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Lab Number: L2206076

Client: Anchor QEA, LLC

ATTN: Delaney Peterson

Project Name: GASCO HYDROCARBON INVESTIG

Project Number: 000029-02

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# **Sample Delivery Group Information**



## Sample Delivery Group Summary

Alpha Job Number : L2206076

Received : 04-FEB-2022

Reviewer : Andrew Kussmaul

Account Name : Anchor QEA, LLC

Project Number : 000029-02

Project Name : GASCO HYDROCARBON INVESTIGATIO

### Delivery Information

Samples Delivered By : Express Ship  
FedEx (1001891750310000204800775944512340)

Chain of Custody : Present

### Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Absent/	Ice	2.5	

### Condition Information

- 1) All samples on COC received? **YES**
- 2) Extra samples received? **NO**
- 3) Are there any sample container discrepancies? **NO**
- 4) Are there any discrepancies between sample labels & COC? **NO**
- 5) Are samples in appropriate containers for requested analysis? **YES**
- 6) Are samples properly preserved for requested analysis? **YES**
- 7) Are samples within holding time for requested analysis? **NO**

Following samples were received beyond the method-required holding time for listed analysis:

-01 (A2-ALKPAH), -01 (A2-TS), -02 (A2-ALKPAH), -02 (A2-TS), -03 (A2-ALKPAH), -03 (A2-TS), -04 (A2-ALKPAH), -04 (A2-TS), -05 (A2-ALKPAH), -05 (A2-TS), -06 (A2-ALKPAH), -06 (A2-TS), -07 (A2-ALKPAH), -07 (A2-TS), -08 (A2-ALKPAH), -08 (A2-TS)

- 8) All sampling equipment returned? **NA**

### Volatile Organics/VPH

- 1) Reagent Water Vials Frozen by Client? **NA**

# **LIMS Chain of Custody**

ALPHA ANALYTICAL LABORATORIES, INC.  
LOGIN CHAIN OF CUSTODY REPORT  
Mar 01 2022, 06:27 pm

Login Number: L2206076

Account: ANCHOR Anchor QEA, LLC Project: 000029-02

Received: 04FEB22 Due Date: 04MAR22

Sample #	Client ID	Mat PR	Collected
L2206076-01	USMPDI-040SC-A-10-11-201103	3 S0	03NOV20 16:30
Report to the MDL; Full Narration needed Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery AlkPAH: Report List made; Samples have been maintained in frozen storage per client DPKG-FULL Package Due Date: 03/04/22			
A2-ALKPAH, A2-TS, DPKG-FULL			
L2206076-02	USMPDI-040SC-A-11-12-201103	3 S0	03NOV20 16:30
Report to the MDL; Full Narration needed Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery AlkPAH: Report List made; Samples have been maintained in frozen storage per client Package Due Date: 03/04/22			
A2-ALKPAH, A2-TS			
L2206076-03	USMPDI-040SC-A-12-13-201103	3 S0	03NOV20 16:30
Report to the MDL; Full Narration needed Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery AlkPAH: Report List made; Samples have been maintained in frozen storage per client Package Due Date: 03/04/22			
A2-ALKPAH, A2-TS			
L2206076-04	USMPDI-056SC-A-07-08-201107	3 S0	07NOV20 13:30
Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery AlkPAH: Report List made; Samples have been maintained in frozen storage per client Report to the MDL; Full Narration needed Package Due Date: 03/04/22			
A2-ALKPAH, A2-TS			
L2206076-05	USMPDI-056SC-A-08-09-201107	3 S0	07NOV20 13:30
Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery AlkPAH: Report List made; Samples have been maintained in frozen storage per client Report to the MDL; Full Narration needed Package Due Date: 03/04/22			

ALPHA ANALYTICAL LABORATORIES, INC.  
LOGIN CHAIN OF CUSTODY REPORT  
Mar 01 2022, 06:27 pm

Login Number: L2206076  
Account: ANCHOR Anchor QEA, LLC Project: 000029-02  
Received: 04FEB22 Due Date: 04MAR22

Sample #	Client ID	Mat PR Collected
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A2-ALKPAH,A2-TS

L2206076-06 USMPDI-004SC-A-07-08-201111 3 S0 11NOV20 08:35  
Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery  
AlkPAH: Report List made; Samples have been maintained in frozen storage per client Report to the MDL;  
Full Narration needed Package Due Date: 03/04/22

A2-ALKPAH,A2-TS

L2206076-07 USMPDI-004SC-A-08-09-201111 3 S0 11NOV20 08:35  
Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery  
AlkPAH: Report List made; Samples have been maintained in frozen storage per client Report to the MDL;  
Full Narration needed Package Due Date: 03/04/22

A2-ALKPAH,A2-TS

L2206076-08 USMPDI-004SC-A-09-10-201111 3 S0 11NOV20 08:35  
Surrogates are to be reported for all Dilutions, if the surrogates are diluted out, report 0% recovery  
AlkPAH: Report List made; Samples have been maintained in frozen storage per client Report to the MDL;  
Full Narration needed Package Due Date: 03/04/22

A2-ALKPAH,A2-TS

# Container Tracking

**ALPHA ANALYTICAL LABORATORIES**  
**Container Tracking Report**

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L2206076-01A	Glass-A.06	INTACT	10-FEB-22	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Cynthia Pimentel	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Cynthia Pimentel
L2206076-01A	Glass-A.06	INTACT	10-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X2	Brian Anderson	A2-ORGANIC PREP	A2-ORGANIC PREP	Brian Anderson
L2206076-01A	Glass-A.06	INTACT	05-FEB-22	A2-CUSTODY-REFRIDGE	A2-SAMPLE-HANDLING	Gregory Fernberg	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Gregory Fernberg
L2206076-01A	Glass-A.06	INTACT	05-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X2	Gregory Fernberg	A2-SAMPLE-HANDLING	A2-SAMPLE-HANDLING	Gregory Fernberg
L2206076-01A	Glass-A.06	INTACT	04-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Andrew Kussmaul
L2206076-01A	Glass-A.06	INTACT	04-FEB-22	A2-LOGIN	A2-LOGIN	Elizabeth Porta	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Elizabeth Porta
L2206076-02A	Glass-A.06	INTACT	10-FEB-22	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Cynthia Pimentel	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Cynthia Pimentel
L2206076-02A	Glass-A.06	INTACT	10-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X2	Brian Anderson	A2-ORGANIC PREP	A2-ORGANIC PREP	Brian Anderson
L2206076-02A	Glass-A.06	INTACT	05-FEB-22	A2-CUSTODY-REFRIDGE	A2-SAMPLE-HANDLING	Gregory Fernberg	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Gregory Fernberg
L2206076-02A	Glass-A.06	INTACT	05-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X2	Gregory Fernberg	A2-SAMPLE-HANDLING	A2-SAMPLE-HANDLING	Gregory Fernberg
L2206076-02A	Glass-A.06	INTACT	04-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Andrew Kussmaul
L2206076-02A	Glass-A.06	INTACT	04-FEB-22	A2-LOGIN	A2-LOGIN	Elizabeth Porta	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Elizabeth Porta
L2206076-03A	Glass-A.06	INTACT	10-FEB-22	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Cynthia Pimentel	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Cynthia Pimentel
L2206076-03A	Glass-A.06	INTACT	10-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X2	Brian Anderson	A2-ORGANIC PREP	A2-ORGANIC PREP	Brian Anderson
L2206076-03A	Glass-A.06	INTACT	05-FEB-22	A2-CUSTODY-REFRIDGE	A2-SAMPLE-HANDLING	Gregory Fernberg	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Gregory Fernberg
L2206076-03A	Glass-A.06	INTACT	05-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X2	Gregory Fernberg	A2-SAMPLE-HANDLING	A2-SAMPLE-HANDLING	Gregory Fernberg
L2206076-03A	Glass-A.06	INTACT	04-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Andrew Kussmaul
L2206076-03A	Glass-A.06	INTACT	04-FEB-22	A2-LOGIN	A2-LOGIN	Elizabeth Porta	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Elizabeth Porta
L2206076-04A	Glass-A.06	INTACT	10-FEB-22	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Cynthia Pimentel	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Cynthia Pimentel
L2206076-04A	Glass-A.06	INTACT	10-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X2	Brian Anderson	A2-ORGANIC PREP	A2-ORGANIC PREP	Brian Anderson
L2206076-04A	Glass-A.06	INTACT	05-FEB-22	A2-CUSTODY-REFRIDGE	A2-SAMPLE-HANDLING	Gregory Fernberg	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Gregory Fernberg
L2206076-04A	Glass-A.06	INTACT	05-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X2	Gregory Fernberg	A2-SAMPLE-HANDLING	A2-SAMPLE-HANDLING	Gregory Fernberg
L2206076-04A	Glass-A.06	INTACT	04-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Andrew Kussmaul
L2206076-04A	Glass-A.06	INTACT	04-FEB-22	A2-LOGIN	A2-LOGIN	Elizabeth Porta	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Elizabeth Porta
L2206076-05A	Glass-A.06	INTACT	10-FEB-22	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Cynthia Pimentel	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Cynthia Pimentel

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L2206076-05A	Glass-A.06	INTACT	10-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X2	Brian Anderson	A2-ORGANIC PREP	A2-ORGANIC PREP	Brian Anderson
L2206076-05A	Glass-A.06	INTACT	05-FEB-22	A2-CUSTODY-REFRIDGE	A2-SAMPLE-HANDLING	Gregory Fernberg	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Gregory Fernberg
L2206076-05A	Glass-A.06	INTACT	05-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X2	Gregory Fernberg	A2-SAMPLE-HANDLING	A2-SAMPLE-HANDLING	Gregory Fernberg
L2206076-05A	Glass-A.06	INTACT	04-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Andrew Kussmaul
L2206076-05A	Glass-A.06	INTACT	04-FEB-22	A2-LOGIN	A2-LOGIN	Elizabeth Porta	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Elizabeth Porta
L2206076-06A	Glass-A.06	INTACT	10-FEB-22	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Cynthia Pimentel	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Cynthia Pimentel
L2206076-06A	Glass-A.06	INTACT	10-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X2	Brian Anderson	A2-ORGANIC PREP	A2-ORGANIC PREP	Brian Anderson
L2206076-06A	Glass-A.06	INTACT	05-FEB-22	A2-CUSTODY-REFRIDGE	A2-SAMPLE-HANDLING	Gregory Fernberg	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Gregory Fernberg
L2206076-06A	Glass-A.06	INTACT	05-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X2	Gregory Fernberg	A2-SAMPLE-HANDLING	A2-SAMPLE-HANDLING	Gregory Fernberg
L2206076-06A	Glass-A.06	INTACT	04-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Andrew Kussmaul
L2206076-06A	Glass-A.06	INTACT	04-FEB-22	A2-LOGIN	A2-LOGIN	Elizabeth Porta	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Elizabeth Porta
L2206076-07A	Glass-A.06	INTACT	10-FEB-22	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Cynthia Pimentel	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Cynthia Pimentel
L2206076-07A	Glass-A.06	INTACT	10-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X2	Brian Anderson	A2-ORGANIC PREP	A2-ORGANIC PREP	Brian Anderson
L2206076-07A	Glass-A.06	INTACT	05-FEB-22	A2-CUSTODY-REFRIDGE	A2-SAMPLE-HANDLING	Gregory Fernberg	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Gregory Fernberg
L2206076-07A	Glass-A.06	INTACT	05-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X2	Gregory Fernberg	A2-SAMPLE-HANDLING	A2-SAMPLE-HANDLING	Gregory Fernberg
L2206076-07A	Glass-A.06	INTACT	04-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Andrew Kussmaul
L2206076-07A	Glass-A.06	INTACT	04-FEB-22	A2-LOGIN	A2-LOGIN	Elizabeth Porta	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Elizabeth Porta
L2206076-08A	Glass-A.06	INTACT	10-FEB-22	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Cynthia Pimentel	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Cynthia Pimentel
L2206076-08A	Glass-A.06	INTACT	10-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X2	Brian Anderson	A2-ORGANIC PREP	A2-ORGANIC PREP	Brian Anderson
L2206076-08A	Glass-A.06	INTACT	05-FEB-22	A2-CUSTODY-REFRIDGE	A2-SAMPLE-HANDLING	Gregory Fernberg	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Gregory Fernberg
L2206076-08A	Glass-A.06	INTACT	05-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-FRZ1-X2	Gregory Fernberg	A2-SAMPLE-HANDLING	A2-SAMPLE-HANDLING	Gregory Fernberg
L2206076-08A	Glass-A.06	INTACT	04-FEB-22	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Andrew Kussmaul	A2-CUSTODY-FRZ1-X2	A2-CUSTODY-FRZ1-X2	Andrew Kussmaul
L2206076-08A	Glass-A.06	INTACT	04-FEB-22	A2-LOGIN	A2-LOGIN	Elizabeth Porta	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Elizabeth Porta



# Chain of Custody

2/4/22

SUBCONTRACT ORDER

ET 62206076

Apex Laboratories

02/21/22 A2A1041

SENDING LABORATORY:

Apex Laboratories  
6700 S.W. Sandburg Street  
Tigard, OR 97223  
Phone: (503) 718-2323  
Fax: (503) 336-0745  
Project Manager: Darwin Thomas

RECEIVING LABORATORY:

Alpha Analytical, INC  
320 Forbes Boulevard  
Mansfield, MA 02048  
Phone : (508) 822-9300  
Fax:

-01

Relogged-->A0K0164-26

Sample Name: USMPDI-040SC-A-10-11-201103 SE Sampled: 11/03/20 16:30 (A2A1041-03)

Analysis	Due	Expires	Comments
8270E LL PAH and Homologs - Full List Containers Supplied: (B)2 oz Glass Jar	02/11/22 17:00	11/17/20 16:30	PAHs and alkyl PAHs Frozen 11/3/20 Thawed 2/2/22

-02

Relogged-->A0K0164-27

Sample Name: USMPDI-040SC-A-11-12-201103 SE Sampled: 11/03/20 16:30 (A2A1041-04)

Analysis	Due	Expires	Comments
8270E LL PAH and Homologs - Full List Containers Supplied: (B)2 oz Glass Jar	02/11/22 17:00	11/17/20 16:30	PAHs and alkyl PAHs Frozen 11/3/20 Thawed 2/2/22

-03

Relogged--> A0K0164-28

Sample Name: USMPDI-040SC-A-12-13-201103 SE Sampled: 11/03/20 16:30 (A2A1041-05)

Analysis	Due	Expires	Comments
8270E LL PAH and Homologs - Full List Containers Supplied: (B)2 oz Glass Jar	02/11/22 17:00	11/17/20 16:30	PAHs and alkyl PAHs Frozen 11/3/20 Thawed 2/2/22

-04

Relogged--> A0K0320-41

Sample Name: USMPDI-056SC-A-07-08-201107 SE Sampled: 11/07/20 13:30 (A2A1041-10)

Analysis	Due	Expires	Comments
8270E LL PAH and Homologs - Full List Containers Supplied: (B)2 oz Glass Jar	02/11/22 17:00	11/21/20 13:30	PAHs and alkyl PAHs Frozen: 11/9/20 Thawed 2/2/22

Standard TAT

WAB 2/2/22

Fed Ex (Shipper)

Released By: [Signature] Date: [Blank]

Received By: [Signature] Date: 2/4/22 11:19 am

Released By: [Blank] Date: [Blank]

Received By: [Blank] Date: [Blank]

SUBCONTRACT ORDER

ET

Apex Laboratories

AB 2/1/22

A2A1041

Relogged--> A0K0320-42

Sample Name: USMPDI-056SC-A-08-09-201107 SE Sampled: 11/07/20 13:30 (A2A1041-11)

Analysis Due Expires Comments

8270E LL PAH and Homologs - Full List 02/11/22 17:00 11/21/20 13:30 PAHs and alkyl PAHs Frozen 11/9/20 Thawed 2/2/22  
Containers Supplied: (B)2 oz Glass Jar

Relogged--> A0K0538-24

Sample Name: USMPDI-004SC-A-07-08-201111 SE Sampled: 11/11/20 08:35 (A2A1041-16)

Analysis Due Expires Comments

8270E LL PAH and Homologs - Full List 02/11/22 17:00 11/25/20 08:35 PAHs and alkyl PAHs Frozen 11/13/20 Thawed 2/2/22  
Containers Supplied: (B)2 oz Glass Jar

Relogged--> A0K0538-25

Sample Name: USMPDI-004SC-A-08-09-201111 SE Sampled: 11/11/20 08:35 (A2A1041-17)

Analysis Due Expires Comments

8270E LL PAH and Homologs - Full List 02/11/22 17:00 11/25/20 08:35 PAHs and alkyl PAHs Frozen 11/13/20 Thawed 2/2/22  
Containers Supplied: (B)2 oz Glass Jar

Relogged--> A0K0538-26

Sample Name: USMPDI-004SC-A-09-10-201111 SE Sampled: 11/11/20 08:35 (A2A1041-18)

Analysis Due Expires Comments

8270E LL PAH and Homologs - Full List 02/11/22 17:00 11/25/20 08:35 PAHs and alkyl PAHs Frozen 11/13/20 Thawed 2/2/22  
Containers Supplied: (B)2 oz Glass Jar

Standard TAT

Fed Ex (Shipper)

Released By Date Received By Date

Fed Ex (Shipper)

*[Signature]* 2/4/22 11:19am

Released By Date Received By Date

https://www.fedex.com/shipping/html/en/PrintFrame.html

ORIGIN ID: BNOA (503) 718-2323  
APEX LABS  
APEX LABORATORIES  
12232 SW GARDEN PL

SHIP DATE: 02FEB22  
ACTWGT: 24.00 LB  
CAD: 4718258/INET4460  
DIMS: 18x16x13 IN

TIGARD, OR 97223  
UNITED STATES US

BILL THIRD PARTY

TO **SAMPLE RECEIVING**  
**ALPHA ANALYTICAL**  
**320 FORBES BLVD.**

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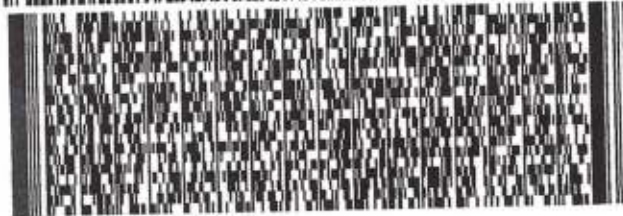
REF. ANCHOR

INV:

DEPT:

PO:

56D12027CFF4A



**FedEx**  
Express

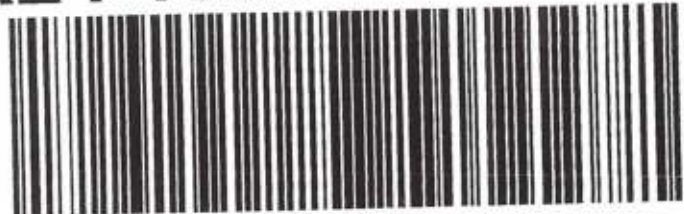


**THU - 03 FEB 10:30A**  
**PRIORITY OVERNIGHT**

TRK# **7759 4451 2340**  
0201

**XE PYMA**

**02048**  
**MA-US BOS**



Firefox

# Organics

**GC/MS Extractable Analysis  
Method 8270  
Selective Ion Monitoring**

# **Initial Calibration**

Response Factor Report PAH12

Method Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Method File : PAH12011722.M  
 Title : Decalins & Alkylated PAH's  
 Last Update : Thu Jan 20 14:34:52 2022  
 Response Via : Initial Calibration

Calibration Files

10 =F1201172208.D 25 =F1201172218.D 100 =F1201172210.D 500 =F1201172211.D 5000=F1201172212.D  
 1e4 =F1201172213.D 2e4 =F1201172214.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
-----ISTD-----									
1) i Acenaphthene-d10									
2) A1 trans-Decalin	0.510	0.488	0.450	0.470	0.438	0.452	0.460	0.467	5.33
3) t cis-Decalin	0.414	0.361	0.340	0.357	0.336	0.346	0.353	0.358	7.26
4) A2 C1-Decalins	0.510	0.488	0.450	0.470	0.438	0.452	0.460	0.467	5.33
5) A2 C2-Decalins	0.510	0.488	0.450	0.470	0.438	0.452	0.460	0.467	5.33
6) A2 C3-Decalins	0.510	0.488	0.450	0.470	0.438	0.452	0.460	0.467	5.33
7) A2 C4-Decalins	0.510	0.488	0.450	0.470	0.438	0.452	0.460	0.467	5.33
8) s Naphthalene-d8	2.164	2.199	2.110	2.245	2.080	2.125	2.167	2.156	2.60
9) A1 Naphthalene	2.464	2.417	2.338	2.496	2.283	2.325	2.363	2.384	3.27
10) A2 C1-Naphthalenes	2.464	2.417	2.338	2.496	2.283	2.325	2.363	2.384	3.27
11) A2 C2-Naphthalenes	2.464	2.417	2.338	2.496	2.283	2.325	2.363	2.384	3.27
12) A2 C3-Naphthalenes	2.464	2.417	2.338	2.496	2.283	2.325	2.363	2.384	3.27
13) A2 C4-Naphthalenes	2.464	2.417	2.338	2.496	2.283	2.325	2.363	2.384	3.27
14) t 2-Methylnaphth...	1.532	1.538	1.431	1.548	1.456	1.513	1.578	1.514	3.47
15) t 1-Methylnaphth...	1.510	1.417	1.369	1.469	1.379	1.429	1.486	1.437	3.73
16) A1 Benzothiophene	1.961	2.019	1.998	2.126	1.949	2.000	2.064	2.017	3.04
17) A2 C1-Benzo(b)thi...	1.961	2.019	1.998	2.126	1.949	2.000	2.064	2.017	3.04
18) A2 C2-Benzo(b)thi...	1.961	2.019	1.998	2.126	1.949	2.000	2.064	2.017	3.04
19) A2 C3-Benzo(b)thi...	1.961	2.019	1.998	2.126	1.949	2.000	2.064	2.017	3.04
20) A2 C4-Benzo(b)thi...	1.961	2.019	1.998	2.126	1.949	2.000	2.064	2.017	3.04
21) t Biphenyl	1.876	1.838	1.774	1.915	1.785	1.850	1.933	1.853	3.27
22) t 2,6-Dimethylna...	1.275	1.207	1.215	1.321	1.271	1.331	1.405	1.290	5.38
23) t Dibenzofuran	1.862	1.923	1.922	2.075	1.947	2.020	2.081	1.976	4.23
24) t Acenaphthylene	2.160	2.071	2.165	2.349	2.301	2.402	2.477	2.275	6.47
25) t Acenaphthene	1.384	1.364	1.392	1.500	1.425	1.484	1.527	1.439	4.44
26) t 2,3,5-Trimethy...	1.199	1.111	1.163	1.268	1.244	1.308	1.368	1.237	7.09
27) A1 Fluorene	1.528	1.464	1.503	1.646	1.598	1.673	1.735	1.592	6.19
28) A2 C1-Fluorenes	1.528	1.464	1.503	1.646	1.598	1.673	1.735	1.592	6.19
29) A2 C2-Fluorenes	1.528	1.464	1.503	1.646	1.598	1.673	1.735	1.592	6.19
30) A2 C3-Fluorenes	1.528	1.464	1.503	1.646	1.598	1.673	1.735	1.592	6.19
31) A1 Dibenzothiophene	2.289	2.196	2.171	2.347	2.267	2.370	2.438	2.297	4.15



## Response Factor Report PAH12

Method Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
Method File : PAH12011722.M  
Title : Decalins & Alkylated PAH's  
Last Update : Thu Jan 20 14:34:52 2022  
Response Via : Initial Calibration

## Calibration Files

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1e4 =F1201172213.D 2e4 =F1201172214.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
32) A2 4-Methyldibenz...	2.289	2.196	2.171	2.347	2.267	2.370	2.438	2.297	4.15
33) A2 2/3-Methyldibe...	2.289	2.196	2.171	2.347	2.267	2.370	2.438	2.297	4.15
34) A2 1-Methyldibenz...	2.289	2.196	2.171	2.347	2.267	2.370	2.438	2.297	4.15
35) A2 OTP	2.289	2.196	2.171	2.347	2.267	2.370	2.438	2.297	4.15
36) A2 C1-Dibenzothio...	2.289	2.196	2.171	2.347	2.267	2.370	2.438	2.297	4.15
37) A2 C2-Dibenzothio...	2.289	2.196	2.171	2.347	2.267	2.370	2.438	2.297	4.15
38) A2 C3-Dibenzothio...	2.289	2.196	2.171	2.347	2.267	2.370	2.438	2.297	4.15
39) A2 C4-Dibenzothio...	2.289	2.196	2.171	2.347	2.267	2.370	2.438	2.297	4.15
40) s Phenanthrene-d10	1.744	1.666	1.697	1.858	1.810	1.896	1.972	1.806	6.13
41) A1 Phenanthrene	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
42) A2 3-Methylphenan...	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
43) A2 2-Methylphenan...	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
44) A2 2-Methylanthra...	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
45) A2 9/4-Methylphen...	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
46) A2 1-Methylphenan...	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
47) A2 C1-Phenanthren...	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
48) A2 C2-Phenanthren...	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
49) A2 5AA IS BKGD	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
50) A2 C3-Phenanthren...	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
51) A2 C4-Phenanthren...	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
52) t Retene	0.720	0.593	0.699	0.772	0.808	0.875	0.978	0.778	16.08
53) t Anthracene	2.039	1.839	2.065	2.301	2.277	2.358	2.432	2.187	9.66
54) t Carbazole	3.358	1.827	1.968	2.146	2.136	2.220	2.237	2.270	22.09
55) t 1-Methylphenan...	1.570	1.373	1.444	1.591	1.601	1.690	1.771	1.577	8.60
56) A1 Fluoranthene	2.264	2.033	2.164	2.403	2.411	2.541	2.661	2.354	9.22
57) A1 Benzo(b)fluorene	1.445	1.145	1.335	1.492	1.553	1.641	1.772	1.483	13.79
58) A2 7H-Benzo(c)flu...	1.445	1.145	1.335	1.492	1.553	1.641	1.772	1.483	13.79
59) A1 Pyrene	2.395	2.115	2.268	2.490	2.489	2.608	2.733	2.443	8.46
60) A2 2-Methylpyrene	2.395	2.115	2.268	2.490	2.489	2.608	2.733	2.443	8.46
61) A2 4-Methylpyrene	2.395	2.115	2.268	2.490	2.489	2.608	2.733	2.443	8.46
62) A2 1-Methylpyrene	2.395	2.115	2.268	2.490	2.489	2.608	2.733	2.443	8.46
63) A2 C1-Fluoranthen...	2.395	2.115	2.268	2.490	2.489	2.608	2.733	2.443	8.46

## Response Factor Report PAH12

Method Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Method File : PAH12011722.M  
 Title : Decalins & Alkylated PAH's  
 Last Update : Thu Jan 20 14:34:52 2022  
 Response Via : Initial Calibration

## Calibration Files

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 1e4 =F1201172213.D 2e4 =F1201172214.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
64) A2 C2-Fluoranthen...	2.395	2.115	2.268	2.490	2.489	2.608	2.733	2.443	8.46
65) A2 C3-Fluoranthen...	2.395	2.115	2.268	2.490	2.489	2.608	2.733	2.443	8.46
66) A2 C4-Fluoranthen...	2.395	2.115	2.268	2.490	2.489	2.608	2.733	2.443	8.46
67) A1 Naphthobenzoth...	2.489	2.124	2.230	2.443	2.467	2.611	2.777	2.449	8.98
68) A2 Naphthobenzoth...	2.489	2.124	2.230	2.443	2.467	2.611	2.777	2.449	8.98
69) A2 Naphthobenzoth...	2.489	2.124	2.230	2.443	2.467	2.611	2.777	2.449	8.98
70) A2 C1-Naphthobenz...	2.489	2.124	2.230	2.443	2.467	2.611	2.777	2.449	8.98
71) A2 C2-Naphthobenz...	2.489	2.124	2.230	2.443	2.467	2.611	2.777	2.449	8.98
72) A2 C3-Naphthobenz...	2.489	2.124	2.230	2.443	2.467	2.611	2.777	2.449	8.98
73) A2 C4-Naphthobenz...	2.489	2.124	2.230	2.443	2.467	2.611	2.777	2.449	8.98
74) i Chrysene-d12	-----ISTD-----								
75) t Benz[a]anthracene	1.200	1.029	1.117	1.203	1.198	1.284	1.427	1.208	10.38
76) A1 Chrysene	1.193	1.089	1.109	1.211	1.162	1.236	1.368	1.195	7.75
77) A2 Chrysene/Triph...	1.193	1.089	1.109	1.211	1.162	1.236	1.368	1.195	7.75
78) A2 C1-Chrysenes	1.193	1.089	1.109	1.211	1.162	1.236	1.368	1.195	7.75
79) A2 C2-Chrysenes	1.193	1.089	1.109	1.211	1.162	1.236	1.368	1.195	7.75
80) A2 BBF-D12 Surr BKGD	1.193	1.089	1.109	1.211	1.162	1.236	1.368	1.195	7.75
81) A2 C3-Chrysenes	1.193	1.089	1.109	1.211	1.162	1.236	1.368	1.195	7.75
82) A2 C4-Chrysenes	1.193	1.089	1.109	1.211	1.162	1.236	1.368	1.195	7.75
83) A2 DAT-16 (t)	1.193	1.089	1.109	1.211	1.162	1.236	1.368	1.195	7.75
84) s Benzo[b]fluora...	1.205	1.029	1.082	1.160	1.136	1.209	1.316	1.163	8.04
85) t Benzo[b]fluora...	1.415	1.195	1.267	1.374	1.331	1.413	1.540	1.362	8.20
86) A1 Benzo[j]+[k]fl...	1.441	1.243	1.309	1.413	1.369	1.452	1.615	1.406	8.43
87) A2 Benzo[a]fluora...	1.441	1.243	1.309	1.413	1.369	1.452	1.615	1.406	8.43
88) t Benzo[e]pyrene	1.429	1.248	1.259	1.346	1.302	1.375	1.464	1.346	6.12
89) s Benzo[a]pyrene...	0.969	0.768	0.824	0.880	0.864	0.905	0.951	0.880	7.97
90) t Benzo[a]pyrene	1.467	1.180	1.197	1.286	1.255	1.326	1.425	1.305	8.36
91) t Perylene	1.485	1.173	1.240	1.320	1.302	1.380	1.469	1.339	8.58
92) t Indeno[1,2,3-c...	1.958	1.525	1.642	1.714	1.726	1.859	2.097	1.789	10.92
93) t Dibenz[ah]+[ac...	1.700	1.246	1.468	1.562	1.528	1.634	1.853	1.570	12.16
94) t Benzo[g,h,i]pe...	1.868	1.499	1.469	1.546	1.484	1.565	1.646	1.583	8.81

## Response Factor Report PAH12

Method Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
Method File : PAH12011722.M  
Title : Decalins & Alkylated PAH's  
Last Update : Thu Jan 20 14:34:52 2022  
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1e4 =F1201172213.D 2e4 =F1201172214.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
95) A1 Hopane (T19)	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
96) A2 C23 Tricyclic ...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
97) A2 C24 Tricyclic ...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
98) A2 C25 Tricyclic ...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
99) A2 C24 Tetracycli...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
100) A2 C26 Tricyclic ...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
101) A2 C26 Tricyclic ...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
102) A2 C28 Tricyclic ...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
103) A2 C28 Tricyclic ...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
104) A2 C29 Tricyclic ...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
105) A2 C29 Tricyclic ...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
106) A2 18a-22,29,30-T...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
107) A2 C30 Tricyclic ...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
108) A2 C30 Tricyclic ...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
109) A2 17a(H)-22,29,3...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
110) A2 17a/b,21b/a 28...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
111) A2 17a(H),21b(H)-...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
112) A2 30-Norhopane (...)	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
113) A2 18a(H)-30-Norn...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
114) A2 17a(H)-Diahopa...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
115) A2 30-Normoretane...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
116) A2 18a(H)&18b(H)-...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
117) A2 Moretane (T20)	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
118) A2 30-Homohopane-...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
119) A2 30-Homohopane-...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
120) A2 Gammacerane/C3...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
121) A2 30,31-Bishomoh...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
122) A2 30,31-Bishomoh...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
123) A2 30,31-Trishomo...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
124) A2 30,31-Trishomo...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
125) A2 Tetrakishomoho...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
126) A2 Tetrakishomoho...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86

## Response Factor Report PAH12

Method Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
Method File : PAH12011722.M  
Title : Decalins & Alkylated PAH's  
Last Update : Thu Jan 20 14:34:52 2022  
Response Via : Initial Calibration

## Calibration Files

10 =F1201172208.D 25 =F1201172218.D 100 =F1201172210.D 500 =F1201172211.D 5000=F1201172212.D  
1e4 =F1201172213.D 2e4 =F1201172214.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
127) A2 Pentakishomoho...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
128) A2 Pentakishomoho...	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
129) SA1 5B(H)Cholane -...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
130) A2 13b(H),17a(H)-...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
131) A2 13b(H),17a(H)-...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
132) A2 13b,17a-20S-Me...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
133) A2 14a,17a-20S-Ch...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
134) A2 14a,17a-20R-Ch...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
135) A2 Unknown Steran...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
136) A2 13a,17b-20S-Et...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
137) A2 14a,17a-20S-Me...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
138) A2 14a,17a-20R-Me...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
139) A2 14a(H),17a(H)-...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
140) A2 14a(H),17a(H)-...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
141) A2 14b(H),17b(H)-...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
142) A2 14b(H),17b(H)-...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
143) A2 14b,17b-20R-Me...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
144) A2 14b,17b-20S-Me...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
145) A2 14b(H),17b(H)-...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
146) A2 14b(H),17b(H)-...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
147) A2 C20 Pregnane	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
148) A2 C21 20-Methylp...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
149) A2 C22 20-Ethylpr...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
150) A2 C22 20-Ethylpr...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
151) A2 C26,20S TAS	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
152) A2 C26,20R+C27,20...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
153) A2 C28,20S TAS	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
154) A2 C27,20R TAS	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
155) A2 C28,20R TAS	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
156) A2 C29,20S TAS	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
157) A2 C29,20R TAS	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
158) A2 5b(H)-C27 (20S...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40

Response Factor Report PAH12

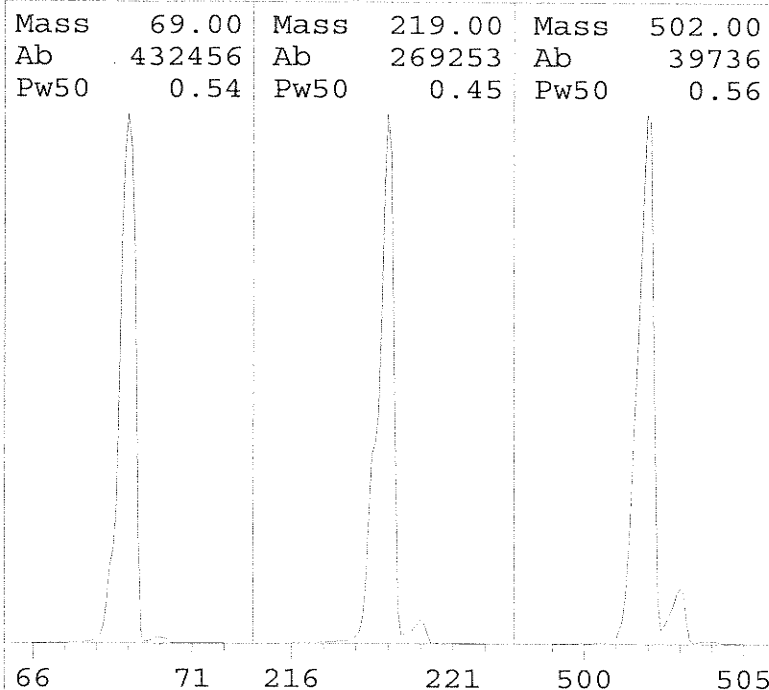
Method Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Method File : PAH12011722.M  
 Title : Decalins & Alkylated PAH's  
 Last Update : Thu Jan 20 14:34:52 2022  
 Response Via : Initial Calibration

Calibration Files

10 =F1201172208.D 25 =F1201172218.D 100 =F1201172210.D 500 =F1201172211.D 5000=F1201172212.D  
 1e4 =F1201172213.D 2e4 =F1201172214.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
159) A2 5b(H)-C27 (20R...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
160) A2 5a(H)-C27 (20S...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
161) A2 5b(H)-C28 (20S...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
162) A2 5a(H)-C27 (20R...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
163) A2 5a(H)-C28 (20S...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
164) A2 5b(H)-C28 (20R...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
165) A2 5b(H)-C29 (20S...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
166) A2 5a(H)-C29 (20S...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
167) A2 5a(H)-C28 (20R...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
168) A2 5b(H)-C29 (20R...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
169) A2 5a(H)-C29 (20R...	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40

(#) = Out of Range

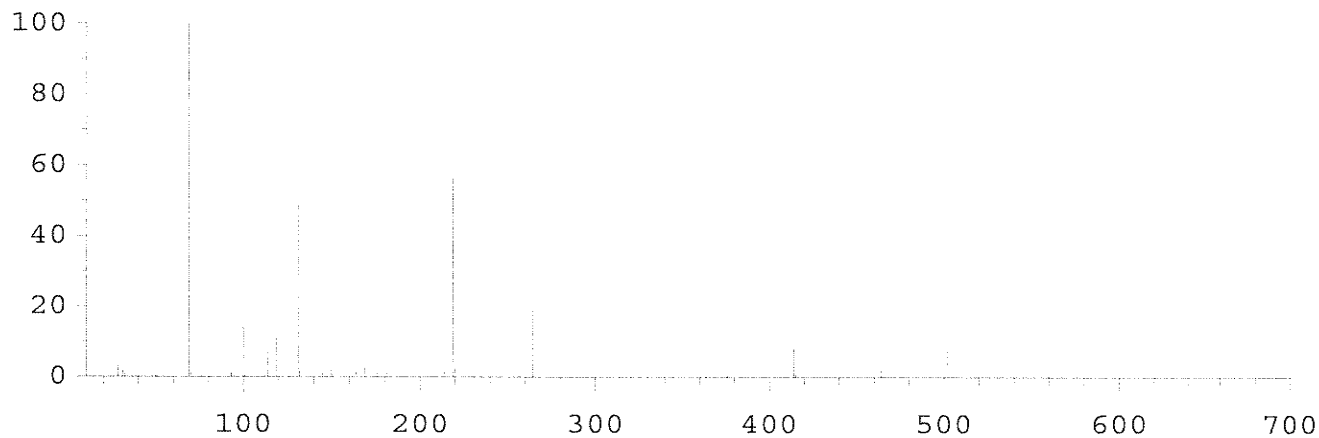


Ion Pol Pos MassGain -1048  
 MassOffs -45  
 Emission 34.6 AmuGain 1203  
 EIEnrgy 69.9 AmuOffs 112.88  
 Filament 1 Wid219 -0.037  
 DC Pol Pos  
 Repeller 29.79  
 IonFcus 80.7 HEDENab On  
 EntLens 0.0 EMVolts 1659  
 EntOffs Var

Samples 8  
 PFTBA Open Averages 3  
 Stepsize 0.10

Temperatures and Pressures:  
 MS Source 230 TurboSpd 100  
 MS Quad 150 HiVac 0.00e00

Scan: 10.00 - 701.00 Samples: 8 Thresh: 100 Step: 0.10  
 135 peaks Base: 69.00 Abundance: 409984



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	409984	100.00	70.00	4784	1.17
219.00	230912	56.32	220.00	9550	4.14
502.00	33888	8.27	503.00	3620	10.68

Air/Water Check: H2O~0.31% N2~3.45% O2~0.96% CO2~0.03% N2/H2O~1125.74%

Ramp Criteria:

Ion Focus Maximum 90 volts using ion 502; EM Gain 115411  
 Repeller Maximum 30 volts using ion 219; Gain Factor 1.15

MassGain Values(Samples): -1042(3) -1035(2) -1019(1) -997(0) -980(FS)

TARGET MASS:	50	69	131	219	414	502	1050
Amu Offset:	112.9	112.9	112.9	112.9	112.9	112.9	112.9
Entrance Lens Offset:	7.0	8.0	9.8	11.5	18.6	22.3	22.3
Target Abund(%):	1.0	100.0	50.0	55.0	7.0	7.0	
Actual Tune Abund(%):	1.1	100.0	50.2	56.3	8.2	8.3	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172208.D  
 Acq On : 17 Jan 2022 7:07 pm  
 Operator : PAH12:CC  
 Sample : I1201172201  
 Misc : WG1595612,FRBE26  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 19 09:29:14 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Tue Jan 18 08:26:02 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	27.150	164	65272	500.000	ng/mL	0.00	
74) Chrysene-d12	43.634	240	129294	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	20.160	136	2825	9.877	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.99%#	
40) Phenanthrene-d10	33.035	188	2277	10.372	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1.04%#	
84) Benzo[b]fluoranthene-d12	47.554	264	3117	10.022	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1.00%#	
89) Benzo[a]pyrene-d12	48.780	264	2506	11.212	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1.12%#	
129) 5B(H)Cholane - Surr	44.246	217	512	10.381	ng/ml	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	1.04%#	
Target Compounds							
2) trans-Decalin	16.802	138	333	5.288	ng/mL	100	Qvalue
3) cis-Decalin	18.016	138	270	5.592	ng/mL	100	
9) Naphthalene	20.242	128	3217	10.656	ng/mL	100	
14) 2-Methylnaphthalene	22.952	142	2000	10.235	ng/mL	100	
15) 1-Methylnaphthalene	23.363	142	1971	10.573	ng/mL	100	
16) Benzothiophene	20.461	134	2560	10.173	ng/mL	100	
21) Biphenyl	24.832	154	2449	10.412	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.435	156	1665	10.306	ng/mL	100	
23) Dibenzofuran	27.926	168	2431	9.502	ng/mL	99	
24) Acenaphthylene	26.539	152	2820	10.863	ng/mL	100	
25) Acenaphthene	27.269	153	1807	10.065	ng/mL	93	
26) 2,3,5-Trimethylnaphthalen	28.820	170	1565	10.648	ng/mL	92	
27) Fluorene	29.304	166	1995	10.101	ng/mL	99	
31) Dibenzothiophene	32.634	184	2988	11.507	ng/mL	94	
41) Phenanthrene	33.126	178	3092	10.797	ng/mL	96	
52) Retene	40.110	234	940	11.113	ng/mL	89	
53) Anthracene	33.309	178	2662	10.800	ng/mL	96	
54) Carbazole	33.966	167	4384M4	17.775	ng/mL		
55) 1-Methylphenanthrene	35.627	192	2049	10.722	ng/mL	96	
56) Fluoranthene	37.900	202	2955	10.846	ng/mL	100	
57) Benzo(b)fluorene	40.420	216	1886	12.006	ng/mL	99	
59) Pyrene	38.786	202	3127	10.985	ng/mL	97	
67) Naphthobenzothiophene-2,1	42.639	234	3249	11.952	ng/mL#	86	
75) Benz[a]anthracene	43.561	228	3103M4	10.915	ng/mL		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172208.D  
 Acq On : 17 Jan 2022 7:07 pm  
 Operator : PAH12:CC  
 Sample : I1201172201  
 Misc : WG1595612,FRBE26  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 19 09:29:14 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Tue Jan 18 08:26:02 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.734	228	3086	9.915	ng/mL	97
77) Chrysene/Triphenylene	43.734	228	3086	9.915	ng/mL	97
85) Benzo[b]fluoranthene	47.637	252	3658M3	10.882	ng/mL	
86) Benzo[j]+[k]fluoranthene	47.728	252	3725	10.406	ng/mL	99
88) Benzo[e]pyrene	48.680	252	3694M3	10.543	ng/mL	
90) Benzo[a]pyrene	48.881	252	3794	12.093	ng/mL	92
91) Perylene	49.201	252	3841	11.828	ng/mL	99
92) Indeno[1,2,3-cd]pyrene	53.911	276	5063M3	12.417	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.975	278	4397M4	12.052	ng/mL	
94) Benzo[g,h,i]perylene	55.272	276	4831	13.154	ng/mL	99
95) Hopane (T19)	52.969	191	945M4	9.025	ng/mL	

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

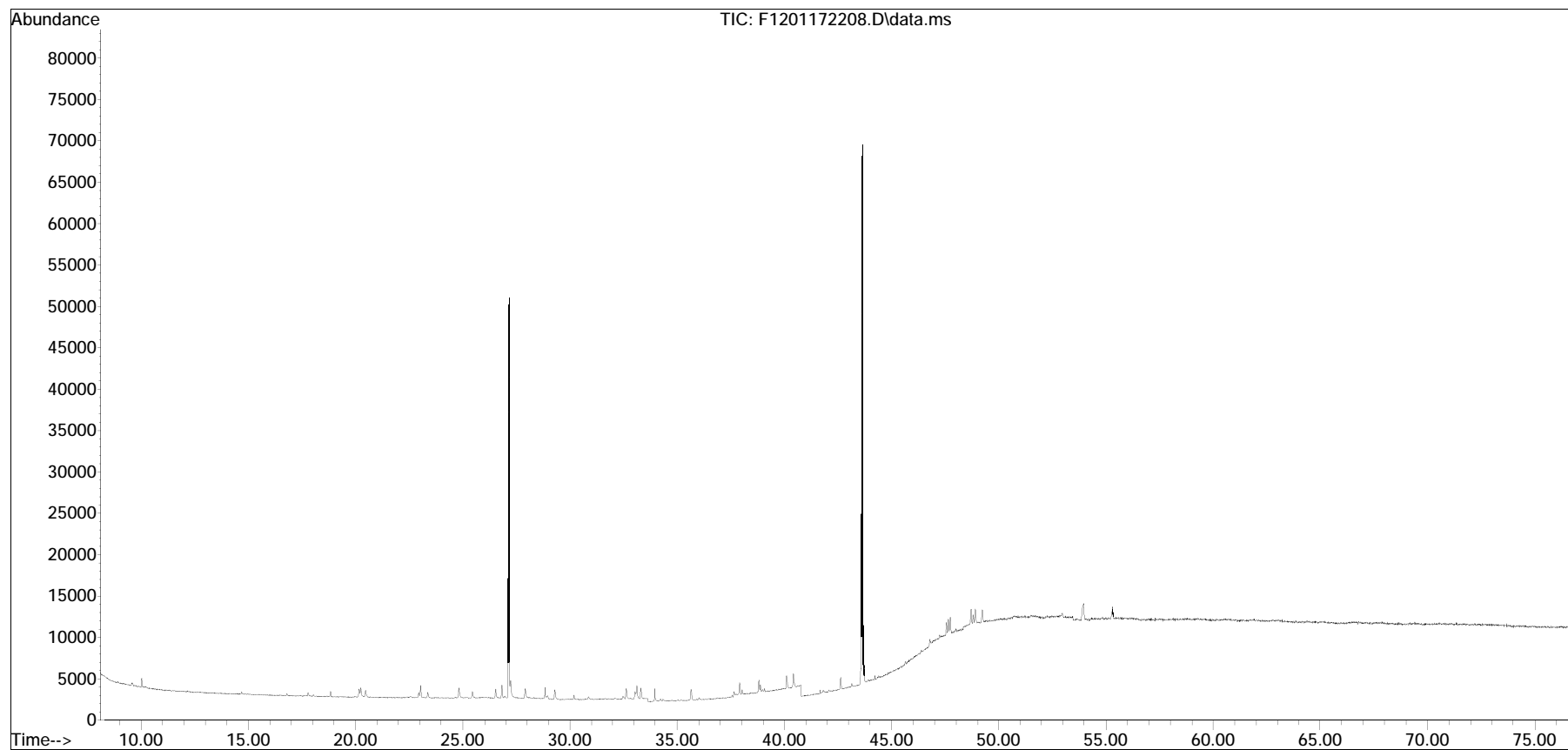


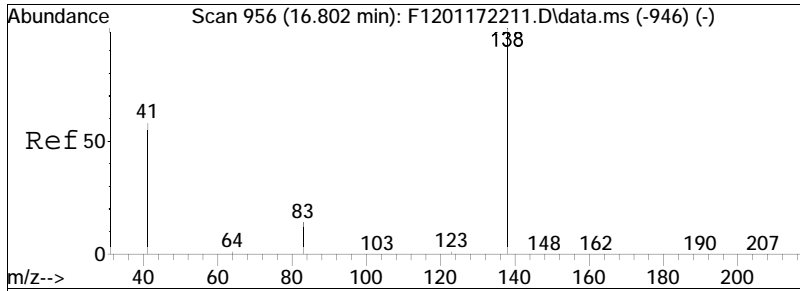
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
Data File : F1201172208.D  
Acq On : 17 Jan 2022 7:07 pm  
Operator : PAH12:CC  
Sample : I1201172201  
Misc : WG1595612,FRBE26  
ALS Vial : 3 Sample Multiplier: 1

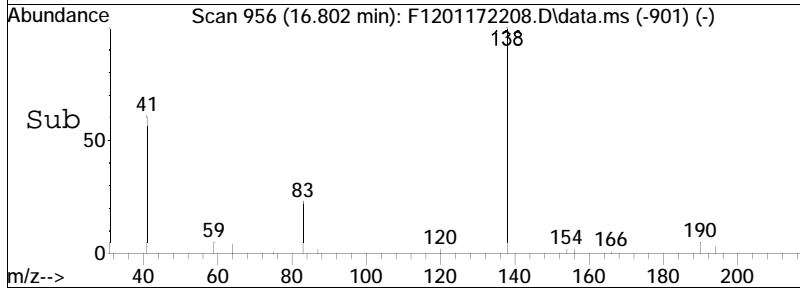
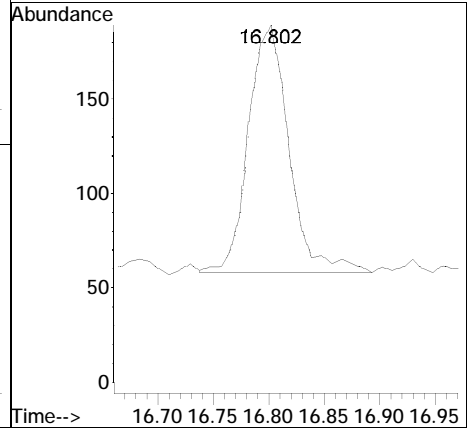
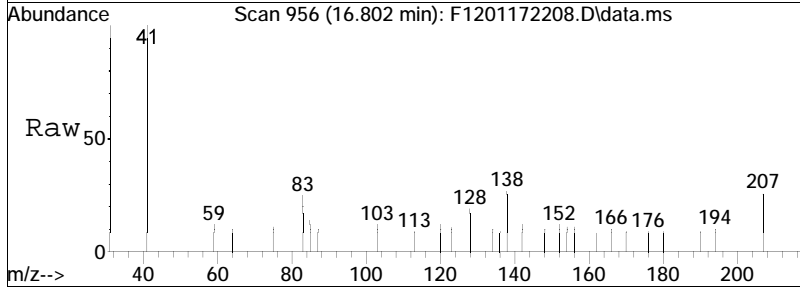
Quant Time: Jan 19 09:29:14 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Tue Jan 18 08:26:02 2022  
Response via : Initial Calibration

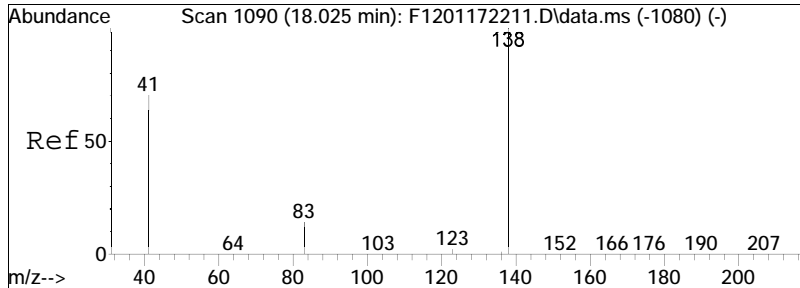
Sub List : ALKPAH\_CCV - CC with five surrogates



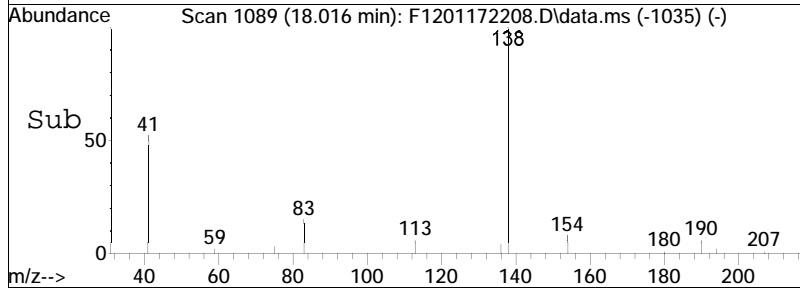
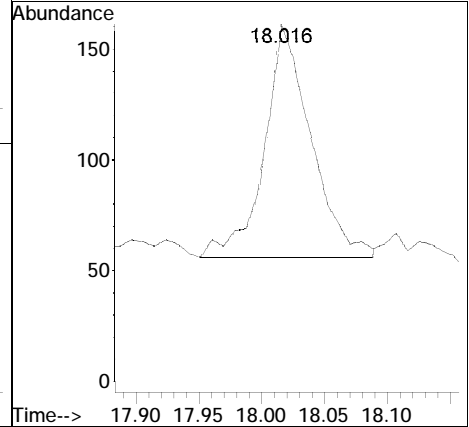
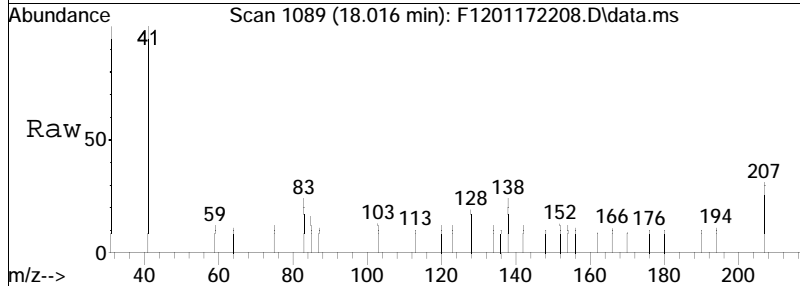


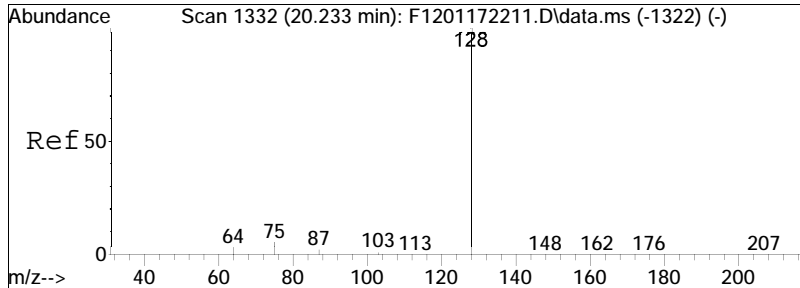
#2  
 trans-Decalin  
 Concen: 5.29 ng/mL  
 RT: 16.802 min Scan# 956  
 Delta R.T. -0.000 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm  
 Tgt Ion:138 Resp: 333



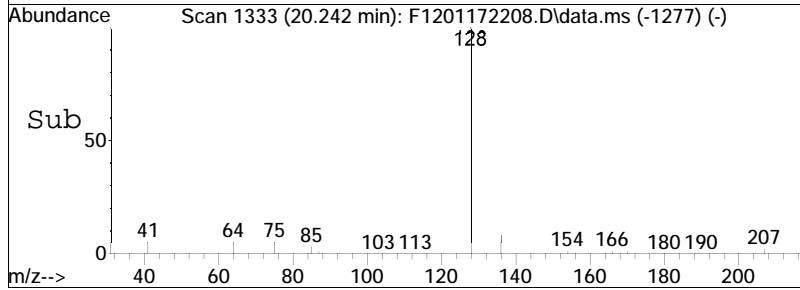
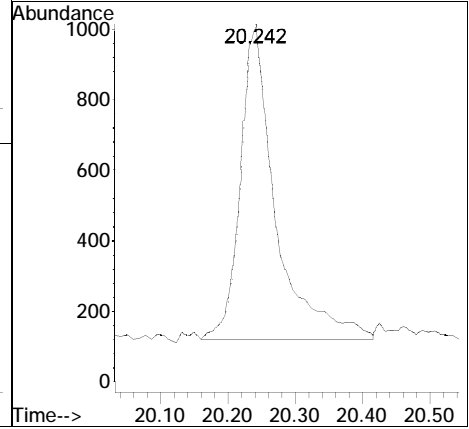
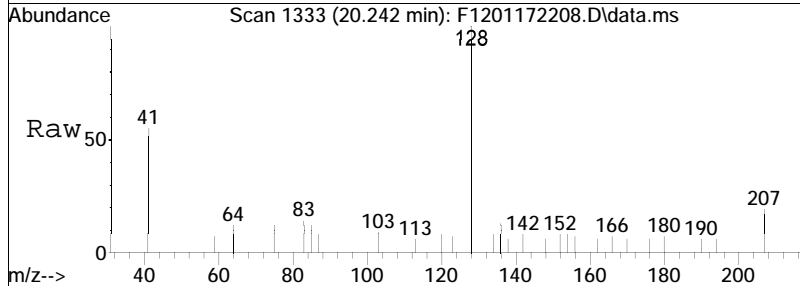


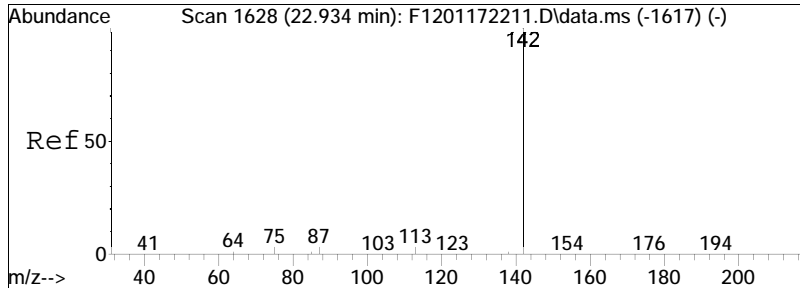
#3  
 cis-Decalin  
 Concen: 5.59 ng/mL  
 RT: 18.016 min Scan# 1089  
 Delta R.T. -0.009 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm  
 Tgt Ion:138 Resp: 270



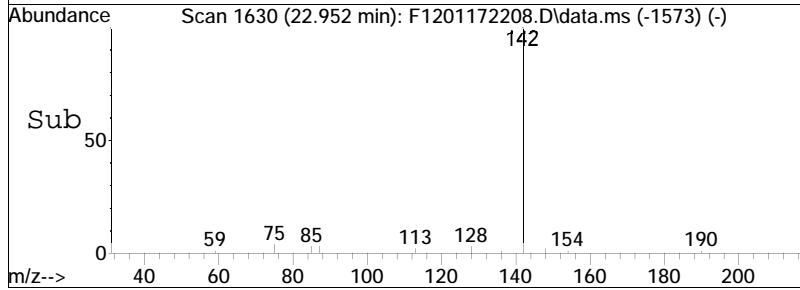
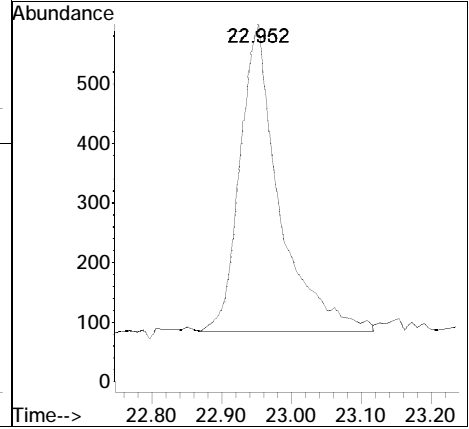
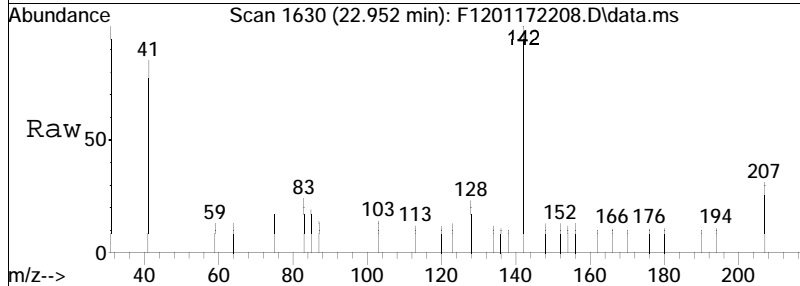


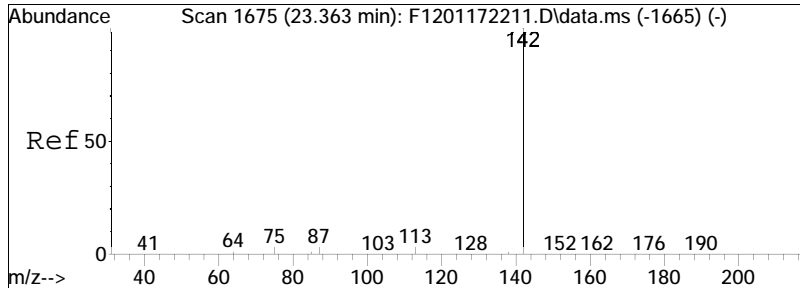
#9  
 Naphthalene  
 Concen: 10.66 ng/mL  
 RT: 20.242 min Scan# 1333  
 Delta R.T. 0.009 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm  
 Tgt Ion:128 Resp: 3217



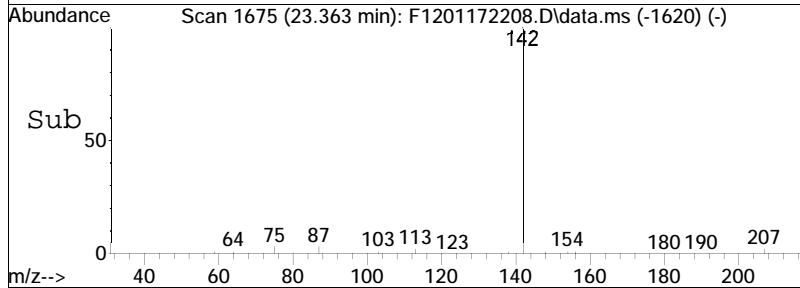
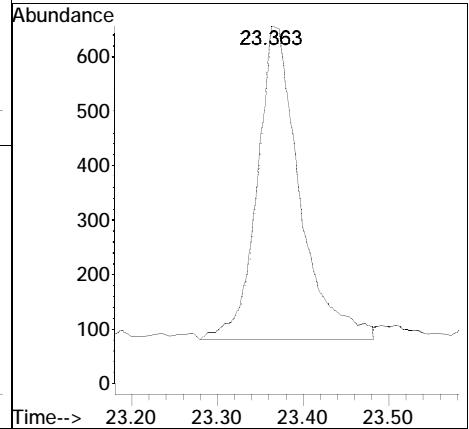
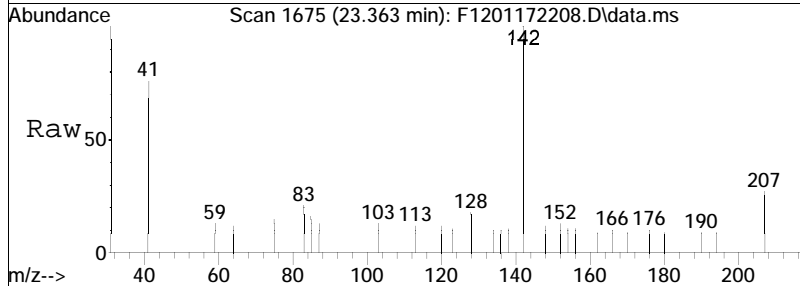


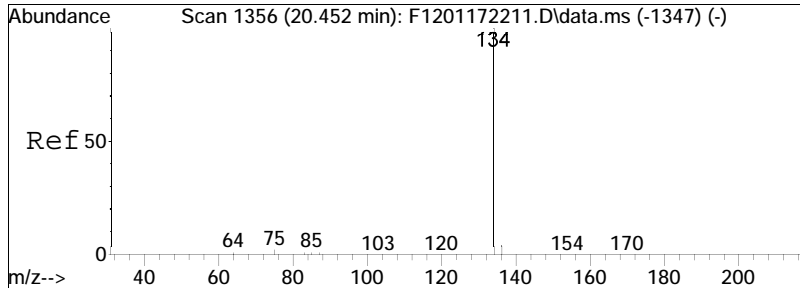
#14  
 2-Methylnaphthalene  
 Concen: 10.24 ng/mL  
 RT: 22.952 min Scan# 1630  
 Delta R.T. 0.018 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm  
 Tgt Ion:142 Resp: 2000



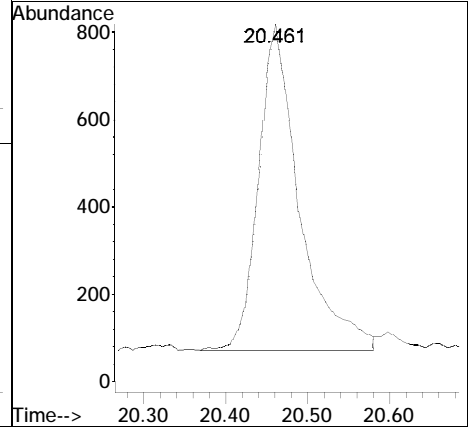
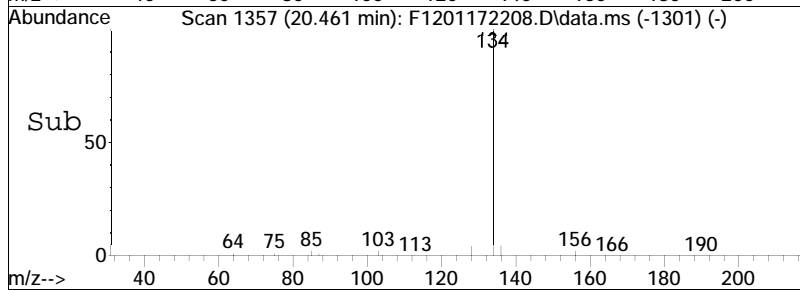
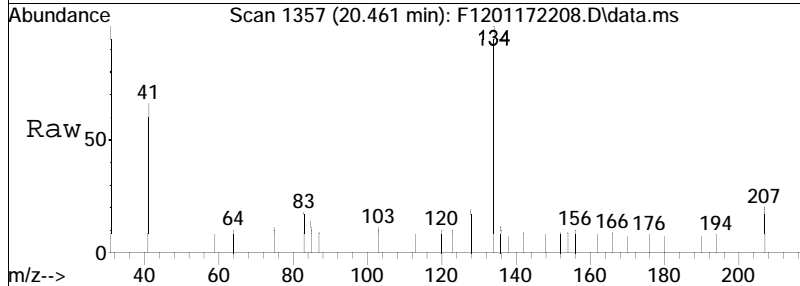


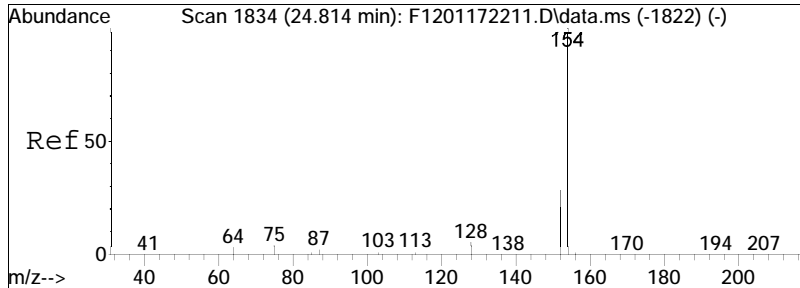
#15  
 1-Methylnaphthalene  
 Concen: 10.57 ng/mL  
 RT: 23.363 min Scan# 1675  
 Delta R.T. -0.000 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm  
 Tgt Ion:142 Resp: 1971



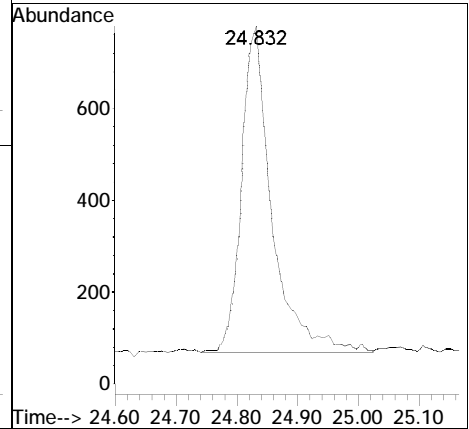
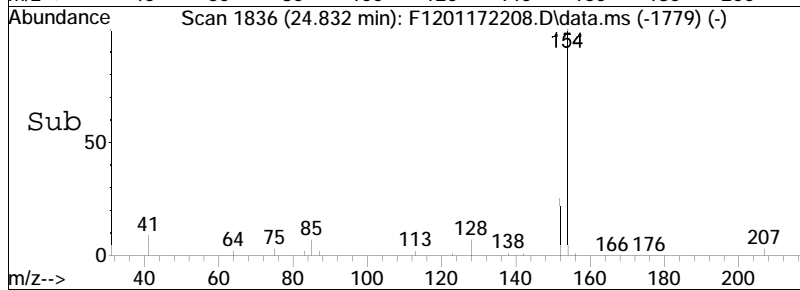
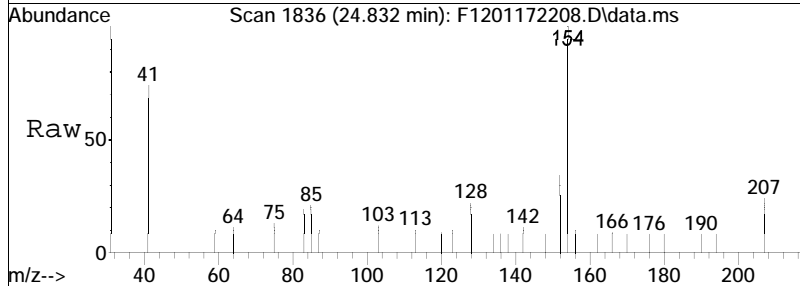


#16  
 Benzo[thiophene]  
 Concen: 10.17 ng/mL  
 RT: 20.461 min Scan# 1357  
 Delta R.T. 0.009 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm  
 Tgt Ion:134 Resp: 2560

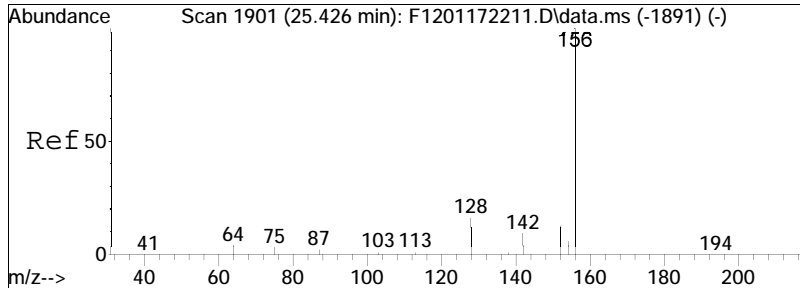




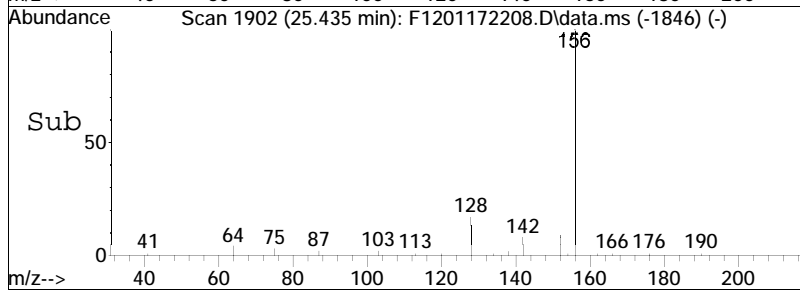
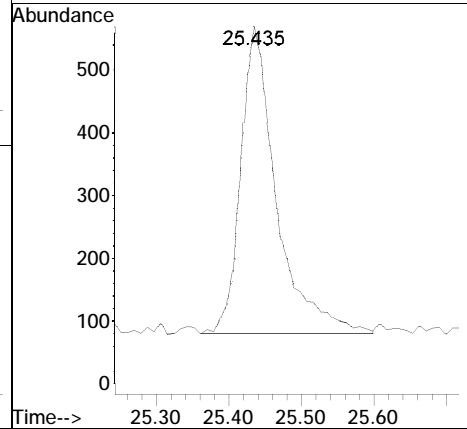
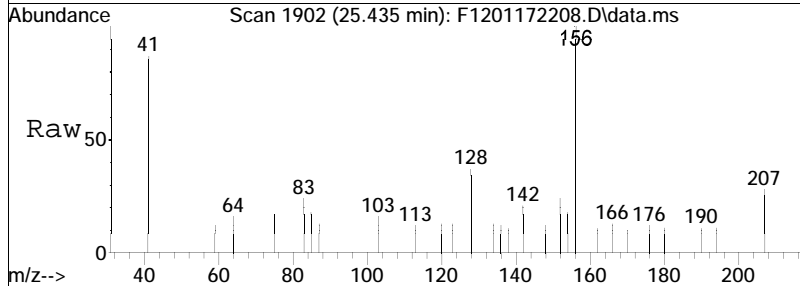
#21  
 Biphenyl  
 Concen: 10.41 ng/mL  
 RT: 24.832 min Scan# 1836  
 Delta R.T. 0.018 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm  
 Tgt Ion:154 Resp: 2449

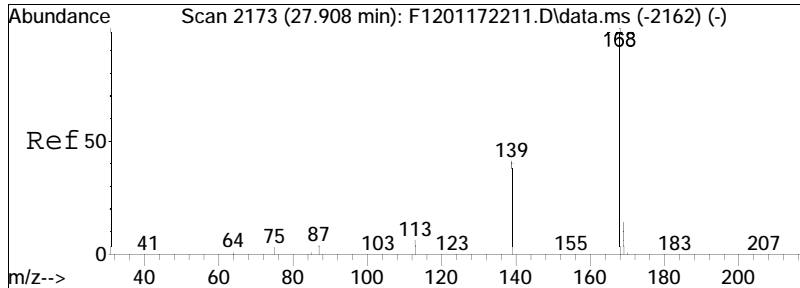






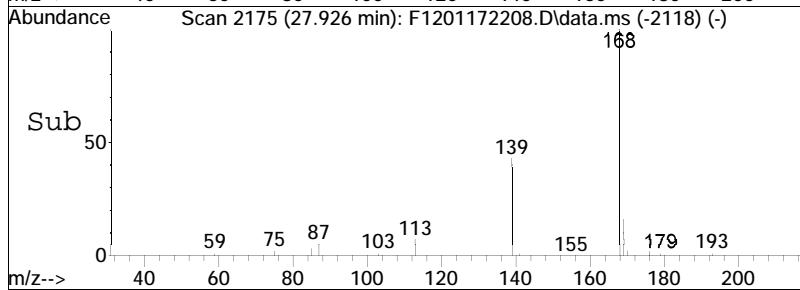
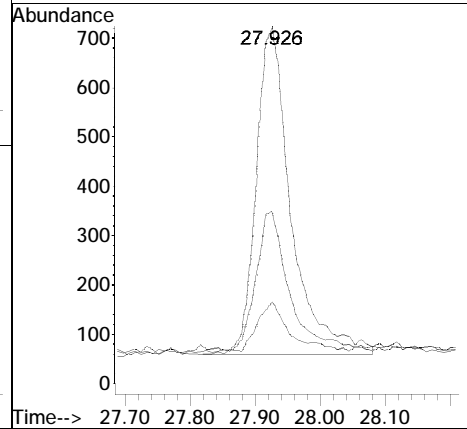
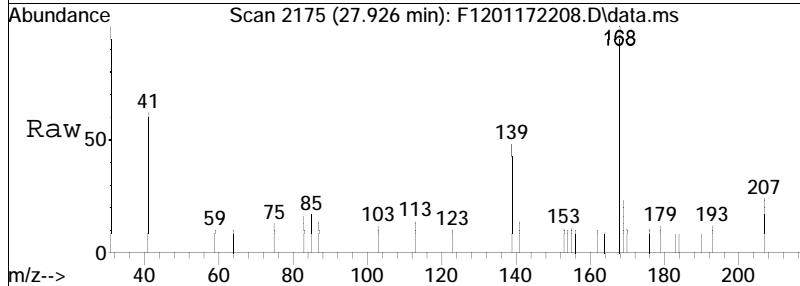
#22  
 2,6-Dimethylnaphthalene  
 Concen: 10.31 ng/mL  
 RT: 25.435 min Scan# 1902  
 Delta R.T. 0.009 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm  
 Tgt Ion:156 Resp: 1665

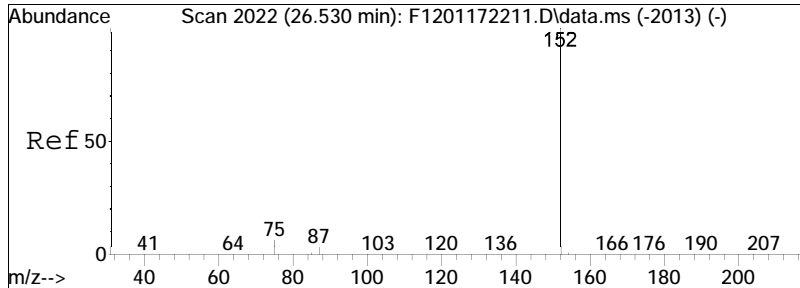




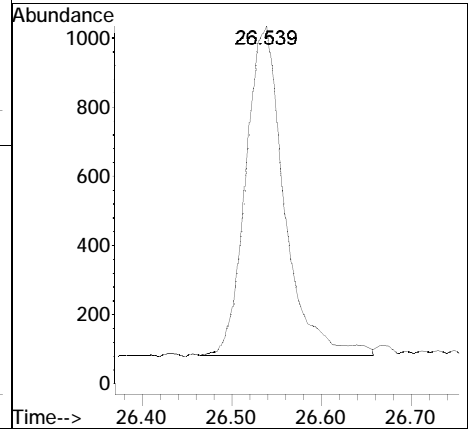
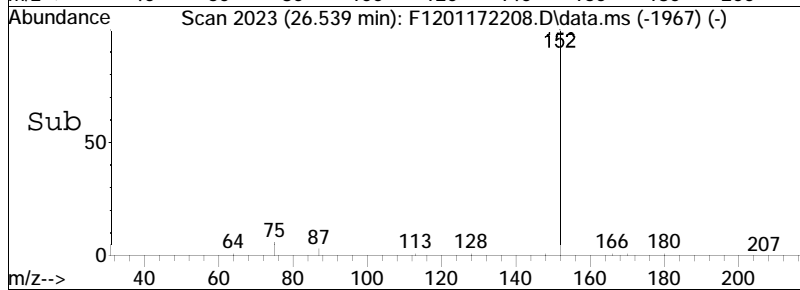
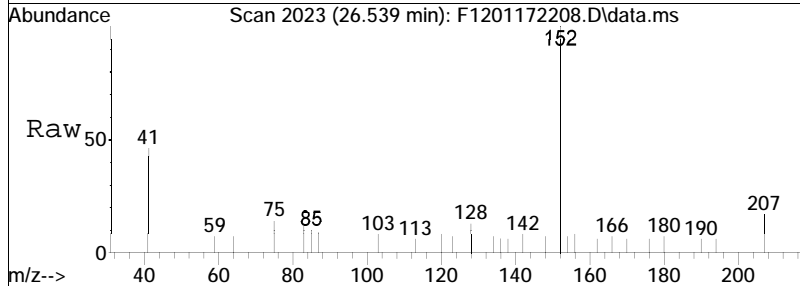
#23  
 Dibenzofuran  
 Concen: 9.50 ng/mL  
 RT: 27.926 min Scan# 2175  
 Delta R.T. 0.018 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

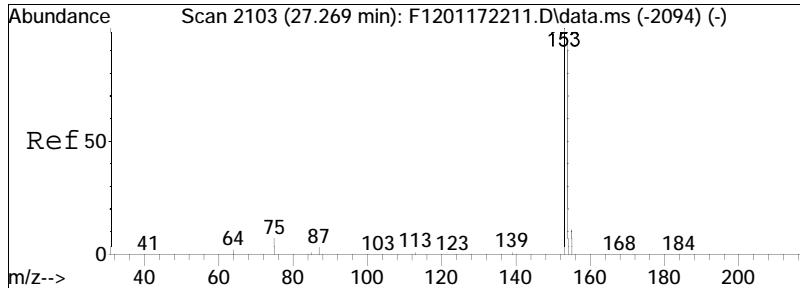
Tgt Ion	Ratio	Lower	Upper
168	100		
139	41.6	29.0	53.8
169	13.7	9.9	18.5





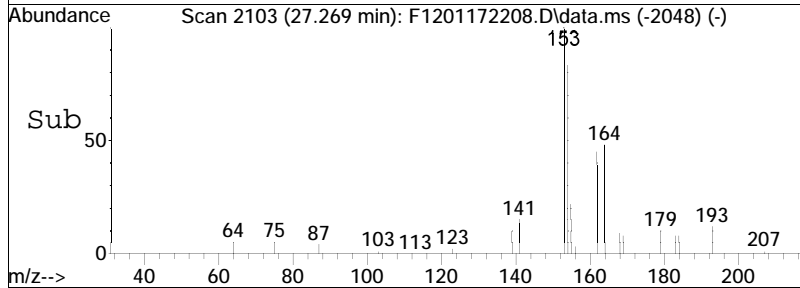
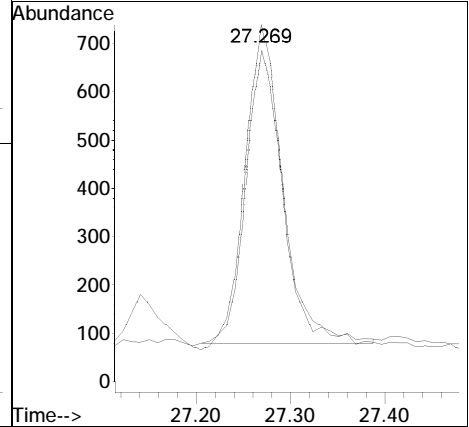
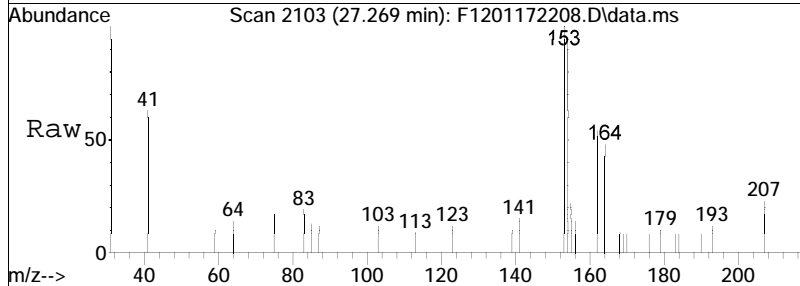
#24  
 Acenaphthylene  
 Concen: 10.86 ng/mL  
 RT: 26.539 min Scan# 2023  
 Delta R.T. 0.009 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm  
 Tgt Ion:152 Resp: 2820

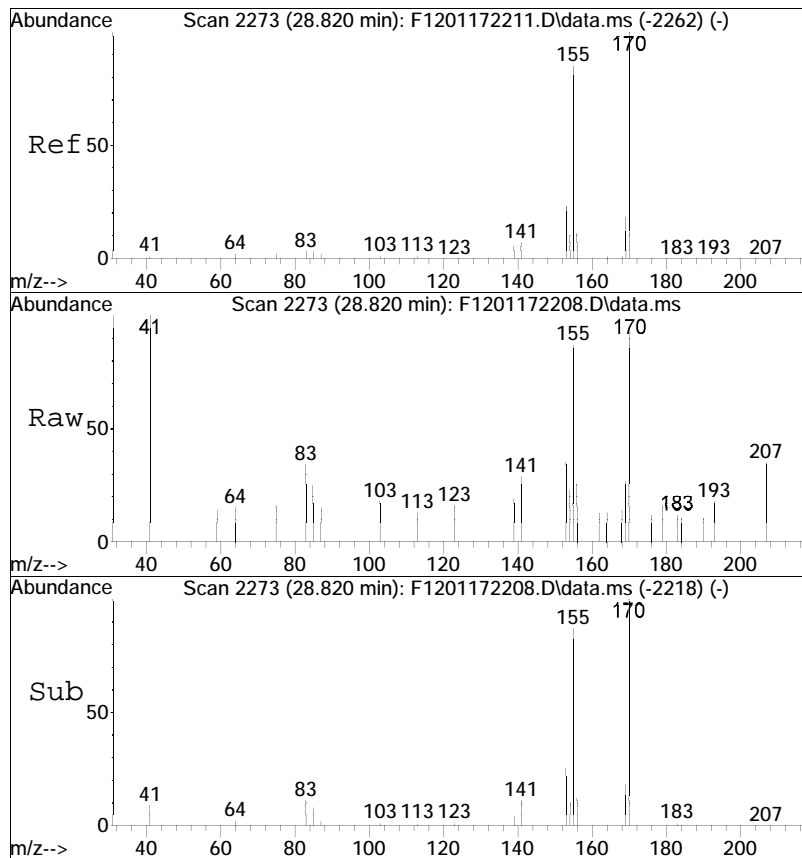




#25  
 Acenaphthene  
 Concen: 10.06 ng/mL  
 RT: 27.269 min Scan# 2103  
 Delta R.T. -0.000 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

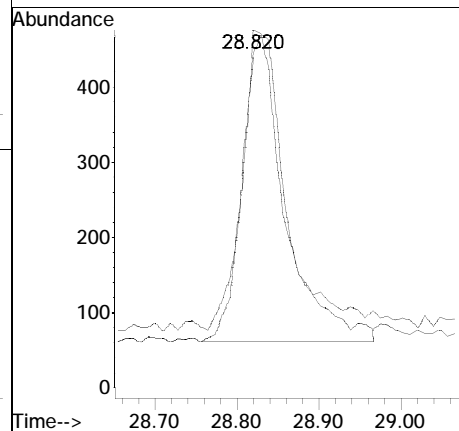
Tgt Ion: 153 Resp: 1807  
 Ion Ratio Lower Upper  
 153 100  
 154 99.1 64.8 120.4

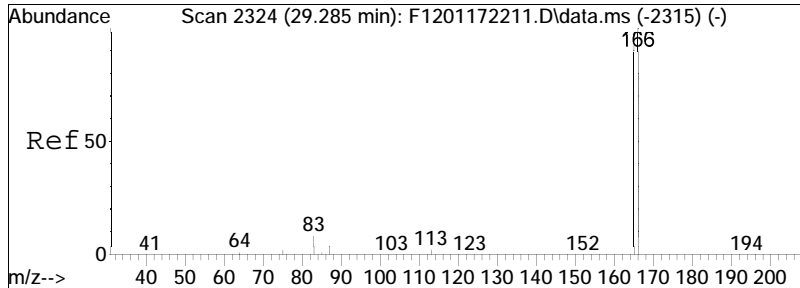




#26  
 2,3,5-Trimethylnaphthalene  
 Concen: 10.65 ng/mL  
 RT: 28.820 min Scan# 2273  
 Delta R.T. -0.000 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

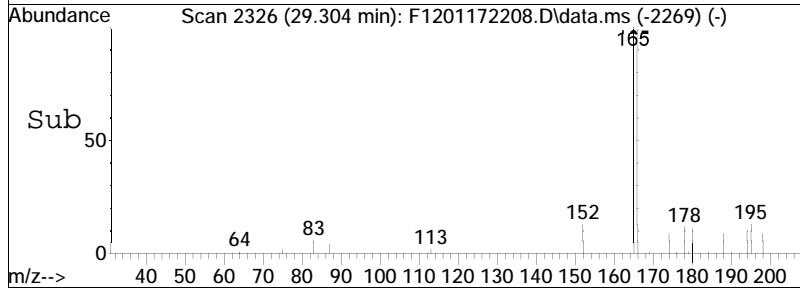
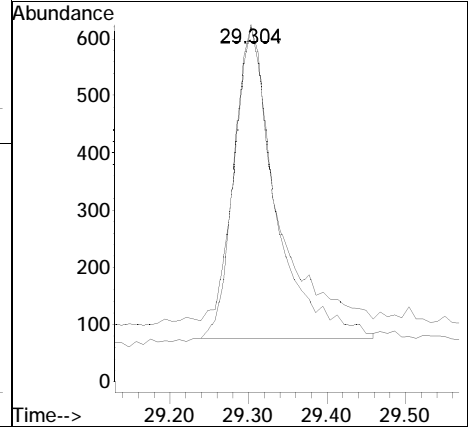
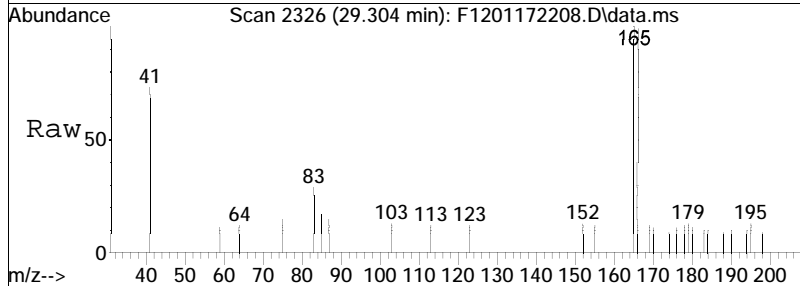
Tgt Ion	Resp	Lower	Upper
170	1565		
170	100		
155	92.3	59.3	110.1

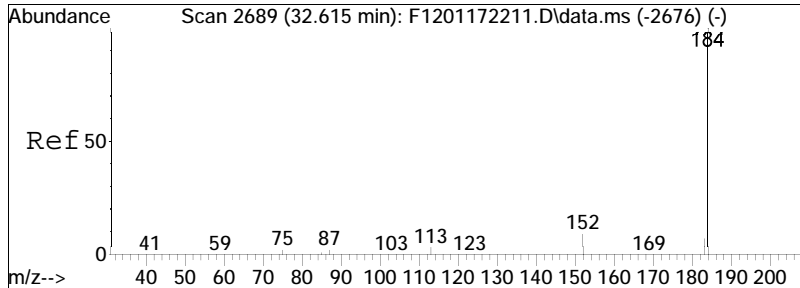




#27  
 Fluorene  
 Concen: 10.10 ng/mL  
 RT: 29.304 min Scan# 2326  
 Delta R.T. 0.018 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

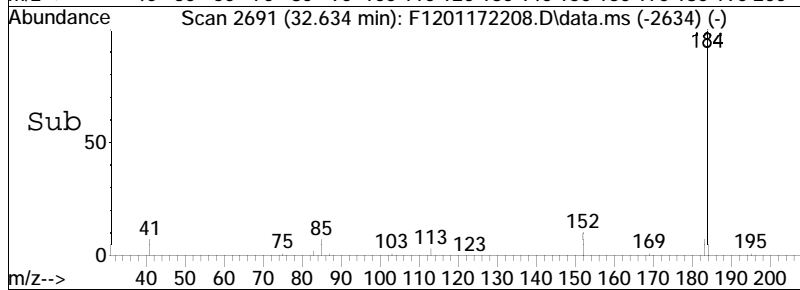
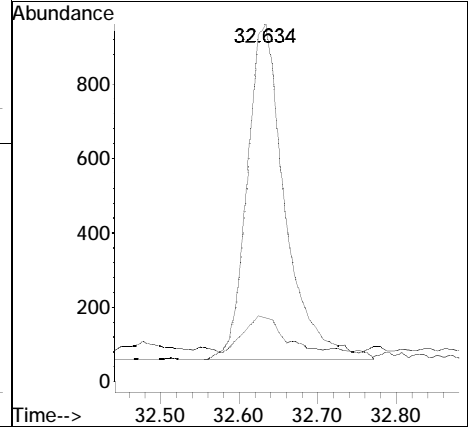
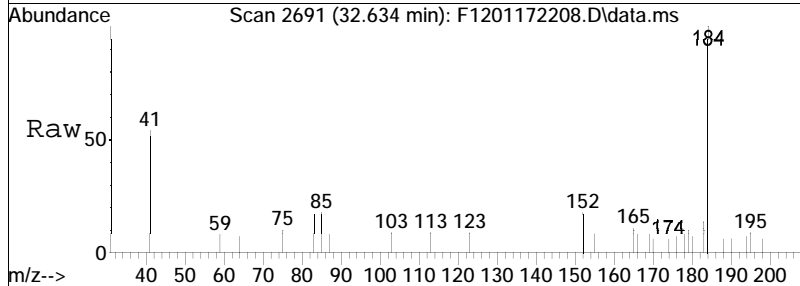
Tgt Ion	Resp	Lower	Upper
166	100		
165	93.6	66.0	122.6

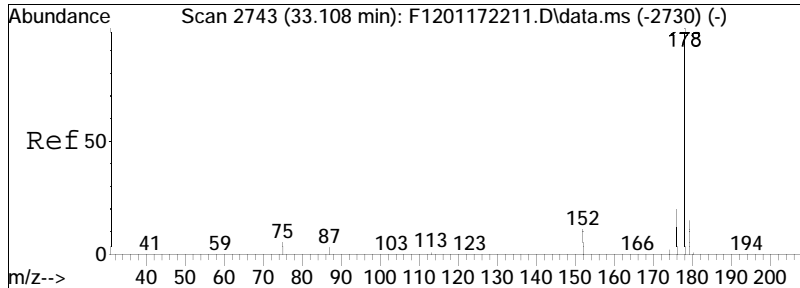




#31  
 Dibenzothiophene  
 Concen: 11.51 ng/mL  
 RT: 32.634 min Scan# 2691  
 Delta R.T. 0.018 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

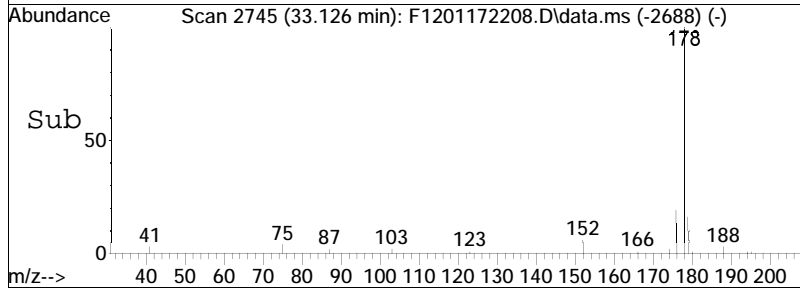
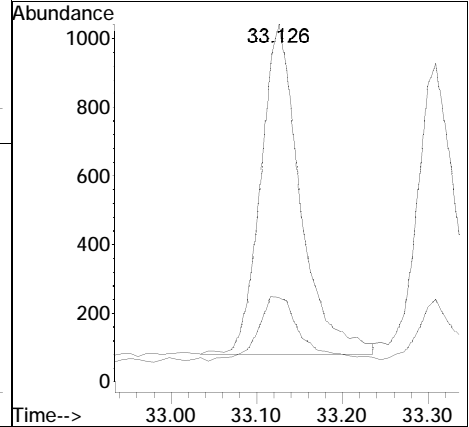
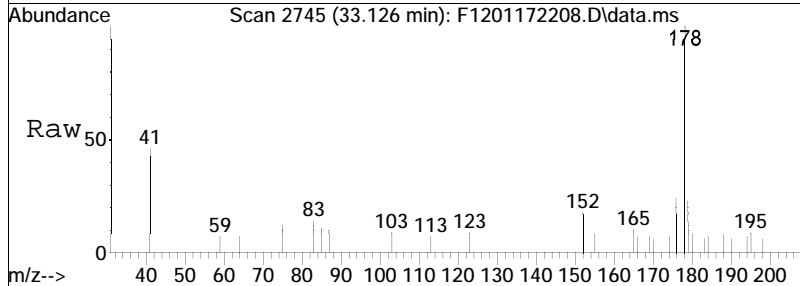
Tgt Ion	Resp	Lower	Upper
184	100		
152	11.6	6.6	12.2



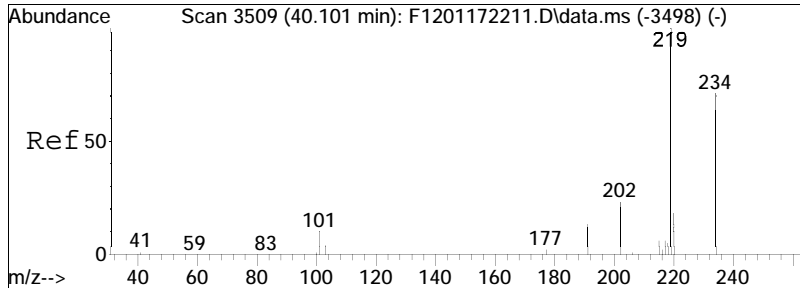


#41  
 Phenanthrene  
 Concen: 10.80 ng/mL  
 RT: 33.126 min Scan# 2745  
 Delta R.T. 0.018 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

Tgt Ion	Resp	Lower	Upper
178	3092	100	
176	21.8	14.0	26.0

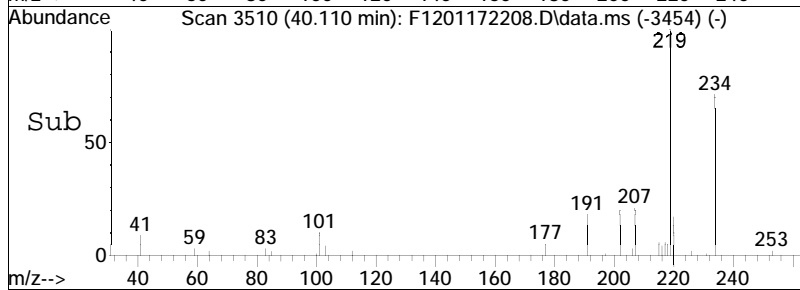
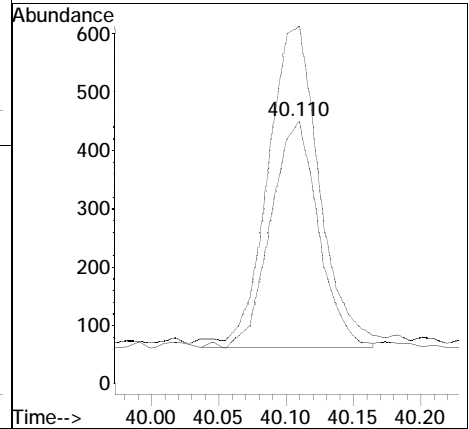
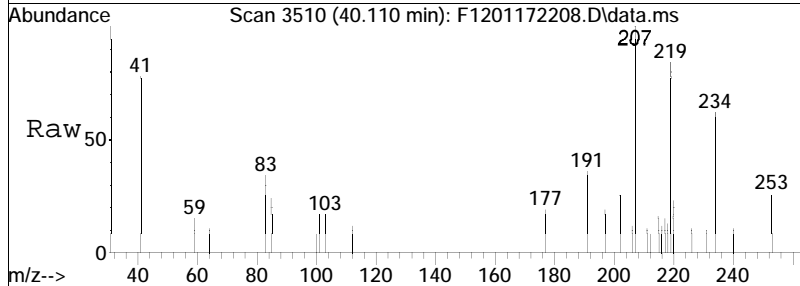


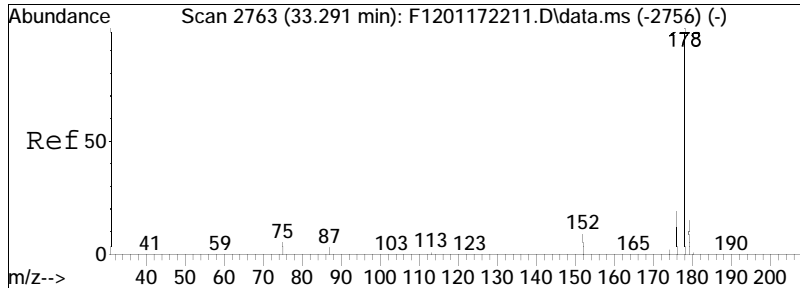




#52  
 Retene  
 Concen: 11.11 ng/mL  
 RT: 40.110 min Scan# 3510  
 Delta R.T. 0.009 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

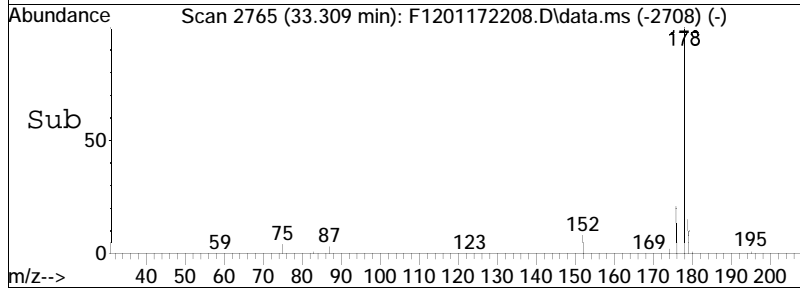
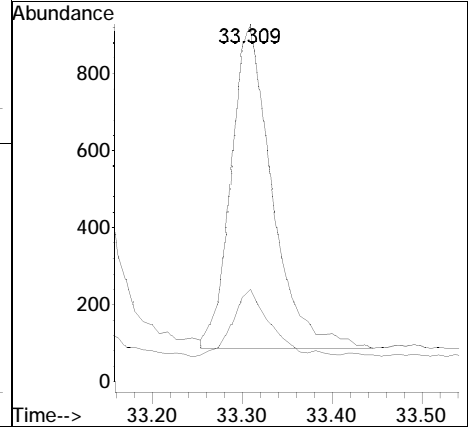
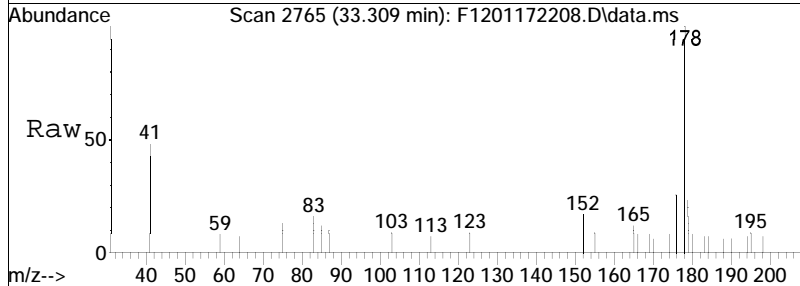
Tgt Ion: 234 Resp: 940  
 Ion Ratio Lower Upper  
 234 100  
 219 154.8 98.6 183.0

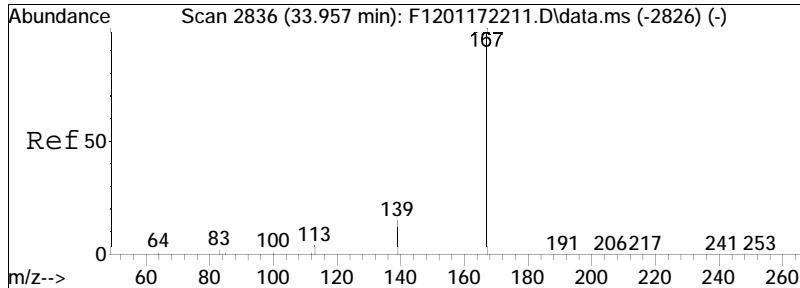




#53  
 Anthracene  
 Concen: 10.80 ng/mL  
 RT: 33.309 min Scan# 2765  
 Delta R.T. 0.018 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

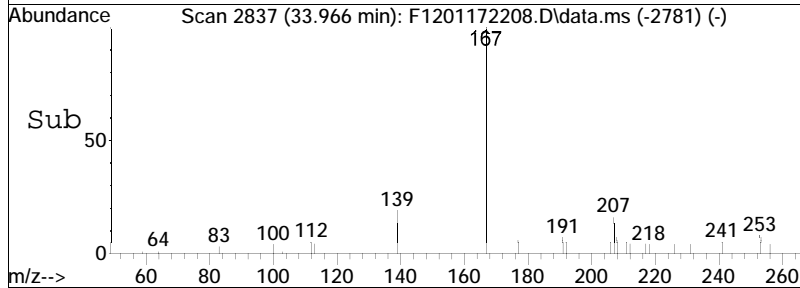
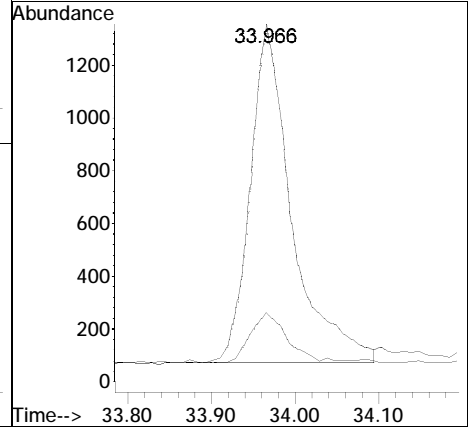
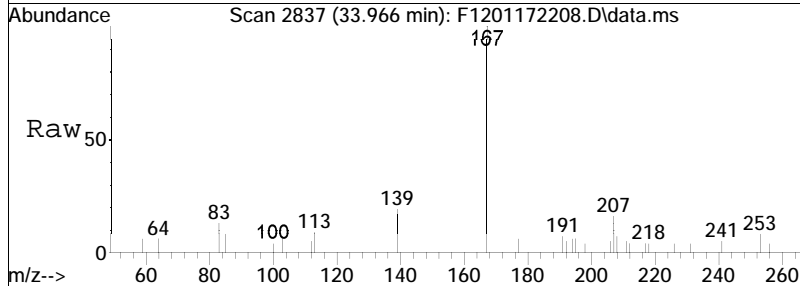
Tgt Ion	Resp	Lower	Upper
178	100		
176	17.8	13.6	25.4

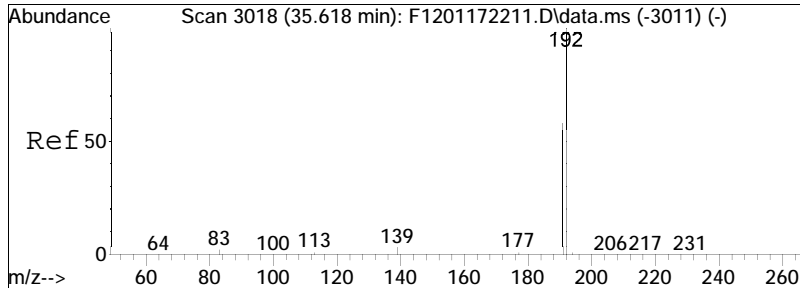




#54  
 Carbazole  
 Concen: 17.77 ng/mL M4  
 RT: 33.966 min Scan# 2837  
 Delta R.T. 0.009 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

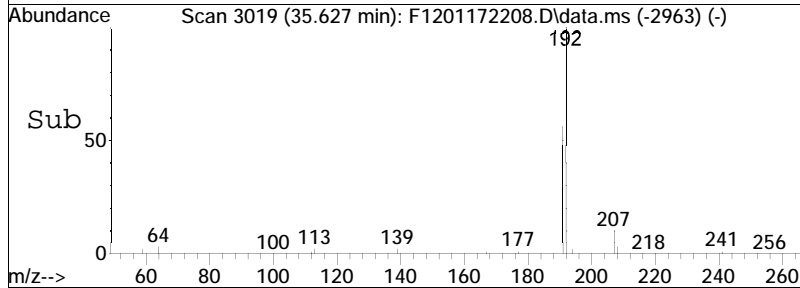
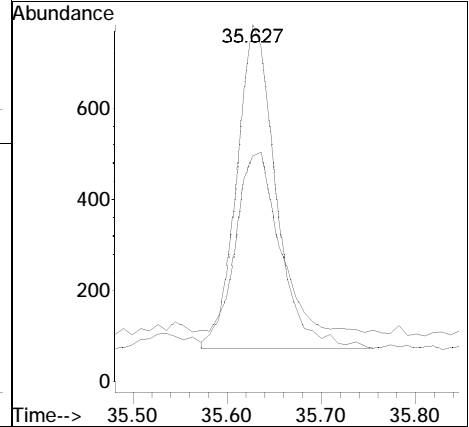
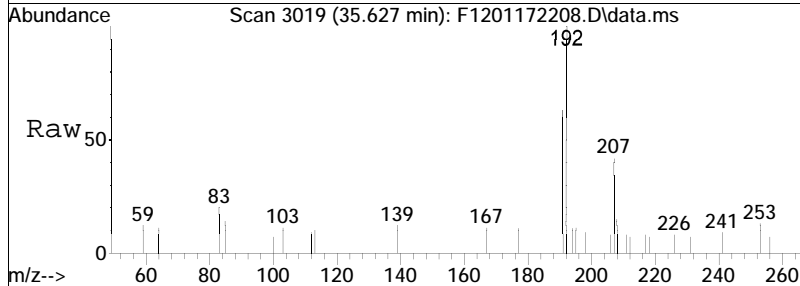
Tgt Ion: 167 Resp: 4384  
 Ion Ratio Lower Upper  
 167 100  
 139 12.8 10.3 19.1

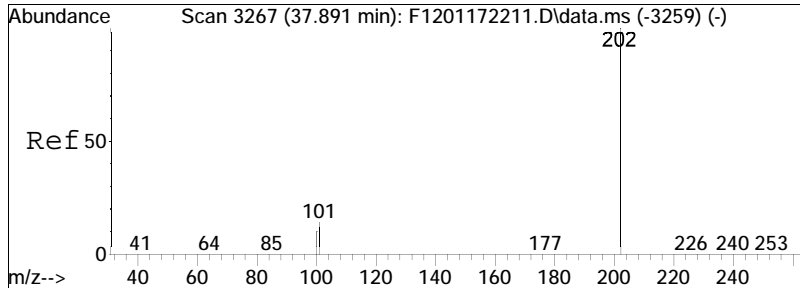




#55  
 1-Methylphenanthrene  
 Concen: 10.72 ng/mL  
 RT: 35.627 min Scan# 3019  
 Delta R.T. 0.009 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

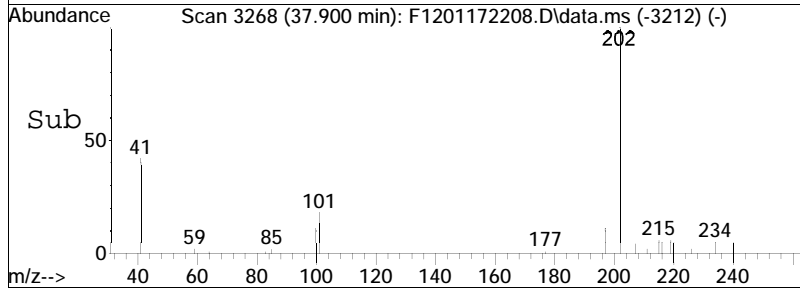
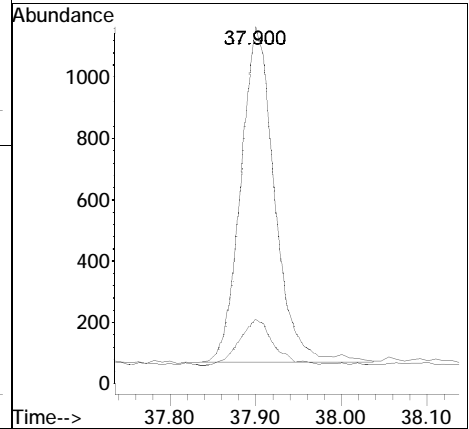
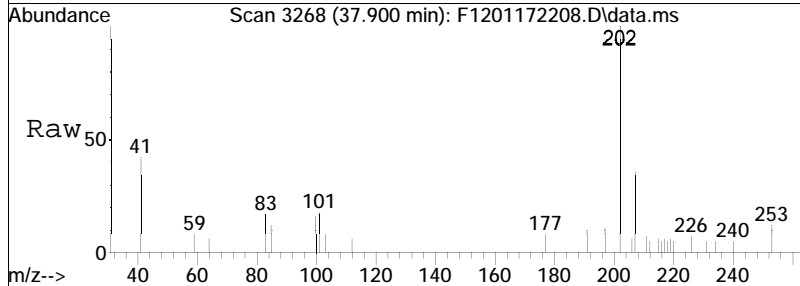
Tgt Ion: 192 Resp: 2049  
 Ion Ratio Lower Upper  
 192 100  
 191 61.2 40.7 75.5

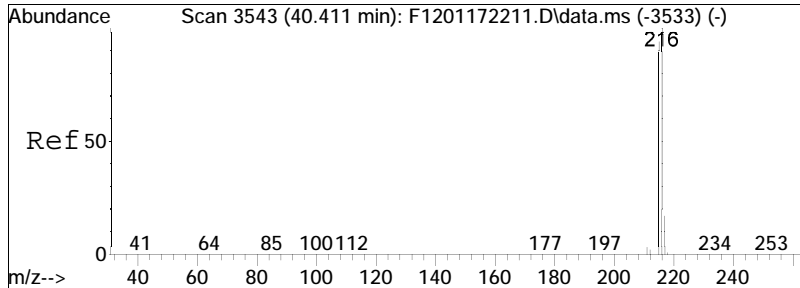




#56  
 Fluoranthene  
 Concen: 10.85 ng/mL  
 RT: 37.900 min Scan# 3268  
 Delta R.T. 0.009 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

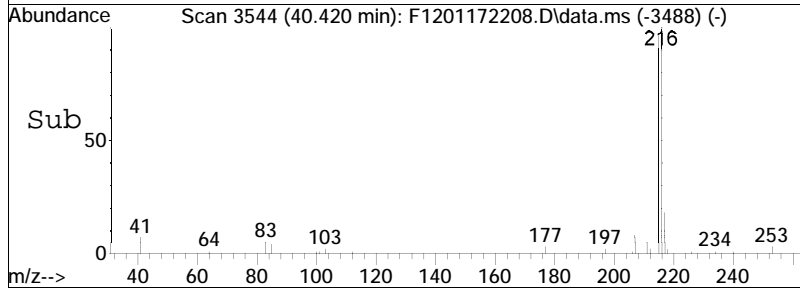
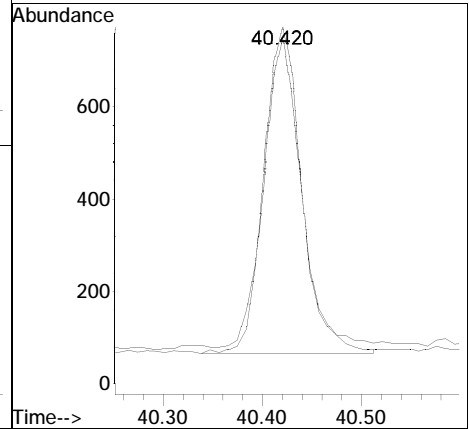
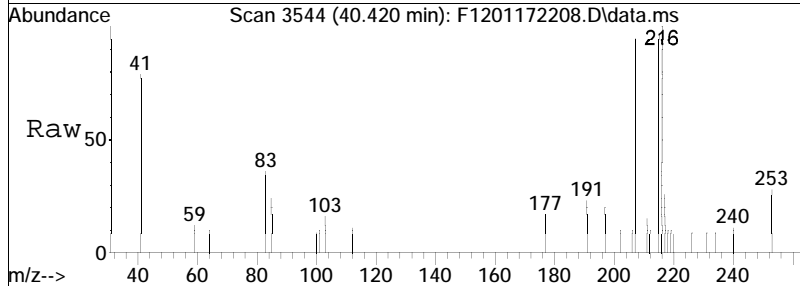
Tgt Ion	Ratio	Lower	Upper
202	100		
101	14.0	9.7	17.9

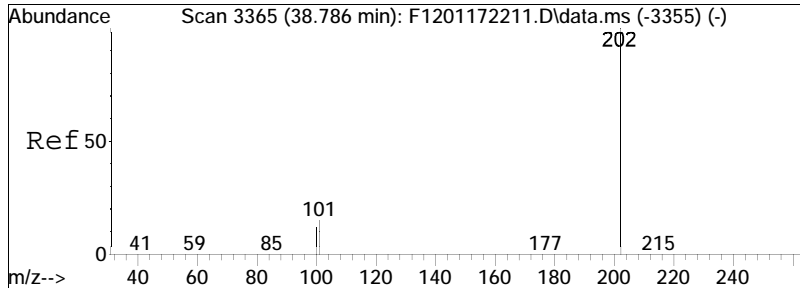




#57  
 Benzo(b)fluorene  
 Concen: 12.01 ng/mL  
 RT: 40.420 min Scan# 3544  
 Delta R.T. 0.009 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

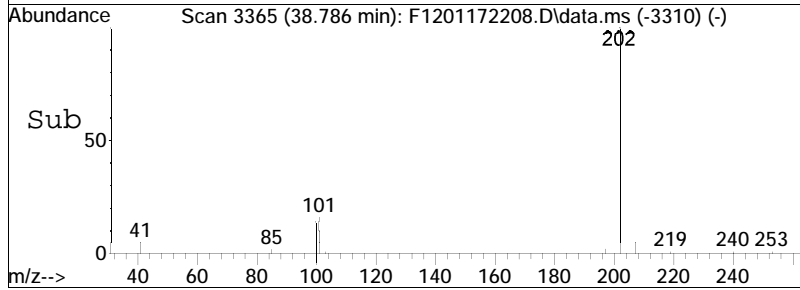
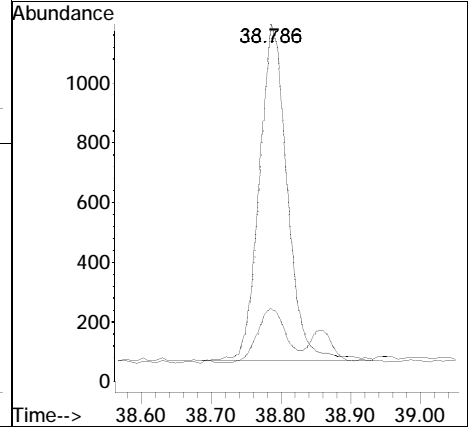
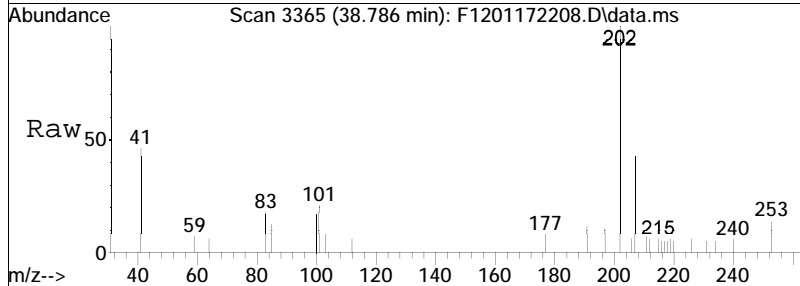
Tgt Ion: 216 Resp: 1886  
 Ion Ratio Lower Upper  
 216 100  
 215 93.2 66.1 122.7

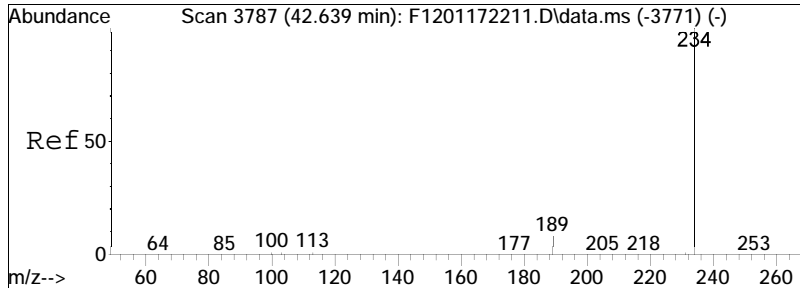




#59  
 Pyrene  
 Concen: 10.99 ng/mL  
 RT: 38.786 min Scan# 3365  
 Delta R.T. -0.000 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

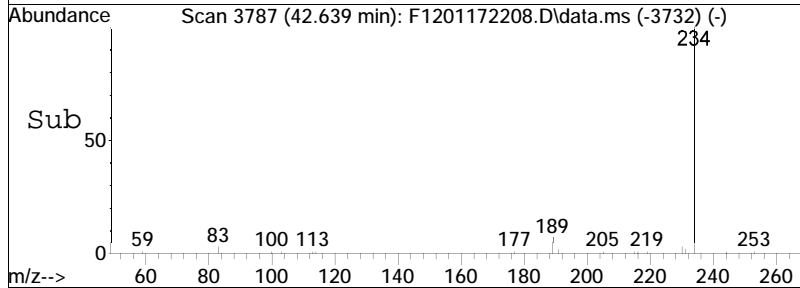
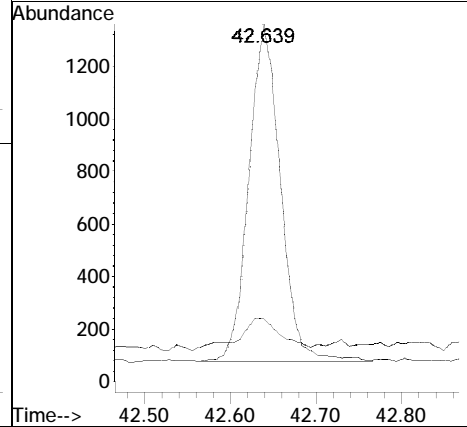
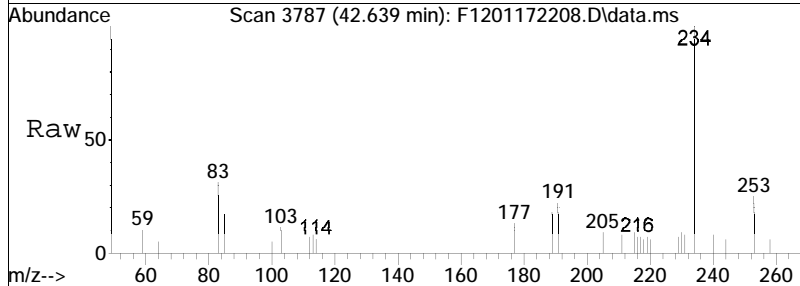
Tgt Ion	Ratio	Lower	Upper
202	100		
101	16.9	10.9	20.2



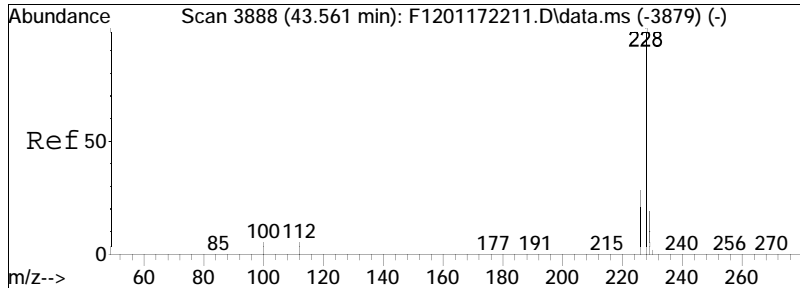


#67  
 Naphthobenzothiophene-2,1-D  
 Concen: 11.95 ng/mL  
 RT: 42.639 min Scan# 3787  
 Delta R.T. -0.000 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

Tgt Ion	Resp	Lower	Upper
234	100		
189	12.5	5.4	10.0#

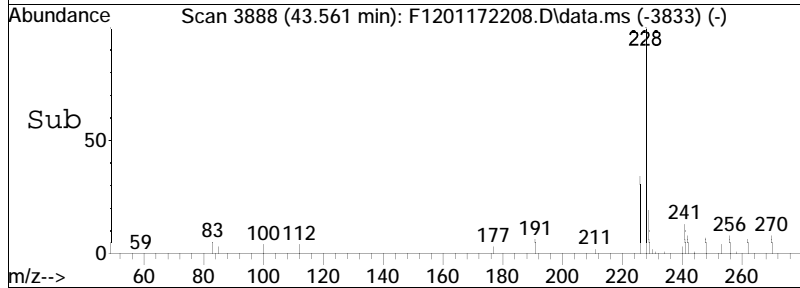
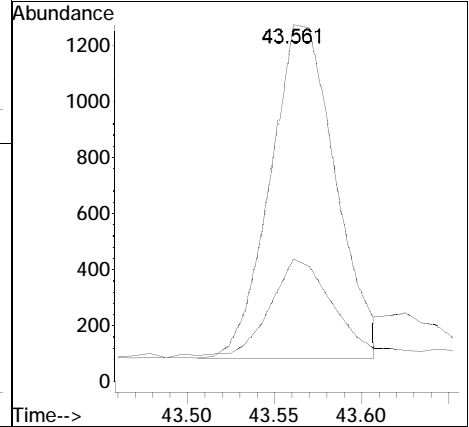
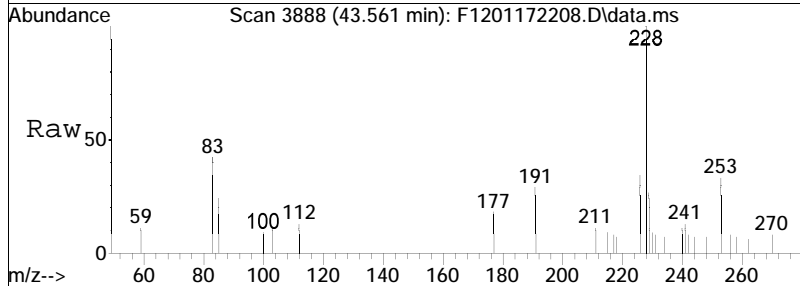


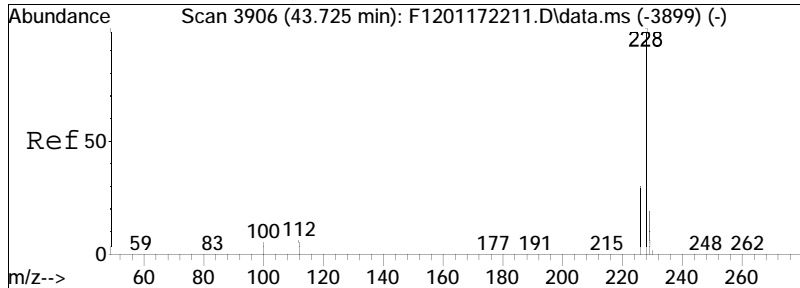




#75  
 Benz[a]anthracene  
 Concen: 10.92 ng/mL M4  
 RT: 43.561 min Scan# 3888  
 Delta R.T. -0.000 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

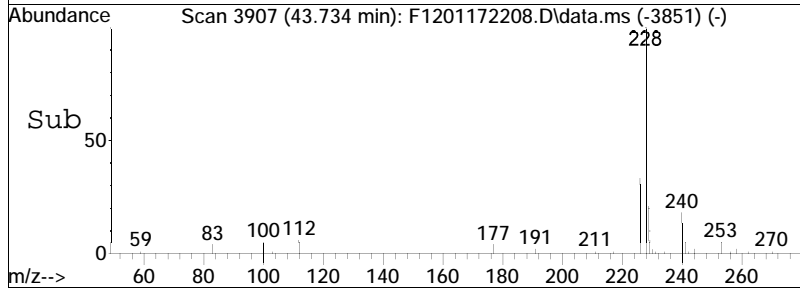
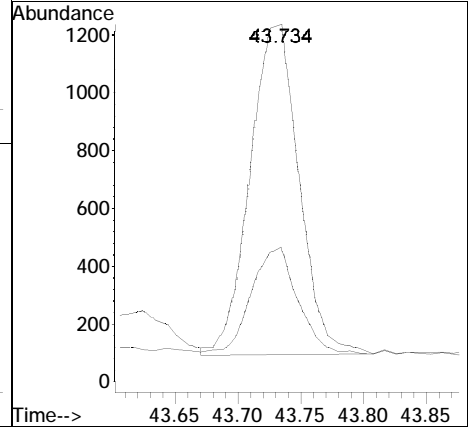
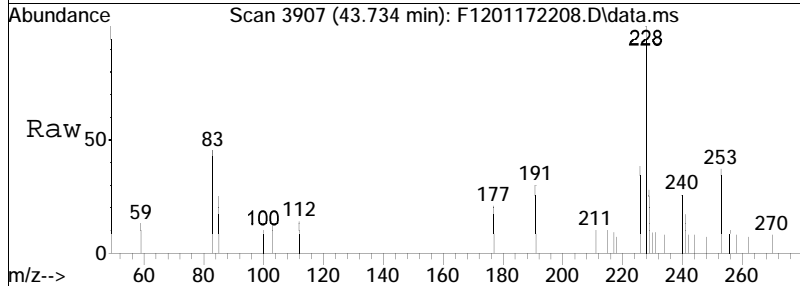
Tgt Ion	Resp	Lower	Upper
228	100		
226	26.6	19.3	35.9

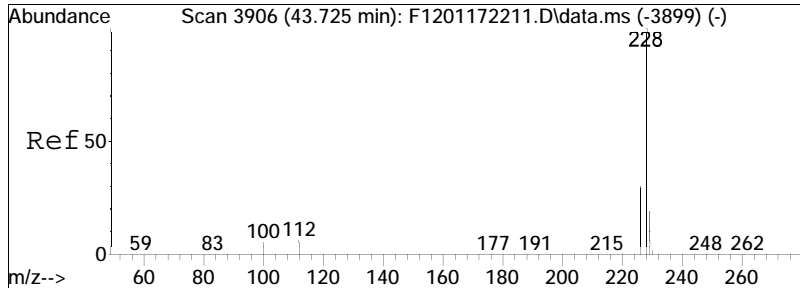




#76  
 Chrysene  
 Concen: 9.92 ng/mL  
 RT: 43.734 min Scan# 3907  
 Delta R.T. 0.009 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

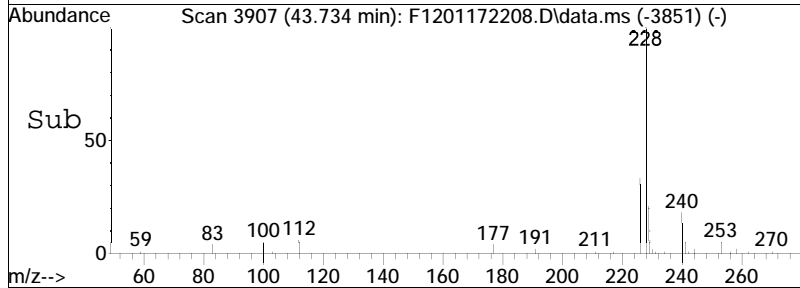
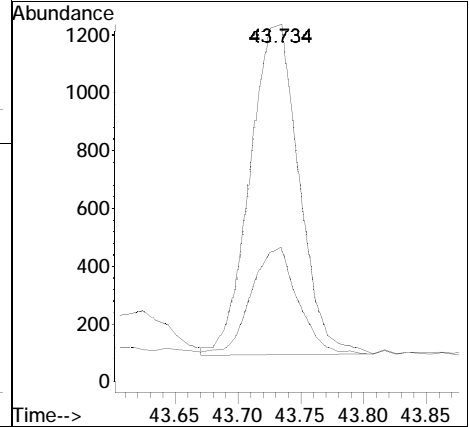
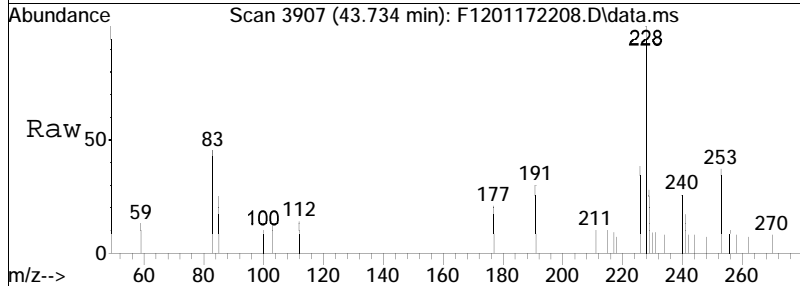
Tgt Ion: 228 Resp: 3086  
 Ion Ratio Lower Upper  
 228 100  
 226 31.3 20.9 38.9

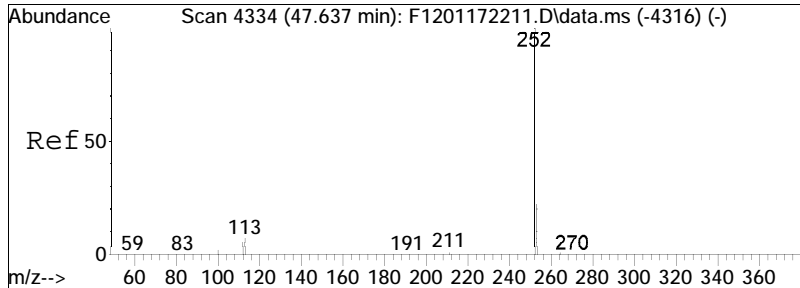




#77  
 Chrysene/Triphenylene  
 Concen: 9.92 ng/mL  
 RT: 43.734 min Scan# 3907  
 Delta R.T. 0.009 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

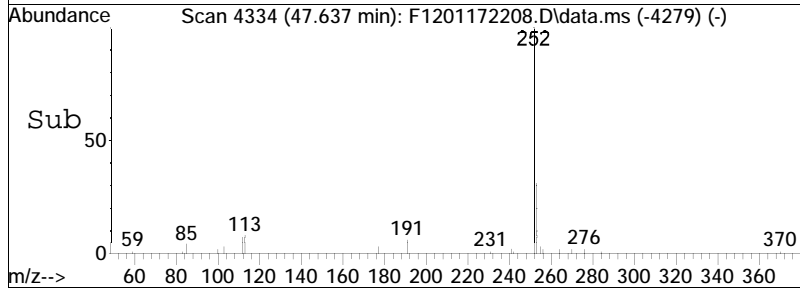
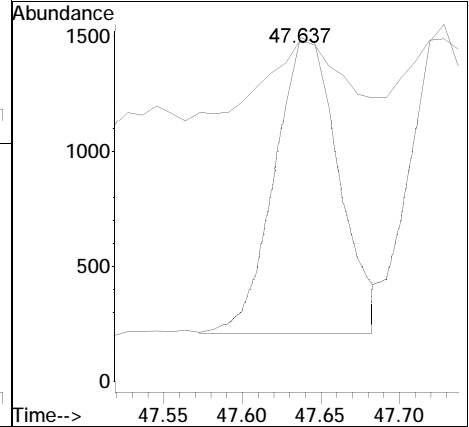
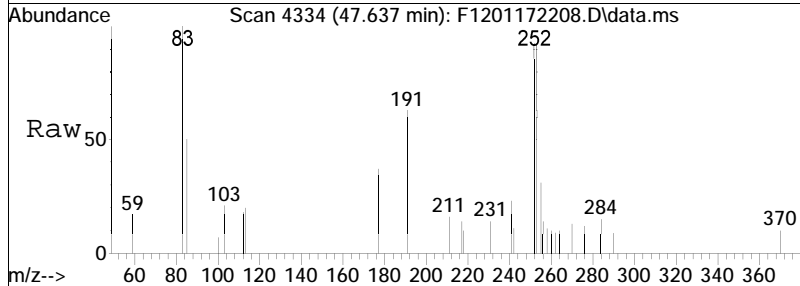
Tgt Ion	Resp	Lower	Upper
228	100		
226	31.3	20.9	38.9

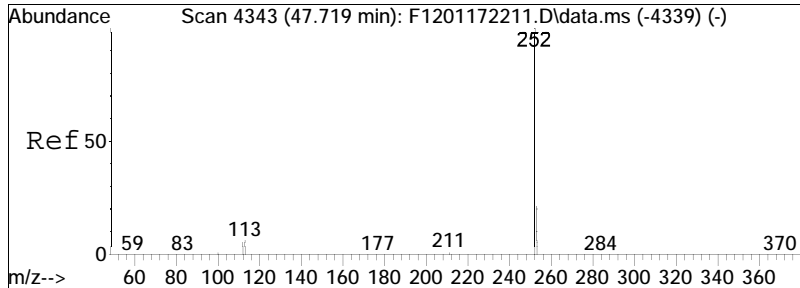




#85  
 Benzo[b]fluoranthene  
 Concen: 10.88 ng/mL M3  
 RT: 47.637 min Scan# 4334  
 Delta R.T. -0.000 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

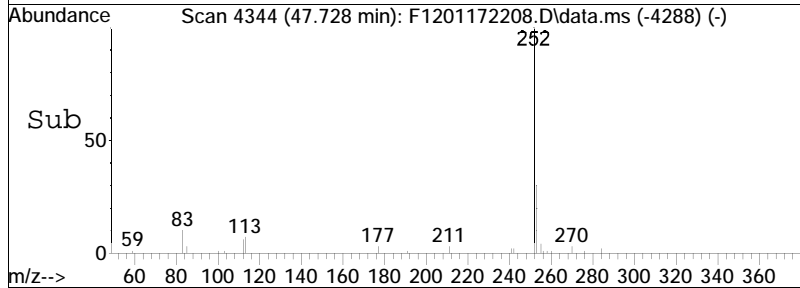
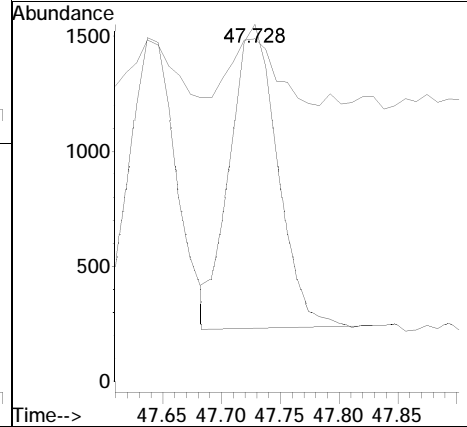
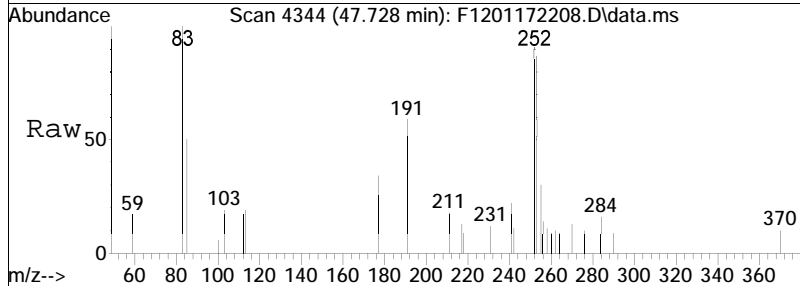
Tgt Ion	Resp	Lower	Upper
252	100		
253	23.6	16.0	29.6

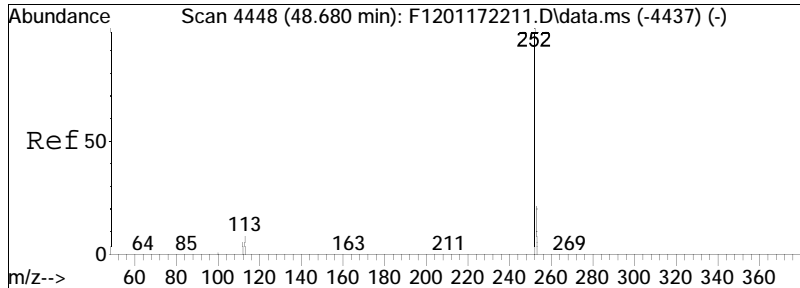




#86  
 Benzo[j]+[k]fluoranthene  
 Concen: 10.41 ng/mL  
 RT: 47.728 min Scan# 4344  
 Delta R.T. 0.009 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

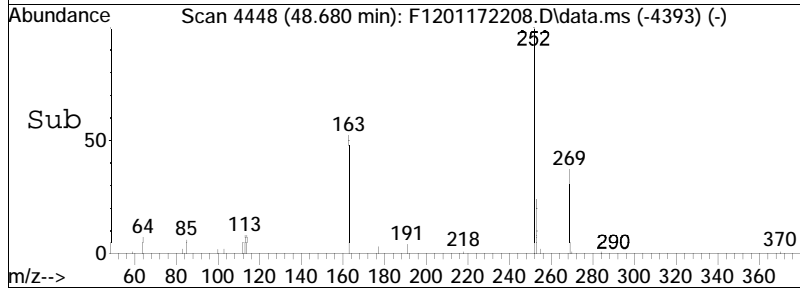
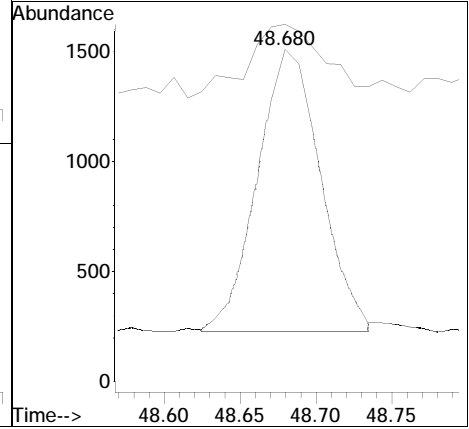
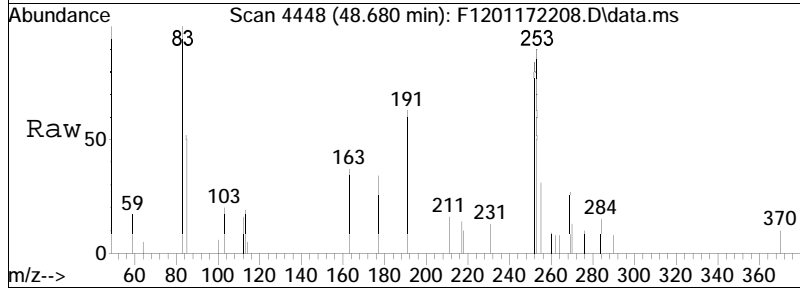
Tgt Ion	Resp	Lower	Upper
252	100		
253	23.2	15.8	29.3

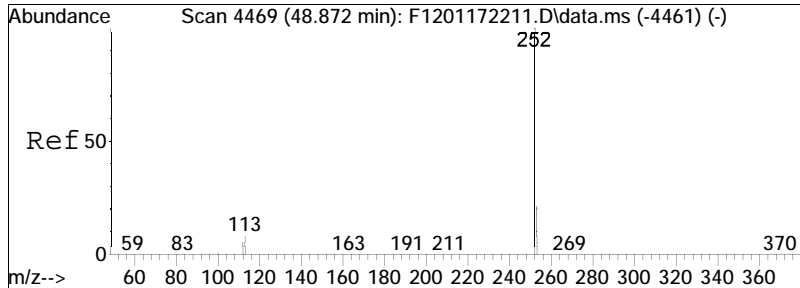




#88  
 Benzo[e]pyrene  
 Concen: 10.54 ng/mL M3  
 RT: 48.680 min Scan# 4448  
 Delta R.T. -0.000 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

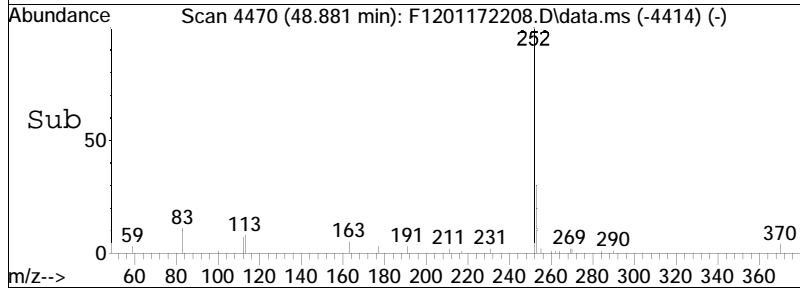
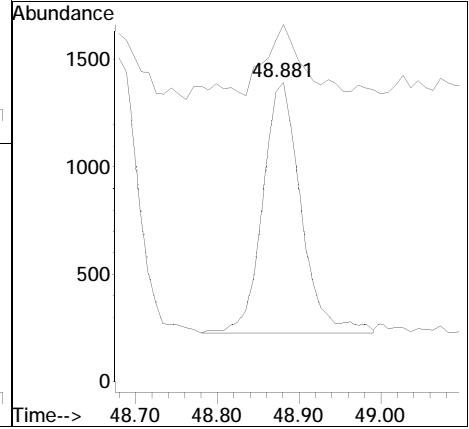
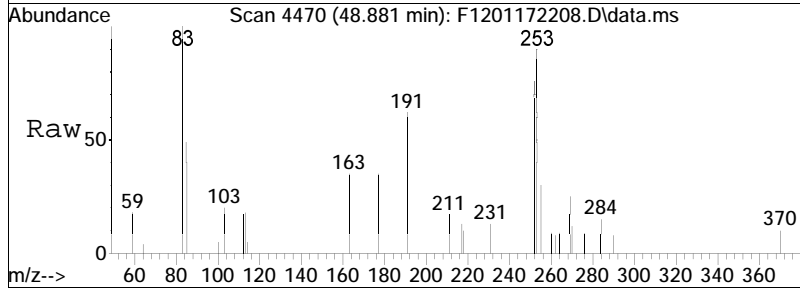
Tgt Ion	Resp	Lower	Upper
252	100		
253	27.4	16.0	29.6

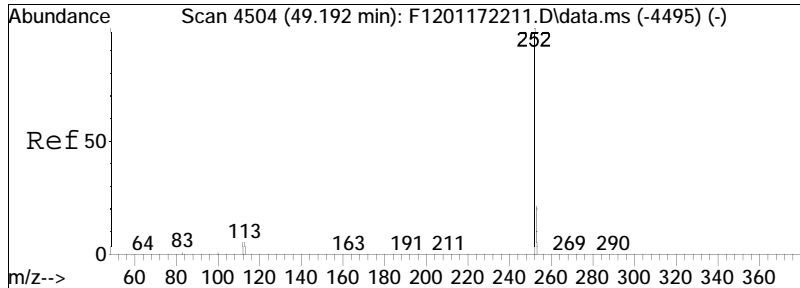




#90  
 Benzo[a]pyrene  
 Concen: 12.09 ng/mL  
 RT: 48.881 min Scan# 4470  
 Delta R.T. 0.009 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

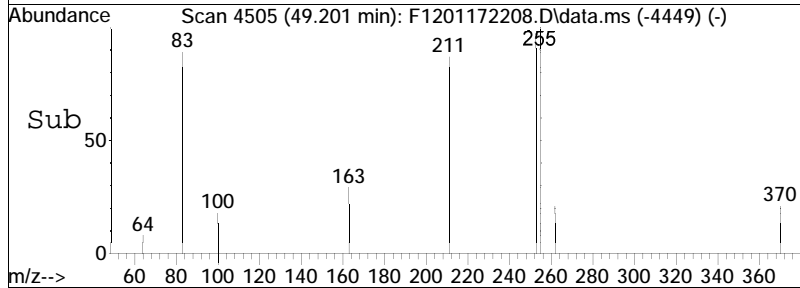
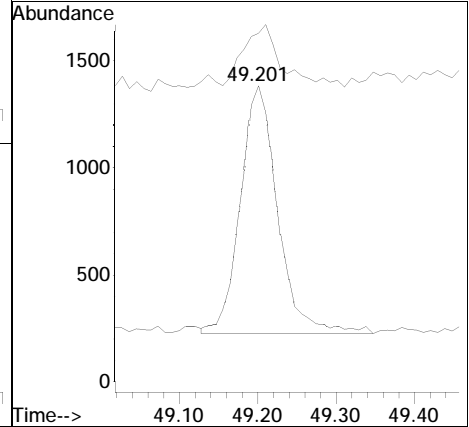
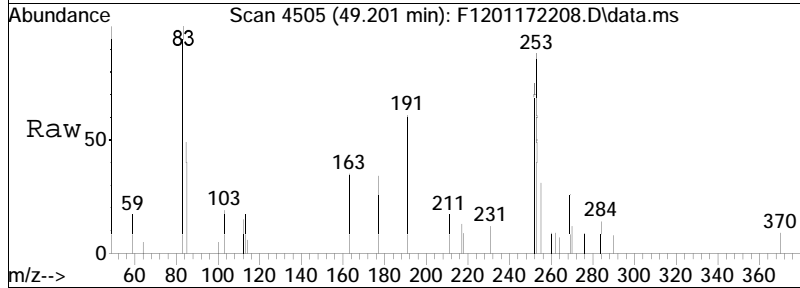
Tgt Ion	Resp	Lower	Upper
252	100		
253	26.7	16.1	29.9



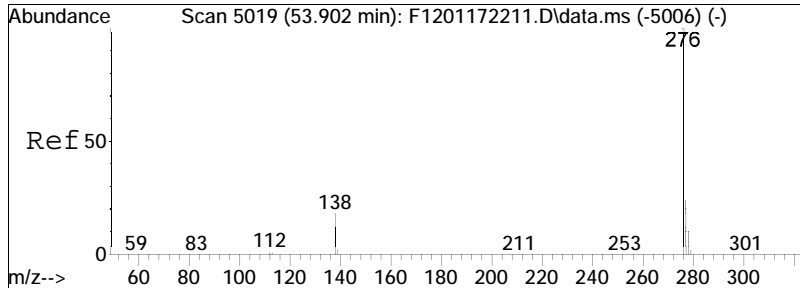


#91  
 Perylene  
 Concen: 11.83 ng/mL  
 RT: 49.201 min Scan# 4505  
 Delta R.T. 0.009 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

Tgt Ion: 252 Resp: 3841  
 Ion Ratio Lower Upper  
 252 100  
 253 22.7 16.2 30.0

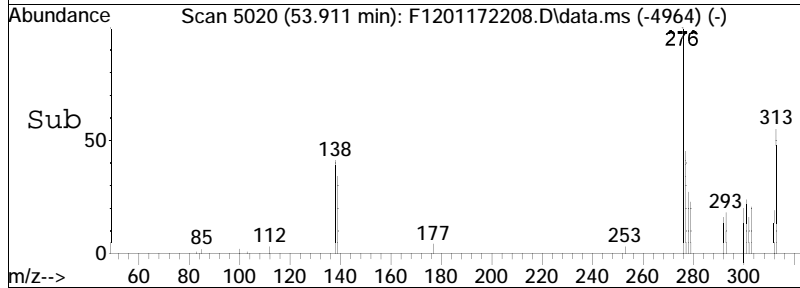
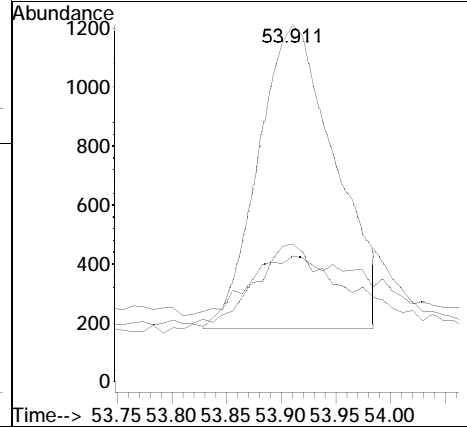
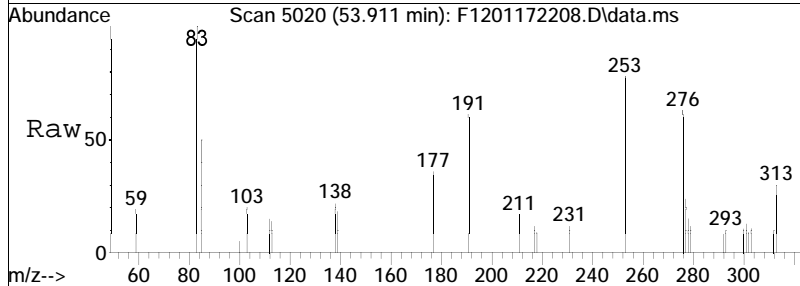


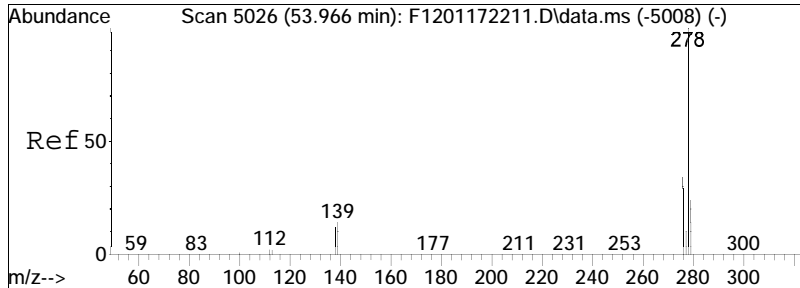




#92  
 Indeno[1,2,3-cd]pyrene  
 Concen: 12.42 ng/mL M3  
 RT: 53.911 min Scan# 5020  
 Delta R.T. 0.009 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

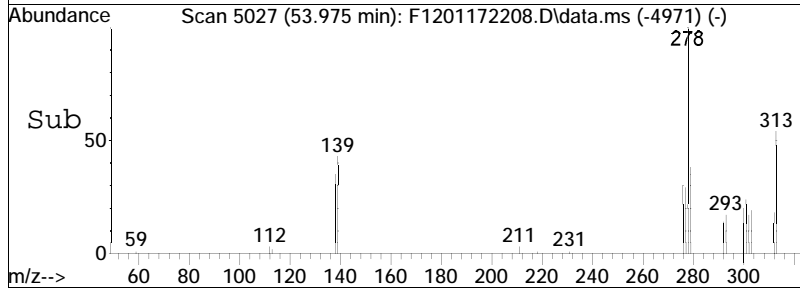
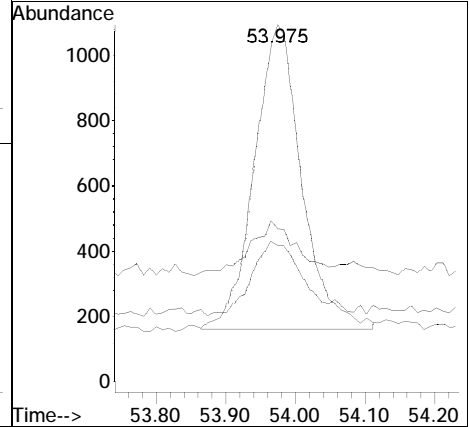
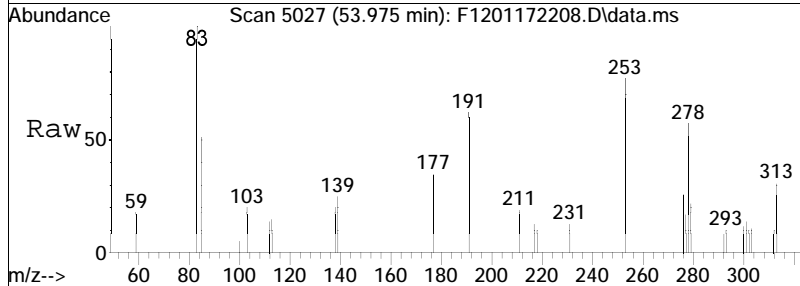
Tgt Ion	Resp	Lower	Upper
276	100		
138	14.5	13.0	24.1
277	29.8	16.6	30.8

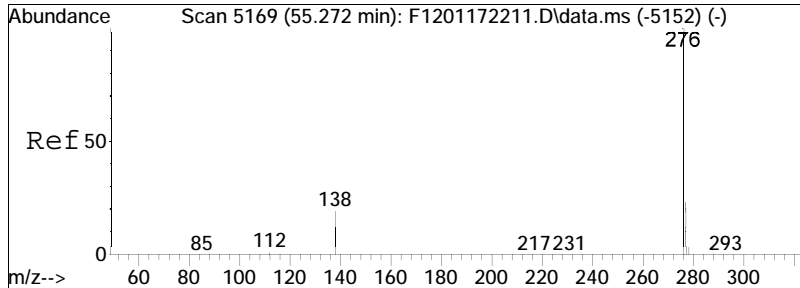




#93  
 Dibenz[ah]+[ac]anthracene  
 Concen: 12.05 ng/mL M4  
 RT: 53.975 min Scan# 5027  
 Delta R.T. 0.009 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

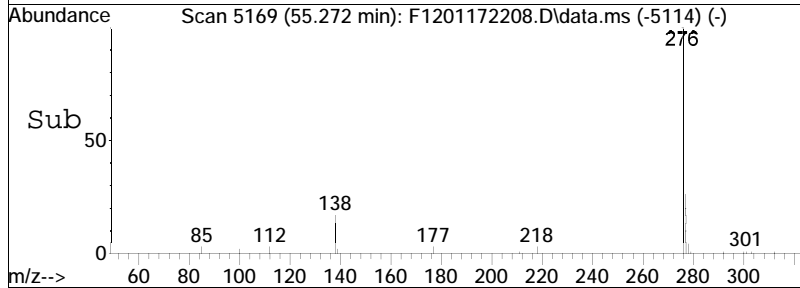
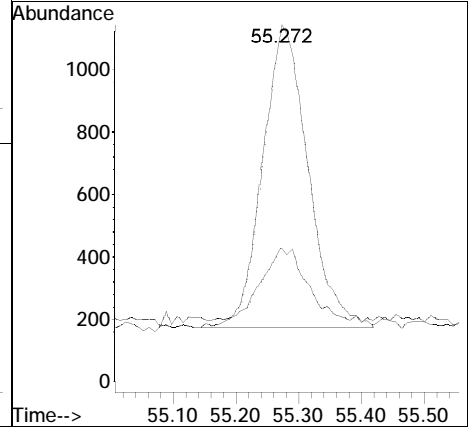
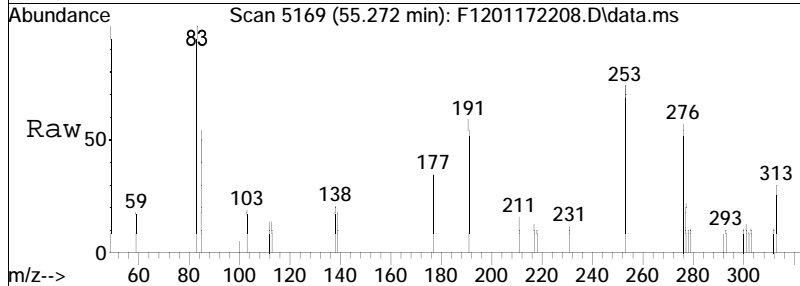
Tgt Ion	Resp	Lower	Upper
278	4397		
139	17.6	10.2	19.0
279	26.9	16.6	30.8

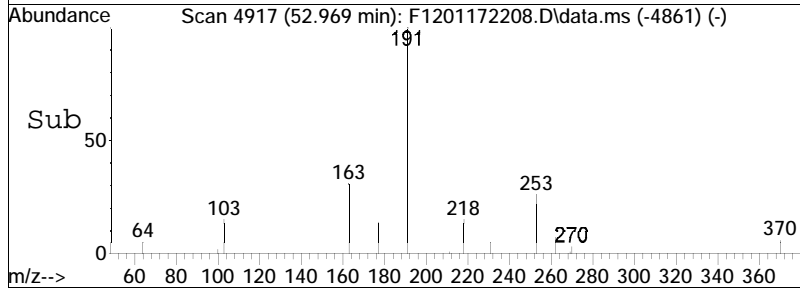
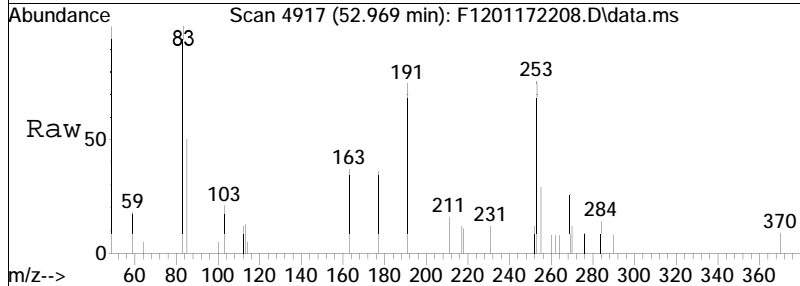
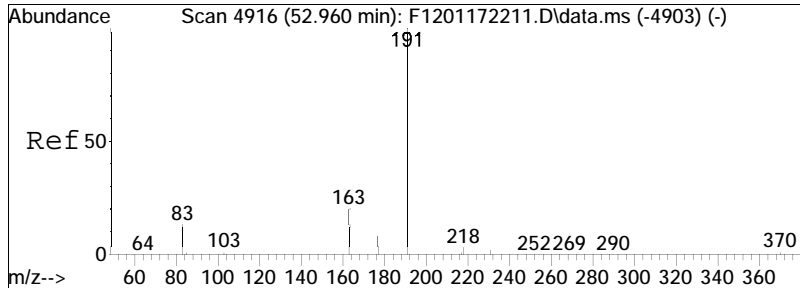




#94  
 Benzo[g,h,i]perylene  
 Concen: 13.15 ng/mL  
 RT: 55.272 min Scan# 5169  
 Delta R.T. -0.000 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

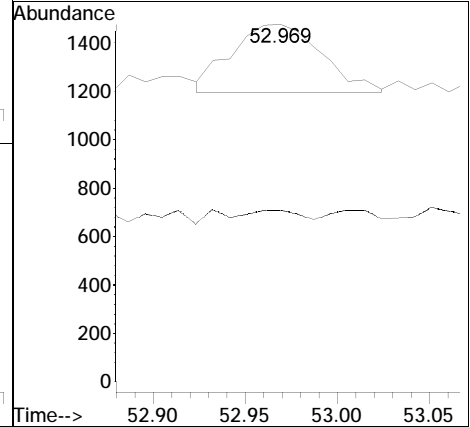
Tgt Ion: 276 Resp: 4831  
 Ion Ratio Lower Upper  
 276 100  
 277 23.7 16.2 30.2





#95  
 Hopane (T19)  
 Concen: 9.02 ng/mL M4  
 RT: 52.969 min Scan# 4917  
 Delta R.T. 0.009 min  
 Lab File: F1201172208.D  
 Acq: 17 Jan 2022 7:07 pm

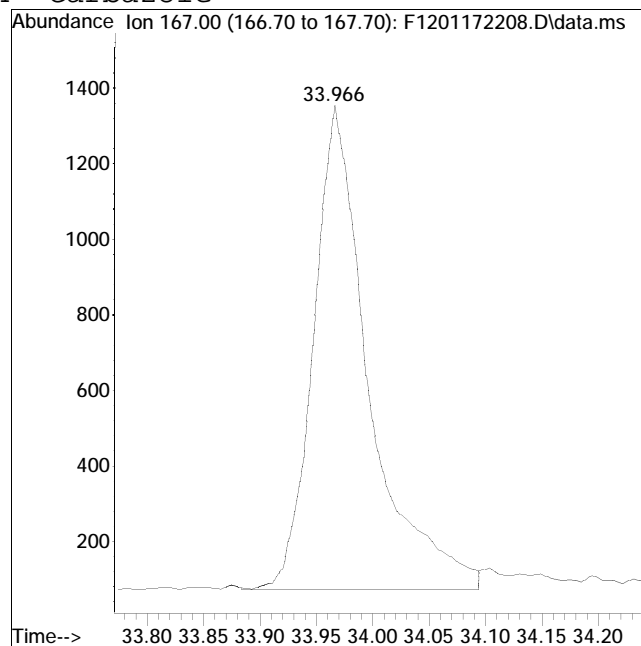
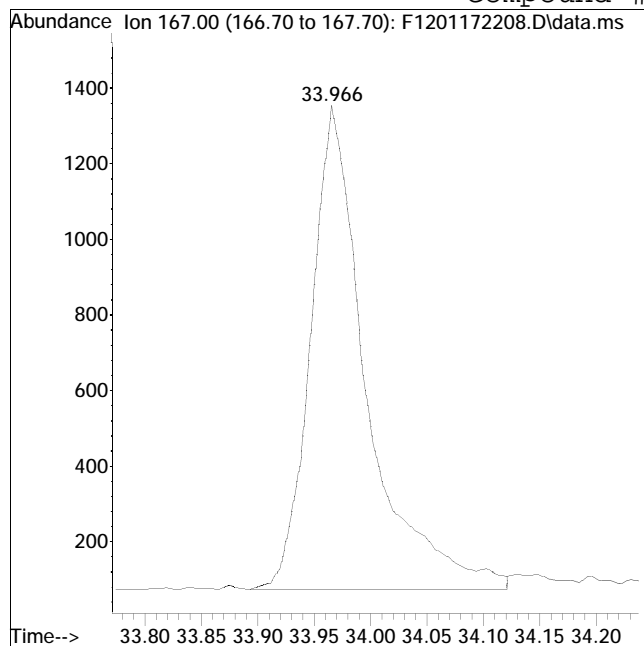
Tgt Ion: 191 Resp: 945  
 Ion Ratio Lower Upper  
 191 100  
 177 0.0 7.6 14.0#



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12011722.M  
Data File : F1201172208.D Operator : PAH12:CC  
Date Inj'd : 1/17/2022 7:07 pm Instrument : PAH12  
Sample : I1201172201 Quant Date : 1/18/2022 8:27 am

Compound #54: Carbazole



Original Peak Response = 4431

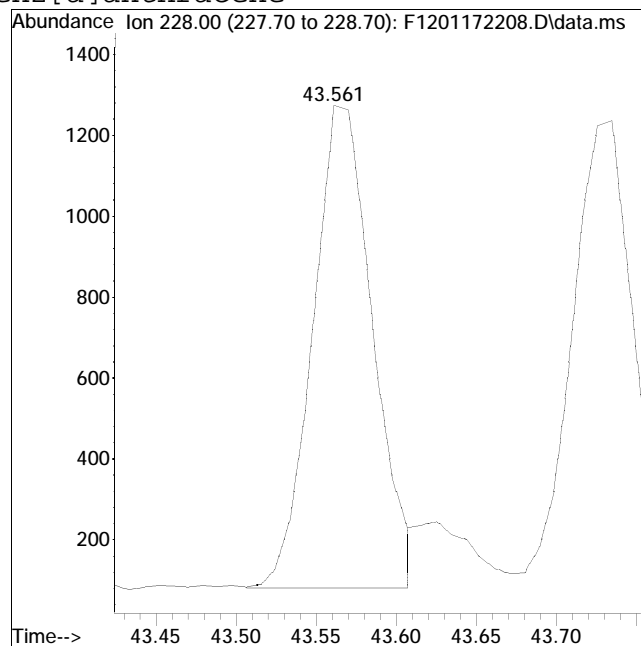
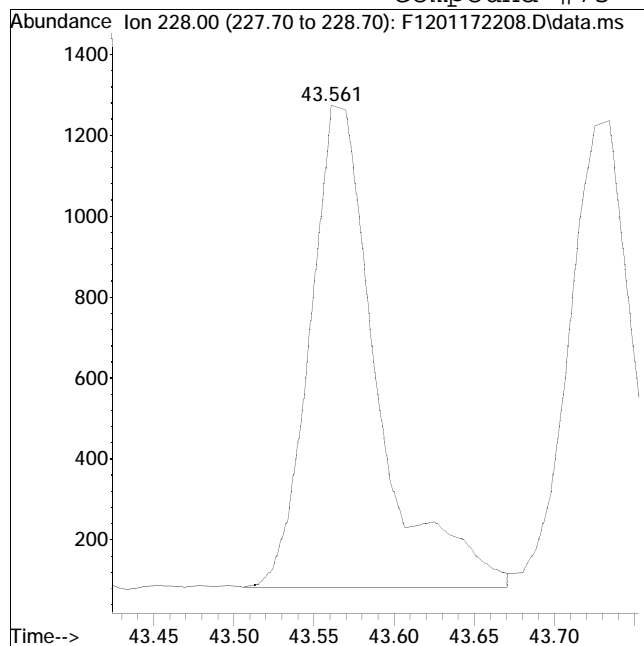
Manual Peak Response = 4384 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12011722.M  
Data File : F1201172208.D Operator : PAH12:CC  
Date Inj'd : 1/17/2022 7:07 pm Instrument : PAH12  
Sample : I1201172201 Quant Date : 1/18/2022 8:27 am

Compound #75: Benz[a]anthracene



Original Peak Response = 3480

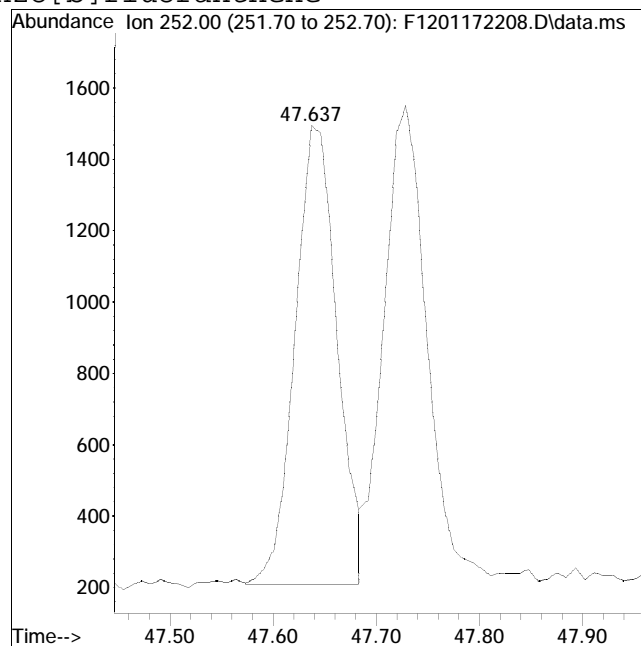
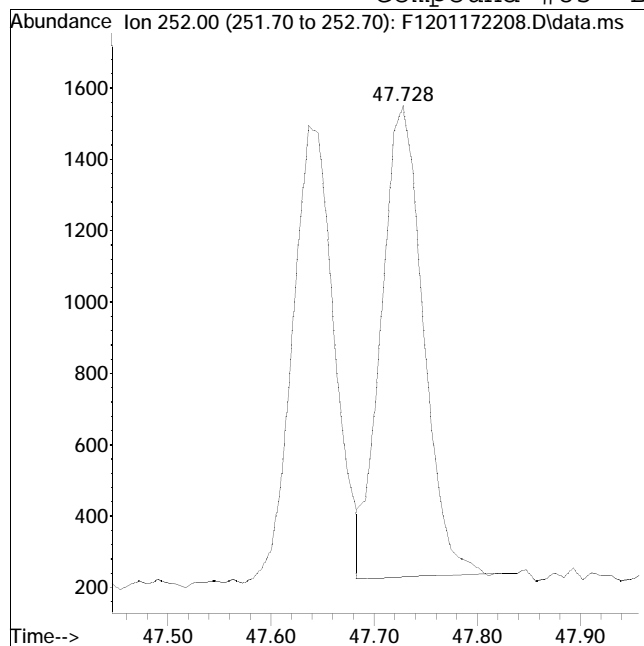
Manual Peak Response = 3103 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\2020Method : PAH12011722.M  
Data File : F1201172208.D Operator : PAH12:CC  
Date Inj'd : 1/17/2022 7:07 pm Instrument : PAH12  
Sample : I1201172201 Quant Date : 1/18/2022 8:27 am

Compound #85: Benzo[b]fluoranthene



Original Peak Response = 3725

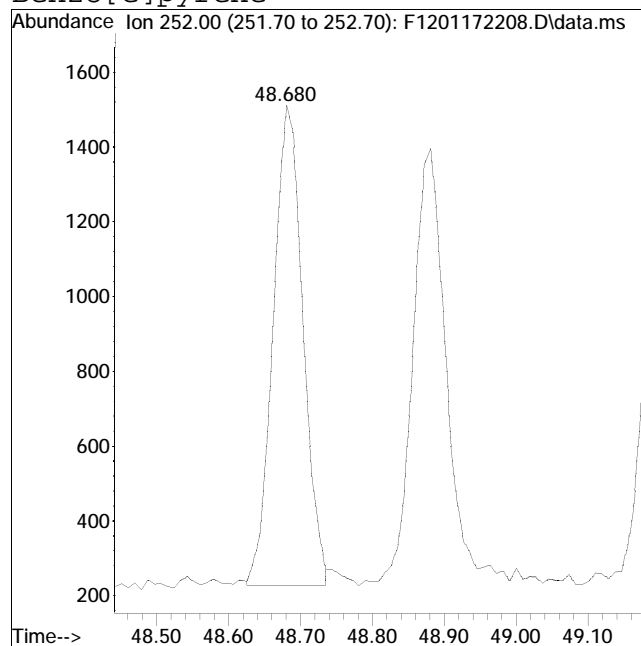
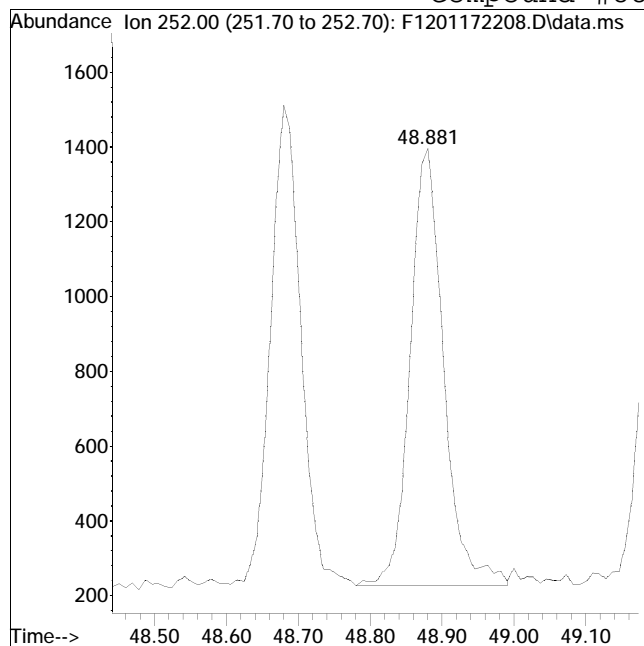
Manual Peak Response = 3658 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12011722.M  
Data File : F1201172208.D Operator : PAH12:CC  
Date Inj'd : 1/17/2022 7:07 pm Instrument : PAH12  
Sample : I1201172201 Quant Date : 1/18/2022 8:27 am

Compound #88: Benzo[e]pyrene



Original Peak Response = 3794

Manual Peak Response = 3694 M3

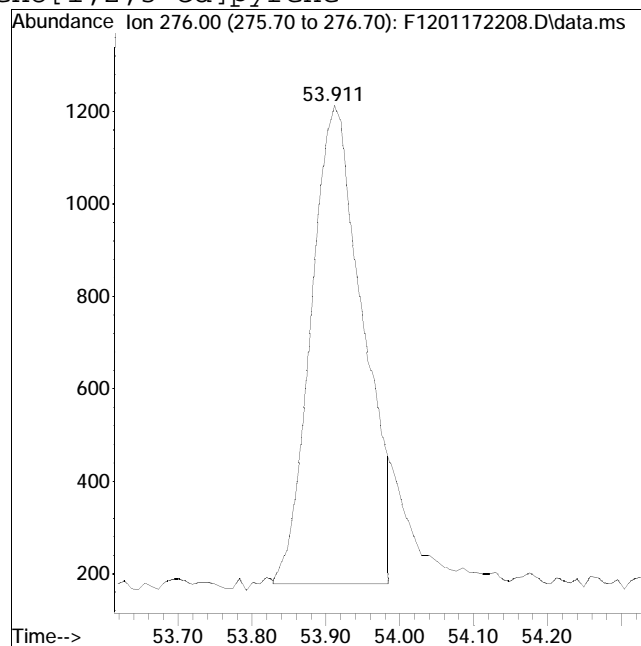
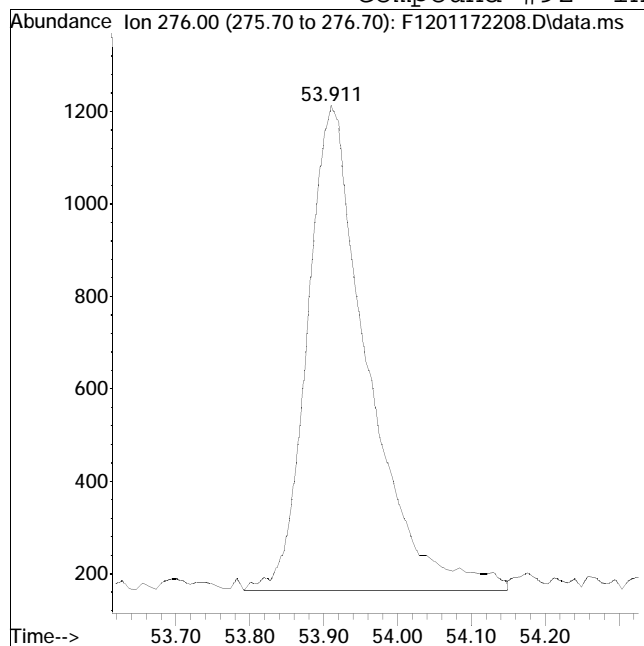
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\2020Method : PAH12011722.M  
Data File : F1201172208.D Operator : PAH12:CC  
Date Inj'd : 1/17/2022 7:07 pm Instrument : PAH12  
Sample : I1201172201 Quant Date : 1/18/2022 8:27 am

Compound #92: Indeno[1,2,3-cd]pyrene



Original Peak Response = 5946

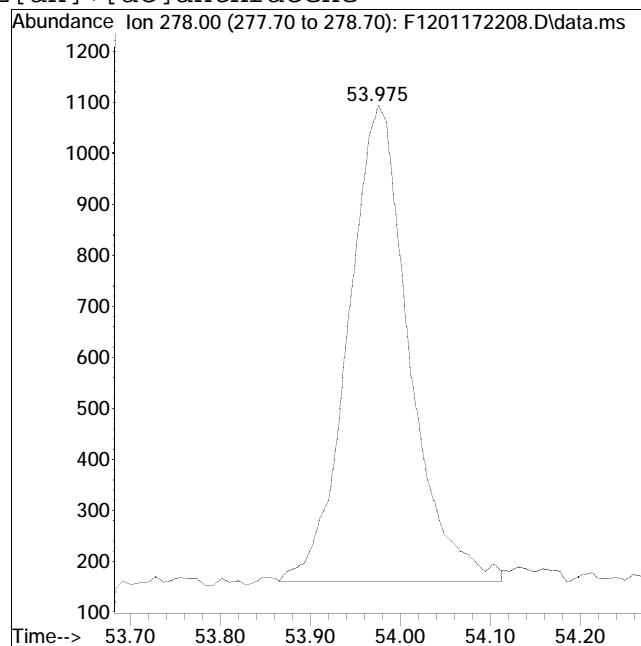
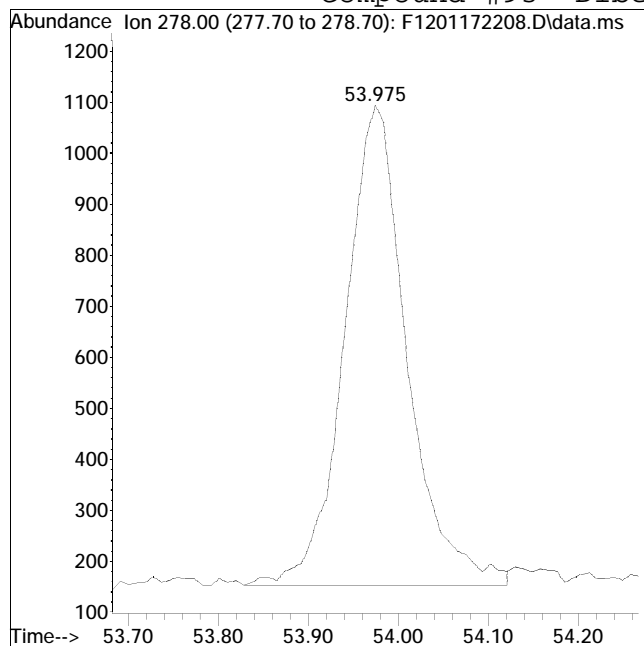
Manual Peak Response = 5063 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\2020Method : PAH12011722.M  
Data File : F1201172208.D Operator : PAH12:CC  
Date Inj'd : 1/17/2022 7:07 pm Instrument : PAH12  
Sample : I1201172201 Quant Date : 1/18/2022 8:27 am

Compound #93: Dibenz[ah]+[ac]anthracene



Original Peak Response = 4541

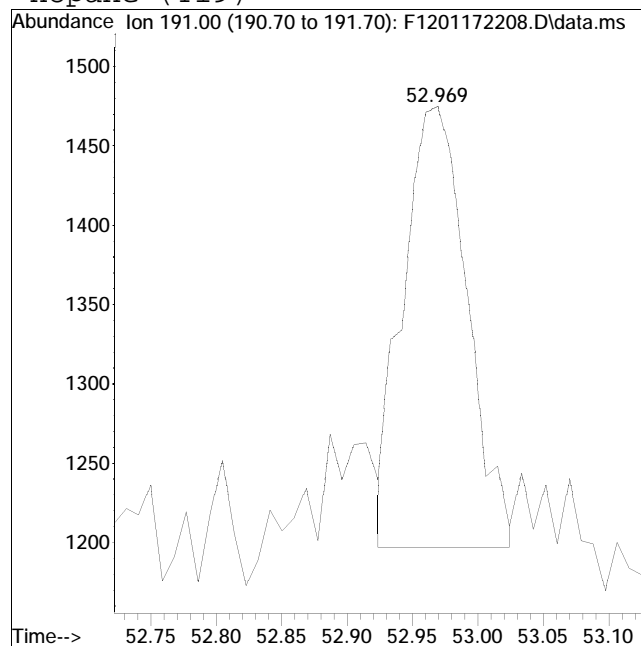
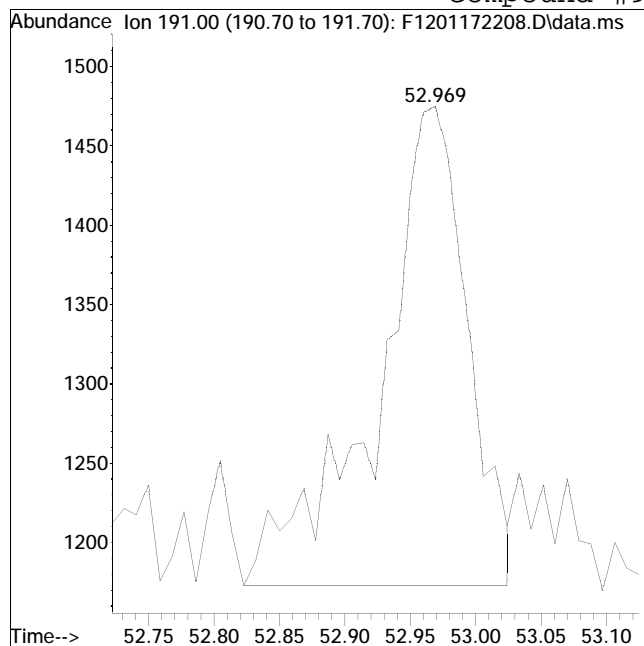
Manual Peak Response = 4397 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\2020Method : PAH12011722.M  
Data File : F1201172208.D Operator : PAH12:CC  
Date Inj'd : 1/17/2022 7:07 pm Instrument : PAH12  
Sample : I1201172201 Quant Date : 1/18/2022 8:27 am

Compound #95: Hopane (T19)



Original Peak Response = 1439

Manual Peak Response = 945 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172218.D  
 Acq On : 18 Jan 2022 9:18 am  
 Operator : PAH12:CC  
 Sample : i1201172202  
 Misc : WG1595612,FRBE27  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 18 14:15:02 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Tue Jan 18 08:46:21 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	27.141	164	56368	500.000	ng/mL	0.00	
74) Chrysene-d12	43.625	240	105624	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	20.169	136	6198	25.588	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.56%#	
40) Phenanthrene-d10	33.035	188	4696	22.767	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.28%#	
84) Benzo[b]fluoranthene-d12	47.555	264	5436	21.718	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.17%#	
89) Benzo[a]pyrene-d12	48.780	264	4055	21.361	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.14%#	
129) 5B(H)Cholane - Surr	44.237	217	782	19.984	ng/ml	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	2.00%#	
Target Compounds							
2) trans-Decalin	16.793	138	687	13.154	ng/mL	100	Qvalue
3) cis-Decalin	18.016	138	509	12.622	ng/mL	100	
9) Naphthalene	20.242	128	6811	25.403	ng/mL	100	
14) 2-Methylnaphthalene	22.962	142	4336	25.477	ng/mL	100	
15) 1-Methylnaphthalene	23.372	142	3993	24.592	ng/mL	100	
16) Benzothiophene	20.461	134	5689	25.025	ng/mL	100	
21) Biphenyl	24.833	154	5179	24.757	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.444	156	3402	23.155	ng/mL	100	
23) Dibenzofuran	27.935	168	5420	24.226	ng/mL	98	
24) Acenaphthylene	26.539	152	5836	22.419	ng/mL	100	
25) Acenaphthene	27.269	153	3843	23.478	ng/mL	99	
26) 2,3,5-Trimethylnaphthalen	28.838	170	3130	22.063	ng/mL	94	
27) Fluorene	29.313	166	4126	22.680	ng/mL	96	
31) Dibenzothiophene	32.634	184	6189	23.729	ng/mL	99	
41) Phenanthrene	33.127	178	6179	23.097	ng/mL	98	
52) Retene	40.101	234	1672	18.341	ng/mL	99	
53) Anthracene	33.309	178	5184	20.481	ng/mL	97	
54) Carbazole	33.966	167	5148	19.431	ng/mL	99	
55) 1-Methylphenanthrene	35.627	192	3870	21.309	ng/mL	98	
56) Fluoranthene	37.900	202	5730	21.115	ng/mL	97	
57) Benzo(b)fluorene	40.421	216	3227	18.593	ng/mL	98	
59) Pyrene	38.786	202	5961	21.174	ng/mL	97	
67) Naphthobenzothiophene-2,1	42.630	234	5985	21.211	ng/mL	94	
75) Benz[a]anthracene	43.561	228	5434M4	20.776	ng/mL		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172218.D  
 Acq On : 18 Jan 2022 9:18 am  
 Operator : PAH12:CC  
 Sample : i1201172202  
 Misc : WG1595612,FRBE27  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 18 14:15:02 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Tue Jan 18 08:46:21 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.726	228	5752	22.447	ng/mL	100
77) Chrysene/Triphenylene	43.726	228	5752	22.447	ng/mL	100
85) Benzo[b]fluoranthene	47.637	252	6313	21.500	ng/mL	99
86) Benzo[j]+[k]fluoranthene	47.719	252	6563	21.679	ng/mL	98
88) Benzo[e]pyrene	48.680	252	6590	22.899	ng/mL	89
90) Benzo[a]pyrene	48.872	252	6232	22.249	ng/mL	95
91) Perylene	49.192	252	6197	21.474	ng/mL	94
92) Indeno[1,2,3-cd]pyrene	53.902	276	8054M3	20.804	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.957	278	6578	19.171	ng/mL	99
94) Benzo[g,h,i]perylene	55.263	276	7918	23.479	ng/mL	97
95) Hopane (T19)	52.951	191	1660M4	22.697	ng/mL	

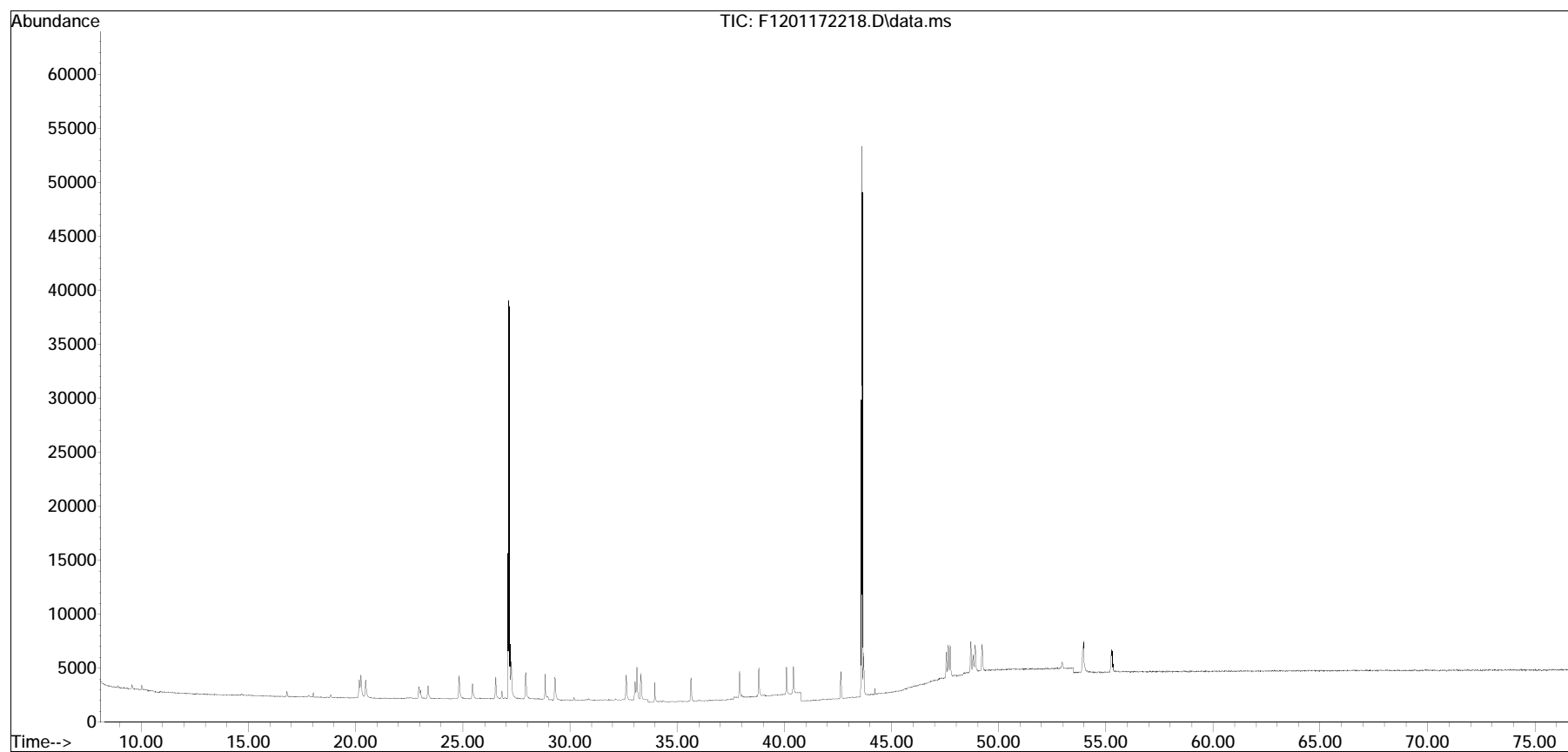
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
Data File : F1201172218.D  
Acq On : 18 Jan 2022 9:18 am  
Operator : PAH12:CC  
Sample : i1201172202  
Misc : WG1595612,FRBE27  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 18 14:15:02 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Tue Jan 18 08:46:21 2022  
Response via : Initial Calibration

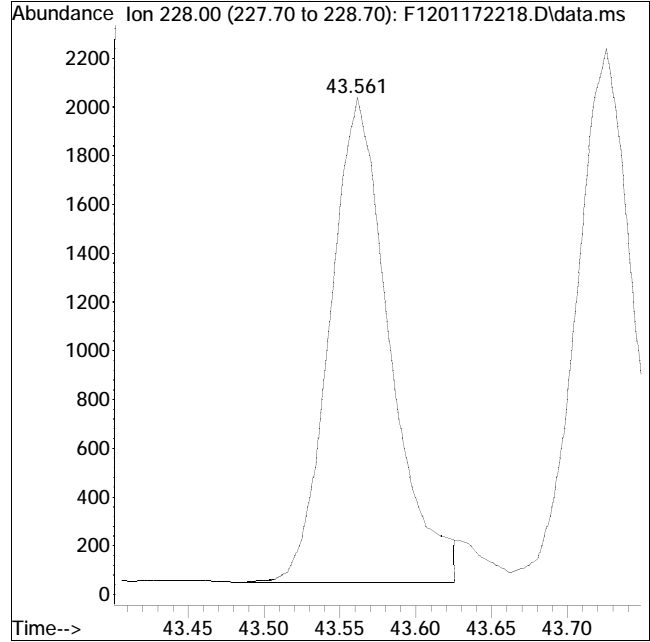
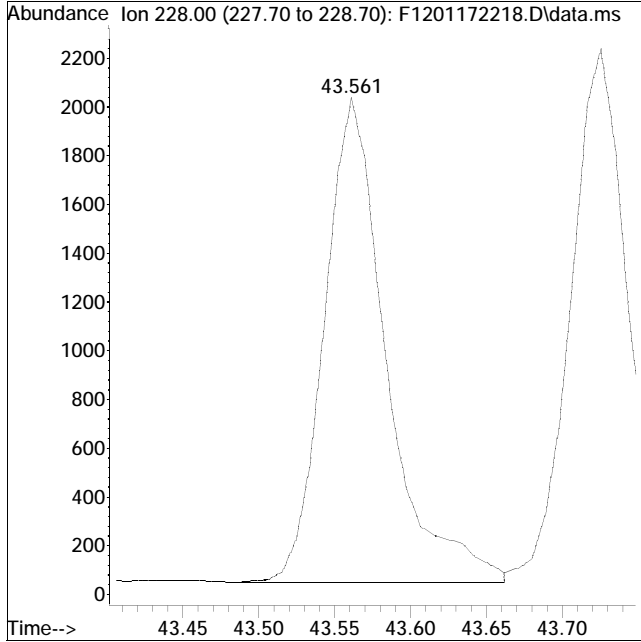
Sub List : ALKPAH\_CCV - CC with five surrogates



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12011722.M  
Data File : F1201172218.D Operator : PAH12:CC  
Date Inj'd : 1/18/2022 9:18 am Instrument : PAH12  
Sample : i1201172202 Quant Date : 1/18/2022 2:12 pm

Compound #75: Benz[a]anthracene



Original Peak Response = 5634

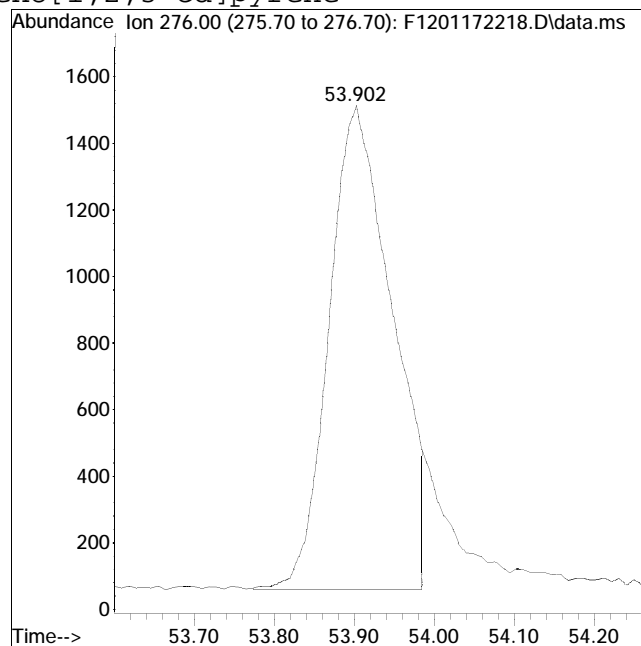
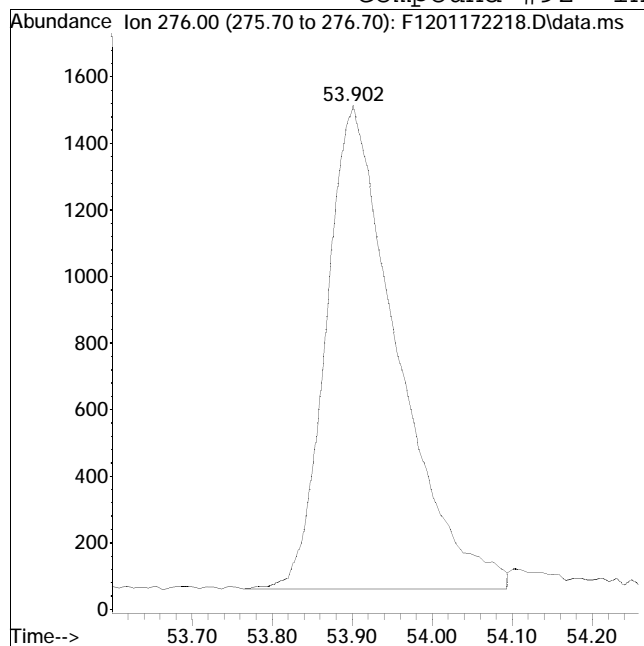
Manual Peak Response = 5434 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\2020Method : PAH12011722.M  
Data File : F1201172218.D Operator : PAH12:CC  
Date Inj'd : 1/18/2022 9:18 am Instrument : PAH12  
Sample : i1201172202 Quant Date : 1/18/2022 2:12 pm

Compound #92: Indeno[1,2,3-cd]pyrene



Original Peak Response = 8998

Manual Peak Response = 8054 M3

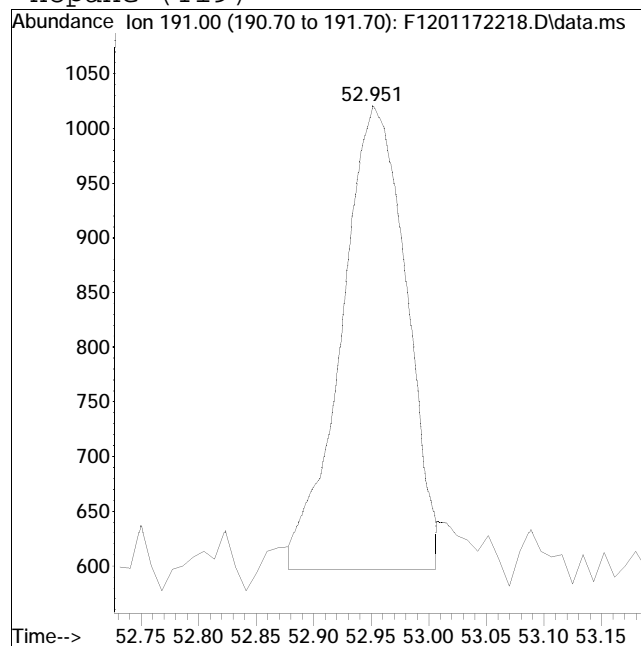
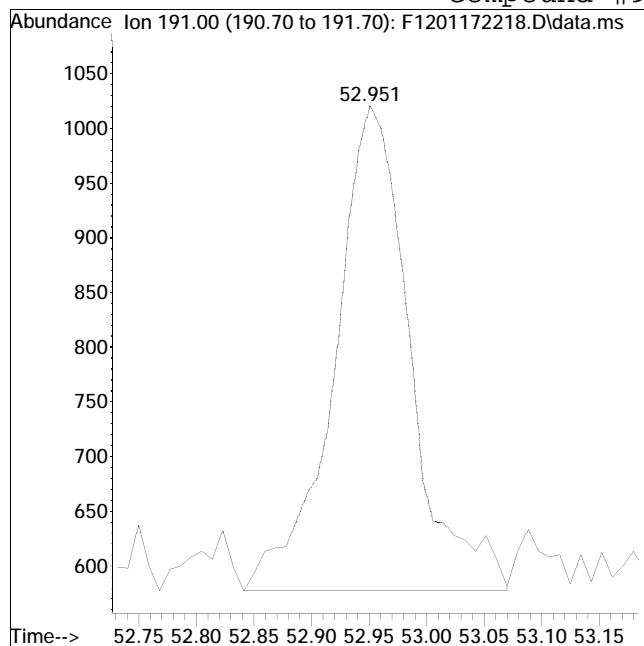
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12011722.M  
Data File : F1201172218.D Operator : PAH12:CC  
Date Inj'd : 1/18/2022 9:18 am Instrument : PAH12  
Sample : i1201172202 Quant Date : 1/18/2022 2:12 pm

Compound #95: Hopane (T19)



Original Peak Response = 2025

Manual Peak Response = 1660 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172210.D  
 Acq On : 17 Jan 2022 9:57 pm  
 Operator : PAH12:CC  
 Sample : I1201172203  
 Misc : WG1595612,FRBE28  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 18 08:40:23 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Tue Jan 18 08:26:02 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	27.141	164	121579	500.000	ng/mL	0.00	
74) Chrysene-d12	43.625	240	236367	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	20.160	136	51298	96.285	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	9.63%#	
40) Phenanthrene-d10	33.026	188	41268	100.917	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	10.09%#	
84) Benzo[b]fluoranthene-d12	47.546	264	51160	89.981	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	9.00%#	
89) Benzo[a]pyrene-d12	48.780	264	38963	95.356	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	9.54%#	
129) 5B(H)Cholane - Surr	44.237	217	7813	86.649	ng/ml	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	8.66%#	
Target Compounds							
2) trans-Decalin	16.802	138	5475	46.677	ng/mL	100	Qvalue
3) cis-Decalin	18.016	138	4136	45.987	ng/mL	100	
9) Naphthalene	20.233	128	56851	101.098	ng/mL	100	
14) 2-Methylnaphthalene	22.934	142	34793	95.593	ng/mL	100	
15) 1-Methylnaphthalene	23.363	142	33281	95.849	ng/mL	100	
16) Benzothiophene	20.452	134	48581	103.641	ng/mL	100	
21) Biphenyl	24.814	154	43125	98.431	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.426	156	29554	98.209	ng/mL	100	
23) Dibenzofuran	27.917	168	46745	98.088	ng/mL	99	
24) Acenaphthylene	26.530	152	52651	108.885	ng/mL	100	
25) Acenaphthene	27.269	153	33844	101.203	ng/mL	99	
26) 2,3,5-Trimethylnaphthalen	28.820	170	28278	103.291	ng/mL	99	
27) Fluorene	29.295	166	36542	99.326	ng/mL	100	
31) Dibenzothiophene	32.625	184	52800	109.162	ng/mL	100	
41) Phenanthrene	33.117	178	54517	102.199	ng/mL	99	
52) Retene	40.101	234	17001	107.905	ng/mL	98	
53) Anthracene	33.300	178	50206	109.355	ng/mL	99	
54) Carbazole	33.957	167	47848	104.150	ng/mL	99	
55) 1-Methylphenanthrene	35.627	192	35108	98.627	ng/mL	100	
56) Fluoranthene	37.900	202	52611	103.670	ng/mL	99	
57) Benzo(b)fluorene	40.411	216	32465	110.951	ng/mL	98	
59) Pyrene	38.786	202	55148	104.009	ng/mL	98	
67) Naphthobenzothiophene-2,1	42.639	234	54216	107.072	ng/mL	98	
75) Benz[a]anthracene	43.561	228	52783	101.565	ng/mL	99	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172210.D  
 Acq On : 17 Jan 2022 9:57 pm  
 Operator : PAH12:CC  
 Sample : I1201172203  
 Misc : WG1595612,FRBE28  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 18 08:40:23 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Tue Jan 18 08:26:02 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.726	228	52427	92.140	ng/mL	100
77) Chrysene/Triphenylene	43.726	228	52427	92.140	ng/mL	100
85) Benzo[b]fluoranthene	47.637	252	59914	97.493	ng/mL	97
86) Benzo[j]+[k]fluoranthene	47.719	252	61874	94.545	ng/mL	98
88) Benzo[e]pyrene	48.680	252	59501	92.894	ng/mL	97
90) Benzo[a]pyrene	48.872	252	56573	98.636	ng/mL	96
91) Perylene	49.192	252	58613	98.732	ng/mL	100
92) Indeno[1,2,3-cd]pyrene	53.902	276	77624M3	104.132	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.966	278	69405	104.063	ng/mL	99
94) Benzo[g,h,i]perylene	55.272	276	69457	103.448	ng/mL	99
95) Hopane (T19)	52.960	191	16300	85.150	ng/mL	94

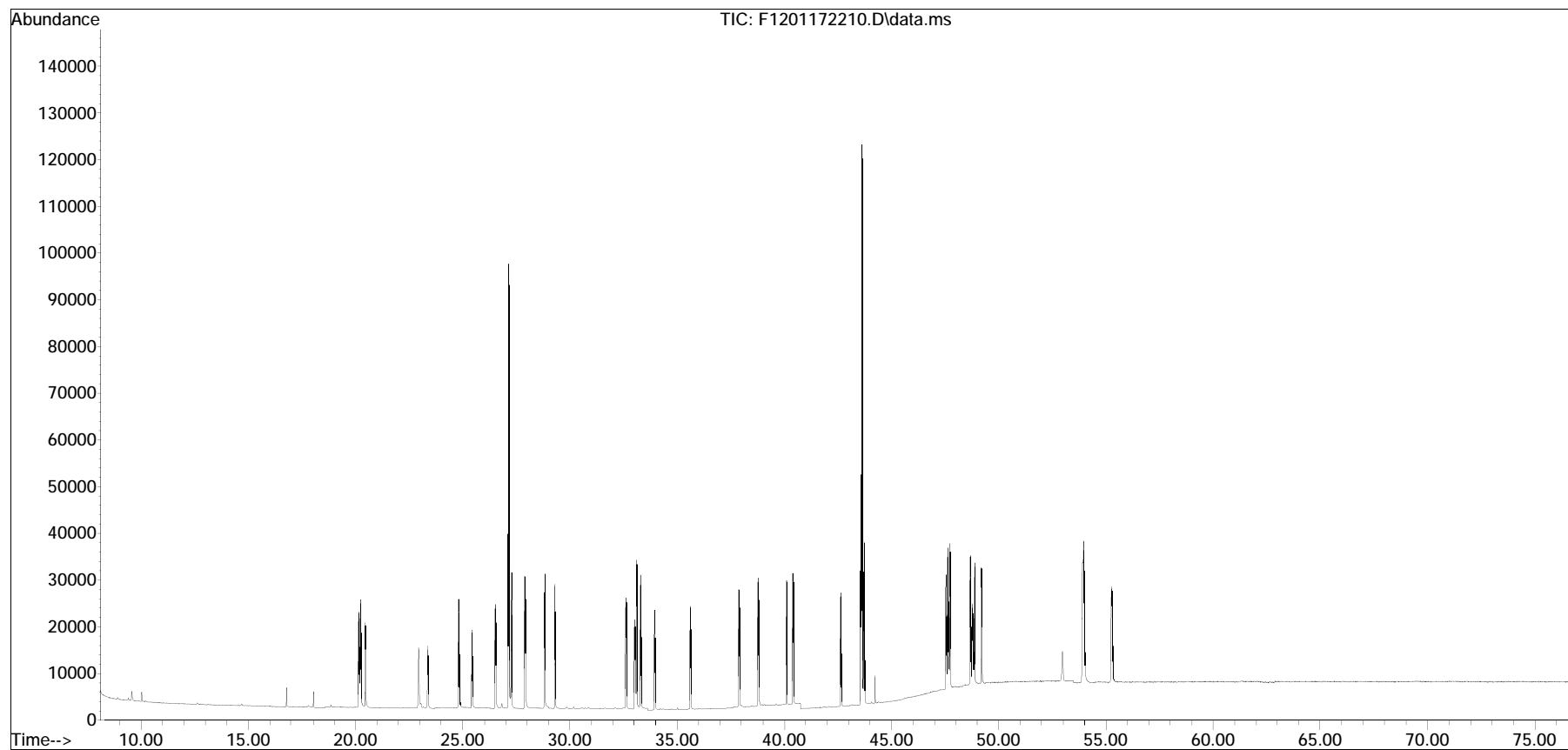
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
Data File : F1201172210.D  
Acq On : 17 Jan 2022 9:57 pm  
Operator : PAH12:CC  
Sample : I1201172203  
Misc : WG1595612,FRBE28  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 18 08:40:23 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Tue Jan 18 08:26:02 2022  
Response via : Initial Calibration

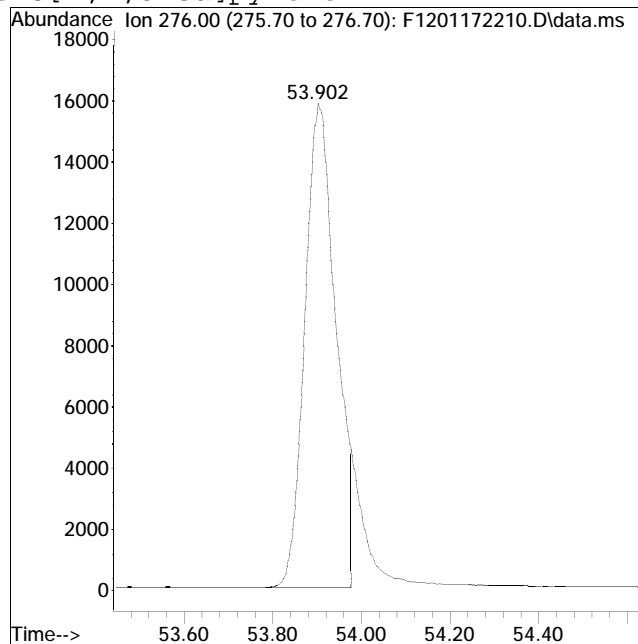
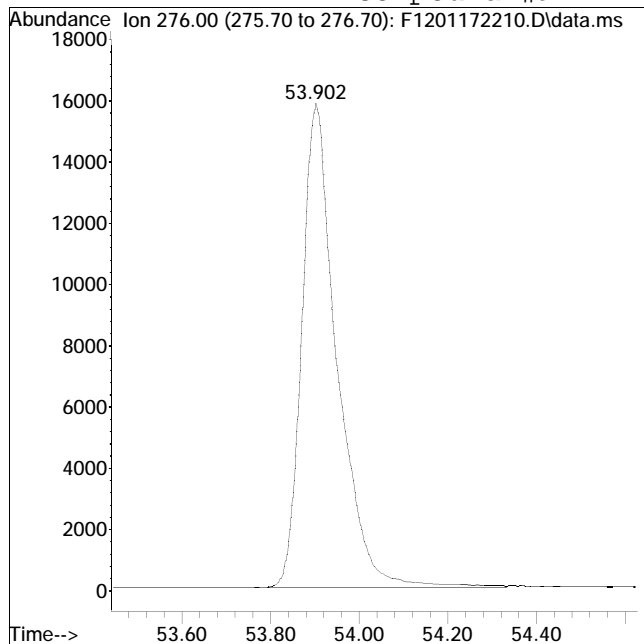
Sub List : ALKPAH\_CCV - CC with five surrogates



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12011722.M  
Data File : F1201172210.D Operator : PAH12:CC  
Date Inj'd : 1/17/2022 9:57 pm Instrument : PAH12  
Sample : I1201172203 Quant Date : 1/18/2022 8:27 am

Compound #92: Indeno[1,2,3-cd]pyrene



Original Peak Response = 87362

Manual Peak Response = 77624 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172211.D  
 Acq On : 17 Jan 2022 11:22 pm  
 Operator : PAH12:CC  
 Sample : I1201172204  
 Misc : WG1595612,FRBE43  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 19 10:00:39 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Tue Jan 18 08:26:02 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	27.141	164	69906	500.000	ng/mL	0.00	
74) Chrysene-d12	43.625	240	136170	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	20.160	136	156955	512.362	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	51.24%	
40) Phenanthrene-d10	33.026	188	129853	552.265	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	55.23%	
84) Benzo[b]fluoranthene-d12	47.545	264	157942	482.197	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	48.22%#	
89) Benzo[a]pyrene-d12	48.780	264	119765	508.783	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	50.88%	
129) 5B(H)Cholane - Surr	44.237	217	23949	461.038	ng/ml	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	46.10%#	
Target Compounds							
2) trans-Decalin	16.802	138	16416	243.408	ng/mL	100	Qvalue
3) cis-Decalin	18.025	138	12471	241.156	ng/mL	100	
9) Naphthalene	20.233	128	174498	539.684	ng/mL	100	
14) 2-Methylnaphthalene	22.934	142	108230	517.163	ng/mL	100	
15) 1-Methylnaphthalene	23.363	142	102704	514.428	ng/mL	100	
16) Benzothiophene	20.452	134	148640	551.498	ng/mL	100	
21) Biphenyl	24.814	154	133885	531.470	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.426	156	92380	533.897	ng/mL	100	
23) Dibenzofuran	27.908	168	145020	529.243	ng/mL	99	
24) Acenaphthylene	26.530	152	164225	590.671	ng/mL	100	
25) Acenaphthene	27.269	153	104827	545.169	ng/mL	100	
26) 2,3,5-Trimethylnaphthalen	28.820	170	88663	563.249	ng/mL	99	
27) Fluorene	29.285	166	115054	543.898	ng/mL	99	
31) Dibenzothiophene	32.615	184	164043	589.847	ng/mL	100	
41) Phenanthrene	33.108	178	170162	554.780	ng/mL	99	
52) Retene	40.101	234	53956	595.592	ng/mL	98	
53) Anthracene	33.291	178	160824	609.227	ng/mL	99	
54) Carbazole	33.957	167	150011	567.889	ng/mL	100	
55) 1-Methylphenanthrene	35.618	192	111189	543.246	ng/mL	99	
56) Fluoranthene	37.891	202	167951	575.579	ng/mL	99	
57) Benzo(b)fluorene	40.411	216	104275	619.785	ng/mL	99	
59) Pyrene	38.786	202	174034	570.848	ng/mL	99	
67) Naphthobenzothiophene-2,1	42.639	234	170799	586.648	ng/mL	98	
75) Benz[a]anthracene	43.561	228	163822	547.179	ng/mL	99	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172211.D  
 Acq On : 17 Jan 2022 11:22 pm  
 Operator : PAH12:CC  
 Sample : I1201172204  
 Misc : WG1595612,FRBE43  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 19 10:00:39 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Tue Jan 18 08:26:02 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.725	228	164872	502.973	ng/mL	100
77) Chrysene/Triphenylene	43.725	228	164872	502.973	ng/mL	100
85) Benzo[b]fluoranthene	47.637	252	187101	528.476	ng/mL	98
86) Benzo[j]+[k]fluoranthene	47.719	252	192451	510.451	ng/mL	97
88) Benzo[e]pyrene	48.680	252	183246	496.596	ng/mL	97
90) Benzo[a]pyrene	48.872	252	175080	529.867	ng/mL	97
91) Perylene	49.192	252	179715	525.479	ng/mL	97
92) Indeno[1,2,3-cd]pyrene	53.902	276	233415M3	543.531	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.966	278	212704	553.587	ng/mL	99
94) Benzo[g,h,i]perylene	55.272	276	210573	544.397	ng/mL	100
95) Hopane (T19)	52.960	191	46001	417.130	ng/mL	93

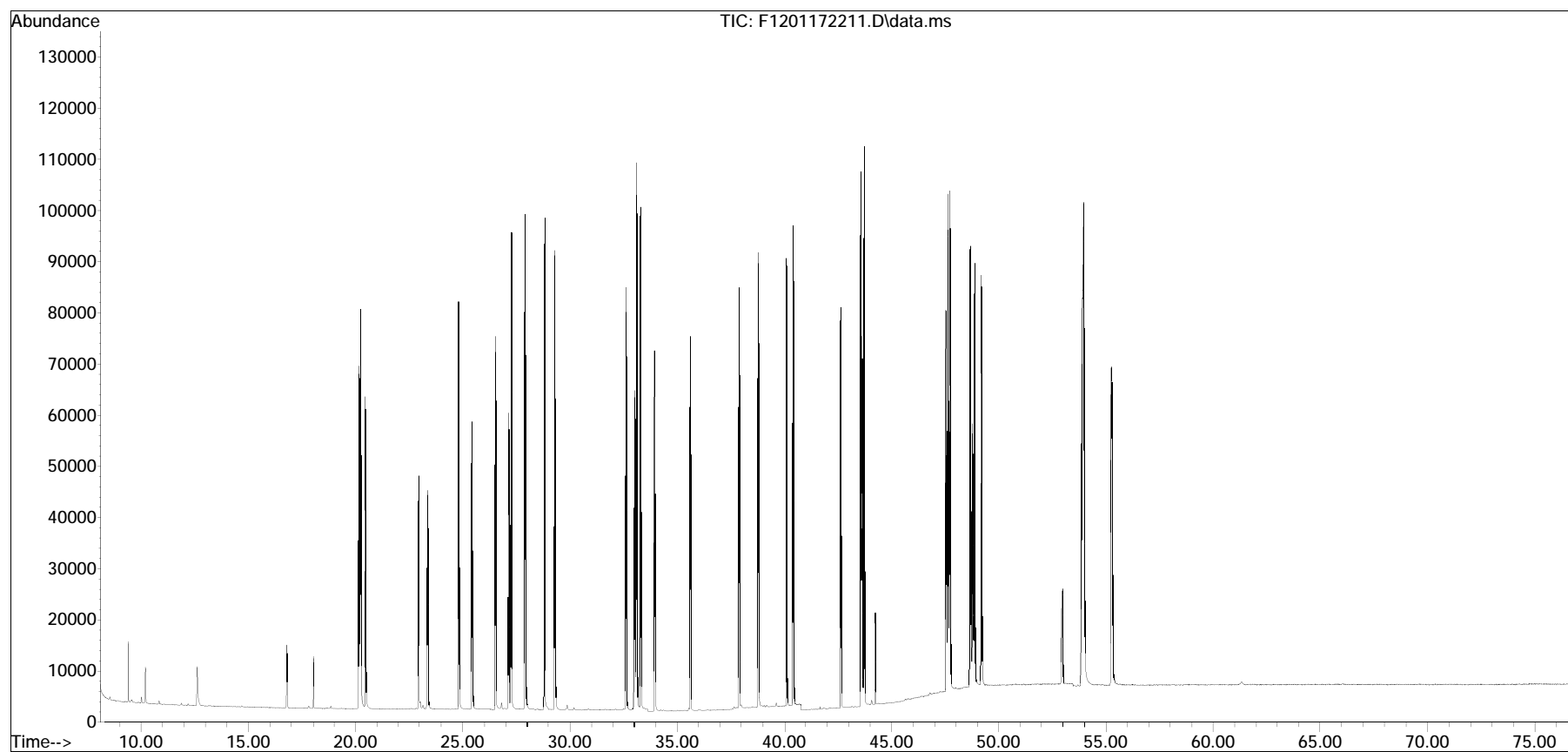
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

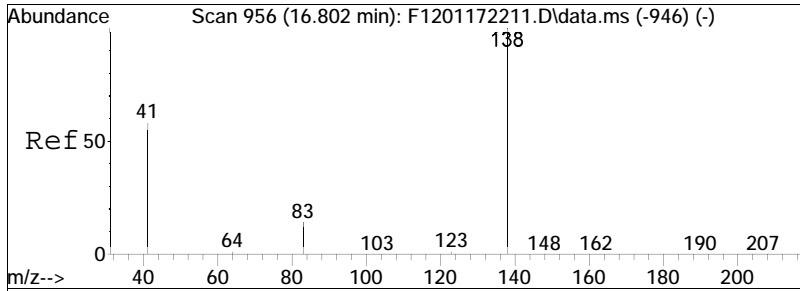
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Data File : F1201172211.D  
Acq On : 17 Jan 2022 11:22 pm  
Operator : PAH12:CC  
Sample : I1201172204  
Misc : WG1595612,FRBE43  
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 19 10:00:39 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Tue Jan 18 08:26:02 2022  
Response via : Initial Calibration

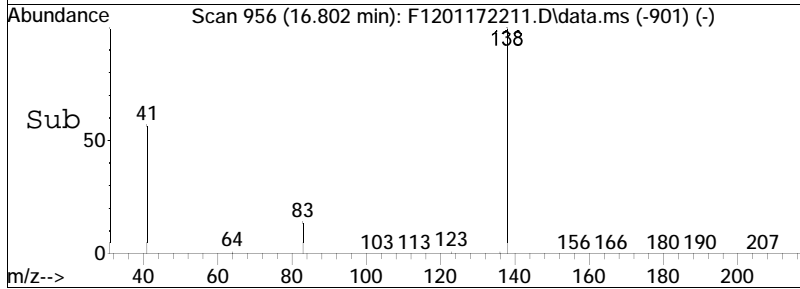
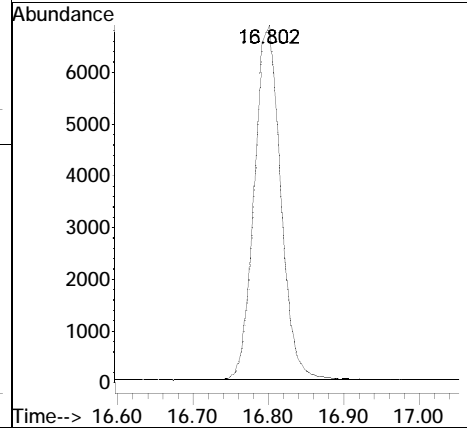
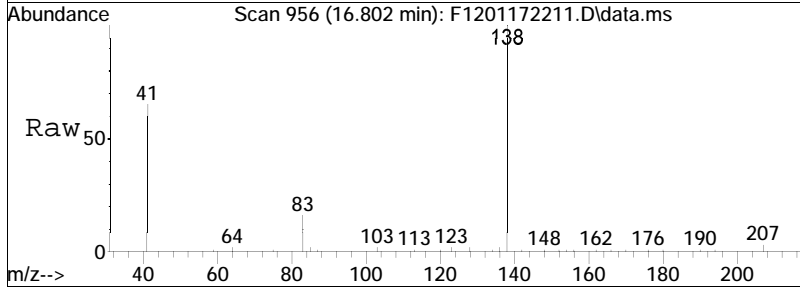
Sub List : ALKPAH\_CCV - CC with five surrogates

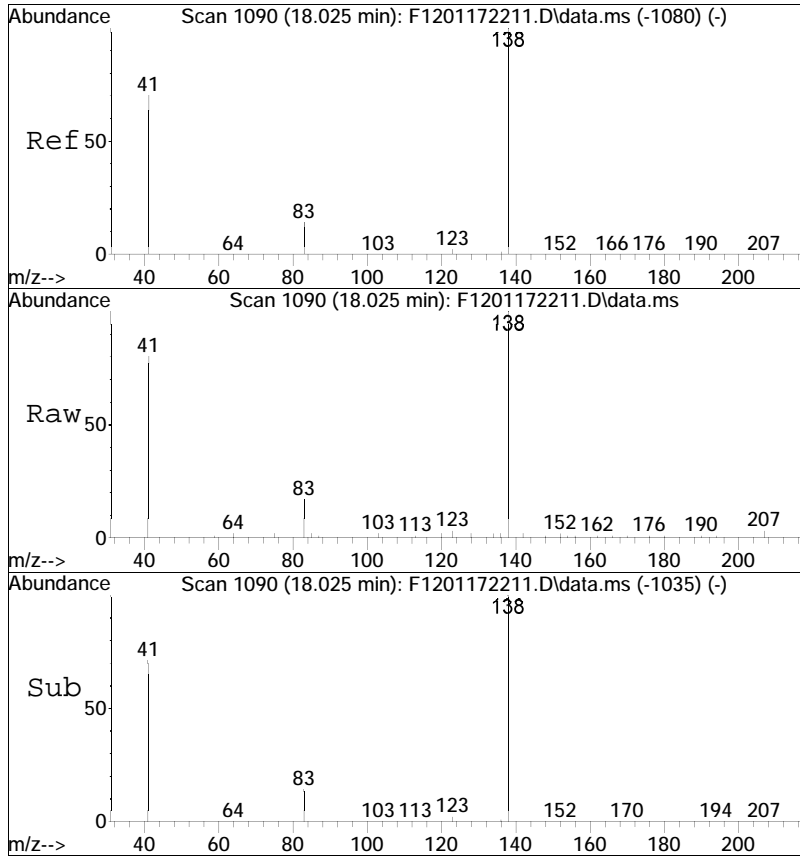




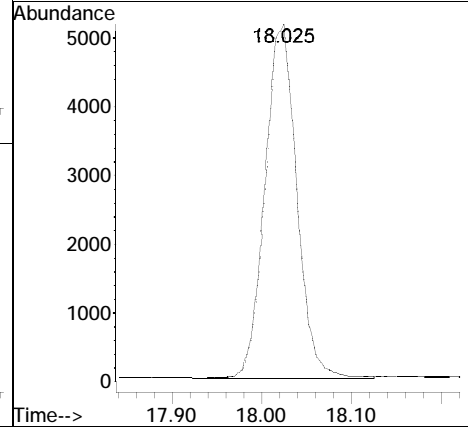


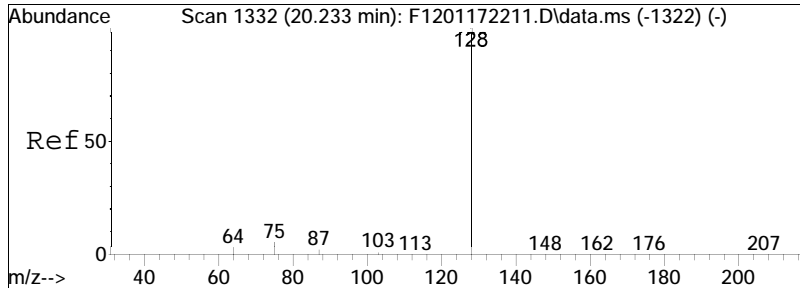
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 trans-Decalin  
 Concen: 243.41 ng/mL  
 RT: 16.802 min Scan# 956  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm  
 Tgt Ion:138 Resp: 16416



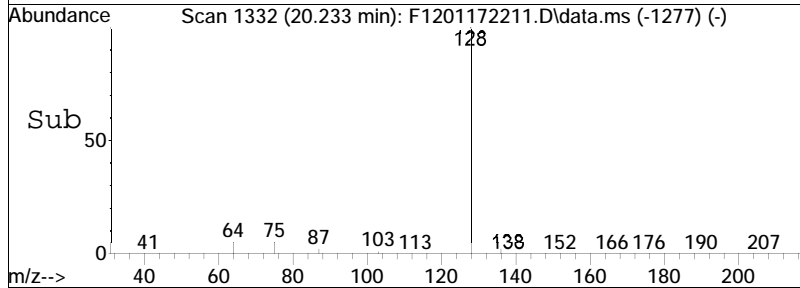
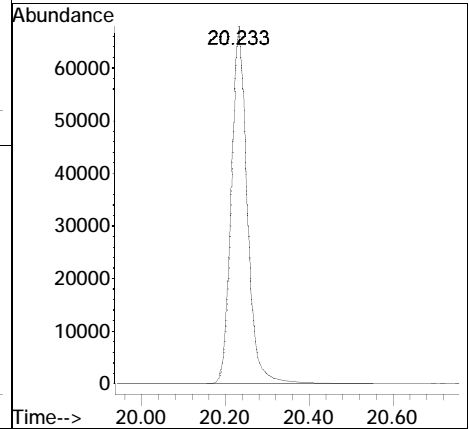
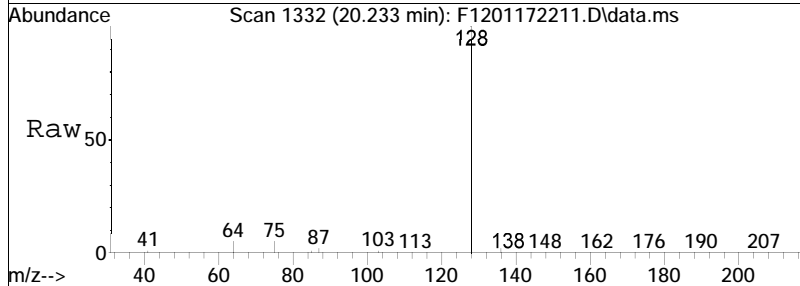


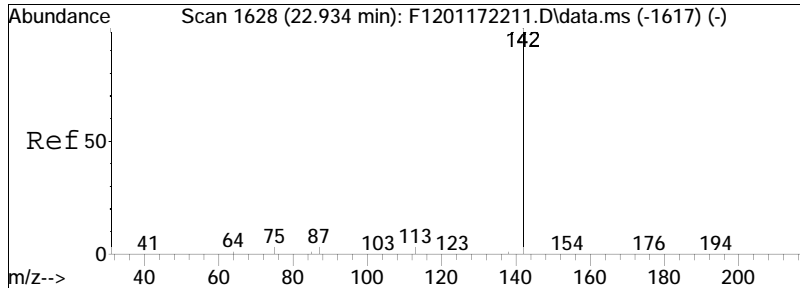
#3  
 cis-Decalin  
 Concen: 241.16 ng/mL  
 RT: 18.025 min Scan# 1090  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm  
 Tgt Ion:138 Resp: 12471



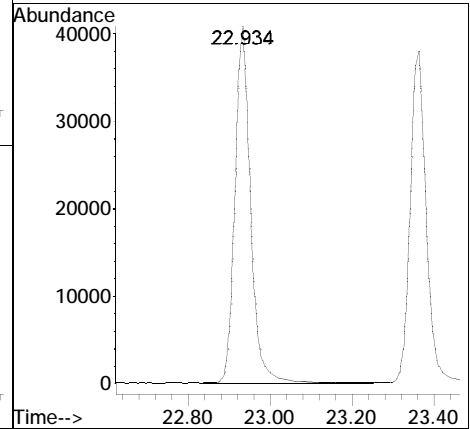
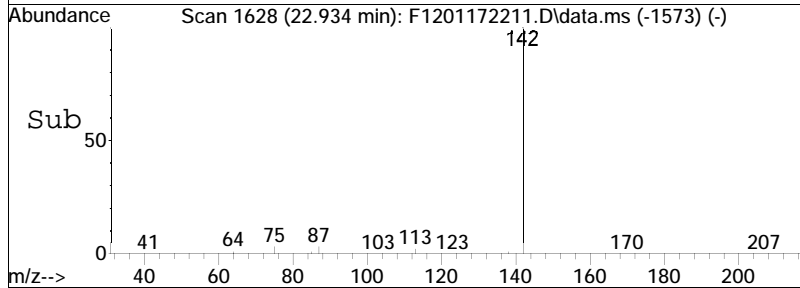
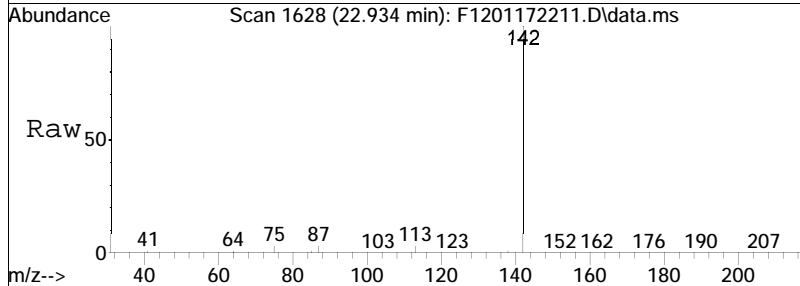


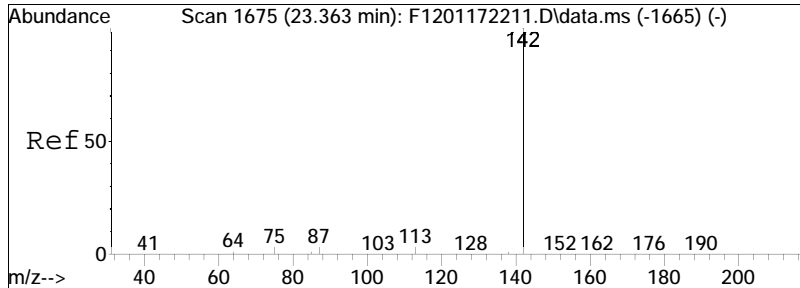
#9  
 Naphthalene  
 Concen: 539.68 ng/mL  
 RT: 20.233 min Scan# 1332  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm  
 Tgt Ion:128 Resp: 174498



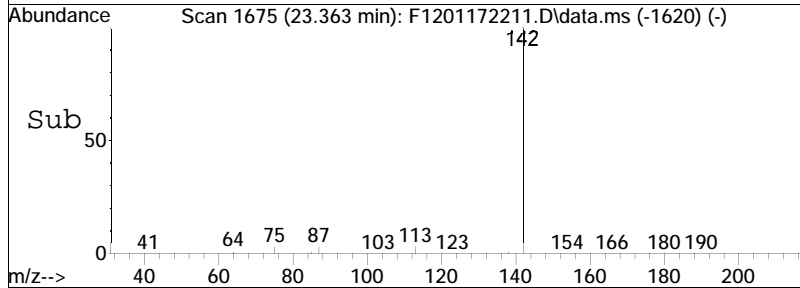
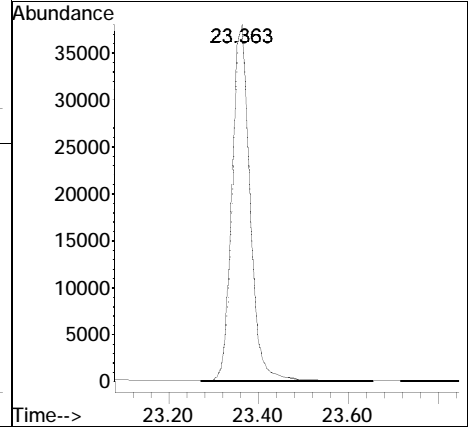
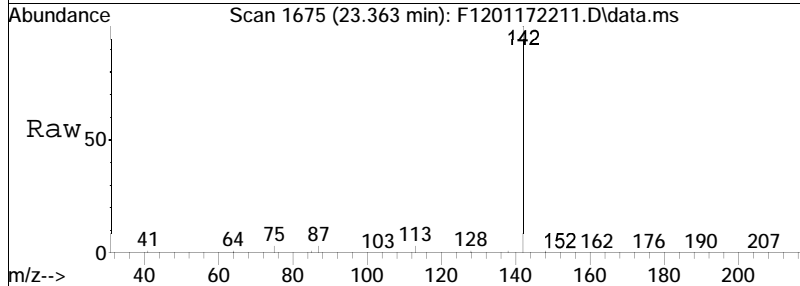


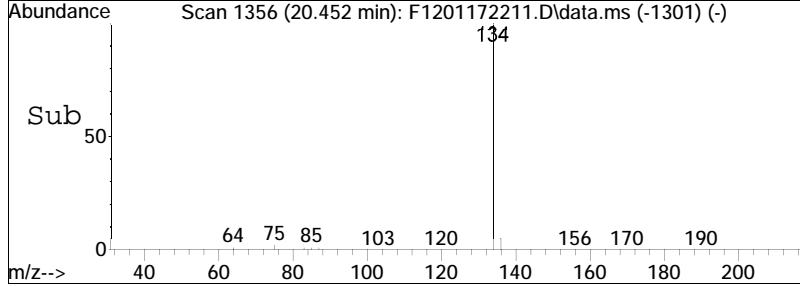
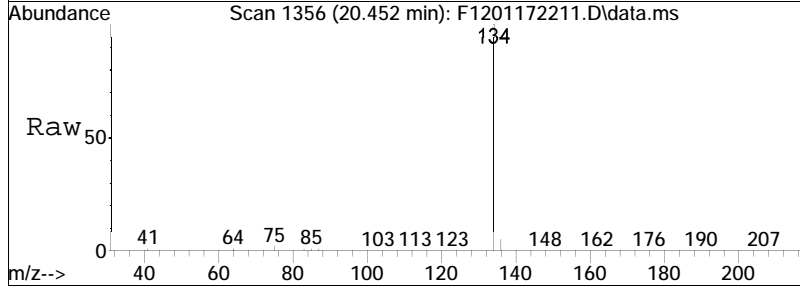
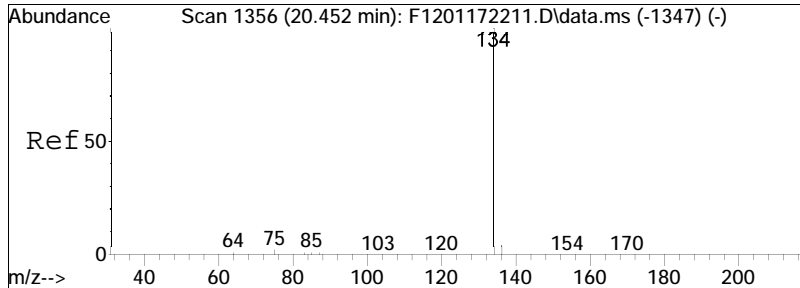
#14  
 2-Methylnaphthalene  
 Concen: 517.16 ng/mL  
 RT: 22.934 min Scan# 1628  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm  
 Tgt Ion:142 Resp: 108230



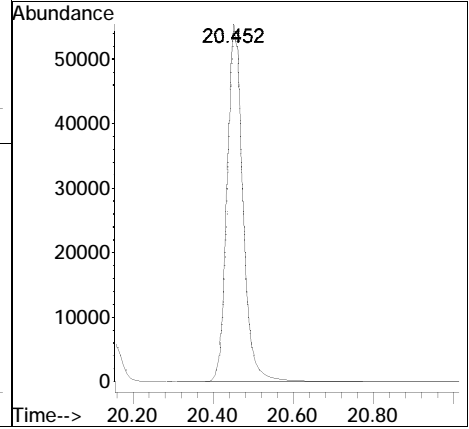


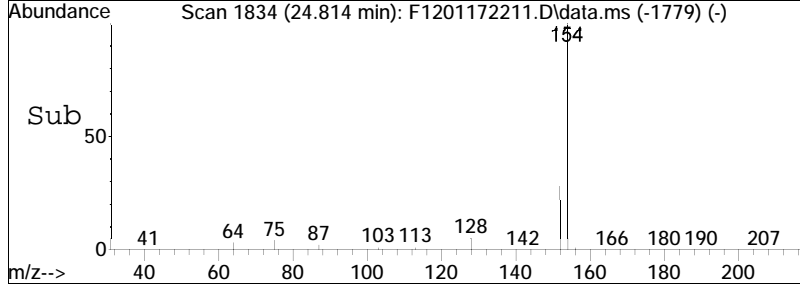
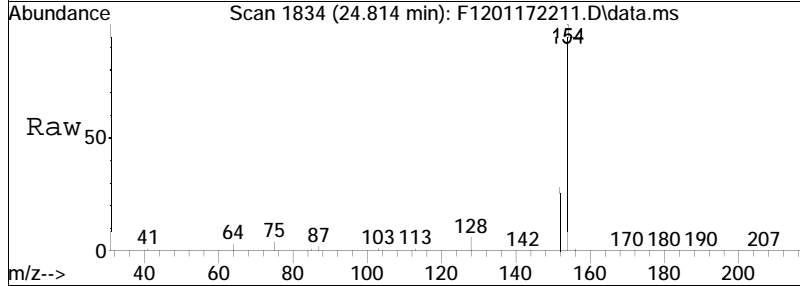
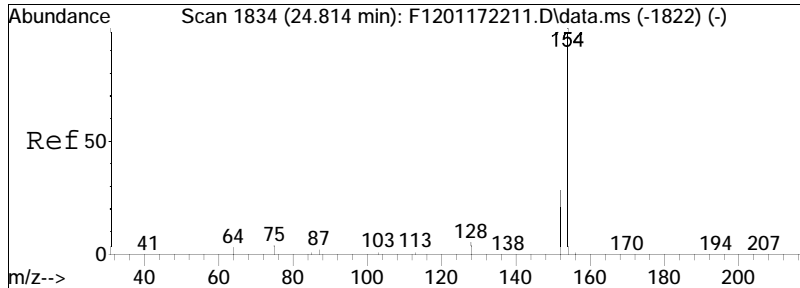
#15  
 1-Methylnaphthalene  
 Concen: 514.43 ng/mL  
 RT: 23.363 min Scan# 1675  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm  
 Tgt Ion:142 Resp: 102704



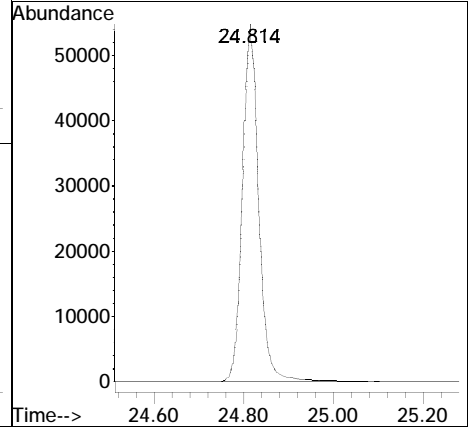


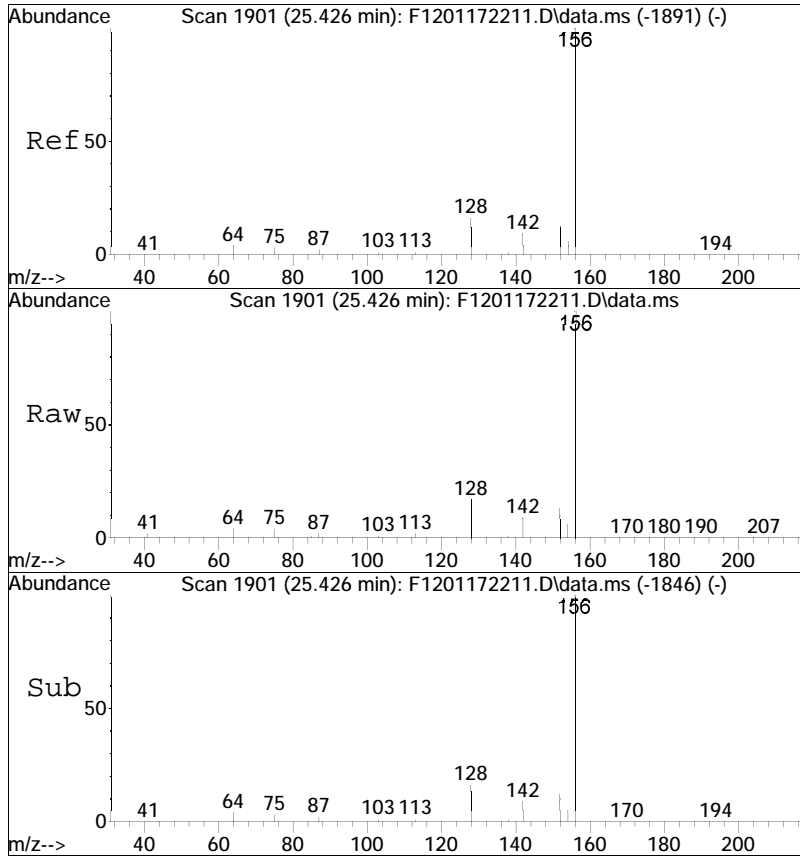
#16  
Benzothiophene  
Concen: 551.50 ng/mL  
RT: 20.452 min Scan# 1356  
Delta R.T. 0.000 min  
Lab File: F1201172211.D  
Acq: 17 Jan 2022 11:22 pm  
Tgt Ion:134 Resp: 148640



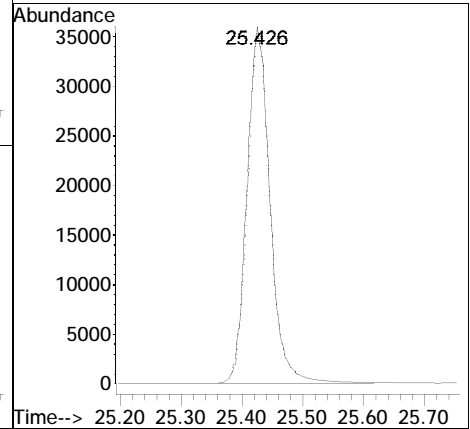


#21  
Biphenyl  
Concen: 531.47 ng/mL  
RT: 24.814 min Scan# 1834  
Delta R.T. 0.000 min  
Lab File: F1201172211.D  
Acq: 17 Jan 2022 11:22 pm  
Tgt Ion:154 Resp: 133885

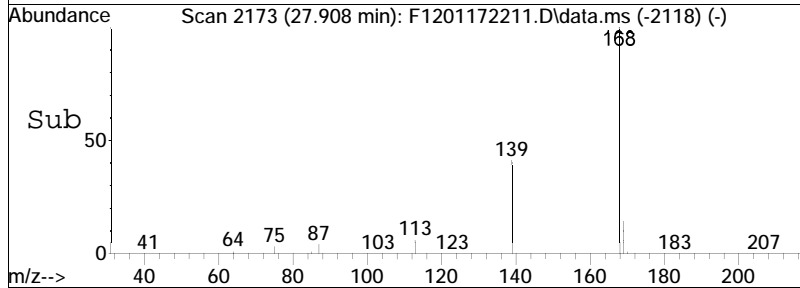
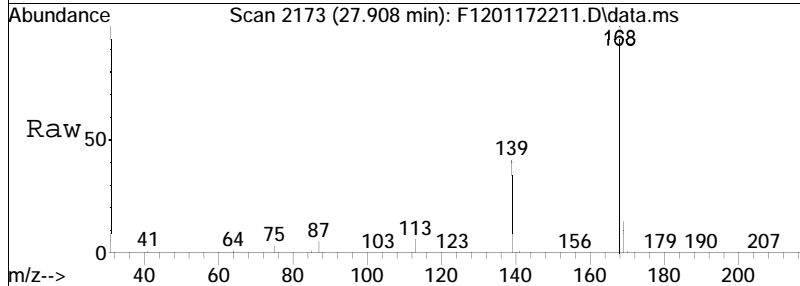
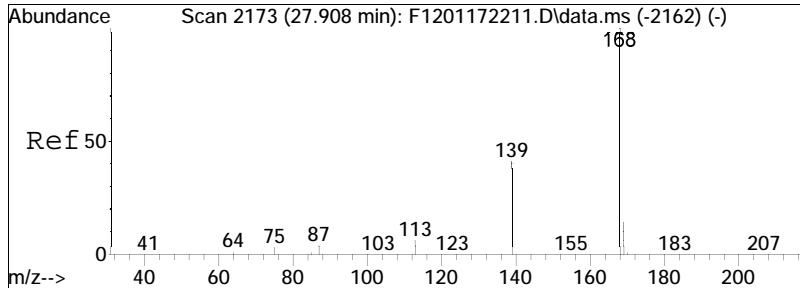




#22  
 2,6-Dimethylnaphthalene  
 Concen: 533.90 ng/mL  
 RT: 25.426 min Scan# 1901  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm  
 Tgt Ion:156 Resp: 92380

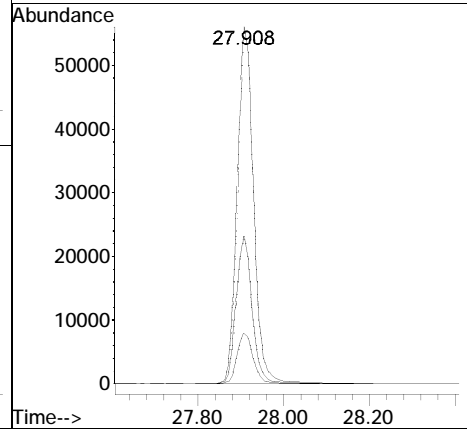


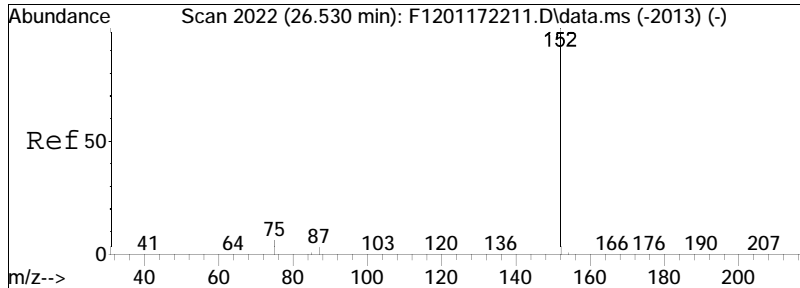




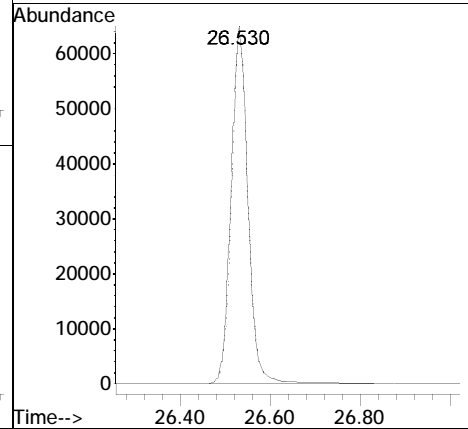
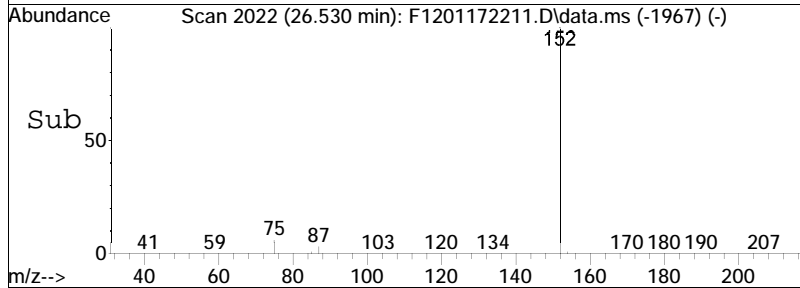
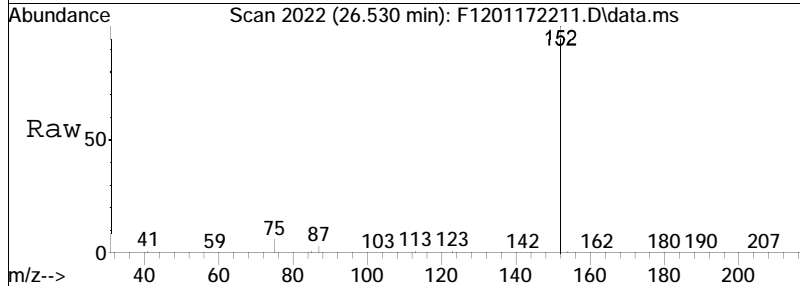
#23  
 Dibenzofuran  
 Concen: 529.24 ng/mL  
 RT: 27.908 min Scan# 2173  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

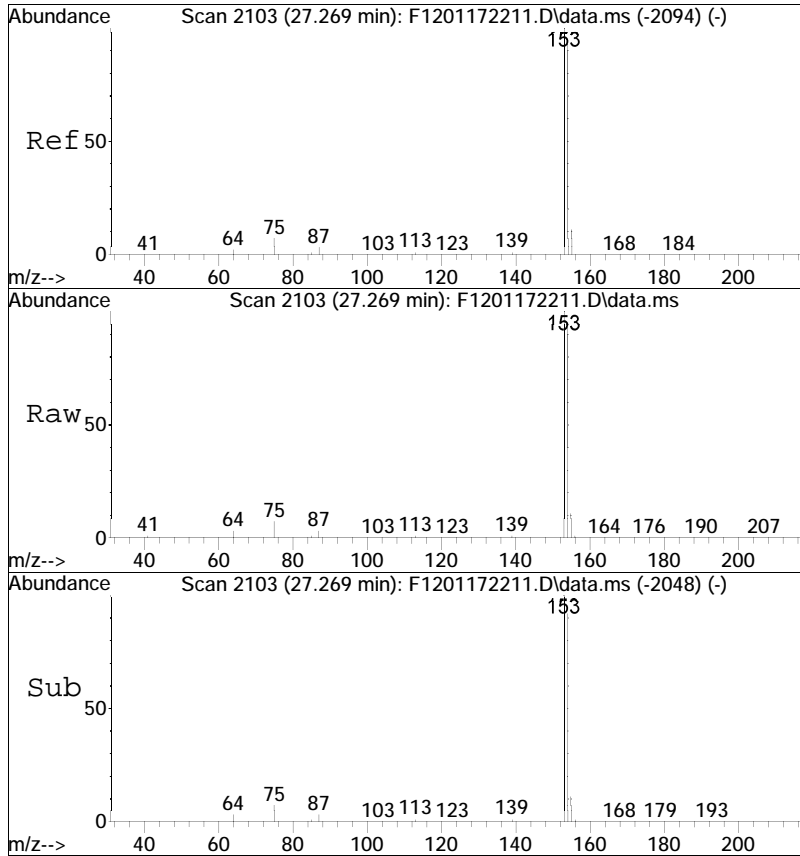
Tgt Ion	Resp	Lower	Upper
168	145020		
168	100		
139	40.9	29.0	53.8
169	14.2	9.9	18.5





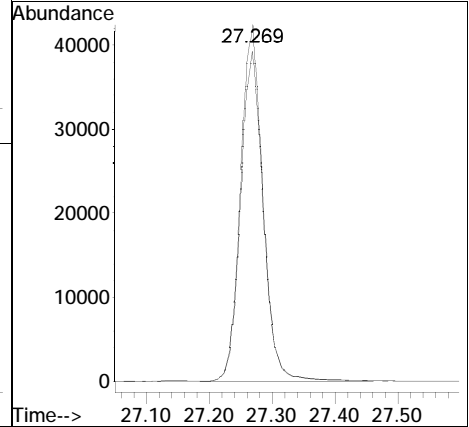
#24  
 Acenaphthylene  
 Concen: 590.67 ng/mL  
 RT: 26.530 min Scan# 2022  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm  
 Tgt Ion:152 Resp: 164225

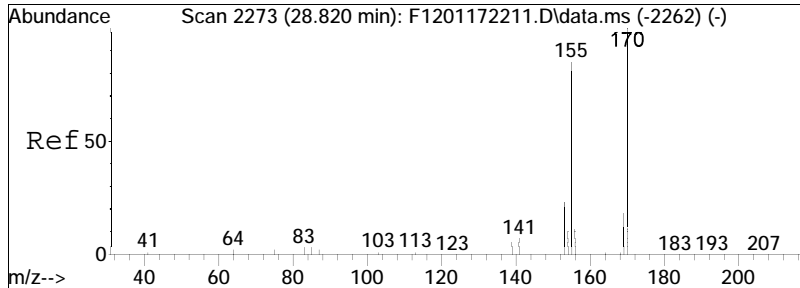




#25  
 Acenaphthene  
 Concen: 545.17 ng/mL  
 RT: 27.269 min Scan# 2103  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

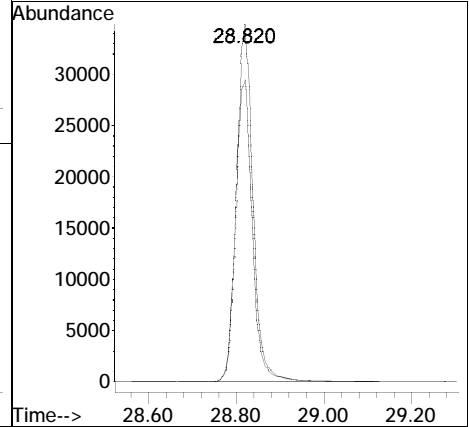
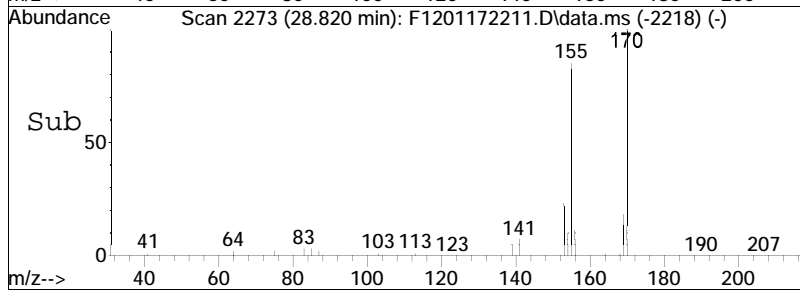
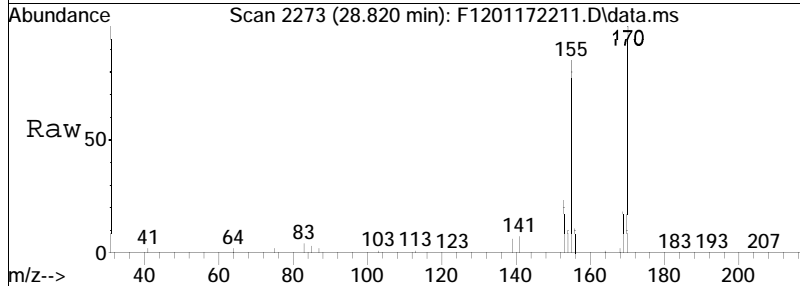
Tgt Ion	Resp	Lower	Upper
153	104827		
154	93.0	64.8	120.4

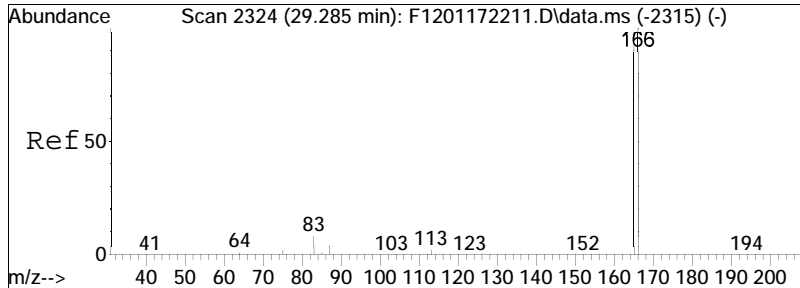




#26  
 2,3,5-Trimethylnaphthalene  
 Concen: 563.25 ng/mL  
 RT: 28.820 min Scan# 2273  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

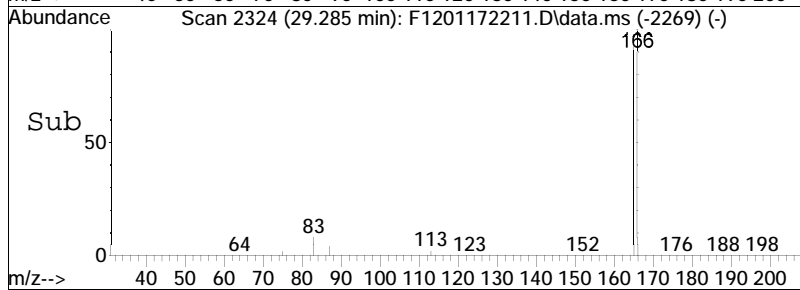
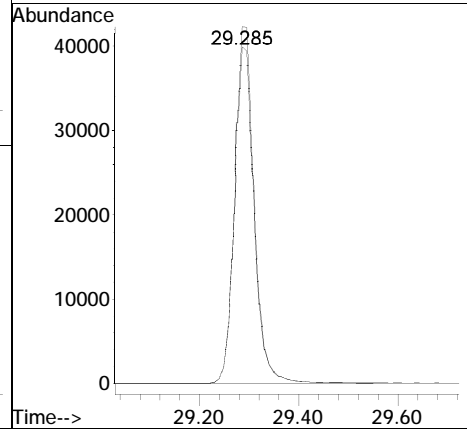
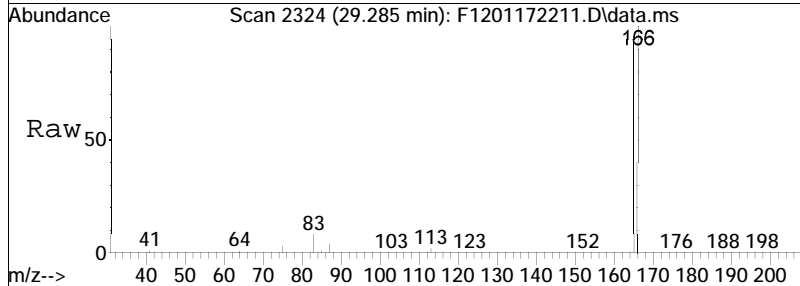
Tgt Ion	Resp	Lower	Upper
170	100		
155	86.0	59.3	110.1

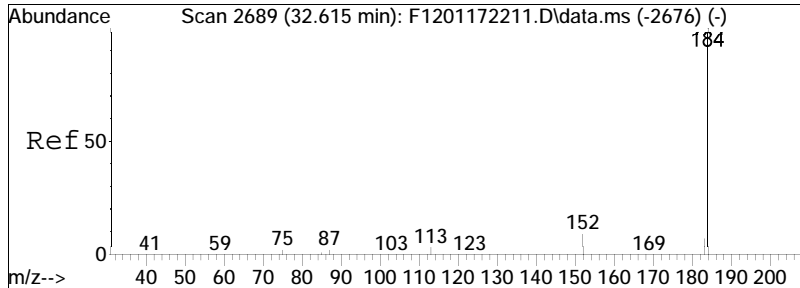




#27  
 Fluorene  
 Concen: 543.90 ng/mL  
 RT: 29.285 min Scan# 2324  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

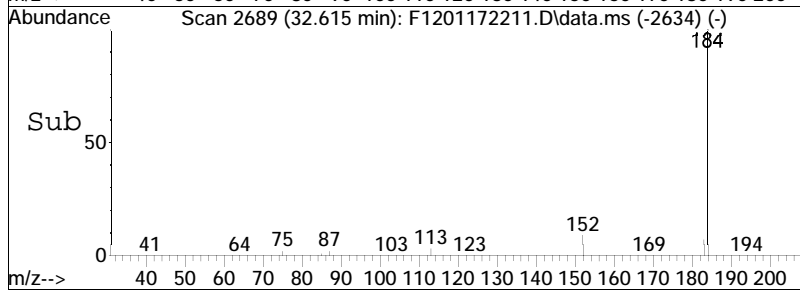
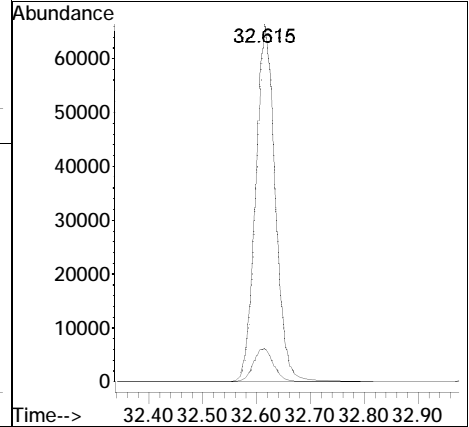
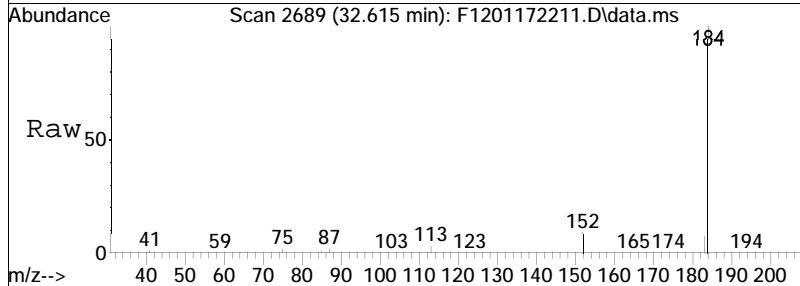
Tgt Ion	Resp	Lower	Upper
166	100		
165	93.7	66.0	122.6

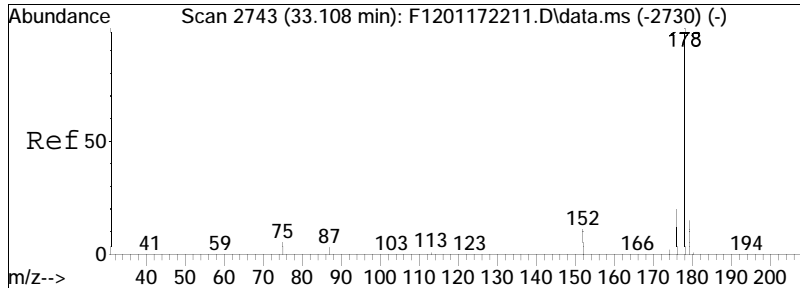




#31  
 Dibenzothiophene  
 Concen: 589.85 ng/mL  
 RT: 32.615 min Scan# 2689  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

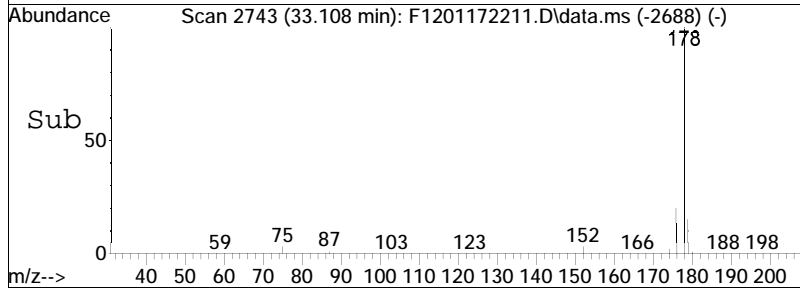
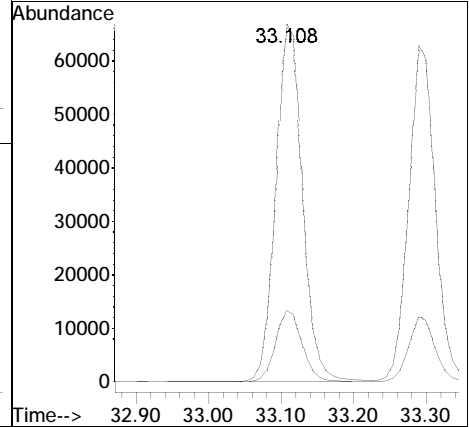
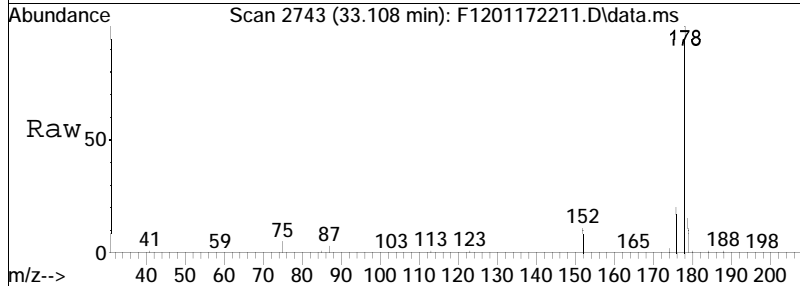
Tgt Ion	Resp	Lower	Upper
184	100		
152	9.4	6.6	12.2

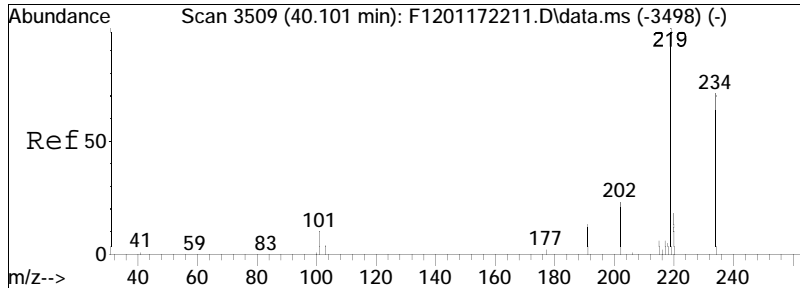




#41  
 Phenanthrene  
 Concen: 554.78 ng/mL  
 RT: 33.108 min Scan# 2743  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

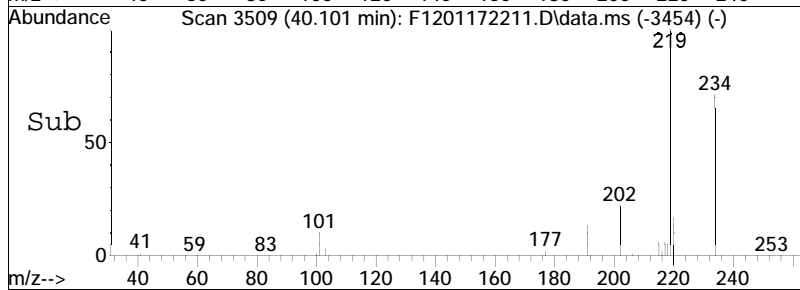
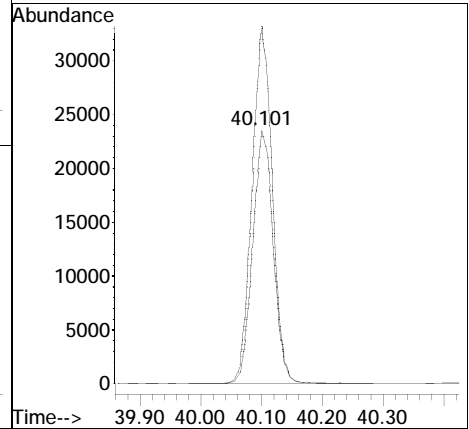
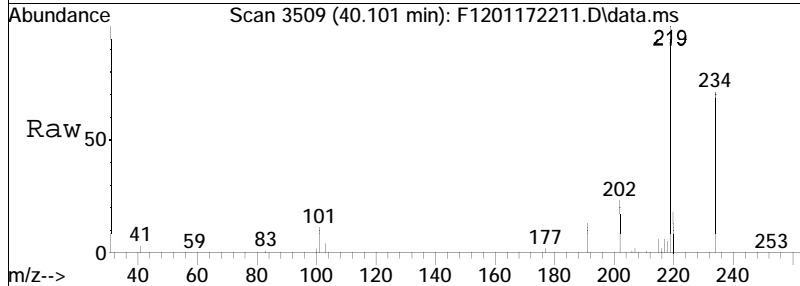
Tgt Ion	Resp	Lower	Upper
178	100		
176	19.8	14.0	26.0



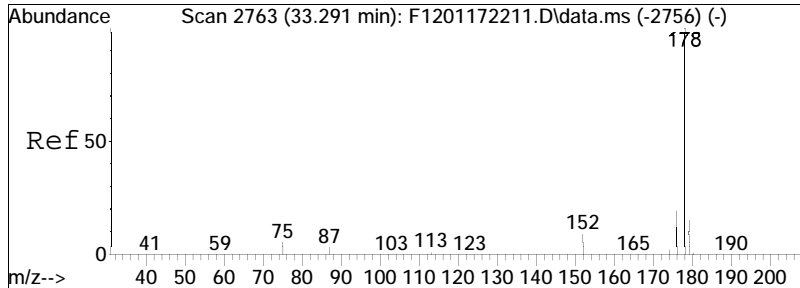


#52  
 Retene  
 Concen: 595.59 ng/mL  
 RT: 40.101 min Scan# 3509  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

Tgt Ion	Resp	Lower	Upper
234	100		
219	138.8	98.6	183.0

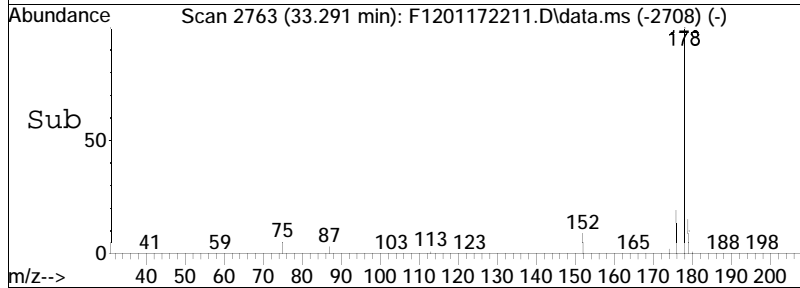
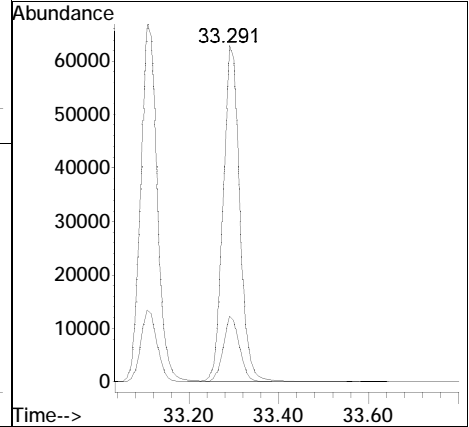
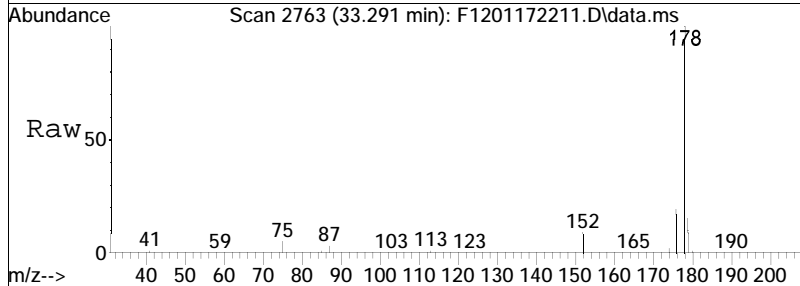


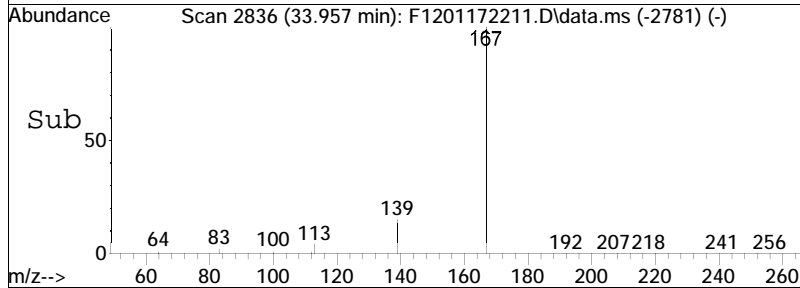
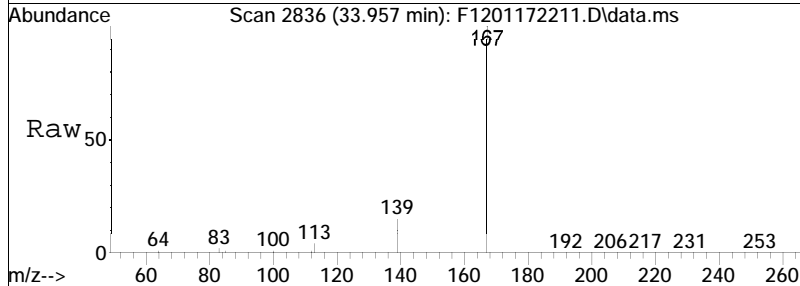
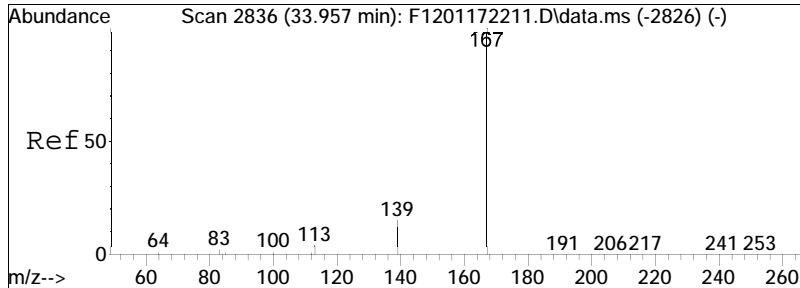




#53  
 Anthracene  
 Concen: 609.23 ng/mL  
 RT: 33.291 min Scan# 2763  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

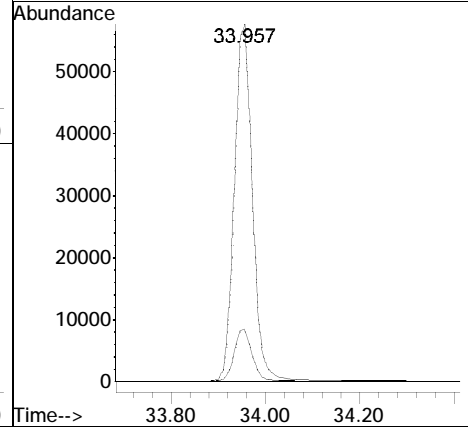
Tgt Ion	Resp	Lower	Upper
178	100		
176	18.9	13.6	25.4

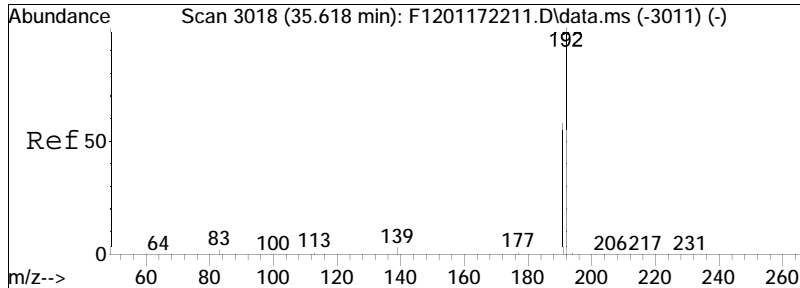




#54  
 Carbazole  
 Concen: 567.89 ng/mL  
 RT: 33.957 min Scan# 2836  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

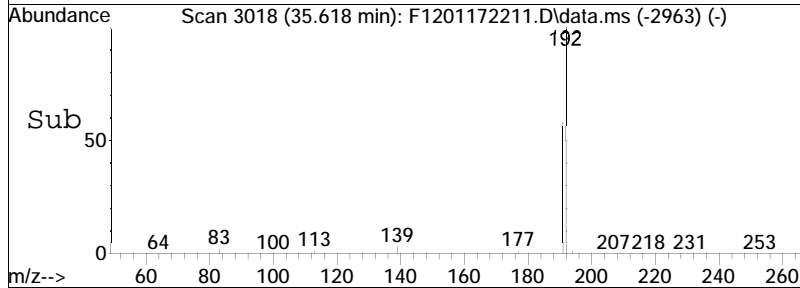
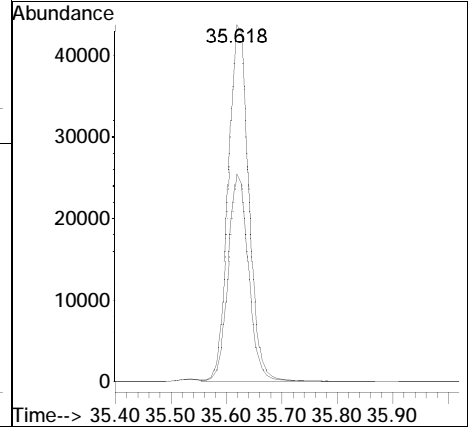
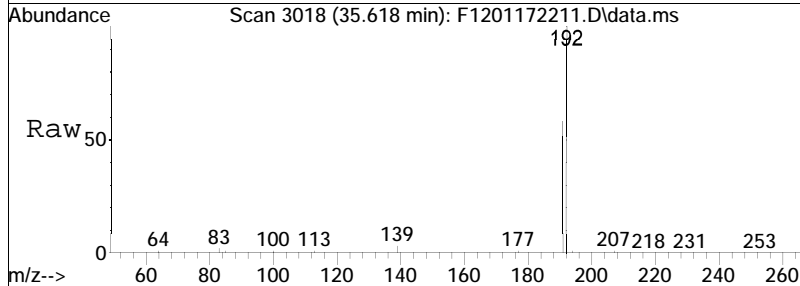
Tgt Ion: 167 Resp: 150011  
 Ion Ratio Lower Upper  
 167 100  
 139 14.7 10.3 19.1

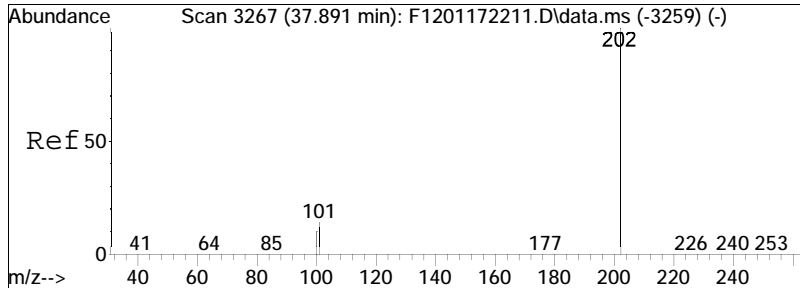




#55  
 1-Methylphenanthrene  
 Concen: 543.25 ng/mL  
 RT: 35.618 min Scan# 3018  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

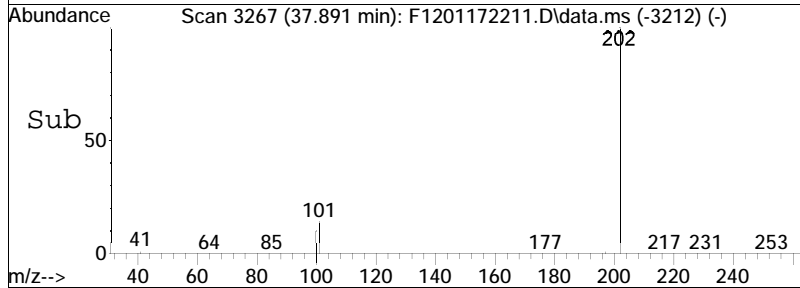
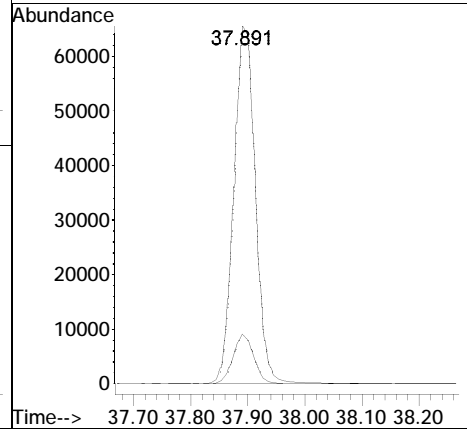
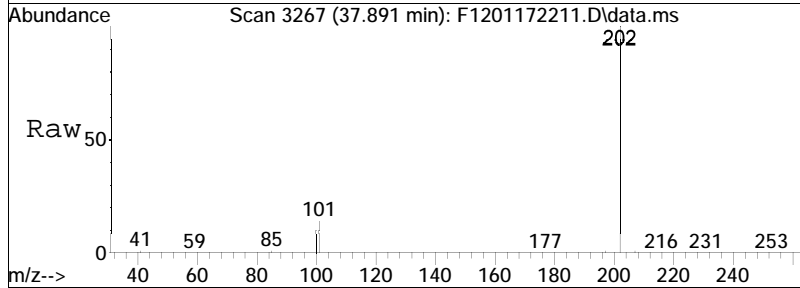
Tgt Ion	Resp	Lower	Upper
192	100		
191	57.5	40.7	75.5

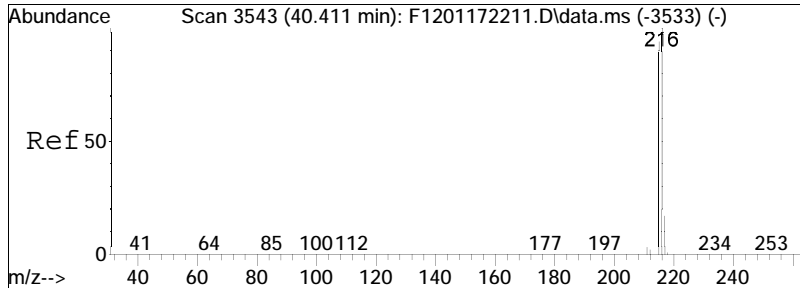




#56  
 Fluoranthene  
 Concen: 575.58 ng/mL  
 RT: 37.891 min Scan# 3267  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

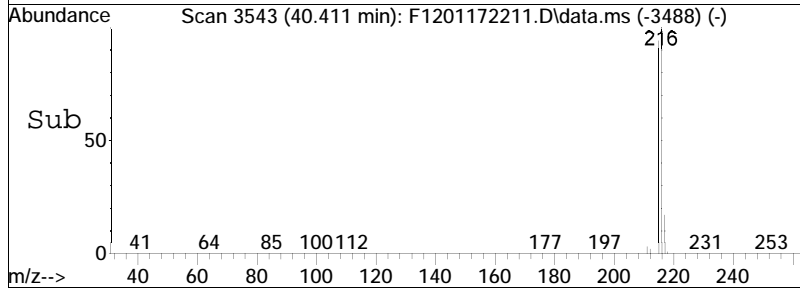
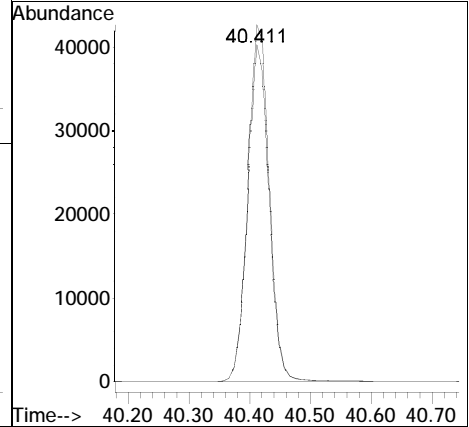
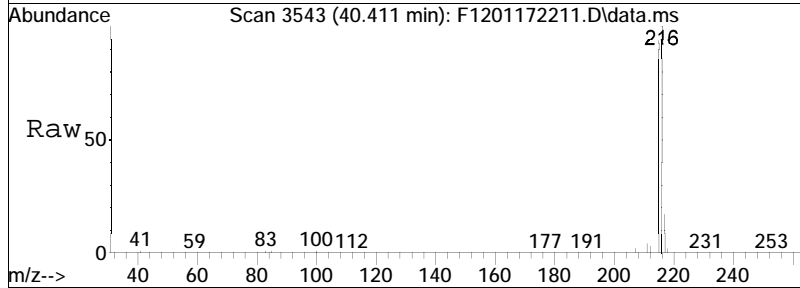
Tgt Ion	Ratio	Lower	Upper
202	100		
101	13.4	9.7	17.9

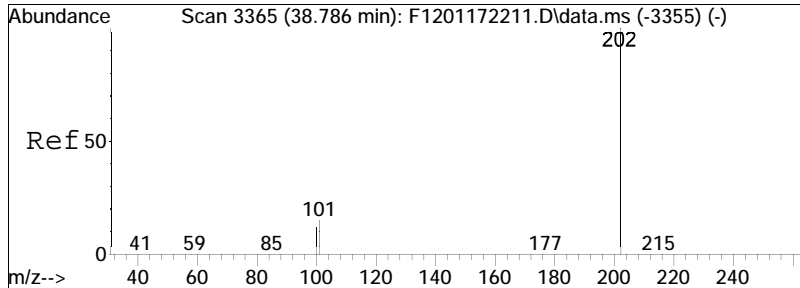




#57  
 Benzo(b)fluorene  
 Concen: 619.79 ng/mL  
 RT: 40.411 min Scan# 3543  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

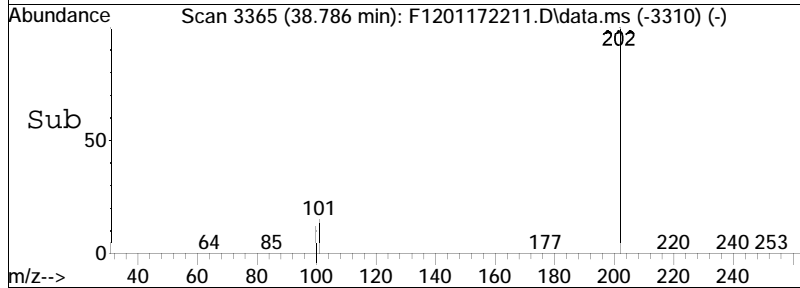
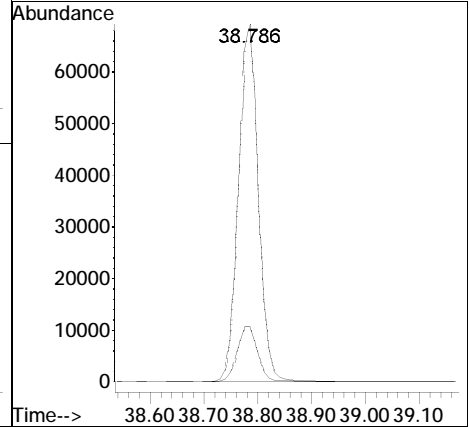
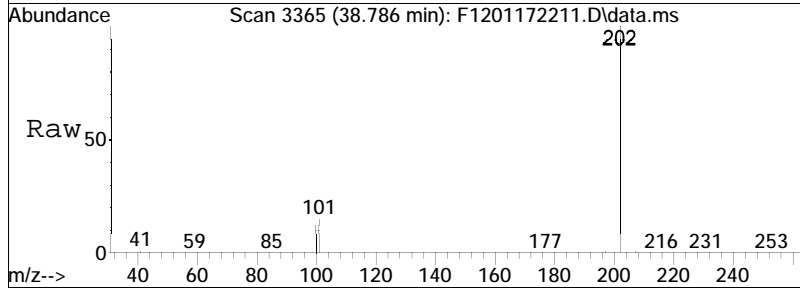
Tgt Ion	Resp	Lower	Upper
216	104275		
215	93.0	66.1	122.7

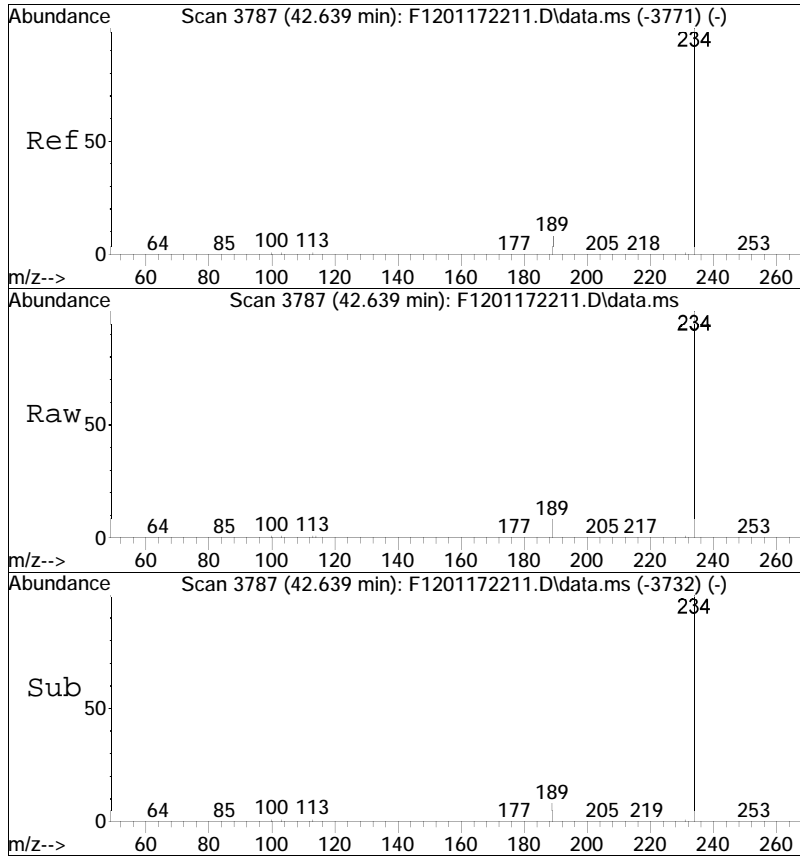




#59  
 Pyrene  
 Concen: 570.85 ng/mL  
 RT: 38.786 min Scan# 3365  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

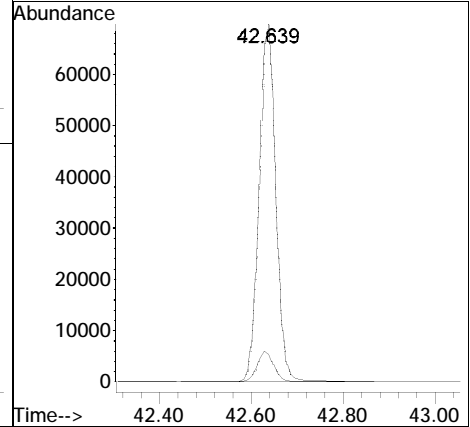
Tgt Ion	Resp	Lower	Upper
202	174034		
101	16.1	10.9	20.2

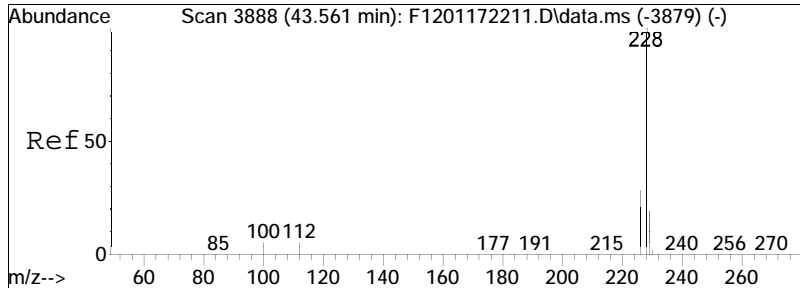




#67  
 Naphthobenzothiophene-2,1-D  
 Concen: 586.65 ng/mL  
 RT: 42.639 min Scan# 3787  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

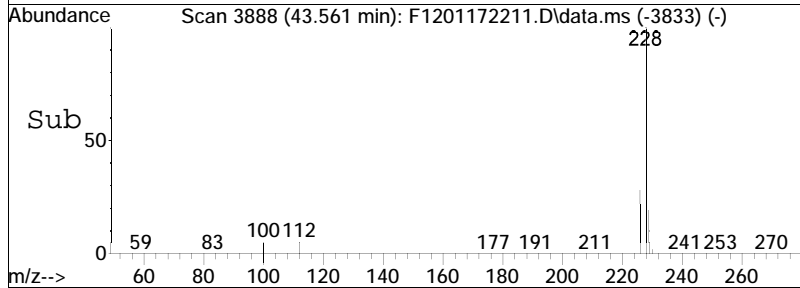
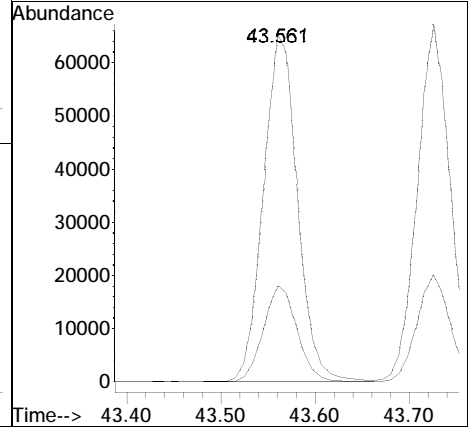
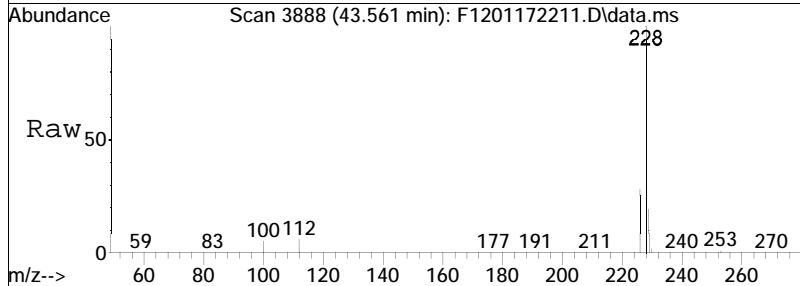
Tgt Ion	Resp	Lower	Upper
234	170799	100	
189	8.3	5.4	10.0



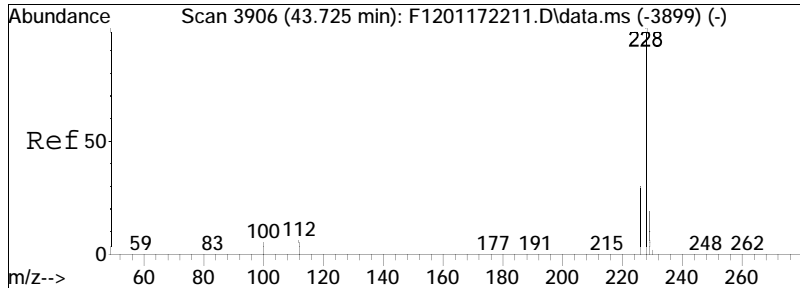


#75  
 Benz[a]anthracene  
 Concen: 547.18 ng/mL  
 RT: 43.561 min Scan# 3888  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

Tgt Ion	Resp	Lower	Upper
228	163822		
226	27.3	19.3	35.9

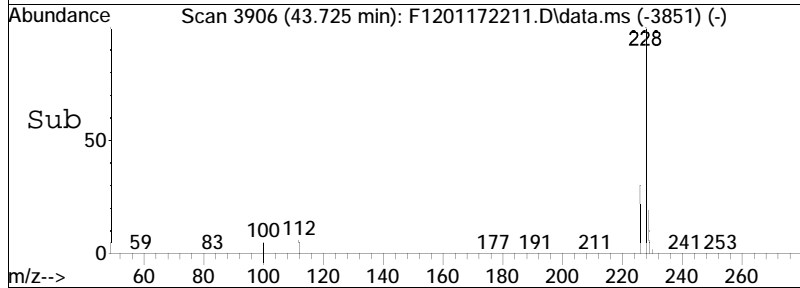
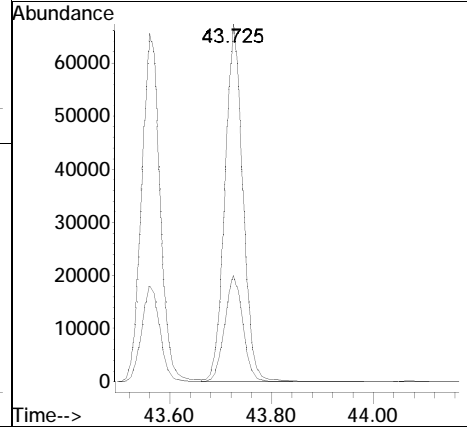
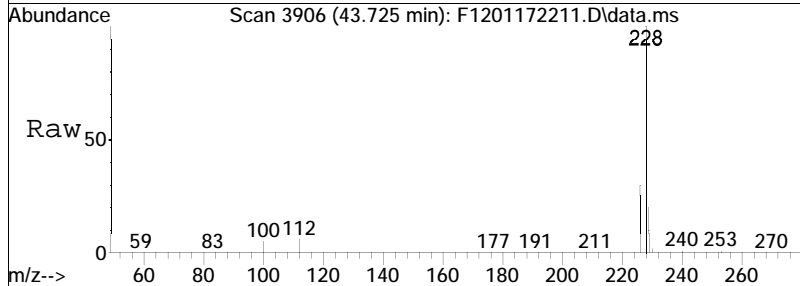


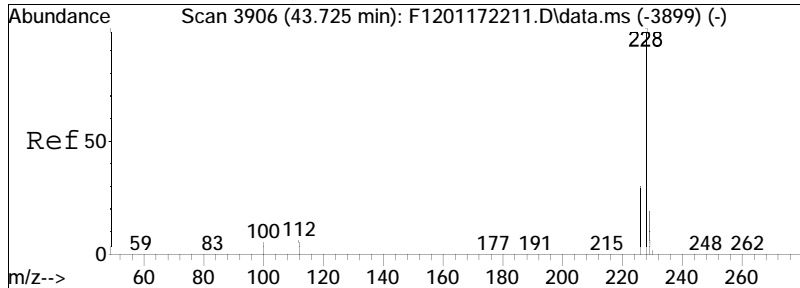




#76  
 Chrysene  
 Concen: 502.97 ng/mL  
 RT: 43.725 min Scan# 3906  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

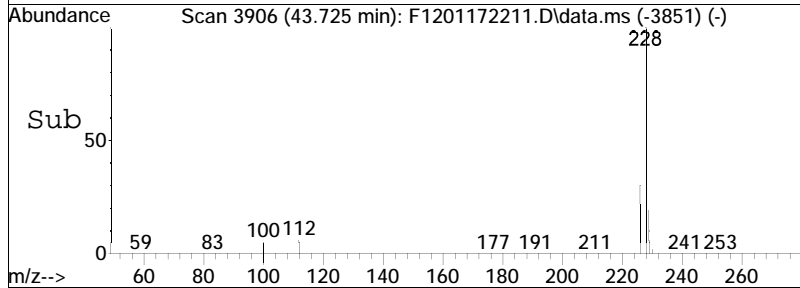
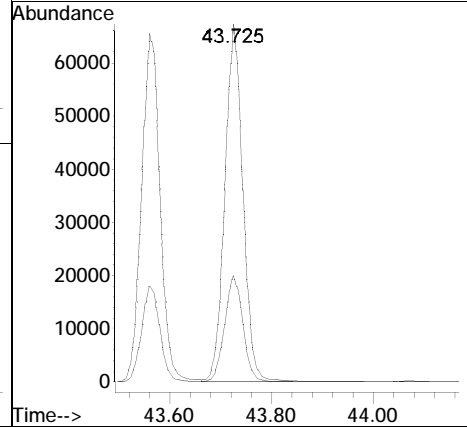
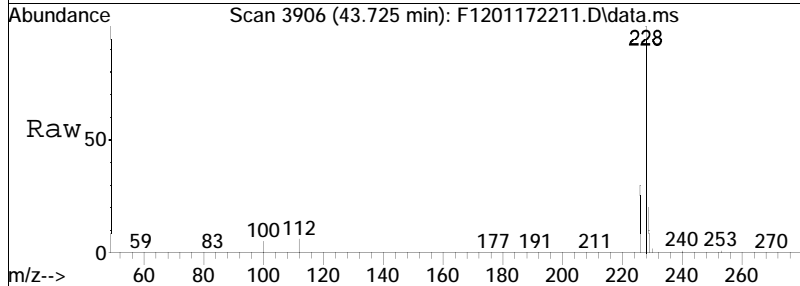
Tgt Ion	Resp	Lower	Upper
228	100		
226	30.0	20.9	38.9

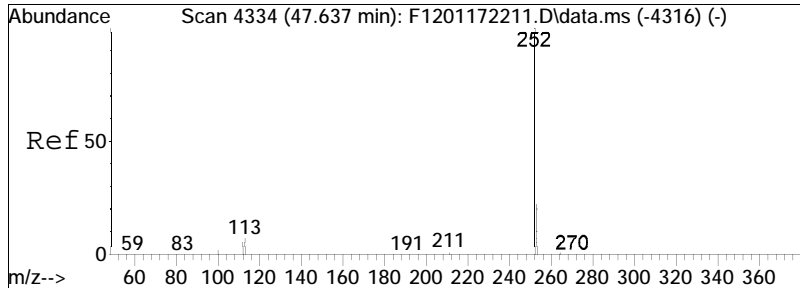




#77  
 Chrysene/Triphenylene  
 Concen: 502.97 ng/mL  
 RT: 43.725 min Scan# 3906  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

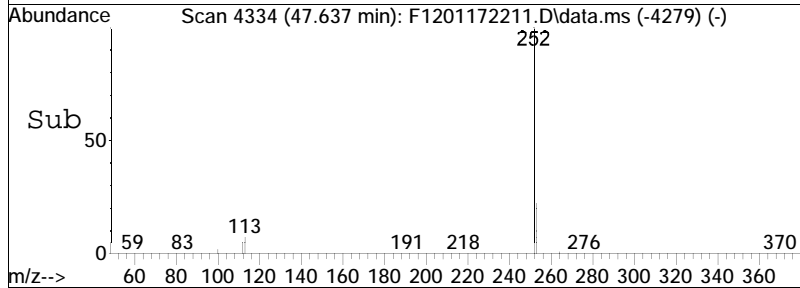
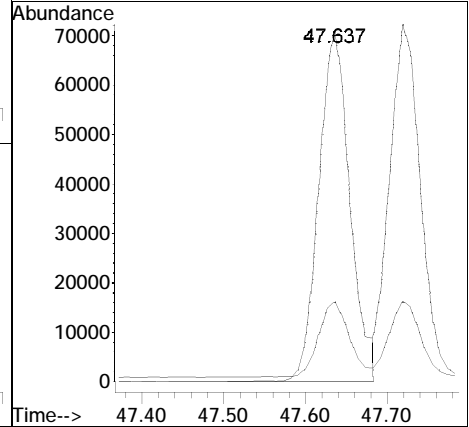
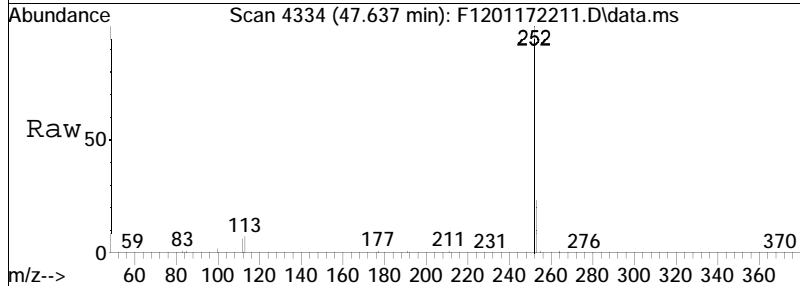
Tgt Ion	Resp	Lower	Upper
228	100		
226	30.0	20.9	38.9

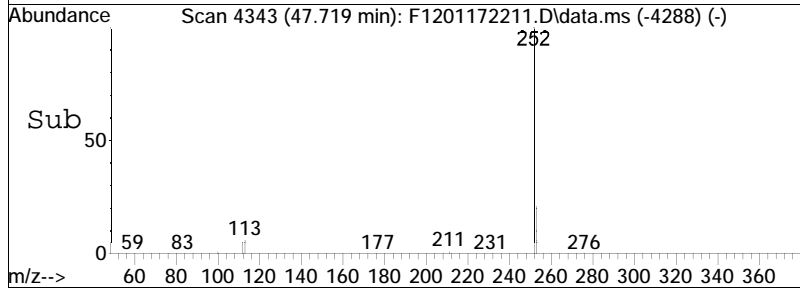
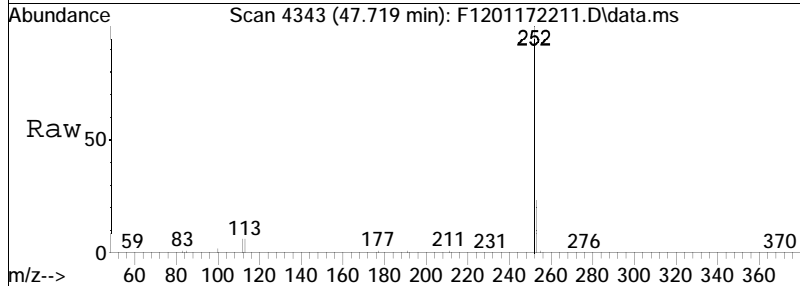
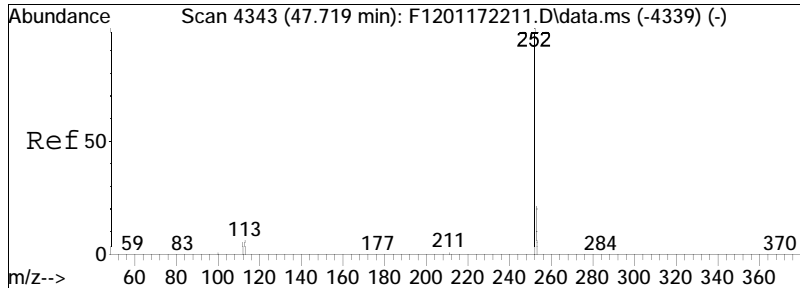




#85  
 Benzo[b]fluoranthene  
 Concen: 528.48 ng/mL  
 RT: 47.637 min Scan# 4334  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

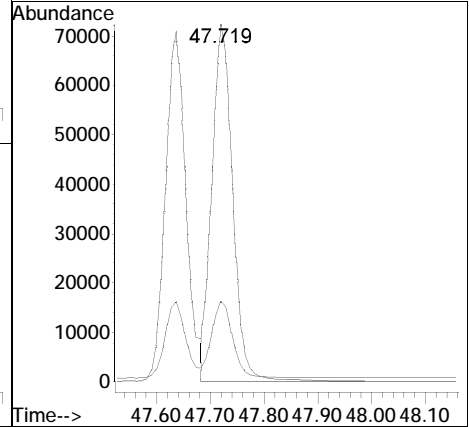
Tgt Ion	Resp	Lower	Upper
252	187101		
253	21.7	16.0	29.6

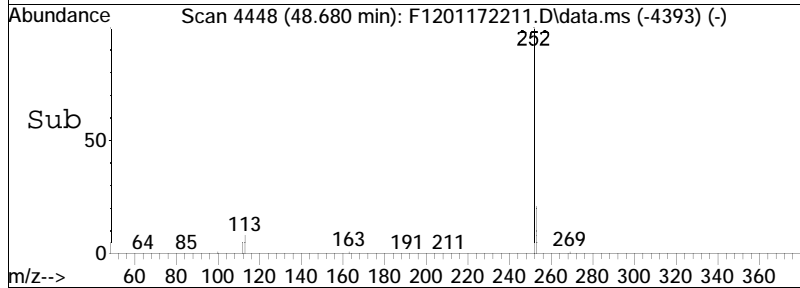
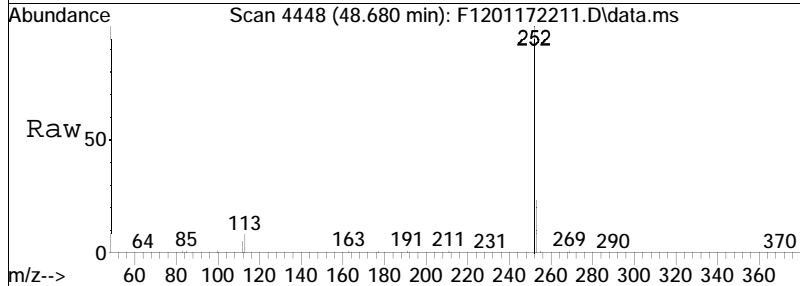
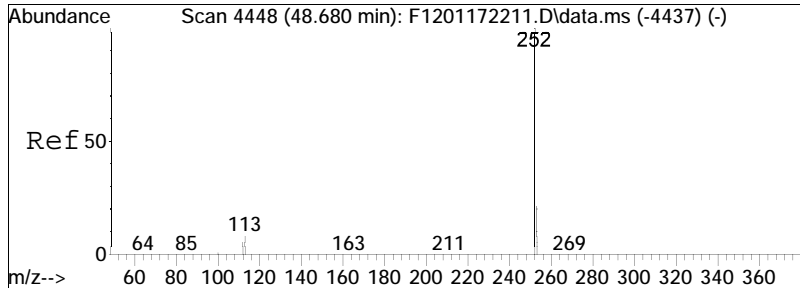




#86  
 Benzo[j]+[k]fluoranthene  
 Concen: 510.45 ng/mL  
 RT: 47.719 min Scan# 4343  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

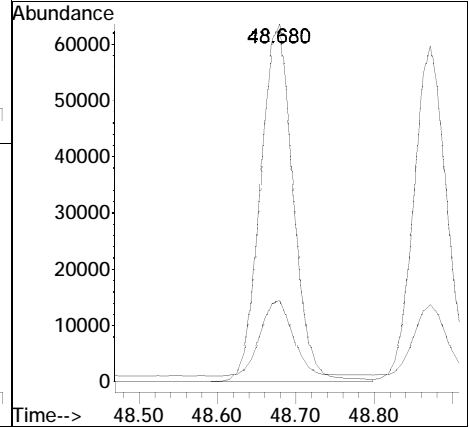
Tgt Ion	Resp	Lower	Upper
252	192451	15.8	29.3
253	21.3		

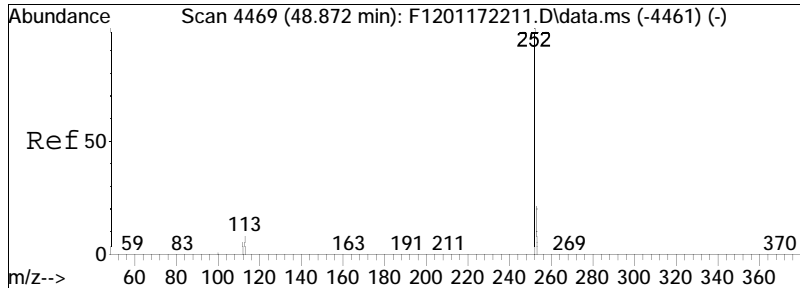




#88  
 Benzo[e]pyrene  
 Concen: 496.60 ng/mL  
 RT: 48.680 min Scan# 4448  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

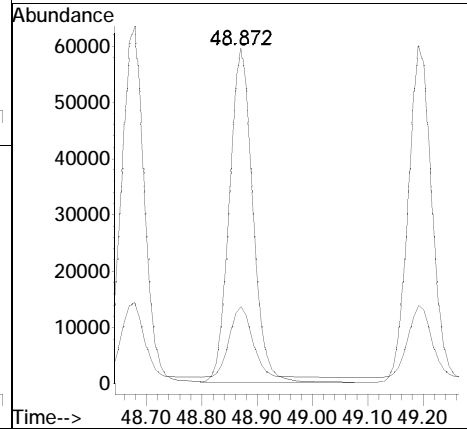
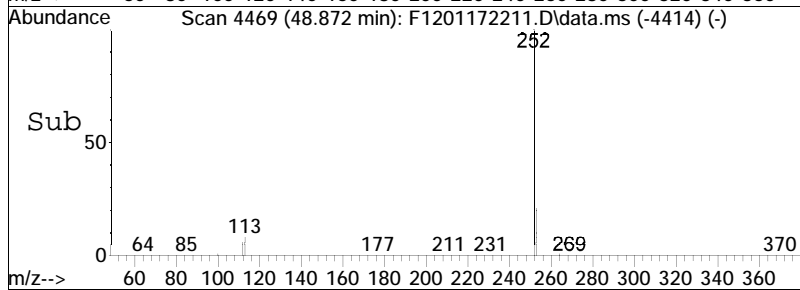
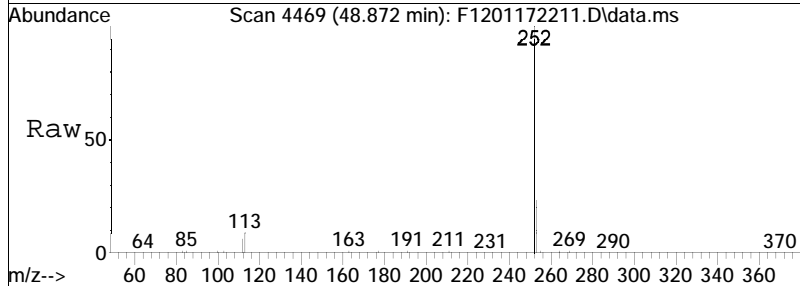
Tgt Ion	Resp	Lower	Upper
252	183246		
253	21.5	16.0	29.6

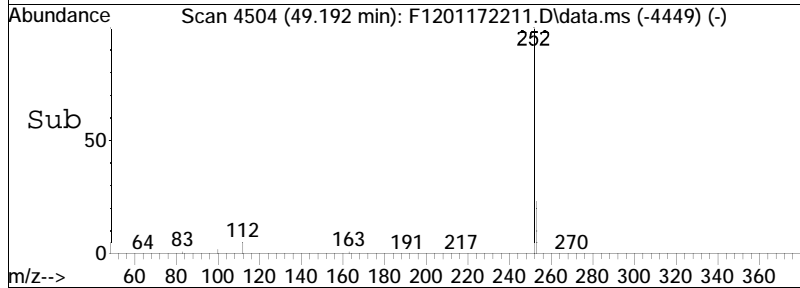
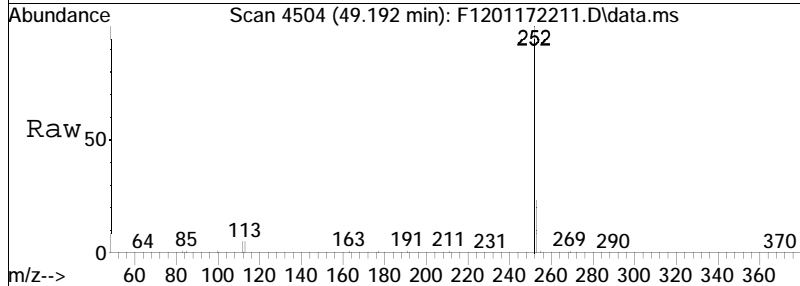
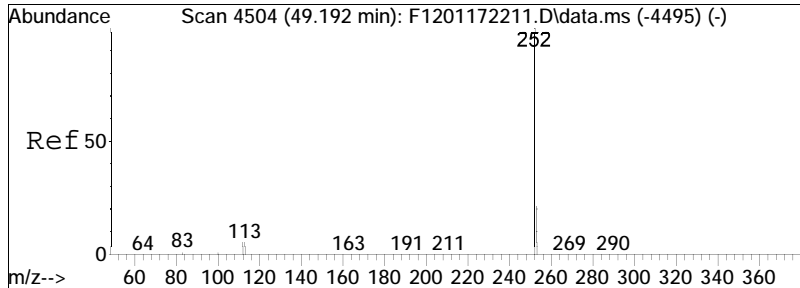




#90  
 Benzo[a]pyrene  
 Concen: 529.87 ng/mL  
 RT: 48.872 min Scan# 4469  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

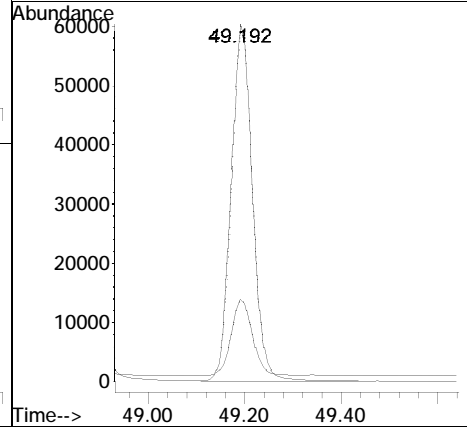
Tgt Ion	Resp	Lower	Upper
252	175080		
253	21.6	16.1	29.9

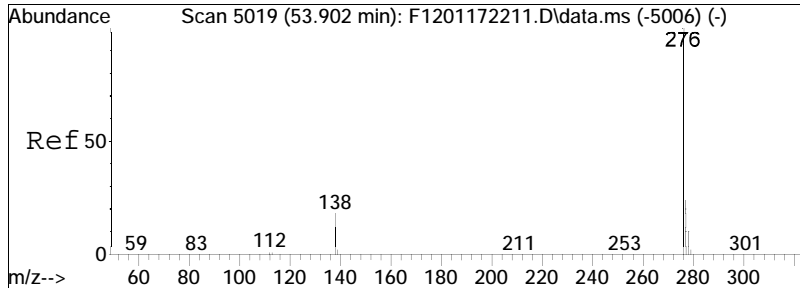




#91  
 Perylene  
 Concen: 525.48 ng/mL  
 RT: 49.192 min Scan# 4504  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

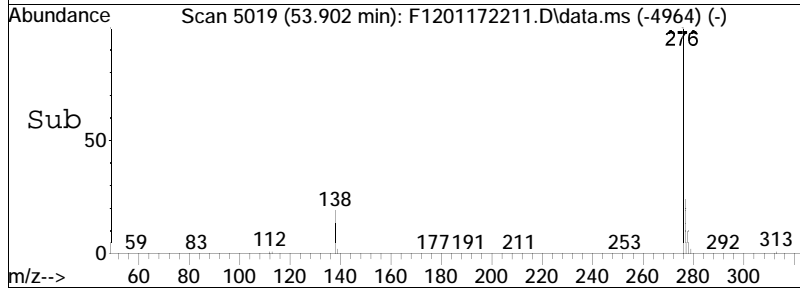
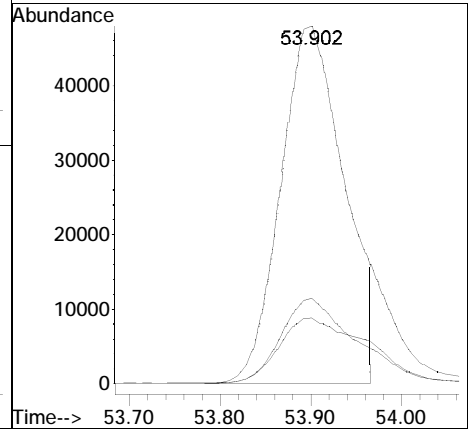
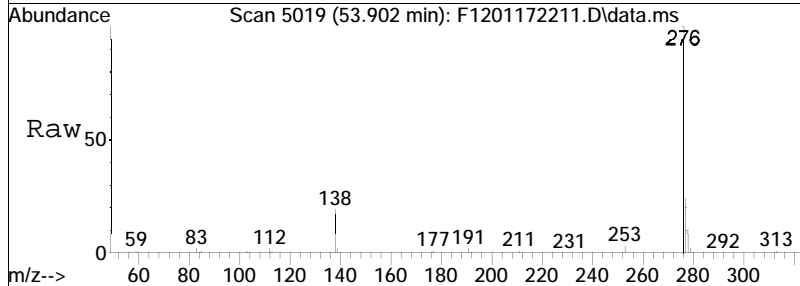
Tgt Ion	Resp	Lower	Upper
252	179715		
253	21.6	16.2	30.0



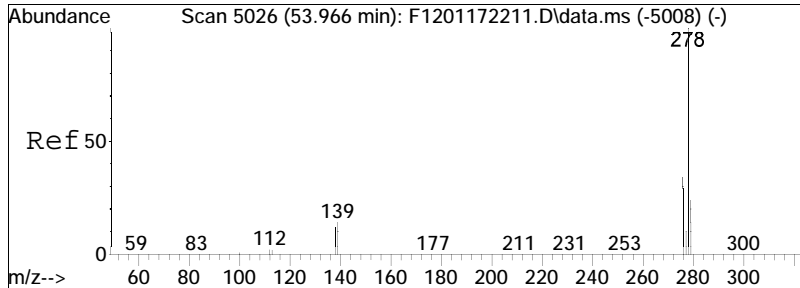


#92  
 Indeno[1,2,3-cd]pyrene  
 Concen: 543.53 ng/mL M3  
 RT: 53.902 min Scan# 5019  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	25.7	13.0	24.1#
277	28.5	16.6	30.8

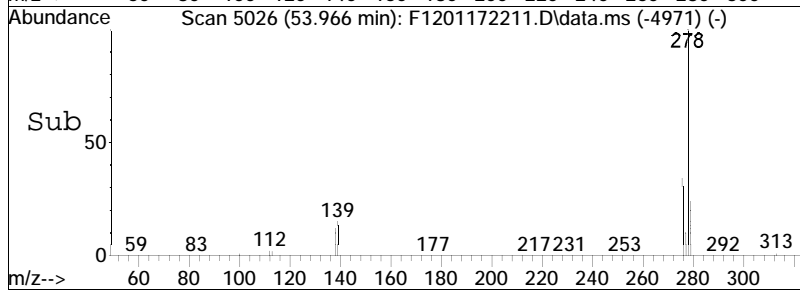
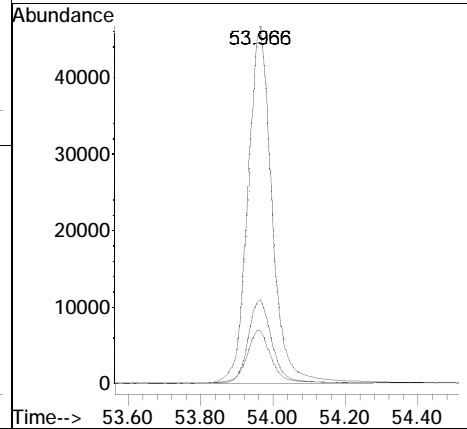
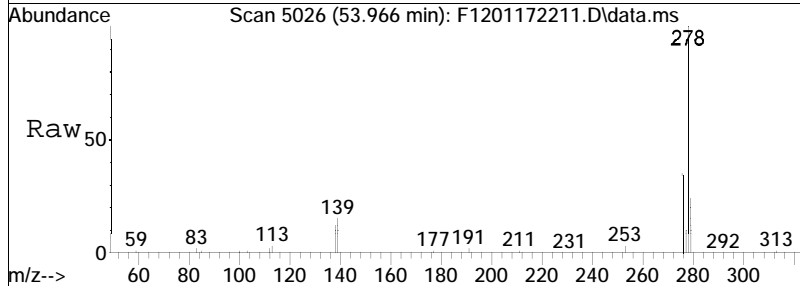


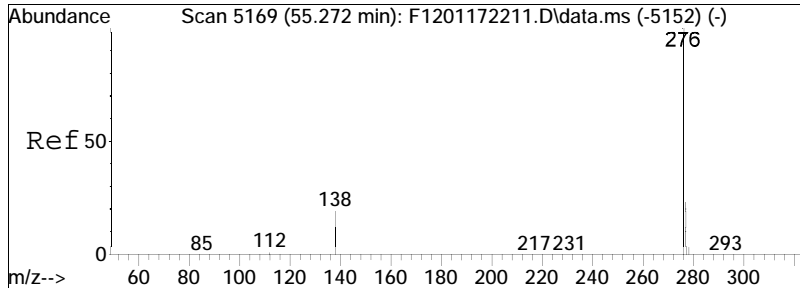




#93  
 Dibenz[ah]+[ac]anthracene  
 Concen: 553.59 ng/mL  
 RT: 53.966 min Scan# 5026  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

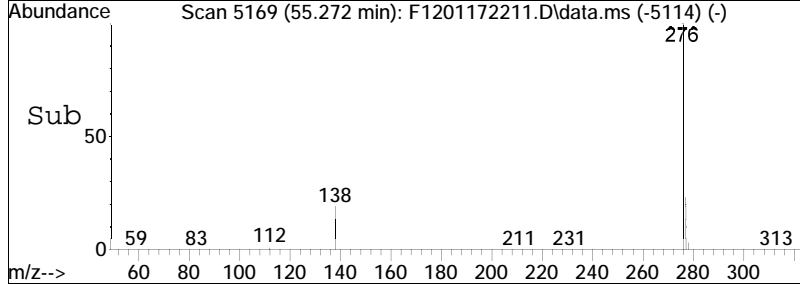
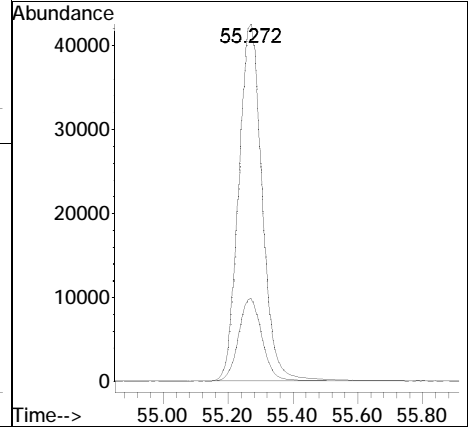
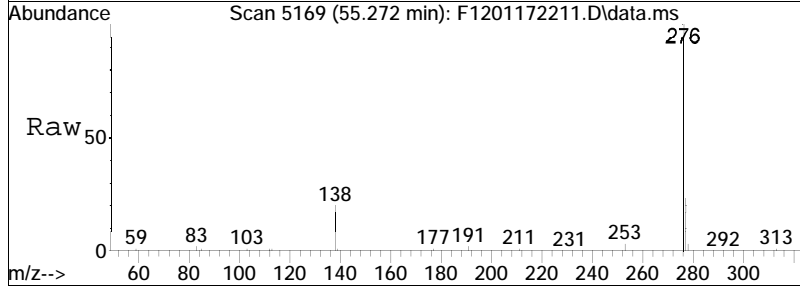
Tgt Ion	Resp	Lower	Upper
278	100		
139	14.7	10.2	19.0
279	23.2	16.6	30.8

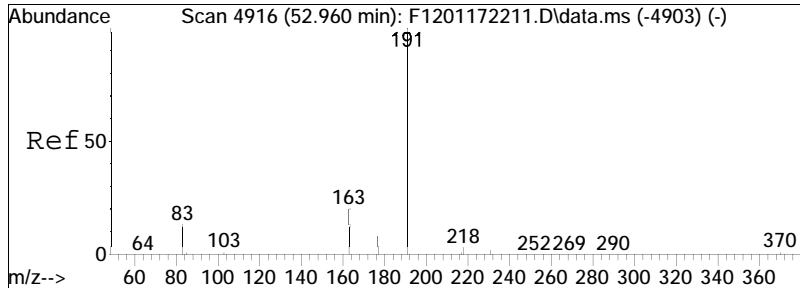




#94  
 Benzo[g,h,i]perylene  
 Concen: 544.40 ng/mL  
 RT: 55.272 min Scan# 5169  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

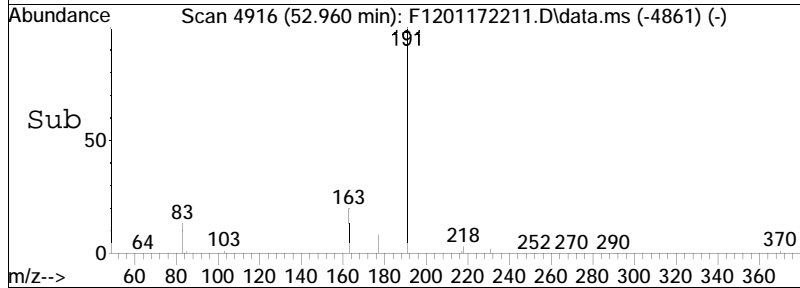
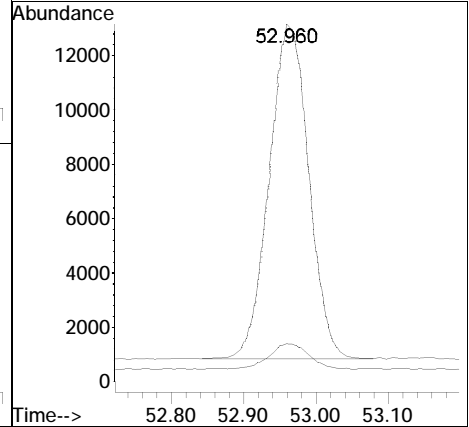
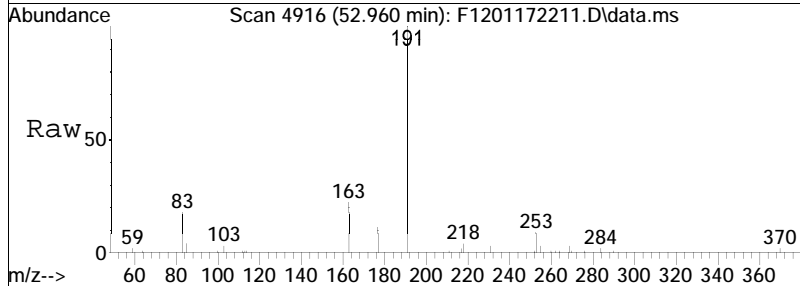
Tgt Ion: 276 Resp: 210573  
 Ion Ratio Lower Upper  
 276 100  
 277 23.3 16.2 30.2





#95  
 Hopane (T19)  
 Concen: 417.13 ng/mL  
 RT: 52.960 min Scan# 4916  
 Delta R.T. 0.000 min  
 Lab File: F1201172211.D  
 Acq: 17 Jan 2022 11:22 pm

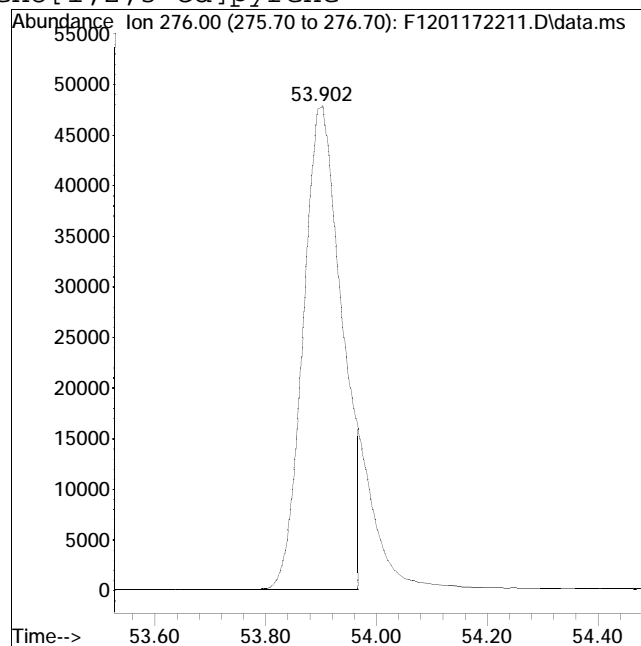
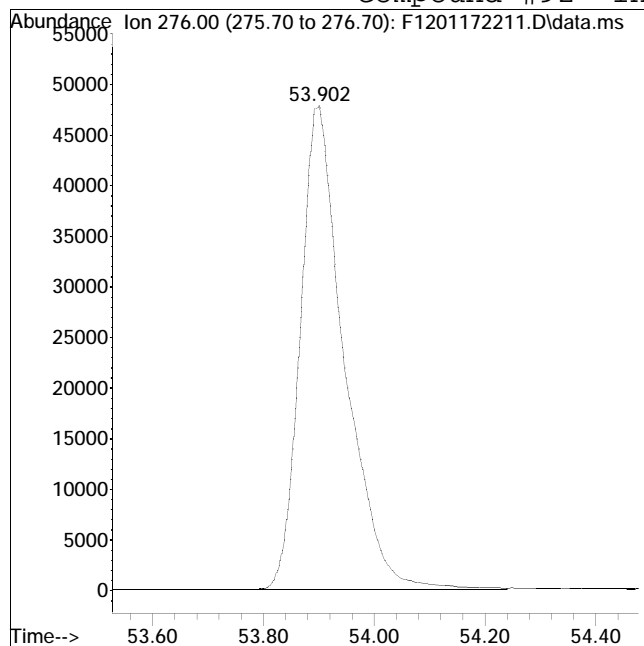
Tgt Ion	Resp	Lower	Upper
191	100		
177	8.2	7.6	14.0



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\2020Method : PAH12011722.M  
Data File : F1201172211.D Operator : PAH12:CC  
Date Inj'd : 1/17/2022 11:22 pm Instrument : PAH12  
Sample : I1201172204 Quant Date : 1/18/2022 8:27 am

Compound #92: Indeno[1,2,3-cd]pyrene



Original Peak Response = 265073

Manual Peak Response = 233415 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172212.D  
 Acq On : 18 Jan 2022 12:47 am  
 Operator : PAH12:CC  
 Sample : I1201172205  
 Misc : WG1595612,FRBE30  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 18 08:42:24 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Tue Jan 18 08:26:02 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Acenaphthene-d10	27.141	164	66518	500.000	ng/mL	0.00
74) Chrysene-d12	43.634	240	132934	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.151	136	1383522	4746.388	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	= 474.64%#	
40) Phenanthrene-d10	33.026	188	1204132	5382.016	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	= 538.20%#	
84) Benzo[b]fluoranthene-d12	47.554	264	1510732	4724.545	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	= 472.45%#	
89) Benzo[a]pyrene-d12	48.789	264	1147936	4995.347	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	= 499.53%#	
129) 5B(H)Cholane - Surr	44.246	217	233642	4607.292	ng/ml	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	= 460.73%#	
Target Compounds						
2) trans-Decalin	16.793	138	145541	2267.918	ng/mL	100
3) cis-Decalin	18.016	138	111846	2272.966	ng/mL	100
9) Naphthalene	20.233	128	1518361	4935.141	ng/mL	100
14) 2-Methylnaphthalene	22.925	142	968420	4863.166	ng/mL	100
15) 1-Methylnaphthalene	23.354	142	917283	4828.536	ng/mL	100
16) Benzothiophene	20.452	134	1296687	5056.131	ng/mL	100
21) Biphenyl	24.814	154	1187460	4953.826	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.425	156	845698	5136.538	ng/mL	100
23) Dibenzofuran	27.908	168	1295419	4968.354	ng/mL	99
24) Acenaphthylene	26.530	152	1530788M4	5786.247	ng/mL	
25) Acenaphthene	27.269	153	948025	5181.468	ng/mL	99
26) 2,3,5-Trimethylnaphthalen	28.820	170	827658	5525.662	ng/mL	99
27) Fluorene	29.285	166	1062671	5279.467	ng/mL	99
31) Dibenzothiophene	32.615	184	1508145	5699.015	ng/mL	100
41) Phenanthrene	33.117	178	1541769	5282.657	ng/mL	99
52) Retene	40.110	234	537357	6233.723	ng/mL	97
53) Anthracene	33.290	178	1514388	6028.940	ng/mL	99
54) Carbazole	33.957	167	1420511	5651.454	ng/mL	99
55) 1-Methylphenanthrene	35.618	192	1064919	5467.979	ng/mL	99
56) Fluoranthene	37.900	202	1603911	5776.676	ng/mL	98
57) Benzo(b)fluorene	40.420	216	1032808	6451.429	ng/mL	98
59) Pyrene	38.786	202	1655665	5707.349	ng/mL	100
67) Naphthobenzothiophene-2,1	42.639	234	1641205	5924.214	ng/mL	99
75) Benz[a]anthracene	43.570	228	1592457	5448.419	ng/mL	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172212.D  
 Acq On : 18 Jan 2022 12:47 am  
 Operator : PAH12:CC  
 Sample : I1201172205  
 Misc : WG1595612,FRBE30  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 18 08:42:24 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Tue Jan 18 08:26:02 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.734	228	1544101	4825.240	ng/mL	100
77) Chrysene/Triphenylene	43.734	228	1544101	4825.240	ng/mL	100
85) Benzo[b]fluoranthene	47.646	252	1769219	5118.894	ng/mL	97
86) Benzo[j]+[k]fluoranthene	47.728	252	1820195	4945.350	ng/mL	99
88) Benzo[e]pyrene	48.689	252	1730945	4805.047	ng/mL	97
90) Benzo[a]pyrene	48.881	252	1668412	5172.241	ng/mL	97
91) Perylene	49.201	252	1730966	5184.472	ng/mL	97
92) Indeno[1,2,3-cd]pyrene	53.920	276	2294665M3	5473.437	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.975	278	2031122	5414.918	ng/mL	100
94) Benzo[g,h,i]perylene	55.291	276	1972687	5224.161	ng/mL	100
95) Hopane (T19)	52.969	191	448226	4163.384	ng/mL	92

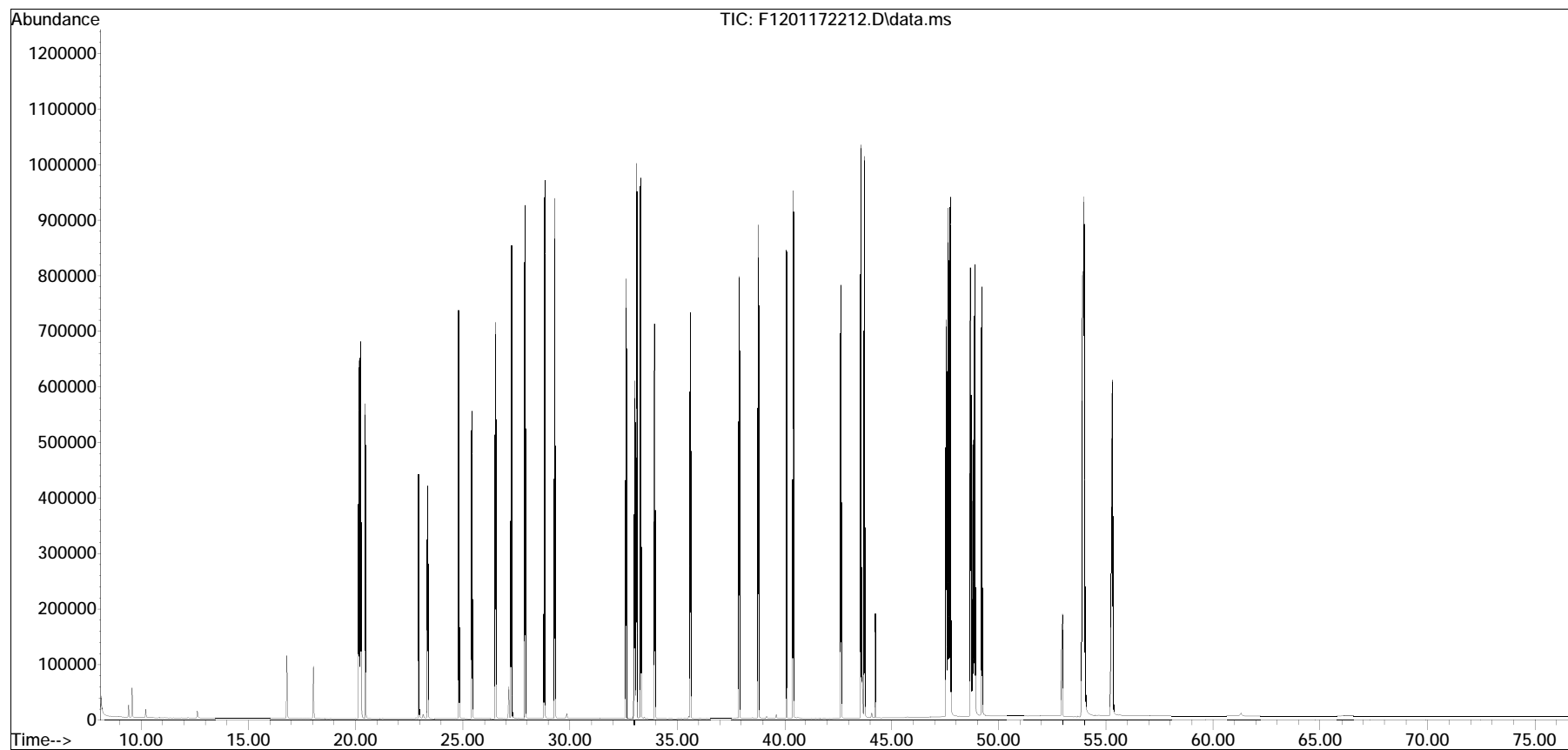
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
Data File : F1201172212.D  
Acq On : 18 Jan 2022 12:47 am  
Operator : PAH12:CC  
Sample : I1201172205  
Misc : WG1595612,FRBE30  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 18 08:42:24 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Tue Jan 18 08:26:02 2022  
Response via : Initial Calibration

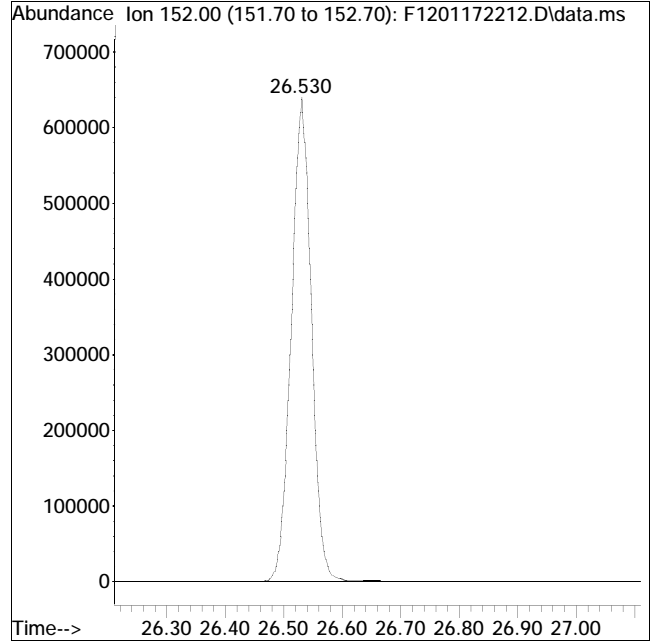
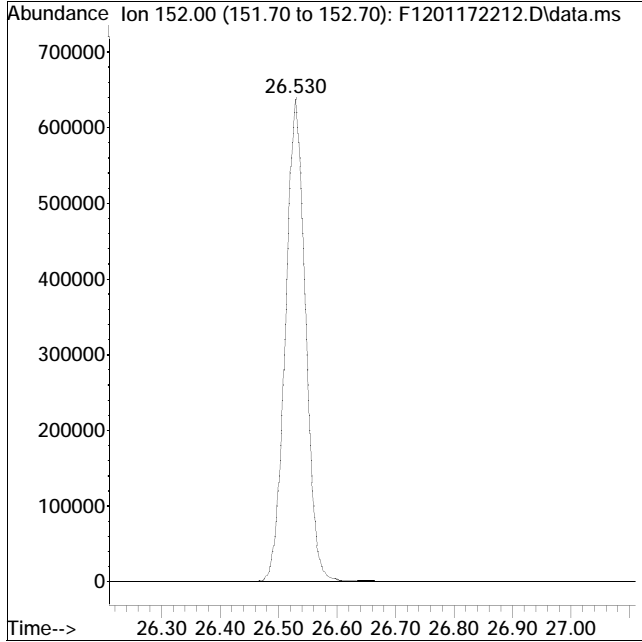
Sub List : ALKPAH\_CCV - CC with five surrogates



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12011722.M  
Data File : F1201172212.D Operator : PAH12:CC  
Date Inj'd : 1/18/2022 12:47 am Instrument : PAH12  
Sample : I1201172205 Quant Date : 1/18/2022 8:28 am

Compound #24: Acenaphthylene



Original Peak Response = 1533491

Manual Peak Response = 1530788 M4

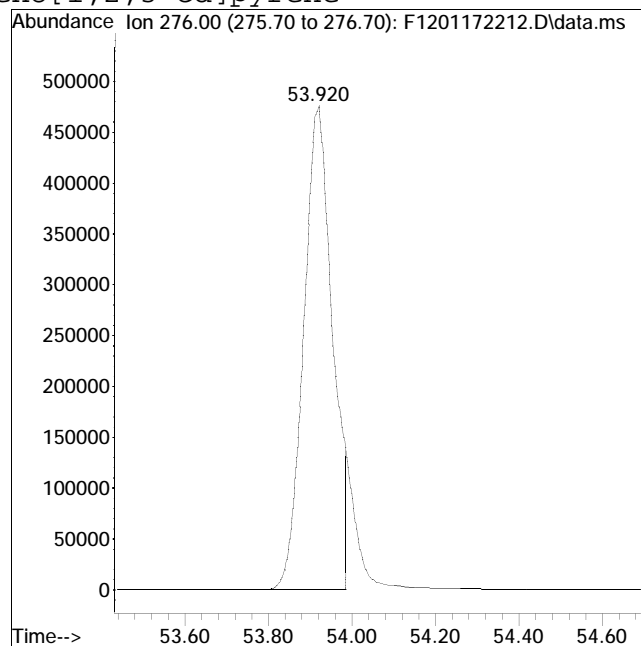
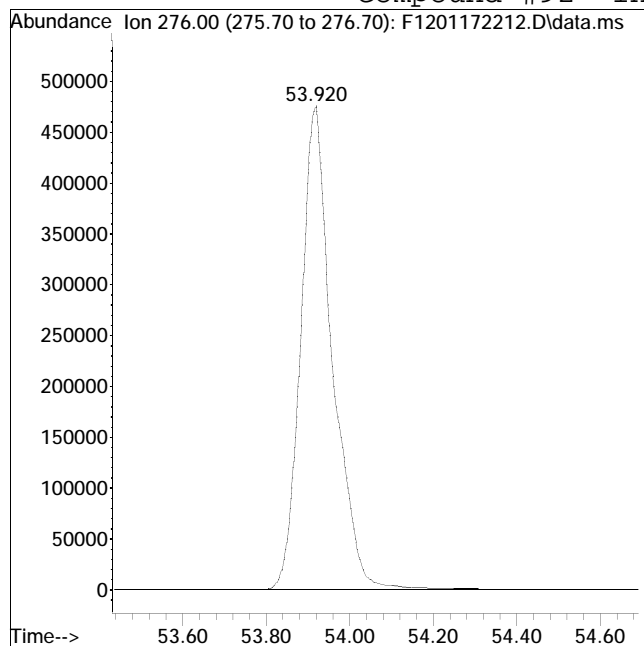
M4 = Poor automated baseline construction.



