



03/09/12

Technical Report for

XTO Energy

FRU 297-32A

1108-12A

Accutest Job Number: D32443

Sampling Date: 03/05/12

Report to:

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ATTN: Dwayne Knudson

Total number of pages in report: 138



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.


Brad Madadian
Laboratory Director

Client Service contact: Renea Jackson 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	3
Section 2: Case Narrative/Conformance Summary	4
Section 3: Sample Results	6
3.1: D32443-1: CUT #2 DAY 4 (3/2)	7
3.2: D32443-2: CUT #2 DAY 5 (3/5)	11
Section 4: Misc. Forms	15
4.1: Chain of Custody	16
Section 5: GC/MS Volatiles - QC Data Summaries	18
5.1: Method Blank Summary	19
5.2: Blank Spike Summary	20
5.3: Matrix Spike/Matrix Spike Duplicate Summary	21
Section 6: GC/MS Volatiles - Raw Data	22
6.1: Samples	23
6.2: Method Blanks	37
Section 7: GC/MS Semi-volatiles - QC Data Summaries	41
7.1: Method Blank Summary	42
7.2: Blank Spike Summary	43
7.3: Matrix Spike/Matrix Spike Duplicate Summary	44
Section 8: GC/MS Semi-volatiles - Raw Data	45
8.1: Samples	46
8.2: Method Blanks	80
Section 9: GC Volatiles - QC Data Summaries	97
9.1: Method Blank Summary	98
9.2: Blank Spike Summary	100
9.3: Matrix Spike/Matrix Spike Duplicate Summary	102
Section 10: GC Volatiles - Raw Data	104
10.1: Samples	105
10.2: Method Blanks	115
Section 11: GC Semi-volatiles - QC Data Summaries	125
11.1: Method Blank Summary	126
11.2: Blank Spike Summary	127
11.3: Matrix Spike/Matrix Spike Duplicate Summary	128
Section 12: GC Semi-volatiles - Raw Data	129
12.1: Samples	130
12.2: Method Blanks	136



Sample Summary

XTO Energy

Job No: D32443

FRU 297-32A

Project No: 1108-12A

Sample Number	Collected		Time By	Received	Matrix		Client Sample ID
	Date				Code	Type	
D32443-1	03/05/12	08:50	CH	03/06/12	SO	Soil	CUT #2 DAY 4 (3/2)
D32443-2	03/05/12	09:00	CH	03/06/12	SO	Soil	CUT #2 DAY 5 (3/5)

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: XTO Energy

Job No D32443

Site: FRU 297-32A

Report Date 3/9/2012 11:25:49 AM

On 03/06/2012, 2 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 2.5 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D32443 was assigned to the project. The lab sample IDs, client sample IDs, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix SO	Batch ID: V5V1196
------------------	--------------------------

- All samples were analyzed within the recommended method holding time.
- Sample(s) D32442-1MS, D32442-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix SO	Batch ID: OP5492
------------------	-------------------------

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D32443-1MS, D32443-1MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8015B

Matrix SO	Batch ID: GGB855
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- Sample(s) D32446-1MS, D32446-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix SO	Batch ID: GGB856
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D32470-2MS, D32470-2MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix SO	Batch ID: OP5483
------------------	-------------------------

- All samples were extracted and analyzed within the recommended method holding time.
- Sample(s) D32411-3MS, D32411-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method SM19 2540B M

Matrix SO	Batch ID: GN13980
------------------	--------------------------

- The data for SM19 2540B M meets quality control requirements.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	CUT #2 DAY 4 (3/2)	
Lab Sample ID:	D32443-1	Date Sampled: 03/05/12
Matrix:	SO - Soil	Date Received: 03/06/12
Method:	SW846 8260B	Percent Solids: 90.4
Project:	FRU 297-32A	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V19877.D	1	03/07/12	KV	n/a	n/a	V5V1196
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.01 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.113	0.060	0.027	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	103%		61-130%
460-00-4	4-Bromofluorobenzene	108%		53-131%
17060-07-0	1,2-Dichloroethane-D4	105%		62-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	CUT #2 DAY 4 (3/2)	
Lab Sample ID:	D32443-1	Date Sampled: 03/05/12
Matrix:	SO - Soil	Date Received: 03/06/12
Method:	SW846 8270C BY SIM SW846 3546	Percent Solids: 90.4
Project:	FRU 297-32A	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G08389.D	1	03/07/12	DC	03/07/12	OP5492	E3G340
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	0.0092	0.0048	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
4165-60-0	Nitrobenzene-d5	42%		10-145%		
321-60-8	2-Fluorobiphenyl	44%		10-130%		
1718-51-0	Terphenyl-d14	53%		22-130%		

ND = Not detected MDL - Method Detection Limit
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N = Indicates presumptive evidence of a compound

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Report of Analysis

Page 1 of 1

Client Sample ID:	CUT #2 DAY 4 (3/2)	Date Sampled:	03/05/12
Lab Sample ID:	D32443-1	Date Received:	03/06/12
Matrix:	SO - Soil	Percent Solids:	90.4
Method:	SW846 8015B		
Project:	FRU 297-32A		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB15238.D	1	03/07/12	SK	n/a	n/a	GGB855
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	7.43	12	6.0	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	96%		60-140%		

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Report of Analysis

Page 1 of 1

Client Sample ID:	CUT #2 DAY 4 (3/2)	Date Sampled:	03/05/12
Lab Sample ID:	D32443-1	Date Received:	03/06/12
Matrix:	SO - Soil	Percent Solids:	90.4
Method:	SW846-8015B SW846 3546		
Project:	FRU 297-32A		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH002041.D	1	03/07/12	TR	03/06/12	OP5483	GFH105
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	85.0	15	9.6	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	47%		43-136%		

ND = Not detected MDL - Method Detection Limit
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Report of Analysis

Page 1 of 1

Client Sample ID:	CUT #2 DAY 5 (3/5)	
Lab Sample ID:	D32443-2	Date Sampled: 03/05/12
Matrix:	SO - Soil	Date Received: 03/06/12
Method:	SW846 8260B	Percent Solids: 86.1
Project:	FRU 297-32A	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V19878.D	1	03/07/12	KV	n/a	n/a	V5V1196
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.06 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.135	0.065	0.029	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	101%		61-130%
460-00-4	4-Bromofluorobenzene	108%		53-131%
17060-07-0	1,2-Dichloroethane-D4	103%		62-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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 B = Indicates analyte found in associated method blank
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Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	CUT #2 DAY 5 (3/5)	Date Sampled:	03/05/12
Lab Sample ID:	D32443-2	Date Received:	03/06/12
Matrix:	SO - Soil	Percent Solids:	86.1
Method:	SW846 8270C BY SIM SW846 3546		
Project:	FRU 297-32A		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3G08393.D	1	03/07/12	DC	03/07/12	OP5492	E3G340
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	0.0096	0.0050	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
4165-60-0	Nitrobenzene-d5	42%		10-145%		
321-60-8	2-Fluorobiphenyl	44%		10-130%		
1718-51-0	Terphenyl-d14	46%		22-130%		

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
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Report of Analysis

Page 1 of 1

Client Sample ID:	CUT #2 DAY 5 (3/5)	Date Sampled:	03/05/12
Lab Sample ID:	D32443-2	Date Received:	03/06/12
Matrix:	SO - Soil	Percent Solids:	86.1
Method:	SW846 8015B		
Project:	FRU 297-32A		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB15251.D	1	03/08/12	SK	n/a	n/a	GGB856
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	20.1	13	6.5	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	89%		60-140%		

ND = Not detected MDL - Method Detection Limit
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 N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	CUT #2 DAY 5 (3/5)	
Lab Sample ID:	D32443-2	Date Sampled: 03/05/12
Matrix:	SO - Soil	Date Received: 03/06/12
Method:	SW846-8015B SW846 3546	Percent Solids: 86.1
Project:	FRU 297-32A	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH002043.D	1	03/07/12	TR	03/06/12	OP5483	GFH105
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	154	15	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	71%		43-136%		

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Mountain States
4036 Youngfield Street Wheat Ridge, Co 80033
TEL. 303-425-6021 877-737-4521
FAX 303-425-6021

TEST LABORATORIES Accutest Laboratory Mountain States 4036 Youngfield Street Wheat Ridge, Co 80033 TEL 303-425-6021 877-737-4521 FAX 303-425-6021		FED-EX Tracking # _____ Accutest Quote # _____ Bottle Order Control # _____		Accutest Job # D39443			
Client / Reporting Information Company Name KRW Consulting Street Address 8000 W. 14th Ave, Ste 200 City Laurens, CO State 80214 Project Contact Dwayne Kardas E-mail _____ Phone # 970-488-1098 Fax # _____ Sample(s) Name(s) C. Hollister 203-565-9365 Phone # _____		Project Information Project Name XTO - FRU - 297-32A Street _____ Billing Information (If different from Report to) Company Name XTO Energy Street Address 21459 CR5 City Rifle State CO Zip 81650 Project # 1108-12A Client PO# _____ Project Manager Joe Hess Attention Jessica Dealing		Requested Analysis (see TEST CODE sheet) <div style="border: 1px solid black; padding: 5px; width: fit-content;"> TPH (GRO + DRO) Benzene Dibenz(a,h)anthracene </div>		Matrix Codes DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Field ID / Point of Collection MEQ/DI Vol # _____ Date _____ Time _____ Sampled by _____ Matrix _____ # of bottles _____ Collection _____ Number of preserved bottles _____ HCl _____ NaOH _____ HNO3 _____ H2SO4 _____ NONE _____ MEOH _____ ENCORE _____ Bismuth _____		Field ID / Point of Collection Cut #2 Day 4 (3/2) Cut #2 Day 5 (3/5)		Date 3/5/12 3/5/12 Time 8:40 9:00 Matrix CH SO CH SO # of bottles 3 3		LAB USE ONLY 01 02 03 3/6/12	
Turnaround Time (Business days) <input type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day FR SH <input checked="" type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY		Approved By (Accutest PM): / Date: _____ _____ _____ _____ _____		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> Commercial "B" + Narrative <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input checked="" type="checkbox"/> PDF Commercial "A" = Results Only Commercial "B" = Results + QC Summary		Please email results to KRW Piceance Creek Team.	
Emergency & Rush TJA data available via Lablink		Sample Custody must be documented with the following samples change possession, including courier delivery.		Comments / Special Instructions			
Relinquished By: [Signature] Date: 3/5/12 Time: 1700 Relinquished by Sampler: _____ Date: _____ Time: _____ Relinquished by: _____ Date: _____ Time: _____		Received By: [Signature] Date: _____ Time: _____ Received By: _____ Date: _____ Time: _____ Received By: _____ Date: _____ Time: _____		Relinquished By: [Signature] Date: _____ Time: _____ Relinquished By: [Signature] Date: _____ Time: _____ Relinquished By: _____ Date: _____ Time: _____		Received By: 2 American Courier Received By: [Signature] Date: _____ Time: _____ Received By: _____ Date: _____ Time: _____	
Custody Seal # 60		<input checked="" type="checkbox"/> Intact <input type="checkbox"/> Not Intact		Preserved where applicable <input type="checkbox"/> On Ice <input checked="" type="checkbox"/> Cooler Temp. 2.5			

D32443: Chain of Custody

Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D32443

Client: KRW CONSULTING

Immediate Client Services Action Required: No

Date / Time Received: 3/6/2012 12:00:00 PM

No. Coolers: 1

Client Service Action Required at Login: No

Project: XTO FRU 297-32A

Airbill #'s: HD/CO

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Cooler temp verification:			Infrared gun
3. Cooler media:			Ice (bag)

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input type="checkbox"/>	
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input type="checkbox"/>	
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. VOCs headspace free:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:			Intact

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume rec'd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

 Accutest Laboratories
 V:(303) 425-6021

 4036 Youngfield Street
 F: (303) 425-6854

 Wheat Ridge, CO
 www.accutest.com

GC/MS Volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D32443
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1196-MB	5V19872.D	1	03/07/12	KV	n/a	n/a	V5V1196

The QC reported here applies to the following samples:

Method: SW846 8260B

D32443-1, D32443-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	50	22	ug/kg	

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	96% 61-130%
460-00-4	4-Bromofluorobenzene	91% 53-131%
17060-07-0	1,2-Dichloroethane-D4	85% 62-130%

Blank Spike Summary

Page 1 of 1

Job Number: D32443

Account: XTOKRWR XTO Energy

Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1196-BS	5V19873.D	1	03/07/12	KV	n/a	n/a	V5V1196

The QC reported here applies to the following samples:

Method: SW846 8260B

D32443-1, D32443-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	48.8	98	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	94%	61-130%
460-00-4	4-Bromofluorobenzene	103%	53-131%
17060-07-0	1,2-Dichloroethane-D4	85%	62-130%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D32443
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D32442-1MS	5V19875.D	1	03/07/12	KV	n/a	n/a	V5V1196
D32442-1MSD	5V19876.D	1	03/07/12	KV	n/a	n/a	V5V1196
D32442-1	5V19874.D	1	03/07/12	KV	n/a	n/a	V5V1196

The QC reported here applies to the following samples:

Method: SW846 8260B

D32443-1, D32443-2

CAS No.	Compound	D32442-1 ug/kg	Spike Q	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	3480	4070	117	3610	104	12	70-134/30

CAS No.	Surrogate Recoveries	MS	MSD	D32442-1	Limits
2037-26-5	Toluene-D8	105%	92%	94%	61-130%
460-00-4	4-Bromofluorobenzene	129%	110%	100%	53-131%
17060-07-0	1,2-Dichloroethane-D4	98%	82%	92%	62-130%

GC/MS Volatiles

Raw Data



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5030712.S\
 Data File : 5V19877.D
 Acq On : 7 Mar 2012 9:10 am
 Operator : KOROUSHV
 Sample : D32443-1
 Misc : MS3513,V5V1196,5.013,,100,5,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 07 09:37:01 2012
 Quant Method : C:\msdchem\1\METHODS\V5AP1186TVH1186.M
 Quant Title : 8260
 QLast Update : Fri Mar 02 14:22:16 2012
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.647	168	192043	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	342482	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	493987	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	337864	50.00	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	12.035	102	43444	52.49	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	104.98%
61) Toluene-d8	13.851	98	819314	51.30	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.60%
69) 4-Bromofluorobenzene	16.043	95	356306	54.01	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	108.02%

Target Compounds

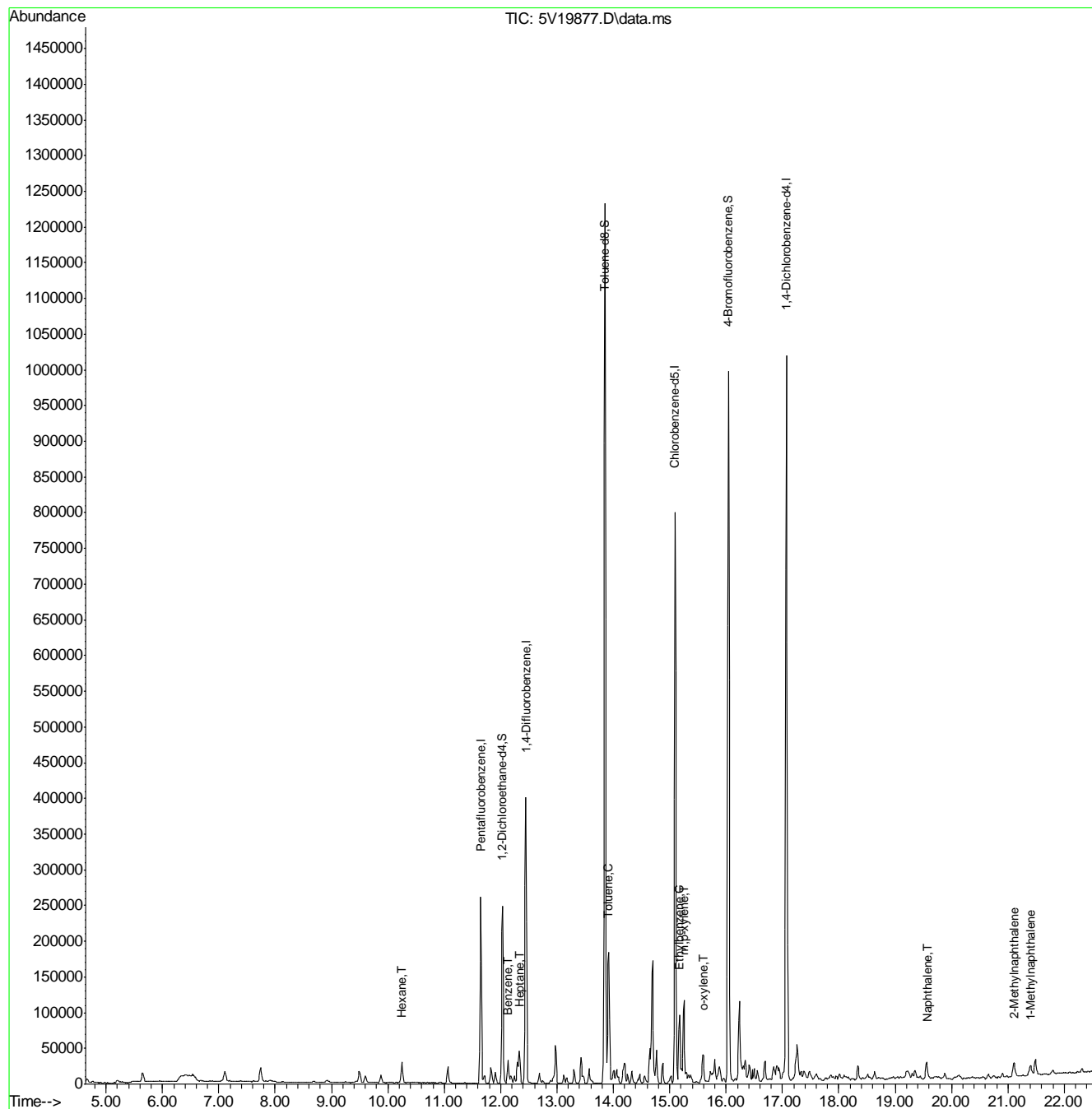
						Qvalue
41) Hexane	10.243	57	15199	3.85	ug/l	100
43) Heptane	12.332	43	16286	3.66	ug/l	83
50) Benzene	12.127	78	31393	1.86	ug/l	100
62) Toluene	13.908	92	58230	4.79	ug/l	95
66) Ethylbenzene	15.175	91	20134	0.89	ug/l	98
72) m,p-xylene	15.255	106	37528	4.05	ug/l	97
73) o-xylene	15.597	106	5198	0.98	ug/l	100
91) Naphthalene	19.570	128	19216	2.48	ug/l	100
94) 2-Methylnaphthalene	21.112	142	15139	6.12	ug/l	99
95) 1-Methylnaphthalene	21.409	142	12202	4.53	ug/l	95

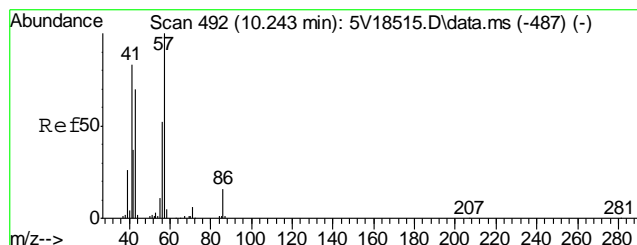
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5030712.S\
Data File : 5V19877.D
Acq On : 7 Mar 2012 9:10 am
Operator : KOROUSHV
Sample : D32443-1
Misc : MS3513,V5V1196,5.013,,100,5,1
ALS Vial : 8 Sample Multiplier: 1

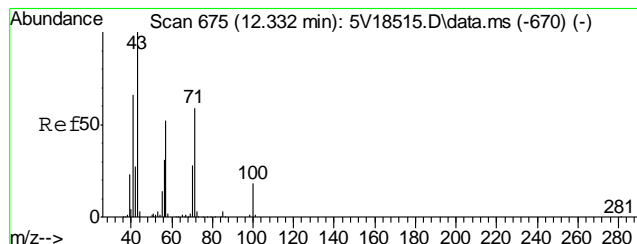
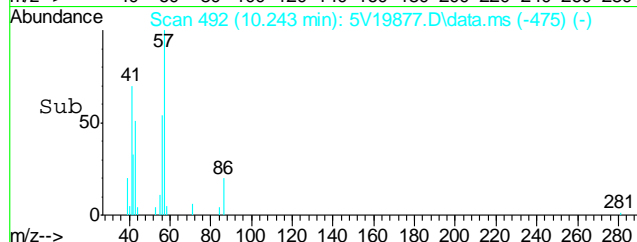
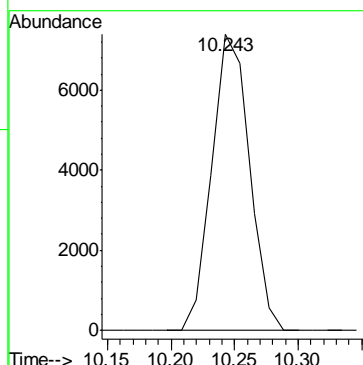
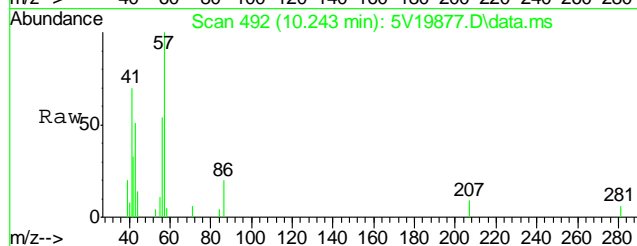
Quant Time: Mar 07 09:37:01 2012
Quant Method : C:\msdchem\1\METHODS\V5AP1186TVH1186.M
Quant Title : 8260
QLast Update : Fri Mar 02 14:22:16 2012
Response via : Initial Calibration





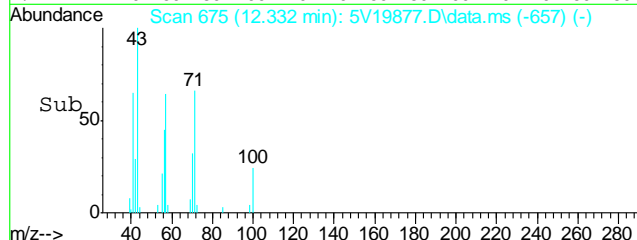
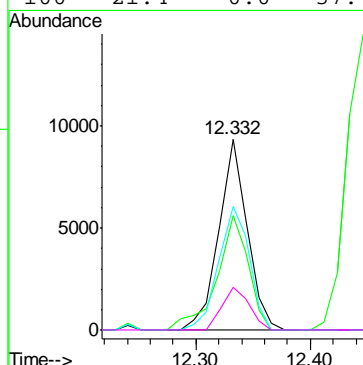
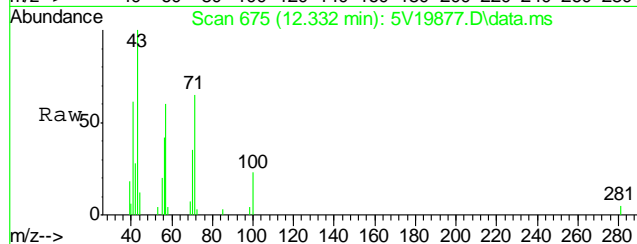
#41
Hexane
Concen: 3.85 ug/l
RT: 10.243 min Scan# 492
Delta R.T. -0.011 min
Lab File: 5V19877.D
Acq: 7 Mar 2012 9:10 am

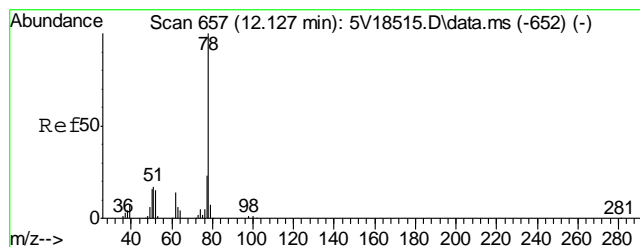
Tgt Ion: 57 Resp: 15199



#43
Heptane
Concen: 3.66 ug/l
RT: 12.332 min Scan# 675
Delta R.T. 0.001 min
Lab File: 5V19877.D
Acq: 7 Mar 2012 9:10 am

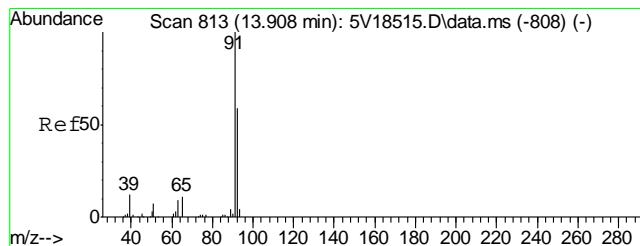
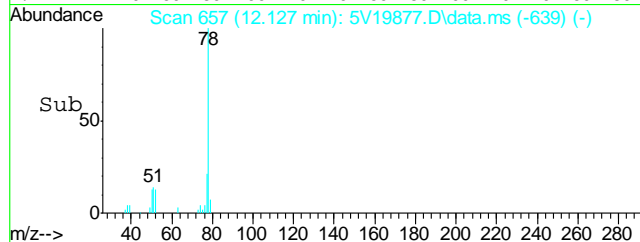
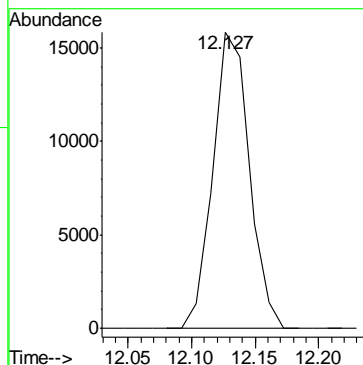
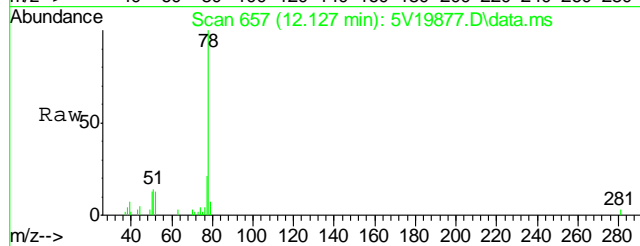
Tgt Ion: 43 Resp: 16286
Ion Ratio Lower Upper
43 100
57 66.2 30.6 70.6
71 69.6 38.9 78.9
100 21.4 0.0 37.4





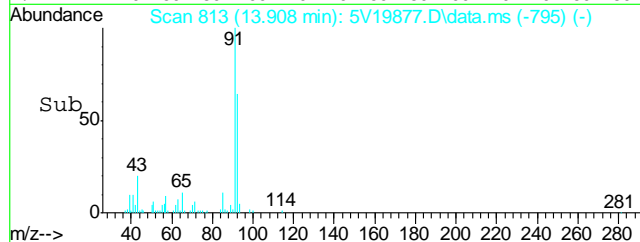
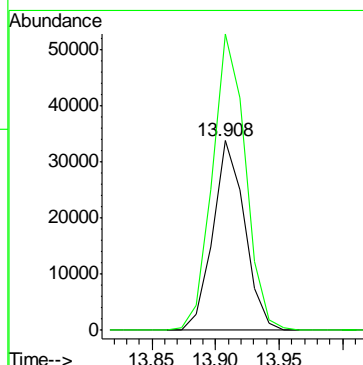
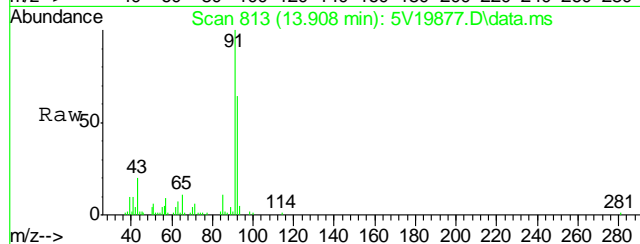
#50
Benzene
Concen: 1.86 ug/l
RT: 12.127 min Scan# 657
Delta R.T. 0.000 min
Lab File: 5V19877.D
Acq: 7 Mar 2012 9:10 am

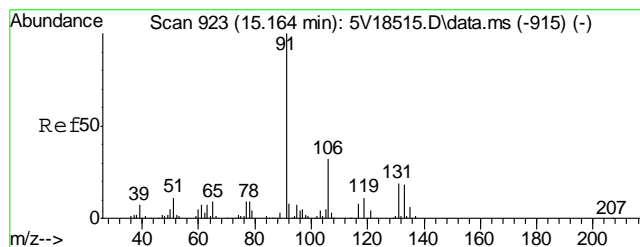
Tgt Ion: 78 Resp: 31393



#62
Toluene
Concen: 4.79 ug/l
RT: 13.908 min Scan# 813
Delta R.T. 0.000 min
Lab File: 5V19877.D
Acq: 7 Mar 2012 9:10 am

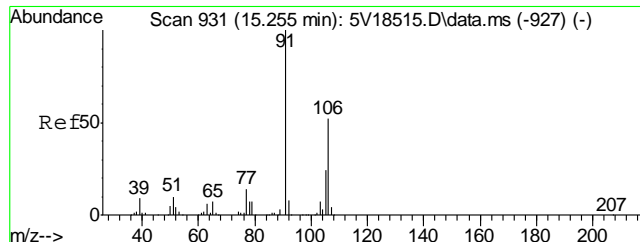
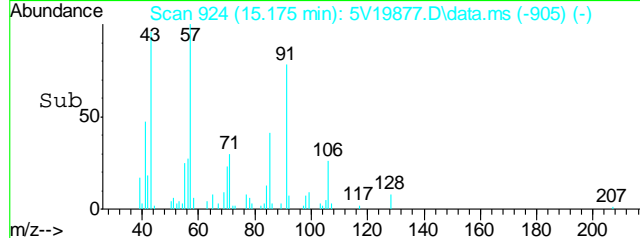
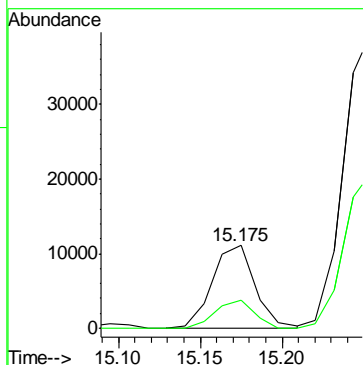
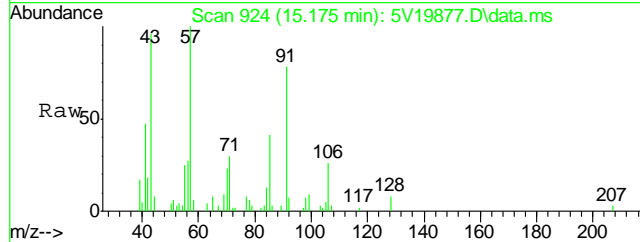
Tgt Ion: 92 Resp: 58230
Ion Ratio Lower Upper
92 100
91 163.1 149.8 189.8





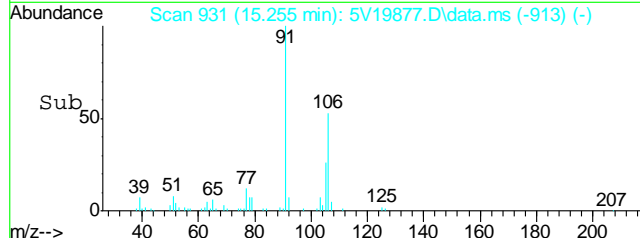
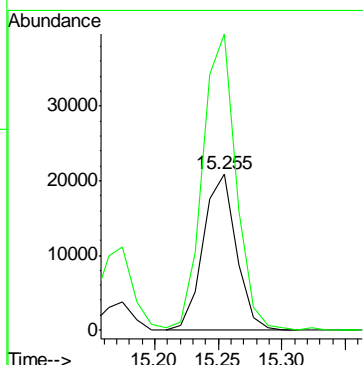
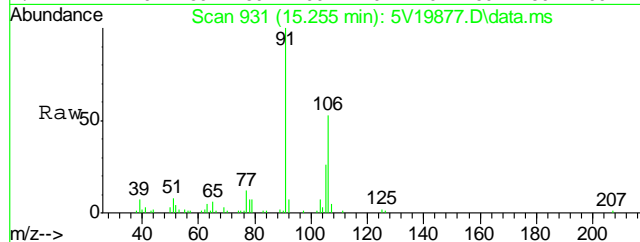
#66
Ethylbenzene
Concen: 0.89 ug/l
RT: 15.175 min Scan# 924
Delta R.T. 0.012 min
Lab File: 5V19877.D
Acq: 7 Mar 2012 9:10 am

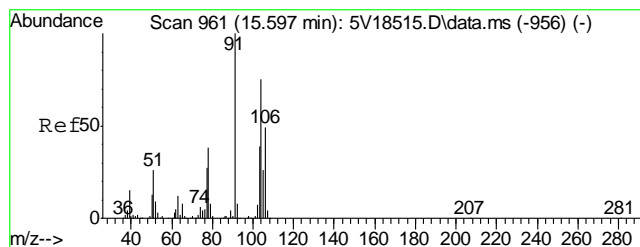
Tgt Ion: 91 Resp: 20134
Ion Ratio Lower Upper
91 100
106 30.7 11.7 51.7



#72
m,p-xylene
Concen: 4.05 ug/l
RT: 15.255 min Scan# 931
Delta R.T. 0.000 min
Lab File: 5V19877.D
Acq: 7 Mar 2012 9:10 am

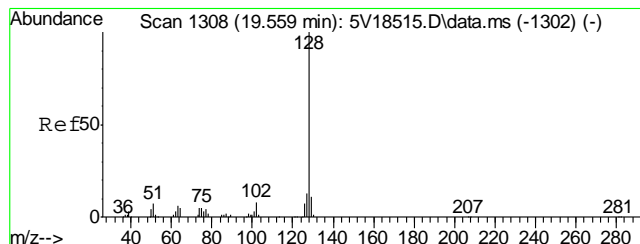
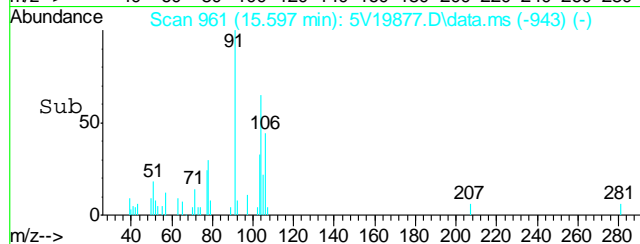
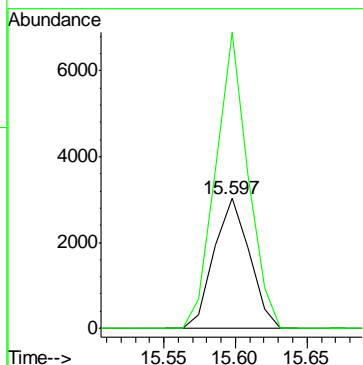
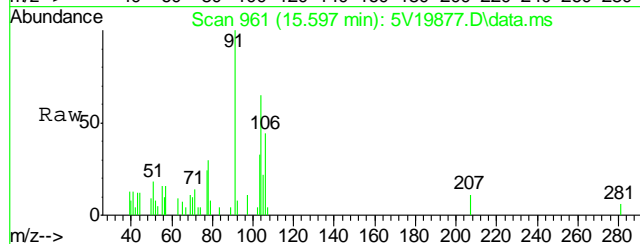
Tgt Ion: 106 Resp: 37528
Ion Ratio Lower Upper
106 100
91 192.9 177.1 217.1





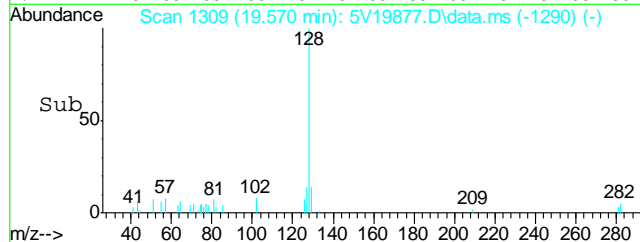
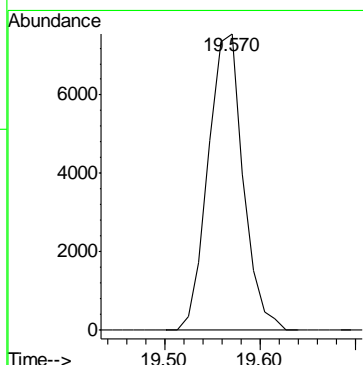
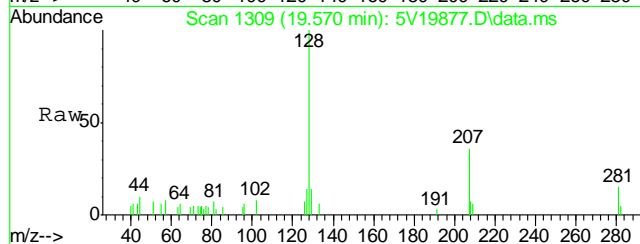
#73
o-xylene
Concen: 0.98 ug/l
RT: 15.597 min Scan# 961
Delta R.T. 0.000 min
Lab File: 5V19877.D
Acq: 7 Mar 2012 9:10 am

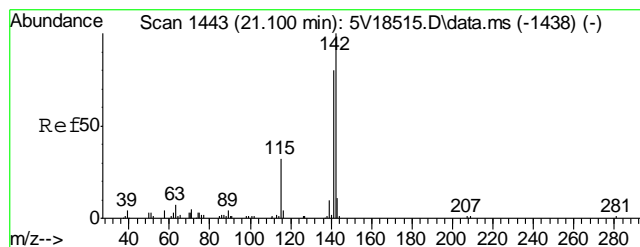
Tgt Ion	Ratio	Lower	Upper
106	100		
91	207.7	166.6	249.8



#91
Naphthalene
Concen: 2.48 ug/l
RT: 19.570 min Scan# 1309
Delta R.T. 0.012 min
Lab File: 5V19877.D
Acq: 7 Mar 2012 9:10 am

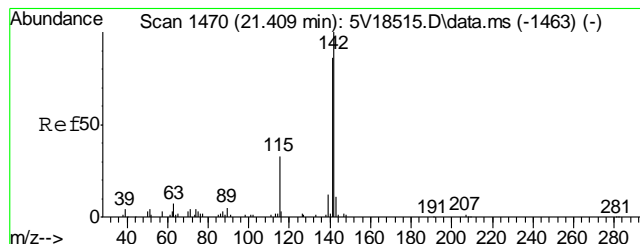
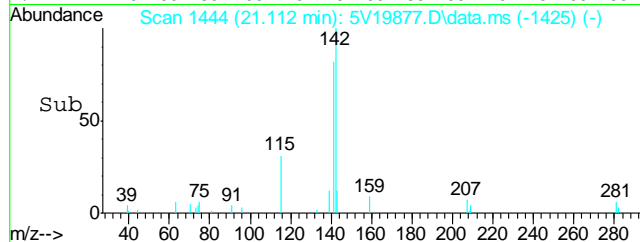
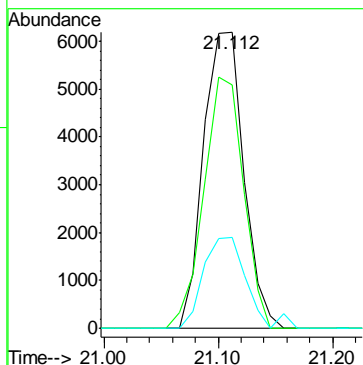
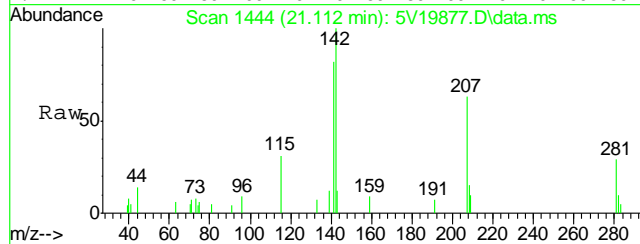
Tgt Ion:128 Resp: 19216





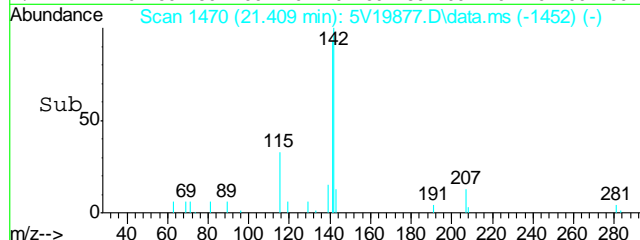
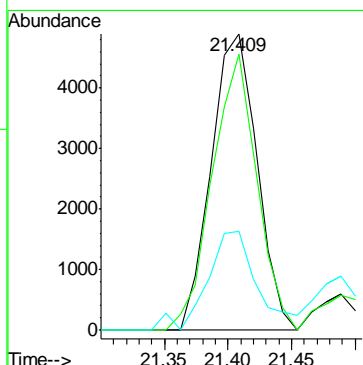
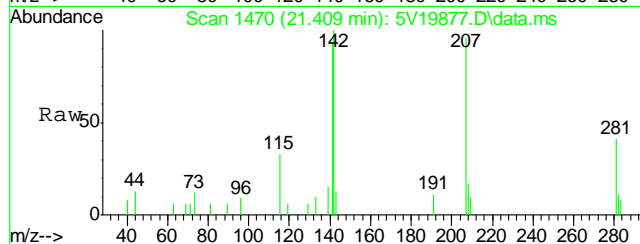
#94
2-Methylnaphthalene
Concen: 6.12 ug/l
RT: 21.112 min Scan# 1444
Delta R.T. 0.012 min
Lab File: 5V19877.D
Acq: 7 Mar 2012 9:10 am

Tgt Ion	Ratio	Lower	Upper
142	100		
141	83.7	66.2	99.4
115	33.0	25.9	38.9



#95
1-Methylnaphthalene
Concen: 4.53 ug/l
RT: 21.409 min Scan# 1470
Delta R.T. 0.000 min
Lab File: 5V19877.D
Acq: 7 Mar 2012 9:10 am

Tgt Ion	Ratio	Lower	Upper
142	100		
141	90.9	68.9	103.3
115	36.7	27.3	40.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5030712.S\
 Data File : 5V19878.D
 Acq On : 7 Mar 2012 9:43 am
 Operator : KOROUSHV
 Sample : D32443-2
 Misc : MS3513,V5V1196,5.062,,100,5,1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 07 10:07:18 2012
 Quant Method : C:\msdchem\1\METHODS\V5AP1186TVH1186.M
 Quant Title : 8260
 QLast Update : Fri Mar 02 14:22:16 2012
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.647	168	194343	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	346706	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	503937	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	345289	50.00	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	12.035	102	43229	51.55	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	103.10%
61) Toluene-d8	13.850	98	821251	50.41	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.82%
69) 4-Bromofluorobenzene	16.042	95	364209	54.12	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	108.24%

Target Compounds

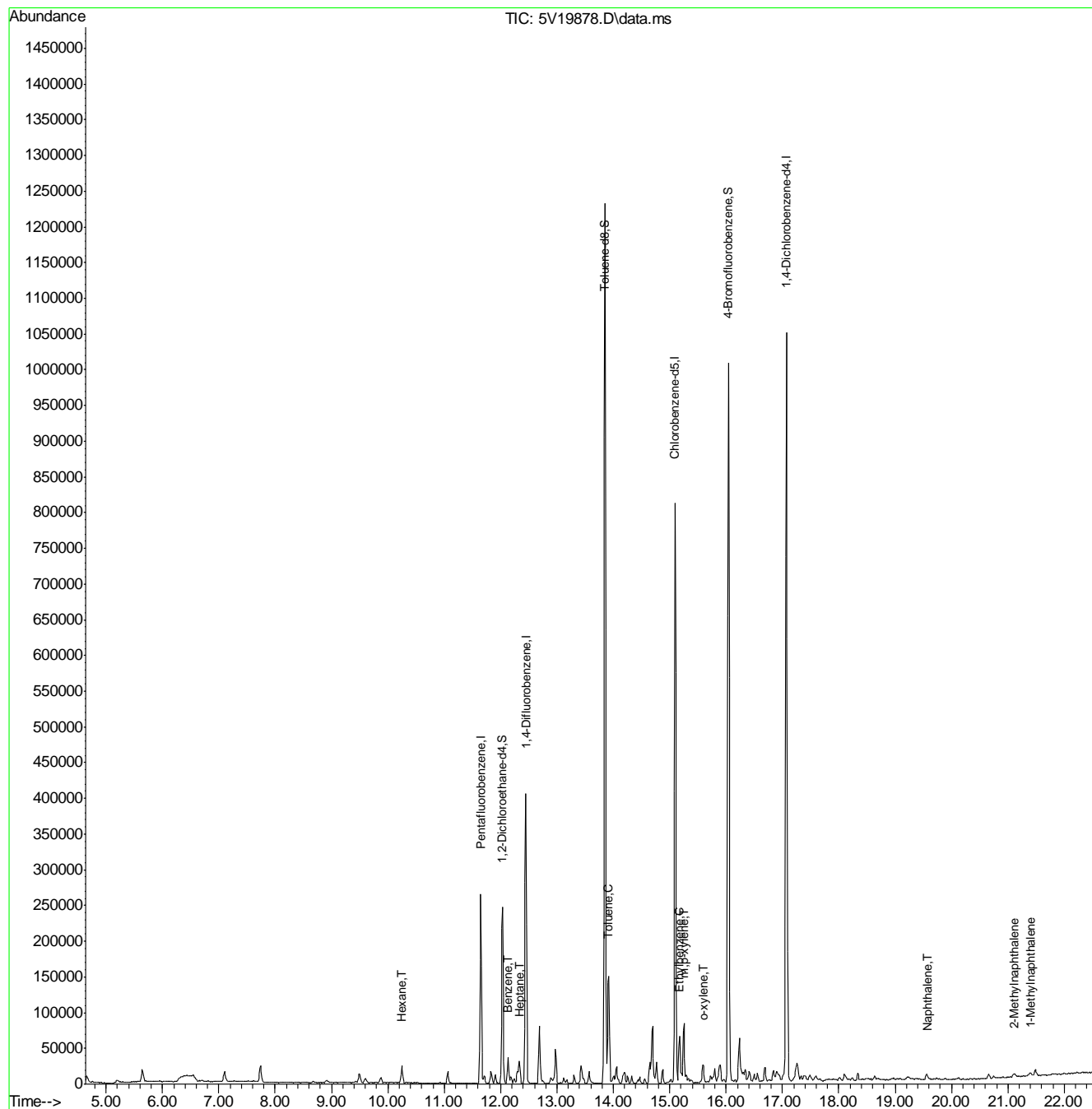
						Qvalue
41) Hexane	10.243	57	11658	3.04	ug/l	100
43) Heptane	12.332	43	11587	2.70	ug/l	88
50) Benzene	12.126	78	35073	2.06	ug/l	100
62) Toluene	13.907	92	51392	4.14	ug/l	99
66) Ethylbenzene	15.175	91	17016	0.73	ug/l	100
72) m,p-xylene	15.255	106	27801	2.94	ug/l	95
73) o-xylene	15.597	106	5219	0.97	ug/l	95
91) Naphthalene	19.570	128	8671	1.78	ug/l	100
94) 2-Methylnaphthalene	21.112	142	4581	3.02	ug/l	98
95) 1-Methylnaphthalene	21.408	142	3074	2.45	ug/l	90

