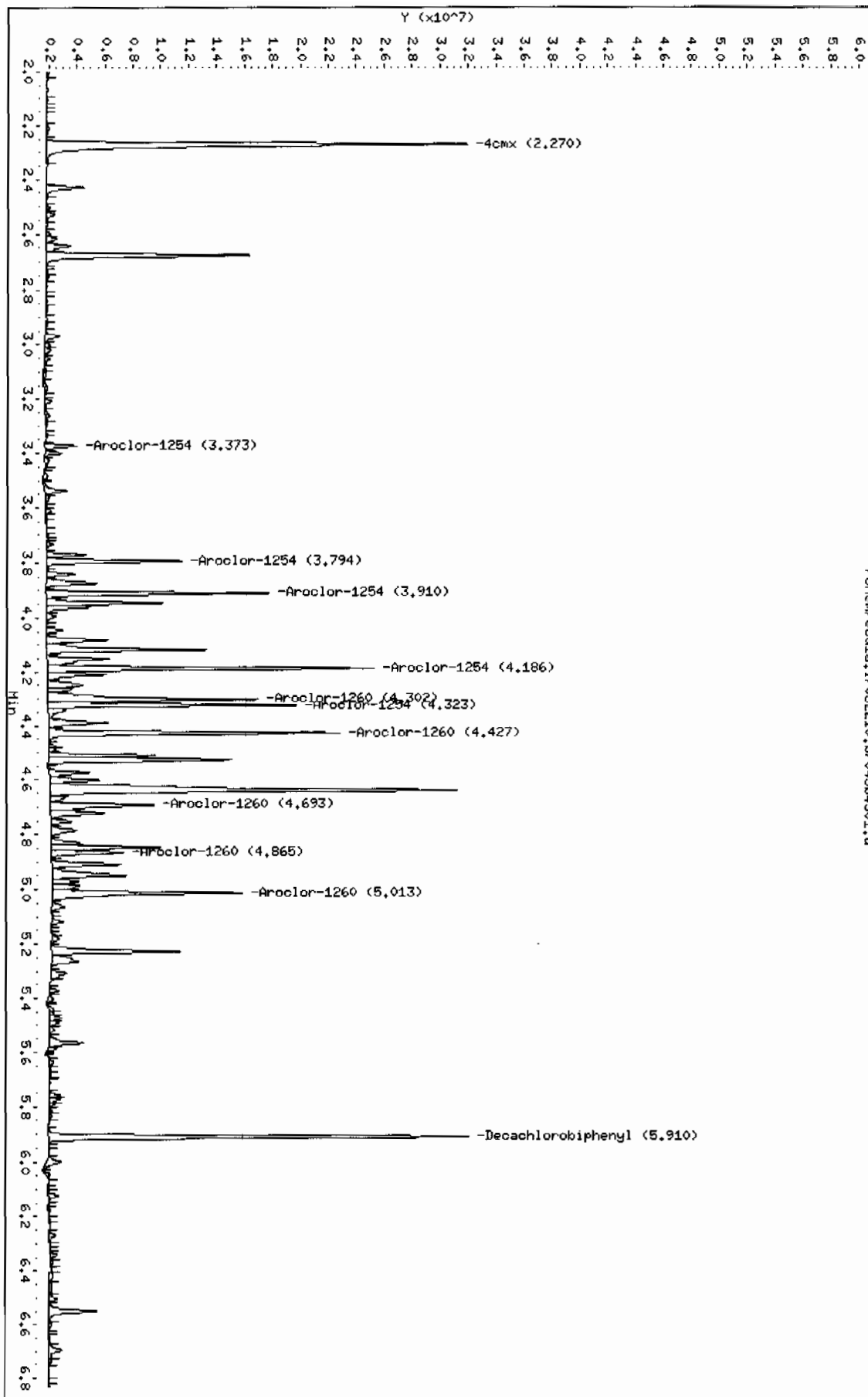
CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE	RATIO	
==	==	=====	=====	=====	=====	=====	=====	
\$ 11 4cmx					CAS #: 877-09-8			
2.270	2.269	0.001	29488756	112.410	4.4	80.00- 120.00	100.00	
-----								
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.910	5.911	-0.001	22240008	118.820	4.6	80.00- 120.00	100.00	
-----								
6 Aroclor-1254					CAS #: 11097-69-1			
3.373	3.372	0.001	1656138	275.050	10.7	80.00- 120.00	100.00	
3.794	3.794	0.000	7187324	664.276	25.9	162.06- 202.06	433.98	
3.910	3.911	-0.001	11438473	958.508	37.3	180.48- 220.48	690.67	
4.186	4.186	0.000	16508937	1004.08	39.1	261.71- 301.71	996.83	
4.323	4.323	0.000	12623268	1041.91	40.6	184.44- 224.44	762.21	
Average of Peak Concentrations =					30.7			

CONCENTRATIONS						
		ON-COL		FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	==	=====	=====	=====	=====
7 Aroclor-1260			CAS #: 11096-82-5			
4.302	4.303	-0.001	13374229	1022.48	39.8 80.00- 120.00	100.00
4.427	4.428	-0.001	15048156	967.788	37.7 101.68- 141.68	112.52
4.693	4.694	-0.001	6564376	551.811	21.5 71.42- 111.42	49.08
4.865	4.867	-0.002	3785451	308.030	12.0 74.52- 114.52	28.30
5.013	5.014	-0.001	11560447	437.985	17.1 190.00- 230.00	86.44
Average of Peak Concentrations =			25.6			

Data File: /chem/ecdda.i/032210.b/043b4301.d  
Date: 22-MAR-2010 15:01  
Client ID: RE36-10-7421  
Sample Info: 124860600211  
Volume Injected (uL): 1.0  
Column phase: CLP2

Instrument: ecdda.i  
Operator: YSI  
Column diameter: 0.25

/chem/ecdda.i/032210.b/043b4301.d



## PCB

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Certificate of Analysis  
Sample Summary

SDG Number: 10-2193

Lab Sample ID: 248506003

Client ID: RE36-10-7422

Batch ID: 965975

Run Date: 03/18/2010 17:45

Prep Date: 03/17/2010 11:22

Data File: 062f6201.d

062b6201.d

Date Collected: 02/25/2010 12:00

Date Received: 03/03/2010 08:50

Client: LANL010

Method: SW846 8082

Inst: ECD1A.I

Analyst: YS1

Aliquot: 30 g

Column: 1 CLP1

2 CLP2

Matrix: R

%Moisture: 5.9

Project: LANL01004

SOP Ref: GL-OA-E-040

Dilution: 1

Inj. Vol: 1 uL

Final Volume: 1 mL

Level: LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.54	ug/kg	1.18	3.54	1
11104-28-2	Aroclor-1221	U	3.54	ug/kg	1.18	3.54	1
11141-16-5	Aroclor-1232	U	3.54	ug/kg	1.18	3.54	1
53469-21-9	Aroclor-1242	U	3.54	ug/kg	1.18	3.54	1
12672-29-6	Aroclor-1248	U	3.54	ug/kg	1.18	3.54	1
11097-69-1	Aroclor-1254		4.30	ug/kg	1.18	3.54	1
11096-82-5	Aroclor-1260	J	3.10	ug/kg	1.18	3.54	1



Data File: /chem/ecdla.i/031810.b/062f6201.d  
Report Date: 19-Mar-2010 09:01

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/031810.b/062f6201.d  
Lab Smp Id: 248506003 Client Smp ID: RE36-10-7422  
Inj Date : 18-MAR-2010 17:45  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |248506003|1|  
Misc Info : |ECD82P\_1S|965975|SVA|LANL|SOIL|RE36-10-7422|  
Comment :  
Method : /chem/ecdla.i/031810.b/ECD1-F-8082-031110b.m  
Meth Date : 19-Mar-2010 06:23 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 62  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2193.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpc1p1

Concentration Formula:  $\text{Amt} * \text{DF} * \text{Uf} * \text{Vt} / (\text{Vi} * \text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	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	5.86450	% 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	
1.912	1.910	0.002	40678309 104.431	3.7	80.00- 120.00	100.00
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3	
5.215	5.215	0.000	34115993 114.896	4.1	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1	
3.207	3.207	0.000	1056363 79.6536	2.8	80.00- 120.00	100.00
3.361	3.362	-0.001	1790529 100.404	3.6	112.77- 152.77	169.50
3.595	3.596	-0.001	2419808 108.166	3.8	151.79- 191.79	229.07
3.758	3.758	0.000	1831754 111.082	3.9	105.45- 145.45	173.40

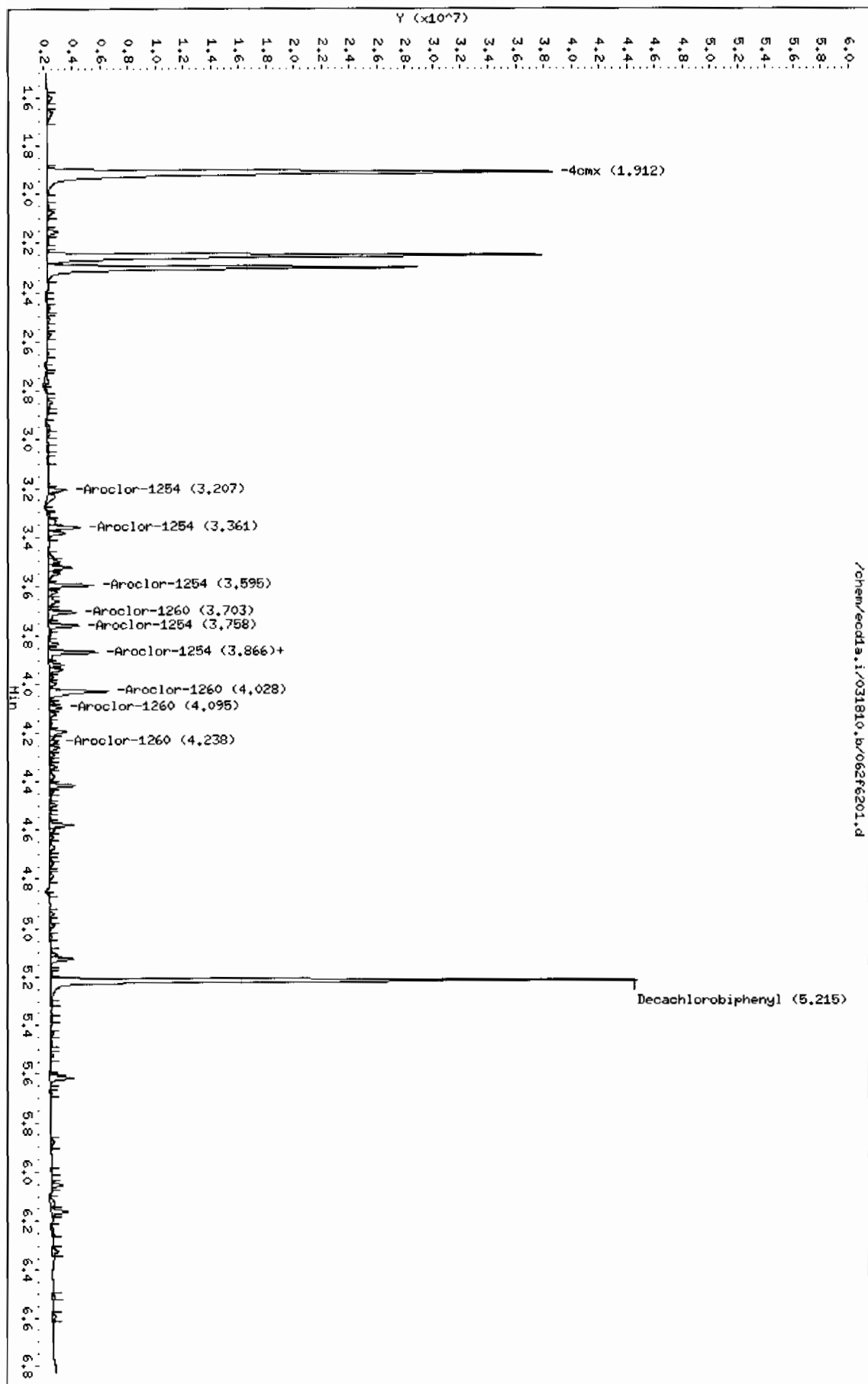
CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO
---	-----	-----	-----	-----	-----	-----	-----	-----
6 Aroclor-1254 (continued)								
3.866	3.867	-0.001	3320641	208.003	7.4	106.56-	146.56	314.35
Average of Peak Concentrations =					4.3			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.703	3.704	-0.001	1801603	98.2866	3.5	80.00-	120.00	100.00 (a)
3.866	3.866	0.000	3320641	123.491	4.4	126.99-	166.99	184.32
4.028	4.028	0.000	4250120	150.100	5.3	134.29-	174.29	235.91
4.095	4.096	-0.001	693098	42.8954	1.5	68.76-	108.76	38.47
4.238	4.239	-0.001	358228	21.3070	0.75	72.09-	112.09	19.88
Average of Peak Concentrations =					3.1			

#### QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecdda.i/031810.b/062f6201.d  
Date: 18-MAR-2010 17:45  
Client ID: RE36-10-7422  
Sample Info: 1248606003111  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: ecdda.i  
Operator: YSL  
Column diameter: 0.25



Data File: /chem/ecdl1a.i/031810.b/062b6201.d  
Report Date: 19-Mar-2010 09:01

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecdl1a.i/031810.b/062b6201.d  
Lab Smp Id: 248506003 Client Smp ID: RE36-10-7422  
Inj Date : 18-MAR-2010 17:45  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |248506003|1|  
Misc Info : |ECD82P\_1S|965975|SVA|LANL|SOIL|RE36-10-7422|||  
Comment :  
Method : /chem/ecdl1a.i/031810.b/ECD1-B-8082-031110b.m  
Meth Date : 19-Mar-2010 08:33 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 62  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2193.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	5.86450	% 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	2.269	0.001	27359764 104.294	3.7	80.00- 120.00	100.00
\$ 12 Decachlorobiphenyl			CAS #: 2051-24-3			
5.912	5.912	0.000	21623203 115.525	4.1	80.00- 120.00	100.00
6 Aroclor-1254			CAS #: 11097-69-1			
3.373	3.373	0.000	267113 44.3620	1.6	80.00- 120.00	100.00(a)
3.794	3.795	-0.001	944708 87.3130	3.1	161.66- 201.66	353.67
3.911	3.912	-0.001	1290654 108.153	3.8	179.37- 219.37	483.19
4.187	4.187	0.000	1820310 110.712	3.9	258.64- 298.64	681.47

CONCENTRATIONS							
			ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE	RATIO
-	=====	=====	=====	=====	=====	=====	=====
6 Aroclor-1254 (continued)							
4.323	4.324	-0.001	1295767	106.951	3.8	186.15- 226.15	485.10
Average of Peak Concentrations =					3.2		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
4.303	4.304	-0.001	1413171	108.039	3.8	80.00- 120.00	100.00 (a)
4.428	4.428	0.000	1764444	113.476	4.0	101.47- 141.47	124.86
4.695	4.694	0.001	715876	60.1775	2.1	71.27- 111.27	50.66
4.868	4.867	0.001	442711	36.0243	1.3	74.83- 114.83	31.33
5.015	5.014	0.001	1426588	54.0484	1.9	169.25- 229.25	100.95
Average of Peak Concentrations =					2.6		
-----							

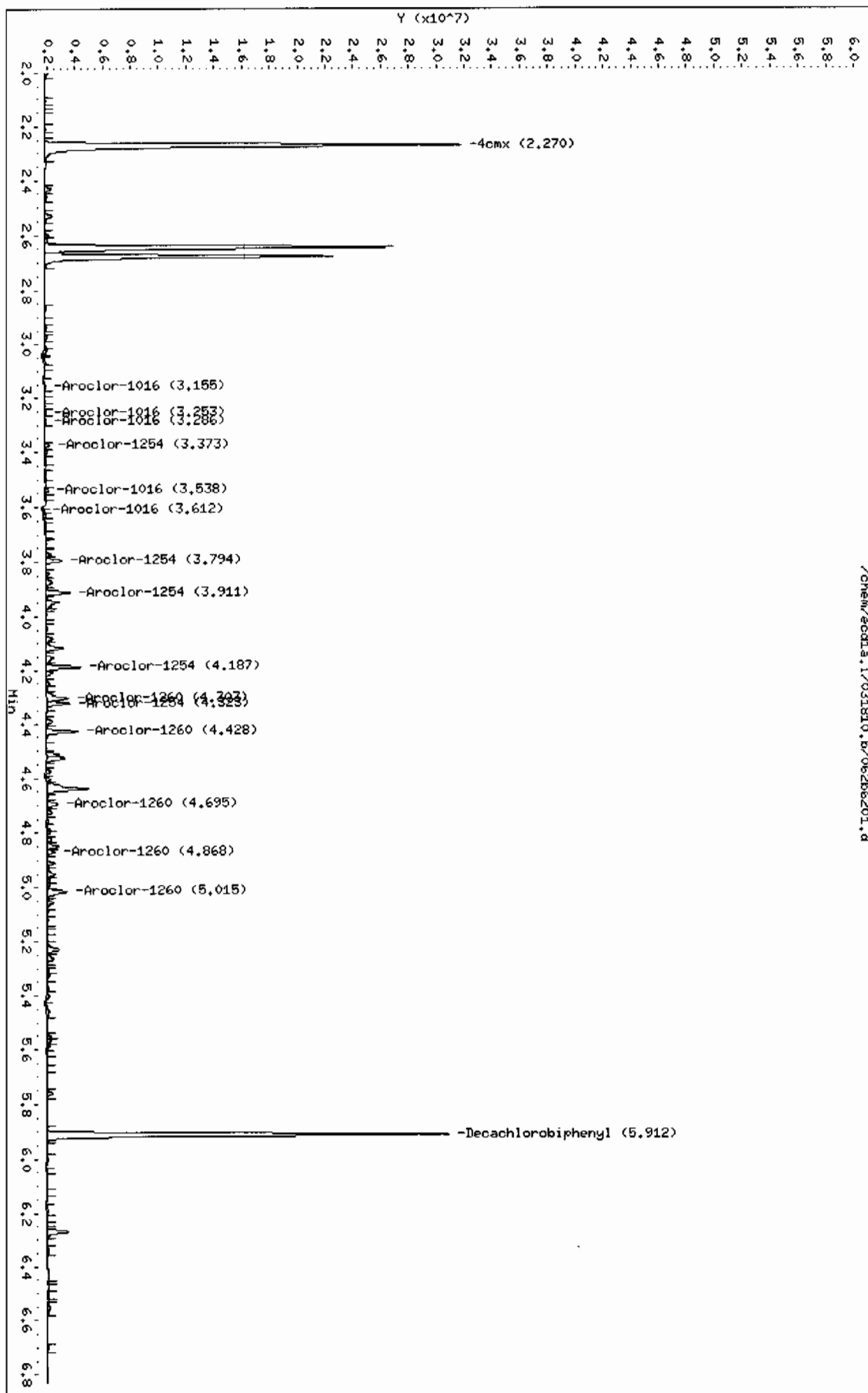
#### QC Flag Legend

a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).

Data File: /chem/eod1a.i/031810.b/062b6201.d  
 Date: 18-MAR-2010 17:45  
 Client ID: RE36-10-7422  
 Sample Info: 1248506003111  
 Volume Injected (uL): 1.0  
 Column phase: CLP2

Instrument: eod1a.i  
 Operator: YSI  
 Column diameter: 0.25

/chem/eod1a.i/031810.b/062b6201.d



# STANDARDS DATA

Report Date: 19-Mar-2010 09:18

### Calibration History

Method : /chem/ecdl1a.i/031810.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/ecdl1a.i/022210.b/032f3201.d
11-MAR-2010 19:40	AR1248	/chem/ecdl1a.i/031110b.b/029f2901.d
11-MAR-2010 18:37	AR1242	/chem/ecdl1a.i/031110b.b/023f2301.d
11-MAR-2010 17:34	AR1254	/chem/ecdl1a.i/031110b.b/017f1701.d
11-MAR-2010 16:31	AR1660	/chem/ecdl1a.i/031110b.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecdl1a.i/022210.b/033f3301.d
11-MAR-2010 19:51	AR1248	/chem/ecdl1a.i/031110b.b/030f3001.d
11-MAR-2010 18:48	AR1242	/chem/ecdl1a.i/031110b.b/024f2401.d
11-MAR-2010 17:45	AR1254	/chem/ecdl1a.i/031110b.b/018f1801.d
11-MAR-2010 16:41	AR1660	/chem/ecdl1a.i/031110b.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecdl1a.i/022210.b/034f3401.d
11-MAR-2010 20:01	AR1248	/chem/ecdl1a.i/031110b.b/031f3101.d
11-MAR-2010 18:58	AR1242	/chem/ecdl1a.i/031110b.b/025f2501.d
11-MAR-2010 17:55	AR1254	/chem/ecdl1a.i/031110b.b/019f1901.d
11-MAR-2010 16:52	AR1660	/chem/ecdl1a.i/031110b.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecdl1a.i/022210.b/035f3501.d
11-MAR-2010 20:12	AR1248	/chem/ecdl1a.i/031110b.b/032f3201.d
11-MAR-2010 19:09	AR1242	/chem/ecdl1a.i/031110b.b/026f2601.d
11-MAR-2010 18:06	AR1254	/chem/ecdl1a.i/031110b.b/020f2001.d
11-MAR-2010 17:02	AR1660	/chem/ecdl1a.i/031110b.b/014f1401.d
11-MAR-2010 16:10	AR1262	/chem/ecdl1a.i/031110b.b/009f0901.d
11-MAR-2010 15:59	AR1221	/chem/ecdl1a.i/031110b.b/008f0801.d
11-MAR-2010 15:49	AR1232	/chem/ecdl1a.i/031110b.b/007f0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecdl1a.i/031110b.b/010f1001.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecdl1a.i/022210.b/036f3601.d
11-MAR-2010 20:22	AR1248	/chem/ecdl1a.i/031110b.b/033f3301.d
11-MAR-2010 19:19	AR1242	/chem/ecdl1a.i/031110b.b/027f2701.d
11-MAR-2010 18:16	AR1254	/chem/ecdl1a.i/031110b.b/021f2101.d
11-MAR-2010 17:13	AR1660	/chem/ecdl1a.i/031110b.b/015f1501.d



Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 4

+-----+-----+-----+-----+-----+-----+		
	Ccal Level: 4 , Ccal Amount: 1000	
+=====+		
	18-MAR-2010 17:57  AR1660	/chem/ecd1a.i/031810.b/063f6301.d
+-----+-----+-----+-----+-----+-----+		
	Ccal Level: 4 , Ccal Amount: 1000	
+=====+		
	18-MAR-2010 16:29  AR1660	/chem/ecd1a.i/031810.b/056f5601.d
+-----+-----+-----+-----+-----+-----+		
	Ccal Level: 4 , Ccal Amount: 1000	
+=====+		
	18-MAR-2010 14:27  AR1660	/chem/ecd1a.i/031810.b/046f4601.d
+-----+-----+-----+-----+-----+-----+		
	Ccal Level: 4 , Ccal Amount: 1000	
+=====+		
	18-MAR-2010 12:06  AR1660	/chem/ecd1a.i/031810.b/034f3401.d
+-----+-----+-----+-----+-----+-----+		
	Ccal Level: 4 , Ccal Amount: 1000	
+=====+		
	18-MAR-2010 10:06  AR1660	/chem/ecd1a.i/031810.b/023f2301.d
+-----+-----+-----+-----+-----+-----+		
	Ccal Level: 4 , Ccal Amount: 1000	
+=====+		
	18-MAR-2010 09:56  AR1660	/chem/ecd1a.i/031810.b/022f2201.d
+-----+-----+-----+-----+-----+-----+		
	Ccal Level: 4 , Ccal Amount: 1000	
+=====+		
	18-MAR-2010 07:26  AR1262	/chem/ecd1a.i/031810.b/009f0901.d
+-----+-----+-----+-----+-----+-----+		
	Ccal Level: 4 , Ccal Amount: 1000	
+=====+		
	18-MAR-2010 07:16  AR1221	/chem/ecd1a.i/031810.b/008f0801.d
+-----+-----+-----+-----+-----+-----+		
	Ccal Level: 4 , Ccal Amount: 1000	
+=====+		
	18-MAR-2010 07:05  AR1232	/chem/ecd1a.i/031810.b/007f0701.d
+-----+-----+-----+-----+-----+-----+		
	Ccal Level: 4 , Ccal Amount: 1000	
+=====+		
	18-MAR-2010 06:55  AR1268	/chem/ecd1a.i/031810.b/006f0601.d
+-----+-----+-----+-----+-----+-----+		
	Ccal Level: 4 , Ccal Amount: 1000	
+=====+		
	18-MAR-2010 06:44  AR1248	/chem/ecd1a.i/031810.b/005f0501.d
+-----+-----+-----+-----+-----+-----+		
	Ccal Level: 4 , Ccal Amount: 1000	
+=====+		
	18-MAR-2010 06:35  AR1242	/chem/ecd1a.i/031810.b/004f0401.d
+-----+-----+-----+-----+-----+-----+		
	Ccal Level: 4 , Ccal Amount: 1000	
+=====+		
	18-MAR-2010 06:25  AR1254	/chem/ecd1a.i/031810.b/003f0301.d
+-----+-----+-----+-----+-----+-----+		
	Ccal Level: 4 , Ccal Amount: 1000	
+=====+		
	18-MAR-2010 06:14  AR1660	/chem/ecd1a.i/031810.b/002f0201.d
+-----+-----+-----+-----+-----+-----+		

Report Date: 19-Mar-2010 09:18

### Calibration History

Method : /chem/ecdla.i/031810.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/ecdla.i/022210.b/032b3201.d
11-MAR-2010 19:40	AR1248	/chem/ecdla.i/031110b.b/029b2901.d
11-MAR-2010 18:37	AR1242	/chem/ecdla.i/031110b.b/023b2301.d
11-MAR-2010 17:34	AR1254	/chem/ecdla.i/031110b.b/017b1701.d
11-MAR-2010 16:31	AR1660	/chem/ecdla.i/031110b.b/011b1101.d

Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecdla.i/022210.b/033b3301.d
11-MAR-2010 19:51	AR1248	/chem/ecdla.i/031110b.b/030b3001.d
11-MAR-2010 18:48	AR1242	/chem/ecdla.i/031110b.b/024b2401.d
11-MAR-2010 17:45	AR1254	/chem/ecdla.i/031110b.b/018b1801.d
11-MAR-2010 16:41	AR1660	/chem/ecdla.i/031110b.b/012b1201.d

Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecdla.i/022210.b/034b3401.d
11-MAR-2010 20:01	AR1248	/chem/ecdla.i/031110b.b/031b3101.d
11-MAR-2010 18:58	AR1242	/chem/ecdla.i/031110b.b/025b2501.d
11-MAR-2010 17:55	AR1254	/chem/ecdla.i/031110b.b/019b1901.d
11-MAR-2010 16:52	AR1660	/chem/ecdla.i/031110b.b/013b1301.d

Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecdla.i/022210.b/035b3501.d
11-MAR-2010 20:12	AR1248	/chem/ecdla.i/031110b.b/032b3201.d
11-MAR-2010 19:09	AR1242	/chem/ecdla.i/031110b.b/026b2601.d
11-MAR-2010 18:06	AR1254	/chem/ecdla.i/031110b.b/020b2001.d
11-MAR-2010 17:02	AR1660	/chem/ecdla.i/031110b.b/014b1401.d
11-MAR-2010 16:10	AR1262	/chem/ecdla.i/031110b.b/009b0901.d
11-MAR-2010 15:59	AR1221	/chem/ecdla.i/031110b.b/008b0801.d
11-MAR-2010 15:49	AR1232	/chem/ecdla.i/031110b.b/007b0701.d
11-MAR-2010 16:21	DDTANALOGSTD	/chem/ecdla.i/031110b.b/010b1001.d

Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecdla.i/022210.b/036b3601.d
11-MAR-2010 20:22	AR1248	/chem/ecdla.i/031110b.b/033b3301.d
11-MAR-2010 19:19	AR1242	/chem/ecdla.i/031110b.b/027b2701.d
11-MAR-2010 18:16	AR1254	/chem/ecdla.i/031110b.b/021b2101.d
11-MAR-2010 17:13	AR1660	/chem/ecdla.i/031110b.b/015b1501.d

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
18-MAR-2010 17:57	AR1660	/chem/ecdla.i/031810.b/063b6301.d
Ccal Level: 4 , Ccal Amount: 1000		
18-MAR-2010 16:29	AR1660	/chem/ecdla.i/031810.b/056b5601.d
Ccal Level: 4 , Ccal Amount: 1000		
18-MAR-2010 14:27	AR1660	/chem/ecdla.i/031810.b/046b4601.d
Ccal Level: 4 , Ccal Amount: 1000		
18-MAR-2010 12:06	AR1660	/chem/ecdla.i/031810.b/034b3401.d
Ccal Level: 4 , Ccal Amount: 1000		
18-MAR-2010 10:06	AR1660	/chem/ecdla.i/031810.b/023b2301.d
Ccal Level: 4 , Ccal Amount: 1000		
18-MAR-2010 09:56	AR1660	/chem/ecdla.i/031810.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 1000		
18-MAR-2010 07:26	AR1262	/chem/ecdla.i/031810.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
18-MAR-2010 07:16	AR1221	/chem/ecdla.i/031810.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
18-MAR-2010 07:05	AR1232	/chem/ecdla.i/031810.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
18-MAR-2010 06:55	AR1268	/chem/ecdla.i/031810.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
18-MAR-2010 06:44	AR1248	/chem/ecdla.i/031810.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
18-MAR-2010 06:35	AR1242	/chem/ecdla.i/031810.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
18-MAR-2010 06:25	AR1254	/chem/ecdla.i/031810.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
18-MAR-2010 06:14	AR1660	/chem/ecdla.i/031810.b/002b0201.d

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdl1a.i/031810.b/ECD1-F-8082-031110b.m  
 Quant Method : ESTD Target Version : 3.50  
 Last Update : 19-Mar-2010 06:23 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	2.364	2.334-2.394	1.518e+04
	2.649	2.619-2.679	1.894e+04
	2.730	2.700-2.760	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	2.025	1.995-2.055	4.466e+03
	2.117	2.087-2.147	2.447e+03
	2.143	2.113-2.173	1.083e+04
3 Aroclor-1232	2.364	2.334-2.394	6.667e+03
	2.652	2.622-2.682	8.344e+03
	2.732	2.702-2.762	5.531e+03
	2.846	2.816-2.876	2.649e+03
4 Aroclor-1242	3.233	3.203-3.263	3.555e+03
	2.364	2.334-2.394	1.233e+04
	2.651	2.621-2.681	1.490e+04
	2.769	2.739-2.799	5.896e+03
	2.979	2.949-3.009	7.735e+03
	3.233	3.203-3.263	7.285e+03

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdl1a.i/031810.b/ECD1-F-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	2.844	2.814-2.874	1.000e+04
	2.977	2.947-3.007	1.314e+04
	3.230	3.200-3.260	1.430e+04
	3.361	3.331-3.391	1.190e+04
	3.594	3.564-3.624	8.005e+03
6 Aroclor-1254	3.207	3.177-3.237	1.326e+04
	3.362	3.332-3.392	1.783e+04
	3.596	3.566-3.626	2.237e+04
	3.758	3.728-3.788	1.649e+04
	3.867	3.837-3.897	1.596e+04
7 Aroclor-1260	3.704	3.674-3.734	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
	4.239	4.209-4.269	1.681e+04
8 Aroclor-1262	3.706	3.676-3.736	1.423e+04
	3.868	3.838-3.898	1.874e+04
	4.098	4.068-4.128	2.315e+04
	4.240	4.210-4.270	2.110e+04
	4.420	4.390-4.450	4.350e+04
9 Aroclor-1268	4.604	4.574-4.634	4.848e+04
	4.627	4.597-4.657	5.448e+04
	4.739	4.709-4.769	3.862e+04
	4.942	4.912-4.972	1.635e+04
	5.107	5.077-5.137	1.121e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
\$ 11 4cmx	1.910	1.880-1.940	3.895e+05
\$ 12 Decachlorobiphenyl	5.215	5.185-5.245	2.969e+05

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdl1a.i/031810.b/ECD1-B-8082-031110b.m  
 Quant Method : ESTD Target Version : 3.50  
 Last Update : 19-Mar-2010 08:33 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	3.164	3.134-3.194	1.258e+04
	3.247	3.217-3.277	8.634e+03
	3.310	3.280-3.340	5.287e+03
	3.537	3.507-3.567	6.893e+03
	3.613	3.583-3.643	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	2.467	2.437-2.497	3.250e+03
	2.561	2.531-2.591	2.084e+03
	2.601	2.571-2.631	7.320e+03
3 Aroclor-1232	2.868	2.838-2.898	5.054e+03
	3.165	3.135-3.195	5.712e+03
	3.248	3.218-3.278	3.888e+03
	3.539	3.509-3.569	2.840e+03
4 Aroclor-1242	3.773	3.743-3.803	2.821e+03
	3.165	3.135-3.195	1.014e+04
	3.248	3.218-3.278	7.097e+03
	3.539	3.509-3.569	5.514e+03
	3.772	3.742-3.802	5.722e+03
	3.800	3.770-3.830	6.370e+03

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdl1a.i/031810.b/ECD1-B-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.373	3.343-3.403	7.604e+03
	3.537	3.507-3.567	9.470e+03
	3.770	3.740-3.800	1.093e+04
	3.798	3.768-3.828	1.216e+04
	3.935	3.905-3.965	1.181e+04
6 Aroclor-1254	3.373	3.343-3.403	6.021e+03
	3.795	3.765-3.825	1.082e+04
	3.912	3.882-3.942	1.193e+04
	4.187	4.157-4.217	1.644e+04
	4.324	4.294-4.354	1.212e+04
7 Aroclor-1260	4.304	4.274-4.334	1.308e+04
	4.428	4.398-4.458	1.555e+04
	4.694	4.664-4.724	1.190e+04
	4.867	4.837-4.897	1.229e+04
	5.014	4.984-5.044	2.639e+04
8 Aroclor-1262	4.430	4.400-4.460	1.160e+04
	4.695	4.665-4.725	1.620e+04
	4.869	4.839-4.899	1.484e+04
	5.015	4.985-5.045	2.937e+04
	5.229	5.199-5.259	2.065e+04
9 Aroclor-1268	5.227	5.197-5.257	3.730e+04
	5.254	5.224-5.284	3.492e+04
	5.404	5.374-5.434	2.658e+04
	5.569	5.539-5.599	1.223e+04
	5.761	5.731-5.791	7.433e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
\$ 11 4cmx	2.269	2.239-2.299	2.623e+05
\$ 12 Decachlorobiphenyl	5.912	5.882-5.942	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/031810.b/ECD1-F-8082-031110b.m  
Cal Date : 19-Mar-2010 06:23 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/ecdl1.i/031810.b/ECD1-F-8082-031110b.m  
Cal Date : 19-Mar-2010 06:23 yip00818  
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	15079	13757	12872	12576	12027	13262	8.998
(2)	20126	18408	17163	17147	16322	17833	8.313
(3)	24516	23104	21642	21571	21024	22371	6.372
(4)	18056	17097	15691	15840	15766	16490	6.365
(5)	18024	16683	15151	15091	14874	15964	8.504
7 Aroclor-1260(1)	20231	18737	18018	17739	16925	18330	6.792
(2)	29345	27114	26401	26314	25275	26890	5.656
(3)	30716	28501	27786	27176	27398	28315	5.062
(4)	17775	16311	15776	15627	15300	16158	6.034
(5)	18203	16850	16463	16434	16114	16813	4.876
8 Aroclor-1262(1)	+++++	+++++	+++++	14232	+++++	14232	0.000
(2)	+++++	+++++	+++++	18742	+++++	18742	0.000
(3)	+++++	+++++	+++++	23151	+++++	23151	0.000
(4)	+++++	+++++	+++++	21098	+++++	21098	0.000
(5)	+++++	+++++	+++++	43500	+++++	43500	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11 4cmx	407603	391717	384007	385362	378927	389523	2.846
12 Decachlorobiphenyl	324859	292709	291687	292552	282844	296930	5.438

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 11-MAR-2010 20:22  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdl1a.i/031810.b/ECD1-B-8082-031110b.m  
 Cal Date : 19-Mar-2010 08:33 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/031810.b/ECD1-B-8082-031110b.m  
Cal Date : 19-Mar-2010 08:33 yip00818  
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7300	6493	5824	5480	5009	6021	14.886
(2)	12825	11548	10490	9974	9262	10820	12.909
(3)	14182	12643	11550	11031	10262	11934	12.788
(4)	19027	17317	15983	15442	14439	16442	10.826
(5)	14064	13049	11651	11174	10640	12116	11.634
7 Aroclor-1260(1)	15189	13569	12744	12369	11530	13080	10.610
(2)	17885	16016	15152	14853	13838	15549	9.776
(3)	13812	12250	11562	11271	10585	11896	10.311
(4)	14218	12635	11954	11625	11015	12289	9.981
(5)	29595	26825	25949	25629	23976	26395	7.824
8 Aroclor-1262(1)	++++	++++	++++	11597	++++	11597	0.000
(2)	++++	++++	++++	16200	++++	16200	0.000
(3)	++++	++++	++++	14838	++++	14838	0.000
(4)	++++	++++	++++	29366	++++	29366	0.000
(5)	++++	++++	++++	20651	++++	20651	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
10 Aroclor-Total	++++	++++	++++	++++	++++	++++	++++
11 4cmx	286554	267083	258607	255362	244057	262333	6.044
12 Decachlorobiphenyl	217815	191410	181026	177515	168101	187173	10.178

Report Date: 23-Mar-2010 08:11

### Calibration History

Method : /chem/ecd1a.i/032210.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

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 18:23   AR1660	/chem/ecd1a.i/032210.b/059f5901.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 16:42   AR1660	/chem/ecd1a.i/032210.b/051f5101.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 14:15   AR1660	/chem/ecd1a.i/032210.b/039f3901.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 13:04   AR1660	/chem/ecd1a.i/032210.b/033f3301.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 10:49   AR1660	/chem/ecd1a.i/032210.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 08:16   AR1262	/chem/ecd1a.i/032210.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 08:05   AR1221	/chem/ecd1a.i/032210.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 07:55   AR1232	/chem/ecd1a.i/032210.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 07:44   AR1268	/chem/ecd1a.i/032210.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 07:34   AR1248	/chem/ecd1a.i/032210.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 07:23   AR1242	/chem/ecd1a.i/032210.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 07:13   AR1254	/chem/ecd1a.i/032210.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 07:02   AR1660	/chem/ecd1a.i/032210.b/002f0201.d

Report Date: 23-Mar-2010 08:11

### Calibration History

Method : /chem/ecd1a.i/032210.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	
22-MAR-2010 18:23  AR1660	/chem/ecdl1a.i/032210.b/059b5901.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 16:42  AR1660	/chem/ecdl1a.i/032210.b/051b5101.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 14:15  AR1660	/chem/ecdl1a.i/032210.b/039b3901.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 13:04  AR1660	/chem/ecdl1a.i/032210.b/033b3301.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 10:49  AR1660	/chem/ecdl1a.i/032210.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 08:16  AR1262	/chem/ecdl1a.i/032210.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 08:05  AR1221	/chem/ecdl1a.i/032210.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 07:55  AR1232	/chem/ecdl1a.i/032210.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 07:44  AR1268	/chem/ecdl1a.i/032210.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 07:34  AR1248	/chem/ecdl1a.i/032210.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 07:23  AR1242	/chem/ecdl1a.i/032210.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 07:13  AR1254	/chem/ecdl1a.i/032210.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000	
22-MAR-2010 07:02  AR1660	/chem/ecdl1a.i/032210.b/002b0201.d

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdl1a.i/032210.b/ECD1-F-8082-031110b.m  
 Quant Method : ESTD Target Version : 3.50  
 Last Update : 23-Mar-2010 06:36 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	2.364	2.334-2.394	1.518e+04
	2.650	2.620-2.680	1.894e+04
	2.730	2.700-2.760	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	2.025	1.995-2.055	4.466e+03
	2.117	2.087-2.147	2.447e+03
	2.143	2.113-2.173	1.083e+04
3 Aroclor-1232	2.365	2.335-2.395	6.667e+03
	2.650	2.620-2.680	8.344e+03
	2.731	2.701-2.761	5.531e+03
	2.845	2.815-2.875	2.649e+03
4 Aroclor-1242	3.233	3.203-3.263	3.555e+03
	2.365	2.335-2.395	1.233e+04
	2.652	2.622-2.682	1.490e+04
	2.770	2.740-2.800	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/ecd1a.i/032210.b/ECD1-F-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	2.846	2.816-2.876	1.000e+04
	2.980	2.950-3.010	1.314e+04
	3.233	3.203-3.263	1.430e+04
	3.365	3.335-3.395	1.190e+04
	3.596	3.566-3.626	8.005e+03
6 Aroclor-1254	3.207	3.177-3.237	1.326e+04
	3.362	3.332-3.392	1.783e+04
	3.596	3.566-3.626	2.237e+04
	3.758	3.728-3.788	1.649e+04
	3.867	3.837-3.897	1.596e+04
7 Aroclor-1260	3.704	3.674-3.734	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
	4.240	4.210-4.270	1.681e+04
8 Aroclor-1262	3.704	3.674-3.734	1.423e+04
	3.867	3.837-3.897	1.874e+04
	4.098	4.068-4.128	2.315e+04
	4.240	4.210-4.270	2.110e+04
	4.419	4.389-4.449	4.350e+04
9 Aroclor-1268	4.604	4.574-4.634	4.848e+04
	4.627	4.597-4.657	5.448e+04
	4.739	4.709-4.769	3.862e+04
	4.942	4.912-4.972	1.635e+04
	5.107	5.077-5.137	1.121e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
\$ 11 4cmx	1.911	1.881-1.941	3.895e+05
\$ 12 Decachlorobiphenyl	5.216	5.186-5.246	2.969e+05

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m  
 Quant Method : ESTD Target Version : 3.50  
 Last Update : 23-Mar-2010 06:36 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	3.164	3.134-3.194	1.258e+04
	3.246	3.216-3.276	8.634e+03
	3.310	3.280-3.340	5.287e+03
	3.537	3.507-3.567	6.893e+03
	3.612	3.582-3.642	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	2.466	2.436-2.496	3.250e+03
	2.560	2.530-2.590	2.084e+03
	2.601	2.571-2.631	7.320e+03
3 Aroclor-1232	2.867	2.837-2.897	5.054e+03
	3.165	3.135-3.195	5.712e+03
	3.248	3.218-3.278	3.888e+03
	3.538	3.508-3.568	2.840e+03
4 Aroclor-1242	3.772	3.742-3.802	2.821e+03
	3.165	3.135-3.195	1.014e+04
	3.248	3.218-3.278	7.097e+03
	3.538	3.508-3.568	5.514e+03
	3.772	3.742-3.802	5.722e+03
	3.800	3.770-3.830	6.370e+03

## GEL Laboratories LLC

## COMPOUND LISTING

Method file : /chem/ecdla.i/032210.b/ECD1-B-8082-031110b.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.374	3.344-3.404	7.604e+03
	3.539	3.509-3.569	9.470e+03
	3.772	3.742-3.802	1.093e+04
	3.800	3.770-3.830	1.216e+04
	3.936	3.906-3.966	1.181e+04
6 Aroclor-1254	3.372	3.342-3.402	6.021e+03
	3.794	3.764-3.824	1.082e+04
	3.911	3.881-3.941	1.193e+04
	4.186	4.156-4.216	1.644e+04
	4.323	4.293-4.353	1.212e+04
7 Aroclor-1260	4.303	4.273-4.333	1.308e+04
	4.428	4.398-4.458	1.555e+04
	4.694	4.664-4.724	1.190e+04
	4.867	4.837-4.897	1.229e+04
	5.014	4.984-5.044	2.639e+04
8 Aroclor-1262	4.429	4.399-4.459	1.160e+04
	4.694	4.664-4.724	1.620e+04
	4.868	4.838-4.898	1.484e+04
	5.015	4.985-5.045	2.937e+04
	5.228	5.198-5.258	2.065e+04
9 Aroclor-1268	5.226	5.196-5.256	3.730e+04
	5.254	5.224-5.284	3.492e+04
	5.403	5.373-5.433	2.658e+04
	5.567	5.537-5.597	1.223e+04
	5.760	5.730-5.790	7.433e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
\$ 11 4cmx	2.269	2.239-2.299	2.623e+05
\$ 12 Decachlorobiphenyl	5.911	5.881-5.941	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/032210.b/ECD1-F-8082-031110b.m  
 Cal Date : 23-Mar-2010 06:36 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

	100.000	250.000	500.000	1000.000	4000.000		
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
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/ecdla.i/032210.b/ECD1-F-8082-031110b.m  
 Cal Date : 23-Mar-2010 06:36 yip00818  
 Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	15079	13757	12872	12576	12027	13262	8.998
(2)	20126	18408	17163	17147	16322	17833	8.313
(3)	24516	23104	21642	21571	21024	22371	6.372
(4)	18056	17097	15691	15840	15766	16490	6.365
(5)	18024	16683	15151	15091	14874	15964	8.504
7 Aroclor-1260(1)	20231	18737	18018	17739	16925	18330	6.792
(2)	29345	27114	26401	26314	25275	26890	5.656
(3)	30716	28501	27786	27176	27398	28315	5.062
(4)	17775	16311	15776	15627	15300	16158	6.034
(5)	18203	16850	16463	16434	16114	16813	4.876
8 Aroclor-1262(1)	++++	++++	++++	14232	++++	14232	0.000
(2)	++++	++++	++++	18742	++++	18742	0.000
(3)	++++	++++	++++	23151	++++	23151	0.000
(4)	++++	++++	++++	21098	++++	21098	0.000
(5)	++++	++++	++++	43500	++++	43500	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	++++	++++	++++	++++	++++	++++	++++
11 4cmx	407603	391717	384007	385362	378927	389523	2.846
12 Decachlorobiphenyl	324859	292709	291687	292552	282844	296930	5.438

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 11-MAR-2010 20:22  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdl1a.i/032210.b/ECD1-B-8082-031110b.m  
 Cal Date : 23-Mar-2010 06:36 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

	100.000	250.000	500.000	1000.000	4000.000		
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
1 Aroclor-1016(1)	14376	12782	12025	12307	11436	12585	8.846
(2)	10090	9074	8445	8099	7462	8634	11.594
(3)	6137	5472	5151	4973	4701	5287	10.435
(4)	7962	7103	6817	6522	6060	6893	10.318
(5)	7497	6686	6263	5965	5703	6423	10.948
62 4,4-DDT	++++	++++	++++	74891	++++	74891	0.000
63 4,4-DDE	++++	++++	++++	246875	++++	246875	0.000
64 4,4-DDD	++++	++++	++++	198885	++++	198885	0.000
2 Aroclor-1221(1)	++++	++++	++++	3250	++++	3250	0.000
(2)	++++	++++	++++	2084	++++	2084	0.000
(3)	++++	++++	++++	7320	++++	7320	0.000
3 Aroclor-1232(1)	++++	++++	++++	5054	++++	5054	0.000
(2)	++++	++++	++++	5712	++++	5712	0.000
(3)	++++	++++	++++	3888	++++	3888	0.000
(4)	++++	++++	++++	2840	++++	2840	0.000
(5)	++++	++++	++++	2821	++++	2821	0.000
4 Aroclor-1242(1)	11230	10514	10117	9526	9309	10139	7.634
(2)	8350	7546	6909	6642	6036	7097	12.487
(3)	6442	5836	5387	5177	4727	5514	11.868
(4)	6626	6011	5573	5400	4999	5722	10.877
(5)	7365	6655	6241	6005	5582	6370	10.658
5 Aroclor-1248(1)	9056	8166	7435	6980	6383	7604	13.684
(2)	11093	10088	9257	8814	8097	9470	12.242
(3)	12505	11602	10677	10284	9581	10930	10.466
(4)	13890	12873	11986	11379	10657	12157	10.405
(5)	13590	12468	11541	11009	10453	11812	10.502

GEL Laboratories LLC  
INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31  
 End Cal Date : 11-MAR-2010 20:22  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : Falcon  
 Method file : /chem/ecdl1a.i/032210.b/ECD1-B-8082-031110b.m  
 Cal Date : 23-Mar-2010 06:36 yip00818  
 Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7300	6493	5824	5480	5009	6021	14.886
(2)	12825	11548	10490	9974	9262	10820	12.909
(3)	14182	12643	11550	11031	10262	11934	12.788
(4)	19027	17317	15983	15442	14439	16442	10.826
(5)	14064	13049	11651	11174	10640	12116	11.634
7 Aroclor-1260(1)	15189	13569	12744	12369	11530	13080	10.610
(2)	17885	16016	15152	14853	13838	15549	9.776
(3)	13812	12250	11562	11271	10585	11896	10.311
(4)	14218	12635	11954	11625	11015	12289	9.981
(5)	29595	26825	25949	25629	23976	26395	7.824
8 Aroclor-1262(1)	++++	++++	++++	11597	++++	11597	0.000
(2)	++++	++++	++++	16200	++++	16200	0.000
(3)	++++	++++	++++	14838	++++	14838	0.000
(4)	++++	++++	++++	29366	++++	29366	0.000
(5)	++++	++++	++++	20651	++++	20651	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
10 Aroclor-Total	++++	++++	++++	++++	++++	++++	++++
11 4cmx	286554	267083	258607	255362	244057	262333	6.044
12 Decachlorobiphenyl	217815	191410	181026	177515	168101	187173	10.178

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.: 10-2193  
 Instrument ID: ECD1A Calibration Date: 03/18/10 Time: 0614  
 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	13512.342	0.01	-11.0	15.0
(2)	18935.774	17115.806	0.01	-9.6	15.0
(3)	12442.153	10726.435	0.01	-13.8	15.0
(4)	7348.319	6413.032	0.01	-12.7	15.0
(5)	9517.775	8193.745	0.01	-13.9	15.0
Aroclor-1260	18330.091	17403.857	0.01	-5.0	15.0
(2)	26889.831	25246.031	0.01	-6.1	15.0
(3)	28315.304	27095.635	0.01	-4.3	15.0
(4)	16157.873	15357.501	0.01	-5.0	15.0
(5)	16812.669	15943.133	0.01	-5.2	15.0
=====	=====	=====	=====	=====	=====
4cmx	389523.02	381169.67	0.01	-2.1	15.0
Decachlorobiphenyl	296930.38	279013.41	0.01	-6.0	15.0
=====	=====	=====	=====	=====	=====

FORM VII PEST



FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2193  
 Instrument ID: ECD1A Calibration Date: 03/18/10 Time: 0614  
 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	11336.193	0.01	-9.9	15.0
(2)	8634.207	7586.539	0.01	-12.1	15.0
(3)	5286.637	4629.167	0.01	-12.4	15.0
(4)	6892.719	6156.542	0.01	-10.7	15.0
(5)	6422.564	5743.732	0.01	-10.6	15.0
Aroclor-1260	13080.231	12460.543	0.01	-4.7	15.0
(2)	15549.023	15159.960	0.01	-2.5	15.0
(3)	11896.069	11434.090	0.01	-3.9	15.0
(4)	12289.216	11836.954	0.01	-3.7	15.0
(5)	26394.638	26031.601	0.01	-1.4	15.0
4cmx	262332.66	256539.22	0.01	-2.2	15.0
Decachlorobiphenyl	187173.38	179833.66	0.01	-3.9	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.: 10-2193  
 Instrument ID: ECD1A Calibration Date: 03/18/10 Time: 0625  
 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	11932.817	0.01	-10.0	15.0
(2)	17833.306	15842.727	0.01	-11.2	15.0
(3)	22371.301	20499.788	0.01	-8.4	15.0
(4)	16490.050	14969.715	0.01	-9.2	15.0
(5)	15964.418	15102.637	0.01	-5.4	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.: 10-2193  
 Instrument ID: ECD1A Calibration Date: 03/18/10 Time: 0625  
 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	5489.904	0.01	-8.8	15.0
(2)	10819.790	9973.216	0.01	-7.8	15.0
(3)	11933.626	10945.026	0.01	-8.3	15.0
(4)	16441.788	15296.916	0.01	-7.0	15.0
(5)	12115.517	11317.381	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.: 10-2193  
 Instrument ID: ECD1A Calibration Date: 03/18/10 Time: 1206  
 Lab File ID: 034F3401 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	13785.629	0.01	-9.2	15.0
(2)	18935.774	17556.565	0.01	-7.3	15.0
(3)	12442.153	11041.696	0.01	-11.2	15.0
(4)	7348.319	6614.881	0.01	-10.0	15.0
(5)	9517.775	8395.851	0.01	-11.8	15.0
Aroclor-1260	18330.091	17996.959	0.01	-1.8	15.0
(2)	26889.831	26327.910	0.01	-2.1	15.0
(3)	28315.304	28291.436	0.01	-0.1	15.0
(4)	16157.873	15897.006	0.01	-1.6	15.0
(5)	16812.669	16661.537	0.01	-0.9	15.0
=====	=====	=====	=====	=====	=====
4cmx	389523.02	388964.92	0.01	-0.1	15.0
Decachlorobiphenyl	296930.38	288822.68	0.01	-2.7	15.0
=====	=====	=====	=====	=====	=====

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2193  
 Instrument ID: ECD1A Calibration Date: 03/18/10 Time: 1206  
 Lab File ID: 034B3401 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	11898.540	0.01	-5.4	15.0
(2)	8634.207	7762.391	0.01	-10.1	15.0
(3)	5286.637	4804.772	0.01	-9.1	15.0
(4)	6892.719	6300.972	0.01	-8.6	15.0
(5)	6422.564	5918.951	0.01	-7.8	15.0
Aroclor-1260	13080.231	12768.876	0.01	-2.4	15.0
(2)	15549.023	15469.126	0.01	-0.5	15.0
(3)	11896.069	11683.491	0.01	-1.8	15.0
(4)	12289.216	12152.140	0.01	-1.1	15.0
(5)	26394.638	26846.098	0.01	1.7	15.0
4cmx	262332.66	262136.70	0.01	-0.1	15.0
Decachlorobiphenyl	187173.38	182820.13	0.01	-2.3	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2193  
 Instrument ID: ECD1A Calibration Date: 03/18/10 Time: 1427  
 Lab File ID: 046F4601 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	13968.120	0.01	-8.0	15.0
(2)	18935.774	17940.971	0.01	-5.2	15.0
(3)	12442.153	11218.586	0.01	-9.8	15.0
(4)	7348.319	6729.493	0.01	-8.4	15.0
(5)	9517.775	8554.521	0.01	-10.1	15.0
Aroclor-1260	18330.091	18321.700	0.01	-0.0	15.0
(2)	26889.831	26879.373	0.01	-0.0	15.0
(3)	28315.304	28782.010	0.01	1.6	15.0
(4)	16157.873	16236.255	0.01	0.5	15.0
(5)	16812.669	16861.765	0.01	0.3	15.0
4cmx	389523.02	394882.21	0.01	1.4	15.0
Decachlorobiphenyl	296930.38	295634.98	0.01	-0.4	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.: 10-2193  
 Instrument ID: ECD1A Calibration Date: 03/18/10 Time: 1427  
 Lab File ID: 046B4601 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	11940.760	0.01	-5.1	15.0
(2)	8634.207	7844.233	0.01	-9.1	15.0
(3)	5286.637	4871.425	0.01	-7.8	15.0
(4)	6892.719	6412.708	0.01	-7.0	15.0
(5)	6422.564	5925.084	0.01	-7.7	15.0
Aroclor-1260	13080.231	12921.264	0.01	-1.2	15.0
(2)	15549.023	15764.108	0.01	1.4	15.0
(3)	11896.069	11847.441	0.01	-0.4	15.0
(4)	12289.216	12291.761	0.01	0.0	15.0
(5)	26394.638	27187.092	0.01	3.0	15.0
4cmx	262332.66	264432.34	0.01	0.8	15.0
Decachlorobiphenyl	187173.38	185590.60	0.01	-0.8	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2193  
 Instrument ID: ECD1A Calibration Date: 03/18/10 Time: 1629  
 Lab File ID: 056F5601 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	13710.960	0.01	-9.6	15.0
(2)	18935.774	17568.417	0.01	-7.2	15.0
(3)	12442.153	11334.753	0.01	-8.9	15.0
(4)	7348.319	6854.311	0.01	-6.7	15.0
(5)	9517.775	8756.137	0.01	-8.0	15.0
Aroclor-1260	18330.091	18460.079	0.01	0.7	15.0
(2)	26889.831	27124.900	0.01	0.9	15.0
(3)	28315.304	28928.920	0.01	2.2	15.0
(4)	16157.873	16361.434	0.01	1.2	15.0
(5)	16812.669	16859.797	0.01	0.3	15.0
=====	=====	=====	=====	=====	=====
4cmx	389523.02	397647.32	0.01	2.1	15.0
Decachlorobiphenyl	296930.38	278394.07	0.01	-6.2	15.0

FORM VII PEST



FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2193  
 Instrument ID: ECD1A Calibration Date: 03/18/10 Time: 1629  
 Lab File ID: 056B5601 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	12232.759	0.01	-2.8	15.0
(2)	8634.207	7862.456	0.01	-8.9	15.0
(3)	5286.637	4872.811	0.01	-7.8	15.0
(4)	6892.719	6384.983	0.01	-7.4	15.0
(5)	6422.564	6027.512	0.01	-6.2	15.0
Aroclor-1260	13080.231	12771.408	0.01	-2.4	15.0
(2)	15549.023	15513.097	0.01	-0.2	15.0
(3)	11896.069	11656.132	0.01	-2.0	15.0
(4)	12289.216	12110.697	0.01	-1.4	15.0
(5)	26394.638	26724.302	0.01	1.2	15.0
=====	=====	=====	=====	=====	=====
4cmx	262332.66	265395.06	0.01	1.2	15.0
Decachlorobiphenyl	187173.38	179181.68	0.01	-4.3	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2193  
 Instrument ID: ECD1A Calibration Date: 03/18/10 Time: 1757  
 Lab File ID: 063F6301 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	14093.964	0.01	-7.1	15.0
(2)	18935.774	18341.072	0.01	-3.1	15.0
(3)	12442.153	11291.137	0.01	-9.2	15.0
(4)	7348.319	6806.690	0.01	-7.4	15.0
(5)	9517.775	8704.006	0.01	-8.5	15.0
Aroclor-1260	18330.091	18521.624	0.01	1.0	15.0
(2)	26889.831	27224.748	0.01	1.2	15.0
(3)	28315.304	28576.896	0.01	0.9	15.0
(4)	16157.873	16439.346	0.01	1.7	15.0
(5)	16812.669	17057.223	0.01	1.4	15.0
4cmx	389523.02	398823.33	0.01	2.4	15.0
Decachlorobiphenyl	296930.38	299105.52	0.01	0.7	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2193  
 Instrument ID: ECD1A Calibration Date: 03/18/10 Time: 1757  
 Lab File ID: 063B6301 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	12137.662	0.01	-3.6	15.0
(2)	8634.207	7859.047	0.01	-9.0	15.0
(3)	5286.637	4871.768	0.01	-7.8	15.0
(4)	6892.719	6410.314	0.01	-7.0	15.0
(5)	6422.564	5897.076	0.01	-8.2	15.0
Aroclor-1260	13080.231	12884.141	0.01	-1.5	15.0
(2)	15549.023	15686.760	0.01	0.9	15.0
(3)	11896.069	11814.353	0.01	-0.7	15.0
(4)	12289.216	12327.979	0.01	0.3	15.0
(5)	26394.638	27223.024	0.01	3.1	15.0
=====	=====	=====	=====	=====	=====
4cmx	262332.66	266445.59	0.01	1.6	15.0
Decachlorobiphenyl	187173.38	185950.99	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.: 10-2193  
 Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 0702  
 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	13874.025	0.01	-8.6	15.0
(2)	18935.774	17223.062	0.01	-9.0	15.0
(3)	12442.153	11099.980	0.01	-10.8	15.0
(4)	7348.319	6652.429	0.01	-9.5	15.0
(5)	9517.775	8513.830	0.01	-10.5	15.0
Aroclor-1260	18330.091	18268.454	0.01	-0.3	15.0
(2)	26889.831	26941.124	0.01	0.2	15.0
(3)	28315.304	28742.142	0.01	1.5	15.0
(4)	16157.873	16199.960	0.01	0.3	15.0
(5)	16812.669	16879.122	0.01	0.4	15.0
4cmx	389523.02	392027.86	0.01	0.6	15.0
Decachlorobiphenyl	296930.38	292345.35	0.01	-1.5	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.: 10-2193  
 Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 0702  
 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	11596.241	0.01	-7.8	15.0
(2)	8634.207	7663.844	0.01	-11.2	15.0
(3)	5286.637	4702.010	0.01	-11.0	15.0
(4)	6892.719	6011.420	0.01	-12.8	15.0
(5)	6422.564	5652.140	0.01	-12.0	15.0
Aroclor-1260	13080.231	12515.456	0.01	-4.3	15.0
(2)	15549.023	15176.092	0.01	-2.4	15.0
(3)	11896.069	11445.175	0.01	-3.8	15.0
(4)	12289.216	11857.119	0.01	-3.5	15.0
(5)	26394.638	26318.926	0.01	-0.3	15.0
4cmx	262332.66	257432.43	0.01	-1.9	15.0
Decachlorobiphenyl	187173.38	176097.75	0.01	-5.9	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.: 10-2193  
 Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 0713  
 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	12782.929	0.01	-3.6	15.0
(2)	17833.306	17108.598	0.01	-4.1	15.0
(3)	22371.301	22334.536	0.01	-0.2	15.0
(4)	16490.050	16541.262	0.01	0.3	15.0
(5)	15964.418	16375.684	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.: 10-2193  
 Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 0713  
 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	5592.748	0.01	-7.1	15.0
(2)	10819.790	10182.375	0.01	-5.9	15.0
(3)	11933.626	11212.477	0.01	-6.0	15.0
(4)	16441.788	15755.066	0.01	-4.2	15.0
(5)	12115.517	11433.868	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.: 10-2193  
 Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 1415  
 Lab File ID: 039F3901 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	14558.167	0.01	-4.1	15.0
(2)	18935.774	18690.552	0.01	-1.3	15.0
(3)	12442.153	11737.319	0.01	-5.7	15.0
(4)	7348.319	7050.596	0.01	-4.0	15.0
(5)	9517.775	8989.556	0.01	-5.5	15.0
Aroclor-1260	18330.091	18876.328	0.01	3.0	15.0
(2)	26889.831	26762.360	0.01	-0.5	15.0
(3)	28315.304	27761.488	0.01	-2.0	15.0
(4)	16157.873	16549.459	0.01	2.4	15.0
(5)	16812.669	17476.717	0.01	3.9	15.0
=====	=====	=====	=====	=====	=====
4cmx	389523.02	409808.95	0.01	5.2	15.0
Decachlorobiphenyl	296930.38	294392.66	0.01	-0.8	15.0

FORM VII PEST



FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2193  
 Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 1415  
 Lab File ID: 039B3901 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	12241.773	0.01	-2.7	15.0
(2)	8634.207	7815.854	0.01	-9.5	15.0
(3)	5286.637	4849.138	0.01	-8.3	15.0
(4)	6892.719	6138.081	0.01	-10.9	15.0
(5)	6422.564	5733.339	0.01	-10.7	15.0
Aroclor-1260	13080.231	12788.482	0.01	-2.2	15.0
(2)	15549.023	15581.586	0.01	0.2	15.0
(3)	11896.069	11735.713	0.01	-1.3	15.0
(4)	12289.216	12213.321	0.01	-0.6	15.0
(5)	26394.638	27088.090	0.01	2.6	15.0
4cmx	262332.66	261849.88	0.01	-0.2	15.0
Decachlorobiphenyl	187173.38	183051.79	0.01	-2.2	15.0

FORM VII PEST

FORM 7  
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A  
 Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2193  
 Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 1642  
 Lab File ID: 051F5101 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	14822.526	0.01	-2.3	15.0
(2)	18935.774	19056.565	0.01	0.6	15.0
(3)	12442.153	11883.418	0.01	-4.5	15.0
(4)	7348.319	7124.433	0.01	-3.0	15.0
(5)	9517.775	9329.798	0.01	-2.0	15.0
Aroclor-1260	18330.091	19625.187	0.01	7.1	15.0
(2)	26889.831	28850.077	0.01	7.3	15.0
(3)	28315.304	30927.654	0.01	9.2	15.0
(4)	16157.873	17403.521	0.01	7.7	15.0
(5)	16812.669	18042.837	0.01	7.3	15.0
4cmx	389523.02	417406.95	0.01	7.2	15.0
Decachlorobiphenyl	296930.38	306985.88	0.01	3.4	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.: 10-2193  
 Instrument ID: ECD1A Calibration Date: 03/22/10 Time: 1642  
 Lab File ID: 051B5101 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	11962.559	0.01	-4.9	15.0
(2)	8634.207	7938.268	0.01	-8.1	15.0
(3)	5286.637	4918.804	0.01	-7.0	15.0
(4)	6892.719	6184.622	0.01	-10.3	15.0
(5)	6422.564	5880.070	0.01	-8.4	15.0
Aroclor-1260	13080.231	12863.423	0.01	-1.6	15.0
(2)	15549.023	15672.553	0.01	0.8	15.0
(3)	11896.069	11730.961	0.01	-1.4	15.0
(4)	12289.216	12173.416	0.01	-0.9	15.0
(5)	26394.638	27097.796	0.01	2.7	15.0
4cmx	262332.66	267177.95	0.01	1.8	15.0
Decachlorobiphenyl	187173.38	181485.43	0.01	-3.0	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031810.b/002f0201.d

Lab Smp Id: WAR100222-60 01

Client Smp ID: AR166001

Inj Date : 18-MAR-2010 06:14

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 01

Misc Info :

Comment :

Method : /chem/ecdl1a.i/031810.b/ECD1-F-8082-031110b.m

Meth Date : 18-Mar-2010 12:22 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 2

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS							
			CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	
-----							
\$ 11 4cmx				CAS #: 877-09-8			
1.910	1.910	0.000	38116967	100.000	97.8 80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl				CAS #: 2053-24-3			
5.215	5.215	0.000	27901341	100.000	94.0 80.00- 120.00	100.00	
-----							
1 Aroclor-1016				CAS #: 12674-11-2			
2.364	2.364	0.000	13512342	1000.00	890 80.00- 120.00	100.00	
2.649	2.649	0.000	17115806	1000.00	904 107.35- 147.35	126.67	
2.730	2.730	0.000	10726435	1000.00	862 60.10- 100.10	79.38	
2.768	2.768	0.000	6413032	1000.00	873 27.98- 67.98	47.46	
2.978	2.978	0.000	8193745	1000.00	861 40.90- 80.90	60.64	
Average of Peak Amounts =				878			
-----							
7 Aroclor-1260				CAS #: 11096-82-5			
3.704	3.704	0.000	17403857	1000.00	949 80.00- 120.00	100.00	
3.866	3.866	0.000	25246031	1000.00	939 126.29- 166.29	145.06	
4.028	4.028	0.000	27095635	1000.00	957 137.20- 177.20	155.69	
4.096	4.096	0.000	15357501	1000.00	950 68.33- 108.33	88.24	
4.239	4.239	0.000	15943133	1000.00	948 72.58- 112.58	91.61	
Average of Peak Amounts =				949			