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\2020Method : PAH12011722.M  
Data File : F1201172212.D Operator : PAH12:CC  
Date Inj'd : 1/18/2022 12:47 am Instrument : PAH12  
Sample : I1201172205 Quant Date : 1/18/2022 8:28 am

Compound #92: Indeno[1,2,3-cd]pyrene



Original Peak Response = 2517387

Manual Peak Response = 2294665 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172213.D  
 Acq On : 18 Jan 2022 2:13 am  
 Operator : PAH12:CC  
 Sample : I1201172206  
 Misc : WG1595612,FRBE31  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 18 08:43:33 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Tue Jan 18 08:26:02 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Acenaphthene-d10	27.141	164	65528	500.000	ng/mL	0.00
74) Chrysene-d12	43.634	240	128607	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	20.151	136	2785369	9700.009	ng/mL	0.00
Spiked Amount	1000.000	Range 50 - 130	Recovery =	970.00%#		
40) Phenanthrene-d10	33.026	188	2485229	11275.857	ng/mL	0.00
Spiked Amount	1000.000	Range 50 - 130	Recovery =	1127.59%#		
84) Benzo[b]fluoranthene-d12	47.564	264	3110870	10056.015	ng/mL	0.02
Spiked Amount	1000.000	Range 50 - 130	Recovery =	1005.60%#		
89) Benzo[a]pyrene-d12	48.799	264	2326579	10464.952	ng/mL	0.02
Spiked Amount	1000.000	Range 50 - 130	Recovery =	1046.50%#		
129) 5B(H)Cholane - Surr	44.246	217	480634	9796.722	ng/mL	0.00
Spiked Amount	1000.000	Range 50 - 130	Recovery =	979.67%#		
Target Compounds						
						Qvalue
2) trans-Decalin	16.793	138	296263	4686.316	ng/mL	100
3) cis-Decalin	18.016	138	226780	4678.316	ng/mL	100
9) Naphthalene	20.233	128	3047387	10054.591	ng/mL	100
14) 2-Methylnaphthalene	22.925	142	1982315	10105.093	ng/mL	100
15) 1-Methylnaphthalene	23.354	142	1872338	10004.805	ng/mL	100
16) Benzothiophene	20.452	134	2621175	10375.081	ng/mL	100
21) Biphenyl	24.814	154	2424812	10268.620	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.426	156	1744211	10753.912	ng/mL	100
23) Dibenzofuran	27.908	168	2647201	10306.269	ng/mL	99
24) Acenaphthylene	26.530	152	3147373M4	12076.538	ng/mL	
25) Acenaphthene	27.269	153	1944380	10787.639	ng/mL	99
26) 2,3,5-Trimethylnaphthalen	28.820	170	1714408	11618.761	ng/mL	100
27) Fluorene	29.285	166	2192542	11057.361	ng/mL	99
31) Dibenzothiophene	32.625	184	3105710	11913.239	ng/mL	100
41) Phenanthrene	33.117	178	3145027	10938.803	ng/mL	99
52) Retene	40.110	234	1147157	13508.891	ng/mL	96
53) Anthracene	33.300	178	3089748	12486.453	ng/mL	99
54) Carbazole	33.957	167	2909127	11748.720	ng/mL	99
55) 1-Methylphenanthrene	35.627	192	2214643	11543.202	ng/mL	99
56) Fluoranthene	37.900	202	3329738	12173.630	ng/mL	96
57) Benzo(b)fluorene	40.430	216	2150594	13636.629	ng/mL	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172213.D  
 Acq On : 18 Jan 2022 2:13 am  
 Operator : PAH12:CC  
 Sample : I1201172206  
 Misc : WG1595612,FRBE31  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 18 08:43:33 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Tue Jan 18 08:26:02 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
59) Pyrene	38.786	202	3418131	11960.874	ng/mL	98
67) Naphthobenzothiophene-2,1	42.648	234	3421636	12537.587	ng/mL	99
75) Benz[a]anthracene	43.570	228	3303441	11682.636	ng/mL	99
76) Chrysene	43.735	228	3178250	10266.035	ng/mL	100
77) Chrysene/Triphenylene	43.735	228	3178250	10266.035	ng/mL	100
85) Benzo[b]fluoranthene	47.655	252	3635267	10871.822	ng/mL	97
86) Benzo[j]+[k]fluoranthene	47.747	252	3734646	10488.177	ng/mL	100
88) Benzo[e]pyrene	48.698	252	3537374	10150.019	ng/mL	98
90) Benzo[a]pyrene	48.899	252	3410007	10927.031	ng/mL	97
91) Perylene	49.219	252	3549550	10989.065	ng/mL	97
92) Indeno[1,2,3-cd]pyrene	53.938	276	4780414M3	11786.308	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.993	278	4202752	11581.401	ng/mL	99
94) Benzo[g,h,i]perylene	55.309	276	4024702	11017.006	ng/mL	99
95) Hopane (T19)	52.978	191	889486	8540.042	ng/mL	92

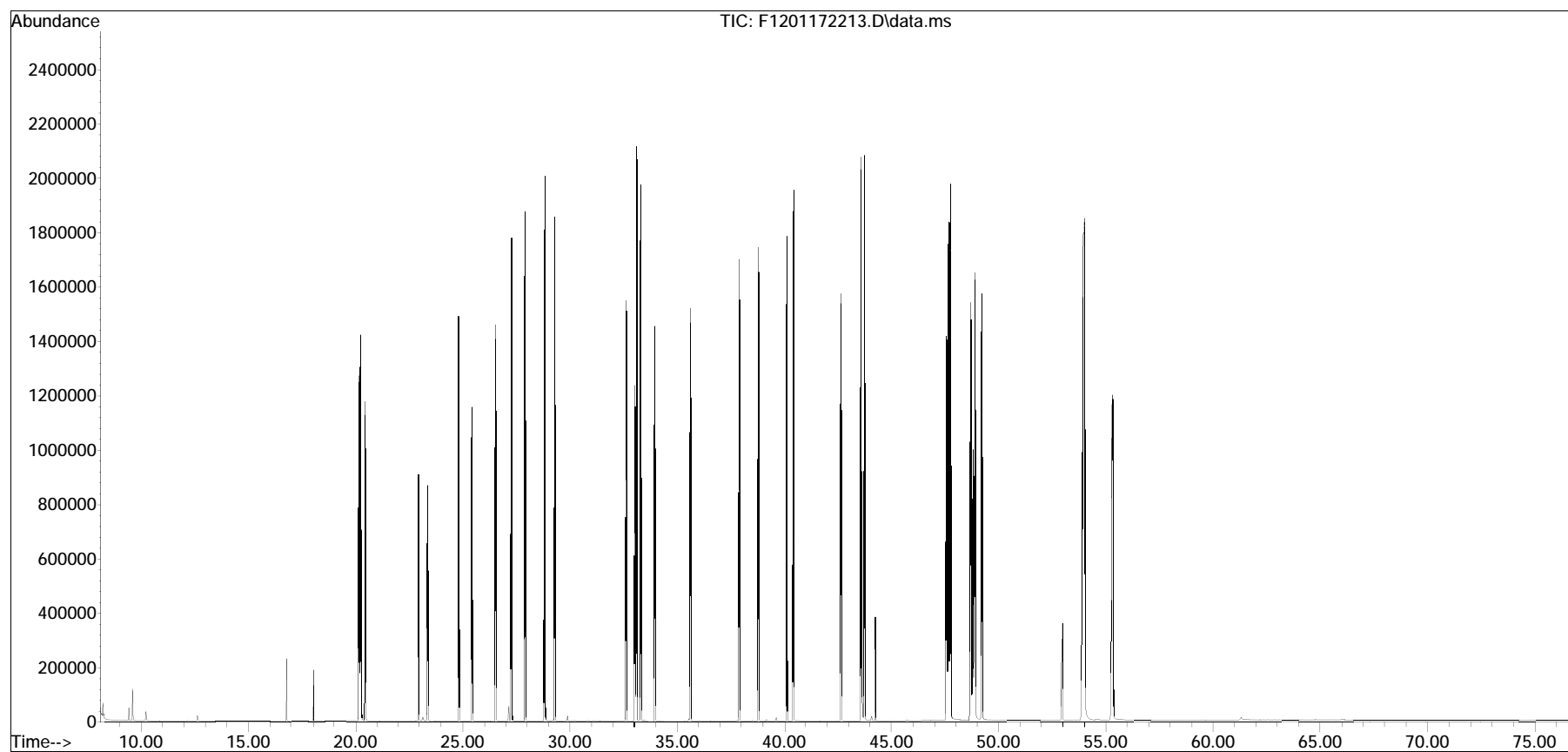
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
Data File : F1201172213.D  
Acq On : 18 Jan 2022 2:13 am  
Operator : PAH12:CC  
Sample : I1201172206  
Misc : WG1595612,FRBE31  
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 18 08:43:33 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Tue Jan 18 08:26:02 2022  
Response via : Initial Calibration

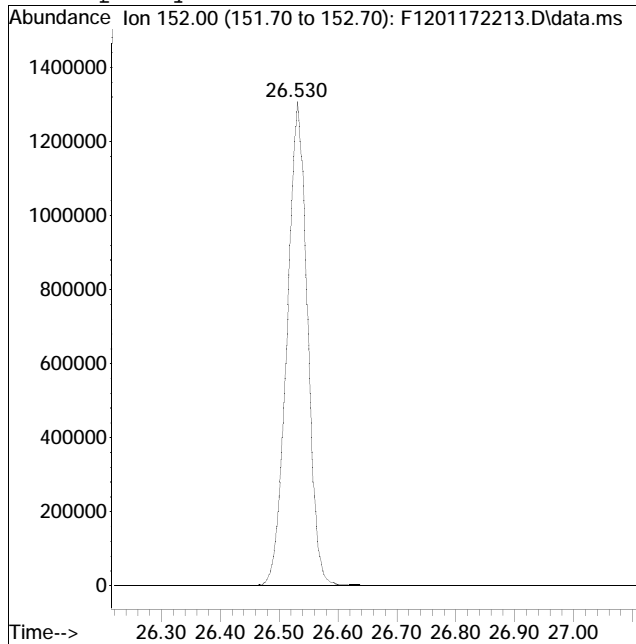
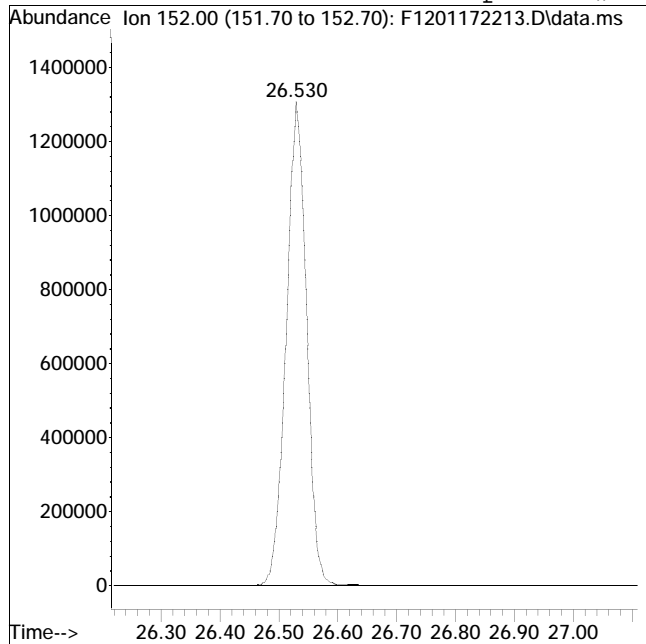
Sub List : ALKPAH\_CCV - CC with five surrogates



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12011722.M  
Data File : F1201172213.D Operator : PAH12:CC  
Date Inj'd : 1/18/2022 2:13 am Instrument : PAH12  
Sample : I1201172206 Quant Date : 1/18/2022 8:28 am

Compound #24: Acenaphthylene



Original Peak Response = 3150947

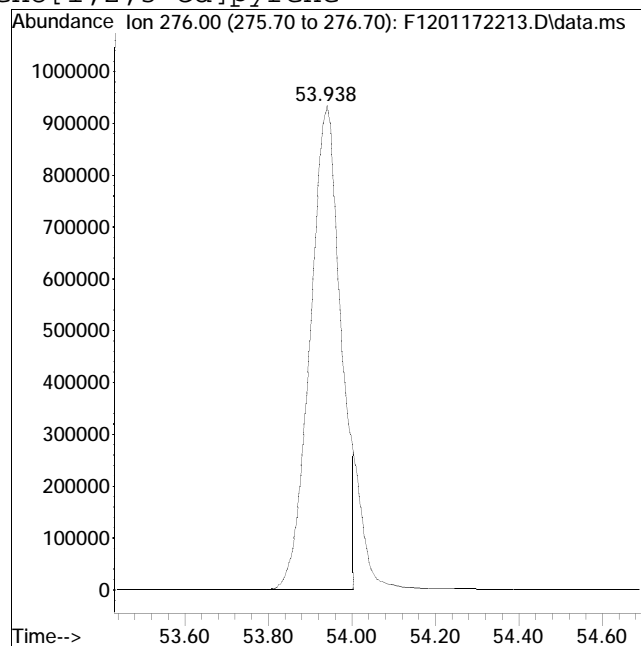
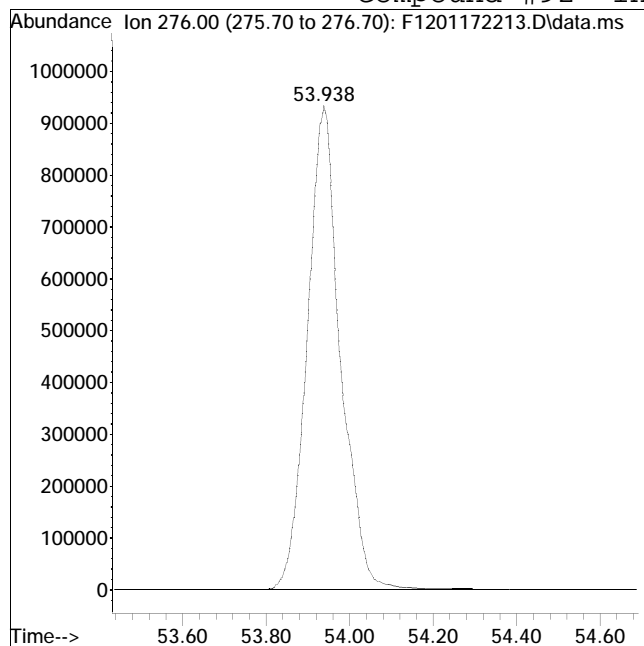
Manual Peak Response = 3147373 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12011722.M  
Data File : F1201172213.D Operator : PAH12:CC  
Date Inj'd : 1/18/2022 2:13 am Instrument : PAH12  
Sample : I1201172206 Quant Date : 1/18/2022 8:28 am

Compound #92: Indeno[1,2,3-cd]pyrene



Original Peak Response = 5174625

Manual Peak Response = 4780414 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172214.D  
 Acq On : 18 Jan 2022 3:38 am  
 Operator : PAH12:CC  
 Sample : I1201172207  
 Misc : WG1595612,FRBE32  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 18 08:44:41 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Tue Jan 18 08:26:02 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Acenaphthene-d10	27.141	164	69632	500.000	ng/mL	0.00
74) Chrysene-d12	43.643	240	131640	500.000	ng/mL	0.02
System Monitoring Compounds						
8) Naphthalene-d8	20.160	136	6036420	19782.761	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	= 1978.28%#	
40) Phenanthrene-d10	33.035	188	5492615	23452.026	ng/mL	0.00
Spiked Amount	1000.000	Range	50 - 130	Recovery	= 2345.20%#	
84) Benzo[b]fluoranthene-d12	47.582	264	6927594	21877.777	ng/mL	0.04
Spiked Amount	1000.000	Range	50 - 130	Recovery	= 2187.78%#	
89) Benzo[a]pyrene-d12	48.826	264	5006623	22000.931	ng/mL	0.05
Spiked Amount	1000.000	Range	50 - 130	Recovery	= 2200.09%#	
129) 5B(H)Cholane - Surr	44.255	217	1104085	21985.965	ng/ml	0.02
Spiked Amount	1000.000	Range	50 - 130	Recovery	= 2198.60%#	
Target Compounds						
						Qvalue
2) trans-Decalin	16.802	138	640248	9530.605	ng/mL	100
3) cis-Decalin	18.025	138	491869	9548.877	ng/mL	100
9) Naphthalene	20.242	128	6582119	20437.162	ng/mL	100
14) 2-Methylnaphthalene	22.934	142	4396511	21090.839	ng/mL	100
15) 1-Methylnaphthalene	23.363	142	4139669	20816.515	ng/mL	100
16) Benzothiophene	20.461	134	5749209	21415.174	ng/mL	100
21) Biphenyl	24.823	154	5384918	21460.070	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.435	156	3913369	22705.773	ng/mL	100
23) Dibenzofuran	27.917	168	5794982	21231.695	ng/mL	97
24) Acenaphthylene	26.539	152	6898757M4	24910.538	ng/mL	
25) Acenaphthene	27.278	153	4253690	22209.007	ng/mL	98
26) 2,3,5-Trimethylnaphthalen	28.829	170	3809985	24298.918	ng/mL	98
27) Fluorene	29.304	166	4831407	22929.534	ng/mL	98
31) Dibenzothiophene	32.634	184	6789337	24508.366	ng/mL	99
41) Phenanthrene	33.135	178	6894801	22567.590	ng/mL	99
52) Retene	40.119	234	2722668	30172.381	ng/mL	94
53) Anthracene	33.309	178	6774373	25763.401	ng/mL	99
54) Carbazole	33.975	167	6230923	23680.904	ng/mL	99
55) 1-Methylphenanthrene	35.636	192	4932179	24192.427	ng/mL	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172214.D  
 Acq On : 18 Jan 2022 3:38 am  
 Operator : PAH12:CC  
 Sample : I1201172207  
 Misc : WG1595612,FRBE32  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 18 08:44:41 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Tue Jan 18 08:26:02 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56) Fluoranthene	37.909	202	7412801	25504.124	ng/mL	94
57) Benzo(b)fluorene	40.439	216	4936062	29454.201	ng/mL	97
59) Pyrene	38.804	202	7613073	25069.880	ng/mL	96
67) Naphthobenzothiophene-2,1	42.657	234	7735903	26675.294	ng/mL	100
75) Benz[a]anthracene	43.588	228	7513147	25958.100	ng/mL	99
76) Chrysene	43.753	228	7202406	22728.408	ng/mL	100
77) Chrysene/Triphenylene	43.753	228	7202406	22728.408	ng/mL	100
85) Benzo[b]fluoranthene	47.682	252	8107584	23688.318	ng/mL	99
86) Benzo[j]+[k]fluoranthene	47.774	252	8501894	23326.146	ng/mL	99
88) Benzo[e]pyrene	48.725	252	7706870	21604.321	ng/mL	98
90) Benzo[a]pyrene	48.926	252	7505215	23495.614	ng/mL	98
91) Perylene	49.247	252	7736577	23399.849	ng/mL	98
92) Indeno[1,2,3-cd]pyrene	53.984	276	11041982M3	26597.208	ng/mL	
93) Dibenz[ah]+[ac]anthracene	54.039	278	9757244	26268.255	ng/mL	98
94) Benzo[g,h,i]perylene	55.364	276	8666786	23177.397	ng/mL	99
95) Hopane (T19)	0.000		0	N.D.	d	

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

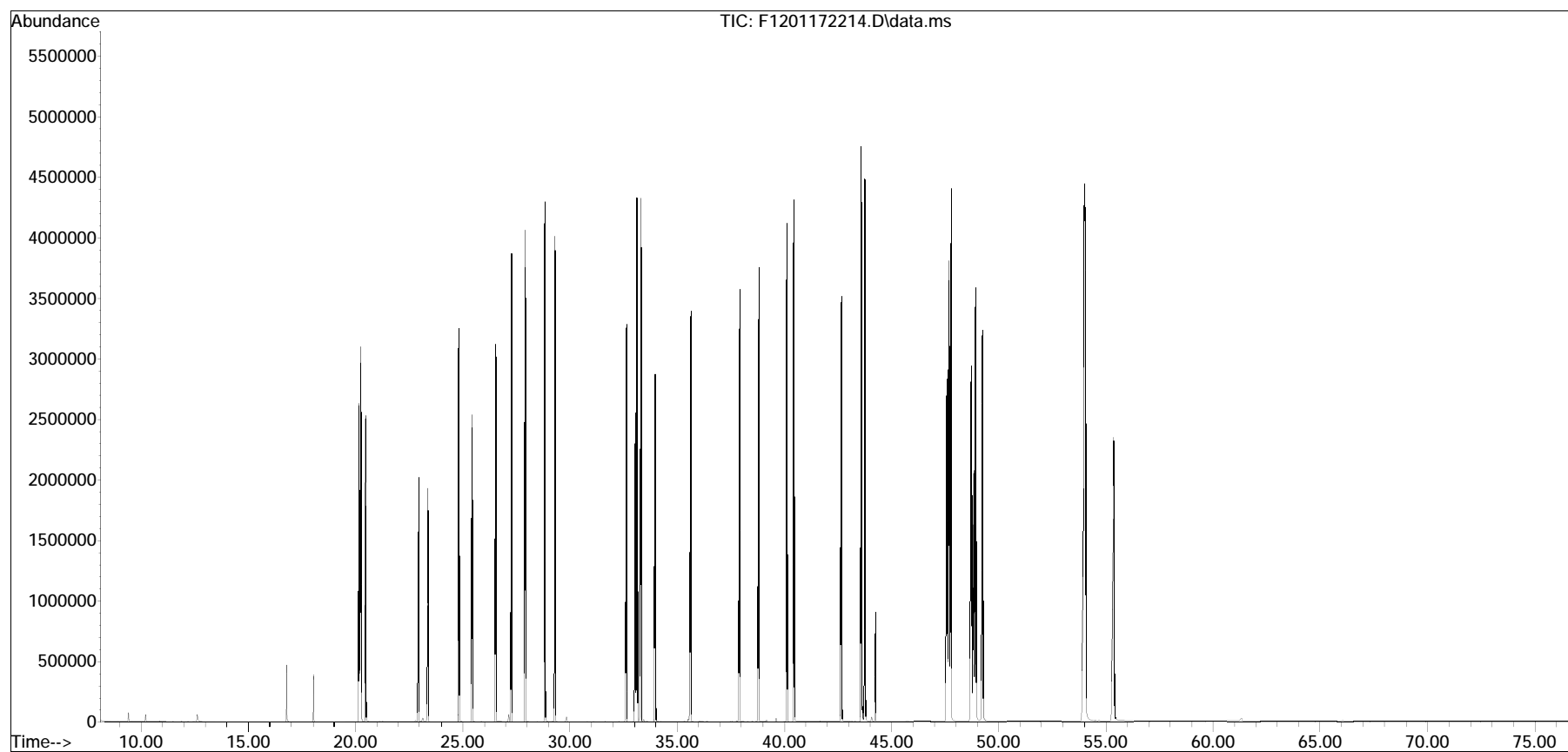


Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
Data File : F1201172214.D  
Acq On : 18 Jan 2022 3:38 am  
Operator : PAH12:CC  
Sample : I1201172207  
Misc : WG1595612,FRBE32  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 18 08:44:41 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Tue Jan 18 08:26:02 2022  
Response via : Initial Calibration

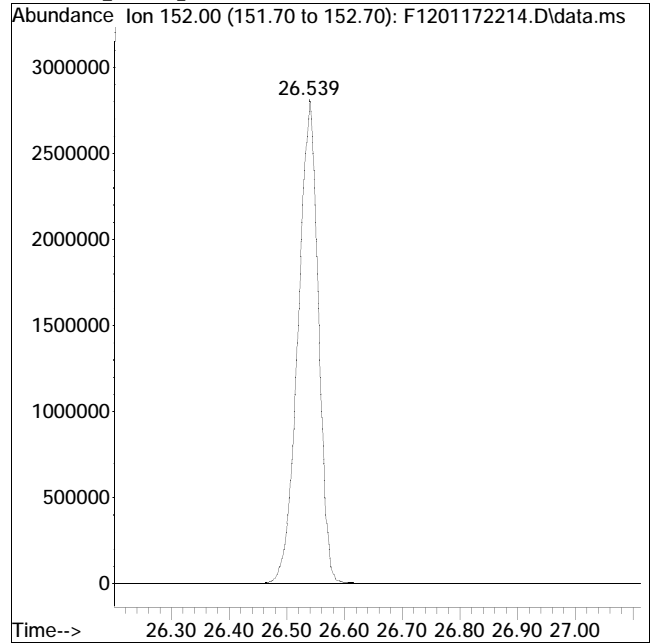
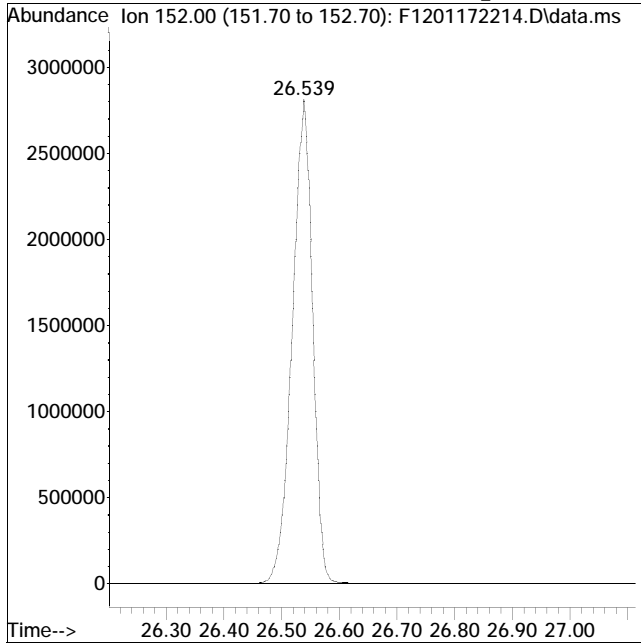
Sub List : ALKPAH\_CCV - CC with five surrogates



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12011722.M  
Data File : F1201172214.D Operator : PAH12:CC  
Date Inj'd : 1/18/2022 3:38 am Instrument : PAH12  
Sample : I1201172207 Quant Date : 1/18/2022 8:28 am

Compound #24: Acenaphthylene



Original Peak Response = 6903304

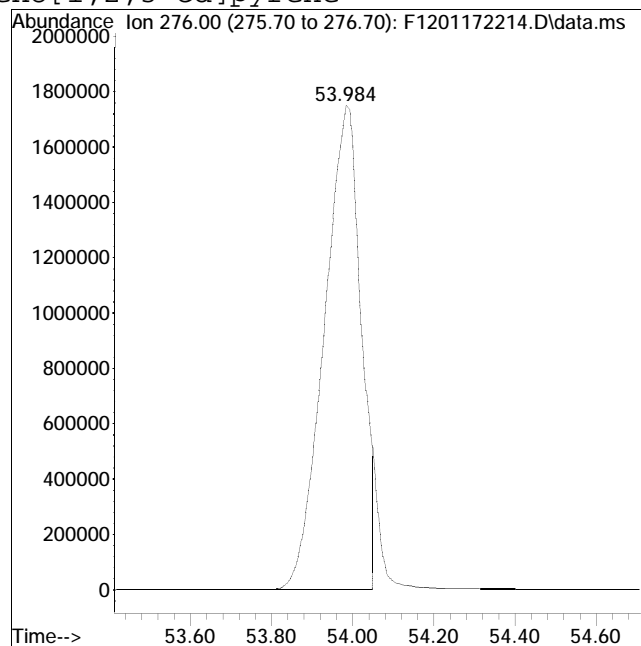
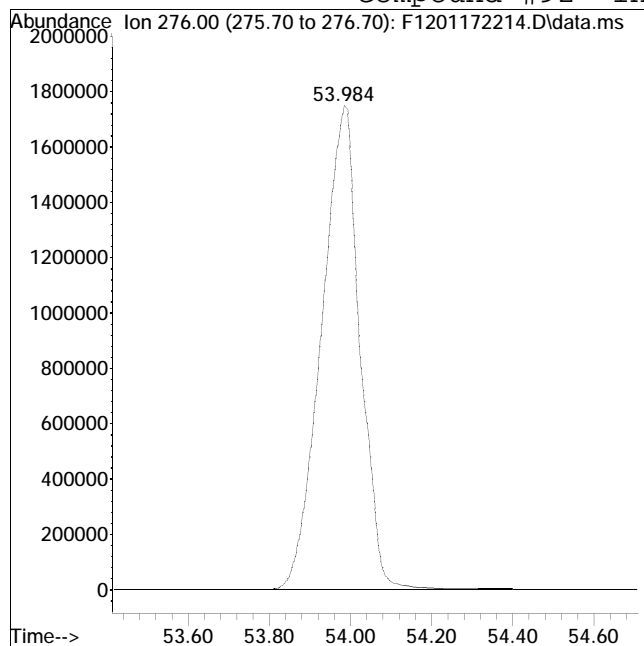
Manual Peak Response = 6898757 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\2020Method : PAH12011722.M  
Data File : F1201172214.D Operator : PAH12:CC  
Date Inj'd : 1/18/2022 3:38 am Instrument : PAH12  
Sample : I1201172207 Quant Date : 1/18/2022 8:28 am

Compound #92: Indeno[1,2,3-cd]pyrene



Original Peak Response = 11575186

Manual Peak Response = 11041982 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172222.D  
 Acq On : 18 Jan 2022 4:48 pm  
 Operator : PAH12:CC  
 Sample : CQ1201172202  
 Misc : WG1595612,FRBD47  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 19 09:45:33 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Jan 19 09:45:17 2022  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 i	Acenaphthene-d10	1.000	1.000	0.0	115	0.00
2 A1	trans-Decalin	0.467	0.423	9.4	104	0.00
3 t	cis-Decalin	0.358	0.323	9.8	104	0.00
8 s	Naphthalene-d8	2.156	0.000#	100.0#	0#	-20.15#
9 A1	Naphthalene	2.384	2.230	6.5	103	0.00
14 t	2-Methylnaphthalene	1.514	1.467	3.1	109	0.00
15 t	1-Methylnaphthalene	1.437	1.324	7.9	104	0.00
16 A1	Benzothiophene	2.017	1.963	2.7	106	0.02
21 t	Biphenyl	1.853	1.733	6.5	104	0.00
22 t	2,6-Dimethylnaphthalene	1.290	1.204	6.7	105	0.00
23 t	Dibenzofuran	1.976	1.889	4.4	105	0.00
24 t	Acenaphthylene	2.275	2.135	6.2	105	0.02
25 t	Acenaphthene	1.439	1.374	4.5	105	0.00
26 t	2,3,5-Trimethylnaphthalene	1.237	1.158	6.4	105	0.00
27 A1	Fluorene	1.592	1.484	6.8	104	0.00
31 A1	Dibenzothiophene	2.297	2.199	4.3	108	0.00
40 s	Phenanthrene-d10	1.806	0.000#	100.0#	0#	-33.02#
41 A1	Phenanthrene	2.347	2.223	5.3	105	0.00
52 t	Retene	0.778	0.742	4.6	111	0.00
53 t	Anthracene	2.187	2.124	2.9	106	0.00
54 t	Carbazole	2.270	2.002	11.8	107	0.00
55 t	1-Methylphenanthrene	1.577	1.470	6.8	106	0.00
56 A1	Fluoranthene	2.354	2.264	3.8	108	0.00
57 A1	Benzo(b)fluorene	1.483	1.420	4.2	109	0.00
59 A1	Pyrene	2.443	2.355	3.6	109	0.00
67 A1	Napthobenzothiophene-2,1-D	2.449	2.363	3.5	111	0.00
74 i	Chrysene-d12	1.000	1.000	0.0	110	0.00
75 t	Benz[a]anthracene	1.208	1.234	-2.2	112	0.00
76 A1	Chrysene	1.195	1.256	-5.1	114	0.03
77 A2	Chrysene/Triphenylene	1.195	1.256	-5.1	114	0.03
84 s	Benzo[b]fluoranthene-d12	1.163	0.000#	100.0#	0#	-47.55#
85 t	Benzo[b]fluoranthene	1.362	1.324	2.8	106	0.00
86 A1	Benzo[j]+[k]fluoranthene	1.406	1.441	-2.5	112	0.00
88 t	Benzo[e]pyrene	1.346	1.349	-0.2	110	0.00
89 s	Benzo[a]pyrene-d12	0.880	0.000#	100.0#	0#	-48.78#
90 t	Benzo[a]pyrene	1.305	1.302	0.2	111	0.00
91 t	Perylene	1.339	1.357	-1.3	113	0.00
92 t	Indeno[1,2,3-cd]pyrene	1.789	1.798	-0.5	115	-0.02

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172222.D  
 Acq On : 18 Jan 2022 4:48 pm  
 Operator : PAH12:CC  
 Sample : CQ1201172202  
 Misc : WG1595612,FRBD47  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 19 09:45:33 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Jan 19 09:45:17 2022  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
93 t Dibenz[ah]+[ac]anthracene	1.570	1.594	-1.5	112	0.00
94 t Benzo[g,h,i]perylene	1.583	1.562	1.3	111	0.00
95 A1 Hopane (T19)	0.341	0.000#	100.0#	0#	-52.97#
129 SA1 5B(H)Cholane - Surr	0.180	0.000#	100.0#	0#	-44.25#

\* Evaluation of CC level amount vs concentration.  
 (#) = Out of Range SPCC's out = 0 CCC's out = 0

Mass Discrimination (Concentration)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.04	0.70 - 1.30
Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.30	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172222.D  
 Acq On : 18 Jan 2022 4:48 pm  
 Operator : PAH12:CC  
 Sample : CQ1201172202  
 Misc : WG1595612,FRBD47  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 19 09:45:33 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Jan 19 09:45:17 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Acenaphthene-d10	27.141	164	80401	500.000	ng/mL	0.00
74) Chrysene-d12	43.625	240	149223	500.000	ng/mL	0.00
System Monitoring Compounds						
8) Naphthalene-d8	0.000	136	0d	0.000	ng/mL	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	0.00%#	
40) Phenanthrene-d10	0.000	188	0d	0.000	ng/mL	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	0.00%#	
84) Benzo[b]fluoranthene-d12	0.000	264	0d	0.000	ng/mL	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	0.00%#	
89) Benzo[a]pyrene-d12	0.000	264	0d	0.000	ng/mL	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	0.00%#	
129) 5B(H)Cholane - Surr	0.000	217	0	0.000	ng/ml	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	0.00%#	
Target Compounds						
2) trans-Decalin	16.793	138	17012	226.672	ng/mL	100
3) cis-Decalin	18.015	138	12999	225.680	ng/mL	100
9) Naphthalene	20.233	128	179273	467.696	ng/mL	100
14) 2-Methylnaphthalene	22.934	142	117983	484.688	ng/mL	100
15) 1-Methylnaphthalene	23.354	142	106463	460.762	ng/mL	100
16) Benzothiophene	20.452	134	157788	486.551	ng/mL	100
21) Biphenyl	24.814	154	139369	467.733	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.425	156	96822	466.930	ng/mL	100
23) Dibenzofuran	27.907	168	151878	478.052	ng/mL	99
24) Acenaphthylene	26.530	152	171679M4	469.290	ng/mL	
25) Acenaphthene	27.269	153	110476	477.333	ng/mL	99
26) 2,3,5-Trimethylnaphthalen	28.820	170	93092	467.900	ng/mL	99
27) Fluorene	29.285	166	119355	466.153	ng/mL	99
31) Dibenzothiophene	32.615	184	176831	478.792	ng/mL	100
41) Phenanthrene	33.108	178	178731	473.549	ng/mL	99
52) Retene	40.101	234	59629	476.724	ng/mL	97
53) Anthracene	33.290	178	170750	485.495	ng/mL	99
54) Carbazole	33.947	167	160934	440.866	ng/mL	99
55) 1-Methylphenanthrene	35.618	192	118191	466.094	ng/mL	99
56) Fluoranthene	37.891	202	182039	480.965	ng/mL	98
57) Benzo(b)fluorene	40.411	216	114175	478.721	ng/mL	99
59) Pyrene	38.777	202	189376	482.142	ng/mL	100
67) Naphthobenzothiophene-2,1	42.630	234	189991	482.511	ng/mL	98
75) Benz[a]anthracene	43.561	228	184140	510.661	ng/mL	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172222.D  
 Acq On : 18 Jan 2022 4:48 pm  
 Operator : PAH12:CC  
 Sample : CQ1201172202  
 Misc : WG1595612,FRBD47  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 19 09:45:33 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Jan 19 09:45:17 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.725	228	187364	525.206	ng/mL	100
77) Chrysene/Triphenylene	43.725	228	187364	525.206	ng/mL	100
85) Benzo[b]fluoranthene	47.628	252	197553	485.936	ng/mL	98
86) Benzo[j]+[k]fluoranthene	47.719	252	215060	512.558	ng/mL	98
88) Benzo[e]pyrene	48.670	252	201291	501.102	ng/mL	97
90) Benzo[a]pyrene	48.862	252	194275	498.770	ng/mL	97
91) Perylene	49.192	252	202489	506.876	ng/mL	97
92) Indeno[1,2,3-cd]pyrene	53.892	276	268265M3	502.531	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.956	278	237814	507.494	ng/mL	99
94) Benzo[g,h,i]perylene	55.254	276	233101	493.542	ng/mL	100
95) Hopane (T19)	0.000		0	N.D.	d	

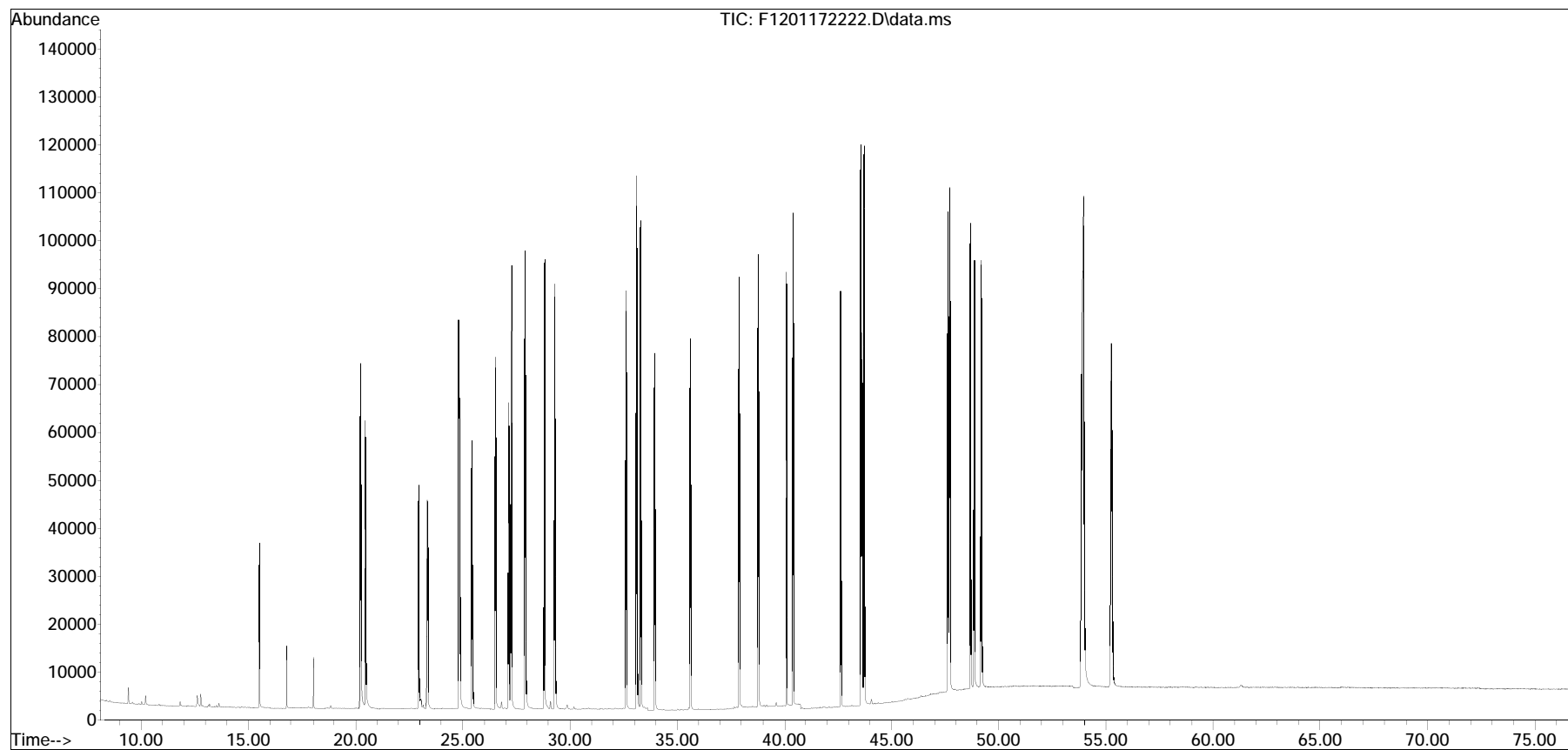
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
Data File : F1201172222.D  
Acq On : 18 Jan 2022 4:48 pm  
Operator : PAH12:CC  
Sample : CQ1201172202  
Misc : WG1595612,FRBD47  
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 19 09:45:33 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Wed Jan 19 09:45:17 2022  
Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

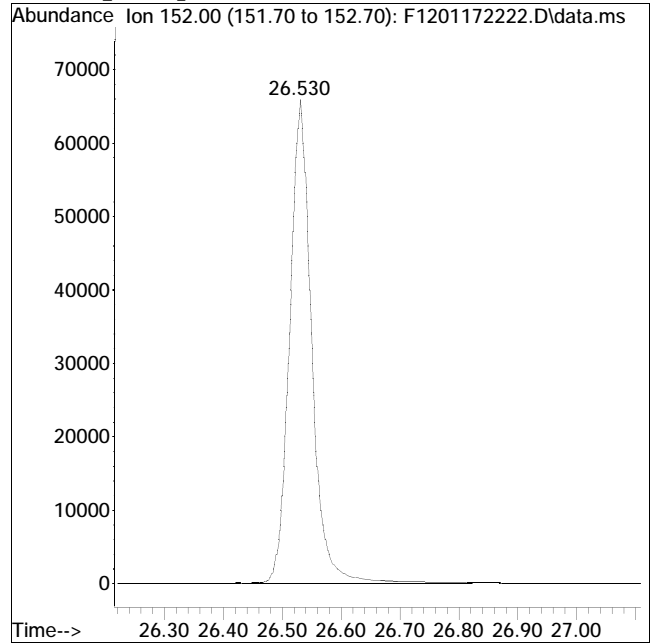
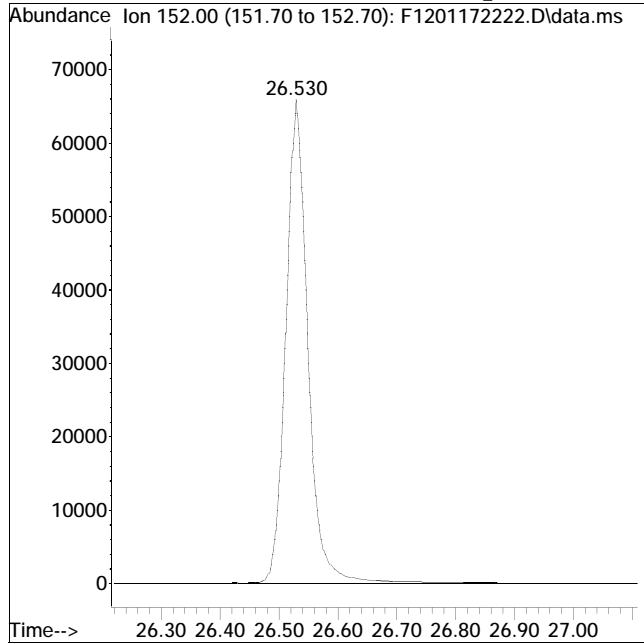




Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\202QMethod : PAH12011722.M  
Data File : F1201172222.D Operator : PAH12:CC  
Date Inj'd : 1/18/2022 4:48 pm Instrument : PAH12  
Sample : CQ1201172202 Quant Date : 1/19/2022 9:45 am

Compound #24: Acenaphthylene



Original Peak Response = 173573

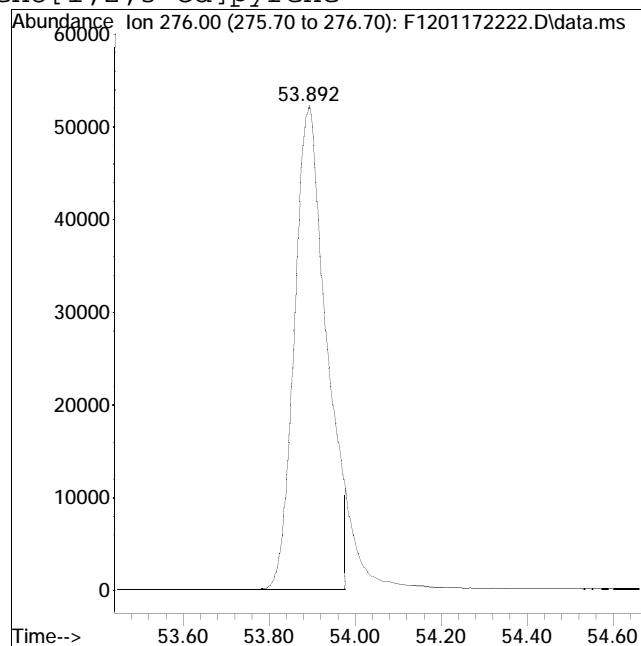
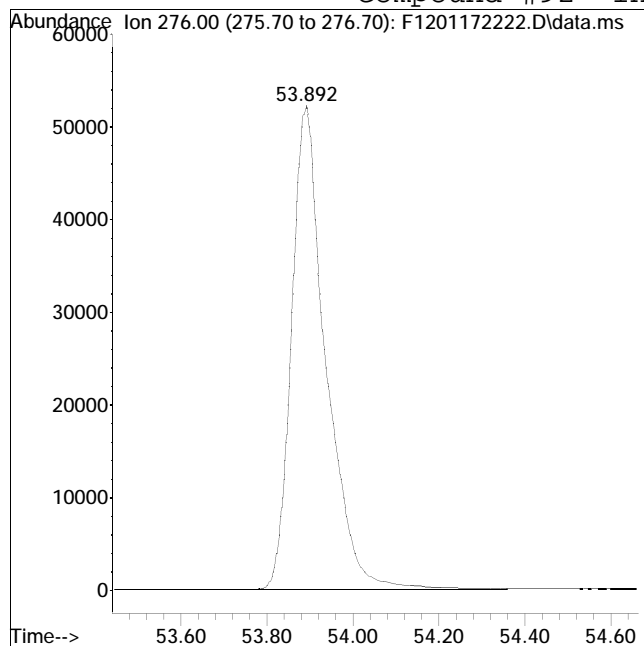
Manual Peak Response = 171679 M4

M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\PAH12\2020Method : PAH12011722.M  
Data File : F1201172222.D Operator : PAH12:CC  
Date Inj'd : 1/18/2022 4:48 pm Instrument : PAH12  
Sample : CQ1201172202 Quant Date : 1/19/2022 9:45 am

Compound #92: Indeno[1,2,3-cd]pyrene



Original Peak Response = 290684

Manual Peak Response = 268265 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172224.D  
 Acq On : 19 Jan 2022 11:05 am  
 Operator : PAH12:CC  
 Sample : WG1595612-1,0.05084  
 Misc : WG1595612,FRBE47 5.084  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 19 13:47:13 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Jan 19 09:56:54 2022  
 Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	27.141	164	72316M4	500.000	ng/mL	0.00	
74) Chrysene-d12	43.625	240	114726	500.000	ng/mL	0.00	
System Monitoring Compounds							
8) Naphthalene-d8	20.151	136	276954M3	888.253	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	88.83%	
40) Phenanthrene-d10	33.017	188	225237	862.183	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	86.22%	
84) Benzo[b]fluoranthene-d12	47.545	264	258143	967.678	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	96.77%	
89) Benzo[a]pyrene-d12	48.780	264	202046	1000.709	ng/mL	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	100.07%	
129) 5B(H)Cholane - Surr	44.237	217	46915	1136.354	ng/ml	0.00	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	113.64%	
Target Compounds							
2) trans-Decalin	16.802	138	162602	2408.765	ng/mL	100	Qvalue
3) cis-Decalin	18.025	138	6541M4	126.257	ng/mL		
4) C1-Decalins	18.737	152	271427M5	4020.885	ng/mL		
5) C2-Decalins	20.069	166	247126M5	3660.893	ng/mL		
6) C3-Decalins	22.542	180	139175M5	2061.721	ng/mL		
7) C4-Decalins	25.946	194	150726M5	2232.836	ng/mL		
9) Naphthalene	20.233	128	1028736	2983.872	ng/mL	100	
10) C1-Naphthalenes	22.934	142	2110792M5	6122.400	ng/mL		
11) C2-Naphthalenes	25.772	156	2530128M5	7338.693	ng/mL		
12) C3-Naphthalenes	28.117	170	1985878M5	5760.084	ng/mL		
13) C4-Naphthalenes	30.882	184	1099580M5	3189.357	ng/mL		
14) 2-Methylnaphthalene	22.934	142	1247058	5695.818	ng/mL	100	
15) 1-Methylnaphthalene	23.354	142	867151	4172.534	ng/mL	100	
16) Benzothiophene	20.434	134	8499M4	29.137	ng/mL		
17) C1-Benzo(b)thiophenes	22.487	148	44630M5	153.006	ng/mL		
18) C2-Benzo(b)thiophenes	25.973	162	77750M5	266.552	ng/mL		
19) C3-Benzo(b)thiophenes	27.953	176	154095M5	528.287	ng/mL		
20) C4-Benzo(b)thiophenes	29.687	190	138601M5	475.169	ng/mL		
21) Biphenyl	24.814	154	216237	806.842	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.435	156	629411	3374.729	ng/mL	100	
23) Dibenzofuran	27.908	168	74956	262.309	ng/mL	86	
24) Acenaphthylene	26.512	152	11052	33.589	ng/mL	100	
25) Acenaphthene	27.278	153	19653M4	94.408	ng/mL		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172224.D  
 Acq On : 19 Jan 2022 11:05 am  
 Operator : PAH12:CC  
 Sample : WG1595612-1,0.05084  
 Misc : WG1595612,FRBE47 5.084  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 19 13:47:13 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Jan 19 09:56:54 2022  
 Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 2,3,5-Trimethylnaphthalen	28.811	170	141147M3	788.749	ng/mL	
27) Fluorene	29.285	166	81429M4	353.585	ng/mL	
28) C1-Fluorenes	31.648	180	197151M5	856.079	ng/mL	
29) C2-Fluorenes	33.847	194	326809M5	1419.087	ng/mL	
30) C3-Fluorenes	35.682	208	305024M5	1324.491	ng/mL	
31) Dibenzothiophene	32.615	184	241494	726.980	ng/mL#	84
32) 4-Methyldibenzothiophene(	34.386	198	246958	743.428	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.742	198	182913M3	550.631	ng/mL	
34) 1-Methyldibenzothiophene(	35.162	198	73681	221.805	ng/mL	100
35) OTP	34.797	198	25230M3	75.951	ng/mL	
36) C1-Dibenzothiophenes	34.386	198	539246M5	1623.315	ng/mL	
36) C1-Dibenzothiophenes BS	34.386	198	514016M5	1547.364	ng/mL	
37) C2-Dibenzothiophenes	36.075	212	653500M5	1967.259	ng/mL	
38) C3-Dibenzothiophenes	37.882	226	638990M5	1923.579	ng/mL	
39) C4-Dibenzothiophenes	41.297	240	380309M5	1144.860	ng/mL	
41) Phenanthrene	33.108	178	345490	1017.719	ng/mL	95
42) 3-Methylphenanthrene(3MP)	35.070	192	147141	433.437	ng/mL	96
43) 2-Methylphenanthrene(2MP)	35.189	192	154375	454.746	ng/mL	97
44) 2-Methylantracene(2MA)	35.344	192	4582M4	13.497	ng/mL	
45) 9/4-Methylphenanthrene(9M)	35.527	192	227571	670.362	ng/mL	100
46) 1-Methylphenanthrene(1MP)	35.618	192	158294	466.291	ng/mL	99
47) C1-Phenanthrenes/Anthrace	35.527	192	691724M5	2037.629	ng/mL	
48) C2-Phenanthrenes/Anthrace	37.343	206	793742M5	2338.146	ng/mL	
48) C2-Phenanthrenes/Anthr BS	37.343	206	793742M5	2338.146	ng/mL	
49) 5AA IS BKGD	0.000		0	N.D.	d	
50) C3-Phenanthrenes/Anthrace	39.179	220	580500M5	1709.993	ng/mL	
51) C4-Phenanthrenes/Anthrace	41.361	234	250411M5	737.642	ng/mL	
52) Retene	0.000		0	N.D.	d	
53) Anthracene	0.000		0	N.D.	d	
54) Carbazole	33.948	167	7924	24.134	ng/mL#	35
55) 1-Methylphenanthrene	35.618	192	158294	694.034	ng/mL	94
56) Fluoranthene	37.891	202	6692M4	19.658	ng/mL	
57) Benzo(b)fluorene	40.411	216	6383	29.755	ng/mL	91
58) 7H-Benzo(c)fluorene	40.457	216	4374	20.390	ng/mL	76
59) Pyrene	38.777	202	19793M4	56.026	ng/mL	
60) 2-Methylpyrene	40.576	216	7363M3	20.842	ng/mL	
61) 4-Methylpyrene	40.950	216	19287	54.594	ng/mL	82
62) 1-Methylpyrene	41.060	216	13263	37.542	ng/mL	93
63) C1-Fluoranthenes/Pyrenes	40.165	216	109019M5	308.588	ng/mL	
64) C2-Fluoranthenes/Pyrenes	41.972	230	181461M5	513.642	ng/mL	
65) C3-Fluoranthenes/Pyrenes	43.990	244	215021M5	608.636	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172224.D  
 Acq On : 19 Jan 2022 11:05 am  
 Operator : PAH12:CC  
 Sample : WG1595612-1,0.05084  
 Misc : WG1595612,FRBE47 5.084  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 19 13:47:13 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Jan 19 09:56:54 2022  
 Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
66) C4-Fluoranthenes/Pyrenes	45.342	258	188073M5	532.358	ng/mL	
67) Naphthobenzothiophene-2,1	42.630	234	56314	159.008	ng/mL#	78
68) Naphthobenzothiophene-1,2	42.977	234	13562	38.294	ng/mL#	14
69) Naphthobenzothiophene-2,3	43.269	234	7630	21.544	ng/mL#	100
70) C1-Naphthobenzothiophenes	44.027	248	211500M5	597.189	ng/ml	
71) C2-Naphthobenzothiophenes	46.036	262	289479M5	817.370	ng/ml	
72) C3-Naphthobenzothiophenes	47.655	276	232072M5	655.276	ng/ml	
73) C4-Naphthobenzothiophenes	48.762	290	160273M5	452.545	ng/mL	
75) Benz[a]anthracene	43.561	228	3512M3	12.668	ng/mL	
76) Chrysene	43.698	228	61421	223.941	ng/mL	90
77) Chrysene/Triphenylene	43.698	228	61421	223.941	ng/mL	90
78) C1-Chrysenes	45.196	242	109546M5	399.405	ng/mL	
79) C2-Chrysenes	47.280	256	158796M5	578.971	ng/mL	
79) C2-Chrysenes BS	47.280	256	148293M5	540.677	ng/mL	
80) BBF-D12 Surr BKGD	47.545	256	10503	38.294	ng/mL	100
81) C3-Chrysenes	50.079	270	167174M5	609.517	ng/mL	
82) C4-Chrysenes	49.658	284	102314M5	373.037	ng/mL	
83) DAT-16 (t)	0.000		0	N.D.	d	
85) Benzo[b]fluoranthene	47.637	252	9140	29.243	ng/mL	99
86) Benzo[j]+[k]fluoranthene	47.710	252	775M3	2.402	ng/mL	
87) Benzo[a]fluoranthene	0.000		0	N.D.	d	
88) Benzo[e]pyrene	48.670	252	18841	61.007	ng/mL	95
90) Benzo[a]pyrene	48.863	252	3106M3	10.372	ng/mL	
91) Perylene	49.192	252	5301	17.260	ng/mL#	33
92) Indeno[1,2,3-cd]pyrene	53.902	276	2441	5.948	ng/mL#	55
93) Dibenz[ah]+[ac]anthracene	53.929	278	2064M4	5.729	ng/mL	
94) Benzo[g,h,i]perylene	55.263	276	7013M4	19.313	ng/mL	
95) Hopane (T19)	52.960	191	69021	882.399	ng/mL	92
96) C23 Tricyclic Terpane (T4	41.260	191	33919M3	433.638	ng/ml	
97) C24 Tricyclic Terpane (T5	41.982	191	16952	216.723	ng/ml	100
98) C25 Tricyclic Terpane (T6	43.470	191	16472M1	210.586	ng/ml	
99) C24 Tetracyclic Terpane (	44.803	191	6190	79.136	ng/ml	100
100) C26 Tricyclic Terpane-22S	44.520	191	6408	81.923	ng/ml	100
101) C26 Tricyclic Terpane-22R	44.620	191	6498	83.074	ng/ml	100
102) C28 Tricyclic Terpane-22S	46.905	191	6482M4	82.869	ng/ml	
103) C28 Tricyclic Terpane-22R	47.070	191	6569M4	83.981	ng/ml	
104) C29 Tricyclic Terpane-22S	47.600	191	7787	99.553	ng/ml	100
105) C29 Tricyclic Terpane-22R	47.811	191	9617	122.949	ng/ml	100
106) 18a-22,29,30-Trisnorneoho	49.000	191	12204	156.022	ng/ml	100
107) C30 Tricyclic Terpane-22S	49.073	191	5964	76.247	ng/mL	100
108) C30 Tricyclic Terpane-22R	49.320	191	5953M4	76.106	ng/mL	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172224.D  
 Acq On : 19 Jan 2022 11:05 am  
 Operator : PAH12:CC  
 Sample : WG1595612-1,0.05084  
 Misc : WG1595612,FRBE47 5.084  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 19 13:47:13 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Jan 19 09:56:54 2022  
 Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 17a(H)-22,29,30-Trisnorho	49.576	191	14756	188.648	ng/ml	100
110) 17a/b,21b/a 28,30-Bisnorh	50.811	191	2752	35.183	ng/ml	100
111) 17a(H),21b(H)-25-Norhopan	50.573	191	2912	37.228	ng/ml	100
112) 30-Norhopane (T15)	51.515	191	37907M4	484.622	ng/ml	
113) 18a(H)-30-Norneohopane-C2	51.634	191	10184M4	130.197	ng/ml	
114) 17a(H)-Diahopane (X)	51.753	191	5240	66.991	ng/ml	100
115) 30-Normoretane (T17)	52.329	191	4795	61.302	ng/ml	100
116) 18a(H)&18b(H)-Oleananes (	0.000		0	N.D.	d	
117) Moretane (T20)	53.691	191	6737	86.129	ng/ml	100
118) 30-Homohopane-22S (T21)	54.843	191	28995	370.687	ng/ml	100
119) 30-Homohopane-22R (T22)	55.090	191	25722	328.843	ng/ml	100
120) Gammacerane/C32-diahopane	55.674	191	6050	77.346	ng/mL	100
121) 30,31-Bishomohopane-22S (	56.479	191	21892	279.878	ng/ml	100
122) 30,31-Bishomohopane-22R (	56.899	191	15782	201.765	ng/ml	100
123) 30,31-Trishomohopane-22S	58.736	191	16414	209.845	ng/ml	100
124) 30,31-Trishomohopane-22R	59.394	191	10515	134.429	ng/ml	100
125) Tetrakishomohopane-22S (T	61.532	191	12124	154.999	ng/ml	100
126) Tetrakishomohopane-22R (T	62.482	191	8874	113.450	ng/ml	100
127) Pentakishomohopane-22S (T	64.849	191	12085	154.501	ng/ml	100
128) Pentakishomohopane-22R (T	66.220	191	9639	123.230	ng/ml	100
130) 13b(H),17a(H)-20S-Diachol	45.743	217	9773M4	236.717	ng/ml	
131) 13b(H),17a(H)-20R-Diachol	46.164	217	5714	138.402	ng/ml	100
132) 13b,17a-20S-Methyl diachol	46.859	217	4604M4	111.516	ng/ml	
133) 14a,17a-20S-Chol/13b,17a-	47.756	217	12464	301.897	ng/ml	100
134) 14a,17a-20R-Chol/13b,17a-	48.295	217	14830M4	359.206	ng/ml	
135) Unknown Sterane (S18)	48.579	217	4736	114.713	ng/ml	100
136) 13a,17b-20S-Ethyl diachole	48.863	217	857	20.758	ng/ml	100
137) 14a,17a-20S-Methylcholest	49.009	217	6786	164.367	ng/ml	100
138) 14a,17a-20R-Methylcholest	49.768	217	7239	175.340	ng/ml	100
139) 14a(H),17a(H)-20S-Ethylch	50.134	217	12206	295.648	ng/ml	100
140) 14a(H),17a(H)-20R-Ethylch	51.085	217	7470	180.935	ng/ml	100
141) 14b(H),17b(H)-20R-Cholest	47.847	218	8435M4	204.309	ng/ml	
142) 14b(H),17b(H)-20S-Cholest	47.930	218	8733M4	211.527	ng/ml	
143) 14b,17b-20R-Methylcholest	49.201	218	8776	212.568	ng/ml	100
144) 14b,17b-20S-Methylcholest	49.283	218	11365M4	275.278	ng/ml	
145) 14b(H),17b(H)-20R-Ethylch	50.390	218	12953	313.742	ng/ml	100
146) 14b(H),17b(H)-20S-Ethylch	50.436	218	7985M3	193.409	ng/ml	
147) C20 Pregnane	43.178	231	24762	599.774	ng/mL	100
148) C21 20-Methylpregnane	44.438	231	24825	601.300	ng/mL	100
149) C22 20-Ethylpregnane (a)	45.579	231	8711	210.994	ng/mL	100
150) C22 20-Ethylpregnane (b)	45.753	231	5976	144.748	ng/mL	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\  
 Data File : F1201172224.D  
 Acq On : 19 Jan 2022 11:05 am  
 Operator : PAH12:CC  
 Sample : WG1595612-1,0.05084  
 Misc : WG1595612,FRBE47 5.084  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 19 13:47:13 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Jan 19 09:56:54 2022  
 Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
151) C26,20S TAS	49.055	231	19674	476.535	ng/mL	100
152) C26,20R+C27,20S TAS	50.088	231	64712	1567.425	ng/mL	100
153) C28,20S TAS	50.984	231	42258	1023.554	ng/mL	100
154) C27,20R TAS	51.460	231	40175	973.101	ng/mL	100
155) C28,20R TAS	52.722	231	33403	809.073	ng/mL	100
156) C29,20S TAS	51.707	231	13653M4	330.697	ng/mL	
157) C29,20R TAS	53.829	231	9209M4	223.056	ng/mL	
158) 5b(H)-C27 (20S) MAS+	45.177	253	14918	361.337	ng/mL	100
159) 5b(H)-C27 (20R) MAS+	45.890	253	8803	213.222	ng/mL	100
160) 5a(H)-C27 (20S) MAS	46.054	253	3474	84.146	ng/mL	100
161) 5b(H)-C28 (20S) MAS+	46.201	253	17174	415.981	ng/mL	100
162) 5a(H)-C27 (20R) MAS	46.887	253	1966	47.620	ng/mL	100
163) 5a(H)-C28 (20S) MAS	46.987	253	13730	332.562	ng/mL	100
164) 5b(H)-C28 (20R) MAS+	47.061	253	10846M4	262.707	ng/mL	
165) 5b(H)-C29 (20S) MAS+	47.116	253	3384M3	81.966	ng/mL	
166) 5a(H)-C29 (20S) MAS	47.802	253	4697	113.769	ng/mL	100
167) 5a(H)-C28 (20R) MAS	47.902	253	1669M3	40.426	ng/mL	
168) 5b(H)-C29 (20R) MAS+	47.984	253	17336M4	419.905	ng/mL	
169) 5a(H)-C29 (20R) MAS	48.680	253	4758	115.246	ng/mL	100

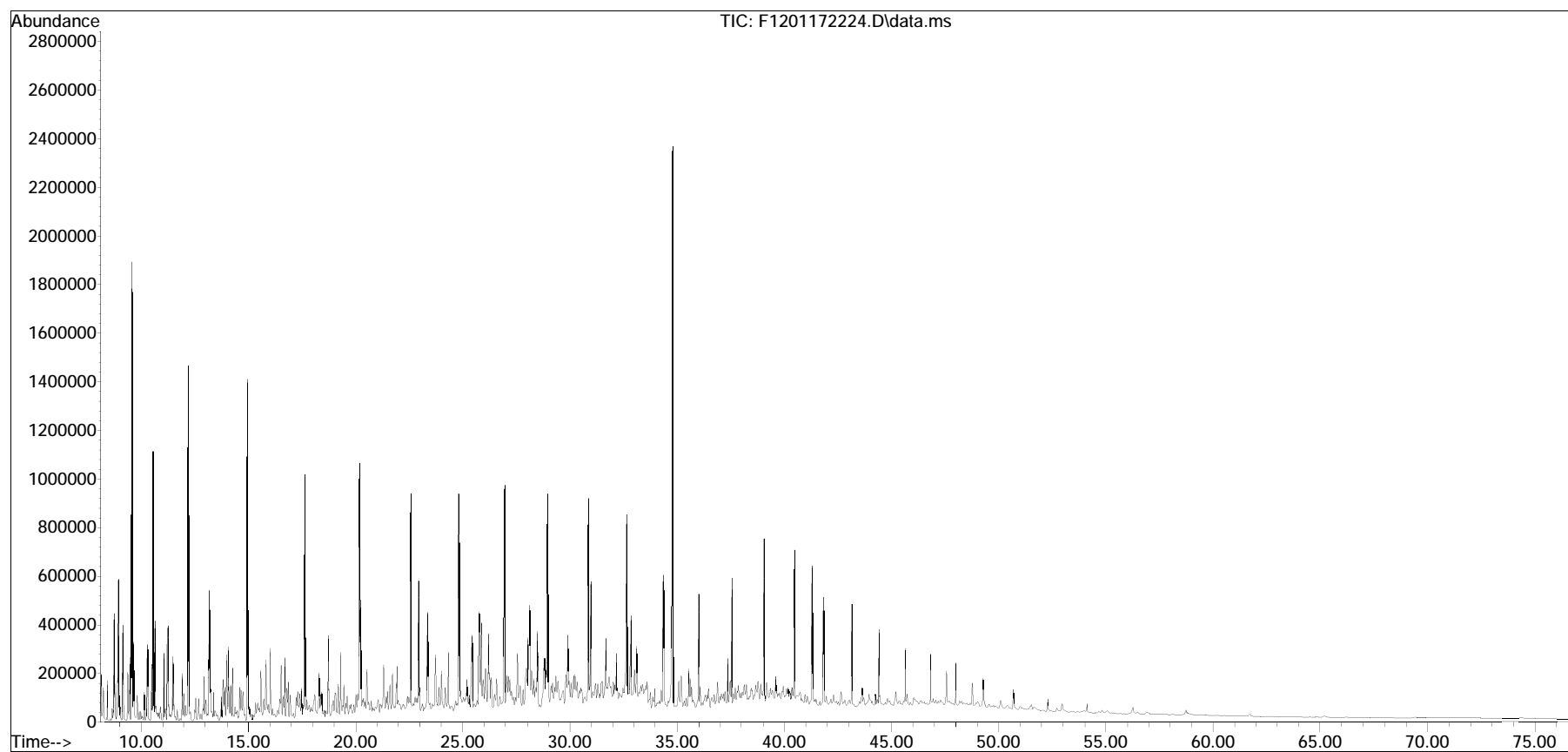
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

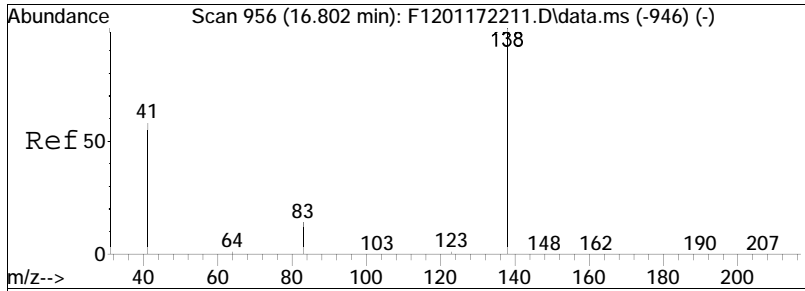
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Data File : F1201172224.D  
Acq On : 19 Jan 2022 11:05 am  
Operator : PAH12:CC  
Sample : WG1595612-1,0.05084  
Misc : WG1595612,FRBE47 5.084  
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 19 13:47:13 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\JAN22\JAN17\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Wed Jan 19 09:56:54 2022  
Response via : Initial Calibration

Sub List : Default - All compounds listed

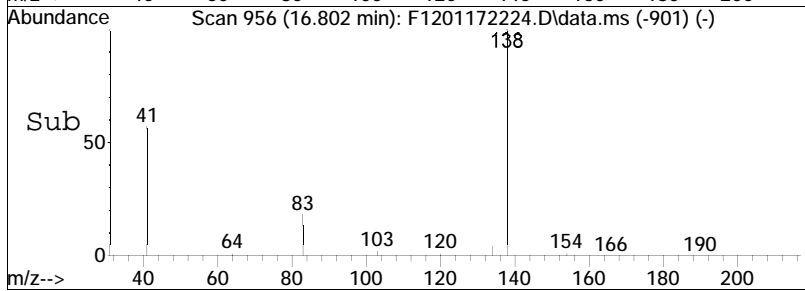
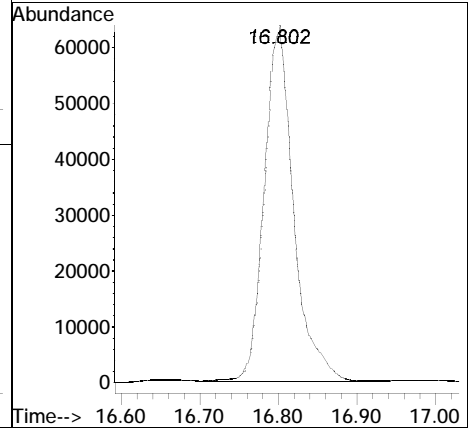
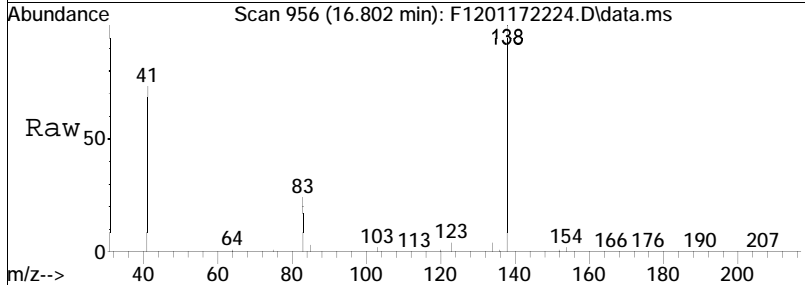


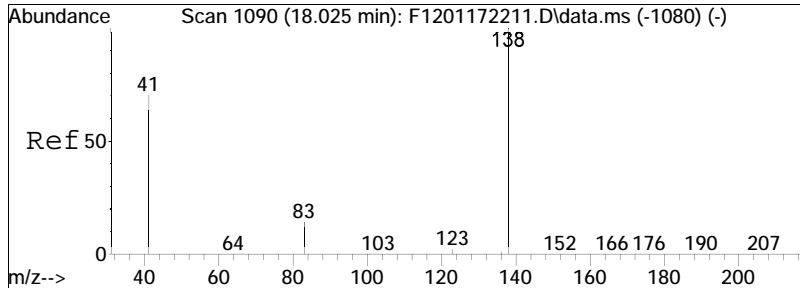




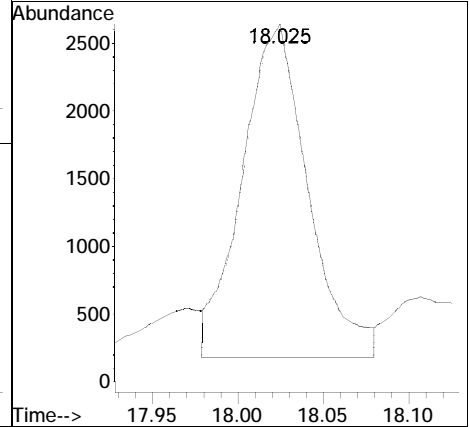
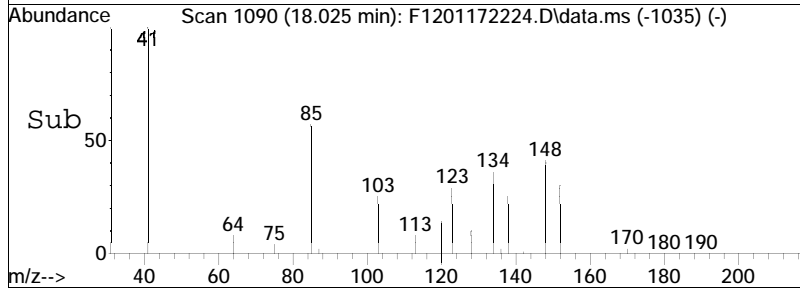
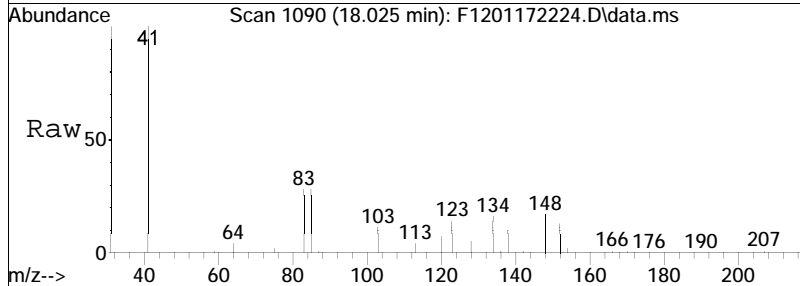
#2  
 trans-Decalin  
 Concen: 2408.77 ng/mL  
 RT: 16.802 min Scan# 956  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

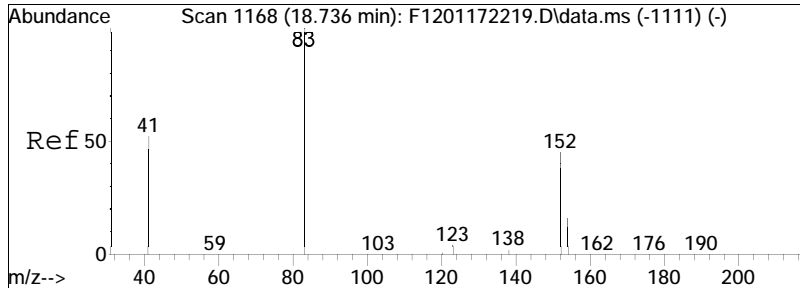
Tgt Ion:138 Resp: 162602



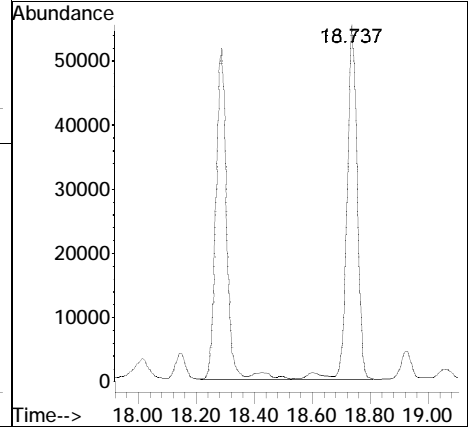
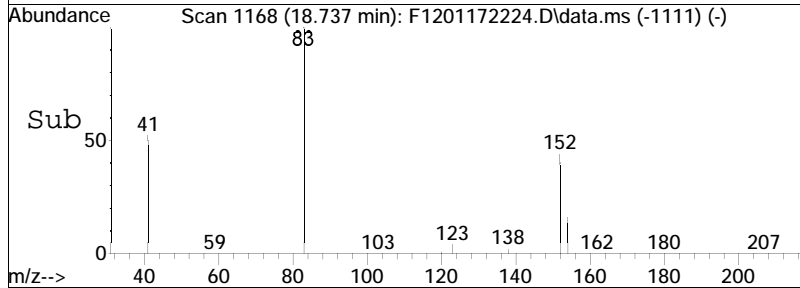
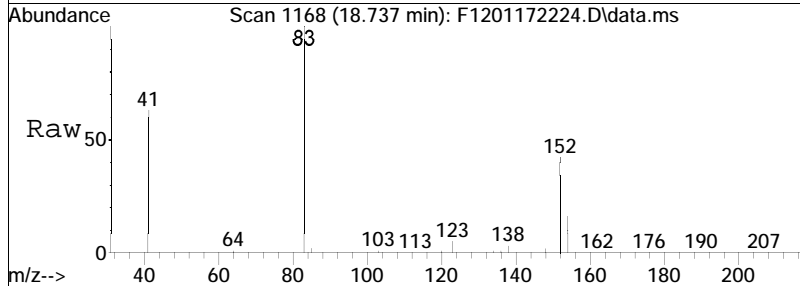


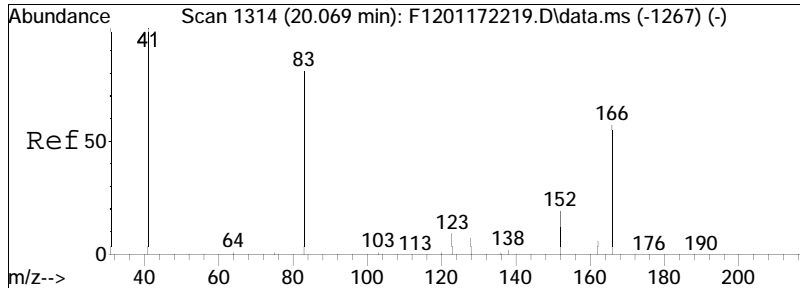
#3  
 cis-Decalin  
 Concen: 126.26 ng/mL M4  
 RT: 18.025 min Scan# 1090  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:138 Resp: 6541



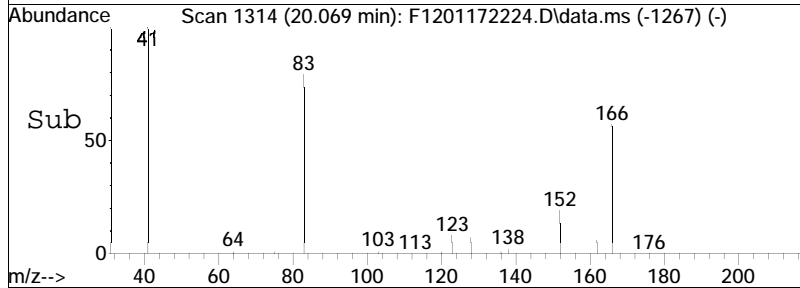
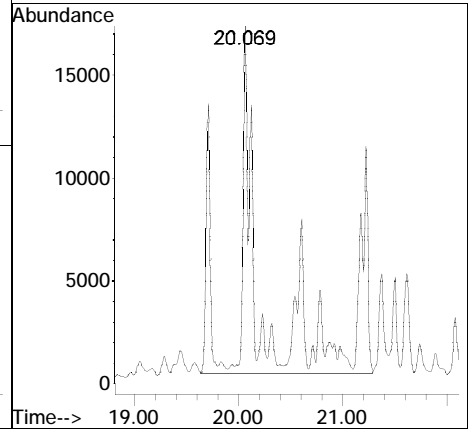
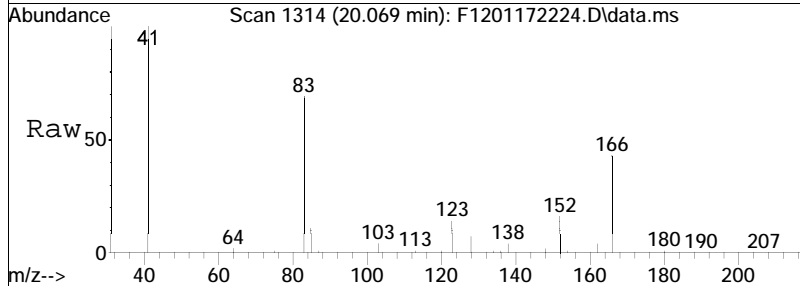


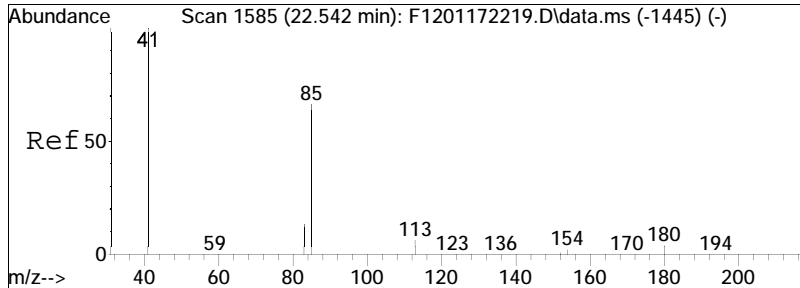
#4  
 Cl-Decalins  
 Concen: 4020.89 ng/mL M5  
 RT: 18.737 min Scan# 1168  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:152 Resp: 271427



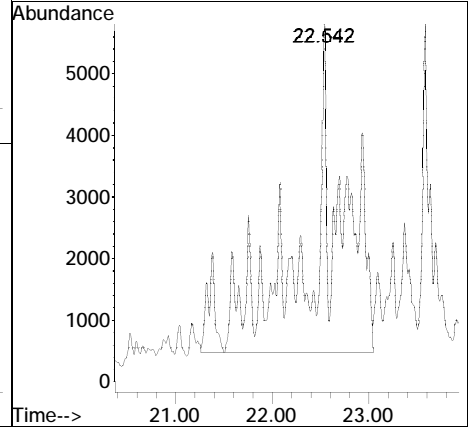
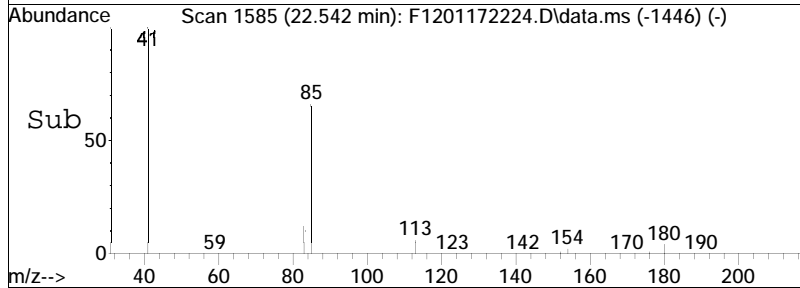
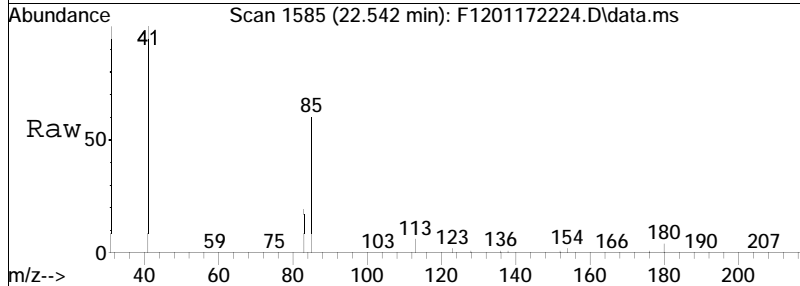


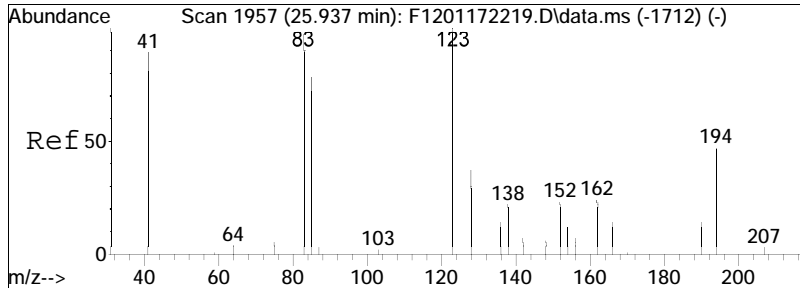
#5  
 C2-Decalins  
 Concen: 3660.89 ng/mL M5  
 RT: 20.069 min Scan# 1314  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:166 Resp: 247126



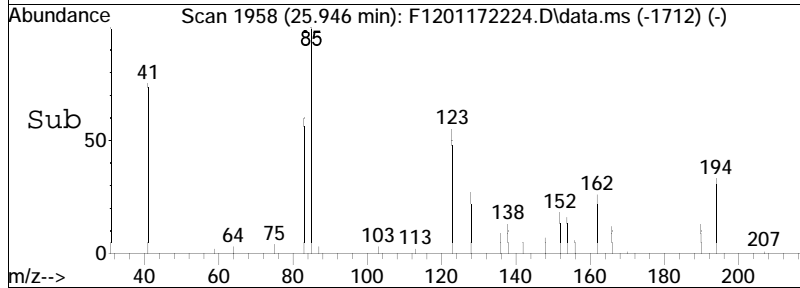
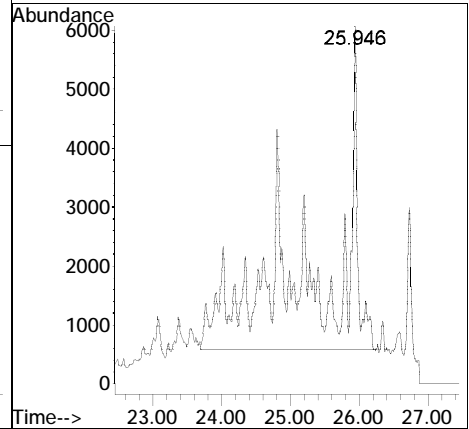
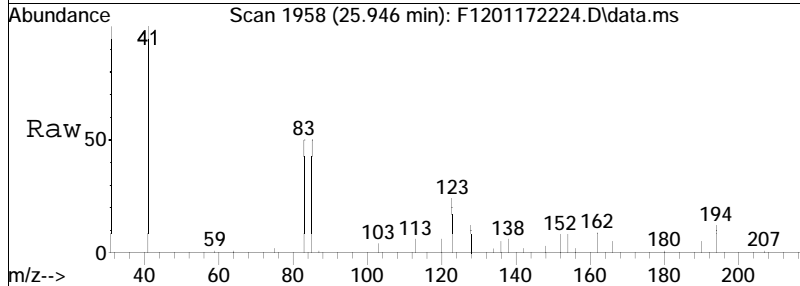


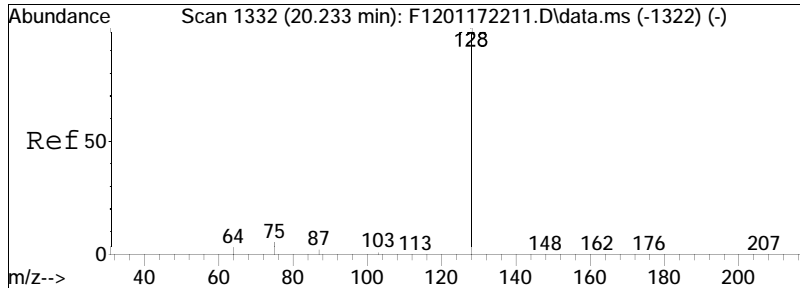
#6  
 C3-Decalins  
 Concen: 2061.72 ng/mL M5  
 RT: 22.542 min Scan# 1585  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:180 Resp: 139175



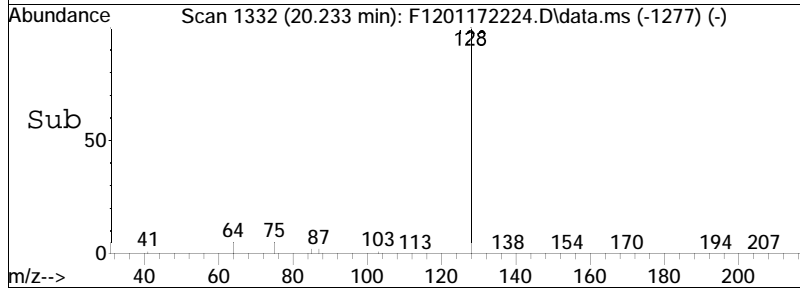
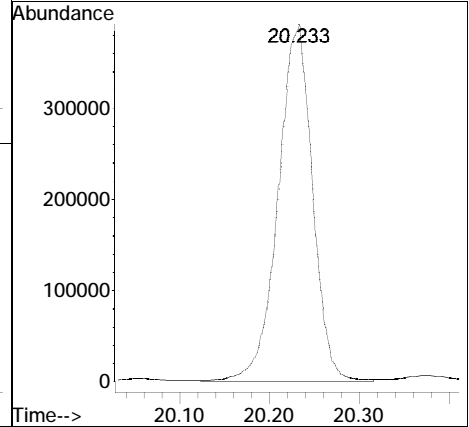
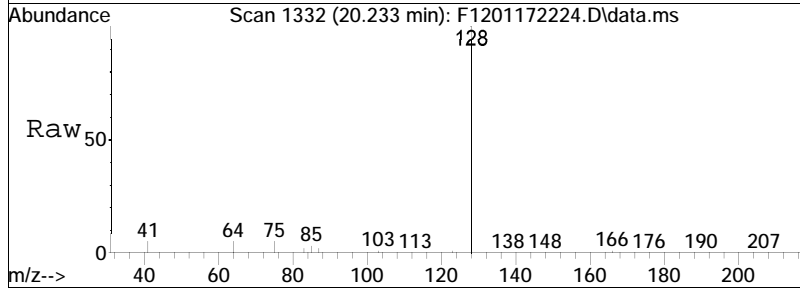


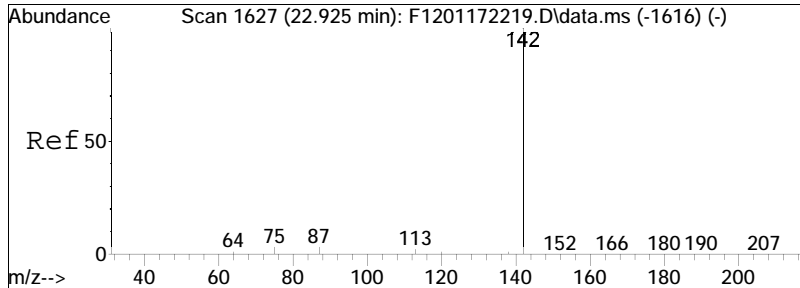
#7  
 C4-Decalins  
 Concen: 2232.84 ng/mL M5  
 RT: 25.946 min Scan# 1958  
 Delta R.T. 0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:194 Resp: 150726



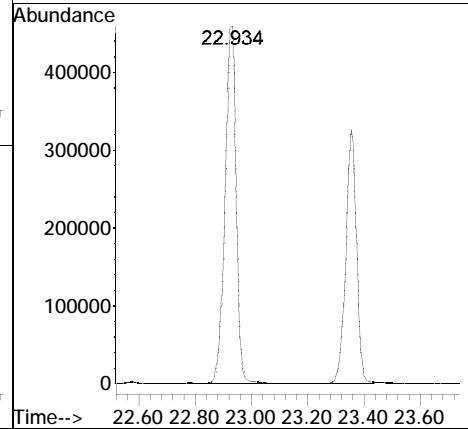
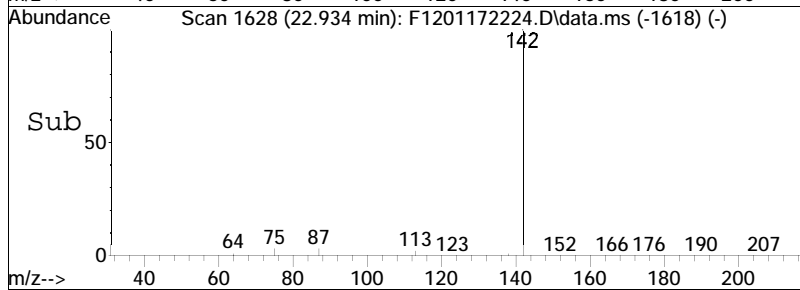
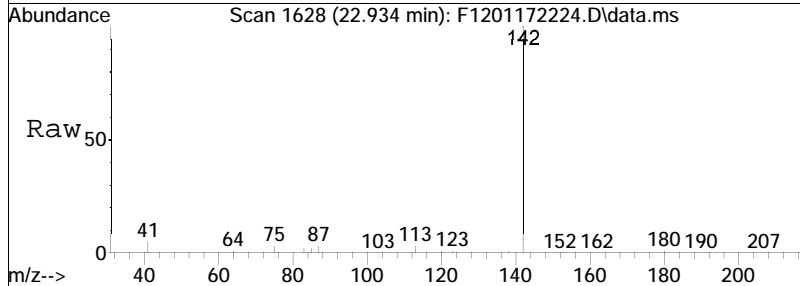


#9  
 Naphthalene  
 Concen: 2983.87 ng/mL  
 RT: 20.233 min Scan# 1332  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:128 Resp: 1028736

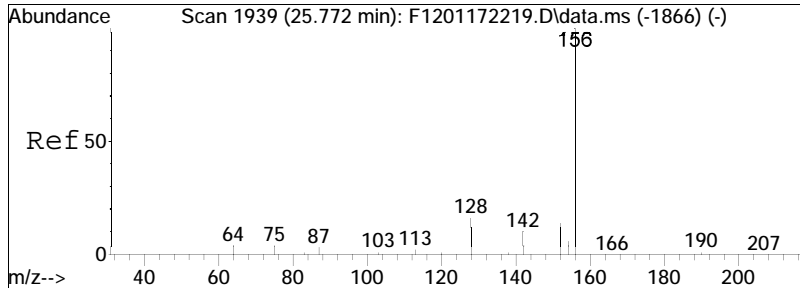




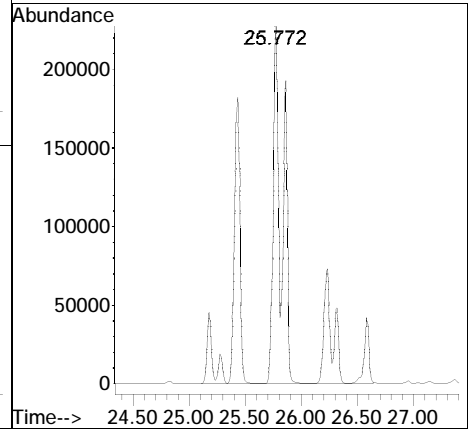
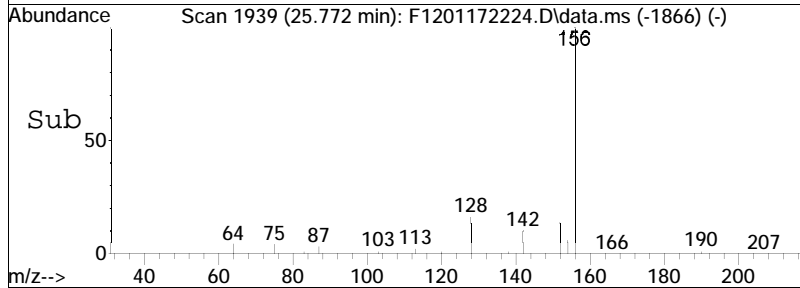
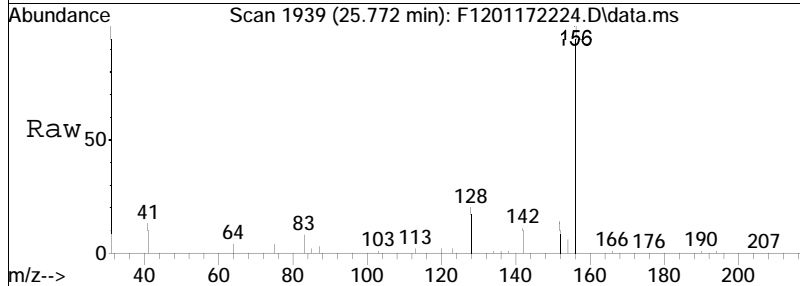
#10  
Cl-Naphthalenes  
Concen: 6122.40 ng/mL M5  
RT: 22.934 min Scan# 1628  
Delta R.T. 0.009 min  
Lab File: F1201172224.D  
Acq: 19 Jan 2022 11:05 am  
Tgt Ion:142 Resp: 2110792

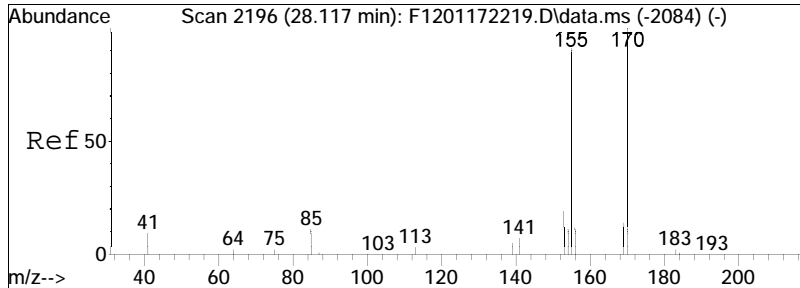






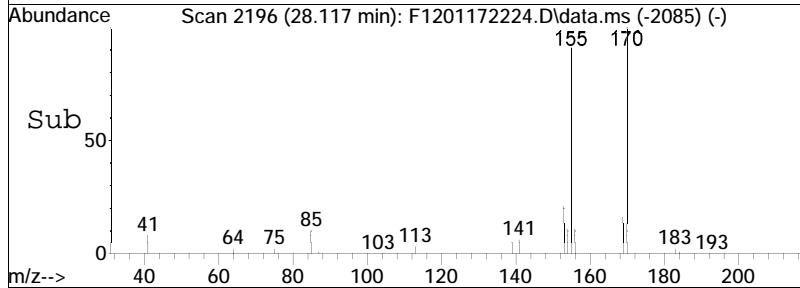
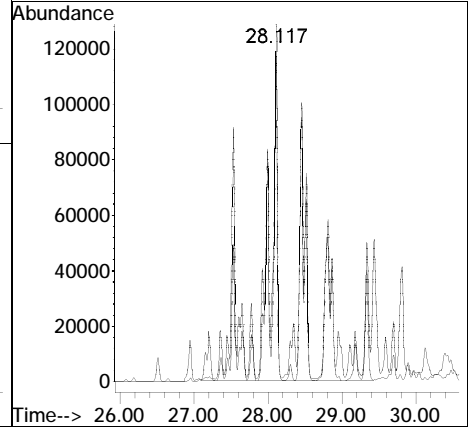
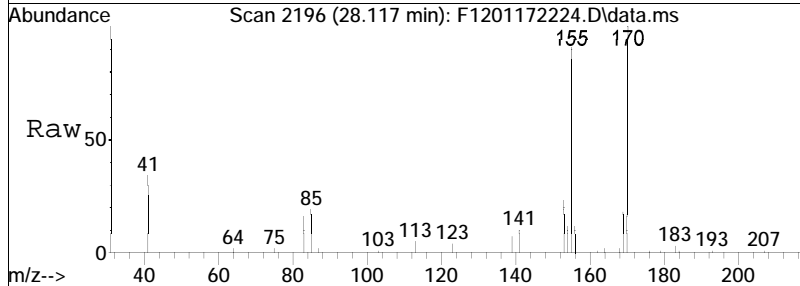
#11  
 C2-Naphthalenes  
 Concen: 7338.69 ng/mL M5  
 RT: 25.772 min Scan# 1939  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:156 Resp: 2530128

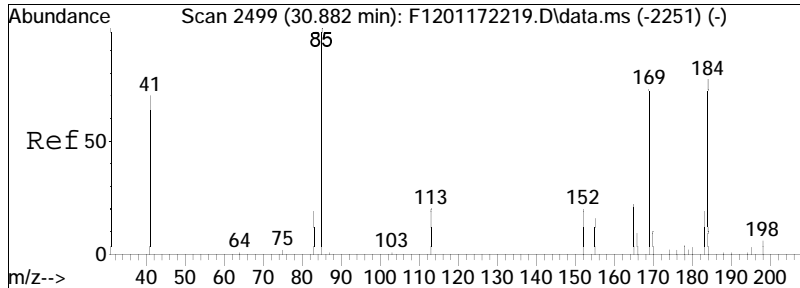




#12  
 C3-Naphthalenes  
 Concen: 5760.08 ng/mL M5  
 RT: 28.117 min Scan# 2196  
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 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

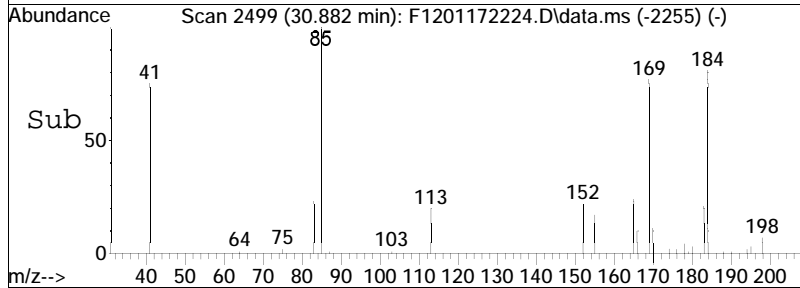
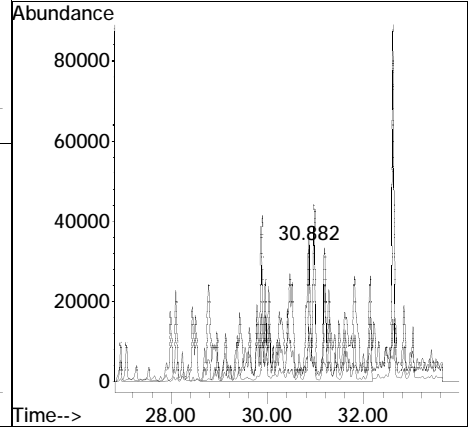
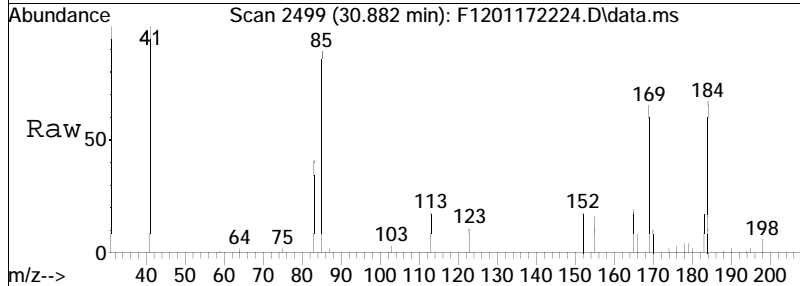
Tgt Ion	Resp	Lower	Upper
170	100		
155	18.3	63.8	118.4#

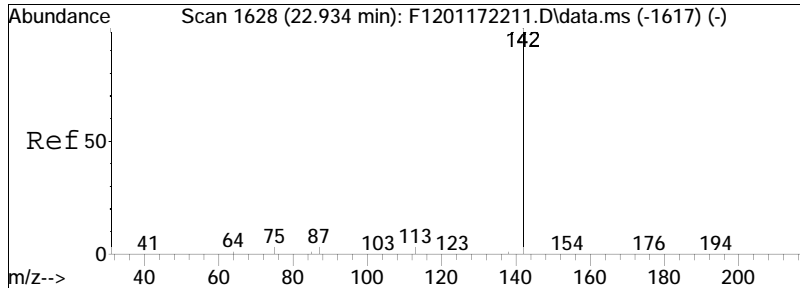




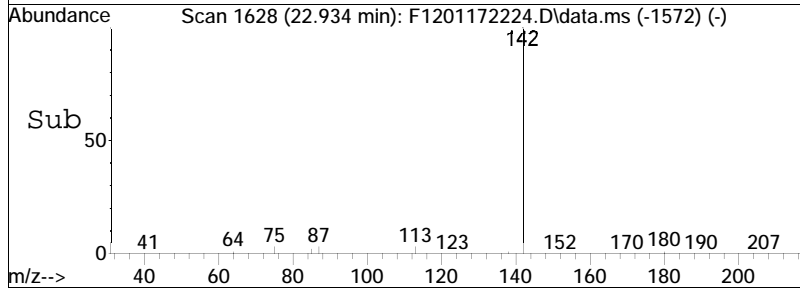
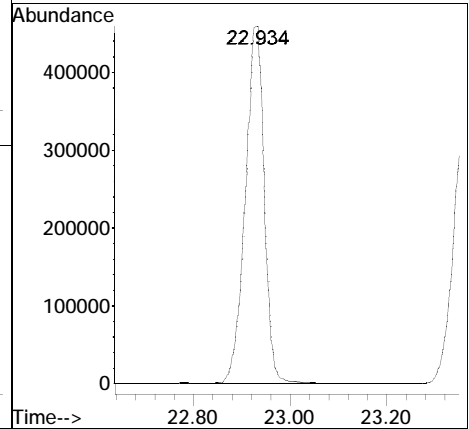
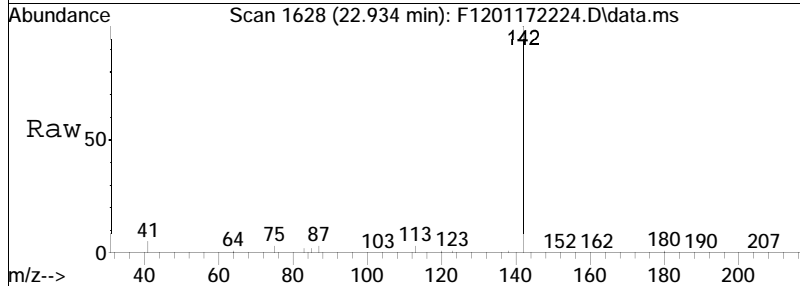
#13  
 C4-Naphthalenes  
 Concen: 3189.36 ng/mL M5  
 RT: 30.882 min Scan# 2499  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

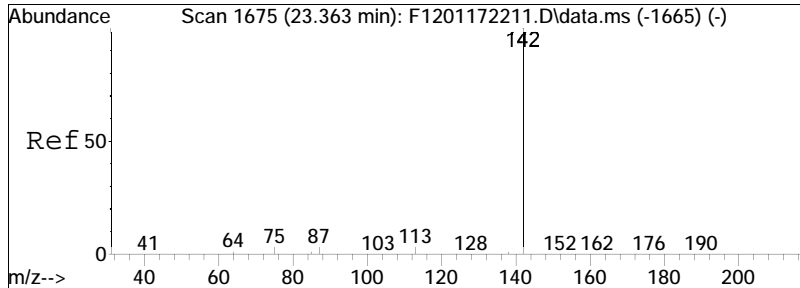
Tgt Ion	Resp	Lower	Upper
184	1099580		
184	100		
169	17.1	67.3	124.9#
183	2.8	17.9	33.3#



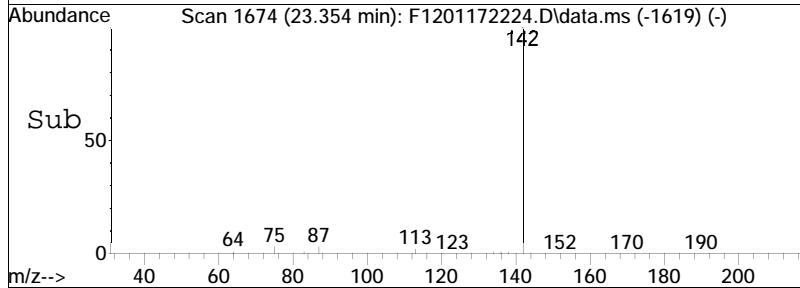
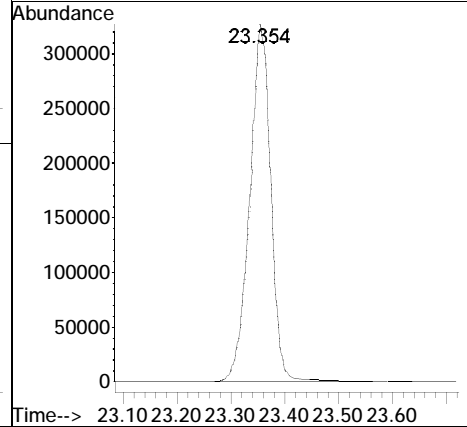
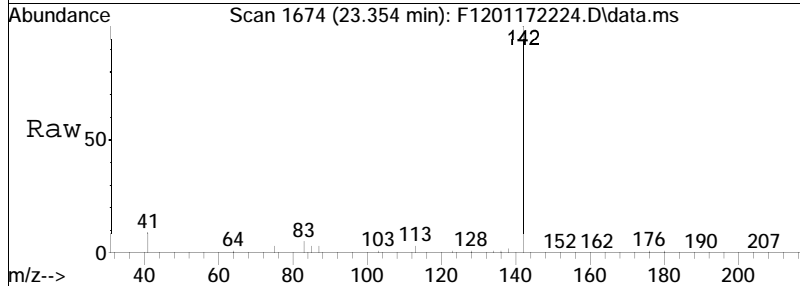


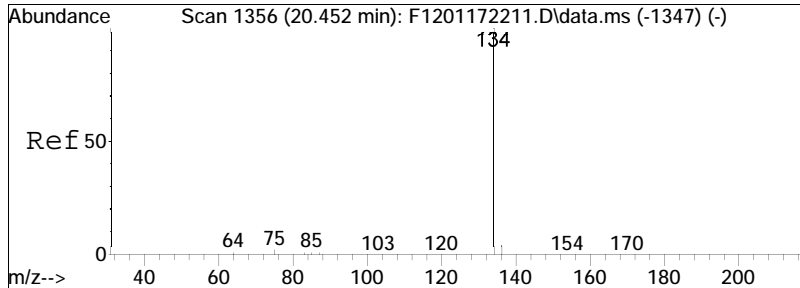
#14  
 2-Methylnaphthalene  
 Concen: 5695.82 ng/mL  
 RT: 22.934 min Scan# 1628  
 Delta R.T. 0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:142 Resp: 1247058



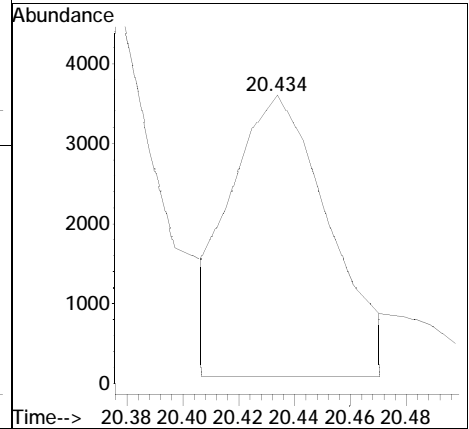
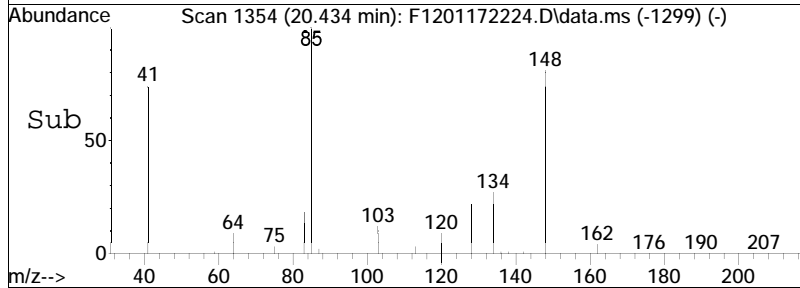
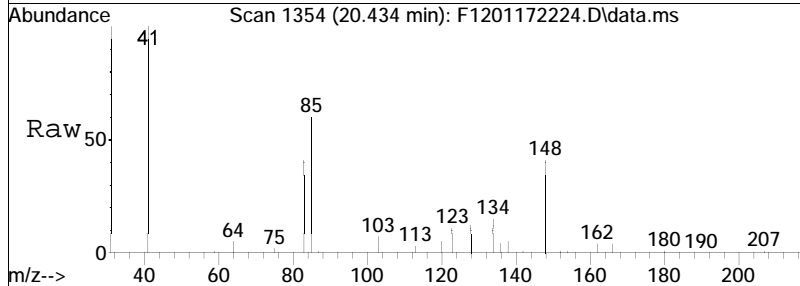


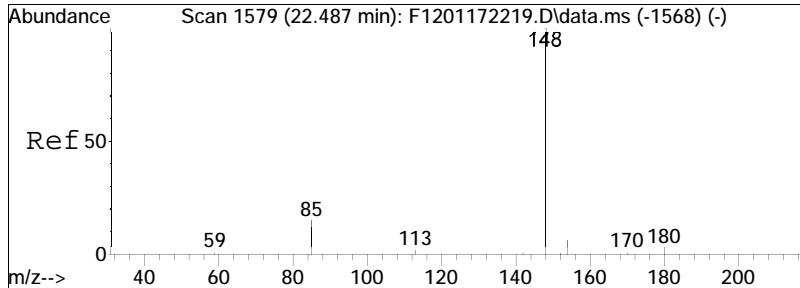
#15  
 1-Methylnaphthalene  
 Concen: 4172.53 ng/mL  
 RT: 23.354 min Scan# 1674  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:142 Resp: 867151



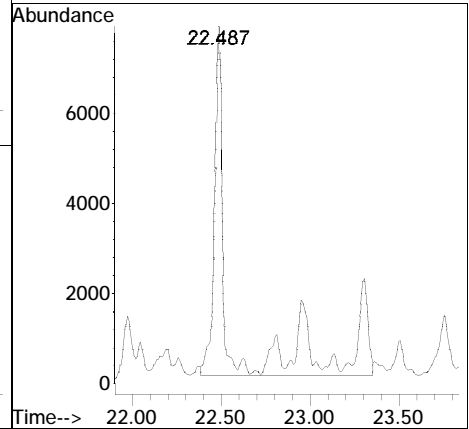
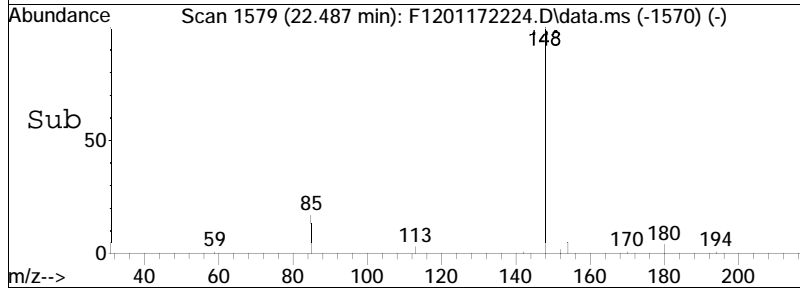
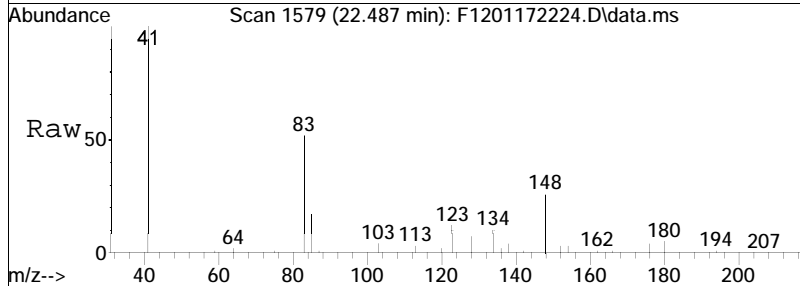


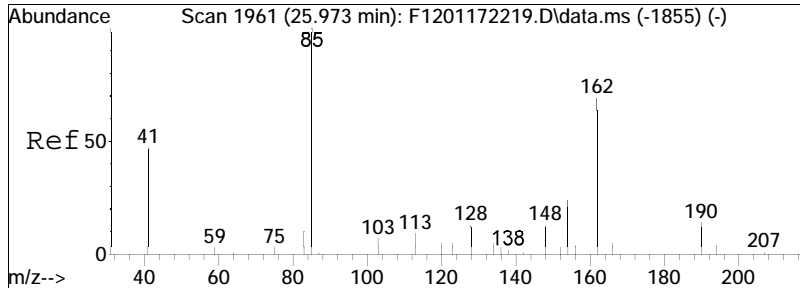
#16  
 Benzothiophene  
 Concen: 29.14 ng/mL M4  
 RT: 20.434 min Scan# 1354  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:134 Resp: 8499



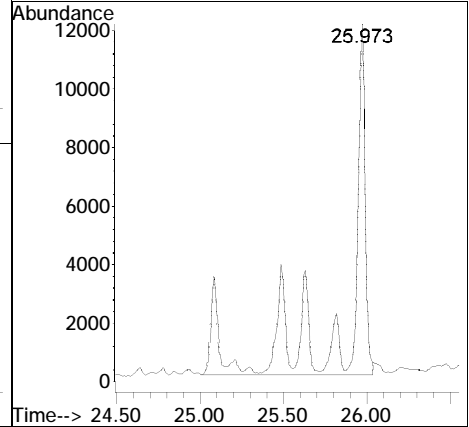
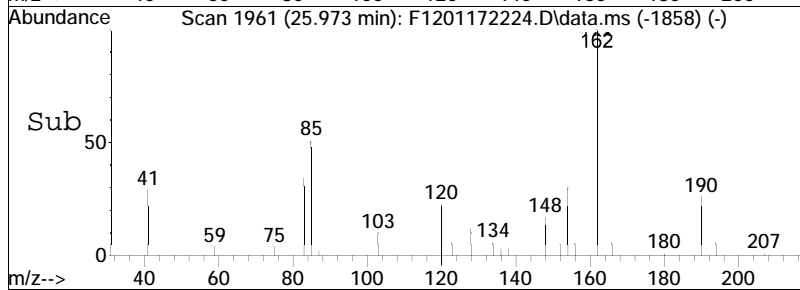
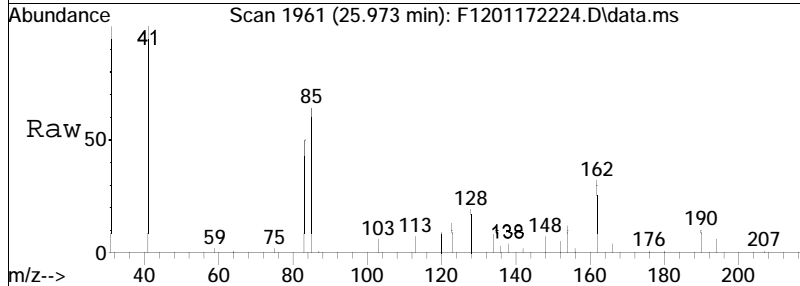


#17  
 Cl-Benzo(b)thiophenes  
 Concen: 153.01 ng/mL M5  
 RT: 22.487 min Scan# 1579  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:148 Resp: 44630

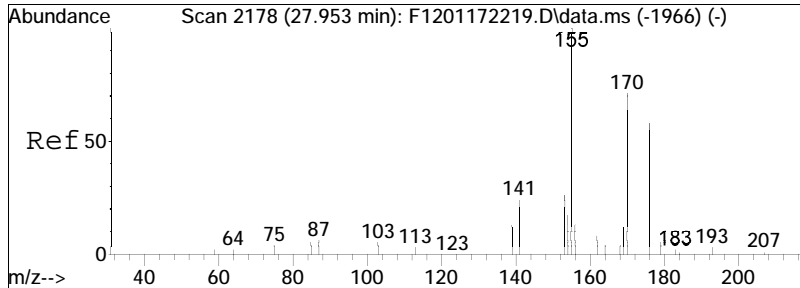




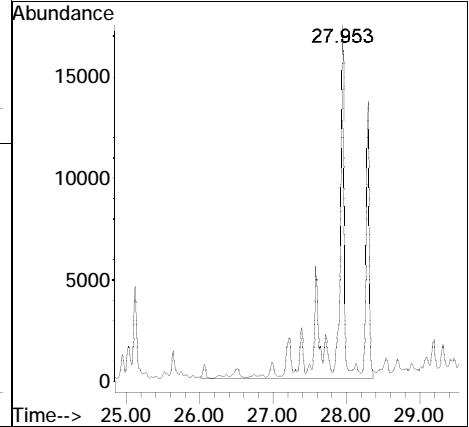
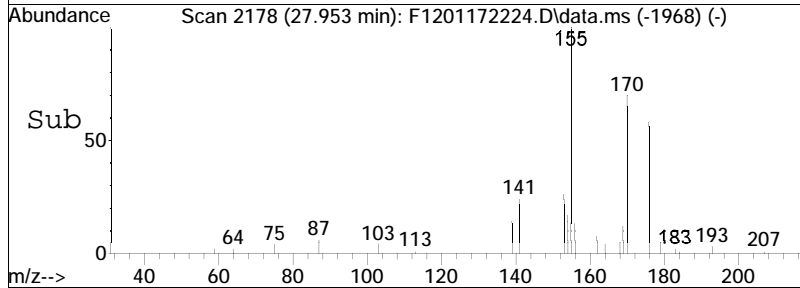
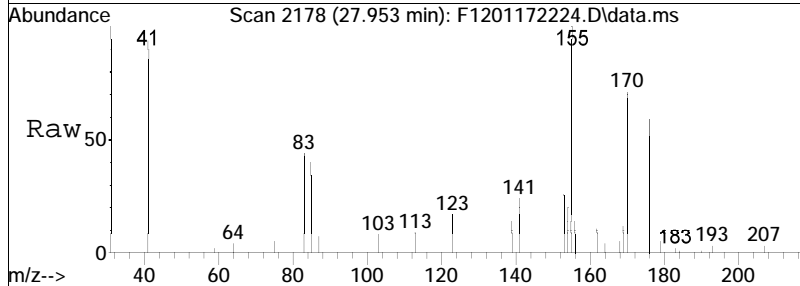
#18  
 C2-Benzo(b)thiophenes  
 Concen: 266.55 ng/mL M5  
 RT: 25.973 min Scan# 1961  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:162 Resp: 77750

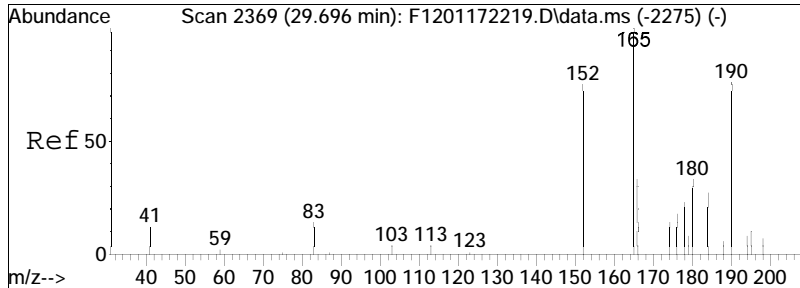




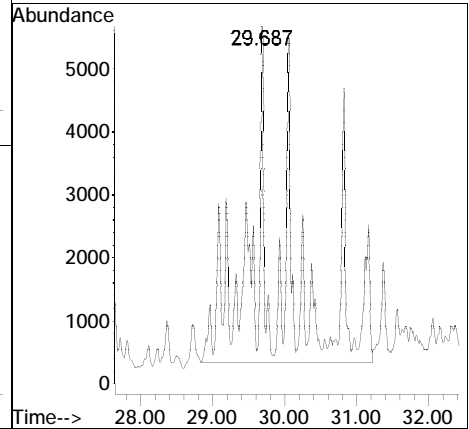
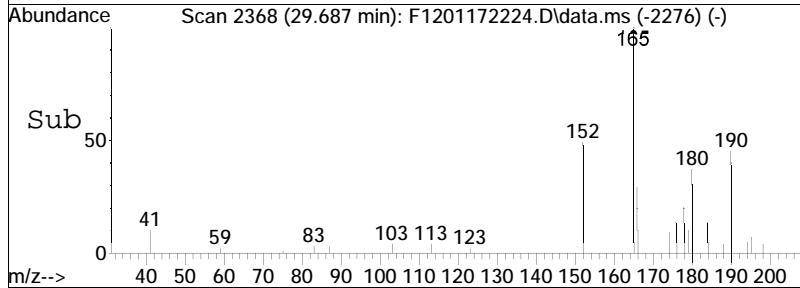
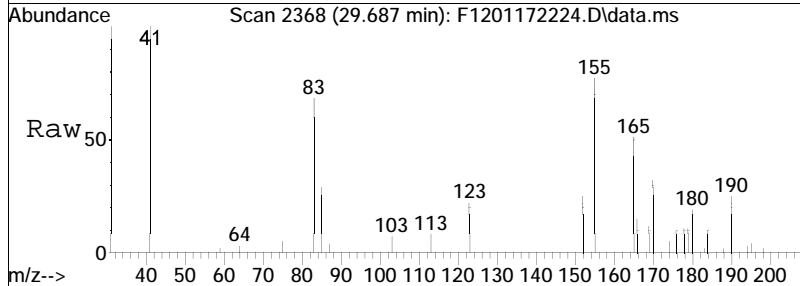


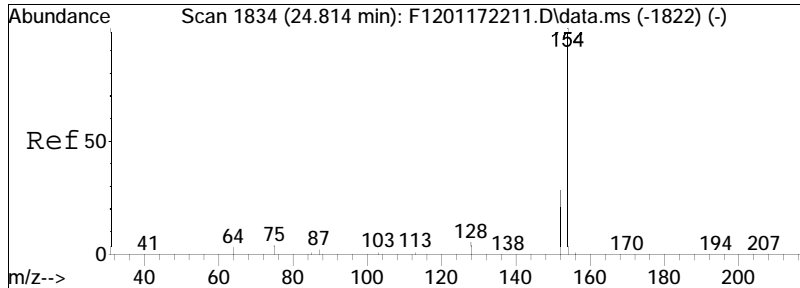
#19  
 C3-Benzo(b)thiophenes  
 Concen: 528.29 ng/mL M5  
 RT: 27.953 min Scan# 2178  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:176 Resp: 154095



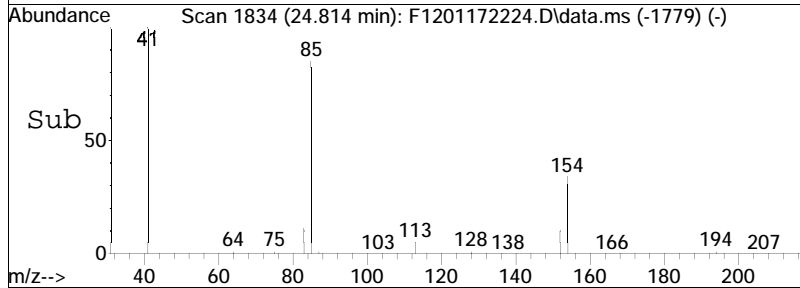
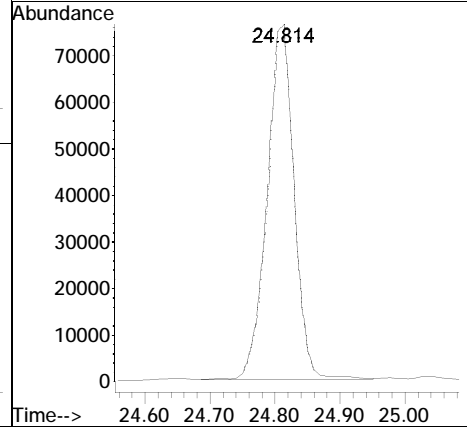
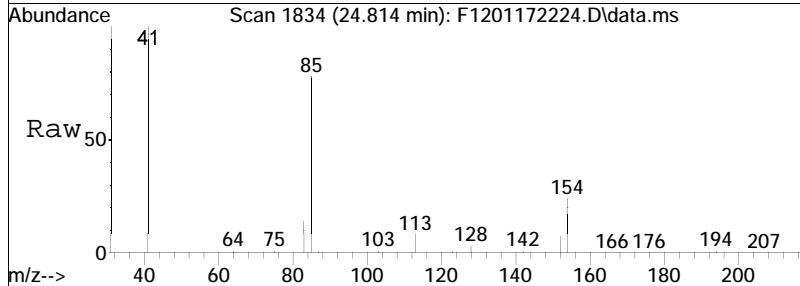


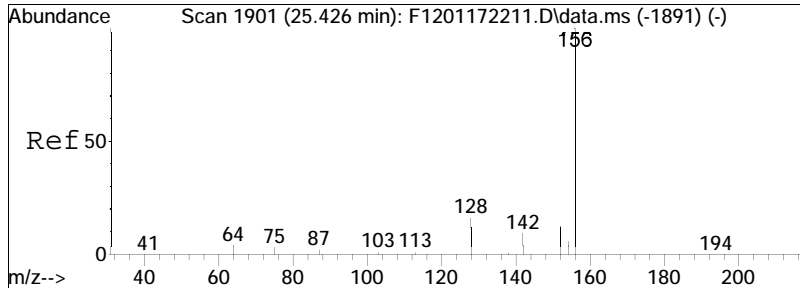
#20  
 C4-Benzo(b)thiophenes  
 Concen: 475.17 ng/mL M5  
 RT: 29.687 min Scan# 2368  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:190 Resp: 138601



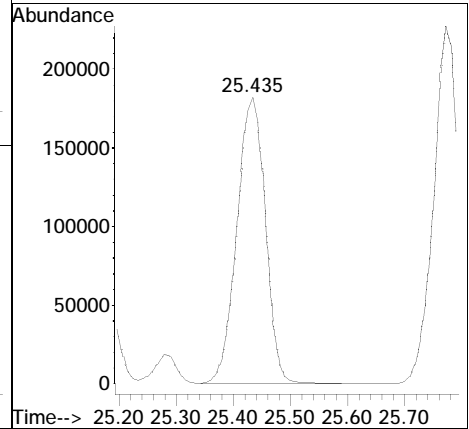
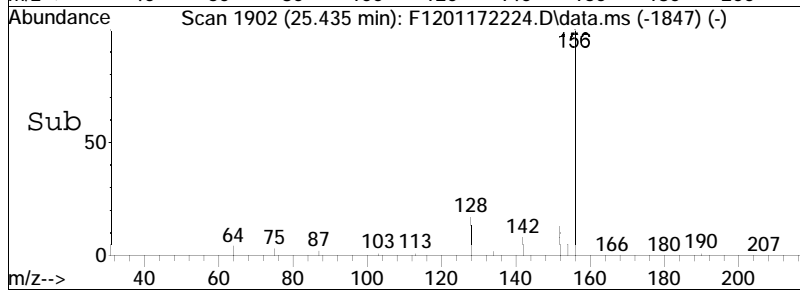
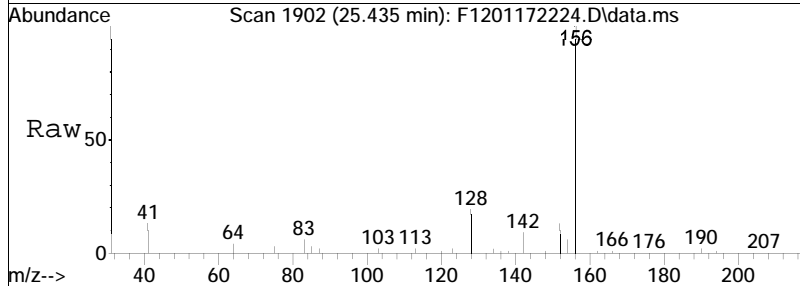


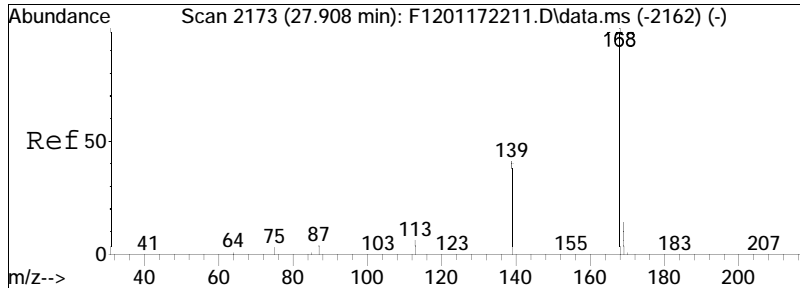
#21  
 Biphenyl  
 Concen: 806.84 ng/mL  
 RT: 24.814 min Scan# 1834  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:154 Resp: 216237





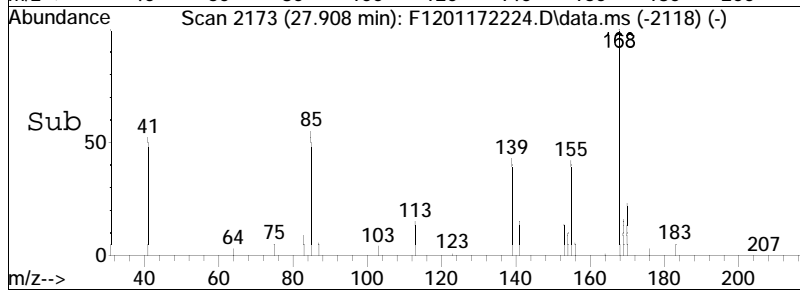
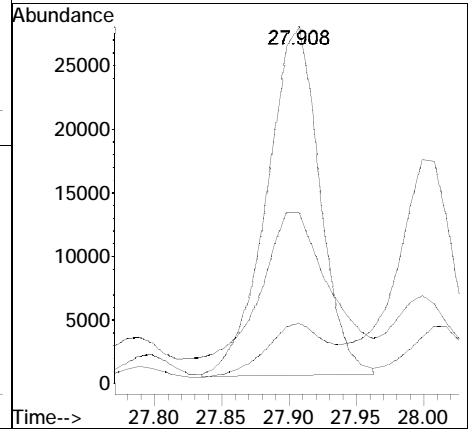
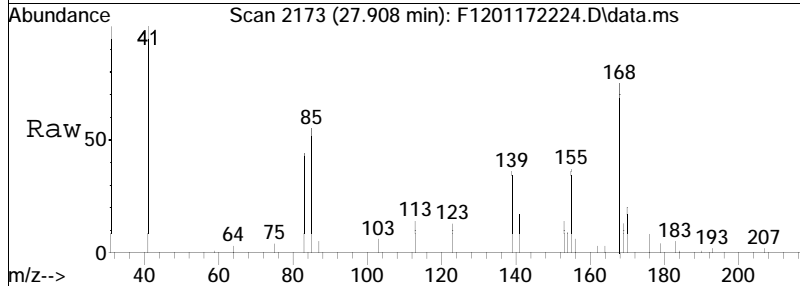
#22  
 2,6-Dimethylnaphthalene  
 Concen: 3374.73 ng/mL  
 RT: 25.435 min Scan# 1902  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:156 Resp: 629411

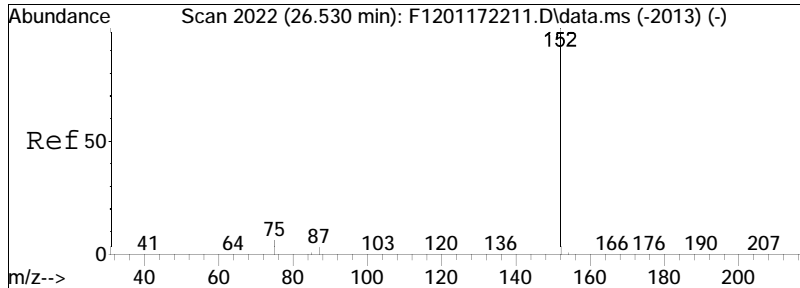




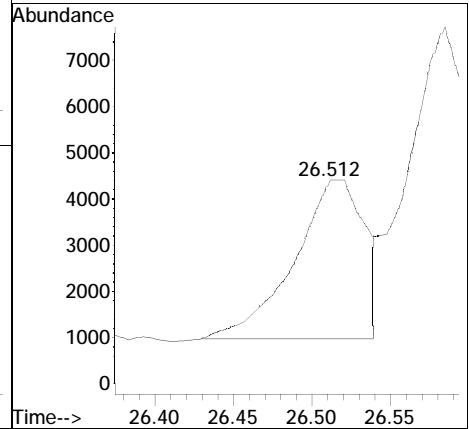
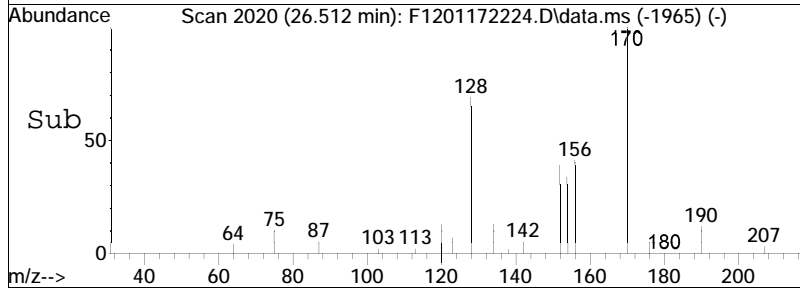
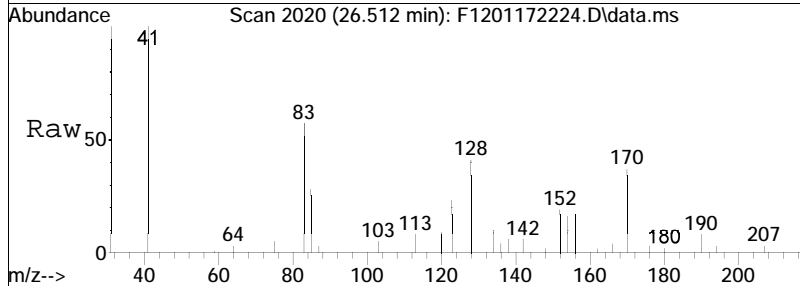
#23  
 Dibenzofuran  
 Concen: 262.31 ng/mL  
 RT: 27.908 min Scan# 2173  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

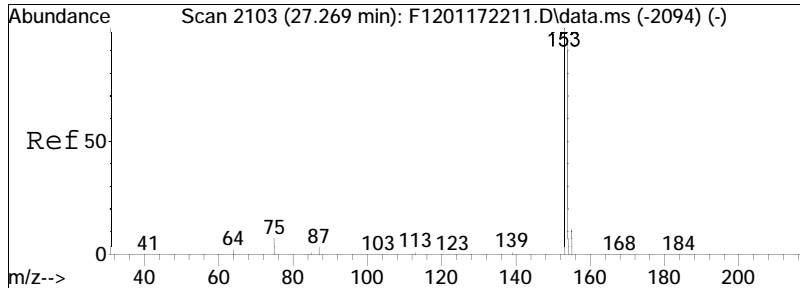
Tgt Ion	Ratio	Lower	Upper
168	100		
139	51.6	29.0	53.8
169	17.9	9.9	18.5





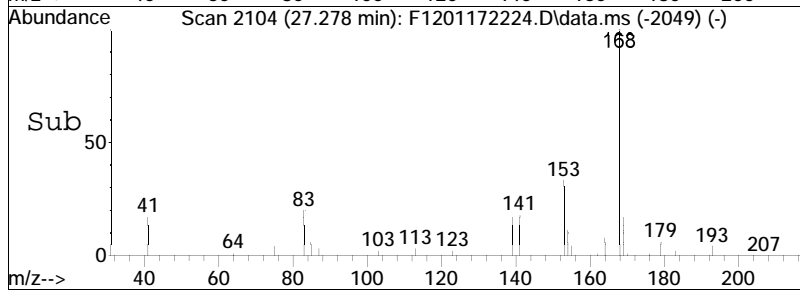
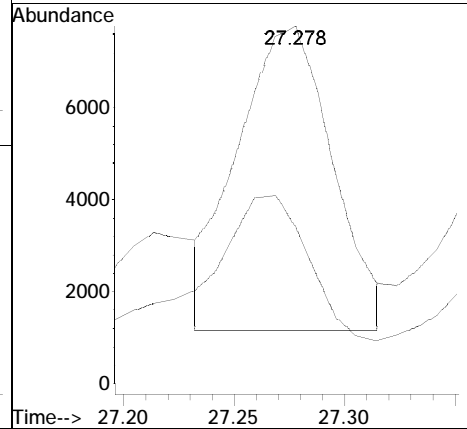
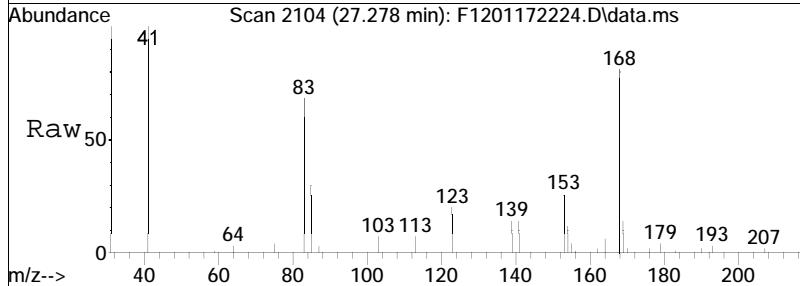
#24  
 Acenaphthylene  
 Concen: 33.59 ng/mL  
 RT: 26.512 min Scan# 2020  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:152 Resp: 11052

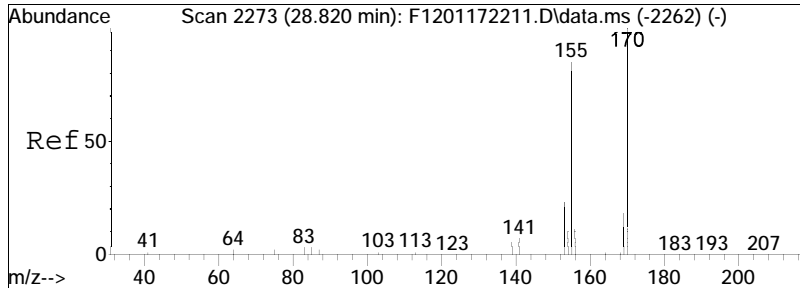




#25  
 Acenaphthene  
 Concen: 94.41 ng/mL M4  
 RT: 27.278 min Scan# 2104  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

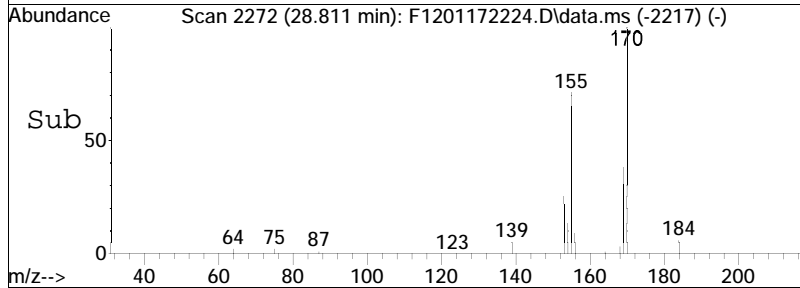
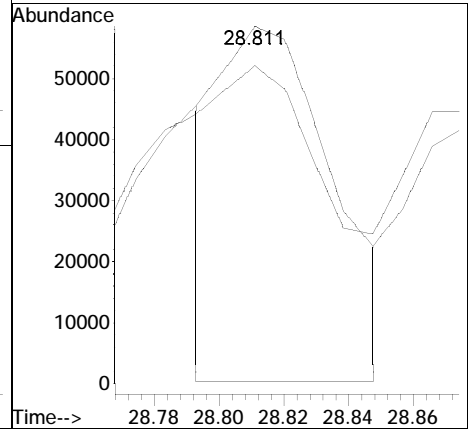
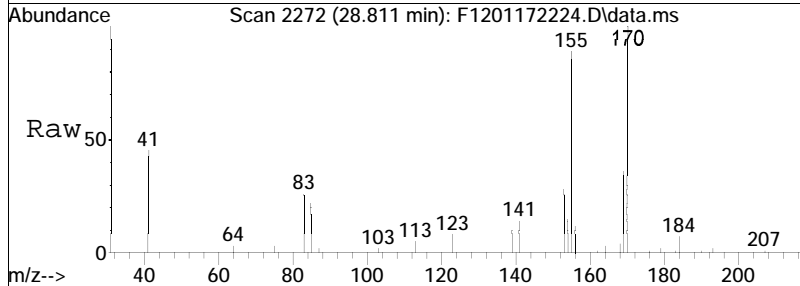
Tgt Ion: 153 Resp: 19653  
 Ion Ratio Lower Upper  
 153 100  
 154 60.5 64.8 120.4#



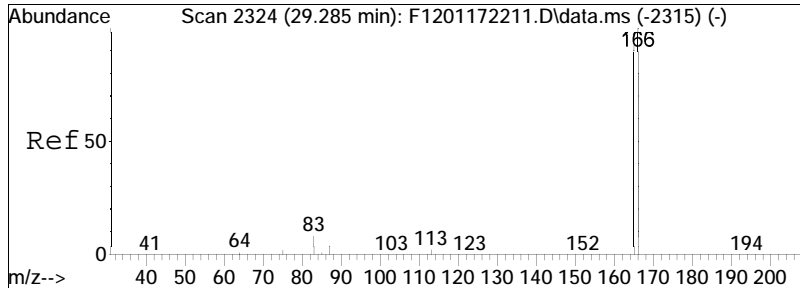


#26  
 2,3,5-Trimethylnaphthalene  
 Concen: 788.75 ng/mL M3  
 RT: 28.811 min Scan# 2272  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

Tgt Ion	Resp	Lower	Upper
170	141147		
155	157.7	59.3	110.1#

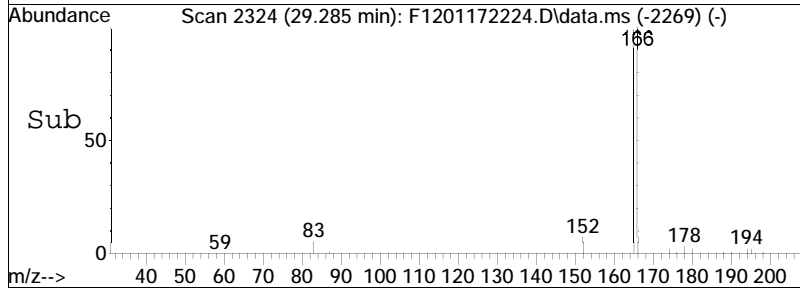
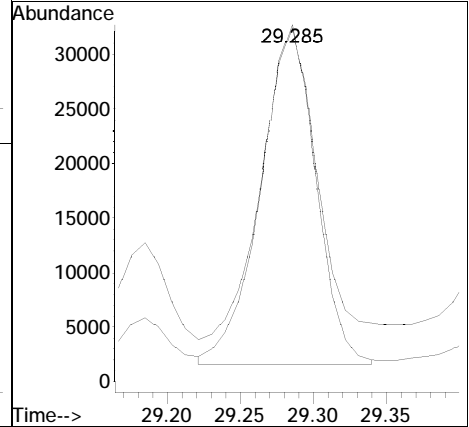
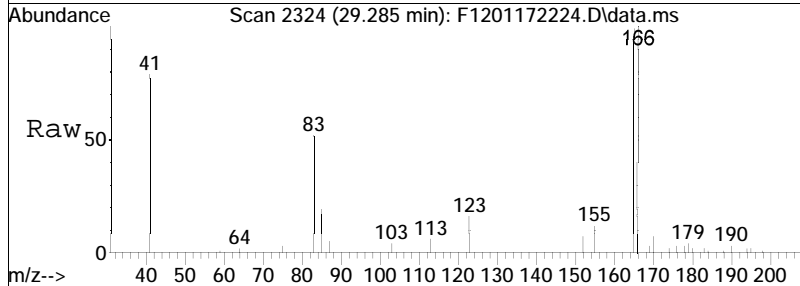


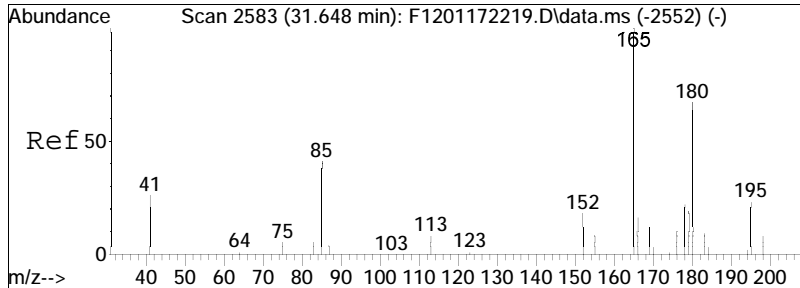




#27  
 Fluorene  
 Concen: 353.59 ng/mL M4  
 RT: 29.285 min Scan# 2324  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

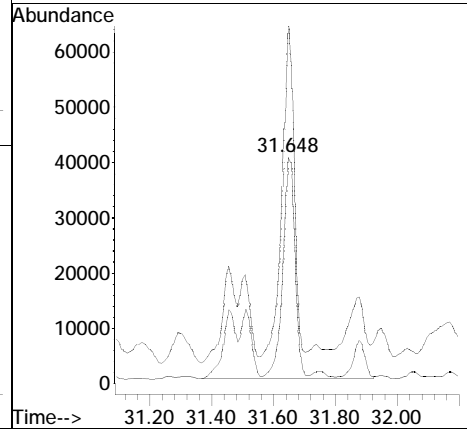
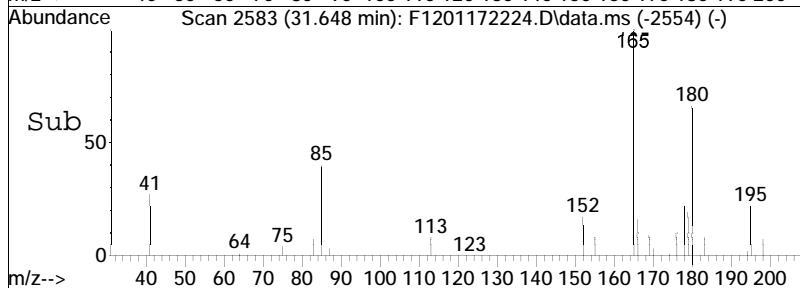
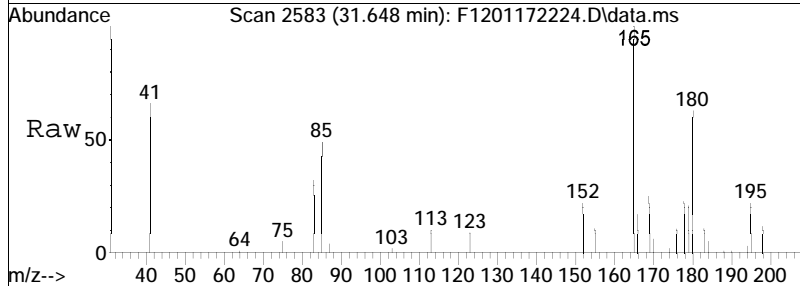
Tgt Ion	Resp	Lower	Upper
166	100		
165	121.0	66.0	122.6

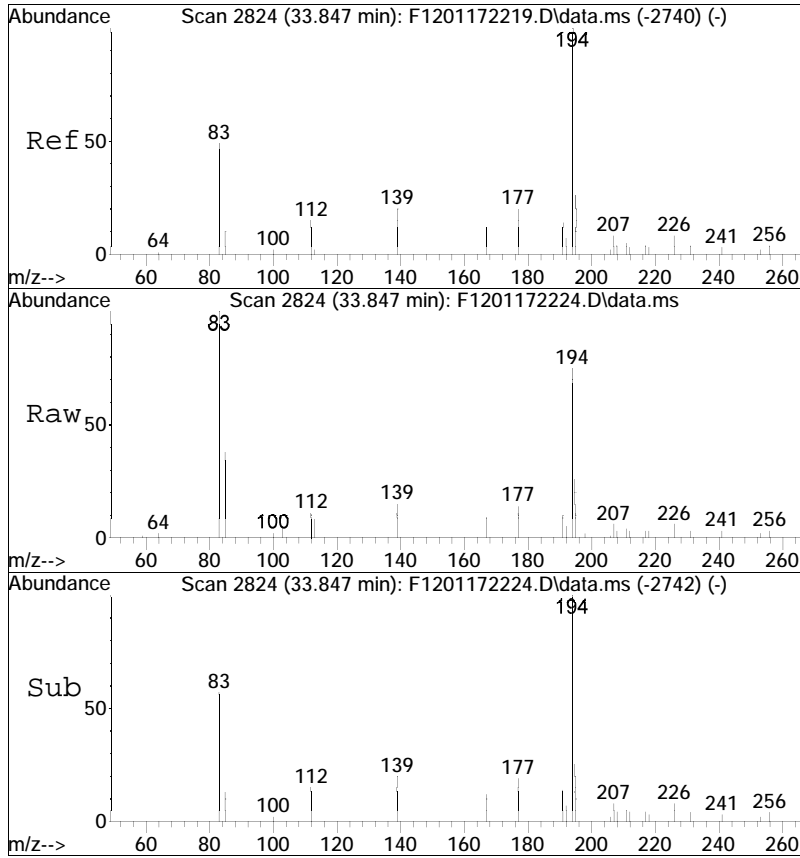




#28  
 Cl-Fluorenes  
 Concen: 856.08 ng/mL M5  
 RT: 31.648 min Scan# 2583  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

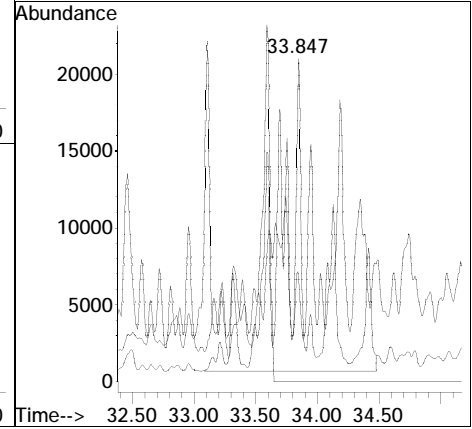
Tgt Ion	Resp	Lower	Upper
180	197151		
165	79.6	108.8	202.0#

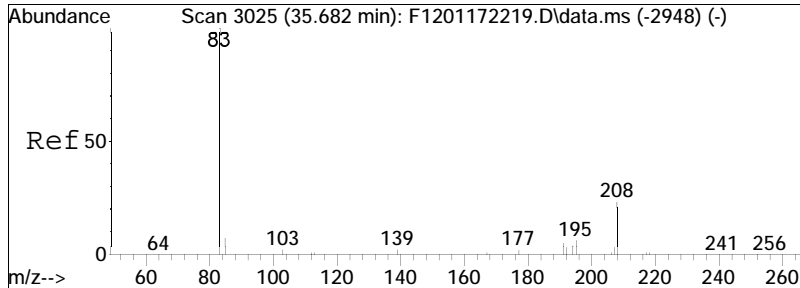




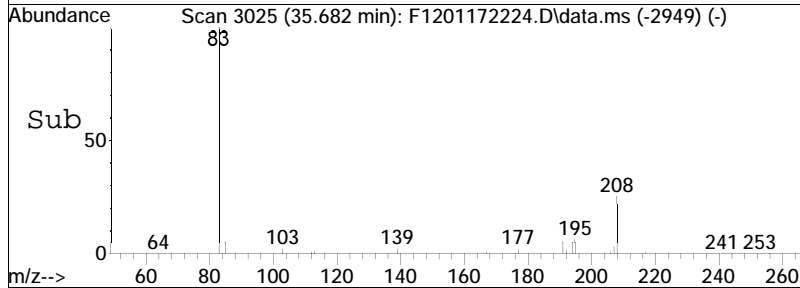
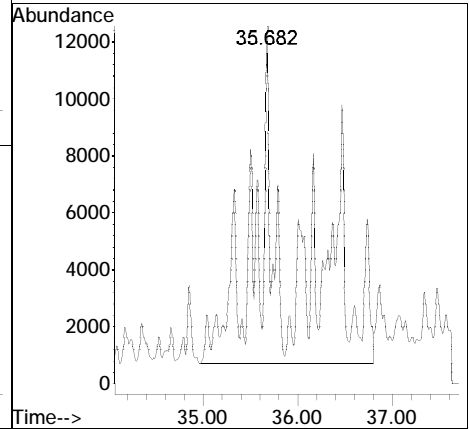
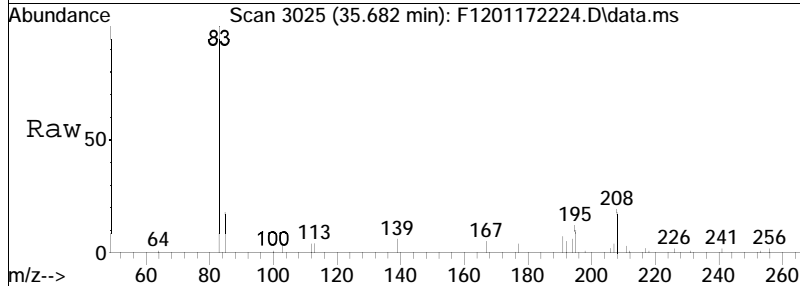
#29  
 C2-Fluorenes  
 Concen: 1419.09 ng/mL M5  
 RT: 33.847 min Scan# 2824  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

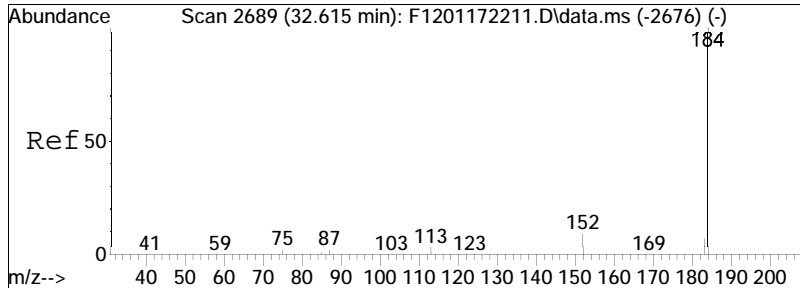
Tgt Ion	Resp	Lower	Upper
194	326809		
179	0.0	0.0	0.0
195	3.5	23.7	43.9#





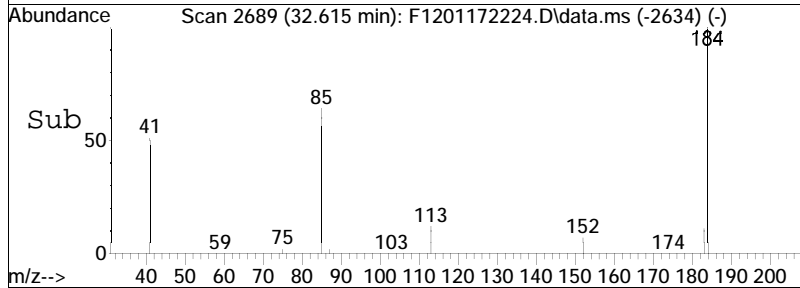
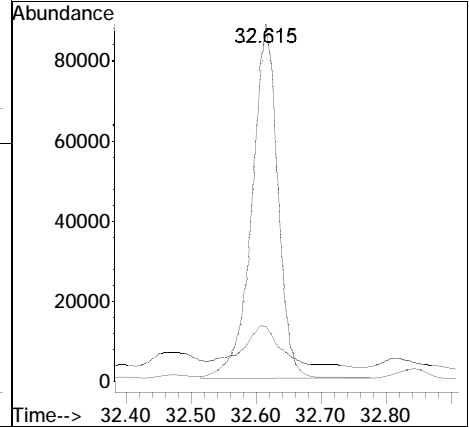
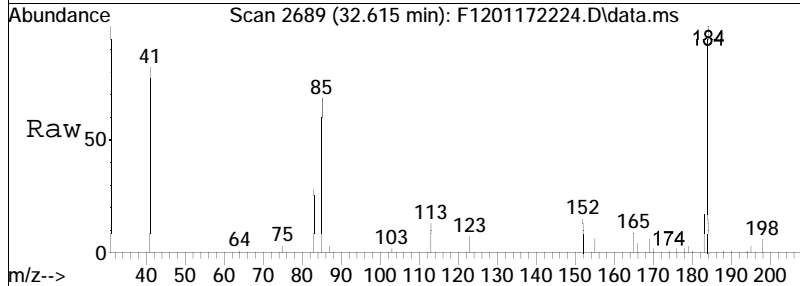
#30  
 C3-Fluorenes  
 Concen: 1324.49 ng/mL M5  
 RT: 35.682 min Scan# 3025  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 208 Resp: 305024

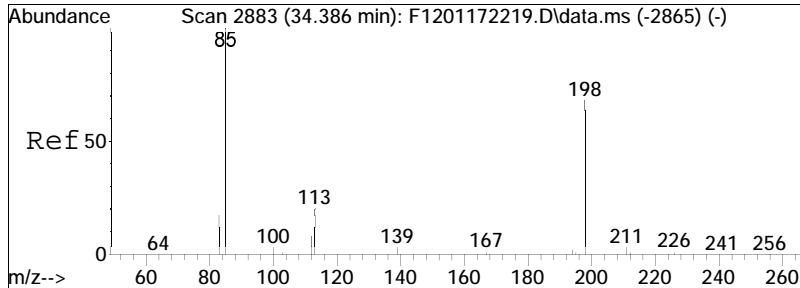




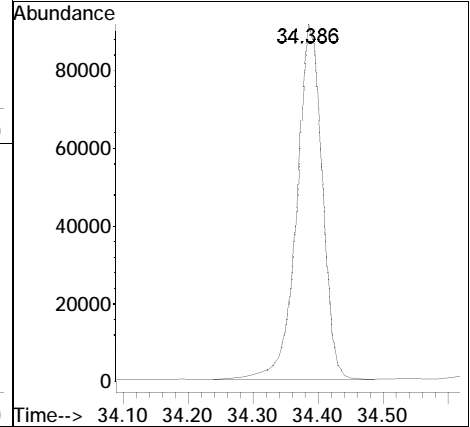
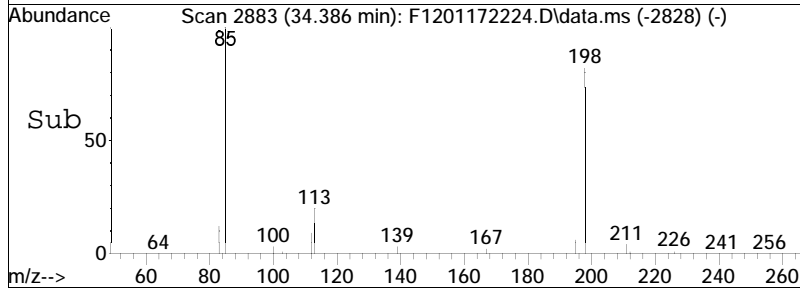
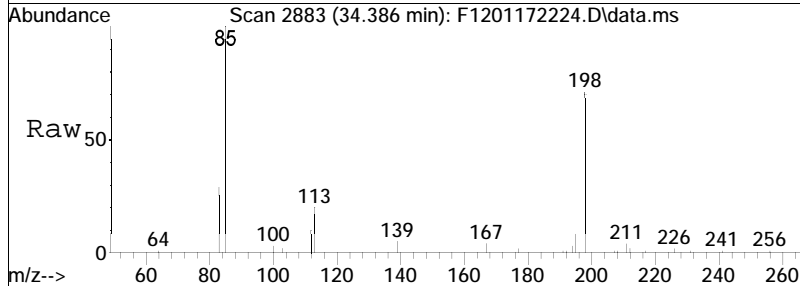
#31  
 Dibenzothiophene  
 Concen: 726.98 ng/mL  
 RT: 32.615 min Scan# 2689  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

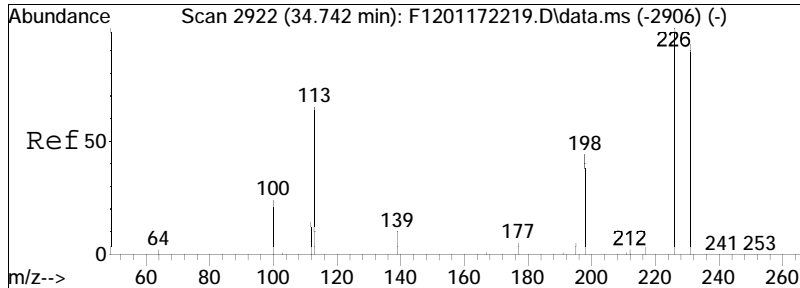
Tgt Ion	Resp	Lower	Upper
184	100		
152	15.3	6.6	12.2#



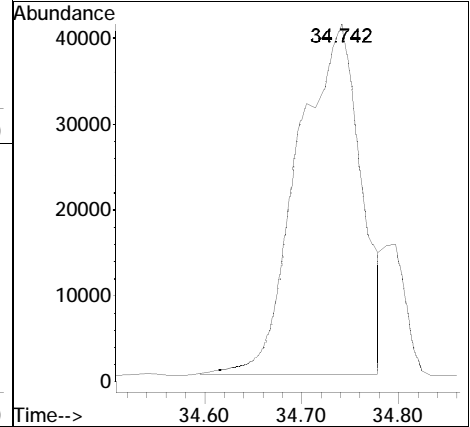
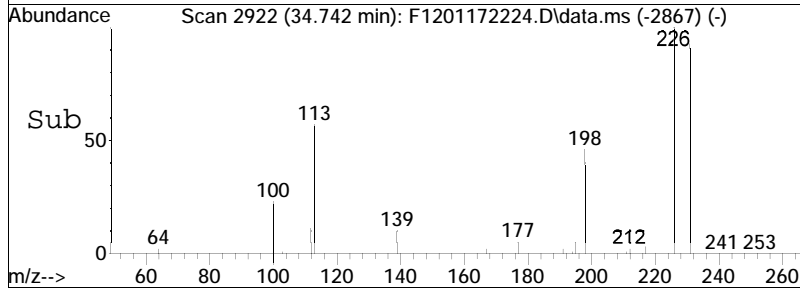
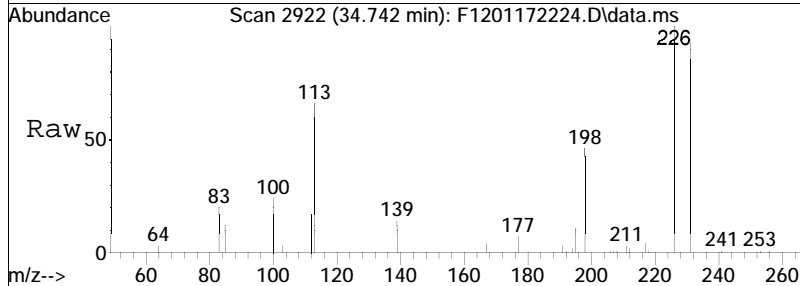


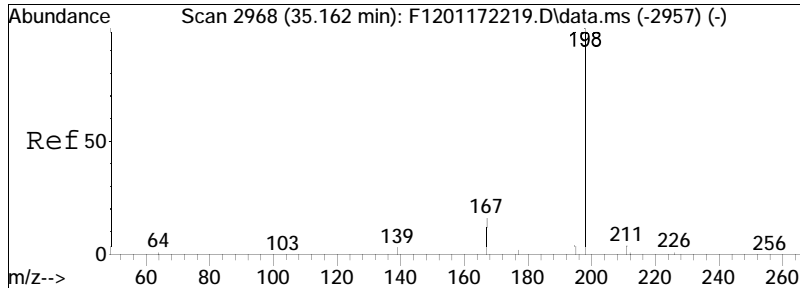
#32  
 4-Methyldibenzothiophene(4MDT)  
 Concen: 743.43 ng/mL  
 RT: 34.386 min Scan# 2883  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:198 Resp: 246958



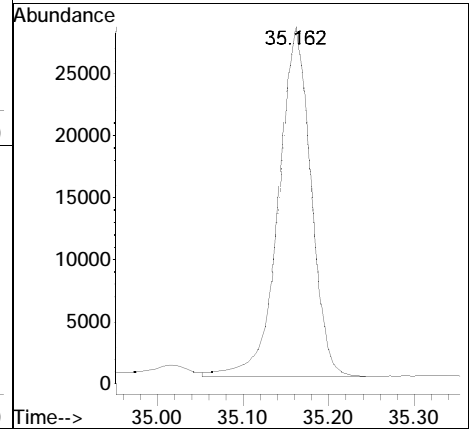
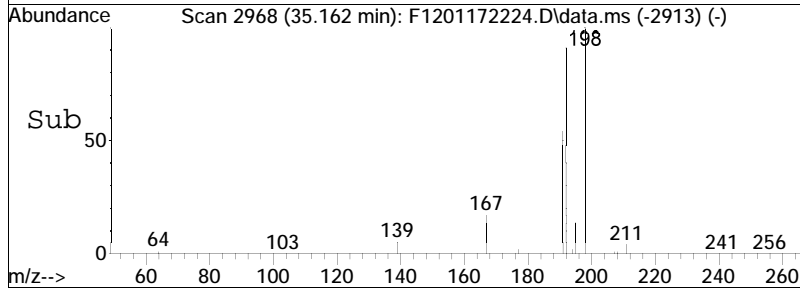
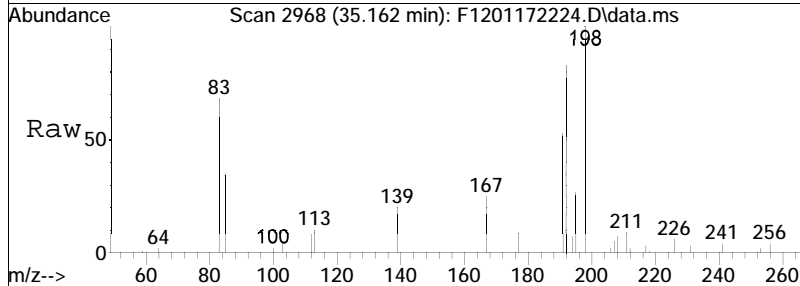


#33  
 2/3-Methyldibenzothiophene(2MD)  
 Concen: 550.63 ng/mL M3  
 RT: 34.742 min Scan# 2922  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:198 Resp: 182913

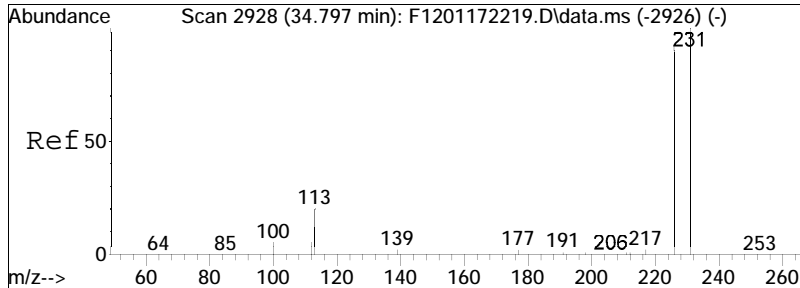




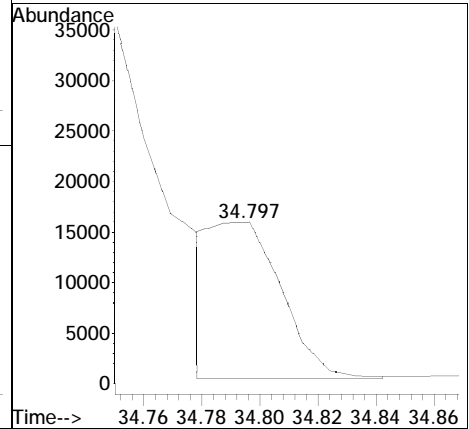
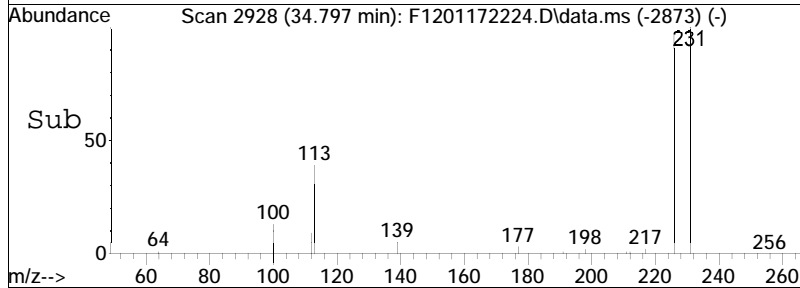
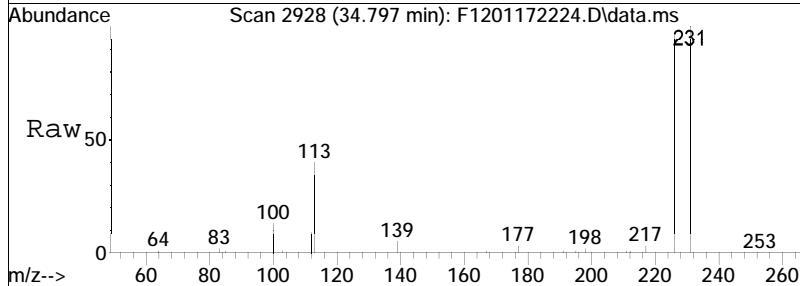
#34  
 1-Methyldibenzothiophene(1MDT)  
 Concen: 221.81 ng/mL  
 RT: 35.162 min Scan# 2968  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:198 Resp: 73681

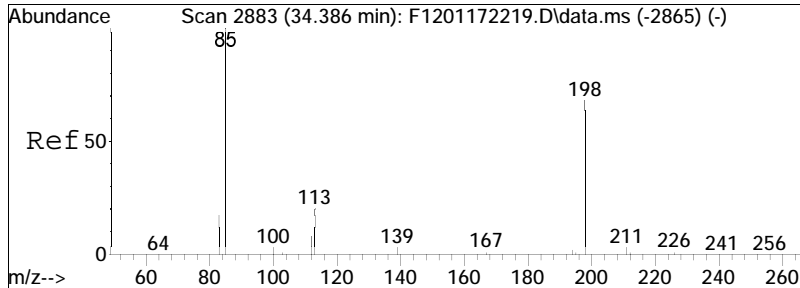




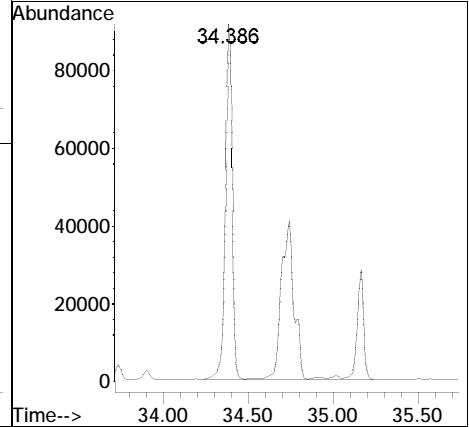
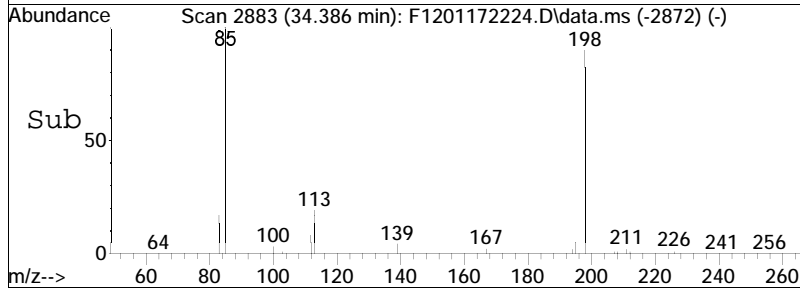
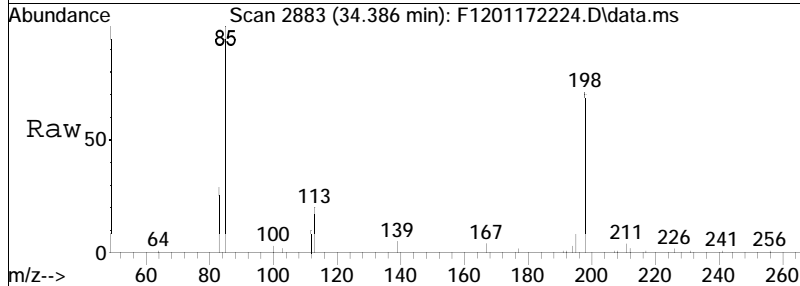


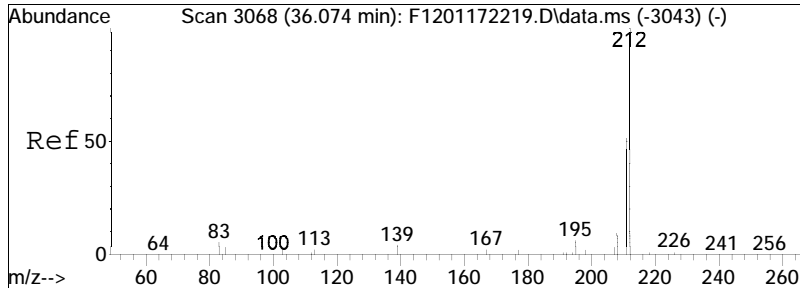
#35  
 OTP  
 Concen: 75.95 ng/mL M3  
 RT: 34.797 min Scan# 2928  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:198 Resp: 25230



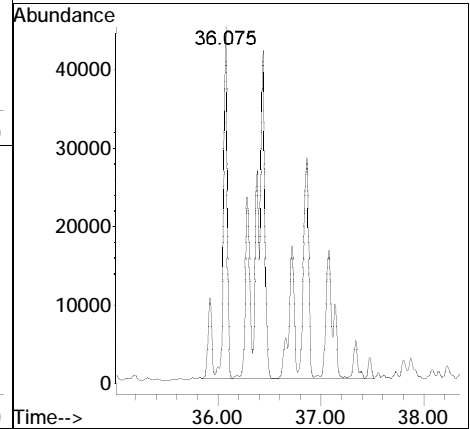
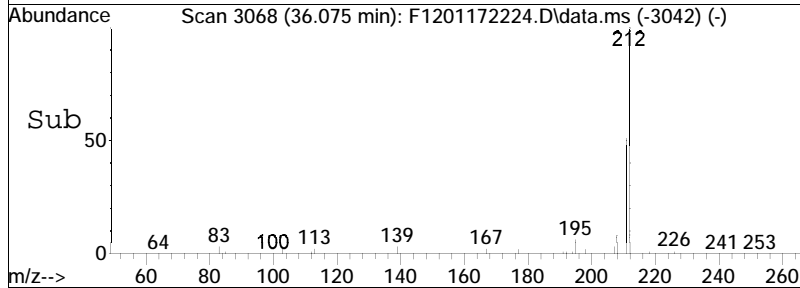
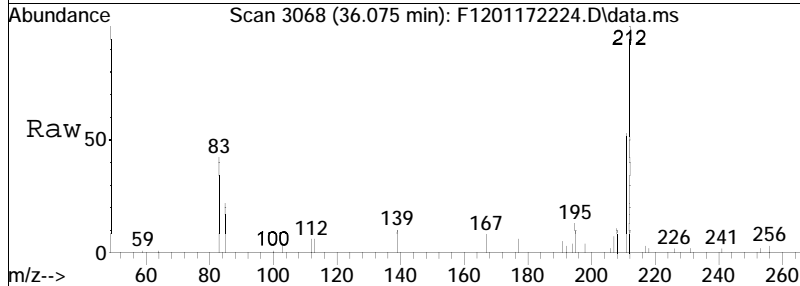


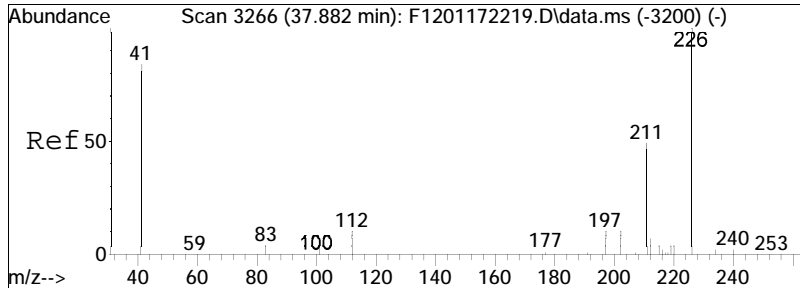
#36  
 Cl-Dibenzothiophenes  
 Concen: 1623.32 ng/mL M5  
 RT: 34.386 min Scan# 2883  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:198 Resp: 539246





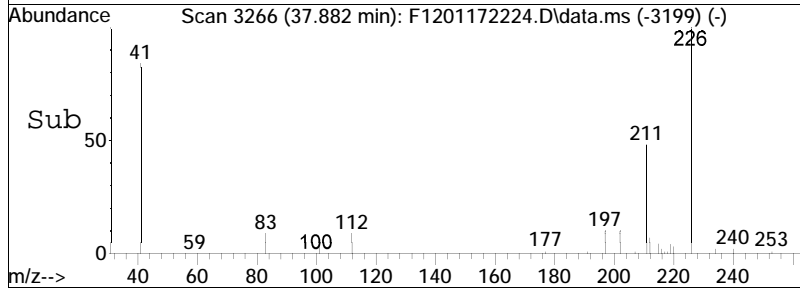
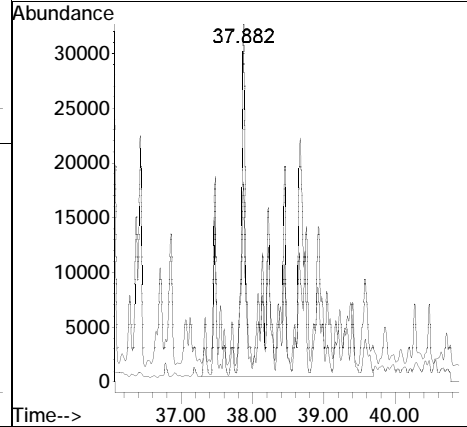
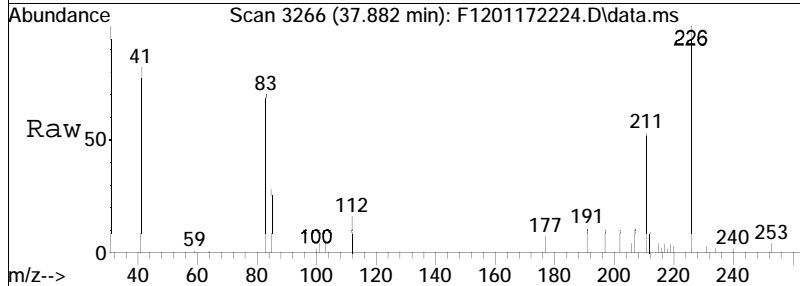
#37  
 C2-Dibenzothiophenes  
 Concen: 1967.26 ng/mL M5  
 RT: 36.075 min Scan# 3068  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 212 Resp: 653500

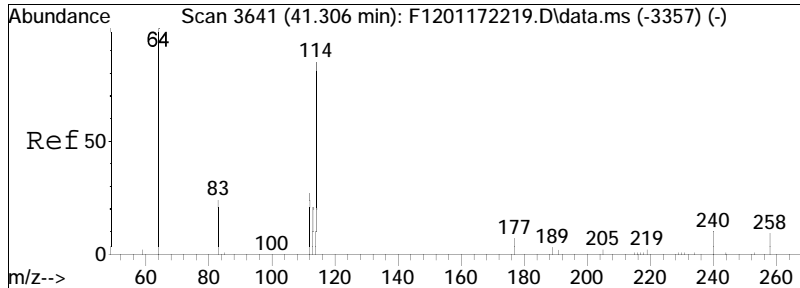




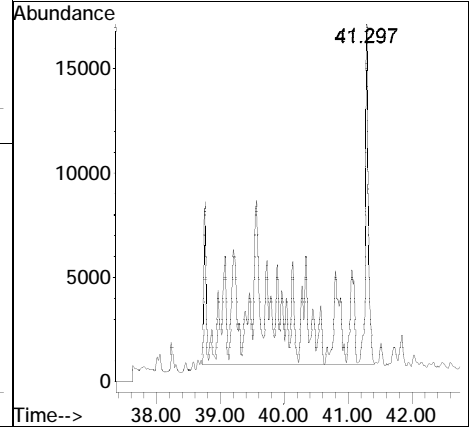
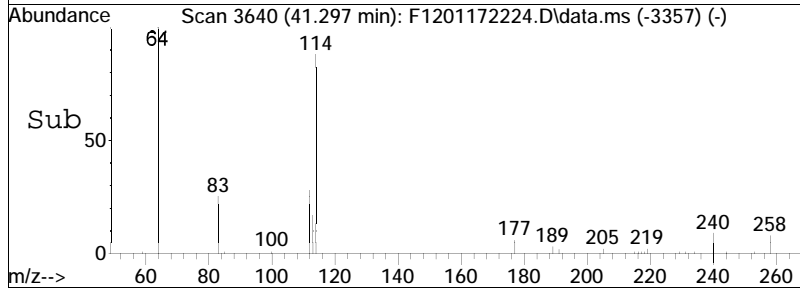
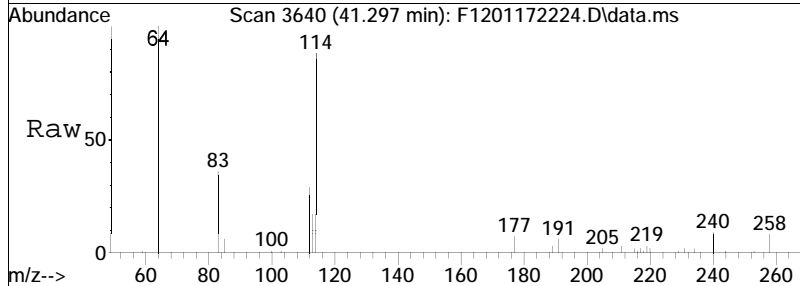
#38  
 C3-Dibenzothiophenes  
 Concen: 1923.58 ng/mL M5  
 RT: 37.882 min Scan# 3266  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

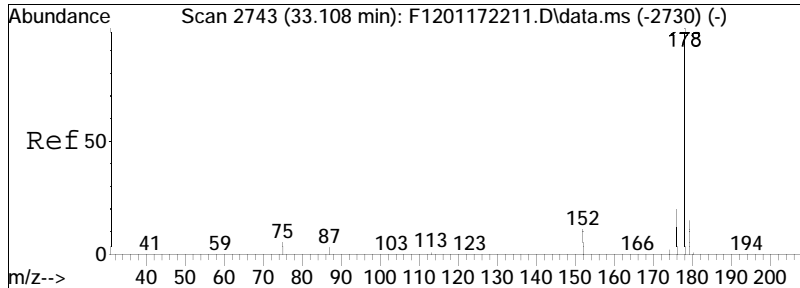
Tgt Ion	Resp	Lower	Upper
226	100		
211	1.5	37.5	69.7#





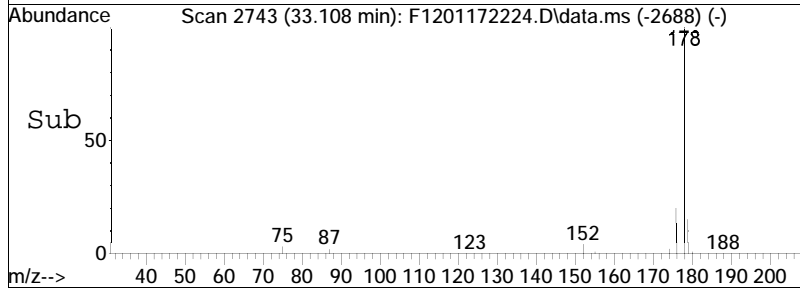
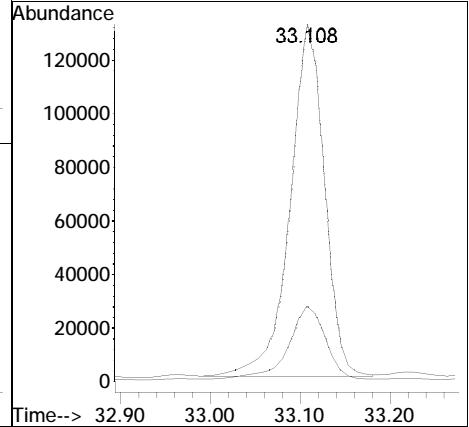
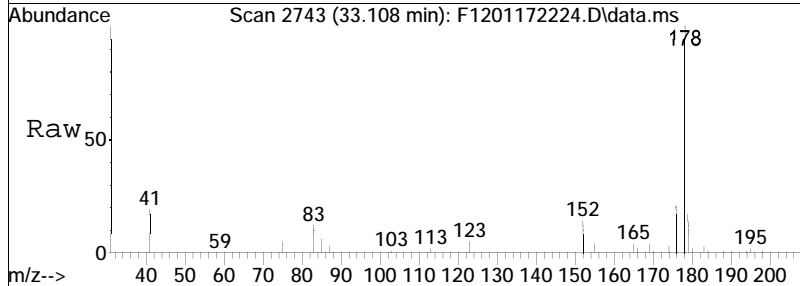
#39  
 C4-Dibenzothiophenes  
 Concen: 1144.86 ng/mL M5  
 RT: 41.297 min Scan# 3640  
 Delta R.T. 1.735 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:240 Resp: 380309

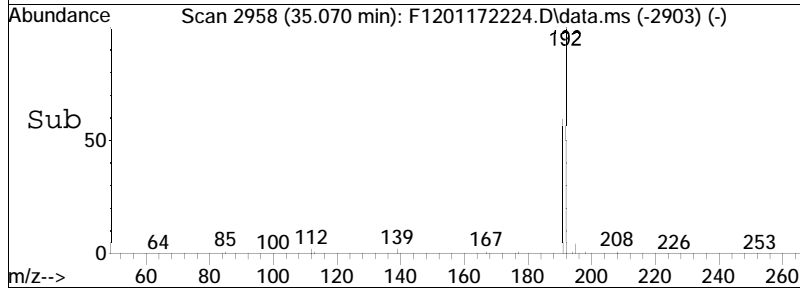
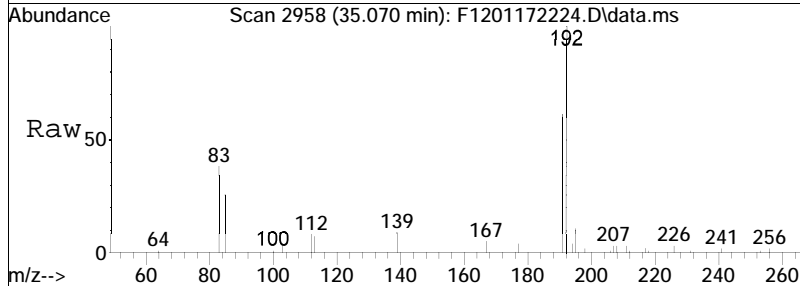
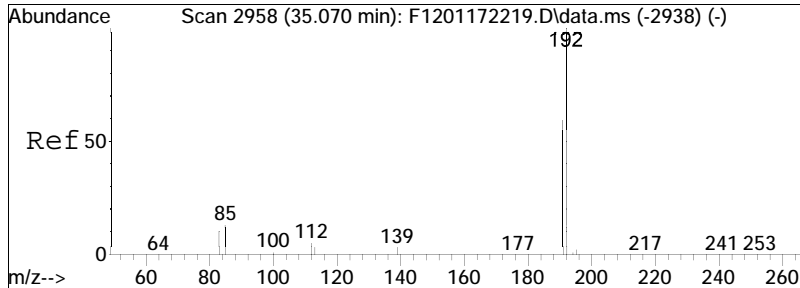




#41  
 Phenanthrene  
 Concen: 1017.72 ng/mL  
 RT: 33.108 min Scan# 2743  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

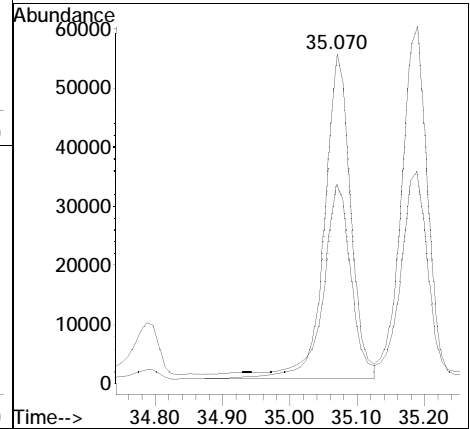
Tgt Ion	Resp	Lower	Upper
178	100		
176	22.5	14.0	26.0

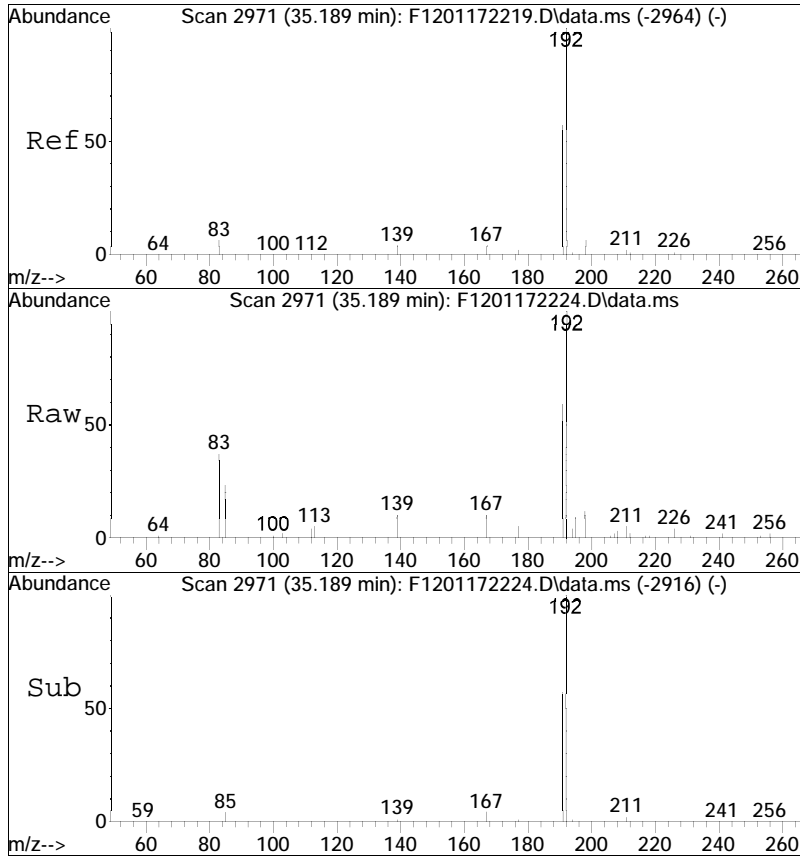




#42  
 3-Methylphenanthrene (3MP)  
 Concen: 433.44 ng/mL  
 RT: 35.070 min Scan# 2958  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

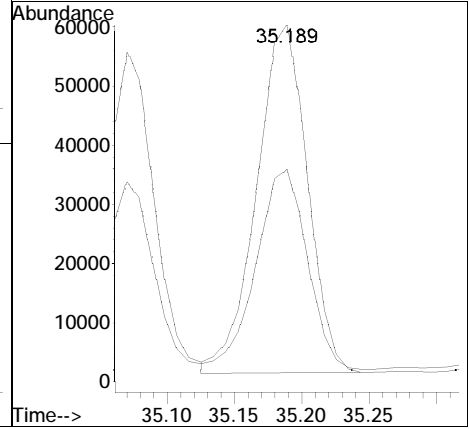
Tgt Ion: 192 Resp: 147141  
 Ion Ratio Lower Upper  
 192 100  
 191 57.7 42.7 79.3



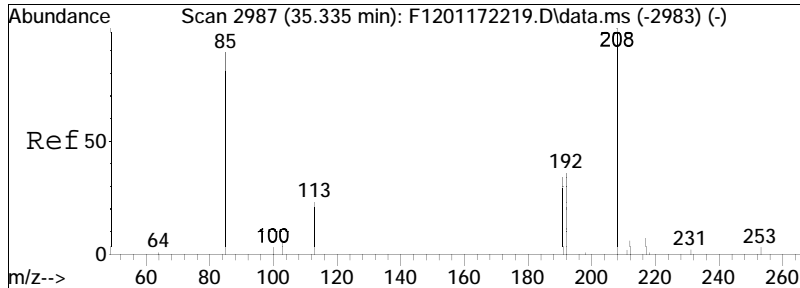


#43  
 2-Methylphenanthrene (2MP)  
 Concen: 454.75 ng/mL  
 RT: 35.189 min Scan# 2971  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

Tgt Ion	Resp	Lower	Upper
192	154375		
191	57.2	41.6	77.2

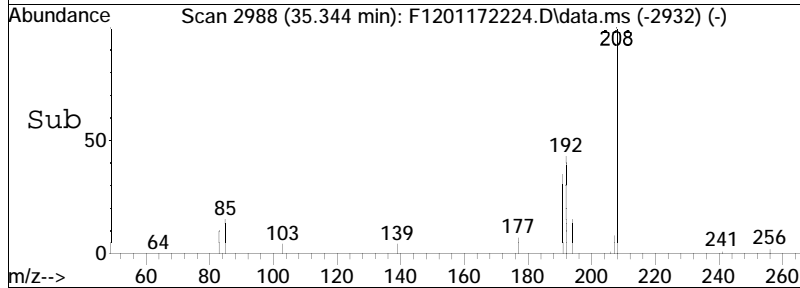
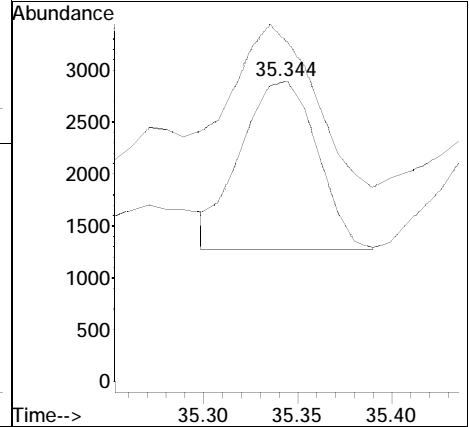
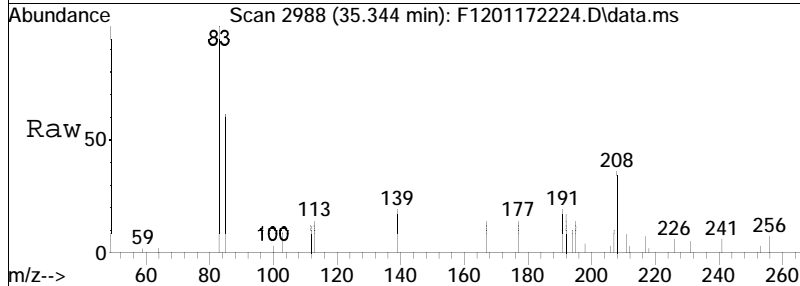


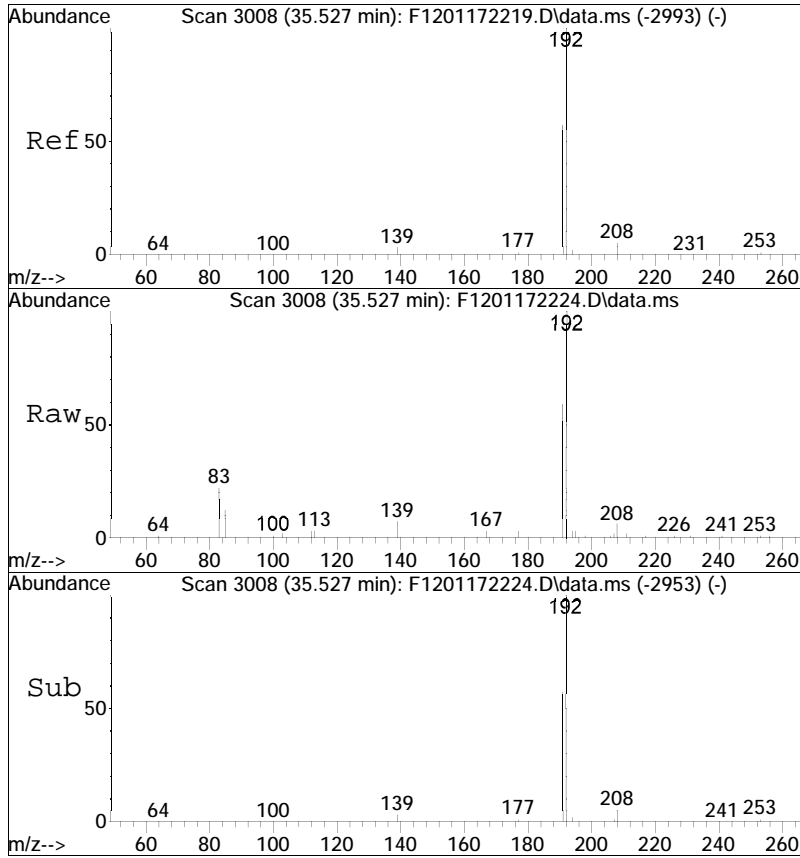




#44  
 2-Methylantracene(2MA)  
 Concen: 13.50 ng/mL M4  
 RT: 35.344 min Scan# 2988  
 Delta R.T. 0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

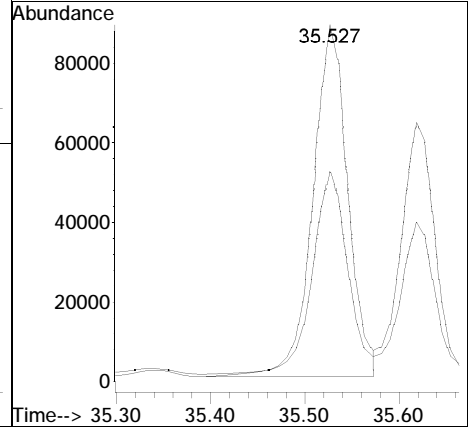
Tgt Ion:192 Resp: 4582  
 Ion Ratio Lower Upper  
 192 100  
 191 105.3 85.7 159.1

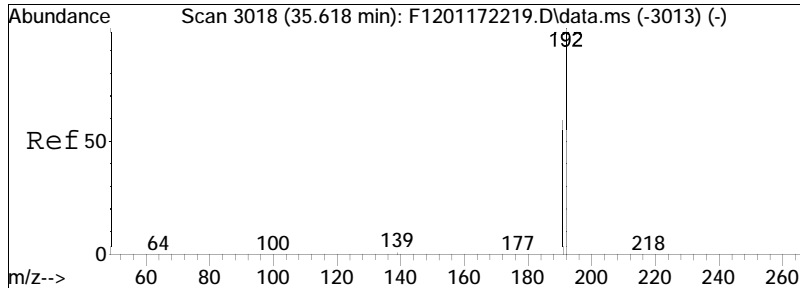




#45  
 9/4-Methylphenanthrene(9MP)  
 Concen: 670.36 ng/mL  
 RT: 35.527 min Scan# 3008  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

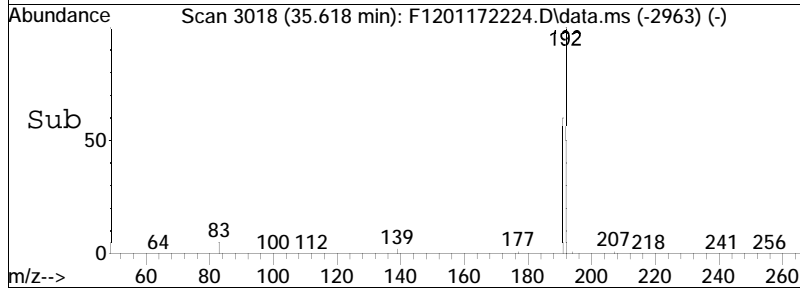
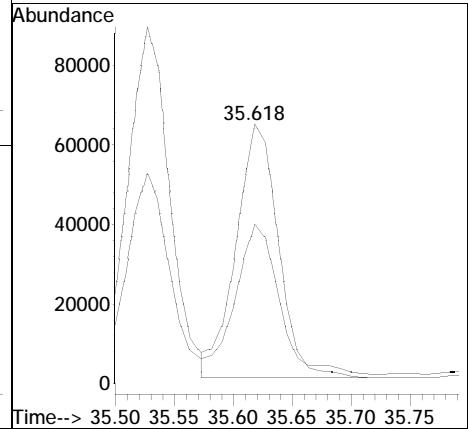
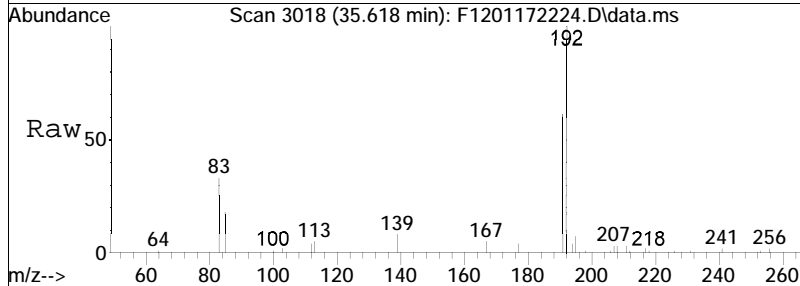
Tgt Ion	Ratio	Lower	Upper
192	100		
191	58.5	40.9	76.0

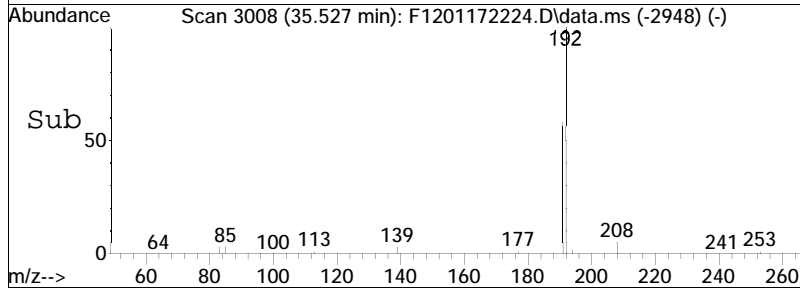
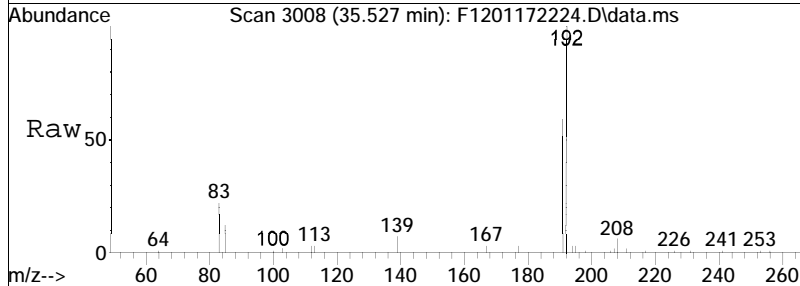
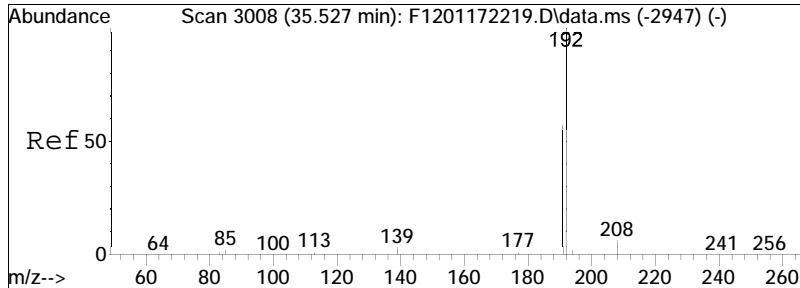




#46  
 1-Methylphenanthrene (1MP)  
 Concen: 466.29 ng/mL  
 RT: 35.618 min Scan# 3018  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

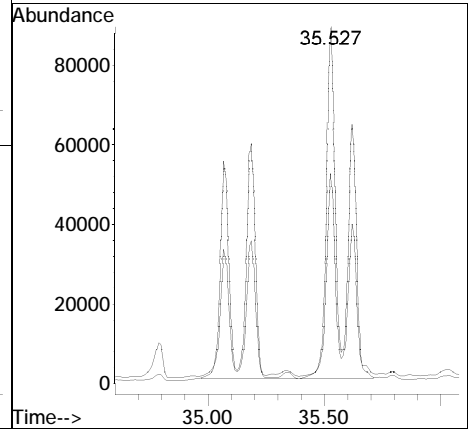
Tgt Ion	Resp	Lower	Upper
192	158294		
191	62.2	43.2	80.2

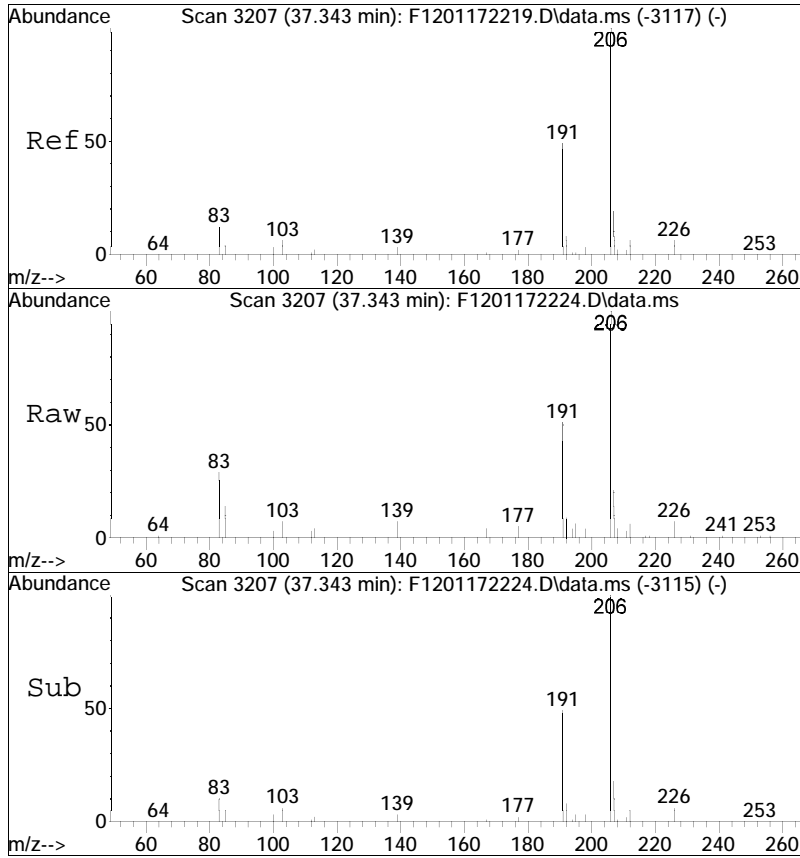




#47  
 Cl-Phenanthrenes/Anthracenes  
 Concen: 2037.63 ng/mL M5  
 RT: 35.527 min Scan# 3008  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

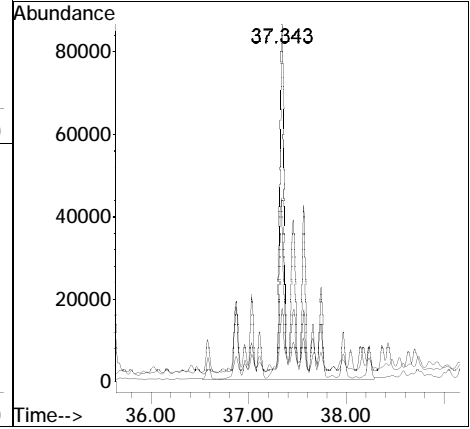
Tgt Ion	Ratio	Lower	Upper
192	100		
191	19.2	40.9	76.0#

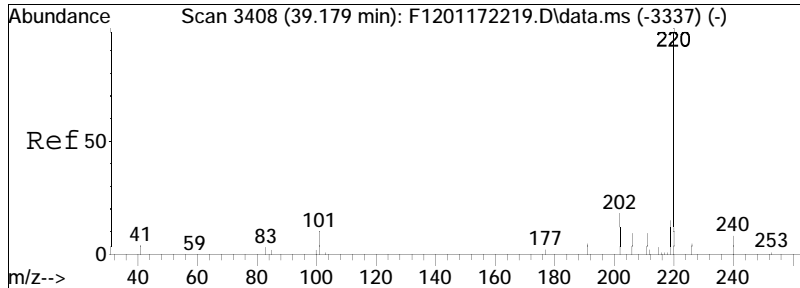




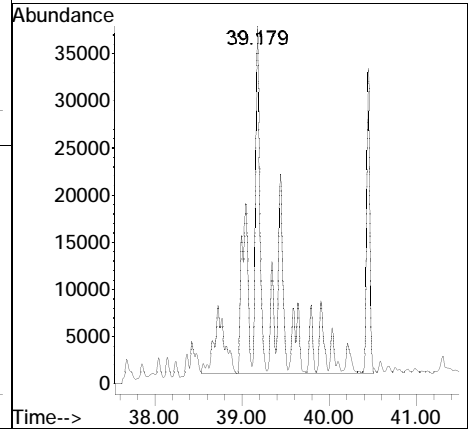
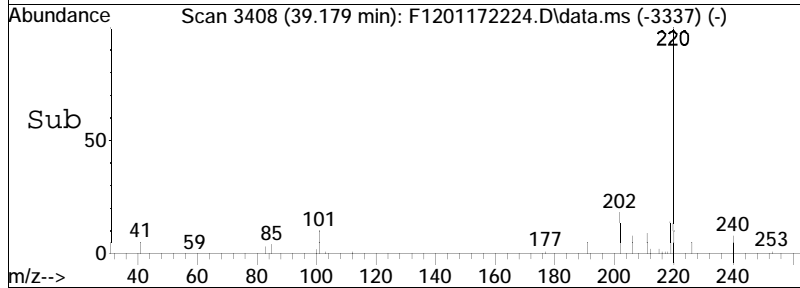
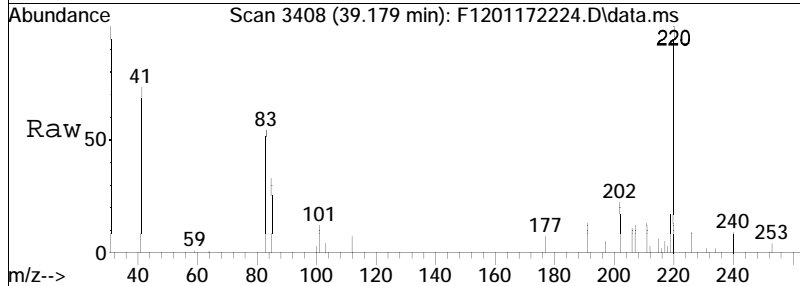
#48  
 C2-Phenanthrenes/Anthracenes  
 Concen: 2338.15 ng/mL M5  
 RT: 37.343 min Scan# 3207  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

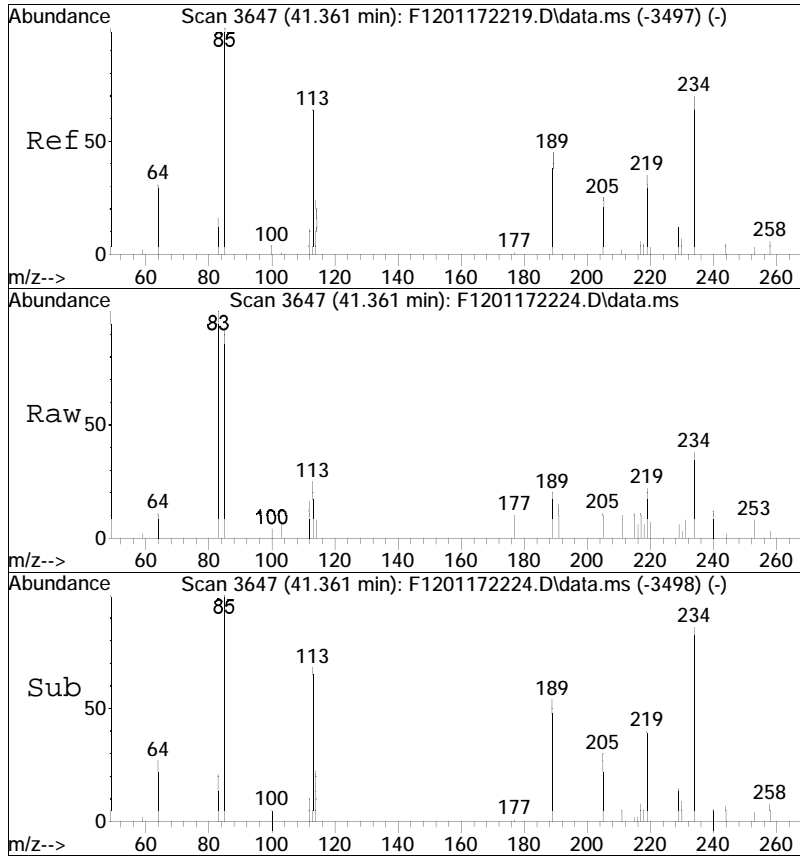
Tgt Ion	Ratio	Lower	Upper
206	100		
191	15.9	35.8	66.4#
207	6.4	14.7	27.3#





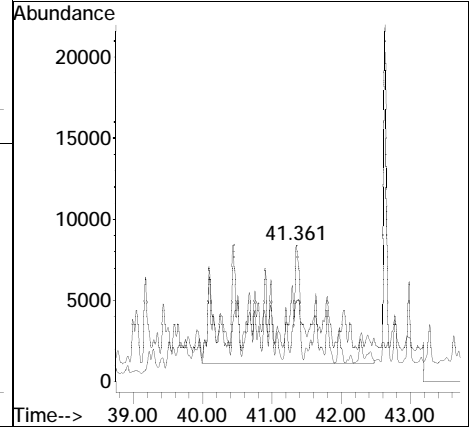
#50  
 C3-Phenanthrenes/Anthracenes  
 Concen: 1709.99 ng/mL M5  
 RT: 39.179 min Scan# 3408  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 220 Resp: 580500

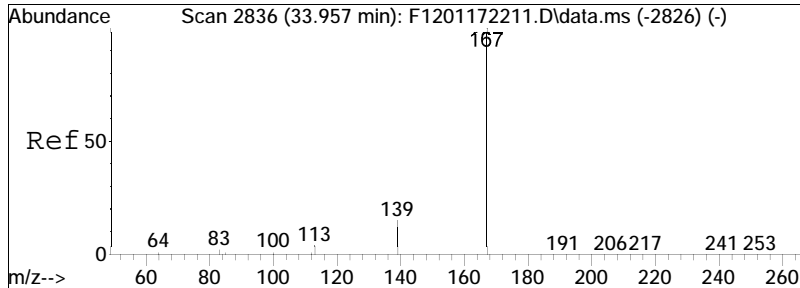




#51  
 C4-Phenanthrenes/Anthracenes  
 Concen: 737.64 ng/mL M5  
 RT: 41.361 min Scan# 3647  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

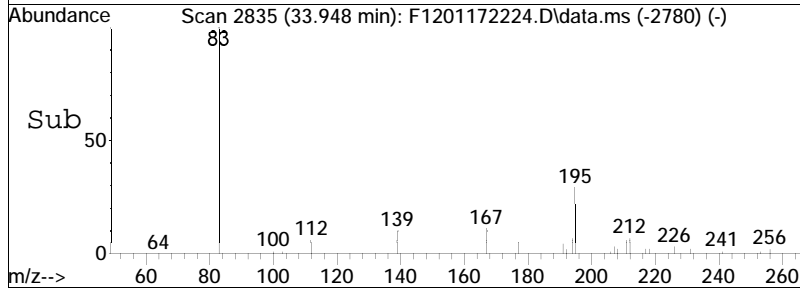
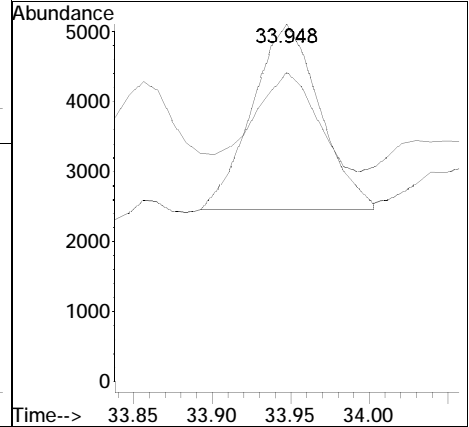
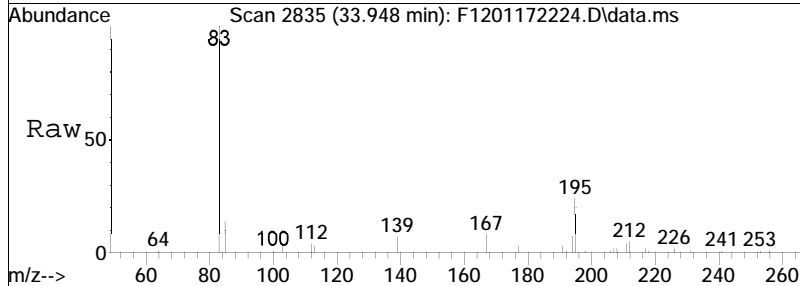
Tgt Ion: 234 Resp: 250411  
 Ion Ratio Lower Upper  
 234 100  
 219 2.0 41.7 77.5#



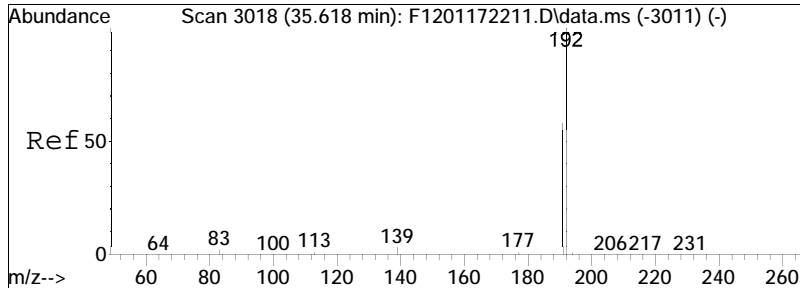


#54  
 Carbazole  
 Concen: 24.13 ng/mL  
 RT: 33.948 min Scan# 2835  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

Tgt Ion	Resp	Lower	Upper
167	100		
139	41.4	10.3	19.1#

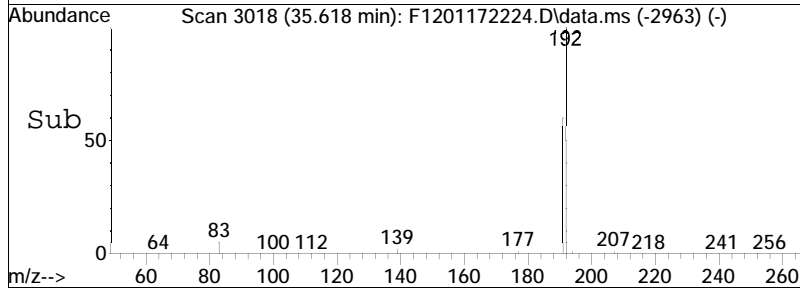
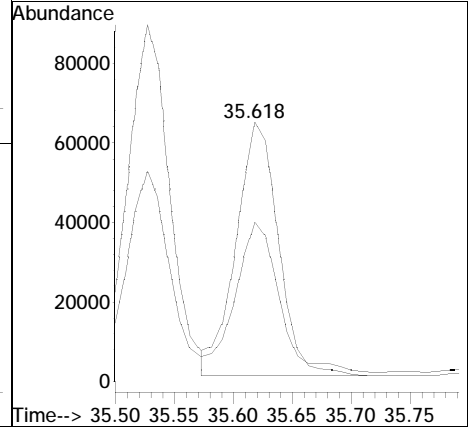
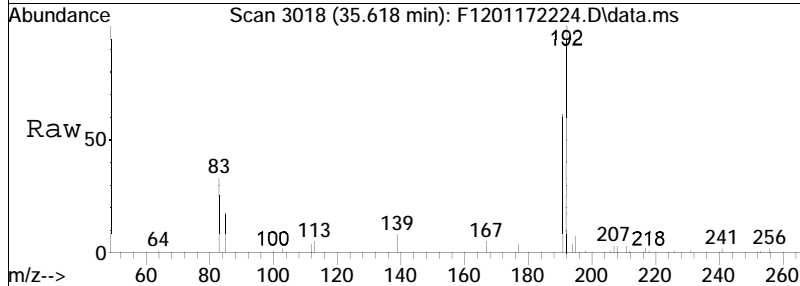


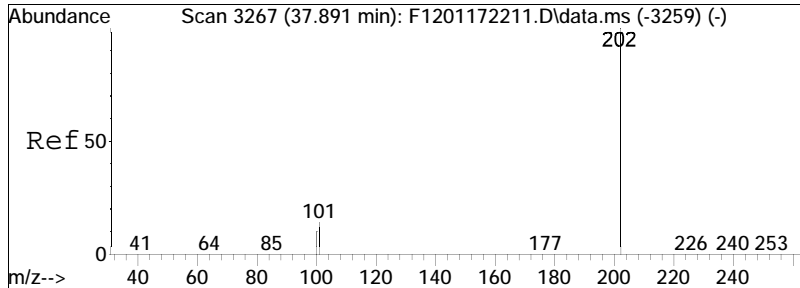




#55  
 1-Methylphenanthrene  
 Concen: 694.03 ng/mL  
 RT: 35.618 min Scan# 3018  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

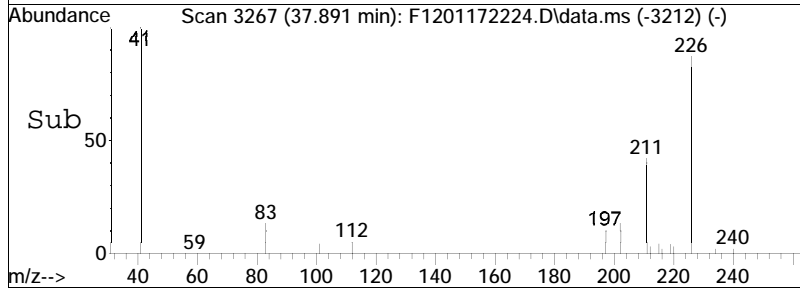
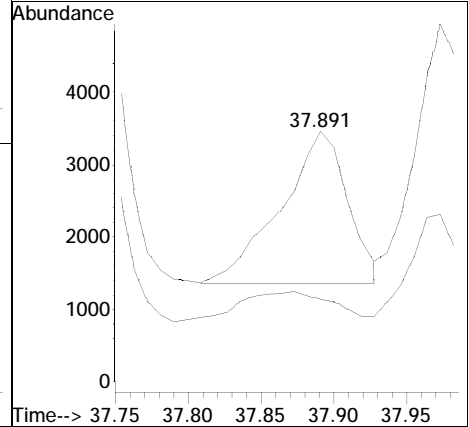
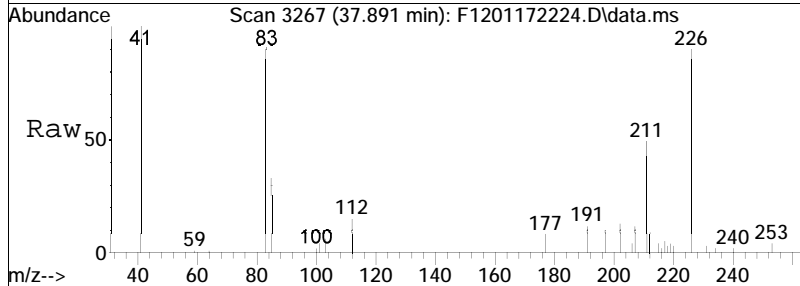
Tgt Ion: 192 Resp: 158294  
 Ion Ratio Lower Upper  
 192 100  
 191 62.2 40.7 75.5

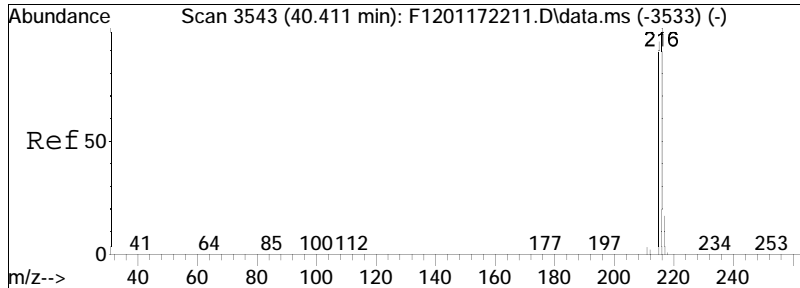




#56  
 Fluoranthene  
 Concen: 19.66 ng/mL M4  
 RT: 37.891 min Scan# 3267  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

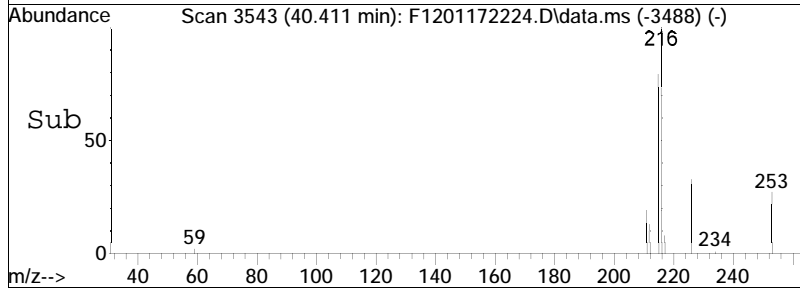
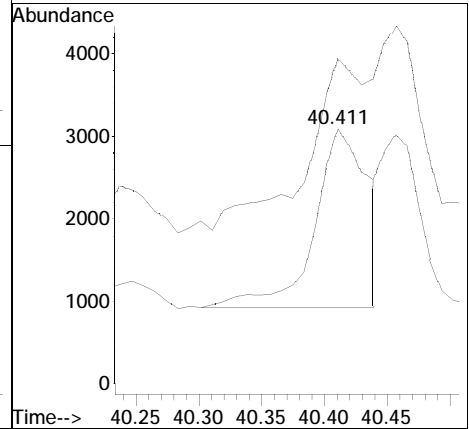
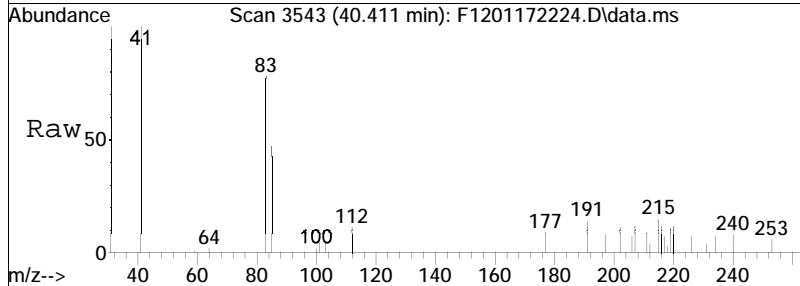
Tgt Ion	Ratio	Lower	Upper
202	100		
101	43.1	9.7	17.9#

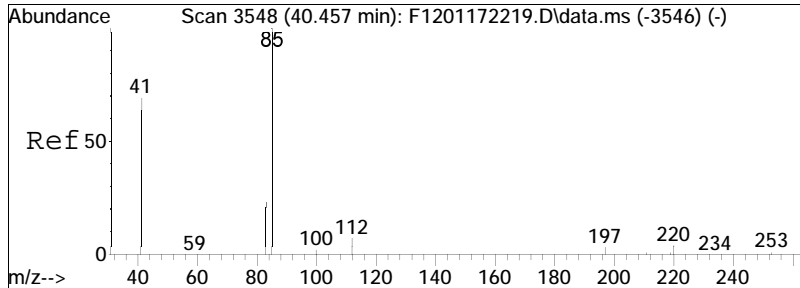




#57  
 Benzo(b)fluorene  
 Concen: 29.76 ng/mL  
 RT: 40.411 min Scan# 3543  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

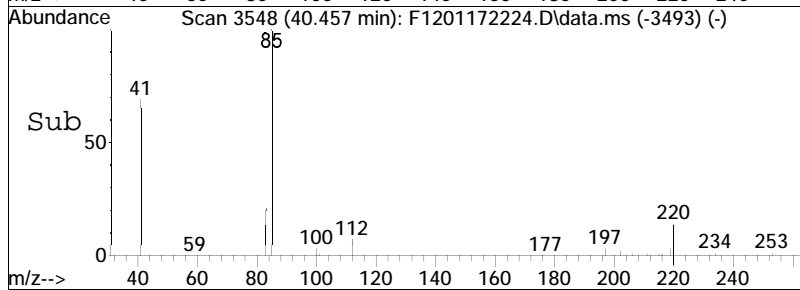
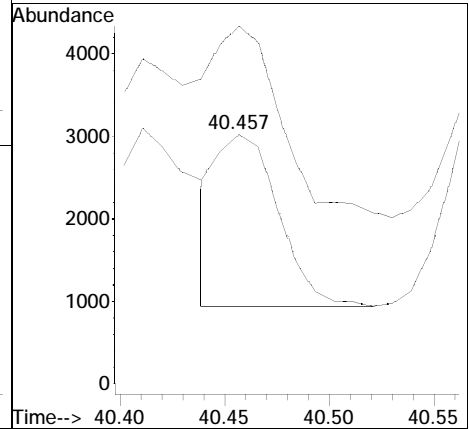
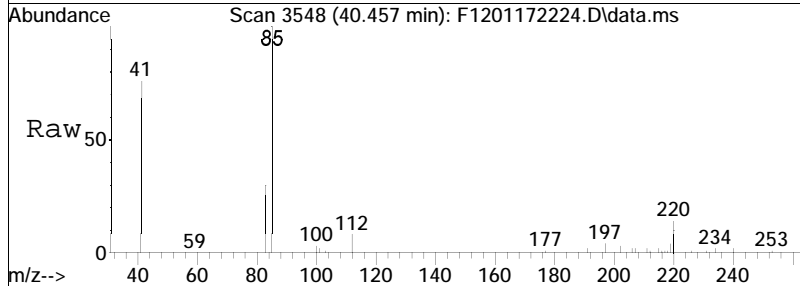
Tgt Ion: 216 Resp: 6383  
 Ion Ratio Lower Upper  
 216 100  
 215 103.1 66.1 122.7

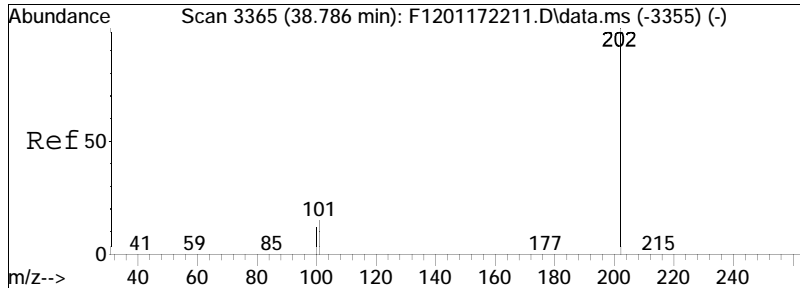




#58  
 7H-Benzo(c)fluorene  
 Concen: 20.39 ng/mL  
 RT: 40.457 min Scan# 3548  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

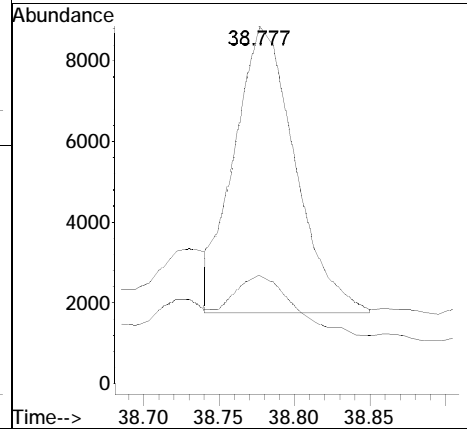
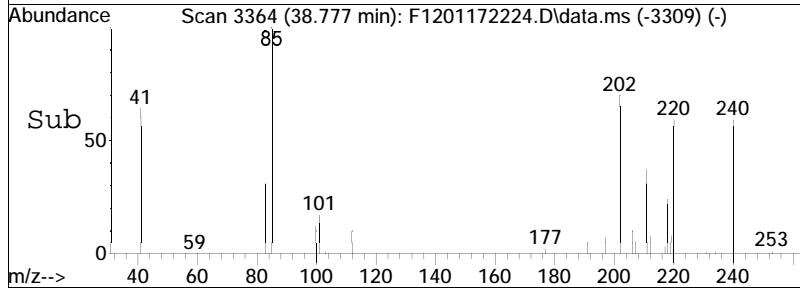
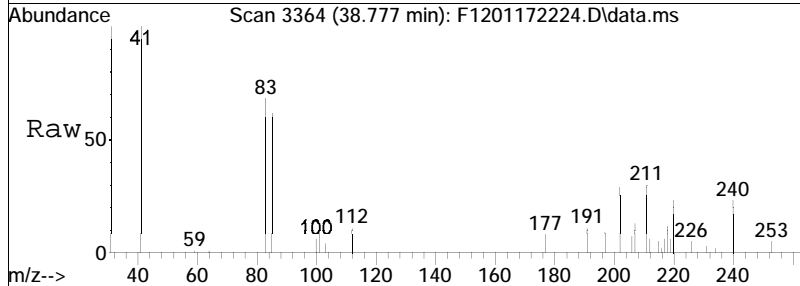
Tgt Ion: 216 Resp: 4374  
 Ion Ratio Lower Upper  
 216 100  
 215 113.9 100.7 187.1

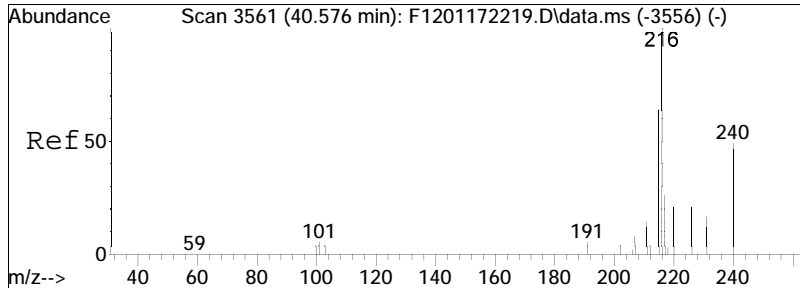




#59  
 Pyrene  
 Concen: 56.03 ng/mL M4  
 RT: 38.777 min Scan# 3364  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

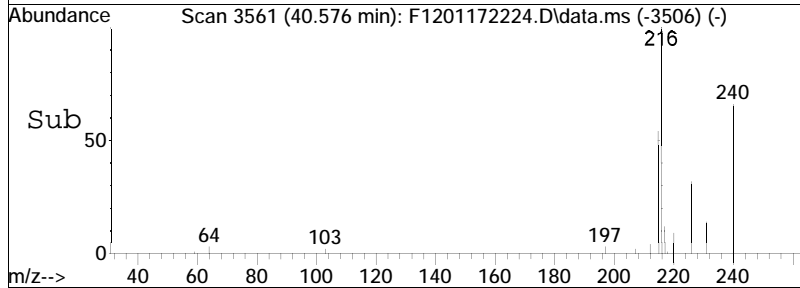
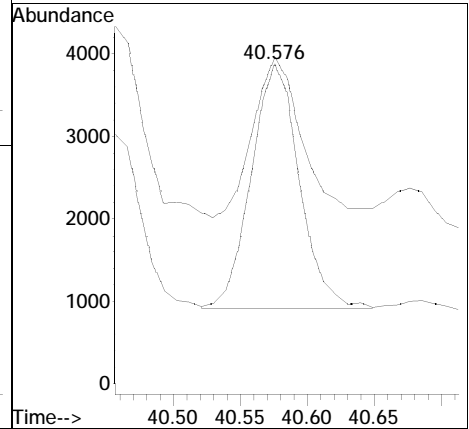
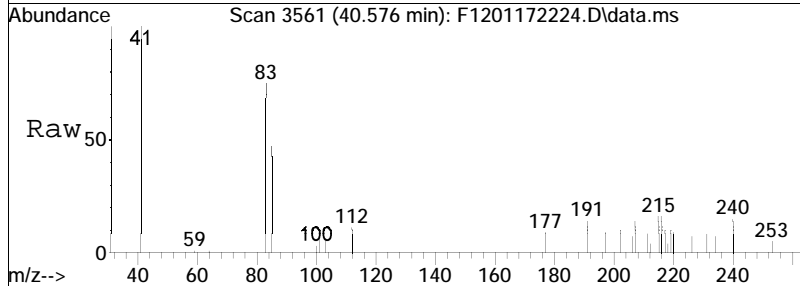
Tgt Ion: 202 Resp: 19793  
 Ion Ratio Lower Upper  
 202 100  
 101 21.6 10.9 20.2#

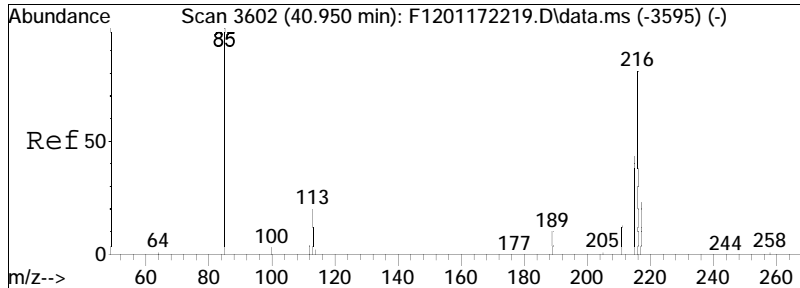




#60  
 2-Methylpyrene  
 Concen: 20.84 ng/mL M3  
 RT: 40.576 min Scan# 3561  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

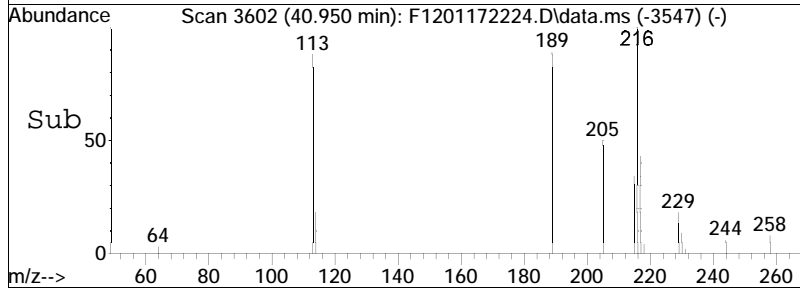
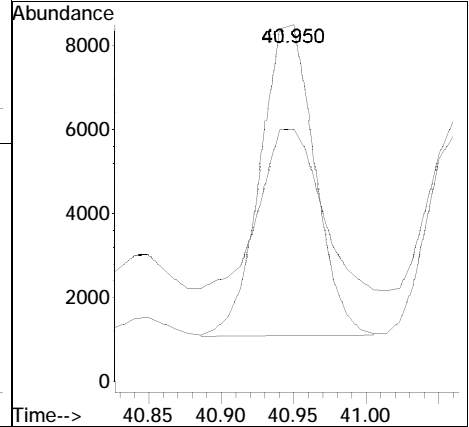
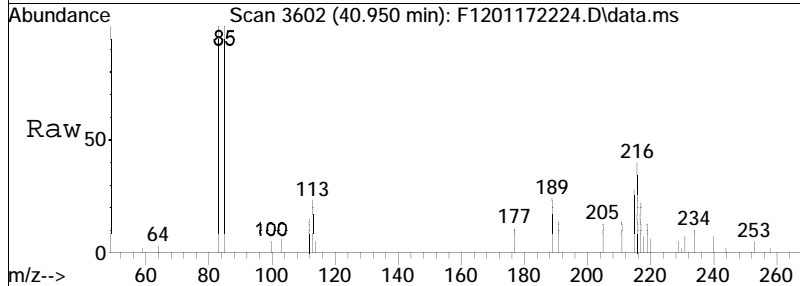
Tgt Ion: 216 Resp: 7363  
 Ion Ratio Lower Upper  
 216 100  
 215 67.7 70.9 131.7#

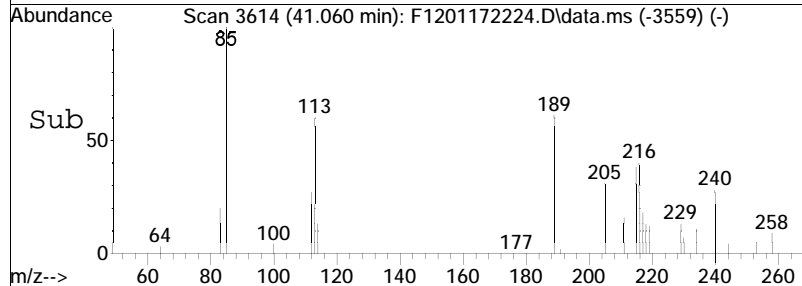
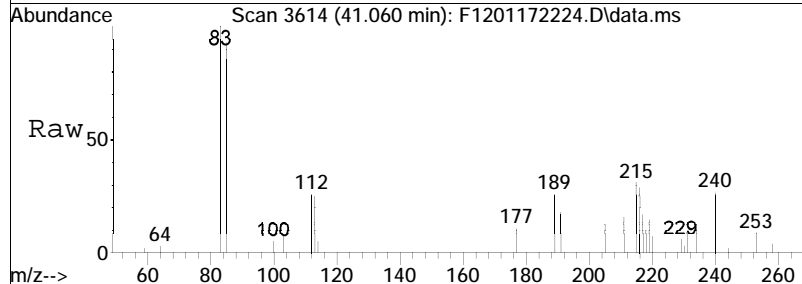
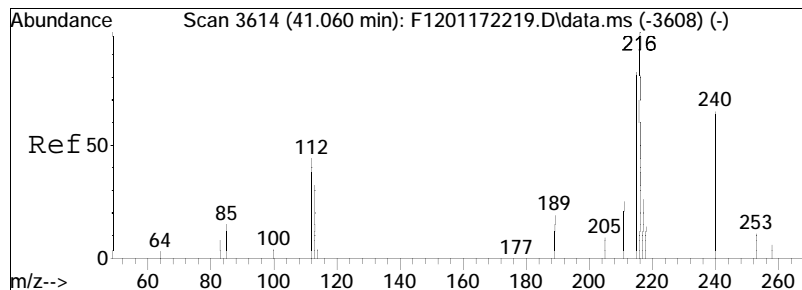




#61  
 4-Methylpyrene  
 Concen: 54.59 ng/mL  
 RT: 40.950 min Scan# 3602  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

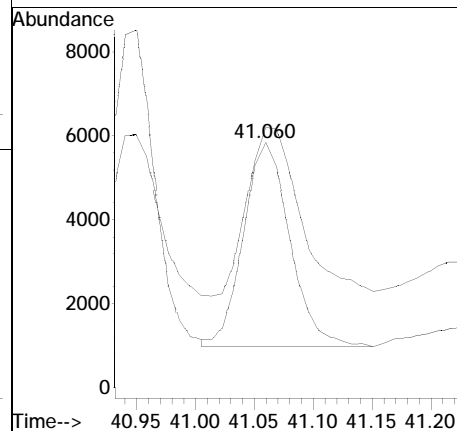
Tgt Ion	Resp	Lower	Upper
216	19287		
215	57.3	50.3	93.5



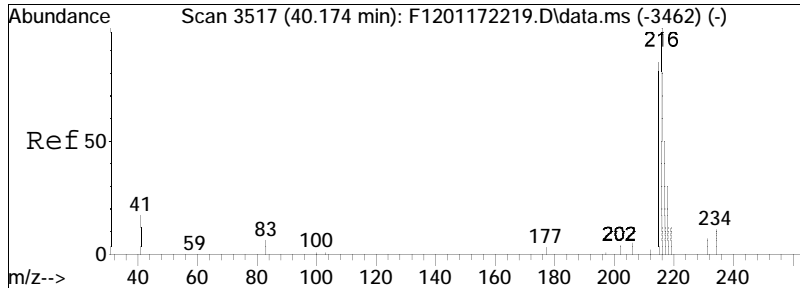


#62  
 1-Methylpyrene  
 Concen: 37.54 ng/mL  
 RT: 41.060 min Scan# 3614  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

Tgt Ion	Resp	Lower	Upper
216	13263		
215	96.6	72.7	135.1

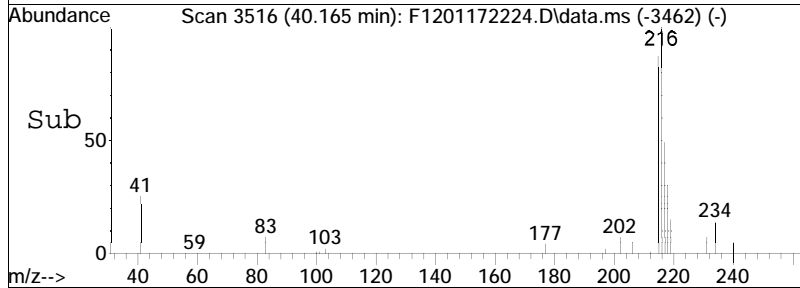
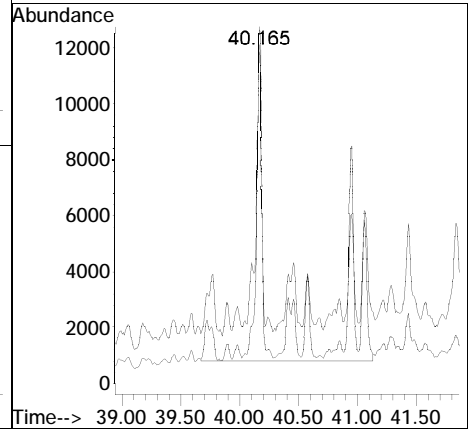
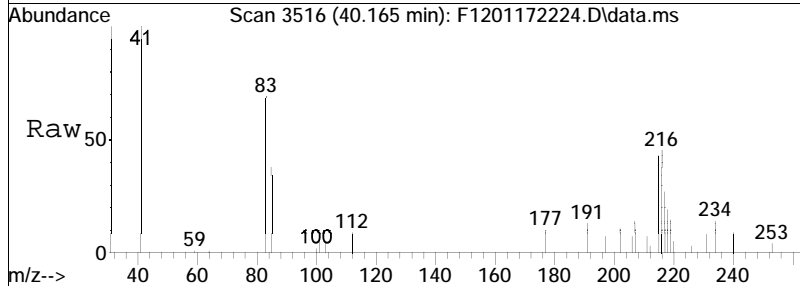


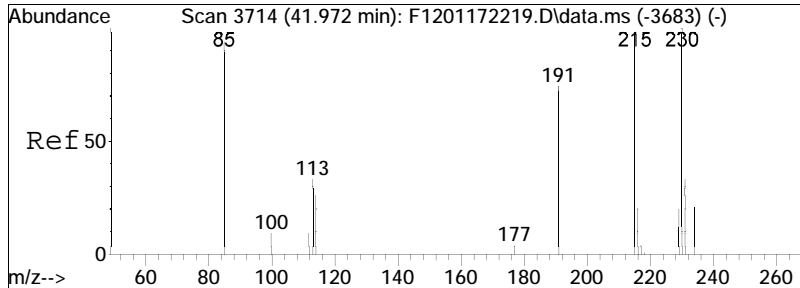




#63  
 Cl-Fluoranthenes/Pyrenes  
 Concen: 308.59 ng/mL M5  
 RT: 40.165 min Scan# 3516  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

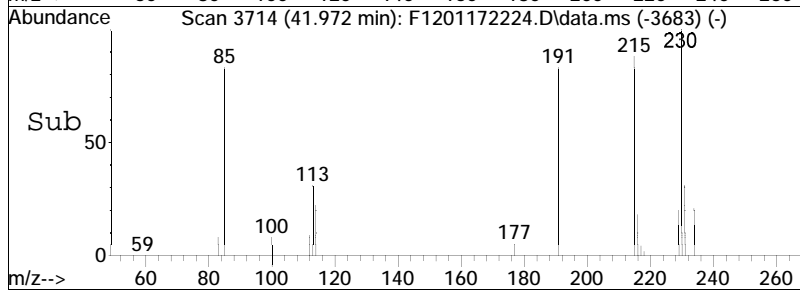
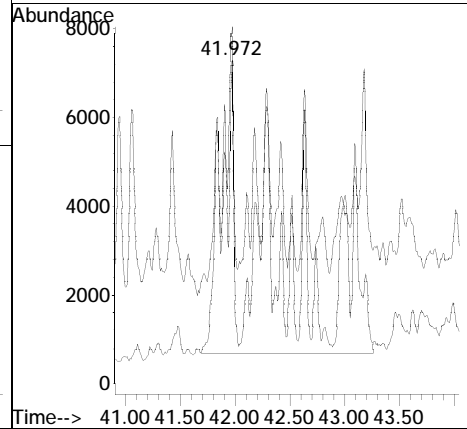
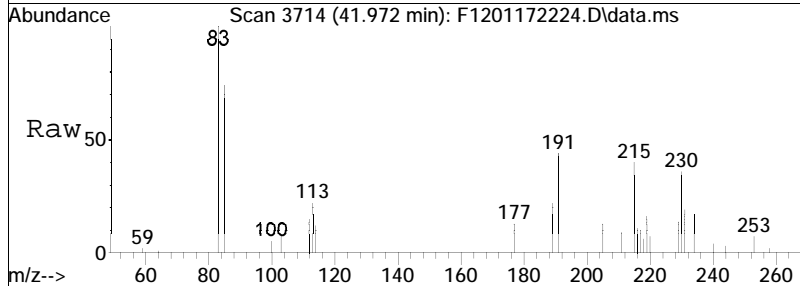
Tgt Ion	Resp	Lower	Upper
216	109019		
215	23.9	65.7	122.1#

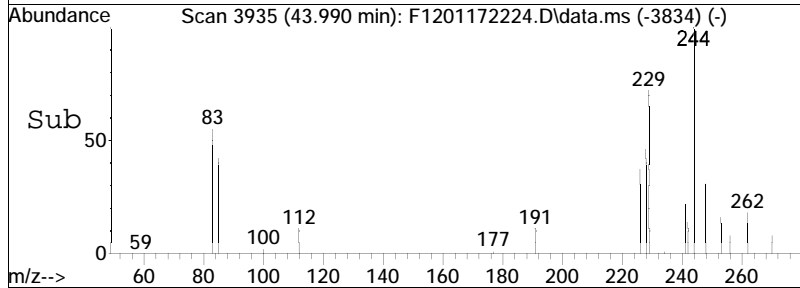
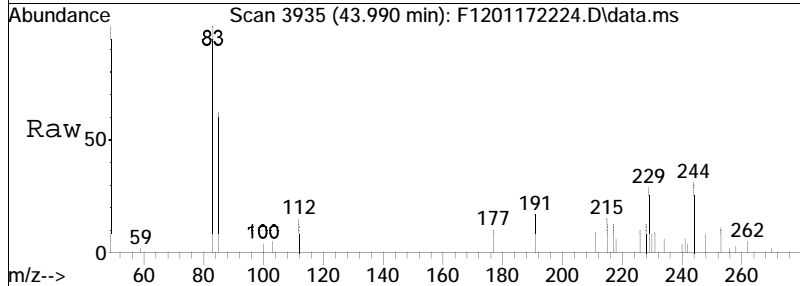
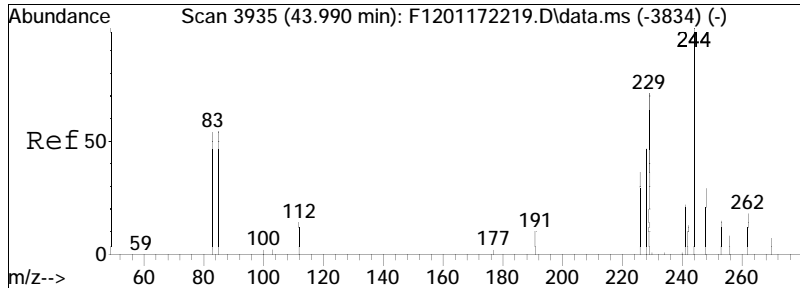




#64  
 C2-Fluoranthenes/Pyrenes  
 Concen: 513.64 ng/mL M5  
 RT: 41.972 min Scan# 3714  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

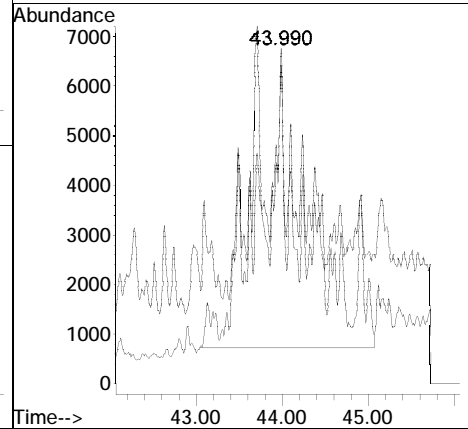
Tgt Ion: 230 Resp: 181461  
 Ion Ratio Lower Upper  
 230 100  
 215 7.6 79.5 147.7#

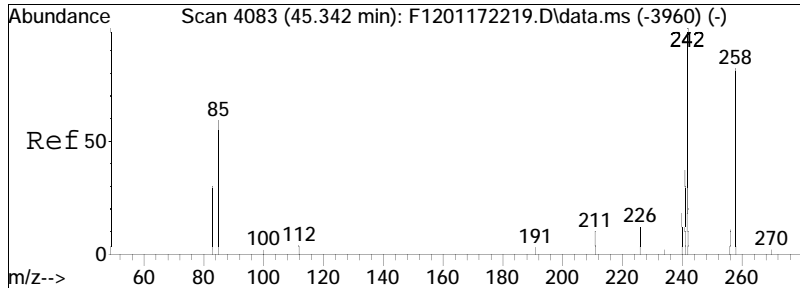




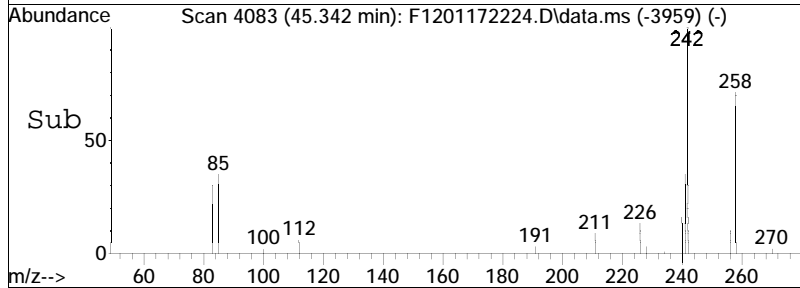
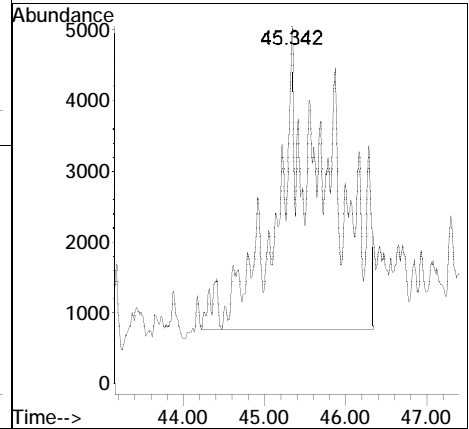
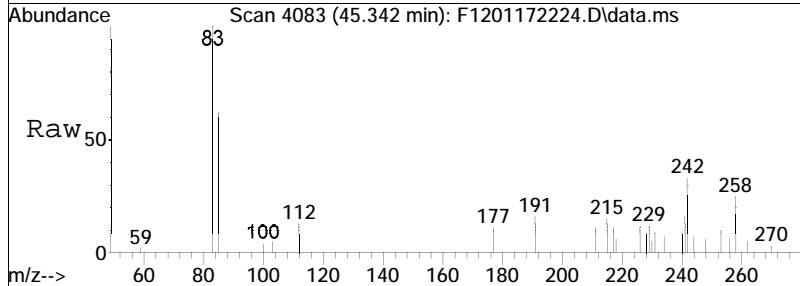
#65  
 C3-Fluoranthenes/Pyrenes  
 Concen: 608.64 ng/mL M5  
 RT: 43.990 min Scan# 3935  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

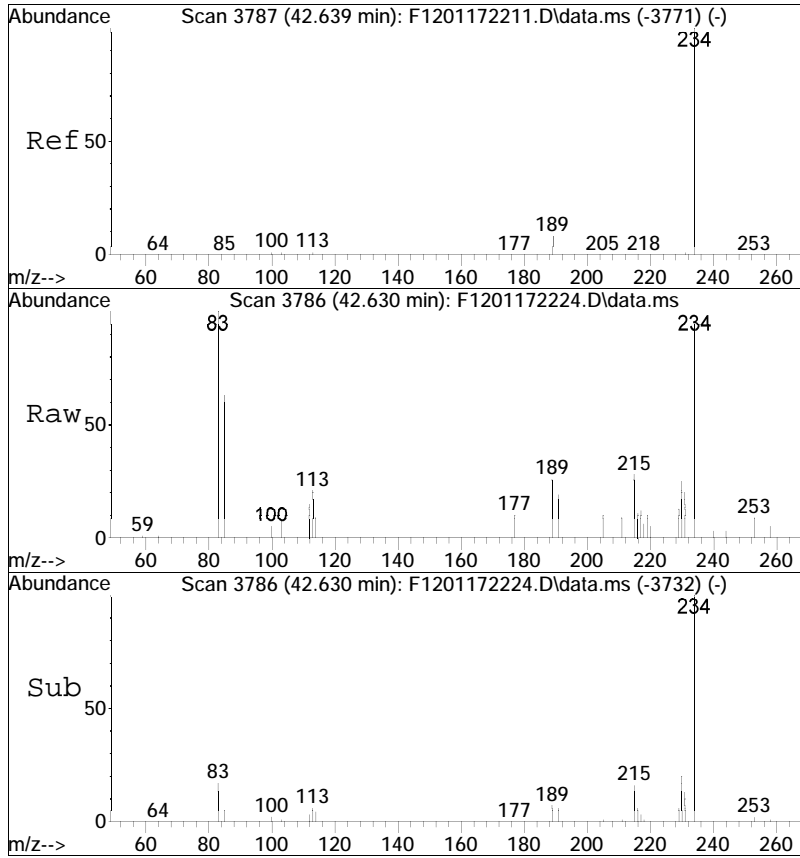
Tgt Ion	Ratio	Lower	Upper
244	100		
229	2.8	65.4	121.4#





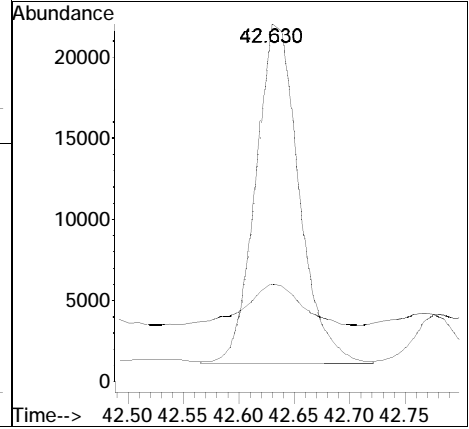
#66  
 C4-Fluoranthenes/Pyrenes  
 Concen: 532.36 ng/mL M5  
 RT: 45.342 min Scan# 4083  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:258 Resp: 188073

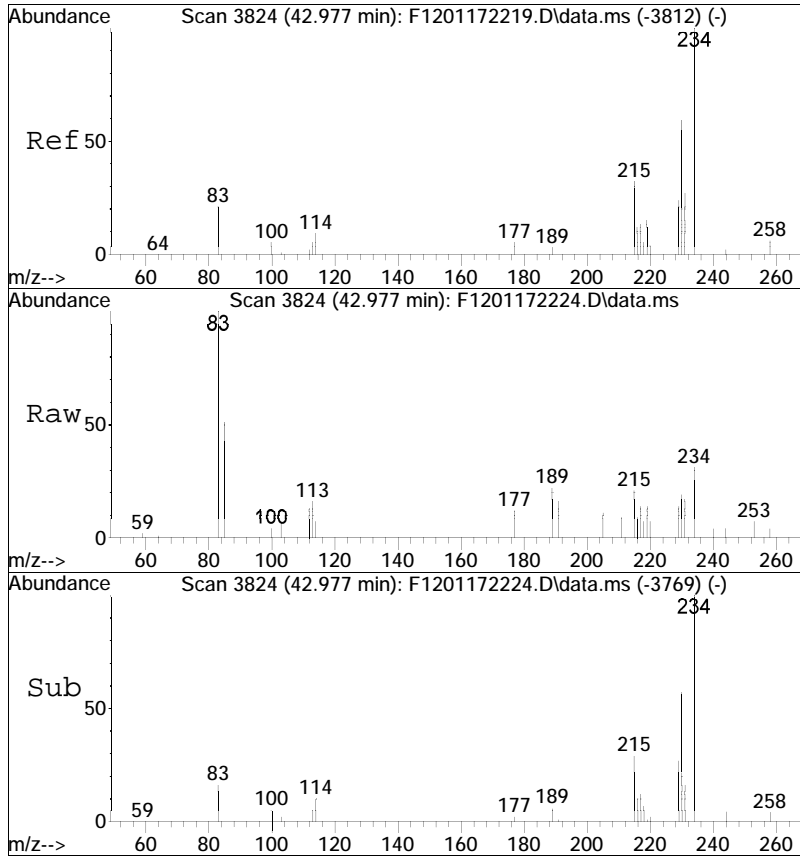




#67  
 Naphthobenzothiophene-2,1-D  
 Concen: 159.01 ng/mL  
 RT: 42.630 min Scan# 3786  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

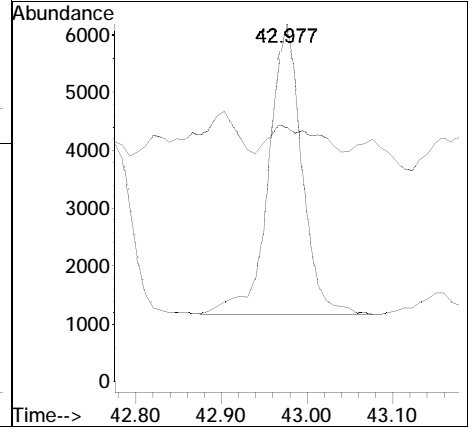
Tgt Ion	Resp	Lower	Upper
234	56314		
189	15.5	5.4	10.0#

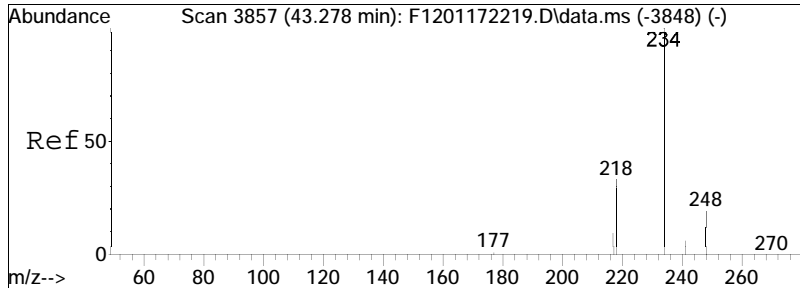




#68  
 Naphthobenzothiophene-1,2-D  
 Concen: 38.29 ng/mL  
 RT: 42.977 min Scan# 3824  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

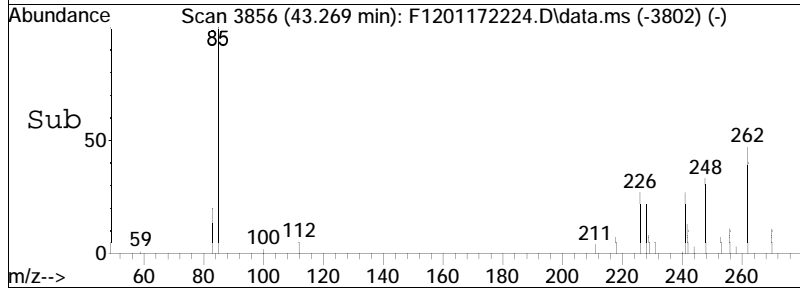
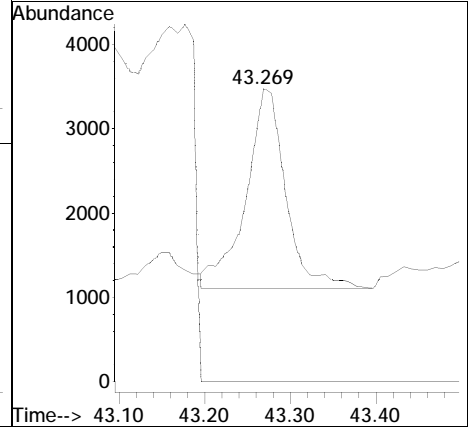
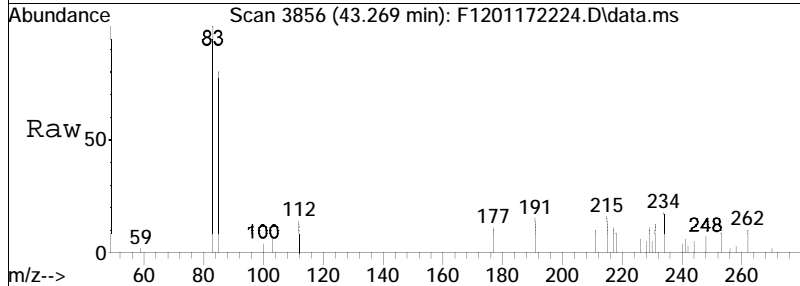
Tgt Ion: 234 Resp: 13562  
 Ion Ratio Lower Upper  
 234 100  
 189 0.0 50.0 93.0#

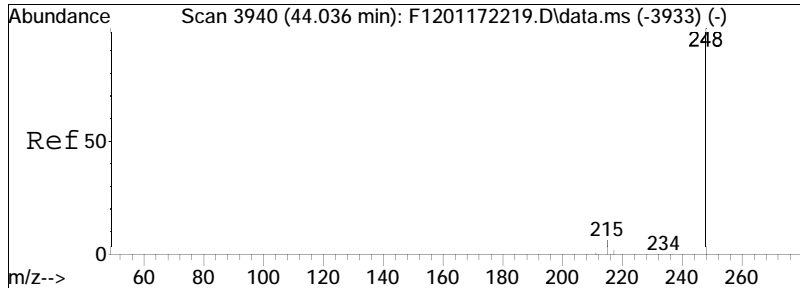




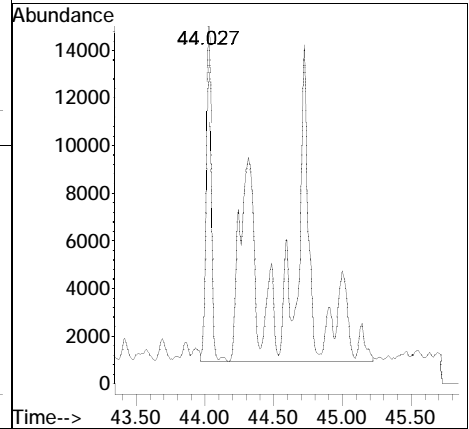
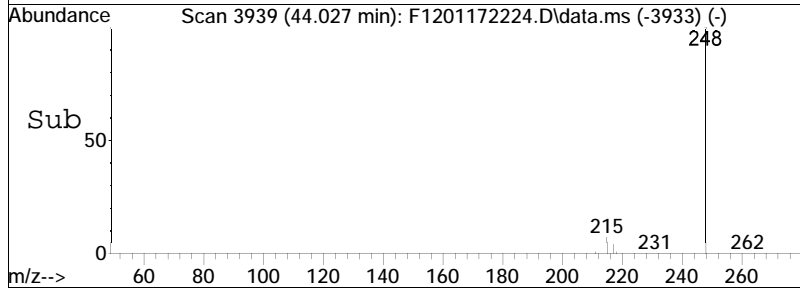
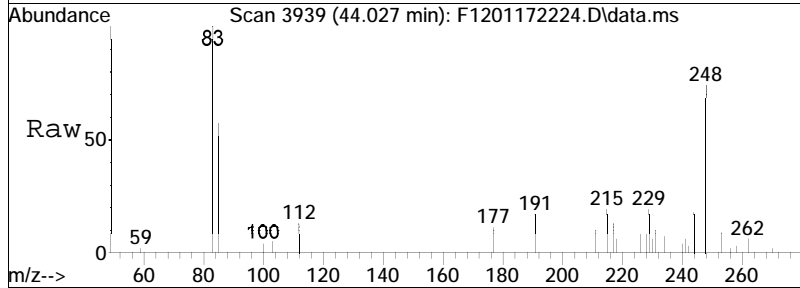
#69  
 Naphthobenzothiophene-2,3-D  
 Concen: 21.54 ng/mL  
 RT: 43.269 min Scan# 3856  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

Tgt Ion: 234 Resp: 7630  
 Ion Ratio Lower Upper  
 234 100  
 189 0.0 0.0 0.0

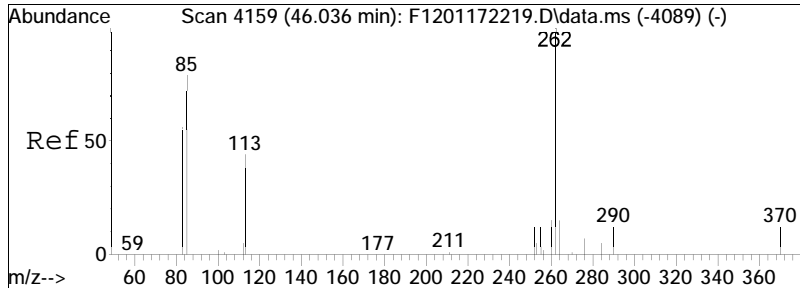




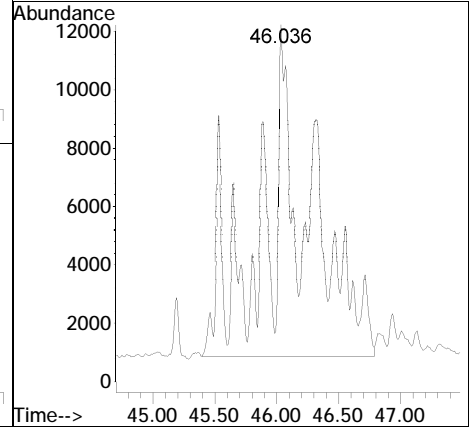
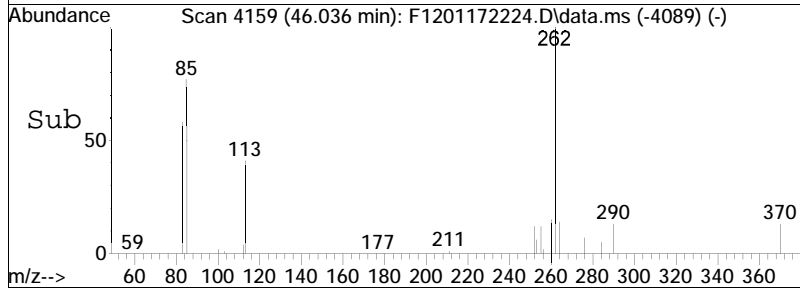
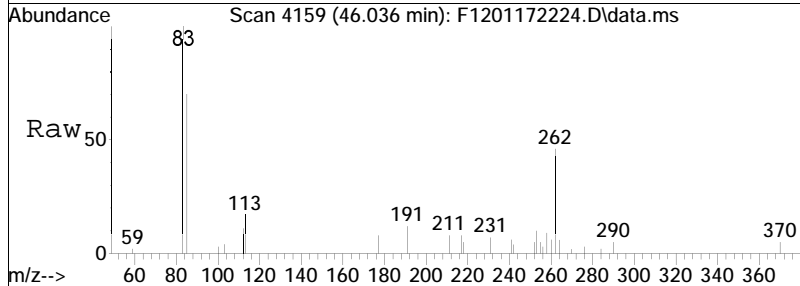
#70  
 Cl-Naphthobenzothiophenes  
 Concen: 597.19 ng/ml M5  
 RT: 44.027 min Scan# 3939  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:248 Resp: 211500

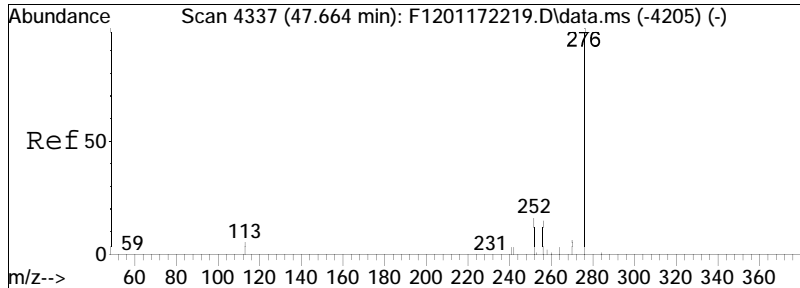




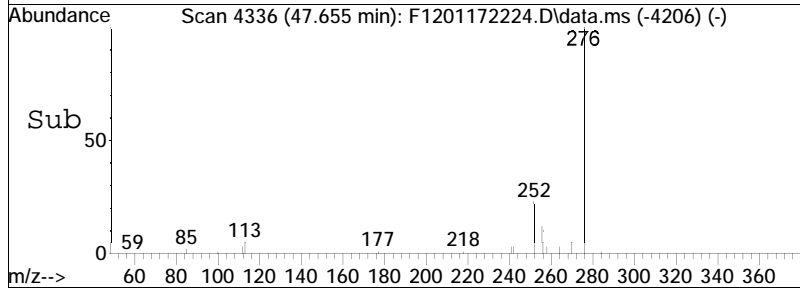
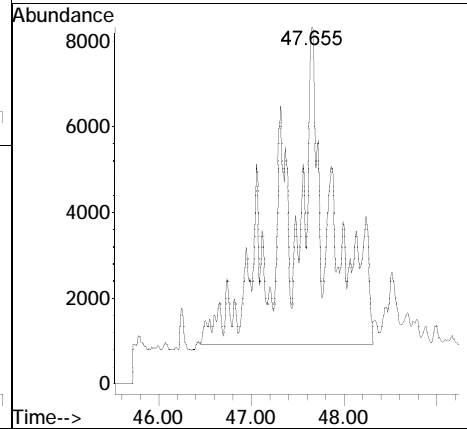
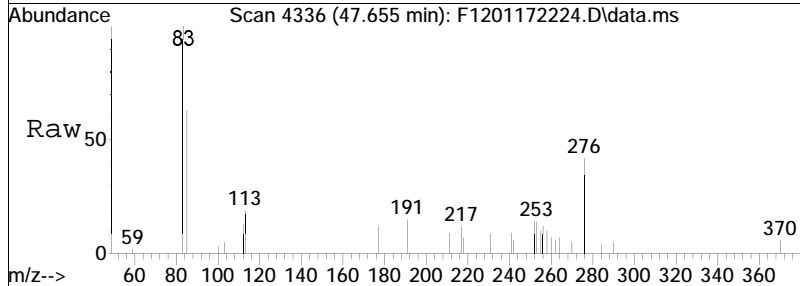


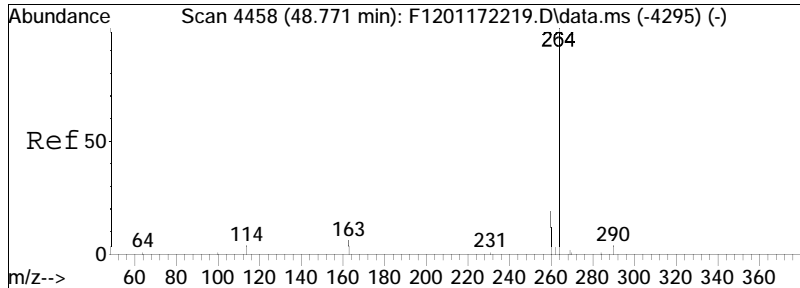
#71  
 C2-Naphthobenzothiophenes  
 Concen: 817.37 ng/ml M5  
 RT: 46.036 min Scan# 4159  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 262 Resp: 289479





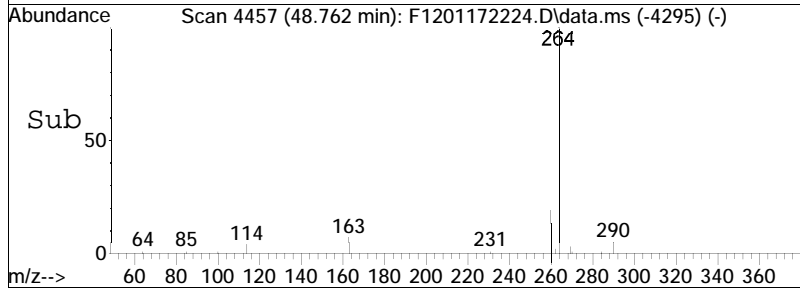
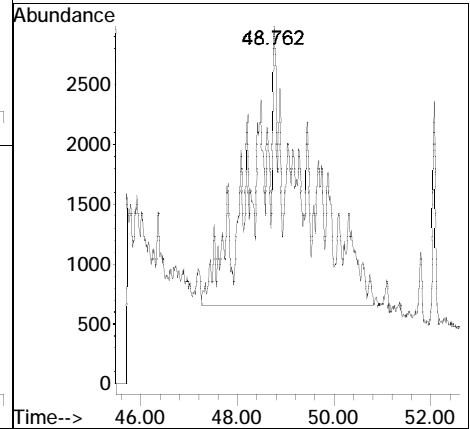
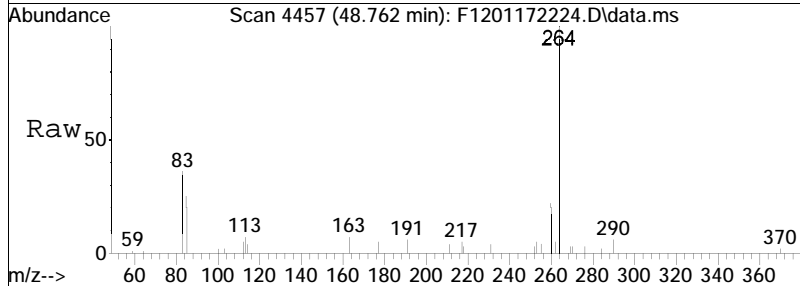
#72  
 C3-Naphthobenzothiophenes  
 Concen: 655.28 ng/ml M5  
 RT: 47.655 min Scan# 4336  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 276 Resp: 232072

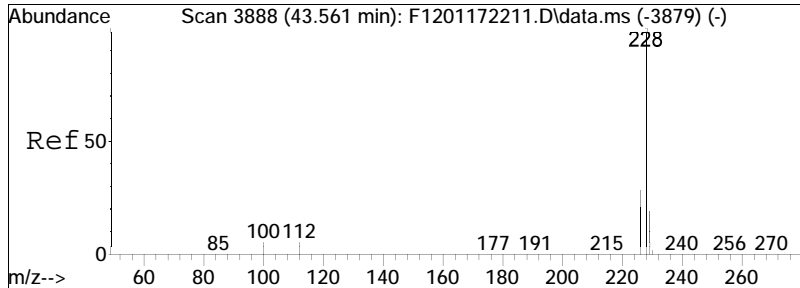




#73  
 C4-Naphthobenzothiophenes  
 Concen: 452.55 ng/mL M5  
 RT: 48.762 min Scan# 4457  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

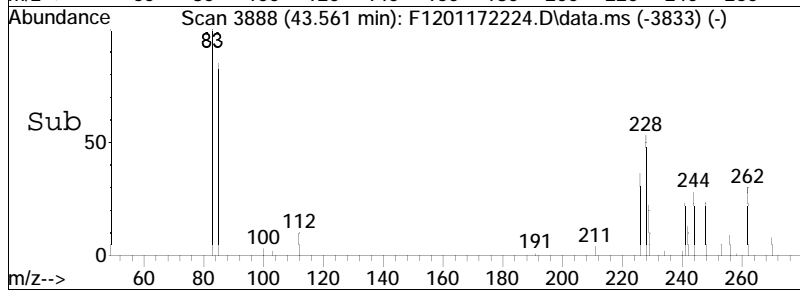
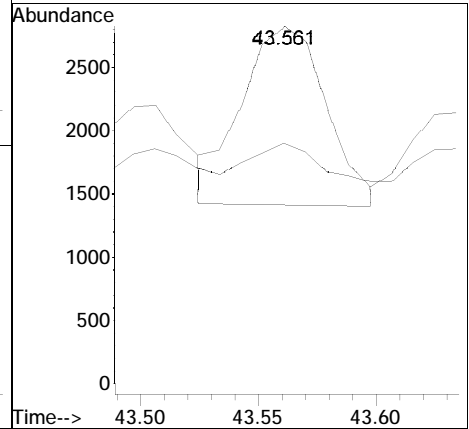
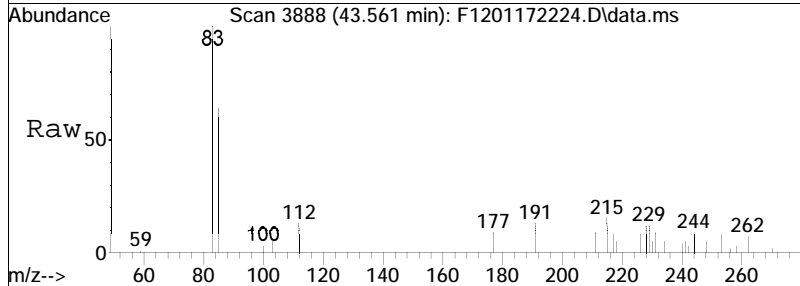
Tgt Ion: 290 Resp: 160273

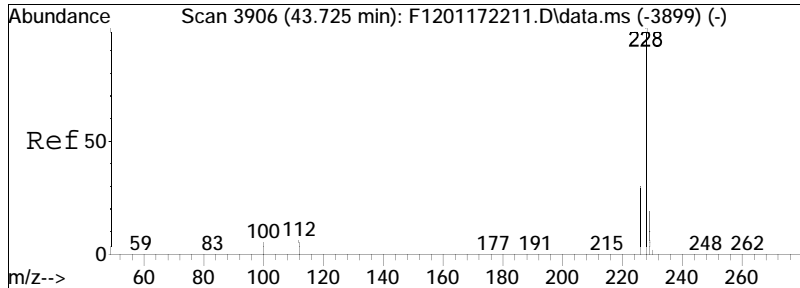




#75  
 Benz[a]anthracene  
 Concen: 12.67 ng/mL M3  
 RT: 43.561 min Scan# 3888  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

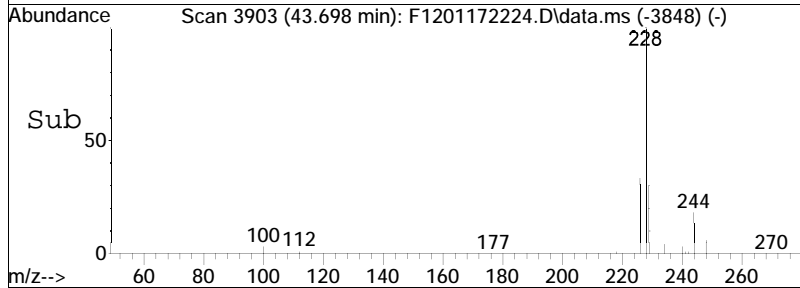
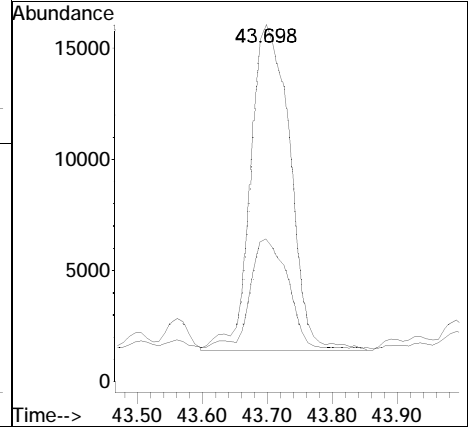
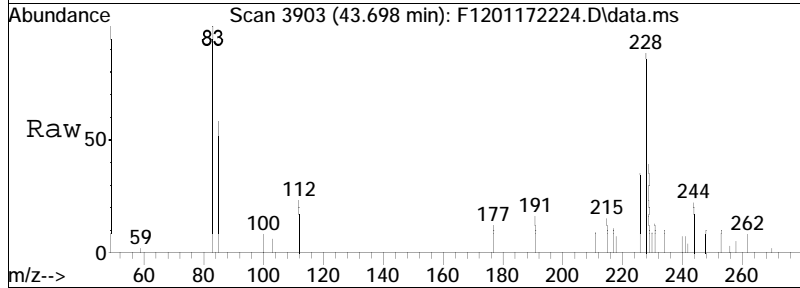
Tgt Ion	Resp	Lower	Upper
228	100		
226	539.9	19.3	35.9#

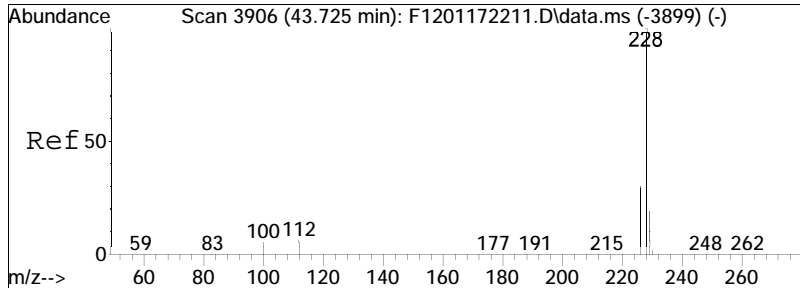




#76  
 Chrysene  
 Concen: 223.94 ng/mL  
 RT: 43.698 min Scan# 3903  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

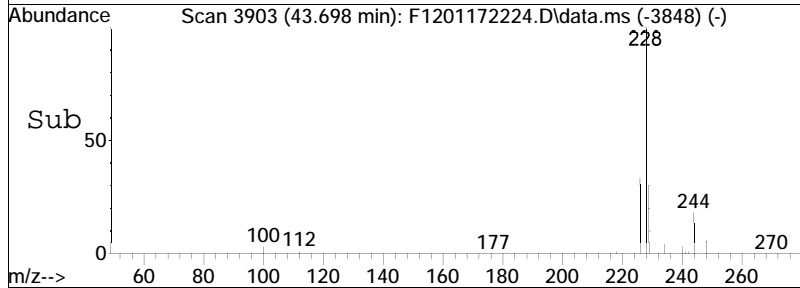
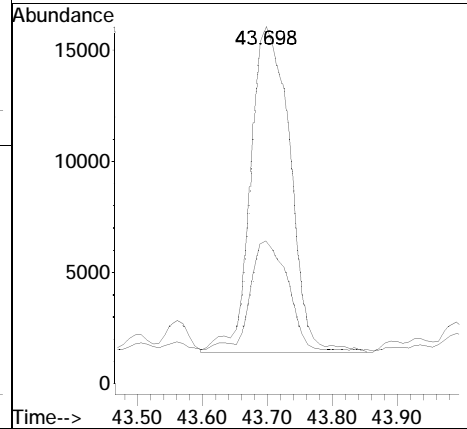
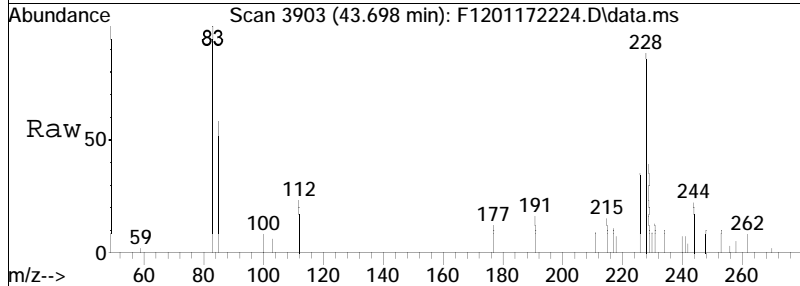
Tgt Ion	Resp	Lower	Upper
228	100		
226	35.5	20.9	38.9

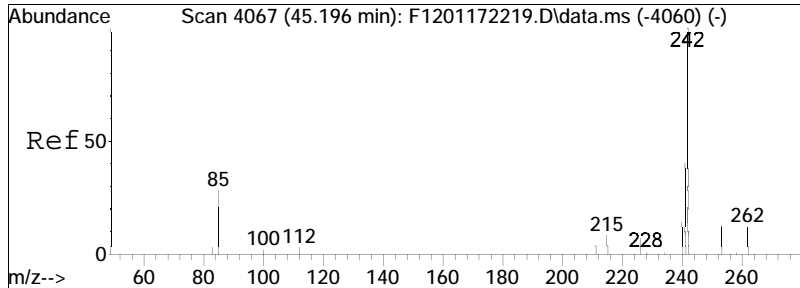




#77  
 Chrysene/Triphenylene  
 Concen: 223.94 ng/mL  
 RT: 43.698 min Scan# 3903  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

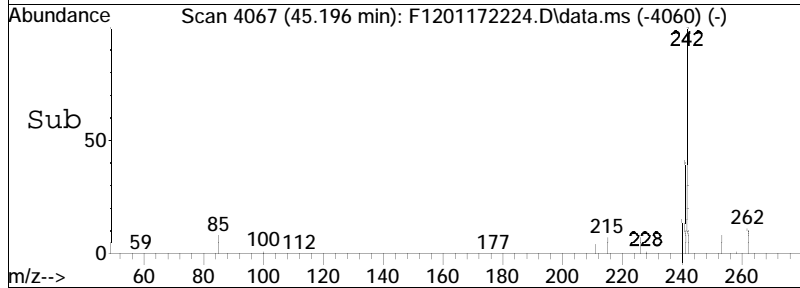
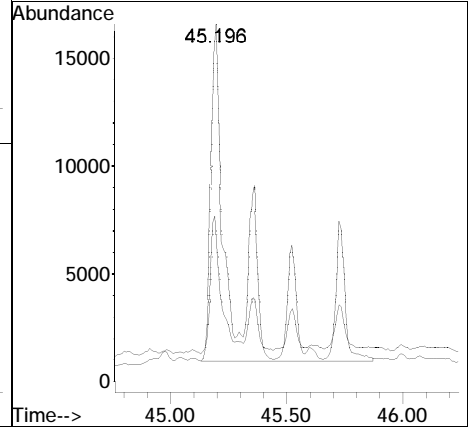
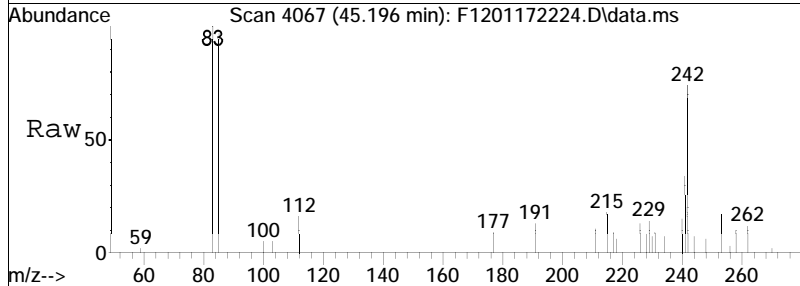
Tgt Ion	Resp	Lower	Upper
228	100		
226	35.5	20.9	38.9

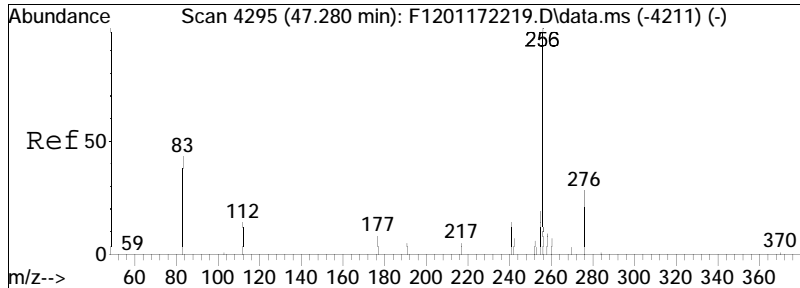




#78  
 C1-Chrysenes  
 Concen: 399.41 ng/mL M5  
 RT: 45.196 min Scan# 4067  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

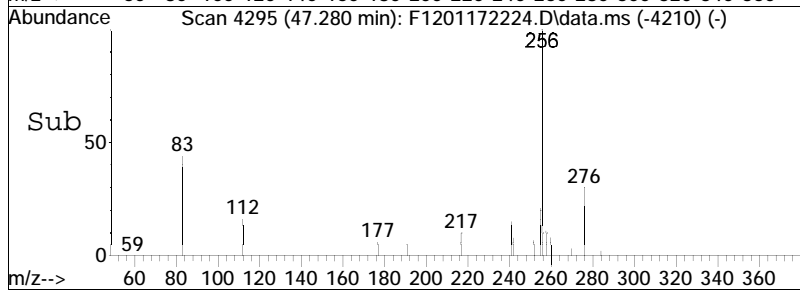
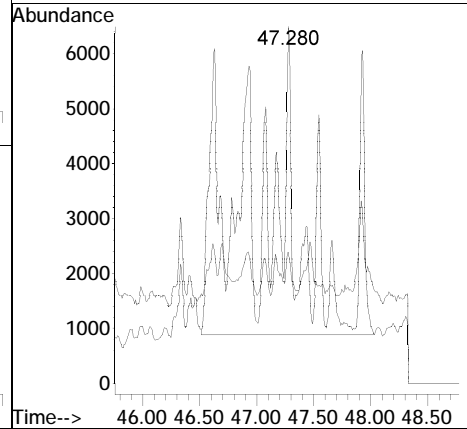
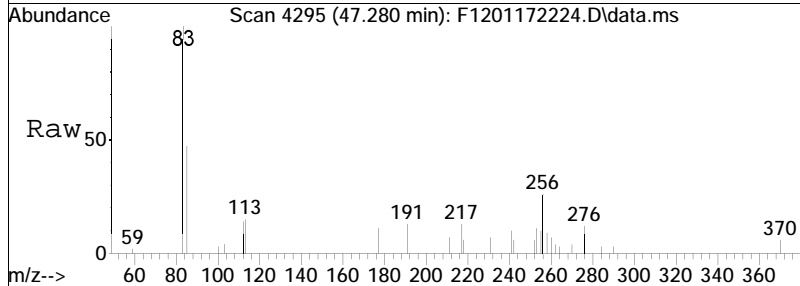
Tgt Ion: 242 Resp: 109546  
 Ion Ratio Lower Upper  
 242 100  
 241 16.3 31.8 59.0#



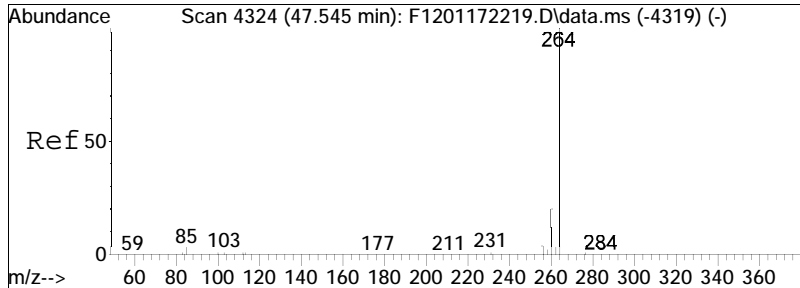


#79  
 C2-Chrysenes  
 Concen: 578.97 ng/mL M5  
 RT: 47.280 min Scan# 4295  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

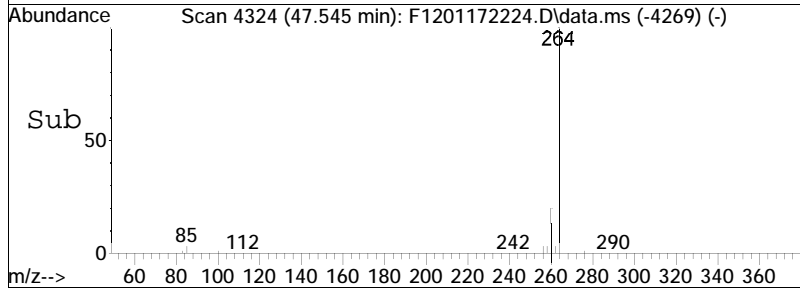
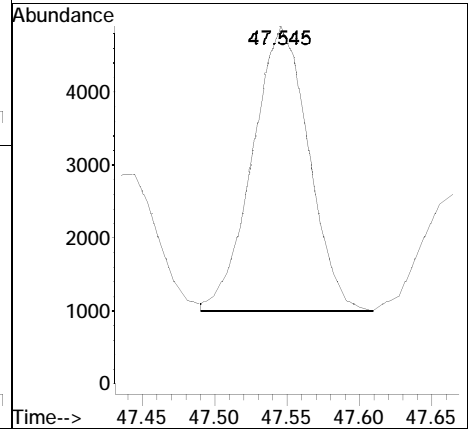
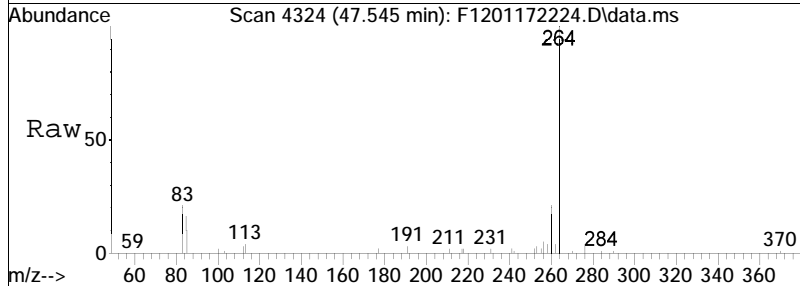
Tgt Ion	Resp	Lower	Upper
256	100		
241	3.3	25.4	47.2#

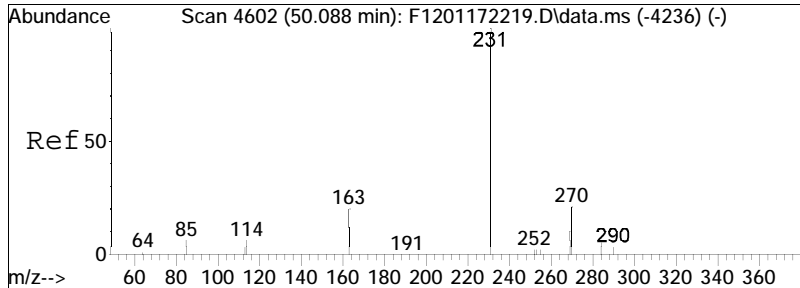






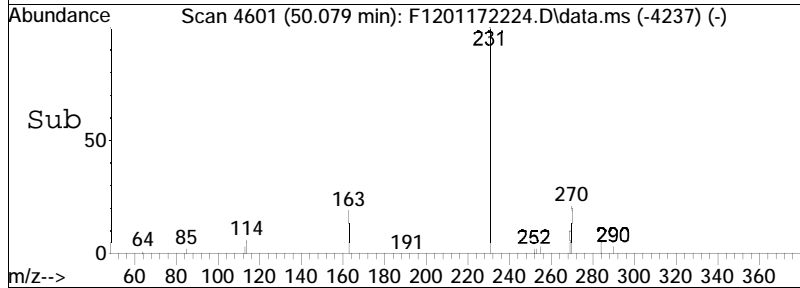
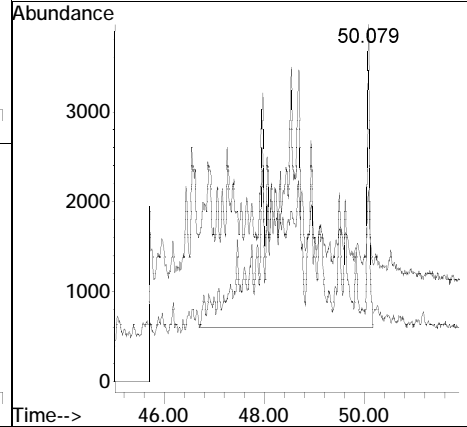
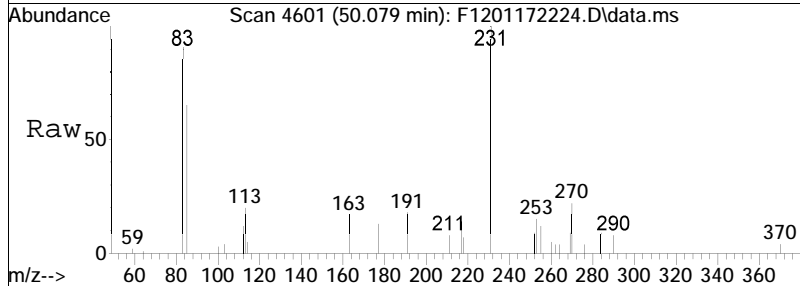
#80  
 BBF-D12 Surr BKGD  
 Concen: 38.29 ng/mL  
 RT: 47.545 min Scan# 4324  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 256 Resp: 10503

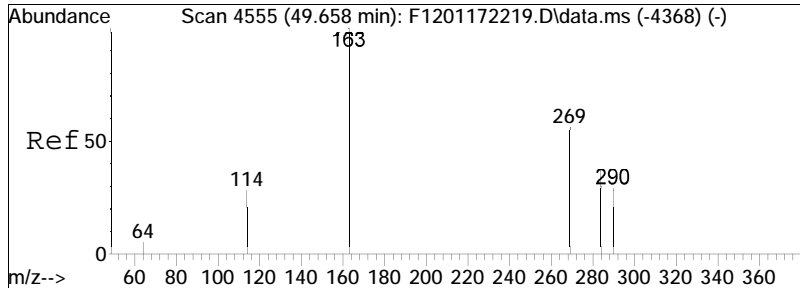




#81  
 C3-Chrysenes  
 Concen: 609.52 ng/mL M5  
 RT: 50.079 min Scan# 4601  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

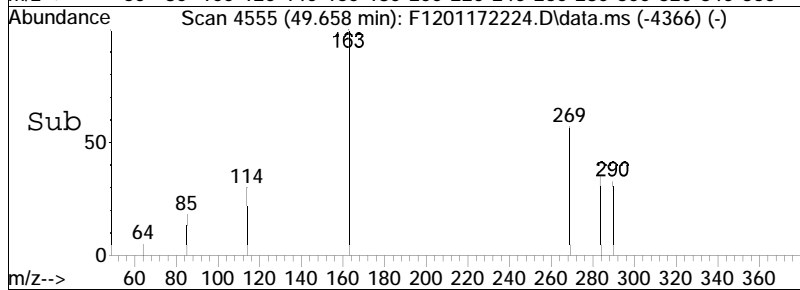
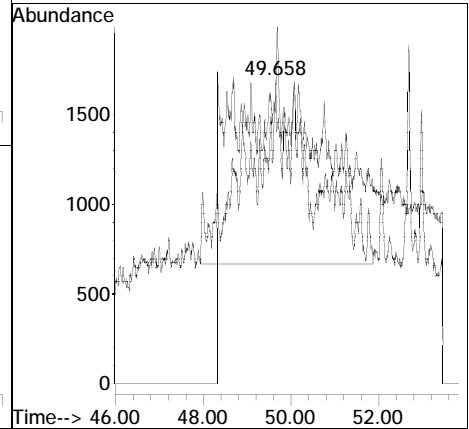
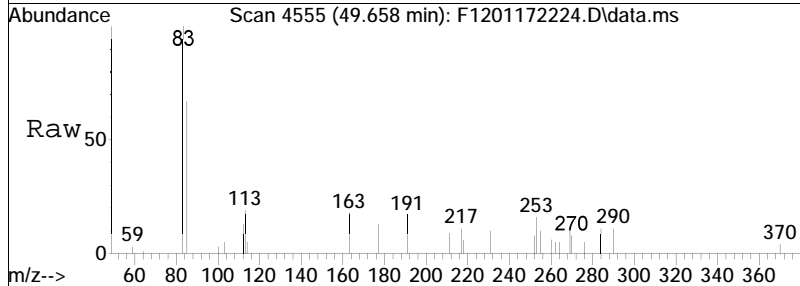
Tgt Ion	Resp	Lower	Upper
270	100		
255	0.6	37.0	68.6#

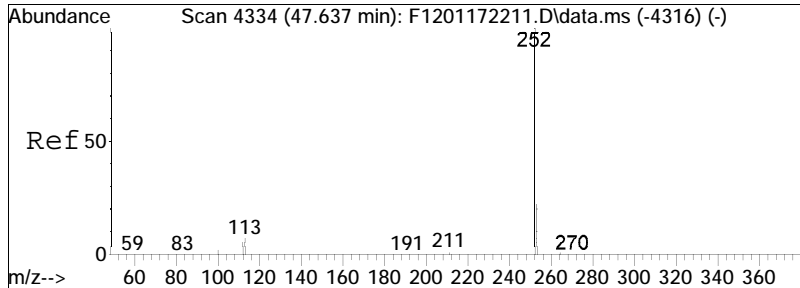




#82  
 C4-Chrysenes  
 Concen: 373.04 ng/mL M5  
 RT: 49.658 min Scan# 4555  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