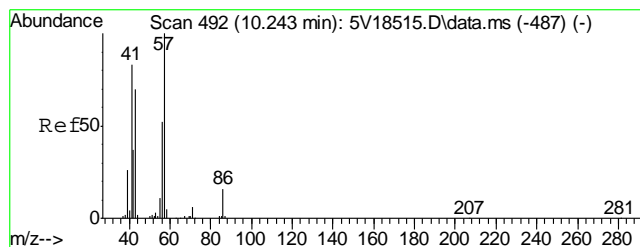
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5030712.S\
Data File : 5V19878.D
Acq On : 7 Mar 2012 9:43 am
Operator : KOROUSHV
Sample : D32443-2
Misc : MS3513,V5V1196,5.062,,100,5,1
ALS Vial : 9 Sample Multiplier: 1

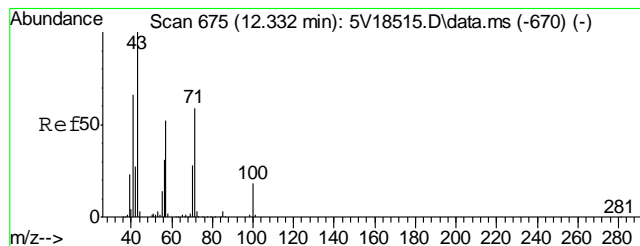
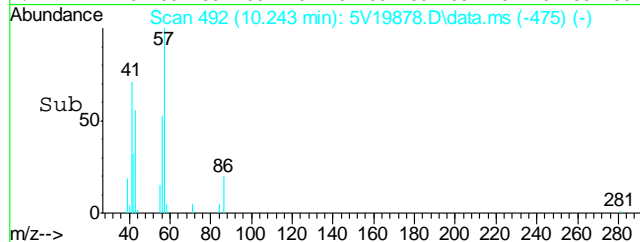
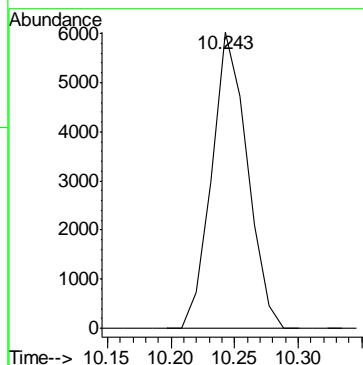
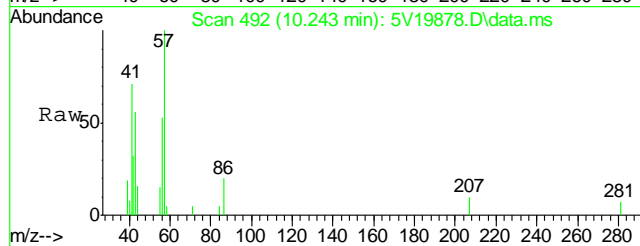
Quant Time: Mar 07 10:07:18 2012
Quant Method : C:\msdchem\1\METHODS\V5AP1186TVH1186.M
Quant Title : 8260
QLast Update : Fri Mar 02 14:22:16 2012
Response via : Initial Calibration





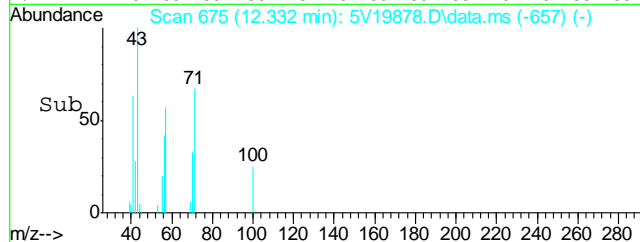
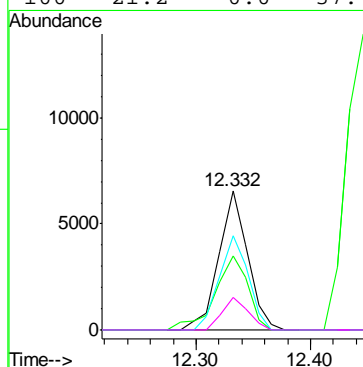
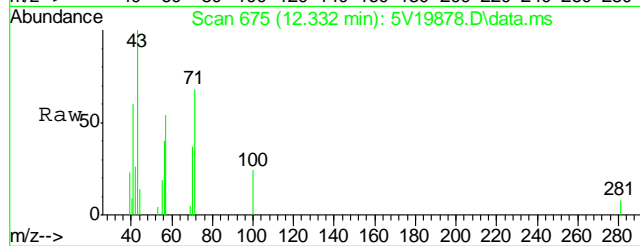
#41
Hexane
Concen: 3.04 ug/l
RT: 10.243 min Scan# 492
Delta R.T. -0.011 min
Lab File: 5V19878.D
Acq: 7 Mar 2012 9:43 am

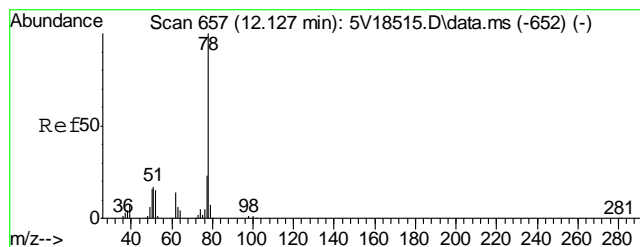
Tgt Ion: 57 Resp: 11658



#43
Heptane
Concen: 2.70 ug/l
RT: 12.332 min Scan# 675
Delta R.T. 0.001 min
Lab File: 5V19878.D
Acq: 7 Mar 2012 9:43 am

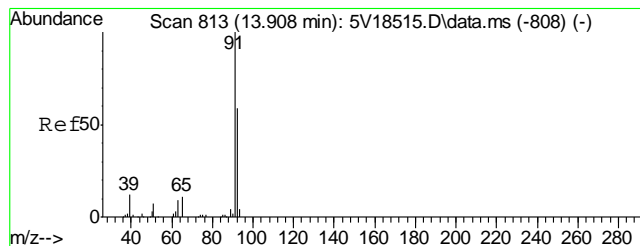
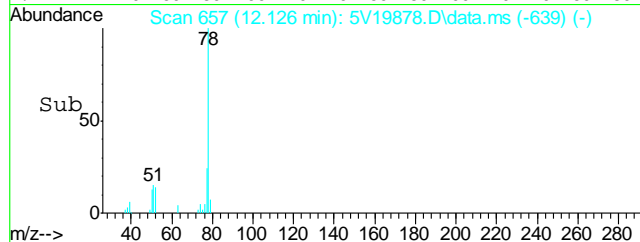
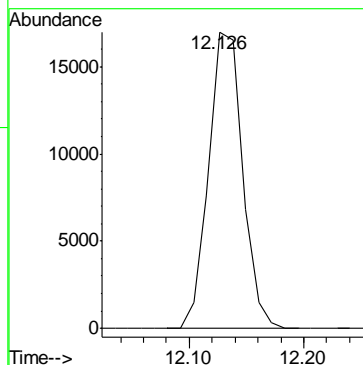
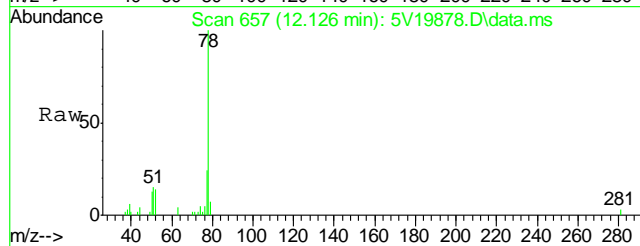
Tgt Ion: 43 Resp: 11587
Ion Ratio Lower Upper
43 100
57 60.6 30.6 70.6
71 67.6 38.9 78.9
100 21.2 0.0 37.4





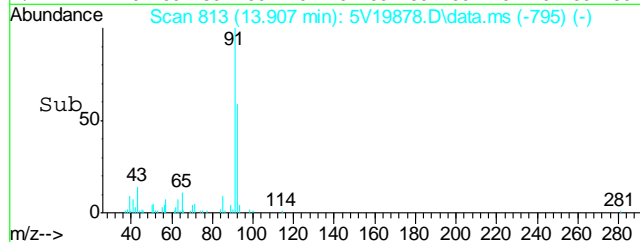
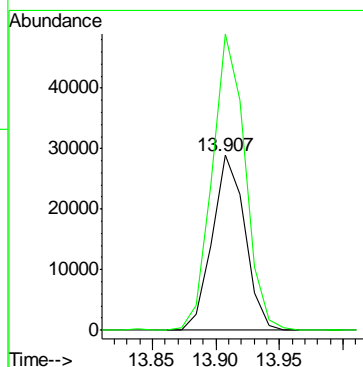
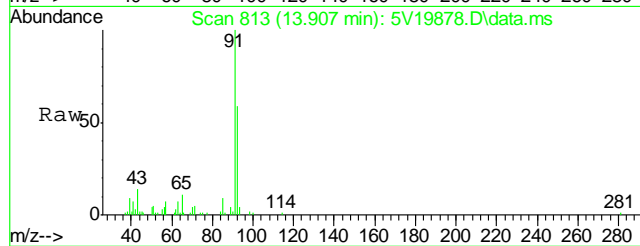
#50
Benzene
Concen: 2.06 ug/l
RT: 12.126 min Scan# 657
Delta R.T. 0.000 min
Lab File: 5V19878.D
Acq: 7 Mar 2012 9:43 am

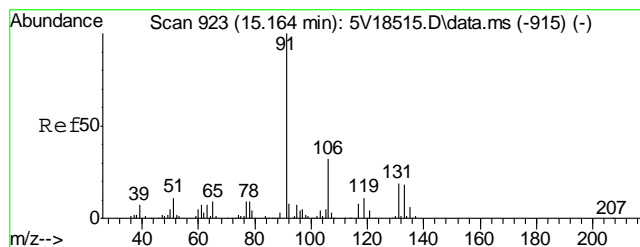
Tgt Ion: 78 Resp: 35073



#62
Toluene
Concen: 4.14 ug/l
RT: 13.907 min Scan# 813
Delta R.T. 0.000 min
Lab File: 5V19878.D
Acq: 7 Mar 2012 9:43 am

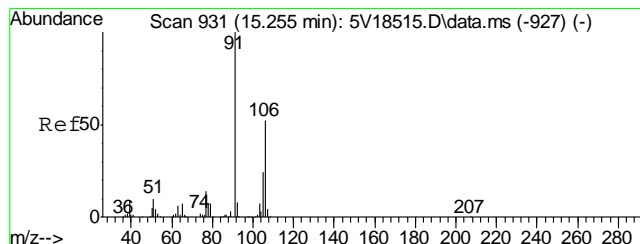
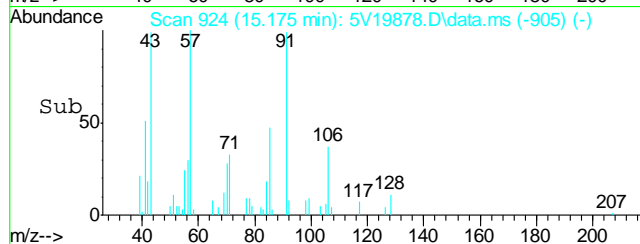
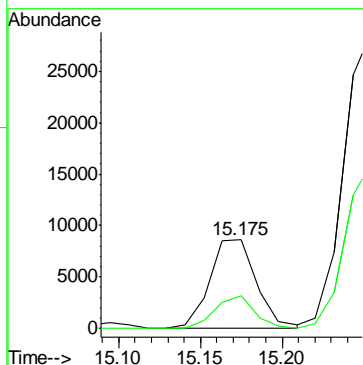
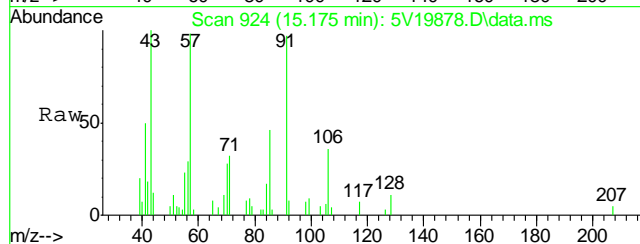
Tgt Ion: 92 Resp: 51392
Ion Ratio Lower Upper
92 100
91 170.8 149.8 189.8





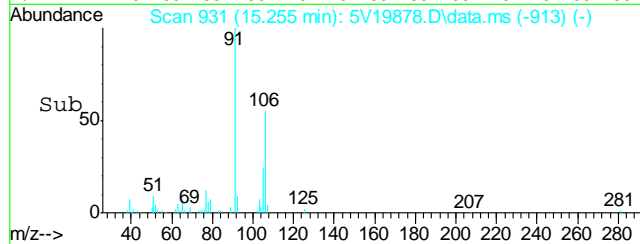
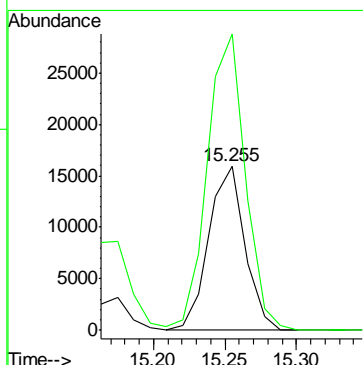
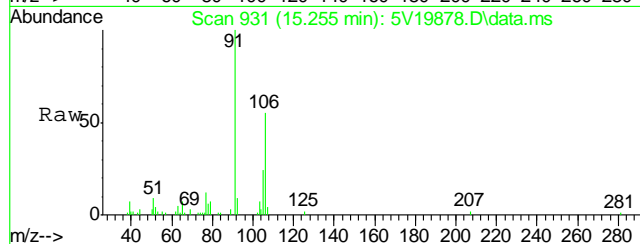
#66
Ethylbenzene
Concen: 0.73 ug/l
RT: 15.175 min Scan# 924
Delta R.T. 0.011 min
Lab File: 5V19878.D
Acq: 7 Mar 2012 9:43 am

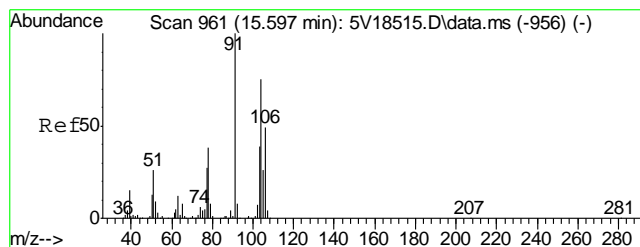
Tgt Ion: 91 Resp: 17016
Ion Ratio Lower Upper
91 100
106 31.5 11.7 51.7



#72
m,p-xylene
Concen: 2.94 ug/l
RT: 15.255 min Scan# 931
Delta R.T. 0.000 min
Lab File: 5V19878.D
Acq: 7 Mar 2012 9:43 am

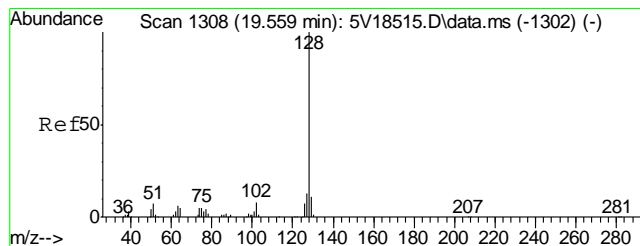
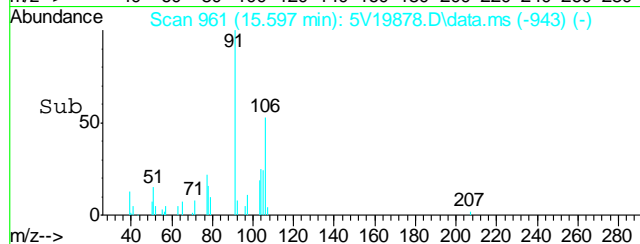
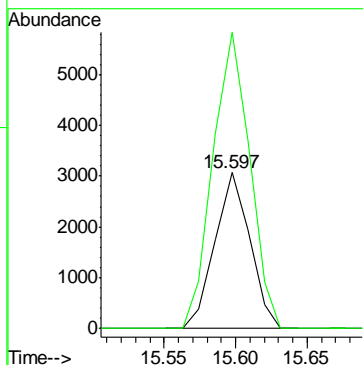
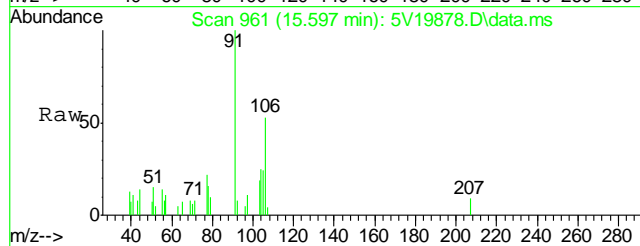
Tgt Ion: 106 Resp: 27801
Ion Ratio Lower Upper
106 100
91 189.8 177.1 217.1





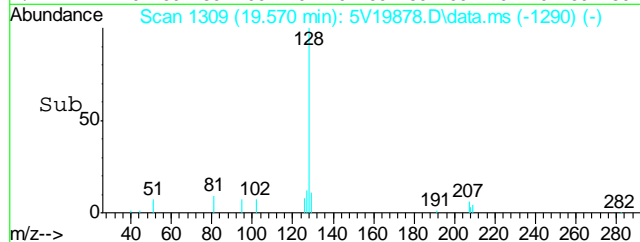
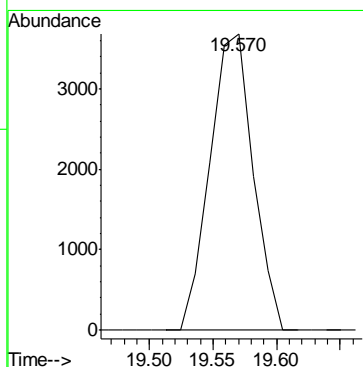
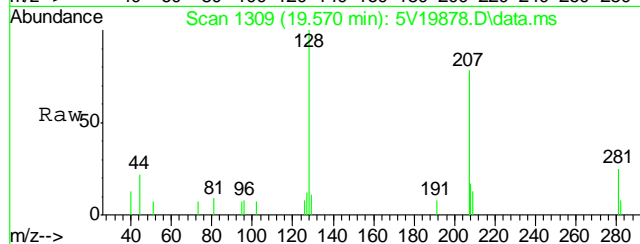
#73
o-xylene
Concen: 0.97 ug/l
RT: 15.597 min Scan# 961
Delta R.T. 0.000 min
Lab File: 5V19878.D
Acq: 7 Mar 2012 9:43 am

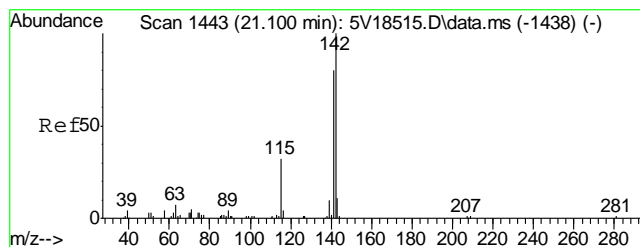
Tgt Ion	Ratio	Lower	Upper
106	100		
91	200.1	166.6	249.8



#91
Naphthalene
Concen: 1.78 ug/l
RT: 19.570 min Scan# 1309
Delta R.T. 0.012 min
Lab File: 5V19878.D
Acq: 7 Mar 2012 9:43 am

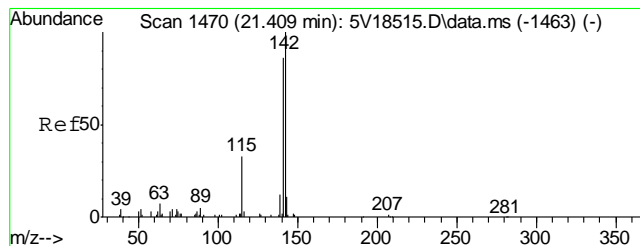
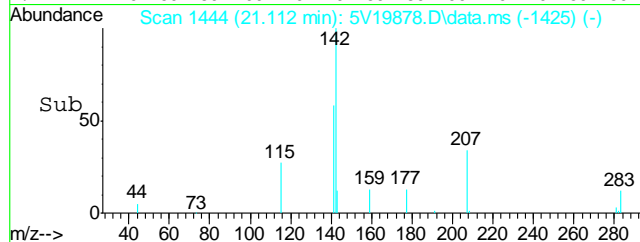
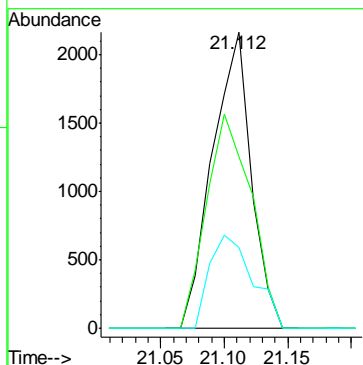
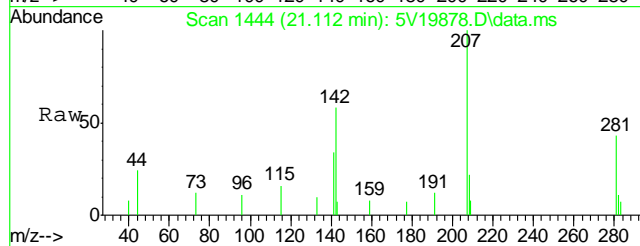
Tgt Ion	Ratio	Lower	Upper
128	8671		





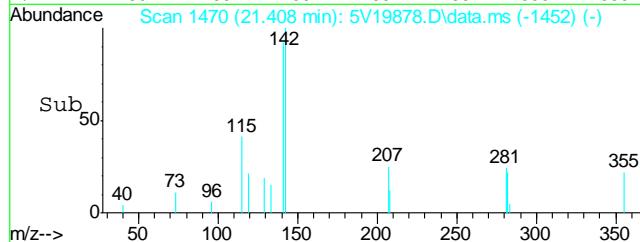
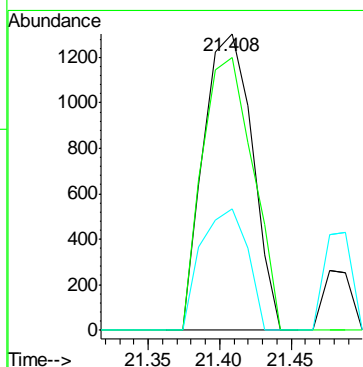
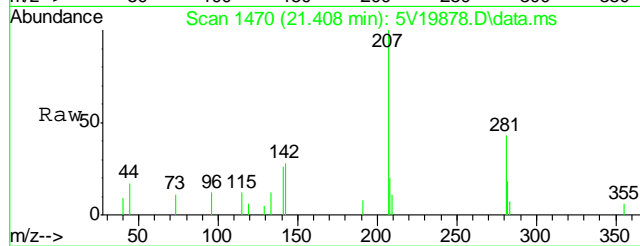
#94
2-Methylnaphthalene
Concen: 3.02 ug/l
RT: 21.112 min Scan# 1444
Delta R.T. 0.012 min
Lab File: 5V19878.D
Acq: 7 Mar 2012 9:43 am

Tgt Ion	Ratio	Lower	Upper
142	100		
141	83.1	66.2	99.4
115	35.1	25.9	38.9



#95
1-Methylnaphthalene
Concen: 2.45 ug/l
RT: 21.408 min Scan# 1470
Delta R.T. 0.000 min
Lab File: 5V19878.D
Acq: 7 Mar 2012 9:43 am

Tgt Ion	Ratio	Lower	Upper
142	100		
141	95.7	68.9	103.3
115	38.9	27.3	40.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5030712.S\
Data File : 5V19872.D
Acq On : 7 Mar 2012 6:26 am
Operator : KOROUSHV
Sample : MB
Misc : MS3513,V5V1196,5.000,,100,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 07 07:58:57 2012
Quant Method : C:\msdchem\1\METHODS\V5AP1186TVH1186.M
Quant Title : 8260
QLast Update : Fri Mar 02 14:22:16 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.647	168	265306	50.00	ug/l	0.00
35) 1,4-Difluorobenzene	12.446	114	458042	50.00	ug/l	0.00
53) Chlorobenzene-d5	15.095	117	625888	50.00	ug/l	0.00
74) 1,4-Dichlorobenzene-d4	17.070	152	404680	50.00	ug/l	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	12.035	102	49443	42.61	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	85.22%
61) Toluene-d8	13.850	98	973577	48.11	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	96.22%
69) 4-Bromofluorobenzene	16.042	95	378835	45.32	ug/l	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	90.64%

Target Compounds

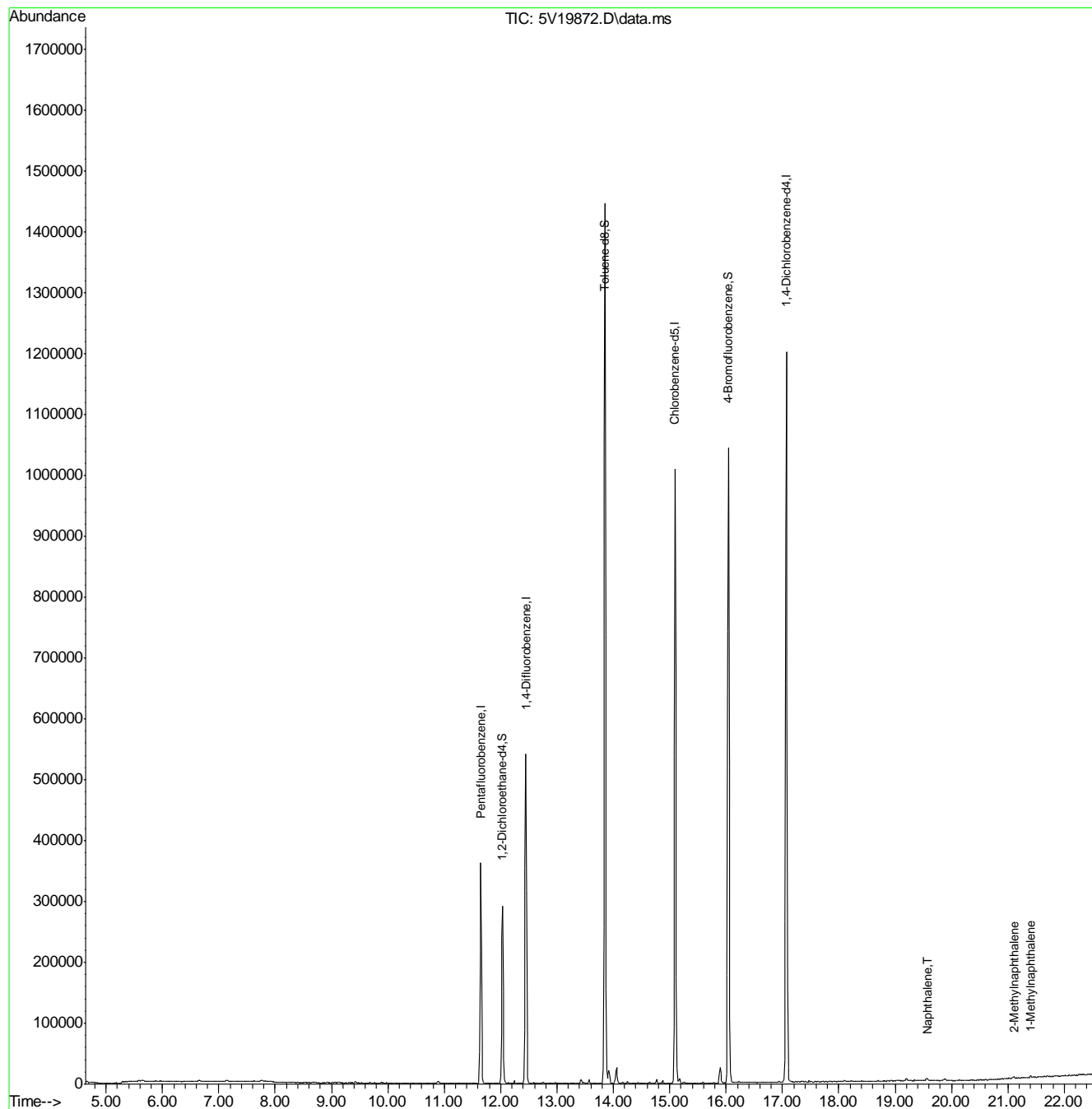
					Qvalue
91) Naphthalene	19.570	128	5963	1.55 ug/l	100
94) 2-Methylnaphthalene	21.112	142	1880	2.16 ug/l #	95
95) 1-Methylnaphthalene	21.408	142	2276	2.19 ug/l #	74

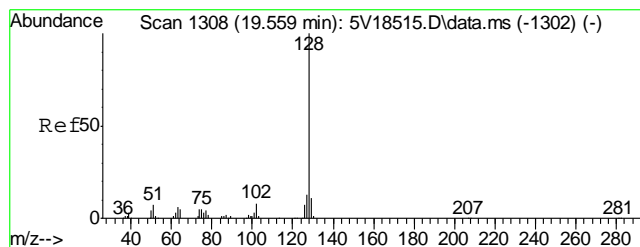
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5030712.S\
Data File : 5V19872.D
Acq On : 7 Mar 2012 6:26 am
Operator : KOROUSHV
Sample : MB
Misc : MS3513,V5V1196,5.000,,100,5,1
ALS Vial : 3 Sample Multiplier: 1

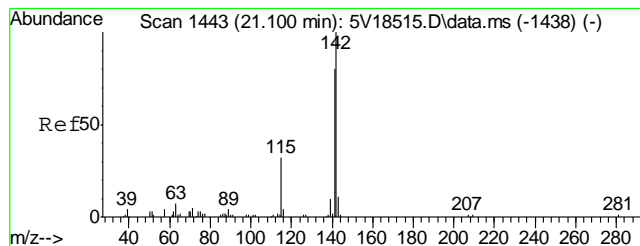
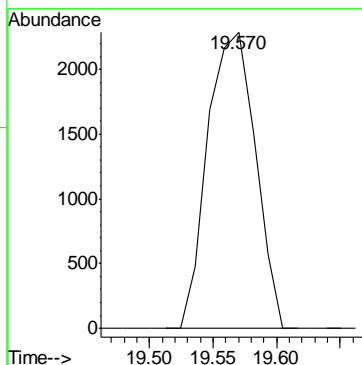
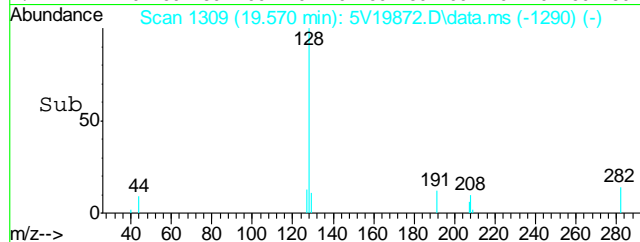
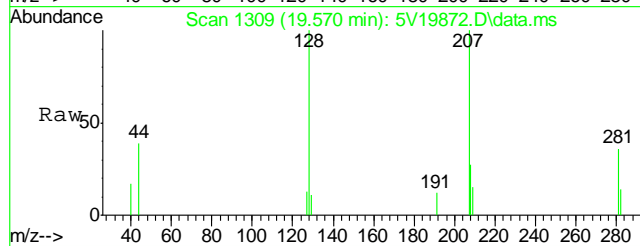
Quant Time: Mar 07 07:58:57 2012
Quant Method : C:\msdchem\1\METHODS\V5AP1186TVH1186.M
Quant Title : 8260
QLast Update : Fri Mar 02 14:22:16 2012
Response via : Initial Calibration





#91
Naphthalene
Concen: 1.55 ug/l
RT: 19.570 min Scan# 1309
Delta R.T. 0.012 min
Lab File: 5V19872.D
Acq: 7 Mar 2012 6:26 am

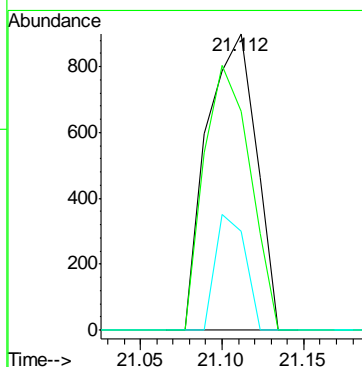
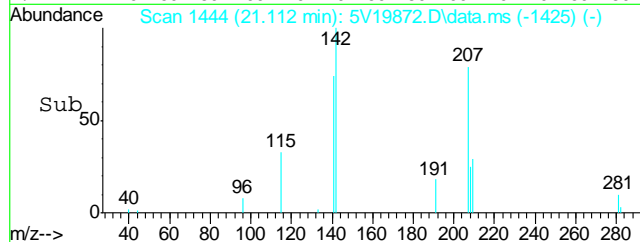
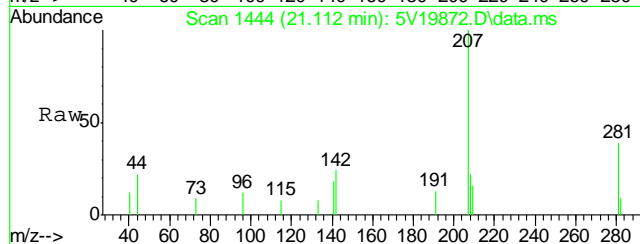
Tgt Ion:128 Resp: 5963

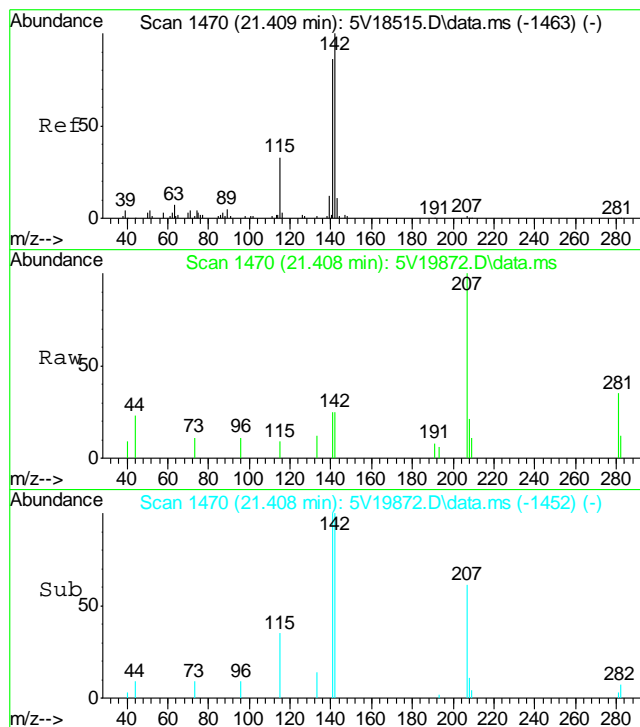


#94
2-Methylnaphthalene
Concen: 2.16 ug/l
RT: 21.112 min Scan# 1444
Delta R.T. 0.012 min
Lab File: 5V19872.D
Acq: 7 Mar 2012 6:26 am

Tgt Ion:142 Resp: 1880

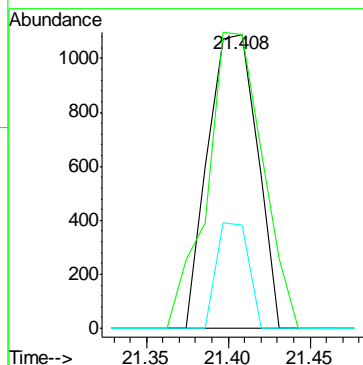
Ion	Ratio	Lower	Upper
142	100		
141	83.8	66.2	99.4
115	23.8	25.9	38.9#





#95
1-Methylnaphthalene
Concen: 2.19 ug/l
RT: 21.408 min Scan# 1470
Delta R.T. 0.000 min
Lab File: 5V19872.D
Acq: 7 Mar 2012 6:26 am

Tgt Ion	Ratio	Lower	Upper
142	100		
141	112.7	68.9	103.3#
115	23.3	27.3	40.9#



GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: D32443
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5492-MB	3G08386.D	1	03/07/12	DC	03/07/12	OP5492	E3G340

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

D32443-1, D32443-2

CAS No.	Compound	Result	RL	MDL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	8.3	4.3	ug/kg	

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	70% 10-145%
321-60-8	2-Fluorobiphenyl	71% 10-130%
1718-51-0	Terphenyl-d14	86% 22-130%

Blank Spike Summary

Page 1 of 1

Job Number: D32443

Account: XTOKRWR XTO Energy

Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5492-BS	3G08387.D	1	03/07/12	DC	03/07/12	OP5492	E3G340

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

D32443-1, D32443-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
53-70-3	Dibenzo(a,h)anthracene	83.3	53.1	64	32-130

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	66%	10-145%
321-60-8	2-Fluorobiphenyl	64%	10-130%
1718-51-0	Terphenyl-d14	72%	22-130%

7.2.1

7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D32443
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5492-MS	3G08391.D	1	03/07/12	DC	03/07/12	OP5492	E3G340
OP5492-MSD	3G08392.D	1	03/07/12	DC	03/07/12	OP5492	E3G340
D32443-1	3G08389.D	1	03/07/12	DC	03/07/12	OP5492	E3G340

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

D32443-1, D32443-2

CAS No.	Compound	D32443-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
53-70-3	Dibenzo(a,h)anthracene	ND		92.1	40.8	44	45.4	49	11	10-144/30

CAS No.	Surrogate Recoveries	MS	MSD	D32443-1	Limits
4165-60-0	Nitrobenzene-d5	41%	40%	42%	10-145%
321-60-8	2-Fluorobiphenyl	39%	41%	44%	10-130%
1718-51-0	Terphenyl-d14	36%	44%	53%	22-130%

GC/MS Semi-volatiles

Raw Data



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\030712\
 Data File : 3g08389.D
 Acq On : 7 Mar 2012 3:10 pm
 Operator : DONC
 Sample : D32443-1
 Misc : OP5492,E3G340,30.02,,,1,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 08 09:38:27 2012
 Quant Method : C:\msdchem\1\METHODS\SIMPE3G333.M
 Quant Title : PAHSIM BASE
 QLast Update : Sat Mar 03 06:34:25 2012
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

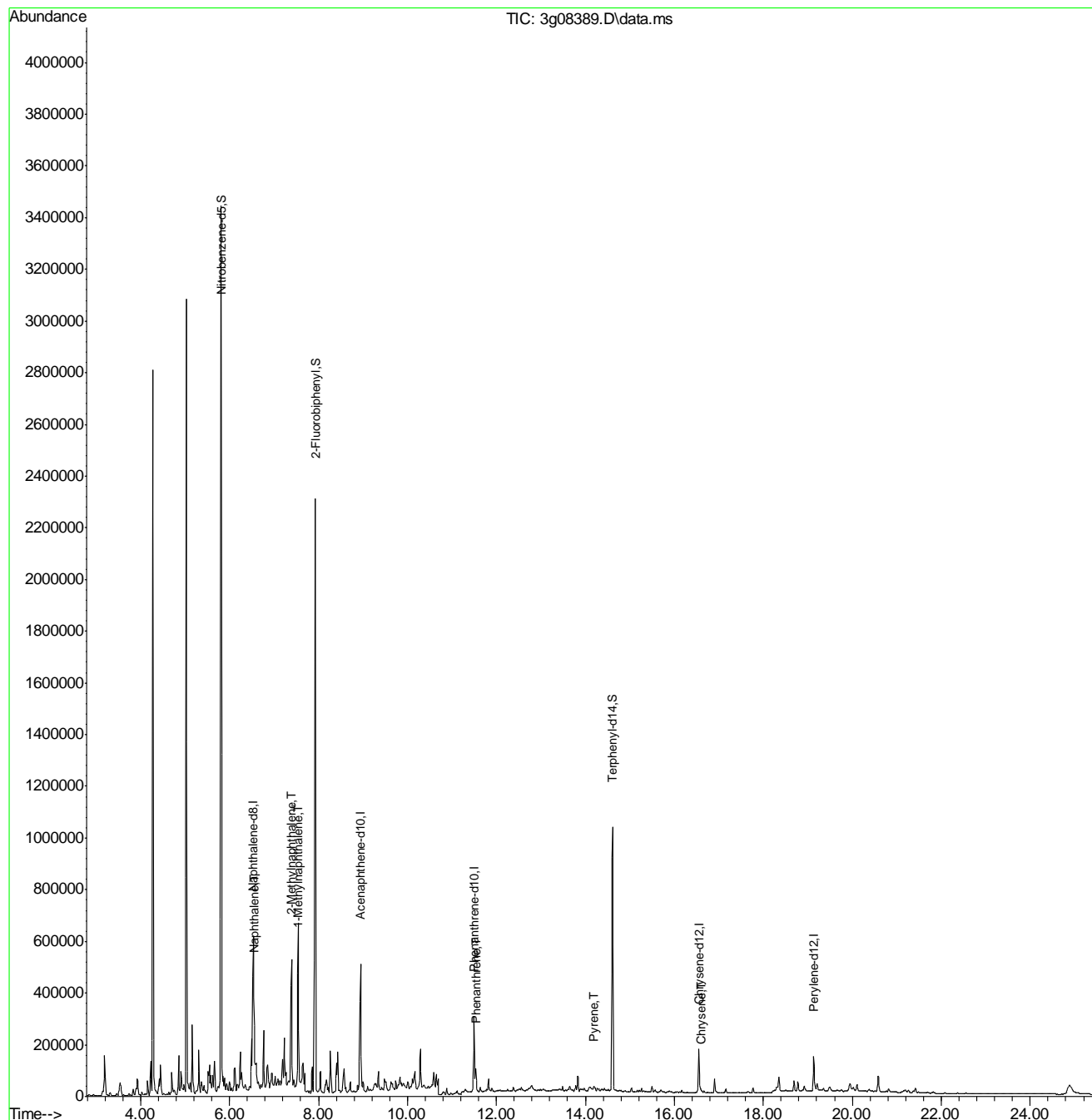
Internal Standards						
1) Naphthalene-d8	6.532	136	560322	4.00	ug/mL	0.00
6) Acenaphthene-d10	8.945	164	276593	4.00	ug/mL	0.00
14) Phenanthrene-d10	11.493	188	307183	4.00	ug/mL	0.00
18) Chrysene-d12	16.554	240	179891	4.00	ug/mL	0.00
23) Perylene-d12	19.132	264	172701	4.00	ug/mL	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.809	82	1926252	21.18	ug/mL	-0.01
Spiked Amount	50.000	Range	25 - 135	Recovery	=	42.36%
7) 2-Fluorobiphenyl	7.929	172	2559448	21.80	ug/mL	0.00
Spiked Amount	50.000	Range	25 - 135	Recovery	=	43.60%
20) Terphenyl-d14	14.611	244	1156007	26.42	ug/mL	0.00
Spiked Amount	50.000	Range	25 - 135	Recovery	=	52.84%
Target Compounds						
3) N-Nitrosodimethylamine	0.000		0	N.D.	d	
4) N-Nitrosodi-propylamine	0.000		0	N.D.	d	
5) Naphthalene	6.545	128	290436	1.43	ug/mL	96
8) 2-Methylnaphthalene	7.393	142	315642	2.88	ug/mL	96
9) 1-Methylnaphthalene	7.530	142	142827	1.37	ug/mL	95
10) Acenaphthylene	0.000		0	N.D.	d	
11) Acenaphthene	0.000		0	N.D.	d	
12) Fluorene	0.000		0	N.D.	d	
13) Diphenylamine	0.000		0	N.D.	d	
15) Phenanthrene	11.540	178	106205	0.92	ug/mL	95
16) Anthracene	0.000		0	N.D.	d	
17) Fluoranthene	0.000		0	N.D.	d	
19) Pyrene	14.192	202	8706	0.09	ug/mL#	1
21) Benzo(a)anthracene	0.000		0	N.D.	d	
22) Chrysene	16.593	228	11419	0.17	ug/mL	92
24) Benzo(b)fluoranthene	0.000		0	N.D.	d	
25) Benzo(k)fluoranthene	0.000		0	N.D.	d	
26) Benzo(a)pyrene	0.000		0	N.D.	d	
27) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	d	
28) Dibenz(a,h)anthracene	0.000		0	N.D.	d	
29) Benzo(g,h,i)perylene	0.000		0	N.D.	d	

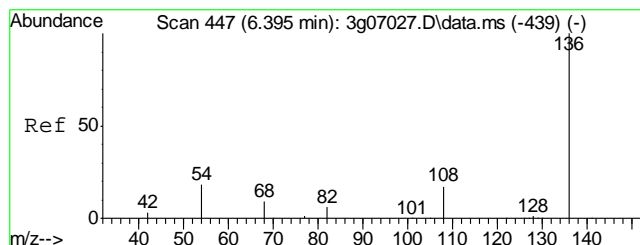
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\030712\
Data File : 3g08389.D
Acq On : 7 Mar 2012 3:10 pm
Operator : DONC
Sample : D32443-1
Misc : OP5492,E3G340,30.02,,,1,1
ALS Vial : 13 Sample Multiplier: 1