Data File: /chem/eodla.i/031810.b/002f0201.d

Date: 18-MAR-2010 06:14

Client ID: AR166004

Sample Info: 1MAR100222-60 01

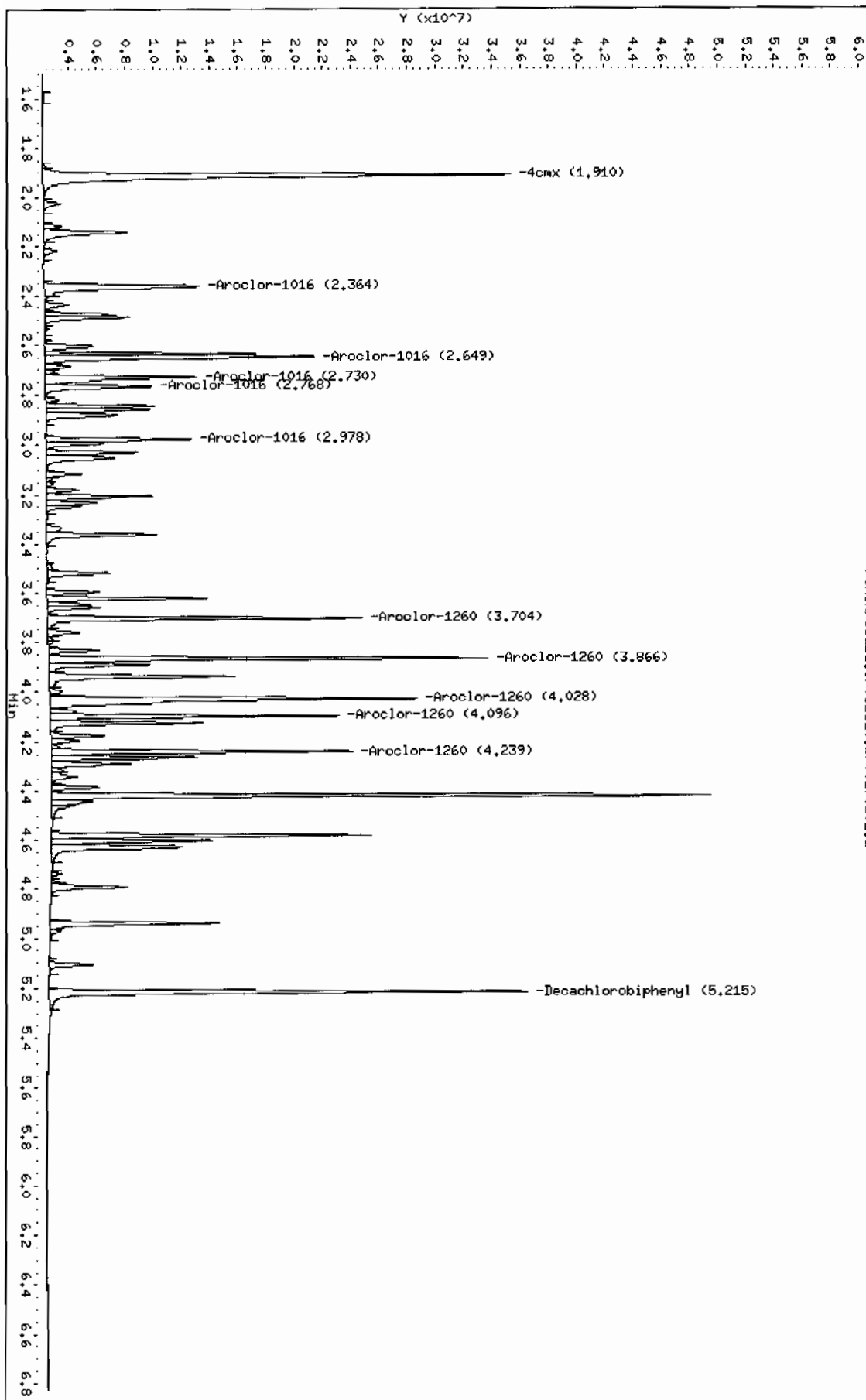
Column phase: CLP1

Instrument: eodla.i

Operator: YSL

Column diameter: 0.25

/chem/eodla.i/031810.b/002f0201.d



GEI Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031810.b/002b0201.d  
 Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001  
 Inj Date : 18-MAR-2010 06:14  
 Operator : YS1 Inst ID: ecd1a.i  
 Smp Info : |WAR100222-60 01  
 Misc Info :  
 Comment :  
 Method : /chem/ecdl1a.i/031810.b/ECD1-B-8082-031110b.m  
 Meth Date : 18-Mar-2010 12:22 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
 Als bottle: 2 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: AR1660.sub  
 Target Version: 3.50 Sample Matrix: None

AMOUNTS							
			CAL-AMT		ON-COL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		( ug/L)	TARGET RANGE	RATIO
==	=====	==	=====	=====	=====	=====	=====
-----							
\$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	25653922	100.000	97.8	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.912	5.912	0.000	17983366	100.000	96.1	80.00- 120.00	100.00
-----							
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.164	0.000	11336193	1000.00	901	80.00- 120.00	100.00 (M)
3.247	3.247	0.000	7586539	1000.00	879	45.24- 85.24	66.92
3.310	3.310	0.000	4629167	1000.00	876	20.38- 60.38	40.84
3.537	3.537	0.000	6156542	1000.00	893	32.96- 72.96	54.31
3.613	3.613	0.000	5743732	1000.00	894	29.75- 69.75	50.67
Average of Peak Amounts =					889		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
4.304	4.304	0.000	12460543	1000.00	953	80.00- 120.00	100.00
4.428	4.428	0.000	15159960	1000.00	975	101.15- 141.15	121.66
4.694	4.694	0.000	11434090	1000.00	961	71.50- 111.50	91.76
4.867	4.867	0.000	11836954	1000.00	963	75.17- 115.17	95.00
5.014	5.014	0.000	26031601	1000.00	986	190.25- 230.25	208.91
Average of Peak Amounts =					968		
-----							

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdl1.i/031810.b/002b0201.d

Date: 18-MAR-2010 06:14

Client ID: AR166001

Sample Info: IWR100222-60 01

Page 1

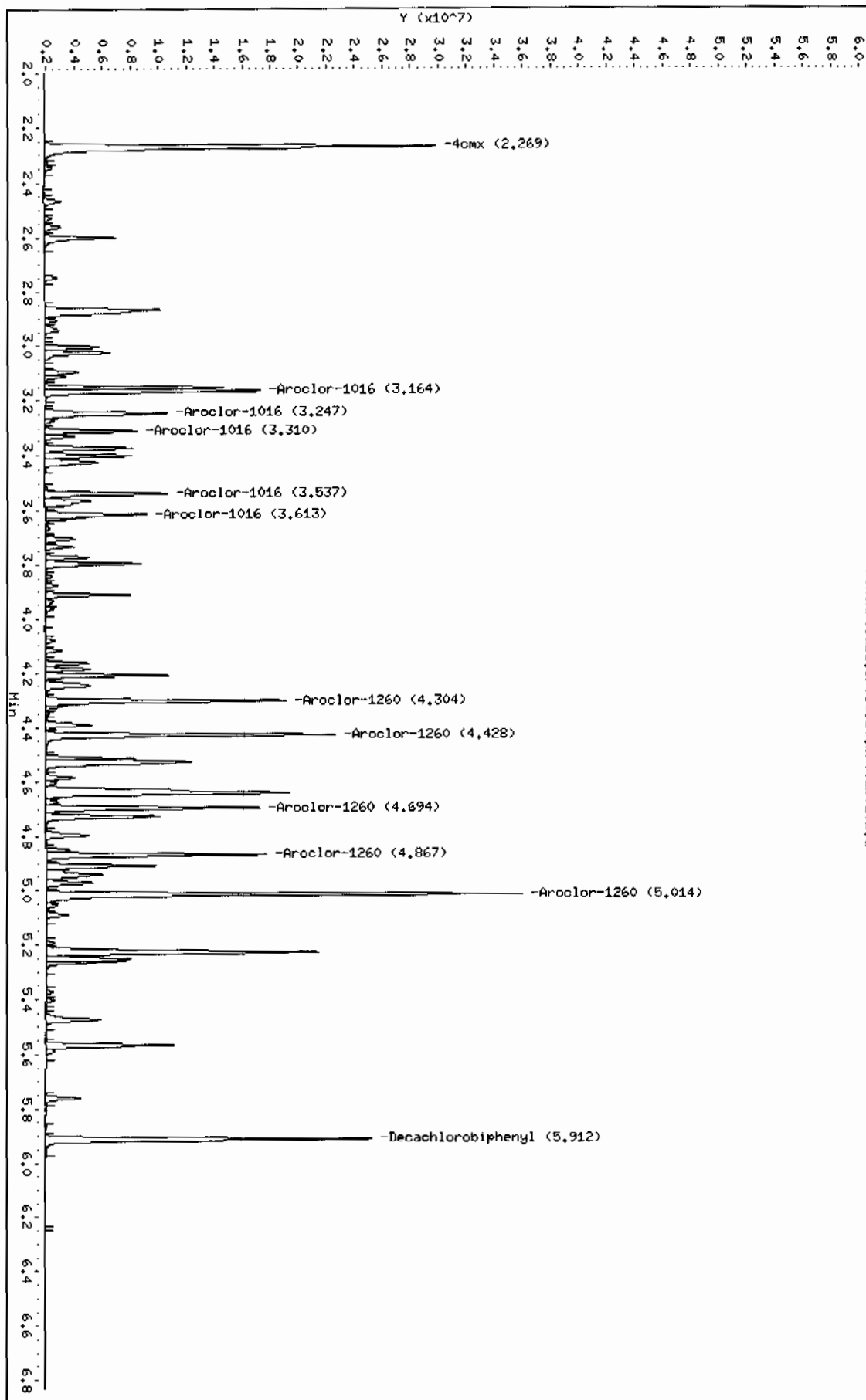
Instrument: ecdl1.i

Operator: YSL

Column diameter: 0.25

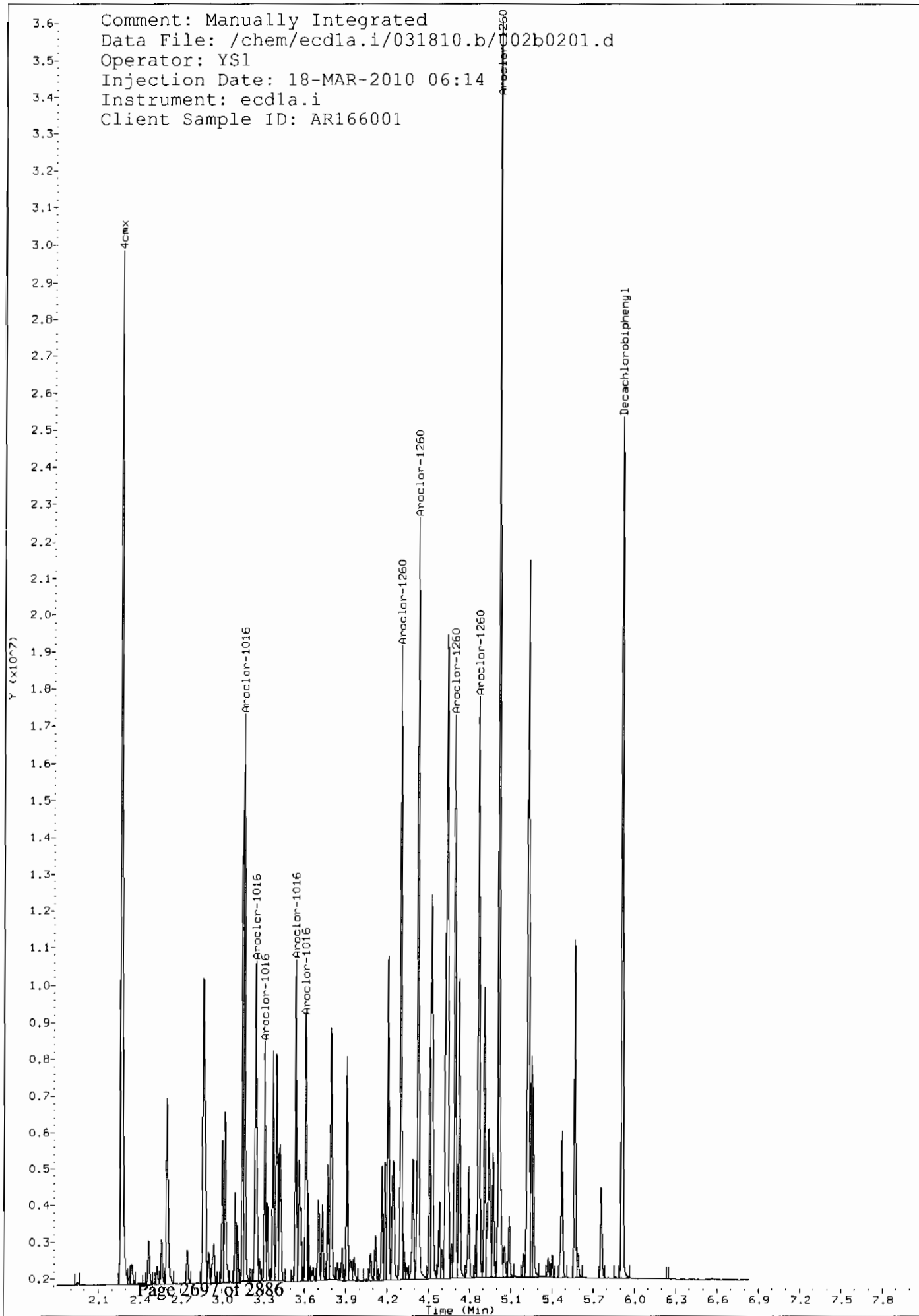
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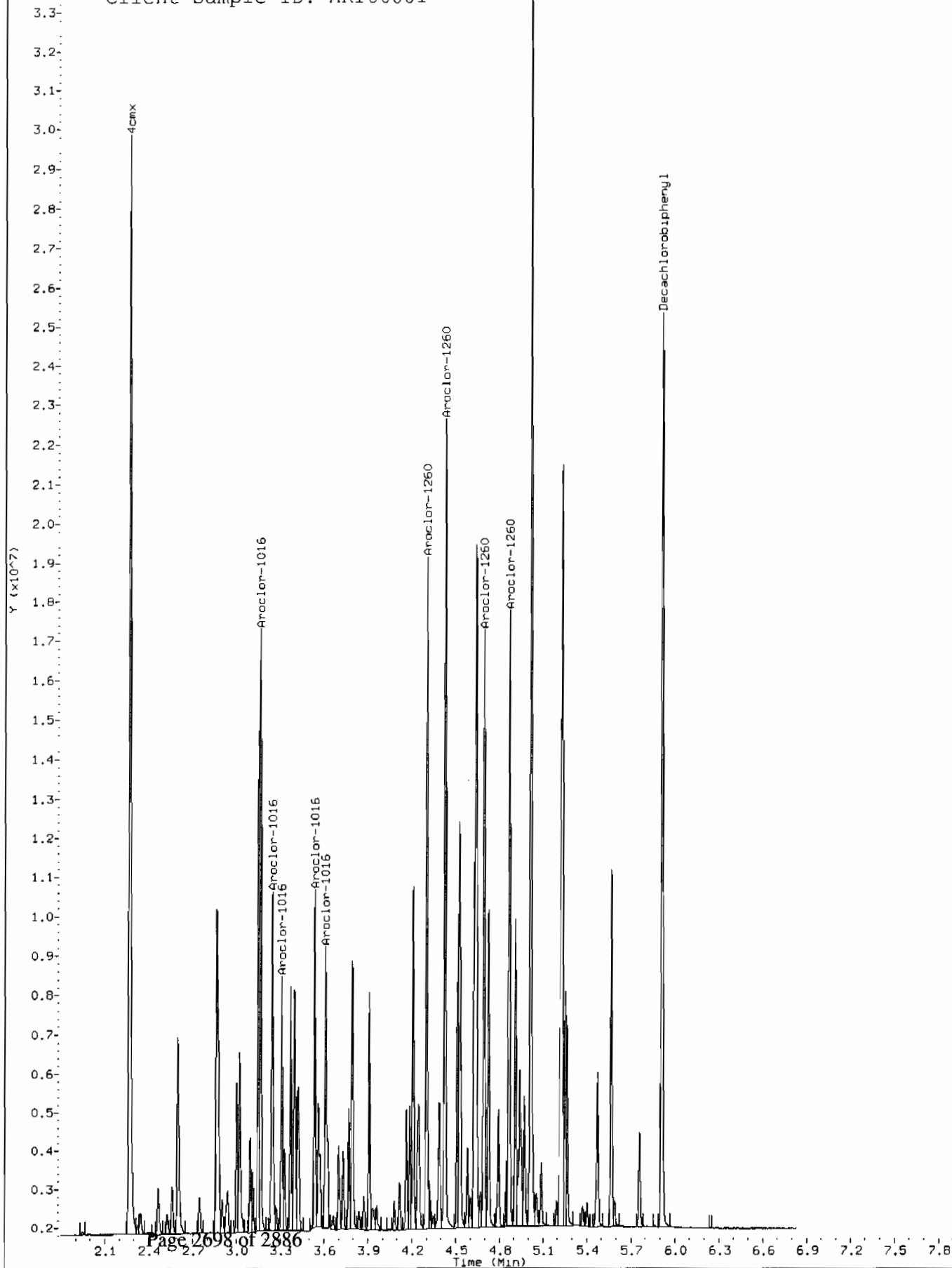




Comment: Manually Integrated  
Data File: /chem/ecdla.i/031810.b/002b0201.d  
Operator: YS1  
Injection Date: 18-MAR-2010 06:14  
Instrument: ecdla.i  
Client Sample ID: AR166001



Comment: Before manual integration  
Data File: /chem/ecdla.i/031810.b/Orig-002b0201.d  
Operator: YS1  
Injection Date: 18-MAR-2010 06:14  
Instrument: ecdla.i  
Client Sample ID: AR166001



Data File: /chem/ecd1a.i/031810.b/003f0301.d  
Report Date: 18-Mar-2010 14:11

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/031810.b/003f0301.d  
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401  
Inj Date : 18-MAR-2010 06:25  
Operator : YSl Inst ID: ecd1a.i  
Smp Info : |WAR100219-54  
Misc Info :  
Comment :  
Method : /chem/ecd1a.i/031810.b/ECD1-F-8082-031110b.m  
Meth Date : 18-Mar-2010 12:22 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 3 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1254.sub  
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
3.207	3.207	0.000	11932817 1000.00	900	80.00- 120.00	100.00
3.362	3.362	0.000	15842727 1000.00	888	112.77- 152.77	132.77
3.596	3.596	0.000	20499788 1000.00	916	151.79- 191.79	171.79
3.758	3.758	0.000	14969715 1000.00	908	105.45- 145.45	125.45
3.867	3.867	0.000	15102637 1000.00	946	106.56- 146.56	126.56
Average of Peak Amounts =				912		

Data File: /chem/ecdl.a.i/031810.b/003f0301.d

Date: 18-MAR-2010 06:25

Client ID: AR125401

Sample Info: IMRT00219-54

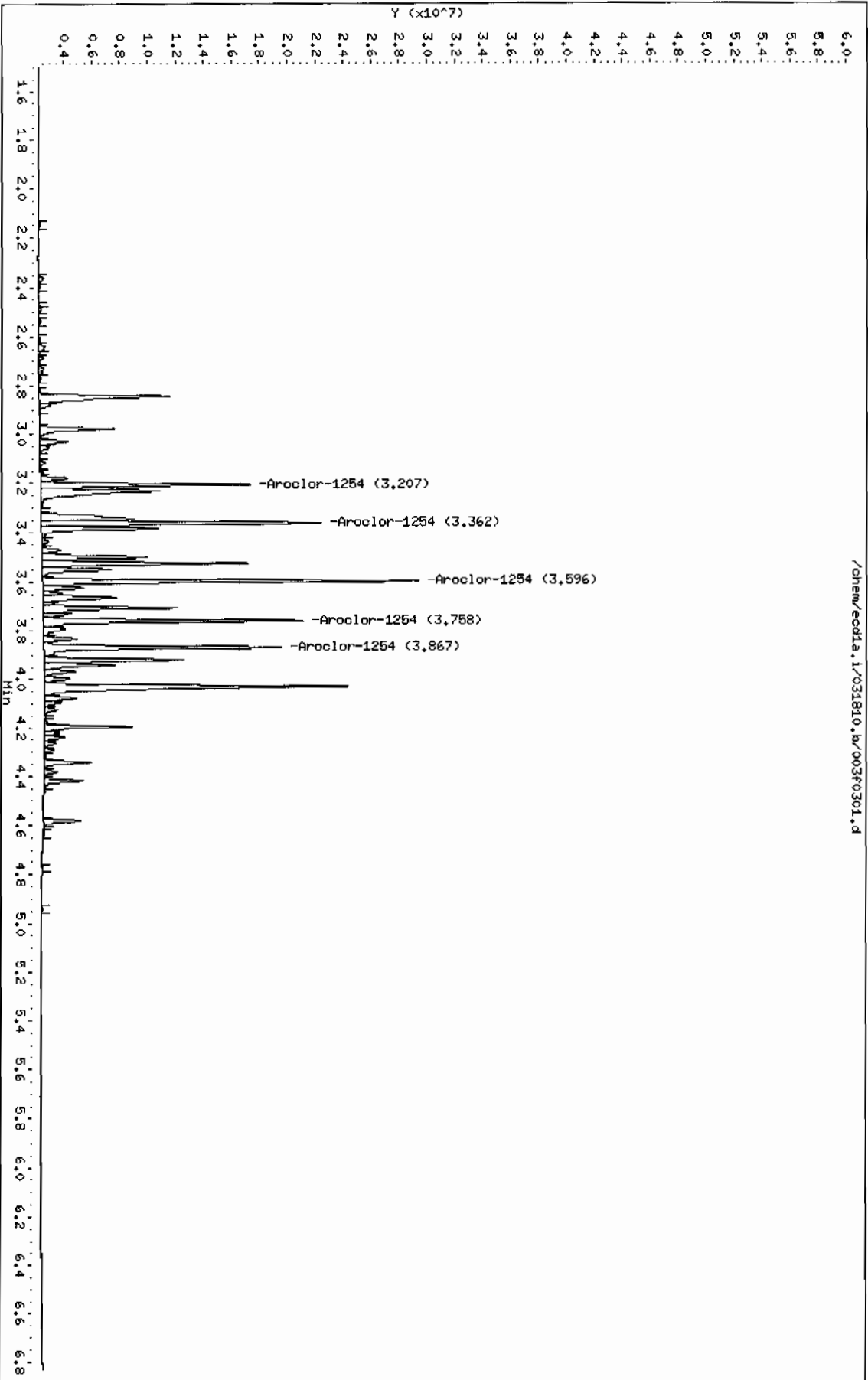
Column phase: CLP1

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Instrument: ecdl.a.i

Operator: YSI

Column diameter: 0.25



Data File: /chem/ecdla.i/031810.b/003b0301.d  
Report Date: 18-Mar-2010 14:11

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/031810.b/003b0301.d  
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401  
Inj Date : 18-MAR-2010 06:25  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |WAR100219-54  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/031810.b/ECD1-B-8082-031110b.m  
Meth Date : 18-Mar-2010 12:22 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 3 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1254.sub  
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
3.373	3.373	0.000	5489904 1000.00	912 80.00-	120.00	100.00
3.795	3.795	0.000	9973216 1000.00	922 161.66-	201.66	181.66
3.912	3.912	0.000	10945026 1000.00	917 179.37-	219.37	199.37
4.187	4.187	0.000	15296916 1000.00	930 258.64-	298.64	278.64
4.324	4.324	0.000	11317381 1000.00	934 186.15-	226.15	206.15

Average of Peak Amounts =

923

Data File: /chem/eodla.i/031810.b/003b0301.d

Date: 18-MAR-2010 06:25

Client ID: AR125401

Sample Info: 1MAR100219-54

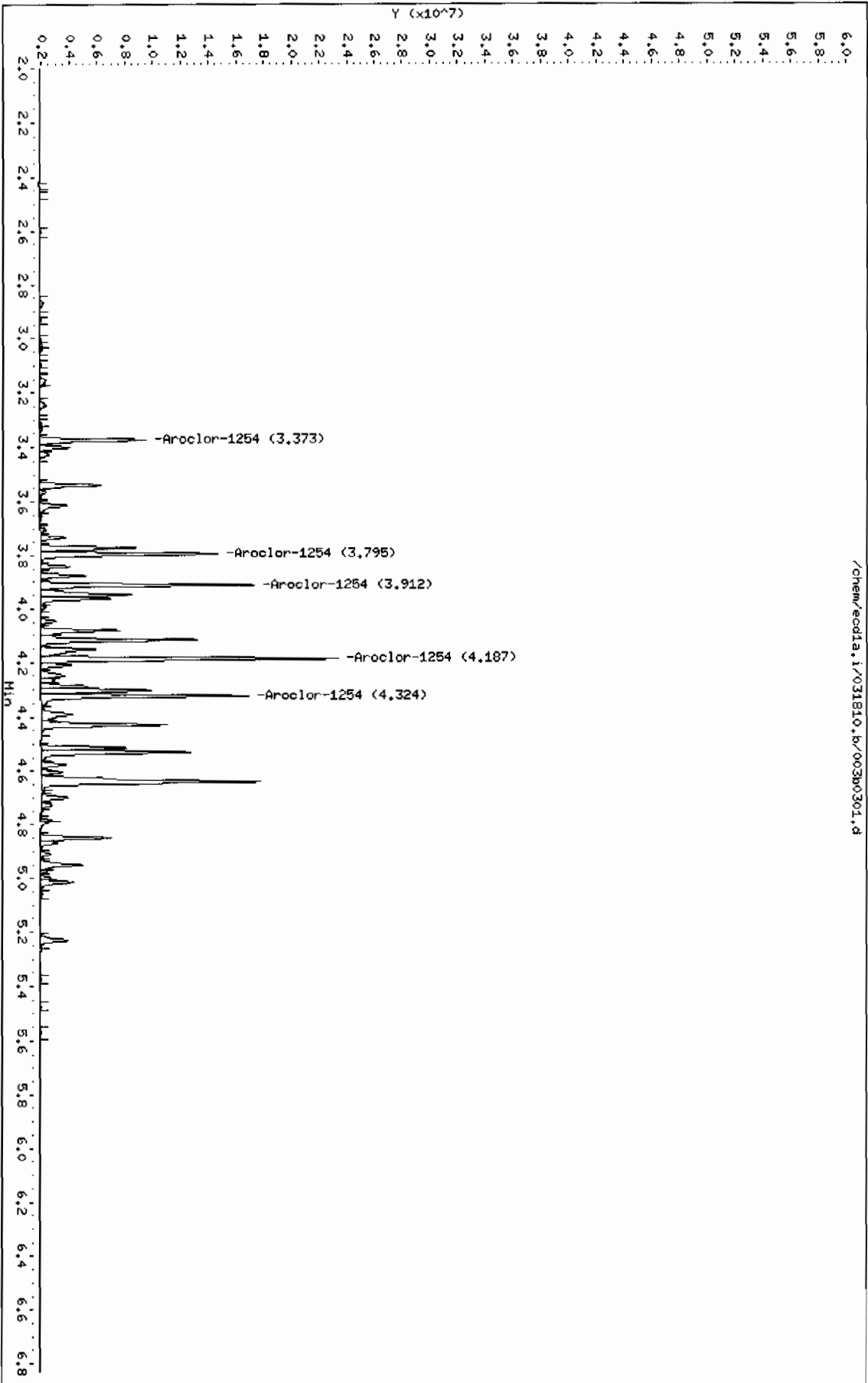
Column phase: CLP2

Page 1

Instrument: eodla.i

Operator: YSI

Column diameter: 0.25



Data File: /chem/ecdl1a.i/031810.b/004f0401.d  
Report Date: 18-Mar-2010 14:11

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GEL Laboratories LLC

RTX-CIPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031810.b/004f0401.d  
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201  
Inj Date : 18-MAR-2010 06:35  
Operator : YSl Inst ID: ecd1a.i  
Smp Info : |WAR100219-42  
Misc Info :  
Comment :  
Method : /chem/ecdl1a.i/031810.b/ECD1-F-8082-031110b.m  
Meth Date : 18-Mar-2010 12:22 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 4 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1242.sub  
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
2.364	2.364	0.000	11920767	1000.00	967 80.00- 120.00	100.00
2.651	2.651	0.000	14540837	1000.00	976 101.98- 141.98	121.98
2.769	2.769	0.000	5552894	1000.00	942 26.58- 66.58	46.58
2.979	2.979	0.000	7106906	1000.00	919 39.62- 79.62	59.62
3.233	3.233	0.000	6467001	1000.00	888 34.25- 74.25	54.25
Average of Peak Amounts =				938		

Data File: /chem/ecdl1a.i/031810.b/0040401.d

Date: 18-MAR-2010 06:35

Client ID: AR124201

Sample Info: IMR100219-42

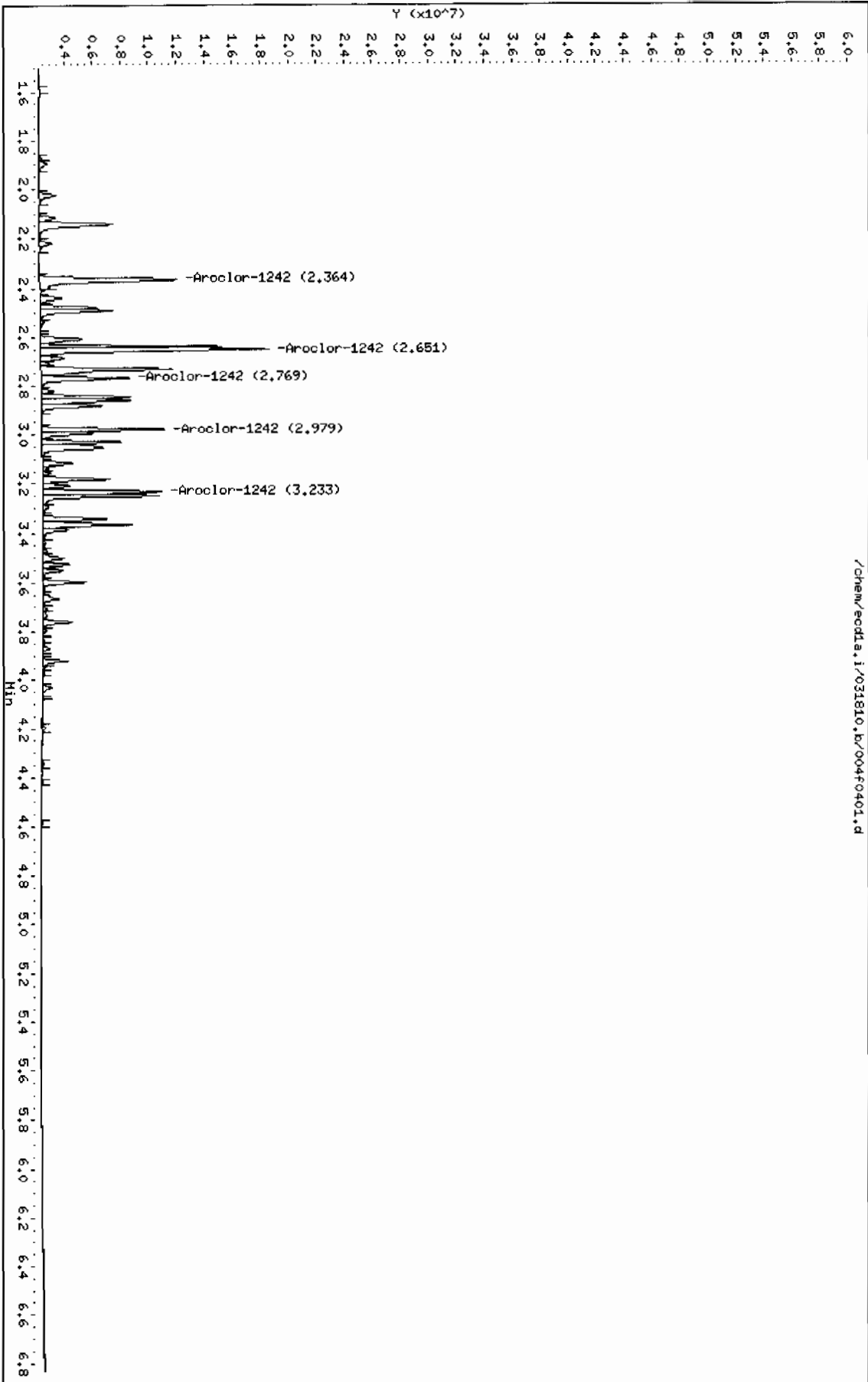
Column phase: CLP1

Page 1

Instrument: ecdl1a.i

Operator: YSL

Column diameter: 0.25





Data File: /chem/ecdla.i/031810.b/004b0401.d  
Report Date: 18-Mar-2010 14:11

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 1NJ VOL

Data file : /chem/ecdla.i/031810.b/004b0401.d

Lab Smp Id: WAR100219-42

Client Smp ID: AR124201

Inj Date : 18-MAR-2010 06:35

Operator : YS1

Inst ID: ecdla.i

Smp Info : |WAR100219-42

Misc Info :

Comment :

Method : /chem/ecdla.i/031810.b/ECD1-B-8082-031110b.m

Meth Date : 18-Mar-2010 12:22 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 4

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1242.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9	
3.165	3.165	0.000	9762582 1000.00	963	80.00- 120.00	100.00
3.248	3.248	0.000	6622513 1000.00	933	47.84- 87.84	67.84
3.539	3.539	0.000	5178556 1000.00	939	33.04- 73.04	53.04
3.772	3.772	0.000	5319536 1000.00	930	34.49- 74.49	54.49
3.800	3.800	0.000	6061023 1000.00	952	42.08- 82.08	62.08
Average of Peak Amounts =				943		

Data File: /chem/ecdda.i/031810.b/004b0401.d  
Date: 18-MAR-2010 06:35  
Client ID: AR124201  
Sample Info: 14MR100219-42

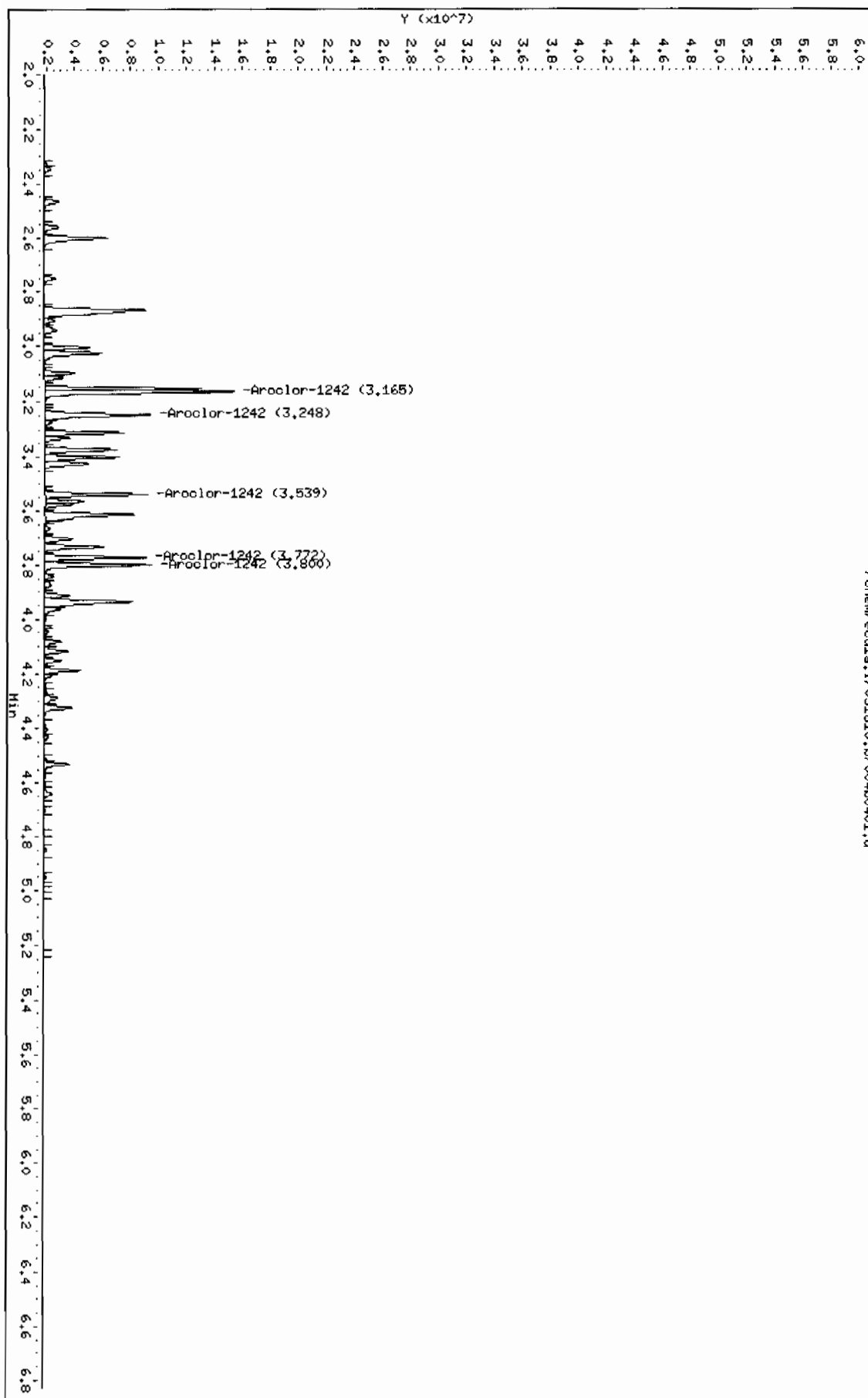
Instrument: ecdda.i

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Column phase: CLP2

Operator: YS1  
Column diameter: 0.25

/chem/ecdda.i/031810.b/004b0401.d



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031810.b/005f0501.d

Lab Smp Id: WAR100223-48

Client Smp ID: AR124801

Inj Date : 18-MAR-2010 06:44

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100223-48

Misc Info :

Comment :

Method : /chem/ecdl1a.i/031810.b/ECD1-F-8082-031110b.m

Meth Date : 18-Mar-2010 12:22 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 5

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1248.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		( ug/L)		TARGET RANGE	RATIO
=====			=====		=====		=====	=====
5 Aroclor-1248					CAS #: 12672-29-6			
2.844	2.844	0.000	10178605	1000.00	1020	80.00-	120.00	100.00
2.977	2.977	0.000	13383754	1000.00	1020	111.49-	151.49	131.49
3.230	3.230	0.000	14096562	1000.00	986	118.49-	158.49	138.49
3.361	3.361	0.000	11446960	1000.00	962	92.46-	132.46	112.46
3.594	3.594	0.000	7515193	1000.00	939	53.83-	93.83	73.83
Average of Peak Amounts =					985			

Data File: /chem/ecdl1a.i/031810.b/005f0501.d

Date : 18-MAR-2010 06:44

Client ID: AR124801

Sample Info: 1MAR100223-48

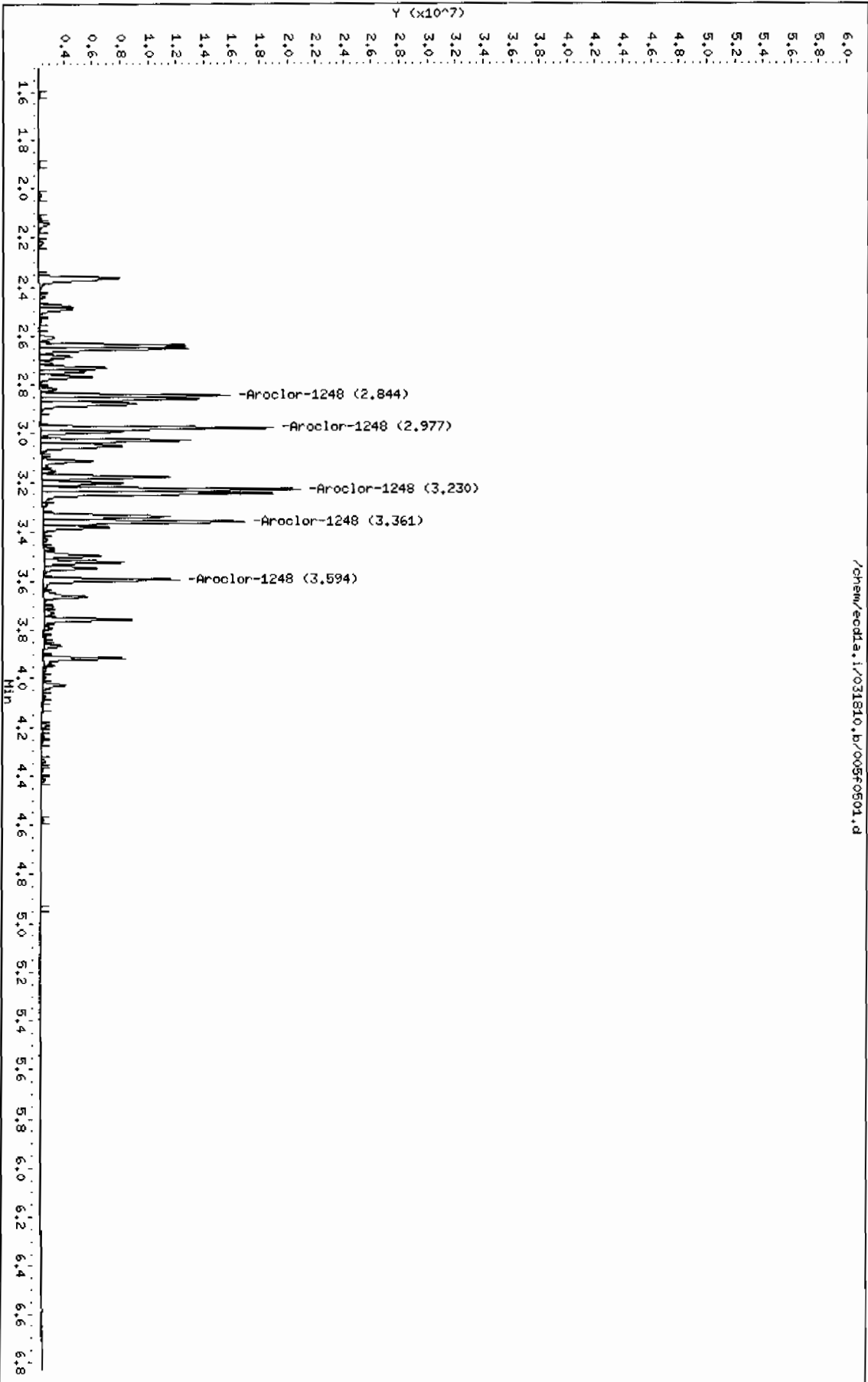
Column phase: CLP1

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Instrument: ecdl1a.i

Operator: YSL

Column diameter: 0.25



Data File: /chem/ecdl1a.i/031810.b/005b0501.d  
Report Date: 18-Mar-2010 14:11

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031810.b/005b0501.d  
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801  
Inj Date : 18-MAR-2010 06:44  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |WAR100223-48  
Misc Info :  
Comment :  
Method : /chem/ecdl1a.i/031810.b/ECD1-B-8082-031110b.m  
Meth Date : 18-Mar-2010 12:22 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 5 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1248.sub  
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6	
3.373	3.373	0.000	7529346 1000.00	990	80.00- 120.00	100.00
3.537	3.537	0.000	9431544 1000.00	996	105.26- 145.26	125.26
3.770	3.770	0.000	10816931 1000.00	990	123.66- 163.66	143.66
3.798	3.798	0.000	12133001 1000.00	998	141.14- 181.14	161.14
3.935	3.935	0.000	11603989 1000.00	982	134.12- 174.12	154.12
Average of Peak Amounts =				991		

Data File: /chem/ecdl1.i/031810.b/00500501.d

Date: 18-MAR-2010 06:44

Client ID: AR124801

Sample Info: 1MAR100223-48

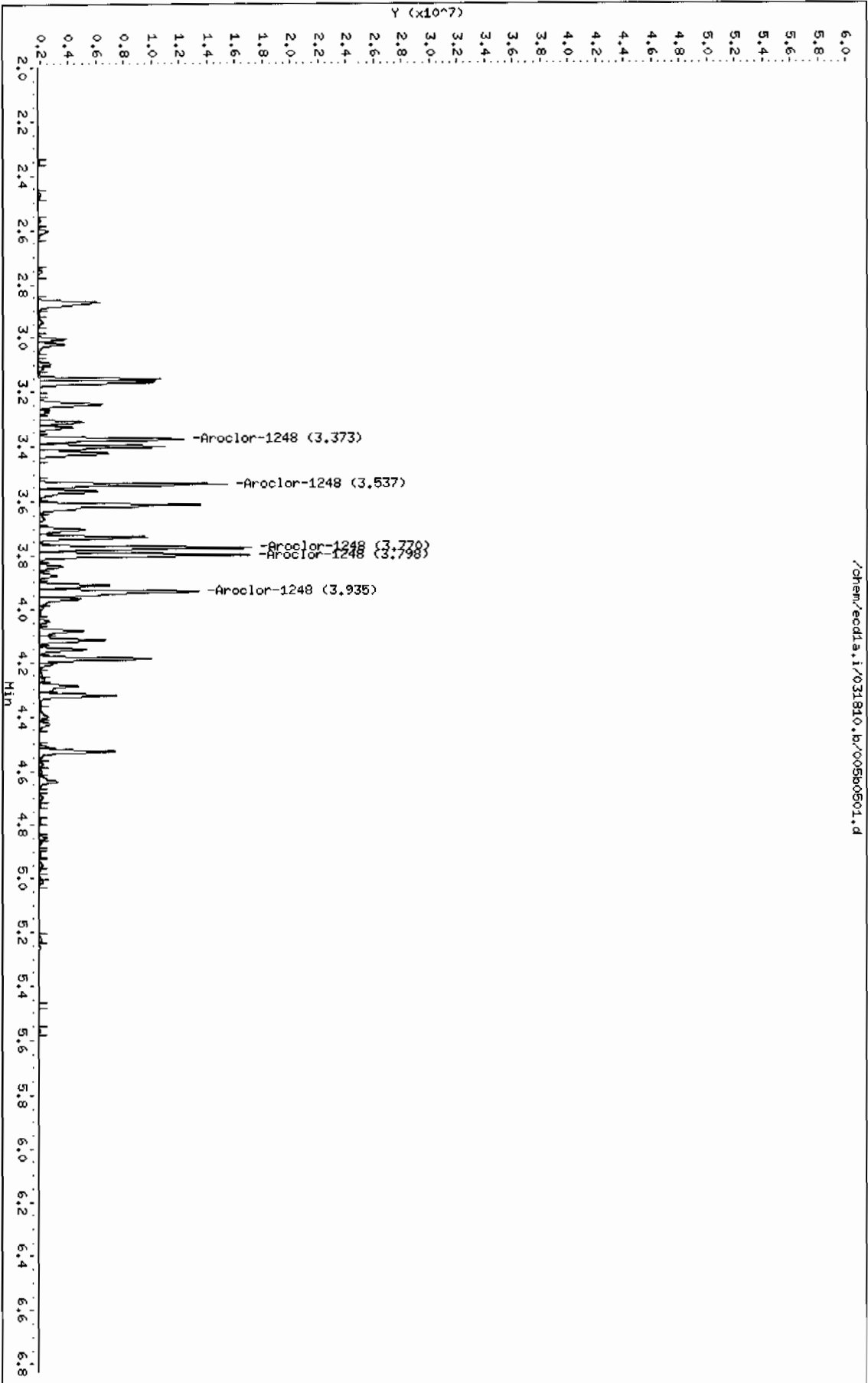
Column phase: CLP2

Instrument: ecdl1.i

Operator: YS1

Column diameter: 0.25

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Data File: /chem/ecdla.i/031810.b/007f0701.d  
Report Date: 18-Mar-2010 14:11

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/031810.b/007f0701.d

Lab Smp Id: WAR100104-32

Client Smp ID: AR123201

Inj Date : 18-MAR-2010 07:05

Operator : YS1

Inst ID: ecdla.i

Smp Info : |WAR100104-32

Misc Info :

Comment :

Method : /chem/ecdla.i/031810.b/ECD1-F-8082-031110b.m

Meth Date : 18-Mar-2010 12:22 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

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
2.364	2.364	0.000	6701360 1000.00	1000	80.00- 120.00	100.00
2.652	2.652	0.000	8441569 1000.00	1010	105.97- 145.97	125.97
2.732	2.732	0.000	5455123 1000.00	986	61.40- 101.40	81.40
2.846	2.846	0.000	2638462 1000.00	996	19.37- 59.37	39.37
3.233	3.233	0.000	3450458 1000.00	970	31.49- 71.49	51.49
Average of Peak Amounts =				994		

Data File: /chem/ecdl1.i/031810.b/0070701.d

Date : 18-MAR-2010 07:05

Client ID: AR123201

Sample Info: 1MR100104-32

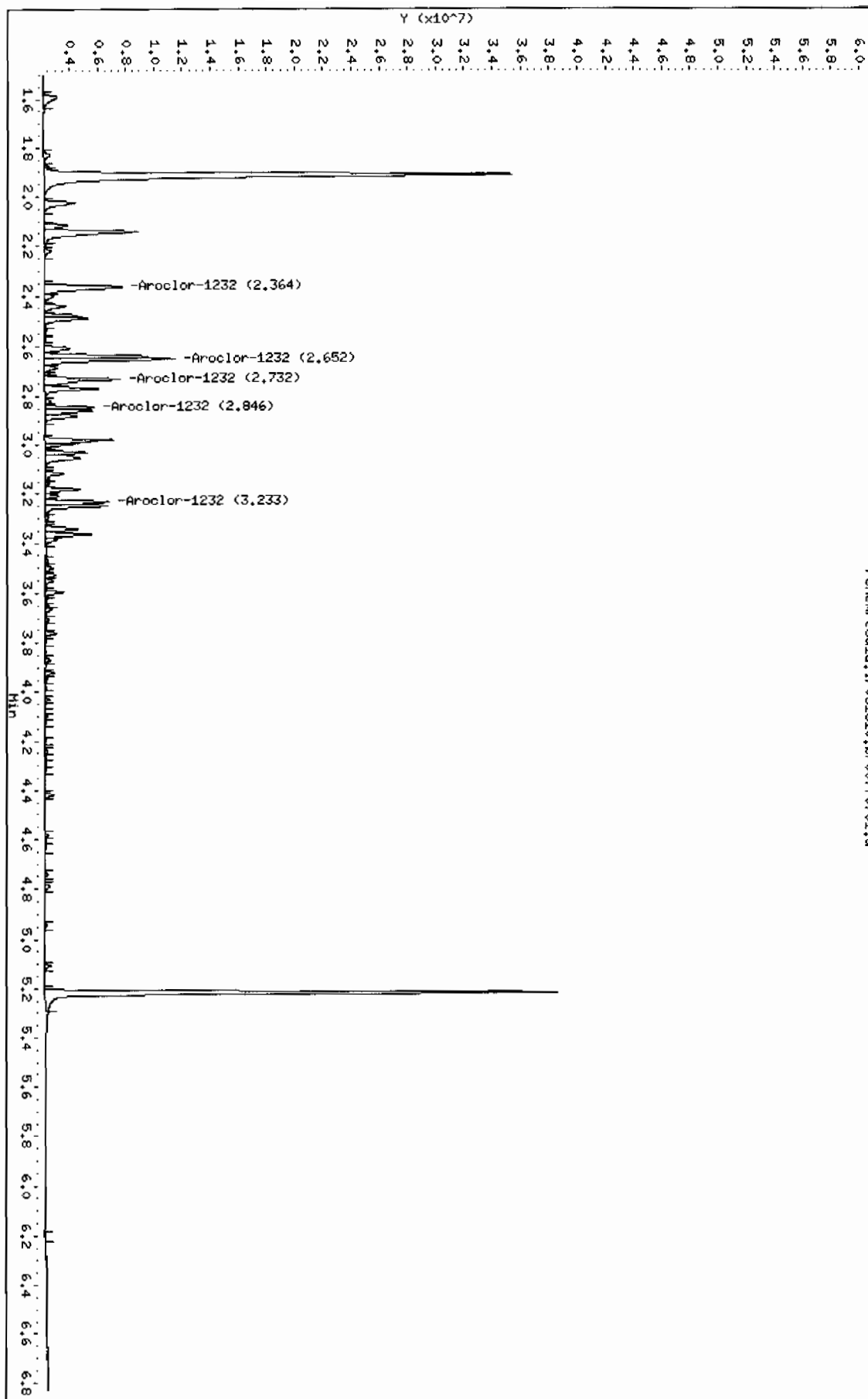
Column Phase: CLP1

Instrument: ecdl1.i

Operator: YSL

Column diameter: 0.25

/chem/ecdl1.i/031810.b/0070701.d





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031810.b/007b0701.d

Lab Smp Id: WAR100104-32

Client Smp ID: AR123201

Inj Date : 18-MAR-2010 07:05

Operator : YSl

Inst ID: ecd1a.i

Smp Info : |WAR100104-32

Misc Info :

Comment :

Method : /chem/ecdl1a.i/031810.b/ECD1-B-8082-031110b.m

Meth Date : 18-Mar-2010 12:22 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

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
2.868	2.868	0.000	5202376	1000.00	1030 80.00- 120.00	100.00
3.165	3.165	0.000	5974501	1000.00	1040 94.84- 134.84	114.84
3.248	3.248	0.000	4003118	1000.00	1030 56.95- 96.95	76.95
3.539	3.539	0.000	2966601	1000.00	1040 37.02- 77.02	57.02
3.773	3.773	0.000	2906106	1000.00	1030 35.86- 75.86	55.86
Average of Peak Amounts =			1.04e+03			

3 Aroclor-1232

CAS #: 11141-16-5

2.868	2.868	0.000	5202376	1000.00	1030 80.00- 120.00	100.00
3.165	3.165	0.000	5974501	1000.00	1040 94.84- 134.84	114.84
3.248	3.248	0.000	4003118	1000.00	1030 56.95- 96.95	76.95
3.539	3.539	0.000	2966601	1000.00	1040 37.02- 77.02	57.02
3.773	3.773	0.000	2906106	1000.00	1030 35.86- 75.86	55.86

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecdl1a.i/031810.b/007b0701.d

Date: 18-MAR-2010 07:05

Client ID: AR123201

Sample Info: 1MAR100104-32

Column phase: CLP2

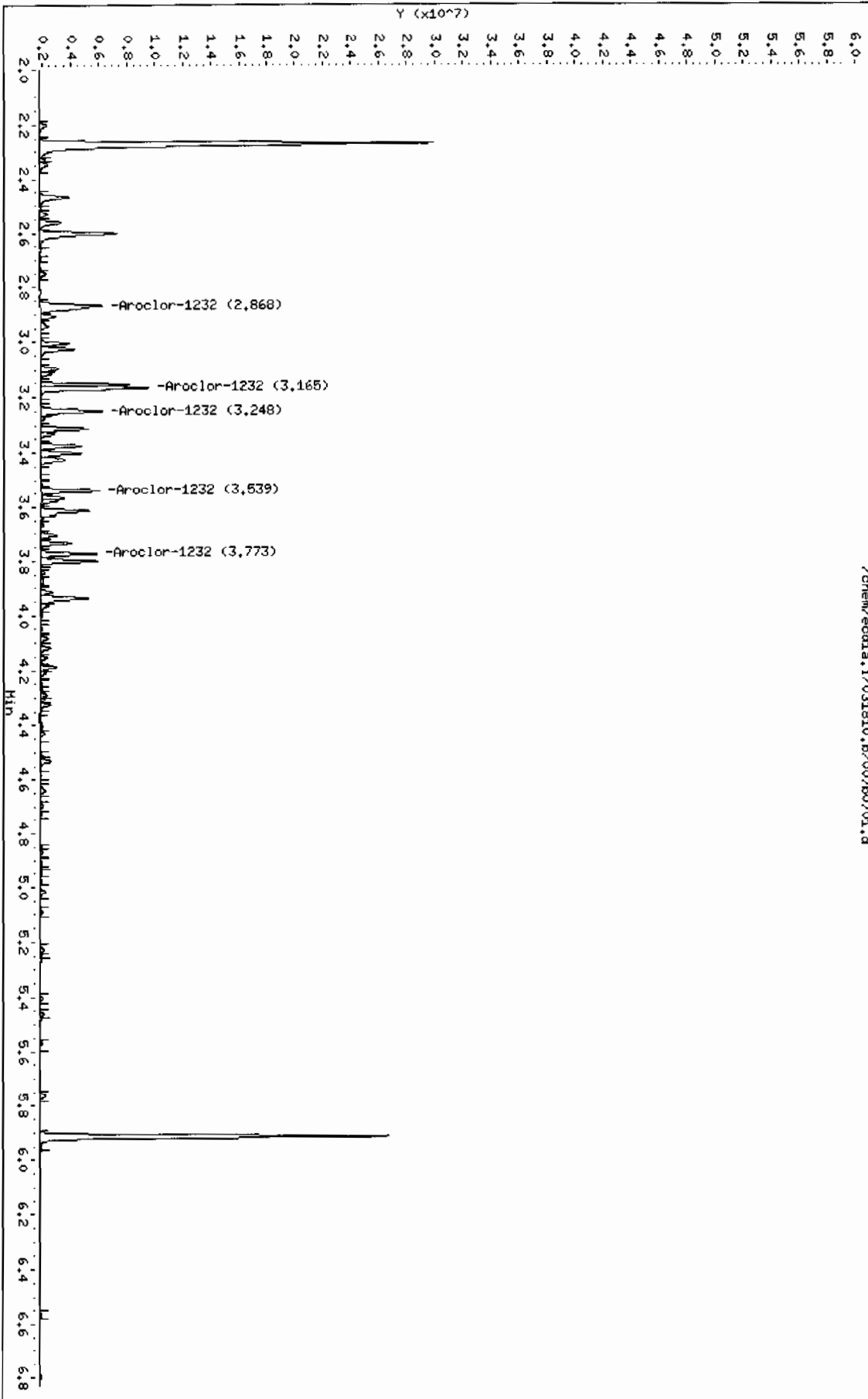
Page 1

Instrument: ecdl1a.i

Operator: YSL

Column diameter: 9.25

/chem/ecdl1a.i/031810.b/007b0701.d



Data File: /chem/ecdla.i/031810.b/008f0801.d  
 Report Date: 18-Mar-2010 14:12

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/031810.b/008f0801.d  
 Lab Smp Id: WAR100104-21 Client Smp ID: AR122101  
 Inj Date : 18-MAR-2010 07:16  
 Operator : YS1 Inst ID: ecdla.i  
 Smp Info : |WAR100104-21  
 Misc Info :  
 Comment :  
 Method : /chem/ecdla.i/031810.b/ECD1-F-8082-031110b.m  
 Meth Date : 18-Mar-2010 12:22 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

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
2.025	2.025	0.000	4611135 1000.00	1030	80.00- 120.00	100.00
2.117	2.117	0.000	2516821 1000.00	1030	34.58- 74.58	54.58
2.143	2.143	0.000	11196636 1000.00	1030	222.82- 262.82	242.82
Average of Peak Amounts =			1.03e+03			

Data File: /chem/ecdl1a.i/031810.b/008f0801.d  
Date : 18-MAR-2010 07:16  
Client ID: AR122101  
Sample Info: IMR100104-21

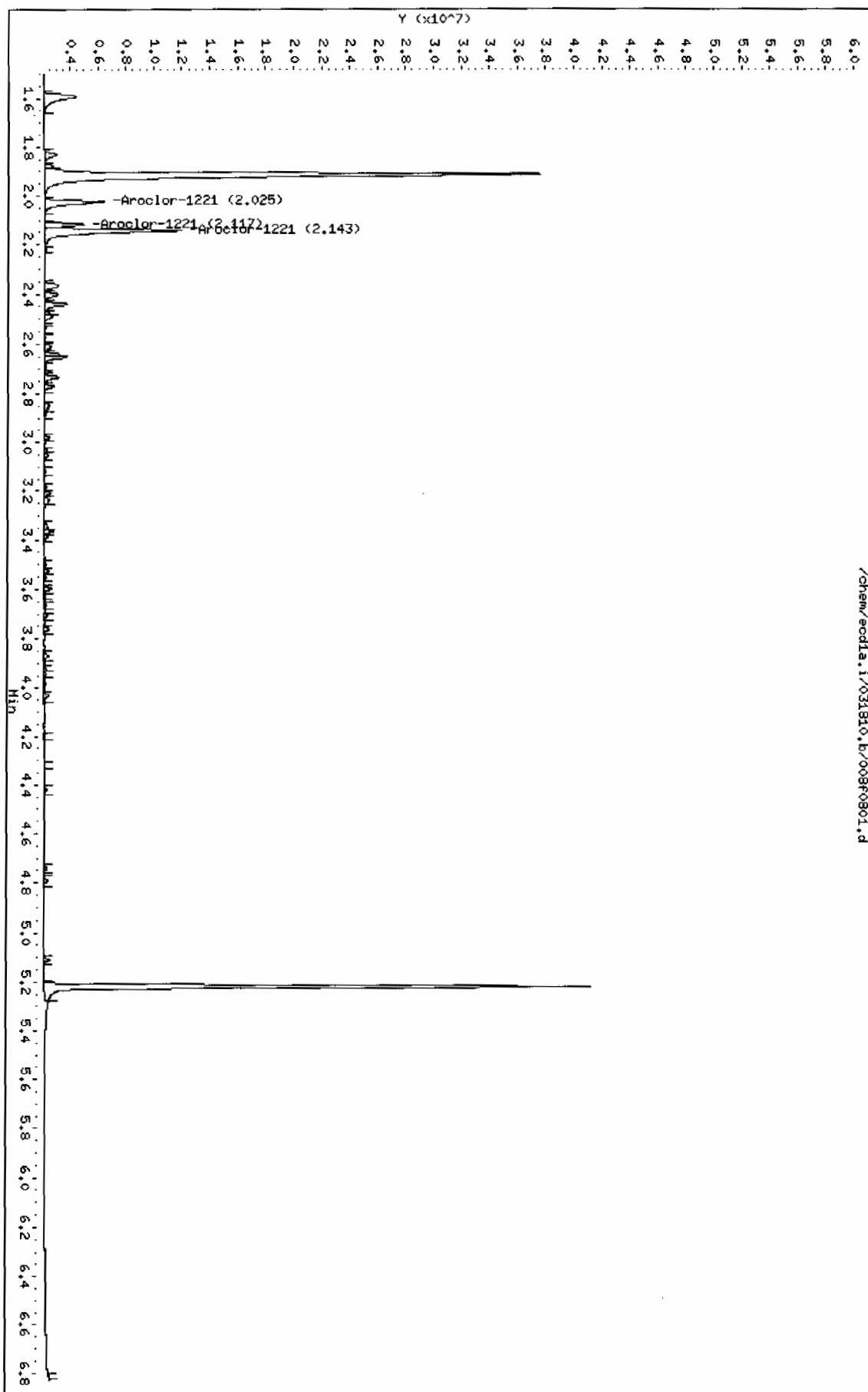
Instrument: ecdl1a.i

Page 1

Column phase: CLP1

Operator: YSI  
Column diameter: 0.25

/chem/ecdl1a.i/031810.b/008f0801.d



Data File: /chem/ecdl1a.i/031810.b/008b0801.d  
Report Date: 18-Mar-2010 14:11

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031810.b/008b0801.d  
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101  
Inj Date : 18-MAR-2010 07:16  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |WAR100104-21  
Misc Info :  
Comment :  
Method : /chem/ecdl1a.i/031810.b/ECD1-B-8082-031110b.m  
Meth Date : 18-Mar-2010 12:22 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

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
2.467	2.467	0.000	3400096 1000.00	1050	80.00- 120.00	100.00
2.561	2.561	0.000	2199302 1000.00	1060	44.68- 84.68	64.68
2.601	2.601	0.000	7577788 1000.00	1040	202.87- 242.87	222.87
Average of Peak Amounts =			1.05e+03			

Data File: /chem/eodla.i/031810.b/008b0801.d

Date: 18-MAR-2010 07:16

Client ID: AR122101

Sample Info: IWR100104-21

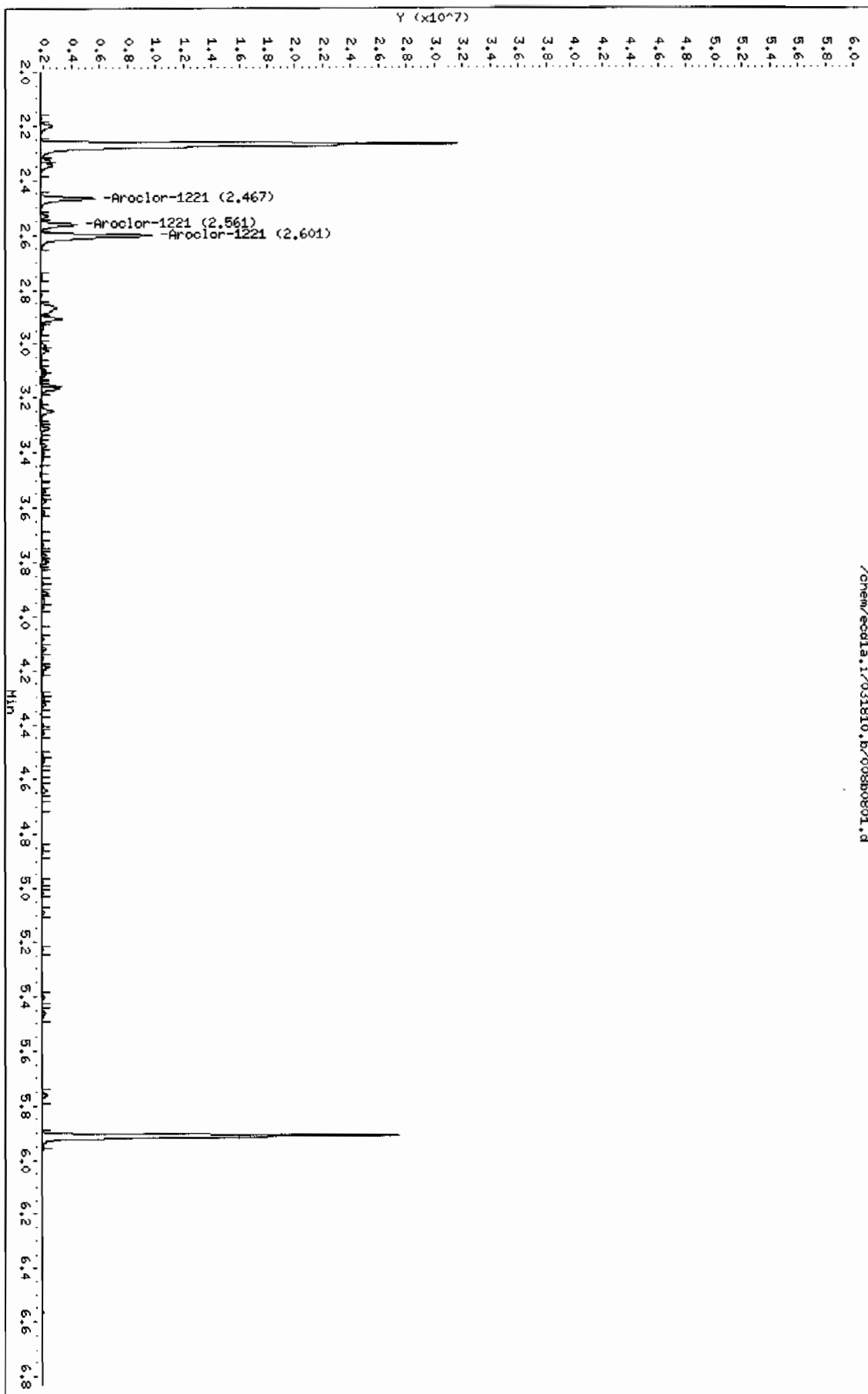
Column phase: CLP2

Instrument: eodla.i

Operator: YSL

Column diameter: 0.25

/chem/eodla.i/031810.b/008b0801.d



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1.i/031810.b/034f3401.d  
 Lab Smp Id: WAR100222-60 04 Client Smp ID: AR166004  
 Inj Date : 18-MAR-2010 12:06  
 Operator : YSl Inst ID: ecd1a.i  
 Smp Info : |WAR100222-60 04  
 Misc Info :  
 Comment :  
 Method : /chem/ecdl1.i/031810.b/ECD1-F-8082-031110b.m  
 Meth Date : 18-Mar-2010 12:22 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
 Als bottle: 34 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: AR1660.sub  
 Target Version: 3.50 Sample Matrix: None  
 Processing Host: hpc1p1