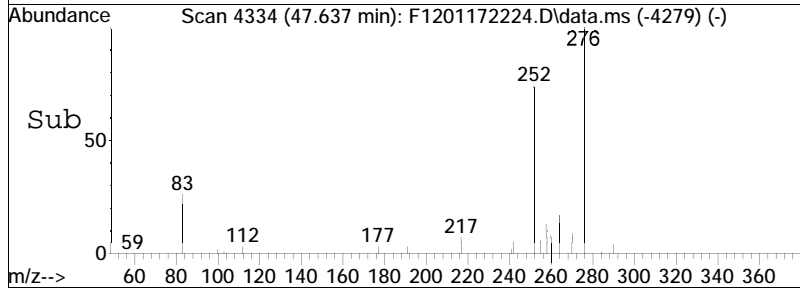
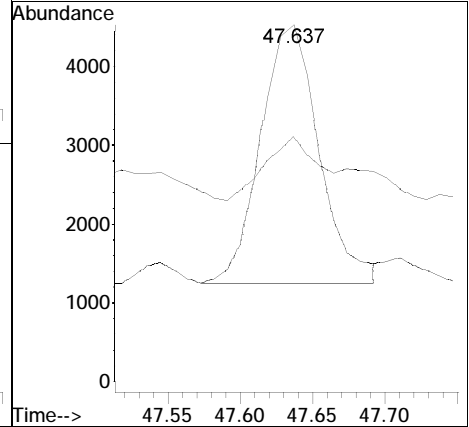
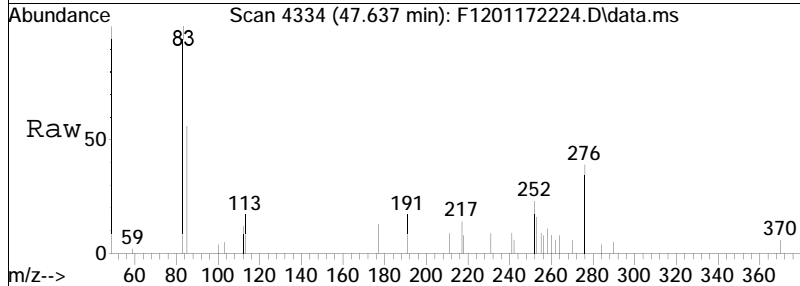
Tgt Ion	Resp	Lower	Upper
284	102314		
269	0.0	63.6	118.2#

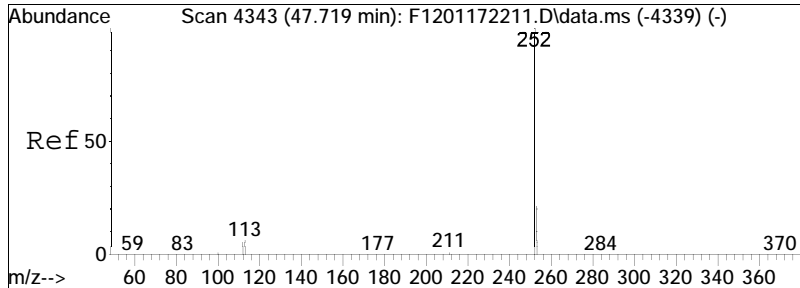




#85  
 Benzo[b]fluoranthene  
 Concen: 29.24 ng/mL  
 RT: 47.637 min Scan# 4334  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

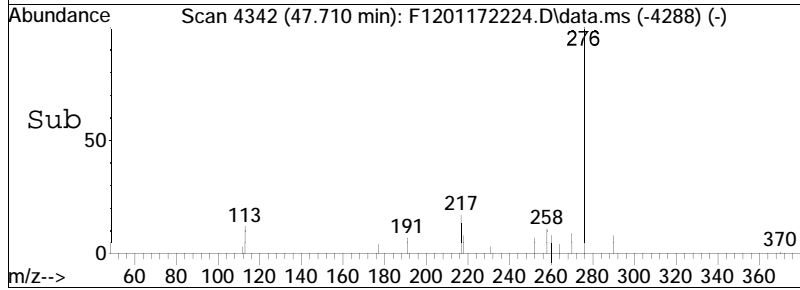
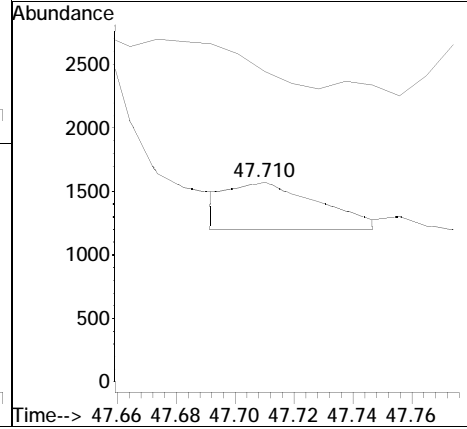
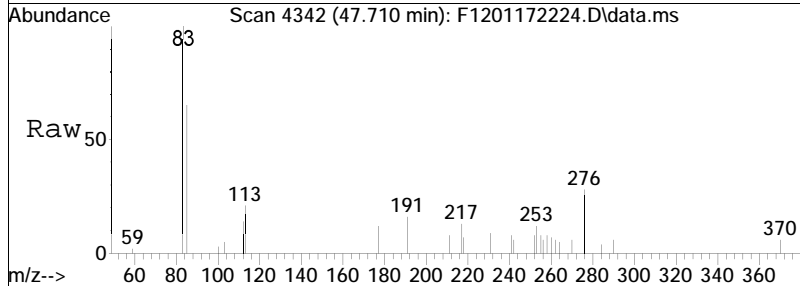
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.4	16.0	29.6

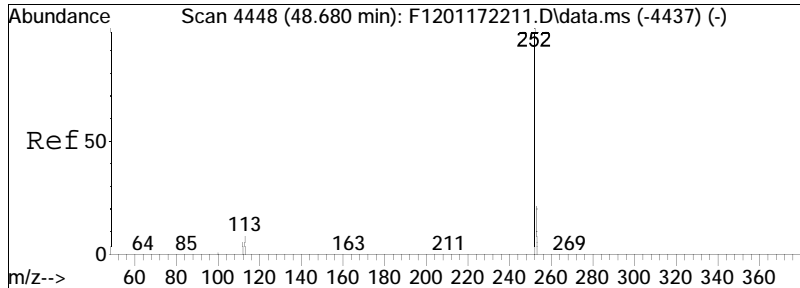




#86  
 Benzo[j]+[k]fluoranthene  
 Concen: 2.40 ng/mL M3  
 RT: 47.710 min Scan# 4342  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

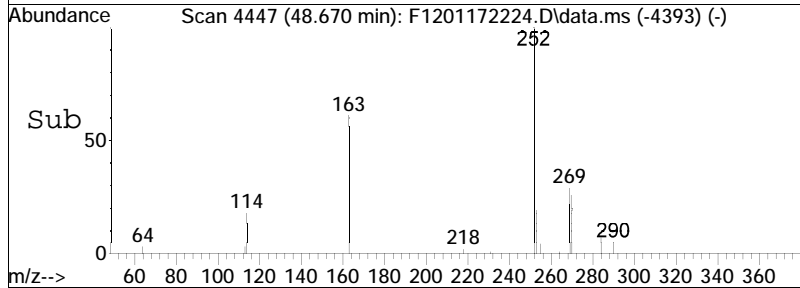
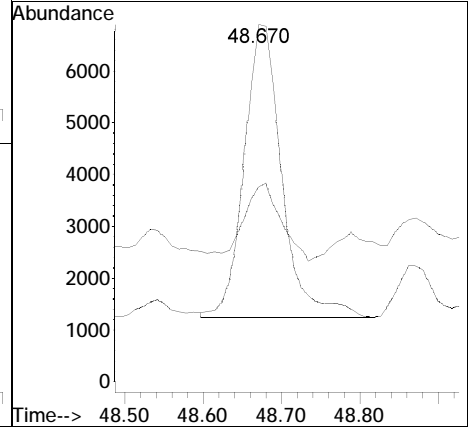
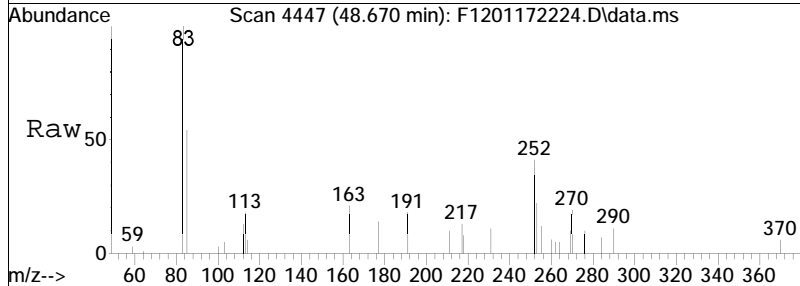
Tgt Ion	Resp	Lower	Upper
252	100		
253	264.1	15.8	29.3#

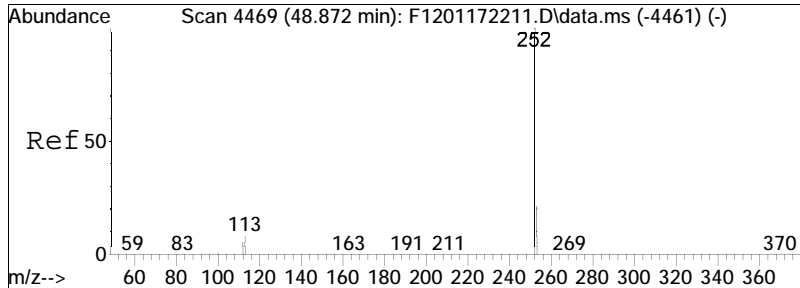




#88  
 Benzo[e]pyrene  
 Concen: 61.01 ng/mL  
 RT: 48.670 min Scan# 4447  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

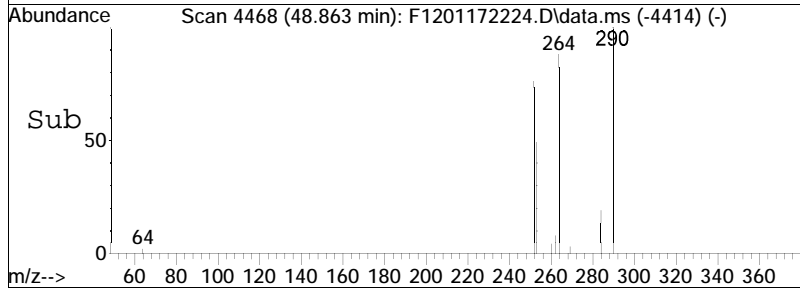
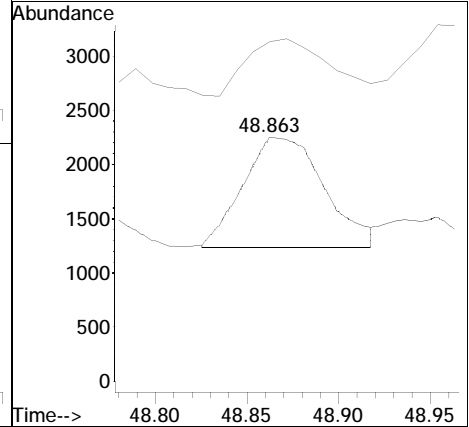
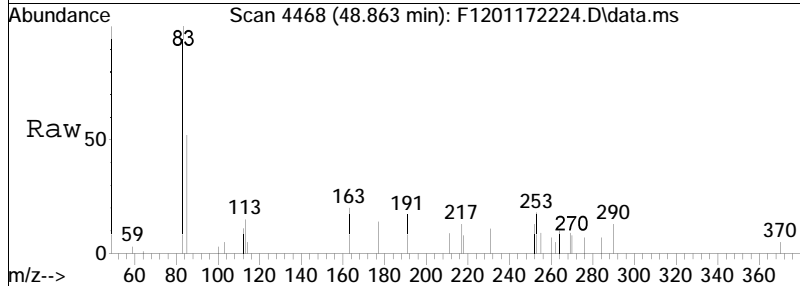
Tgt Ion	Resp	Lower	Upper
252	18841	100	
253	25.3	16.0	29.6

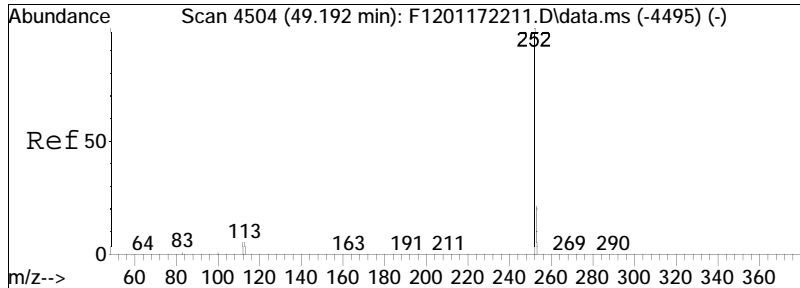




#90  
 Benzo[a]pyrene  
 Concen: 10.37 ng/mL M3  
 RT: 48.863 min Scan# 4468  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

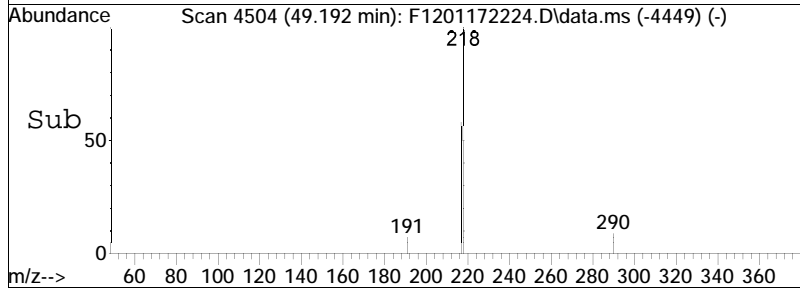
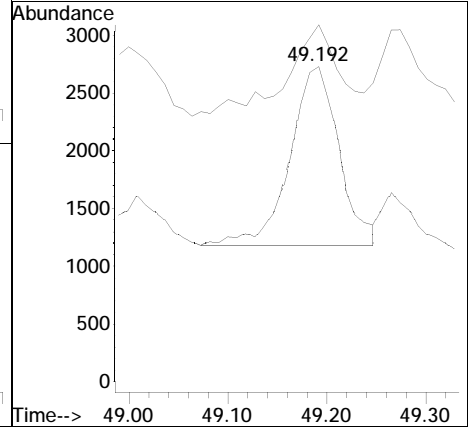
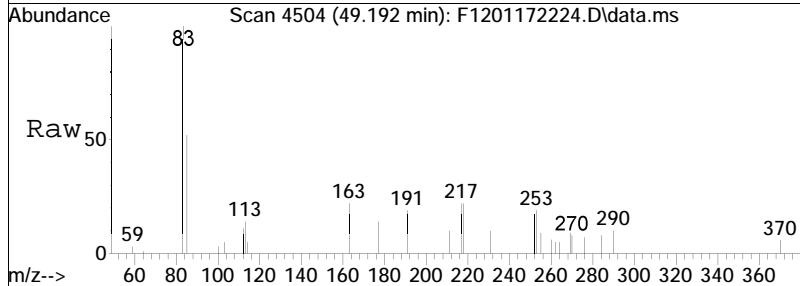
Tgt Ion: 252 Resp: 3106  
 Ion Ratio Lower Upper  
 252 100  
 253 153.2 16.1 29.9#



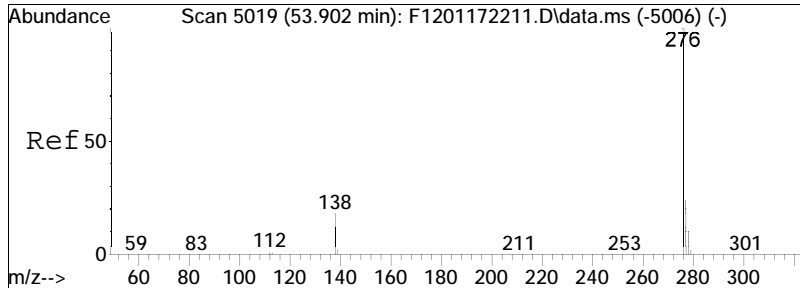


#91  
 Perylene  
 Concen: 17.26 ng/mL  
 RT: 49.192 min Scan# 4504  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

Tgt Ion	Ratio	Lower	Upper
252	100		
253	55.6	16.2	30.0#

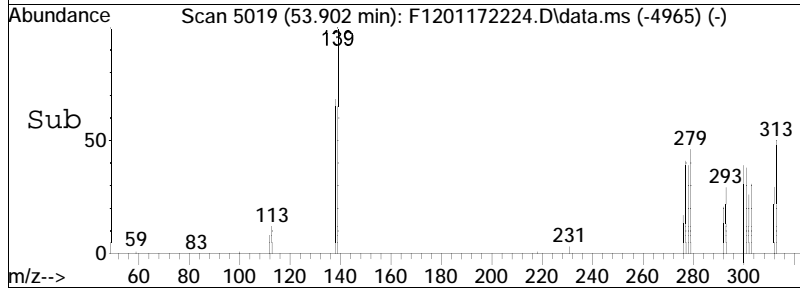
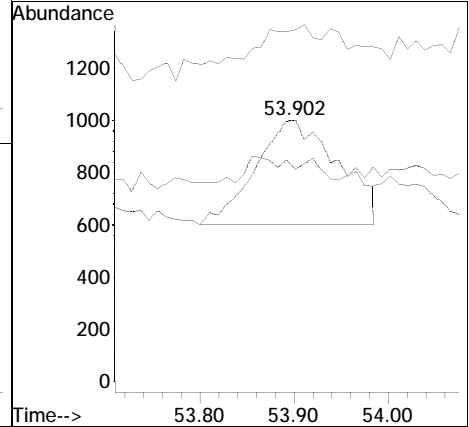
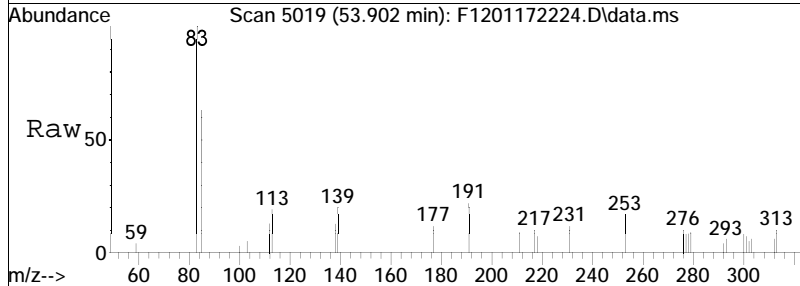


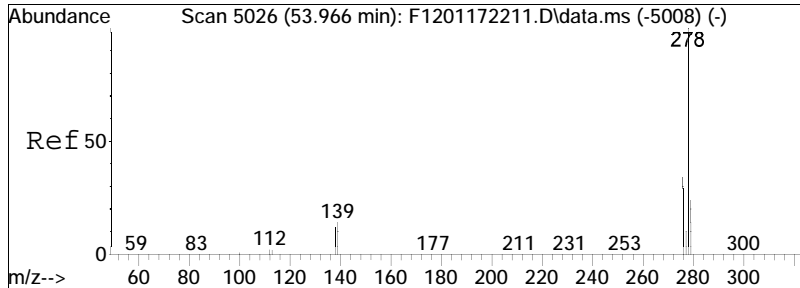




#92  
 Indeno[1,2,3-cd]pyrene  
 Concen: 5.95 ng/mL  
 RT: 53.902 min Scan# 5019  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

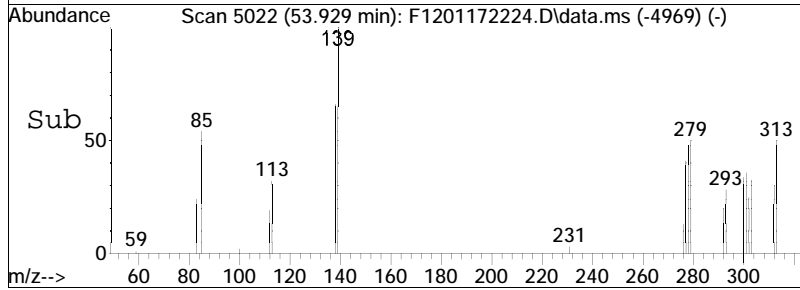
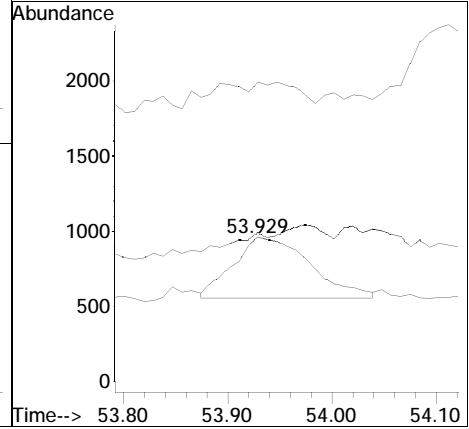
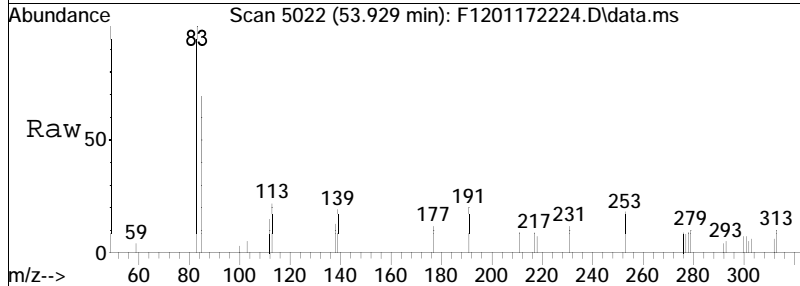
Tgt Ion	Resp	Lower	Upper
276	100		
138	0.0	13.0	24.1#
277	0.0	16.6	30.8#

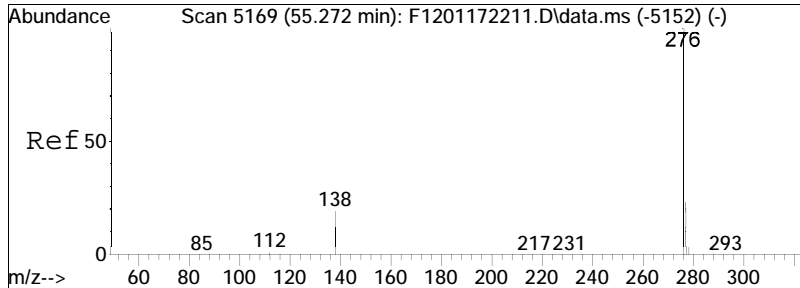




#93  
 Dibenz[ah]+[ac]anthracene  
 Concen: 5.73 ng/mL M4  
 RT: 53.929 min Scan# 5022  
 Delta R.T. -0.018 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

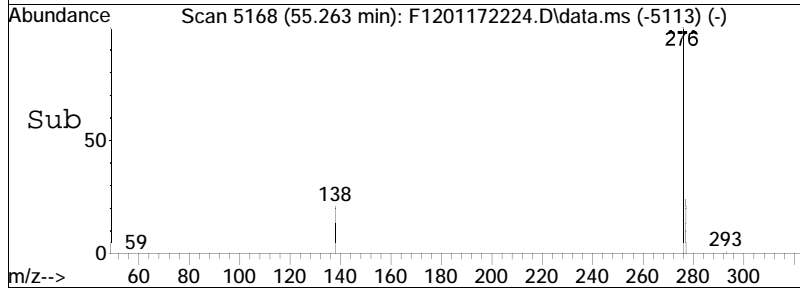
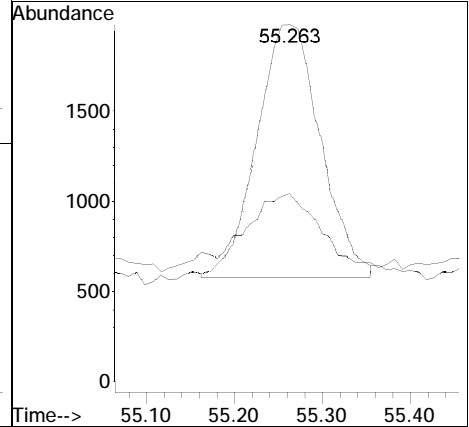
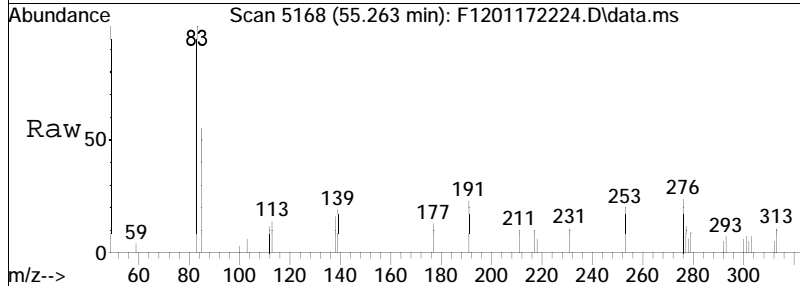
Tgt Ion	Resp	Lower	Upper
278	100		
139	0.0	10.2	19.0#
279	0.0	16.6	30.8#

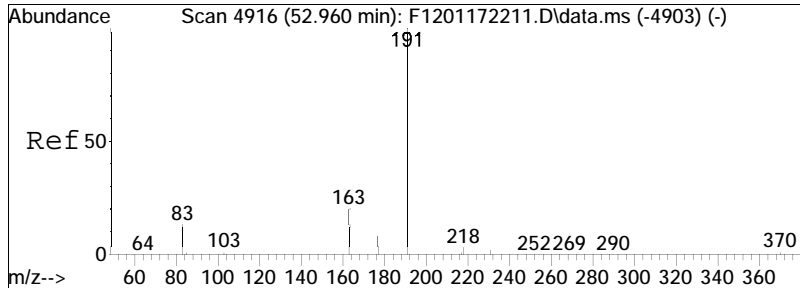




#94  
 Benzo[g,h,i]perylene  
 Concen: 19.31 ng/mL M4  
 RT: 55.263 min Scan# 5168  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

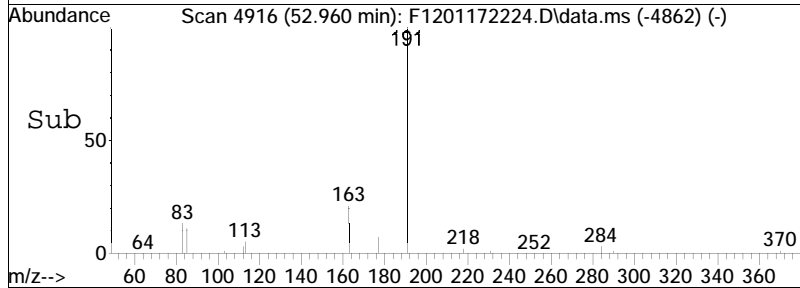
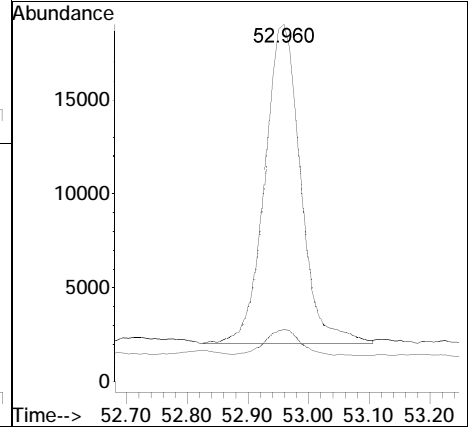
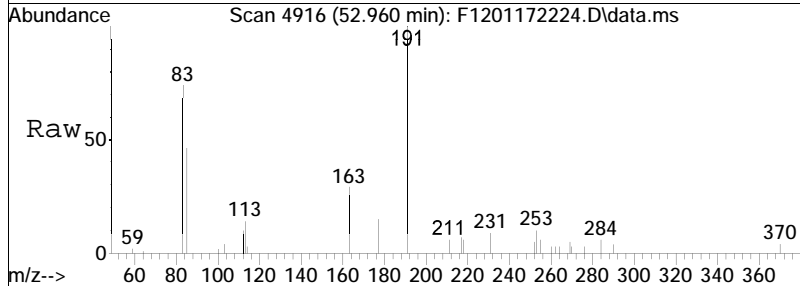
Tgt Ion	Resp	Lower	Upper
276	100		
277	37.6	16.2	30.2#

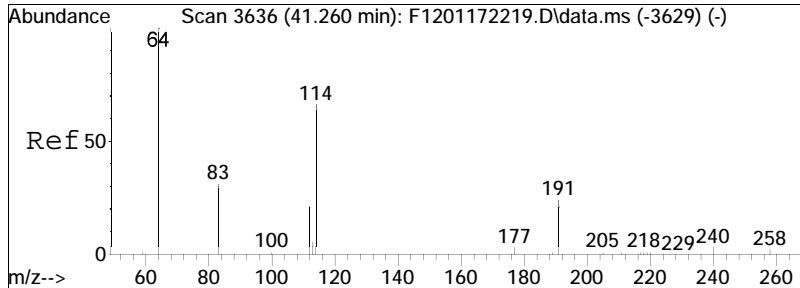




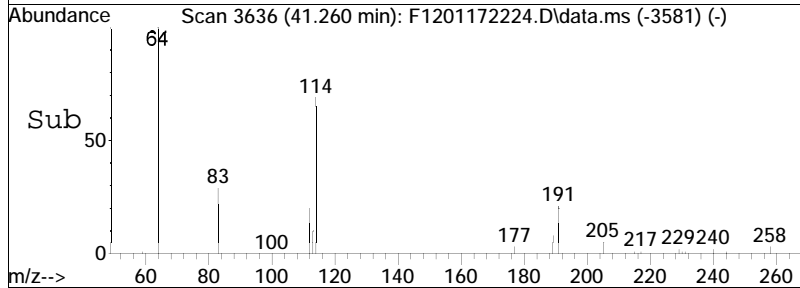
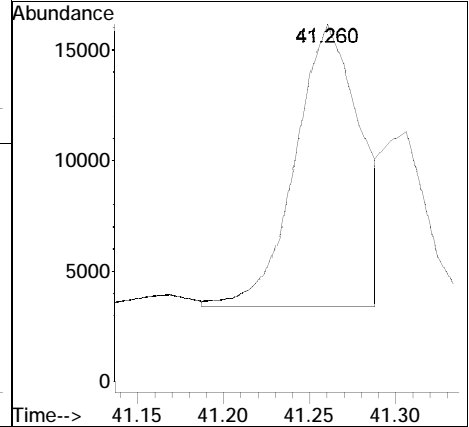
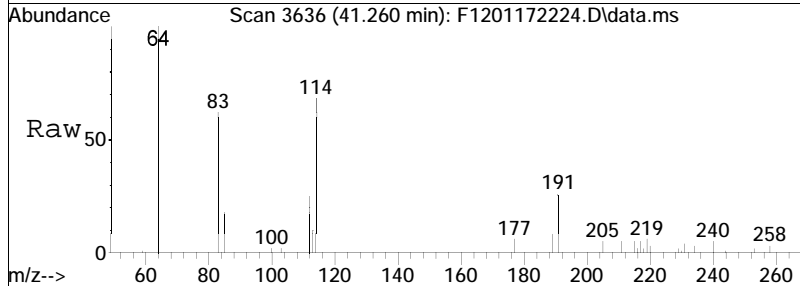
#95  
 Hopane (T19)  
 Concen: 882.40 ng/mL  
 RT: 52.960 min Scan# 4916  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

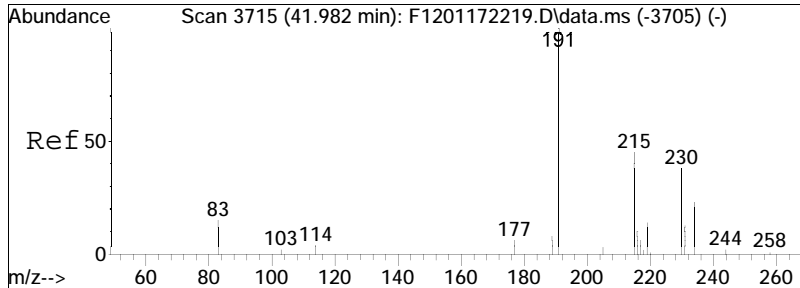
Tgt Ion	Ratio	Lower	Upper
191	100		
177	7.9	7.6	14.0



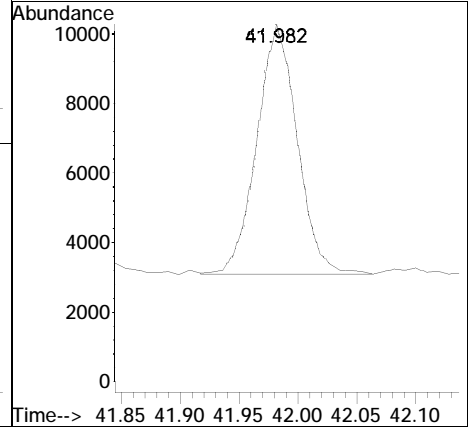
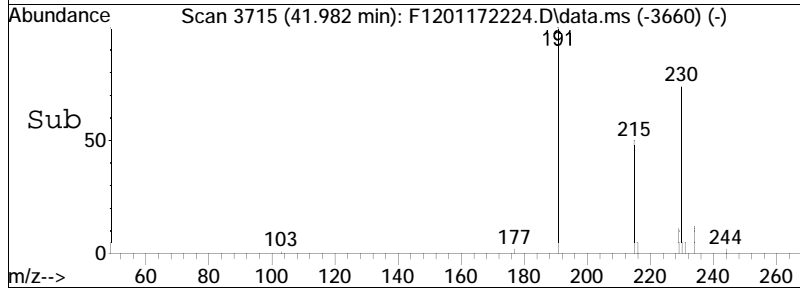
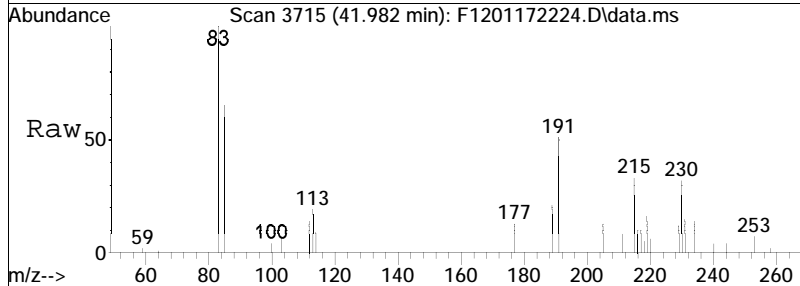


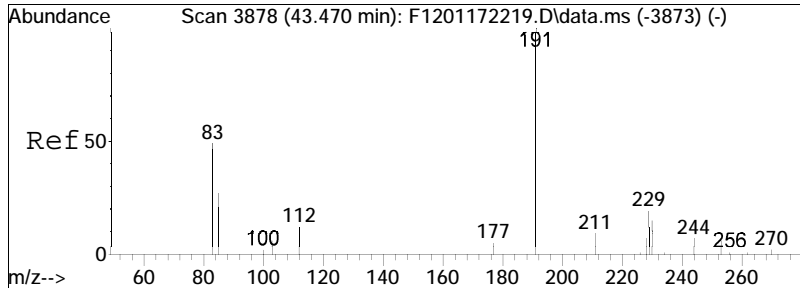
#96  
 C23 Tricyclic Terpane (T4)  
 Concen: 433.64 ng/ml M3  
 RT: 41.260 min Scan# 3636  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 33919



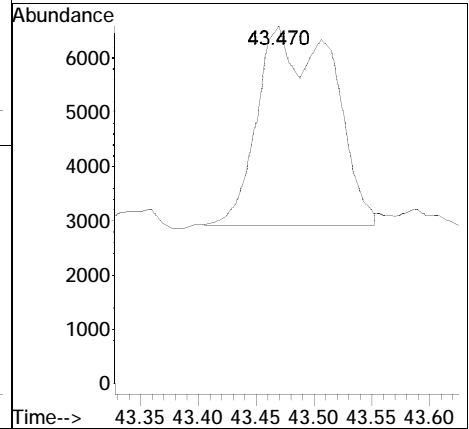
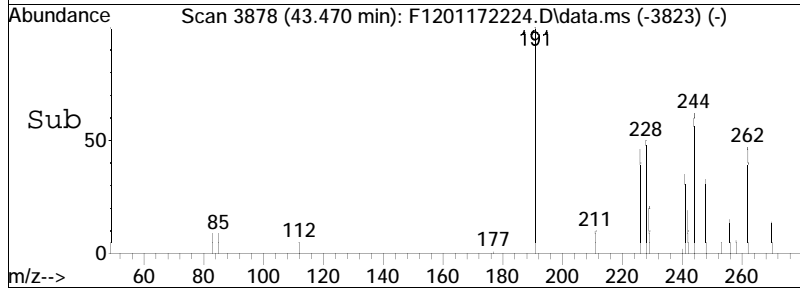
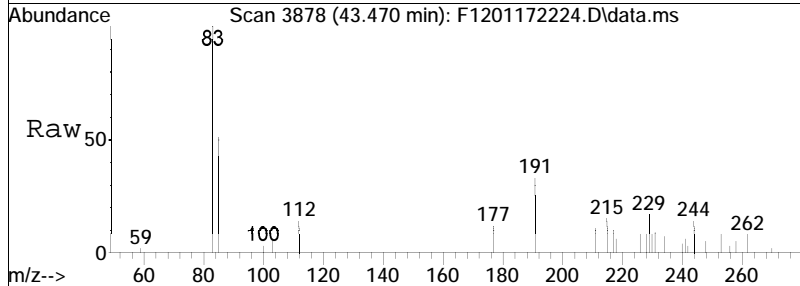


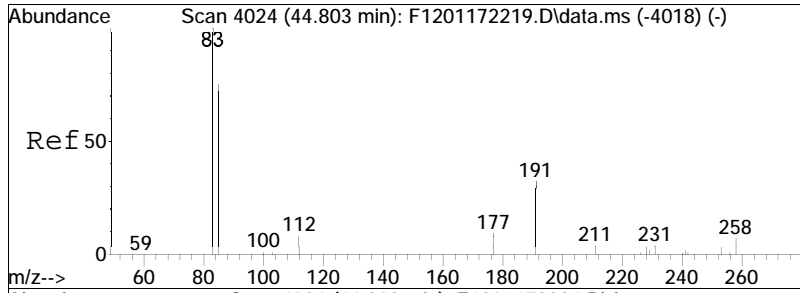
#97  
 C24 Tricyclic Terpene (T5)  
 Concen: 216.72 ng/ml  
 RT: 41.982 min Scan# 3715  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 16952



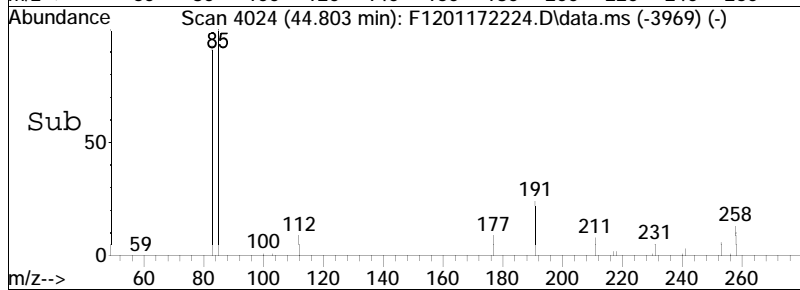
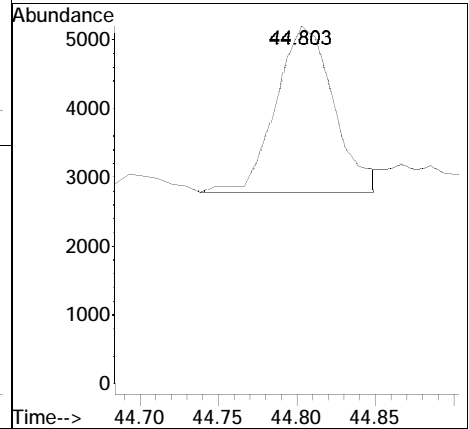
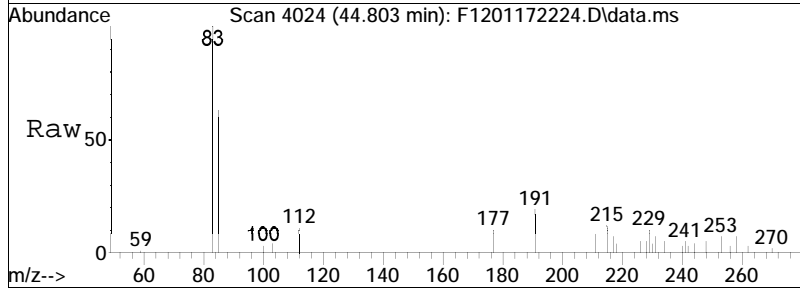


#98  
 C25 Tricyclic Terpene (T6)  
 Concen: 210.59 ng/ml M1  
 RT: 43.470 min Scan# 3878  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 16472

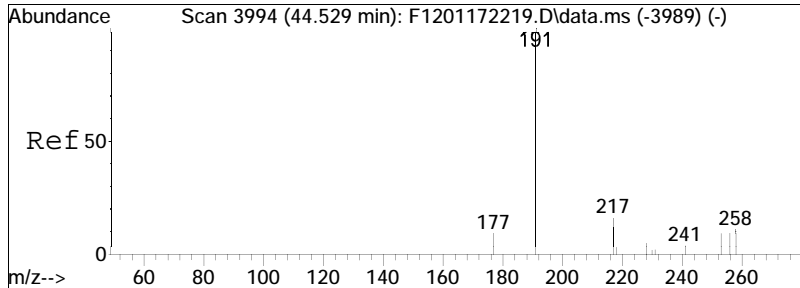




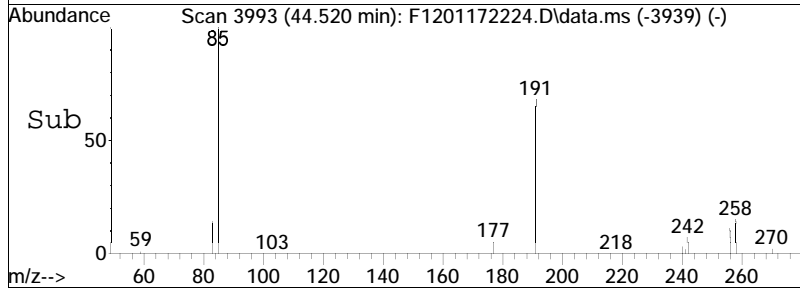
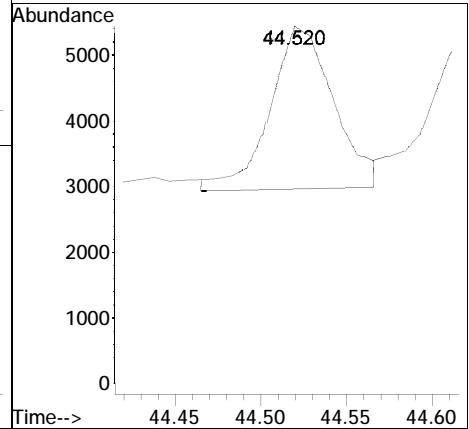
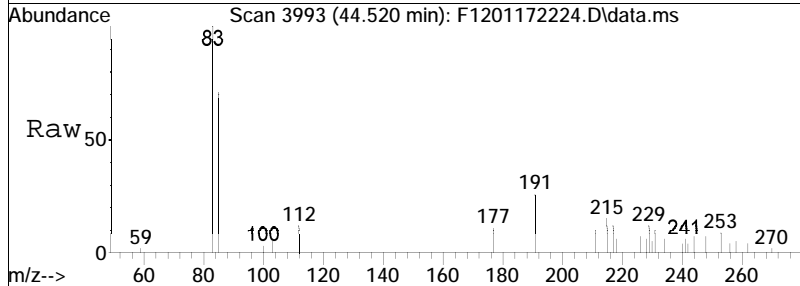
#99  
 C24 Tetracyclic Terpane (T6a)  
 Concen: 79.14 ng/ml  
 RT: 44.803 min Scan# 4024  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 6190

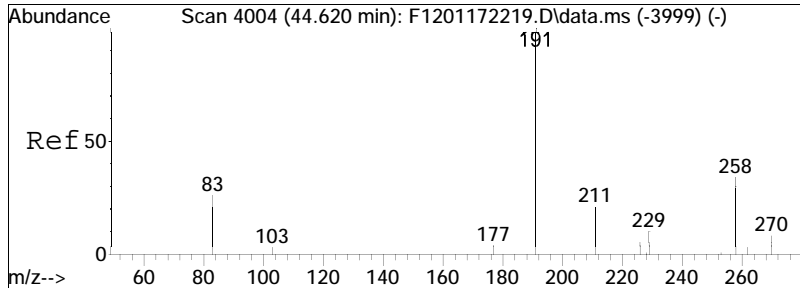




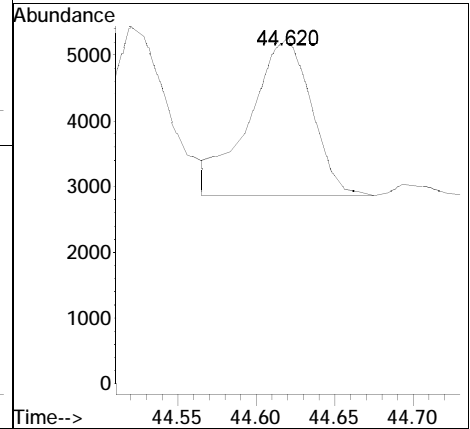
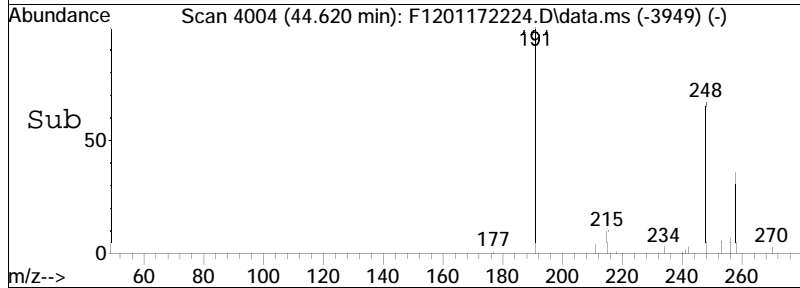
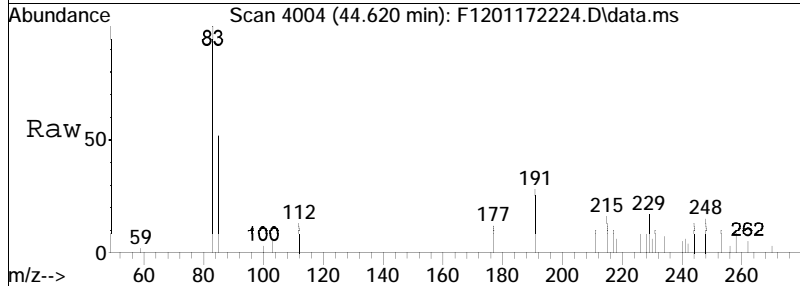


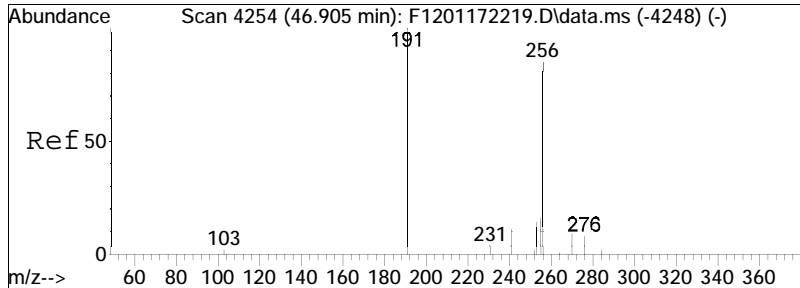
#100  
 C26 Tricyclic Terpane-22S (T6b)  
 Concen: 81.92 ng/ml  
 RT: 44.520 min Scan# 3993  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 6408



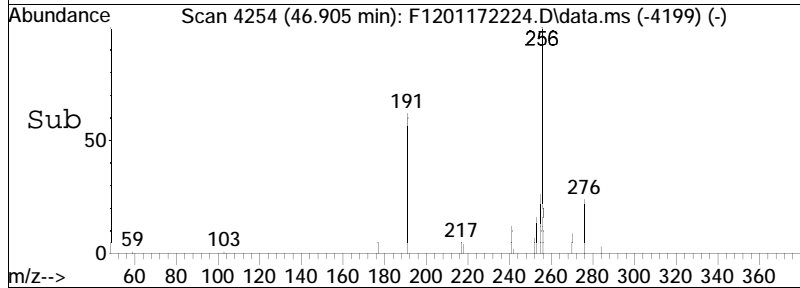
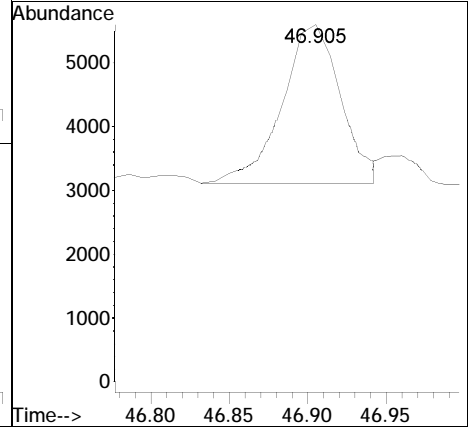
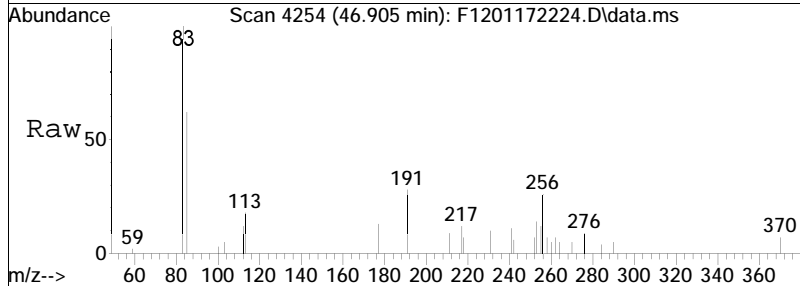


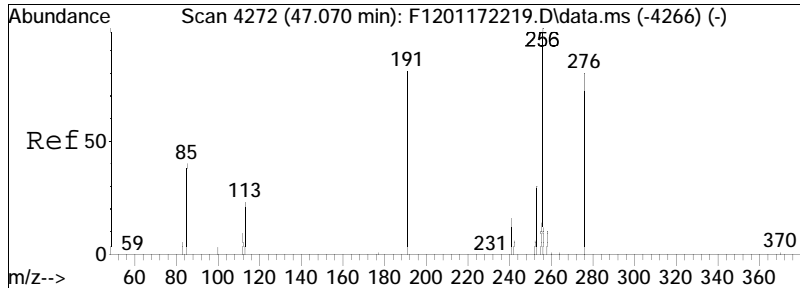
#101  
 C26 Tricyclic Terpene-22R (T6c  
 Concen: 83.07 ng/ml  
 RT: 44.620 min Scan# 4004  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 6498



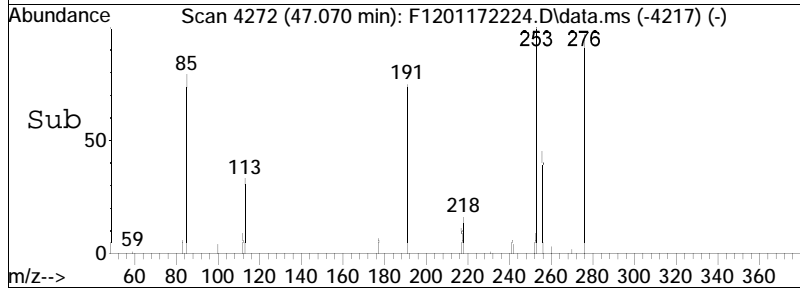
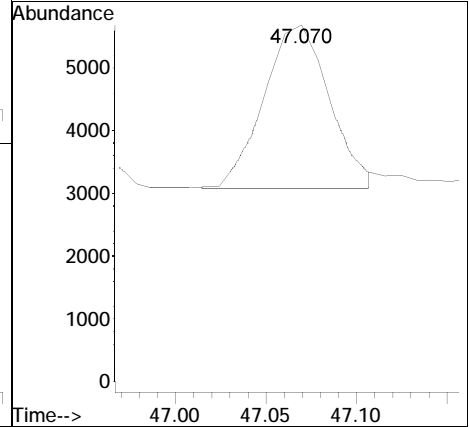
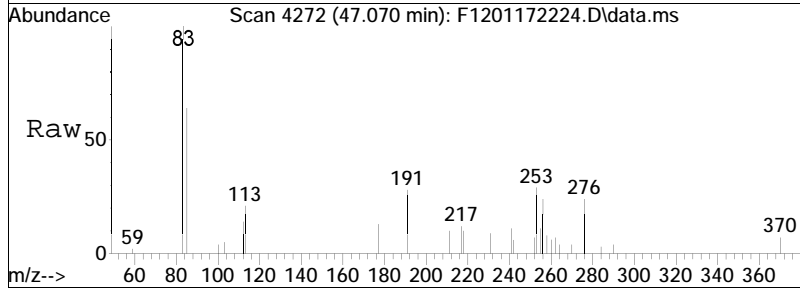


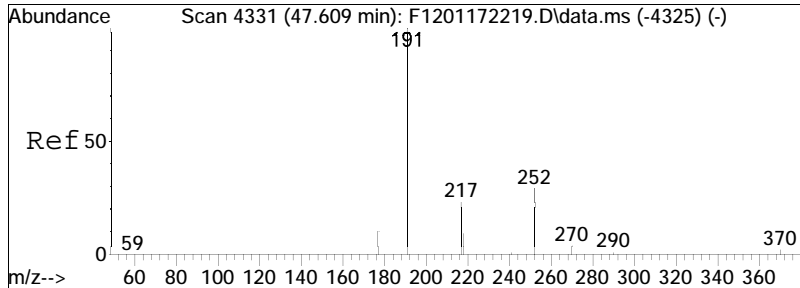
#102  
 C28 Tricyclic Terpene-22S (T7)  
 Concen: 82.87 ng/ml M4  
 RT: 46.905 min Scan# 4254  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 6482



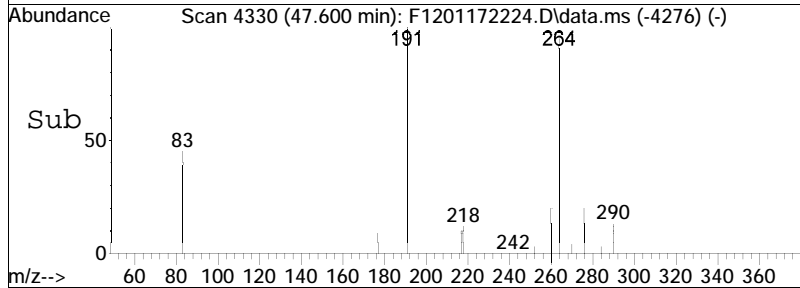
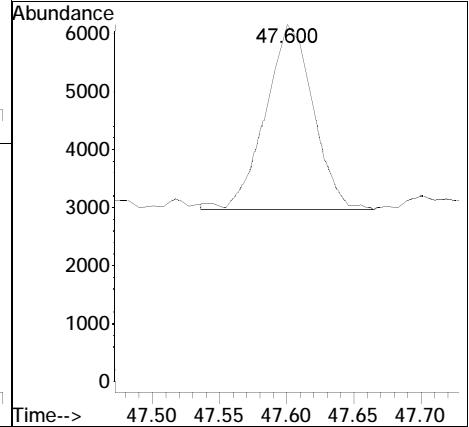
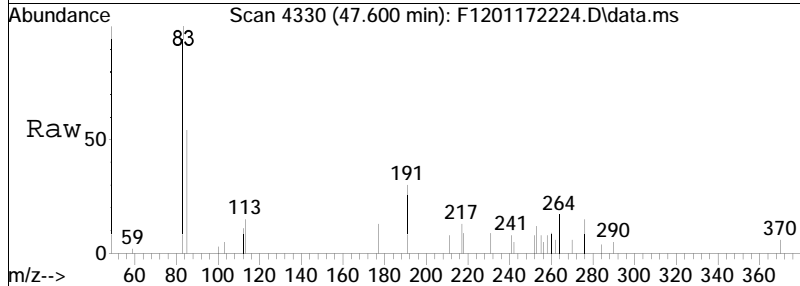


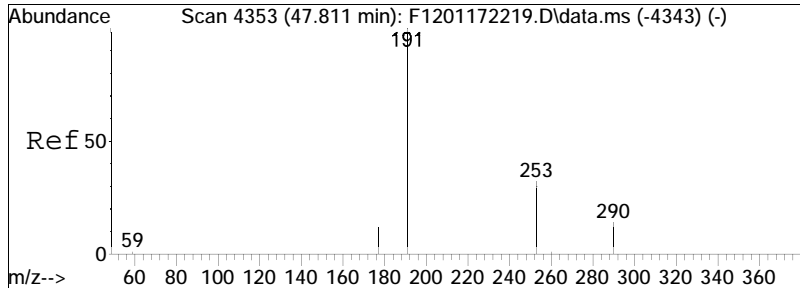
#103  
 C28 Tricyclic Terpane-22R (T8)  
 Concen: 83.98 ng/ml M4  
 RT: 47.070 min Scan# 4272  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 6569



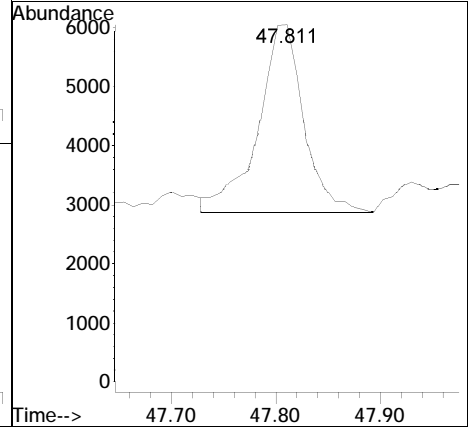
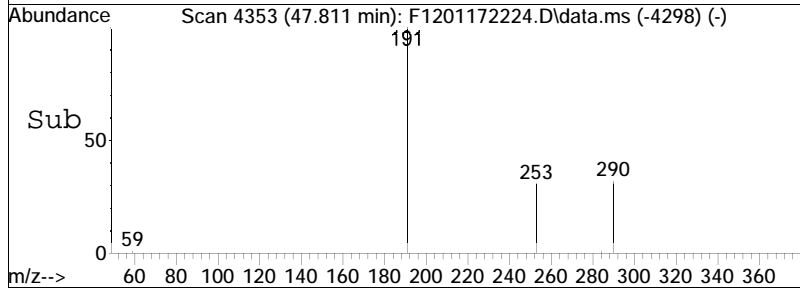
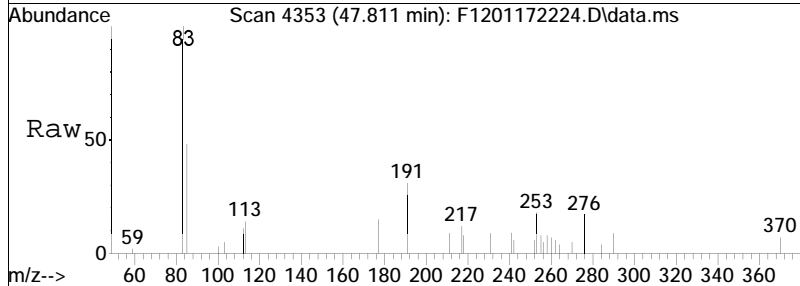


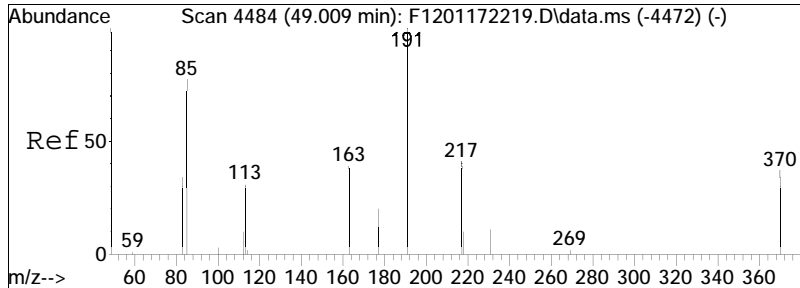
#104  
 C29 Tricyclic Terpene-22S (T9)  
 Concen: 99.55 ng/ml  
 RT: 47.600 min Scan# 4330  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 7787



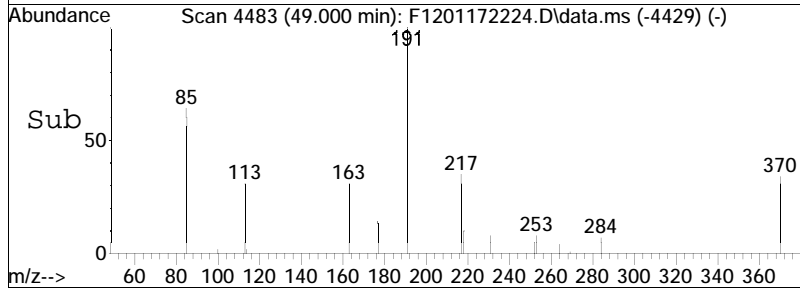
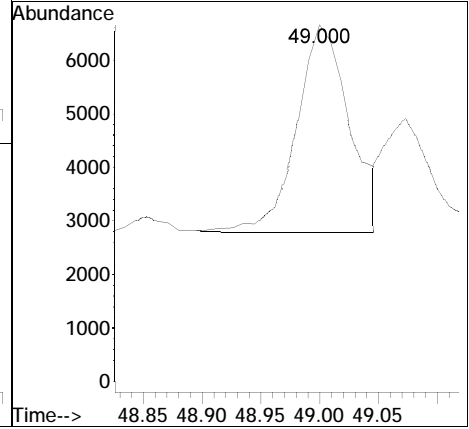
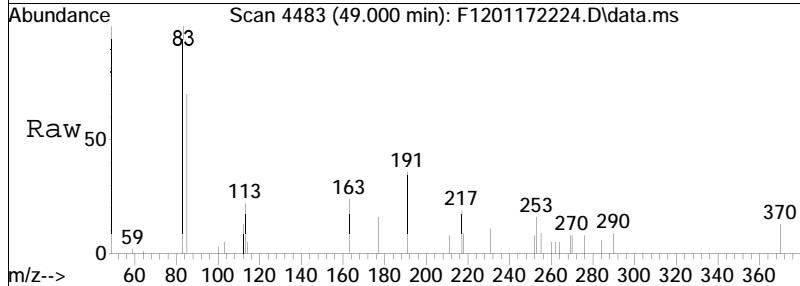


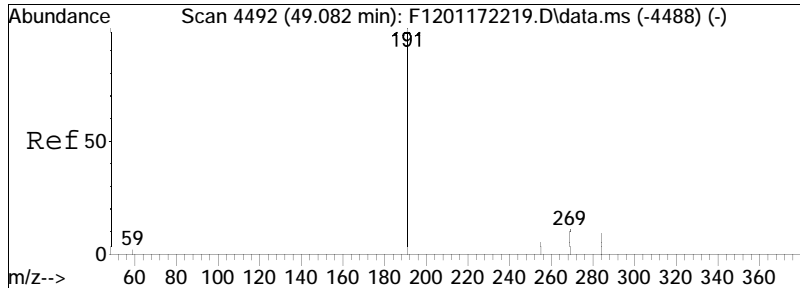
#105  
 C29 Tricyclic Terpene-22R (T10)  
 Concen: 122.95 ng/ml  
 RT: 47.811 min Scan# 4353  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 9617



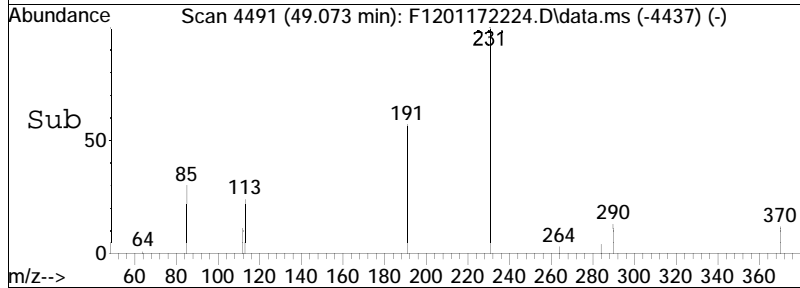
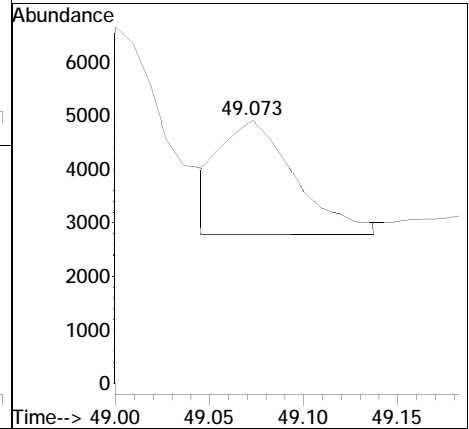
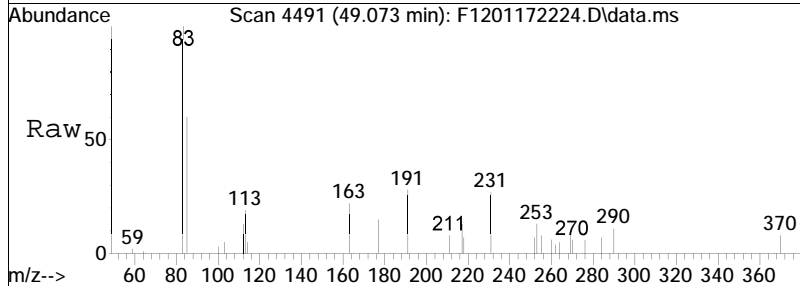


#106  
 18a-22,29,30-Trisnorneohopane-  
 Concen: 156.02 ng/ml  
 RT: 49.000 min Scan# 4483  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 12204

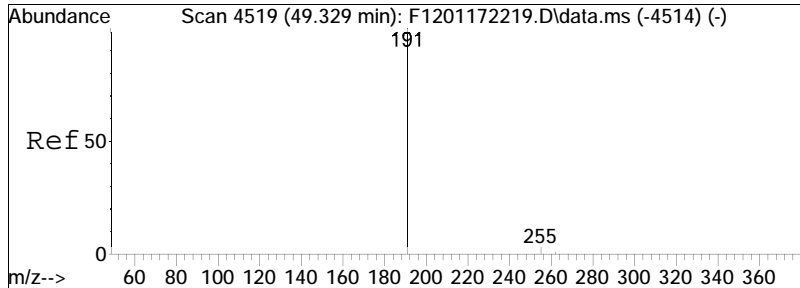




#107  
 C30 Tricyclic Terpene-22S  
 Concen: 76.25 ng/mL  
 RT: 49.073 min Scan# 4491  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 5964

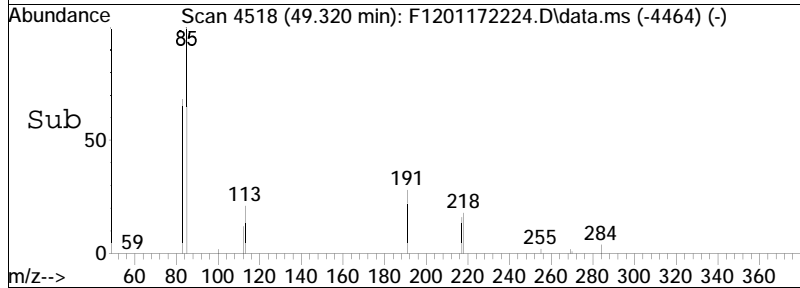
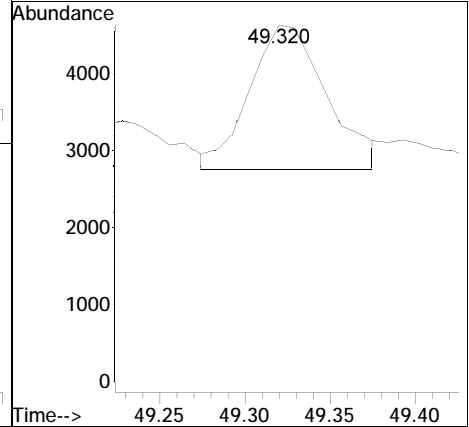
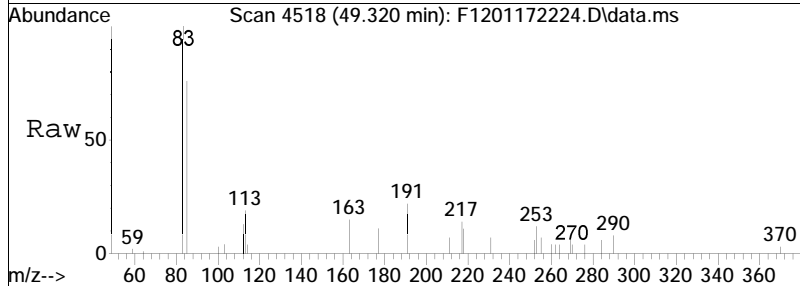


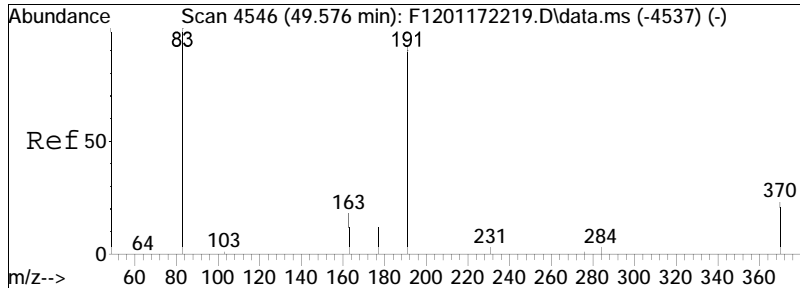




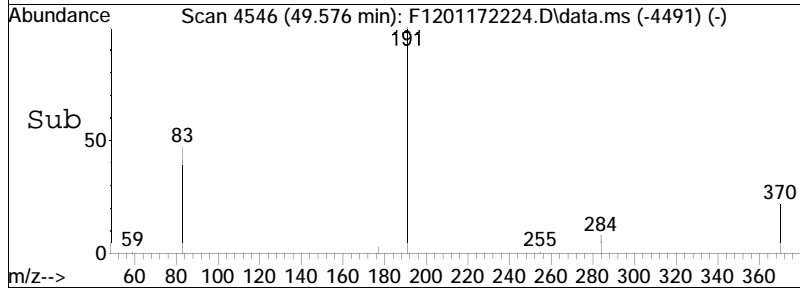
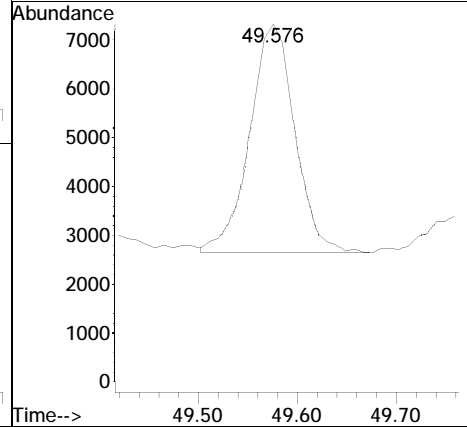
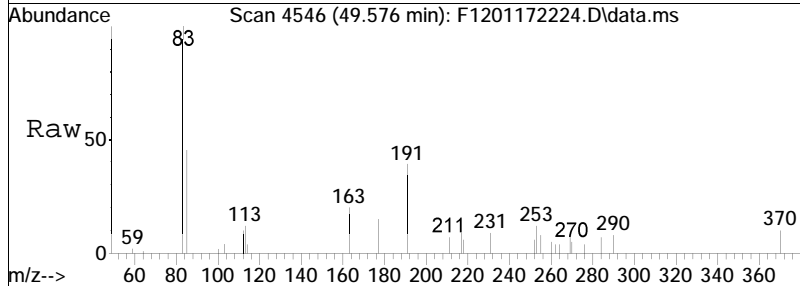
#108  
 C30 Tricyclic Terpene-22R  
 Concen: 76.11 ng/mL M4  
 RT: 49.320 min Scan# 4518  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

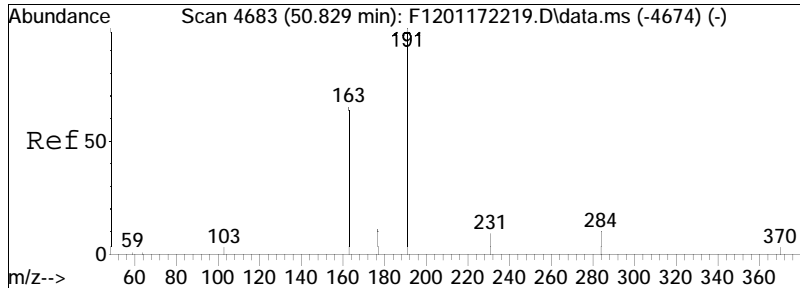
Tgt Ion:191 Resp: 5953



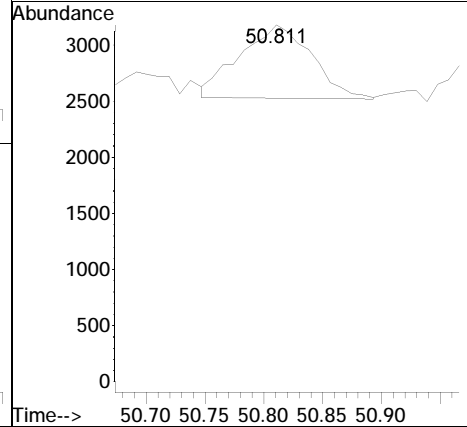
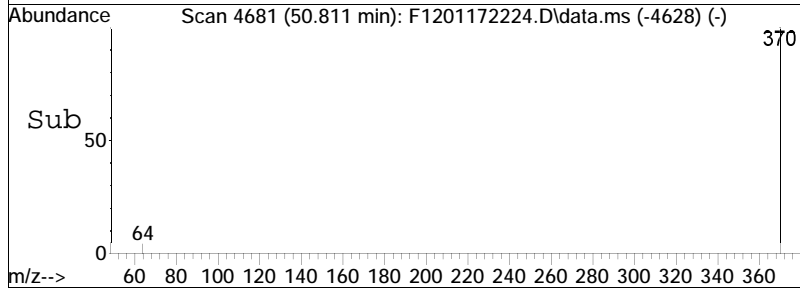
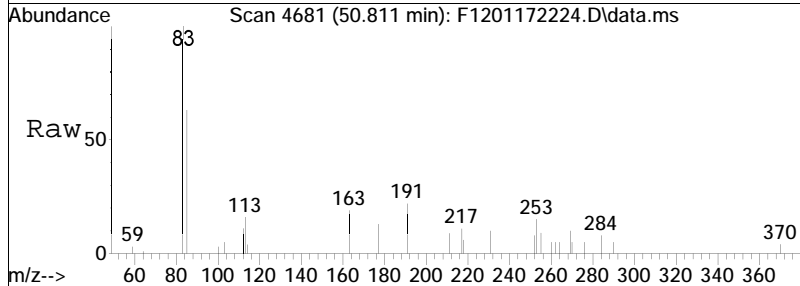


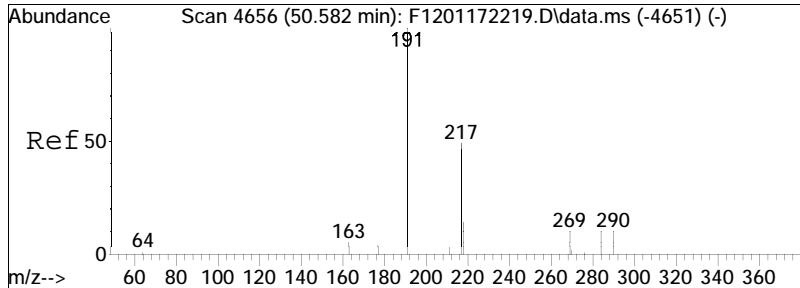
#109  
 17a(H)-22,29,30-Trisnorhopane-  
 Concen: 188.65 ng/ml  
 RT: 49.576 min Scan# 4546  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 14756



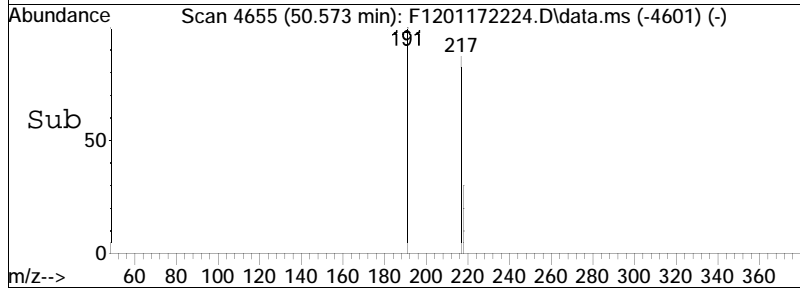
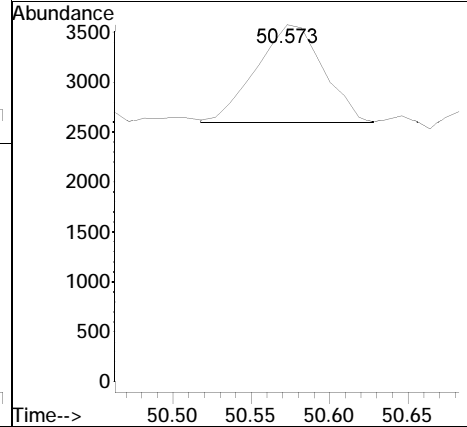
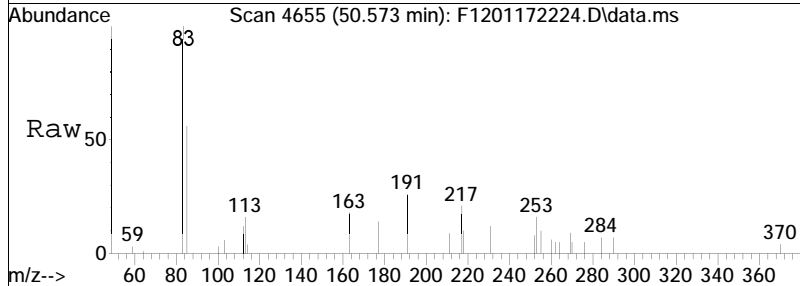


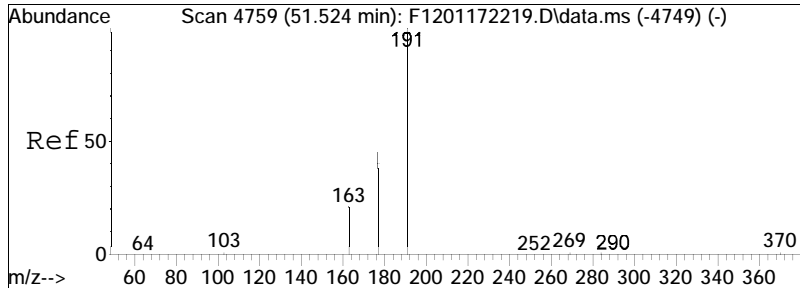
#110  
 17a/b,21b/a 28,30-Bisnorhopane  
 Concen: 35.18 ng/ml  
 RT: 50.811 min Scan# 4681  
 Delta R.T. -0.018 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 2752



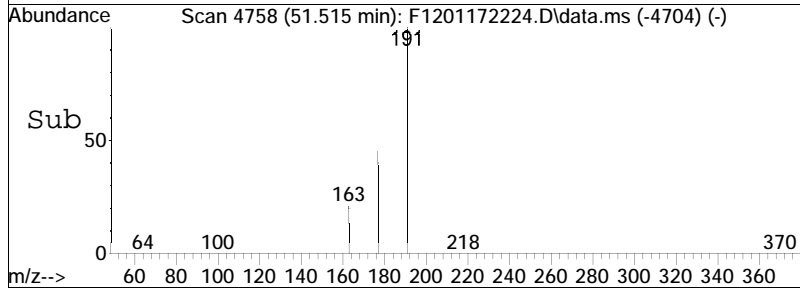
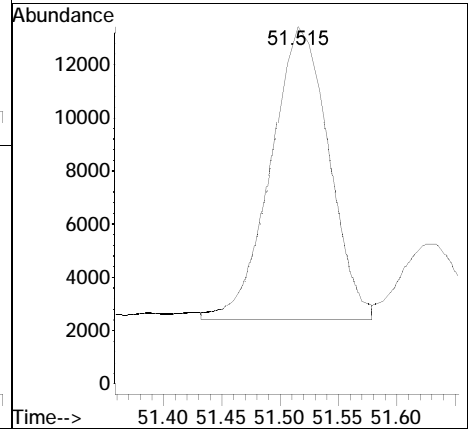
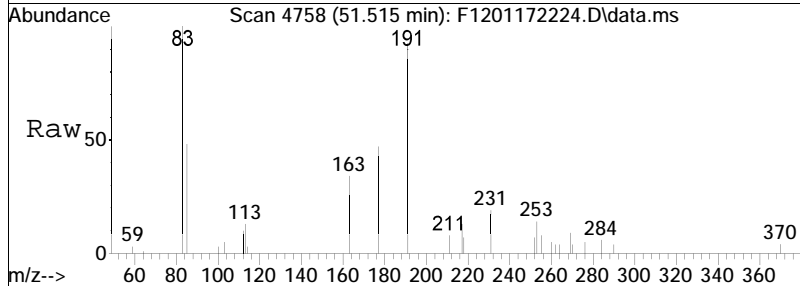


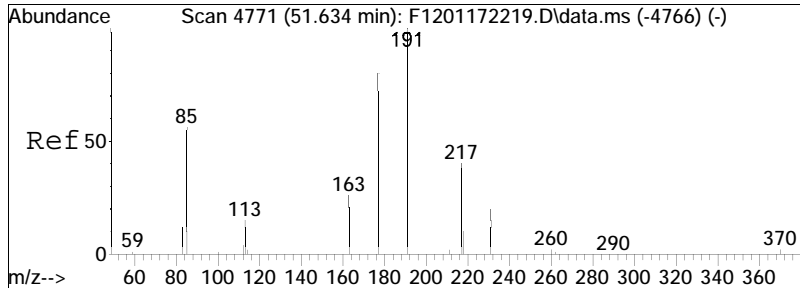
#111  
 17a(H),21b(H)-25-Norhopane (T1  
 Concen: 37.23 ng/ml  
 RT: 50.573 min Scan# 4655  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 2912



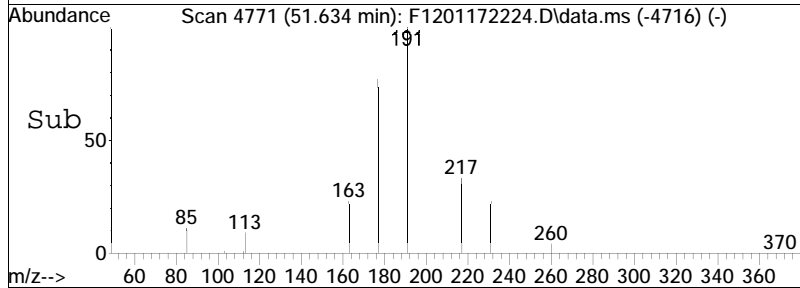
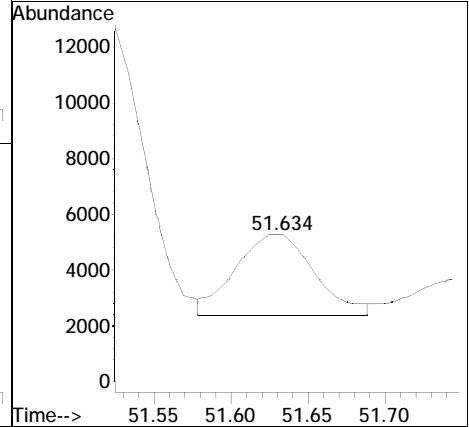
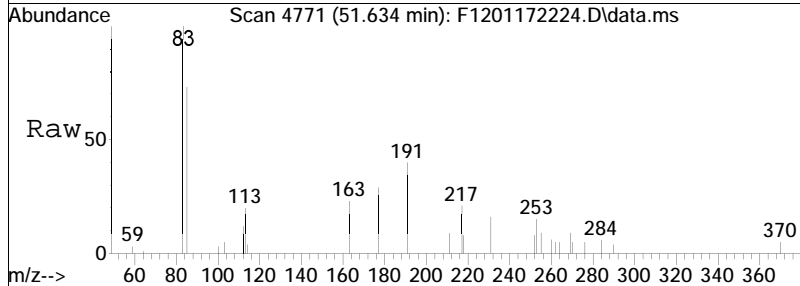


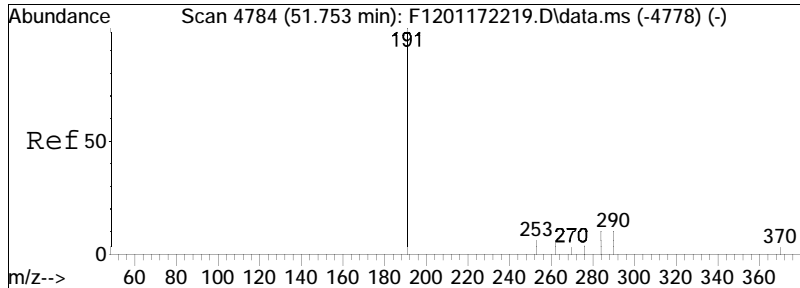
#112  
 30-Norhopane (T15)  
 Concen: 484.62 ng/ml M4  
 RT: 51.515 min Scan# 4758  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 37907



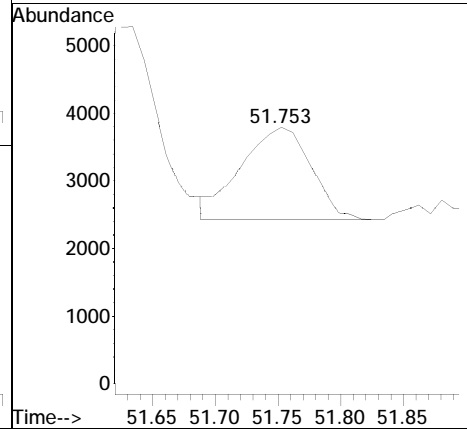
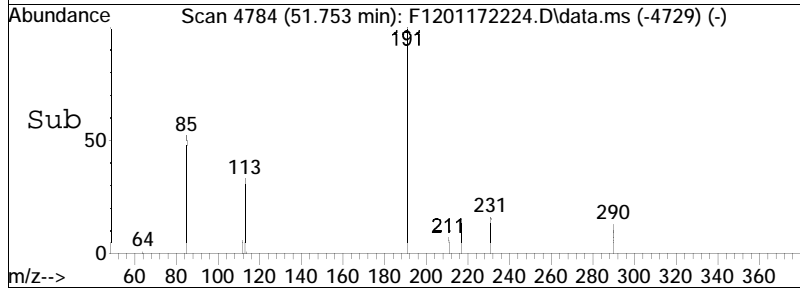
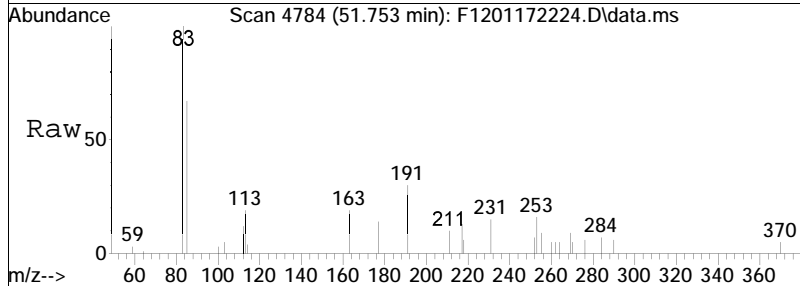


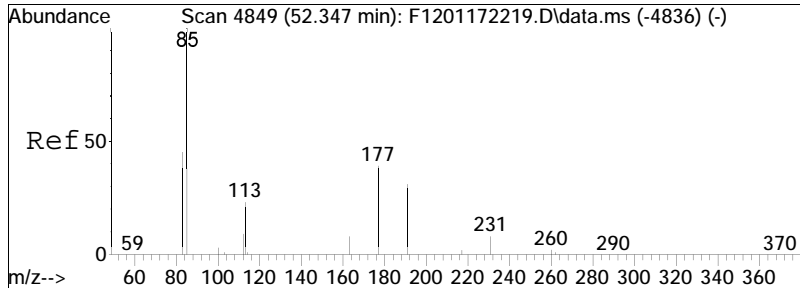
#113  
 18a(H)-30-Norneohopane-C29Ts (  
 Concen: 130.20 ng/ml M4  
 RT: 51.634 min Scan# 4771  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 10184



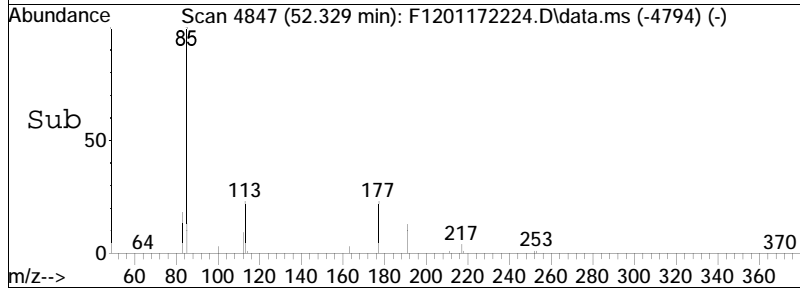
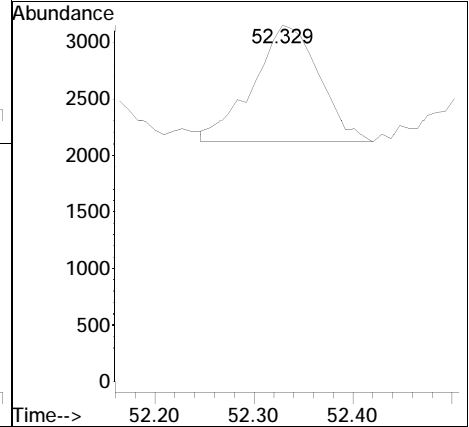
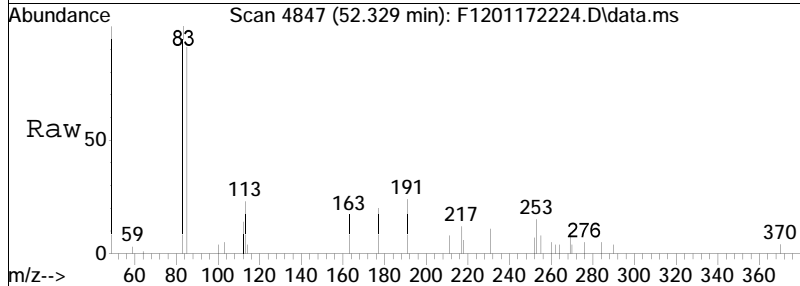


#114  
 17a(H)-Diahopane (X)  
 Concen: 66.99 ng/ml  
 RT: 51.753 min Scan# 4784  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 5240

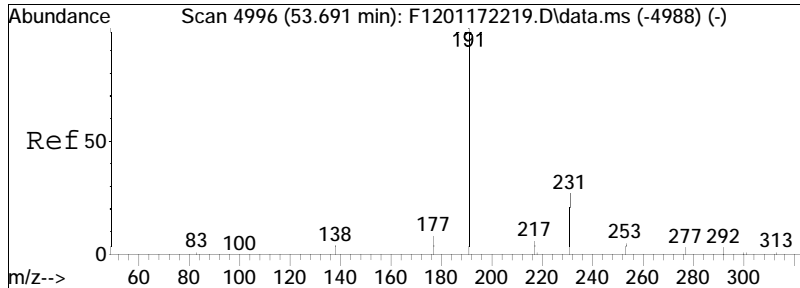




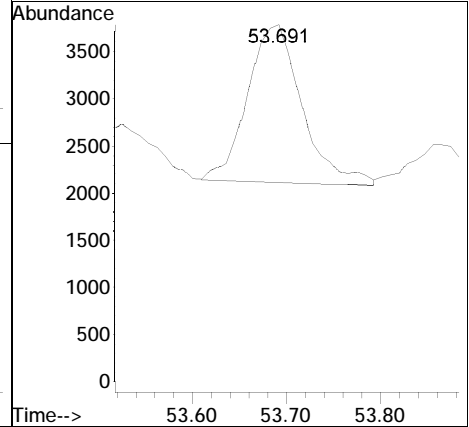
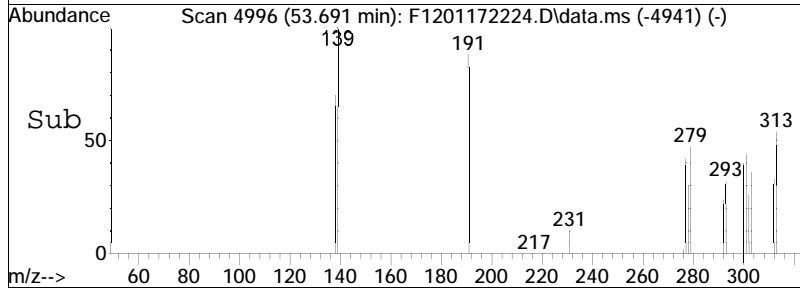
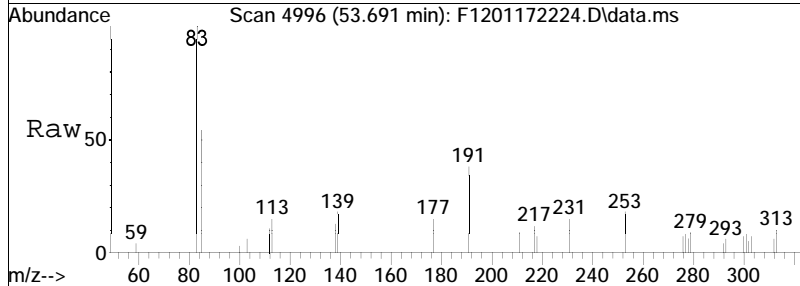
#115  
 30-Normoretane (T17)  
 Concen: 61.30 ng/ml  
 RT: 52.329 min Scan# 4847  
 Delta R.T. -0.018 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 4795

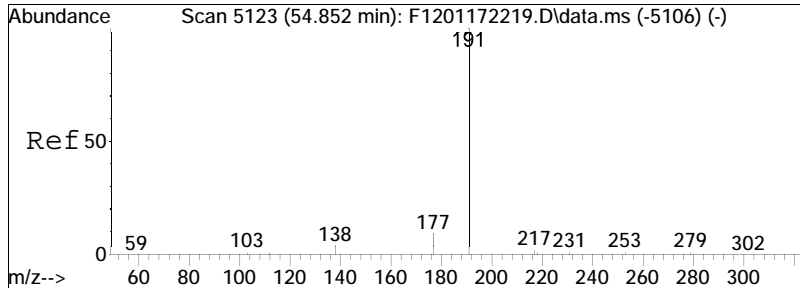




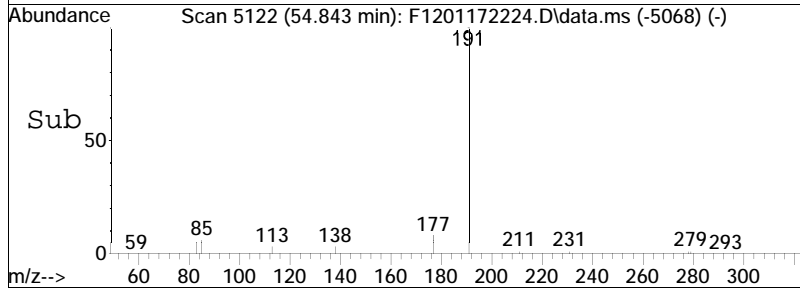
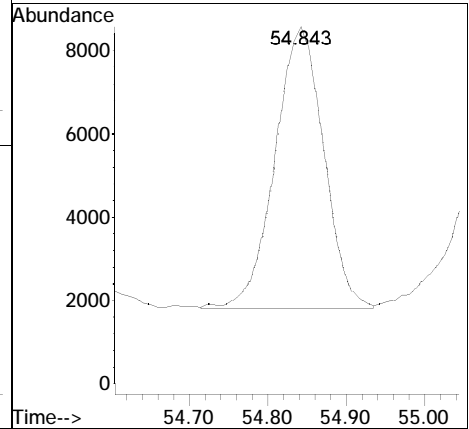
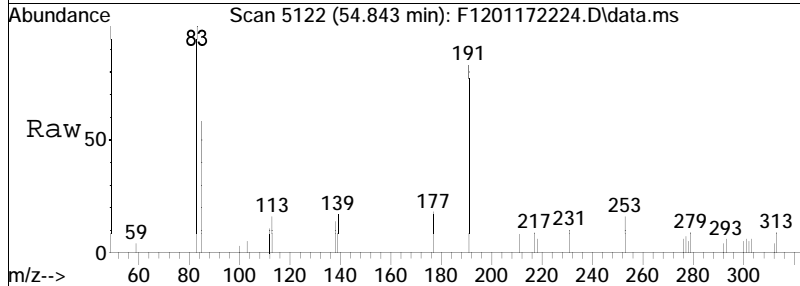


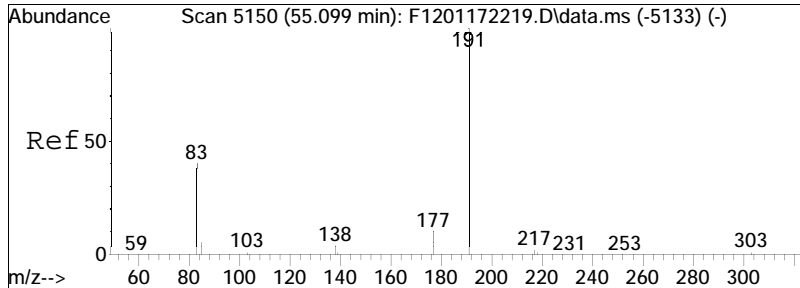
#117  
 Moretane (T20)  
 Concen: 86.13 ng/ml  
 RT: 53.691 min Scan# 4996  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 6737



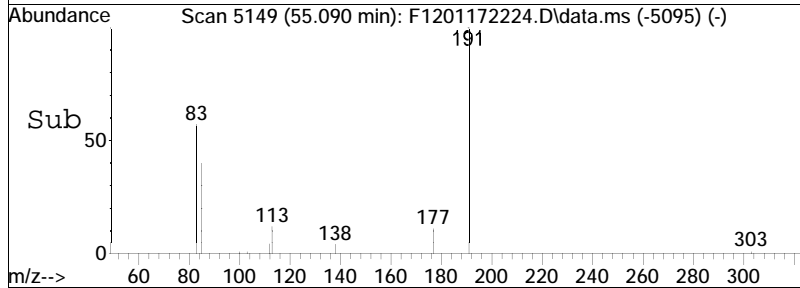
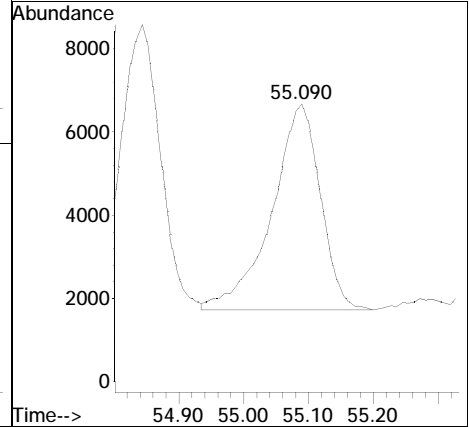
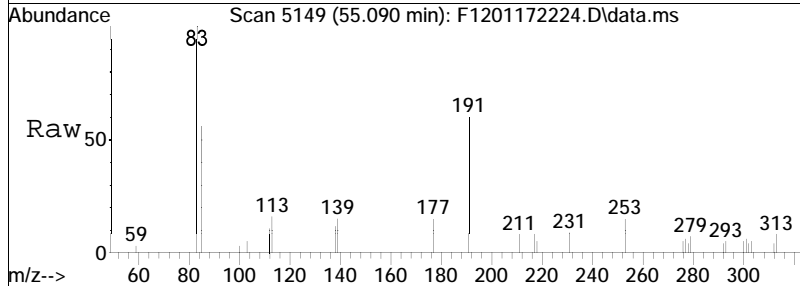


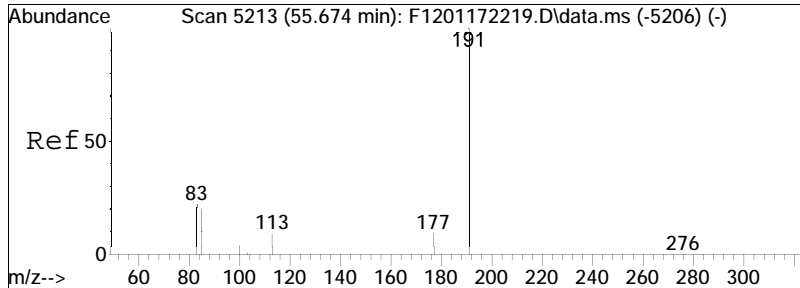
#118  
 30-Homohopane-22S (T21)  
 Concen: 370.69 ng/ml  
 RT: 54.843 min Scan# 5122  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 28995



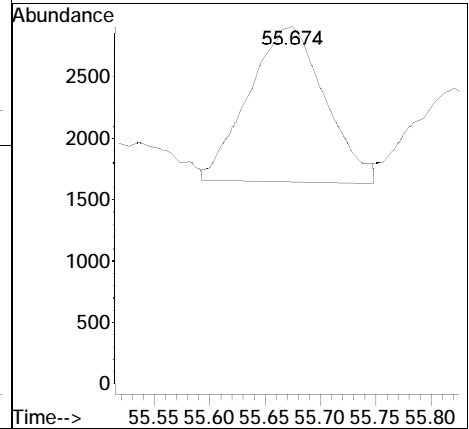
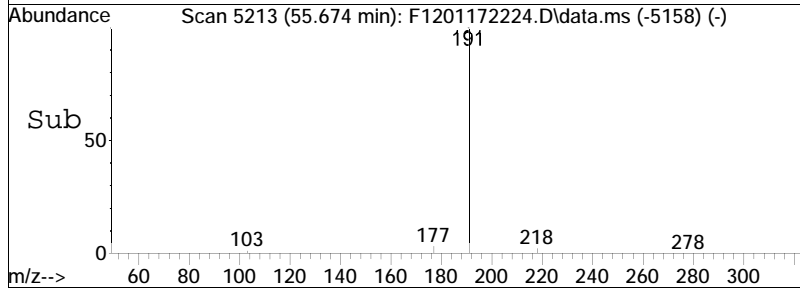
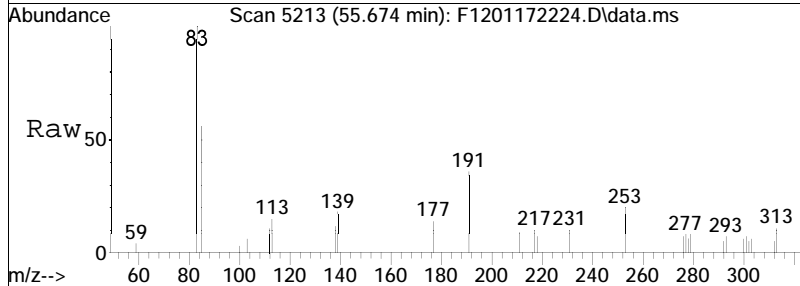


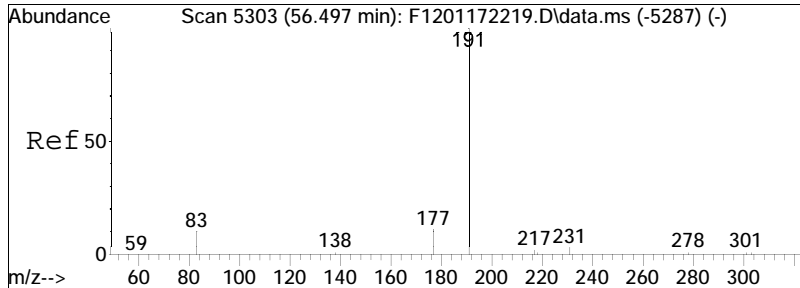
#119  
 30-Homohopane-22R (T22)  
 Concen: 328.84 ng/ml  
 RT: 55.090 min Scan# 5149  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 25722



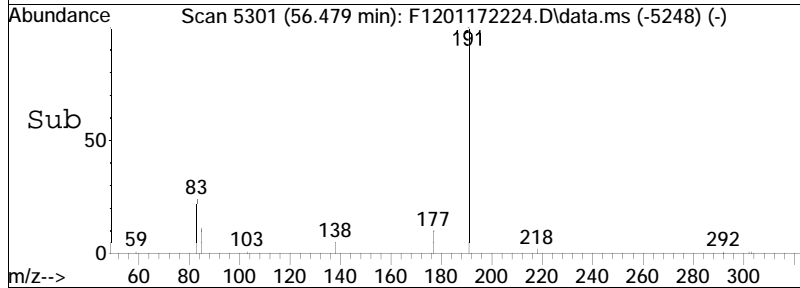
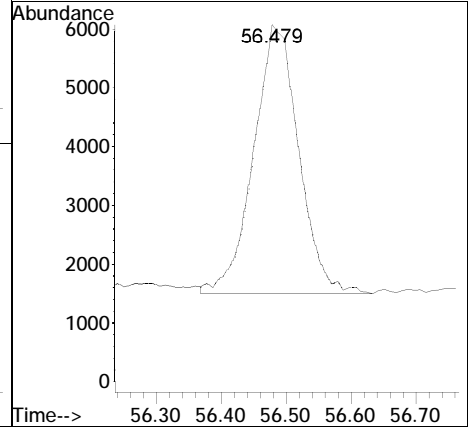
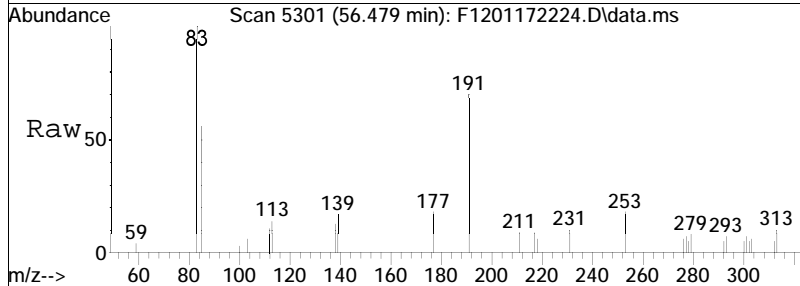


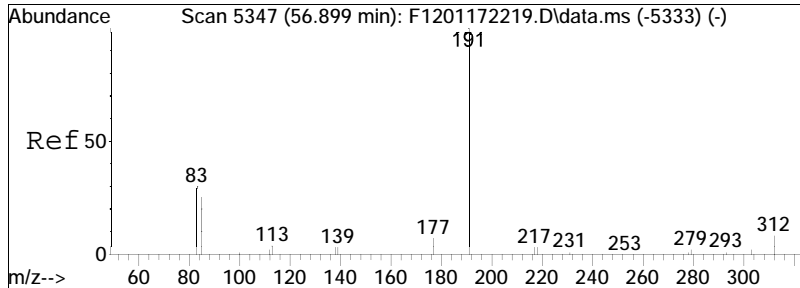
#120  
 Gammacerane/C32-diahopane  
 Concen: 77.35 ng/mL  
 RT: 55.674 min Scan# 5213  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 6050



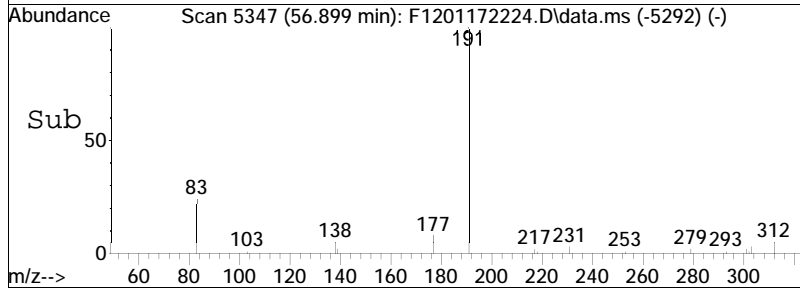
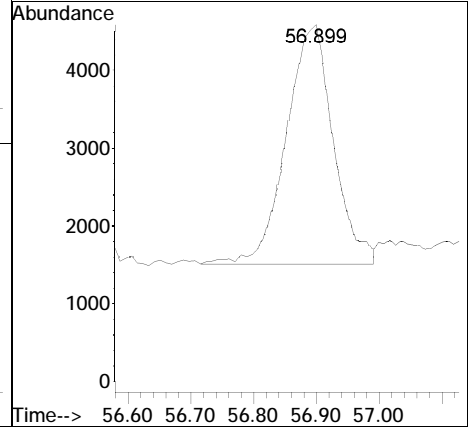
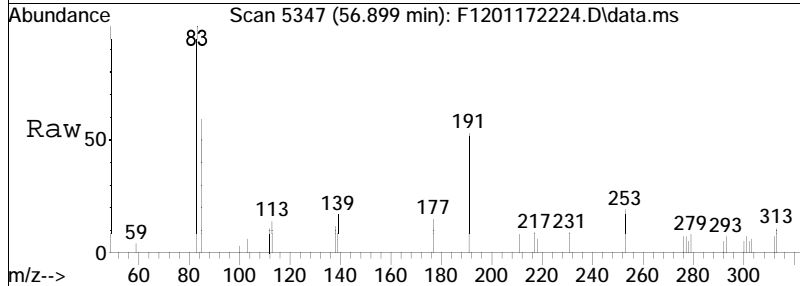


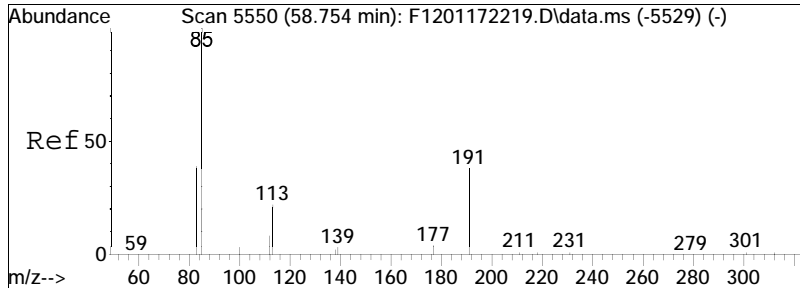
#121  
 30,31-Bishomohopane-22S (T26)  
 Concen: 279.88 ng/ml  
 RT: 56.479 min Scan# 5301  
 Delta R.T. -0.018 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 21892



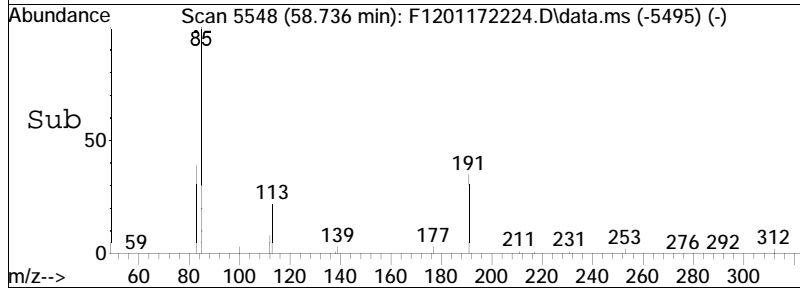
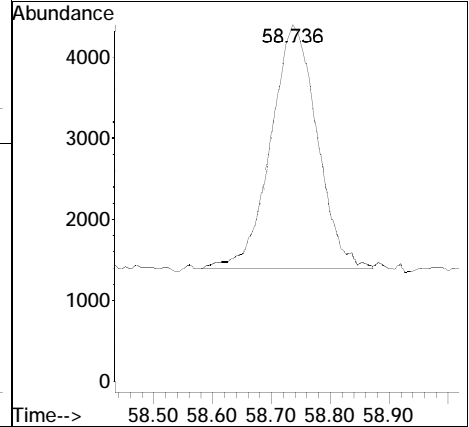
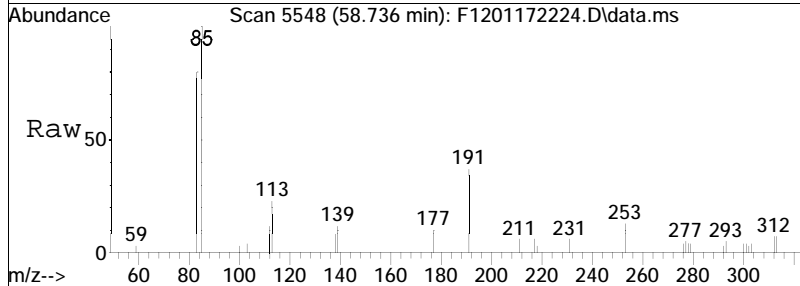


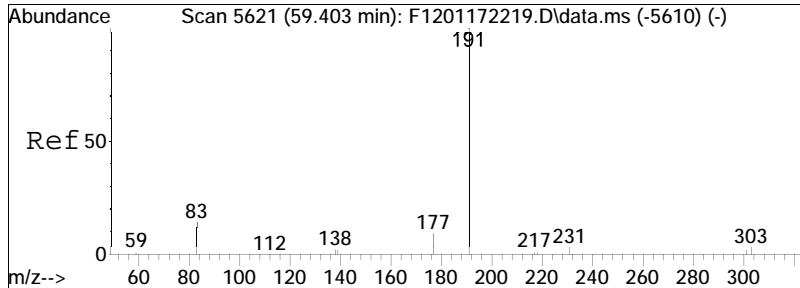
#122  
 30,31-Bishomohopane-22R (T27)  
 Concen: 201.77 ng/ml  
 RT: 56.899 min Scan# 5347  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 15782



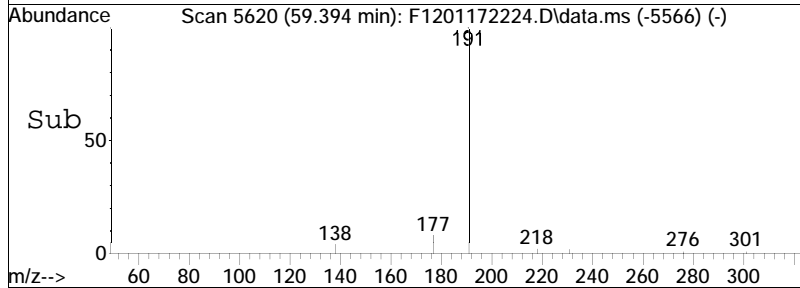
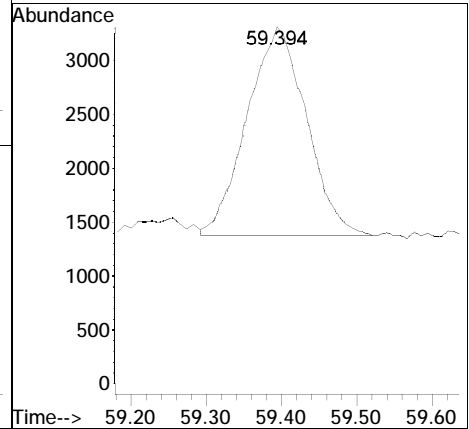
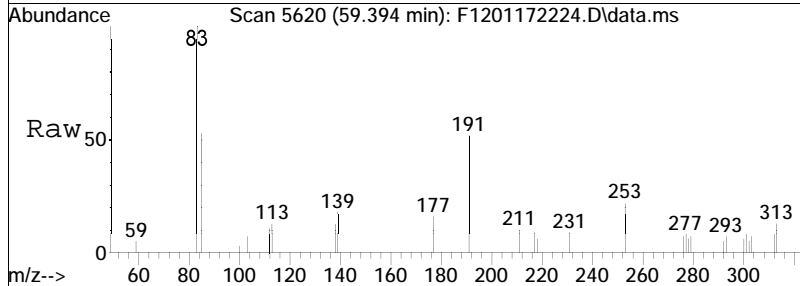


#123  
 30,31-Trishomohopane-22S (T30)  
 Concen: 209.84 ng/ml  
 RT: 58.736 min Scan# 5548  
 Delta R.T. -0.018 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 16414

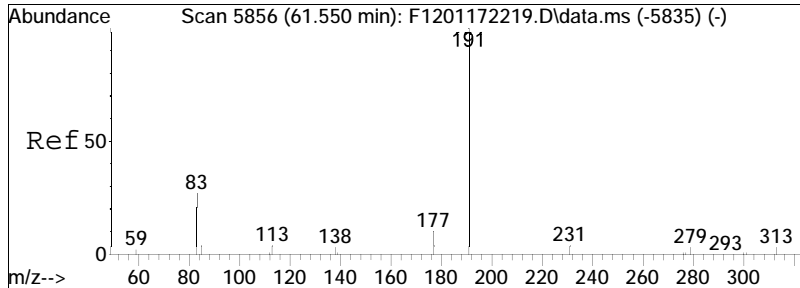




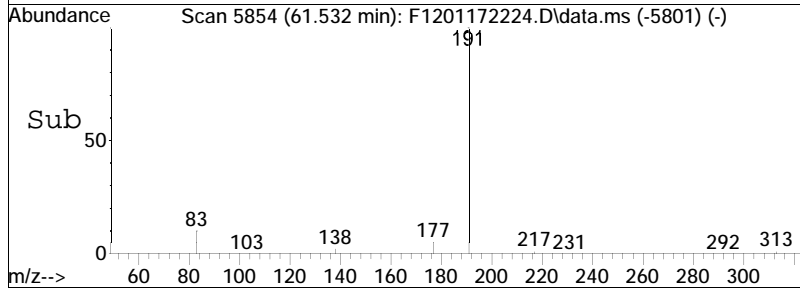
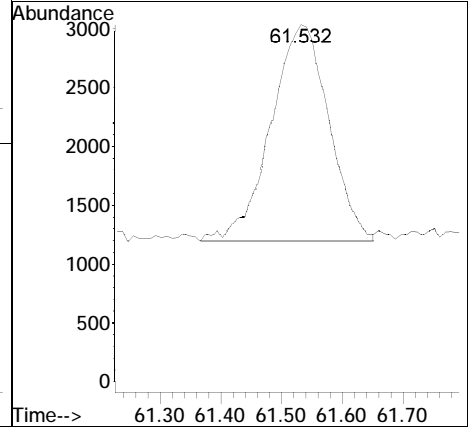
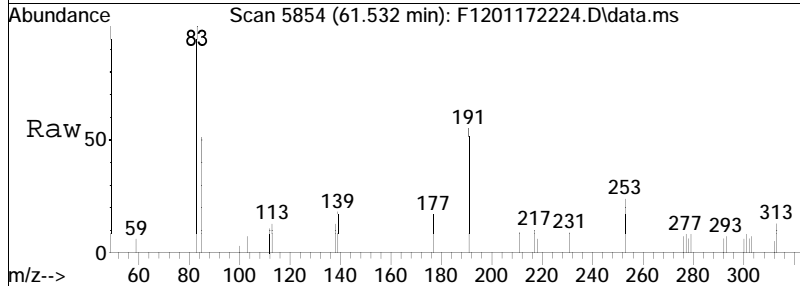
#124  
 30,31-Trishomohopane-22R (T31)  
 Concen: 134.43 ng/ml  
 RT: 59.394 min Scan# 5620  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 10515

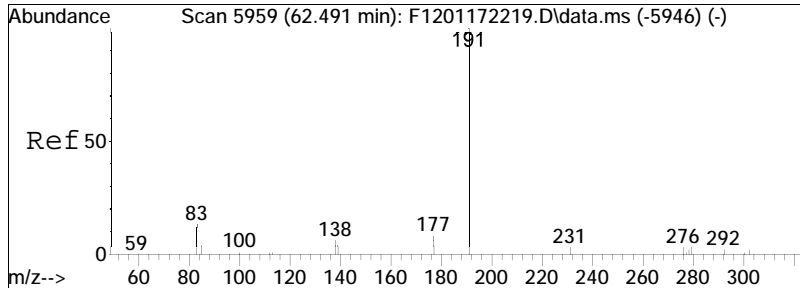






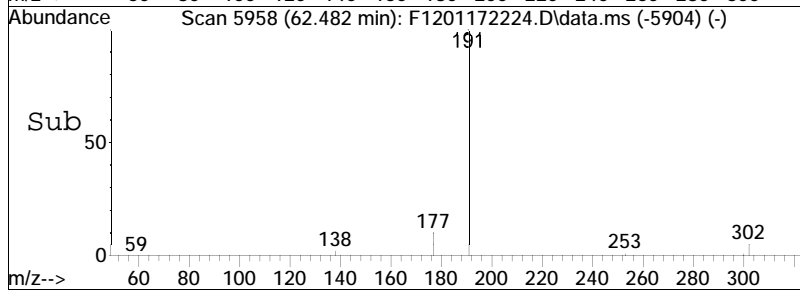
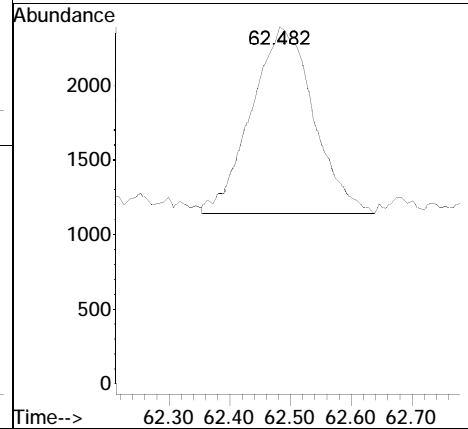
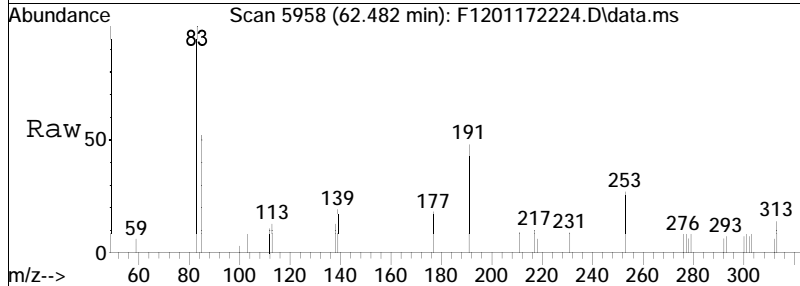
#125  
 Tetrakishomohopane-22S (T32)  
 Concen: 155.00 ng/ml  
 RT: 61.532 min Scan# 5854  
 Delta R.T. -0.018 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 12124

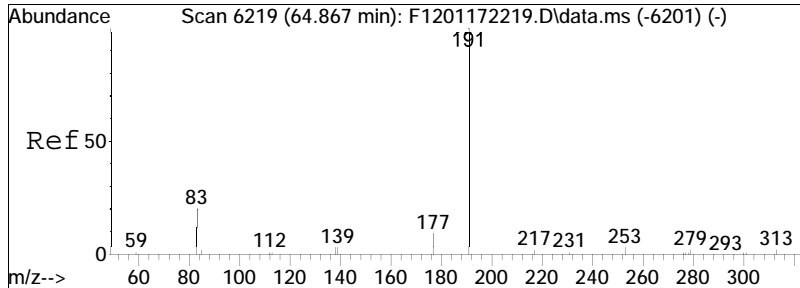




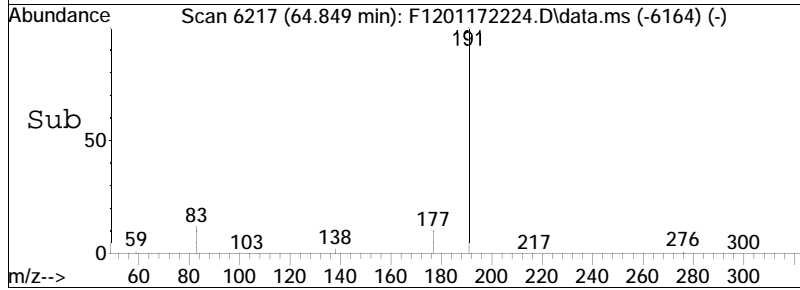
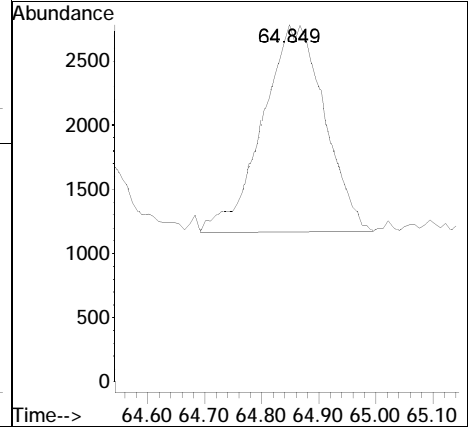
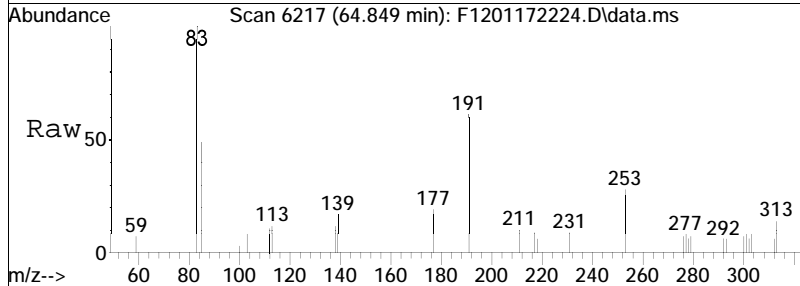
#126  
 Tetrakishomohopane-22R (T33)  
 Concen: 113.45 ng/ml  
 RT: 62.482 min Scan# 5958  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

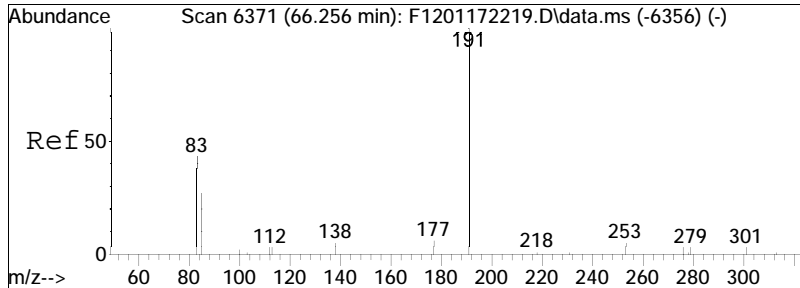
Tgt Ion:191 Resp: 8874



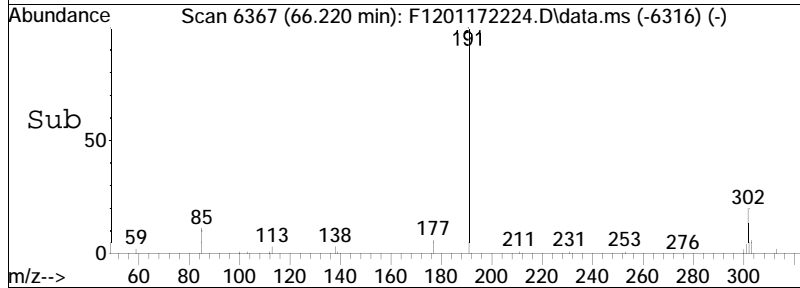
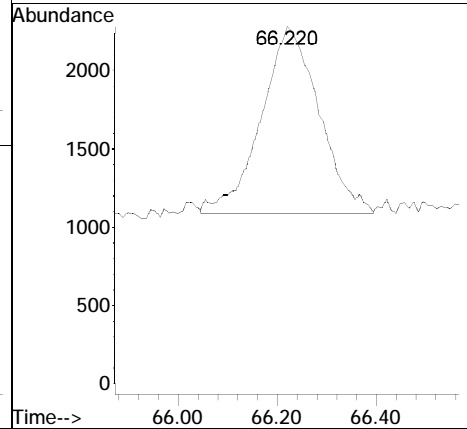
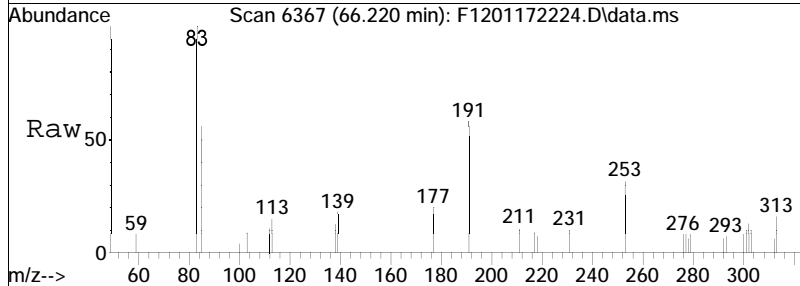


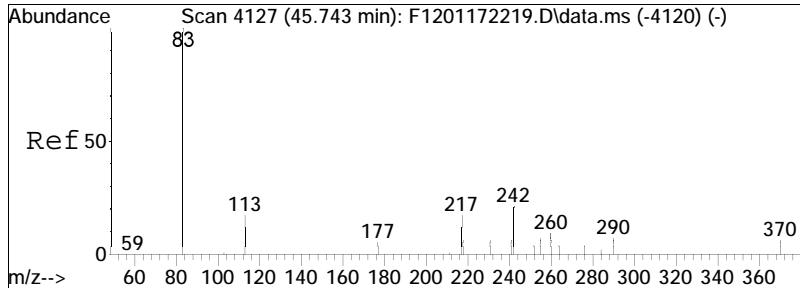
#127  
 Pentakishomohopane-22S (T34)  
 Concen: 154.50 ng/ml  
 RT: 64.849 min Scan# 6217  
 Delta R.T. -0.018 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 12085



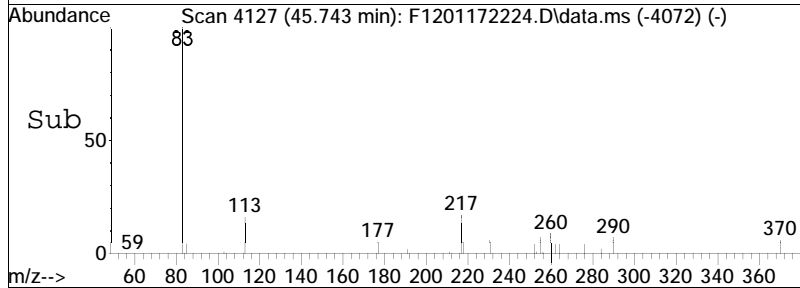
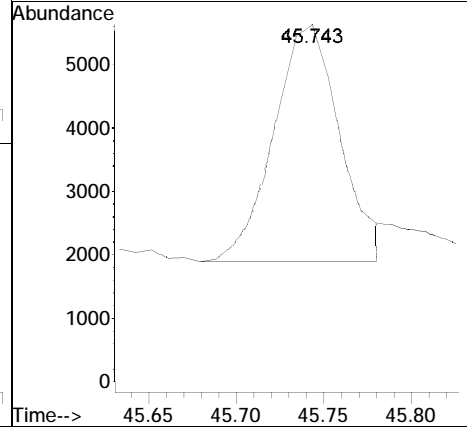
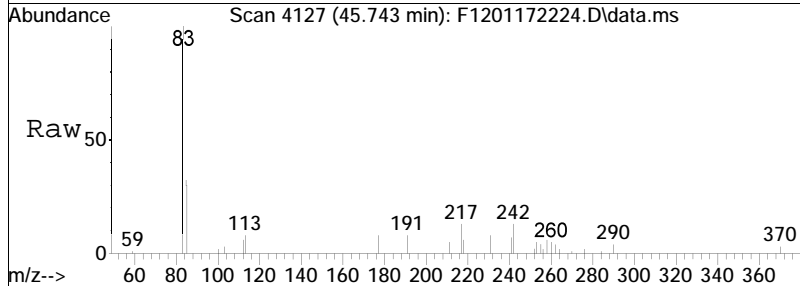


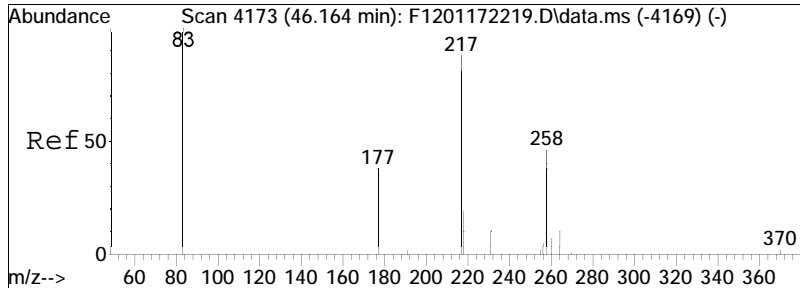
#128  
 Pentakishomohopane-22R (T35)  
 Concen: 123.23 ng/ml  
 RT: 66.220 min Scan# 6367  
 Delta R.T. -0.037 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:191 Resp: 9639



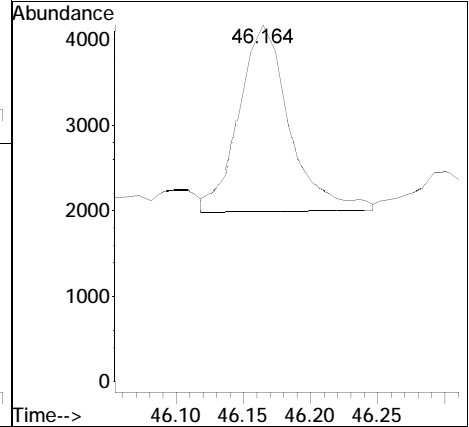
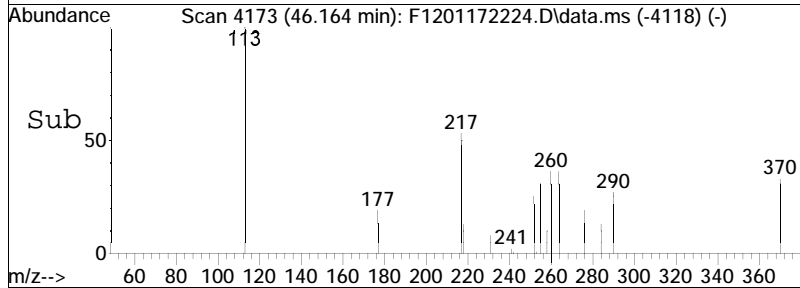
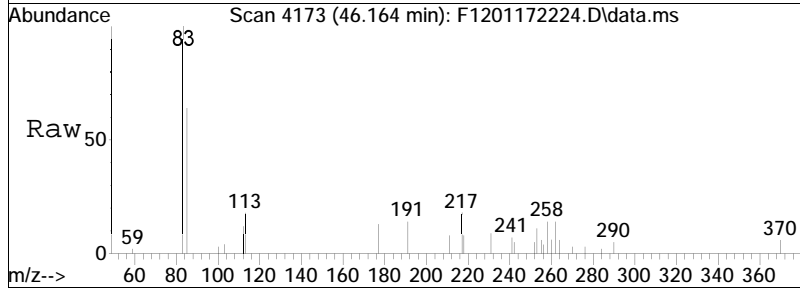


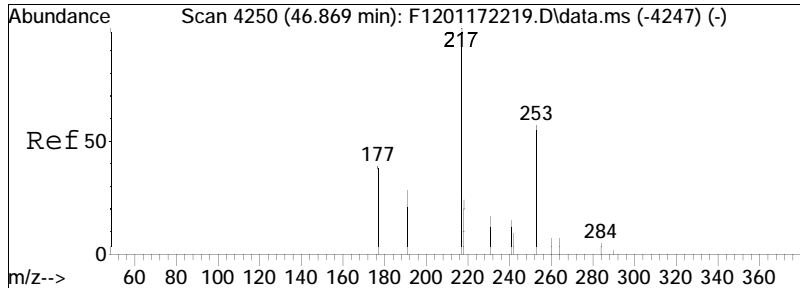
#130  
 13b(H),17a(H)-20S-Diacholestan  
 Concen: 236.72 ng/ml M4  
 RT: 45.743 min Scan# 4127  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:217 Resp: 9773



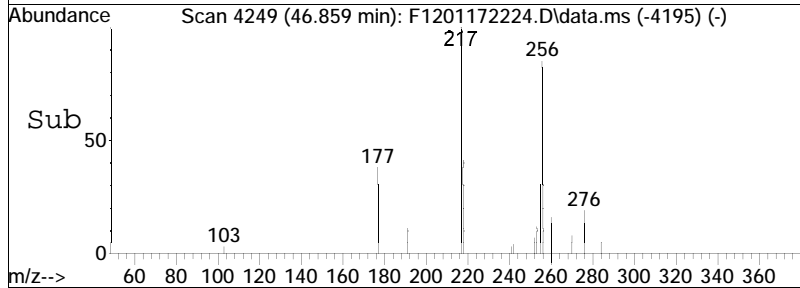
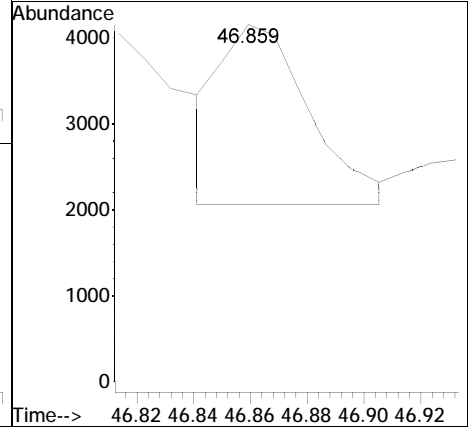
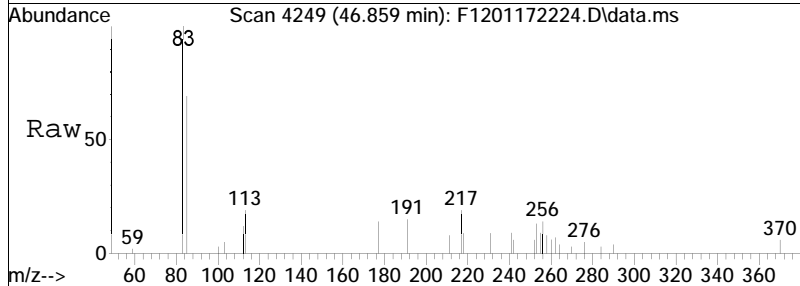


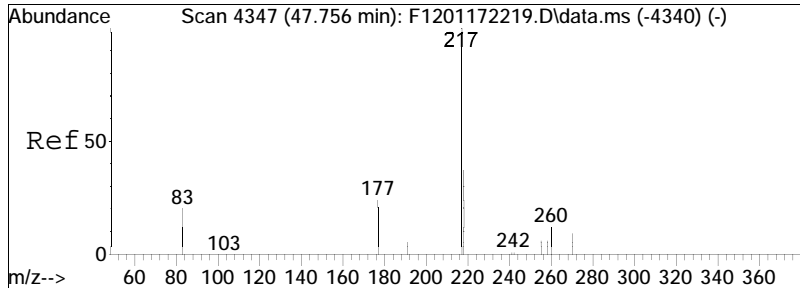
#131  
 13b(H),17a(H)-20R-Diacholestan  
 Concen: 138.40 ng/ml  
 RT: 46.164 min Scan# 4173  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:217 Resp: 5714



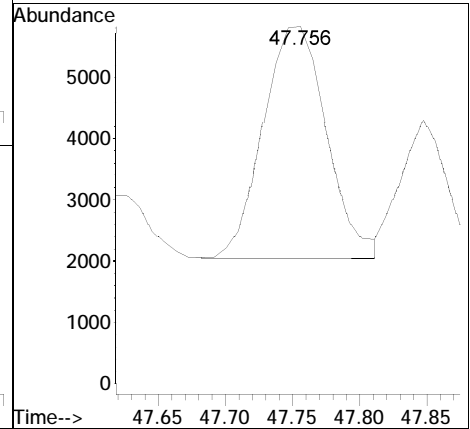
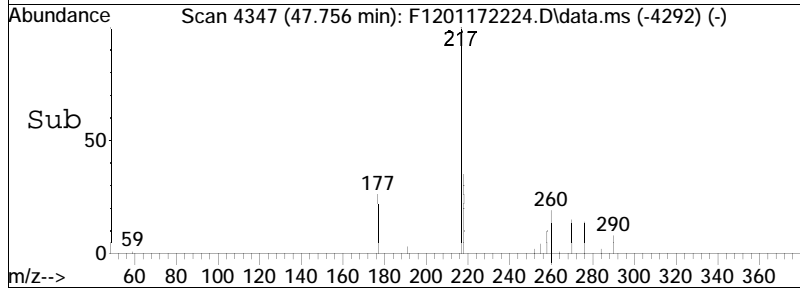
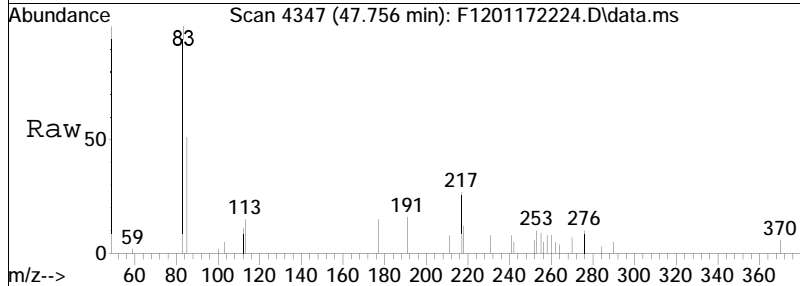


#132  
 13b,17a-20S-Methyldiacholestan  
 Concen: 111.52 ng/ml M4  
 RT: 46.859 min Scan# 4249  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:217 Resp: 4604

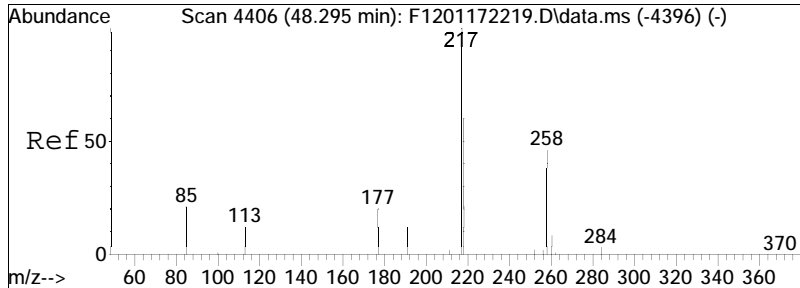




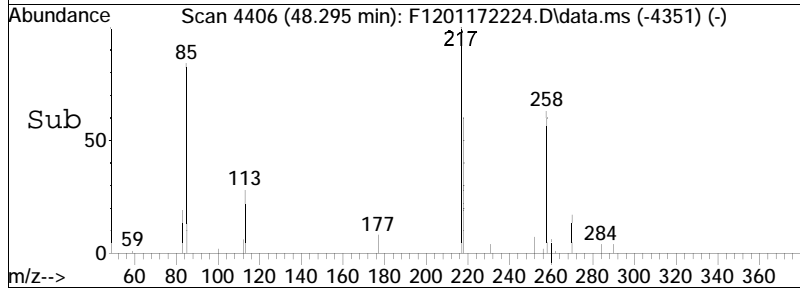
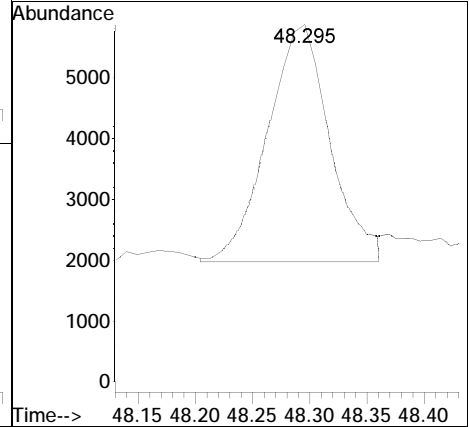
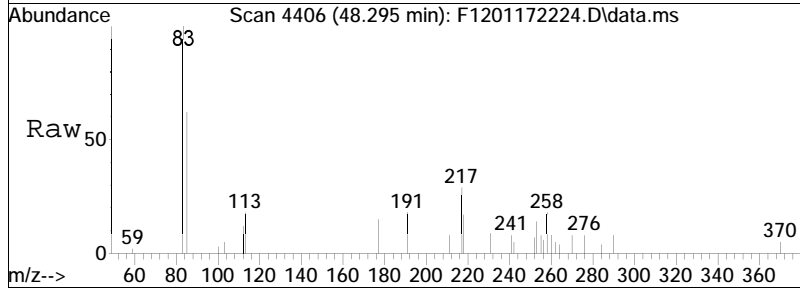
#133  
 14a,17a-20S-Chol/13b,17a-20S-E  
 Concen: 301.90 ng/ml  
 RT: 47.756 min Scan# 4347  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:217 Resp: 12464

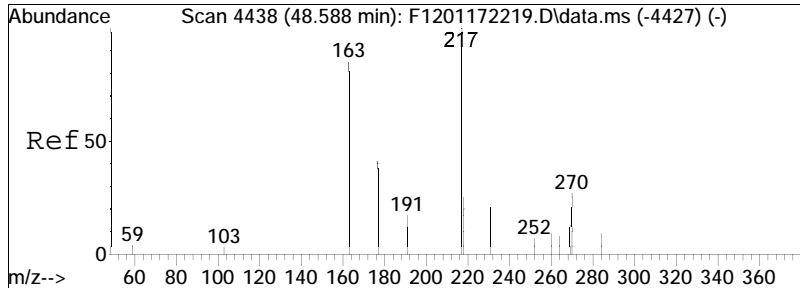




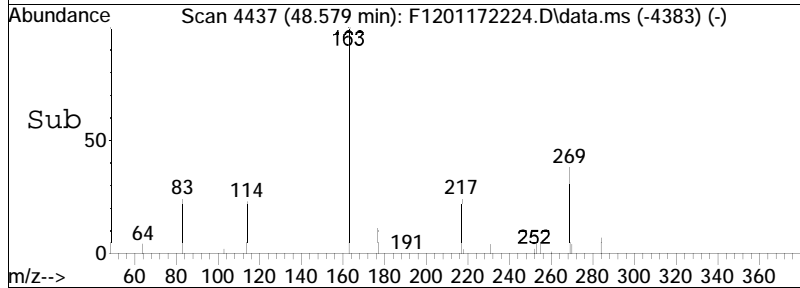
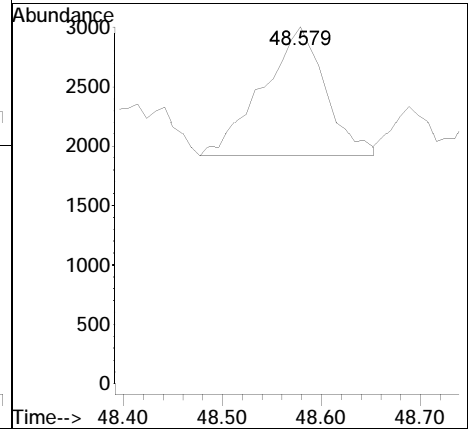
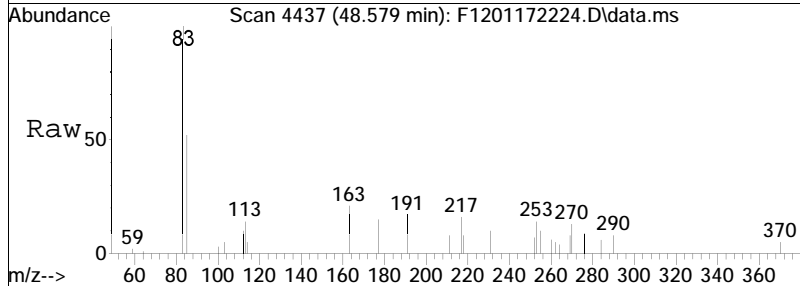


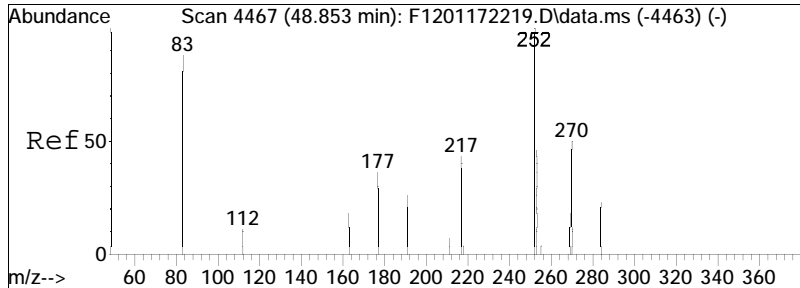
#134  
 14a,17a-20R-Chol/13b,17a-20R-E  
 Concen: 359.21 ng/ml M4  
 RT: 48.295 min Scan# 4406  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:217 Resp: 14830



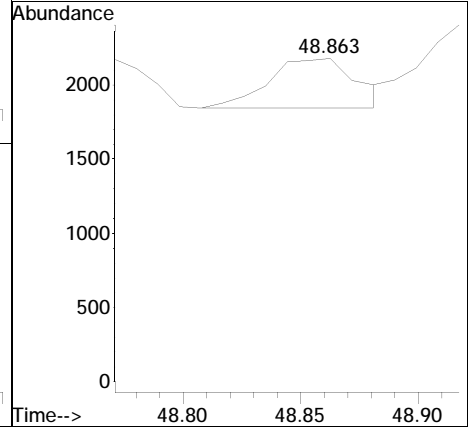
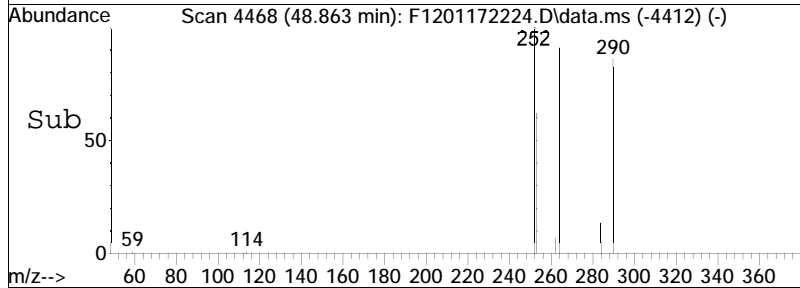
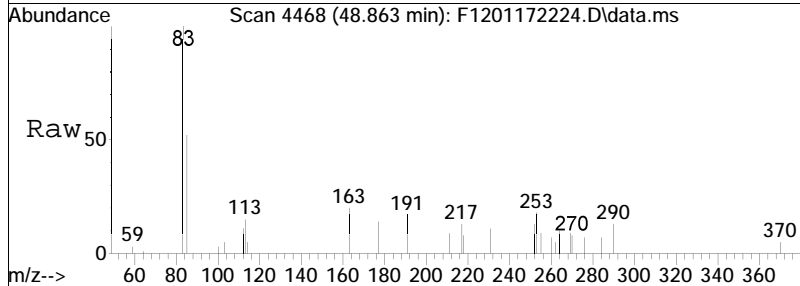


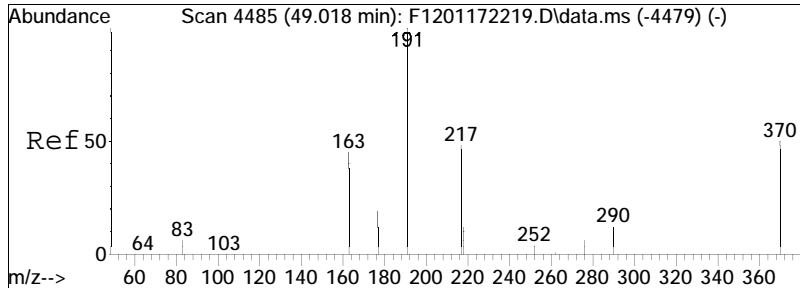
#135  
 Unknown Sterane (S18)  
 Concen: 114.71 ng/ml  
 RT: 48.579 min Scan# 4437  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 217 Resp: 4736



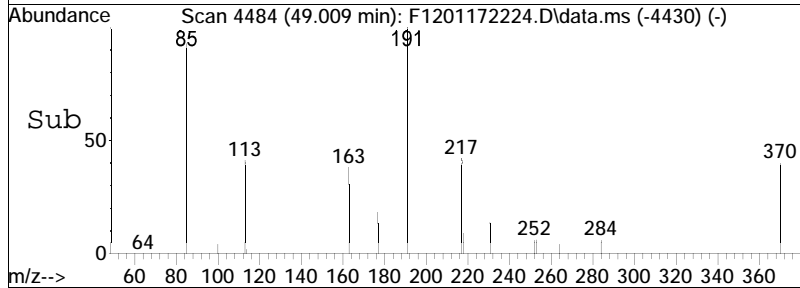
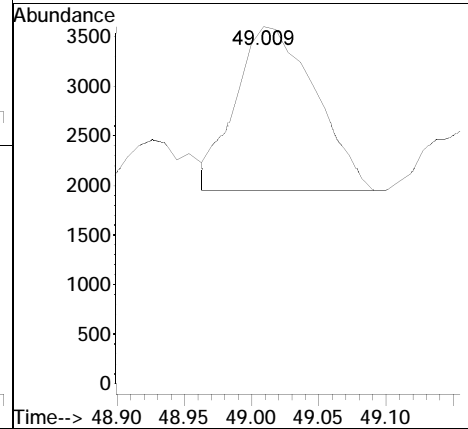
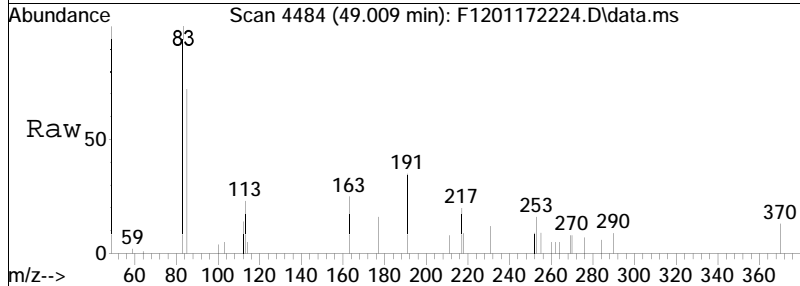


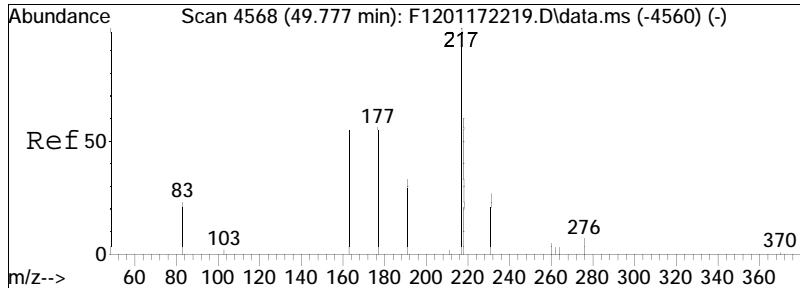
#136  
 13a,17b-20S-Ethyldiacholestane  
 Concen: 20.76 ng/ml  
 RT: 48.863 min Scan# 4468  
 Delta R.T. 0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:217 Resp: 857



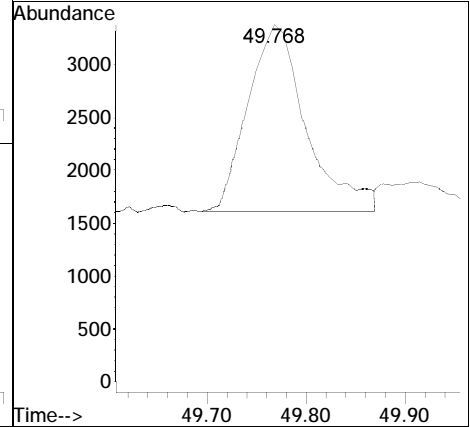
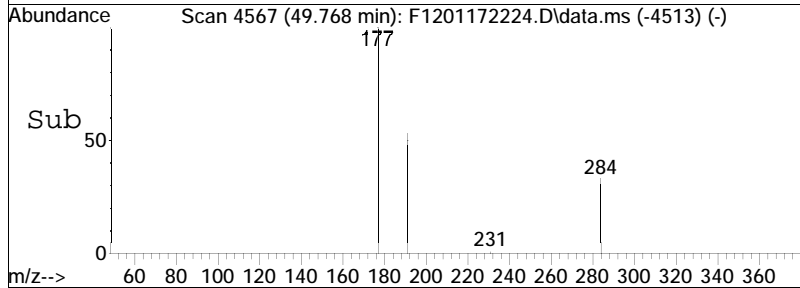
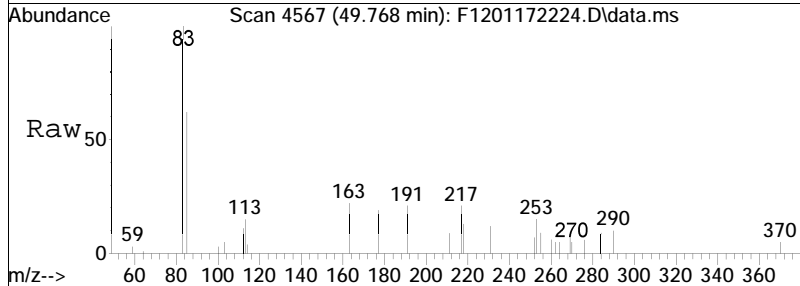


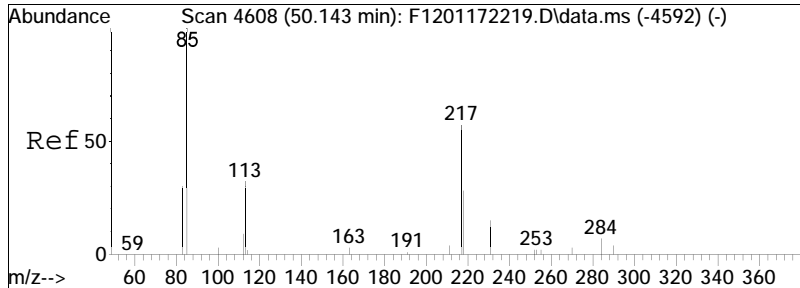
#137  
 14a,17a-20S-Methylcholestane (  
 Concen: 164.37 ng/ml  
 RT: 49.009 min Scan# 4484  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:217 Resp: 6786





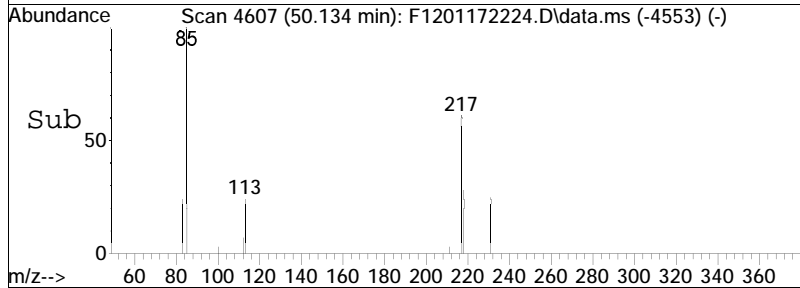
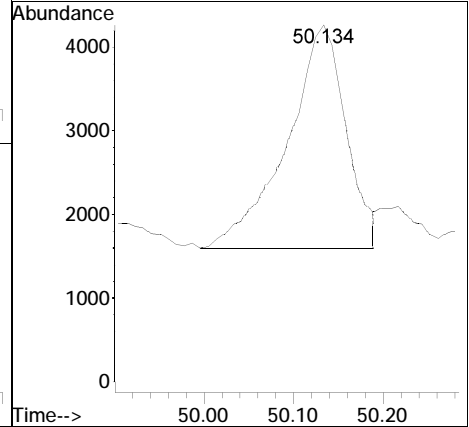
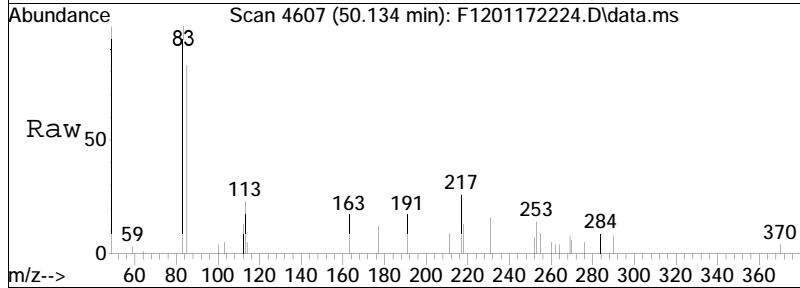
#138  
 14a,17a-20R-Methylcholestane (  
 Concen: 175.34 ng/ml  
 RT: 49.768 min Scan# 4567  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:217 Resp: 7239

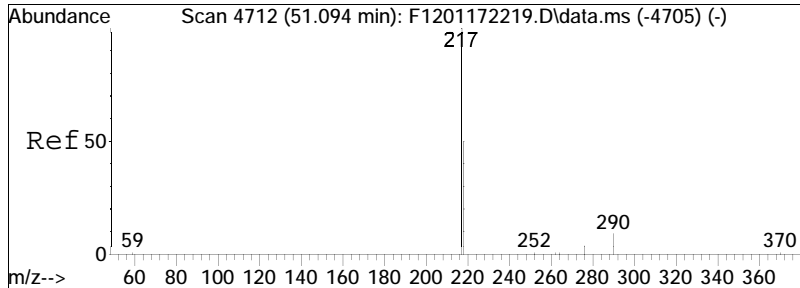




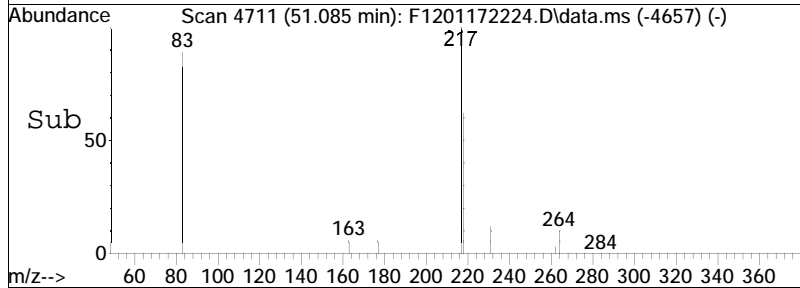
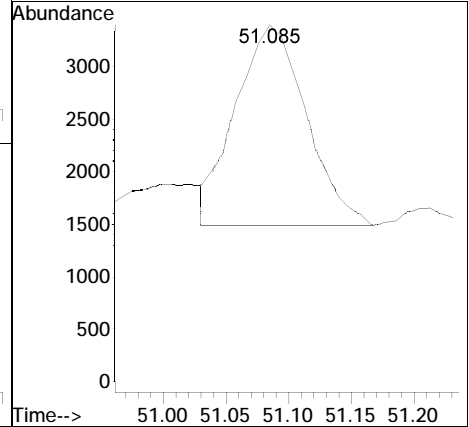
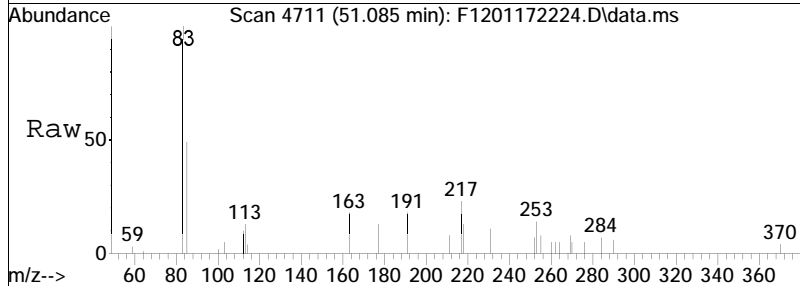
#139  
 14a(H),17a(H)-20S-Ethylcholest  
 Concen: 295.65 ng/ml  
 RT: 50.134 min Scan# 4607  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

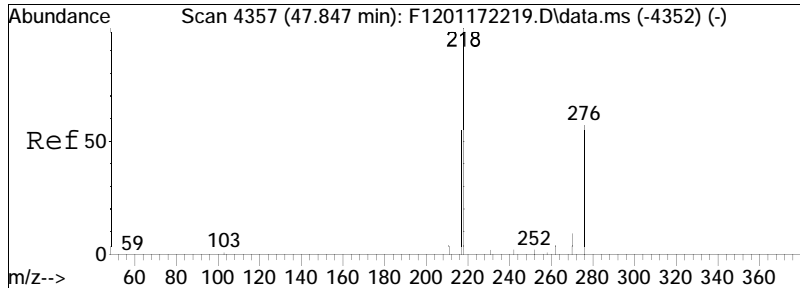
Tgt Ion:217 Resp: 12206





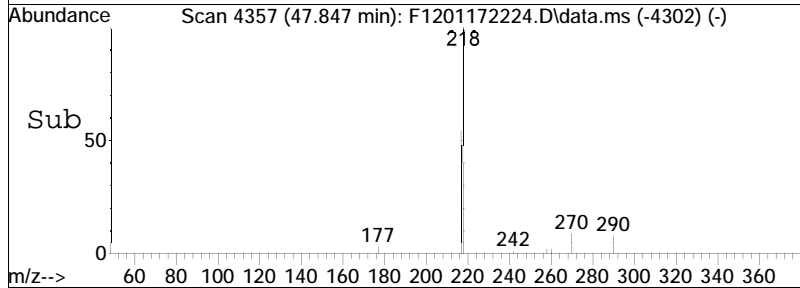
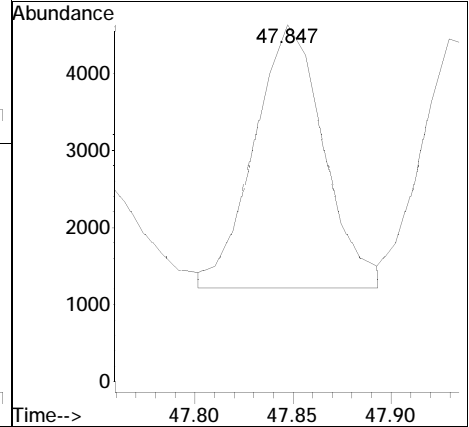
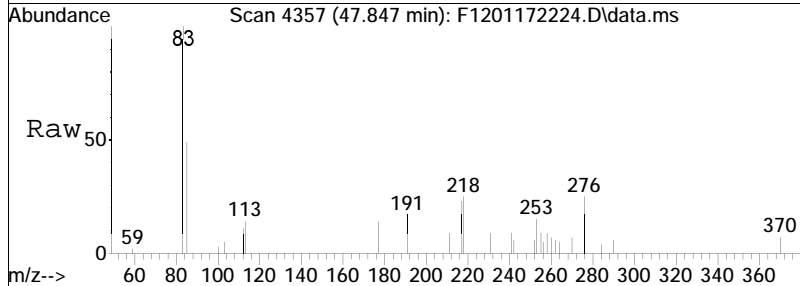
#140  
 14a(H),17a(H)-20R-Ethylcholest  
 Concen: 180.94 ng/ml  
 RT: 51.085 min Scan# 4711  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:217 Resp: 7470



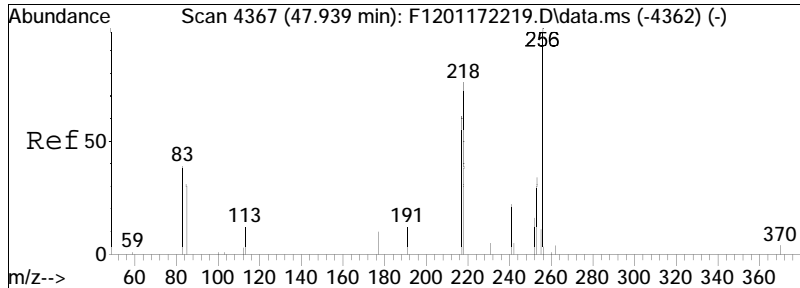


#141  
 14b(H),17b(H)-20R-Cholestane (  
 Concen: 204.31 ng/ml M4  
 RT: 47.847 min Scan# 4357  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

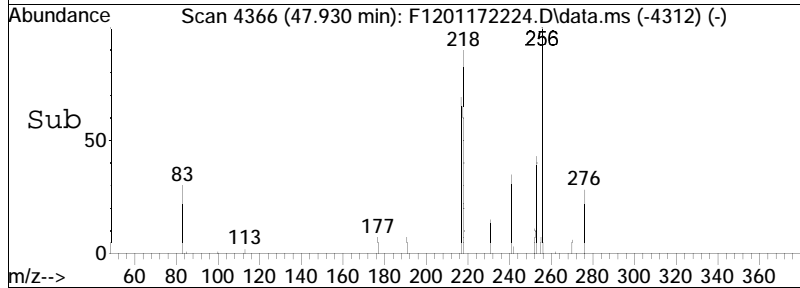
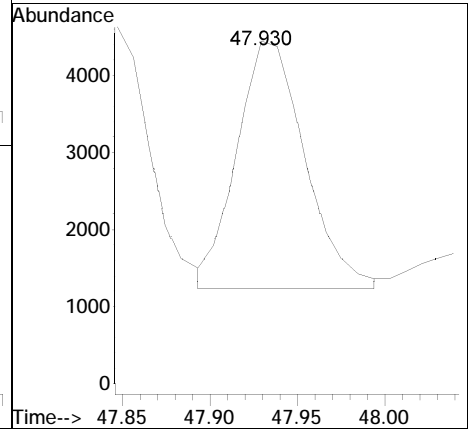
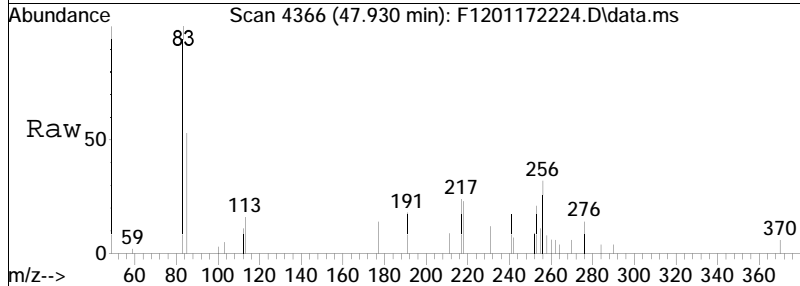
Tgt Ion:218 Resp: 8435

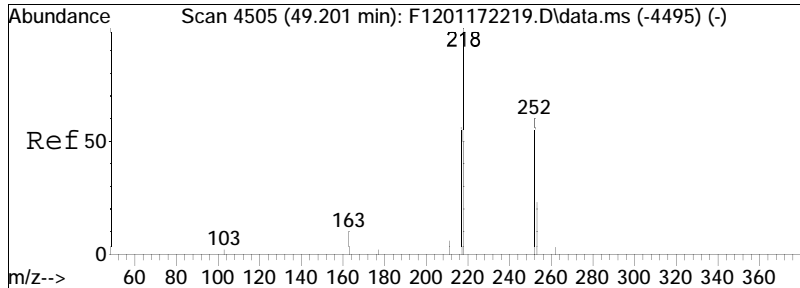




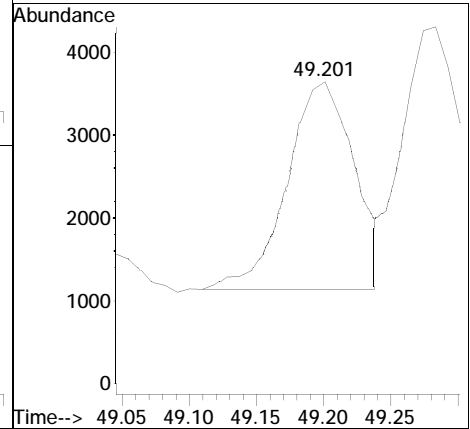
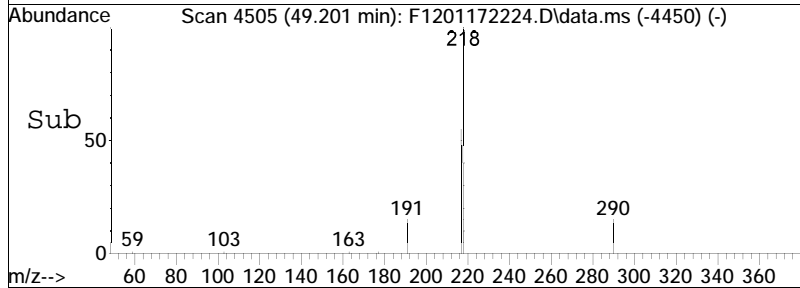
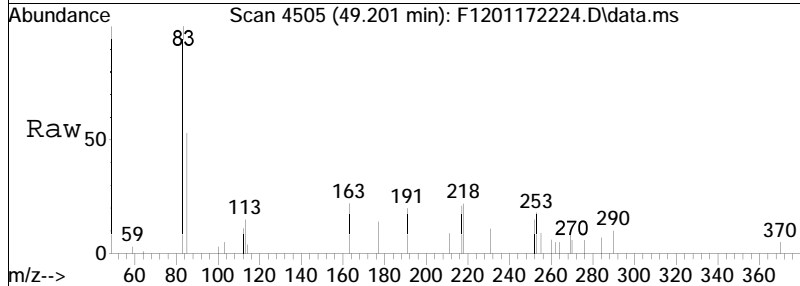


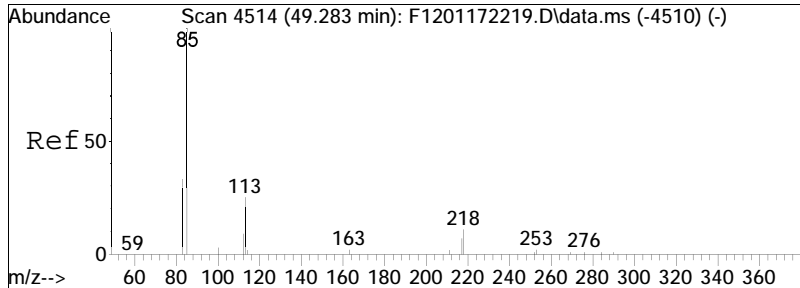
#142  
 14b(H),17b(H)-20S-Cholestane (  
 Concen: 211.53 ng/ml M4  
 RT: 47.930 min Scan# 4366  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:218 Resp: 8733



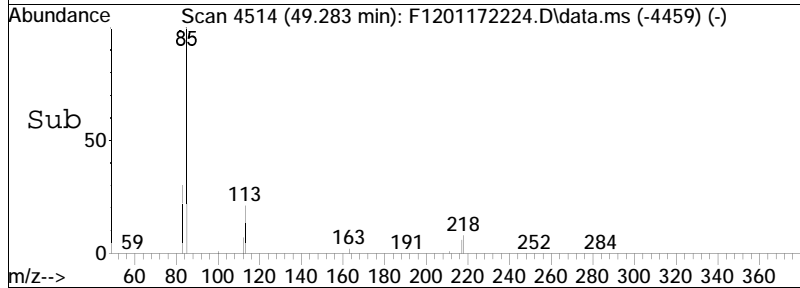
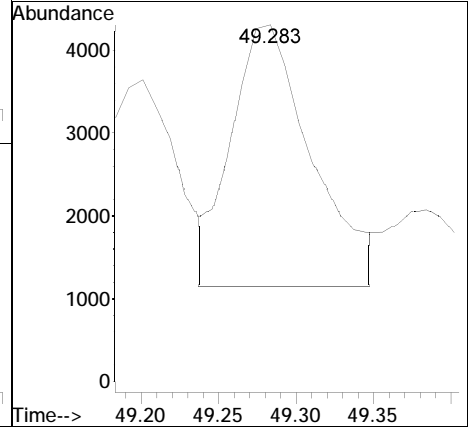
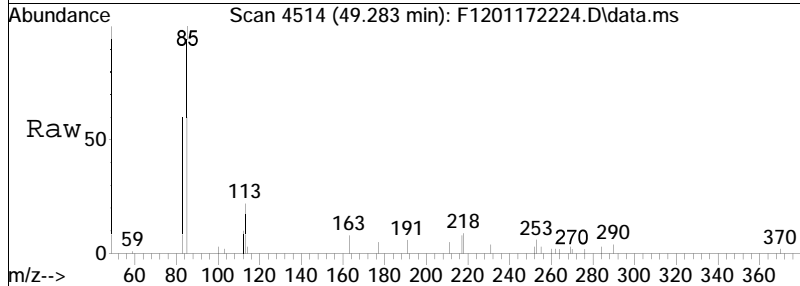


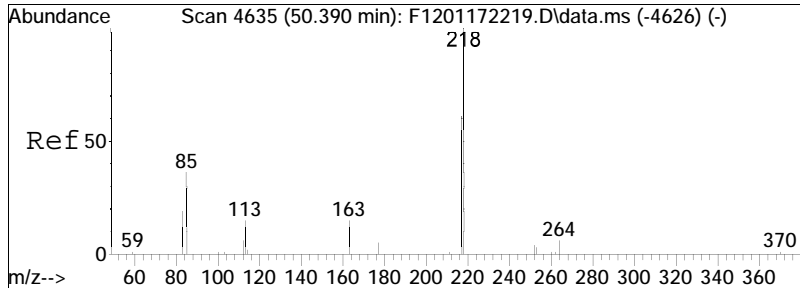
#143  
 14b,17b-20R-Methylcholestane (  
 Concen: 212.57 ng/ml  
 RT: 49.201 min Scan# 4505  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:218 Resp: 8776



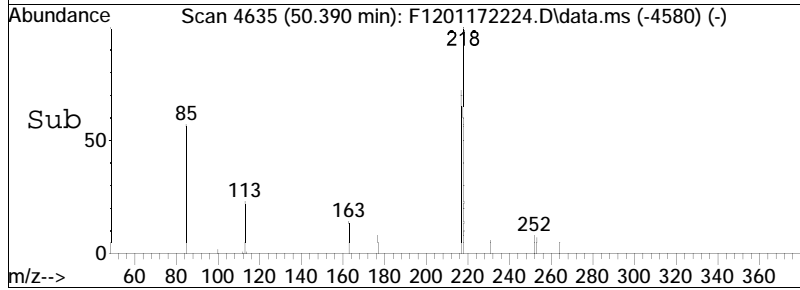
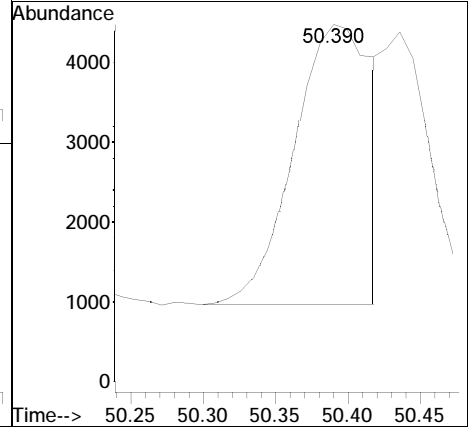
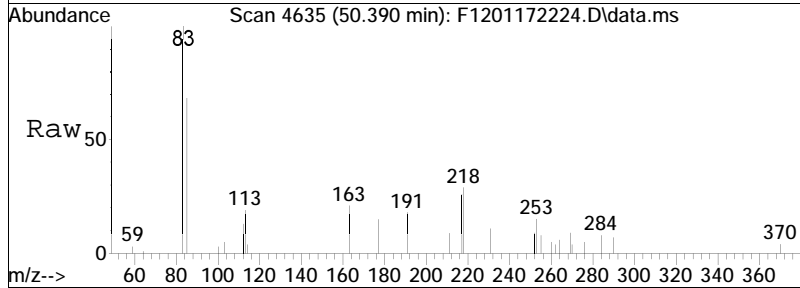


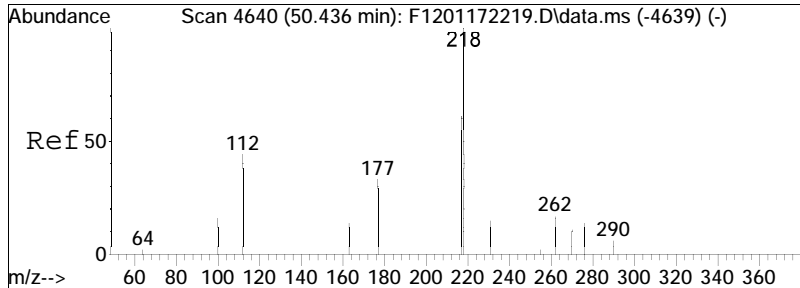
#144  
 14b,17b-20S-Methylcholestane (  
 Concen: 275.28 ng/ml M4  
 RT: 49.283 min Scan# 4514  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:218 Resp: 11365





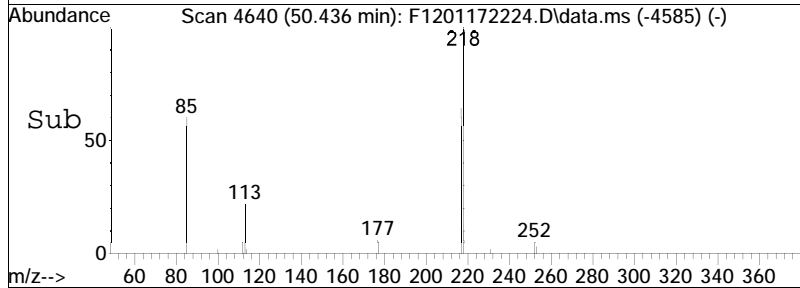
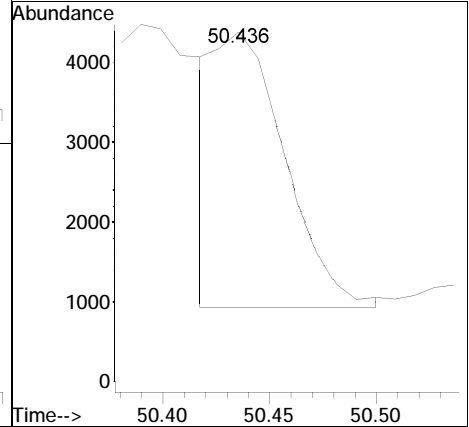
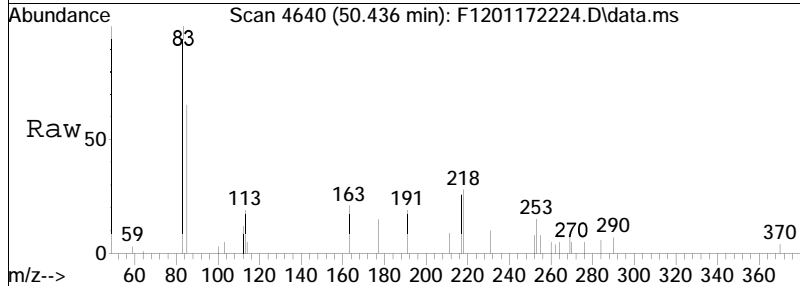
#145  
 14b(H),17b(H)-20R-Ethylcholest  
 Concen: 313.74 ng/ml  
 RT: 50.390 min Scan# 4635  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:218 Resp: 12953

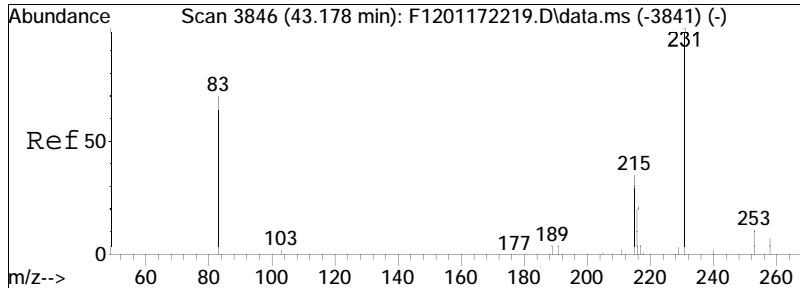




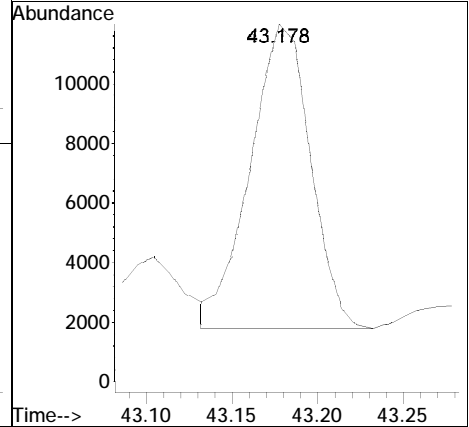
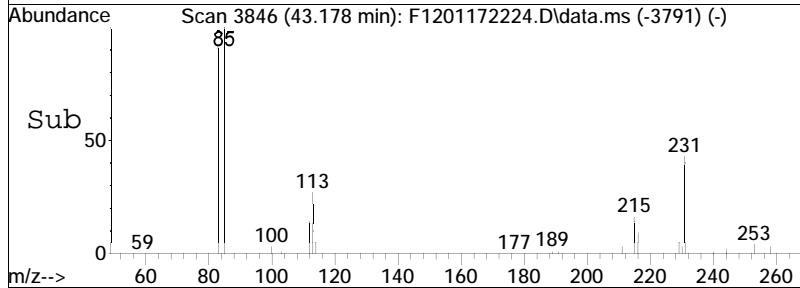
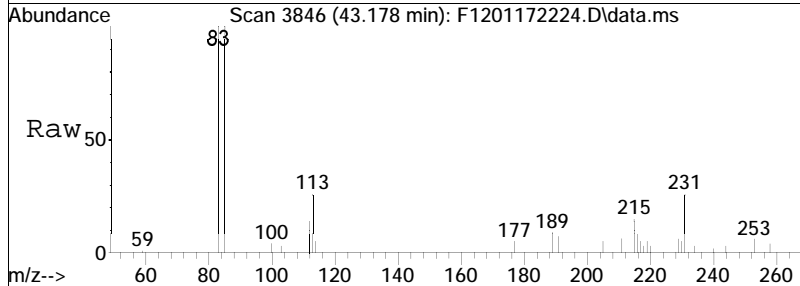
#146  
 14b(H),17b(H)-20S-Ethylcholest  
 Concen: 193.41 ng/ml M3  
 RT: 50.436 min Scan# 4640  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

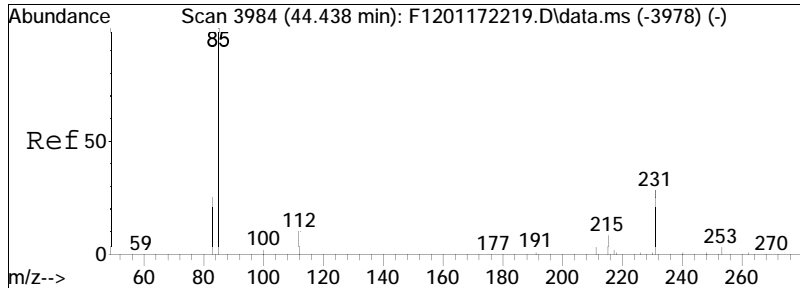
Tgt Ion: 218 Resp: 7985



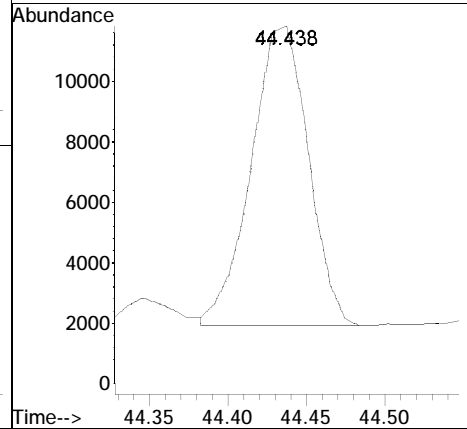
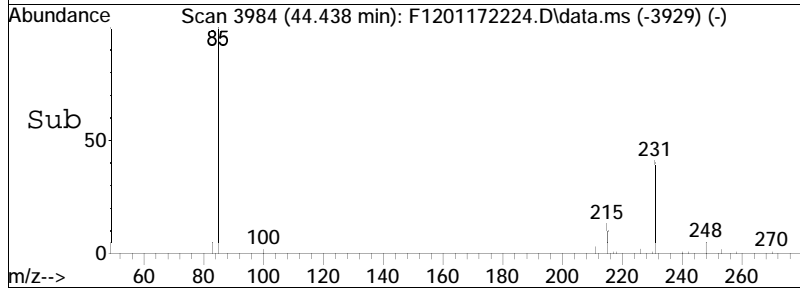
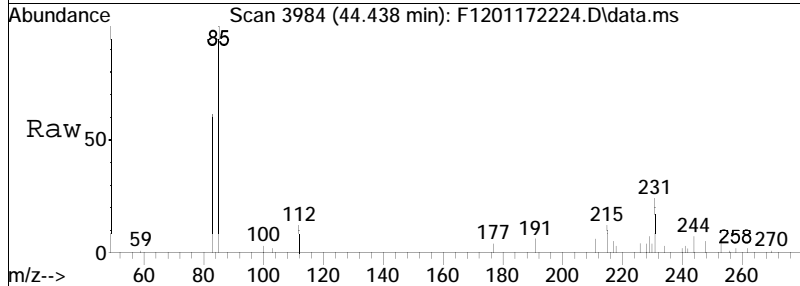


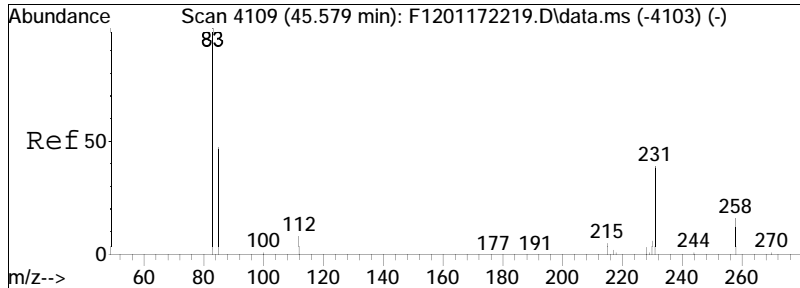
#147  
 C20 Pregnane  
 Concen: 599.77 ng/mL  
 RT: 43.178 min Scan# 3846  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 231 Resp: 24762



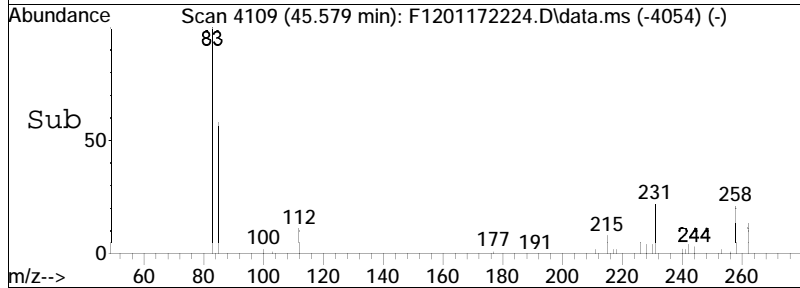
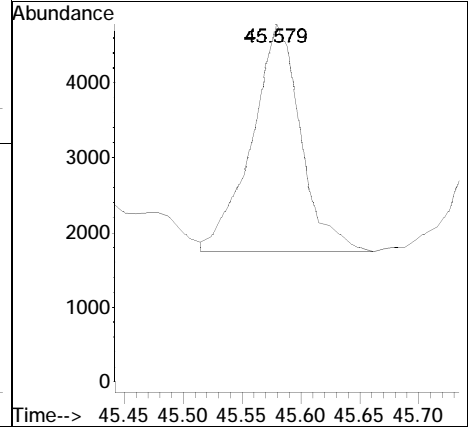
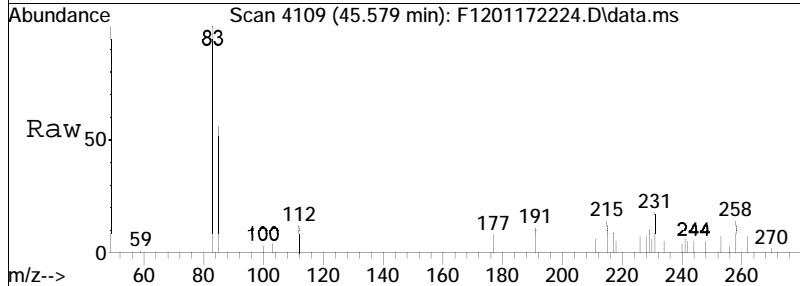


#148  
 C21 20-Methylpregnane  
 Concen: 601.30 ng/mL  
 RT: 44.438 min Scan# 3984  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 231 Resp: 24825

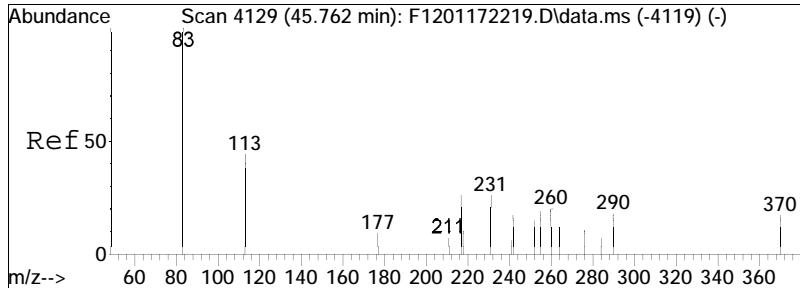




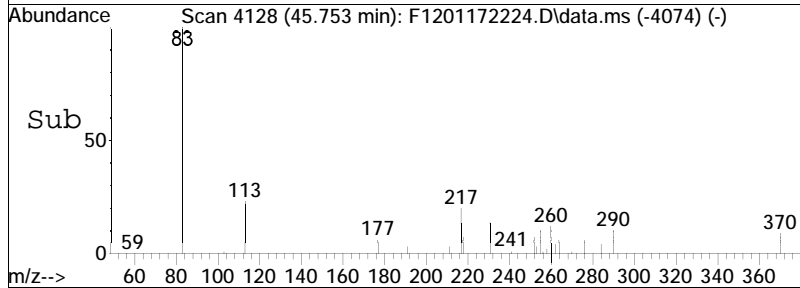
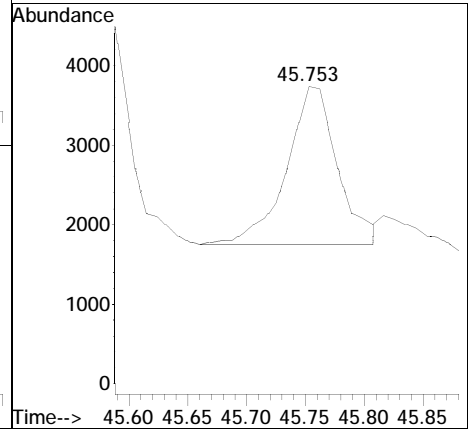
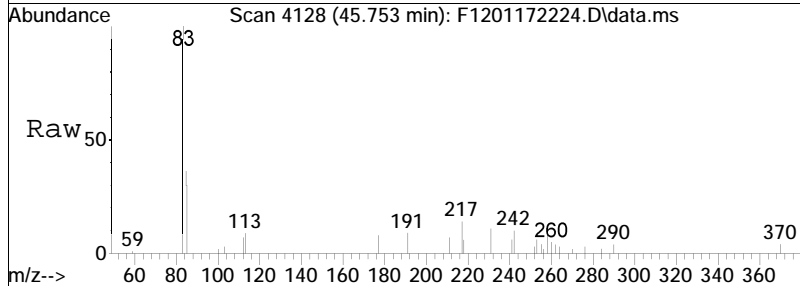
#149  
 C22 20-Ethylpregnane (a)  
 Concen: 210.99 ng/mL  
 RT: 45.579 min Scan# 4109  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 231 Resp: 8711

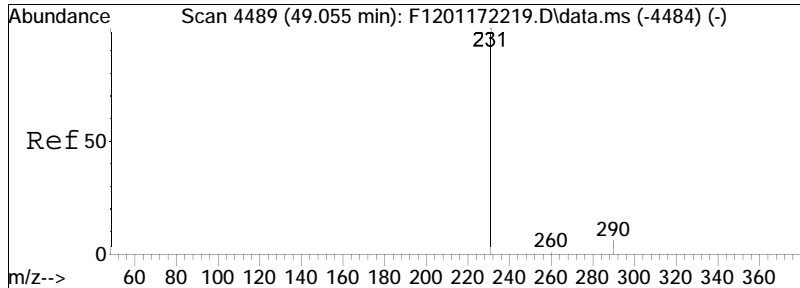




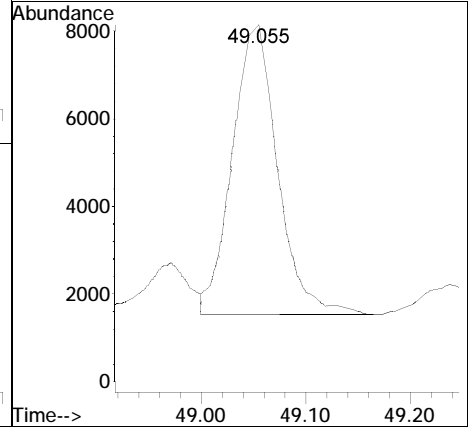
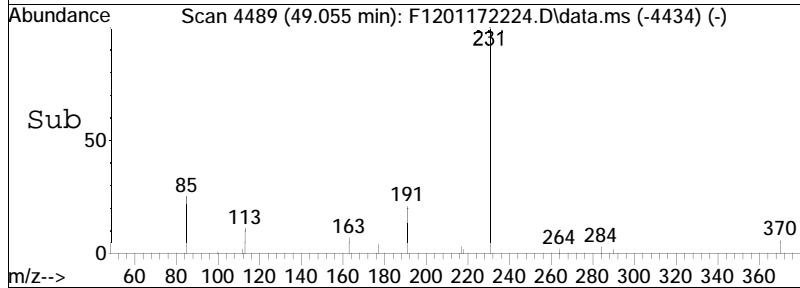
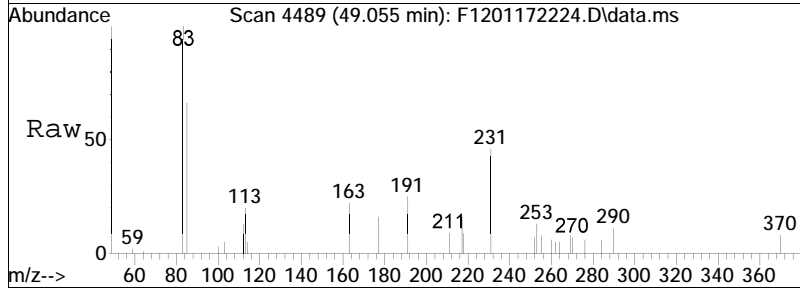


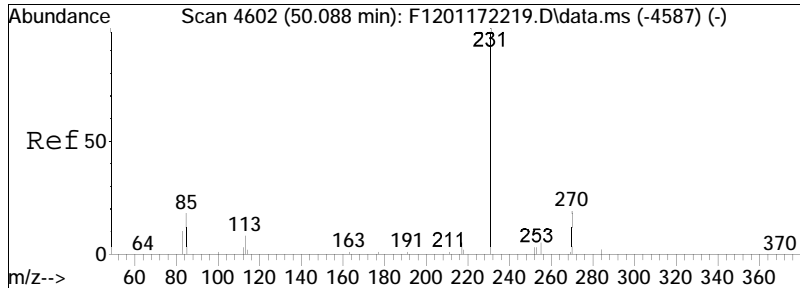
#150  
 C22 20-Ethylpregnane (b)  
 Concen: 144.75 ng/mL  
 RT: 45.753 min Scan# 4128  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:231 Resp: 5976



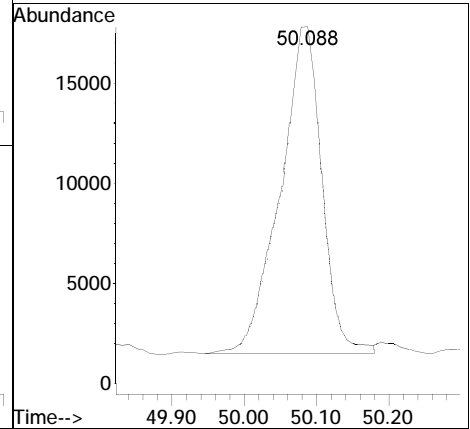
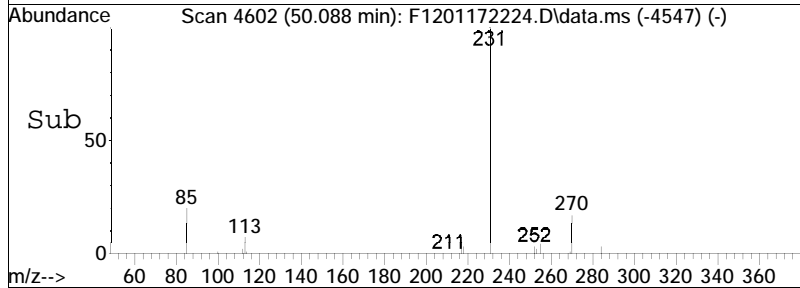
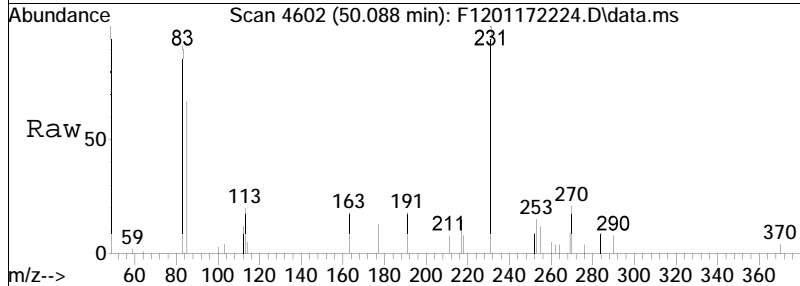


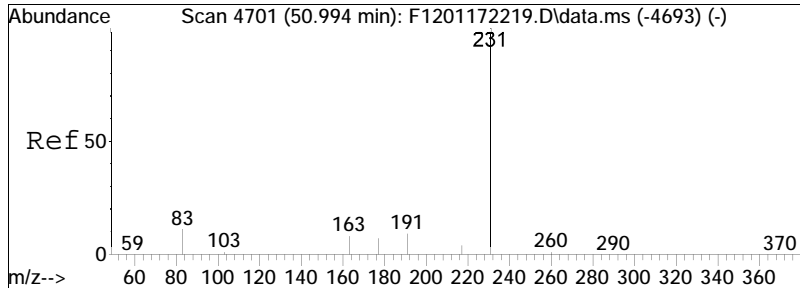
#151  
 C26,20S TAS  
 Concen: 476.53 ng/mL  
 RT: 49.055 min Scan# 4489  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:231 Resp: 19674



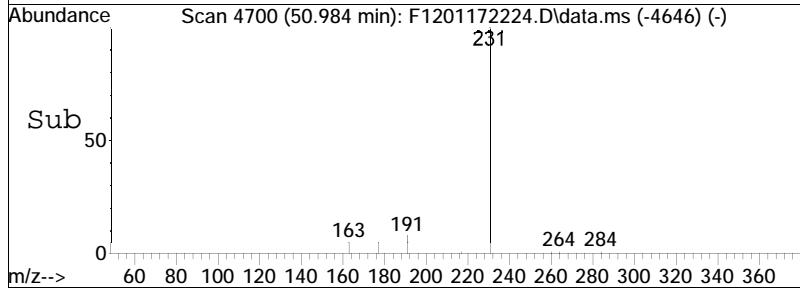
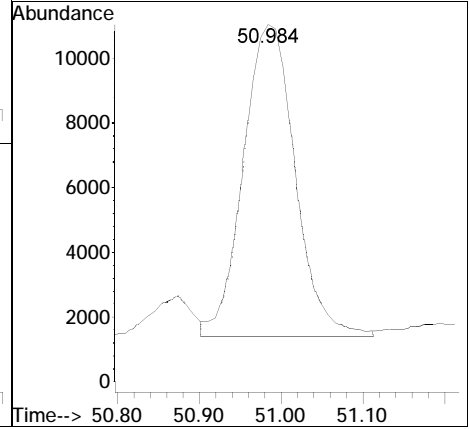
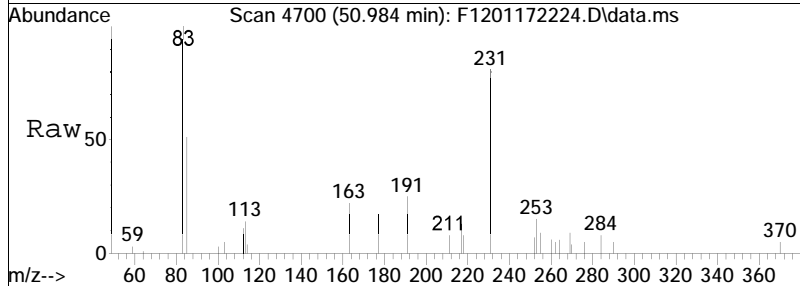


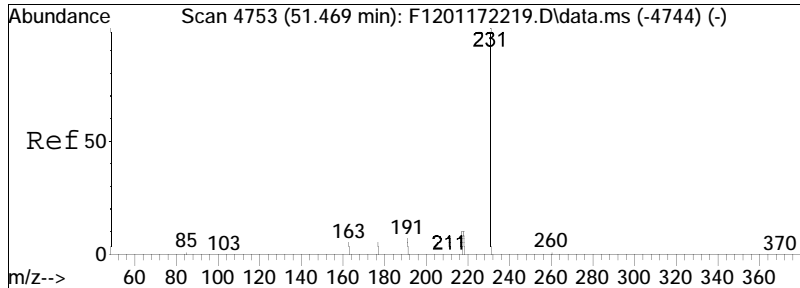
#152  
 C26,20R+C27,20S TAS  
 Concen: 1567.43 ng/mL  
 RT: 50.088 min Scan# 4602  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:231 Resp: 64712



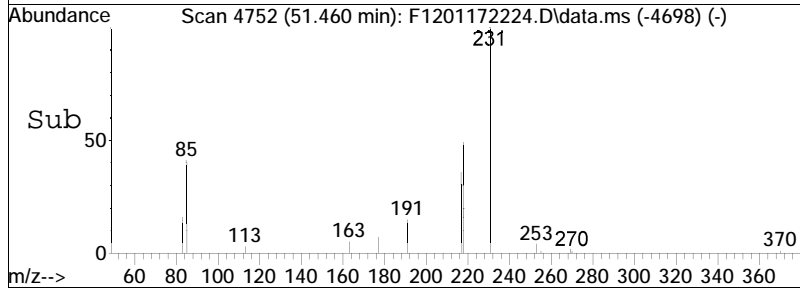
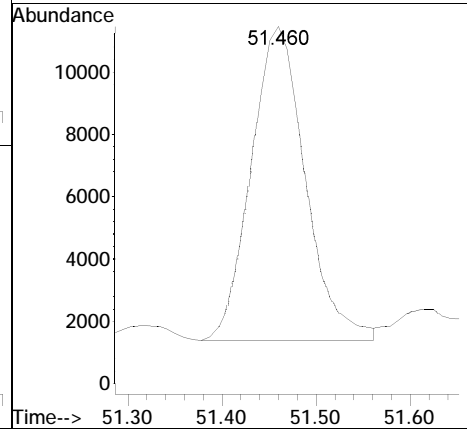
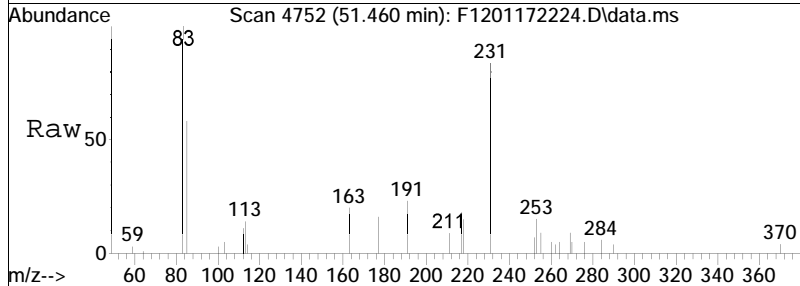


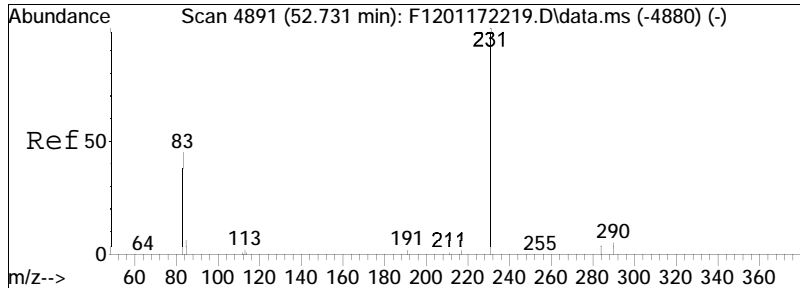
#153  
 C28,20S TAS  
 Concen: 1023.55 ng/mL  
 RT: 50.984 min Scan# 4700  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:231 Resp: 42258



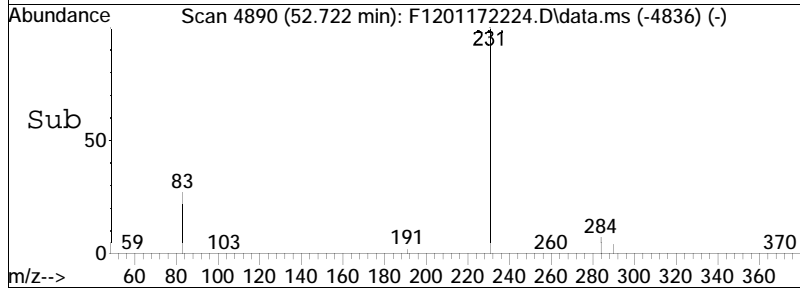
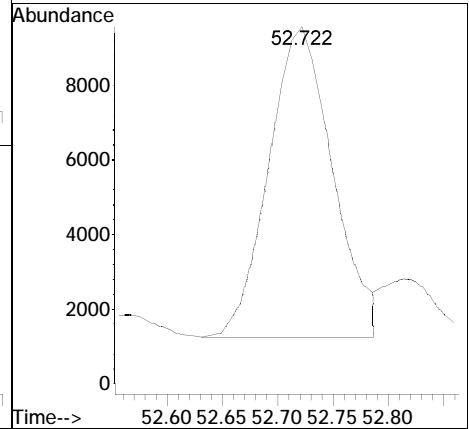
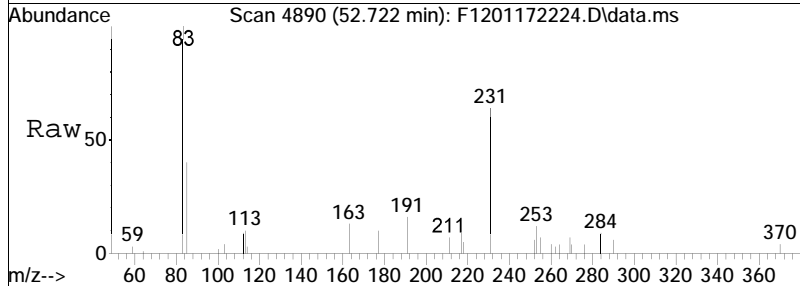


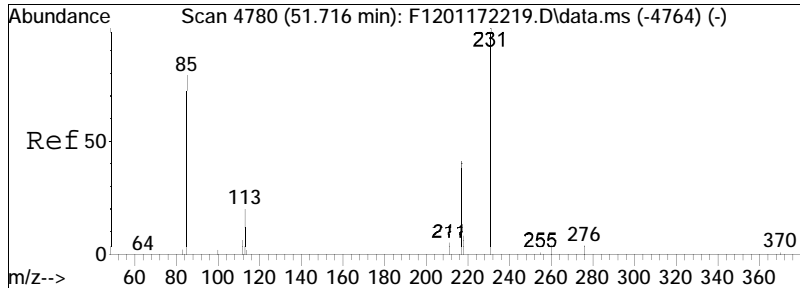
#154  
 C27,20R TAS  
 Concen: 973.10 ng/mL  
 RT: 51.460 min Scan# 4752  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:231 Resp: 40175



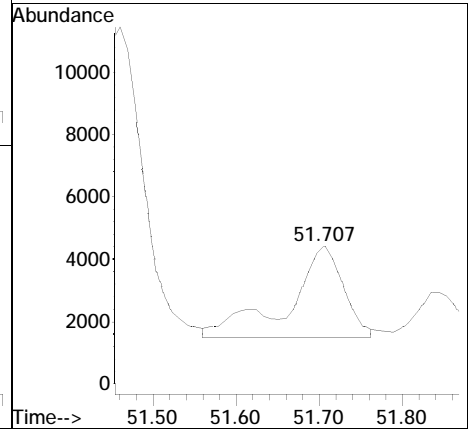
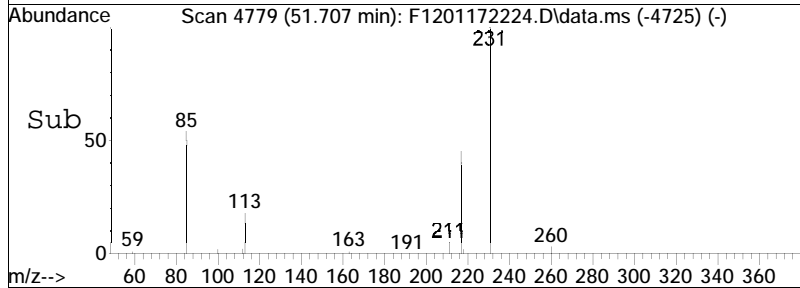
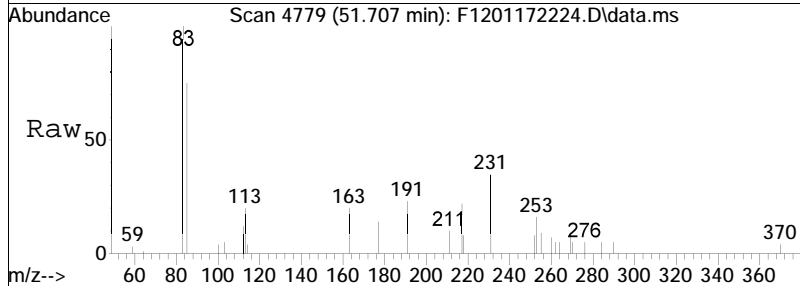


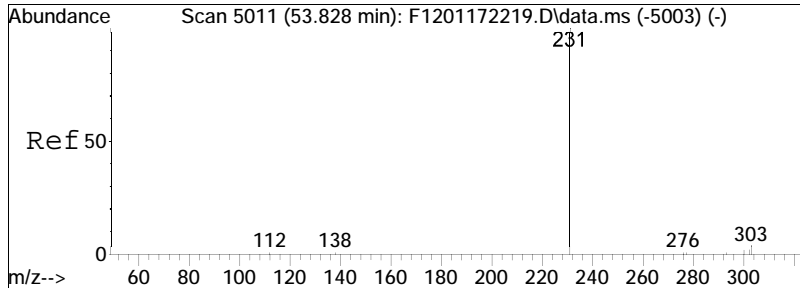
#155  
 C28,20R TAS  
 Concen: 809.07 ng/mL  
 RT: 52.722 min Scan# 4890  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion:231 Resp: 33403



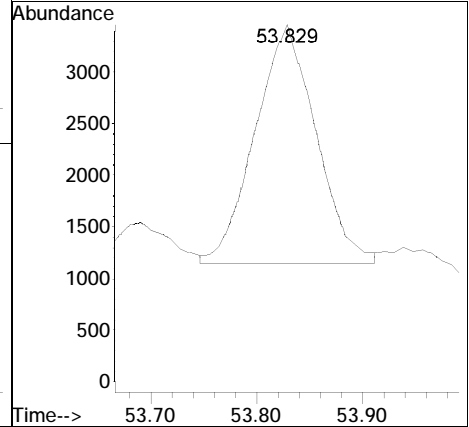
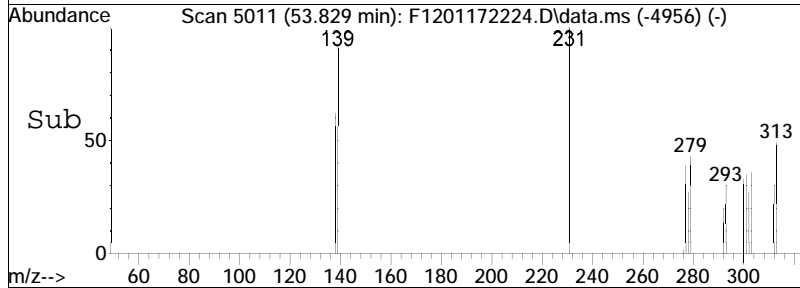
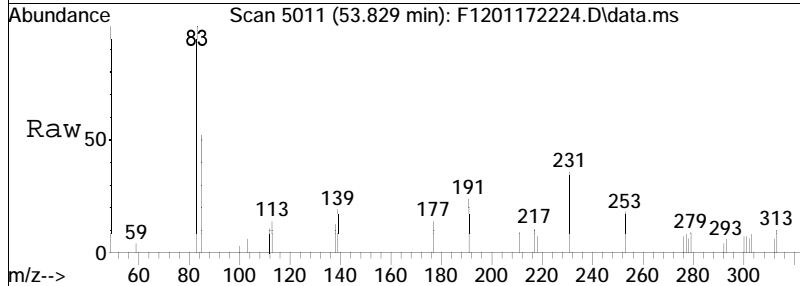


#156  
 C29,20S TAS  
 Concen: 330.70 ng/mL M4  
 RT: 51.707 min Scan# 4779  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 231 Resp: 13653

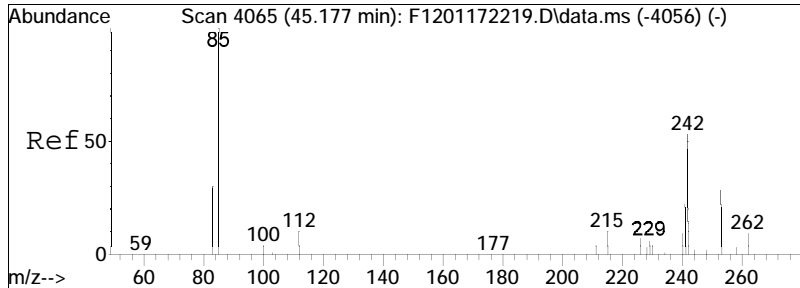




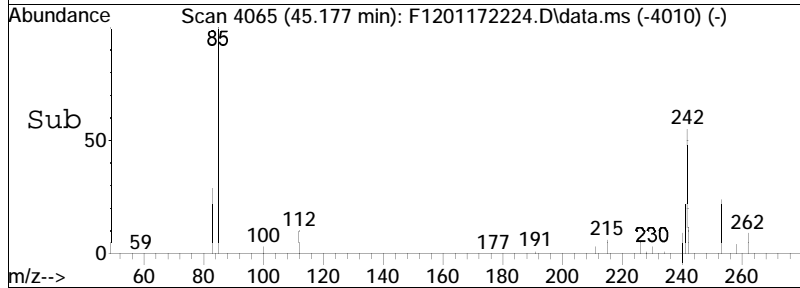
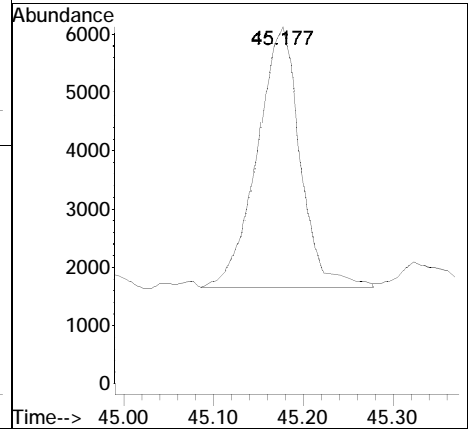
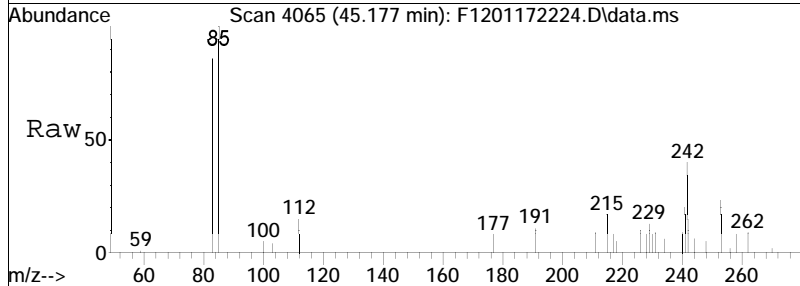
#157  
 C29,20R TAS  
 Concen: 223.06 ng/mL M4  
 RT: 53.829 min Scan# 5011  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 231 Resp: 9209

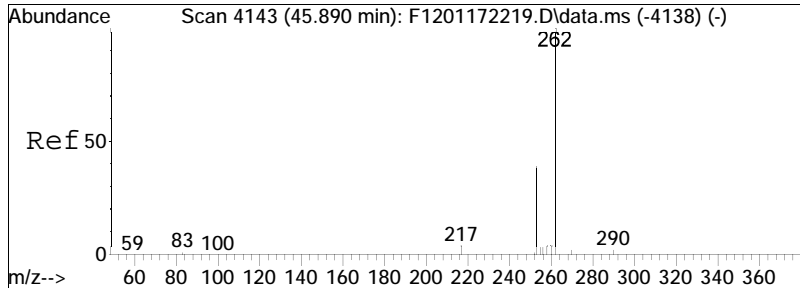




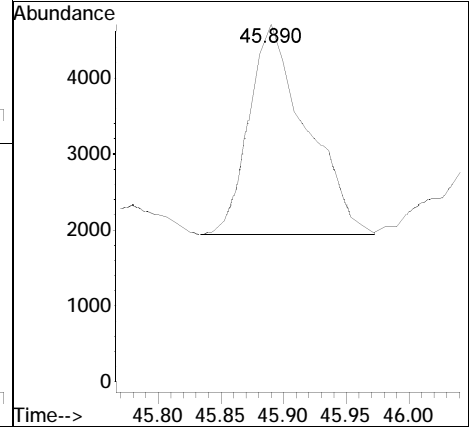
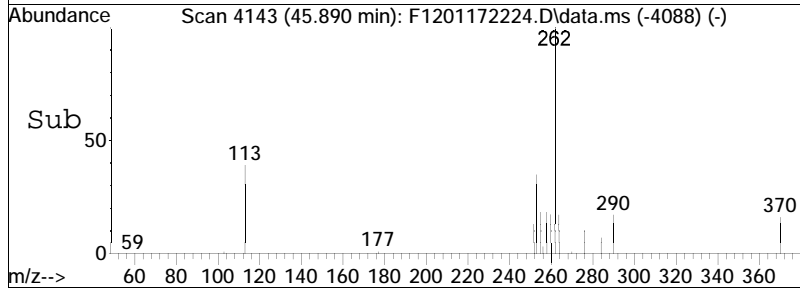
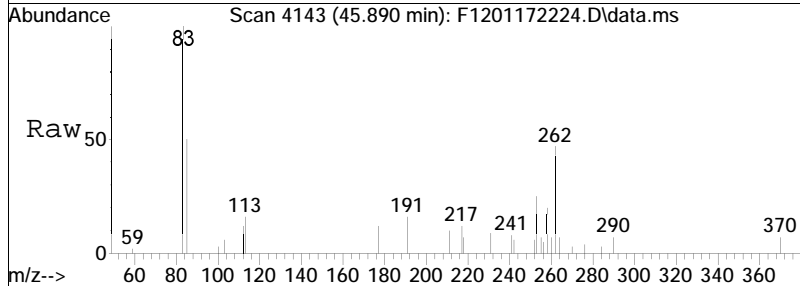


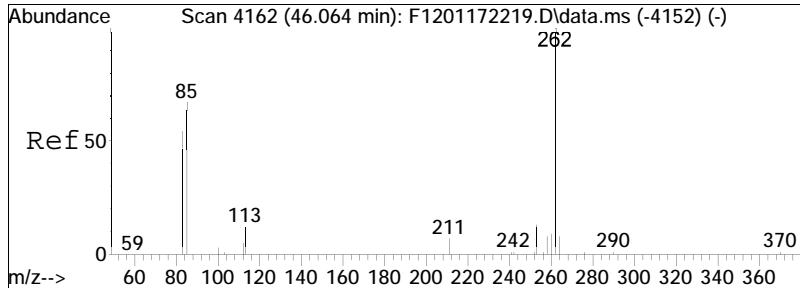
#158  
 5b(H)-C27 (20S) MAS+  
 Concen: 361.34 ng/mL  
 RT: 45.177 min Scan# 4065  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 253 Resp: 14918



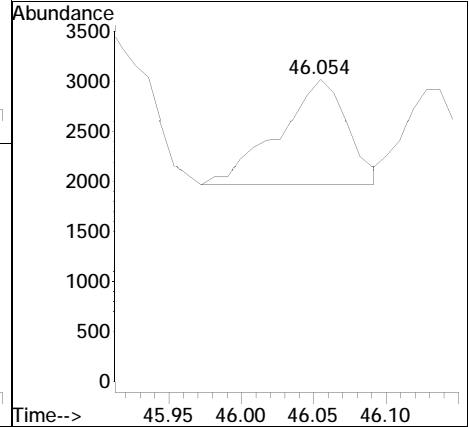
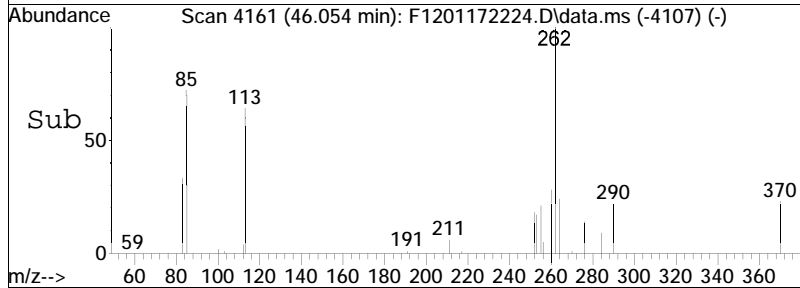
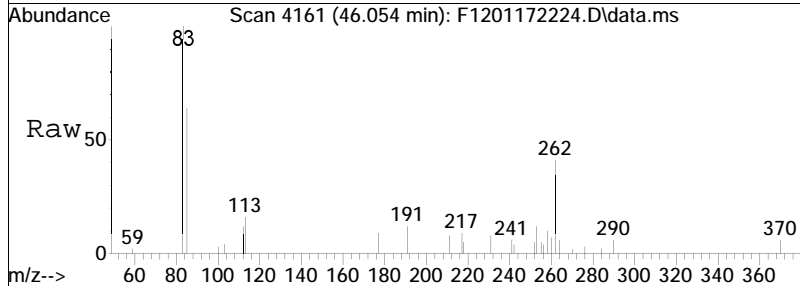


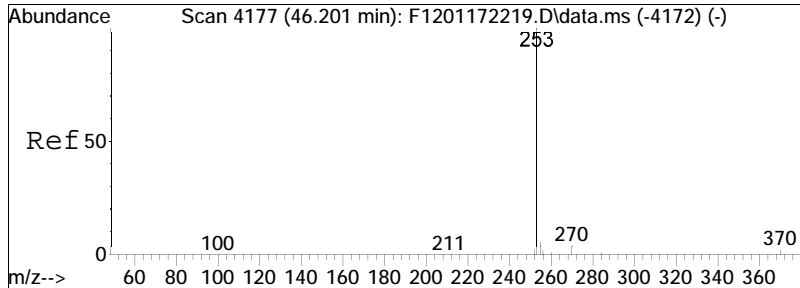
#159  
 5b(H)-C27 (20R) MAS+  
 Concen: 213.22 ng/mL  
 RT: 45.890 min Scan# 4143  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 253 Resp: 8803



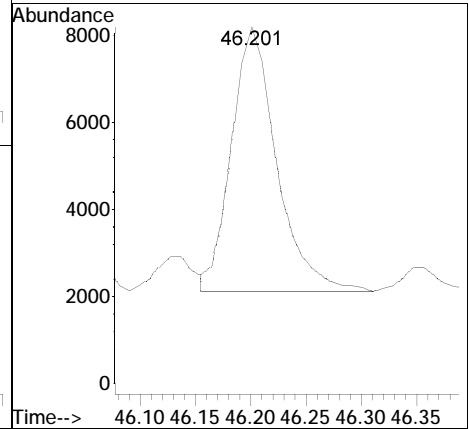
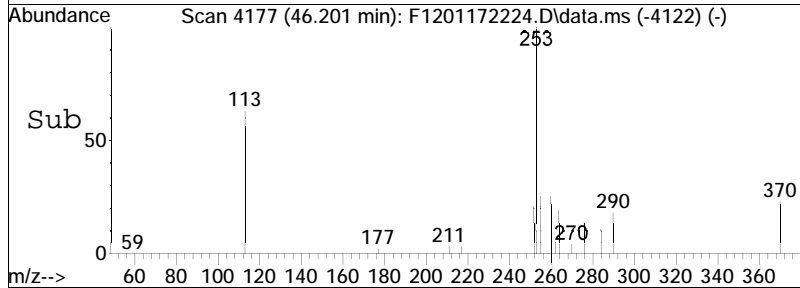
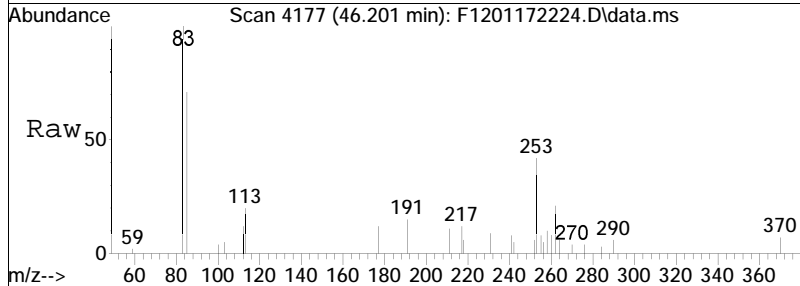


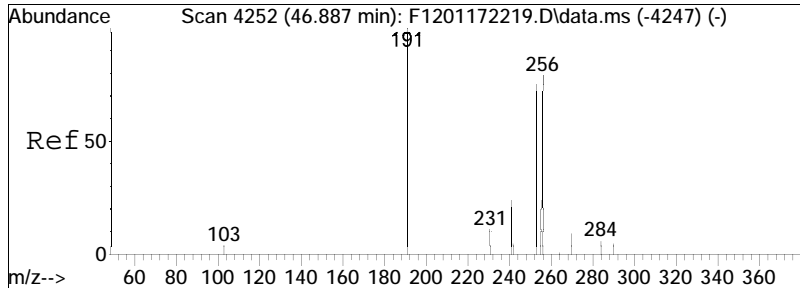
#160  
 5a(H)-C27 (20S) MAS  
 Concen: 84.15 ng/mL  
 RT: 46.054 min Scan# 4161  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 253 Resp: 3474



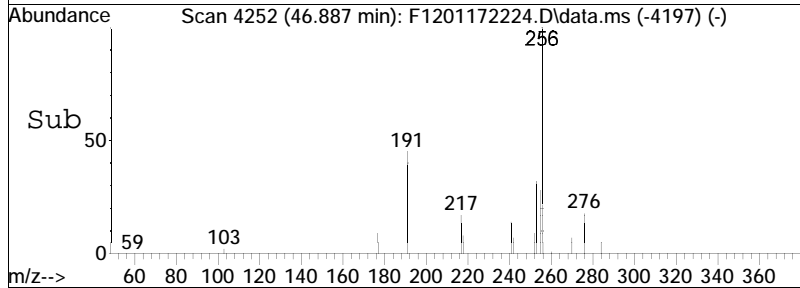
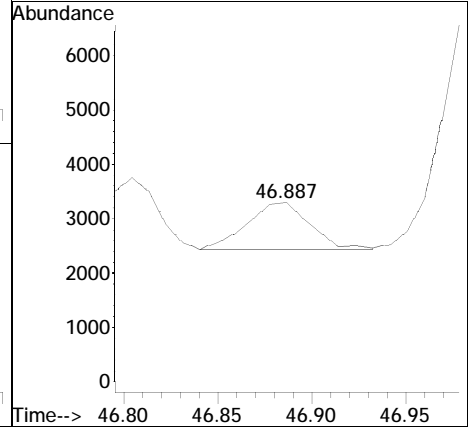
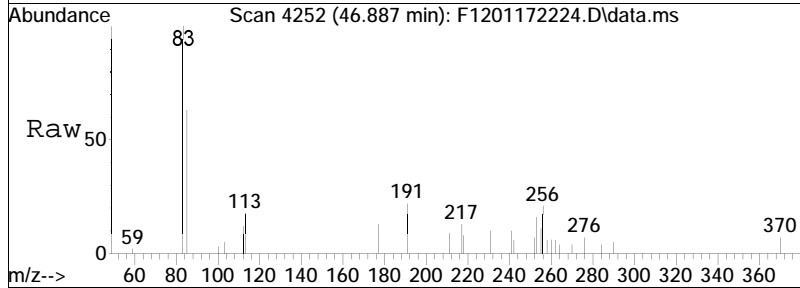


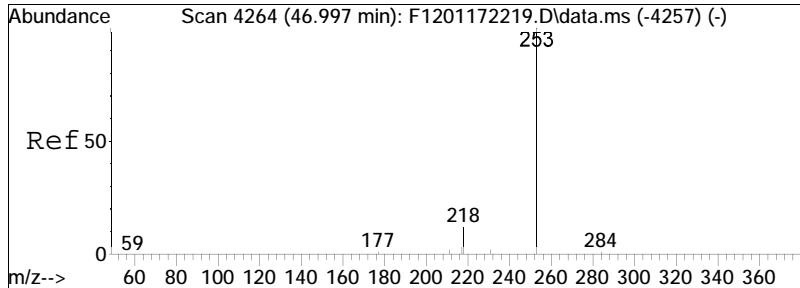
#161  
 5b(H)-C28 (20S) MAS+  
 Concen: 415.98 ng/mL  
 RT: 46.201 min Scan# 4177  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 253 Resp: 17174



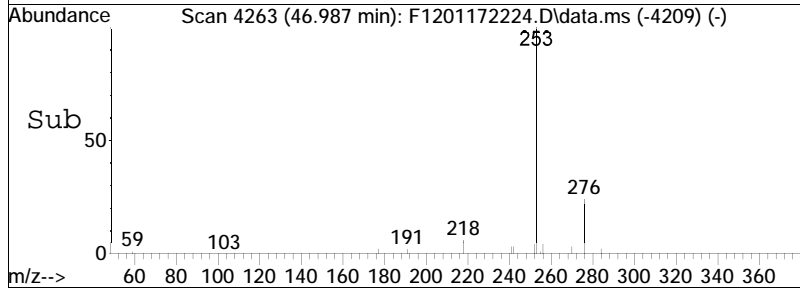
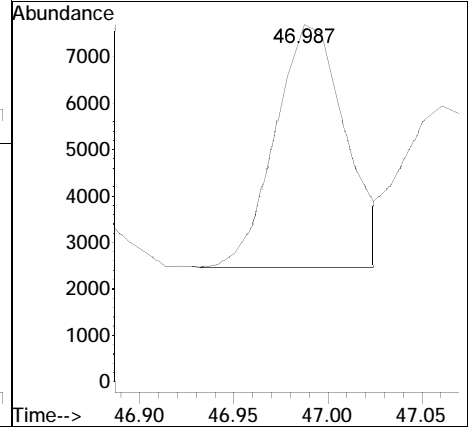
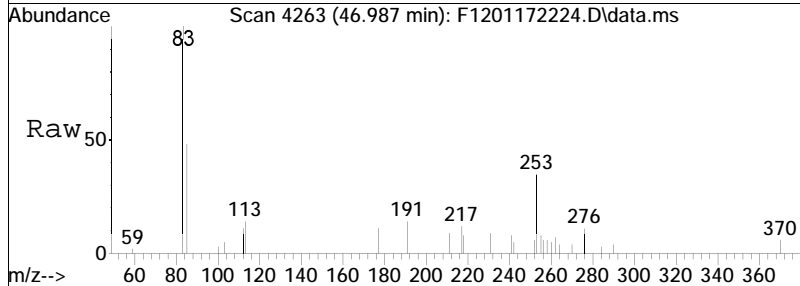


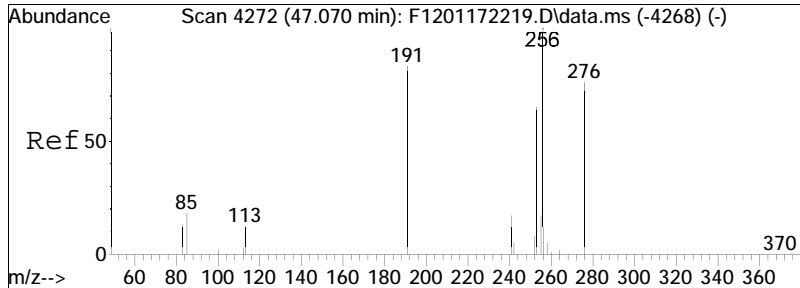
#162  
 5a(H)-C27 (20R) MAS  
 Concen: 47.62 ng/mL  
 RT: 46.887 min Scan# 4252  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 253 Resp: 1966



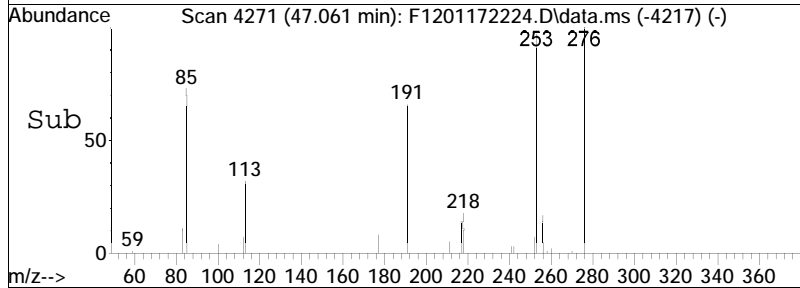
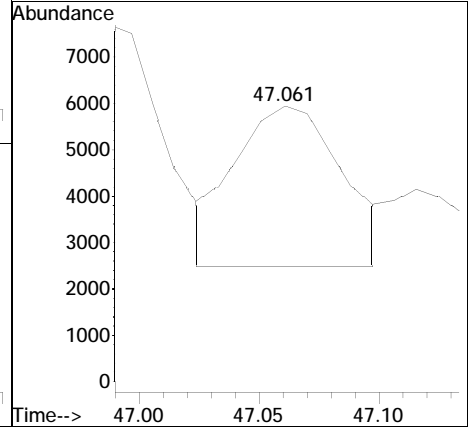
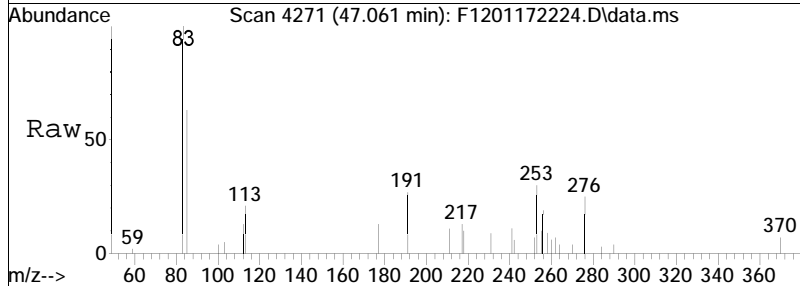


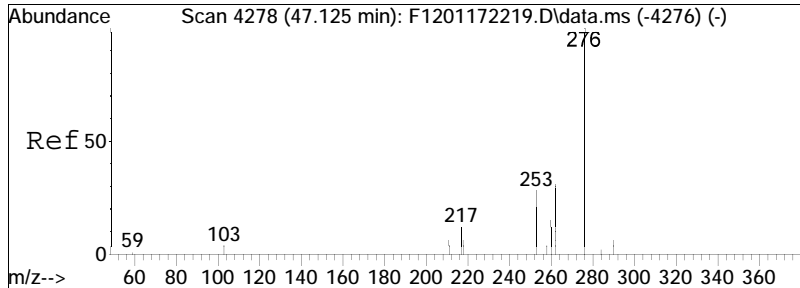
#163  
 5a(H)-C28 (20S) MAS  
 Concen: 332.56 ng/mL  
 RT: 46.987 min Scan# 4263  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 253 Resp: 13730





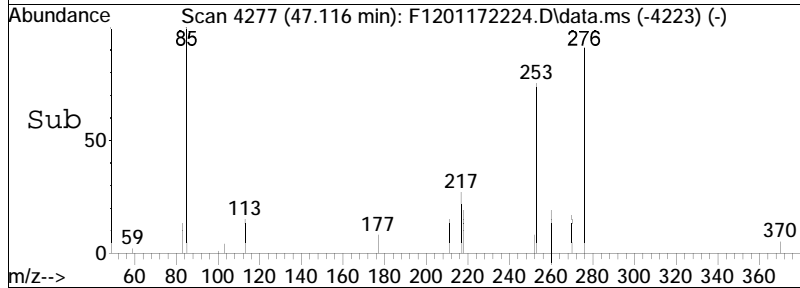
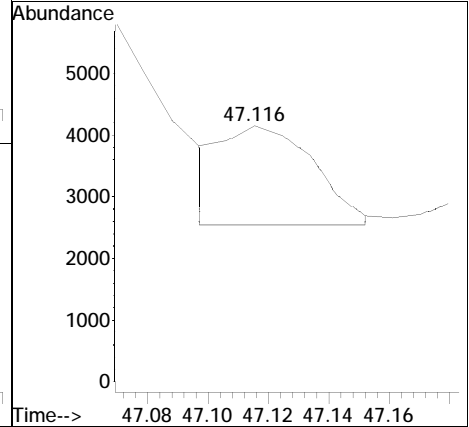
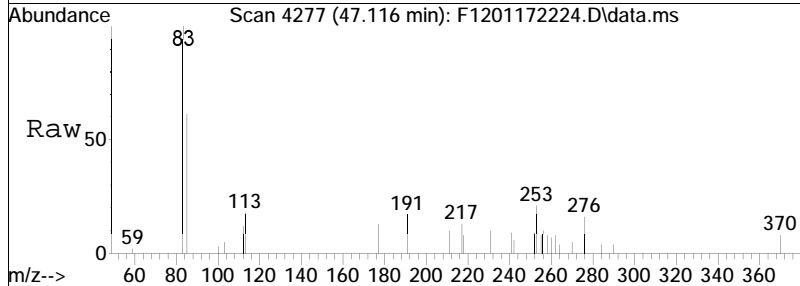
#164  
 5b(H)-C28 (20R) MAS+  
 Concen: 262.71 ng/mL M4  
 RT: 47.061 min Scan# 4271  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 253 Resp: 10846



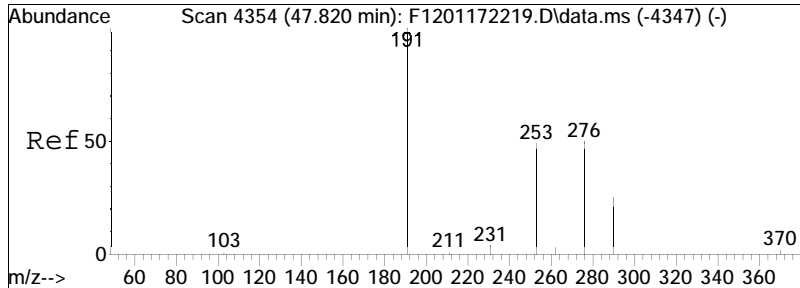


#165  
 5b(H)-C29 (20S) MAS+  
 Concen: 81.97 ng/mL M3  
 RT: 47.116 min Scan# 4277  
 Delta R.T. -0.009 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am

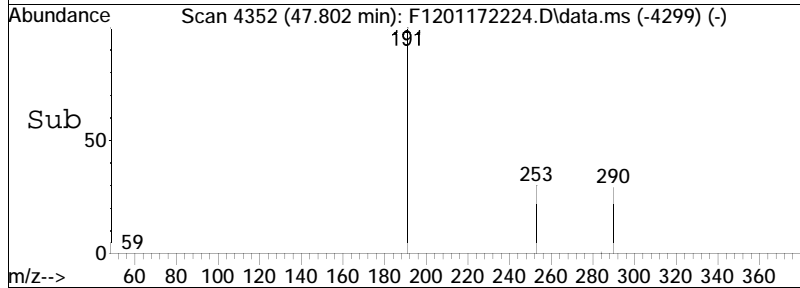
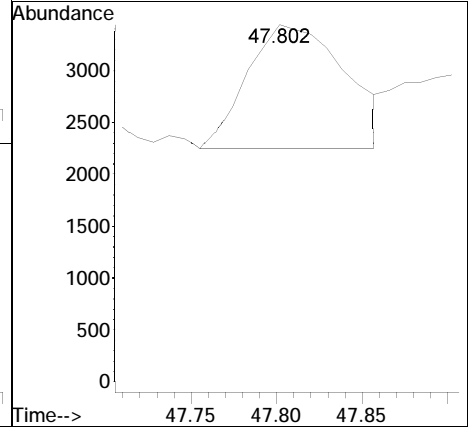
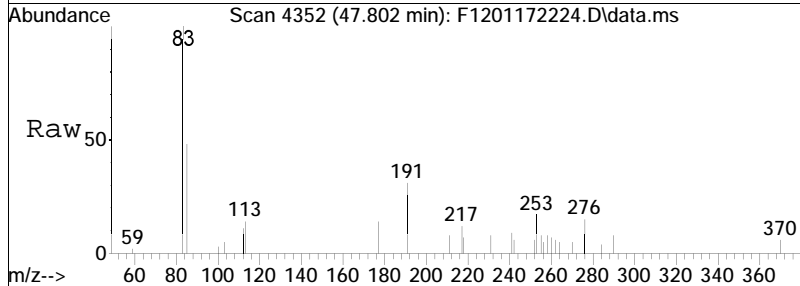
Tgt Ion: 253 Resp: 3384

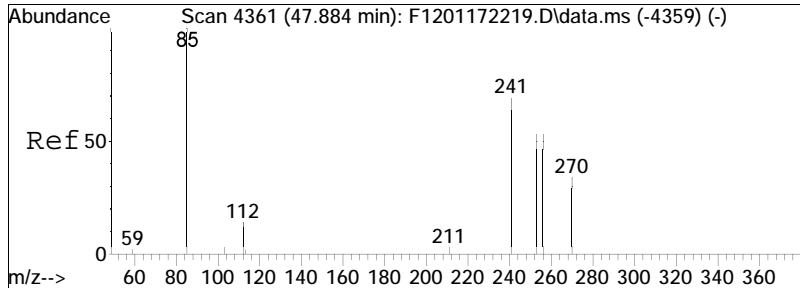




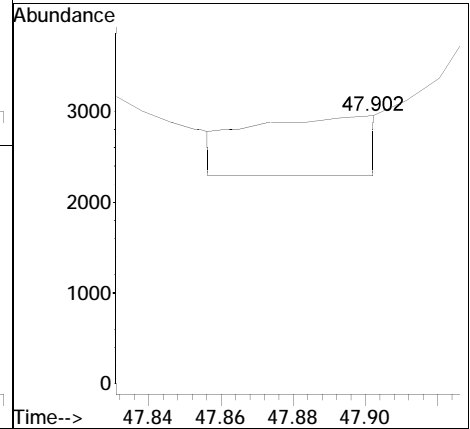
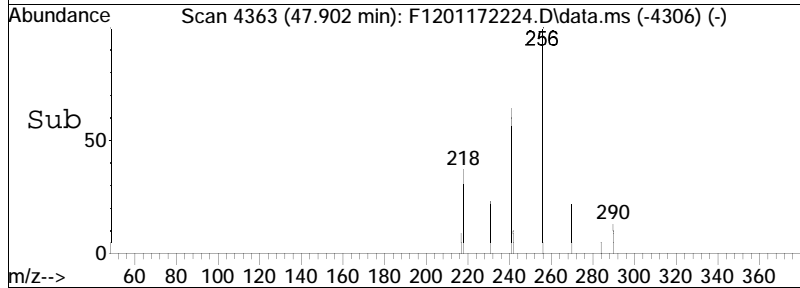
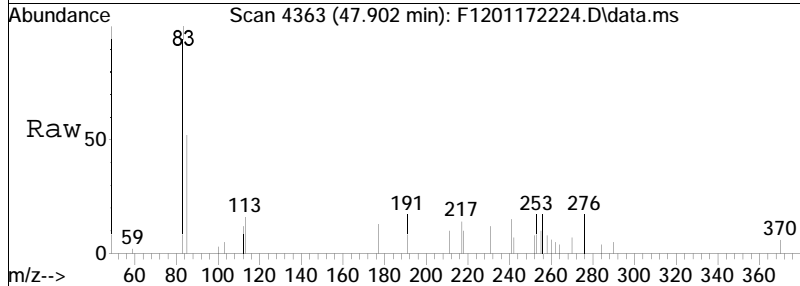


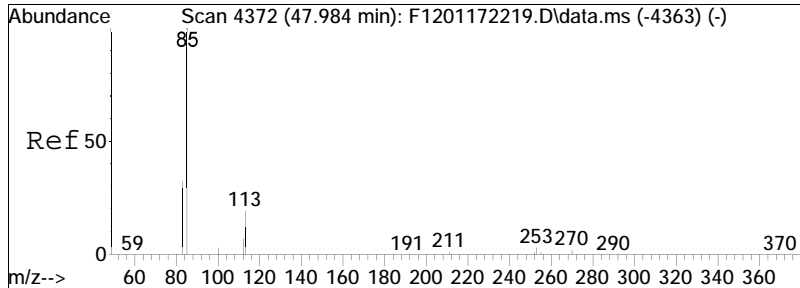
#166  
 5a(H)-C29 (20S) MAS  
 Concen: 113.77 ng/mL  
 RT: 47.802 min Scan# 4352  
 Delta R.T. -0.018 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 253 Resp: 4697



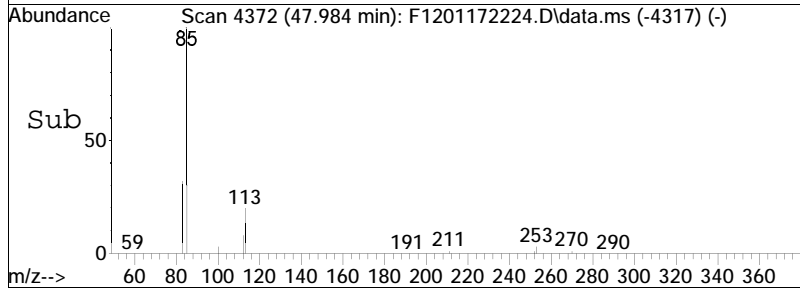
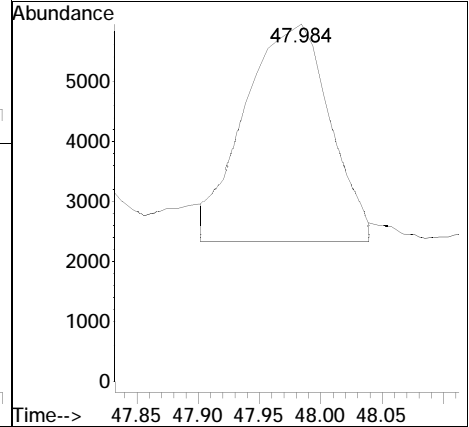
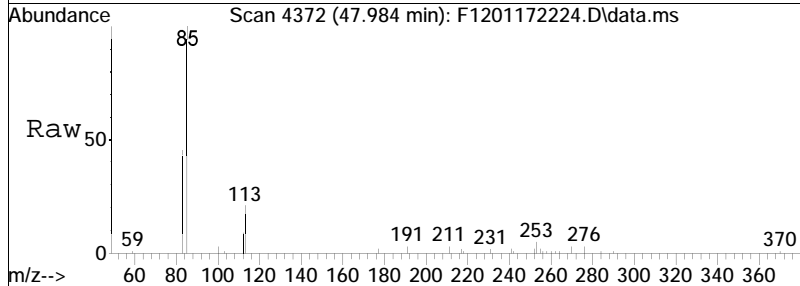


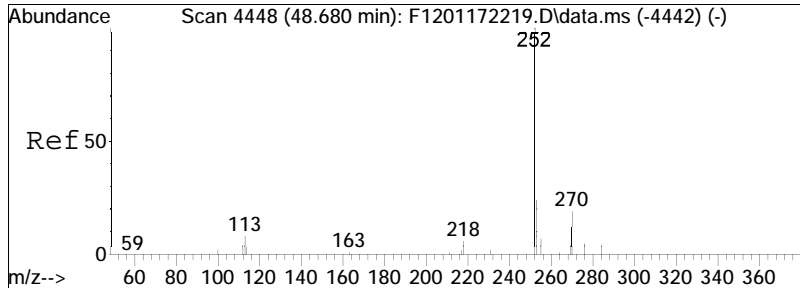
#167  
 5a(H)-C28 (20R) MAS  
 Concen: 40.43 ng/mL M3  
 RT: 47.902 min Scan# 4363  
 Delta R.T. 0.018 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 253 Resp: 1669



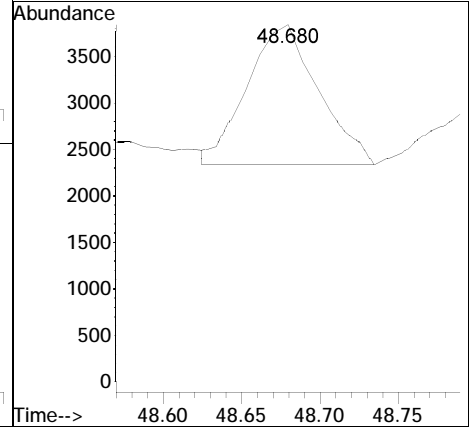
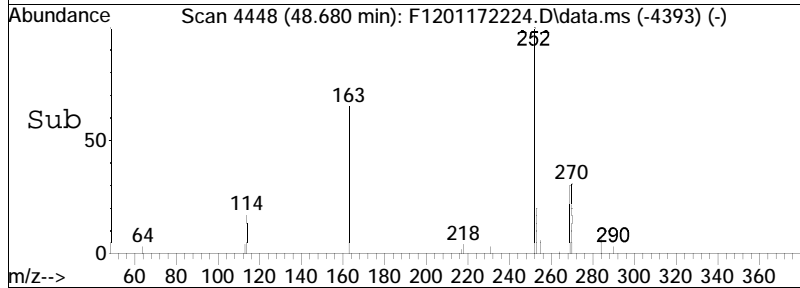
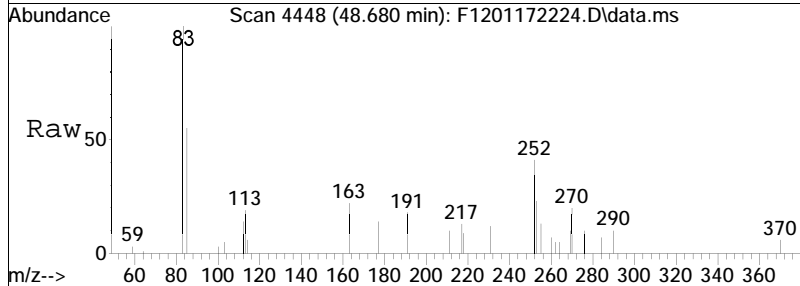


#168  
 5b(H)-C29 (20R) MAS+  
 Concen: 419.90 ng/mL M4  
 RT: 47.984 min Scan# 4372  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 253 Resp: 17336





#169  
 5a(H)-C29 (20R) MAS  
 Concen: 115.25 ng/mL  
 RT: 48.680 min Scan# 4448  
 Delta R.T. 0.000 min  
 Lab File: F1201172224.D  
 Acq: 19 Jan 2022 11:05 am  
 Tgt Ion: 253 Resp: 4758



# **Work Group**

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Feb 23 2022, 09:09 am

Work Group: WG1603644 for Department: 2 Organic Preparation

Created: 10-FEB-22 Due: Operator: CSP

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2206076-01	USMPDI-040SC-A-10-11-201103	S A2-ALKPAH	SOIL	DONE	U	1117	0304	S0	Glass-A.120
L2206076-02	USMPDI-040SC-A-11-12-201103	S A2-ALKPAH	SOIL	DONE	U	1117	0304	S0	Glass-A.120
L2206076-03	USMPDI-040SC-A-12-13-201103	S A2-ALKPAH	SOIL	DONE	U	1117	0304	S0	Glass-A.120
L2206076-04	USMPDI-056SC-A-07-08-201107	S A2-ALKPAH	SOIL	DONE	U	1121	0304	S0	Glass-A.120
L2206076-05	USMPDI-056SC-A-08-09-201107	S A2-ALKPAH	SOIL	DONE	U	1121	0304	S0	Glass-A.120
L2206076-06	USMPDI-004SC-A-07-08-201111	S A2-ALKPAH	SOIL	DONE	U	1125	0304	S0	Glass-A.120
L2206076-07	USMPDI-004SC-A-08-09-201111	S A2-ALKPAH	SOIL	DONE	U	1125	0304	S0	Glass-A.120
L2206076-08	USMPDI-004SC-A-09-10-201111	S A2-ALKPAH	SOIL	DONE	U	1125	0304	S0	Glass-A.120
L2206578-01	TP02-09-02-0122	S A2-SHC	SOIL	DONE	U	0214	0301	S0	Glass-A.120
L2206578-02	TP02-12-02-0122	S A2-SHC	SOIL	DONE	U	0214	0301	S0	Glass-A.120
L2206578-03	TP02-10-02-0122	S A2-SHC	SOIL	DONE	U	0214	0301	S0	Glass-A.120
L2206578-04	TP02-11-10-0122	S A2-SHC	SOIL	DONE	U	0214	0301	S0	Glass-A.120
WG1603644-1	Laboratory Method Bl	S A2-SHC	SOIL	DONE	U				
WG1603644-1	Laboratory Method Bl	S A2-ALKPAH	SOIL	DONE	U				
WG1603644-2	Laboratory Control S	S A2-SHC	SOIL	DONE	U				
WG1603644-2	Laboratory Control S	S A2-ALKPAH	SOIL	DONE	U				
WG1603644-3	LCS Duplicate	S A2-ALKPAH	SOIL	DONE	U				
WG1603644-3	LCS Duplicate	S A2-SHC	SOIL	DONE	U				

Comments:

WG1603644-3                      WG1603644-2

# Sequence Logs

Analysis log File

Total Files Reported in Log : 41

Log Generated From Directory: O:\Forensics\Data\PAH12\2022\JAN22\JAN17\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	F1201172201.D	FRNC12ALT.M	pRIME		1/17/2022	8:28 am
2	F1201172202.D	FRNC12ALT.M	pRIME		1/17/2022	9:53 am
3	F1201172203.D	FRNC12ALT.M	pRIME		1/17/2022	11:19 am
4	F1201172204.D	FRNC12ALT.M	pRIME		1/17/2022	12:44 pm
5	F1201172205.D	FRNC12ALT.M	pRIME		1/17/2022	2:51 pm
6	F1201172206.D	FRNC12ALT.M	pRIME		1/17/2022	4:16 pm
7	F1201172207.D	FRNC12ALT.M	DCM		1/17/2022	5:41 pm
8	F1201172208.D	FRNC12ALT.M	I1201172201	WG1595612,FRBE26	1/17/2022	7:07 pm
9	F1201172209.D	FRNC12ALT.M	I1201172202	SEE RA	1/17/2022	8:32 pm
10	F1201172210.D	FRNC12ALT.M	I1201172203	WG1595612,FRBE28	1/17/2022	9:57 pm
11	F1201172211.D	FRNC12ALT.M	I1201172204	WG1595612,FRBE43	1/17/2022	11:22 pm
12	F1201172212.D	FRNC12ALT.M	I1201172205	WG1595612,FRBE30	1/18/2022	12:47 am
13	F1201172213.D	FRNC12ALT.M	I1201172206	WG1595612,FRBE31	1/18/2022	2:13 am
14	F1201172214.D	FRNC12ALT.M	I1201172207	WG1595612,FRBE32	1/18/2022	3:38 am
15	F1201172215.D	FRNC12ALT.M	DCM		1/18/2022	5:03 am
16	F1201172216.D	FRNC12ALT.M	QC1201172201	SEE RA	1/18/2022	6:28 am
17	F1201172217.D	FRNC12ALT.M	DCM		1/18/2022	7:53 am
18	F1201172218.D	FRNC12ALT.M	i1201172202	WG1595612,FRBE27	1/18/2022	9:18 am
19	F1201172219.D	FRNC12ALT.M	ans	see ra	1/18/2022	10:43 am
20	F1201172220.D	FRNC12ALT.M	ANS1201172202		1/18/2022	12:08 pm
21	F1201172221.D	FRNC12ALT.M	DCM		1/18/2022	3:24 pm
22	F1201172222.D	FRNC12ALT.M	CQ1201172202	WG1595612,FRBD47	1/18/2022	4:48 pm
23	F1201172223.D	FRNC12ALT.M	DCM		1/19/2022	9:41 am
24	F1201172224.D	FRNC12ALT.M	WG1595612-1,0.05084	WG1595612,FRBE47 5.084	1/19/2022	11:05 am
25	F1201172225.D	FRNC12ALT.M	DCM	DCM	1/19/2022	1:07 pm
26	F1201172226.D	FRNC12ALT.M	C120172201	CC FRBE43	1/19/2022	2:57 pm
27	F1201172227.D	FRNC12ALT.M	DCM	DCM	1/19/2022	4:22 pm
28	F1201172228.D	FRNC12ALT.M	wg1593890-1,32,,	WG1595821,WG1593890	1/19/2022	5:46 pm
29	F1201172229.D	FRNC12ALT.M	wg1593890-2,32,,	WG1595821,WG1593890	1/19/2022	7:11 pm
30	F1201172230.D	FRNC12ALT.M	wg1593890-3,32,,	WG1595821,WG1593890	1/19/2022	8:36 pm
31	F1201172231.D	FRNC12ALT.M	wg1593890-4,32,,	WG1595821,WG1593890	1/19/2022	10:01 pm
32	F1201172232.D	FRNC12ALT.M	l2154412-01,32,,	WG1595821,WG1593890	1/19/2022	11:26 pm
33	F1201172233.D	FRNC12ALT.M	wg1593890-5,32,,	WG1595821,WG1593890	1/20/2022	12:51 am
34	F1201172234.D	FRNC12ALT.M	wg1593890-6,32,,	WG1595821,WG1593890	1/20/2022	2:15 am
35	F1201172235.D	FRNC12ALT.M	wg1593890-7,32,,	WG1595821,WG1593890	1/20/2022	3:40 am
36	F1201172236.D	FRNC12ALT.M	l2154412-02,32,,	WG1595821,WG1593890	1/20/2022	5:05 am
37	F1201172237.D	FRNC12ALT.M	C1201172202	CC FRBE43	1/20/2022	6:30 am
38	F1201172238.D	FRNC12ALT.M	692-12 STD	WG1595821,WG1593890	1/20/2022	7:55 am
39	F1201172239.D	FRNC12ALT.M	l2154412-03,32,,	WG1595821,WG1593890	1/20/2022	9:20 am
40	F1201172240.D	FRNC12ALT.M	l2154412-04,32,,	WG1595821,WG1593890	1/20/2022	10:45 am
41	F1201172241.D	FRNC12ALT.M	l2154412-05,32,,	WG1595821,WG1593890	1/20/2022	12:10 pm



Analysis log File

Total Files Reported in Log : 32

Log Generated From Directory: O:\Forensics\Data\PAH12\2022\FEB22\FEB14\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE	INJ'D
1	F1202142201.D	FRNC12ALT.M	pRIME		2/14/2022	10:30 am
2	F1202142202.D	FRNC12ALT.M	WG1605097-1	WG1605097,FRBE43,ICAL18..	2/14/2022	12:39 pm
3	F1202142203.D	FRNC12ALT.M	ANS1202142201		2/14/2022	2:04 pm
4	F1202142204.D	FRNC12ALT.M	DCM		2/14/2022	3:29 pm
5	F1202142205.D	FRNC12ALT.M	DCM		2/14/2022	4:54 pm
6	F1202142206.D	FRNC12ALT.M	wg1603644-1,32,,	WG1605097,WG1603644,ICA..	2/14/2022	6:19 pm
7	F1202142207.D	FRNC12ALT.M	wg1603644-2,32,,	WG1605097,WG1603644,ICA..	2/14/2022	7:43 pm
8	F1202142208.D	FRNC12ALT.M	wg1603644-3,32,,	WG1605097,WG1603644,ICA..	2/14/2022	9:08 pm
9	F1202142209.D	FRNC12ALT.M	12206076-01,32,,	WG1605097,WG1603644,ICA..	2/14/2022	10:33 pm
10	F1202142210.D	FRNC12ALT.M	12206076-02,32,,	WG1605097,WG1603644,ICA..	2/14/2022	11:57 pm
11	F1202142211.D	FRNC12ALT.M	12206076-03,32	WG1605097,WG1603644,ICA..	2/15/2022	1:22 am
12	F1202142212.D	FRNC12ALT.M	12206076-04,32,,	WG1605097,WG1603644,ICA..	2/15/2022	2:47 am
13	F1202142213.D	FRNC12ALT.M	12206076-05,32	WG1605097,WG1603644,ICA..	2/15/2022	4:11 am
14	F1202142214.D	FRNC12ALT.M	12206076-06,32	WG1605097,WG1603644,ICA..	2/15/2022	5:35 am
15	F1202142215.D	FRNC12ALT.M	WG1605097-2	WG1605097,FRBE43,ICAL18..	2/15/2022	6:59 am
16	F1202142216.D	FRNC12ALT.M	L2206076-07,32	WG1605097,WG1603644,ICA..	2/15/2022	8:24 am
17	F1202142217.D	FRNC12ALT.M	12206076-08,32,,	WG1605097,WG1603644,ICA..	2/15/2022	9:56 am
18	F1202142218.D	FRNC12ALT.M	WG1605097-3	WG1605097,FRBE43,ICAL18..	2/15/2022	11:21 am
19	F1202142219.D	FRNC12ALT.M	DCM	DCM	2/15/2022	1:32 pm
20	F1202142220.D	FRNC12ALT.M	SILLICA CHK	50048178	2/15/2022	2:57 pm
21	F1202142221.D	FRNC12ALT.M	wg1600276-1,32,,	BR IDOC CHK	2/15/2022	4:22 pm
22	F1202142222.D	FRNC12ALT.M	WG1605097-4	WG1605097,FRBE43,ICAL18..	2/15/2022	5:46 pm
23	F1202142223.D	FRNC12ALT.M	L2206076-08D,32,2	WG1605097,WG1603644,ICA..	2/15/2022	7:11 pm
24	F1202142224.D	FRNC12ALT.M	L2206076-07D,32,2	WG1605097,WG1603644,ICA..	2/15/2022	8:36 pm
25	F1202142225.D	FRNC12ALT.M	WG1605097-5	WG1605097,FRBE43,ICAL18..	2/15/2022	10:00 pm
26	F1202142226.D	FRNC12ALT.M	DCM	dcm	2/16/2022	8:15 am
27	F1202142227.D	FRNC12ALT.M	dcm	1x	2/16/2022	9:40 am
28	F1202142228.D	FRNC12ALT.M	Sillica bccg6840	1x	2/16/2022	11:05 am
29	F1202142229.D	FRNC12ALT.M	dcm	1x	2/16/2022	2:46 pm
30	F1202142230.D	FRNC12ALT.M	dcm	1x	2/16/2022	4:10 pm
31	F1202142231.D	FRNC12ALT.M	sillica bcg6839	2/16/22	2/16/2022	5:35 pm
32	F1202142232.D	FRNC12ALT.M	sillica 50048178	2/16/22	2/16/2022	7:00 pm

# **Analytical Event**

# **Continuing Calibration**

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142202.D  
 Acq On : 14 Feb 2022 12:39 pm  
 Operator : PAH12:MJS  
 Sample : WG1605097-1  
 Misc : WG1605097,FRBE43,ICAL18670  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 21 15:09:26 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Thu Jan 20 14:34:52 2022  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 i	Acenaphthene-d10	1.000	1.000	0.0	127	-0.03
2 A1	trans-Decalin	0.467	0.489	-4.7	132	-0.03
3 t	cis-Decalin	0.358	0.371	-3.6	132	-0.03
8 s	Naphthalene-d8	2.156	2.264	-5.0	128	-0.03
9 A1	Naphthalene	2.384	2.484	-4.2	126	-0.03
14 t	2-Methylnaphthalene	1.514	1.534	-1.3	126	-0.03
15 t	1-Methylnaphthalene	1.437	1.462	-1.7	126	-0.04
16 A1	Benzothiophene	2.017	2.096	-3.9	125	-0.03
21 t	Biphenyl	1.853	1.876	-1.2	124	-0.03
22 t	2,6-Dimethylnaphthalene	1.290	1.317	-2.1	126	-0.04
23 t	Dibenzofuran	1.976	2.025	-2.5	124	-0.03
24 t	Acenaphthylene	2.275	2.288	-0.6	124	-0.02
25 t	Acenaphthene	1.439	1.459	-1.4	124	-0.03
26 t	2,3,5-Trimethylnaphthalene	1.237	1.255	-1.5	126	-0.03
27 A1	Fluorene	1.592	1.618	-1.6	125	-0.03
31 A1	Dibenzothiophene	2.297	2.288	0.4	124	-0.03
40 s	Phenanthrene-d10	1.806	1.851	-2.5	127	-0.04
41 A1	Phenanthrene	2.347	2.389	-1.8	125	-0.03
52 t	Retene	0.778	0.773	0.6	127	-0.03
53 t	Anthracene	2.187	2.240	-2.4	124	-0.03
54 t	Carbazole	2.270	2.161	4.8	128	-0.03
55 t	1-Methylphenanthrene	1.577	1.614	-2.3	129	-0.04
56 A1	Fluoranthene	2.354	2.415	-2.6	128	-0.03
57 A1	Benzo(b)fluorene	1.483	1.512	-2.0	129	-0.03
59 A1	Pyrene	2.443	2.519	-3.1	128	-0.03
67 A1	Naphthobenzothiophene-2,1-D	2.449	2.434	0.6	126	-0.04
74 i	Chrysene-d12	1.000	1.000	0.0	125	-0.04
75 t	Benz[a]anthracene	1.208	1.207	0.1	126	-0.03
76 A1	Chrysene	1.195	1.235	-3.3	128	0.00
77 A2	Chrysene/Triphenylene	1.195	1.235	-3.3	128	0.00
84 s	Benzo[b]fluoranthene-d12	1.163	1.175	-1.0	127	-0.03
85 t	Benzo[b]fluoranthene	1.362	1.309	3.9	119	-0.03
86 A1	Benzo[j]+[k]fluoranthene	1.406	1.454	-3.4	129	-0.03
88 t	Benzo[e]pyrene	1.346	1.345	0.1	125	-0.04
89 s	Benzo[a]pyrene-d12	0.880	0.887	-0.8	126	-0.04
90 t	Benzo[a]pyrene	1.305	1.265	3.1	123	-0.04
91 t	Perylene	1.339	1.326	1.0	126	-0.03
92 t	Indeno[1,2,3-cd]pyrene	1.789	1.607	10.2	117	-0.04

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142202.D  
 Acq On : 14 Feb 2022 12:39 pm  
 Operator : PAH12:MJS  
 Sample : WG1605097-1  
 Misc : WG1605097,FRBE43,ICAL18670  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 21 15:09:26 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Thu Jan 20 14:34:52 2022  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 25% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
93 t Dibenz[ah]+[ac]anthracene	1.570	1.418	9.7	114	-0.04
94 t Benzo[g,h,i]perylene	1.583	1.491	5.8	121	-0.05
95 A1 Hopane (T19)	0.341	0.368	-7.9	137	-0.04
129 SA1 5B(H)Cholane - Surr	0.180	0.191	-6.1	136	-0.04

\* Evaluation of CC level amount vs concentration.  
 (#) = Out of Range SPCC's out = 0 CCC's out = 0

Mass Discrimination (Concentration)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	0.93	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.20	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142202.D  
 Acq On : 14 Feb 2022 12:39 pm  
 Operator : PAH12:MJS  
 Sample : WG1605097-1  
 Misc : WG1605097,FRBE43,ICAL18670  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 21 15:09:26 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Thu Jan 20 14:34:52 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Acenaphthene-d10	26.995	164	88740M4	500.000	ng/mL	-0.03
74) Chrysene-d12	43.461	240	170561	500.000	ng/mL	-0.04
System Monitoring Compounds						
8) Naphthalene-d8	20.014	136	200900	525.078	ng/mL	-0.03
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	52.51%
40) Phenanthrene-d10	32.862	188	164282	512.465	ng/mL	-0.04
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	51.25%
84) Benzo[b]fluoranthene-d12	47.372	264	200494	505.538	ng/mL	-0.03
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	50.55%
89) Benzo[a]pyrene-d12	48.579	264	151357	504.246	ng/mL	-0.04
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	50.42%
129) 5B(H)Cholane - Surr	44.082	217	32589	530.952	ng/ml	-0.04
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	53.10%
Target Compounds						
2) trans-Decalin	16.665	138	21688	261.820	ng/mL	100
3) cis-Decalin	17.888	138	16462	258.945	ng/mL	100
9) Naphthalene	20.087	128	220404	520.968	ng/mL	100
14) 2-Methylnaphthalene	22.788	142	136098	506.566	ng/mL	100
15) 1-Methylnaphthalene	23.208	142	129732	508.706	ng/mL	100
16) Benzothiophene	20.306	134	186038	519.755	ng/mL	100
21) Biphenyl	24.668	154	166472	506.191	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.280	156	116848	510.553	ng/mL	100
23) Dibenzofuran	27.752	168	179674	512.398	ng/mL	88
24) Acenaphthylene	26.384	152	203057	502.903	ng/mL	100
25) Acenaphthene	27.114	153	129480	506.872	ng/mL	99
26) 2,3,5-Trimethylnaphthalen	28.665	170	111410	507.349	ng/mL	98
27) Fluorene	29.130	166	143552M4	507.971	ng/mL	
31) Dibenzothiophene	32.460	184	203049	498.117	ng/mL#	85
41) Phenanthrene	32.953	178	212020	508.960	ng/mL	96
52) Retene	39.946	234	68588	496.820	ng/mL	94
53) Anthracene	33.135	178	198807	512.150	ng/mL	99
54) Carbazole	33.802	167	191748	475.918	ng/mL	100
55) 1-Methylphenanthrene	35.463	192	143249	511.827	ng/mL	95
56) Fluoranthene	37.736	202	214263	512.907	ng/mL	94
57) Benzo(b)fluorene	40.256	216	134203	509.819	ng/mL	67
59) Pyrene	38.622	202	223536	515.632	ng/mL#	74
67) Naphthobenzothiophene-2,1	42.465	234	215998	497.011	ng/mL#	64
75) Benz[a]anthracene	43.397	228	205952	499.697	ng/mL	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142202.D  
 Acq On : 14 Feb 2022 12:39 pm  
 Operator : PAH12:MJS  
 Sample : WG1605097-1  
 Misc : WG1605097,FRBE43,ICAL18670  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 21 15:09:26 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Thu Jan 20 14:34:52 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.561	228	210698	516.725	ng/mL	83
77) Chrysene/Triphenylene	43.561	228	210698	516.725	ng/mL	83
85) Benzo[b]fluoranthene	47.454	252	223212	480.363	ng/mL	96
86) Benzo[j]+[k]fluoranthene	47.545	252	248028	517.178	ng/mL	94
88) Benzo[e]pyrene	48.478	252	229321	499.461	ng/mL	95
90) Benzo[a]pyrene	48.670	252	215717	484.534	ng/mL	94
91) Perylene	48.991	252	226219	495.434	ng/mL	93
92) Indeno[1,2,3-cd]pyrene	53.618	276	274119M3	449.256	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.682	278	241784M4	451.416	ng/mL	
94) Benzo[g,h,i]perylene	54.953	276	254264	471.000	ng/mL	99
95) Hopane (T19)	52.713	191	62846	540.435	ng/mL#	88

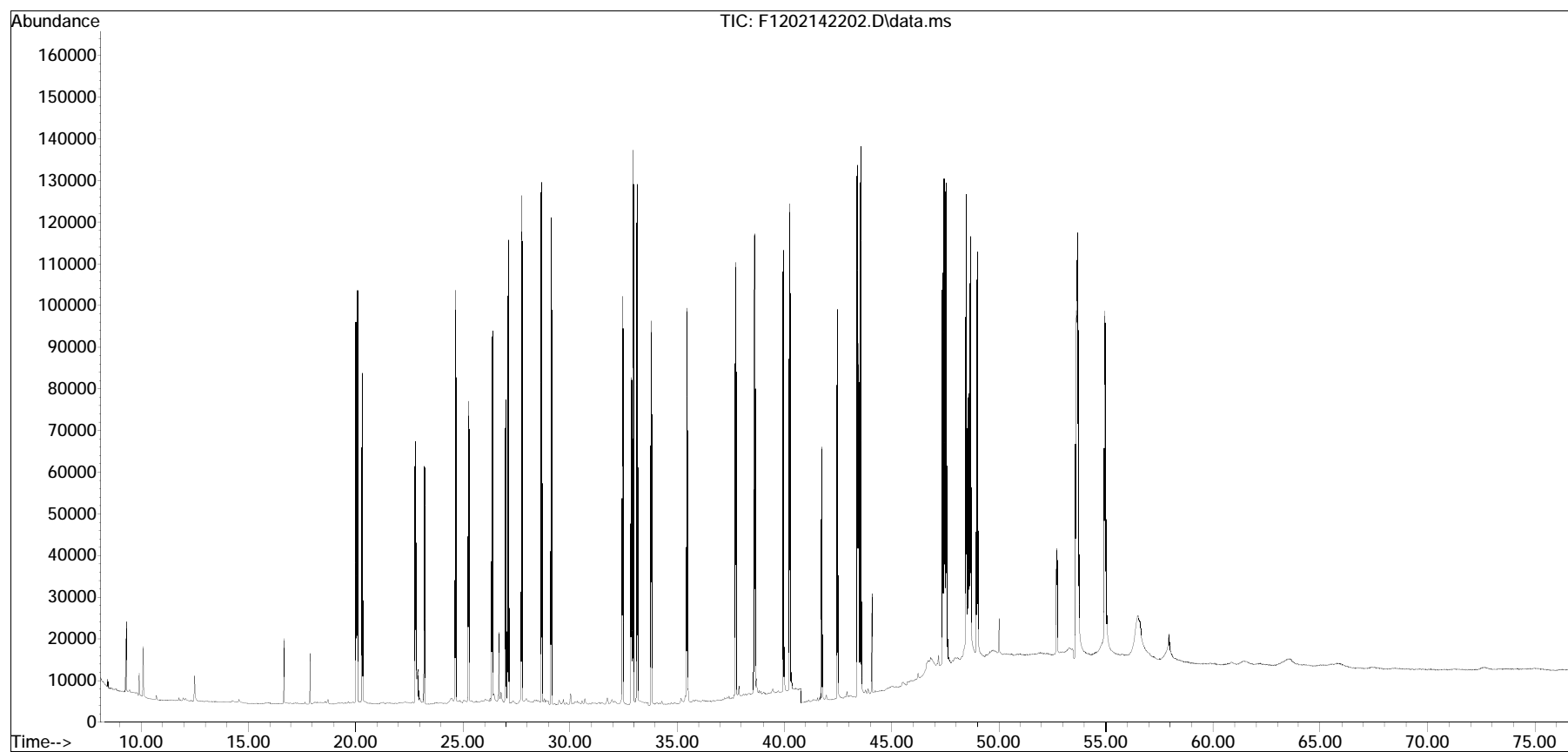
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
Data File : F1202142202.D  
Acq On : 14 Feb 2022 12:39 pm  
Operator : PAH12:MJS  
Sample : WG1605097-1  
Misc : WG1605097,FRBE43,ICAL18670  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 21 15:09:26 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Thu Jan 20 14:34:52 2022  
Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates





# **Sample Raw Data**

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142209.D  
 Acq On : 14 Feb 2022 10:33 pm  
 Operator : PAH12:MJS  
 Sample : 12206076-01,32,,  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 21 15:27:44 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	26.986	164	80432M4	500.000	ng/mL	-0.04	
74) Chrysene-d12	43.460	240	160915	500.000	ng/mL	-0.04	
System Monitoring Compounds							
8) Naphthalene-d8	20.005	136	142008	409.494	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	40.95%#	
40) Phenanthrene-d10	32.862	188	134567	463.131	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	46.31%#	
84) Benzo[b]fluoranthene-d12	47.362	264	164182	438.795	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	43.88%#	
89) Benzo[a]pyrene-d12	48.579	264	119030	420.319	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	42.03%#	
Target Compounds							
2) trans-Decalin	16.665	138	71M2	0.946	ng/mL		Qvalue
3) cis-Decalin	0.000		0	N.D.			
4) C1-Decalins	18.143	152	459M5	6.113	ng/mL		
5) C2-Decalins	19.567	166	1170M5	15.583	ng/mL		
6) C3-Decalins	0.000		0	N.D.	d		
7) C4-Decalins	0.000		0	N.D.	d		
9) Naphthalene	20.087	128	10523	27.442	ng/mL	100	
10) C1-Naphthalenes	22.779	142	2170M5	5.659	ng/mL		
11) C2-Naphthalenes	25.279	156	2259M5	5.891	ng/mL		
12) C3-Naphthalenes	27.962	170	2204M5	5.748	ng/mL		
13) C4-Naphthalenes	29.103	184	2616M5	6.822	ng/mL		
14) 2-Methylnaphthalene	22.779	142	1501	6.164	ng/mL	100	
15) 1-Methylnaphthalene	23.208	142	548	2.371	ng/mL	100	
16) Benzothiophene	20.306	134	448	1.381	ng/mL	100	
17) C1-Benzo(b)thiophenes	22.907	148	1257M5	3.875	ng/mL		
18) C2-Benzo(b)thiophenes	25.343	162	557M5	1.717	ng/mL		
19) C3-Benzo(b)thiophenes	28.145	176	1267M5	3.905	ng/mL		
20) C4-Benzo(b)thiophenes	0.000		0	N.D.	d		
21) Biphenyl	24.659	154	1252	4.200	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.279	156	448	2.160	ng/mL	100	
23) Dibenzofuran	27.752	168	517	1.627	ng/mL#	80	
24) Acenaphthylene	26.374	152	2532	6.919	ng/mL	100	
25) Acenaphthene	27.114	153	5059	21.850	ng/mL	99	
26) 2,3,5-Trimethylnaphthalen	28.665	170	76M3	0.382	ng/mL		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142209.D  
 Acq On : 14 Feb 2022 10:33 pm  
 Operator : PAH12:MJS  
 Sample : 12206076-01,32,,  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 21 15:27:44 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	29.130	166	1856M4	7.246	ng/mL	
28) C1-Fluorenes	31.356	180	1459M5	5.696	ng/mL	
29) C2-Fluorenes	33.537	194	2051M5	8.007	ng/mL	
30) C3-Fluorenes	35.518	208	3449M5	13.465	ng/mL	
31) Dibenzothiophene	32.451	184	5136	13.901	ng/mL#	87
32) 4-Methyldibenzothiophene(	34.230	198	1139	3.083	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.541	198	489M3	1.324	ng/mL	
34) 1-Methyldibenzothiophene(	35.006	198	393	1.064	ng/mL	100
36) C1-Dibenzothiophenes	34.632	198	24448M5	66.171	ng/mL	
36) C1-Dibenzothiophenes BS	34.632	198	2720M5	7.362	ng/mL	
37) C2-Dibenzothiophenes	36.942	212	4060M5	10.989	ng/mL	
38) C3-Dibenzothiophenes	37.708	226	3148M5	8.520	ng/mL	
39) C4-Dibenzothiophenes	40.639	240	2055M5	5.562	ng/mL	
41) Phenanthrene	32.944	178	60198	159.434	ng/mL	97
42) 3-Methylphenanthrene(3MP)	34.906	192	4303	11.396	ng/mL	98
43) 2-Methylphenanthrene(2MP)	35.025	192	4953	13.118	ng/mL	94
44) 2-Methylanthracene(2MA)	35.180	192	1126	2.982	ng/mL#	40
45) 9/4-Methylphenanthrene(9M	35.362	192	4345M3	11.508	ng/mL	
47) C1-Phenanthrenes/Anthrace	35.025	192	18245M5	48.322	ng/mL	
48) C2-Phenanthrenes/Anthrace	36.942	206	27382M5	72.521	ng/mL	
48) C2-Phenanthrenes/Anthr BS	36.942	206	10132M5	26.834	ng/mL	
50) C3-Phenanthrenes/Anthrace	39.014	220	6400M5	16.950	ng/mL	
51) C4-Phenanthrenes/Anthrace	39.936	234	4204M5	11.134	ng/mL	
52) Retene	39.936	234	633	5.059	ng/mL	74
53) Anthracene	33.126	178	7348	20.885	ng/mL	100
54) Carbazole	33.792	167	458	1.254	ng/mL#	64
55) 1-Methylphenanthrene	35.454	192	3031	11.948	ng/mL	98
56) Fluoranthene	37.727	202	92559M4	244.456	ng/mL	
57) Benzo(b)fluorene	40.247	216	4608M3	19.313	ng/mL	
58) 7H-Benzo(c)fluorene	40.292	216	2071M3	8.680	ng/mL	
59) Pyrene	38.612	202	178584	454.491	ng/mL#	76
60) 2-Methylpyrene	40.411	216	4497M3	11.445	ng/mL	
61) 4-Methylpyrene	40.776	216	4044	10.292	ng/mL	78
62) 1-Methylpyrene	40.886	216	4463	11.358	ng/mL	90
63) C1-Fluoranthenes/Pyrenes	40.000	216	37487M5	95.403	ng/mL	
64) C2-Fluoranthenes/Pyrenes	41.744	230	8568M5	21.805	ng/mL	
65) C3-Fluoranthenes/Pyrenes	43.935	244	4395M5	11.185	ng/mL	
66) C4-Fluoranthenes/Pyrenes	45.186	258	3980M5	10.129	ng/mL	
67) Naphthobenzothiophene-2,1	42.465	234	9455	24.003	ng/mL#	66

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142209.D  
 Acq On : 14 Feb 2022 10:33 pm  
 Operator : PAH12:MJS  
 Sample : 12206076-01,32,,  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 21 15:27:44 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	42.803	234	2021M3	5.131	ng/mL	
69) Naphthobenzothiophene-2,3	43.104	234	2990M3	7.591	ng/mL	
70) C1-Naphthobenzothiophenes	43.862	248	5066M5	12.861	ng/ml	
71) C2-Naphthobenzothiophenes	46.210	262	4627M5	11.746	ng/ml	
72) C3-Naphthobenzothiophenes	47.262	276	2671M5	6.781	ng/ml	
73) C4-Naphthobenzothiophenes	0.000		0	N.D.	d	
75) Benz[a]anthracene	43.397	228	46103M3	118.564	ng/mL	
76) Chrysene	43.552	228	62172	161.613	ng/mL	84
78) C1-Chrysenes	45.031	242	13154M5	34.193	ng/mL	
79) C2-Chrysenes	47.362	256	11771M5	30.598	ng/mL	
79) C2-Chrysenes BS	47.362	256	5691M5	14.794	ng/mL	
81) C3-Chrysenes	0.000		0	N.D.	d	
82) C4-Chrysenes	0.000		0	N.D.	d	
85) Benzo[b]fluoranthene	47.454	252	48078	109.668	ng/mL	99
86) Benzo[j]+[k]fluoranthene	47.518	252	58416M6	129.108	ng/mL	
87) Benzo[a]fluoranthene	47.847	252	12516M3	27.662	ng/mL	
88) Benzo[e]pyrene	48.478	252	54809	126.530	ng/mL	96
90) Benzo[a]pyrene	48.670	252	87373	208.018	ng/mL	96
91) Perylene	48.981	252	30134	69.951	ng/mL	92
92) Indeno[1,2,3-cd]pyrene	53.600	276	66681M3	115.835	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.655	278	9263	18.331	ng/mL#	65
94) Benzo[g,h,i]perylene	54.934	276	111416	218.759	ng/mL	98

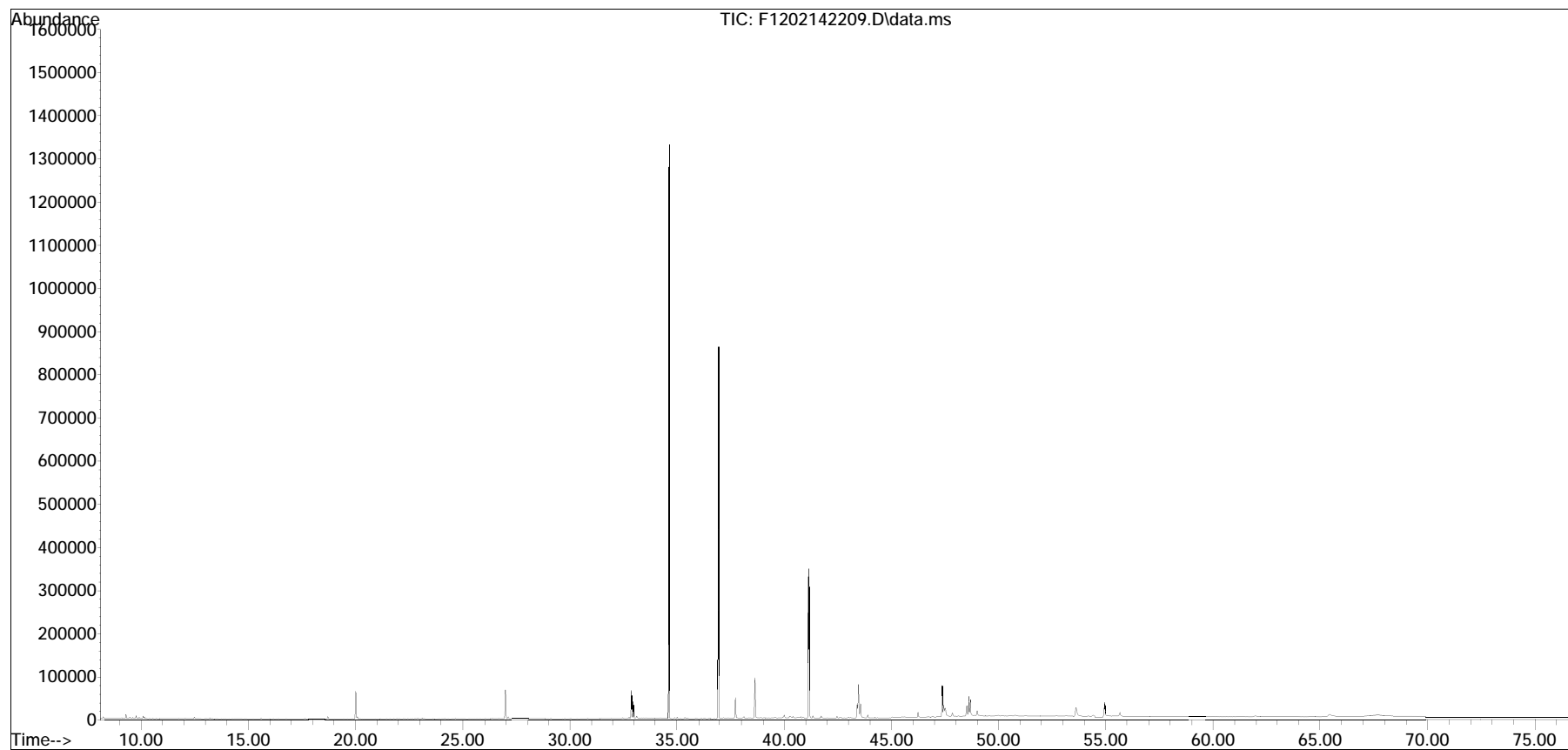
(#) = qualifier out of range (m) = manual integration (+) = signals summed

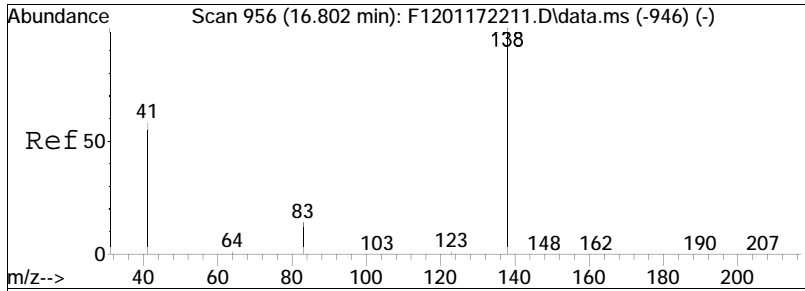
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
Data File : F1202142209.D  
Acq On : 14 Feb 2022 10:33 pm  
Operator : PAH12:MJS  
Sample : 12206076-01,32,,  
Misc : WG1605097,WG1603644,ICAL18670  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 21 15:27:44 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Wed Feb 09 13:46:27 2022  
Response via : Initial Calibration

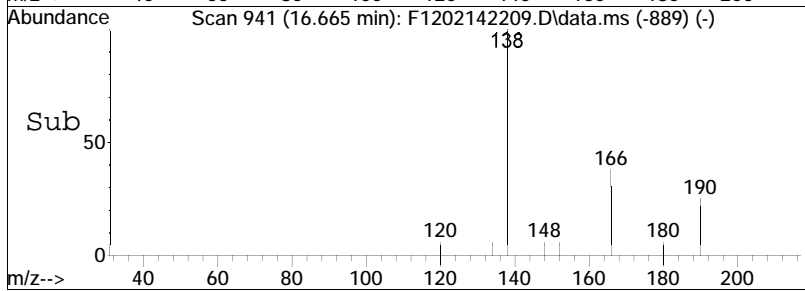
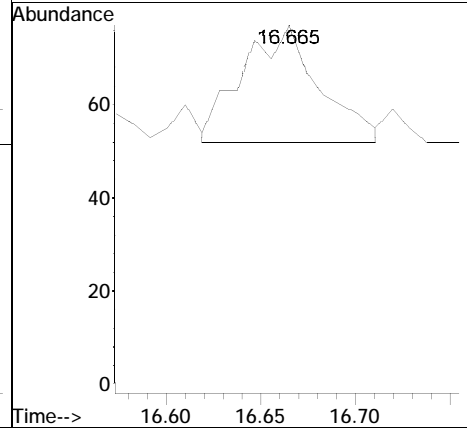
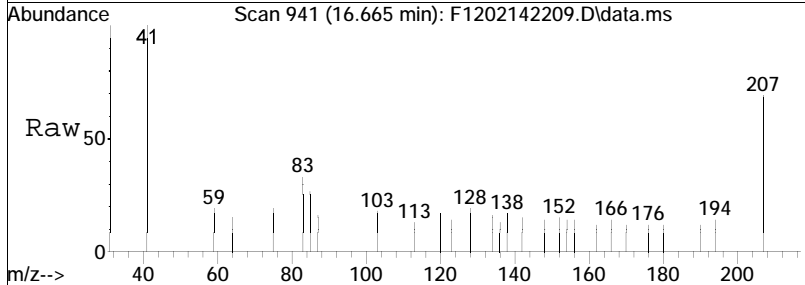
Sub List : ALKPAH - POI+MP+BcF

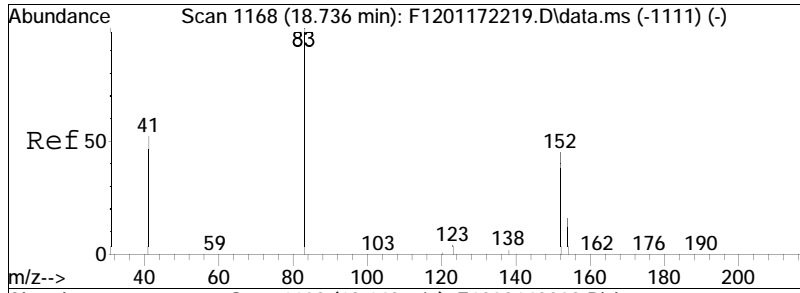




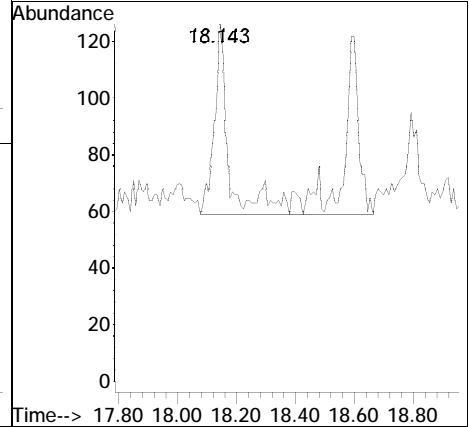
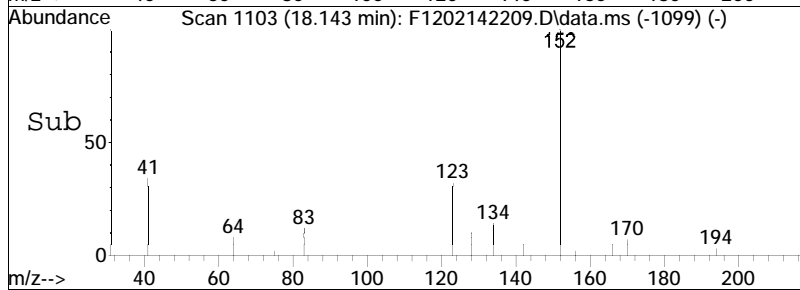
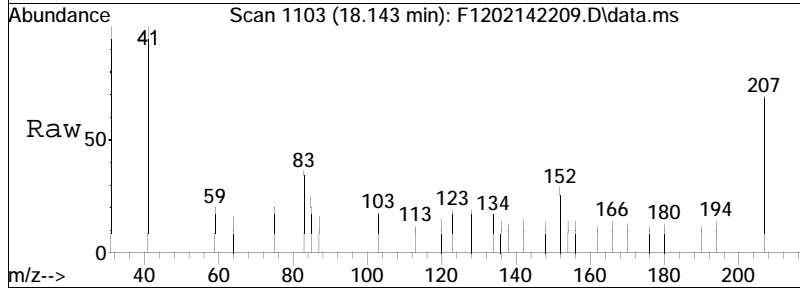
#2  
 trans-Decalin  
 Concen: 0.95 ng/mL M2  
 RT: 16.665 min Scan# 941  
 Delta R.T. -0.027 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

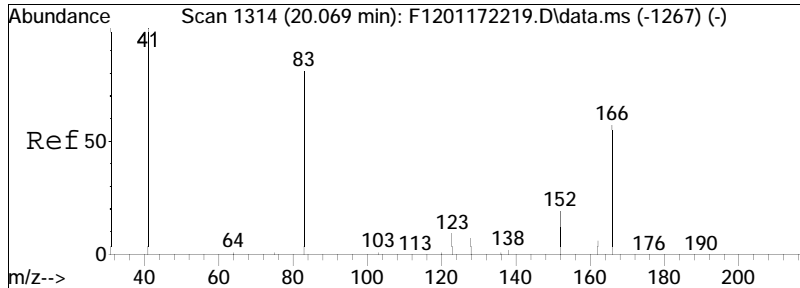
Tgt Ion:138 Resp: 71



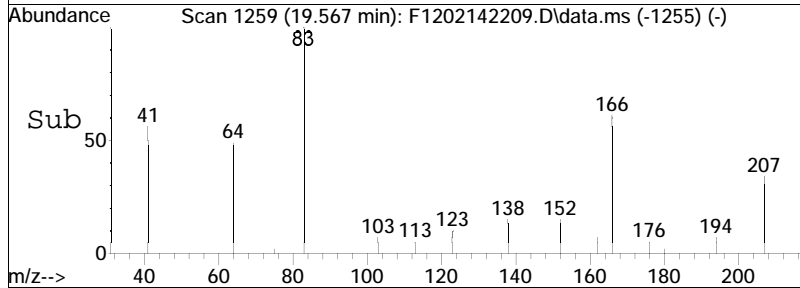
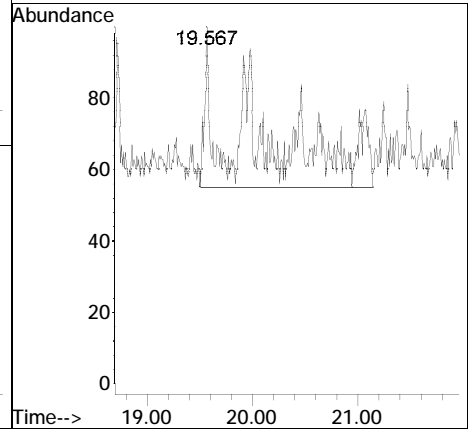
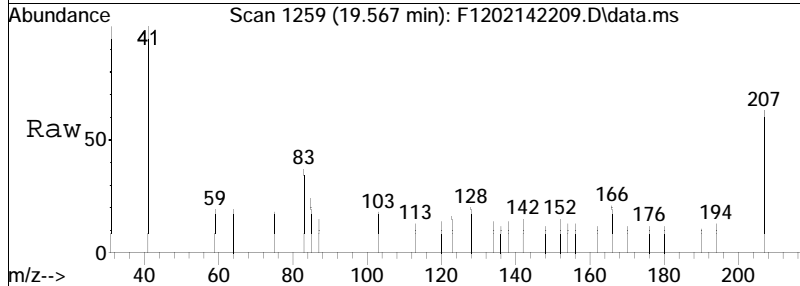


#4  
 Cl-Decalins  
 Concen: 6.11 ng/mL M5  
 RT: 18.143 min Scan# 1103  
 Delta R.T. -0.484 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion:152 Resp: 459

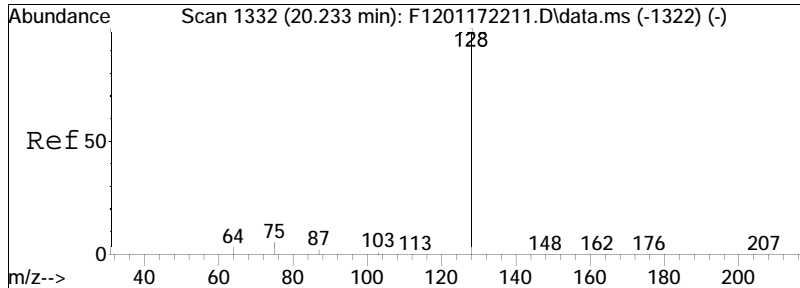




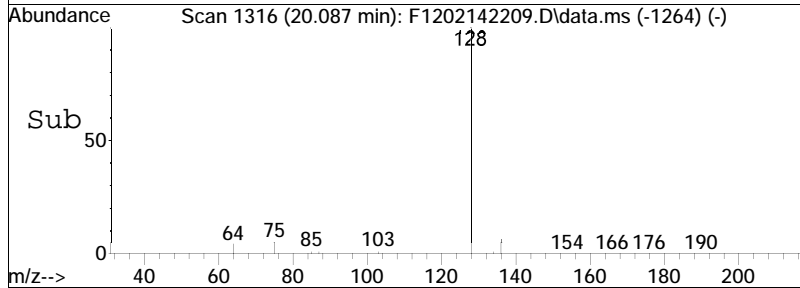
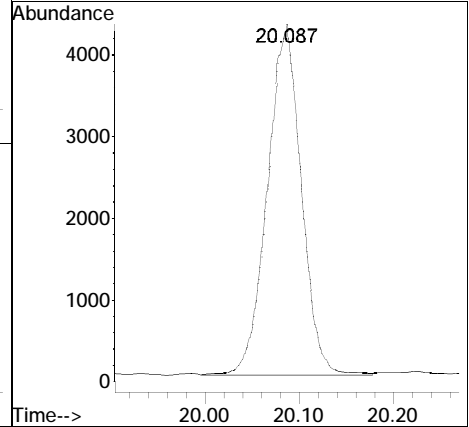
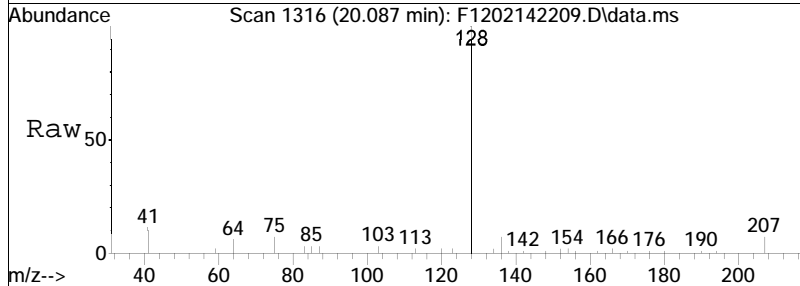
#5  
 C2-Decalins  
 Concen: 15.58 ng/mL M5  
 RT: 19.567 min Scan# 1259  
 Delta R.T. -0.392 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion:166 Resp: 1170

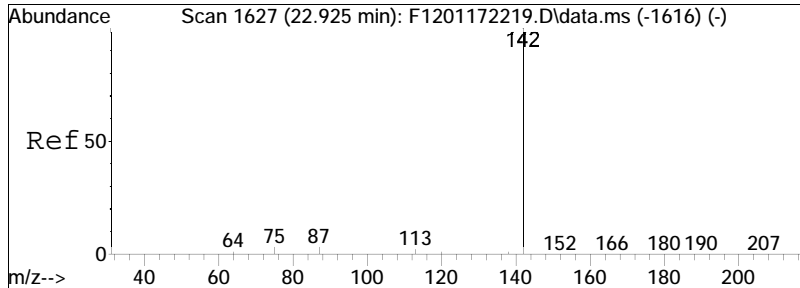




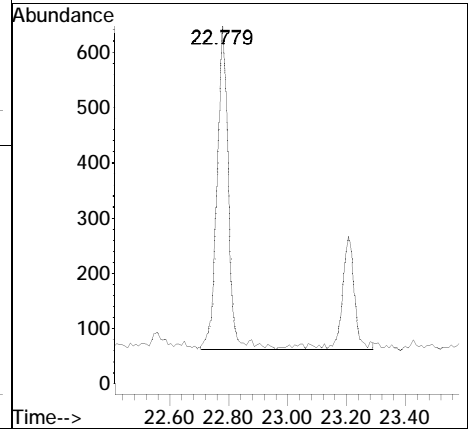
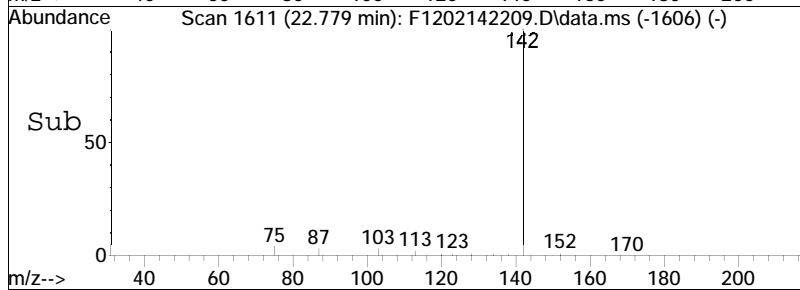
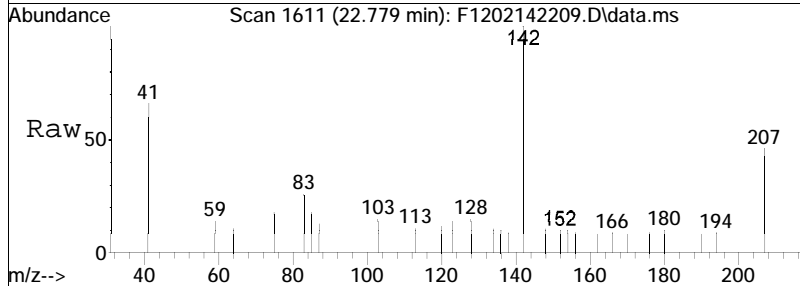


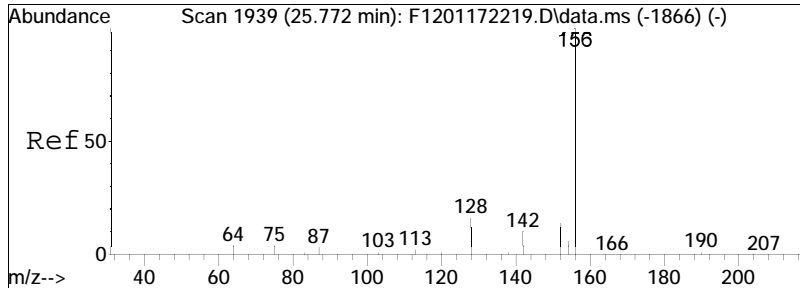
#9  
 Naphthalene  
 Concen: 27.44 ng/mL  
 RT: 20.087 min Scan# 1316  
 Delta R.T. -0.027 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion:128 Resp: 10523



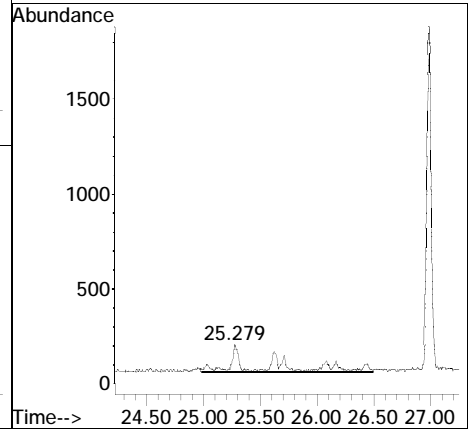
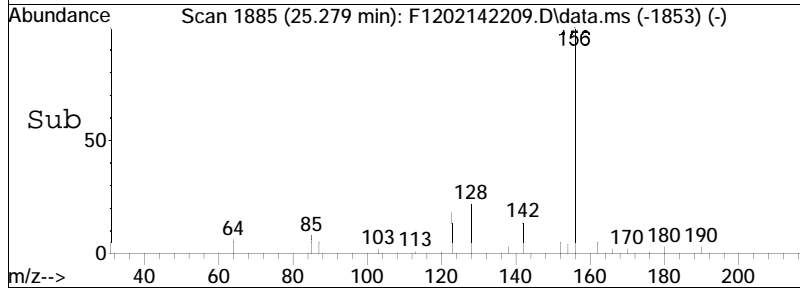
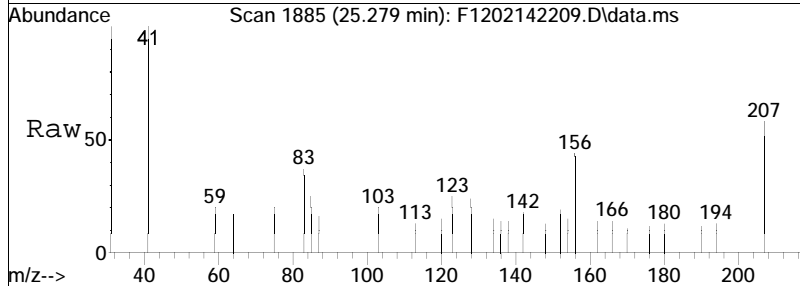


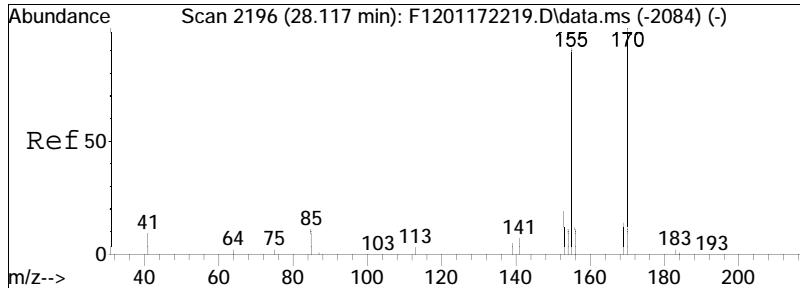
#10  
 Cl-Naphthalenes  
 Concen: 5.66 ng/mL M5  
 RT: 22.779 min Scan# 1611  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion:142 Resp: 2170





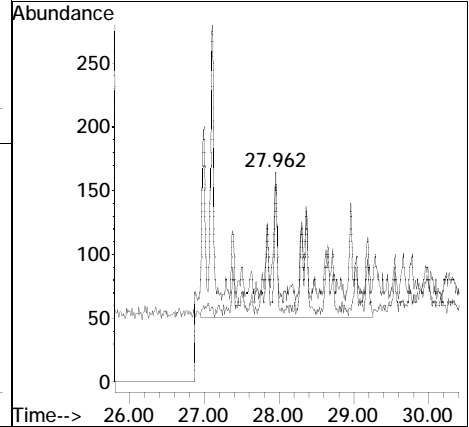
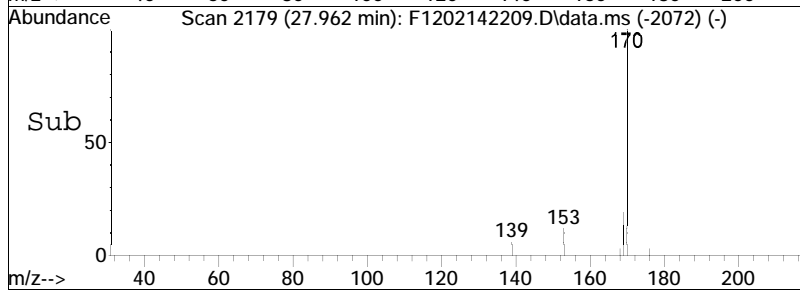
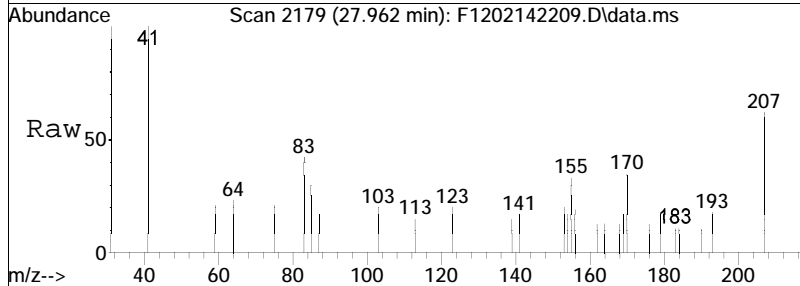
#11  
 C2-Naphthalenes  
 Concen: 5.89 ng/mL M5  
 RT: 25.279 min Scan# 1885  
 Delta R.T. -0.374 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion:156 Resp: 2259

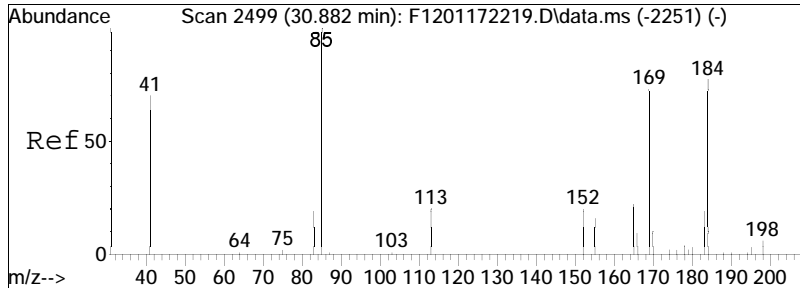




#12  
 C3-Naphthalenes  
 Concen: 5.75 ng/mL M5  
 RT: 27.962 min Scan# 2179  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

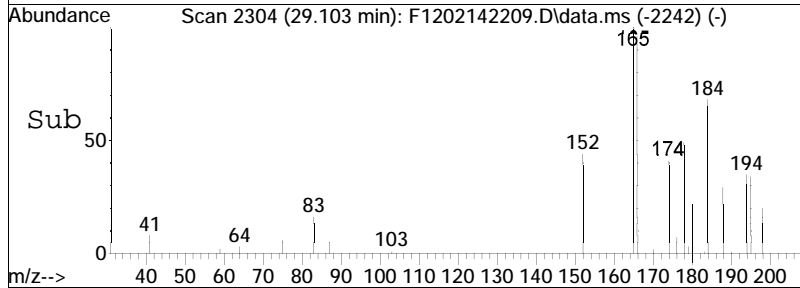
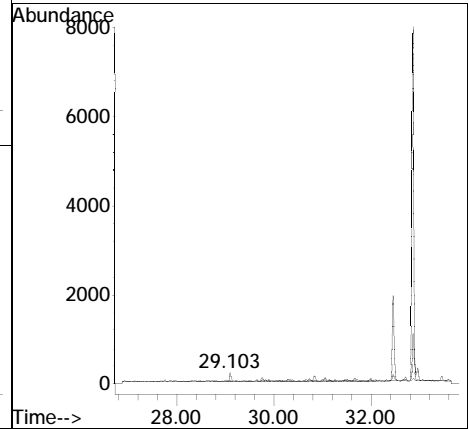
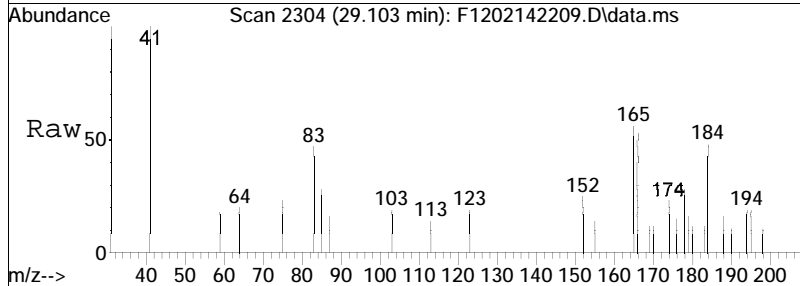
Tgt Ion	Resp	Lower	Upper
170	100		
155	13.8	63.8	118.4#

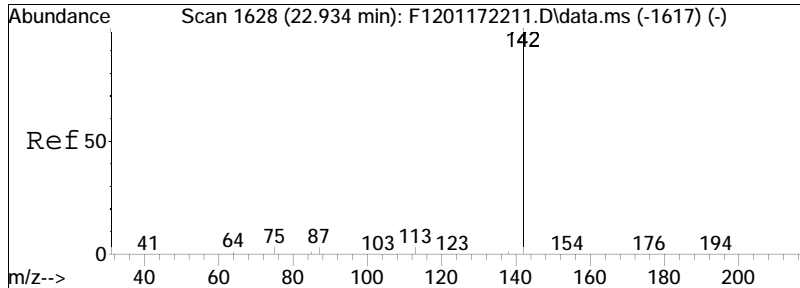




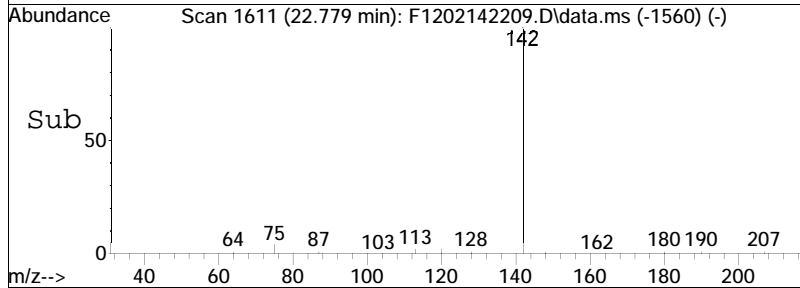
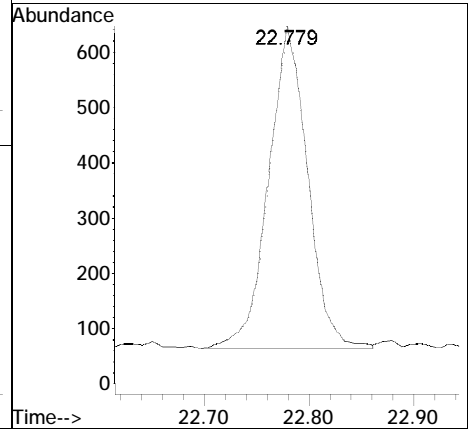
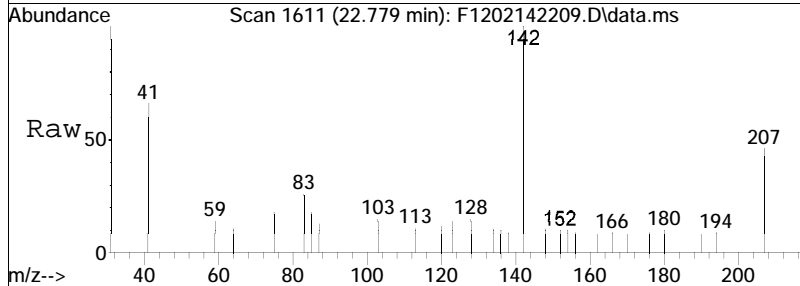
#13  
 C4-Naphthalenes  
 Concen: 6.82 ng/mL M5  
 RT: 29.103 min Scan# 2304  
 Delta R.T. -1.660 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

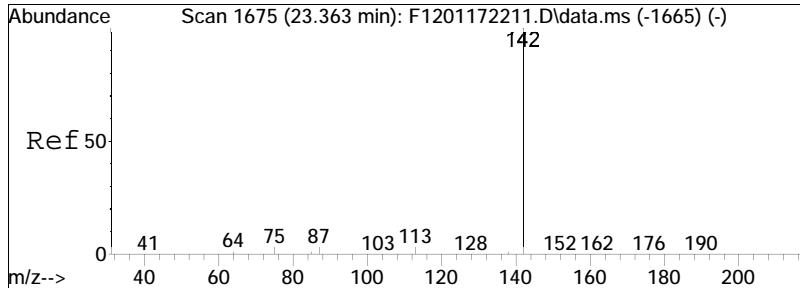
Tgt Ion	Resp	Lower	Upper
184	100		
169	5.1	74.1	137.7#
183	0.0	23.0	42.8#





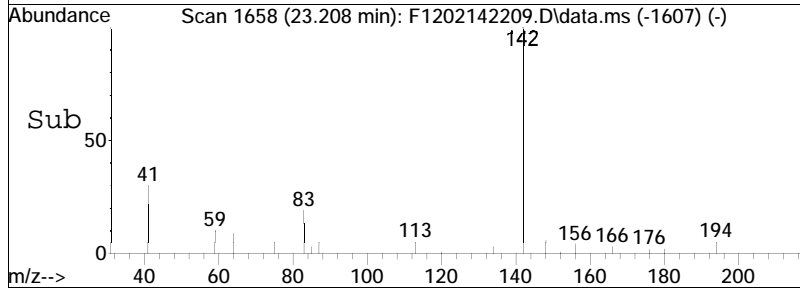
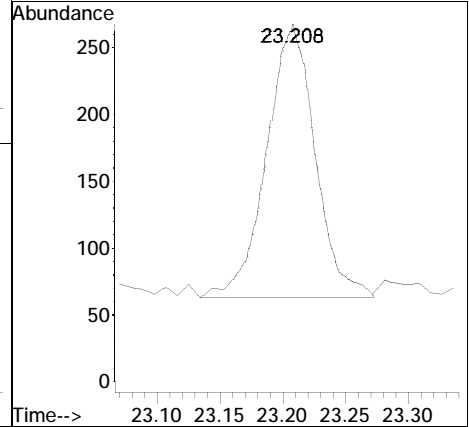
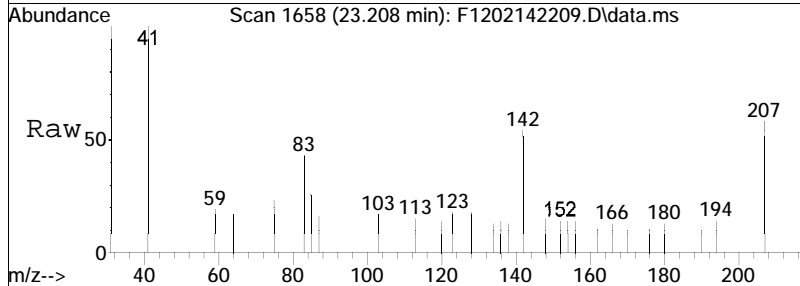
#14  
 2-Methylnaphthalene  
 Concen: 6.16 ng/mL  
 RT: 22.779 min Scan# 1611  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion:142 Resp: 1501

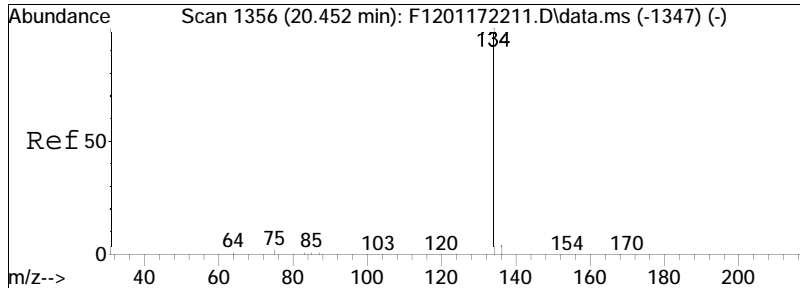




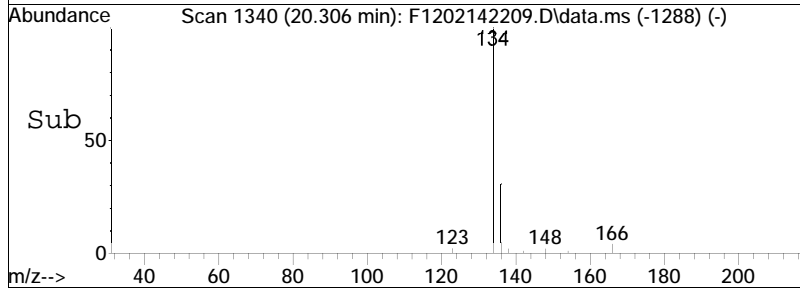
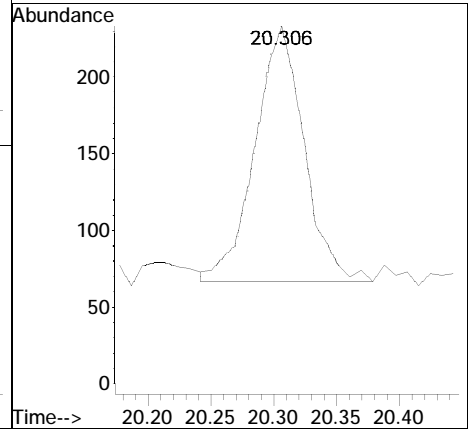
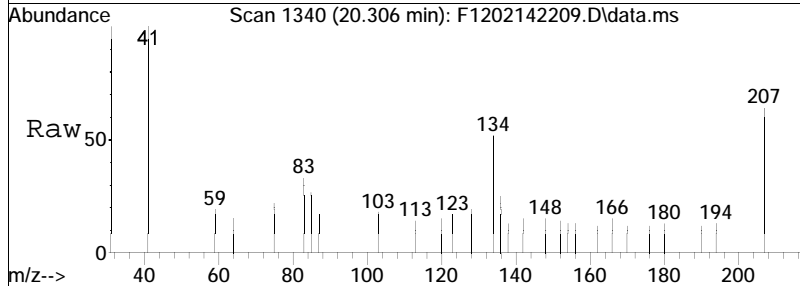
#15  
 1-Methylnaphthalene  
 Concen: 2.37 ng/mL  
 RT: 23.208 min Scan# 1658  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

Tgt Ion:142 Resp: 548

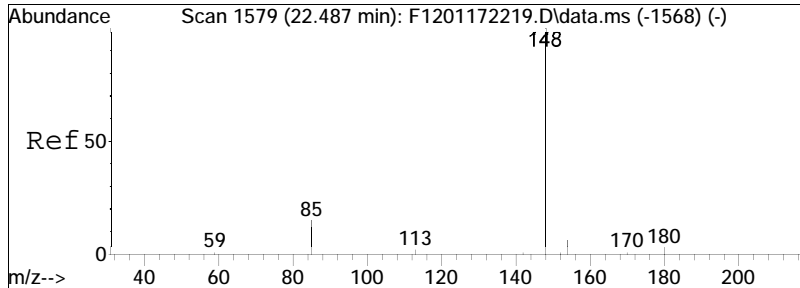




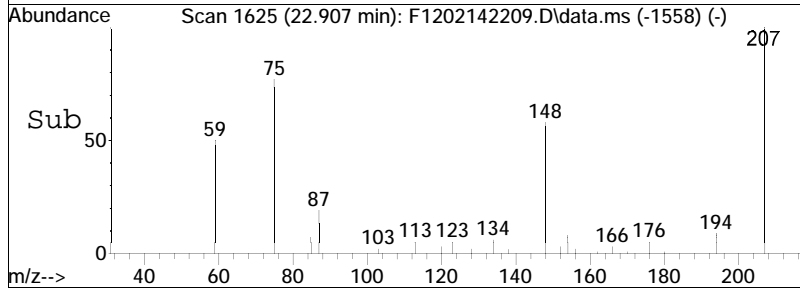
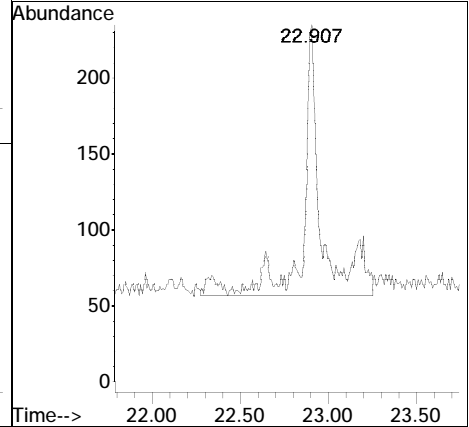
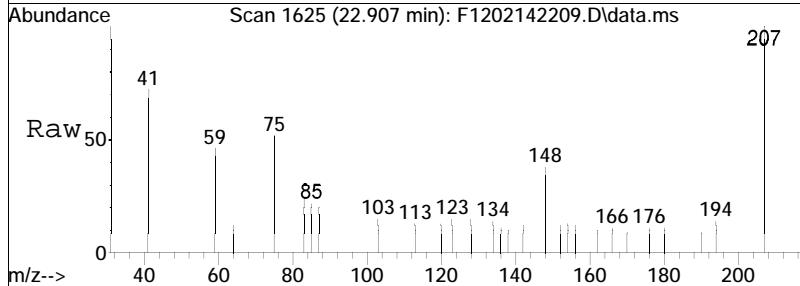
#16  
 Benzothiophene  
 Concen: 1.38 ng/mL  
 RT: 20.306 min Scan# 1340  
 Delta R.T. -0.027 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion:134 Resp: 448