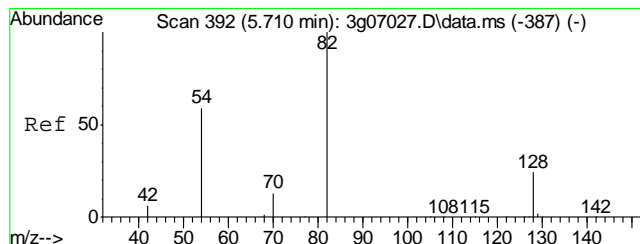
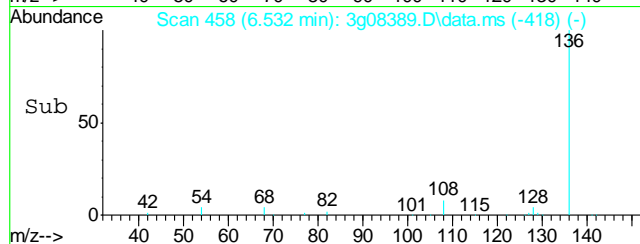
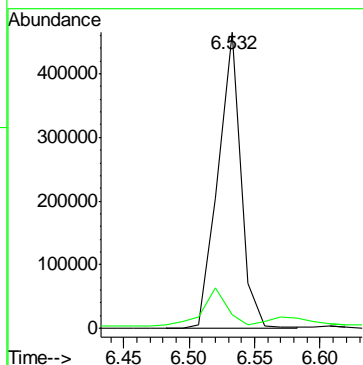
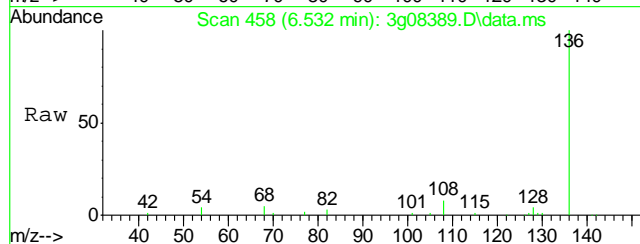
Quant Time: Mar 08 09:38:27 2012
Quant Method : C:\msdchem\1\METHODS\SIMPE3G333.M
Quant Title : PAHSIM BASE
QLast Update : Sat Mar 03 06:34:25 2012
Response via : Initial Calibration





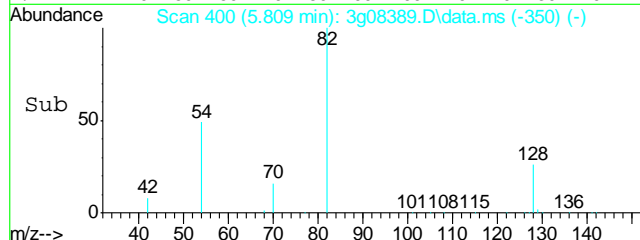
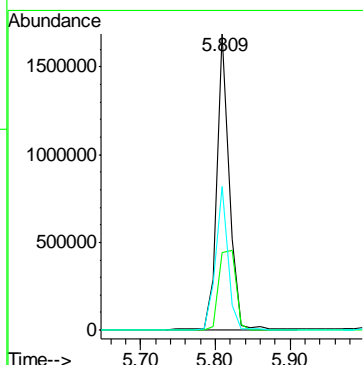
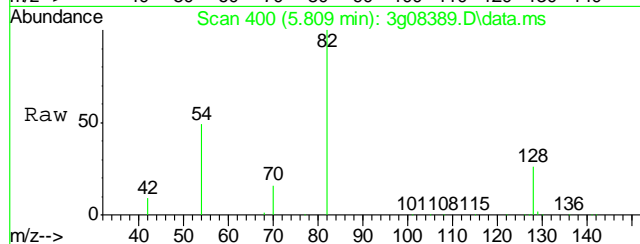
#1
Naphthalene-d8
Concen: 4.00 ug/mL
RT: 6.532 min Scan# 458
Delta R.T. 0.000 min
Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

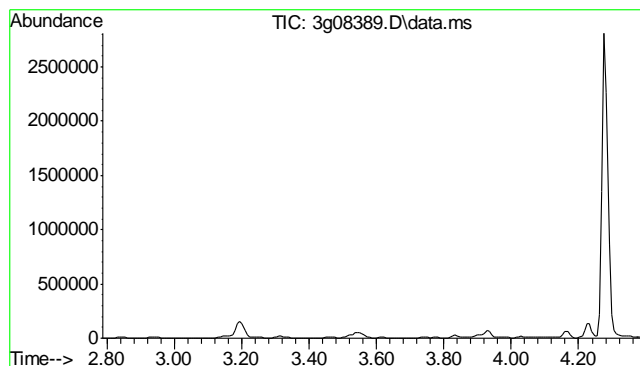
Tgt Ion	Ratio	Lower	Upper
136	100		
68	14.9	0.0	32.3



#2
Nitrobenzene-d5
Concen: 21.18 ug/mL
RT: 5.809 min Scan# 400
Delta R.T. -0.012 min
Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

Tgt Ion	Ratio	Lower	Upper
82	100		
128	37.4	16.9	56.9
54	48.7	27.5	67.5

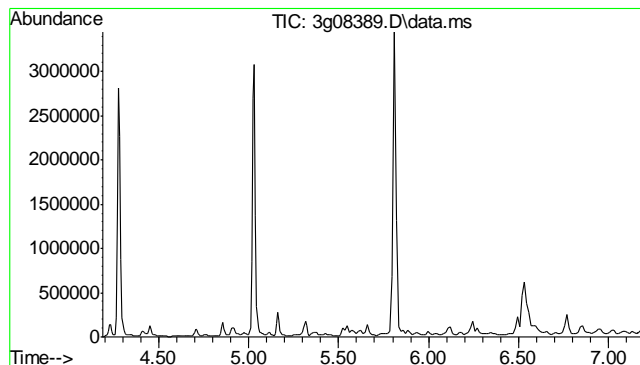
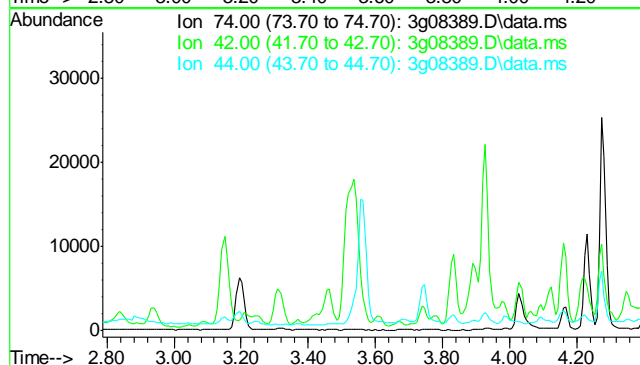




#3
N-Nitrosodimethylamine
Concen: N.D. ug/mL
Expected RT: 2.89 min

Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

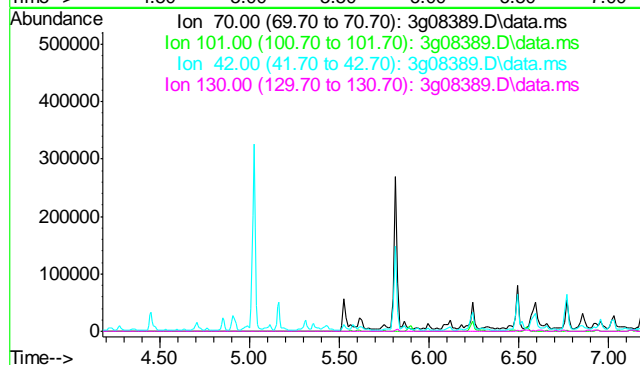
Tgt Ion	Exp Ratio
74	100
42	58.9
44	4.0

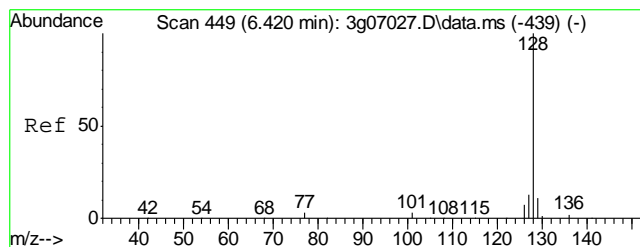


#4
N-Nitrosodi-propylamine
Concen: N.D. ug/mL
Expected RT: 5.68 min

Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

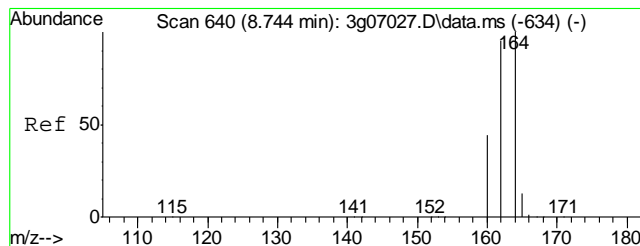
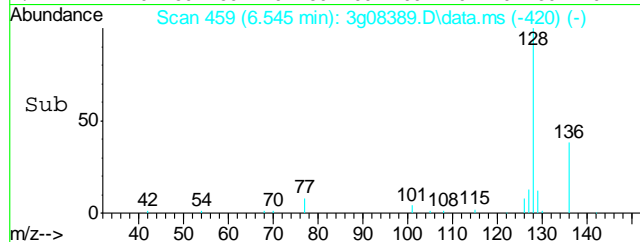
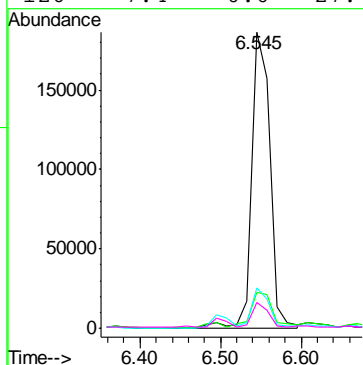
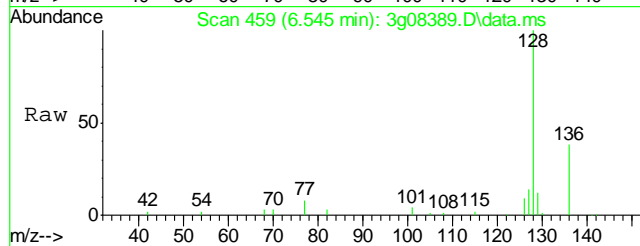
Tgt Ion	Exp Ratio
70	100
101	10.9
42	50.1
130	19.5





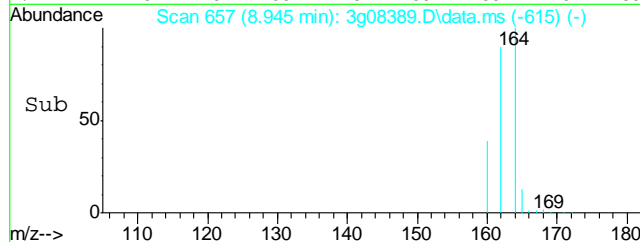
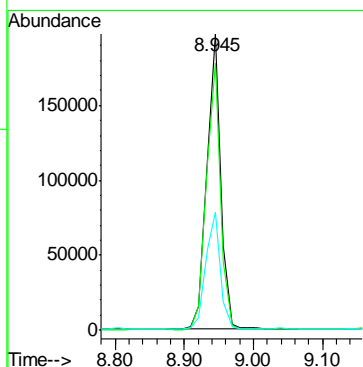
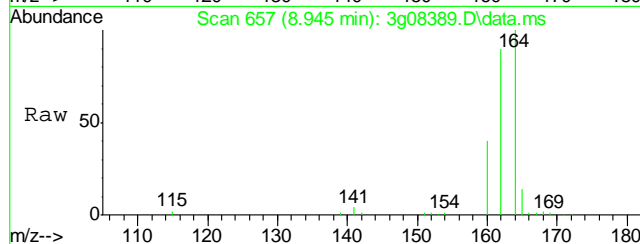
#5
Naphthalene
Concen: 1.43 ug/mL
RT: 6.545 min Scan# 459
Delta R.T. -0.012 min
Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

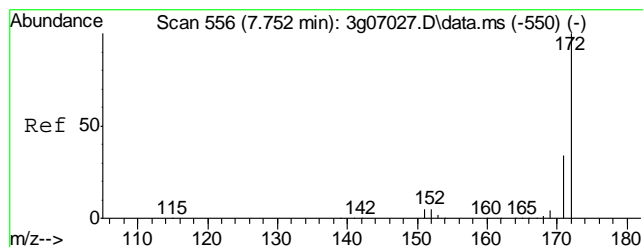
Tgt Ion	Ratio	Lower	Upper
128	100		
129	14.1	0.0	30.8
127	11.5	0.0	32.5
126	7.4	0.0	27.7



#6
Acenaphthene-d10
Concen: 4.00 ug/mL
RT: 8.945 min Scan# 657
Delta R.T. 0.000 min
Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

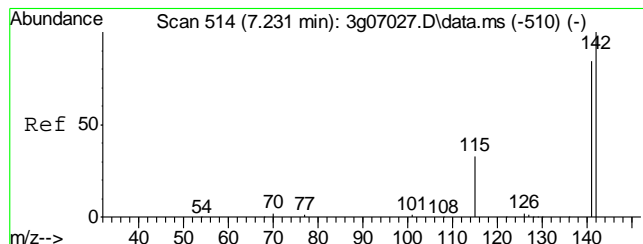
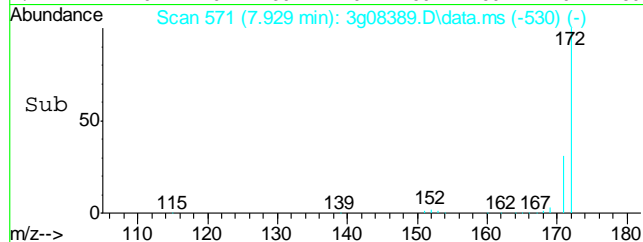
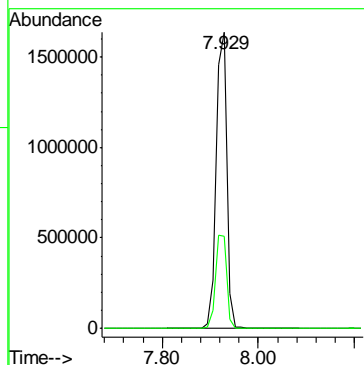
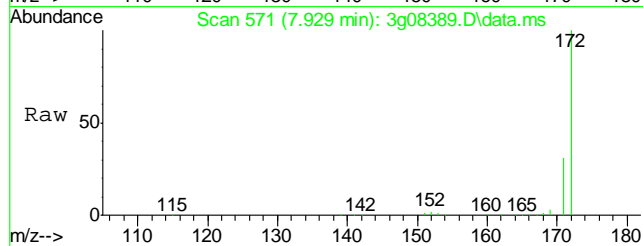
Tgt Ion	Ratio	Lower	Upper
164	100		
162	91.3	72.6	112.6
160	41.4	21.8	61.8





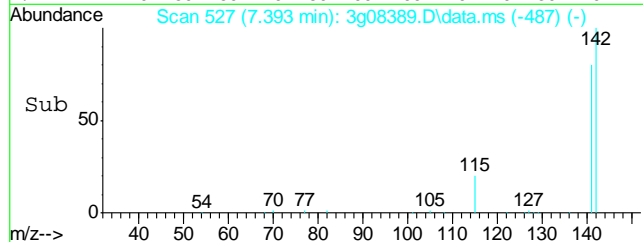
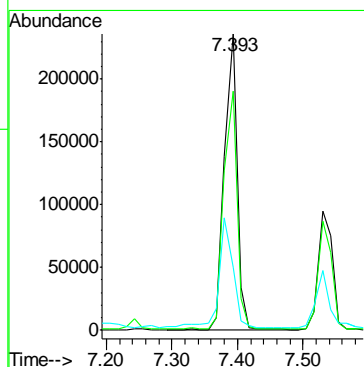
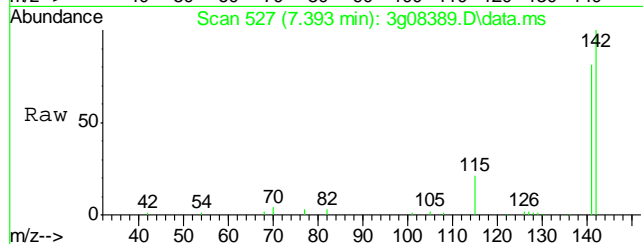
#7
2-Fluorobiphenyl
Concen: 21.80 ug/mL
RT: 7.929 min Scan# 571
Delta R.T. 0.000 min
Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

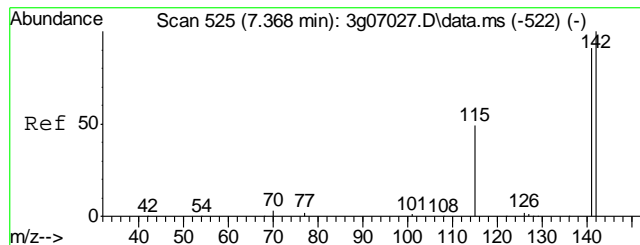
Tgt Ion	Ratio	Lower	Upper
172	100		
171	33.2	13.3	53.3



#8
2-Methylnaphthalene
Concen: 2.88 ug/mL
RT: 7.393 min Scan# 527
Delta R.T. 0.000 min
Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

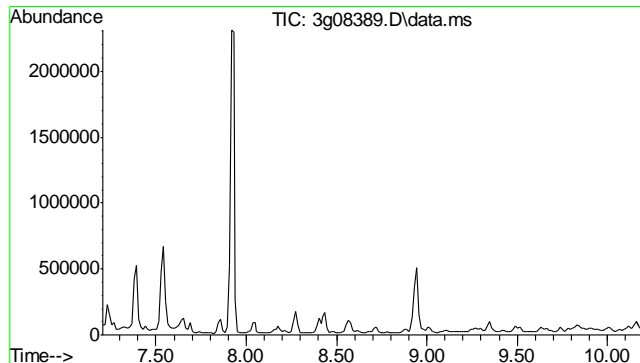
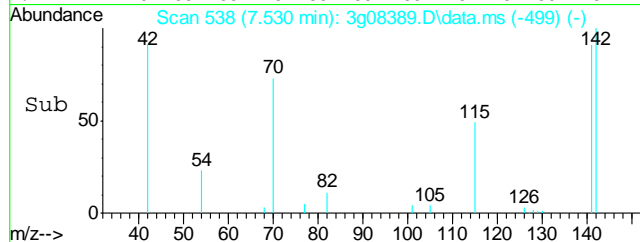
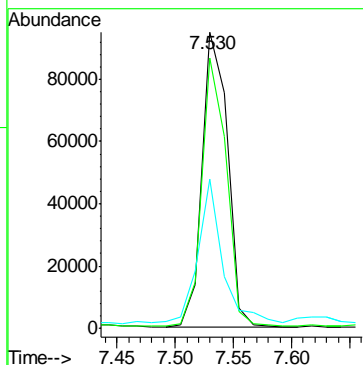
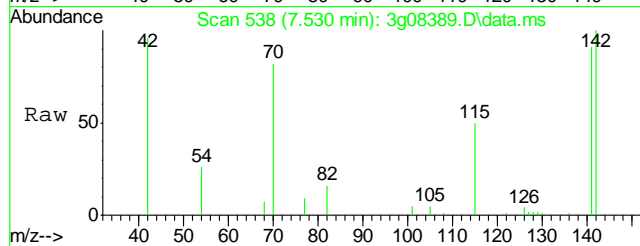
Tgt Ion	Ratio	Lower	Upper
142	100		
141	84.4	63.2	103.2
115	41.7	16.1	56.1





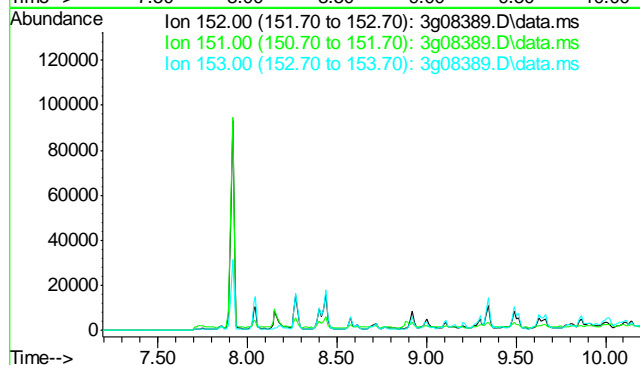
#9
1-Methylnaphthalene
Concen: 1.37 ug/mL
RT: 7.530 min Scan# 538
Delta R.T. -0.012 min
Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

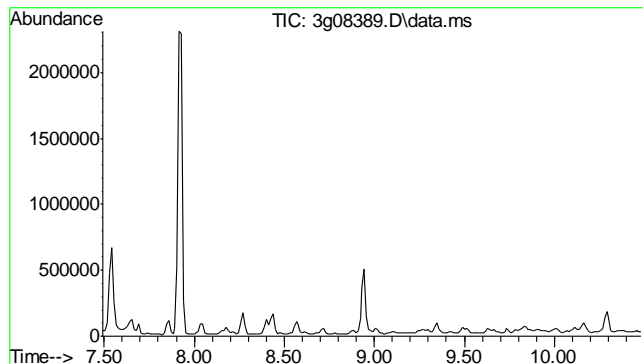
Tgt Ion	Ratio	Lower	Upper
142	100		
141	87.9	67.4	107.4
115	47.9	18.8	58.8



#10
Acenaphthylene
Concen: N.D. ug/mL
Expected RT: 8.70 min
Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

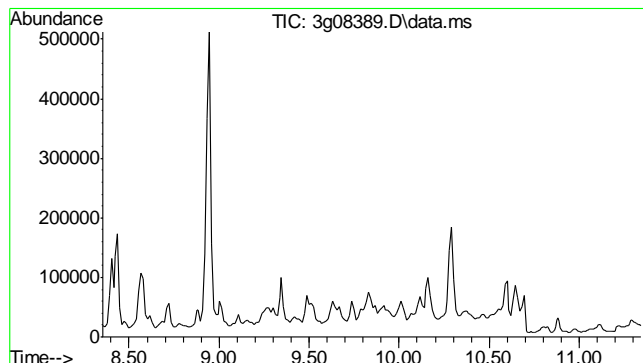
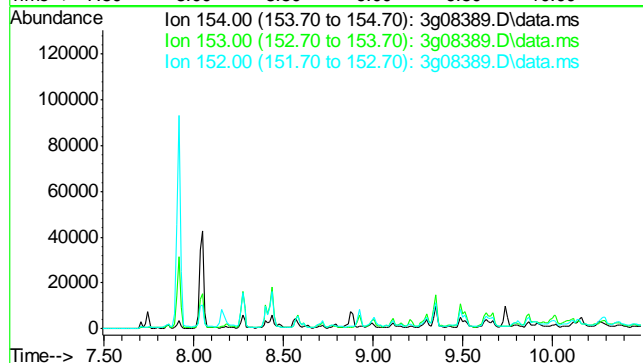
Tgt Ion	Sig	Exp Ratio
152	100	
151	18.9	
153	12.9	





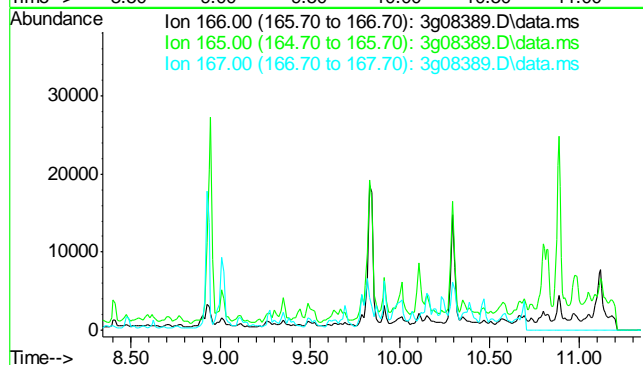
#11
 Acenaphthene
 Concen: N.D. ug/mL
 Expected RT: 8.99 min
 Lab File: 3g08389.D
 Acq: 7 Mar 12 3:10 pm

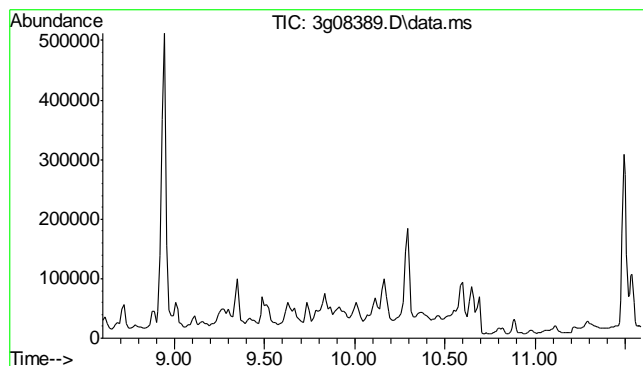
Tgt Ion	Exp Ratio
154	100
153	104.3
152	49.4



#12
 Fluorene
 Concen: N.D. ug/mL
 Expected RT: 9.84 min
 Lab File: 3g08389.D
 Acq: 7 Mar 12 3:10 pm

Tgt Ion	Exp Ratio
166	100
165	91.1
167	13.2

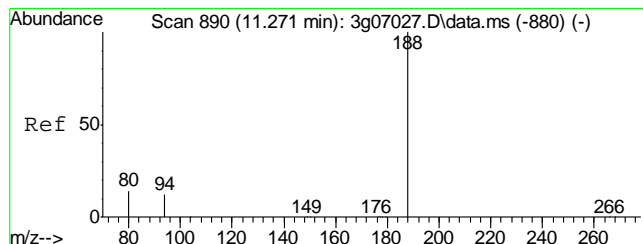
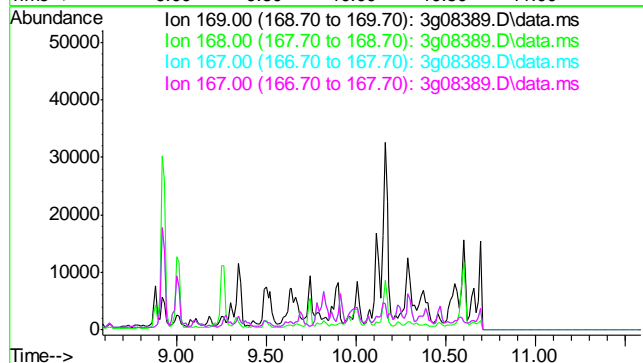




#13
Diphenylamine
Concen: N.D. ug/mL
Expected RT: 10.09 min

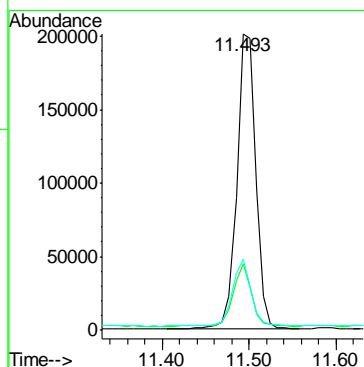
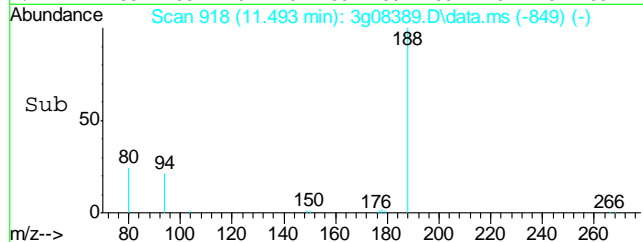
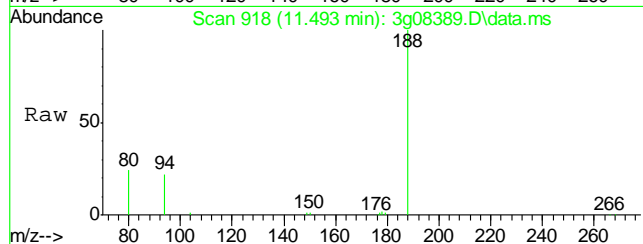
Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

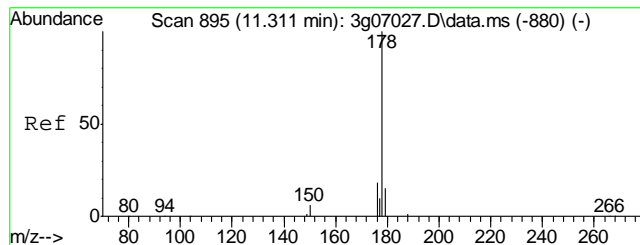
Tgt Ion: 169
Sig Exp Ratio
169 100
168 61.0
167 33.0
167 33.0



#14
Phenanthrene-d10
Concen: 4.00 ug/mL
RT: 11.493 min Scan# 918
Delta R.T. 0.000 min
Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

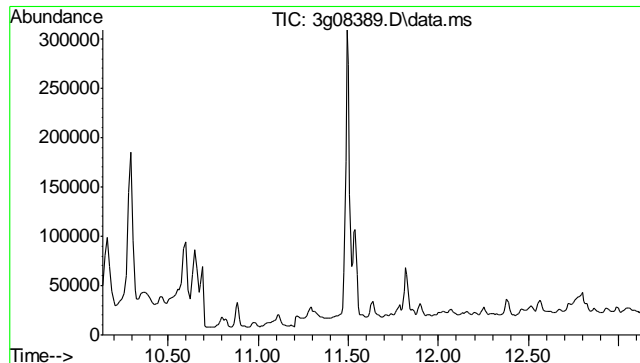
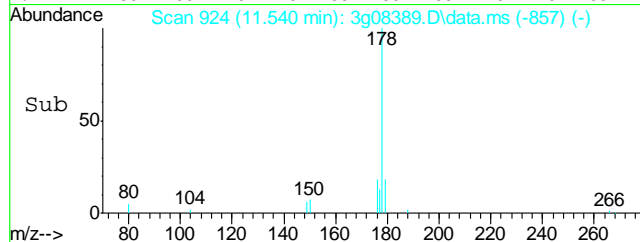
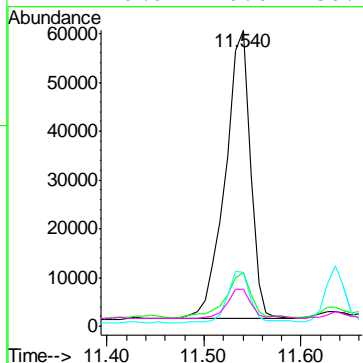
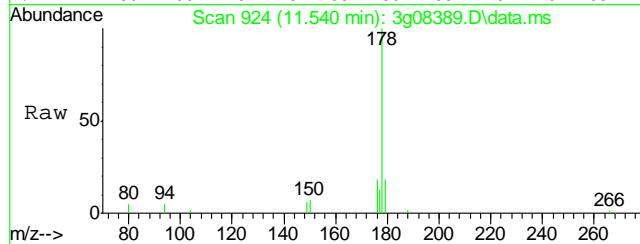
Tgt Ion: 188 Resp: 307183
Ion Ratio Lower Upper
188 100
94 20.2 1.6 41.6
80 21.1 2.2 42.2





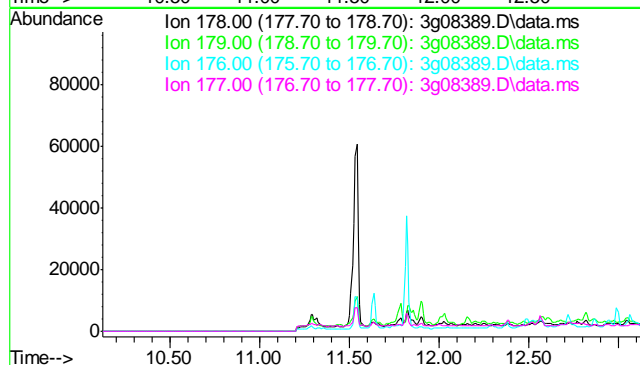
#15
Phenanthrene
Concen: 0.92 ug/mL
RT: 11.540 min Scan# 924
Delta R.T. 0.000 min
Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

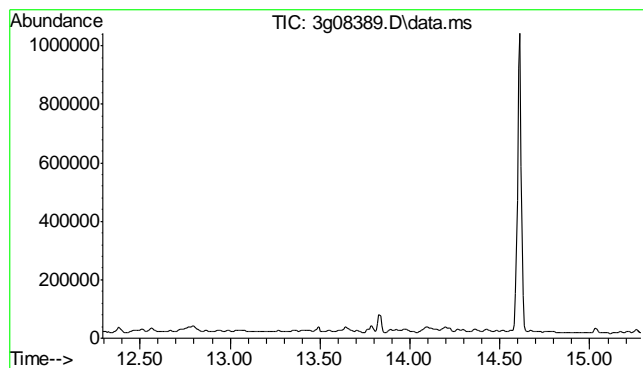
Tgt Ion:	178	Resp:	106205
Ion Ratio	Lower	Upper	
178	100		
179	16.8	0.0	35.1
176	15.4	0.0	38.5
177	9.9	0.0	30.2



#16
Anthracene
Concen: N.D. ug/mL
Expected RT: 11.63 min
Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

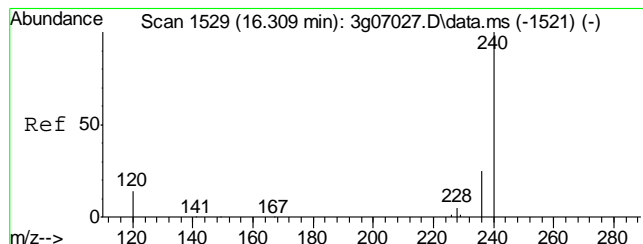
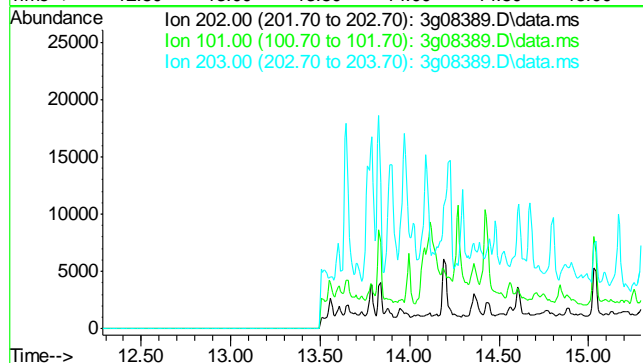
Tgt Ion:	178
Sig	Exp Ratio
178	100
179	15.0
176	17.9
177	8.8





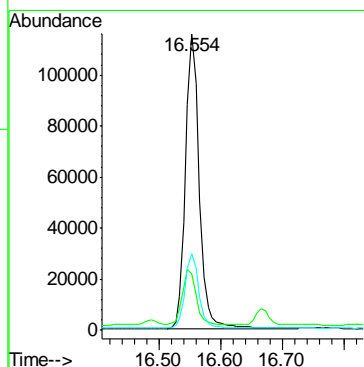
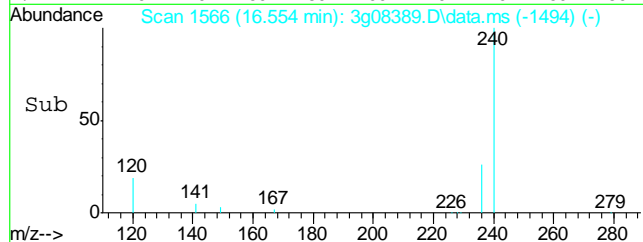
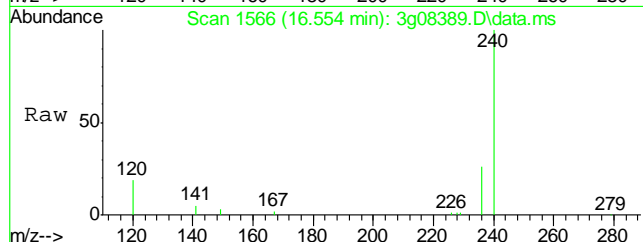
#17
 Fluoranthene
 Concen: N.D. ug/mL
 Expected RT: 13.79 min
 Lab File: 3g08389.D
 Acq: 7 Mar 12 3:10 pm

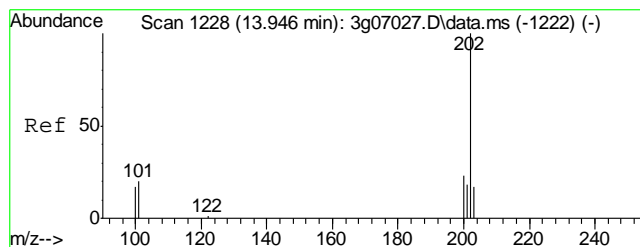
Tgt Ion: 202
 Sig Exp Ratio
 202 100
 101 23.5
 203 17.2



#18
 Chrysene-d12
 Concen: 4.00 ug/mL
 RT: 16.554 min Scan# 1566
 Delta R.T. 0.000 min
 Lab File: 3g08389.D
 Acq: 7 Mar 12 3:10 pm

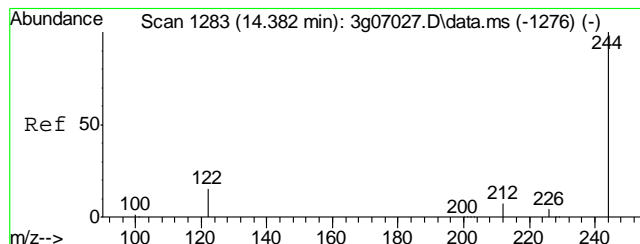
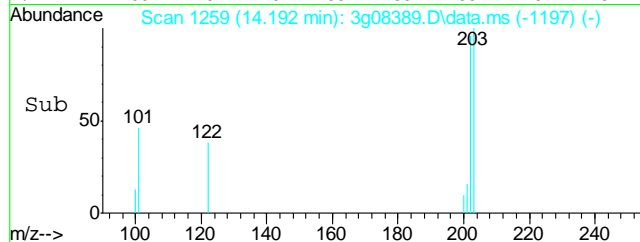
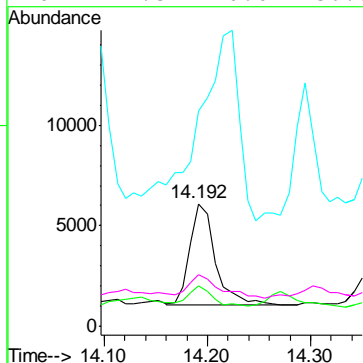
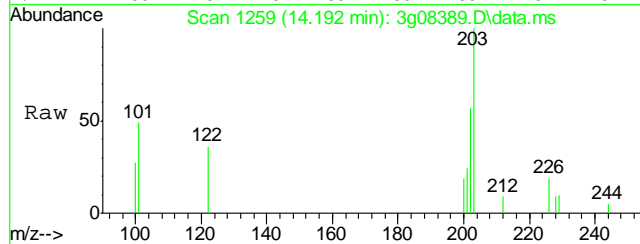
Tgt Ion: 240 Resp: 179891
 Ion Ratio Lower Upper
 240 100
 120 18.7 2.9 42.9
 236 24.8 5.0 45.0





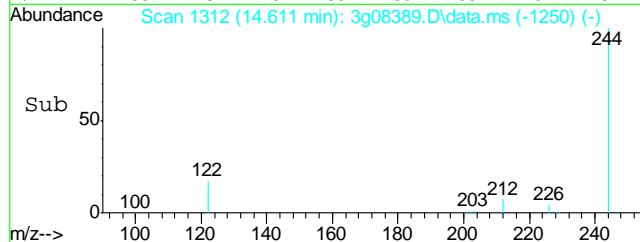
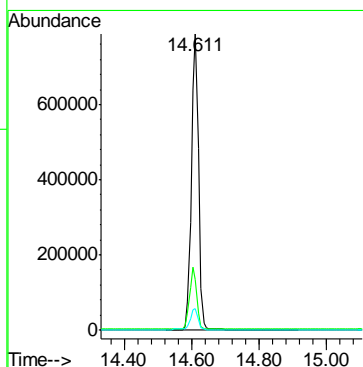
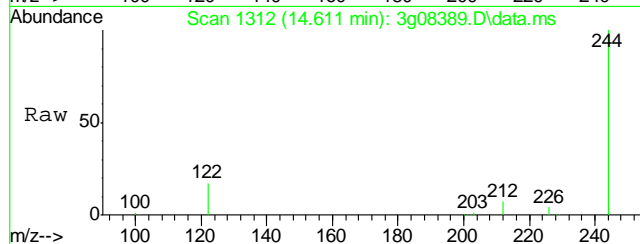
#19
Pyrene
Concen: 0.09 ug/mL
RT: 14.192 min Scan# 1259
Delta R.T. -0.008 min
Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

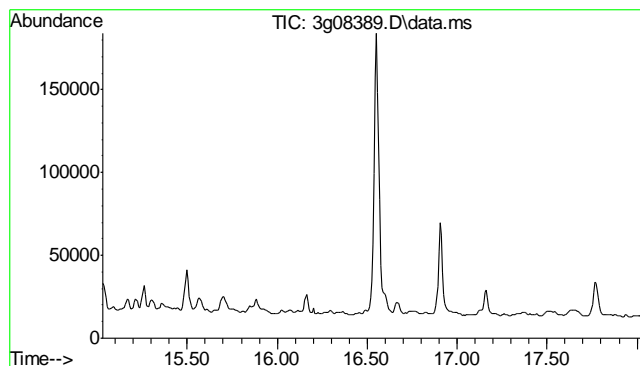
Tgt Ion: 202	Resp: 8706
Ion Ratio	Lower Upper
202	100
200	18.0 0.0 40.0
203	276.8 0.0 37.8#
201	27.3 0.0 36.5



#20
Terphenyl-d14
Concen: 26.42 ug/mL
RT: 14.611 min Scan# 1312
Delta R.T. -0.008 min
Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

Tgt Ion: 244	Resp: 1156007
Ion Ratio	Lower Upper
244	100
122	21.5 3.7 43.7
212	7.6 0.0 27.2

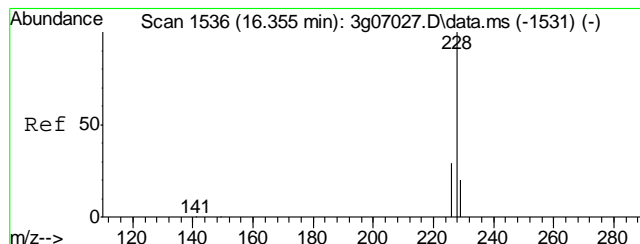
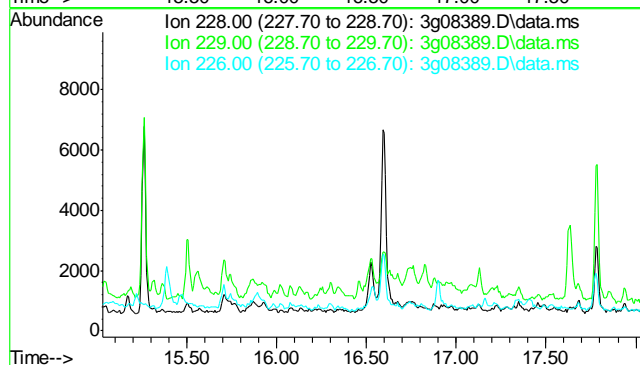




#21
Benzo(a)anthracene
Concen: N.D. ug/mL
Expected RT: 16.53 min

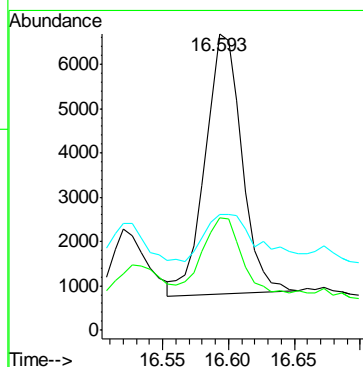
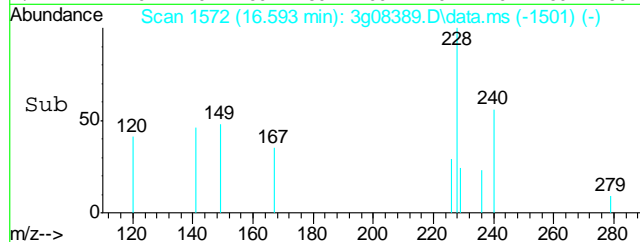
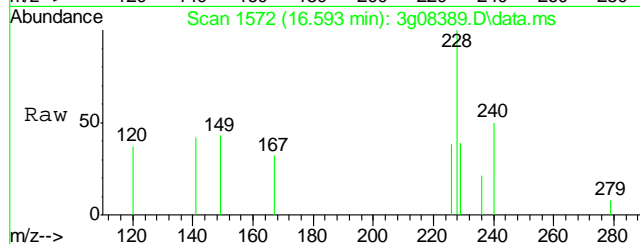
Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

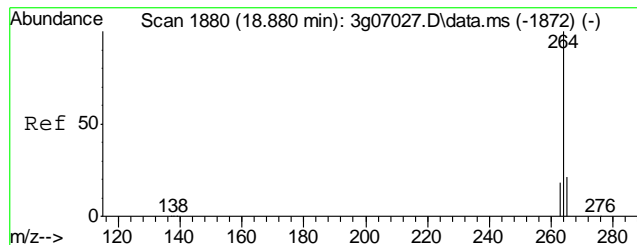
Tgt Ion: 228
Sig Exp Ratio
228 100
229 19.5
226 26.0



#22
Chrysene
Concen: 0.17 ug/mL
RT: 16.593 min Scan# 1572
Delta R.T. -0.013 min
Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