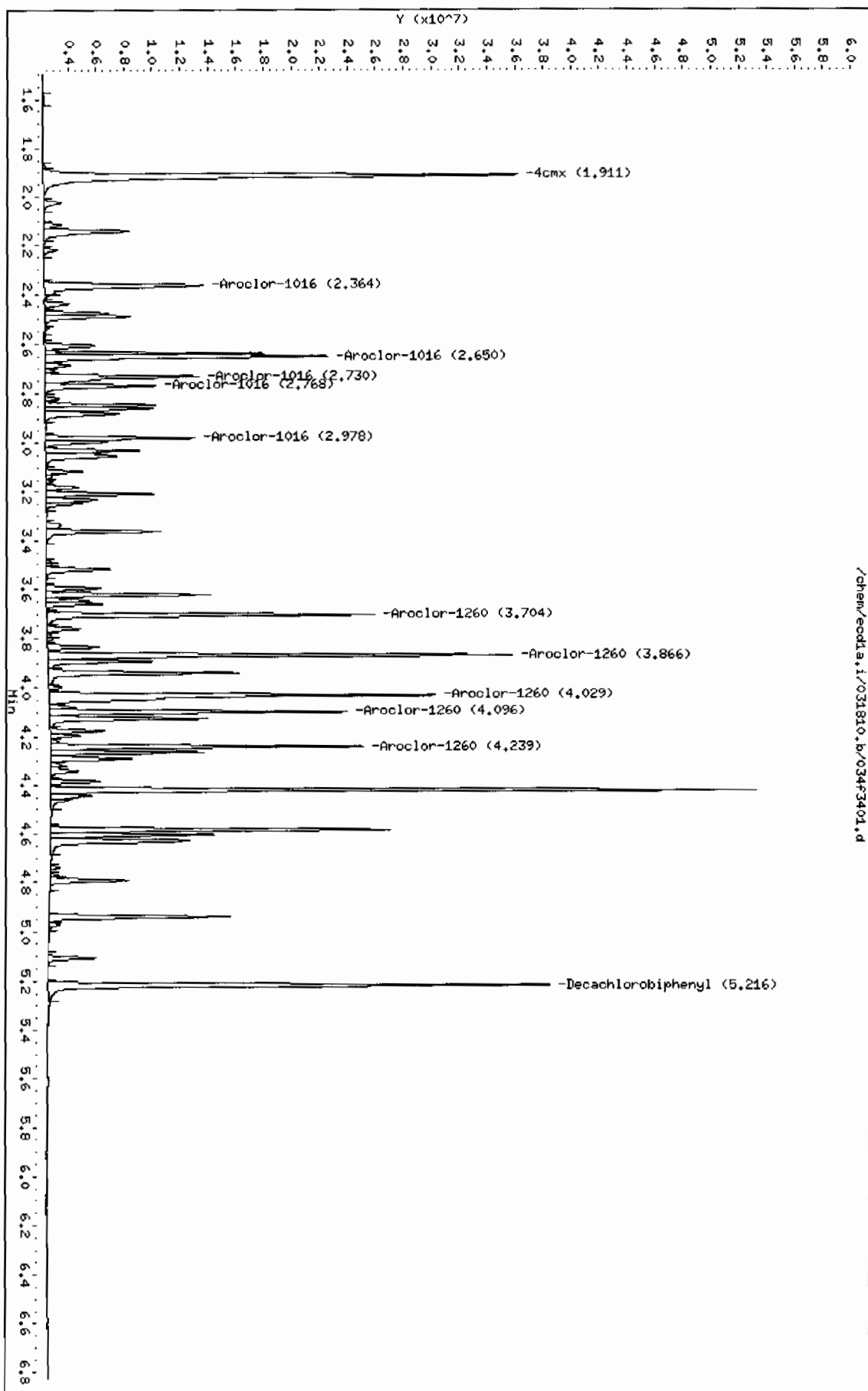
AMOUNTS						
			CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
==	=====	==	=====	=====	=====	=====
\$ 11 4cmx				CAS #: 877-09-8		
1.911	1.910	0.001	38896492 100.000	99.8	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.216	5.215	0.001	28882268 100.000	97.3	80.00- 120.00	100.00
-----						
1 Aroclor-1016				CAS #: 12674-11-2		
2.364	2.364	0.000	13785629 1000.00	908	80.00- 120.00	100.00
2.650	2.649	0.001	17556565 1000.00	927	107.35- 147.35	127.35
2.730	2.730	0.000	11041696 1000.00	887	60.10- 100.10	80.10
2.768	2.768	0.000	6614881 1000.00	900	27.98- 67.98	47.98
2.978	2.978	0.000	8395851 1000.00	882	40.90- 80.90	60.90
Average of Peak Amounts =				901		
-----						
7 Aroclor-1260				CAS #: 11096-82-5		
3.704	3.704	0.000	17996959 1000.00	982	80.00- 120.00	100.00
3.866	3.866	0.000	26327910 1000.00	979	126.29- 166.29	146.29
4.029	4.028	0.001	28291436 1000.00	999	137.20- 177.20	157.20
4.096	4.096	0.000	15897006 1000.00	984	68.33- 108.33	88.33
4.239	4.239	0.000	16661537 1000.00	991	72.58- 112.58	92.58
Average of Peak Amounts =				987		
-----						

Data File: /chem/eod1a.i/031810.b/034f3401.d  
Date: 18-MAR-2010 12:06  
Client ID: AR166004  
Sample Info: 14RR00022-60 04

Column phase: CLP1

Instrument: eod1a.i  
Operator: YSL  
Column diameter: 0.25

/chem/eod1a.i/031810.b/034f3401.d





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/031810.b/034b3401.d

Lab Smp Id: WAR100222-60 04

Client Smp ID: AR166004

Inj Date : 18-MAR-2010 12:06

Operator : YSl

Inst ID: ecdla.i

Smp Info : |WAR100222-60 04

Misc Info :

Comment :

Method : /chem/ecdla.i/031810.b/ECD1-B-8082-031110b.m

Meth Date : 18-Mar-2010 12:22 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 34

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		
2.269	2.269	0.000	26213670	100.000	99.9	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.912	5.912	0.000	18282013	100.000	97.7	80.00- 120.00	100.00
-----							
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.164	0.000	11898540	1000.00	945	80.00- 120.00	100.00 (M)
3.247	3.247	0.000	7762391	1000.00	899	45.24- 85.24	65.24
3.311	3.310	0.001	4804772	1000.00	909	20.38- 60.38	40.38
3.539	3.537	0.002	6300972	1000.00	914	32.96- 72.96	52.96
3.614	3.613	0.001	5918951	1000.00	922	29.75- 69.75	49.75
Average of Peak Amounts =					918		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
4.304	4.304	0.000	12768876	1000.00	976	80.00- 120.00	100.00
4.429	4.428	0.001	15469126	1000.00	995	101.15- 141.15	121.15
4.694	4.694	0.000	11683491	1000.00	982	71.50- 111.50	91.50
4.868	4.867	0.001	12152140	1000.00	989	75.17- 115.17	95.17
5.014	5.014	0.000	26846098	1000.00	1020	190.25- 230.25	210.25
Average of Peak Amounts =					992		
-----							

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdl1.i/031810.b/034b3401.d

Date: 18-MAR-2010 12:06

Client ID: AR166004

Sample Info: 1MAR100222-60 04

Page 1

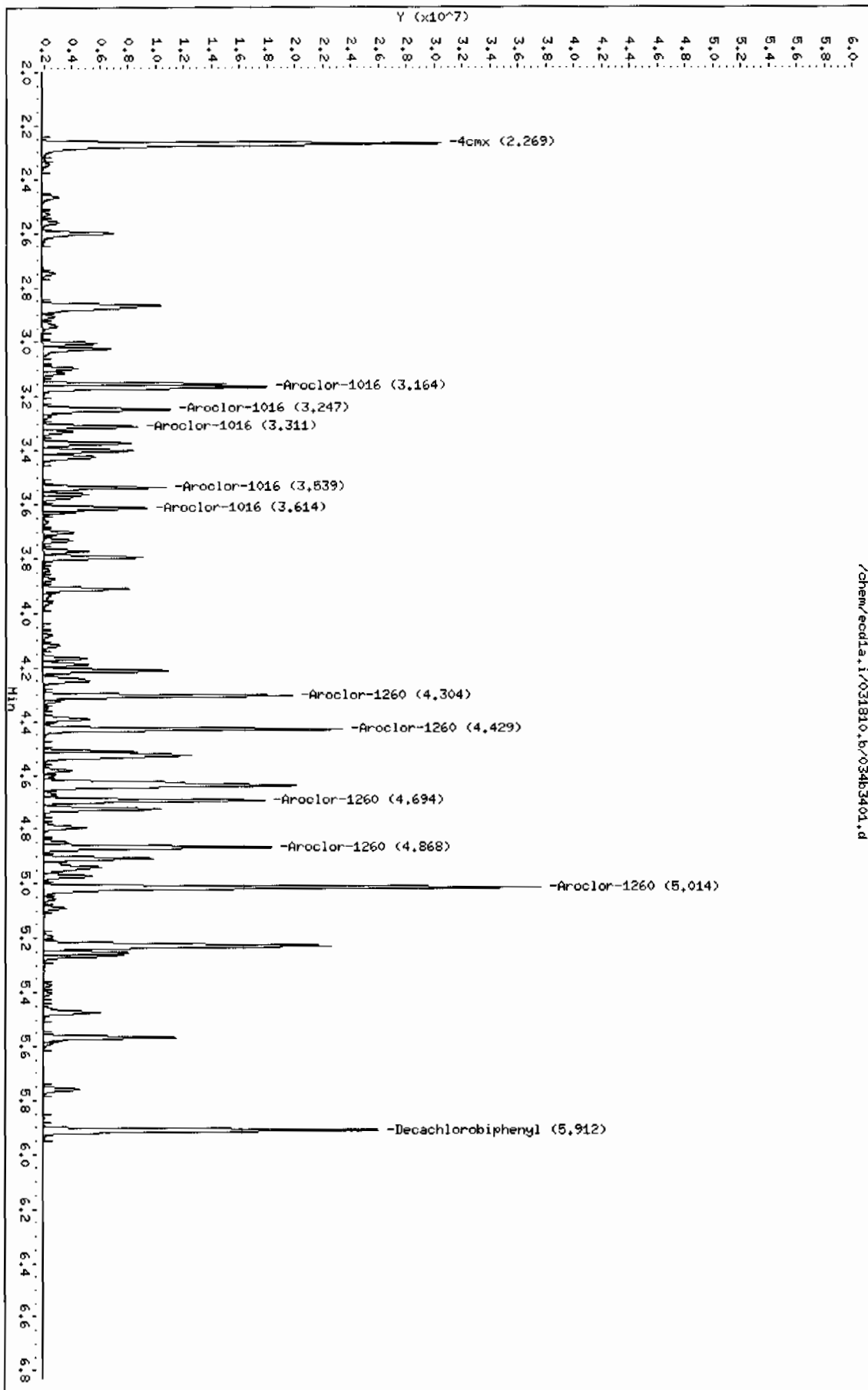
Instrument: ecdl1.i

Column phase: CLP2

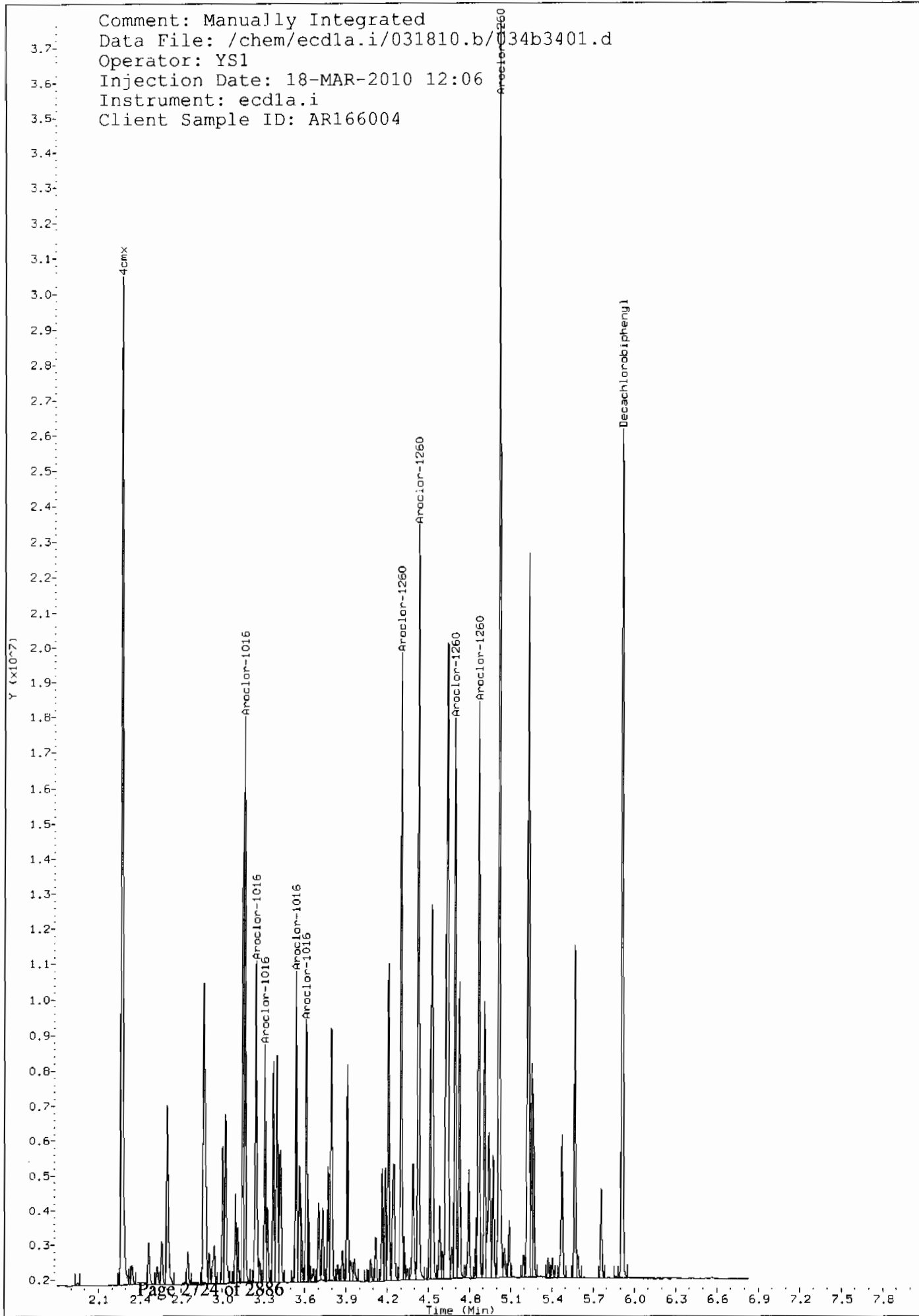
Operator: YSL

Column diameter: 0.25

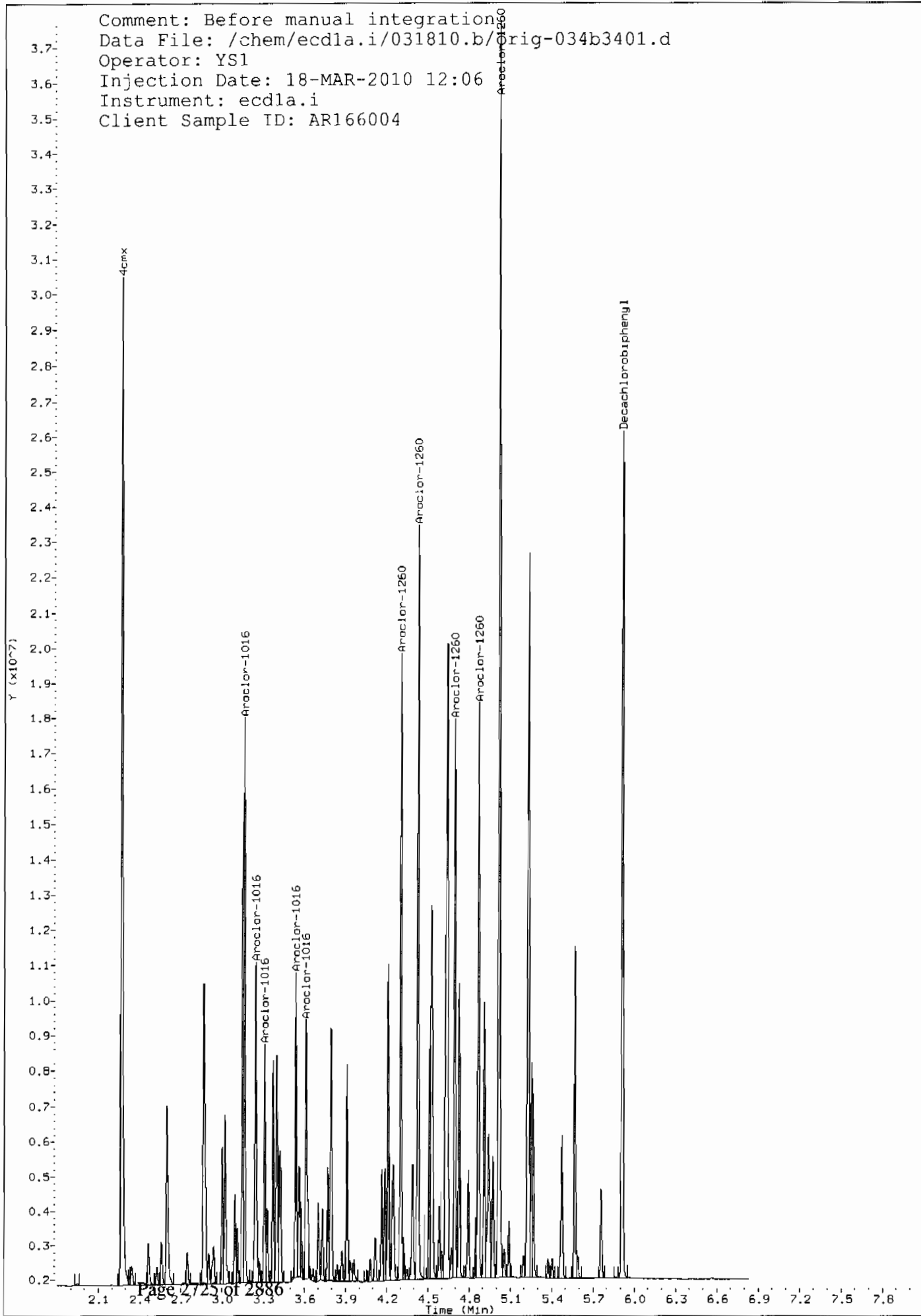
/chem/ecdl1.i/031810.b/034b3401.d



Comment: Manually Integrated  
Data File: /chem/ecdl.a.i/031810.b/34b3401.d  
Operator: YS1  
Injection Date: 18-MAR-2010 12:06  
Instrument: ecdl.a.i  
Client Sample ID: AR166004



Comment: Before manual integration  
Data File: /chem/ecdl1a.i/031810.b/Orig-034b3401.d  
Operator: YS1  
Injection Date: 18-MAR-2010 12:06  
Instrument: ecdl1a.i  
Client Sample ID: AR166004



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1.i/031810.b/046f4601.d

Lab Smp Id: WAR100222-60 05

Client Smp ID: AR166005

Inj Date : 18-MAR-2010 14:27

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 05

Misc Info :

Comment :

Method : /chem/ecdl1.i/031810.b/ECD1-F-8082-031110b.m

Meth Date : 18-Mar-2010 14:49 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 46

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpclpl

AMOUNTS

			CAL-AMT		ON-COL		TARGET RANGE	RATIO
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		( ug/L)			
=====	=====	=====	=====		=====		=====	=====
-----								
\$ 11 4cmx							CAS #: 877-09-8	
1.912	1.910	0.002	39488221 100.000		101	80.00- 120.00	100.00	
-----								
\$ 12 Decachlorobiphenyl							CAS #: 2051-24-3	
5.215	5.215	0.000	29563498 100.000		99.6	80.00- 120.00	100.00	
-----								
1 Aroclor-1016							CAS #: 12674-11-2	
2.365	2.364	0.001	13968120 1000.00		920	80.00- 120.00	100.00	
2.650	2.649	0.001	17940970 1000.00		947	108.44- 148.44	128.44	
2.730	2.730	0.000	11218586 1000.00		902	60.32- 100.32	80.32	
2.768	2.768	0.000	6729493 1000.00		916	28.18- 68.18	48.18	
2.978	2.978	0.000	8554521 1000.00		899	41.24- 81.24	61.24	
Average of Peak Amounts =					917			
-----								
7 Aroclor-1260							CAS #: 11096-82-5	
3.703	3.704	-0.001	18321700 1000.00		1000	80.00- 120.00	100.00	
3.866	3.866	0.000	26879372 1000.00		1000	126.71- 166.71	146.71	
4.028	4.028	0.000	28782010 1000.00		1020	137.09- 177.09	157.09	
4.096	4.096	0.000	16236254 1000.00		1000	68.62- 108.62	88.62	
4.239	4.239	0.000	16861765 1000.00		1000	72.03- 112.03	92.03	
Average of Peak Amounts =					1e+03			
-----								

Data File: /chem/ecdda.i/031810.b/046f4601.d

Date: 18-Mar-2010 14:27

Client ID: AR16005

Sample Info: 1MAR100222-60 05

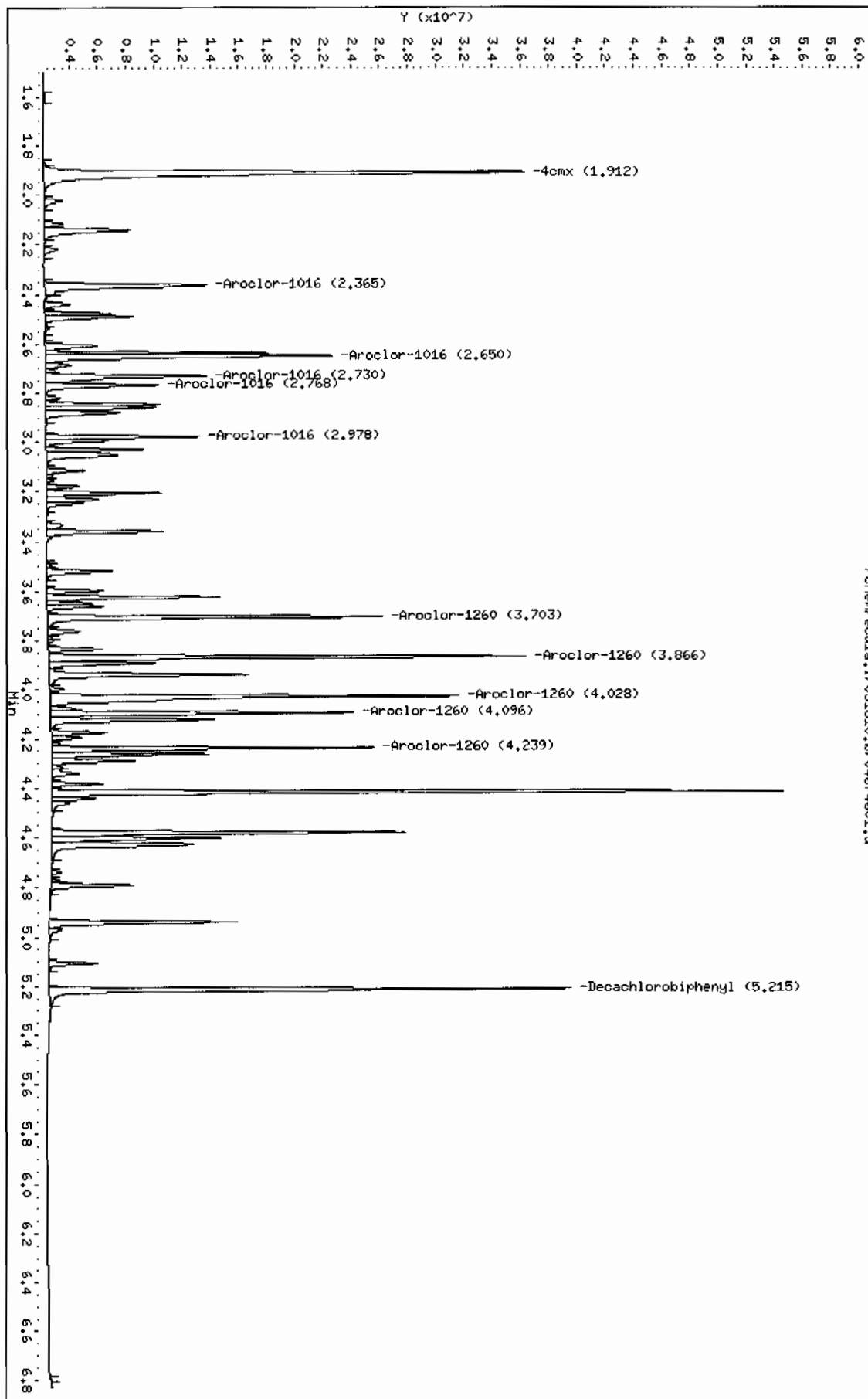
Column phase: CLP1

Instrument: ecdda.i

Operator: YS1

Column diameter: 0.25

/chem/ecdda.i/031810.b/046f4601.d



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031810.b/046b4601.d

Lab Smp Id: WAR100222-60 05

Client Smp ID: AR166005

Inj Date : 18-MAR-2010 14:27

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 05

Misc Info :

Comment :

Method : /chem/ecdl1a.i/031810.b/ECD1-B-8082-031110b.m

Meth Date : 18-Mar-2010 14:49 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 46

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			
2.270	2.269	0.001	26443234	100.000	101 80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.911	5.912	-0.001	18559060	100.000	99.2 80.00- 120.00	100.00	
-----							
1 Aroclor-1016				CAS #: 12674-11-2			
3.164	3.164	0.000	11940760	1000.00	949 80.00- 120.00	100.00 (M)	
3.247	3.247	0.000	7844233	1000.00	908 45.69- 85.69	65.69	
3.310	3.310	0.000	4871425	1000.00	921 20.80- 60.80	40.80	
3.538	3.537	0.001	6412708	1000.00	930 31.43- 71.43	53.70	
3.614	3.613	0.001	5925083	1000.00	922 38.24- 78.24	60.27	
Average of Peak Amounts =				926			
-----							
7 Aroclor-1260				CAS #: 11096-82-5			
4.304	4.304	0.000	12921264	1000.00	988 80.00- 120.00	100.00	
4.428	4.428	0.000	15764108	1000.00	1010 102.00- 142.00	122.00	
4.694	4.694	0.000	11847441	1000.00	996 71.69- 111.69	91.69	
4.867	4.867	0.000	12291761	1000.00	1000 75.13- 115.13	95.13	
5.014	5.014	0.000	27187092	1000.00	1030 190.41- 230.41	210.41	
Average of Peak Amounts =				1.01e+03			



QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdl1a.i/031810.b/046b4601.d

Date: 18-MAR-2010 14:27

Client ID: AR166005

Sample Info: 14AR100222-60 05

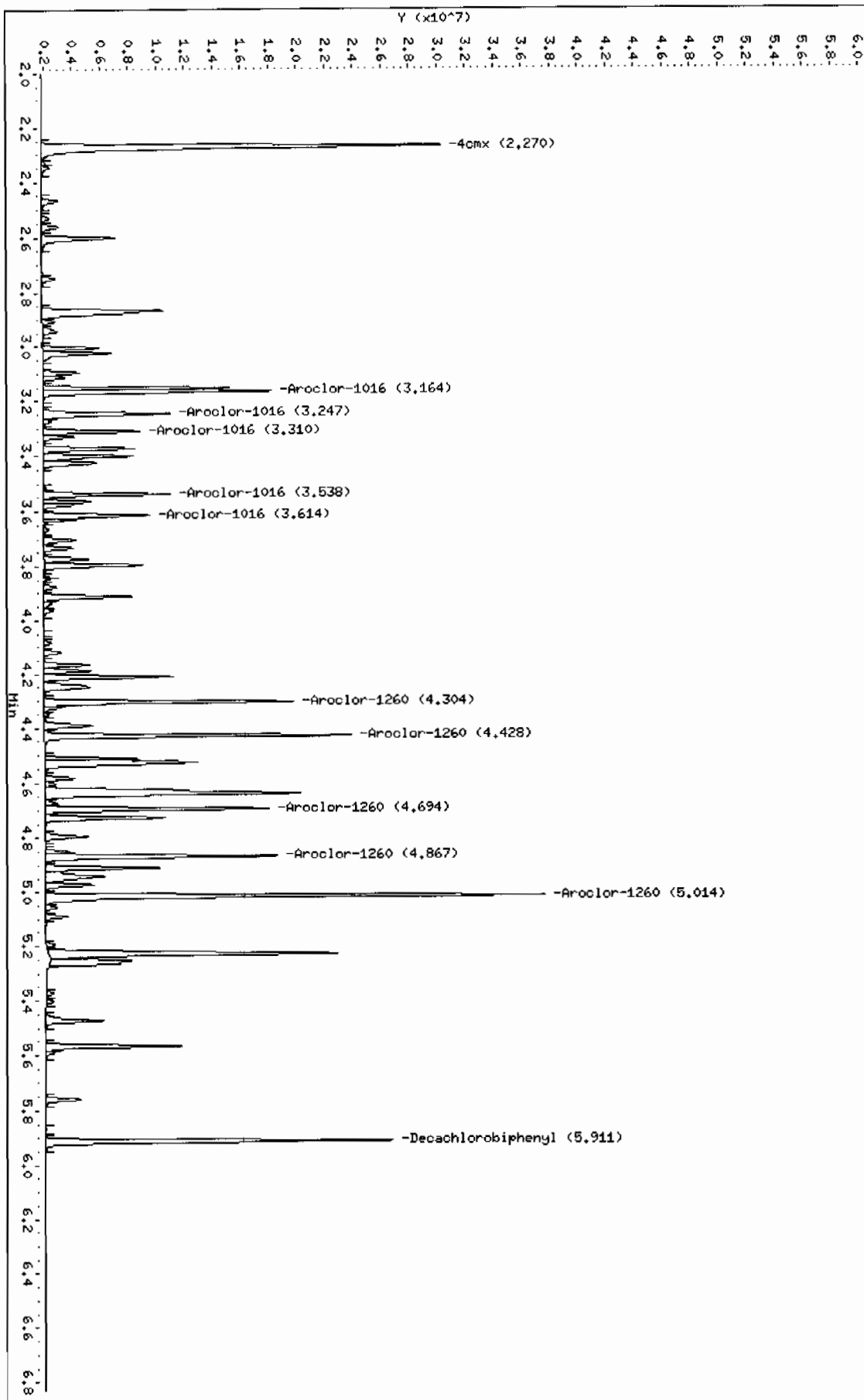
Column phase: CLP2

Instrument: ecdl1a.i

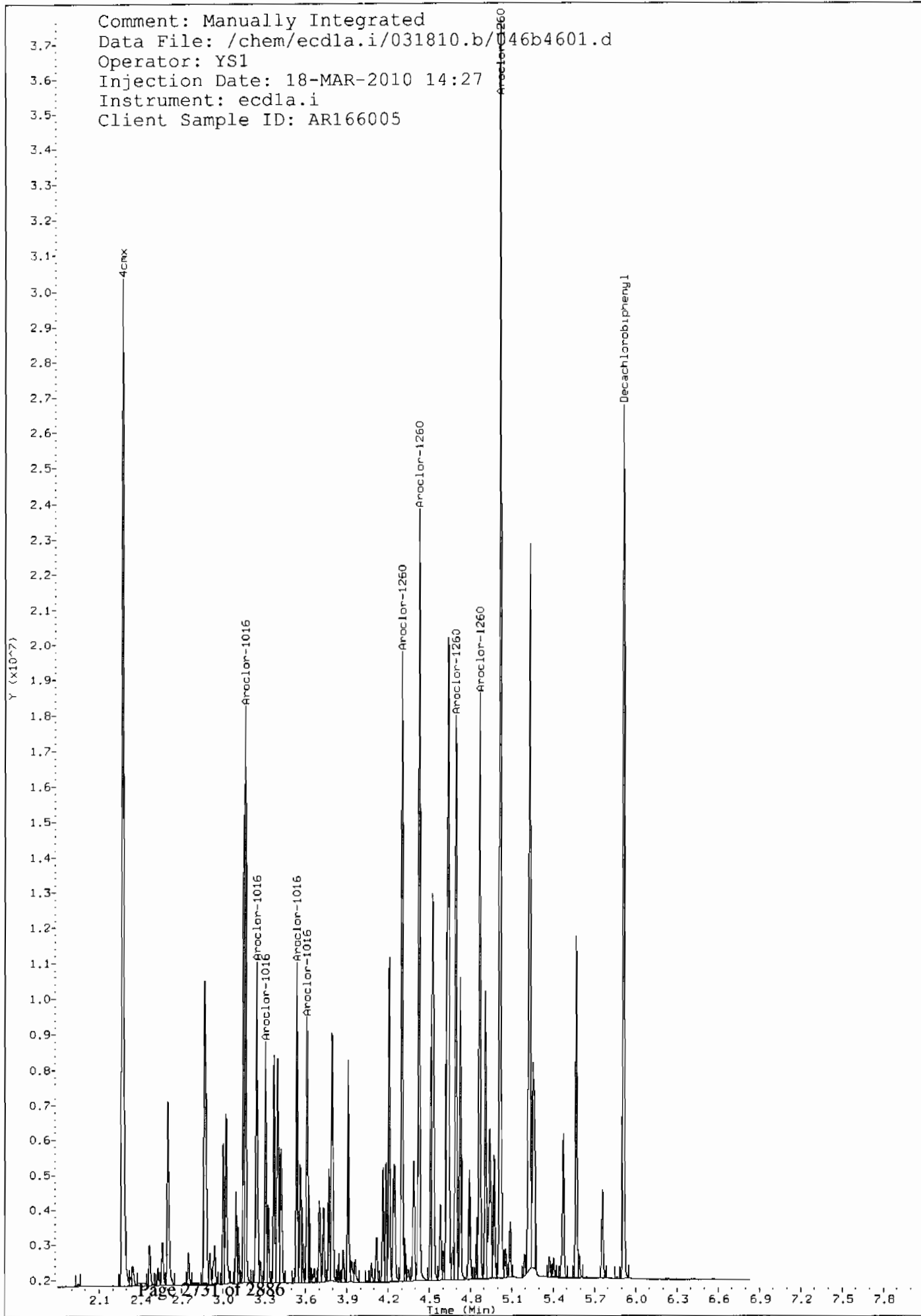
Operator: YSL

Column diameter: 0.25

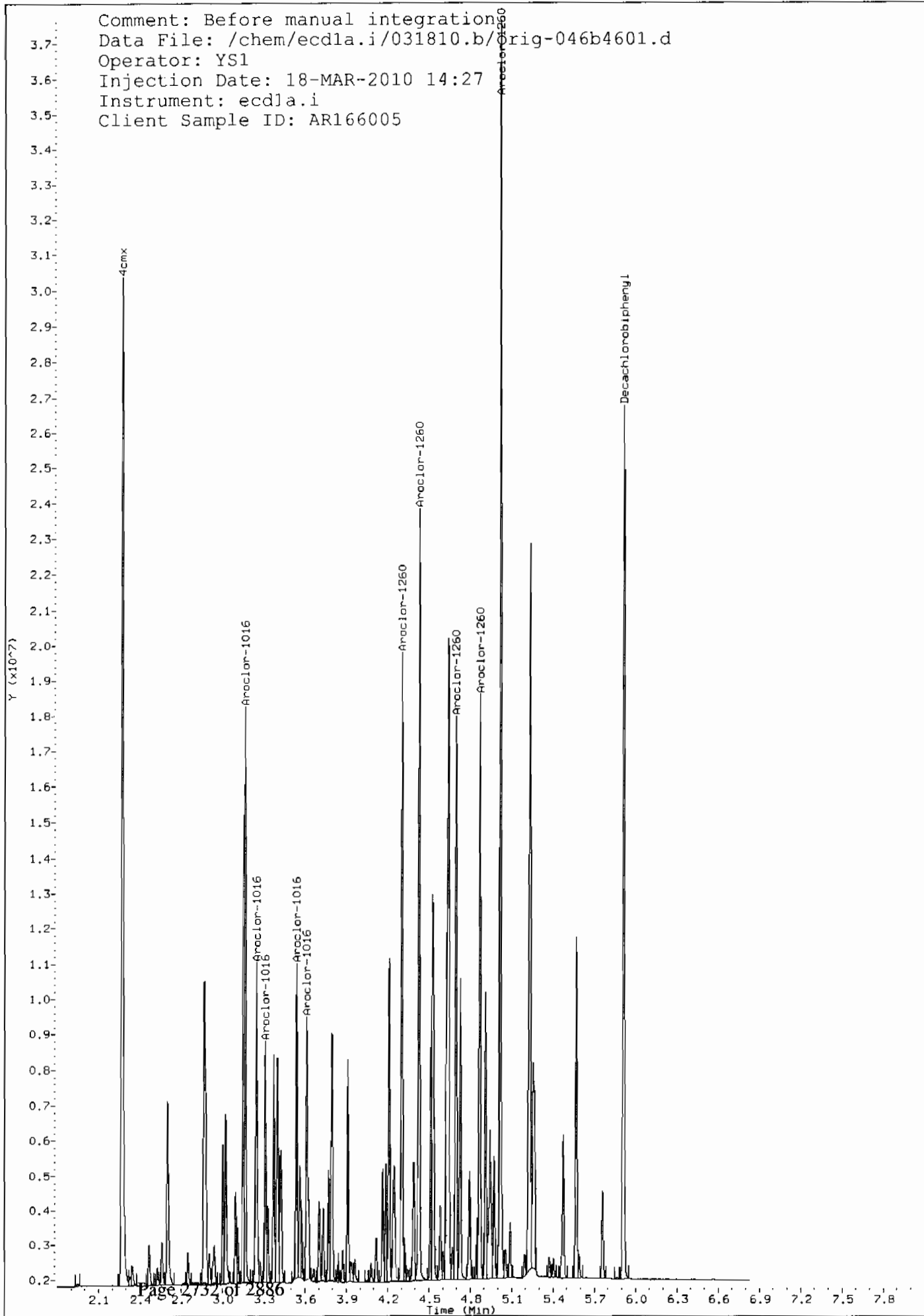
/chem/ecdl1a.i/031810.b/046b4601.d



Comment: Manually Integrated  
Data File: /chem/ecdla.i/031810.b/46b4601.d  
Operator: YS1  
Injection Date: 18-MAR-2010 14:27  
Instrument: ecdla.i  
Client Sample ID: AR166005



Comment: Before manual integration  
Data File: /chem/ecdl1.i/031810.b/Orig-046b4601.d  
Operator: YS1  
Injection Date: 18-MAR-2010 14:27  
Instrument: ecdl1.i  
Client Sample ID: AR166005



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031810.b/056f5601.d

Lab Smp Id: WAR100222-60 06

Client Smp ID: AR166006

Inj Date : 18-MAR-2010 16:29

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 06

Misc Info :

Comment :

Method : /chem/ecdl1a.i/031810.b/ECD1-F-8082-031110b.m

Meth Date : 19-Mar-2010 06:21 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 56

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		
1.912	1.910	0.002	39764732 100.000	102	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl						
				CAS #: 2051-24-3		
5.215	5.215	0.000	27839407 100.000	93.8	80.00- 120.00	100.00
-----						
1 Aroclor-1016						
				CAS #: 12674-11-2		
2.364	2.364	0.000	13710960 1000.00	903	80.00- 120.00	100.00
2.650	2.649	0.001	17568416 1000.00	928	108.13- 148.13	128.13
2.730	2.730	0.000	11334752 1000.00	911	62.67- 102.67	82.67
2.768	2.768	0.000	6854310 1000.00	933	29.99- 69.99	49.99
2.978	2.978	0.000	8756136 1000.00	920	43.86- 83.86	63.86
Average of Peak Amounts =				919		
-----						
7 Aroclor-1260						
				CAS #: 11096-82-5		
3.703	3.704	-0.001	18460079 1000.00	1010	80.00- 120.00	100.00
3.866	3.866	0.000	27124900 1000.00	1010	126.94- 166.94	146.94
4.028	4.028	0.000	28928920 1000.00	1020	136.71- 176.71	156.71
4.096	4.096	0.000	16361434 1000.00	1010	68.63- 108.63	88.63
4.238	4.239	-0.001	16859797 1000.00	1000	71.33- 111.33	91.33
Average of Peak Amounts =				1.01e+03		
-----						

Data File: /chem/eod1a.i/031810.b/056f5601.d

Date: 18-MAR-2010 16:29

Client ID: AR166006

Sample Info: 1MAR100222-60 06

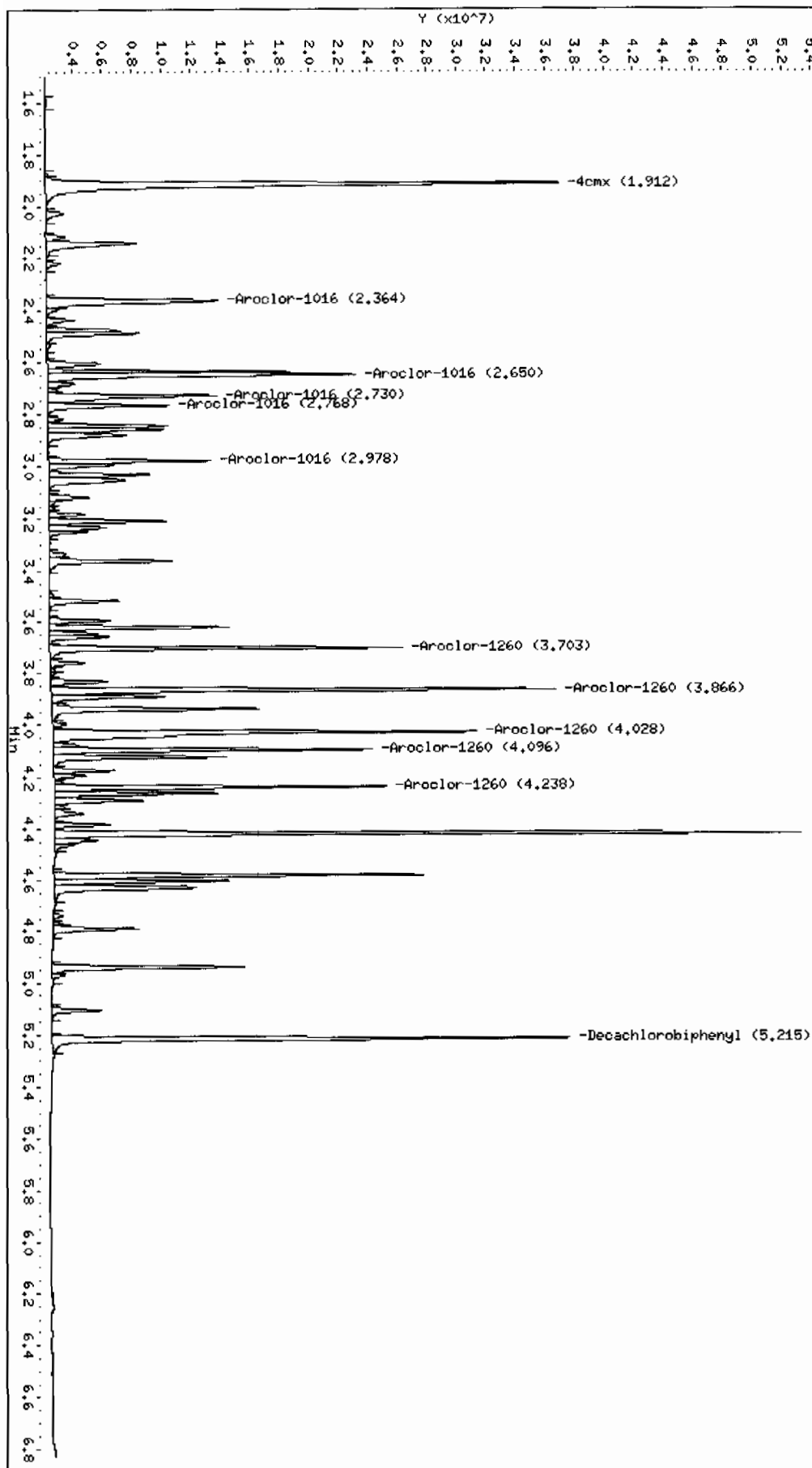
Column phase: CLP1

Instrument: eod1a.i

Operator: YSA

Column diameter: 0.25

/chem/eod1a.i/031810.b/056f5601.d



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/031810.b/056b5601.d

Lab Smp Id: WAR100222-60 06

Client Smp ID: AR166006

Inj Date : 18-MAR-2010 16:29

Operator : YSl

Inst ID: ecdla.i

Smp Info : |WAR100222-60 06

Misc Info :

Comment :

Method : /chem/ecdla.i/031810.b/ECD1-B-8082-031110b.m

Meth Date : 19-Mar-2010 08:33 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 56

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			
2.269	2.269	0.000	26539506	100.000	101 80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.911	5.912	-0.001	17918168	100.000	95.7 80.00- 120.00	100.00	
-----							
1 Aroclor-1016				CAS #: 12674-11-2			
3.164	3.164	0.000	12232759	1000.00	972 80.00- 120.00	100.00 (M)	
3.247	3.247	0.000	7862456	1000.00	911 44.27- 84.27	64.27	
3.311	3.310	0.001	4872811	1000.00	922 19.83- 59.83	39.83	
3.538	3.537	0.001	6384983	1000.00	926 30.31- 70.31	52.20	
3.613	3.613	0.000	6027511	1000.00	938 36.61- 76.61	58.40	
Average of Peak Amounts =				934			
-----							
7 Aroclor-1260				CAS #: 11096-82-5			
4.303	4.304	-0.001	12771408	1000.00	976 80.00- 120.00	100.00	
4.428	4.428	0.000	15513097	1000.00	998 101.47- 141.47	121.47	
4.694	4.694	0.000	11656132	1000.00	980 71.27- 111.27	91.27	
4.867	4.867	0.000	12110697	1000.00	985 74.83- 114.83	94.83	
5.014	5.014	0.000	26724302	1000.00	1010 189.25- 229.25	209.25	
Average of Peak Amounts =				990			

QC Flag Legend

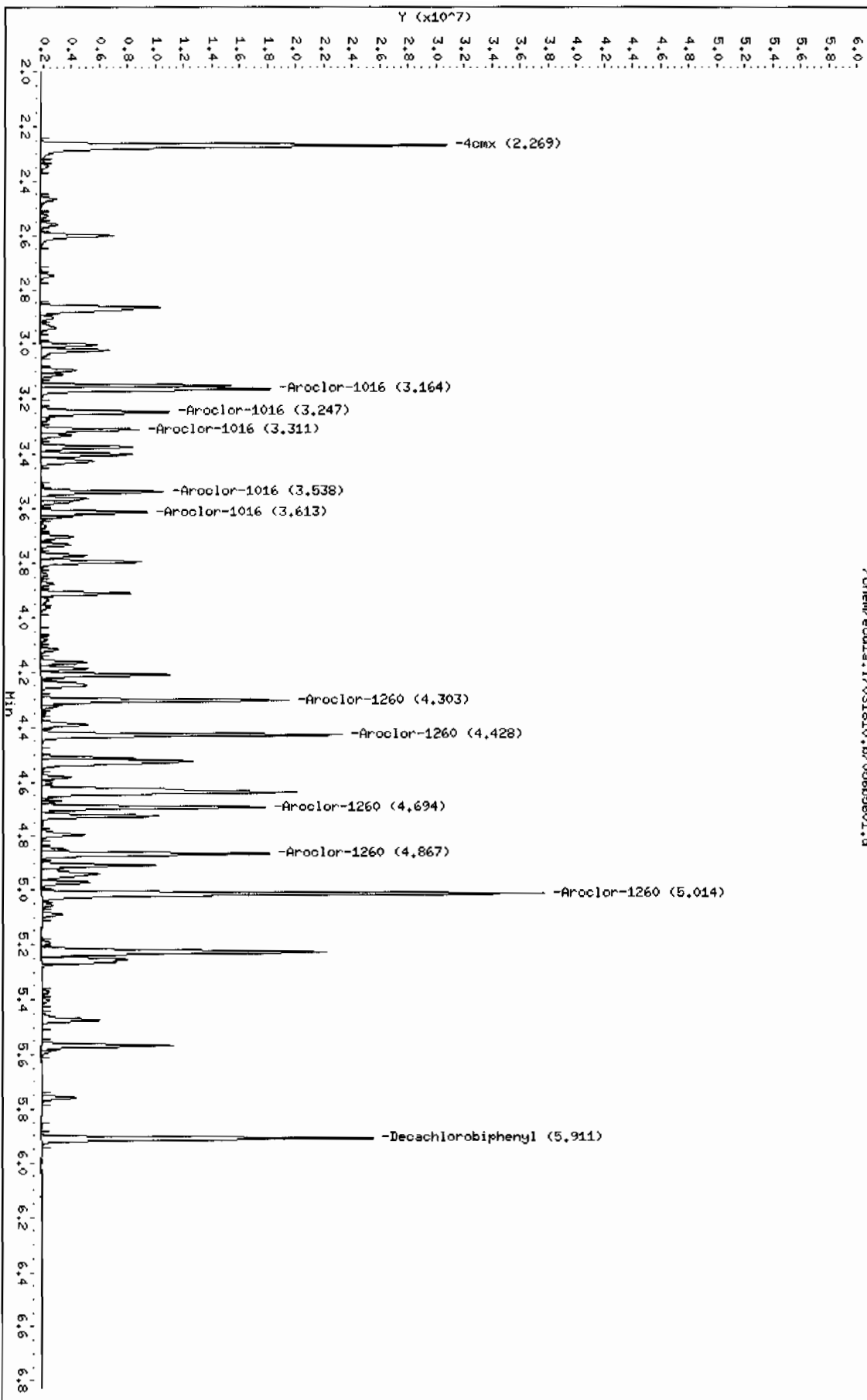
M - Compound response manually integrated.



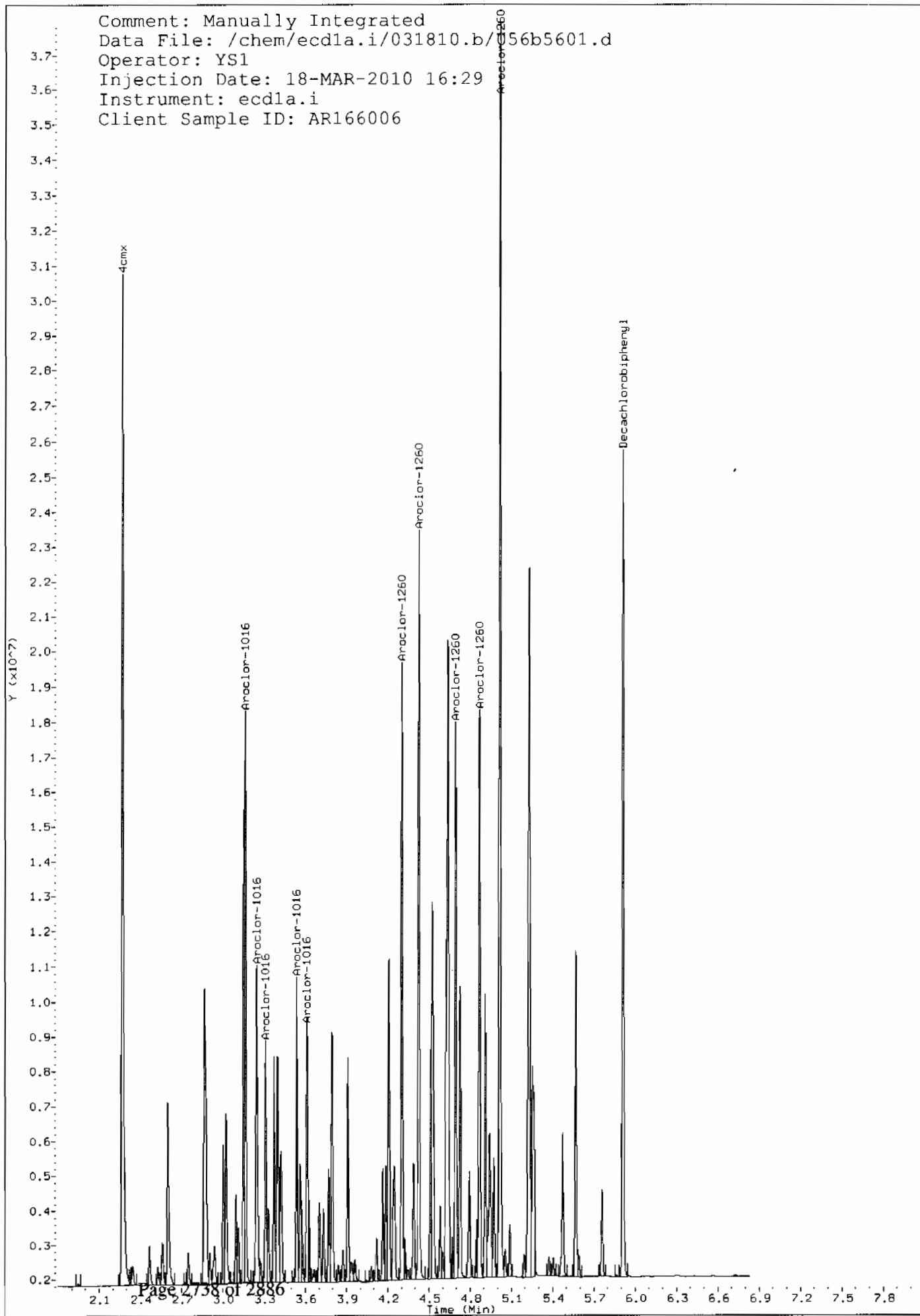
Data File: /chem/ecdl3.i/031810.b/056b5601.d  
Date: 18-MAR-2010 16:29  
Client ID: MR166006  
Sample Info: MR100222-60 06

Column Phase: CLP2

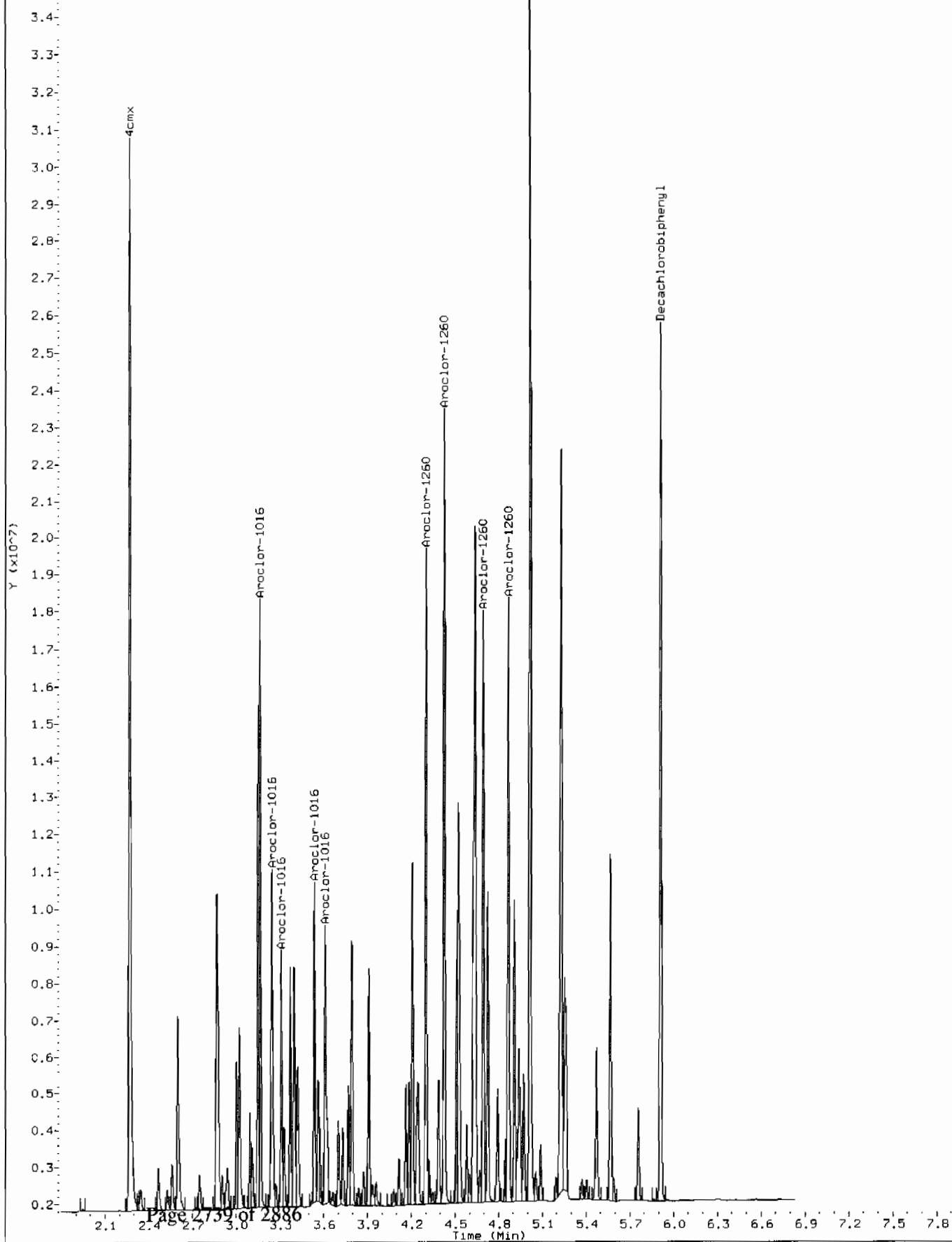
Instrument: ecdl3.i  
Operator: YSI  
Column diameter: 0.25



Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/031810.b/56b5601.d  
Operator: YS1  
Injection Date: 18-MAR-2010 16:29  
Instrument: ecdl1a.i  
Client Sample ID: AR166006



Comment: Before manual integration  
Data File: /chem/ecdl1a.i/031810.b/Orig-056b5601.d  
Operator: YS1  
Injection Date: 18-MAR-2010 16:29  
Instrument: ecd1a.i  
Client Sample ID: AR166006



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/031810.b/063f6301.d

Lab Smp Id: WAR100222-60 07

Client Smp ID: AR166007

Inj Date : 18-MAR-2010 17:57

Operator : YS1

Inst ID: ecdla.i

Smp Info : |WAR100222-60 07

Misc Info :

Comment :

Method : /chem/ecdla.i/031810.b/ECD1-F-8082-031110b.m

Meth Date : 19-Mar-2010 06:23 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 63

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	1.910	0.001	39882333 100.000	102 80.00-	120.00	100.00
-----						
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.216	5.215	0.001	29910552 100.000	101 80.00-	120.00	100.00
-----						
1 Aroclor-1016				CAS #: 12674-11-2		
2.364	2.364	0.000	14093963 1000.00	929 80.00-	120.00	100.00
2.650	2.649	0.001	18341072 1000.00	968 110.13-	150.13	130.13
2.731	2.730	0.001	11291137 1000.00	907 60.11-	100.11	80.11
2.769	2.768	0.001	6806689 1000.00	926 28.30-	68.30	48.30
2.979	2.978	0.001	8704005 1000.00	914 41.76-	81.76	61.76
Average of Peak Amounts =				929		
-----						
7 Aroclor-1260				CAS #: 11096-82-5		
3.704	3.704	0.000	18521624 1000.00	1010 80.00-	120.00	100.00
3.866	3.866	0.000	27224748 1000.00	1010 126.99-	166.99	146.99
4.029	4.028	0.001	28576896 1000.00	1010 134.29-	174.29	154.29
4.096	4.096	0.000	16439345 1000.00	1020 68.76-	108.76	88.76
4.239	4.239	0.000	17057223 1000.00	1010 72.09-	112.09	92.09
Average of Peak Amounts =				1.01e+03		
-----						

Data File: /chem/ecdl1a.i/031810.b/063f6301.d

Date: 18-MAR-2010 17:57

Client ID: AR166007

Sample Info: 14MR100222-60 07

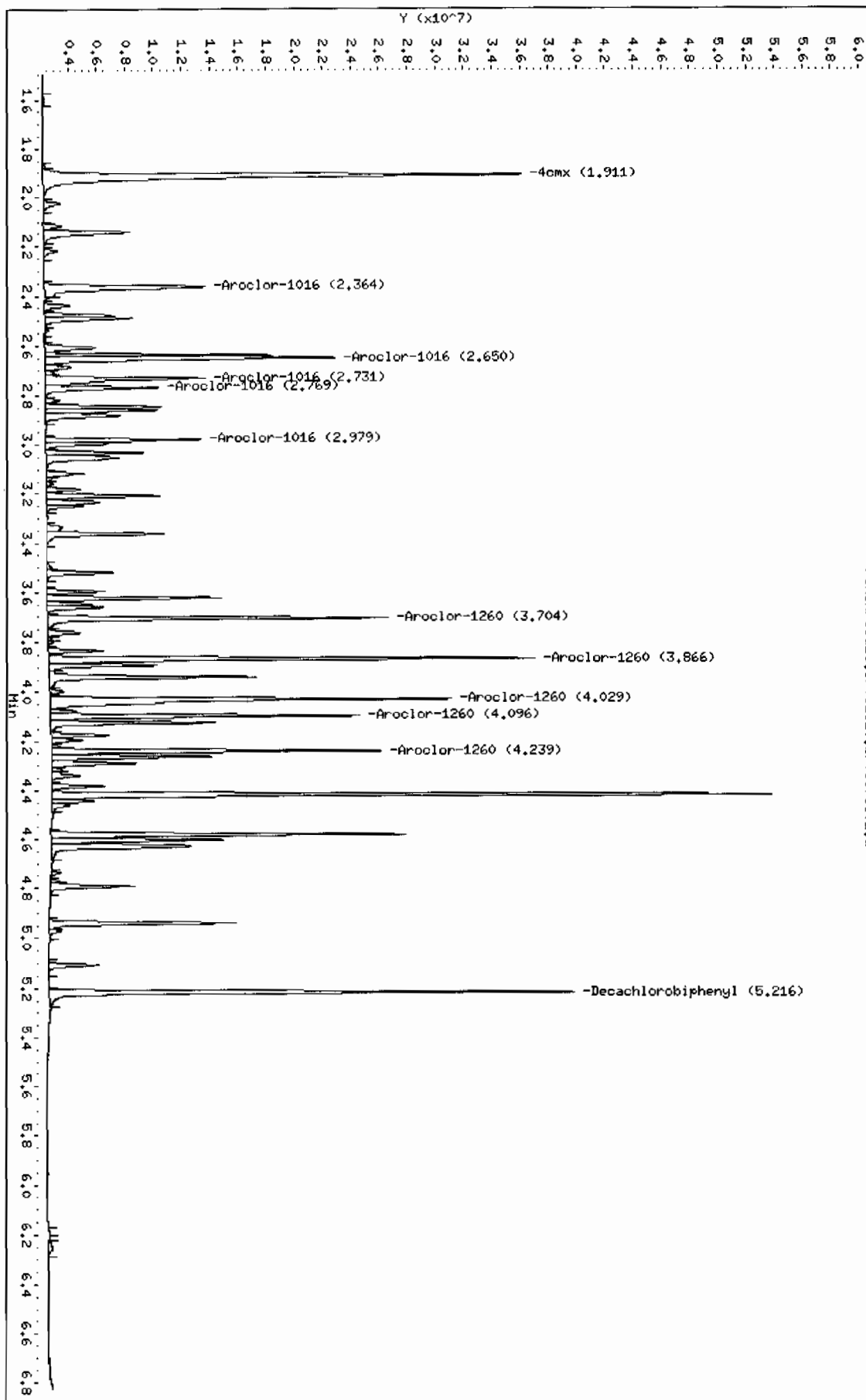
Column phase: CLP1

Instrument: ecdl1a.i

Operator: YSL

Column diameter: 0.25

/chem/ecdl1a.i/031810.b/063f6301.d



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031810.b/063b6301.d  
 Lab Smp Id: WAR100222-60 07 Client Smp ID: AR166007  
 Inj Date : 18-MAR-2010 17:57  
 Operator : YS1 Inst ID: ecd1a.i  
 Smp Info : |WAR100222-60 07  
 Misc Info :  
 Comment :  
 Method : /chem/ecdl1a.i/031810.b/ECD1-B-8082-031110b.m  
 Meth Date : 19-Mar-2010 08:33 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
 Als bottle: 63 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			
2.269	2.269	0.000	26644559 100.000	102	80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.912	5.912	0.000	18595099 100.000	99.3	80.00- 120.00	100.00	
-----							
1 Aroclor-1016				CAS #: 12674-11-2			
3.164	3.164	0.000	12137662 1000.00	964	80.00- 120.00	100.00 (M)	
3.248	3.247	0.001	7859047 1000.00	910	44.27- 84.27	64.75	
3.311	3.310	0.001	4871768 1000.00	922	19.83- 59.83	40.14	
3.538	3.537	0.001	6410313 1000.00	930	32.20- 72.20	52.81	
3.613	3.613	0.000	5897075 1000.00	918	29.27- 69.27	59.07	
Average of Peak Amounts =				929			
-----							
7 Aroclor-1260				CAS #: 11096-82-5			
4.304	4.304	0.000	12884141 1000.00	985	80.00- 120.00	100.00	
4.428	4.428	0.000	15686760 1000.00	1010	101.47- 141.47	121.75	
4.694	4.694	0.000	11814353 1000.00	993	71.27- 111.27	91.70	
4.867	4.867	0.000	12327979 1000.00	1000	74.83- 114.83	95.68	
5.014	5.014	0.000	27223024 1000.00	1030	189.25- 229.25	211.29	
Average of Peak Amounts =				1e+03			