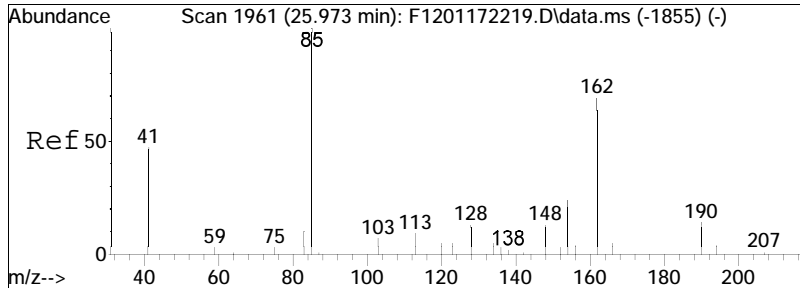




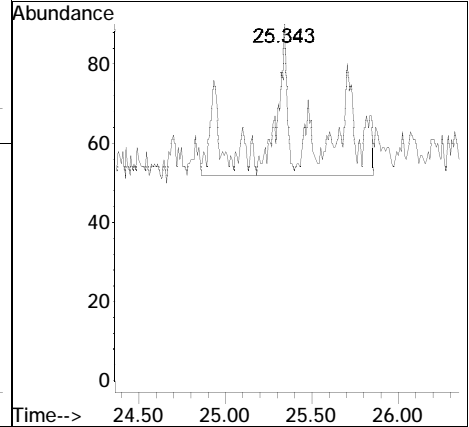
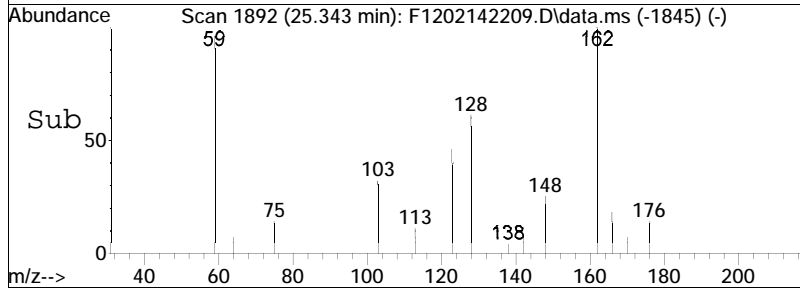
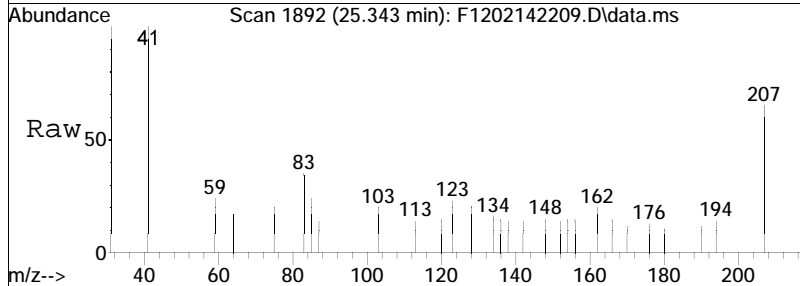


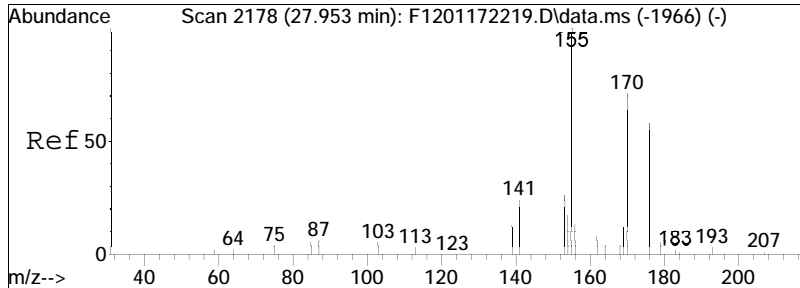
#17  
 Cl-Benzo(b)thiophenes  
 Concen: 3.87 ng/mL M5  
 RT: 22.907 min Scan# 1625  
 Delta R.T. 0.529 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion:148 Resp: 1257



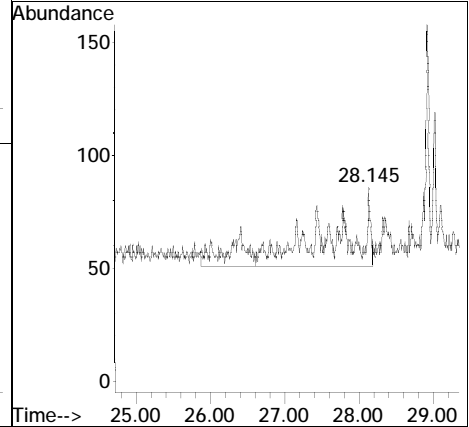
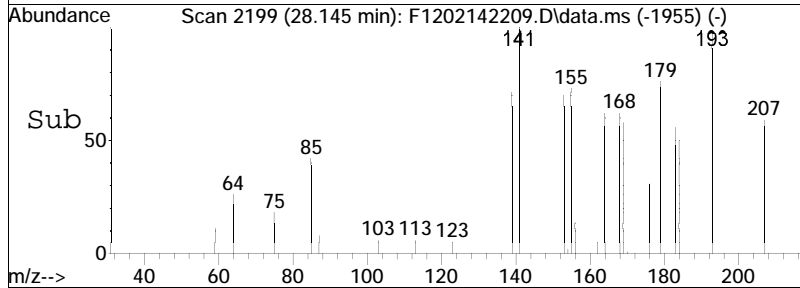
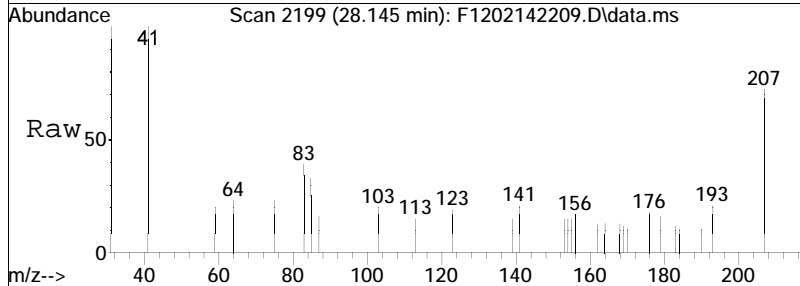


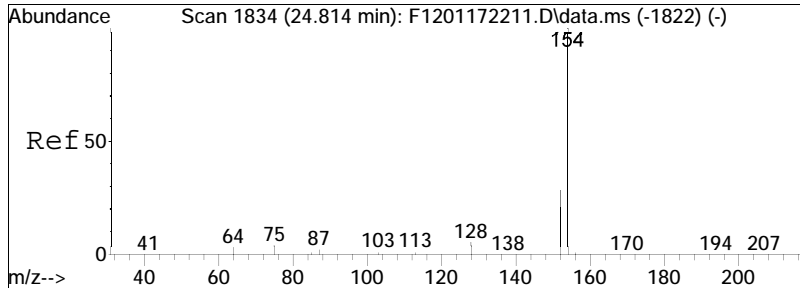
#18  
 C2-Benzo(b)thiophenes  
 Concen: 1.72 ng/mL M5  
 RT: 25.343 min Scan# 1892  
 Delta R.T. -0.511 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion:162 Resp: 557



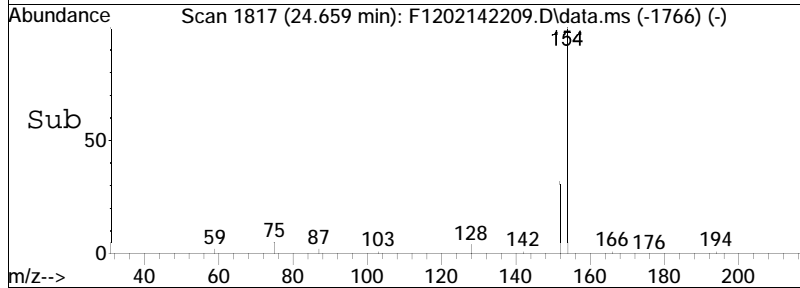
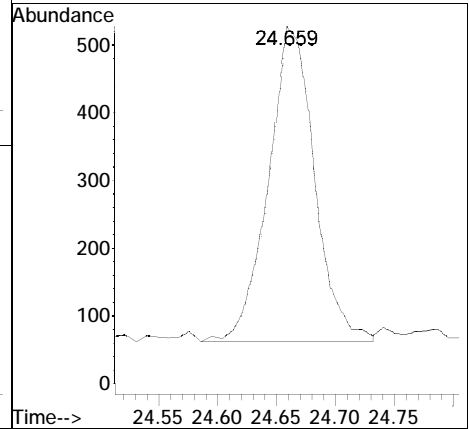
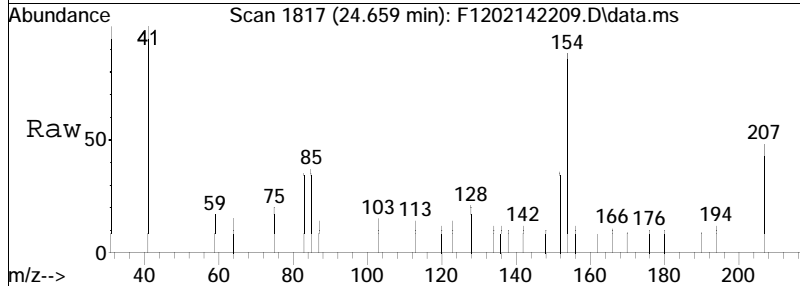


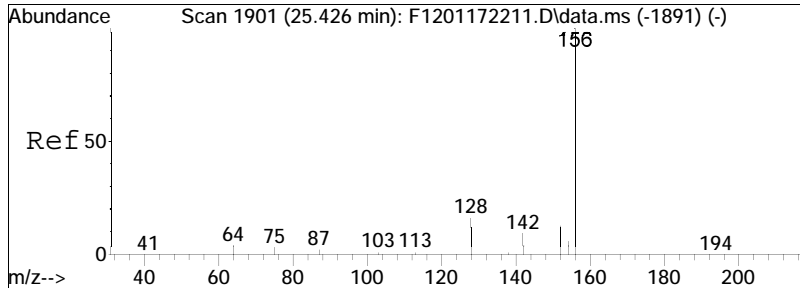
#19  
 C3-Benzo(b)thiophenes  
 Concen: 3.91 ng/mL M5  
 RT: 28.145 min Scan# 2199  
 Delta R.T. 0.310 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion:176 Resp: 1267





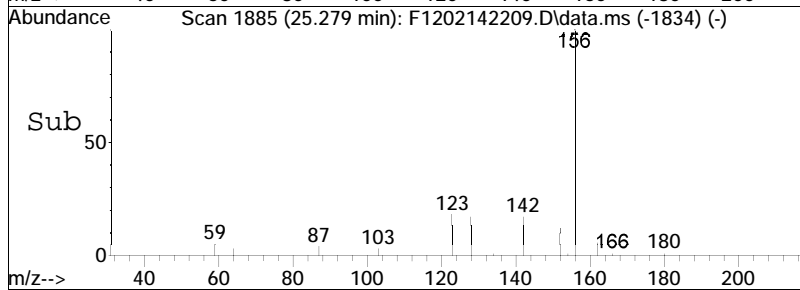
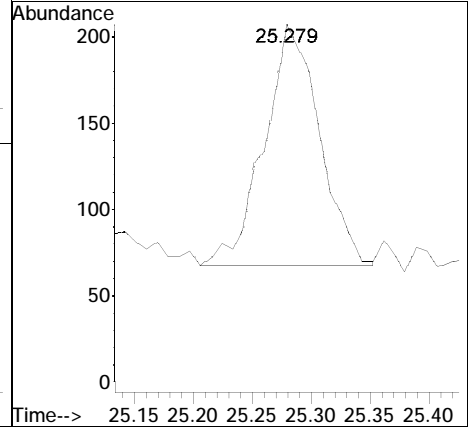
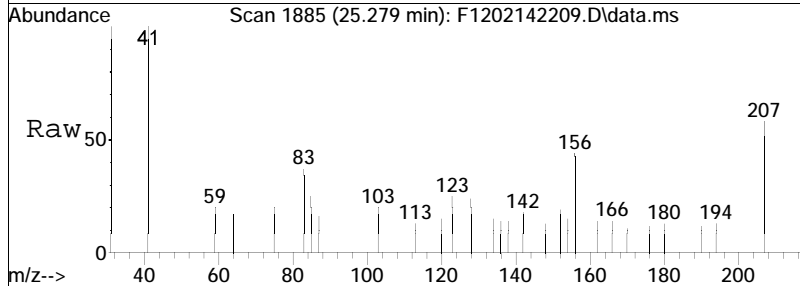
#21  
 Biphenyl  
 Concen: 4.20 ng/mL  
 RT: 24.659 min Scan# 1817  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion:154 Resp: 1252

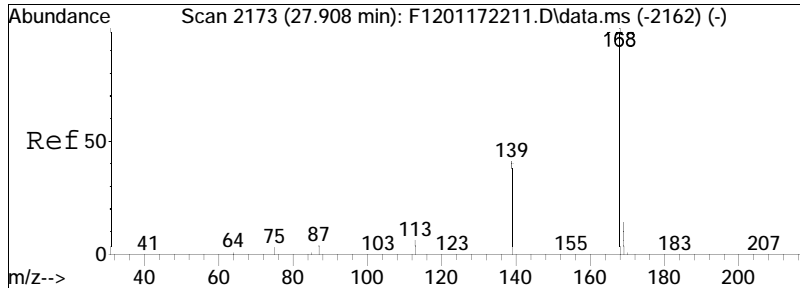




#22  
 2,6-Dimethylnaphthalene  
 Concen: 2.16 ng/mL  
 RT: 25.279 min Scan# 1885  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

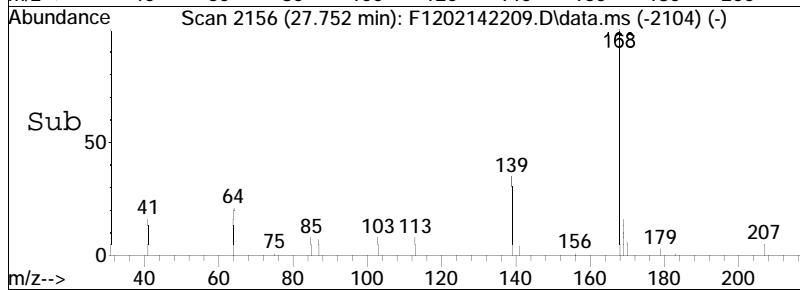
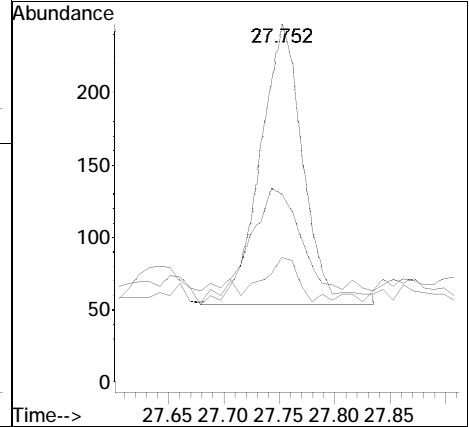
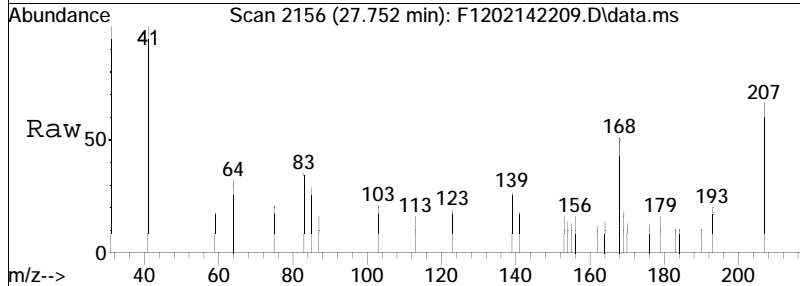
Tgt Ion:156 Resp: 448

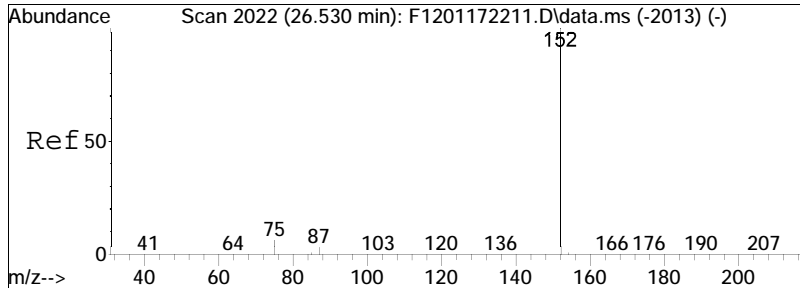




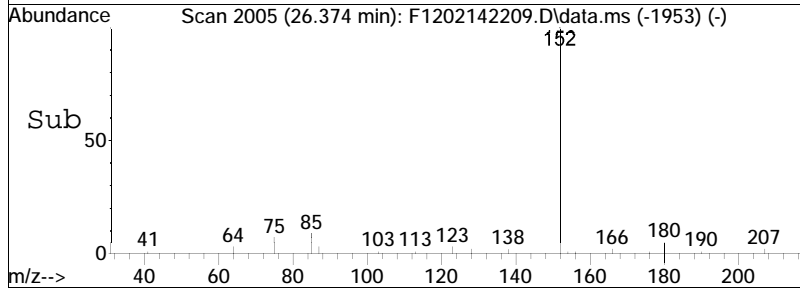
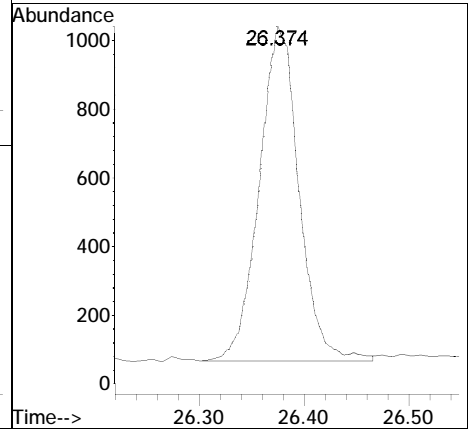
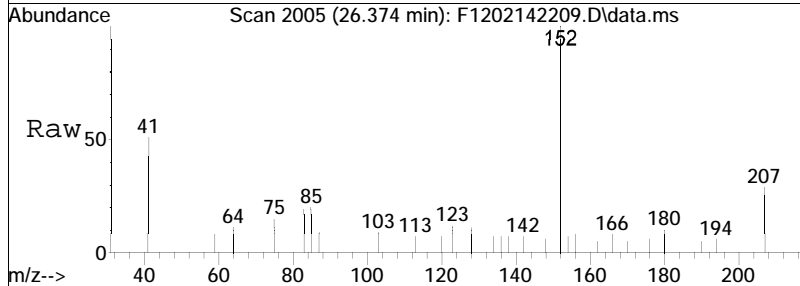
#23  
 Dibenzofuran  
 Concen: 1.63 ng/mL  
 RT: 27.752 min Scan# 2156  
 Delta R.T. -0.027 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

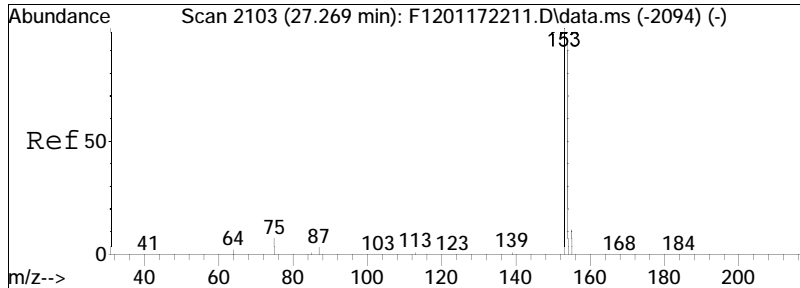
Tgt Ion	Ratio	Lower	Upper
168	100		
139	40.0	35.0	65.0
169	0.0	11.5	21.5#





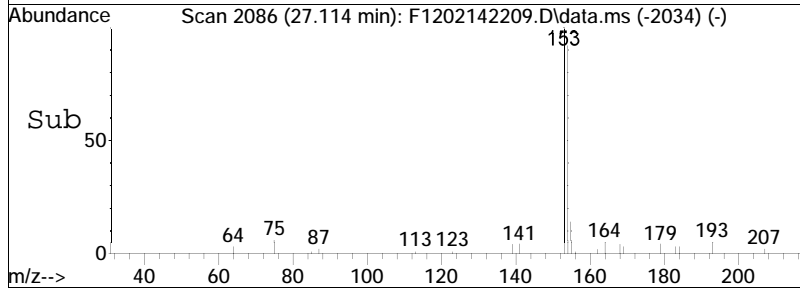
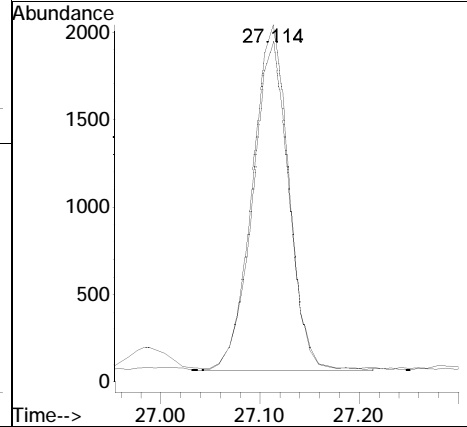
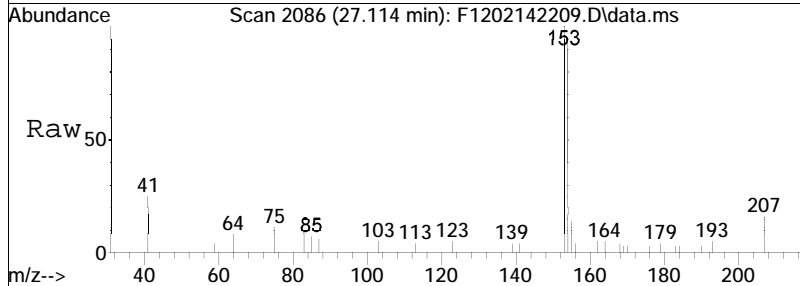
#24  
 Acenaphthylene  
 Concen: 6.92 ng/mL  
 RT: 26.374 min Scan# 2005  
 Delta R.T. -0.027 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion:152 Resp: 2532



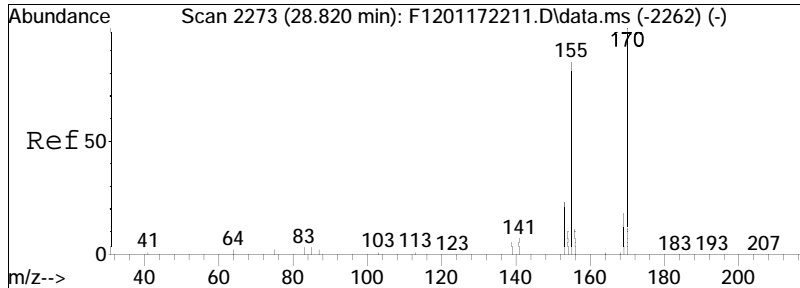


#25  
 Acenaphthene  
 Concen: 21.85 ng/mL  
 RT: 27.114 min Scan# 2086  
 Delta R.T. -0.027 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

Tgt Ion	Resp	Lower	Upper
153	100		
154	92.2	65.4	121.4

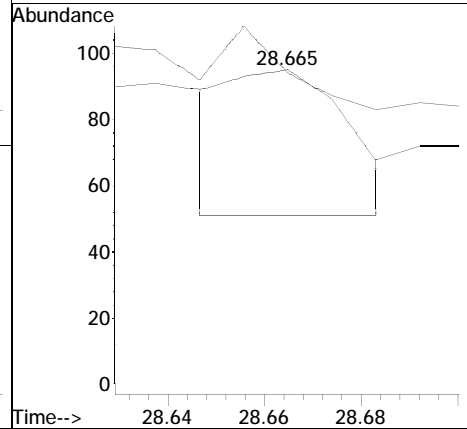
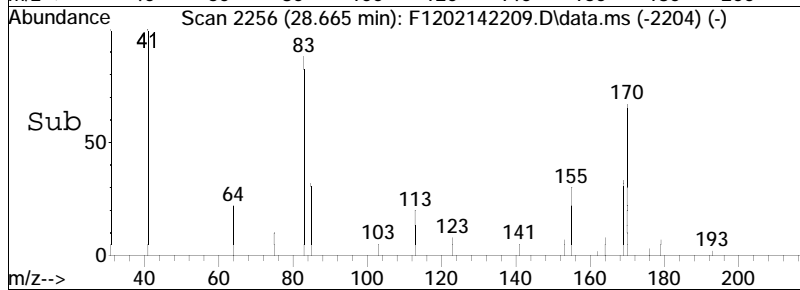
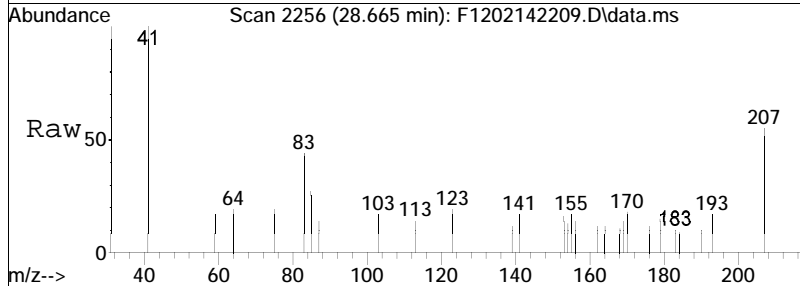


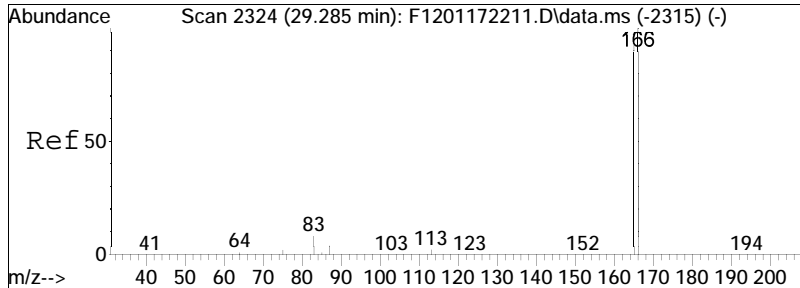




#26  
 2,3,5-Trimethylnaphthalene  
 Concen: 0.38 ng/mL M3  
 RT: 28.665 min Scan# 2256  
 Delta R.T. -0.027 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

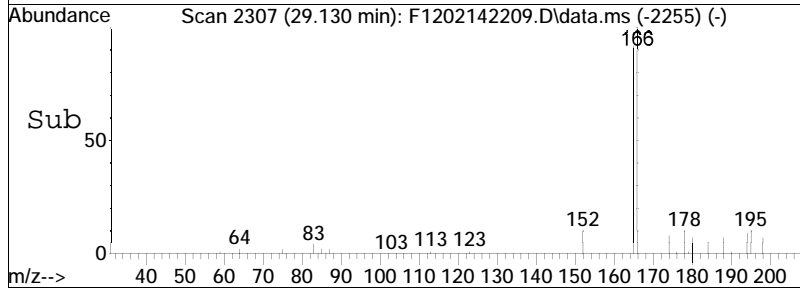
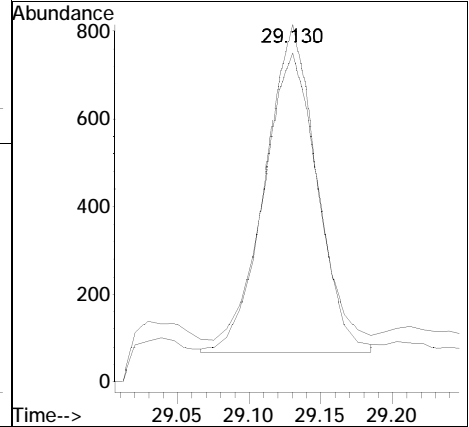
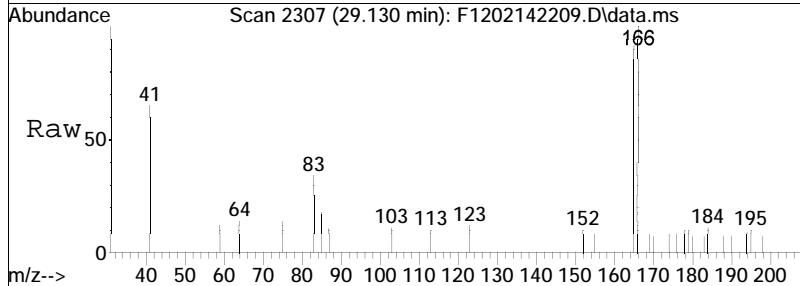
Tgt Ion	Resp	Lower	Upper
170	100		
155	209.2	61.6	114.4#

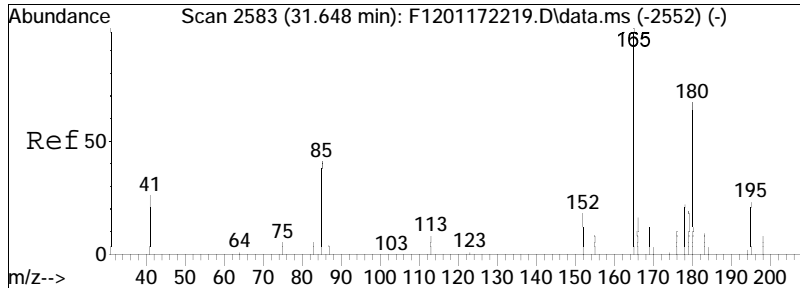




#27  
 Fluorene  
 Concen: 7.25 ng/mL M4  
 RT: 29.130 min Scan# 2307  
 Delta R.T. -0.027 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

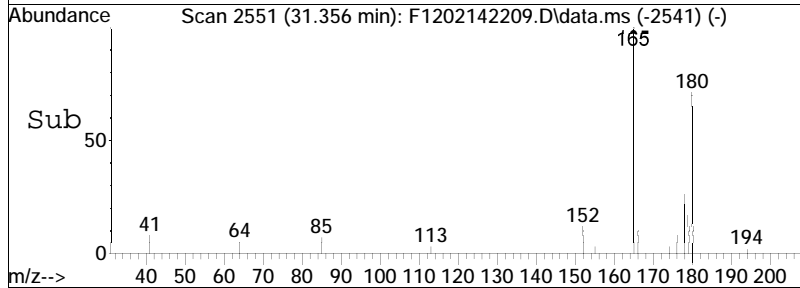
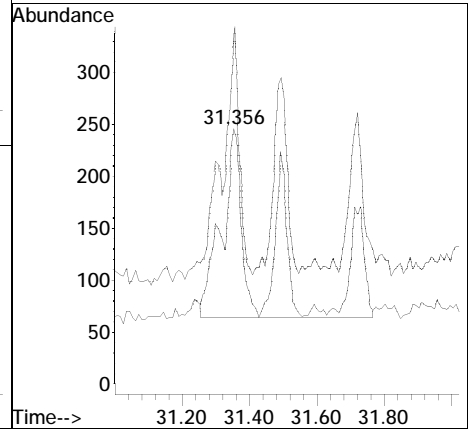
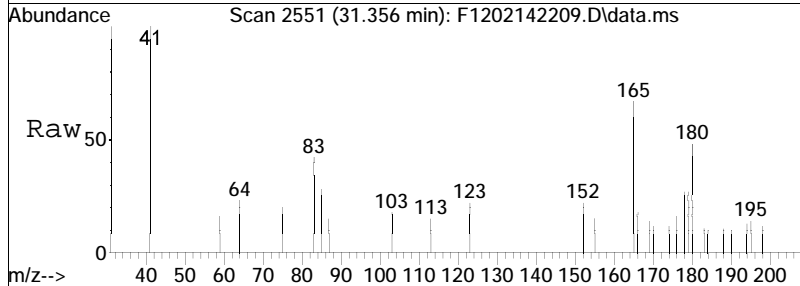
Tgt Ion	Resp	Lower	Upper
166	100		
165	98.3	66.4	123.4

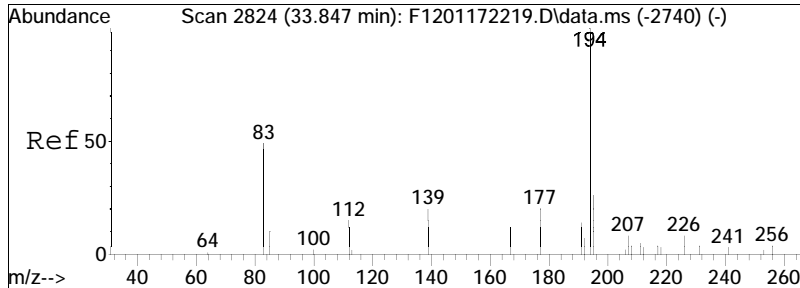




#28  
 Cl-Fluorenes  
 Concen: 5.70 ng/mL M5  
 RT: 31.356 min Scan# 2551  
 Delta R.T. -0.173 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

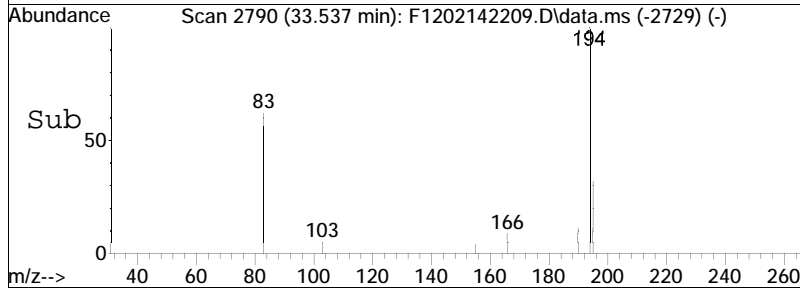
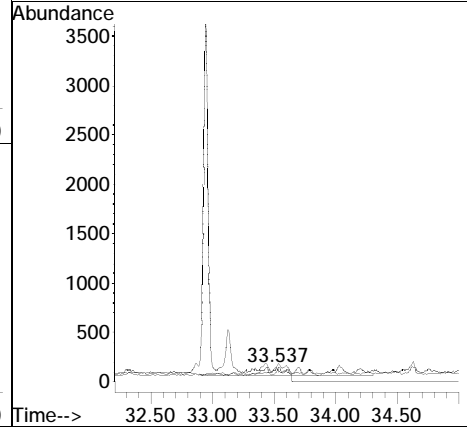
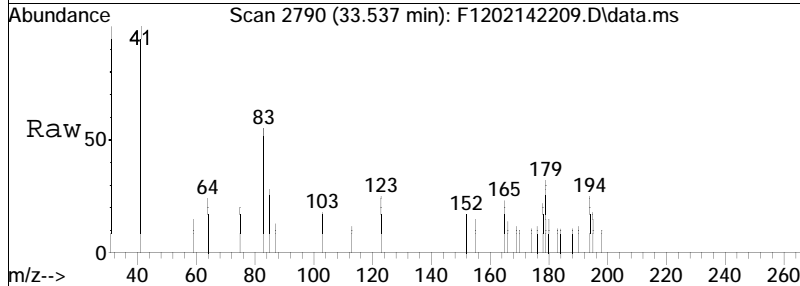
Tgt Ion: 180 Resp: 1459  
 Ion Ratio Lower Upper  
 180 100  
 165 36.1 105.8 196.4#

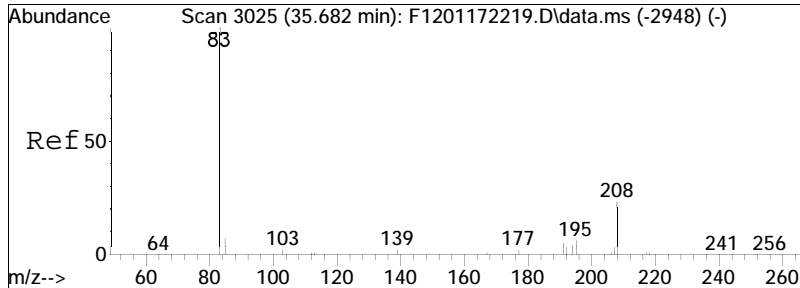




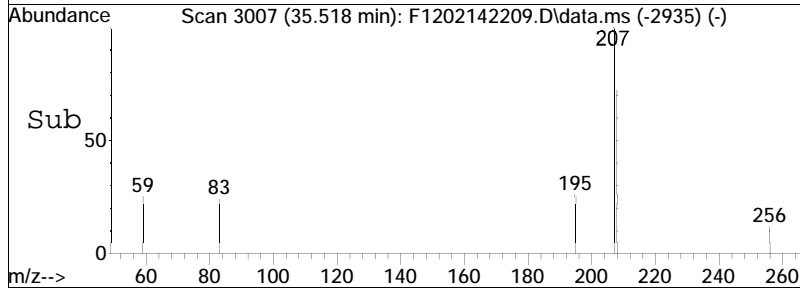
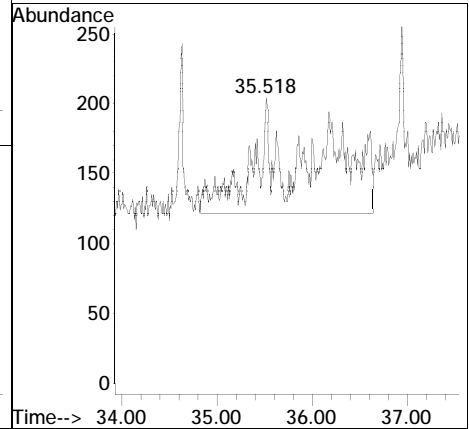
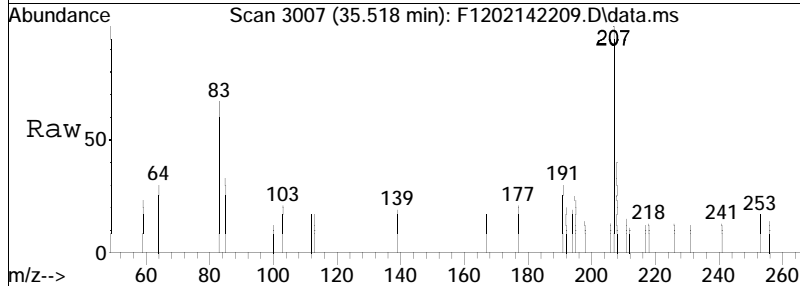
#29  
 C2-Fluorenes  
 Concen: 8.01 ng/mL M5  
 RT: 33.537 min Scan# 2790  
 Delta R.T. -0.192 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

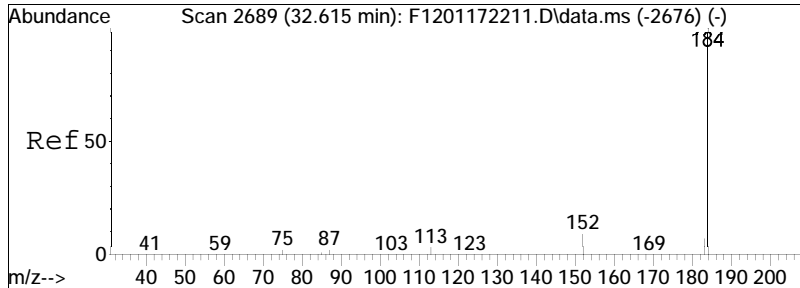
Tgt Ion	Resp	Lower	Upper
194	2051		
179	0.0	0.0	0.0
195	0.0	23.8	44.2#





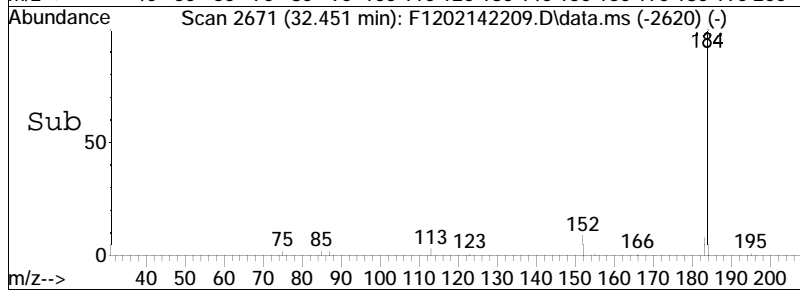
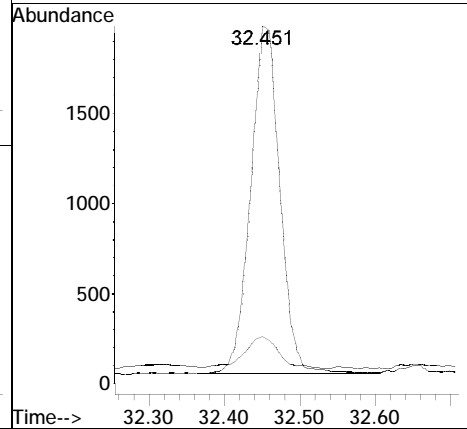
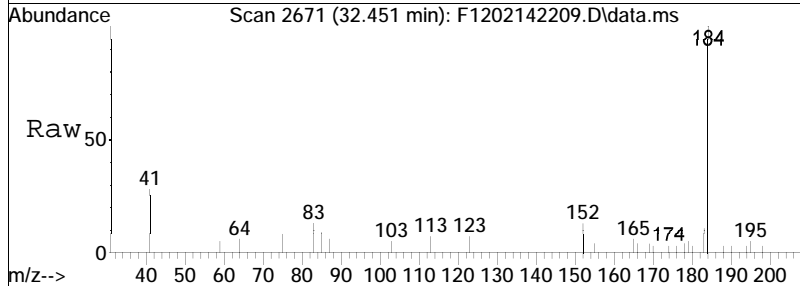
#30  
 C3-Fluorenes  
 Concen: 13.47 ng/mL M5  
 RT: 35.518 min Scan# 3007  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion:208 Resp: 3449

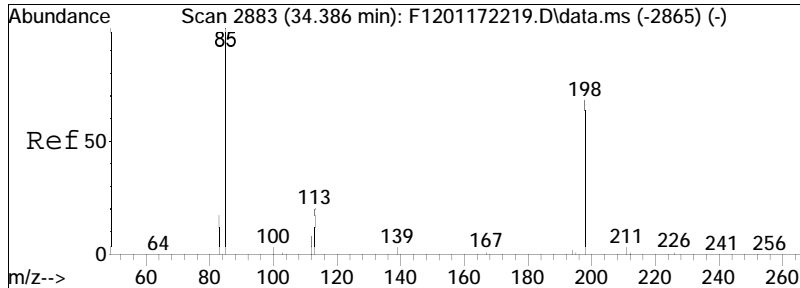




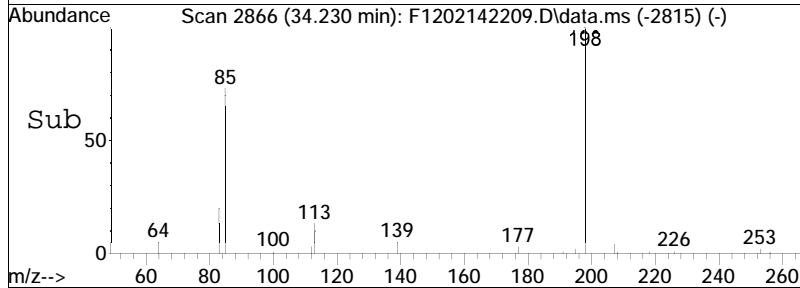
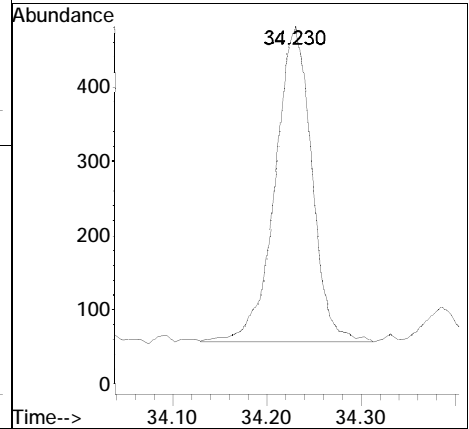
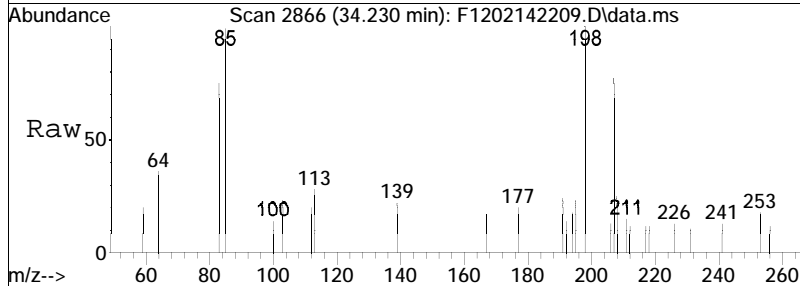
#31  
 Dibenzothiophene  
 Concen: 13.90 ng/mL  
 RT: 32.451 min Scan# 2671  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

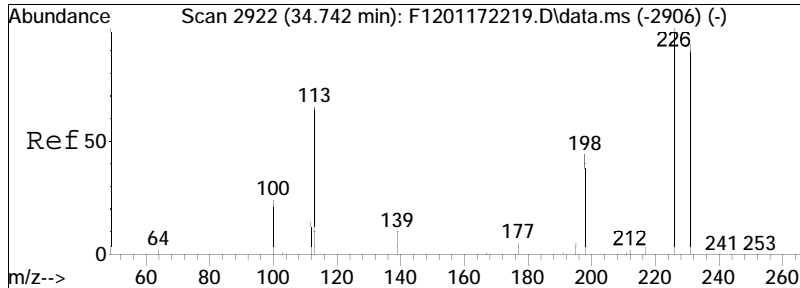
Tgt Ion	Resp	Lower	Upper
184	100		
152	10.4	11.3	20.9#



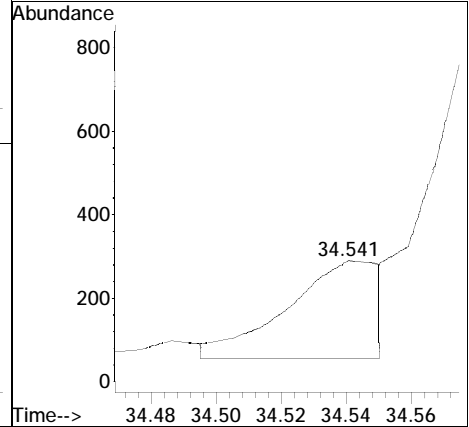
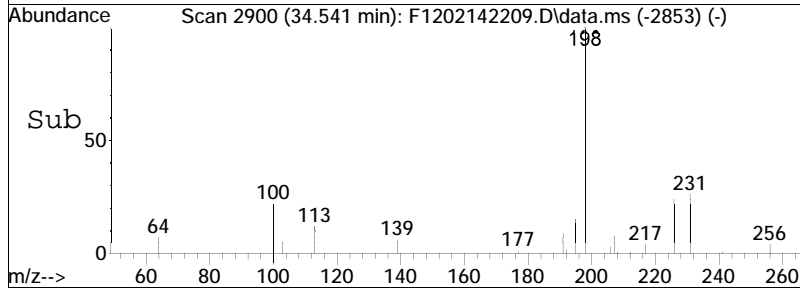
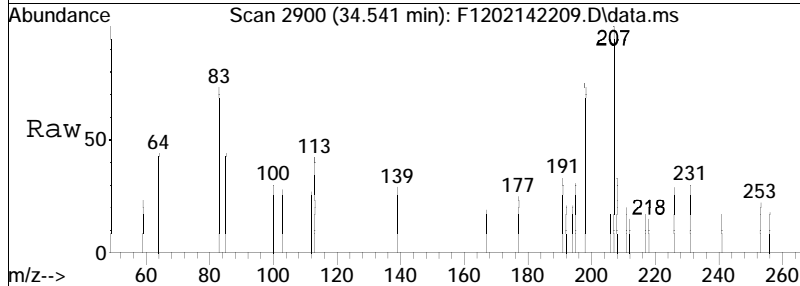


#32  
 4-Methyldibenzothiophene (4MDT)  
 Concen: 3.08 ng/mL  
 RT: 34.230 min Scan# 2866  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion: 198 Resp: 1139

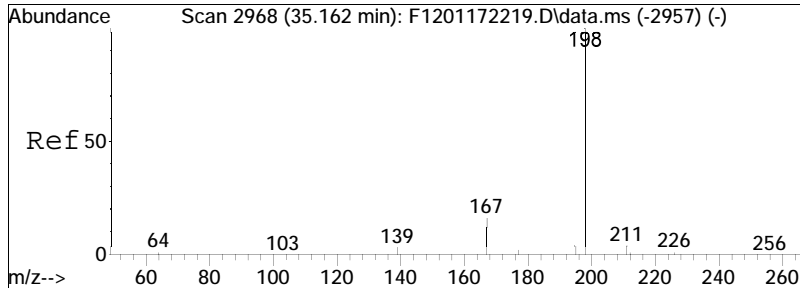




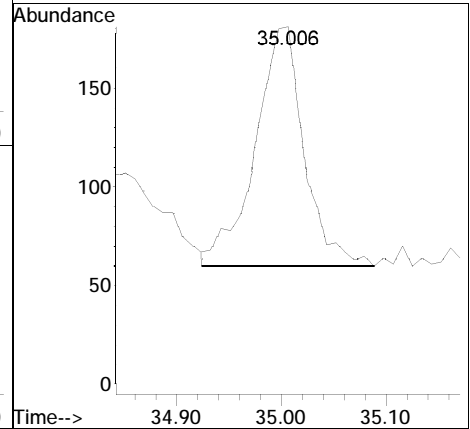
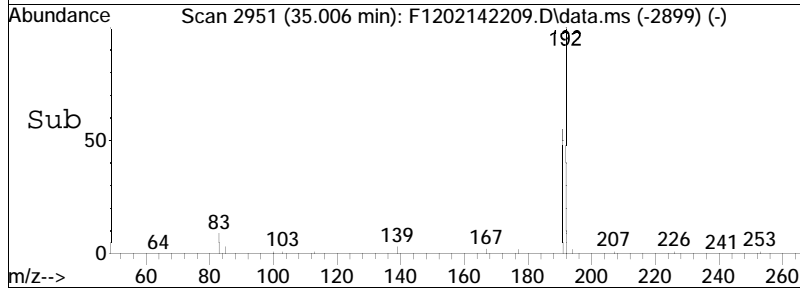
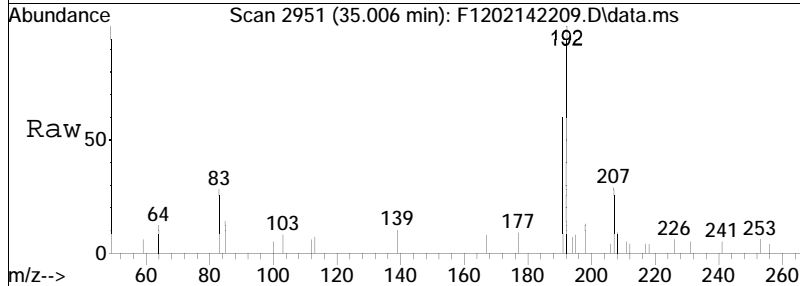
#33  
 2/3-Methyldibenzothiophene(2MD)  
 Concen: 1.32 ng/mL M3  
 RT: 34.541 min Scan# 2900  
 Delta R.T. -0.073 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion:198 Resp: 489

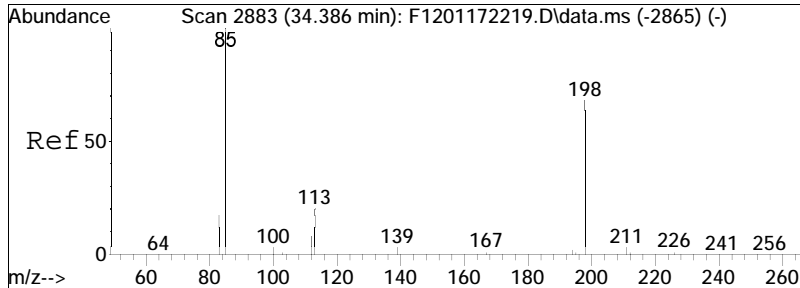




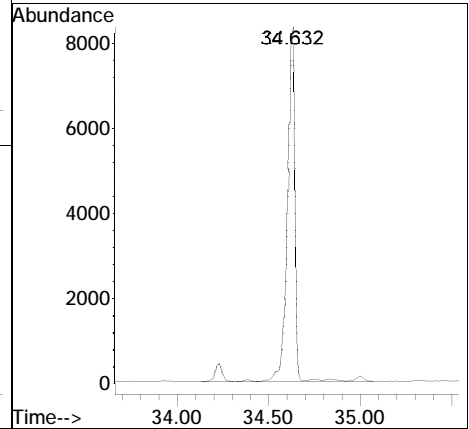
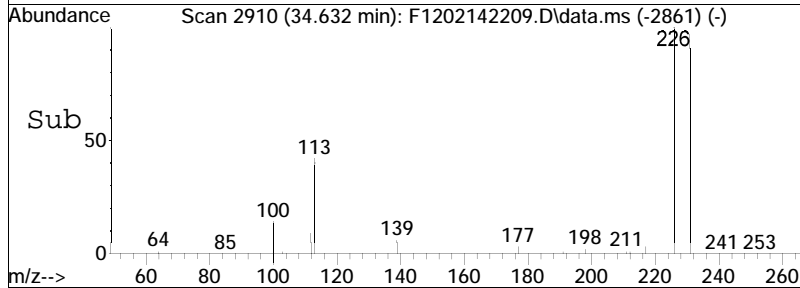
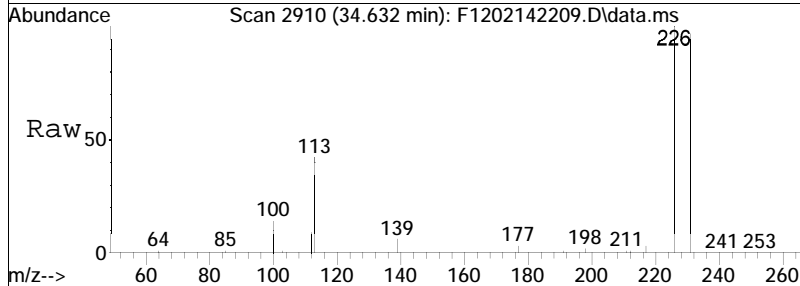


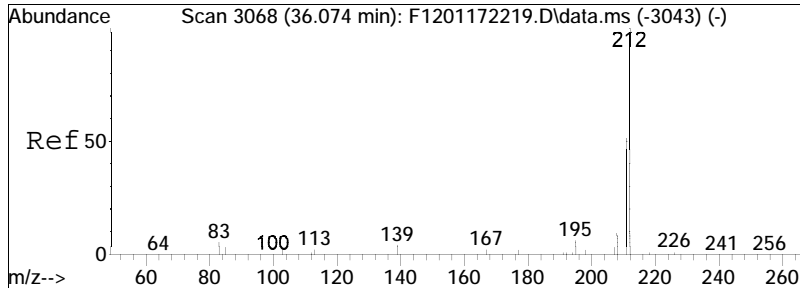
#34  
 1-Methyldibenzothiophene(1MDT)  
 Concen: 1.06 ng/mL  
 RT: 35.006 min Scan# 2951  
 Delta R.T. -0.027 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion:198 Resp: 393



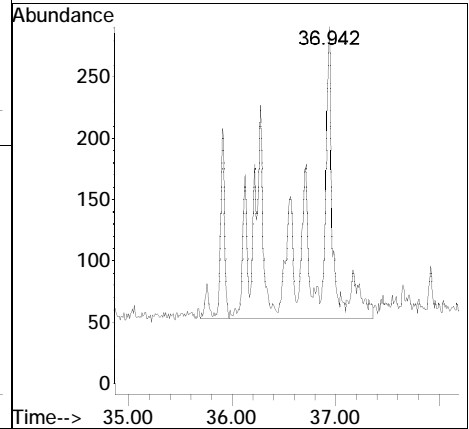
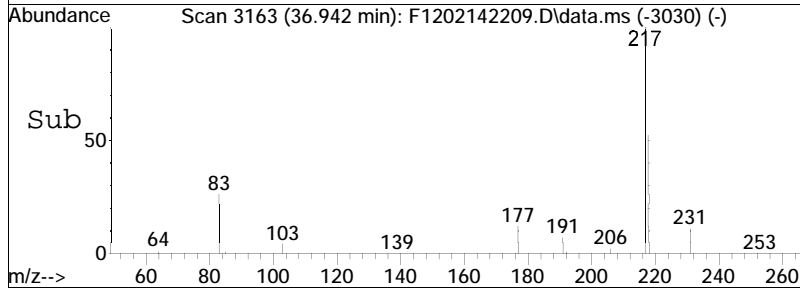
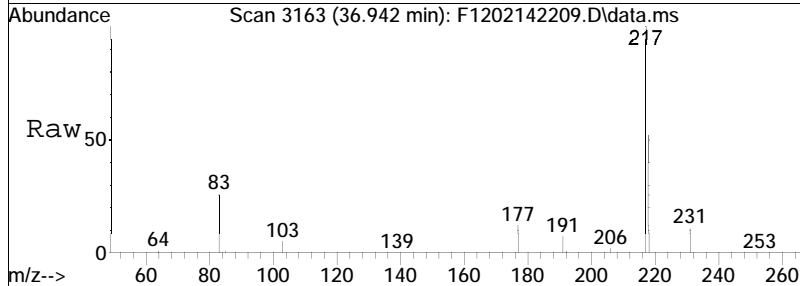


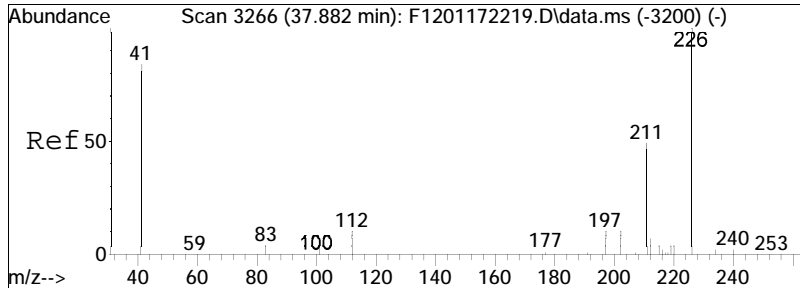
#36  
 Cl-Dibenzothiophenes  
 Concen: 66.17 ng/mL M5  
 RT: 34.632 min Scan# 2910  
 Delta R.T. 0.350 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion:198 Resp: 24448





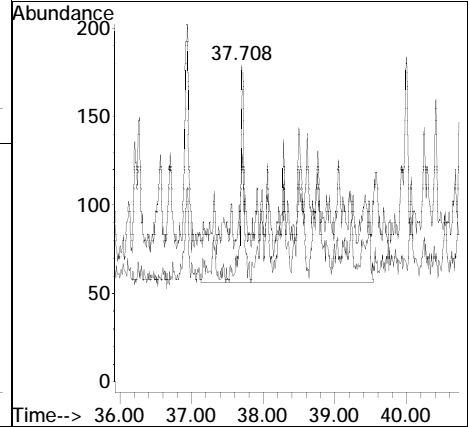
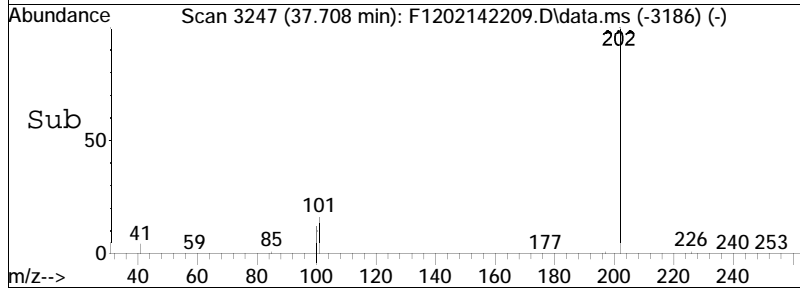
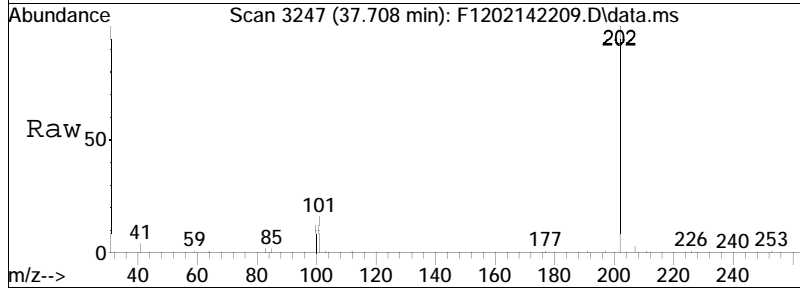
#37  
 C2-Dibenzothiophenes  
 Concen: 10.99 ng/mL M5  
 RT: 36.942 min Scan# 3163  
 Delta R.T. 0.976 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion:212 Resp: 4060

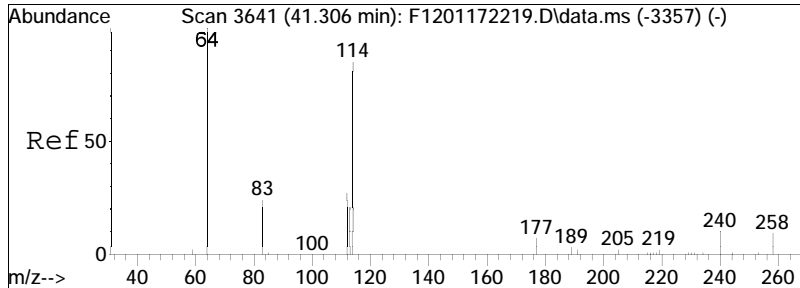




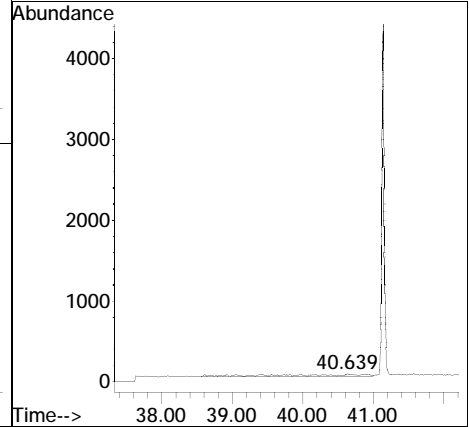
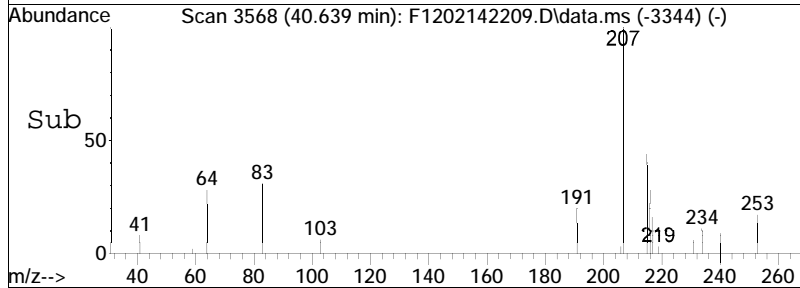
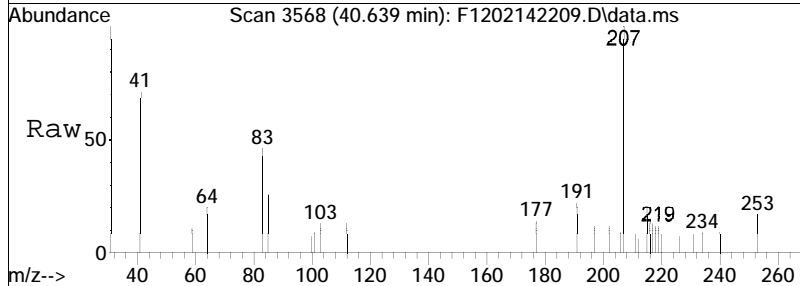
#38  
 C3-Dibenzothiophenes  
 Concen: 8.52 ng/mL M5  
 RT: 37.708 min Scan# 3247  
 Delta R.T. -0.059 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

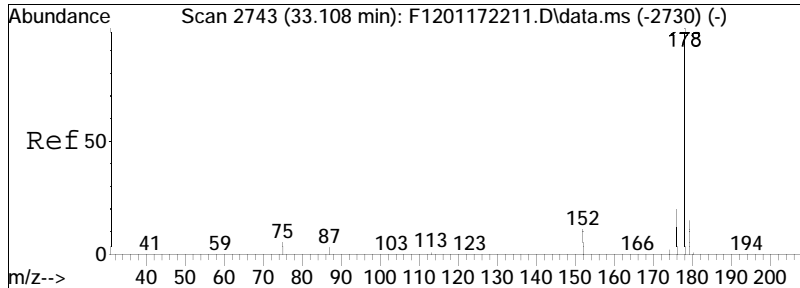
Tgt Ion	Resp	Lower	Upper
226	100		
211	5.7	37.5	69.7#





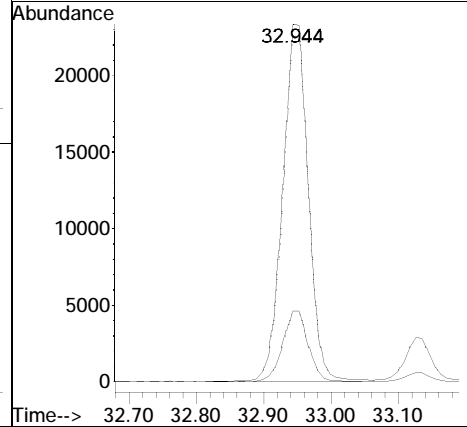
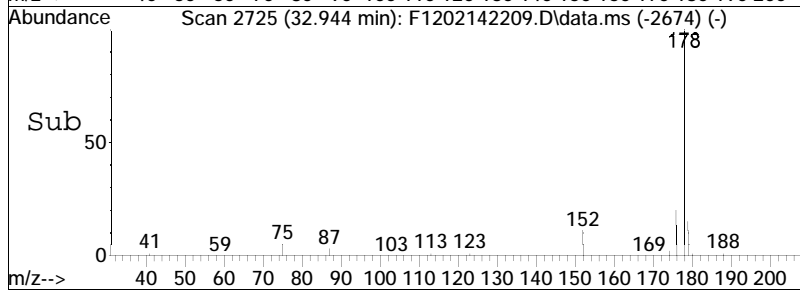
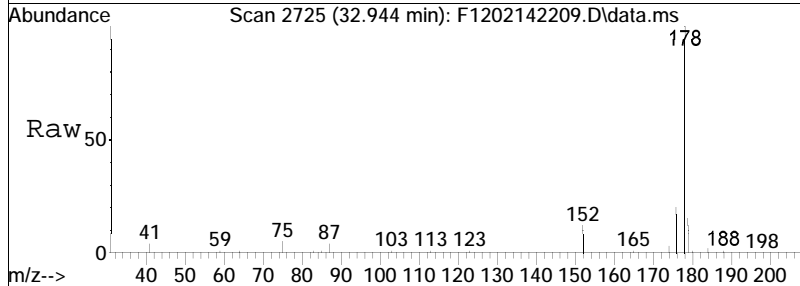
#39  
 C4-Dibenzothiophenes  
 Concen: 5.56 ng/mL M5  
 RT: 40.639 min Scan# 3568  
 Delta R.T. 1.197 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion: 240 Resp: 2055

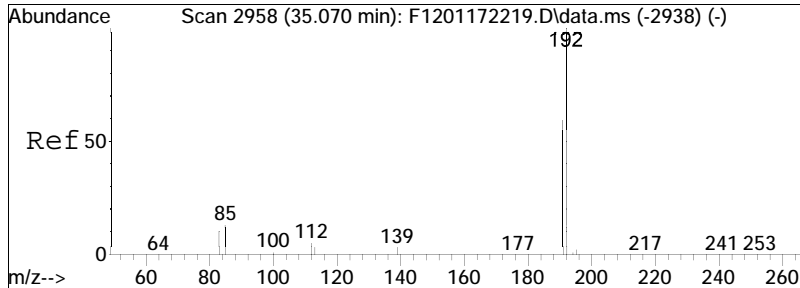




#41  
 Phenanthrene  
 Concen: 159.43 ng/mL  
 RT: 32.944 min Scan# 2725  
 Delta R.T. -0.036 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

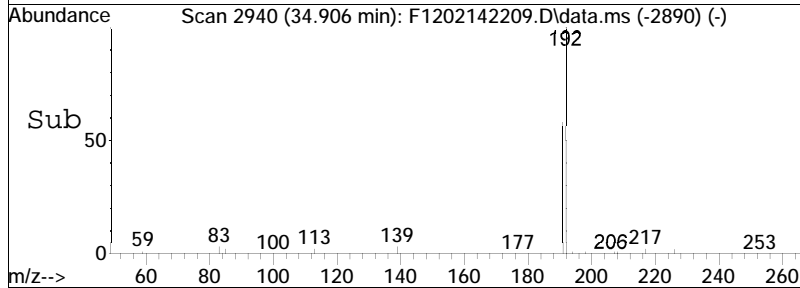
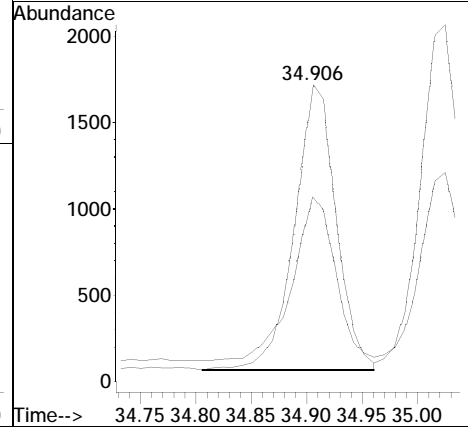
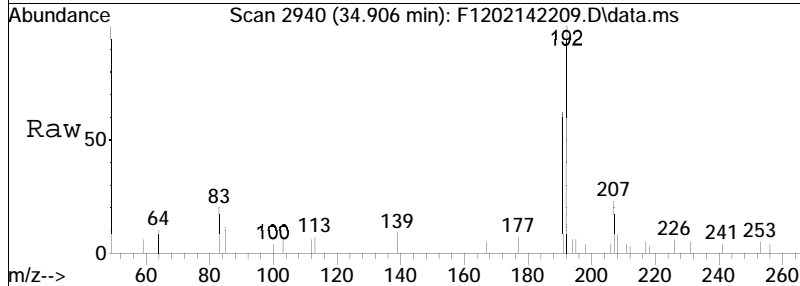
Tgt Ion	Resp	Lower	Upper
178	100		
176	19.7	14.8	27.6

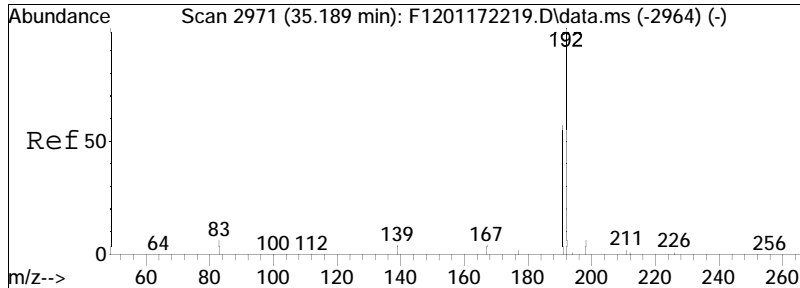




#42  
 3-Methylphenanthrene (3MP)  
 Concen: 11.40 ng/mL  
 RT: 34.906 min Scan# 2940  
 Delta R.T. -0.046 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

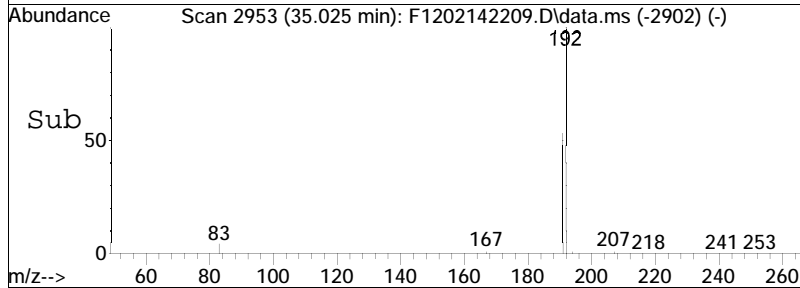
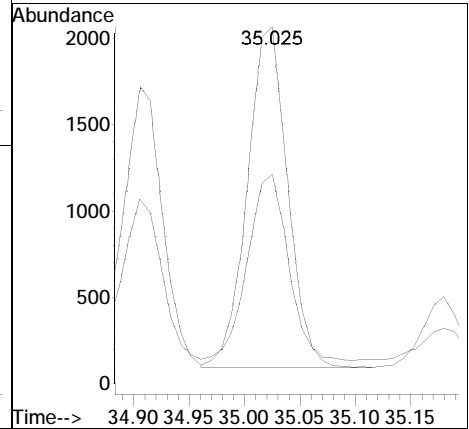
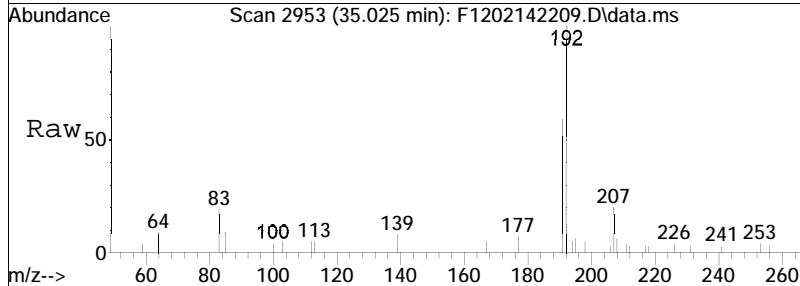
Tgt Ion	Resp	Lower	Upper
192	4303		
191	59.0	42.6	79.0



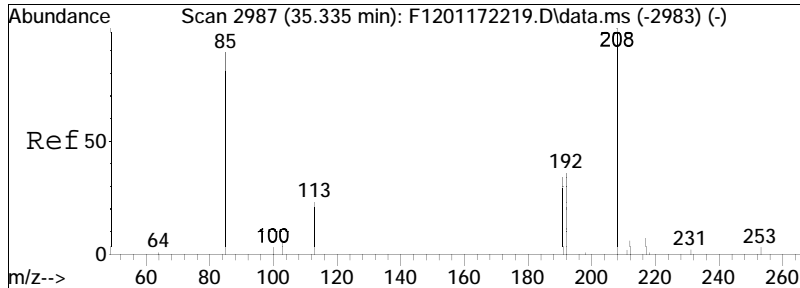


#43  
 2-Methylphenanthrene (2MP)  
 Concen: 13.12 ng/mL  
 RT: 35.025 min Scan# 2953  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

Tgt Ion: 192 Resp: 4953  
 Ion Ratio Lower Upper  
 192 100  
 191 55.1 41.5 77.1

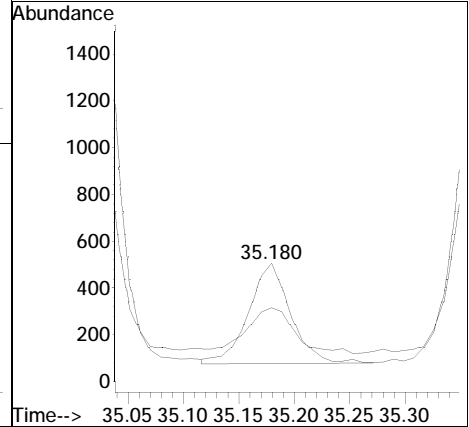
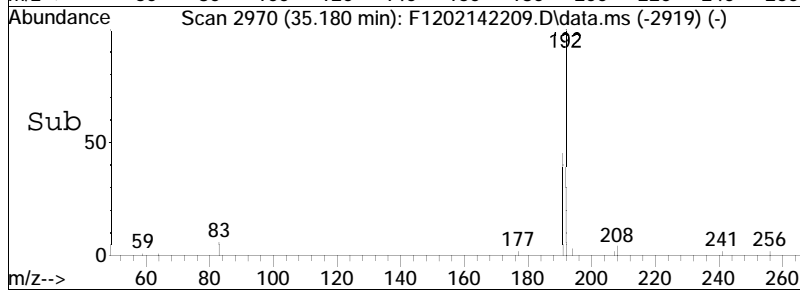
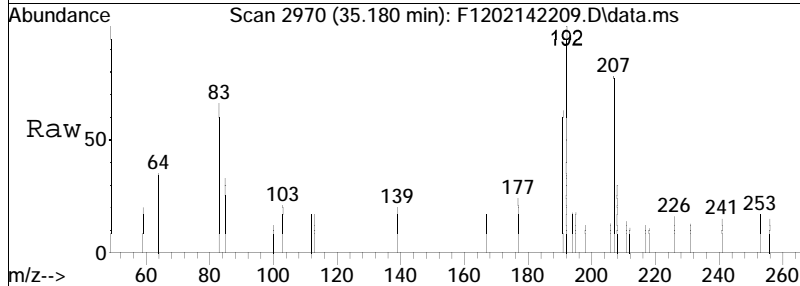


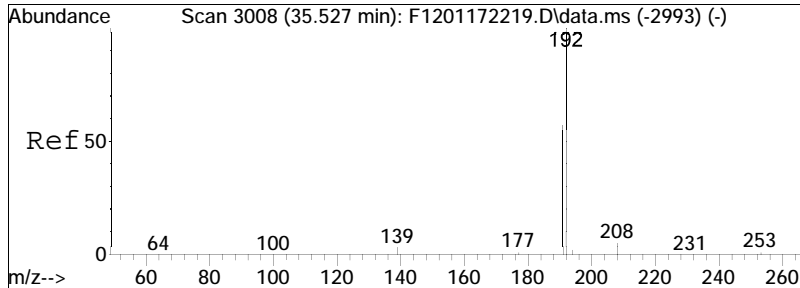




#44  
 2-Methylantracene(2MA)  
 Concen: 2.98 ng/mL  
 RT: 35.180 min Scan# 2970  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

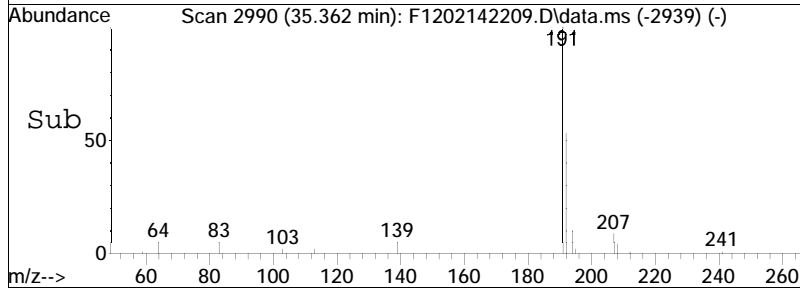
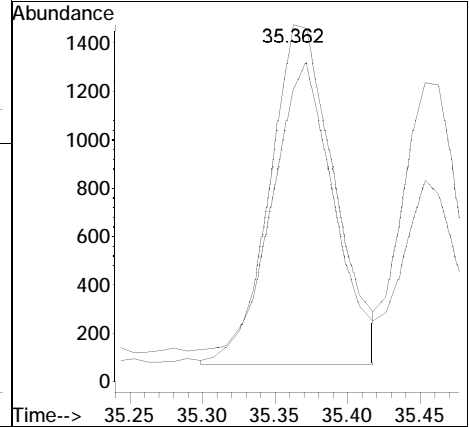
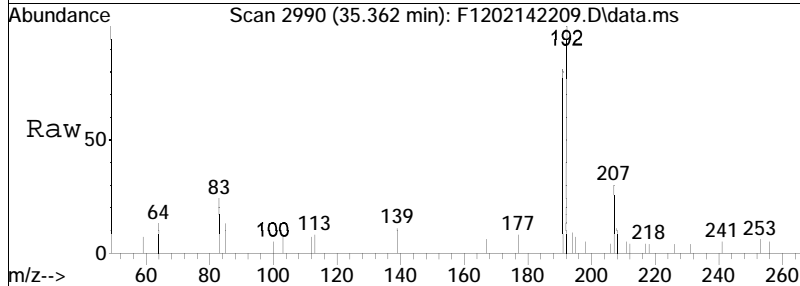
Tgt Ion:192 Resp: 1126  
 Ion Ratio Lower Upper  
 192 100  
 191 52.8 83.9 155.7#

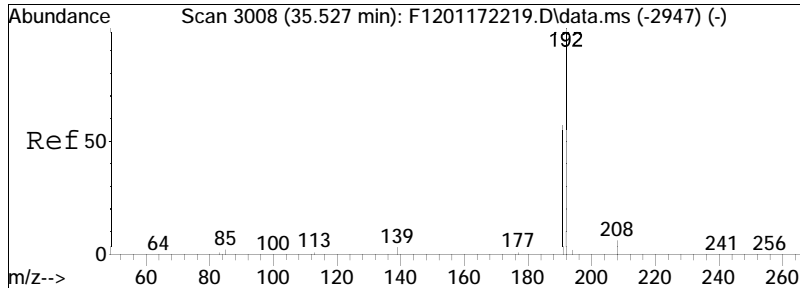




#45  
 9/4-Methylphenanthrene(9MP)  
 Concen: 11.51 ng/mL M3  
 RT: 35.362 min Scan# 2990  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

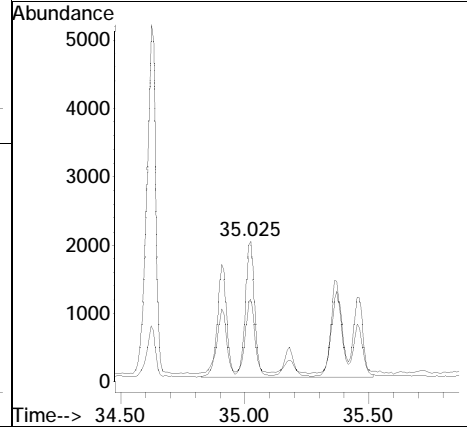
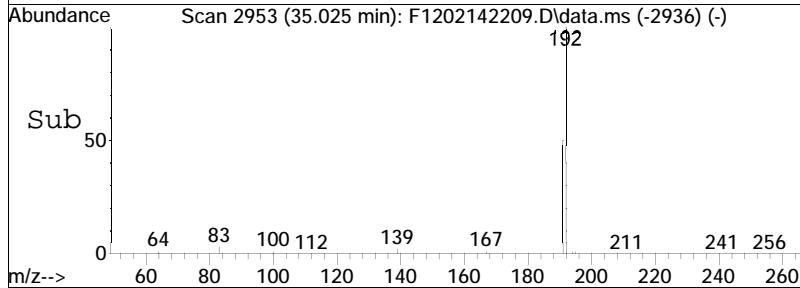
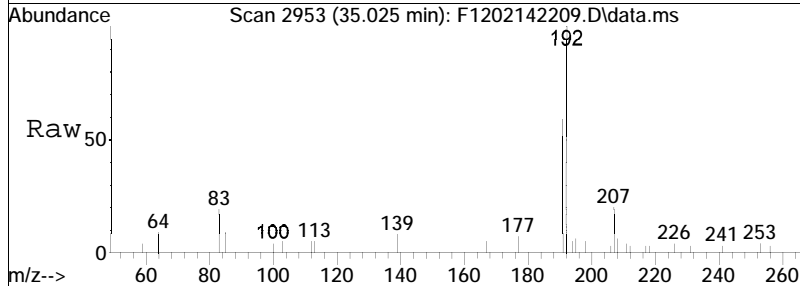
Tgt Ion	Ratio	Lower	Upper
192	100		
191	41.3	41.5	77.1#

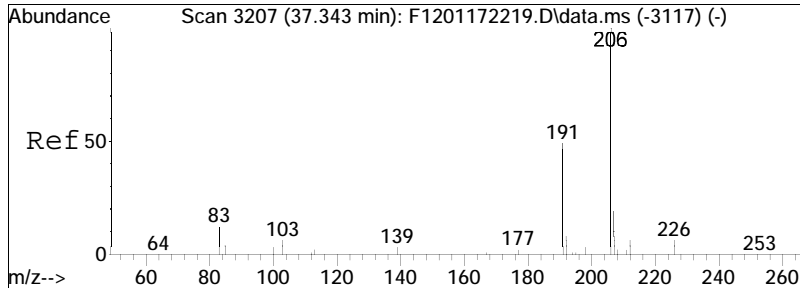




#47  
 Cl-Phenanthrenes/Anthracenes  
 Concen: 48.32 ng/mL M5  
 RT: 35.025 min Scan# 2953  
 Delta R.T. -0.395 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

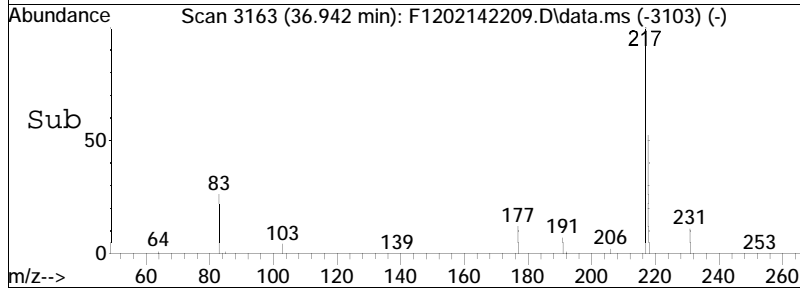
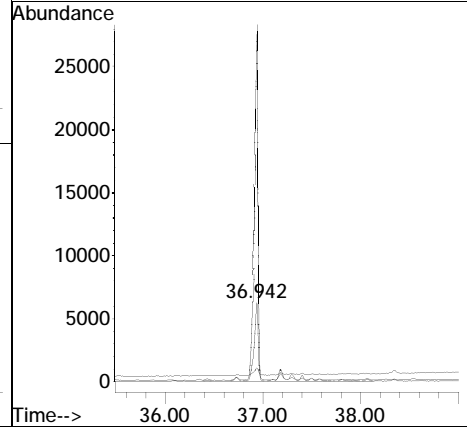
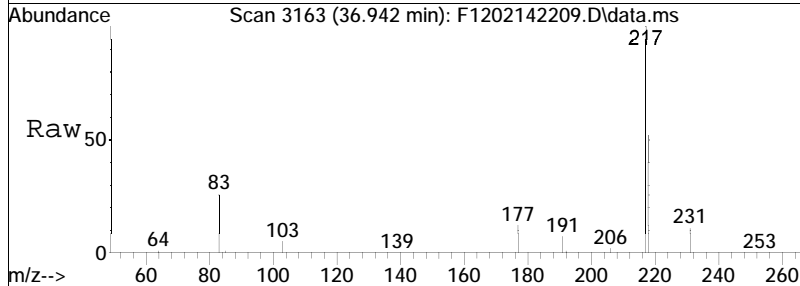
Tgt Ion: 192 Resp: 18245  
 Ion Ratio Lower Upper  
 192 100  
 191 8.2 40.9 76.0#

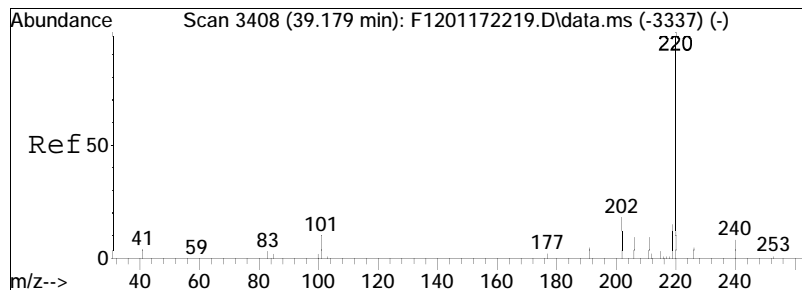




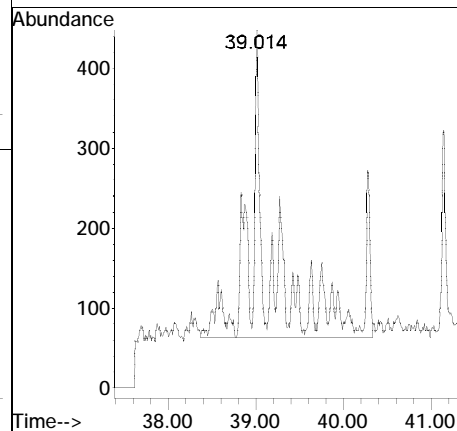
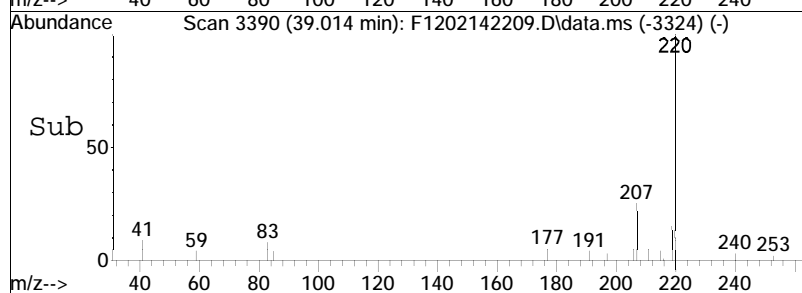
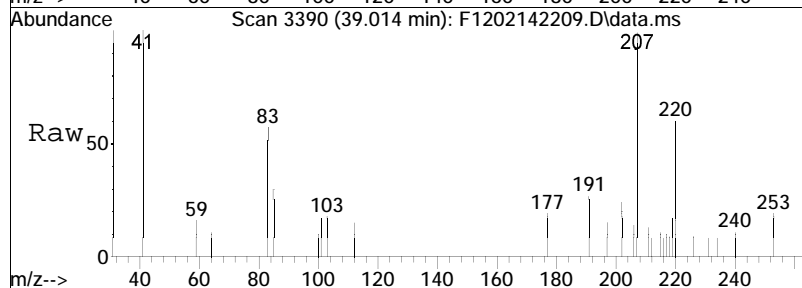
#48  
 C2-Phenanthrenes/Anthracenes  
 Concen: 72.52 ng/mL M5  
 RT: 36.942 min Scan# 3163  
 Delta R.T. -0.289 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

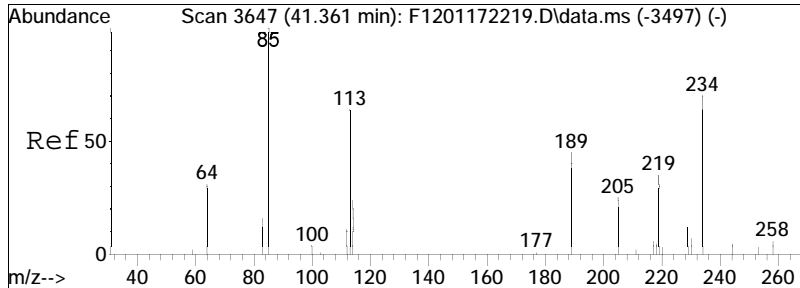
Tgt Ion	Ratio	Lower	Upper
206	100		
191	5.1	35.8	66.4#
207	2.2	14.7	27.3#





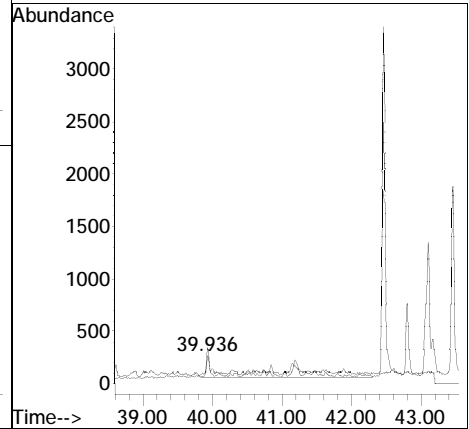
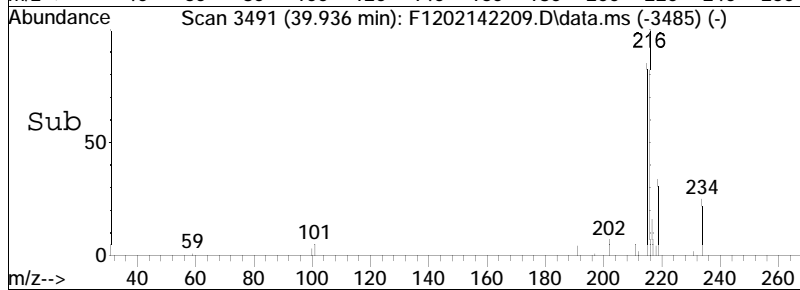
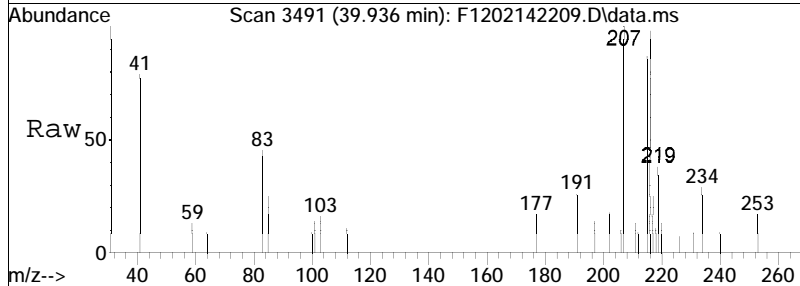
#50  
 C3-Phenanthrenes/Anthracenes  
 Concen: 16.95 ng/mL M5  
 RT: 39.014 min Scan# 3390  
 Delta R.T. -0.046 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion: 220 Resp: 6400

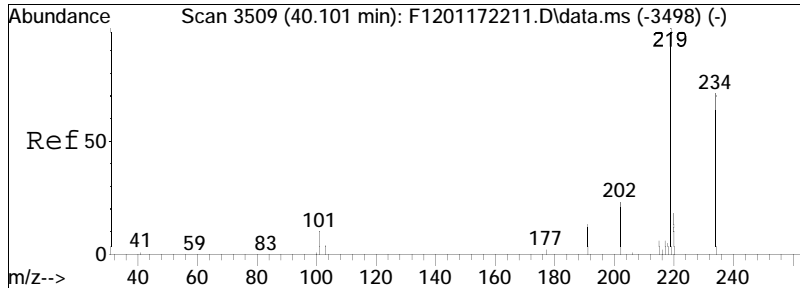




#51  
 C4-Phenanthrenes/Anthracenes  
 Concen: 11.13 ng/mL M5  
 RT: 39.936 min Scan# 3491  
 Delta R.T. -1.299 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

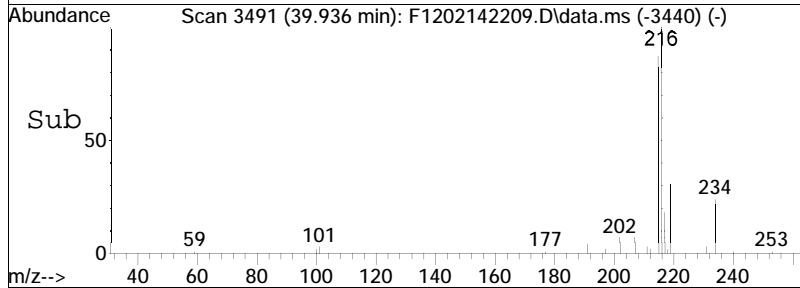
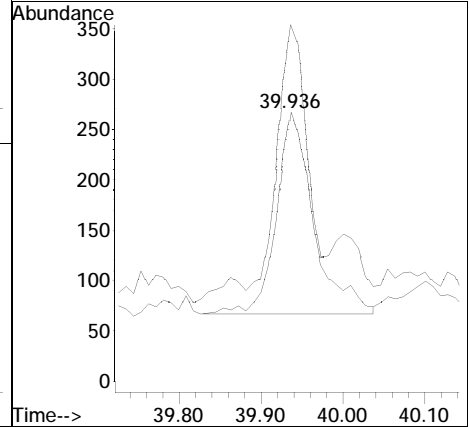
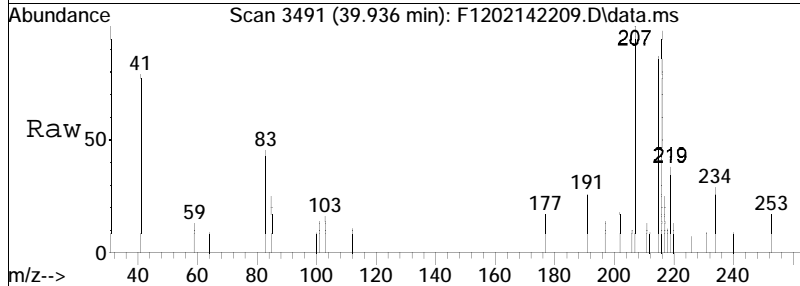
Tgt Ion: 234 Resp: 4204  
 Ion Ratio Lower Upper  
 234 100  
 219 0.0 41.7 77.5#

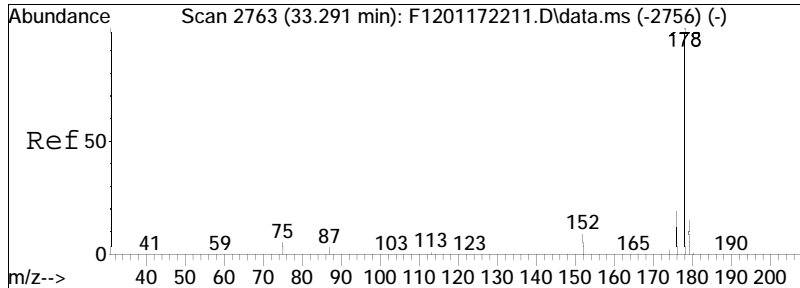




#52  
 Retene  
 Concen: 5.06 ng/mL  
 RT: 39.936 min Scan# 3491  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

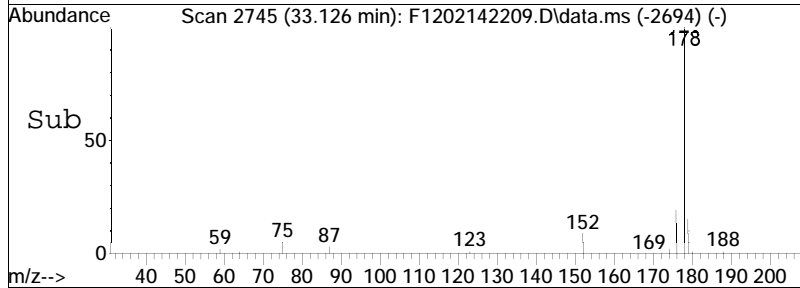
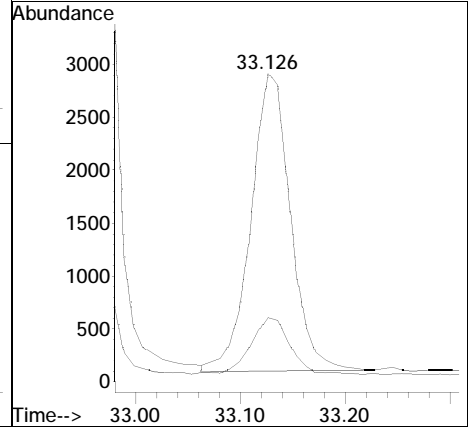
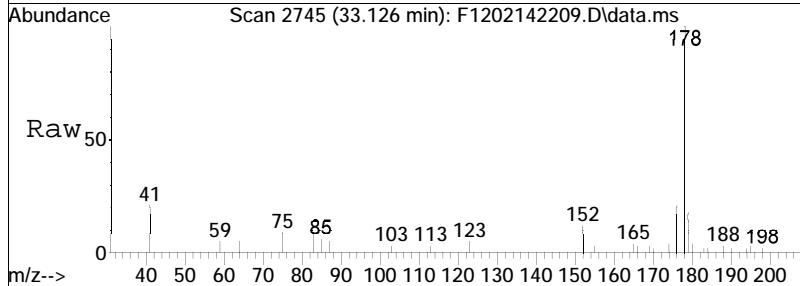
Tgt Ion: 234 Resp: 633  
 Ion Ratio Lower Upper  
 234 100  
 219 103.6 94.0 174.6



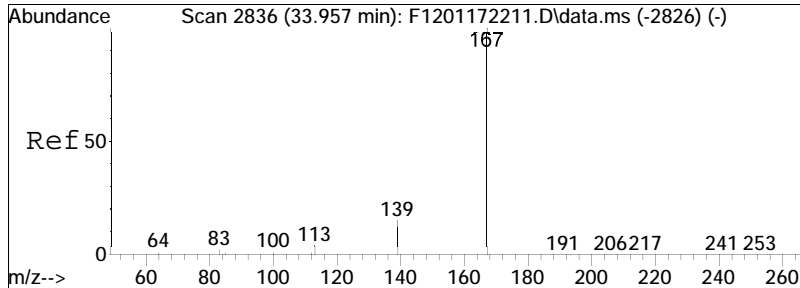


#53  
 Anthracene  
 Concen: 20.88 ng/mL  
 RT: 33.126 min Scan# 2745  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

Tgt Ion: 178 Resp: 7348  
 Ion Ratio Lower Upper  
 178 100  
 176 19.2 13.4 24.8

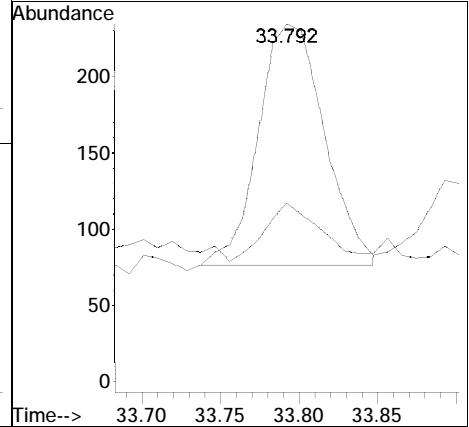
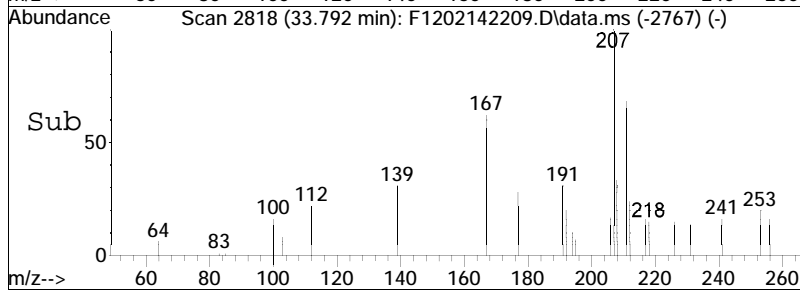
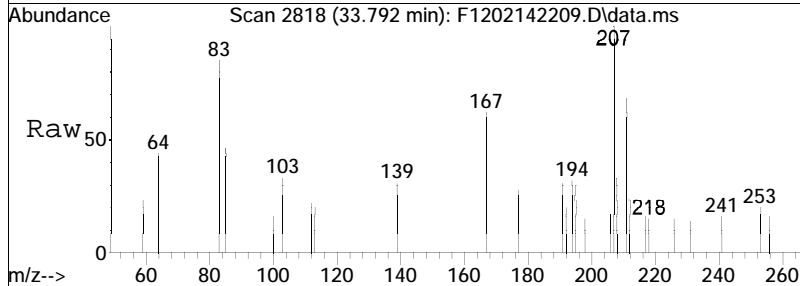


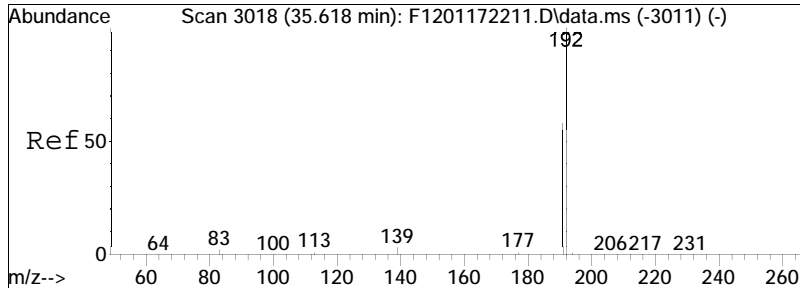




#54  
 Carbazole  
 Concen: 1.25 ng/mL  
 RT: 33.792 min Scan# 2818  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

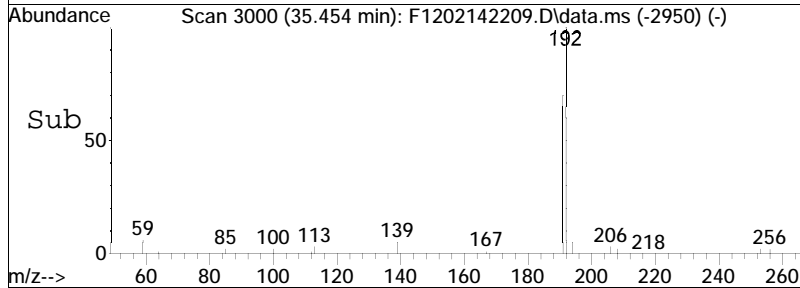
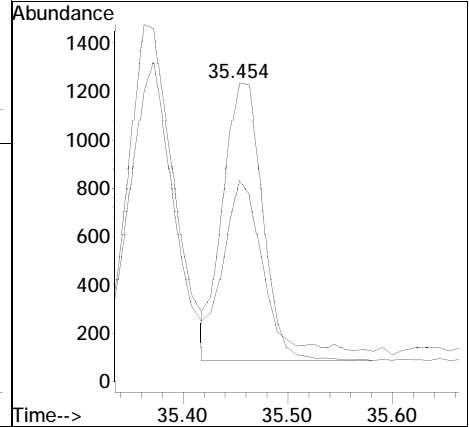
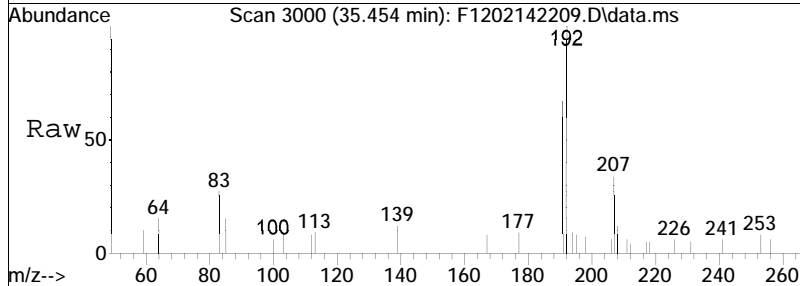
Tgt Ion: 167 Resp: 458  
 Ion Ratio Lower Upper  
 167 100  
 139 0.0 10.3 19.1#

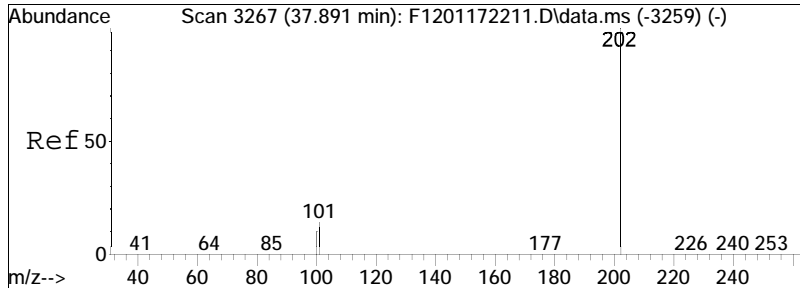




#55  
 1-Methylphenanthrene  
 Concen: 11.95 ng/mL  
 RT: 35.454 min Scan# 3000  
 Delta R.T. -0.046 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

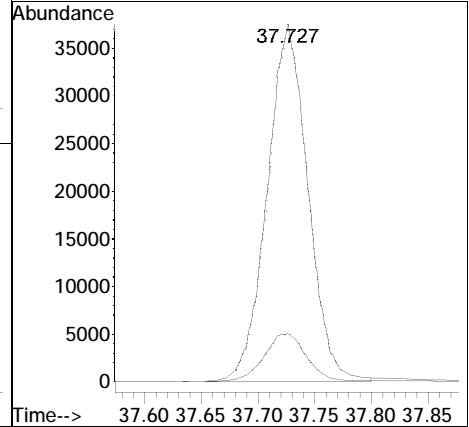
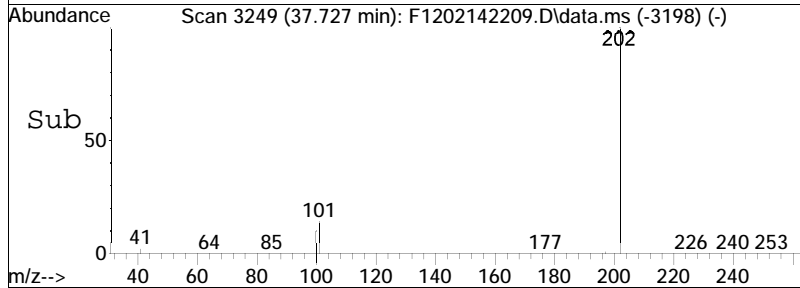
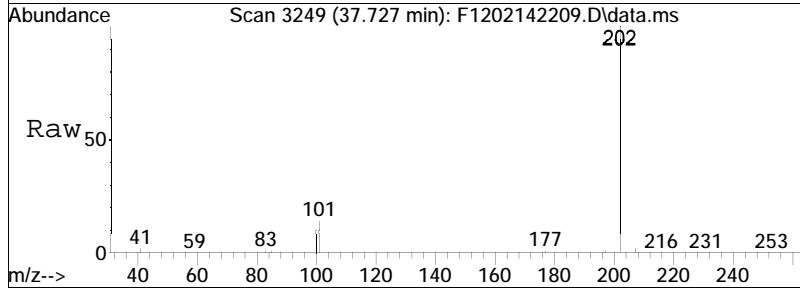
Tgt Ion: 192 Resp: 3031  
 Ion Ratio Lower Upper  
 192 100  
 191 59.2 42.6 79.0

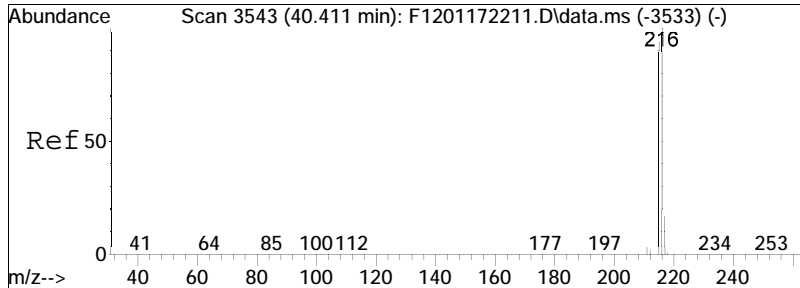




#56  
 Fluoranthene  
 Concen: 244.46 ng/mL M4  
 RT: 37.727 min Scan# 3249  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

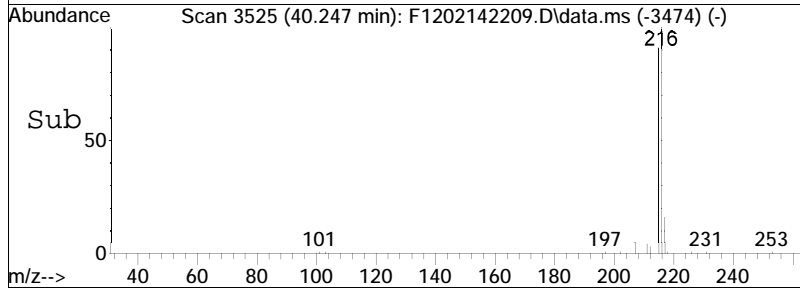
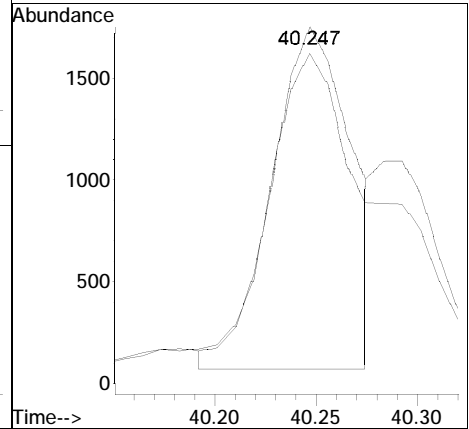
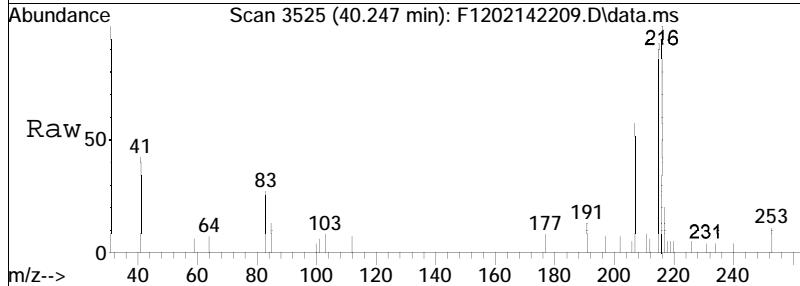
Tgt Ion	Ratio	Lower	Upper
202	100		
101	15.2	8.4	15.6

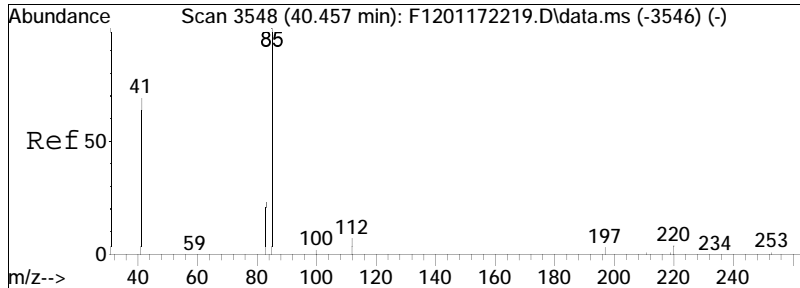




#57  
 Benzo(b)fluorene  
 Concen: 19.31 ng/mL M3  
 RT: 40.247 min Scan# 3525  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

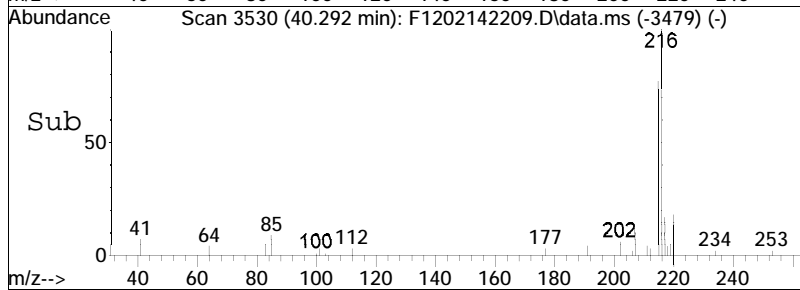
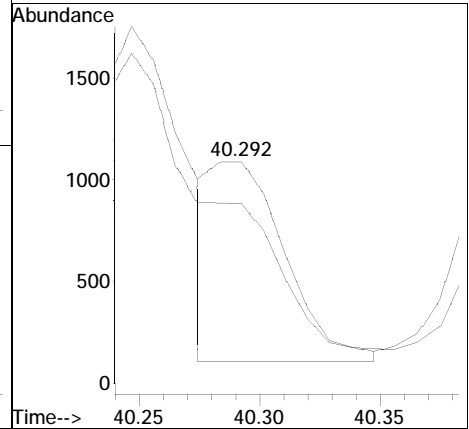
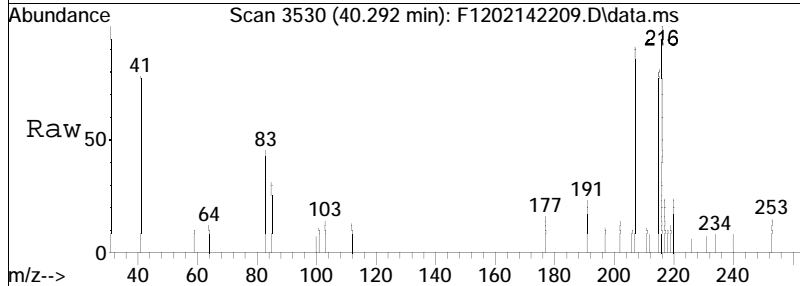
Tgt Ion	Resp	Lower	Upper
216	100		
215	47.5	91.7	170.3#

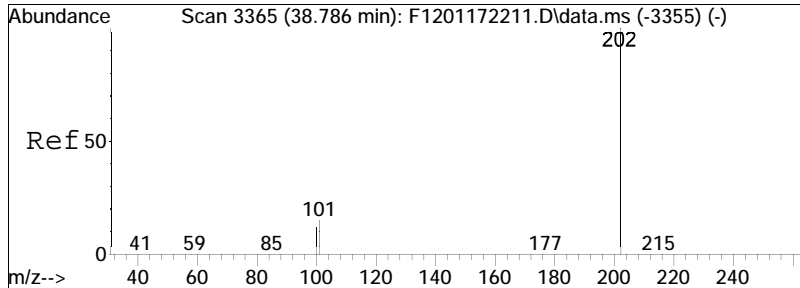




#58  
 7H-Benzo(c)fluorene  
 Concen: 8.68 ng/mL M3  
 RT: 40.292 min Scan# 3530  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

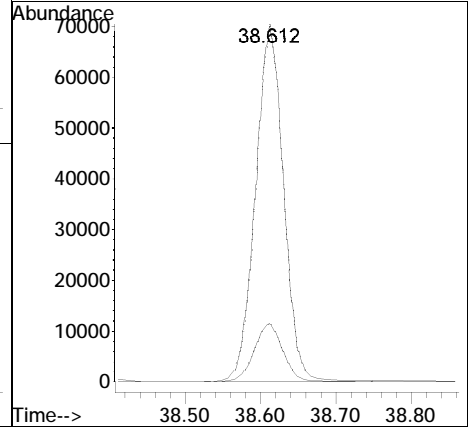
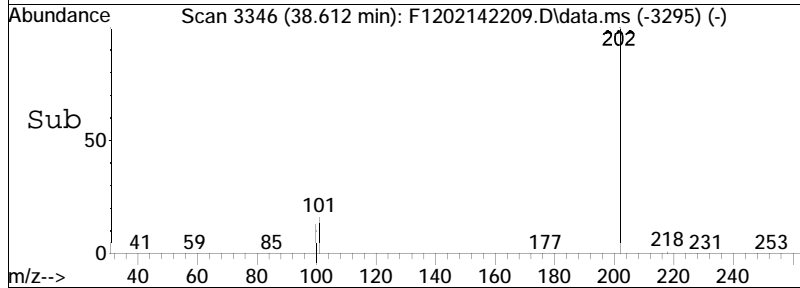
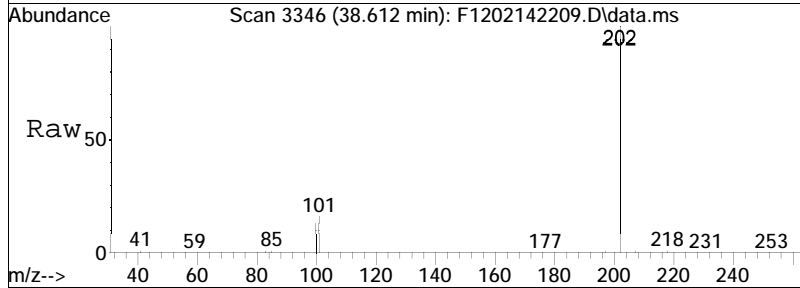
Tgt Ion	Ratio	Lower	Upper
216	100		
215	87.6	99.9	185.5#

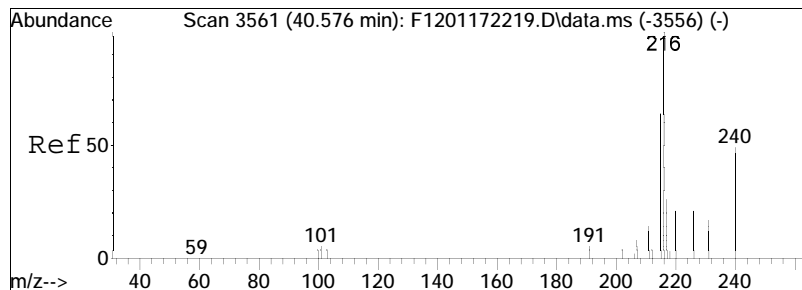




#59  
 Pyrene  
 Concen: 454.49 ng/mL  
 RT: 38.612 min Scan# 3346  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

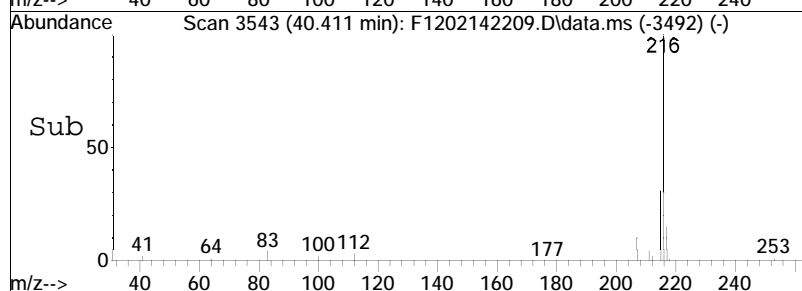
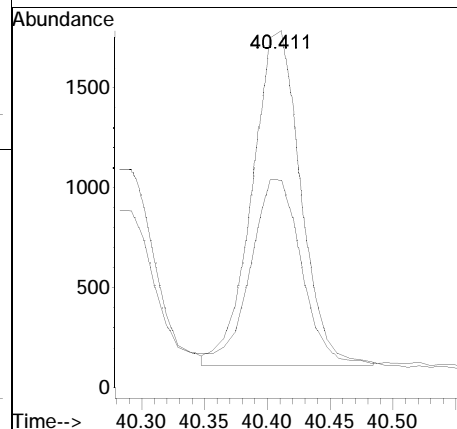
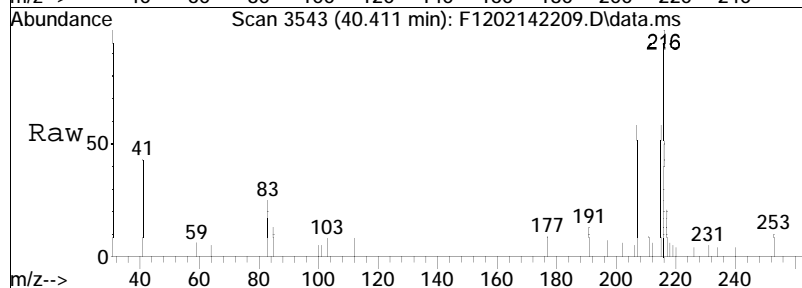
Tgt Ion	Resp	Lower	Upper
202	100		
101	16.8	21.0	39.0#

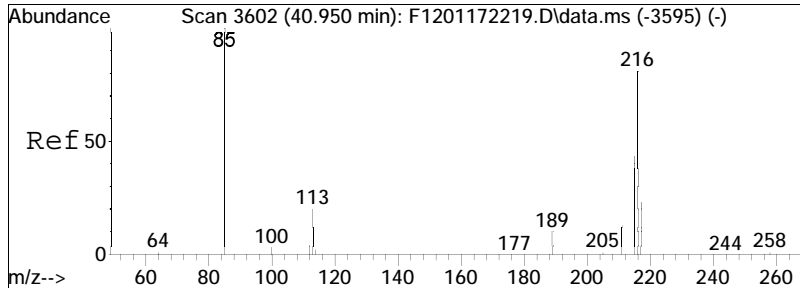




#60  
 2-Methylpyrene  
 Concen: 11.44 ng/mL M3  
 RT: 40.411 min Scan# 3543  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

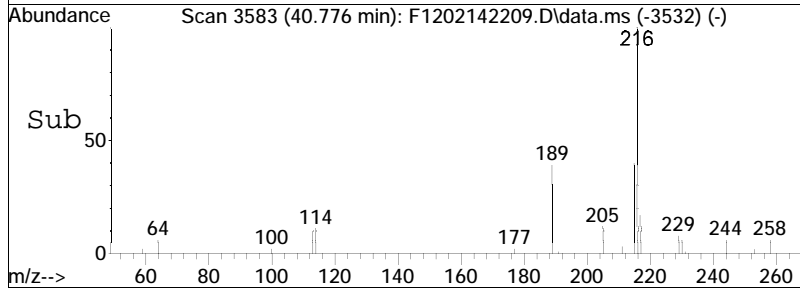
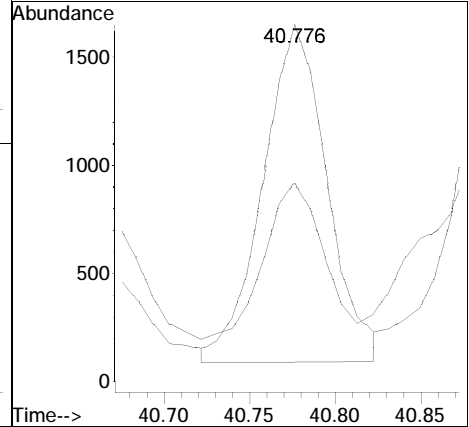
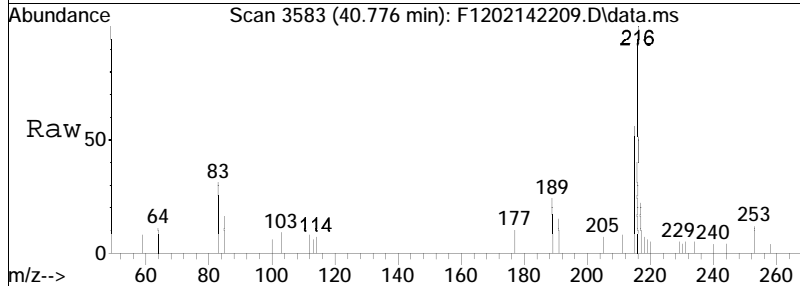
Tgt Ion	Resp	Lower	Upper
216	100		
215	133.9	70.0	130.0#



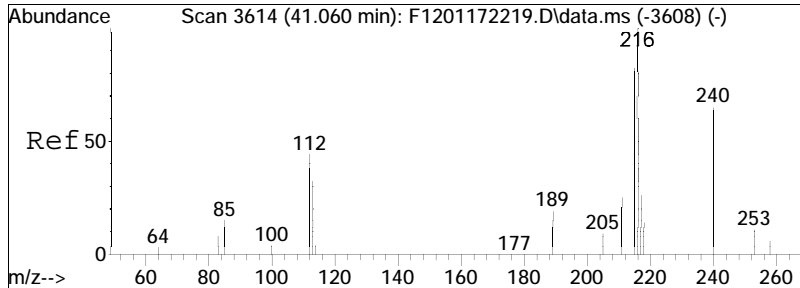


#61  
 4-Methylpyrene  
 Concen: 10.29 ng/mL  
 RT: 40.776 min Scan# 3583  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

Tgt Ion:	216	Resp:	4044
Ion Ratio	Lower	Upper	
216	100		
215	54.3	51.2	95.2

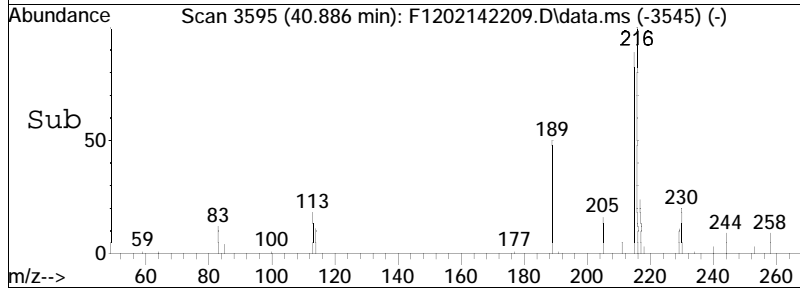
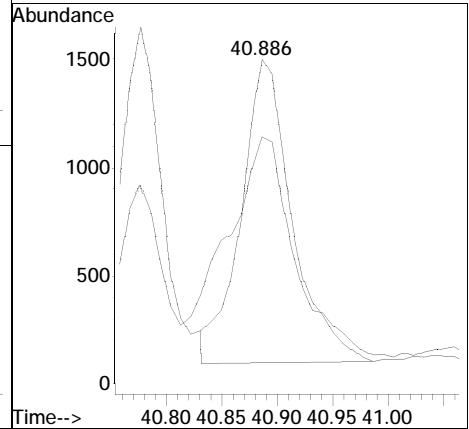
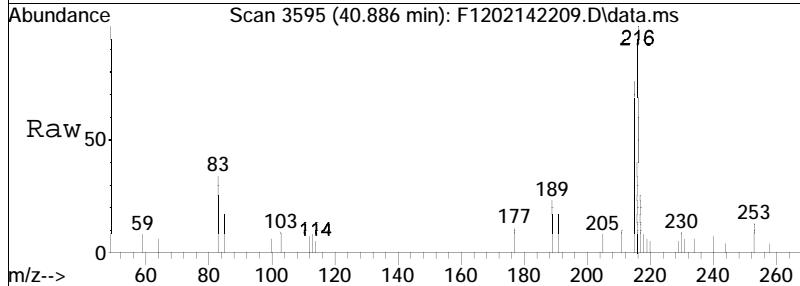


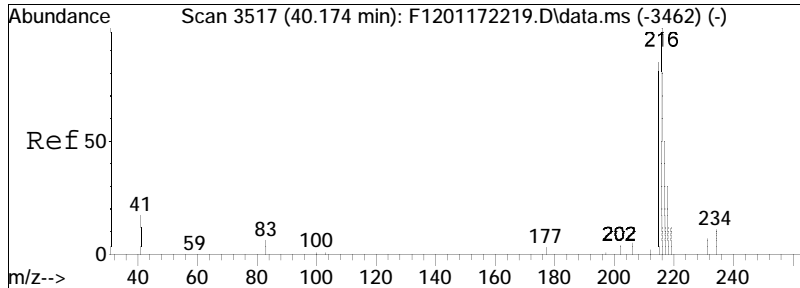




#62  
 1-Methylpyrene  
 Concen: 11.36 ng/mL  
 RT: 40.886 min Scan# 3595  
 Delta R.T. -0.046 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

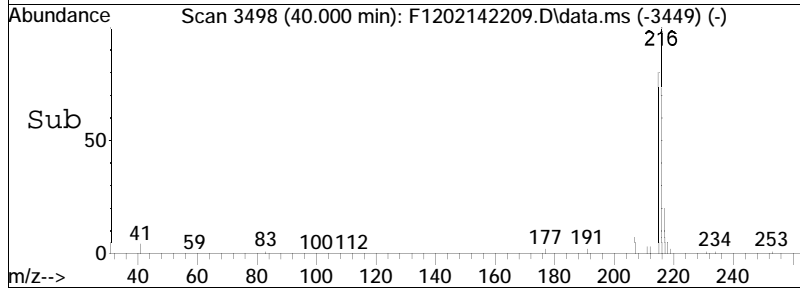
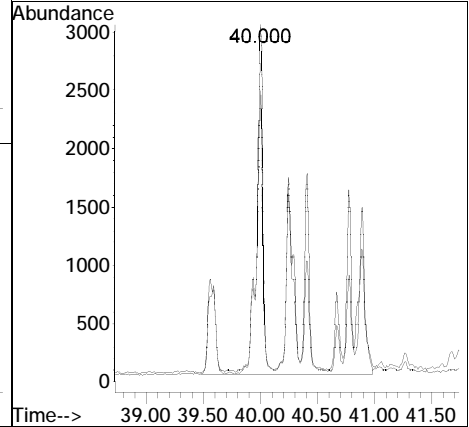
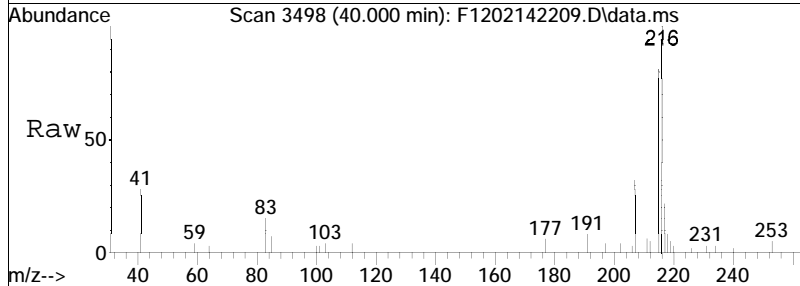
Tgt Ion: 216 Resp: 4463  
 Ion Ratio Lower Upper  
 216 100  
 215 98.2 76.4 141.8

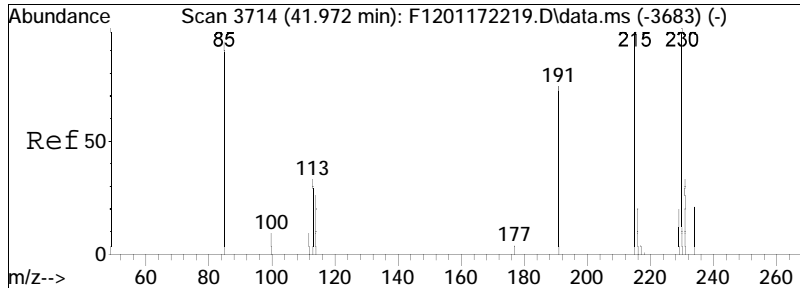




#63  
 Cl-Fluoranthenes/Pyrenes  
 Concen: 95.40 ng/mL M5  
 RT: 40.000 min Scan# 3498  
 Delta R.T. -0.052 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

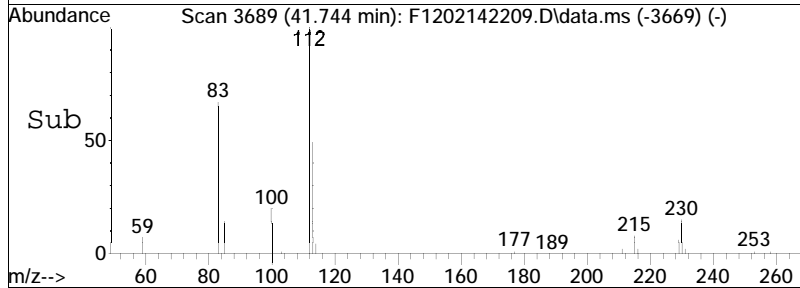
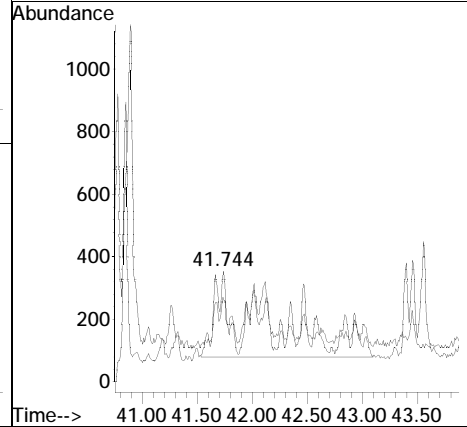
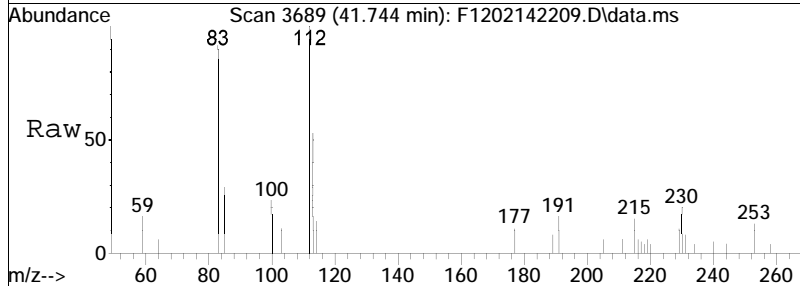
Tgt Ion: 216 Resp: 37487  
 Ion Ratio Lower Upper  
 216 100  
 215 18.9 65.7 122.1#

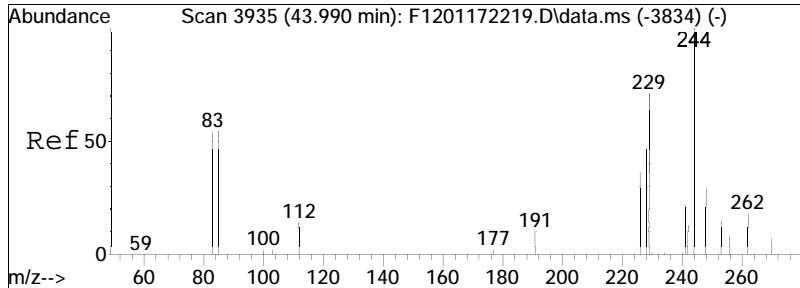




#64  
 C2-Fluoranthenes/Pyrenes  
 Concen: 21.81 ng/mL M5  
 RT: 41.744 min Scan# 3689  
 Delta R.T. -0.102 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

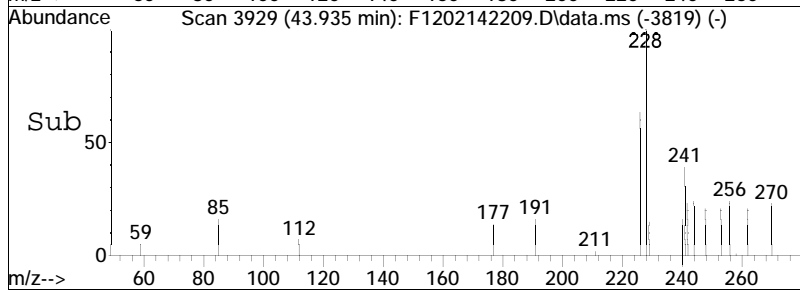
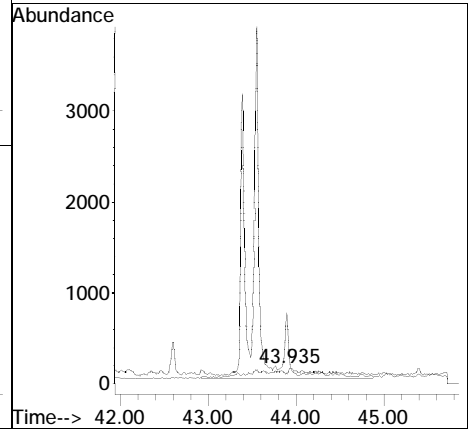
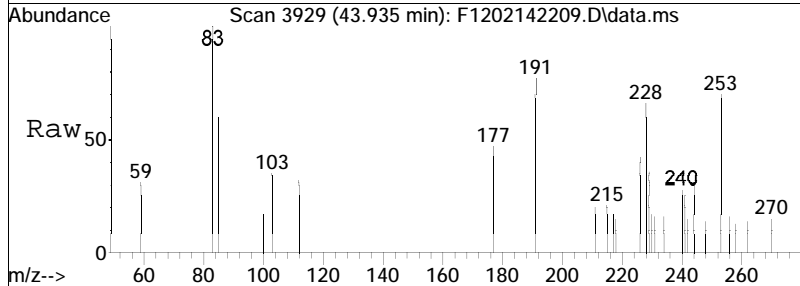
Tgt Ion: 230 Resp: 8568  
 Ion Ratio Lower Upper  
 230 100  
 215 3.0 79.5 147.7#

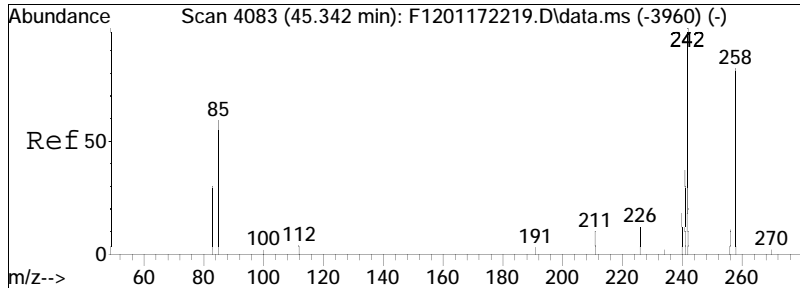




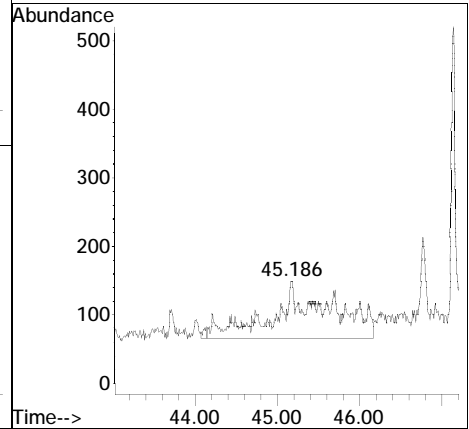
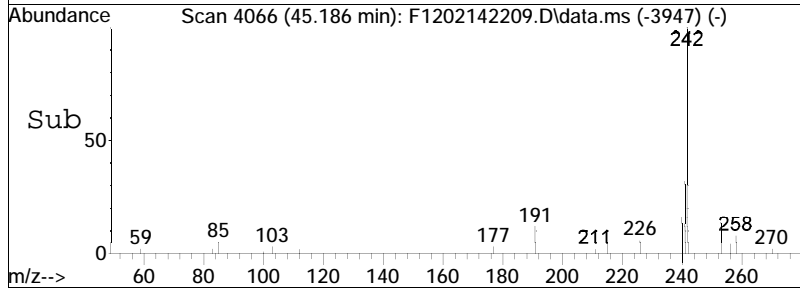
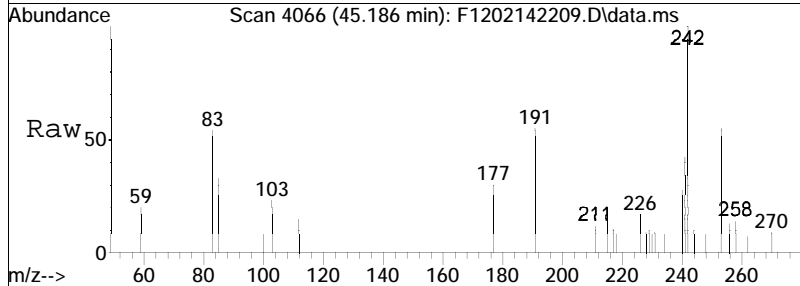
#65  
 C3-Fluoranthenes/Pyrenes  
 Concen: 11.19 ng/mL M5  
 RT: 43.935 min Scan# 3929  
 Delta R.T. 0.078 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

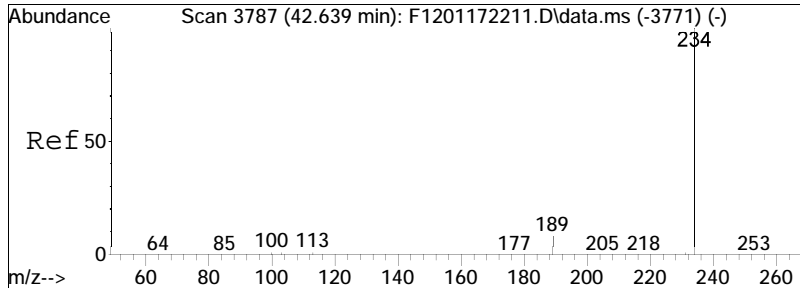
Tgt Ion: 244 Resp: 4395  
 Ion Ratio Lower Upper  
 244 100  
 229 0.0 65.4 121.4#





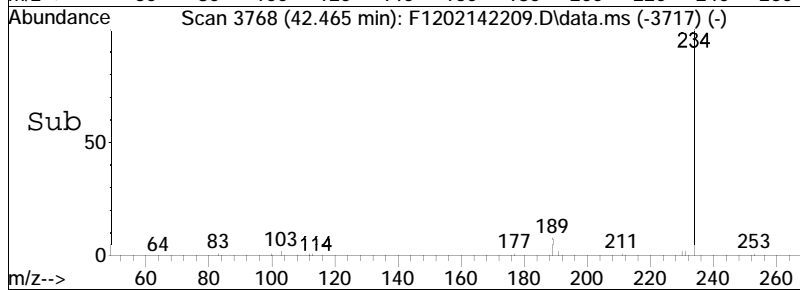
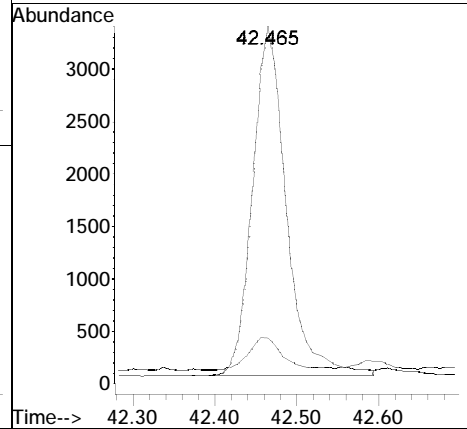
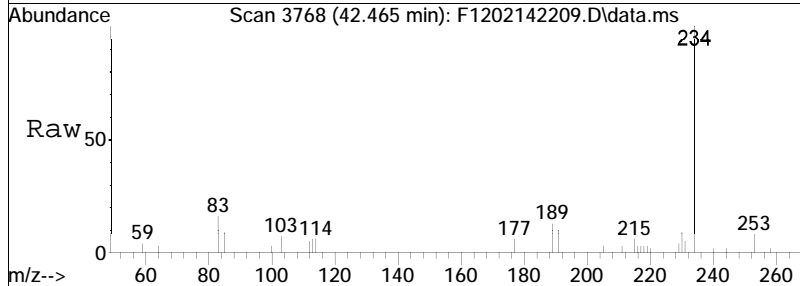
#66  
 C4-Fluoranthenes/Pyrenes  
 Concen: 10.13 ng/mL M5  
 RT: 45.186 min Scan# 4066  
 Delta R.T. -0.027 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion: 258 Resp: 3980

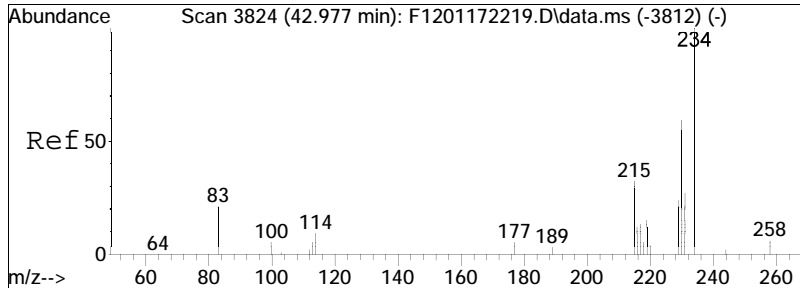




#67  
 Naphthobenzothiophene-2,1-D  
 Concen: 24.00 ng/mL  
 RT: 42.465 min Scan# 3768  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

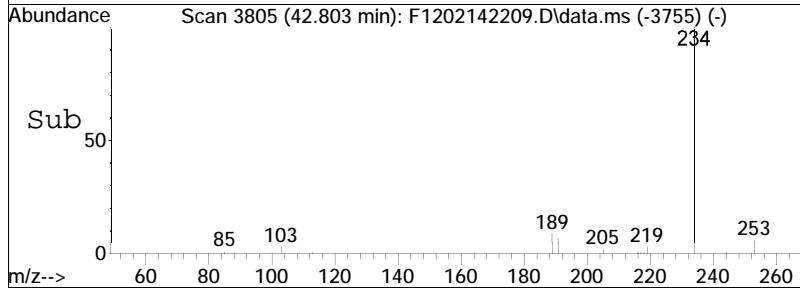
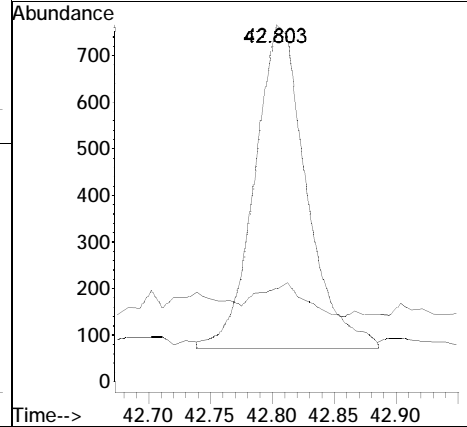
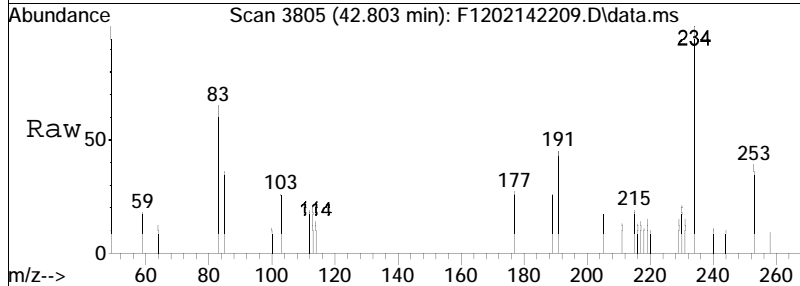
Tgt Ion	Resp	Lower	Upper
234	100		
189	9.4	18.9	35.1#

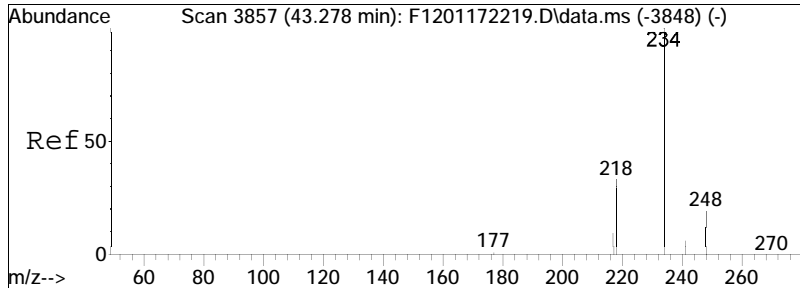




#68  
 Naphthobenzothiophene-1,2-D  
 Concen: 5.13 ng/mL M3  
 RT: 42.803 min Scan# 3805  
 Delta R.T. -0.046 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

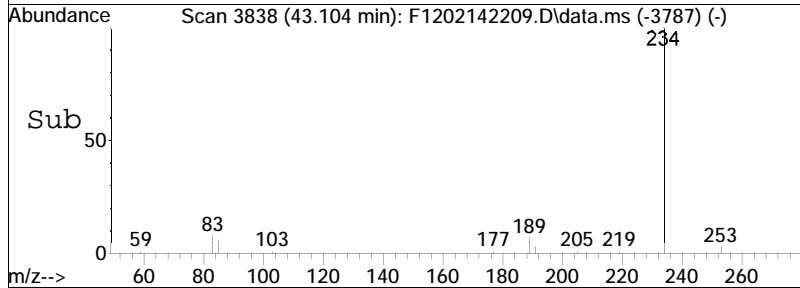
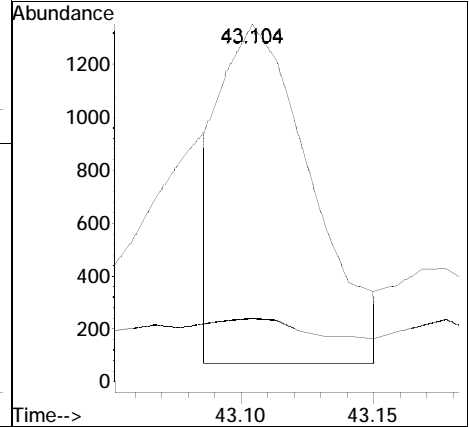
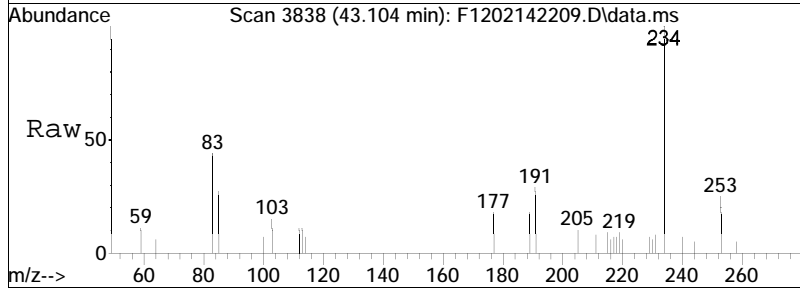
Tgt Ion	Resp	Lower	Upper
234	100		
189	22.6	53.0	98.4#



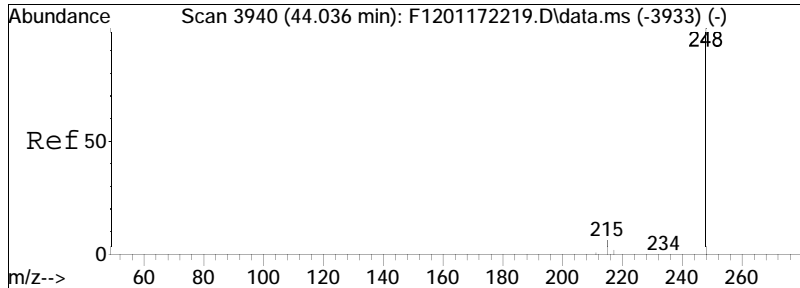


#69  
 Naphthobenzothiophene-2,3-D  
 Concen: 7.59 ng/mL M3  
 RT: 43.104 min Scan# 3838  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

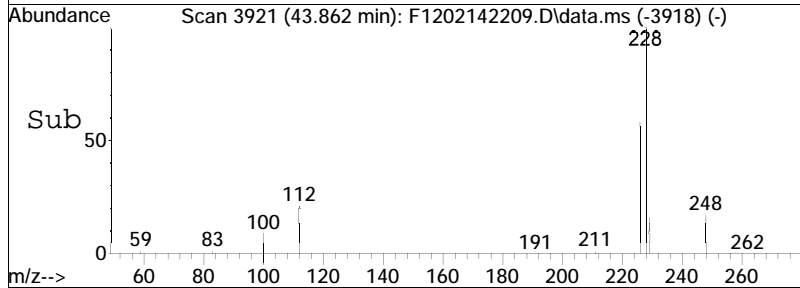
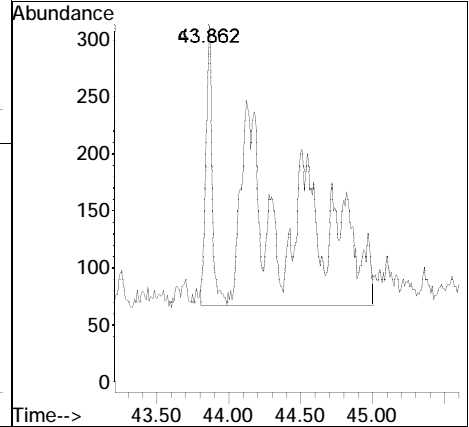
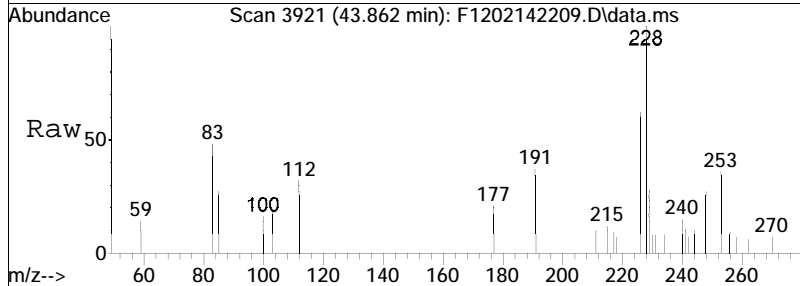
Tgt Ion: 234 Resp: 2990  
 Ion Ratio Lower Upper  
 234 100  
 189 24.0 77.6 144.0#

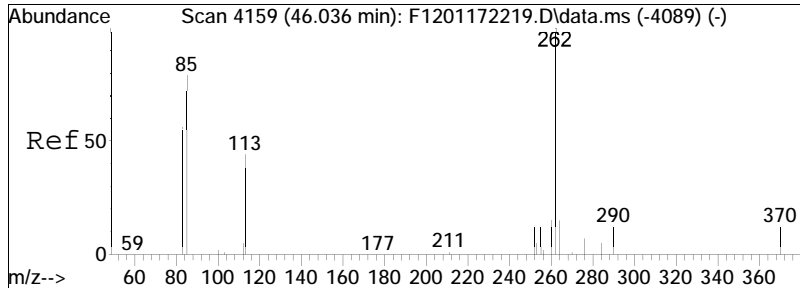




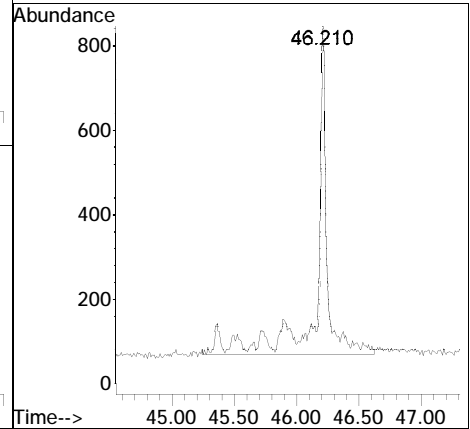
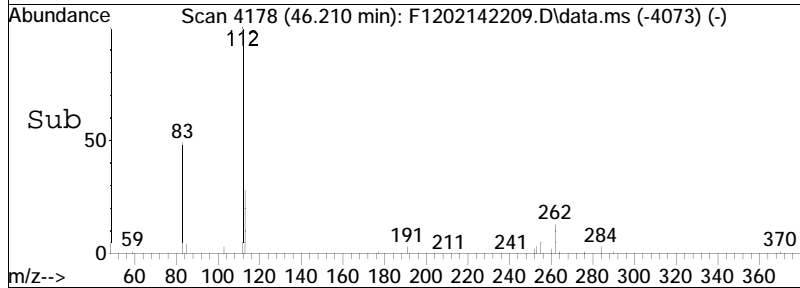
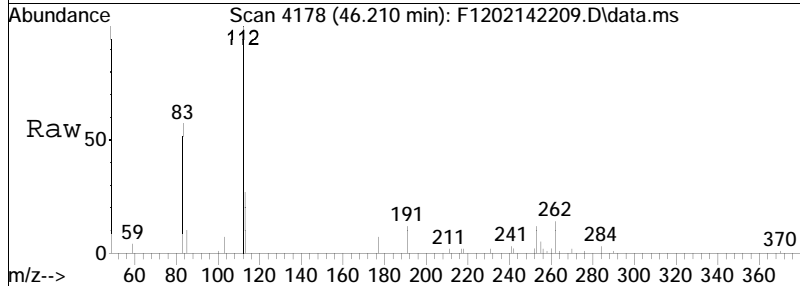


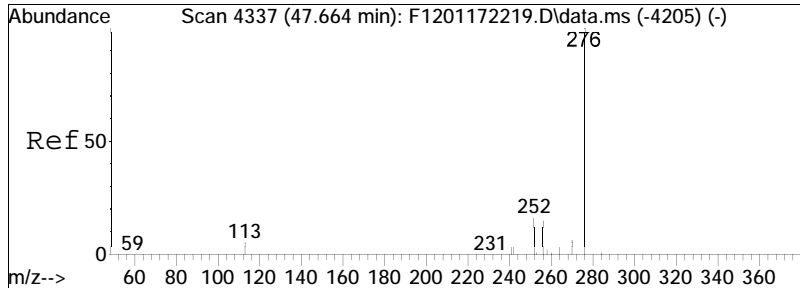
#70  
 Cl-Naphthobenzothiophenes  
 Concen: 12.86 ng/ml M5  
 RT: 43.862 min Scan# 3921  
 Delta R.T. -0.041 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion:248 Resp: 5066





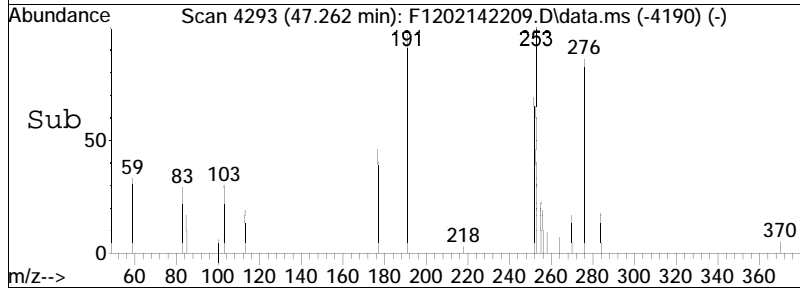
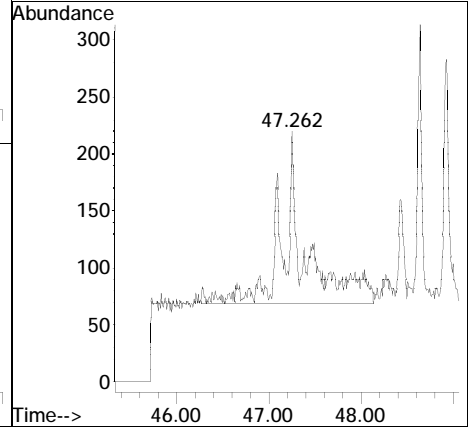
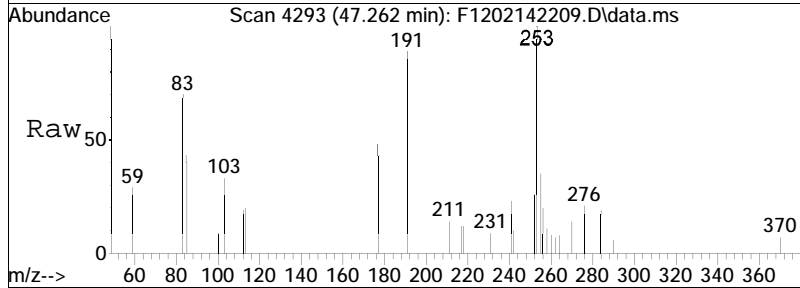
#71  
 C2-Naphthobenzothiophenes  
 Concen: 11.75 ng/ml M5  
 RT: 46.210 min Scan# 4178  
 Delta R.T. 0.313 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm  
 Tgt Ion: 262 Resp: 4627

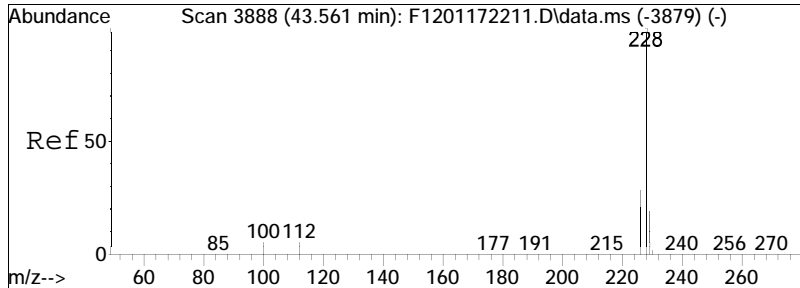




#72  
 C3-Naphthobenzothiophenes  
 Concen: 6.78 ng/ml M5  
 RT: 47.262 min Scan# 4293  
 Delta R.T. -0.259 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

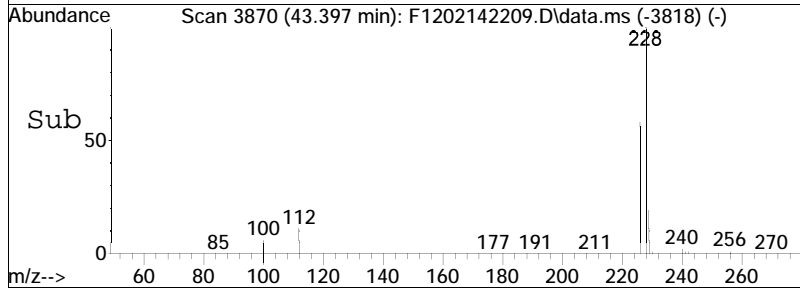
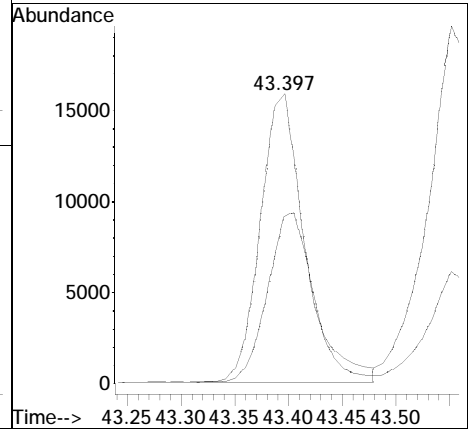
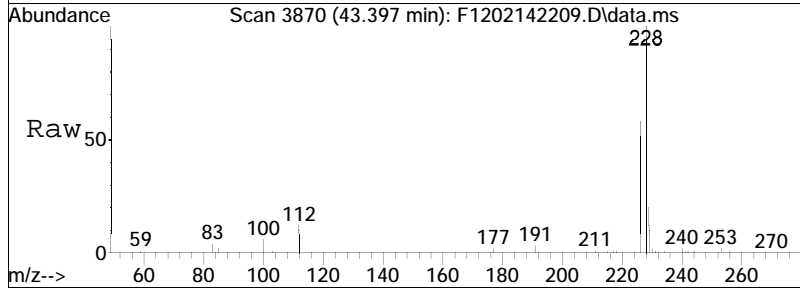
Tgt Ion: 276 Resp: 2671

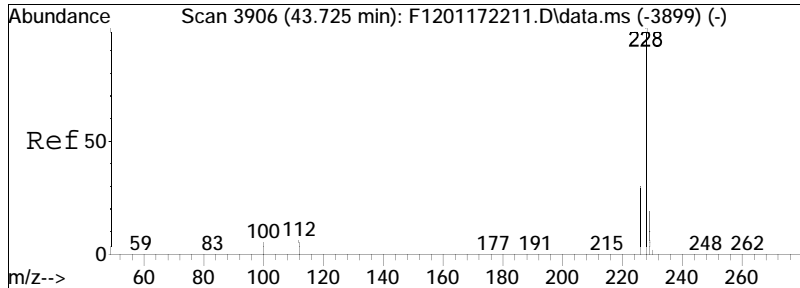




#75  
 Benz[a]anthracene  
 Concen: 118.56 ng/mL M3  
 RT: 43.397 min Scan# 3870  
 Delta R.T. -0.027 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

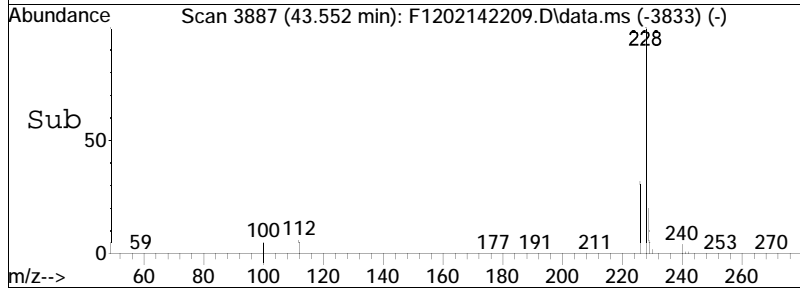
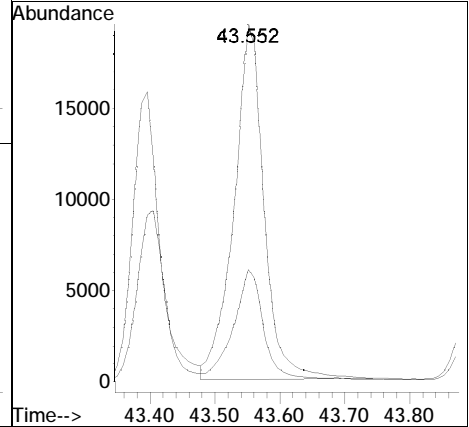
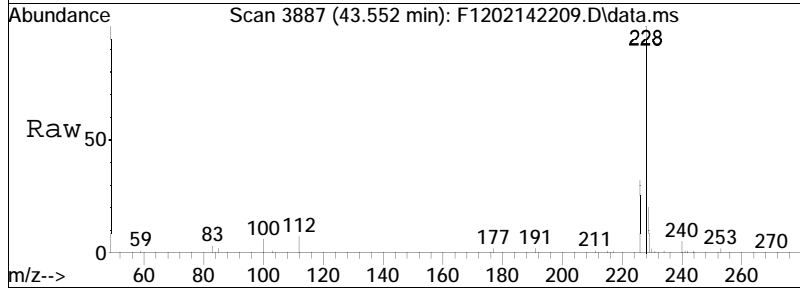
Tgt Ion	Resp	Lower	Upper
228	100		
226	40.2	19.1	35.5#

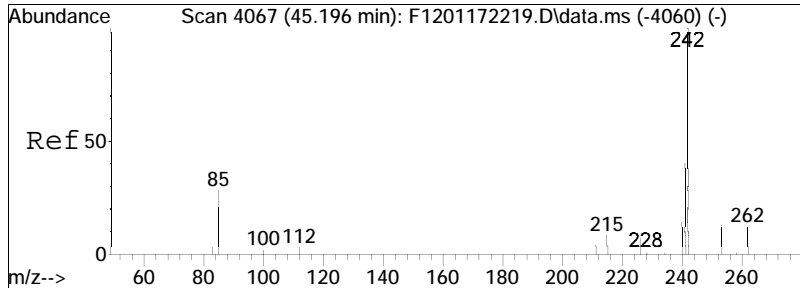




#76  
 Chrysene  
 Concen: 161.61 ng/mL  
 RT: 43.552 min Scan# 3887  
 Delta R.T. -0.009 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

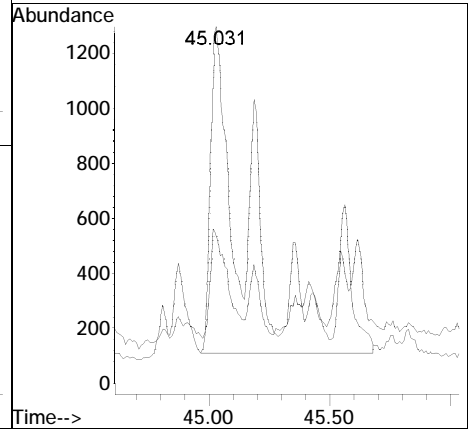
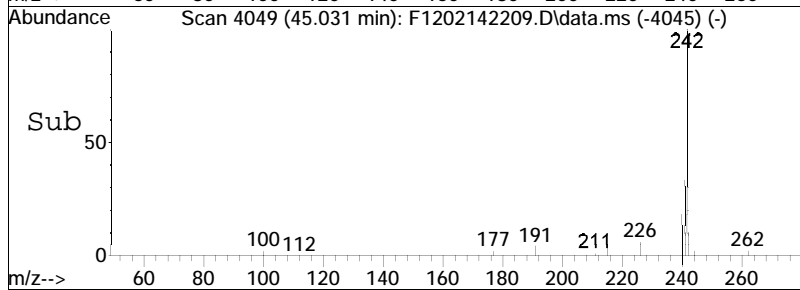
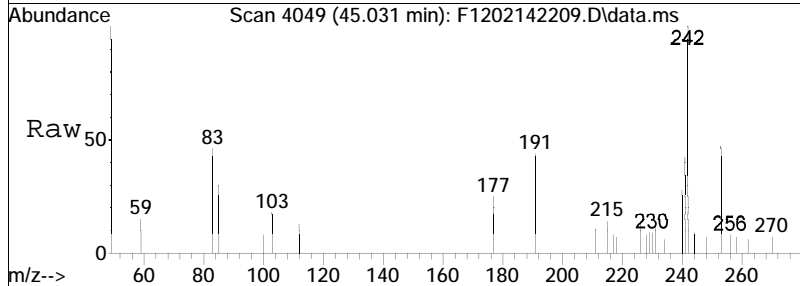
Tgt Ion	Resp	Lower	Upper
228	100		
226	29.8	27.8	51.6

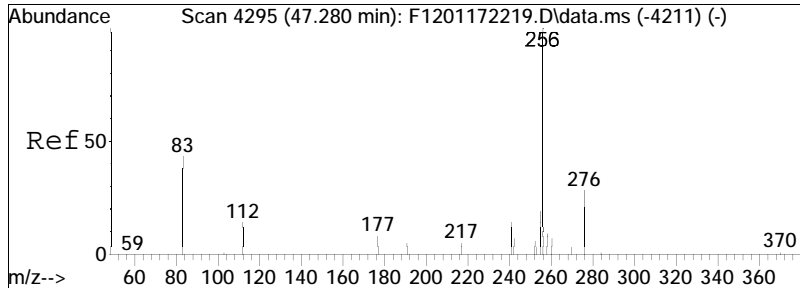




#78  
 C1-Chrysenes  
 Concen: 34.19 ng/mL M5  
 RT: 45.031 min Scan# 4049  
 Delta R.T. -0.027 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

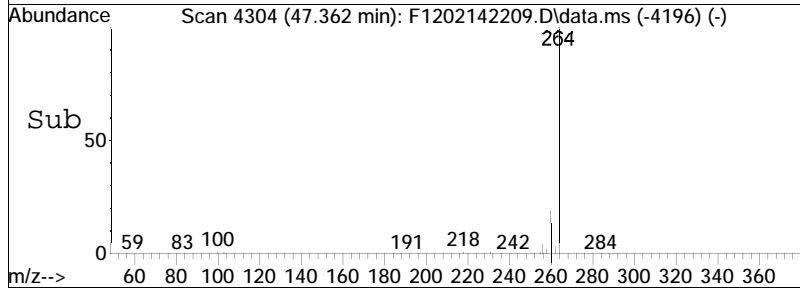
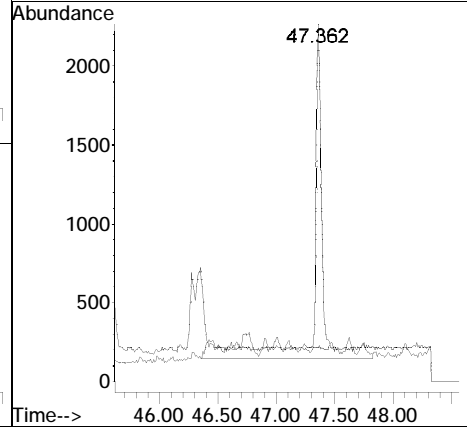
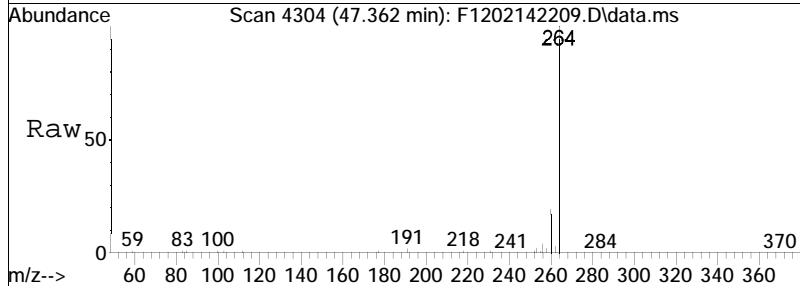
Tgt Ion: 242 Resp: 13154  
 Ion Ratio Lower Upper  
 242 100  
 241 14.7 31.9 59.2#

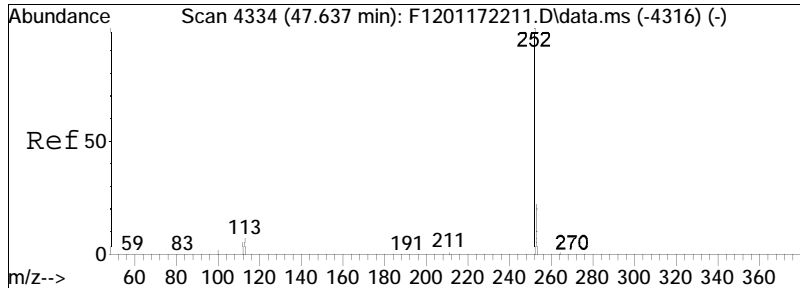




#79  
 C2-Chrysenes  
 Concen: 30.60 ng/mL M5  
 RT: 47.362 min Scan# 4304  
 Delta R.T. 0.220 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

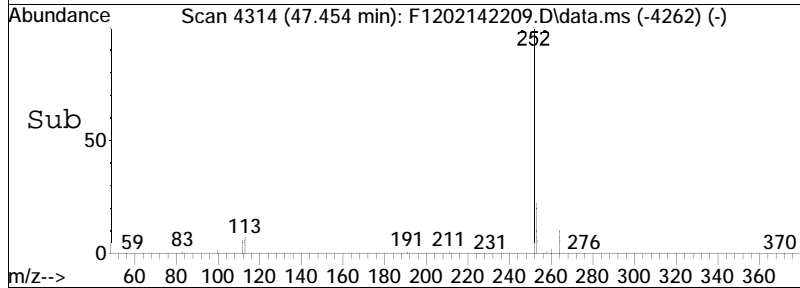
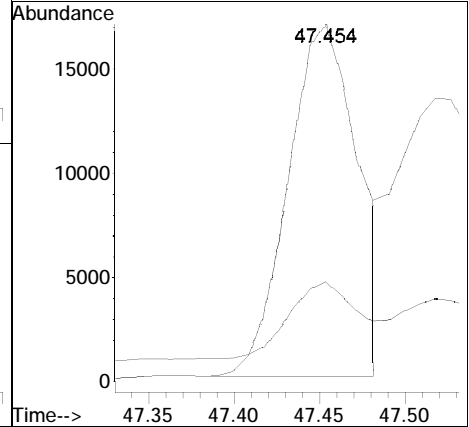
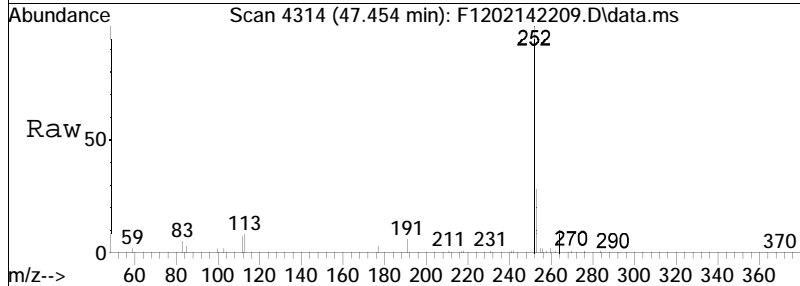
Tgt Ion	Ratio	Lower	Upper
256	100		
241	0.0	25.1	46.7#



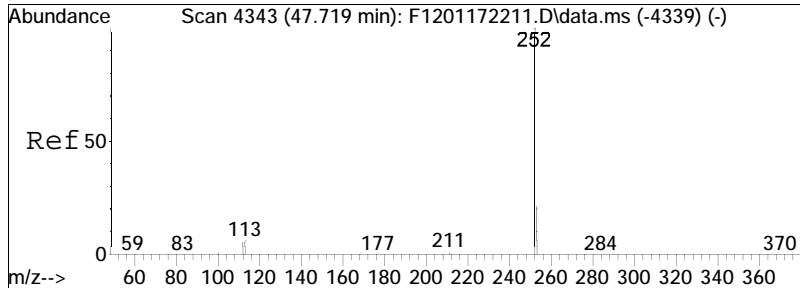


#85  
 Benzo[b]fluoranthene  
 Concen: 109.67 ng/mL  
 RT: 47.454 min Scan# 4314  
 Delta R.T. -0.027 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

Tgt Ion	Resp	Lower	Upper
252	48078	100	
253	23.4	16.6	30.8

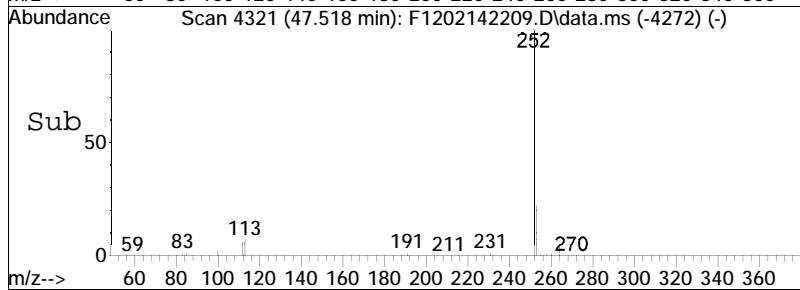
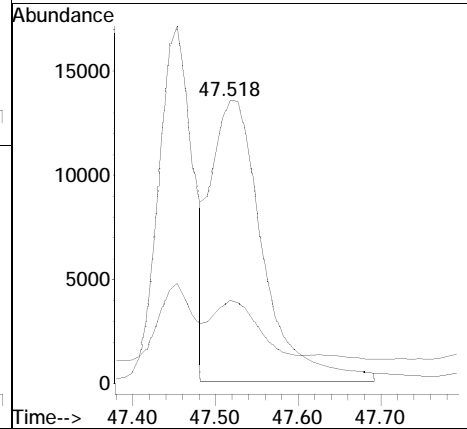
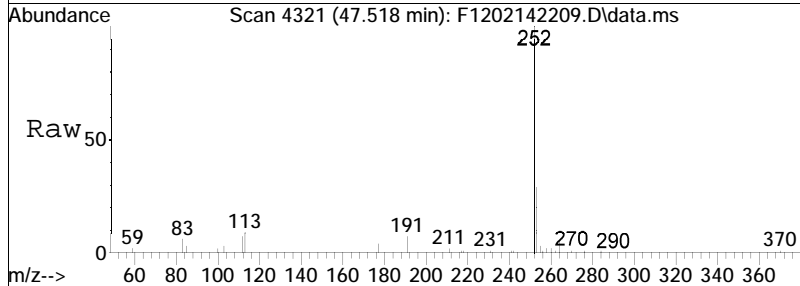


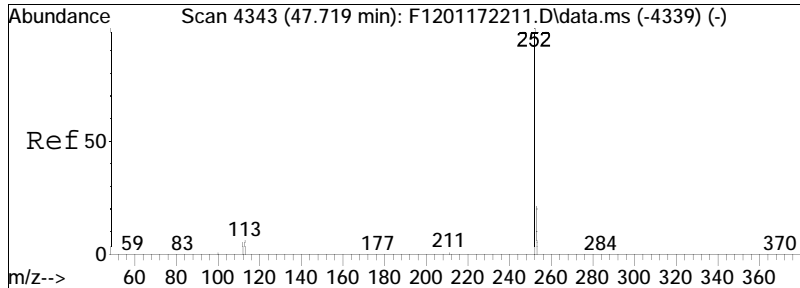




#86  
 Benzo[j]+[k]fluoranthene  
 Concen: 129.11 ng/mL M6  
 RT: 47.518 min Scan# 4321  
 Delta R.T. -0.055 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

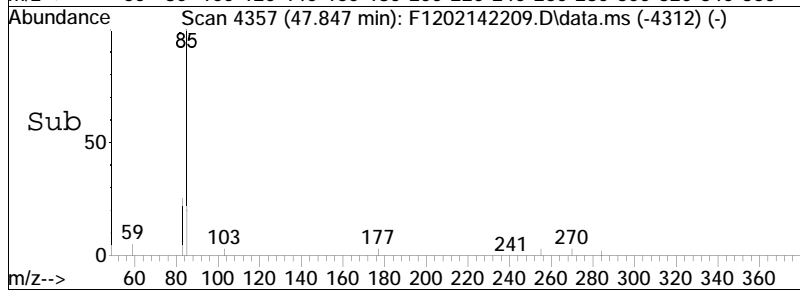
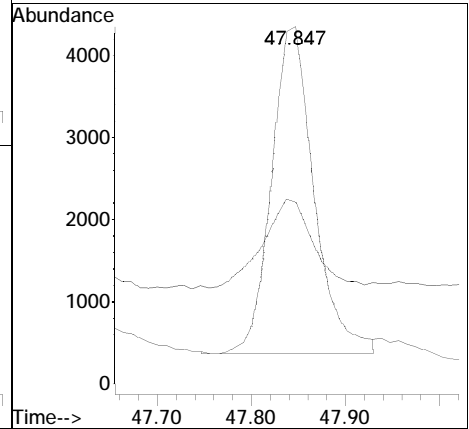
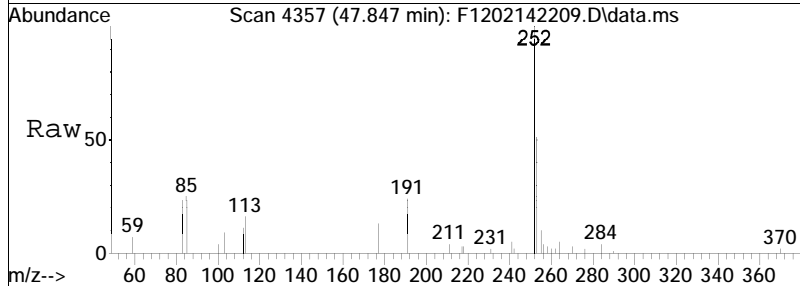
Tgt Ion	Resp	Lower	Upper
252	100		
253	16.1	16.4	30.4#

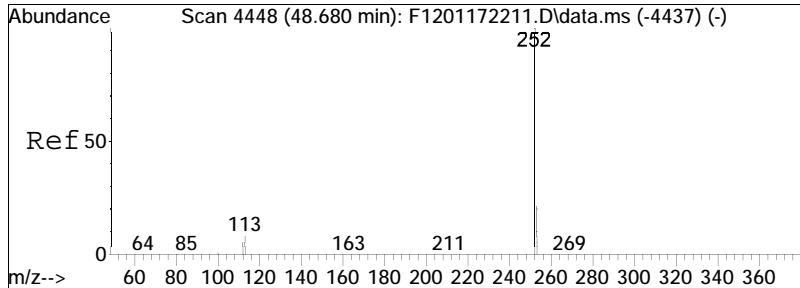




#87  
 Benzo[a]fluoranthene  
 Concen: 27.66 ng/mL M3  
 RT: 47.847 min Scan# 4357  
 Delta R.T. -0.085 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

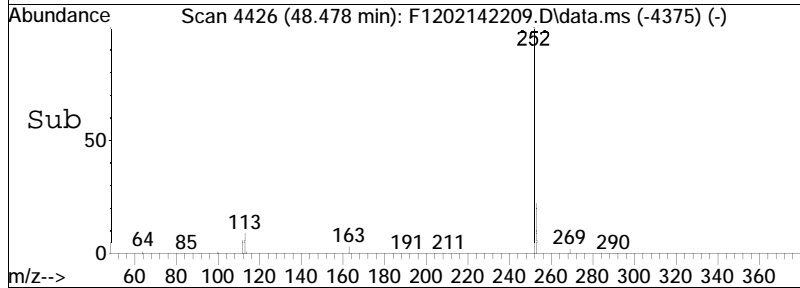
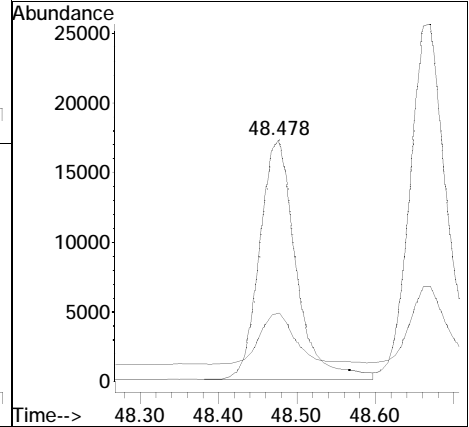
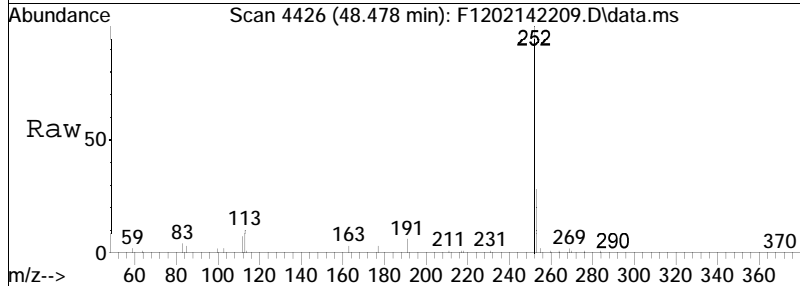
Tgt Ion	Resp	Lower	Upper
252	100		
253	31.3	203.3	377.6#

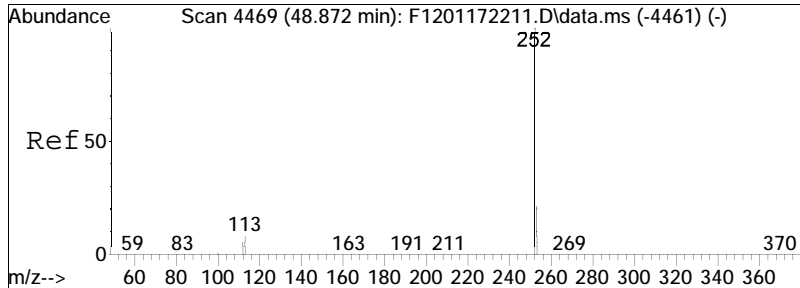




#88  
 Benzo[e]pyrene  
 Concen: 126.53 ng/mL  
 RT: 48.478 min Scan# 4426  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

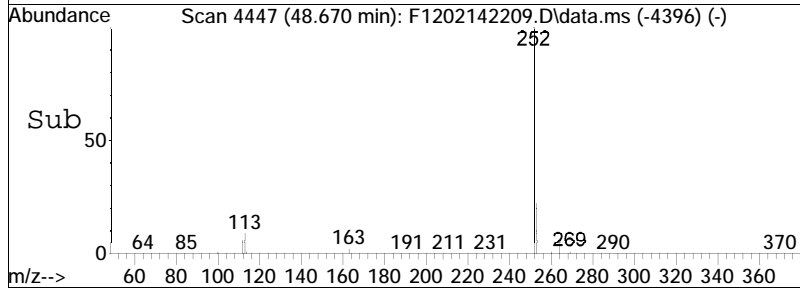
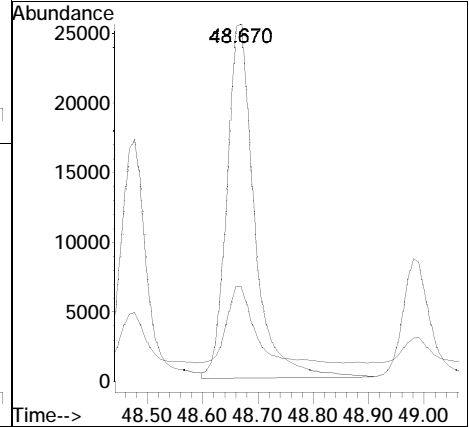
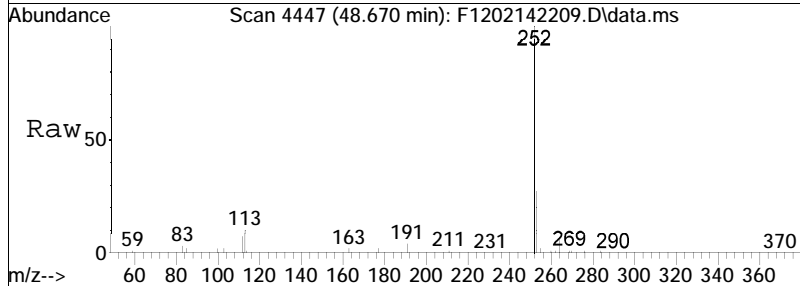
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.9	16.8	31.2

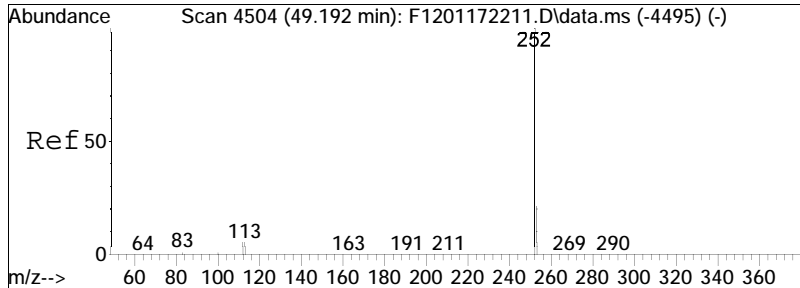




#90  
 Benzo[a]pyrene  
 Concen: 208.02 ng/mL  
 RT: 48.670 min Scan# 4447  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

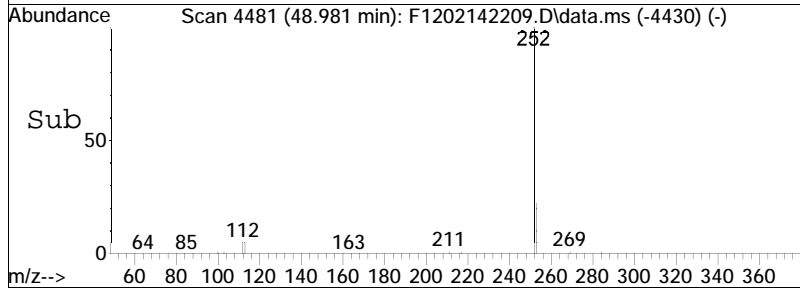
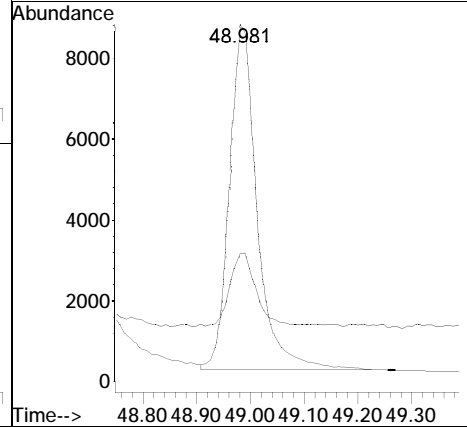
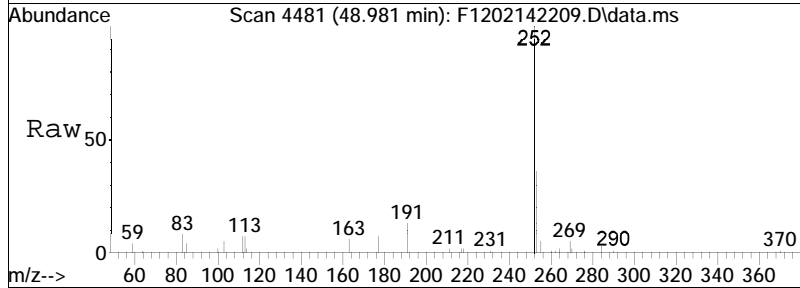
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.2	16.8	31.2

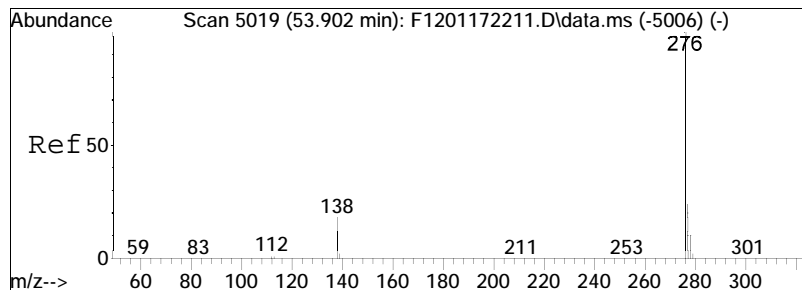




#91  
 Perylene  
 Concen: 69.95 ng/mL  
 RT: 48.981 min Scan# 4481  
 Delta R.T. -0.037 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

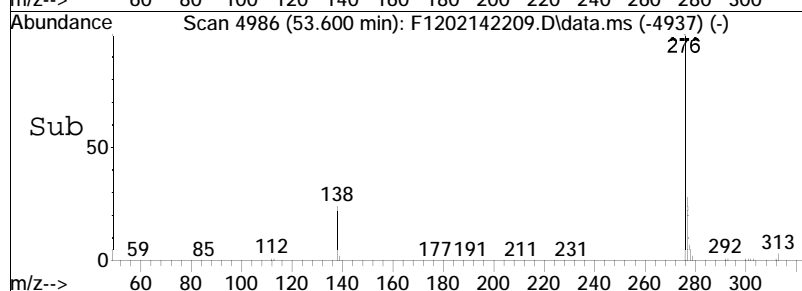
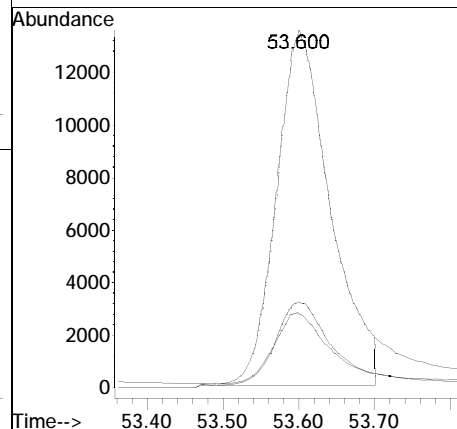
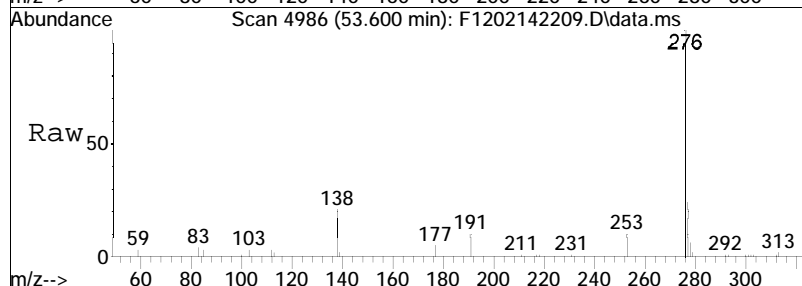
Tgt Ion	Resp	Lower	Upper
252	100		
253	20.9	17.3	32.1

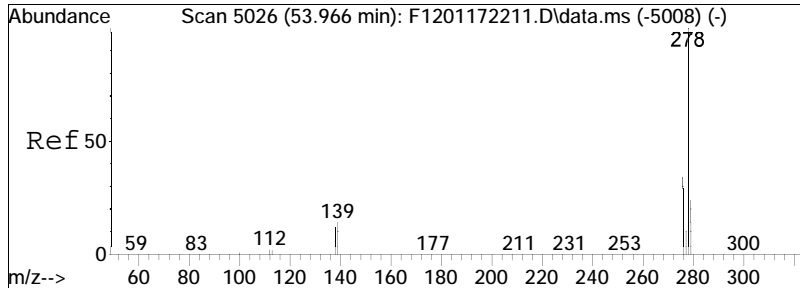




#92  
 Indeno[1,2,3-cd]pyrene  
 Concen: 115.84 ng/mL M3  
 RT: 53.600 min Scan# 4986  
 Delta R.T. -0.055 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

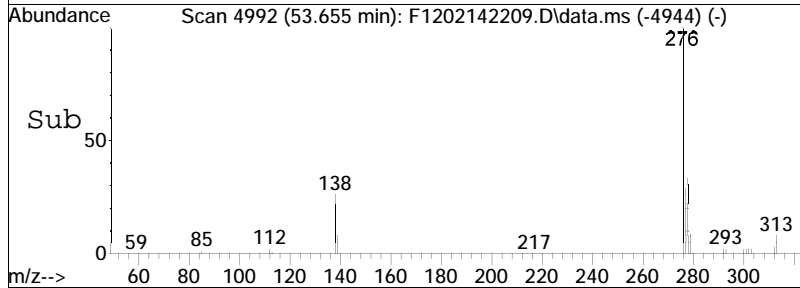
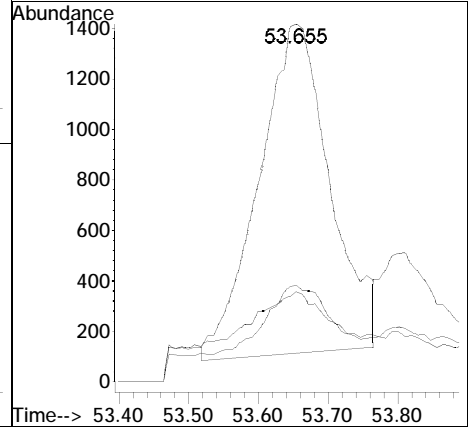
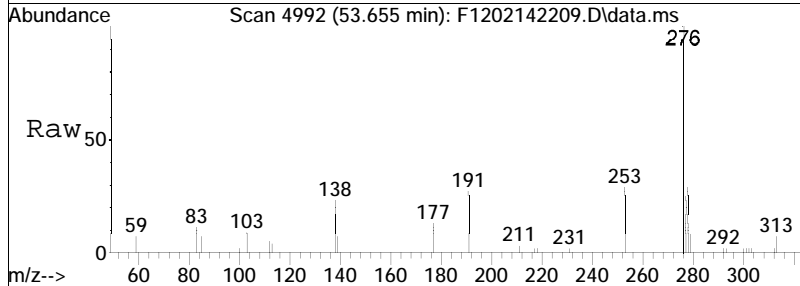
Tgt Ion	Resp	Lower	Upper
276	100		
138	30.5	12.2	22.7#
277	28.4	16.7	30.9

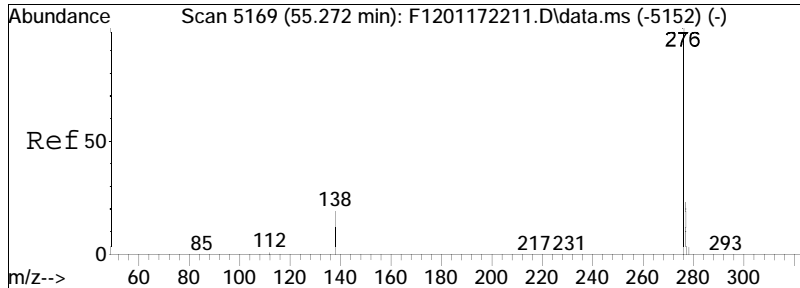




#93  
 Dibenz[ah]+[ac]anthracene  
 Concen: 18.33 ng/mL  
 RT: 53.655 min Scan# 4992  
 Delta R.T. -0.064 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

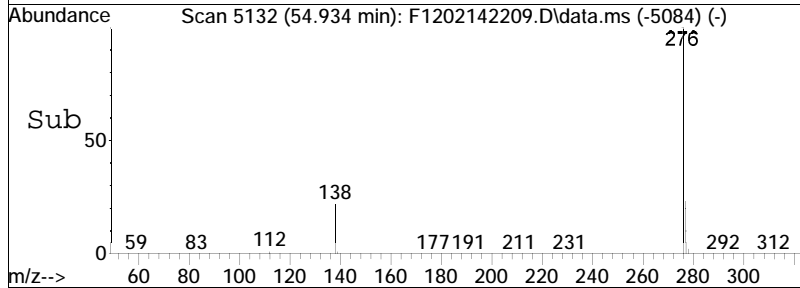
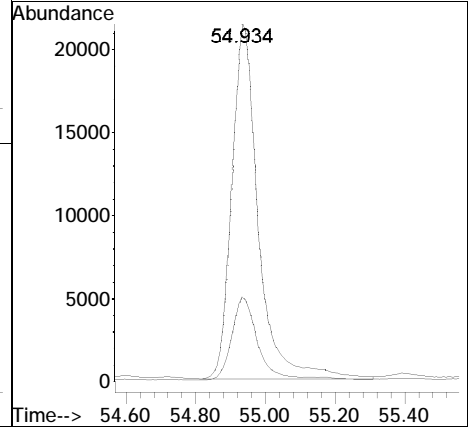
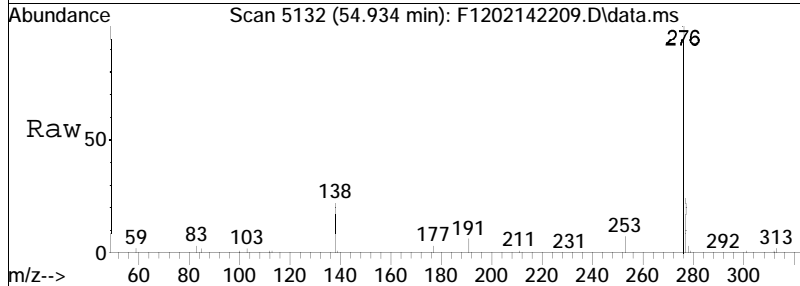
Tgt Ion	Resp	Lower	Upper
278	100		
139	41.4	10.1	18.7#
279	16.1	16.6	30.8#





#94  
 Benzo[g,h,i]perylene  
 Concen: 218.76 ng/mL  
 RT: 54.934 min Scan# 5132  
 Delta R.T. -0.064 min  
 Lab File: F1202142209.D  
 Acq: 14 Feb 2022 10:33 pm

Tgt Ion: 276 Resp: 111416  
 Ion Ratio Lower Upper  
 276 100  
 277 22.3 16.4 30.6





Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142210.D  
 Acq On : 14 Feb 2022 11:57 pm  
 Operator : PAH12:MJS  
 Sample : 12206076-02,32,,  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 21 15:33:19 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	26.986	164	79056M4	500.000	ng/mL	-0.04	
74) Chrysene-d12	43.451	240	150734	500.000	ng/mL	-0.05	
System Monitoring Compounds							
8) Naphthalene-d8	20.005	136	146331	429.304	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	42.93%#	
40) Phenanthrene-d10	32.862	188	131665	461.030	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	46.10%#	
84) Benzo[b]fluoranthene-d12	47.362	264	155135	442.620	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	44.26%#	
89) Benzo[a]pyrene-d12	48.579	264	108144	407.672	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	40.77%#	
Target Compounds							
							Qvalue
2) trans-Decalin	0.000		0		N.D.		
3) cis-Decalin	0.000		0		N.D.		
4) C1-Decalins	0.000		0		N.D. d		
5) C2-Decalins	0.000		0		N.D. d		
6) C3-Decalins	0.000		0		N.D. d		
7) C4-Decalins	0.000		0		N.D. d		
9) Naphthalene	20.087	128	1110	2.945	ng/mL	100	
10) C1-Naphthalenes	22.779	142	644M5	1.709	ng/mL		
11) C2-Naphthalenes	25.617	156	1184M5	3.141	ng/mL		
12) C3-Naphthalenes	27.953	170	925M5	2.454	ng/mL		
13) C4-Naphthalenes	0.000		0		N.D. d		
14) 2-Methylnaphthalene	22.779	142	325	1.358	ng/mL	100	
15) 1-Methylnaphthalene	23.208	142	197	0.867	ng/mL	100	
16) Benzothiophene	0.000		0		N.D. d		
17) C1-Benzo(b)thiophenes	22.898	148	1181M5	3.704	ng/mL		
18) C2-Benzo(b)thiophenes	25.343	162	440M5	1.380	ng/mL		
19) C3-Benzo(b)thiophenes	0.000		0		N.D. d		
20) C4-Benzo(b)thiophenes	0.000		0		N.D. d		
21) Biphenyl	24.668	154	199	0.679	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.261	156	142	0.696	ng/mL	100	
23) Dibenzofuran	27.752	168	121	0.387	ng/mL#	36	
24) Acenaphthylene	26.384	152	318	0.884	ng/mL	100	
25) Acenaphthene	27.114	153	3182	13.982	ng/mL	98	
26) 2,3,5-Trimethylnaphthalen	0.000		0		N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142210.D  
 Acq On : 14 Feb 2022 11:57 pm  
 Operator : PAH12:MJS  
 Sample : 12206076-02,32,,  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 21 15:33:19 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	29.130	166	296M4	1.176	ng/mL	
28) C1-Fluorenes	31.356	180	401M5	1.593	ng/mL	
29) C2-Fluorenes	0.000		0	N.D.	d	
30) C3-Fluorenes	0.000		0	N.D.	d	
31) Dibenzothiophene	32.451	184	734	2.021	ng/mL	93
32) 4-Methyldibenzothiophene(	34.231	198	180	0.496	ng/mL	100
33) 2/3-Methyldibenzothiophen	0.000		0	N.D.	d	
34) 1-Methyldibenzothiophene(	35.006	198	112M3	0.308	ng/mL	
36) C1-Dibenzothiophenes	34.632	198	21779M5	59.973	ng/mL	
36) C1-Dibenzothiophenes BS	34.632	198	483M5	1.330	ng/mL	
37) C2-Dibenzothiophenes	36.942	212	1190M5	3.277	ng/mL	
38) C3-Dibenzothiophenes	0.000		0	N.D.	d	
39) C4-Dibenzothiophenes	0.000		0	N.D.	d	
41) Phenanthrene	32.944	178	6694	18.038	ng/mL	99
42) 3-Methylphenanthrene(3MP)	34.906	192	581	1.566	ng/mL	77
43) 2-Methylphenanthrene(2MP)	35.025	192	548	1.477	ng/mL	99
44) 2-Methylanthracene(2MA)	35.180	192	110M3	0.296	ng/mL	
45) 9/4-Methylphenanthrene(9M	35.362	192	446M3	1.202	ng/mL	
47) C1-Phenanthrenes/Anthrace	35.025	192	2093M5	5.640	ng/mL	
48) C2-Phenanthrenes/Anthrace	36.942	206	17018M5	45.856	ng/mL	
48) C2-Phenanthrenes/Anthr BS	36.942	206	1611M5	4.341	ng/mL	
50) C3-Phenanthrenes/Anthrace	39.014	220	1141M5	3.075	ng/mL	
51) C4-Phenanthrenes/Anthrace	0.000		0	N.D.	d	
52) Retene	0.000		0	N.D.		
53) Anthracene	33.126	178	674	1.949	ng/mL	88
54) Carbazole	33.792	167	100	0.279	ng/mL#	64
55) 1-Methylphenanthrene	35.454	192	239	0.959	ng/mL	84
56) Fluoranthene	37.727	202	6008M4	16.144	ng/mL	
57) Benzo(b)fluorene	40.247	216	301M3	1.284	ng/mL	
58) 7H-Benzo(c)fluorene	40.265	216	192M3	0.819	ng/mL	
59) Pyrene	38.612	202	16224	42.008	ng/mL#	76
60) 2-Methylpyrene	40.402	216	347M3	0.898	ng/mL	
61) 4-Methylpyrene	40.776	216	308M3	0.797	ng/mL	
62) 1-Methylpyrene	40.886	216	302	0.782	ng/mL#	1
63) C1-Fluoranthenes/Pyrenes	40.000	216	3196M5	8.275	ng/mL	
64) C2-Fluoranthenes/Pyrenes	41.671	230	1078M5	2.791	ng/mL	
65) C3-Fluoranthenes/Pyrenes	0.000		0	N.D.	d	
66) C4-Fluoranthenes/Pyrenes	0.000		0	N.D.	d	
67) Naphthobenzothiophene-2,1	42.465	234	840	2.170	ng/mL#	48

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142210.D  
 Acq On : 14 Feb 2022 11:57 pm  
 Operator : PAH12:MJS  
 Sample : 12206076-02,32,,  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 21 15:33:19 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	42.803	234	185M4	0.478	ng/mL	
69) Naphthobenzothiophene-2,3	43.095	234	260M3	0.672	ng/mL	
70) C1-Naphthobenzothiophenes	43.853	248	663M5	1.712	ng/ml	
71) C2-Naphthobenzothiophenes	0.000		0	N.D.	d	
72) C3-Naphthobenzothiophenes	0.000		0	N.D.	d	
73) C4-Naphthobenzothiophenes	0.000		0	N.D.	d	
75) Benz[a]anthracene	43.397	228	2484M3	6.820	ng/mL	
76) Chrysene	43.552	228	4270	11.849	ng/mL	83
78) C1-Chrysenes	45.031	242	939M5	2.606	ng/mL	
79) C2-Chrysenes	0.000		0	N.D.	d	
79) C2-Chrysenes BS	0.000		0d	0.000	ng/mL	
81) C3-Chrysenes	0.000		0	N.D.	d	
82) C4-Chrysenes	0.000		0	N.D.	d	
85) Benzo[b]fluoranthene	47.454	252	2783	6.777	ng/mL	98
86) Benzo[j]+[k]fluoranthene	47.527	252	2884M3	6.805	ng/mL	
87) Benzo[a]fluoranthene	47.838	252	754M3	1.779	ng/mL	
88) Benzo[e]pyrene	48.478	252	2897	7.140	ng/mL	95
90) Benzo[a]pyrene	48.661	252	4241M3	10.779	ng/mL	
91) Perylene	48.981	252	5168	12.807	ng/mL	93
92) Indeno[1,2,3-cd]pyrene	53.600	276	3141M3	5.825	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.673	278	411M4	0.868	ng/mL	
94) Benzo[g,h,i]perylene	54.934	276	5339	11.191	ng/mL	97

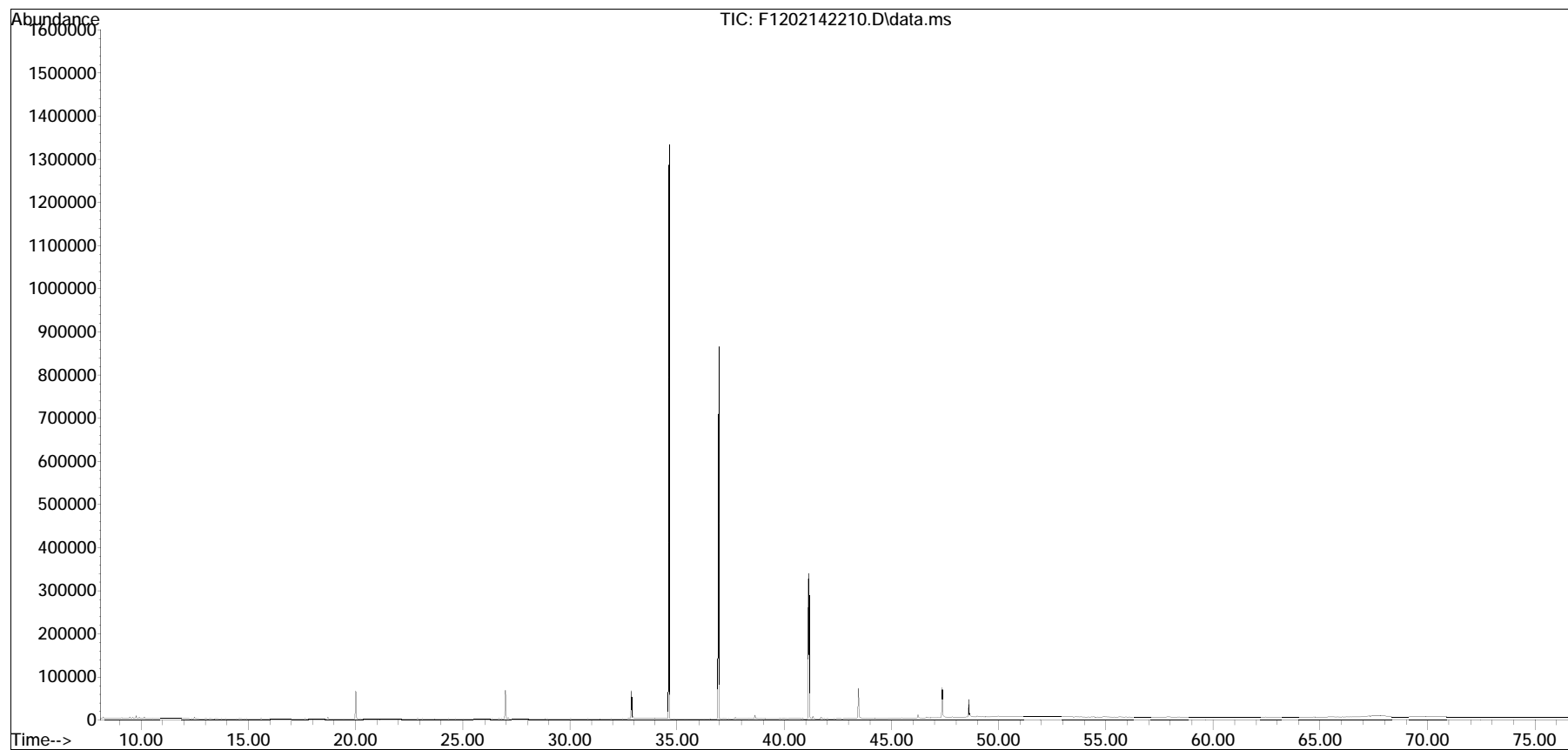
(#) = qualifier out of range (m) = manual integration (+) = signals summed

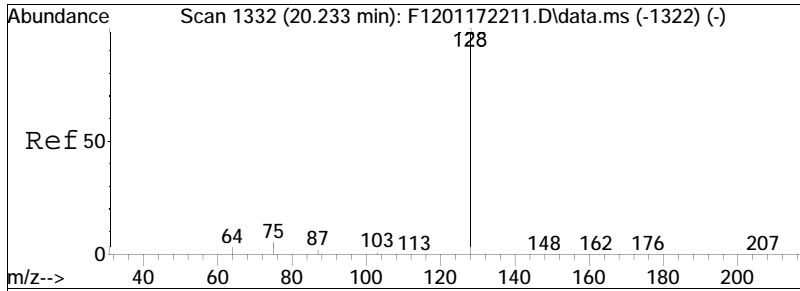
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
Data File : F1202142210.D  
Acq On : 14 Feb 2022 11:57 pm  
Operator : PAH12:MJS  
Sample : 12206076-02,32,,  
Misc : WG1605097,WG1603644,ICAL18670  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 21 15:33:19 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Wed Feb 09 13:46:27 2022  
Response via : Initial Calibration

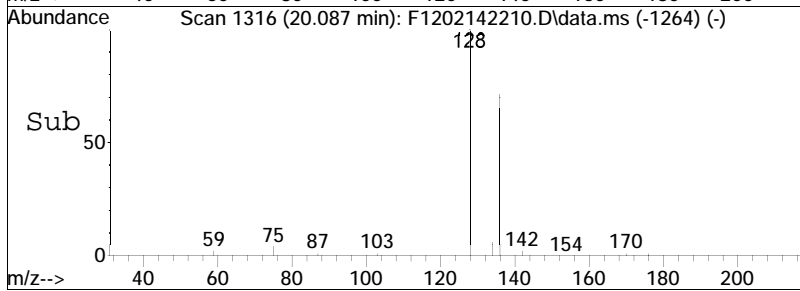
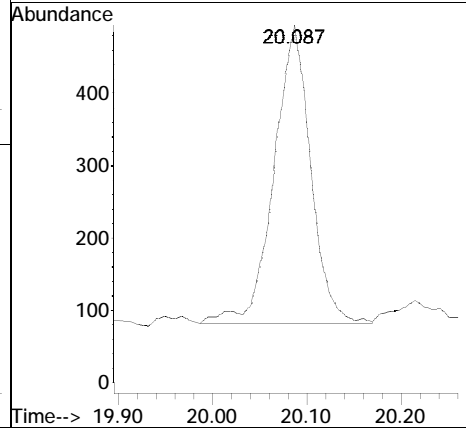
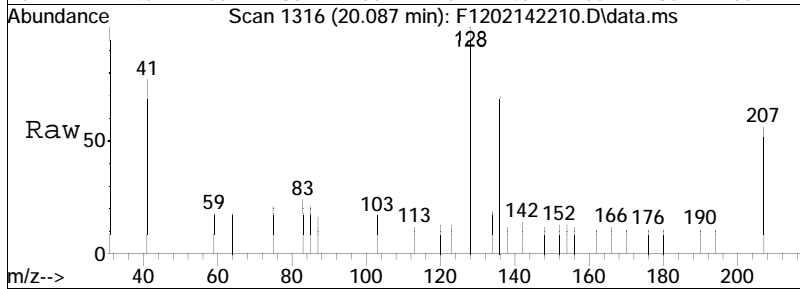
Sub List : ALKPAH - POI+MP+BcF

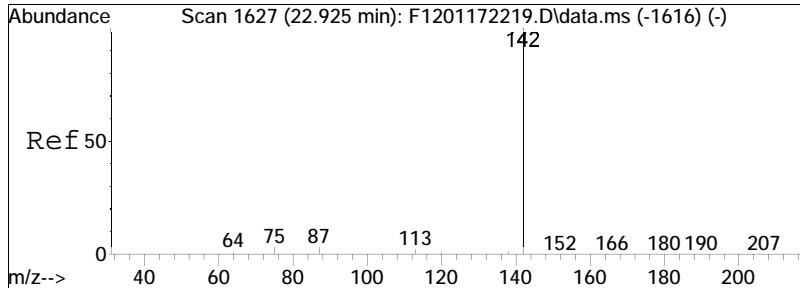




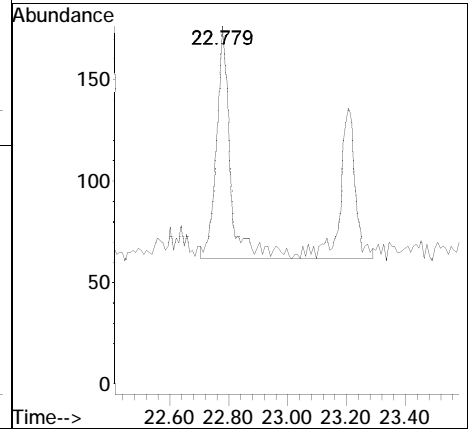
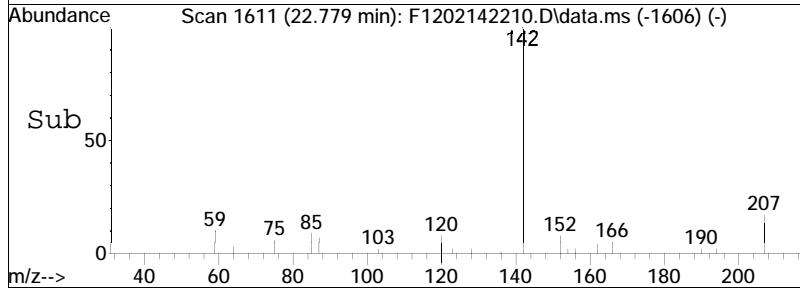
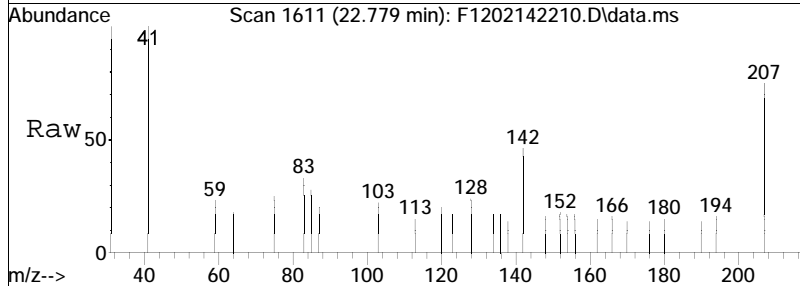
#9  
 Naphthalene  
 Concen: 2.95 ng/mL  
 RT: 20.087 min Scan# 1316  
 Delta R.T. -0.027 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

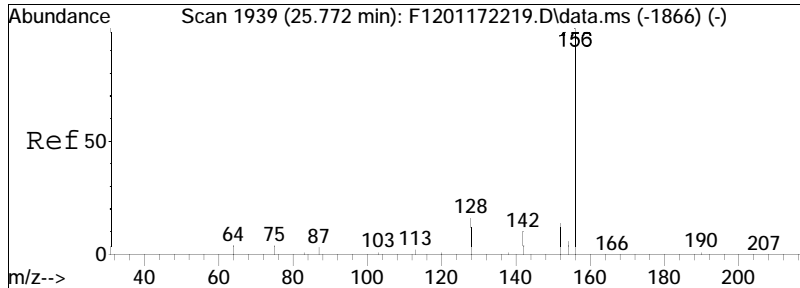
Tgt Ion:128 Resp: 1110



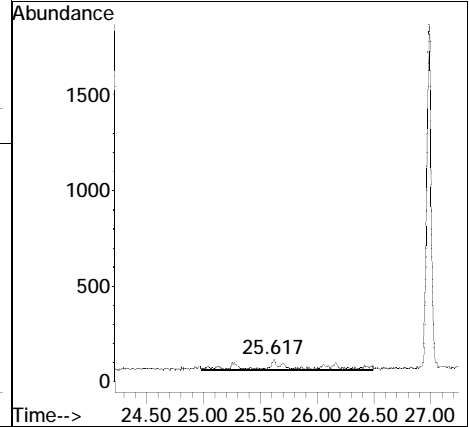
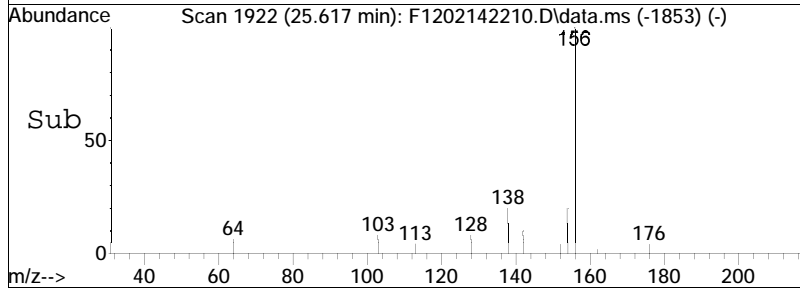
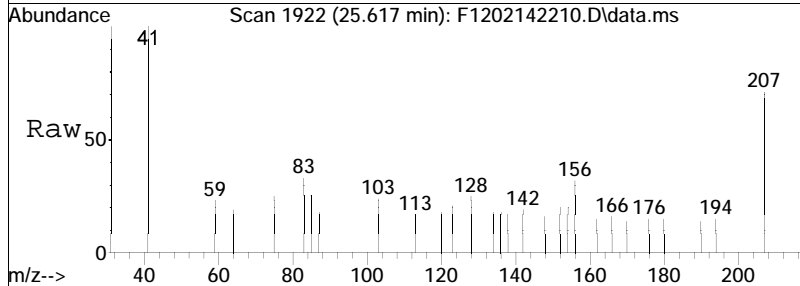


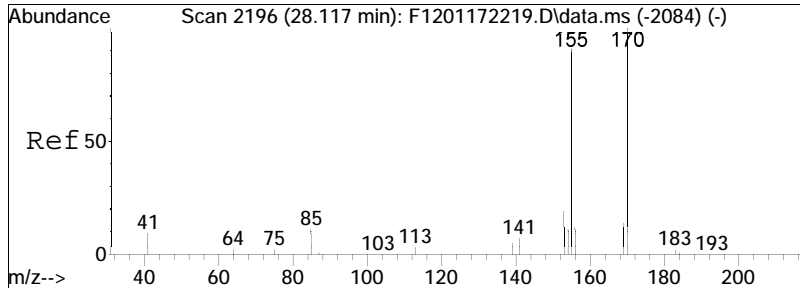
#10  
 Cl-Naphthalenes  
 Concen: 1.71 ng/mL M5  
 RT: 22.779 min Scan# 1611  
 Delta R.T. -0.036 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm  
 Tgt Ion:142 Resp: 644





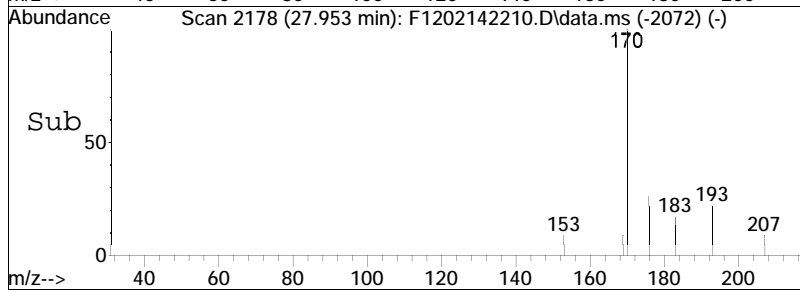
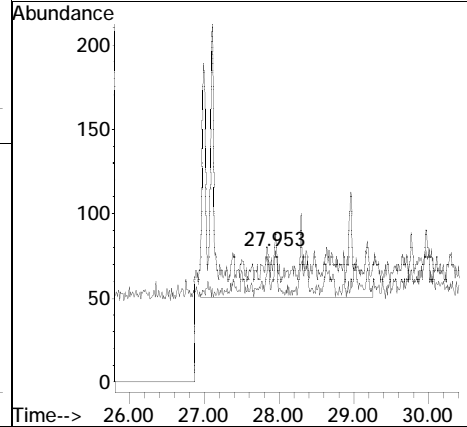
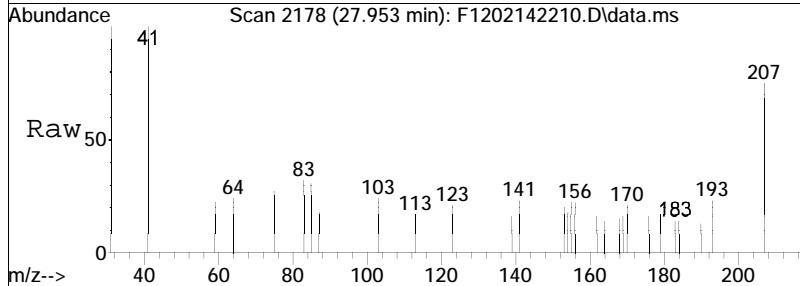
#11  
 C2-Naphthalenes  
 Concen: 3.14 ng/mL M5  
 RT: 25.617 min Scan# 1922  
 Delta R.T. -0.036 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm  
 Tgt Ion:156 Resp: 1184



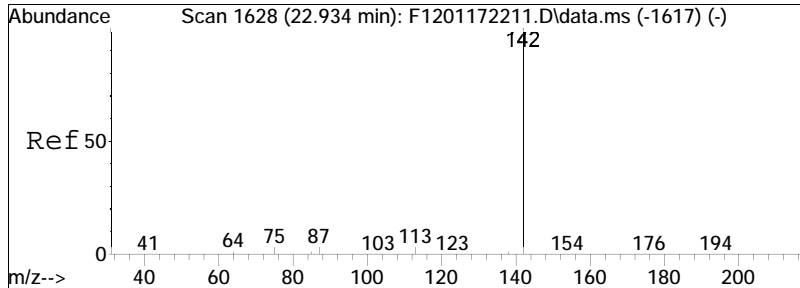


#12  
 C3-Naphthalenes  
 Concen: 2.45 ng/mL M5  
 RT: 27.953 min Scan# 2178  
 Delta R.T. -0.046 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

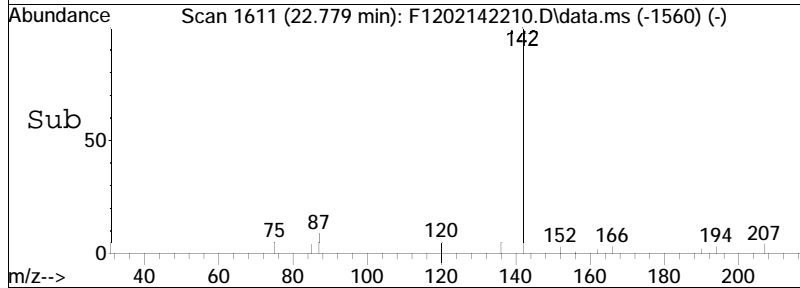
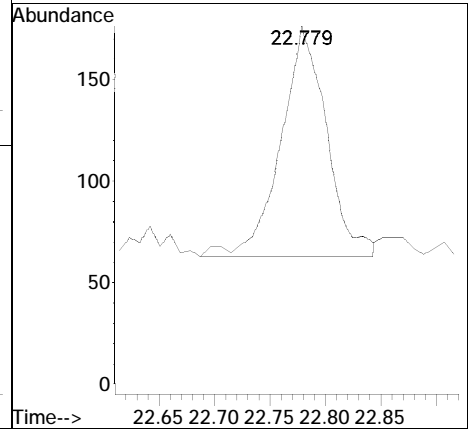
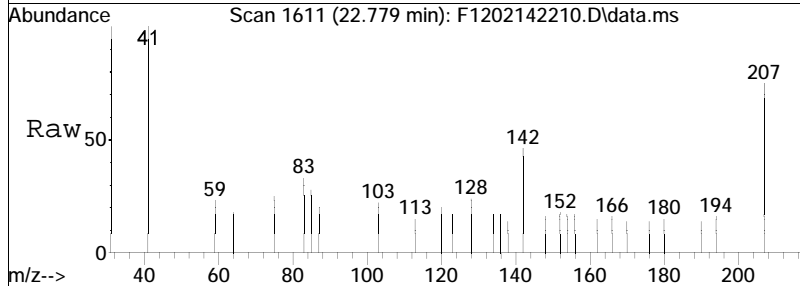
Tgt Ion	Resp	Lower	Upper
170	100		
155	0.0	63.8	118.4#

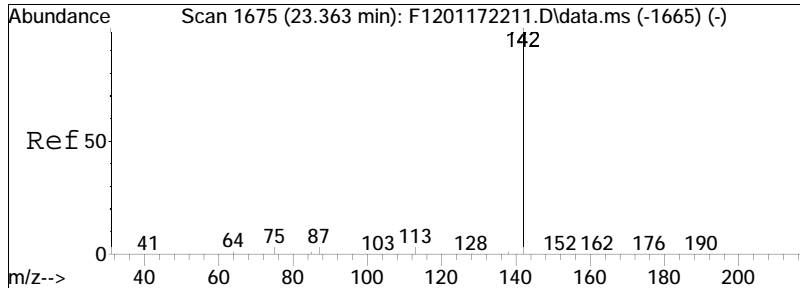




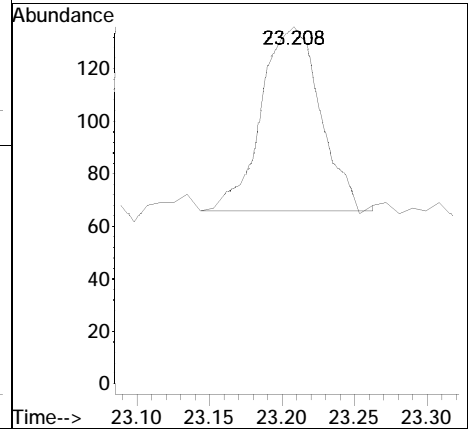
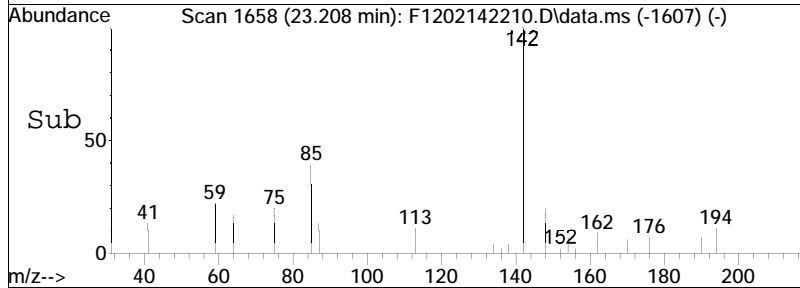
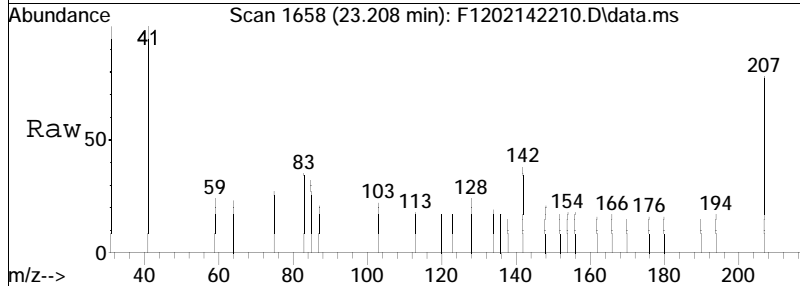


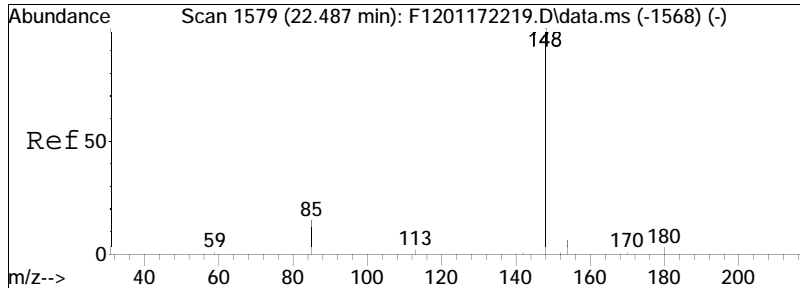
#14  
 2-Methylnaphthalene  
 Concen: 1.36 ng/mL  
 RT: 22.779 min Scan# 1611  
 Delta R.T. -0.036 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm  
 Tgt Ion:142 Resp: 325



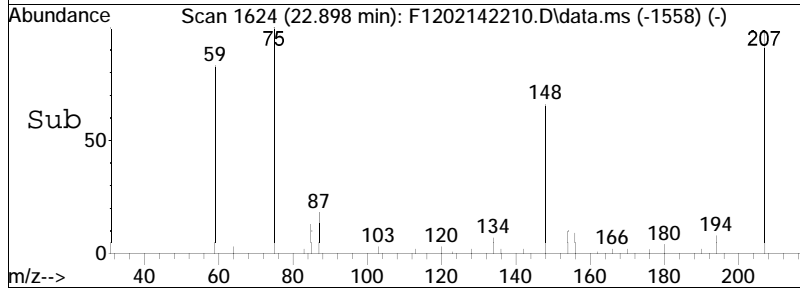
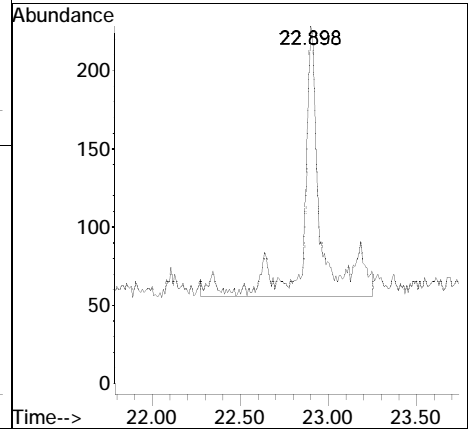
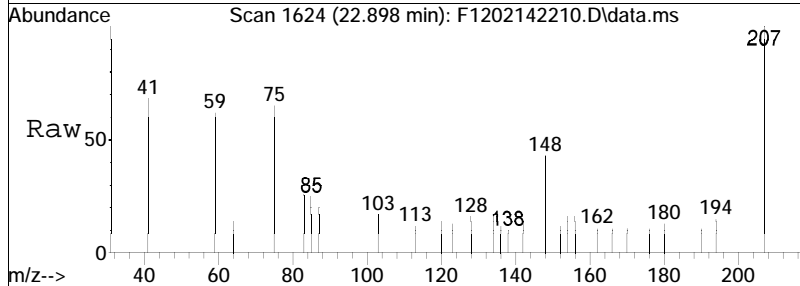


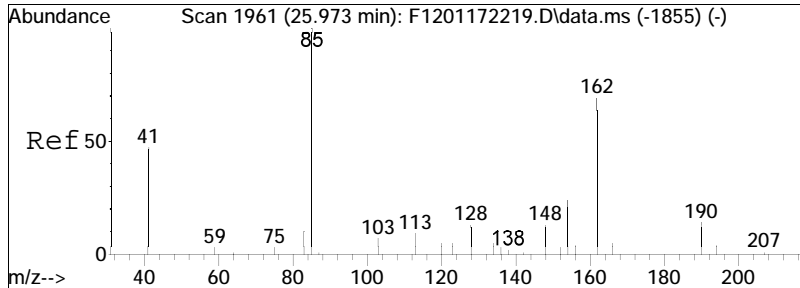
#15  
 1-Methylnaphthalene  
 Concen: 0.87 ng/mL  
 RT: 23.208 min Scan# 1658  
 Delta R.T. -0.036 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm  
 Tgt Ion:142 Resp: 197



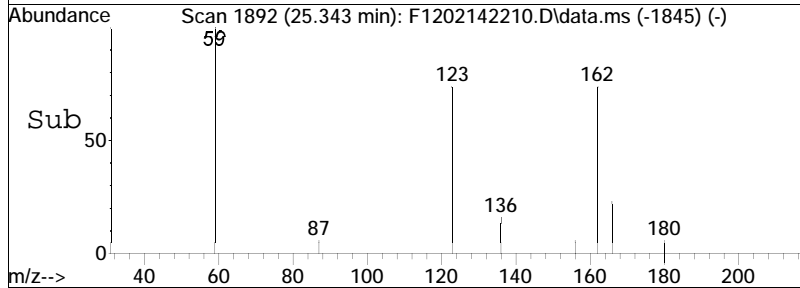
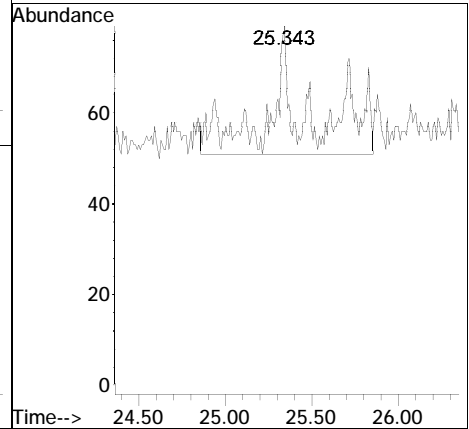
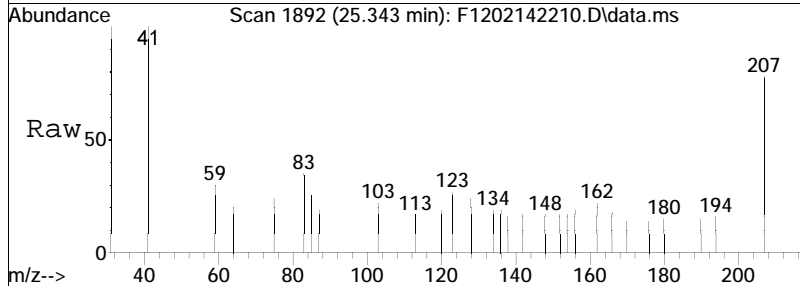


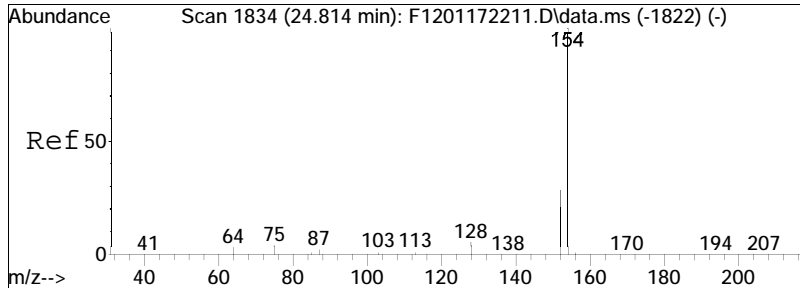
#17  
 Cl-Benzo(b)thiophenes  
 Concen: 3.70 ng/mL M5  
 RT: 22.898 min Scan# 1624  
 Delta R.T. 0.520 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm  
 Tgt Ion:148 Resp: 1181



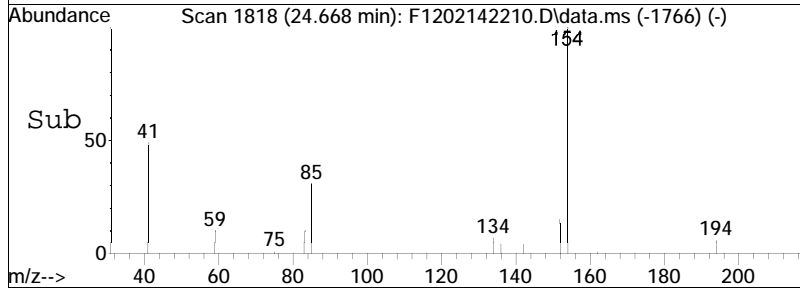
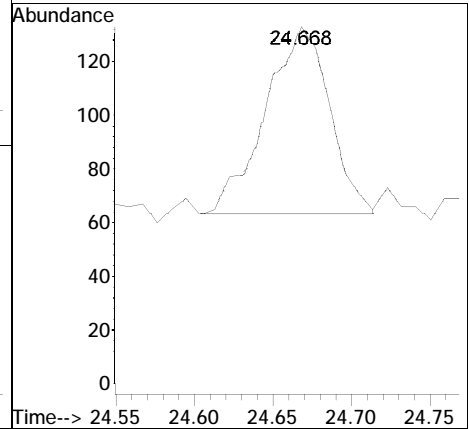
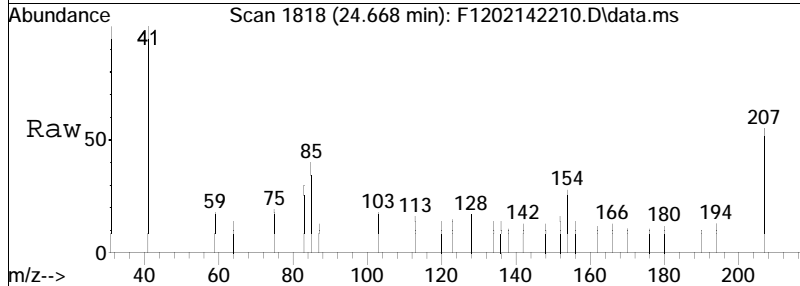


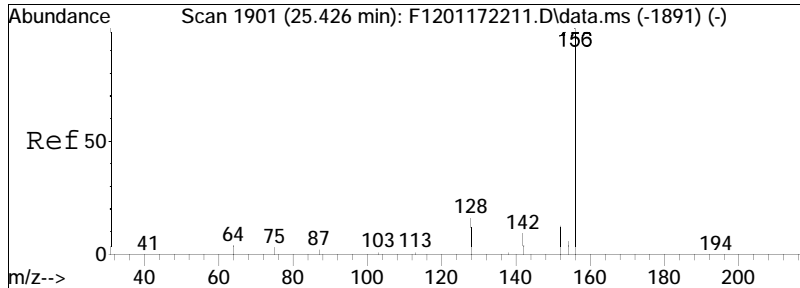
#18  
 C2-Benzo(b)thiophenes  
 Concen: 1.38 ng/mL M5  
 RT: 25.343 min Scan# 1892  
 Delta R.T. -0.511 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm  
 Tgt Ion:162 Resp: 440



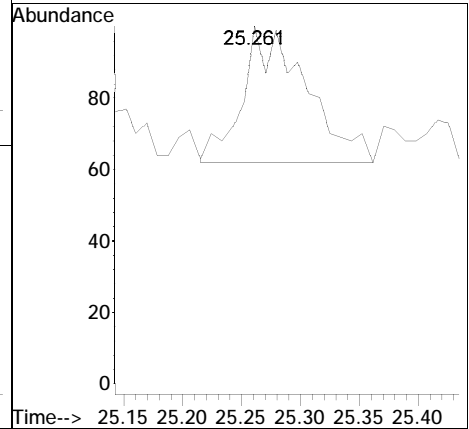
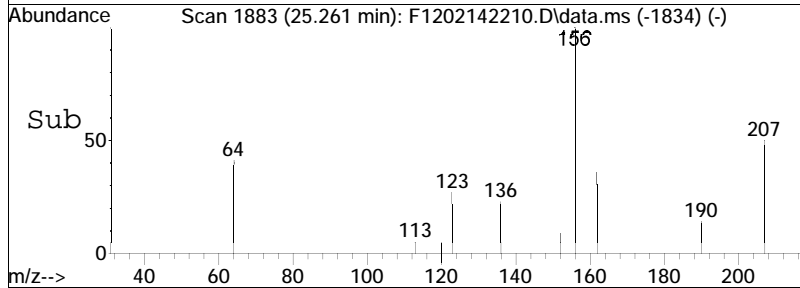
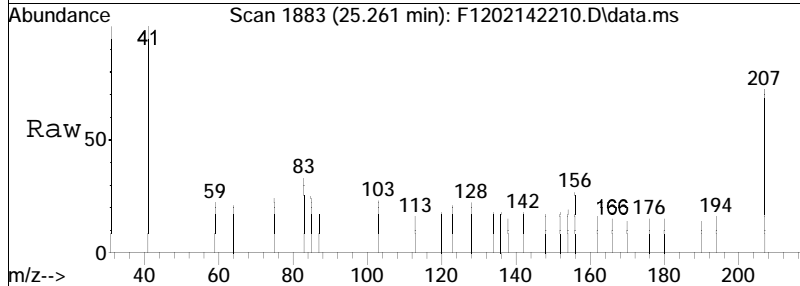


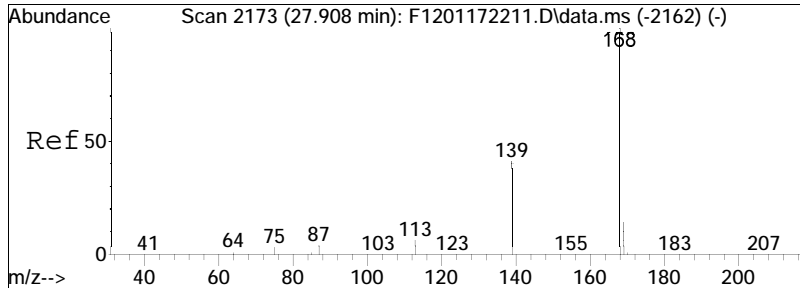
#21  
 Biphenyl  
 Concen: 0.68 ng/mL  
 RT: 24.668 min Scan# 1818  
 Delta R.T. -0.027 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm  
 Tgt Ion:154 Resp: 199





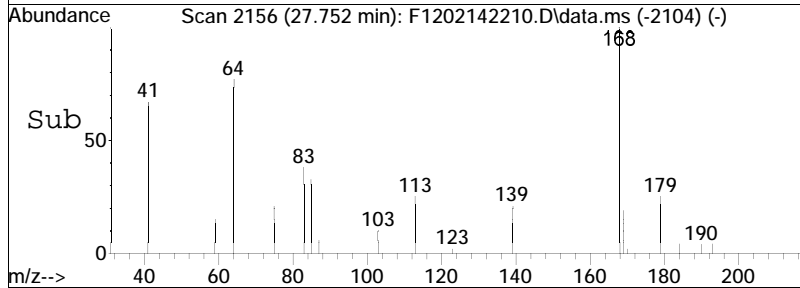
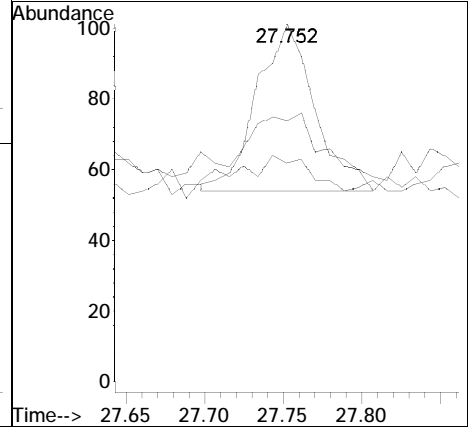
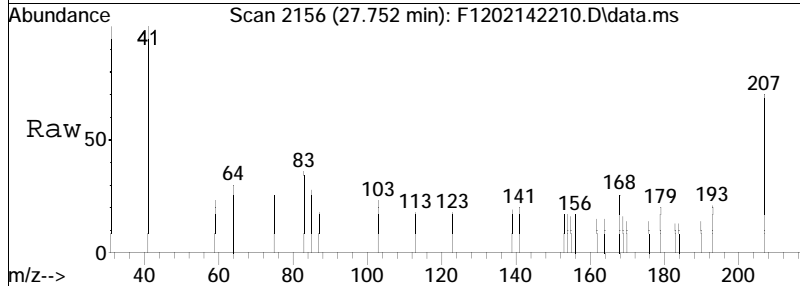
#22  
 2,6-Dimethylnaphthalene  
 Concen: 0.70 ng/mL  
 RT: 25.261 min Scan# 1883  
 Delta R.T. -0.055 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm  
 Tgt Ion:156 Resp: 142

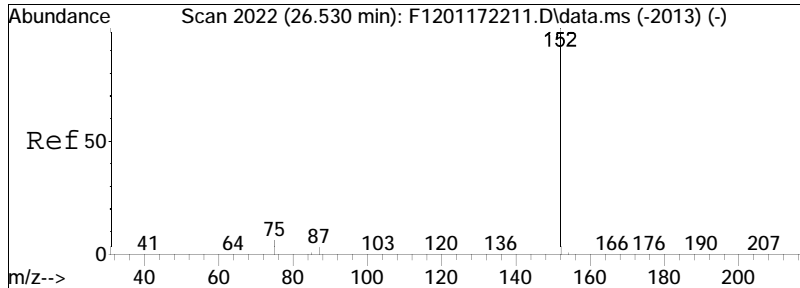




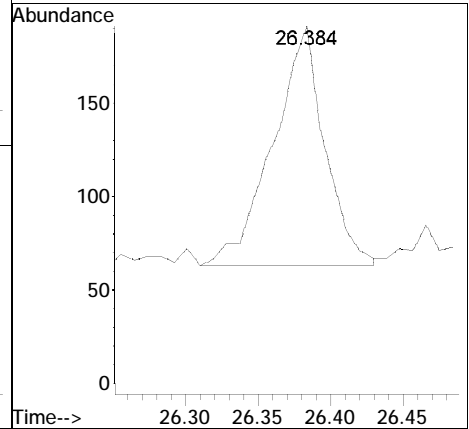
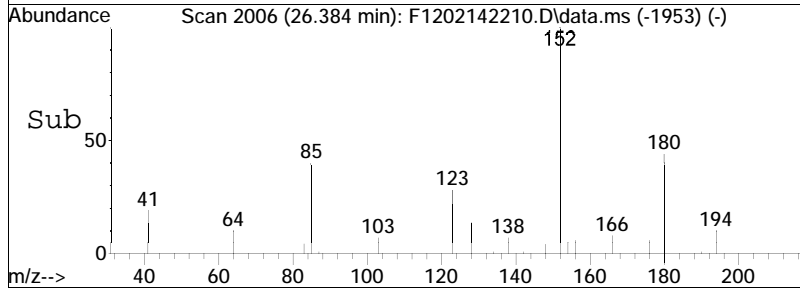
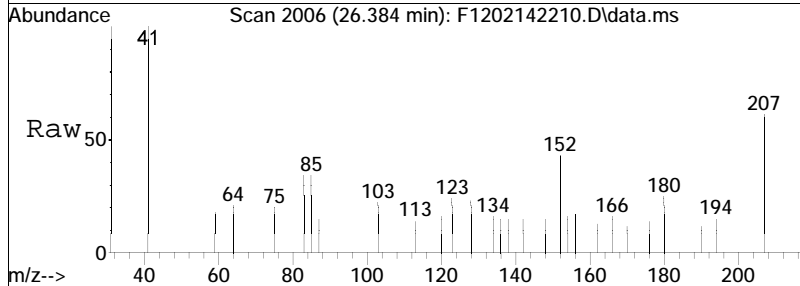
#23  
 Dibenzofuran  
 Concen: 0.39 ng/mL  
 RT: 27.752 min Scan# 2156  
 Delta R.T. -0.027 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

Tgt Ion	Ratio	Lower	Upper
168	100		
139	0.0	35.0	65.0#
169	0.0	11.5	21.5#

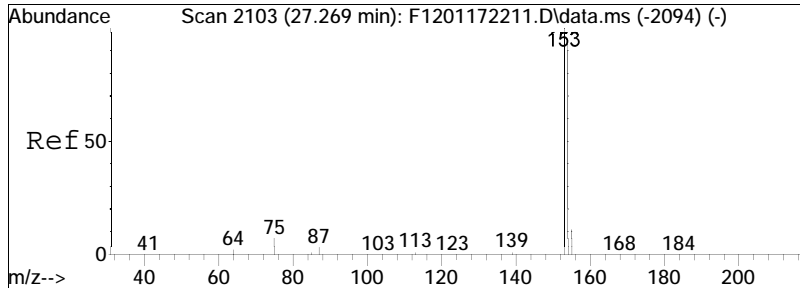




#24  
 Acenaphthylene  
 Concen: 0.88 ng/mL  
 RT: 26.384 min Scan# 2006  
 Delta R.T. -0.018 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm  
 Tgt Ion:152 Resp: 318

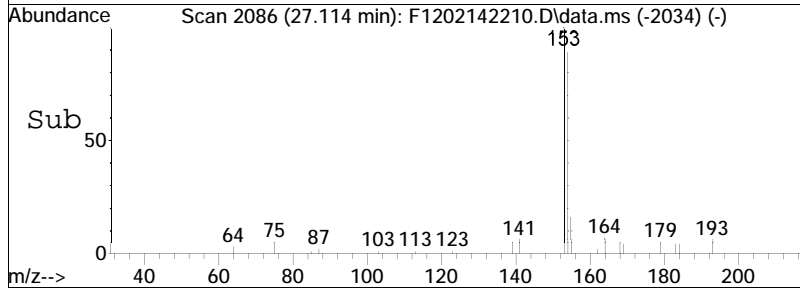
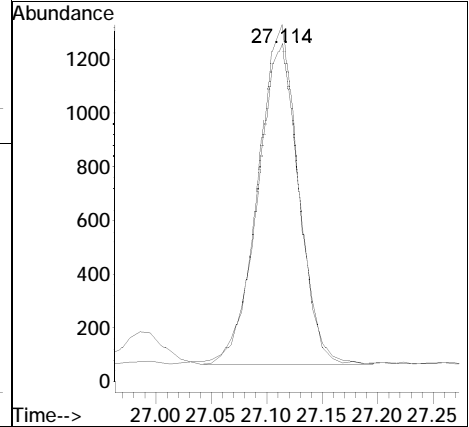
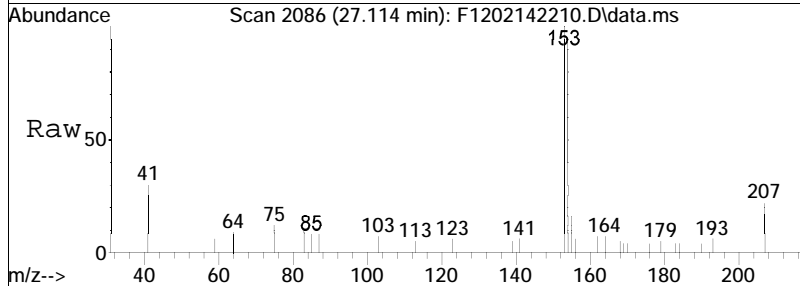


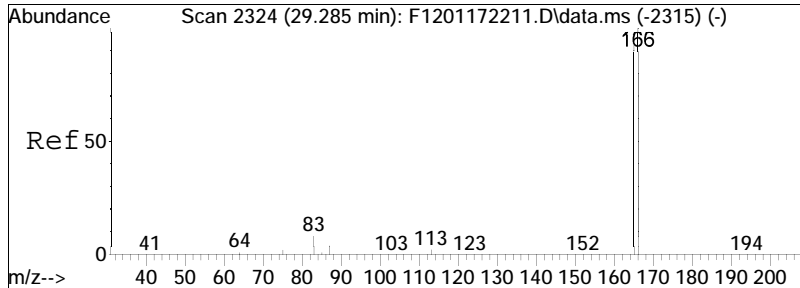




#25  
 Acenaphthene  
 Concen: 13.98 ng/mL  
 RT: 27.114 min Scan# 2086  
 Delta R.T. -0.027 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

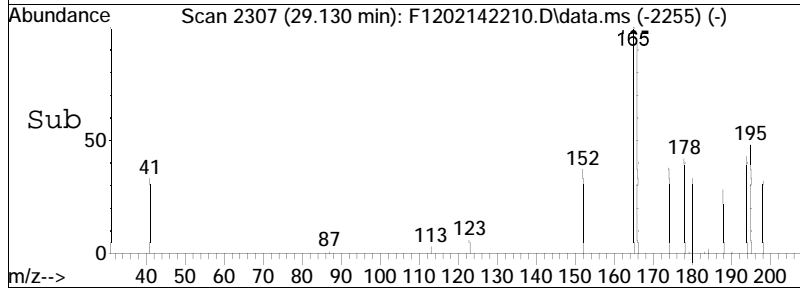
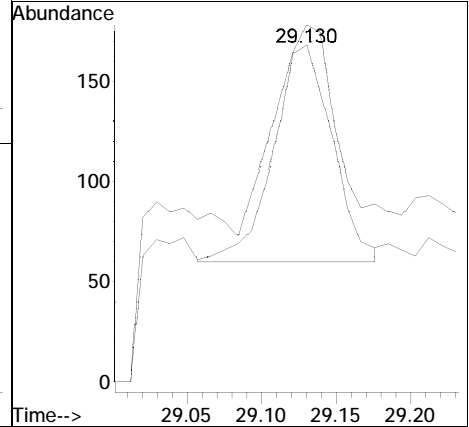
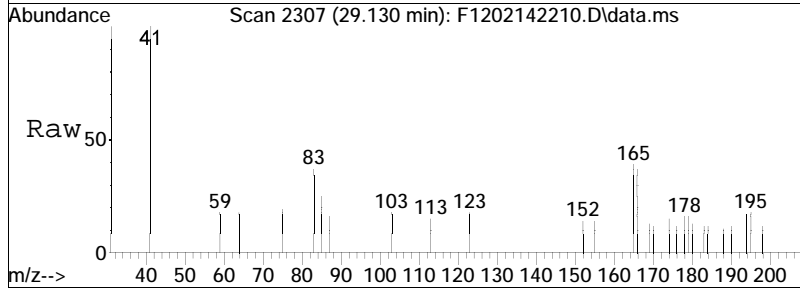
Tgt Ion	Resp	Lower	Upper
153	100		
154	95.5	65.4	121.4

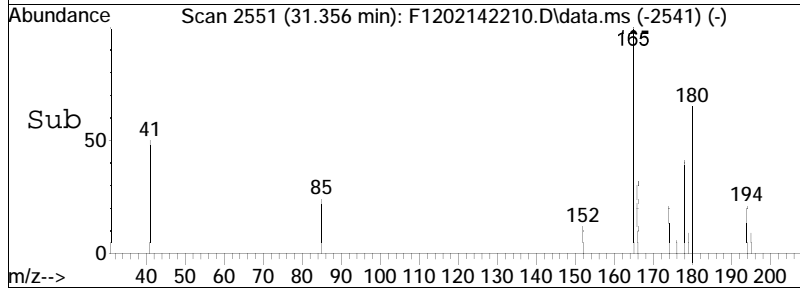
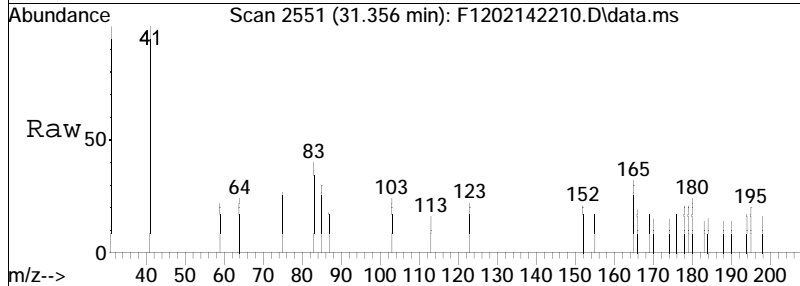
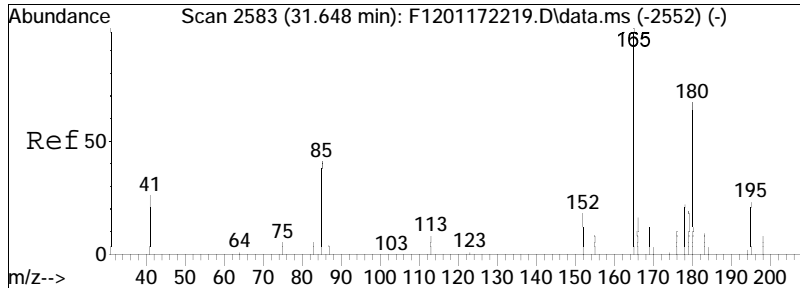




#27  
 Fluorene  
 Concen: 1.18 ng/mL M4  
 RT: 29.130 min Scan# 2307  
 Delta R.T. -0.027 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

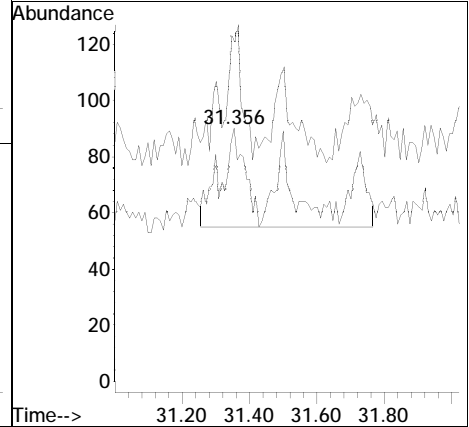
Tgt Ion	Resp	Lower	Upper
166	100		
165	145.6	66.4	123.4#

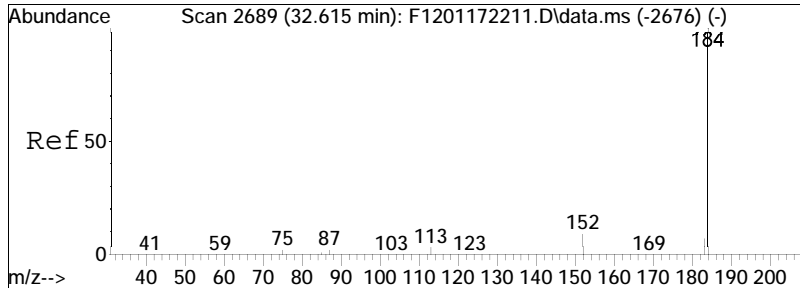




#28  
 Cl-Fluorenes  
 Concen: 1.59 ng/mL M5  
 RT: 31.356 min Scan# 2551  
 Delta R.T. -0.173 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

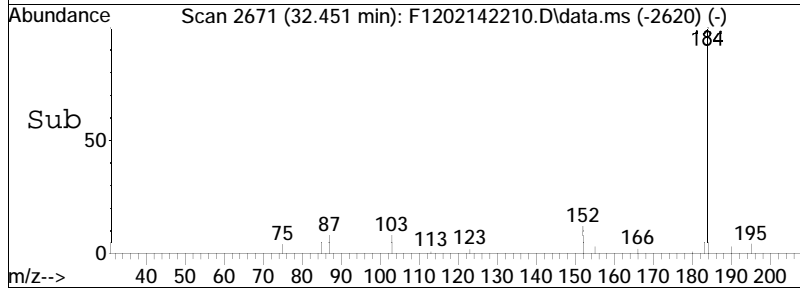
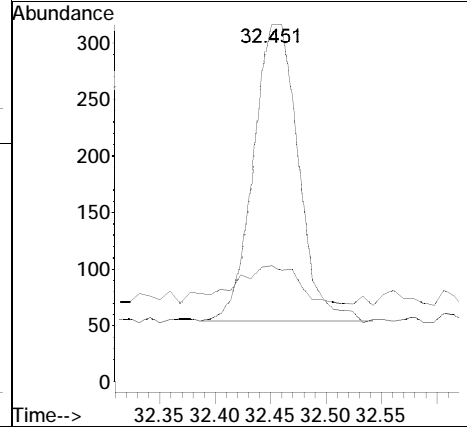
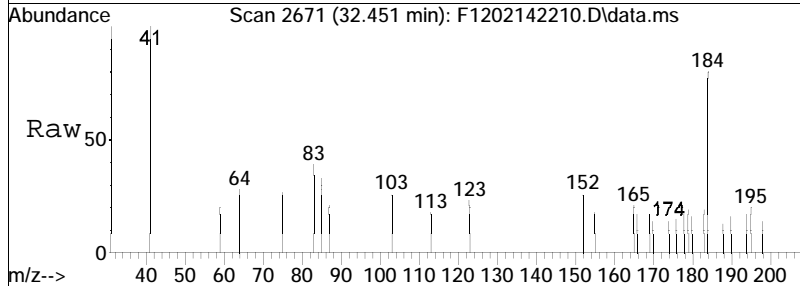
Tgt Ion: 180 Resp: 401  
 Ion Ratio Lower Upper  
 180 100  
 165 32.2 105.8 196.4#

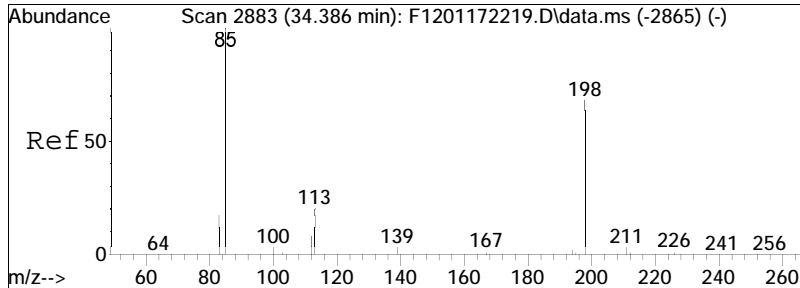




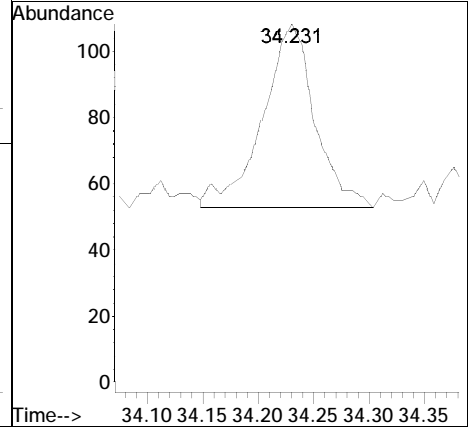
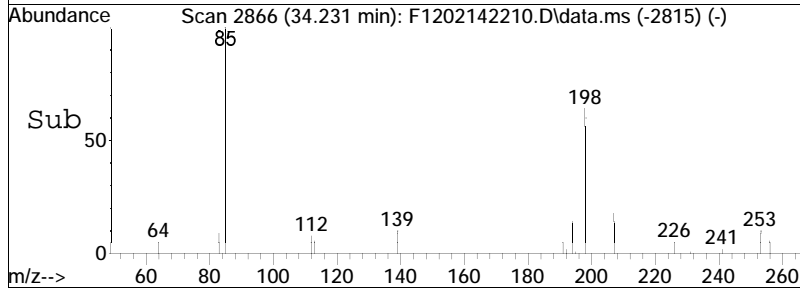
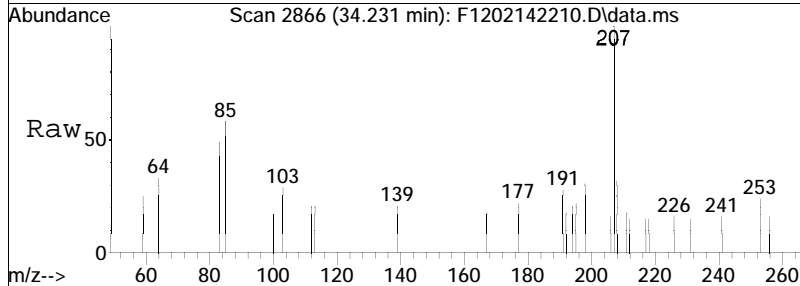
#31  
 Dibenzothiophene  
 Concen: 2.02 ng/mL  
 RT: 32.451 min Scan# 2671  
 Delta R.T. -0.036 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

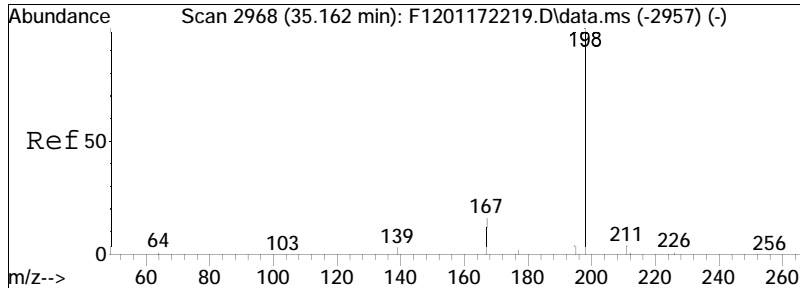
Tgt Ion	Ratio	Lower	Upper
184	100		
152	19.1	11.3	20.9



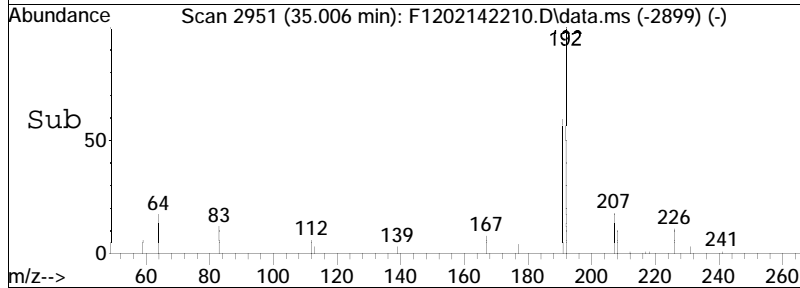
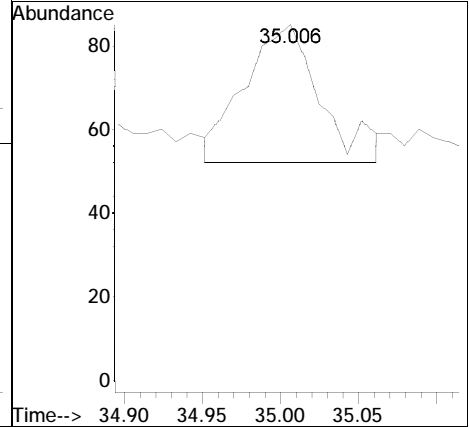
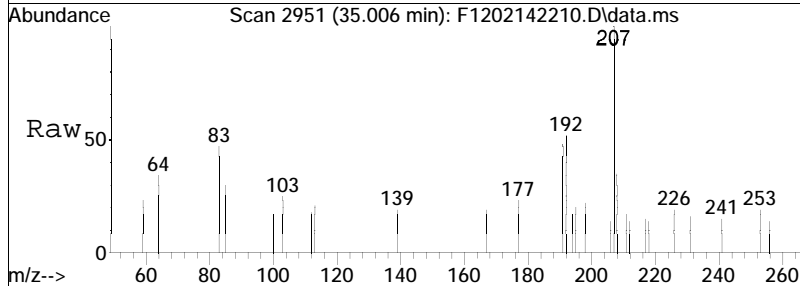


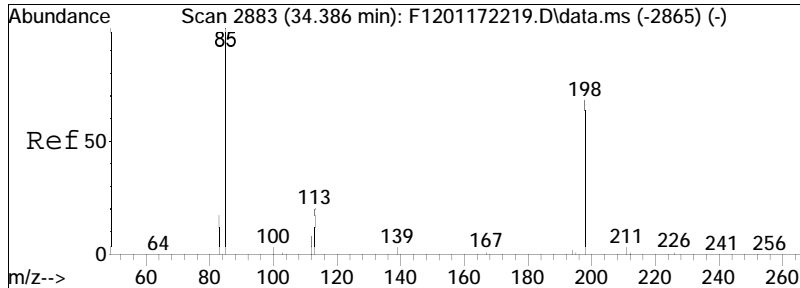
#32  
 4-Methyldibenzothiophene (4MDT)  
 Concen: 0.50 ng/mL  
 RT: 34.231 min Scan# 2866  
 Delta R.T. -0.036 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm  
 Tgt Ion: 198 Resp: 180



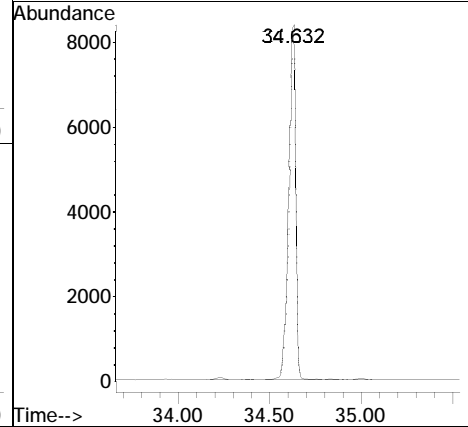
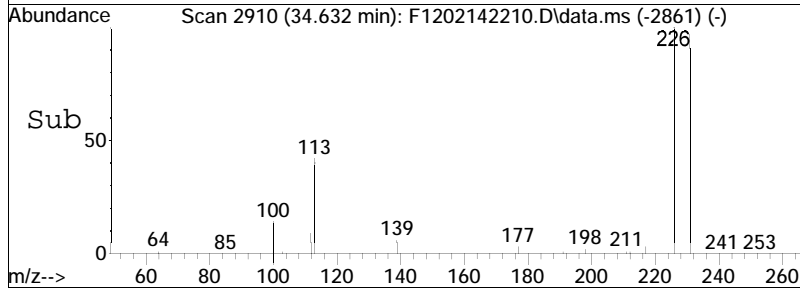
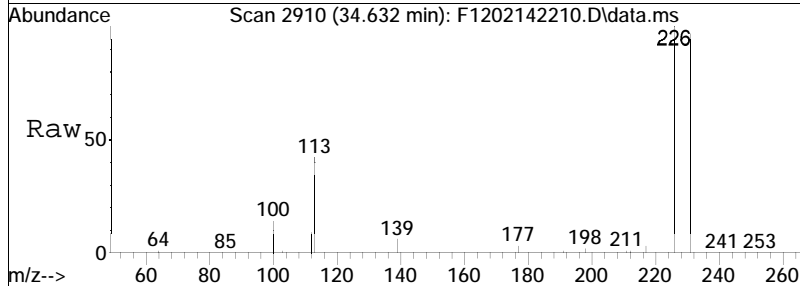


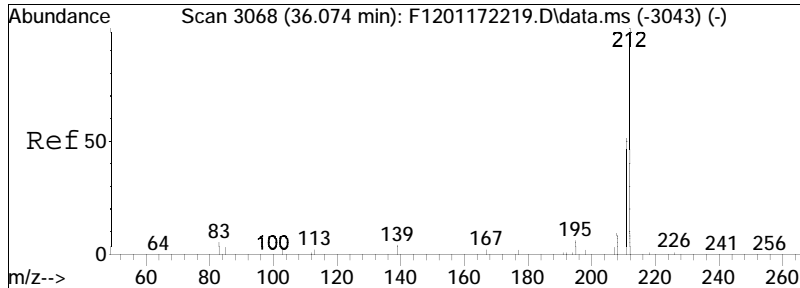
#34  
 1-Methyldibenzothiophene (1MDT)  
 Concen: 0.31 ng/mL M3  
 RT: 35.006 min Scan# 2951  
 Delta R.T. -0.027 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm  
 Tgt Ion: 198 Resp: 112



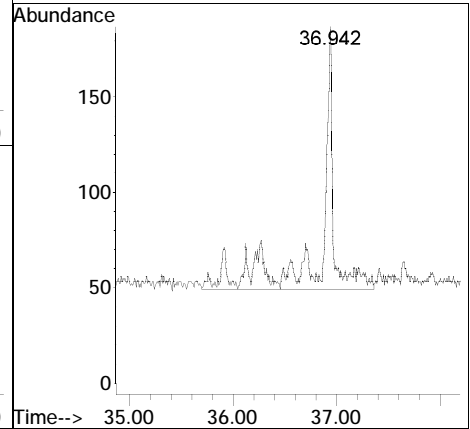
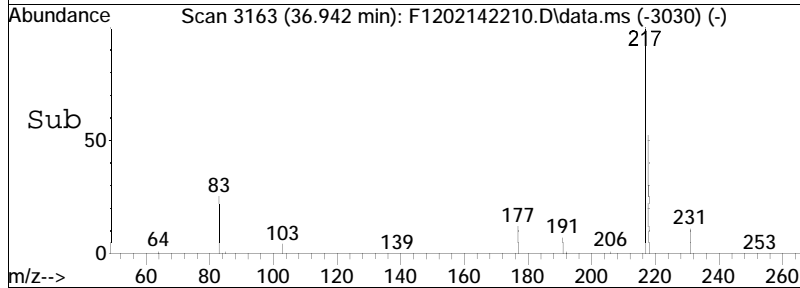
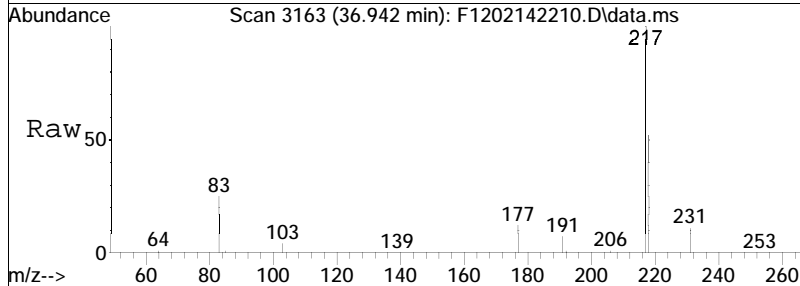


#36  
 Cl-Dibenzothiophenes  
 Concen: 59.97 ng/mL M5  
 RT: 34.632 min Scan# 2910  
 Delta R.T. 0.350 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm  
 Tgt Ion:198 Resp: 21779

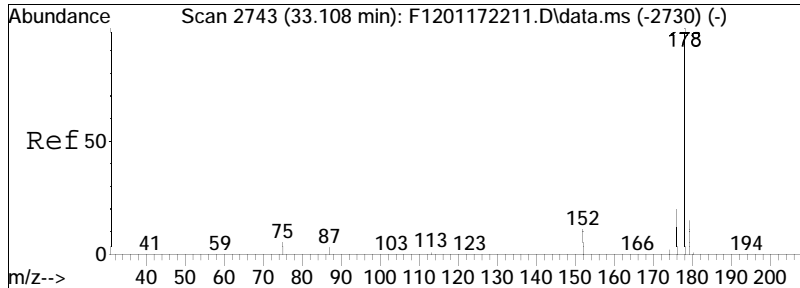




#37  
 C2-Dibenzothiophenes  
 Concen: 3.28 ng/mL M5  
 RT: 36.942 min Scan# 3163  
 Delta R.T. 0.976 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm  
 Tgt Ion:212 Resp: 1190

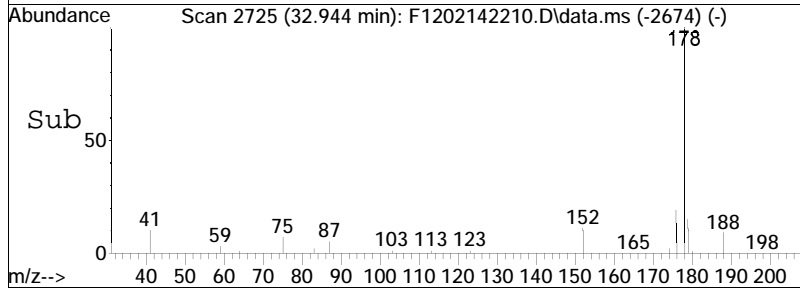
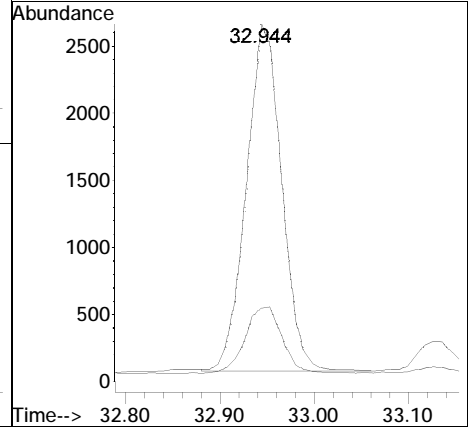
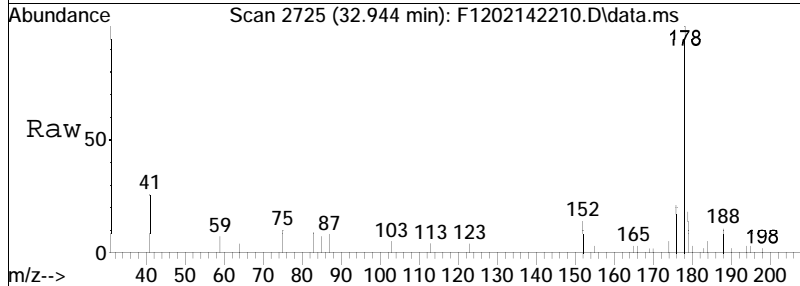


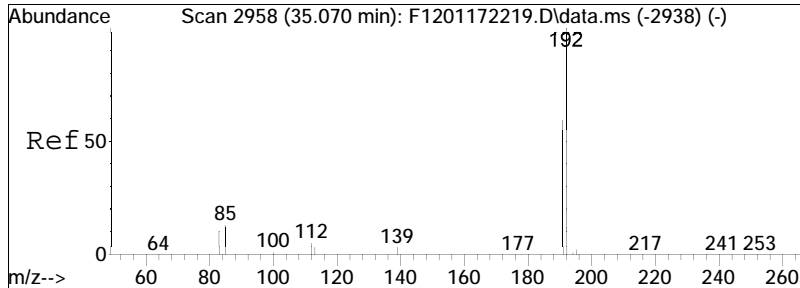




#41  
 Phenanthrene  
 Concen: 18.04 ng/mL  
 RT: 32.944 min Scan# 2725  
 Delta R.T. -0.036 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

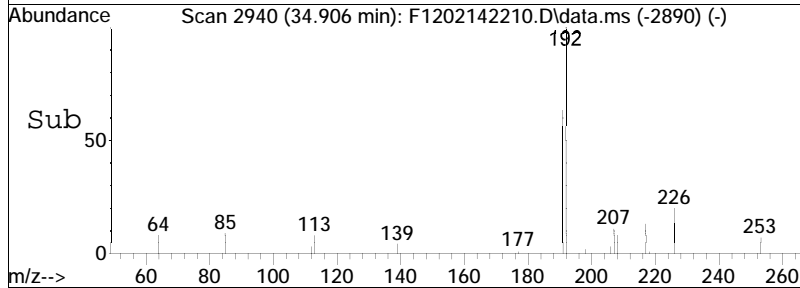
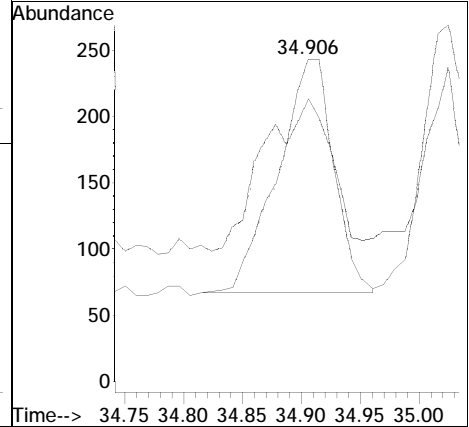
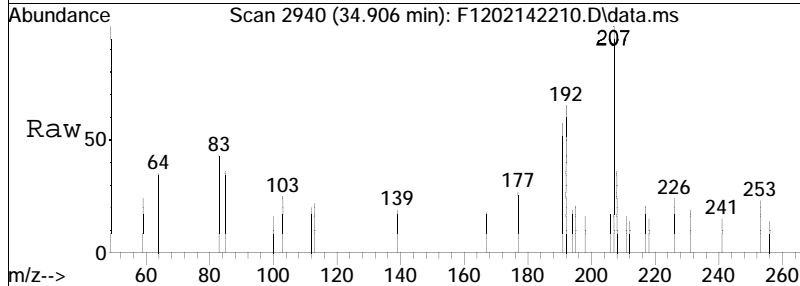
Tgt Ion	Resp	Lower	Upper
178	100		
176	20.8	14.8	27.6

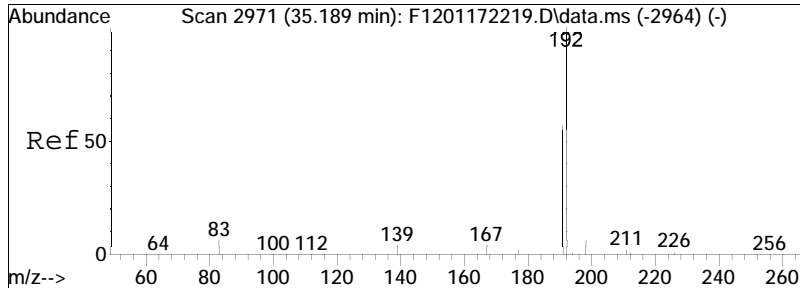




#42  
 3-Methylphenanthrene (3MP)  
 Concen: 1.57 ng/mL  
 RT: 34.906 min Scan# 2940  
 Delta R.T. -0.046 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

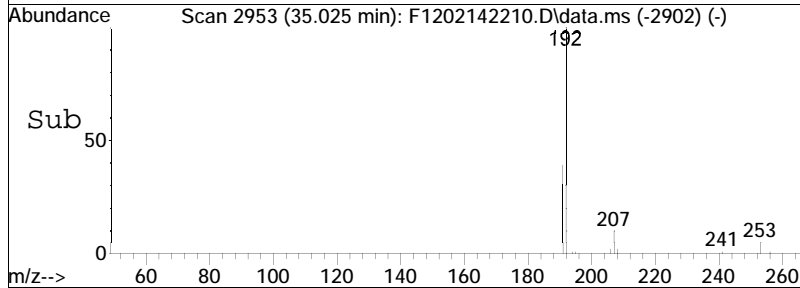
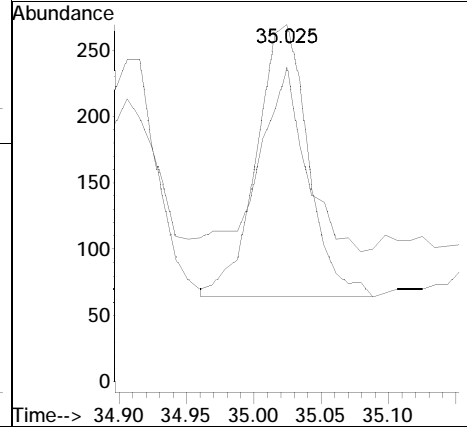
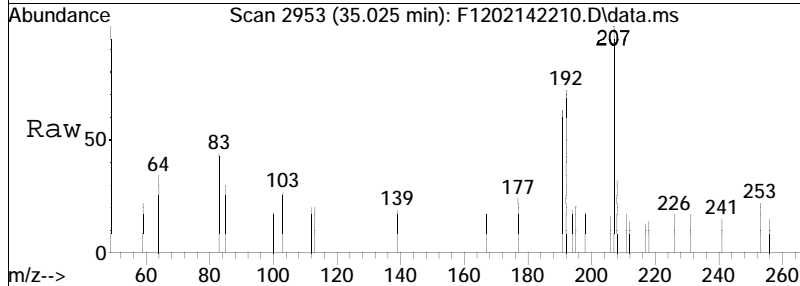
Tgt Ion: 192 Resp: 581  
 Ion Ratio Lower Upper  
 192 100  
 191 78.7 42.6 79.0

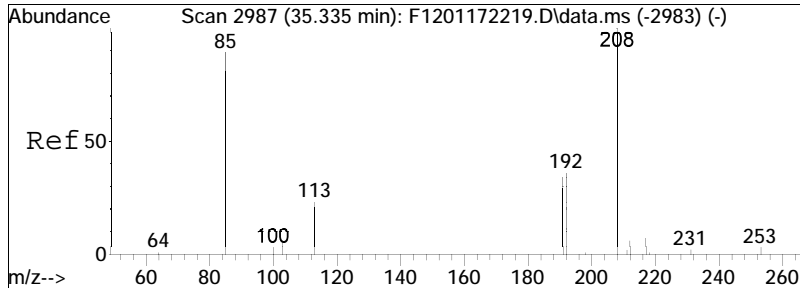




#43  
 2-Methylphenanthrene (2MP)  
 Concen: 1.48 ng/mL  
 RT: 35.025 min Scan# 2953  
 Delta R.T. -0.036 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

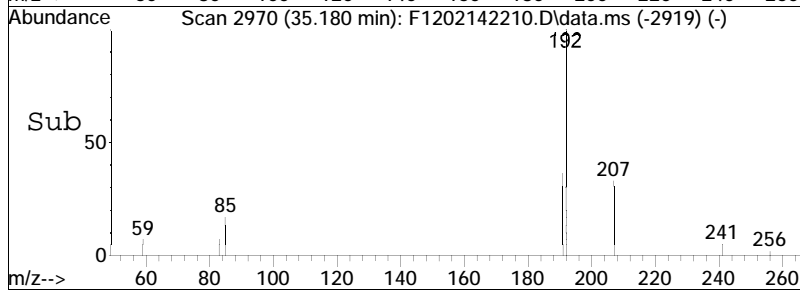
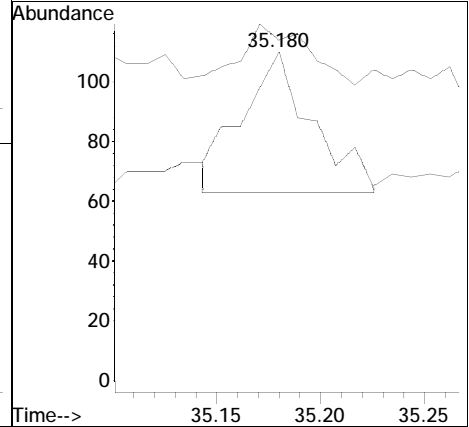
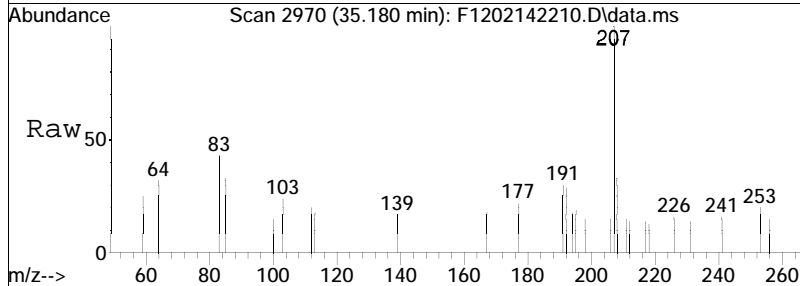
Tgt Ion	Ratio	Lower	Upper
192	100		
191	60.4	41.5	77.1

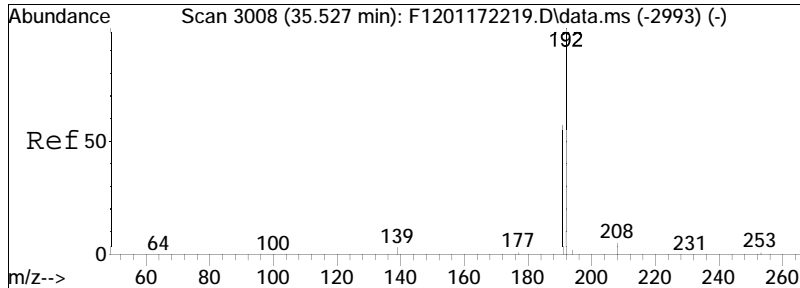




#44  
 2-Methylantracene(2MA)  
 Concen: 0.30 ng/mL M3  
 RT: 35.180 min Scan# 2970  
 Delta R.T. -0.036 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

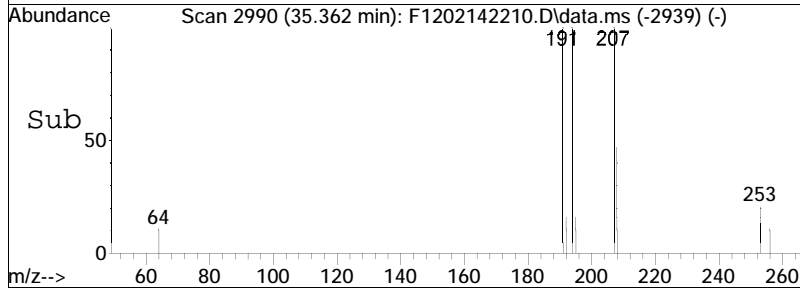
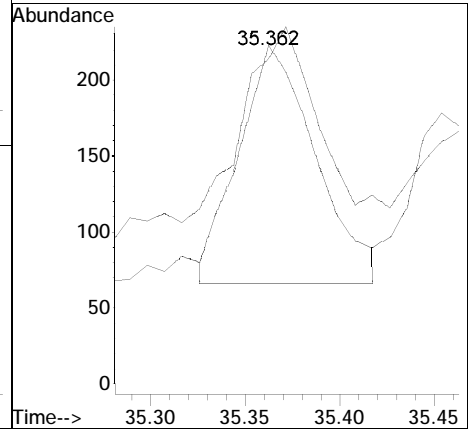
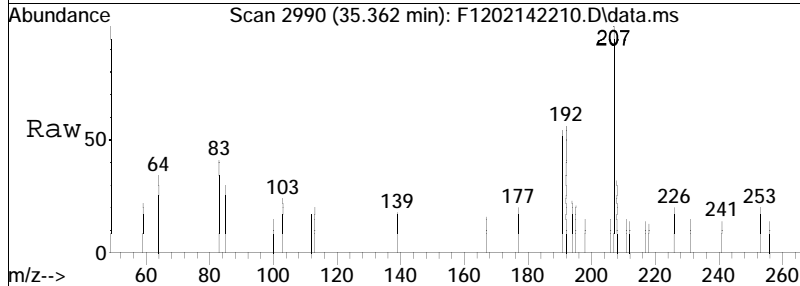
Tgt Ion: 192 Resp: 110  
 Ion Ratio Lower Upper  
 192 100  
 191 406.4 83.9 155.7#

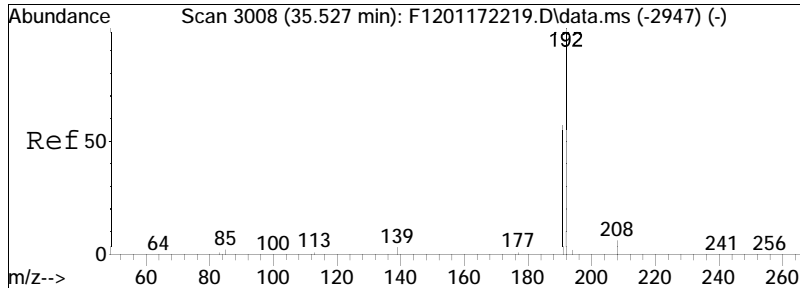




#45  
 9/4-Methylphenanthrene(9MP)  
 Concen: 1.20 ng/mL M3  
 RT: 35.362 min Scan# 2990  
 Delta R.T. -0.036 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

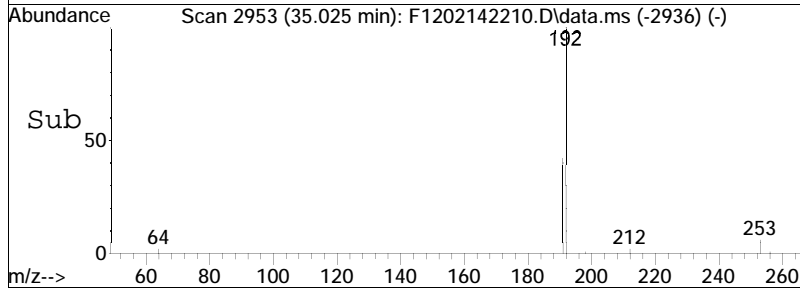
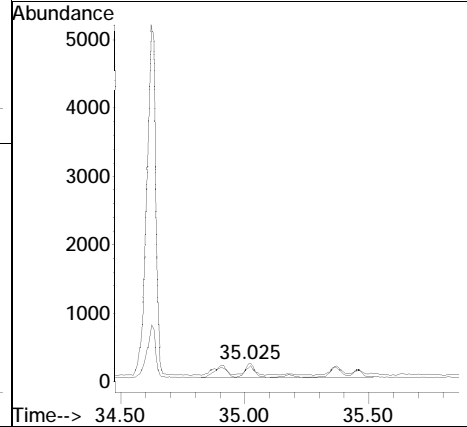
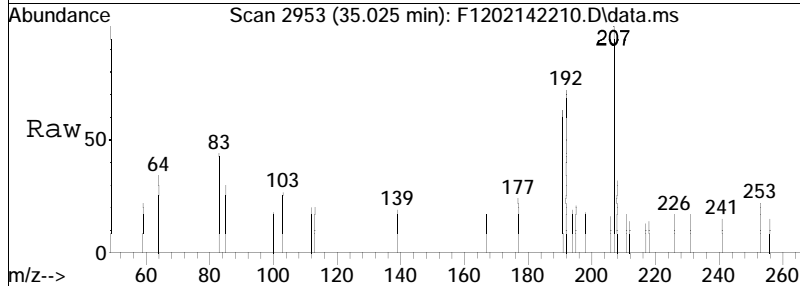
Tgt Ion	Resp	Lower	Upper
192	100		
191	26.0	41.5	77.1#

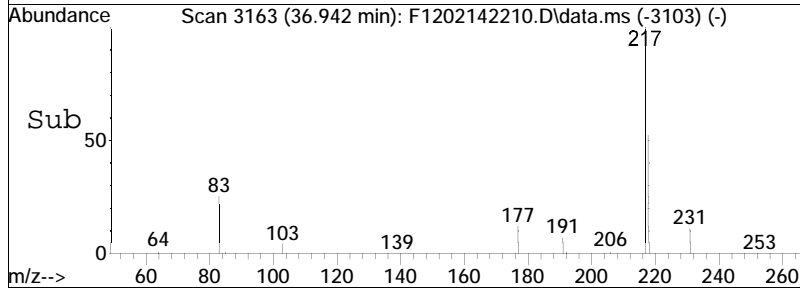
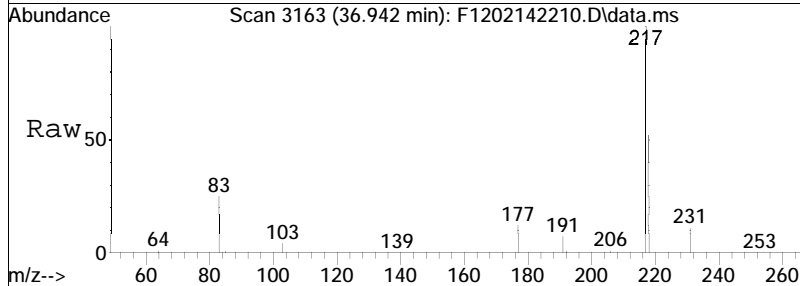
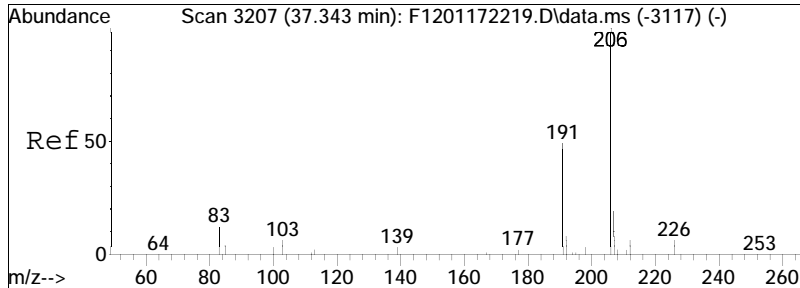




#47  
 Cl-Phenanthrenes/Anthracenes  
 Concen: 5.64 ng/mL M5  
 RT: 35.025 min Scan# 2953  
 Delta R.T. -0.395 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

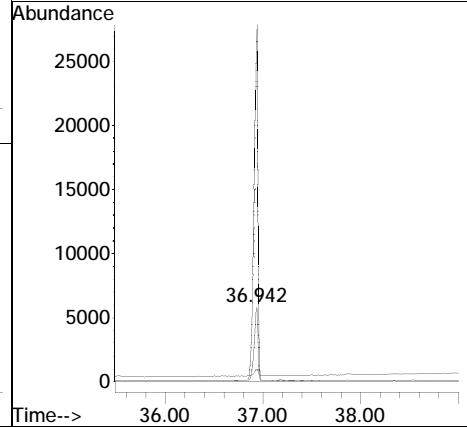
Tgt Ion: 192 Resp: 2093  
 Ion Ratio Lower Upper  
 192 100  
 191 5.5 40.9 76.0#

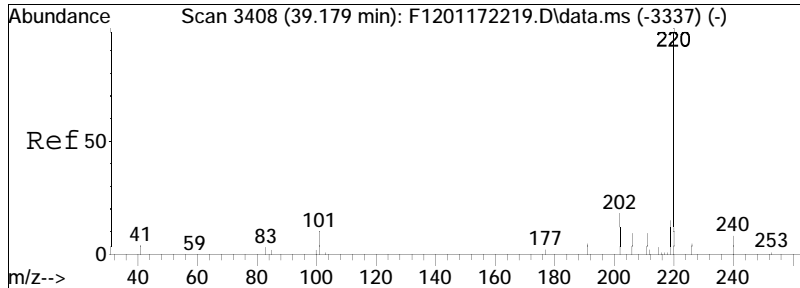




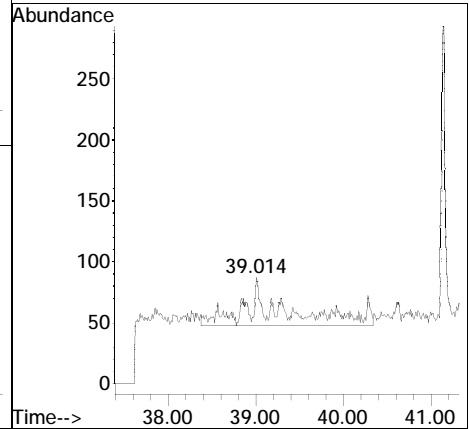
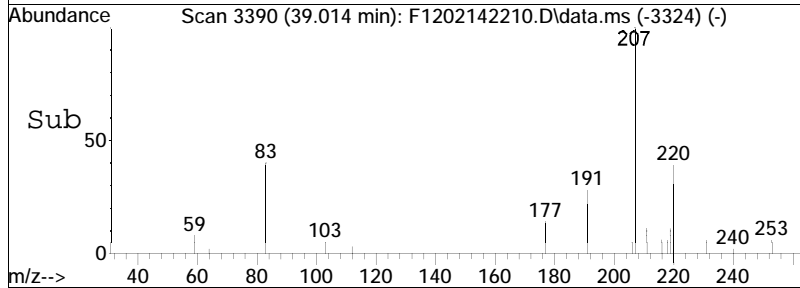
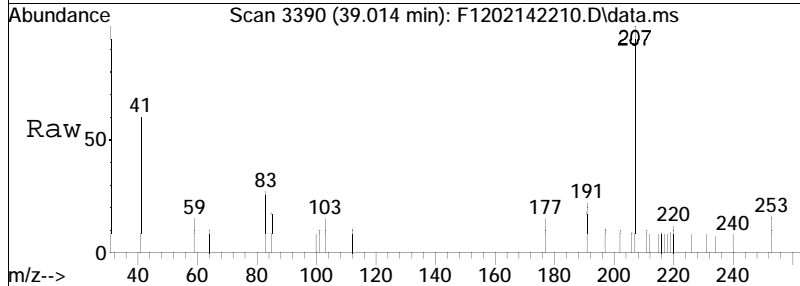
#48  
 C2-Phenanthrenes/Anthracenes  
 Concen: 45.86 ng/mL M5  
 RT: 36.942 min Scan# 3163  
 Delta R.T. -0.289 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

Tgt Ion	Ratio	Lower	Upper
206	100		
191	0.0	35.8	66.4#
207	1.4	14.7	27.3#

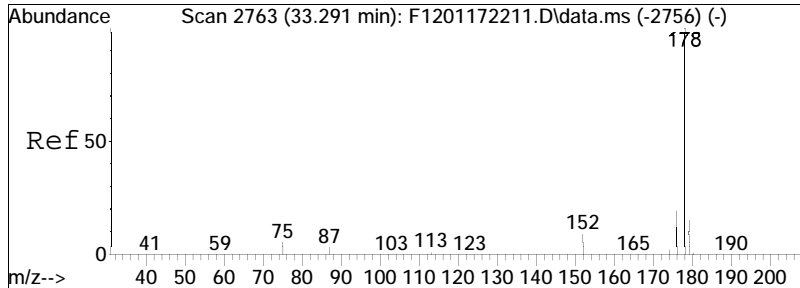




#50  
 C3-Phenanthrenes/Anthracenes  
 Concen: 3.07 ng/mL M5  
 RT: 39.014 min Scan# 3390  
 Delta R.T. -0.046 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm  
 Tgt Ion:220 Resp: 1141

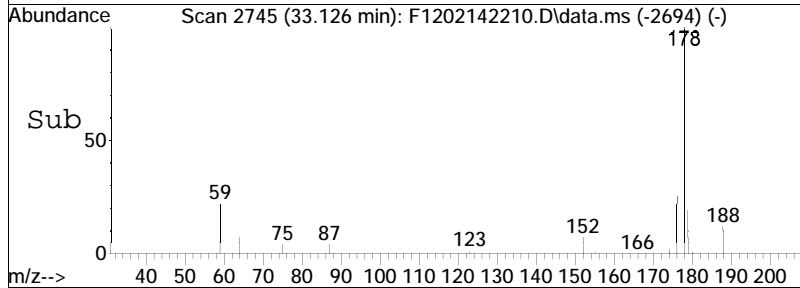
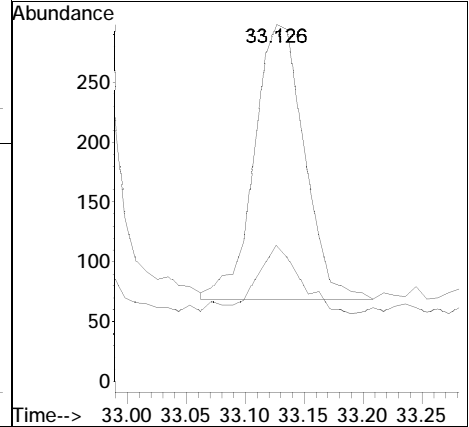
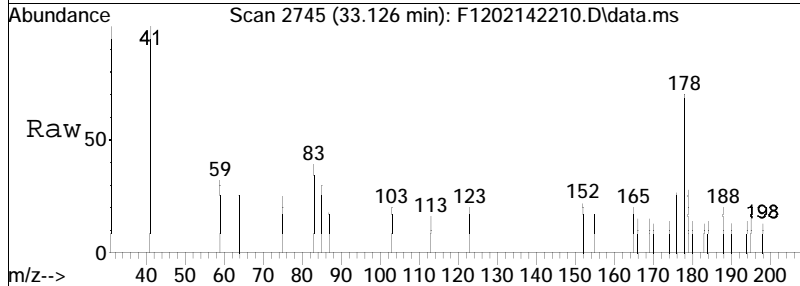


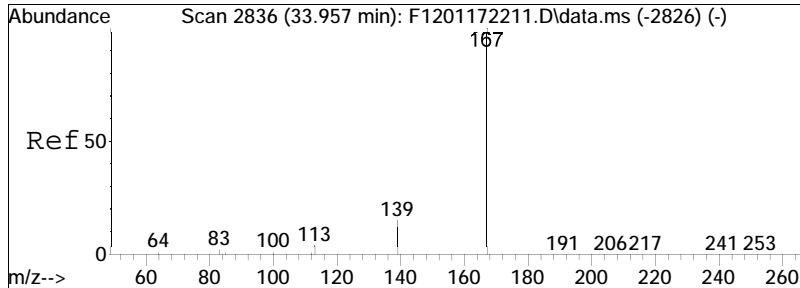




#53  
 Anthracene  
 Concen: 1.95 ng/mL  
 RT: 33.126 min Scan# 2745  
 Delta R.T. -0.036 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

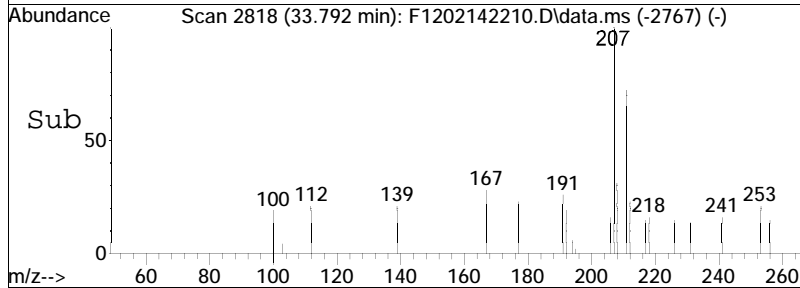
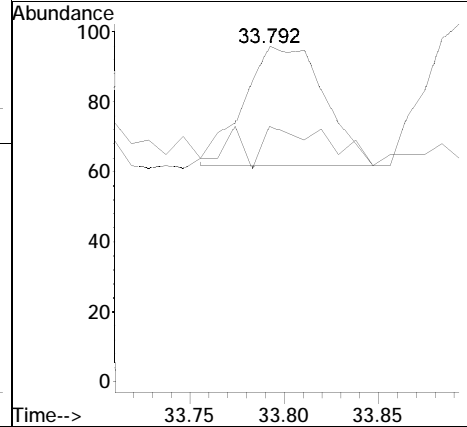
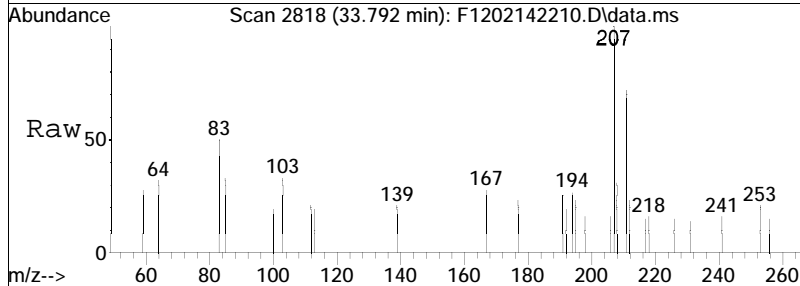
Tgt Ion	Resp	Lower	Upper
178	100		
176	24.3	13.4	24.8

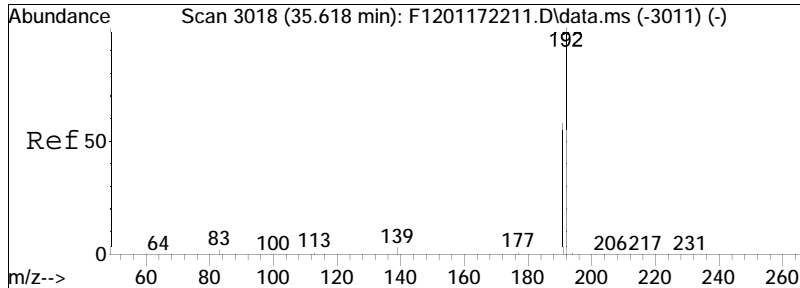




#54  
 Carbazole  
 Concen: 0.28 ng/mL  
 RT: 33.792 min Scan# 2818  
 Delta R.T. -0.036 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

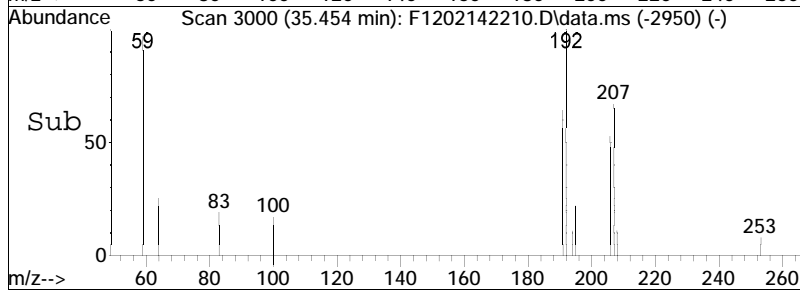
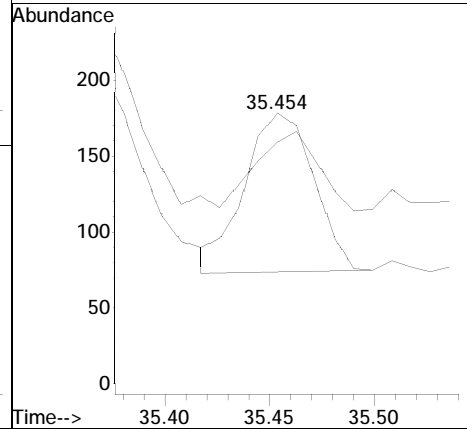
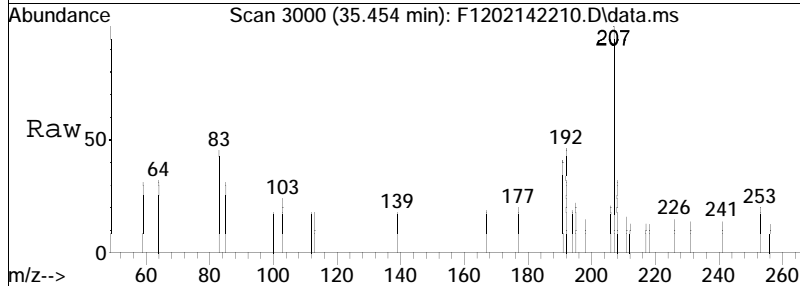
Tgt Ion	Resp	Lower	Upper
167	100		
139	0.0	10.3	19.1#

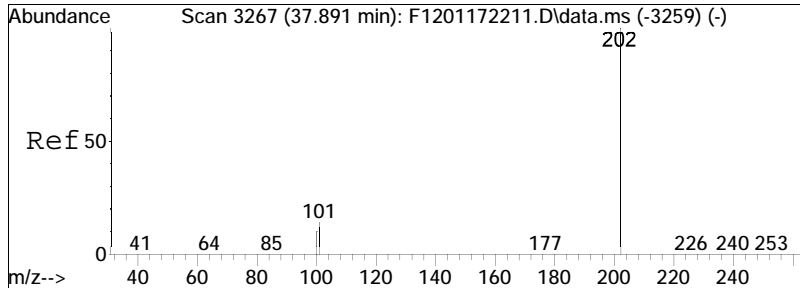




#55  
 1-Methylphenanthrene  
 Concen: 0.96 ng/mL  
 RT: 35.454 min Scan# 3000  
 Delta R.T. -0.046 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

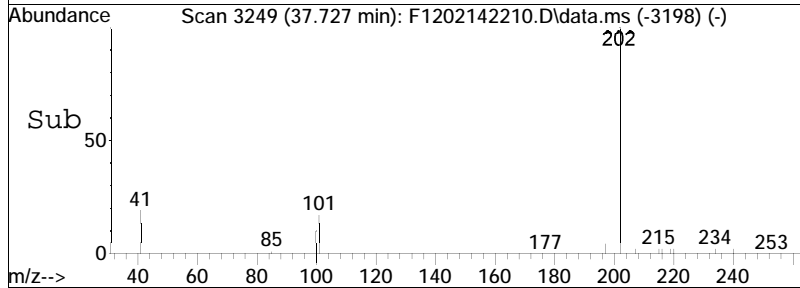
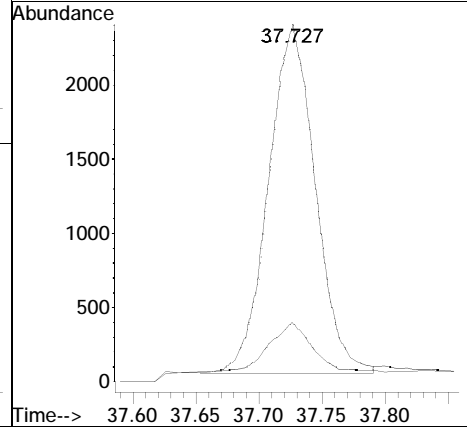
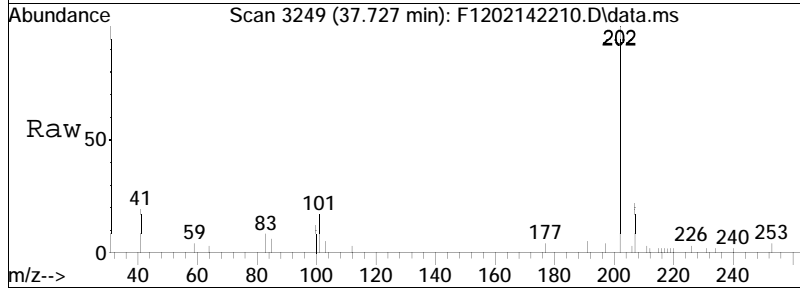
Tgt Ion	Ratio	Lower	Upper
192	100		
191	48.5	42.6	79.0

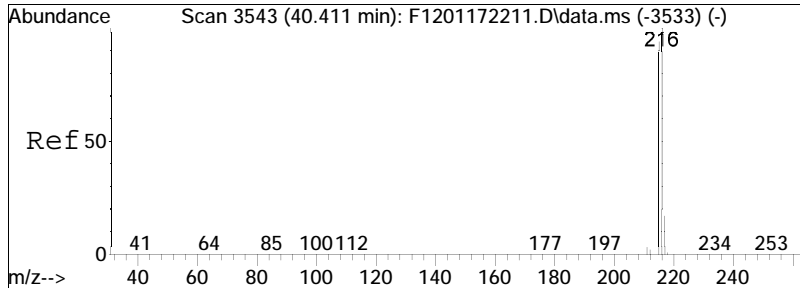




#56  
 Fluoranthene  
 Concen: 16.14 ng/mL M4  
 RT: 37.727 min Scan# 3249  
 Delta R.T. -0.037 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

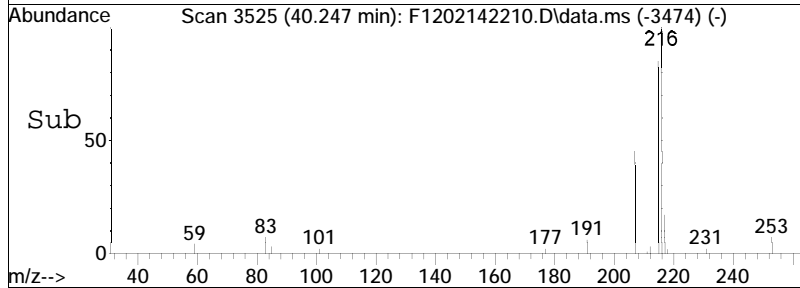
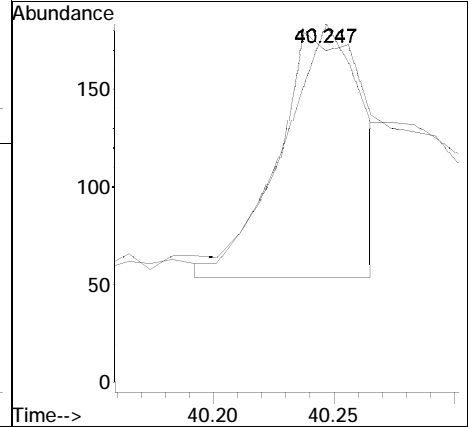
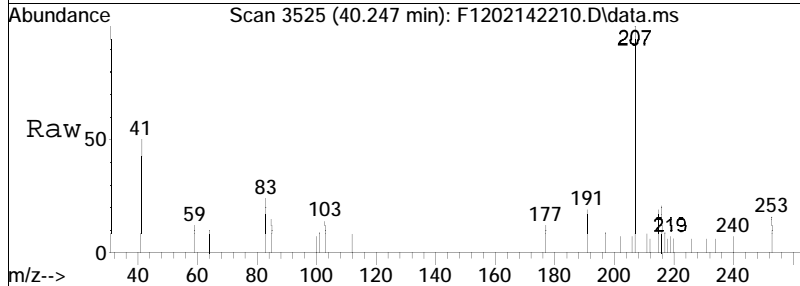
Tgt Ion	Ratio	Lower	Upper
202	100		
101	26.5	8.4	15.6#

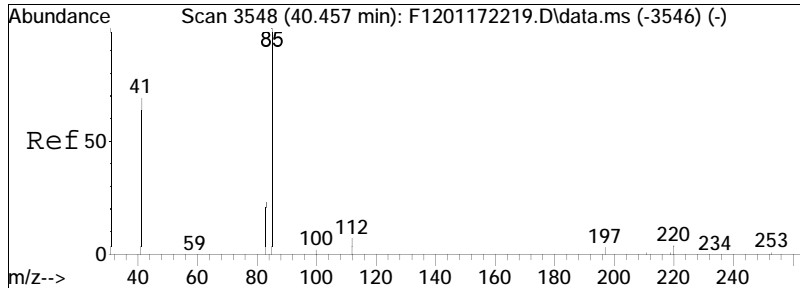




#57  
 Benzo(b)fluorene  
 Concen: 1.28 ng/mL M3  
 RT: 40.247 min Scan# 3525  
 Delta R.T. -0.036 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

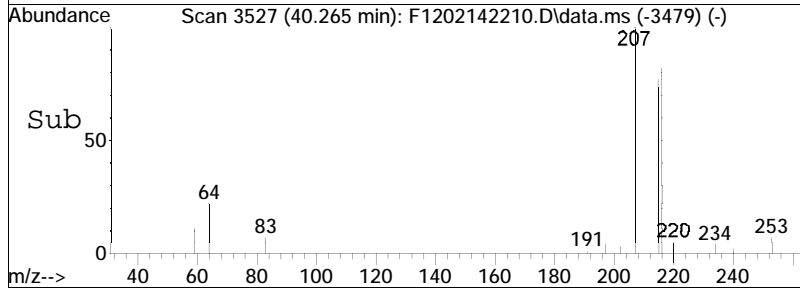
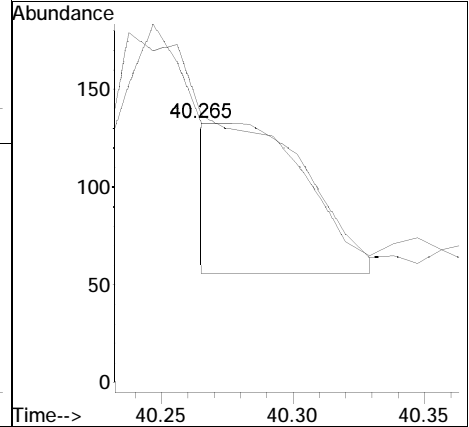
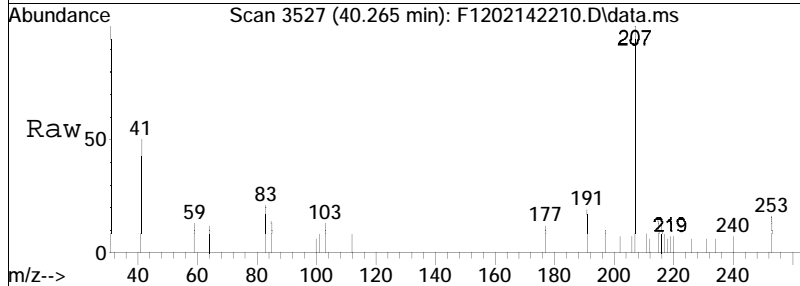
Tgt Ion: 216 Resp: 301  
 Ion Ratio Lower Upper  
 216 100  
 215 160.1 91.7 170.3