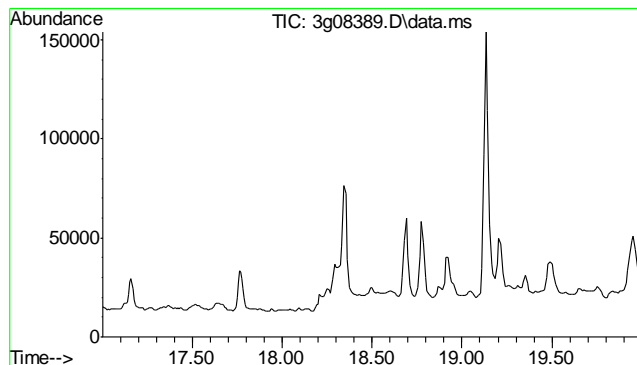
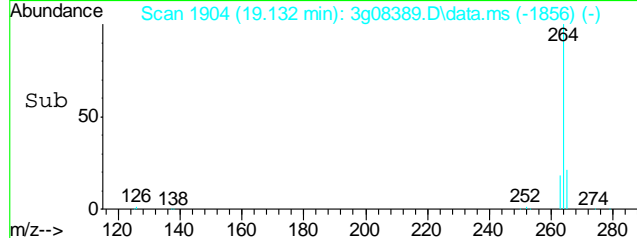
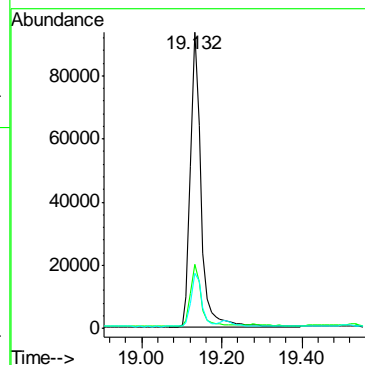
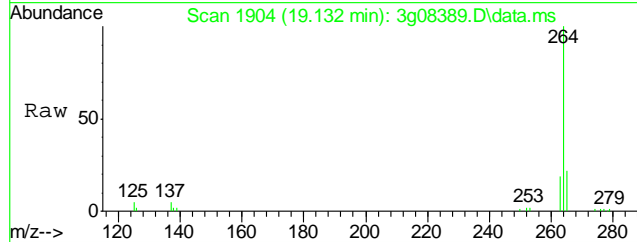
Tgt Ion: 228 Resp: 11419
Ion Ratio Lower Upper
228 100
226 30.8 8.3 48.3
229 25.6 0.0 39.3





#23
Perylene-d12
Concen: 4.00 ug/mL
RT: 19.132 min Scan# 1904
Delta R.T. 0.000 min
Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

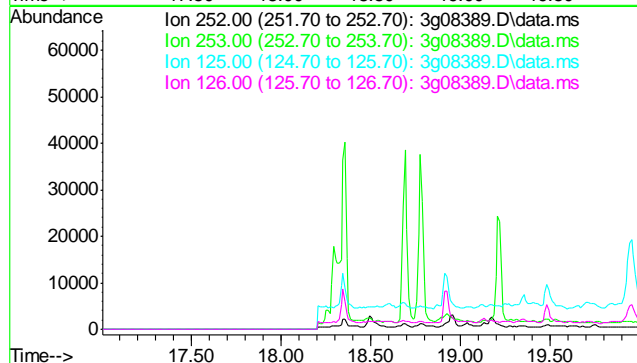
Tgt Ion:	264	Resp:	172701
Ion Ratio	Lower	Upper	
264	100		
265	20.7	1.1	41.1
263	18.4	0.0	38.7

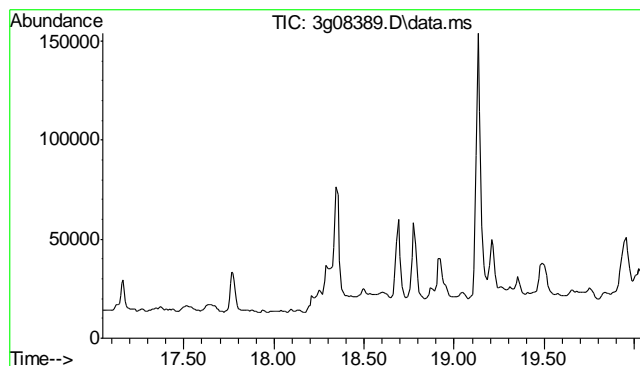


#24
Benzo(b)fluoranthene
Concen: N.D. ug/mL
Expected RT: 18.50 min

Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

Tgt Ion:	252
Sig	Exp Ratio
252	100
253	21.6
125	15.2
126	21.4

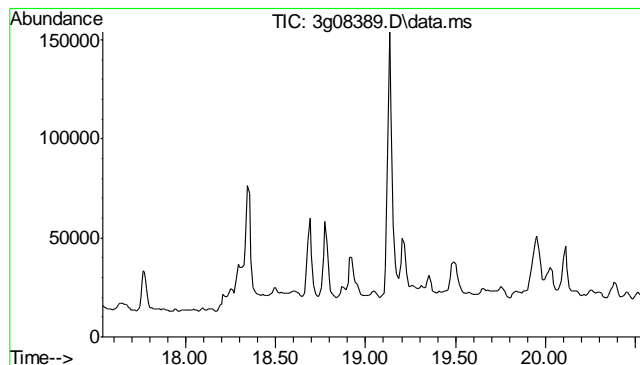
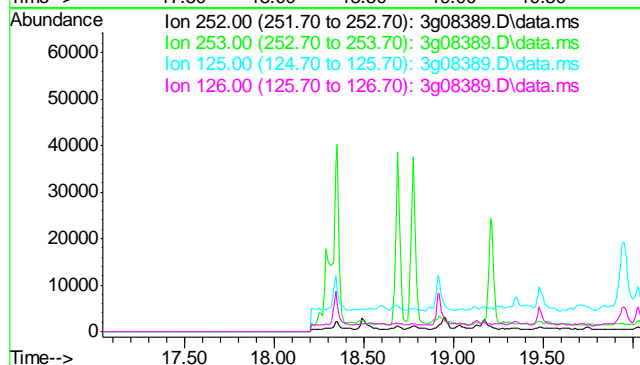




#25
Benzo(k)fluoranthene
Concen: N.D. ug/mL
Expected RT: 18.54 min

Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

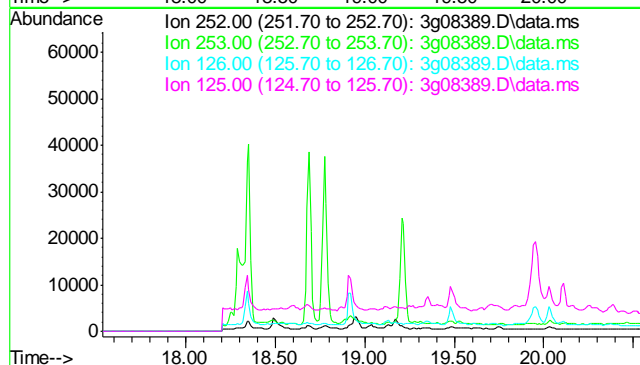
Tgt Ion	Sig	Exp Ratio
252	100	
253	21.7	
125	17.5	
126	27.7	

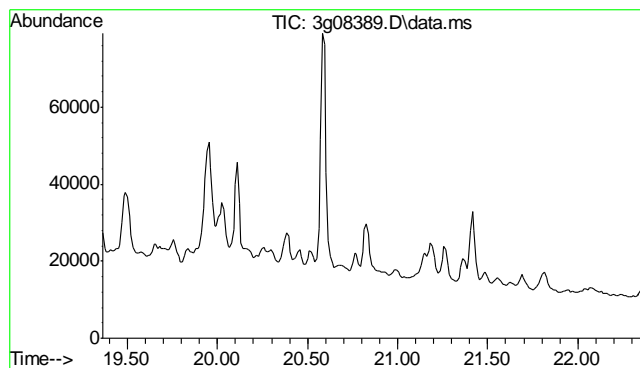


#26
Benzo(a)pyrene
Concen: N.D. ug/mL
Expected RT: 19.04 min

Lab File: 3g08389.D
Acq: 7 Mar 12 3:10 pm

Tgt Ion	Sig	Exp Ratio
252	100	
253	21.6	
126	24.1	
125	18.2	

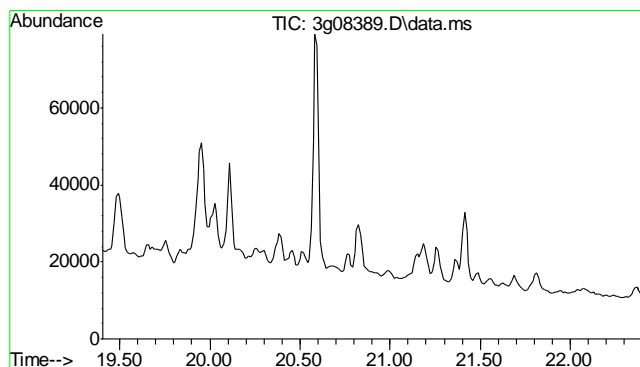
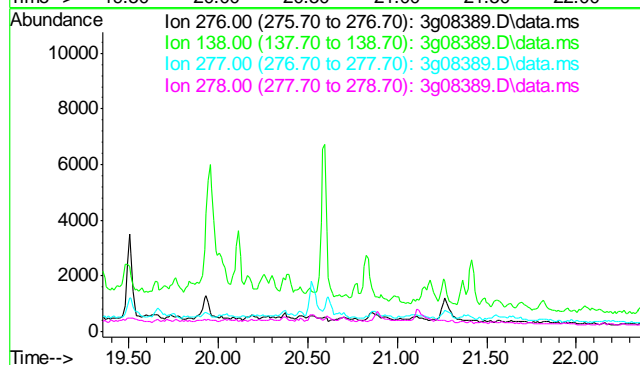




#27
 Indeno(1,2,3-cd)pyrene
 Concen: N.D. ug/mL
 Expected RT: 20.86 min

Lab File: 3g08389.D
 Acq: 7 Mar 12 3:10 pm

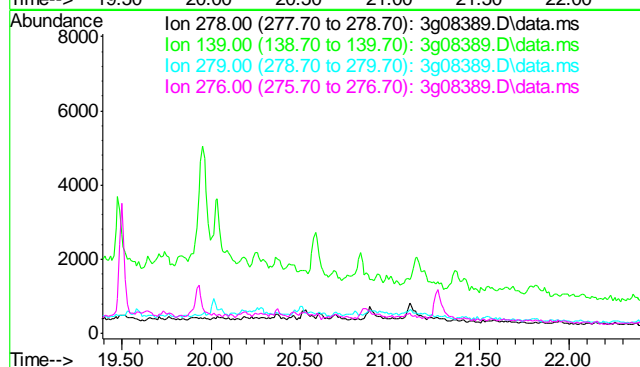
Tgt Ion	Exp Ratio
276	100
138	51.2
277	35.6
278	112.4

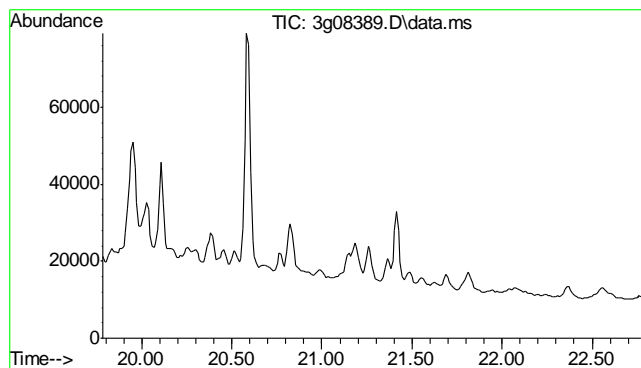


#28
 Dibenzo(a,h)anthracene
 Concen: N.D. ug/mL
 Expected RT: 20.90 min

Lab File: 3g08389.D
 Acq: 7 Mar 12 3:10 pm

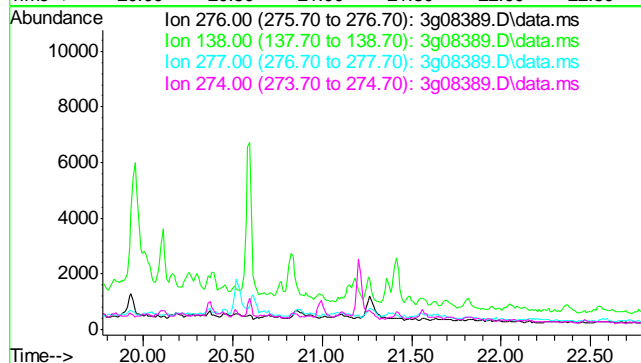
Tgt Ion	Exp Ratio
278	100
139	24.7
279	23.4
276	126.4





#29
 Benzo(g,h,i)perylene
 Concen: N.D. ug/mL
 Expected RT: 21.28 min
 Lab File: 3g08389.D
 Acq: 7 Mar 12 3:10 pm

Tgt Ion	276
Sig	Exp Ratio
276	100
138	31.8
277	23.4
274	21.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\030712\
 Data File : 3g08393.D
 Acq On : 7 Mar 2012 5:33 pm
 Operator : DONC
 Sample : D32443-2
 Misc : OP5492,E3G340,30.10,,,1,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 08 09:45:00 2012
 Quant Method : C:\msdchem\1\METHODS\SIMPE3G333.M
 Quant Title : PAHSIM BASE
 QLast Update : Sat Mar 03 06:34:25 2012
 Response via : Initial Calibration

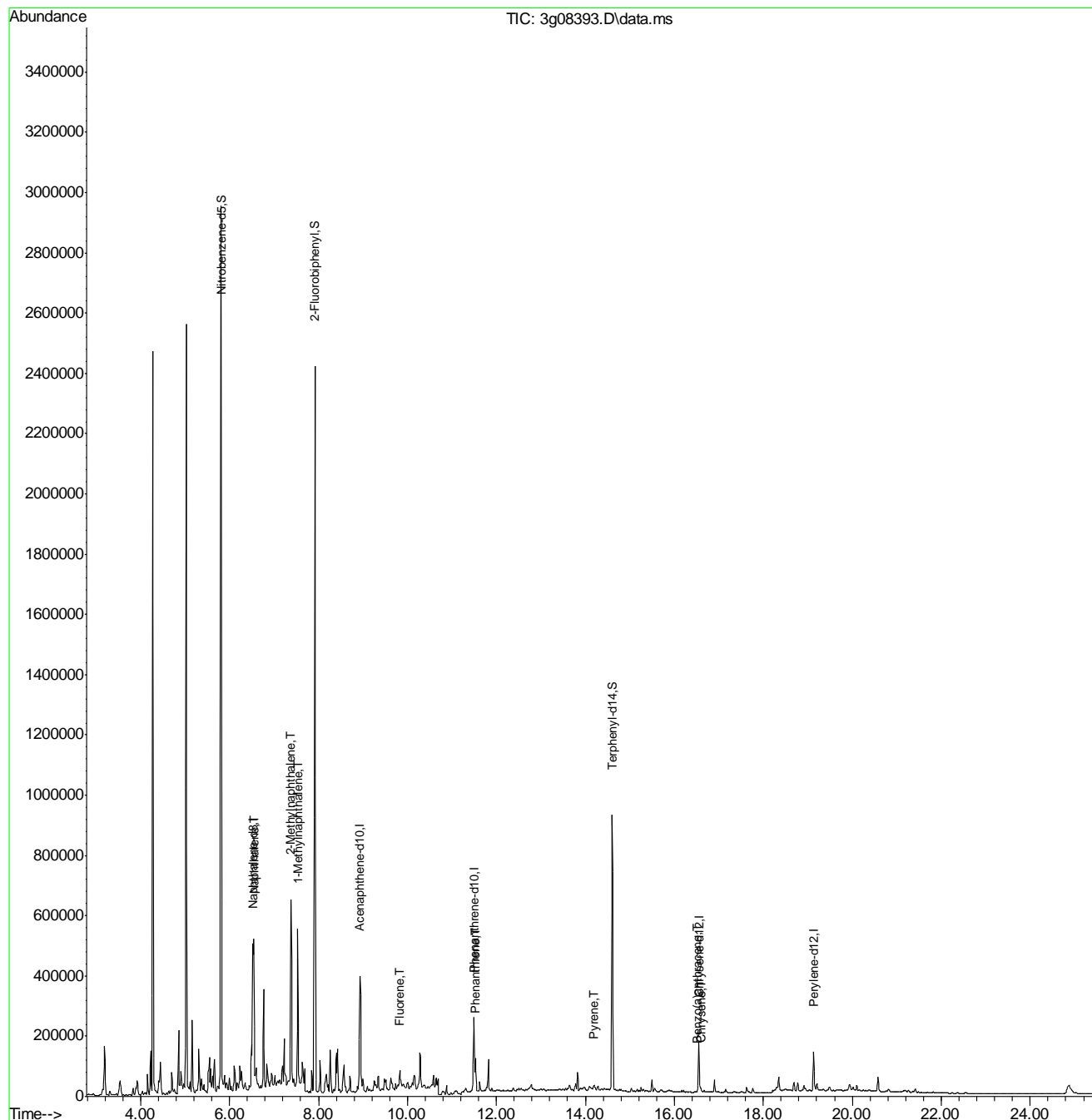
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	6.532	136	478093	4.00	ug/mL	0.00
6) Acenaphthene-d10	8.933	164	232651	4.00	ug/mL	-0.01
14) Phenanthrene-d10	11.493	188	262903	4.00	ug/mL	0.00
18) Chrysene-d12	16.554	240	179636	4.00	ug/mL	0.00
23) Perylene-d12	19.132	264	163820	4.00	ug/mL	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.809	82	1624809	20.93	ug/mL	-0.01
Spiked Amount	50.000	Range 25 - 135	Recovery	=	41.86%	
7) 2-Fluorobiphenyl	7.917	172	2160106	21.87	ug/mL	-0.01
Spiked Amount	50.000	Range 25 - 135	Recovery	=	43.74%	
20) Terphenyl-d14	14.603	244	998841	22.86	ug/mL	-0.02
Spiked Amount	50.000	Range 25 - 135	Recovery	=	45.72%	
Target Compounds						
					Qvalue	
3) N-Nitrosodimethylamine	0.000		0	N.D.	d	
4) N-Nitrosodi-propylamine	0.000		0	N.D.	d	
5) Naphthalene	6.545	128	407749	2.36	ug/mL	98
8) 2-Methylnaphthalene	7.380	142	383352	4.16	ug/mL	97
9) 1-Methylnaphthalene	7.530	142	215454	2.46	ug/mL	97
10) Acenaphthylene	0.000		0	N.D.	d	
11) Acenaphthene	0.000		0	N.D.	d	
12) Fluorene	9.831	166	42513	0.46	ug/mL#	75
13) Diphenylamine	0.000		0	N.D.	d	
15) Phenanthrene	11.532	178	148931	1.51	ug/mL	92
16) Anthracene	0.000		0	N.D.	d	
17) Fluoranthene	0.000		0	N.D.	d	
19) Pyrene	14.192	202	10023	0.11	ug/mL#	1
21) Benzo(a)anthracene	16.520	228	4081m	0.06	ug/mL	
22) Chrysene	16.593	228	15052	0.23	ug/mL	82
24) Benzo(b)fluoranthene	0.000		0	N.D.	d	
25) Benzo(k)fluoranthene	0.000		0	N.D.	d	
26) Benzo(a)pyrene	0.000		0	N.D.	d	
27) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	d	
28) Dibenz(a,h)anthracene	0.000		0	N.D.	d	
29) Benzo(g,h,i)perylene	0.000		0	N.D.	d	

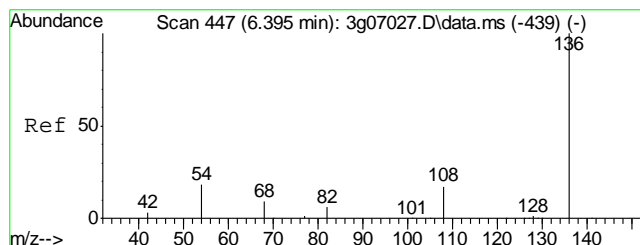
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\030712\
Data File : 3g08393.D
Acq On : 7 Mar 2012 5:33 pm
Operator : DONC
Sample : D32443-2
Misc : OP5492,E3G340,30.10,,,1,1
ALS Vial : 17 Sample Multiplier: 1

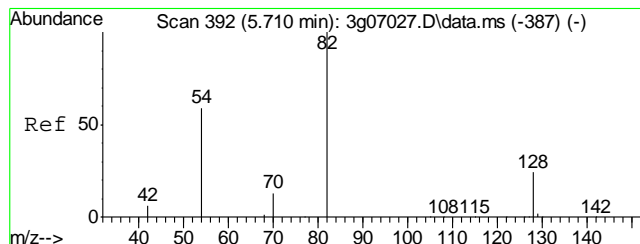
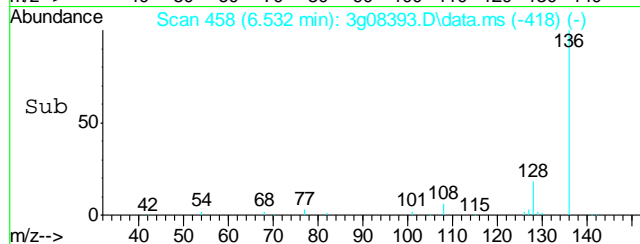
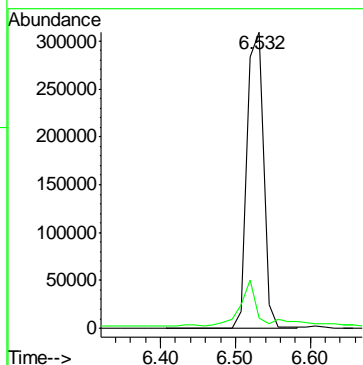
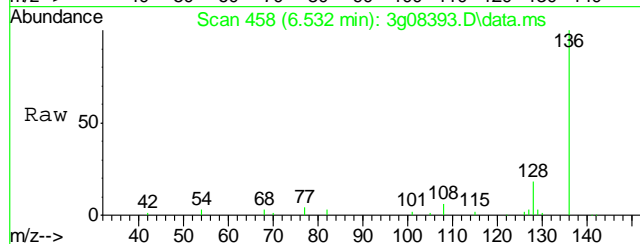
Quant Time: Mar 08 09:45:00 2012
Quant Method : C:\msdchem\1\METHODS\SIMPE3G333.M
Quant Title : PAHSIM BASE
QLast Update : Sat Mar 03 06:34:25 2012
Response via : Initial Calibration





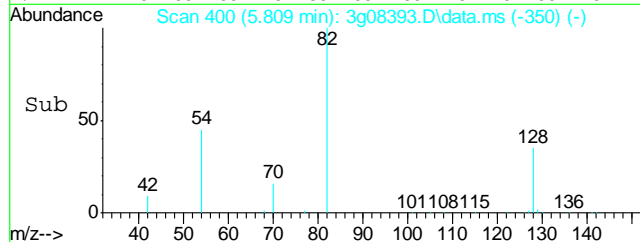
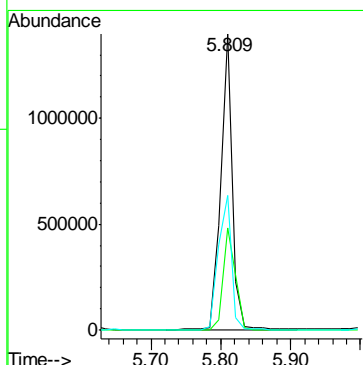
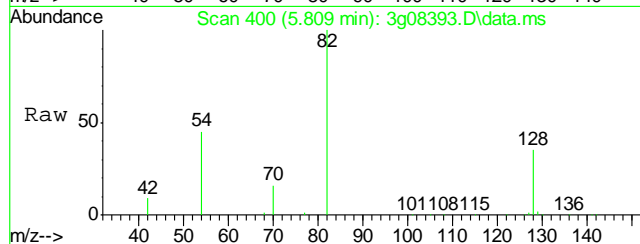
#1
Naphthalene-d8
Concen: 4.00 ug/mL
RT: 6.532 min Scan# 458
Delta R.T. 0.000 min
Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

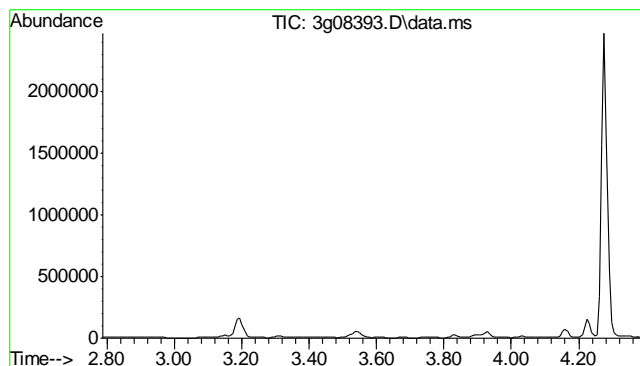
Tgt Ion: 136 Resp: 478093
Ion Ratio Lower Upper
136 100
68 14.9 0.0 32.3



#2
Nitrobenzene-d5
Concen: 20.93 ug/mL
RT: 5.809 min Scan# 400
Delta R.T. -0.012 min
Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

Tgt Ion: 82 Resp: 1624809
Ion Ratio Lower Upper
82 100
128 37.3 16.9 56.9
54 51.7 27.5 67.5

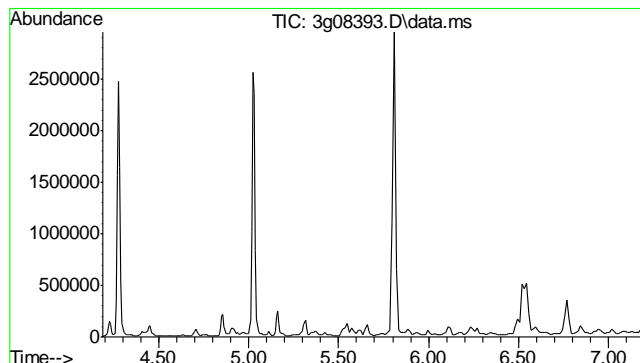
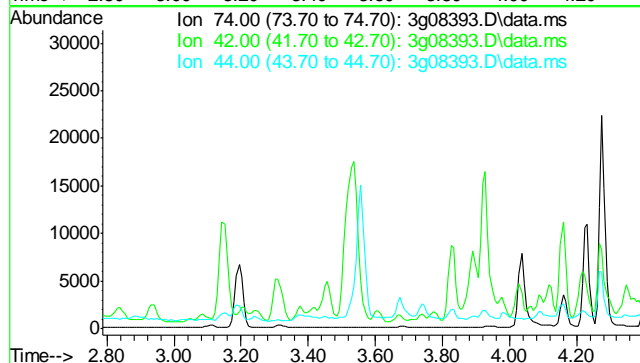




#3
N-Nitrosodimethylamine
Concen: N.D. ug/mL
Expected RT: 2.89 min

Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

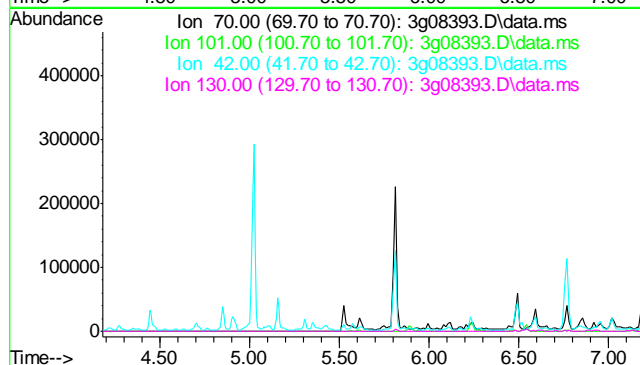
Tgt Ion	Exp Ratio
74	100
42	58.9
44	4.0

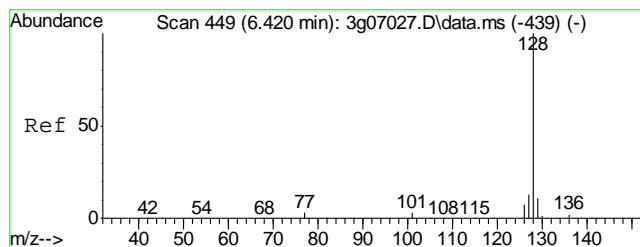


#4
N-Nitrosodi-propylamine
Concen: N.D. ug/mL
Expected RT: 5.68 min

Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

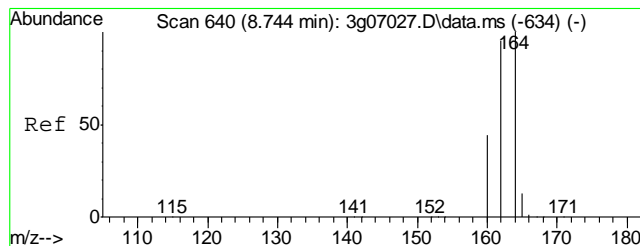
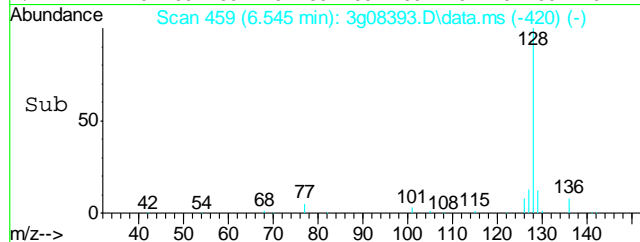
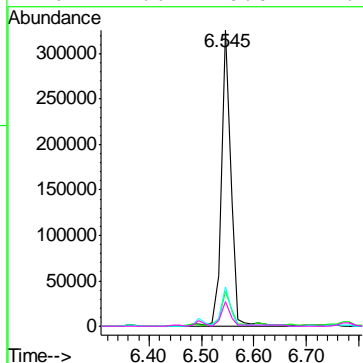
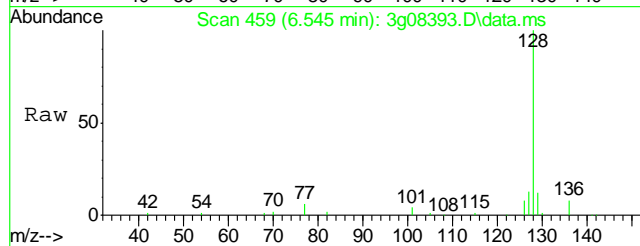
Tgt Ion	Exp Ratio
70	100
101	10.9
42	50.1
130	19.5





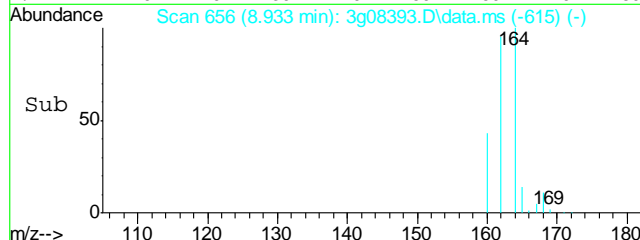
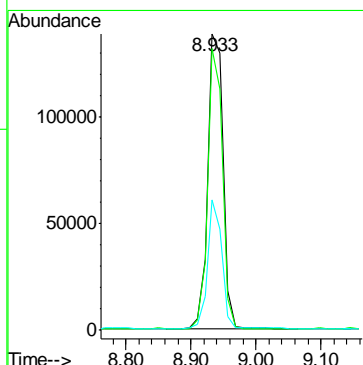
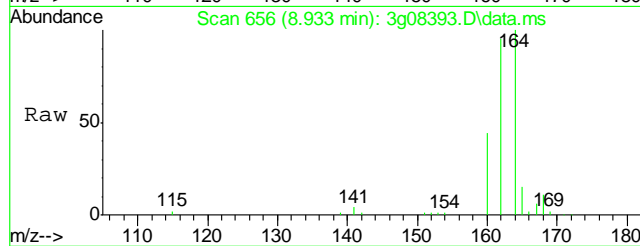
#5
Naphthalene
Concen: 2.36 ug/mL
RT: 6.545 min Scan# 459
Delta R.T. -0.012 min
Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

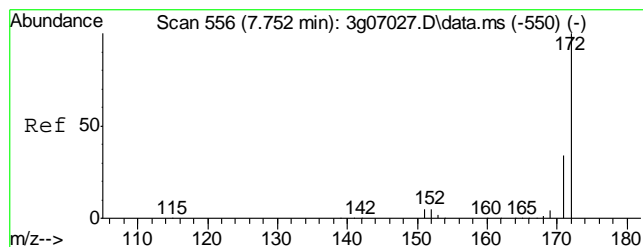
Tgt Ion	Ratio	Lower	Upper
128	100		
129	12.4	0.0	30.8
127	11.7	0.0	32.5
126	7.6	0.0	27.7



#6
Acenaphthene-d10
Concen: 4.00 ug/mL
RT: 8.933 min Scan# 656
Delta R.T. -0.012 min
Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

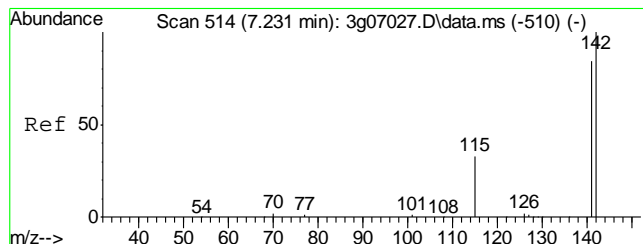
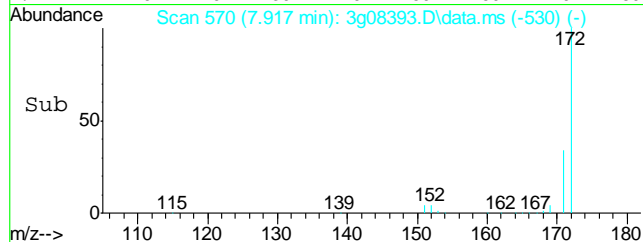
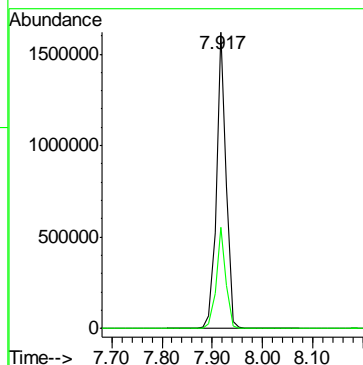
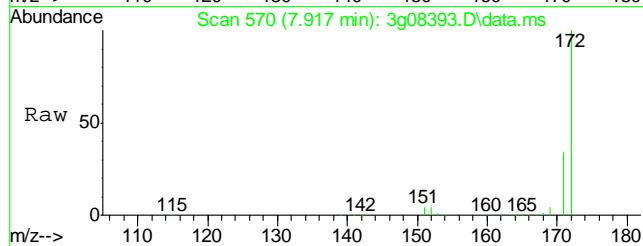
Tgt Ion	Ratio	Lower	Upper
164	100		
162	90.7	72.6	112.6
160	39.9	21.8	61.8





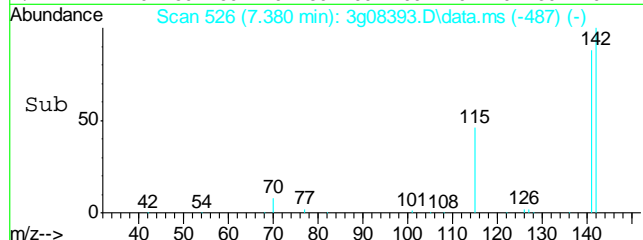
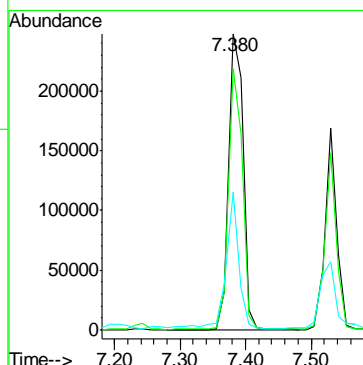
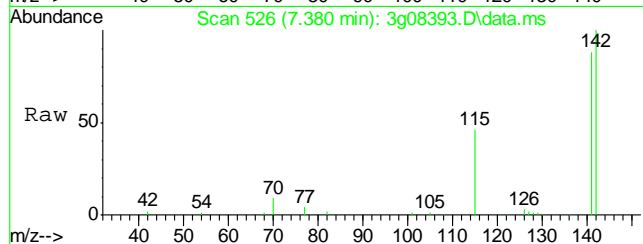
#7
2-Fluorobiphenyl
Concen: 21.87 ug/mL
RT: 7.917 min Scan# 570
Delta R.T. -0.012 min
Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

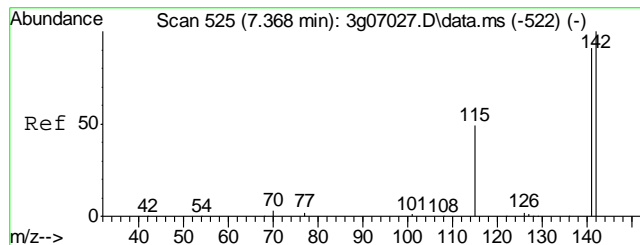
Tgt Ion: 172 Resp: 2160106
Ion Ratio Lower Upper
172 100
171 33.5 13.3 53.3



#8
2-Methylnaphthalene
Concen: 4.16 ug/mL
RT: 7.380 min Scan# 526
Delta R.T. -0.012 min
Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

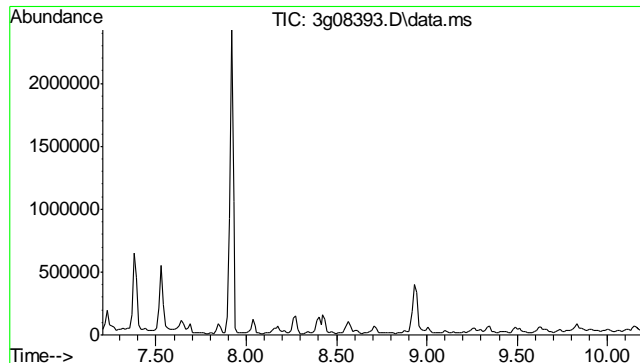
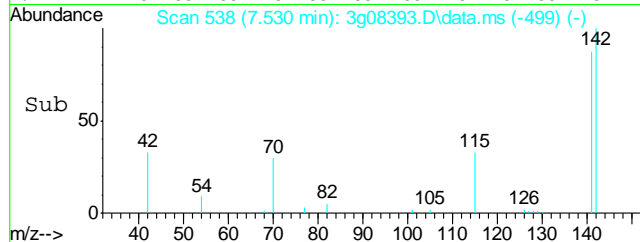
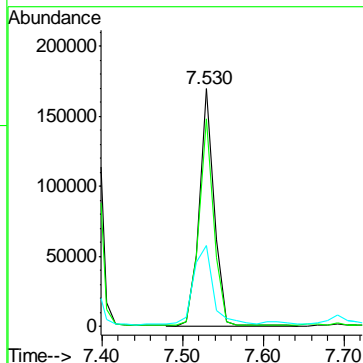
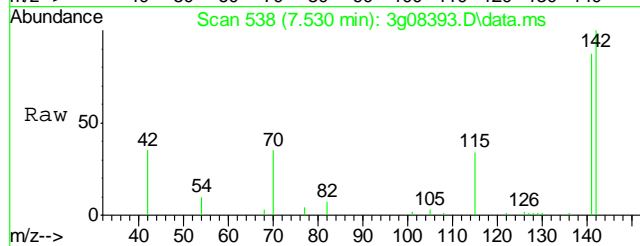
Tgt Ion: 142 Resp: 383352
Ion Ratio Lower Upper
142 100
141 84.2 63.2 103.2
115 40.1 16.1 56.1





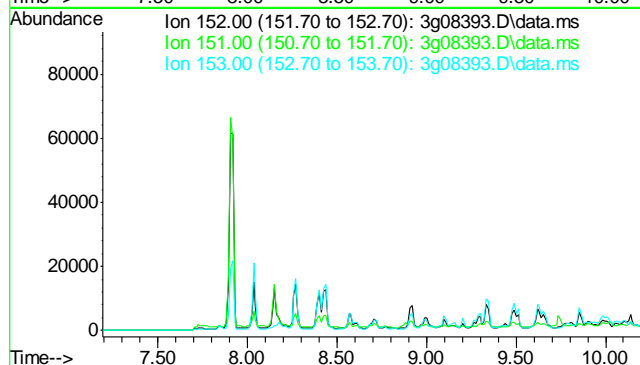
#9
1-Methylnaphthalene
Concen: 2.46 ug/mL
RT: 7.530 min Scan# 538
Delta R.T. -0.012 min
Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

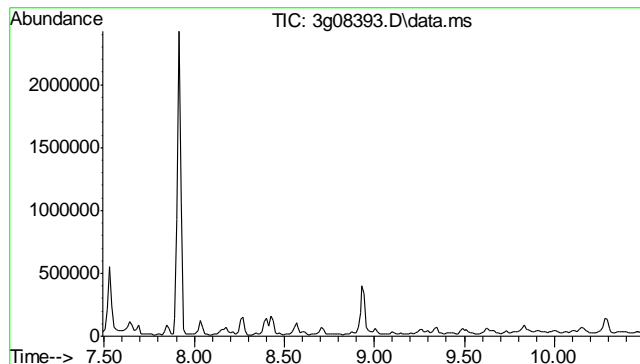
Tgt Ion	Ratio	Lower	Upper
142	100		
141	87.2	67.4	107.4
115	44.1	18.8	58.8



#10
Acenaphthylene
Concen: N.D. ug/mL
Expected RT: 8.70 min
Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

Tgt Ion	Sig	Exp Ratio
152	100	
151	18.9	
153	12.9	

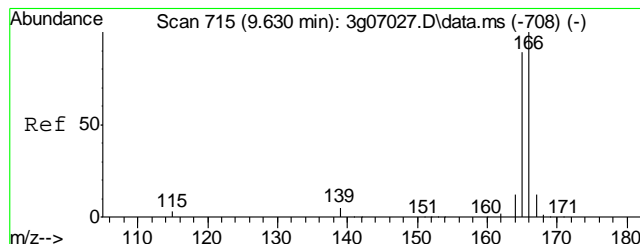
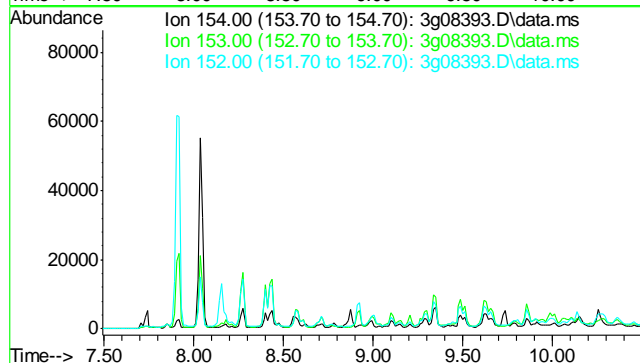




#11
Acenaphthene
Concen: N.D. ug/mL
Expected RT: 8.99 min

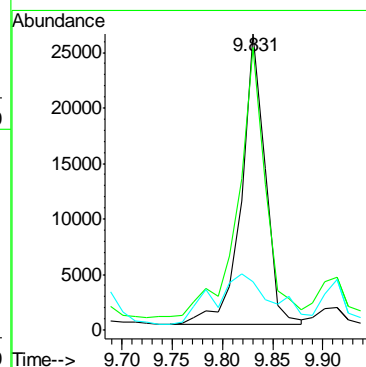
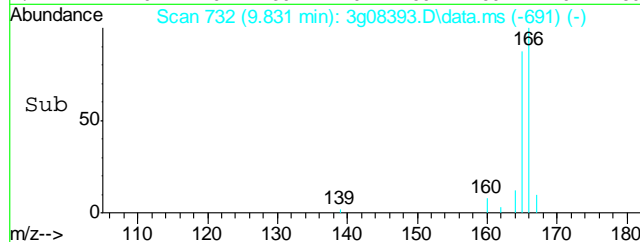
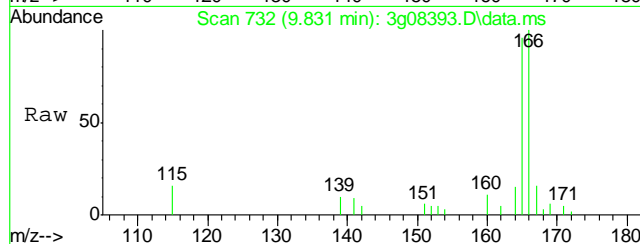
Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

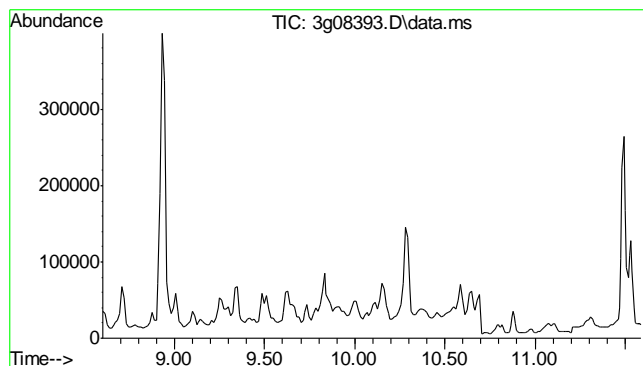
Tgt Ion: 154
Sig Exp Ratio
154 100
153 104.3
152 49.4



#12
Fluorene
Concen: 0.46 ug/mL
RT: 9.831 min Scan# 732
Delta R.T. -0.012 min
Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

Tgt Ion: 166 Resp: 42513
Ion Ratio Lower Upper
166 100
165 107.7 71.1 111.1
167 45.5 0.0 33.2#

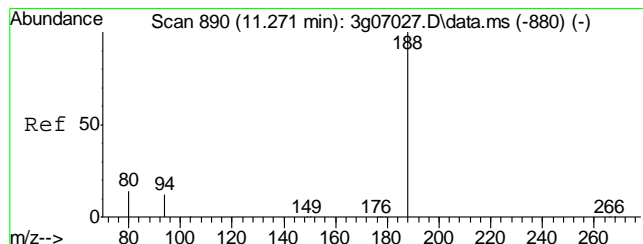
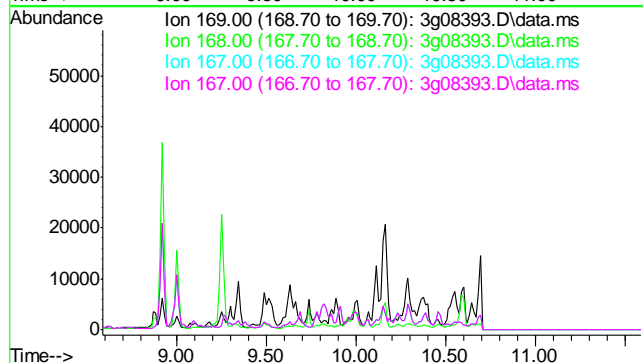