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdda.i/031810.b/063b6301.d

Date: 18-MAR-2010 17:57

Client ID: AR166007

Sample Info: IMR100222-60 07

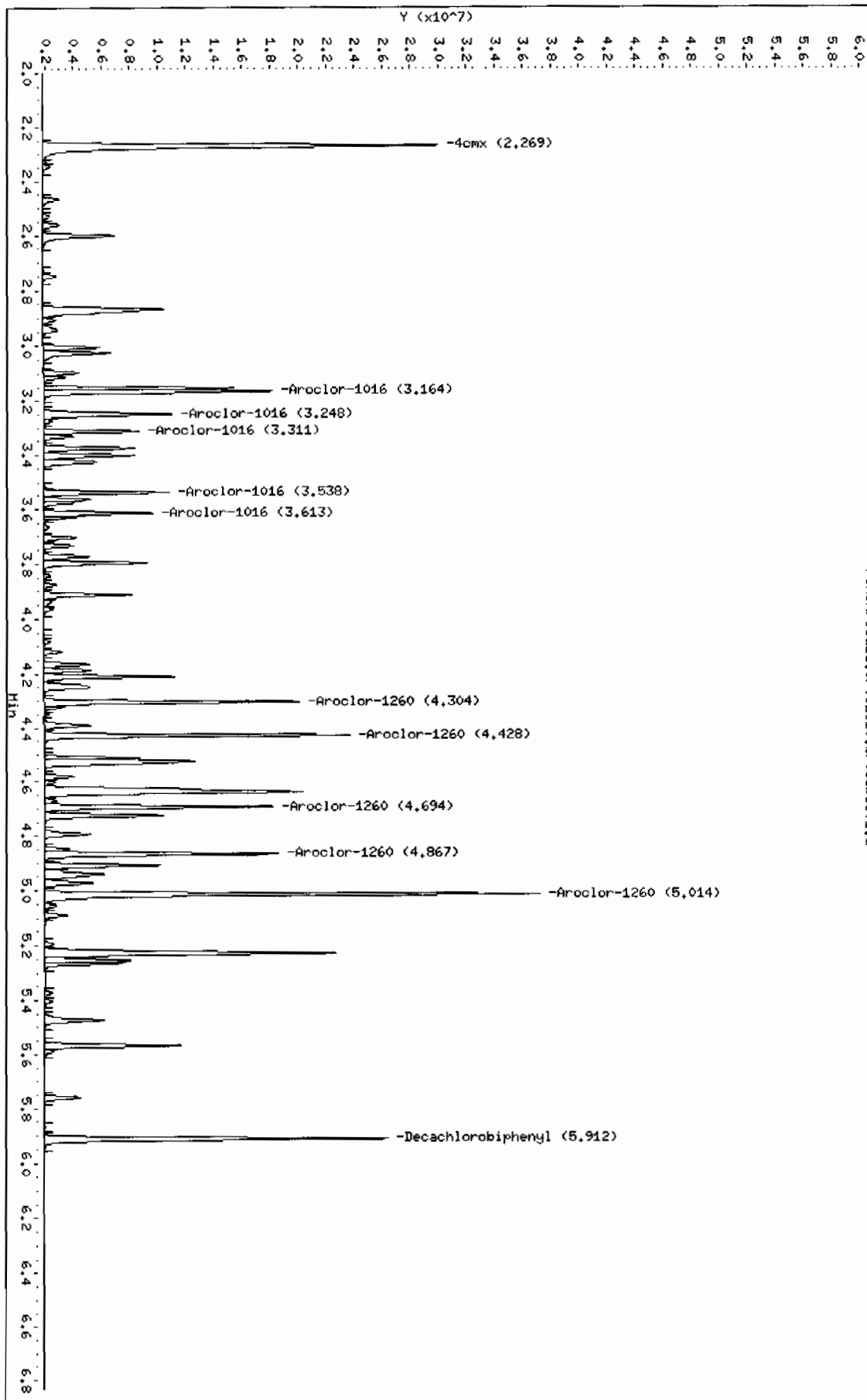
Column phase: CLP2

Instrument: ecdda.i

Operator: YSL

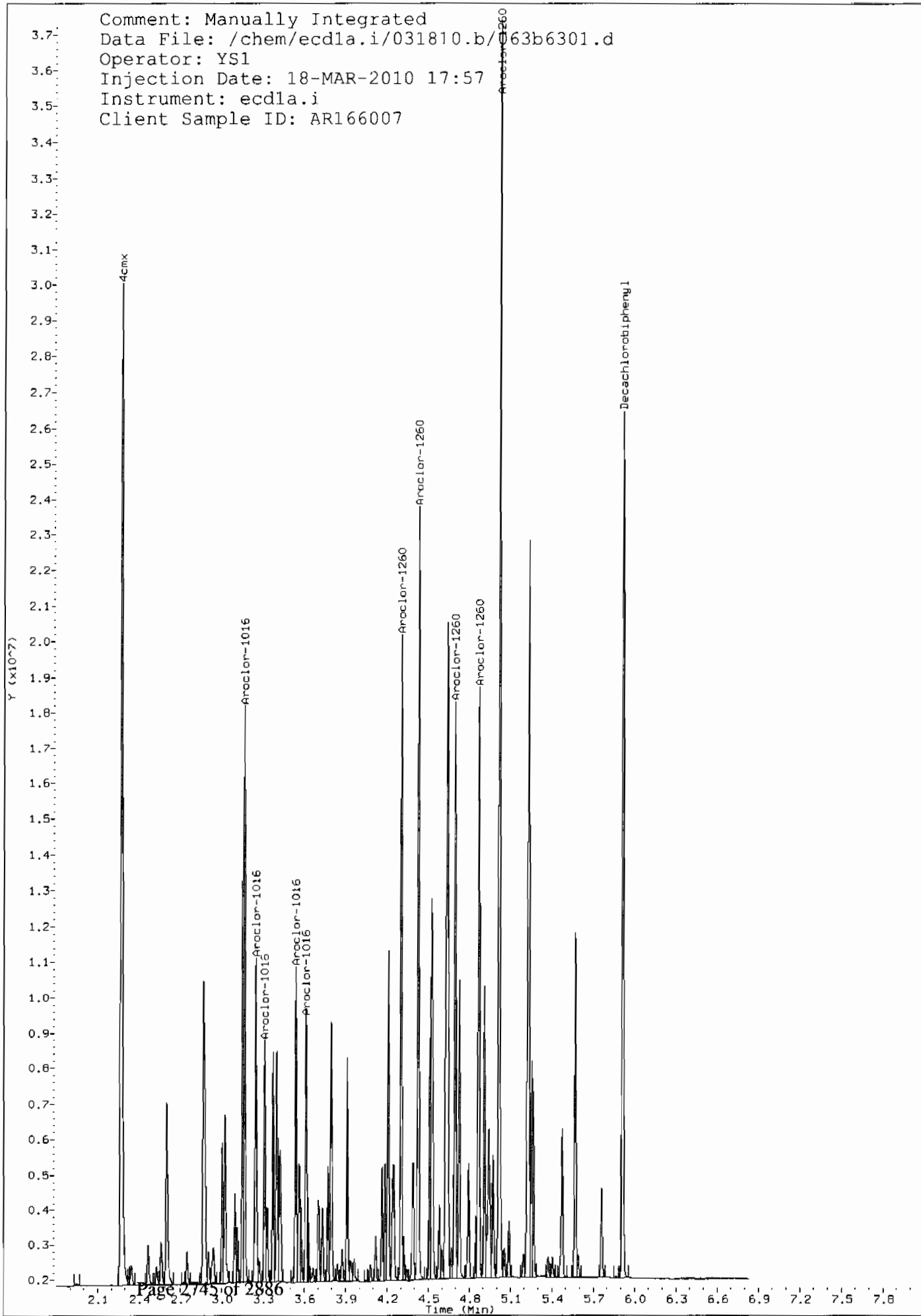
Column diameter: 0.25

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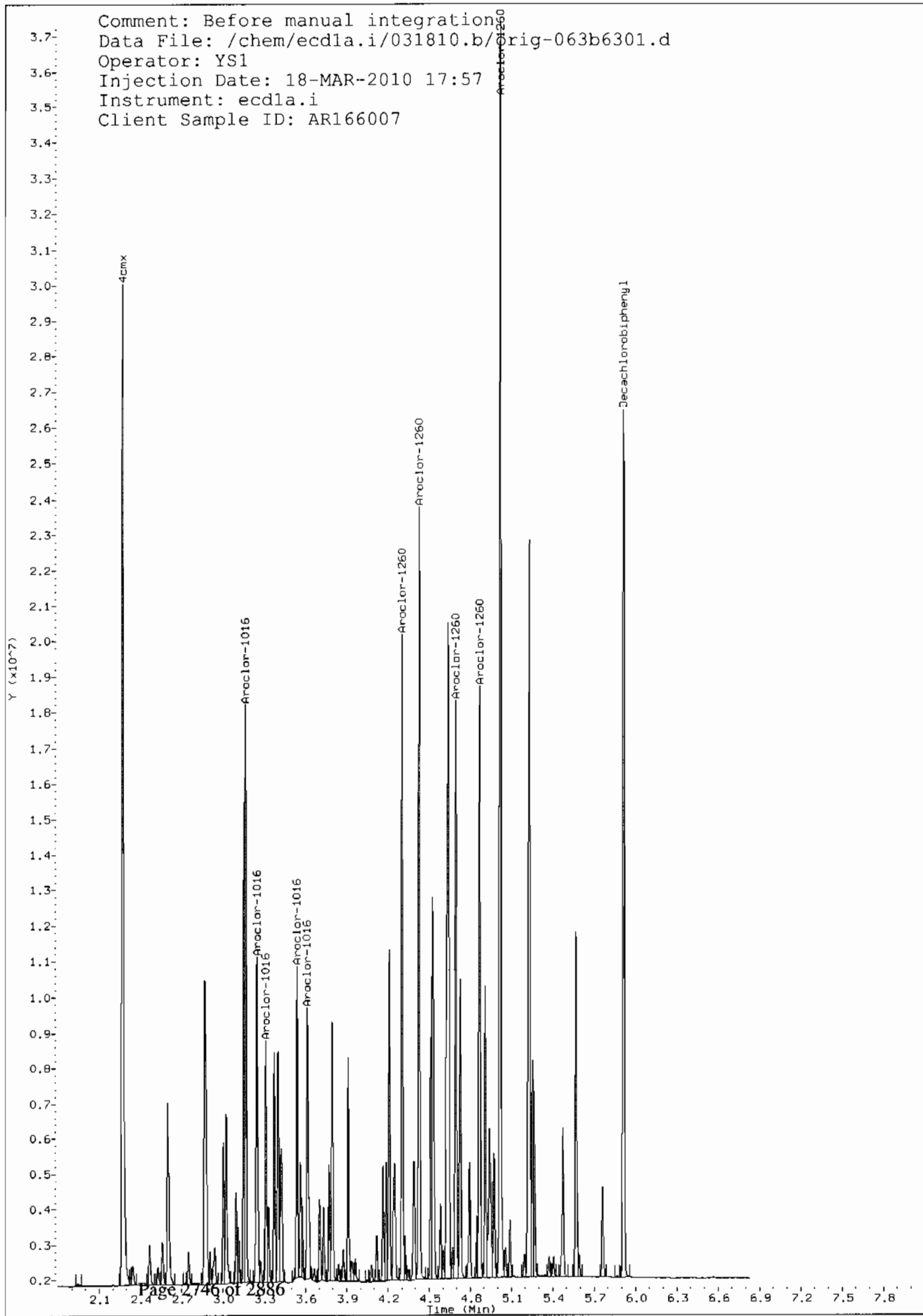




Comment: Manually Integrated  
Data File: /chem/ecdl.a.i/031810.b/063b6301.d  
Operator: YS1  
Injection Date: 18-MAR-2010 17:57  
Instrument: ecdla.i  
Client Sample ID: AR166007



Comment: Before manual integration  
Data File: /chem/ecdl1.i/031810.b/Orig-063b6301.d  
Operator: YS1  
Injection Date: 18-MAR-2010 17:57  
Instrument: ecdl1.i  
Client Sample ID: AR166007



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/032210.b/002f0201.d

Lab Smp Id: WAR100222-60 01

Client Smp ID: AR166001

Inj Date : 22-MAR-2010 07:02

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 01

Misc Info :

Comment :

Method : /chem/ecdl1a.i/032210.b/ECD1-F-8082-031110b.m

Meth Date : 22-Mar-2010 14:28 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 2

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

			CAL-AMT		ON-COL		TARGET RANGE	RATIO
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)				
==	=====	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx			CAS #: 877-09-8					
1.911	1.911	0.000	39202786	100.000	101	80.00- 120.00	100.00	
\$ 12 Decachlorobiphenyl			CAS #: 2051-24-3					
5.216	5.216	0.000	29234535	100.000	98.4	80.00- 120.00	100.00	
1 Aroclor-1016			CAS #: 12674-11-2					
2.364	2.364	0.000	13874025	1000.00	914	80.00- 120.00	100.00	
2.650	2.650	0.000	17223062	1000.00	910	108.39- 148.39	124.14	
2.730	2.730	0.000	11099980	1000.00	892	60.62- 100.62	80.01	
2.768	2.768	0.000	6652429	1000.00	905	28.43- 68.43	47.95	
2.978	2.978	0.000	8513830	1000.00	894	41.75- 81.75	61.37	
Average of Peak Amounts =			903					
7 Aroclor-1260			CAS #: 11096-82-5					
3.704	3.704	0.000	18268454	1000.00	997	80.00- 120.00	100.00	
3.866	3.866	0.000	26941124	1000.00	1000	121.78- 161.78	147.47	
4.028	4.028	0.000	28742142	1000.00	1020	127.07- 167.07	157.33	
4.096	4.096	0.000	16199960	1000.00	1000	67.67- 107.67	88.68	
4.240	4.240	0.000	16879122	1000.00	1000	72.59- 112.59	92.39	
Average of Peak Amounts =			1e+03					

Data File: /chem/ecdda.i/032210.b/002f0201.d

Date: 22-MAR-2010 07:02

Client ID: AR16001

Sample Info: MAR100222-60 01

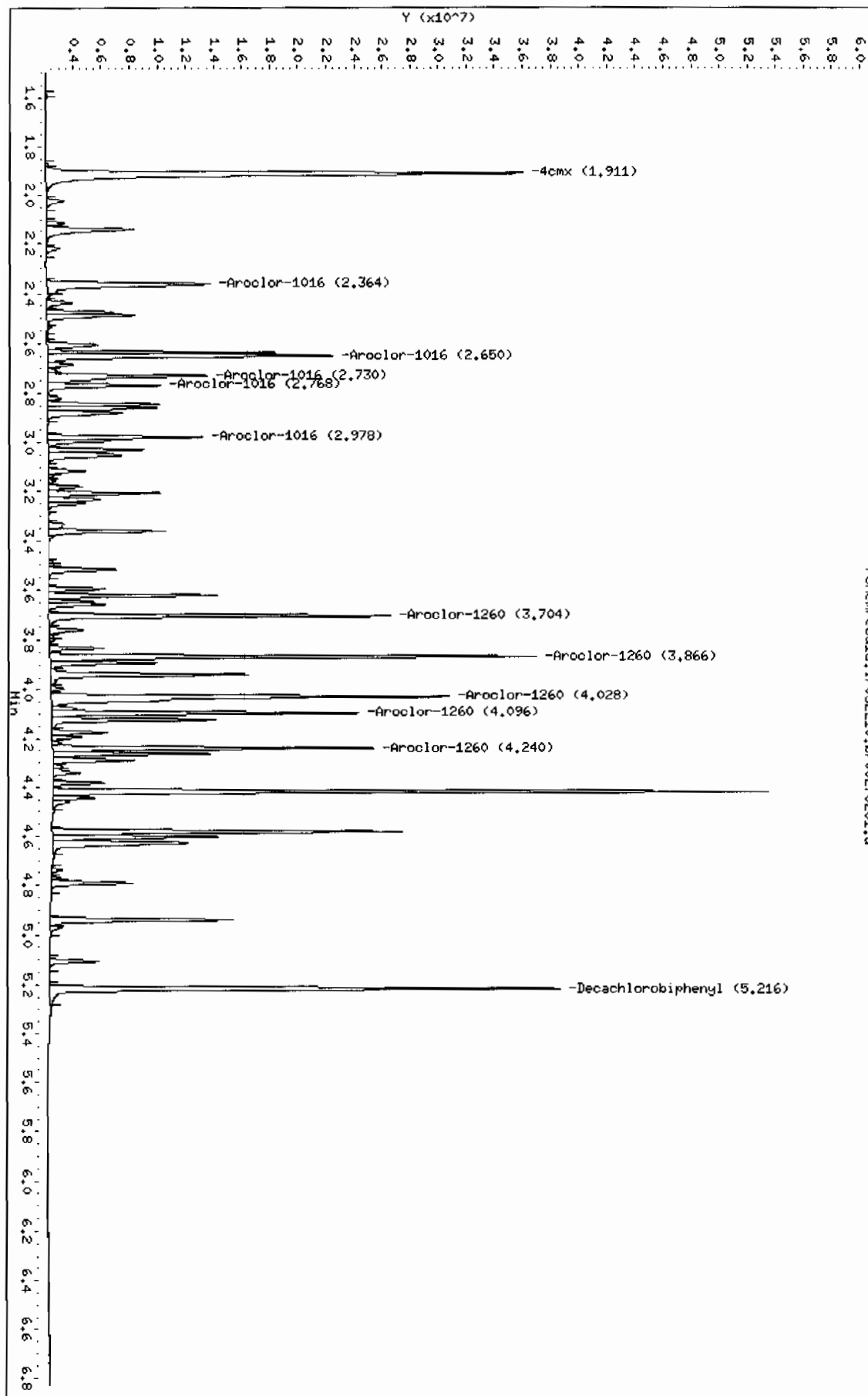
Column phase: CLP1

Instrument: ecdda.i

Operator: YSL

Column diameter: 0.25

/chem/ecdda.i/032210.b/002f0201.d



Data File: /chem/ecdl1a.i/032210.b/002b0201.d  
Report Date: 22-Mar-2010 14:35

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/032210.b/002b0201.d  
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001  
Inj Date : 22-MAR-2010 07:02  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |WAR100222-60 01  
Misc Info :  
Comment :  
Method : /chem/ecdl1a.i/032210.b/ECD1-B-8082-031110b.m  
Meth Date : 22-Mar-2010 14:29 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 2 Continuing Calibration Sample  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: AR1660.sub  
Target Version: 3.50 Sample Matrix: None

AMOUNTS							
			CAL-AMT		ON-COL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		( ug/L)	TARGET RANGE	RATIO
=====	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	25743243	100.000	98.1	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.911	5.911	0.000	17609775	100.000	94.1	80.00- 120.00	100.00
-----							
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.164	0.000	11596241	1000.00	921	80.00- 120.00	100.00(M)
3.246	3.246	0.000	7663844	1000.00	888	43.85- 83.85	66.09
3.310	3.310	0.000	4702010	1000.00	889	19.61- 59.61	40.55
3.537	3.537	0.000	6011420	1000.00	872	30.14- 70.14	51.84
3.612	3.612	0.000	5652140	1000.00	880	26.83- 66.83	48.74
Average of Peak Amounts =					890		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
4.303	4.303	0.000	12515456	1000.00	957	80.00- 120.00	100.00
4.428	4.428	0.000	15176092	1000.00	976	101.84- 141.84	121.26
4.694	4.694	0.000	11445175	1000.00	962	71.77- 111.77	91.45
4.867	4.867	0.000	11857119	1000.00	965	75.50- 115.50	94.74
5.014	5.014	0.000	26318926	1000.00	997	191.82- 231.82	210.29
Average of Peak Amounts =					971		

QC Flag Legend

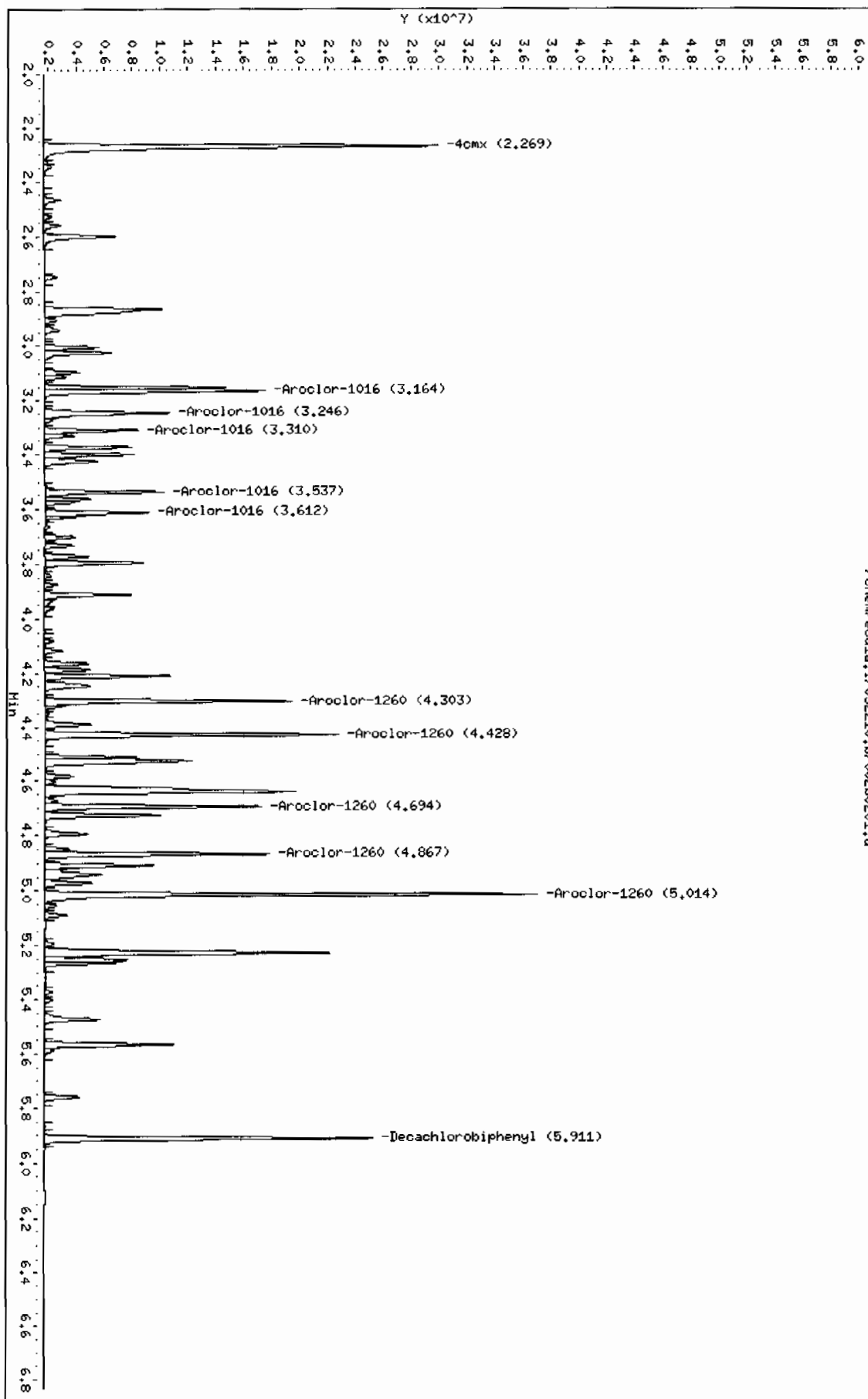
M - Compound response manually integrated.

Data File: /chem/ecdl1.i/032210.b/002b0201.d  
Date: 22-MAR-2010 07:02  
Client ID: AR166001  
Sample Info: 1MAR100222-60 01

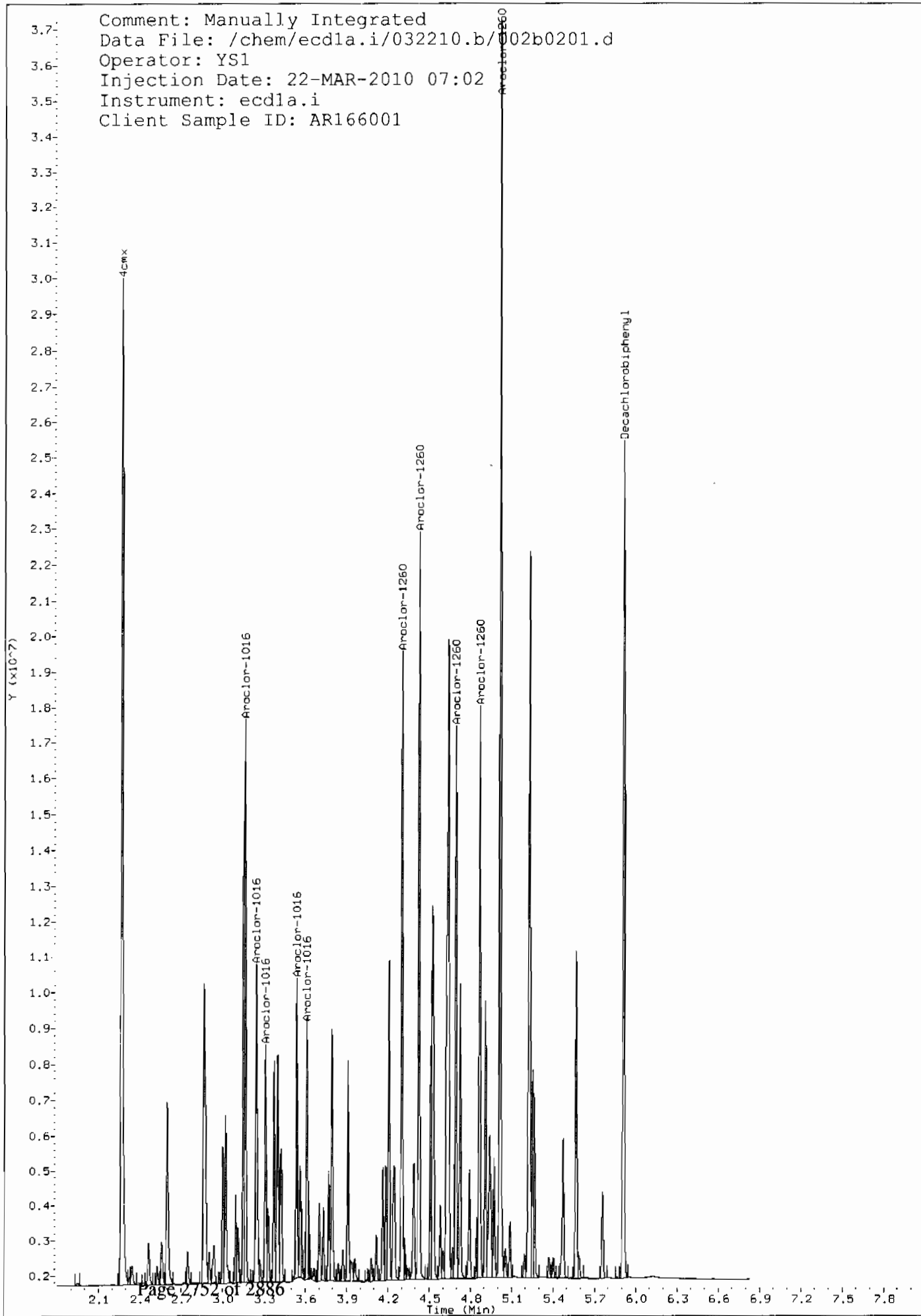
Column phase: CLP2

Instrument: ecdl1.i  
Operator: YSI  
Column diameter: 0.25

/chem/ecdl1.i/032210.b/002b0201.d

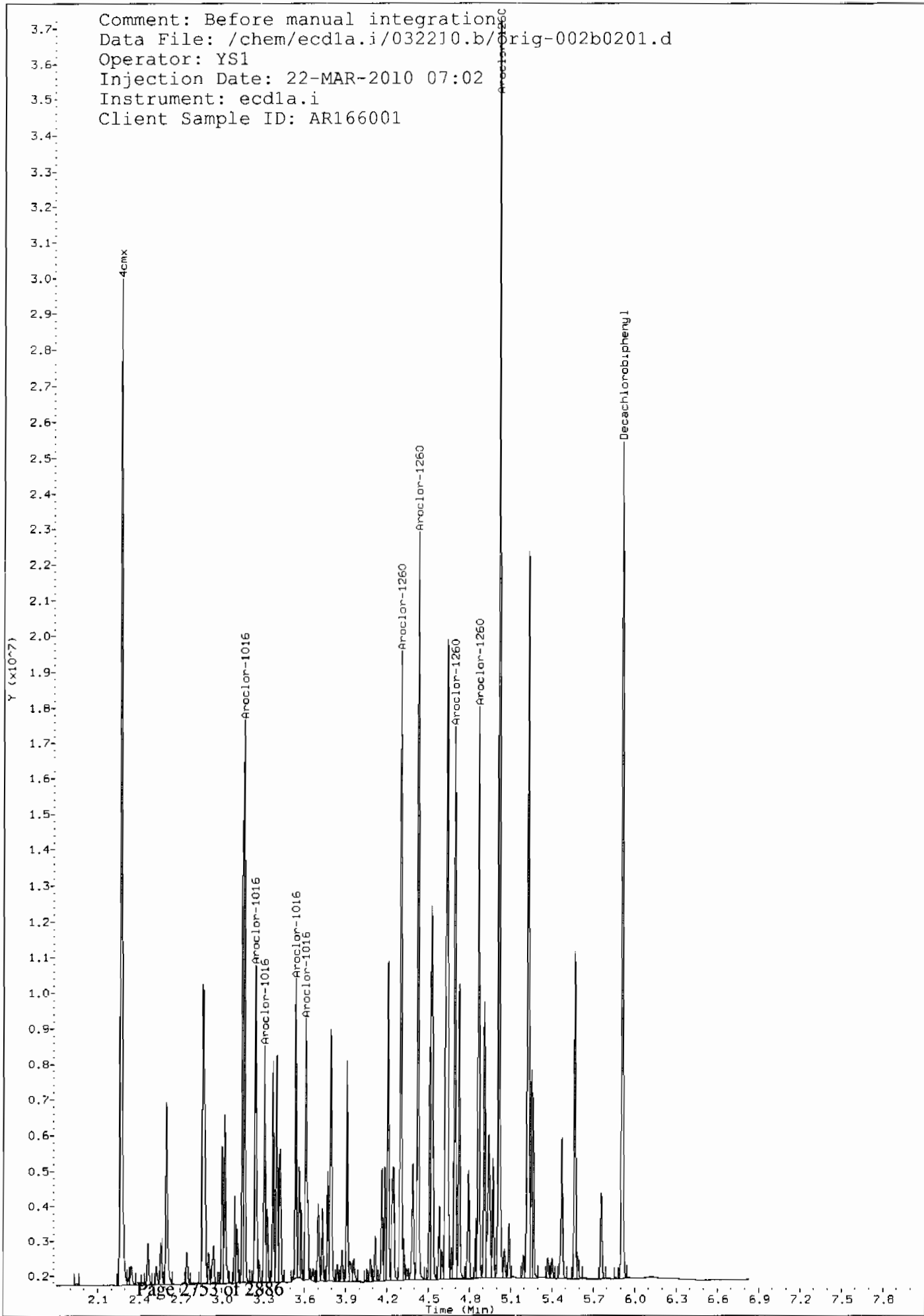


Comment: Manually Integrated  
Data File: /chem/ecdl1.i/032210.b/002b0201.d  
Operator: YS1  
Injection Date: 22-MAR-2010 07:02  
Instrument: ecdl1.i  
Client Sample ID: AR166001





Comment: Before manual integration  
Data File: /chem/ecdl1.i/032210.b/Orig-002b0201.d  
Operator: YS1  
Injection Date: 22-MAR-2010 07:02  
Instrument: ecdl1.i  
Client Sample ID: AR166001



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/032210.b/003f0301.d

Lab Smp Id: WAR100219-54 Client Smp ID: AR125401

Inj Date : 22-MAR-2010 07:13

Operator : YS1 Inst ID: ecd1a.i

Smp Info : |WAR100219-54

Misc Info :

Comment :

Method : /chem/ecdl1a.i/032210.b/ECD1-F-8082-031110b.m

Meth Date : 22-Mar-2010 14:28 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d

Als bottle: 3 Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon Compound Sublist: AR1254.sub

Target Version: 3.50 Sample Matrix: None

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
----	--------	--------	------------------	---------	--------------	-------

6 Aroclor-1254

CAS #: 11097-69-1

3.207	3.207	0.000	12782929	1000.00	964 80.00- 120.00	100.00
3.362	3.362	0.000	17108598	1000.00	959 113.84- 153.84	133.84
3.596	3.596	0.000	22334536	1000.00	998 154.72- 194.72	174.72
3.758	3.758	0.000	16541262	1000.00	1000 109.40- 149.40	129.40
3.867	3.867	0.000	16375684	1000.00	1020 108.11- 148.11	128.11

Average of Peak Amounts -

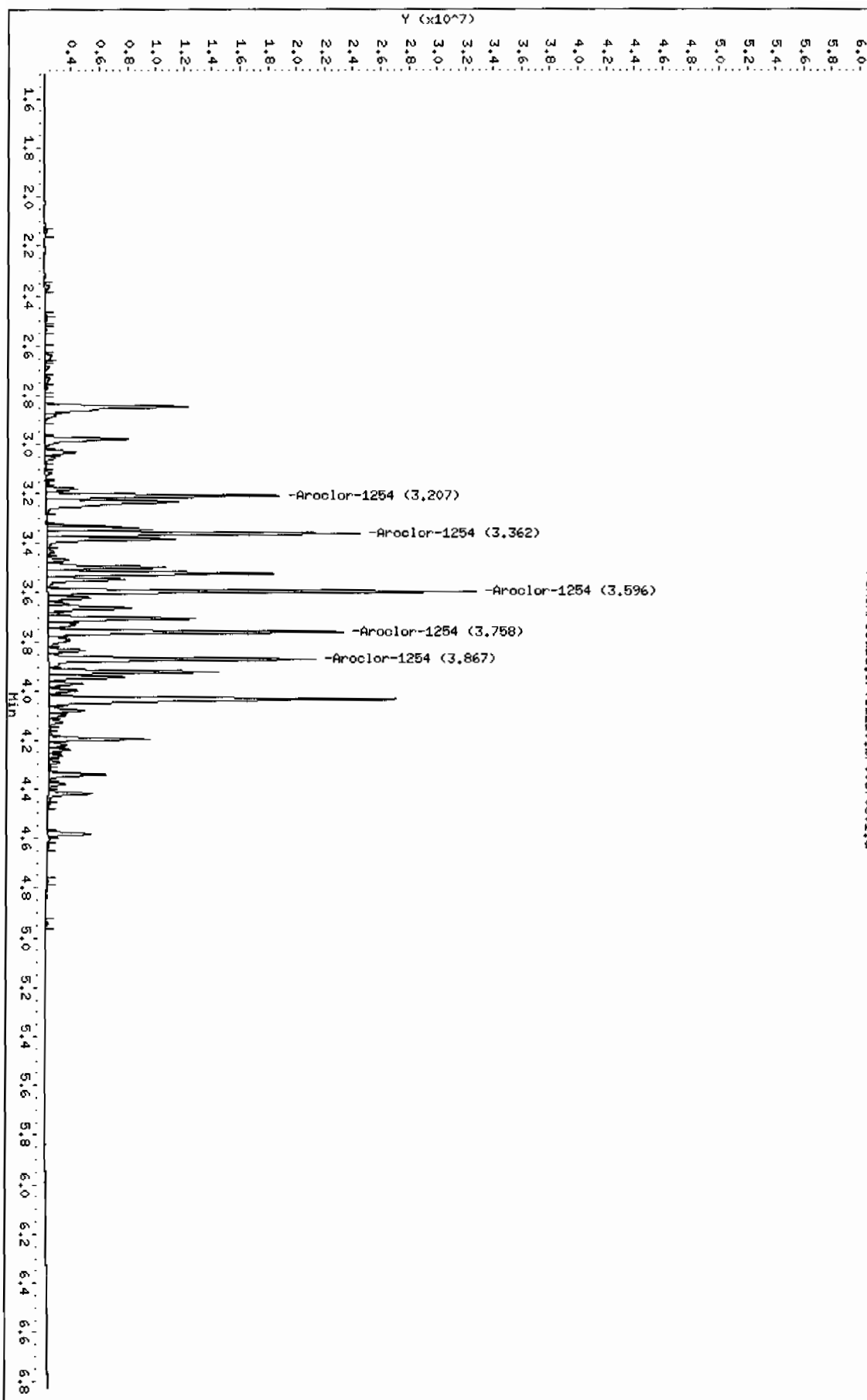
990

Data File: /chem/ecdl1.i/032210.b/003f0301.d  
Date : 22-MAR-2010 07:13  
Client ID: AR125401  
Sample Info: MAR100219-54

Column phase: CLP1

Instrument: ecdl1.i  
Operator: VSI  
Column diameter: 0.25

/chem/ecdl1.i/032210.b/003f0301.d



Data File: /chem/ecd1a.i/032210.b/003b0301.d  
Report Date: 22-Mar-2010 14:36

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/003b0301.d

Lab Smp Id: WAR100219-54

Client Smp ID: AR125401

Inj Date : 22-MAR-2010 07:13

Operator : YSl

Inst ID: ecd1a.i

Smp Info : |WAR100219-54

Misc Info :

Comment :

Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m

Meth Date : 22-Mar-2010 14:29 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 3

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1254.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
----	--------	--------	------------------	---------	--------------	-------

6 Aroclor-1254

CAS #: 11097-69-1

3.372	3.372	0.000	5592748 1000.00	929	80.00- 120.00	100.00
3.794	3.794	0.000	10182375 1000.00	941	162.06- 202.06	182.06
3.911	3.911	0.000	11212477 1000.00	940	180.48- 220.48	200.48
4.186	4.186	0.000	15755066 1000.00	958	261.71- 301.71	281.71
4.323	4.323	0.000	11433868 1000.00	944	184.44- 224.44	204.44

Average of Peak Amounts =

942

Data File: /chem/eod1a.i/032210.b/003b0301.d

Date : 22-MAR-2010 07:13

Client ID: AR125401

Sample Info: 1MAR100219-54

Column phase: CLP2

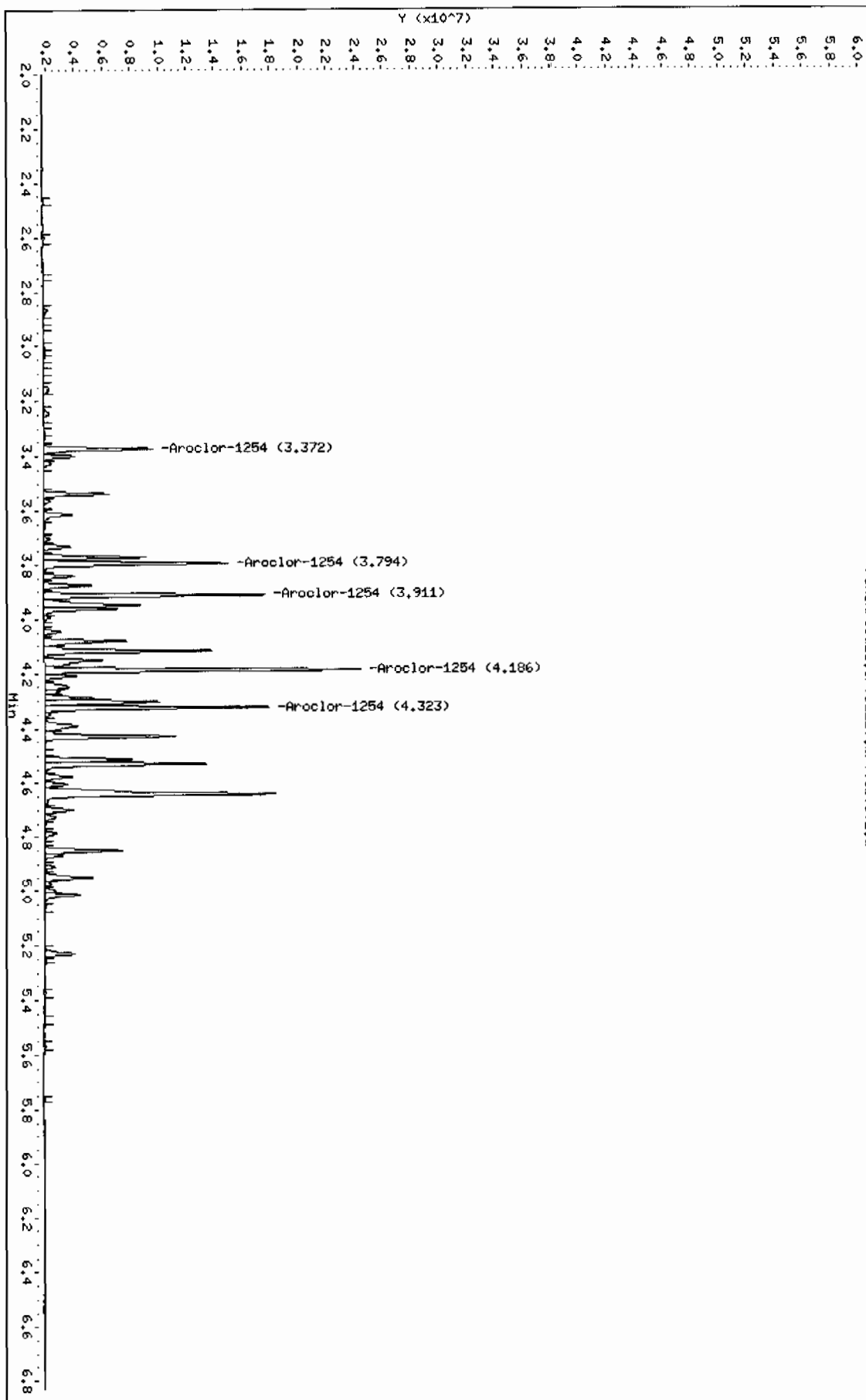
Instrument: eod1a.i

Operator: YSL

Column diameter: 0.25

Page 1

/chem/eod1a.i/032210.b/003b0301.d



Data File: /chem/ecdl1a.i/032210.b/004f0401.d  
Report Date: 22-Mar-2010 14:36

Page 1

GEL laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/032210.b/004f0401.d

Lab Smp Id: WAR100219-42 Client Smp ID: AR124201

Inj Date : 22-MAR-2010 07:23

Operator : YS1 Inst ID: ecd1a.i

Smp Info : |WAR100219-42

Misc Info :

Comment :

Method : /chem/ecdl1a.i/032210.b/ECD1-F-8082-031110b.m

Meth Date : 22-Mar-2010 14:28 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d

Als bottle: 4 Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon Compound Sublist: AR1242.sub

Target Version: 3.50 Sample Matrix: None

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
----	--------	--------	------------------	---------	--------------	-------

4 Aroclor-1242

CAS #: 53469-21-9

2.365	2.365	0.000	12600151	1000.00	1020 80.00- 120.00	100.00
2.652	2.652	0.000	15775175	1000.00	1060 105.20- 145.20	125.20
2.770	2.770	0.000	5930396	1000.00	1000 27.07- 67.07	47.07
2.980	2.980	0.000	7618735	1000.00	985 40.47- 80.47	60.47
3.233	3.233	0.000	7197700	1000.00	988 37.12- 77.12	57.12

Average of Peak Amounts - 1.01e+03

Data File: /chem/ecdl.a.i/032210.b/004f0401.d

Date : 22-MAR-2010 07:23

Client ID: AR124201

Sample Info: IWR100219-42

Column phase: CLP1

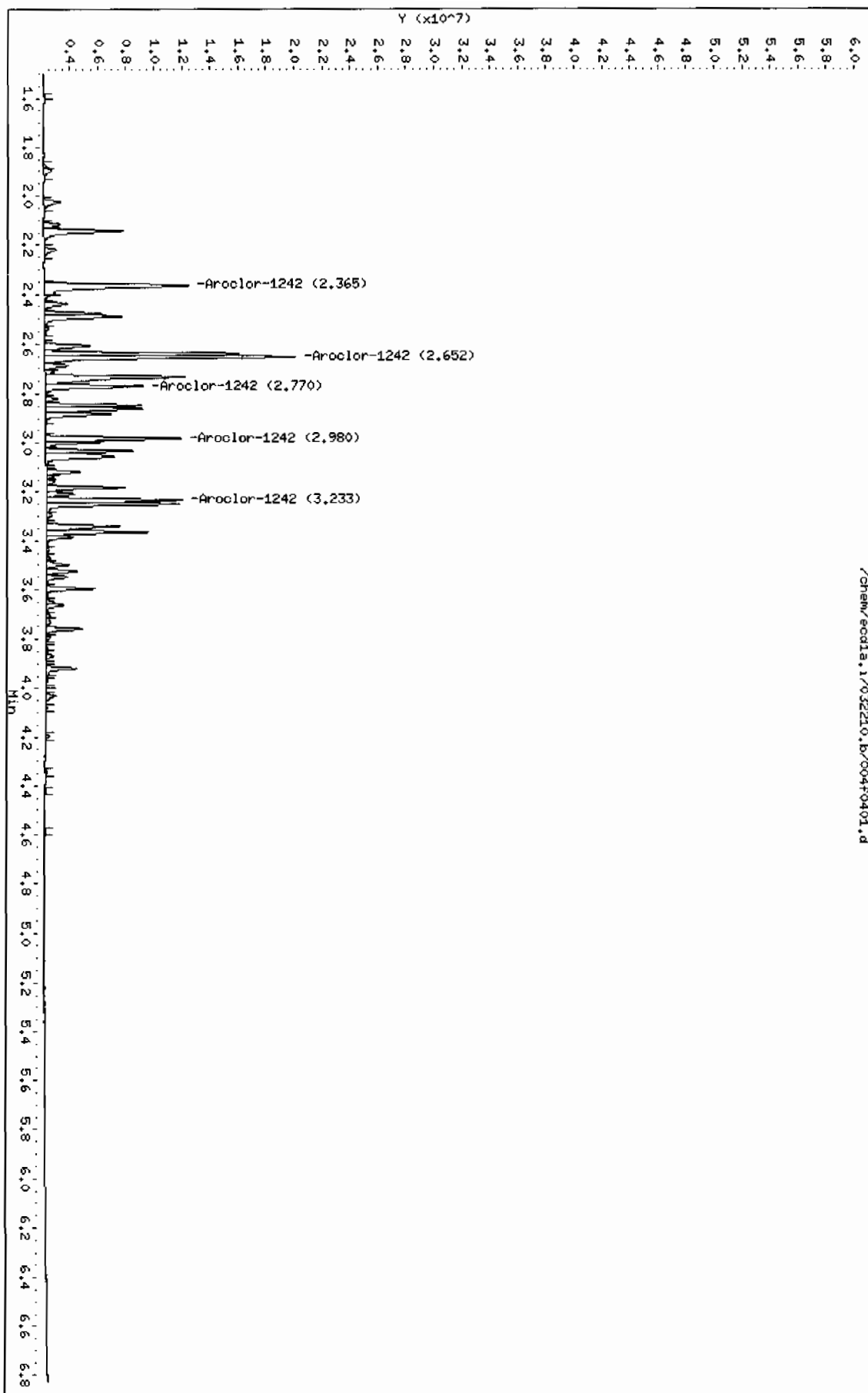
Instrument: ecdl.a.i

Operator: YSA

Column diameter: 0.25

/chem/ecdl.a.i/032210.b/004f0401.d

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Data File: /chem/eod1a.i/032210.b/004b0401.d

Date: 22-MAR-2010 07:23

Client ID: RR124201

Sample Info: 1MAR100219-42

Column phase: CLP2

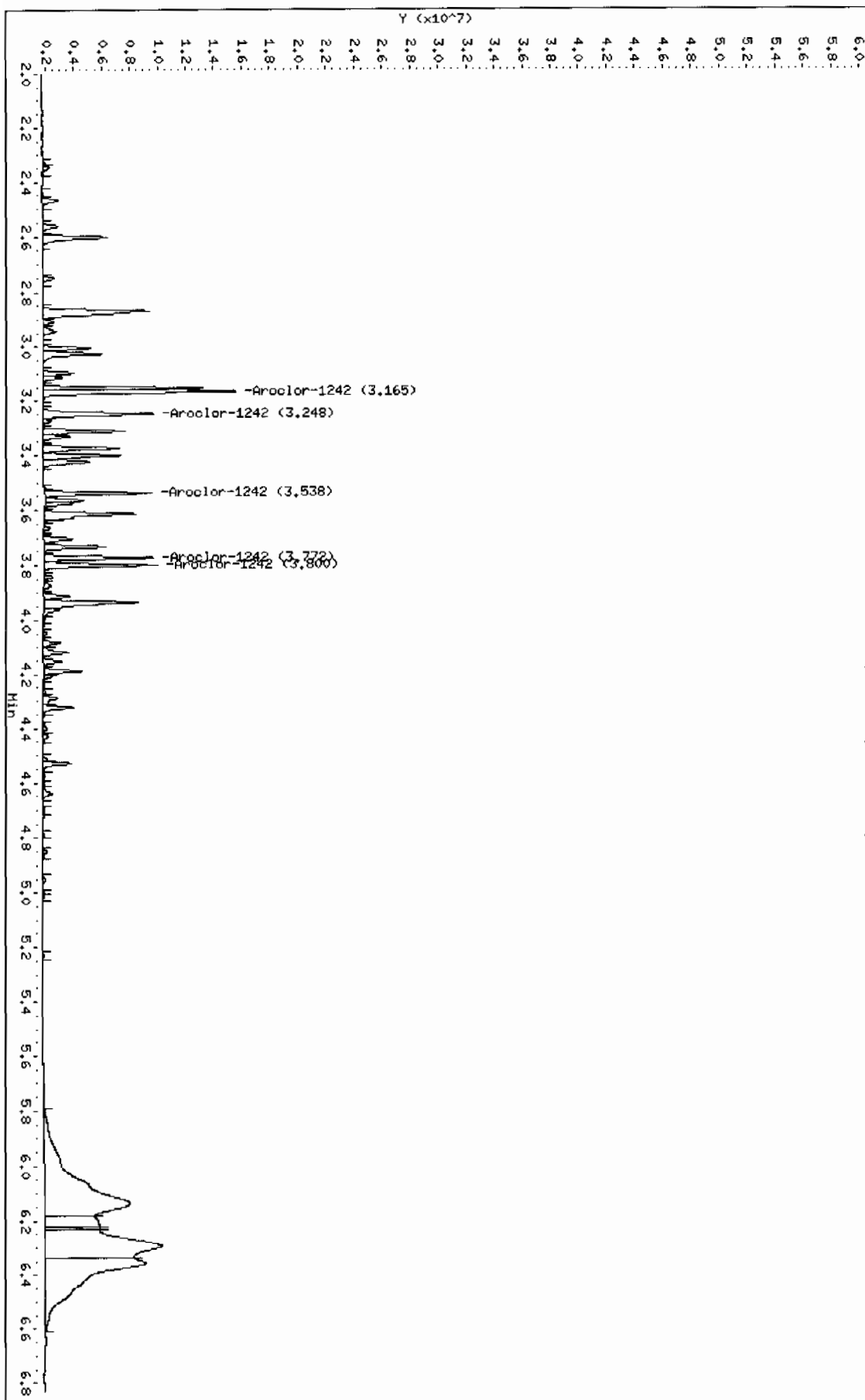
Page 1

Instrument: eod1a.i

Operator: YSI

Column diameter: 0.25

/chem/eod1a.i/032210.b/004b0401.d



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/032210.b/005f0501.d

Lab Smp Id: WAR100223-48 Client Smp ID: AR124801

Inj Date : 22-MAR-2010 07:34

Operator : YS1 Inst ID: ecdla.i

Smp Info : |WAR100223-48

Misc Info :

Comment :

Method : /chem/ecdla.i/032210.b/ECD1-F-8082-031110b.m

Meth Date : 22-Mar-2010 14:28 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d

Als bottle: 5 Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon Compound Sublist: AR1248.sub

Target Version: 3.50 Sample Matrix: None

AMOUNTS

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	9885297	1000.00	988 80.00- 120.00	100.00
2.980	2.980	0.000	13390340	1000.00	1020 115.46- 155.46	135.46
3.233	3.233	0.000	14654166	1000.00	1020 128.24- 168.24	148.24
3.365	3.365	0.000	11824779	1000.00	994 99.62- 139.62	119.62
3.596	3.596	0.000	7772051	1000.00	971 58.62- 98.62	78.62

Average of Peak Amounts = 999

Data File: /chem/ecdda.i/032210.b/005f0501.d

Date : 22-MAR-2010 07:34

Client ID: KR124801

Sample Info: IMR100223-48

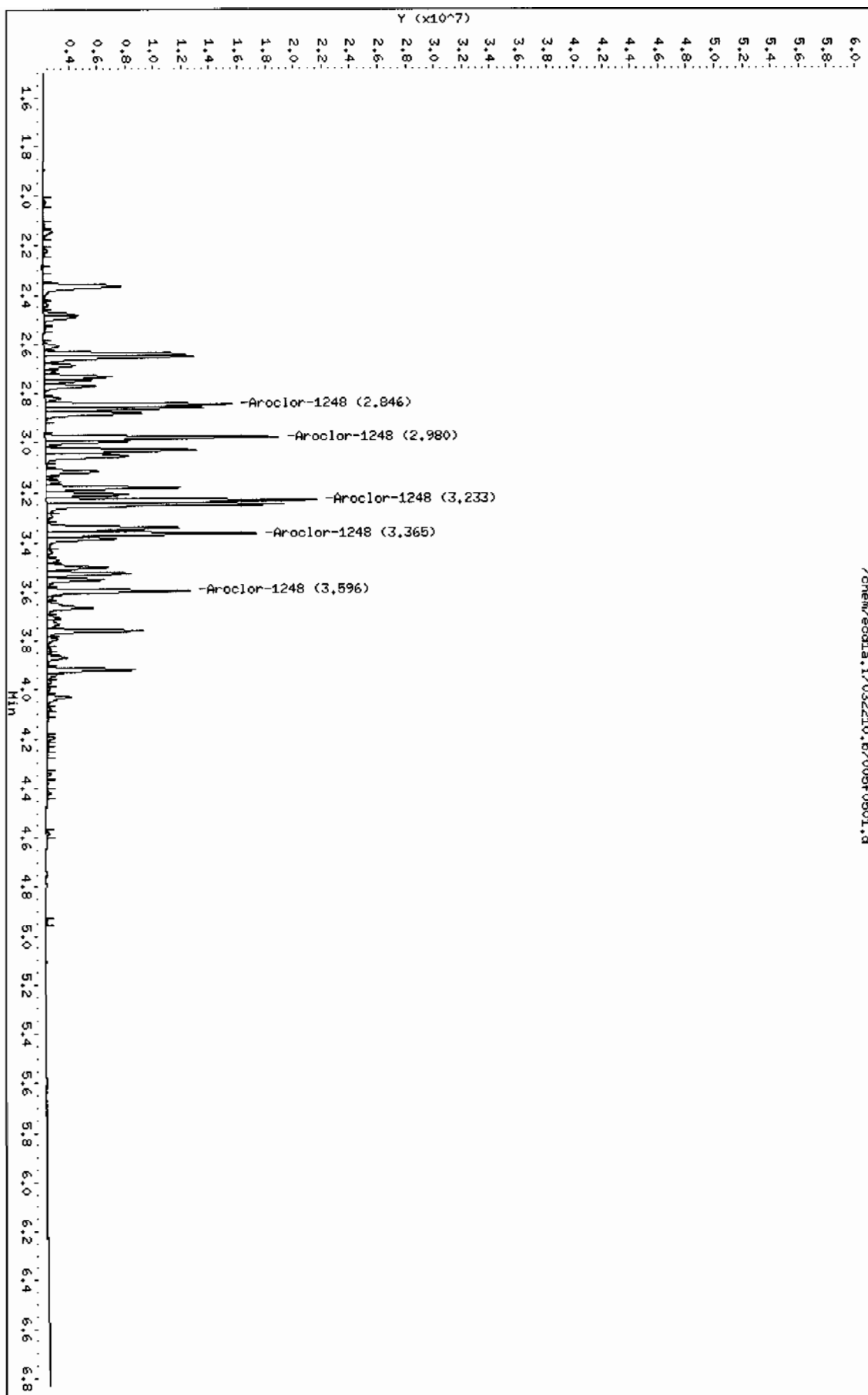
Column phase: CLP1

Instrument: ecdda.i

Operator: YS1

Column diameter: 0.25

/chem/ecdda.i/032210.b/005f0501.d



Data File: /chem/ecdl1a.i/032210.b/005b0501.d  
Report Date: 22-Mar-2010 14:36

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/032210.b/005b0501.d

Lab Smp Id: WAR100223-48

Client Smp ID: AR124801

Inj Date : 22-MAR-2010 07:34

Operator : YSI

Inst ID: ecd1a.i

Smp Info : |WAR100223-48

Misc Info :

Comment :

Method : /chem/ecdl1a.i/032210.b/ECD1-B-8082-031110b.m

Meth Date : 22-Mar-2010 14:29 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 5

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1248.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
----	--------	--------	------------------	---------	--------------	-------

5 Aroclor-1248					CAS #: 12672-29-6	
3.374	3.374	0.000	7330805	1000.00	964 80.00- 120.00	100.00
3.539	3.539	0.000	9210376	1000.00	973 105.64- 145.64	125.64
3.772	3.772	0.000	10638996	1000.00	973 125.13- 165.13	145.13
3.800	3.800	0.000	11857575	1000.00	975 141.75- 181.75	161.75
3.936	3.936	0.000	11388434	1000.00	964 135.35- 175.35	155.35

Average of Peak Amounts = 970

Data File: /chem/ecda.i/032210.b/005b0501.d

Date: 22-MAR-2010 07:34

Client ID: AR124801

Sample Info: 1MAR100223-48

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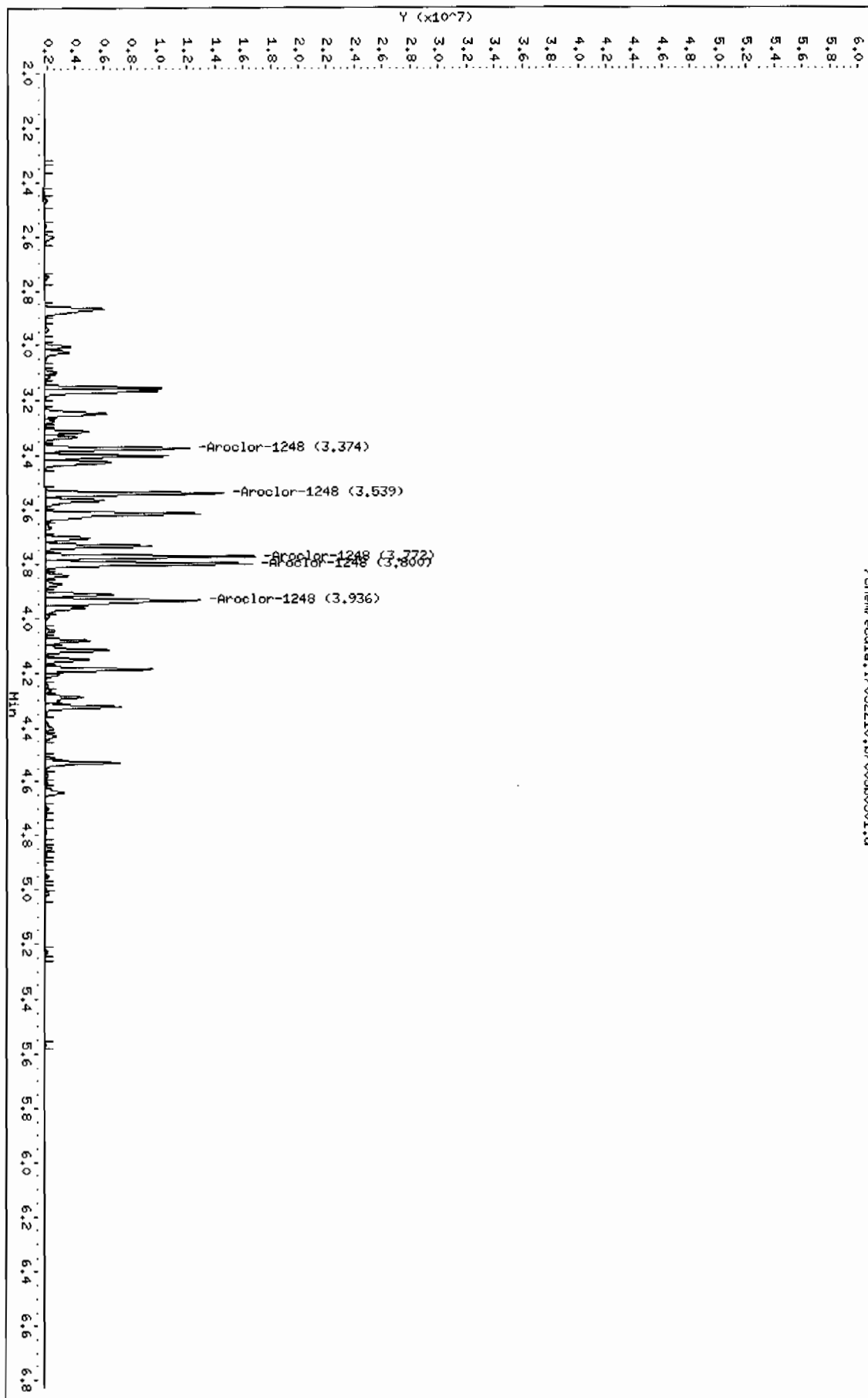
Instrument: ecda.i

Operator: YSA

Column diameter: 0.25

Column phase: CLP2

/chem/ecda.i/032210.b/005b0501.d



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/032210.b/007f0701.d

Lab Smp Id: WAR100104-32 Client Smp ID: AR123201

Inj Date : 22-MAR-2010 07:55

Operator : YS1 Inst ID: ecd1a.i

Smp Info : |WAR100104-32

Misc Info :

Comment :

Method : /chem/ecdl1a.i/032210.b/ECD1-F-8082-031110b.m

Meth Date : 22-Mar-2010 14:28 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

AMOUNTS

CAL-AMT ON-COL

RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO
----	--------	--------	------------------	---------	--------------	-------

3 Aroclor-1232			CAS #: 11141-16-5			
2.365	2.365	0.000	7070645	1000.00	1060 80.00- 120.00	100.00
2.650	2.650	0.000	8986908	1000.00	1080 107.10- 147.10	127.10
2.731	2.731	0.000	5817927	1000.00	1050 62.28- 102.28	82.28
2.845	2.845	0.000	2769308	1000.00	1040 19.17- 59.17	39.17
3.233	3.233	0.000	3708246	1000.00	1040 32.45- 72.45	52.45

Average of Peak Amounts = 1.06e+03

Data File: /chem/ecdda.i/032210.b/0070701.d

Date: 22-MAR-2010 07:55

Client ID: RK123201

Sample Info: 1MAR100104-32

Column Phase: CLP1

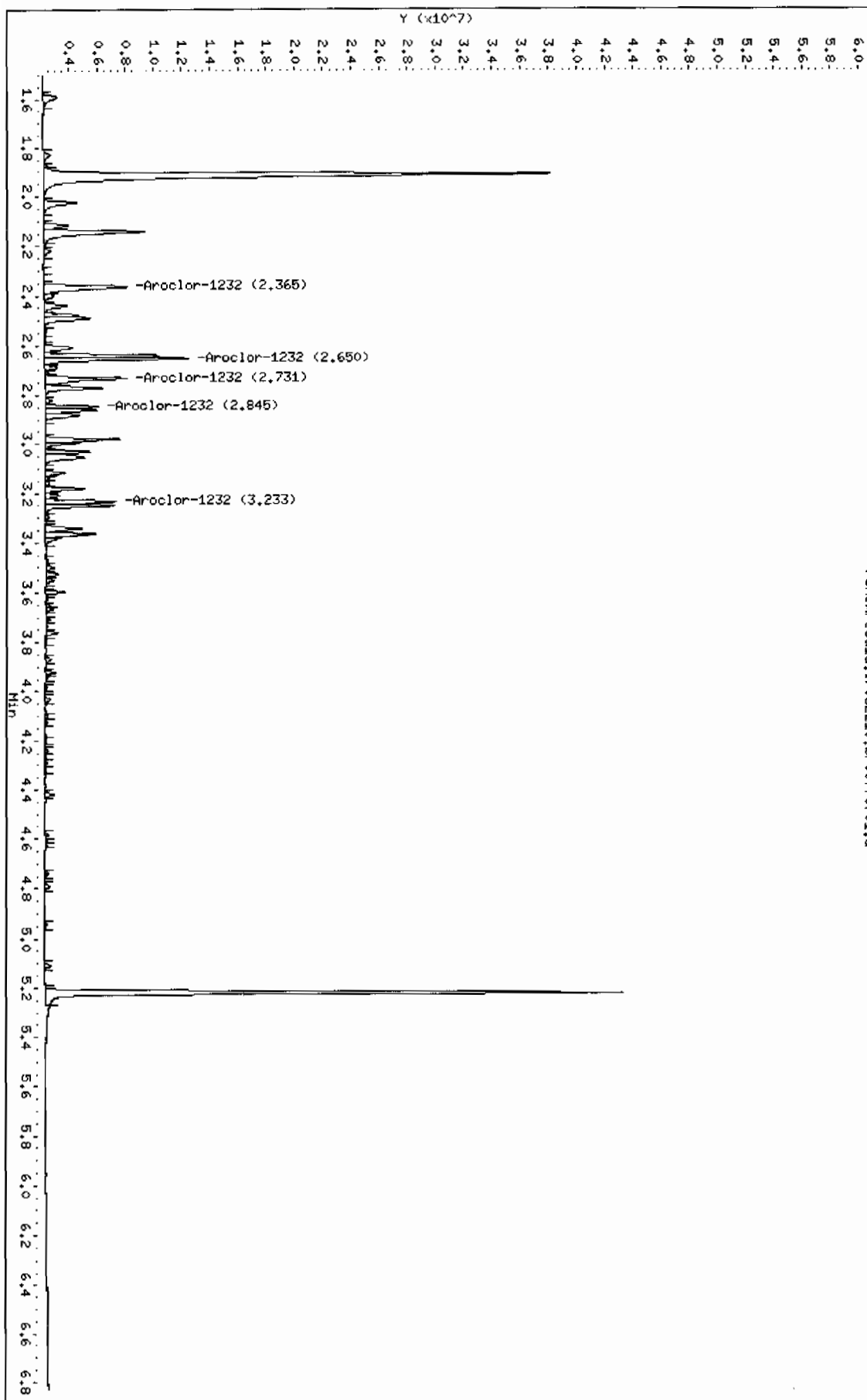
Page 1

Instrument: ecdda.i

Operator: YS1

Column diameter: 0.25

/chem/ecdda.i/032210.b/0070701.d



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/032210.b/007b0701.d

Lab Smp Id: WAR100104-32

Client Smp ID: AR123201

Inj Date : 22-MAR-2010 07:55

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100104-32

Misc Info :

Comment :

Method : /chem/ecd1a.i/032210.b/ECD1-B-8082-031110b.m

Meth Date : 22-Mar-2010 14:29 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

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	
2.867	2.867	0.000	5277707	1000.00	1040 80.00- 120.00	100.00
3.165	3.165	0.000	6006794	1000.00	1050 93.81- 133.81	113.81
3.248	3.248	0.000	4076942	1000.00	1050 57.25- 97.25	77.25
3.538	3.538	0.000	3025590	1000.00	1060 37.33- 77.33	57.33
3.772	3.772	0.000	2986513	1000.00	1060 36.59- 76.59	56.59
Average of Peak Amounts				1.05e+03		