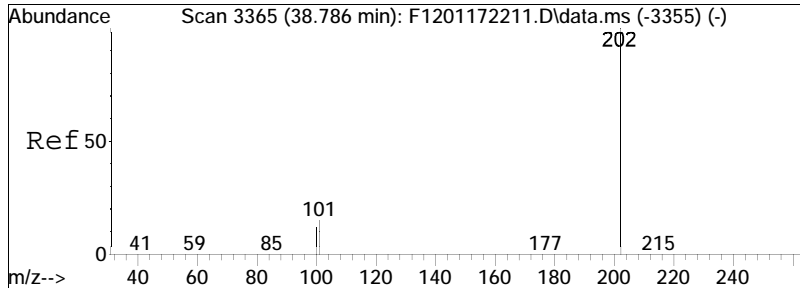




#58  
 7H-Benzo(c)fluorene  
 Concen: 0.82 ng/mL M3  
 RT: 40.265 min Scan# 3527  
 Delta R.T. -0.064 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

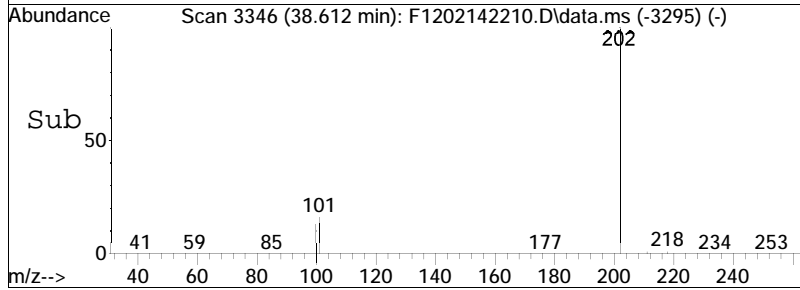
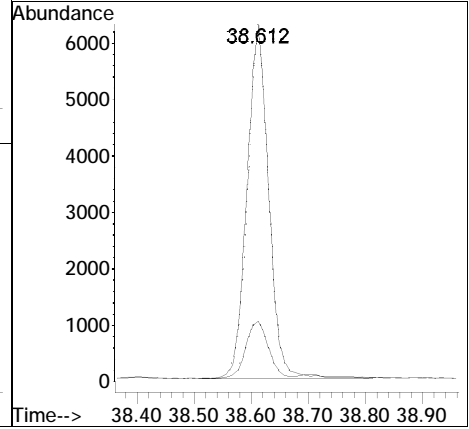
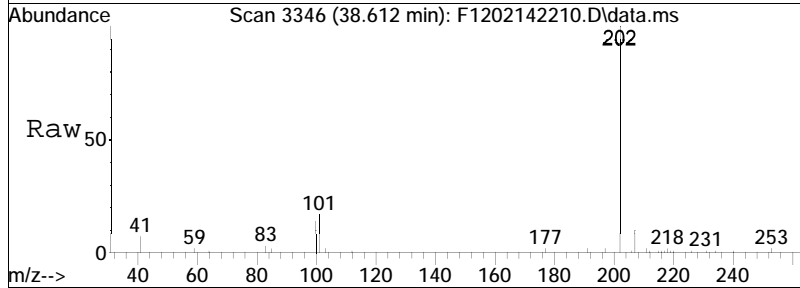
Tgt Ion	Ratio	Lower	Upper
216	100		
215	251.0	99.9	185.5#

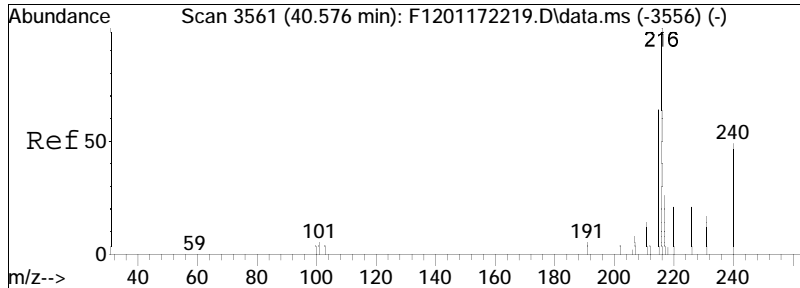




#59  
 Pyrene  
 Concen: 42.01 ng/mL  
 RT: 38.612 min Scan# 3346  
 Delta R.T. -0.036 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

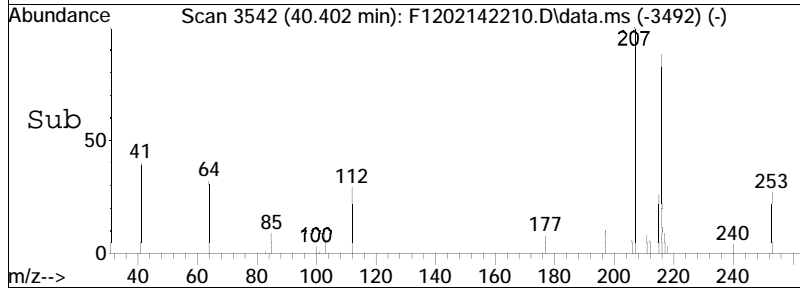
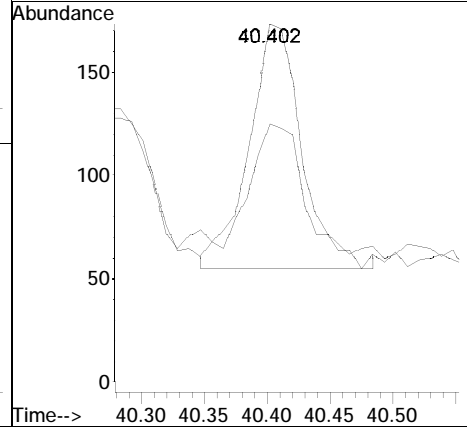
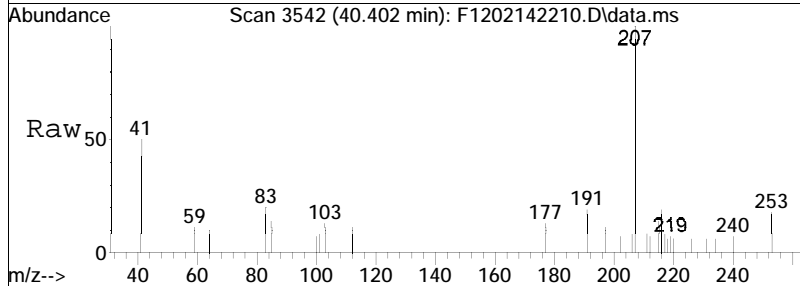
Tgt Ion: 202 Resp: 16224  
 Ion Ratio Lower Upper  
 202 100  
 101 17.0 21.0 39.0#



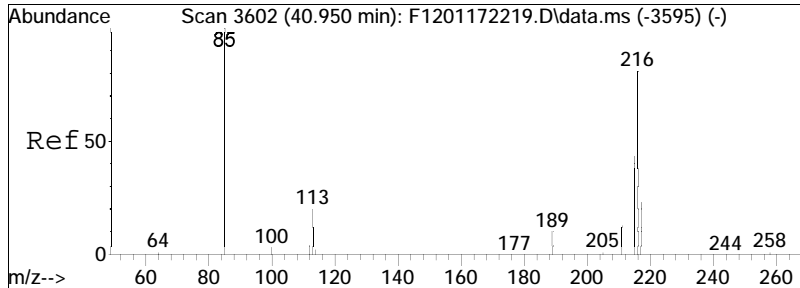


#60  
 2-Methylpyrene  
 Concen: 0.90 ng/mL M3  
 RT: 40.402 min Scan# 3542  
 Delta R.T. -0.046 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

Tgt Ion: 216 Resp: 347  
 Ion Ratio Lower Upper  
 216 100  
 215 138.9 70.0 130.0#

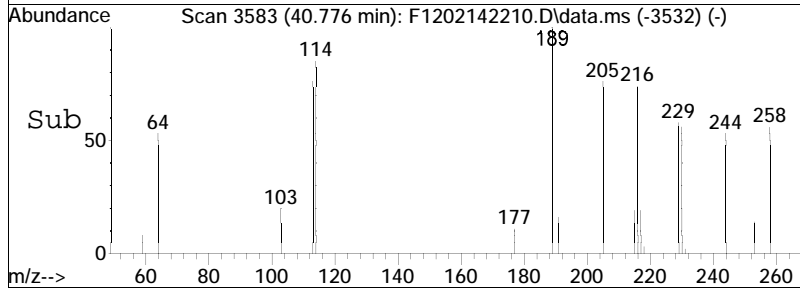
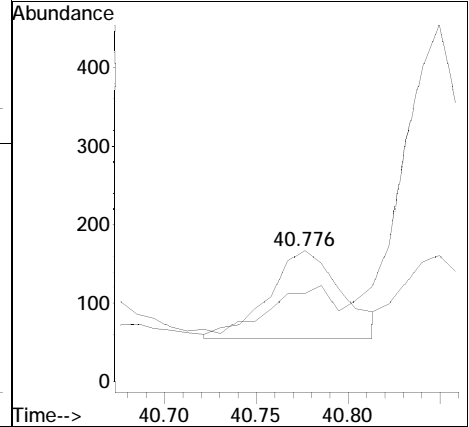
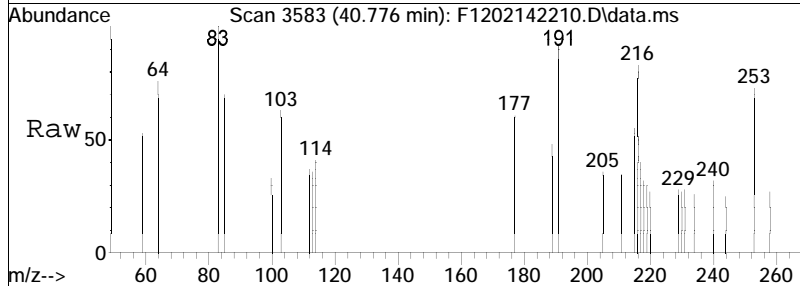


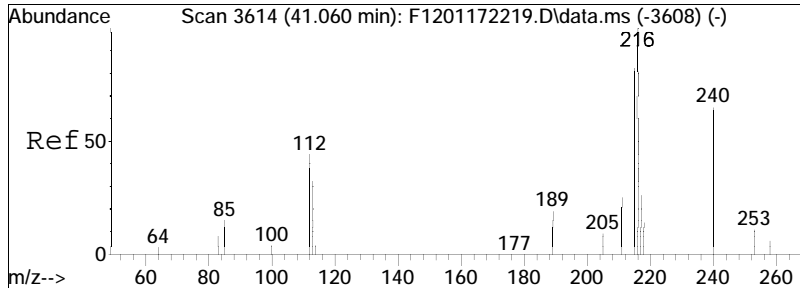




#61  
 4-Methylpyrene  
 Concen: 0.80 ng/mL M3  
 RT: 40.776 min Scan# 3583  
 Delta R.T. -0.036 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

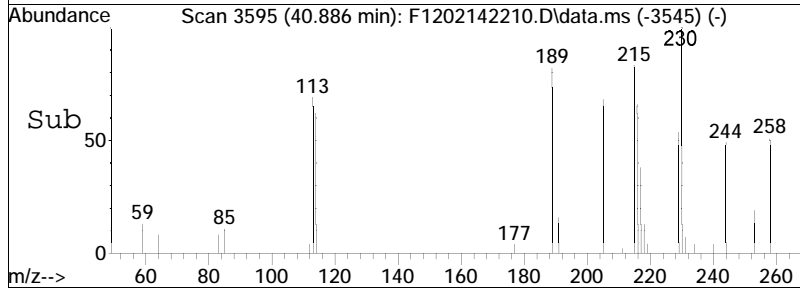
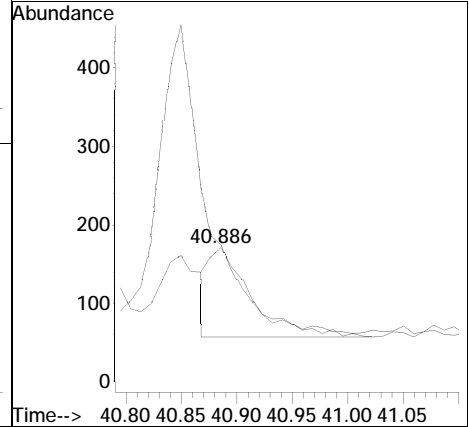
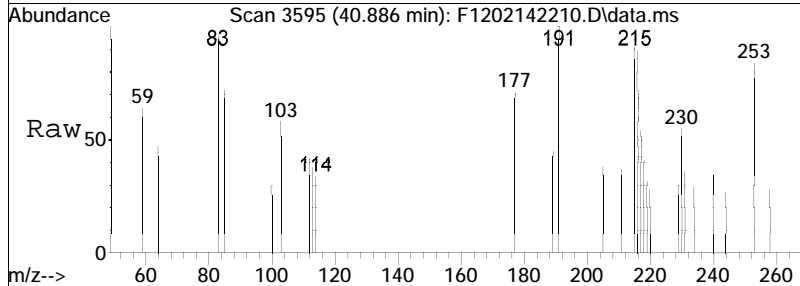
Tgt Ion: 216 Resp: 308  
 Ion Ratio Lower Upper  
 216 100  
 215 57.5 51.2 95.2

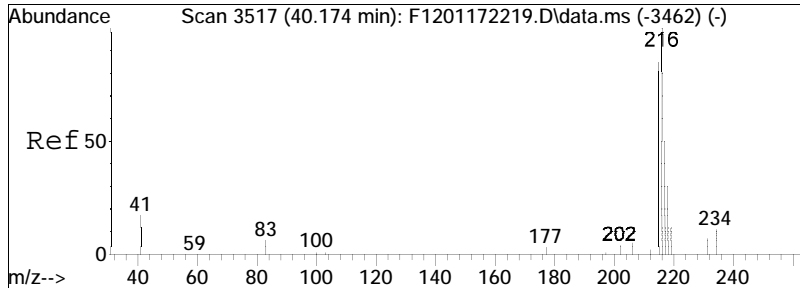




#62  
 1-Methylpyrene  
 Concen: 0.78 ng/mL  
 RT: 40.886 min Scan# 3595  
 Delta R.T. -0.046 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

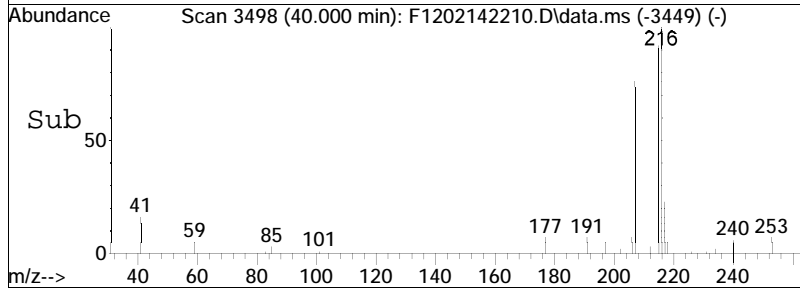
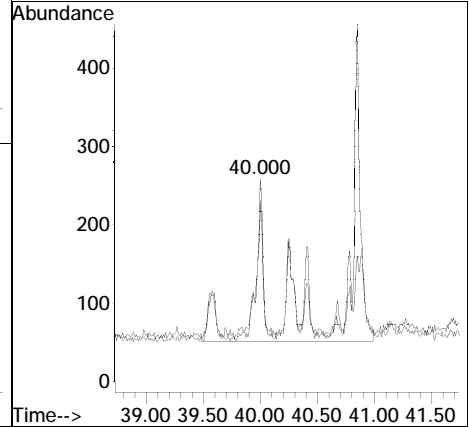
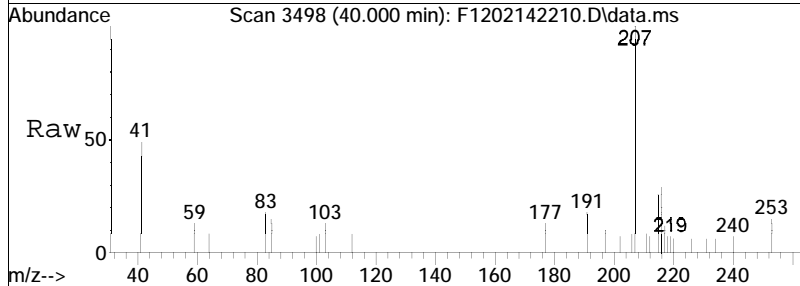
Tgt Ion: 216 Resp: 302  
 Ion Ratio Lower Upper  
 216 100  
 215 0.0 76.4 141.8#

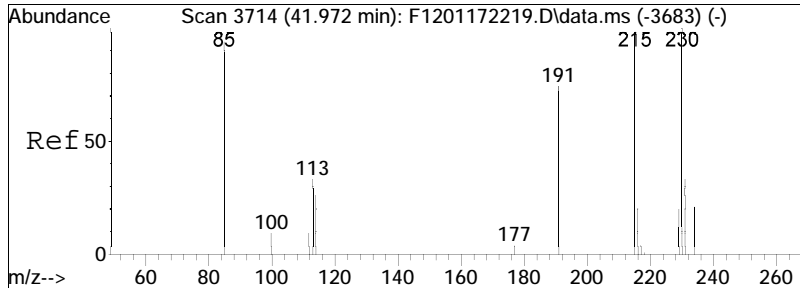




#63  
 Cl-Fluoranthenes/Pyrenes  
 Concen: 8.28 ng/mL M5  
 RT: 40.000 min Scan# 3498  
 Delta R.T. -0.052 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

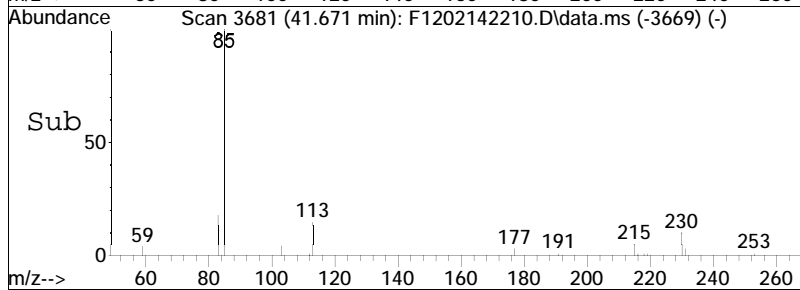
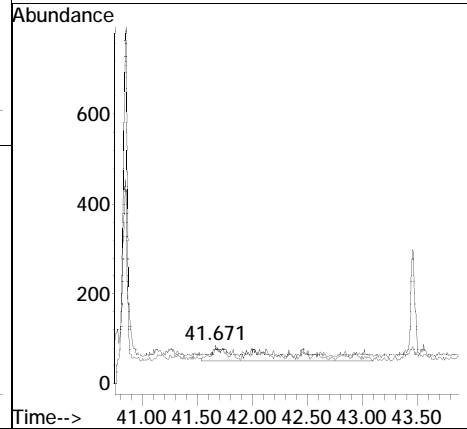
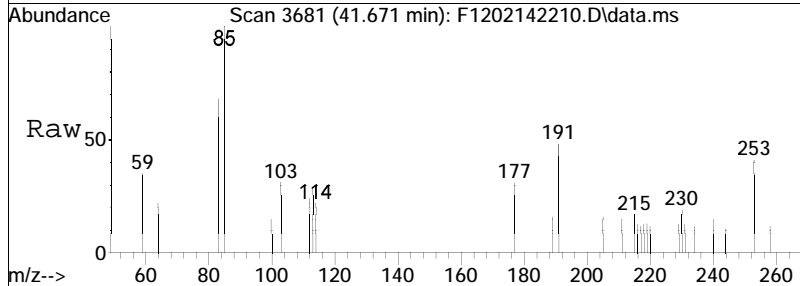
Tgt Ion: 216 Resp: 3196  
 Ion Ratio Lower Upper  
 216 100  
 215 16.1 65.7 122.1#

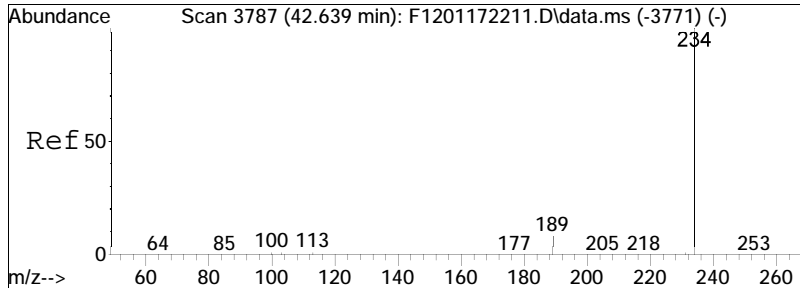




#64  
 C2-Fluoranthenes/Pyrenes  
 Concen: 2.79 ng/mL M5  
 RT: 41.671 min Scan# 3681  
 Delta R.T. -0.174 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

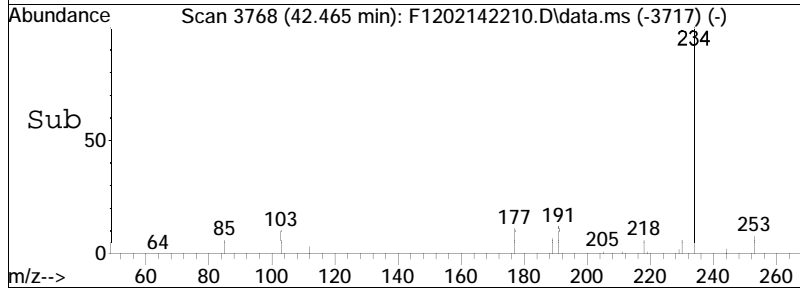
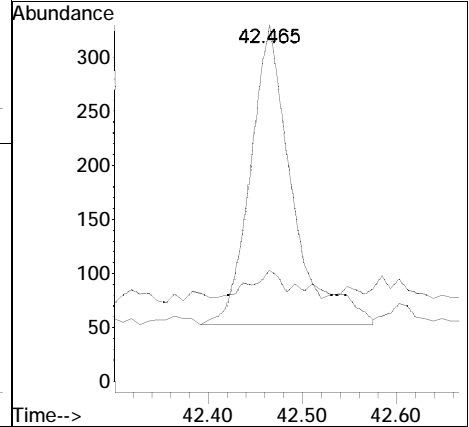
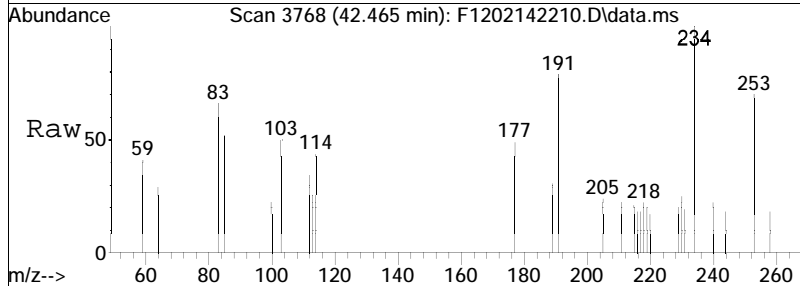
Tgt Ion	Resp	Lower	Upper
230	1078		
215	0.0	79.5	147.7#

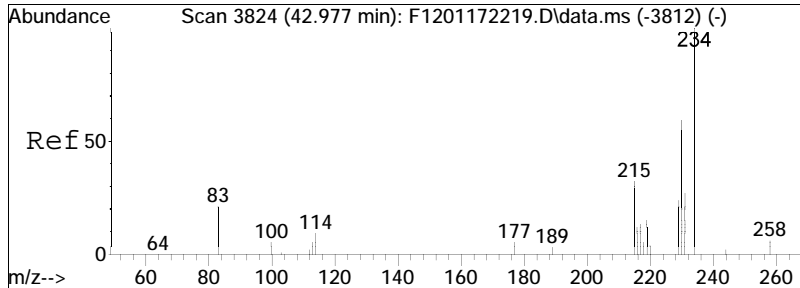




#67  
 Naphthobenzothiophene-2,1-D  
 Concen: 2.17 ng/mL  
 RT: 42.465 min Scan# 3768  
 Delta R.T. -0.036 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

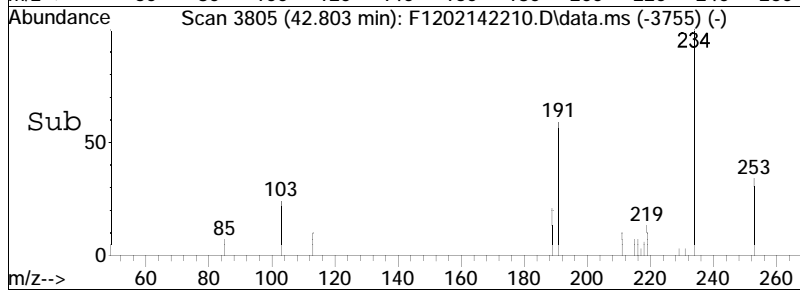
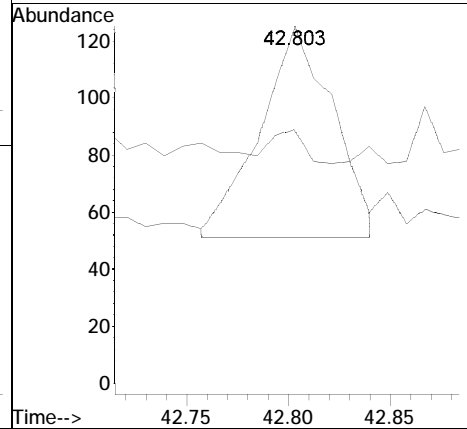
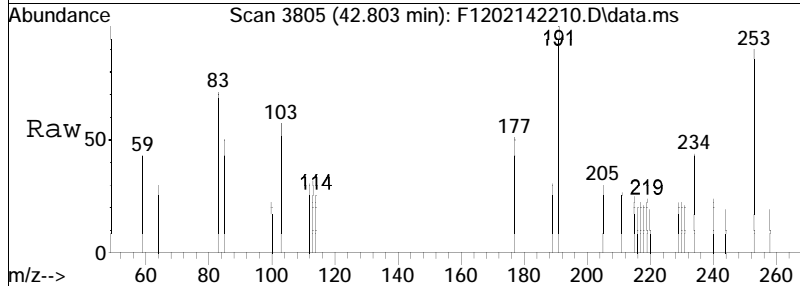
Tgt Ion	Resp	Lower	Upper
234	100		
189	0.0	18.9	35.1#

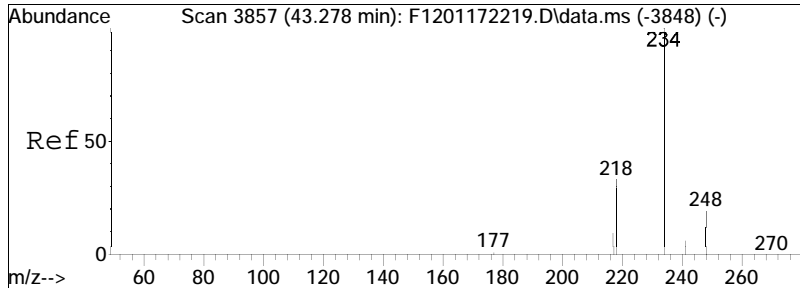




#68  
 Naphthobenzothiophene-1,2-D  
 Concen: 0.48 ng/mL M4  
 RT: 42.803 min Scan# 3805  
 Delta R.T. -0.046 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

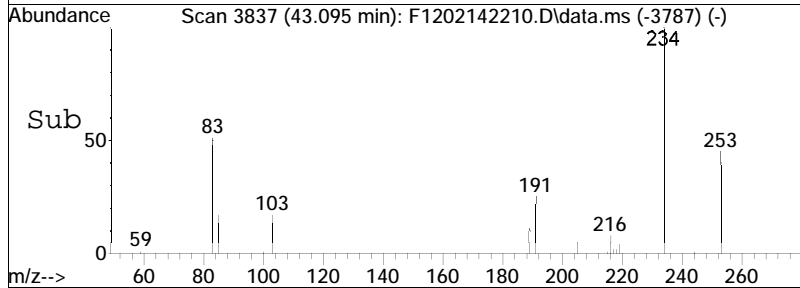
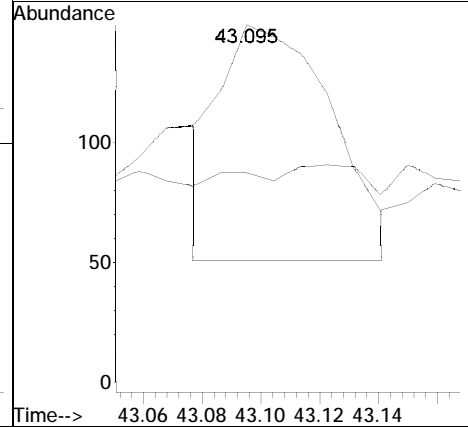
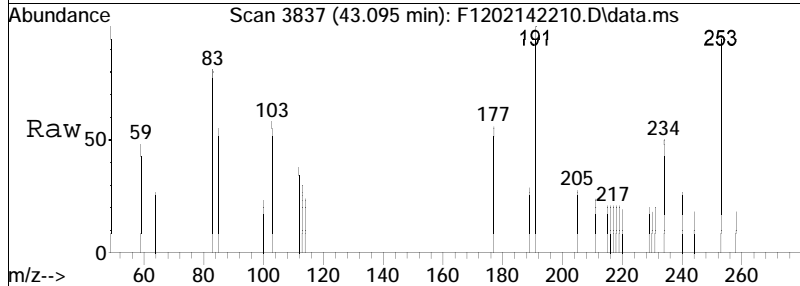
Tgt Ion	Ratio	Lower	Upper
234	100		
189	0.0	53.0	98.4#

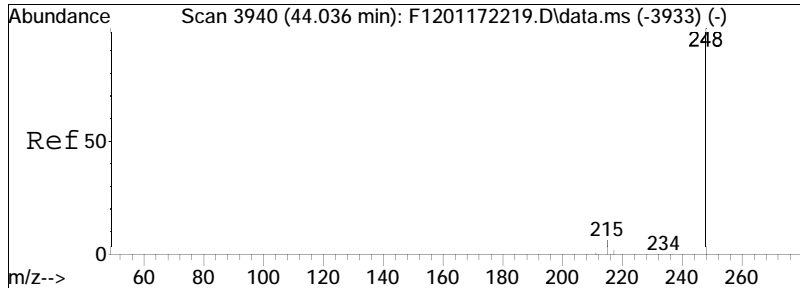




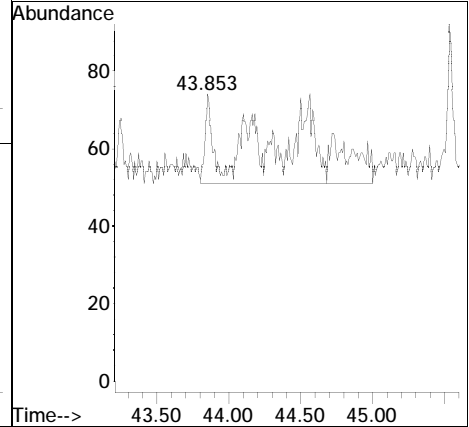
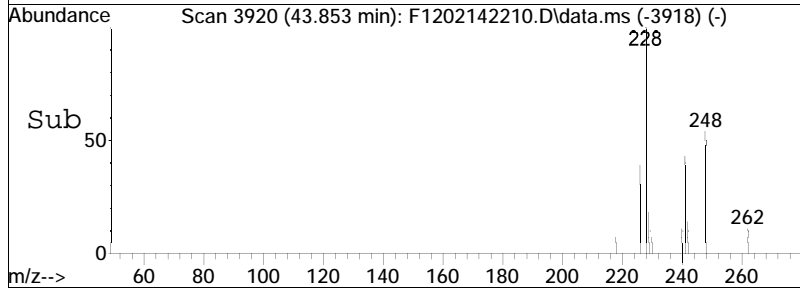
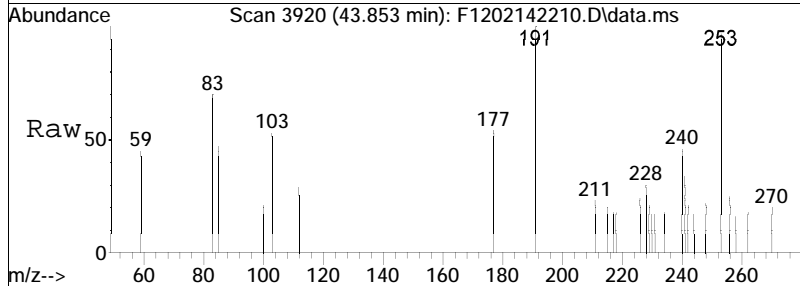
#69  
 Naphthobenzothiophene-2,3-D  
 Concen: 0.67 ng/mL M3  
 RT: 43.095 min Scan# 3837  
 Delta R.T. -0.046 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

Tgt Ion: 234 Resp: 260  
 Ion Ratio Lower Upper  
 234 100  
 189 0.0 77.6 144.0#

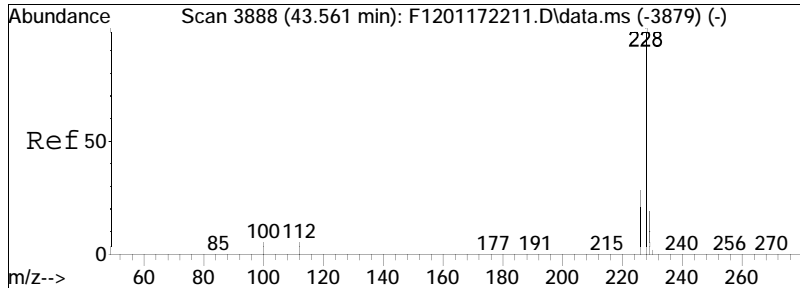




#70  
 C1-Naphthobenzothiophenes  
 Concen: 1.71 ng/ml M5  
 RT: 43.853 min Scan# 3920  
 Delta R.T. -0.050 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm  
 Tgt Ion: 248 Resp: 663

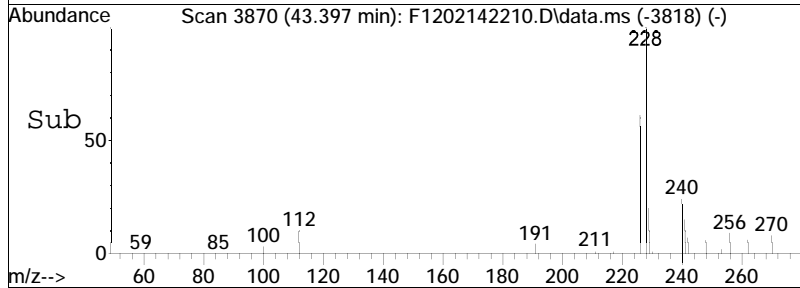
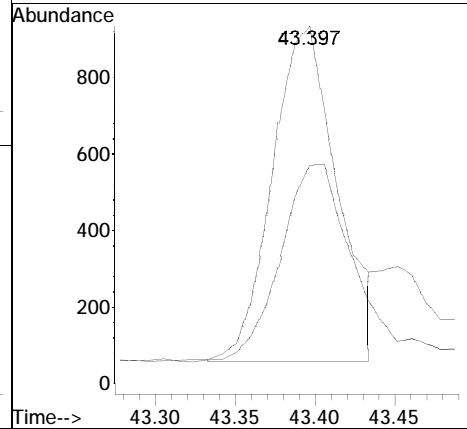
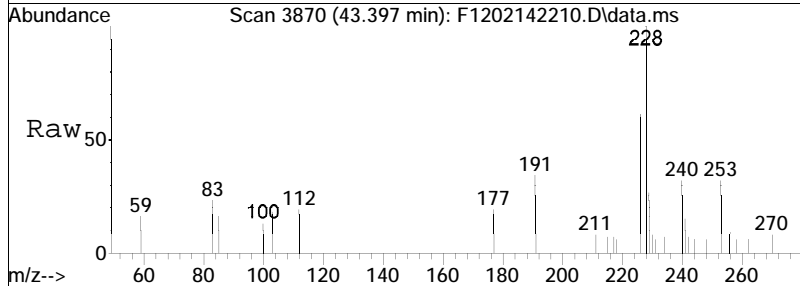


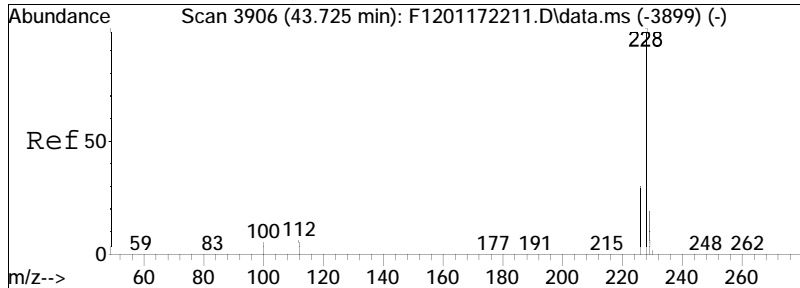




#75  
 Benz[a]anthracene  
 Concen: 6.82 ng/mL M3  
 RT: 43.397 min Scan# 3870  
 Delta R.T. -0.027 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

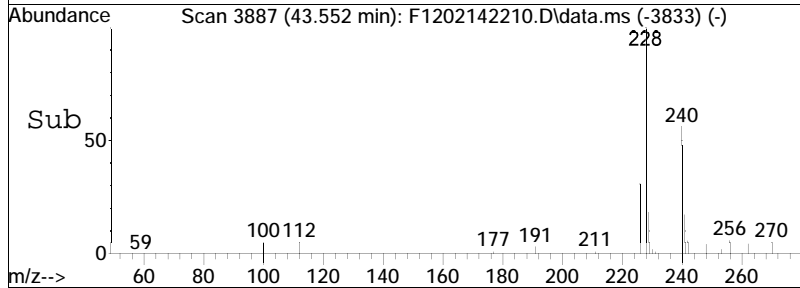
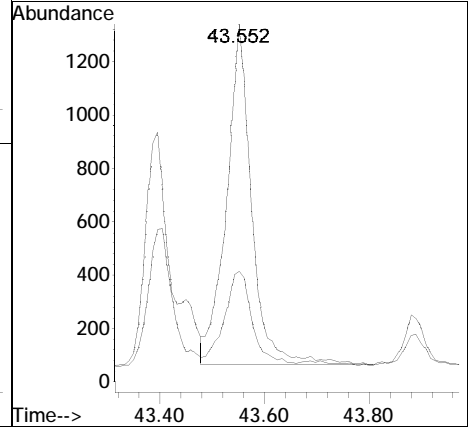
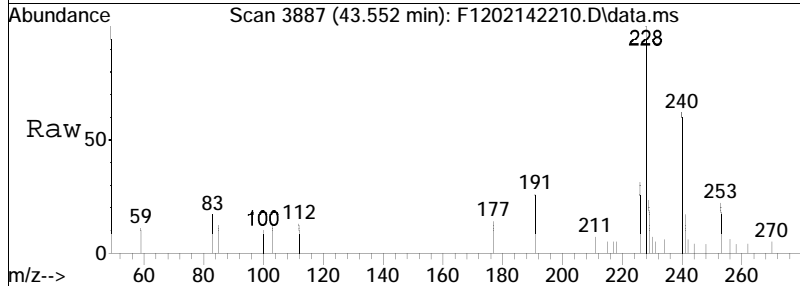
Tgt Ion	Resp	Lower	Upper
228	100		
226	50.5	19.1	35.5#

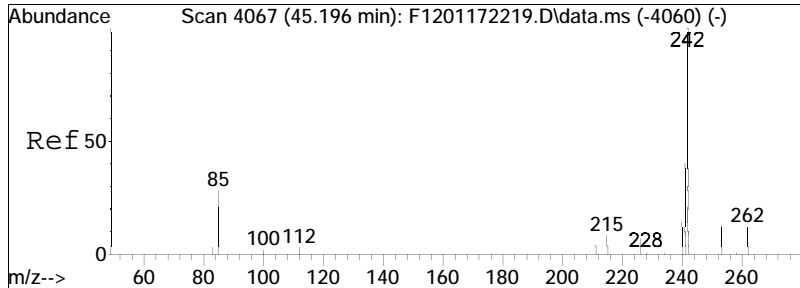




#76  
 Chrysene  
 Concen: 11.85 ng/mL  
 RT: 43.552 min Scan# 3887  
 Delta R.T. -0.009 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

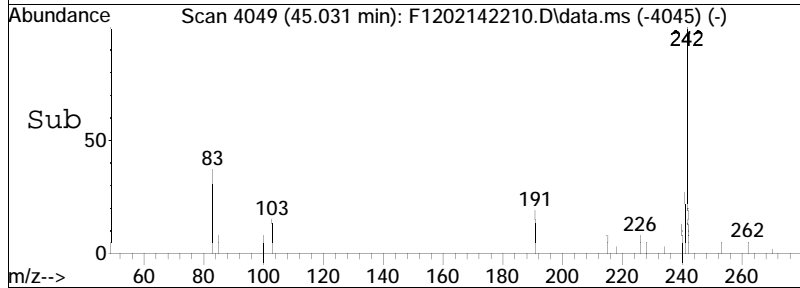
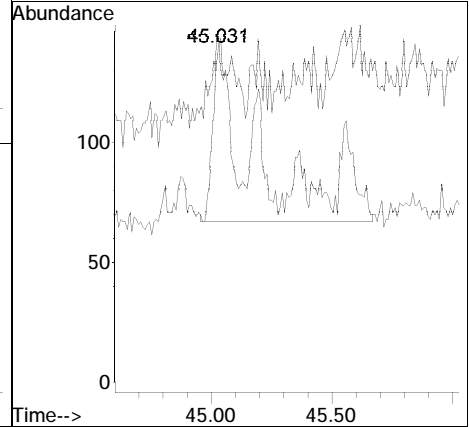
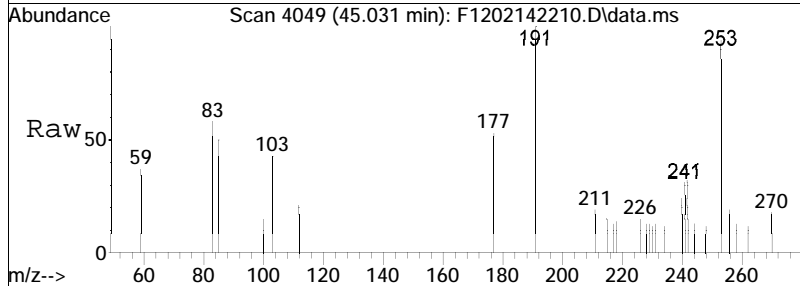
Tgt Ion: 228 Resp: 4270  
 Ion Ratio Lower Upper  
 228 100  
 226 29.4 27.8 51.6

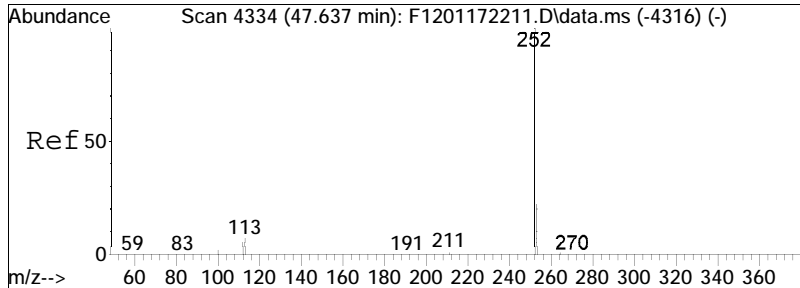




#78  
 C1-Chrysenes  
 Concen: 2.61 ng/mL M5  
 RT: 45.031 min Scan# 4049  
 Delta R.T. -0.027 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

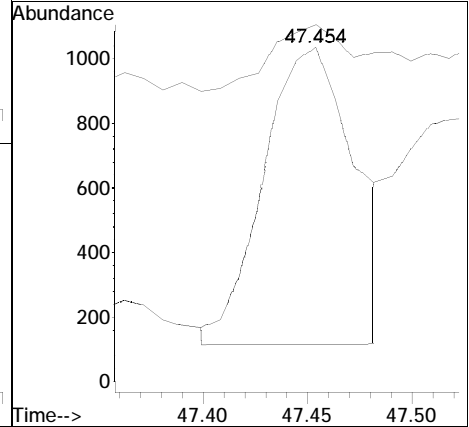
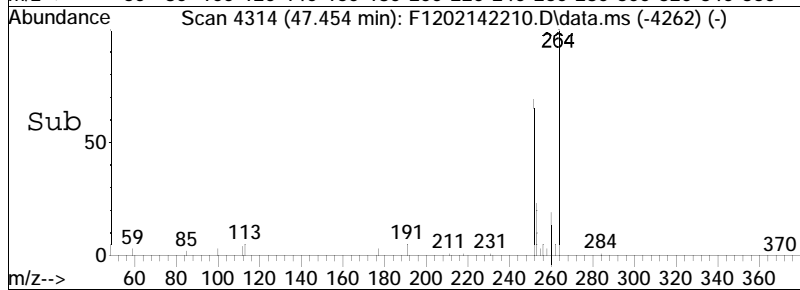
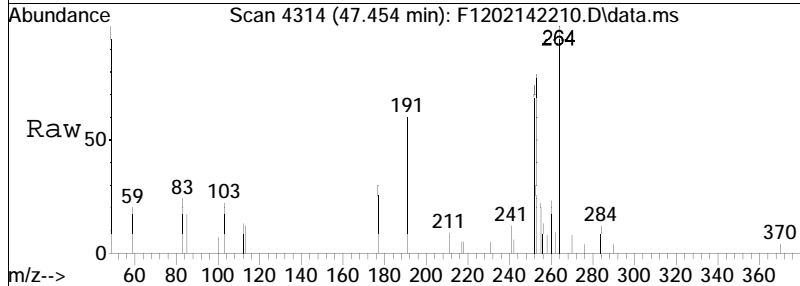
Tgt Ion: 242 Resp: 939  
 Ion Ratio Lower Upper  
 242 100  
 241 12.7 31.9 59.2#

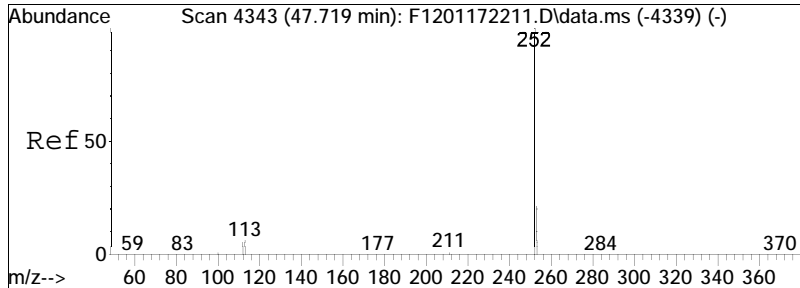




#85  
 Benzo[b]fluoranthene  
 Concen: 6.78 ng/mL  
 RT: 47.454 min Scan# 4314  
 Delta R.T. -0.027 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

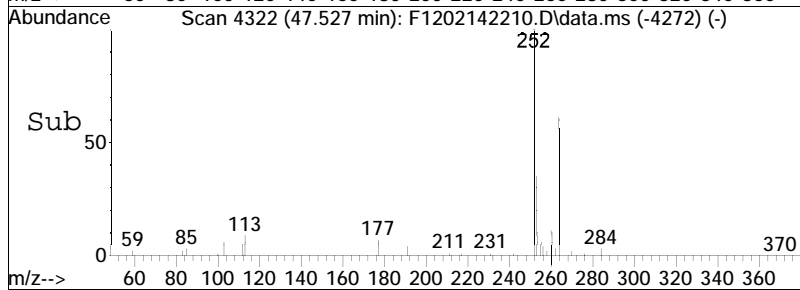
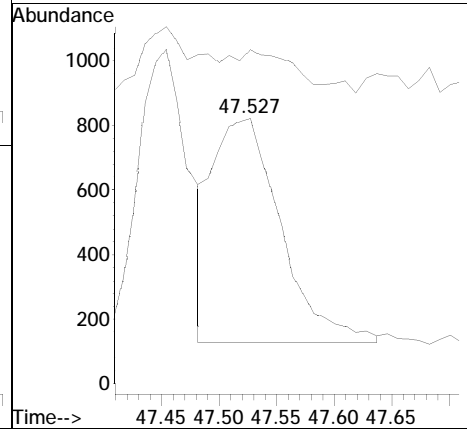
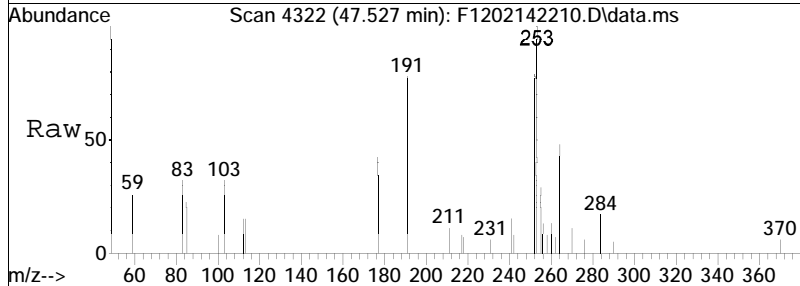
Tgt Ion: 252 Resp: 2783  
 Ion Ratio Lower Upper  
 252 100  
 253 22.7 16.6 30.8

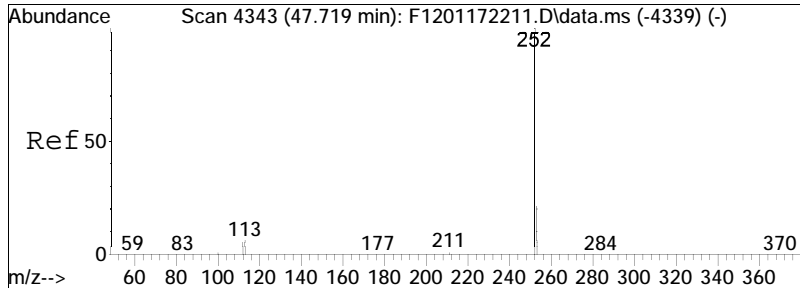




#86  
 Benzo[j]+[k]fluoranthene  
 Concen: 6.80 ng/mL M3  
 RT: 47.527 min Scan# 4322  
 Delta R.T. -0.046 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

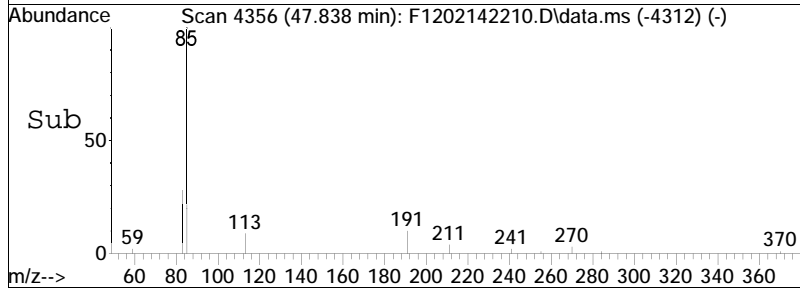
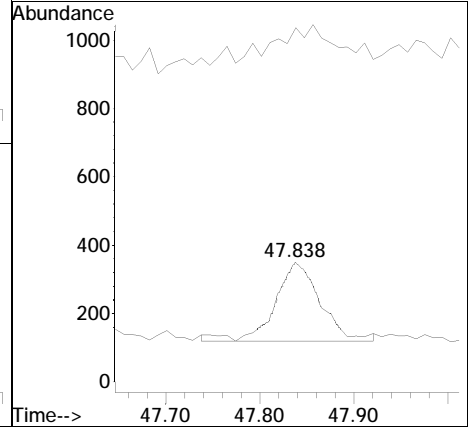
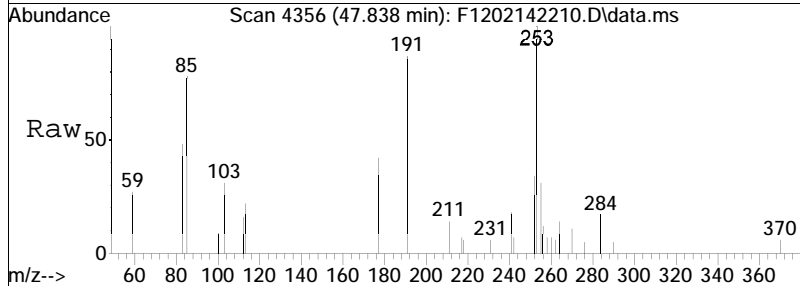
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.9	16.4	30.4

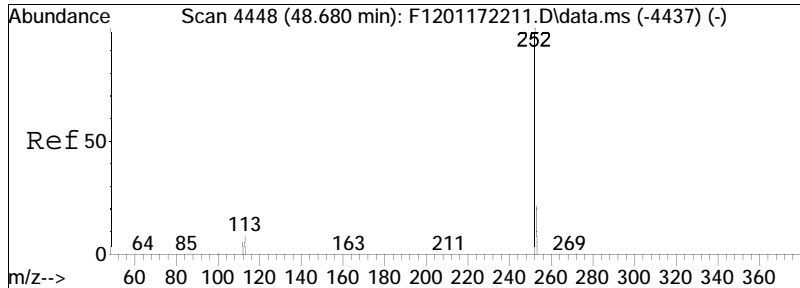




#87  
 Benzo[a]fluoranthene  
 Concen: 1.78 ng/mL M3  
 RT: 47.838 min Scan# 4356  
 Delta R.T. -0.094 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

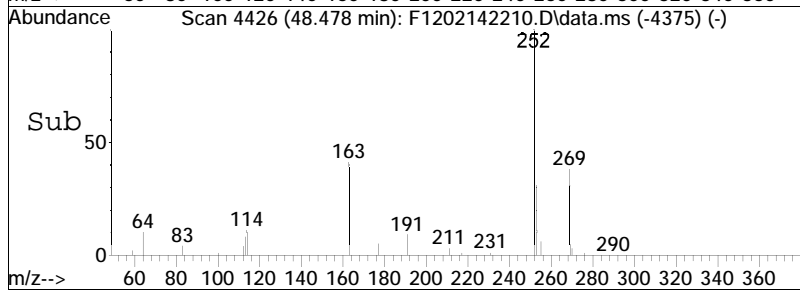
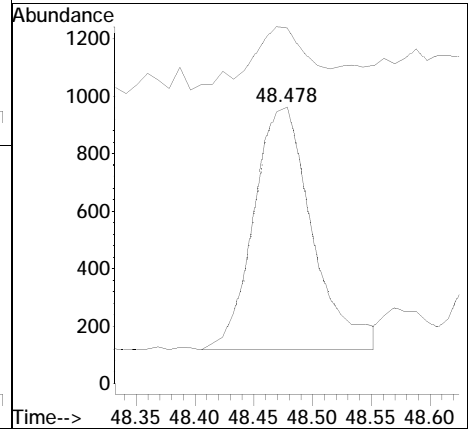
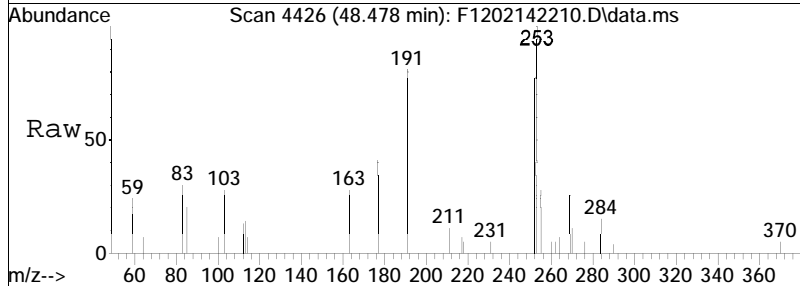
Tgt Ion	Resp	Lower	Upper
252	100		
253	65.5	203.3	377.6#

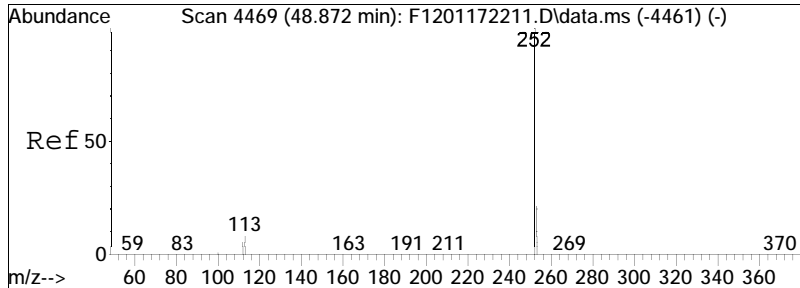




#88  
 Benzo[e]pyrene  
 Concen: 7.14 ng/mL  
 RT: 48.478 min Scan# 4426  
 Delta R.T. -0.037 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

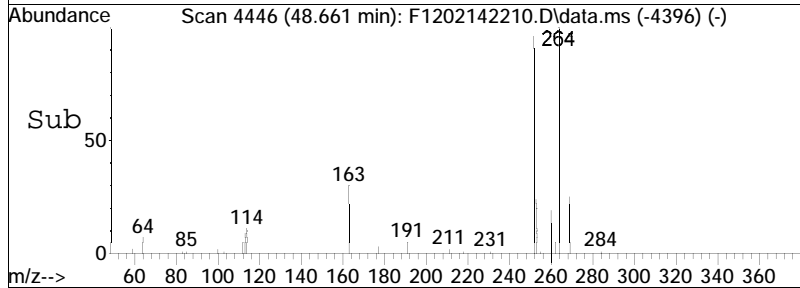
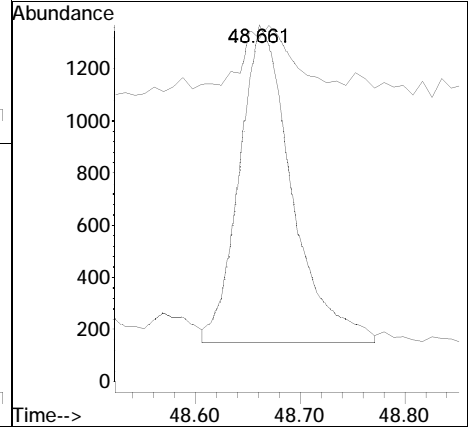
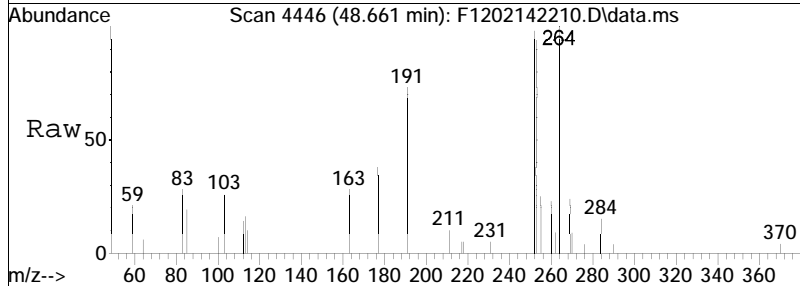
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.5	16.8	31.2



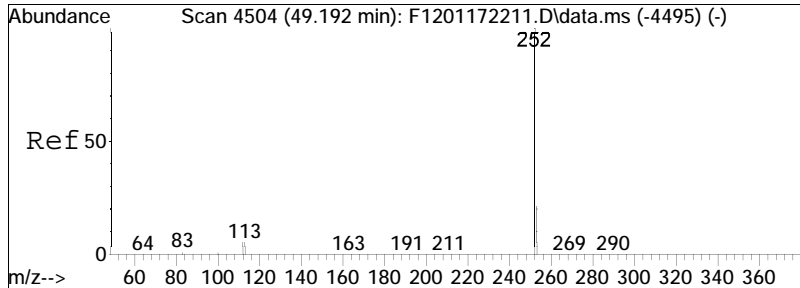


#90  
 Benzo[a]pyrene  
 Concen: 10.78 ng/mL M3  
 RT: 48.661 min Scan# 4446  
 Delta R.T. -0.046 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

Tgt Ion	Resp	Lower	Upper
252	100		
253	14.7	16.8	31.2#

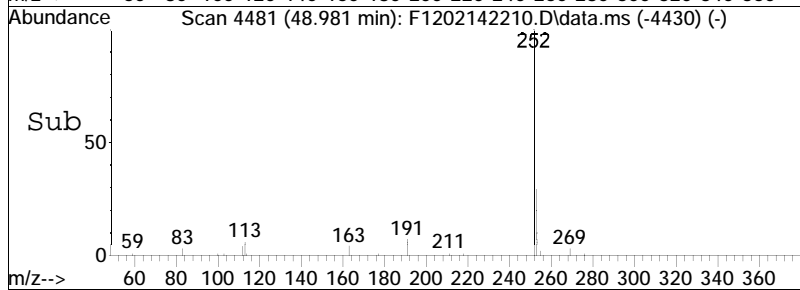
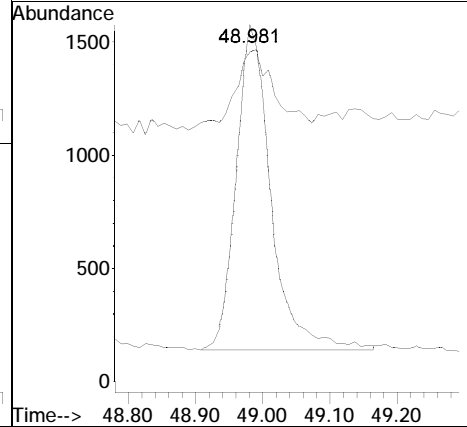
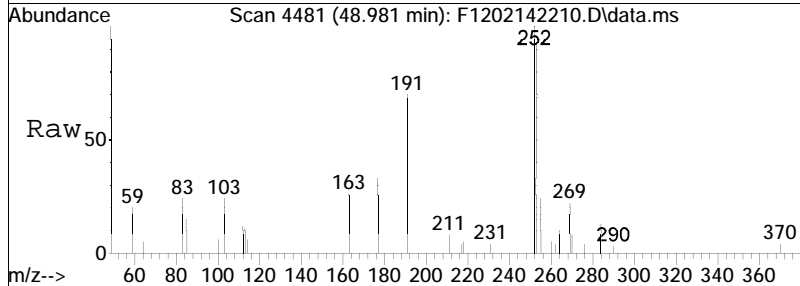


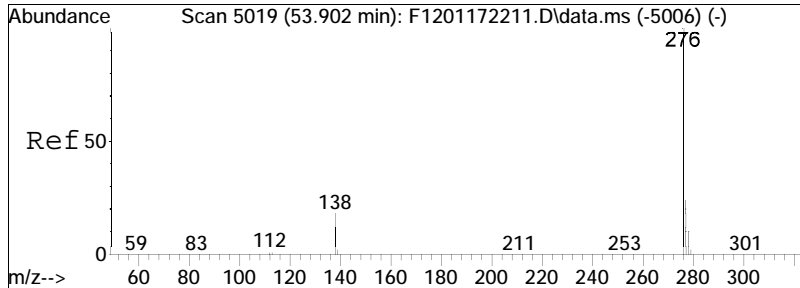




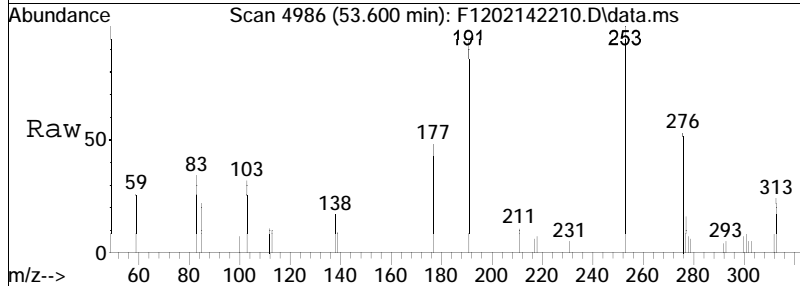
#91  
 Perylene  
 Concen: 12.81 ng/mL  
 RT: 48.981 min Scan# 4481  
 Delta R.T. -0.037 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

Tgt Ion	Resp	Lower	Upper
252	100		
253	28.3	17.3	32.1

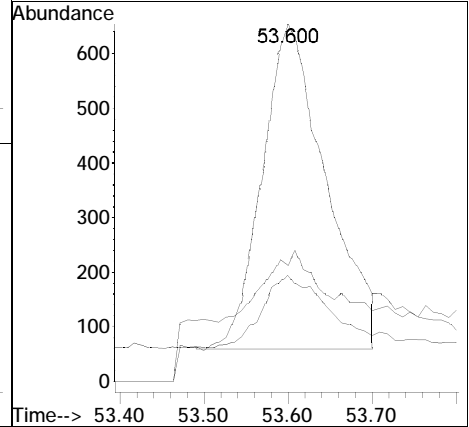
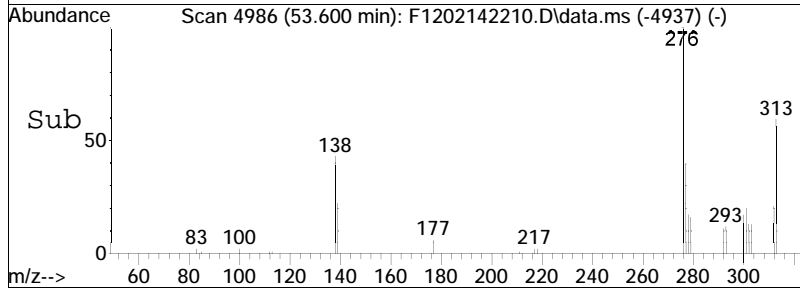


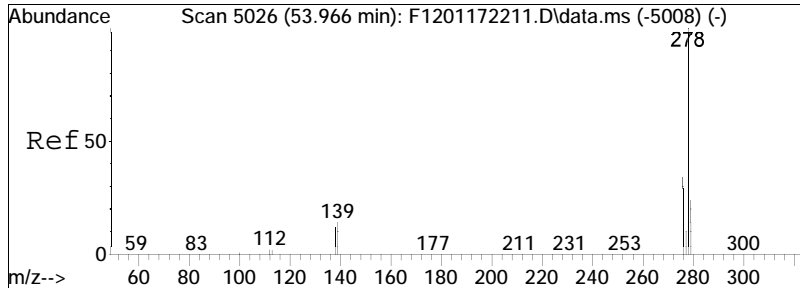


#92  
 Indeno[1,2,3-cd]pyrene  
 Concen: 5.82 ng/mL M3  
 RT: 53.600 min Scan# 4986  
 Delta R.T. -0.055 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm



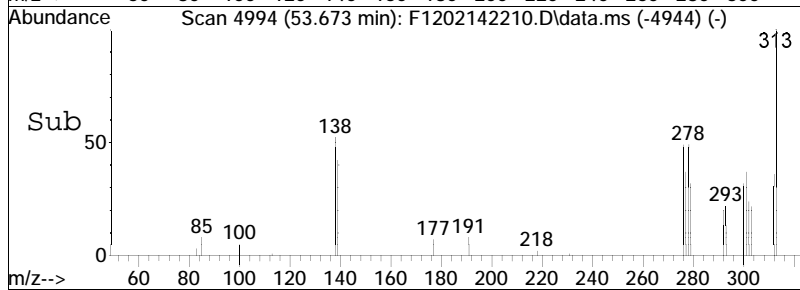
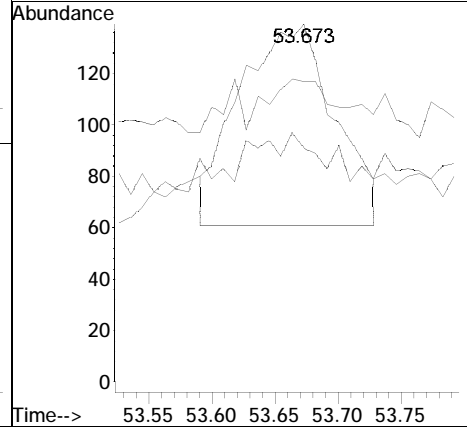
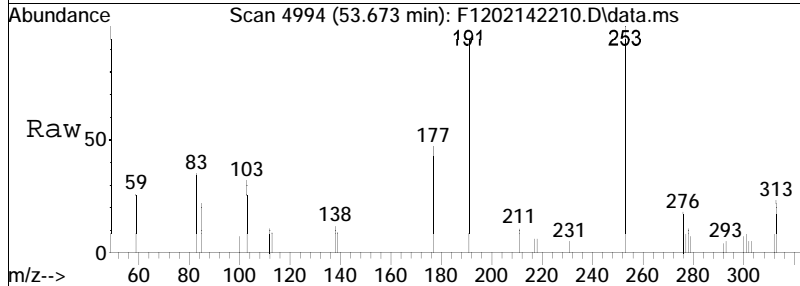
Tgt Ion	Resp	Lower	Upper
276	100		
138	34.0	12.2	22.7#
277	31.3	16.7	30.9#

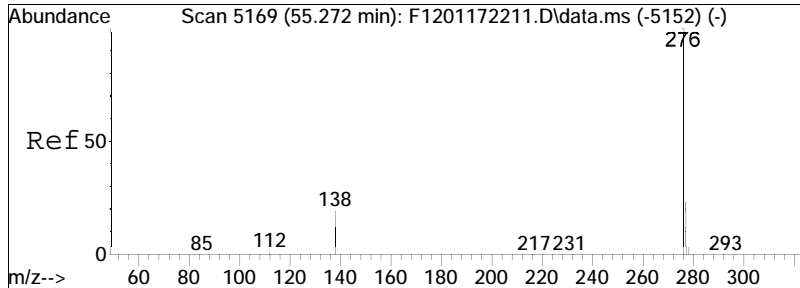




#93  
 Dibenz[ah]+[ac]anthracene  
 Concen: 0.87 ng/mL M4  
 RT: 53.673 min Scan# 4994  
 Delta R.T. -0.046 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

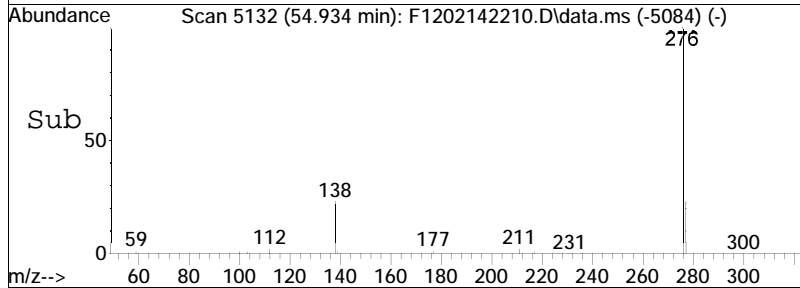
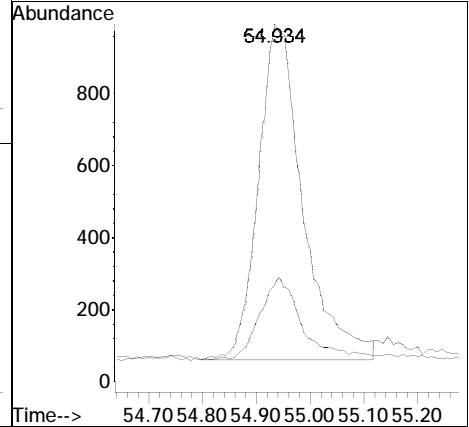
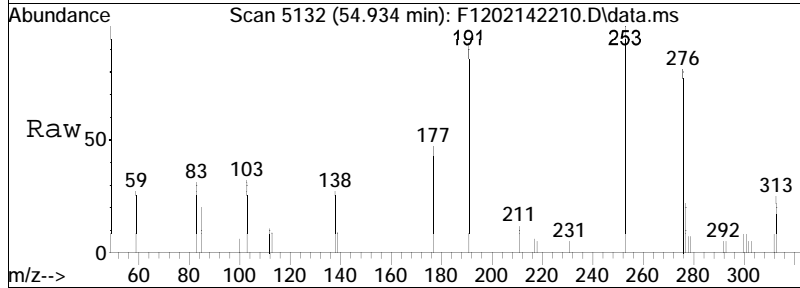
Tgt Ion	Resp	Lower	Upper
278	100		
139	0.0	10.1	18.7#
279	0.0	16.6	30.8#





#94  
 Benzo[g,h,i]perylene  
 Concen: 11.19 ng/mL  
 RT: 54.934 min Scan# 5132  
 Delta R.T. -0.064 min  
 Lab File: F1202142210.D  
 Acq: 14 Feb 2022 11:57 pm

Tgt Ion: 276 Resp: 5339  
 Ion Ratio Lower Upper  
 276 100  
 277 22.3 16.4 30.6



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142211.D  
 Acq On : 15 Feb 2022 1:22 am  
 Operator : PAH12:MJS  
 Sample : 12206076-03,32  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 21 15:39:14 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	26.986	164	77936	500.000	ng/mL	-0.04	
74) Chrysene-d12	43.451	240	147809	500.000	ng/mL	-0.05	
System Monitoring Compounds							
8) Naphthalene-d8	20.005	136	152774	454.647	ng/mL	-0.04	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	45.46%#		
40) Phenanthrene-d10	32.862	188	129960	461.600	ng/mL	-0.04	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	46.16%#		
84) Benzo[b]fluoranthene-d12	47.362	264	153603	446.921	ng/mL	-0.04	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	44.69%#		
89) Benzo[a]pyrene-d12	48.579	264	107807	414.444	ng/mL	-0.04	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	41.44%#		
Target Compounds							
2) trans-Decalin	0.000		0		N.D.		Qvalue
3) cis-Decalin	0.000		0		N.D.		
4) C1-Decalins	0.000		0		N.D. d		
5) C2-Decalins	0.000		0		N.D. d		
6) C3-Decalins	0.000		0		N.D. d		
7) C4-Decalins	0.000		0		N.D. d		
9) Naphthalene	20.087	128	749	2.016	ng/mL	100	
10) C1-Naphthalenes	22.779	142	430M5	1.157	ng/mL		
11) C2-Naphthalenes	0.000		0		N.D. d		
12) C3-Naphthalenes	0.000		0		N.D. d		
13) C4-Naphthalenes	0.000		0		N.D. d		
14) 2-Methylnaphthalene	22.779	142	206	0.873	ng/mL	100	
15) 1-Methylnaphthalene	23.208	142	135	0.603	ng/mL	100	
16) Benzothiophene	0.000		0		N.D. d		
17) C1-Benzo(b)thiophenes	22.907	148	1355M5	4.310	ng/mL		
18) C2-Benzo(b)thiophenes	25.717	162	433M5	1.377	ng/mL		
19) C3-Benzo(b)thiophenes	0.000		0		N.D. d		
20) C4-Benzo(b)thiophenes	0.000		0		N.D. d		
21) Biphenyl	24.668	154	165	0.571	ng/mL	100	
22) 2,6-Dimethylnaphthalene	0.000		0		N.D. d		
23) Dibenzofuran	27.752	168	118	0.383	ng/mL#	36	
24) Acenaphthylene	26.384	152	88M2	0.248	ng/mL		
25) Acenaphthene	27.114	153	3972	17.705	ng/mL	100	
26) 2,3,5-Trimethylnaphthalen	0.000		0		N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142211.D  
 Acq On : 15 Feb 2022 1:22 am  
 Operator : PAH12:MJS  
 Sample : 12206076-03,32  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 21 15:39:14 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	29.130	166	149M4	0.600	ng/mL	
28) C1-Fluorenes	31.356	180	288M5	1.160	ng/mL	
29) C2-Fluorenes	0.000		0	N.D.	d	
30) C3-Fluorenes	0.000		0	N.D.	d	
31) Dibenzothiophene	32.451	184	314	0.877	ng/mL#	62
32) 4-Methyldibenzothiophene(	34.230	198	136	0.380	ng/mL	100
33) 2/3-Methyldibenzothiophen	0.000		0	N.D.	d	
34) 1-Methyldibenzothiophene(	34.997	198	94M3	0.263	ng/mL	
36) C1-Dibenzothiophenes	34.632	198	21767M5	60.801	ng/mL	
36) C1-Dibenzothiophenes BS	34.632	198	455M5	1.271	ng/mL	
37) C2-Dibenzothiophenes	36.941	212	914M5	2.553	ng/mL	
38) C3-Dibenzothiophenes	0.000		0	N.D.	d	
39) C4-Dibenzothiophenes	0.000		0	N.D.	d	
41) Phenanthrene	32.944	178	2631	7.191	ng/mL	100
42) 3-Methylphenanthrene(3MP)	34.897	192	311M3	0.850	ng/mL	
43) 2-Methylphenanthrene(2MP)	35.025	192	238	0.651	ng/mL	94
44) 2-Methylanthracene(2MA)	0.000		0	N.D.	d	
45) 9/4-Methylphenanthrene(9M	35.371	192	269M3	0.735	ng/mL	
47) C1-Phenanthrenes/Anthrace	34.897	192	1066M5	2.914	ng/mL	
48) C2-Phenanthrenes/Anthrace	0.000		0	N.D.	d	
48) C2-Phenanthrenes/Anthr BS	0.000		0d	0.000	ng/mL	
50) C3-Phenanthrenes/Anthrace	0.000		0	N.D.	d	
51) C4-Phenanthrenes/Anthrace	0.000		0	N.D.	d	
52) Retene	39.936	234	114	0.940	ng/mL	88
53) Anthracene	33.126	178	158M3	0.463	ng/mL	
54) Carbazole	33.792	167	120	0.339	ng/mL#	64
55) 1-Methylphenanthrene	35.454	192	151M3	0.614	ng/mL	
56) Fluoranthene	37.727	202	792M4	2.159	ng/mL	
57) Benzo(b)fluorene	40.256	216	68M3	0.294	ng/mL	
58) 7H-Benzo(c)fluorene	40.283	216	62M3	0.268	ng/mL	
59) Pyrene	38.612	202	6056	15.906	ng/mL#	78
60) 2-Methylpyrene	0.000		0	N.D.	d	
61) 4-Methylpyrene	0.000		0	N.D.	d	
62) 1-Methylpyrene	0.000		0	N.D.	d	
63) C1-Fluoranthenes/Pyrenes	40.840	216	1150M5	3.020	ng/mL	
64) C2-Fluoranthenes/Pyrenes	0.000		0	N.D.	d	
65) C3-Fluoranthenes/Pyrenes	0.000		0	N.D.	d	
66) C4-Fluoranthenes/Pyrenes	0.000		0	N.D.	d	
67) Naphthobenzothiophene-2,1	42.465	234	219	0.574	ng/mL#	48

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142211.D  
 Acq On : 15 Feb 2022 1:22 am  
 Operator : PAH12:MJS  
 Sample : 12206076-03,32  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 21 15:39:14 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	0.000		0	N.D.	d	
69) Naphthobenzothiophene-2,3	0.000		0	N.D.	d	
70) C1-Naphthobenzothiophenes	0.000		0	N.D.	d	
71) C2-Naphthobenzothiophenes	0.000		0	N.D.	d	
72) C3-Naphthobenzothiophenes	0.000		0	N.D.	d	
73) C4-Naphthobenzothiophenes	0.000		0	N.D.	d	
75) Benz[a]anthracene	43.387	228	151	0.423	ng/mL#	48
76) Chrysene	43.552	228	349M6	0.988	ng/mL	
78) C1-Chrysenes	0.000		0	N.D.	d	
79) C2-Chrysenes	0.000		0	N.D.	d	
79) C2-Chrysenes BS	0.000		0d	0.000	ng/mL	
81) C3-Chrysenes	0.000		0	N.D.	d	
82) C4-Chrysenes	0.000		0	N.D.	d	
85) Benzo[b]fluoranthene	47.454	252	607	1.507	ng/mL#	52
86) Benzo[j]+[k]fluoranthene	47.527	252	494	1.189	ng/mL#	52
87) Benzo[a]fluoranthene	0.000		0	N.D.	d	
88) Benzo[e]pyrene	48.478	252	481	1.209	ng/mL#	51
90) Benzo[a]pyrene	48.661	252	318M3	0.824	ng/mL	
91) Perylene	48.981	252	8738	22.082	ng/mL	100
92) Indeno[1,2,3-cd]pyrene	53.618	276	391	0.739	ng/mL#	55
93) Dibenz[ah]+[ac]anthracene	53.655	278	309	0.666	ng/mL#	57
94) Benzo[g,h,i]perylene	54.952	276	456	0.975	ng/mL	94

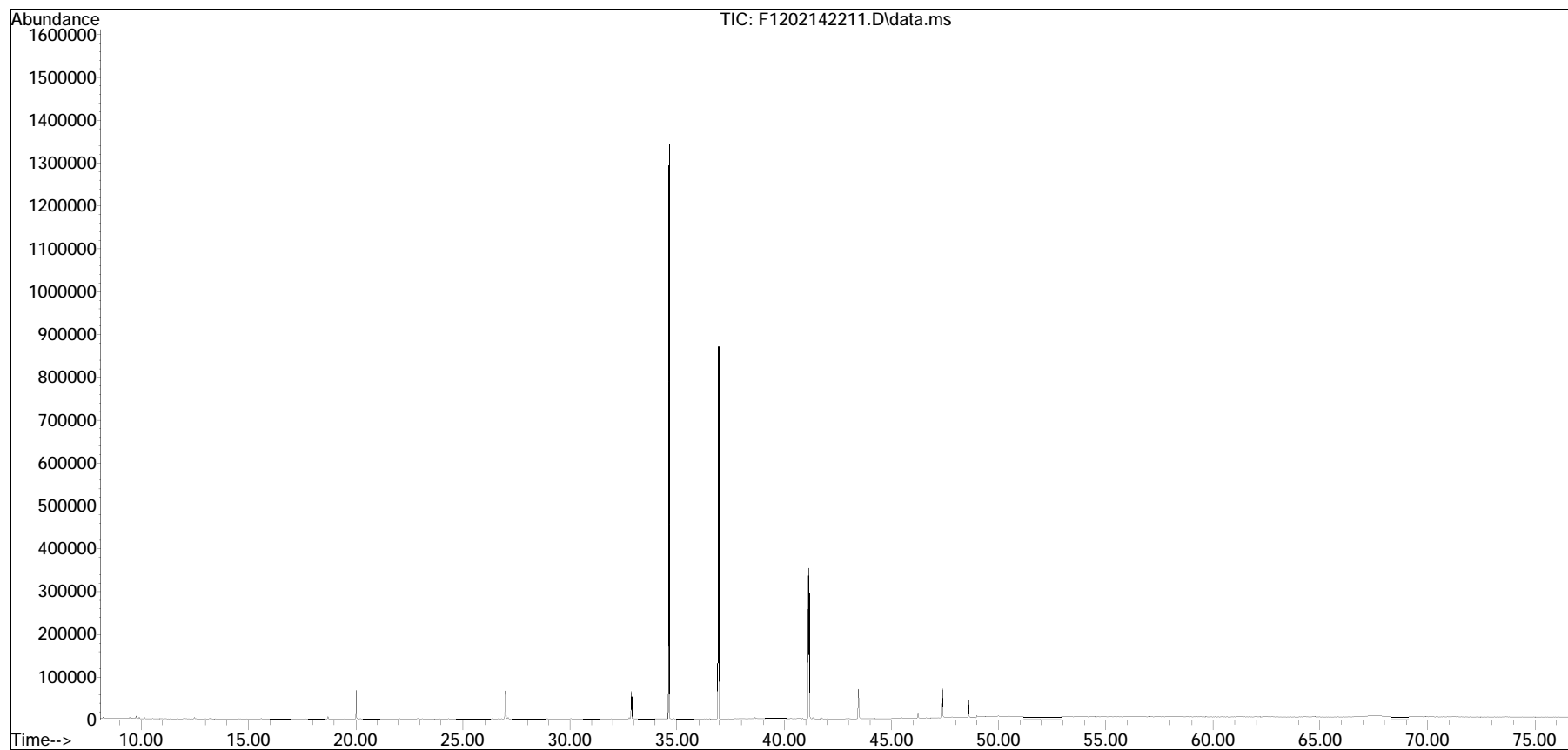
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

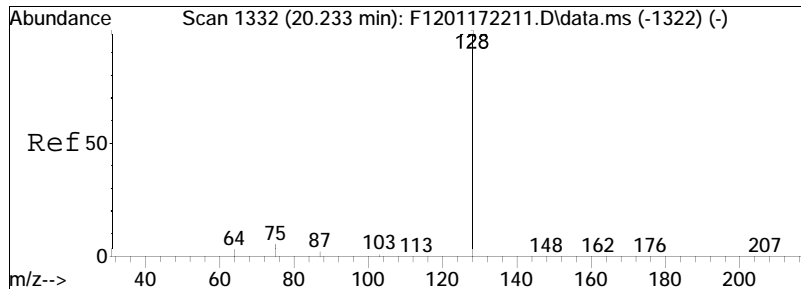
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Data File : F1202142211.D  
Acq On : 15 Feb 2022 1:22 am  
Operator : PAH12:MJS  
Sample : 12206076-03,32  
Misc : WG1605097,WG1603644,ICAL18670  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Feb 21 15:39:14 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Wed Feb 09 13:46:27 2022  
Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

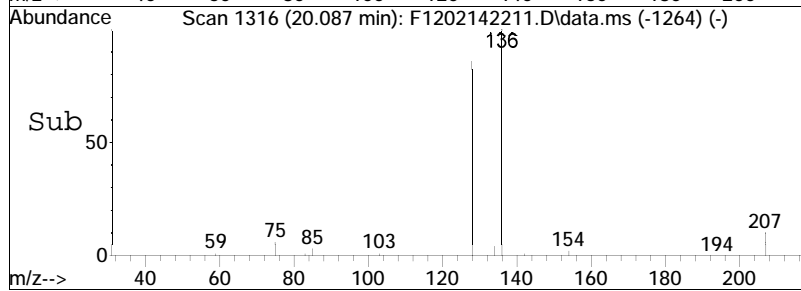
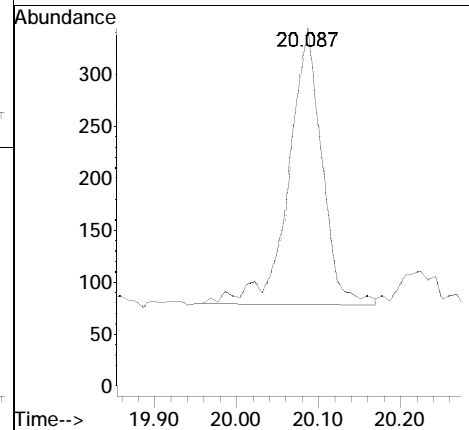
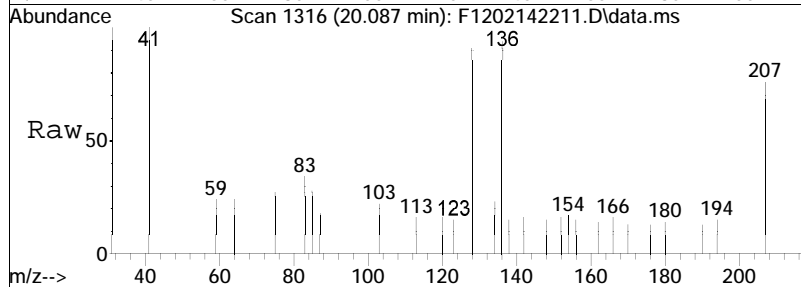


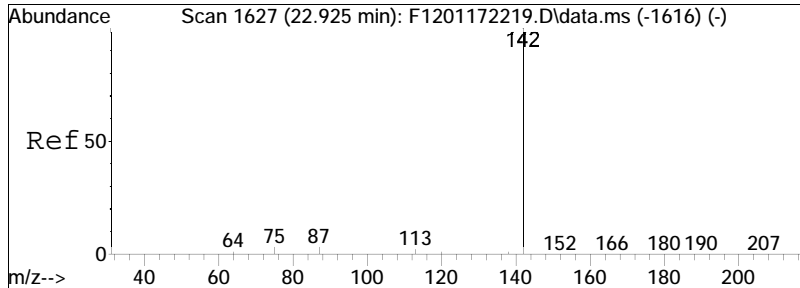




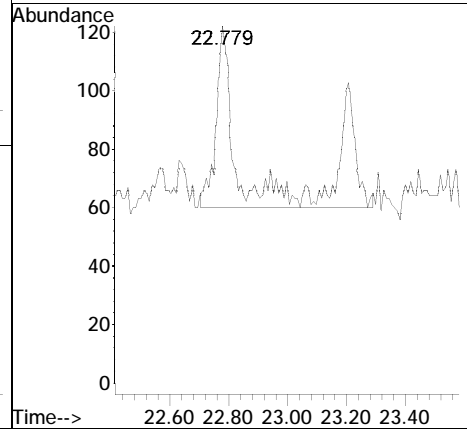
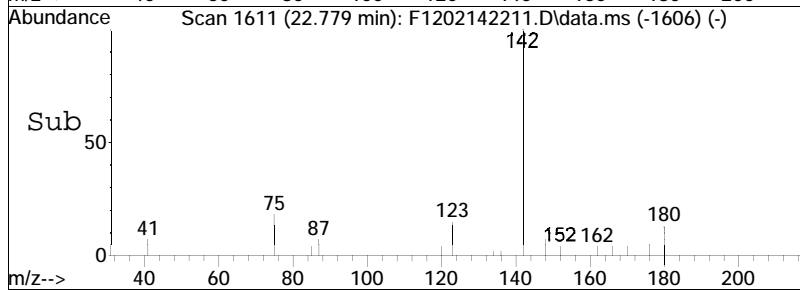
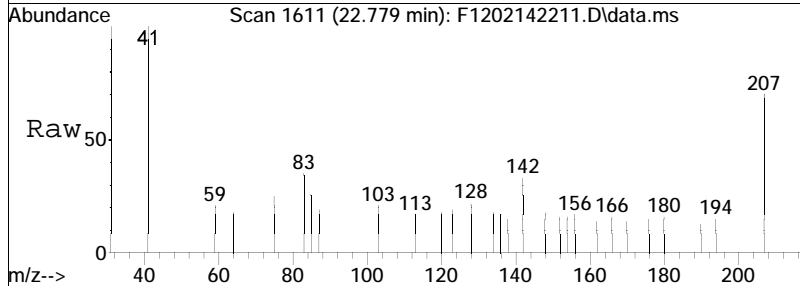
#9  
 Naphthalene  
 Concen: 2.02 ng/mL  
 RT: 20.087 min Scan# 1316  
 Delta R.T. -0.027 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

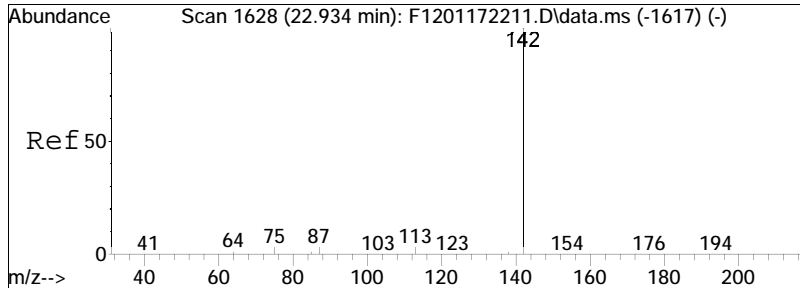
Tgt Ion:128 Resp: 749



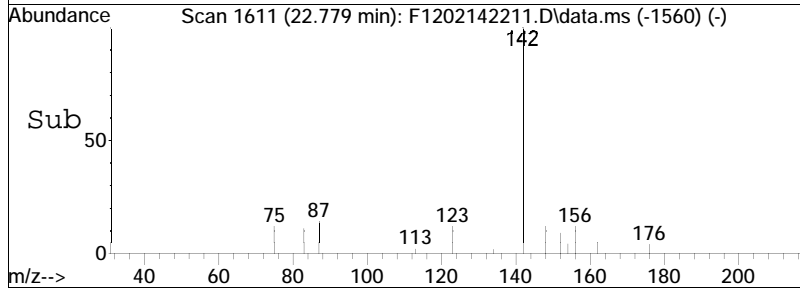
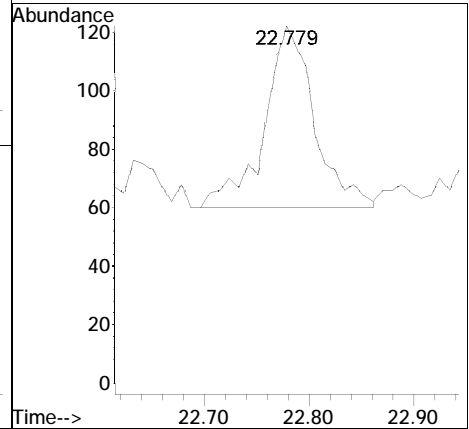
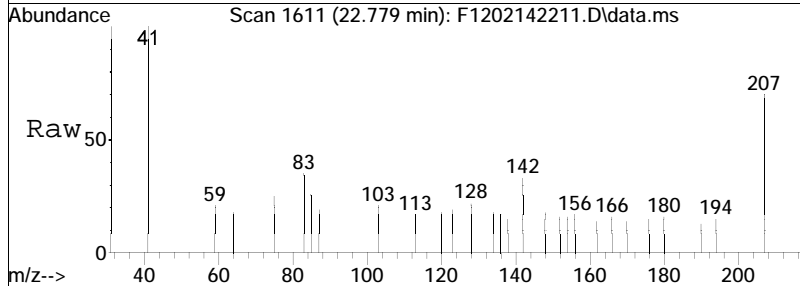


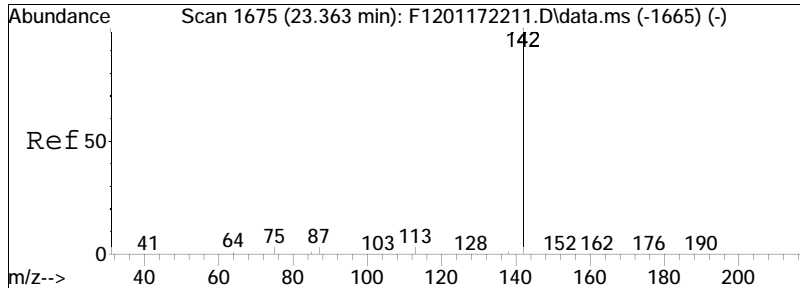
#10  
 Cl-Naphthalenes  
 Concen: 1.16 ng/mL M5  
 RT: 22.779 min Scan# 1611  
 Delta R.T. -0.037 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am  
 Tgt Ion:142 Resp: 430



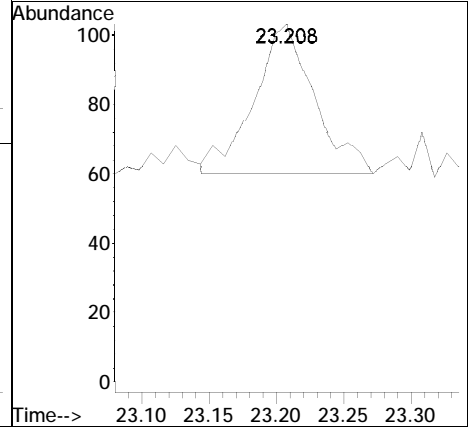
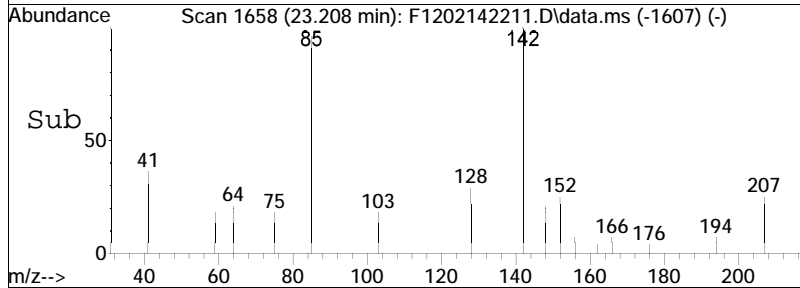
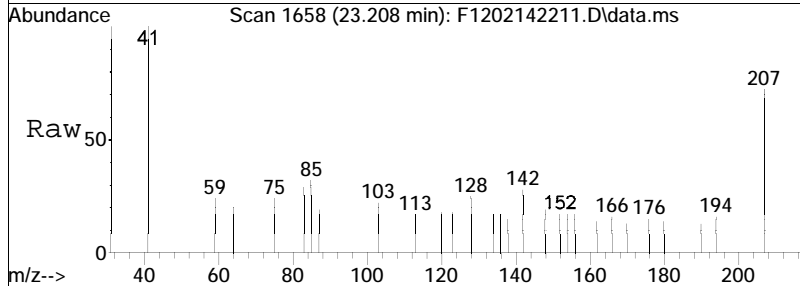


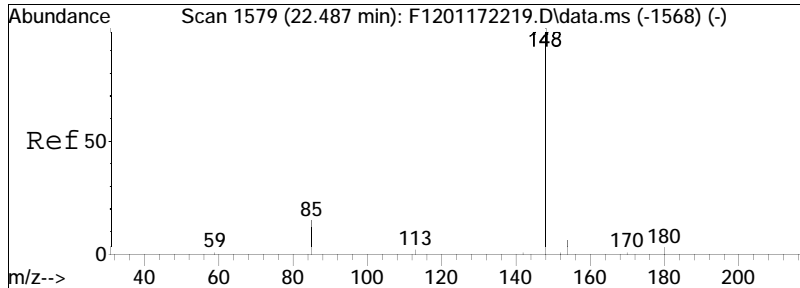
#14  
 2-Methylnaphthalene  
 Concen: 0.87 ng/mL  
 RT: 22.779 min Scan# 1611  
 Delta R.T. -0.037 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am  
 Tgt Ion:142 Resp: 206



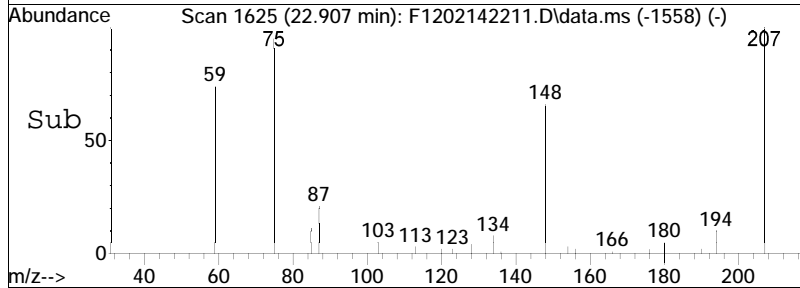
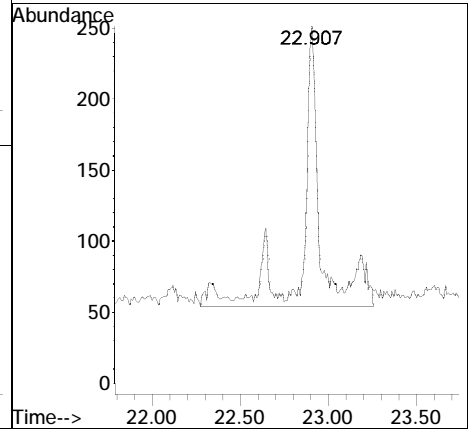
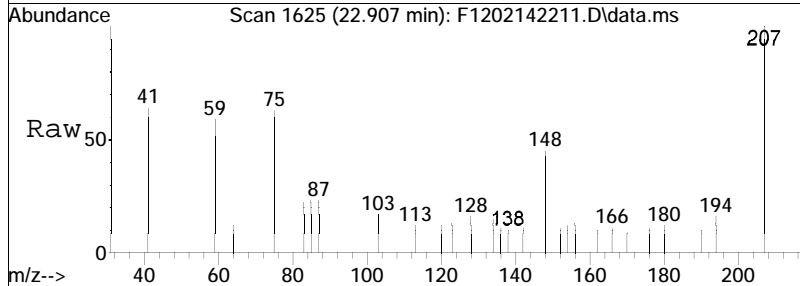


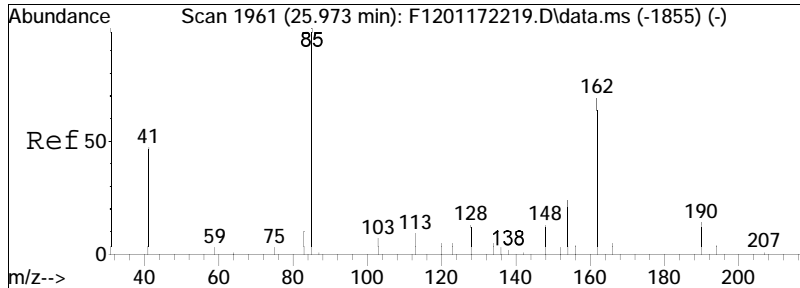
#15  
 1-Methylnaphthalene  
 Concen: 0.60 ng/mL  
 RT: 23.208 min Scan# 1658  
 Delta R.T. -0.037 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am  
 Tgt Ion:142 Resp: 135



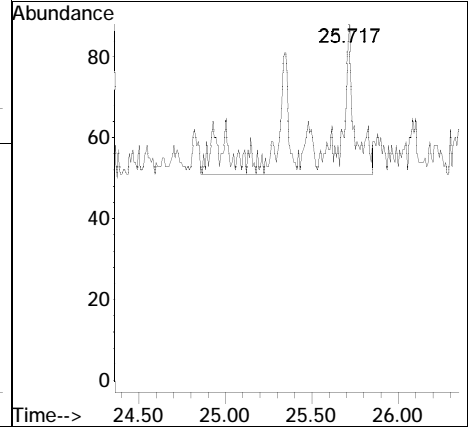
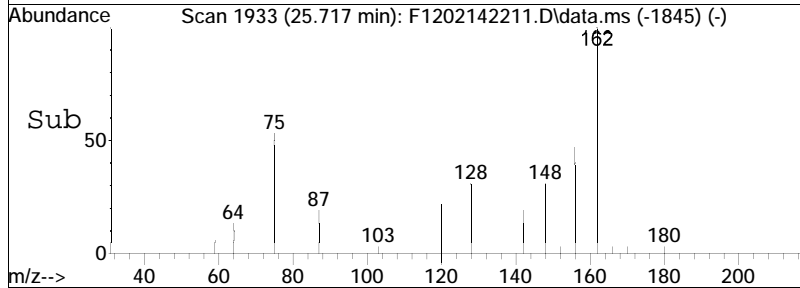
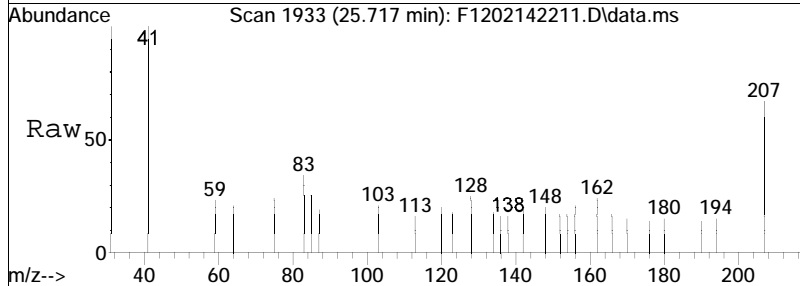


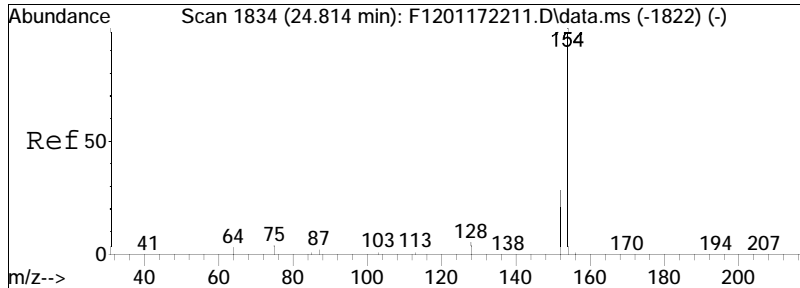
#17  
 Cl-Benzo(b)thiophenes  
 Concen: 4.31 ng/mL M5  
 RT: 22.907 min Scan# 1625  
 Delta R.T. 0.529 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am  
 Tgt Ion:148 Resp: 1355



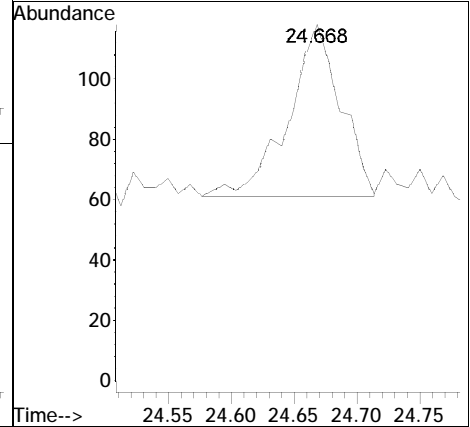
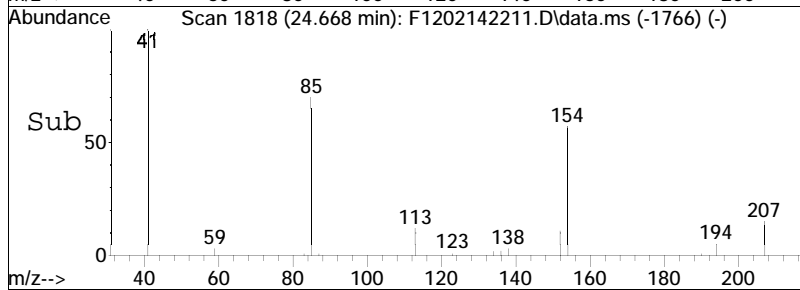
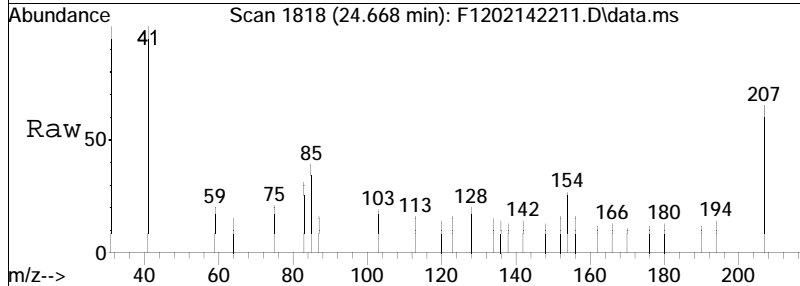


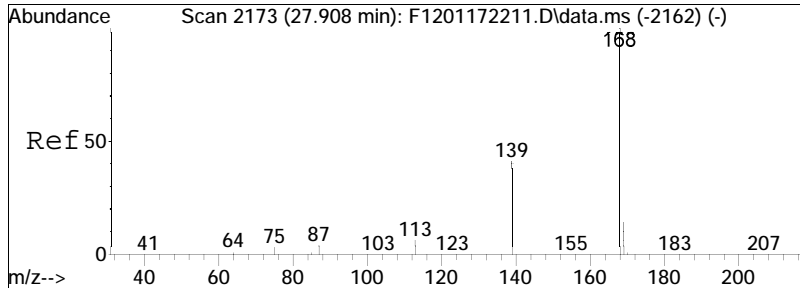
#18  
 C2-Benzo(b)thiophenes  
 Concen: 1.38 ng/mL M5  
 RT: 25.717 min Scan# 1933  
 Delta R.T. -0.137 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am  
 Tgt Ion:162 Resp: 433





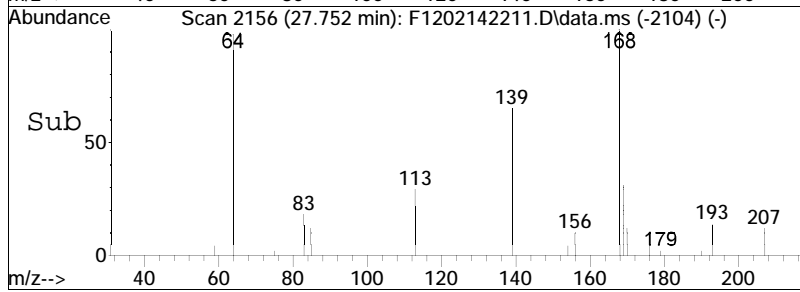
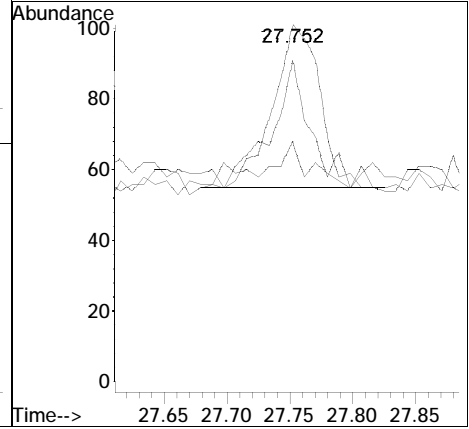
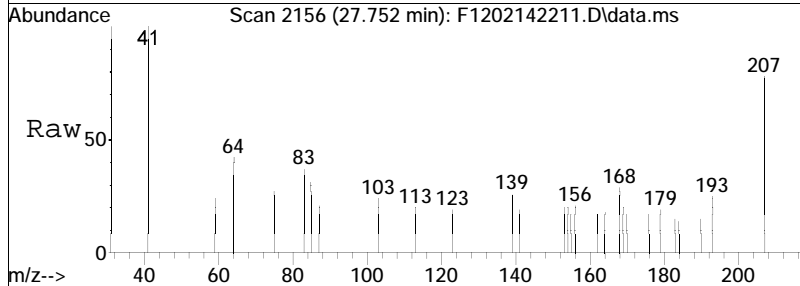
#21  
 Biphenyl  
 Concen: 0.57 ng/mL  
 RT: 24.668 min Scan# 1818  
 Delta R.T. -0.027 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am  
 Tgt Ion:154 Resp: 165



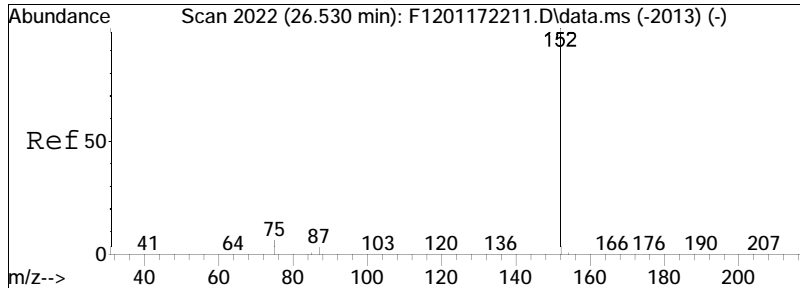


#23  
 Dibenzofuran  
 Concen: 0.38 ng/mL  
 RT: 27.752 min Scan# 2156  
 Delta R.T. -0.027 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

Tgt Ion	Ratio	Lower	Upper
168	100		
139	0.0	35.0	65.0#
169	0.0	11.5	21.5#

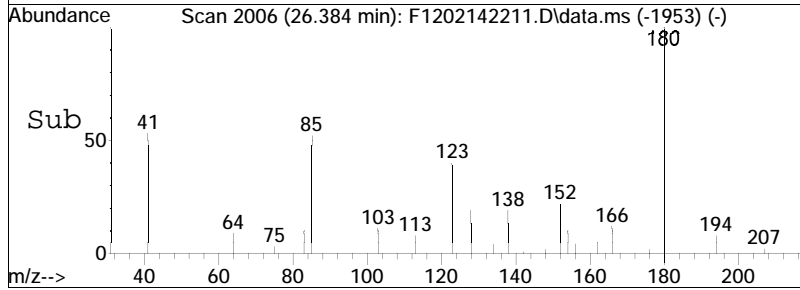
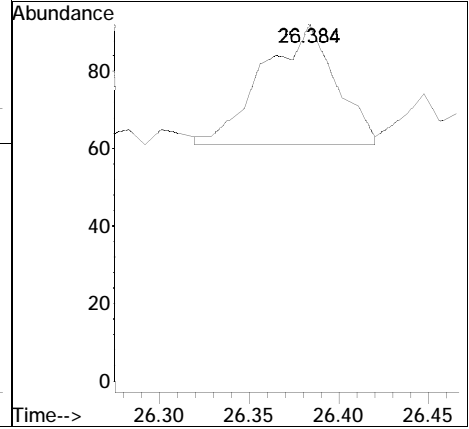
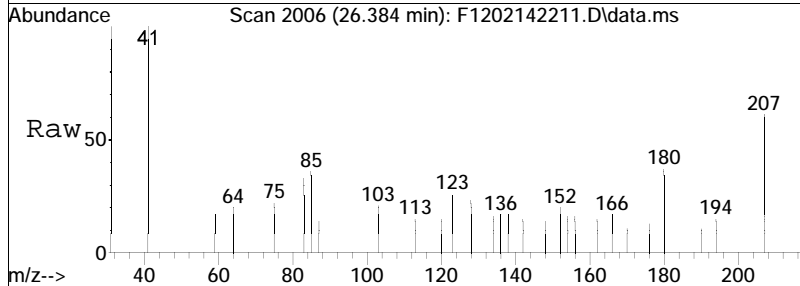


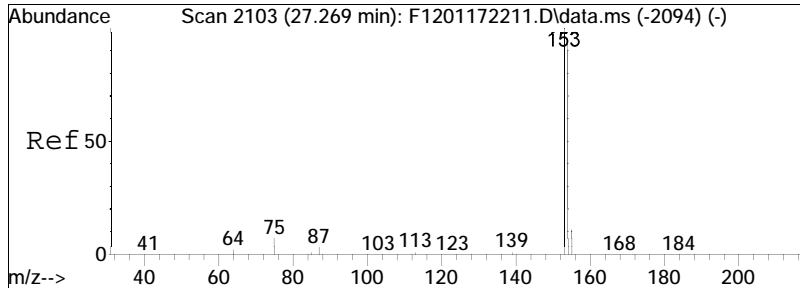




#24  
 Acenaphthylene  
 Concen: 0.25 ng/mL M2  
 RT: 26.384 min Scan# 2006  
 Delta R.T. -0.018 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

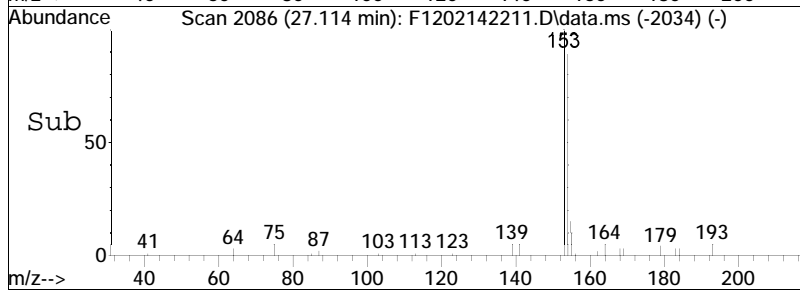
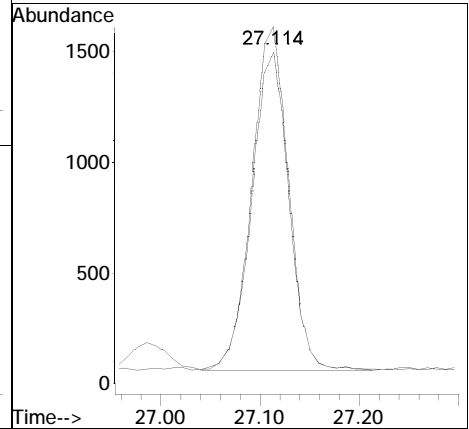
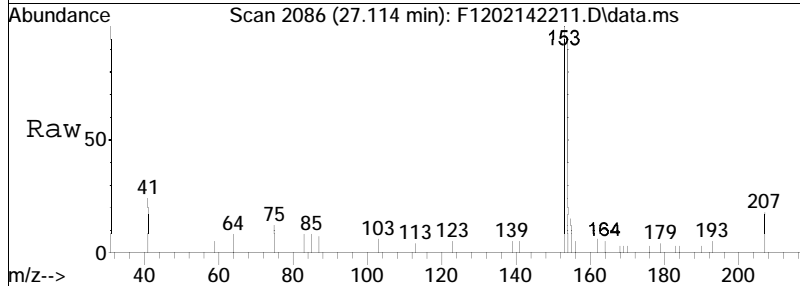
Tgt Ion:152 Resp: 88

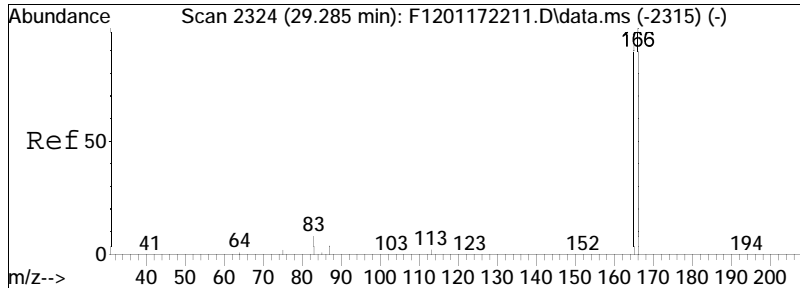




#25  
 Acenaphthene  
 Concen: 17.70 ng/mL  
 RT: 27.114 min Scan# 2086  
 Delta R.T. -0.028 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

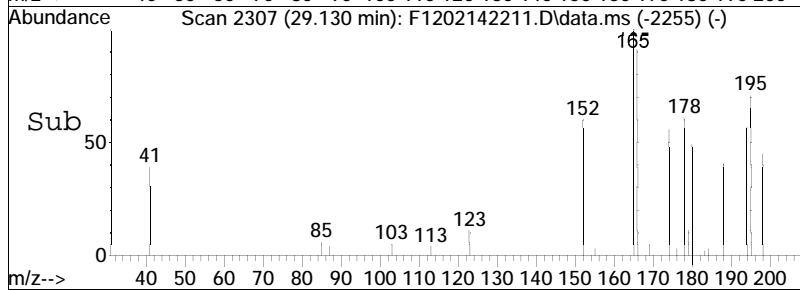
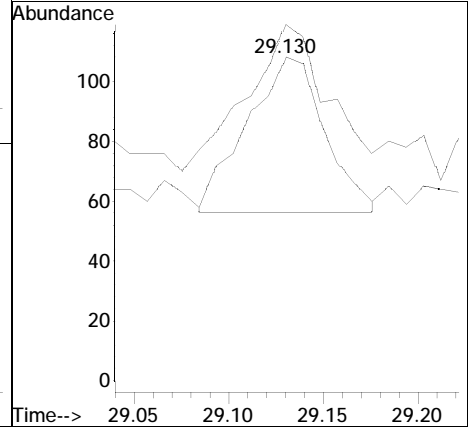
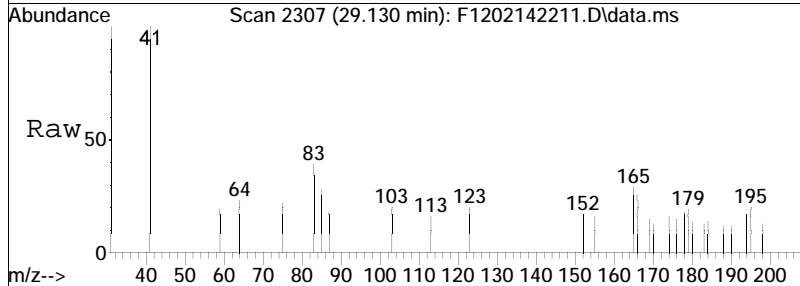
Tgt Ion	Resp	Lower	Upper
153	100		
154	93.1	65.4	121.4

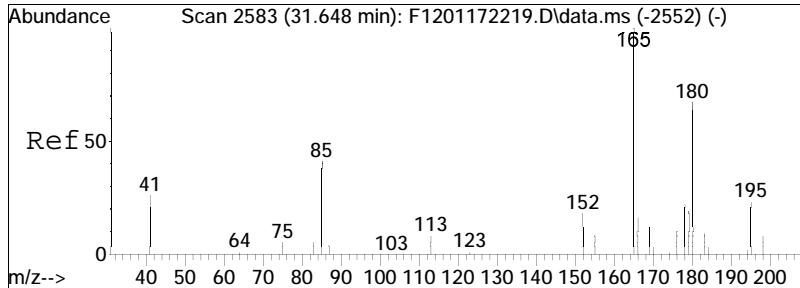




#27  
 Fluorene  
 Concen: 0.60 ng/mL M4  
 RT: 29.130 min Scan# 2307  
 Delta R.T. -0.028 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

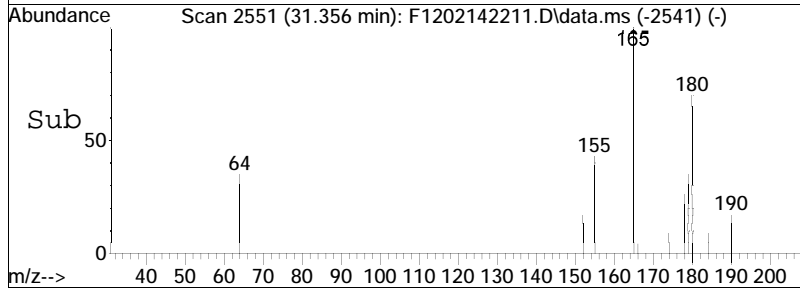
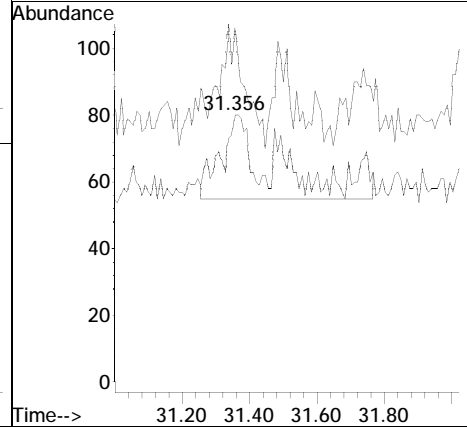
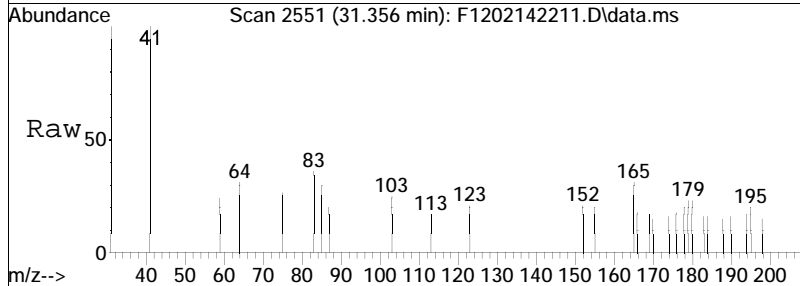
Tgt Ion	166	165	149.0	66.4	123.4#
Resp:	149				
Ion Ratio	100				

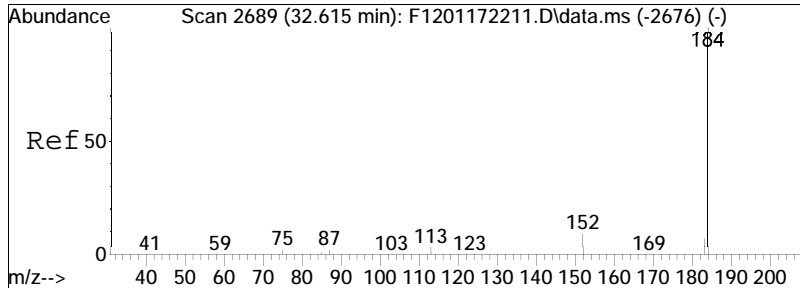




#28  
 Cl-Fluorenes  
 Concen: 1.16 ng/mL M5  
 RT: 31.356 min Scan# 2551  
 Delta R.T. -0.173 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

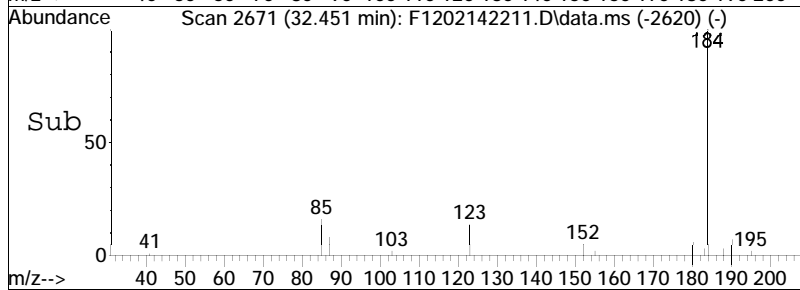
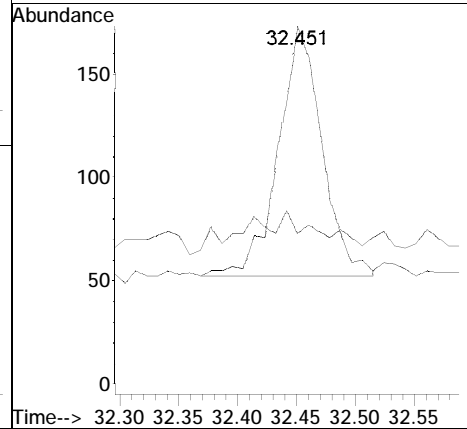
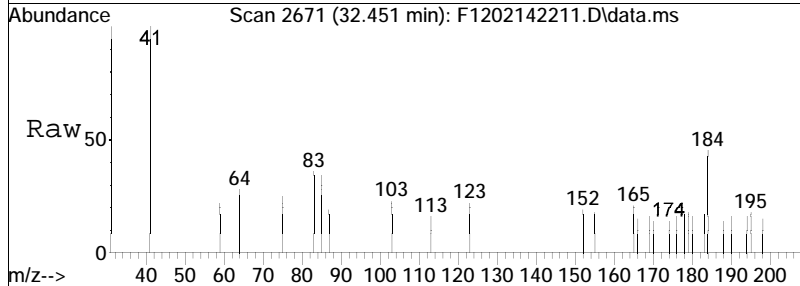
Tgt Ion: 180 Resp: 288  
 Ion Ratio Lower Upper  
 180 100  
 165 0.0 105.8 196.4#

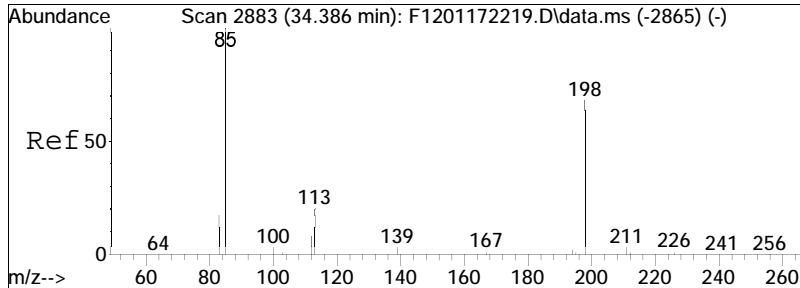




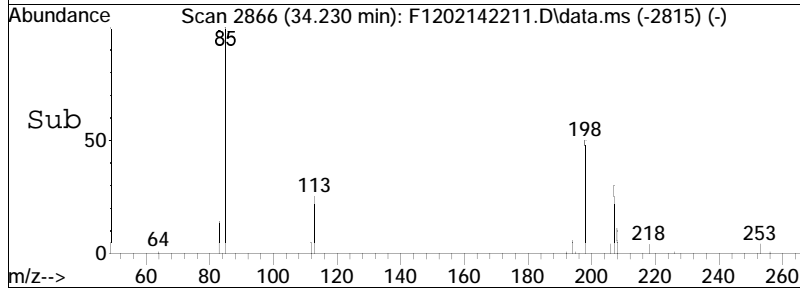
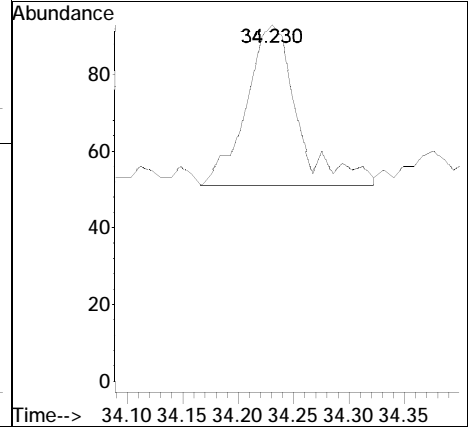
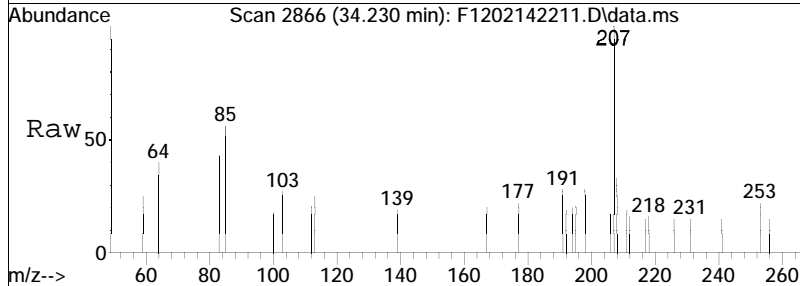
#31  
 Dibenzothiophene  
 Concen: 0.88 ng/mL  
 RT: 32.451 min Scan# 2671  
 Delta R.T. -0.037 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

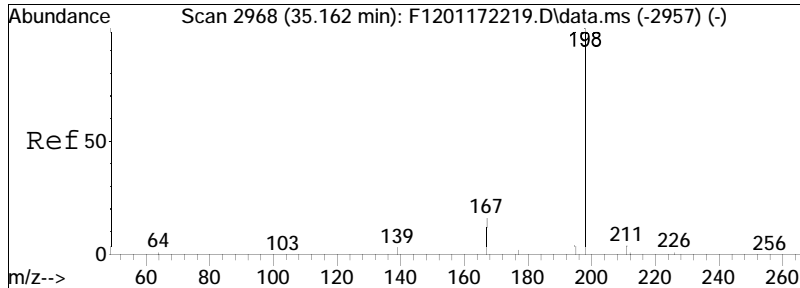
Tgt Ion	Ratio	Lower	Upper
184	100		
152	0.0	11.3	20.9#



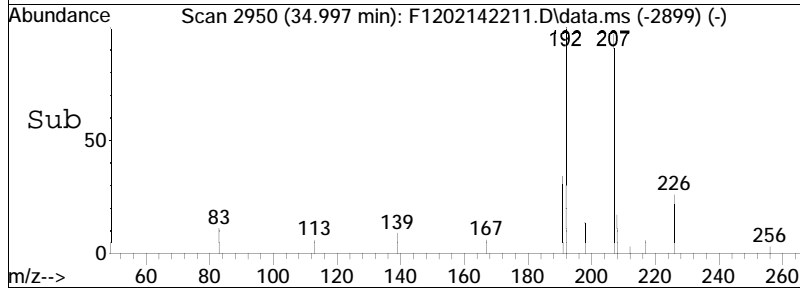
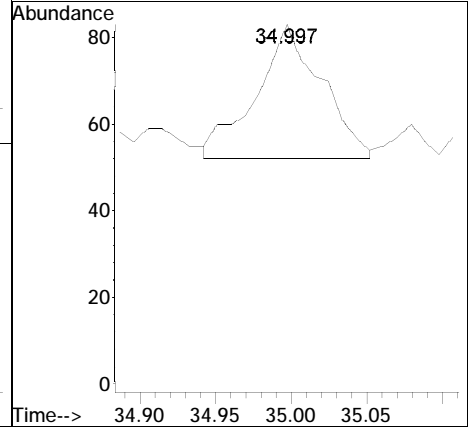
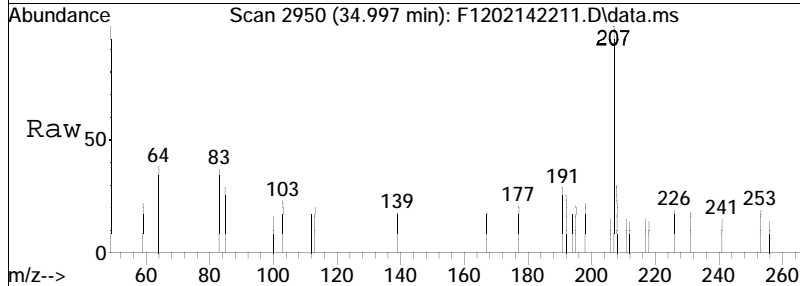


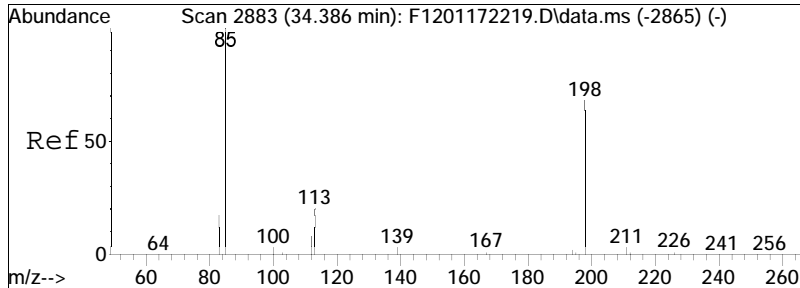
#32  
 4-Methyldibenzothiophene (4MDT)  
 Concen: 0.38 ng/mL  
 RT: 34.230 min Scan# 2866  
 Delta R.T. -0.037 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am  
 Tgt Ion:198 Resp: 136



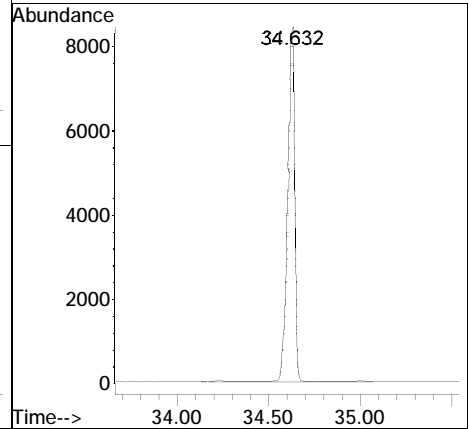
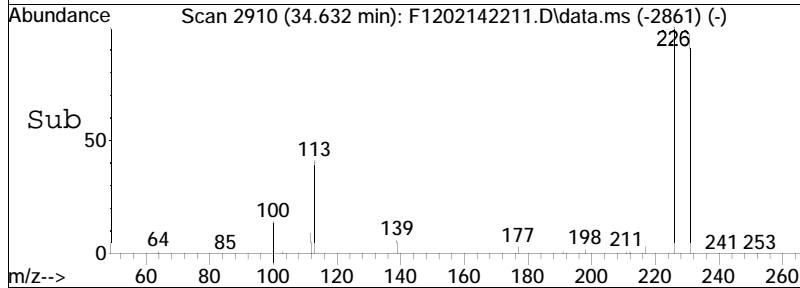
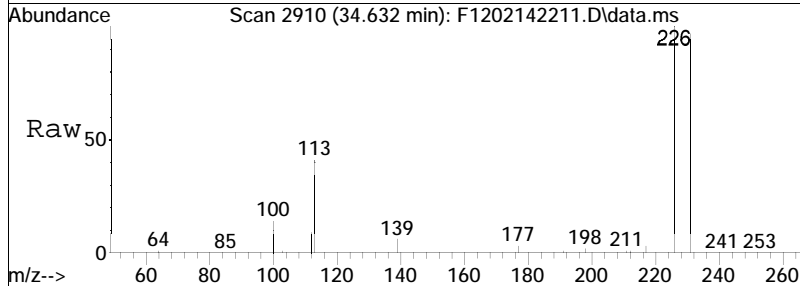


#34  
 1-Methyldibenzothiophene (1MDT)  
 Concen: 0.26 ng/mL M3  
 RT: 34.997 min Scan# 2950  
 Delta R.T. -0.037 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am  
 Tgt Ion: 198 Resp: 94

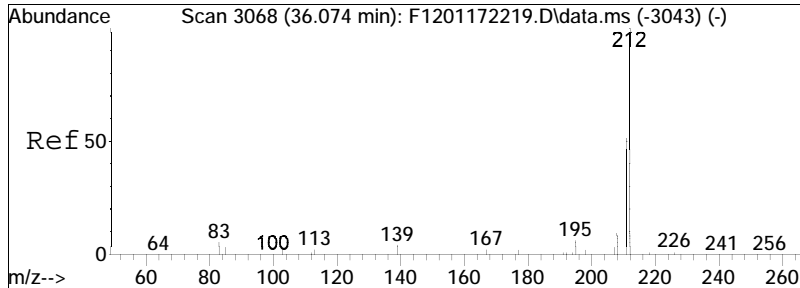




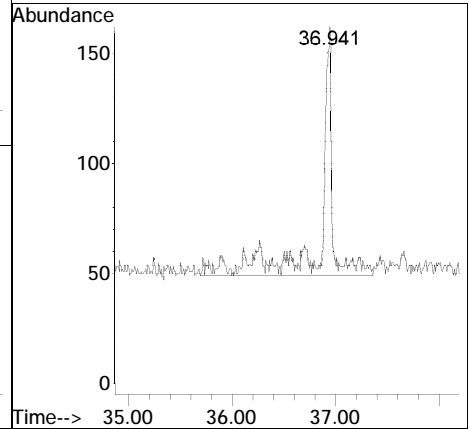
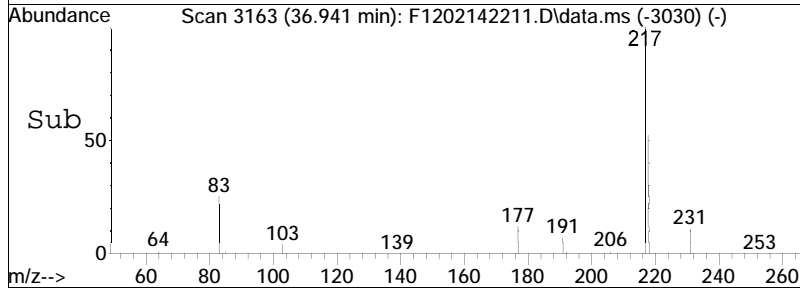
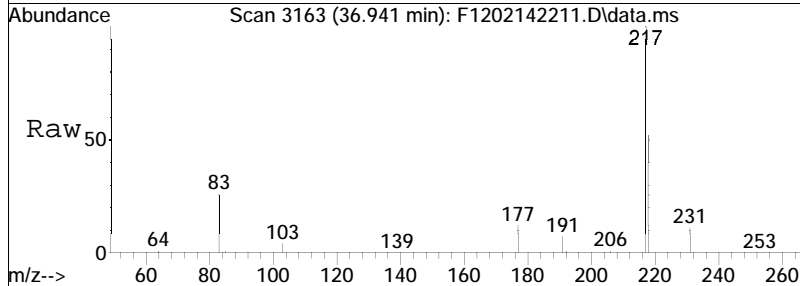
#36  
 Cl-Dibenzothiophenes  
 Concen: 60.80 ng/mL M5  
 RT: 34.632 min Scan# 2910  
 Delta R.T. 0.350 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am  
 Tgt Ion:198 Resp: 21767

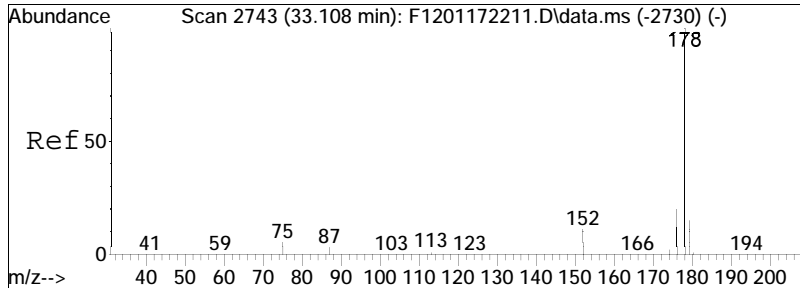






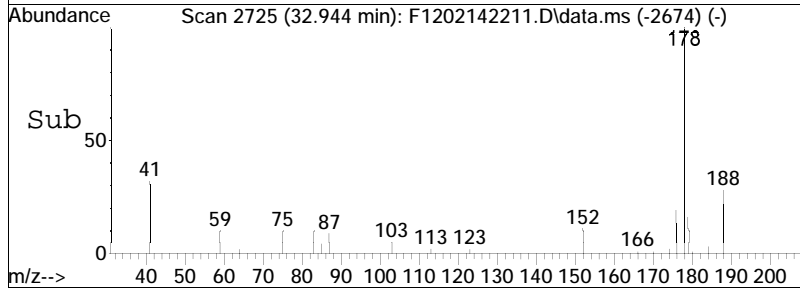
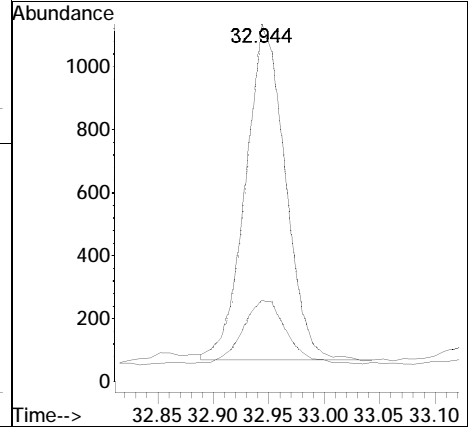
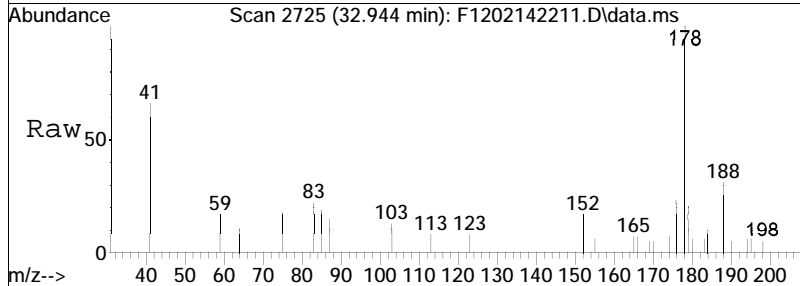
#37  
 C2-Dibenzothiophenes  
 Concen: 2.55 ng/mL M5  
 RT: 36.941 min Scan# 3163  
 Delta R.T. 0.976 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am  
 Tgt Ion:212 Resp: 914

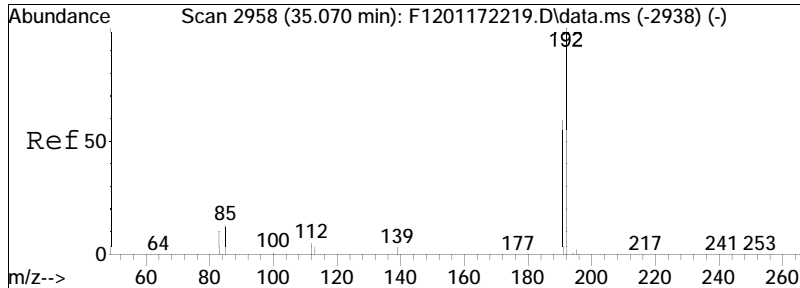




#41  
 Phenanthrene  
 Concen: 7.19 ng/mL  
 RT: 32.944 min Scan# 2725  
 Delta R.T. -0.037 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

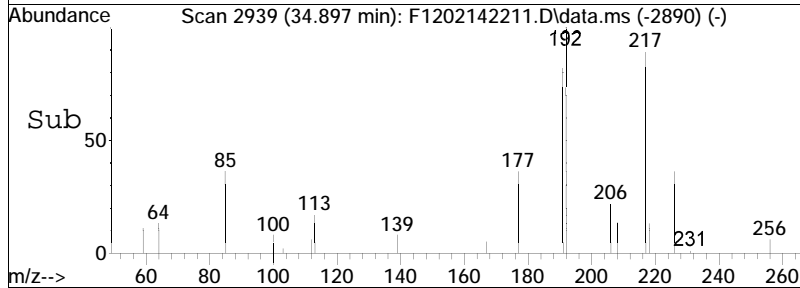
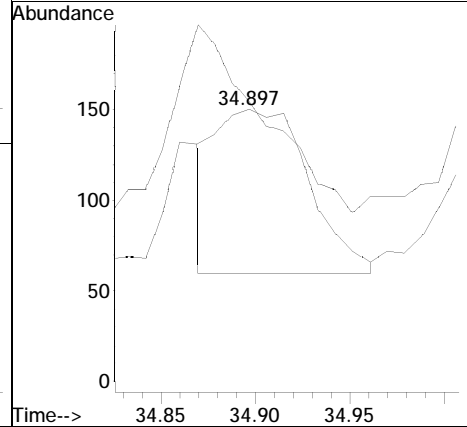
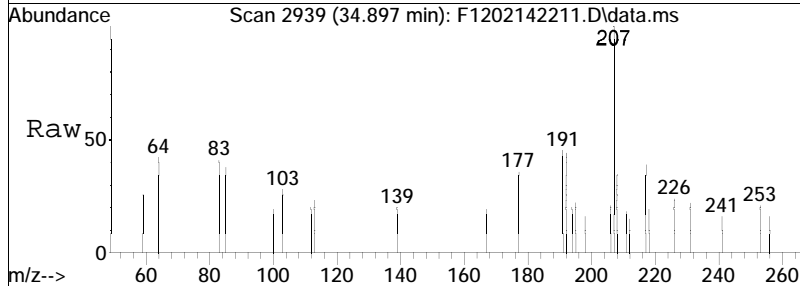
Tgt Ion: 178 Resp: 2631  
 Ion Ratio Lower Upper  
 178 100  
 176 21.1 14.8 27.6

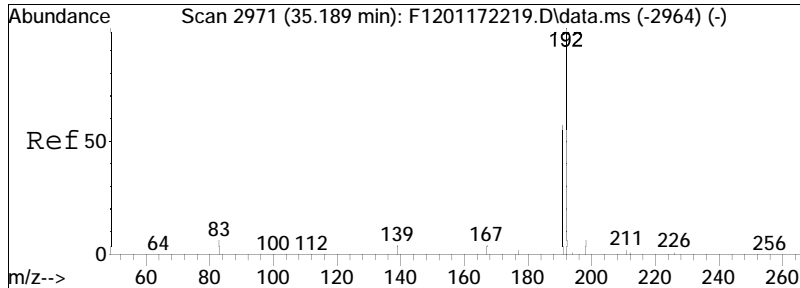




#42  
 3-Methylphenanthrene (3MP)  
 Concen: 0.85 ng/mL M3  
 RT: 34.897 min Scan# 2939  
 Delta R.T. -0.055 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

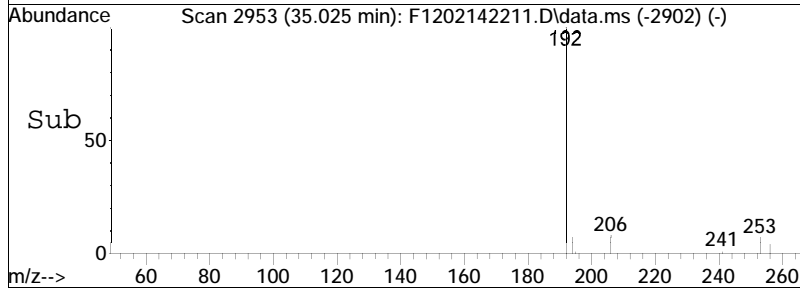
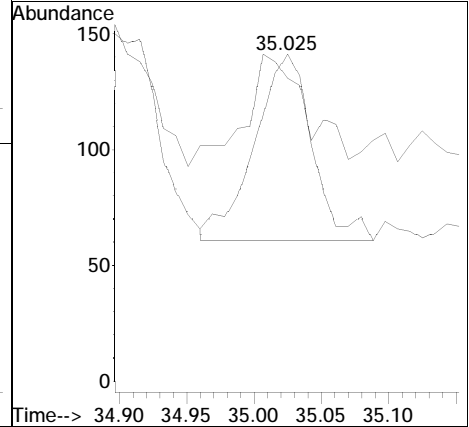
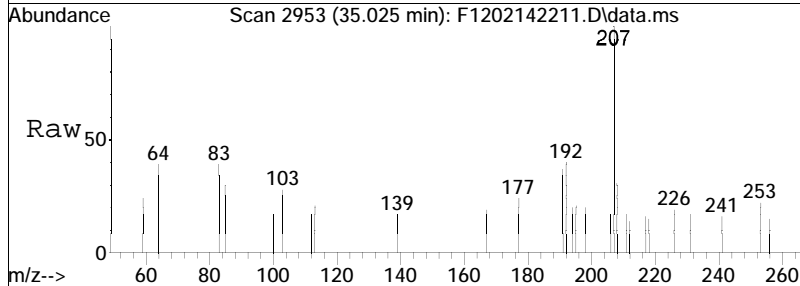
Tgt Ion: 192 Resp: 311  
 Ion Ratio Lower Upper  
 192 100  
 191 41.8 42.6 79.0#

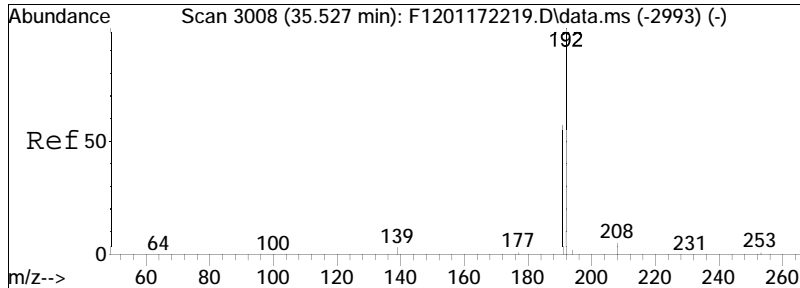




#43  
 2-Methylphenanthrene (2MP)  
 Concen: 0.65 ng/mL  
 RT: 35.025 min Scan# 2953  
 Delta R.T. -0.037 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

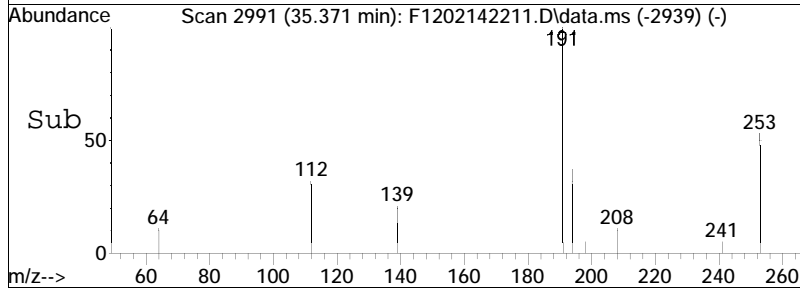
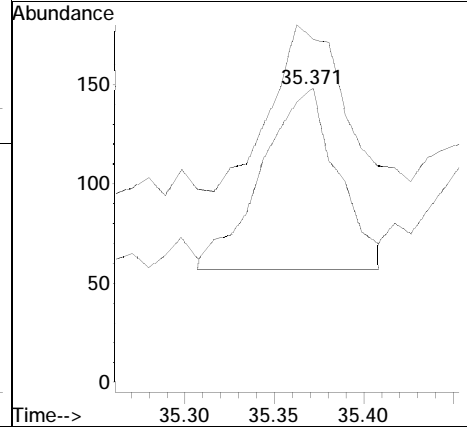
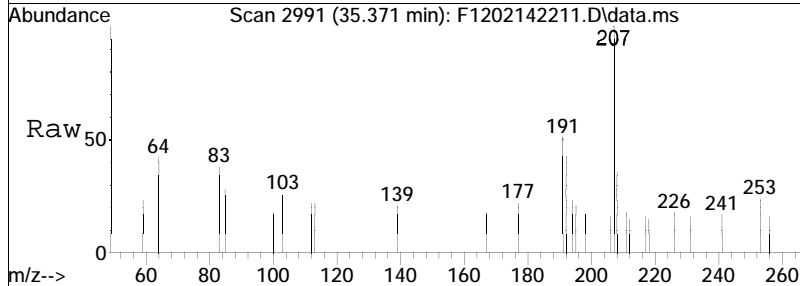
Tgt Ion: 192 Resp: 238  
 Ion Ratio Lower Upper  
 192 100  
 191 63.9 41.5 77.1

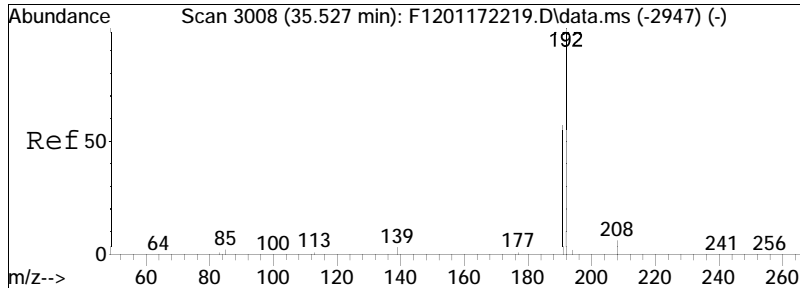




#45  
 9/4-Methylphenanthrene(9MP)  
 Concen: 0.74 ng/mL M3  
 RT: 35.371 min Scan# 2991  
 Delta R.T. -0.027 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

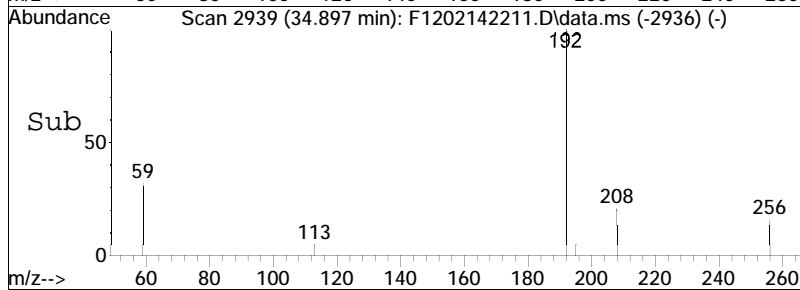
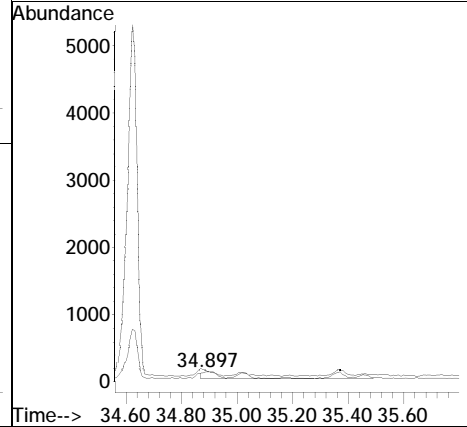
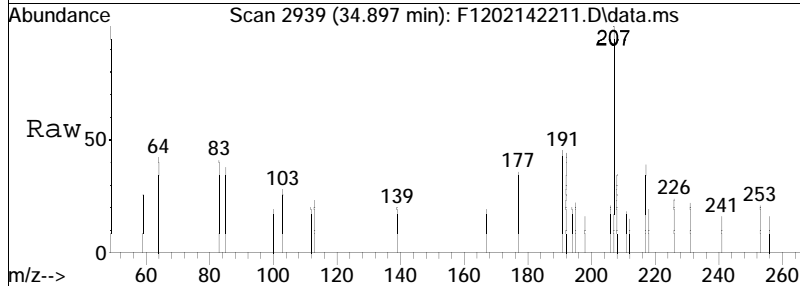
Tgt Ion	Resp	Lower	Upper
192	100		
191	56.5	41.5	77.1

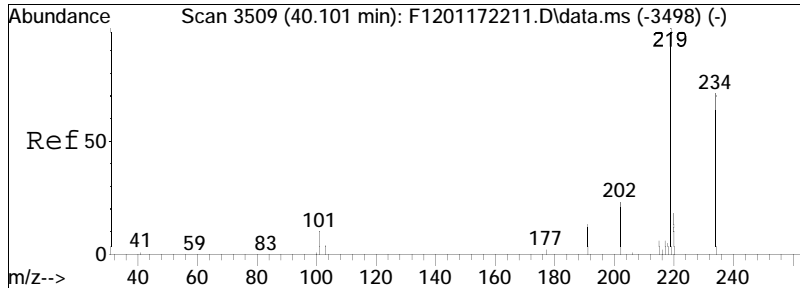




#47  
 Cl-Phenanthrenes/Anthracenes  
 Concen: 2.91 ng/mL M5  
 RT: 34.897 min Scan# 2939  
 Delta R.T. -0.523 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

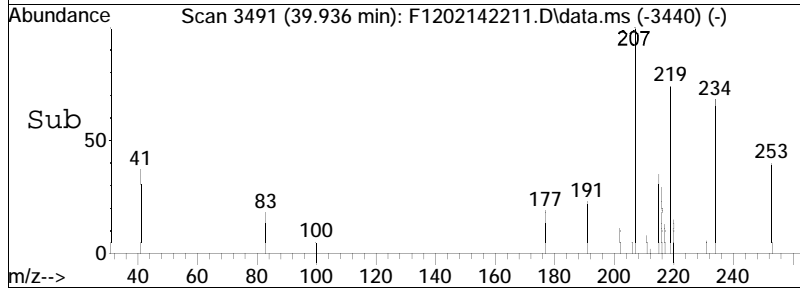
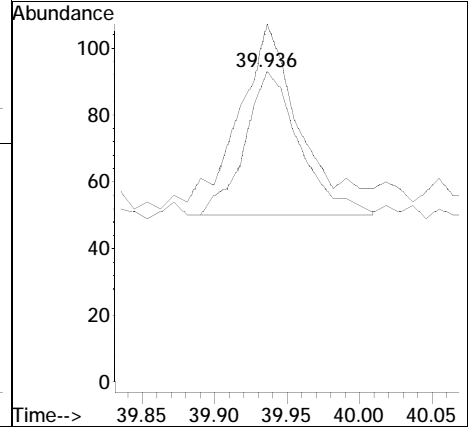
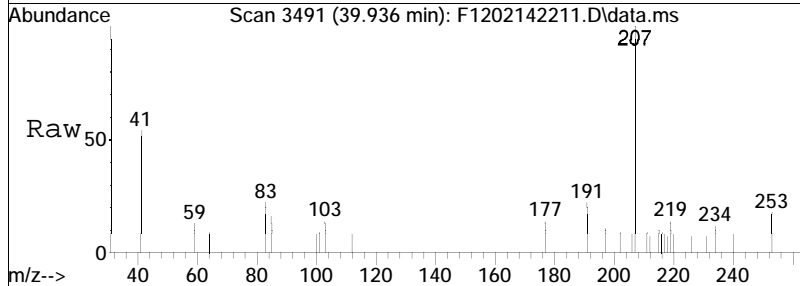
Tgt Ion: 192 Resp: 1066  
 Ion Ratio Lower Upper  
 192 100  
 191 14.3 40.9 76.0#

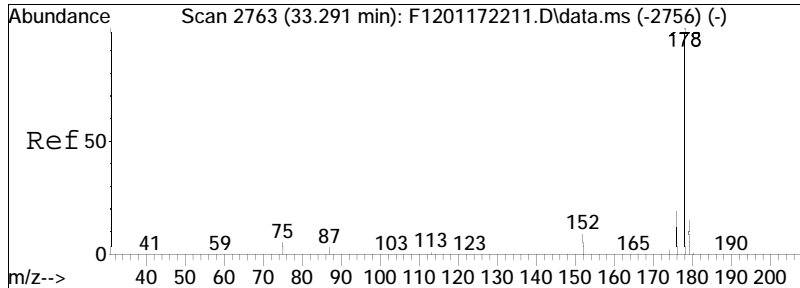




#52  
 Retene  
 Concen: 0.94 ng/mL  
 RT: 39.936 min Scan# 3491  
 Delta R.T. -0.037 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

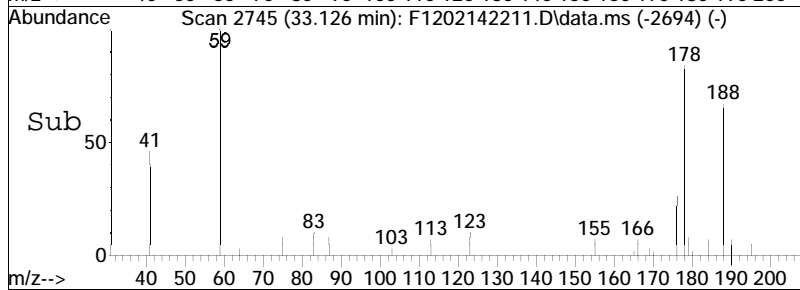
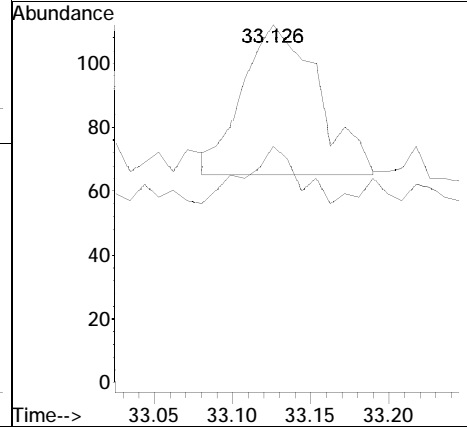
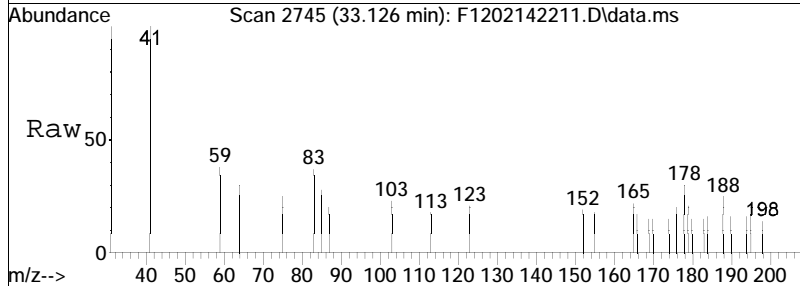
Tgt Ion: 234 Resp: 114  
 Ion Ratio Lower Upper  
 234 100  
 219 149.1 94.0 174.6



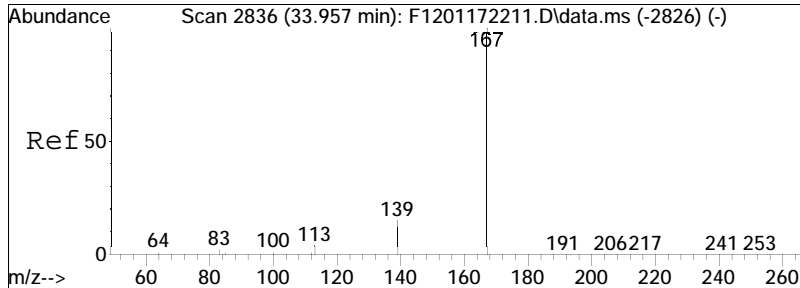


#53  
 Anthracene  
 Concen: 0.46 ng/mL M3  
 RT: 33.126 min Scan# 2745  
 Delta R.T. -0.037 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

Tgt Ion	Resp	Lower	Upper
178	100		
176	351.3	13.4	24.8#

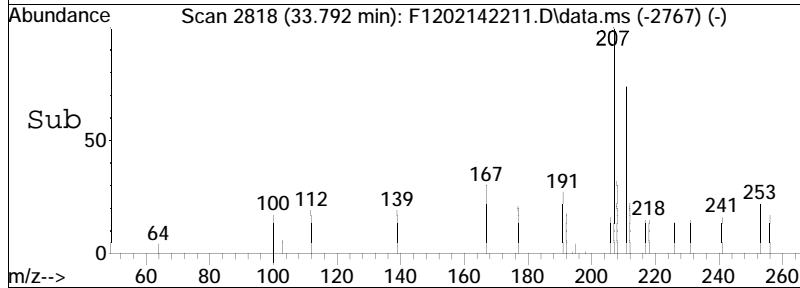
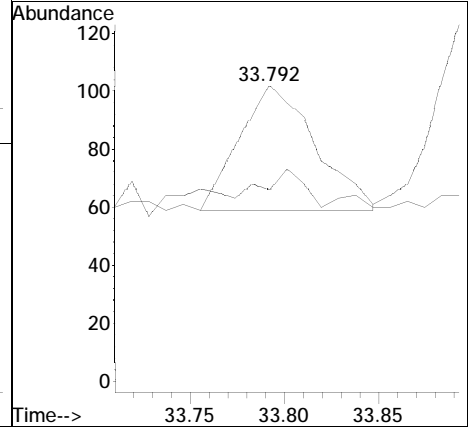
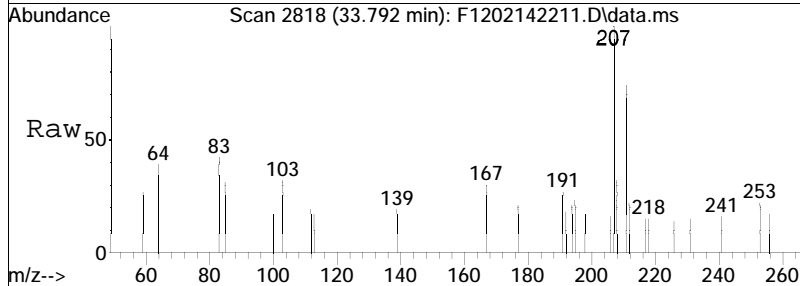


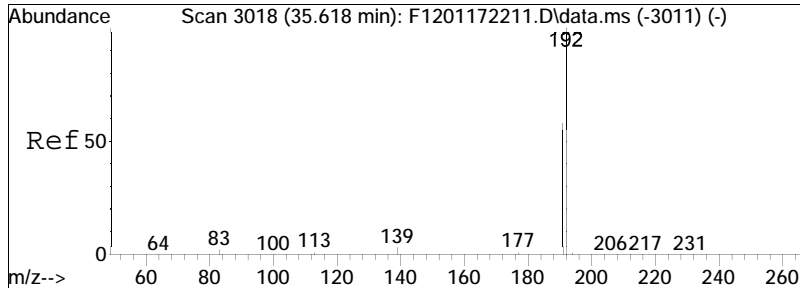




#54  
 Carbazole  
 Concen: 0.34 ng/mL  
 RT: 33.792 min Scan# 2818  
 Delta R.T. -0.037 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

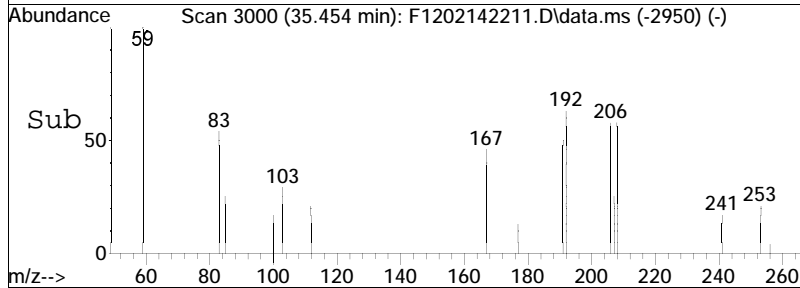
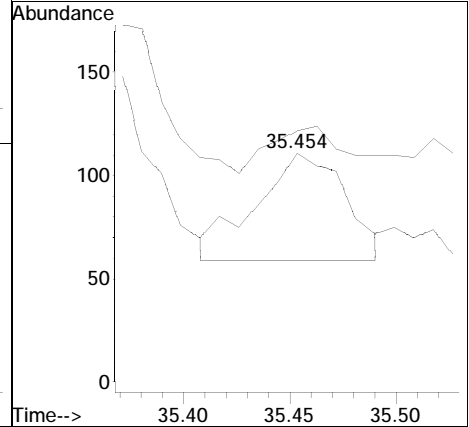
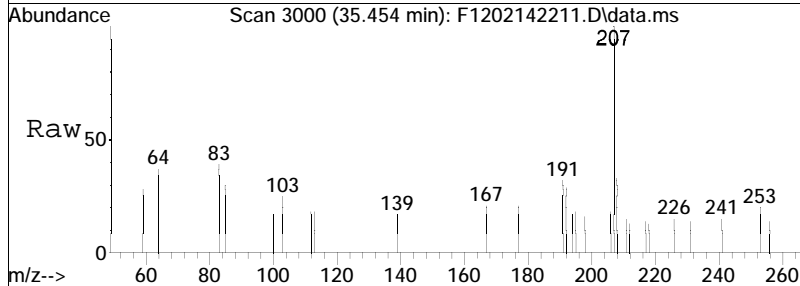
Tgt Ion: 167 Resp: 120  
 Ion Ratio Lower Upper  
 167 100  
 139 0.0 10.3 19.1#

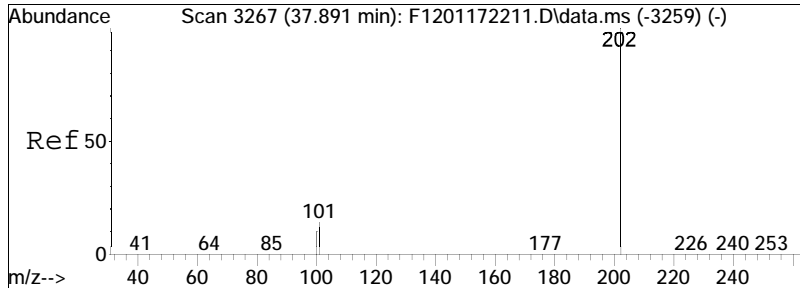




#55  
 1-Methylphenanthrene  
 Concen: 0.61 ng/mL M3  
 RT: 35.454 min Scan# 3000  
 Delta R.T. -0.046 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

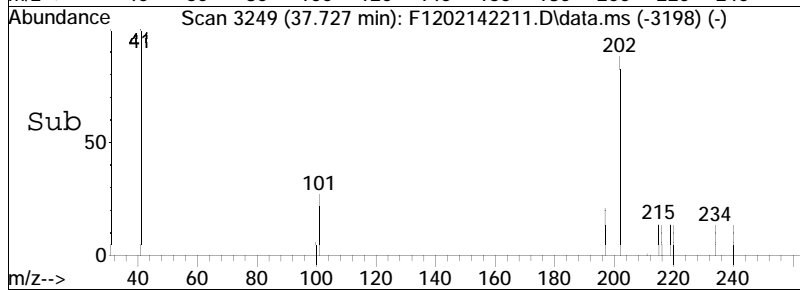
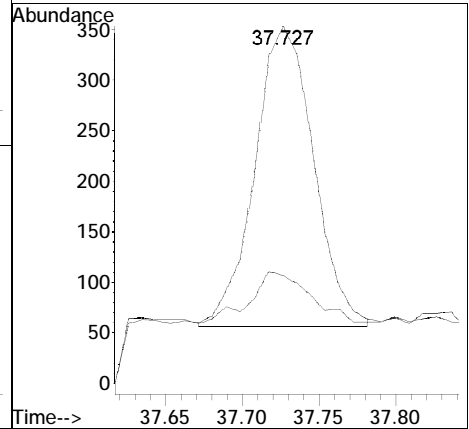
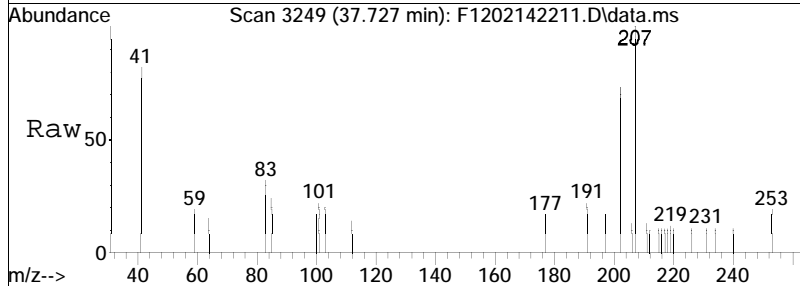
Tgt Ion	Ratio	Lower	Upper
192	100		
191	80.1	42.6	79.0#

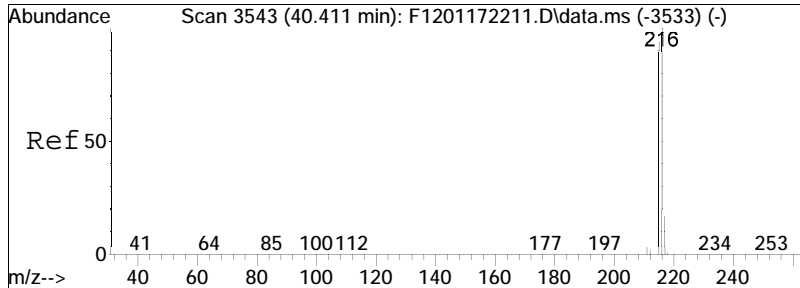




#56  
 Fluoranthene  
 Concen: 2.16 ng/mL M4  
 RT: 37.727 min Scan# 3249  
 Delta R.T. -0.037 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

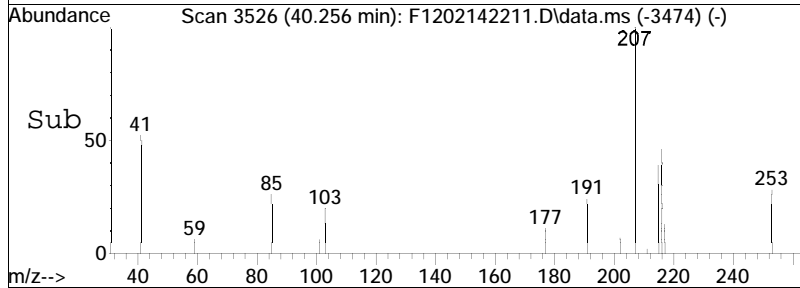
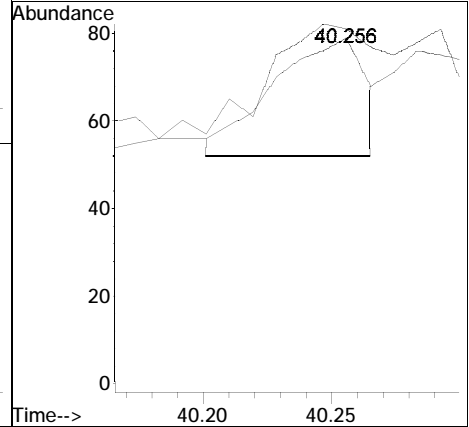
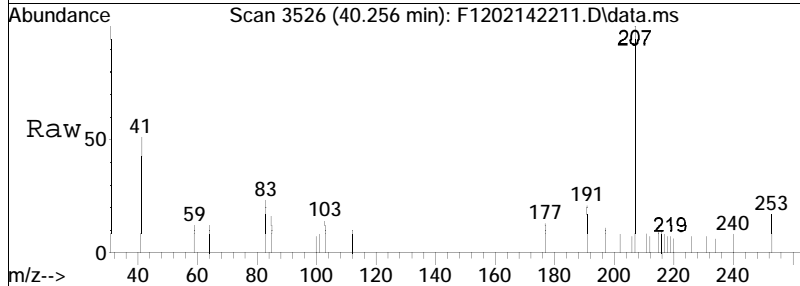
Tgt Ion	Resp	Lower	Upper
202	100		
101	29.4	8.4	15.6#

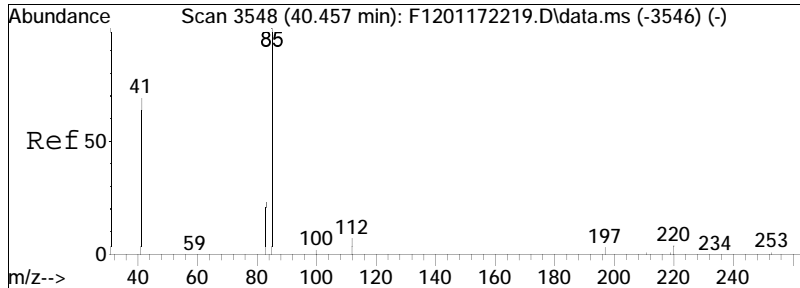




#57  
 Benzo(b)fluorene  
 Concen: 0.29 ng/mL M3  
 RT: 40.256 min Scan# 3526  
 Delta R.T. -0.027 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

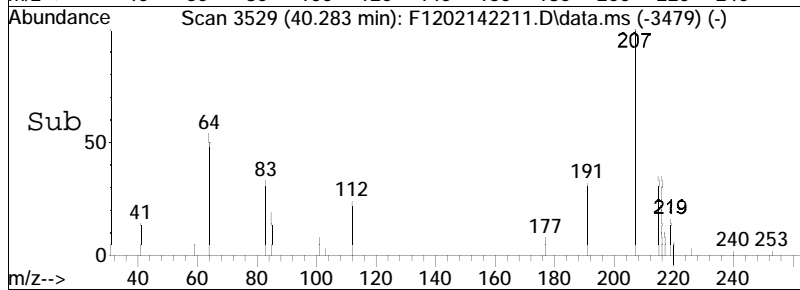
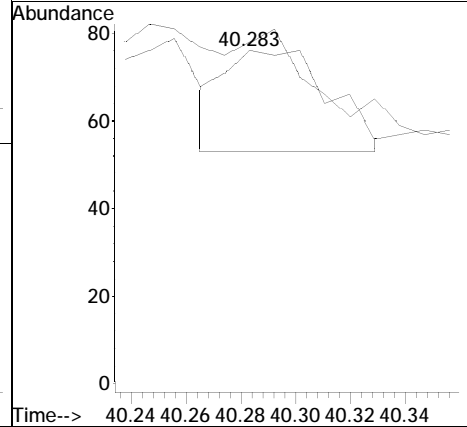
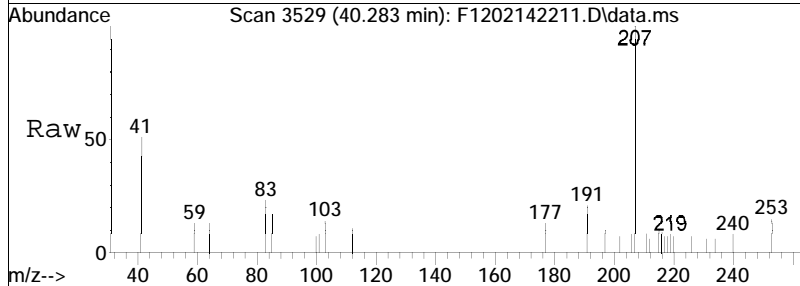
Tgt Ion	Resp	Lower	Upper
216	100		
215	0.0	91.7	170.3#

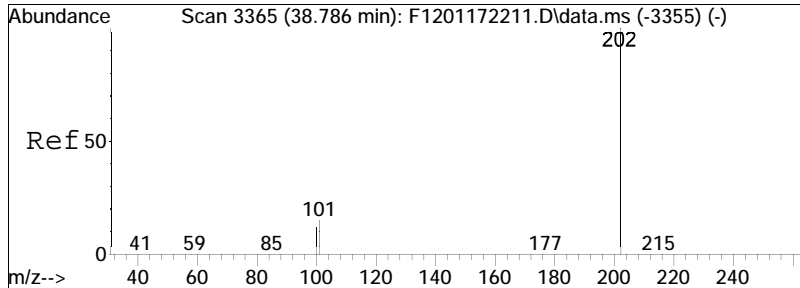




#58  
 7H-Benzo(c)fluorene  
 Concen: 0.27 ng/mL M3  
 RT: 40.283 min Scan# 3529  
 Delta R.T. -0.046 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

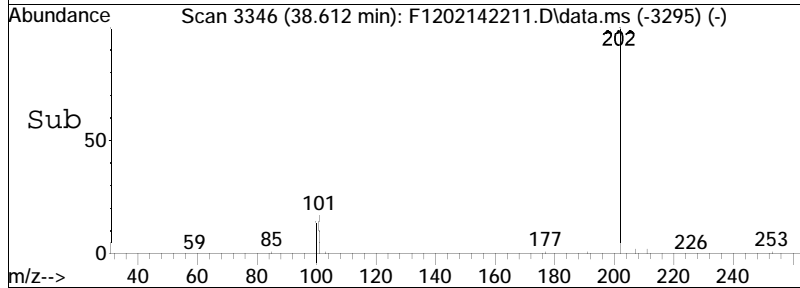
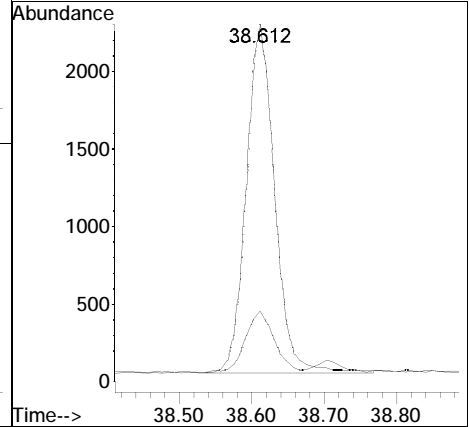
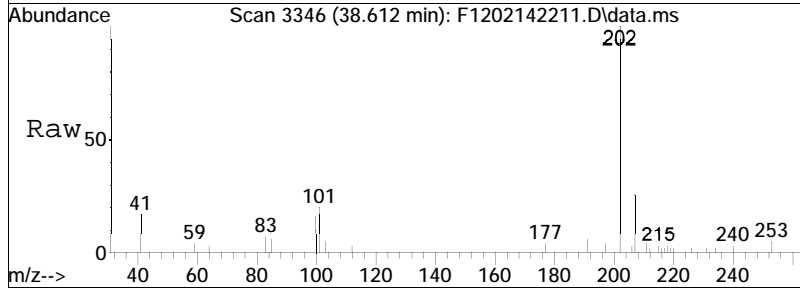
Tgt Ion: 216 Resp: 62  
 Ion Ratio Lower Upper  
 216 100  
 215 0.0 99.9 185.5#

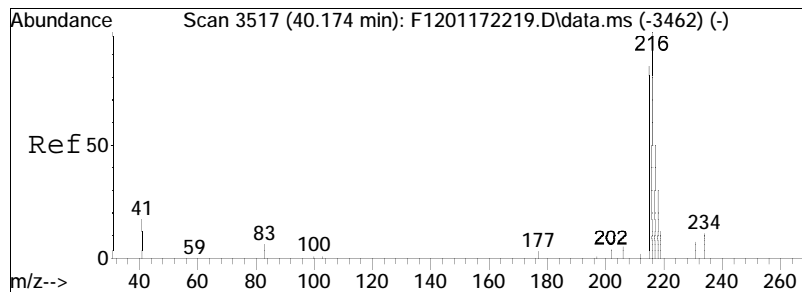




#59  
 Pyrene  
 Concen: 15.91 ng/mL  
 RT: 38.612 min Scan# 3346  
 Delta R.T. -0.037 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

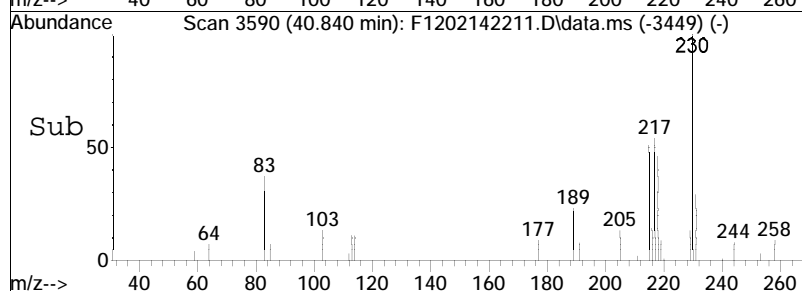
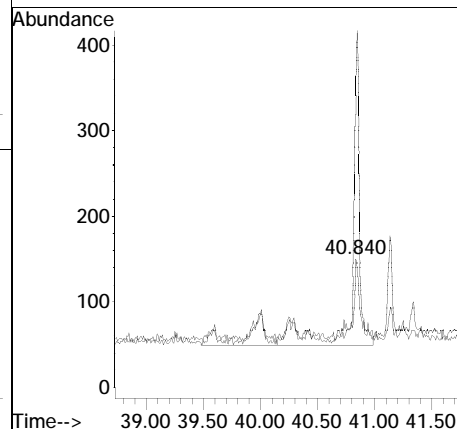
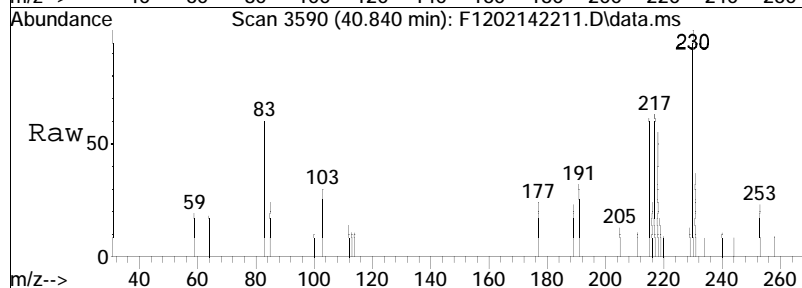
Tgt Ion	Ratio	Lower	Upper
202	100		
101	18.1	21.0	39.0#

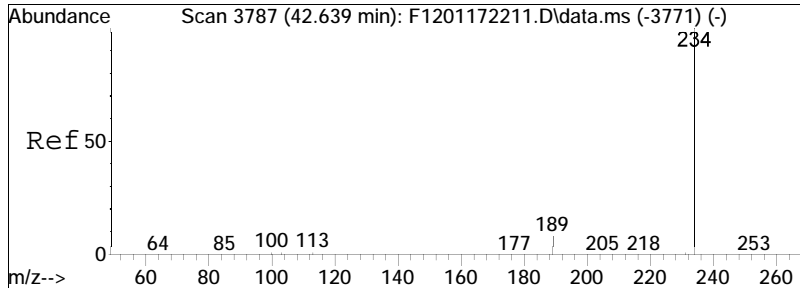




#63  
 Cl-Fluoranthenes/Pyrenes  
 Concen: 3.02 ng/mL M5  
 RT: 40.840 min Scan# 3590  
 Delta R.T. 0.788 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

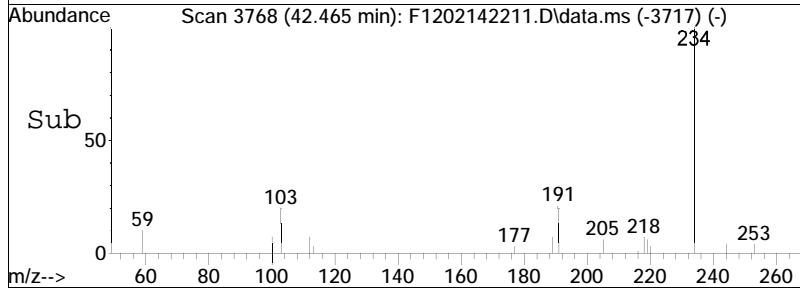
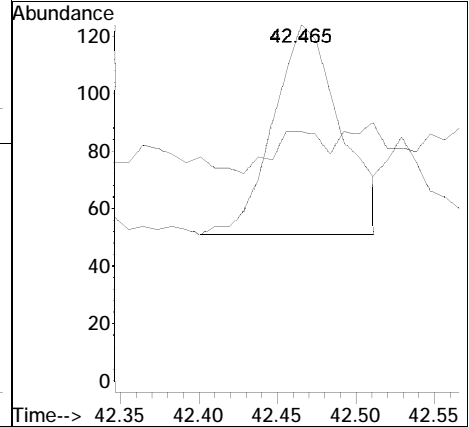
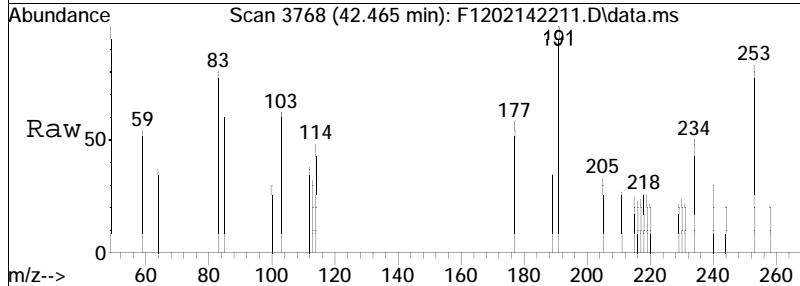
Tgt Ion	Ratio	Lower	Upper
216	100		
215	0.0	65.7	122.1#



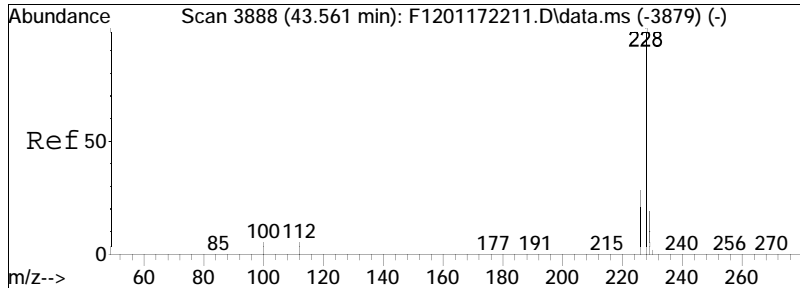


#67  
 Naphthobenzothiophene-2,1-D  
 Concen: 0.57 ng/mL  
 RT: 42.465 min Scan# 3768  
 Delta R.T. -0.037 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

Tgt Ion: 234 Resp: 219  
 Ion Ratio Lower Upper  
 234 100  
 189 0.0 18.9 35.1#

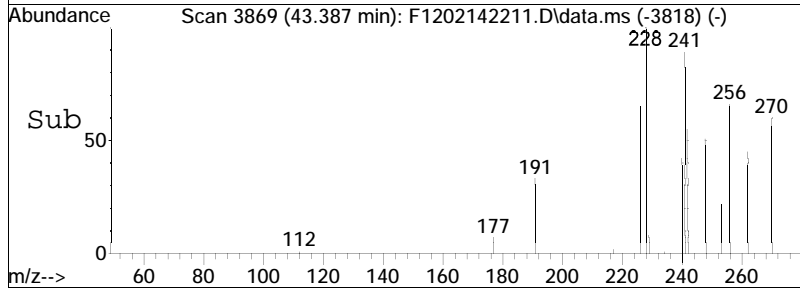
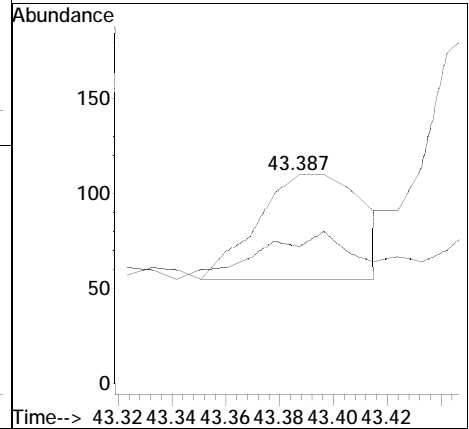
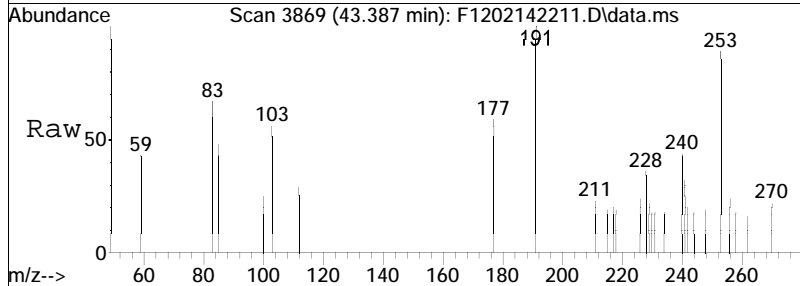


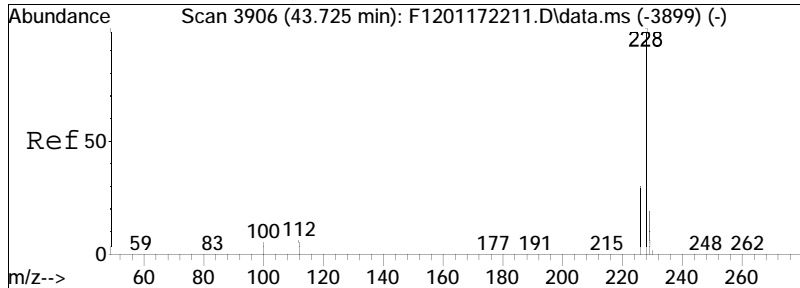




#75  
 Benz[a]anthracene  
 Concen: 0.42 ng/mL  
 RT: 43.387 min Scan# 3869  
 Delta R.T. -0.037 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

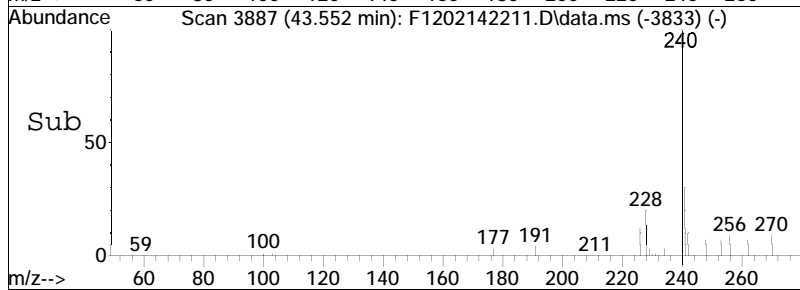
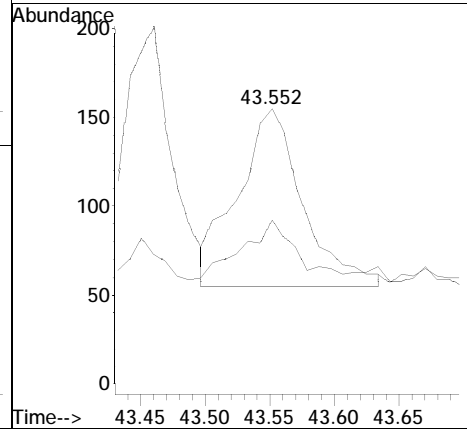
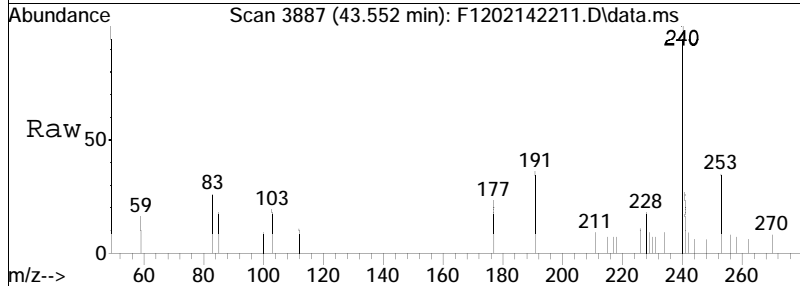
Tgt Ion	Resp	Lower	Upper
228	100		
226	0.0	19.1	35.5#

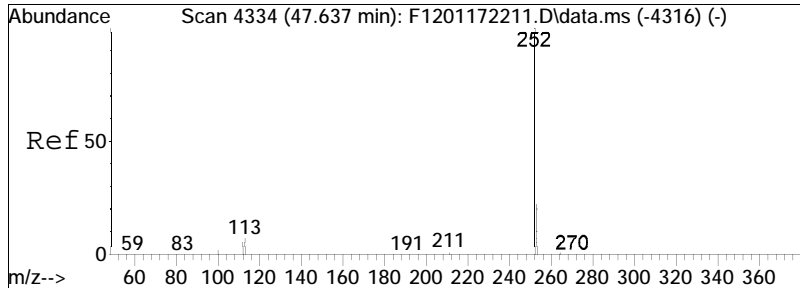




#76  
 Chrysene  
 Concen: 0.99 ng/mL M6  
 RT: 43.552 min Scan# 3887  
 Delta R.T. -0.009 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

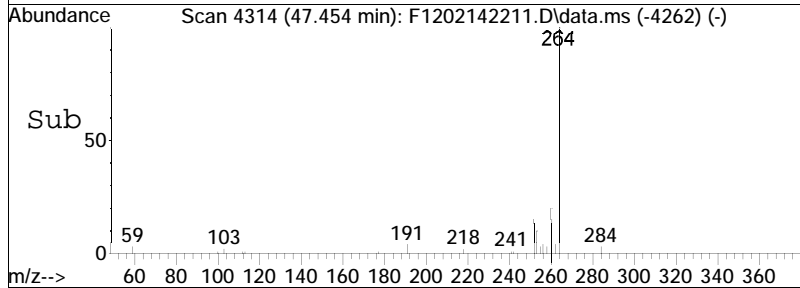
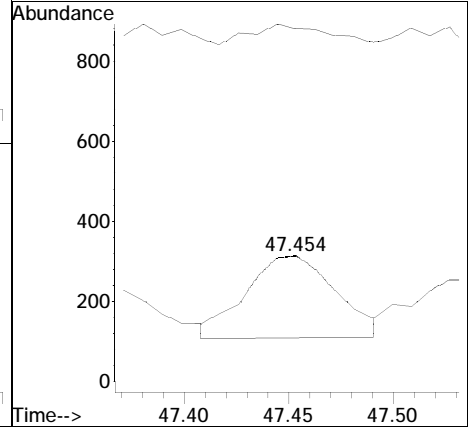
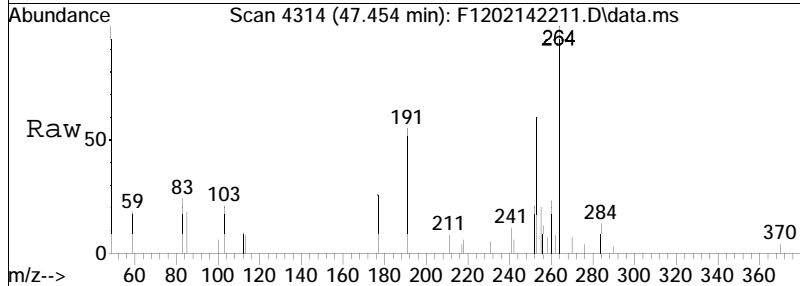
Tgt Ion: 228 Resp: 349  
 Ion Ratio Lower Upper  
 228 100  
 226 0.0 27.8 51.6#

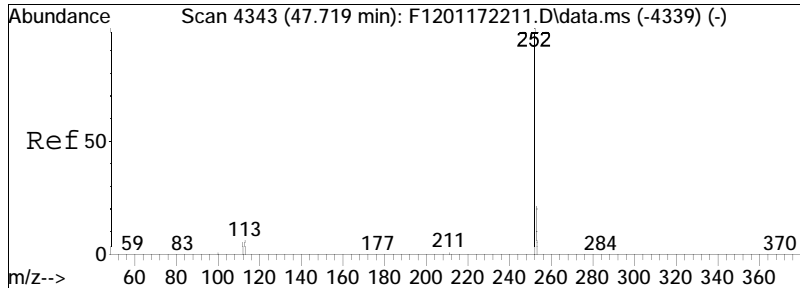




#85  
 Benzo[b]fluoranthene  
 Concen: 1.51 ng/mL  
 RT: 47.454 min Scan# 4314  
 Delta R.T. -0.028 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

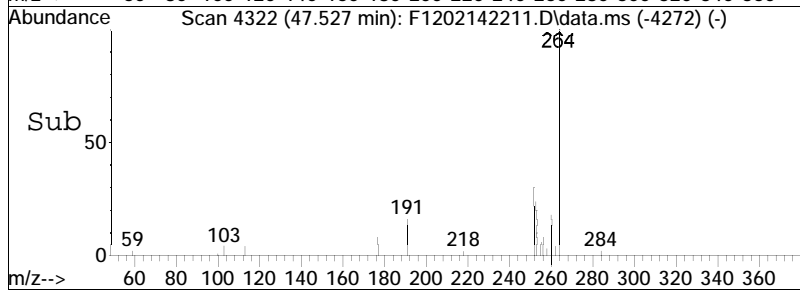
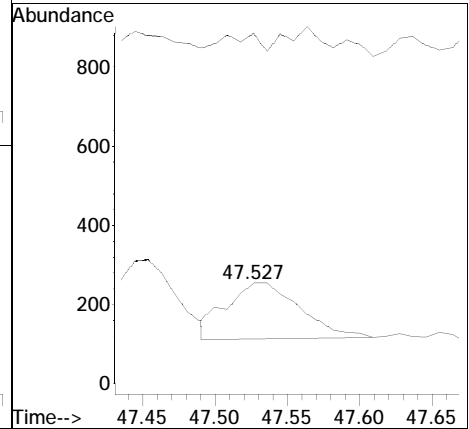
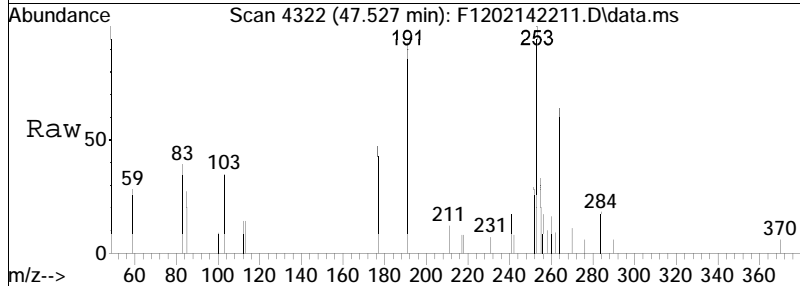
Tgt Ion: 252 Resp: 607  
 Ion Ratio Lower Upper  
 252 100  
 253 0.0 16.6 30.8#

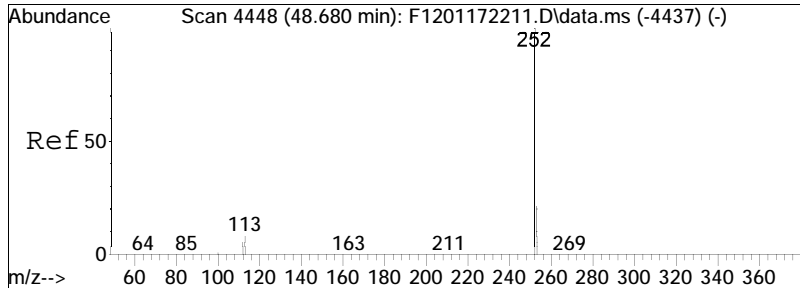




#86  
 Benzo[j]+[k]fluoranthene  
 Concen: 1.19 ng/mL  
 RT: 47.527 min Scan# 4322  
 Delta R.T. -0.046 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

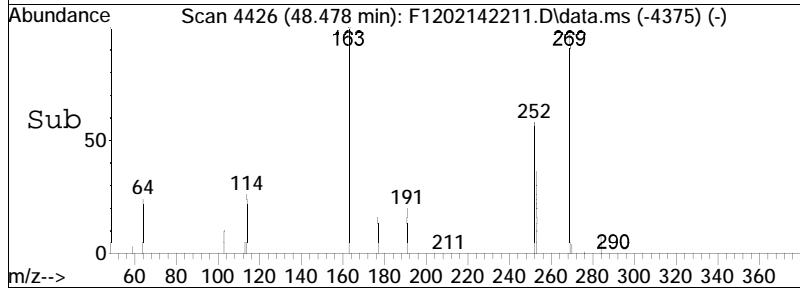
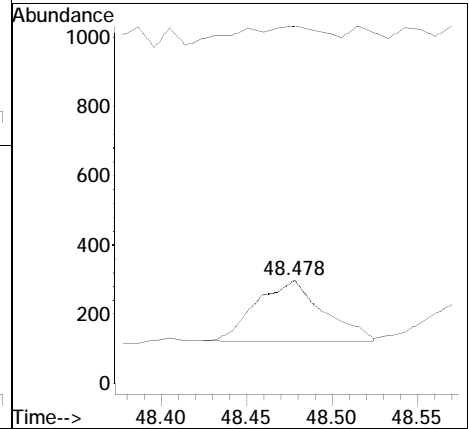
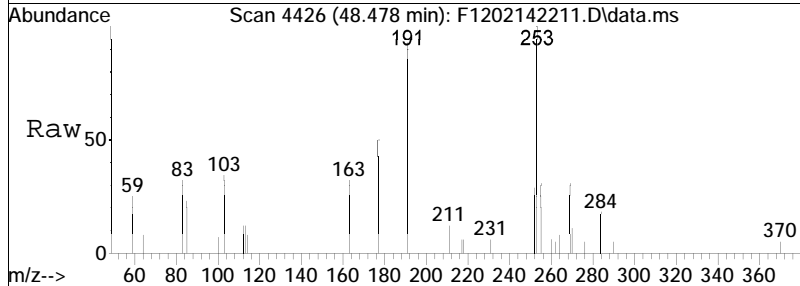
Tgt Ion	Resp	Lower	Upper
252	100		
253	0.0	16.4	30.4#

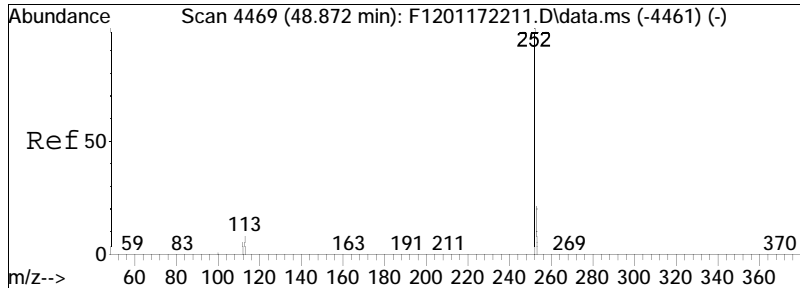




#88  
 Benzo[e]pyrene  
 Concen: 1.21 ng/mL  
 RT: 48.478 min Scan# 4426  
 Delta R.T. -0.037 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

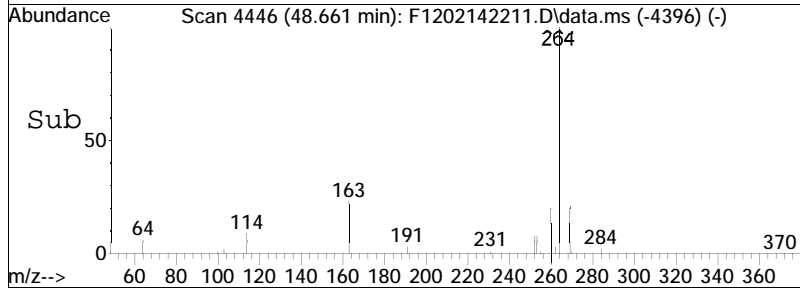
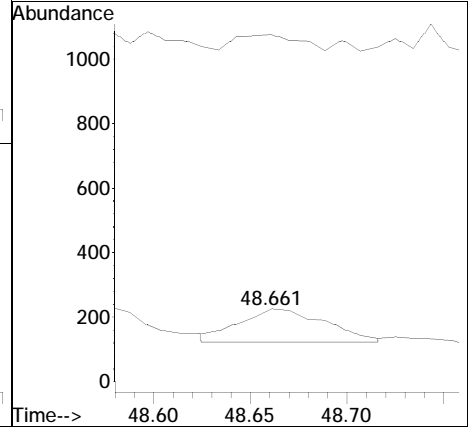
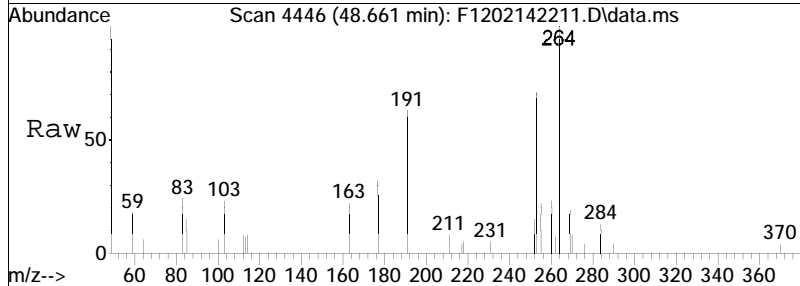
Tgt Ion: 252 Resp: 481  
 Ion Ratio Lower Upper  
 252 100  
 253 0.0 16.8 31.2#

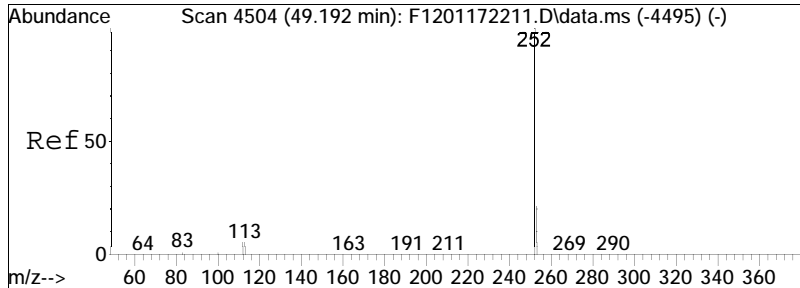




#90  
 Benzo[a]pyrene  
 Concen: 0.82 ng/mL M3  
 RT: 48.661 min Scan# 4446  
 Delta R.T. -0.046 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

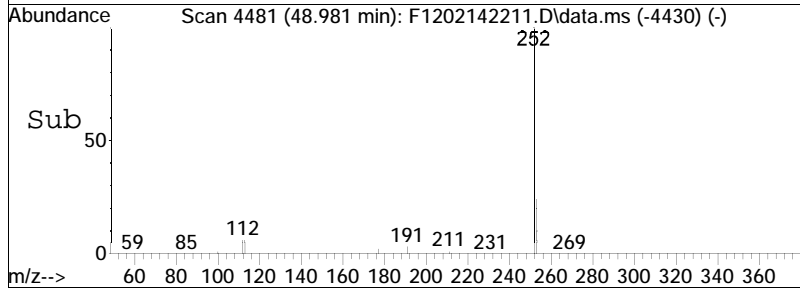
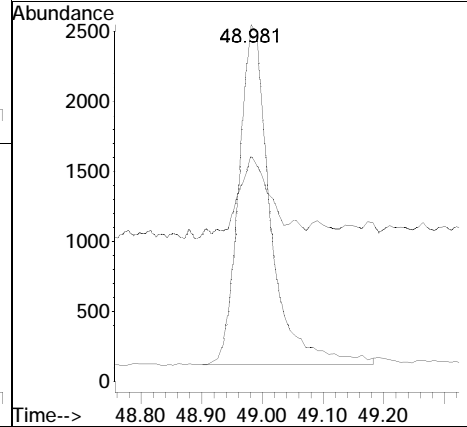
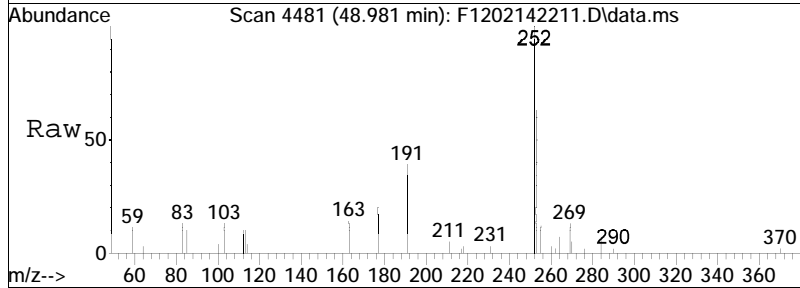
Tgt Ion: 252 Resp: 318  
 Ion Ratio Lower Upper  
 252 100  
 253 616.4 16.8 31.2#

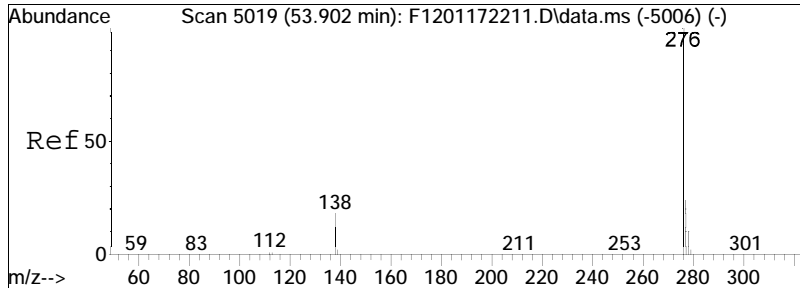




#91  
 Perylene  
 Concen: 22.08 ng/mL  
 RT: 48.981 min Scan# 4481  
 Delta R.T. -0.037 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

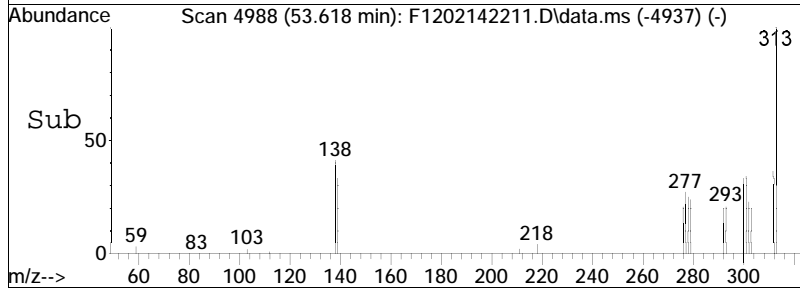
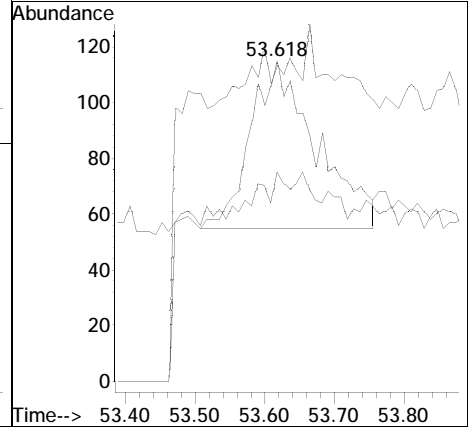
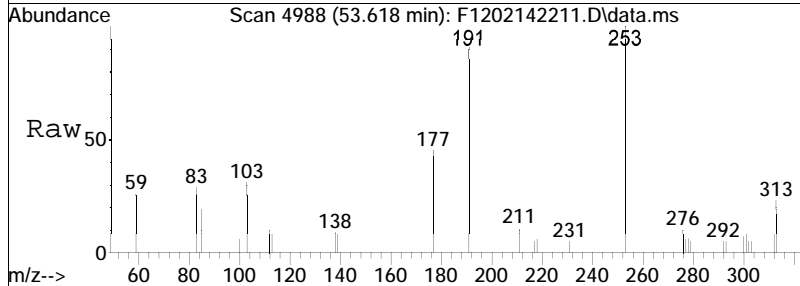
Tgt Ion	Resp	Lower	Upper
252	100		
253	24.8	17.3	32.1



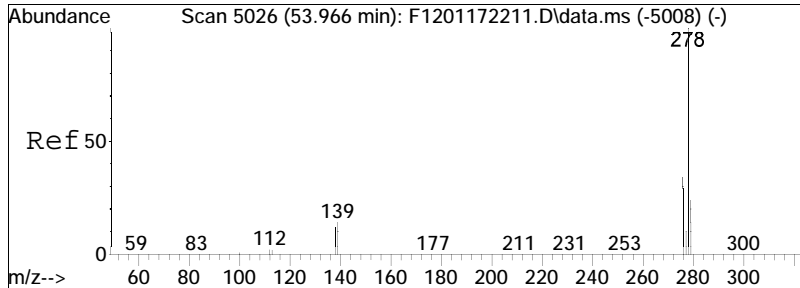


#92  
 Indeno[1,2,3-cd]pyrene  
 Concen: 0.74 ng/mL  
 RT: 53.618 min Scan# 4988  
 Delta R.T. -0.037 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

Tgt Ion	Resp	Lower	Upper
276	100		
138	0.0	12.2	22.7#
277	0.0	16.7	30.9#

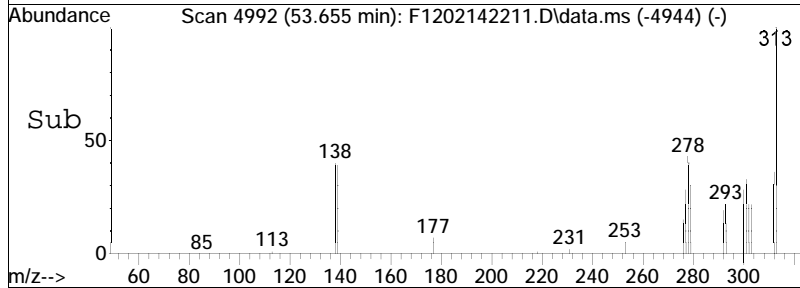
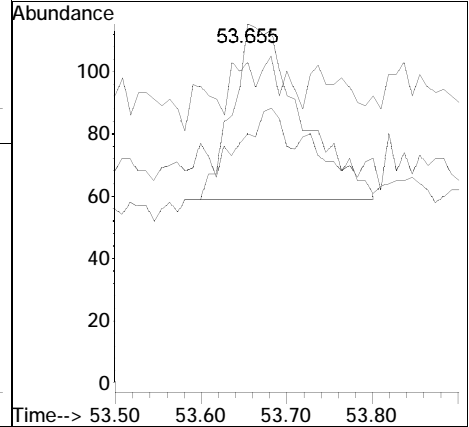
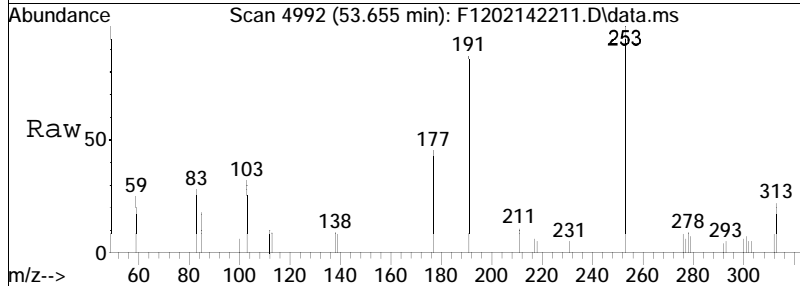


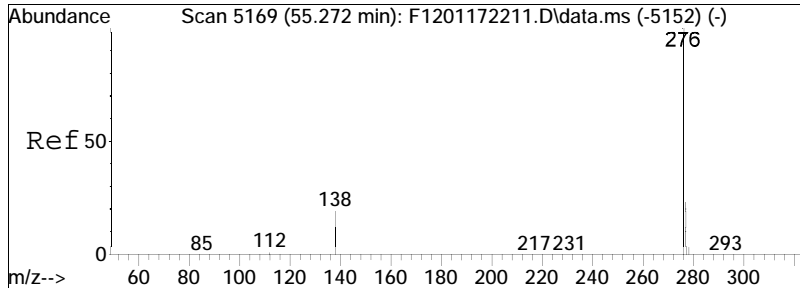




#93  
 Dibenz[ah]+[ac]anthracene  
 Concen: 0.67 ng/mL  
 RT: 53.655 min Scan# 4992  
 Delta R.T. -0.064 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

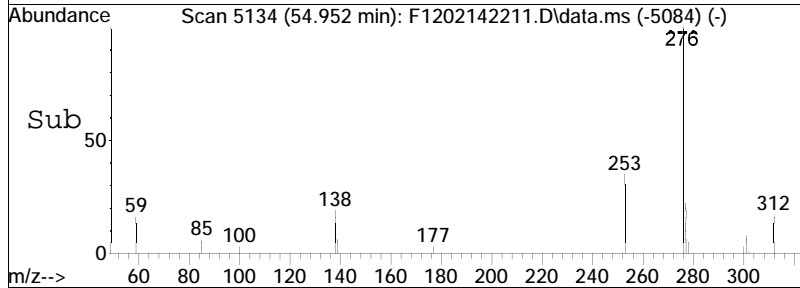
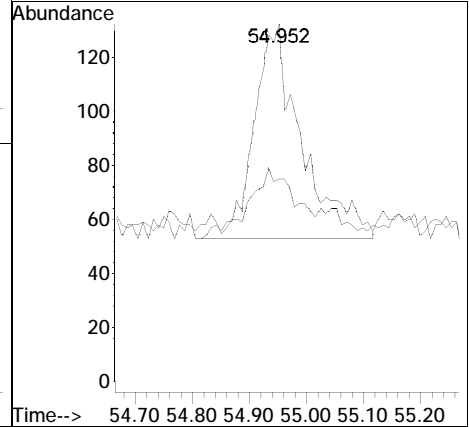
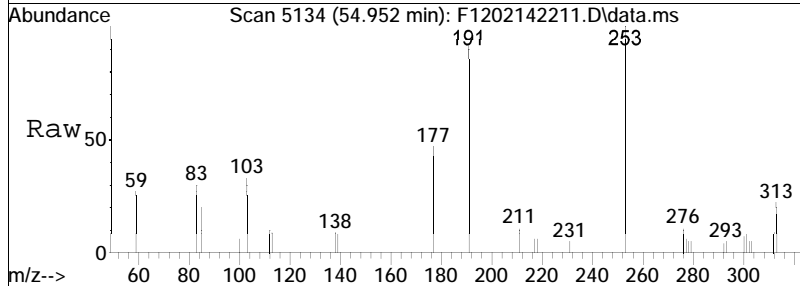
Tgt Ion	Resp	Lower	Upper
278	100		
139	0.0	10.1	18.7#
279	0.0	16.6	30.8#





#94  
 Benzo[g,h,i]perylene  
 Concen: 0.97 ng/mL  
 RT: 54.952 min Scan# 5134  
 Delta R.T. -0.046 min  
 Lab File: F1202142211.D  
 Acq: 15 Feb 2022 1:22 am

Tgt Ion	Resp	Lower	Upper
276	100		
277	26.5	16.4	30.6



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142212.D  
 Acq On : 15 Feb 2022 2:47 am  
 Operator : PAH12:MJS  
 Sample : 12206076-04,32,,  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 21 15:45:00 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	26.986	164	79578M4	500.000	ng/mL	-0.04	
74) Chrysene-d12	43.451	240	161906	500.000	ng/mL	-0.05	
System Monitoring Compounds							
8) Naphthalene-d8	20.005	136	146914	428.187	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	42.82%#	
40) Phenanthrene-d10	32.862	188	136346	474.289	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	47.43%#	
84) Benzo[b]fluoranthene-d12	47.362	264	167404	444.667	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	44.47%#	
89) Benzo[a]pyrene-d12	48.579	264	120476	422.822	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	42.28%#	
Target Compounds							
2) trans-Decalin	16.656	138	84M2	1.131	ng/mL		Qvalue
3) cis-Decalin	0.000		0	N.D.			
4) C1-Decalins	18.590	152	440M5	5.923	ng/mL		
5) C2-Decalins	19.923	166	925M5	12.452	ng/mL		
6) C3-Decalins	0.000		0	N.D.	d		
7) C4-Decalins	0.000		0	N.D.	d		
9) Naphthalene	20.087	128	71547	188.586	ng/mL		100
10) C1-Naphthalenes	22.779	142	21861M5	57.622	ng/mL		
11) C2-Naphthalenes	25.279	156	13953M5	36.778	ng/mL		
12) C3-Naphthalenes	27.962	170	16543M5	43.605	ng/mL		
13) C4-Naphthalenes	30.727	184	13638M5	35.947	ng/mL		
14) 2-Methylnaphthalene	22.779	142	15760	65.413	ng/mL		100
15) 1-Methylnaphthalene	23.208	142	5929	25.926	ng/mL		100
16) Benzothiophene	20.306	134	2548	7.938	ng/mL		100
17) C1-Benzo(b)thiophenes	22.916	148	3132M5	9.758	ng/mL		
18) C2-Benzo(b)thiophenes	25.343	162	2551M5	7.948	ng/mL		
19) C3-Benzo(b)thiophenes	27.442	176	3902M5	12.157	ng/mL		
20) C4-Benzo(b)thiophenes	29.048	190	3177M5	9.898	ng/mL		
21) Biphenyl	24.659	154	6836	23.179	ng/mL		100
22) 2,6-Dimethylnaphthalene	25.279	156	4073	19.845	ng/mL		100
23) Dibenzofuran	27.752	168	5419	17.233	ng/mL		89
24) Acenaphthylene	26.374	152	7777	21.479	ng/mL		100
25) Acenaphthene	27.114	153	25120	109.658	ng/mL		99
26) 2,3,5-Trimethylnaphthalen	28.656	170	1222M3	6.206	ng/mL		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142212.D  
 Acq On : 15 Feb 2022 2:47 am  
 Operator : PAH12:MJS  
 Sample : 12206076-04,32,,  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 21 15:45:00 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	29.130	166	11196M4	44.179	ng/mL	
28) C1-Fluorenes	31.356	180	7107M5	28.044	ng/mL	
29) C2-Fluorenes	33.537	194	9302M5	36.706	ng/mL	
30) C3-Fluorenes	35.527	208	8466M5	33.407	ng/mL	
31) Dibenzothiophene	32.451	184	34511	94.409	ng/mL#	87
32) 4-Methyldibenzothiophene(	34.230	198	4970	13.596	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.550	198	3176M3	8.688	ng/mL	
34) 1-Methyldibenzothiophene(	34.997	198	1661	4.544	ng/mL	100
36) C1-Dibenzothiophenes	34.632	198	36070M5	98.674	ng/mL	
36) C1-Dibenzothiophenes BS	34.632	198	12100M5	33.101	ng/mL	
37) C2-Dibenzothiophenes	36.275	212	14383M5	39.347	ng/mL	
38) C3-Dibenzothiophenes	37.717	226	11239M5	30.746	ng/mL	
39) C4-Dibenzothiophenes	39.398	240	5485M5	15.005	ng/mL	
41) Phenanthrene	32.944	178	295601	791.297	ng/mL	96
42) 3-Methylphenanthrene(3MP)	34.906	192	18080	48.399	ng/mL	96
43) 2-Methylphenanthrene(2MP)	35.016	192	21278	56.959	ng/mL	95
44) 2-Methylanthracene(2MA)	35.180	192	3347	8.960	ng/mL#	39
45) 9/4-Methylphenanthrene(9M	35.371	192	14418M3	38.596	ng/mL	
47) C1-Phenanthrenes/Anthrace	35.016	192	69562M5	186.211	ng/mL	
48) C2-Phenanthrenes/Anthrace	36.942	206	61220M5	163.880	ng/mL	
48) C2-Phenanthrenes/Anthr BS	36.942	206	43102M5	115.380	ng/mL	
50) C3-Phenanthrenes/Anthrace	39.014	220	23772M5	63.635	ng/mL	
51) C4-Phenanthrenes/Anthrace	39.936	234	11516M5	30.827	ng/mL	
52) Retene	39.936	234	1986M4	16.042	ng/mL	
53) Anthracene	33.126	178	22165	63.674	ng/mL	99
54) Carbazole	33.792	167	2201M4	6.092	ng/mL	
55) 1-Methylphenanthrene	35.454	192	11624	46.314	ng/mL	97
56) Fluoranthene	37.727	202	267050M4	712.870	ng/mL	
57) Benzo(b)fluorene	40.247	216	9590M3	40.626	ng/mL	
58) 7H-Benzo(c)fluorene	40.292	216	4214M3	17.852	ng/mL	
59) Pyrene	38.612	202	390218	1003.751	ng/mL#	76
60) 2-Methylpyrene	40.402	216	11387M3	29.291	ng/mL	
61) 4-Methylpyrene	40.776	216	9990M3	25.697	ng/mL	
62) 1-Methylpyrene	40.886	216	9535	24.527	ng/mL	78
63) C1-Fluoranthenes/Pyrenes	40.000	216	82079M5	211.130	ng/mL	
64) C2-Fluoranthenes/Pyrenes	42.465	230	25775M5	66.301	ng/mL	
65) C3-Fluoranthenes/Pyrenes	43.935	244	13338M5	34.309	ng/mL	
66) C4-Fluoranthenes/Pyrenes	45.186	258	7693M5	19.789	ng/mL	
67) Naphthobenzothiophene-2,1	42.465	234	19511	50.064	ng/mL#	65

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142212.D  
 Acq On : 15 Feb 2022 2:47 am  
 Operator : PAH12:MJS  
 Sample : 12206076-04,32,,  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 21 15:45:00 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	42.803	234	4006	10.279	ng/mL#	23
69) Naphthobenzothiophene-2,3	43.104	234	6861M3	17.605	ng/mL	
70) C1-Naphthobenzothiophenes	43.862	248	10101M5	25.918	ng/ml	
71) C2-Naphthobenzothiophenes	46.210	262	8008M5	20.548	ng/ml	
72) C3-Naphthobenzothiophenes	47.262	276	5084M5	13.045	ng/ml	
73) C4-Naphthobenzothiophenes	48.588	290	3007M5	7.716	ng/mL	
75) Benz[a]anthracene	43.397	228	86550M3	221.220	ng/mL	
76) Chrysene	43.552	228	114237	295.137	ng/mL	85
78) C1-Chrysenes	45.031	242	27888M5	72.050	ng/mL	
79) C2-Chrysenes	47.362	256	19484M5	50.338	ng/mL	
79) C2-Chrysenes BS	47.362	256	13760M5	35.550	ng/mL	
81) C3-Chrysenes	48.359	270	12965M5	33.496	ng/mL	
82) C4-Chrysenes	0.000		0	N.D.	d	
85) Benzo[b]fluoranthene	47.454	252	61317	139.011	ng/mL	98
86) Benzo[j]+[k]fluoranthene	47.518	252	76063	167.082	ng/mL	94
87) Benzo[a]fluoranthene	47.838	252	13770M3	30.248	ng/mL	
88) Benzo[e]pyrene	48.469	252	66635	152.889	ng/mL	96
90) Benzo[a]pyrene	48.661	252	97724	231.237	ng/mL	97
91) Perylene	48.981	252	51326	118.416	ng/mL	91
92) Indeno[1,2,3-cd]pyrene	53.600	276	62881M3	108.565	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.655	278	9926M4	19.523	ng/mL	
94) Benzo[g,h,i]perylene	54.943	276	95597	186.551	ng/mL	98

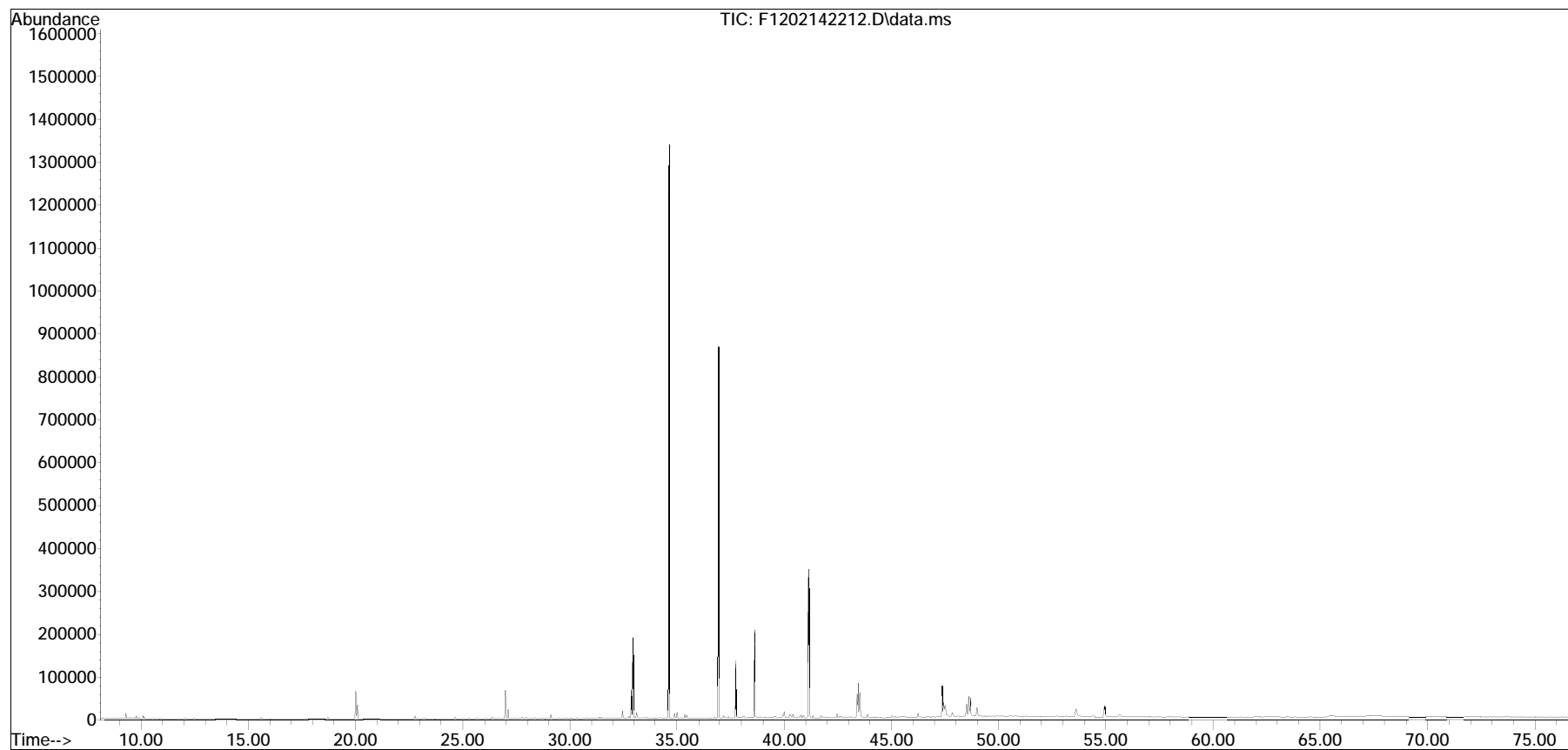
(#) = qualifier out of range (m) = manual integration (+) = signals summed

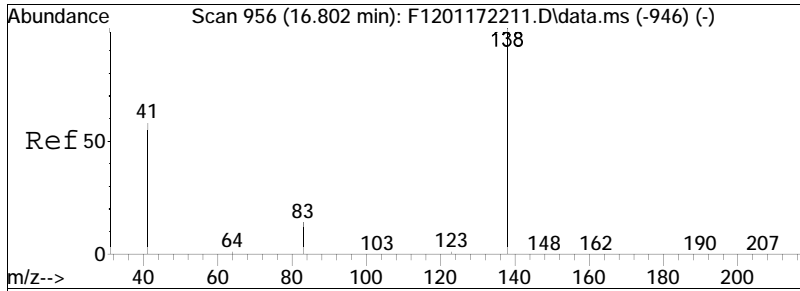
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
Data File : F1202142212.D  
Acq On : 15 Feb 2022 2:47 am  
Operator : PAH12:MJS  
Sample : 12206076-04,32,,  
Misc : WG1605097,WG1603644,ICAL18670  
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 21 15:45:00 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Wed Feb 09 13:46:27 2022  
Response via : Initial Calibration

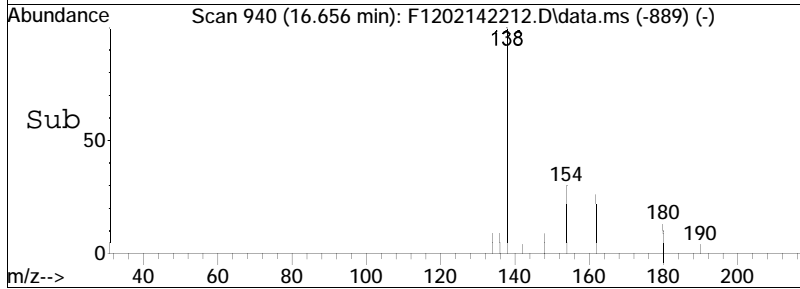
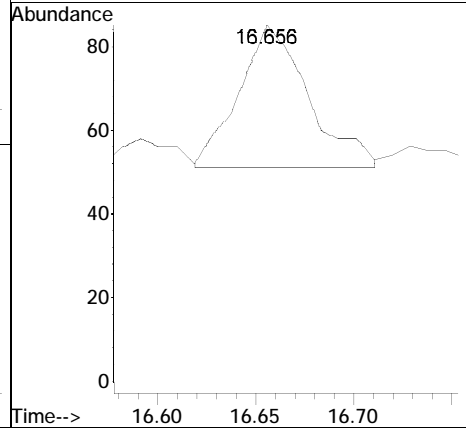
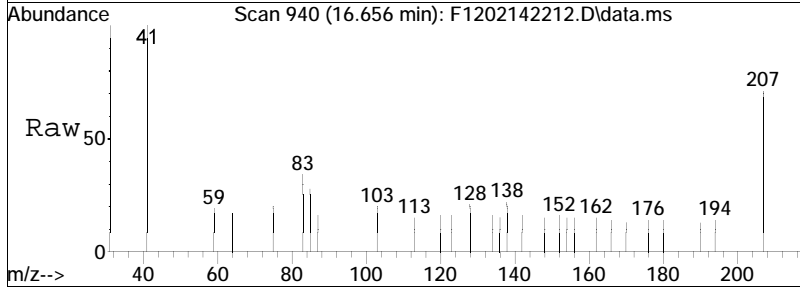
Sub List : ALKPAH - POI+MP+BcF

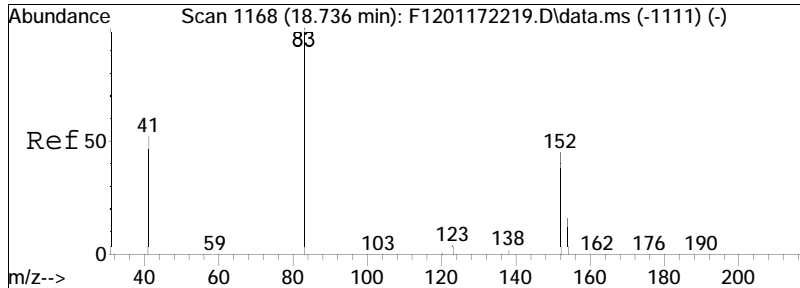




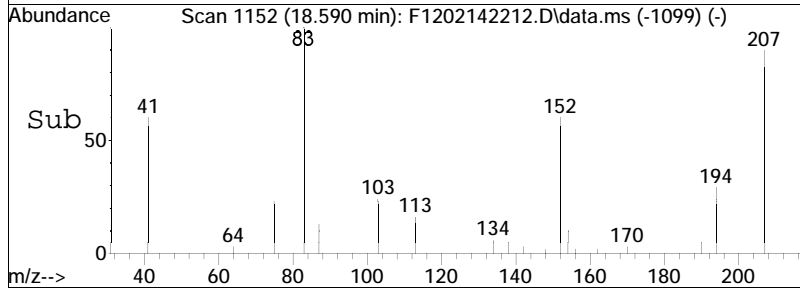
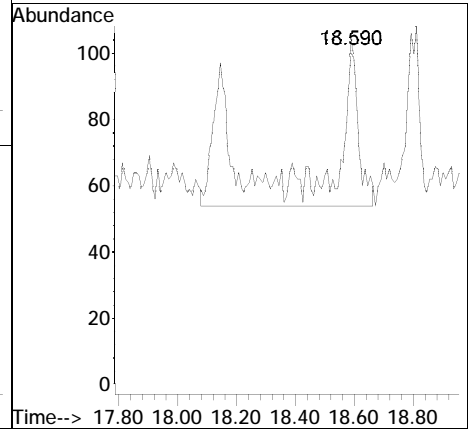
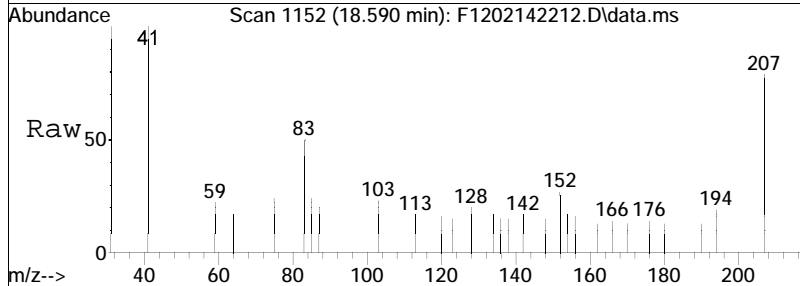
#2  
 trans-Decalin  
 Concen: 1.13 ng/mL M2  
 RT: 16.656 min Scan# 940  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

Tgt Ion: 138 Resp: 84

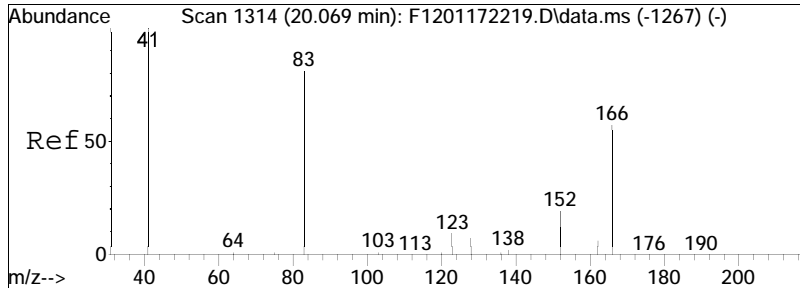




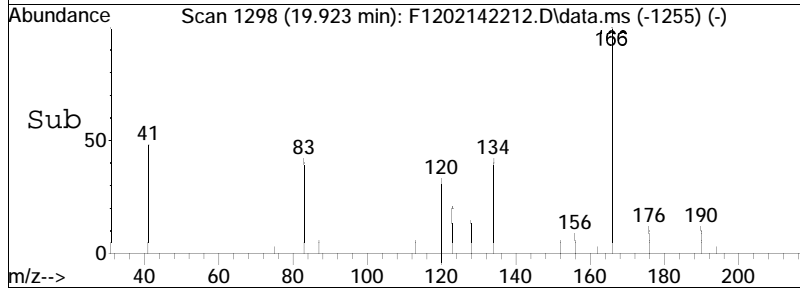
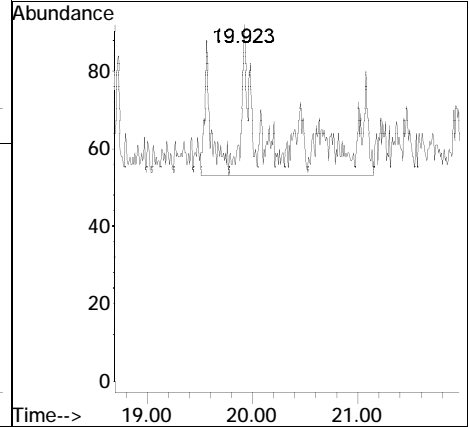
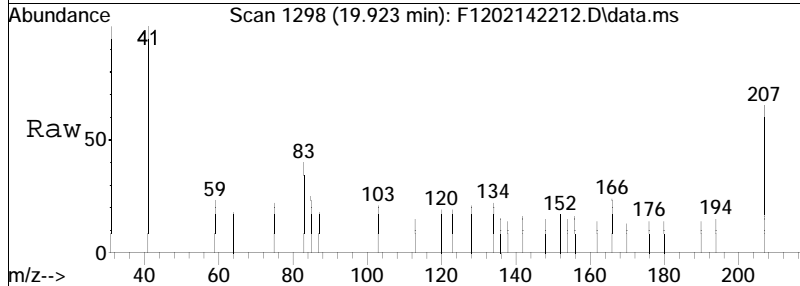
#4  
 C1-Decalins  
 Concen: 5.92 ng/mL M5  
 RT: 18.590 min Scan# 1152  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:152 Resp: 440

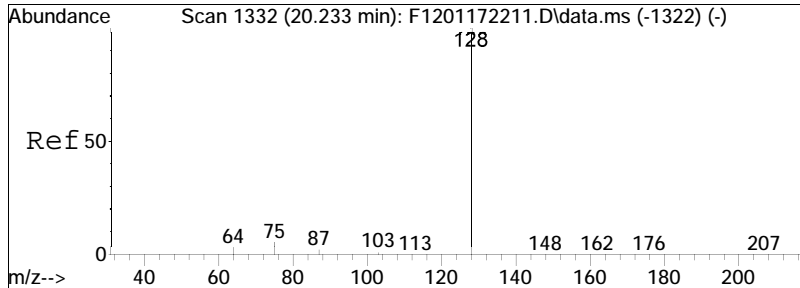




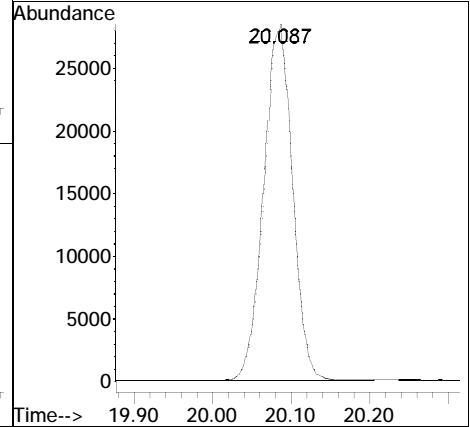
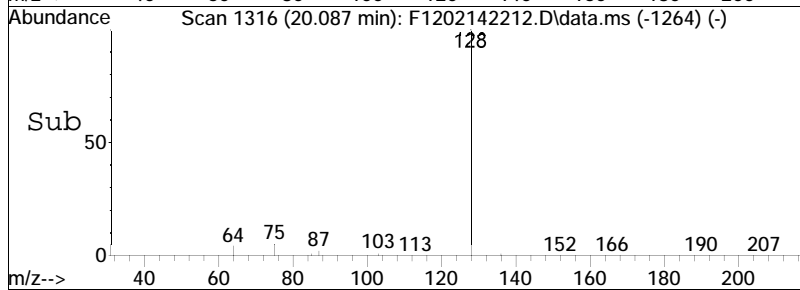
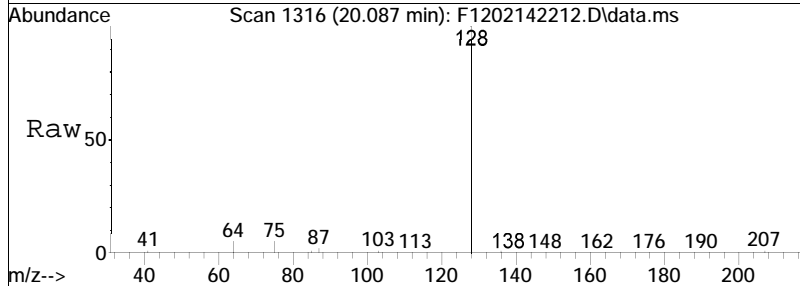


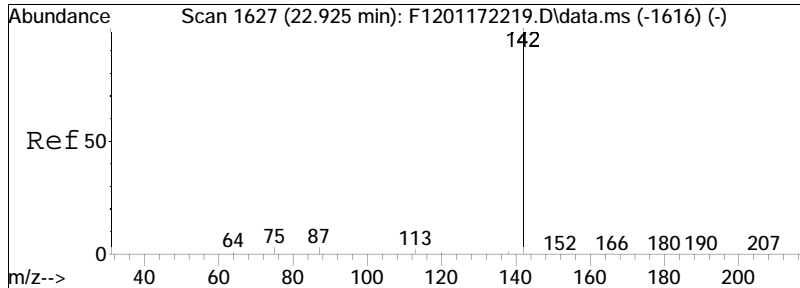
#5  
 C2-Decalins  
 Concen: 12.45 ng/mL M5  
 RT: 19.923 min Scan# 1298  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:166 Resp: 925



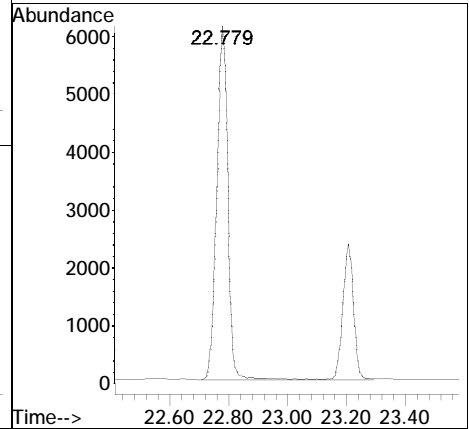
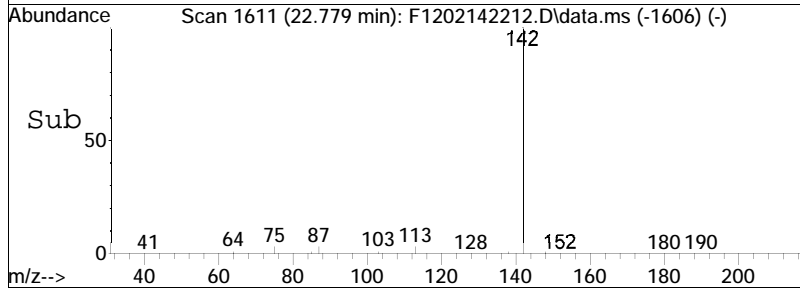
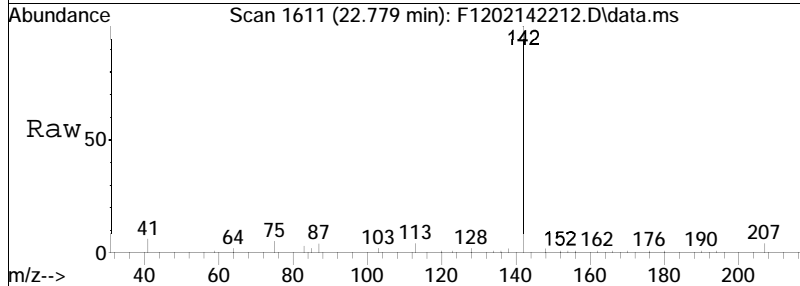


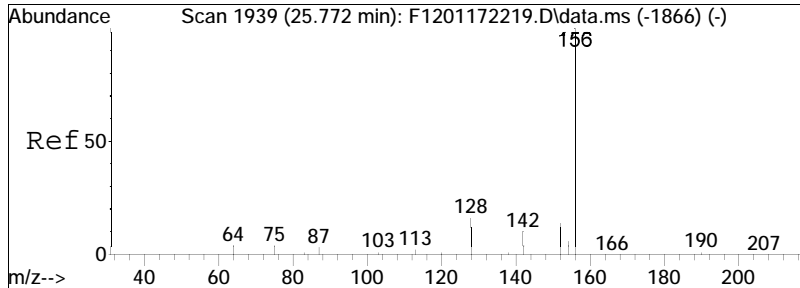
#9  
 Naphthalene  
 Concen: 188.59 ng/mL  
 RT: 20.087 min Scan# 1316  
 Delta R.T. -0.027 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:128 Resp: 71547



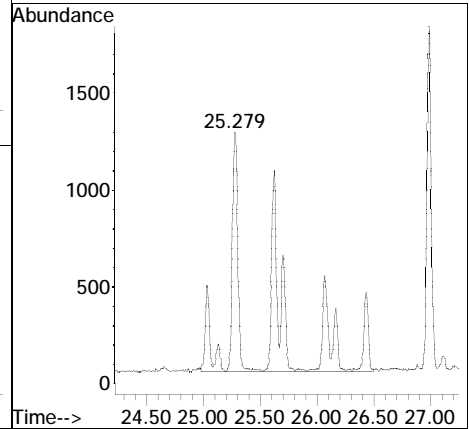
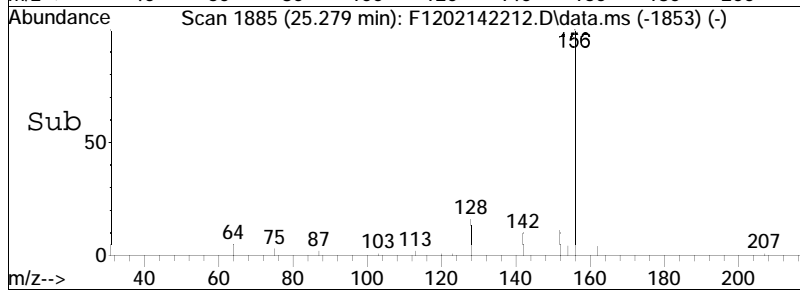
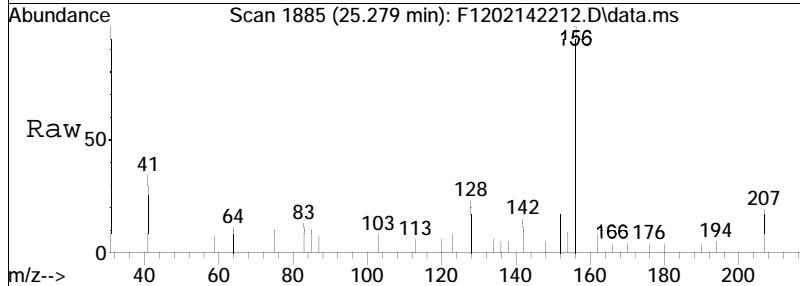


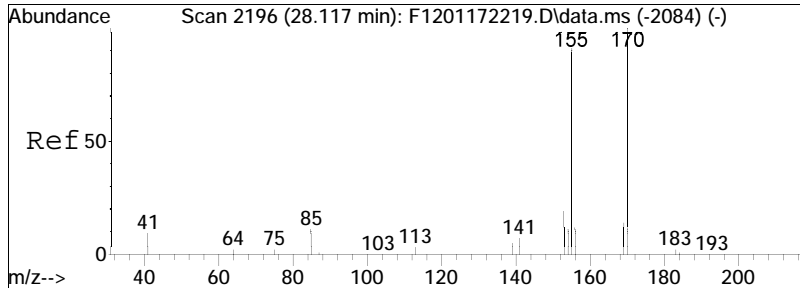
#10  
 Cl-Naphthalenes  
 Concen: 57.62 ng/mL M5  
 RT: 22.779 min Scan# 1611  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:142 Resp: 21861





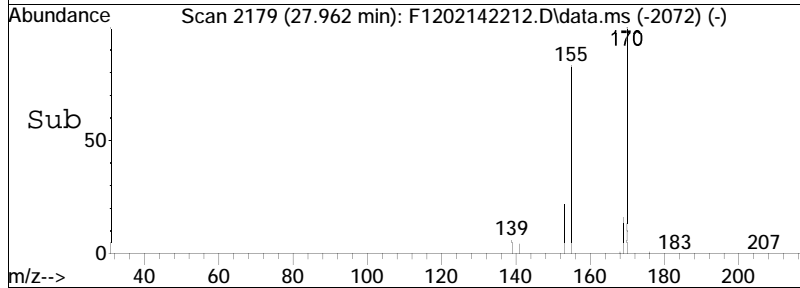
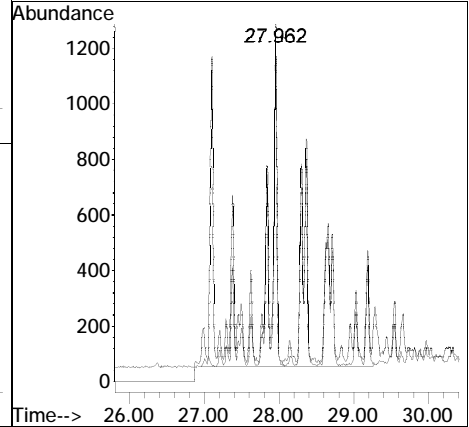
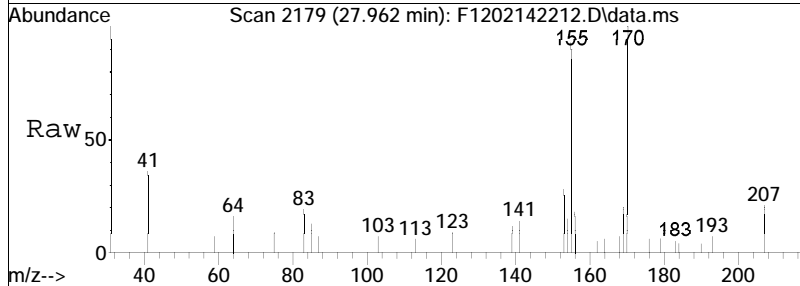
#11  
 C2-Naphthalenes  
 Concen: 36.78 ng/mL M5  
 RT: 25.279 min Scan# 1885  
 Delta R.T. -0.374 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:156 Resp: 13953

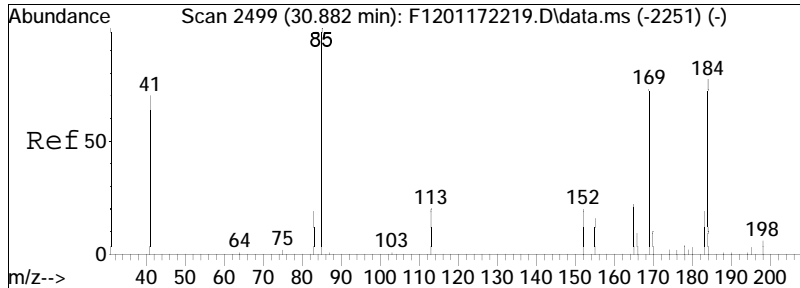




#12  
 C3-Naphthalenes  
 Concen: 43.60 ng/mL M5  
 RT: 27.962 min Scan# 2179  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

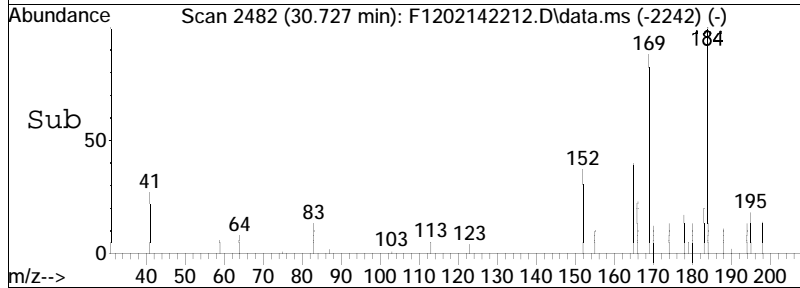
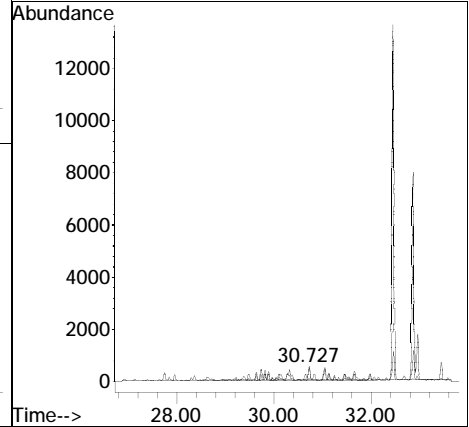
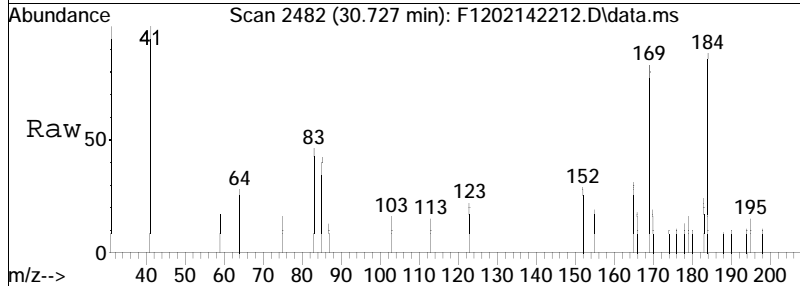
Tgt Ion	Resp	Lower	Upper
170	16543		
155	17.9	63.8	118.4#

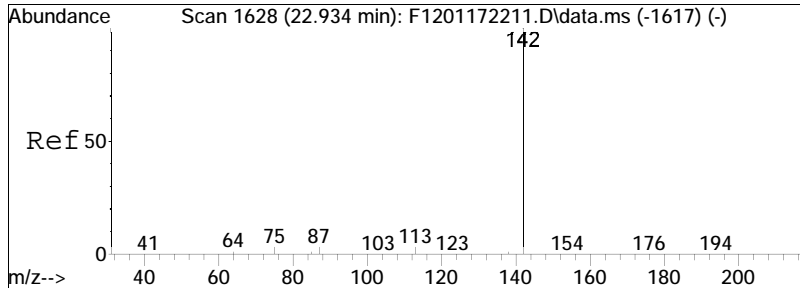




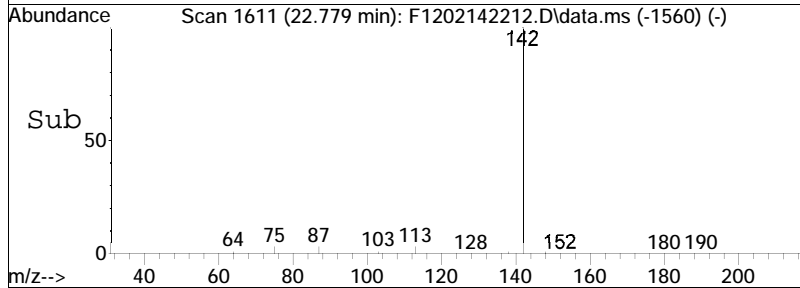
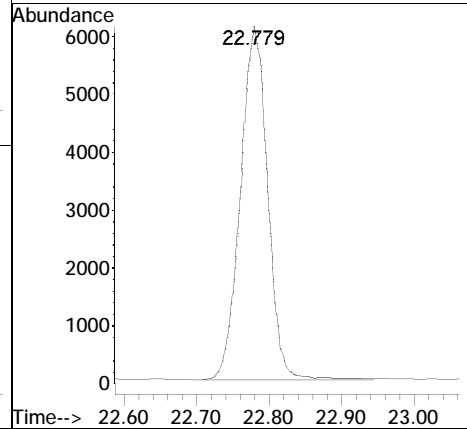
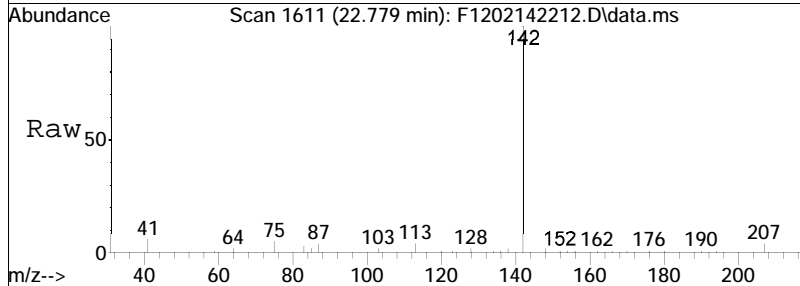
#13  
 C4-Naphthalenes  
 Concen: 35.95 ng/mL M5  
 RT: 30.727 min Scan# 2482  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

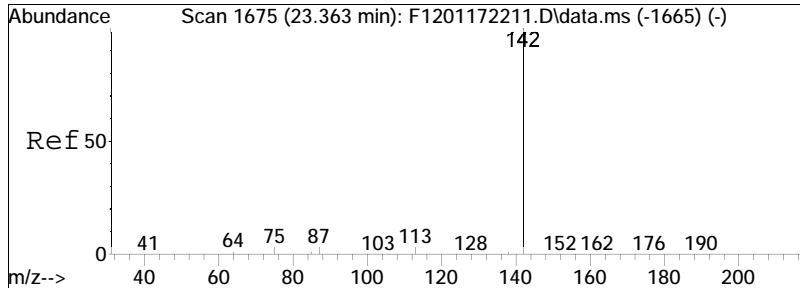
Tgt Ion	Resp	Lower	Upper
184	13638		
184	100		
169	5.3	74.1	137.7#
183	1.1	23.0	42.8#



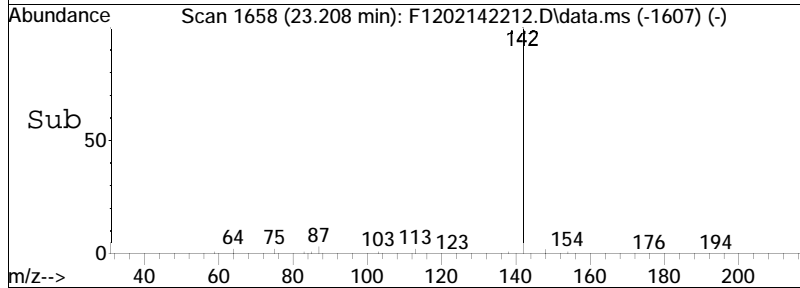
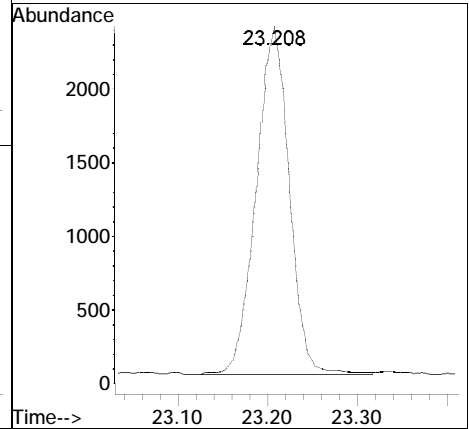
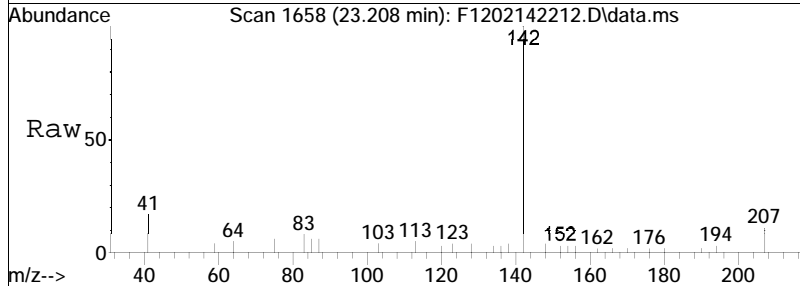


#14  
 2-Methylnaphthalene  
 Concen: 65.41 ng/mL  
 RT: 22.779 min Scan# 1611  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:142 Resp: 15760

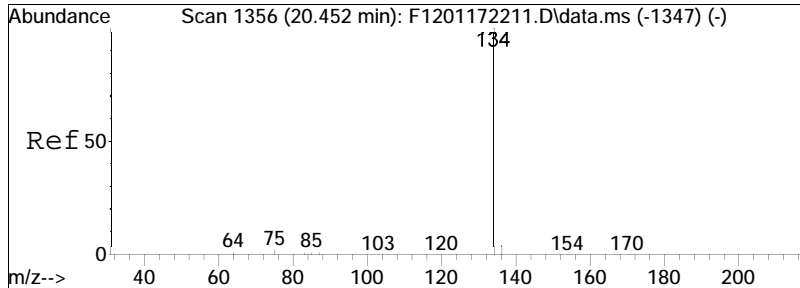




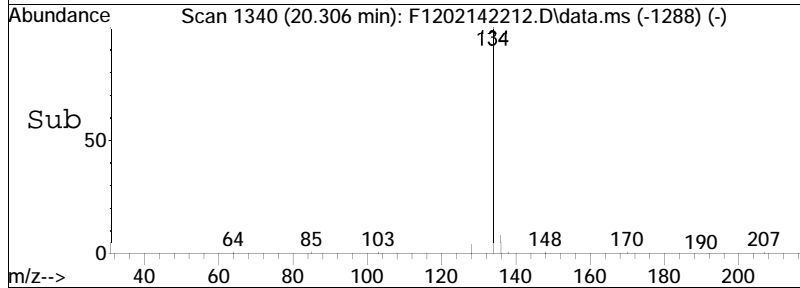
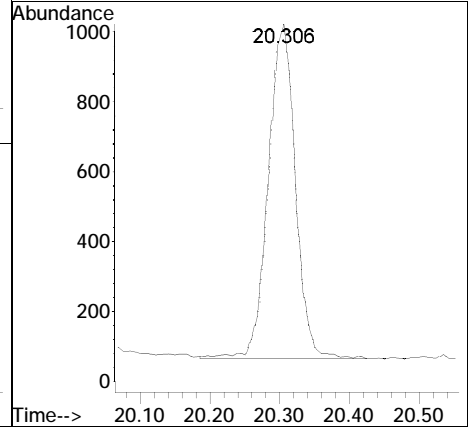
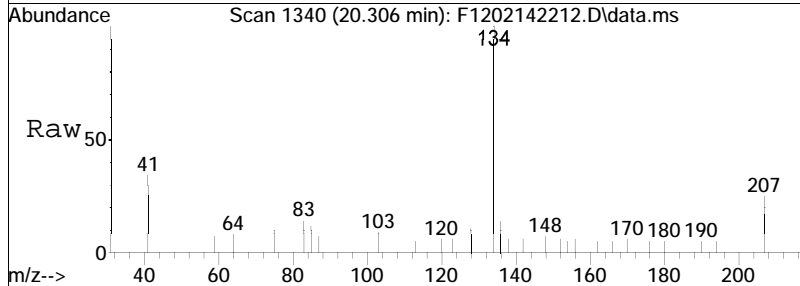
#15  
 1-Methylnaphthalene  
 Concen: 25.93 ng/mL  
 RT: 23.208 min Scan# 1658  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:142 Resp: 5929

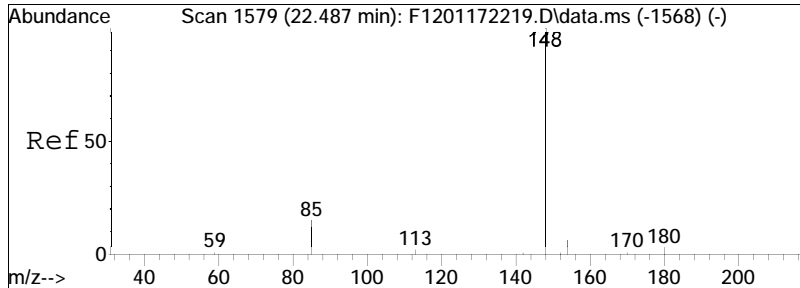




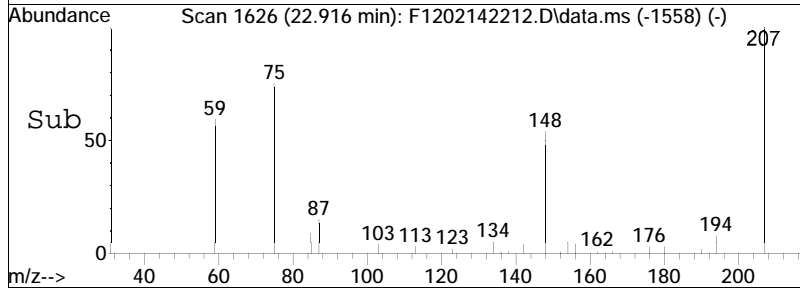
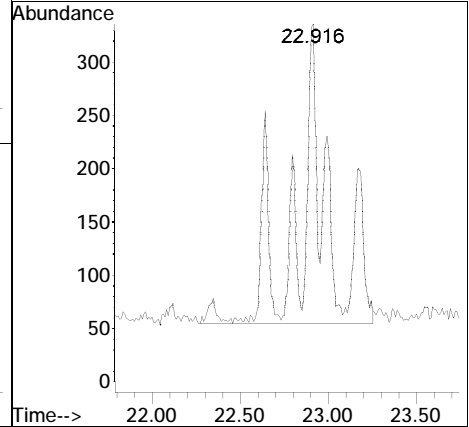
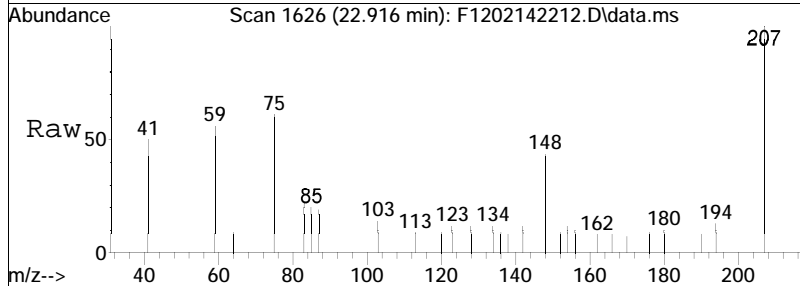


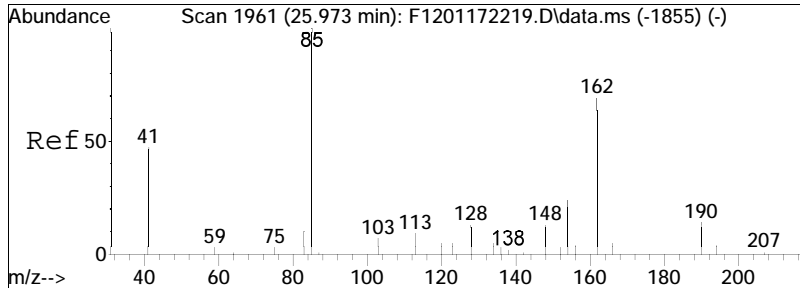
#16  
 Benzothiophene  
 Concen: 7.94 ng/mL  
 RT: 20.306 min Scan# 1340  
 Delta R.T. -0.027 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:134 Resp: 2548



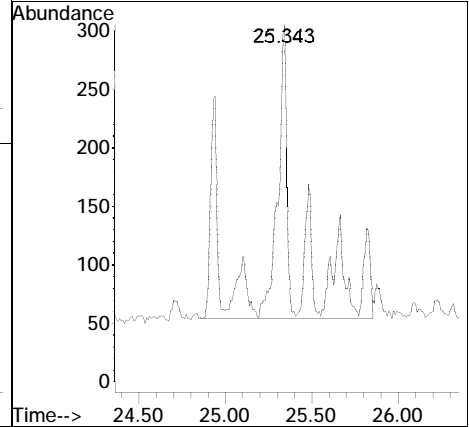
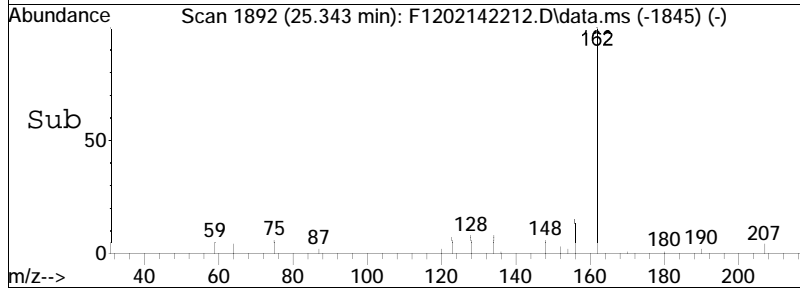
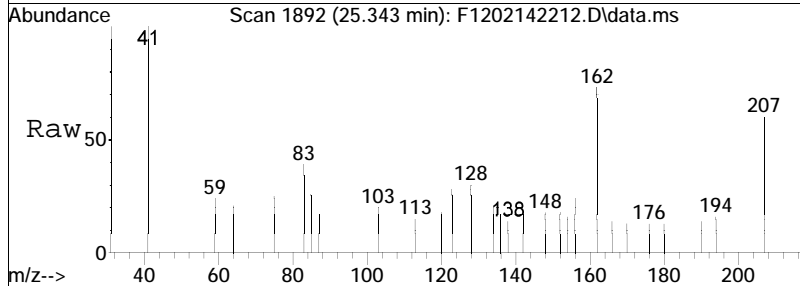


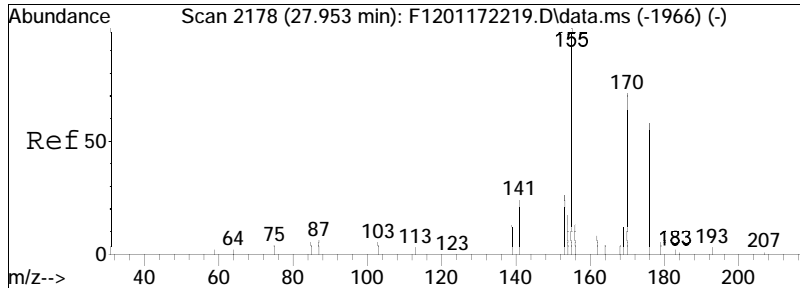
#17  
 Cl-Benzo(b)thiophenes  
 Concen: 9.76 ng/mL M5  
 RT: 22.916 min Scan# 1626  
 Delta R.T. 0.538 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:148 Resp: 3132



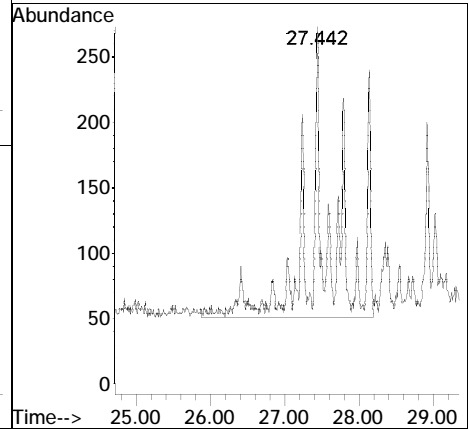
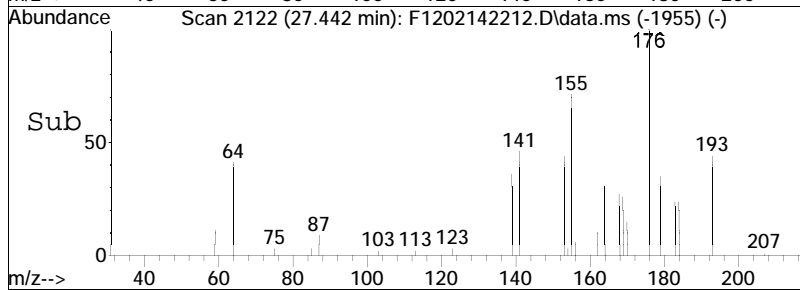
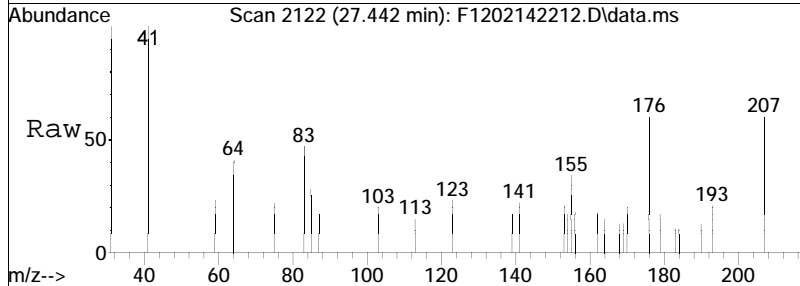


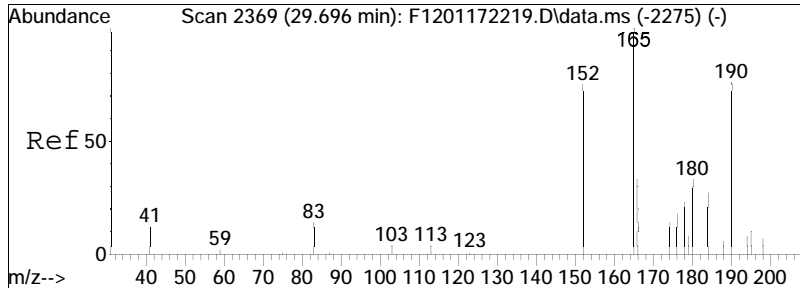
#18  
 C2-Benzo(b)thiophenes  
 Concen: 7.95 ng/mL M5  
 RT: 25.343 min Scan# 1892  
 Delta R.T. -0.511 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:162 Resp: 2551



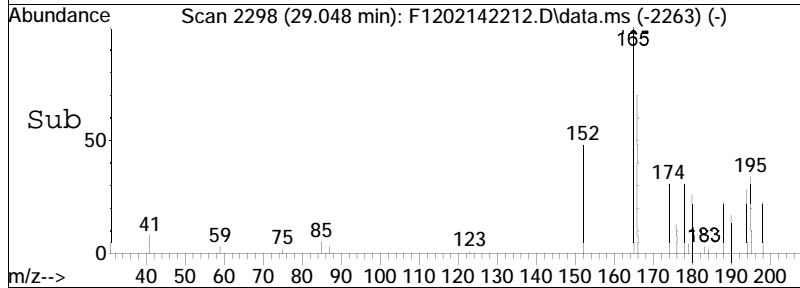
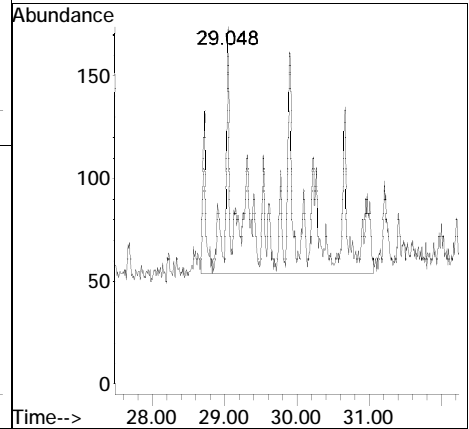
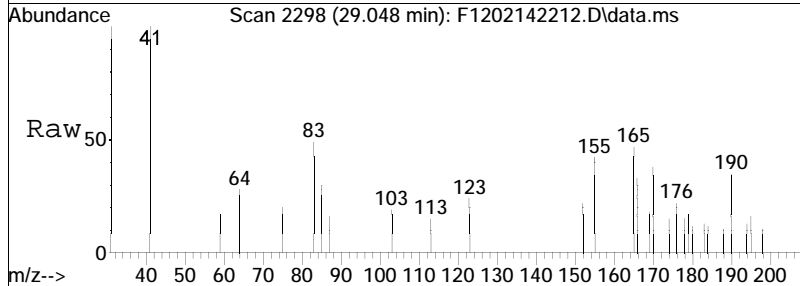


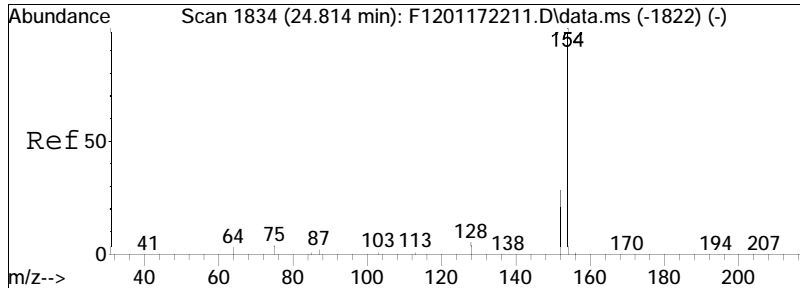
#19  
 C3-Benzo(b)thiophenes  
 Concen: 12.16 ng/mL M5  
 RT: 27.442 min Scan# 2122  
 Delta R.T. -0.392 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:176 Resp: 3902



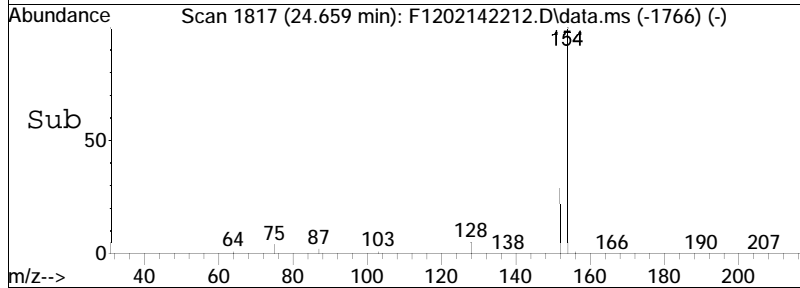
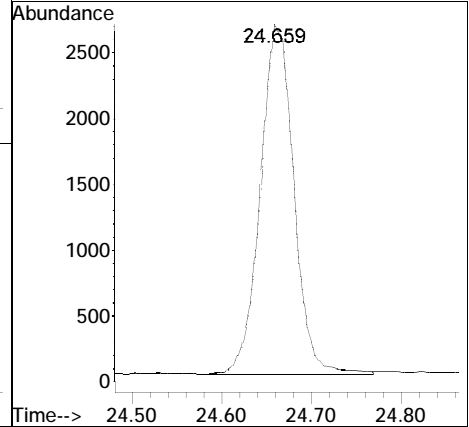
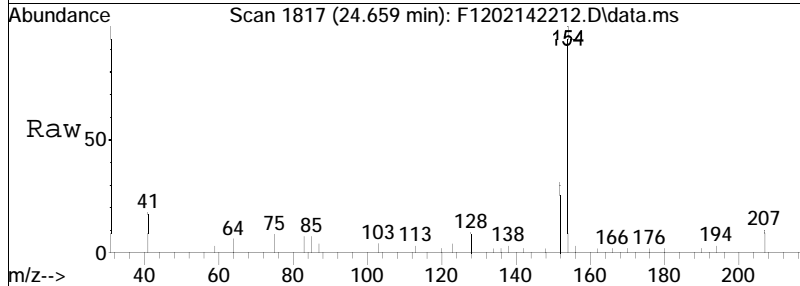


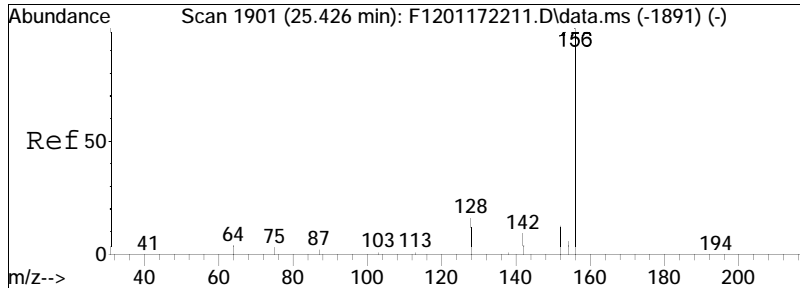
#20  
 C4-Benzo(b)thiophenes  
 Concen: 9.90 ng/mL M5  
 RT: 29.048 min Scan# 2298  
 Delta R.T. -0.529 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:190 Resp: 3177



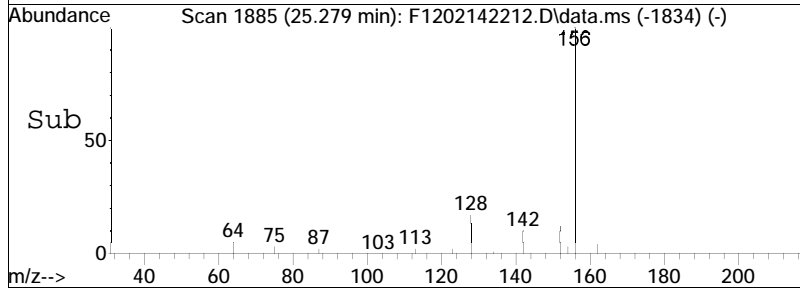
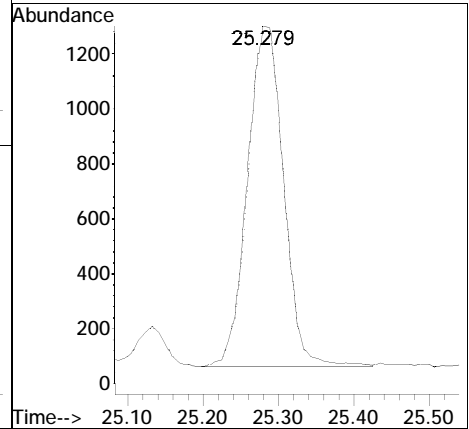
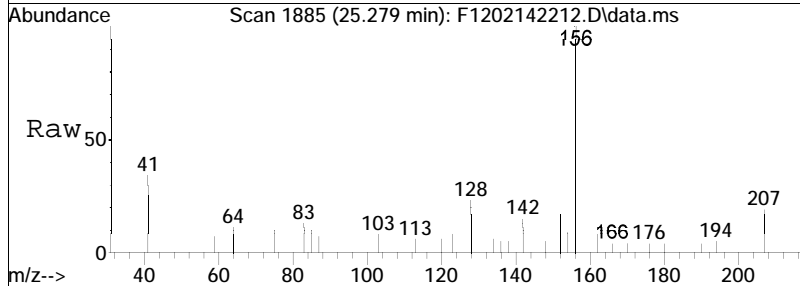


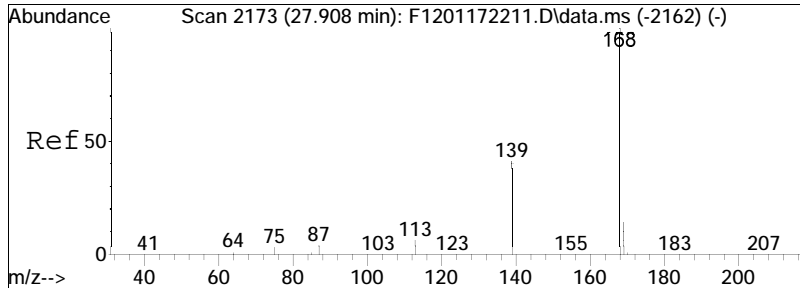
#21  
 Biphenyl  
 Concen: 23.18 ng/mL  
 RT: 24.659 min Scan# 1817  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:154 Resp: 6836





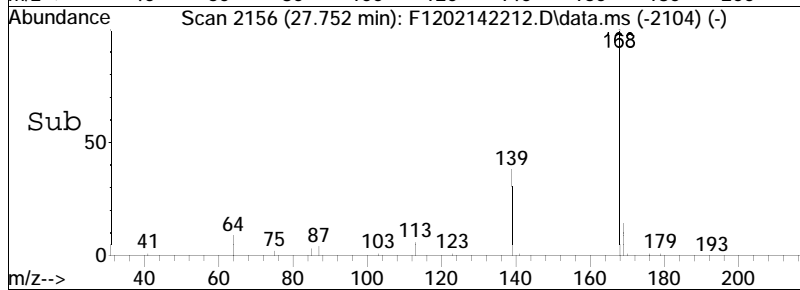
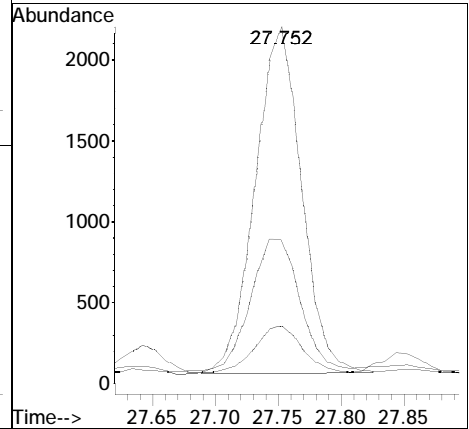
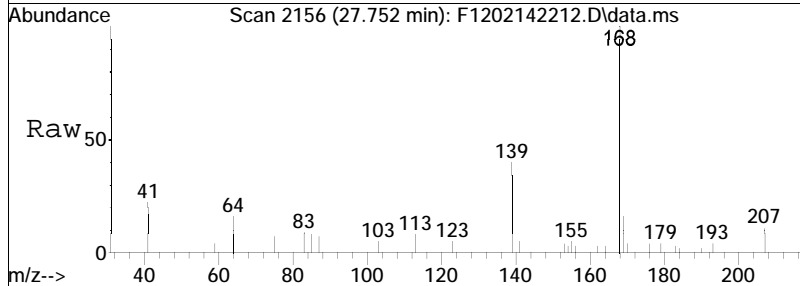
#22  
 2,6-Dimethylnaphthalene  
 Concen: 19.85 ng/mL  
 RT: 25.279 min Scan# 1885  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:156 Resp: 4073



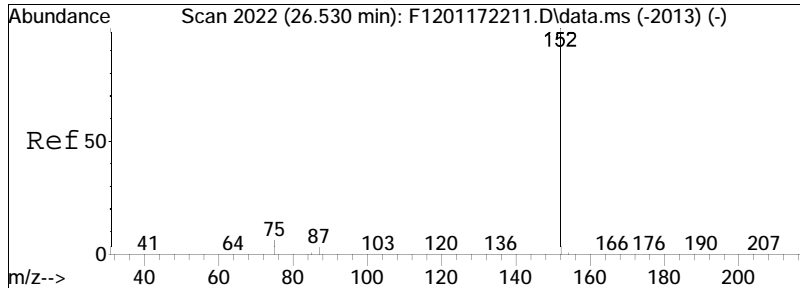


#23  
 Dibenzofuran  
 Concen: 17.23 ng/mL  
 RT: 27.752 min Scan# 2156  
 Delta R.T. -0.027 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

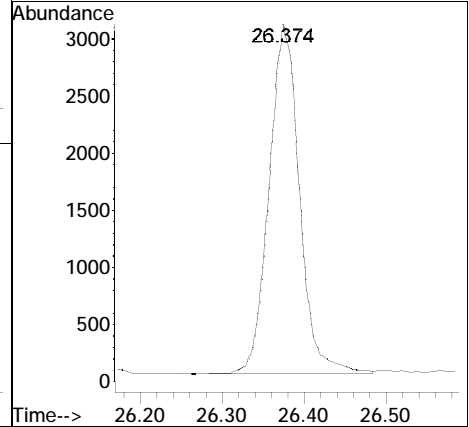
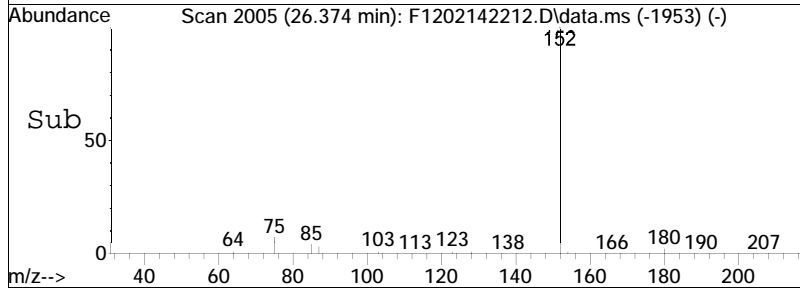
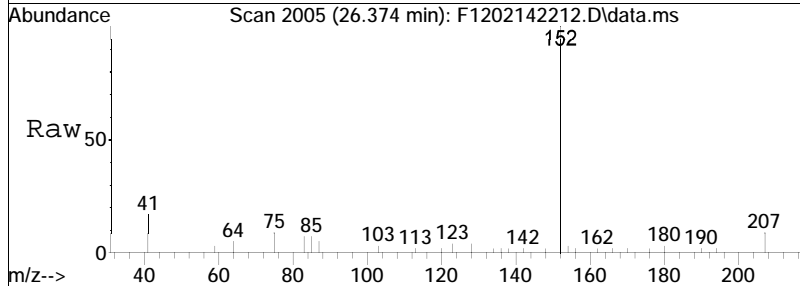
Tgt Ion	Ratio	Lower	Upper
168	100		
139	41.4	35.0	65.0
169	14.4	11.5	21.5

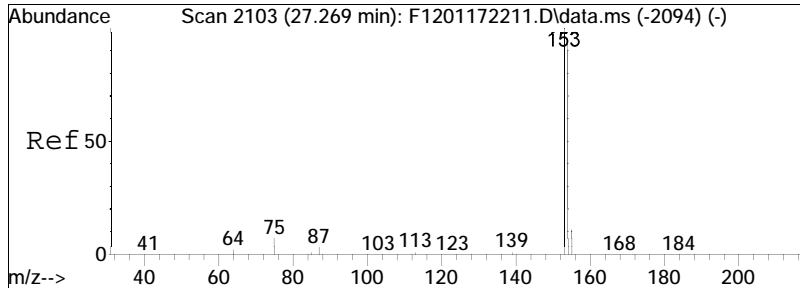






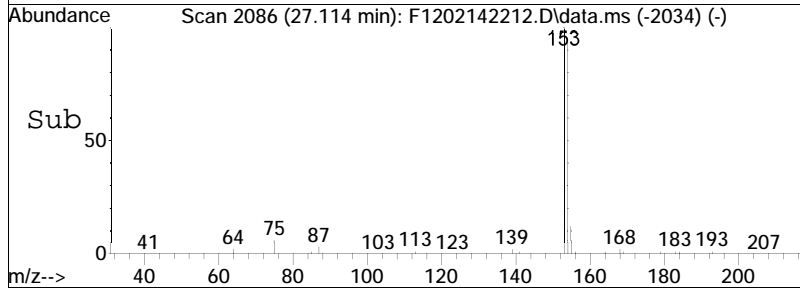
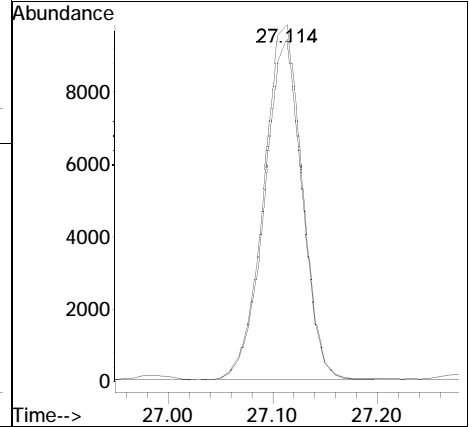
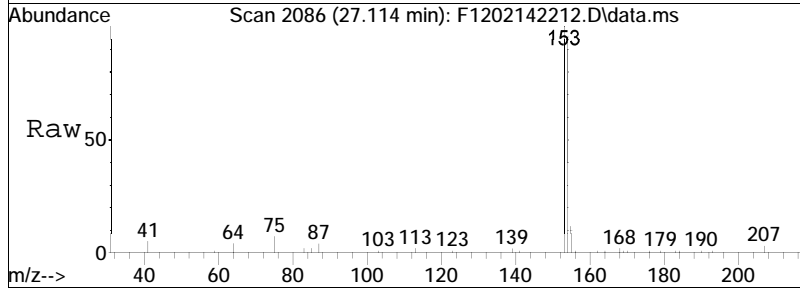
#24  
 Acenaphthylene  
 Concen: 21.48 ng/mL  
 RT: 26.374 min Scan# 2005  
 Delta R.T. -0.027 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:152 Resp: 7777

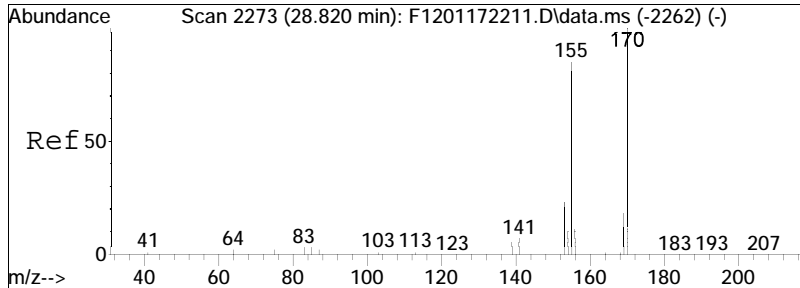




#25  
 Acenaphthene  
 Concen: 109.66 ng/mL  
 RT: 27.114 min Scan# 2086  
 Delta R.T. -0.027 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

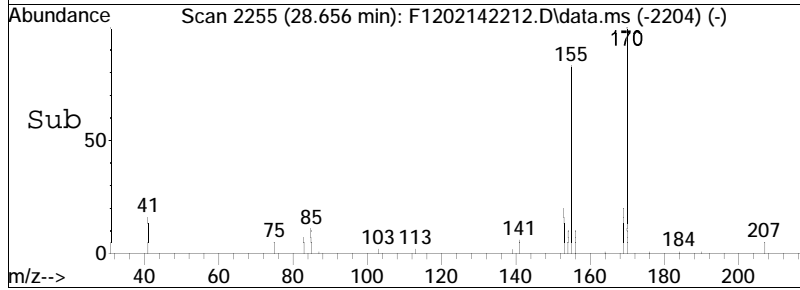
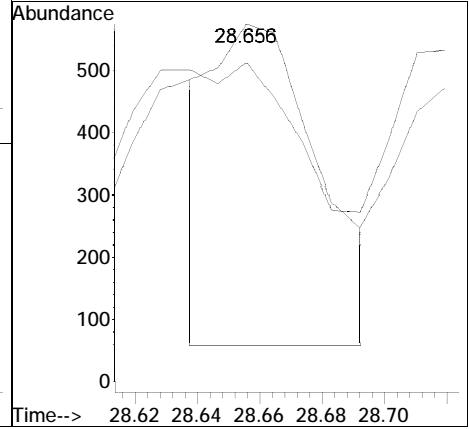
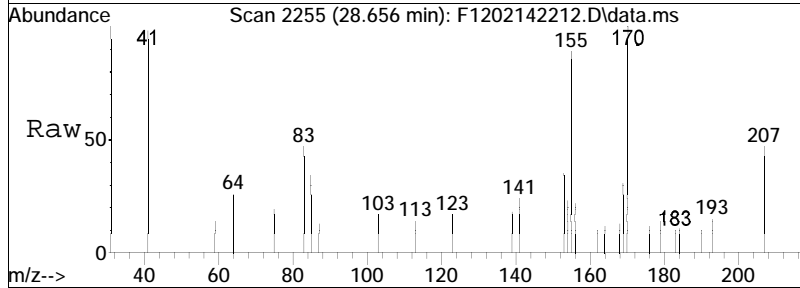
Tgt Ion:153 Resp: 25120  
 Ion Ratio Lower Upper  
 153 100  
 154 92.9 65.4 121.4

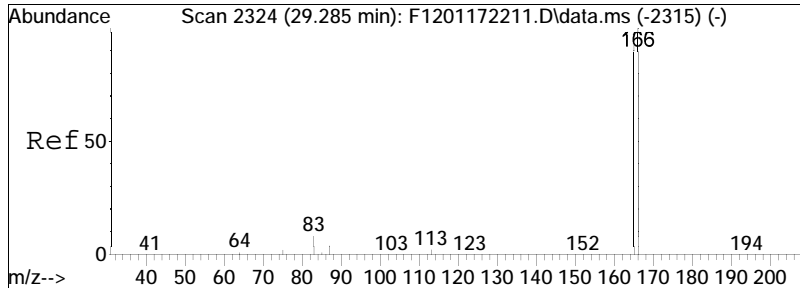




#26  
 2,3,5-Trimethylnaphthalene  
 Concen: 6.21 ng/mL M3  
 RT: 28.656 min Scan# 2255  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

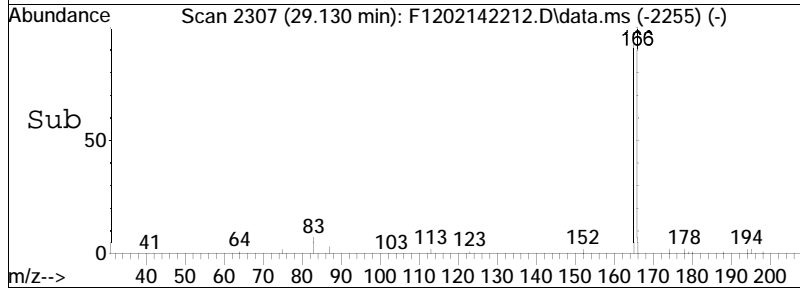
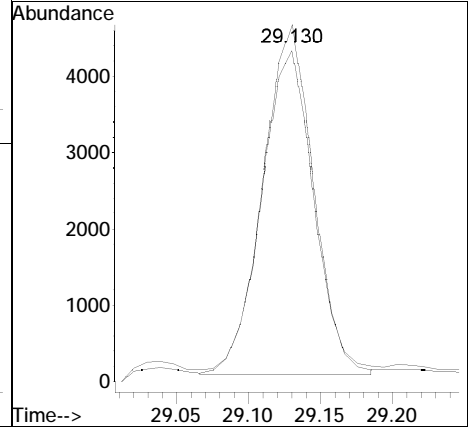
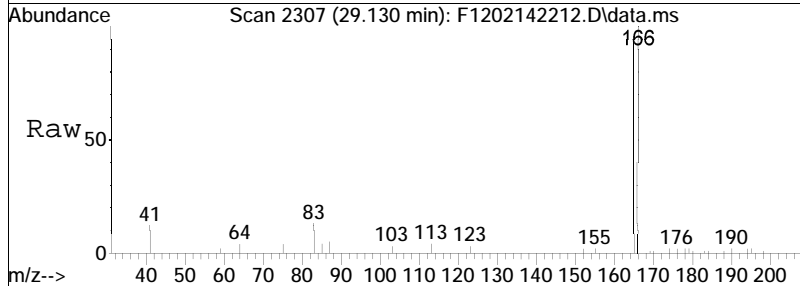
Tgt Ion: 170 Resp: 1222  
 Ion Ratio Lower Upper  
 170 100  
 155 163.3 61.6 114.4#

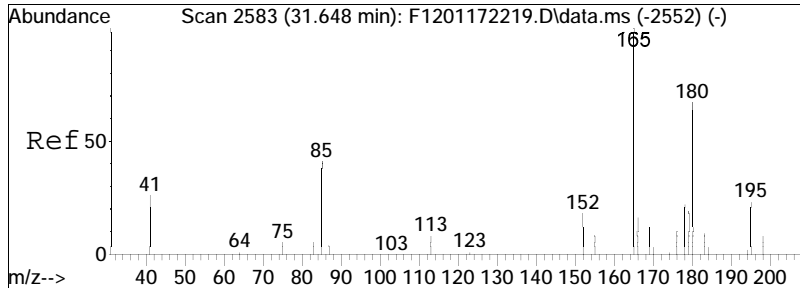




#27  
 Fluorene  
 Concen: 44.18 ng/mL M4  
 RT: 29.130 min Scan# 2307  
 Delta R.T. -0.027 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

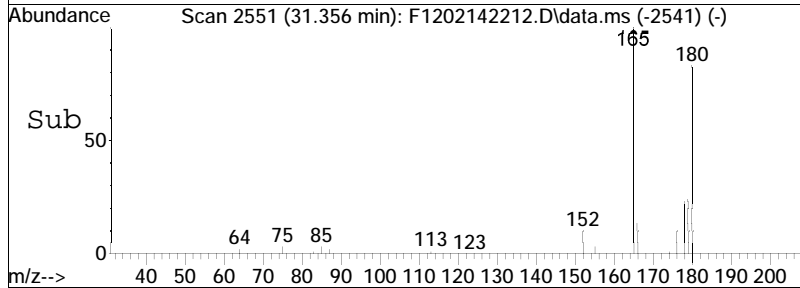
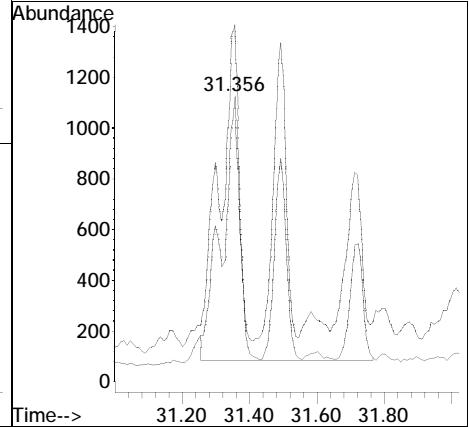
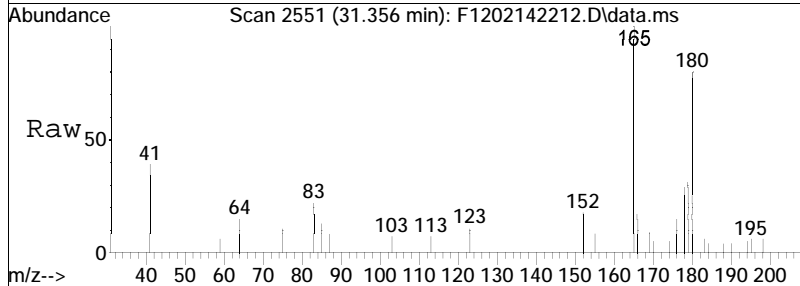
Tgt Ion	Resp	Lower	Upper
166	100		
165	95.1	66.4	123.4

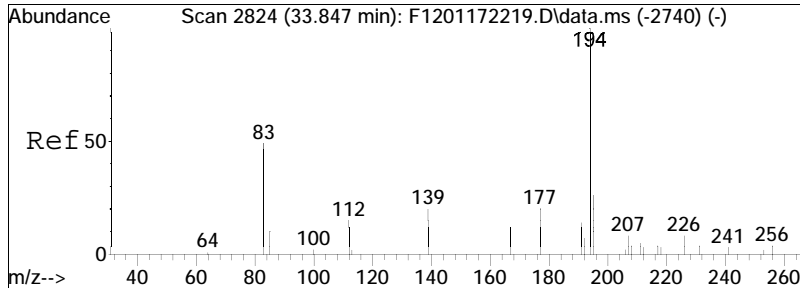




#28  
 Cl-Fluorenes  
 Concen: 28.04 ng/mL M5  
 RT: 31.356 min Scan# 2551  
 Delta R.T. -0.173 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

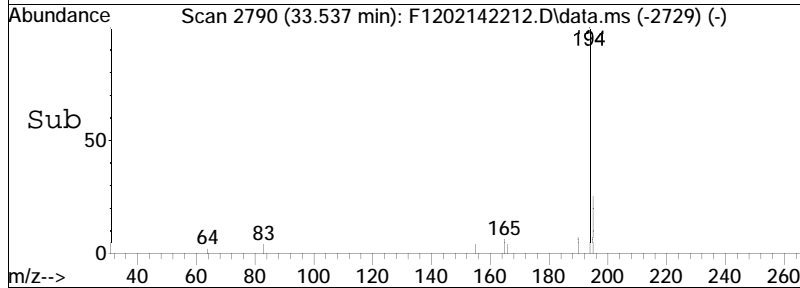
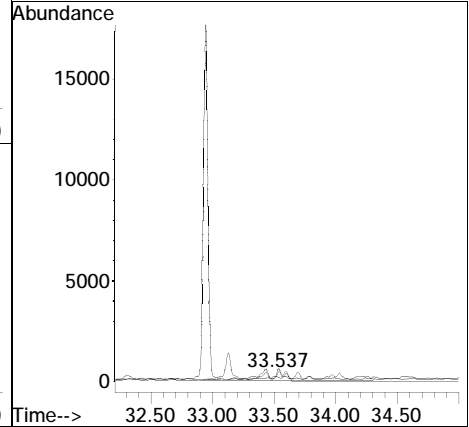
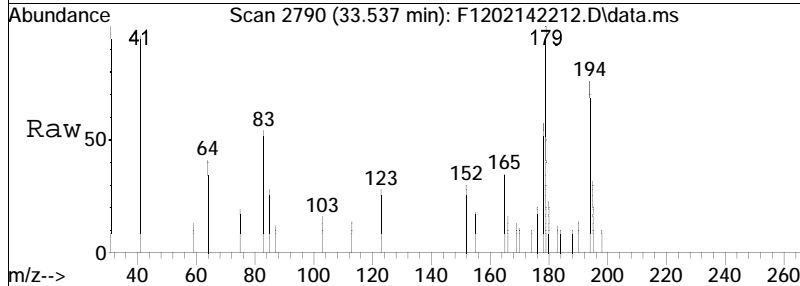
Tgt Ion: 180 Resp: 7107  
 Ion Ratio Lower Upper  
 180 100  
 165 42.5 105.8 196.4#

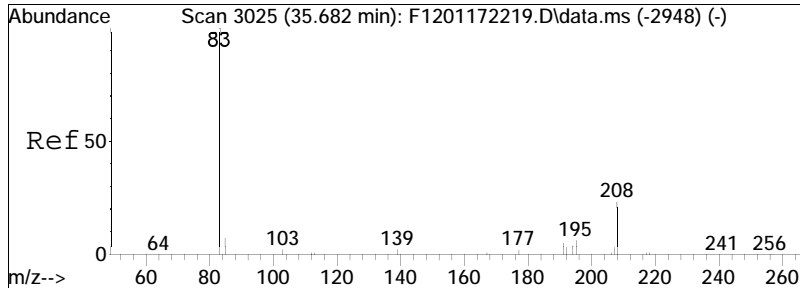




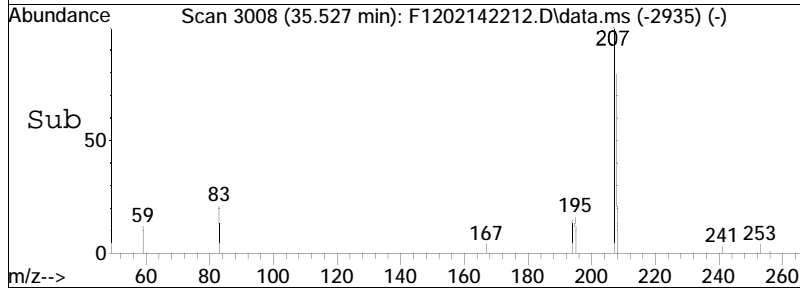
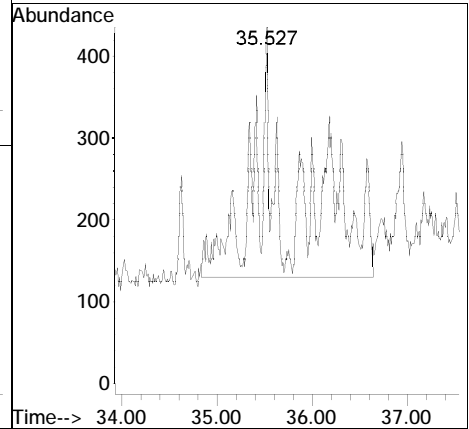
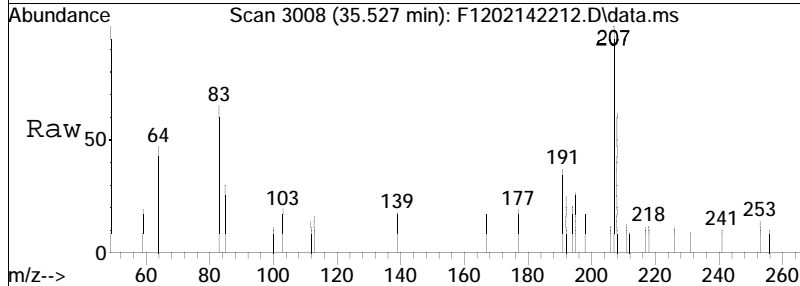
#29  
 C2-Fluorenes  
 Concen: 36.71 ng/mL M5  
 RT: 33.537 min Scan# 2790  
 Delta R.T. -0.192 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

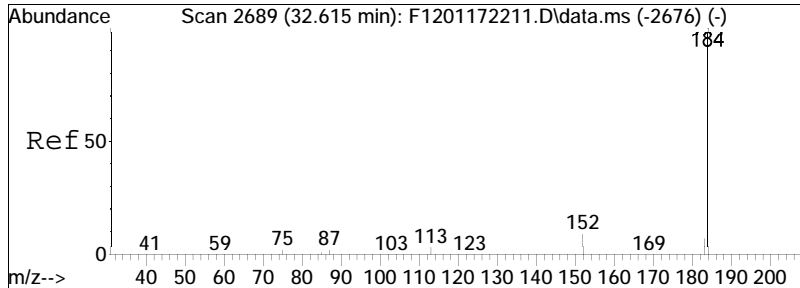
Tgt Ion	Resp	Lower	Upper
194	100		
179	0.0	0.0	0.0
195	2.8	23.8	44.2#





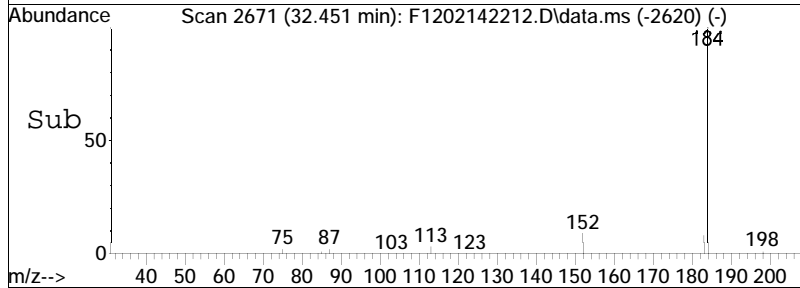
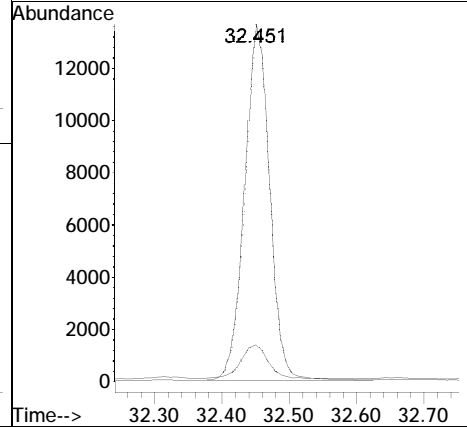
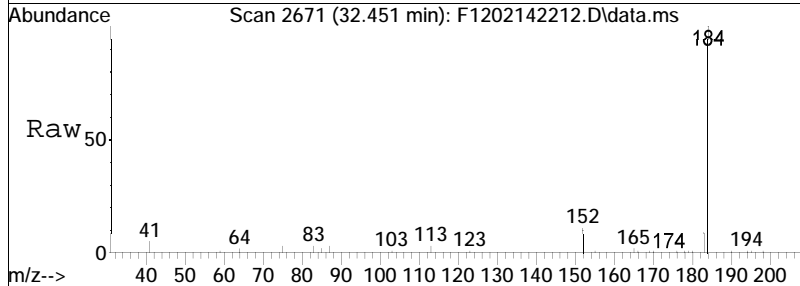
#30  
 C3-Fluorenes  
 Concen: 33.41 ng/mL M5  
 RT: 35.527 min Scan# 3008  
 Delta R.T. -0.027 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:208 Resp: 8466



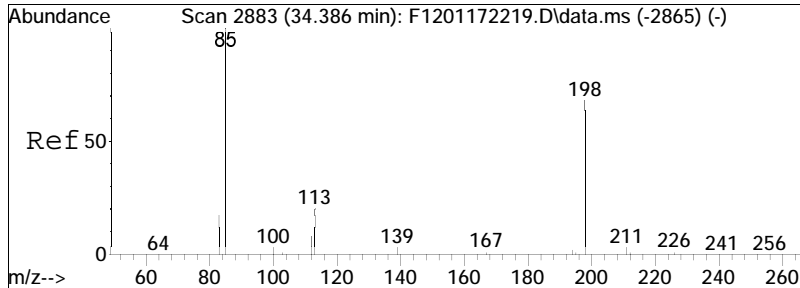


#31  
 Dibenzothiophene  
 Concen: 94.41 ng/mL  
 RT: 32.451 min Scan# 2671  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

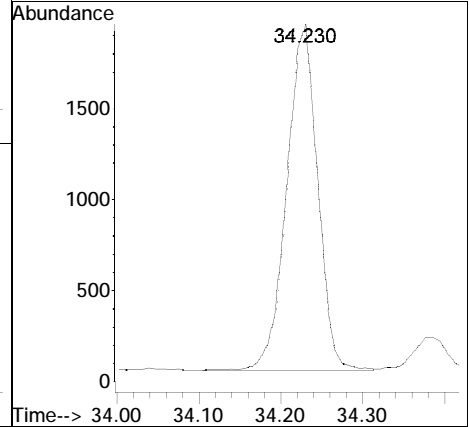
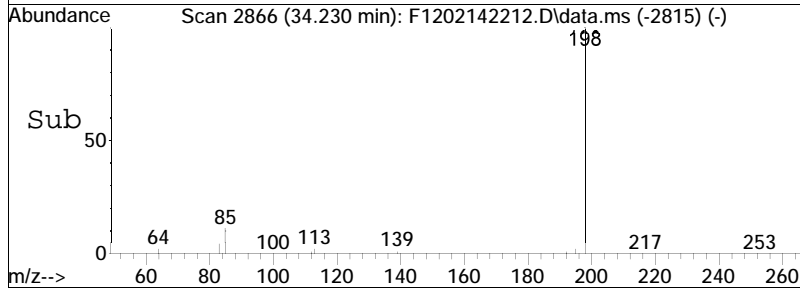
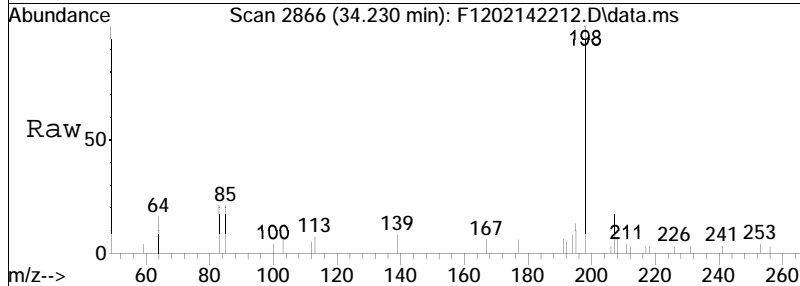
Tgt Ion	Resp	Lower	Upper
184	100		
152	10.6	11.3	20.9#

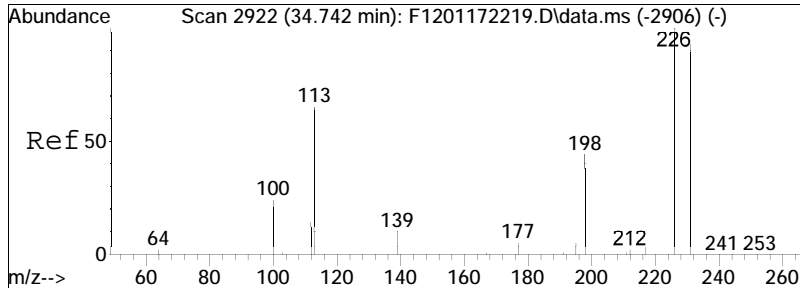




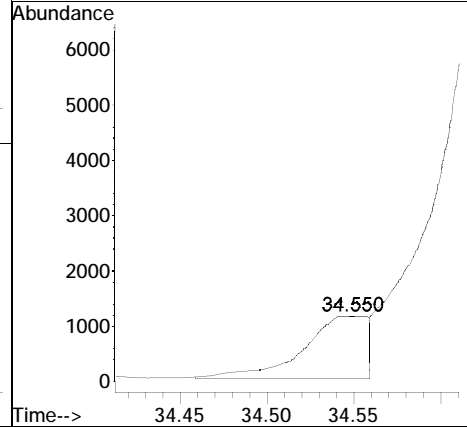
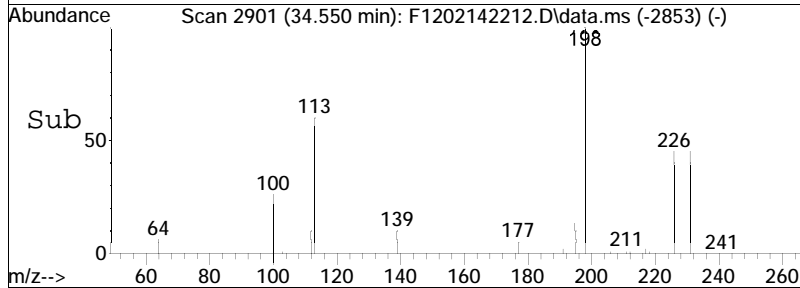
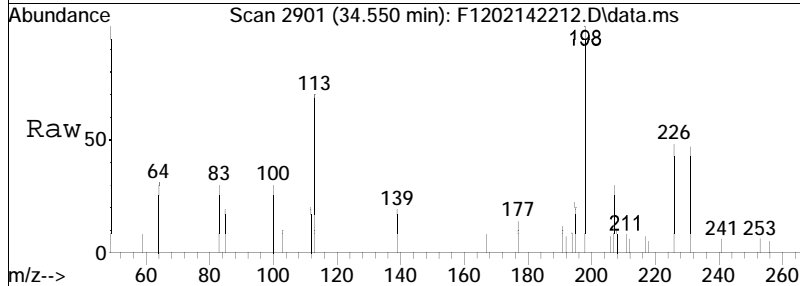


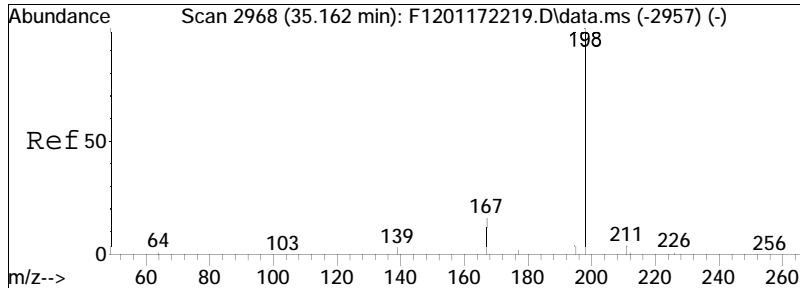
#32  
 4-Methyldibenzothiophene (4MDT)  
 Concen: 13.60 ng/mL  
 RT: 34.230 min Scan# 2866  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion: 198 Resp: 4970



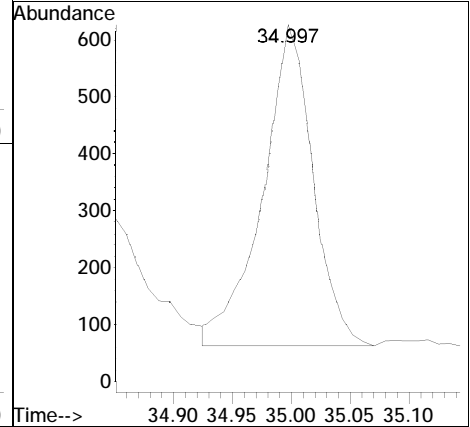
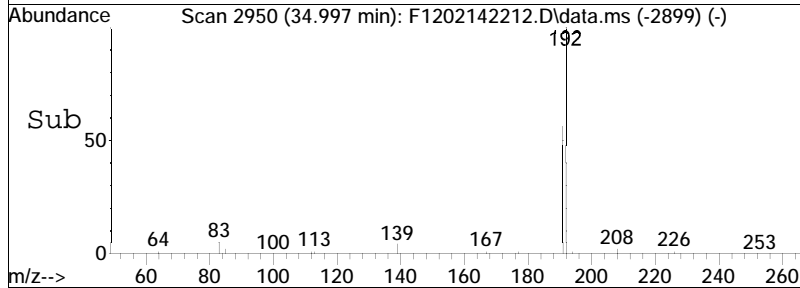
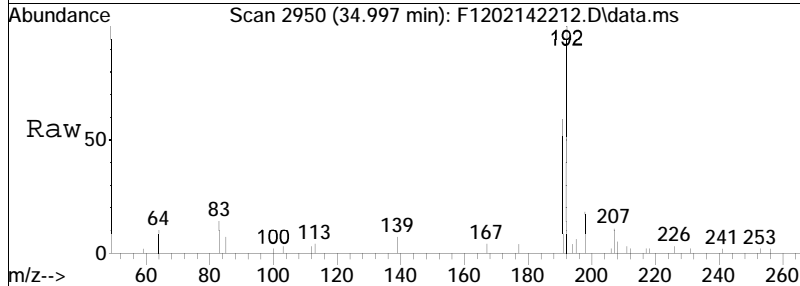


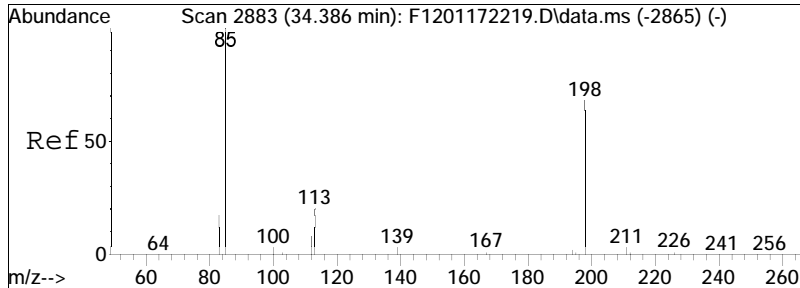
#33  
 2/3-Methyldibenzothiophene (2MD)  
 Concen: 8.69 ng/mL M3  
 RT: 34.550 min Scan# 2901  
 Delta R.T. -0.064 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion: 198 Resp: 3176



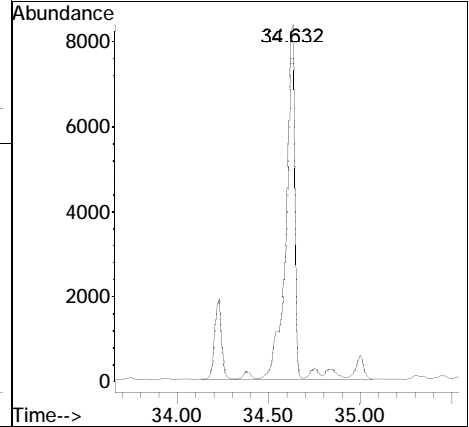
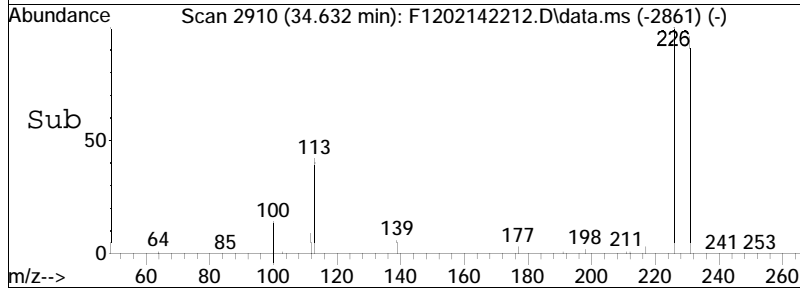
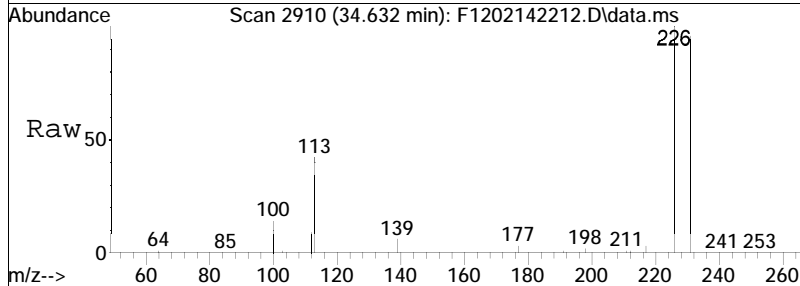