#13
Diphenylamine
Concen: N.D. ug/mL
Expected RT: 10.09 min

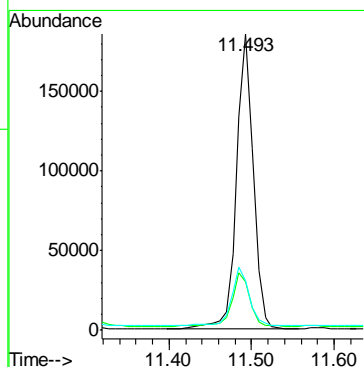
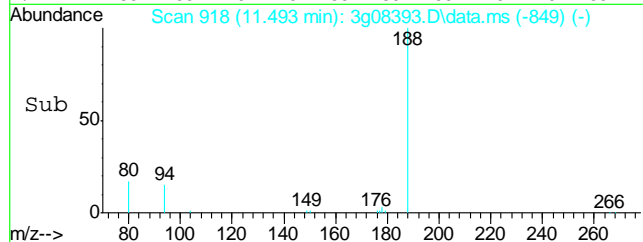
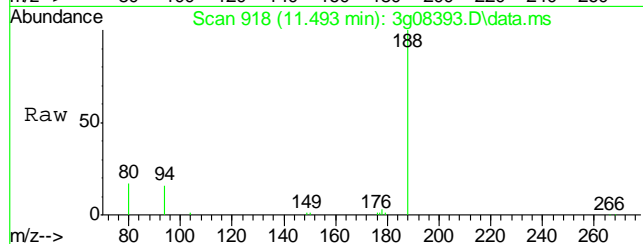
Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

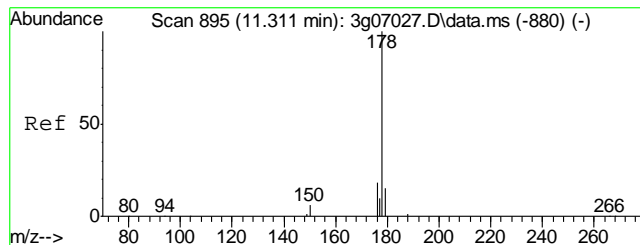
Tgt Ion: 169
Sig Exp Ratio
169 100
168 61.0
167 33.0
167 33.0



#14
Phenanthrene-d10
Concen: 4.00 ug/mL
RT: 11.493 min Scan# 918
Delta R.T. 0.000 min
Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

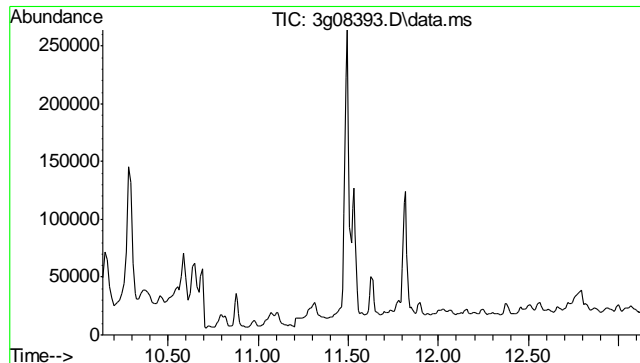
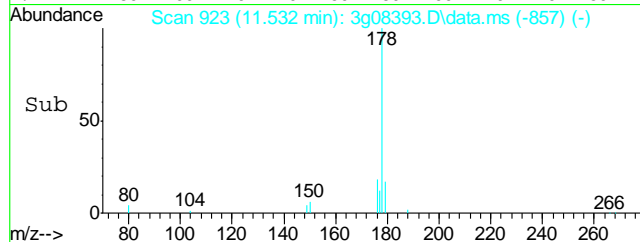
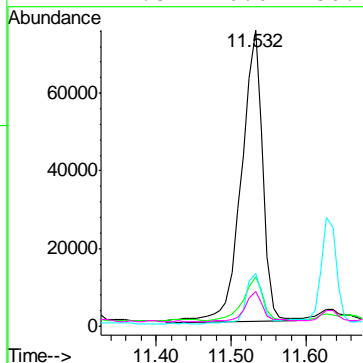
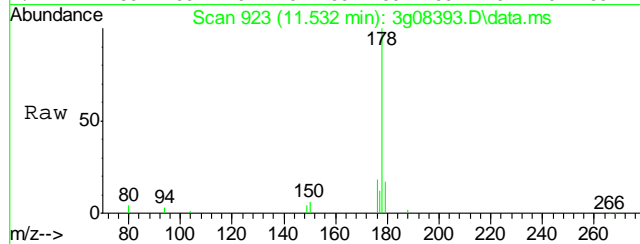
Tgt Ion: 188 Resp: 262903
Ion Ratio Lower Upper
188 100
94 19.3 1.6 41.6
80 20.3 2.2 42.2





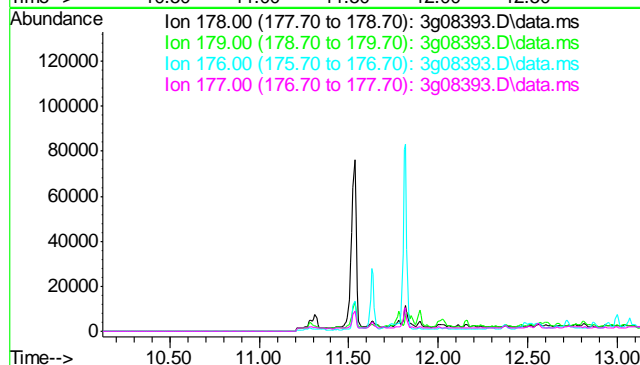
#15
Phenanthrene
Concen: 1.51 ug/mL
RT: 11.532 min Scan# 923
Delta R.T. -0.008 min
Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

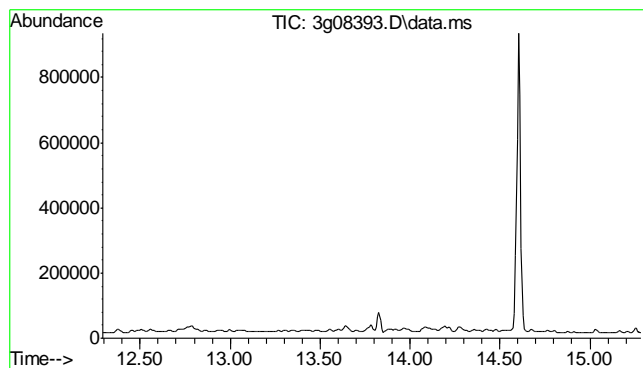
Tgt Ion:	178	Resp:	148931
Ion Ratio	Lower	Upper	
178	100		
179	13.9	0.0	35.1
176	12.9	0.0	38.5
177	7.5	0.0	30.2



#16
Anthracene
Concen: N.D. ug/mL
Expected RT: 11.63 min
Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

Tgt Ion:	178
Sig	Exp Ratio
178	100
179	15.0
176	17.9
177	8.8

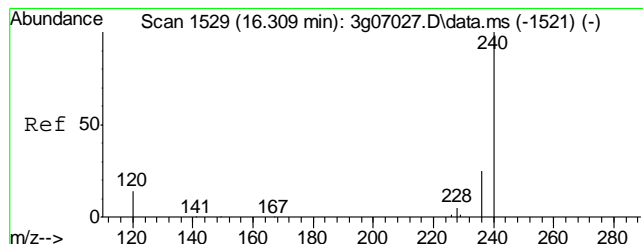
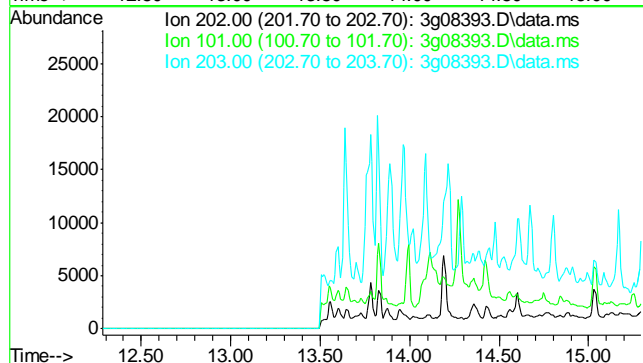




#17
 Fluoranthene
 Concen: N.D. ug/mL
 Expected RT: 13.79 min

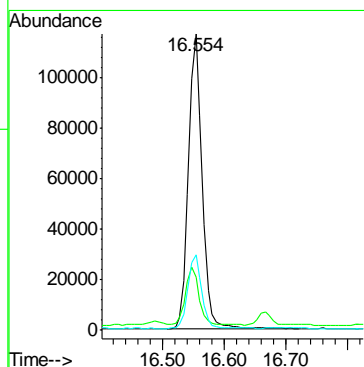
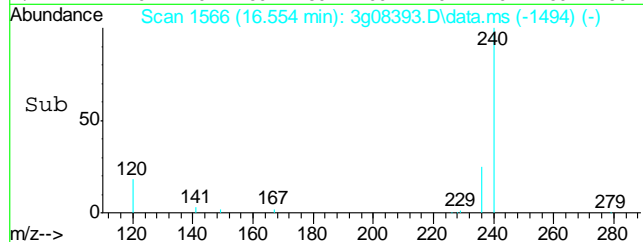
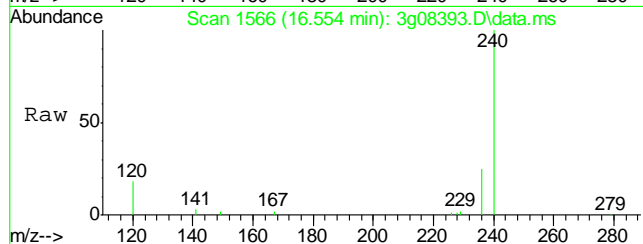
Lab File: 3g08393.D
 Acq: 7 Mar 12 5:33 pm

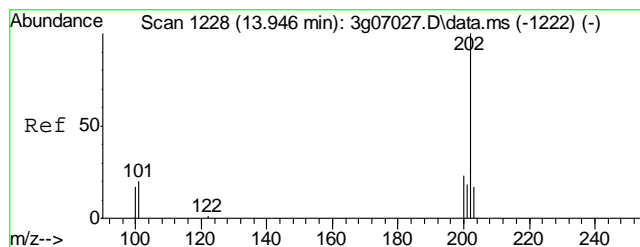
Tgt Ion: 202
 Sig Exp Ratio
 202 100
 101 23.5
 203 17.2



#18
 Chrysene-d12
 Concen: 4.00 ug/mL
 RT: 16.554 min Scan# 1566
 Delta R.T. 0.000 min
 Lab File: 3g08393.D
 Acq: 7 Mar 12 5:33 pm

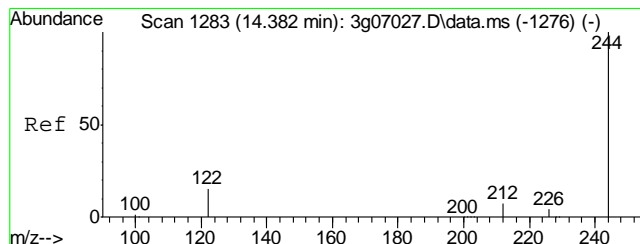
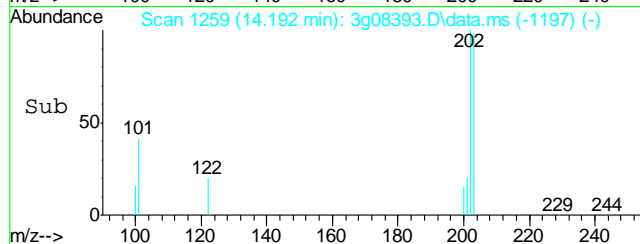
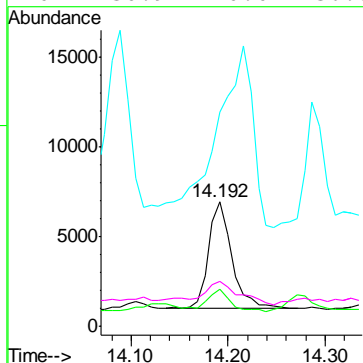
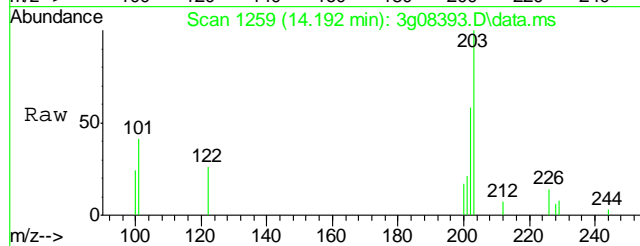
Tgt Ion: 240 Resp: 179636
 Ion Ratio Lower Upper
 240 100
 120 19.4 2.9 42.9
 236 25.2 5.0 45.0





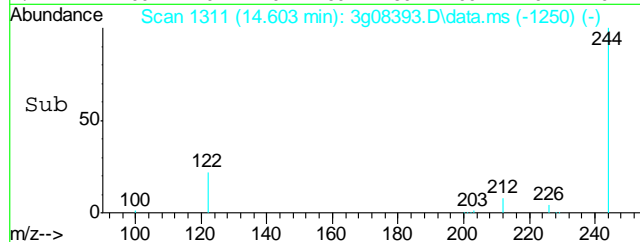
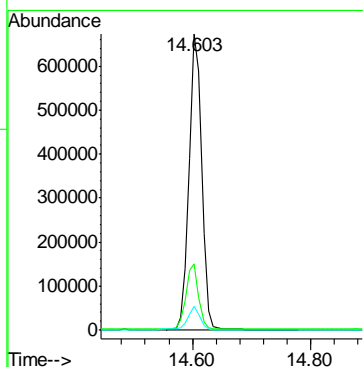
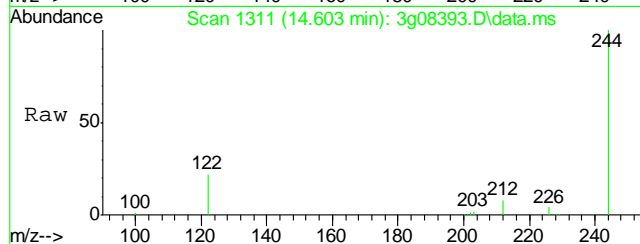
#19
Pyrene
Concen: 0.11 ug/mL
RT: 14.192 min Scan# 1259
Delta R.T. -0.008 min
Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

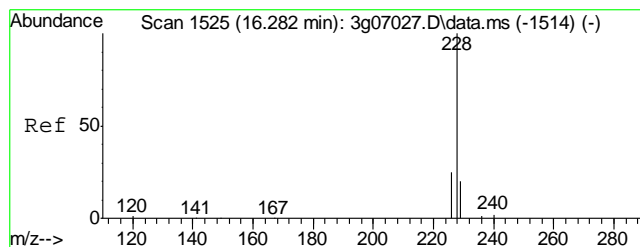
Tgt Ion:	202	Resp:	10023
Ion Ratio	Lower	Upper	
202	100		
200	22.8	0.0	40.0
203	280.8	0.0	37.8#
201	30.9	0.0	36.5



#20
Terphenyl-d14
Concen: 22.86 ug/mL
RT: 14.603 min Scan# 1311
Delta R.T. -0.016 min
Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

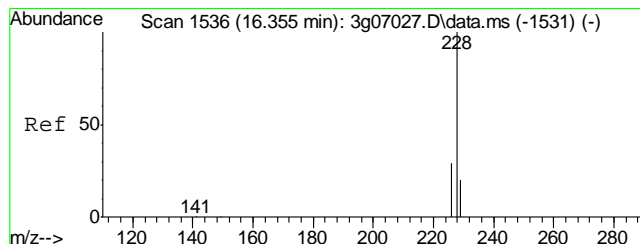
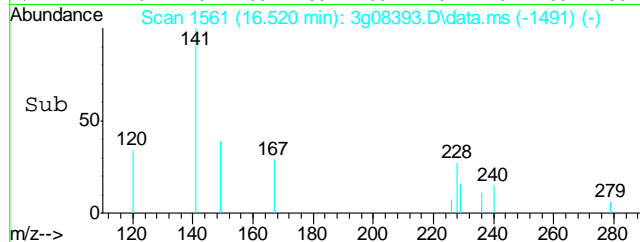
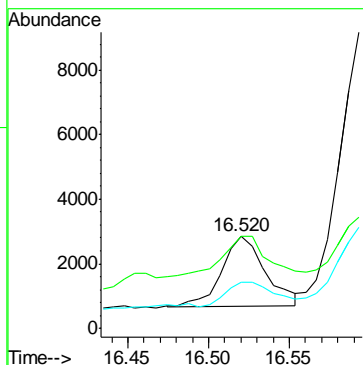
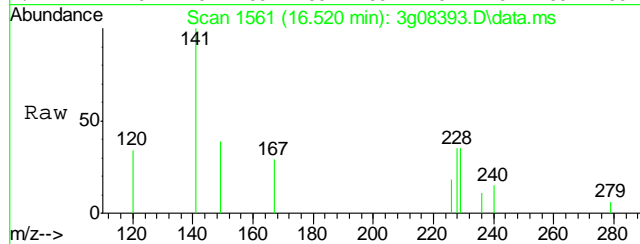
Tgt Ion:	244	Resp:	998841
Ion Ratio	Lower	Upper	
244	100		
122	22.2	3.7	43.7
212	7.7	0.0	27.2





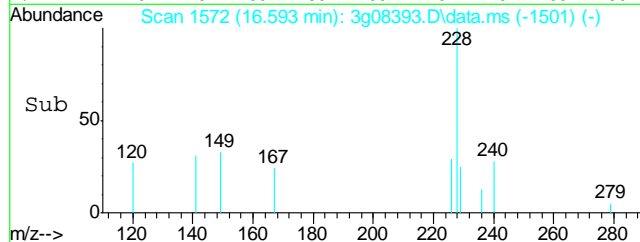
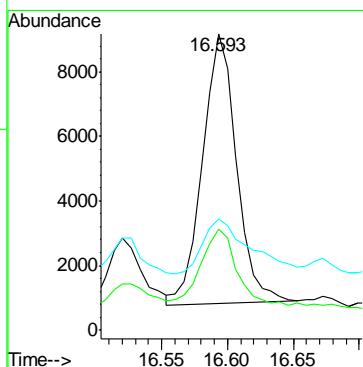
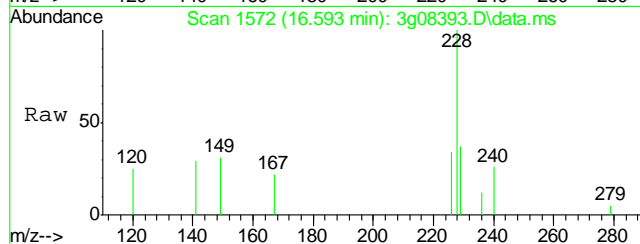
#21
Benzo(a)anthracene
Concen: 0.06 ug/mL m
RT: 16.520 min Scan# 1561
Delta R.T. -0.007 min
Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

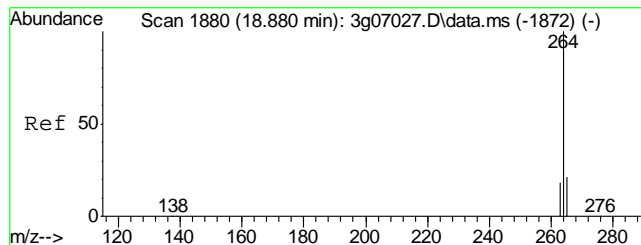
Tgt Ion: 228 Resp: 4081
Ion Ratio Lower Upper
228 100
229 114.4 0.0 39.5#
226 128.4 6.0 46.0#



#22
Chrysene
Concen: 0.23 ug/mL
RT: 16.593 min Scan# 1572
Delta R.T. -0.013 min
Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

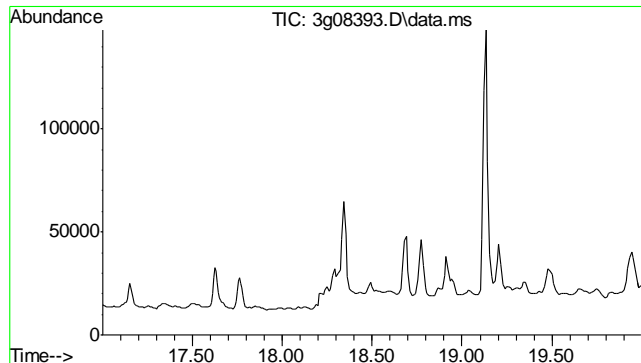
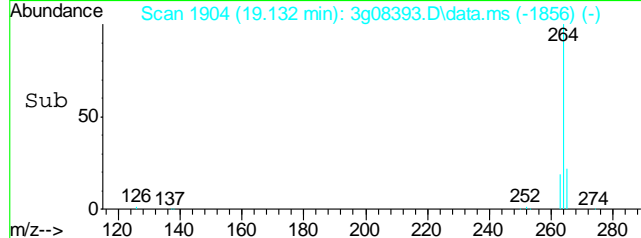
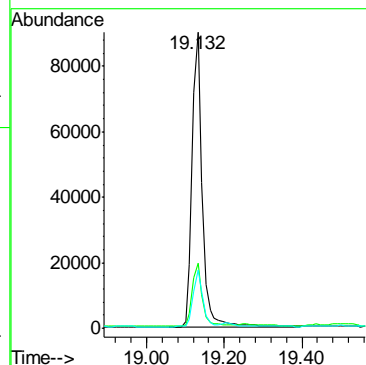
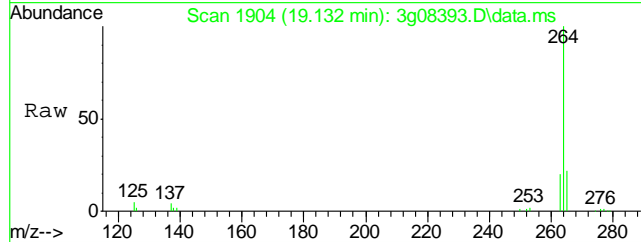
Tgt Ion: 228 Resp: 15052
Ion Ratio Lower Upper
228 100
226 34.8 8.3 48.3
229 31.0 0.0 39.3





#23
Perylene-d12
Concen: 4.00 ug/mL
RT: 19.132 min Scan# 1904
Delta R.T. 0.000 min
Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

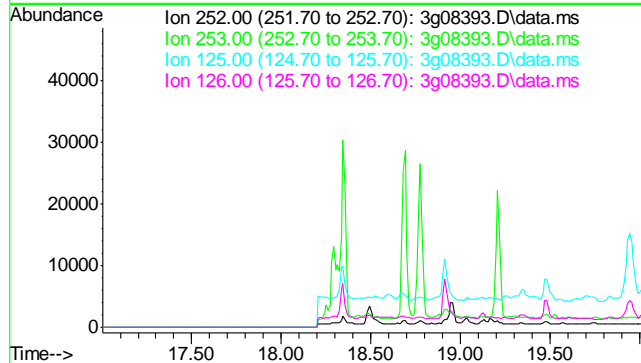
Tgt Ion:	264	Resp:	163820
Ion Ratio	Lower	Upper	
264	100		
265	21.2	1.1	41.1
263	18.3	0.0	38.7

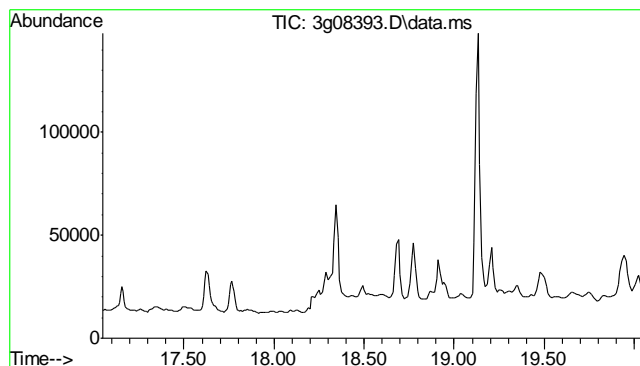


#24
Benzo(b)fluoranthene
Concen: N.D. ug/mL
Expected RT: 18.50 min

Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

Tgt Ion:	252
Sig	Exp Ratio
252	100
253	21.6
125	15.2
126	21.4

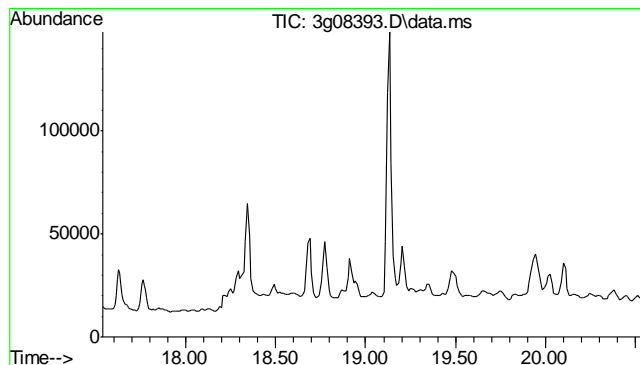
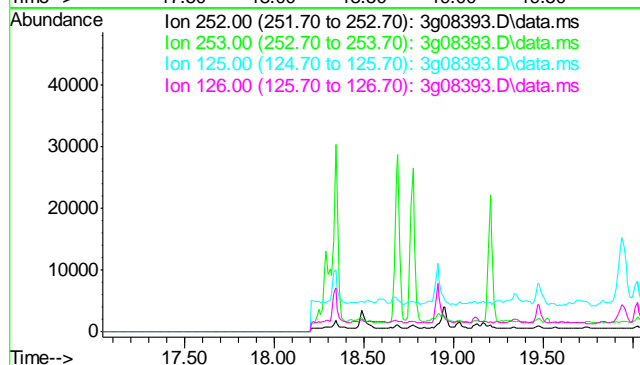




#25
Benzo(k)fluoranthene
Concen: N.D. ug/mL
Expected RT: 18.54 min

Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

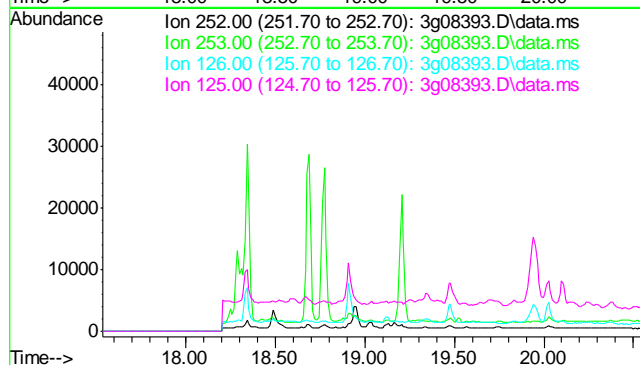
Tgt Ion	Sig	Exp Ratio
252	100	
253	21.7	
125	17.5	
126	27.7	

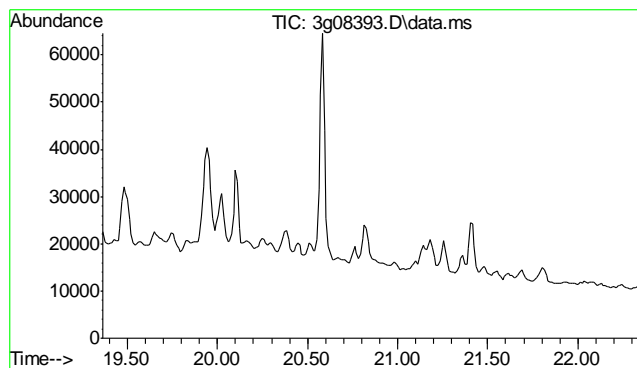


#26
Benzo(a)pyrene
Concen: N.D. ug/mL
Expected RT: 19.04 min

Lab File: 3g08393.D
Acq: 7 Mar 12 5:33 pm

Tgt Ion	Sig	Exp Ratio
252	100	
253	21.6	
126	24.1	
125	18.2	

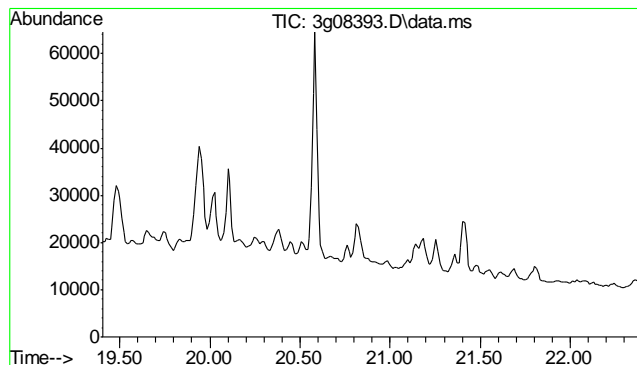
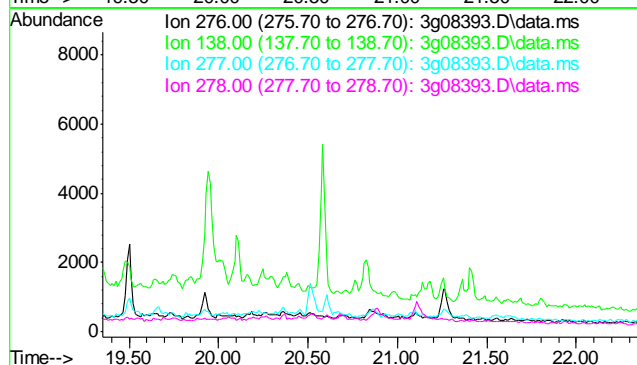




#27
 Indeno(1,2,3-cd)pyrene
 Concen: N.D. ug/mL
 Expected RT: 20.86 min

 Lab File: 3g08393.D
 Acq: 7 Mar 12 5:33 pm

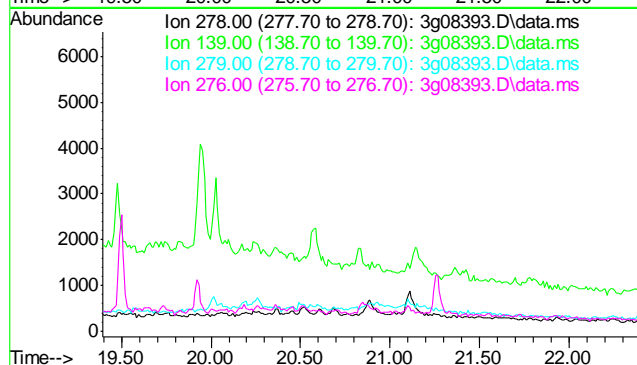
Tgt Ion	Exp Ratio
276	100
138	51.2
277	35.6
278	112.4

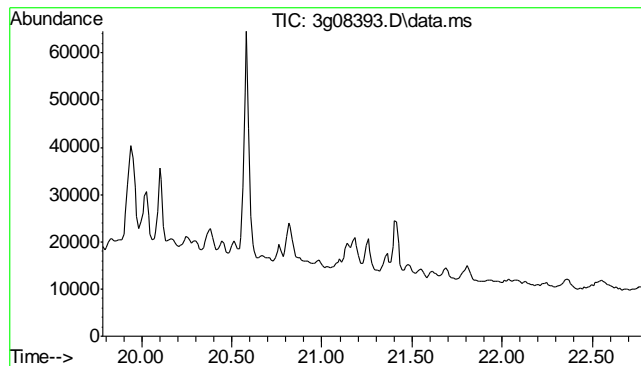


#28
 Dibenzo(a,h)anthracene
 Concen: N.D. ug/mL
 Expected RT: 20.90 min

 Lab File: 3g08393.D
 Acq: 7 Mar 12 5:33 pm

Tgt Ion	Exp Ratio
278	100
139	24.7
279	23.4
276	126.4

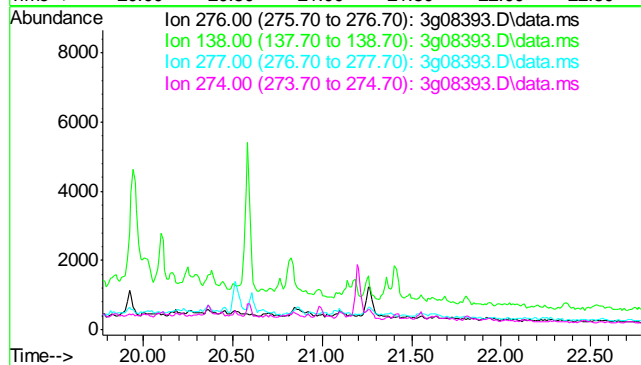




#29
 Benzo(g,h,i)perylene
 Concen: N.D. ug/mL
 Expected RT: 21.28 min

 Lab File: 3g08393.D
 Acq: 7 Mar 12 5:33 pm

Tgt Ion	Exp Ratio
276	100
138	31.8
277	23.4
274	21.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\030712\
 Data File : 3g08386.D
 Acq On : 7 Mar 2012 12:51 pm
 Operator : DONC
 Sample : OP5492-MB
 Misc : OP5492,E3G340,30.00,,,1,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 08 09:31:11 2012
 Quant Method : C:\msdchem\1\METHODS\SIMPE3G333.M
 Quant Title : PAHSIM BASE
 QLast Update : Sat Mar 03 06:34:25 2012
 Response via : Initial Calibration

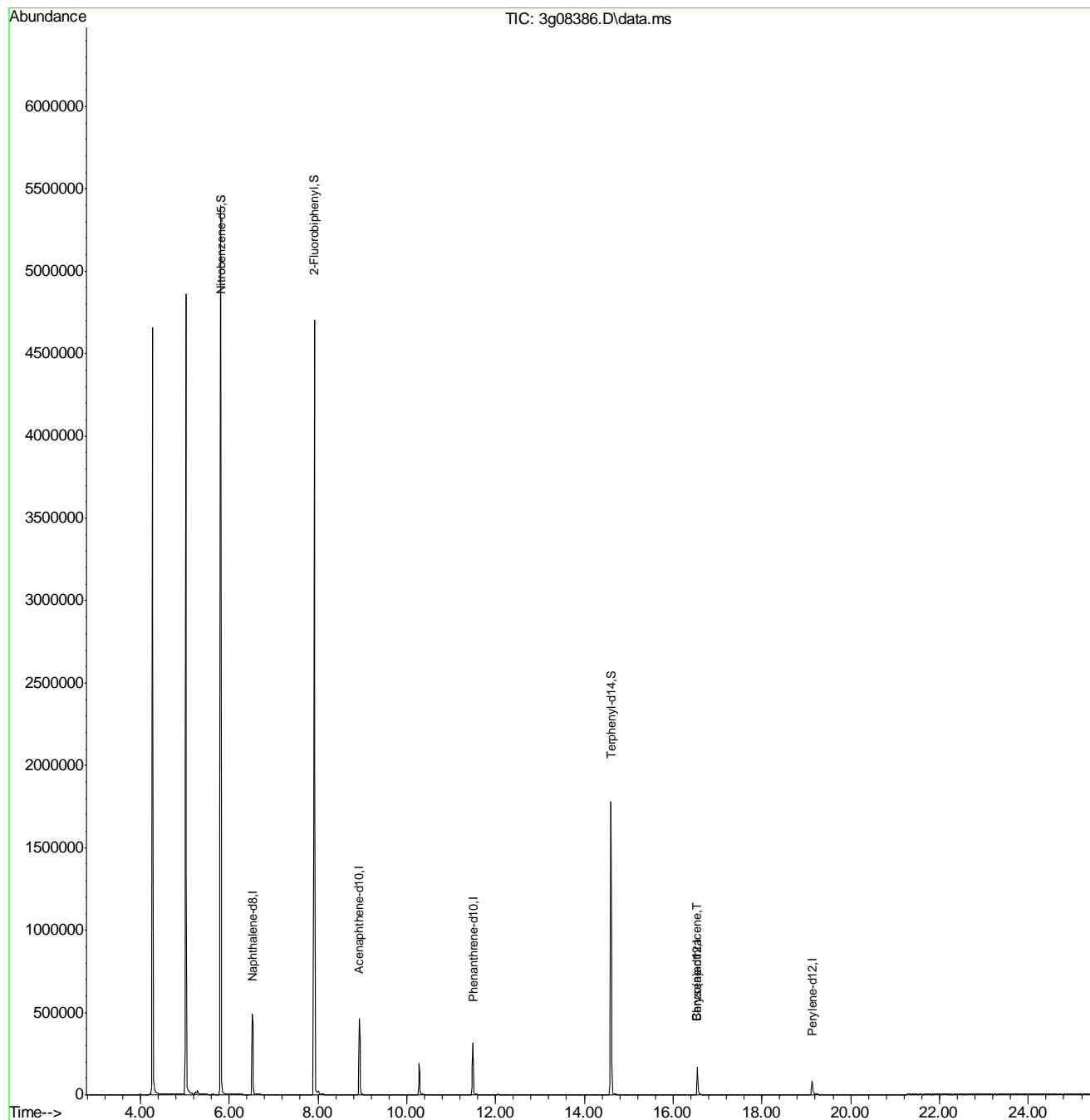
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	6.532	136	541978	4.00	ug/mL	0.00
6) Acenaphthene-d10	8.933	164	268897	4.00	ug/mL	-0.01
14) Phenanthrene-d10	11.493	188	344649	4.00	ug/mL	0.00
18) Chrysene-d12	16.547	240	206782	4.00	ug/mL	0.00
23) Perylene-d12	19.132	264	140981	4.00	ug/mL	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.809	82	3096349	35.19	ug/mL	-0.01
Spiked Amount	50.000	Range 25 - 135	Recovery	=	70.38%	
7) 2-Fluorobiphenyl	7.917	172	4063084	35.60	ug/mL	-0.01
Spiked Amount	50.000	Range 25 - 135	Recovery	=	71.20%	
20) Terphenyl-d14	14.603	244	2165465	43.06	ug/mL	-0.02
Spiked Amount	50.000	Range 25 - 135	Recovery	=	86.12%	
Target Compounds						
3) N-Nitrosodimethylamine	0.000		0	N.D.	d	Qvalue
4) N-Nitrosodi-propylamine	0.000		0	N.D.	d	
5) Naphthalene	0.000		0	N.D.	d	
8) 2-Methylnaphthalene	0.000		0	N.D.	d	
9) 1-Methylnaphthalene	0.000		0	N.D.	d	
10) Acenaphthylene	0.000		0	N.D.	d	
11) Acenaphthene	0.000		0	N.D.	d	
12) Fluorene	0.000		0	N.D.	d	
13) Diphenylamine	0.000		0	N.D.	d	
15) Phenanthrene	0.000		0	N.D.	d	
16) Anthracene	0.000		0	N.D.	d	
17) Fluoranthene	0.000		0	N.D.	d	
19) Pyrene	0.000		0	N.D.	d	
21) Benzo(a)anthracene	16.547	228	587	0.01	ug/mL	70
22) Chrysene	0.000		0	N.D.	d	
24) Benzo(b)fluoranthene	0.000		0	N.D.	d	
25) Benzo(k)fluoranthene	0.000		0	N.D.	d	
26) Benzo(a)pyrene	0.000		0	N.D.	d	
27) Indeno(1,2,3-cd)pyrene	0.000		0	N.D.	d	
28) Dibenz(a,h)anthracene	0.000		0	N.D.	d	
29) Benzo(g,h,i)perylene	0.000		0	N.D.	d	

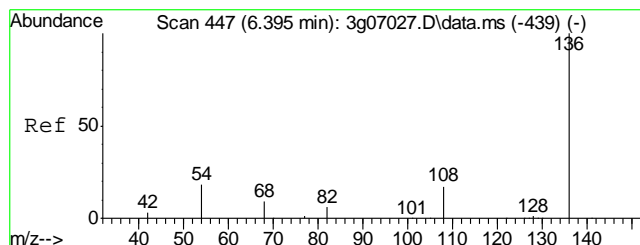
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\030712\
Data File : 3g08386.D
Acq On : 7 Mar 2012 12:51 pm
Operator : DONC
Sample : OP5492-MB
Misc : OP5492,E3G340,30.00,,,1,1
ALS Vial : 10 Sample Multiplier: 1

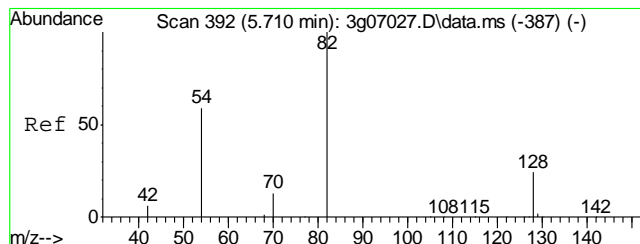
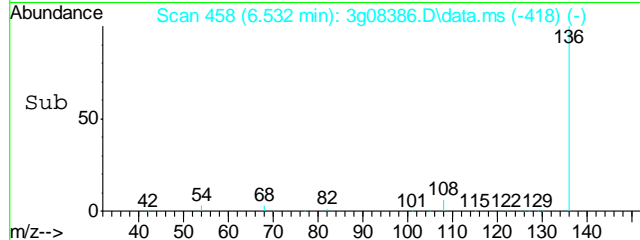
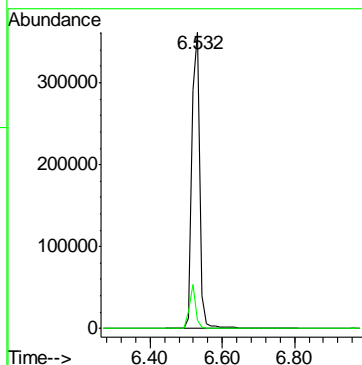
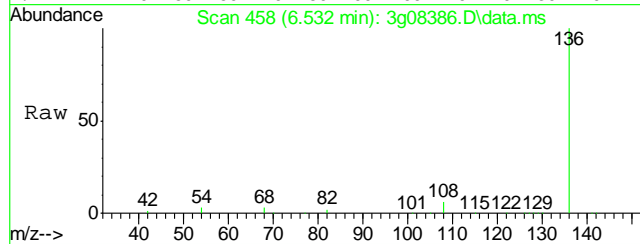
Quant Time: Mar 08 09:31:11 2012
Quant Method : C:\msdchem\1\METHODS\SIMPE3G333.M
Quant Title : PAHSIM BASE
QLast Update : Sat Mar 03 06:34:25 2012
Response via : Initial Calibration





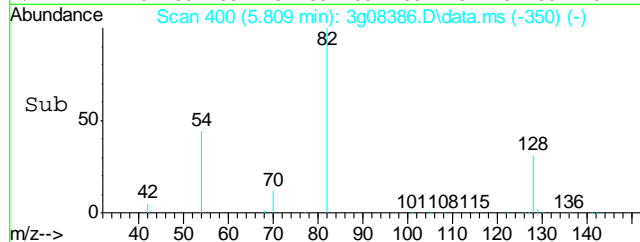
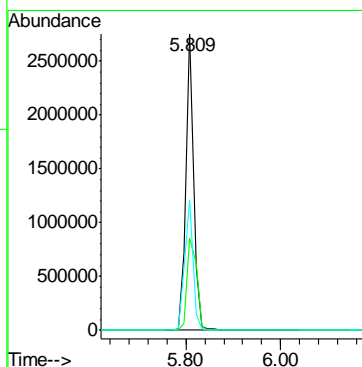
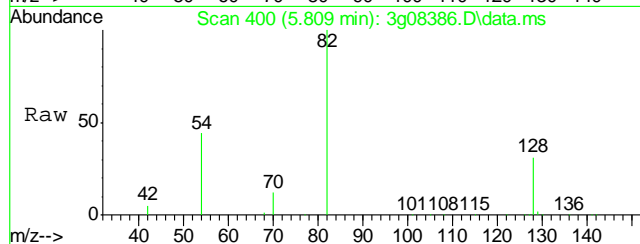
#1
Naphthalene-d8
Concen: 4.00 ug/mL
RT: 6.532 min Scan# 458
Delta R.T. 0.000 min
Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

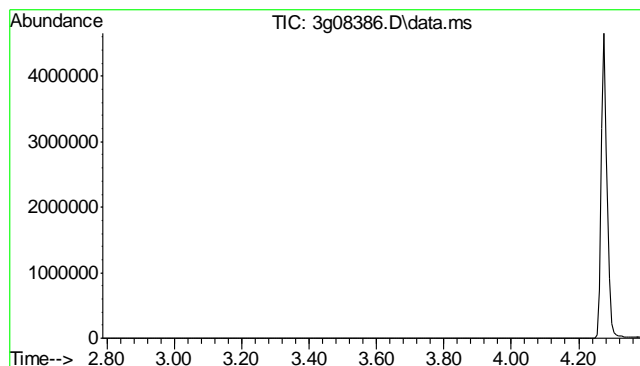
Tgt Ion: 136 Resp: 541978
Ion Ratio Lower Upper
136 100
68 12.0 0.0 32.3



#2
Nitrobenzene-d5
Concen: 35.19 ug/mL
RT: 5.809 min Scan# 400
Delta R.T. -0.012 min
Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

Tgt Ion: 82 Resp: 3096349
Ion Ratio Lower Upper
82 100
128 38.4 16.9 56.9
54 47.7 27.5 67.5

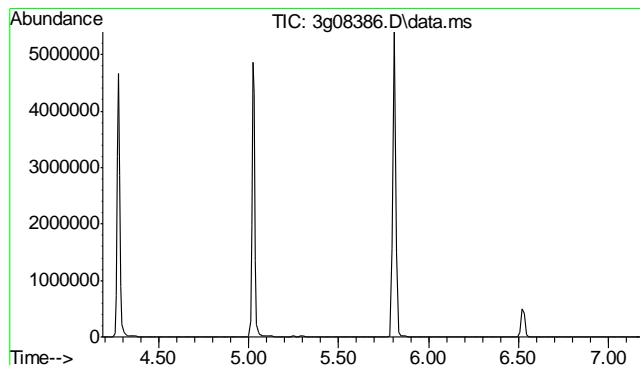
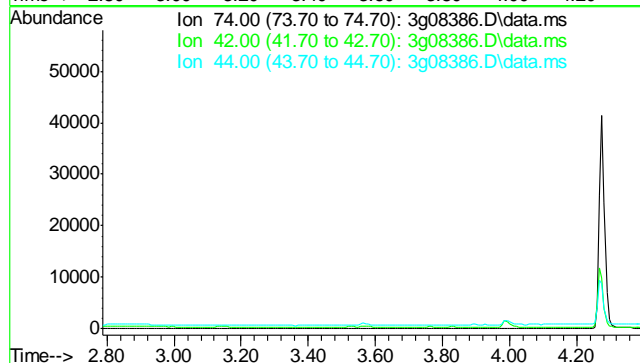