Data File: /chem/eod1a.i/032210.b/00700701.d

Date: 22-MAR-2010 07:55

Client ID: AR123201

Sample Info: IMR100104-32

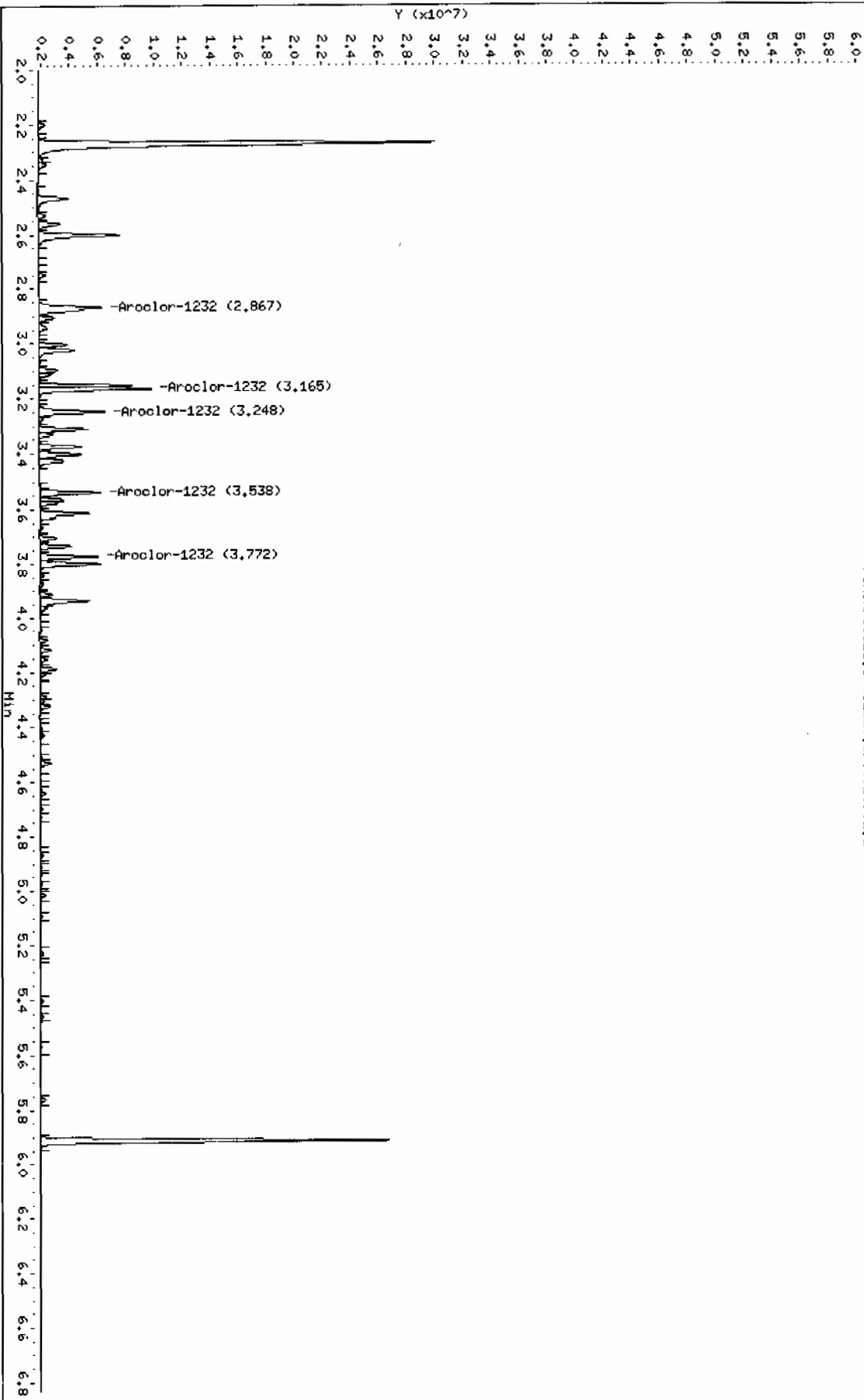
Instrument: eod1a.i

Operator: YSL

Column diameter: 0.25

Column phase: CLP2

/chem/eod1a.i/032210.b/00700701.d



Data File: /chem/ecdla.i/032210.b/008f0801.d  
Report Date: 22-Mar-2010 14:37

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/032210.b/008f0801.d  
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101  
Inj Date : 22-MAR-2010 08:05  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |WAR100104-21  
Misc Info :  
Comment :  
Method : /chem/ecdla.i/032210.b/ECD1-F-8082-031110b.m  
Meth Date : 22-Mar-2010 14:28 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

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
2.025	2.025	0.000	4694807 1000.00	1050	80.00- 120.00	100.00
2.117	2.117	0.000	2599046 1000.00	1060	35.36- 75.36	55.36
2.143	2.143	0.000	11298360 1000.00	1040	220.66- 260.66	240.66
Average of Peak Amounts =			1.05e+03			

Data File: /chem/ecdl1.i/032210.b/008f0801.d

Date : 22-MAR-2010 08:05

Client ID: AR122101

Sample Info: 1MAR100104-21

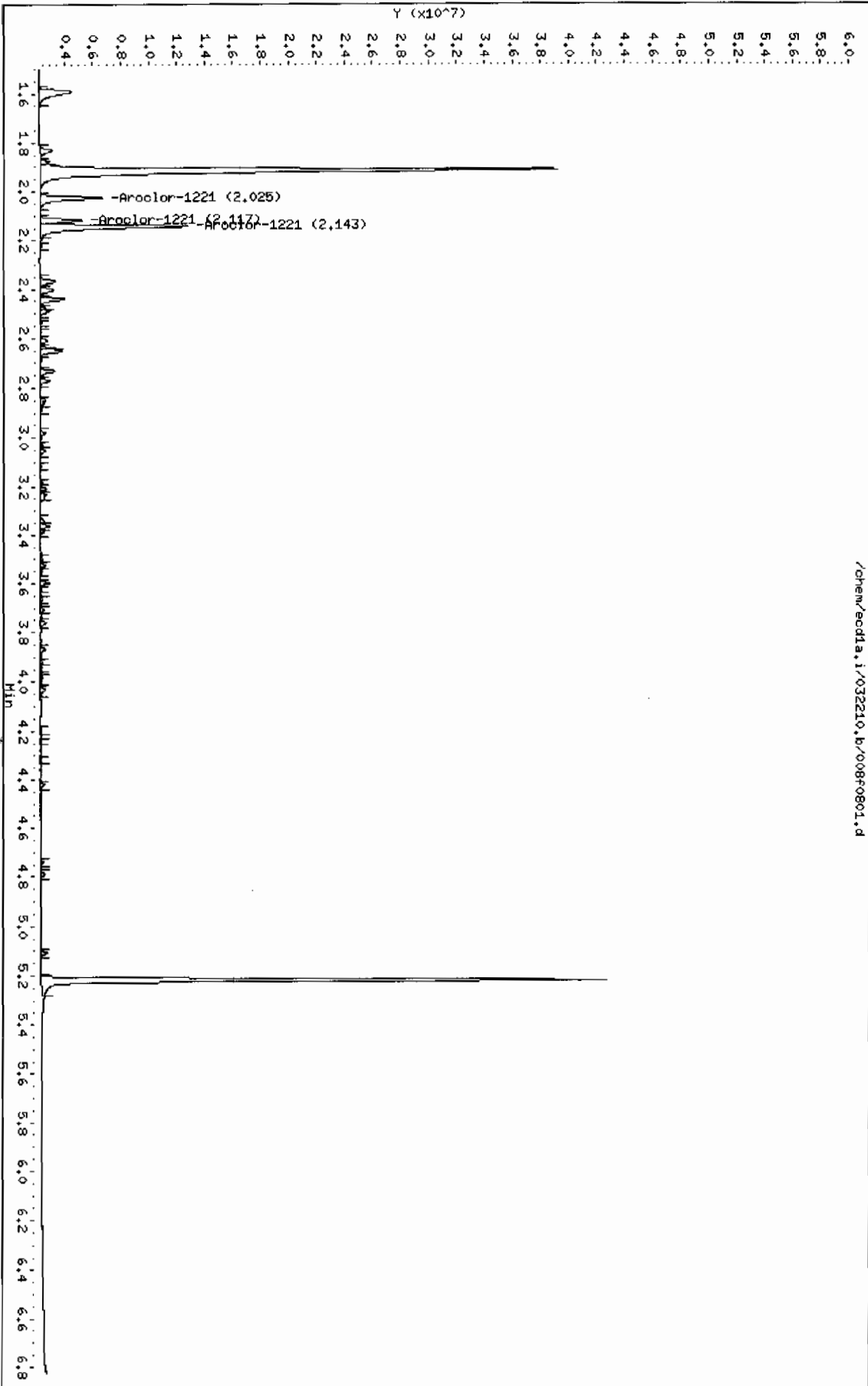
Column phase: CLP1

Page 1

Instrument: ecdl1.i

Operator: YSL

Column diameter: 0.25



Data File: /chem/ecdl1.i/032210.b/008b0801.d  
Report Date: 22-Mar-2010 14:37

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1.i/032210.b/008b0801.d  
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101  
Inj Date : 22-MAR-2010 08:05  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |WAR100104-21  
Misc Info :  
Comment :  
Method : /chem/ecdl1.i/032210.b/ECD1-B-8082-031110b.m  
Meth Date : 22-Mar-2010 14:29 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

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE ( ug/L)	ON-COL ( ug/L)	TARGET RANGE	RATIO
2.466	2.466	0.000	3329496 1000.00	1020 80.00- 120.00	100.00	
2.560	2.560	0.000	2159259 1000.00	1040 44.85- 84.85	64.85	
2.601	2.601	0.000	7455002 1000.00	1020 203.91- 243.91	223.91	
Average of Peak Amounts =			1.03e+03			

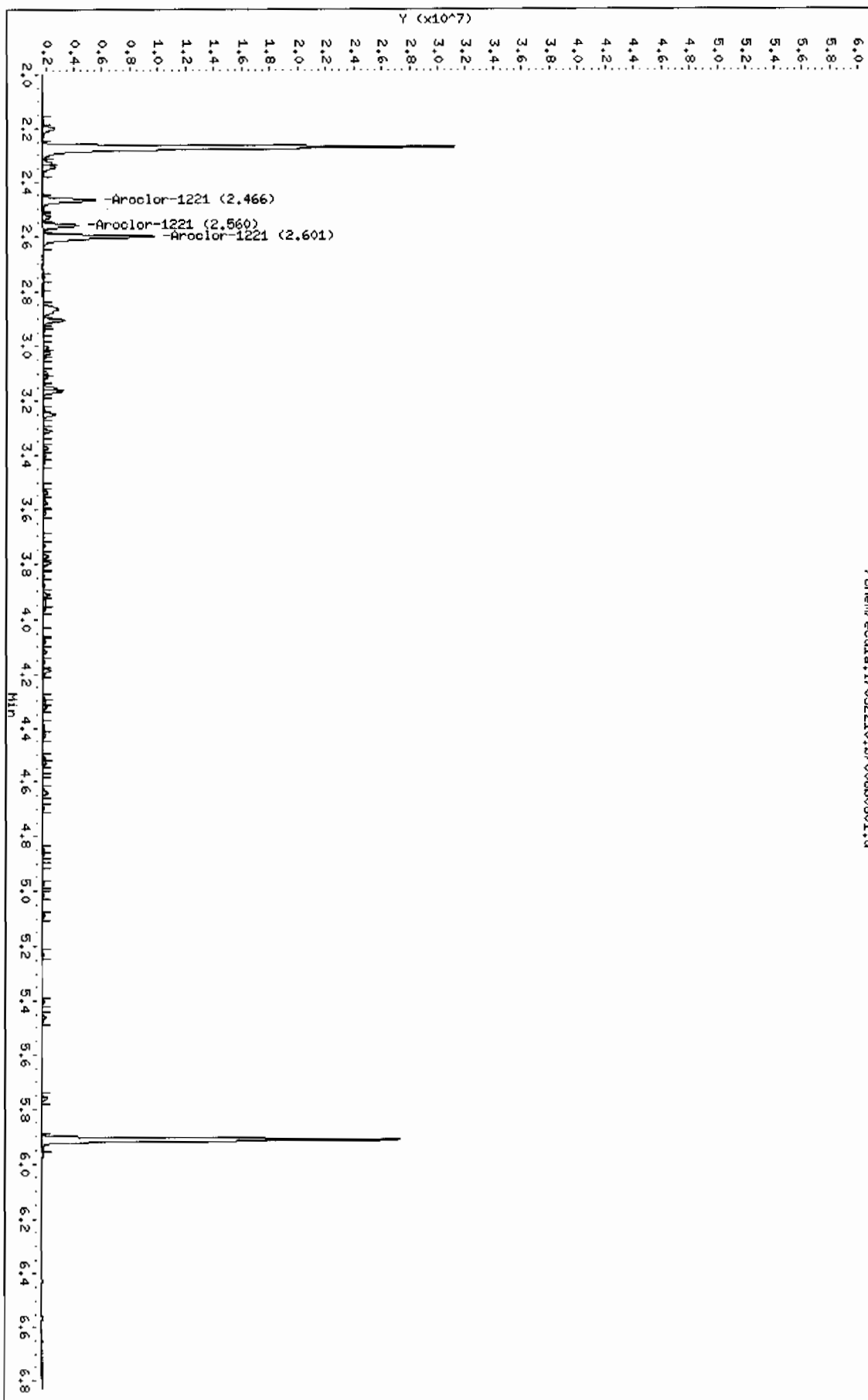
Data File: /chem/ecdda.i/032210.b/008b0801.d  
Date : 22-MAR-2010 08:05  
Client ID: AR122101  
Sample Info: 1MAR100104-21

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Column phase: CLP2

Instrument: ecdda.i  
Operator: YSL  
Column diameter: 0.25

/chem/ecdda.i/032210.b/008b0801.d



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/032210.b/039f3901.d

Lab Smp Id: WAR100222-60 05

Client Smp ID: AR166005

Inj Date : 22-MAR-2010 14:15

Operator : YSl

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 05

Misc Info :

Comment :

Method : /chem/ecdl1a.i/032210.b/ECD1-F-8082-031110b.m

Meth Date : 22-Mar-2010 14:28 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 39

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
RT	=====	=====	=====	=====	=====	=====	=====
-----							
\$ 11 4cmx					CAS #: 877-09-8		
1.911	1.911	0.000	40980895	100.000	105	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.216	-0.002	29439266	100.000	99.1	80.00- 120.00	100.00
-----							
1 Aroclor-1016					CAS #: 12674-11-2		
2.362	2.364	-0.002	14558166	1000.00	959	80.00- 120.00	100.00
2.650	2.650	0.000	18690552	1000.00	987	108.39- 148.39	128.39
2.730	2.730	0.000	11737319	1000.00	943	60.62- 100.62	80.62
2.767	2.768	-0.001	7050596	1000.00	959	28.43- 68.43	48.43
2.977	2.978	-0.001	8989556	1000.00	944	41.75- 81.75	61.75
Average of Peak Amounts =					959		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
3.702	3.704	-0.002	18876327	1000.00	1030	80.00- 120.00	100.00
3.865	3.866	-0.001	26762359	1000.00	995	121.78- 161.78	141.78
4.026	4.028	-0.002	27761487	1000.00	980	127.07- 167.07	147.07
4.096	4.096	0.000	16549459	1000.00	1020	67.67- 107.67	87.67
4.237	4.240	-0.003	17476717	1000.00	1040	72.59- 112.59	92.59
Average of Peak Amounts =					1.01e+03		
-----							

Data File: /chem/ecda.i/032210.b/039f3901.d

Date: 22-Mar-2010 14:15

Client ID: AR16005

Sample Info: 1MAR100222-60 05

Column phase: CLP1

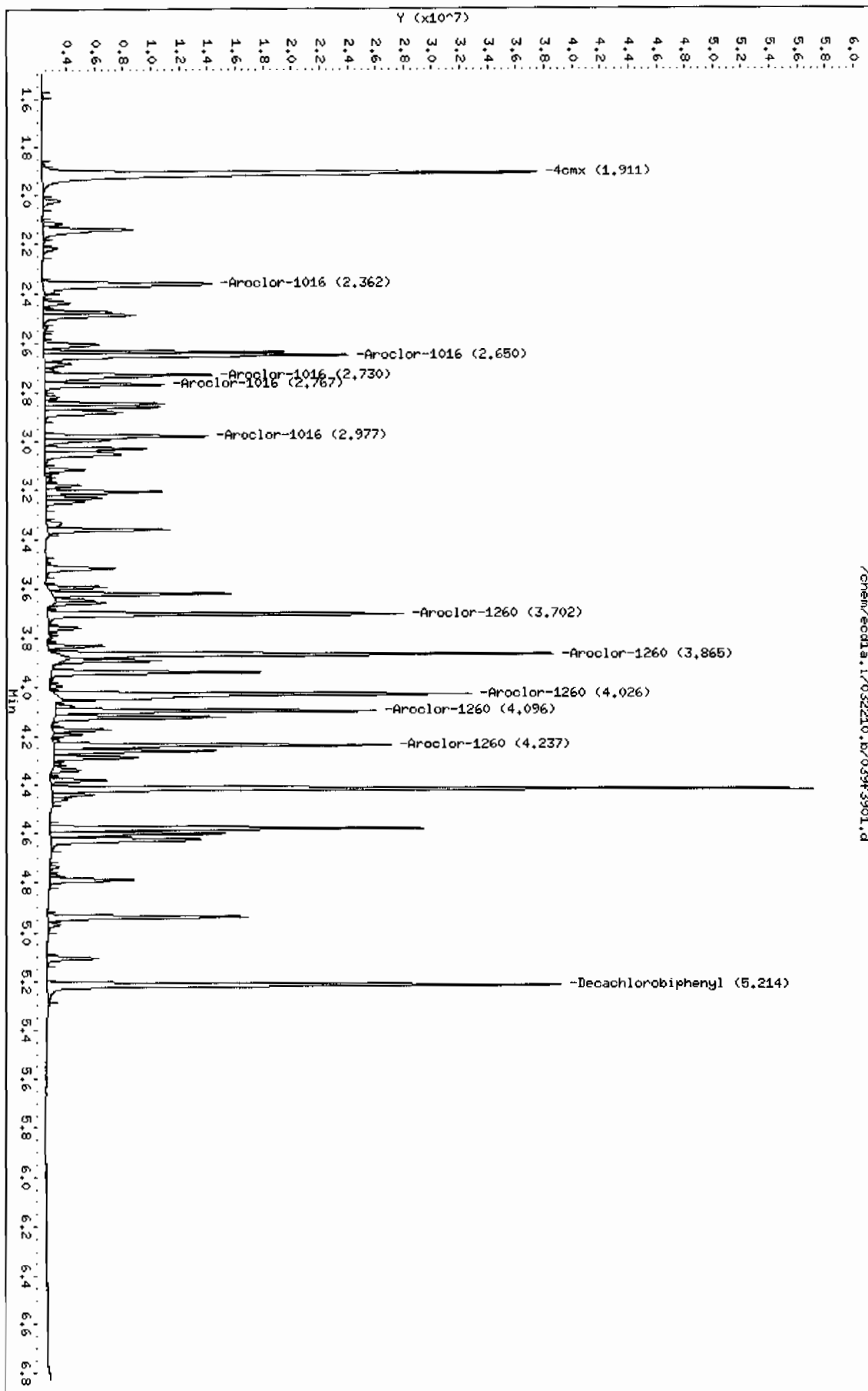
Instrument: ecda.i

Operator: YSI

Column diameter: 0.25

/chem/ecda.i/032210.b/039f3901.d

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/032210.b/039b3901.d

Lab Smp Id: WAR100222-60 05

Client Smp ID: AR166005

Inj Date : 22-MAR-2010 14:15

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 05

Misc Info :

Comment :

Method : /chem/ecdl1a.i/032210.b/ECD1-B-8082-031110b.m

Meth Date : 22-Mar-2010 14:29 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d

Als bottle: 39

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			
2.268	2.269	-0.001	26184988 100.000	99.8	80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.911	5.911	0.000	18305179 100.000	97.8	80.00- 120.00	100.00	
-----							
1 Aroclor-1016				CAS #: 12674-11-2			
3.163	3.164	-0.001	12241773 1000.00	973	80.00- 120.00	100.00 (M)	
3.246	3.246	0.000	7815854 1000.00	905	43.85- 83.85	63.85	
3.310	3.310	0.000	4849138 1000.00	917	19.61- 59.61	39.61	
3.536	3.537	-0.001	6138081 1000.00	890	30.14- 70.14	50.14	
3.612	3.612	0.000	5733339 1000.00	893	26.83- 66.83	46.83	
Average of Peak Amounts =				916			
-----							
7 Aroclor-1260				CAS #: 11096-82-5			
4.301	4.303	-0.002	12788482 1000.00	978	80.00- 120.00	100.00	
4.426	4.428	-0.002	15581586 1000.00	1000	101.84- 141.84	121.84	
4.692	4.694	-0.002	11735713 1000.00	986	71.77- 111.77	91.77	
4.866	4.867	-0.001	12213321 1000.00	994	75.50- 115.50	95.50	
5.013	5.014	-0.001	27088090 1000.00	1030	191.82- 231.82	211.82	
Average of Peak Amounts =				997			



QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/eodla.i/032210.b/039b3901.d

Date: 22-MAR-2010 14:15

Client ID: AR166095

Sample Info: IMA100222-60 05

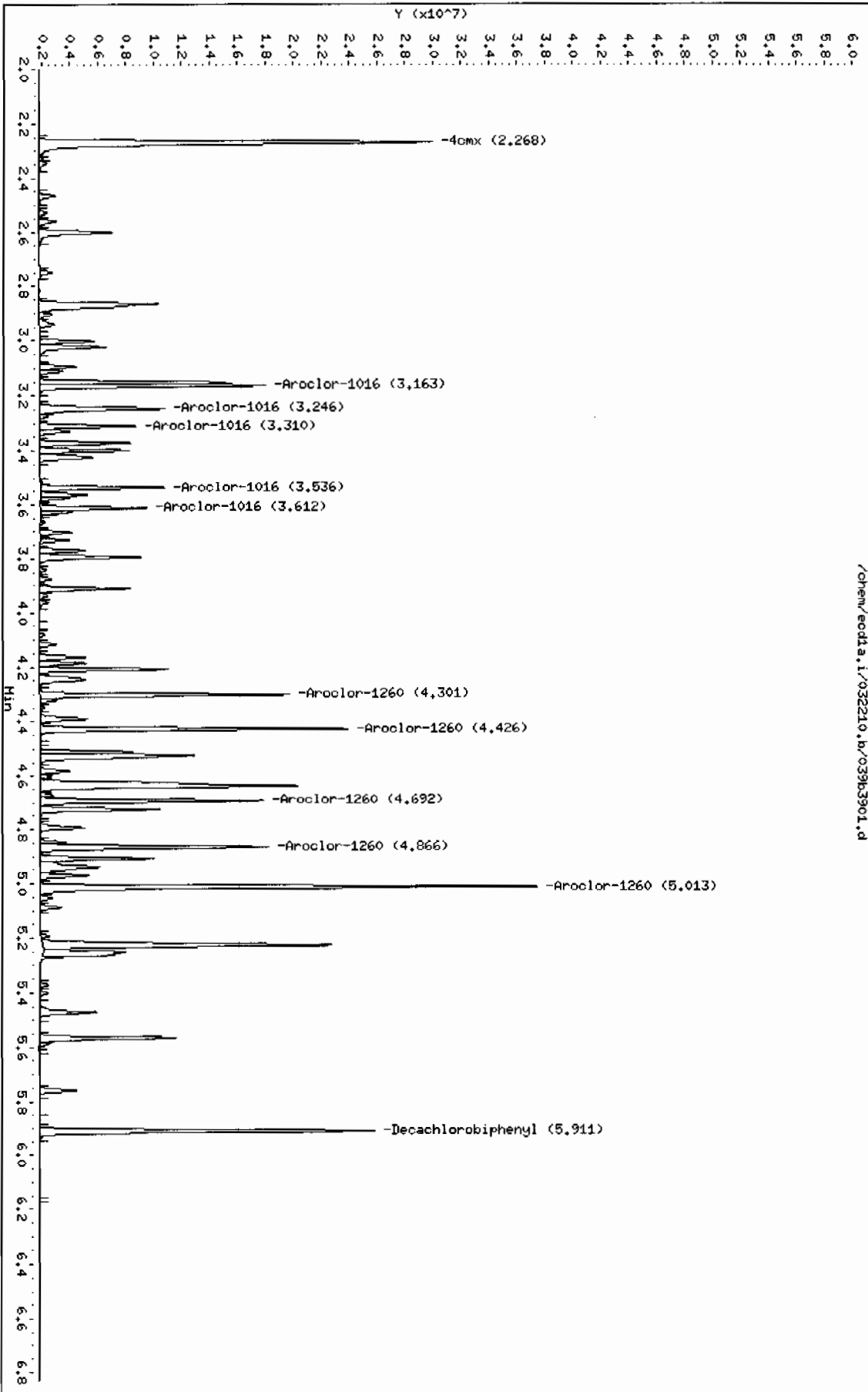
Column phase: CLP2

Instrument: eodla.i

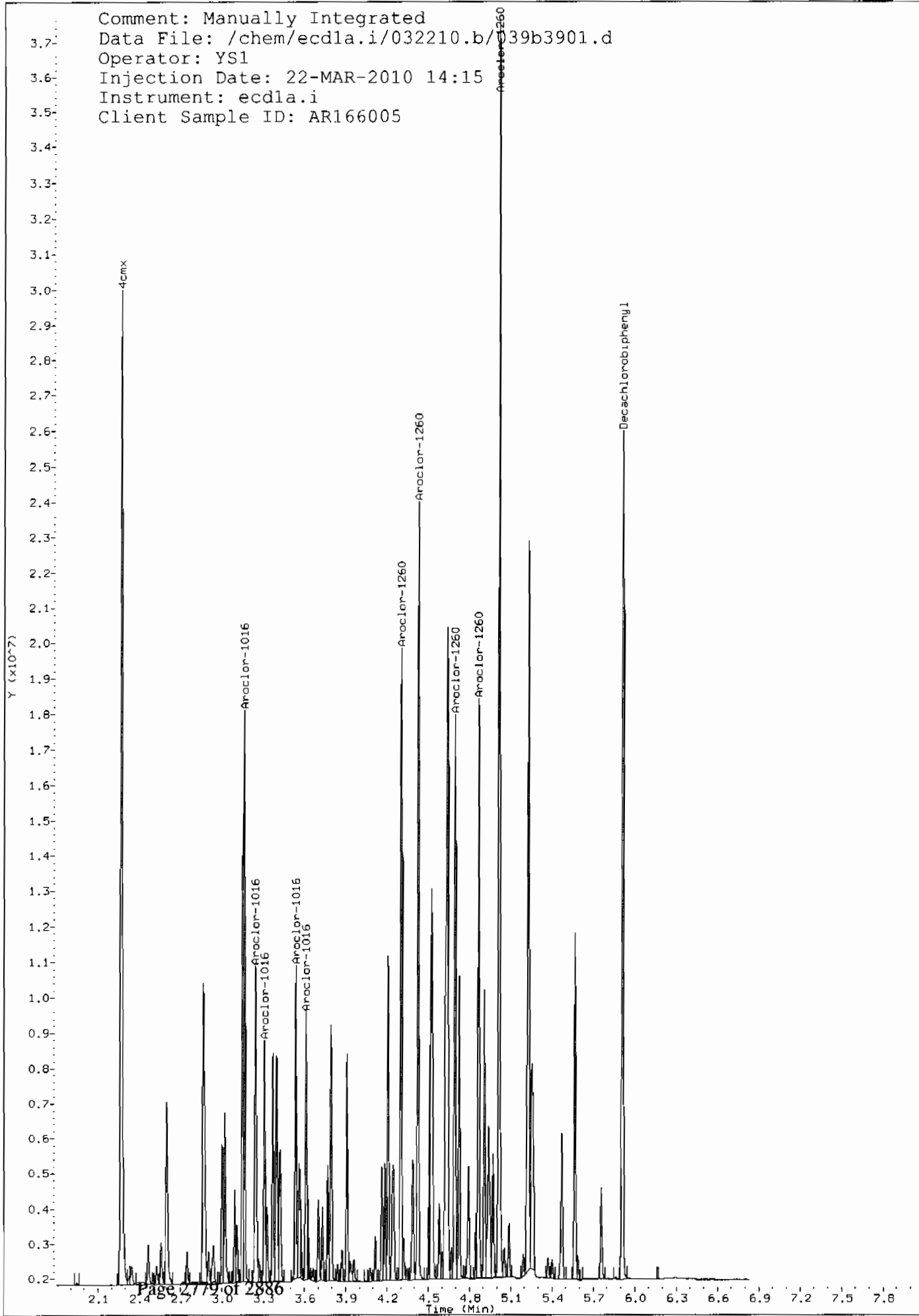
Operator: YSI

Column diameter: 0.25

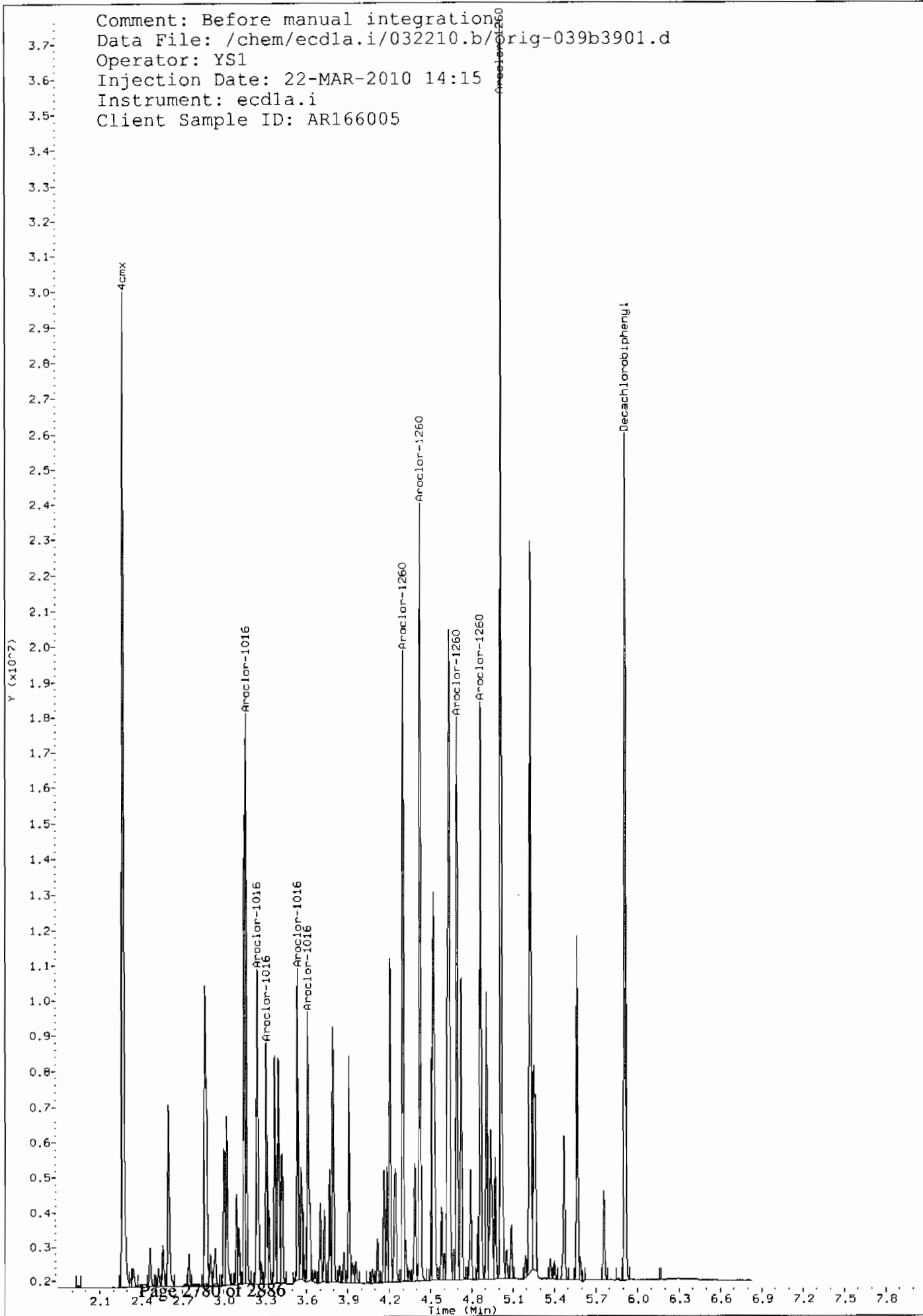
Page 1



Comment: Manually Integrated  
Data File: /chem/ecdl1.i/032210.b/39b3901.d  
Operator: YS1  
Injection Date: 22-MAR-2010 14:15  
Instrument: ecdl1.i  
Client Sample ID: AR166005



Comment: Before manual integration  
Data File: /chem/ecdl1.i/032210.b/Orig-039b3901.d  
Operator: YS1  
Injection Date: 22-MAR-2010 14:15  
Instrument: ecd1a.i  
Client Sample ID: AR166005



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/032210.b/051f5101.d

Lab Smp Id: WAR100222-60 06

Client Smp ID: AR166006

Inj Date : 22-MAR-2010 16:42

Operator : YSl

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 06

Misc Info :

Comment :

Method : /chem/ecdl1a.i/032210.b/ECD1-F-8082-031110b.m

Meth Date : 23-Mar-2010 06:35 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 51

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

Processing Host: hpc1p1

AMOUNTS

			CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	( ug/L)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx					CAS #: 877-09-8		
1.912	1.911	0.001	41740695 100.000	107	80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.214	5.216	-0.002	30698588 100.000	103	80.00- 120.00	100.00	
-----							
1 Aroclor-1016					CAS #: 12674-11-2		
2.364	2.364	0.000	14822526 1000.00	977	80.00- 120.00	100.00	
2.650	2.650	0.000	19056564 1000.00	1010	108.56- 148.56	128.56	
2.730	2.730	0.000	11883418 1000.00	955	60.17- 100.17	80.17	
2.768	2.768	0.000	7124432 1000.00	970	28.06- 68.06	48.06	
2.978	2.978	0.000	9329797 1000.00	980	42.94- 82.94	62.94	
Average of Peak Amounts -				978			
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
3.703	3.704	-0.001	19625186 1000.00	1070	80.00- 120.00	100.00	
3.865	3.866	-0.001	28850077 1000.00	1070	127.01- 167.01	147.01	
4.028	4.028	0.000	30927653 1000.00	1090	137.59- 177.59	157.59	
4.095	4.096	-0.001	17403520 1000.00	1080	68.68- 108.68	88.68	
4.238	4.240	-0.002	18042837 1000.00	1070	71.94- 111.94	91.94	
Average of Peak Amounts =				1.08e+03			

Data File: /chem/ecdl.i/032210.k/051f5101.d

Date: 22-MAR-2010 16:42

Client ID: AR166006

Sample Info: 1MAR100222-60 06

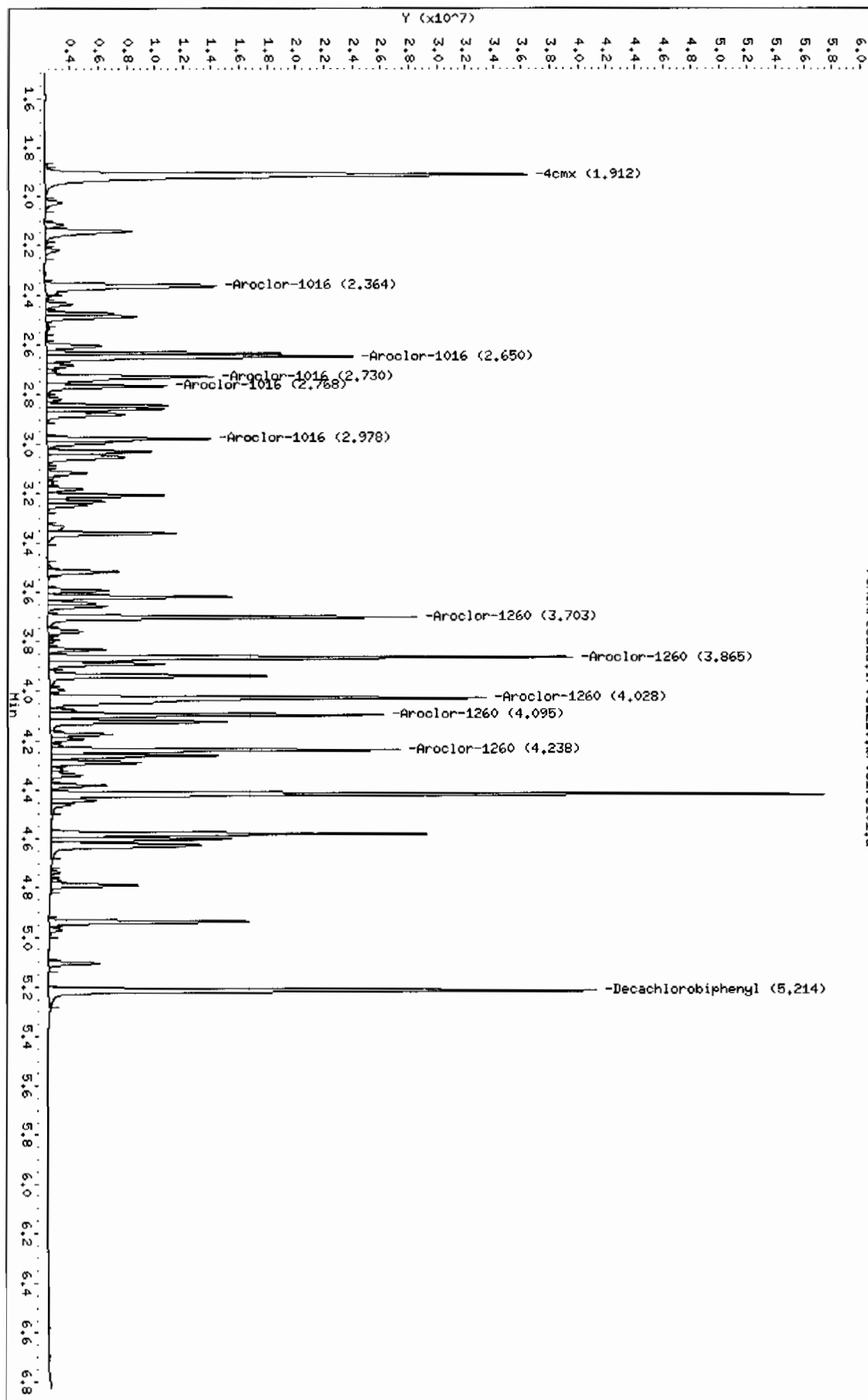
Column Phase: CLP1

Instrument: ecdl.i

Operator: YSI

Column diameter: 0.25

/chem/ecdl.i/032210.k/051f5101.d



GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/032210.b/051b5101.d

Lab Smp Id: WAR100222-60 06

Client Smp ID: AR166006

Inj Date : 22-MAR-2010 16:42

Operator : YS1

Inst ID: ecd1a.i

Smp Info : |WAR100222-60 06

Misc Info :

Comment :

Method : /chem/ecdl1a.i/032210.b/ECD1-B-8082-031110b.m

Meth Date : 23-Mar-2010 06:36 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 51

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: AR1660.sub

Target Version: 3.50

Sample Matrix: None

AMOUNTS							
			CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	( ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
\$ 11 4cmx					CAS #: 877-09-8		
2.269	2.269	0.000	26717795	100.000	102	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.911	-0.001	18148543	100.000	97.0	80.00- 120.00	100.00
-----							
1 Aroclor-1016					CAS #: 12674-11-2		
3.164	3.164	0.000	11962559	1000.00	950	80.00- 120.00	100.00(M)
3.247	3.246	0.001	7938268	1000.00	919	45.75- 85.75	66.36
3.310	3.310	0.000	4918804	1000.00	930	20.72- 60.72	41.12
3.537	3.537	0.000	6184622	1000.00	897	31.59- 71.59	51.70
3.613	3.612	0.001	5880069	1000.00	916	38.09- 78.09	58.07
Average of Peak Amounts =					923		
-----							
7 Aroclor-1260					CAS #: 11096-82-5		
4.303	4.303	0.000	12863423	1000.00	983	80.00- 120.00	100.00
4.428	4.428	0.000	15672553	1000.00	1010	101.68- 141.68	121.84
4.693	4.694	-0.001	11730961	1000.00	986	71.42- 111.42	91.20
4.865	4.867	-0.002	12173416	1000.00	990	74.52- 114.52	94.64
5.013	5.014	-0.001	27097796	1000.00	1030	190.00- 230.00	210.66
Average of Peak Amounts =					999		

QC Flag Legend

M - Compound response manually integrated.



Data File: /chem/ecdl1.i/032210.b/051b5101.d

Date: 22-MAR-2010 16:42

Client ID: AR166006

Sample Info: 1MAR100222-60 06

Column phase: CLP2

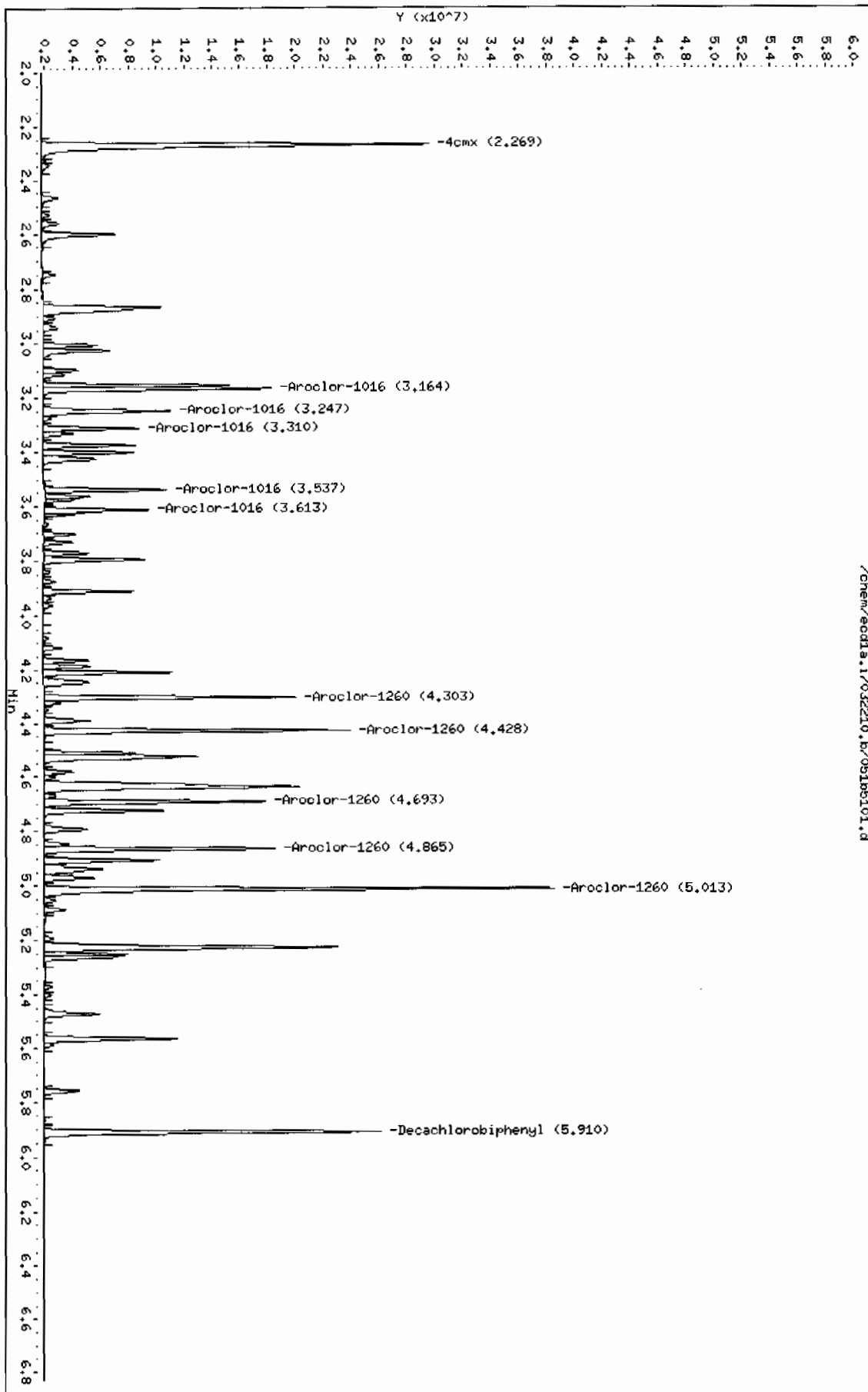
Instrument: ecdl1.i

Operator: YSL

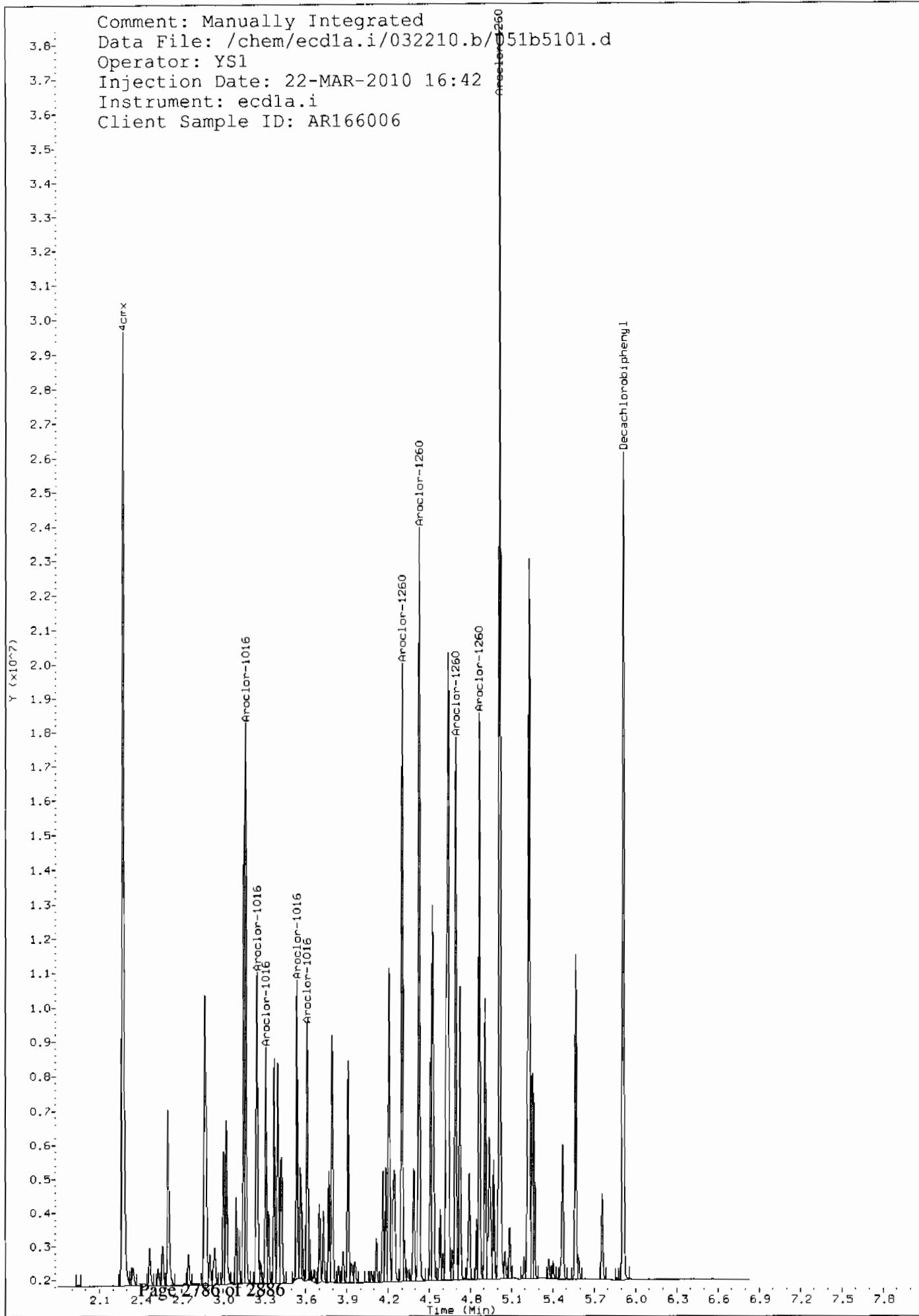
Column diameter: 0.25

Page 1

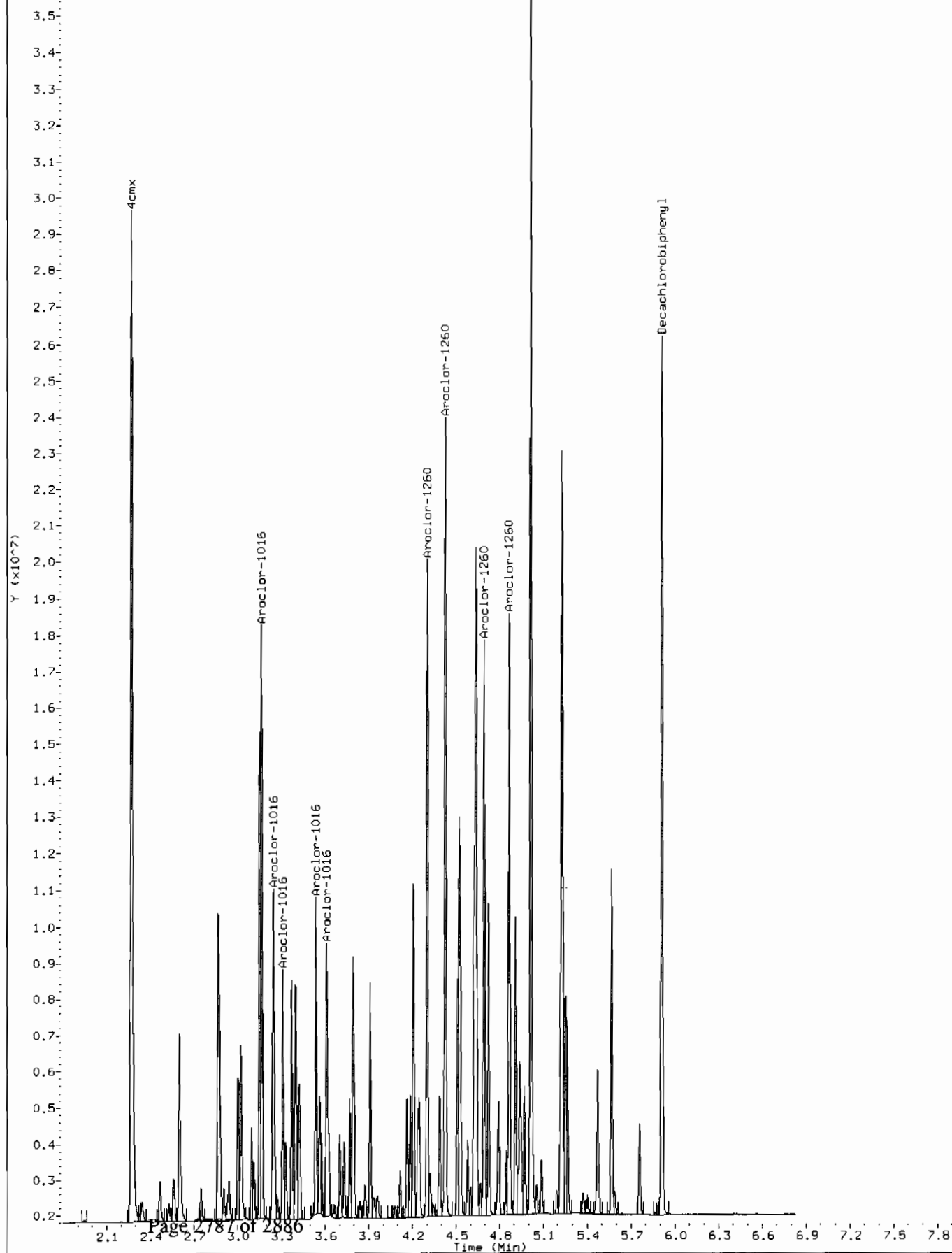
/chem/ecdl1.i/032210.b/051b5101.d



Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/032210.b/051b5101.d  
Operator: YS1  
Injection Date: 22-MAR-2010 16:42  
Instrument: ecd1a.i  
Client Sample ID: AR166006



Comment: Before manual integration  
Data File: /chem/ecdl1a.i/032210.b/Orig-051b5101.d  
Operator: YS1  
Injection Date: 22-MAR-2010 16:42  
Instrument: ecdl1a.i  
Client Sample ID: AR166006



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.: 10-2193

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.

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.: 10-2193

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 1.91			DCB: 5.22			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #	
01	AR124805	IAR100211-01	03/11/10	2022		
02	AR124801	WAR100223-48	03/11/10	2033		
03	PIBLK02	WAR100219-99	03/11/10	2044	1.91	5.22
04	ZZZZZ	ZZZZZ	03/11/10	2054	1.92	5.22
05	ZZZZZ	ZZZZZ	03/11/10	2105	1.92	5.22
06	ZZZZZ	ZZZZZ	03/11/10	2115	1.92	5.22
07	ZZZZZ	ZZZZZ	03/11/10	2126	1.92	5.22
08	ZZZZZ	ZZZZZ	03/11/10	2136	1.92	5.22
09	ZZZZZ	ZZZZZ	03/11/10	2147	1.92	5.22
10	ZZZZZ	ZZZZZ	03/11/10	2157	1.92	5.22
11	ZZZZZ	ZZZZZ	03/11/10	2208	1.92	5.22
12	ZZZZZ	ZZZZZ	03/11/10	2218	1.92	5.22
13	ZZZZZ	ZZZZZ	03/11/10	2229	1.92	5.22
14	AR166002	WAR100222-60	03/11/10	2239	1.91	5.22
15	PIBLK03	WAR100219-99	03/11/10	2250	1.91	5.22
16	ZZZZZ	ZZZZZ	03/11/10	2300	1.90	5.23
17	ZZZZZ	ZZZZZ	03/11/10	2311	1.92	5.22
18	ZZZZZ	ZZZZZ	03/11/10	2321	1.91	5.22
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)

DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2193

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 03/11/10 03/11/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,  
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION						
S1 : 2.27			DCB: 5.92			
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #	
01	PIBLK01	WAR100219-99	03/11/10	1446	2.27	5.92
02	ZZZZZ	ZZZZZ	03/11/10	1456	2.27	5.92
03	ZZZZZ	ZZZZZ	03/11/10	1507		
04	ZZZZZ	ZZZZZ	03/11/10	1517		
05	ZZZZZ	ZZZZZ	03/11/10	1528		
06	AR126801	WAR100107-68	03/11/10	1538		
07	AR123201	WAR100104-32	03/11/10	1549		
08	AR122101	WAR100104-21	03/11/10	1559		
09	AR126201	WAR100104-62	03/11/10	1610		
10	DDTANALOGSTD	WAR091219-DD	03/11/10	1621		
11	AR166001	WAR100311-01	03/11/10	1631	2.27	5.92
12	AR166002	WAR100311-02	03/11/10	1641	2.27	5.92
13	AR166003	WAR100311-03	03/11/10	1652	2.27	5.92
14	AR166004	WAR100311-04	03/11/10	1702	2.27	5.92
15	AR166005	IAR100311-01	03/11/10	1713	2.27	5.92
16	AR166001	WAR100222-60	03/11/10	1724	2.27	5.92
17	AR125401	WAR100311-05	03/11/10	1734		
18	AR125402	WAR100311-06	03/11/10	1745		
19	AR125403	WAR100311-07	03/11/10	1755		
20	AR125404	WAR100311-08	03/11/10	1806		
21	AR125405	IAR100219-02	03/11/10	1816		
22	AR125401	WAR100219-54	03/11/10	1827		
23	AR124201	WAR100311-09	03/11/10	1837		
24	AR124202	WAR100311-10	03/11/10	1848		
25	AR124203	WAR100311-11	03/11/10	1858		
26	AR124204	WAR100311-12	03/11/10	1909		
27	AR124205	IAR100219-01	03/11/10	1919		
28	AR124201	WAR100219-42	03/11/10	1930		
29	AR124801	WAR100311-13	03/11/10	1940		
30	AR124802	WAR100311-14	03/11/10	1951		
31	AR124803	WAR100311-15	03/11/10	2001		
32	AR124804	WAR100311-16	03/11/10	2012		

QC LIMITS  
S1 = 4cmx (+/- 0.03 MINUTES)  
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.

8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2193

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					
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22					
23					
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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.: 10-2193

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	03/18/10	0604	1.91 5.21
02	AR166001	WAR100222-60	03/18/10	0614	1.91 5.22
03	AR125401	WAR100219-54	03/18/10	0625	
04	AR124201	WAR100219-42	03/18/10	0635	
05	AR124801	WAR100223-48	03/18/10	0644	
06	AR126801	WAR100107-68	03/18/10	0655	
07	AR123201	WAR100104-32	03/18/10	0705	
08	AR122101	WAR100104-21	03/18/10	0716	
09	AR126201	WAR100104-62	03/18/10	0726	
10	DDTANALOGSTD	WAR091219-DD	03/18/10	0737	
11	PIBLK02	WAR100219-99	03/18/10	0747	1.91 5.22
12	ZZZZZ	ZZZZZ	03/18/10	0758	1.91 5.22
13	ZZZZZ	ZZZZZ	03/18/10	0810	1.91 5.21
14	ZZZZZ	ZZZZZ	03/18/10	0823	1.91 5.21
15	ZZZZZ	ZZZZZ	03/18/10	0836	1.91 5.21
16	ZZZZZ	ZZZZZ	03/18/10	0848	1.91 5.21
17	ZZZZZ	ZZZZZ	03/18/10	0859	1.91 5.22
18	ZZZZZ	ZZZZZ	03/18/10	0909	1.91 5.22
19	ZZZZZ	ZZZZZ	03/18/10	0920	1.91 5.22
20	ZZZZZ	ZZZZZ	03/18/10	0931	1.91 5.22
21	ZZZZZ	ZZZZZ	03/18/10	0943	1.91 5.22
22	AR166002	WAR100222-60	03/18/10	0956	1.91 5.22
23	AR166003	WAR100222-60	03/18/10	1006	1.91 5.22
24	ZZZZZ	ZZZZZ	03/18/10	1017	1.91 5.22
25	ZZZZZ	ZZZZZ	03/18/10	1027	1.91 5.22
26	ZZZZZ	ZZZZZ	03/18/10	1038	1.91 5.22
27	ZZZZZ	ZZZZZ	03/18/10	1048	1.91 5.22
28	ZZZZZ	ZZZZZ	03/18/10	1059	1.91 5.22
29	ZZZZZ	ZZZZZ	03/18/10	1109	1.91 5.22
30	ZZZZZ	ZZZZZ	03/18/10	1120	1.91 5.22
31	ZZZZZ	ZZZZZ	03/18/10	1130	1.91 5.22
32	ZZZZZ	ZZZZZ	03/18/10	1141	1.91 5.22

QC LIMITS

S1 = 4cmx (+/- 0.03 MINUTES)  
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

# Column used to flag retention time values with an asterisk.  
\* Values outside of QC limits.



8D  
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2193

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	03/18/10	1154	1.91	5.22	
02	AR166004	WAR100222-60	1206	1.91	5.22	
03	PIBLK03	WAR100219-99	1217	1.91	5.22	
04	ZZZZZ	03/18/10	1227	1.91	5.22	
05	PBLK01	1202072978	1238	1.91	5.22	
06	PBLK01LCS	1202072979	1248	1.91	5.22	
07	ZZZZZ	03/18/10	1259	1.91	5.22	
08	ZZZZZ	03/18/10	1311	1.91	5.22	
09	ZZZZZ	03/18/10	1324	1.91	5.21	
10	ZZZZZ	03/18/10	1337	1.91	5.22	
11	ZZZZZ	03/18/10	1349	1.91	5.22	
12	ZZZZZ	03/18/10	1402	1.91	5.21	
13	ZZZZZ	03/18/10	1415	1.91	5.22	
14	AR166005	WAR100222-60	1427	1.91	5.22	
15	PIBLK04	WAR100219-99	1438	1.91	5.22	
16	ZZZZZ	03/18/10	1448	1.91	5.22	
17	ZZZZZ	03/18/10	1501	1.91	5.22	
18	ZZZZZ	03/18/10	1513	1.91	5.21	
19	ZZZZZ	03/18/10	1526	1.91	5.21	
20	ZZZZZ	03/18/10	1539	1.91	5.21	
21	ZZZZZ	03/18/10	1551	1.91	5.21	
22	ZZZZZ	03/18/10	1604	1.91	5.21	
23	ZZZZZ	03/18/10	1616	1.91	5.21	
24	AR166006	WAR100222-60	1629	1.91	5.22	
25	PIBLK05	WAR100219-99	1642	1.91	5.21	
26	RE36-10-7407	248506001	1654	1.91	5.21	
27	RE36-10-7407MS	1202072980	1707	1.91	5.21	
28	RE36-10-7407MSD	1202072981	1720	1.91	5.21	
29	ZZZZZ	03/18/10	1732	1.91	5.21	
30	RE36-10-7422	248506003	1745	1.91	5.22	
31	AR166007	WAR100222-60	1757	1.91	5.22	
32	AR166006	WAR100219-99	1810	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.

page 2 of 3

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.: 10-2193  
 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	SI RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/18/10	1823	1.91	5.22
02						
03						
04						
05						
06						
07						
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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.: 10-2193

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	SI RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/18/10	0604	
02	AR166001	WAR100222-60	03/18/10	0614	
03	AR125401	WAR100219-54	03/18/10	0625	
04	AR124201	WAR100219-42	03/18/10	0635	
05	AR124801	WAR100223-48	03/18/10	0644	
06	AR126801	WAR100107-68	03/18/10	0655	
07	AR123201	WAR100104-32	03/18/10	0705	
08	AR122101	WAR100104-21	03/18/10	0716	
09	AR126201	WAR100104-62	03/18/10	0726	
10	DDTANALOGSTD	WAR091219-DD	03/18/10	0737	
11	PIBLK02	WAR100219-99	03/18/10	0747	2.27 5.91
12	ZZZZZ	ZZZZZ	03/18/10	0758	2.27 5.91
13	ZZZZZ	ZZZZZ	03/18/10	0810	2.27 5.91
14	ZZZZZ	ZZZZZ	03/18/10	0823	2.27 5.91
15	ZZZZZ	ZZZZZ	03/18/10	0836	2.27 5.91
16	ZZZZZ	ZZZZZ	03/18/10	0848	2.27 5.91
17	ZZZZZ	ZZZZZ	03/18/10	0859	2.27 5.91
18	ZZZZZ	ZZZZZ	03/18/10	0909	2.27 5.91
19	ZZZZZ	ZZZZZ	03/18/10	0920	2.27 5.91
20	ZZZZZ	ZZZZZ	03/18/10	0931	2.27 5.91
21	ZZZZZ	ZZZZZ	03/18/10	0943	2.27 5.91
22	AR166002	WAR100222-60	03/18/10	0956	2.27 5.91
23	AR166003	WAR100222-60	03/18/10	1006	2.27 5.91
24	ZZZZZ	ZZZZZ	03/18/10	1017	2.27 5.91
25	ZZZZZ	ZZZZZ	03/18/10	1027	2.27 5.91
26	ZZZZZ	ZZZZZ	03/18/10	1038	2.27 5.91
27	ZZZZZ	ZZZZZ	03/18/10	1048	2.27 5.91
28	ZZZZZ	ZZZZZ	03/18/10	1059	2.27 5.91
29	ZZZZZ	ZZZZZ	03/18/10	1109	2.27 5.91
30	ZZZZZ	ZZZZZ	03/18/10	1120	2.27 5.91
31	ZZZZZ	ZZZZZ	03/18/10	1130	2.27 5.91
32	ZZZZZ	ZZZZZ	03/18/10	1141	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.

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.: 10-2193

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	ZZZZZ	03/18/10	1154	2.27		5.91
02	AR166004	03/18/10	1206	2.27		5.91
03	PIBLK03	03/18/10	1217	2.27		5.91
04	ZZZZZ	03/18/10	1227	2.27		5.91
05	PBLK01	03/18/10	1238	2.27		5.91
06	PBLK01LCS	03/18/10	1248	2.27		5.91
07	ZZZZZ	03/18/10	1259	2.27		5.91
08	ZZZZZ	03/18/10	1311	2.27		5.91
09	ZZZZZ	03/18/10	1324	2.27		5.91
10	ZZZZZ	03/18/10	1337	2.27		5.91
11	ZZZZZ	03/18/10	1349	2.27		5.91
12	ZZZZZ	03/18/10	1402	2.27		5.91
13	ZZZZZ	03/18/10	1415	2.27		5.91
14	AR166005	03/18/10	1427	2.27		5.91
15	PIBLK04	03/18/10	1438	2.27		5.91
16	ZZZZZ	03/18/10	1448	2.27		5.91
17	ZZZZZ	03/18/10	1501	2.27		5.91
18	ZZZZZ	03/18/10	1513	2.27		5.91
19	ZZZZZ	03/18/10	1526	2.27		5.91
20	ZZZZZ	03/18/10	1539	2.27		5.91
21	ZZZZZ	03/18/10	1551	2.27		5.91
22	ZZZZZ	03/18/10	1604	2.27		5.91
23	ZZZZZ	03/18/10	1616	2.27		5.91
24	AR166006	03/18/10	1629	2.27		5.91
25	PIBLK05	03/18/10	1642	2.27		5.91
26	RE36-10-7407	03/18/10	1654	2.27		5.91
27	RE36-10-7407MS	03/18/10	1707	2.27		5.91
28	RE36-10-7407MSD	03/18/10	1720	2.27		5.91
29	ZZZZZ	03/18/10	1732	2.27		5.91
30	RE36-10-7422	03/18/10	1745	2.27		5.91
31	AR166007	03/18/10	1757	2.27		5.91
32	PIBLK06	03/18/10	1810	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.