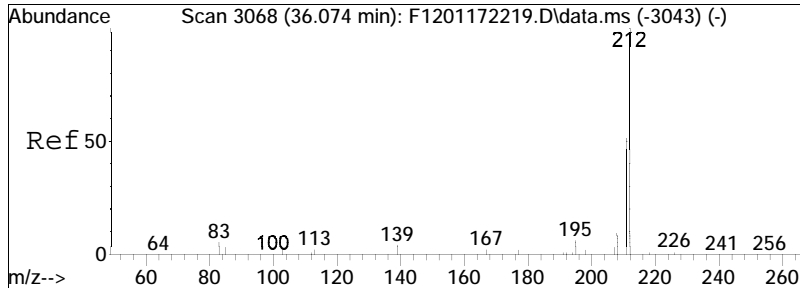
#34  
 1-Methyldibenzothiophene(1MDT)  
 Concen: 4.54 ng/mL  
 RT: 34.997 min Scan# 2950  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:198 Resp: 1661



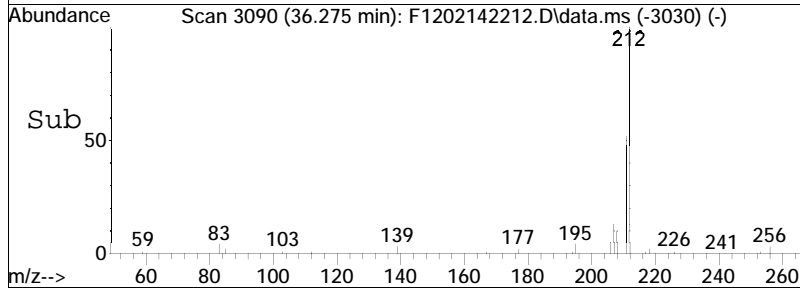
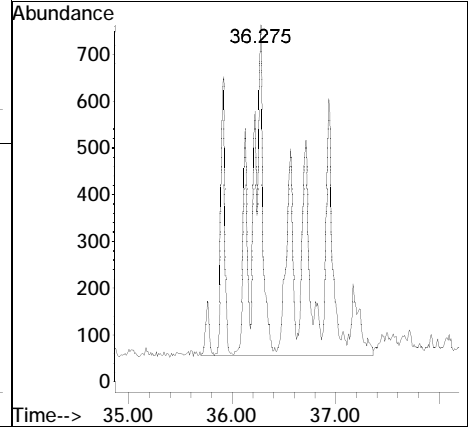
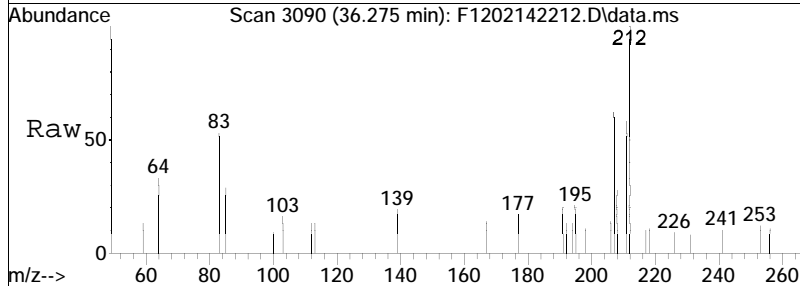


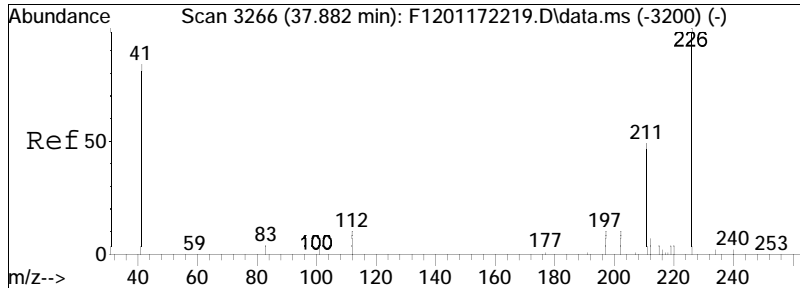
#36  
 Cl-Dibenzothiophenes  
 Concen: 98.67 ng/mL M5  
 RT: 34.632 min Scan# 2910  
 Delta R.T. 0.350 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:198 Resp: 36070





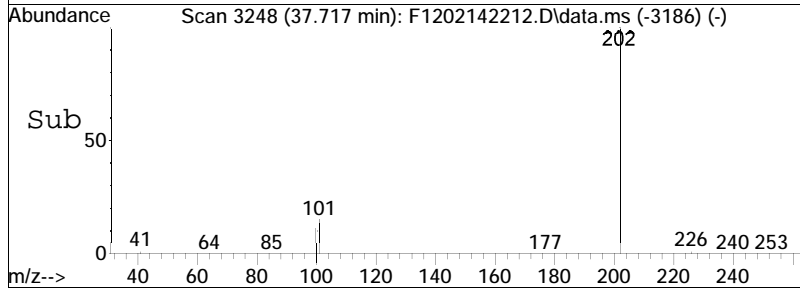
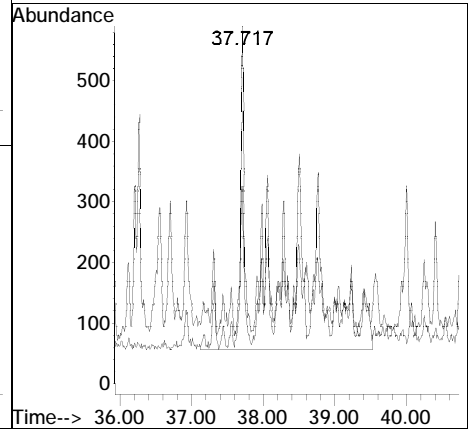
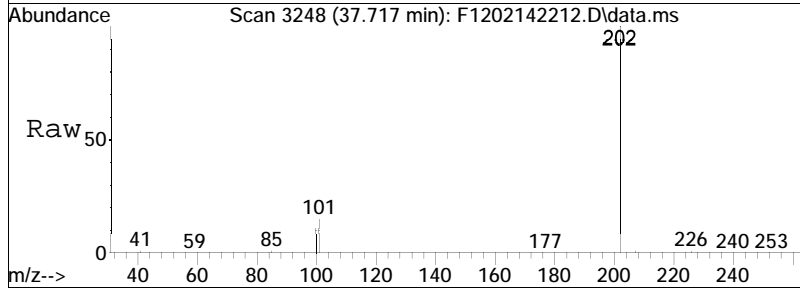
#37  
 C2-Dibenzothiophenes  
 Concen: 39.35 ng/mL M5  
 RT: 36.275 min Scan# 3090  
 Delta R.T. 0.310 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:212 Resp: 14383

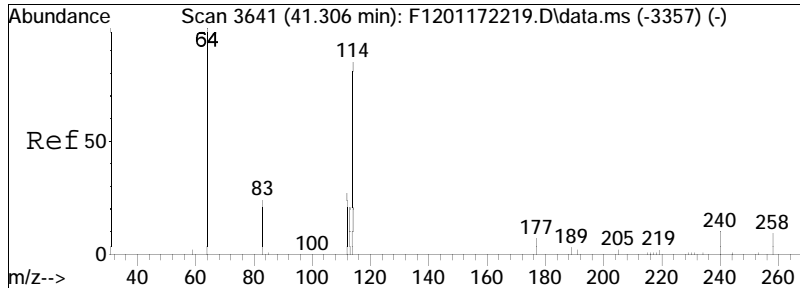




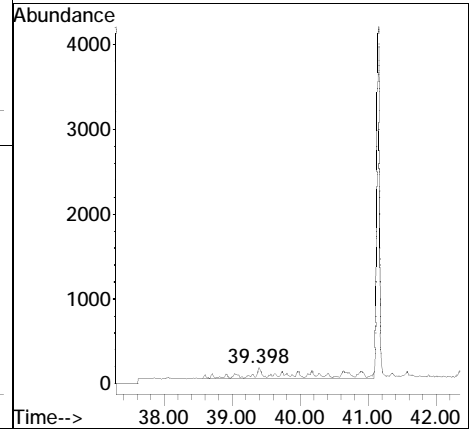
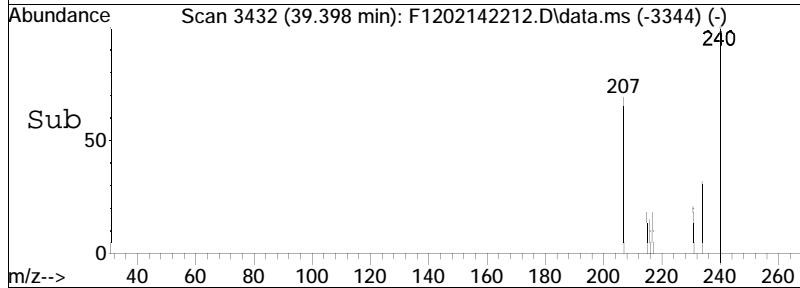
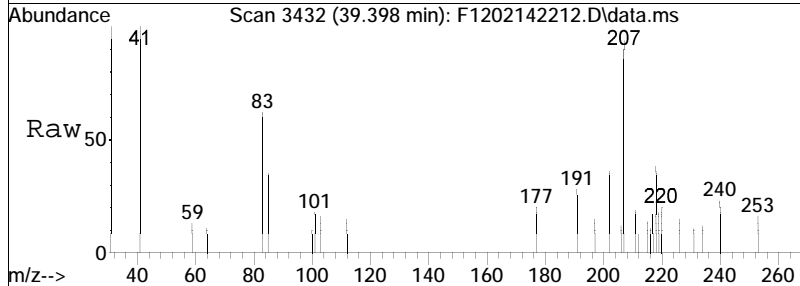
#38  
 C3-Dibenzothiophenes  
 Concen: 30.75 ng/mL M5  
 RT: 37.717 min Scan# 3248  
 Delta R.T. -0.050 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

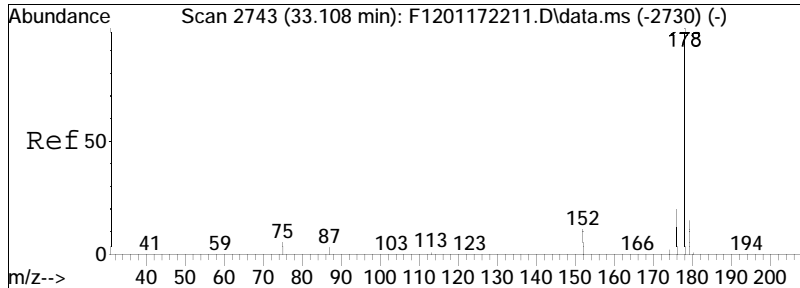
Tgt Ion: 226 Resp: 11239  
 Ion Ratio Lower Upper  
 226 100  
 211 9.6 37.5 69.7#





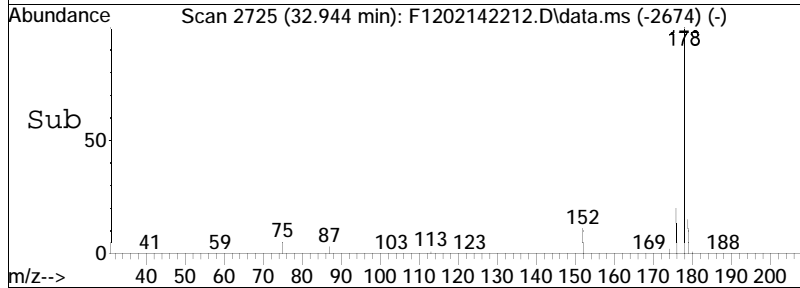
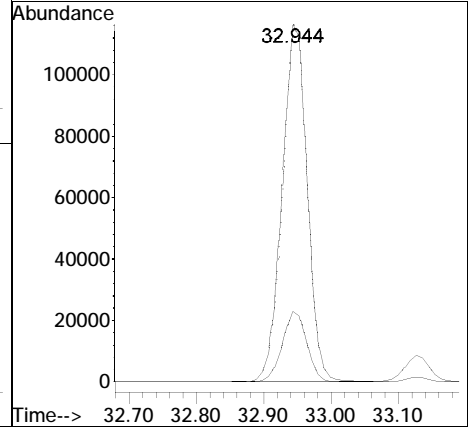
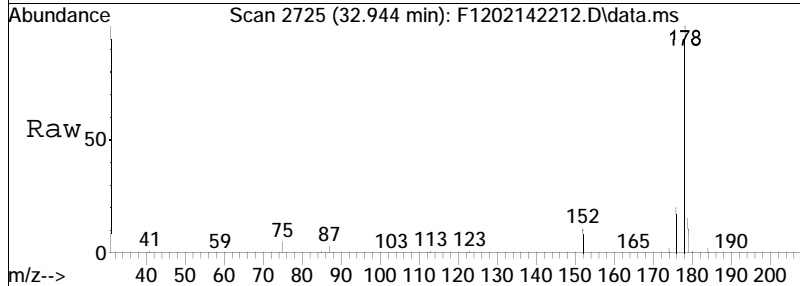
#39  
 C4-Dibenzothiophenes  
 Concen: 15.00 ng/mL M5  
 RT: 39.398 min Scan# 3432  
 Delta R.T. -0.045 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:240 Resp: 5485



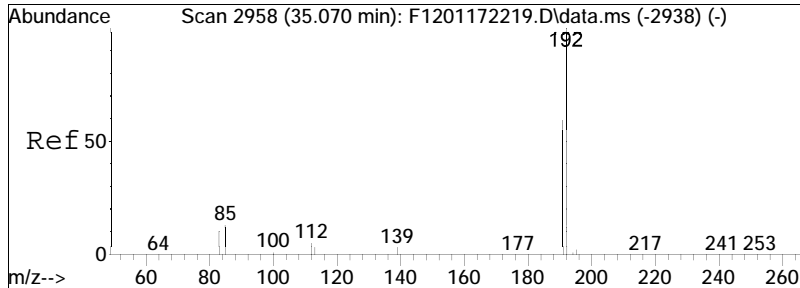


#41  
 Phenanthrene  
 Concen: 791.30 ng/mL  
 RT: 32.944 min Scan# 2725  
 Delta R.T. -0.036 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

Tgt Ion	Resp	Lower	Upper
178	100		
176	19.5	14.8	27.6

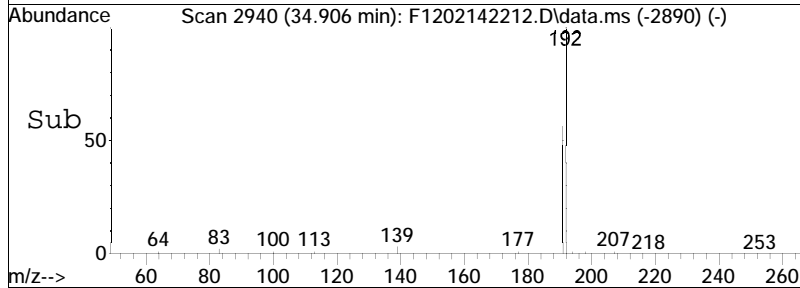
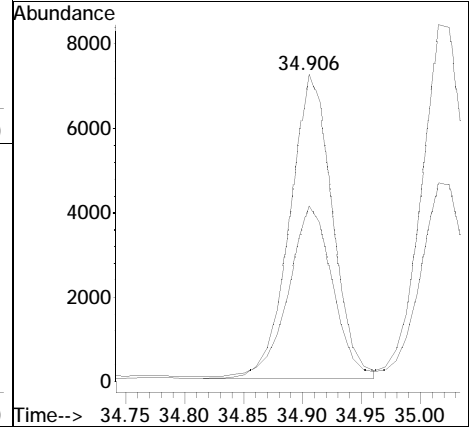
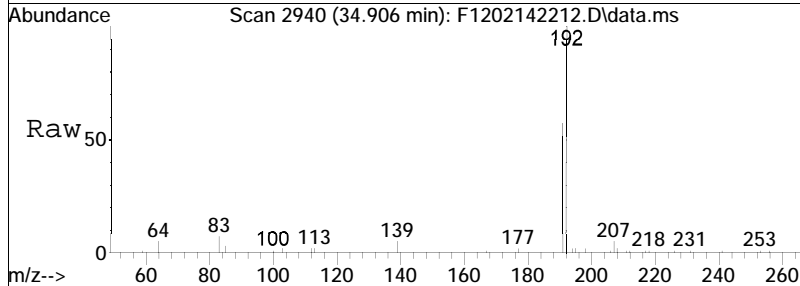


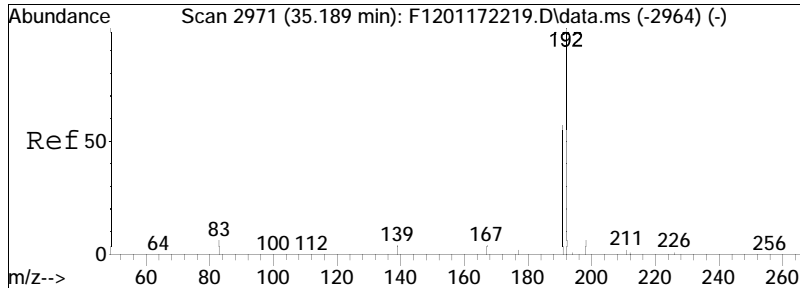




#42  
 3-Methylphenanthrene (3MP)  
 Concen: 48.40 ng/mL  
 RT: 34.906 min Scan# 2940  
 Delta R.T. -0.046 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

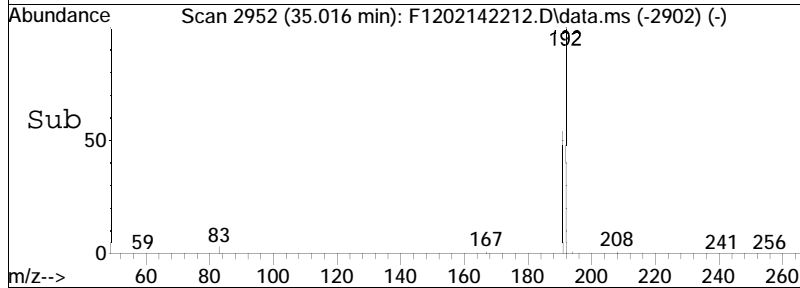
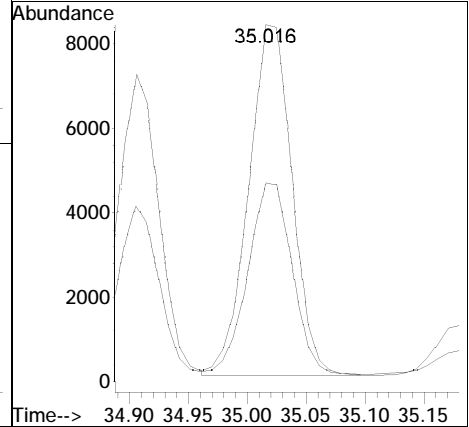
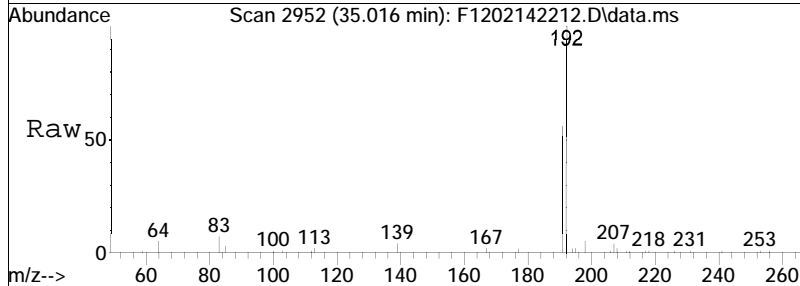
Tgt Ion: 192 Resp: 18080  
 Ion Ratio Lower Upper  
 192 100  
 191 57.4 42.6 79.0

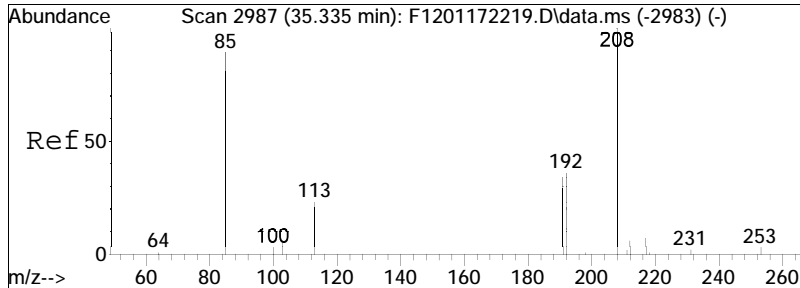




#43  
 2-Methylphenanthrene (2MP)  
 Concen: 56.96 ng/mL  
 RT: 35.016 min Scan# 2952  
 Delta R.T. -0.046 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

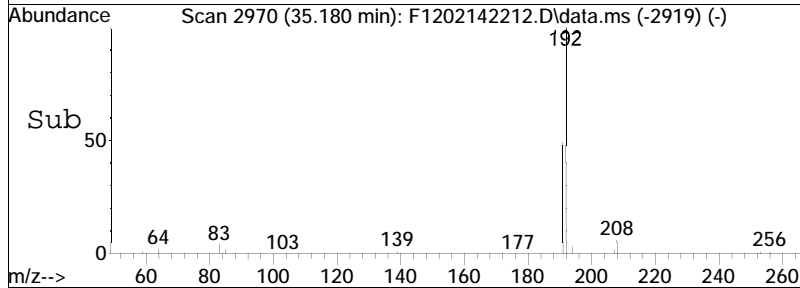
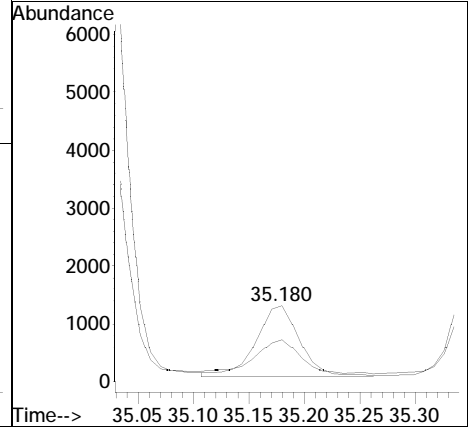
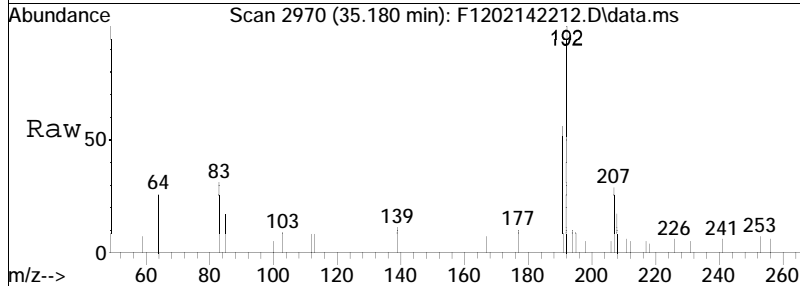
Tgt Ion	Resp	Lower	Upper
192	21278		
191	55.6	41.5	77.1

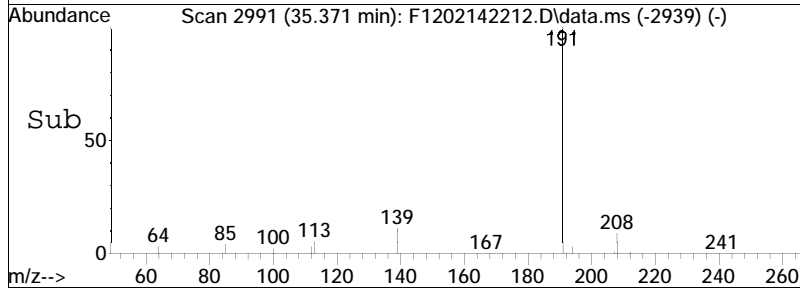
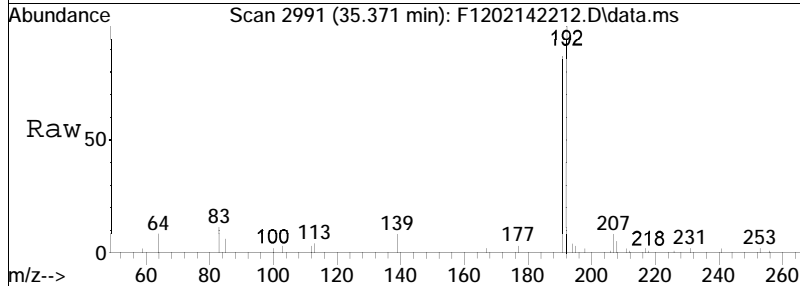
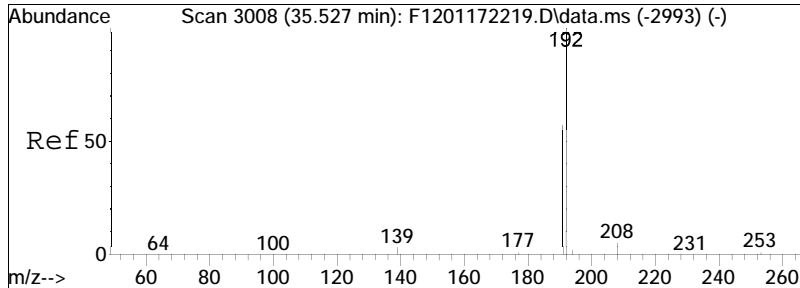




#44  
 2-Methylantracene(2MA)  
 Concen: 8.96 ng/mL  
 RT: 35.180 min Scan# 2970  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

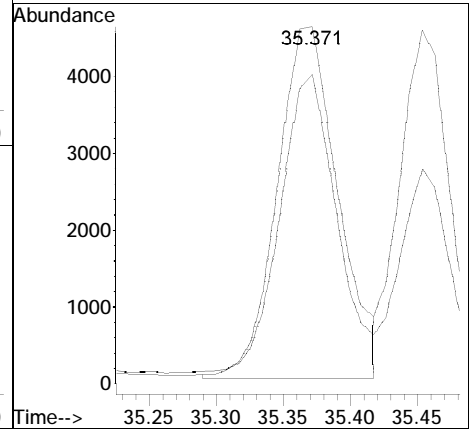
Tgt Ion:192 Resp: 3347  
 Ion Ratio Lower Upper  
 192 100  
 191 52.2 83.9 155.7#

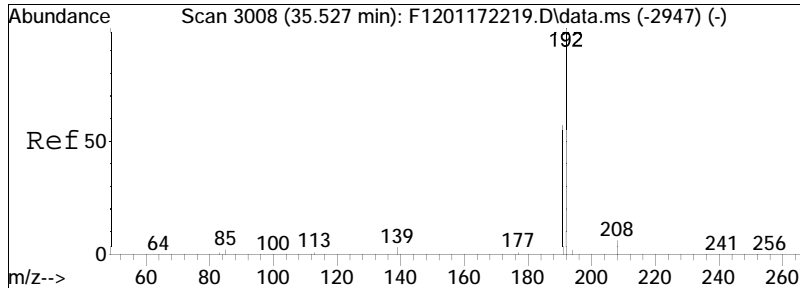




#45  
 9/4-Methylphenanthrene(9MP)  
 Concen: 38.60 ng/mL M3  
 RT: 35.371 min Scan# 2991  
 Delta R.T. -0.027 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

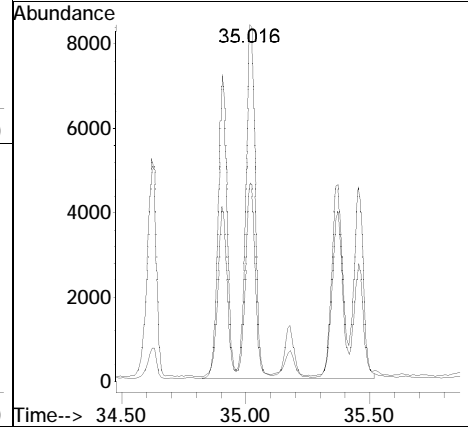
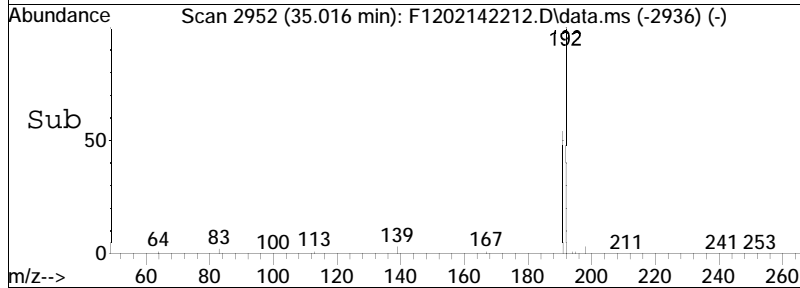
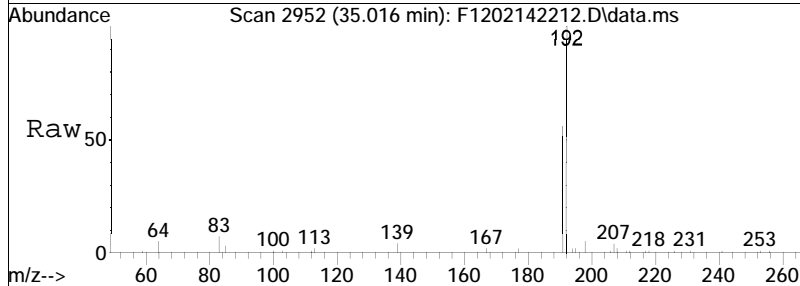
Tgt Ion	Resp	Lower	Upper
192	14418		
191	47.4	41.5	77.1

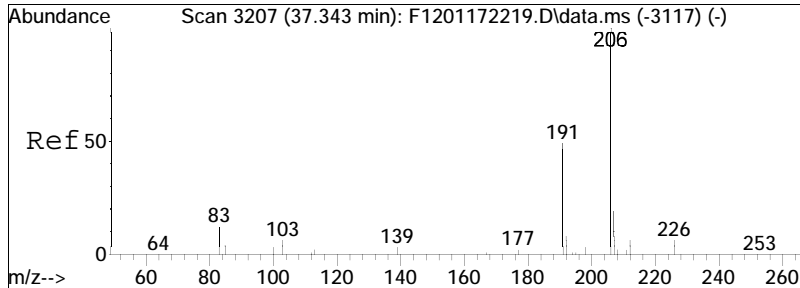




#47  
 Cl-Phenanthrenes/Anthracenes  
 Concen: 186.21 ng/mL M5  
 RT: 35.016 min Scan# 2952  
 Delta R.T. -0.404 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

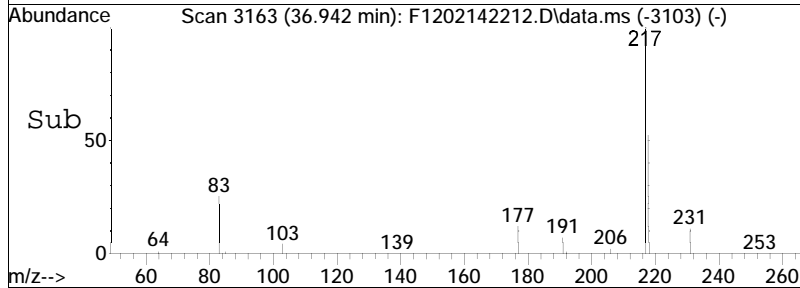
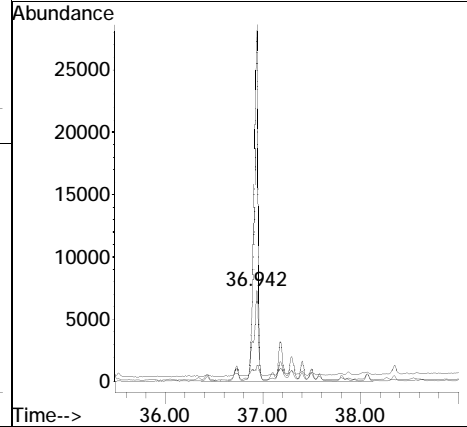
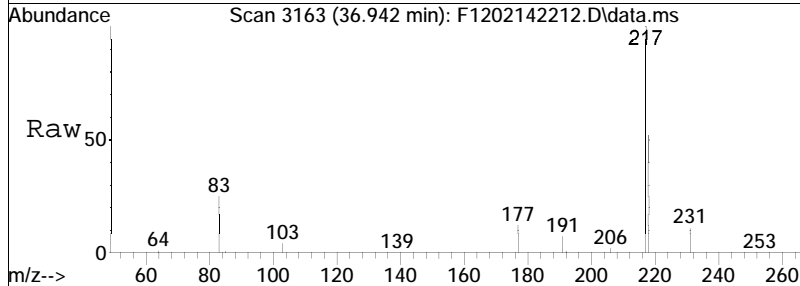
Tgt Ion: 192 Resp: 69562  
 Ion Ratio Lower Upper  
 192 100  
 191 8.5 40.9 76.0#

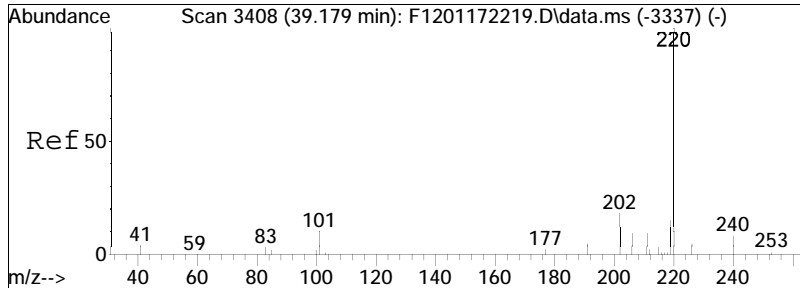




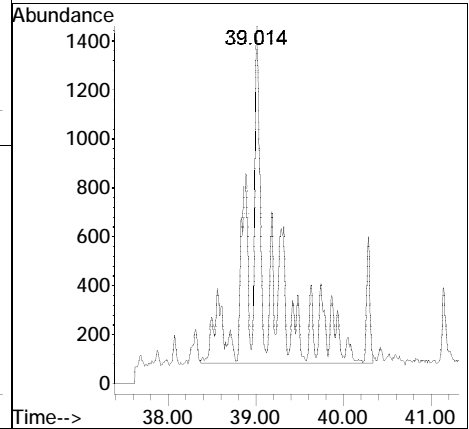
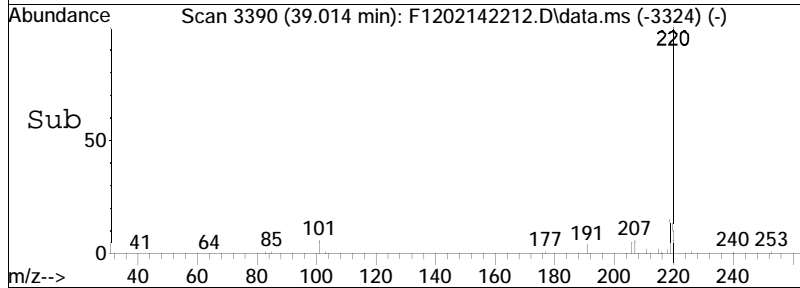
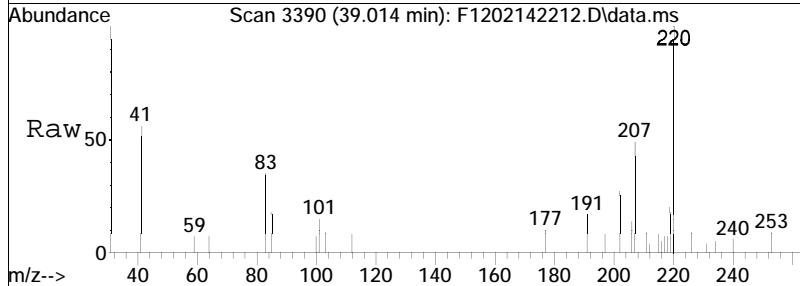
#48  
 C2-Phenanthrenes/Anthracenes  
 Concen: 163.88 ng/mL M5  
 RT: 36.942 min Scan# 3163  
 Delta R.T. -0.289 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

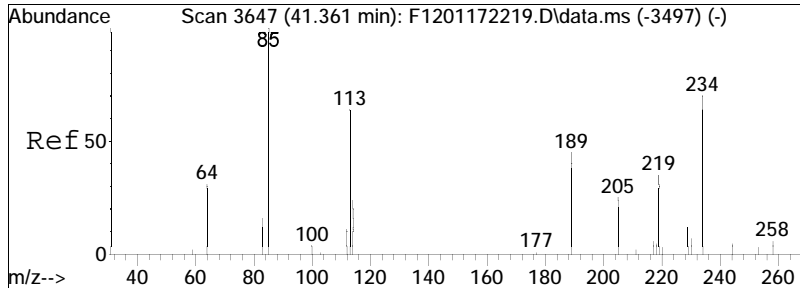
Tgt Ion	Ratio	Lower	Upper
206	100		
191	8.1	35.8	66.4#
207	3.8	14.7	27.3#





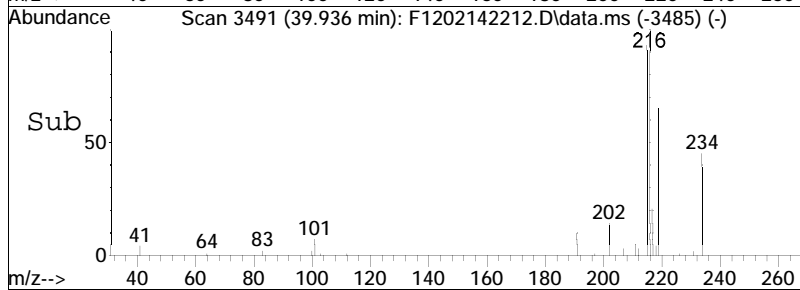
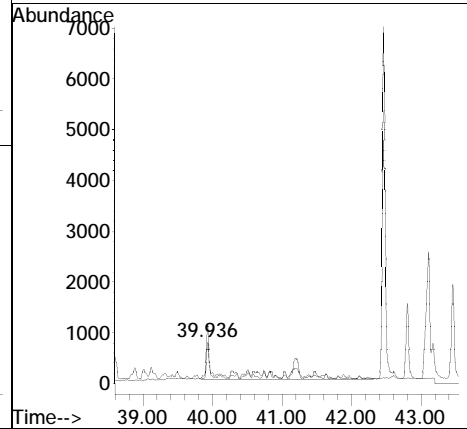
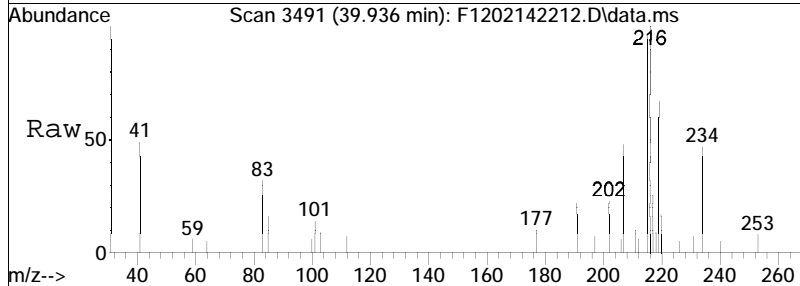
#50  
 C3-Phenanthrenes/Anthracenes  
 Concen: 63.64 ng/mL M5  
 RT: 39.014 min Scan# 3390  
 Delta R.T. -0.046 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:220 Resp: 23772



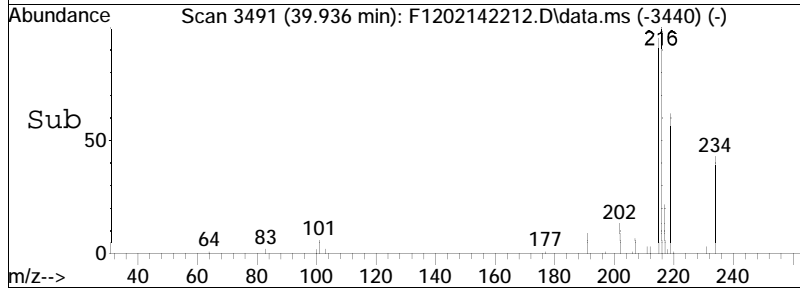
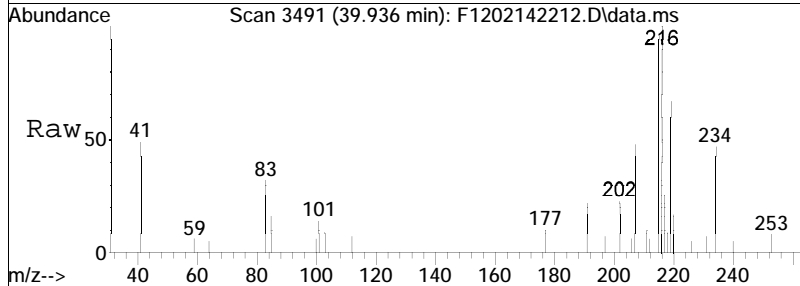
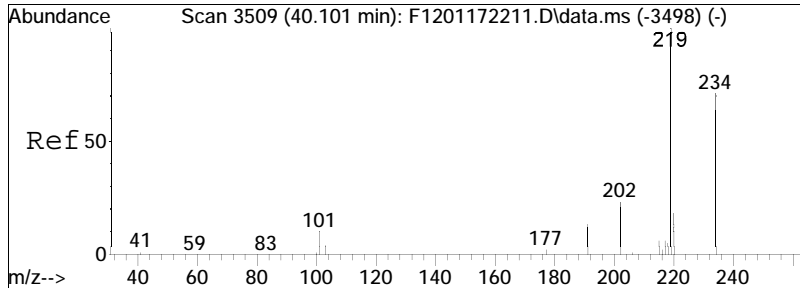


#51  
 C4-Phenanthrenes/Anthracenes  
 Concen: 30.83 ng/mL M5  
 RT: 39.936 min Scan# 3491  
 Delta R.T. -1.299 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

Tgt Ion: 234 Resp: 11516  
 Ion Ratio Lower Upper  
 234 100  
 219 1.7 41.7 77.5#

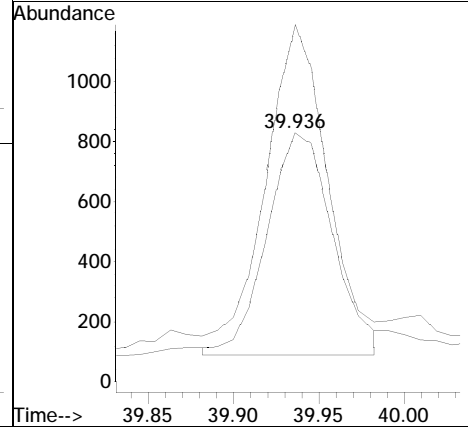


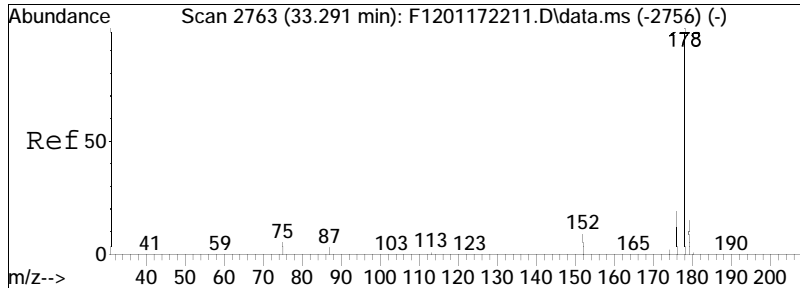




#52  
 Retene  
 Concen: 16.04 ng/mL M4  
 RT: 39.936 min Scan# 3491  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

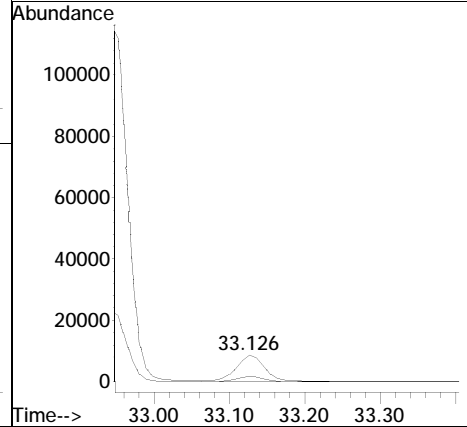
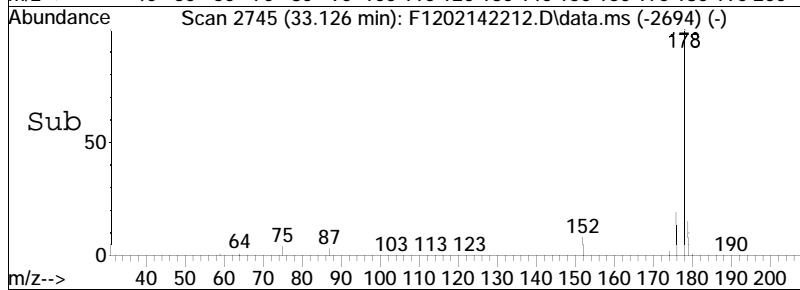
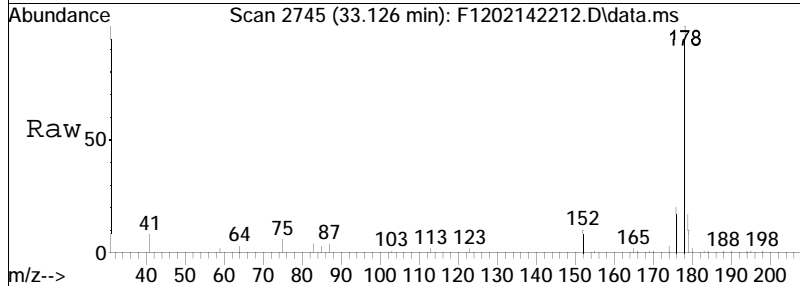
Tgt Ion: 234 Resp: 1986  
 Ion Ratio Lower Upper  
 234 100  
 219 146.3 94.0 174.6

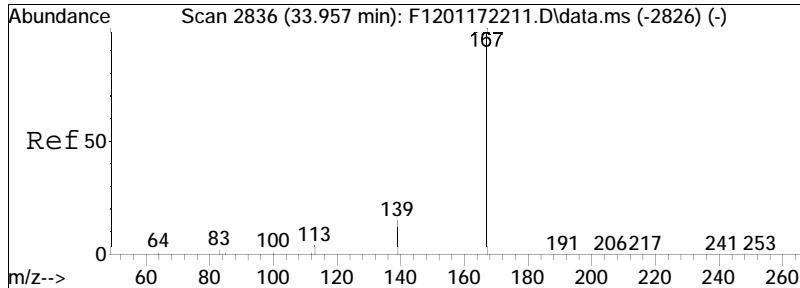




#53  
 Anthracene  
 Concen: 63.67 ng/mL  
 RT: 33.126 min Scan# 2745  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

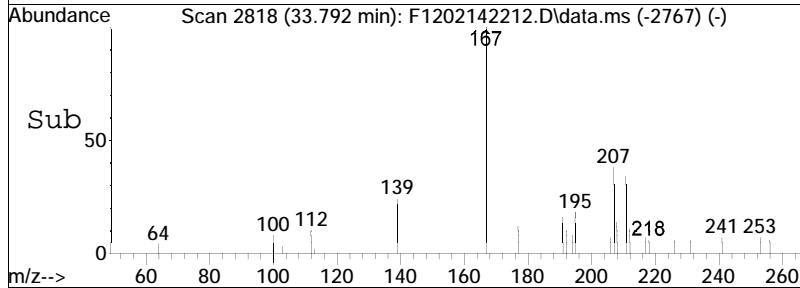
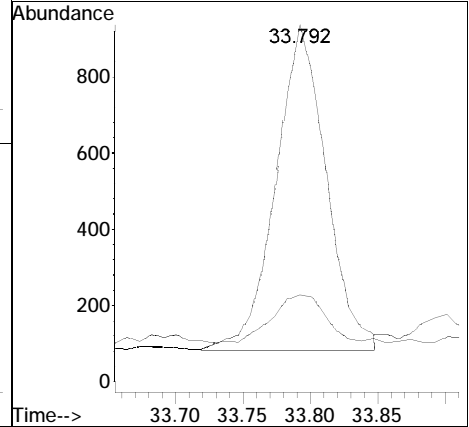
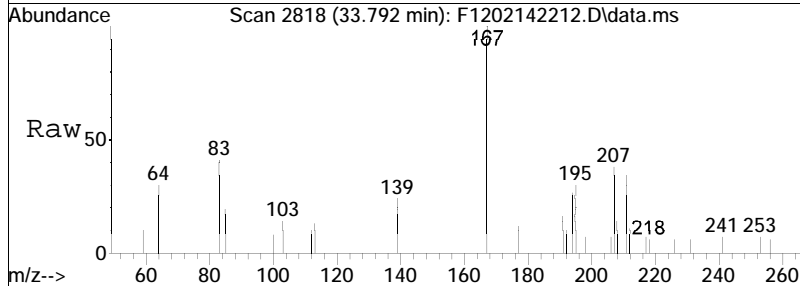
Tgt Ion	Resp	Lower	Upper
178	100		
176	18.7	13.4	24.8

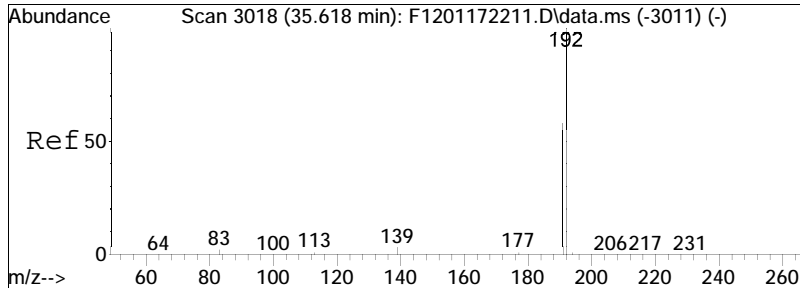




#54  
 Carbazole  
 Concen: 6.09 ng/mL M4  
 RT: 33.792 min Scan# 2818  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

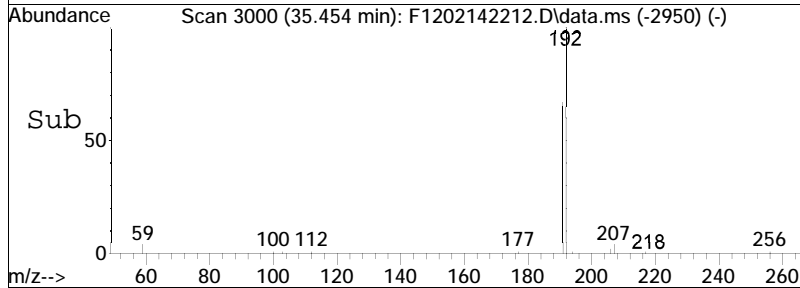
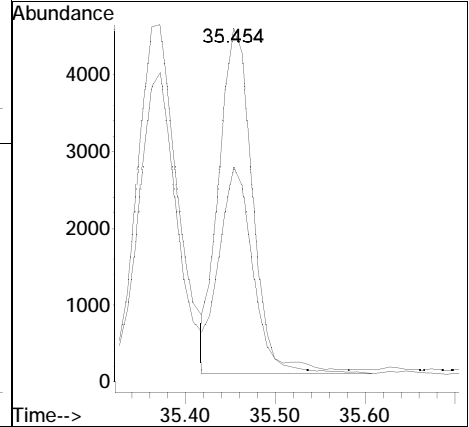
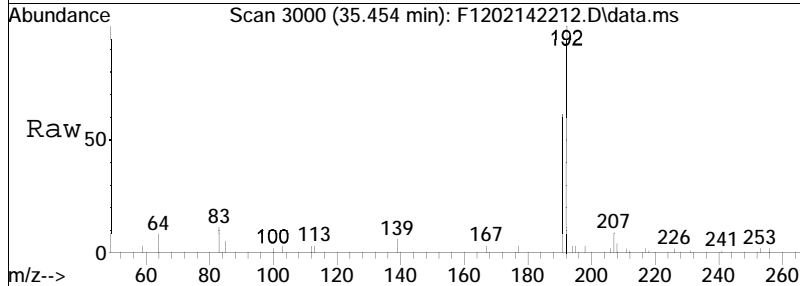
Tgt Ion	Resp	Lower	Upper
167	100		
139	22.8	10.3	19.1#

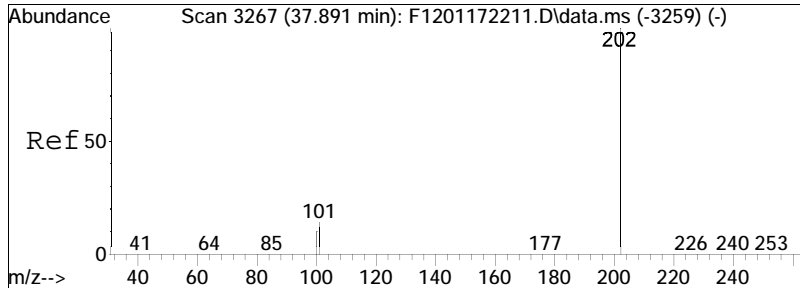




#55  
 1-Methylphenanthrene  
 Concen: 46.31 ng/mL  
 RT: 35.454 min Scan# 3000  
 Delta R.T. -0.046 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

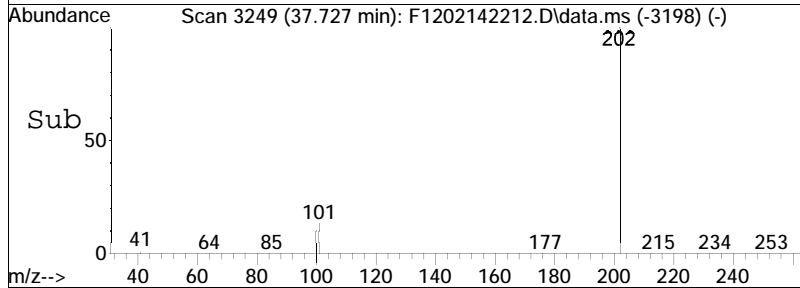
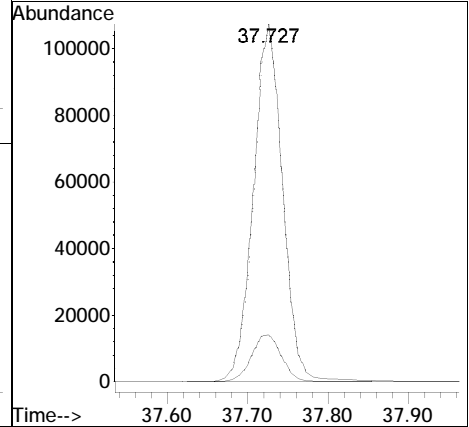
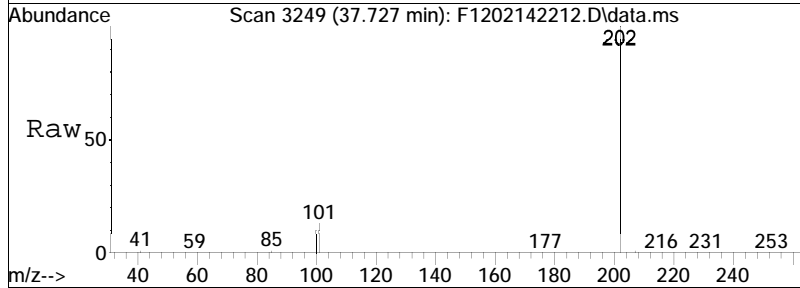
Tgt Ion: 192 Resp: 11624  
 Ion Ratio Lower Upper  
 192 100  
 191 58.8 42.6 79.0

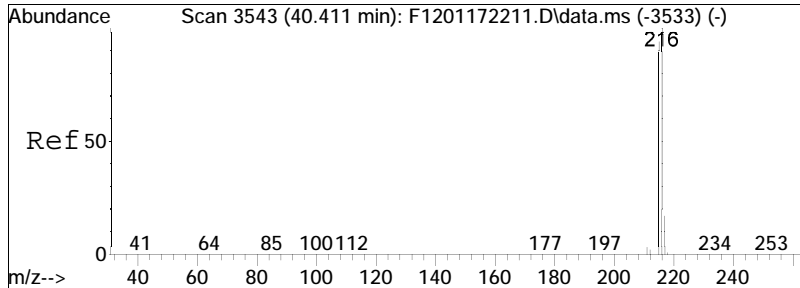




#56  
 Fluoranthene  
 Concen: 712.87 ng/mL M4  
 RT: 37.727 min Scan# 3249  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

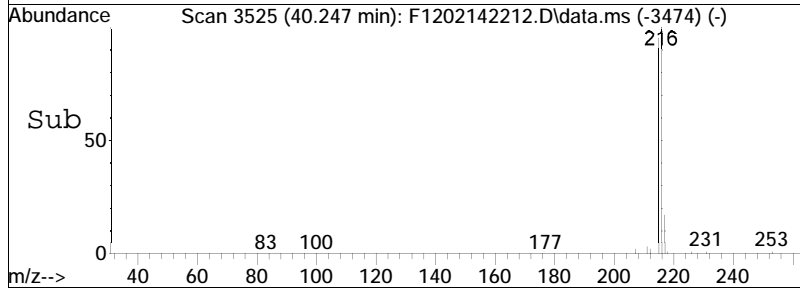
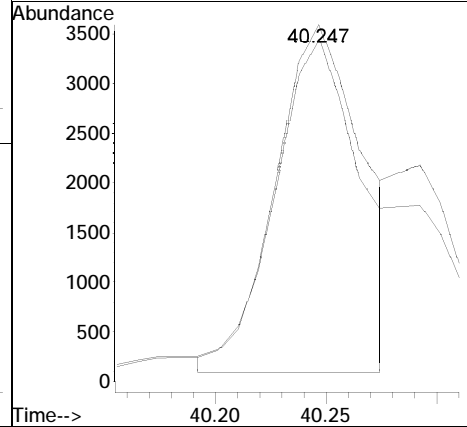
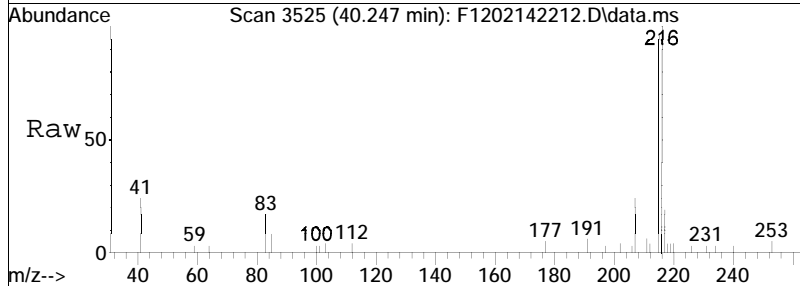
Tgt Ion	Resp	Lower	Upper
202	100		
101	14.3	8.4	15.6

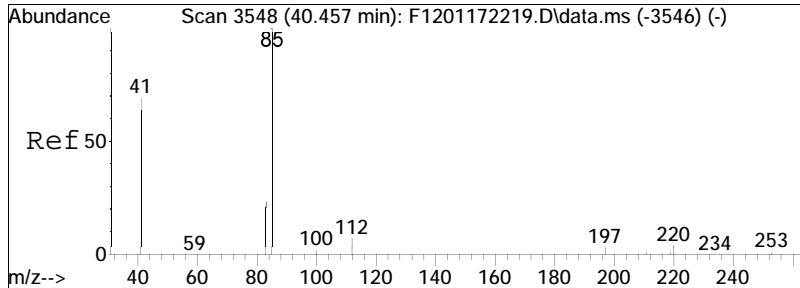




#57  
 Benzo(b)fluorene  
 Concen: 40.63 ng/mL M3  
 RT: 40.247 min Scan# 3525  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

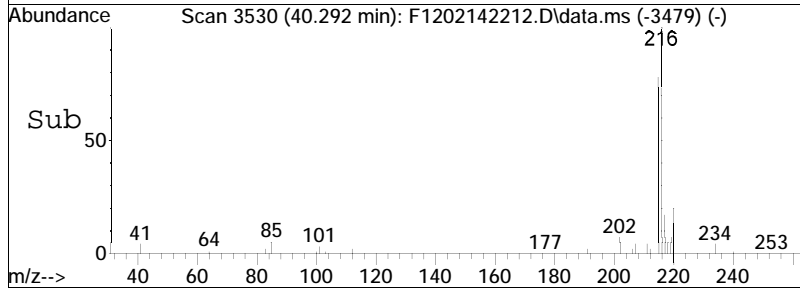
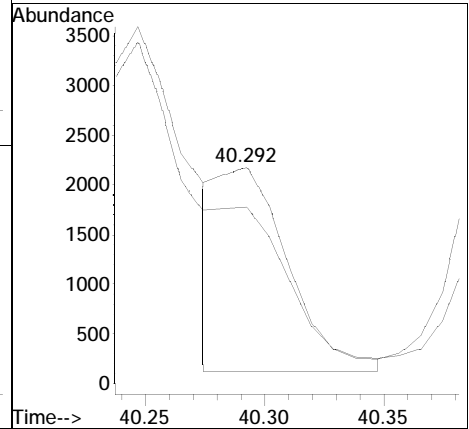
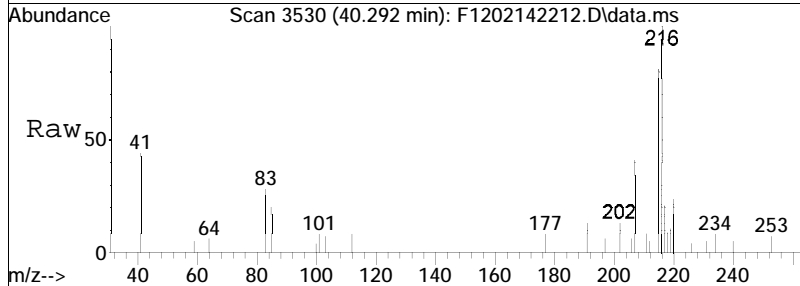
Tgt Ion	Resp	Lower	Upper
216	100		
215	12.0	91.7	170.3#

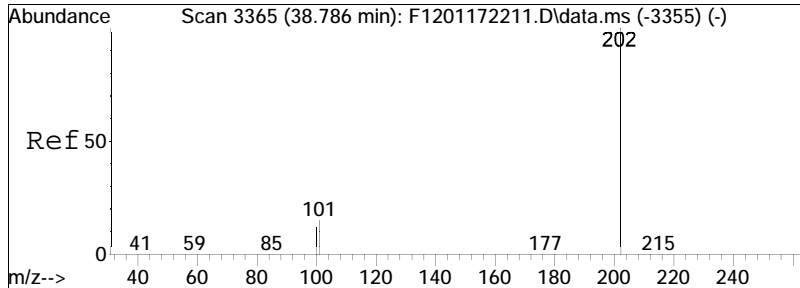




#58  
 7H-Benzo(c)fluorene  
 Concen: 17.85 ng/mL M3  
 RT: 40.292 min Scan# 3530  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

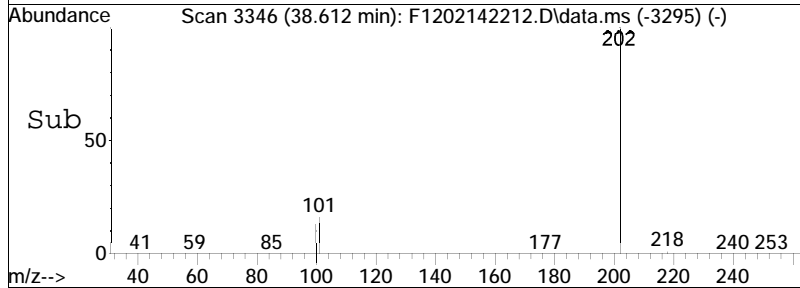
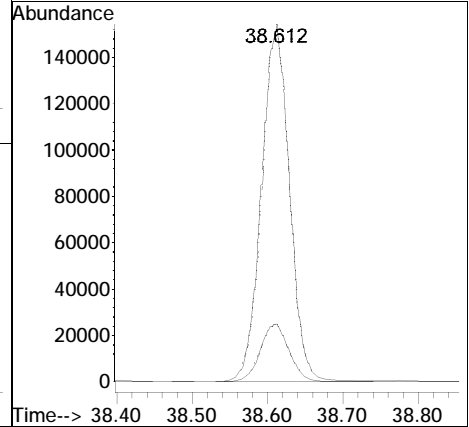
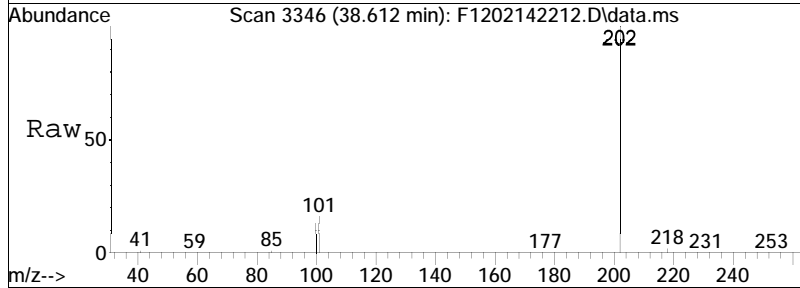
Tgt Ion	Resp	Lower	Upper
216	100		
215	29.6	99.9	185.5#



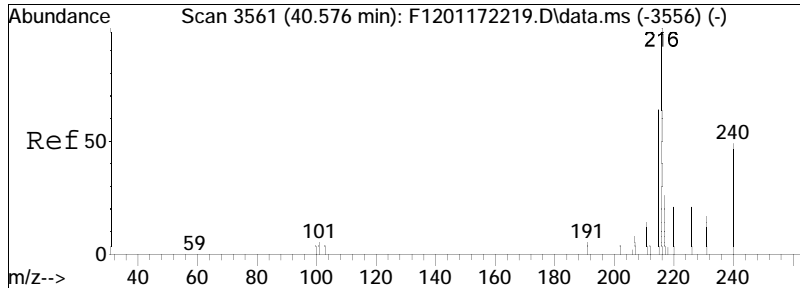


#59  
 Pyrene  
 Concen: 1003.75 ng/mL  
 RT: 38.612 min Scan# 3346  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

Tgt Ion	Ratio	Lower	Upper
202	100		
101	16.8	21.0	39.0#

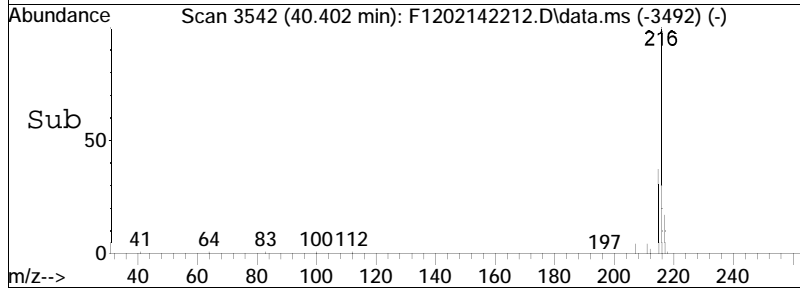
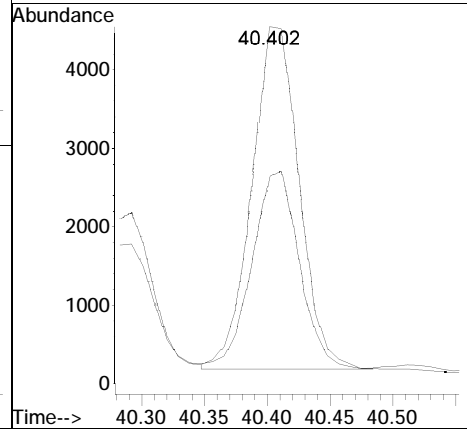
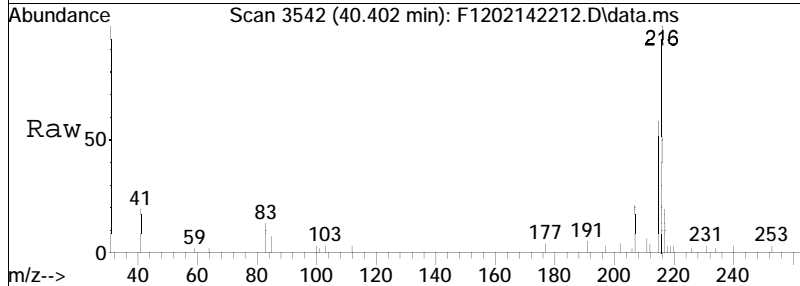


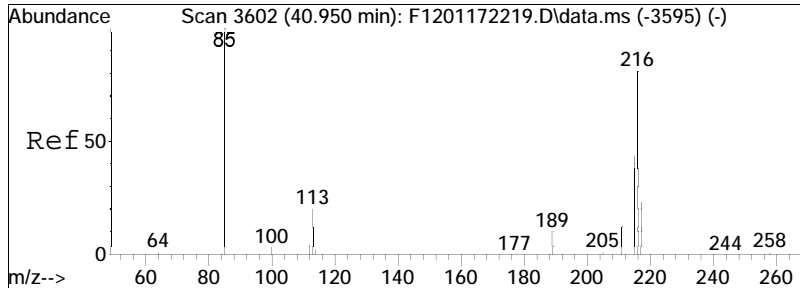




#60  
 2-Methylpyrene  
 Concen: 29.29 ng/mL M3  
 RT: 40.402 min Scan# 3542  
 Delta R.T. -0.046 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

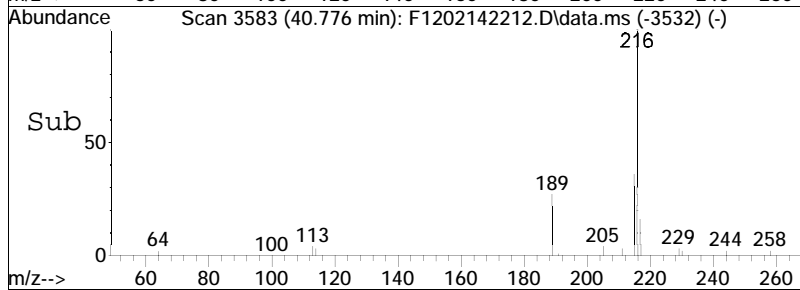
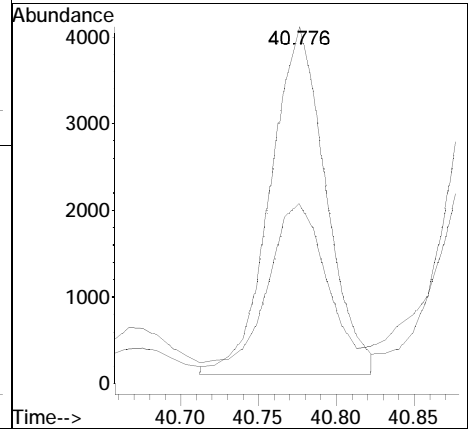
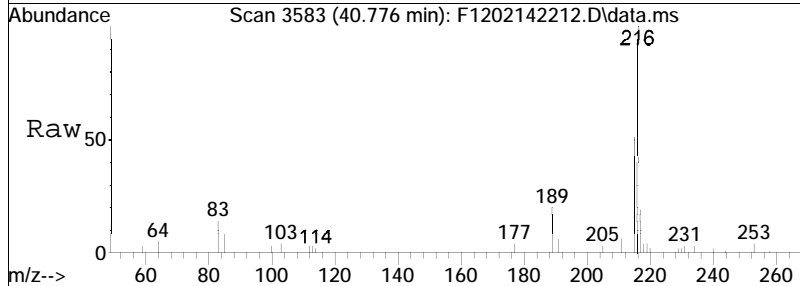
Tgt Ion: 216 Resp: 11387  
 Ion Ratio Lower Upper  
 216 100  
 215 110.8 70.0 130.0

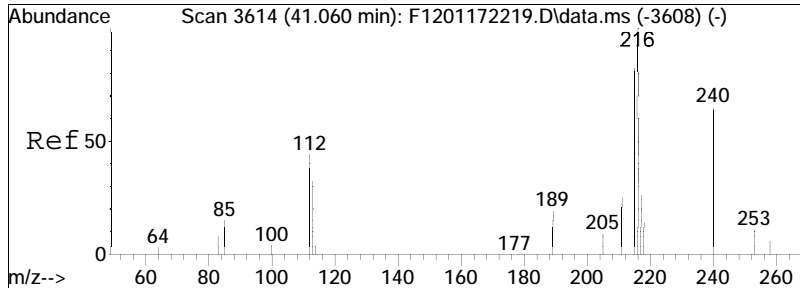




#61  
 4-Methylpyrene  
 Concen: 25.70 ng/mL M3  
 RT: 40.776 min Scan# 3583  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

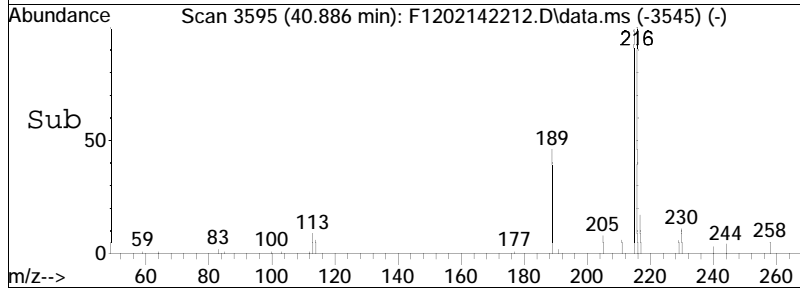
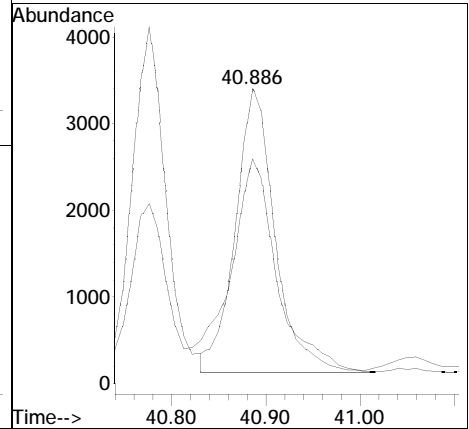
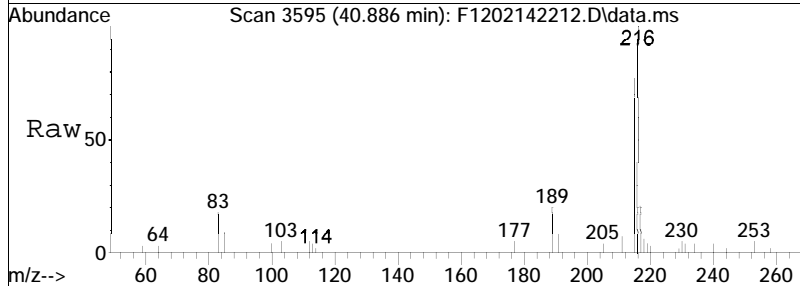
Tgt Ion:	216	Resp:	9990
Ion Ratio	Lower	Upper	
216	100		
215	82.2	51.2	95.2

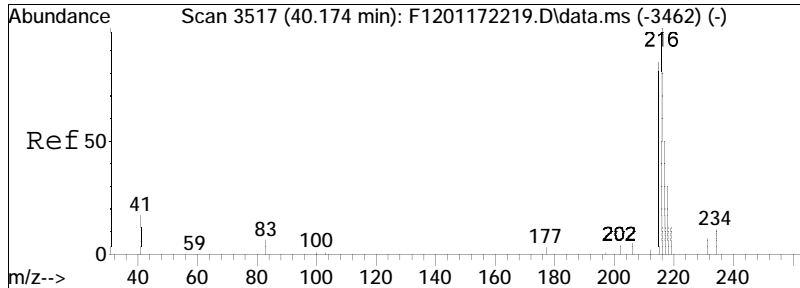




#62  
 1-Methylpyrene  
 Concen: 24.53 ng/mL  
 RT: 40.886 min Scan# 3595  
 Delta R.T. -0.046 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

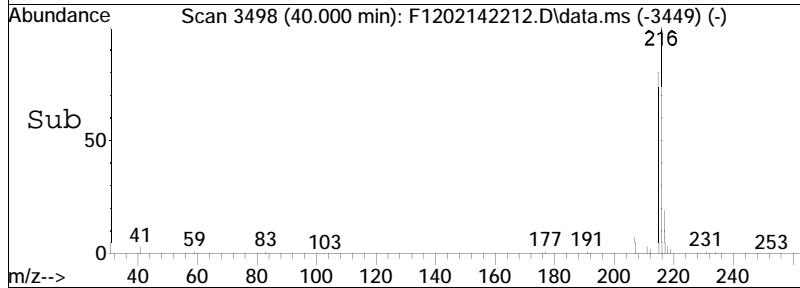
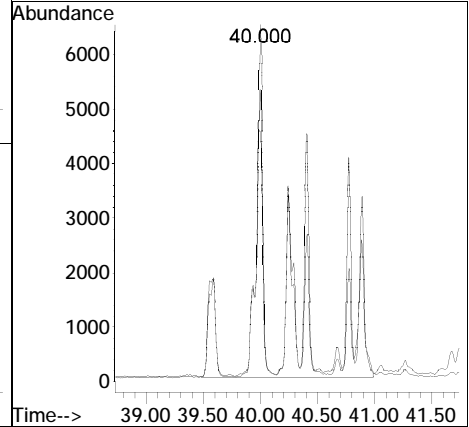
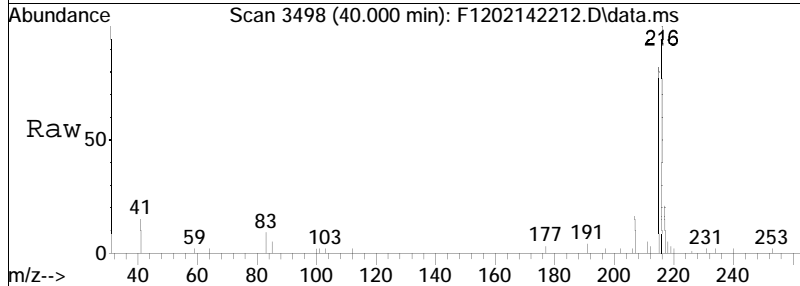
Tgt Ion: 216 Resp: 9535  
 Ion Ratio Lower Upper  
 216 100  
 215 86.1 76.4 141.8

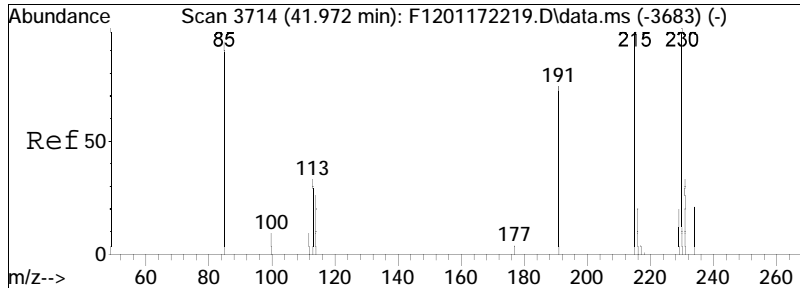




#63  
 Cl-Fluoranthenes/Pyrenes  
 Concen: 211.13 ng/mL M5  
 RT: 40.000 min Scan# 3498  
 Delta R.T. -0.052 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

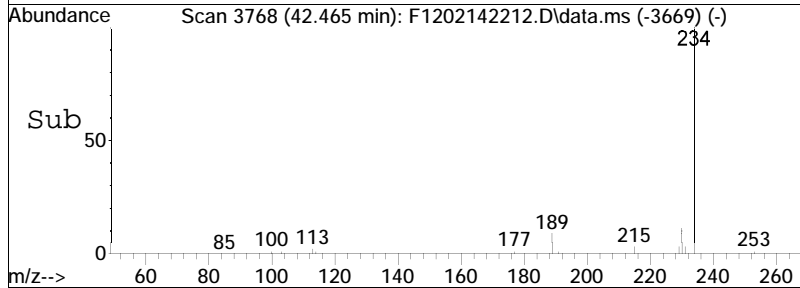
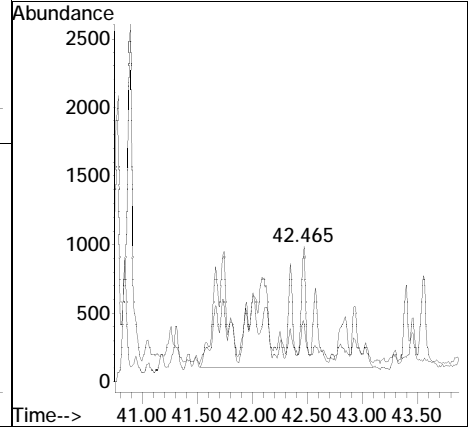
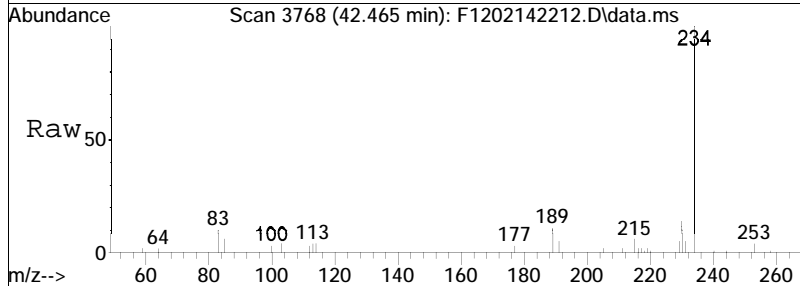
Tgt Ion: 216 Resp: 82079  
 Ion Ratio Lower Upper  
 216 100  
 215 19.9 65.7 122.1#

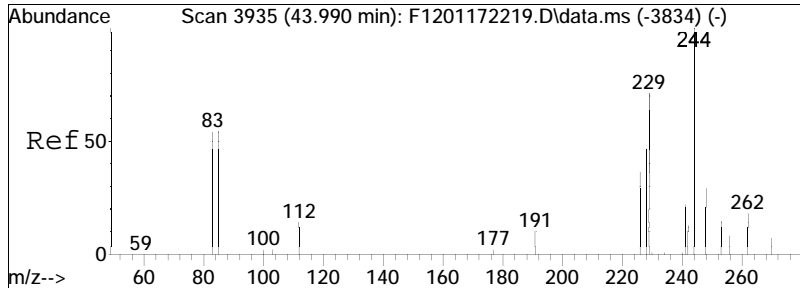




#64  
 C2-Fluoranthenes/Pyrenes  
 Concen: 66.30 ng/mL M5  
 RT: 42.465 min Scan# 3768  
 Delta R.T. 0.620 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

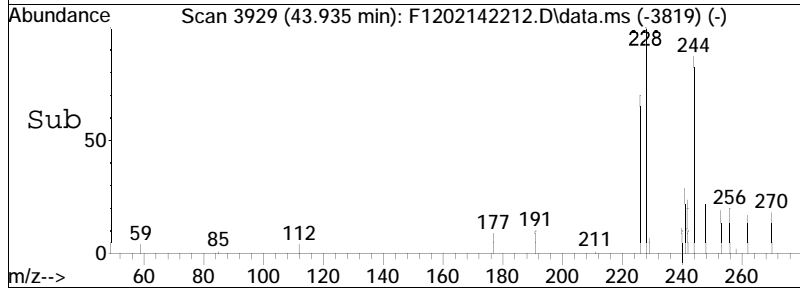
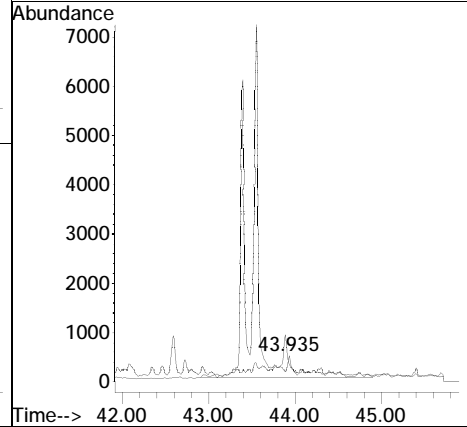
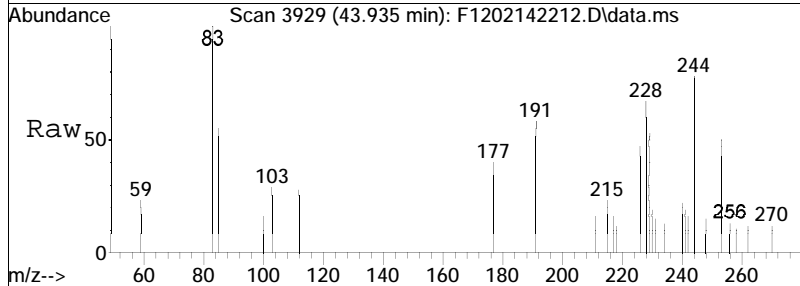
Tgt Ion: 230 Resp: 25775  
 Ion Ratio Lower Upper  
 230 100  
 215 3.9 79.5 147.7#

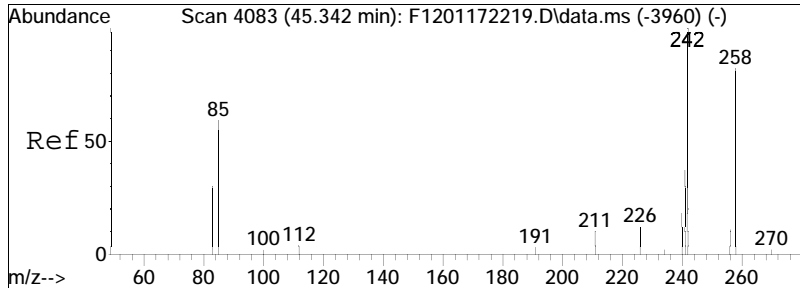




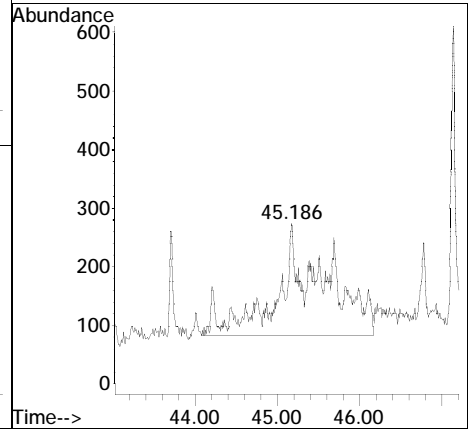
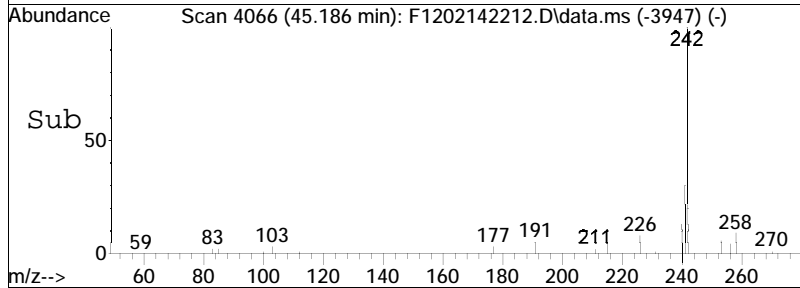
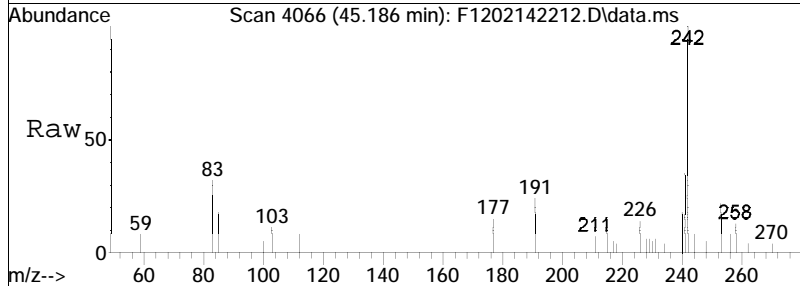
#65  
 C3-Fluoranthenes/Pyrenes  
 Concen: 34.31 ng/mL M5  
 RT: 43.935 min Scan# 3929  
 Delta R.T. 0.078 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

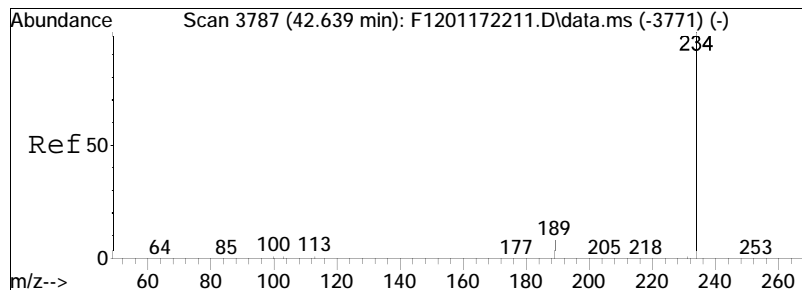
Tgt Ion: 244 Resp: 13338  
 Ion Ratio Lower Upper  
 244 100  
 229 1.3 65.4 121.4#





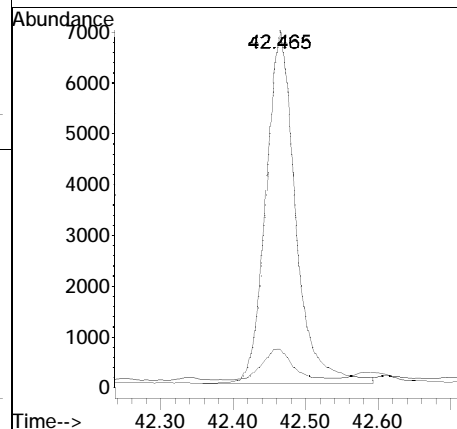
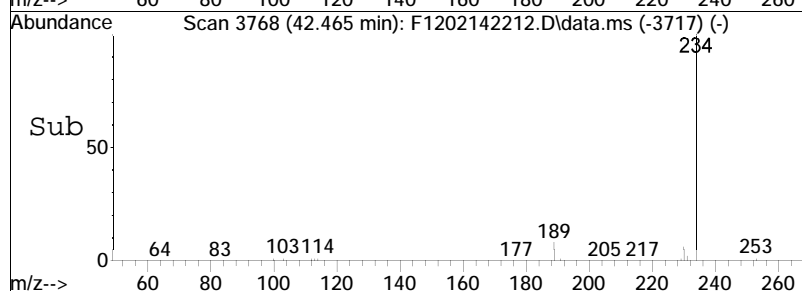
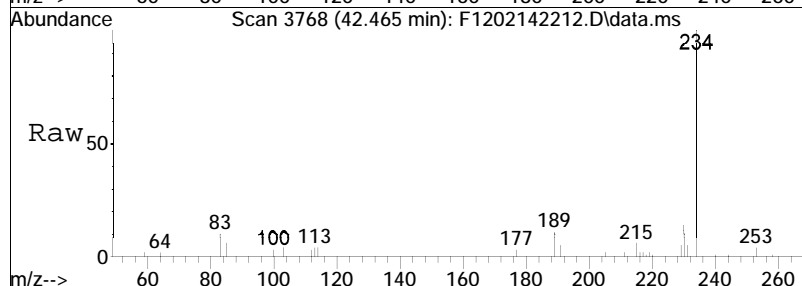
#66  
 C4-Fluoranthenes/Pyrenes  
 Concen: 19.79 ng/mL M5  
 RT: 45.186 min Scan# 4066  
 Delta R.T. -0.027 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion: 258 Resp: 7693



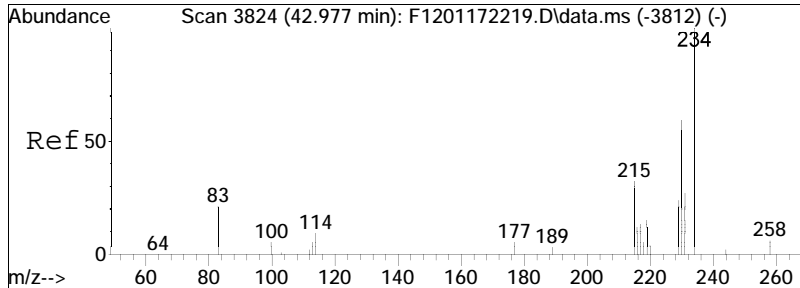


#67  
 Naphthobenzothiophene-2,1-D  
 Concen: 50.06 ng/mL  
 RT: 42.465 min Scan# 3768  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

Tgt Ion	Resp	Lower	Upper
234	100		
189	8.7	18.9	35.1#

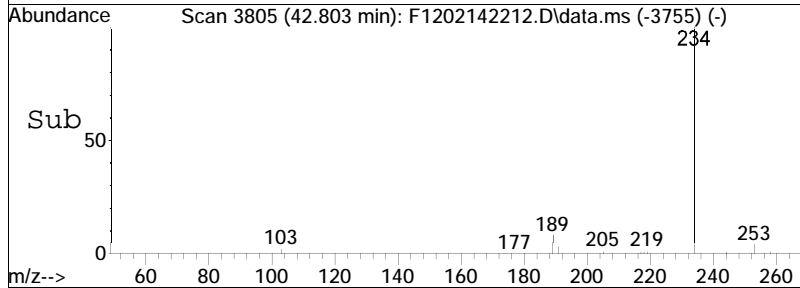
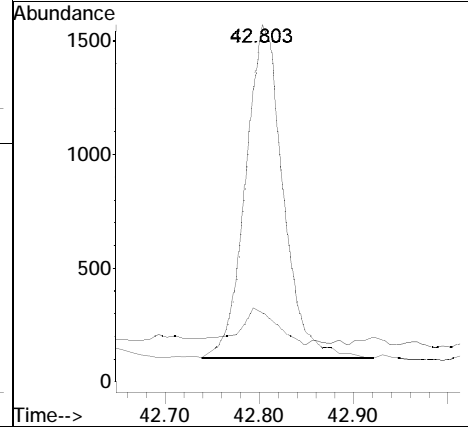
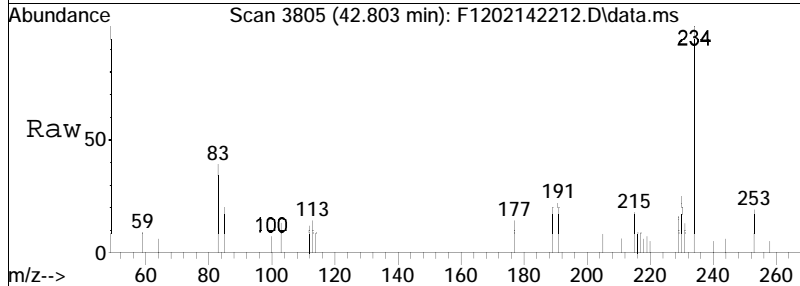


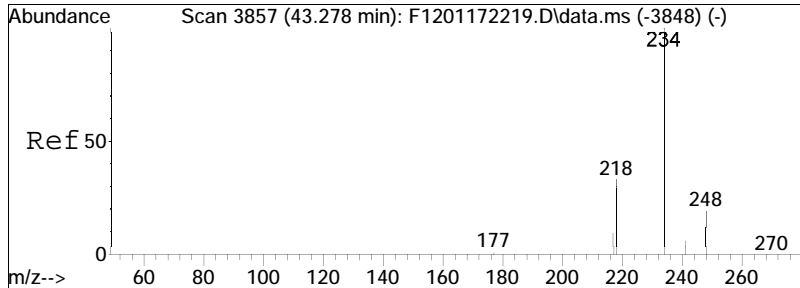




#68  
 Naphthobenzothiophene-1,2-D  
 Concen: 10.28 ng/mL  
 RT: 42.803 min Scan# 3805  
 Delta R.T. -0.046 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

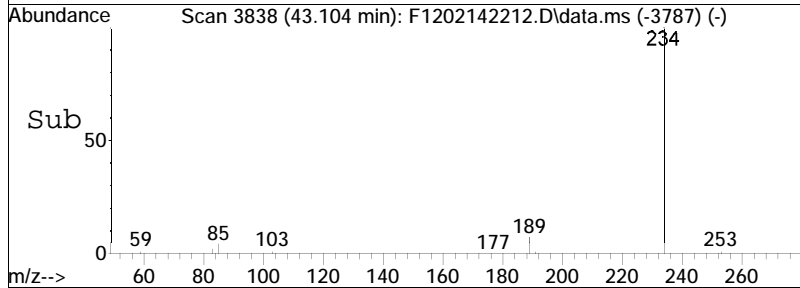
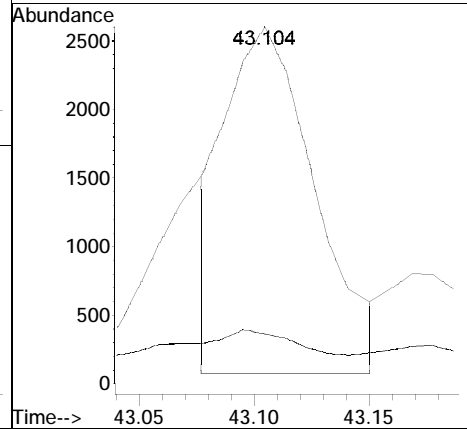
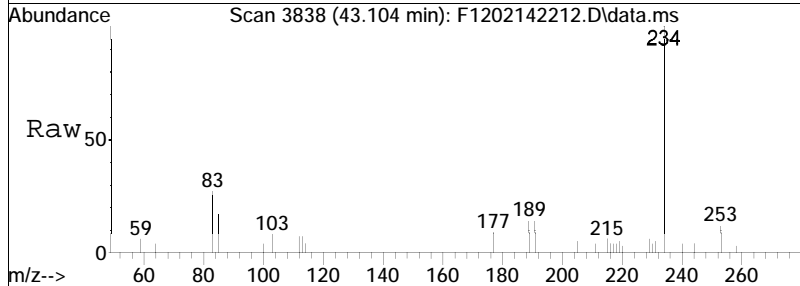
Tgt Ion: 234 Resp: 4006  
 Ion Ratio Lower Upper  
 234 100  
 189 9.6 53.0 98.4#

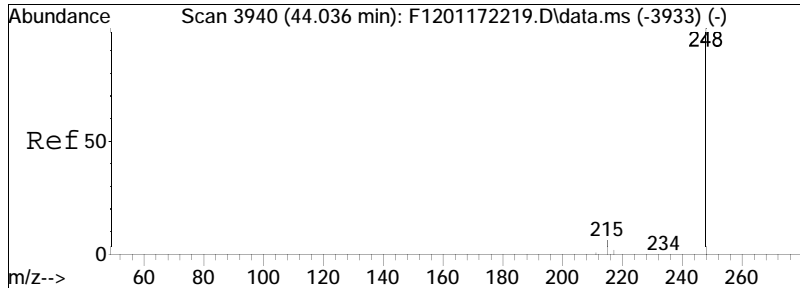




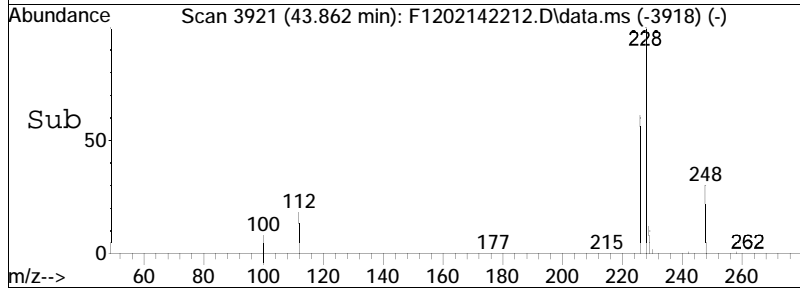
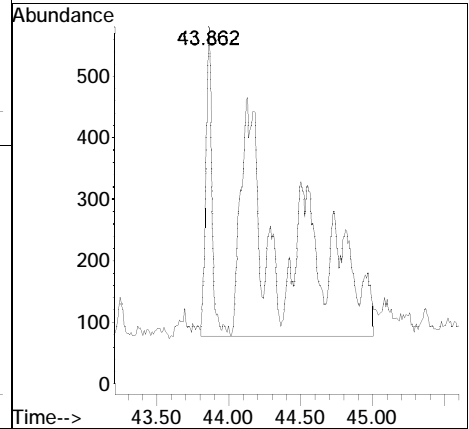
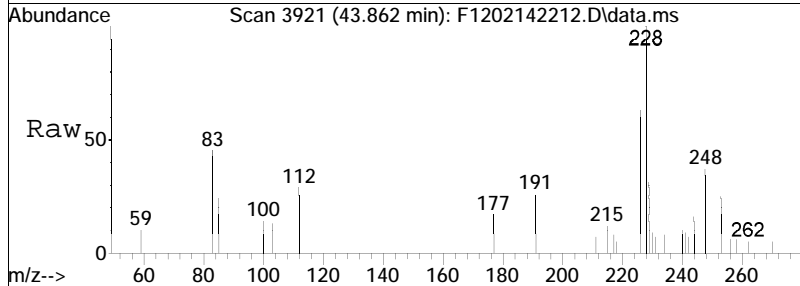
#69  
 Naphthobenzothiophene-2,3-D  
 Concen: 17.60 ng/mL M3  
 RT: 43.104 min Scan# 3838  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

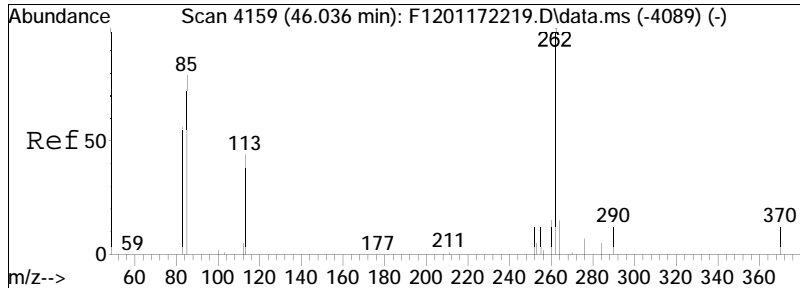
Tgt Ion: 234 Resp: 6861  
 Ion Ratio Lower Upper  
 234 100  
 189 16.8 77.6 144.0#



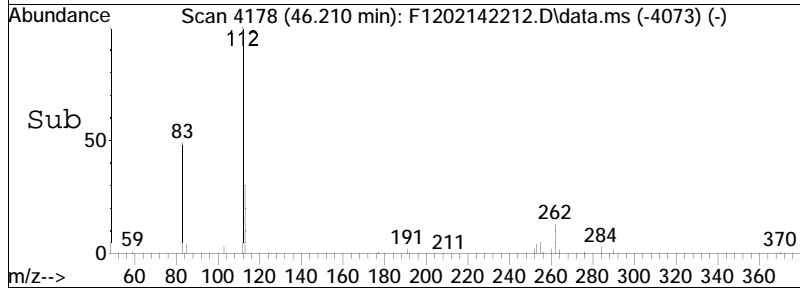
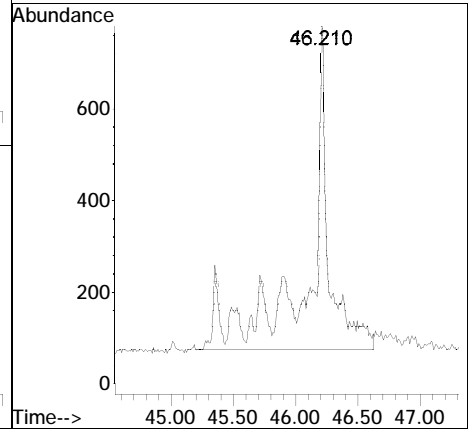
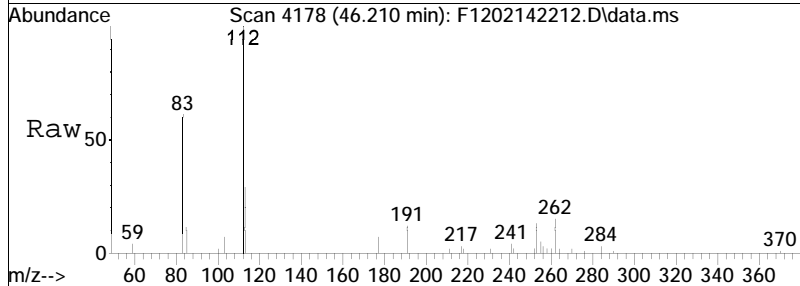


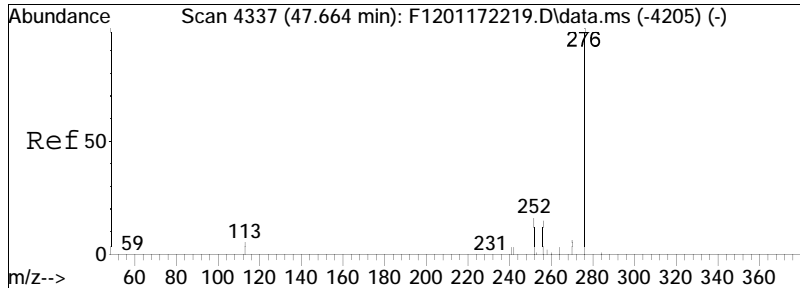
#70  
 C1-Naphthobenzothiophenes  
 Concen: 25.92 ng/ml M5  
 RT: 43.862 min Scan# 3921  
 Delta R.T. -0.041 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion:248 Resp: 10101



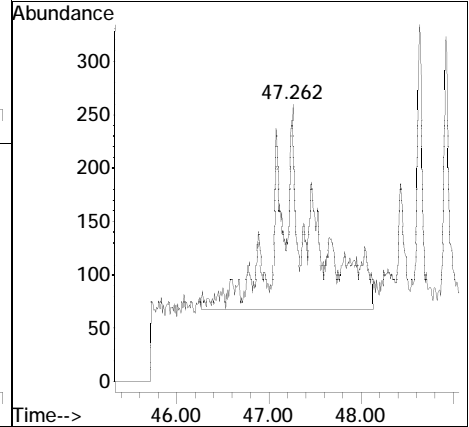
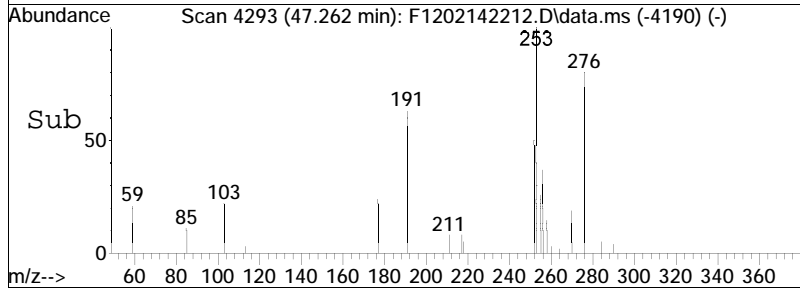
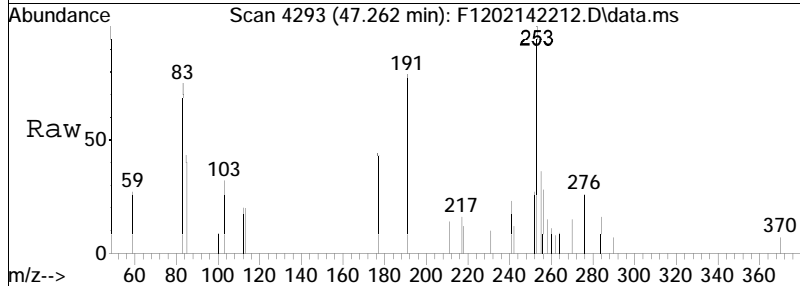


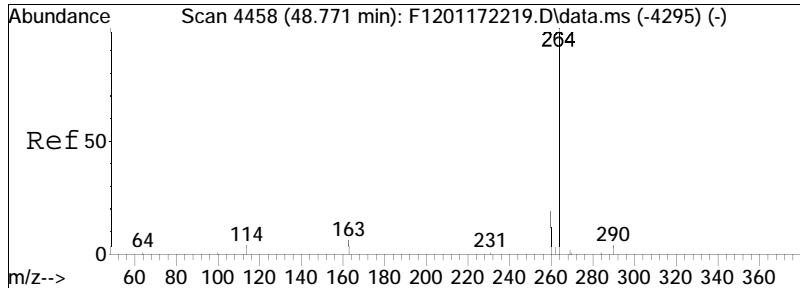
#71  
 C2-Naphthobenzothiophenes  
 Concen: 20.55 ng/ml M5  
 RT: 46.210 min Scan# 4178  
 Delta R.T. 0.313 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion: 262 Resp: 8008



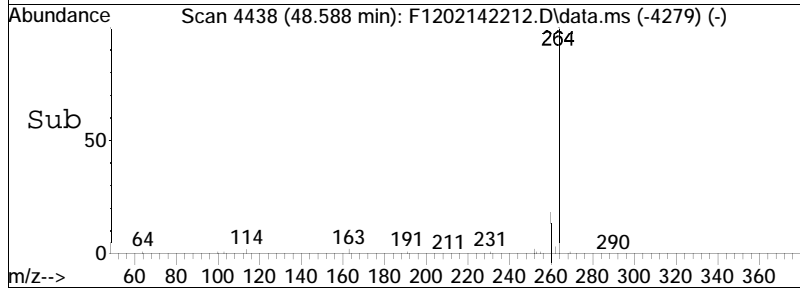
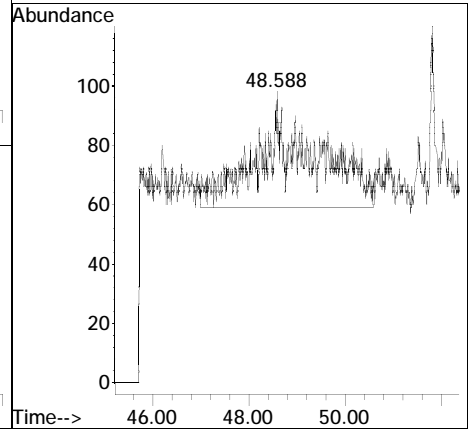
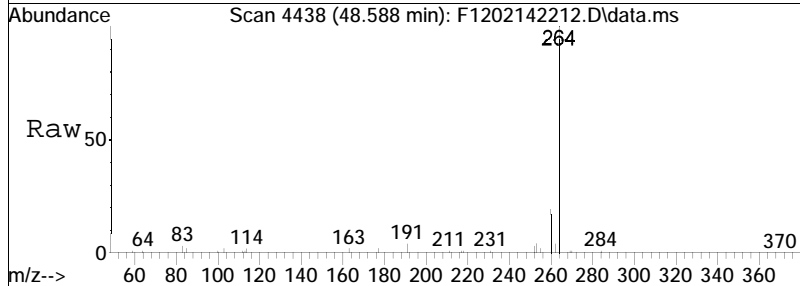


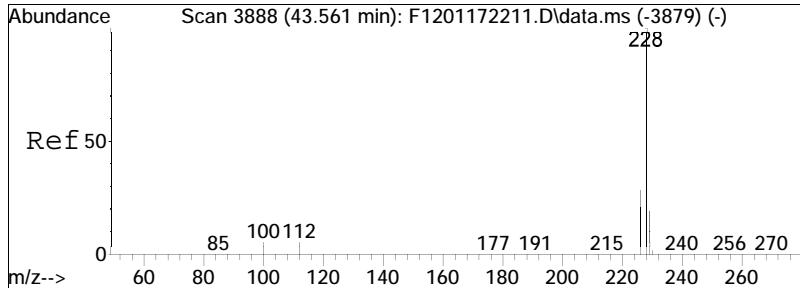
#72  
 C3-Naphthobenzothiophenes  
 Concen: 13.05 ng/ml M5  
 RT: 47.262 min Scan# 4293  
 Delta R.T. -0.259 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion: 276 Resp: 5084





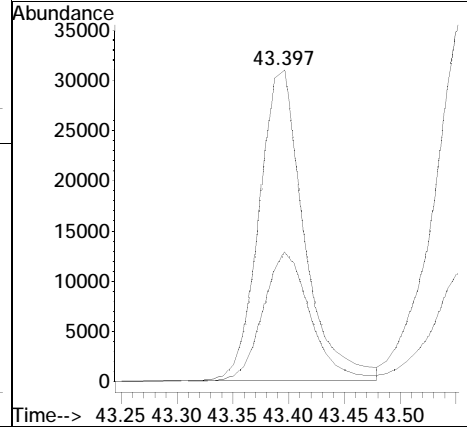
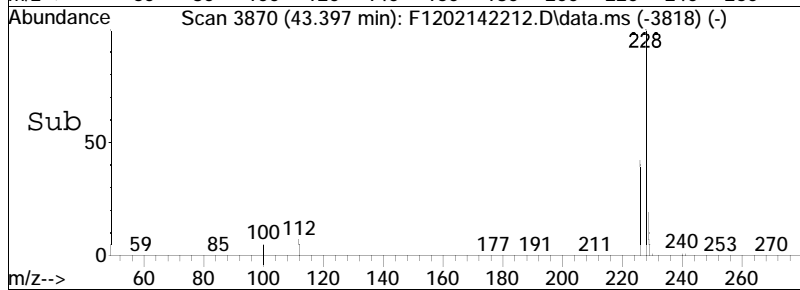
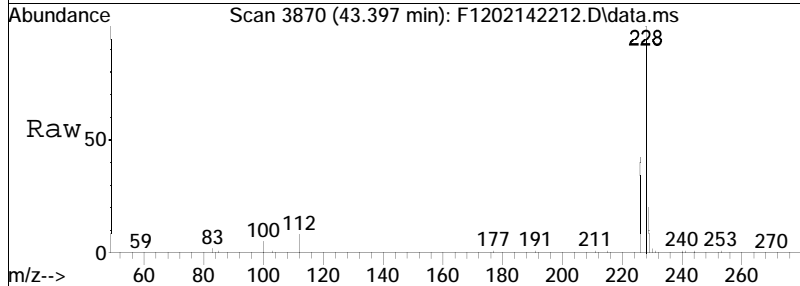
#73  
 C4-Naphthobenzothiophenes  
 Concen: 7.72 ng/mL M5  
 RT: 48.588 min Scan# 4438  
 Delta R.T. -0.036 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am  
 Tgt Ion: 290 Resp: 3007

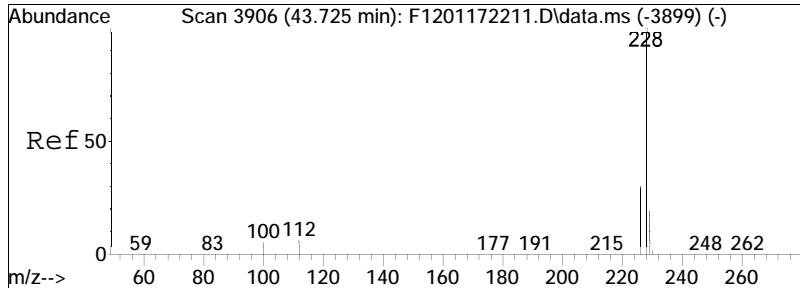




#75  
 Benz[a]anthracene  
 Concen: 221.22 ng/mL M3  
 RT: 43.397 min Scan# 3870  
 Delta R.T. -0.027 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

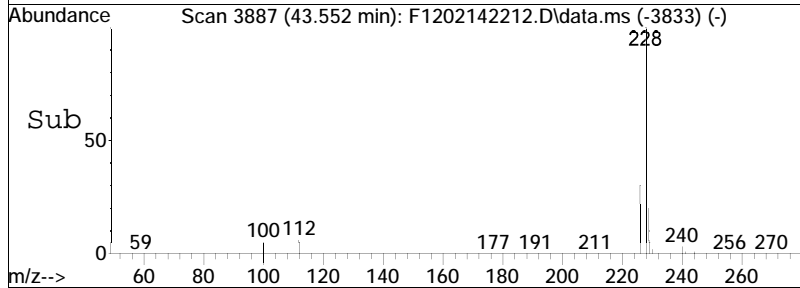
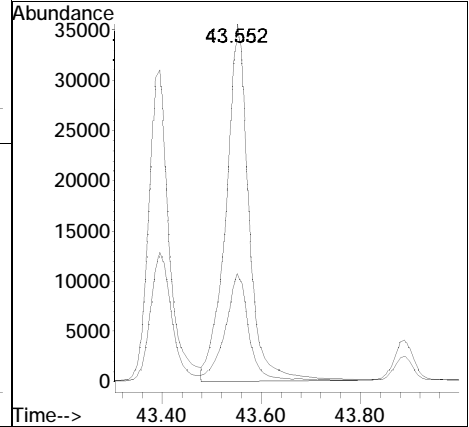
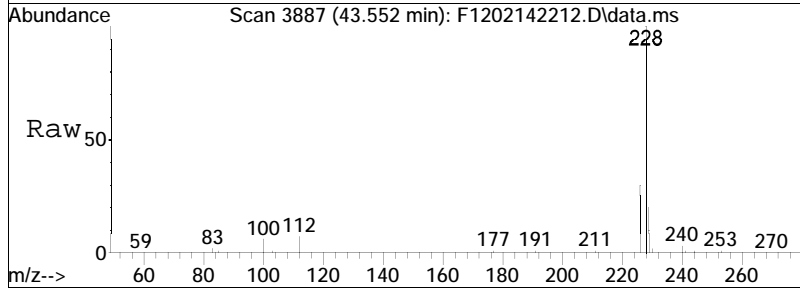
Tgt Ion	Resp	Lower	Upper
228	100		
226	40.1	19.1	35.5#



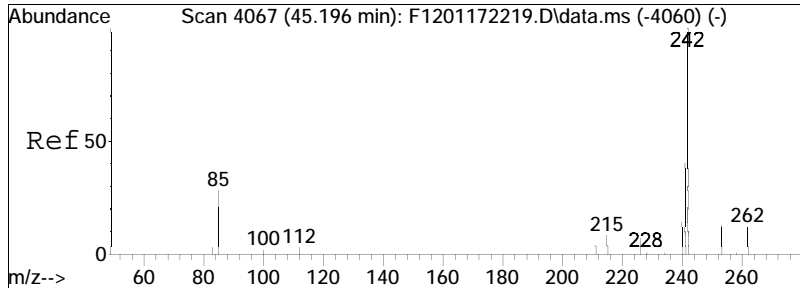


#76  
 Chrysene  
 Concen: 295.14 ng/mL  
 RT: 43.552 min Scan# 3887  
 Delta R.T. -0.009 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

Tgt Ion	Resp	Lower	Upper
228	100		
226	30.4	27.8	51.6

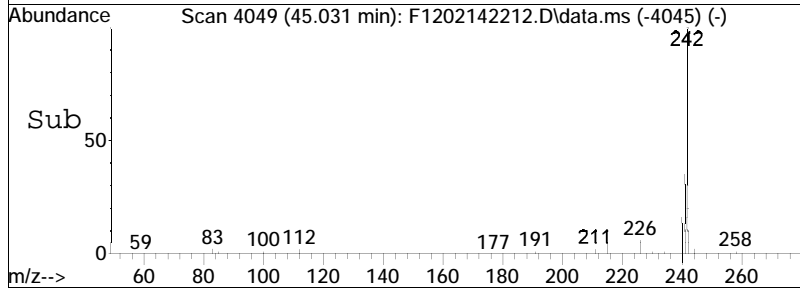
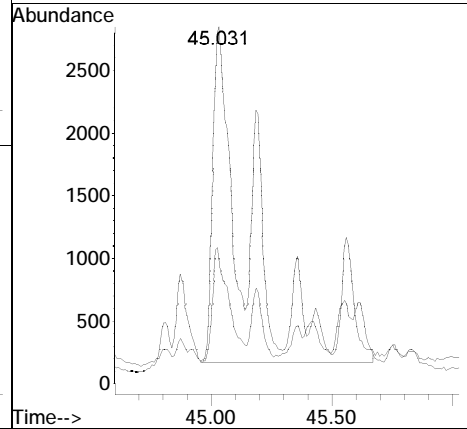
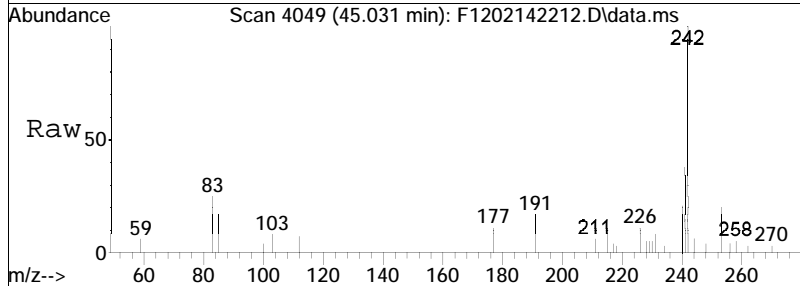


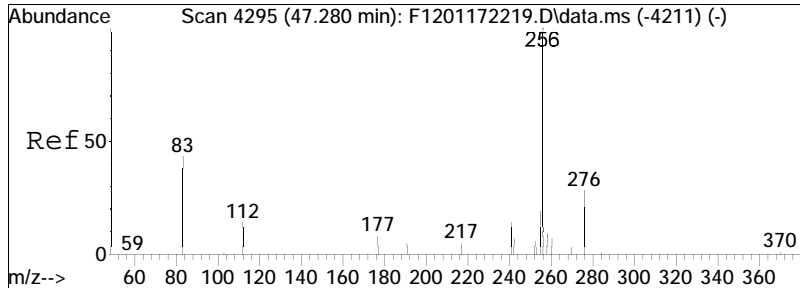




#78  
 C1-Chrysenes  
 Concen: 72.05 ng/mL M5  
 RT: 45.031 min Scan# 4049  
 Delta R.T. -0.027 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

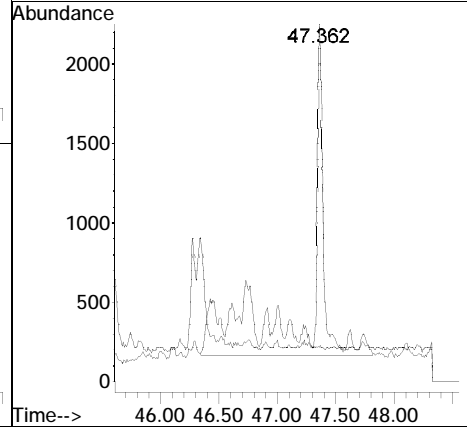
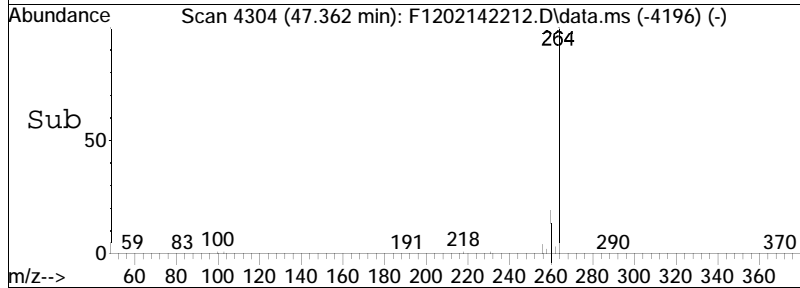
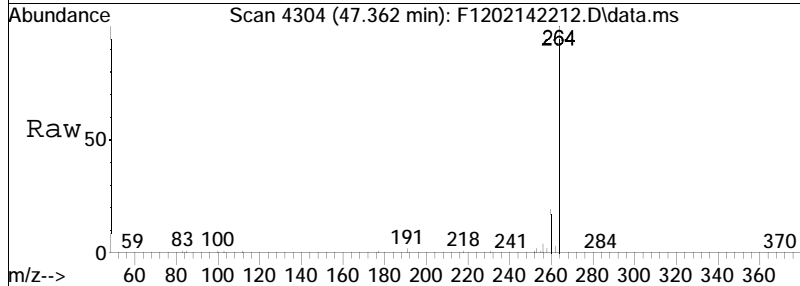
Tgt Ion: 242 Resp: 27888  
 Ion Ratio Lower Upper  
 242 100  
 241 15.3 31.9 59.2#

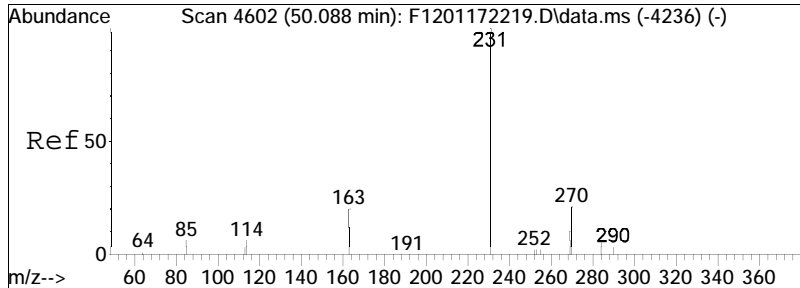




#79  
 C2-Chrysenes  
 Concen: 50.34 ng/mL M5  
 RT: 47.362 min Scan# 4304  
 Delta R.T. 0.220 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

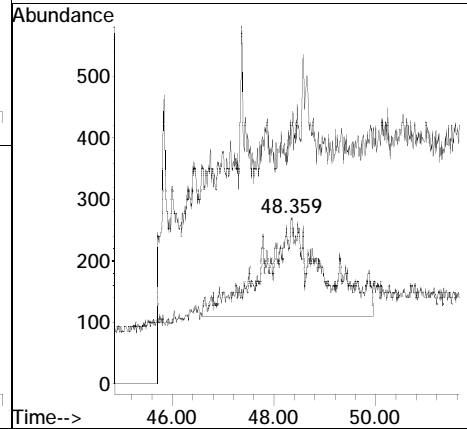
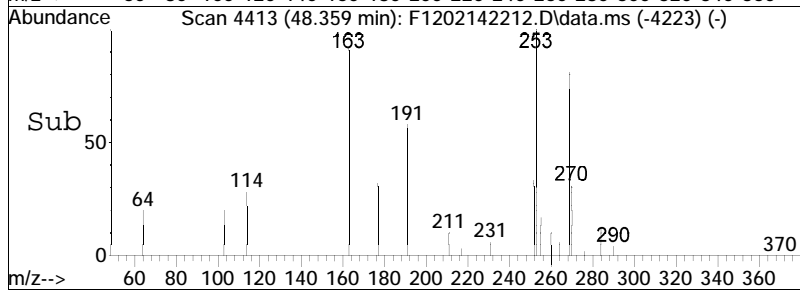
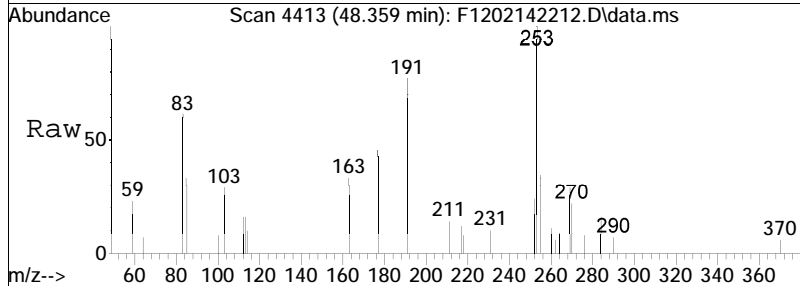
Tgt Ion	Resp	Lower	Upper
256	19484		
241	1.0	25.1	46.7#

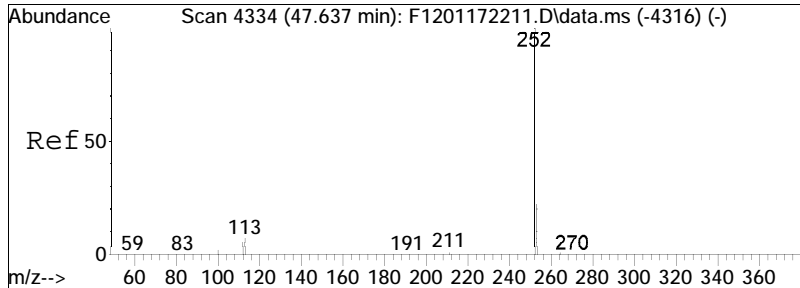




#81  
 C3-Chrysenes  
 Concen: 33.50 ng/mL M5  
 RT: 48.359 min Scan# 4413  
 Delta R.T. -1.555 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

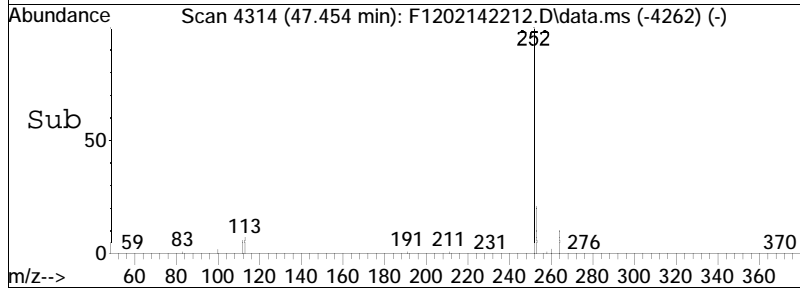
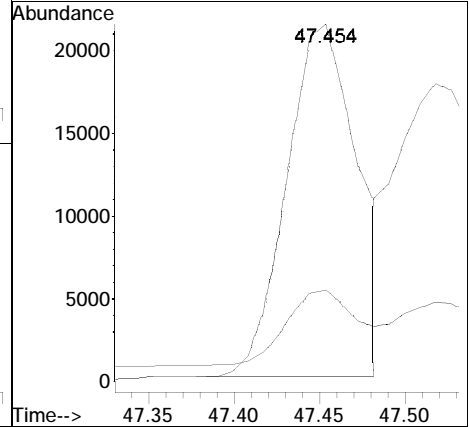
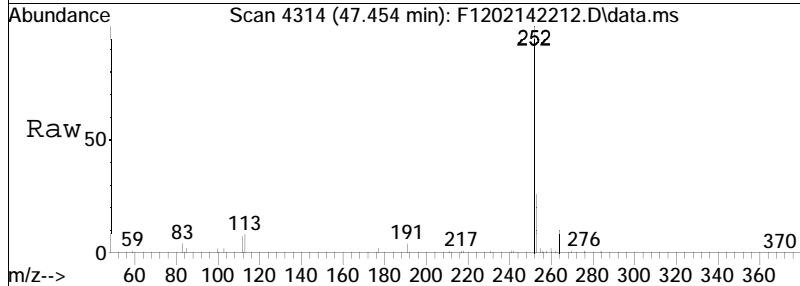
Tgt Ion: 270 Resp: 12965  
 Ion Ratio Lower Upper  
 270 100  
 255 0.0 40.7 75.7#

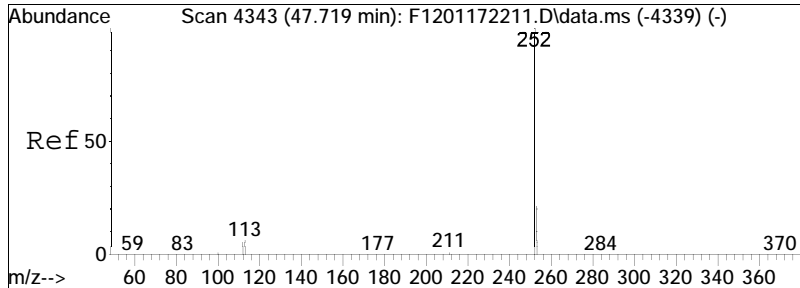




#85  
 Benzo[b]fluoranthene  
 Concen: 139.01 ng/mL  
 RT: 47.454 min Scan# 4314  
 Delta R.T. -0.027 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

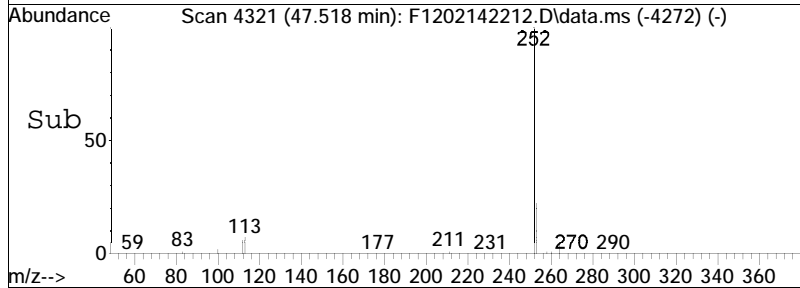
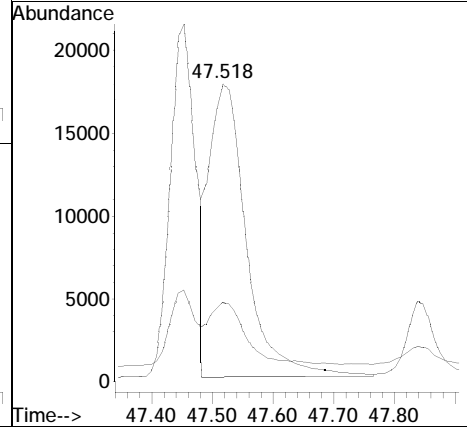
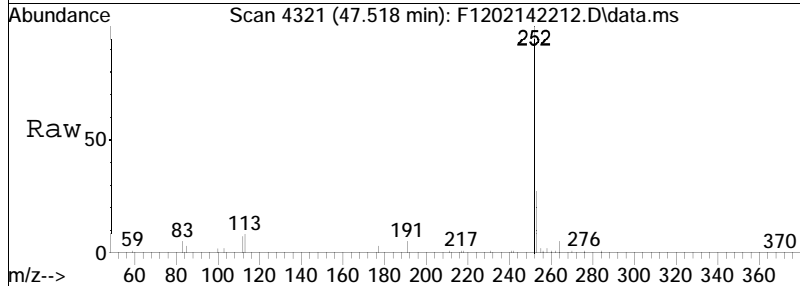
Tgt Ion	Resp	Lower	Upper
252	61317	100	
253	22.5	16.6	30.8

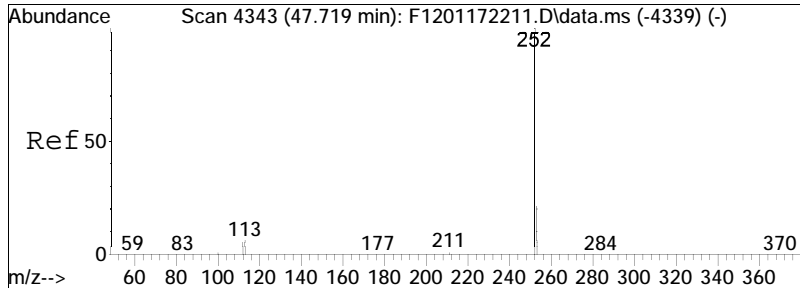




#86  
 Benzo[j]+[k]fluoranthene  
 Concen: 167.08 ng/mL  
 RT: 47.518 min Scan# 4321  
 Delta R.T. -0.055 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

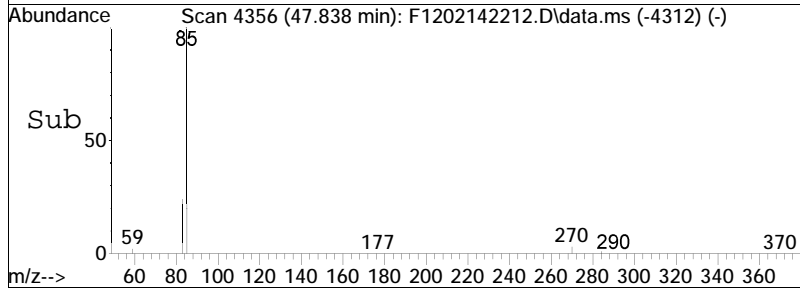
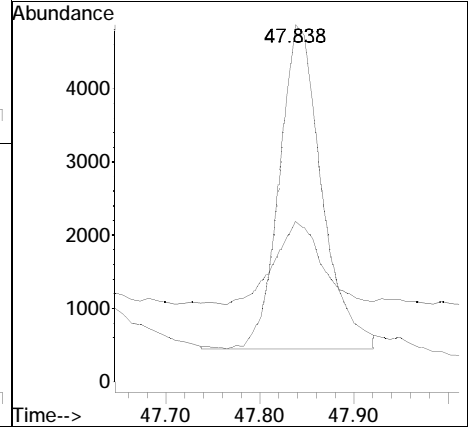
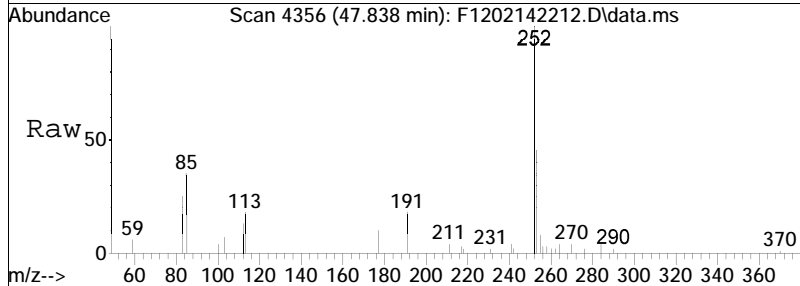
Tgt Ion	Resp	Lower	Upper
252	100		
253	20.3	16.4	30.4

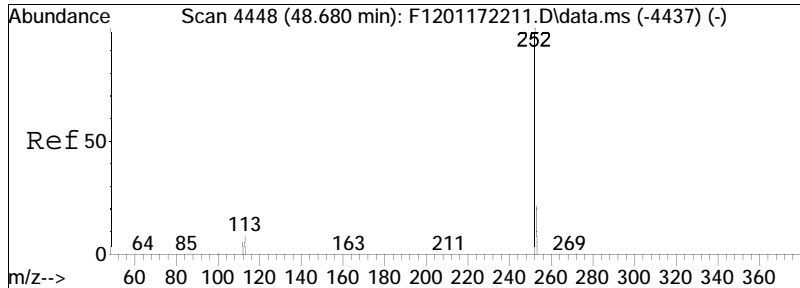




#87  
 Benzo[a]fluoranthene  
 Concen: 30.25 ng/mL M3  
 RT: 47.838 min Scan# 4356  
 Delta R.T. -0.094 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

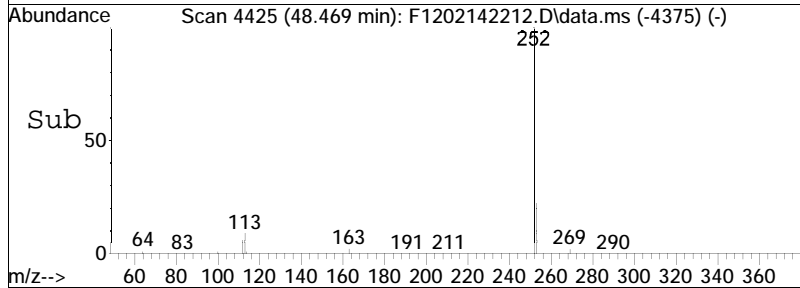
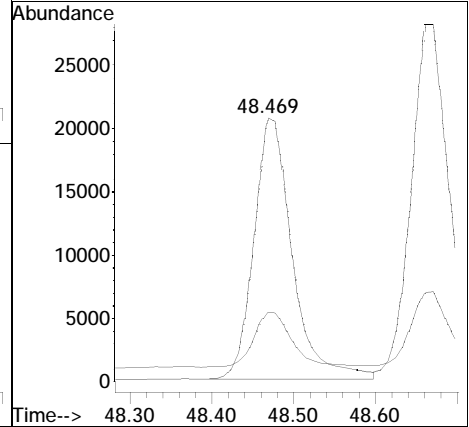
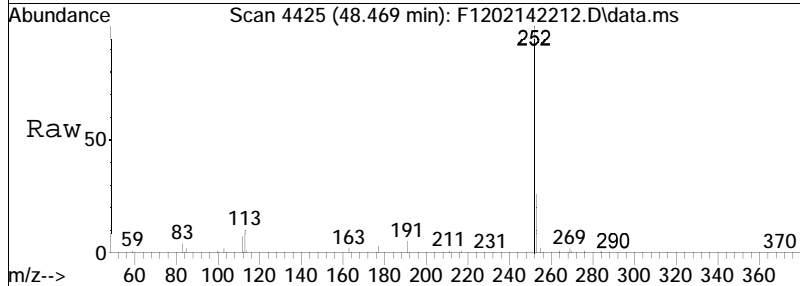
Tgt Ion	Resp	Lower	Upper
252	100		
253	28.4	203.3	377.6#

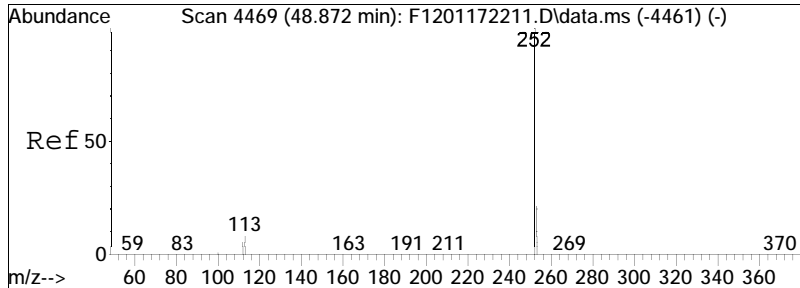




#88  
 Benzo[e]pyrene  
 Concen: 152.89 ng/mL  
 RT: 48.469 min Scan# 4425  
 Delta R.T. -0.046 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

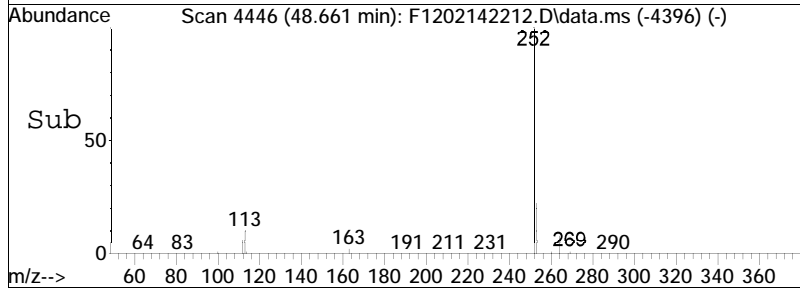
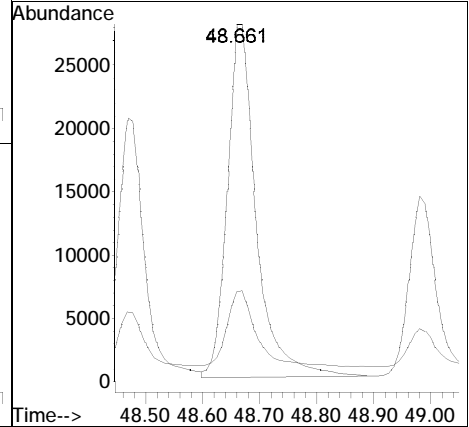
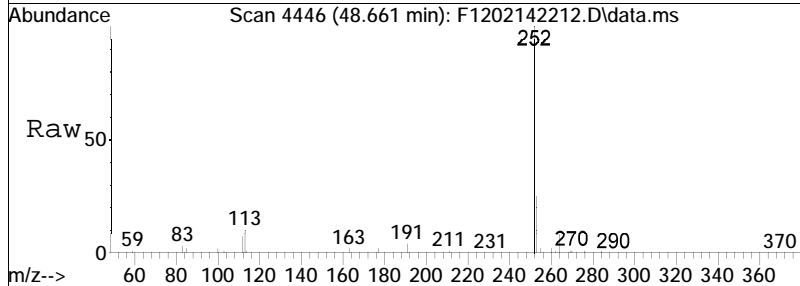
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.2	16.8	31.2



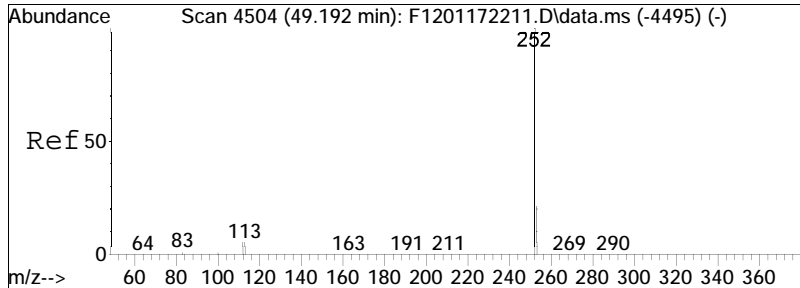


#90  
 Benzo[a]pyrene  
 Concen: 231.24 ng/mL  
 RT: 48.661 min Scan# 4446  
 Delta R.T. -0.046 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

Tgt Ion	Resp	Lower	Upper
252	100		
253	22.5	16.8	31.2

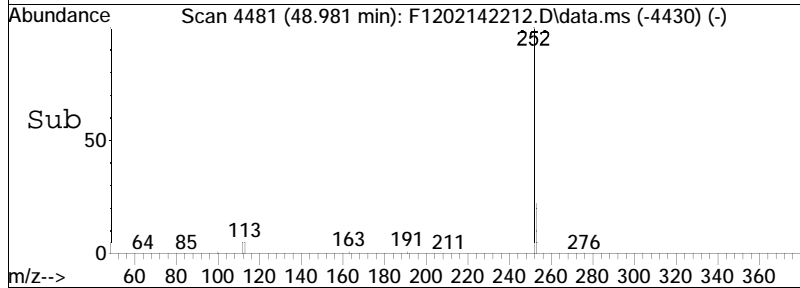
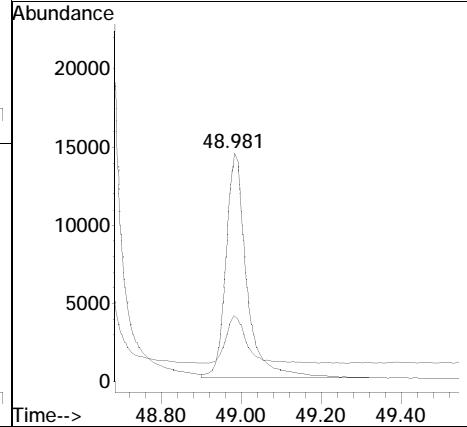
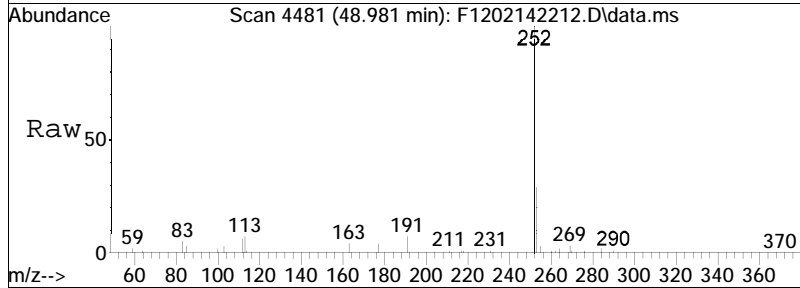


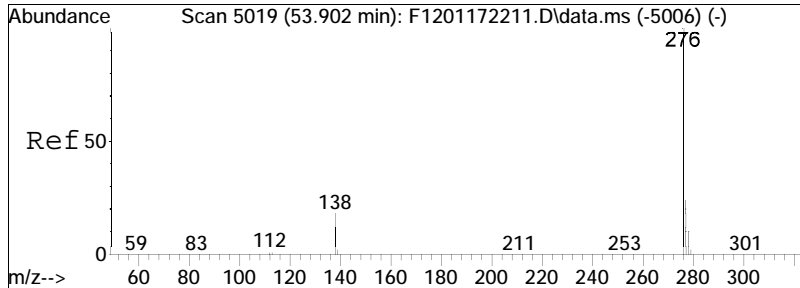




#91  
 Perylene  
 Concen: 118.42 ng/mL  
 RT: 48.981 min Scan# 4481  
 Delta R.T. -0.037 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

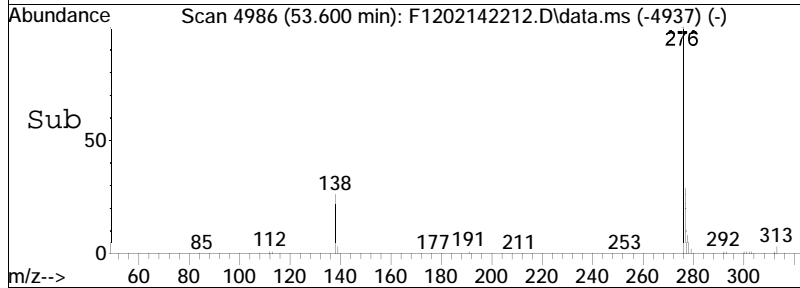
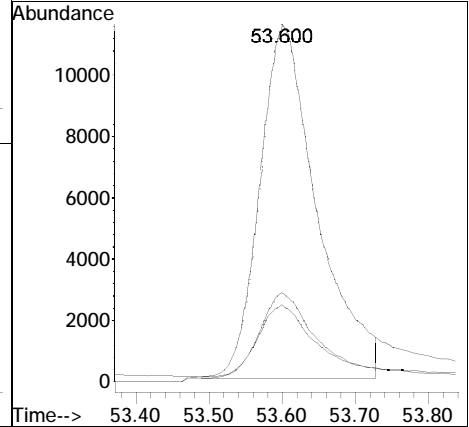
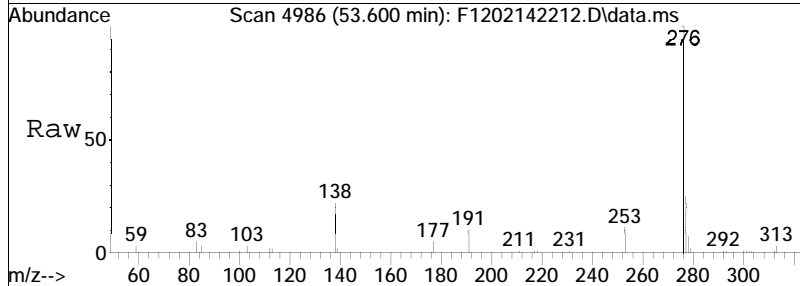
Tgt Ion	Resp	Lower	Upper
252	100		
253	20.5	17.3	32.1

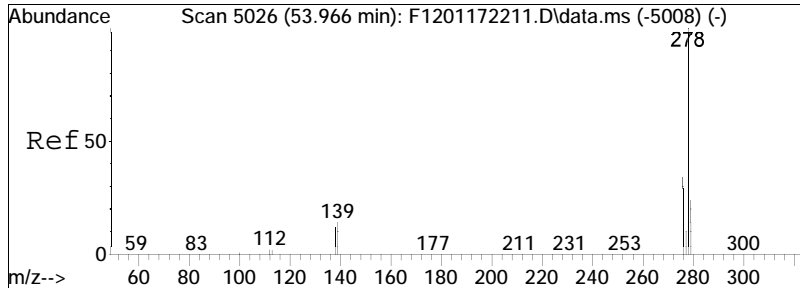




#92  
 Indeno[1,2,3-cd]pyrene  
 Concen: 108.57 ng/mL M3  
 RT: 53.600 min Scan# 4986  
 Delta R.T. -0.055 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

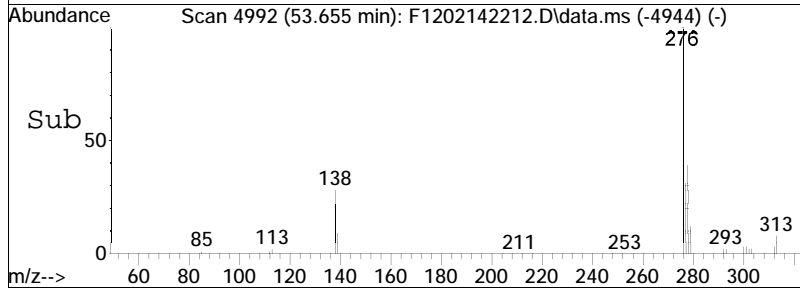
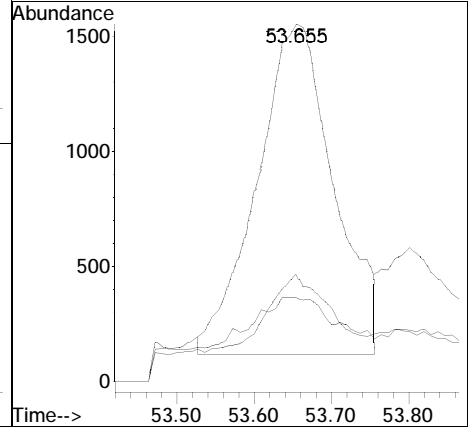
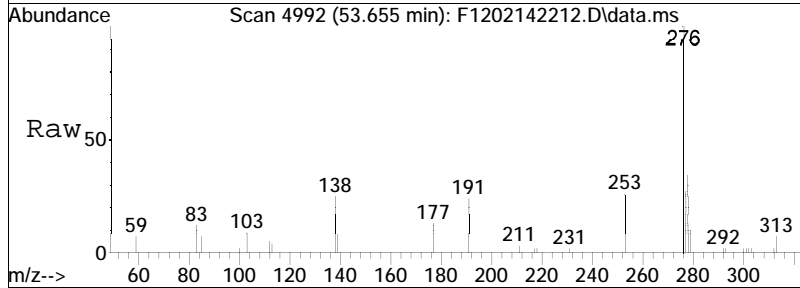
Tgt Ion	Resp	Lower	Upper
276	100		
138	30.8	12.2	22.7#
277	28.8	16.7	30.9

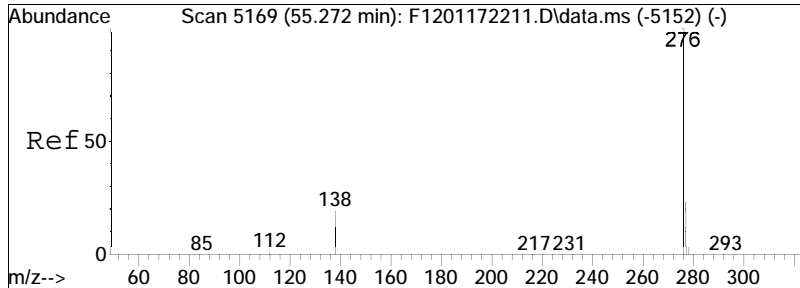




#93  
 Dibenz[ah]+[ac]anthracene  
 Concen: 19.52 ng/mL M4  
 RT: 53.655 min Scan# 4992  
 Delta R.T. -0.064 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

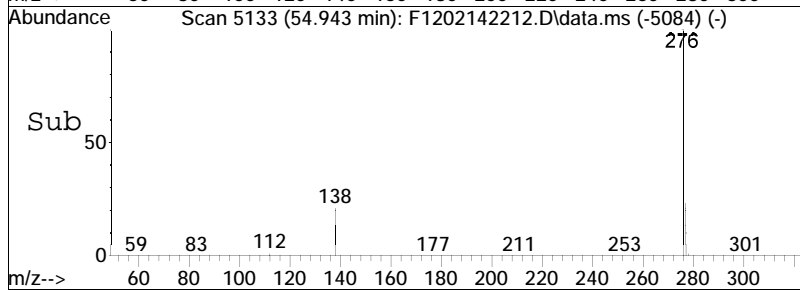
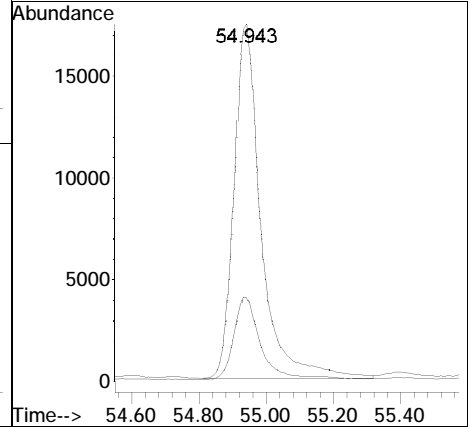
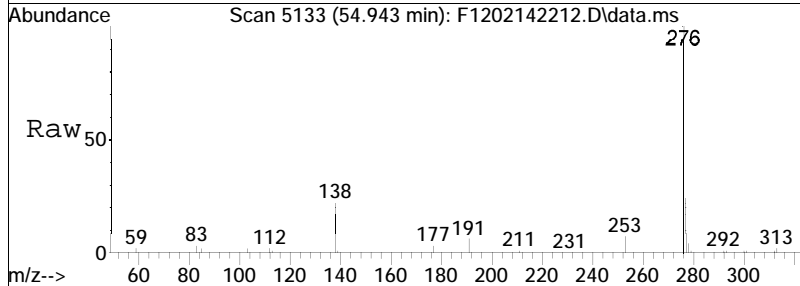
Tgt Ion	Resp	Lower	Upper
278	100		
139	19.6	10.1	18.7#
279	15.2	16.6	30.8#





#94  
 Benzo[g,h,i]perylene  
 Concen: 186.55 ng/mL  
 RT: 54.943 min Scan# 5133  
 Delta R.T. -0.055 min  
 Lab File: F1202142212.D  
 Acq: 15 Feb 2022 2:47 am

Tgt Ion	Resp	Lower	Upper
276	100		
277	22.6	16.4	30.6



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142213.D  
 Acq On : 15 Feb 2022 4:11 am  
 Operator : PAH12:MJS  
 Sample : 12206076-05,32  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 22 11:44:34 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	26.986	164	81991M4	500.000	ng/mL	-0.04	
74) Chrysene-d12	43.451	240	167748	500.000	ng/mL	-0.05	
System Monitoring Compounds							
8) Naphthalene-d8	20.005	136	147043	415.950	ng/mL	-0.04	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	41.59%#		
40) Phenanthrene-d10	32.862	188	141205	476.736	ng/mL	-0.04	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	47.67%#		
84) Benzo[b]fluoranthene-d12	47.362	264	176298	451.983	ng/mL	-0.04	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	45.20%#		
89) Benzo[a]pyrene-d12	48.579	264	130919	443.471	ng/mL	-0.04	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	44.35%#		
Target Compounds							
2) trans-Decalin	16.656	138	459	5.997	ng/mL	100	Qvalue
3) cis-Decalin	17.888	138	35M3	0.596	ng/mL		
4) C1-Decalins	18.143	152	1907M5	24.917	ng/mL		
5) C2-Decalins	19.923	166	3943M5	51.519	ng/mL		
6) C3-Decalins	22.387	180	3371M5	44.045	ng/mL		
7) C4-Decalins	25.791	194	4735M5	61.867	ng/mL		
9) Naphthalene	20.087	128	78225	200.120	ng/mL	100	
10) C1-Naphthalenes	22.779	142	17603M5	45.033	ng/mL		
11) C2-Naphthalenes	25.626	156	19986M5	51.129	ng/mL		
12) C3-Naphthalenes	27.962	170	47457M5	121.407	ng/mL		
13) C4-Naphthalenes	30.727	184	49917M5	127.701	ng/mL		
14) 2-Methylnaphthalene	22.779	142	11377	45.832	ng/mL	100	
15) 1-Methylnaphthalene	23.208	142	6175	26.207	ng/mL	100	
16) Benzothiophene	20.306	134	3754	11.351	ng/mL	100	
17) C1-Benzo(b)thiophenes	22.642	148	3523M5	10.653	ng/mL		
18) C2-Benzo(b)thiophenes	25.343	162	4553M5	13.767	ng/mL		
19) C3-Benzo(b)thiophenes	27.442	176	9623M5	29.098	ng/mL		
20) C4-Benzo(b)thiophenes	29.906	190	10421M5	31.511	ng/mL		
21) Biphenyl	24.659	154	8195	26.970	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.279	156	4627	21.881	ng/mL	100	
23) Dibenzofuran	27.752	168	6095	18.813	ng/mL	91	
24) Acenaphthylene	26.375	152	25269	67.734	ng/mL	100	
25) Acenaphthene	27.114	153	53662	227.361	ng/mL	100	
26) 2,3,5-Trimethylnaphthalen	28.656	170	3556M3	17.527	ng/mL		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142213.D  
 Acq On : 15 Feb 2022 4:11 am  
 Operator : PAH12:MJS  
 Sample : 12206076-05,32  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 22 11:44:34 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	29.130	166	24057	92.135	ng/mL	100
28) C1-Fluorenes	31.356	180	24991M5	95.712	ng/mL	
29) C2-Fluorenes	33.537	194	29424M5	112.690	ng/mL	
30) C3-Fluorenes	35.518	208	23847M5	91.331	ng/mL	
31) Dibenzothiophene	32.451	184	123191	327.087	ng/mL#	88
32) 4-Methyldibenzothiophene(	34.221	198	17957	47.678	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.577	198	21474M3	57.016	ng/mL	
34) 1-Methyldibenzothiophene(	34.997	198	6033	16.018	ng/mL	100
36) C1-Dibenzothiophenes	34.623	198	73404M5	194.896	ng/mL	
36) C1-Dibenzothiophenes BS	34.623	198	53487M5	142.014	ng/mL	
37) C2-Dibenzothiophenes	36.275	212	40456M5	107.416	ng/mL	
38) C3-Dibenzothiophenes	37.718	226	28461M5	75.567	ng/mL	
39) C4-Dibenzothiophenes	39.398	240	14144M5	37.554	ng/mL	
41) Phenanthrene	32.944	178	984032	2556.640	ng/mL	97
42) 3-Methylphenanthrene(3MP)	34.906	192	64993	168.860	ng/mL	94
43) 2-Methylphenanthrene(2MP)	35.016	192	67415	175.153	ng/mL	95
44) 2-Methylanthracene(2MA)	35.180	192	7732M3	20.089	ng/mL	
45) 9/4-Methylphenanthrene(9M	35.362	192	52731M3	137.002	ng/mL	
47) C1-Phenanthrenes/Anthrace	35.016	192	236428M5	614.270	ng/mL	
48) C2-Phenanthrenes/Anthrace	37.179	206	143753M5	373.489	ng/mL	
48) C2-Phenanthrenes/Anthr BS	37.179	206	121944M5	316.826	ng/mL	
50) C3-Phenanthrenes/Anthrace	39.014	220	64498M5	167.574	ng/mL	
51) C4-Phenanthrenes/Anthrace	39.936	234	30241M5	78.570	ng/mL	
52) Retene	39.936	234	4237M4	33.217	ng/mL	
53) Anthracene	33.126	178	59423	165.681	ng/mL	100
54) Carbazole	33.792	167	4390M4	11.793	ng/mL	
55) 1-Methylphenanthrene	35.454	192	40804	157.793	ng/mL	96
56) Fluoranthene	37.727	202	1261639M4	3268.733	ng/mL	
57) Benzo(b)fluorene	40.247	216	42722M3	175.654	ng/mL	
58) 7H-Benzo(c)fluorene	40.283	216	17425M3	71.644	ng/mL	
59) Pyrene	38.612	202	1853196	4626.650	ng/mL#	74
60) 2-Methylpyrene	40.402	216	42343M3	105.713	ng/mL	
61) 4-Methylpyrene	40.776	216	37423M3	93.429	ng/mL	
62) 1-Methylpyrene	40.886	216	37357	93.265	ng/mL	71
63) C1-Fluoranthenes/Pyrenes	40.000	216	330808M5	825.888	ng/mL	
64) C2-Fluoranthenes/Pyrenes	41.735	230	75076M5	187.433	ng/mL	
65) C3-Fluoranthenes/Pyrenes	43.935	244	35298M5	88.124	ng/mL	
66) C4-Fluoranthenes/Pyrenes	45.177	258	25623M5	63.970	ng/mL	
67) Naphthobenzothiophene-2,1	42.465	234	91384	227.583	ng/mL#	65

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142213.D  
 Acq On : 15 Feb 2022 4:11 am  
 Operator : PAH12:MJS  
 Sample : 12206076-05,32  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 22 11:44:34 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	42.803	234	18922	47.123	ng/mL#	22
69) Naphthobenzothiophene-2,3	43.104	234	33665M3	83.839	ng/mL	
70) C1-Naphthobenzothiophenes	43.862	248	36229M5	90.225	ng/ml	
71) C2-Naphthobenzothiophenes	46.210	262	22680M5	56.482	ng/ml	
72) C3-Naphthobenzothiophenes	47.253	276	16871M5	42.016	ng/ml	
73) C4-Naphthobenzothiophenes	48.588	290	7975M5	19.861	ng/mL	
75) Benz[a]anthracene	43.387	228	409426M3	1010.040	ng/mL	
76) Chrysene	43.552	228	546176	1361.929	ng/mL	83
78) C1-Chrysenes	45.031	242	99937M5	249.200	ng/mL	
79) C2-Chrysenes	47.362	256	47700M5	118.943	ng/mL	
79) C2-Chrysenes BS	47.362	256	41668M5	103.902	ng/mL	
81) C3-Chrysenes	48.350	270	30981M5	77.253	ng/mL	
82) C4-Chrysenes	49.393	284	24264M5	60.504	ng/mL	
85) Benzo[b]fluoranthene	47.454	252	398233	871.388	ng/mL	96
86) Benzo[j]+[k]fluoranthene	47.518	252	422351	895.438	ng/mL	92
87) Benzo[a]fluoranthene	47.838	252	94300M3	199.928	ng/mL	
88) Benzo[e]pyrene	48.469	252	416284	921.871	ng/mL	95
90) Benzo[a]pyrene	48.661	252	645643	1474.533	ng/mL	96
91) Perylene	48.981	252	262540	584.621	ng/mL	93
92) Indeno[1,2,3-cd]pyrene	53.600	276	530090M3	883.337	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.646	278	67993M4	129.073	ng/mL	
94) Benzo[g,h,i]perylene	54.943	276	749879	1412.373	ng/mL	100

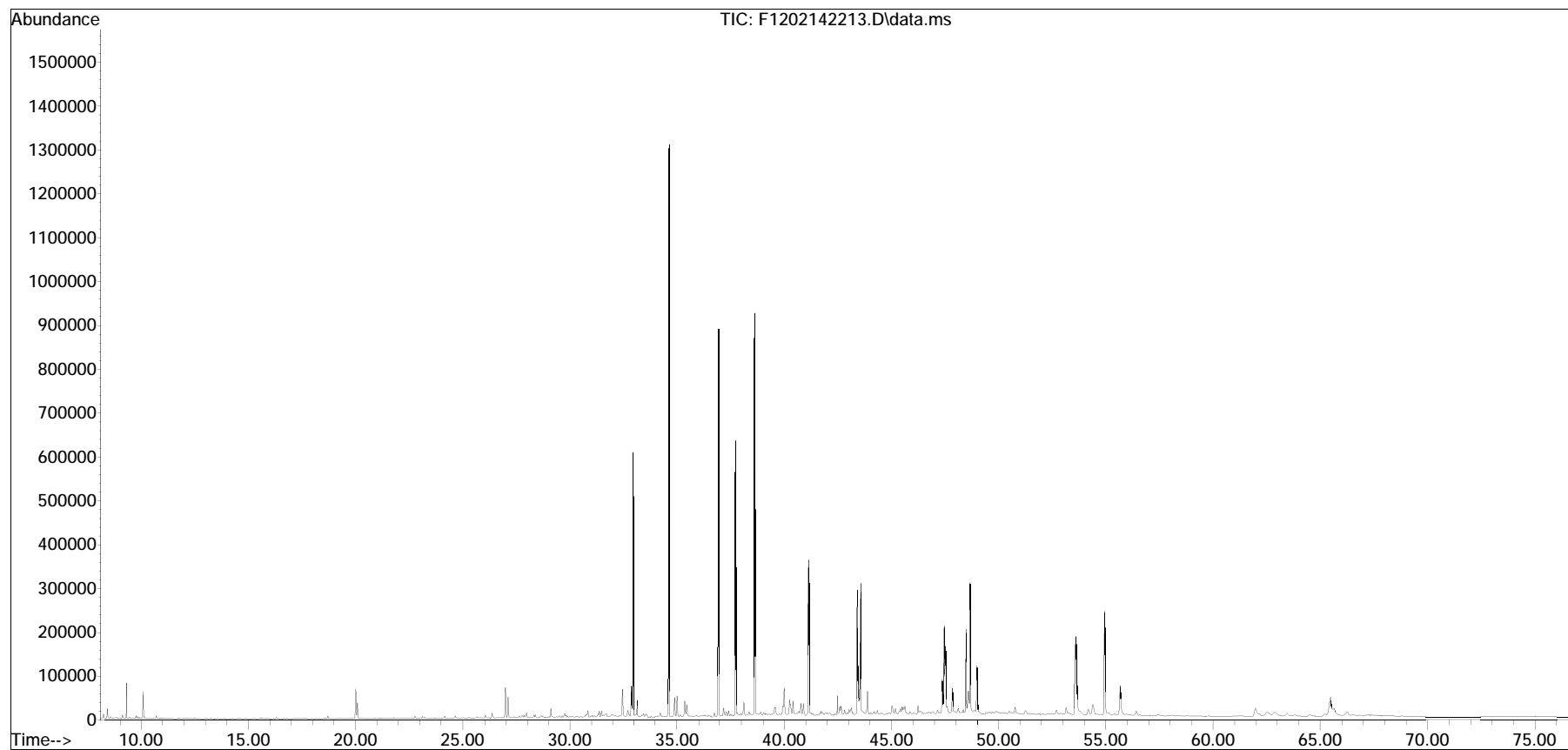
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

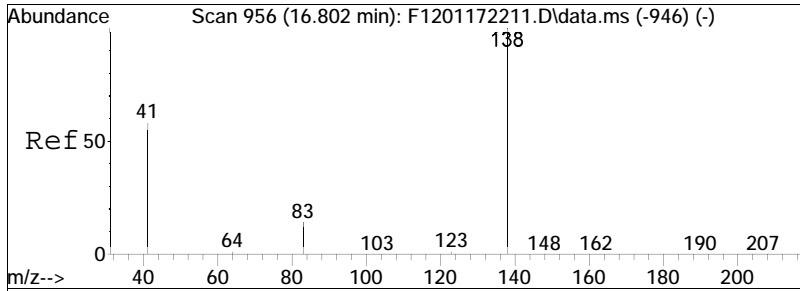
Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
Data File : F1202142213.D  
Acq On : 15 Feb 2022 4:11 am  
Operator : PAH12:MJS  
Sample : 12206076-05,32  
Misc : WG1605097,WG1603644,ICAL18670  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 22 11:44:34 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Wed Feb 09 13:46:27 2022  
Response via : Initial Calibration

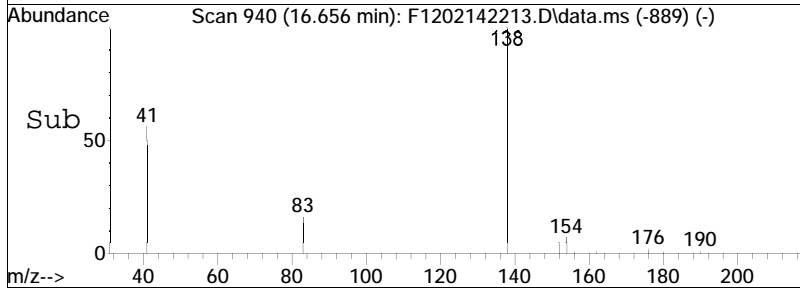
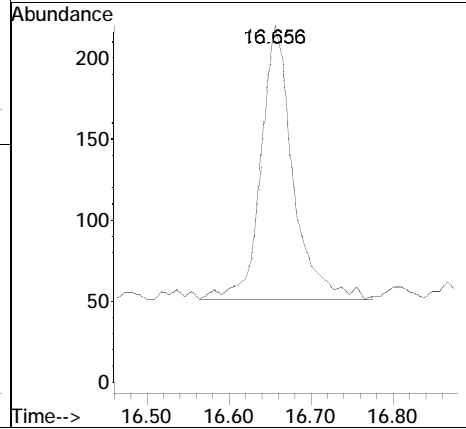
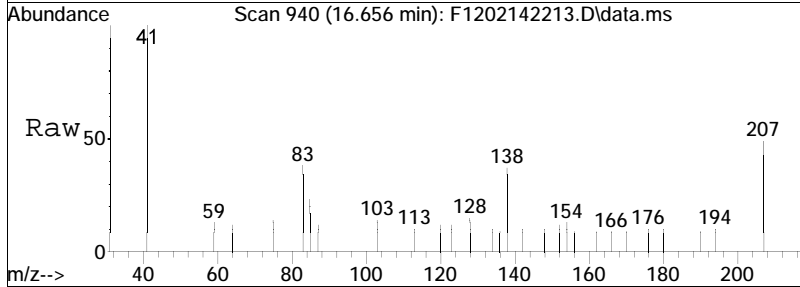
Sub List : ALKPAH - POI+MP+BcF

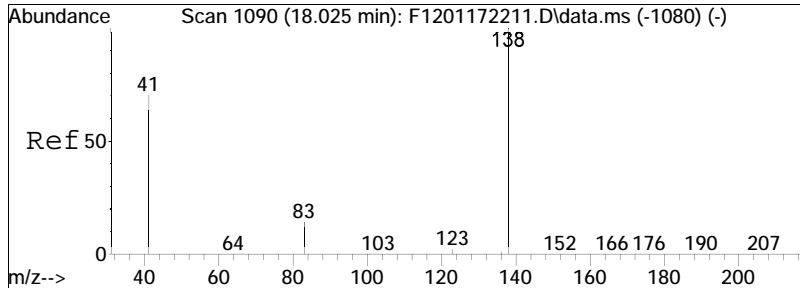




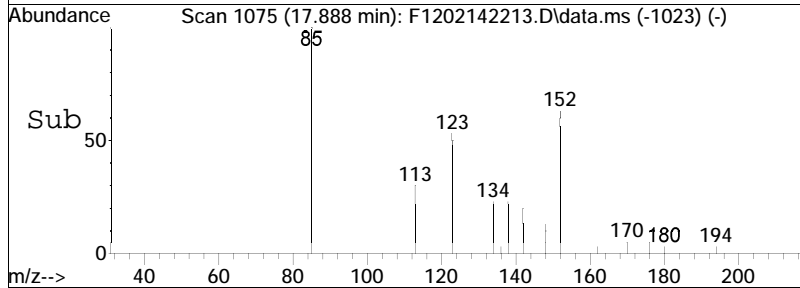
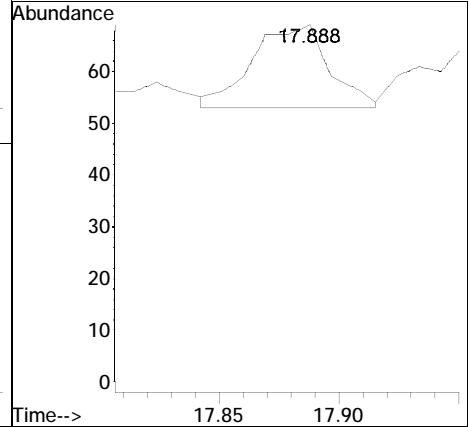
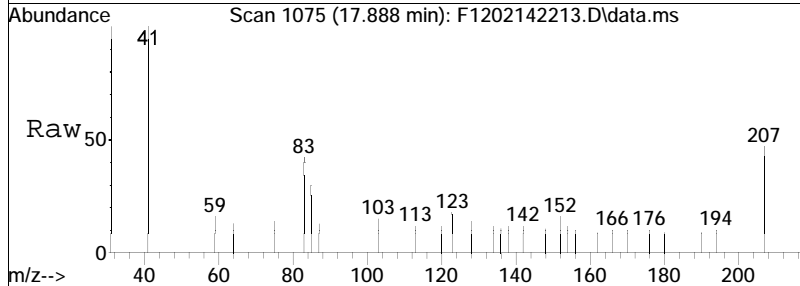


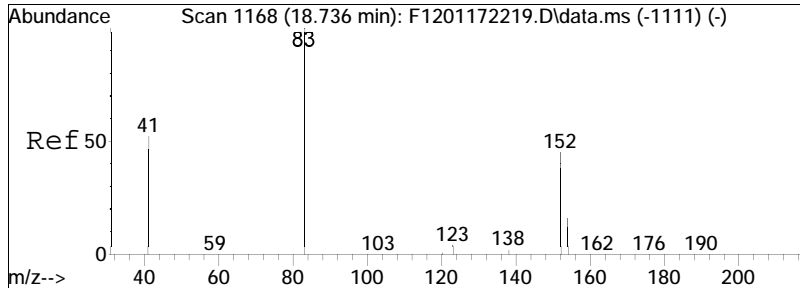
#2  
 trans-Decalin  
 Concen: 6.00 ng/mL  
 RT: 16.656 min Scan# 940  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:138 Resp: 459



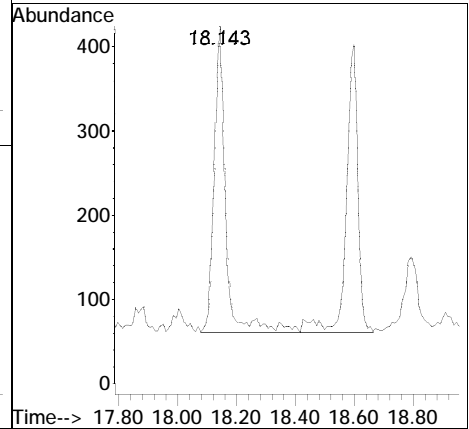
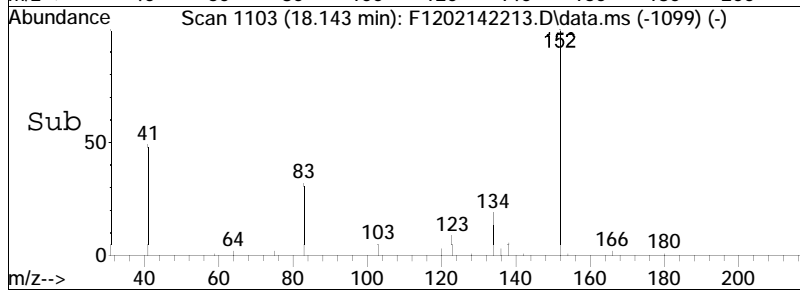
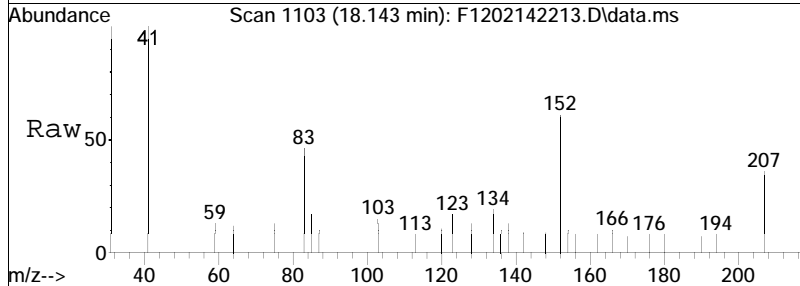


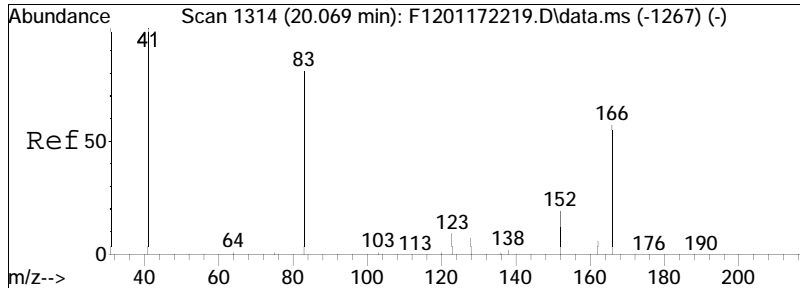
#3  
 cis-Decalin  
 Concen: 0.60 ng/mL M3  
 RT: 17.888 min Scan# 1075  
 Delta R.T. -0.027 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:138 Resp: 35



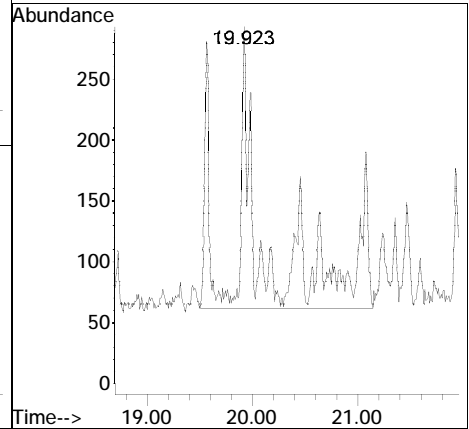
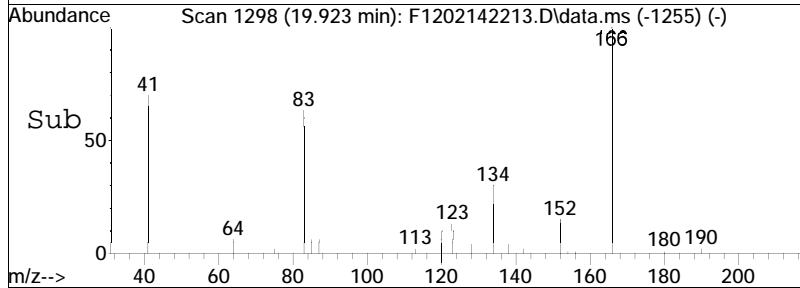
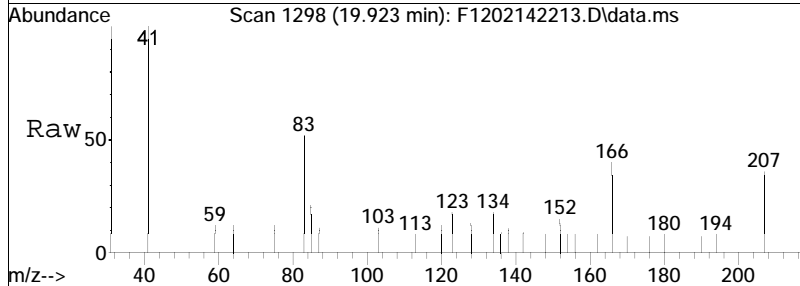


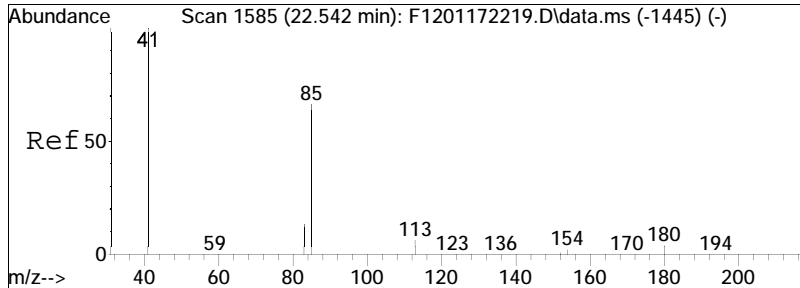
#4  
 Cl-Decalins  
 Concen: 24.92 ng/mL M5  
 RT: 18.143 min Scan# 1103  
 Delta R.T. -0.484 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:152 Resp: 1907



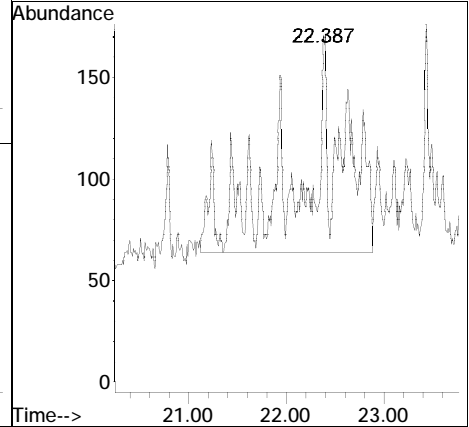
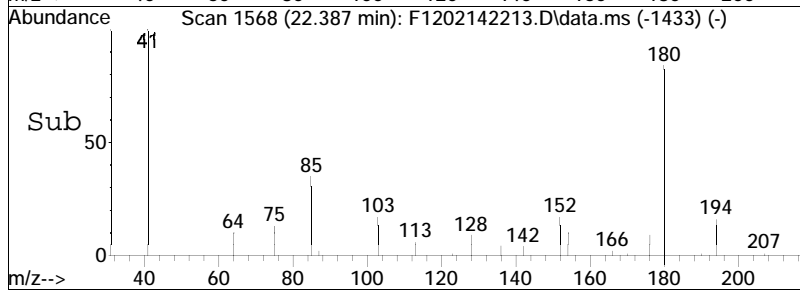
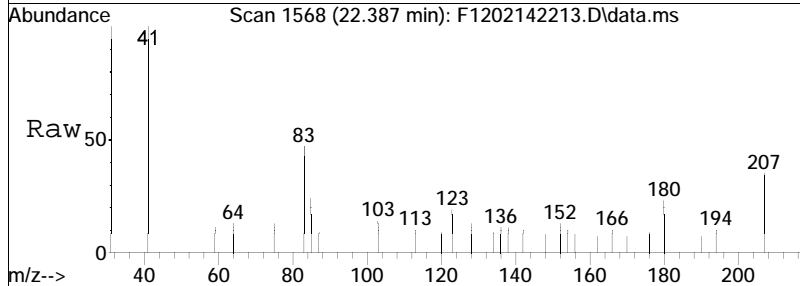


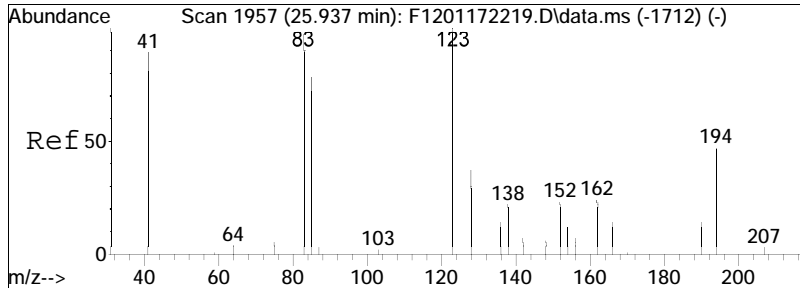
#5  
 C2-Decalins  
 Concen: 51.52 ng/mL M5  
 RT: 19.923 min Scan# 1298  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:166 Resp: 3943



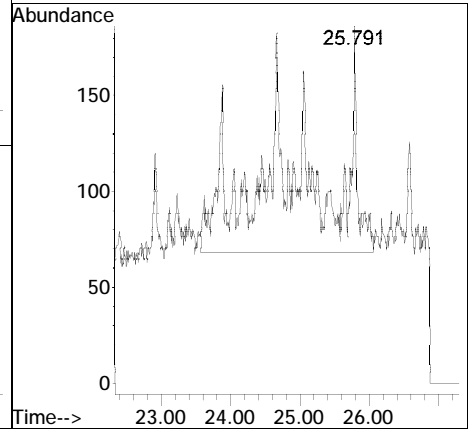
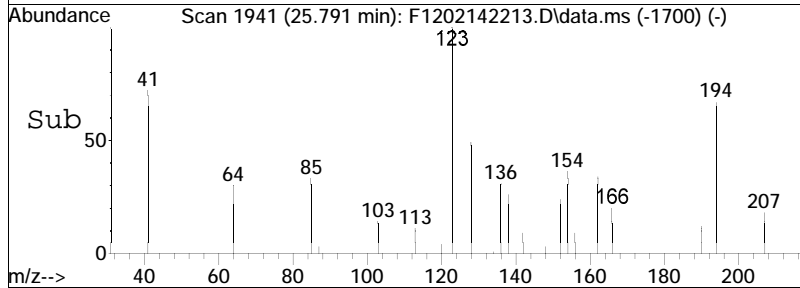
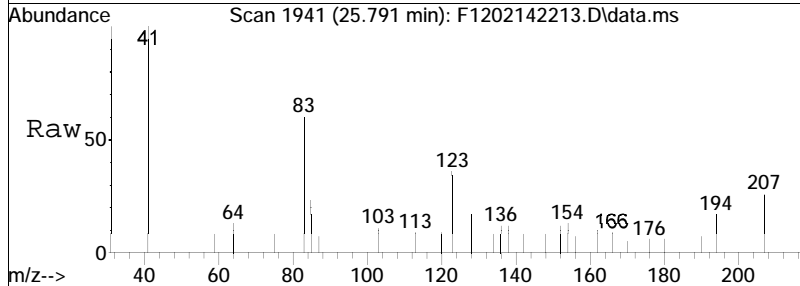


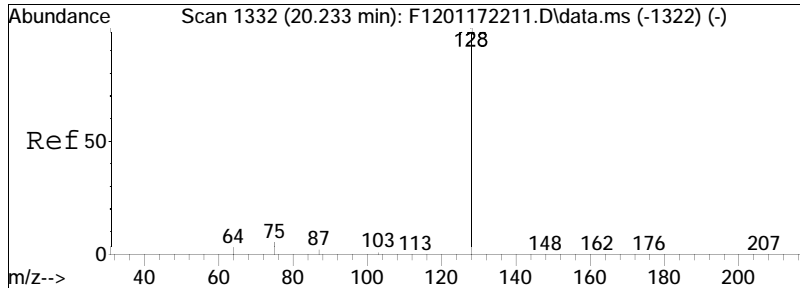
#6  
 C3-Decalins  
 Concen: 44.04 ng/mL M5  
 RT: 22.387 min Scan# 1568  
 Delta R.T. -0.046 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:180 Resp: 3371



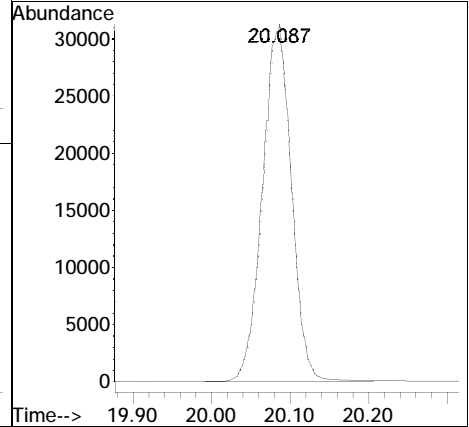
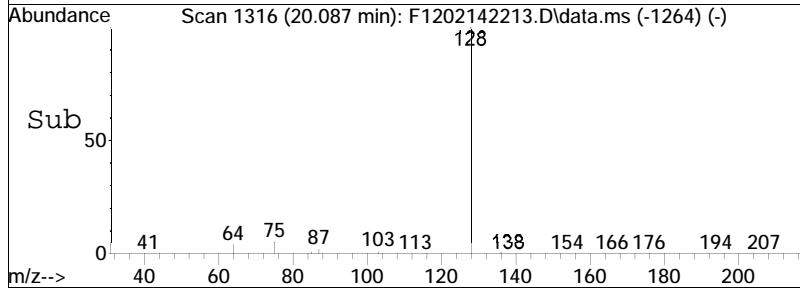
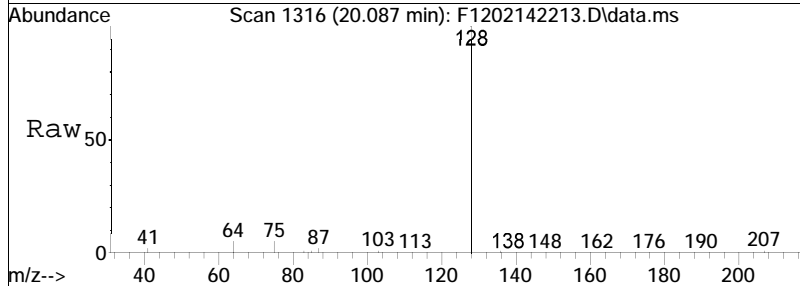


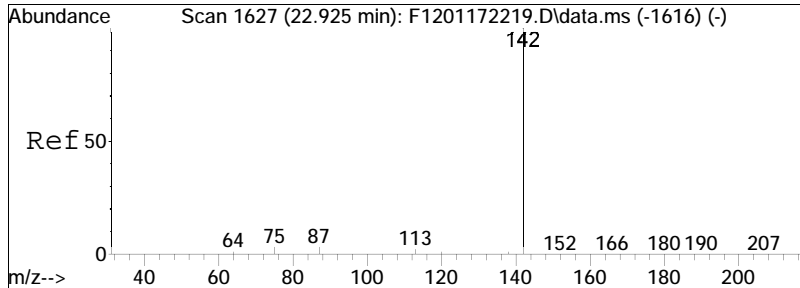
#7  
 C4-Decalins  
 Concen: 61.87 ng/mL M5  
 RT: 25.791 min Scan# 1941  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:194 Resp: 4735



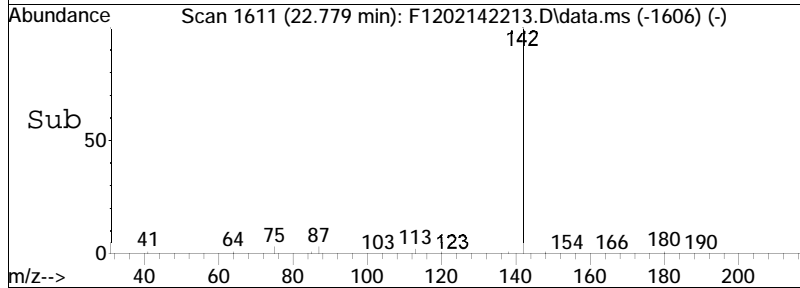
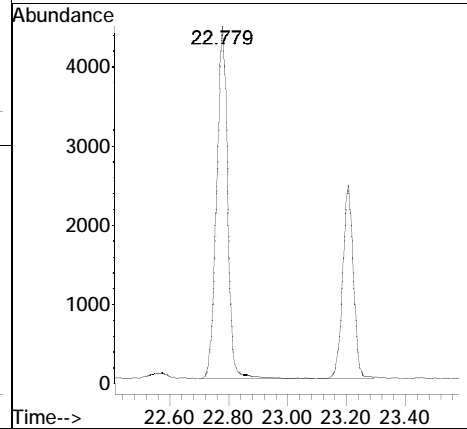
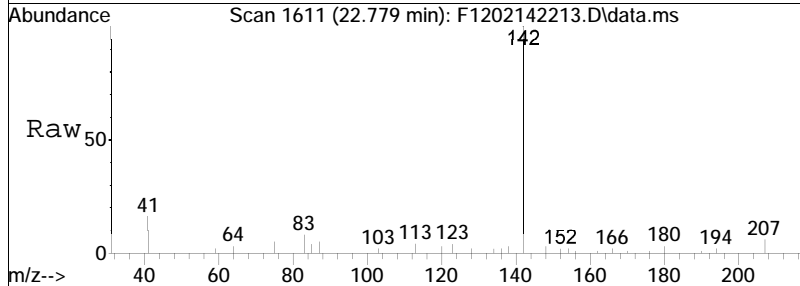


#9  
 Naphthalene  
 Concen: 200.12 ng/mL  
 RT: 20.087 min Scan# 1316  
 Delta R.T. -0.027 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:128 Resp: 78225

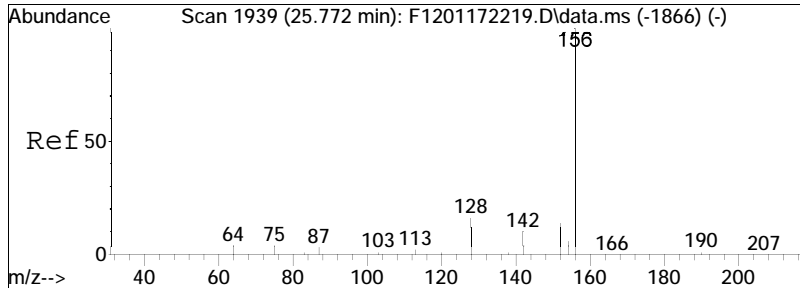




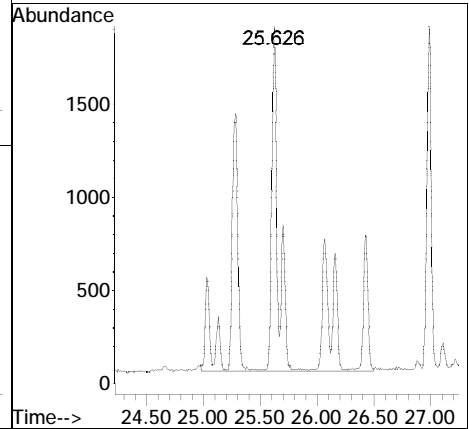
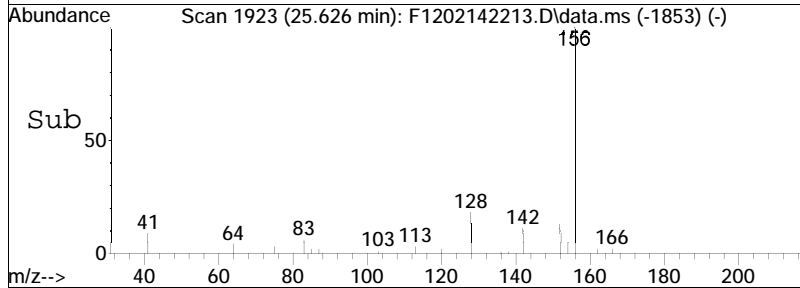
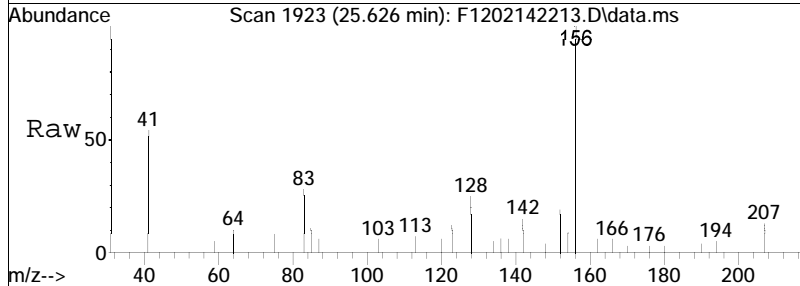
#10  
 Cl-Naphthalenes  
 Concen: 45.03 ng/mL M5  
 RT: 22.779 min Scan# 1611  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:142 Resp: 17603

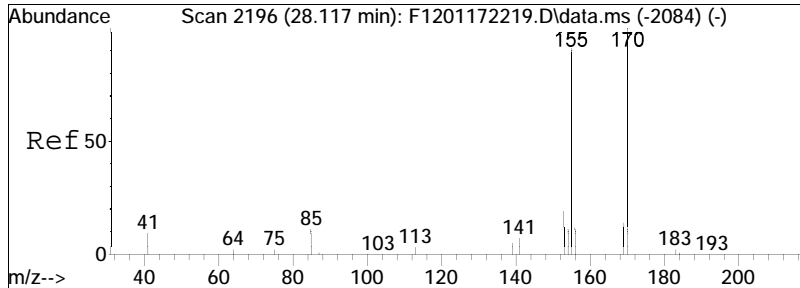






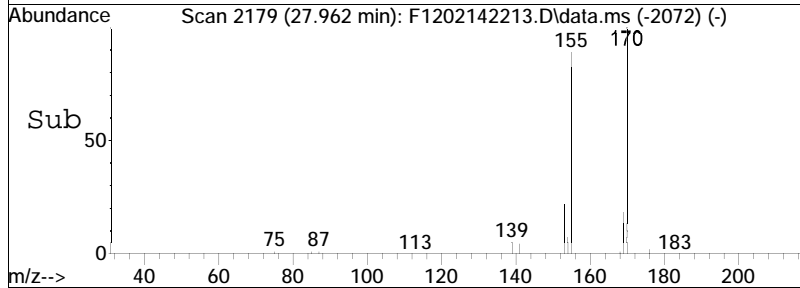
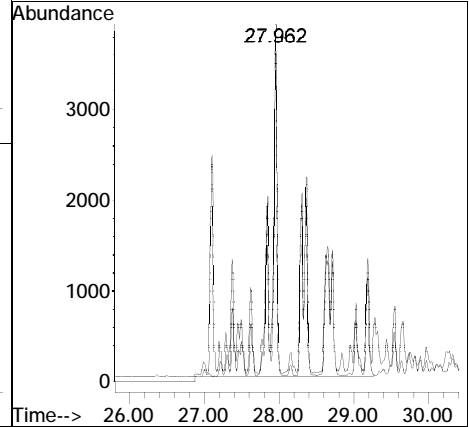
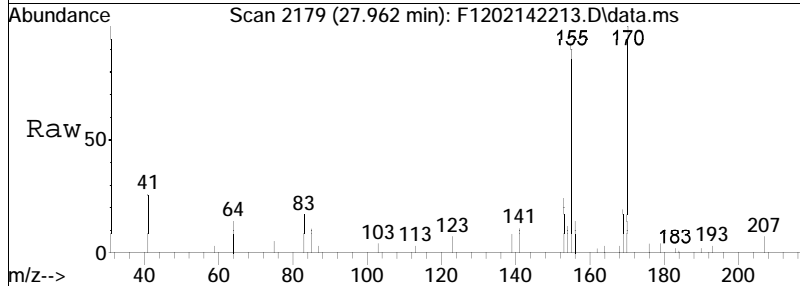
#11  
 C2-Naphthalenes  
 Concen: 51.13 ng/mL M5  
 RT: 25.626 min Scan# 1923  
 Delta R.T. -0.027 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:156 Resp: 19986

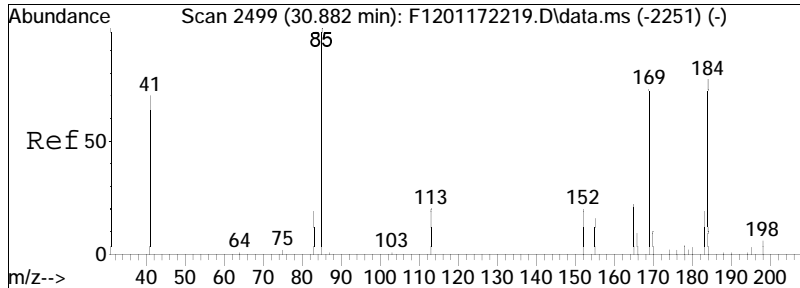




#12  
 C3-Naphthalenes  
 Concen: 121.41 ng/mL M5  
 RT: 27.962 min Scan# 2179  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

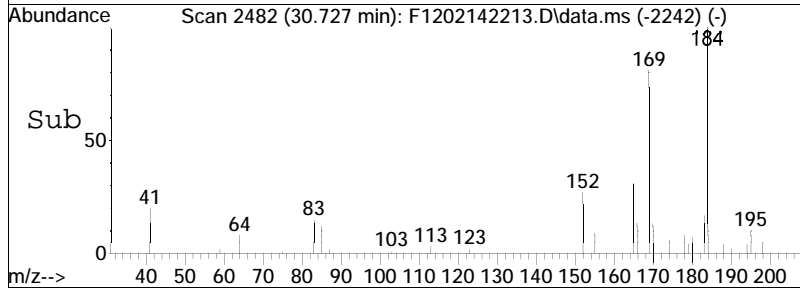
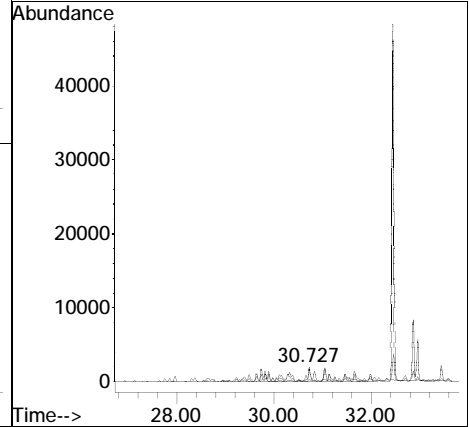
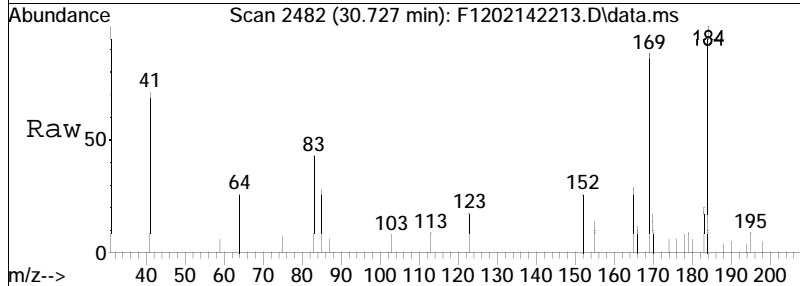
Tgt Ion	Resp	Lower	Upper
170	100		
155	20.5	63.8	118.4#

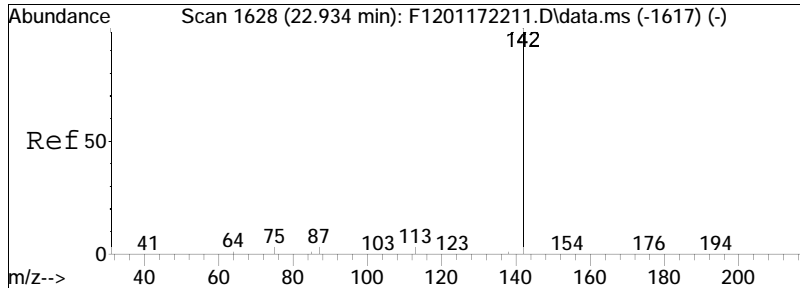




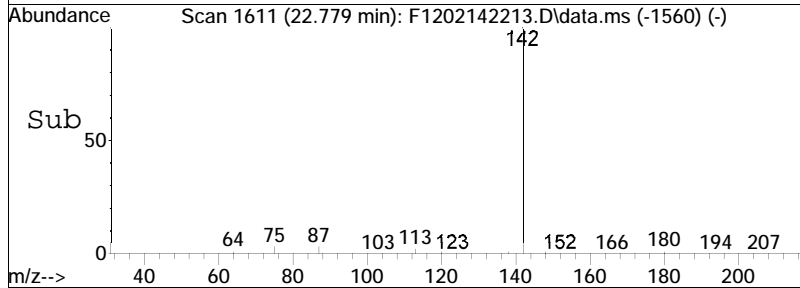
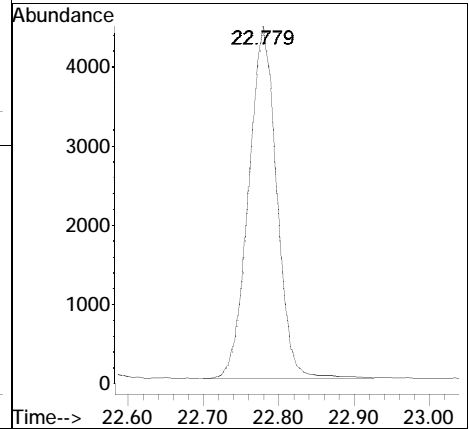
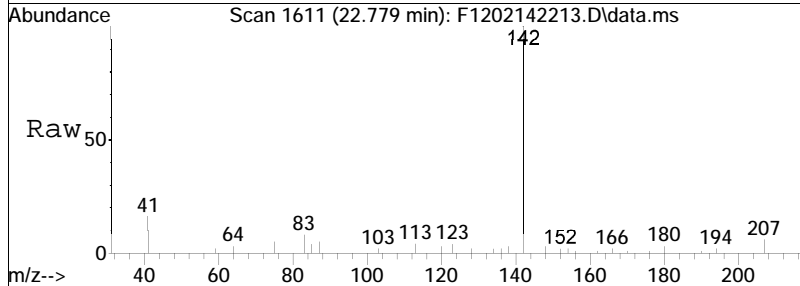
#13  
 C4-Naphthalenes  
 Concen: 127.70 ng/mL M5  
 RT: 30.727 min Scan# 2482  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

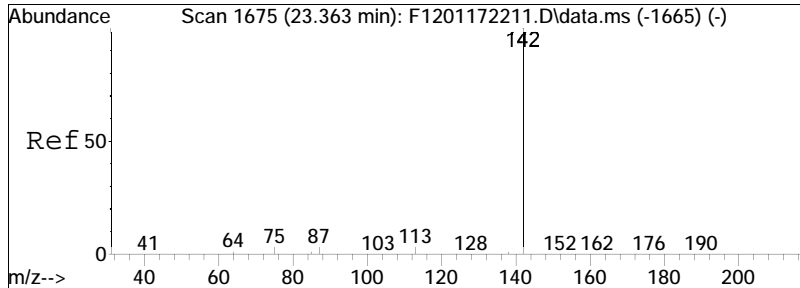
Tgt Ion	Ratio	Lower	Upper
184	100		
169	4.7	74.1	137.7#
183	1.1	23.0	42.8#



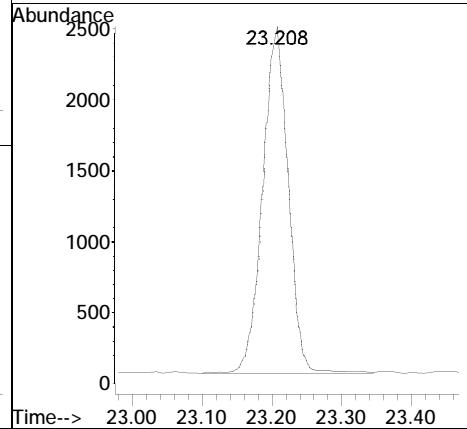
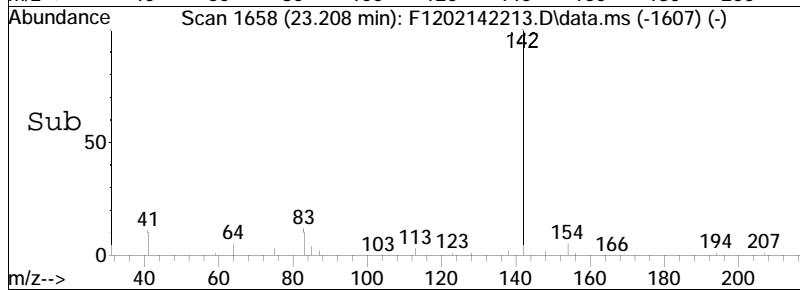
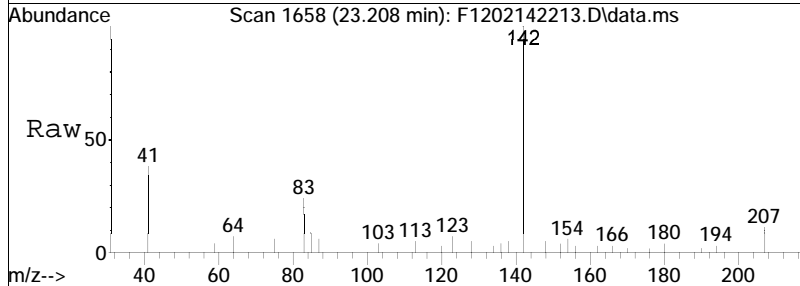


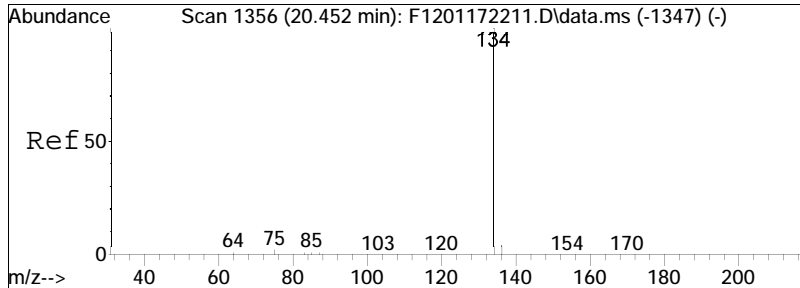
#14  
 2-Methylnaphthalene  
 Concen: 45.83 ng/mL  
 RT: 22.779 min Scan# 1611  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:142 Resp: 11377



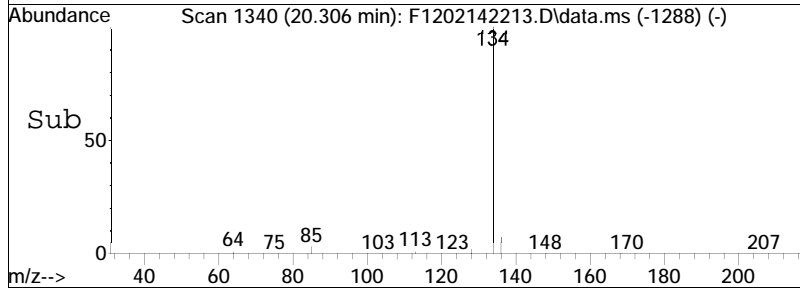
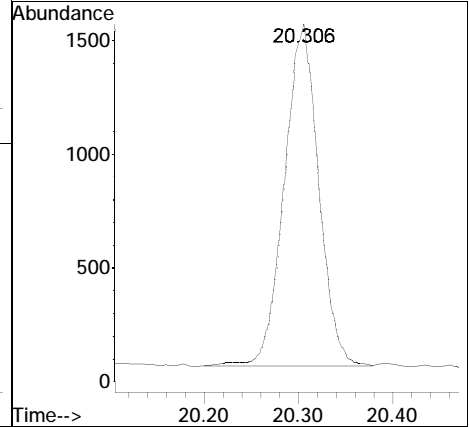
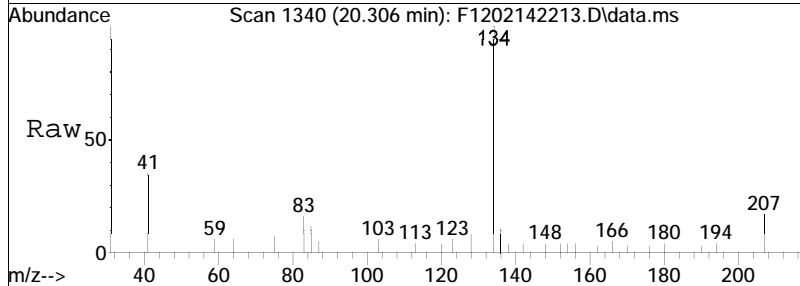


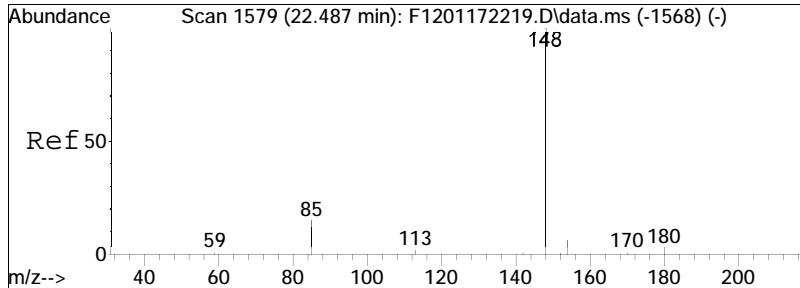
#15  
 1-Methylnaphthalene  
 Concen: 26.21 ng/mL  
 RT: 23.208 min Scan# 1658  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:142 Resp: 6175



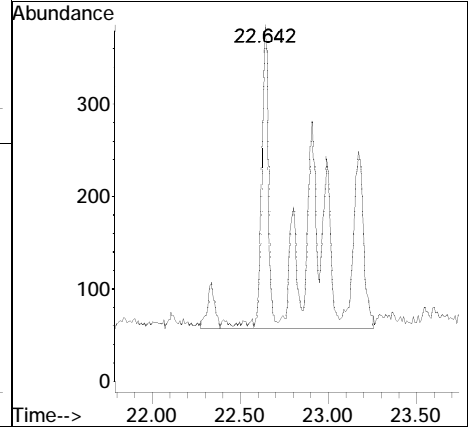
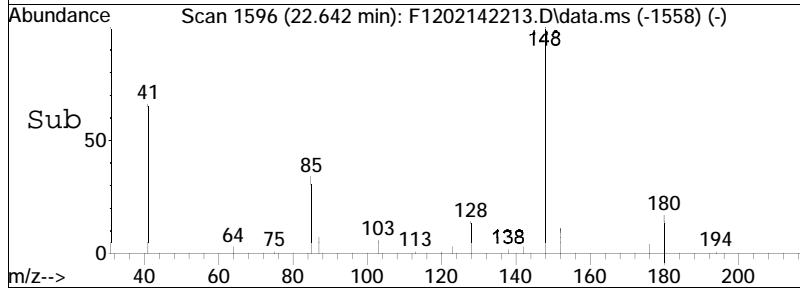
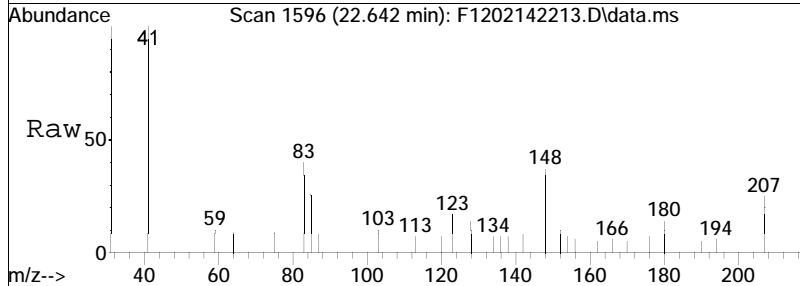


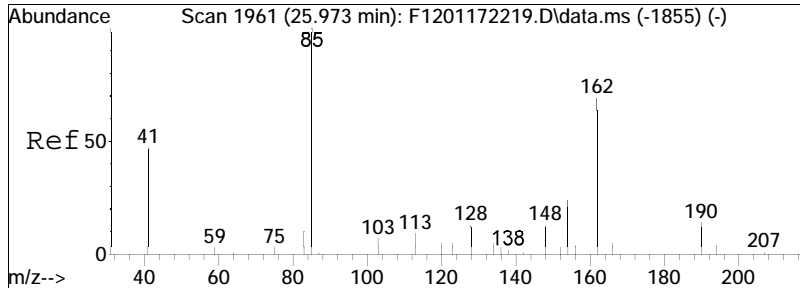
#16  
 Benzothiophene  
 Concen: 11.35 ng/mL  
 RT: 20.306 min Scan# 1340  
 Delta R.T. -0.027 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:134 Resp: 3754



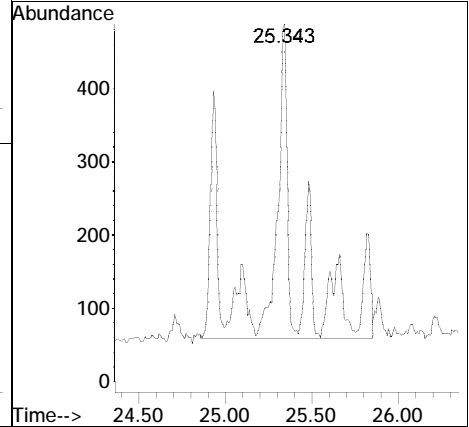
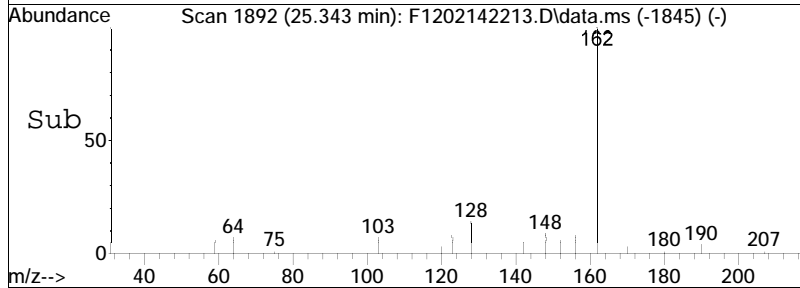
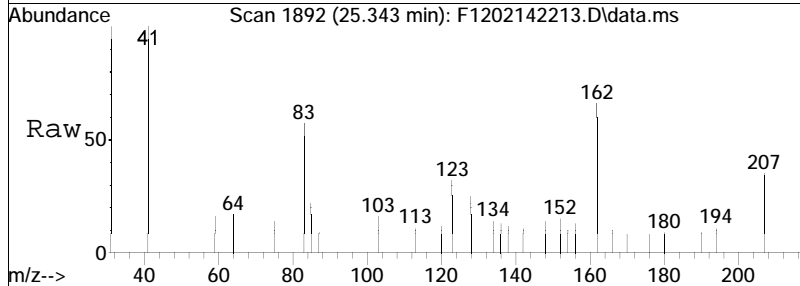


#17  
 Cl-Benzo(b)thiophenes  
 Concen: 10.65 ng/mL M5  
 RT: 22.642 min Scan# 1596  
 Delta R.T. 0.265 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:148 Resp: 3523

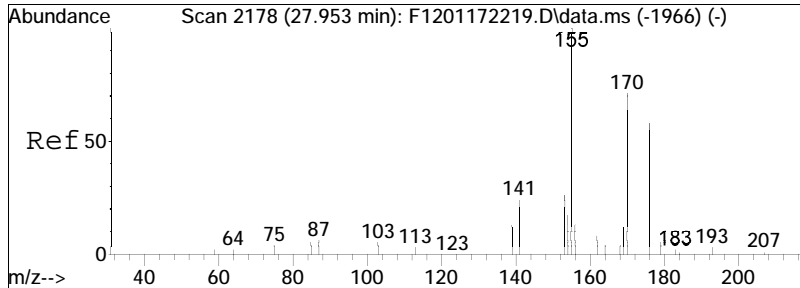




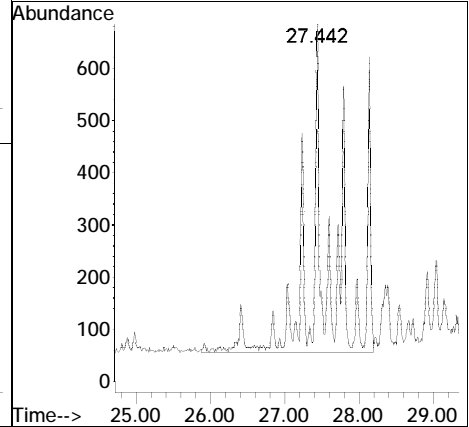
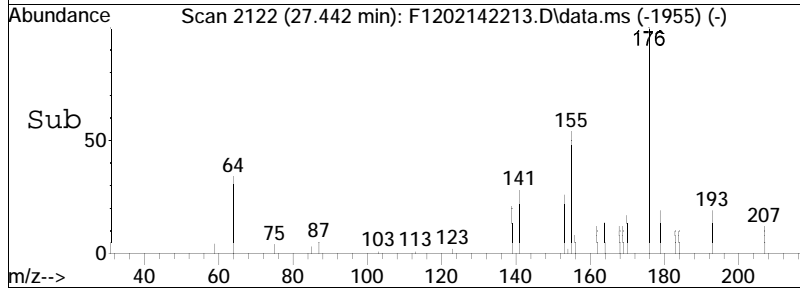
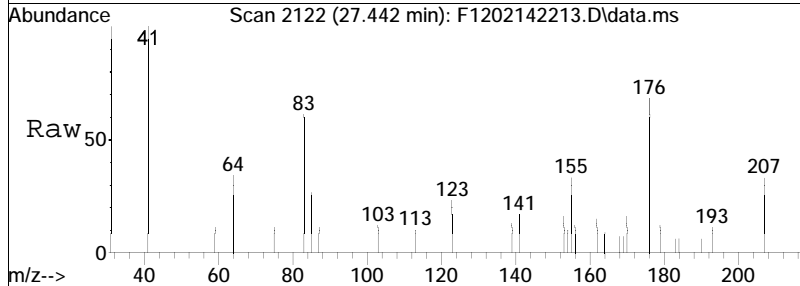
#18  
 C2-Benzo(b)thiophenes  
 Concen: 13.77 ng/mL M5  
 RT: 25.343 min Scan# 1892  
 Delta R.T. -0.511 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:162 Resp: 4553

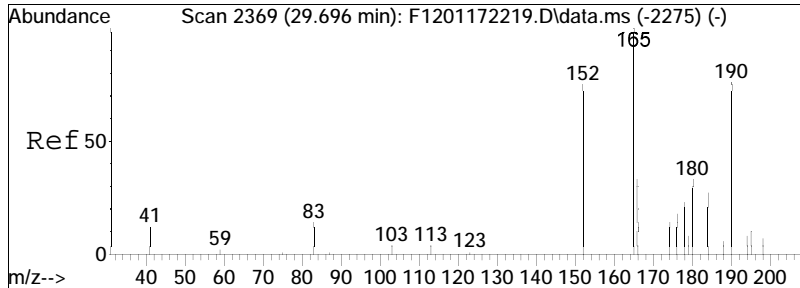




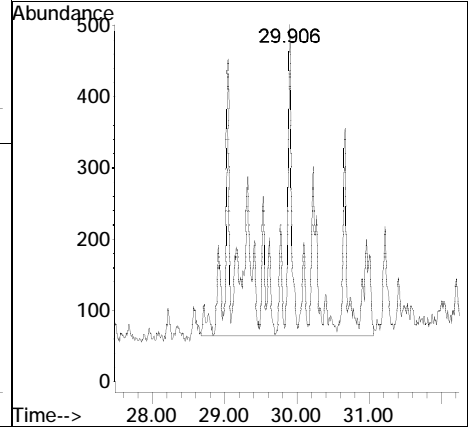
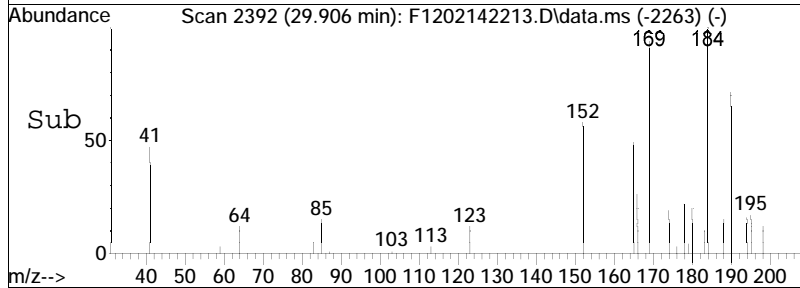
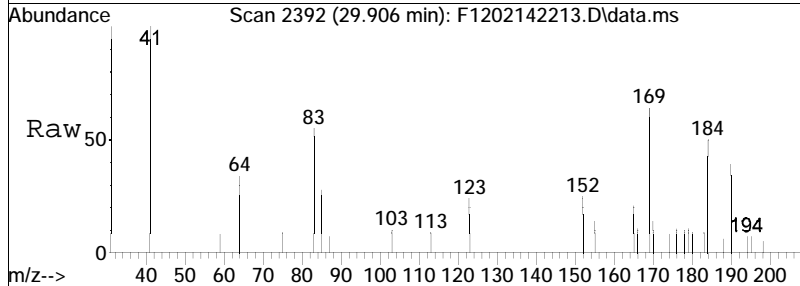


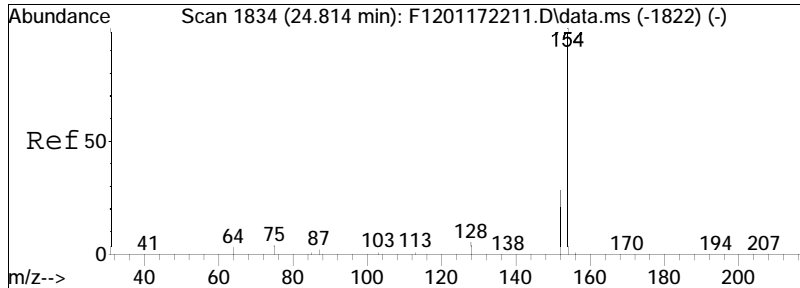
#19  
 C3-Benzo(b)thiophenes  
 Concen: 29.10 ng/mL M5  
 RT: 27.442 min Scan# 2122  
 Delta R.T. -0.392 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:176 Resp: 9623



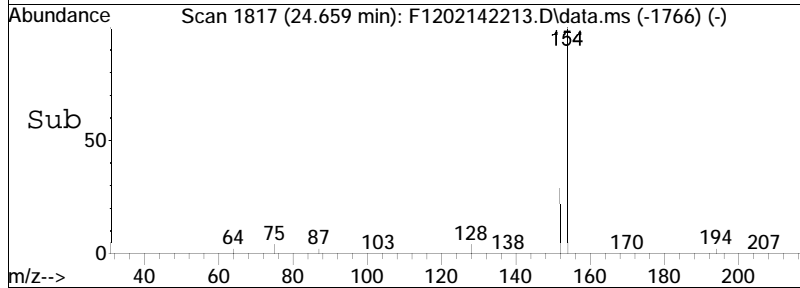
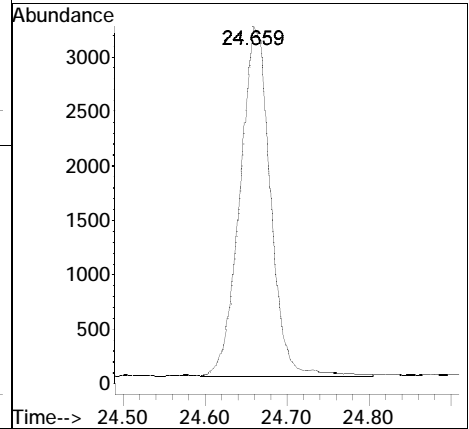
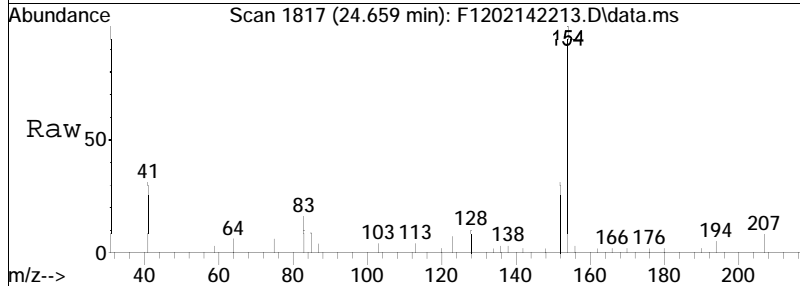


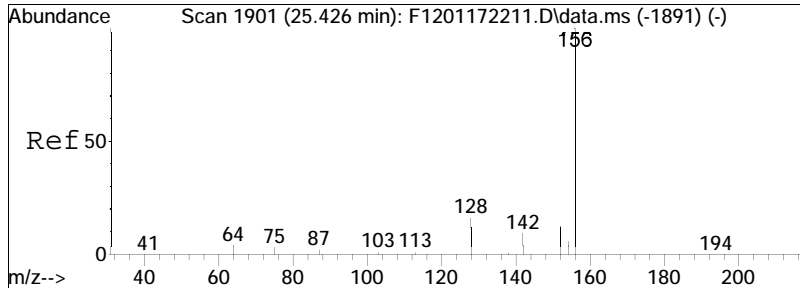
#20  
 C4-Benzo(b)thiophenes  
 Concen: 31.51 ng/mL M5  
 RT: 29.906 min Scan# 2392  
 Delta R.T. 0.329 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:190 Resp: 10421



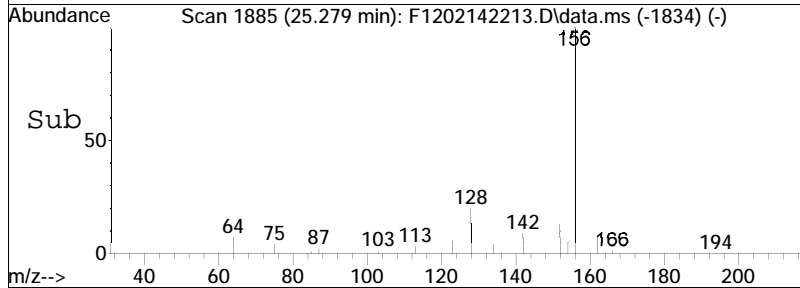
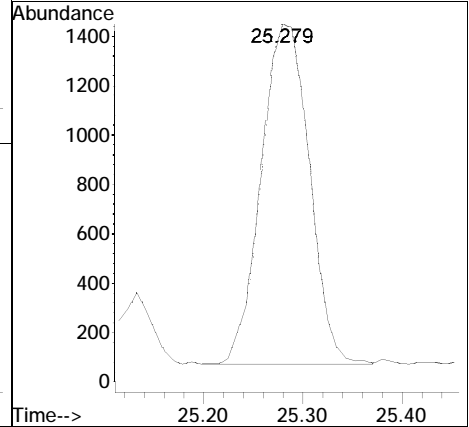
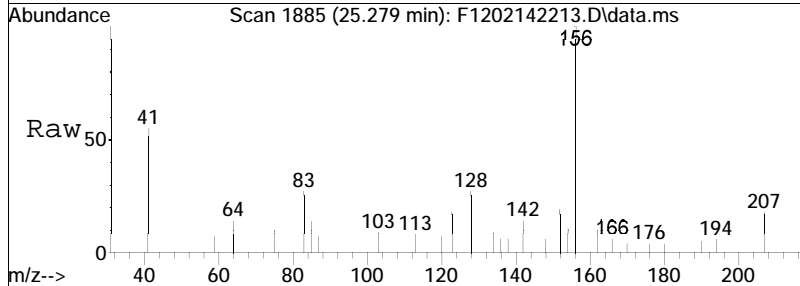


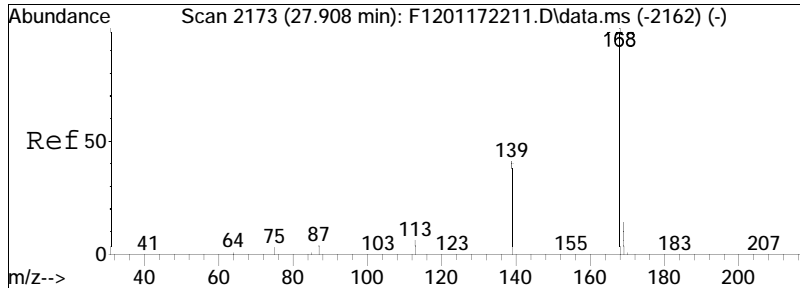
#21  
 Biphenyl  
 Concen: 26.97 ng/mL  
 RT: 24.659 min Scan# 1817  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:154 Resp: 8195





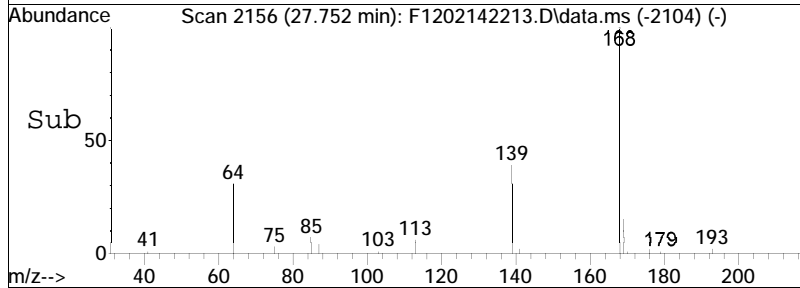
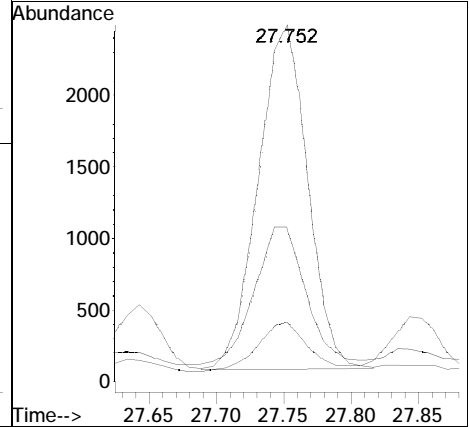
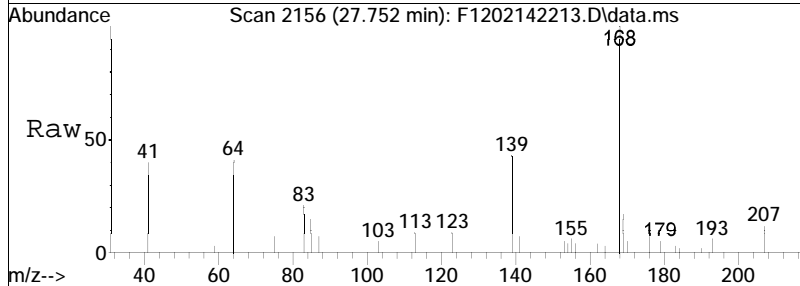
#22  
 2,6-Dimethylnaphthalene  
 Concen: 21.88 ng/mL  
 RT: 25.279 min Scan# 1885  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:156 Resp: 4627

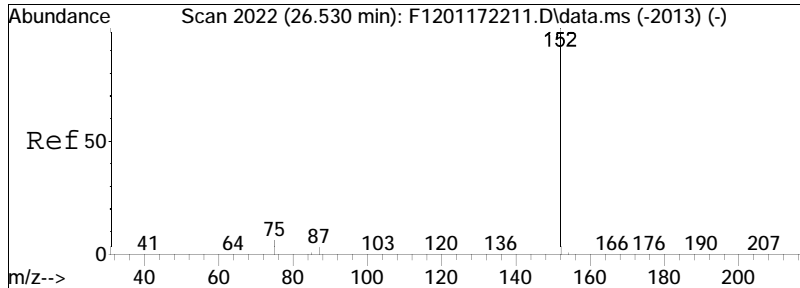




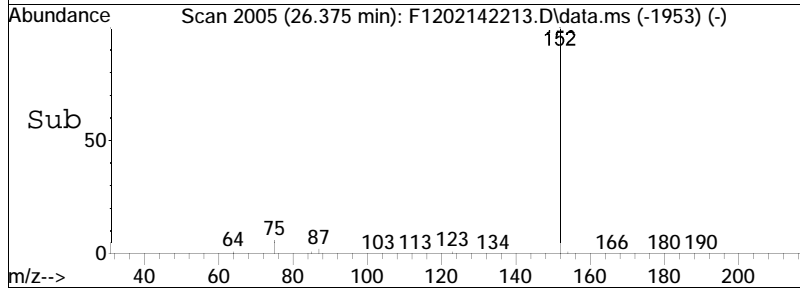
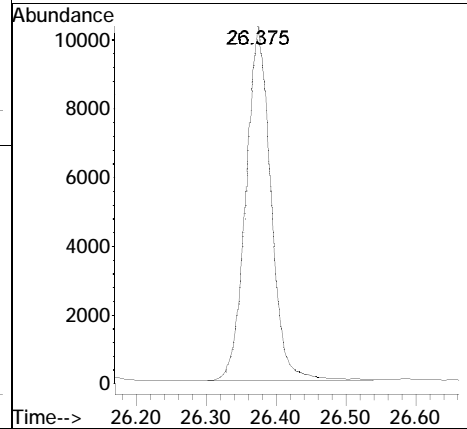
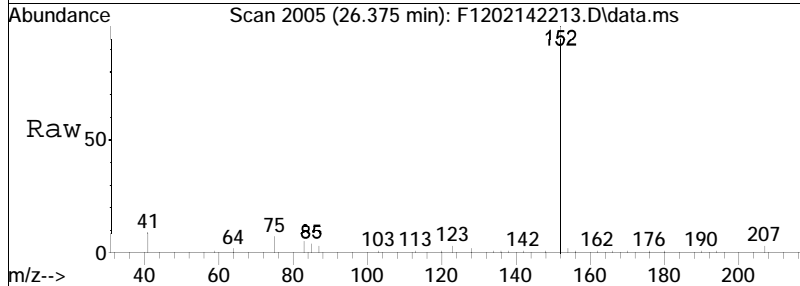
#23  
 Dibenzofuran  
 Concen: 18.81 ng/mL  
 RT: 27.752 min Scan# 2156  
 Delta R.T. -0.027 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

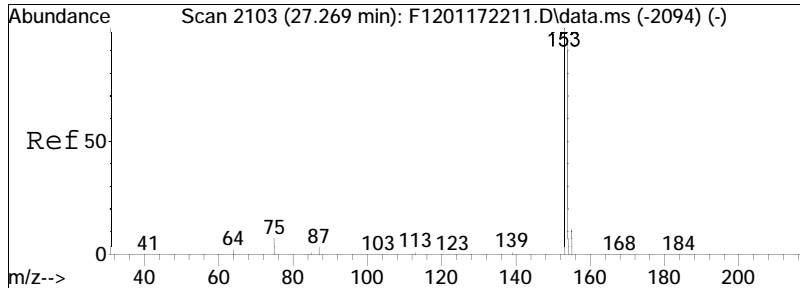
Tgt Ion	Ratio	Lower	Upper
168	100		
139	42.0	35.0	65.0
169	15.4	11.5	21.5





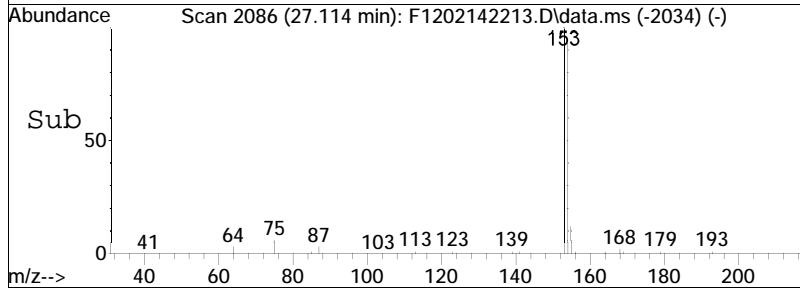
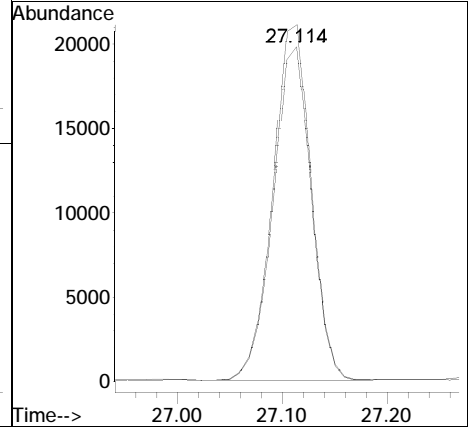
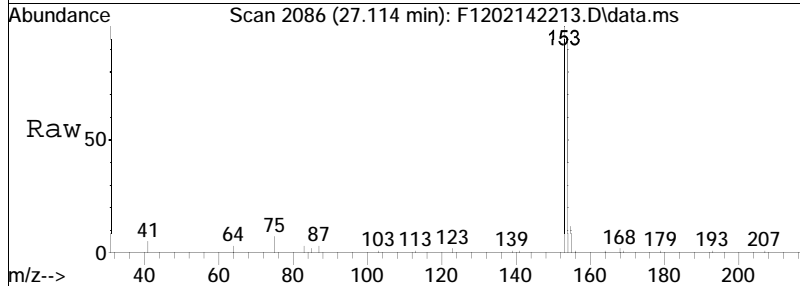
#24  
 Acenaphthylene  
 Concen: 67.73 ng/mL  
 RT: 26.375 min Scan# 2005  
 Delta R.T. -0.027 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:152 Resp: 25269

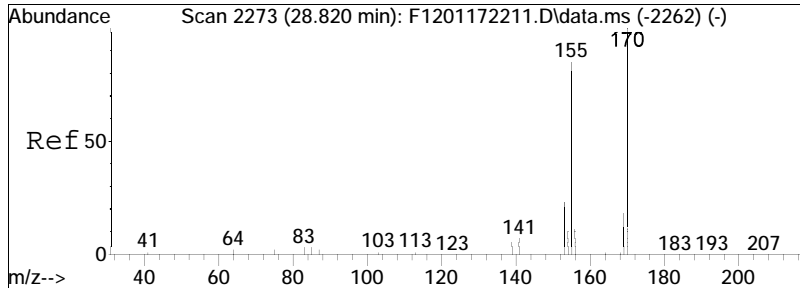




#25  
 Acenaphthene  
 Concen: 227.36 ng/mL  
 RT: 27.114 min Scan# 2086  
 Delta R.T. -0.027 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

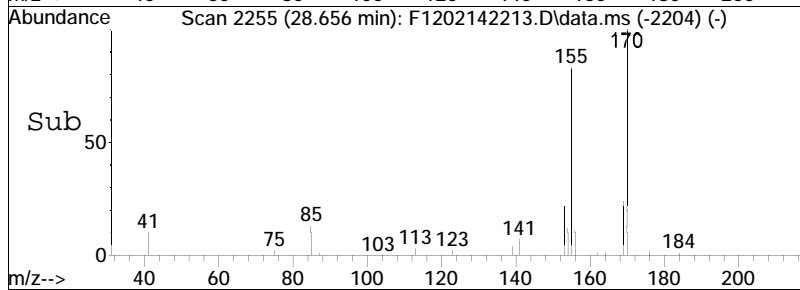
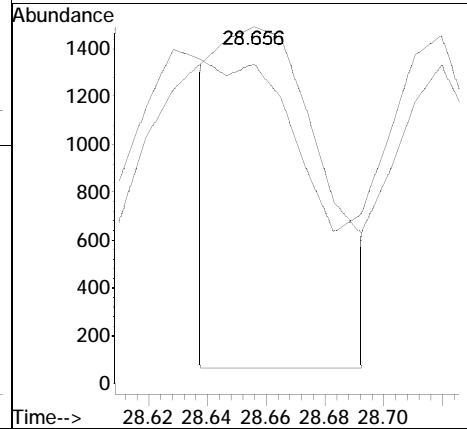
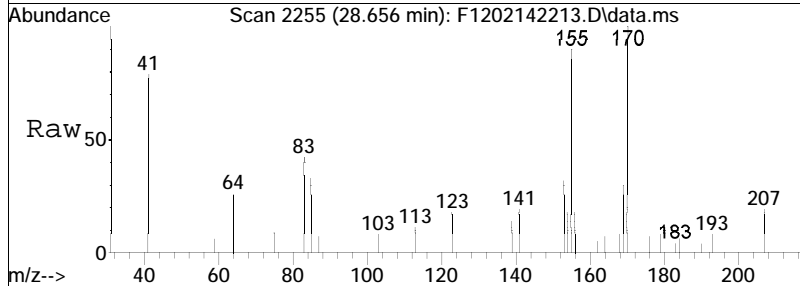
Tgt Ion:153 Resp: 53662  
 Ion Ratio Lower Upper  
 153 100  
 154 93.2 65.4 121.4



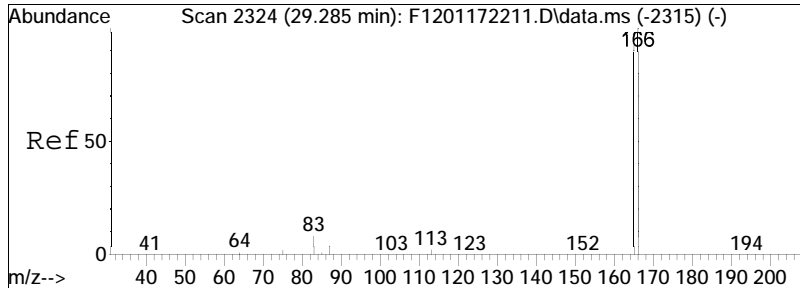


#26  
 2,3,5-Trimethylnaphthalene  
 Concen: 17.53 ng/mL M3  
 RT: 28.656 min Scan# 2255  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

Tgt Ion: 170 Resp: 3556  
 Ion Ratio Lower Upper  
 170 100  
 155 91.5 61.6 114.4

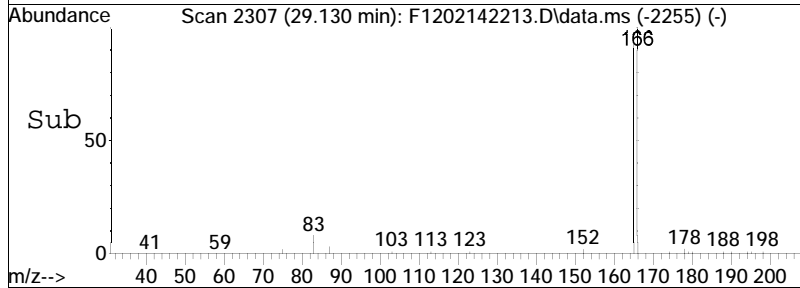
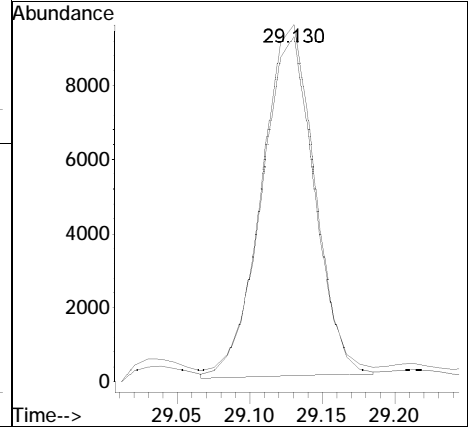
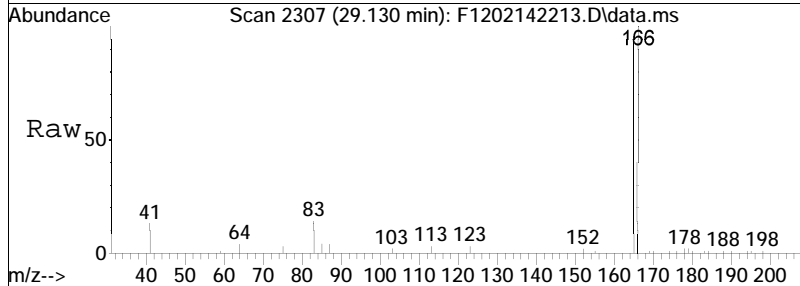


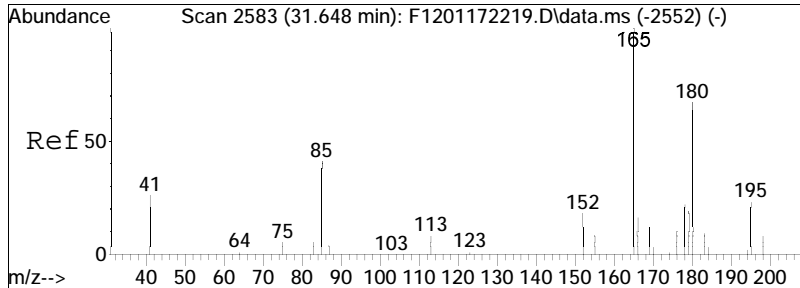




#27  
 Fluorene  
 Concen: 92.14 ng/mL  
 RT: 29.130 min Scan# 2307  
 Delta R.T. -0.027 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

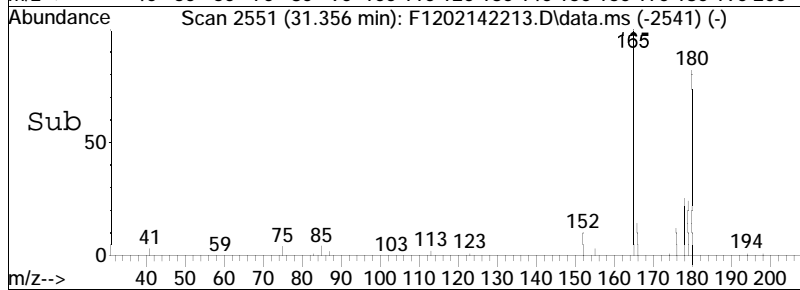
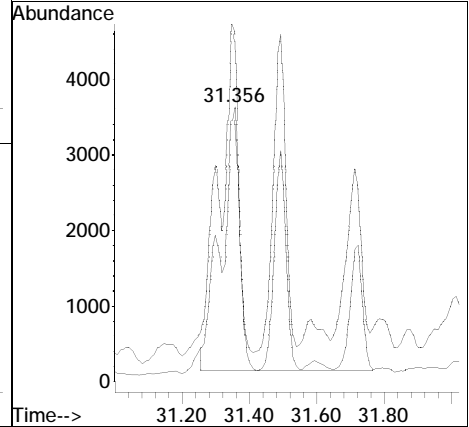
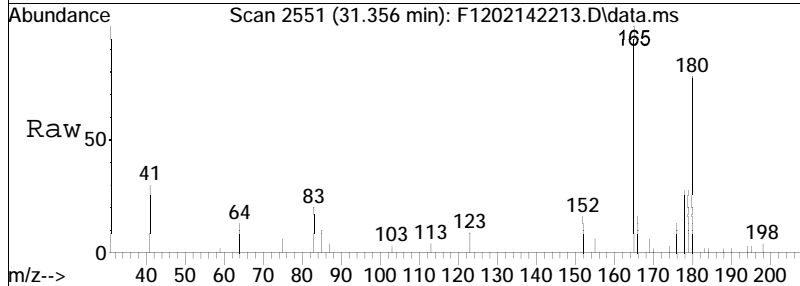
Tgt Ion	Resp	Lower	Upper
166	100		
165	95.0	66.4	123.4

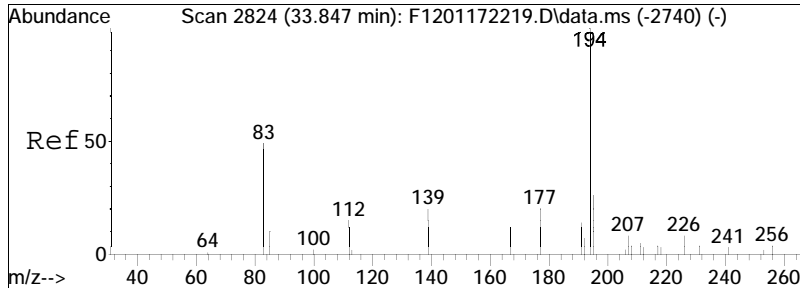




#28  
 Cl-Fluorenes  
 Concen: 95.71 ng/mL M5  
 RT: 31.356 min Scan# 2551  
 Delta R.T. -0.173 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

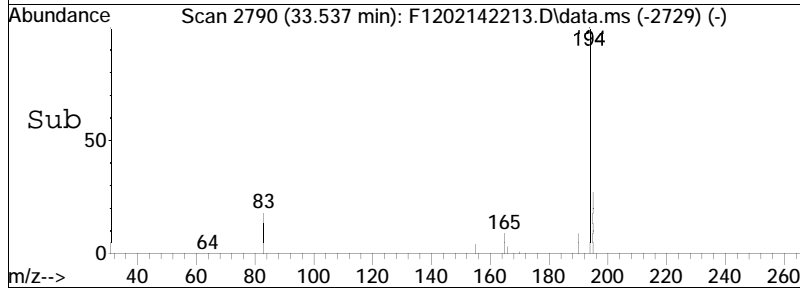
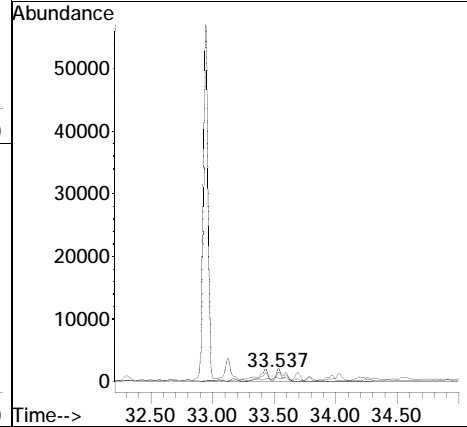
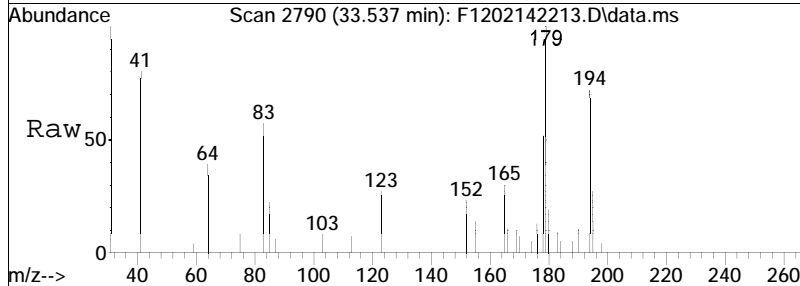
Tgt Ion: 180 Resp: 24991  
 Ion Ratio Lower Upper  
 180 100  
 165 43.4 105.8 196.4#

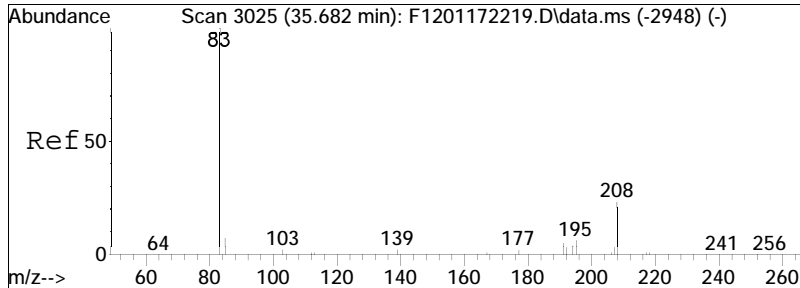




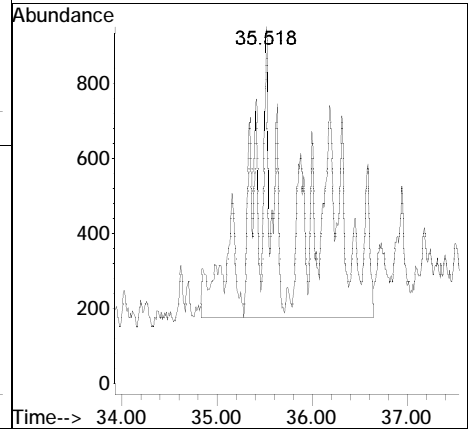
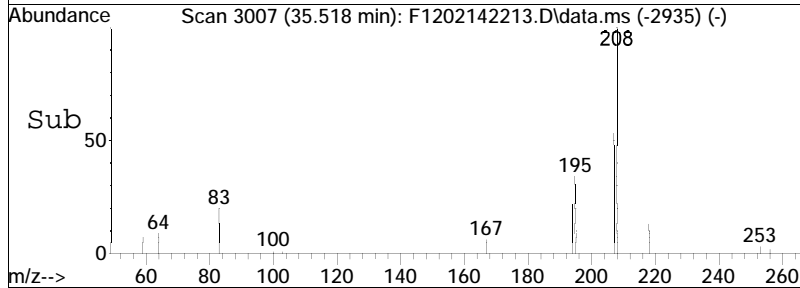
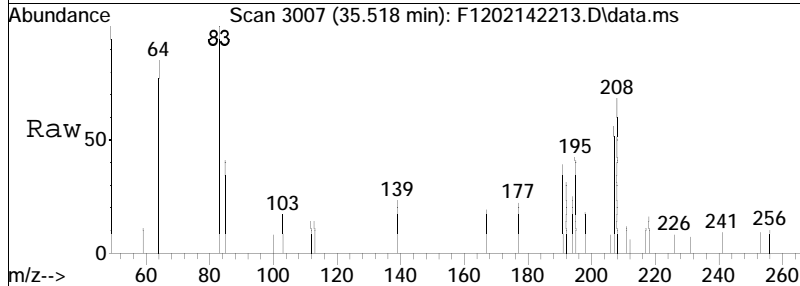
#29  
 C2-Fluorenes  
 Concen: 112.69 ng/mL M5  
 RT: 33.537 min Scan# 2790  
 Delta R.T. -0.192 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

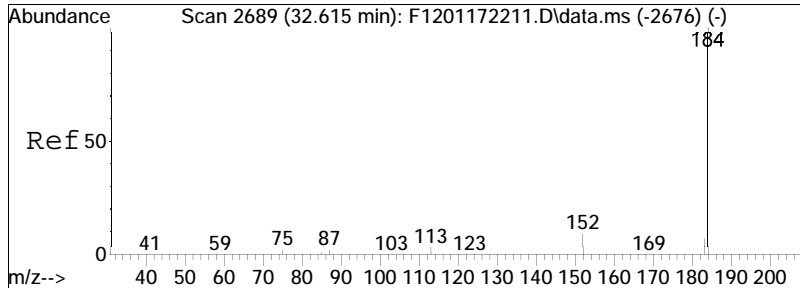
Tgt Ion	Resp	Lower	Upper
194	100		
179	0.0	0.0	0.0
195	2.7	23.8	44.2#





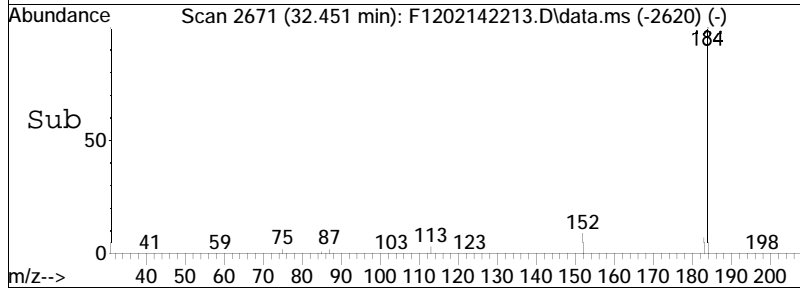
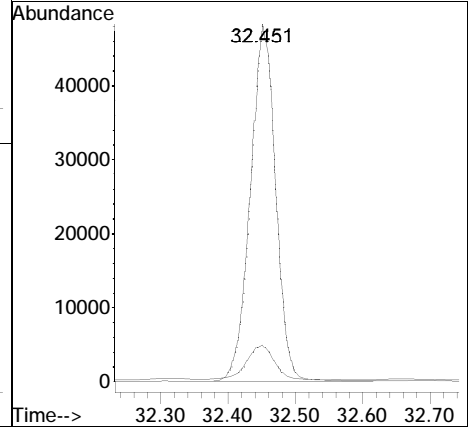
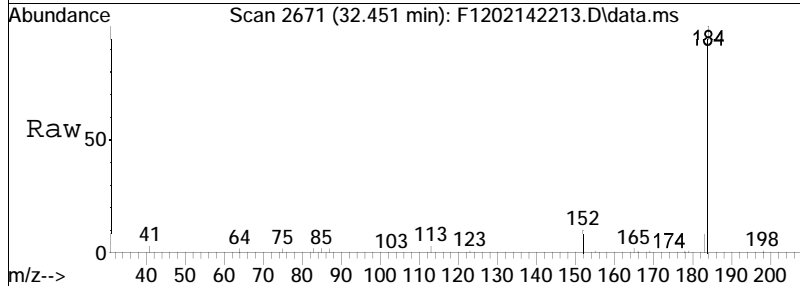
#30  
 C3-Fluorenes  
 Concen: 91.33 ng/mL M5  
 RT: 35.518 min Scan# 3007  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion: 208 Resp: 23847

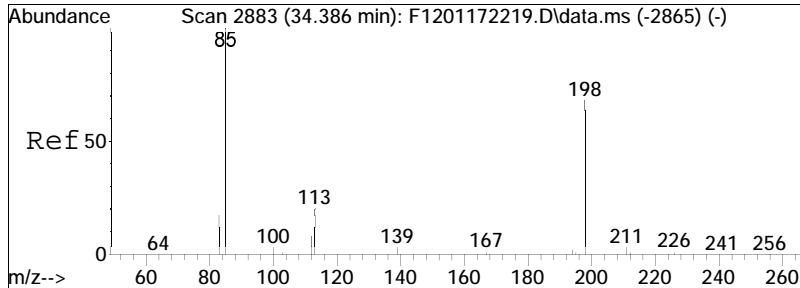




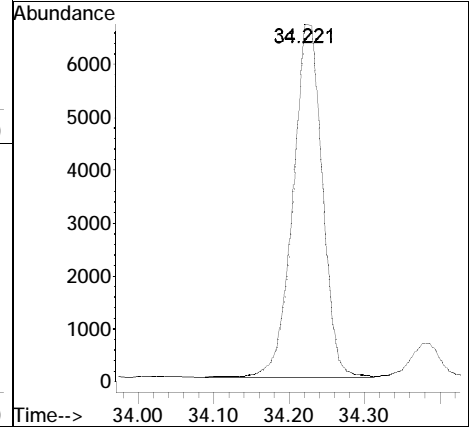
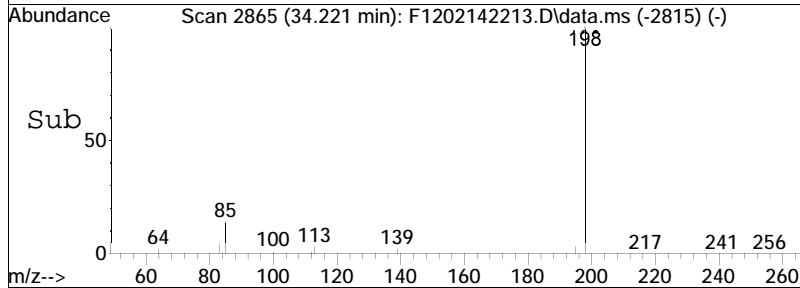
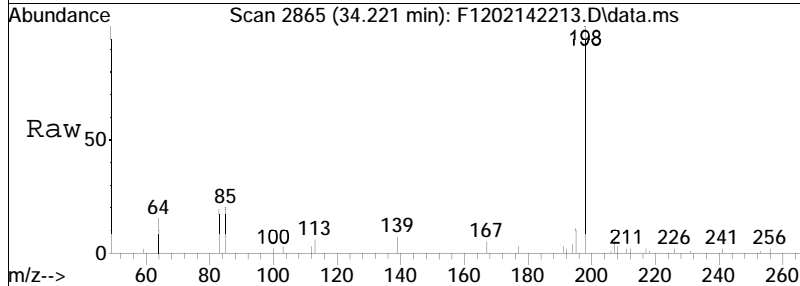
#31  
 Dibenzothiophene  
 Concen: 327.09 ng/mL  
 RT: 32.451 min Scan# 2671  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

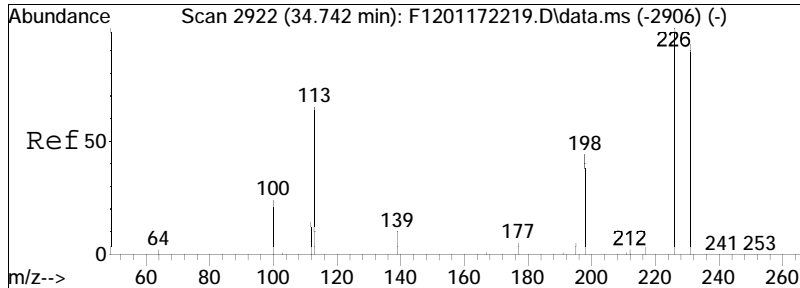
Tgt Ion	Resp	Lower	Upper
184	100		
152	10.9	11.3	20.9#



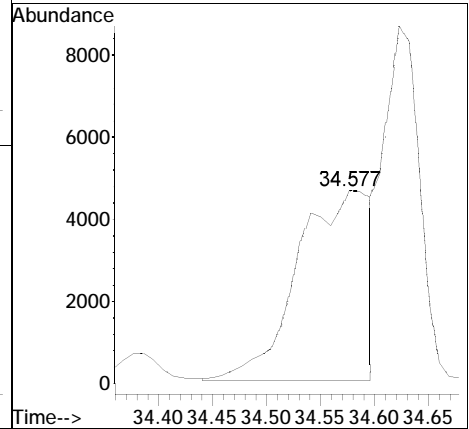
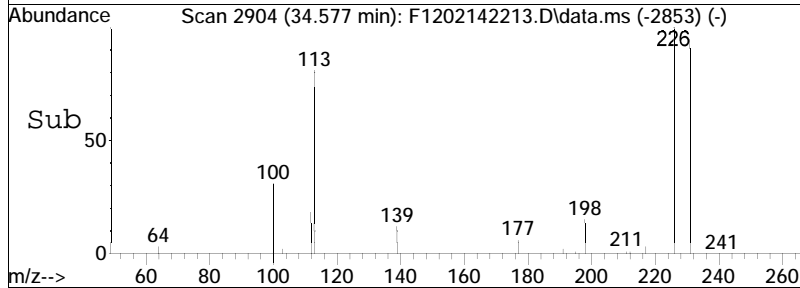
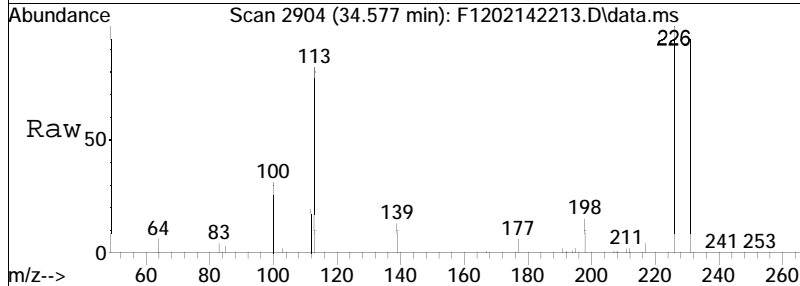


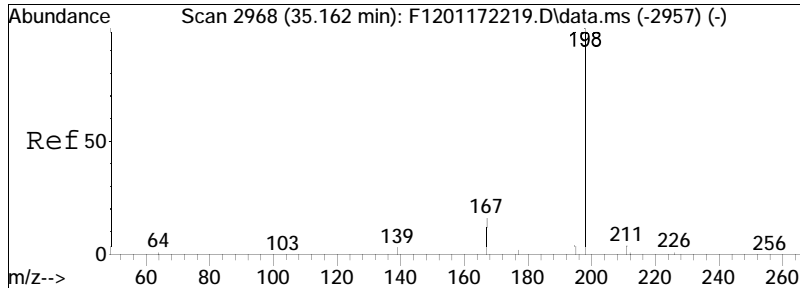
#32  
 4-Methyldibenzothiophene (4MDT)  
 Concen: 47.68 ng/mL  
 RT: 34.221 min Scan# 2865  
 Delta R.T. -0.046 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:198 Resp: 17957



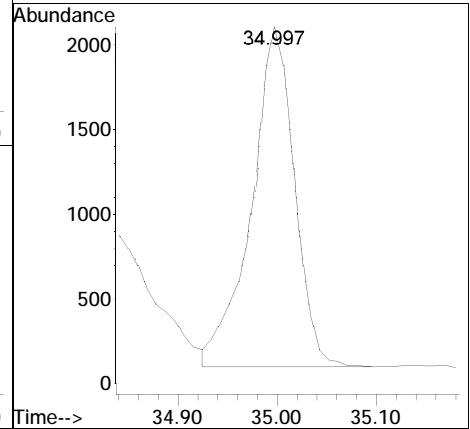
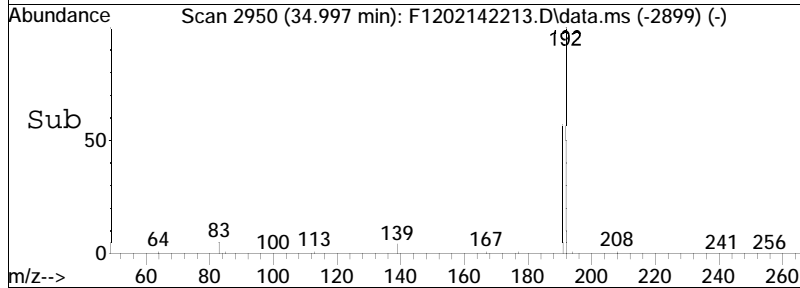
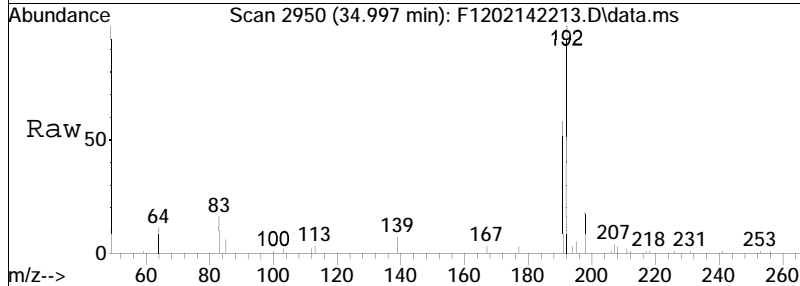


#33  
 2/3-Methyldibenzothiophene(2MD)  
 Concen: 57.02 ng/mL M3  
 RT: 34.577 min Scan# 2904  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:198 Resp: 21474

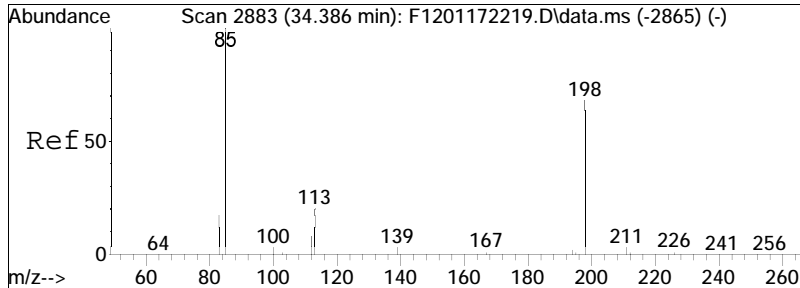




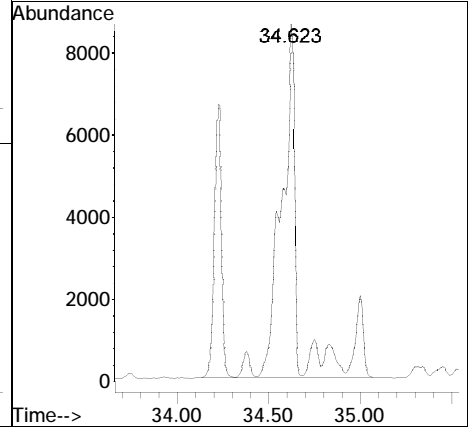
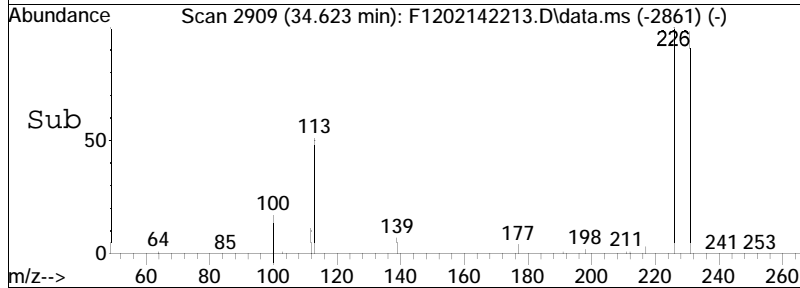
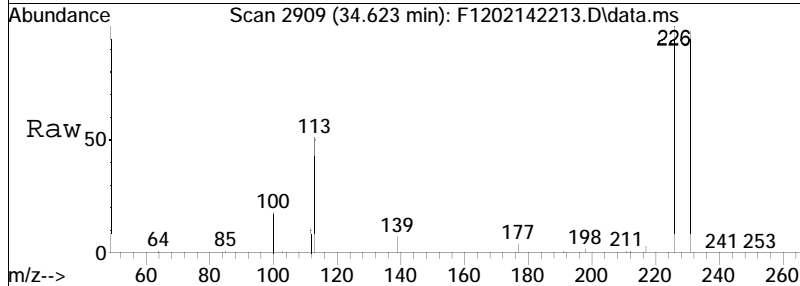
#34  
 1-Methyldibenzothiophene(1MDT)  
 Concen: 16.02 ng/mL  
 RT: 34.997 min Scan# 2950  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:198 Resp: 6033

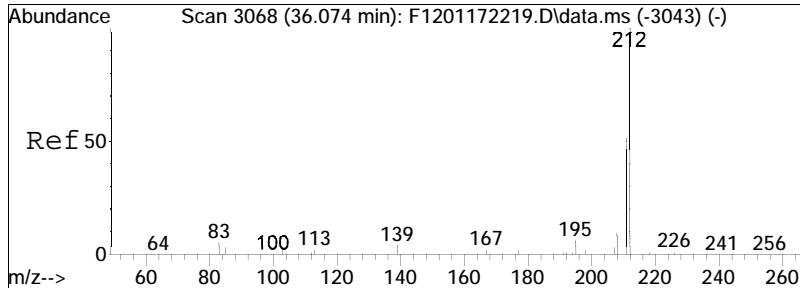




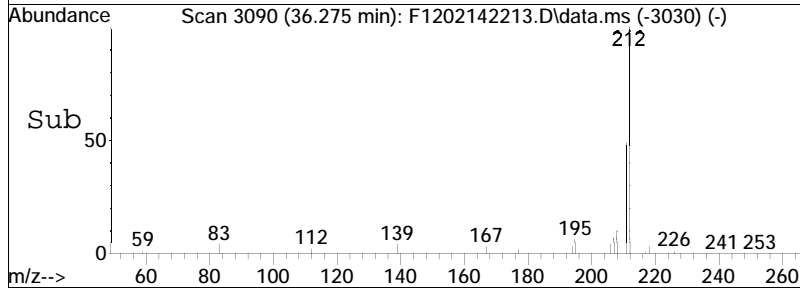
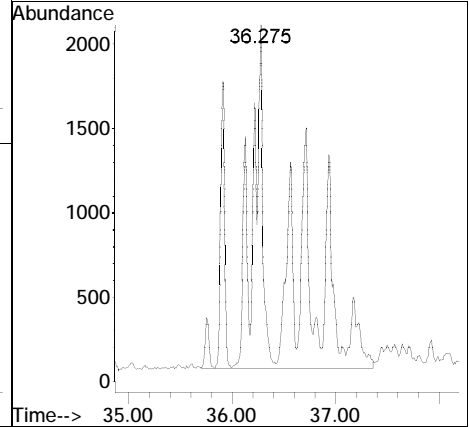
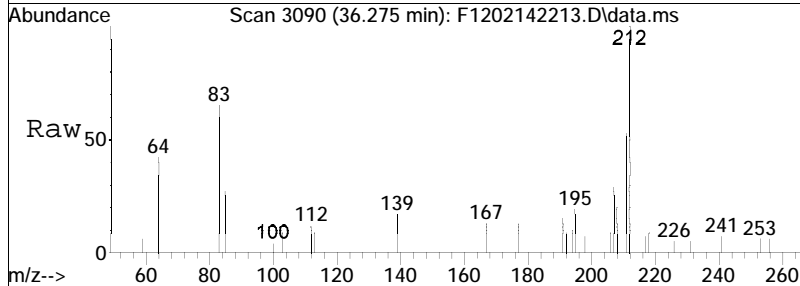


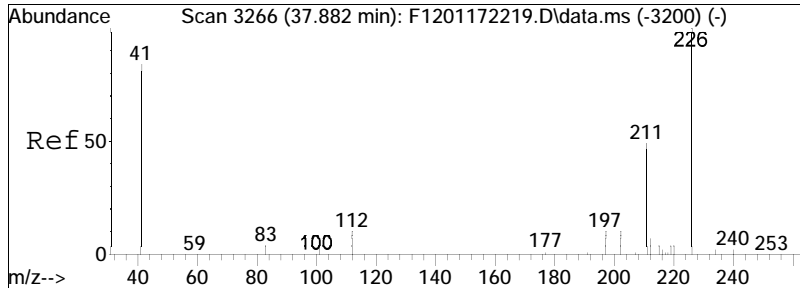
#36  
 Cl-Dibenzothiophenes  
 Concen: 194.90 ng/mL M5  
 RT: 34.623 min Scan# 2909  
 Delta R.T. 0.341 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:198 Resp: 73404





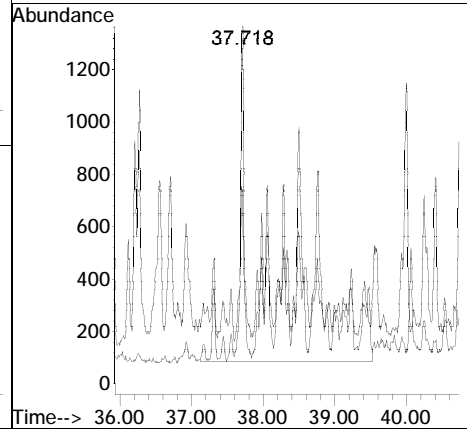
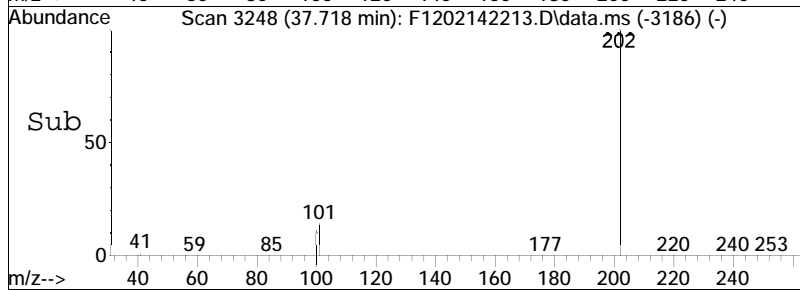
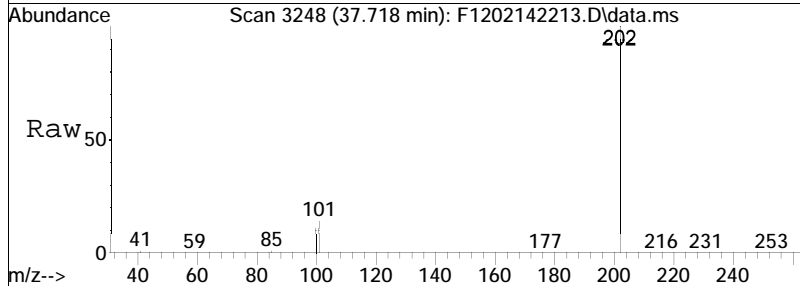
#37  
 C2-Dibenzothiophenes  
 Concen: 107.42 ng/mL M5  
 RT: 36.275 min Scan# 3090  
 Delta R.T. 0.310 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:212 Resp: 40456

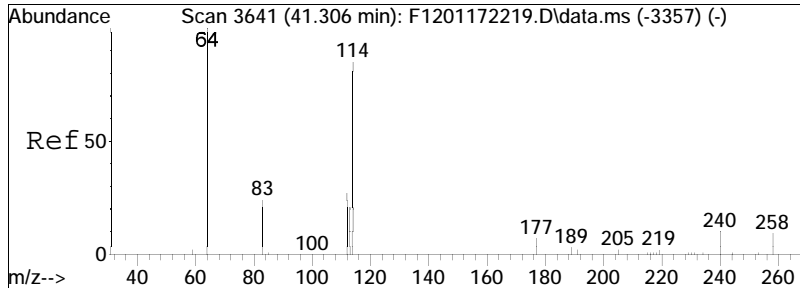




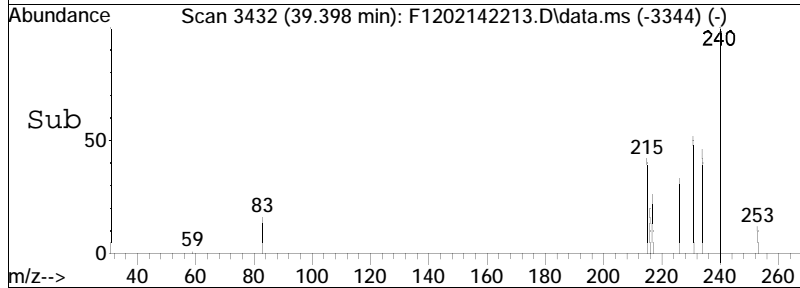
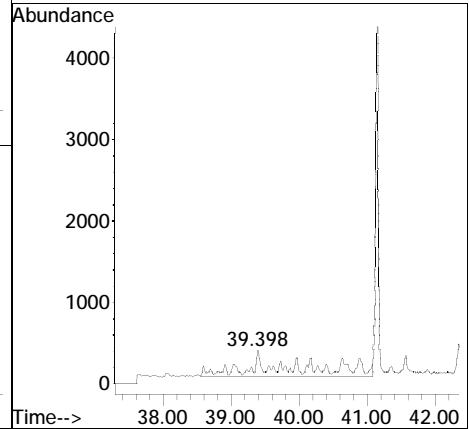
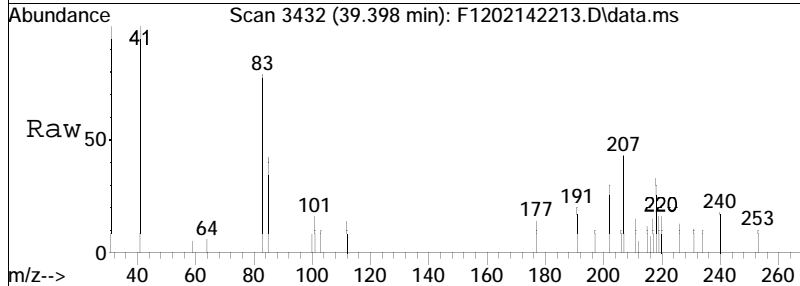
#38  
 C3-Dibenzothiophenes  
 Concen: 75.57 ng/mL M5  
 RT: 37.718 min Scan# 3248  
 Delta R.T. -0.050 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

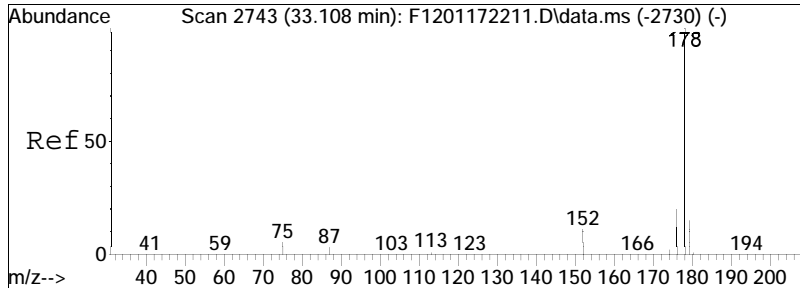
Tgt Ion	Resp	Lower	Upper
226	100		
211	9.0	37.5	69.7#





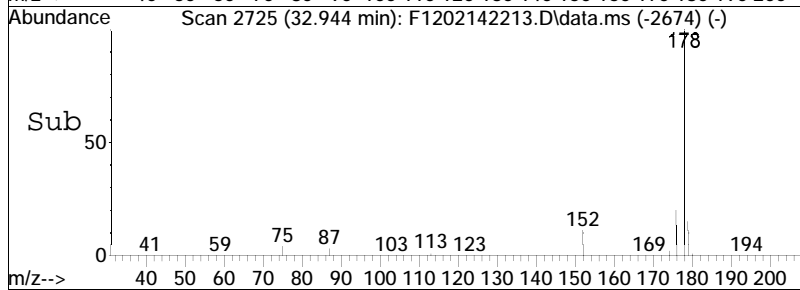
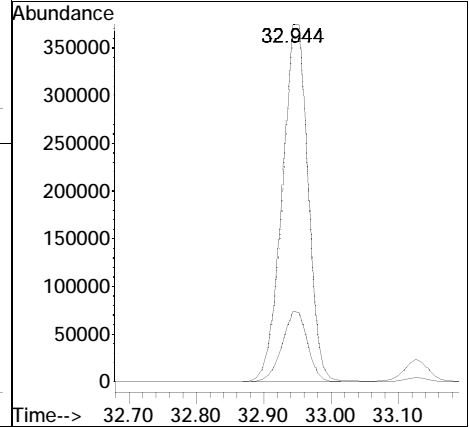
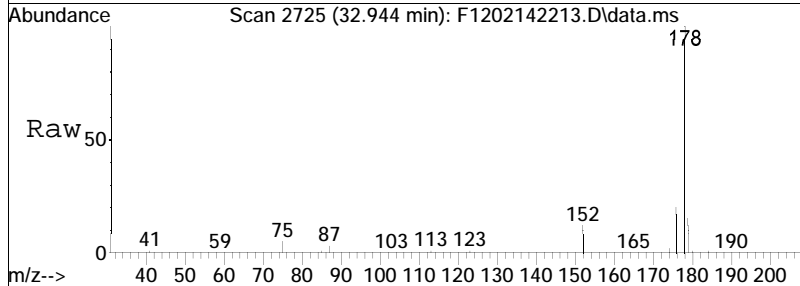
#39  
 C4-Dibenzothiophenes  
 Concen: 37.55 ng/mL M5  
 RT: 39.398 min Scan# 3432  
 Delta R.T. -0.045 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion: 240 Resp: 14144

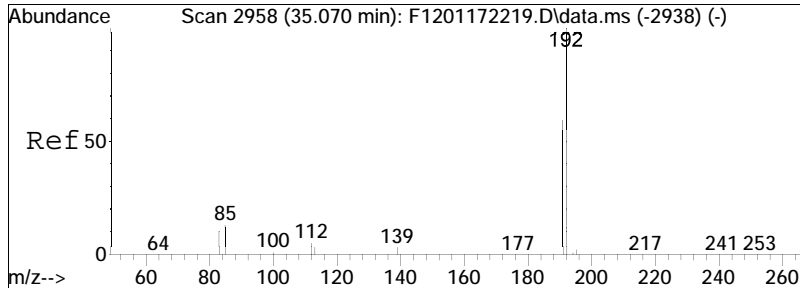




#41  
 Phenanthrene  
 Concen: 2556.64 ng/mL  
 RT: 32.944 min Scan# 2725  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

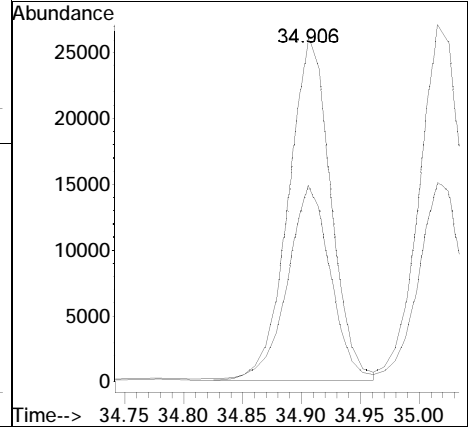
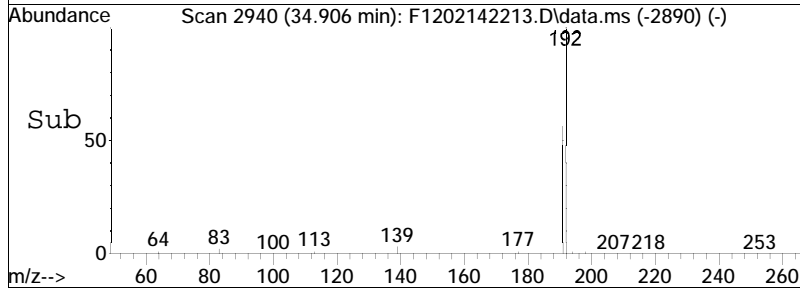
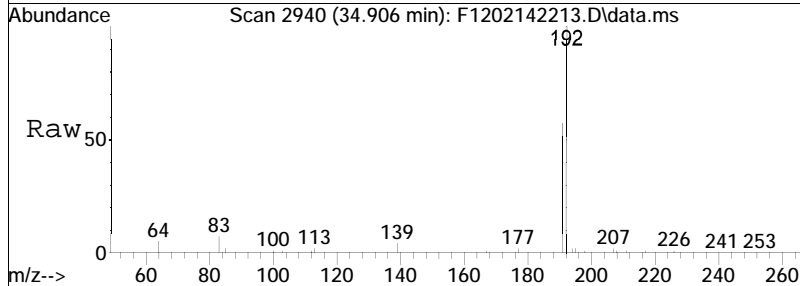
Tgt Ion	Resp	Lower	Upper
178	100		
176	19.6	14.8	27.6

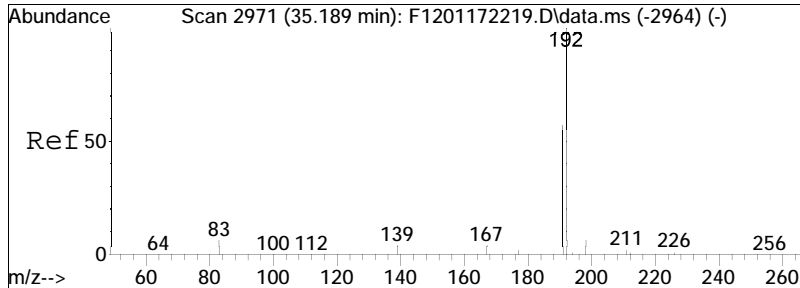




#42  
 3-Methylphenanthrene (3MP)  
 Concen: 168.86 ng/mL  
 RT: 34.906 min Scan# 2940  
 Delta R.T. -0.046 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

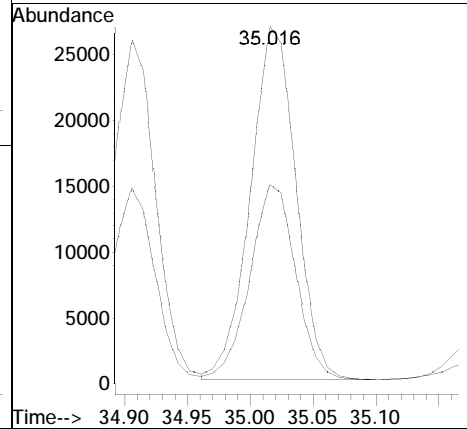
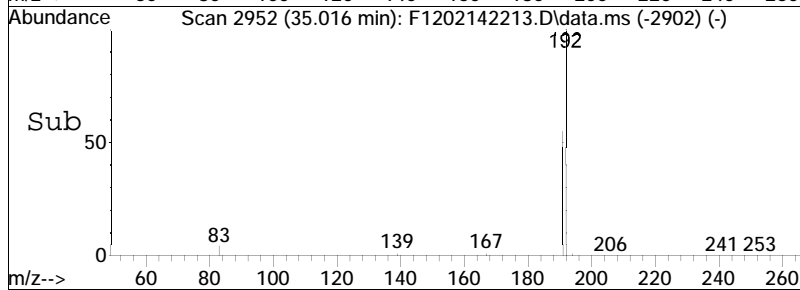
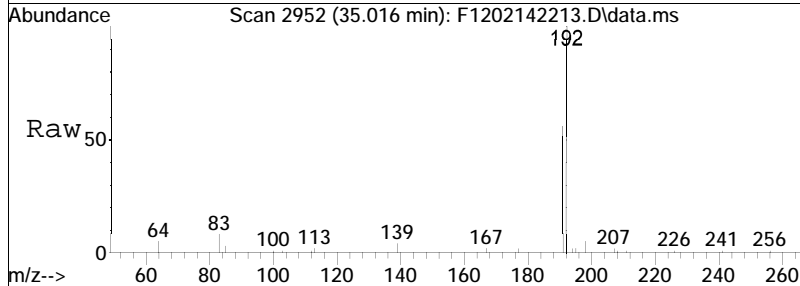
Tgt Ion: 192 Resp: 64993  
 Ion Ratio Lower Upper  
 192 100  
 191 56.4 42.6 79.0

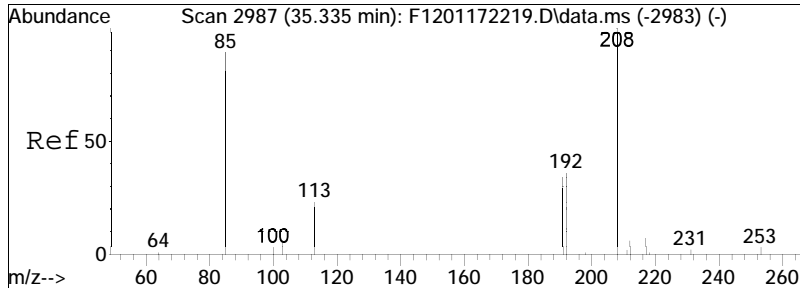




#43  
 2-Methylphenanthrene (2MP)  
 Concen: 175.15 ng/mL  
 RT: 35.016 min Scan# 2952  
 Delta R.T. -0.046 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

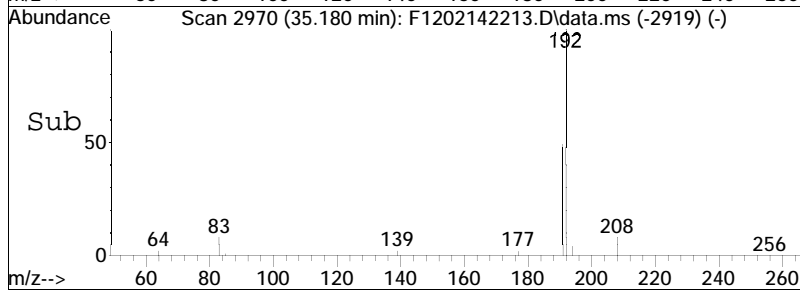
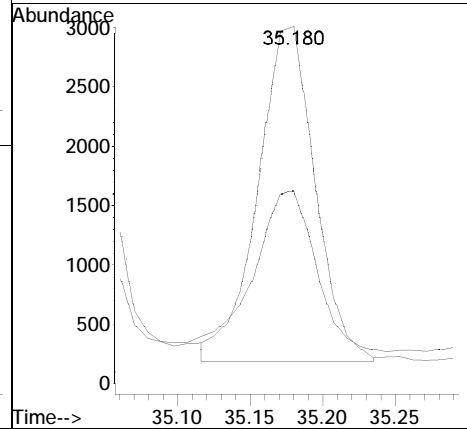
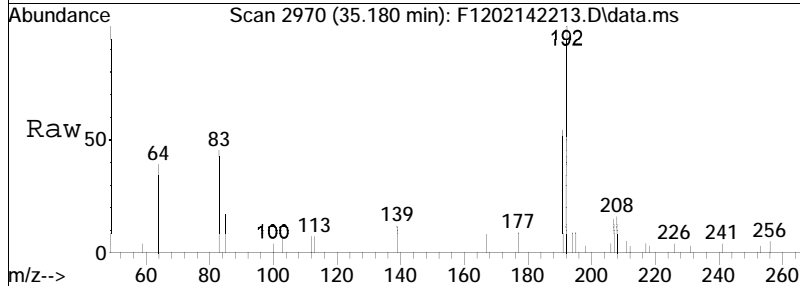
Tgt Ion: 192 Resp: 67415  
 Ion Ratio Lower Upper  
 192 100  
 191 55.2 41.5 77.1



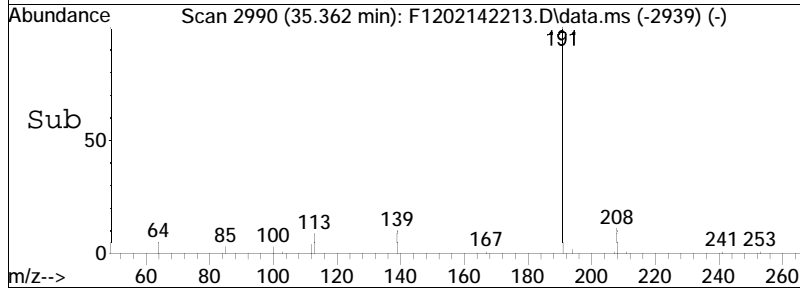
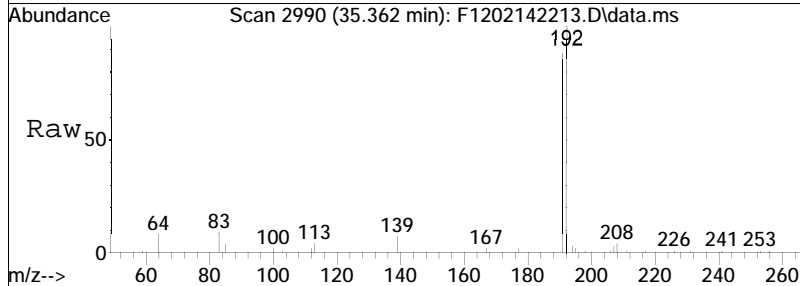
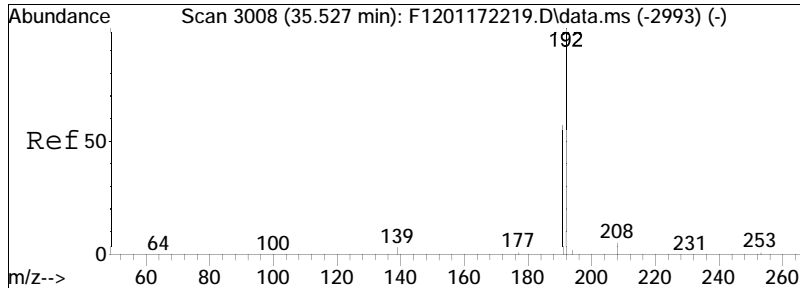


#44  
 2-Methylantracene(2MA)  
 Concen: 20.09 ng/mL M3  
 RT: 35.180 min Scan# 2970  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

Tgt Ion: 192 Resp: 7732  
 Ion Ratio Lower Upper  
 192 100  
 191 580.1 83.9 155.7#

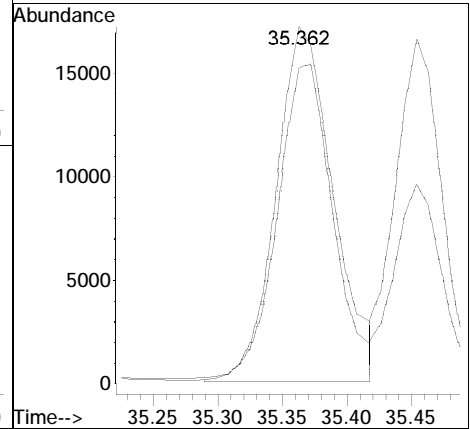


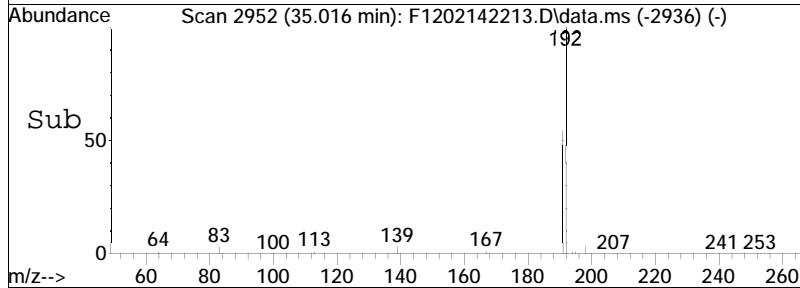
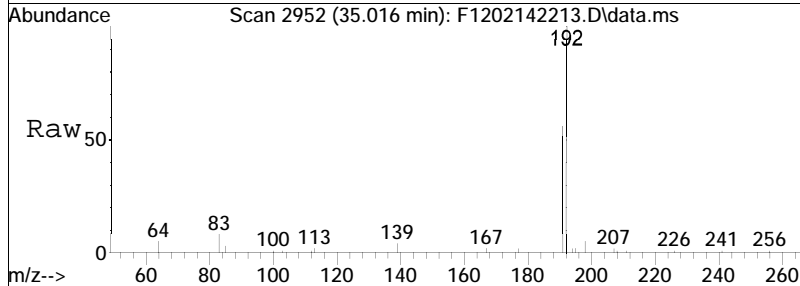
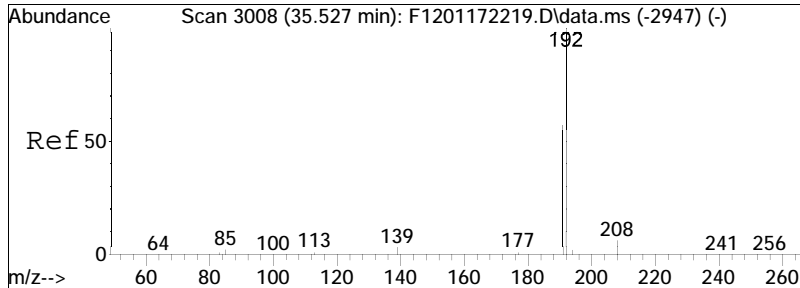




#45  
 9/4-Methylphenanthrene(9MP)  
 Concen: 137.00 ng/mL M3  
 RT: 35.362 min Scan# 2990  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

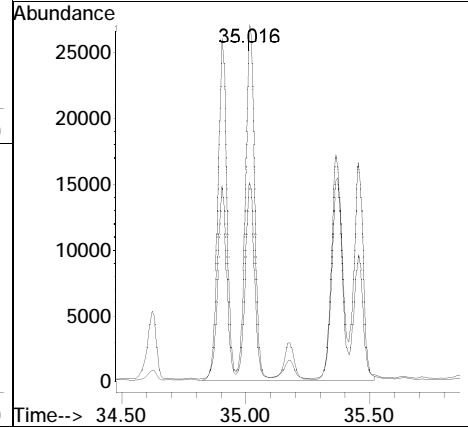
Tgt Ion	Resp	Lower	Upper
192	52731		
191	44.9	41.5	77.1

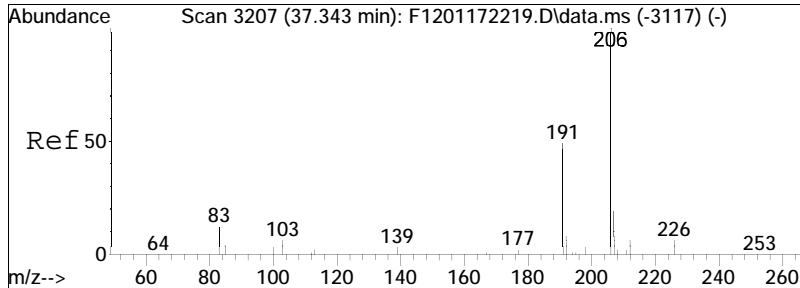




#47  
 Cl-Phenanthrenes/Anthracenes  
 Concen: 614.27 ng/mL M5  
 RT: 35.016 min Scan# 2952  
 Delta R.T. -0.404 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

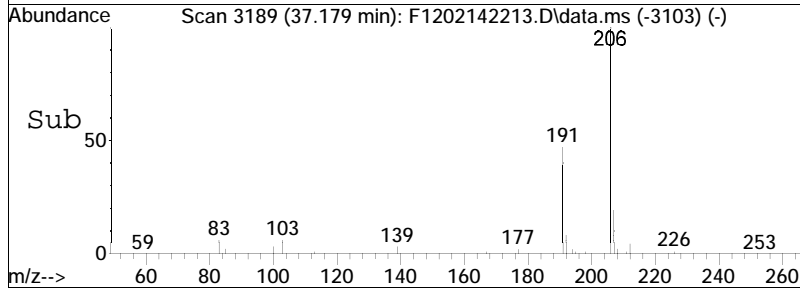
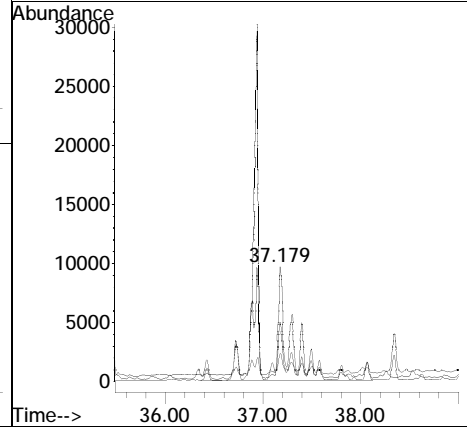
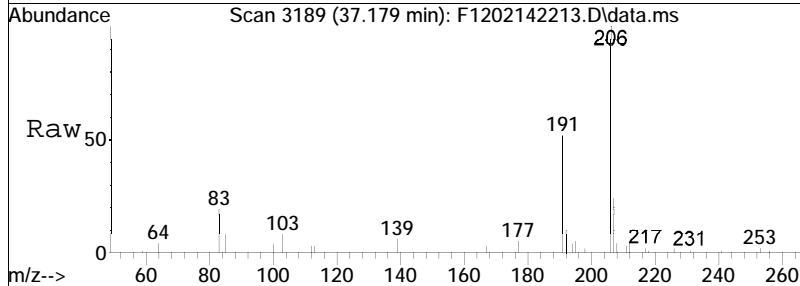
Tgt Ion: 192 Resp: 236428  
 Ion Ratio Lower Upper  
 192 100  
 191 9.0 40.9 76.0#

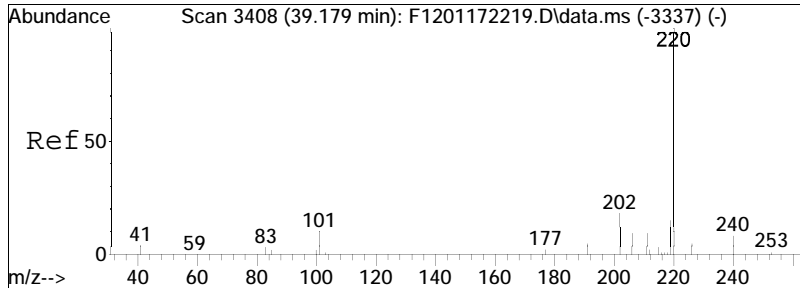




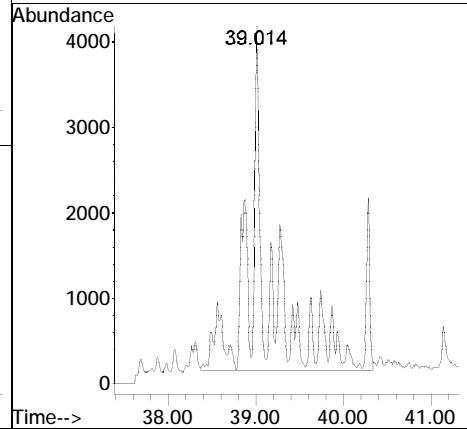
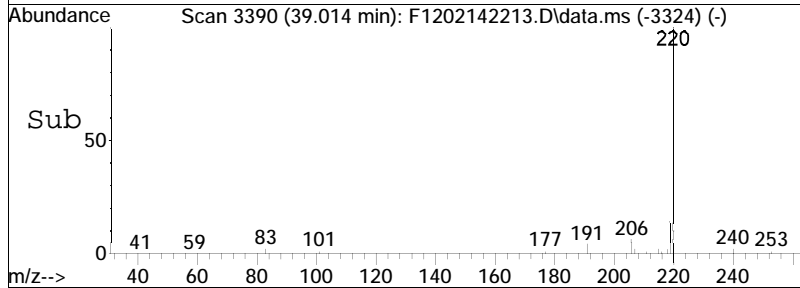
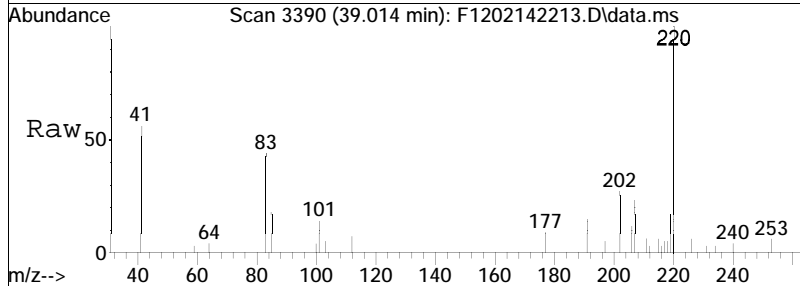
#48  
 C2-Phenanthrenes/Anthracenes  
 Concen: 373.49 ng/mL M5  
 RT: 37.179 min Scan# 3189  
 Delta R.T. -0.052 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

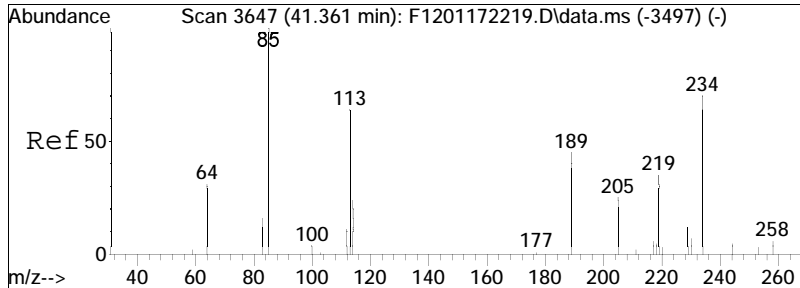
Tgt Ion	Ratio	Lower	Upper
206	100		
191	9.5	35.8	66.4#
207	4.3	14.7	27.3#





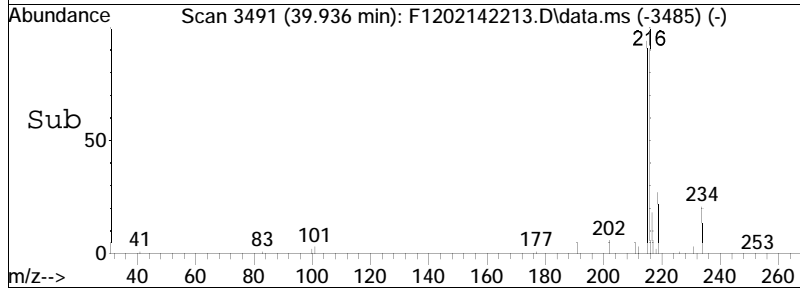
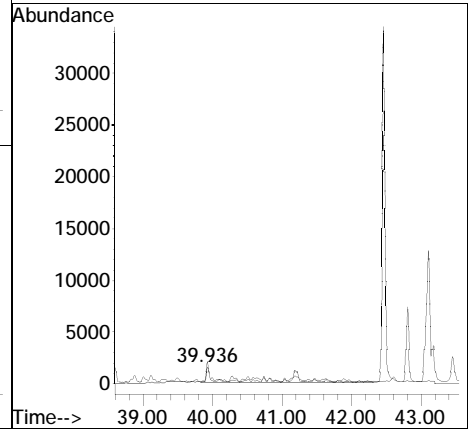
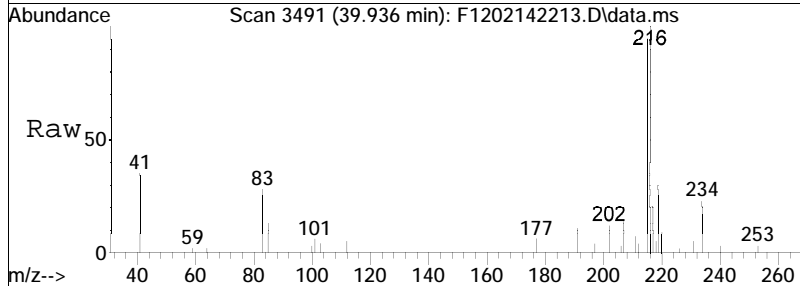
#50  
 C3-Phenanthrenes/Anthracenes  
 Concen: 167.57 ng/mL M5  
 RT: 39.014 min Scan# 3390  
 Delta R.T. -0.046 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:220 Resp: 64498

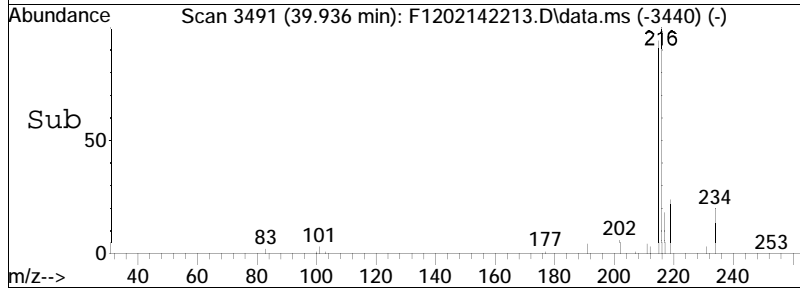
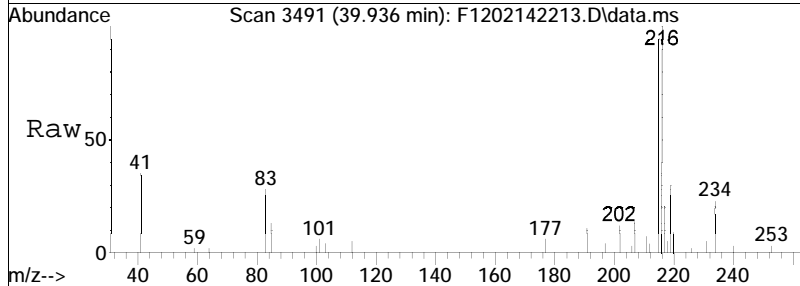
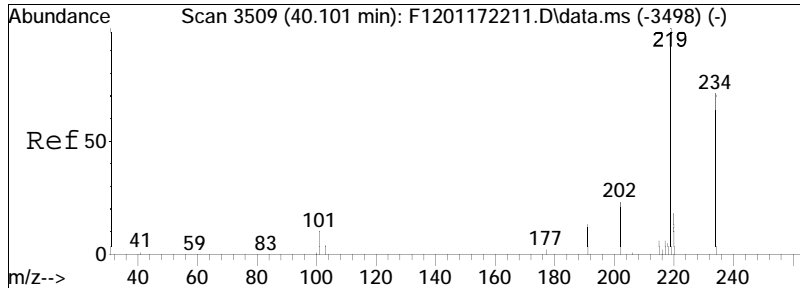




#51  
 C4-Phenanthrenes/Anthracenes  
 Concen: 78.57 ng/mL M5  
 RT: 39.936 min Scan# 3491  
 Delta R.T. -1.299 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

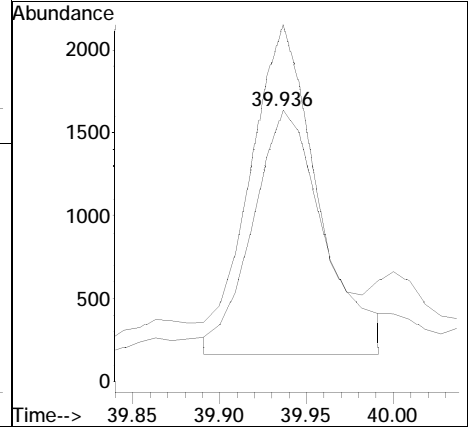
Tgt Ion: 234 Resp: 30241  
 Ion Ratio Lower Upper  
 234 100  
 219 9.2 41.7 77.5#

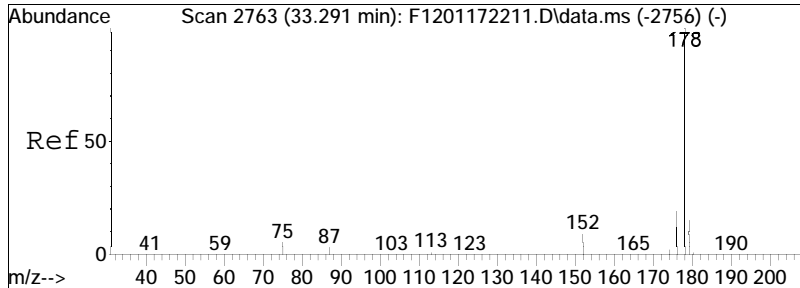




#52  
 Retene  
 Concen: 33.22 ng/mL M4  
 RT: 39.936 min Scan# 3491  
 Delta R.T. -0.037 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

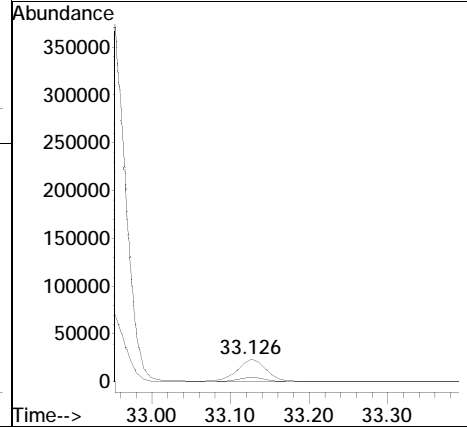
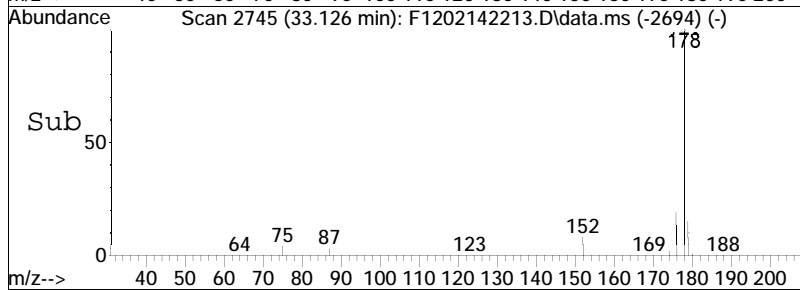
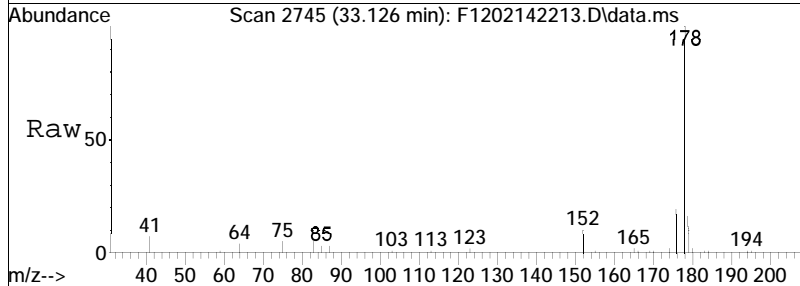
Tgt Ion: 234 Resp: 4237  
 Ion Ratio Lower Upper  
 234 100  
 219 127.0 94.0 174.6

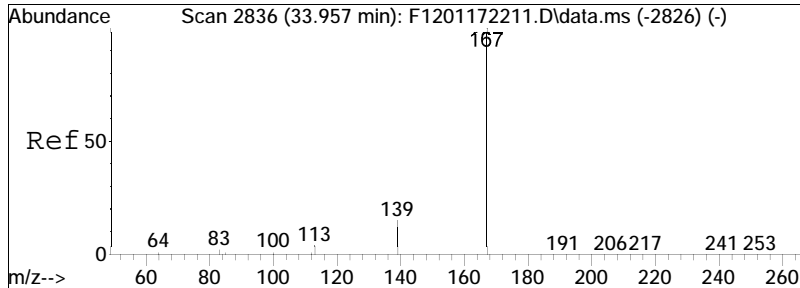




#53  
 Anthracene  
 Concen: 165.68 ng/mL  
 RT: 33.126 min Scan# 2745  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

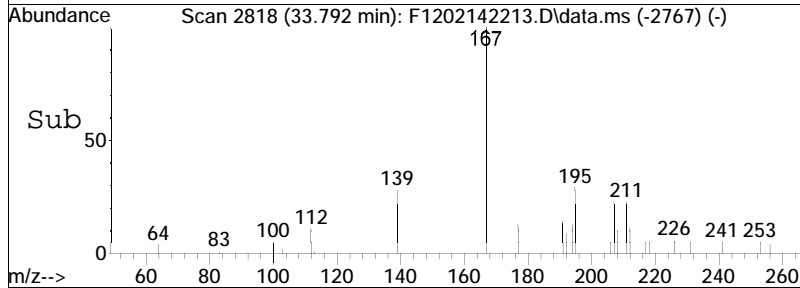
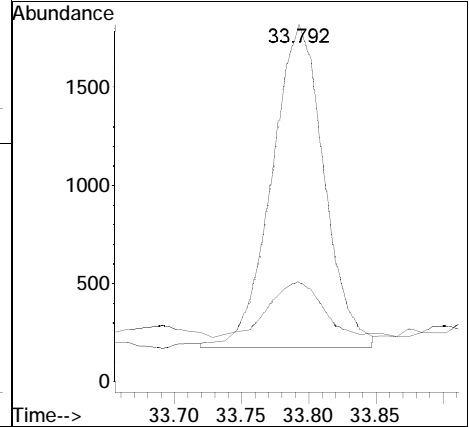
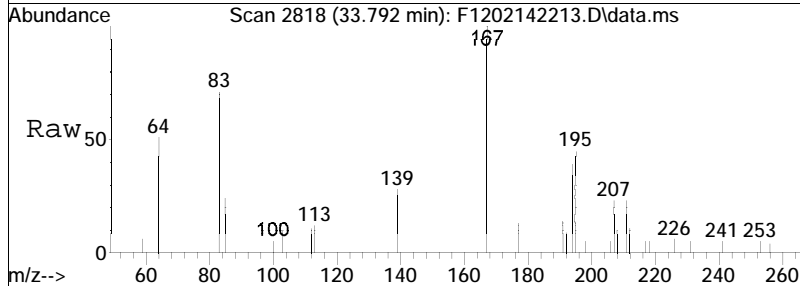
Tgt Ion	Resp	Lower	Upper
178	100		
176	18.9	13.4	24.8



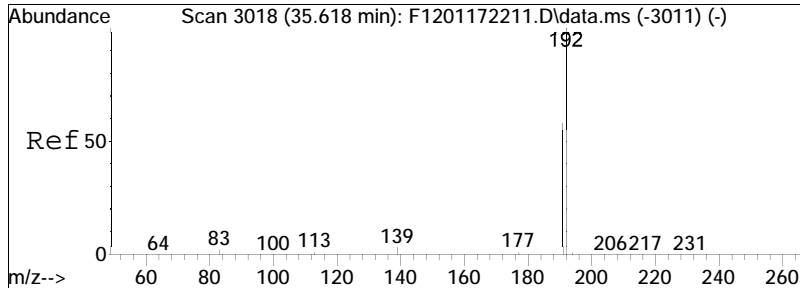


#54  
 Carbazole  
 Concen: 11.79 ng/mL M4  
 RT: 33.792 min Scan# 2818  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

Tgt Ion	Resp	Lower	Upper
167	4390	100	
139	24.0	10.3	19.1#

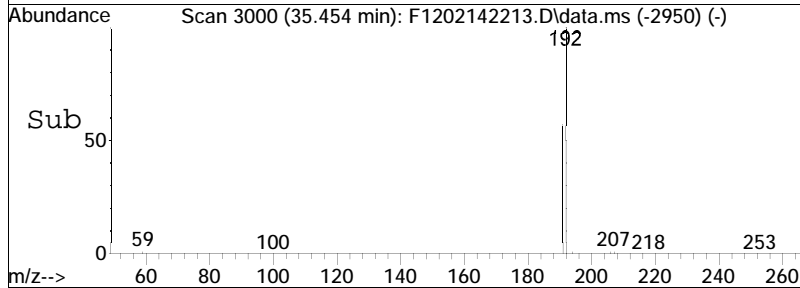
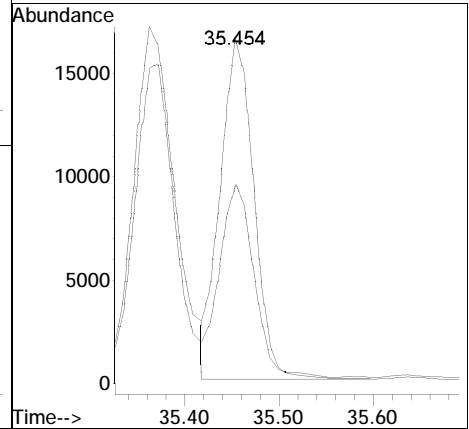
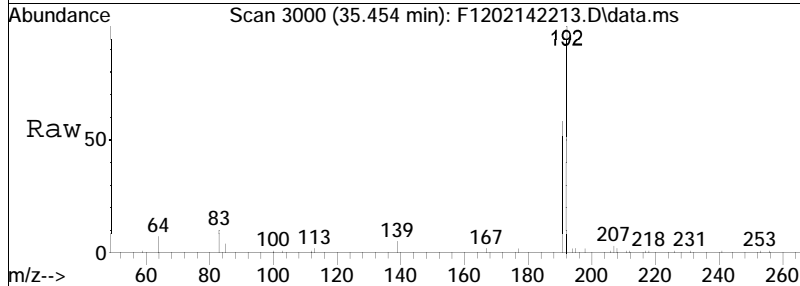


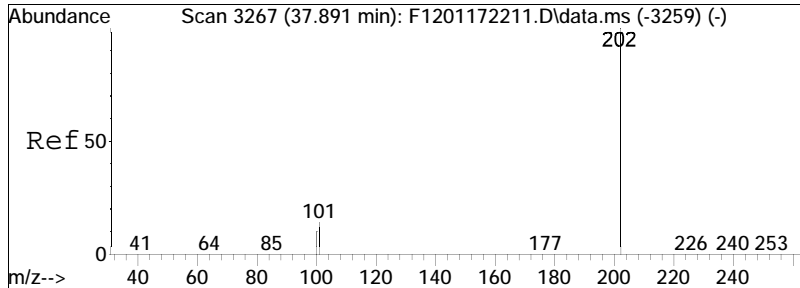




#55  
 1-Methylphenanthrene  
 Concen: 157.79 ng/mL  
 RT: 35.454 min Scan# 3000  
 Delta R.T. -0.046 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