#3
N-Nitrosodimethylamine
Concen: N.D. ug/mL
Expected RT: 2.89 min

Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

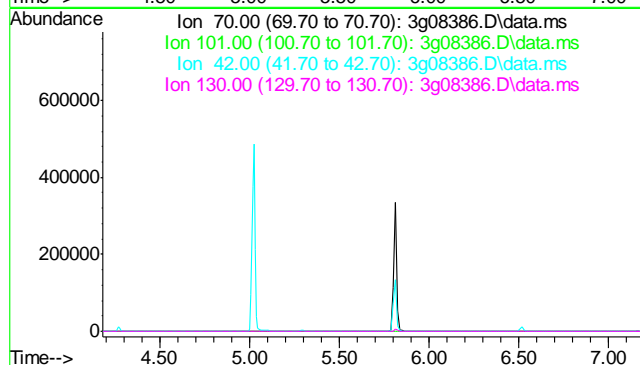
Tgt Ion:	74
Sig	Exp Ratio
74	100
42	58.9
44	4.0

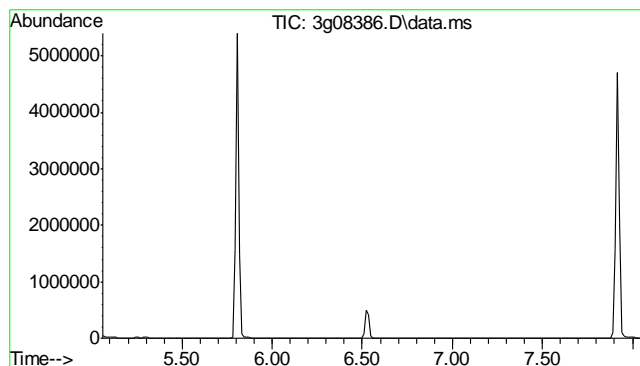


#4
N-Nitrosodi-propylamine
Concen: N.D. ug/mL
Expected RT: 5.68 min

Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

Tgt Ion:	70
Sig	Exp Ratio
70	100
101	10.9
42	50.1
130	19.5

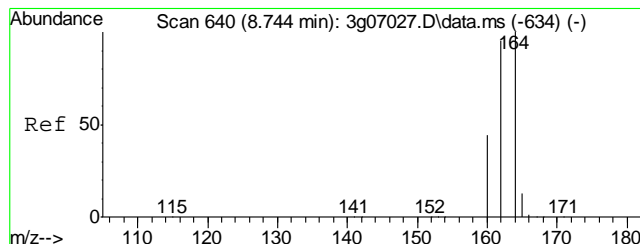
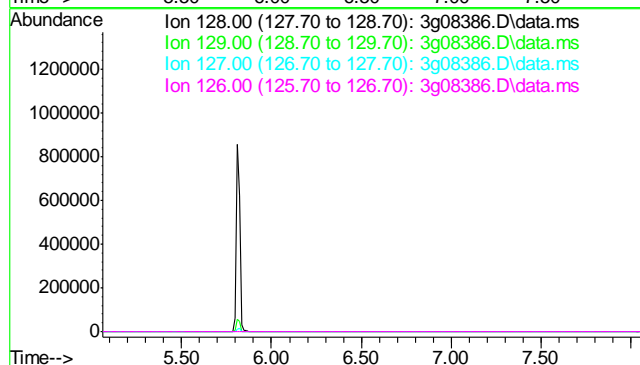




#5
Naphthalene
Concen: N.D. ug/mL
Expected RT: 6.56 min

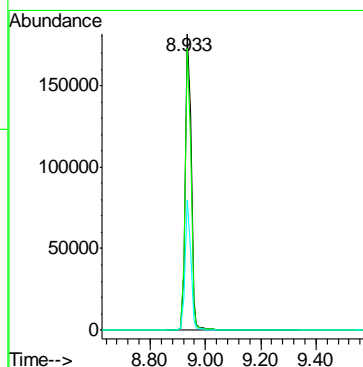
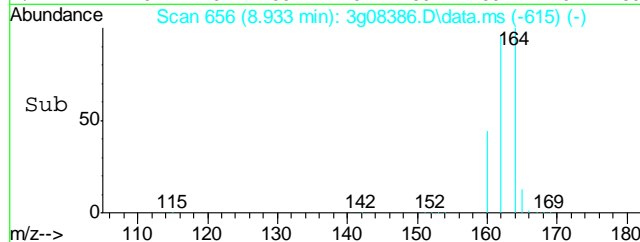
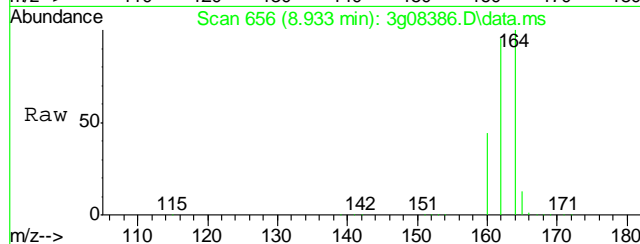
Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

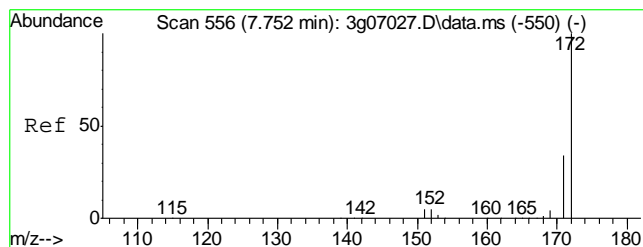
Tgt Ion: 128
Sig Exp Ratio
128 100
129 10.8
127 12.5
126 7.7



#6
Acenaphthene-d10
Concen: 4.00 ug/mL
RT: 8.933 min Scan# 656
Delta R.T. -0.012 min
Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

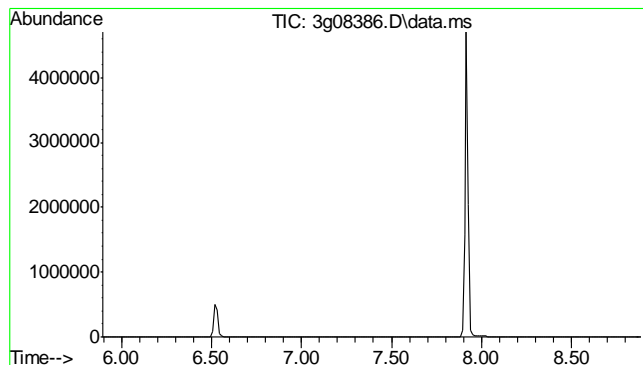
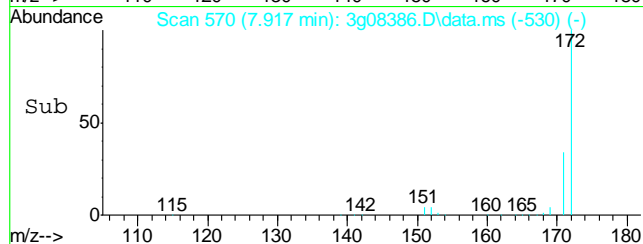
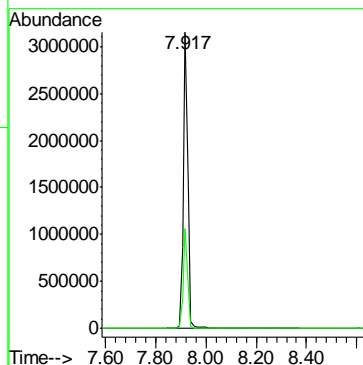
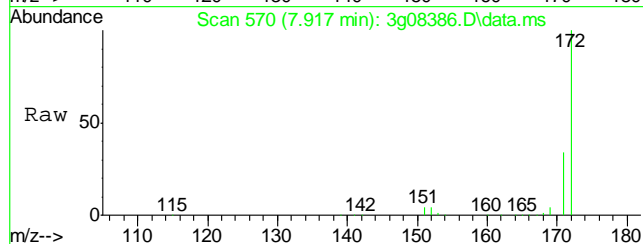
Tgt Ion: 164 Resp: 268897
Ion Ratio Lower Upper
164 100
162 92.8 72.6 112.6
160 41.8 21.8 61.8





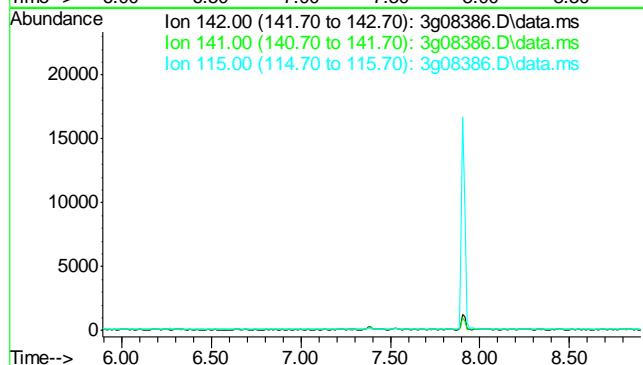
#7
2-Fluorobiphenyl
Concen: 35.60 ug/mL
RT: 7.917 min Scan# 570
Delta R.T. -0.012 min
Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

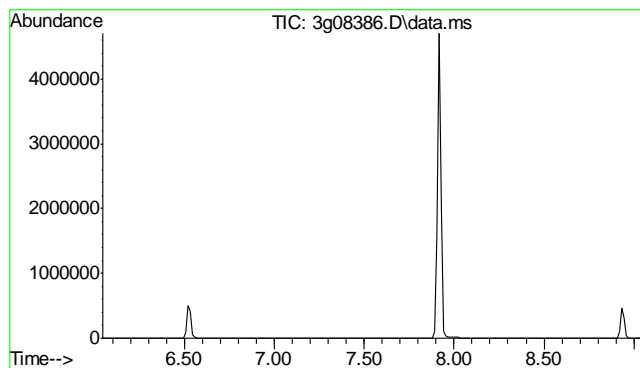
Tgt Ion: 172 Resp: 4063084
Ion Ratio Lower Upper
172 100
171 33.1 13.3 53.3



#8
2-Methylnaphthalene
Concen: N.D. ug/mL
Expected RT: 7.39 min
Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

Tgt Ion: 142
Sig Exp Ratio
142 100
141 83.2
115 36.1

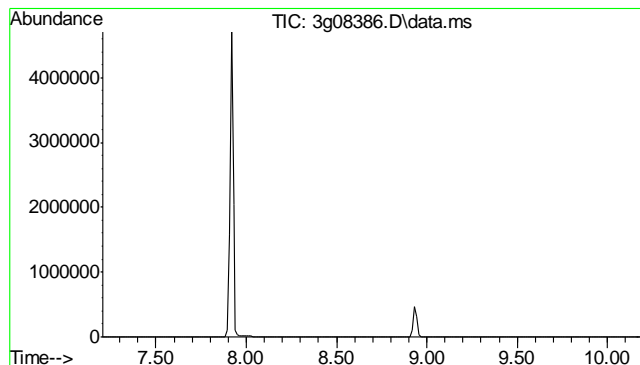
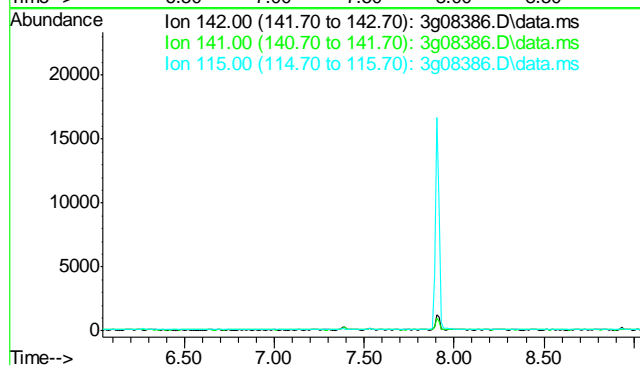




#9
1-Methylnaphthalene
Concen: N.D. ug/mL
Expected RT: 7.54 min

Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

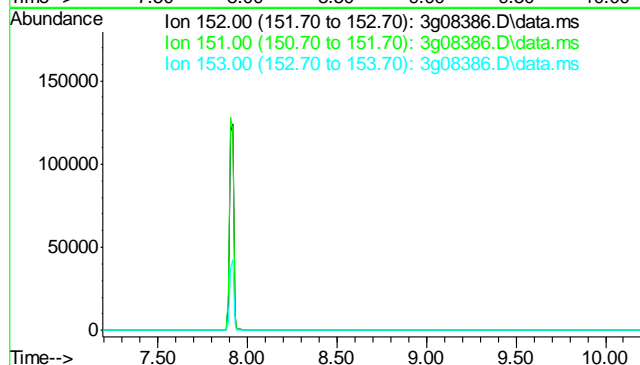
Tgt Ion:	142
Sig	Exp Ratio
142	100
141	87.4
115	38.8

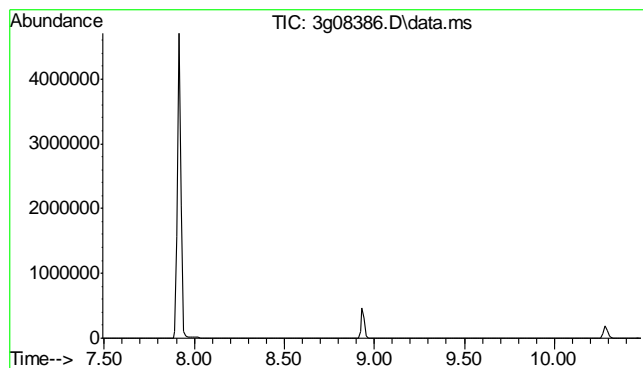


#10
Acenaphthylene
Concen: N.D. ug/mL
Expected RT: 8.70 min

Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

Tgt Ion:	152
Sig	Exp Ratio
152	100
151	18.9
153	12.9

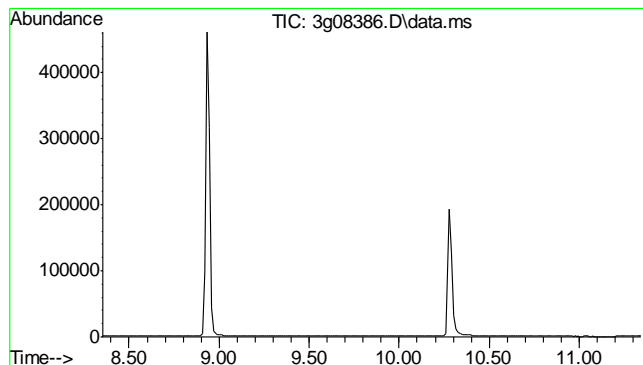
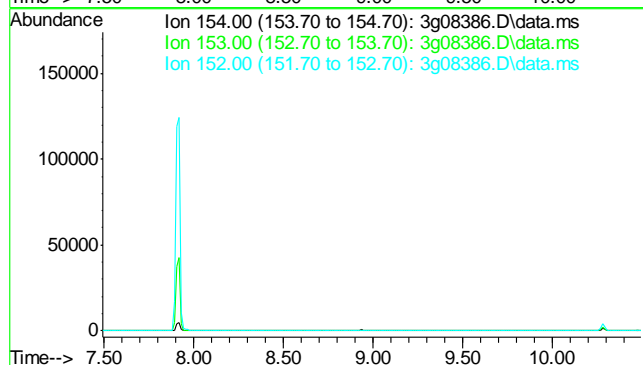




#11
Acenaphthene
Concen: N.D. ug/mL
Expected RT: 8.99 min

Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

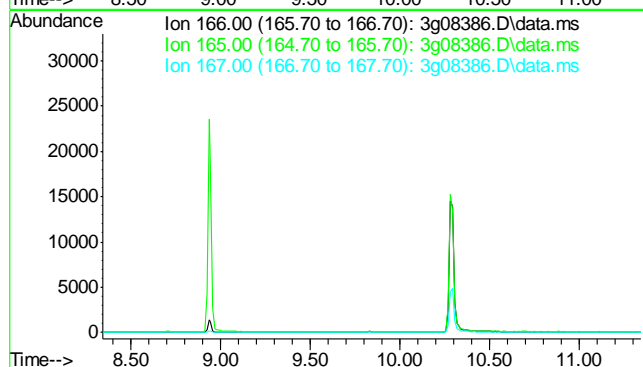
Tgt Ion: 154
Sig Exp Ratio
154 100
153 104.3
152 49.4

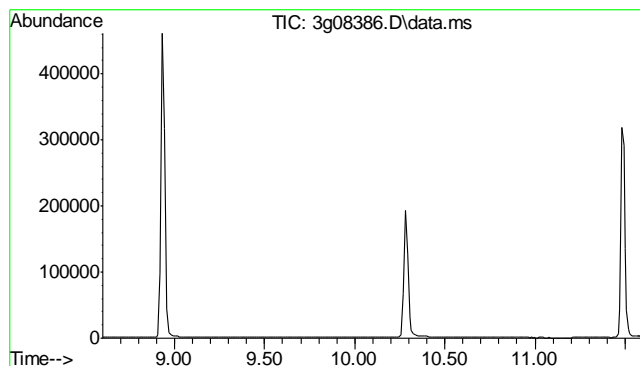


#12
Fluorene
Concen: N.D. ug/mL
Expected RT: 9.84 min

Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

Tgt Ion: 166
Sig Exp Ratio
166 100
165 91.1
167 13.2

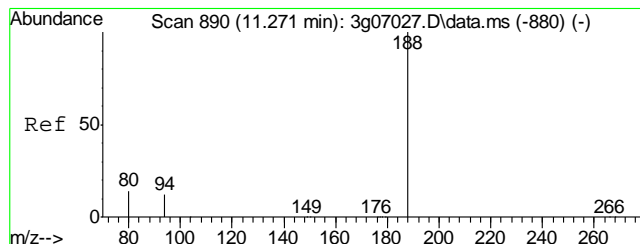
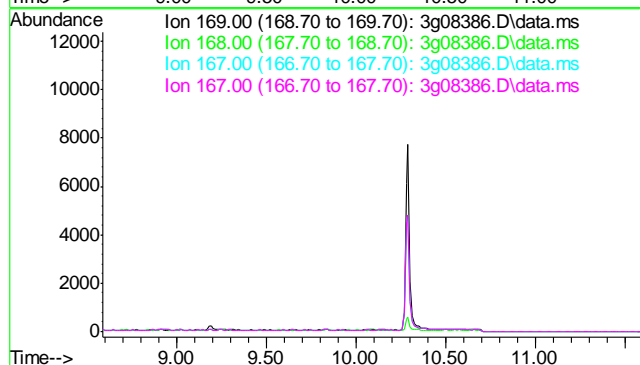




#13
Diphenylamine
Concen: N.D. ug/mL
Expected RT: 10.09 min

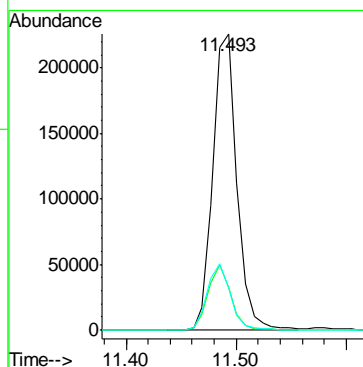
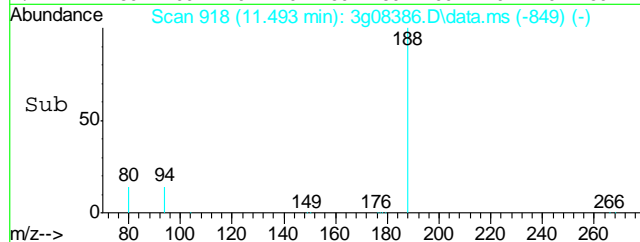
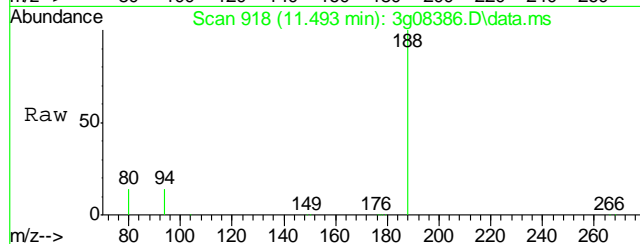
Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

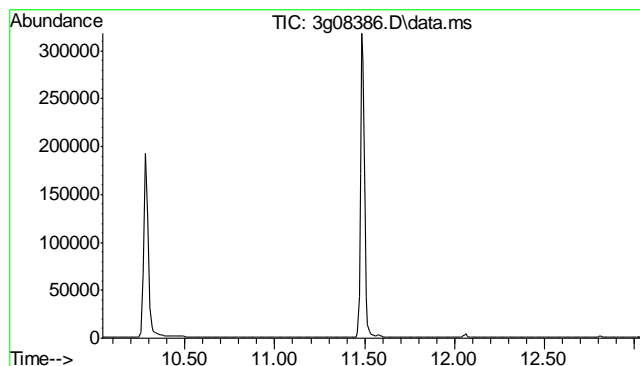
Tgt Ion: 169
Sig Exp Ratio
169 100
168 61.0
167 33.0
167 33.0



#14
Phenanthrene-d10
Concen: 4.00 ug/mL
RT: 11.493 min Scan# 918
Delta R.T. 0.000 min
Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

Tgt Ion: 188 Resp: 344649
Ion Ratio Lower Upper
188 100
94 20.7 1.6 41.6
80 21.3 2.2 42.2

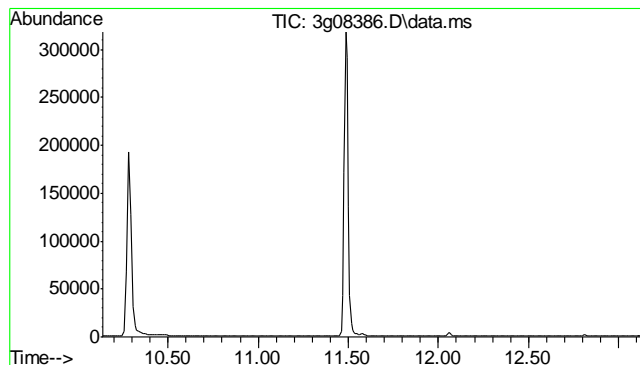
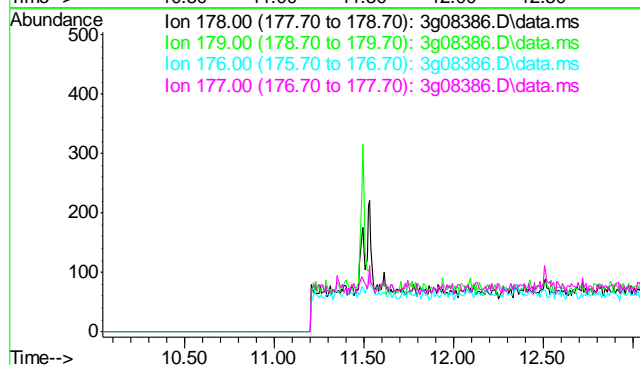




#15
Phenanthrene
Concen: N.D. ug/mL
Expected RT: 11.54 min

Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

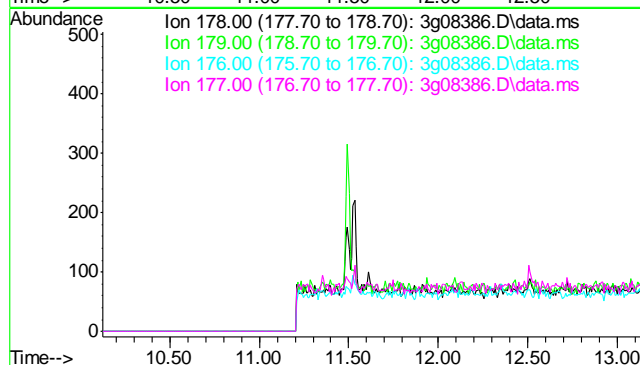
Tgt Ion:	178
Sig	Exp Ratio
178	100
179	15.1
176	18.5
177	10.2

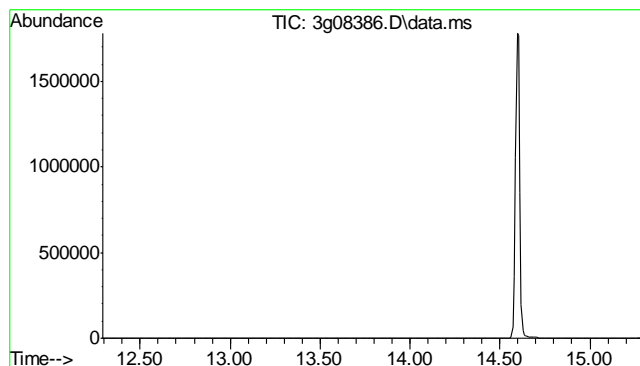


#16
Anthracene
Concen: N.D. ug/mL
Expected RT: 11.63 min

Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

Tgt Ion:	178
Sig	Exp Ratio
178	100
179	15.0
176	17.9
177	8.8

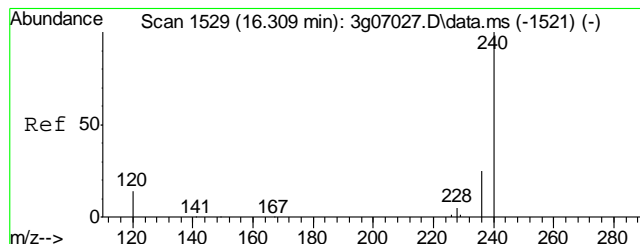
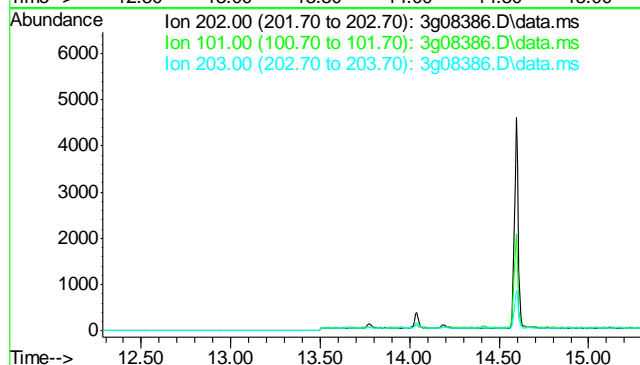




#17
Fluoranthene
Concen: N.D. ug/mL
Expected RT: 13.79 min

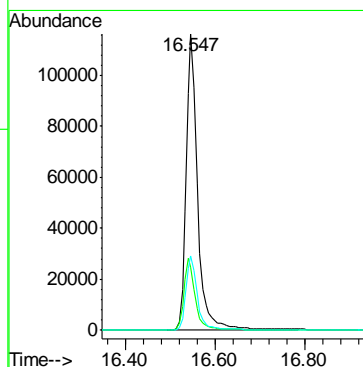
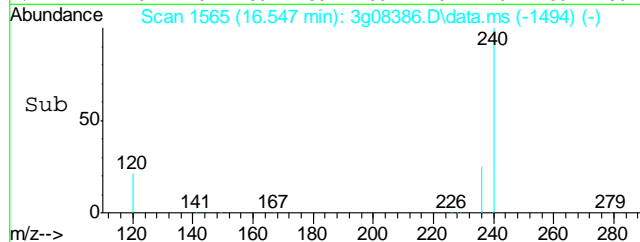
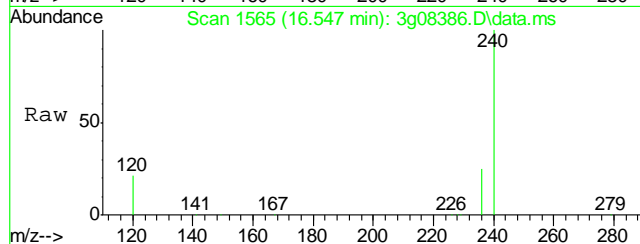
Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

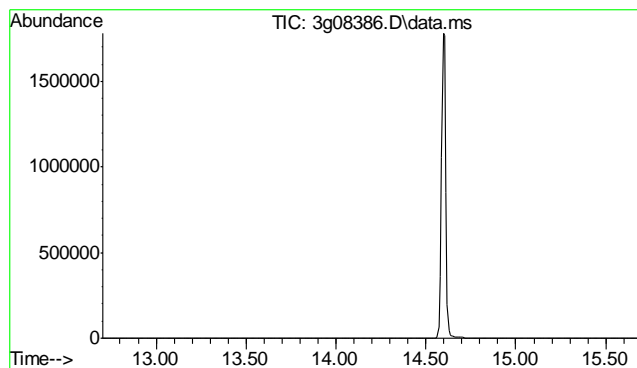
Tgt Ion: 202
Sig Exp Ratio
202 100
101 23.5
203 17.2



#18
Chrysene-d12
Concen: 4.00 ug/mL
RT: 16.547 min Scan# 1565
Delta R.T. -0.007 min
Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

Tgt Ion: 240 Resp: 206782
Ion Ratio Lower Upper
240 100
120 23.9 2.9 42.9
236 25.1 5.0 45.0

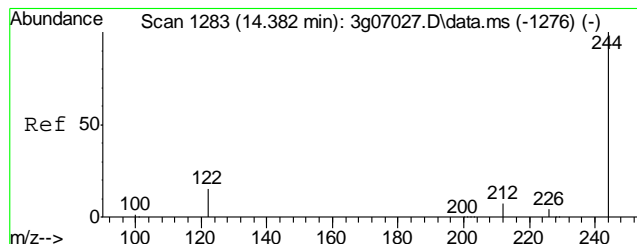
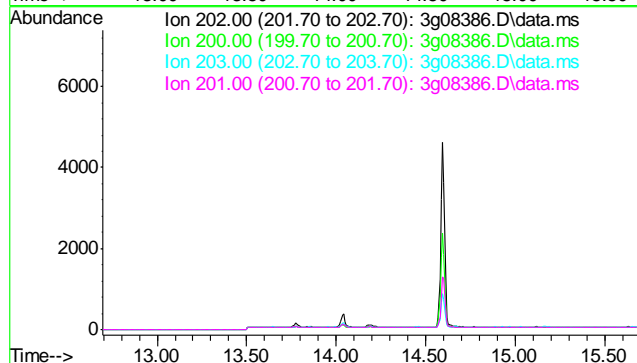




#19
Pyrene
Concen: N.D. ug/mL
Expected RT: 14.20 min

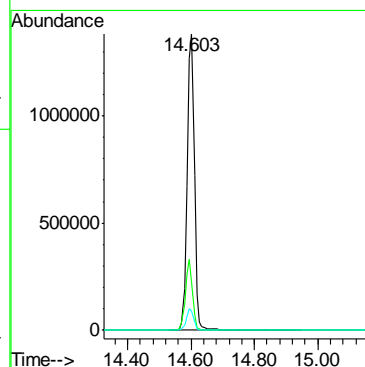
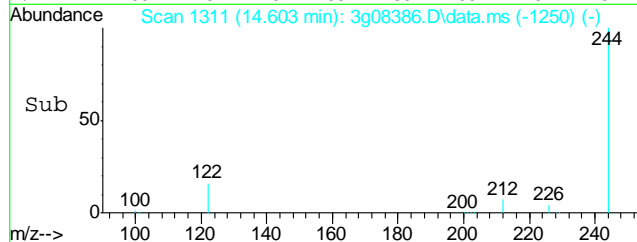
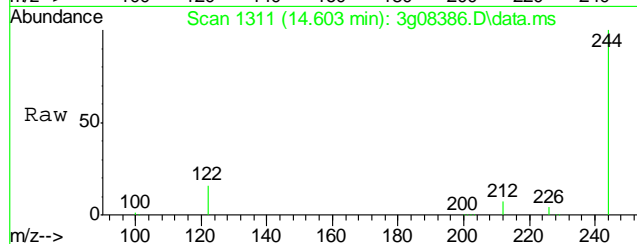
Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

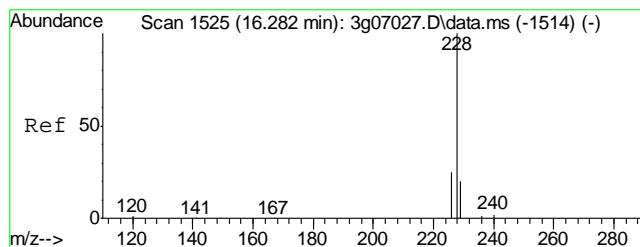
Tgt Ion: 202
Sig Exp Ratio
202 100
200 20.0
203 17.8
201 16.5



#20
Terphenyl-d14
Concen: 43.06 ug/mL
RT: 14.603 min Scan# 1311
Delta R.T. -0.016 min
Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

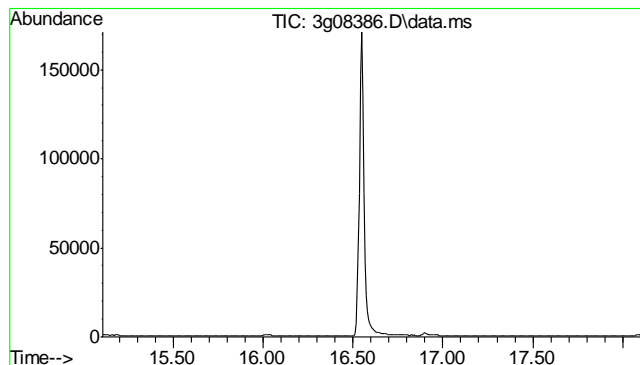
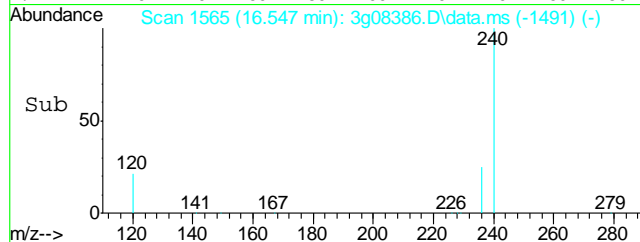
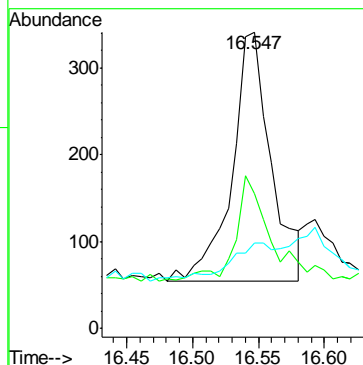
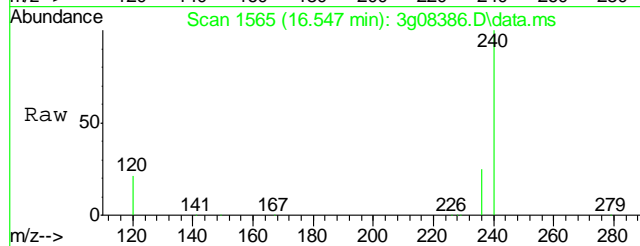
Tgt Ion: 244 Resp: 2165465
Ion Ratio Lower Upper
244 100
122 23.6 3.7 43.7
212 7.3 0.0 27.2





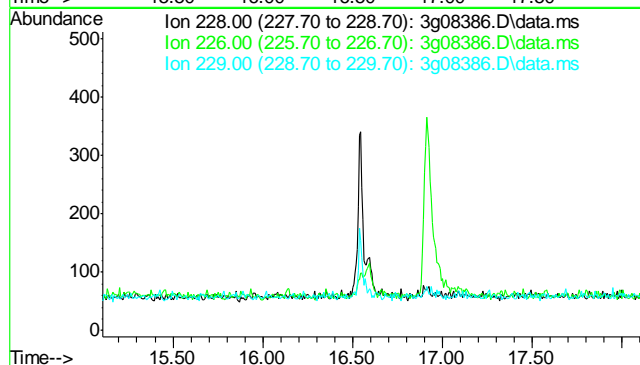
#21
Benzo(a)anthracene
Concen: 0.01 ug/mL
RT: 16.547 min Scan# 1565
Delta R.T. 0.020 min
Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

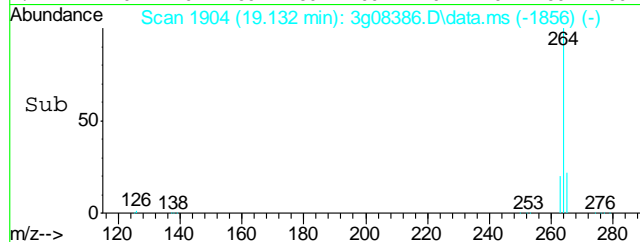
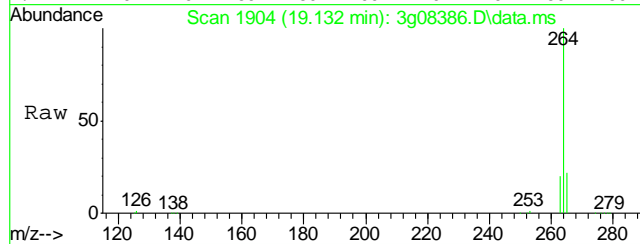
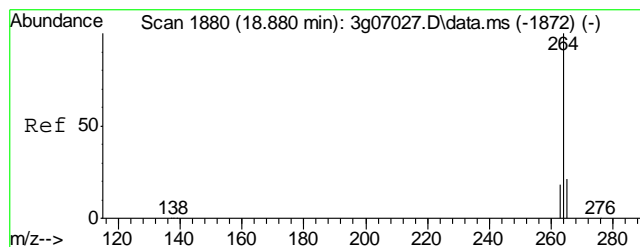
Tgt Ion	228	229	226
Resp	587		
Ratio	100	37.3	14.5
Lower		0.0	6.0
Upper		39.5	46.0



#22
Chrysene
Concen: N.D. ug/mL
Expected RT: 16.61 min
Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

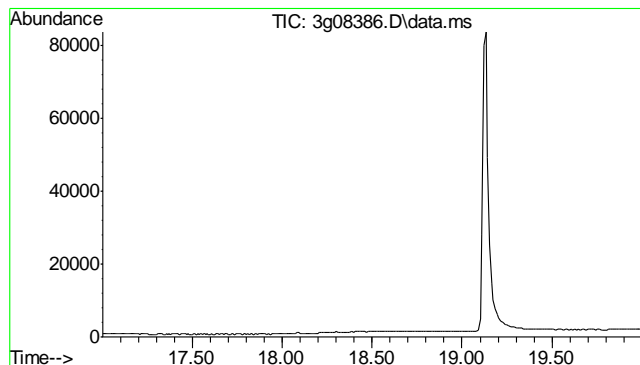
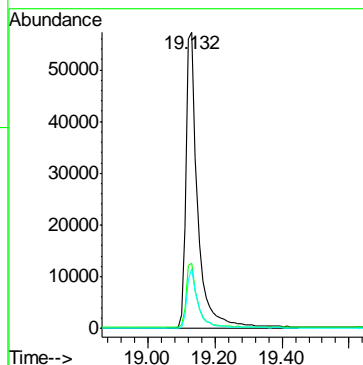
Tgt Ion	228	226	229
Sig			
Exp Ratio	100	28.3	19.3





#23
Perylene-d12
Concen: 4.00 ug/mL
RT: 19.132 min Scan# 1904
Delta R.T. 0.000 min
Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

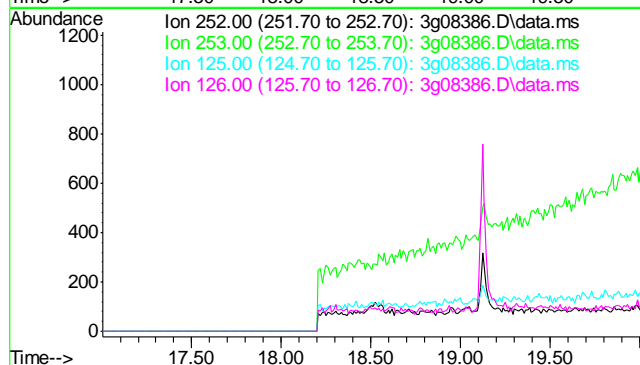
Tgt Ion:	264	Resp:	140981
Ion Ratio	Lower	Upper	
264	100		
265	21.1	1.1	41.1
263	19.0	0.0	38.7

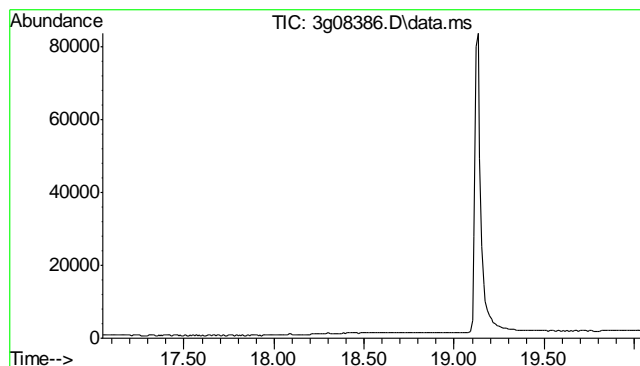


#24
Benzo(b)fluoranthene
Concen: N.D. ug/mL
Expected RT: 18.50 min

Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

Tgt Ion:	252
Sig	Exp Ratio
252	100
253	21.6
125	15.2
126	21.4

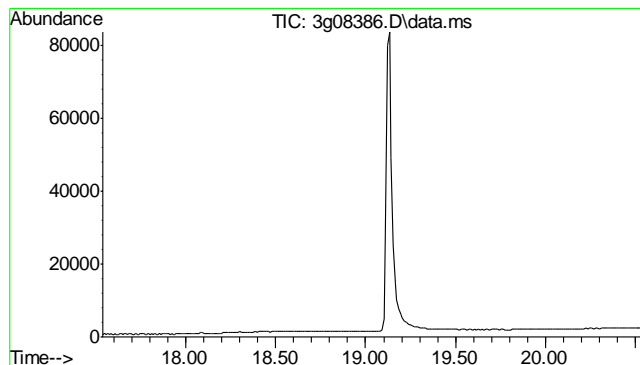
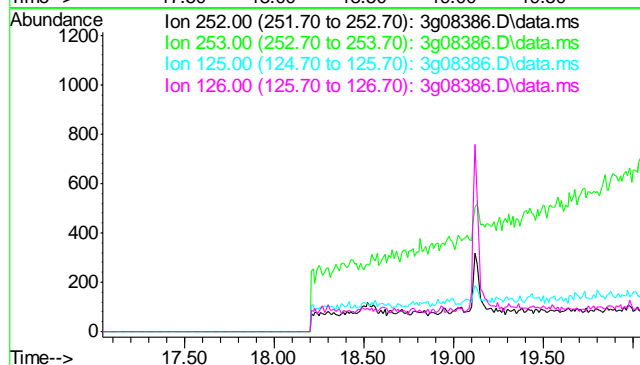




#25
Benzo(k)fluoranthene
Concen: N.D. ug/mL
Expected RT: 18.54 min

Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

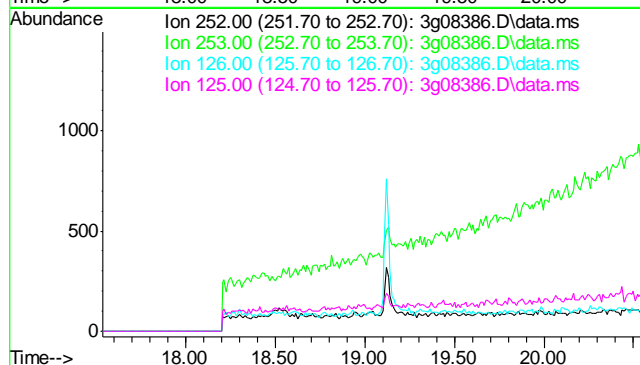
Tgt Ion:	252
Sig	Exp Ratio
252	100
253	21.7
125	17.5
126	27.7

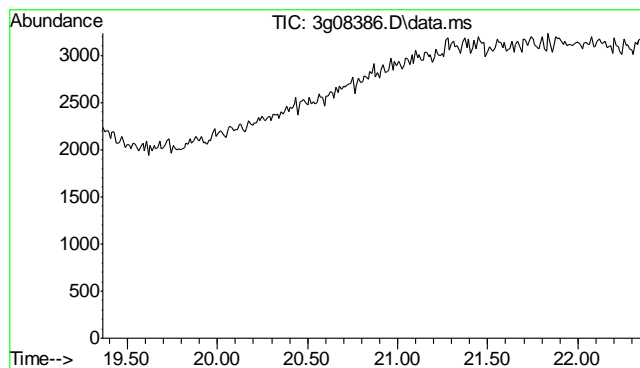


#26
Benzo(a)pyrene
Concen: N.D. ug/mL
Expected RT: 19.04 min

Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

Tgt Ion:	252
Sig	Exp Ratio
252	100
253	21.6
126	24.1
125	18.2

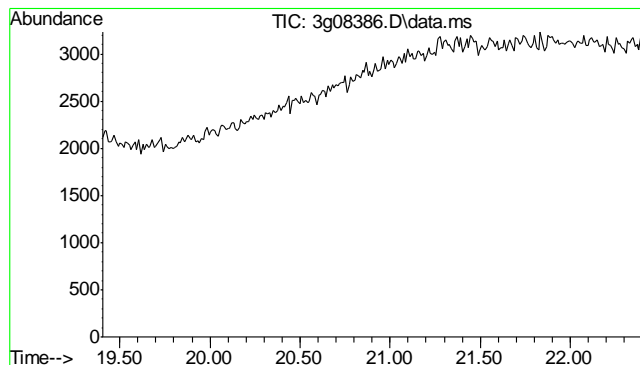
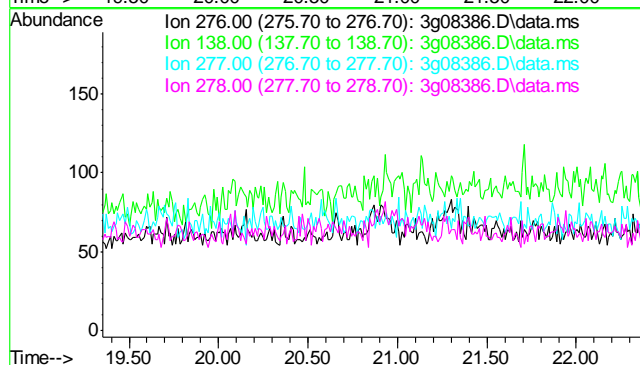