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.: 10-2193

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	03/22/10	0652	1.91	5.21	
02	AR166001	WAR100222-60	03/22/10	0702	1.91	5.22	
03	AR125401	WAR100219-54	03/22/10	0713			
04	AR124201	WAR100219-42	03/22/10	0723			
05	AR124801	WAR100223-48	03/22/10	0734			
06	AR126801	WAR100107-68	03/22/10	0744			
07	AR123201	WAR100104-32	03/22/10	0755			
08	AR122101	WAR100104-21	03/22/10	0805			
09	AR126201	WAR100104-62	03/22/10	0816			
10	DDTANALOGSTD	WAR091219-DD	03/22/10	0826			
11	PIBLK02	WAR100219-99	03/22/10	0837	1.91	5.22	
12	ZZZZZ	ZZZZZ	03/22/10	0847	1.91	5.22	
13	ZZZZZ	ZZZZZ	03/22/10	0858	1.91	5.22	
14	ZZZZZ	ZZZZZ	03/22/10	0908	1.91	5.22	
15	ZZZZZ	ZZZZZ	03/22/10	0921	1.91	5.22	
16	ZZZZZ	ZZZZZ	03/22/10	0933	1.91	5.21	
17	ZZZZZ	ZZZZZ	03/22/10	0946	1.91	5.21	
18	ZZZZZ	ZZZZZ	03/22/10	0959	1.92	5.21	
19	ZZZZZ	ZZZZZ	03/22/10	1011	1.91	5.21	
20	ZZZZZ	ZZZZZ	03/22/10	1024	1.91	5.21	
21	ZZZZZ	ZZZZZ	03/22/10	1036	1.91	5.21	
22	AR166002	WAR100222-60	03/22/10	1049	1.91	5.21	
23	PIBLK03	WAR100219-99	03/22/10	1100	1.91	5.22	
24	ZZZZZ	ZZZZZ	03/22/10	1110	1.91	5.21	
25	ZZZZZ	ZZZZZ	03/22/10	1123	1.91	5.21	
26	ZZZZZ	ZZZZZ	03/22/10	1135	1.91	5.21	
27	ZZZZZ	ZZZZZ	03/22/10	1148	1.91	5.21	
28	ZZZZZ	ZZZZZ	03/22/10	1201	1.91	5.21	
29	ZZZZZ	ZZZZZ	03/22/10	1213	1.91	5.21	
30	ZZZZZ	ZZZZZ	03/22/10	1226	1.91	5.21	
31	ZZZZZ	ZZZZZ	03/22/10	1239	1.91	5.21	
32	ZZZZZ	ZZZZZ	03/22/10	1251	1.91	5.21	

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.: 10-2193

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	SI RT	#	DCB RT
01	AR166003	WAR100222-60	03/22/10	1304	1.91	5.22
02	PIBLK04	WAR100219-99	03/22/10	1314	1.91	5.22
03	ZZZZZ	ZZZZZ	03/22/10	1325	1.91	5.22
04	ZZZZZ	ZZZZZ	03/22/10	1337	1.91	5.22
05	ZZZZZ	ZZZZZ	03/22/10	1350	1.91	5.21
06	ZZZZZ	ZZZZZ	03/22/10	1403	1.91	5.21
07	AR166005	WAR100222-60	03/22/10	1415	1.91	5.21
08	PIBLK06	WAR100219-99	03/22/10	1426	1.91	5.22
09	PBLK02	1202076239	03/22/10	1436	1.91	5.22
10	PBLK02LCS	1202076240	03/22/10	1449	1.91	5.21
11	RE36-10-7421	248506002	03/22/10	1501	1.91	5.21
12	ZZZZZ	ZZZZZ	03/22/10	1514	1.91	5.21
13	ZZZZZ	ZZZZZ	03/22/10	1527	1.91	5.21
14	ZZZZZ	ZZZZZ	03/22/10	1539	1.91	5.21
15	ZZZZZ	ZZZZZ	03/22/10	1552	1.91	5.21
16	ZZZZZ	ZZZZZ	03/22/10	1605	1.91	5.21
17	ZZZZZ	ZZZZZ	03/22/10	1617	1.91	5.21
18	ZZZZZ	ZZZZZ	03/22/10	1630	1.91	5.21
19	AR166006	WAR100222-60	03/22/10	1642	1.91	5.21
20	PIBLK07	WAR100219-99	03/22/10	1655	1.91	5.21
21	ZZZZZ	ZZZZZ	03/22/10	1708	1.91	5.21
22	ZZZZZ	ZZZZZ	03/22/10	1720	1.91	5.21
23	ZZZZZ	ZZZZZ	03/22/10	1733	1.91	5.22
24	ZZZZZ	ZZZZZ	03/22/10	1745	1.91	5.21
25	ZZZZZ	ZZZZZ	03/22/10	1758	1.91	5.21
26	ZZZZZ	ZZZZZ	03/22/10	1811	1.91	5.21
27	AR166007	WAR100222-60	03/22/10	1823	1.91	5.22
28	PIBLK08	WAR100219-99	03/22/10	1836	1.91	5.21
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.: 10-2193

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	03/22/10	0652	
02	AR166001	WAR100222-60	03/22/10	0702	
03	AR125401	WAR100219-54	03/22/10	0713	
04	AR124201	WAR100219-42	03/22/10	0723	
05	AR124801	WAR100223-48	03/22/10	0734	
06	AR126801	WAR100107-68	03/22/10	0744	
07	AR123201	WAR100104-32	03/22/10	0755	
08	AR122101	WAR100104-21	03/22/10	0805	
09	AR126201	WAR100104-62	03/22/10	0816	
10	DDTANALOGSTD	WAR091219-DD	03/22/10	0826	
11	PIBLK02	WAR100219-99	03/22/10	0837	
12	ZZZZZ	ZZZZZ	03/22/10	0847	
13	ZZZZZ	ZZZZZ	03/22/10	0858	
14	ZZZZZ	ZZZZZ	03/22/10	0908	
15	ZZZZZ	ZZZZZ	03/22/10	0921	
16	ZZZZZ	ZZZZZ	03/22/10	0933	
17	ZZZZZ	ZZZZZ	03/22/10	0946	
18	ZZZZZ	ZZZZZ	03/22/10	0959	
19	ZZZZZ	ZZZZZ	03/22/10	1011	
20	ZZZZZ	ZZZZZ	03/22/10	1024	
21	ZZZZZ	ZZZZZ	03/22/10	1036	
22	AR166002	WAR100222-60	03/22/10	1049	
23	PIBLK03	WAR100219-99	03/22/10	1100	
24	ZZZZZ	ZZZZZ	03/22/10	1110	
25	ZZZZZ	ZZZZZ	03/22/10	1123	
26	ZZZZZ	ZZZZZ	03/22/10	1135	
27	ZZZZZ	ZZZZZ	03/22/10	1148	
28	ZZZZZ	ZZZZZ	03/22/10	1201	
29	ZZZZZ	ZZZZZ	03/22/10	1213	
30	ZZZZZ	ZZZZZ	03/22/10	1226	
31	ZZZZZ	ZZZZZ	03/22/10	1239	
32	ZZZZZ	ZZZZZ	03/22/10	1251	

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.: 10-2193

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	SI RT	#	DCB RT
01	AR166003	WAR100222-60	03/22/10	1304	2.27	5.91
02	PIBLK04	WAR100219-99	03/22/10	1314	2.27	5.91
03	ZZZZZ	ZZZZZ	03/22/10	1325	2.27	5.91
04	ZZZZZ	ZZZZZ	03/22/10	1337	2.27	5.91
05	ZZZZZ	ZZZZZ	03/22/10	1350	2.27	5.91
06	ZZZZZ	ZZZZZ	03/22/10	1403	2.27	5.91
07	AR166005	WAR100222-60	03/22/10	1415	2.27	5.91
08	PIBLK06	WAR100219-99	03/22/10	1426	2.27	5.91
09	PBLK02	1202076239	03/22/10	1436	2.27	5.91
10	PBLK01LCS	1202076240	03/22/10	1449	2.27	5.91
11	RE36-10-7421	248506002	03/22/10	1501	2.27	5.91
12	ZZZZZ	ZZZZZ	03/22/10	1514	2.27	5.91
13	ZZZZZ	ZZZZZ	03/22/10	1527	2.27	5.91
14	ZZZZZ	ZZZZZ	03/22/10	1539	2.27	5.91
15	ZZZZZ	ZZZZZ	03/22/10	1552	2.27	5.91
16	ZZZZZ	ZZZZZ	03/22/10	1605	2.27	5.91
17	ZZZZZ	ZZZZZ	03/22/10	1617	2.27	5.91
18	ZZZZZ	ZZZZZ	03/22/10	1630	2.27	5.91
19	AR166006	WAR100222-60	03/22/10	1642	2.27	5.91
20	PIBLK07	WAR100219-99	03/22/10	1655	2.27	5.91
21	ZZZZZ	ZZZZZ	03/22/10	1708	2.27	5.91
22	ZZZZZ	ZZZZZ	03/22/10	1720	2.27	5.91
23	ZZZZZ	ZZZZZ	03/22/10	1733	2.27	5.91
24	ZZZZZ	ZZZZZ	03/22/10	1745	2.27	5.91
25	ZZZZZ	ZZZZZ	03/22/10	1758	2.27	5.91
26	ZZZZZ	ZZZZZ	03/22/10	1811	2.27	5.91
27	AR166007	WAR100222-60	03/22/10	1823	2.27	5.91
28	PIBLK08	WAR100219-99	03/22/10	1836	2.27	5.91
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.



## Identification Summary

Page 1 of 1

SDG Number: 10-2193

Client ID: LCS for batch 965974

Lab Sample ID: 1202072979

Data File: 038f3801.d

Data File: 038b3801.d

Inst: ECD1A.I\_1

Inst: ECD1A.J\_2

Column: CLP1

Column: CLP2

Analyzed: 18-MAR-10 12:48

Analyzed: 18-MAR-10 12:48

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							1.28
Column 1	1	2.36	2.33 - 2.39	23.5		ug/kg	
	2	2.65	2.62 - 2.68	23.1		ug/kg	
	3	2.73	2.7 - 2.76	22.8		ug/kg	
	4	2.77	2.74 - 2.8	23		ug/kg	
	5	2.98	2.95 - 3.01	23.2		ug/kg	
					23.1		
Column 2	1	3.17	3.13 - 3.19	23.6		ug/kg	
	2	3.25	3.22 - 3.28	23.5		ug/kg	
	3	3.31	3.28 - 3.34	22.9		ug/kg	
	4	3.54	3.51 - 3.57	23.7		ug/kg	
	5	3.61	3.58 - 3.64	23.4		ug/kg	
					23.4		
Aroclor-1260							.866
Column 1	1	3.71	3.67 - 3.73	25.8		ug/kg	
	2	3.87	3.84 - 3.9	26		ug/kg	
	3	4.03	4 - 4.06	26.4		ug/kg	
	4	4.1	4.07 - 4.13	26.3		ug/kg	
	5	4.24	4.21 - 4.27	26.3		ug/kg	
					26.1		
Column 2	1	4.31	4.27 - 4.33	25.4		ug/kg	
	2	4.43	4.4 - 4.46	26.2		ug/kg	
	3	4.7	4.66 - 4.72	26.2		ug/kg	
	4	4.87	4.84 - 4.9	26.4		ug/kg	
	5	5.02	4.98 - 5.04	27.6		ug/kg	
					26.4		

## Identification Summary

Page 1 of 1

SDG Number: 10-2193

Client ID: LCS for batch 967352

Lab Sample ID: 1202076240

Data File: 042f4201.d

Data File: 042b4201.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 22-MAR-10 14:49

Analyzed: 22-MAR-10 14:49

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							2.13
Column 1	1	2.36	2.33 - 2.39	26.9		ug/kg	
	2	2.65	2.62 - 2.68	26.9		ug/kg	
	3	2.73	2.7 - 2.76	26.3		ug/kg	
	4	2.77	2.74 - 2.8	27.1		ug/kg	
	5	2.98	2.95 - 3.01	26.4		ug/kg	
					26.7		
Column 2	1	3.16	3.13 - 3.19	26.8		ug/kg	
	2	3.25	3.22 - 3.28	25.3		ug/kg	
	3	3.31	3.28 - 3.34	25.4		ug/kg	
	4	3.54	3.51 - 3.57	26.8		ug/kg	
	5	3.61	3.58 - 3.64	26.4		ug/kg	
					26.2		
Aroclor-1260							2.25
Column 1	1	3.7	3.67 - 3.73	29		ug/kg	
	2	3.87	3.84 - 3.9	30.9		ug/kg	
	3	4.03	4 - 4.06	31.4		ug/kg	
	4	4.1	4.07 - 4.13	31.1		ug/kg	
	5	4.24	4.21 - 4.27	20.5		ug/kg	
					28.6		
Column 2	1	4.3	4.27 - 4.33	28.2		ug/kg	
	2	4.43	4.4 - 4.46	29.4		ug/kg	
	3	4.69	4.66 - 4.72	28.8		ug/kg	
	4	4.87	4.84 - 4.9	29		ug/kg	
	5	5.01	4.98 - 5.04	30.5		ug/kg	
					29.2		

## Identification Summary

Page 1 of 1

SDG Number: 10-2193

Client ID: RE36-10-7407

Lab Sample ID: 248506001

Data File: 058f5801.d

Data File: 058b5801.d

Inst: ECD1A.I\_1

Inst: ECD1A.J\_2

Column: CLP1

Column: CLP2

Analyzed: 18-MAR-10 16:54

Analyzed: 18-MAR-10 16:54

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							36.7
Column 1	1	3.21	3.18 - 3.24	10.1		ug/kg	
	2	3.36	3.33 - 3.39	14.7		ug/kg	
	3	3.59	3.57 - 3.63	15.7		ug/kg	
	4	3.76	3.73 - 3.79	21.4		ug/kg	
	5	3.86	3.84 - 3.9	30.7		ug/kg	
					18.5		
Column 2	1	3.37	3.34 - 3.4	3.46		ug/kg	
	2	3.79	3.76 - 3.82	9.16		ug/kg	
	3	3.91	3.88 - 3.94	16.5		ug/kg	
	4	4.19	4.16 - 4.22	16.3		ug/kg	
	5	4.32	4.29 - 4.35	18.4		ug/kg	
					12.8		
Aroclor-1260							27.7
Column 1	1	3.7	3.67 - 3.73	14.4		ug/kg	
	2	3.86	3.84 - 3.9	18.2		ug/kg	
	3	4.03	4 - 4.06	26.4		ug/kg	
	4	4.09	4.07 - 4.13	4.42		ug/kg	
	5	4.24	4.21 - 4.27	1.84		ug/kg	
					13		
Column 2	1	4.3	4.27 - 4.33	18.7		ug/kg	
	2	4.43	4.4 - 4.46	17.5		ug/kg	
	3	4.69	4.66 - 4.72	6.32		ug/kg	
	4	4.87	4.84 - 4.9	3.4		ug/kg	
	5	5.01	4.98 - 5.04	3.46		ug/kg	
					9.87		

## Identification Summary

Page 1 of 2

SDG Number: 10-2193

Client ID: RE36-10-7407MS

Lab Sample ID: 1202072980

Data File: 059f5901.d

Data File: 059b5901.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 18-MAR-10 17:07

Analyzed: 18-MAR-10 17:07

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
<b>Aroclor-1016</b>							5.49
<i>Column 1</i>	1	2.36	2.33 - 2.39	25.2		ug/kg	
	2	2.65	2.62 - 2.68	23.2		ug/kg	
	3	2.73	2.7 - 2.76	18.4		ug/kg	
	4	2.77	2.74 - 2.8	18.9		ug/kg	
	5	2.98	2.95 - 3.01	21.8		ug/kg	
					21.5		
<i>Column 2</i>	1	3.16	3.13 - 3.19	22.5		ug/kg	
	2	3.25	3.22 - 3.28	23.9		ug/kg	
	3	3.31	3.28 - 3.34	23.8		ug/kg	
	4	3.54	3.51 - 3.57	26.6		ug/kg	
	5	3.61	3.58 - 3.64	16.9		ug/kg	
					22.7		
<b>Aroclor-1254</b>							35.9
<i>Column 1</i>	1	3.21	3.18 - 3.24	20.5		ug/kg	
	2	3.36	3.33 - 3.39	21.7		ug/kg	
	3	3.59	3.57 - 3.63	17.2		ug/kg	
	4	3.76	3.73 - 3.79	21.1		ug/kg	
	5	3.86	3.84 - 3.9	67		ug/kg	
					29.5		
<i>Column 2</i>	1	3.37	3.34 - 3.4	21.6		ug/kg	
	2	3.79	3.76 - 3.82	22.7		ug/kg	
	3	3.91	3.88 - 3.94	23.1		ug/kg	
	4	4.19	4.16 - 4.22	18.4		ug/kg	
	5	4.32	4.29 - 4.35	16.9		ug/kg	
					20.5		

## Identification Summary

Page 2 of 2

SDG Number: 10-2193

Client ID: RE36-10-7407MS

Lab Sample ID: 1202072980

Data File: 059f5901.d

Data File: 059b5901.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 18-MAR-10 17:07

Analyzed: 18-MAR-10 17:07

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1260							2.74
Column 1	1	3.7	3.67 - 3.73	38.1		ug/kg	
	2	3.86	3.84 - 3.9	39.8		ug/kg	
	3	4.03	4 - 4.06	38.3		ug/kg	
	4	4.09	4.07 - 4.13	28.2		ug/kg	
	5	4.24	4.21 - 4.27	23.7		ug/kg	
					33.6		
Column 2	1	4.3	4.27 - 4.33	41.8		ug/kg	
	2	4.43	4.4 - 4.46	39.1		ug/kg	
	3	4.69	4.66 - 4.72	32.6		ug/kg	
	4	4.87	4.84 - 4.9	29.1		ug/kg	
	5	5.01	4.98 - 5.04	30.1		ug/kg	
					34.6		

## Identification Summary

Page 1 of 2

SDG Number: 10-2193

Client ID: RE36-10-7407MSD

Lab Sample ID: 1202072981

Data File: 060f6001.d

Data File: 060b6001.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 18-MAR-10 17:20

Analyzed: 18-MAR-10 17:20

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							5.89
Column 1	1	2.36	2.33 - 2.39	23.4	20.6	ug/kg	
	2	2.65	2.62 - 2.68	22.7		ug/kg	
	3	2.73	2.7 - 2.76	18.9		ug/kg	
	4	2.77	2.74 - 2.8	17.7		ug/kg	
	5	2.98	2.95 - 3.01	20.1		ug/kg	
Column 2	1	3.16	3.13 - 3.19	21.1	21.8	ug/kg	
	2	3.25	3.22 - 3.28	21.8		ug/kg	
	3	3.31	3.28 - 3.34	23.7		ug/kg	
	4	3.54	3.51 - 3.57	25.3		ug/kg	
	5	3.61	3.58 - 3.64	17.1		ug/kg	
Aroclor-1254							46.4
Column 1	1	3.21	3.18 - 3.24	20.3	32.8	ug/kg	
	2	3.36	3.33 - 3.39	22.4		ug/kg	
	3	3.59	3.57 - 3.63	17.8		ug/kg	
	4	3.76	3.73 - 3.79	34.9		ug/kg	
	5	3.86	3.84 - 3.9	68.6		ug/kg	
Column 2	1	3.37	3.34 - 3.4	20	20.4	ug/kg	
	2	3.79	3.76 - 3.82	22.3		ug/kg	
	3	3.91	3.88 - 3.94	23.3		ug/kg	
	4	4.19	4.16 - 4.22	18.4		ug/kg	
	5	4.32	4.29 - 4.35	18.3		ug/kg	

## Identification Summary

Page 2 of 2

SDG Number: 10-2193

Client ID: RE36-10-7407MSD

Lab Sample ID: 1202072981

Data File: 060f6001.d

Data File: 060b6001.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 18-MAR-10 17:20

Analyzed: 18-MAR-10 17:20

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1260							2.49
Column 1	1	3.7	3.67 - 3.73	38.5		ug/kg	
	2	3.86	3.84 - 3.9	40.7		ug/kg	
	3	4.03	4 - 4.06	40.5		ug/kg	
	4	4.1	4.07 - 4.13	29.9		ug/kg	
	5	4.24	4.21 - 4.27	24		ug/kg	
					34.7		
Column 2	1	4.3	4.27 - 4.33	40.2		ug/kg	
	2	4.43	4.4 - 4.46	39.4		ug/kg	
	3	4.69	4.66 - 4.72	32.3		ug/kg	
	4	4.87	4.84 - 4.9	27.8		ug/kg	
	5	5.01	4.98 - 5.04	29.8		ug/kg	
					33.9		

## Identification Summary

Page 1 of 1

SDG Number: 10-2193

Client ID: RE36-10-7421

Lab Sample ID: 248506002

Data File: 043f4301.d

Data File: 043b4301.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 22-MAR-10 15:01

Analyzed: 22-MAR-10 15:01

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							36.3
Column 1	1	3.21	3.18 – 3.24	28.4	44.4	ug/kg	
	2	3.36	3.33 – 3.39	36.7		ug/kg	
	3	3.59	3.57 – 3.63	41.5		ug/kg	
	4	3.76	3.73 – 3.79	44.3		ug/kg	
	5	3.87	3.84 – 3.9	71.1		ug/kg	
Column 2	1	3.37	3.34 – 3.4	10.7	30.7	ug/kg	
	2	3.79	3.76 – 3.82	25.9		ug/kg	
	3	3.91	3.88 – 3.94	37.3		ug/kg	
	4	4.19	4.16 – 4.22	39.1		ug/kg	
	5	4.32	4.29 – 4.35	40.6		ug/kg	
Aroclor-1260							28.3
Column 1	1	3.7	3.67 – 3.73	34.2	34	ug/kg	
	2	3.87	3.84 – 3.9	42.2		ug/kg	
	3	4.03	4 – 4.06	62.5		ug/kg	
	4	4.09	4.07 – 4.13	17.8		ug/kg	
	5	4.24	4.21 – 4.27	13.5		ug/kg	
Column 2	1	4.3	4.27 – 4.33	39.8	25.6	ug/kg	
	2	4.43	4.4 – 4.46	37.7		ug/kg	
	3	4.69	4.66 – 4.72	21.5		ug/kg	
	4	4.87	4.84 – 4.9	12		ug/kg	
	5	5.01	4.98 – 5.04	17.1		ug/kg	



## Identification Summary

Page 1 of 1

SDG Number: 10-2193

Client ID: RE36-10-7422

Lab Sample ID: 248506003

Data File: 062f6201.d

Data File: 062b6201.d

Inst: ECD1A.I\_1

Inst: ECD1A.I\_2

Column: CLP1

Column: CLP2

Analyzed: 18-MAR-10 17:45

Analyzed: 18-MAR-10 17:45

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							28.1
Column 1	1	3.21	3.18 - 3.24	2.82		ug/kg	
	2	3.36	3.33 - 3.39	3.55		ug/kg	
	3	3.6	3.57 - 3.63	3.83		ug/kg	
	4	3.76	3.73 - 3.79	3.93		ug/kg	
	5	3.87	3.84 - 3.9	7.36		ug/kg	
					4.3		
Column 2	1	3.37	3.34 - 3.4	1.57		ug/kg	
	2	3.79	3.76 - 3.82	3.09		ug/kg	
	3	3.91	3.88 - 3.94	3.83		ug/kg	
	4	4.19	4.16 - 4.22	3.92		ug/kg	
	5	4.32	4.29 - 4.35	3.79		ug/kg	
					3.24		
Aroclor-1260							15.9
Column 1	1	3.7	3.67 - 3.73	3.48		ug/kg	
	2	3.87	3.84 - 3.9	4.37		ug/kg	
	3	4.03	4 - 4.06	5.31		ug/kg	
	4	4.1	4.07 - 4.13	1.52		ug/kg	
	5	4.24	4.21 - 4.27	.754		ug/kg	
					3.09		
Column 2	1	4.3	4.27 - 4.33	3.83		ug/kg	
	2	4.43	4.4 - 4.46	4.02		ug/kg	
	3	4.7	4.66 - 4.72	2.13		ug/kg	
	4	4.87	4.84 - 4.9	1.28		ug/kg	
	5	5.02	4.98 - 5.04	1.91		ug/kg	
					2.63		

# QUALITY CONTROL DATA

**PCB**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number:	10-2193	Matrix:	SOIL
Lab Sample ID:	1202072978		
Client Sample:	QC for batch 965974	Client:	LANL010
Client ID:	MB for batch 965974	Method:	SW846 8082
Batch ID:	965975	Inst:	ECD1A.1
Run Date:	03/18/2010 12:38	Analyst:	YS1
Prep Date:	03/17/2010 11:22	Aliquot:	30 g
Data File:	037f3701-1.d	Column:	1 CLP1
	037b3701-1.d		2 CLP2

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

Data File: /chem/ecdla.i/031810.b/037f3701-3.d  
Report Date: 18-Mar-2010 14:38

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/031810.b/037f3701-3.d  
Lab Smp Id: 1202072978 Client Smp ID: PBLK01  
Inj Date : 18-MAR-2010 12:38  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |1202072978|1|  
Misc Info : |ECD82P\_1S|965975|SVA|QC A|SOIL|MB|||  
Comment :  
Method : /chem/ecdla.i/031810.b/ECD1-F-8082-031110b.m  
Meth Date : 18-Mar-2010 12:22 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 37 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2193.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpc1p1

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx				CAS #: 877-09-8		
1.912	1.910	0.002	57707675 148.150	4.9	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3		
5.218	5.215	0.003	40090437 135.016	4.5	80.00- 120.00	100.00
-----						

Data File: /chem/eod1a.i/031810.b/0373701-3.d

Date: 18-Mar-2010 12:38

Client ID: PLK01

Sample Info: 1202072978111

Volume Injected (uL): 1.0

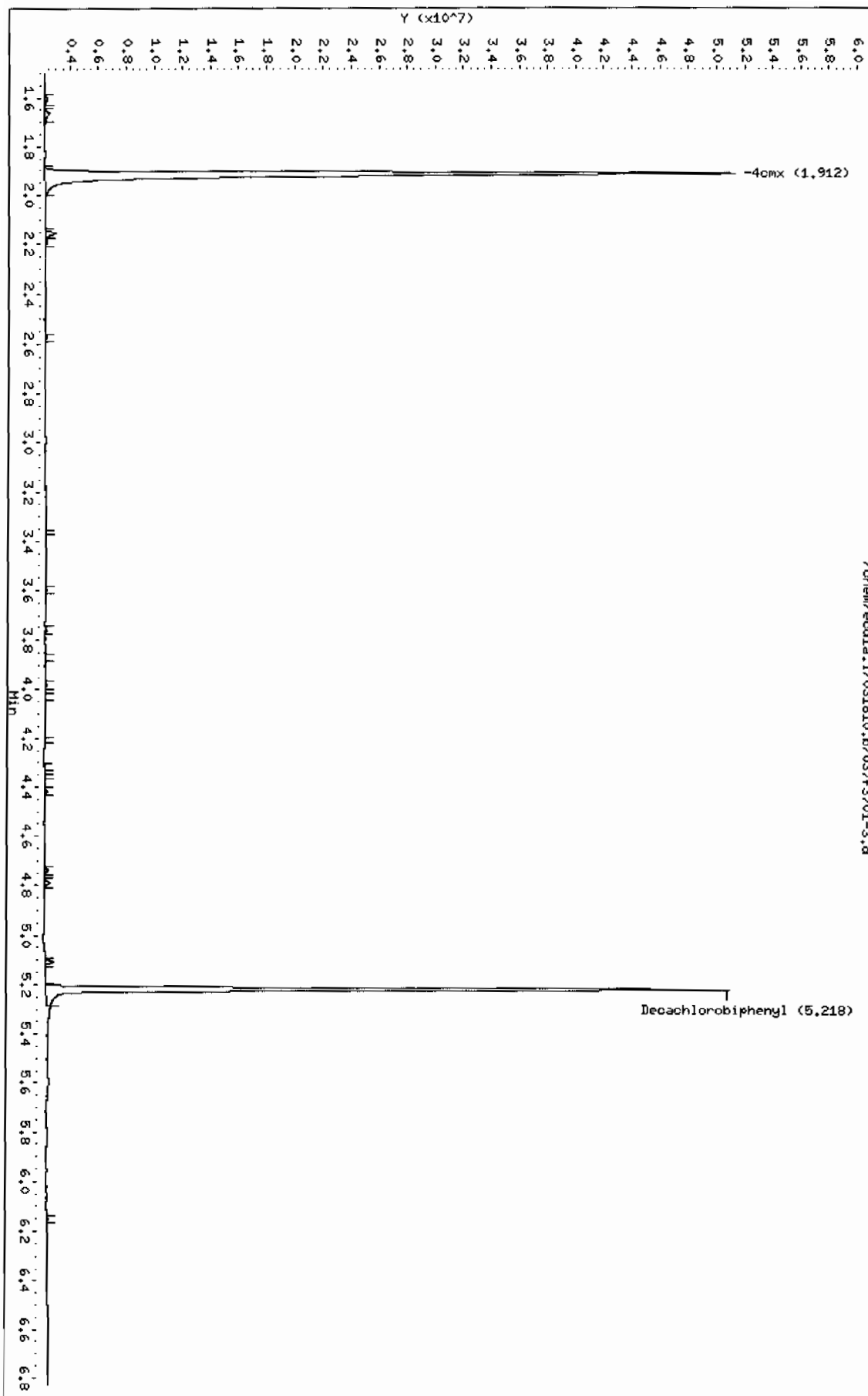
Column phase: CLP1

Instrument: eod1a.i

Operator: YSI

Column diameter: 0.25

/chem/eod1a.i/031810.b/0373701-3.d



Data File: /chem/ecdla.i/031810.b/037b3701-3.d  
Report Date: 18-Mar-2010 14:37

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecdla.i/031810.b/037b3701-3.d  
Lab Smp Id: 1202072978 Client Smp ID: PBLK01  
Inj Date : 18-MAR-2010 12:38  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |1202072978|1|  
Misc Info : |ECD82P\_1S|965975|SVA|QC A|SOIL|MB|||  
Comment :  
Method : /chem/ecdla.i/031810.b/ECD1-B-8082-031110b.m  
Meth Date : 18-Mar-2010 12:22 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 37 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2193.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						
2.270	2.269	0.001	38897489	148.275	4.9 80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3						
5.912	5.912	0.000	29115254	155.552	5.2 80.00- 120.00	100.00
-----						

Data File: /chem/ecod1a.i/031810.b/037b3701-3.d

Date: 18-MAR-2010 12:38

Client ID: PLK01

Sample Info: 1120207297811

Volume Injected (uL): 1.0

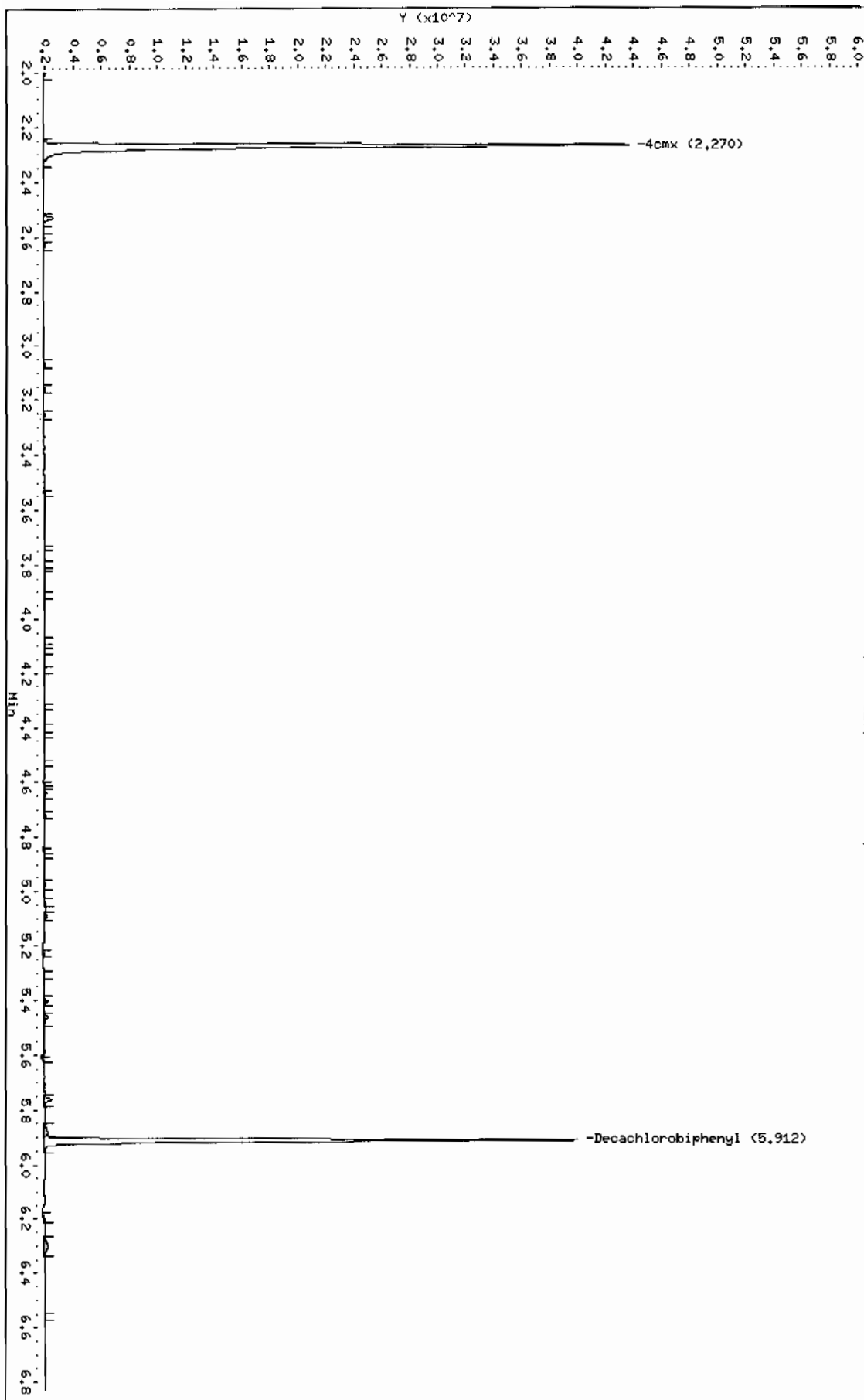
Column phase: CLP2

Instrument: ecod1a.i

Operator: YSL

Column diameter: 0.25

/chem/ecod1a.i/031810.b/037b3701-3.d



**PCB**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2193

Matrix: SOIL

Lab Sample ID: 1202076239

Client Sample: QC for batch 967352

Client: LANL010

Project: QC

Client ID: MB for batch 967352

Method: SW846 8082

SOP Ref: GL-OA-E-040

Batch ID: 967354

Inst: ECD1A.I

Dilution: 1

Run Date: 03/22/2010 14:36

Analyst: YS1

Inj. Vol: 1 uL

Prep Date: 03/21/2010 11:56

Aliquot: 30 g

Final Volume: 1 mL

Data File: 041f4101-1.d

Column: 1 CLP1

Level: LOW

041b4101-1.d

2 CLP2

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/032210.b/041f4101-1.d

Lab Smp Id: 1202076239

Client Smp ID: PBLK02

Inj Date : 22-MAR-2010 14:36

Operator : YS1

Inst ID: ecdla.i

Smp Info : |1202076239|1|

Misc Info : |ECD82P\_1S|967354|SVA|QC A|SOIL|MB|||

Comment :

Method : /chem/ecdla.i/032210.b/ECD1-F-8082-031110b.m

Meth Date : 23-Mar-2010 06:36 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 41

QC Sample: BLANK

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-2193.sub

Target Version: 3.50

Sample Matrix: Soil

Processing Host: hpc1p1

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable

Local Compound Variable

CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx			CAS #: 877-09-8			
1.913	1.911	0.002	65658761	168.562	5.6 80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl			CAS #: 2051-24-3			
5.215	5.216	-0.001	49873986	167.965	5.6 80.00 120.00	100.00
-----						

Data File: /chem/eod1a.i/032210.b/041f4101-1.d

Date: 22-MAR-2010 14:36

Client ID: PBLK02

Sample Info: 1120207623911

Volume Injected (uL): 1.0

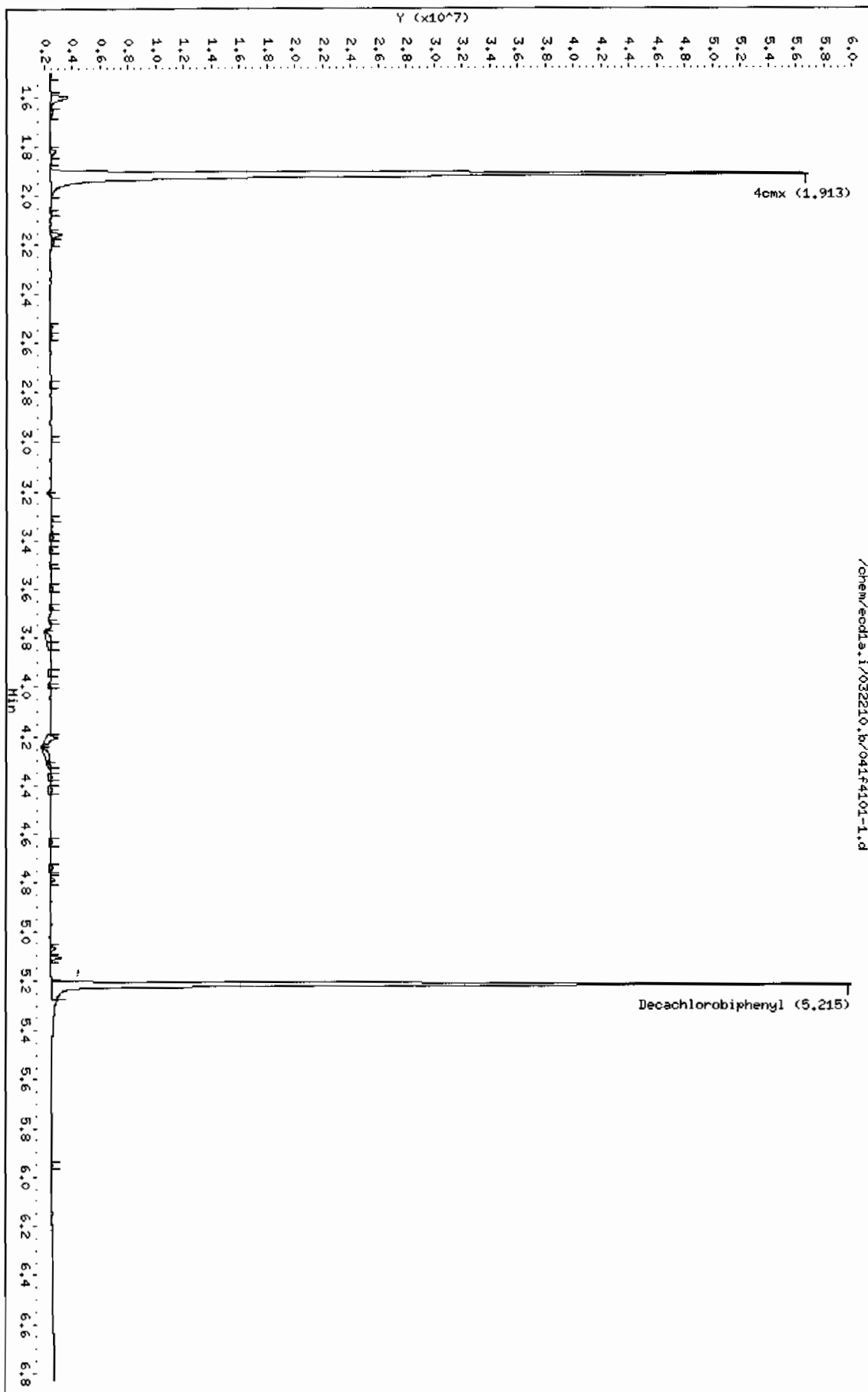
Column phase: CLP1

Instrument: eod1a.i

Operator: YSL

Column diameter: 0.25

Page 1



Data File: /chem/ecdl1a.i/032210.b/041b4101-1.d  
Report Date: 23-Mar-2010 08:54

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecdl1a.i/032210.b/041b4101-1.d  
Lab Smp Id: 1202076239 Client Smp ID: PBLK02  
Inj Date : 22-MAR-2010 14:36  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |1202076239|1|  
Misc Info : |ECD82P\_1S|967354|SVA|QC A|SOIL|MB|||  
Comment :  
Method : /chem/ecdl1a.i/032210.b/ECD1-B-8082-031110b.m  
Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 41 QC Sample: BLANK  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2193.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						
2.270	2.269	0.001	42038098 160.247	5.3	80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3						
5.911	5.911	0.000	31647305 169.080	5.6	80.00- 120.00	100.00
-----						

Data File: /chem/ecdl1a.i/032210.b/041b4101-1.d

Date: 22-MAR-2010 14:36

Client ID: PBLK02

Sample Info: 1120207623911

Volume Injected (uL): 1.0

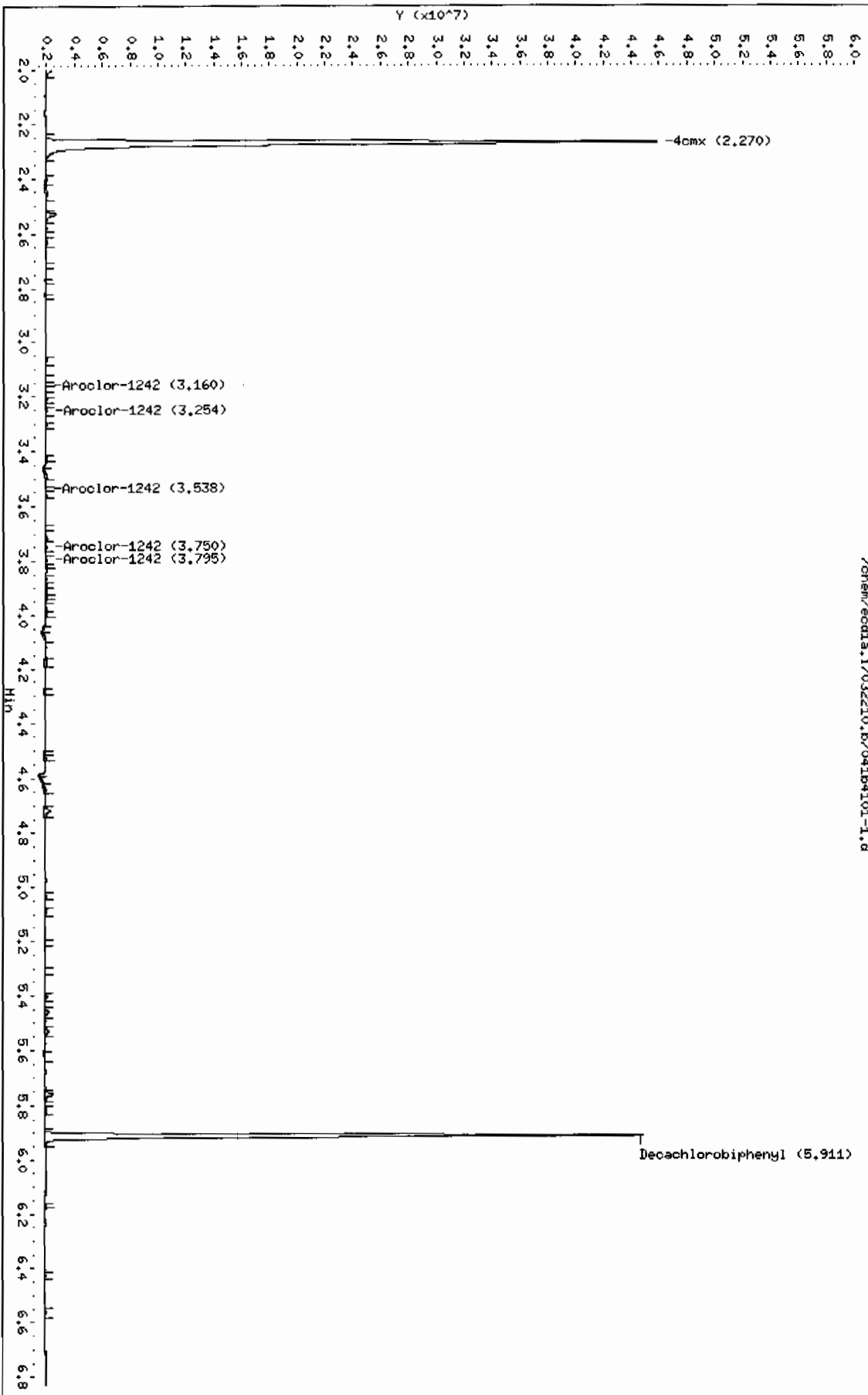
Column phase: CLP2

Instrument: ecdl1a.i

Operator: YSL

Column diameter: 0.25

Page 1



**PCB**  
**Certificate of Analysis**  
**Sample Summary**

Page 1 of 1

SDG Number:	10-2193	Matrix:	SOIL
Lab Sample ID:	1202072979		
Client Sample:	QC for batch 965974	Client:	LANL010
Client ID:	LCS for batch 965974	Method:	SW846 8082
Batch ID:	965975	Inst:	ECD1A.1
Run Date:	03/18/2010 12:48	Analyst:	YS1
Prep Date:	03/17/2010 11:22	Aliquot:	30 g
Data File:	038f3801-1.d	Column:	1 CLP1
	038b3801-1.d		2 CLP2
		Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		23.4	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		26.4	ug/kg	1.11	3.33	2

Data File: /chem/ecdl1a.i/031810.b/038f3801-3.d  
Report Date: 18-Mar-2010 14:38

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031810.b/038f3801-3.d  
Lab Smp Id: 1202072979 Client Smp ID: PBLK01LCS  
Inj Date : 18-MAR-2010 12:48  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |1202072979|1|  
Misc Info : |ECD82P\_1S|965975|SVA|QC A|SOIL|LCS|||  
Comment :  
Method : /chem/ecdl1a.i/031810.b/ECD1-F-8082-031110b.m  
Meth Date : 18-Mar-2010 12:22 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 38 QC Sample: LCS  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2193.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpclp1

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

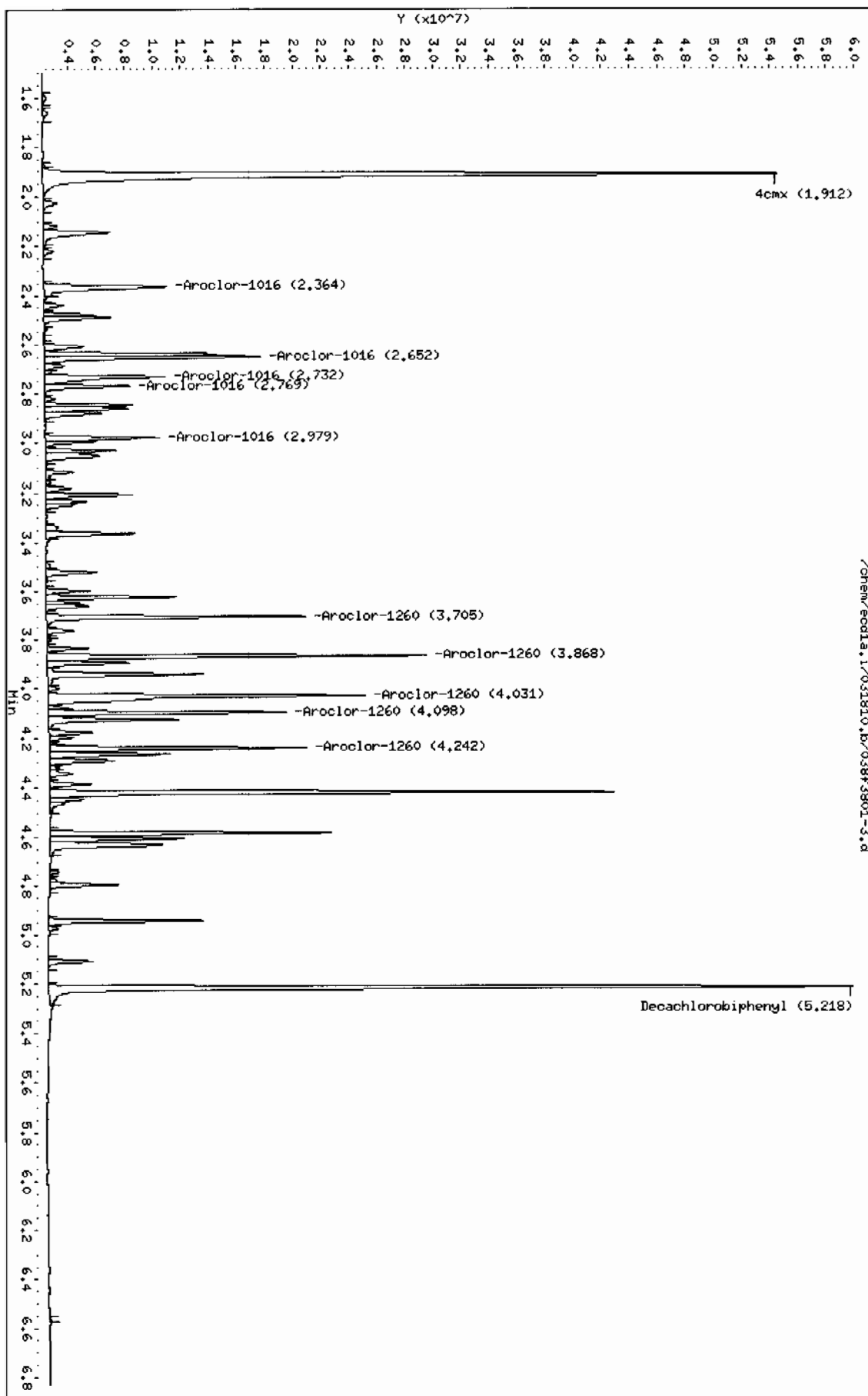
Cpnd Variable Local Compound Variable

CONCENTRATIONS							
		ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	
\$ 11 4cmx CAS #: 877-09-8							
1.912	1.910	0.002	60350567	154.935	5.2 80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3							
5.218	5.215	0.003	48369533	162.899	5.4 80.00- 120.00	100.00	
-----							
1 Aroclor-1016 CAS #: 12674-11-2							
2.364	2.364	0.000	10684070	703.974	23.5 80.00- 120.00	100.00	
2.652	2.649	0.003	13142409	694.052	23.1 107.35- 147.35	123.01	
2.732	2.730	0.002	8510347	683.993	22.8 60.10- 100.10	79.65	
2.769	2.768	0.001	5060260	688.628	23.0 27.98- 67.98	47.36	

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	6625929	696.164	23.2	40.90-	80.90	62.02
Average of Peak Concentrations =					23.1			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.705	3.704	0.001	14162568	772.640	25.8	80.00-	120.00	100.00
3.868	3.866	0.002	20952312	779.191	26.0	126.29-	166.29	147.94
4.031	4.028	0.003	22387361	790.645	26.4	137.20-	177.20	158.07
4.098	4.096	0.002	12761720	789.814	26.3	68.33-	108.33	90.11
4.242	4.239	0.003	13266492	789.077	26.3	72.58-	112.58	93.67
Average of Peak Concentrations =					26.2			
-----								

Data File: /chem/eod1a.i/031810.b/038f3801-3.d  
Date : 18-Mar-2010 12:48  
Client ID: PBLK01CS  
Sample Info: 11202072979141  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: eod1a.i  
Operator: YSL  
Column diameter: 0.25





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecdl1a.i/031810.b/038b3801-3.d  
Lab Smp Id: 1202072979 Client Smp ID: PBLK01LCS  
Inj Date : 18-MAR-2010 12:48  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |1202072979|1|  
Misc Info : |ECD82P\_1S|965975|SVA|QC A|SOIL|LCS|||  
Comment :  
Method : /chem/ecdl1a.i/031810.b/ECD1-B-8082-031110b.m  
Meth Date : 18-Mar-2010 12:22 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 38 QC Sample: LCS  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2193.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpc1pl

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

CONCENTRATIONS							
			ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	==	=====	==	=====	=====	
\$ 11 4cmx				CAS #: 877-09-8			
2.269	2.269	0.000	40510290 154.423	5.1	80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.913	5.912	0.001	30049798 160.545	5.4	80.00- 120.00	100.00	
-----							
1 Aroclor-1016				CAS #: 12674-11-2			
3.165	3.164	0.001	8894113 706.725	23.6	80.00- 120.00	100.00 (M)	
3.248	3.247	0.001	6077162 703.847	23.5	45.24- 85.24	68.33	
3.312	3.310	0.002	3634095 687.411	22.9	20.38- 60.38	40.86	
3.538	3.537	0.001	4898177 710.631	23.7	32.96- 72.96	55.07	

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	
1 Aroclor-1016 (continued)								
3.614	3.613	0.001	4514991	702.989	23.4	29.75-	69.75	50.76
Average of Peak Concentrations =					23.4			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
4.305	4.304	0.001	9984719	763.344	25.4	80.00-	120.00	100.00
4.430	4.428	0.002	12244830	787.498	26.2	101.15-	141.15	122.64
4.696	4.694	0.002	9340753	785.197	26.2	71.50-	111.50	93.55
4.869	4.867	0.002	9738392	792.434	26.4	75.17-	115.17	97.53
5.017	5.014	0.003	21828020	826.987	27.6	190.25-	230.25	218.61
Average of Peak Concentrations =					26.4			

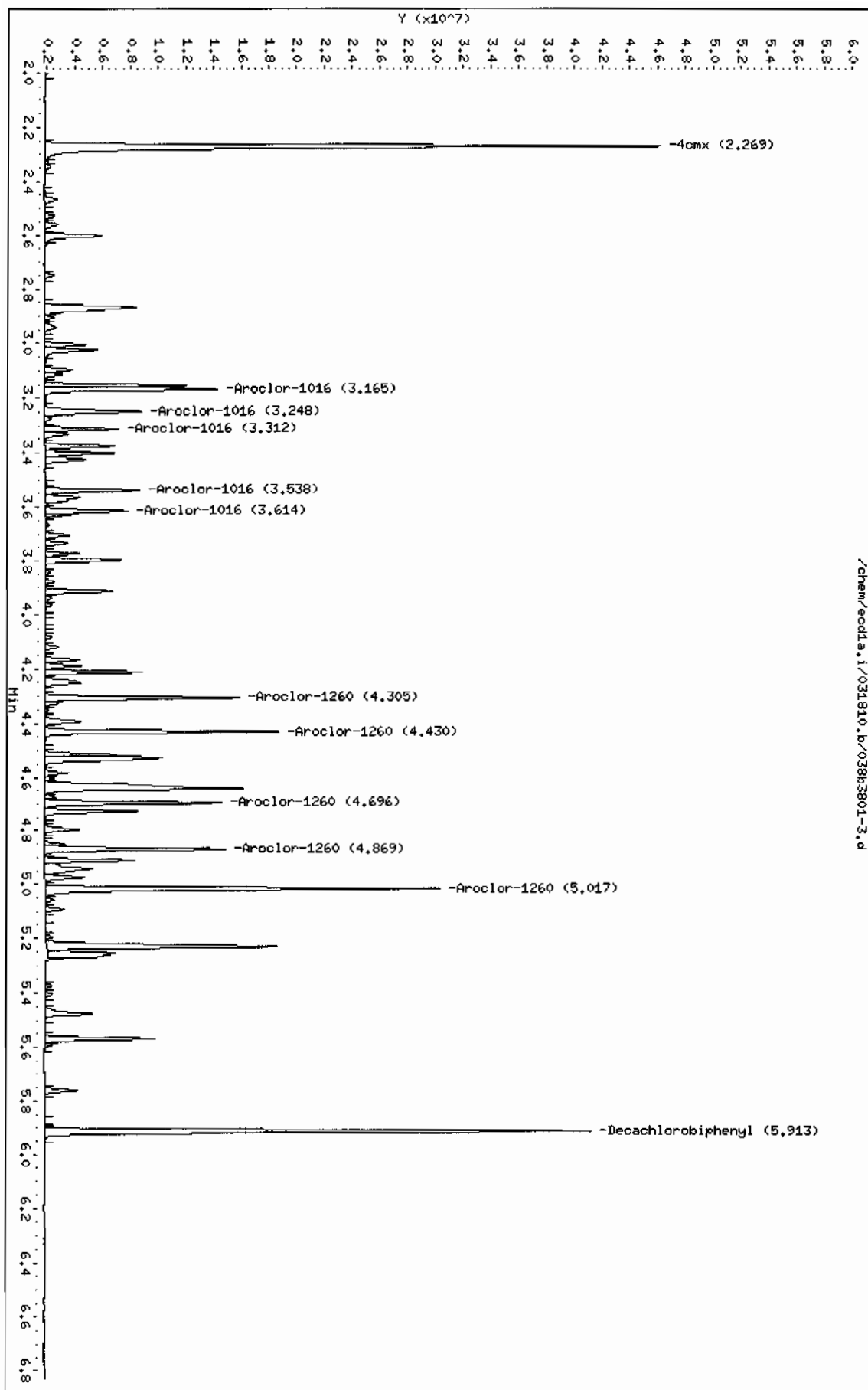
#### QC Flag Legend

M - Compound response manually integrated.

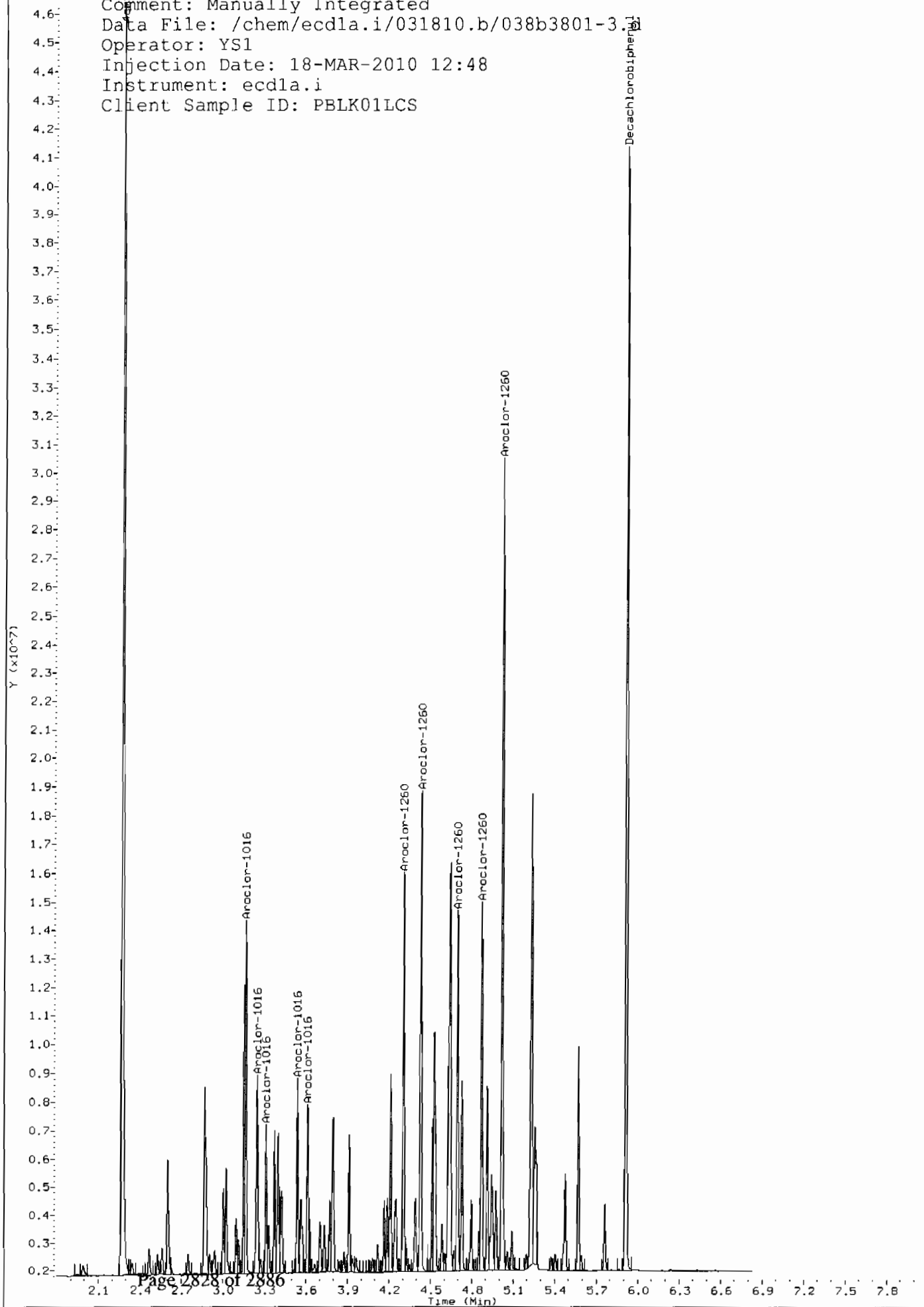
Data File: /chem/eodla.i/031810.b/038b3801-3.d  
Date: 18-Mar-2010 12:48  
Client ID: PBLK01CS  
Sample Info: 1120207297911  
Volume Injected (ul): 1.0  
Column phase: CLP2

Instrument: eodla.i  
Operator: YSI  
Column diameter: 0.25

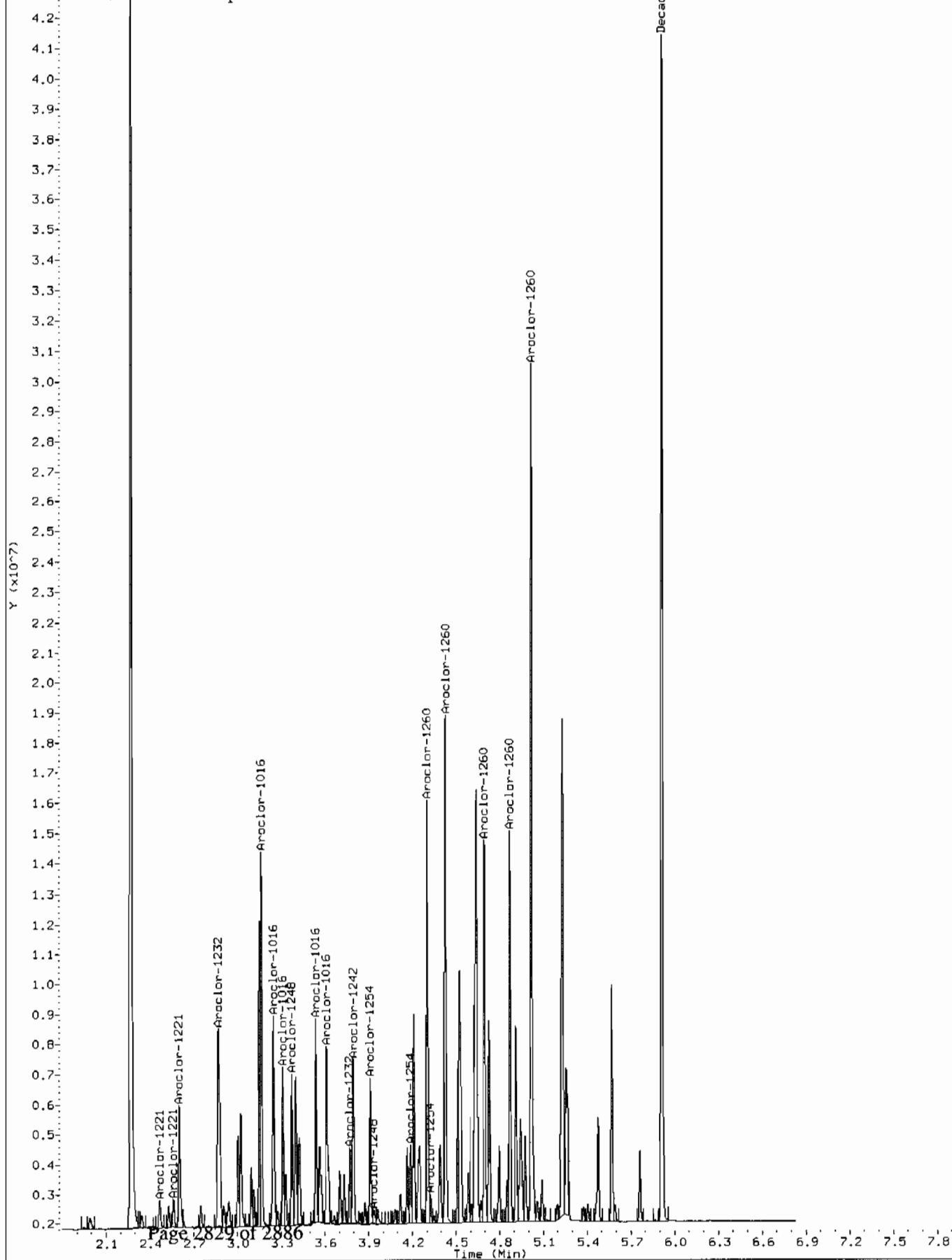
Page 1



Comment: Manually Integrated  
Data File: /chem/ecdla.i/031810.b/038b3801-3.1  
Operator: YSl  
Injection Date: 18-MAR-2010 12:48  
Instrument: ecdla.i  
Client Sample ID: PBLK01LCS



Comment: Before manual integration  
Data File: /chem/ecdl1.i/031810.b/orig-038b3801-3.d  
Operator: YS1  
Injection Date: 18-MAR-2010 12:48  
Instrument: ecdl1.i  
Client Sample ID: PBLK01LCS



**PCB**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number: 10-2193

Matrix: SOIL

Lab Sample ID: 1202076240

Client Sample: QC for batch 967352

Client: LANL010

Project: QC

Client ID: LCS for batch 967352

Method: SW846 8082

SOP Ref: GL-OA-E-040

Batch ID: 967354

Inst: ECD1A.I

Dilution: 1

Run Date: 03/22/2010 14:49

Analyst: YS1

Inj. Vol: 1 uL

Prep Date: 03/21/2010 11:56

Aliquot: 30 g

Final Volume: 1 mL

Data File: 042f4201-1.d

Column: 1 CLP1

Level: LOW

042b4201-1.d

2 CLP2

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		26.7	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		29.2	ug/kg	1.11	3.33	2

Report Date: 23-Mar-2010 08:43

## GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/032210.b/042f4201-1.d

Lab Smp Id: 1202076240

Client Smp ID: PBLK02LCS

Inj Date : 22-MAR-2010 14:49

Operator : YSl

Inst ID: ecdla.i

Smp Info : |1202076240|1|

Misc Info : |ECD82P\_1S|967354|SVA|QC A|SOIL|LCS|||

Comment :

Method : /chem/ecdla.i/032210.b/ECD1-F-8082-031110b.m

Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036f3601.d

Als bottle: 42

QC Sample: LCS

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-2193.sub

Target Version: 3.50

Sample Matrix: Soil

Processing Host: hpc1p1

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable

Local Compound Variable

## CONCENTRATIONS

RT	EXP RT	DLT RT	ON-COL	FINAL	TARGET RANGE	RATIO
=====	=====	=====	=====	=====	=====	=====
<div>\$ 11 4cmx</div> <div>CAS #: 877-09-8</div>						
1.911	1.911	0.000	67190555	172.494	5.7 80.00- 120.00	100.00
<div>\$ 12 Decachlorobiphenyl</div> <div>CAS #: 2051-24-3</div>						
5.215	5.216	-0.001	51649045	173.943	5.8 80.00- 120.00	100.00
<div>1 Aroclor-1016</div> <div>CAS #: 12674-11-2</div>						
2.364	2.364	0.000	12233707	806.079	26.9 80.00- 120.00	100.00
2.650	2.650	0.000	15300457	808.019	26.9 112.85- 152.85	125.07
2.730	2.730	0.000	9832516	790.258	26.3 60.06- 100.06	80.37
2.768	2.768	0.000	5969711	812.391	27.1 28.30- 68.30	48.80

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE		RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
1 Aroclor-1016 (continued)								
2.978	2.978	0.000	7536594	791.844	26.4	42.29-	82.29	61.61
Average of Peak Concentrations =					26.7			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.703	3.704	-0.001	15944481	869.853	29.0	80.00-	120.00	100.00
3.865	3.866	-0.001	24899857	925.995	30.9	128.74-	168.74	156.17
4.027	4.028	-0.001	26643801	940.968	31.4	138.95-	178.95	167.10
4.095	4.096	-0.001	15064135	932.309	31.1	69.61-	109.61	94.48
4.238	4.240	-0.002	10337990	614.893	20.5	72.96-	112.96	64.84
Average of Peak Concentrations =					28.6			
-----								