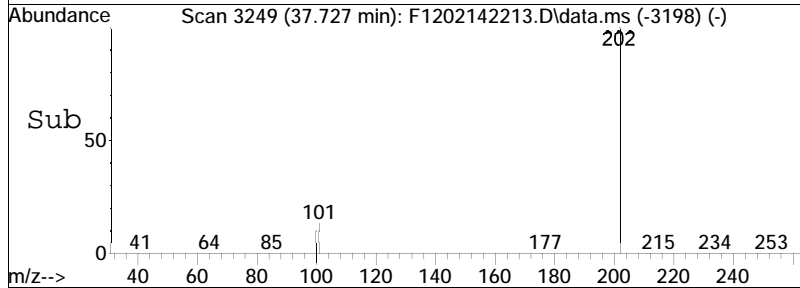
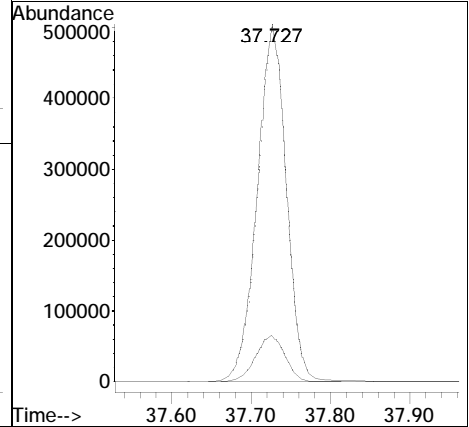
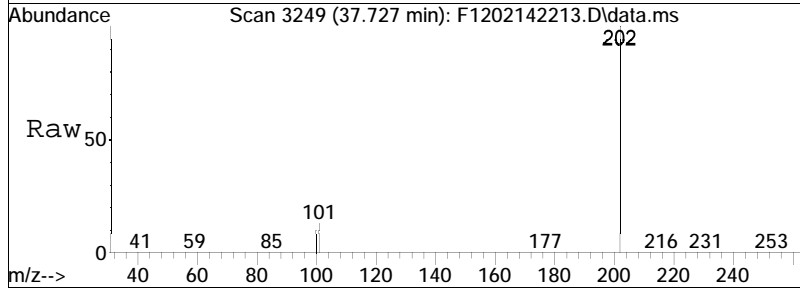
Tgt Ion: 192 Resp: 40804  
 Ion Ratio Lower Upper  
 192 100  
 191 58.1 42.6 79.0

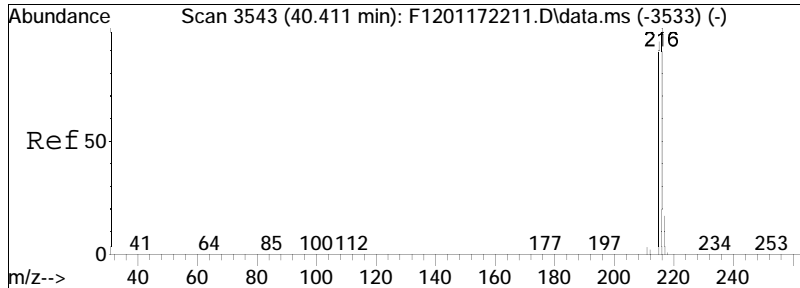




#56  
 Fluoranthene  
 Concen: 3268.73 ng/mL M4  
 RT: 37.727 min Scan# 3249  
 Delta R.T. -0.037 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

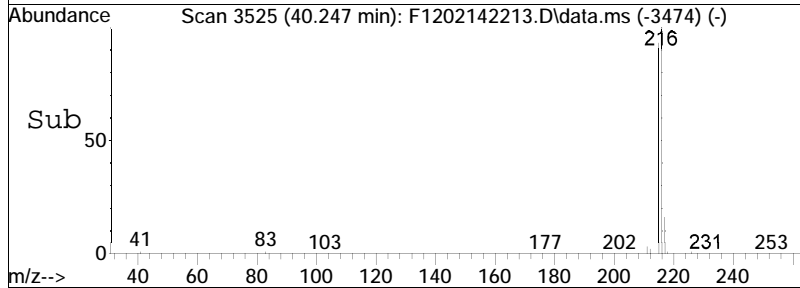
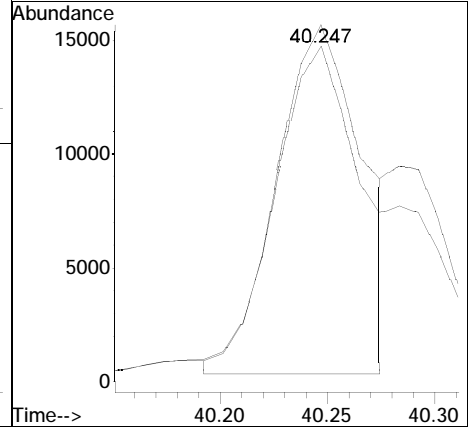
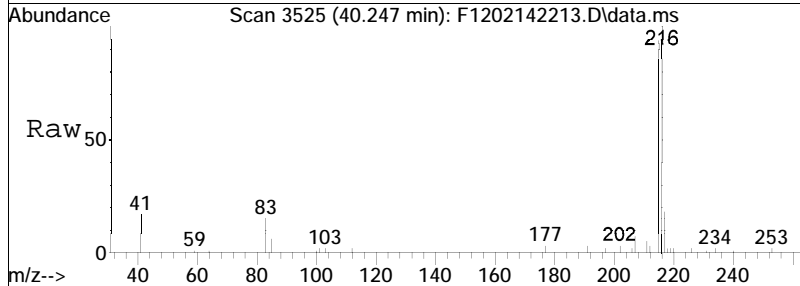
Tgt Ion: 202 Resp: 1261639  
 Ion Ratio Lower Upper  
 202 100  
 101 13.6 8.4 15.6

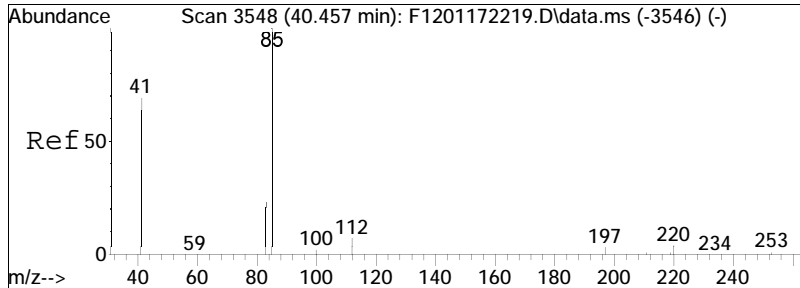




#57  
 Benzo(b)fluorene  
 Concen: 175.65 ng/mL M3  
 RT: 40.247 min Scan# 3525  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

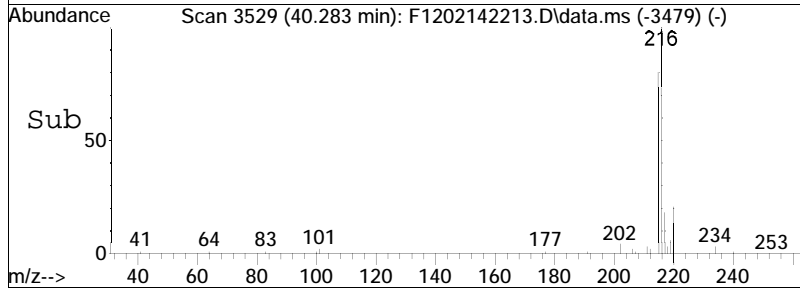
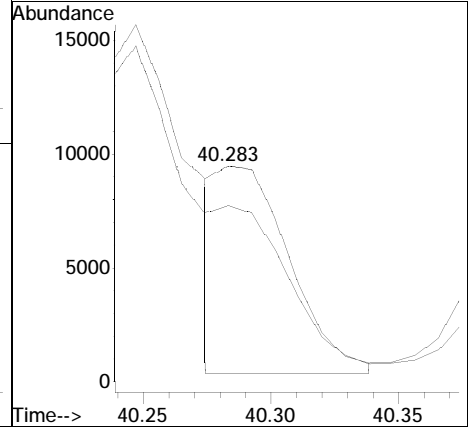
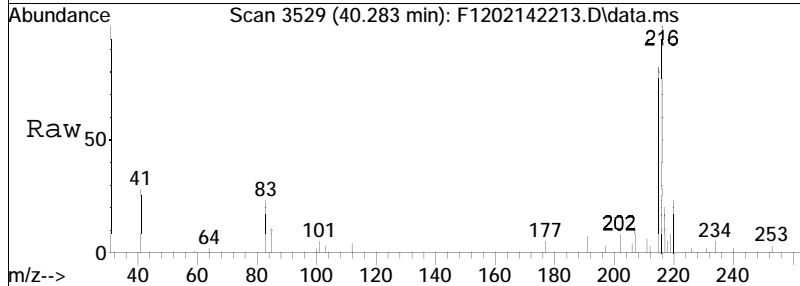
Tgt Ion: 216 Resp: 42722  
 Ion Ratio Lower Upper  
 216 100  
 215 40.1 91.7 170.3#

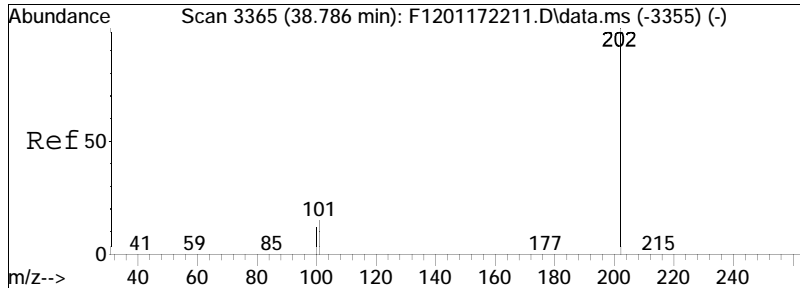




#58  
 7H-Benzo(c)fluorene  
 Concen: 71.64 ng/mL M3  
 RT: 40.283 min Scan# 3529  
 Delta R.T. -0.046 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

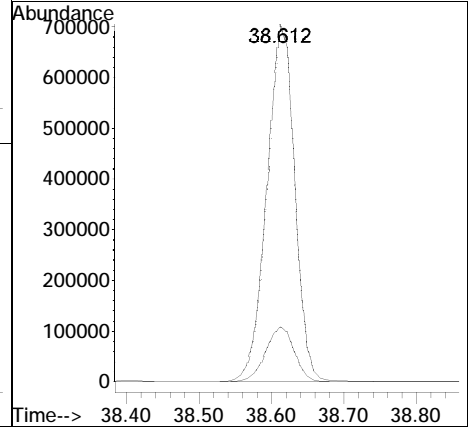
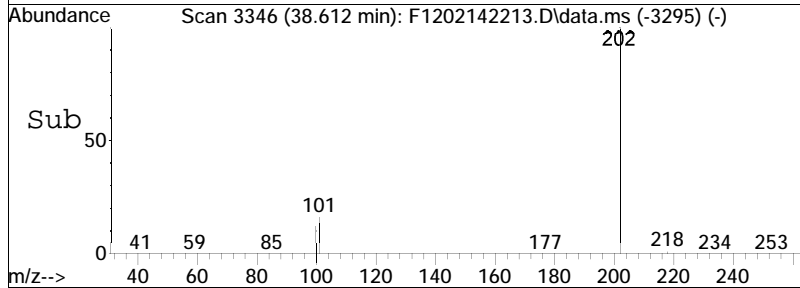
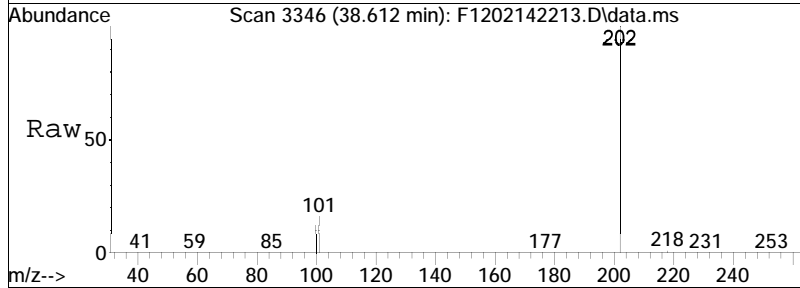
Tgt Ion	Ratio	Lower	Upper
216	100		
215	41.6	99.9	185.5#

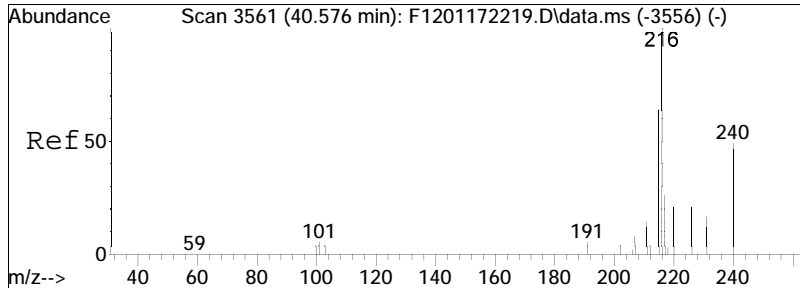




#59  
 Pyrene  
 Concen: 4626.65 ng/mL  
 RT: 38.612 min Scan# 3346  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

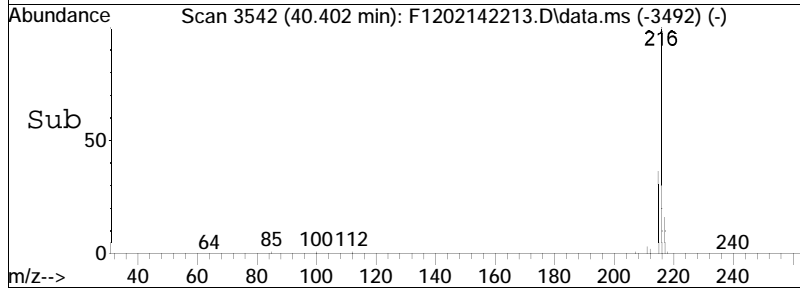
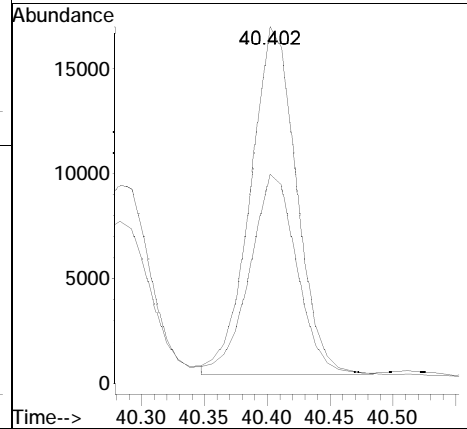
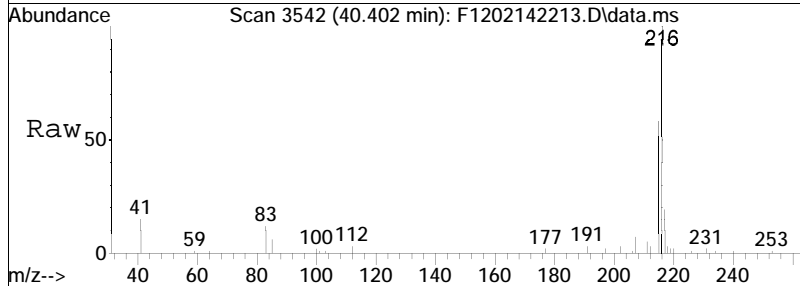
Tgt Ion: 202 Resp: 1853196  
 Ion Ratio Lower Upper  
 202 100  
 101 16.1 21.0 39.0#

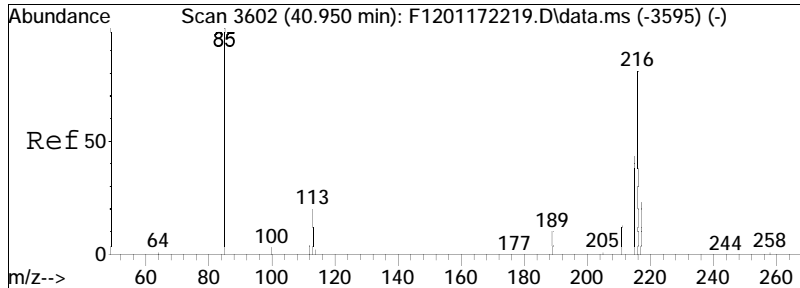




#60  
 2-Methylpyrene  
 Concen: 105.71 ng/mL M3  
 RT: 40.402 min Scan# 3542  
 Delta R.T. -0.046 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

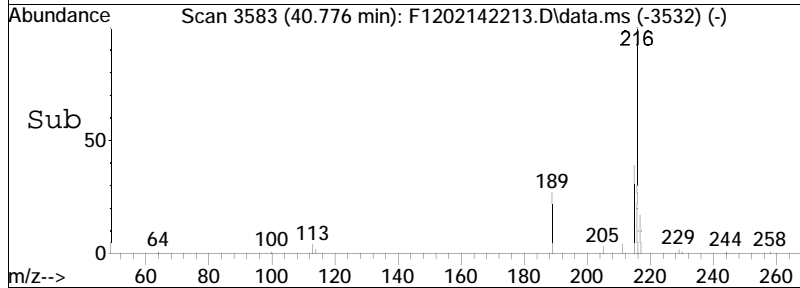
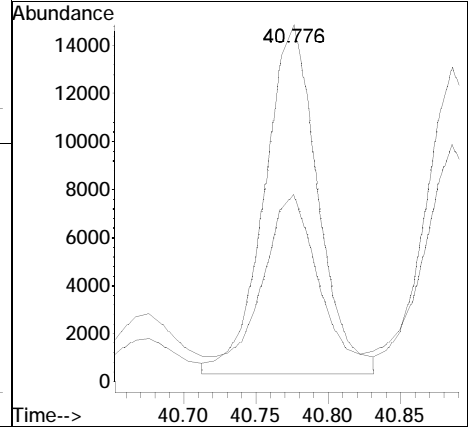
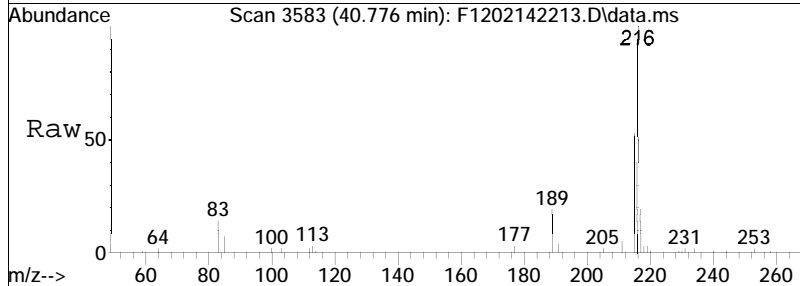
Tgt Ion: 216 Resp: 42343  
 Ion Ratio Lower Upper  
 216 100  
 215 129.6 70.0 130.0

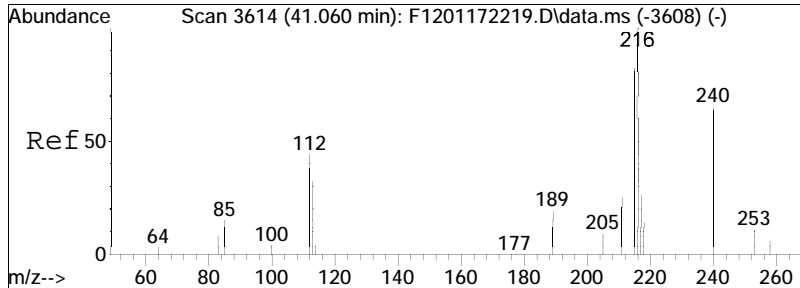




#61  
 4-Methylpyrene  
 Concen: 93.43 ng/mL M3  
 RT: 40.776 min Scan# 3583  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

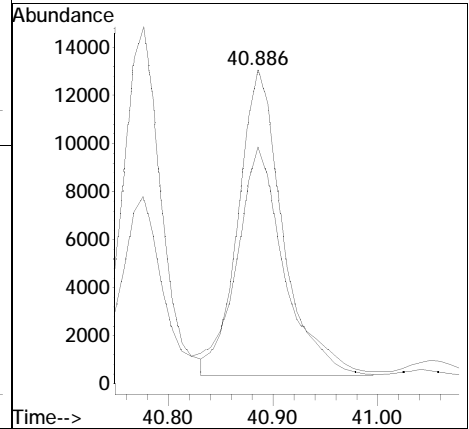
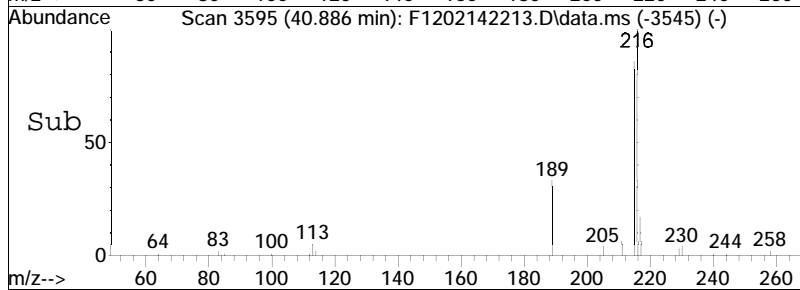
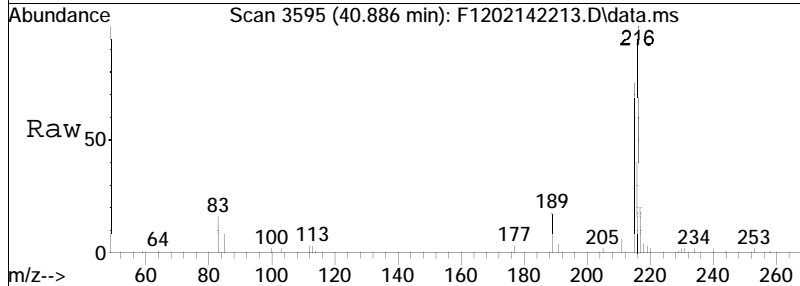
Tgt Ion: 216 Resp: 37423  
 Ion Ratio Lower Upper  
 216 100  
 215 78.0 51.2 95.2



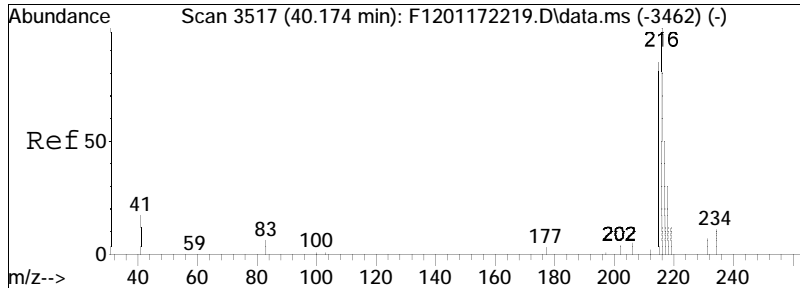


#62  
 1-Methylpyrene  
 Concen: 93.26 ng/mL  
 RT: 40.886 min Scan# 3595  
 Delta R.T. -0.046 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

Tgt Ion: 216 Resp: 37357  
 Ion Ratio Lower Upper  
 216 100  
 215 78.2 76.4 141.8

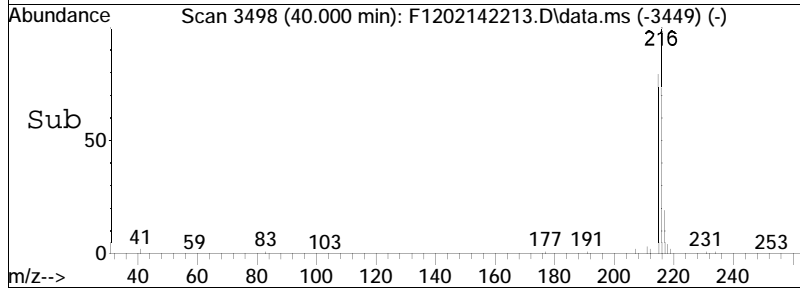
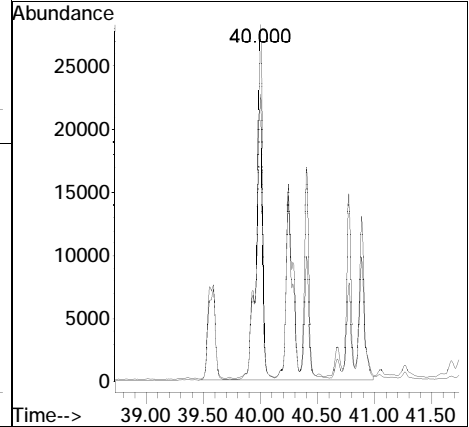
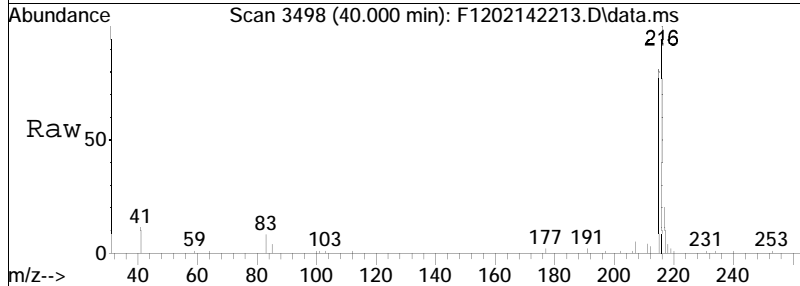


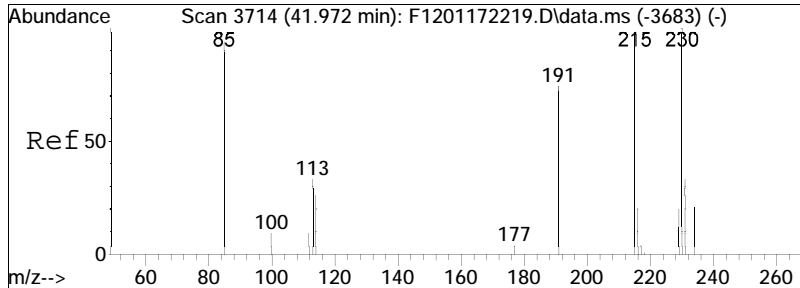




#63  
 Cl-Fluoranthenes/Pyrenes  
 Concen: 825.89 ng/mL M5  
 RT: 40.000 min Scan# 3498  
 Delta R.T. -0.052 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

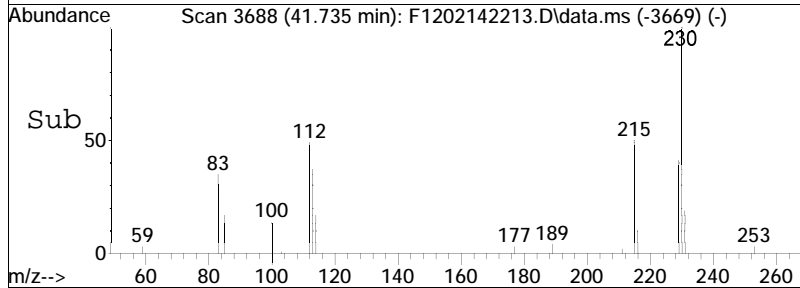
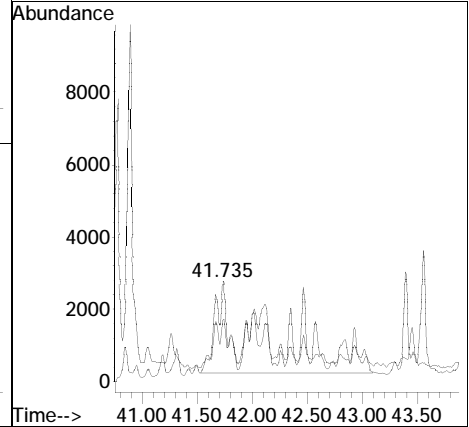
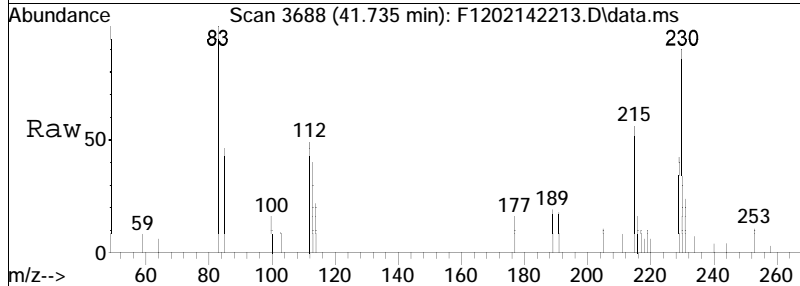
Tgt Ion: 216 Resp: 330808  
 Ion Ratio Lower Upper  
 216 100  
 215 20.4 65.7 122.1#

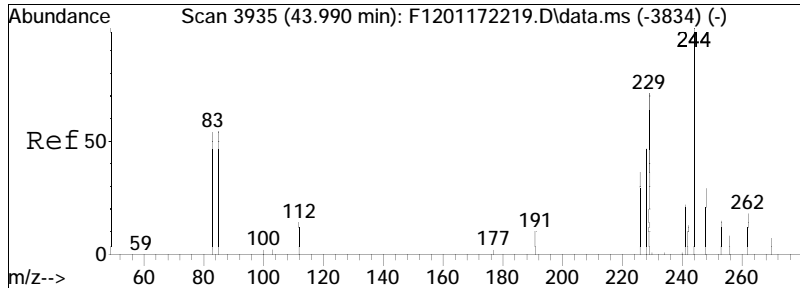




#64  
 C2-Fluoranthenes/Pyrenes  
 Concen: 187.43 ng/mL M5  
 RT: 41.735 min Scan# 3688  
 Delta R.T. -0.111 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

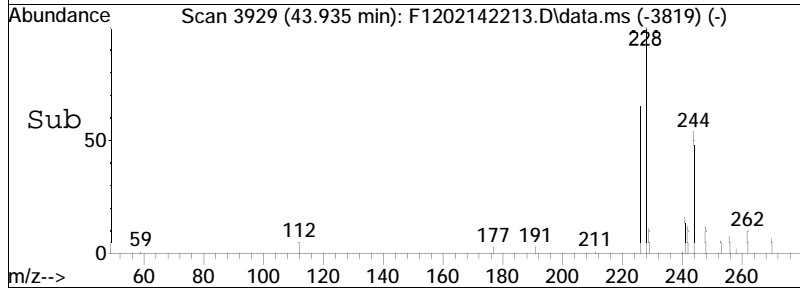
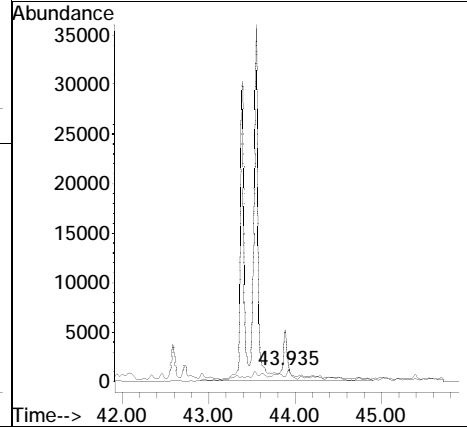
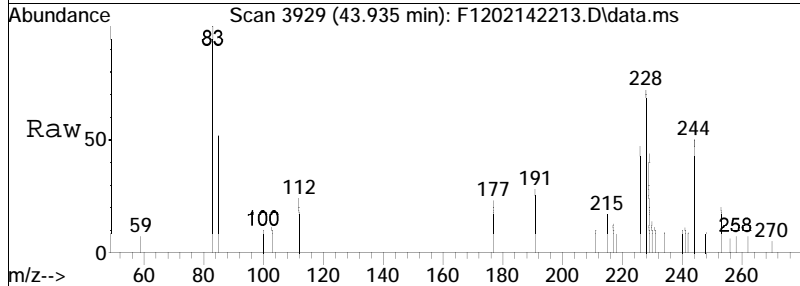
Tgt Ion: 230 Resp: 75076  
 Ion Ratio Lower Upper  
 230 100  
 215 3.4 79.5 147.7#

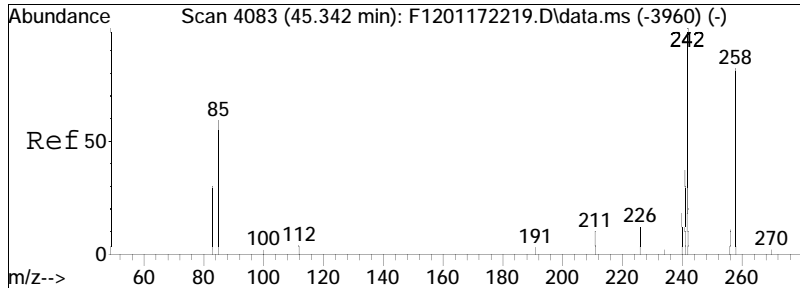




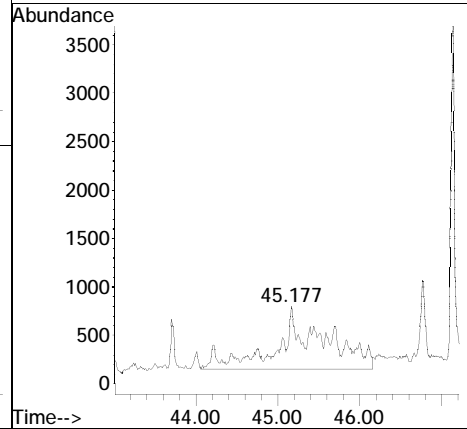
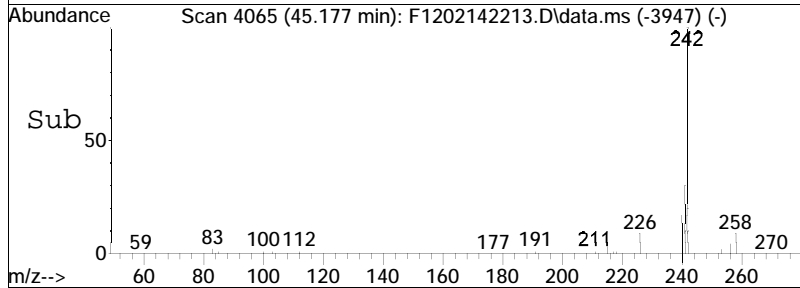
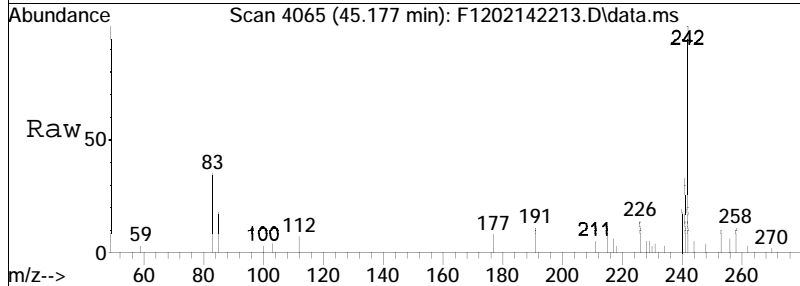
#65  
 C3-Fluoranthenes/Pyrenes  
 Concen: 88.12 ng/mL M5  
 RT: 43.935 min Scan# 3929  
 Delta R.T. 0.078 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

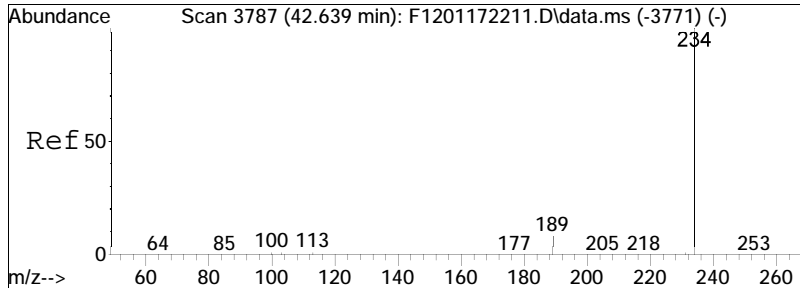
Tgt Ion: 244 Resp: 35298  
 Ion Ratio Lower Upper  
 244 100  
 229 0.5 65.4 121.4#





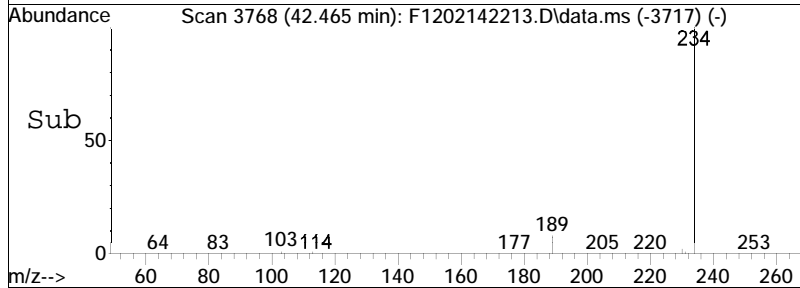
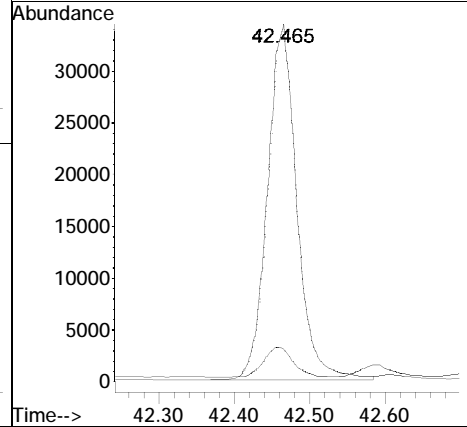
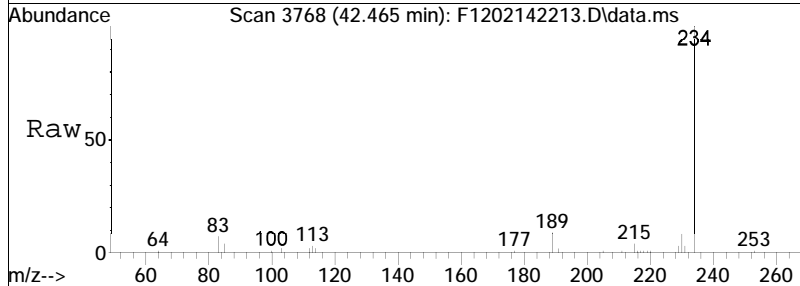
#66  
 C4-Fluoranthenes/Pyrenes  
 Concen: 63.97 ng/mL M5  
 RT: 45.177 min Scan# 4065  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion: 258 Resp: 25623

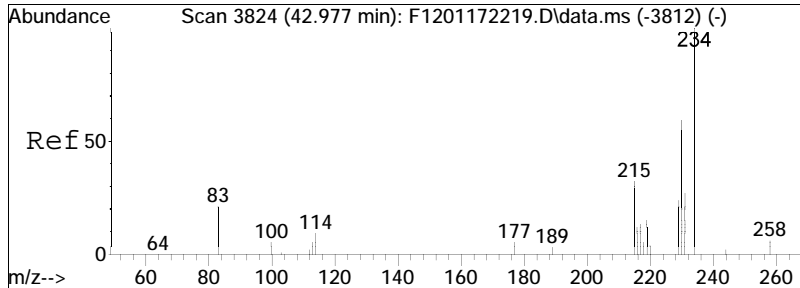




#67  
 Naphthobenzothiophene-2,1-D  
 Concen: 227.58 ng/mL  
 RT: 42.465 min Scan# 3768  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

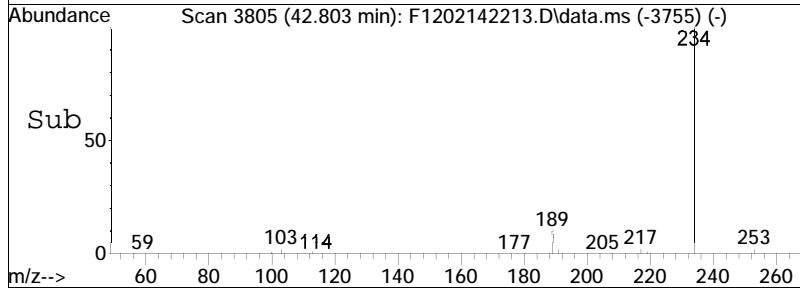
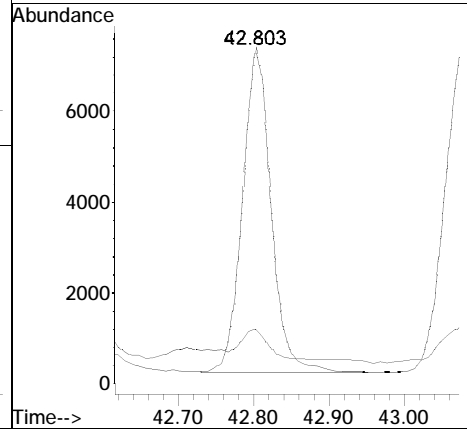
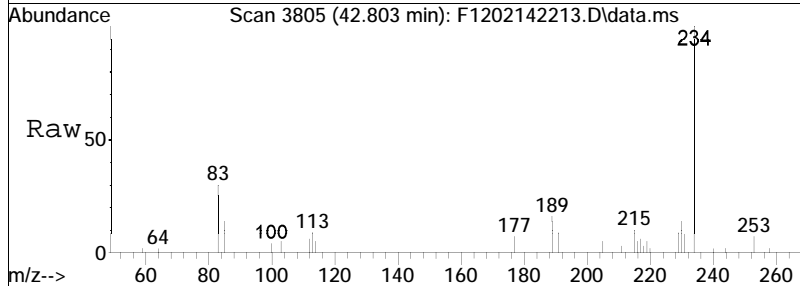
Tgt Ion	Resp	Lower	Upper
234	100		
189	8.6	18.9	35.1#

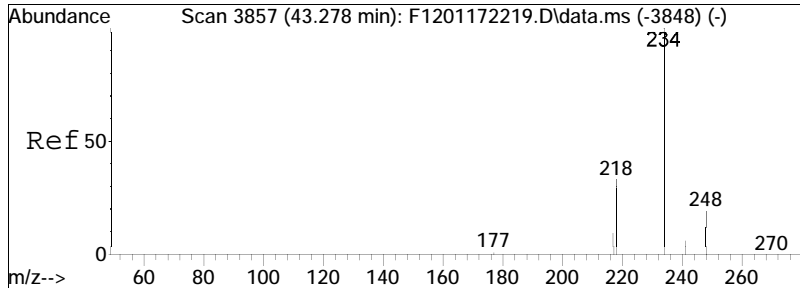




#68  
 Naphthobenzothiophene-1,2-D  
 Concen: 47.12 ng/mL  
 RT: 42.803 min Scan# 3805  
 Delta R.T. -0.046 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

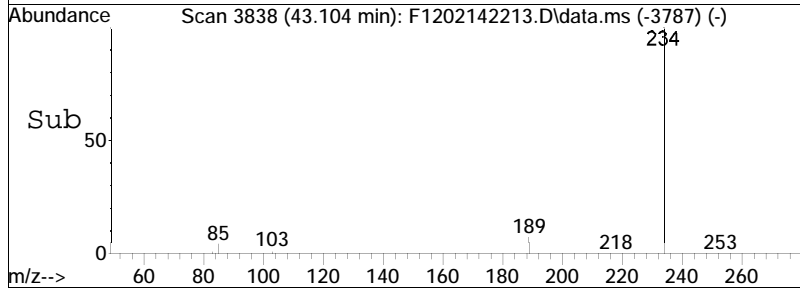
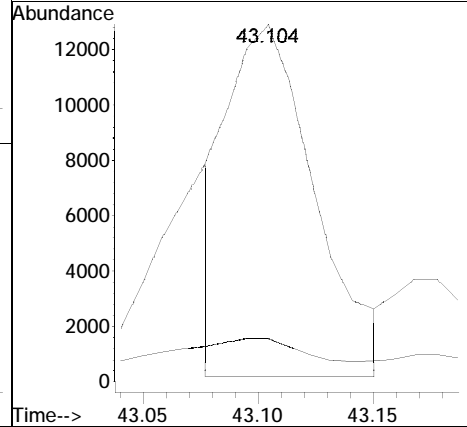
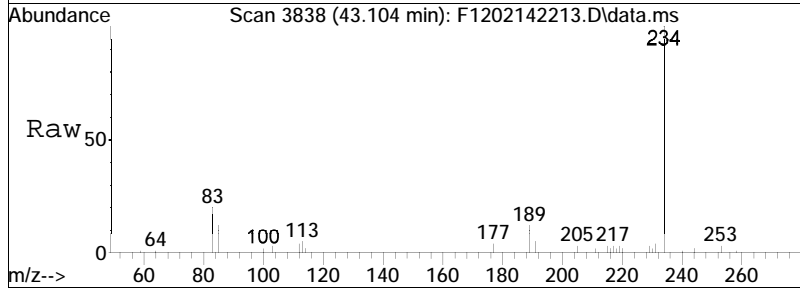
Tgt Ion: 234 Resp: 18922  
 Ion Ratio Lower Upper  
 234 100  
 189 8.7 53.0 98.4#

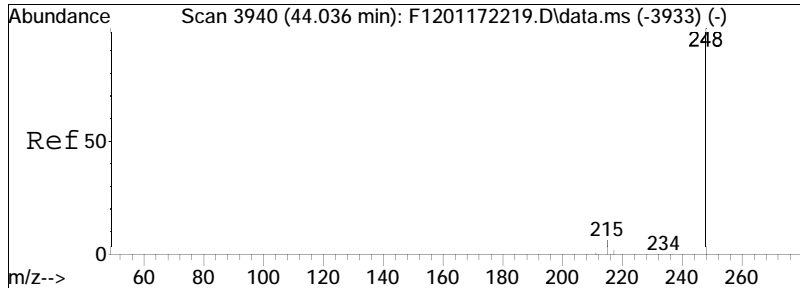




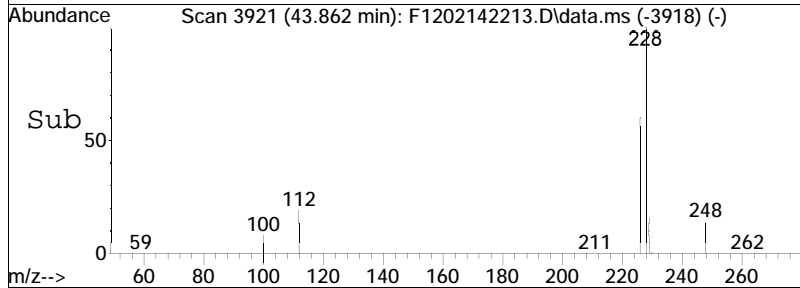
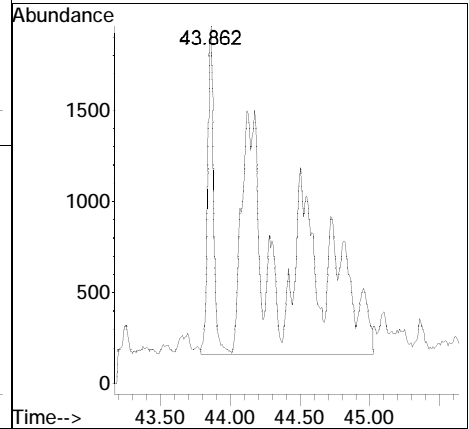
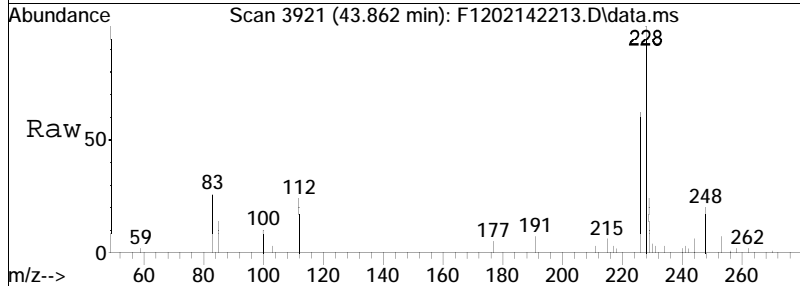
#69  
 Naphthobenzothiophene-2,3-D  
 Concen: 83.84 ng/mL M3  
 RT: 43.104 min Scan# 3838  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

Tgt Ion: 234 Resp: 33665  
 Ion Ratio Lower Upper  
 234 100  
 189 15.5 77.6 144.0#

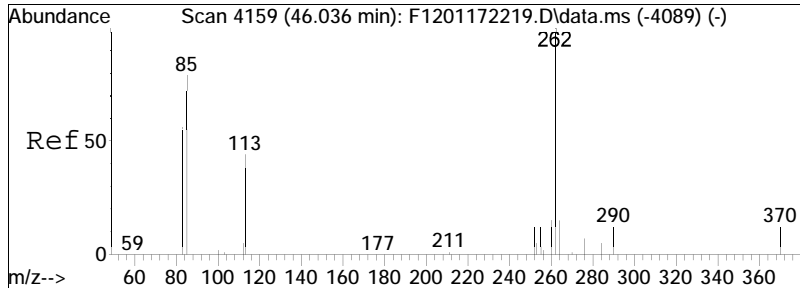




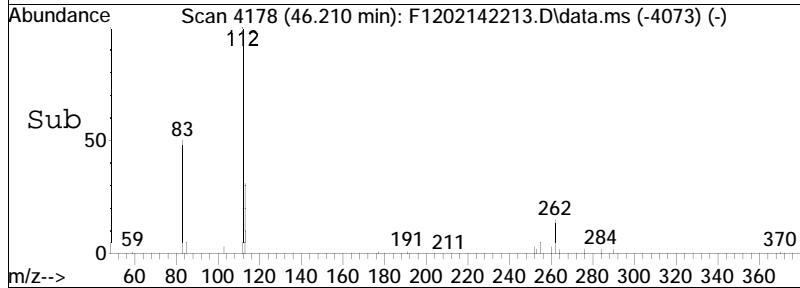
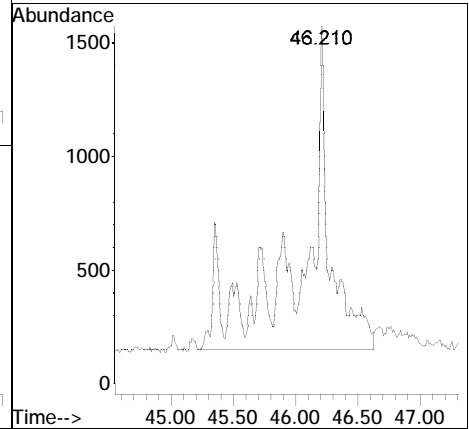
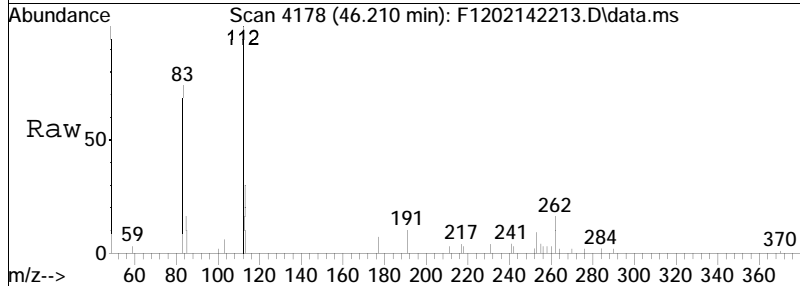
#70  
 C1-Naphthobenzothiophenes  
 Concen: 90.22 ng/ml M5  
 RT: 43.862 min Scan# 3921  
 Delta R.T. -0.040 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion:248 Resp: 36229

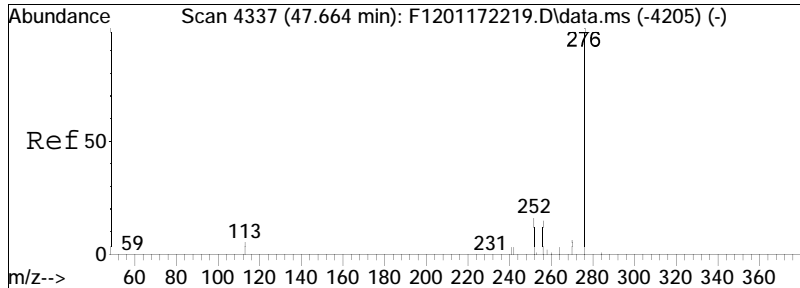




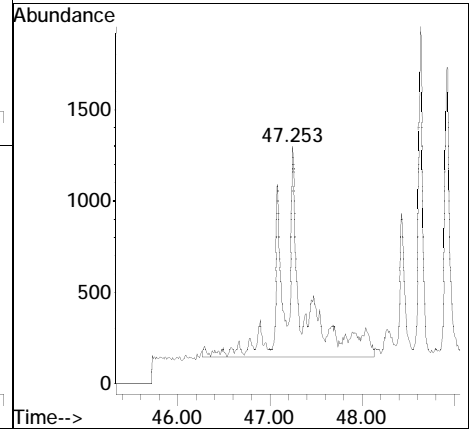
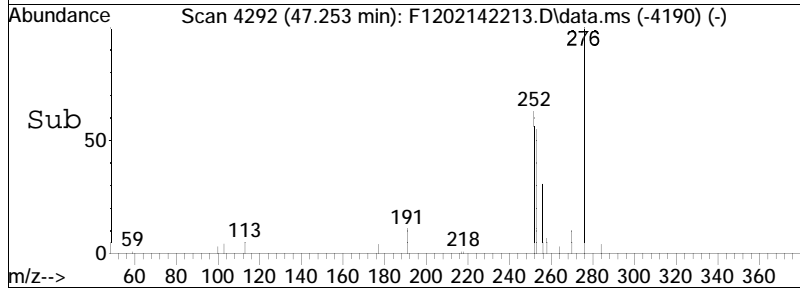
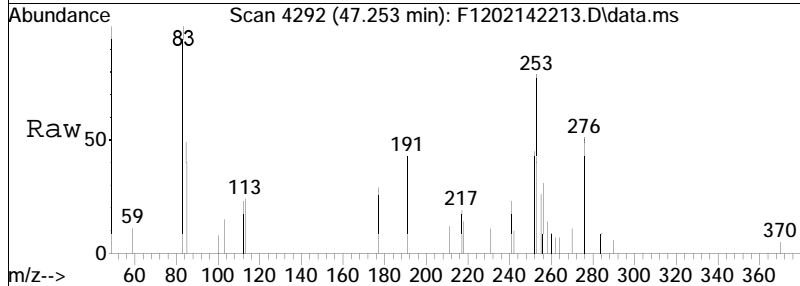


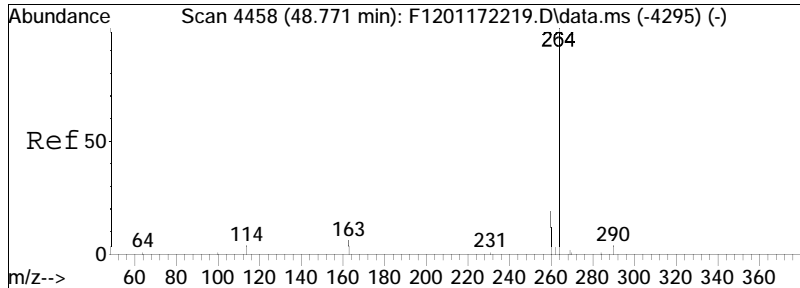
#71  
 C2-Naphthobenzothiophenes  
 Concen: 56.48 ng/ml M5  
 RT: 46.210 min Scan# 4178  
 Delta R.T. 0.313 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion: 262 Resp: 22680



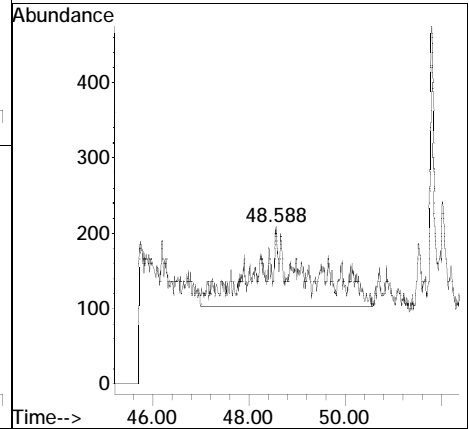
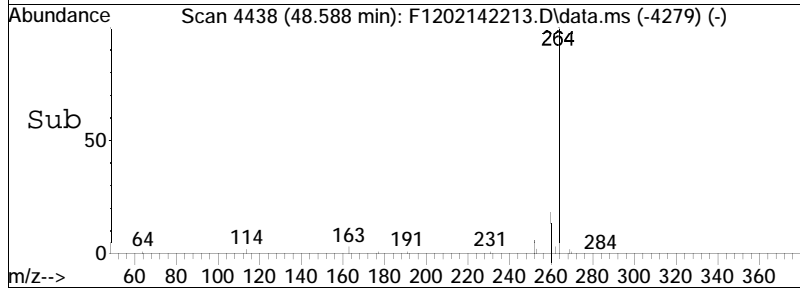
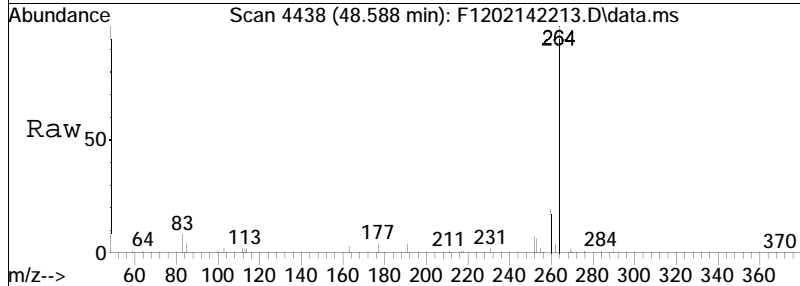


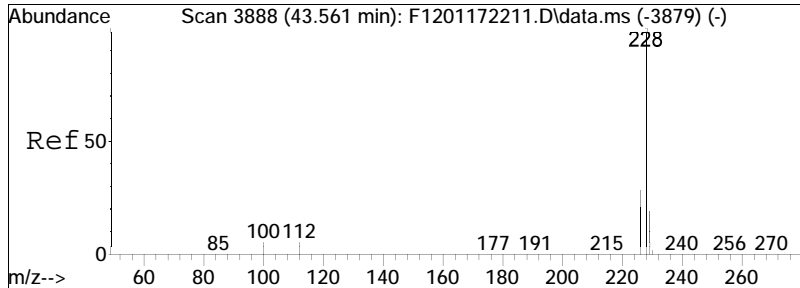
#72  
 C3-Naphthobenzothiophenes  
 Concen: 42.02 ng/ml M5  
 RT: 47.253 min Scan# 4292  
 Delta R.T. -0.268 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion: 276 Resp: 16871





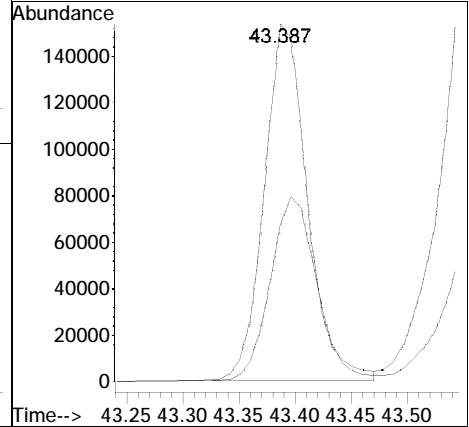
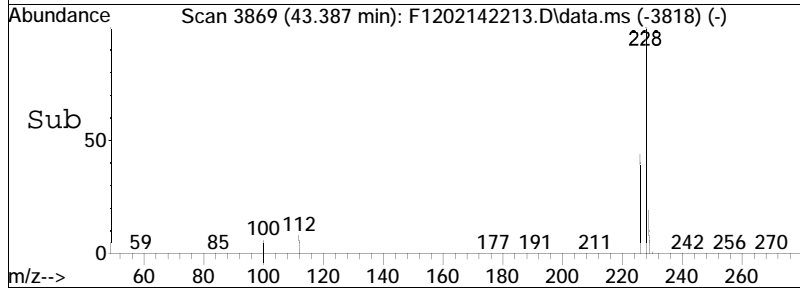
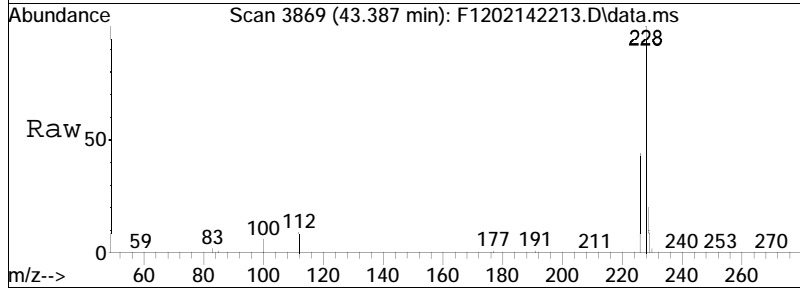
#73  
 C4-Naphthobenzothiophenes  
 Concen: 19.86 ng/mL M5  
 RT: 48.588 min Scan# 4438  
 Delta R.T. -0.036 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am  
 Tgt Ion: 290 Resp: 7975

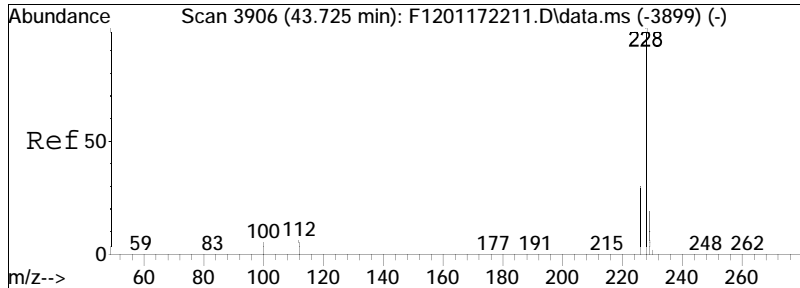




#75  
 Benz[a]anthracene  
 Concen: 1010.04 ng/mL M3  
 RT: 43.387 min Scan# 3869  
 Delta R.T. -0.037 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

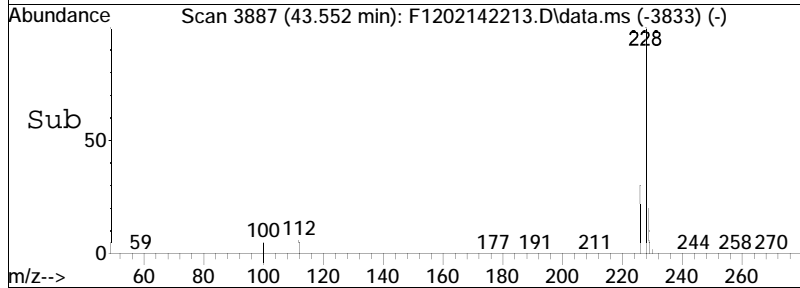
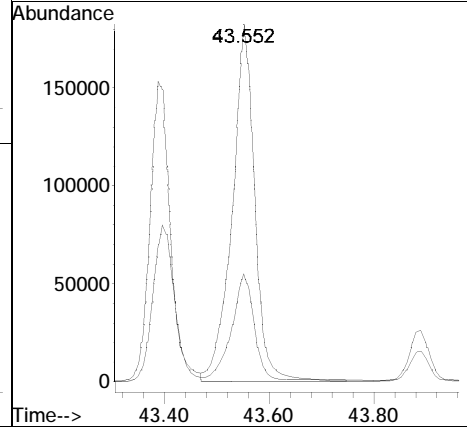
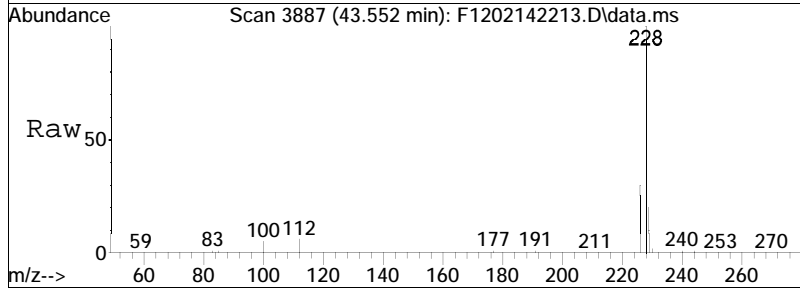
Tgt Ion	Resp	Lower	Upper
228	100		
226	39.3	19.1	35.5#

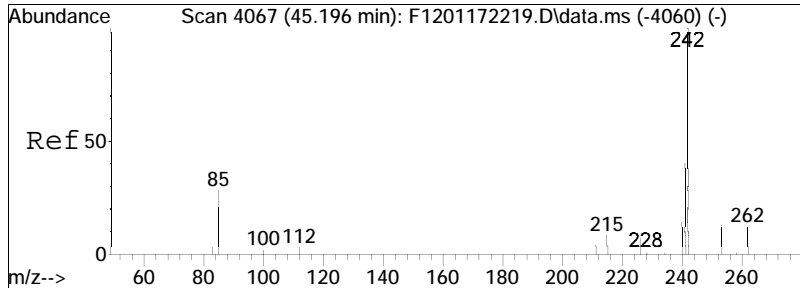




#76  
 Chrysene  
 Concen: 1361.93 ng/mL  
 RT: 43.552 min Scan# 3887  
 Delta R.T. -0.009 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

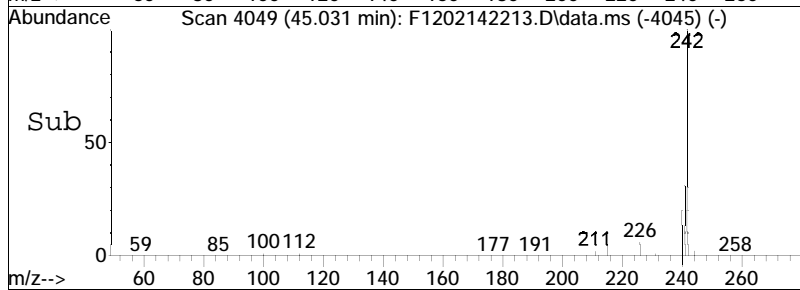
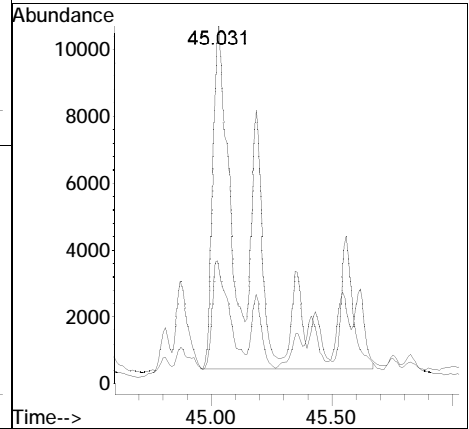
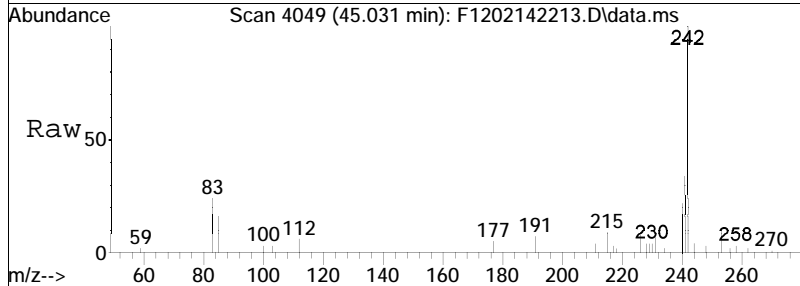
Tgt Ion	Resp	Lower	Upper
228	100		
226	29.4	27.8	51.6

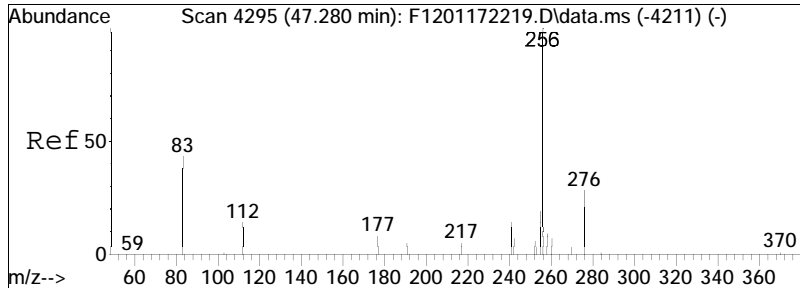




#78  
 C1-Chrysenes  
 Concen: 249.20 ng/mL M5  
 RT: 45.031 min Scan# 4049  
 Delta R.T. -0.027 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

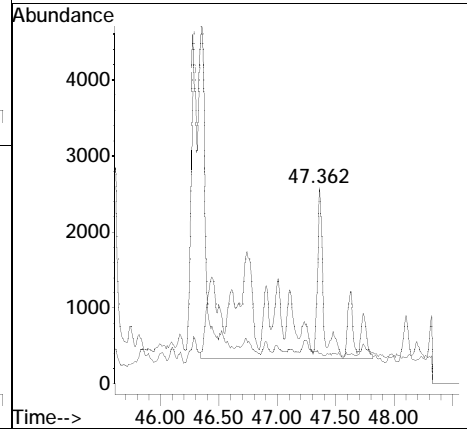
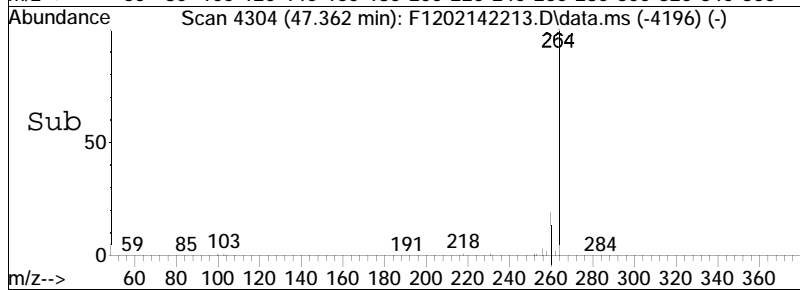
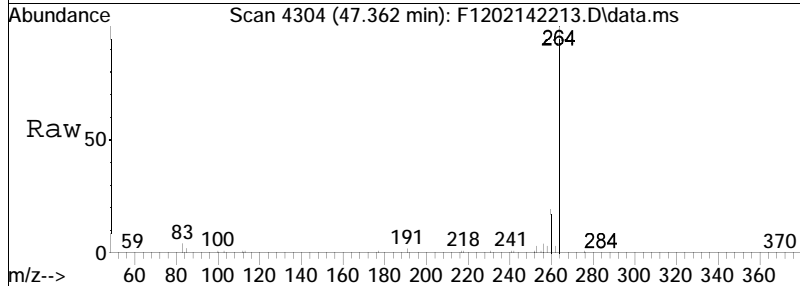
Tgt Ion: 242 Resp: 99937  
 Ion Ratio Lower Upper  
 242 100  
 241 15.4 31.9 59.2#

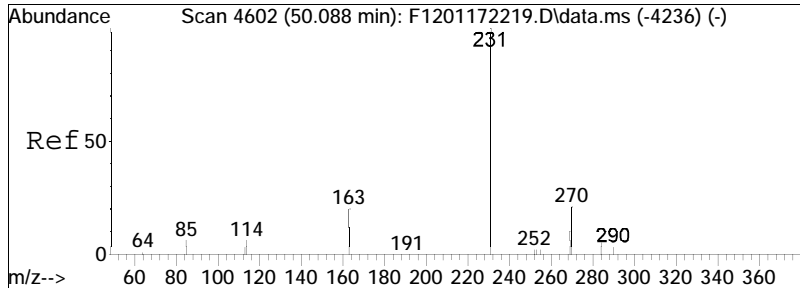




#79  
 C2-Chrysenes  
 Concen: 118.94 ng/mL M5  
 RT: 47.362 min Scan# 4304  
 Delta R.T. 0.220 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

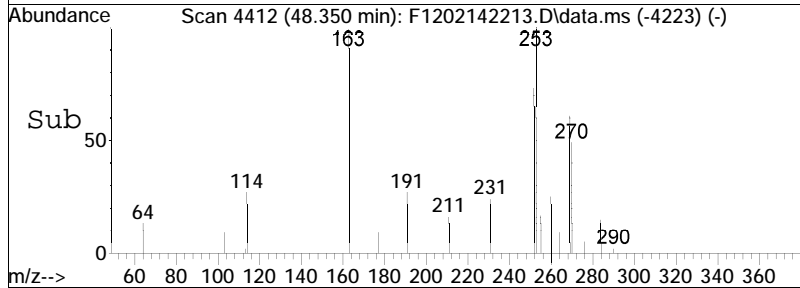
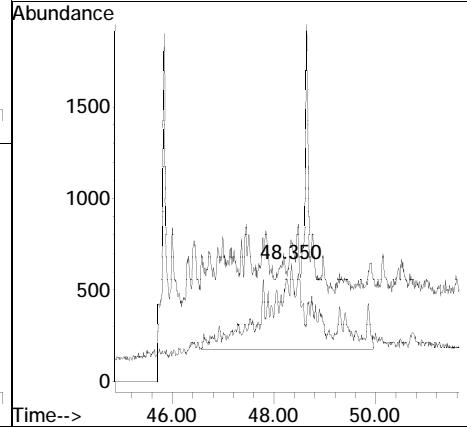
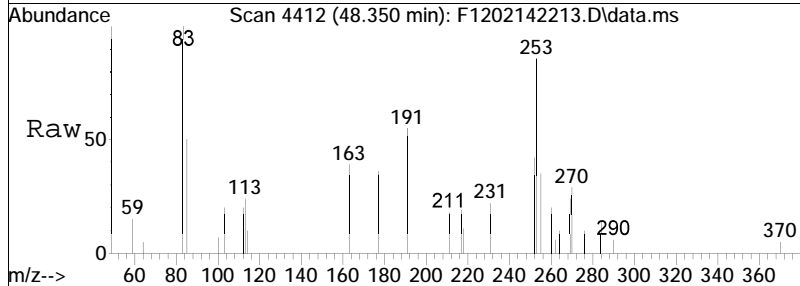
Tgt Ion	Resp	Lower	Upper
256	100		
241	1.4	25.1	46.7#



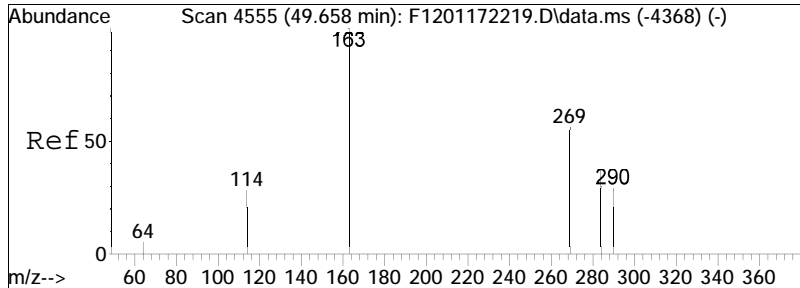


#81  
 C3-Chrysenes  
 Concen: 77.25 ng/mL M5  
 RT: 48.350 min Scan# 4412  
 Delta R.T. -1.564 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

Tgt Ion: 270 Resp: 30981  
 Ion Ratio Lower Upper  
 270 100  
 255 0.0 40.7 75.7#

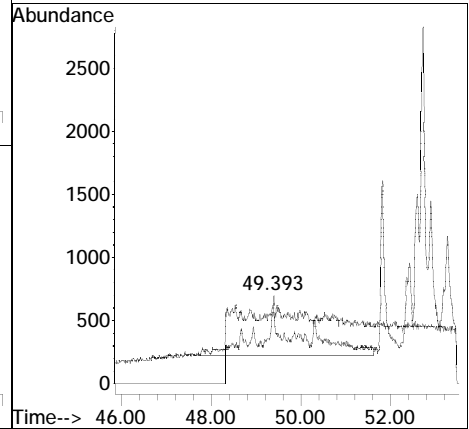
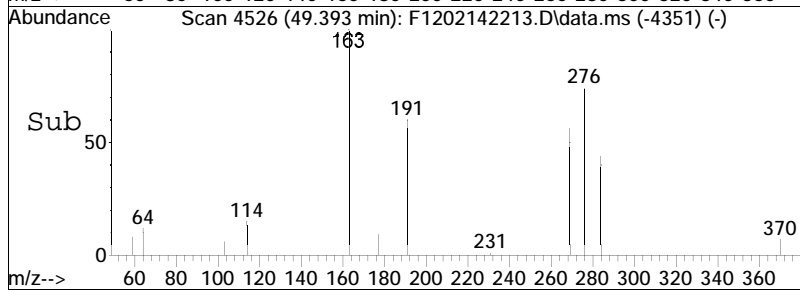
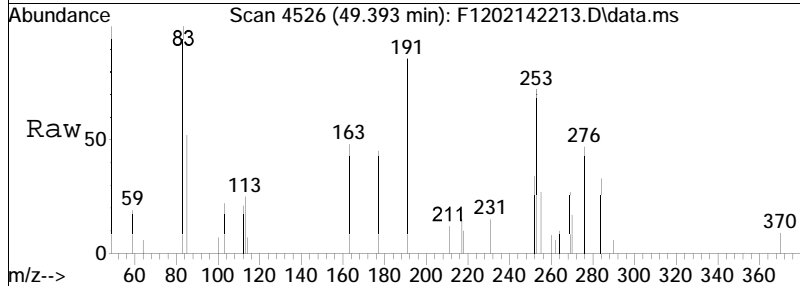


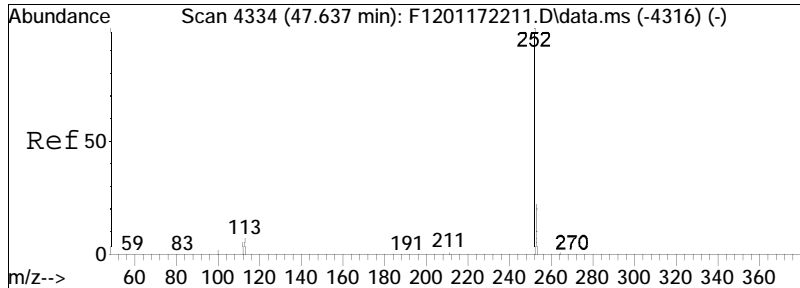




#82  
 C4-Chrysenes  
 Concen: 60.50 ng/mL M5  
 RT: 49.393 min Scan# 4526  
 Delta R.T. -0.622 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

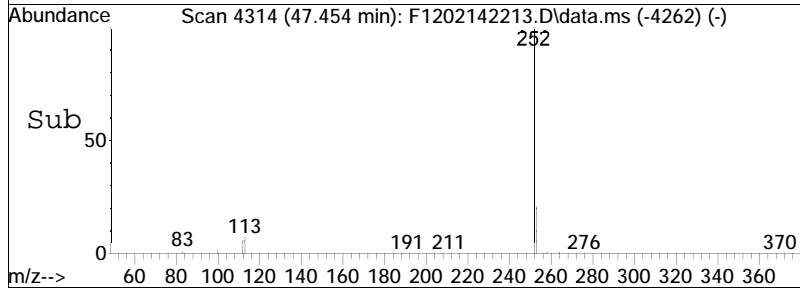
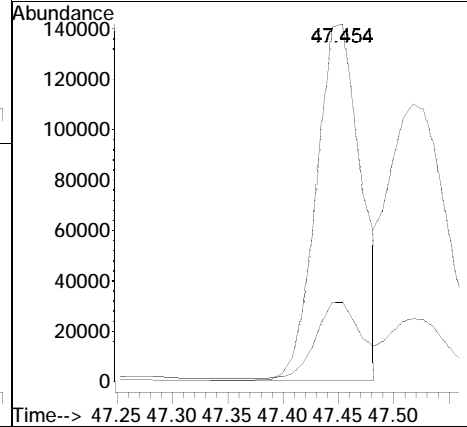
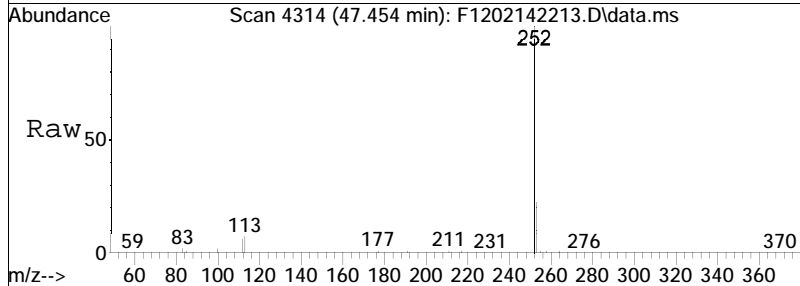
Tgt Ion: 284 Resp: 24264  
 Ion Ratio Lower Upper  
 284 100  
 269 0.0 62.2 115.6#

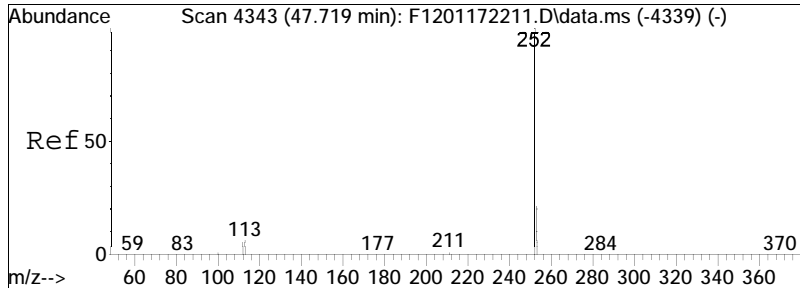




#85  
 Benzo[b]fluoranthene  
 Concen: 871.39 ng/mL  
 RT: 47.454 min Scan# 4314  
 Delta R.T. -0.027 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

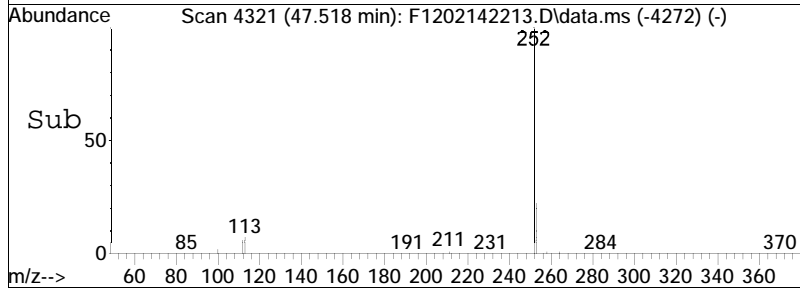
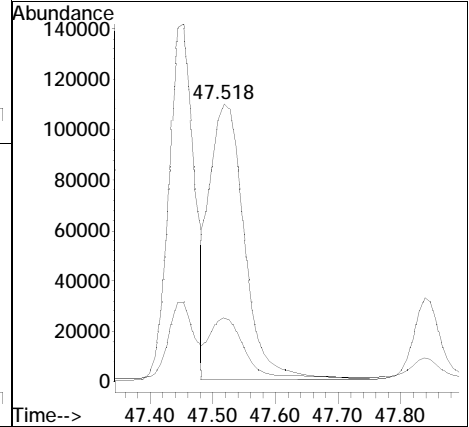
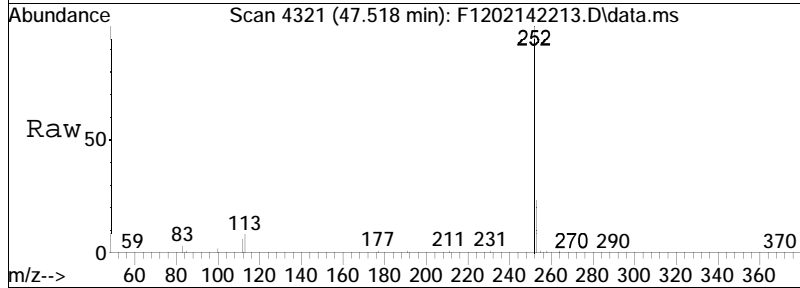
Tgt Ion	Resp	Lower	Upper
252	398233		
253	21.5	16.6	30.8

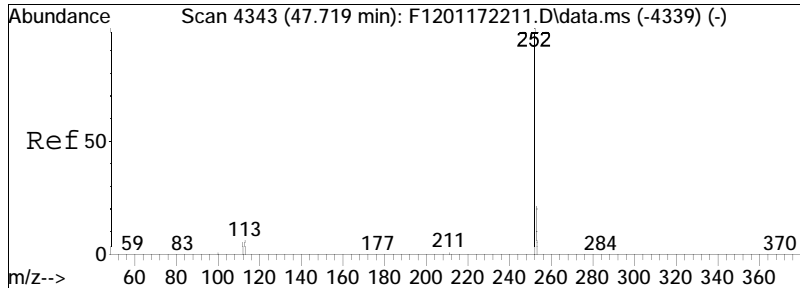




#86  
 Benzo[j]+[k]fluoranthene  
 Concen: 895.44 ng/mL  
 RT: 47.518 min Scan# 4321  
 Delta R.T. -0.055 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

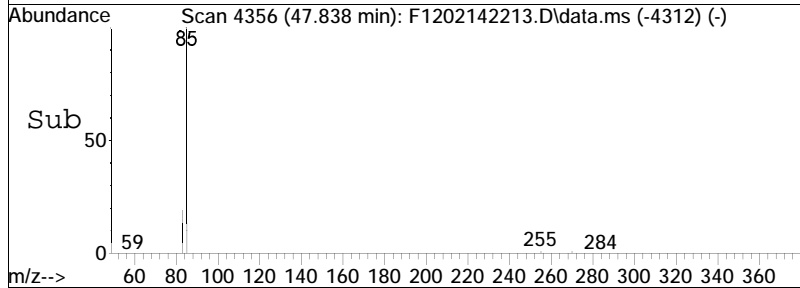
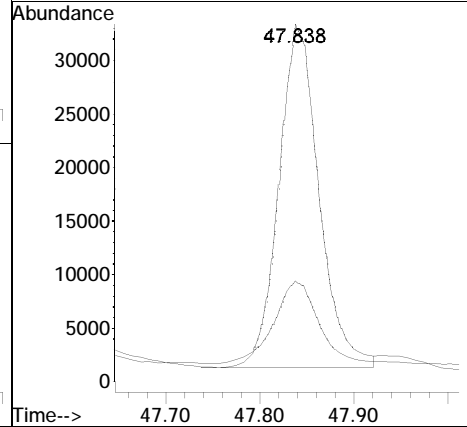
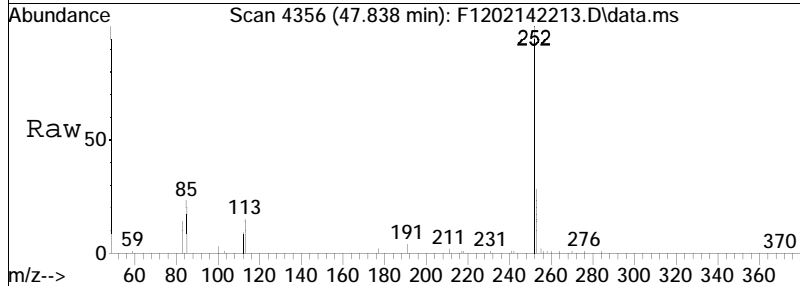
Tgt Ion	Resp	Lower	Upper
252	100		
253	19.6	16.4	30.4

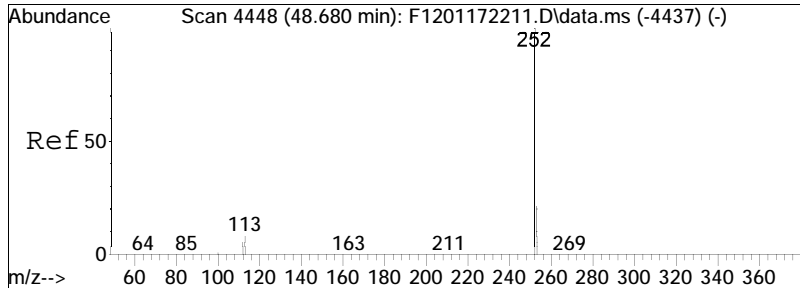




#87  
 Benzo[a]fluoranthene  
 Concen: 199.93 ng/mL M3  
 RT: 47.838 min Scan# 4356  
 Delta R.T. -0.094 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

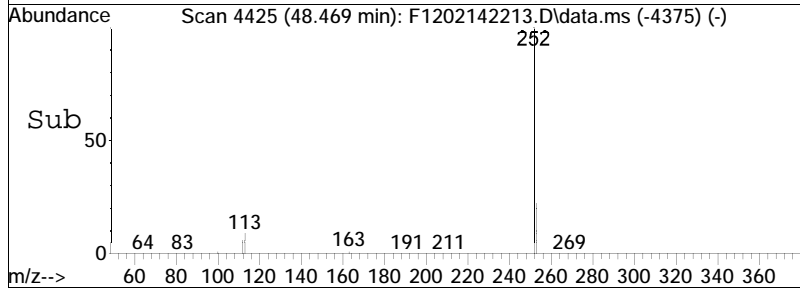
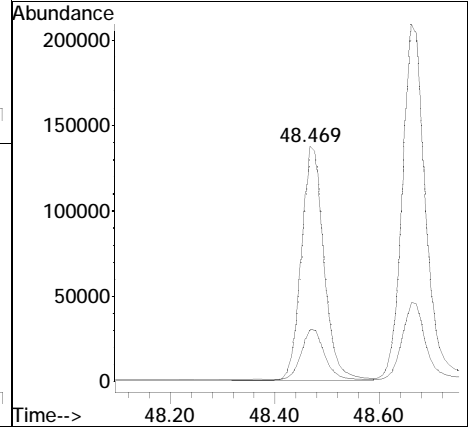
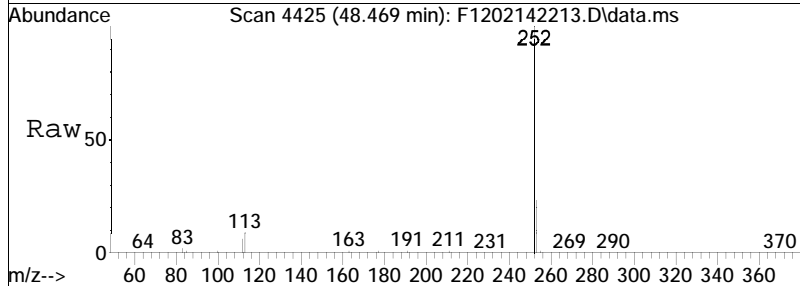
Tgt Ion	Resp	Lower	Upper
252	100		
253	1.2	203.3	377.6#

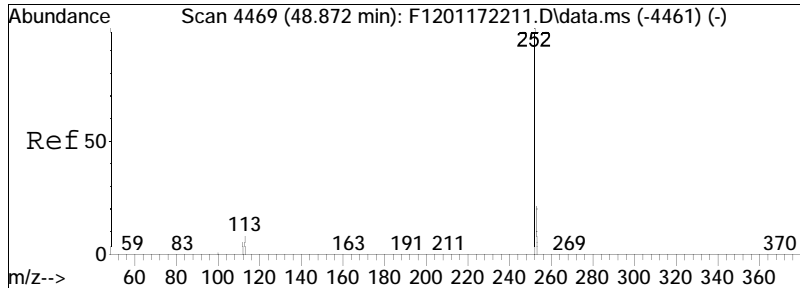




#88  
 Benzo[e]pyrene  
 Concen: 921.87 ng/mL  
 RT: 48.469 min Scan# 4425  
 Delta R.T. -0.046 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

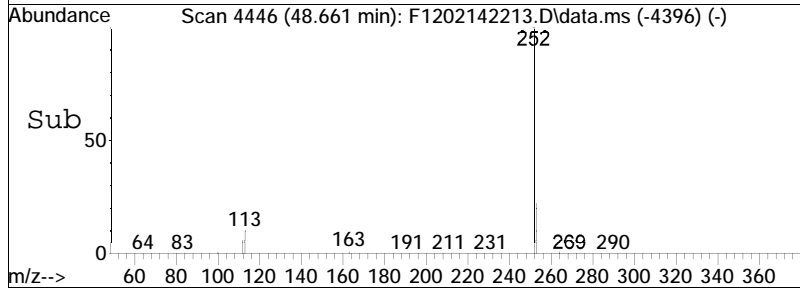
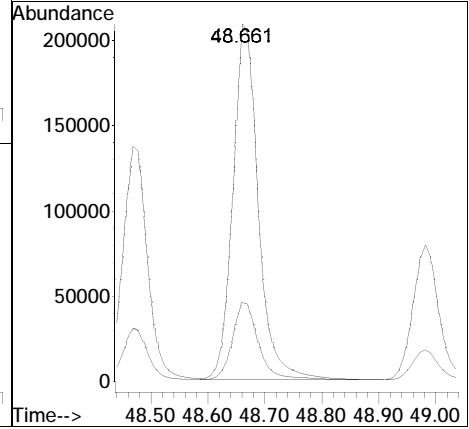
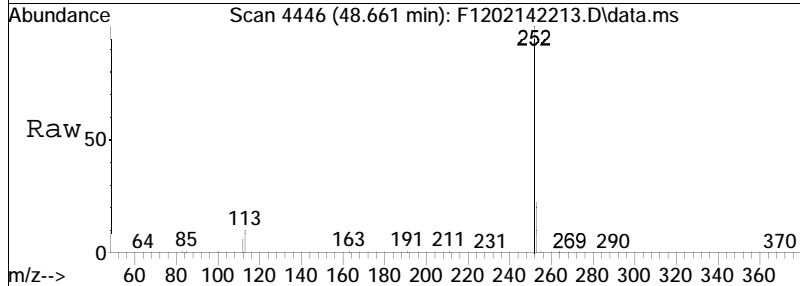
Tgt Ion: 252 Resp: 416284  
 Ion Ratio Lower Upper  
 252 100  
 253 21.5 16.8 31.2

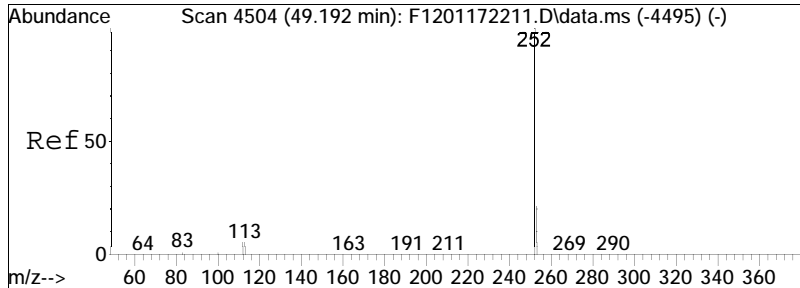




#90  
 Benzo[a]pyrene  
 Concen: 1474.53 ng/mL  
 RT: 48.661 min Scan# 4446  
 Delta R.T. -0.046 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

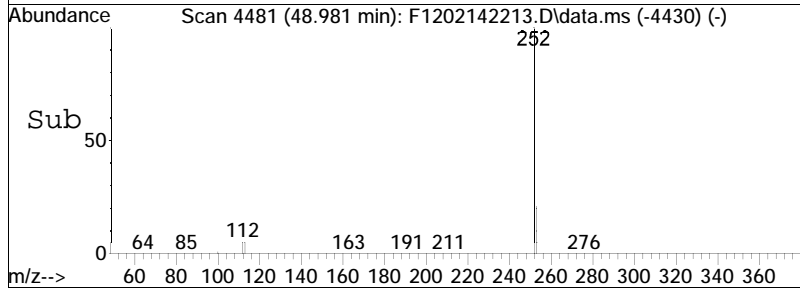
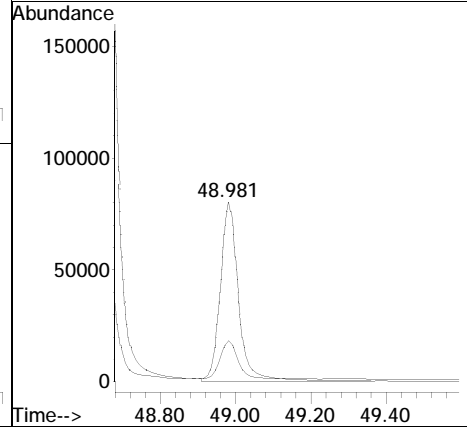
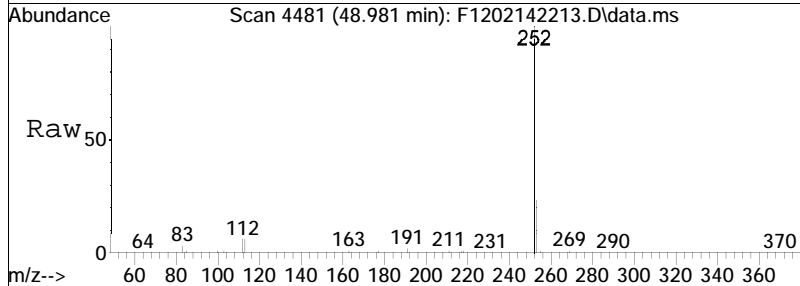
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.0	16.8	31.2

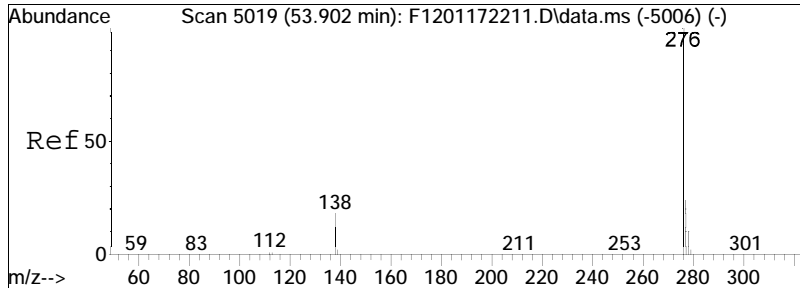




#91  
 Perylene  
 Concen: 584.62 ng/mL  
 RT: 48.981 min Scan# 4481  
 Delta R.T. -0.037 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

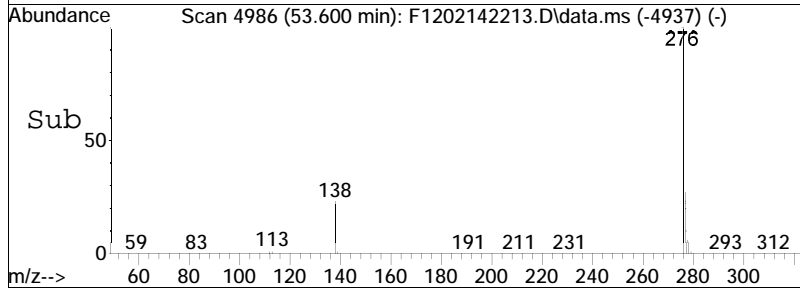
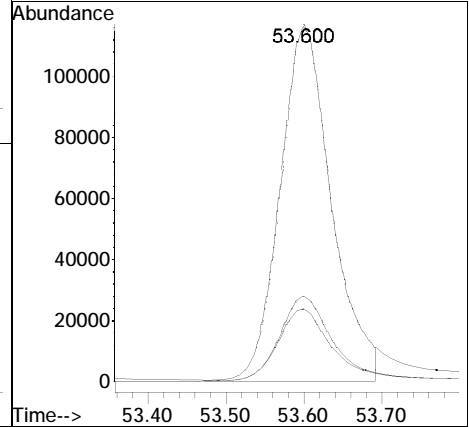
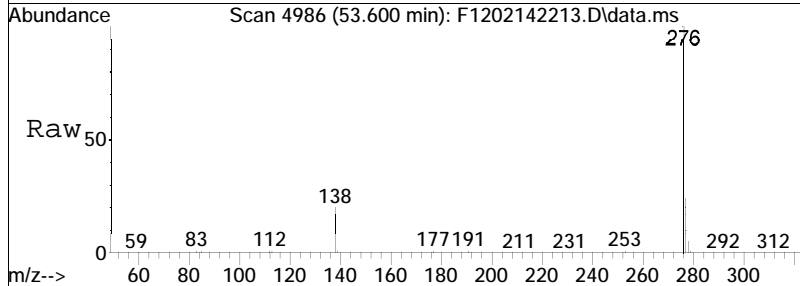
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.3	17.3	32.1



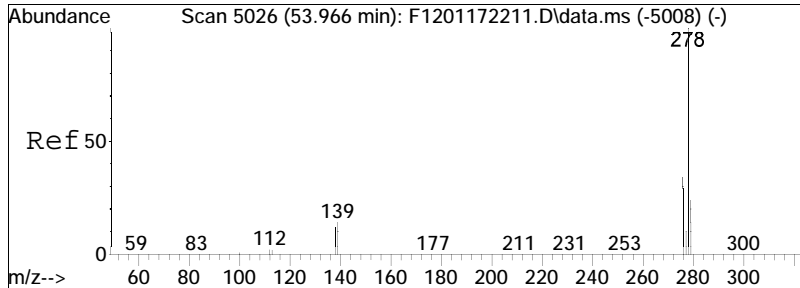


#92  
 Indeno[1,2,3-cd]pyrene  
 Concen: 883.34 ng/mL M3  
 RT: 53.600 min Scan# 4986  
 Delta R.T. -0.055 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

Tgt Ion	Ratio	Lower	Upper
276	100		
138	25.1	12.2	22.7#
277	28.1	16.7	30.9

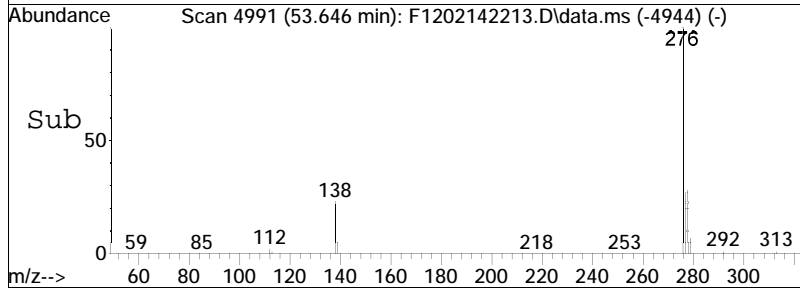
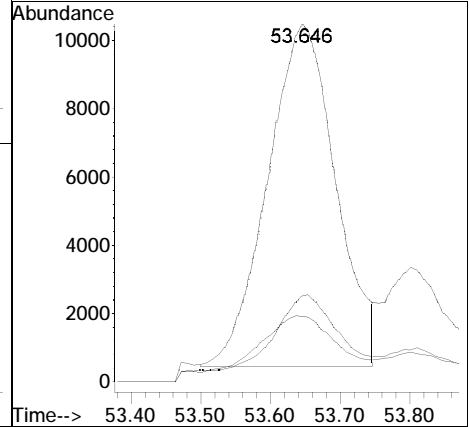
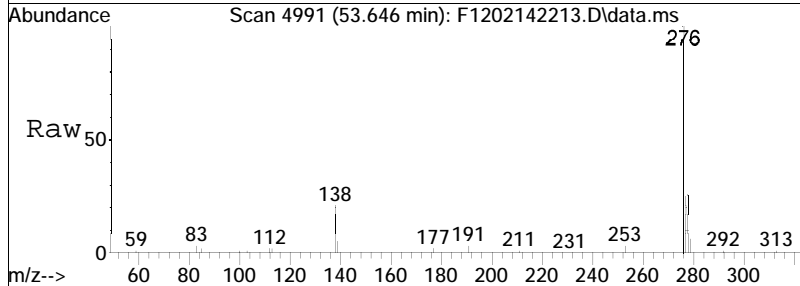


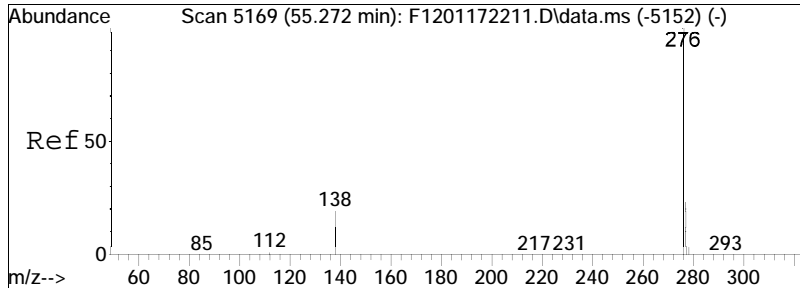




#93  
 Dibenz[ah]+[ac]anthracene  
 Concen: 129.07 ng/mL M4  
 RT: 53.646 min Scan# 4991  
 Delta R.T. -0.073 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

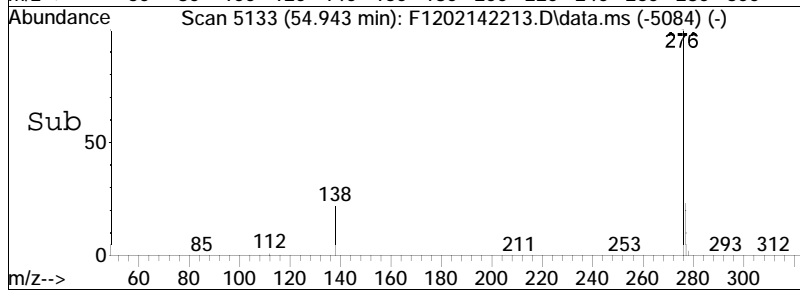
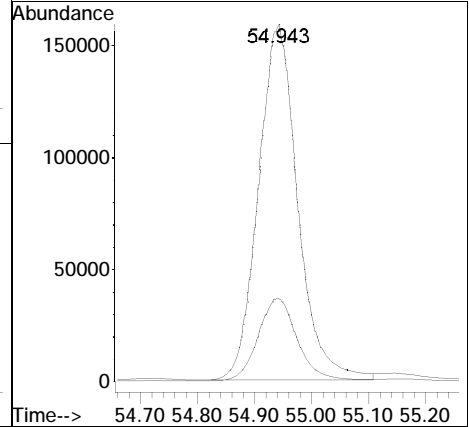
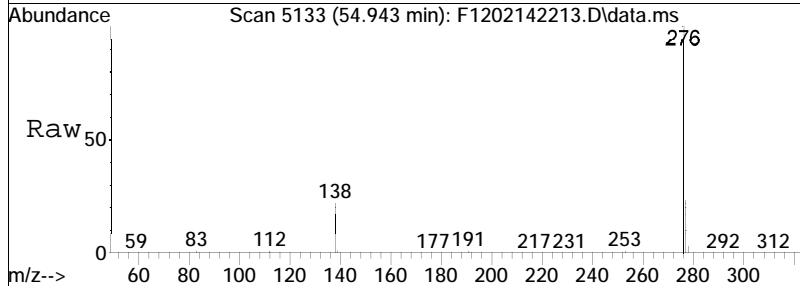
Tgt Ion	Resp	Lower	Upper
278	100		
139	24.6	10.1	18.7#
279	21.7	16.6	30.8





#94  
 Benzo[g,h,i]perylene  
 Concen: 1412.37 ng/mL  
 RT: 54.943 min Scan# 5133  
 Delta R.T. -0.055 min  
 Lab File: F1202142213.D  
 Acq: 15 Feb 2022 4:11 am

Tgt Ion: 276 Resp: 749879  
 Ion Ratio Lower Upper  
 276 100  
 277 23.3 16.4 30.6



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142214.D  
 Acq On : 15 Feb 2022 5:35 am  
 Operator : PAH12:MJS  
 Sample : 12206076-06,32  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 22 11:46:15 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	26.986	164	84275M4	500.000	ng/mL	-0.04	
74) Chrysene-d12	43.461	240	152415	500.000	ng/mL	-0.04	
System Monitoring Compounds							
8) Naphthalene-d8	20.005	136	140334	386.214	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	38.62%#	
40) Phenanthrene-d10	32.862	188	136770	449.248	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	44.92%#	
84) Benzo[b]fluoranthene-d12	47.372	264	147253	415.498	ng/mL	-0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	41.55%#	
89) Benzo[a]pyrene-d12	48.588	264	108704	405.263	ng/mL	-0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	40.53%#	
Target Compounds							
2) trans-Decalin	16.656	138	7425	94.385	ng/mL	100	Qvalue
3) cis-Decalin	17.879	138	562M3	9.309	ng/mL		
4) C1-Decalins	18.143	152	33004M5	419.538	ng/mL		
5) C2-Decalins	19.923	166	58691M5	746.063	ng/mL		
6) C3-Decalins	22.396	180	45980M5	584.485	ng/mL		
7) C4-Decalins	24.668	194	52460M5	666.857	ng/mL		
9) Naphthalene	20.087	128	573161	1426.555	ng/mL	100	
10) C1-Naphthalenes	22.779	142	82623M5	205.642	ng/mL		
11) C2-Naphthalenes	25.626	156	113025M5	281.311	ng/mL		
12) C3-Naphthalenes	27.962	170	148468M5	369.526	ng/mL		
13) C4-Naphthalenes	30.727	184	136334M5	339.325	ng/mL		
14) 2-Methylnaphthalene	22.779	142	50040	196.120	ng/mL	100	
15) 1-Methylnaphthalene	23.208	142	32249	133.155	ng/mL	100	
16) Benzothiophene	20.306	134	18255	53.703	ng/mL	100	
17) C1-Benzo(b)thiophenes	22.642	148	7780M5	22.887	ng/mL		
18) C2-Benzo(b)thiophenes	24.933	162	10231M5	30.098	ng/mL		
19) C3-Benzo(b)thiophenes	27.798	176	17058M5	50.182	ng/mL		
20) C4-Benzo(b)thiophenes	29.906	190	20833M5	61.287	ng/mL		
21) Biphenyl	24.659	154	48577	155.534	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.279	156	29586	136.121	ng/mL	100	
23) Dibenzofuran	27.752	168	40405	121.333	ng/mL	90	
24) Acenaphthylene	26.375	152	149535	389.968	ng/mL	100	
25) Acenaphthene	27.114	153	123428	508.780	ng/mL	99	
26) 2,3,5-Trimethylnaphthalen	28.656	170	11836M3	56.756	ng/mL		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142214.D  
 Acq On : 15 Feb 2022 5:35 am  
 Operator : PAH12:MJS  
 Sample : 12206076-06,32  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 22 11:46:15 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	29.130	166	140779	524.552	ng/mL	98
28) C1-Fluorenes	31.356	180	58705M5	218.739	ng/mL	
29) C2-Fluorenes	33.692	194	100064M5	372.845	ng/mL	
30) C3-Fluorenes	35.527	208	137932M5	513.944	ng/mL	
31) Dibenzothiophene	32.451	184	151056	390.202	ng/mL	90
32) 4-Methyldibenzothiophene(	34.231	198	31716	81.928	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.577	198	37690	97.359	ng/mL	100
34) 1-Methyldibenzothiophene(	34.997	198	10880	28.105	ng/mL	100
36) C1-Dibenzothiophenes	34.231	198	111630M5	288.358	ng/mL	
36) C1-Dibenzothiophenes BS	34.231	198	94686M5	244.589	ng/mL	
37) C2-Dibenzothiophenes	35.919	212	125520M5	324.238	ng/mL	
38) C3-Dibenzothiophenes	37.718	226	154241M5	398.429	ng/mL	
39) C4-Dibenzothiophenes	39.407	240	89539M5	231.294	ng/mL	
41) Phenanthrene	32.953	178	2168885	5482.320	ng/mL	96
42) 3-Methylphenanthrene(3MP)	34.906	192	135509	342.528	ng/mL	98
43) 2-Methylphenanthrene(2MP)	35.025	192	160796	406.446	ng/mL	95
44) 2-Methylanthracene(2MA)	35.180	192	51514M3	130.213	ng/mL	
45) 9/4-Methylphenanthrene(9M	35.372	192	147290M3	372.307	ng/mL	
47) C1-Phenanthrenes/Anthrace	35.025	192	601394M5	1520.152	ng/mL	
48) C2-Phenanthrenes/Anthrace	37.188	206	514386M5	1300.220	ng/mL	
48) C2-Phenanthrenes/Anthr BS	37.188	206	514386M5	1300.220	ng/mL	
50) C3-Phenanthrenes/Anthrace	39.023	220	469883M5	1187.730	ng/mL	
51) C4-Phenanthrenes/Anthrace	39.946	234	361172M5	912.939	ng/mL	
52) Retene	39.946	234	143663	1095.763	ng/mL	97
53) Anthracene	33.126	178	426536	1157.024	ng/mL	100
54) Carbazole	33.792	167	29777M4	77.822	ng/mL	
55) 1-Methylphenanthrene	35.454	192	99782	375.409	ng/mL	100
56) Fluoranthene	37.736	202	3005554M4	7575.936	ng/mL	
57) Benzo(b)fluorene	40.247	216	104275M4	417.114	ng/mL	
58) 7H-Benzo(c)fluorene	40.293	216	38075M3	152.305	ng/mL	
59) Pyrene	38.622	202	3854491	9362.240	ng/mL#	72
60) 2-Methylpyrene	40.411	216	87889M3	213.475	ng/mL	
61) 4-Methylpyrene	40.776	216	82605	200.641	ng/mL	74
62) 1-Methylpyrene	40.895	216	83412	202.601	ng/mL	71
63) C1-Fluoranthenes/Pyrenes	40.000	216	765915M5	1860.344	ng/mL	
64) C2-Fluoranthenes/Pyrenes	41.744	230	279376M5	678.581	ng/mL	
65) C3-Fluoranthenes/Pyrenes	43.944	244	210131M5	510.391	ng/mL	
66) C4-Fluoranthenes/Pyrenes	45.406	258	208343M5	506.048	ng/mL	
67) Naphthobenzothiophene-2,1	42.465	234	120847	292.801	ng/mL#	72

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142214.D  
 Acq On : 15 Feb 2022 5:35 am  
 Operator : PAH12:MJS  
 Sample : 12206076-06,32  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 22 11:46:15 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	42.812	234	27975	67.781	ng/mL#	12
69) Naphthobenzothiophene-2,3	43.114	234	40372M3	97.818	ng/mL	
70) C1-Naphthobenzothiophenes	43.871	248	93171M5	225.745	ng/ml	
71) C2-Naphthobenzothiophenes	45.369	262	92900M5	225.088	ng/ml	
72) C3-Naphthobenzothiophenes	47.262	276	76659M5	185.738	ng/ml	
73) C4-Naphthobenzothiophenes	48.579	290	85375M5	206.856	ng/mL	
75) Benz[a]anthracene	43.397	228	663139M3	1800.517	ng/mL	
76) Chrysene	43.561	228	883701	2425.251	ng/mL	85
78) C1-Chrysenes	45.031	242	266596M5	731.653	ng/mL	
79) C2-Chrysenes	46.740	256	195149M5	535.572	ng/mL	
79) C2-Chrysenes BS	46.740	256	188691M5	517.848	ng/mL	
81) C3-Chrysenes	48.359	270	170317M5	467.422	ng/mL	
82) C4-Chrysenes	49.878	284	112534M5	308.841	ng/mL	
85) Benzo[b]fluoranthene	47.463	252	634837	1528.854	ng/mL	95
86) Benzo[j]+[k]fluoranthene	47.536	252	638279	1489.369	ng/mL	96
87) Benzo[a]fluoranthene	47.847	252	183219M3	427.526	ng/mL	
88) Benzo[e]pyrene	48.487	252	658840	1605.795	ng/mL	96
90) Benzo[a]pyrene	48.680	252	964643	2424.702	ng/mL	95
91) Perylene	49.000	252	688092	1686.379	ng/mL	93
92) Indeno[1,2,3-cd]pyrene	53.618	276	876084M3	1606.765	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.664	278	125650M4	262.521	ng/mL	
94) Benzo[g,h,i]perylene	54.962	276	1251590	2594.477	ng/mL	100

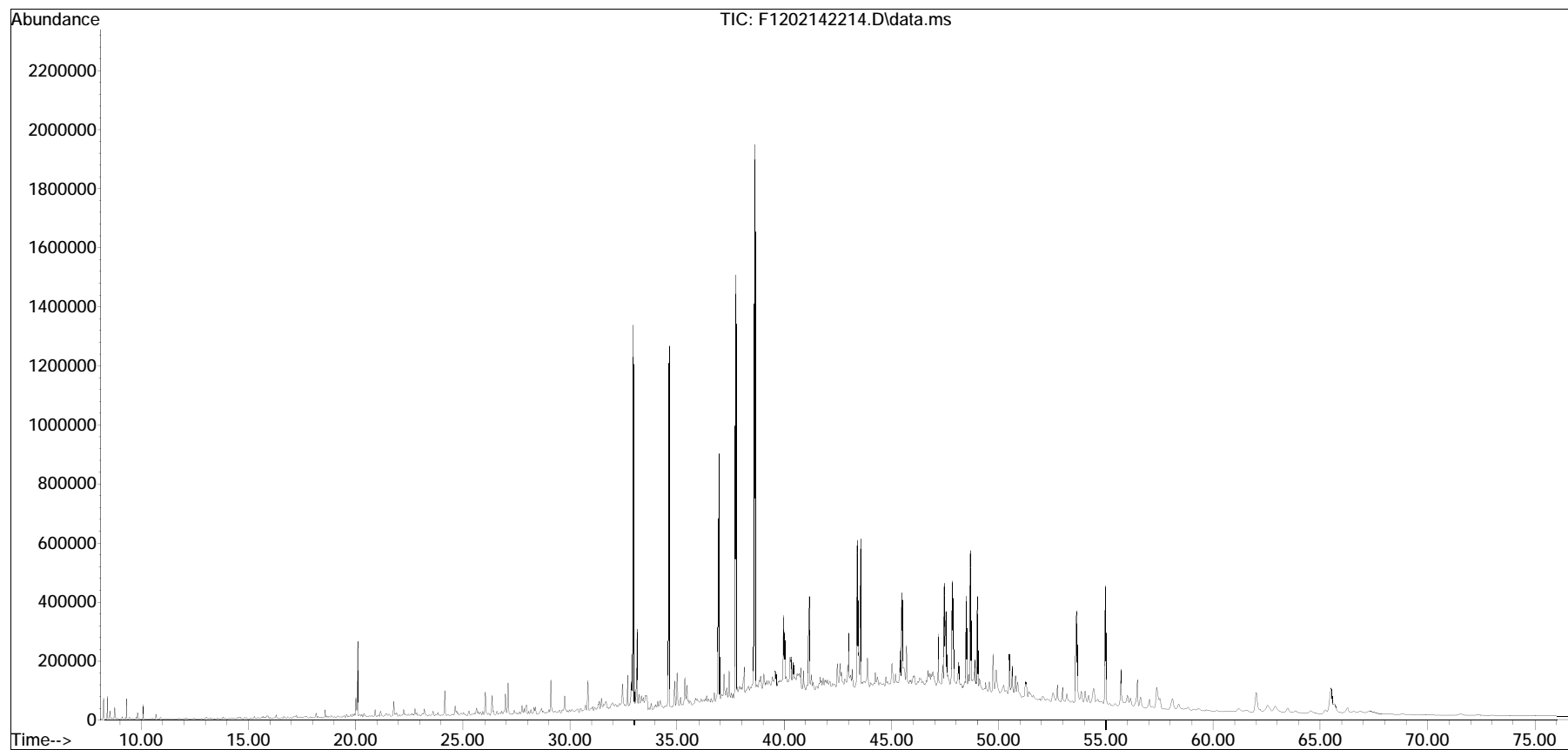
(#) = qualifier out of range (m) = manual integration (+) = signals summed

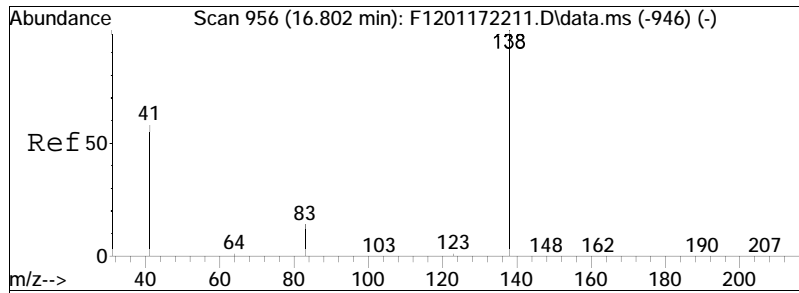
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
Data File : F1202142214.D  
Acq On : 15 Feb 2022 5:35 am  
Operator : PAH12:MJS  
Sample : 12206076-06,32  
Misc : WG1605097,WG1603644,ICAL18670  
ALS Vial : 14 Sample Multiplier: 1

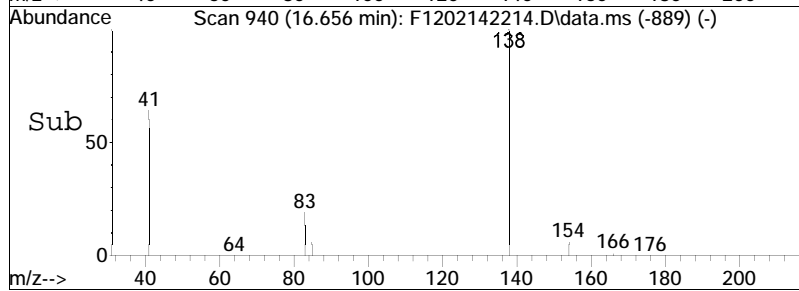
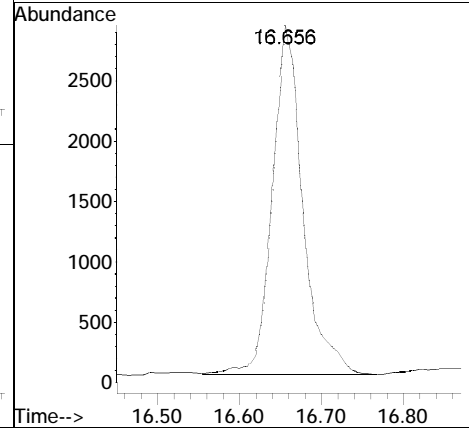
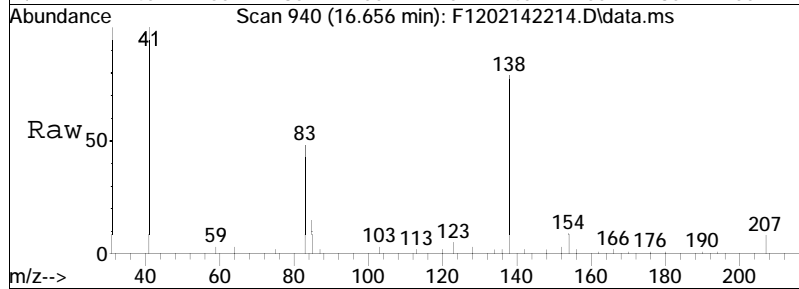
Quant Time: Feb 22 11:46:15 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Wed Feb 09 13:46:27 2022  
Response via : Initial Calibration

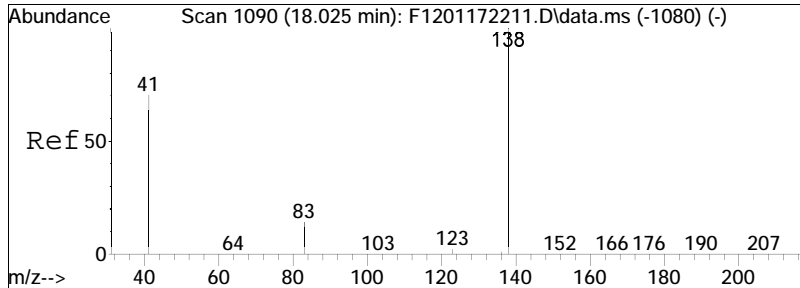
Sub List : ALKPAH - POI+MP+BcF



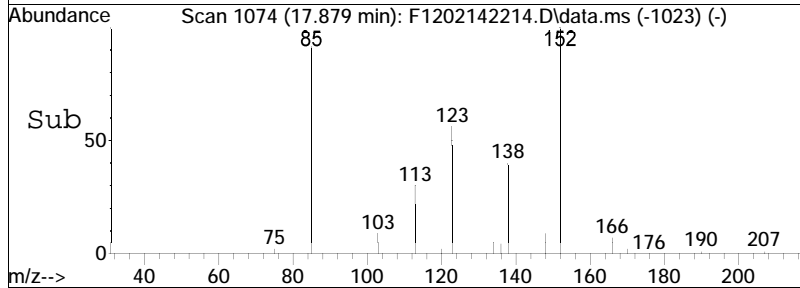
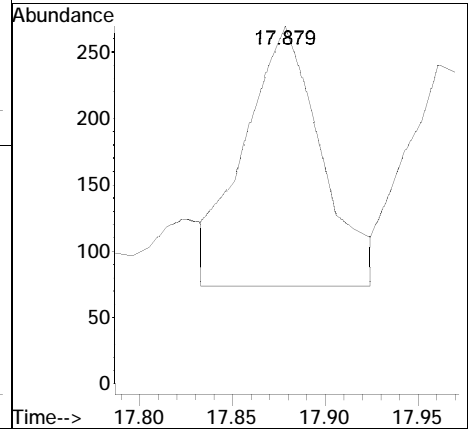
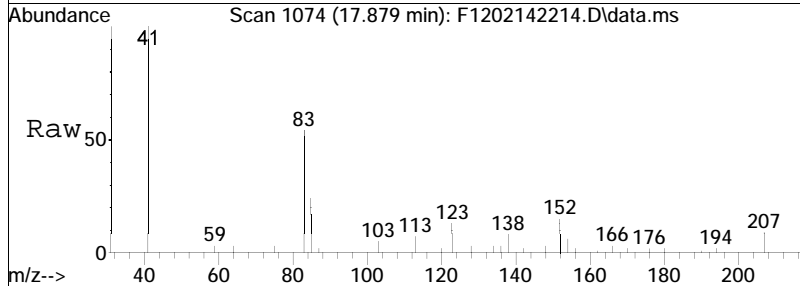


#2  
 trans-Decalin  
 Concen: 94.38 ng/mL  
 RT: 16.656 min Scan# 940  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:138 Resp: 7425

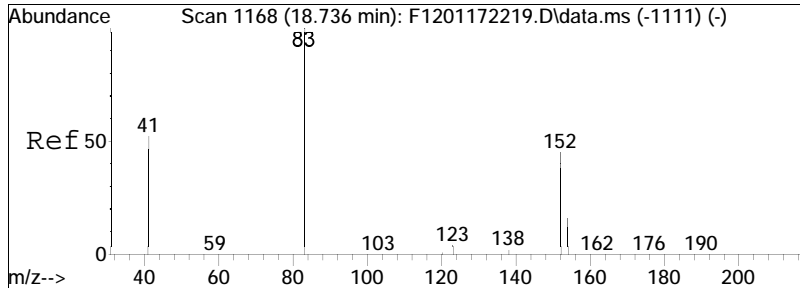




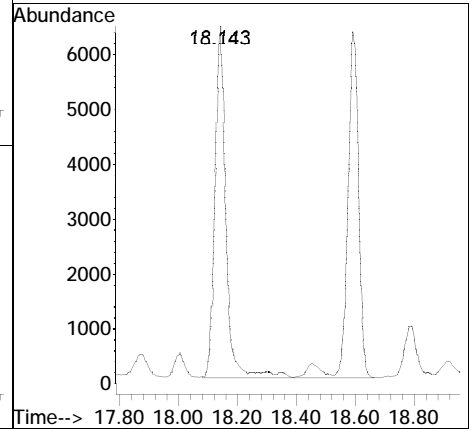
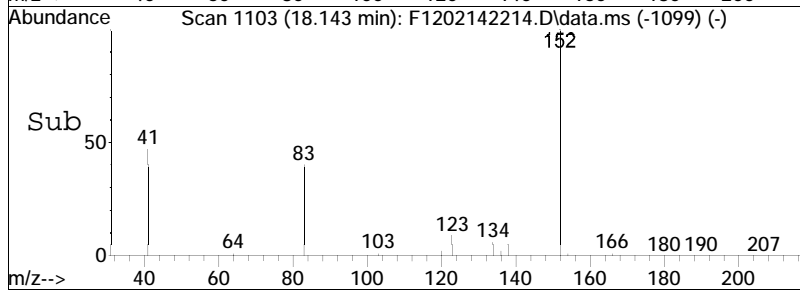
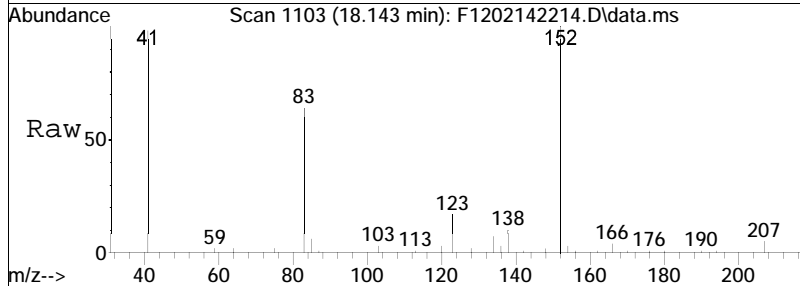
#3  
 cis-Decalin  
 Concen: 9.31 ng/mL M3  
 RT: 17.879 min Scan# 1074  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:138 Resp: 562

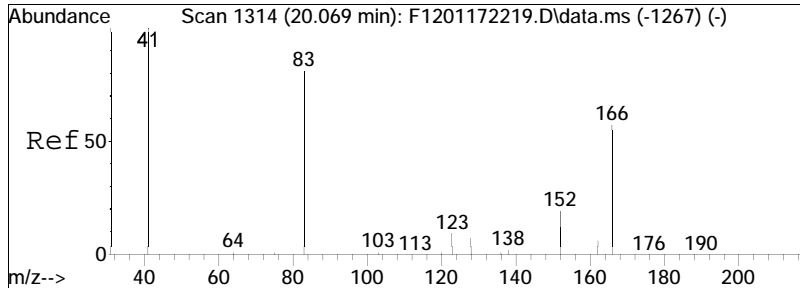




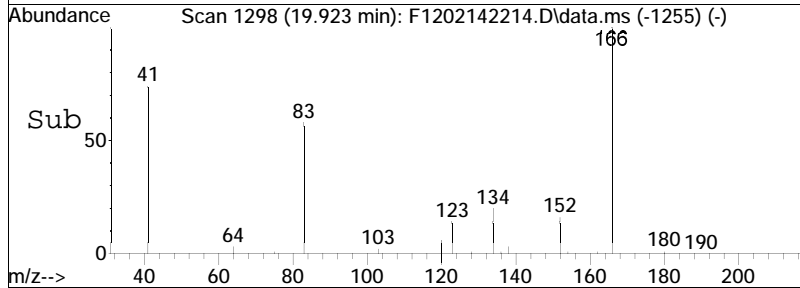
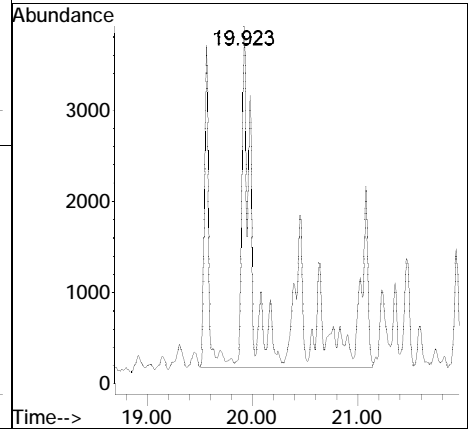
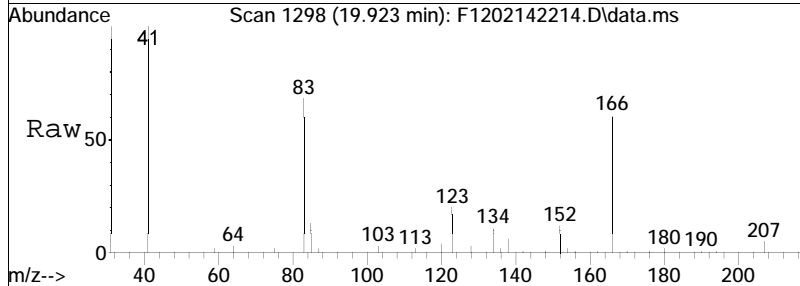


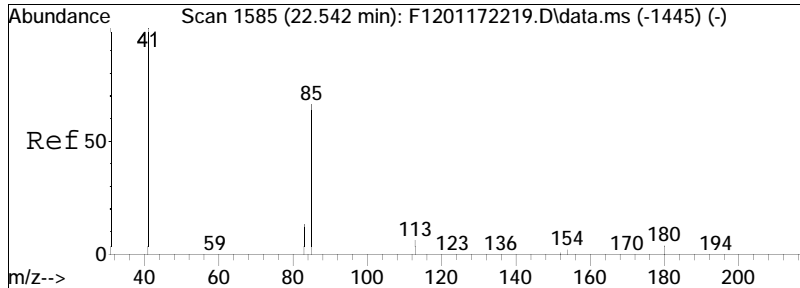
#4  
 Cl-Decalins  
 Concen: 419.54 ng/mL M5  
 RT: 18.143 min Scan# 1103  
 Delta R.T. -0.484 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:152 Resp: 33004



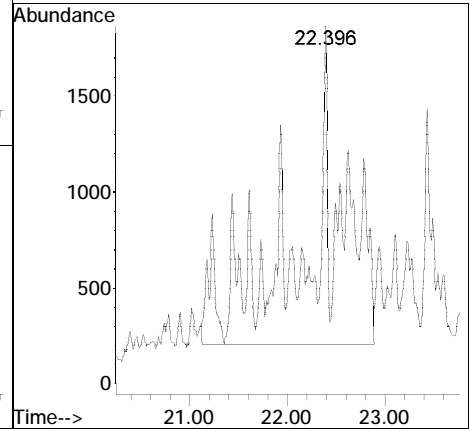
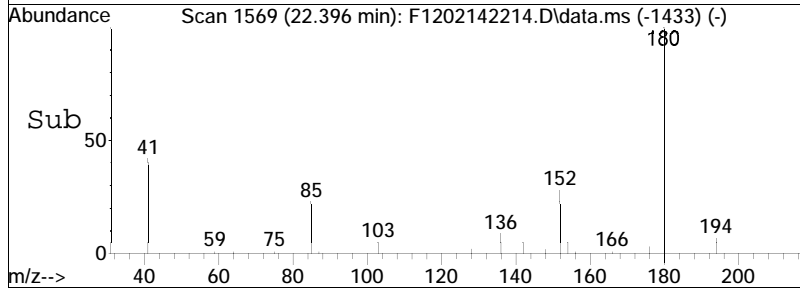
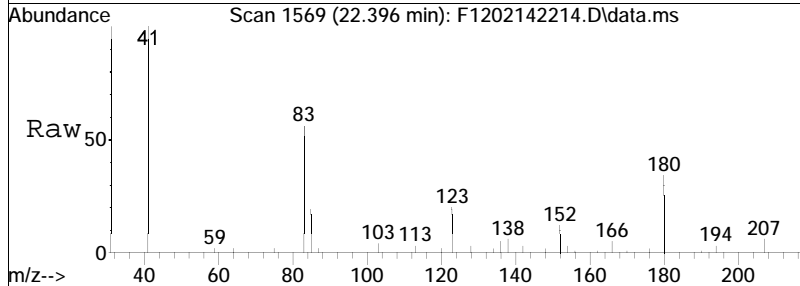


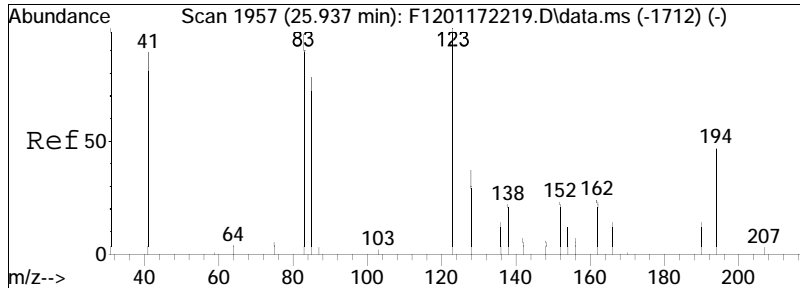
#5  
 C2-Decalins  
 Concen: 746.06 ng/mL M5  
 RT: 19.923 min Scan# 1298  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:166 Resp: 58691



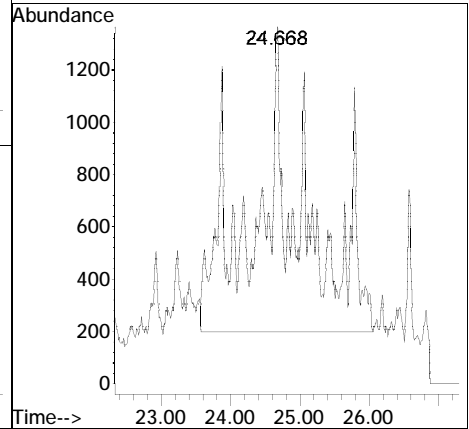
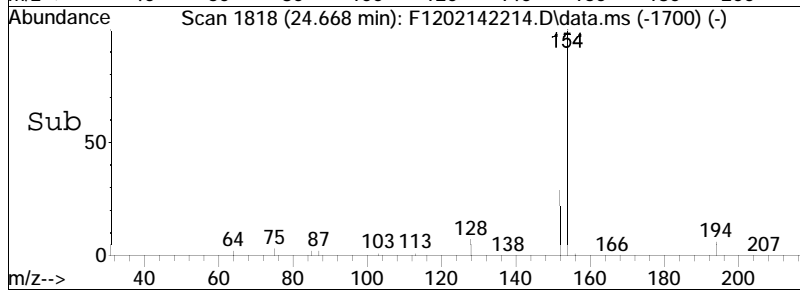
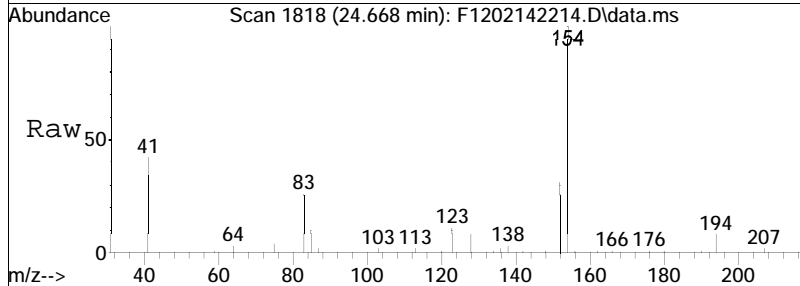


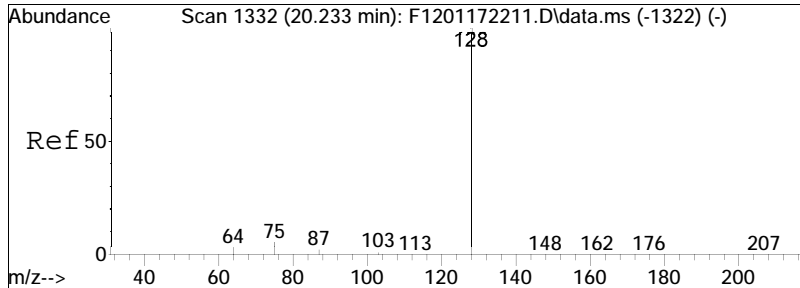
#6  
 C3-Decalins  
 Concen: 584.48 ng/mL M5  
 RT: 22.396 min Scan# 1569  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:180 Resp: 45980



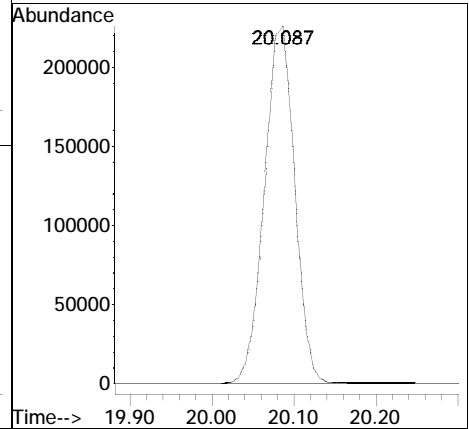
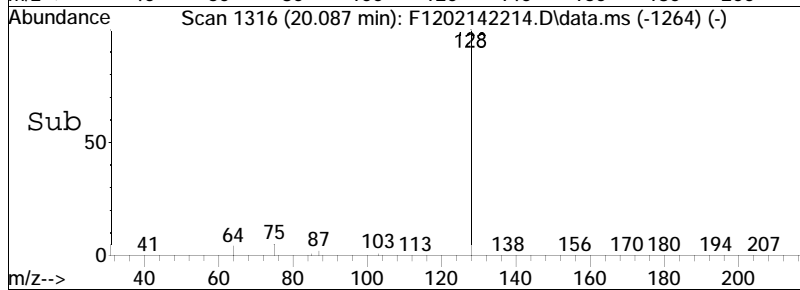
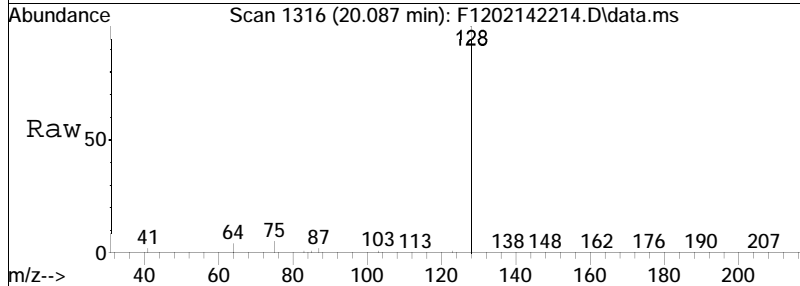


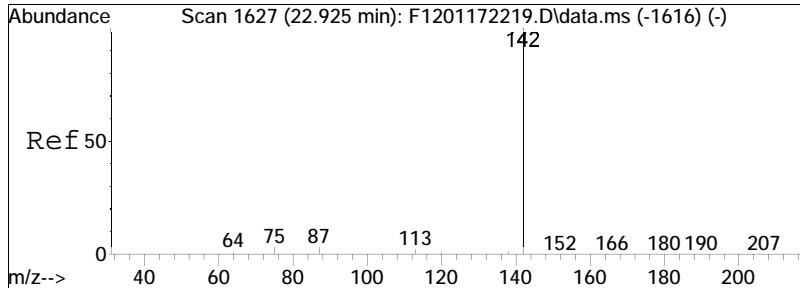
#7  
 C4-Decalins  
 Concen: 666.86 ng/mL M5  
 RT: 24.668 min Scan# 1818  
 Delta R.T. -1.159 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:194 Resp: 52460



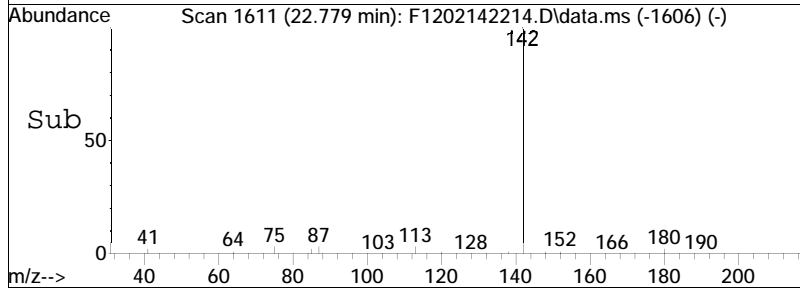
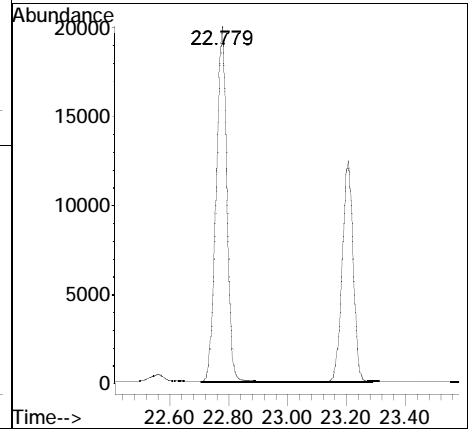
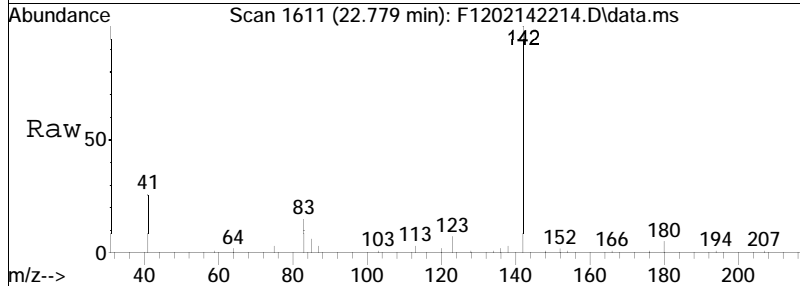


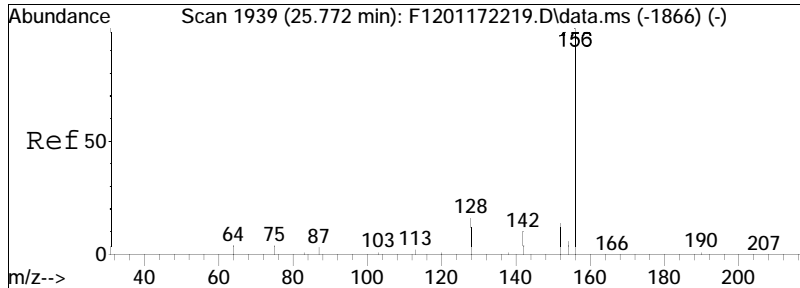
#9  
 Naphthalene  
 Concen: 1426.56 ng/mL  
 RT: 20.087 min Scan# 1316  
 Delta R.T. -0.027 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:128 Resp: 573161



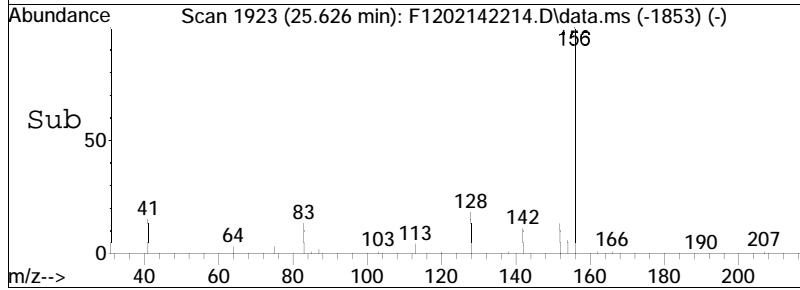
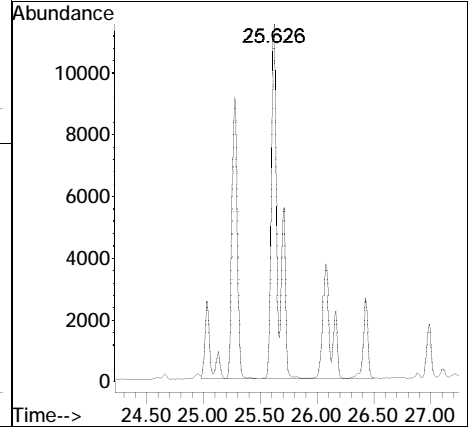
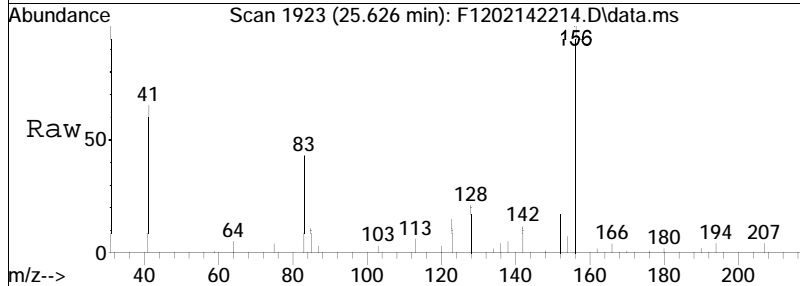


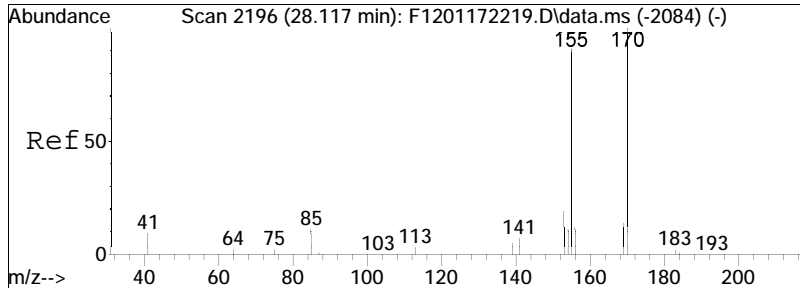
#10  
 Cl-Naphthalenes  
 Concen: 205.64 ng/mL M5  
 RT: 22.779 min Scan# 1611  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:142 Resp: 82623





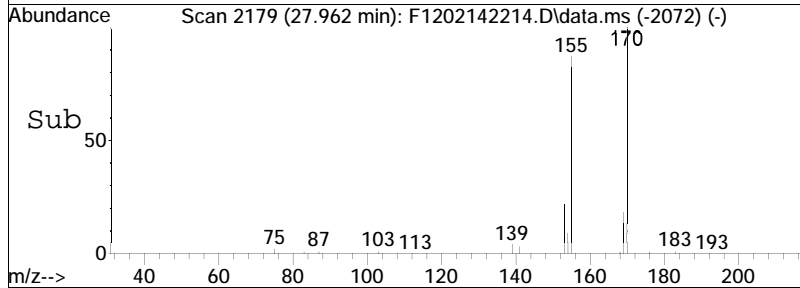
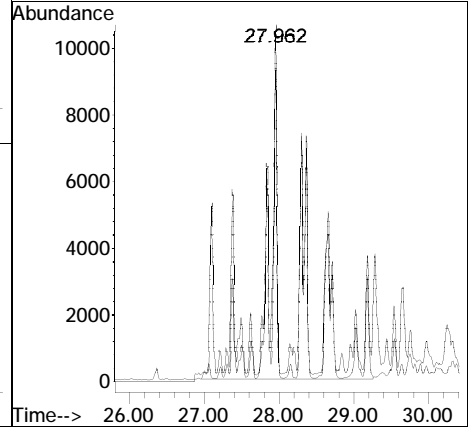
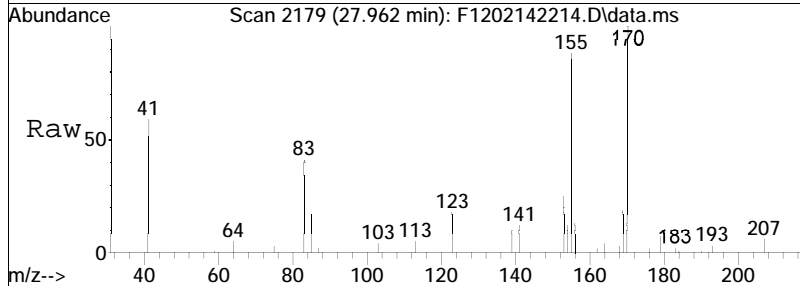
#11  
 C2-Naphthalenes  
 Concen: 281.31 ng/mL M5  
 RT: 25.626 min Scan# 1923  
 Delta R.T. -0.027 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:156 Resp: 113025



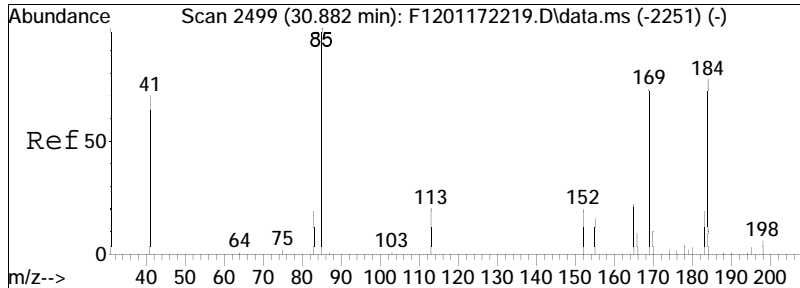


#12  
 C3-Naphthalenes  
 Concen: 369.53 ng/mL M5  
 RT: 27.962 min Scan# 2179  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

Tgt Ion: 170 Resp: 148468  
 Ion Ratio Lower Upper  
 170 100  
 155 18.7 63.8 118.4#

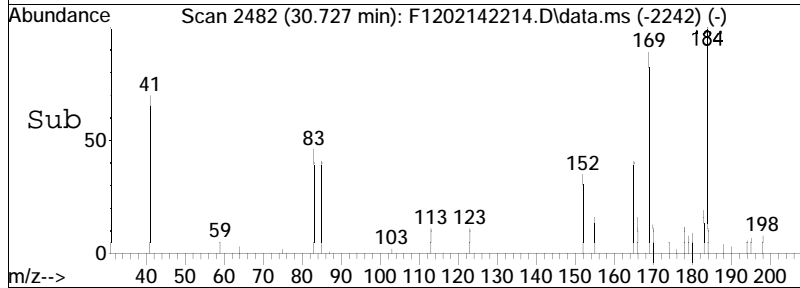
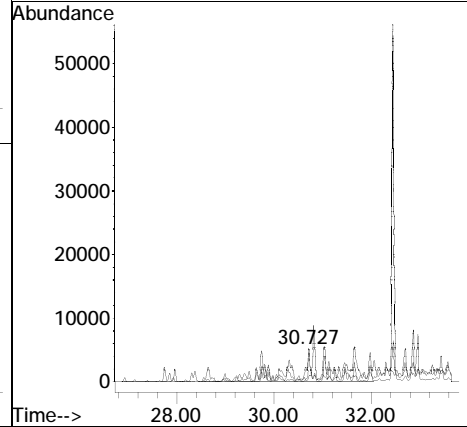
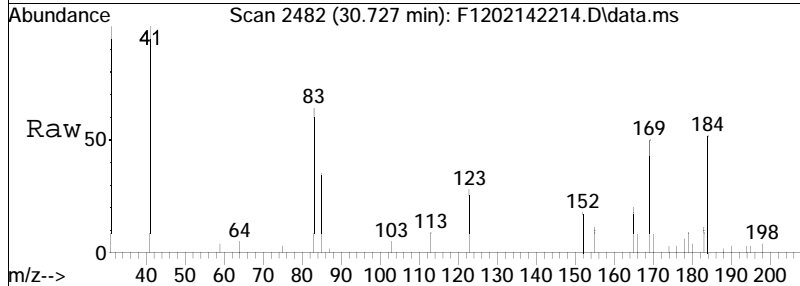


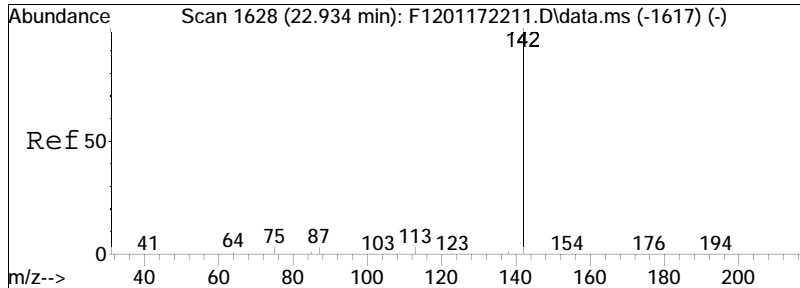




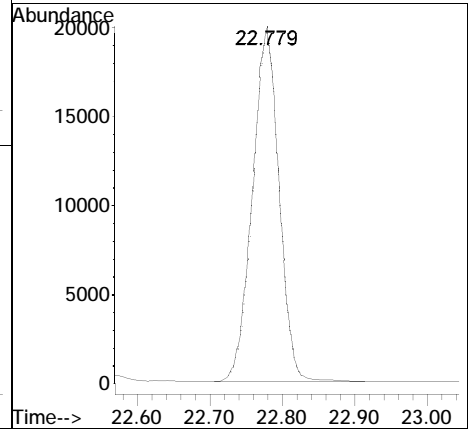
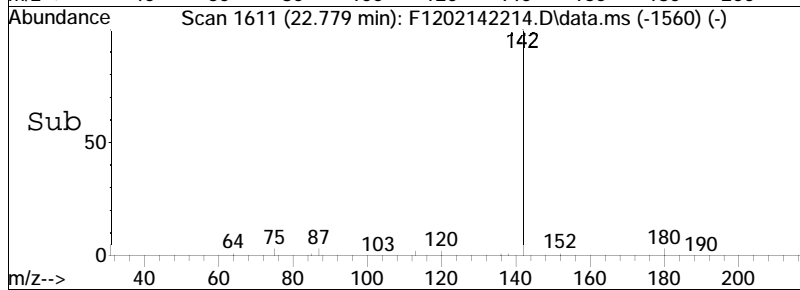
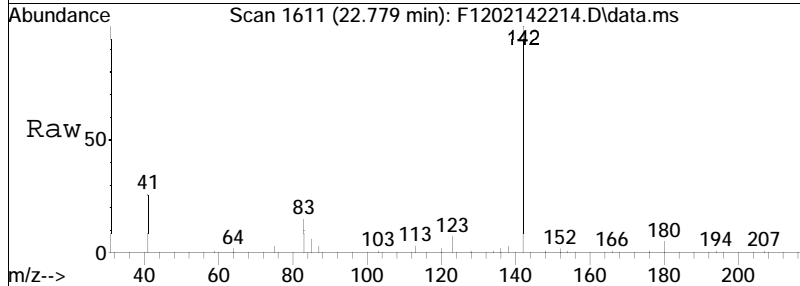
#13  
 C4-Naphthalenes  
 Concen: 339.33 ng/mL M5  
 RT: 30.727 min Scan# 2482  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

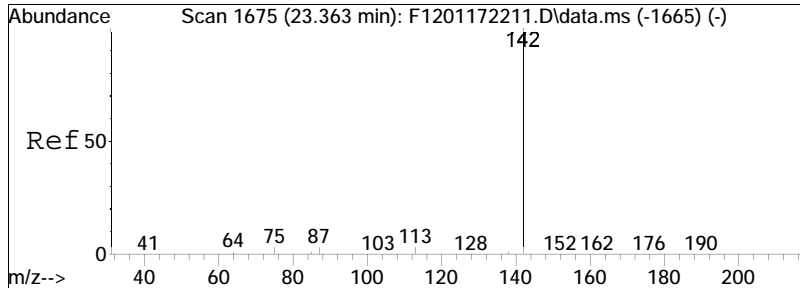
Tgt Ion	Resp	Lower	Upper
184	136334		
184	100		
169	4.9	74.1	137.7#
183	1.3	23.0	42.8#



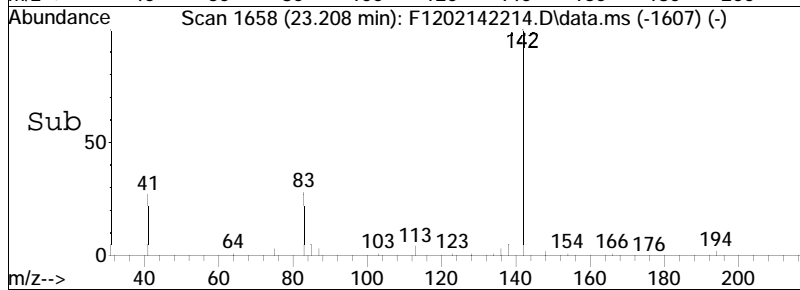
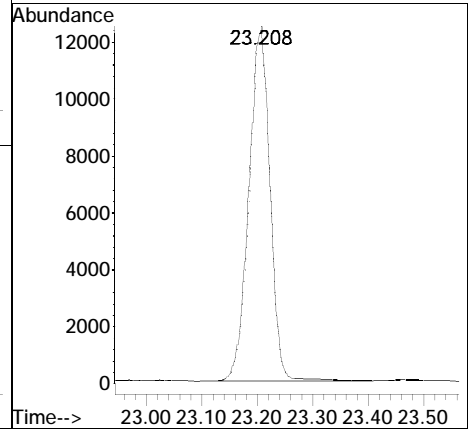
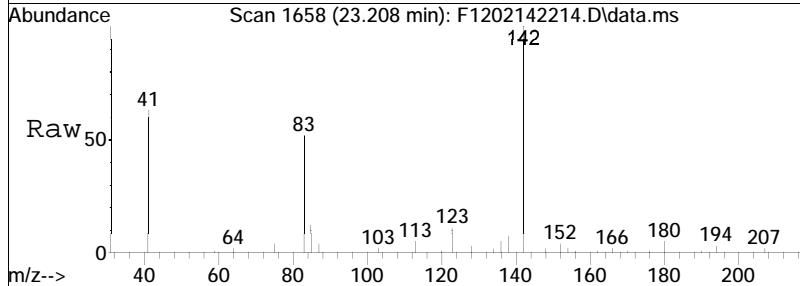


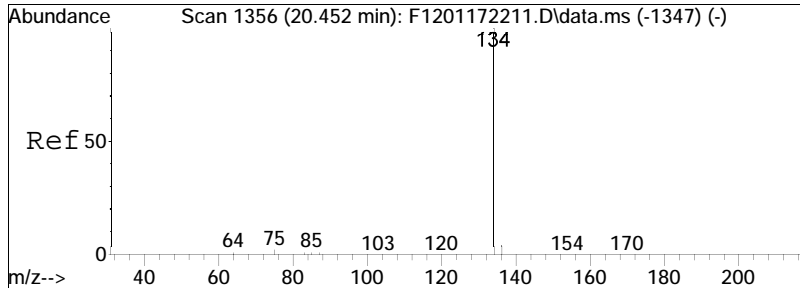
#14  
 2-Methylnaphthalene  
 Concen: 196.12 ng/mL  
 RT: 22.779 min Scan# 1611  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:142 Resp: 50040



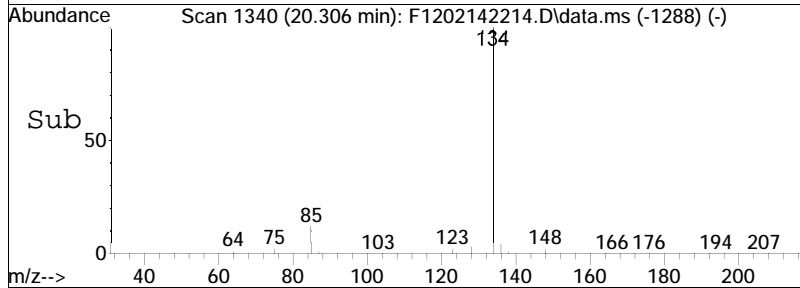
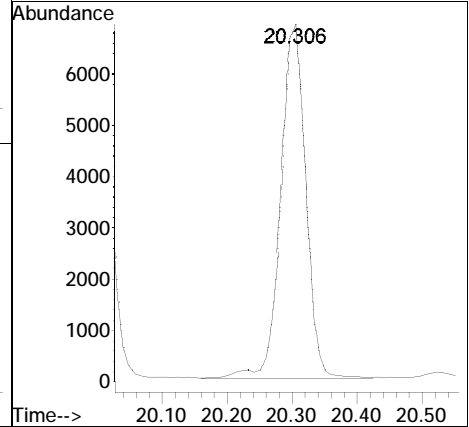
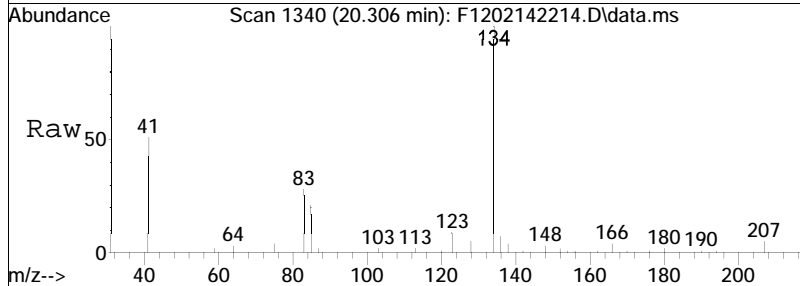


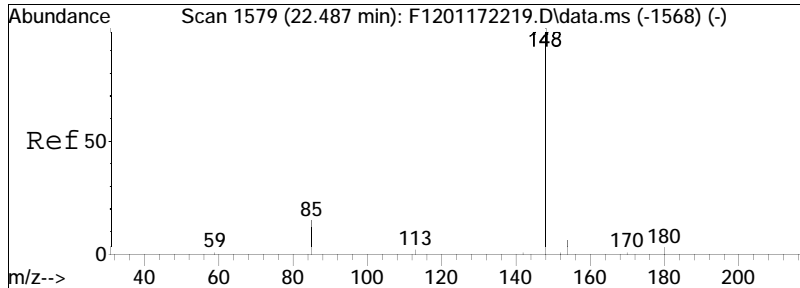
#15  
 1-Methylnaphthalene  
 Concen: 133.15 ng/mL  
 RT: 23.208 min Scan# 1658  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:142 Resp: 32249



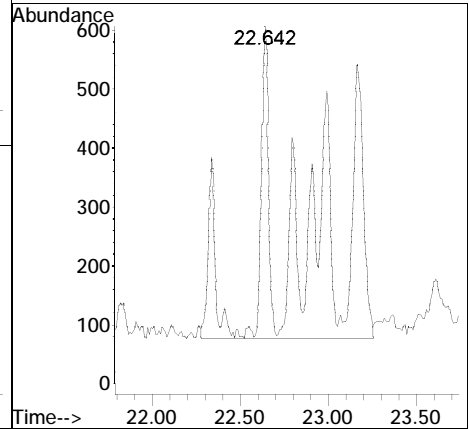
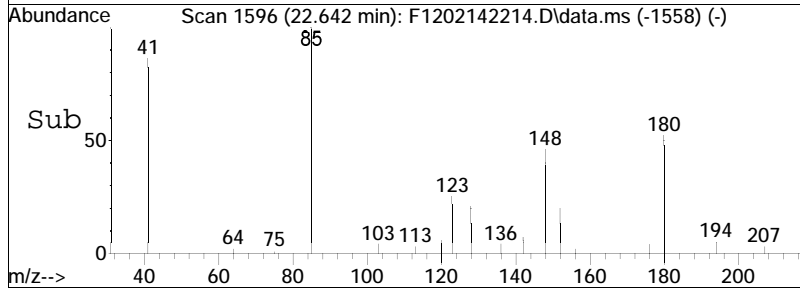
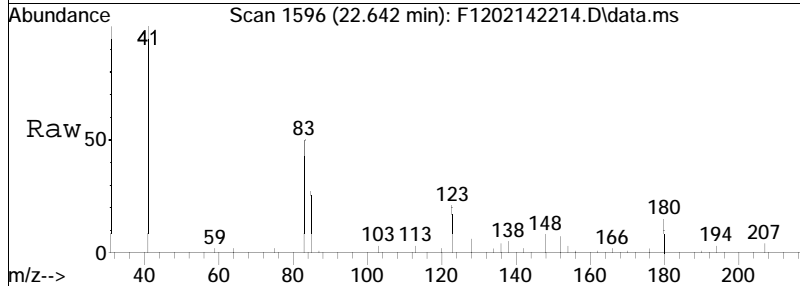


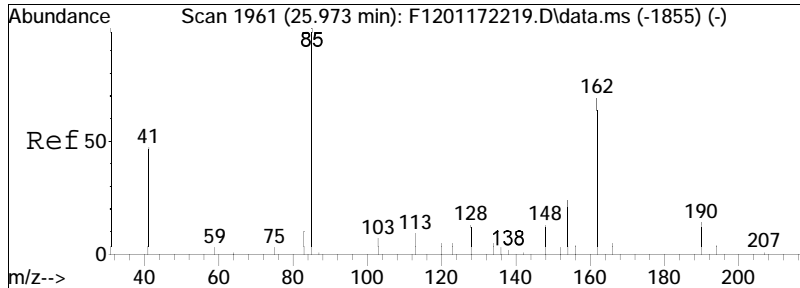
#16  
 Benzothiophene  
 Concen: 53.70 ng/mL  
 RT: 20.306 min Scan# 1340  
 Delta R.T. -0.027 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:134 Resp: 18255



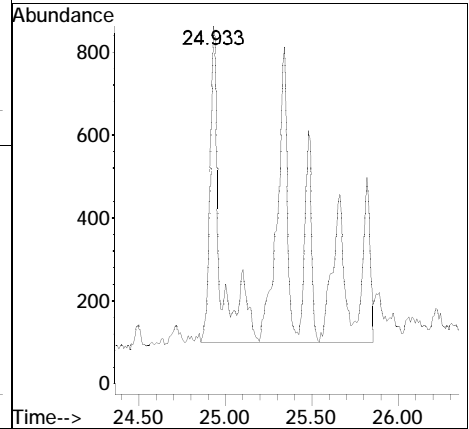
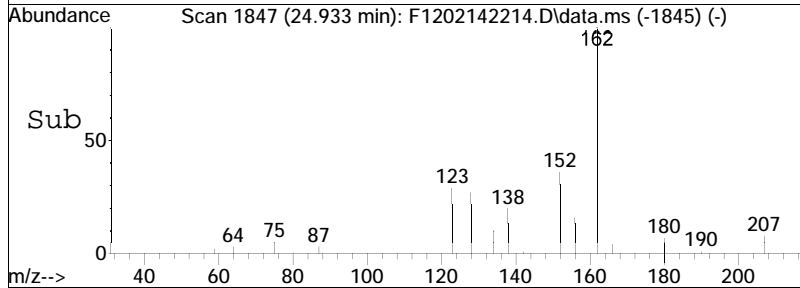
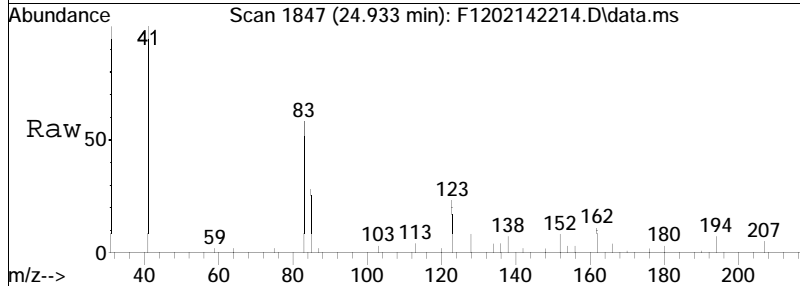


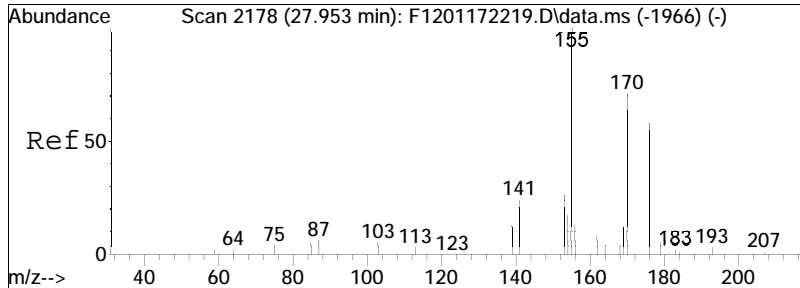
#17  
 Cl-Benzo(b)thiophenes  
 Concen: 22.89 ng/mL M5  
 RT: 22.642 min Scan# 1596  
 Delta R.T. 0.265 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:148 Resp: 7780



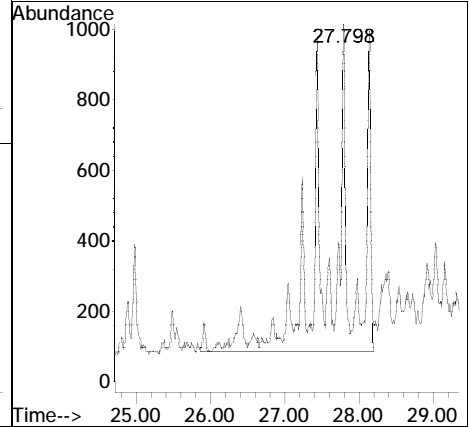
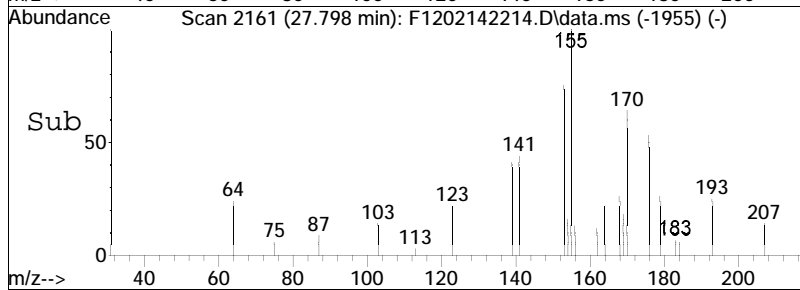
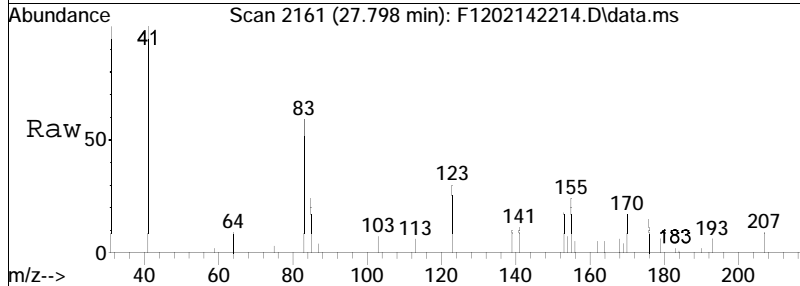


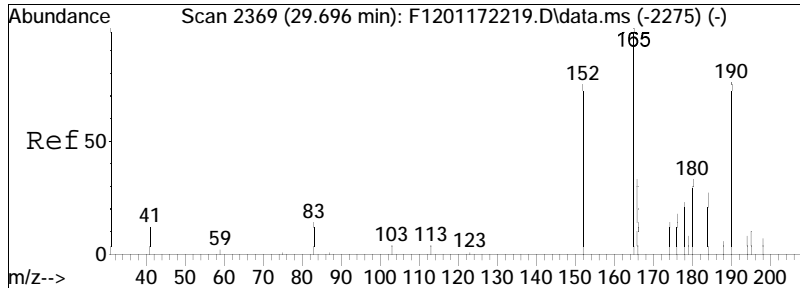
#18  
 C2-Benzo(b)thiophenes  
 Concen: 30.10 ng/mL M5  
 RT: 24.933 min Scan# 1847  
 Delta R.T. -0.922 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:162 Resp: 10231



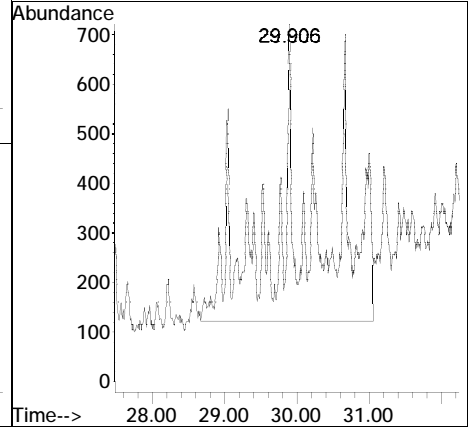
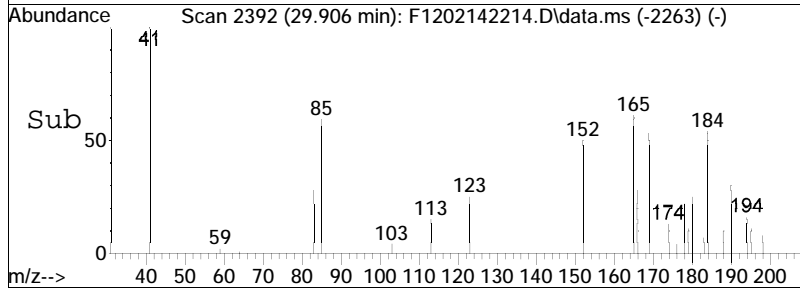
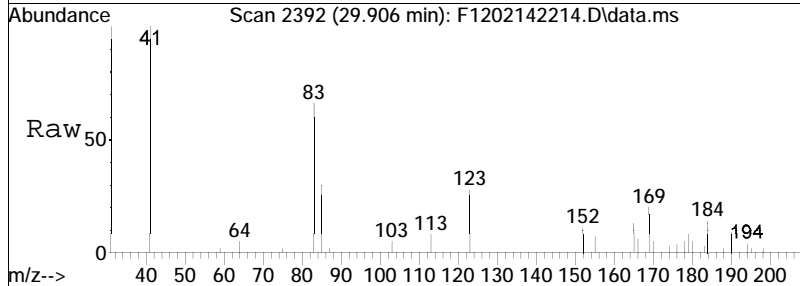


#19  
 C3-Benzo(b)thiophenes  
 Concen: 50.18 ng/mL M5  
 RT: 27.798 min Scan# 2161  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:176 Resp: 17058

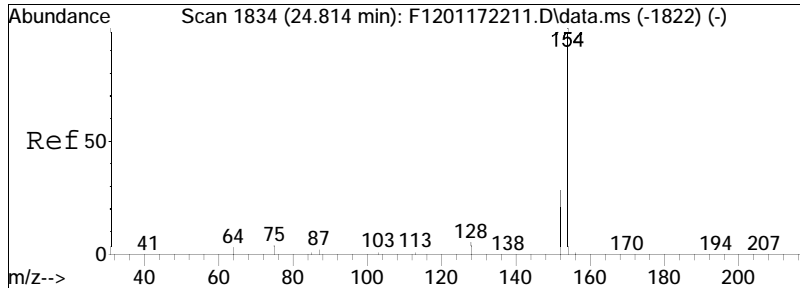




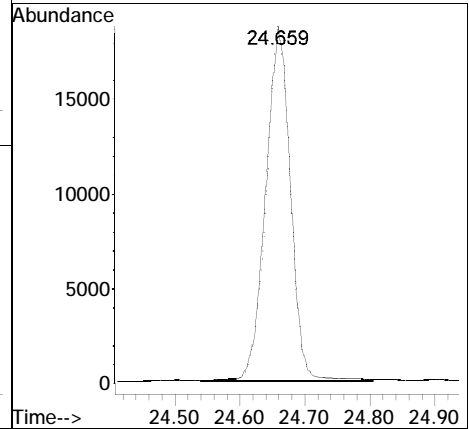
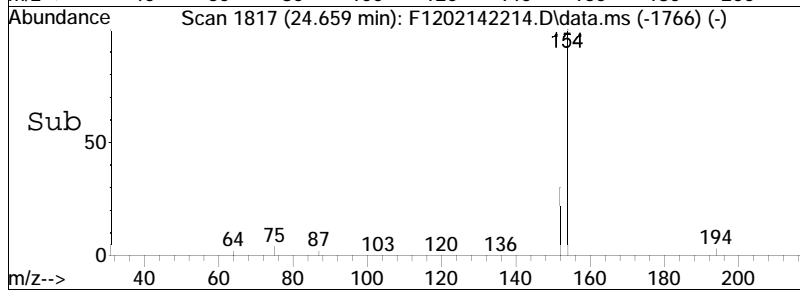
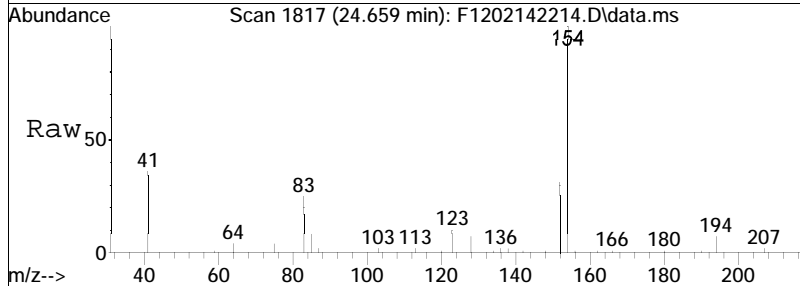
#20  
 C4-Benzo(b)thiophenes  
 Concen: 61.29 ng/mL M5  
 RT: 29.906 min Scan# 2392  
 Delta R.T. 0.329 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:190 Resp: 20833

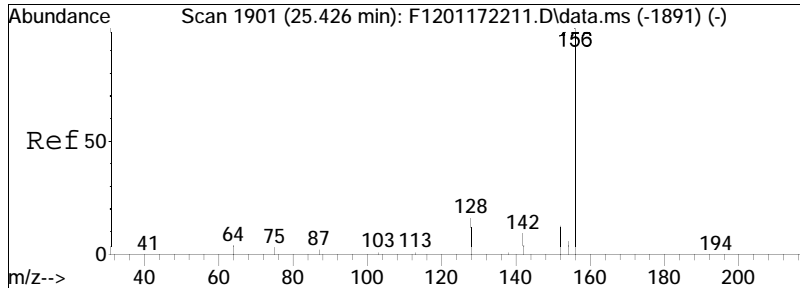




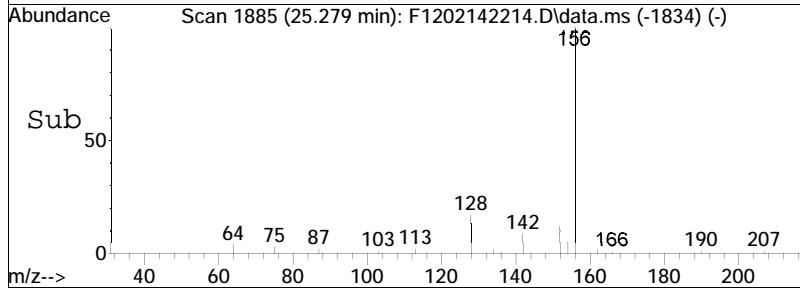
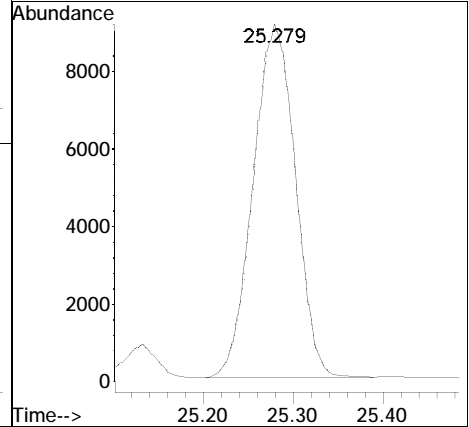
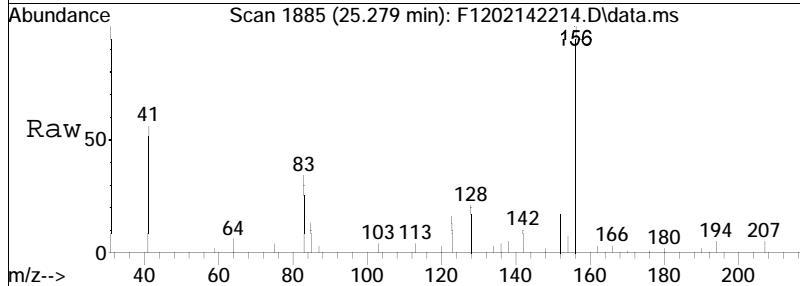


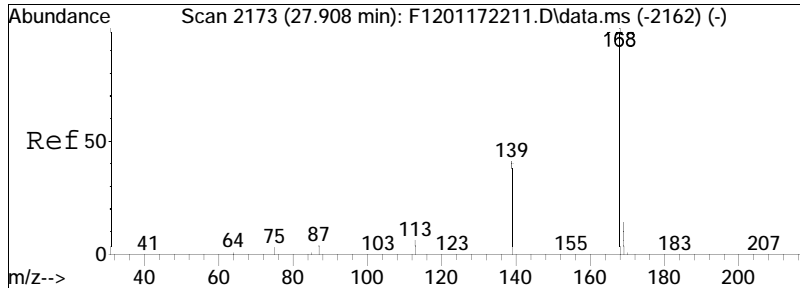
#21  
Biphenyl  
Concen: 155.53 ng/mL  
RT: 24.659 min Scan# 1817  
Delta R.T. -0.036 min  
Lab File: F1202142214.D  
Acq: 15 Feb 2022 5:35 am  
Tgt Ion:154 Resp: 48577





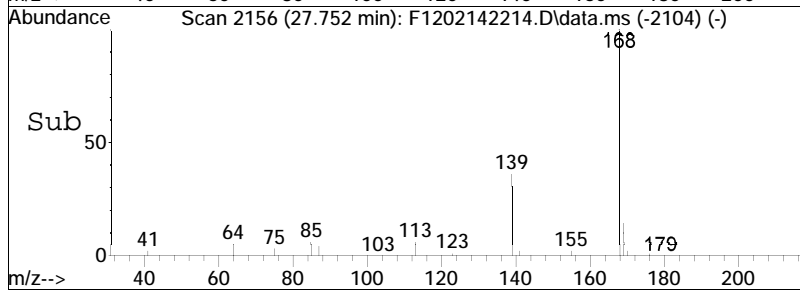
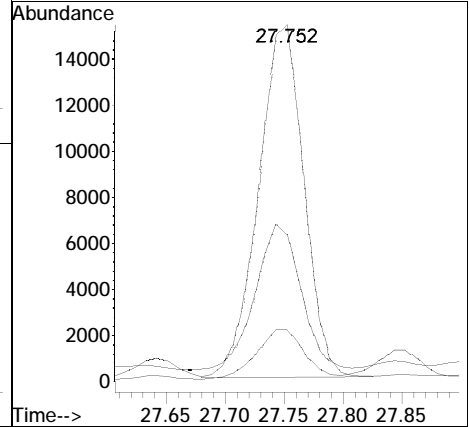
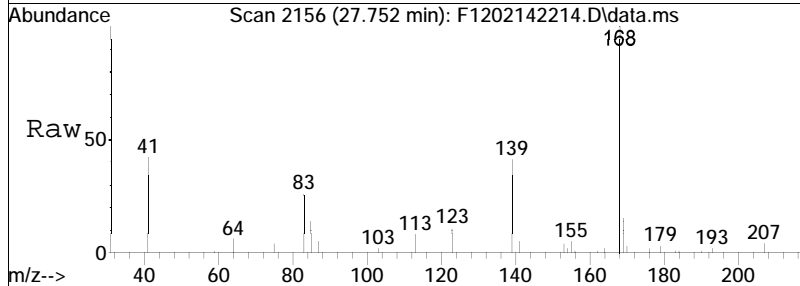
#22  
 2,6-Dimethylnaphthalene  
 Concen: 136.12 ng/mL  
 RT: 25.279 min Scan# 1885  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:156 Resp: 29586

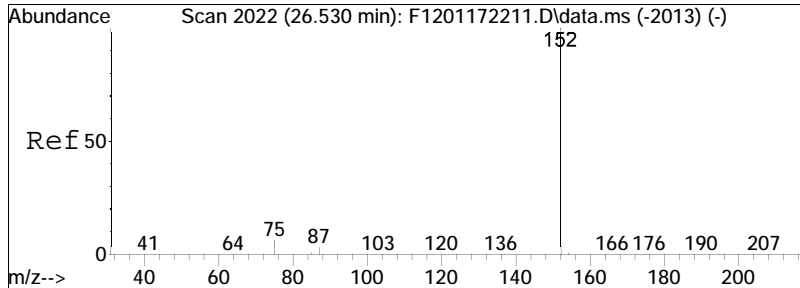




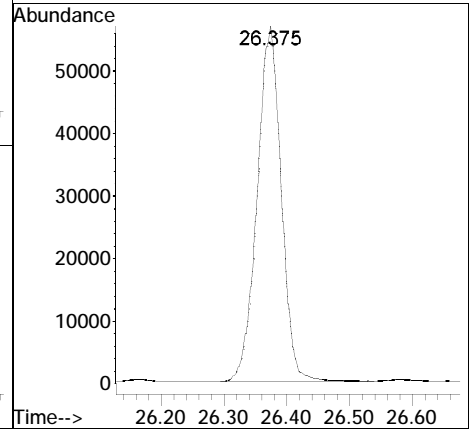
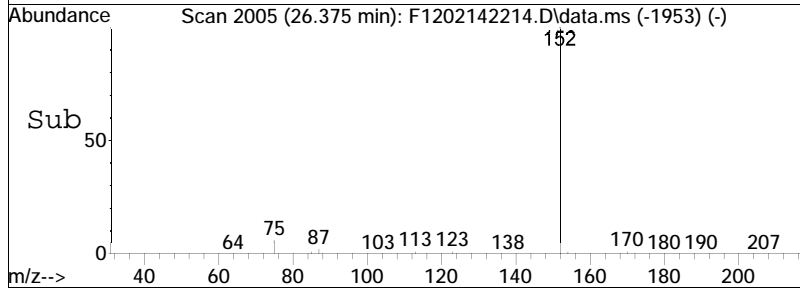
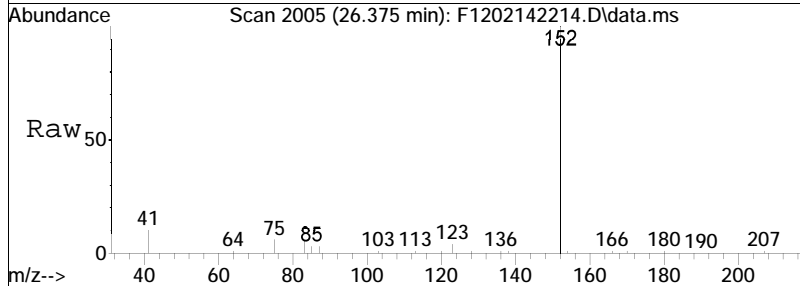
#23  
 Dibenzofuran  
 Concen: 121.33 ng/mL  
 RT: 27.752 min Scan# 2156  
 Delta R.T. -0.027 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

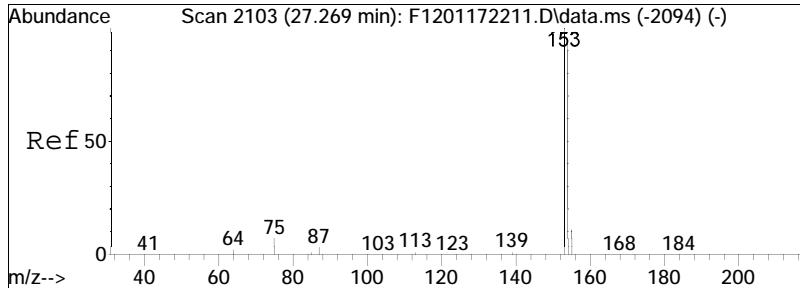
Tgt Ion	Ratio	Lower	Upper
168	100		
139	42.0	35.0	65.0
169	14.7	11.5	21.5





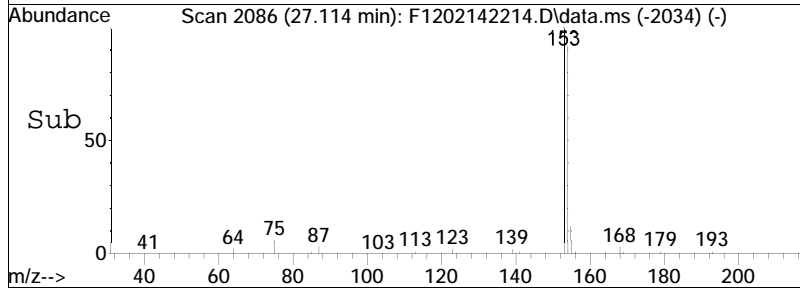
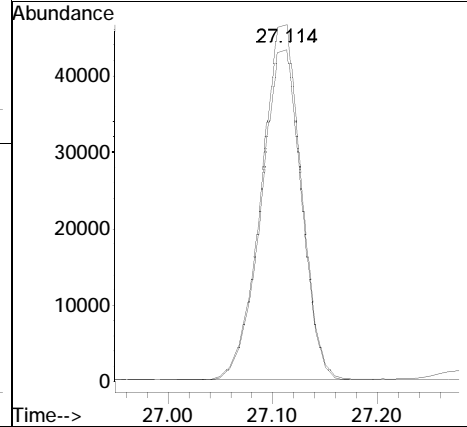
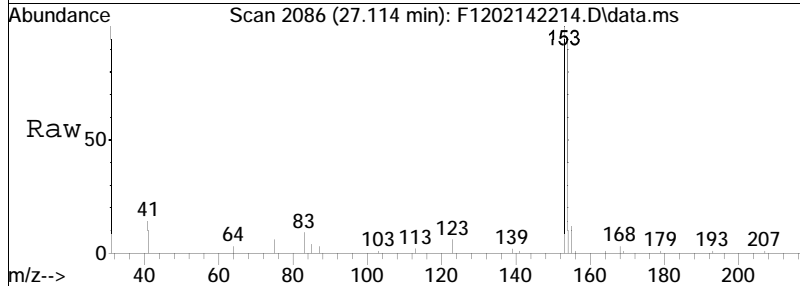
#24  
Acenaphthylene  
Concen: 389.97 ng/mL  
RT: 26.375 min Scan# 2005  
Delta R.T. -0.027 min  
Lab File: F1202142214.D  
Acq: 15 Feb 2022 5:35 am  
Tgt Ion:152 Resp: 149535

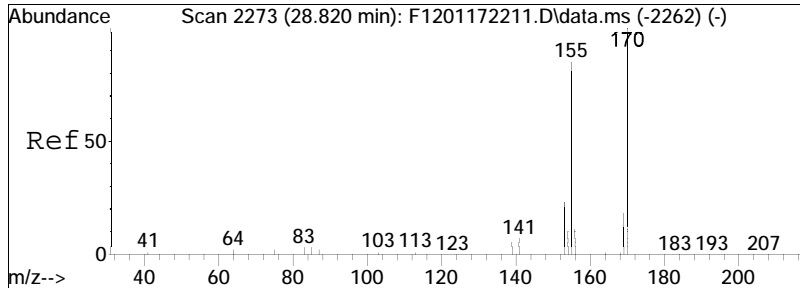




#25  
 Acenaphthene  
 Concen: 508.78 ng/mL  
 RT: 27.114 min Scan# 2086  
 Delta R.T. -0.027 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

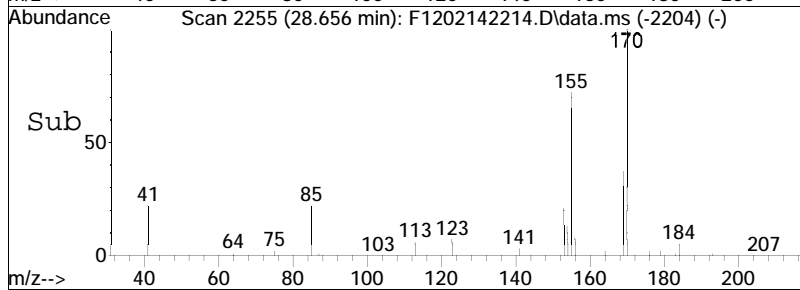
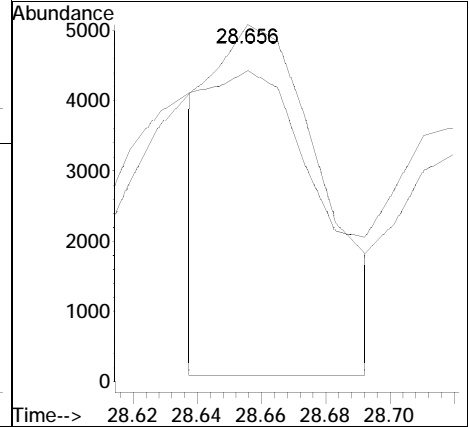
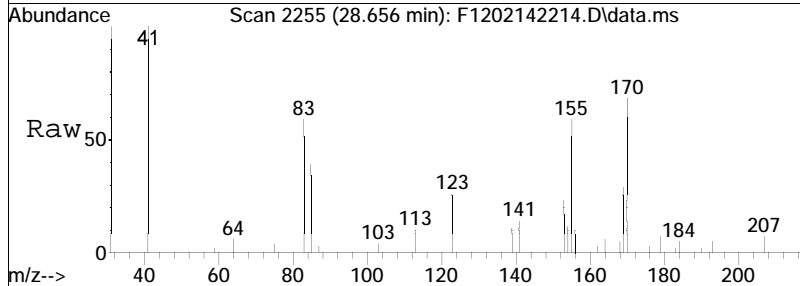
Tgt Ion	Resp	Lower	Upper
153	100		
154	92.7	65.4	121.4

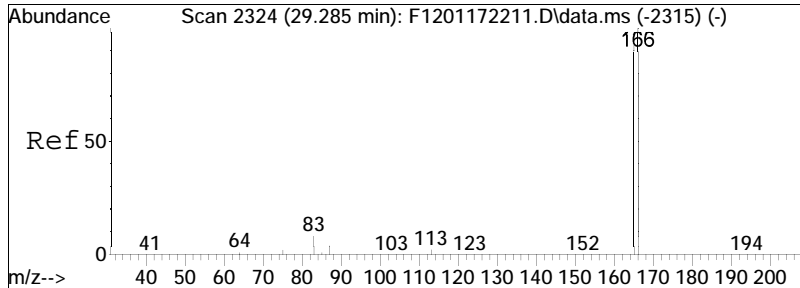




#26  
 2,3,5-Trimethylnaphthalene  
 Concen: 56.76 ng/mL M3  
 RT: 28.656 min Scan# 2255  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

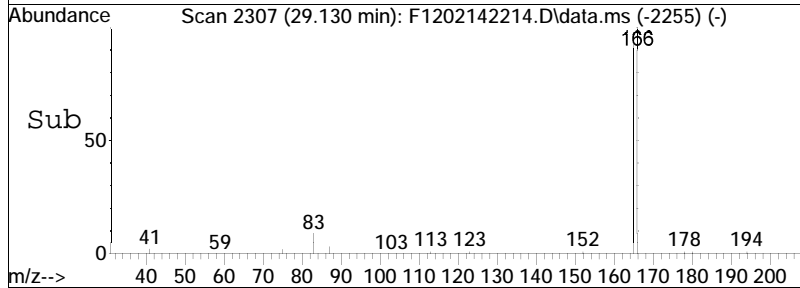
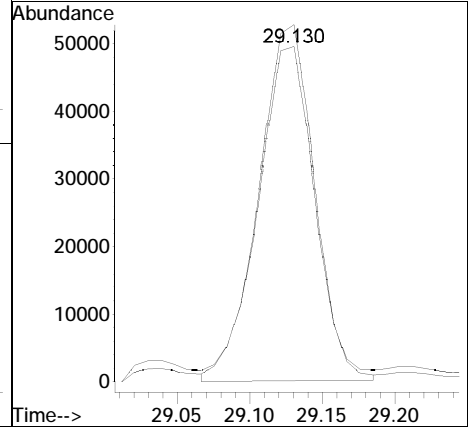
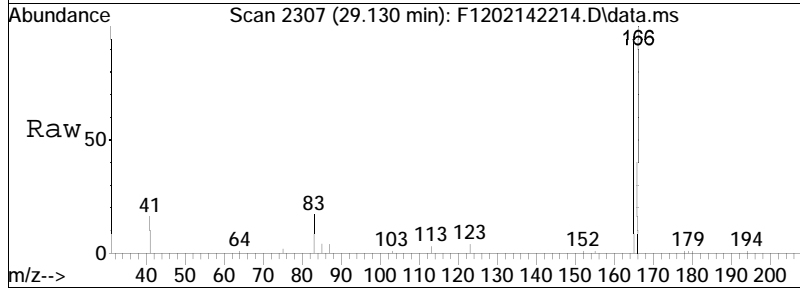
Tgt Ion: 170 Resp: 11836  
 Ion Ratio Lower Upper  
 170 100  
 155 156.6 61.6 114.4#

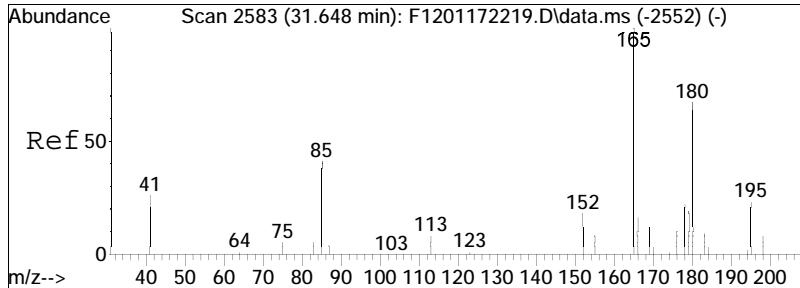




#27  
 Fluorene  
 Concen: 524.55 ng/mL  
 RT: 29.130 min Scan# 2307  
 Delta R.T. -0.027 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

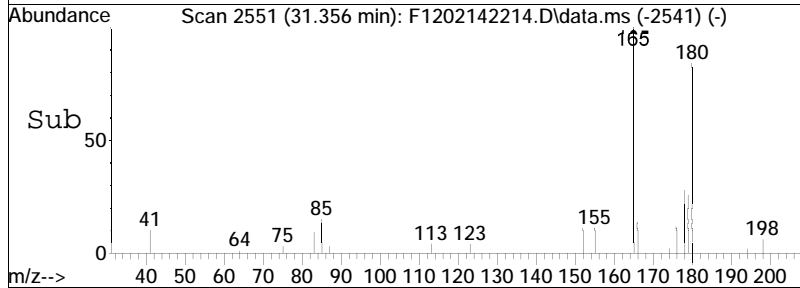
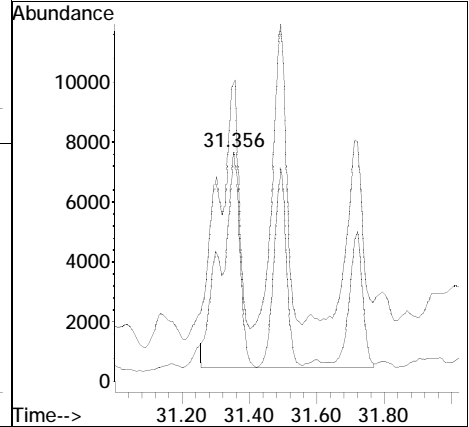
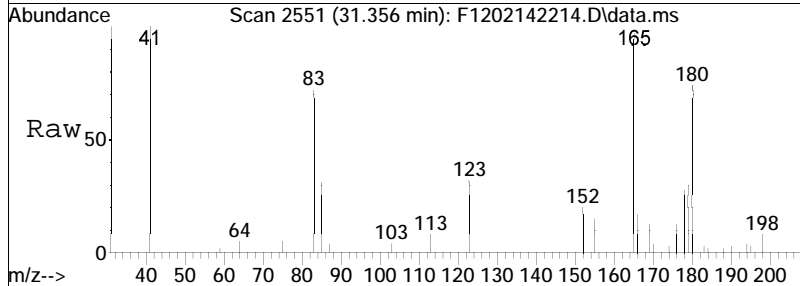
Tgt Ion	Resp	Lower	Upper
166	100		
165	93.0	66.4	123.4



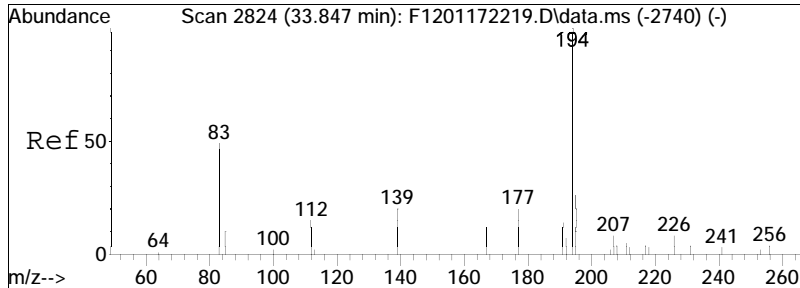


#28  
 Cl-Fluorenes  
 Concen: 218.74 ng/mL M5  
 RT: 31.356 min Scan# 2551  
 Delta R.T. -0.173 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

Tgt Ion:180 Resp: 58705  
 Ion Ratio Lower Upper  
 180 100  
 165 48.2 105.8 196.4#

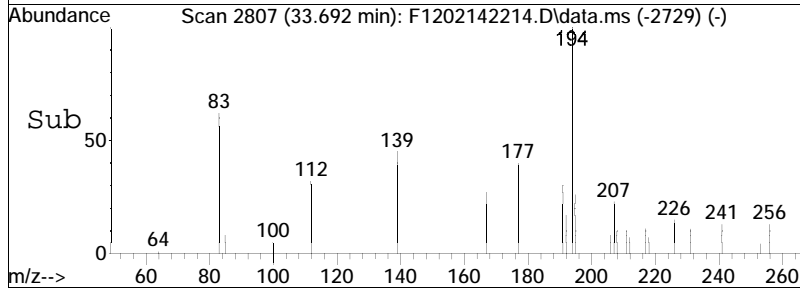
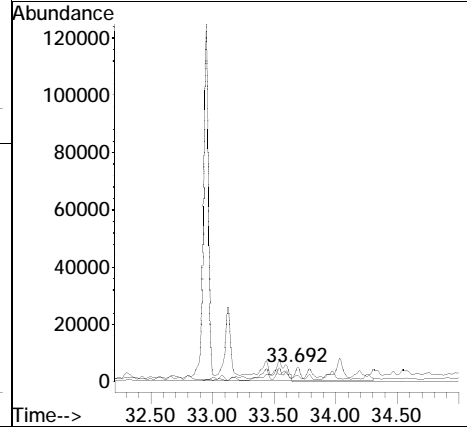
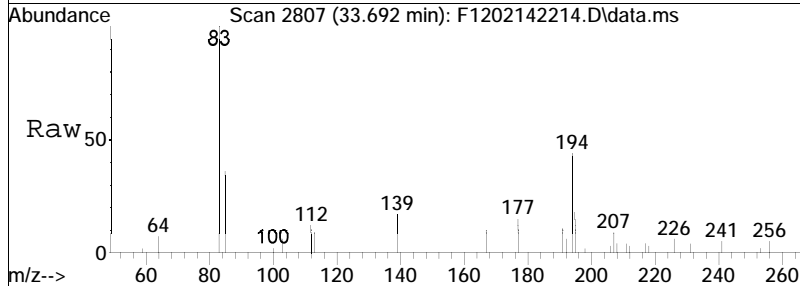


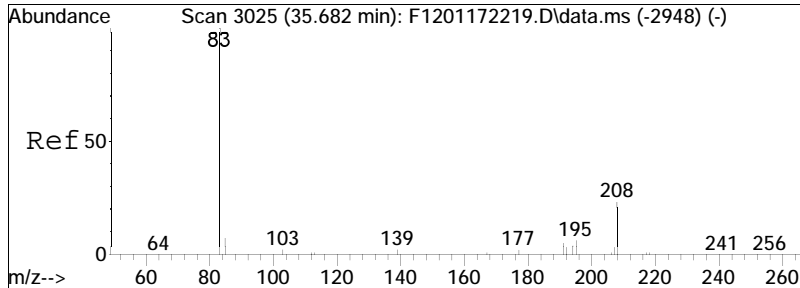




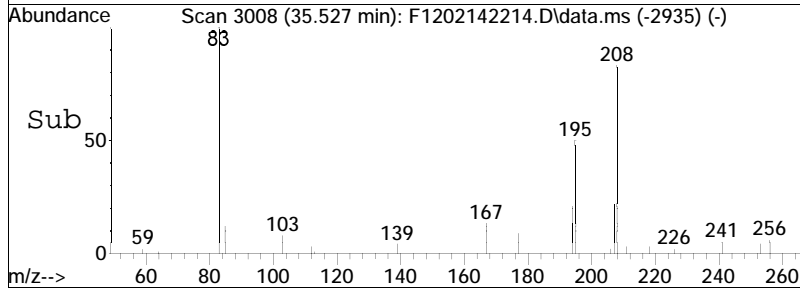
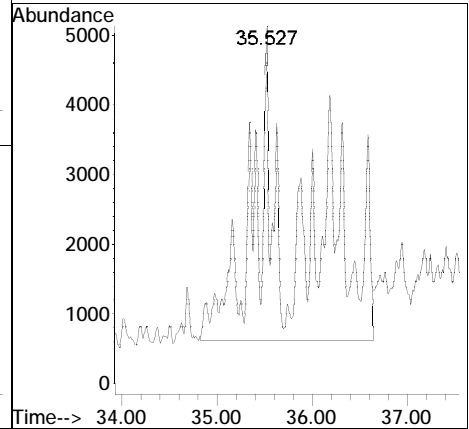
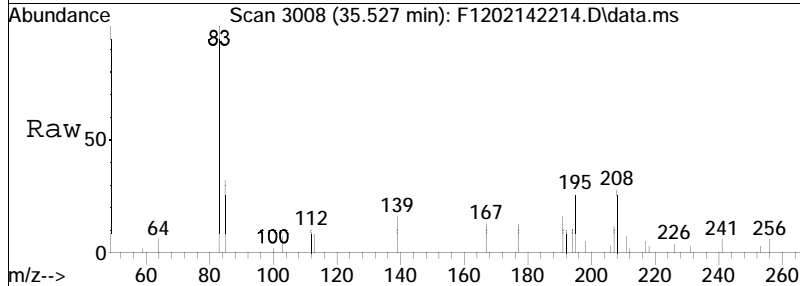
#29  
 C2-Fluorenes  
 Concen: 372.85 ng/mL M5  
 RT: 33.692 min Scan# 2807  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

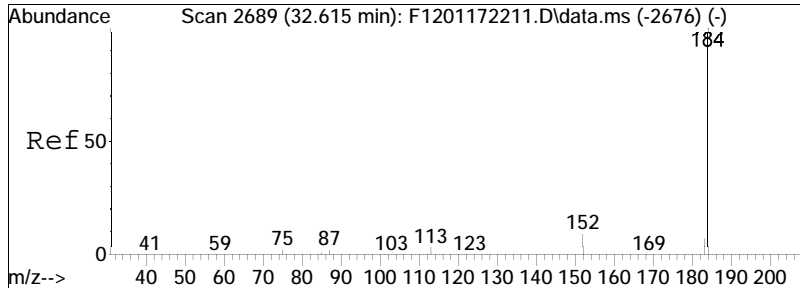
Tgt Ion	Ratio	Lower	Upper
194	100		
179	0.0	0.0	0.0
195	3.1	23.8	44.2#





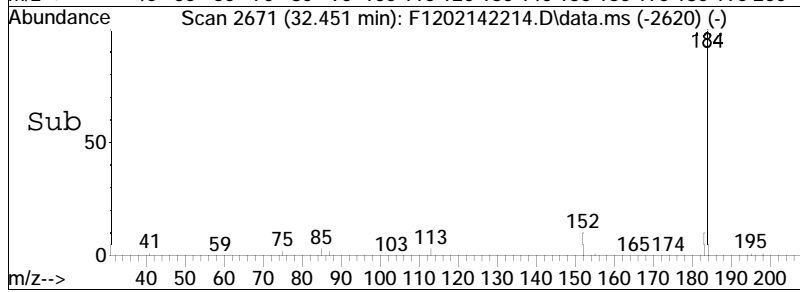
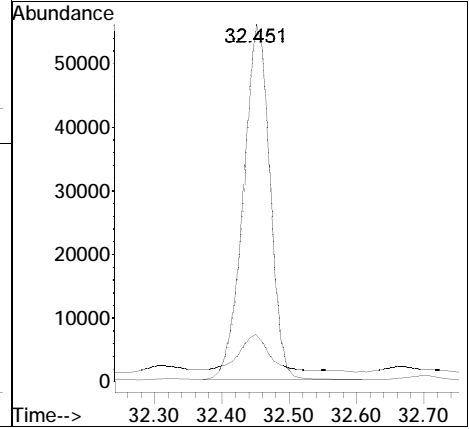
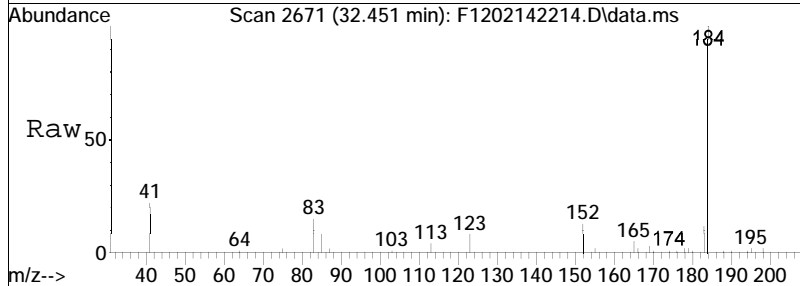
#30  
 C3-Fluorenes  
 Concen: 513.94 ng/mL M5  
 RT: 35.527 min Scan# 3008  
 Delta R.T. -0.027 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:208 Resp: 137932

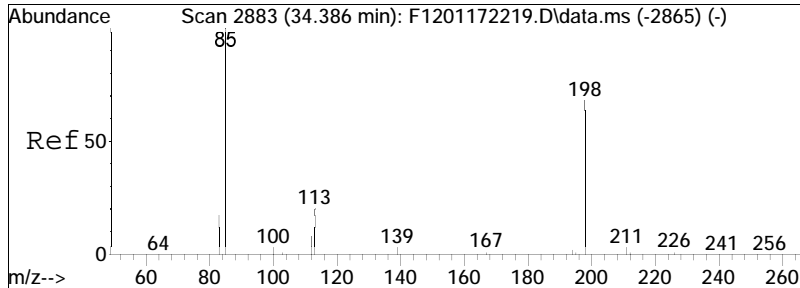




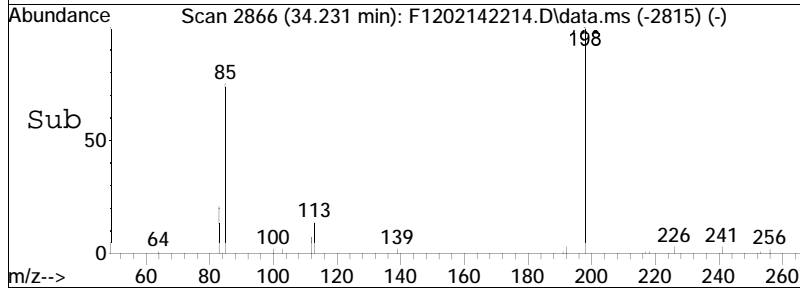
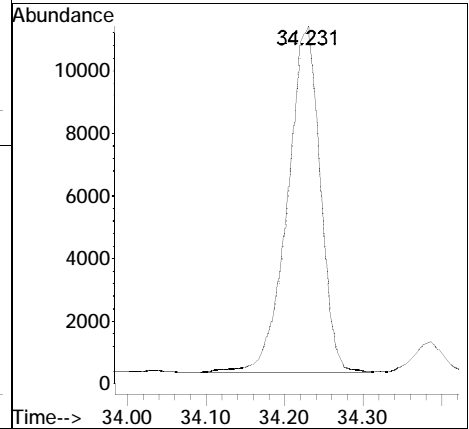
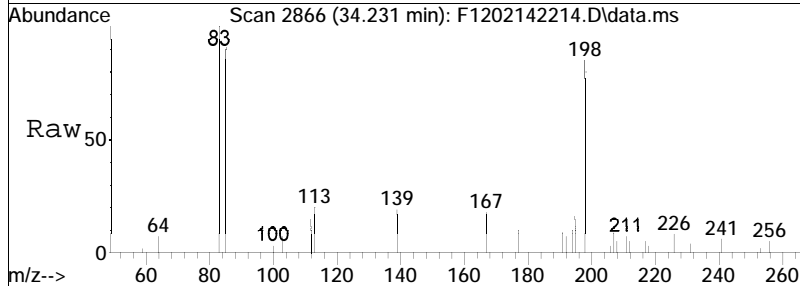
#31  
 Dibenzothiophene  
 Concen: 390.20 ng/mL  
 RT: 32.451 min Scan# 2671  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

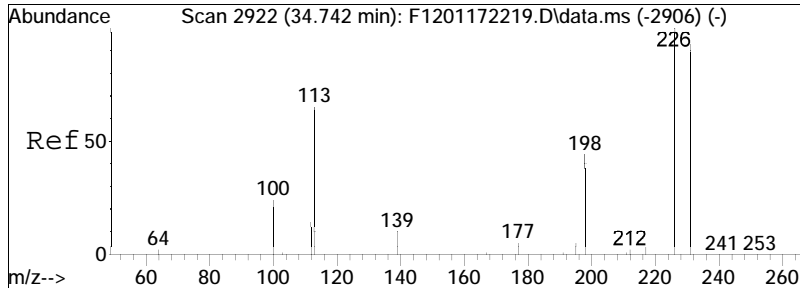
Tgt Ion	Resp	Lower	Upper
184	100		
152	11.6	11.3	20.9



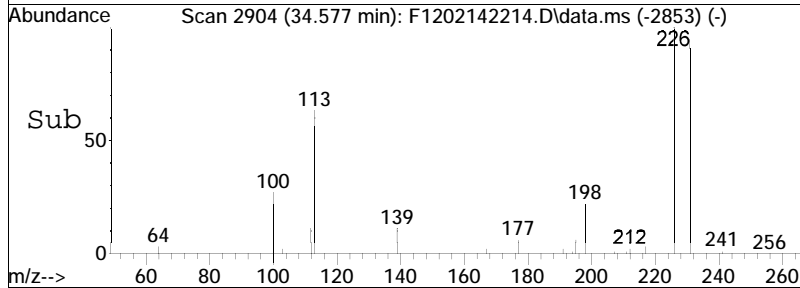
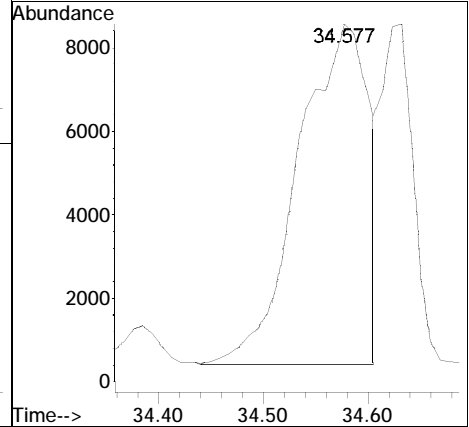
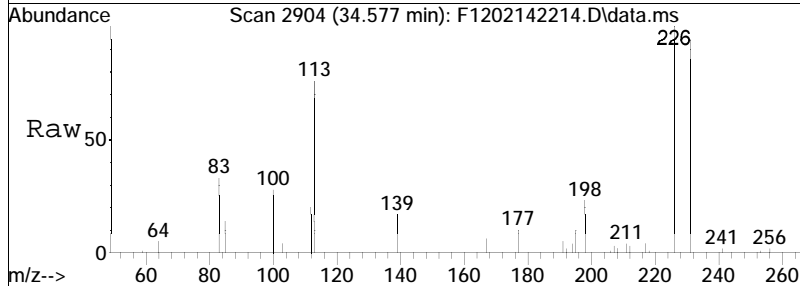


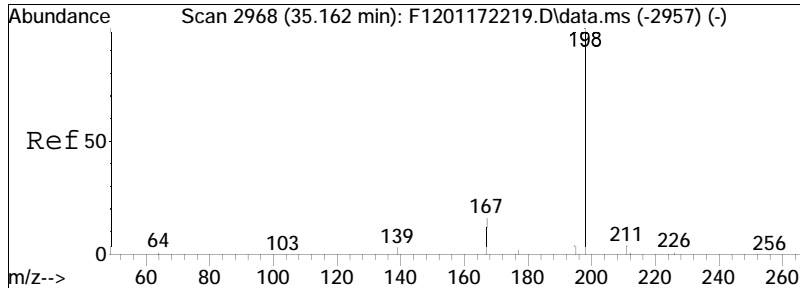
#32  
 4-Methyldibenzothiophene (4MDT)  
 Concen: 81.93 ng/mL  
 RT: 34.231 min Scan# 2866  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:198 Resp: 31716



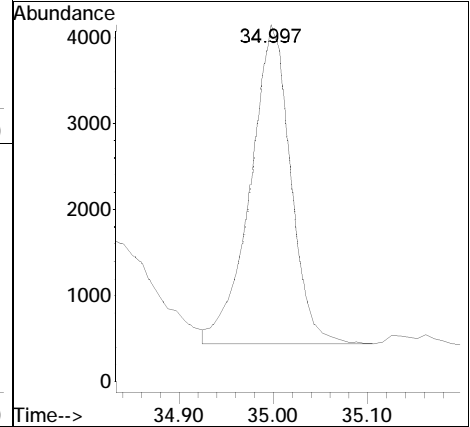
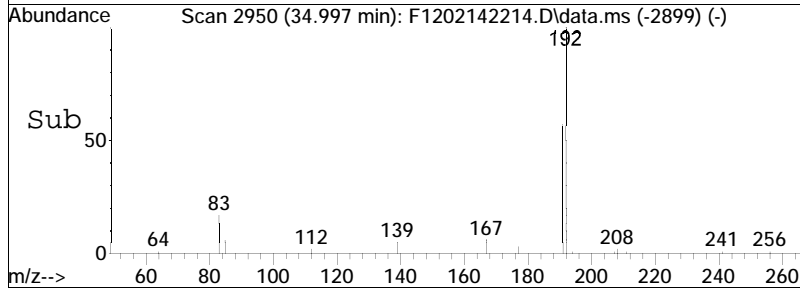
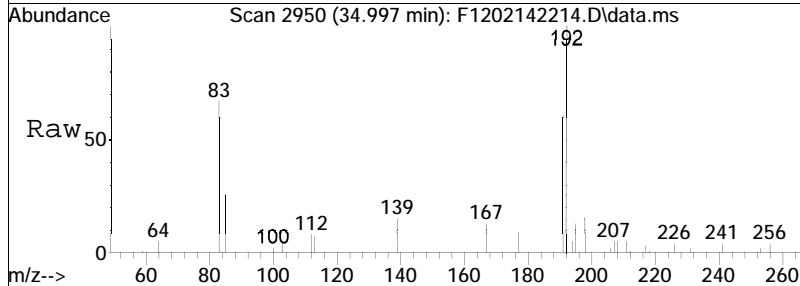


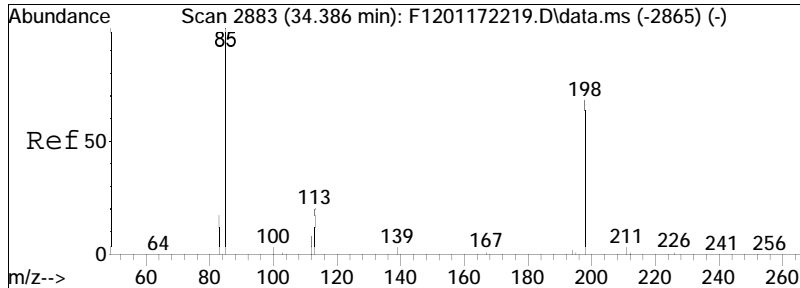
#33  
 2/3-Methyldibenzothiophene (2MD)  
 Concen: 97.36 ng/mL  
 RT: 34.577 min Scan# 2904  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion: 198 Resp: 37690



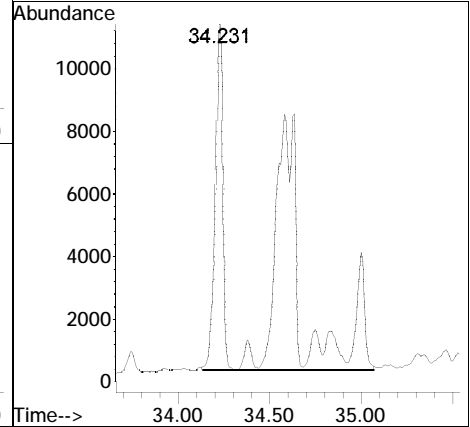
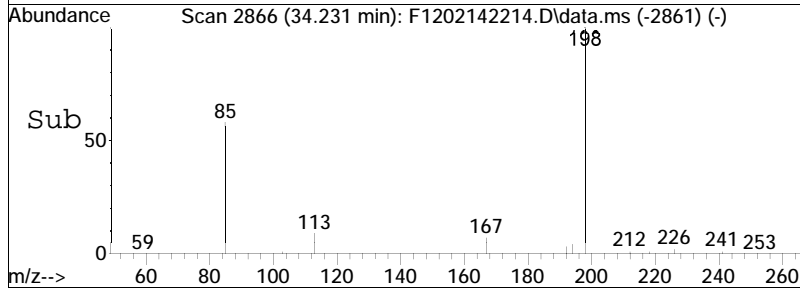
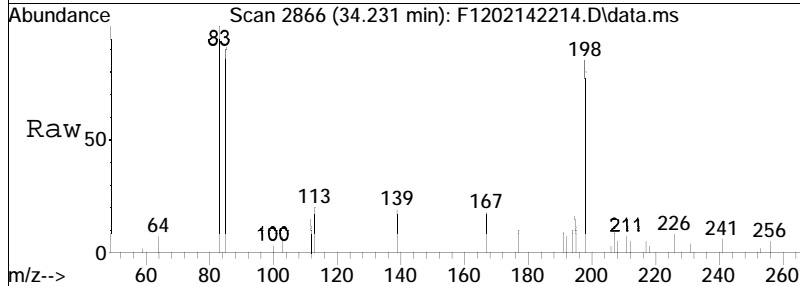


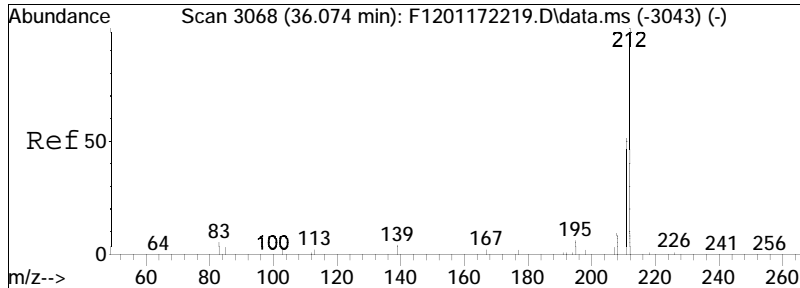
#34  
 1-Methyldibenzothiophene(1MDT)  
 Concen: 28.10 ng/mL  
 RT: 34.997 min Scan# 2950  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:198 Resp: 10880



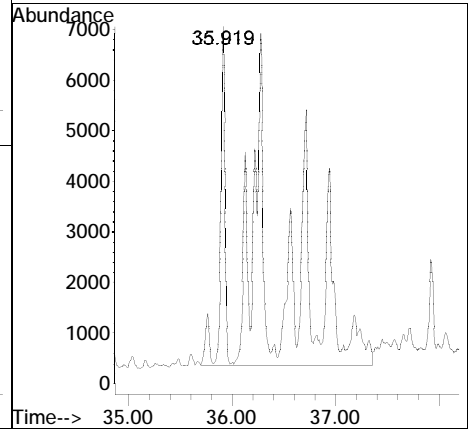
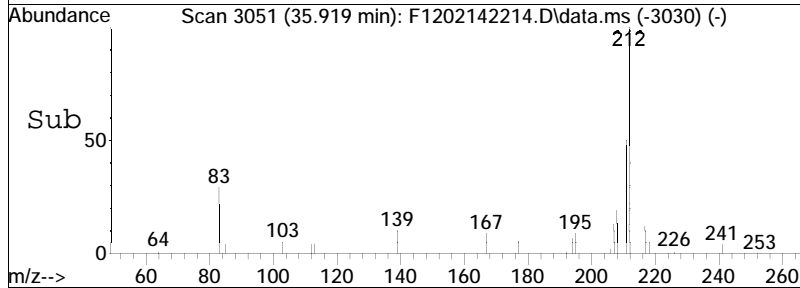
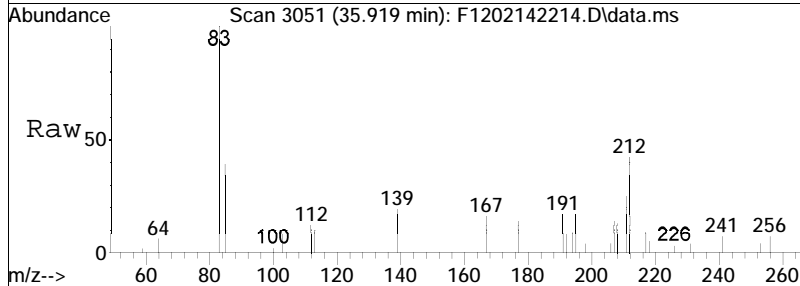


#36  
 Cl-Dibenzothiophenes  
 Concen: 288.36 ng/mL M5  
 RT: 34.231 min Scan# 2866  
 Delta R.T. -0.051 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:198 Resp: 111630

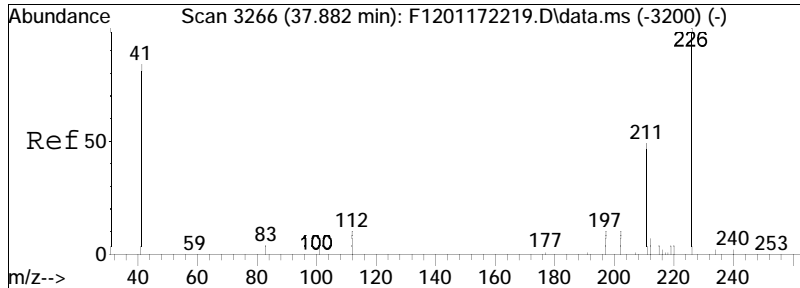




#37  
 C2-Dibenzothiophenes  
 Concen: 324.24 ng/mL M5  
 RT: 35.919 min Scan# 3051  
 Delta R.T. -0.046 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:212 Resp: 125520

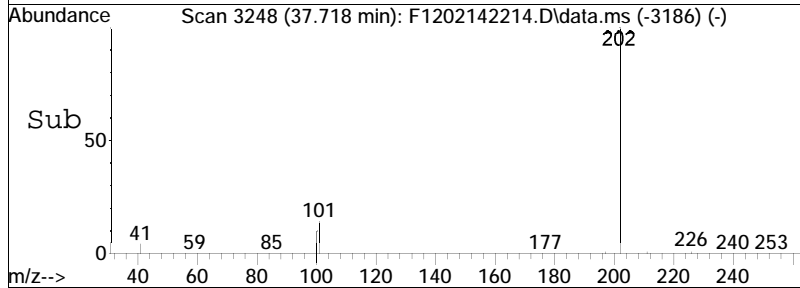
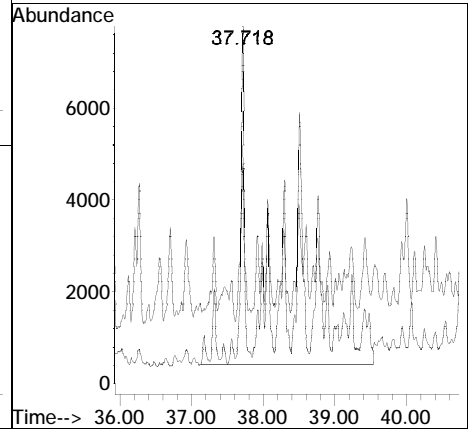
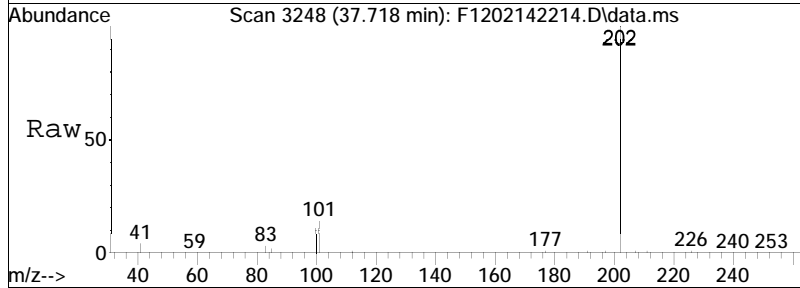


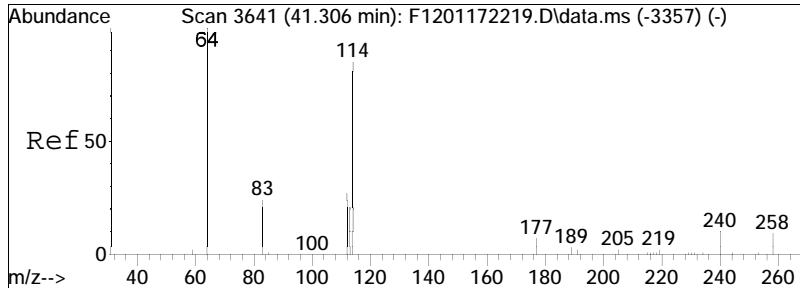




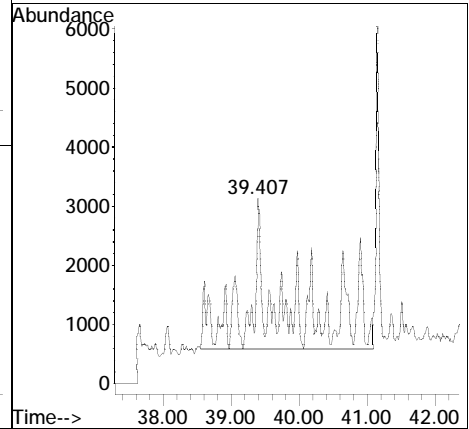
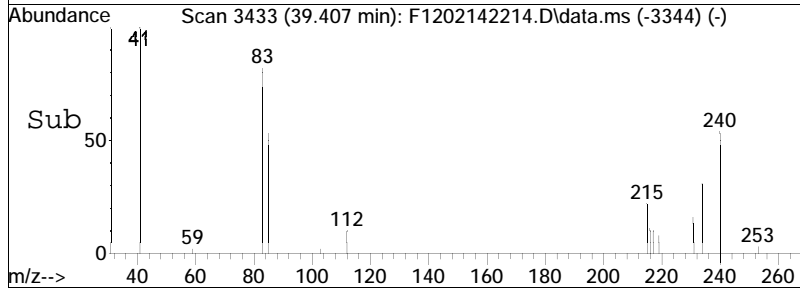
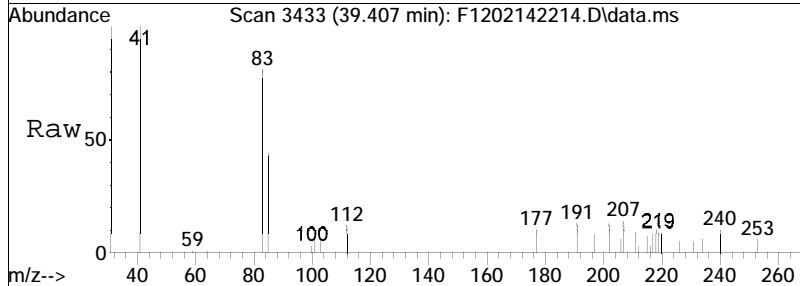
#38  
 C3-Dibenzothiophenes  
 Concen: 398.43 ng/mL M5  
 RT: 37.718 min Scan# 3248  
 Delta R.T. -0.050 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

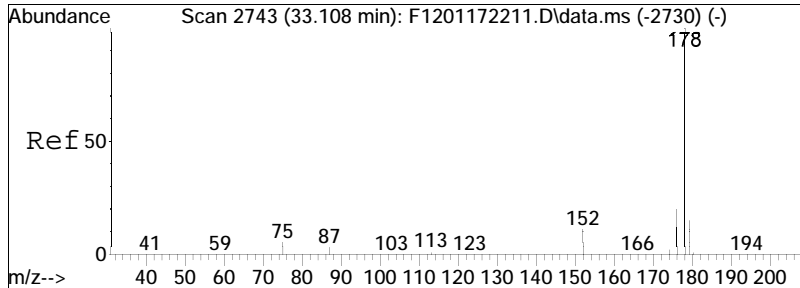
Tgt Ion	Resp	Lower	Upper
226	100		
211	9.0	37.5	69.7#





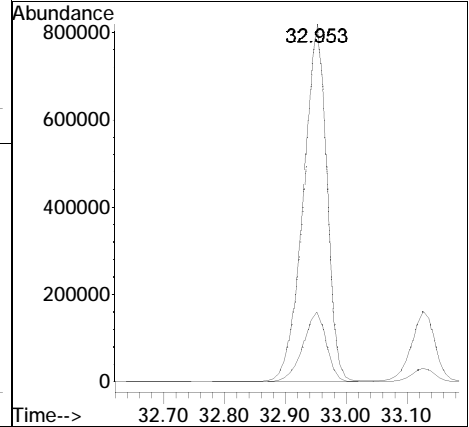
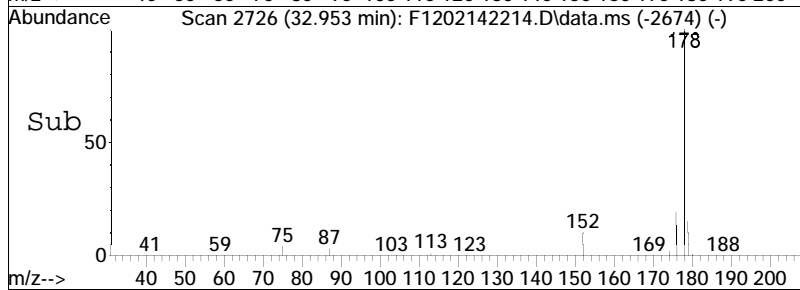
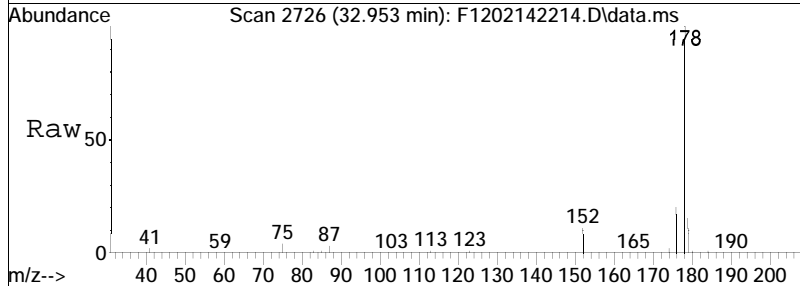
#39  
 C4-Dibenzothiophenes  
 Concen: 231.29 ng/mL M5  
 RT: 39.407 min Scan# 3433  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:240 Resp: 89539

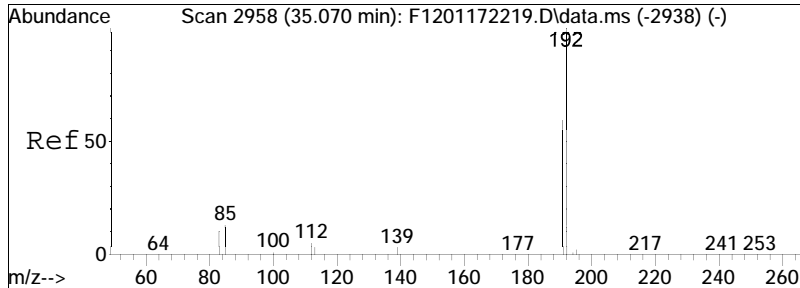




#41  
 Phenanthrene  
 Concen: 5482.32 ng/mL  
 RT: 32.953 min Scan# 2726  
 Delta R.T. -0.027 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

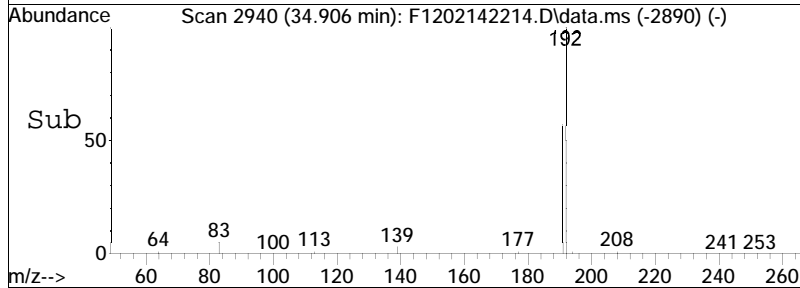
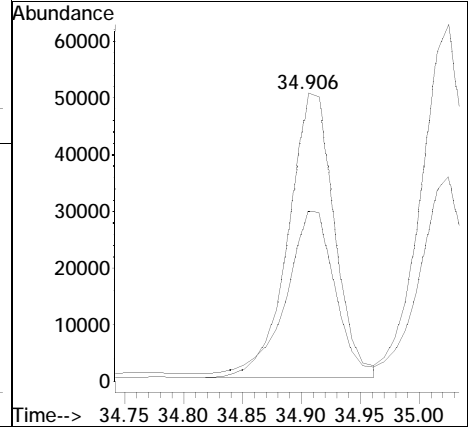
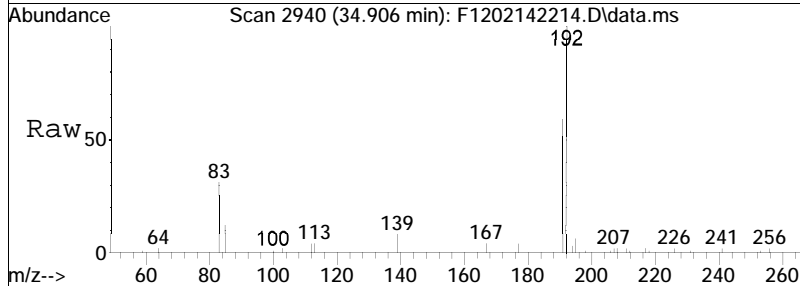
Tgt Ion	Resp	Lower	Upper
178	100		
176	19.5	14.8	27.6

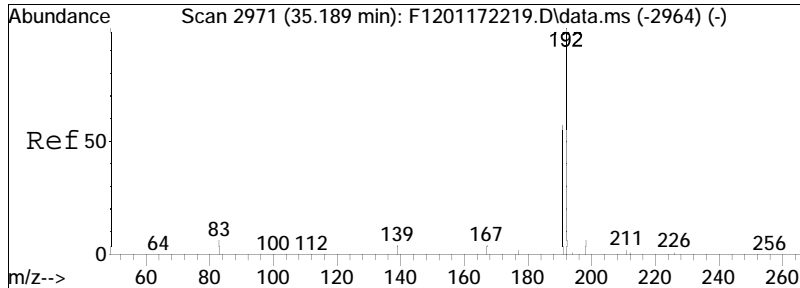




#42  
 3-Methylphenanthrene (3MP)  
 Concen: 342.53 ng/mL  
 RT: 34.906 min Scan# 2940  
 Delta R.T. -0.046 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

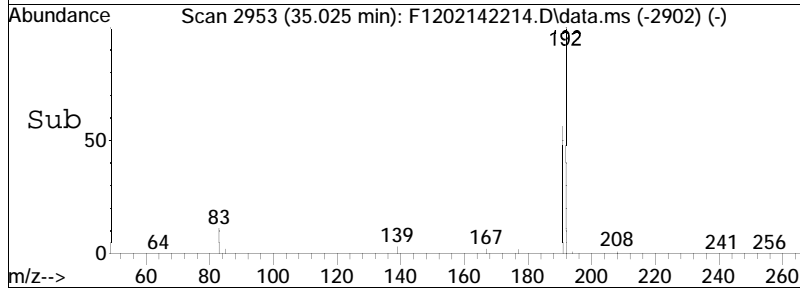
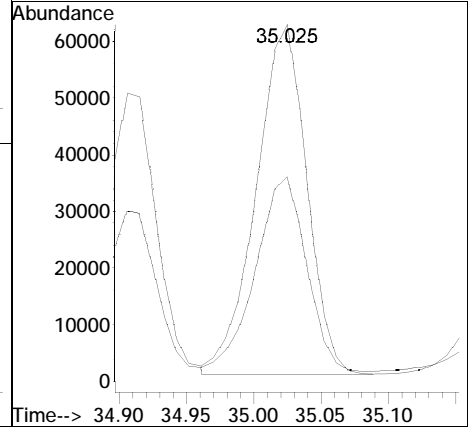
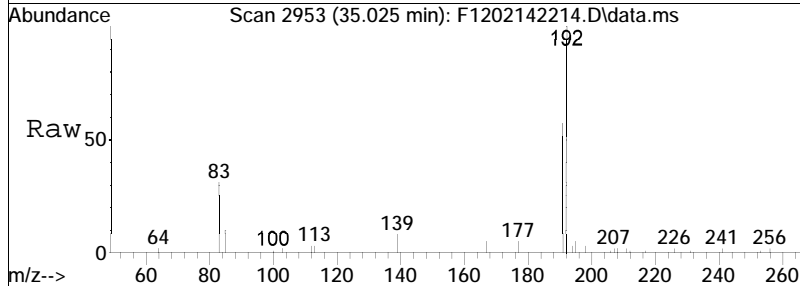
Tgt Ion	Resp	Lower	Upper
192	135509		
191	59.5	42.6	79.0

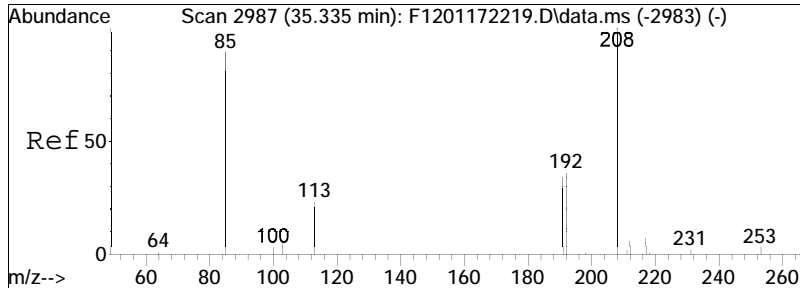




#43  
 2-Methylphenanthrene (2MP)  
 Concen: 406.45 ng/mL  
 RT: 35.025 min Scan# 2953  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

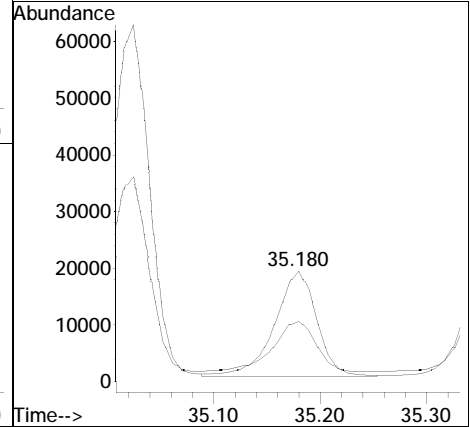
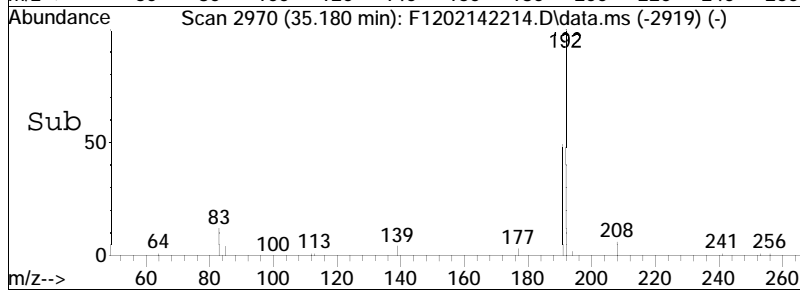
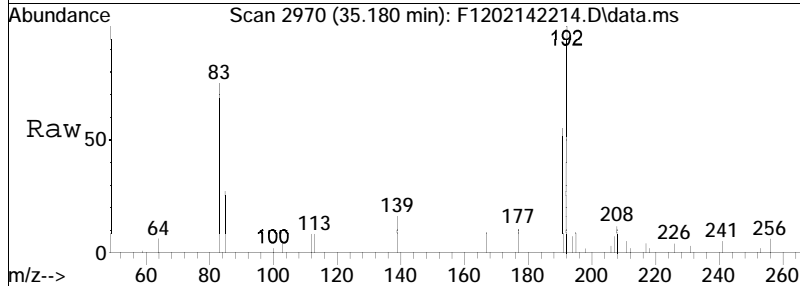
Tgt Ion: 192 Resp: 160796  
 Ion Ratio Lower Upper  
 192 100  
 191 55.7 41.5 77.1

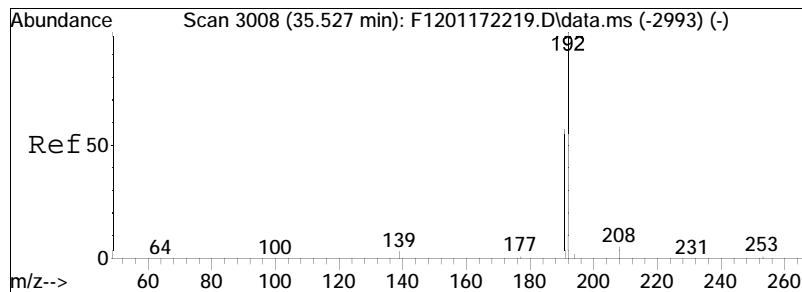




#44  
 2-Methylantracene(2MA)  
 Concen: 130.21 ng/mL M3  
 RT: 35.180 min Scan# 2970  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

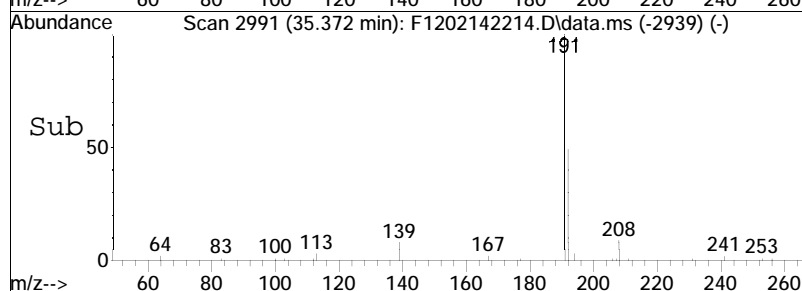
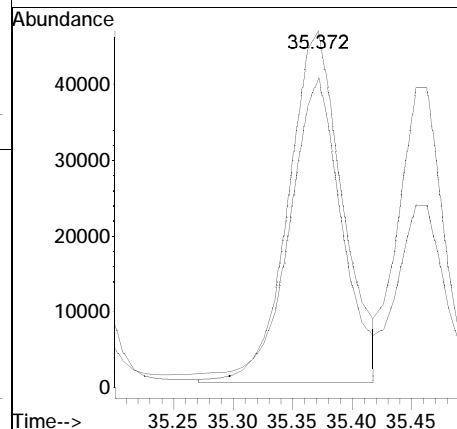
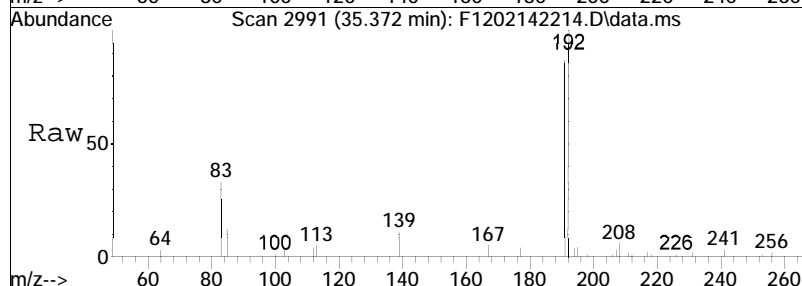
Tgt Ion:192 Resp: 51514  
 Ion Ratio Lower Upper  
 192 100  
 191 1.3 83.9 155.7#

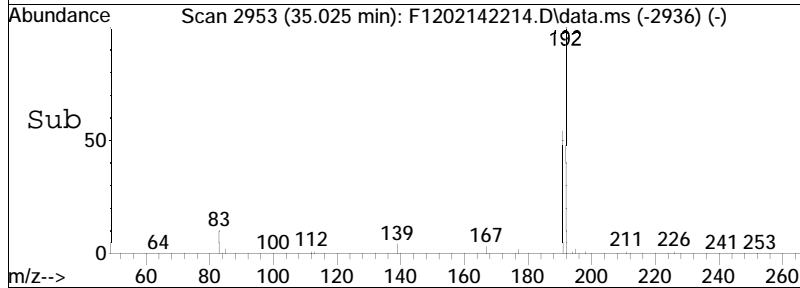
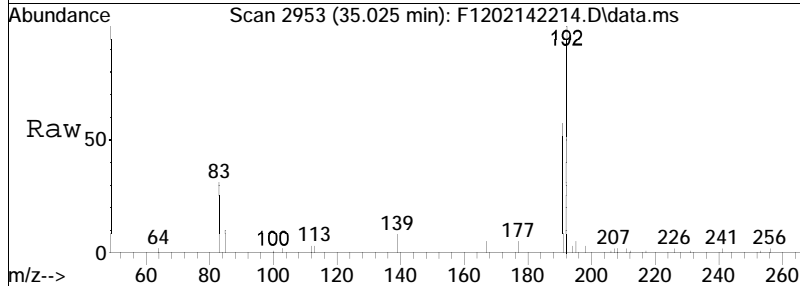
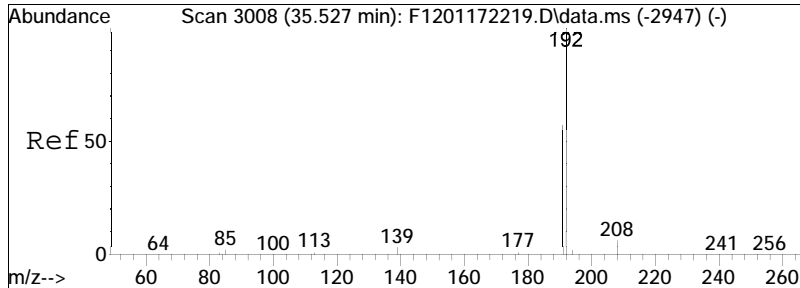




#45  
 9/4-Methylphenanthrene(9MP)  
 Concen: 372.31 ng/mL M3  
 RT: 35.372 min Scan# 2991  
 Delta R.T. -0.027 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

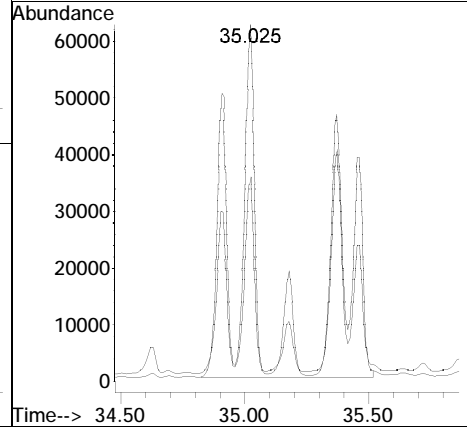
Tgt Ion	Resp	Lower	Upper
192	100		
191	41.1	41.5	77.1#



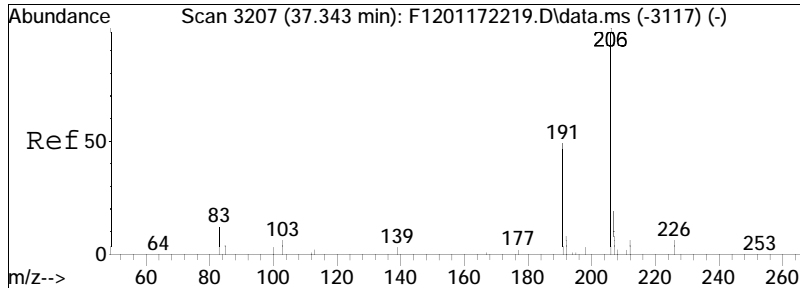


#47  
 Cl-Phenanthrenes/Anthracenes  
 Concen: 1520.15 ng/mL M5  
 RT: 35.025 min Scan# 2953  
 Delta R.T. -0.395 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

Tgt Ion	Ratio	Lower	Upper
192	100		
191	8.4	40.9	76.0#

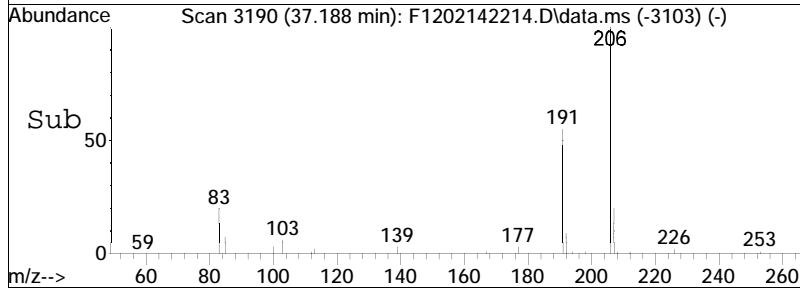
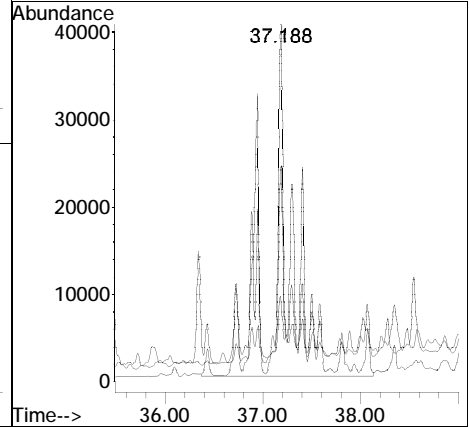
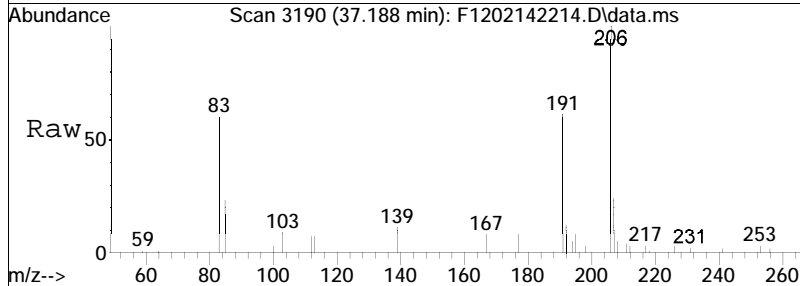


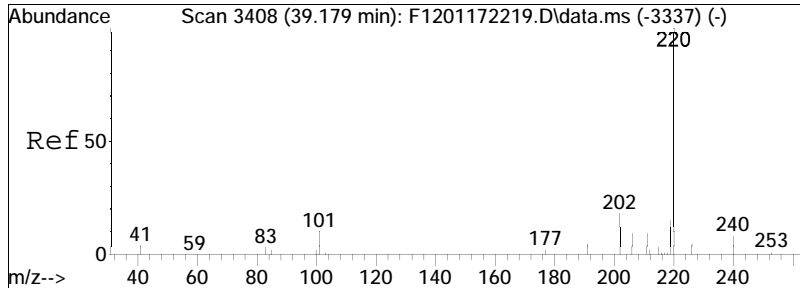




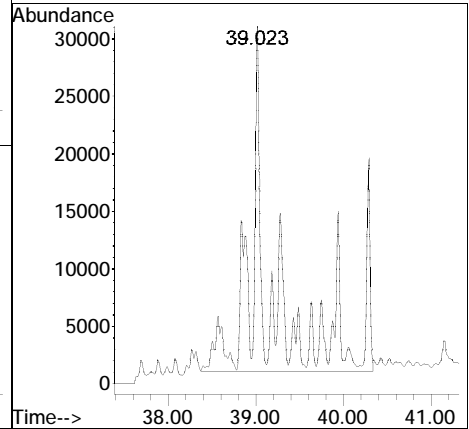
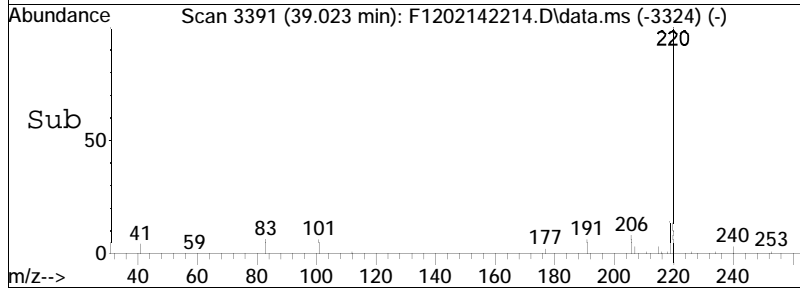
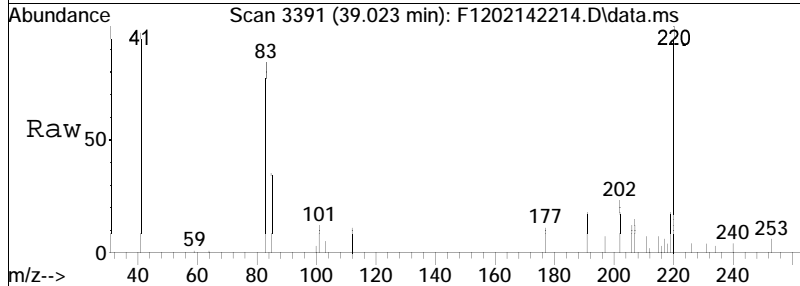
#48  
 C2-Phenanthrenes/Anthracenes  
 Concen: 1300.22 ng/mL M5  
 RT: 37.188 min Scan# 3190  
 Delta R.T. -0.042 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

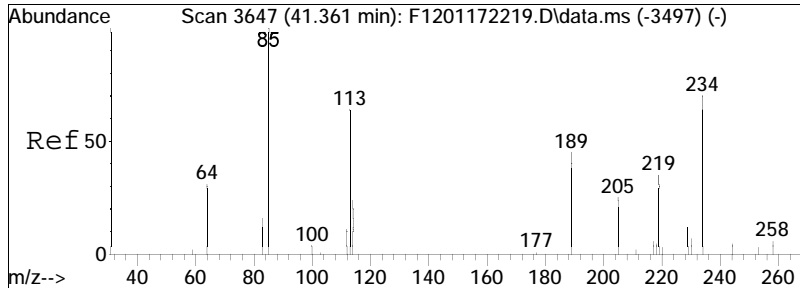
Tgt Ion	Ratio	Lower	Upper
206	100		
191	13.8	35.8	66.4#
207	5.9	14.7	27.3#





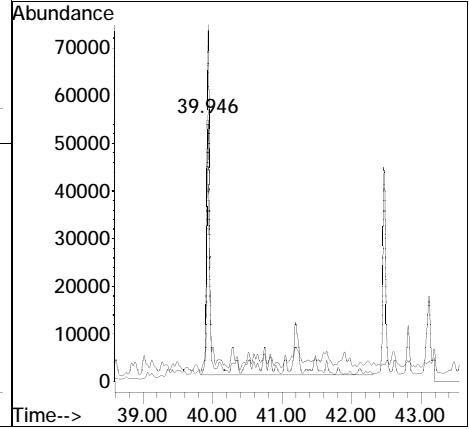
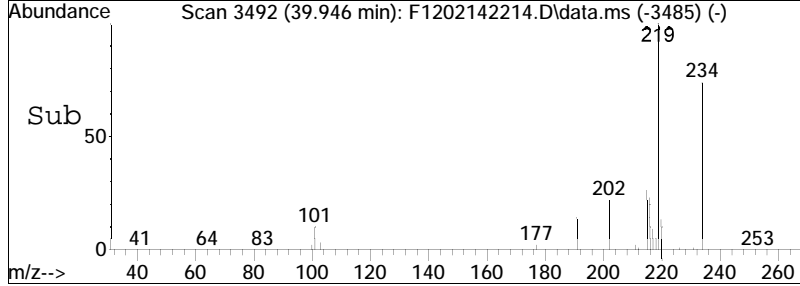
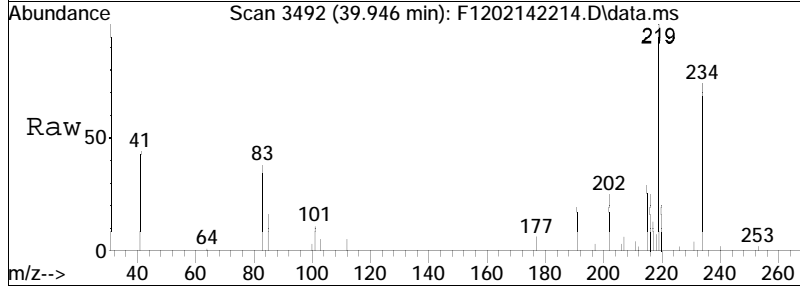
#50  
 C3-Phenanthrenes/Anthracenes  
 Concen: 1187.73 ng/mL M5  
 RT: 39.023 min Scan# 3391  
 Delta R.T. -0.037 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion: 220 Resp: 469883

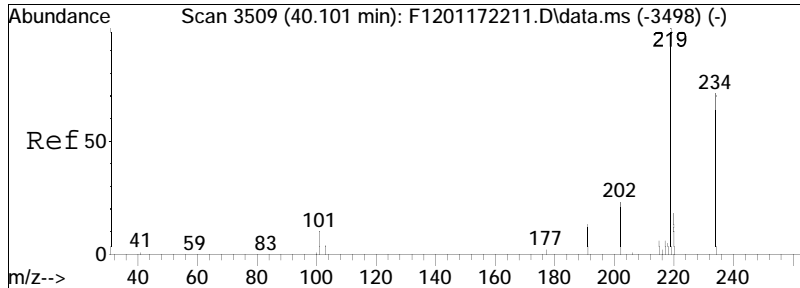




#51  
 C4-Phenanthrenes/Anthracenes  
 Concen: 912.94 ng/mL M5  
 RT: 39.946 min Scan# 3492  
 Delta R.T. -1.290 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

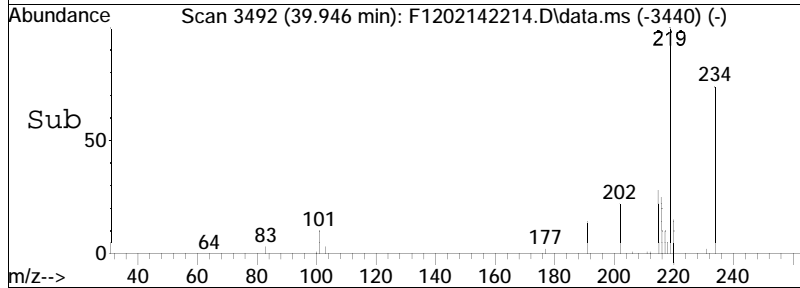
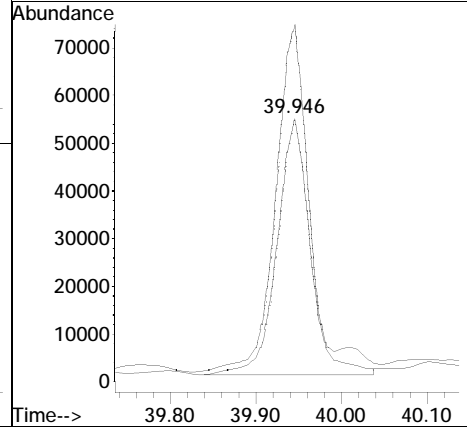
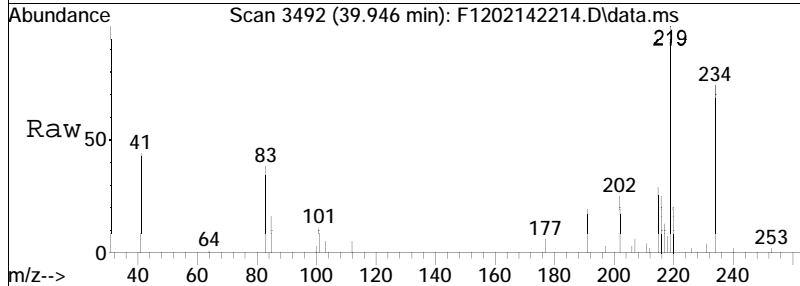
Tgt Ion: 234 Resp: 361172  
 Ion Ratio Lower Upper  
 234 100  
 219 1.4 41.7 77.5#

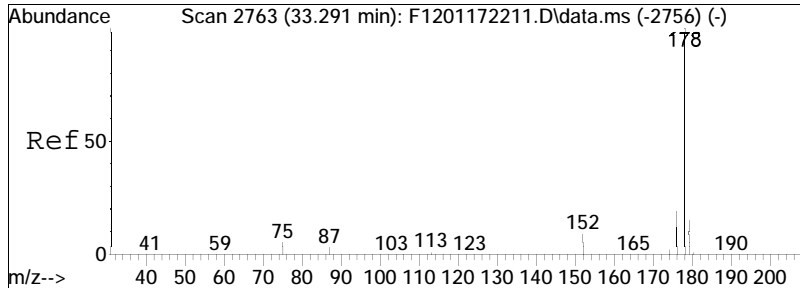




#52  
 Retene  
 Concen: 1095.76 ng/mL  
 RT: 39.946 min Scan# 3492  
 Delta R.T. -0.027 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

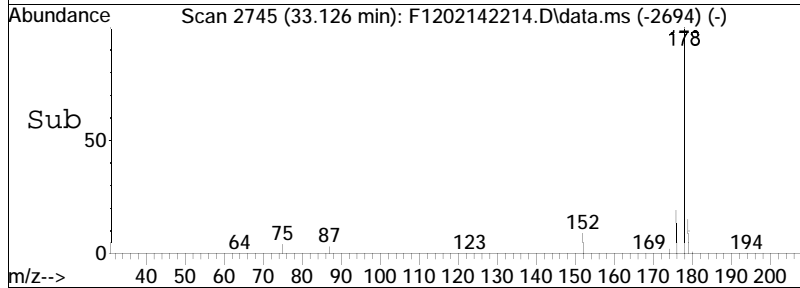
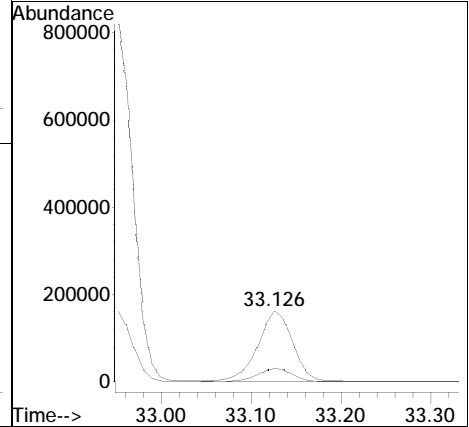
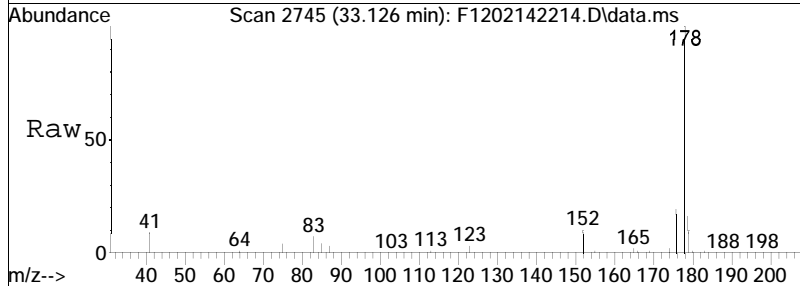
Tgt Ion: 234 Resp: 143663  
 Ion Ratio Lower Upper  
 234 100  
 219 130.2 94.0 174.6

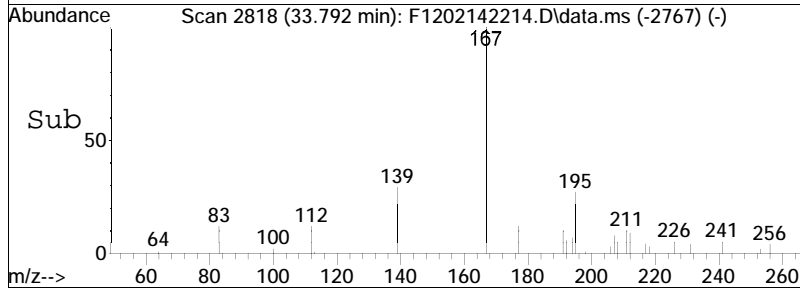
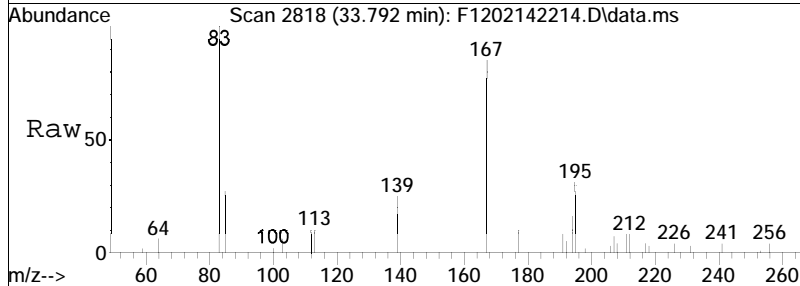
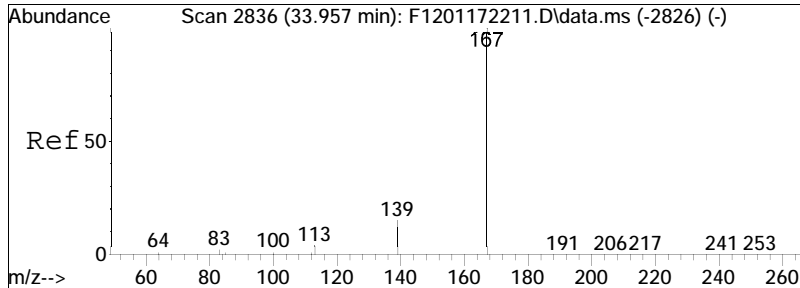




#53  
 Anthracene  
 Concen: 1157.02 ng/mL  
 RT: 33.126 min Scan# 2745  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

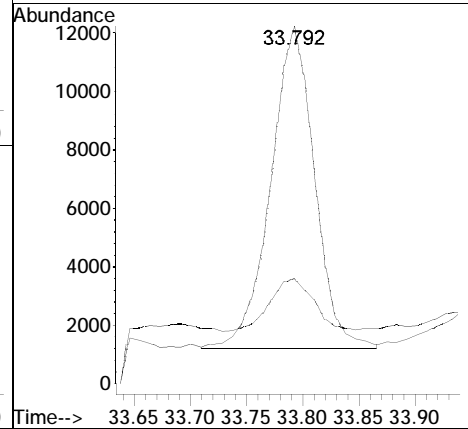
Tgt Ion	Resp	Lower	Upper
178	100		
176	18.9	13.4	24.8

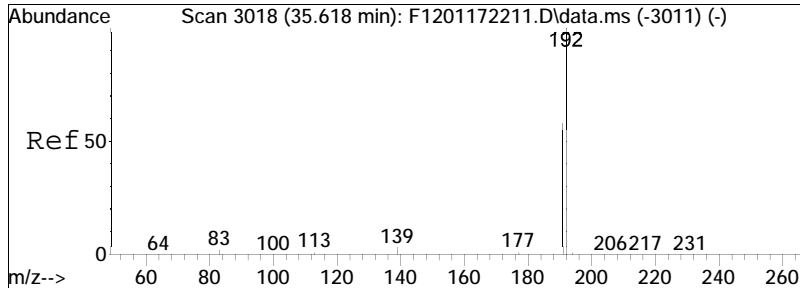




#54  
 Carbazole  
 Concen: 77.82 ng/mL M4  
 RT: 33.792 min Scan# 2818  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

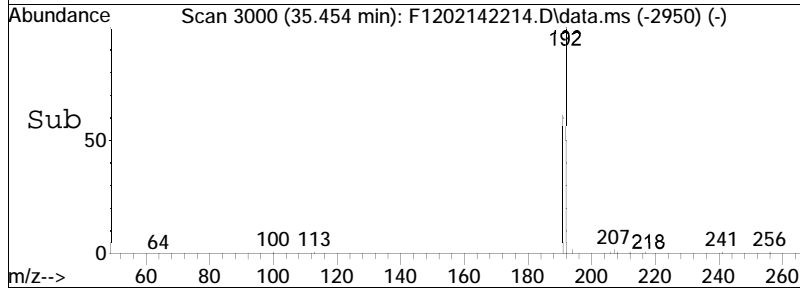
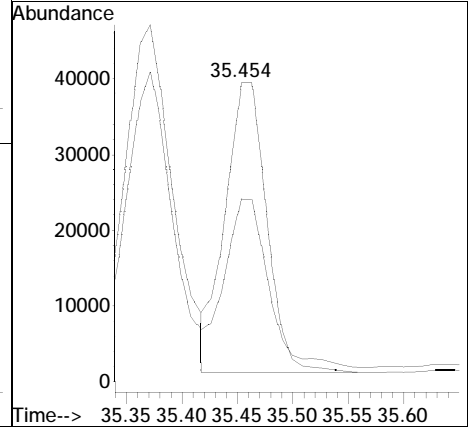
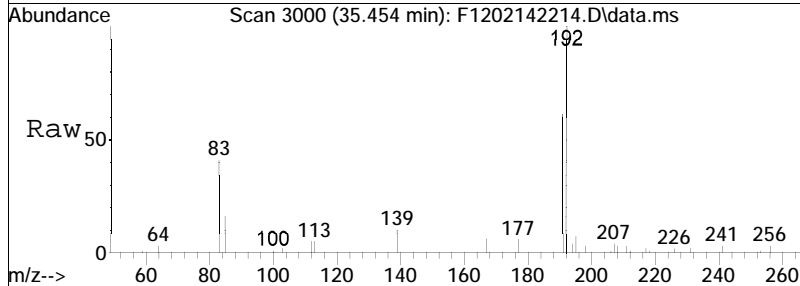
Tgt Ion: 167 Resp: 29777  
 Ion Ratio Lower Upper  
 167 100  
 139 24.1 10.3 19.1#

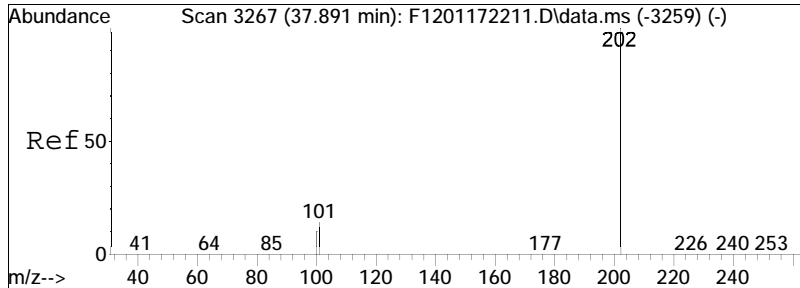




#55  
 1-Methylphenanthrene  
 Concen: 375.41 ng/mL  
 RT: 35.454 min Scan# 3000  
 Delta R.T. -0.046 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

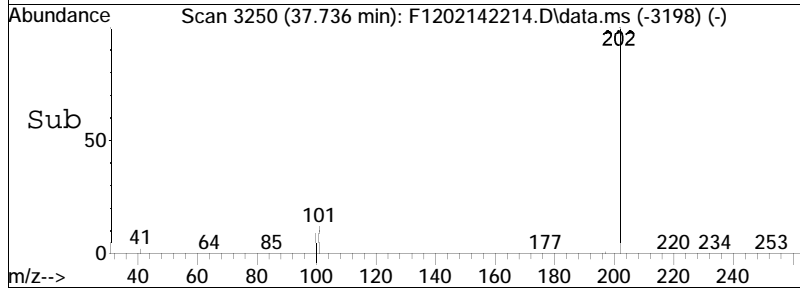
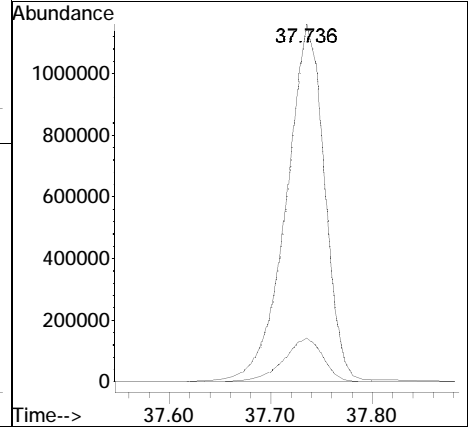
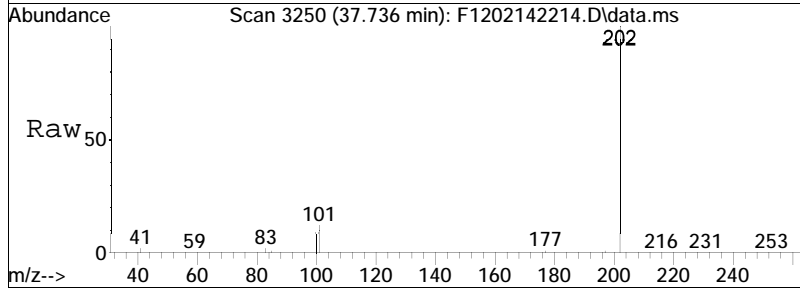
Tgt Ion: 192 Resp: 99782  
 Ion Ratio Lower Upper  
 192 100  
 191 60.6 42.6 79.0



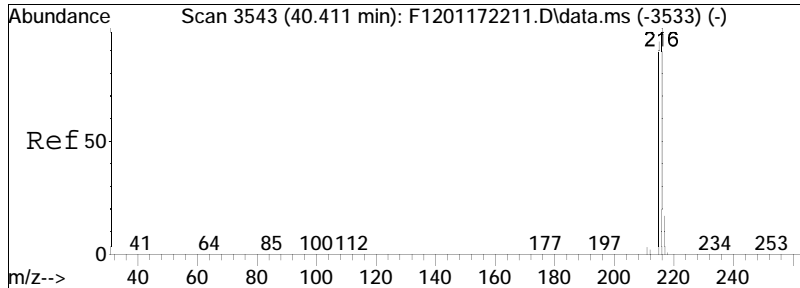


#56  
 Fluoranthene  
 Concen: 7575.94 ng/mL M4  
 RT: 37.736 min Scan# 3250  
 Delta R.T. -0.027 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

Tgt Ion	Resp	Lower	Upper
202	100		
101	13.2	8.4	15.6

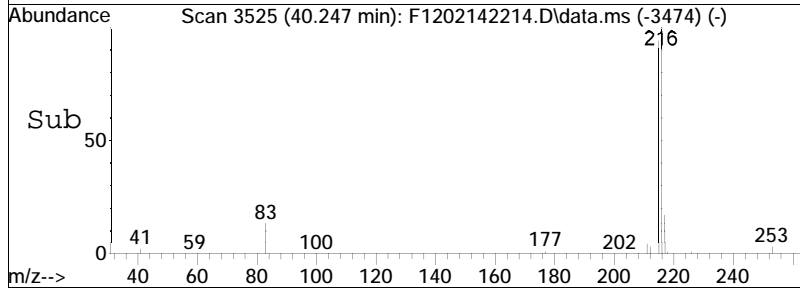
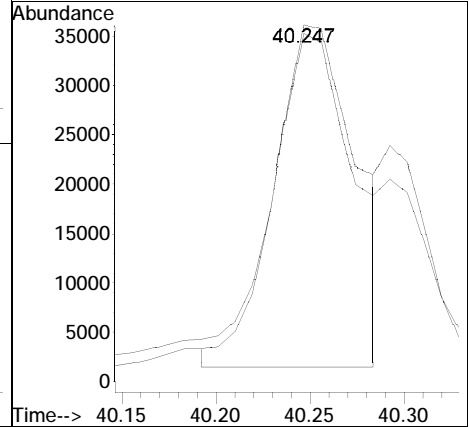
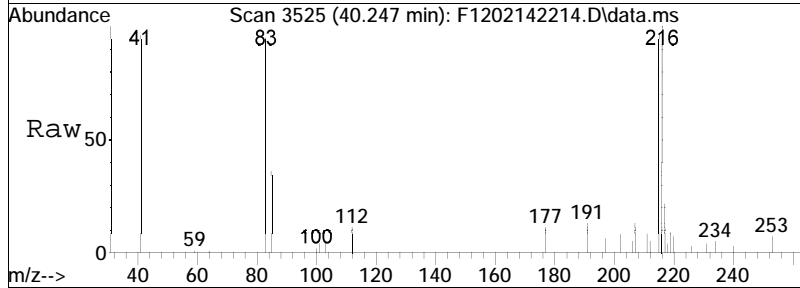


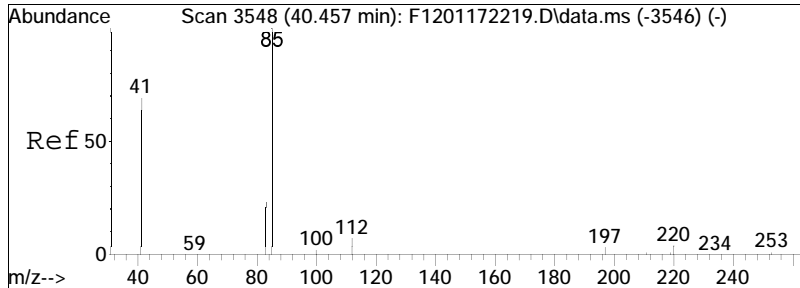




#57  
 Benzo(b)fluorene  
 Concen: 417.11 ng/mL M4  
 RT: 40.247 min Scan# 3525  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

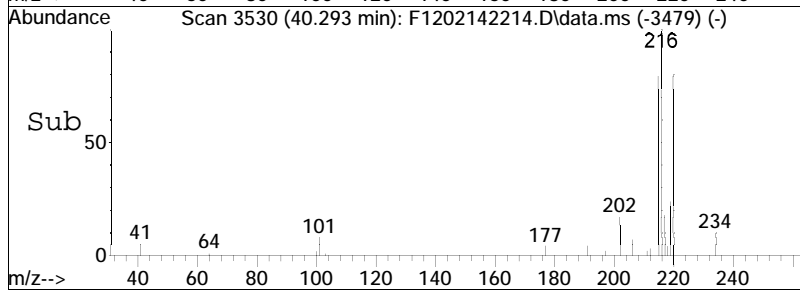
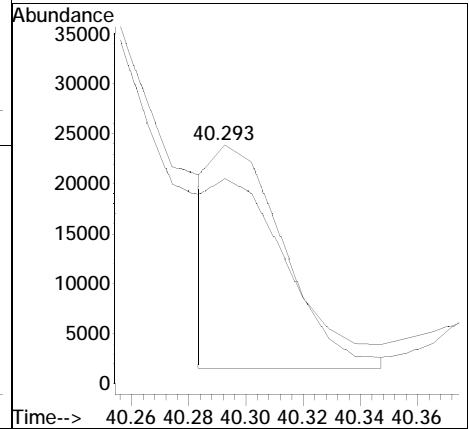
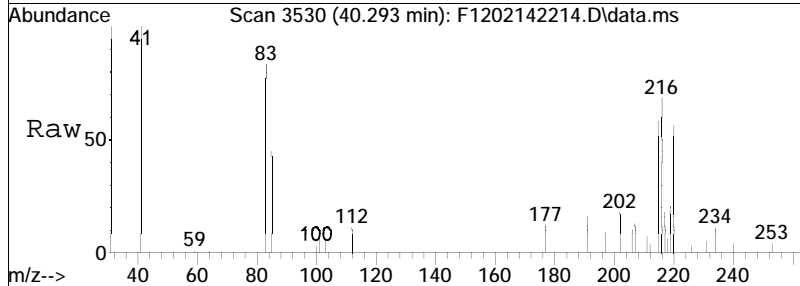
Tgt Ion: 216 Resp: 104275  
 Ion Ratio Lower Upper  
 216 100  
 215 125.0 91.7 170.3

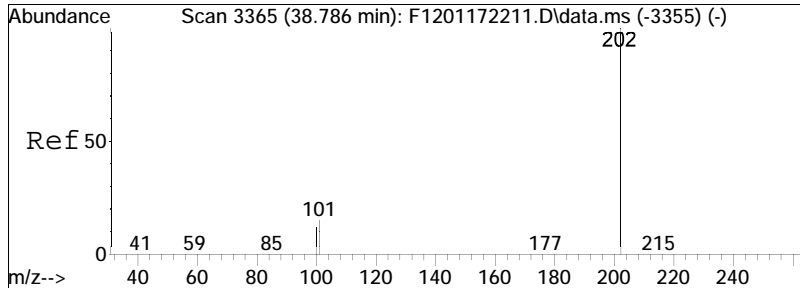




#58  
 7H-Benzo(c)fluorene  
 Concen: 152.31 ng/mL M3  
 RT: 40.293 min Scan# 3530  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

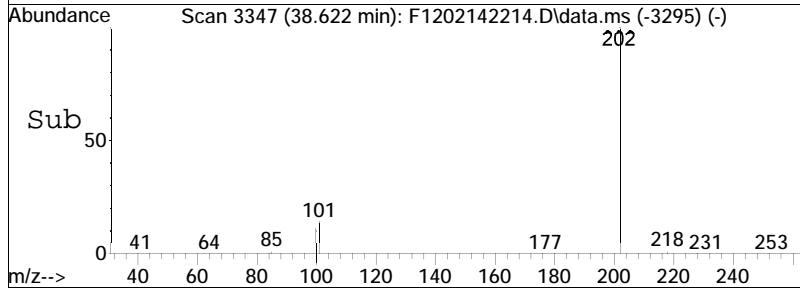
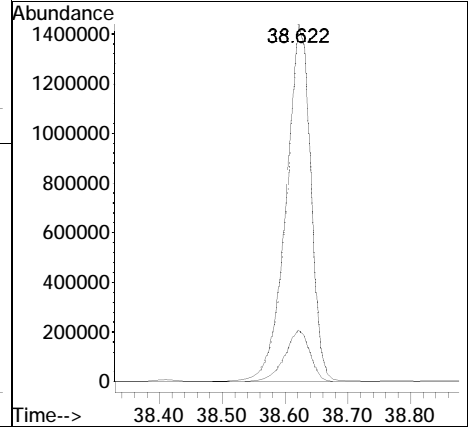
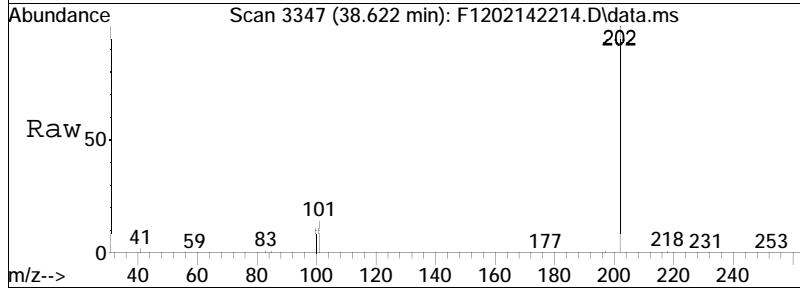
Tgt Ion: 216 Resp: 38075  
 Ion Ratio Lower Upper  
 216 100  
 215 342.2 99.9 185.5#

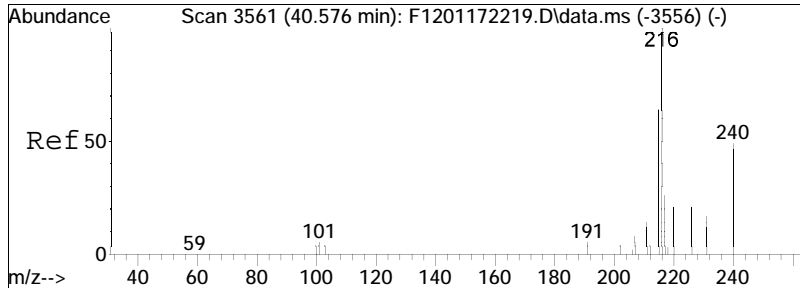




#59  
 Pyrene  
 Concen: 9362.24 ng/mL  
 RT: 38.622 min Scan# 3347  
 Delta R.T. -0.027 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

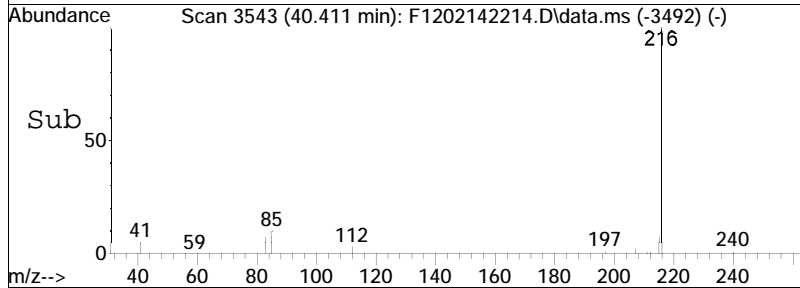
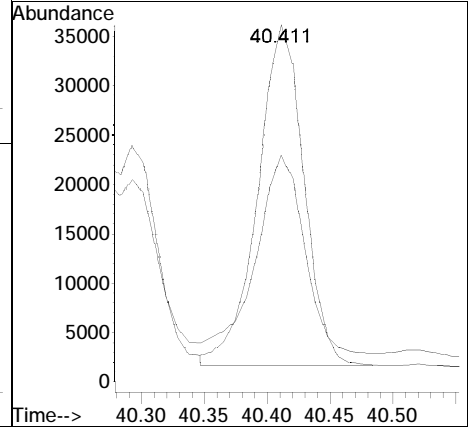
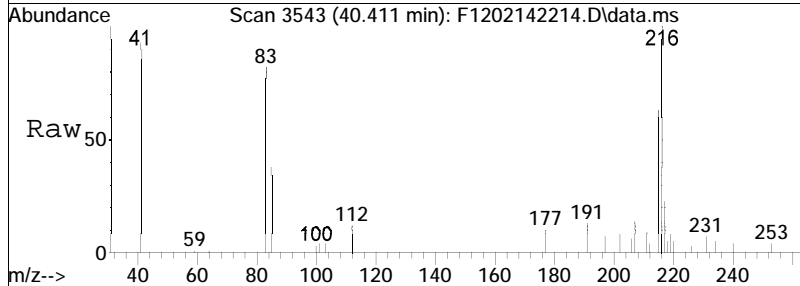
Tgt Ion	Resp	Lower	Upper
202	3854491		
101	14.9	21.0	39.0#

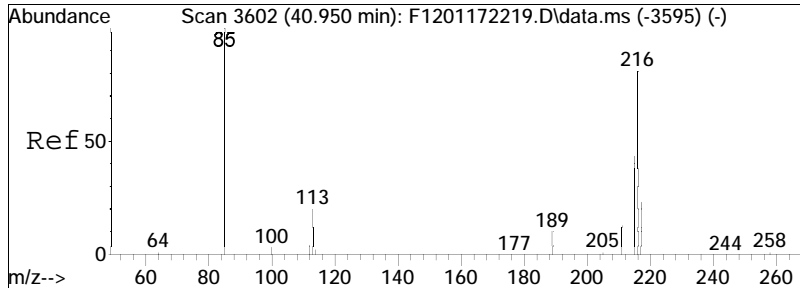




#60  
 2-Methylpyrene  
 Concen: 213.48 ng/mL M3  
 RT: 40.411 min Scan# 3543  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

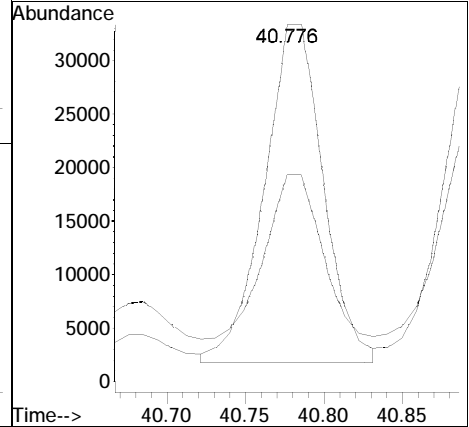
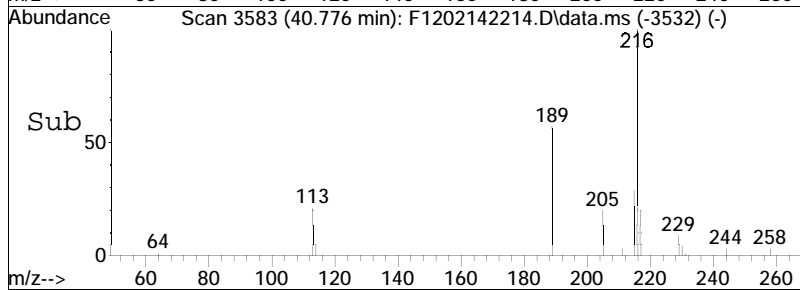
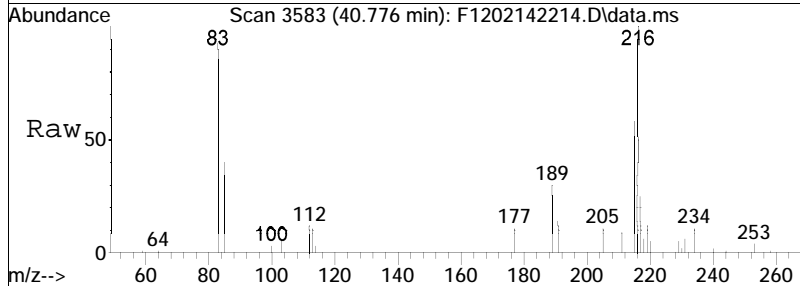
Tgt Ion: 216 Resp: 87889  
 Ion Ratio Lower Upper  
 216 100  
 215 148.2 70.0 130.0#

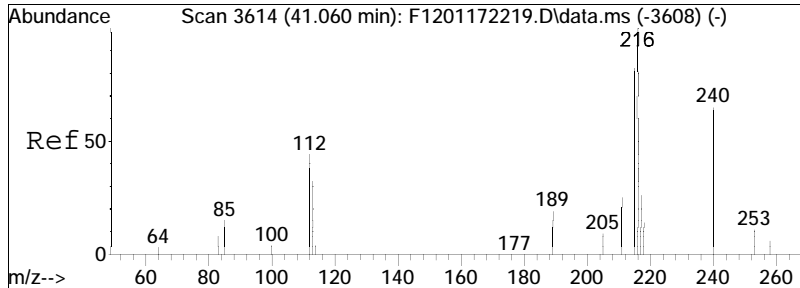




#61  
 4-Methylpyrene  
 Concen: 200.64 ng/mL  
 RT: 40.776 min Scan# 3583  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

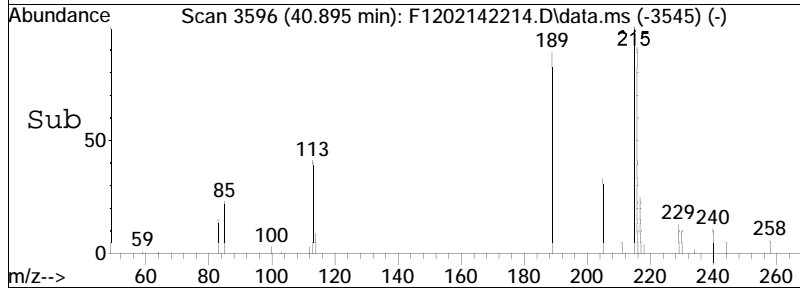
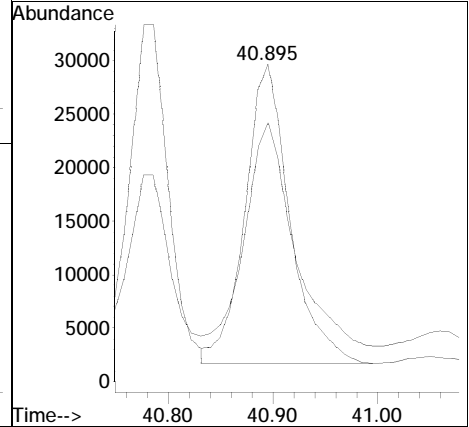
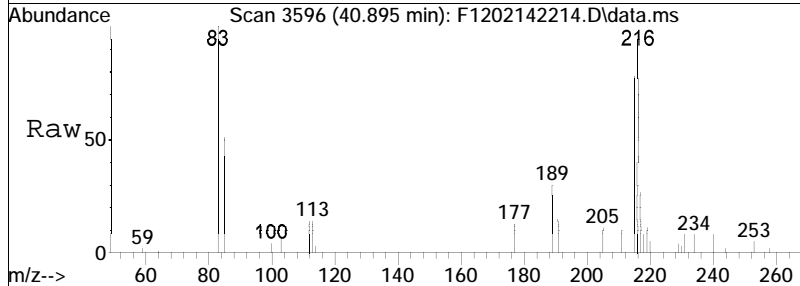
Tgt Ion:	216	Resp:	82605
Ion Ratio	Lower	Upper	
216	100		
215	51.6	51.2	95.2

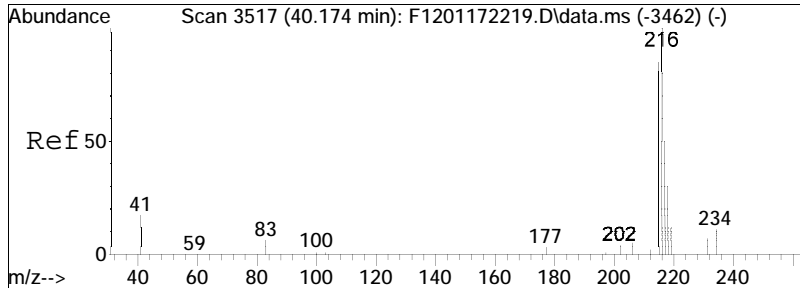




#62  
 1-Methylpyrene  
 Concen: 202.60 ng/mL  
 RT: 40.895 min Scan# 3596  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

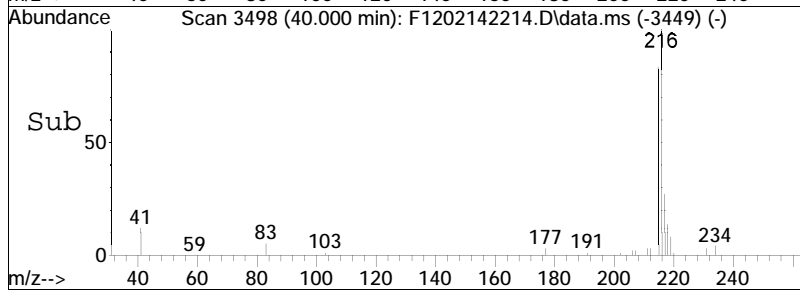
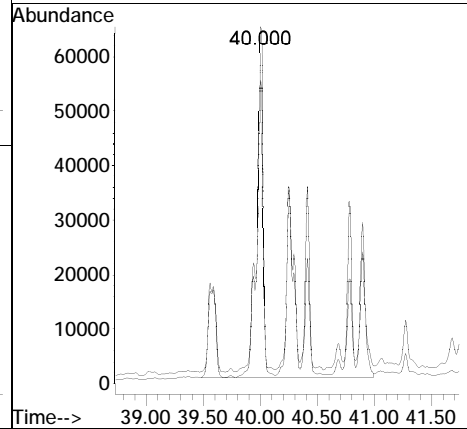
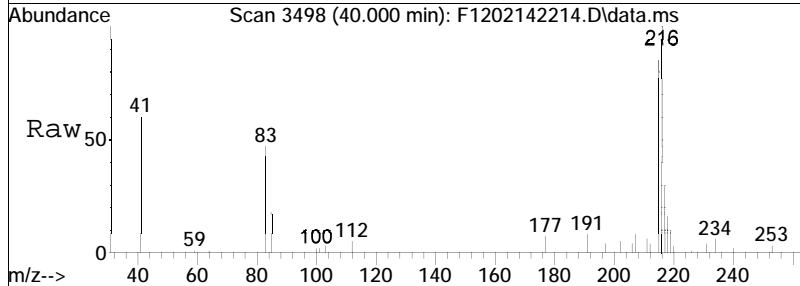
Tgt Ion: 216 Resp: 83412  
 Ion Ratio Lower Upper  
 216 100  
 215 78.5 76.4 141.8

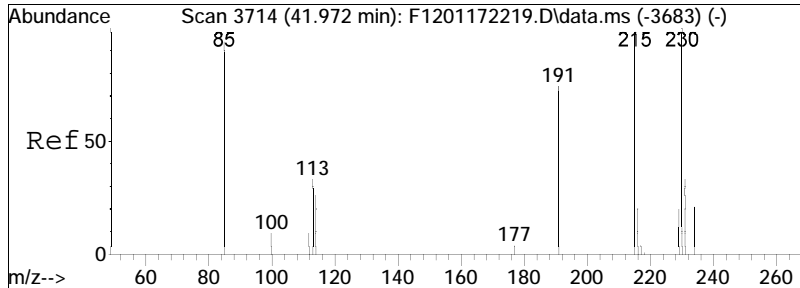




#63  
 Cl-Fluoranthenes/Pyrenes  
 Concen: 1860.34 ng/mL M5  
 RT: 40.000 min Scan# 3498  
 Delta R.T. -0.052 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

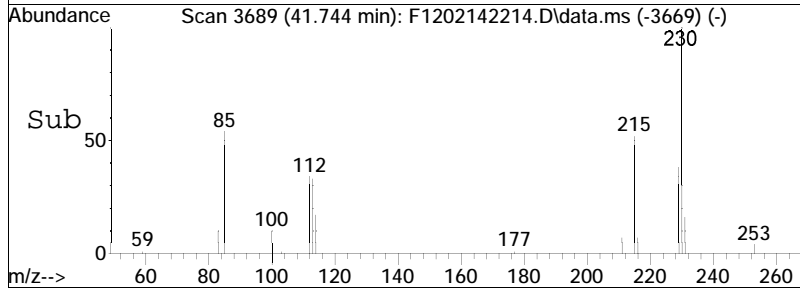
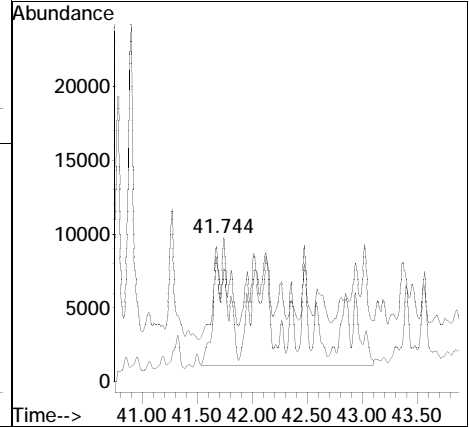
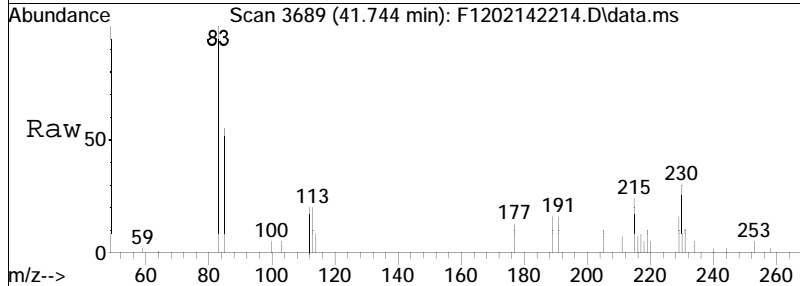
Tgt Ion	Resp	Lower	Upper
216	100		
215	20.2	65.7	122.1#



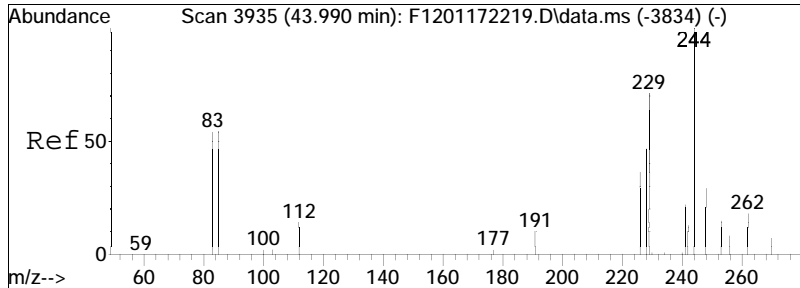


#64  
 C2-Fluoranthenes/Pyrenes  
 Concen: 678.58 ng/mL M5  
 RT: 41.744 min Scan# 3689  
 Delta R.T. -0.101 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

Tgt Ion	Ratio	Lower	Upper
230	100		
215	4.8	79.5	147.7#

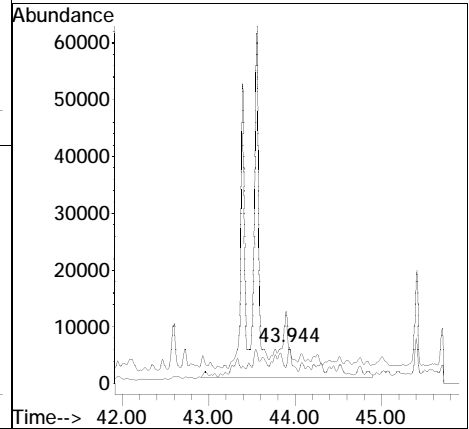
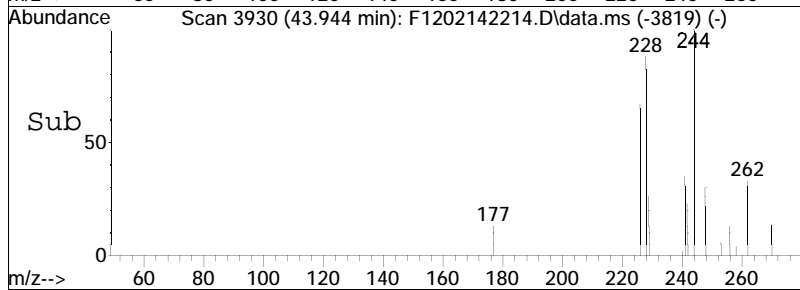
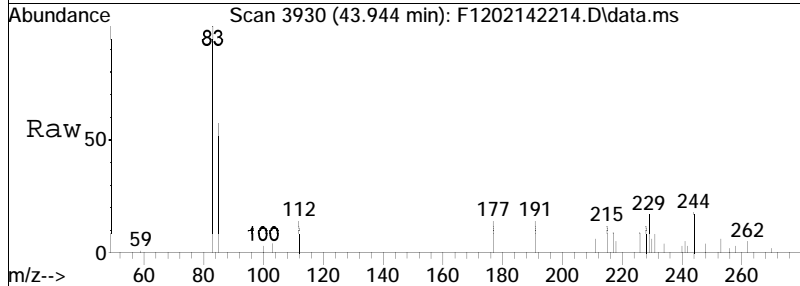


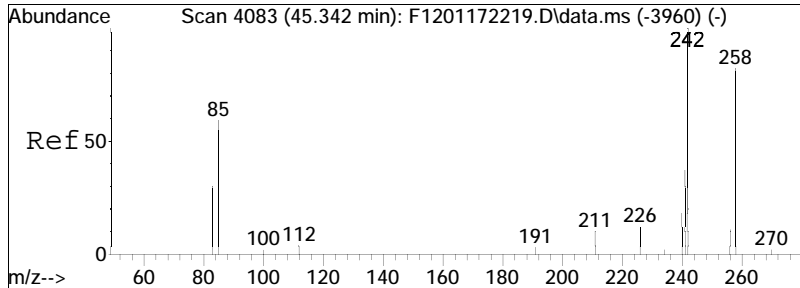




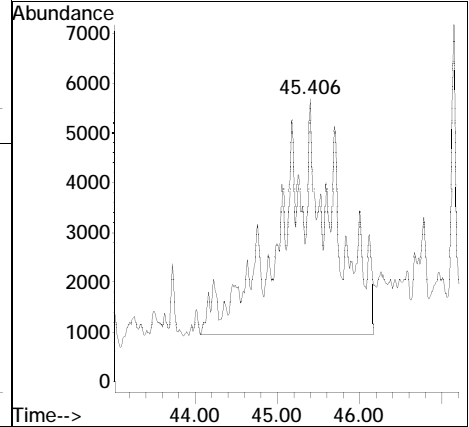
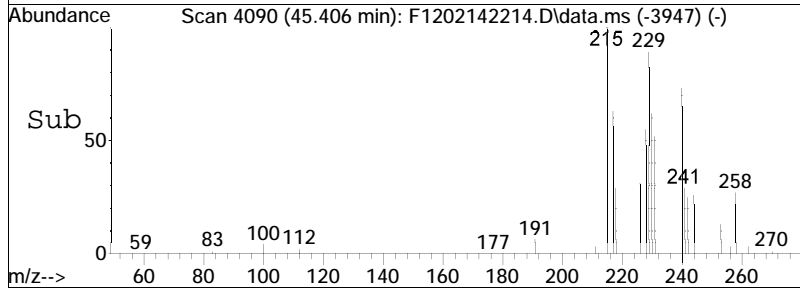
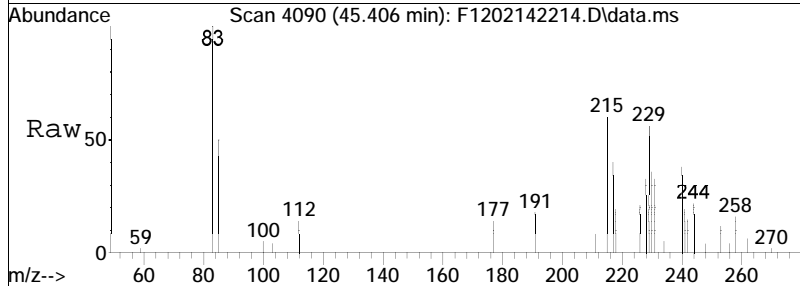
#65  
 C3-Fluoranthenes/Pyrenes  
 Concen: 510.39 ng/mL M5  
 RT: 43.944 min Scan# 3930  
 Delta R.T. 0.087 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

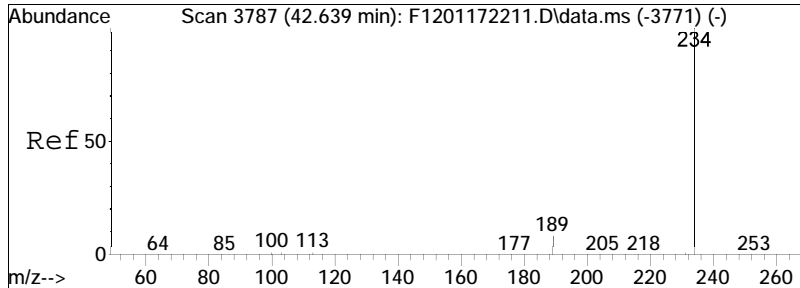
Tgt Ion	Resp	Lower	Upper
244	100		
229	1.9	65.4	121.4#





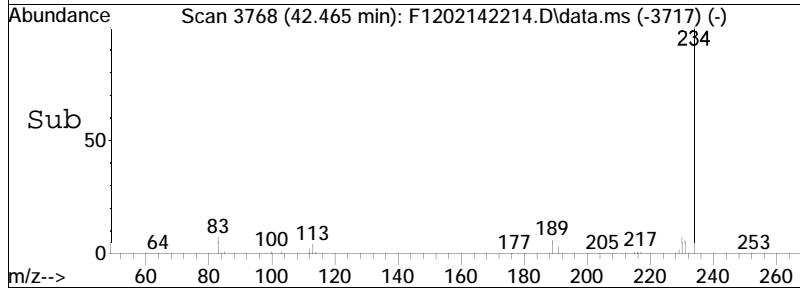
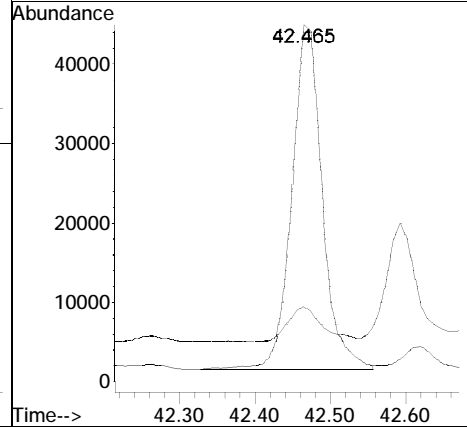
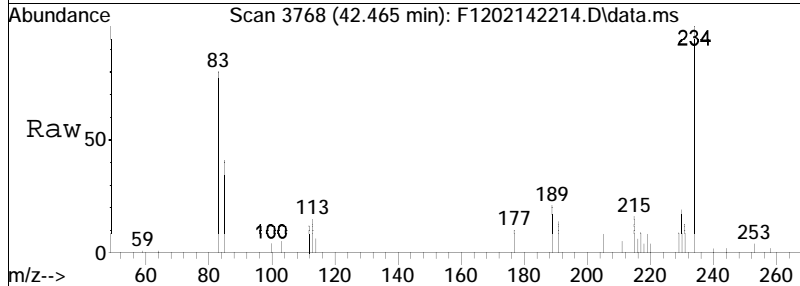
#66  
 C4-Fluoranthenes/Pyrenes  
 Concen: 506.05 ng/mL M5  
 RT: 45.406 min Scan# 4090  
 Delta R.T. 0.192 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:258 Resp: 208343

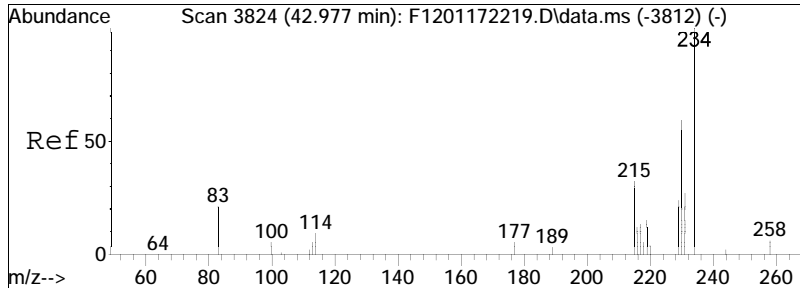




#67  
 Naphthobenzothiophene-2,1-D  
 Concen: 292.80 ng/mL  
 RT: 42.465 min Scan# 3768  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

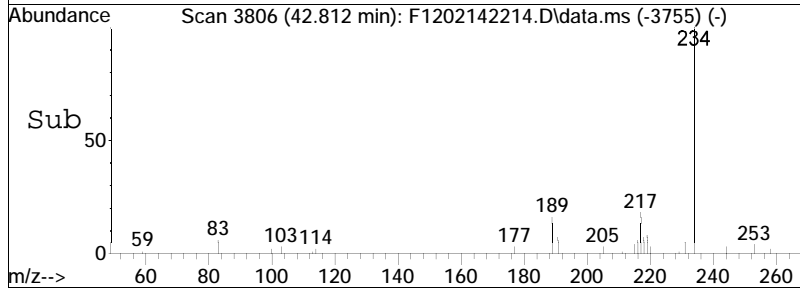
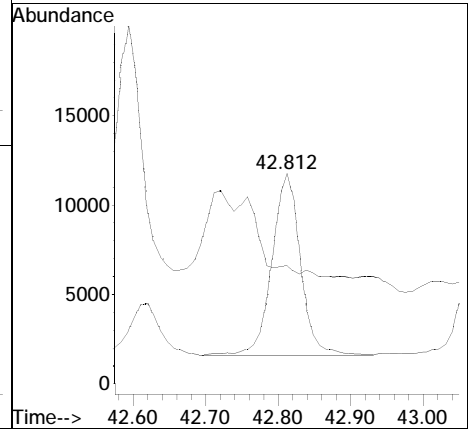
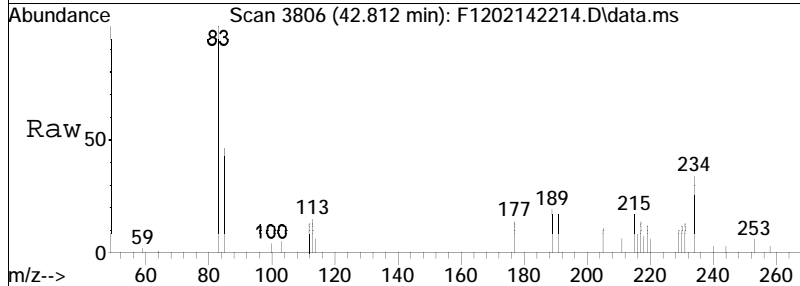
Tgt Ion	Resp	Lower	Upper
234	120847		
189	12.3	18.9	35.1#

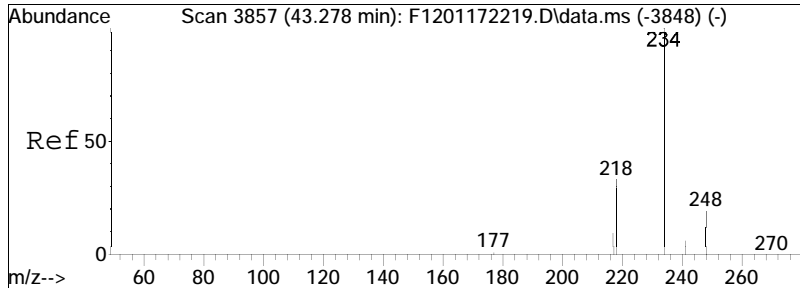




#68  
 Naphthobenzothiophene-1,2-D  
 Concen: 67.78 ng/mL  
 RT: 42.812 min Scan# 3806  
 Delta R.T. -0.036 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

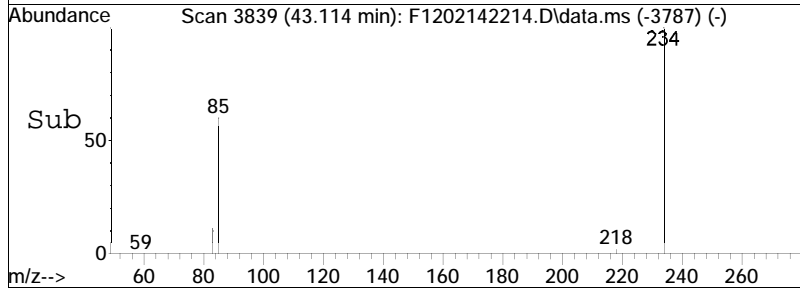
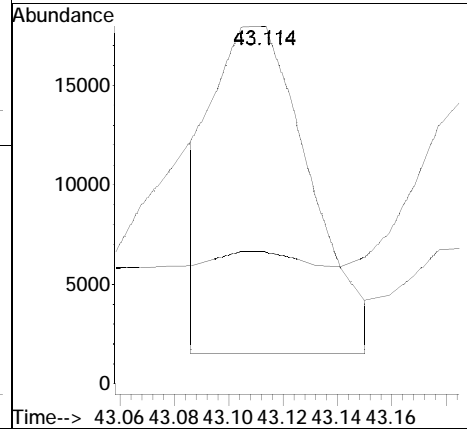
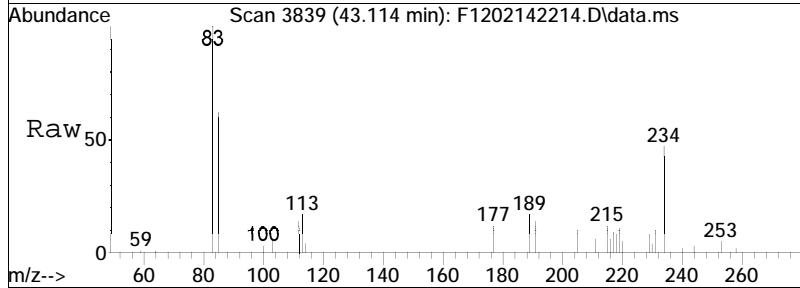
Tgt Ion: 234 Resp: 27975  
 Ion Ratio Lower Upper  
 234 100  
 189 0.0 53.0 98.4#

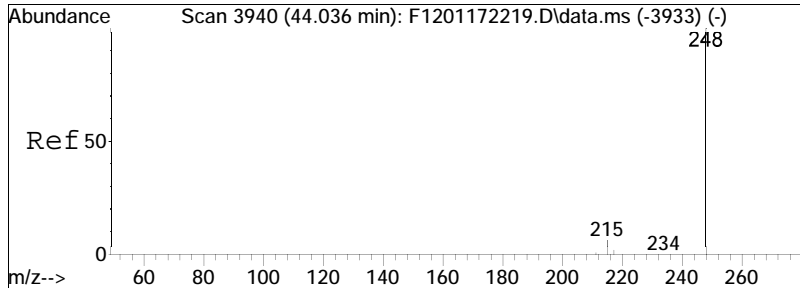




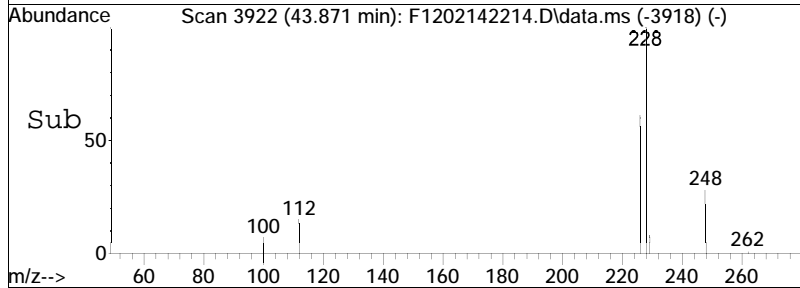
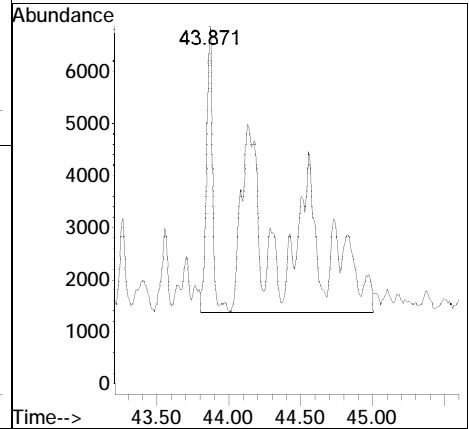
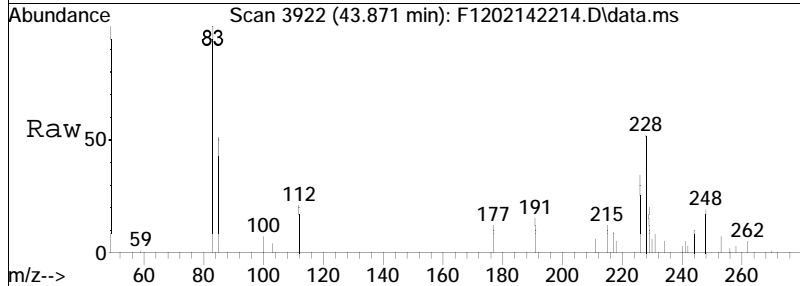
#69  
 Naphthobenzothiophene-2,3-D  
 Concen: 97.82 ng/mL M3  
 RT: 43.114 min Scan# 3839  
 Delta R.T. -0.027 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

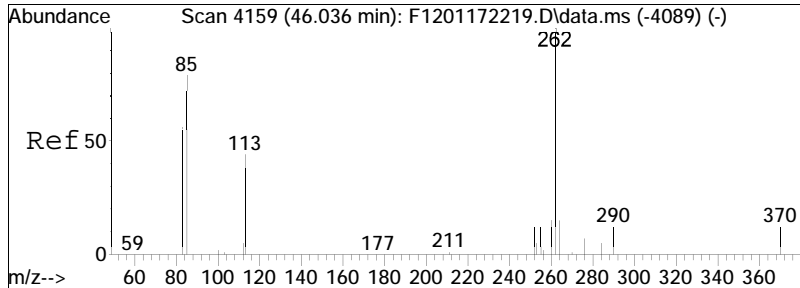
Tgt Ion: 234 Resp: 40372  
 Ion Ratio Lower Upper  
 234 100  
 189 0.0 77.6 144.0#



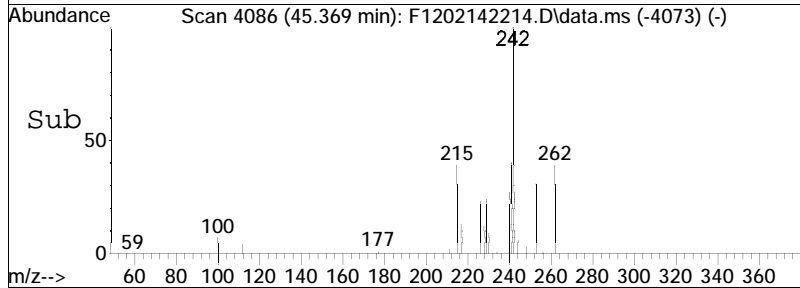
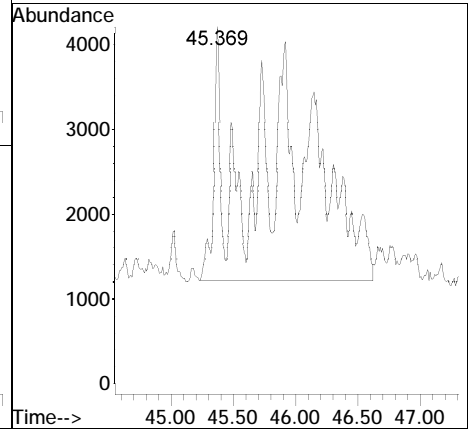
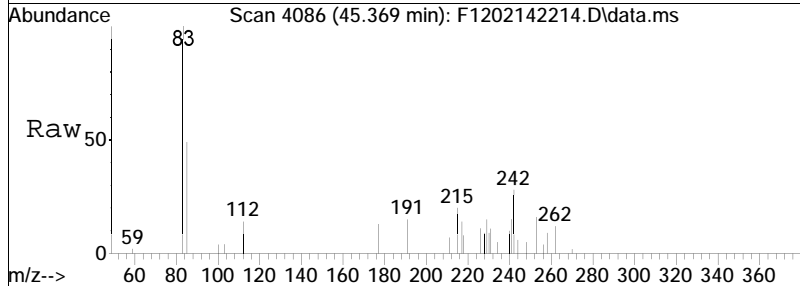