#27
Indeno(1,2,3-cd)pyrene
Concen: N.D. ug/mL
Expected RT: 20.86 min

Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

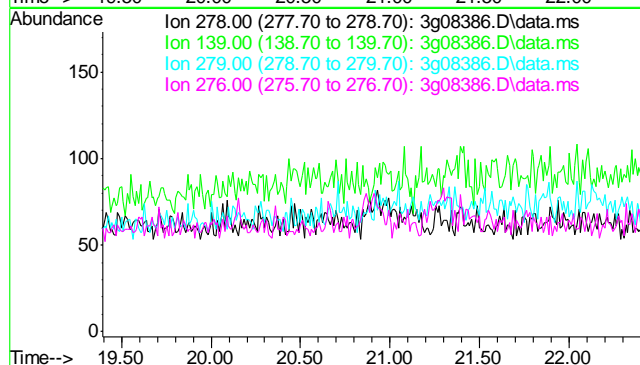
Tgt Ion:	276
Sig	Exp Ratio
276	100
138	51.2
277	35.6
278	112.4

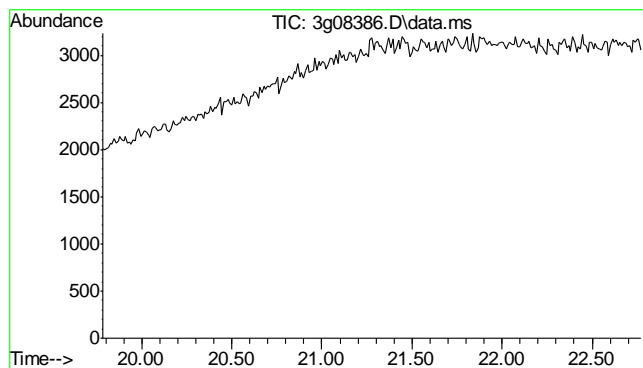


#28
Dibenz(a,h)anthracene
Concen: N.D. ug/mL
Expected RT: 20.90 min

Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

Tgt Ion:	278
Sig	Exp Ratio
278	100
139	24.7
279	23.4
276	126.4

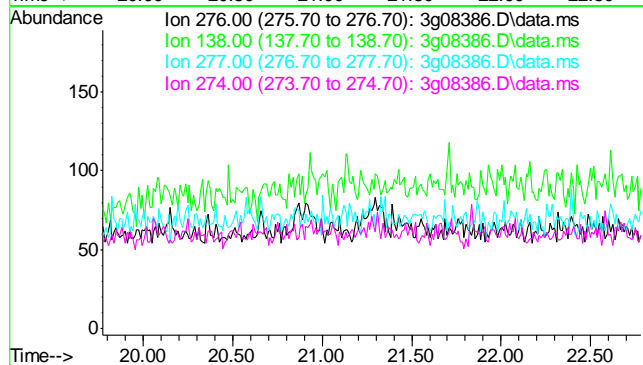




#29
Benzo(g,h,i)perylene
Concen: N.D. ug/mL
Expected RT: 21.28 min

Lab File: 3g08386.D
Acq: 7 Mar 12 12:51 pm

Tgt Ion:	276
Sig	Exp Ratio
276	100
138	31.8
277	23.4
274	21.2



GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D32443
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB855-MB	GB15231.D	1	03/07/12	SK	n/a	n/a	GGB855

The QC reported here applies to the following samples: Method: SW846 8015B

D32443-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	10	5.0	mg/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	97% 60-140%

9.1.1
9

Method Blank Summary

Job Number: D32443
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB856-MB	GB15245.D	1	03/08/12	SK	n/a	n/a	GGB856

The QC reported here applies to the following samples: Method: SW846 8015B

D32443-2

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	10	5.0	mg/kg	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	93% 60-140%

9.1.2
9

Blank Spike Summary

Job Number: D32443
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB855-BS	GB15232.D	1	03/07/12	SK	n/a	n/a	GGB855

The QC reported here applies to the following samples: Method: SW846 8015B

D32443-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	114	104	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	107%	60-140%

Blank Spike Summary

Job Number: D32443
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB856-BS	GB15246.D	1	03/08/12	SK	n/a	n/a	GGB856

The QC reported here applies to the following samples: Method: SW846 8015B

D32443-2

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	112	102	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	107%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D32443
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D32446-1MS	GB15234.D	1	03/07/12	SK	n/a	n/a	GGB855
D32446-1MSD	GB15235.D	1	03/07/12	SK	n/a	n/a	GGB855
D32446-1	GB15233.D	1	03/07/12	SK	n/a	n/a	GGB855

The QC reported here applies to the following samples: Method: SW846 8015B

D32443-1

CAS No.	Compound	D32446-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	33.1		146	175	97	174	96	1	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D32446-1	Limits
120-82-1	1,2,4-Trichlorobenzene	106%	104%	99%	60-140%

9.3.1
6

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D32443
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D32470-2MS	GB15248.D	1	03/08/12	SK	n/a	n/a	GGB856
D32470-2MSD	GB15249.D	1	03/08/12	SK	n/a	n/a	GGB856
D32470-2	GB15247.D	1	03/08/12	SK	n/a	n/a	GGB856

The QC reported here applies to the following samples: Method: SW846 8015B

D32443-2

CAS No.	Compound	D32470-2 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		158	161	102	162	103	1	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D32470-2	Limits
120-82-1	1,2,4-Trichlorobenzene	105%	106%	99%	60-140%

GC Volatiles

Raw Data

Judy Melson
03/08/12 11:26

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\030612\GB15238.D\FID1A.CH Vial: 10
Signal #2 : Y:\1\DATA\030612\GB15238.D\FID2B.CH
Acq On : 7 Mar 2012 3:04 pm Operator: StephK
Sample : D32443-1, 50X Inst : GC/MS Ins
Misc : GC2659,GGB855,5.013,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Mar 08 09:47:11 2012 Quant Results File: TB851GB851SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB851GB851SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Mar 01 10:54:53 2012
Response via : Initial Calibration
DataAcq Meth : TVB4.M

Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

Compound		R.T.	Response	Conc	Units

System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.34	2891947	95.864 %	m
10) S	1,2,4-Trichlorobenzene (P)	14.34	23617786	101.486 %	
Target Compounds					
1) H	TVH-Gasoline	7.26	8866988	0.123 mg/L	
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	4.10	369066	0.667 ug/L	
6) T	Toluene	7.61	1061678	1.939 ug/L	
7) T	Ethylbenzene	10.25	228174	0.499 ug/L	
8) T	m,p-Xylene	10.43	1105371	1.974 ug/L	
9) T	o-Xylene	10.95	274338	0.599 ug/L	
11) T	Naphthalene	14.52	1136897	4.351 ug/L	

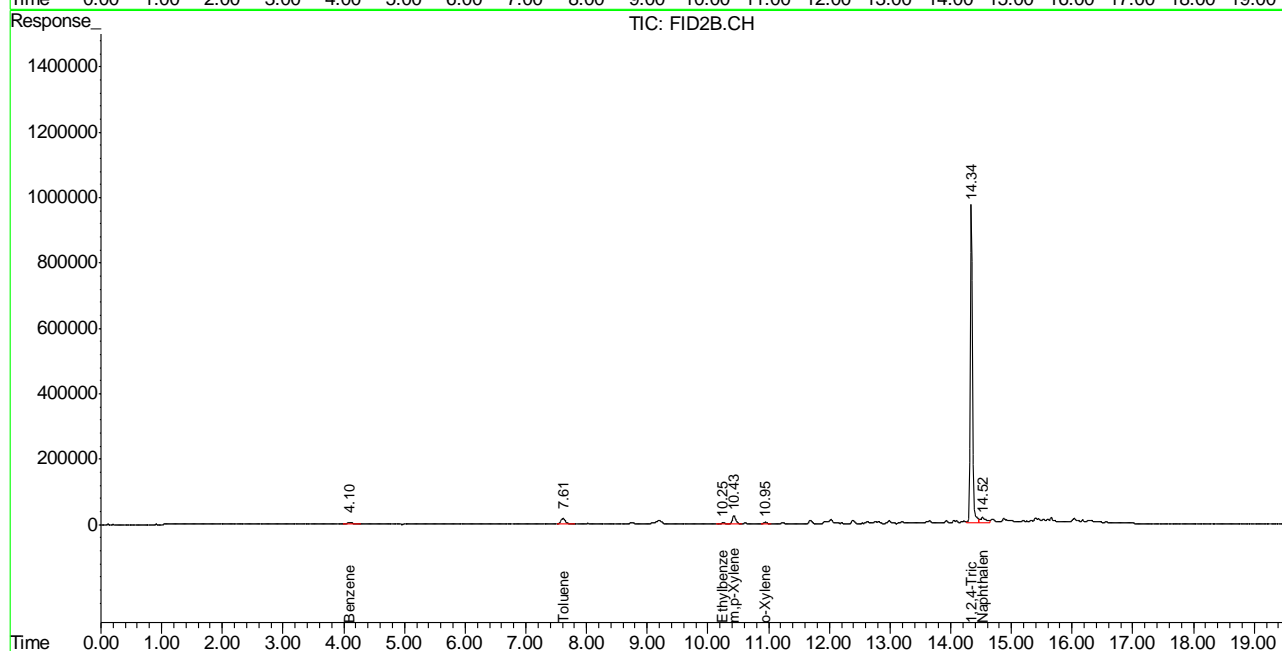
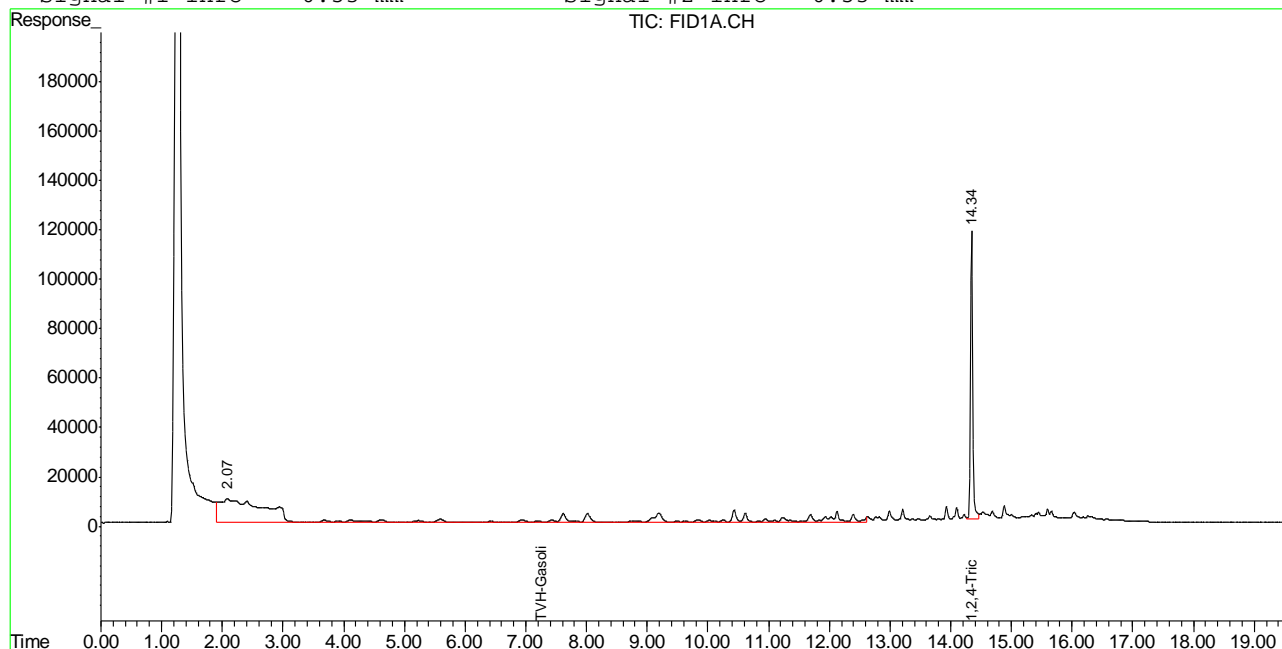
10.1.1
10

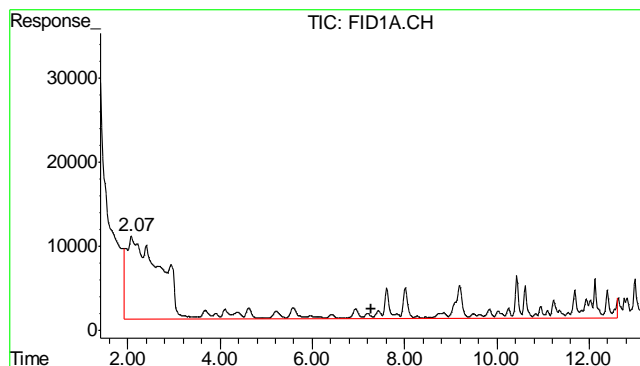
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\030612\GB15238.D\FID1A.CH Vial: 10
Signal #2 : Y:\1\DATA\030612\GB15238.D\FID2B.CH
Acq On : 7 Mar 2012 3:04 pm Operator: StephK
Sample : D32443-1, 50X Inst : GC/MS Ins
Misc : GC2659,GGB855,5.013,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Mar 8 9:10 2012 Quant Results File: TB851GB851SOIL.RES

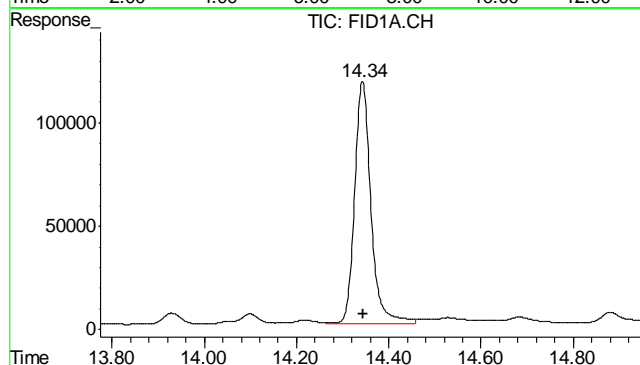
Quant Method : C:\MSDCHEM\1...\TB851GB851SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Mar 01 10:54:53 2012
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

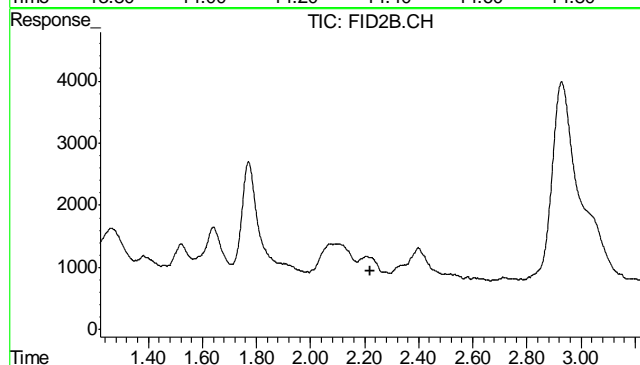




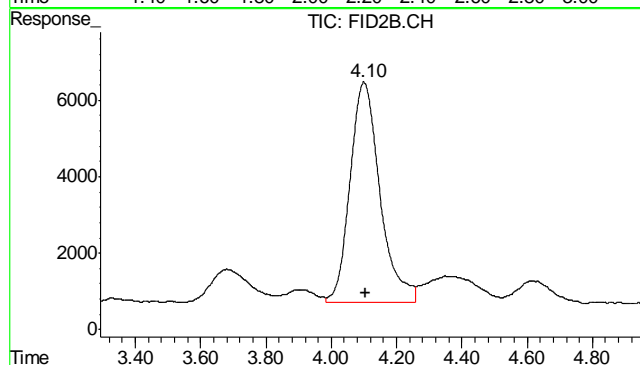
#1 TVH-Gasoline
 R.T.: 7.265 min
 Delta R.T.: 0.000 min
 Response: 8866988
 Conc: 0.12 mg/L m



#2 1,2,4-Trichlorobenzene
 R.T.: 14.343 min
 Delta R.T.: -0.003 min
 Response: 2891947
 Conc: 95.86 % m

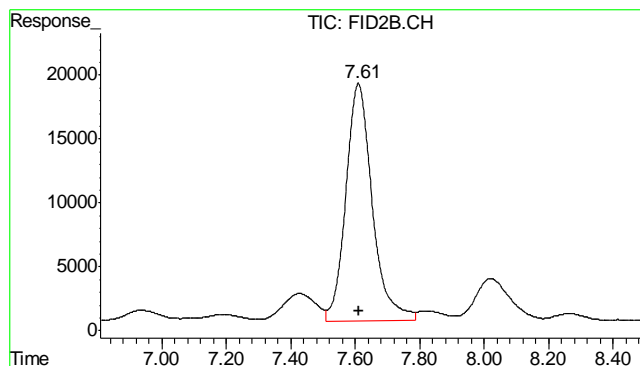


#4 Methyl-t-butyl-ether
 R.T.: 0.000 min
 Exp R.T.: 2.223 min
 Response: 0
 Conc: N.D.



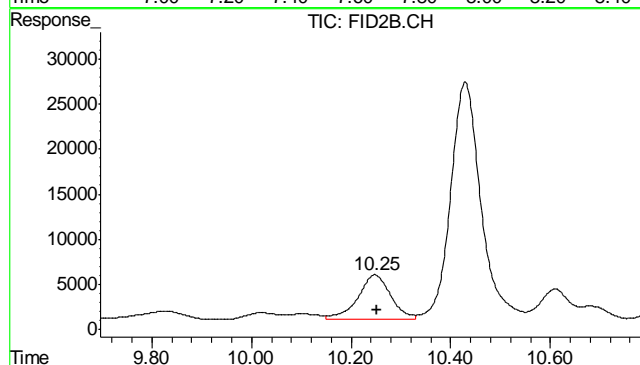
#5 Benzene
 R.T.: 4.100 min
 Delta R.T.: -0.005 min
 Response: 369066
 Conc: 0.67 ug/L

10.1.1
 10



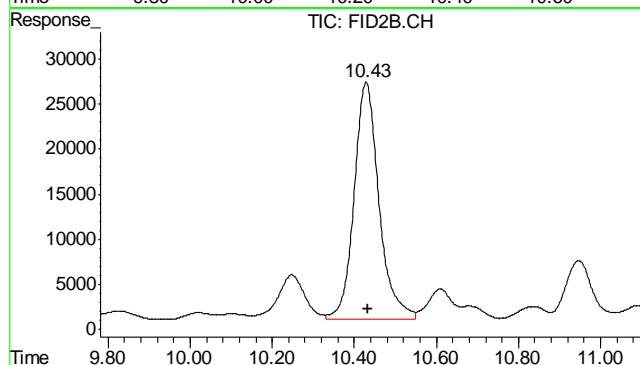
#6 Toluene

R.T.: 7.610 min
Delta R.T.: -0.001 min
Response: 1061678
Conc: 1.94 ug/L



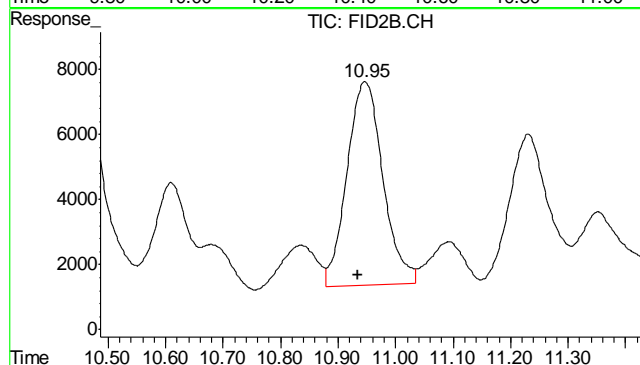
#7 Ethylbenzene

R.T.: 10.248 min
Delta R.T.: -0.005 min
Response: 228174
Conc: 0.50 ug/L



#8 m,p-Xylene

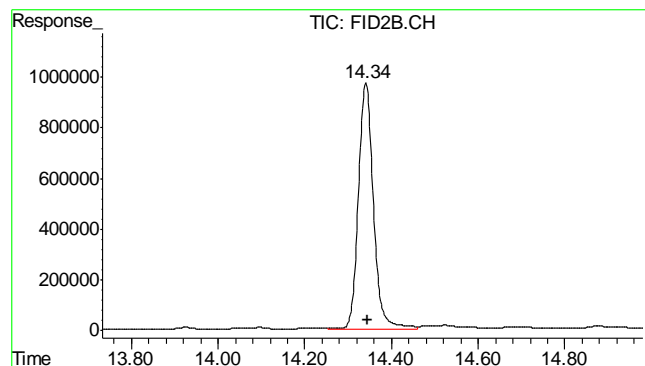
R.T.: 10.429 min
Delta R.T.: -0.005 min
Response: 1105371
Conc: 1.97 ug/L



#9 o-Xylene

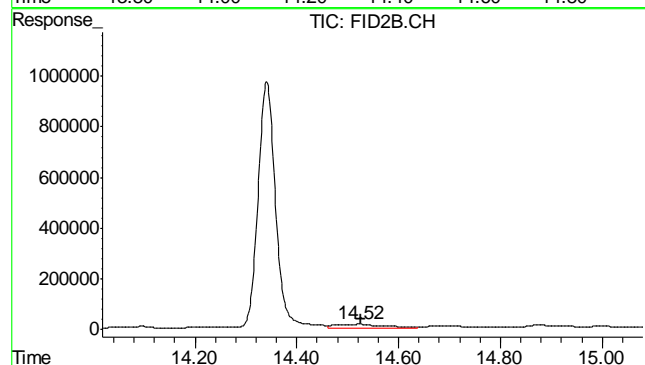
R.T.: 10.947 min
Delta R.T.: 0.013 min
Response: 274338
Conc: 0.60 ug/L

10.1.1
10



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.341 min
Delta R.T.: -0.003 min
Response: 23617786
Conc: 101.49 %



#11 Naphthalene

R.T.: 14.524 min
Delta R.T.: -0.002 min
Response: 1136897
Conc: 4.35 ug/L

10.1.1
10

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\030812\GB15251.D\FID1A.CH Vial: 9
Signal #2 : Y:\1\DATA\030812\GB15251.D\FID2B.CH
Acq On : 8 Mar 2012 4:16 pm Operator: StephK
Sample : D32443-2, 50X Inst : GC/MS Ins
Misc : GC2662,GGB856,5.062,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Mar 08 16:43:25 2012 Quant Results File: TB851GB851SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB851GB851SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Mar 08 14:42:16 2012
Response via : Initial Calibration
DataAcq Meth : TVB4.M

Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

	Compound	R.T.	Response	Conc	Units	

System Monitoring Compounds						
2) S	1,2,4-Trichlorobenzene	14.35	2673400	88.620 %	m	
10) S	1,2,4-Trichlorobenzene (P)	14.35	22209453	95.434 %		
Target Compounds						
1) H	TVH-Gasoline	7.26	22236797	0.308 mg/L		
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d	
5) T	Benzene	4.12	3276014	5.918 ug/L		
6) T	Toluene	7.63	6307959	11.523 ug/L		
7) T	Ethylbenzene	10.26	952926	2.084 ug/L		
8) T	m,p-Xylene	10.44	4746986	8.477 ug/L		
9) T	o-Xylene	10.95	904169	1.973 ug/L		
11) T	Naphthalene	14.53	1654405	6.332 ug/L		

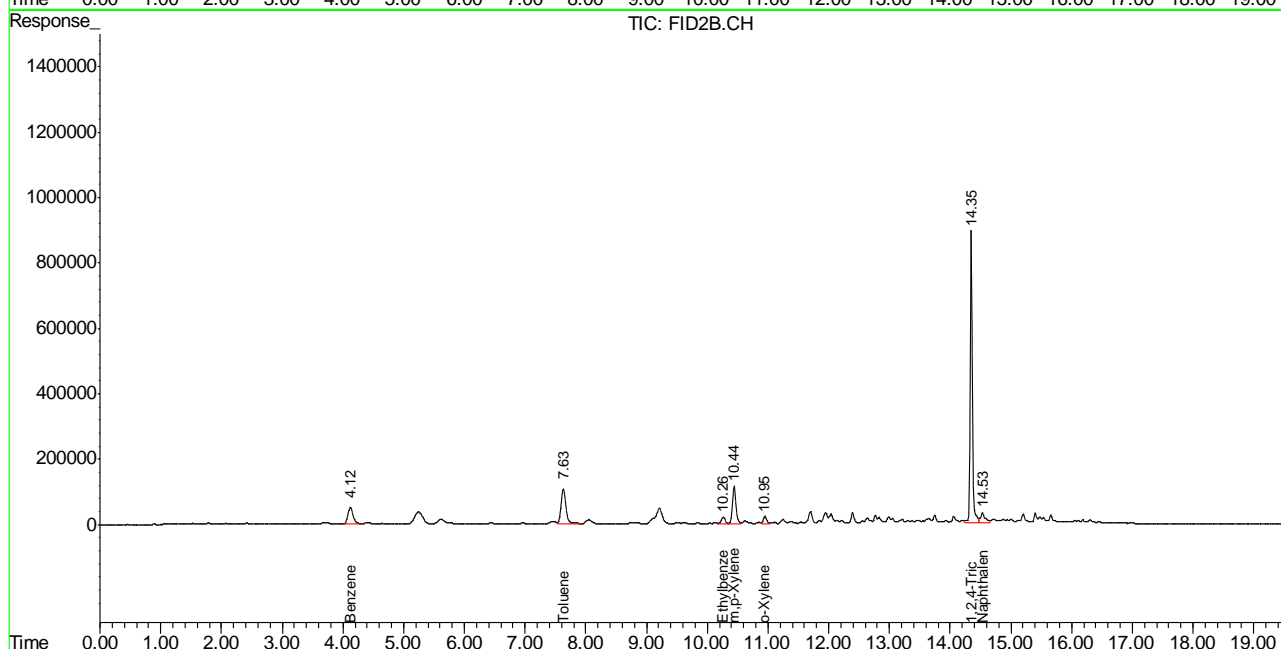
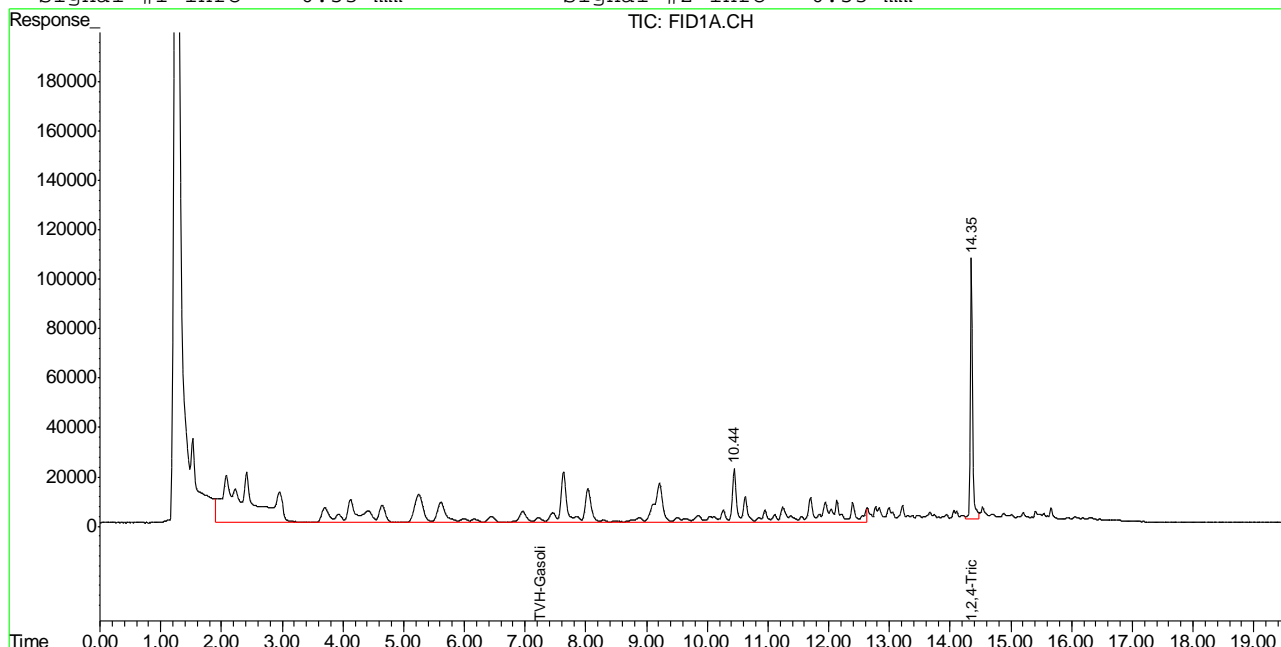
10.1.2
10

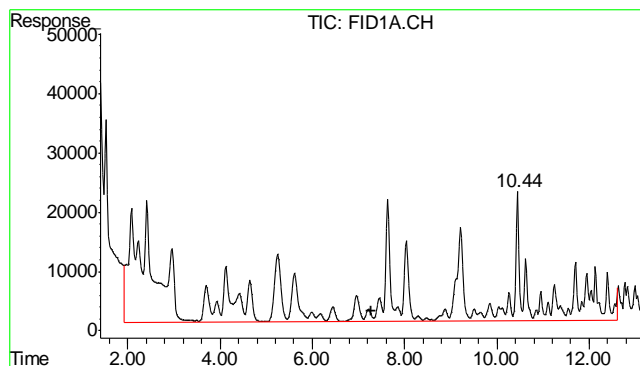
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\030812\GB15251.D\FID1A.CH Vial: 9
 Signal #2 : Y:\1\DATA\030812\GB15251.D\FID2B.CH
 Acq On : 8 Mar 2012 4:16 pm Operator: StephK
 Sample : D32443-2, 50X Inst : GC/MS Ins
 Misc : GC2662,GGB856,5.062,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Mar 8 15:46 2012 Quant Results File: TB851GB851SOIL.RES

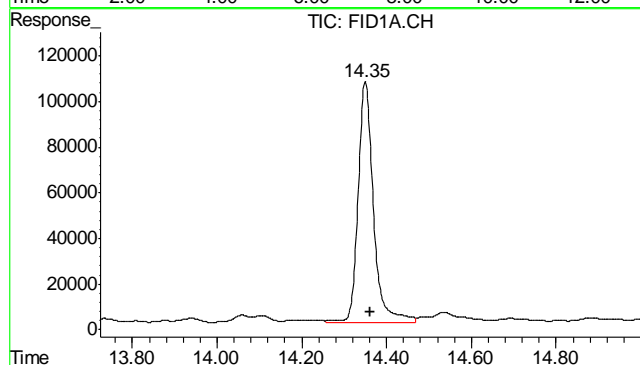
Quant Method : C:\MSDCHEM\1...\TB851GB851SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Thu Mar 08 14:42:16 2012
 Response via : Multiple Level Calibration
 DataAcq Meth : TVB4.M

Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

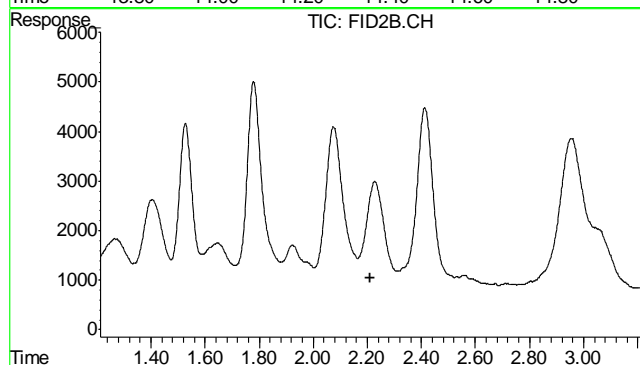




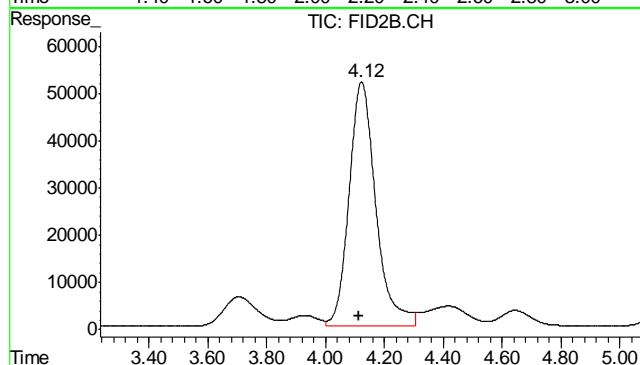
#1 TVH-Gasoline
 R.T.: 7.265 min
 Delta R.T.: 0.000 min
 Response: 22236797
 Conc: 0.31 mg/L m



#2 1,2,4-Trichlorobenzene
 R.T.: 14.349 min
 Delta R.T.: -0.012 min
 Response: 2673400
 Conc: 88.62 % m

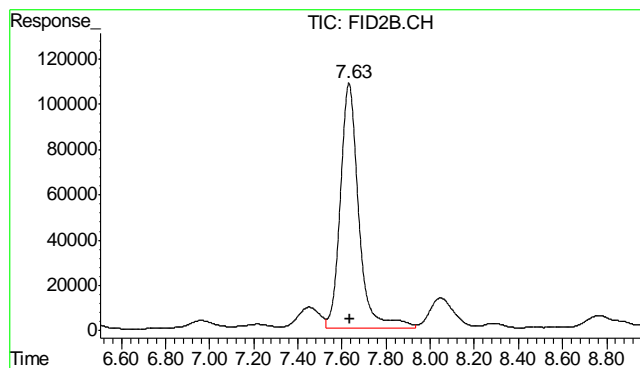


#4 Methyl-t-butyl-ether
 R.T.: 0.000 min
 Exp R.T.: 2.213 min
 Response: 0
 Conc: N.D.



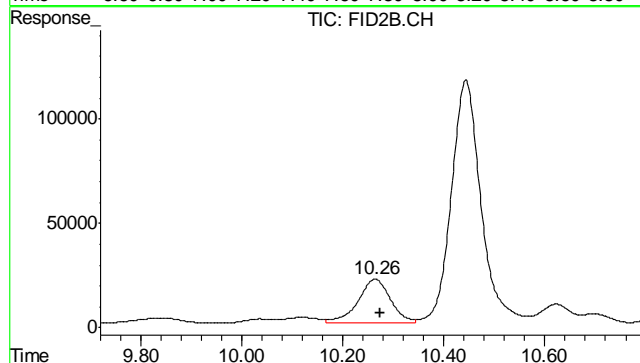
#5 Benzene
 R.T.: 4.122 min
 Delta R.T.: 0.009 min
 Response: 3276014
 Conc: 5.92 ug/L

10.12 10



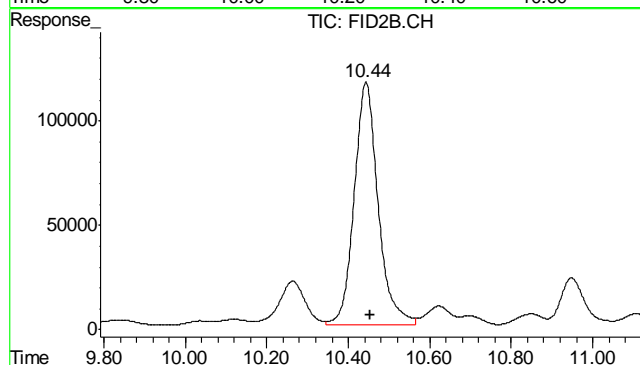
#6 Toluene

R.T.: 7.632 min
Delta R.T.: -0.007 min
Response: 6307959
Conc: 11.52 ug/L



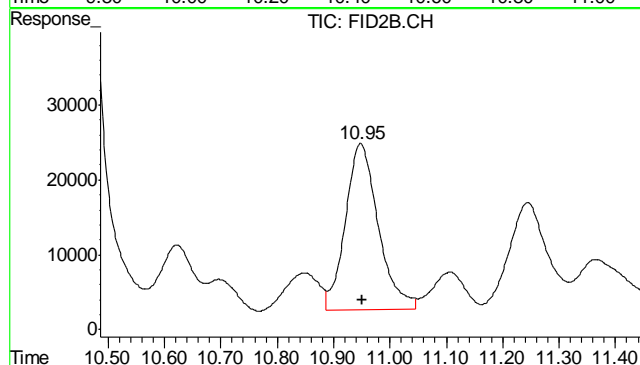
#7 Ethylbenzene

R.T.: 10.264 min
Delta R.T.: -0.010 min
Response: 952926
Conc: 2.08 ug/L



#8 m,p-Xylene

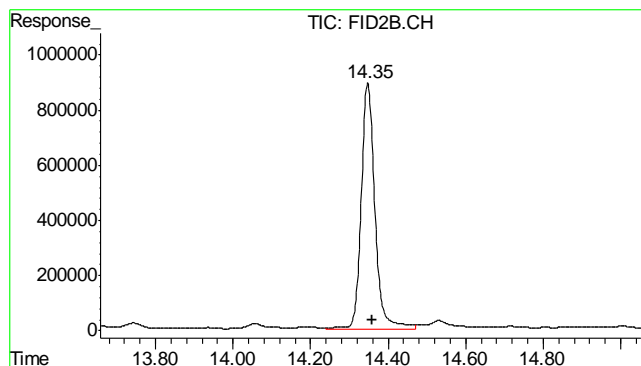
R.T.: 10.444 min
Delta R.T.: -0.011 min
Response: 4746986
Conc: 8.48 ug/L



#9 o-Xylene

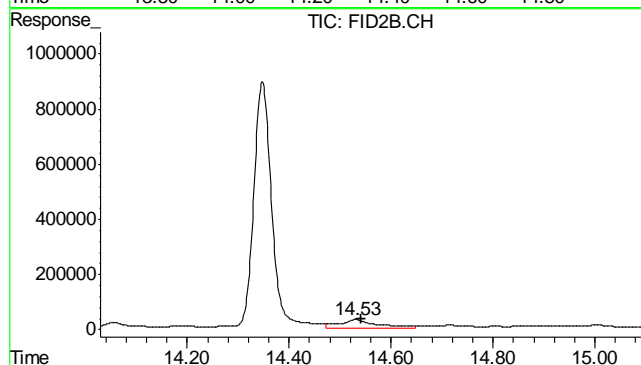
R.T.: 10.949 min
Delta R.T.: -0.003 min
Response: 904169
Conc: 1.97 ug/L

10.12 10



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.348 min
Delta R.T.: -0.011 min
Response: 22209453
Conc: 95.43 %



#11 Naphthalene

R.T.: 14.531 min
Delta R.T.: -0.010 min
Response: 1654405
Conc: 6.33 ug/L

10.1.2
10

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\030612\GB15231.D\FID1A.CH Vial: 3
 Signal #2 : Y:\1\DATA\030612\GB15231.D\FID2B.CH
 Acq On : 7 Mar 2012 10:54 am Operator: StephK
 Sample : MB Inst : GC/MS Ins
 Misc : GC2659,GGB855,5.000,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Mar 07 11:53:50 2012 Quant Results File: TB851GB851SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB851GB851SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Thu Mar 01 10:54:53 2012
 Response via : Initial Calibration
 DataAcq Meth : TVB4.M

Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

	Compound	R.T.	Response	Conc	Units

System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.34	2934564	97.277	%
10) S	1,2,4-Trichlorobenzene (P)	14.34	23708647	101.876	%
Target Compounds					
1) H	TVH-Gasoline	7.26	6504322	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.60	238113	0.435	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	10.43	262605	0.469	ug/L
9) T	o-Xylene	10.93	88059	0.192	ug/L
11) T	Naphthalene	14.52	344804	1.320	ug/L

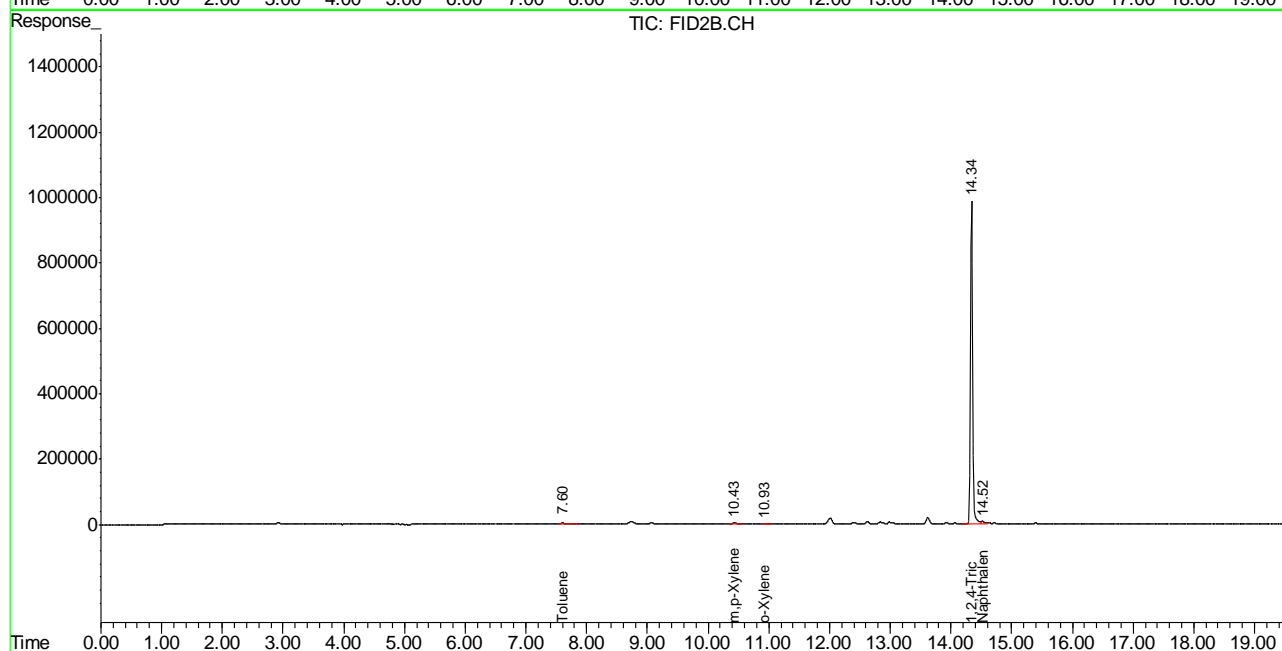
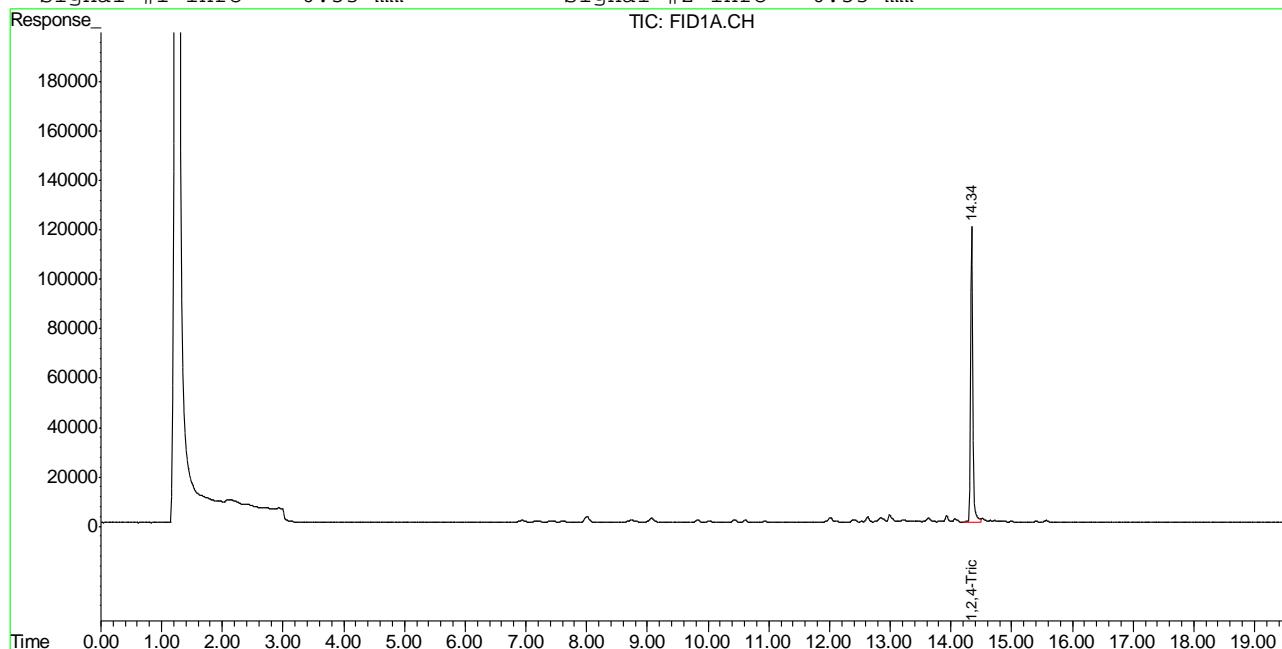
 (f)=RT Delta > 1/2 Window (m)=manual int.
 GB15231.D TB851GB851SOIL.M Thu Mar 08 10:10:39 2012 GC

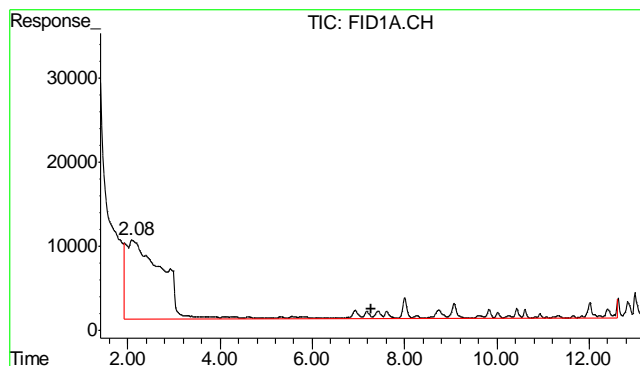
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\030612\GB15231.D\FID1A.CH Vial: 3
Signal #2 : Y:\1\DATA\030612\GB15231.D\FID2B.CH
Acq On : 7 Mar 2012 10:54 am Operator: StephK
Sample : MB Inst : GC/MS Ins
Misc : GC2659,GGB855,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Mar 7 10:55 2012 Quant Results File: TB851GB851SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB851GB851SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Mar 01 10:54:53 2012
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

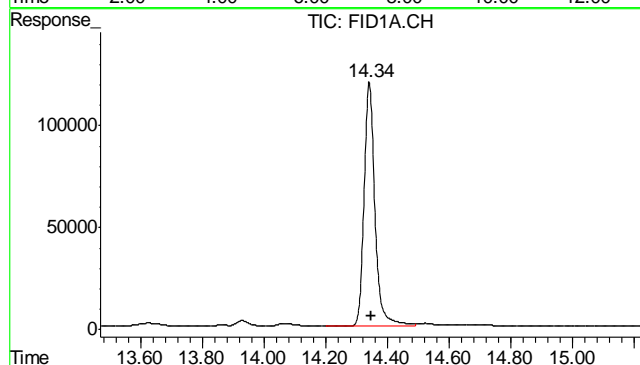
Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





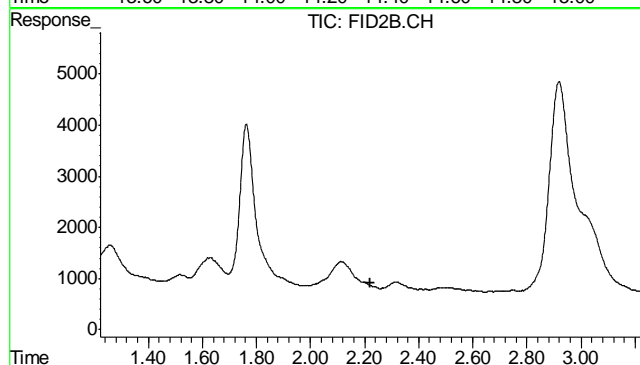
#1 TVH-Gasoline

R.T.: 7.265 min
Delta R.T.: 0.000 min
Response: 6504322
Conc: N.D.