Data File: /chem/eodla.i/032210.b/042f4201-1.d

Date: 22-MAR-2010 14:49

Client ID: PBLK02LCS

Sample Info: 11202076240111

Volume Injected (uL): 1.0

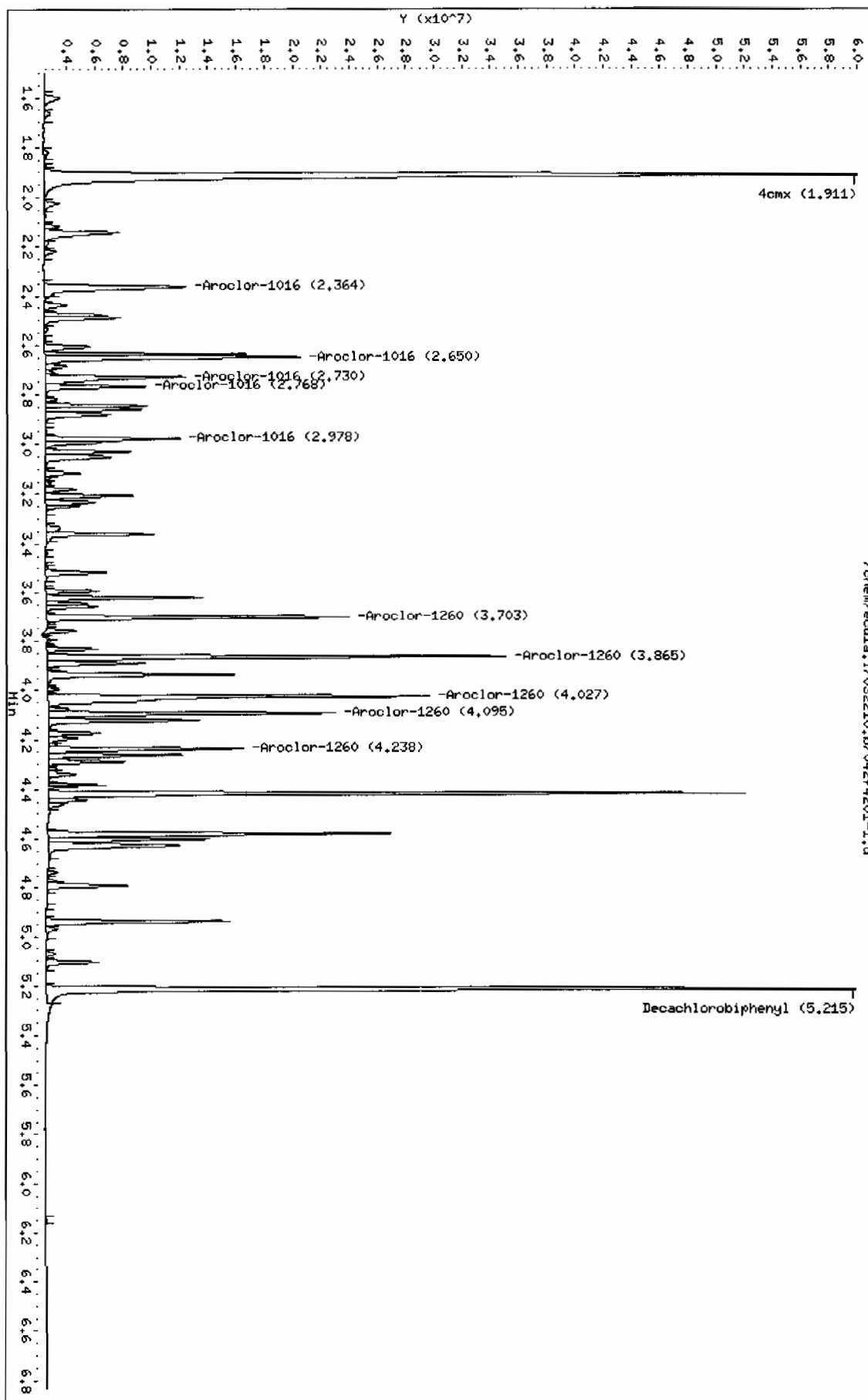
Column phase: CLP1

Instrument: eodla.i

Operator: YSA

Column diameter: 0.25

/chem/eodla.i/032210.b/042f4201-1.d



Data File: /chem/ecdla.i/032210.b/042b4201-1.d  
Report Date: 23-Mar-2010 08:42

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecdla.i/032210.b/042b4201-1.d  
Lab Smp Id: 1202076240 Client Smp ID: PBLK02LCS  
Inj Date : 22-MAR-2010 14:49  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |1202076240|1|  
Misc Info : |ECD82P\_1S|967354|SVA|QC A|SOIL|LCS|||  
Comment :  
Method : /chem/ecdla.i/032210.b/ECD1-B-8082-031110b.m  
Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 42 QC Sample: LCS  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2193.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	30.00000	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							
2.270	2.269	0.001	43077658	164.210	5.5 80.00- 120.00	100.00	
-----							
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3							
5.910	5.911	-0.001	32391735	173.057	5.8 80.00- 120.00	100.00	
-----							
1 Aroclor-1016 CAS #: 12674-11-2							
3.164	3.164	0.000	10131411	805.040	26.8 80.00- 120.00	100.00 (M)	
3.247	3.246	0.001	6557207	759.445	25.3 45.75- 85.75	64.72	
3.310	3.310	0.000	4032030	762.683	25.4 20.72- 60.72	39.80	
3.537	3.537	0.000	5536906	803.298	26.8 33.68- 73.68	54.65	

CONCENTRATIONS									
			ON-COL		FINAL				
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(ug/Kg)	TARGET	RANGE	RATIO	
=====									
1 Aroclor-1016 (continued)									
3.612	3.612	0.000	5096163	793.478	26.4	29.72-	69.72	50.30	
Average of Peak Concentrations =					26.2				
-----									
7 Aroclor-1260					CAS #: 11096-82-5				
4.302	4.303	-0.001	11086063	847.543	28.2	80.00-	120.00	100.00	
4.427	4.428	-0.001	13725840	882.746	29.4	101.68-	141.68	123.81	
4.692	4.694	-0.002	10289223	864.926	28.8	71.42-	111.42	92.81	
4.865	4.867	-0.002	10690021	869.870	29.0	74.52-	114.52	96.43	
5.013	5.014	-0.001	24189815	916.467	30.5	190.00-	230.00	218.20	
Average of Peak Concentrations =					29.2				
-----									

#### QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdia.i/032210.b/042b4201-1.d

Date : 22-MAR-2010 14:49

Client ID: PBLK01LCS

Sample Info: 1120207624011

Volume Injected (uL): 1.0

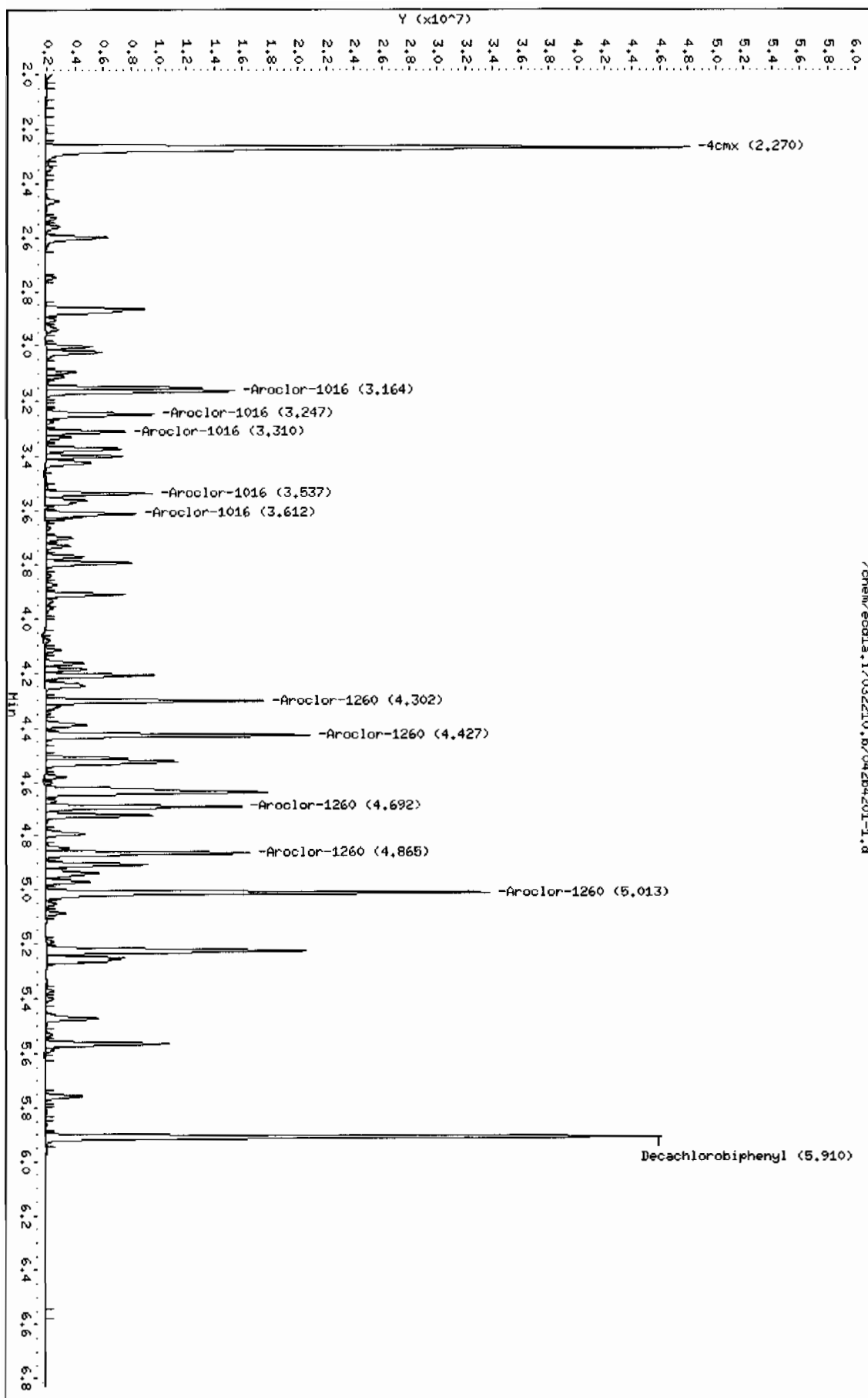
Column phase: CLP2

Instrument: ecdia.i

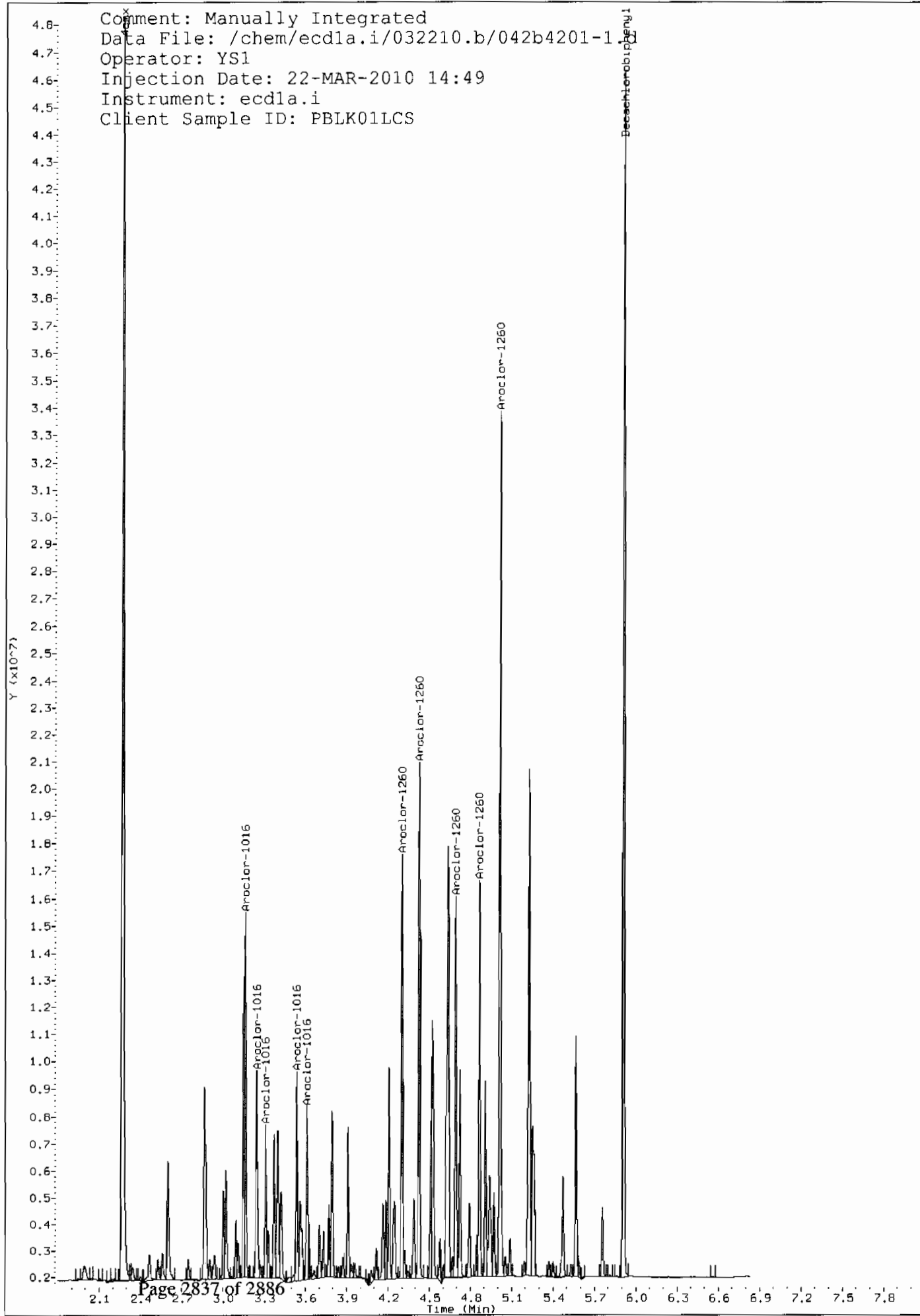
Operator: YSL

Column diameter: 0.25

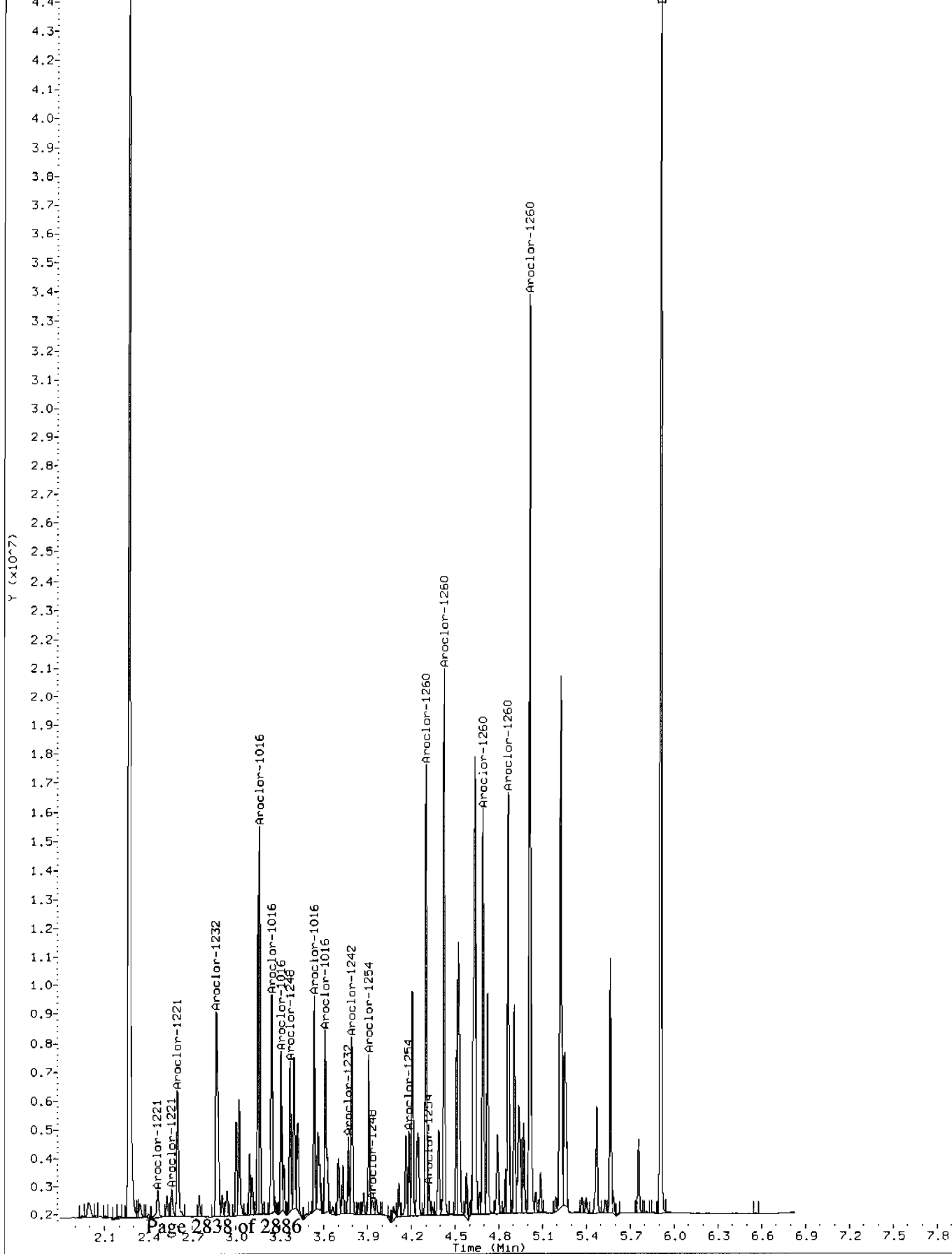
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Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/032210.b/042b4201-1  
Operator: YS1  
Injection Date: 22-MAR-2010 14:49  
Instrument: ecd1a.i  
Client Sample ID: PBLK01LCS



Researcher: Daniel



## PCB

Page 1 of 1

Certificate of Analysis  
Sample Summary

SDG Number: 10-2193  
Lab Sample ID: 1202072980  
Client Sample: QC for batch 965974  
Client ID: RE36-10-7407MS  
Batch ID: 965975  
Run Date: 03/18/2010 17:07  
Prep Date: 03/17/2010 11:22  
Data File: 059f5901.d  
059b5901.d

Date Collected: 02/25/2010 12:00  
Date Received: 03/03/2010 08:50  
Client: LANL010  
Method: SW846 8082  
Inst: ECD1A.I  
Analyst: YS1  
Aliquot: 30.01 g  
Column: 1 CLP1  
2 CLP2

Matrix: R  
% Moisture: 22.9  
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		21.5	ug/kg	1.44	4.32	1
11104-28-2	Aroclor-1221	U	4.32	ug/kg	1.44	4.32	1
11141-16-5	Aroclor-1232	U	4.32	ug/kg	1.44	4.32	1
53469-21-9	Aroclor-1242	U	4.32	ug/kg	1.44	4.32	1
12672-29-6	Aroclor-1248	U	4.32	ug/kg	1.44	4.32	1
11097-69-1	Aroclor-1254		29.5	ug/kg	1.44	4.32	1
11096-82-5	Aroclor-1260		33.6	ug/kg	1.44	4.32	1

Data File: /chem/ecdla.i/031810.b/059f5901.d  
Report Date: 19-Mar-2010 08:48

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/031810.b/059f5901.d  
Lab Smp Id: 1202072980 Client Smp ID: RE36-10-7407MS  
Inj Date : 18-MAR-2010 17:07  
Operator : YSl Inst ID: ecdla.i  
Smp Info : |1202072980|1|  
Misc Info : |ECD82P\_1S|965975|SVA|QC A|SOIL|MS|||  
Comment :  
Method : /chem/ecdla.i/031810.b/ECD1-F-8082-031110b.m  
Meth Date : 19-Mar-2010 06:23 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 59 QC Sample: MS  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2193.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	30.01000	Weight of sample extracted (g)
M	22.85850	% 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	
1.912	1.910	0.002	41720515	107.107	4.6 80.00- 120.00	100.00
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3	
5.214	5.215	-0.001	30341725	102.185	4.4 80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2	
2.364	2.364	0.000	8866845	584.237	25.2 80.00- 120.00	100.00 (M)
2.651	2.649	0.002	10171924	537.180	23.2 110.13- 150.13	114.72
2.731	2.730	0.001	5290488	425.207	18.4 60.11- 100.11	59.67
2.768	2.768	0.000	3213667	437.334	18.9 28.30- 68.30	36.24



CONCENTRATIONS							
RT	EXP RT	DLT RT	ON-COL	FINAL	TARGET RANGE	RATIO	
			RESPONSE ( ug/L)	(ug/Kg)			
1 Aroclor-1016 (continued)							
2.977	2.978	-0.001	4813798	505.769	21.8 41.76- 81.76	54.29	
Average of Peak Concentrations =				21.5			
6 Aroclor-1254					CAS #: 11097-69-1		
3.206	3.207	-0.001	6280318	473.559	20.4 80.00- 120.00	100.00 (M)	
3.361	3.362	-0.001	8971304	503.065	21.7 112.77- 152.77	142.85	
3.594	3.596	-0.002	8933553	399.331	17.2 151.79 191.79	142.25	
3.756	3.758	-0.002	8040647	487.606	21.1 105.45- 145.45	128.03	
3.865	3.867	-0.002	24771437	1551.67	67.0 106.56- 146.56	394.43	
Average of Peak Concentrations =				29.5			
7 Aroclor-1260					CAS #: 11096-82-5		
3.702	3.704	-0.002	16158304	881.518	38.1 80.00- 120.00	100.00 (M)	
3.865	3.866	-0.001	24771437	921.220	39.8 126.99- 166.99	153.30	
4.027	4.028	-0.001	25135802	887.711	38.3 134.29- 174.29	155.56	
4.095	4.096	-0.001	10546720	652.730	28.2 68.76- 108.76	65.27	
4.237	4.239	-0.002	9236645	549.386	23.7 72.09- 112.09	57.16	
Average of Peak Concentrations =				33.6			

# QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecda.i/031810.b/059f5901.d

Date: 18-MAR-2010 17:07

Client ID: RE36-10-7407MS

Sample Info: 1120207298011

Volume Injected (uL): 1.0

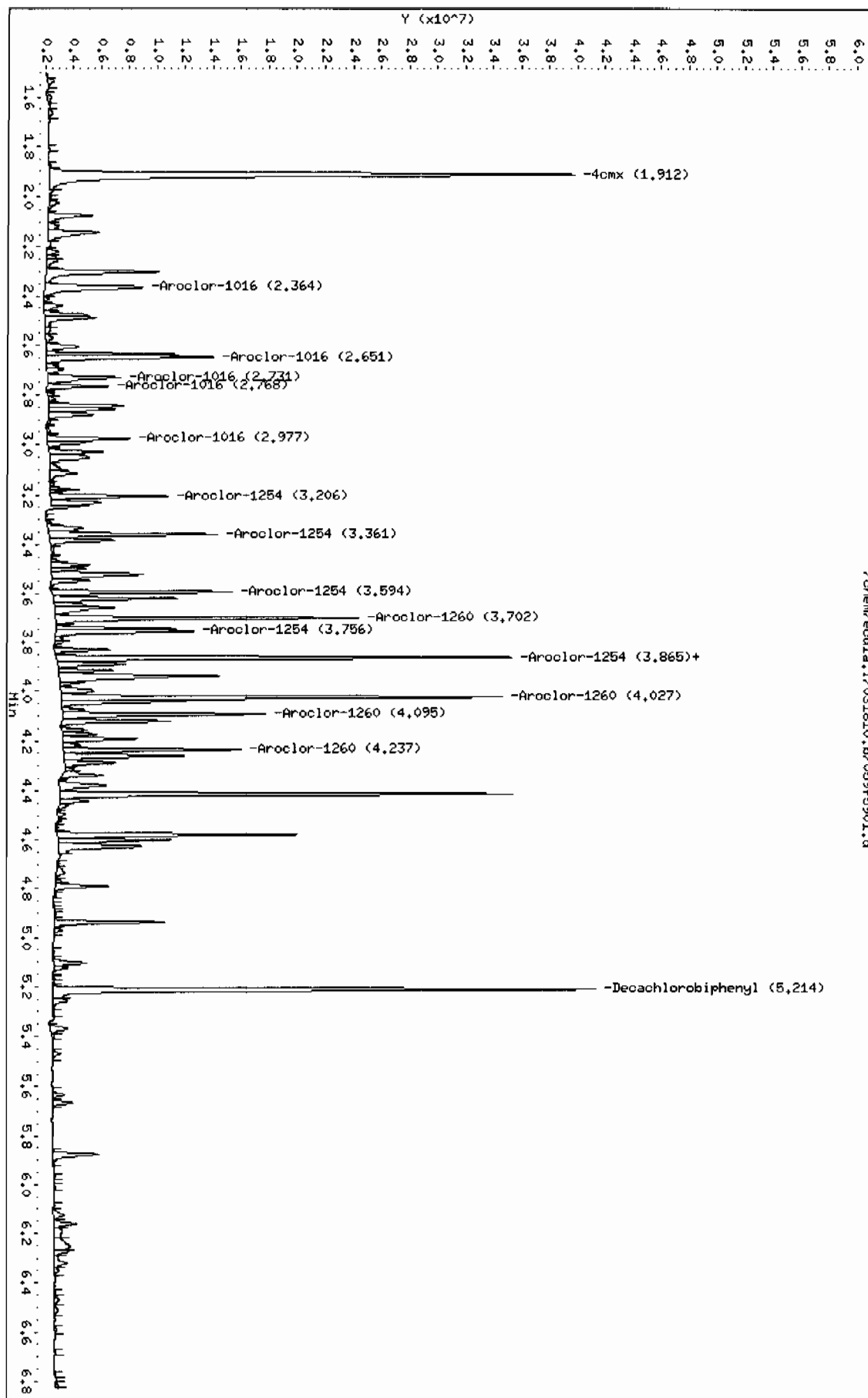
Column phase: CLP1

Instrument: ecda.i

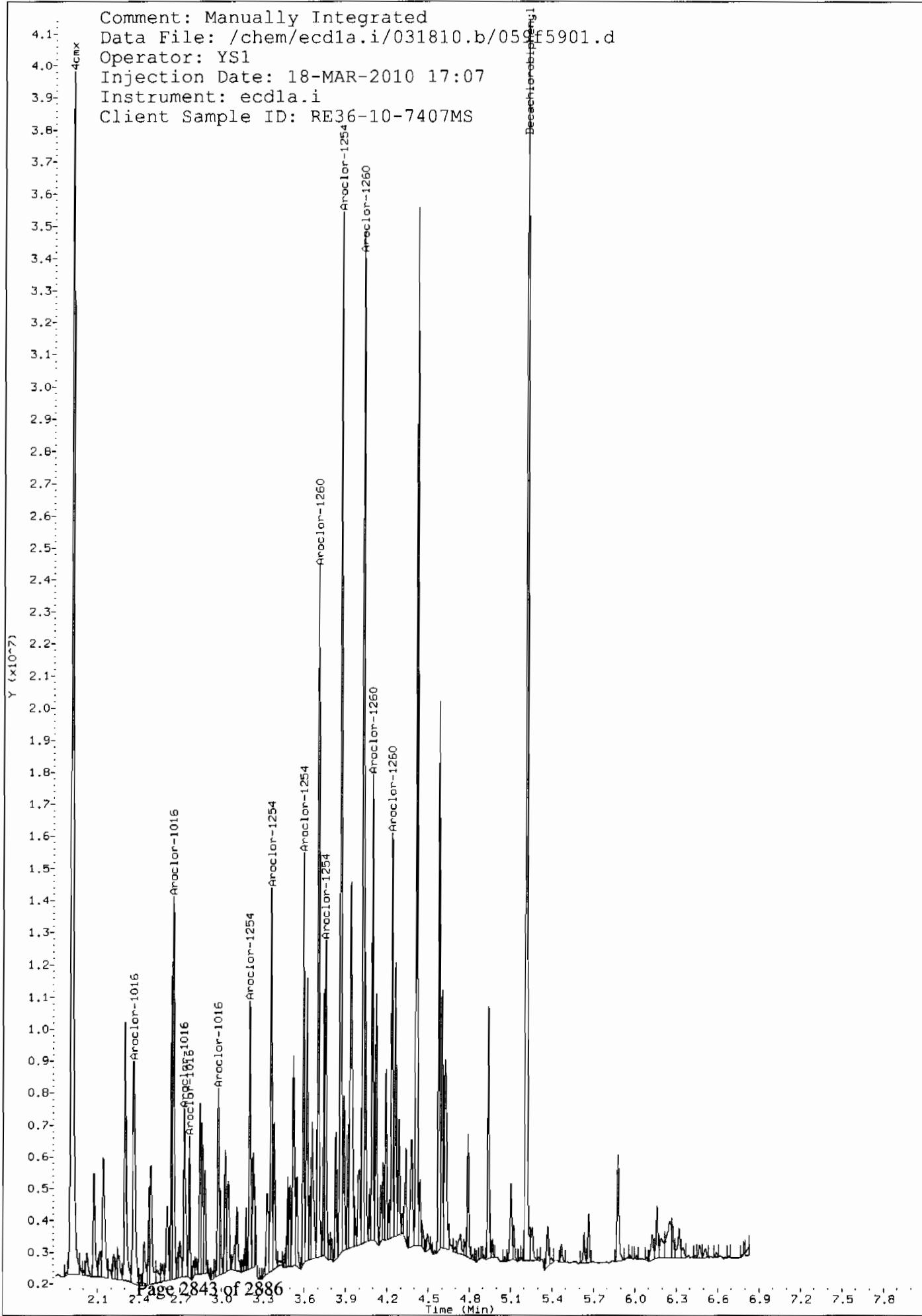
Operator: YSL

Column diameter: 0.25

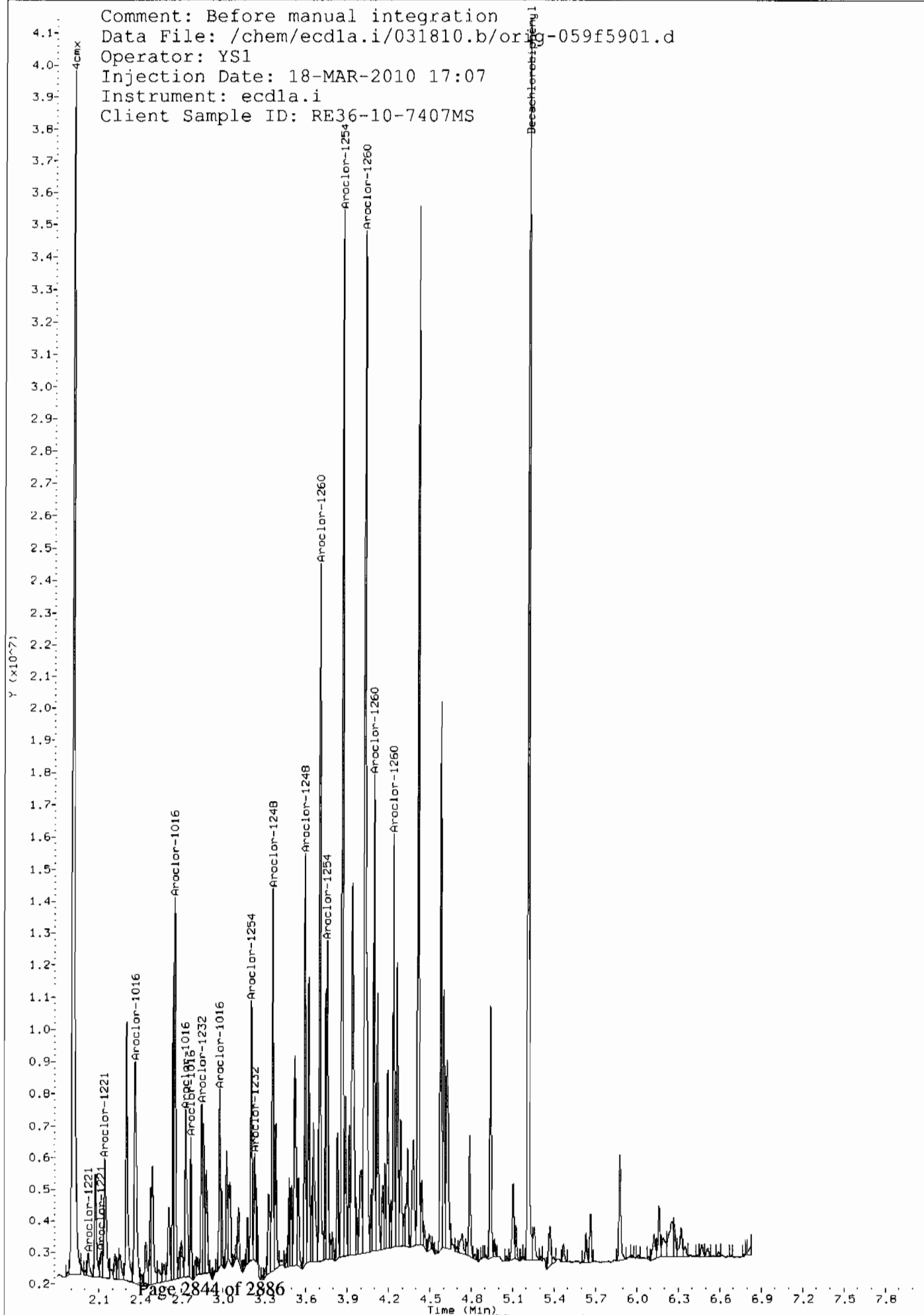
Page 1



Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/031810.b/059f5901.d  
Operator: YS1  
Injection Date: 18-MAR-2010 17:07  
Instrument: ecd1a.i  
Client Sample ID: RE36-10-7407MS



Comment: Before manual integration  
Data File: /chem/ecdla.i/031810.b/ori-059f5901.d  
Operator: YS1  
Injection Date: 18-MAR-2010 17:07  
Instrument: ecdla.i  
Client Sample ID: RE36-10-7407MS



Data File: /chem/ecdla.i/031810.b/059b5901.d  
 Report Date: 19-Mar-2010 08:47

Page 1

# GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
 Data file : /chem/ecdla.i/031810.b/059b5901.d  
 Lab Smp Id: 1202072980 Client Smp ID: RE36-10-7407MS  
 Inj Date : 18-MAR-2010 17:07  
 Operator : YS1 Inst ID: ecdla.i  
 Smp Info : |1202072980|  
 Misc Info : |ECD82P\_1S|965975|SVA|QC A|SOIL|MS|  
 Comment :  
 Method : /chem/ecdla.i/031810.b/ECD1-B-8082-031110b.m  
 Meth Date : 19-Mar-2010 08:33 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
 Als bottle: 59 QC Sample: MS  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 10-2193.sub  
 Target Version: 3.50 Sample Matrix: Soil  
 Processing Host: hpc1pl

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	22.85850	% 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	2.269	0.001	27733700	105.720	4.6	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl				CAS #: 2051-24-3			
5.911	5.912	-0.001	19786938	105.714	4.6	80.00- 120.00	100.00
-----							
1 Aroclor-1016				CAS #: 12674-11-2			
3.163	3.164	-0.001	6550733	520.520	22.5	80.00- 120.00	100.00 (M)
3.247	3.247	0.000	4769624	552.410	23.9	44.27- 84.27	72.81
3.310	3.310	0.000	2912954	551.003	23.8	19.83- 59.83	44.47
3.537	3.537	0.000	4236853	614.685	26.6	32.20- 72.20	64.68

CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE	RATIO	
=====								
1 Aroclor-1016 (continued)								
3.612	3.613	-0.001	2515815 391.715		16.9	29.27-	69.27	38.41
Average of Peak Concentrations =					22.7			
-----								
6 Aroclor-1254					CAS #: 11097-69-1			
3.372	3.373	-0.001	3008619 499.670		21.6	80.00-	120.00	100.00 (M)
3.794	3.795	-0.001	5694512 526.305		22.7	161.66-	201.66	189.27
3.911	3.912	-0.001	6388158 535.307		23.1	179.37-	219.37	212.33
4.187	4.187	0.000	6986361 424.915		18.4	258.64-	298.64	232.21
4.322	4.324	-0.002	4732619 390.625		16.9	186.15-	226.15	157.30
Average of Peak Concentrations =					20.5			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
4.302	4.304	-0.002	12660917 967.943		41.8	80.00-	120.00	100.00 (M)
4.427	4.428	-0.001	14088744 906.085		39.1	101.47-	141.47	112.88
4.693	4.694	-0.001	8983382 755.156		32.6	71.27-	111.27	70.95
4.867	4.867	0.000	8287178 674.346		29.1	74.83-	114.83	65.45
5.014	5.014	0.000	18399098 697.077		30.1	189.25-	229.25	145.32
Average of Peak Concentrations =					34.5			
-----								

#### QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdl.a.i/031810.b/05965901.d

Date: 18-MAR-2010 17:07

Client ID: RE36-10-7407MS

Sample Info: 1120207298011

Volume Injected (ul): 1.0

Column phase: CLP2

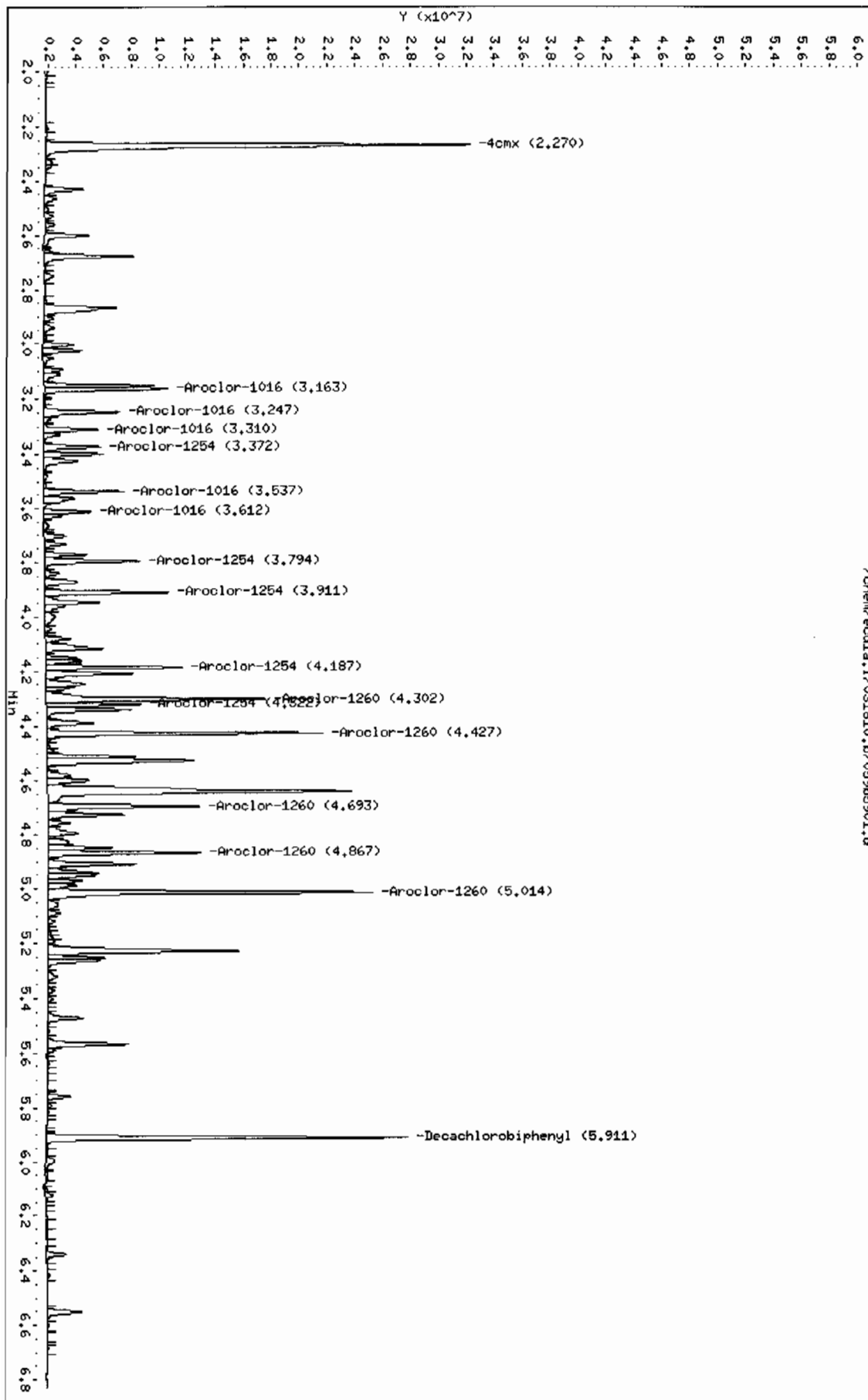
Instrument: ecdl.a.i

Operator: YSL

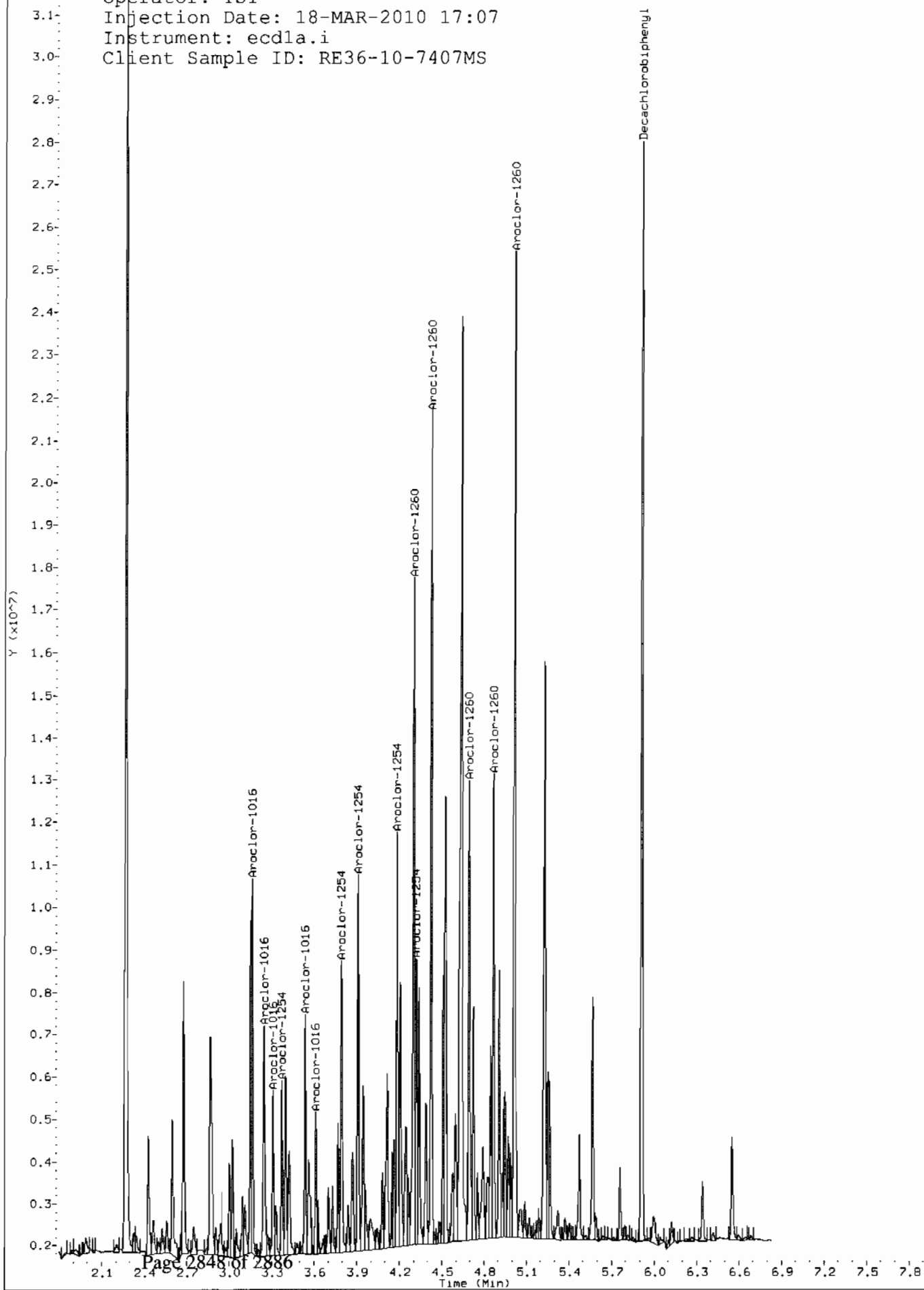
Column diameter: 0.25

/chem/ecdl.a.i/031810.b/05965901.d

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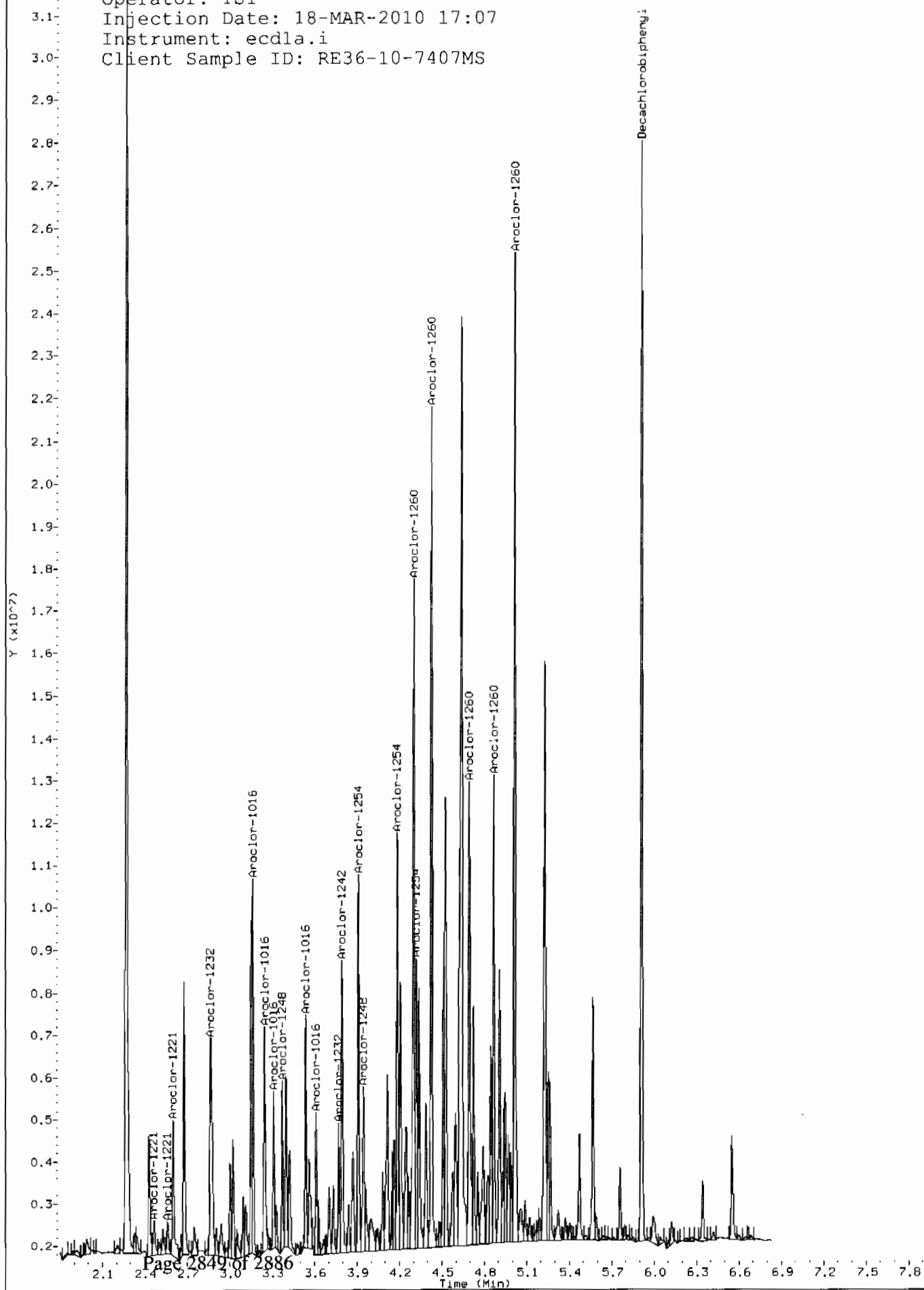


Comment: Manually Integrated  
Data File: /chem/ecdla.i/031810.b/059b5901.d  
Operator: YSI  
Injection Date: 18-MAR-2010 17:07  
Instrument: ecdla.i  
Client Sample ID: RE36-10-7407MS





Comment: Before manual integration  
Data File: /chem/ecdla.i/031810.b/orig-059b5901.d  
Operator: YS1  
Injection Date: 18-MAR-2010 17:07  
Instrument: ecdla.i  
Client Sample ID: RE36-10-7407MS



**PCB**  
**Certificate of Analysis**  
**Sample Summary**

SDG Number:	10-2193	Date Collected:	02/25/2010 12:00	Matrix:	R
Lab Sample ID:	1202072981	Date Received:	03/03/2010 08:50	%Moisture:	22.9
Client Sample:	QC for batch 965974	Client:	LANL010	Project:	QC
Client ID:	RE36-10-7407MSD	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Batch ID:	965975	Inst:	ECD1A.1	Dilution:	1
Run Date:	03/18/2010 17:20	Analyst:	YS1	Inj. Vol:	1 uL
Prep Date:	03/17/2010 11:22	Aliquot:	30 g	Final Volume:	1 mL
Data File:	060f6001.d	Column:	1 CLP1	Level:	LOW
	060b6001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		20.6	ug/kg	1.44	4.32	1
11104-28-2	Aroclor-1221	U	4.32	ug/kg	1.44	4.32	1
11141-16-5	Aroclor-1232	U	4.32	ug/kg	1.44	4.32	1
53469-21-9	Aroclor-1242	U	4.32	ug/kg	1.44	4.32	1
12672-29-6	Aroclor-1248	U	4.32	ug/kg	1.44	4.32	1
11097-69-1	Aroclor-1254	P	32.8	ug/kg	1.44	4.32	1
11096-82-5	Aroclor-1260		34.7	ug/kg	1.44	4.32	1

Data File: /chem/ecdl1a.i/031810.b/060f6001.d  
Report Date: 19-Mar-2010 08:52

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdl1a.i/031810.b/060f6001.d  
Lab Smp Id: 1202072981 Client Smp ID: RE36-10-7407MSD  
Inj Date : 18-MAR-2010 17:20  
Operator : YSl Inst ID: ecd1a.i  
Smp Info : |1202072981|1|  
Misc Info : |ECD82P\_1S|965975|SVA|QC A|SOIL|MSD|||  
Comment :  
Method : /chem/ecdl1a.i/031810.b/ECD1-F-8082-031110b.m  
Meth Date : 19-Mar-2010 06:23 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 60 QC Sample: MSD  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2193.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpc1pl

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	22.85850	% 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							
1.912	1.910	0.002	40366303	103.630	4.5	80.00- 120.00	100.00
-----							
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3							
5.215	5.215	0.000	26257063	88.4283	3.8	80.00- 120.00	100.00
-----							
1 Aroclor-1016 CAS #: 12674-11-2							
2.364	2.364	0.000	8220544	541.652	23.4	80.00- 120.00	100.00 (M)
2.650	2.649	0.001	9951216	525.525	22.7	110.13- 150.13	121.05
2.731	2.730	0.001	5453424	438.302	18.9	60.11- 100.11	66.34
2.768	2.768	0.000	3004755	408.904	17.7	28.30- 68.30	36.55

CONCENTRATIONS								
RT	EXP RT	DLT RT	ON-COL		FINAL	TARGET RANGE	RATIO	
			RESPONSE	( ug/L)	(ug/Kg)			
--	=====	=====	=====	=====	=====	=====	=====	
1 Aroclor-1016 (continued)								
2.978	2.978	0.000	4436921	466.172	20.1	41.76- 81.76	53.97	
Average of Peak Concentrations =					20.6			
-----								
6 Aroclor-1254					CAS #: 11097-69-1			
3.207	3.207	0.000	6233156	470.003	20.3	80.00- 120.00	100.00 (M)	
3.362	3.362	0.000	9229595	517.548	22.4	112.77- 152.77	148.07	
3.595	3.596	-0.001	9197356	411.123	17.8	151.79- 191.79	147.56	
3.757	3.758	-0.001	13312402	807.299	34.9	105.45- 145.45	213.57	
3.865	3.867	-0.002	25354857	1588.21	68.6	106.56- 146.56	406.77	
Average of Peak Concentrations =					32.8			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
3.703	3.704	-0.001	16335629	891.192	38.5	80.00- 120.00	100.00 (M)	
3.865	3.866	-0.001	25354857	942.916	40.7	126.99- 166.99	155.21	
4.027	4.028	-0.001	26563362	938.127	40.5	134.29- 174.29	162.61	
4.096	4.096	0.000	11194632	692.828	29.9	68.76- 108.76	68.53	
4.237	4.239	-0.002	9345012	555.832	24.0	72.09- 112.09	57.21	
Average of Peak Concentrations =					34.7			
-----								

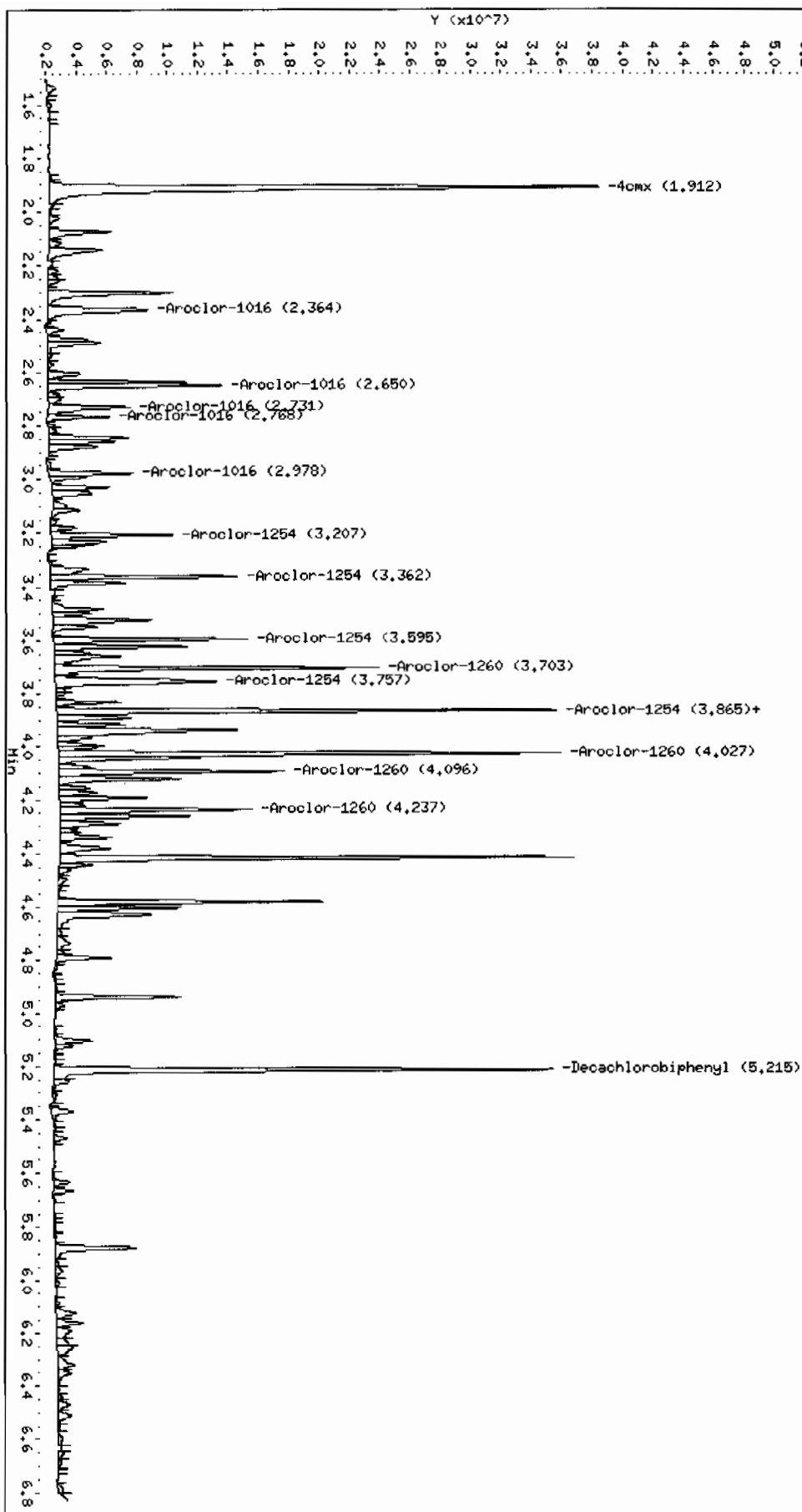
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M - Compound response manually integrated.

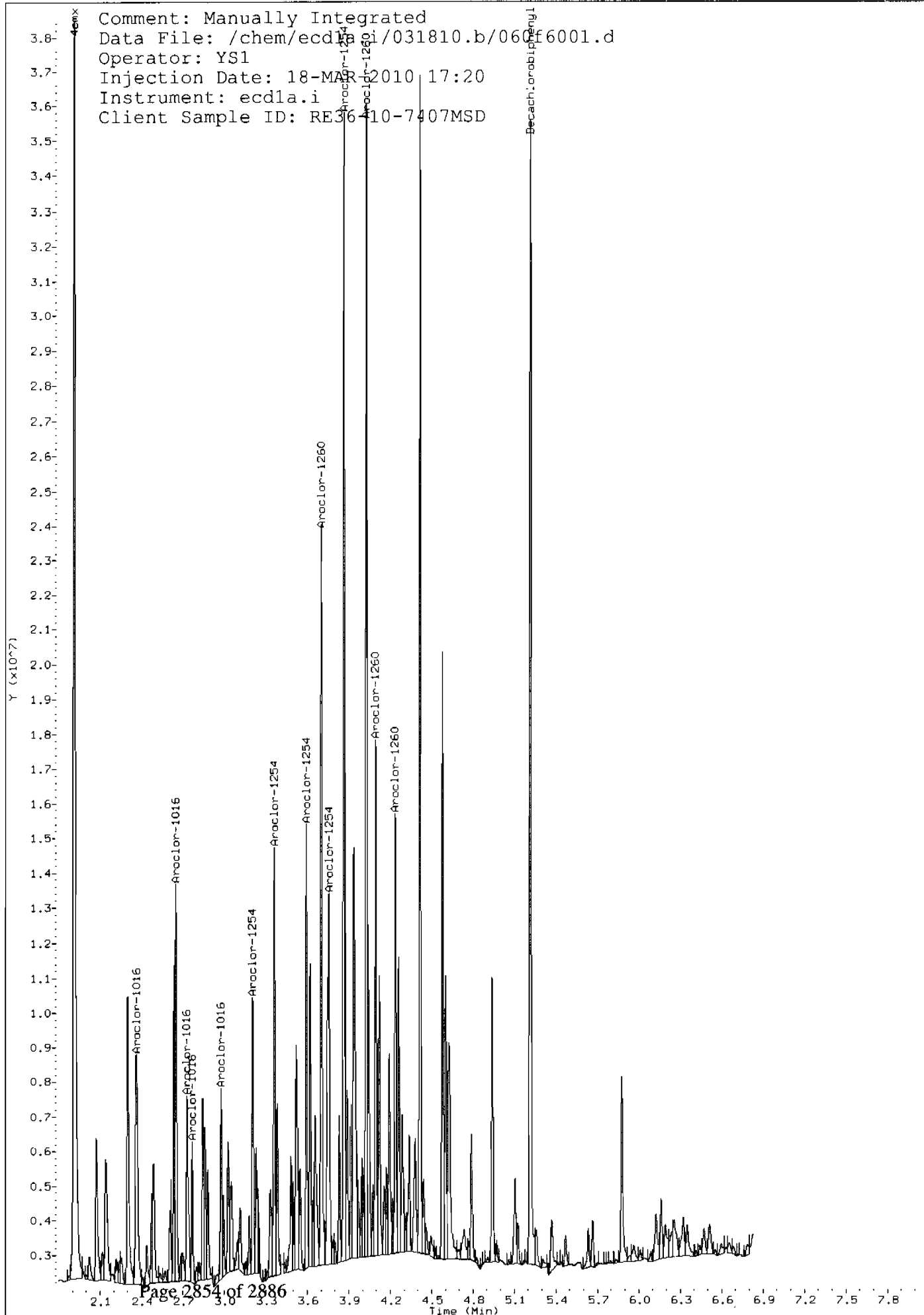
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Date : 18-MAR-2010 17:20  
Client ID: RE36-10-7407MSD  
Sample Info: 1120207298111  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: eodta.i  
Operator: YSL  
Column diameter: 0.25

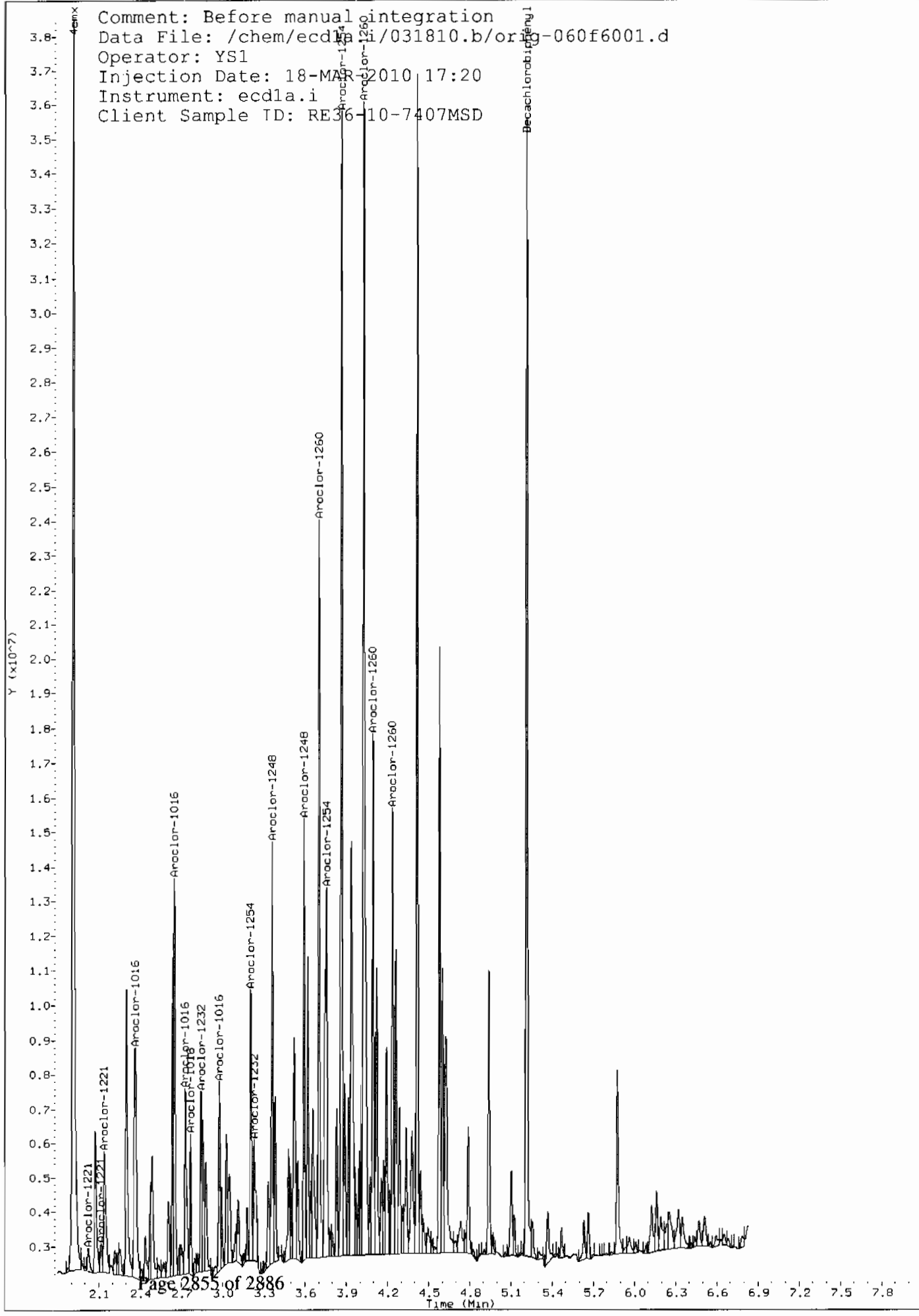
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Comment: Manually Integrated  
Data File: /chem/ecdl1a.i/031810.b/06016001.d  
Operator: YS1  
Injection Date: 18-MAR-2010 17:20  
Instrument: ecdl1a.i  
Client Sample ID: RE36410-7407MSD



Comment: Before manual integration  
Data File: /chem/ecdl11/031810.b/or11g-060f6001.d  
Operator: YS1  
Injection Date: 18-MAR-2010 17:20  
Instrument: ecd1a.i  
Client Sample ID: RE36-10-7407MSD



Data File: /chem/ecdla.i/031810.b/060b6001.d  
Report Date: 19-Mar-2010 08:53

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/031810.b/060b6001.d  
Lab Smp Id: 1202072981 Client Smp ID: RE36-10-7407MSD  
Inj Date : 18-MAR-2010 17:20  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |1202072981|1|  
Misc Info : |ECD82P\_1S|965975|SVA|QC A|SOIL|MSD|1|1|  
Comment :  
Method : /chem/ecdla.i/031810.b/ECD1-B-8082-031110b.m  
Meth Date : 19-Mar-2010 08:33 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 60 QC Sample: MSD  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2193.sub  
Target Version: 3.50 Sample Matrix: Soil  
Processing Host: hpc1pl

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	22.85850	% 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			
2.269	2.269	0.000	26827719	102.266	4.4	80.00-	120.00	100.00
-----								
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
5.911	5.912	-0.001	19332900	103.289	4.5	80.00-	120.00	100.00
-----								
1 Aroclor-1016					CAS #: 12674-11-2			
3.164	3.164	0.000	6158452	489.349	21.1	80.00-	120.00	100.00 (M)
3.248	3.247	0.001	4364483	505.487	21.8	44.27-	84.27	70.87
3.311	3.310	0.001	2898834	548.332	23.7	19.83-	59.83	47.07
3.537	3.537	0.000	4033277	585.150	25.3	32.20-	72.20	65.49



CONCENTRATIONS								
			ON-COL	FINAL				
RT	EXP RT	DLT RT	RESPONSE	( ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
-----								
1 Aroclor-1016 (continued)								
3.613	3.613	0.000	2547909	396.712	17.1	29.27- 69.27	41.37	
Average of Peak Concentrations =					21.8			
-----								
6 Aroclor-1254					CAS #: 11097-69-1			
3.373	3.373	0.000	2790786	463.492	20.0	80.00- 120.00	100.00 (M)	
3.795	3.795	0.000	5575761	515.330	22.3	161.66- 201.66	199.79	
3.911	3.912	-0.001	6422334	538.171	23.2	179.37- 219.37	230.13	
4.187	4.187	0.000	7010962	426.411	18.4	258.64- 298.64	251.22	
4.323	4.324	-0.001	5121462	422.719	18.3	186.15- 226.15	183.51	
Average of Peak Concentrations =					20.4			
-----								
7 Aroclor-1260					CAS #: 11096-82-5			
4.303	4.304	-0.001	12179013	931.101	40.2	80.00- 120.00	100.00 (M)	
4.427	4.428	-0.001	14186563	912.376	39.4	101.47- 141.47	116.48	
4.693	4.694	-0.001	8884211	746.819	32.3	71.27- 111.27	72.95	
4.867	4.867	0.000	7894727	642.411	27.8	74.83- 114.83	64.82	
5.014	5.014	0.000	18196295	689.394	29.8	189.25- 229.25	149.41	
Average of Peak Concentrations =					33.9			
-----								

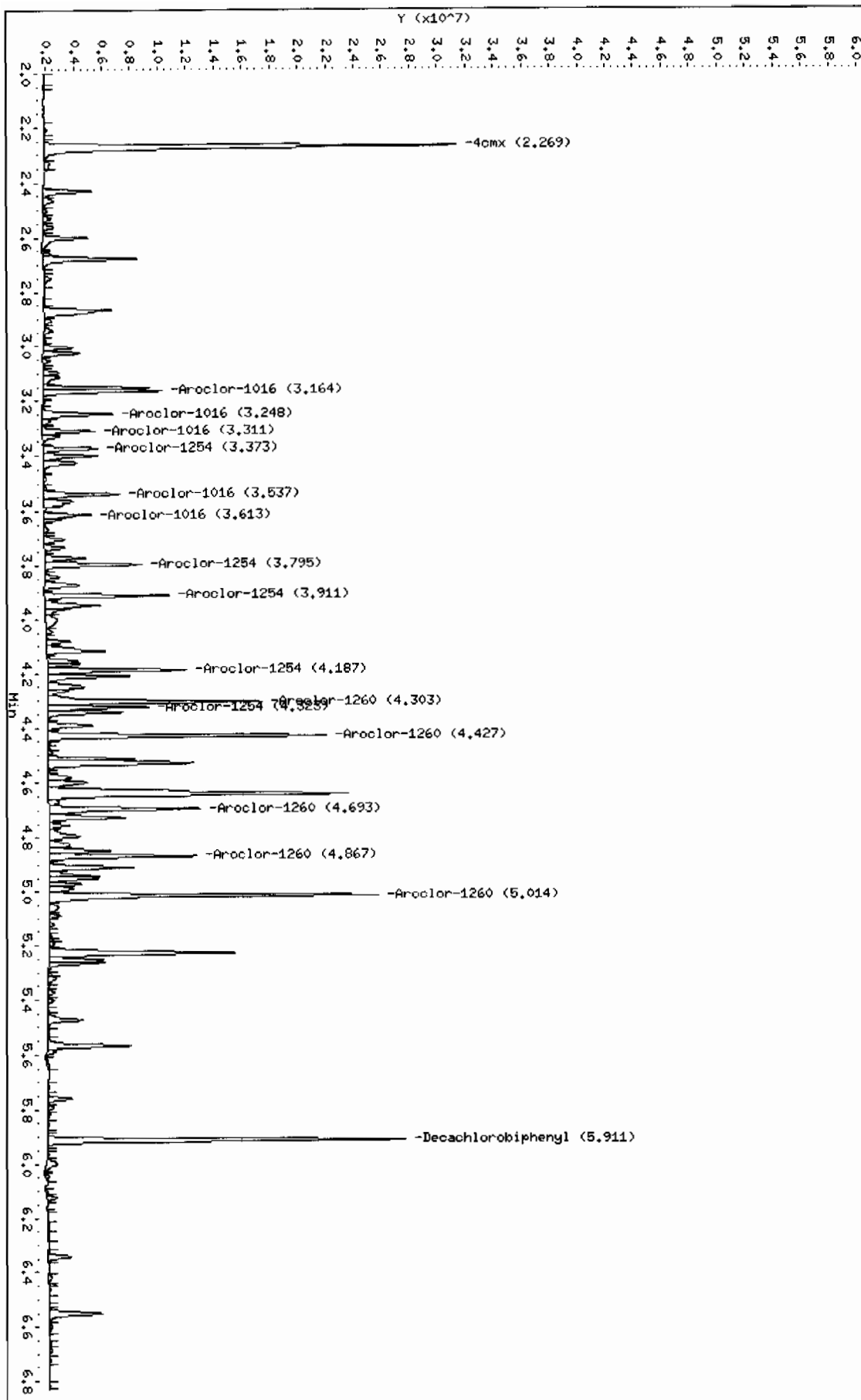
#### QC Flag Legend

M - Compound response manually integrated.