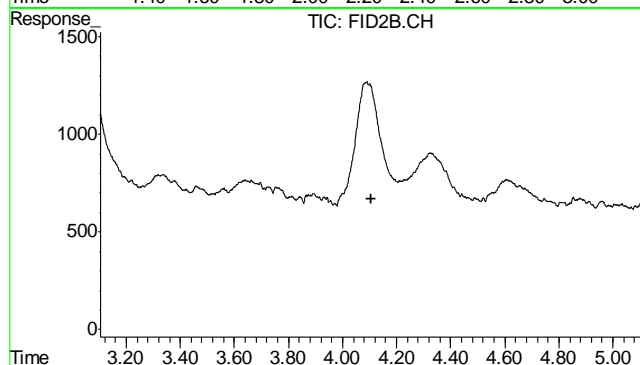
#2 1,2,4-Trichlorobenzene

R.T.: 14.341 min
Delta R.T.: -0.005 min
Response: 2934564
Conc: 97.28 %



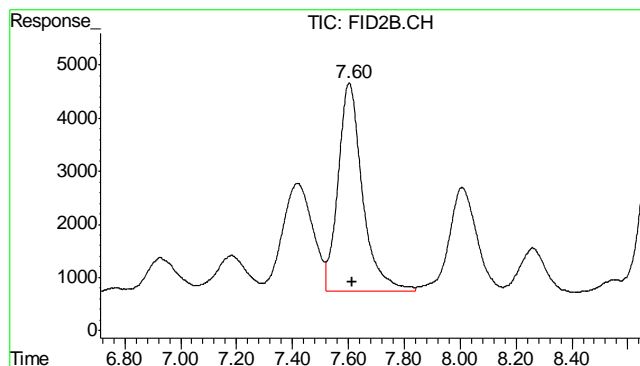
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T.: 2.223 min
Response: 0
Conc: N.D.



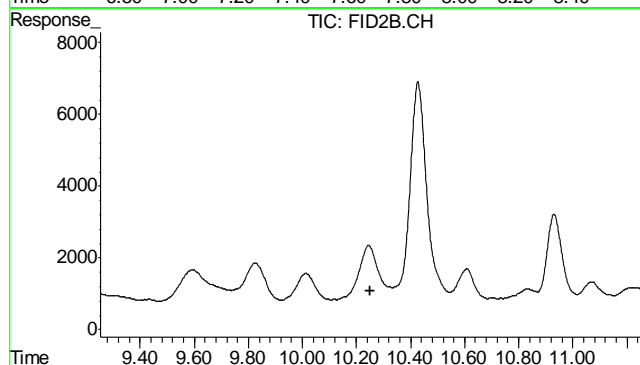
#5 Benzene

R.T.: 0.000 min
Exp R.T.: 4.105 min
Response: 0
Conc: N.D.



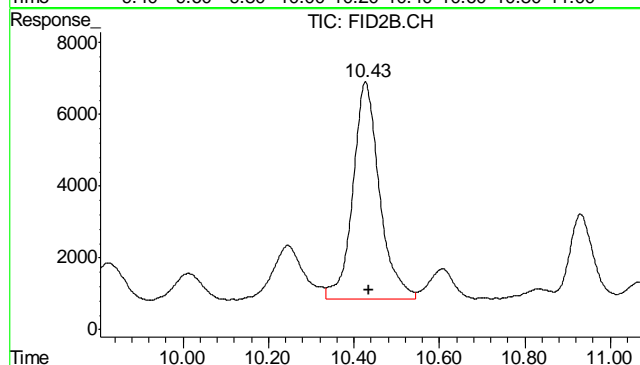
#6 Toluene

R.T.: 7.603 min
Delta R.T.: -0.009 min
Response: 238113
Conc: 0.43 ug/L



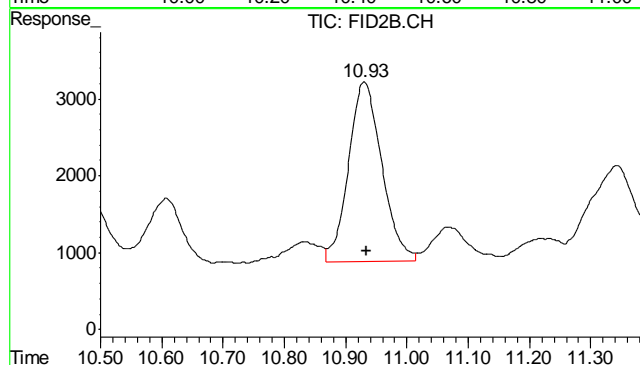
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.252 min
Response: 0
Conc: N.D.



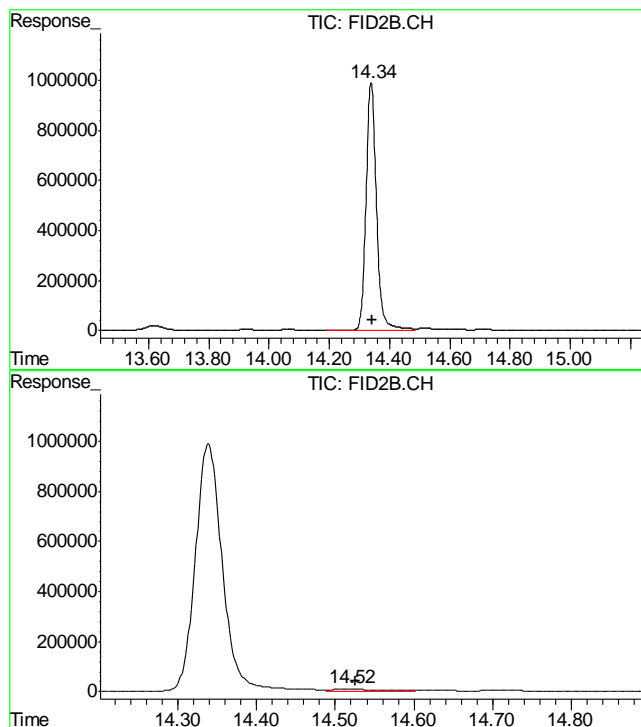
#8 m,p-Xylene

R.T.: 10.427 min
Delta R.T.: -0.007 min
Response: 262605
Conc: 0.47 ug/L



#9 o-Xylene

R.T.: 10.931 min
Delta R.T.: -0.003 min
Response: 88059
Conc: 0.19 ug/L



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.339 min
Delta R.T.: -0.005 min
Response: 23708647
Conc: 101.88 %

#11 Naphthalene

R.T.: 14.520 min
Delta R.T.: -0.006 min
Response: 344804
Conc: 1.32 ug/L

10.2.1
10

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\030812\GB15245.D\FID1A.CH Vial: 3
 Signal #2 : Y:\1\DATA\030812\GB15245.D\FID2B.CH
 Acq On : 8 Mar 2012 12:42 pm Operator: StephK
 Sample : MB Inst : GC/MS Ins
 Misc : GC2662,GGB856,5.000,,100,5,1 Multiplr: 1.00
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
 Quant Time: Mar 08 14:42:31 2012 Quant Results File: TB851GB851SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB851GB851SOIL.M (Chemstation Integrator)
 Title : 8015B/8021B TVH/BTEX
 Last Update : Thu Mar 08 14:42:16 2012
 Response via : Initial Calibration
 DataAcq Meth : TVB4.M

Volume Inj. :
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

	Compound	R.T.	Response	Conc	Units

System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.35	2798501	92.766	%
10) S	1,2,4-Trichlorobenzene (P)	14.35	23053106	99.059	%
Target Compounds					
1) H	TVH-Gasoline	7.26	6374786	<MDL	mg/L
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T	Benzene	0.00	0	N.D.	ug/L d
6) T	Toluene	7.64	200654	0.367	ug/L
7) T	Ethylbenzene	0.00	0	N.D.	ug/L d
8) T	m,p-Xylene	10.45	226358	0.404	ug/L
9) T	o-Xylene	10.95	85597	0.187	ug/L
11) T	Naphthalene	14.53	314629	1.204	ug/L

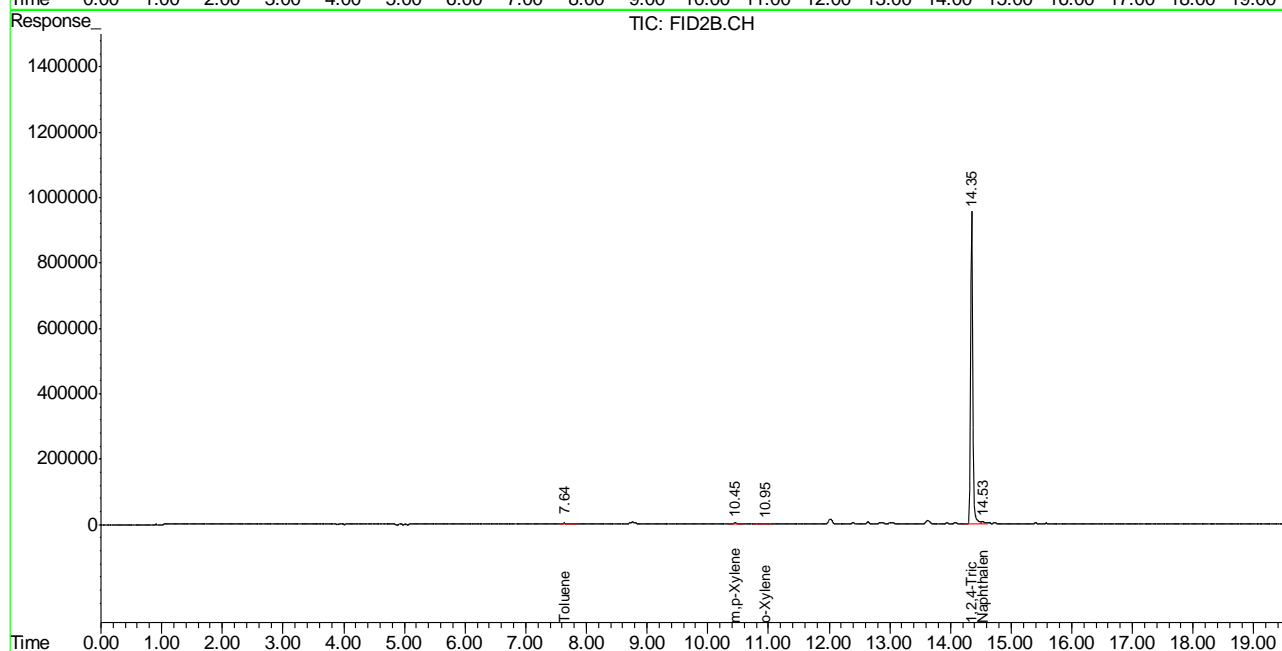
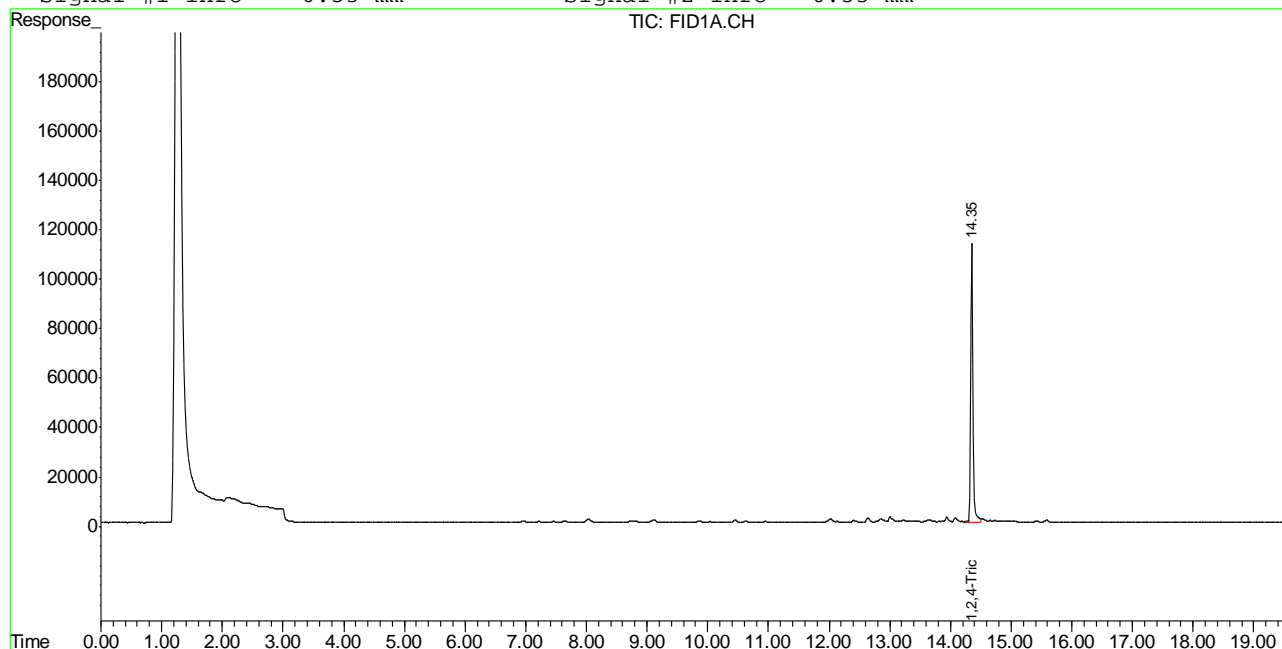
 (f)=RT Delta > 1/2 Window (m)=manual int.
 GB15245.D TB851GB851SOIL.M Fri Mar 09 09:09:04 2012 GC

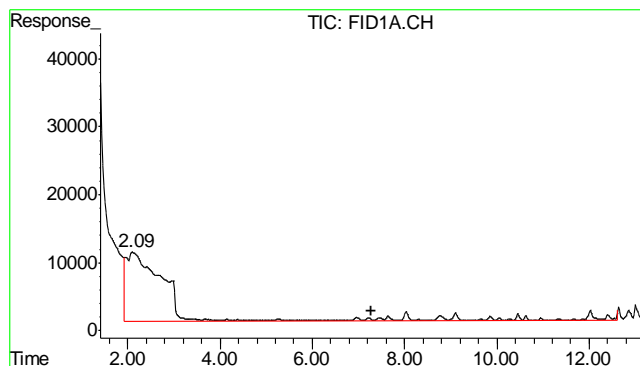
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\030812\GB15245.D\FID1A.CH Vial: 3
Signal #2 : Y:\1\DATA\030812\GB15245.D\FID2B.CH
Acq On : 8 Mar 2012 12:42 pm Operator: StephK
Sample : MB Inst : GC/MS Ins
Misc : GC2662,GGB856,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Mar 8 13:45 2012 Quant Results File: TB851GB851SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB851GB851SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Mar 08 14:42:16 2012
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

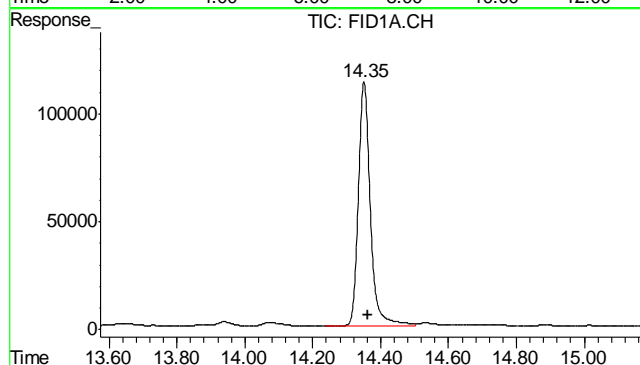
Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





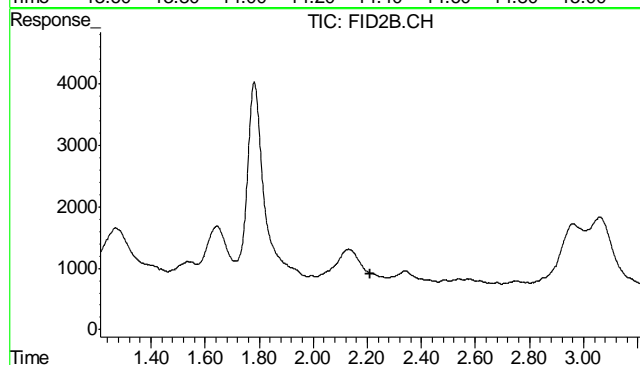
#1 TVH-Gasoline

R.T.: 7.265 min
Delta R.T.: 0.000 min
Response: 6374786
Conc: N.D.



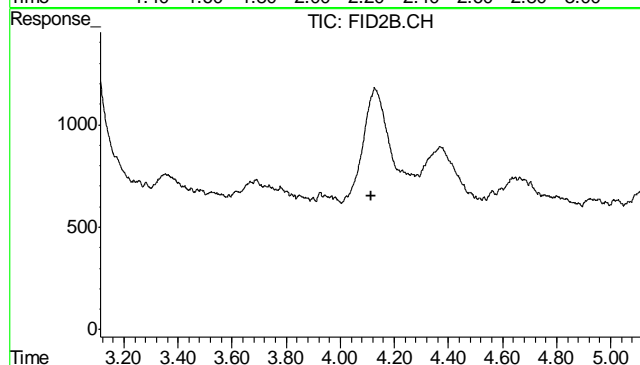
#2 1,2,4-Trichlorobenzene

R.T.: 14.351 min
Delta R.T.: -0.010 min
Response: 2798501
Conc: 92.77 %



#4 Methyl-t-butyl-ether

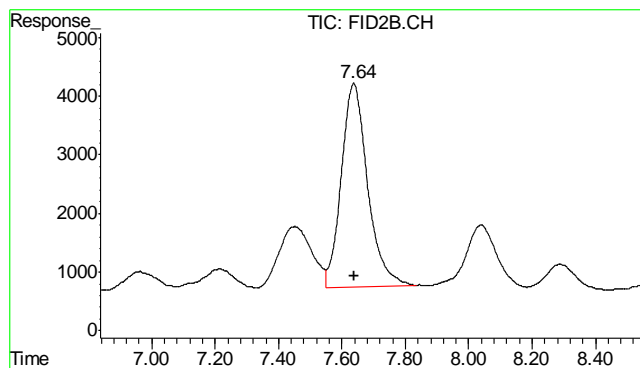
R.T.: 0.000 min
Exp R.T.: 2.213 min
Response: 0
Conc: N.D.



#5 Benzene

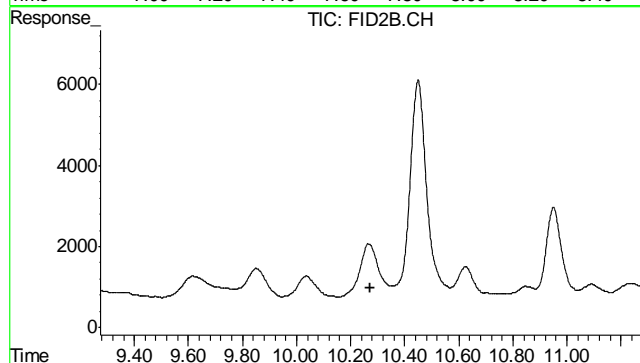
R.T.: 0.000 min
Exp R.T.: 4.113 min
Response: 0
Conc: N.D.

10.2.2 10



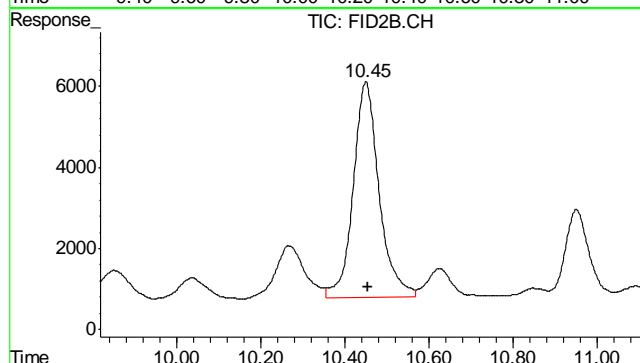
#6 Toluene

R.T.: 7.638 min
Delta R.T.: 0.000 min
Response: 200654
Conc: 0.37 ug/L



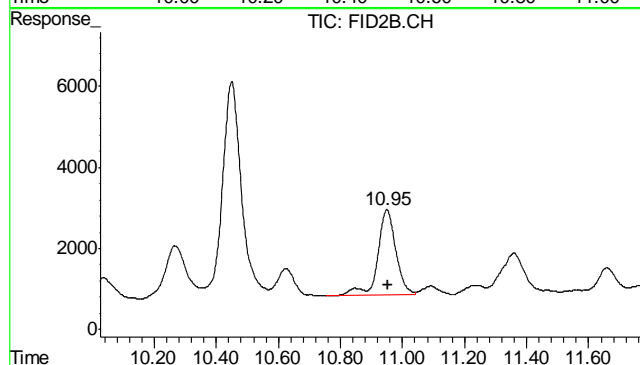
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T.: 10.273 min
Response: 0
Conc: N.D.



#8 m,p-Xylene

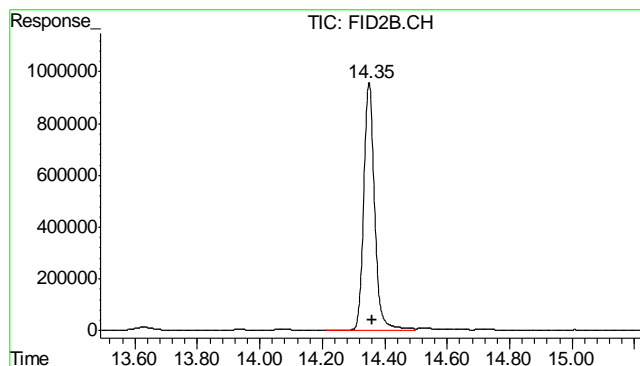
R.T.: 10.449 min
Delta R.T.: -0.005 min
Response: 226358
Conc: 0.40 ug/L



#9 o-Xylene

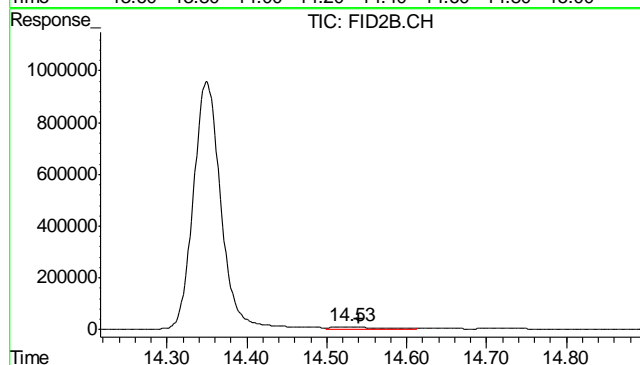
R.T.: 10.950 min
Delta R.T.: -0.002 min
Response: 85597
Conc: 0.19 ug/L

10.2.2 10



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.350 min
Delta R.T.: -0.009 min
Response: 23053106
Conc: 99.06 %



#11 Naphthalene

R.T.: 14.530 min
Delta R.T.: -0.011 min
Response: 314629
Conc: 1.20 ug/L

10.2.2
10

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D32443
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5483-MB	FH002025.D	1	03/06/12	TR	03/06/12	OP5483	GFH105

The QC reported here applies to the following samples: Method: SW846-8015B

D32443-1, D32443-2

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	13	8.7	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	89% 43-136%

11.1.1
11

Blank Spike Summary

Job Number: D32443
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5483-BS	FH002027.D	1	03/06/12	TR	03/06/12	OP5483	GFH105

The QC reported here applies to the following samples: Method: SW846-8015B

D32443-1, D32443-2

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	583	87	58-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	92%	43-136%

11.2.1
11

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D32443
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5483-MS	FH002029.D	1	03/06/12	TR	03/06/12	OP5483	GFH105
OP5483-MSD	FH002031.D	1	03/06/12	TR	03/06/12	OP5483	GFH105
D32411-3	FH002037.D	1	03/06/12	TR	03/06/12	OP5483	GFH105

The QC reported here applies to the following samples: Method: SW846-8015B

D32443-1, D32443-2

CAS No.	Compound	D32411-3 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	33.2		954	764	77	865	87	12	20-183/43

CAS No.	Surrogate Recoveries	MS	MSD	D32411-3	Limits
84-15-1	o-Terphenyl	80%	90%	87%	43-136%

11.3.1
11

GC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH030612.SEC\
 Data File : FH002041.D
 Signal(s) : FID2B.ch
 Acq On : 7 Mar 2012 12:20 am
 Operator : tedr
 Sample : D32443-1
 Misc : OP5483,GFH105,30.02,,,2,1
 ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Mar 07 11:06:57 2012
 Quant Method : C:\msdchem\1\METHODS\DRO-GFH95R.M
 Quant Title : DRO-ORO REAR
 QLast Update : Sun Mar 04 19:15:40 2012
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
2) s o-Terphenyl	12.349	807501946	471.572 ug/ml
Target Compounds			
1) H TPH-DRO (C10-C28)	9.832	1780418778	1153.693 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

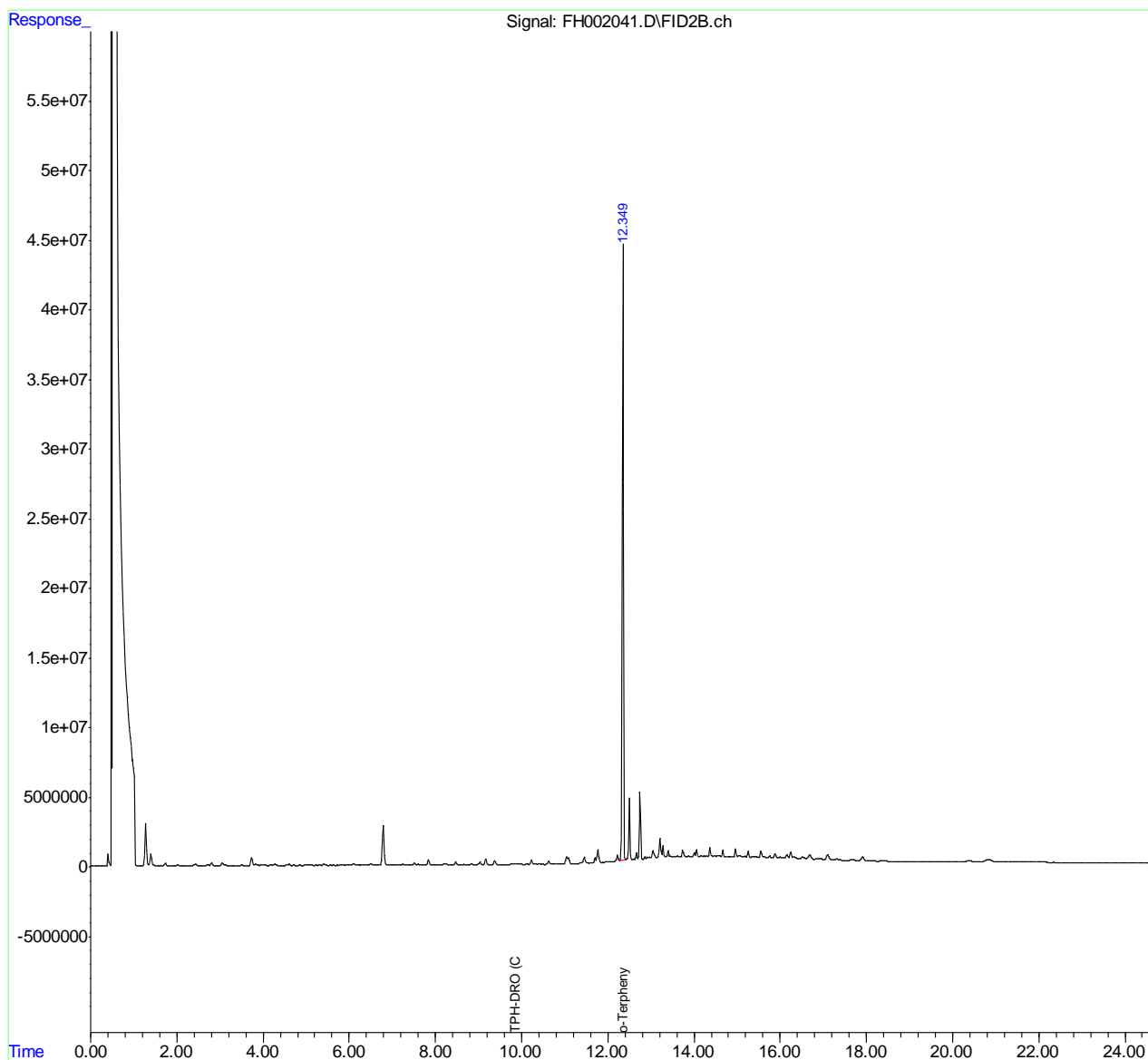
12.1.1
12

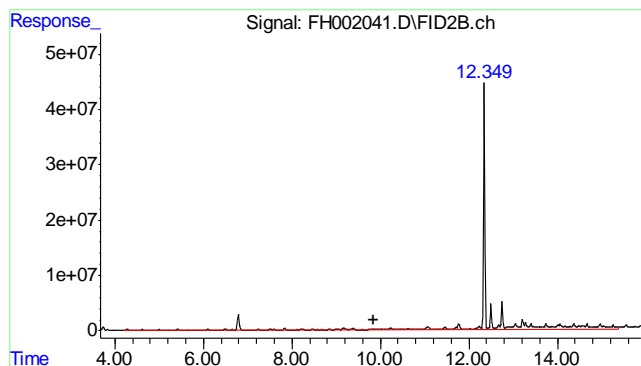
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH030612.SEC\
Data File : FH002041.D
Signal(s) : FID2B.ch
Acq On : 7 Mar 2012 12:20 am
Operator : tedr
Sample : D32443-1
Misc : OP5483,GFH105,30.02,,,2,1
ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e
Quant Time: Mar 07 11:06:57 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH95R.M
Quant Title : DRO-ORO REAR
QLast Update : Sun Mar 04 19:15:40 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :





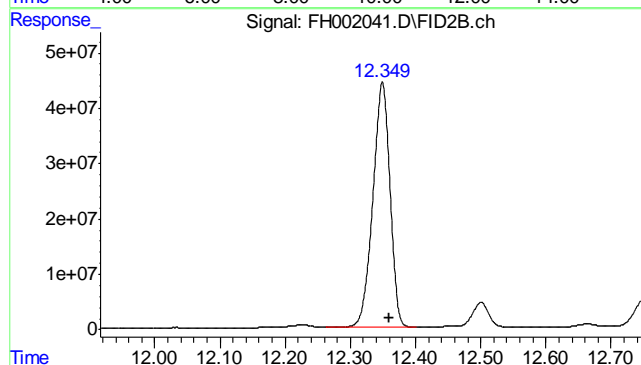
#1 TPH-DRO (C10-C28)

R.T.: 9.832 min

Delta R.T.: 0.000 min

Response: 1780418778

Conc: 1153.69 ug/ml m



#2 o-Terphenyl

R.T.: 12.349 min

Delta R.T.: -0.011 min

Response: 807501946

Conc: 471.57 ug/ml

12.1.1
12

Judy Melson
03/07/12 14:53

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH030612.SEC\
Data File : FH002043.D
Signal(s) : FID2B.ch
Acq On : 7 Mar 2012 12:56 am
Operator : tedr
Sample : D32443-2
Misc : OP5483,GFH105,30.08,,,2,1
ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e
Quant Time: Mar 07 11:07:56 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH95R.M
Quant Title : DRO-ORO REAR
QLast Update : Sun Mar 04 19:15:40 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
2) s o-Terphenyl	12.351	1215135210	709.626 ug/mlm
Target Compounds			
1) H TPH-DRO (C10-C28)	9.832	3078409414	1994.777 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

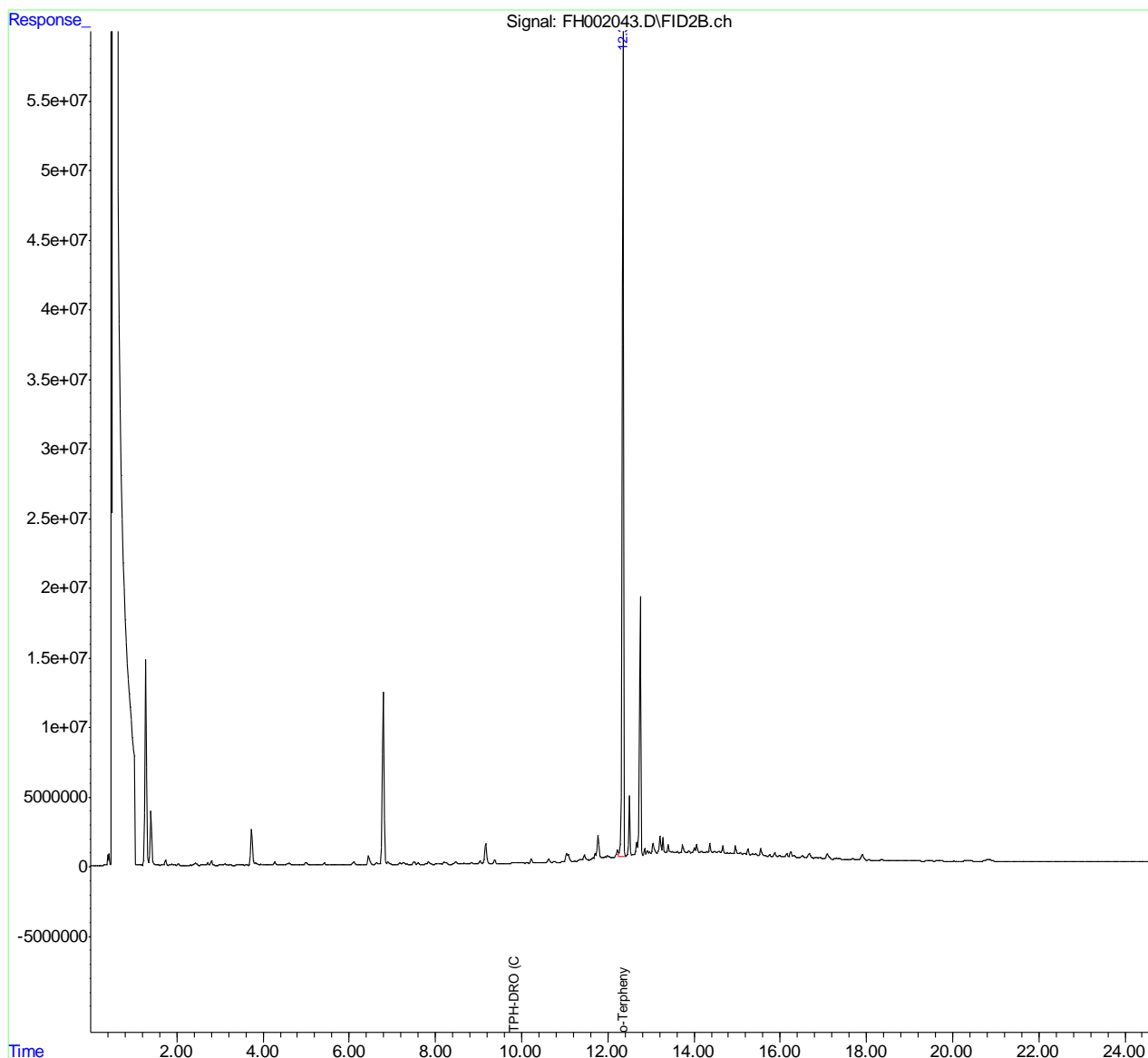
12.1.2
12

Quantitation Report (QT Reviewed)

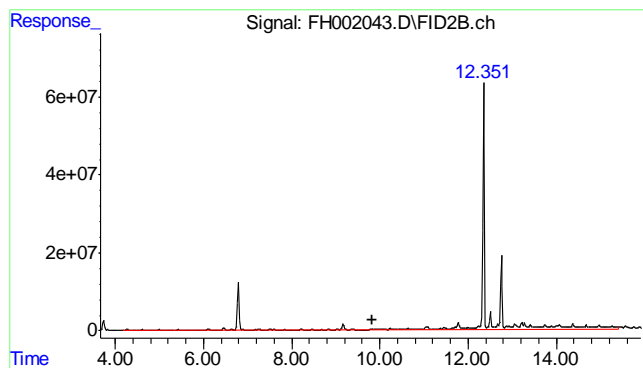
Data Path : C:\msdchem\1\DATA\FH030612.SEC\
 Data File : FH002043.D
 Signal(s) : FID2B.ch
 Acq On : 7 Mar 2012 12:56 am
 Operator : tedr
 Sample : D32443-2
 Misc : OP5483,GFH105,30.08,,,2,1
 ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Mar 07 11:07:56 2012
 Quant Method : C:\msdchem\1\METHODS\DRO-GFH95R.M
 Quant Title : DRO-ORO REAR
 QLast Update : Sun Mar 04 19:15:40 2012
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :



12.12 12



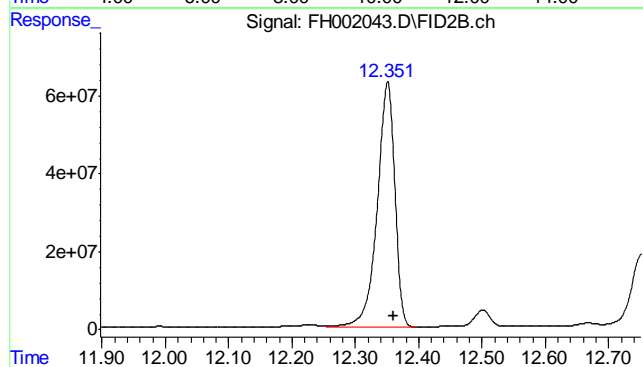
#1 TPH-DRO (C10-C28)

R.T.: 9.832 min

Delta R.T.: 0.000 min

Response: 3078409414

Conc: 1994.78 ug/ml m



#2 o-Terphenyl

R.T.: 12.351 min

Delta R.T.: -0.009 min

Response: 1215135210

Conc: 709.63 ug/ml m

12.1.2
12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH030612.SEC\
Data File : FH002025.D
Signal(s) : FID2B.ch
Acq On : 6 Mar 2012 7:36 pm
Operator : tedr
Sample : OP5483-MB
Misc : OP5483,GFH105,30.00,,,2,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: events.e
Quant Time: Mar 07 10:58:48 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH95R.M
Quant Title : DRO-ORO REAR
QLast Update : Sun Mar 04 19:15:40 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
2) s o-Terphenyl	12.354	1529545247	893.238 ug/ml
Target Compounds			
1) H TPH-DRO (C10-C28)	9.832	76184648	49.367 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

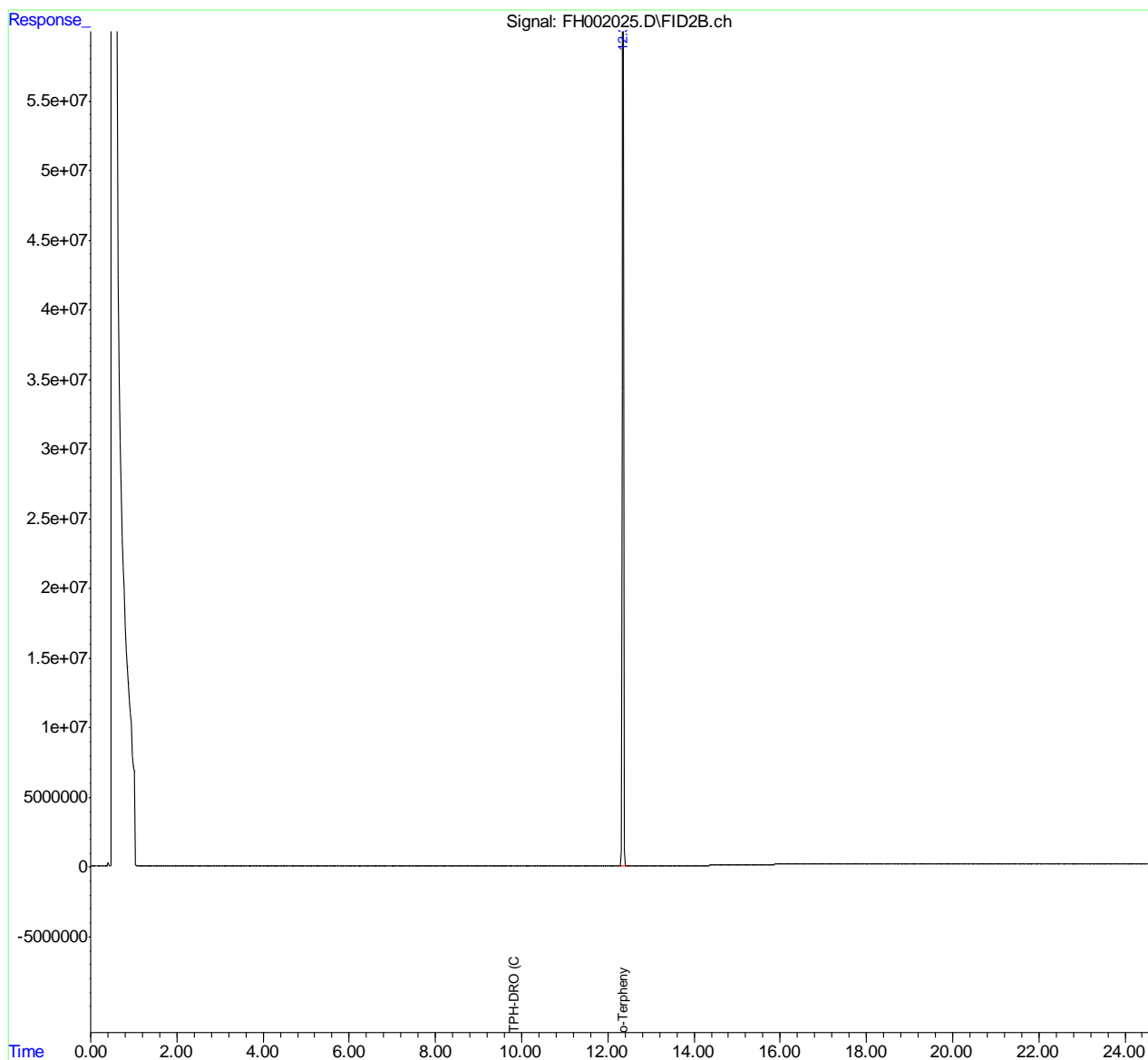
12.2.1
12

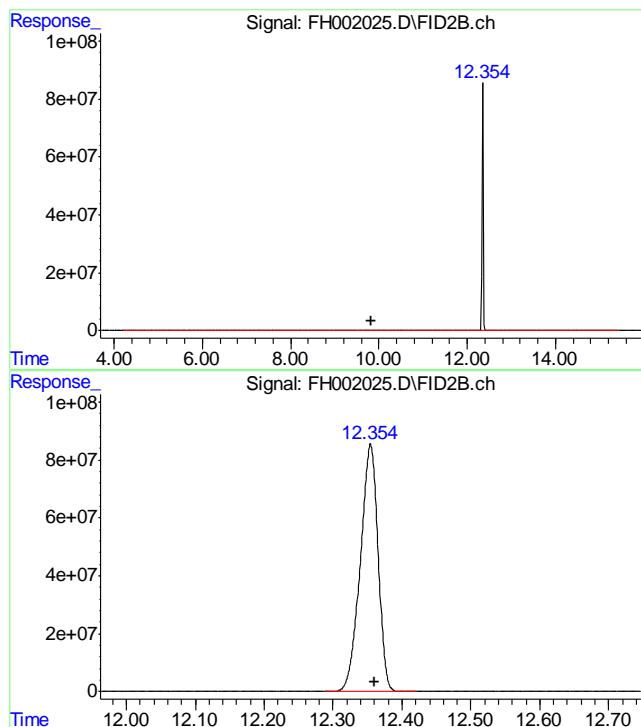
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH030612.SEC\
Data File : FH002025.D
Signal(s) : FID2B.ch
Acq On : 6 Mar 2012 7:36 pm
Operator : tedr
Sample : OP5483-MB
Misc : OP5483,GFH105,30.00,,,2,1
ALS Vial : 52 Sample Multiplier: 1

Integration File: events.e
Quant Time: Mar 07 10:58:48 2012
Quant Method : C:\msdchem\1\METHODS\DRO-GFH95R.M
Quant Title : DRO-ORO REAR
QLast Update : Sun Mar 04 19:15:40 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :





#1 TPH-DRO (C10-C28)

R.T.: 9.832 min
Delta R.T.: 0.000 min
Response: 76184648
Conc: 49.37 ug/ml m

#2 o-Terphenyl

R.T.: 12.354 min
Delta R.T.: -0.006 min
Response: 1529545247
Conc: 893.24 ug/ml

12.2.1
12