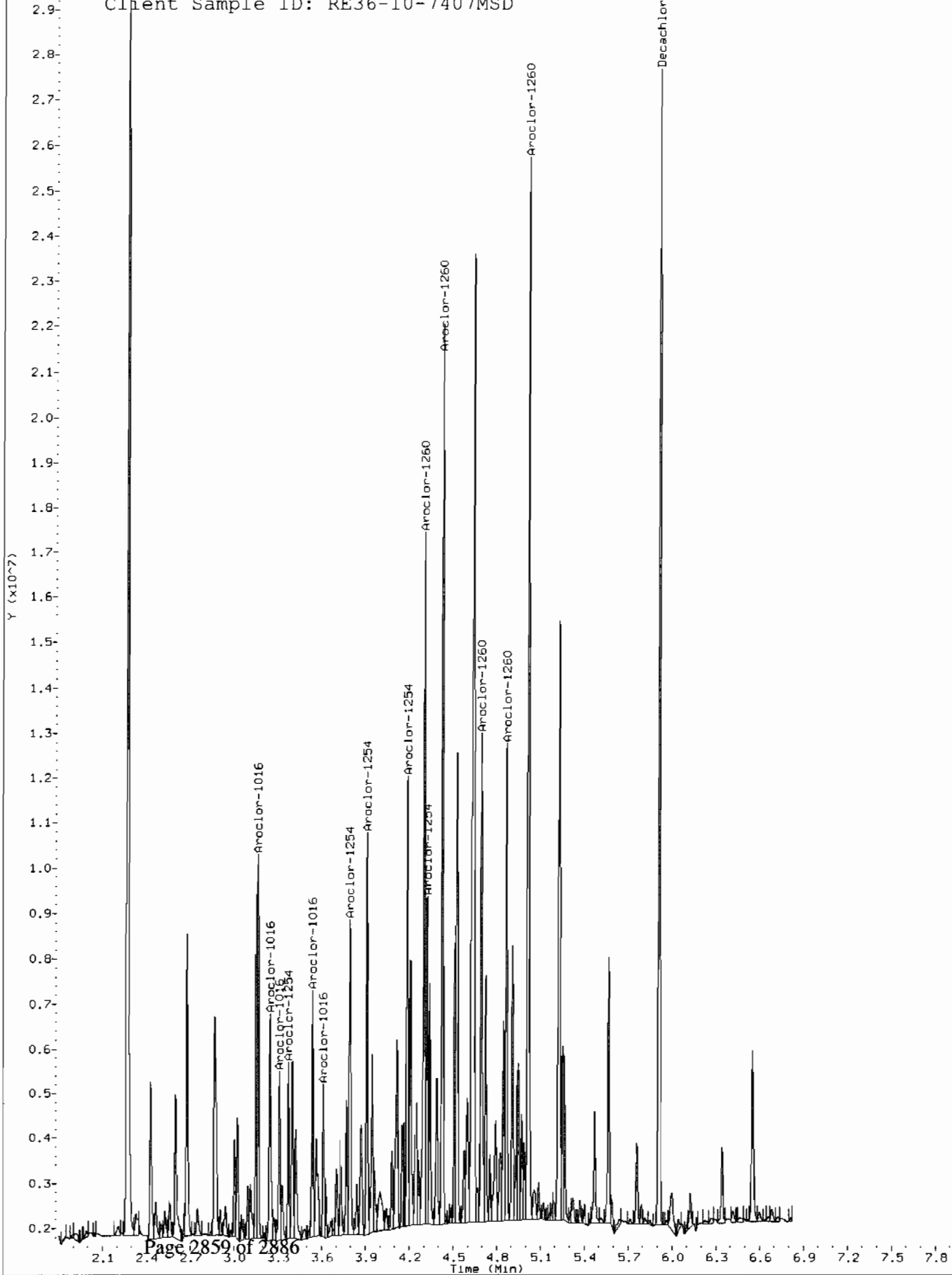
Data File: /chem/ecdl1a.i/031810.b/0606001.d  
Date: 18-MAR-2010 17:20  
Client ID: REC6-10-7407MSD  
Sample Info: 1120207298111  
Volume Injected (uL): 1.0  
Column phase: CLP2

Instrument: ecdl1a.i  
Operator: YSL  
Column diameter: 0.25

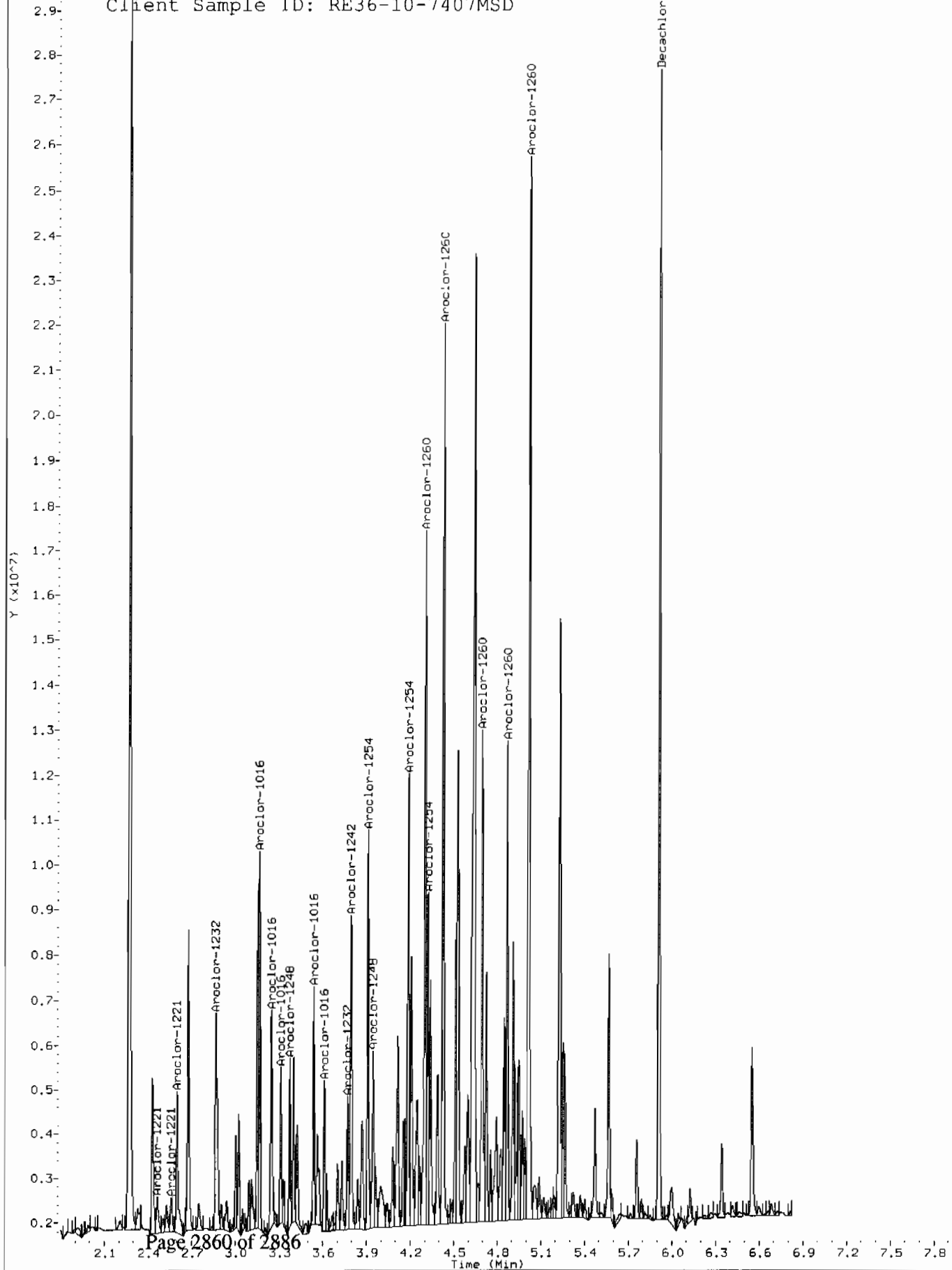
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Comment: Manually Integrated  
Data File: /chem/ecdl1.i/031810.b/060b6001.d  
Operator: YS1  
Injection Date: 18-MAR-2010 17:20  
Instrument: ecdl1.i  
Client Sample ID: RE36-10-7407MSD



Comment: Before manual integration  
Data File: /chem/ecdl1.i/031810.b/orig-060b6001.d  
Operator: YS1  
Injection Date: 18-MAR-2010 17:20  
Instrument: ecd1a.i  
Client Sample ID: RE36-10-7407MSD



# MISCELLANEOUS DATA

## GEL ORGANIC RUN LOG

INSTRUMENT ID: ECD1

DATE: 03/12/2010

METHOD: ECD1-F-8082-031110b.m

OPERATOR: YS1

REVIEWED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

HARDWARE CONFIGURATION &amp; METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936  
ALUMINA LOT 1281992-A  
COPPER LOT 1249397-A

## Calibration &amp; QC Information

Initial Calibration Dates: See Calibration History and Standard Logbook.

Initial Calibration Std ID's: See Calibration History and Standard Logbook.

GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082

Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,

DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,

BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/031110b.b

Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
003f0101.d	WAR100219-99-01	YS1	11-MAR-2010 14:46		031110b	1.0		CLEAN
0004f0221.d	WAR100222-60-01	YS1	11-MAR-2010 14:56		031110b	1.0		DOSE RE-ICAL
0003f0301.d	WAR100229-54	YS1	11-MAR-2010 15:07		031110b	1.0		DOSE RE-ICAL
0004f0401.d	WAR100219-42	YS1	11-MAR-2010 15:17		031110b	1.0		DOSE RE-ICAL
0005f0501.d	WAR100223-48	YS1	11-MAR-2010 15:28		031110b	1.0		DOSE RE-ICAL
0006f0601.d	WAR100107-68	YS1	11-MAR-2010 15:38		031110b	1.0		PASSED ON BOTH COLUMNS
0007f0701.d	WAR100104-32	YS1	11-MAR-2010 15:49		031110b	1.0		PATTERN ONLY
0008f0801.d	WAR100104-21	YS1	11-MAR-2010 15:59		031110b	1.0		PATTERN ONLY
0009f0901.d	WAR100104-62	YS1	11-MAR-2010 16:10		031110b	1.0		PATTERN ONLY
0010f1001.d	WAR091219-DDT	YS1	11-MAR-2010 16:21		031110b	1.0		DOT ANALOG STANDARD
0011f1101.d	WAR100311-01	YS1	11-MAR-2010 16:31		031110b	1.0		ARI660 I-CAL LEVEL 1
0012f1201.d	WAR100311-02	YS1	11-MAR-2010 16:41		031110b	1.0		ARI660 I-CAL LEVEL 2
0013f1301.d	WAR100311-03	YS1	11-MAR-2010 16:52		031110b	1.0		ARI660 I-CAL LEVEL 3
0014f1401.d	WAR100311-04	YS1	11-MAR-2010 17:02		031110b	1.0		ARI660 I-CAL LEVEL 4
0015f1501.d	WAR100311-01	YS1	11-MAR-2010 17:13		031110b	1.0		ARI660 I-CAL LEVEL 5

Instrument Batch: /chem/ecd1a.i/031110b.b

Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
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1016f1601.d	WAR100222-60 01	YS1	11-MAR-2010 17:24		031110b		1.0		PASSED ON BOTH COLUMNS
1017f1701.d	WAR100311-05	YS1	11-MAR-2010 17:34		031110b		1.0		ARI254 I-CAL LEVEL 1
1018f1801.d	WAR100311-06	YS1	11-MAR-2010 17:45		031110b		1.0		ARI254 I-CAL LEVEL 2
1019f1901.d	WAR100311-07	YS1	11-MAR-2010 17:55		031110b		1.0		ARI254 I-CAL LEVEL 3
1020f2001.d	WAR100311-08	YS1	11-MAR-2010 18:06		031110b		1.0		ARI254 I-CAL LEVEL 4
1021f2101.d	WAR100219-02	YS1	11-MAR-2010 18:16		031110b		1.0		ARI254 I-CAL LEVEL 5
1022f2201.d	WAR100219-54	YS1	11-MAR-2010 18:27		031110b		1.0		PASSED ON BOTH COLUMNS
1023f2301.d	WAR100311-09	YS1	11-MAR-2010 18:37		031110b		1.0		ARI242 I-CAL LEVEL 1
1024f2401.d	WAR100311-10	YS1	11-MAR-2010 18:48		031110b		1.0		ARI242 I-CAL LEVEL 2
1025f2501.d	WAR100311-11	YS1	11-MAR-2010 18:58		031110b		1.0		ARI242 I-CAL LEVEL 3
1026f2601.d	WAR100311-12	YS1	11-MAR-2010 19:09		031110b		1.0		ARI242 I-CAL LEVEL 4
1027f2701.d	WAR100219-01	YS1	11-MAR-2010 19:19		031110b		1.0		ARI242 I-CAL LEVEL 5
1028f2801.d	WAR100219-42	YS1	11-MAR-2010 19:30		031110b		1.0		PASSED ON BOTH COLUMNS
1029f2901.d	WAR100311-13	YS1	11-MAR-2010 19:40		031110b		1.0		ARI248 I-CAL LEVEL 1
1030f3001.d	WAR100311-14	YS1	11-MAR-2010 19:51		031110b		1.0		ARI248 I-CAL LEVEL 2
1031f3101.d	WAR100311-15	YS1	11-MAR-2010 20:01		031110b		1.0		ARI248 I-CAL LEVEL 3
1032f3201.d	WAR100311-16	YS1	11-MAR-2010 20:12		031110b		1.0		ARI248 I-CAL LEVEL 4
1033f3301.d	WAR100211-01	YS1	11-MAR-2010 20:22		031110b		1.0		ARI248 I-CAL LEVEL 5
1034f3401.d	WAR100223-48	YS1	11-MAR-2010 20:33		031110b		1.0		PASSED ON BOTH COLUMNS
1035f3501.d	WAR100219-99 02	YS1	11-MAR-2010 20:44		031110b		1.0		CLEAN

Instrument Batch: /chem/ecdl1a.i/031110b.b Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
1036f3601.d	1202067743	YS1	11-MAR-2010 20:54	963869	246954	1.0 MB		DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
1037f3701.d	1202067744	YS1	11-MAR-2010 21:05	963869	246954	1.0 LCS		DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
1038f3801.d	246954003	YS1	11-MAR-2010 21:15	963869	246954	1.0 BBES		DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
1039f3901.d	1202067745	YS1	11-MAR-2010 21:26	963869	246954	1.0 IMS		DUSE CON FIRMATION FOR THE SAMPLES HAD HIT
1040f4001.d	1202067746	YS1	11-MAR-2010 21:36	963869	246954	1.0 IMSD		DUSE CON FIRMATION FOR THE SAMPLES HAD HIT

041f401.d	246954006	YSL	11-MAR-2010 21:47	963869	246954	1.0 BBES	DOSE CON FIRMATION FOR THE SAMPLES HAD HIT
042f4201.d	246954007	YSL	11-MAR-2010 21:57	963869	246954	1.0 BBES	DOSE CON FIRMATION FOR THE SAMPLES HAD HIT
043f4301.d	246954009	YSL	11-MAR-2010 22:08	963869	246954	1.0 BBES	DOSE CON FIRMATION FOR THE SAMPLES HAD HIT
044f4401.d	246954012	YSL	11-MAR-2010 22:18	963869	246954	1.0 BBES	DOSE CON FIRMATION FOR THE SAMPLES HAD HIT
045f4501.d	246954014	YSL	11-MAR-2010 22:29	963869	246954	1.0 BBES	DOSE CON FIRMATION FOR THE SAMPLES HAD HIT
046f4601.d	WAR100222-60 02	YSL	11-MAR-2010 22:39		0311110b	1.0	PASSED ON BOTH COLUMNS
046f4901.d	WAR100222-60 03	YSL	11-MAR-2010 23:11		0311110b	1.0	CLEAN
047f4701.d	WAR100219-99 03	YSL	11-MAR-2010 22:50		031210	1.0	
047f5001.d	WAR100219-99 04	YSL	11-MAR-2010 23:21		0311110b	1.0	
048f4801.d	WE100311-07SCR	YSL	11-MAR-2010 23:00		0311110b	1.0	LCS GREEN FOR PREP



## GEL ORGANIC RUN LOG

INSTRUMENT ID: ECD1

DATE: 03/19/2010

METHOD: ECD1-F-8082-031110b.m

OPERATOR: YS1

REVIEWED BY: \_\_\_\_\_

HARDWARE CONFIGURATION &amp; METHOD SUMMARY: No. 1 on pg. 1

DATE: \_\_\_\_\_

SOLVENT LOT DA936  
ALUMINA LOT 1281992-A  
COPPER LOT 1249397-A

## Calibration &amp; QC Information

Initial Calibration Dates: See Calibration History and Standard Logbook.

Initial Calibration Std ID's: See Calibration History and Standard Logbook.

GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082

Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,

DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,

BF-Before, AF-After.

Sequence Number: /chem/ecdla.i/031810.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
1001f0101.d	1WAR100219-99 01	YS1	18-MAR-2010 06:04		031810	1.0	CLEAN	
1002f0201.d	1WAR100222-60 01	YS1	18-MAR-2010 06:14		031810	1.0	PASSED ON BOTH COLUMNS	
1003f0301.d	1WAR100219-54	YS1	18-MAR-2010 06:25		031810	1.0	PASSED ON BOTH COLUMNS	
1004f0401.d	1WAR100219-42	YS1	18-MAR-2010 06:35		031810	1.0	PASSED ON BOTH COLUMNS	
1005f0501.d	1WAR100223-48	YS1	18-MAR-2010 06:44		031810	1.0	PASSED ON BOTH COLUMNS	
1006f0601.d	1WAR100107-68	YS1	18-MAR-2010 06:55		031810	1.0	PASSED ON BOTH COLUMNS	
1007f0701.d	1WAR100104-32	YS1	18-MAR-2010 07:05		031810	1.0	PATTERN ONLY	
1008f0801.d	1WAR100104-21	YS1	18-MAR-2010 07:16		031810	1.0	PATTERN ONLY	
1009f0901.d	1WAR100104-62	YS1	18-MAR-2010 07:26		031810	1.0	PATTERN ONLY	
1010f1001.d	1WAR0912-9-DDT	YS1	18-MAR-2010 07:37		031810	1.0	DDT ANALOG STANDARD	
1011f1101.d	1WAR100219-99 02	YS1	18-MAR-2010 07:47		031810	1.0	CLEAN	
1012f1201.d	1249169012	YS1	18-MAR-2010 07:58	196543	249169	2.0	CDMF UPLOAD BOTH COLUMNS, USE FRONT	
1013f1301.d	1249169013	YS1	18-MAR-2010 08:10	196543	249169	2.0	CDMF UPLOAD BOTH COLUMNS, USE FRONT	
1014f1401.d	1249169014	YS1	18-MAR-2010 08:23	196543	249169	2.0	CDMF UPLOAD BOTH COLUMNS, USE FRONT	
1015f1501.d	1249169015	YS1	18-MAR-2010 08:36	196543	249169	2.0	CDMF UPLOAD BOTH COLUMNS, USE FRONT	

Instrument Batch: /chem/ecdla.i/031810.b

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Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
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016f601.d	1202072839	YS1	18-MAR-2010 08:48	1965922	249169	1.01QC A	UPLOAD BOTH COLUMNS, USE FRONT
017f1701.d	1202072840	YS1	18-MAR-2010 08:59	1965922	249169	1.0 QC A	UPLOAD BOTH COLUMNS, USE FRONT
018f1801.d	249169001	YS1	18-MAR-2010 09:09	1965922	249169	1.01CDMF	UPLOAD BOTH COLUMNS, USE FRONT
019f1901.d	249169002	YS1	18-MAR-2010 09:20	1965922	249169	1.01CDMF	UPLOAD BOTH COLUMNS, USE FRONT
020f2001.d	249169003	YS1	18-MAR-2010 09:31	1965922	249169	1.0 CDMF	UPLOAD BOTH COLUMNS, USE FRONT
021f2101.d	249169004	YS1	18-MAR-2010 09:43	1965922	249169	1.01CDMF	UPLOAD BOTH COLUMNS, USE FRONT
022f2201.d	18M102222-60 02	YS1	18-MAR-2010 09:56		031810	1.01	PASSED ON BOTH COLUMNS
023f2301.d	18M100222-60 03	YS1	18-MAR-2010 10:06		031810	1.01	PASSED ON BOTH COLUMNS
024f2401.d	249169005	YS1	18-MAR-2010 10:17	1965922	249169	1.01CDMF	UPLOAD BOTH COLUMNS, USE FRONT
025f2501.d	1202072841	YS1	18-MAR-2010 10:27	1965922	249169	1.01QC A	UPLOAD BOTH COLUMNS, USE FRONT
026f2601.d	1202072842	YS1	18-MAR-2010 10:38	1965922	249169	1.01QC A	UPLOAD BOTH COLUMNS, USE FRONT
027f2701.d	249169006	YS1	18-MAR-2010 10:48		249169	1.01CDMF	UPLOAD BOTH COLUMNS, USE FRONT
028f2801.d	249169007	YS1	18-MAR-2010 10:59	1965922	249169	1.01CDMF	UPLOAD BOTH COLUMNS, USE FRONT
029f2901.d	1202072843	YS1	18-MAR-2010 11:09	1965922	249169	1.01QC A	UPLOAD BOTH COLUMNS, USE FRONT
030f3001.d	1202072844	YS1	18-MAR-2010 11:20	1965922	249169	1.01QC A	UPLOAD BOTH COLUMNS, USE FRONT
031f3101.d	249169008	YS1	18-MAR-2010 11:30	1965922	249169	1.01CDMF	UPLOAD BOTH COLUMNS, USE FRONT
032f3201.d	249169009	YS1	18-MAR-2010 11:41	1965922	249169	1.01CDMF	UPLOAD BOTH COLUMNS, USE FRONT
033f3301.d	249169010	YS1	18-MAR-2010 11:54	1965922	249169	1.01CDMF	UPLOAD BOTH COLUMNS, USE FRONT
034f3401.d	18M102222-60 04	YS1	18-MAR-2010 12:06		031810	1.01	PASSED ON BOTH COLUMNS
035f3501.d	18M10219-99 03	YS1	18-MAR-2010 12:17		031810	1.01	CLEAN

Instrument Batch: /chem/ecdl.i/031810.b Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	148161003	YS1	18-MAR-2010 12:27		031810	1.01	LANL 248161003 MORE SULFUR CLEANED. NO HIT.	
037f3701.d	1202072978	YS1	18-MAR-2010 12:38	1965975	10-2145	1.01QC A	UPLOAD BOTH COLUMNS, USE HIGHER	
038f3801.d	1202072979	YS1	18-MAR-2010 12:48	1965975	10-2145	1.01QC A	UPLOAD BOTH COLUMNS, USE HIGHER	
039f3901.d	248255001	YS1	18-MAR-2010 12:59	965975	110-2145	10.01LANL	UPLOAD BOTH COLUMNS, USE HIGHER	
040f4001.d	248255002	YS1	18-MAR-2010 13:11	1965975	110-2145	1.01LANL	UPLOAD BOTH COLUMNS, USE HIGHER	

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
1041f4101.d	248255003	YS1	18-MAR-2010 13:24	965975	10-2145	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1042f4201.d	248255004	YS1	18-MAR-2010 13:37	965975	10-2145	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1043f4301.d	248255005	YS1	18-MAR-2010 13:49	965975	10-2145	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1044f4401.d	248255006	YS1	18-MAR-2010 14:02	965975	10-2145	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1045f4501.d	248255007	YS1	18-MAR-2010 14:15	965975	10-2145	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1046f4601.d	18MAR100222-60 05	YS1	18-MAR-2010 14:27	965975	10-2145	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1047f4701.d	18MAR100219-99 04	YS1	18-MAR-2010 14:38	965975	10-2145	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1048f4801.d	248370001	YS1	18-MAR-2010 14:48	965975	10-2150	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1049f4901.d	248370002	YS1	18-MAR-2010 15:01	965975	10-2150	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1050f5001.d	248370003	YS1	18-MAR-2010 15:13	965975	10-2150	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1051f5101.d	248370004	YS1	18-MAR-2010 15:26	965975	10-2150	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1052f5201.d	248370005	YS1	18-MAR-2010 15:39	965975	10-2150	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1053f5301.d	248370006	YS1	18-MAR-2010 15:51	965975	10-2150	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1054f5401.d	248422001	YS1	18-MAR-2010 16:04	965975	10-2166	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1055f5501.d	248422002	YS1	18-MAR-2010 16:16	965975	10-2166	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1056f5601.d	18MAR100222-60 06	YS1	18-MAR-2010 16:29	965975	10-2180	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1057f5701.d	18MAR100219-99 05	YS1	18-MAR-2010 16:42	965975	10-2180	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1058f5801.d	248506001	YS1	18-MAR-2010 16:54	965975	10-2193	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1059f5901.d	18MAR1002072980	YS1	18-MAR-2010 17:07	965975	10-2193	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
1060f6001.d	18MAR1002072981	YS1	18-MAR-2010 17:20	965975	10-2193	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
1061f6101.d	248506002	YS1	18-MAR-2010 17:32	965975	10-2193	1.0	LANL	RE SUPROGATE LOW
1062f6201.d	248506003	YS1	18-MAR-2010 17:45	965975	10-2193	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1063f6301.d	18MAR100222-60 07	YS1	18-MAR-2010 17:57	965975	10-2180	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1064f6401.d	18MAR100219-99 06	YS1	18-MAR-2010 18:10	965975	10-2180	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

1065f6501.d	new alumina	YS1	118-MAR-2010 18:23	1	1031810	.	1.01	NEW ALUMINA SCREEN GOOD	1
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Instrument Batch: /chem/ecdl1a.i/031810.b

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## GEL ORGANIC RUN LOG

INSTRUMENT ID: ECD1

DATE: 03/23/2010 METHOD: ECD1-F-8082-031110b.m OPERATOR:YS1 REVIEWED BY: \_\_\_\_\_

HARDWARE CONFIGURATION &amp; METHOD SUMMARY: No. 1 on pg. 1 DATE: \_\_\_\_\_

SOLVENT LOT DA936  
ALUMINA LOT 1281992-A  
COPPER LOT 1249397-ACalibration & QC Information  
Initial Calibration Dates: See Calibration History and Standard Logbook.  
Initial Calibration Std ID's: See Calibration History and Standard Logbook.GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082  
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,  
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,  
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/032210.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	22-MAR-2010 06:52	032210	1.01		CLEAN	
002f0201.d	WAR100222-60 01	YS1	22-MAR-2010 07:02	032210	1.01		PASSED ON BOTH COLUMNS	
003f0301.d	WAR100219-54	YS1	22-MAR-2010 07:13	032210	1.01		PASSED ON BOTH COLUMNS	
004f0401.d	WAR100219-42	YS1	22-MAR-2010 07:23	032210	1.01		PASSED ON BOTH COLUMNS	
005f0501.d	WAR100223-48	YS1	22-MAR-2010 07:34	032210	1.01		PASSED ON BOTH COLUMNS	
006f0601.d	WAR100107-68	YS1	22-MAR-2010 07:44	032210	1.01		PASSED ON BOTH COLUMNS	
007f0701.d	WAR100104-32	YS1	22-MAR-2010 07:55	032210	1.01		PATTERN ONLY	
008f0801.d	WAR100104-21	YS1	22-MAR-2010 08:05	032210	1.01		PATTERN ONLY	
009f0901.d	WAR100104-62	YS1	22-MAR-2010 08:16	032210	1.01		PATTERN ONLY	
010f1001.d	WAR091219-DDT	YS1	22-MAR-2010 08:26	032210	1.01		DDT ANALOG STANDARD	
011f1101.d	WAR100219-99 02	YS1	22-MAR-2010 08:37	032210	1.01		CLEAN	
012f1201.d	1202074817	YS1	22-MAR-2010 08:47	966771	10-2216	1.01QC A	3LOAD BOTH COLUMNS, USE HIGHER	
013f1301.d	1202074818	YS1	22-MAR-2010 08:58	966771	10-2216	1.01QC A	UPLOAD BOTH COLUMNS, USE HIGHER	
014f1401.d	248556002	YS1	22-MAR-2010 09:08	966771	10-2216	1.01LANL	DCSE RE DCE TO BLANK CONTAMINATION	
015f1501.d	248556003	YS1	22-MAR-2010 09:21	966771	10-2216	1.01LANL	UPLOAD BOTH COLUMNS, USE HIGHER	

Instrument Batch: /chem/ecd1a.i/032210.b

Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
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1016f1601.d	1248556004	YS1	122-MAR-2010 09:33	966771	110-2216	5.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1017f1701.d	1248556005	YS1	122-MAR-2010 09:46	966771	110-2216	5.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1018f1801.d	1248556006	YS1	122-MAR-2010 09:59	966771	110-2216	5.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1019f1901.d	1248556007	YS1	122-MAR-2010 10:11	966771	110-2216	5.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1020f2001.d	1248556008	YS1	122-MAR-2010 10:24	966771	110-2216	5.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1021f2101.d	1248660002	YS1	122-MAR-2010 10:36	966771	110-2244	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1022f2201.d	WAR100222-60 02	YS1	122-MAR-2010 10:49		1032210	1.0	PASSED ON BOTH COLUMNS
1023f2301.d	WAR100219-99 03	YS1	122-MAR-2010 11:00		1032210	1.0	CLEAN
1024f2401.d	1248702001	YS1	122-MAR-2010 11:10	966771	110-2264	5.0 LANL	DUSE RE DUE TO BLANK CONTAMINATION
1025f2501.d	1248702002	YS1	122-MAR-2010 11:23	966771	110-2264	1.0 LANL	DUSE RE DUE TO BLANK CONTAMINATION
1026f2601.d	1248747001	YS1	122-MAR-2010 11:35	966771	110-2279	1.0 LANL	DUSE RE DUE TO BLANK CONTAMINATION
1027f2701.d	1248747002	YS1	122-MAR-2010 11:48	966771	110-2279	1.0 LANL	DUSE RE DUE TO BLANK CONTAMINATION
1028f2801.d	1248747003	YS1	122-MAR-2010 12:01	966771	110-2279	5.0 LANL	DUSE RE DUE TO BLANK CONTAMINATION
1029f2901.d	1248747004	YS1	122-MAR-2010 12:13	966771	110-2279	1.0 LANL	DUSE RE DUE TO BLANK CONTAMINATION
1030f3001.d	1248747005	YS1	122-MAR-2010 12:26	966771	110-2279	5.0 LANL	DUSE RE DUE TO BLANK CONTAMINATION
1031f3101.d	1248747006	YS1	122-MAR-2010 12:39	966771	110-2279	5.0 LANL	DUSE RE DUE TO BLANK CONTAMINATION
1032f3201.d	1248747007	YS1	122-MAR-2010 12:51	966771	110-2279	5.0 LANL	DUSE RE DUE TO BLANK CONTAMINATION
1033f3301.d	WAR100222-60 03	YS1	122-MAR-2010 13:04		1032210	1.0	PASSED ON BOTH COLUMNS
1034f3401.d	WAR100219-99 04	YS1	122-MAR-2010 13:14		1032210	1.0	CLEAN
1035f3501.d	1248824001	YS1	122-MAR-2010 13:25	966771	110-2305	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/032210.b

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Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
1036f3601.d	1202074819	YS1	122-MAR-2010 13:37	966771	110-2305	1.0 QC A	UPLOAD BOTH COLUMNS, USE HIGHER	
1037f3701.d	1202074820	YS1	122-MAR-2010 13:50	966771	110-2305	1.0 QC A	UPLOAD BOTH COLUMNS, USE HIGHER	
1038f3801.d	1248824002	YS1	122-MAR-2010 14:03	966771	110-2305	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER	
1039f3901.d	WAR100222-60 05	YS1	122-MAR-2010 14:15		1032210	1.0	PASSED ON BOTH COLUMNS	
1040f4001.d	WAR100219-99 06	YS1	122-MAR-2010 14:26		1032210	1.0	CLEAN	

1041f4101.d	1202076239	YS1	122-MAR-2010 14:36	967354	110-2298	1.0 QC A	UPLOAD BOTH COLUMNS, USE HIGHER
1042f4201.d	1202076240	YS1	122-MAR-2010 14:49	967354	110-2298	1.0 QC A	UPLOAD BOTH COLUMNS, USE HIGHER
1043f4301.d	1248506002	YS1	122-MAR-2010 15:01	967354	110-2193	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1044f4401.d	1248815001	YS1	122-MAR-2010 15:14	967354	110-2298	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1045f4501.d	1202076241	YS1	122-MAR-2010 15:27	967354	110-2298	1.0 QC A	UPLOAD BOTH COLUMNS, USE HIGHER
1046f4601.d	1202076242	YS1	122-MAR-2010 15:39	967354	110-2298	1.0 QC A	UPLOAD BOTH COLUMNS, USE HIGHER
1047f4701.d	1248815002	YS1	122-MAR-2010 15:52	967354	110-2298	5.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1048f4801.d	1248815003	YS1	122-MAR-2010 16:05	967354	110-2298	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1049f4901.d	1248815004	YS1	122-MAR-2010 16:17	967354	110-2298	1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1050f5001.d	1248815005	YS1	122-MAR-2010 16:30	967354	110-2298	5.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1051f5101.d	1248815006	YS1	122-MAR-2010 16:42	967354	110-2298	1.0	PASSED ON BOTH COLUMNS
1052f5201.d	1248815007	YS1	122-MAR-2010 16:55	967354	110-2298	1.0	CLEAN
1053f5301.d	1248815008	YS1	122-MAR-2010 17:08	967354	110-2298	5.0 LANL	USE RE
1054f5401.d	1248815009	YS1	122-MAR-2010 17:20	967354	110-2298	5.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1055f5501.d	1248815010	YS1	122-MAR-2010 17:33	967354	110-2298	5.0 LANL	USE RE

Instrument Batch: /chem/ecdl1a.i/032210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
1056f5601.d	1248815009	YS1	122-MAR-2010 17:45	967354	110-2298	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1057f5701.d	1248815010	YS1	122-MAR-2010 17:58	967354	110-2298	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1058f5801.d	1248815011	YS1	122-MAR-2010 18:11	967354	110-2298	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1059f5901.d	1248815012	YS1	122-MAR-2010 18:23	967354	110-2298	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
1060f6001.d	1248815013	YS1	122-MAR-2010 18:36	967354	110-2298	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER





GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/032210.b/045b4501.d

Lab Smp Id: 1202076241

Client Smp ID: RE46-10-13867MS

Inj Date : 22-MAR-2010 15:27

Operator : YS1

Inst ID: ecdla.i

Smp Info : |1202076241|1|

Misc Info : |ECD82P\_1S|967354|SVA|QC A|SOIL|MS|1|

Comment :

Method : /chem/ecdla.i/032210.b/ECD1-B-8082-031110b.m

Meth Date : 23-Mar-2010 06:36 yip00818

Quant Type: ESTD

Cal Date : 22-FEB-2010 12:08

Cal File: 036b3601.d

Als bottle: 45

QC Sample: MS

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 10-2298.sub

Target Version: 3.50

Sample Matrix: Soil

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	7.89670	% Moisture

Cpnd Variable

Local Compound Variable

CONCENTRATIONS

RT	EXP RT	DLT RT	ON-COL	FINAL	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
\$ 11 4cmx							CAS #: 877-09-8	
2.270	2.269	0.001	43011796	163.959	5.9	80.00- 120.00	100.00	
\$ 12 Decachlorobiphenyl							CAS #: 2051-24-3	
5.910	5.911	-0.001	31541491	168.515	6.1	80.00- 120.00	100.00	
1 Aroclor-1016							CAS #: 12674-11-2	
3.163	3.164	-0.001	10535756	837.169	30.3	80.00- 120.00	100.00 (M)	
3.247	3.246	0.001	6764989	783.510	28.3	45.75- 85.75	64.21	
3.310	3.310	0.000	4116211	778.607	28.2	20.72- 60.72	39.07	
3.537	3.537	0.000	5518077	800.566	29.0	31.59- 71.59	52.37	
3.612	3.612	0.000	5161521	803.654	29.1	38.09- 78.09	59.19	
Average of Peak Concentrations =				29.0				

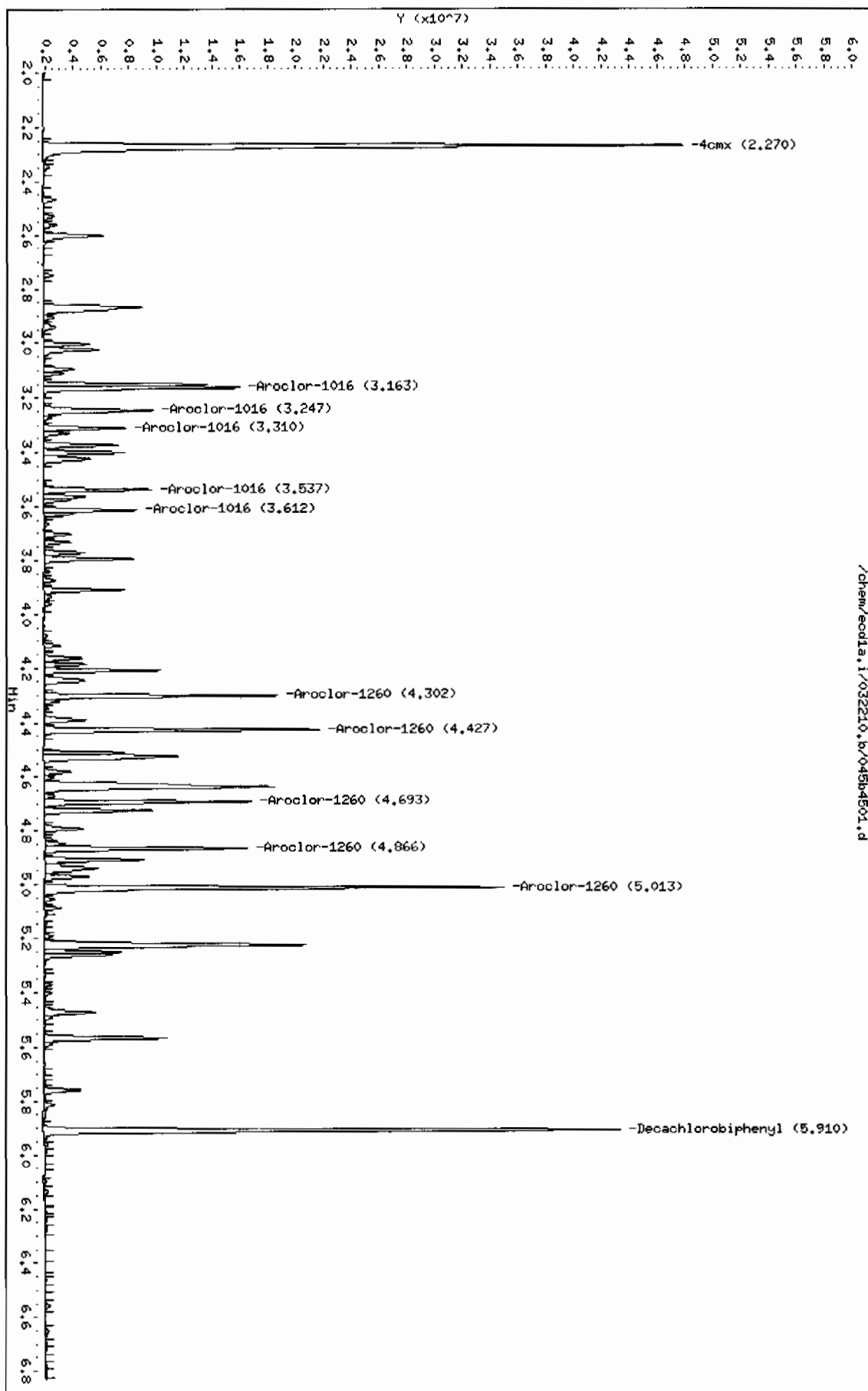
CONCENTRATIONS								
			ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE	RATIO	
1.18	=====	=====	=====		=====	=====		=====
7 Aroclor-1260					CAS #: 11096-82-5			
4.302	4.303	-0.001	11540718	882.302	31.9	80.00- 120.00	100.00	
4.427	4.428	-0.001	14057861	904.099	32.7	101.68- 141.68	121.81	
4.693	4.694	-0.001	10598266	890.905	32.2	71.42- 111.42	91.83	
4.866	4.867	-0.001	10811712	879.772	31.8	74.52- 114.52	93.68	
5.013	5.014	-0.001	24517455	928.880	33.6	190.00- 230.00	212.44	
Average of Peak Concentrations =					32.4			

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/eod1a.i/032210.b/045b4501.d  
Date: 22-MAR-2010 15:27  
Client ID: RE46-10-13867HS  
Sample Info: 1120207624111  
Volume Injected (uL): 1.0  
Column phase: CLP2

Instrument: eod1a.i  
Operator: YSA  
Column diameter: 0.25



Data File: /chem/ecdla.i/032210.b/045f4501.d  
Report Date: 23-Mar-2010 07:53

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecdla.i/032210.b/045f4501.d  
Lab Smp Id: 1202076241 Client Smp ID: RE46-10-13867MS  
Inj Date : 22-MAR-2010 15:27  
Operator : YS1 Inst ID: ecdla.i  
Smp Info : |1202076241|1|  
Misc Info : |ECD82P\_1S|967354|SVA|QC A|SOIL|MS|||  
Comment :  
Method : /chem/ecdla.i/032210.b/ECD1-F-8082-031110b.m  
Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
Als bottle: 45 QC Sample: MS  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2298.sub  
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt \* DF \* Uf \* Vt/(Vi \* Ws \* (100 - M)/100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	7.89670	% Moisture

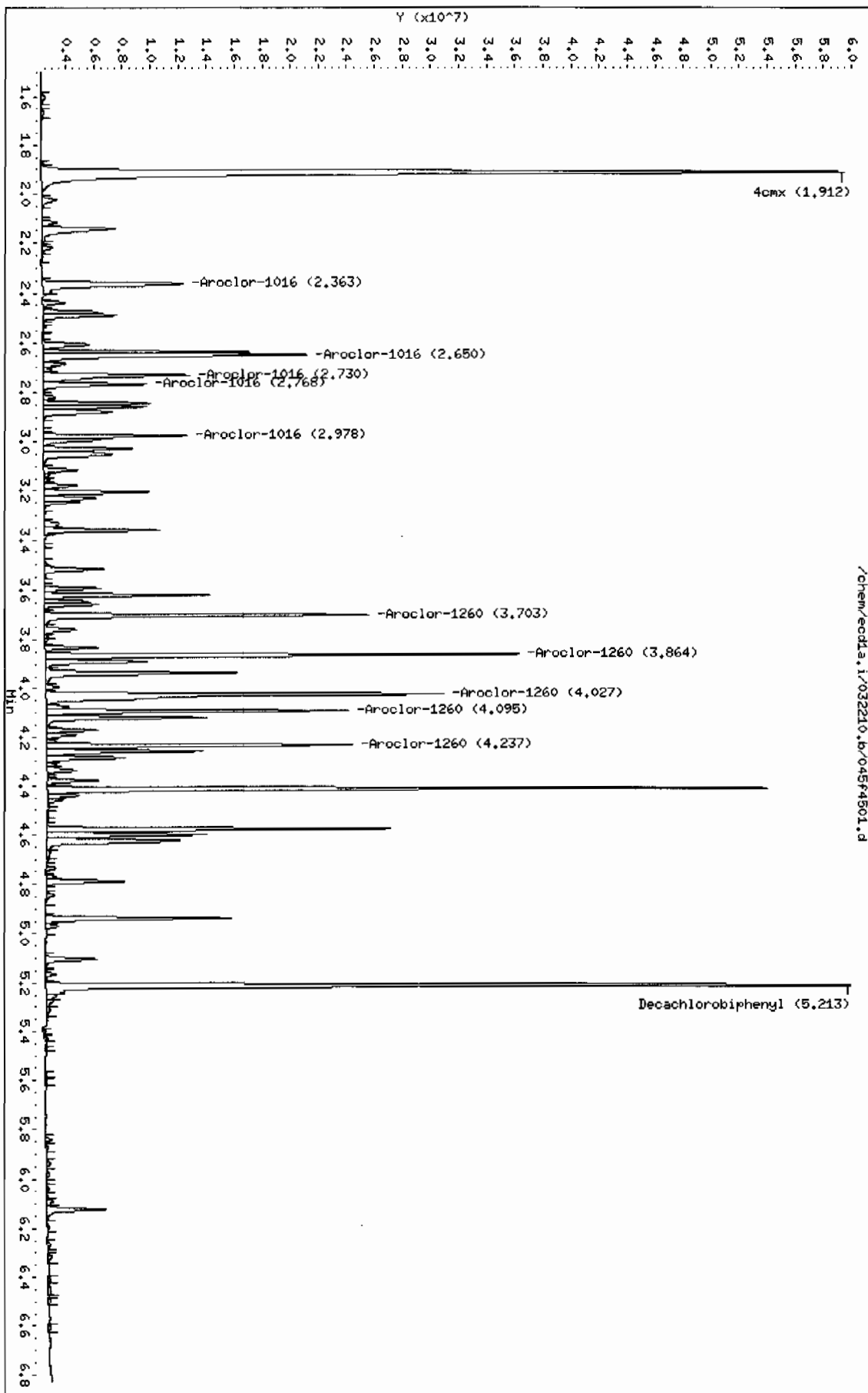
Cpnd Variable Local Compound Variable

CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
\$ 11 4cmx CAS #: 877-09-8						
1.912	1.911	0.001	67061303	172.163	6.2 80.00- 120.00	100.00
-----						
\$ 12 Decachlorobiphenyl CAS #: 2051-24-3						
5.213	5.216	-0.003	51796414	174.440	6.3 80.00- 120.00	100.00
-----						
1 Aroclor-1016 CAS #: 12674-11-2						
2.363	2.364	-0.001	12207368	804.344	29.1 80.00- 120.00	100.00
2.650	2.650	0.000	16319154	861.816	31.2 112.85- 152.85	133.68
2.730	2.730	0.000	10183504	818.468	29.6 60.06- 100.06	83.42
2.768	2.768	0.000	6067950	825.760	29.9 28.30- 68.30	49.71
2.978	2.978	0.000	7996453	840.160	30.4 42.29- 82.29	65.51
Average of Peak Concentrations =				30.0		
-----						

CONCENTRATIONS							
			ON-COL		FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)		(ug/Kg)	TARGET RANGE	RATIO
=====	=====	=====	=====	=====	=====	=====	=====
7 Aroclor-1260				CAS #: 11096-82-5			
3.703	3.704	-0.001	17542369	957.026	34.6	80.00- 120.00	100.00
3.864	3.866	-0.002	25982113	966.243	34.9	128.74- 168.74	148.11
4.027	4.028	-0.001	27999070	988.832	35.8	138.95- 178.95	159.61
4.095	4.096	-0.001	15723720	973.131	35.2	69.61- 109.61	89.63
4.237	4.240	-0.003	15501078	921.988	33.3	72.96- 112.96	88.36
Average of Peak Concentrations =				34.8			

Data File: /chem/eod1a.i/032210.b/045f4501.d  
Date: 22-MAR-2010 15:27  
Client ID: RE46-10-13867HS  
Sample Info: 1120207624111  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: eod1a.i  
Operator: YSI  
Column diameter: 0.25



Data File: /chem/ecdl1a.i/032210.b/046b4601.d  
Report Date: 23-Mar-2010 07:54

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL  
Data file : /chem/ecdl1a.i/032210.b/046b4601.d  
Lab Smp Id: 1202076242 Client Smp ID: RE46-10-13867MSD  
Inj Date : 22-MAR-2010 15:39  
Operator : YS1 Inst ID: ecd1a.i  
Smp Info : |1202076242|1|  
Misc Info : |ECD82P\_1S|967354|SVA|QC A|SOIL|MSD|  
Comment :  
Method : /chem/ecdl1a.i/032210.b/ECD1-B-8082-031110b.m  
Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD  
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d  
Als bottle: 46 QC Sample: MSD  
Dil Factor: 1.00000  
Integrator: Falcon Compound Sublist: 10-2298.sub  
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	7.89670	% 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		
2.269	2.269	0.000	41996406	160.088	5.8	80.00-	120.00 100.00
\$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.910	5.911	-0.001	31828685	170.049	6.1	80.00-	120.00 100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.163	3.164	-0.001	9928604	788.925	28.5	80.00-	120.00 100.00 (M)
3.247	3.246	0.001	6344173	734.772	26.5	45.75-	85.75 63.90
3.310	3.310	0.000	3816956	722.001	26.1	20.72-	60.72 38.44
3.537	3.537	0.000	4999539	725.336	26.2	31.59-	71.59 50.35
3.612	3.612	0.000	4865554	757.572	27.4	38.09-	78.09 57.77
Average of Peak Concentrations =				26.9			

CONCENTRATIONS						
			ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO
==	=====		=====	=====	=====	=====
7 Aroclor-1260			CAS #: 11096-82-5			
4.302	4.303	-0.001	11118231	850.003	30.7 80.00- 120.00	100.00
4.427	4.428	-0.001	13650594	877.907	31.7 101.68- 141.68	122.78
4.692	4.694	-0.002	10335147	868.787	31.4 71.42- 111.42	92.96
4.866	4.867	-0.001	10471741	852.108	30.8 74.52- 114.52	94.19
5.012	5.014	-0.002	24009318	909.629	32.8 190.00- 230.00	215.95
Average of Peak Concentrations =			31.5			

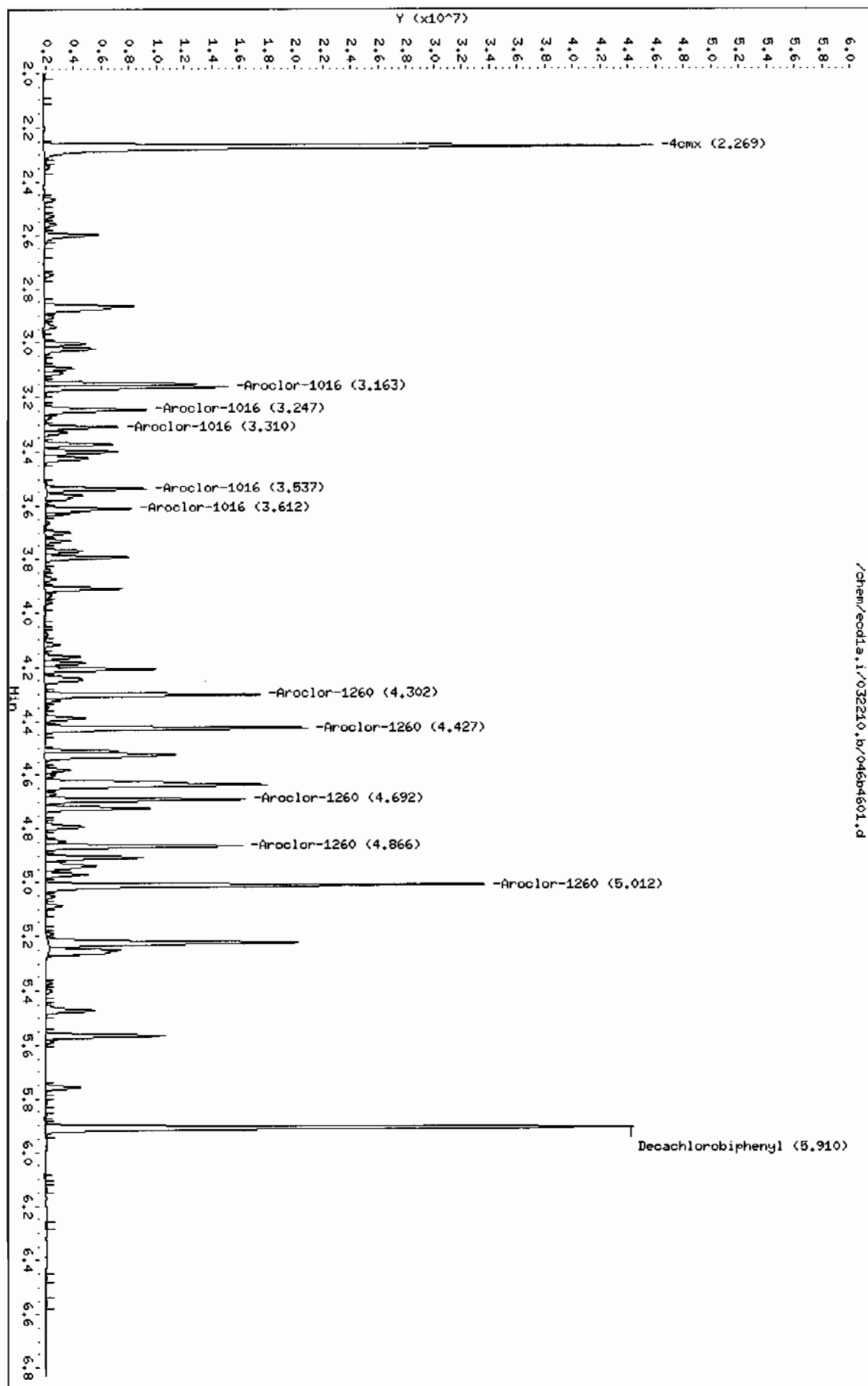
QC Flag Legend

M - Compound response manually integrated.



Data File: /chem/eod1a.i/032210.b/046b4601.d  
Date: 22-MAR-2010 15:39  
Client ID: RE46-10-13867MSD  
Sample Info: 11202076242111  
Volume Injected (uL): 1.0  
Column phase: CLP2

Instrument: eod1a.i  
Operator: YSI  
Column diameter: 0.25



GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL  
 Data file : /chem/ecdla.i/032210.b/046f4601.d  
 Lab Smp Id: 1202076242 Client Smp ID: RE46-10-13867MSD  
 Inj Date : 22-MAR-2010 15:39  
 Operator : YS1 Inst ID: ecdla.i  
 Smp Info : |1202076242|1|  
 Misc Info : |ECD82P\_1S|967354|SVA|QC A|SOIL|MSD|||  
 Comment :  
 Method : /chem/ecdla.i/032210.b/ECD1-F-8082-031110b.m  
 Meth Date : 23-Mar-2010 06:36 yip00818 Quant Type: ESTD  
 Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d  
 Als bottle: 46 QC Sample: MSD  
 Dil Factor: 1.00000  
 Integrator: Falcon Compound Sublist: 10-2298.sub  
 Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt \* DF \* Uf \* Vt / (Vi \* Ws \* (100 - M) / 100) \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	7.89670	% Moisture

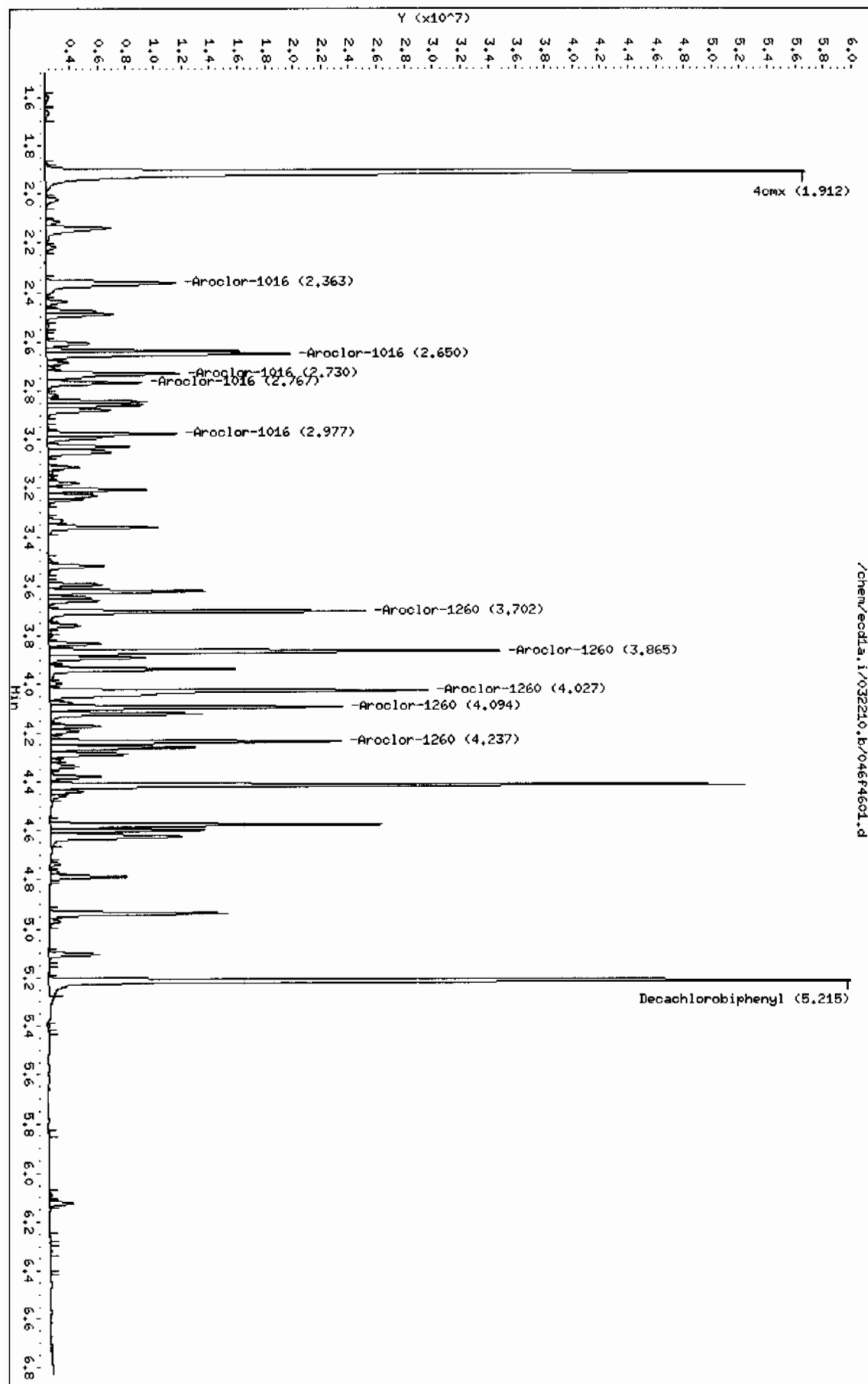
Cpnd Variable Local Compound Variable

CONCENTRATIONS							
RT	EXP RT	DLT RT	ON-COL	FINAL	TARGET RANGE	RATIO	
==	=====	=====	RESPONSE ( ug/L)	(ug/Kg)	=====	=====	=====
§ 11 4cmx CAS #: 877-09-8							
1.912	1.911	0.001	65849314	169.051	6.1 80.00- 120.00	100.00	
§ 12 Decachlorobiphenyl CAS #: 2051-24-3							
5.215	5.216	-0.001	54123842	182.278	6.6 80.00- 120.00	100.00	
1 Aroclor-1016 CAS #: 12674-11-2							
2.363	2.364	-0.001	11754979	774.536	28.0 80.00- 120.00	100.00	
2.650	2.650	0.000	15457311	816.302	29.5 112.85- 152.85	131.50	
2.730	2.730	0.000	9502968	763.772	27.6 60.06- 100.06	80.84	
2.767	2.768	-0.001	5632669	766.525	27.7 28.30- 68.30	47.92	
2.977	2.978	-0.001	7402773	777.784	28.1 42.29- 82.29	62.98	
Average of Peak Concentrations =				28.2			

CONCENTRATIONS							
		ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE ( ug/L)	(ug/Kg)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	
7 Aroclor-1260			CAS #: 11096-82-5				
3.702	3.704	-0.002	16778714 915.364	33.0	80.00- 120.00	100.00	
3.865	3.866	-0.001	24955969 928.082	33.5	128.74- 168.74	148.74	
4.027	4.028	-0.001	26816461 947.066	34.2	138.95- 178.95	159.82	
4.094	4.096	-0.002	15269171 944.999	34.1	69.61- 109.61	91.00	
4.237	4.240	-0.003	15263812 907.876	32.8	72.96- 112.96	90.97	
Average of Peak Concentrations =				33.5			

Data File: /chem/eodla.i/032210.b/046f4601.d  
Date: 22-MAR-2010 15:39  
Client ID: RE46-10-13867MSD  
Sample Info: 1120207624211  
Volume Injected (uL): 1.0  
Column phase: CLP1

Instrument: eodla.i  
Operator: YSL  
Column diameter: 0.25



# Prep Logbook

## Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 965974  
 Analyst: Robin Hunt  
 Method: SW846 3550B

Verified by: \_\_\_\_\_

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
1202072978 MB	17-MAR-2010 11:22:00	30	H2SO4/KMI	1	1	8	1	0.0333
1202072979 LCS	17-MAR-2010 11:22:00	30	H2SO4/KMI	1	1	8	1	0.0333
248255001	17-MAR-2010 11:22:00	30	H2SO4/KMI	1	1	8	1	0.0333
248255002	17-MAR-2010 11:22:00	30	H2SO4/KMI	1	1	8	1	0.0333
248255003	17-MAR-2010 11:22:00	30	H2SO4/KMI	1	1	8	1	0.0333
248255004	17-MAR-2010 11:22:00	30.02	H2SO4/KMI	1	1	8	1	0.0331
248255005	17-MAR-2010 11:22:00	30	H2SO4/KMI	1	1	8	1	0.0333
248255006	17-MAR-2010 11:22:00	30	H2SO4/KMI	1	1	8	1	0.0333
248255007	17-MAR-2010 11:22:00	30	H2SO4/KMI	1	1	8	1	0.0333
248370001	17-MAR-2010 11:22:00	30.02	H2SO4/KMI	1	1	8	1	0.0331
248370002	17-MAR-2010 11:22:00	30.01	H2SO4/KMI	1	1	8	1	0.0332
248370003	17-MAR-2010 11:22:00	30.03	H2SO4/KMI	1	1	8	1	0.0332
248370004	17-MAR-2010 11:22:00	30.09	H2SO4/KMI	1	1	8	1	0.0332
248370005	17-MAR-2010 11:22:00	30.05	H2SO4/KMI	1	1	8	1	0.0333
248370006	17-MAR-2010 11:22:00	30	H2SO4/KMI	1	1	8	1	0.0333
248422001	17-MAR-2010 11:22:00	30	H2SO4/KMI	1	1	8	1	0.0333
248422002	17-MAR-2010 11:22:00	30	H2SO4/KMI	1	1	8	1	0.0333
248506001	17-MAR-2010 11:22:00	30	H2SO4/KMI	1	1	8	1	0.0333
1202072980 MS (248506001)	17-MAR-2010 11:22:00	30.01	H2SO4/KMI	1	1	8	1	0.0332
1202072981 MSD (248506001)	17-MAR-2010 11:22:00	30	H2SO4/KMI	1	1	8	1	0.0333
248506002	17-MAR-2010 11:22:00	30	H2SO4/KMI	1	1	8	1	0.0333
248506003	17-MAR-2010 11:22:00	30	H2SO4/KMI	1	1	8	1	0.0333

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202072979	PCB Laboratory Control	WEI00311-07	1	mL	Clean up Date: 03/17/2010
MS	1202072980	PCB Laboratory Control	WEI00311-07	1	mL	Clean up Initials: RWH
MSD	1202072981	PCB Laboratory Control	WEI00311-07	1	mL	Verified By: JAM
SURR	All	PEST LOW LEVEL SURROGATE 200 U/G/L	UEI00302-16	1	mL	Final Solvent: Hexane
REGNT	All	1:1 sulfuric acid	1260695a	5	mL	Clean Up SOP: GL-OA-E-037
REGNT	All	Acetone	1273739-B1	150	mL	
REGNT	All	Hexane	1279341-B2	150	mL	
REGNT	All	5% Potassium Permanganate	BI275177-F	5	mL	
SOURC	All	SODIUM SULFATE	1274910	30	g	

# Prep Logbook

## Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 967352 Verified by: \_\_\_\_\_  
 Analyst: Andrew Schwennin  
 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)
1202076239 MB	21-MAR-2010 11:56:00	30	H2SO4/KM2	2	9	1	0.03333	
1202076240 LCS	21-MAR-2010 11:56:00	30	H2SO4/KM2	2	9	1	0.03333	
248506002 - 2	21-MAR-2010 11:56:00	30.18	H2SO4/KM2	2	9	1	0.03313	
248815001	21-MAR-2010 11:56:00	30.14	H2SO4/KM2	2	9	1	0.03318	
1202076241 MS (248815001)	21-MAR-2010 11:56:00	30.02	H2SO4/KM2	2	9	1	0.03331	
1202076242 MSD (248815001)	21-MAR-2010 11:56:00	30.07	H2SO4/KM2	2	9	1	0.03326	
248815002	21-MAR-2010 11:56:00	30.16	H2SO4/KM2	2	9	1	0.03316	
248815003	21-MAR-2010 11:56:00	30.05	H2SO4/KM2	2	9	1	0.03328	
248815004	21-MAR-2010 11:56:00	30.05	H2SO4/KM2	2	9	1	0.03328	
248815005	21-MAR-2010 11:56:00	30.19	H2SO4/KM2	2	9	1	0.03312	
248815006	21-MAR-2010 11:56:00	30.16	H2SO4/KM2	2	9	1	0.03316	
248815007	21-MAR-2010 11:56:00	30.07	H2SO4/KM2	2	9	1	0.03326	
248815008	21-MAR-2010 11:56:00	30.12	H2SO4/KM2	2	9	1	0.0332	
248815009	21-MAR-2010 11:56:00	30.14	H2SO4/KM2	2	9	1	0.03318	
248815010	21-MAR-2010 11:56:00	30.19	H2SO4/KM2	2	9	1	0.03312	
248815011	21-MAR-2010 11:56:00	30.07	H2SO4/KM2	2	9	1	0.03326	

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202076240	PCB Laboratory Control	WEI00311-07	1	mL	Clean up Date: 3/21/10
MS	1202076241	PCB Laboratory Control	WEI00311-07	1	mL	Clean up Initials: AJS
MSD	1202076242	PCB Laboratory Control	WEI00311-07	1	mL	Verified By: AV
SURR	ALL	PEST LOW LEVEL SURROGATE 200 UG/L	UEI00310-16	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	