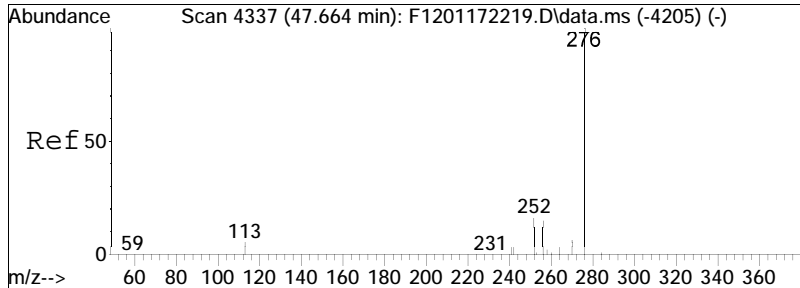
#70  
 C1-Naphthobenzothiophenes  
 Concen: 225.74 ng/ml M5  
 RT: 43.871 min Scan# 3922  
 Delta R.T. -0.031 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:248 Resp: 93171



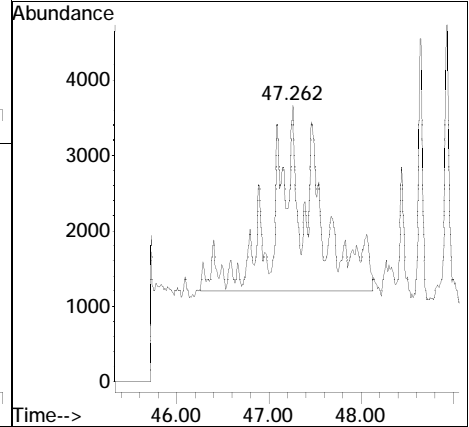
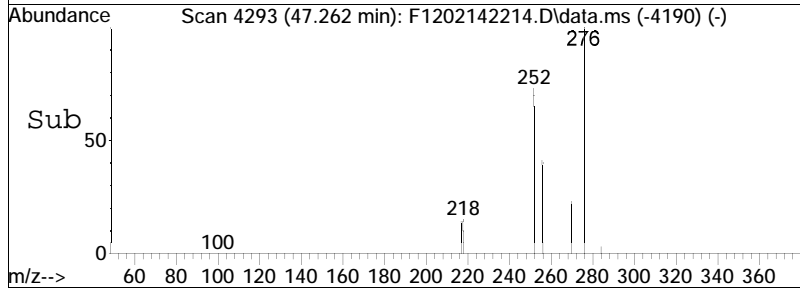
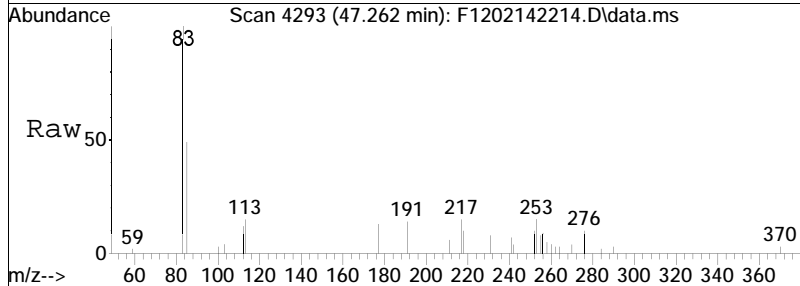


#71  
 C2-Naphthobenzothiophenes  
 Concen: 225.09 ng/ml M5  
 RT: 45.369 min Scan# 4086  
 Delta R.T. -0.528 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion:262 Resp: 92900

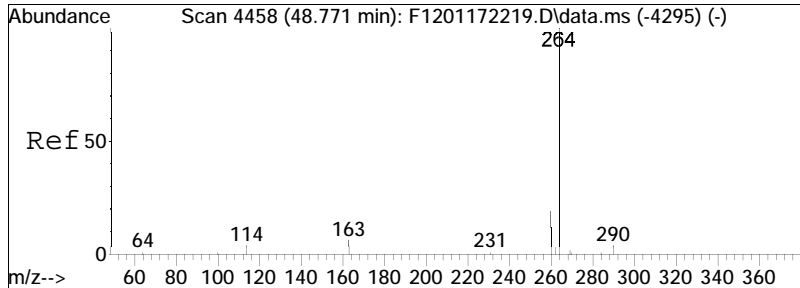




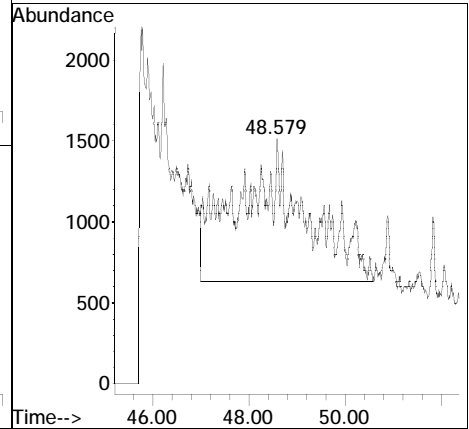
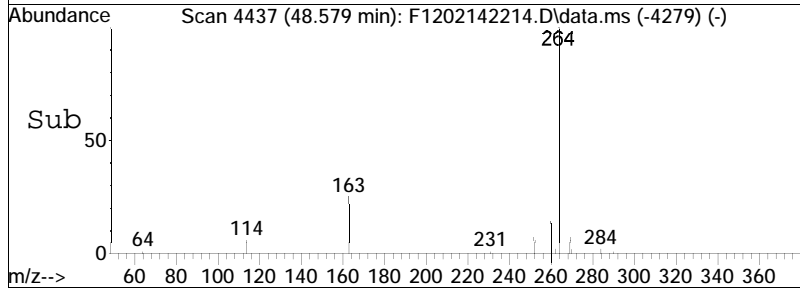
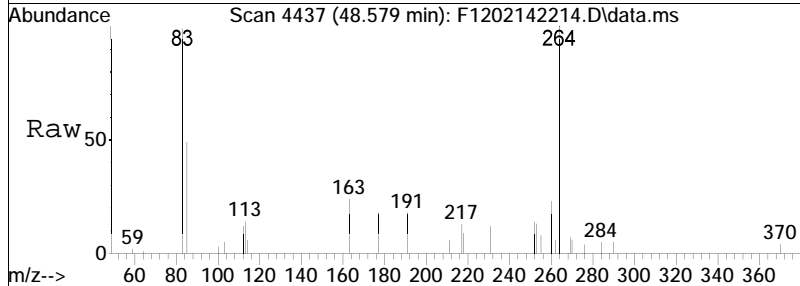
#72  
 C3-Naphthobenzothiophenes  
 Concen: 185.74 ng/ml M5  
 RT: 47.262 min Scan# 4293  
 Delta R.T. -0.258 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion: 276 Resp: 76659

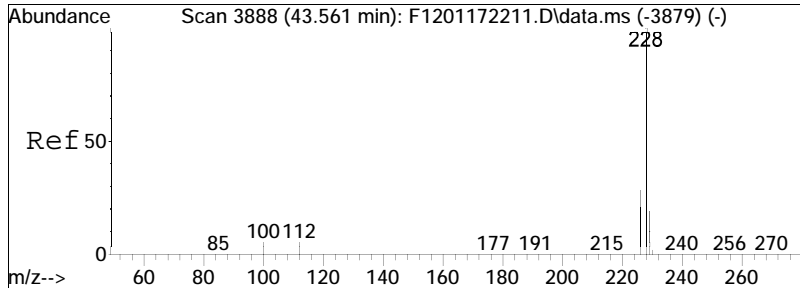






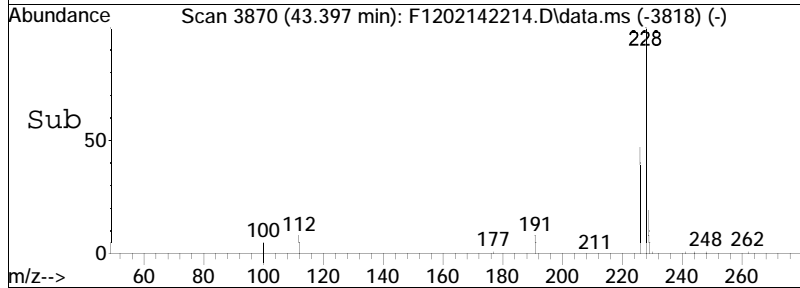
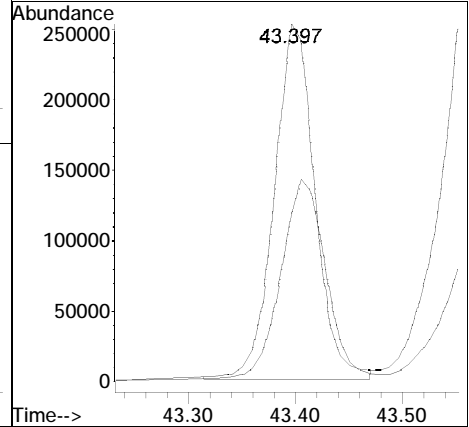
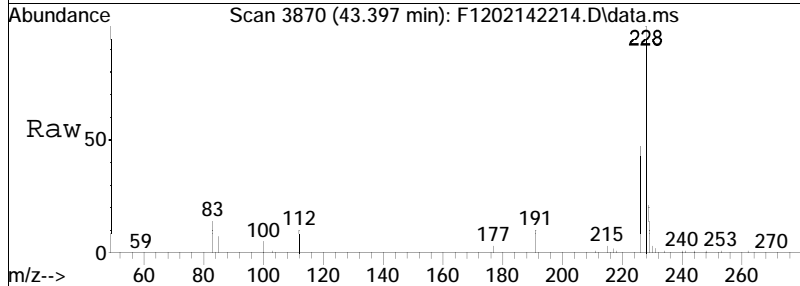
#73  
 C4-Naphthobenzothiophenes  
 Concen: 206.86 ng/mL M5  
 RT: 48.579 min Scan# 4437  
 Delta R.T. -0.045 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am  
 Tgt Ion: 290 Resp: 85375

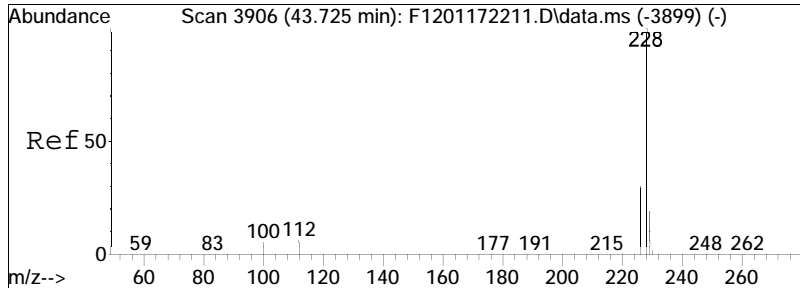




#75  
 Benz[a]anthracene  
 Concen: 1800.52 ng/mL M3  
 RT: 43.397 min Scan# 3870  
 Delta R.T. -0.027 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

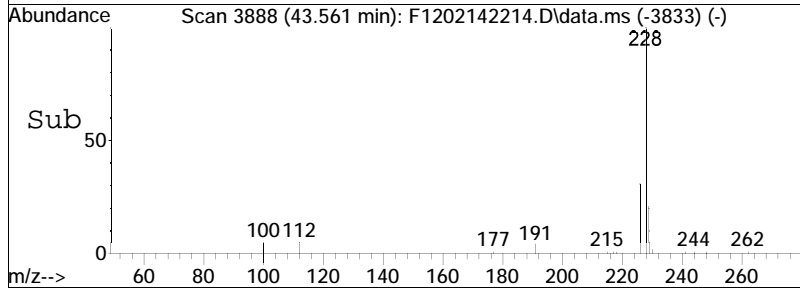
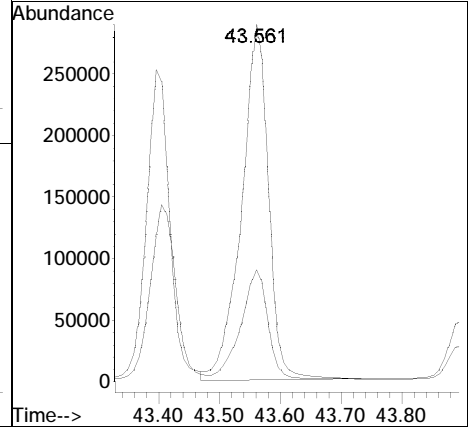
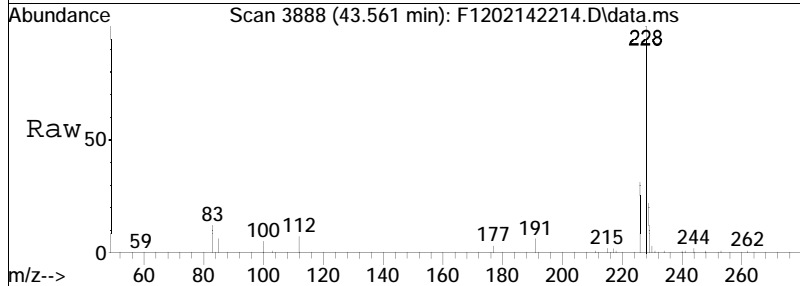
Tgt Ion	Resp	Lower	Upper
228	100		
226	40.3	19.1	35.5#

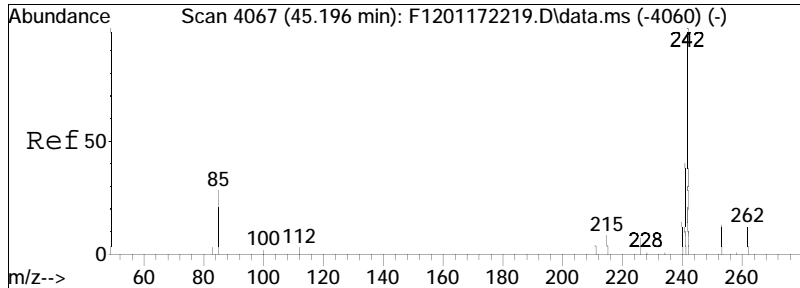




#76  
 Chrysene  
 Concen: 2425.25 ng/mL  
 RT: 43.561 min Scan# 3888  
 Delta R.T. 0.000 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

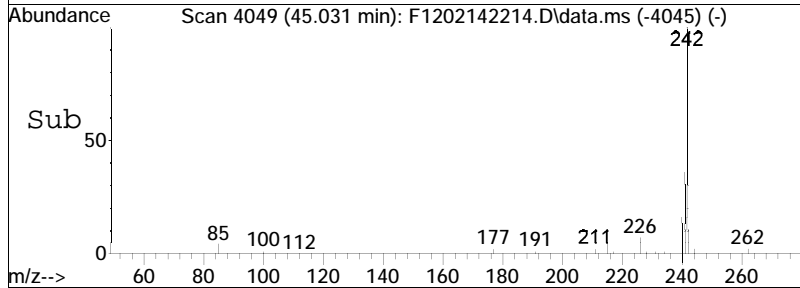
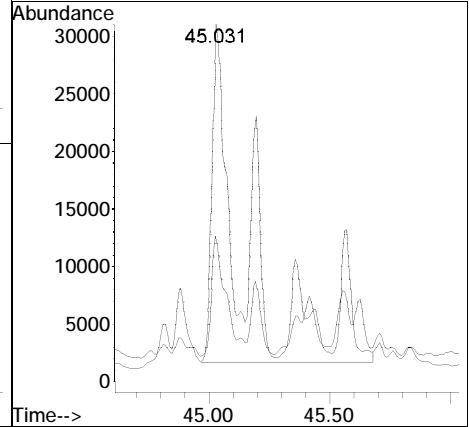
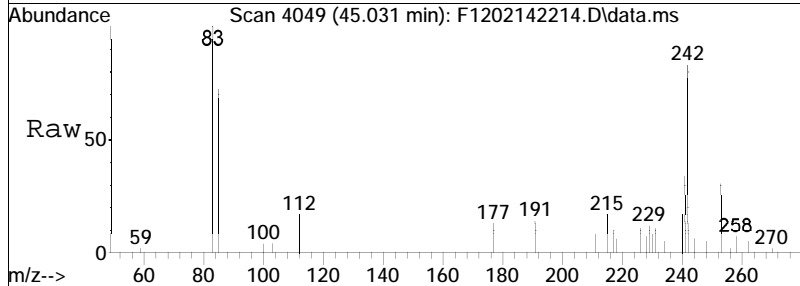
Tgt Ion	Resp	Lower	Upper
228	100		
226	30.2	27.8	51.6

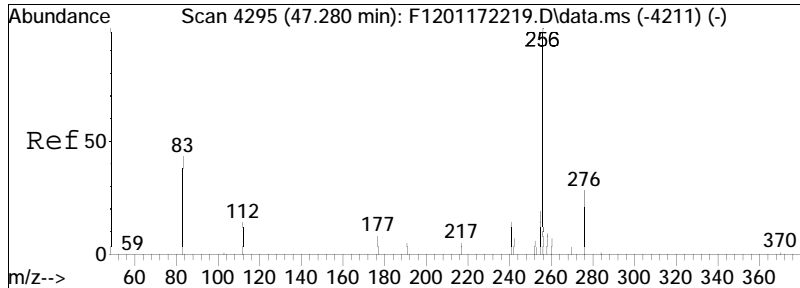




#78  
 C1-Chrysenes  
 Concen: 731.65 ng/mL M5  
 RT: 45.031 min Scan# 4049  
 Delta R.T. -0.027 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

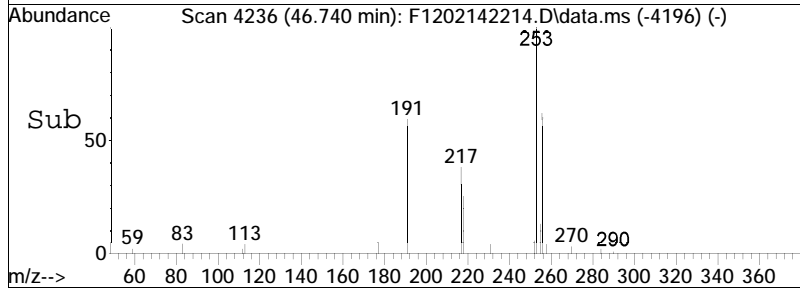
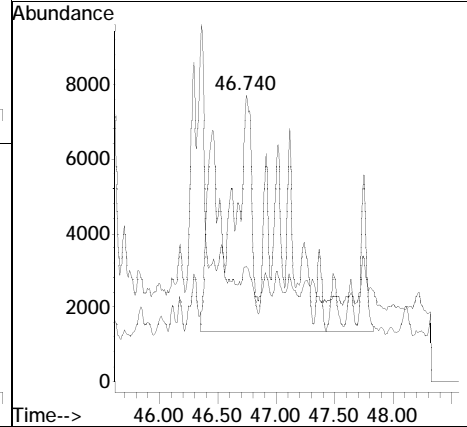
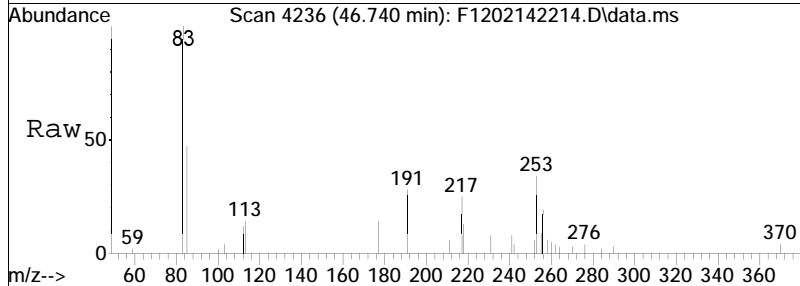
Tgt Ion: 242 Resp: 266596  
 Ion Ratio Lower Upper  
 242 100  
 241 16.0 31.9 59.2#

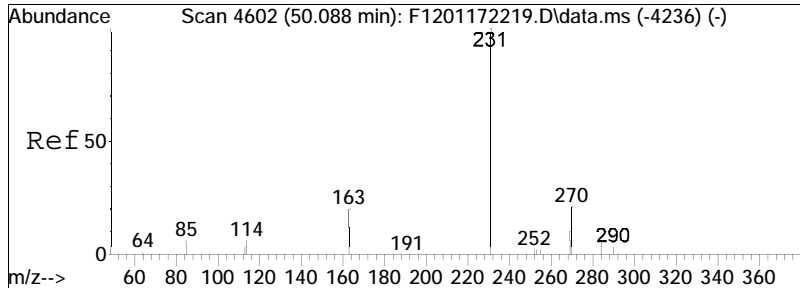




#79  
 C2-Chrysenes  
 Concen: 535.57 ng/mL M5  
 RT: 46.740 min Scan# 4236  
 Delta R.T. -0.402 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

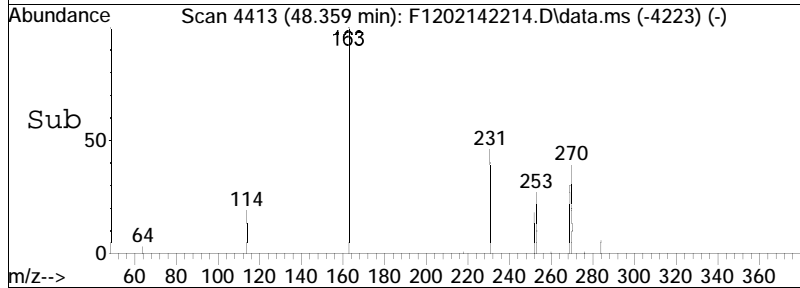
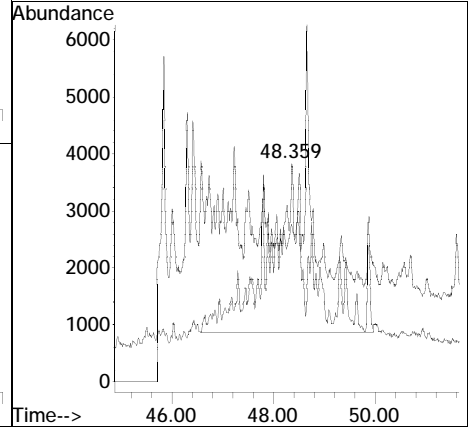
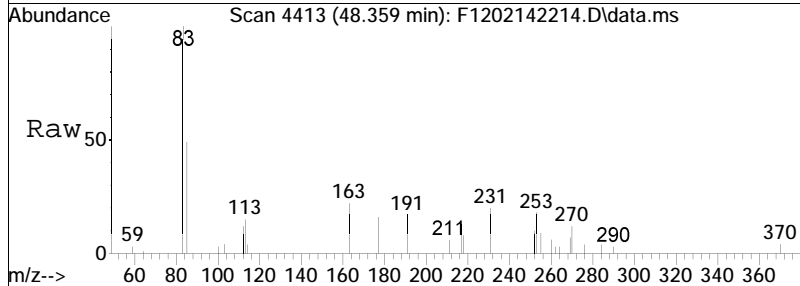
Tgt Ion	Resp	Lower	Upper
256	100		
241	1.4	25.1	46.7#

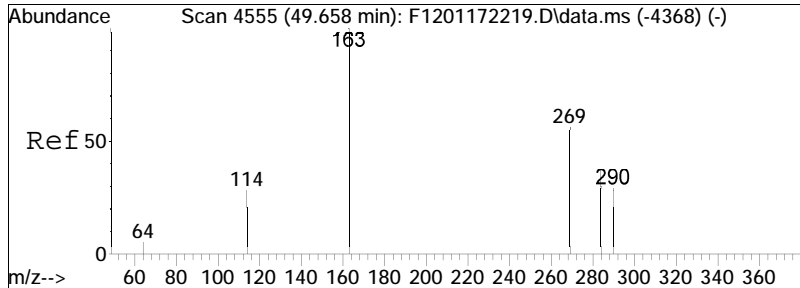




#81  
 C3-Chrysenes  
 Concen: 467.42 ng/mL M5  
 RT: 48.359 min Scan# 4413  
 Delta R.T. -1.555 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

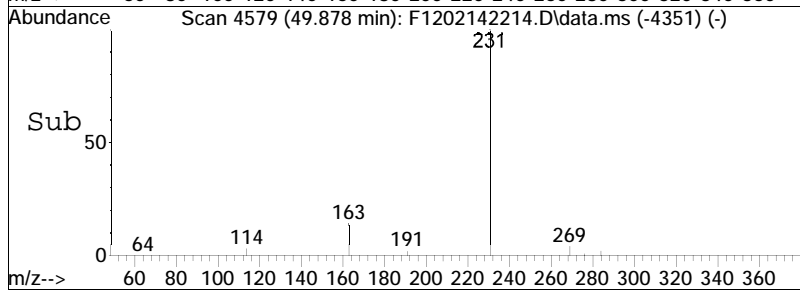
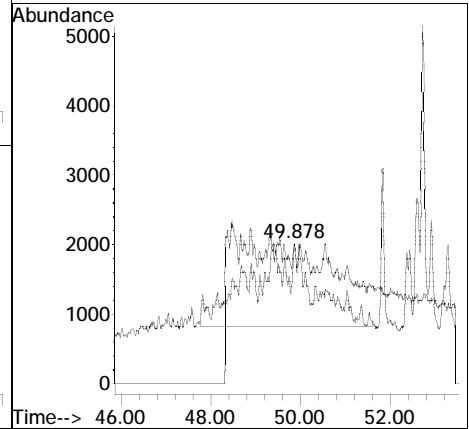
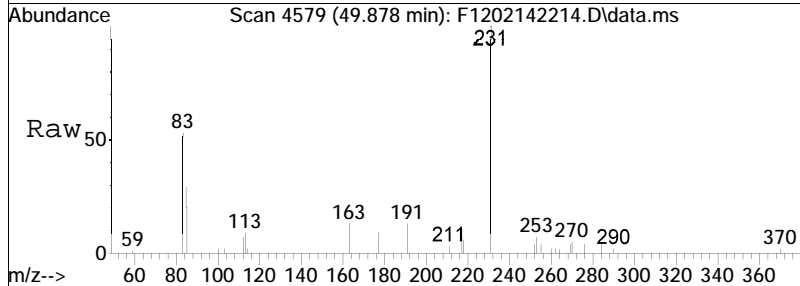
Tgt Ion	Resp	Lower	Upper
270	100		
255	1.8	40.7	75.7#

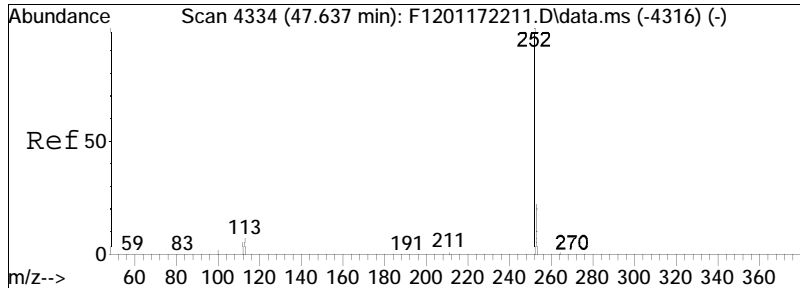




#82  
 C4-Chrysenes  
 Concen: 308.84 ng/mL M5  
 RT: 49.878 min Scan# 4579  
 Delta R.T. -0.137 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

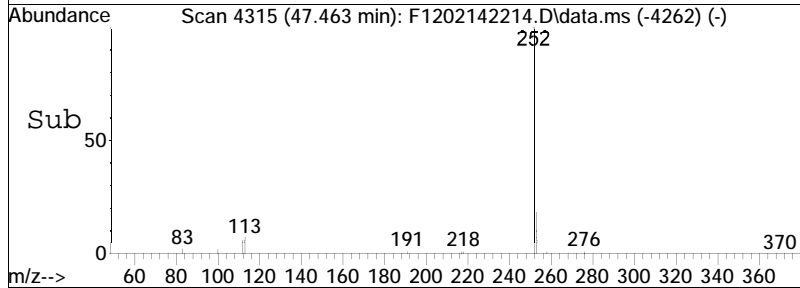
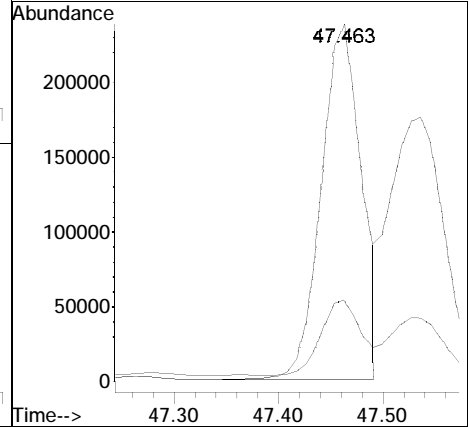
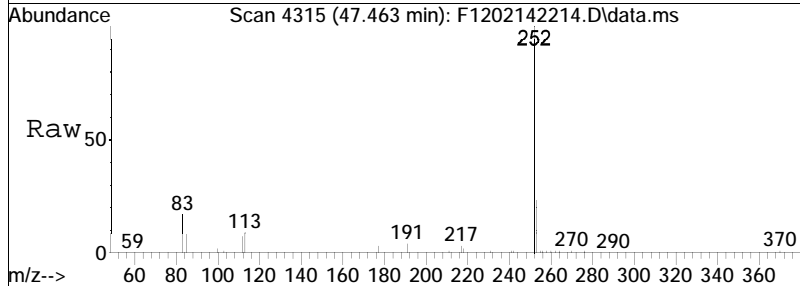
Tgt Ion	Resp	Lower	Upper
284	100		
269	0.0	62.2	115.6#



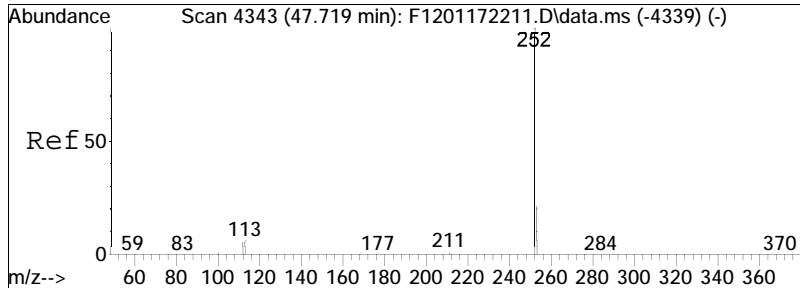


#85  
 Benzo[b]fluoranthene  
 Concen: 1528.85 ng/mL  
 RT: 47.463 min Scan# 4315  
 Delta R.T. -0.018 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

Tgt Ion	Resp	Lower	Upper
252	100		
253	21.2	16.6	30.8

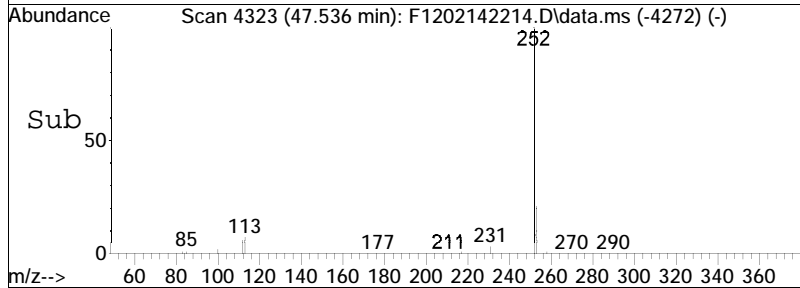
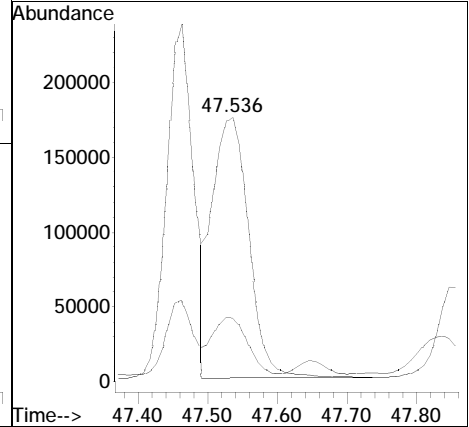
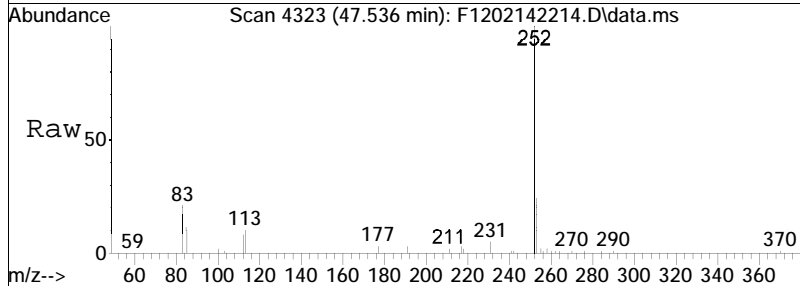


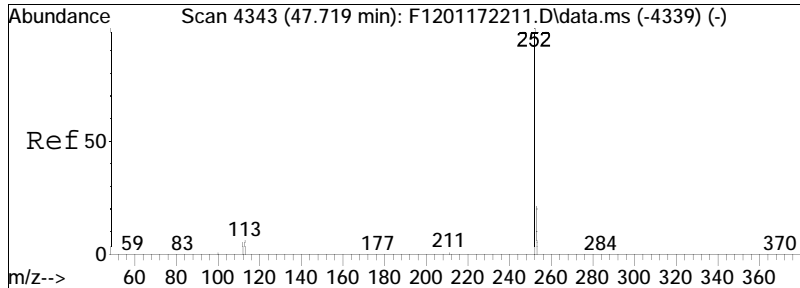




#86  
 Benzo[j]+[k]fluoranthene  
 Concen: 1489.37 ng/mL  
 RT: 47.536 min Scan# 4323  
 Delta R.T. -0.037 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

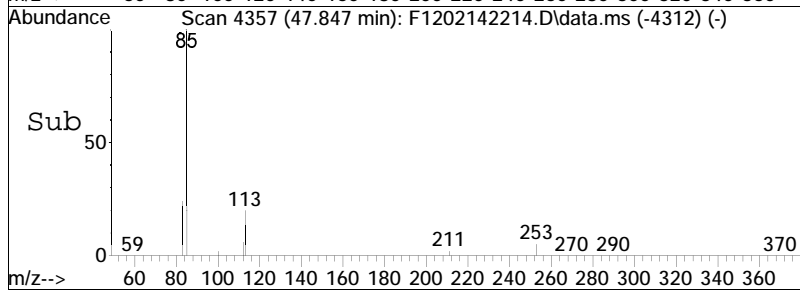
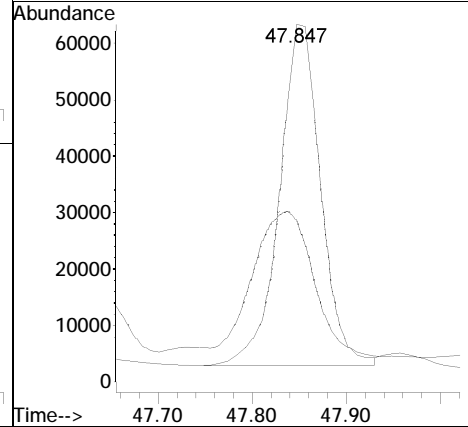
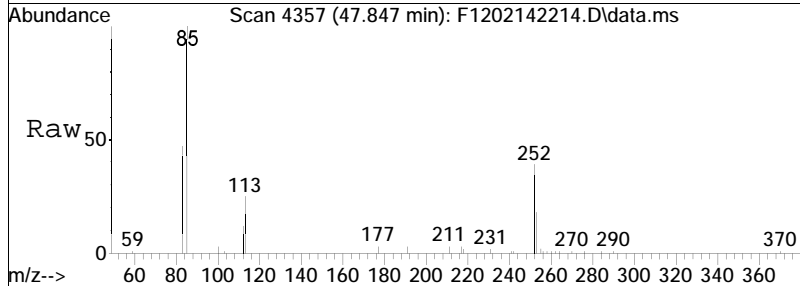
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.5	16.4	30.4

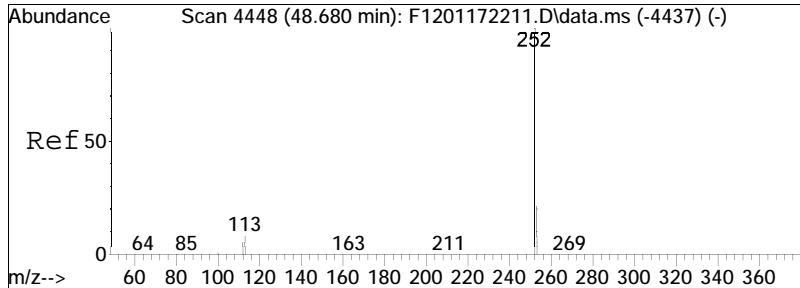




#87  
 Benzo[a]fluoranthene  
 Concen: 427.53 ng/mL M3  
 RT: 47.847 min Scan# 4357  
 Delta R.T. -0.085 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

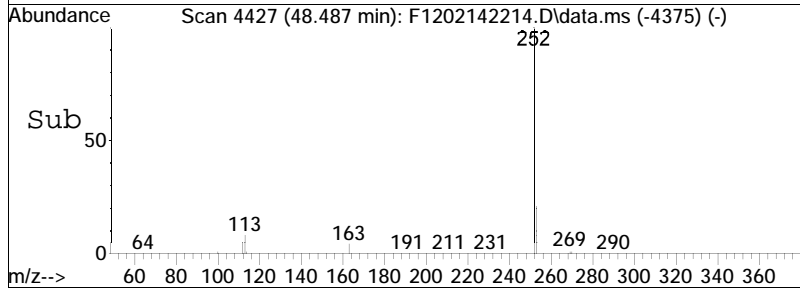
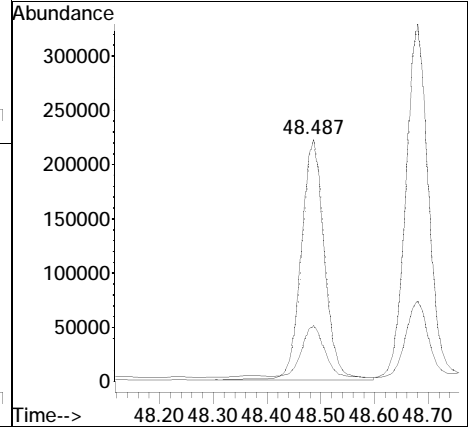
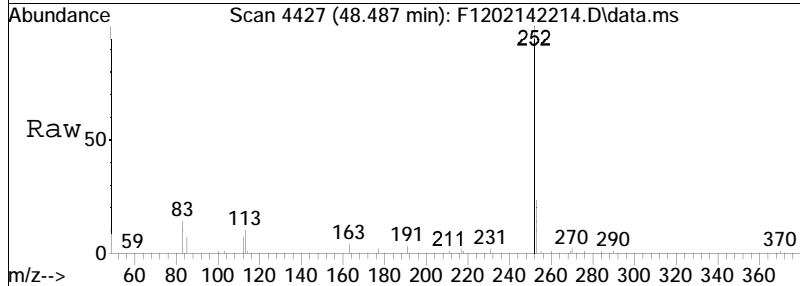
Tgt Ion	Resp	Lower	Upper
252	100		
253	1.5	203.3	377.6#

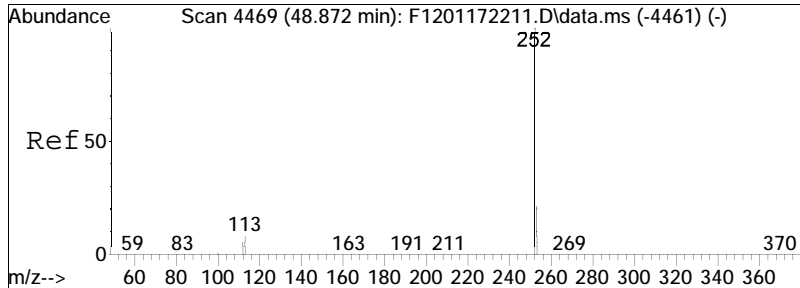




#88  
 Benzo[e]pyrene  
 Concen: 1605.79 ng/mL  
 RT: 48.487 min Scan# 4427  
 Delta R.T. -0.027 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

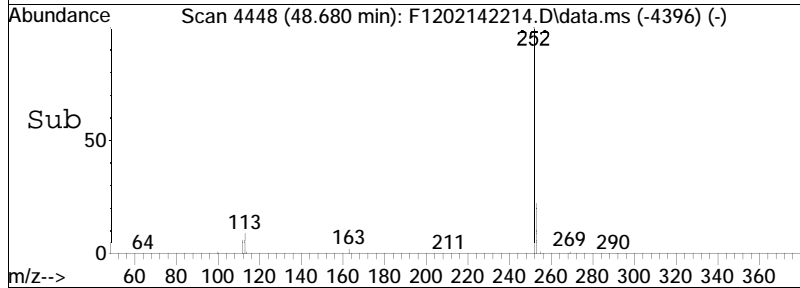
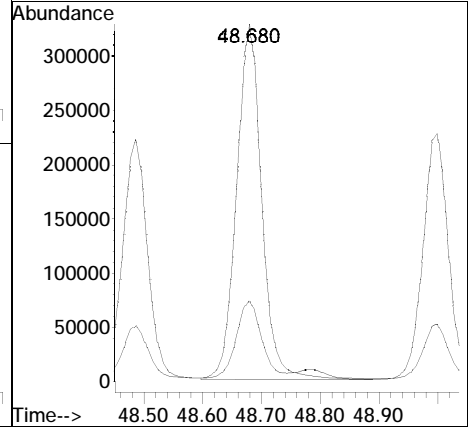
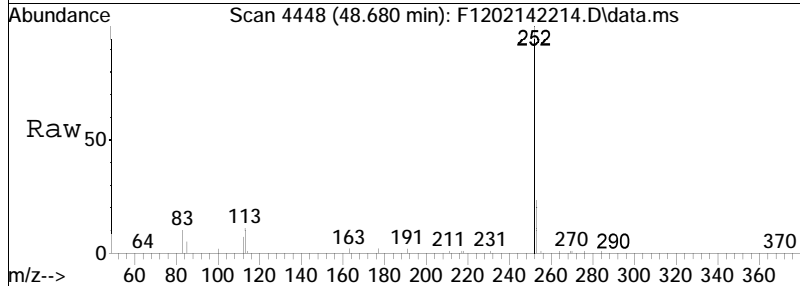
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.0	16.8	31.2

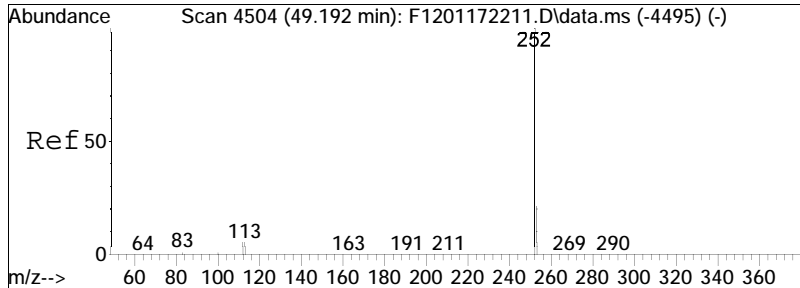




#90  
 Benzo[a]pyrene  
 Concen: 2424.70 ng/mL  
 RT: 48.680 min Scan# 4448  
 Delta R.T. -0.027 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

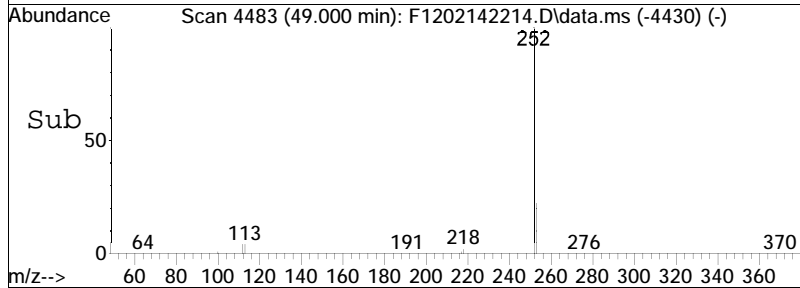
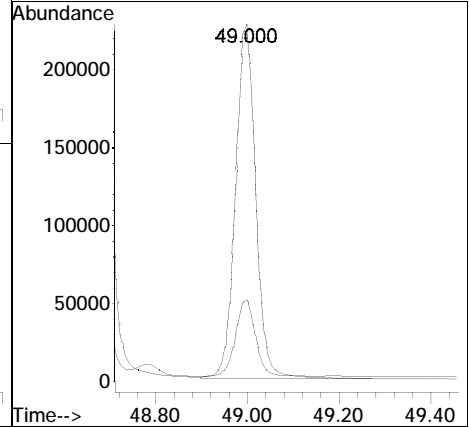
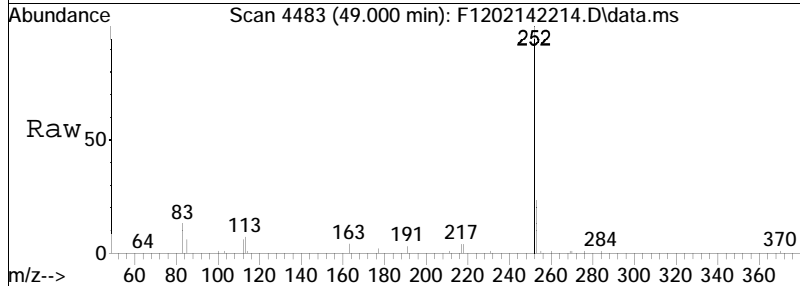
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.7	16.8	31.2

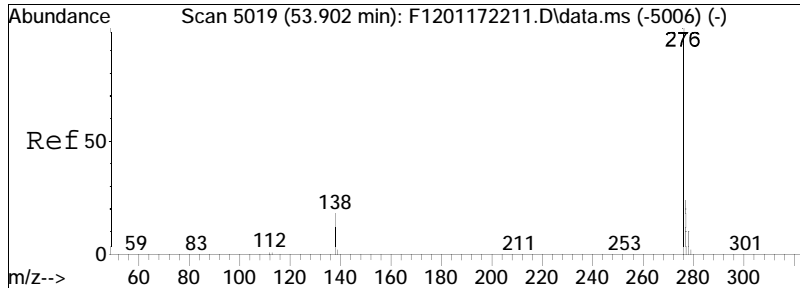




#91  
 Perylene  
 Concen: 1686.38 ng/mL  
 RT: 49.000 min Scan# 4483  
 Delta R.T. -0.018 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

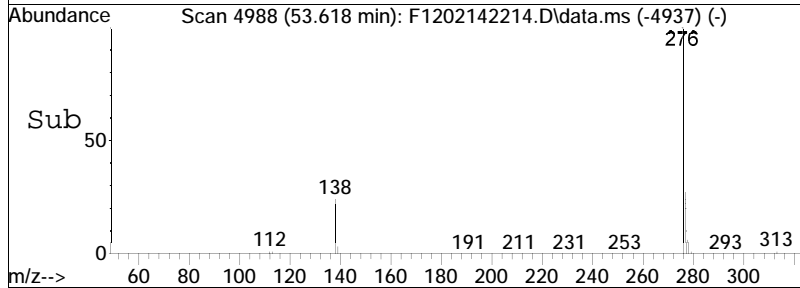
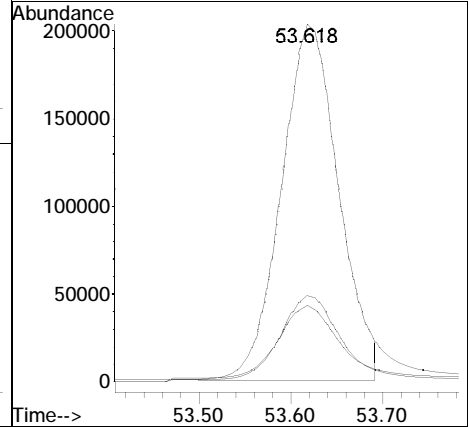
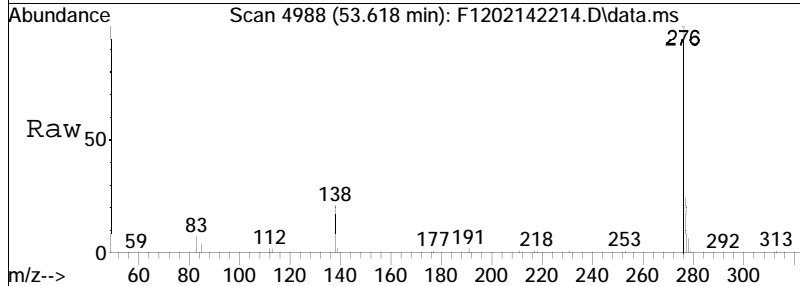
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.4	17.3	32.1

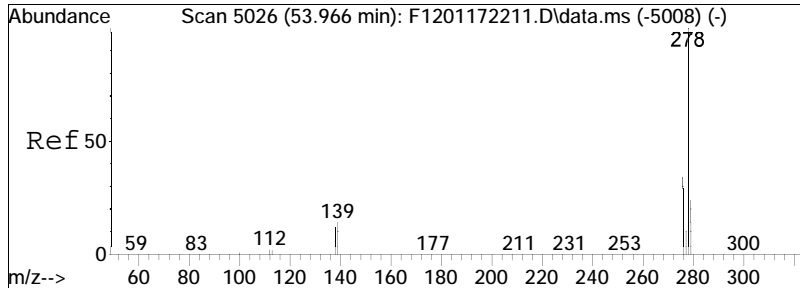




#92  
 Indeno[1,2,3-cd]pyrene  
 Concen: 1606.76 ng/mL M3  
 RT: 53.618 min Scan# 4988  
 Delta R.T. -0.037 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

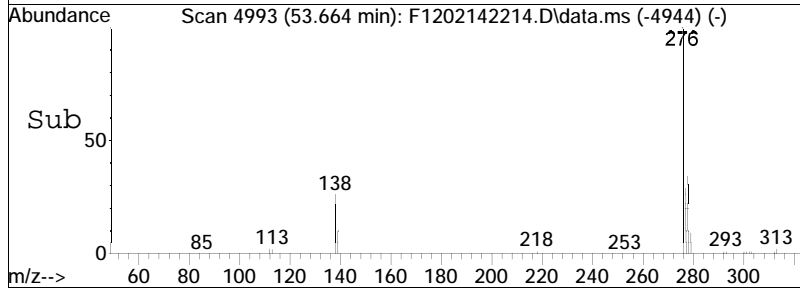
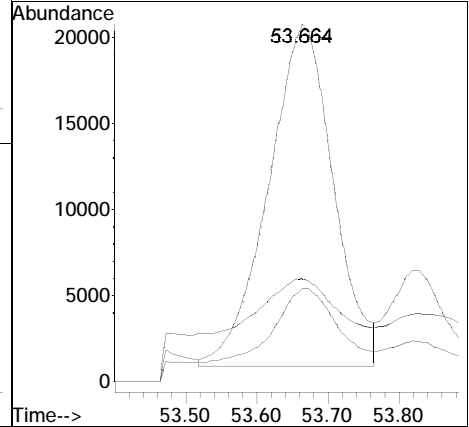
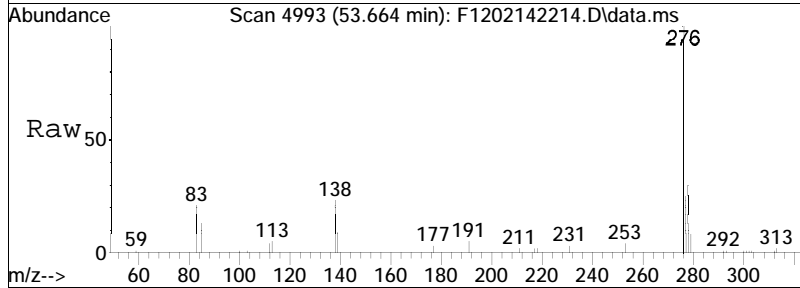
Tgt Ion	Ratio	Lower	Upper
276	100		
138	26.8	12.2	22.7#
277	27.0	16.7	30.9

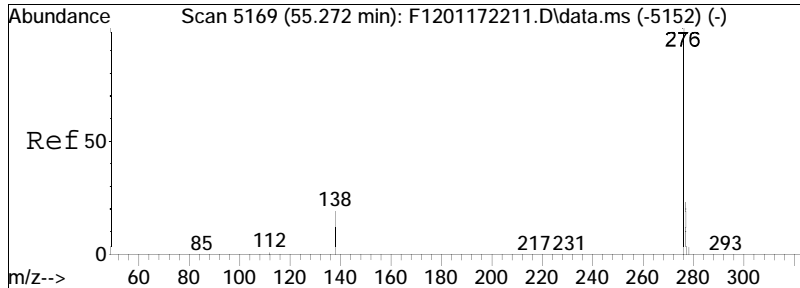




#93  
 Dibenz[ah]+[ac]anthracene  
 Concen: 262.52 ng/mL M4  
 RT: 53.664 min Scan# 4993  
 Delta R.T. -0.055 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

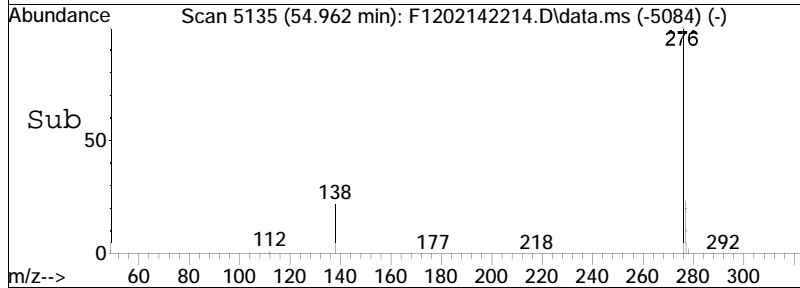
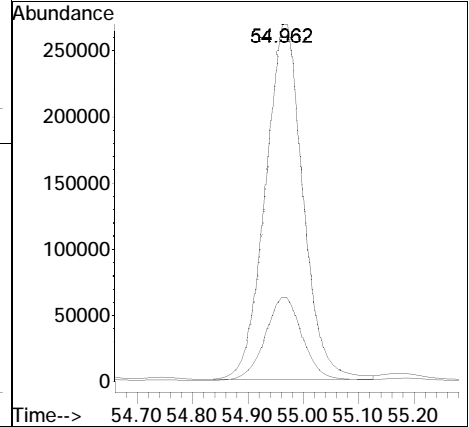
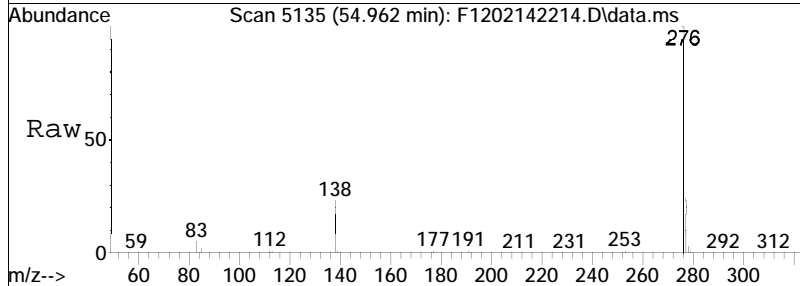
Tgt Ion	Resp	Lower	Upper
278	100		
139	11.7	10.1	18.7
279	15.7	16.6	30.8#





#94  
 Benzo[g,h,i]perylene  
 Concen: 2594.48 ng/mL  
 RT: 54.962 min Scan# 5135  
 Delta R.T. -0.037 min  
 Lab File: F1202142214.D  
 Acq: 15 Feb 2022 5:35 am

Tgt Ion: 276 Resp: 1251590  
 Ion Ratio Lower Upper  
 276 100  
 277 23.3 16.4 30.6





# **Analytical Event**

# **Continuing Calibration**

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142215.D  
 Acq On : 15 Feb 2022 6:59 am  
 Operator : PAH12:MJS  
 Sample : WG1605097-2  
 Misc : WG1605097,FRBE43,ICAL18670  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 22 11:48:49 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 i	Acenaphthene-d10	1.000	1.000	0.0	116	-0.04
2 A1	trans-Decalin	0.467	0.487	-4.3	120	-0.04
3 t	cis-Decalin	0.358	0.372	-3.9	121	-0.04
8 s	Naphthalene-d8	2.156	2.303	-6.8	119	-0.04
9 A1	Naphthalene	2.384	2.537	-6.4	118	-0.03
14 t	2-Methylnaphthalene	1.514	1.549	-2.3	116	-0.04
15 t	1-Methylnaphthalene	1.437	1.485	-3.3	117	-0.04
16 A1	Benzothiophene	2.017	2.160	-7.1	118	-0.03
21 t	Biphenyl	1.853	1.919	-3.6	116	-0.04
22 t	2,6-Dimethylnaphthalene	1.290	1.323	-2.6	116	-0.05
23 t	Dibenzofuran	1.976	2.063	-4.4	115	-0.03
24 t	Acenaphthylene	2.275	2.343	-3.0	115	-0.03
25 t	Acenaphthene	1.439	1.501	-4.3	116	-0.03
26 t	2,3,5-Trimethylnaphthalene	1.237	1.267	-2.4	116	-0.03
27 A1	Fluorene	1.592	1.637	-2.8	115	-0.03
31 A1	Dibenzothiophene	2.297	2.333	-1.6	115	-0.04
40 s	Phenanthrene-d10	1.806	1.860	-3.0	116	-0.04
41 A1	Phenanthrene	2.347	2.465	-5.0	117	-0.04
52 t	Retene	0.778	0.778	0.0	117	-0.04
53 t	Anthracene	2.187	2.274	-4.0	114	-0.04
54 t	Carbazole	2.270	2.155	5.1	116	-0.04
55 t	1-Methylphenanthrene	1.577	1.606	-1.8	117	-0.05
56 A1	Fluoranthene	2.354	2.443	-3.8	118	-0.04
57 A1	Benzo(b)fluorene	1.483	1.530	-3.2	119	-0.04
59 A1	Pyrene	2.443	2.582	-5.7	120	-0.04
67 A1	Napthobenzothiophene-2,1-D	2.449	2.505	-2.3	119	-0.04
74 i	Chrysene-d12	1.000	1.000	0.0	117	-0.05
75 t	Benz[a]anthracene	1.208	1.227	-1.6	120	-0.04
76 A1	Chrysene	1.195	1.242	-3.9	120	0.00
77 A2	Chrysene/Triphenylene	1.195	1.242	-3.9	120	0.00
84 s	Benzo[b]fluoranthene-d12	1.163	1.174	-0.9	119	-0.04
85 t	Benzo[b]fluoranthene	1.362	1.367	-0.4	117	-0.04
86 A1	Benzo[j]+[k]fluoranthene	1.406	1.449	-3.1	120	-0.04
88 t	Benzo[e]pyrene	1.346	1.359	-1.0	119	-0.05
89 s	Benzo[a]pyrene-d12	0.880	0.888	-0.9	118	-0.05
90 t	Benzo[a]pyrene	1.305	1.288	1.3	118	-0.05
91 t	Perylene	1.339	1.344	-0.4	120	-0.04
92 t	Indeno[1,2,3-cd]pyrene	1.789	1.731	3.2	119	-0.05

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142215.D  
 Acq On : 15 Feb 2022 6:59 am  
 Operator : PAH12:MJS  
 Sample : WG1605097-2  
 Misc : WG1605097,FRBE43,ICAL18670  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 22 11:48:49 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 25% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
93 t Dibenz[ah]+[ac]anthracene	1.570	1.500	4.5	113	-0.05
94 t Benzo[g,h,i]perylene	1.583	1.520	4.0	115	-0.06
95 A1 Hopane (T19)	0.341	0.364	-6.7	126	-0.05
129 SA1 5B(H)Cholane - Surr	0.180	0.187	-3.9	125	-0.04

\* Evaluation of CC level amount vs concentration.  
 (#) = Out of Range SPCC's out = 0 CCC's out = 0

Mass Discrimination (Concentration)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	0.91	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.22	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142215.D  
 Acq On : 15 Feb 2022 6:59 am  
 Operator : PAH12:MJS  
 Sample : WG1605097-2  
 Misc : WG1605097,FRBE43,ICAL18670  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 22 11:48:49 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	26.986	164	80947M4	500.000	ng/mL	-0.04	
74) Chrysene-d12	43.451	240	159809	500.000	ng/mL	-0.05	
System Monitoring Compounds							
8) Naphthalene-d8	20.005	136	186423	534.149	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	53.41%	
40) Phenanthrene-d10	32.862	188	150538	514.801	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	51.48%	
84) Benzo[b]fluoranthene-d12	47.362	264	187605	504.865	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	50.49%	
89) Benzo[a]pyrene-d12	48.570	264	141879	504.471	ng/mL	-0.05	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	50.45%	
129) 5B(H)Cholane - Surr	44.081	217	29860	519.221	ng/ml	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	51.92%	
Target Compounds							
2) trans-Decalin	16.656	138	19699	260.703	ng/mL	100	Qvalue
3) cis-Decalin	17.879	138	15062	259.733	ng/mL	100	
9) Naphthalene	20.087	128	205344	532.098	ng/mL	100	
14) 2-Methylnaphthalene	22.779	142	125416	511.748	ng/mL	100	
15) 1-Methylnaphthalene	23.208	142	120176	516.603	ng/mL	100	
16) Benzothiophene	20.306	134	174868	535.582	ng/mL	100	
21) Biphenyl	24.659	154	155325	517.766	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.270	156	107132	513.165	ng/mL	100	
23) Dibenzofuran	27.752	168	166961	521.982	ng/mL	88	
24) Acenaphthylene	26.375	152	189632	514.868	ng/mL	100	
25) Acenaphthene	27.114	153	121537	521.582	ng/mL	100	
26) 2,3,5-Trimethylnaphthalen	28.665	170	102585	512.135	ng/mL	97	
27) Fluorene	29.130	166	132542M4	514.165	ng/mL		
31) Dibenzothiophene	32.451	184	188856	507.903	ng/mL#	85	
41) Phenanthrene	32.944	178	199551	525.146	ng/mL	96	
52) Retene	39.936	234	62967	500.015	ng/mL	95	
53) Anthracene	33.126	178	184034	519.736	ng/mL	99	
54) Carbazole	33.792	167	174445	474.655	ng/mL	100	
55) 1-Methylphenanthrene	35.454	192	129995	509.186	ng/mL	94	
56) Fluoranthene	37.727	202	197758M4	518.972	ng/mL		
57) Benzo(b)fluorene	40.247	216	123852	515.793	ng/mL	68	
59) Pyrene	38.612	202	208981	528.467	ng/mL#	74	
67) Naphthobenzothiophene-2,1	42.465	234	202759	511.464	ng/mL#	64	
75) Benz[a]anthracene	43.388	228	196156	507.950	ng/mL	100	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142215.D  
 Acq On : 15 Feb 2022 6:59 am  
 Operator : PAH12:MJS  
 Sample : WG1605097-2  
 Misc : WG1605097,FRBE43,ICAL18670  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 22 11:48:49 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.552	228	198424	519.364	ng/mL	84
77) Chrysene/Triphenylene	43.552	228	198424	519.364	ng/mL	84
85) Benzo[b]fluoranthene	47.445	252	218450	501.744	ng/mL	96
86) Benzo[j]+[k]fluoranthene	47.536	252	231607	515.430	ng/mL	96
88) Benzo[e]pyrene	48.469	252	217223	504.943	ng/mL	95
90) Benzo[a]pyrene	48.661	252	205874	493.537	ng/mL	95
91) Perylene	48.981	252	214862	502.221	ng/mL	93
92) Indeno[1,2,3-cd]pyrene	53.600	276	276693M3	483.984	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.664	278	239793M4	477.821	ng/mL	
94) Benzo[g,h,i]perylene	54.934	276	242922	480.265	ng/mL	99
95) Hopane (T19)	52.695	191	58154	533.733	ng/mL#	88

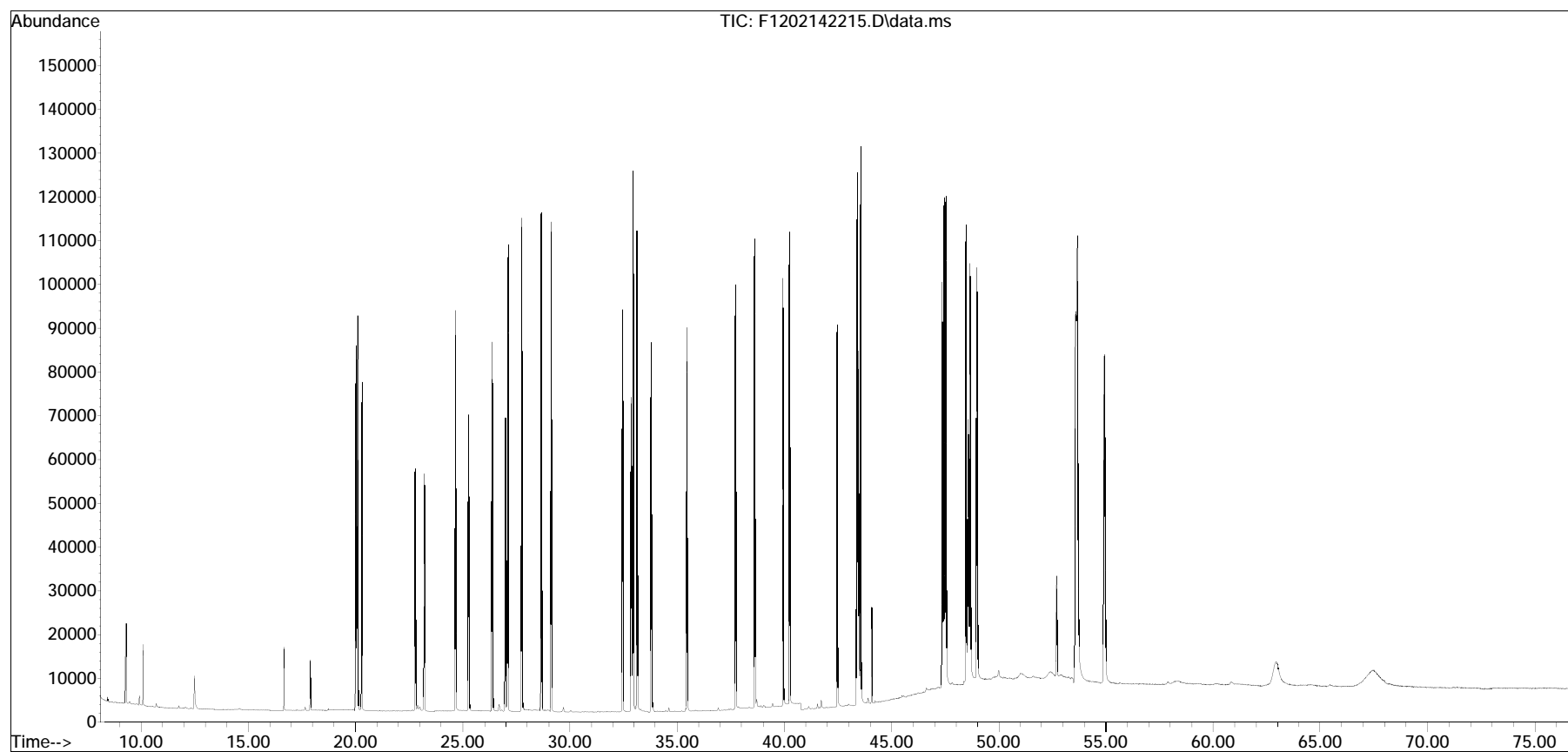
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
Data File : F1202142215.D  
Acq On : 15 Feb 2022 6:59 am  
Operator : PAH12:MJS  
Sample : WG1605097-2  
Misc : WG1605097,FRBE43,ICAL18670  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 22 11:48:49 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Wed Feb 09 13:46:27 2022  
Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142218.D  
 Acq On : 15 Feb 2022 11:21 am  
 Operator : PAH12:MJS  
 Sample : WG1605097-3  
 Misc : WG1605097,FRBE43,ICAL18670  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 22 12:00:04 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 i	Acenaphthene-d10	1.000	1.000	0.0	122	-0.04
2 A1	trans-Decalin	0.467	0.481	-3.0	125	-0.04
3 t	cis-Decalin	0.358	0.373	-4.2	127	-0.04
8 s	Naphthalene-d8	2.156	2.280	-5.8	123	-0.03
9 A1	Naphthalene	2.384	2.504	-5.0	122	-0.03
14 t	2-Methylnaphthalene	1.514	1.540	-1.7	121	-0.04
15 t	1-Methylnaphthalene	1.437	1.474	-2.6	122	-0.04
16 A1	Benzothiophene	2.017	2.120	-5.1	121	-0.03
21 t	Biphenyl	1.853	1.902	-2.6	121	-0.03
22 t	2,6-Dimethylnaphthalene	1.290	1.324	-2.6	122	-0.05
23 t	Dibenzofuran	1.976	2.043	-3.4	120	-0.03
24 t	Acenaphthylene	2.275	2.352	-3.4	122	-0.03
25 t	Acenaphthene	1.439	1.500	-4.2	122	-0.03
26 t	2,3,5-Trimethylnaphthalene	1.237	1.274	-3.0	122	-0.03
27 A1	Fluorene	1.592	1.638	-2.9	121	-0.03
31 A1	Dibenzothiophene	2.297	2.320	-1.0	120	-0.03
40 s	Phenanthrene-d10	1.806	1.872	-3.7	123	-0.04
41 A1	Phenanthrene	2.347	2.455	-4.6	123	-0.03
52 t	Retene	0.778	0.796	-2.3	125	-0.04
53 t	Anthracene	2.187	2.265	-3.6	120	-0.03
54 t	Carbazole	2.270	2.162	4.8	123	-0.04
55 t	1-Methylphenanthrene	1.577	1.600	-1.5	122	-0.04
56 A1	Fluoranthene	2.354	2.493	-5.9	126	-0.04
57 A1	Benzo(b)fluorene	1.483	1.563	-5.4	127	-0.04
59 A1	Pyrene	2.443	2.618	-7.2	128	-0.04
67 A1	Napthobenzothiophene-2,1-D	2.449	2.535	-3.5	126	-0.04
74 i	Chrysene-d12	1.000	1.000	0.0	127	-0.04
75 t	Benz[a]anthracene	1.208	1.229	-1.7	130	-0.03
76 A1	Chrysene	1.195	1.218	-1.9	128	0.00
77 A2	Chrysene/Triphenylene	1.195	1.218	-1.9	128	0.00
84 s	Benzo[b]fluoranthene-d12	1.163	1.189	-2.2	130	-0.04
85 t	Benzo[b]fluoranthene	1.362	1.363	-0.1	126	-0.03
86 A1	Benzo[j]+[k]fluoranthene	1.406	1.439	-2.3	129	-0.04
88 t	Benzo[e]pyrene	1.346	1.356	-0.7	128	-0.04
89 s	Benzo[a]pyrene-d12	0.880	0.910	-3.4	131	-0.04
90 t	Benzo[a]pyrene	1.305	1.312	-0.5	130	-0.04
91 t	Perylene	1.339	1.360	-1.6	131	-0.04
92 t	Indeno[1,2,3-cd]pyrene	1.789	1.759	1.7	130	-0.05



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142218.D  
 Acq On : 15 Feb 2022 11:21 am  
 Operator : PAH12:MJS  
 Sample : WG1605097-3  
 Misc : WG1605097,FRBE43,ICAL18670  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 22 12:00:04 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 25% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
93 t Dibenz[ah]+[ac]anthracene	1.570	1.569	0.1	128	-0.05
94 t Benzo[g,h,i]perylene	1.583	1.566	1.1	129	-0.05
95 A1 Hopane (T19)	0.341	0.370	-8.5	139	-0.05
129 SA1 5B(H)Cholane - Surr	0.180	0.187	-3.9	135	-0.04

\* Evaluation of CC level amount vs concentration.  
 (#) = Out of Range SPCC's out = 0 CCC's out = 0

Mass Discrimination (Concentration)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	0.95	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.30	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142218.D  
 Acq On : 15 Feb 2022 11:21 am  
 Operator : PAH12:MJS  
 Sample : WG1605097-3  
 Misc : WG1605097,FRBE43,ICAL18670  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 22 12:00:04 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Acenaphthene-d10	26.986	164	85022M4	500.000	ng/mL	-0.04
74) Chrysene-d12	43.461	240	172870	500.000	ng/mL	-0.04
System Monitoring Compounds						
8) Naphthalene-d8	20.014	136	193836	528.770	ng/mL	-0.03
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	52.88%
40) Phenanthrene-d10	32.862	188	159179	518.261	ng/mL	-0.04
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	51.83%
84) Benzo[b]fluoranthene-d12	47.362	264	205609	511.511	ng/mL	-0.04
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	51.15%
89) Benzo[a]pyrene-d12	48.579	264	157392	517.348	ng/mL	-0.04
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	51.73%
129) 5B(H)Cholane - Surr	44.081	217	32392	520.693	ng/ml	-0.04
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	52.07%
Target Compounds						
2) trans-Decalin	16.656	138	20465	257.860	ng/mL	100
3) cis-Decalin	17.879	138	15844	260.123	ng/mL	100
9) Naphthalene	20.087	128	212881	525.190	ng/mL	100
14) 2-Methylnaphthalene	22.779	142	130928	508.634	ng/mL	100
15) 1-Methylnaphthalene	23.208	142	125351	513.022	ng/mL	100
16) Benzothiophene	20.306	134	180266	525.652	ng/mL	100
21) Biphenyl	24.668	154	161690	513.151	ng/mL	100
22) 2,6-Dimethylnaphthalene	25.270	156	112565	513.347	ng/mL	100
23) Dibenzofuran	27.752	168	173734	517.124	ng/mL	88
24) Acenaphthylene	26.375	152	199983	516.948	ng/mL	100
25) Acenaphthene	27.114	153	127541	521.115	ng/mL	100
26) 2,3,5-Trimethylnaphthalen	28.665	170	108293	514.720	ng/mL	97
27) Fluorene	29.130	166	139227M4	514.211	ng/mL	
31) Dibenzothiophene	32.460	184	197249	505.049	ng/mL#	84
41) Phenanthrene	32.953	178	208717	522.942	ng/mL	97
52) Retene	39.936	234	67684	511.712	ng/mL	95
53) Anthracene	33.135	178	192558	517.745	ng/mL	100
54) Carbazole	33.792	167	183814	476.176	ng/mL	99
55) 1-Methylphenanthrene	35.463	192	136036	507.310	ng/mL	95
56) Fluoranthene	37.727	202	211953	529.564	ng/mL	96
57) Benzo(b)fluorene	40.247	216	132874	526.844	ng/mL	68
59) Pyrene	38.612	202	222601	535.929	ng/mL#	74
67) Naphthobenzothiophene-2,1	42.465	234	215539	517.643	ng/mL#	64
75) Benz[a]anthracene	43.397	228	212489	508.671	ng/mL	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142218.D  
 Acq On : 15 Feb 2022 11:21 am  
 Operator : PAH12:MJS  
 Sample : WG1605097-3  
 Misc : WG1605097,FRBE43,ICAL18670  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 22 12:00:04 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.552	228	210490	509.320	ng/mL	84
77) Chrysene/Triphenylene	43.552	228	210490	509.320	ng/mL	84
85) Benzo[b]fluoranthene	47.454	252	235685	500.431	ng/mL	96
86) Benzo[j]+[k]fluoranthene	47.536	252	248811	511.881	ng/mL	96
88) Benzo[e]pyrene	48.478	252	234329	503.552	ng/mL	95
90) Benzo[a]pyrene	48.670	252	226775	502.568	ng/mL	94
91) Perylene	48.981	252	235047	507.892	ng/mL	93
92) Indeno[1,2,3-cd]pyrene	53.609	276	304105M3	491.743	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.673	278	271310	499.776	ng/mL	98
94) Benzo[g,h,i]perylene	54.943	276	270796	494.923	ng/mL	99
95) Hopane (T19)	52.704	191	64042	543.364	ng/mL#	88

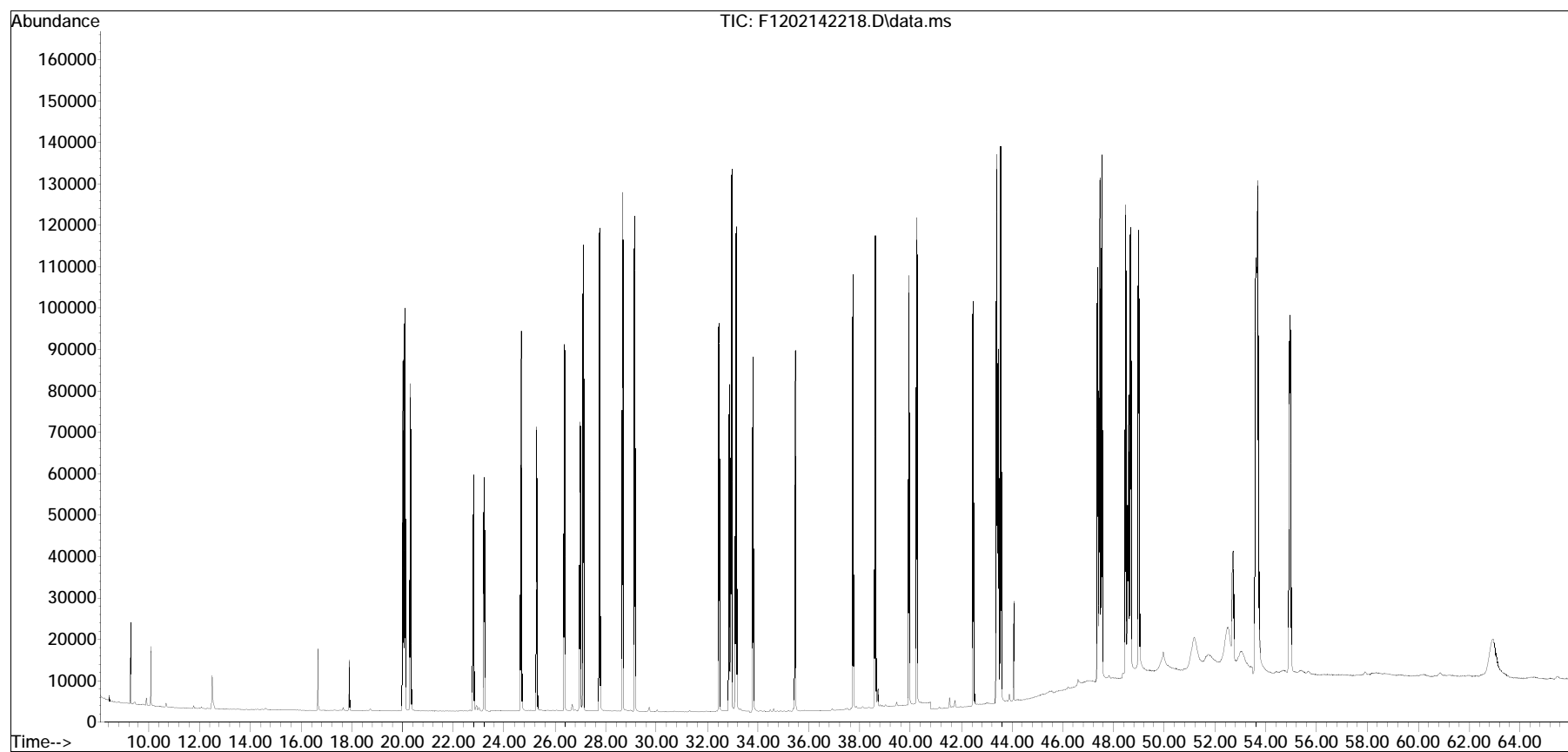
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
Data File : F1202142218.D  
Acq On : 15 Feb 2022 11:21 am  
Operator : PAH12:MJS  
Sample : WG1605097-3  
Misc : WG1605097,FRBE43,ICAL18670  
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 22 12:00:04 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Wed Feb 09 13:46:27 2022  
Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates



# Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142216.D  
 Acq On : 15 Feb 2022 8:24 am  
 Operator : PAH12:MJS  
 Sample : L2206076-07,32  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 22 13:37:12 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	26.986	164	89401M4	500.000	ng/mL	-0.04	
74) Chrysene-d12	43.470	240	158999	500.000	ng/mL	-0.03	
System Monitoring Compounds							
8) Naphthalene-d8	20.005	136	797408	2068.720	ng/mL	-0.04	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	206.87%#		
40) Phenanthrene-d10	32.862	188	766337	2372.856	ng/mL	-0.04	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	237.29%#		
84) Benzo[b]fluoranthene-d12	47.381	264	831743	2249.712	ng/mL	-0.02	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	224.97%#		
89) Benzo[a]pyrene-d12	48.597	264	620176	2216.359	ng/mL	-0.02	
Spiked Amount	1000.000	Range 50 - 130	Recovery	=	221.64%#		
Target Compounds							
2) trans-Decalin	16.656	138	5425	65.007	ng/mL	100	Qvalue
3) cis-Decalin	17.879	138	435M3	6.792	ng/mL		
4) C1-Decalins	18.600	152	25731M5	308.331	ng/mL		
5) C2-Decalins	19.923	166	55413M5	664.006	ng/mL		
6) C3-Decalins	22.405	180	46379M5	555.753	ng/mL		
7) C4-Decalins	24.677	194	59303M5	710.620	ng/mL		
9) Naphthalene	20.087	128	770636	1808.080	ng/mL	100	
10) C1-Naphthalenes	22.779	142	110830M5	260.031	ng/mL		
11) C2-Naphthalenes	25.626	156	106871M5	250.743	ng/mL		
12) C3-Naphthalenes	27.962	170	141076M5	330.995	ng/mL		
13) C4-Naphthalenes	30.727	184	140641M5	329.974	ng/mL		
14) 2-Methylnaphthalene	22.779	142	72251	266.935	ng/mL	100	
15) 1-Methylnaphthalene	23.208	142	38402	149.469	ng/mL	100	
16) Benzothiophene	20.306	134	29543	81.927	ng/mL	100	
17) C1-Benzo(b)thiophenes	22.989	148	8303M5	23.025	ng/mL		
18) C2-Benzo(b)thiophenes	24.933	162	10242M5	28.403	ng/mL		
19) C3-Benzo(b)thiophenes	27.442	176	18469M5	51.217	ng/mL		
20) C4-Benzo(b)thiophenes	29.906	190	22825M5	63.297	ng/mL		
21) Biphenyl	24.659	154	104606	315.724	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.279	156	30578	132.619	ng/mL	100	
23) Dibenzofuran	27.752	168	48244	136.566	ng/mL	89	
24) Acenaphthylene	26.375	152	246161	605.149	ng/mL	100	
25) Acenaphthene	27.114	153	270140	1049.691	ng/mL	99	
26) 2,3,5-Trimethylnaphthalen	28.656	170	11016M3	49.795	ng/mL		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142216.D  
 Acq On : 15 Feb 2022 8:24 am  
 Operator : PAH12:MJS  
 Sample : L2206076-07,32  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 22 13:37:12 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	29.130	166	217848	765.175	ng/mL	98
28) C1-Fluorenes	31.356	180	79565M5	279.466	ng/mL	
29) C2-Fluorenes	33.692	194	124712M5	438.041	ng/mL	
30) C3-Fluorenes	36.193	208	150724M5	529.407	ng/mL	
31) Dibenzothiophene	32.451	184	301639	734.506	ng/mL#	87
32) 4-Methyldibenzothiophene(	34.231	198	52578	128.030	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.587	198	79912	194.590	ng/mL	100
34) 1-Methyldibenzothiophene(	35.006	198	15920	38.766	ng/mL	100
36) C1-Dibenzothiophenes	34.669	198	262723M5	639.744	ng/mL	
36) C1-Dibenzothiophenes BS	34.669	198	168961M5	411.429	ng/mL	
37) C2-Dibenzothiophenes	36.284	212	171159M5	416.781	ng/mL	
38) C3-Dibenzothiophenes	37.727	226	193474M5	471.119	ng/mL	
39) C4-Dibenzothiophenes	39.407	240	109920M5	267.661	ng/mL	
41) Phenanthrene	32.962	178	4479220	10673.003	ng/mL	96
42) 3-Methylphenanthrene(3MP)	34.924	192	226960	540.796	ng/mL	99
43) 2-Methylphenanthrene(2MP)	35.034	192	279299	665.509	ng/mL	97
44) 2-Methylanthracene(2MA)	35.189	192	101300M3	241.376	ng/mL	
45) 9/4-Methylphenanthrene(9M	35.381	192	255300M3	608.324	ng/mL	
47) C1-Phenanthrenes/Anthrace	35.034	192	1031728M5	2458.382	ng/mL	
48) C2-Phenanthrenes/Anthrace	37.188	206	716671M5	1707.670	ng/mL	
48) C2-Phenanthrenes/Anthr BS	37.188	206	716671M5	1707.670	ng/mL	
50) C3-Phenanthrenes/Anthrace	39.023	220	547067M5	1303.541	ng/mL	
51) C4-Phenanthrenes/Anthrace	41.196	234	353061M5	841.267	ng/mL	
52) Retene	39.946	234	49485M4	355.797	ng/mL	
53) Anthracene	33.135	178	898426	2297.340	ng/mL	100
54) Carbazole	33.792	167	50021M4	123.234	ng/mL	
55) 1-Methylphenanthrene	35.472	192	165336	586.375	ng/mL	99
56) Fluoranthene	37.754	202	9115300M4	21659.037	ng/mL	
57) Benzo(b)fluorene	40.256	216	280422M3	1057.409	ng/mL	
58) 7H-Benzo(c)fluorene	40.302	216	111119M3	419.005	ng/mL	
59) Pyrene	38.649	202	12186777	27903.456	ng/mL#	71
60) 2-Methylpyrene	40.411	216	233168M3	533.873	ng/mL	
61) 4-Methylpyrene	40.786	216	219229	501.958	ng/mL	75
62) 1-Methylpyrene	40.895	216	231611	530.308	ng/mL	71
63) C1-Fluoranthenes/Pyrenes	40.009	216	2015519M5	4614.833	ng/mL	
64) C2-Fluoranthenes/Pyrenes	41.753	230	511159M5	1170.375	ng/mL	
65) C3-Fluoranthenes/Pyrenes	43.945	244	328347M5	751.800	ng/mL	
66) C4-Fluoranthenes/Pyrenes	45.186	258	288201M5	659.879	ng/mL	
67) Naphthobenzothiophene-2,1	42.475	234	377638	862.520	ng/mL#	66

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142216.D  
 Acq On : 15 Feb 2022 8:24 am  
 Operator : PAH12:MJS  
 Sample : L2206076-07,32  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 22 13:37:12 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	42.812	234	79707	182.050	ng/mL#	12
69) Naphthobenzothiophene-2,3	43.114	234	146684M3	335.024	ng/mL	
70) C1-Naphthobenzothiophenes	43.871	248	200720M5	458.442	ng/ml	
71) C2-Naphthobenzothiophenes	45.378	262	155606M5	355.402	ng/ml	
72) C3-Naphthobenzothiophenes	47.271	276	154226M5	352.250	ng/ml	
73) C4-Naphthobenzothiophenes	48.698	290	105433M5	240.808	ng/mL	
75) Benz[a]anthracene	43.415	228	2385690M3	6209.262	ng/mL	
76) Chrysene	43.570	228	3036804	7989.166	ng/mL	85
78) C1-Chrysenes	45.040	242	668258M5	1758.040	ng/mL	
79) C2-Chrysenes	46.750	256	376092M5	989.416	ng/mL	
79) C2-Chrysenes BS	46.750	256	345106M5	907.898	ng/mL	
81) C3-Chrysenes	48.378	270	275059M5	723.620	ng/mL	
82) C4-Chrysenes	49.402	284	174106M5	458.035	ng/mL	
85) Benzo[b]fluoranthene	47.481	252	2744692	6336.227	ng/mL	96
86) Benzo[j]+[k]fluoranthene	47.545	252	2450849	5482.032	ng/mL	96
87) Benzo[a]fluoranthene	47.856	252	732340M3	1638.090	ng/mL	
88) Benzo[e]pyrene	48.506	252	2697940	6303.412	ng/mL	95
90) Benzo[a]pyrene	48.707	252	4281509	10316.250	ng/mL	95
91) Perylene	49.009	252	1790533	4206.533	ng/mL	93
92) Indeno[1,2,3-cd]pyrene	53.655	276	4024974M4	7076.247	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.673	278	501187M4	1003.772	ng/mL	
94) Benzo[g,h,i]perylene	55.016	276	5608712	11145.105	ng/mL	100

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

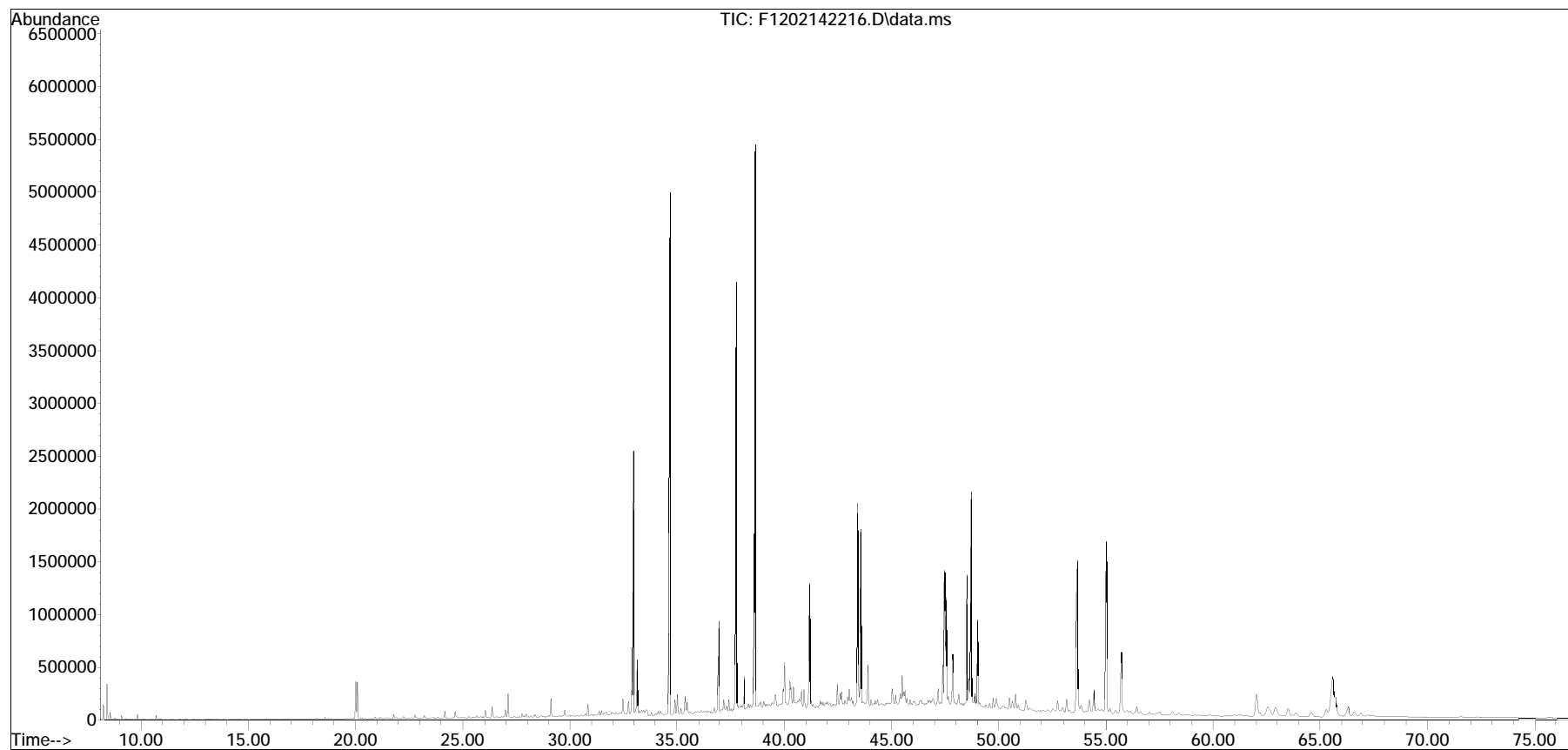


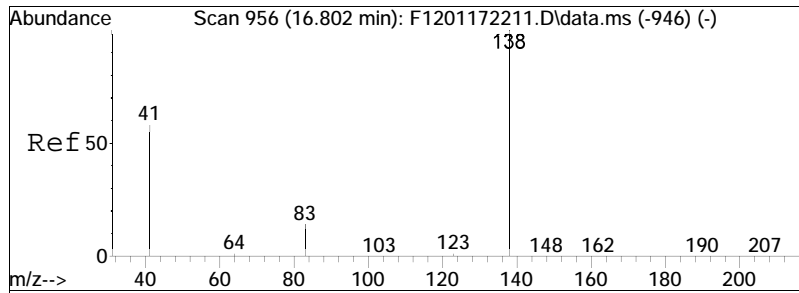
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
Data File : F1202142216.D  
Acq On : 15 Feb 2022 8:24 am  
Operator : PAH12:MJS  
Sample : L2206076-07,32  
Misc : WG1605097,WG1603644,ICAL18670  
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 22 13:37:12 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Wed Feb 09 13:46:27 2022  
Response via : Initial Calibration

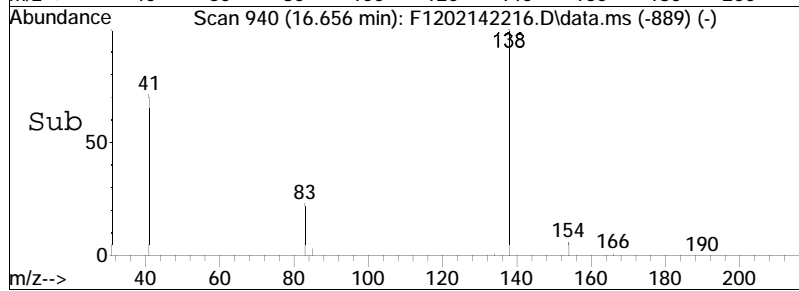
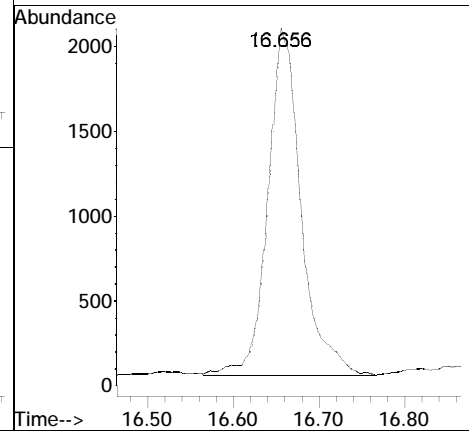
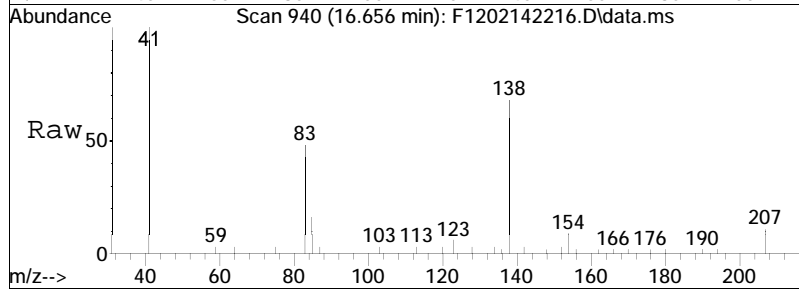
Sub List : ALKPAH - POI+MP+BcF

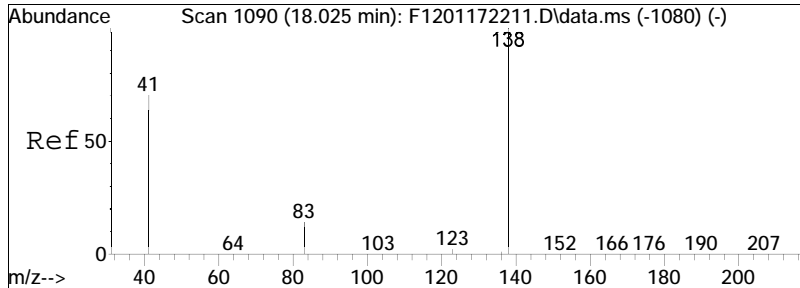




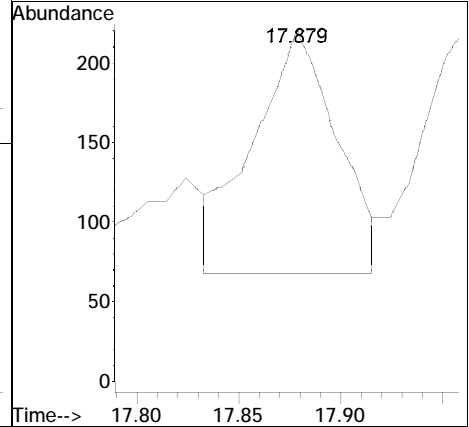
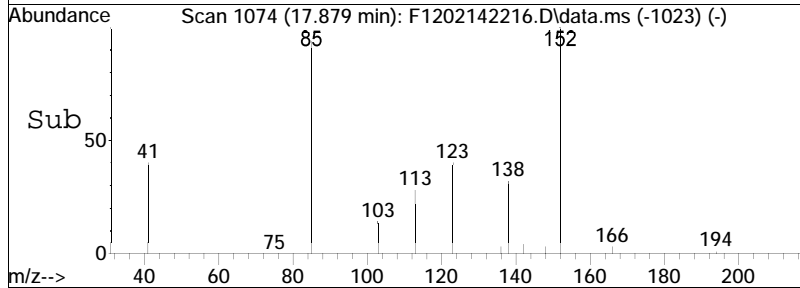
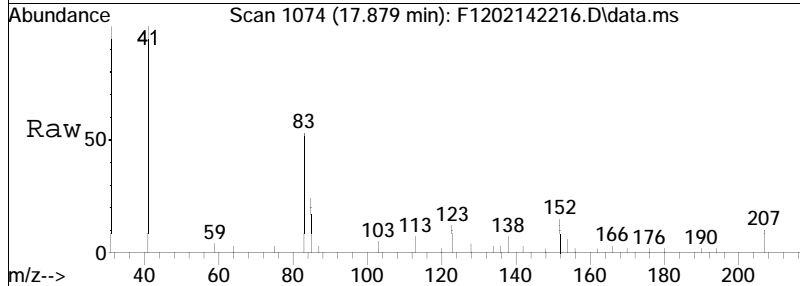
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 Concen: 65.01 ng/mL  
 RT: 16.656 min Scan# 940  
 Delta R.T. -0.036 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

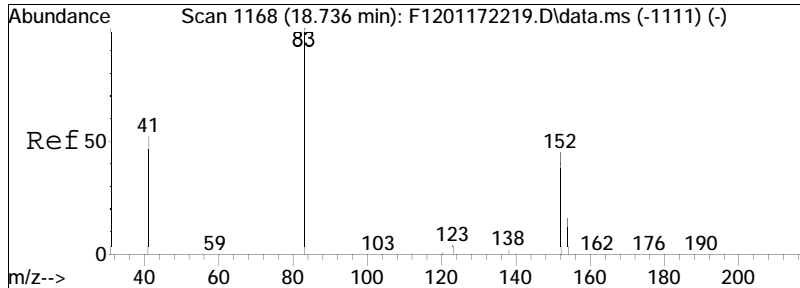
Tgt Ion:138 Resp: 5425



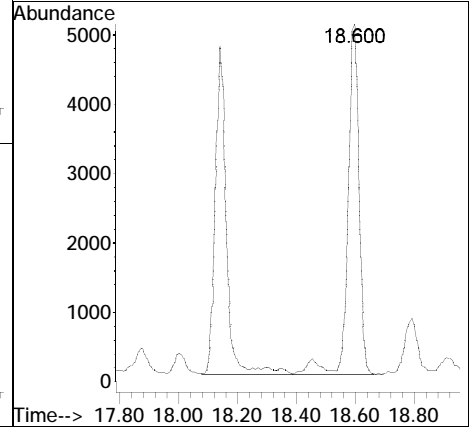
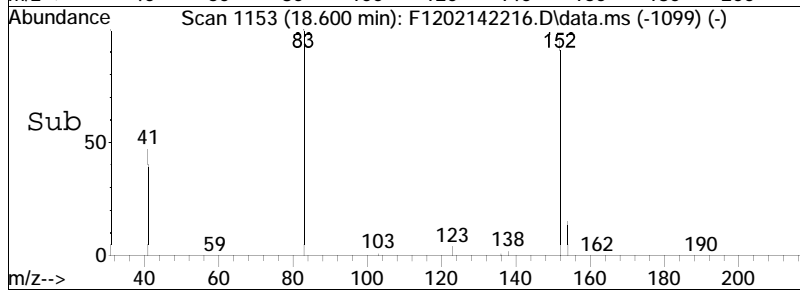
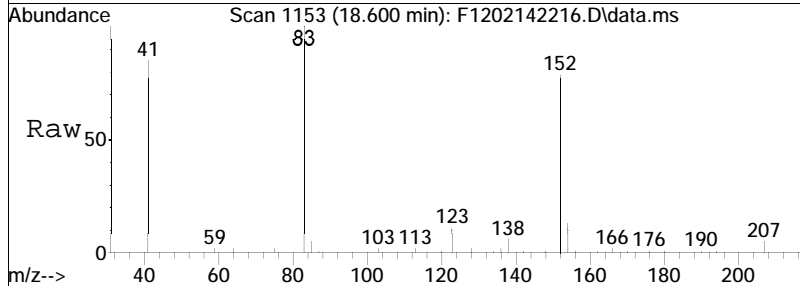


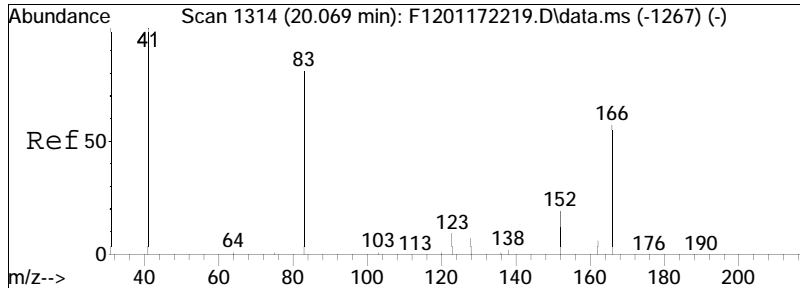
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 Concen: 6.79 ng/mL M3  
 RT: 17.879 min Scan# 1074  
 Delta R.T. -0.036 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:138 Resp: 435



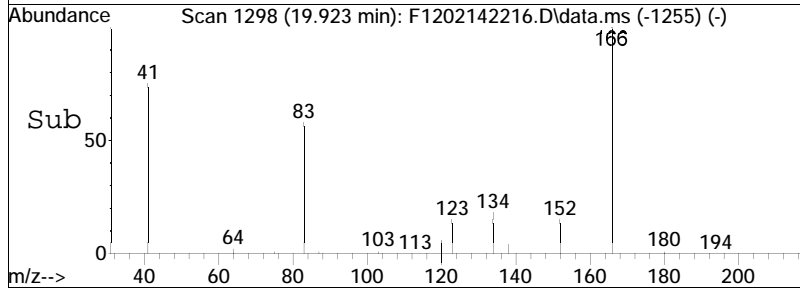
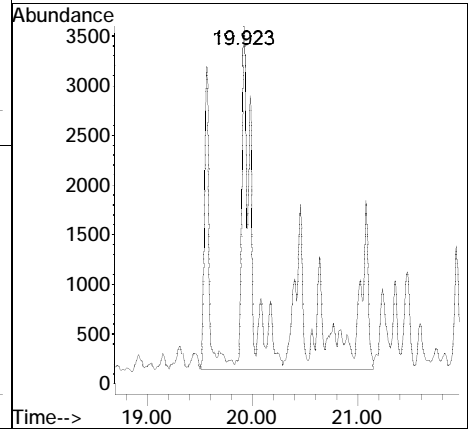
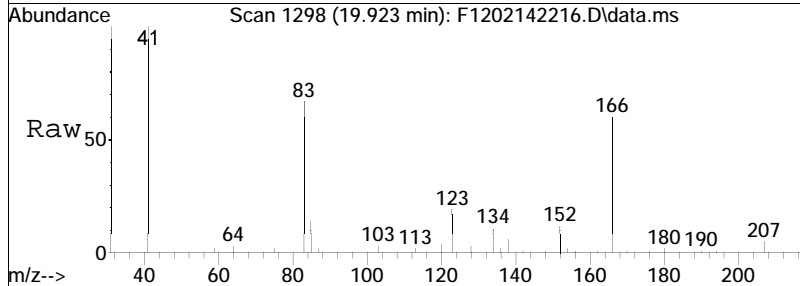


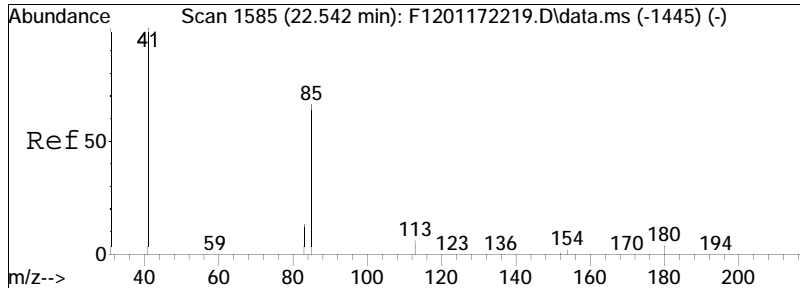
#4  
 Cl-Decalins  
 Concen: 308.33 ng/mL M5  
 RT: 18.600 min Scan# 1153  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:152 Resp: 25731



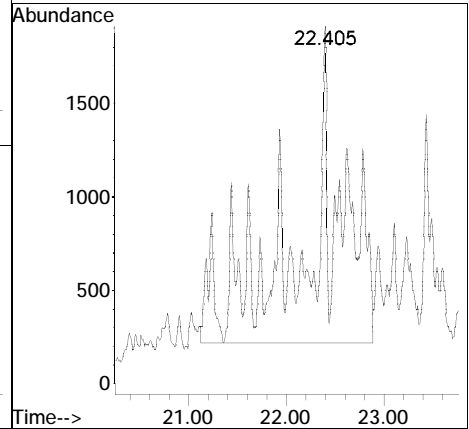
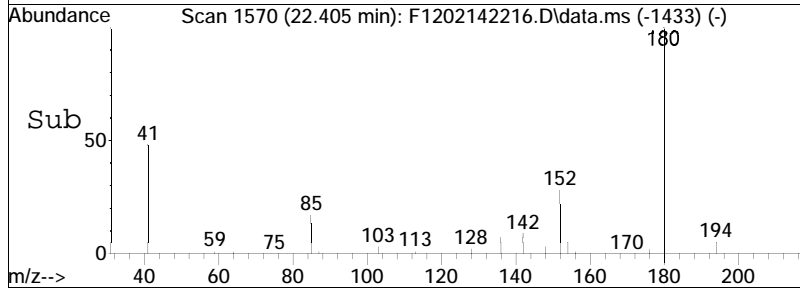
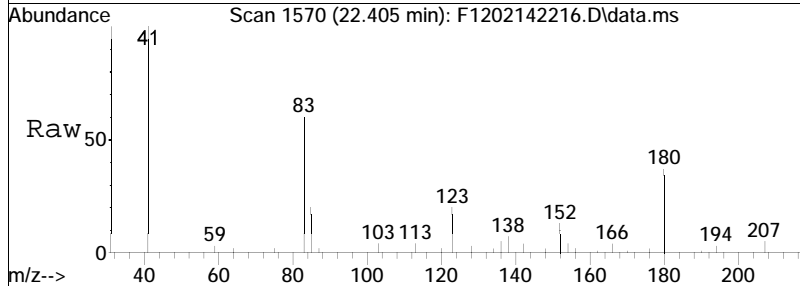


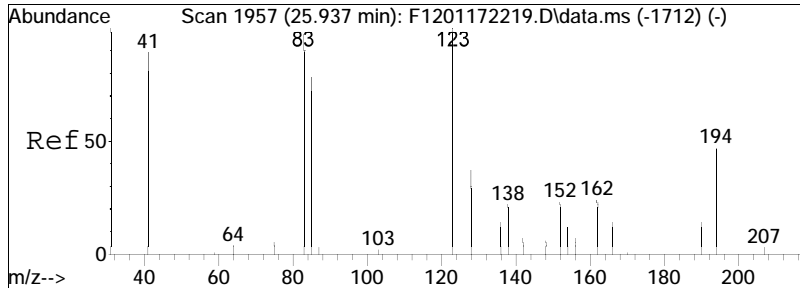
#5  
 C2-Decalins  
 Concen: 664.01 ng/mL M5  
 RT: 19.923 min Scan# 1298  
 Delta R.T. -0.036 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:166 Resp: 55413



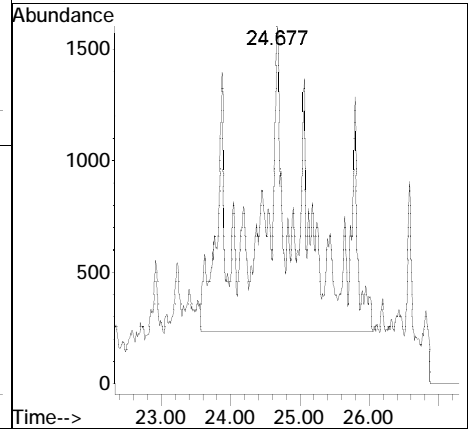
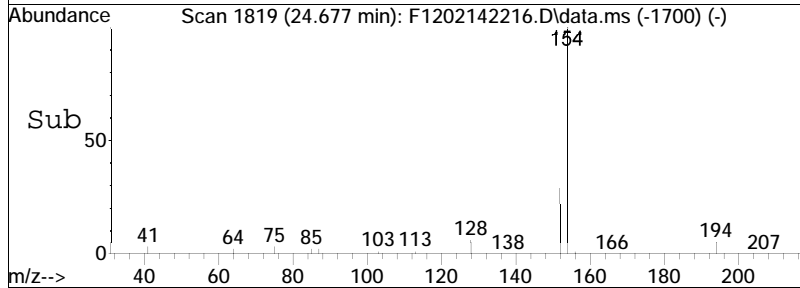
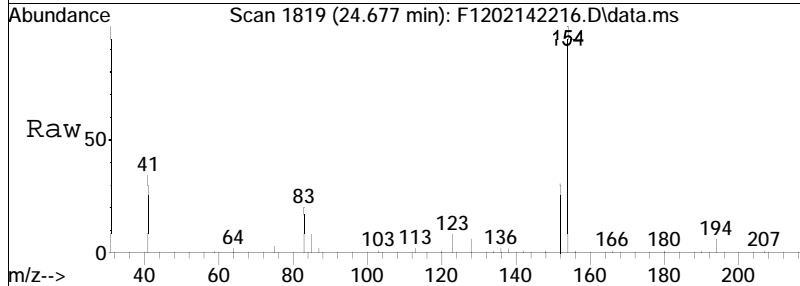


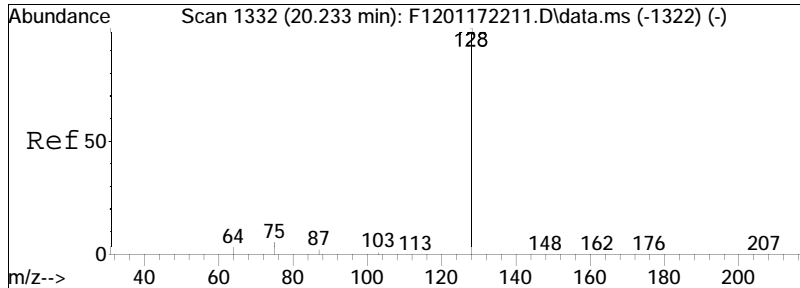
#6  
 C3-Decalins  
 Concen: 555.75 ng/mL M5  
 RT: 22.405 min Scan# 1570  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:180 Resp: 46379



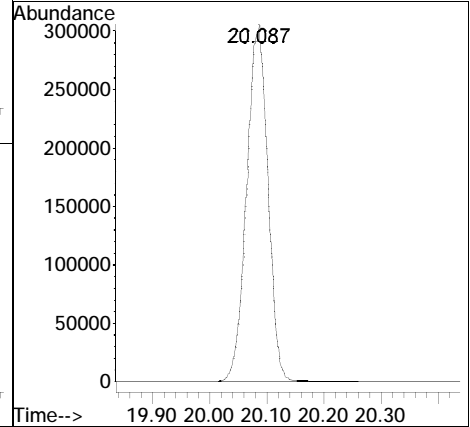
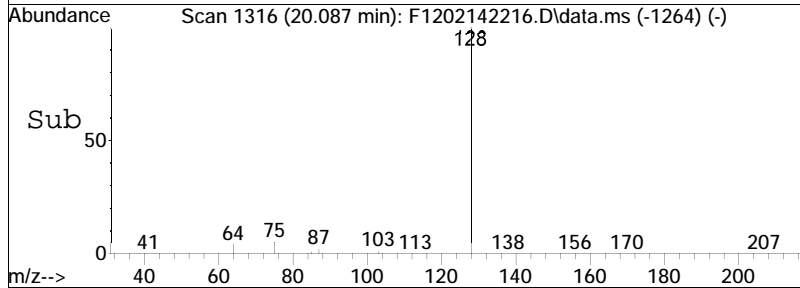
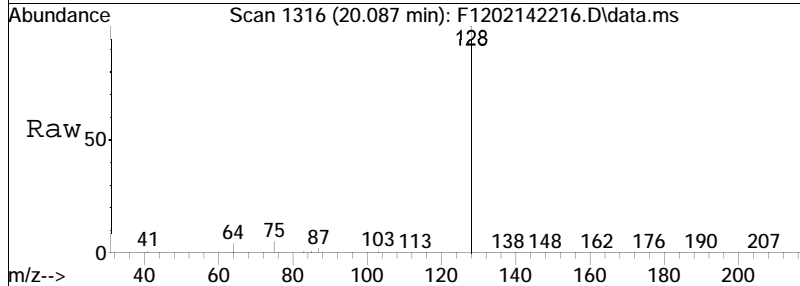


#7  
 C4-Decalins  
 Concen: 710.62 ng/mL M5  
 RT: 24.677 min Scan# 1819  
 Delta R.T. -1.150 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:194 Resp: 59303

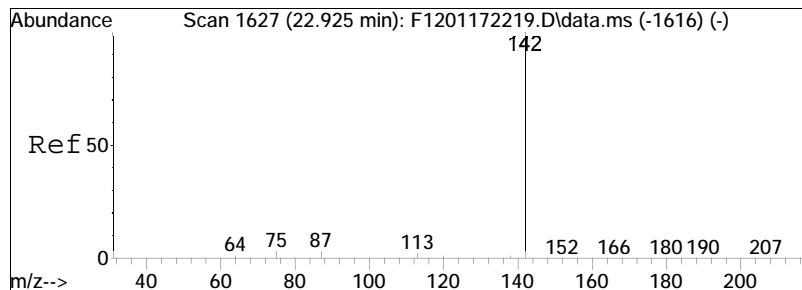




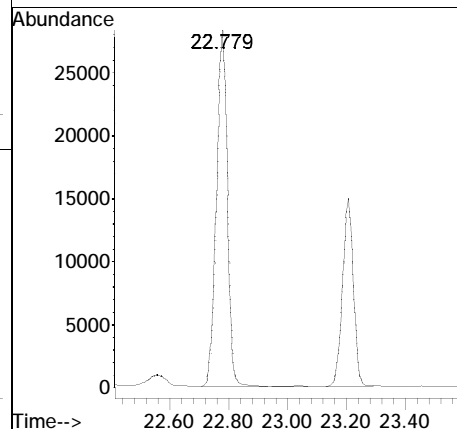
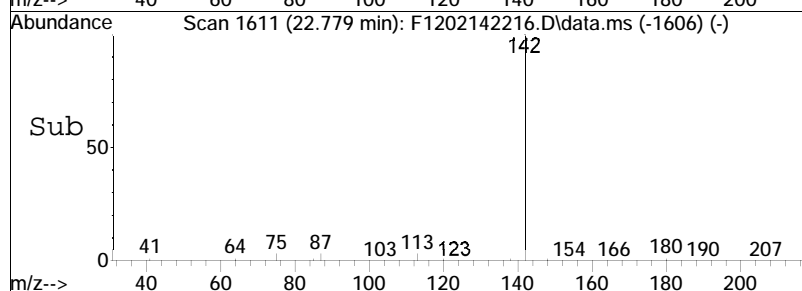
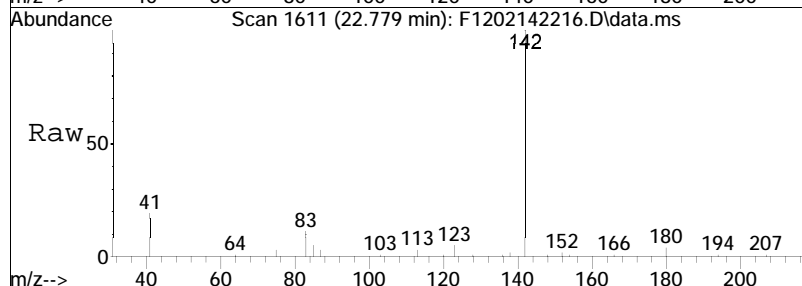
#9  
 Naphthalene  
 Concen: 1808.08 ng/mL  
 RT: 20.087 min Scan# 1316  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:128 Resp: 770636

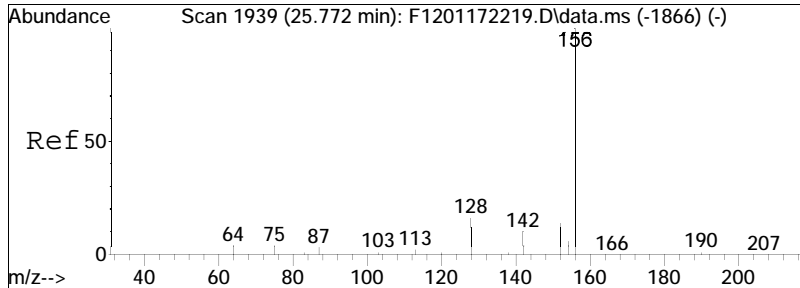




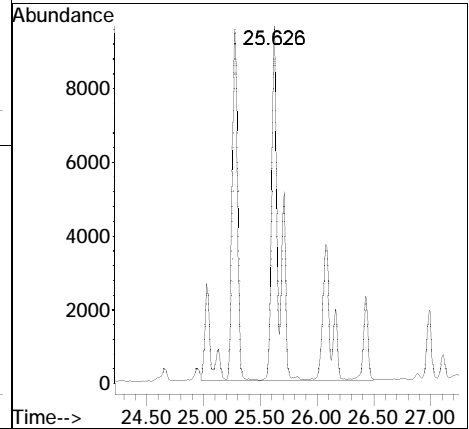
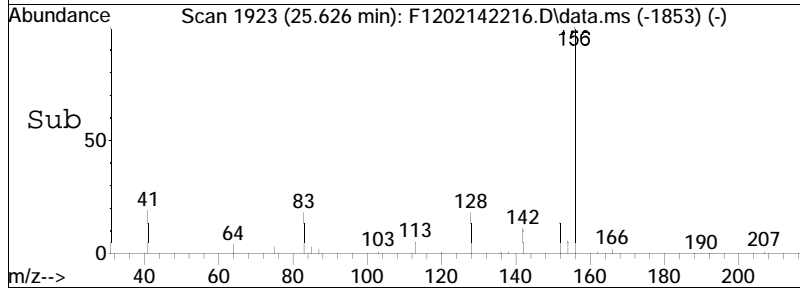
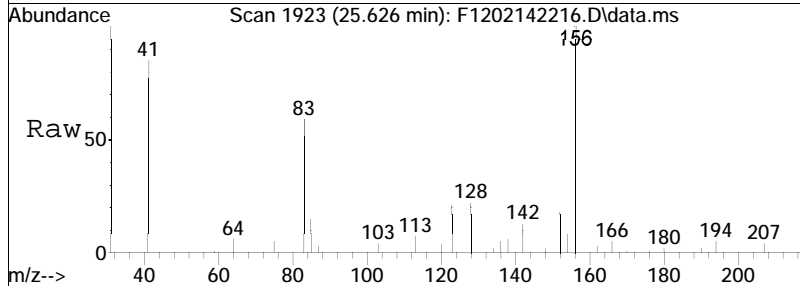


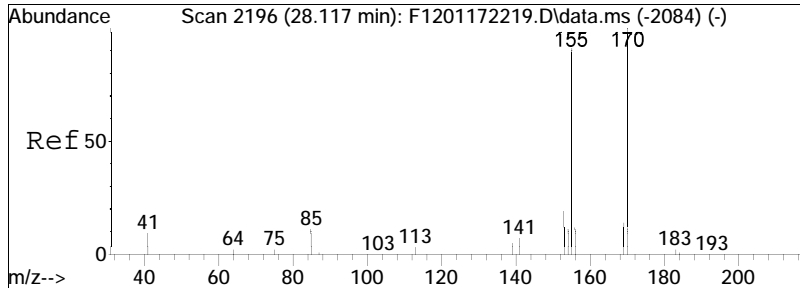
#10  
Cl-Naphthalenes  
Concen: 260.03 ng/mL M5  
RT: 22.779 min Scan# 1611  
Delta R.T. -0.036 min  
Lab File: F1202142216.D  
Acq: 15 Feb 2022 8:24 am  
Tgt Ion:142 Resp: 110830





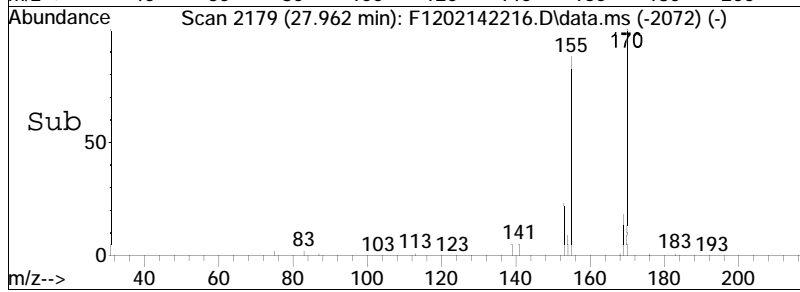
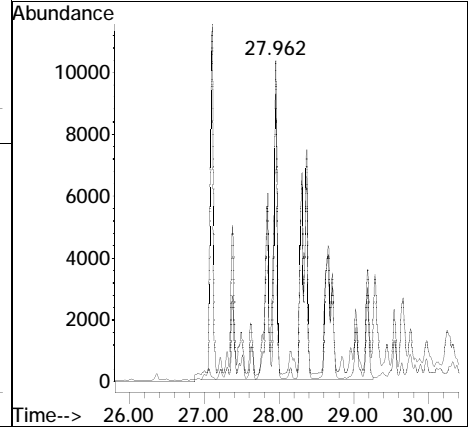
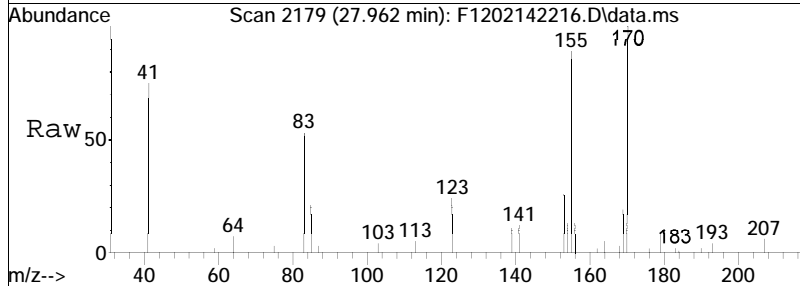
#11  
 C2-Naphthalenes  
 Concen: 250.74 ng/mL M5  
 RT: 25.626 min Scan# 1923  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:156 Resp: 106871

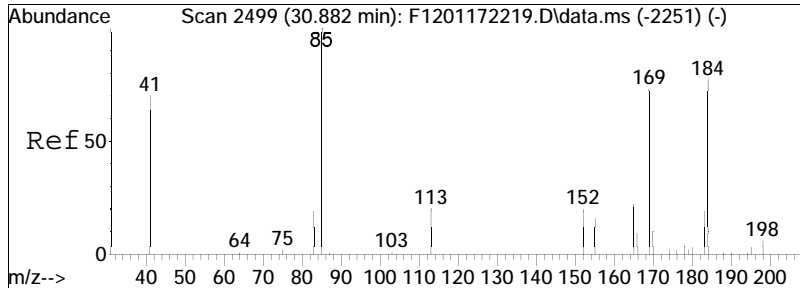




#12  
 C3-Naphthalenes  
 Concen: 330.99 ng/mL M5  
 RT: 27.962 min Scan# 2179  
 Delta R.T. -0.036 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

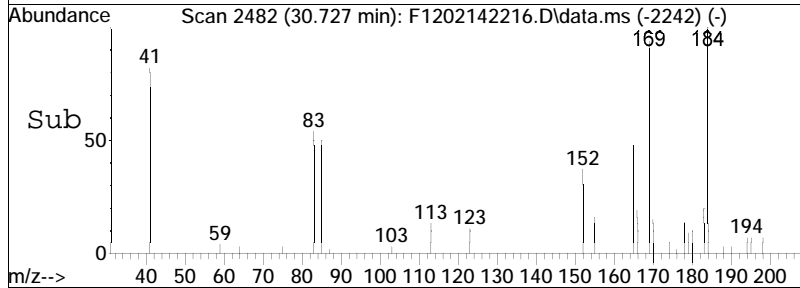
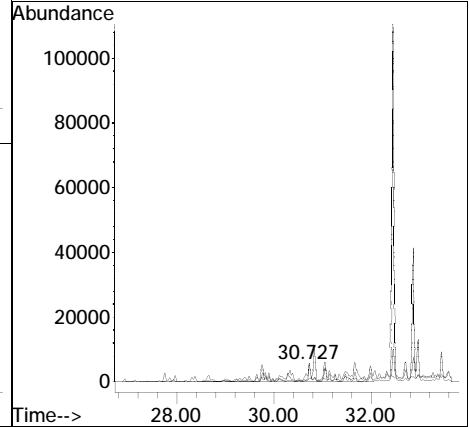
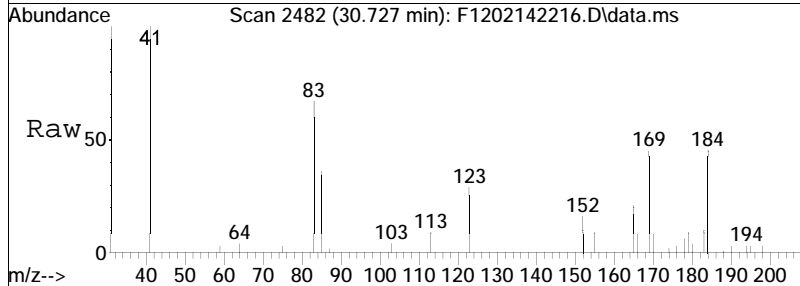
Tgt Ion	Resp	Lower	Upper
170	100		
155	19.4	63.8	118.4#

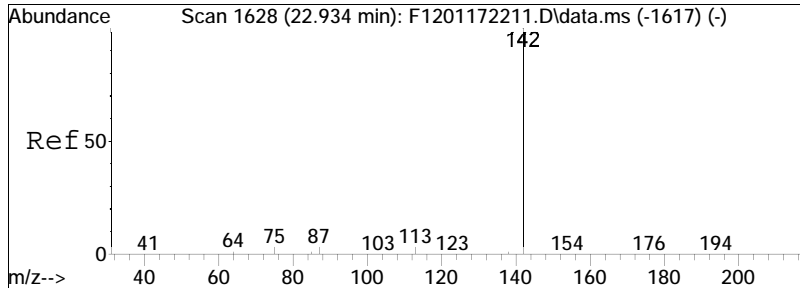




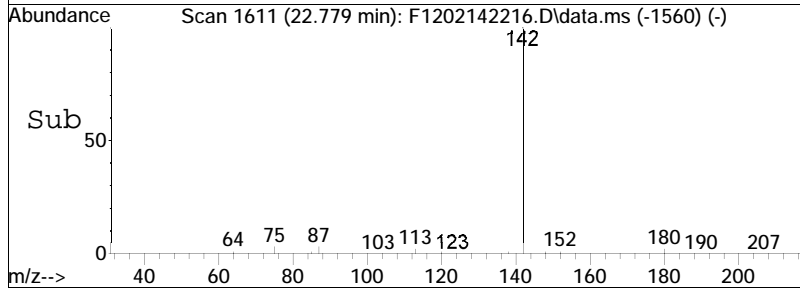
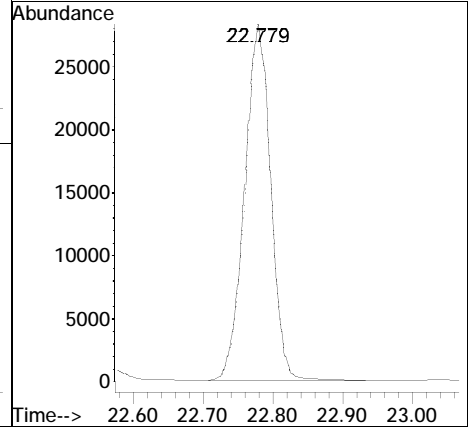
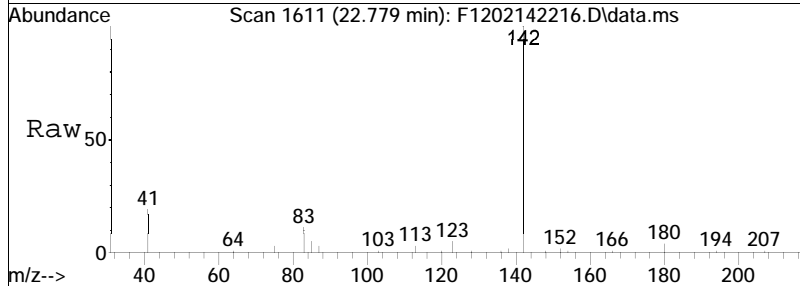
#13  
 C4-Naphthalenes  
 Concen: 329.97 ng/mL M5  
 RT: 30.727 min Scan# 2482  
 Delta R.T. -0.036 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

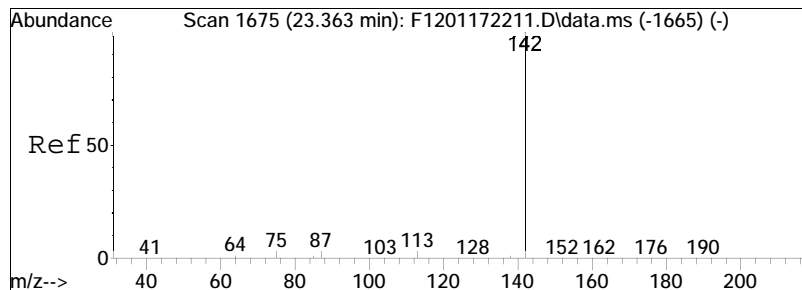
Tgt Ion	Resp	Lower	Upper
184	140641		
184	100		
169	5.0	74.1	137.7#
183	1.1	23.0	42.8#



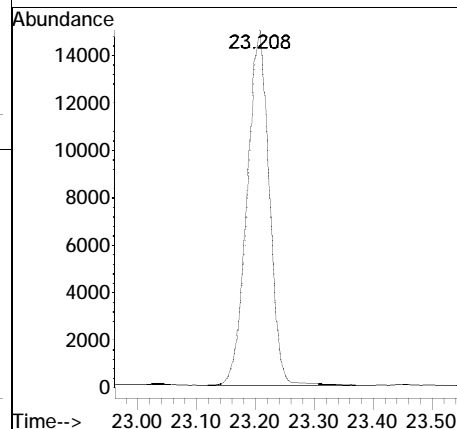
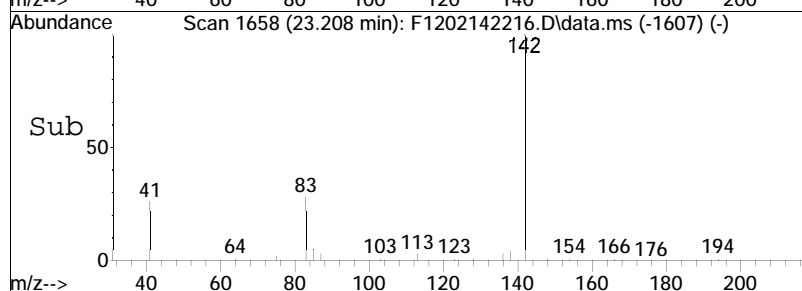
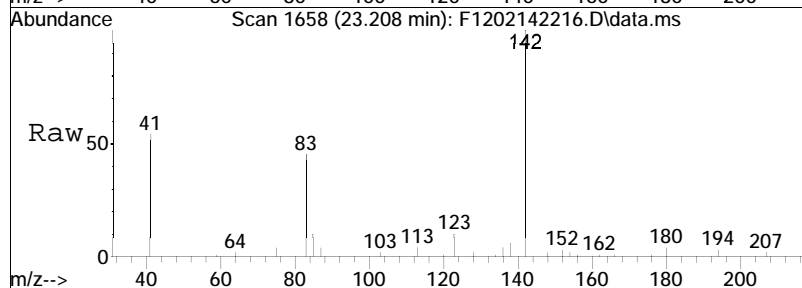


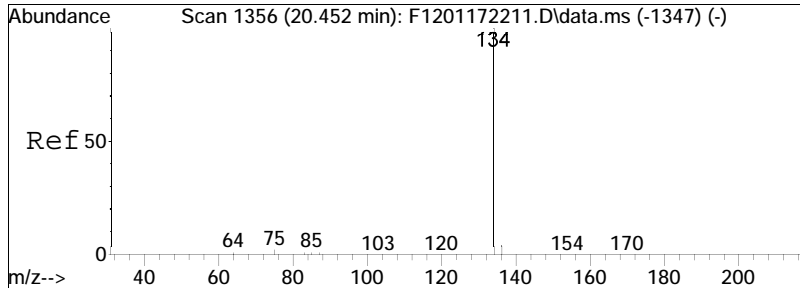
#14  
 2-Methylnaphthalene  
 Concen: 266.93 ng/mL  
 RT: 22.779 min Scan# 1611  
 Delta R.T. -0.036 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:142 Resp: 72251



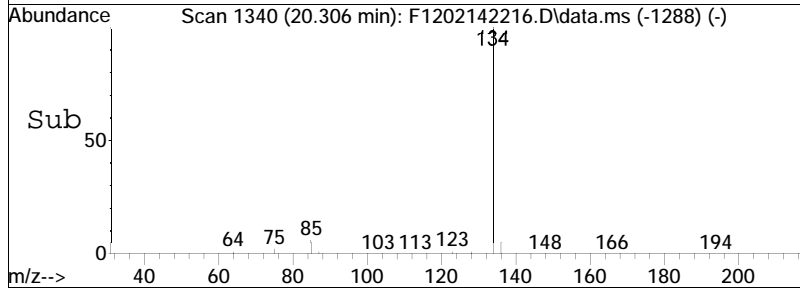
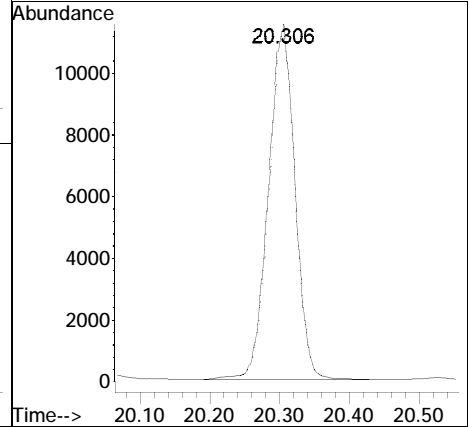
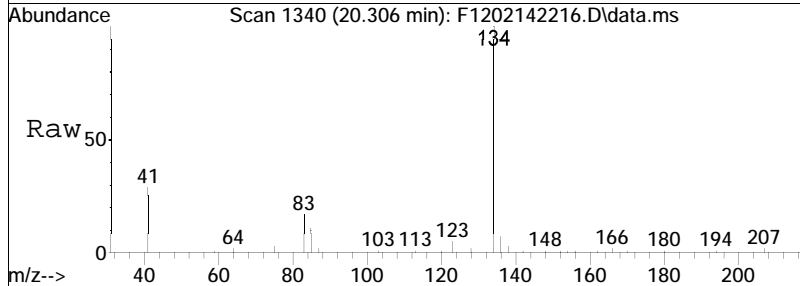


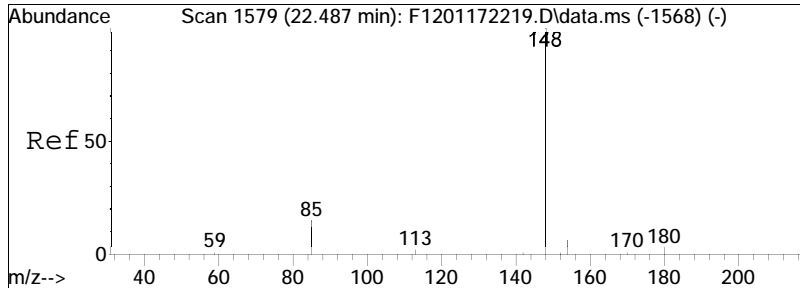
#15  
 1-Methylnaphthalene  
 Concen: 149.47 ng/mL  
 RT: 23.208 min Scan# 1658  
 Delta R.T. -0.036 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:142 Resp: 38402



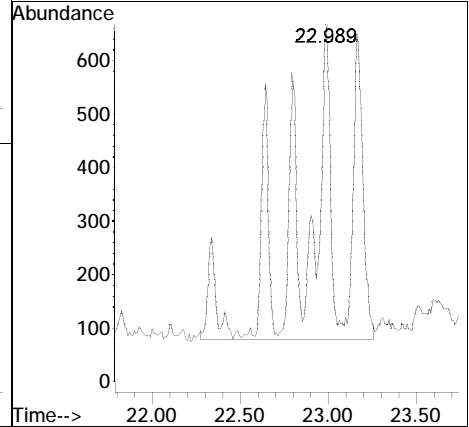
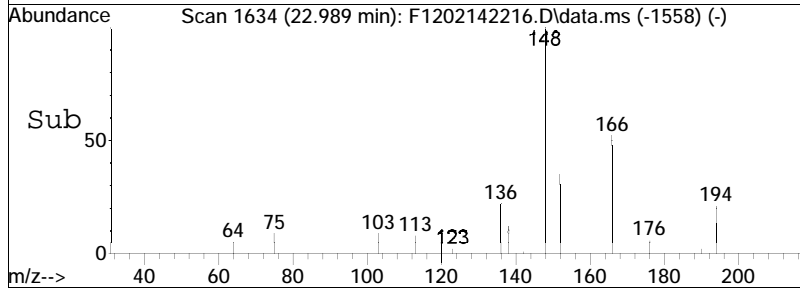
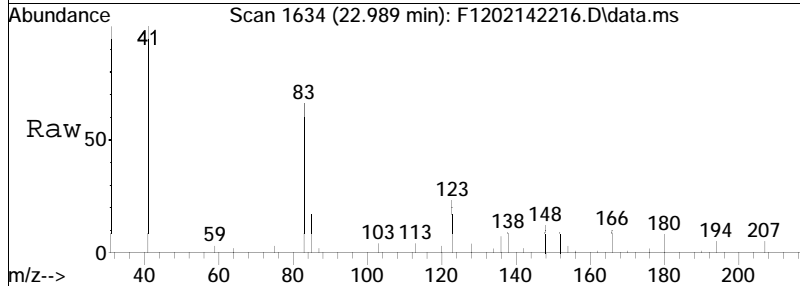


#16  
 Benzothiophene  
 Concen: 81.93 ng/mL  
 RT: 20.306 min Scan# 1340  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:134 Resp: 29543

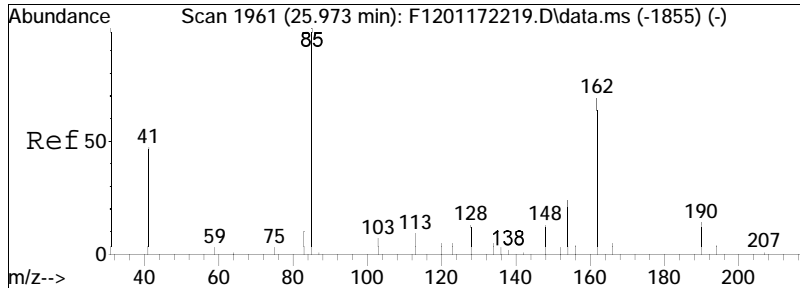




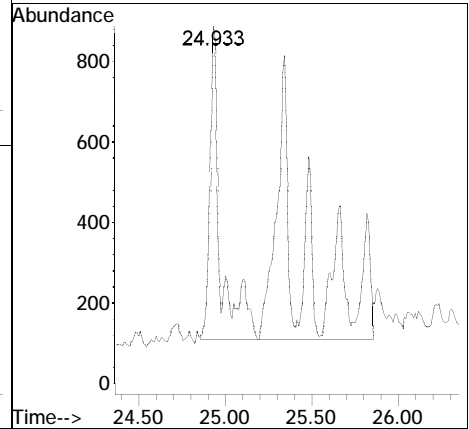
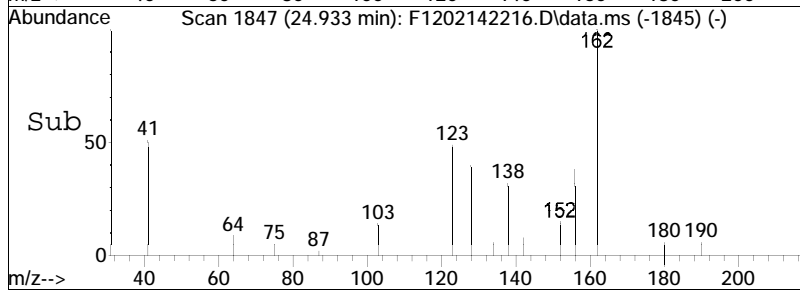
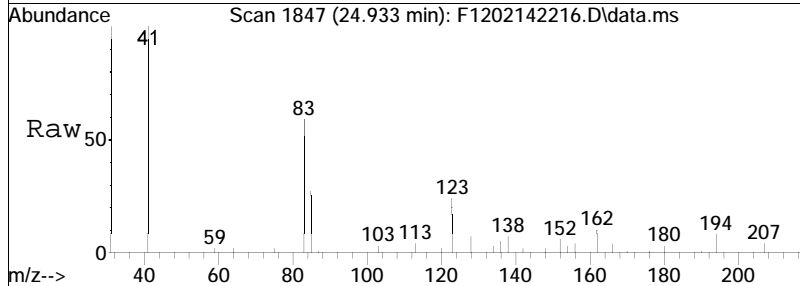
#17  
 Cl-Benzo(b)thiophenes  
 Concen: 23.03 ng/mL M5  
 RT: 22.989 min Scan# 1634  
 Delta R.T. 0.611 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:148 Resp: 8303

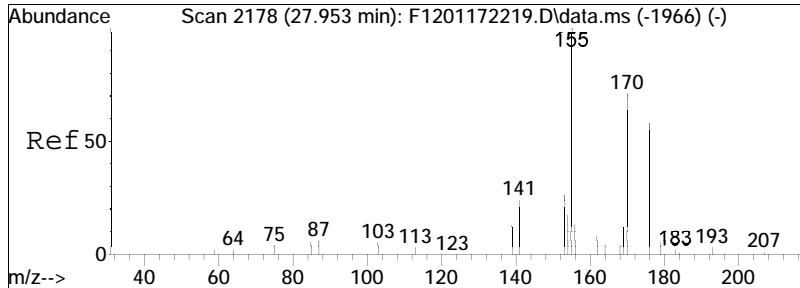




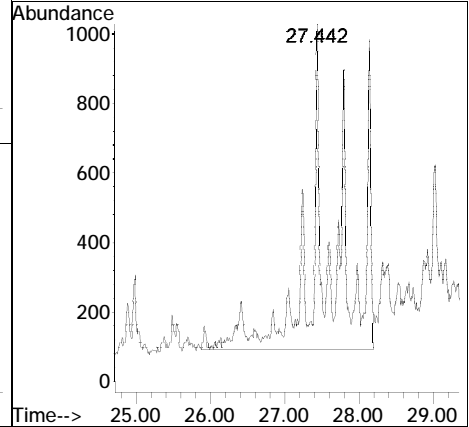
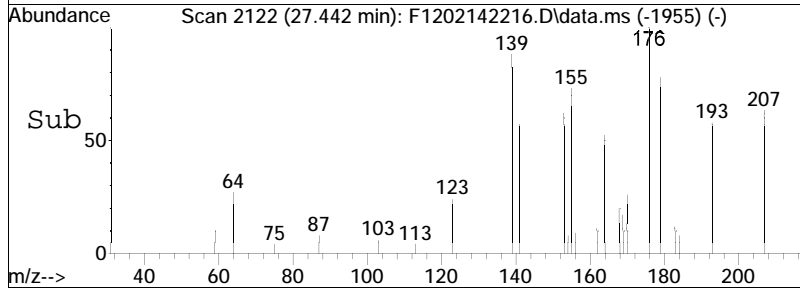
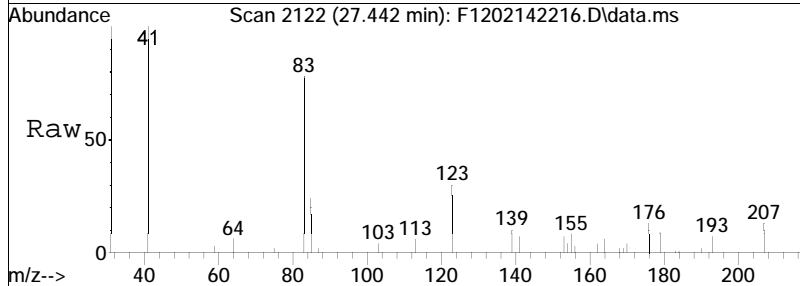


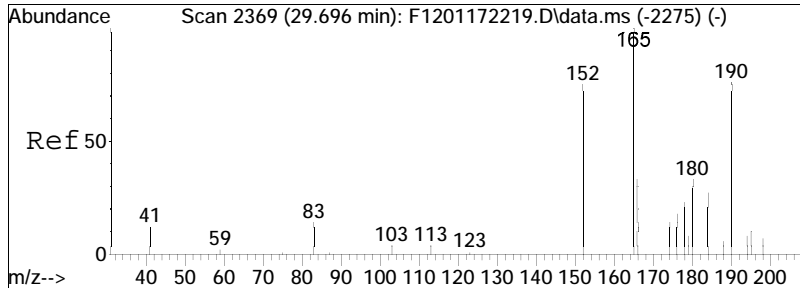
#18  
 C2-Benzo(b)thiophenes  
 Concen: 28.40 ng/mL M5  
 RT: 24.933 min Scan# 1847  
 Delta R.T. -0.922 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:162 Resp: 10242



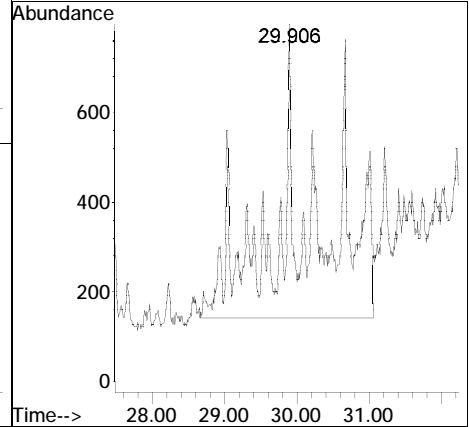
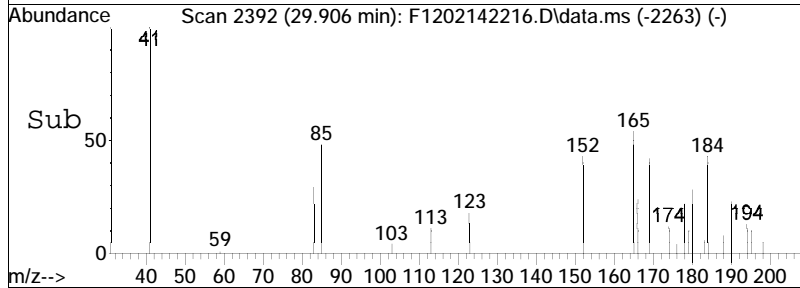
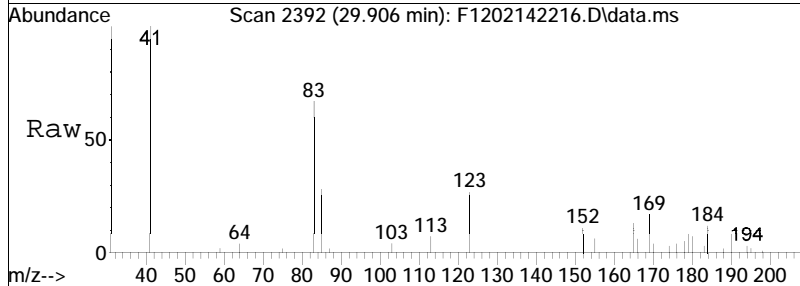


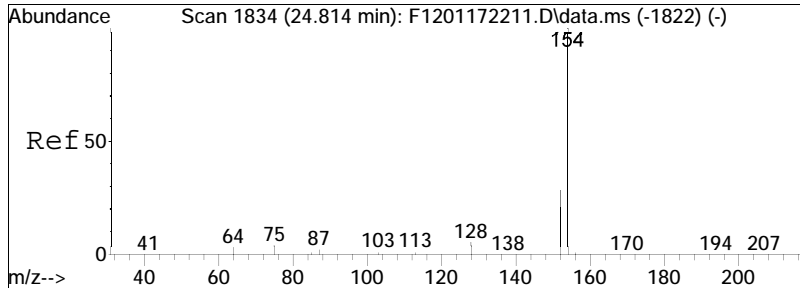
#19  
 C3-Benzo(b)thiophenes  
 Concen: 51.22 ng/mL M5  
 RT: 27.442 min Scan# 2122  
 Delta R.T. -0.392 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:176 Resp: 18469



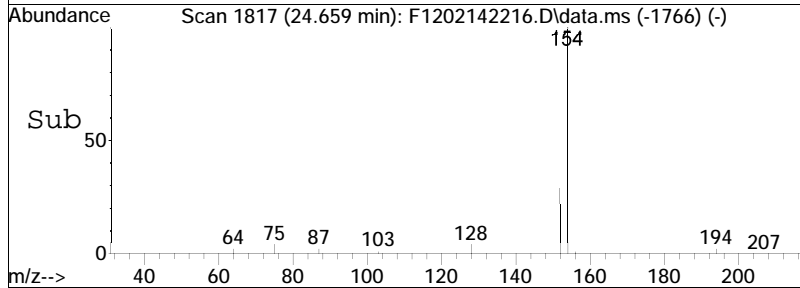
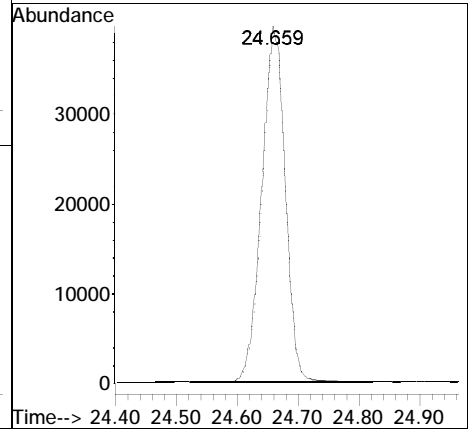
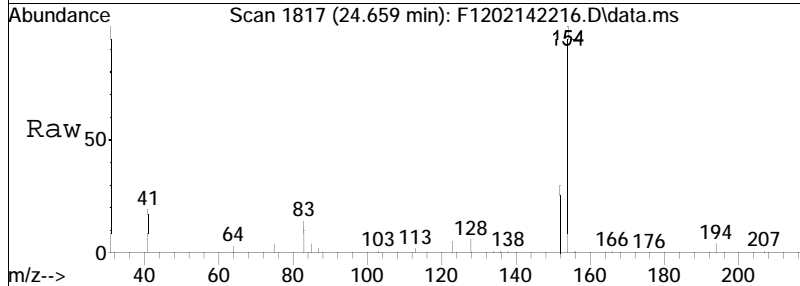


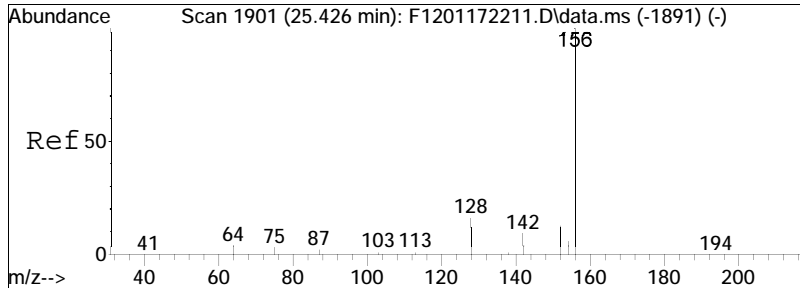
#20  
 C4-Benzo(b)thiophenes  
 Concen: 63.30 ng/mL M5  
 RT: 29.906 min Scan# 2392  
 Delta R.T. 0.329 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:190 Resp: 22825



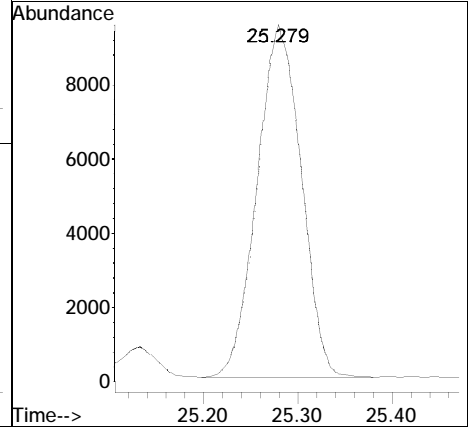
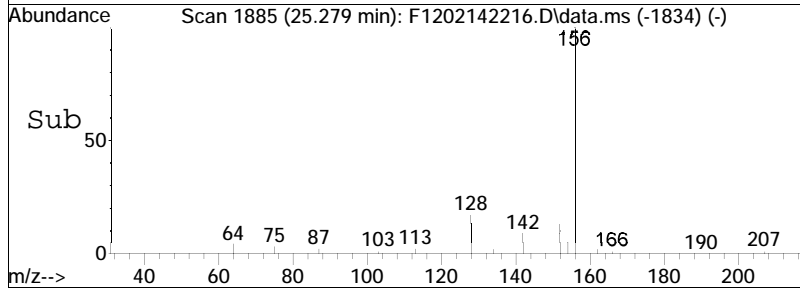
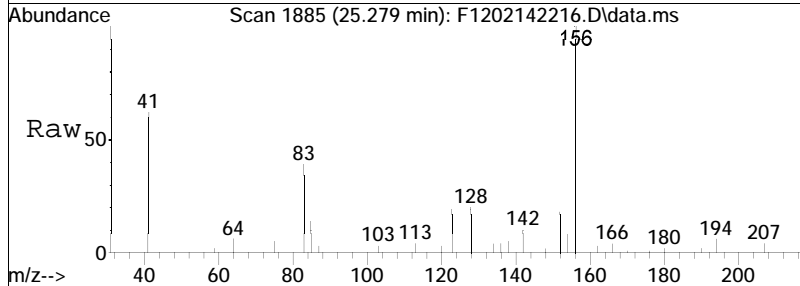


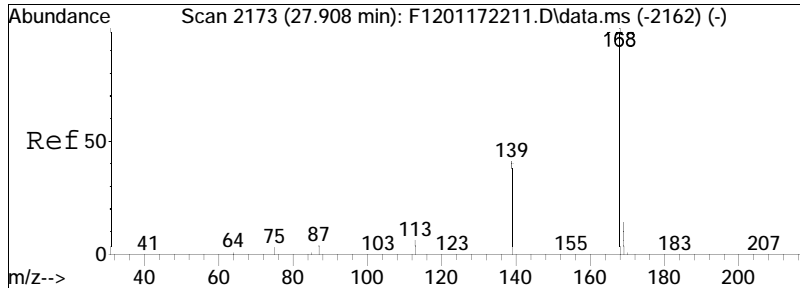
#21  
 Biphenyl  
 Concen: 315.72 ng/mL  
 RT: 24.659 min Scan# 1817  
 Delta R.T. -0.036 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:154 Resp: 104606





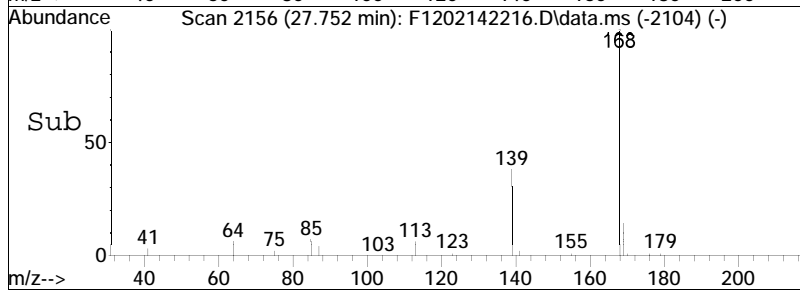
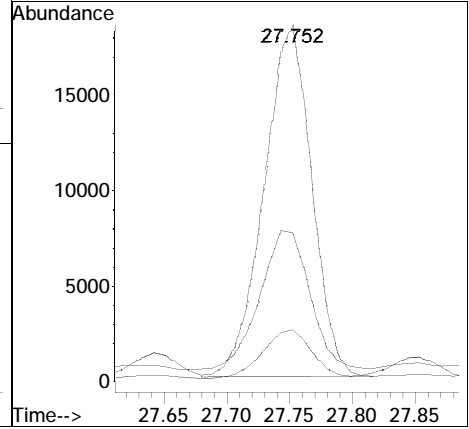
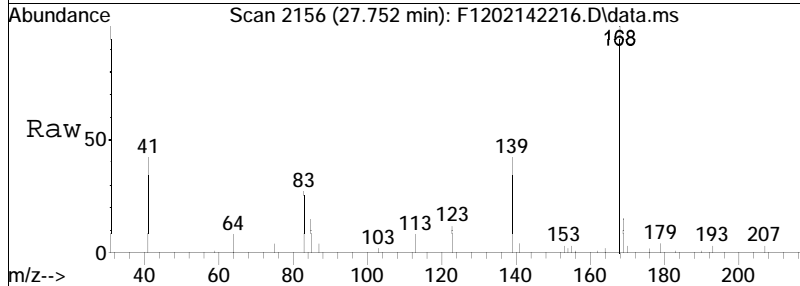
#22  
 2,6-Dimethylnaphthalene  
 Concen: 132.62 ng/mL  
 RT: 25.279 min Scan# 1885  
 Delta R.T. -0.036 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:156 Resp: 30578

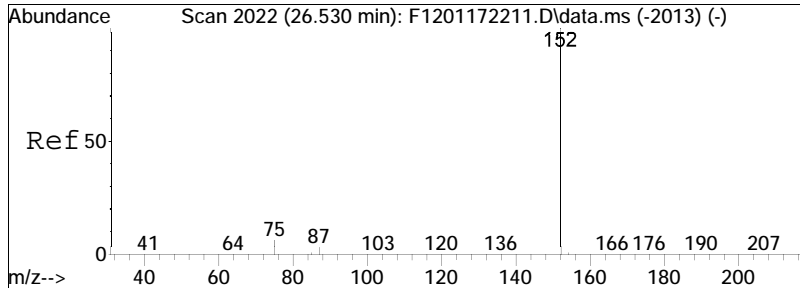




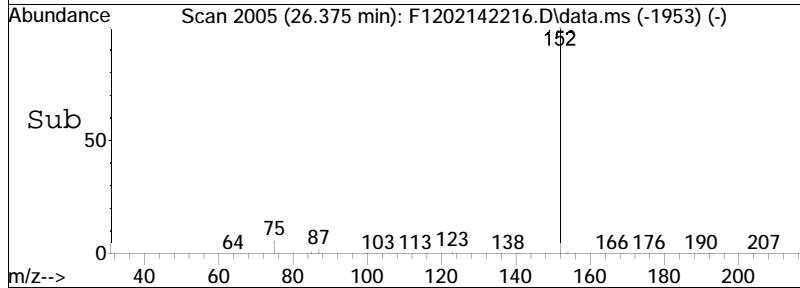
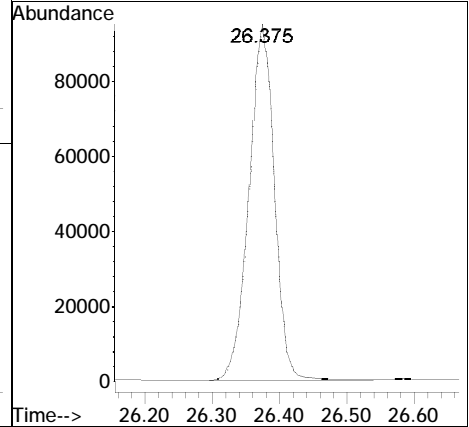
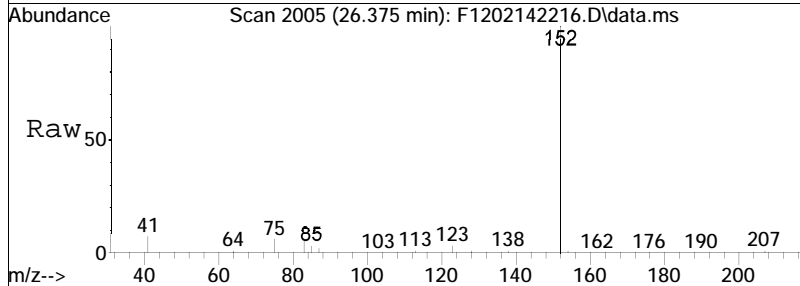
#23  
 Dibenzofuran  
 Concen: 136.57 ng/mL  
 RT: 27.752 min Scan# 2156  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

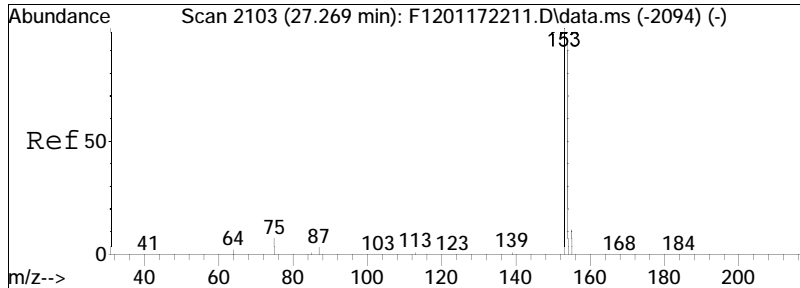
Tgt Ion	Resp	Lower	Upper
168	100		
139	41.3	35.0	65.0
169	14.4	11.5	21.5





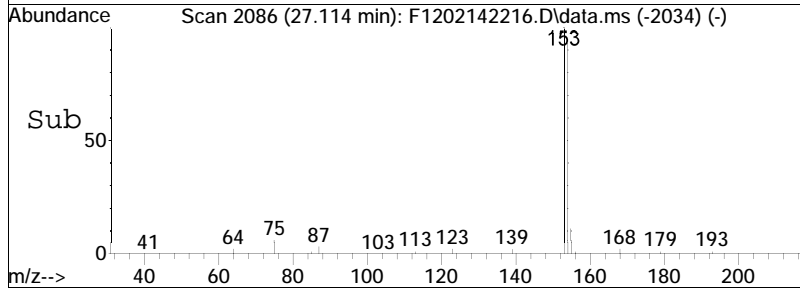
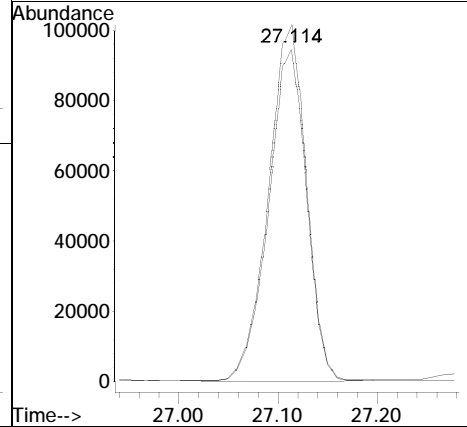
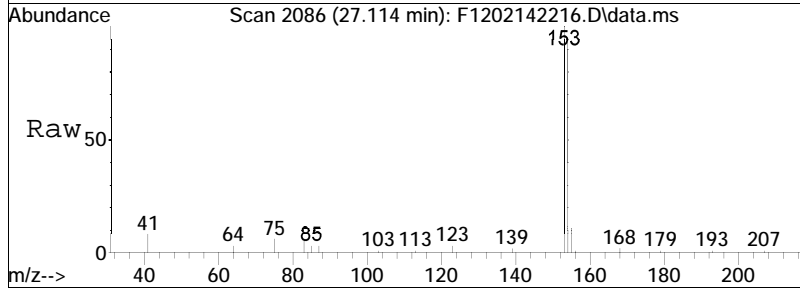
#24  
 Acenaphthylene  
 Concen: 605.15 ng/mL  
 RT: 26.375 min Scan# 2005  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:152 Resp: 246161



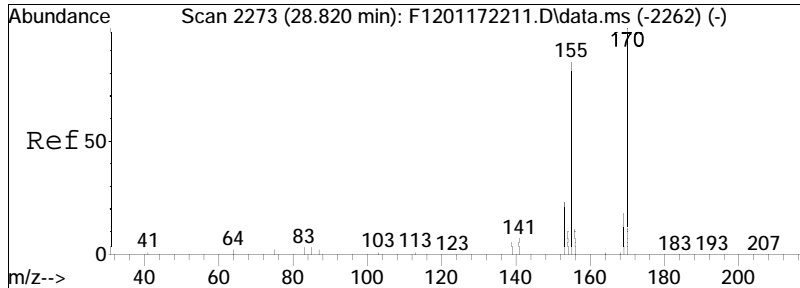


#25  
 Acenaphthene  
 Concen: 1049.69 ng/mL  
 RT: 27.114 min Scan# 2086  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

Tgt Ion	Resp	Lower	Upper
153	100		
154	92.6	65.4	121.4

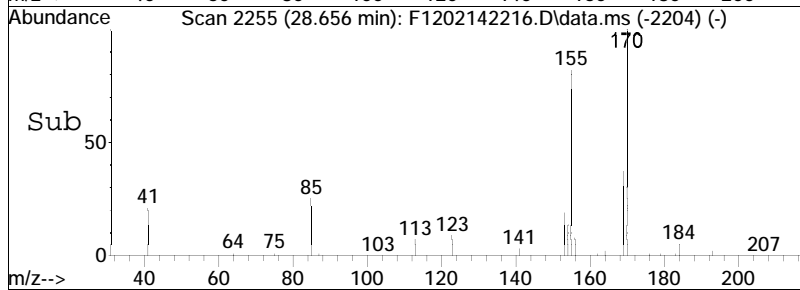
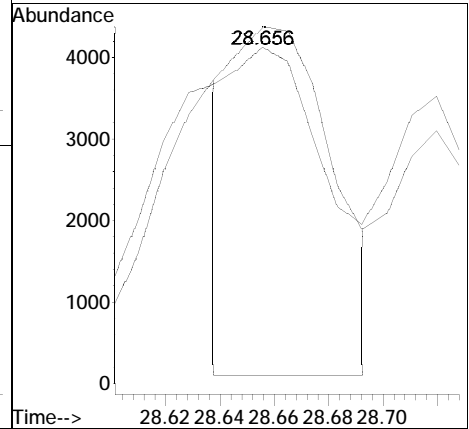
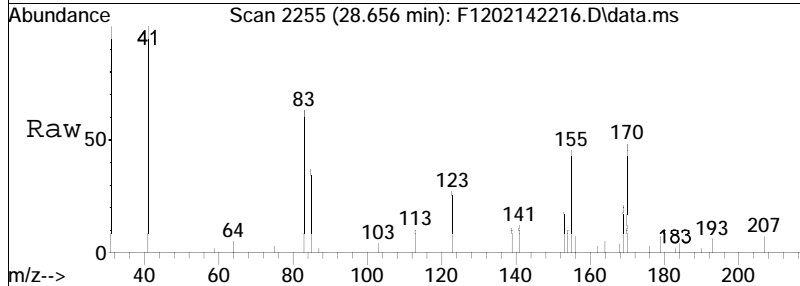


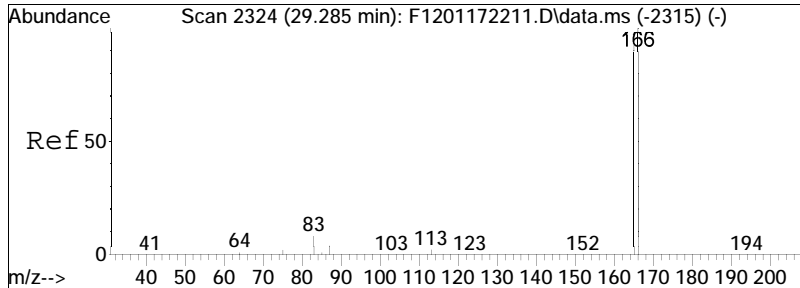




#26  
 2,3,5-Trimethylnaphthalene  
 Concen: 49.79 ng/mL M3  
 RT: 28.656 min Scan# 2255  
 Delta R.T. -0.036 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

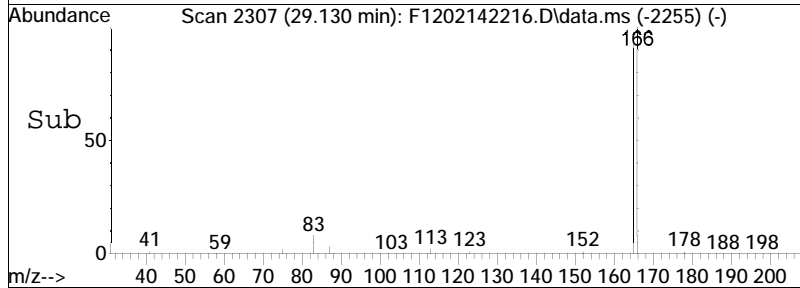
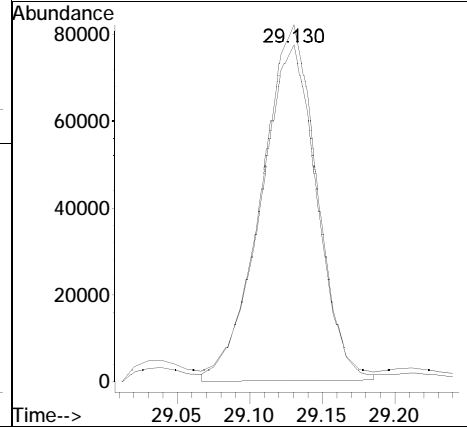
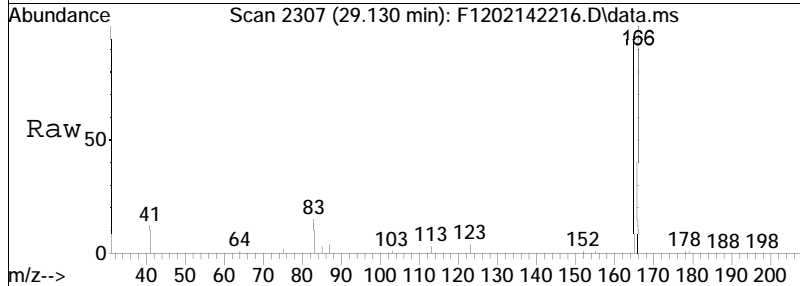
Tgt Ion:170 Resp: 11016  
 Ion Ratio Lower Upper  
 170 100  
 155 153.3 61.6 114.4#

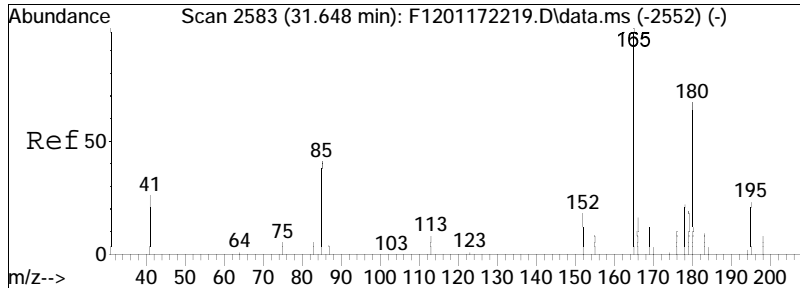




#27  
 Fluorene  
 Concen: 765.17 ng/mL  
 RT: 29.130 min Scan# 2307  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

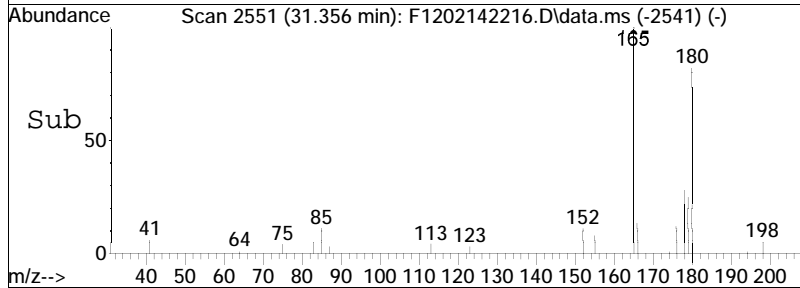
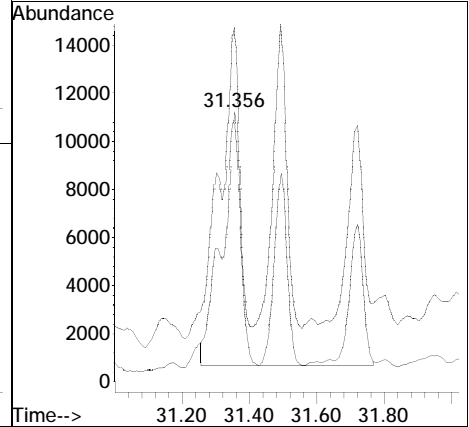
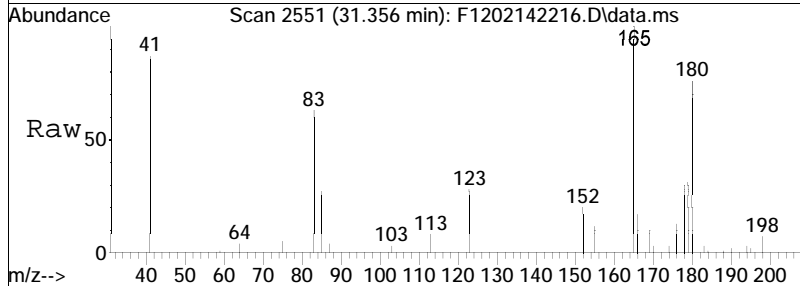
Tgt Ion	Ratio	Lower	Upper
166	100		
165	93.2	66.4	123.4

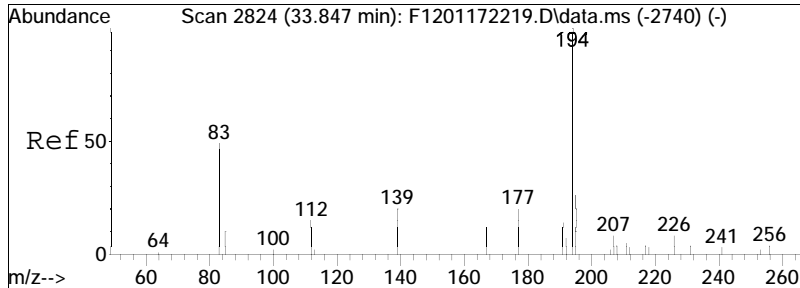




#28  
 Cl-Fluorenes  
 Concen: 279.47 ng/mL M5  
 RT: 31.356 min Scan# 2551  
 Delta R.T. -0.173 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

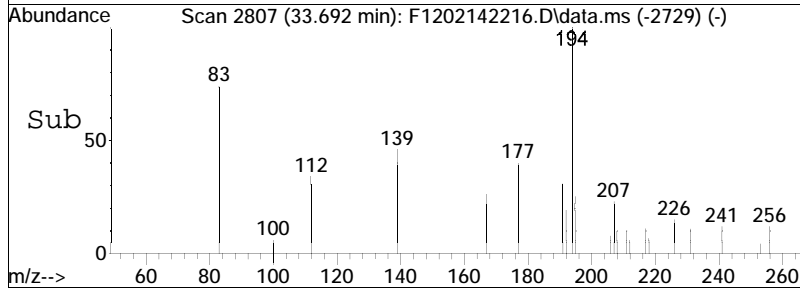
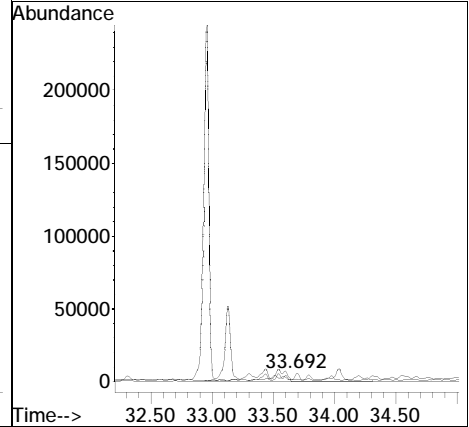
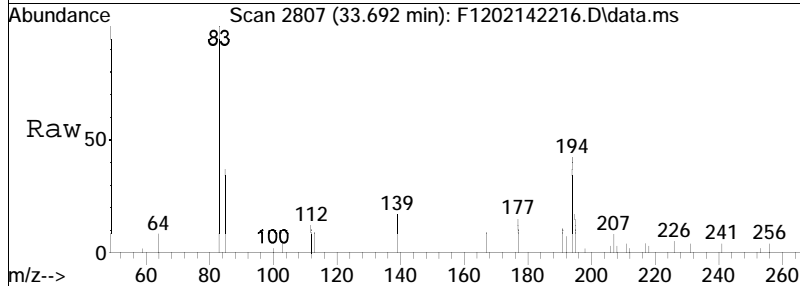
Tgt Ion: 180 Resp: 79565  
 Ion Ratio Lower Upper  
 180 100  
 165 43.5 105.8 196.4#

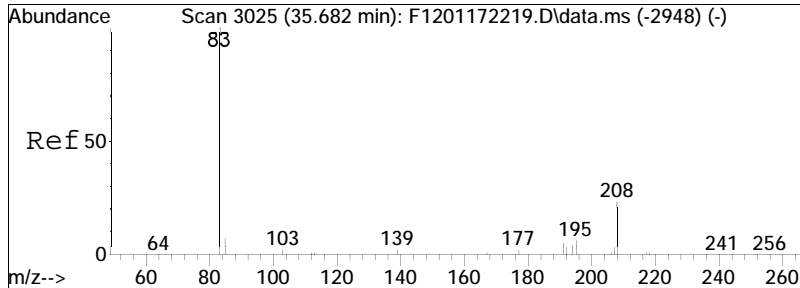




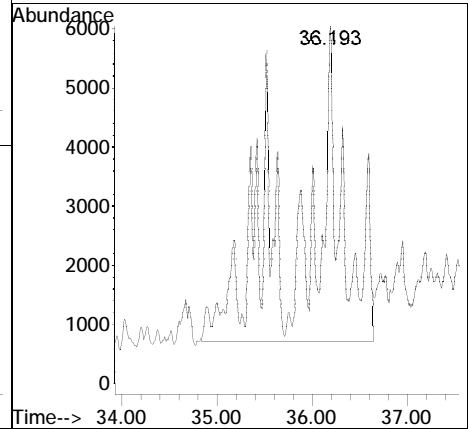
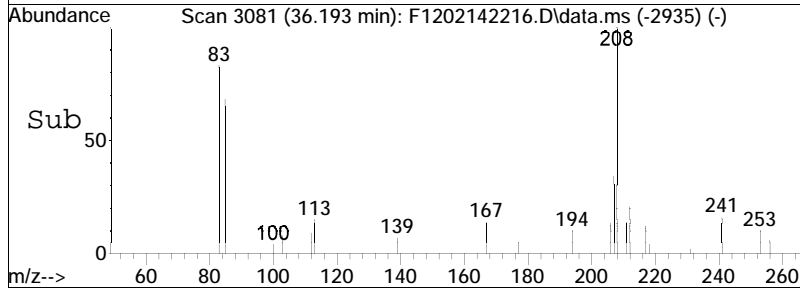
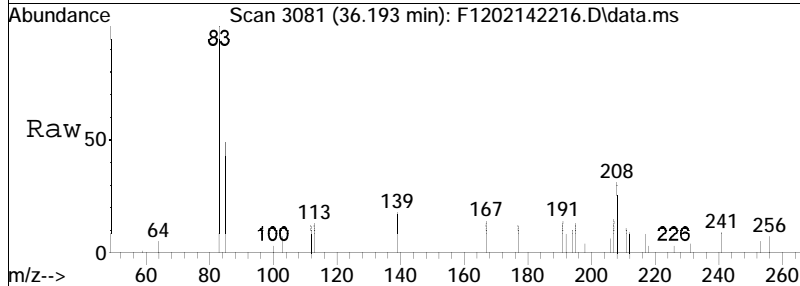
#29  
 C2-Fluorenes  
 Concen: 438.04 ng/mL M5  
 RT: 33.692 min Scan# 2807  
 Delta R.T. -0.036 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

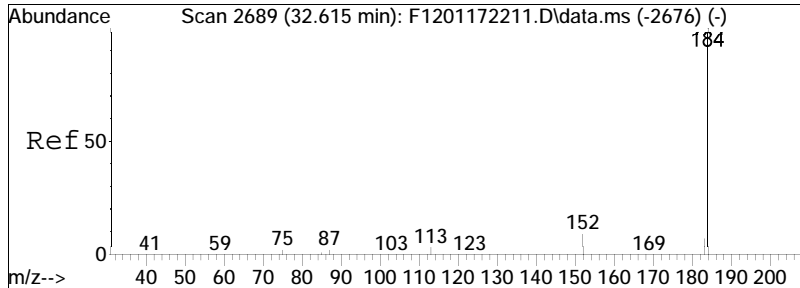
Tgt Ion	Ratio	Lower	Upper
194	100		
179	0.0	0.0	0.0
195	2.7	23.8	44.2#





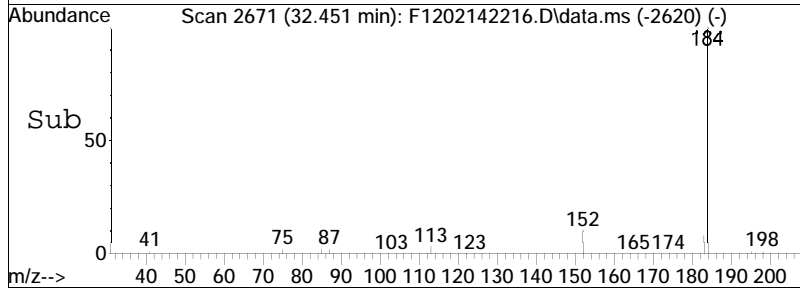
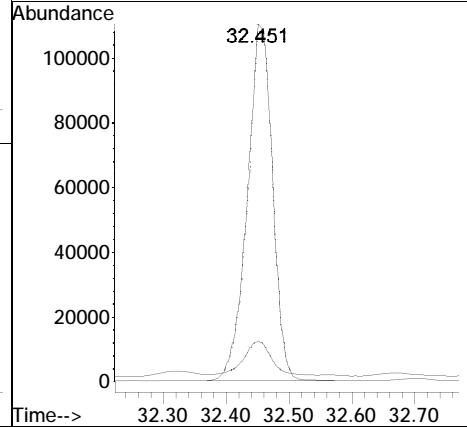
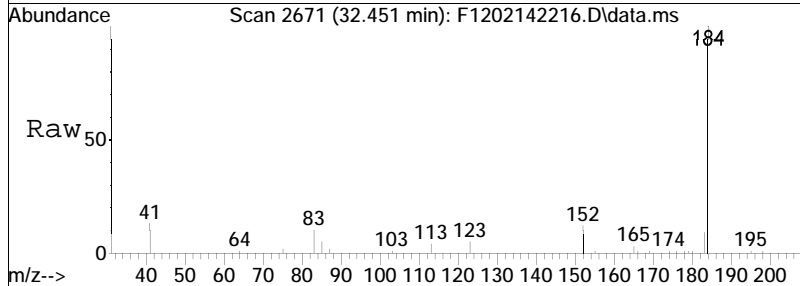
#30  
 C3-Fluorenes  
 Concen: 529.41 ng/mL M5  
 RT: 36.193 min Scan# 3081  
 Delta R.T. 0.639 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:208 Resp: 150724

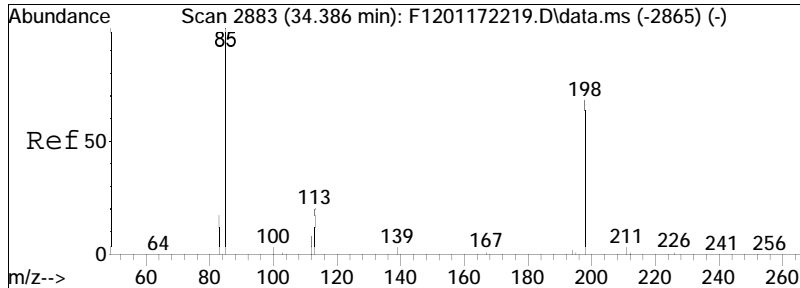




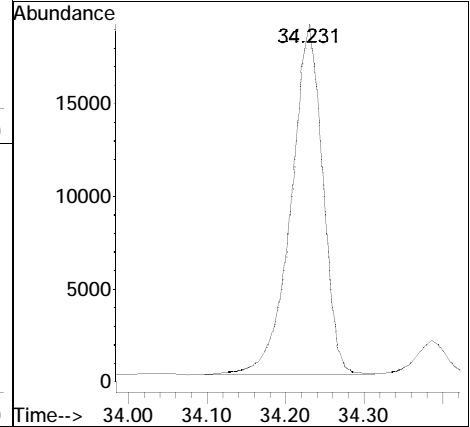
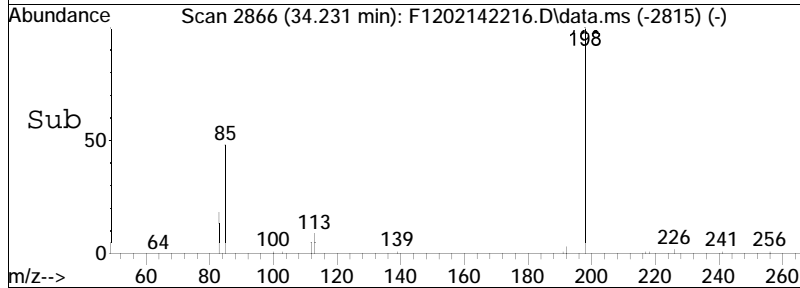
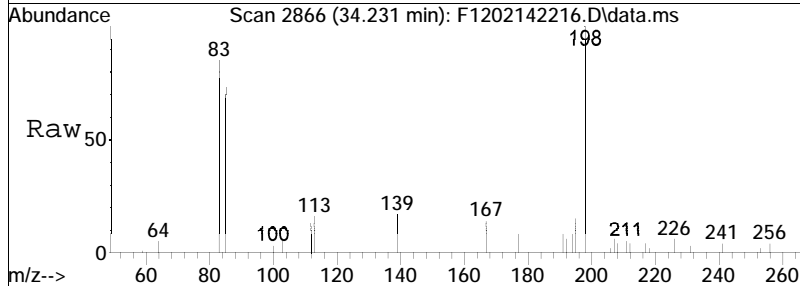
#31  
 Dibenzothiophene  
 Concen: 734.51 ng/mL  
 RT: 32.451 min Scan# 2671  
 Delta R.T. -0.036 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

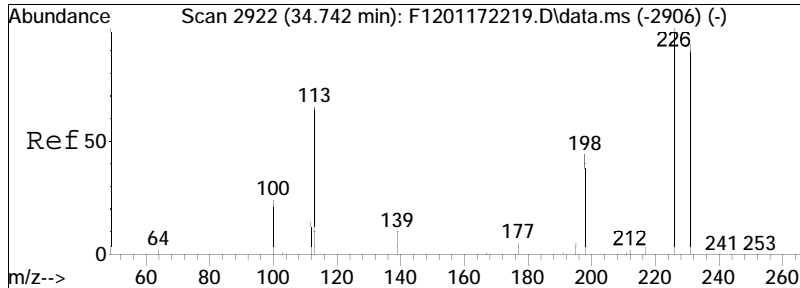
Tgt Ion	Resp	Lower	Upper
184	100		
152	10.5	11.3	20.9#



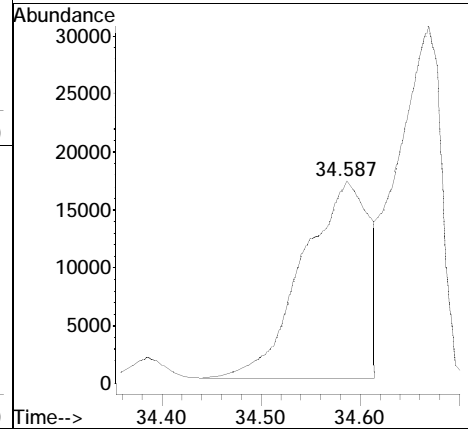
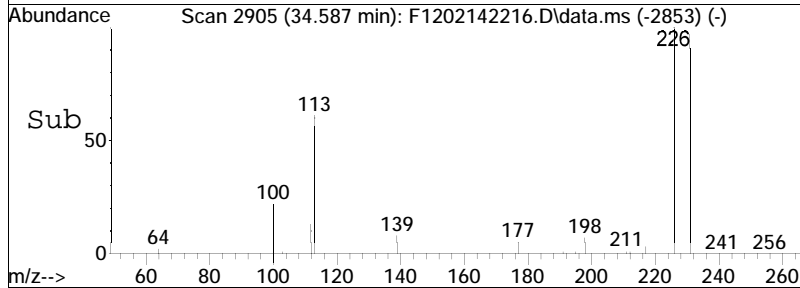
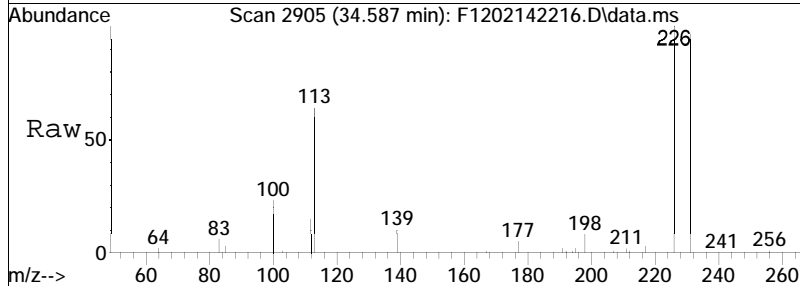


#32  
 4-Methyldibenzothiophene (4MDT)  
 Concen: 128.03 ng/mL  
 RT: 34.231 min Scan# 2866  
 Delta R.T. -0.036 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:198 Resp: 52578

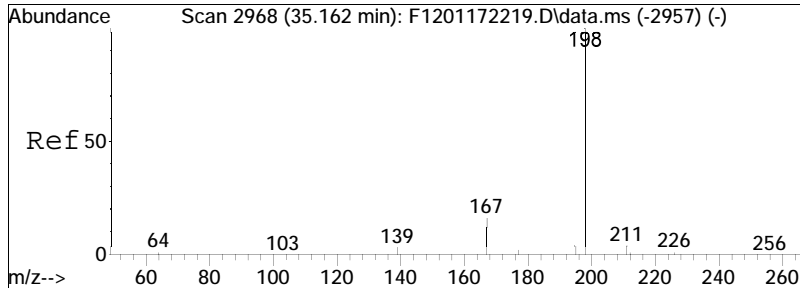




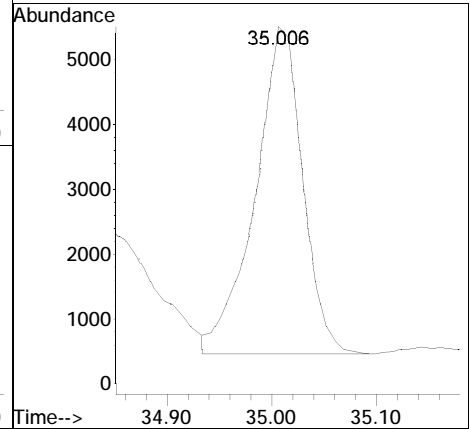
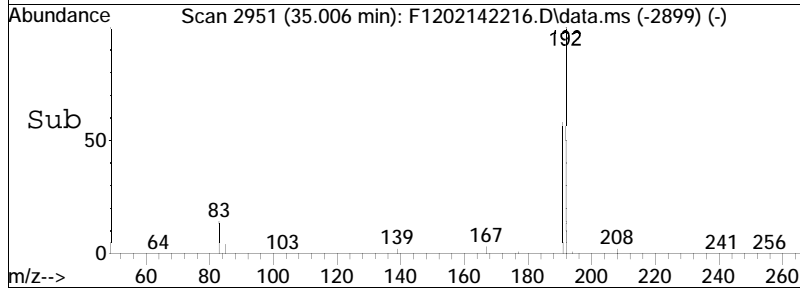
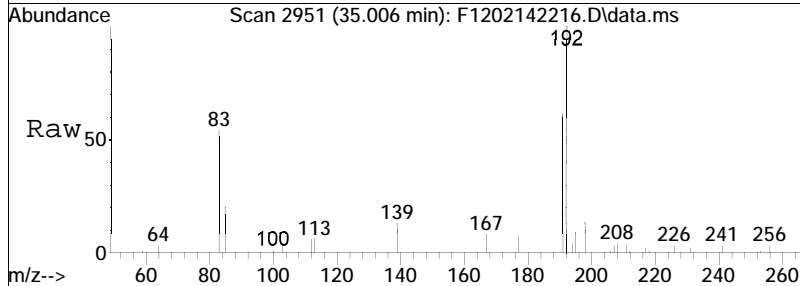
#33  
 2/3-Methyldibenzothiophene(2MD)  
 Concen: 194.59 ng/mL  
 RT: 34.587 min Scan# 2905  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:198 Resp: 79912

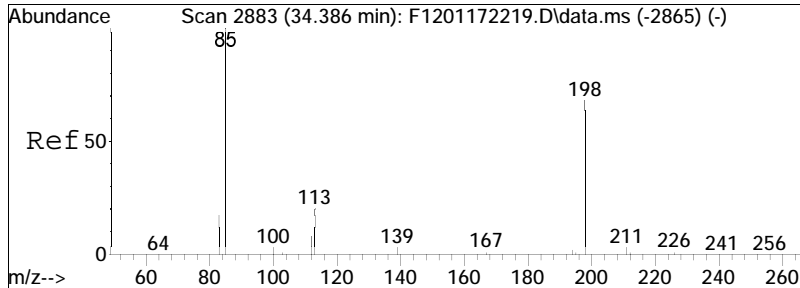




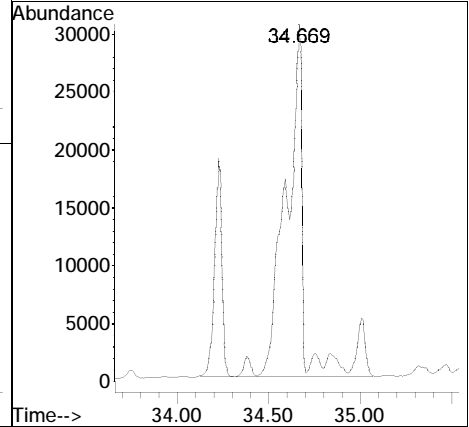
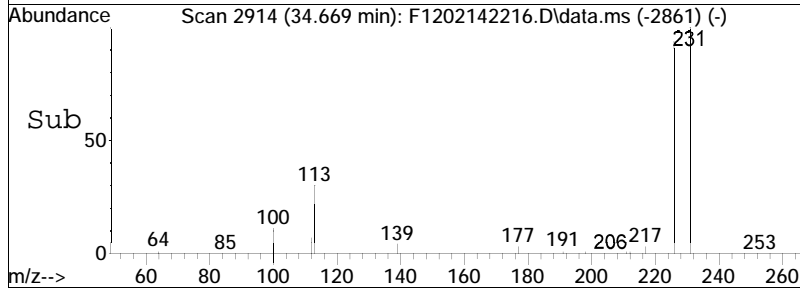
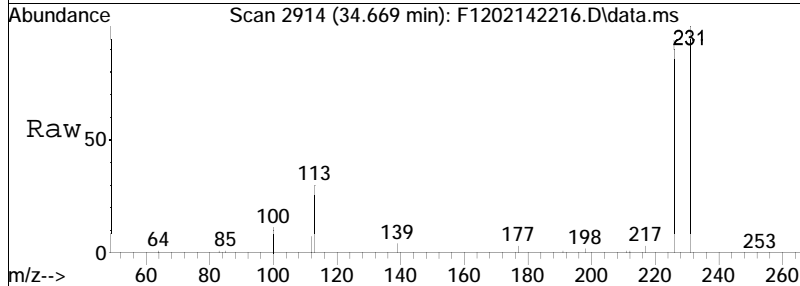


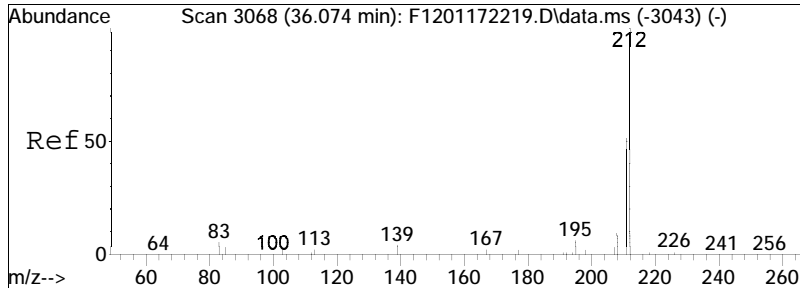
#34  
 1-Methyldibenzothiophene(1MDT)  
 Concen: 38.77 ng/mL  
 RT: 35.006 min Scan# 2951  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:198 Resp: 15920



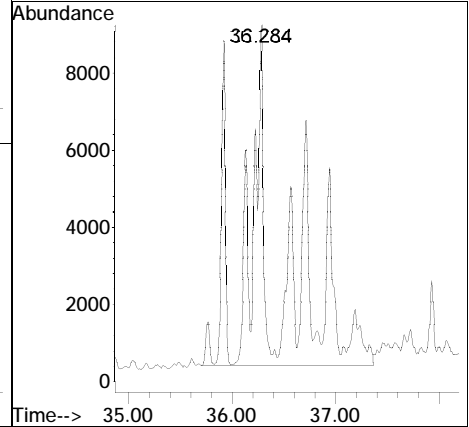
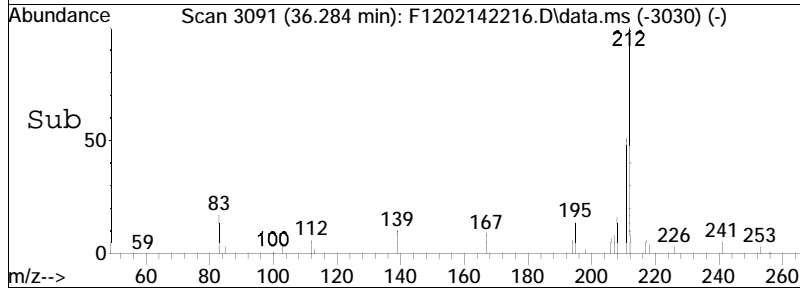
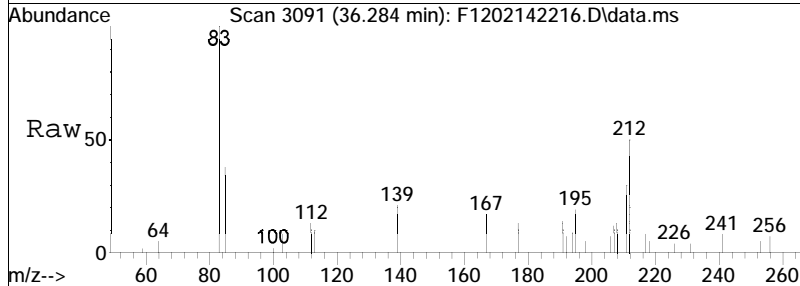


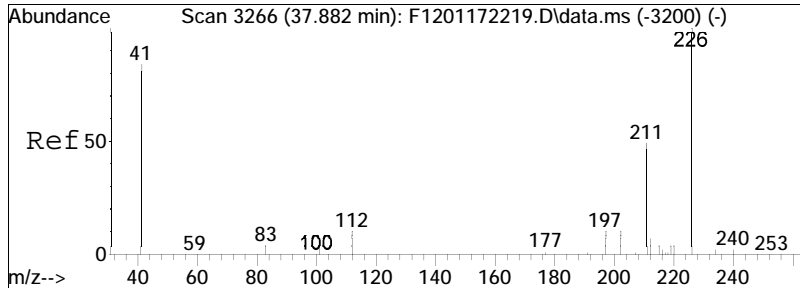
#36  
 Cl-Dibenzothiophenes  
 Concen: 639.74 ng/mL M5  
 RT: 34.669 min Scan# 2914  
 Delta R.T. 0.387 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:198 Resp: 262723





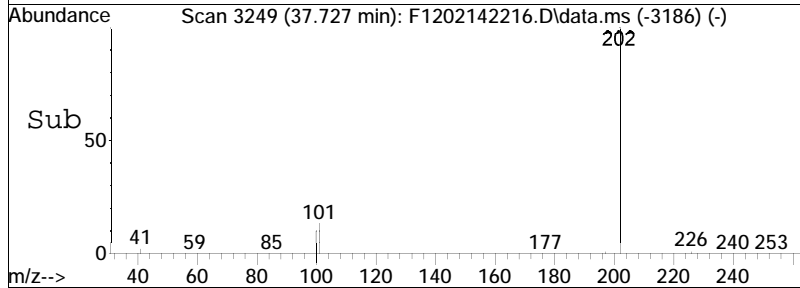
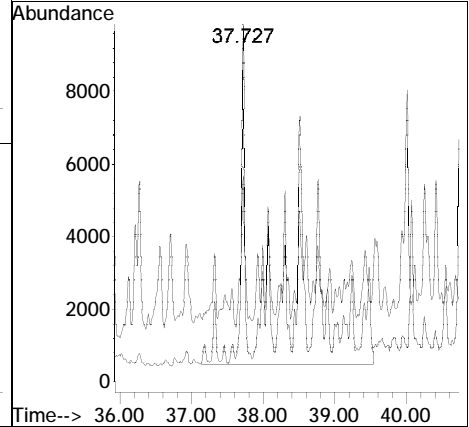
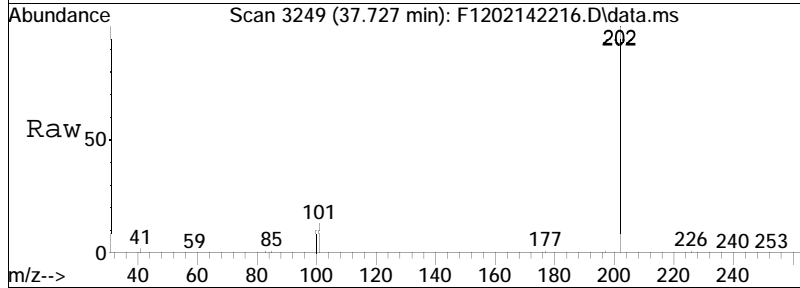
#37  
 C2-Dibenzothiophenes  
 Concen: 416.78 ng/mL M5  
 RT: 36.284 min Scan# 3091  
 Delta R.T. 0.319 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:212 Resp: 171159

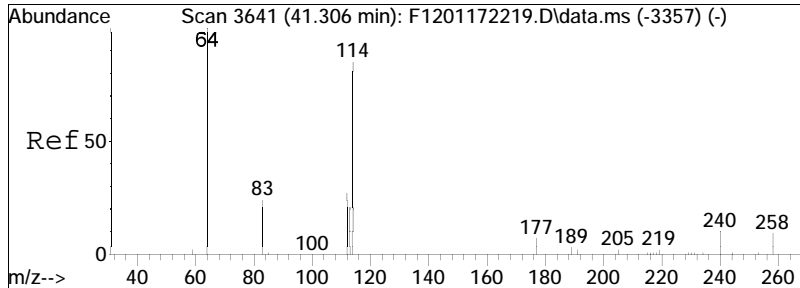




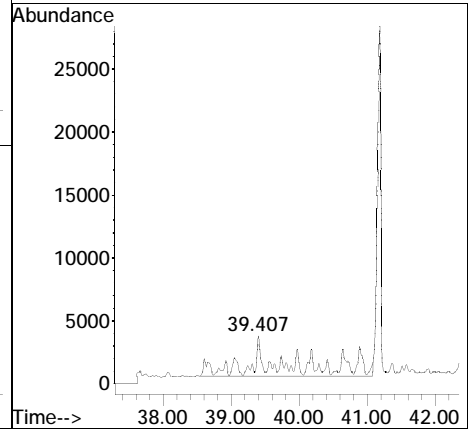
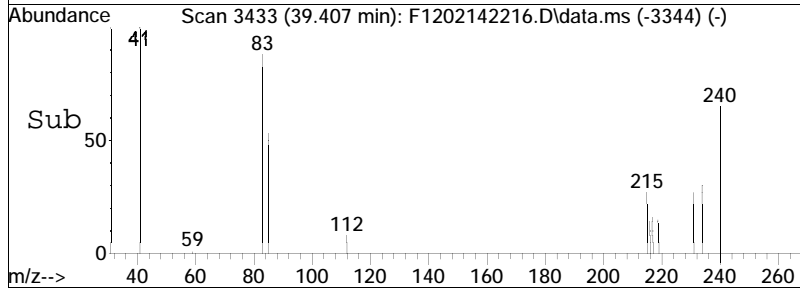
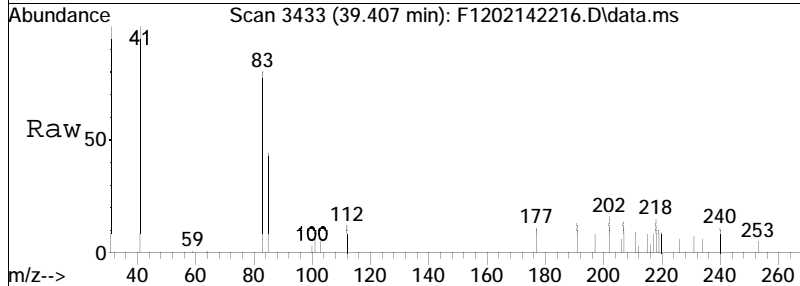
#38  
 C3-Dibenzothiophenes  
 Concen: 471.12 ng/mL M5  
 RT: 37.727 min Scan# 3249  
 Delta R.T. -0.041 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

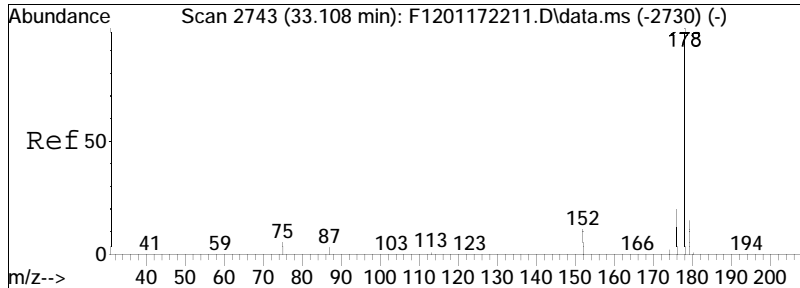
Tgt Ion	Resp	Lower	Upper
226	100		
211	8.7	37.5	69.7#





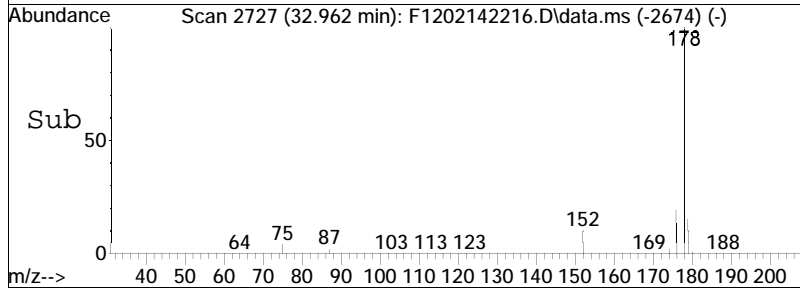
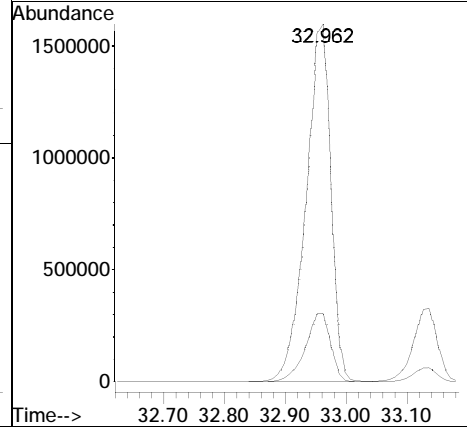
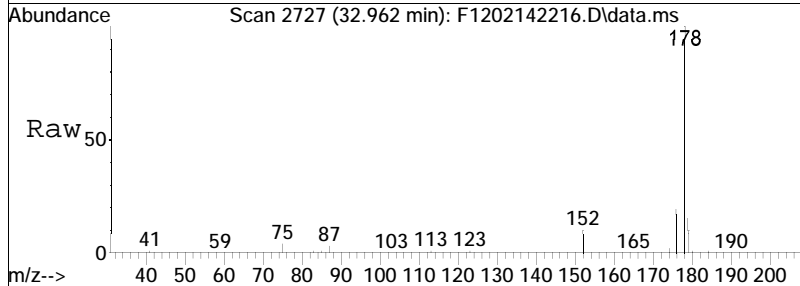
#39  
 C4-Dibenzothiophenes  
 Concen: 267.66 ng/mL M5  
 RT: 39.407 min Scan# 3433  
 Delta R.T. -0.036 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:240 Resp: 109920

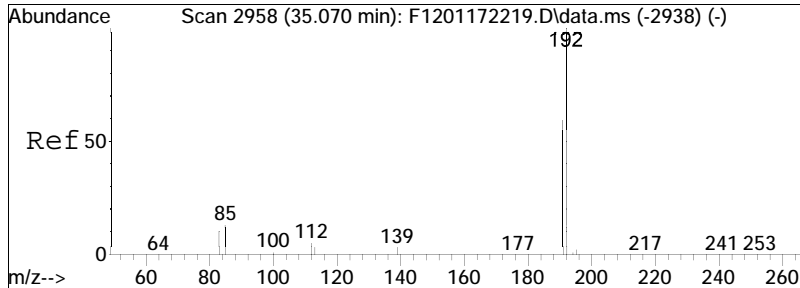




#41  
 Phenanthrene  
 Concen: 10673.00 ng/mL  
 RT: 32.962 min Scan# 2727  
 Delta R.T. -0.018 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

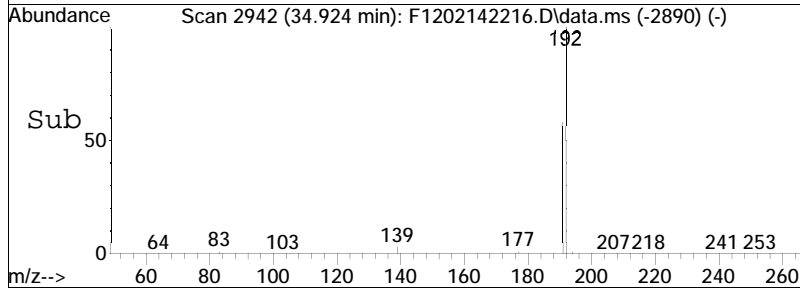
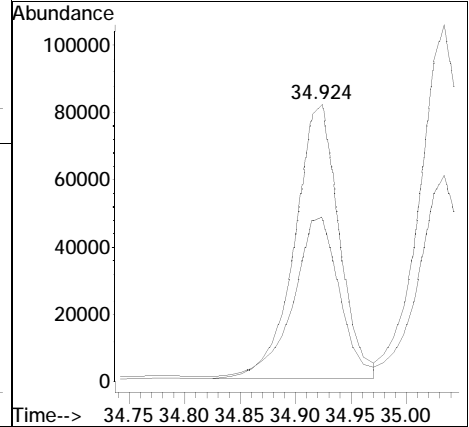
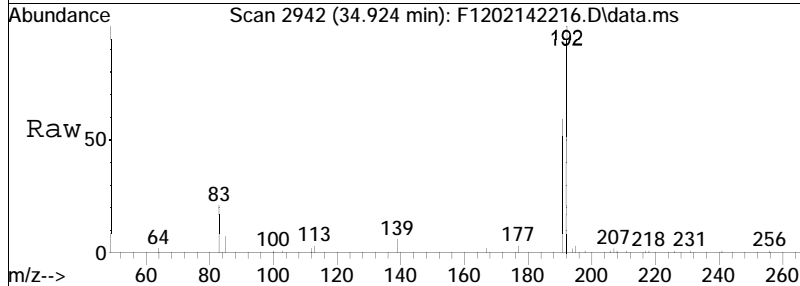
Tgt Ion	Resp	Lower	Upper
178	100		
176	19.6	14.8	27.6

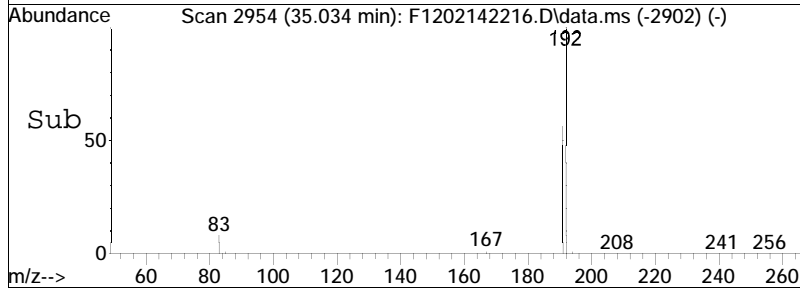
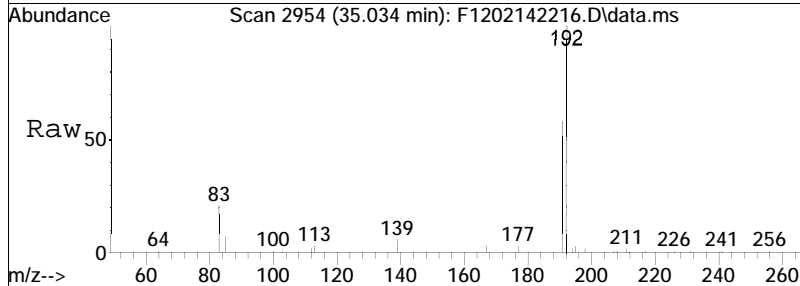
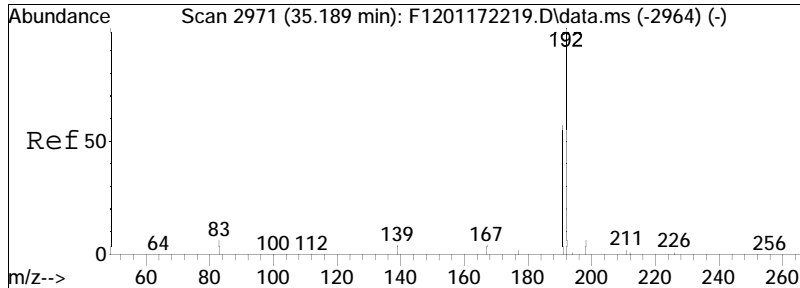




#42  
 3-Methylphenanthrene (3MP)  
 Concen: 540.80 ng/mL  
 RT: 34.924 min Scan# 2942  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

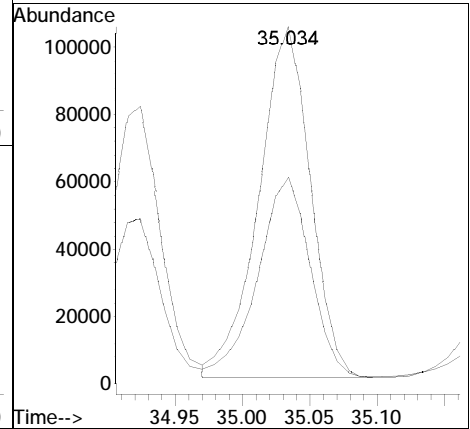
Tgt Ion	Resp	Lower	Upper
192	100		
191	59.8	42.6	79.0



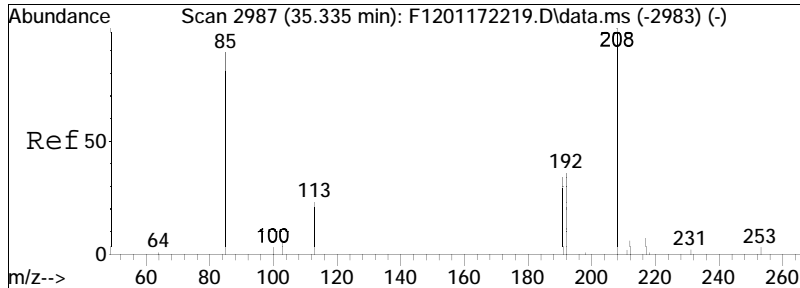


#43  
 2-Methylphenanthrene (2MP)  
 Concen: 665.51 ng/mL  
 RT: 35.034 min Scan# 2954  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

Tgt Ion	Resp	Lower	Upper
192	279299		
191	56.9	41.5	77.1

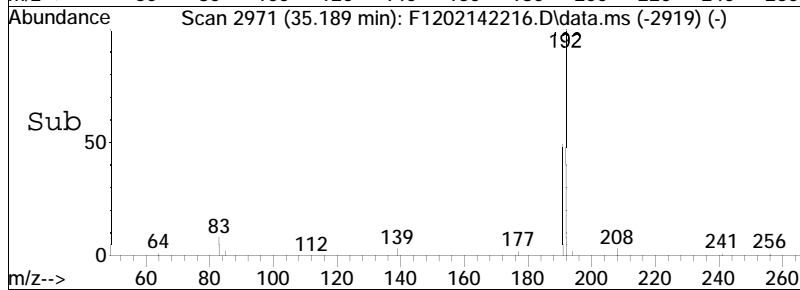
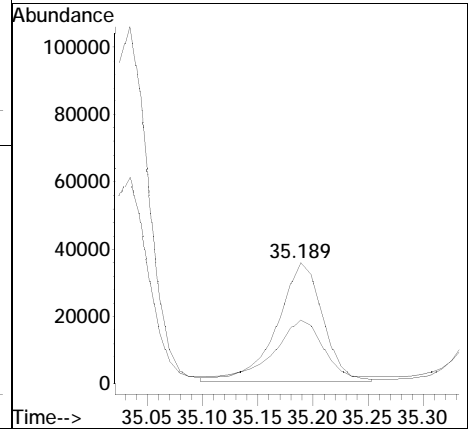
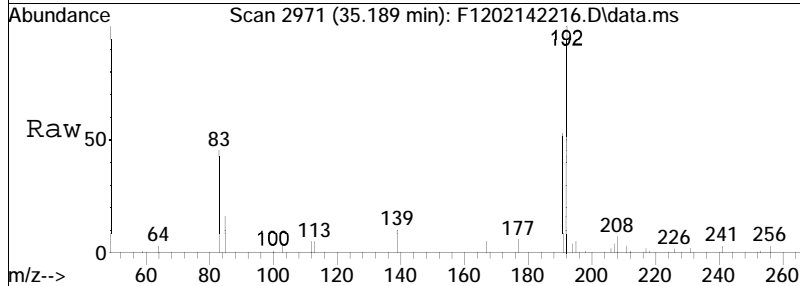


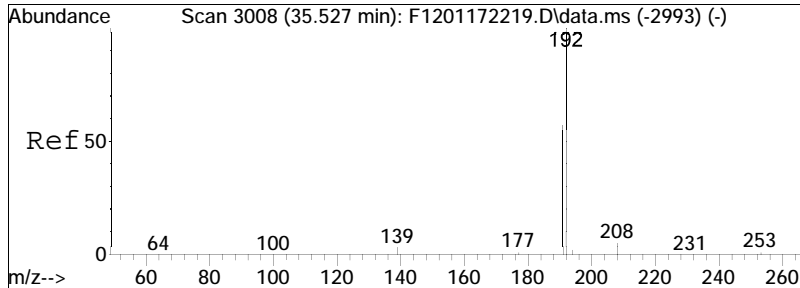




#44  
 2-Methylantracene(2MA)  
 Concen: 241.38 ng/mL M3  
 RT: 35.189 min Scan# 2971  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

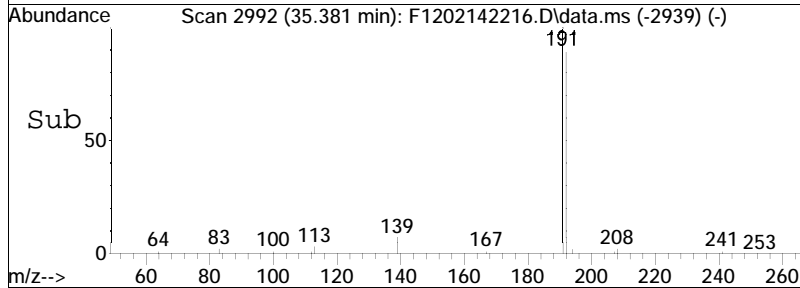
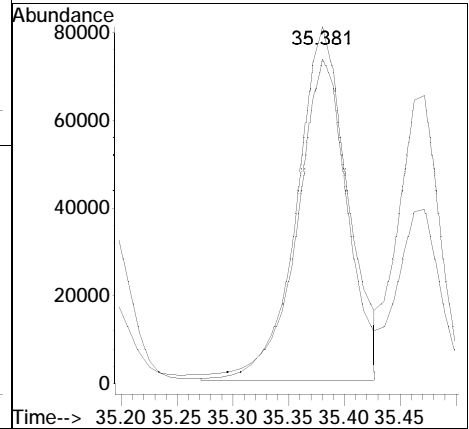
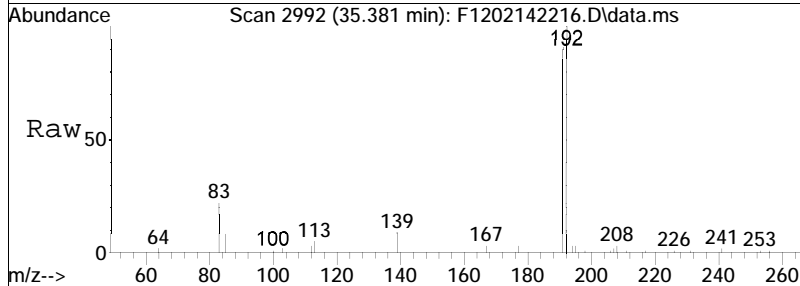
Tgt Ion:192 Resp: 101300  
 Ion Ratio Lower Upper  
 192 100  
 191 216.5 83.9 155.7#

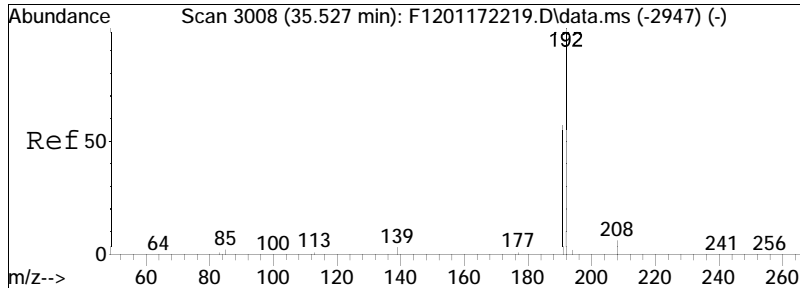




#45  
 9/4-Methylphenanthrene(9MP)  
 Concen: 608.32 ng/mL M3  
 RT: 35.381 min Scan# 2992  
 Delta R.T. -0.018 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

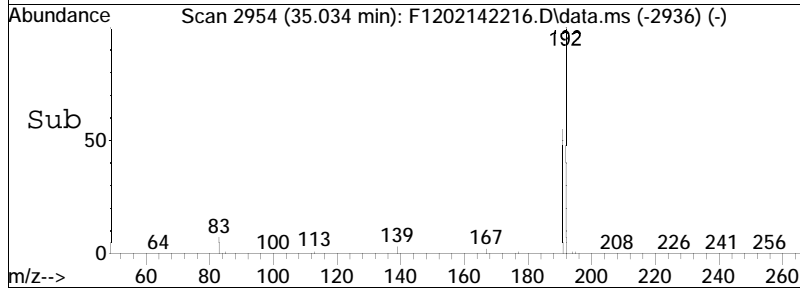
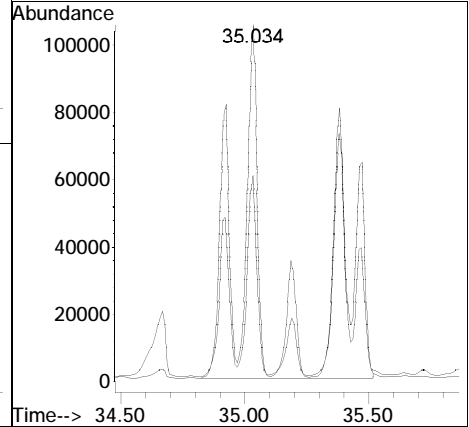
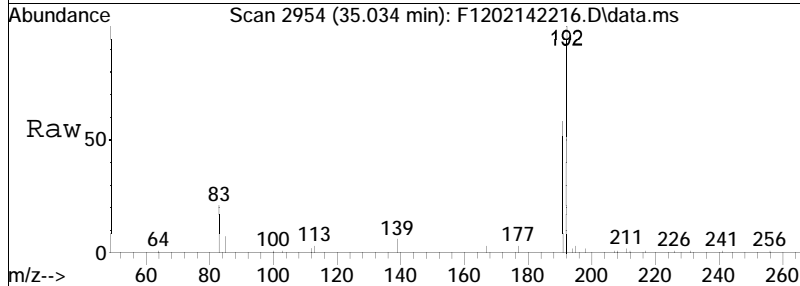
Tgt Ion:192 Resp: 255300  
 Ion Ratio Lower Upper  
 192 100  
 191 38.8 41.5 77.1#

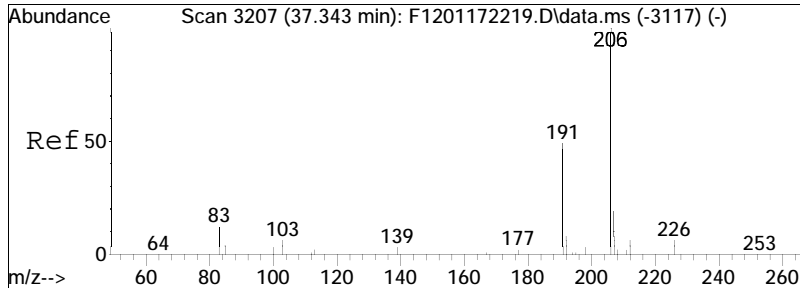




#47  
 Cl-Phenanthrenes/Anthracenes  
 Concen: 2458.38 ng/mL M5  
 RT: 35.034 min Scan# 2954  
 Delta R.T. -0.386 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

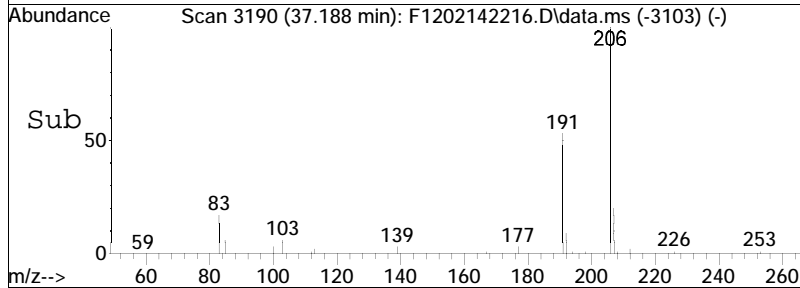
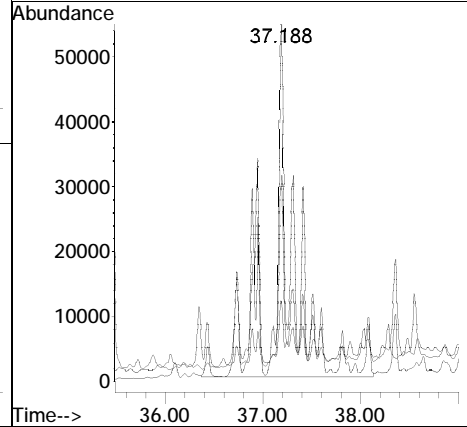
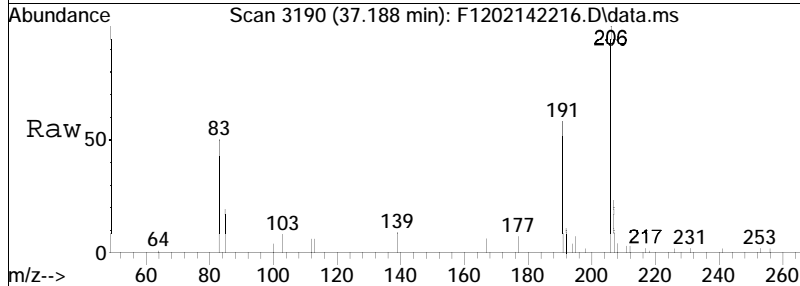
Tgt Ion: 192 Resp: 1031728  
 Ion Ratio Lower Upper  
 192 100  
 191 7.2 40.9 76.0#

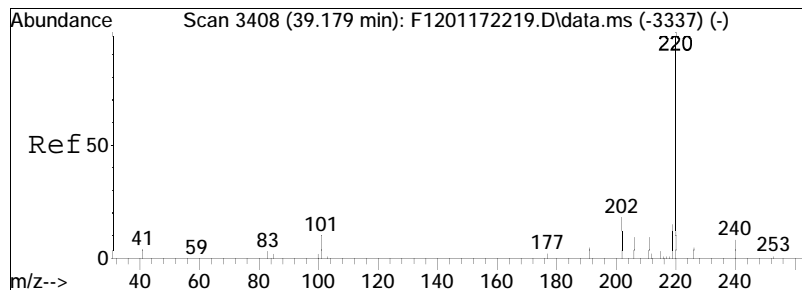




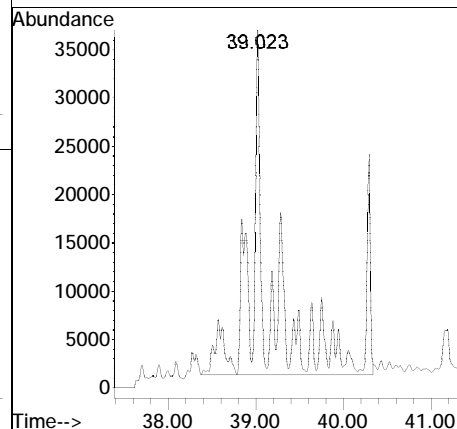
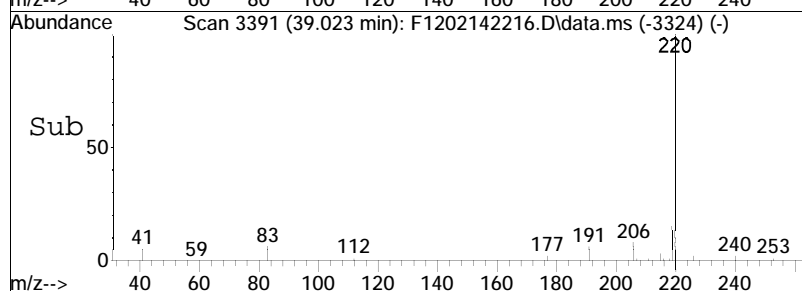
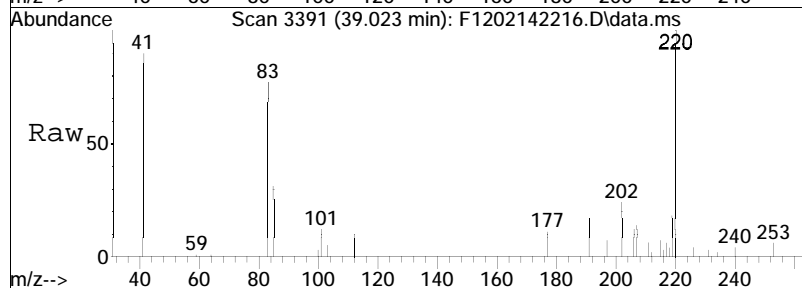
#48  
 C2-Phenanthrenes/Anthracenes  
 Concen: 1707.67 ng/mL M5  
 RT: 37.188 min Scan# 3190  
 Delta R.T. -0.042 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

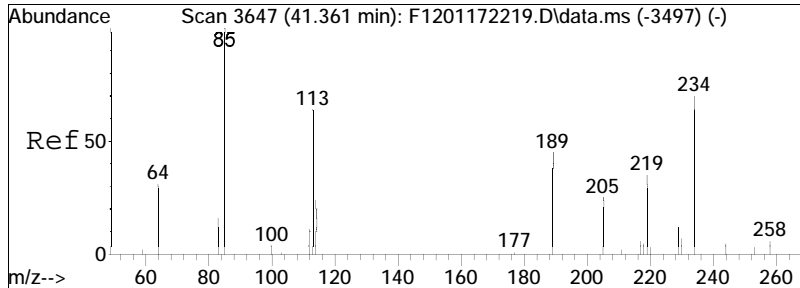
Tgt Ion	Ratio	Lower	Upper
206	100		
191	11.8	35.8	66.4#
207	4.4	14.7	27.3#





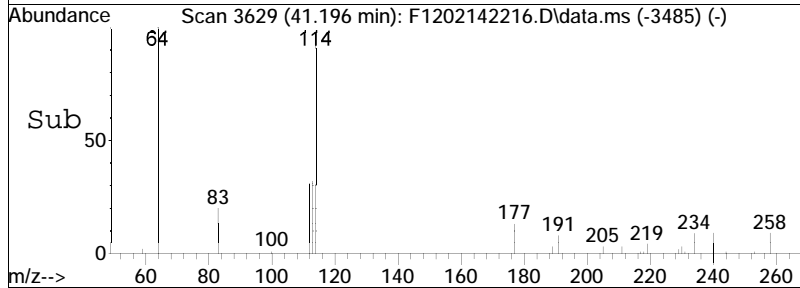
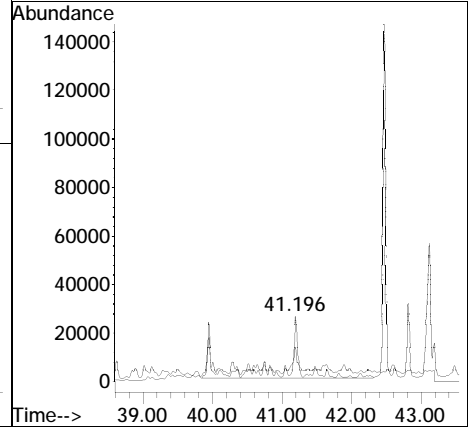
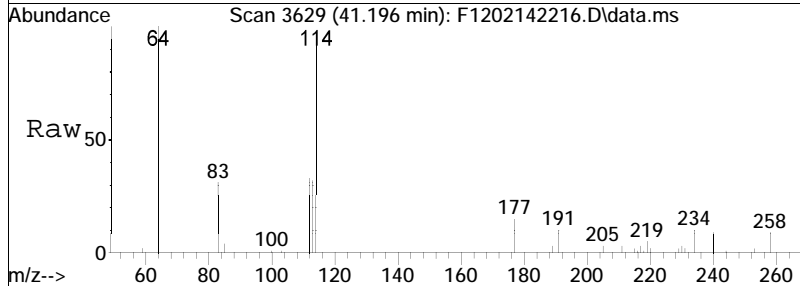
#50  
 C3-Phenanthrenes/Anthracenes  
 Concen: 1303.54 ng/mL M5  
 RT: 39.023 min Scan# 3391  
 Delta R.T. -0.037 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion: 220 Resp: 547067

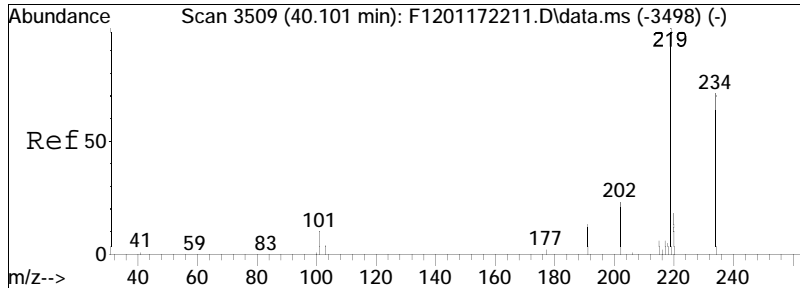




#51  
 C4-Phenanthrenes/Anthracenes  
 Concen: 841.27 ng/mL M5  
 RT: 41.196 min Scan# 3629  
 Delta R.T. -0.039 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

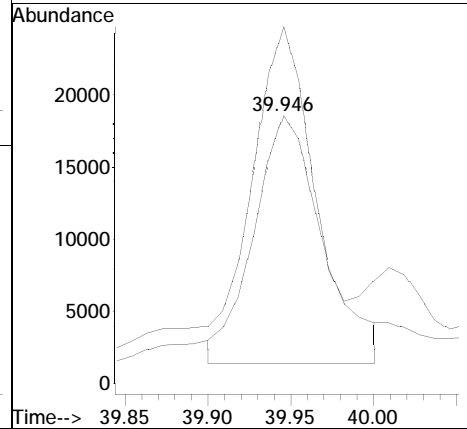
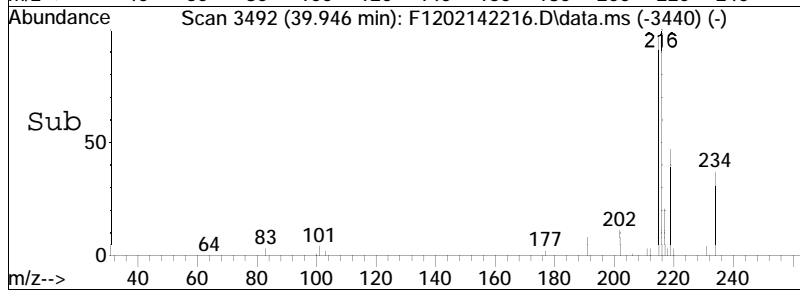
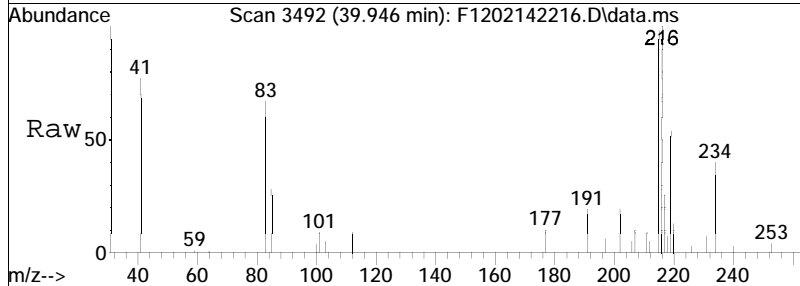
Tgt Ion: 234 Resp: 353061  
 Ion Ratio Lower Upper  
 234 100  
 219 11.4 41.7 77.5#

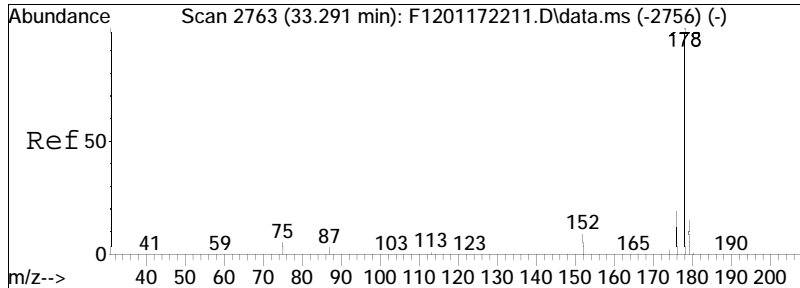




#52  
 Retene  
 Concen: 355.80 ng/mL M4  
 RT: 39.946 min Scan# 3492  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

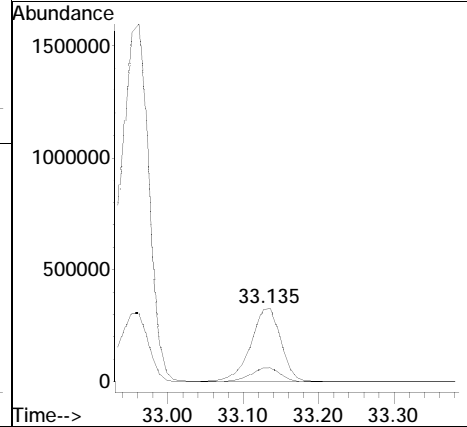
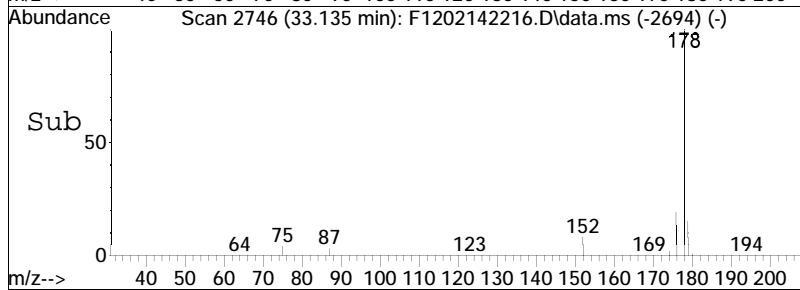
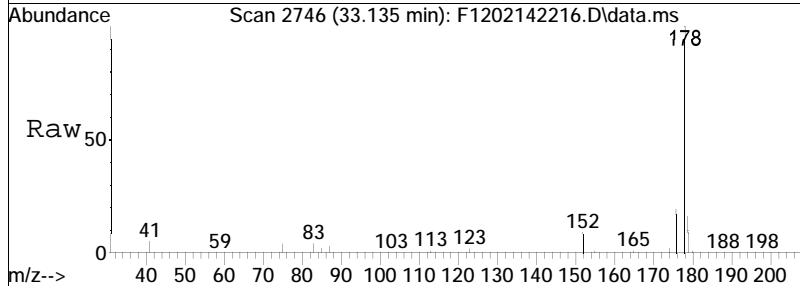
Tgt Ion	Resp	Lower	Upper
234	100		
219	122.0	94.0	174.6



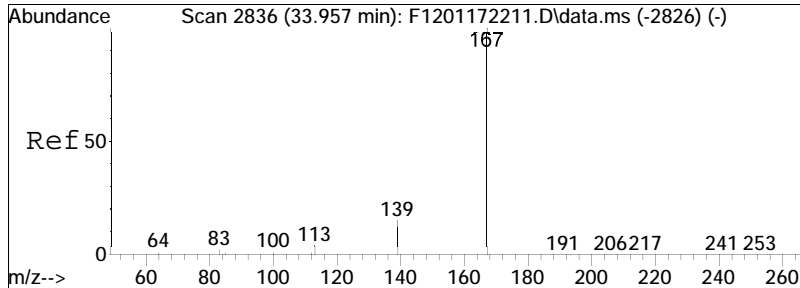


#53  
 Anthracene  
 Concen: 2297.34 ng/mL  
 RT: 33.135 min Scan# 2746  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

Tgt Ion	Resp	Lower	Upper
178	100		
176	19.1	13.4	24.8

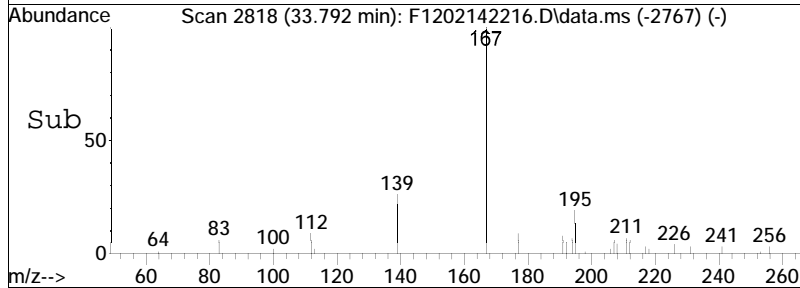
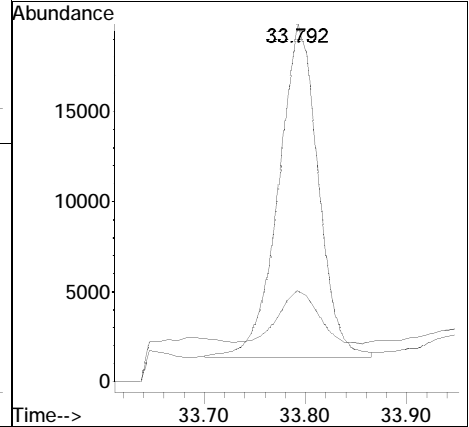
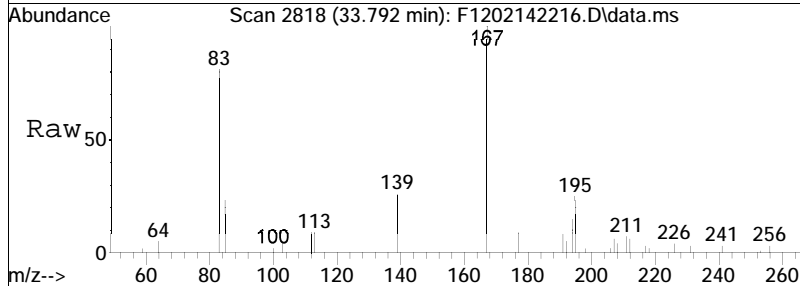


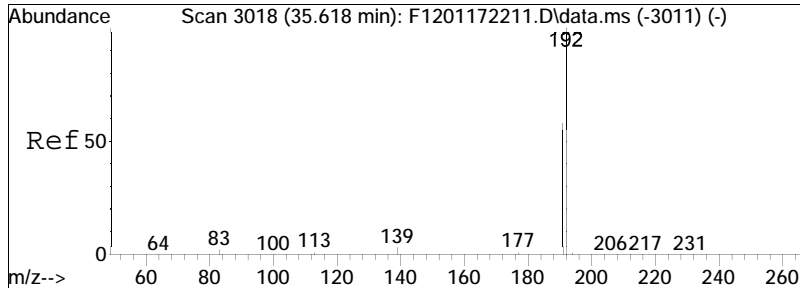




#54  
 Carbazole  
 Concen: 123.23 ng/mL M4  
 RT: 33.792 min Scan# 2818  
 Delta R.T. -0.036 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

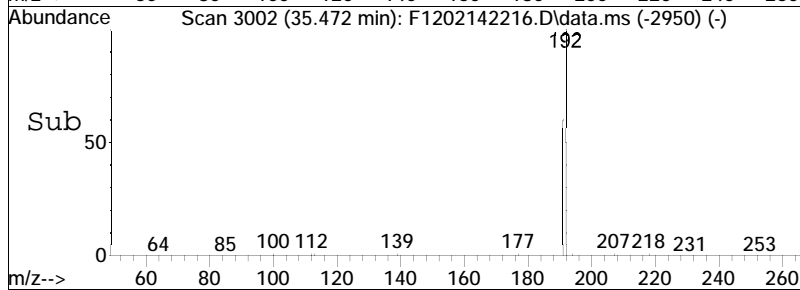
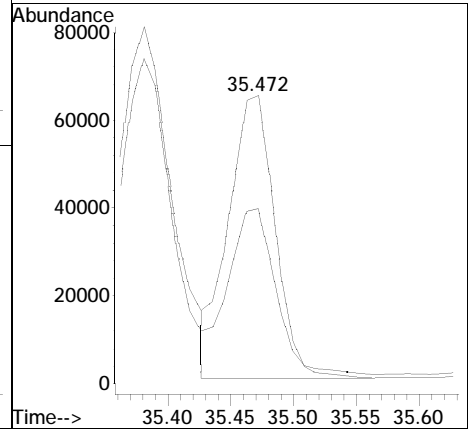
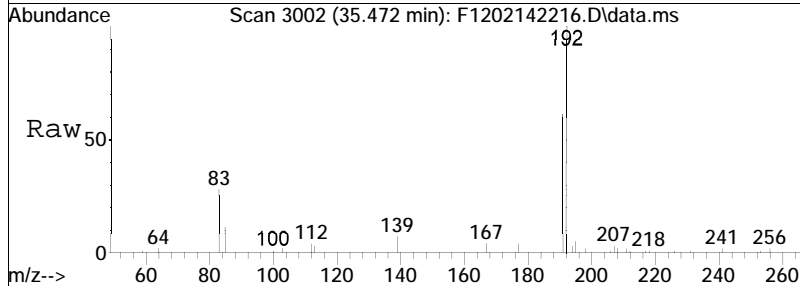
Tgt Ion	Resp	Lower	Upper
167	100		
139	22.5	10.3	19.1#

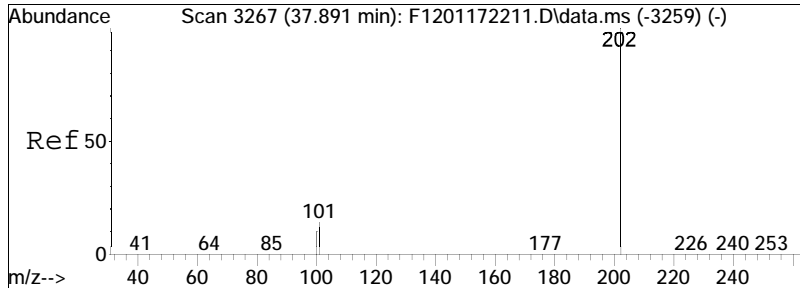




#55  
 1-Methylphenanthrene  
 Concen: 586.38 ng/mL  
 RT: 35.472 min Scan# 3002  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

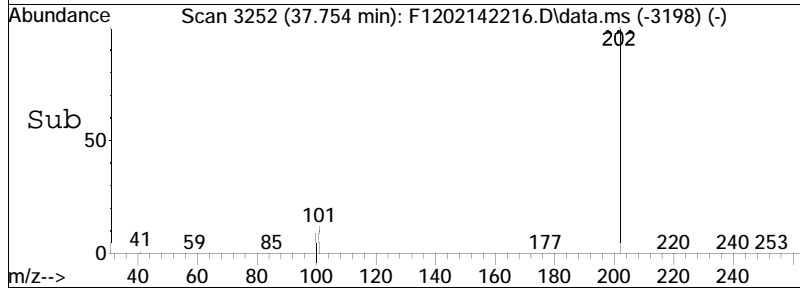
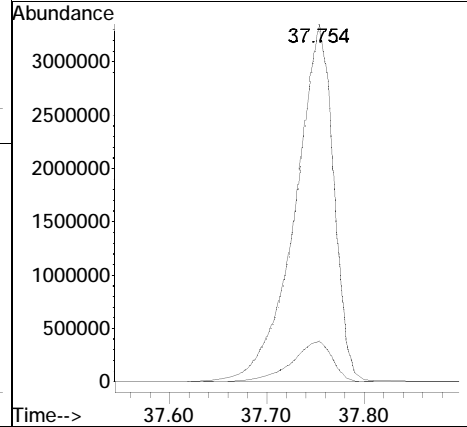
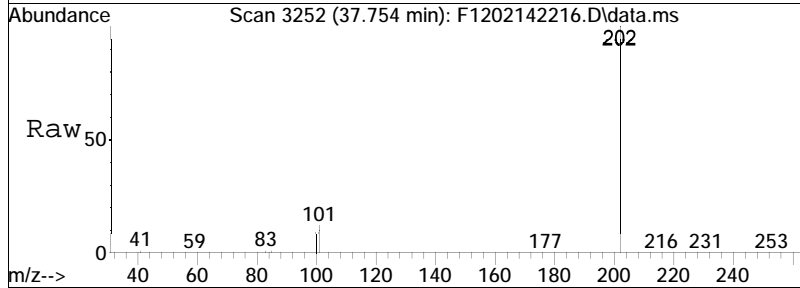
Tgt Ion	Resp	Lower	Upper
192	100		
191	59.9	42.6	79.0

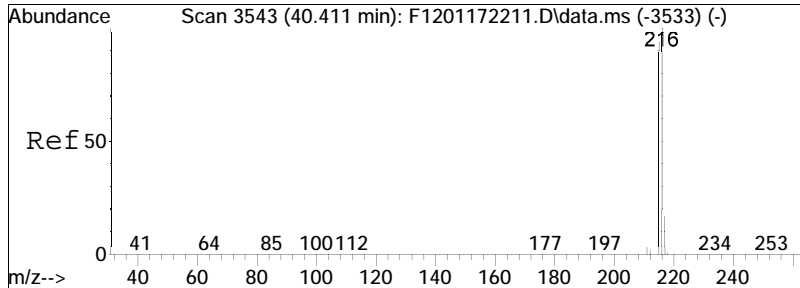




#56  
 Fluoranthene  
 Concen: 21659.04 ng/mL M4  
 RT: 37.754 min Scan# 3252  
 Delta R.T. -0.009 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

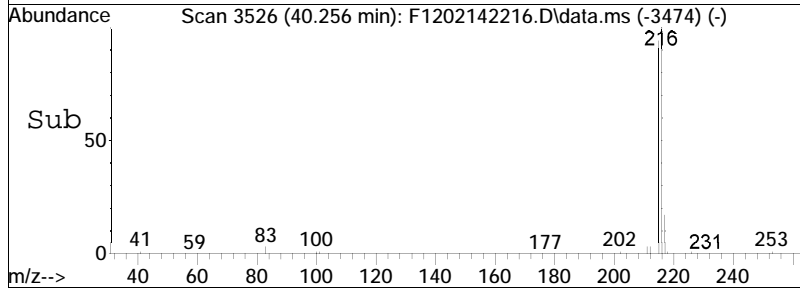
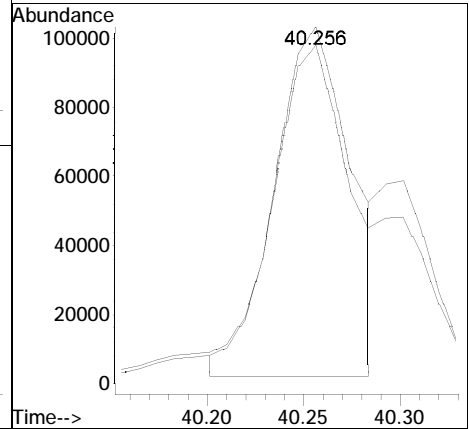
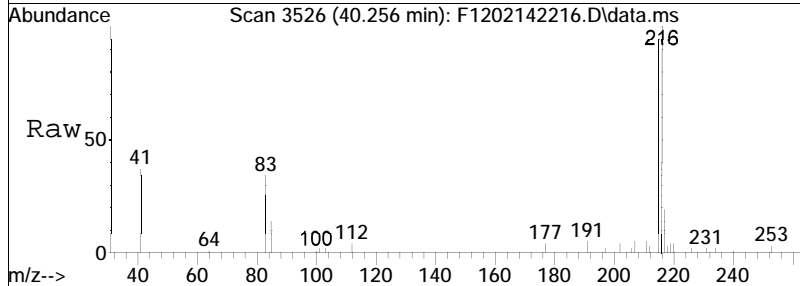
Tgt Ion	Ratio	Lower	Upper
202	100		
101	12.3	8.4	15.6

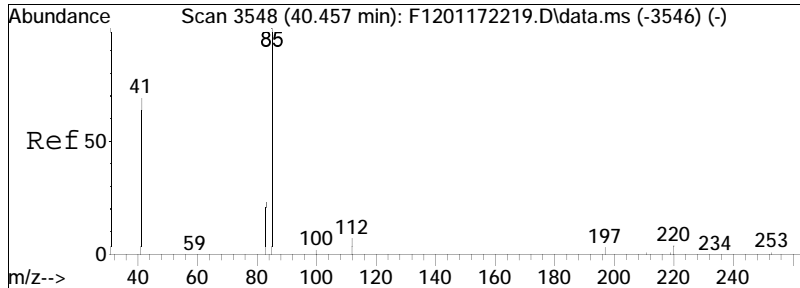




#57  
 Benzo(b)fluorene  
 Concen: 1057.41 ng/mL M3  
 RT: 40.256 min Scan# 3526  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

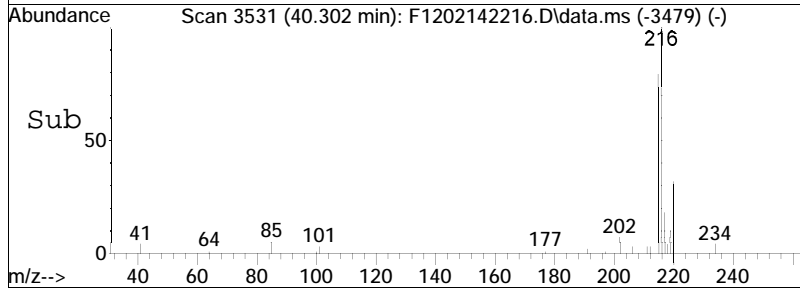
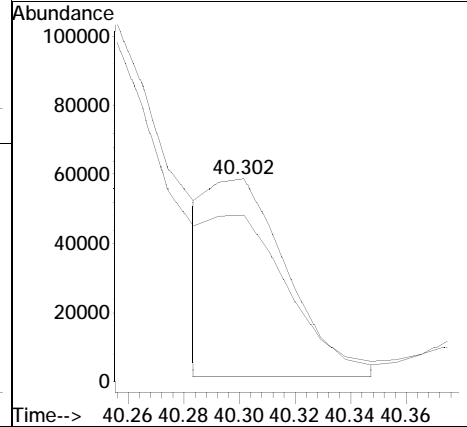
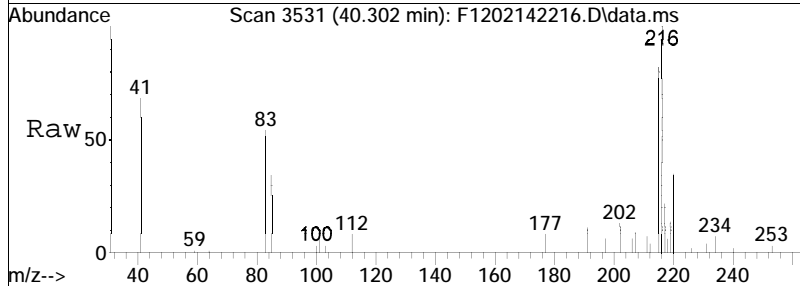
Tgt Ion	Ratio	Lower	Upper
216	100		
215	41.6	91.7	170.3#

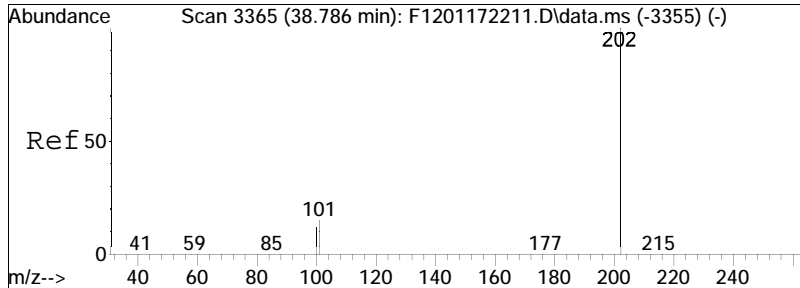




#58  
 7H-Benzo(c)fluorene  
 Concen: 419.00 ng/mL M3  
 RT: 40.302 min Scan# 3531  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

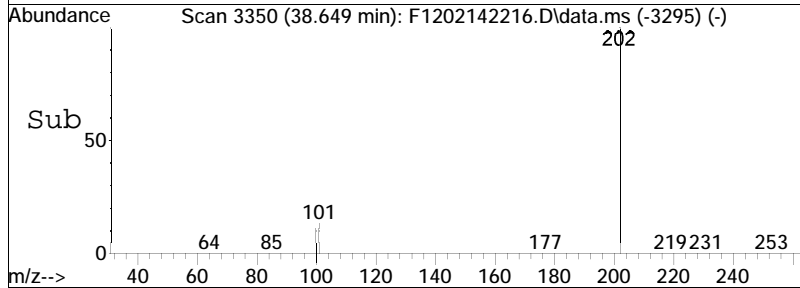
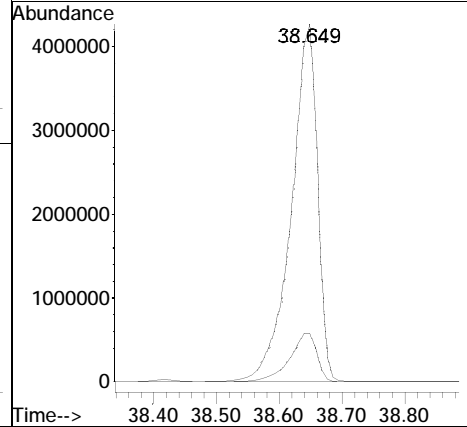
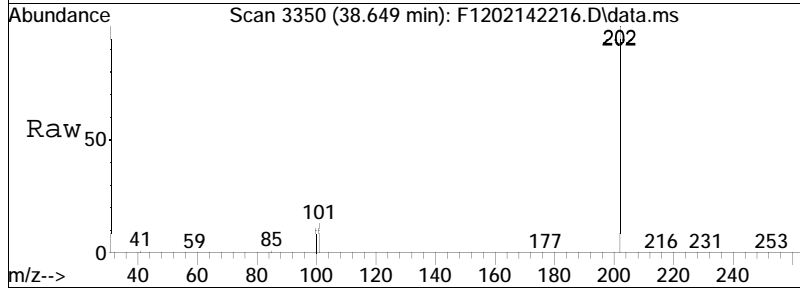
Tgt Ion	Ratio	Lower	Upper
216	100		
215	52.0	99.9	185.5#

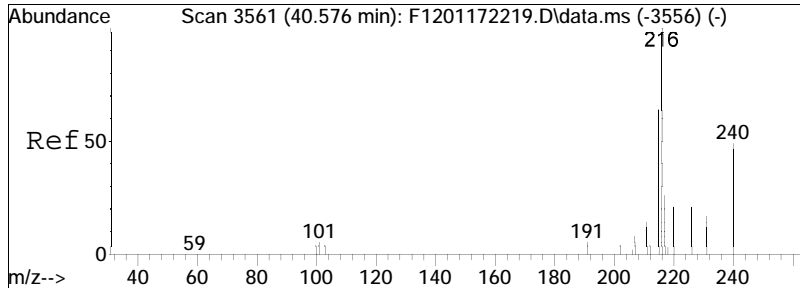




#59  
 Pyrene  
 Concen: 27903.46 ng/mL  
 RT: 38.649 min Scan# 3350  
 Delta R.T. 0.000 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

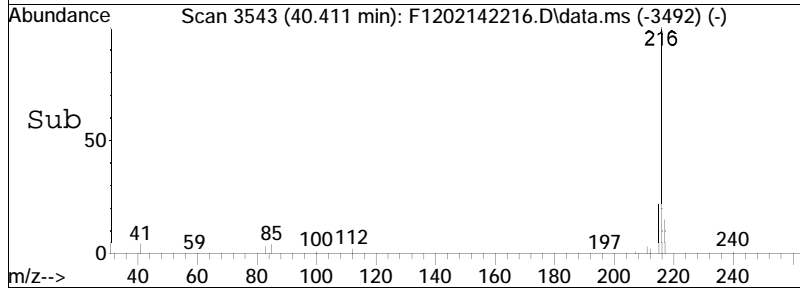
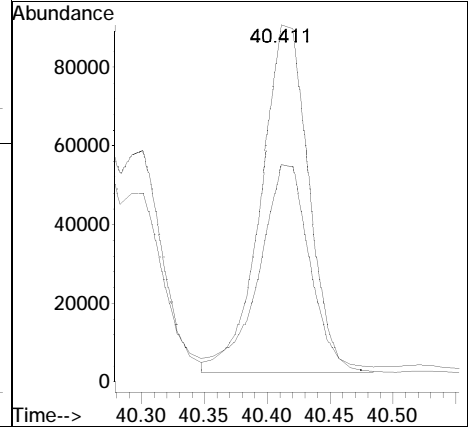
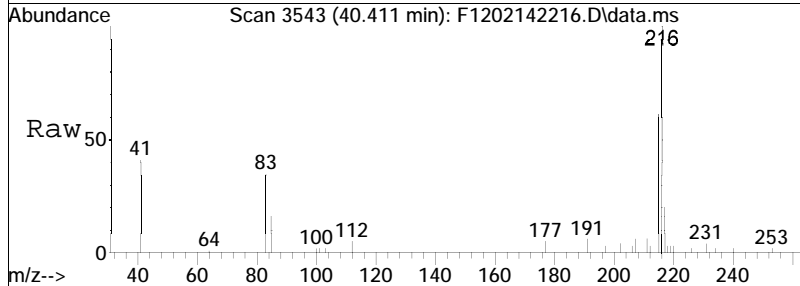
Tgt Ion: 202 Resp: 12186777  
 Ion Ratio Lower Upper  
 202 100  
 101 14.2 21.0 39.0#

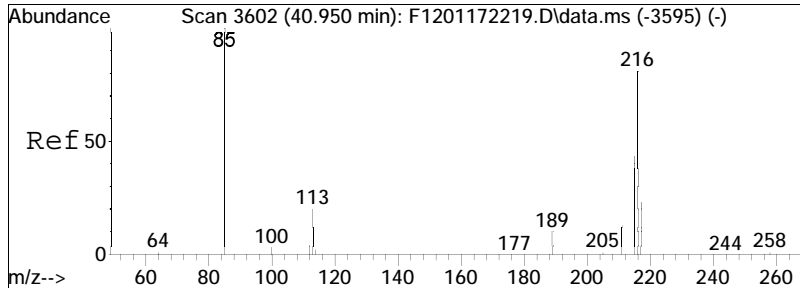




#60  
 2-Methylpyrene  
 Concen: 533.87 ng/mL M3  
 RT: 40.411 min Scan# 3543  
 Delta R.T. -0.036 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

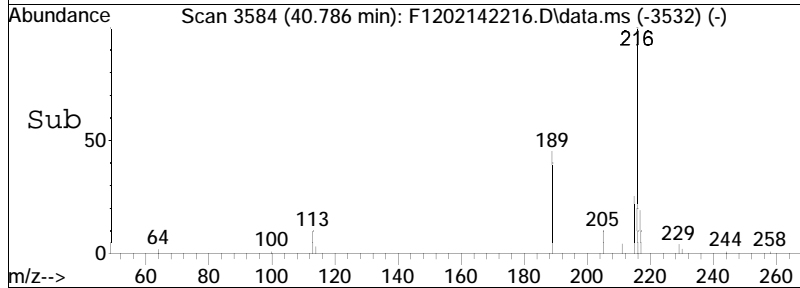
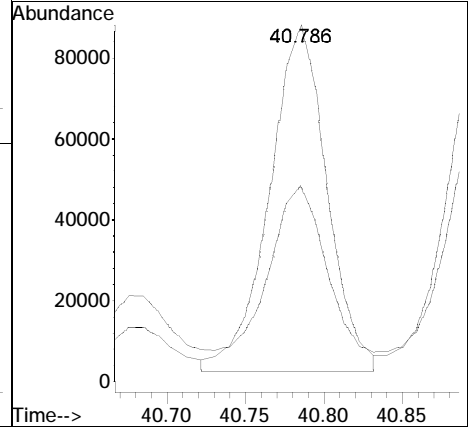
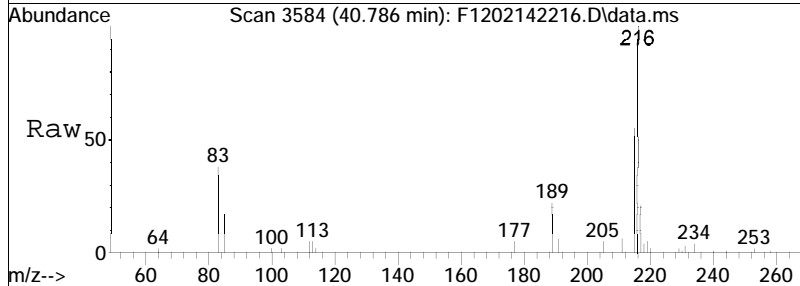
Tgt Ion	Resp	Lower	Upper
216	100		
215	0.9	70.0	130.0#



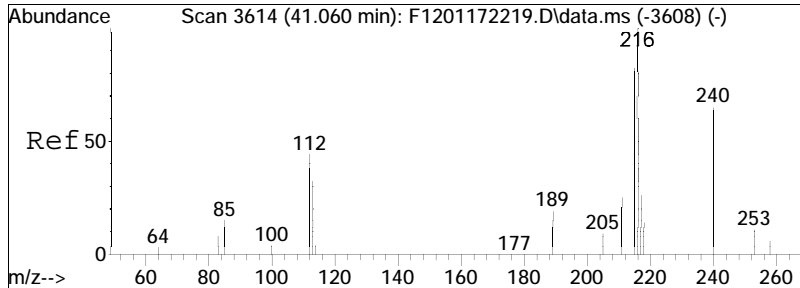


#61  
 4-Methylpyrene  
 Concen: 501.96 ng/mL  
 RT: 40.786 min Scan# 3584  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

Tgt Ion	Resp	Lower	Upper
216	100		
215	52.5	51.2	95.2

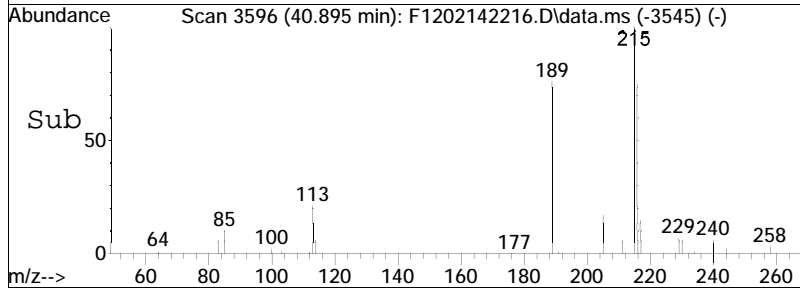
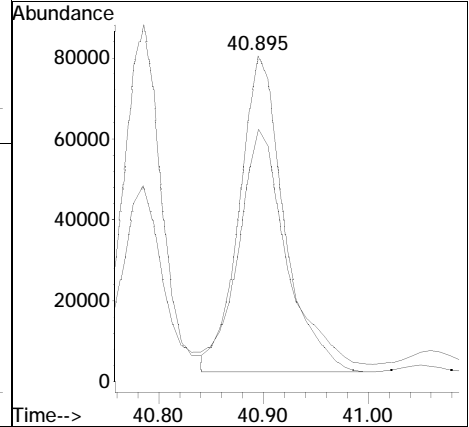
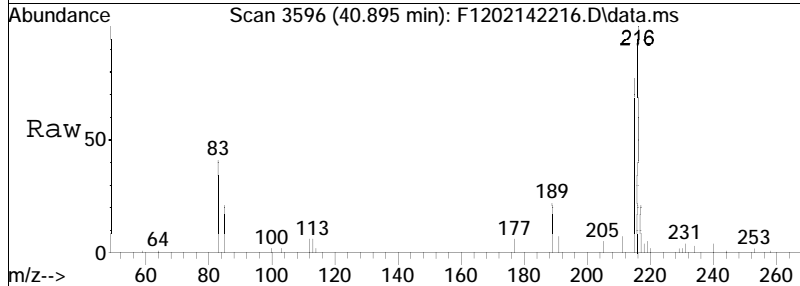


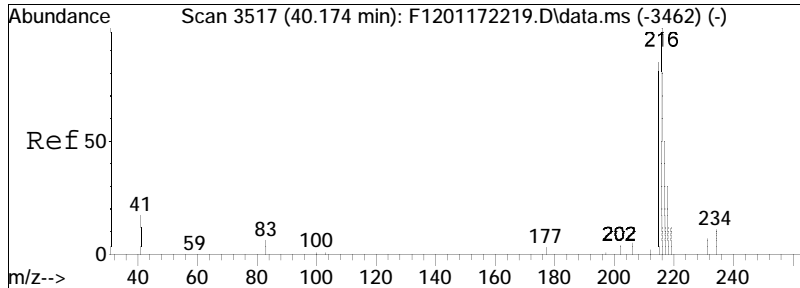




#62  
 1-Methylpyrene  
 Concen: 530.31 ng/mL  
 RT: 40.895 min Scan# 3596  
 Delta R.T. -0.036 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

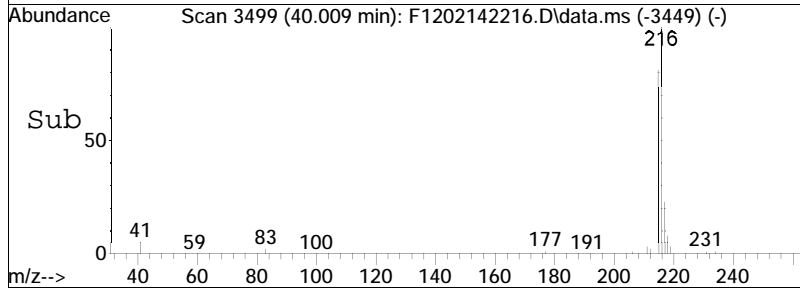
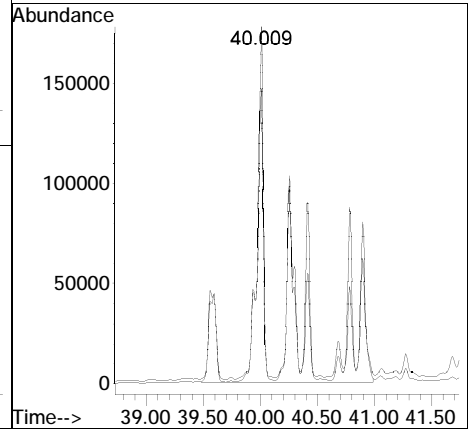
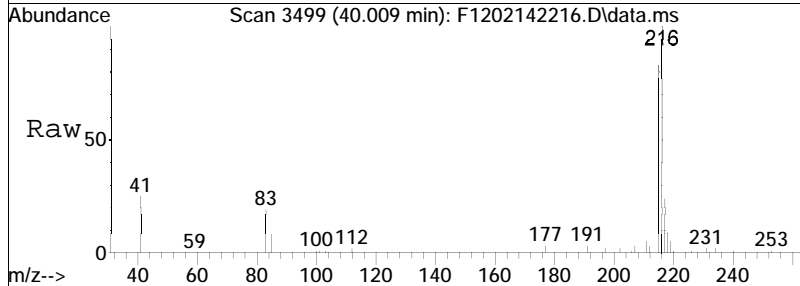
Tgt Ion	Ratio	Lower	Upper
216	100		
215	78.6	76.4	141.8

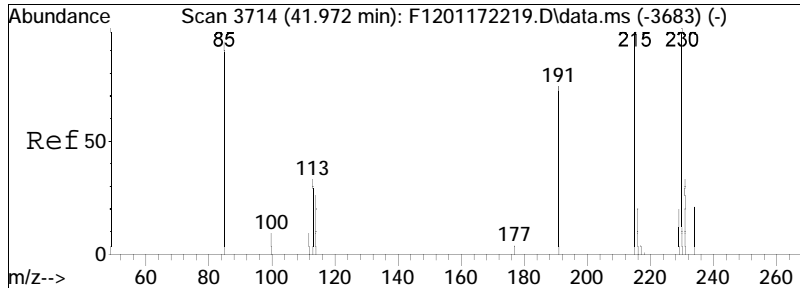




#63  
 Cl-Fluoranthenes/Pyrenes  
 Concen: 4614.83 ng/mL M5  
 RT: 40.009 min Scan# 3499  
 Delta R.T. -0.043 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

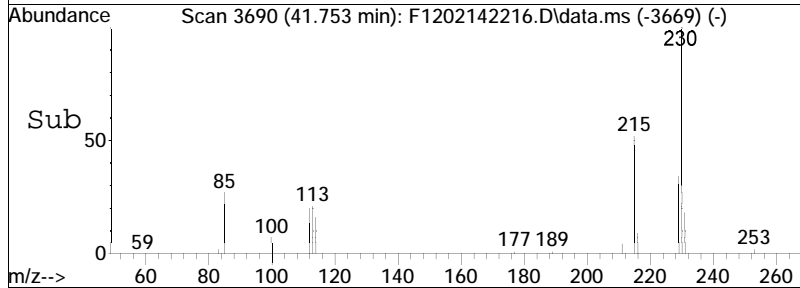
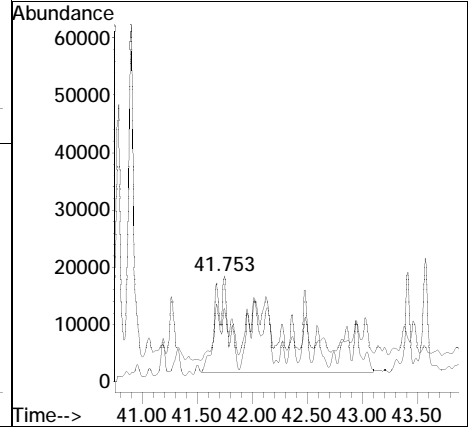
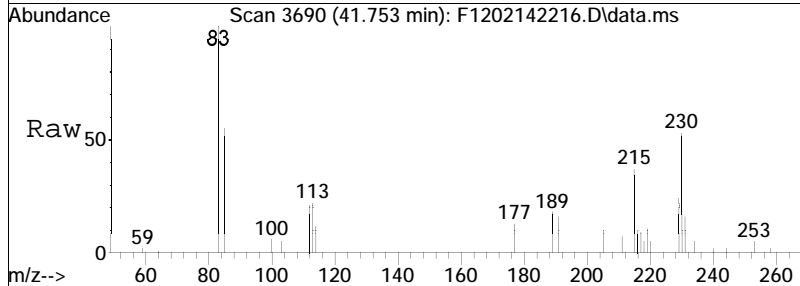
Tgt Ion: 216 Resp: 2015519  
 Ion Ratio Lower Upper  
 216 100  
 215 20.8 65.7 122.1#

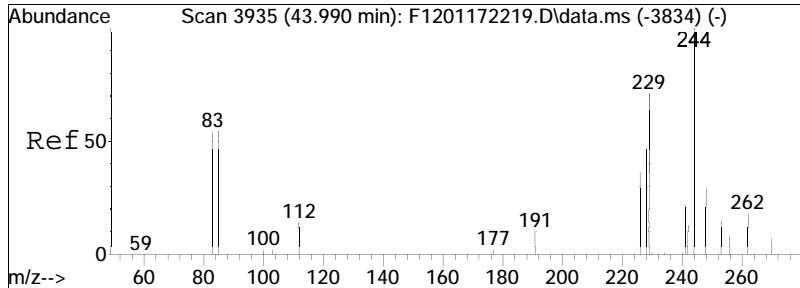




#64  
 C2-Fluoranthenes/Pyrenes  
 Concen: 1170.38 ng/mL M5  
 RT: 41.753 min Scan# 3690  
 Delta R.T. -0.092 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

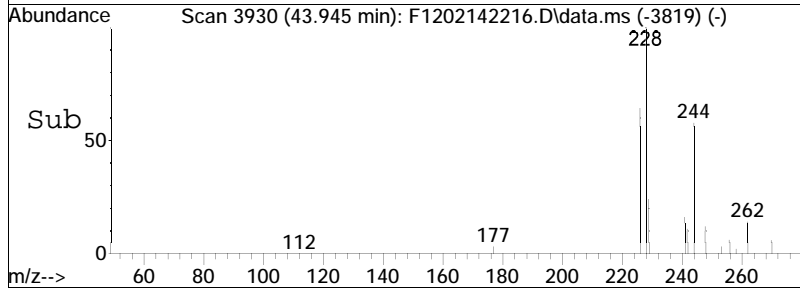
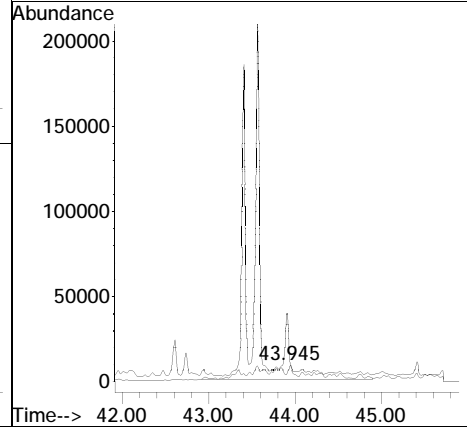
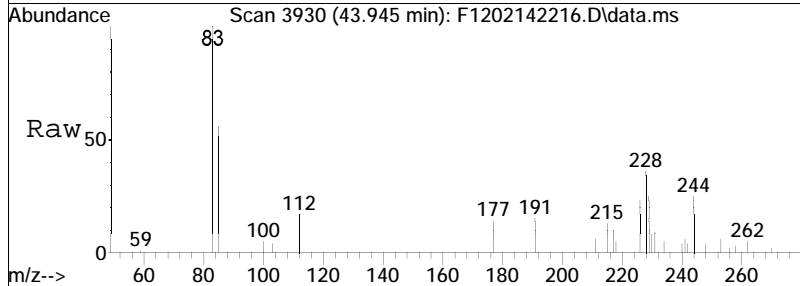
Tgt Ion: 230 Resp: 511159  
 Ion Ratio Lower Upper  
 230 100  
 215 4.0 79.5 147.7#

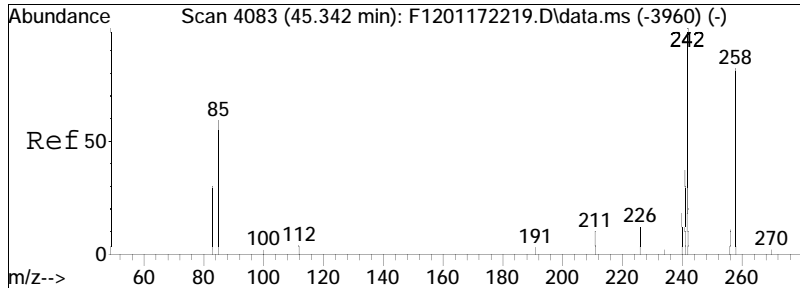




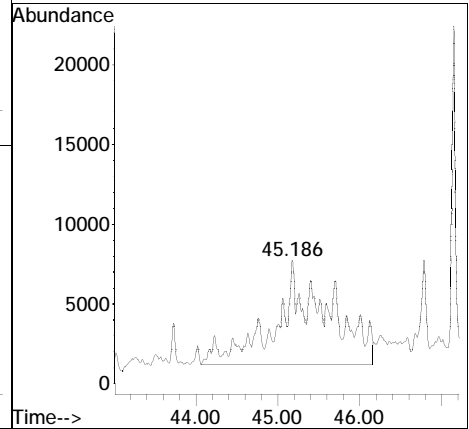
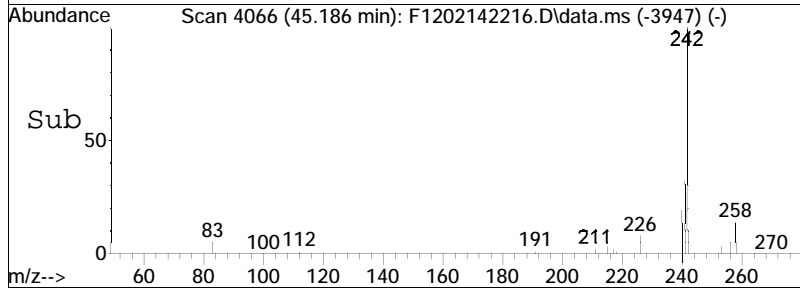
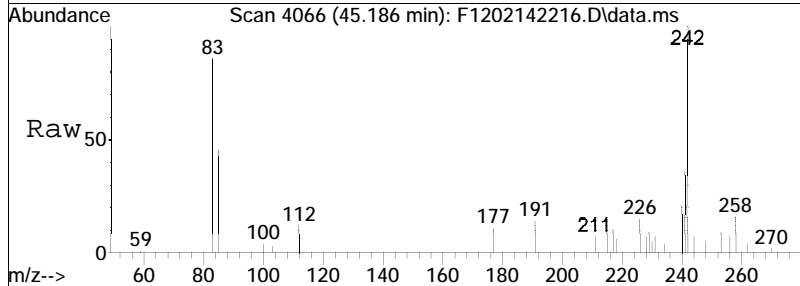
#65  
 C3-Fluoranthenes/Pyrenes  
 Concen: 751.80 ng/mL M5  
 RT: 43.945 min Scan# 3930  
 Delta R.T. 0.087 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

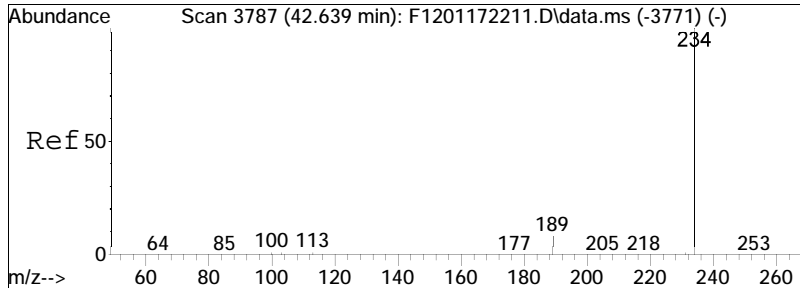
Tgt Ion	Resp	Lower	Upper
244	100		
229	3.0	65.4	121.4#





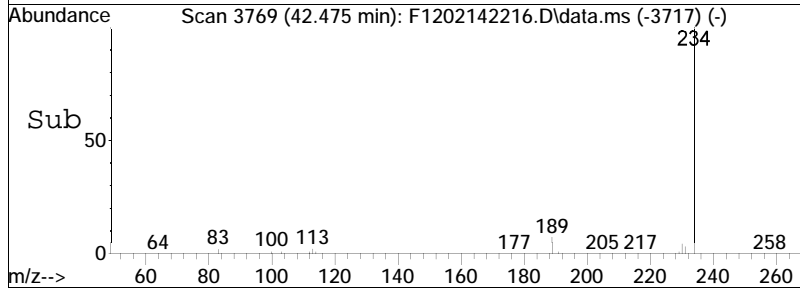
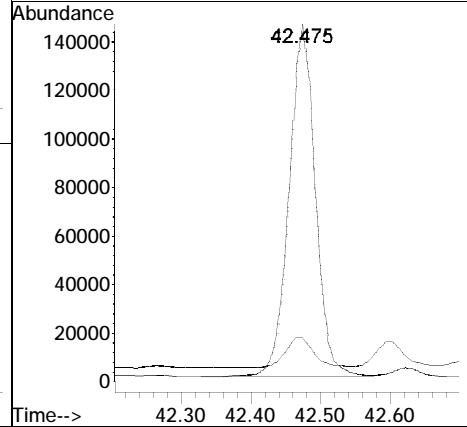
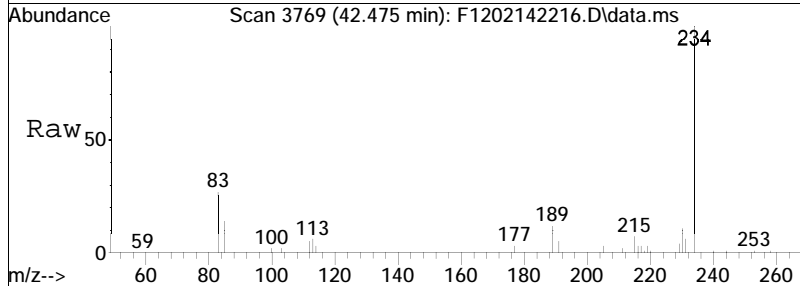
#66  
 C4-Fluoranthenes/Pyrenes  
 Concen: 659.88 ng/mL M5  
 RT: 45.186 min Scan# 4066  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:258 Resp: 288201

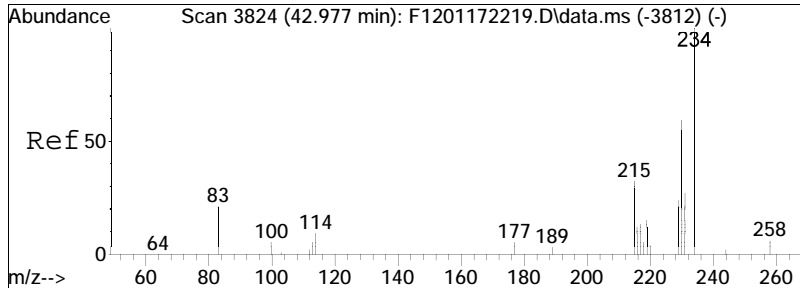




#67  
 Naphthobenzothiophene-2,1-D  
 Concen: 862.52 ng/mL  
 RT: 42.475 min Scan# 3769  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

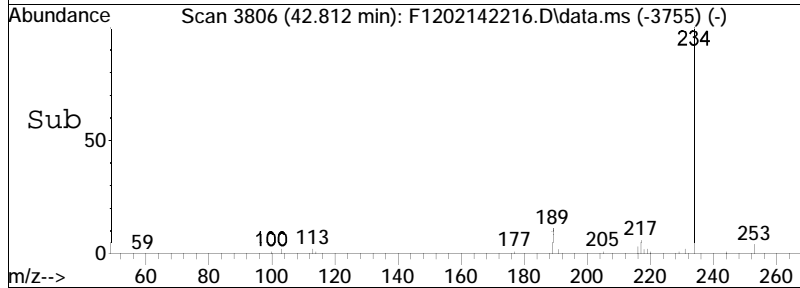
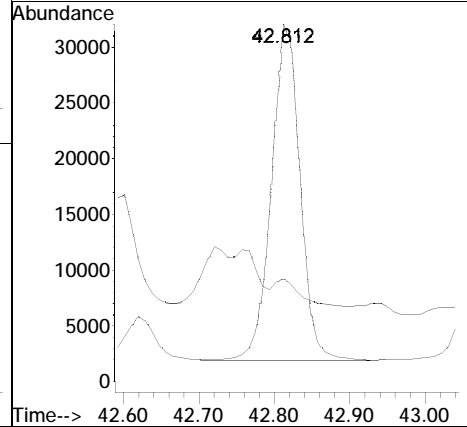
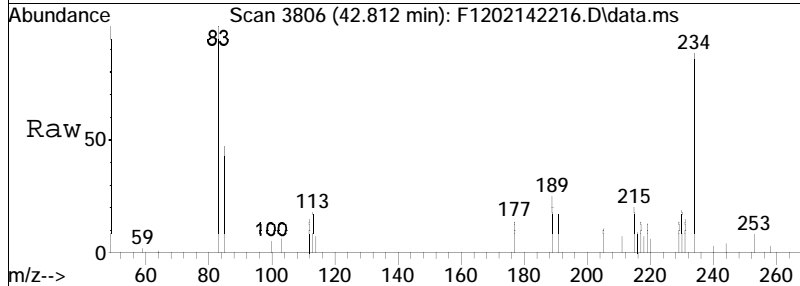
Tgt Ion	Resp	Lower	Upper
234	100		
189	9.4	18.9	35.1#

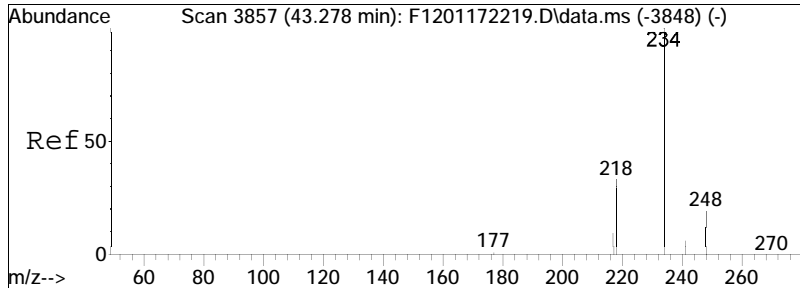




#68  
 Naphthobenzothiophene-1,2-D  
 Concen: 182.05 ng/mL  
 RT: 42.812 min Scan# 3806  
 Delta R.T. -0.036 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

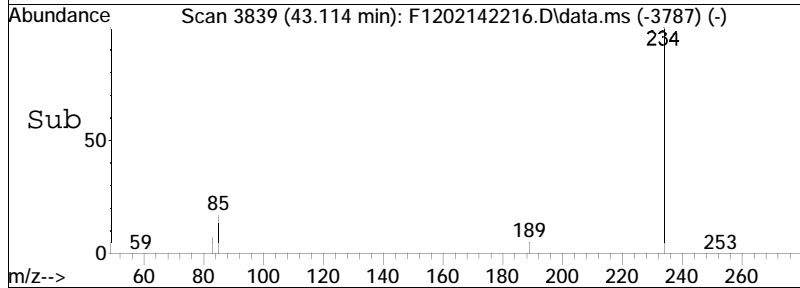
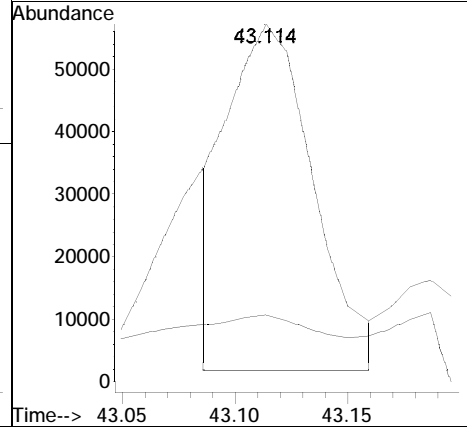
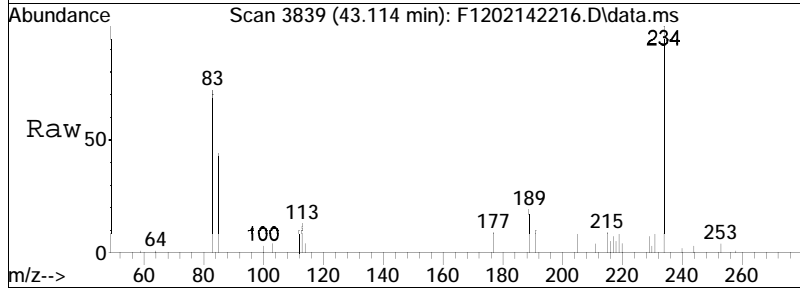
Tgt Ion: 234 Resp: 79707  
 Ion Ratio Lower Upper  
 234 100  
 189 0.0 53.0 98.4#



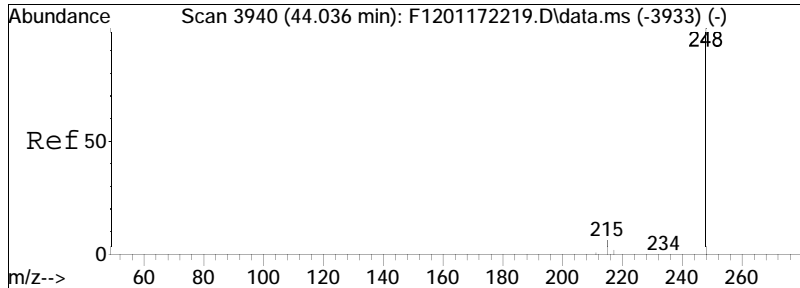


#69  
 Naphthobenzothiophene-2,3-D  
 Concen: 335.02 ng/mL M3  
 RT: 43.114 min Scan# 3839  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

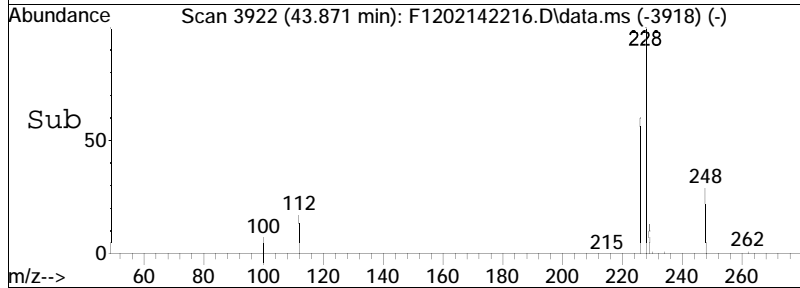
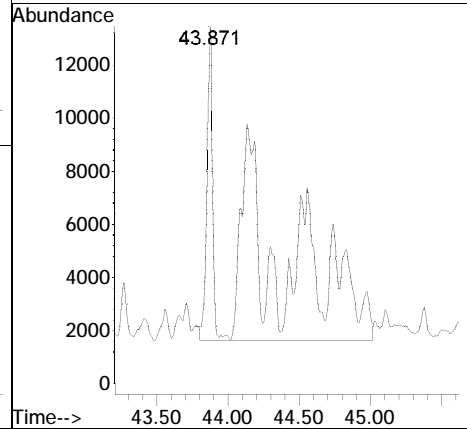
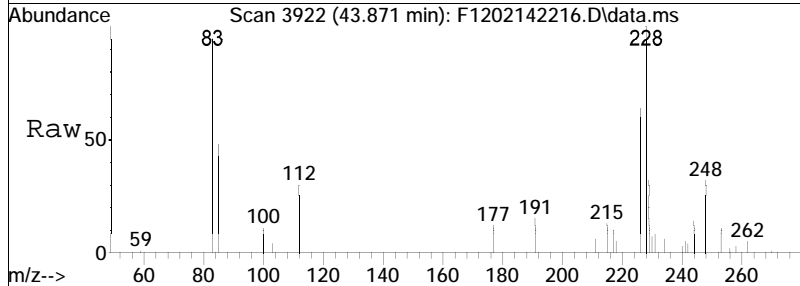
Tgt Ion: 234 Resp: 146684  
 Ion Ratio Lower Upper  
 234 100  
 189 17.1 77.6 144.0#

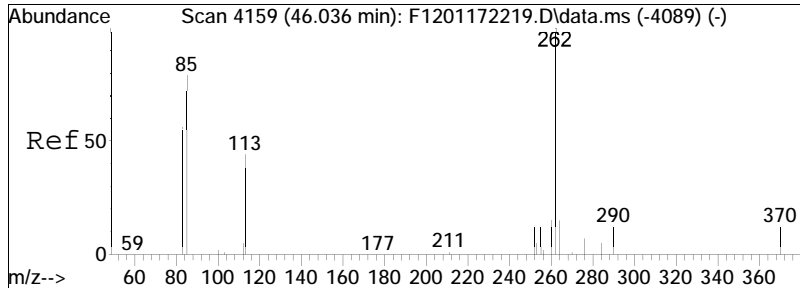




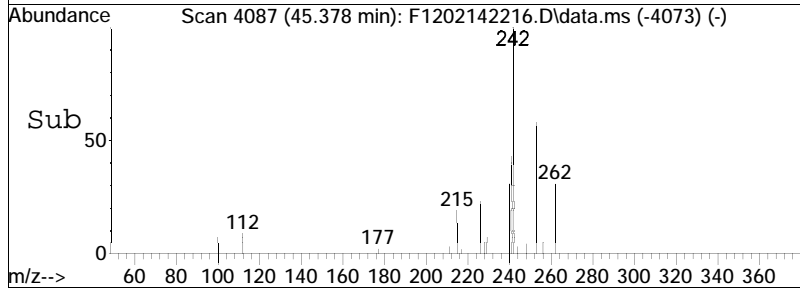
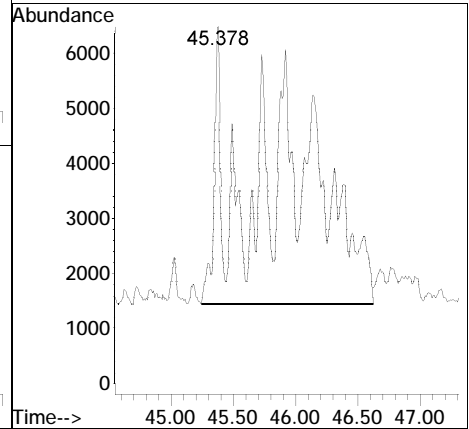
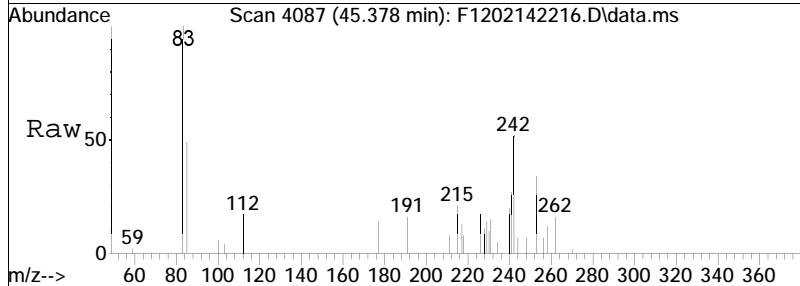


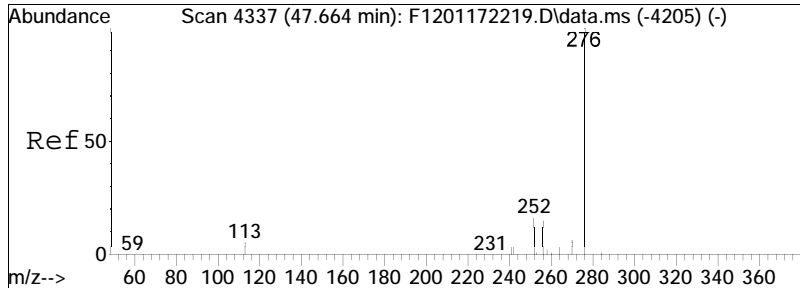
#70  
 Cl-Naphthobenzothiophenes  
 Concen: 458.44 ng/ml M5  
 RT: 43.871 min Scan# 3922  
 Delta R.T. -0.031 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:248 Resp: 200720



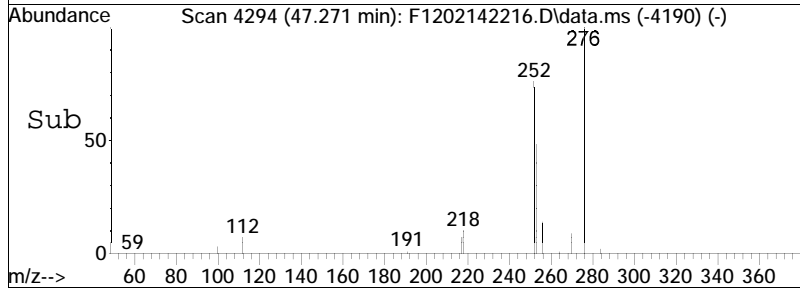
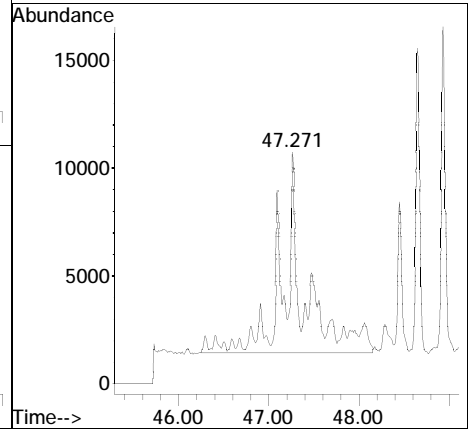
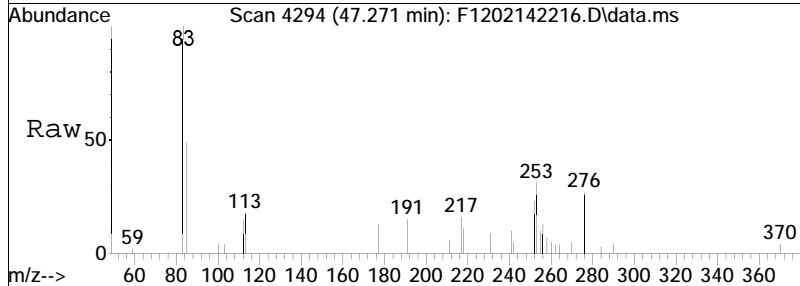


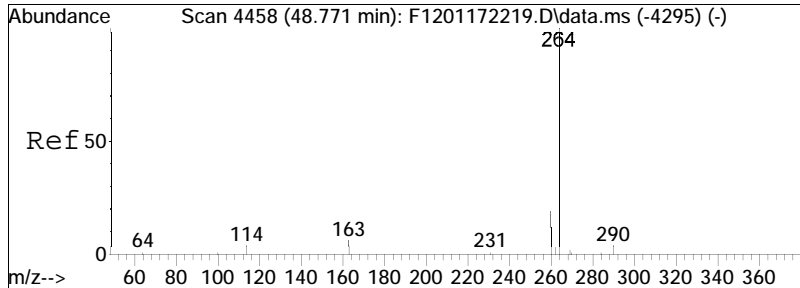
#71  
 C2-Naphthobenzothiophenes  
 Concen: 355.40 ng/ml M5  
 RT: 45.378 min Scan# 4087  
 Delta R.T. -0.519 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion:262 Resp: 155606



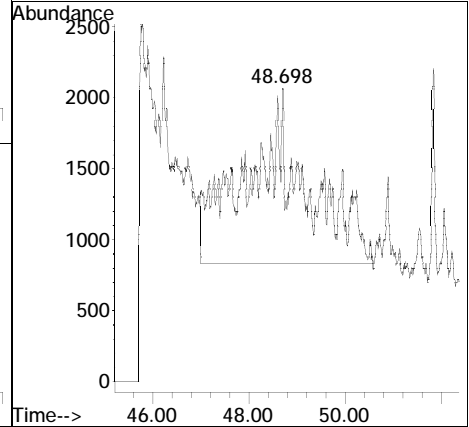
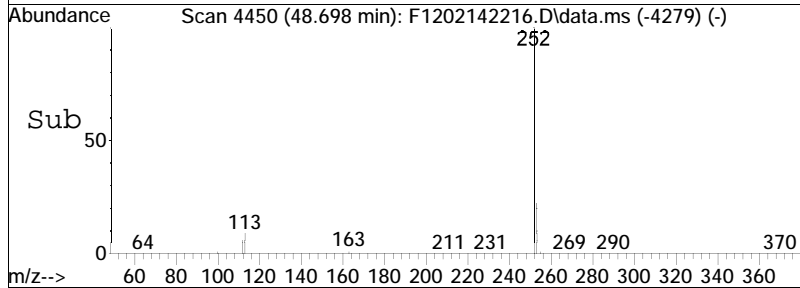
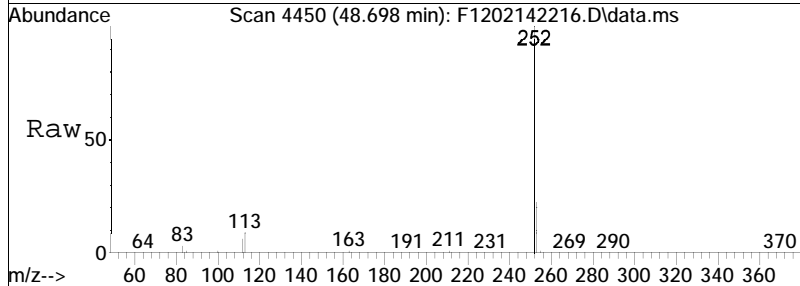


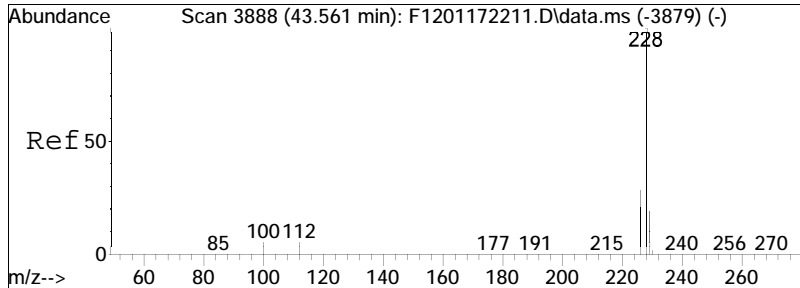
#72  
 C3-Naphthobenzothiophenes  
 Concen: 352.25 ng/ml M5  
 RT: 47.271 min Scan# 4294  
 Delta R.T. -0.249 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion: 276 Resp: 154226





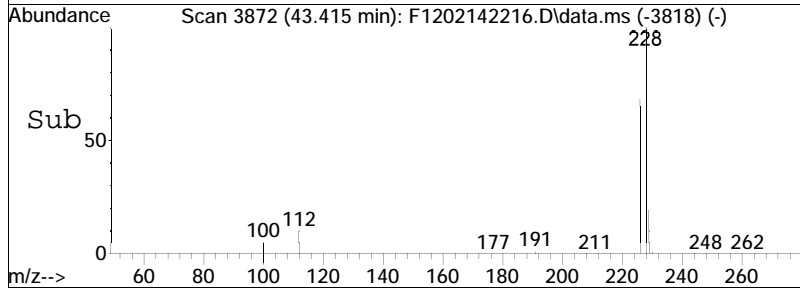
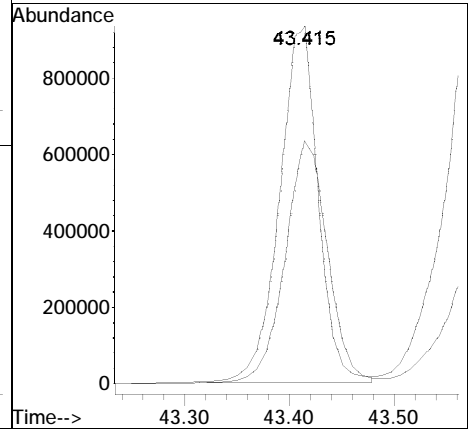
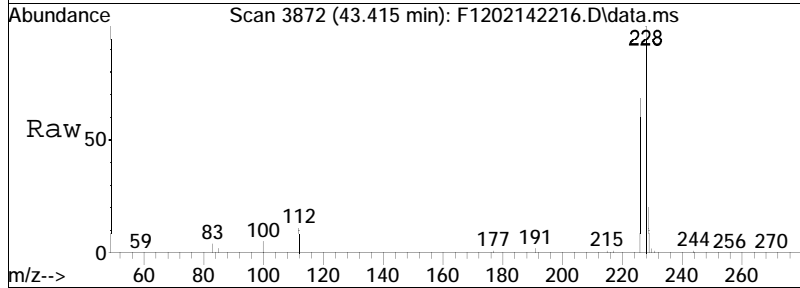
#73  
 C4-Naphthobenzothiophenes  
 Concen: 240.81 ng/mL M5  
 RT: 48.698 min Scan# 4450  
 Delta R.T. 0.074 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am  
 Tgt Ion: 290 Resp: 105433

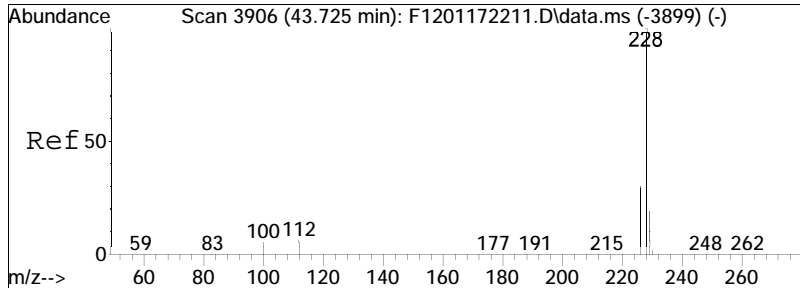




#75  
 Benz[a]anthracene  
 Concen: 6209.26 ng/mL M3  
 RT: 43.415 min Scan# 3872  
 Delta R.T. -0.009 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

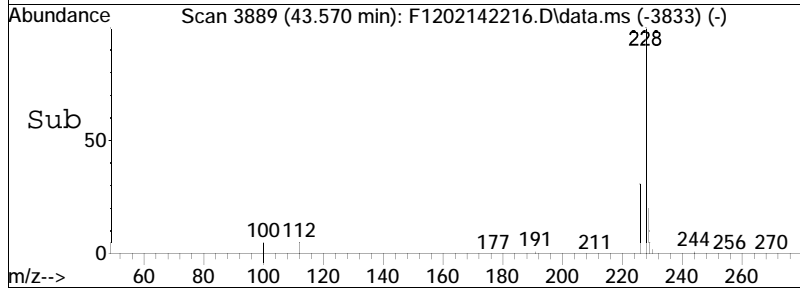
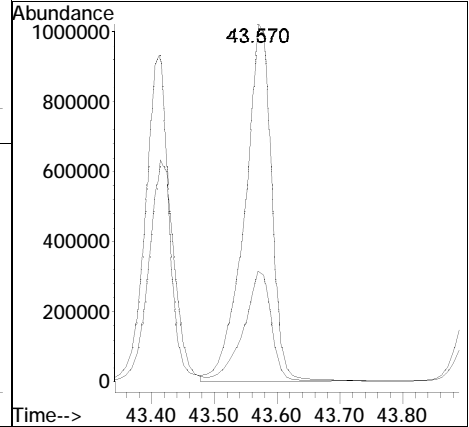
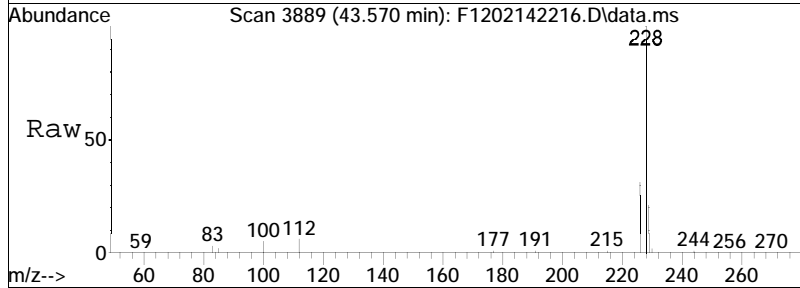
Tgt Ion	Resp	Lower	Upper
228	100		
226	38.9	19.1	35.5#

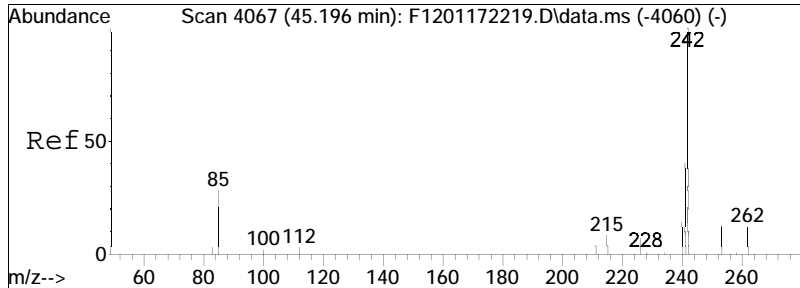




#76  
 Chrysene  
 Concen: 7989.17 ng/mL  
 RT: 43.570 min Scan# 3889  
 Delta R.T. 0.009 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

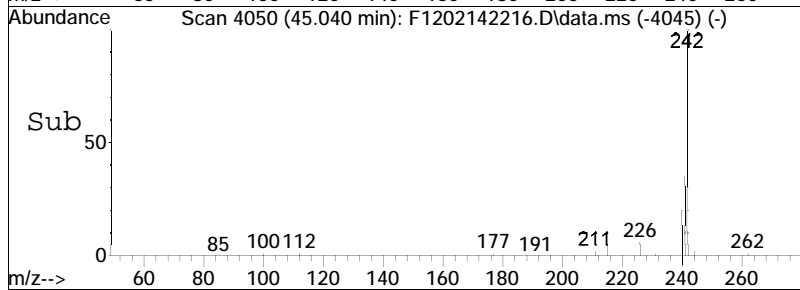
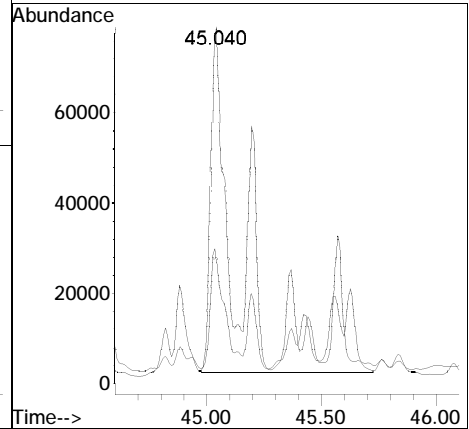
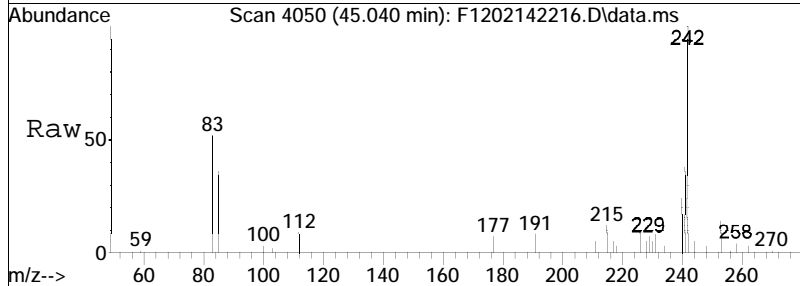
Tgt Ion: 228 Resp: 3036804  
 Ion Ratio Lower Upper  
 228 100  
 226 30.6 27.8 51.6

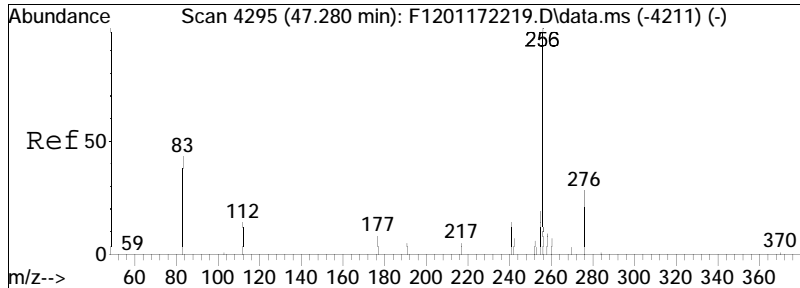




#78  
 C1-Chrysenes  
 Concen: 1758.04 ng/mL M5  
 RT: 45.040 min Scan# 4050  
 Delta R.T. -0.018 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

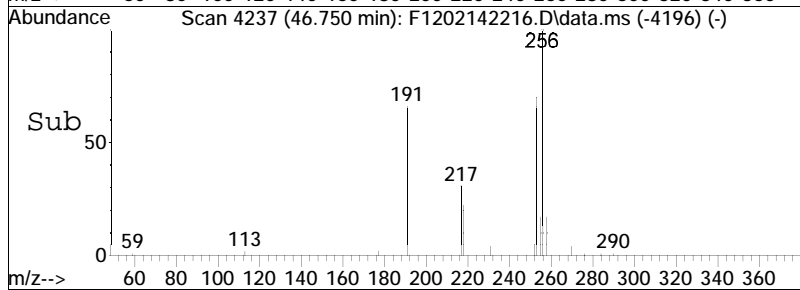
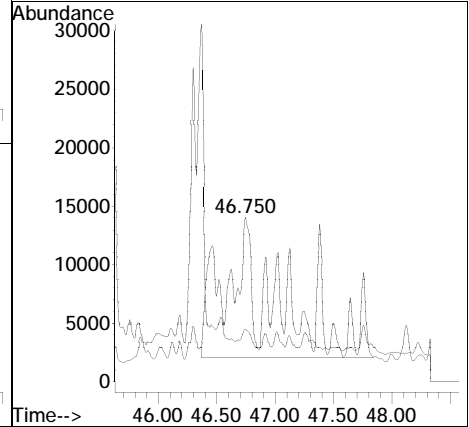
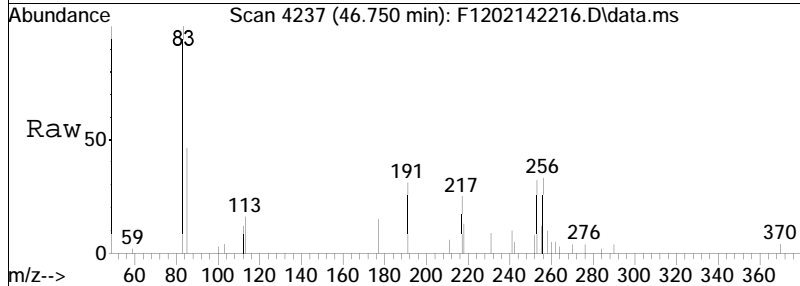
Tgt Ion: 242 Resp: 668258  
 Ion Ratio Lower Upper  
 242 100  
 241 16.6 31.9 59.2#



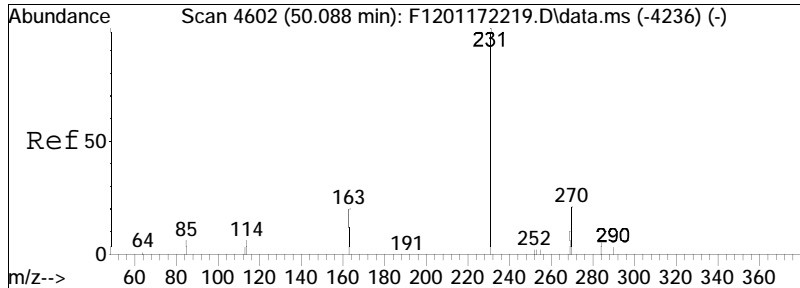


#79  
 C2-Chrysenes  
 Concen: 989.42 ng/mL M5  
 RT: 46.750 min Scan# 4237  
 Delta R.T. -0.393 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

Tgt Ion	Ratio	Lower	Upper
256	100		
241	1.3	25.1	46.7#

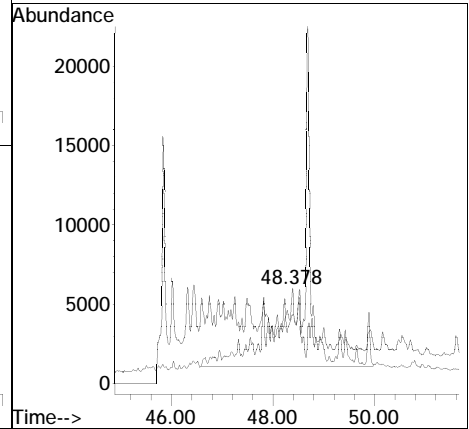
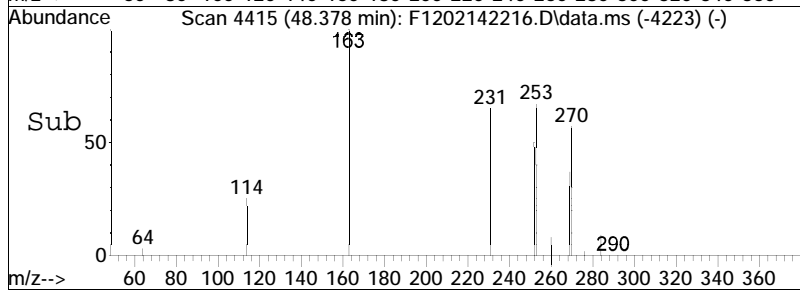
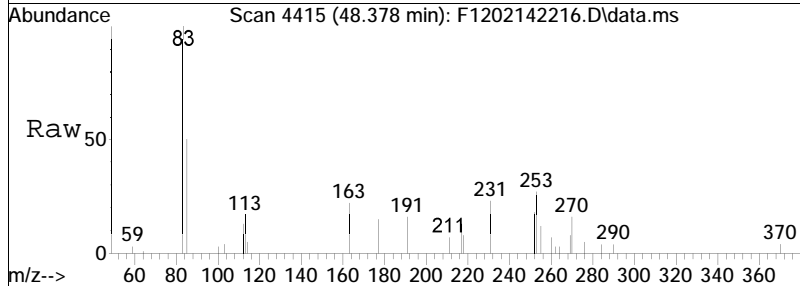


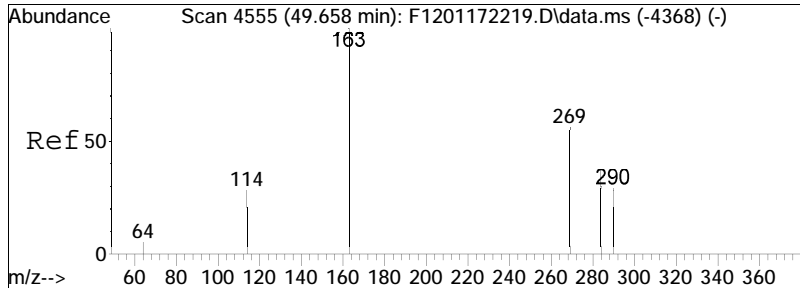




#81  
 C3-Chrysenes  
 Concen: 723.62 ng/mL M5  
 RT: 48.378 min Scan# 4415  
 Delta R.T. -1.536 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

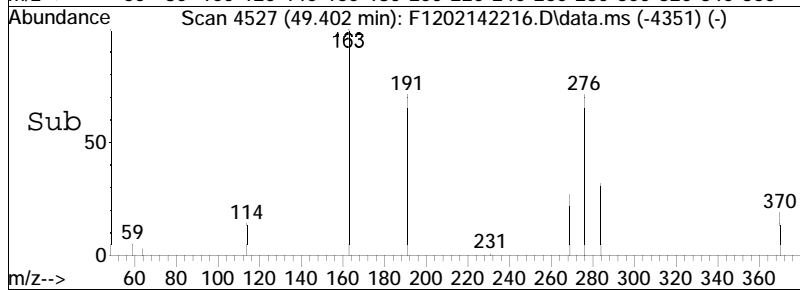
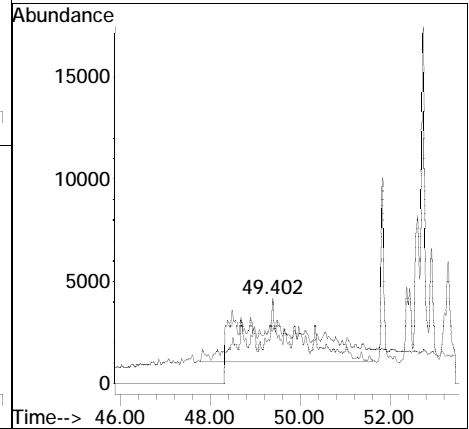
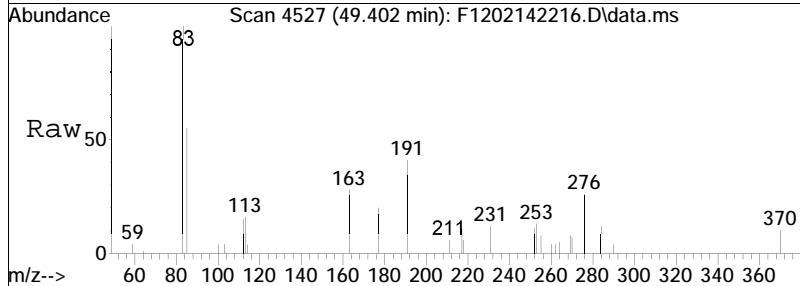
Tgt Ion	Resp	Lower	Upper
270	100		
255	0.0	40.7	75.7#

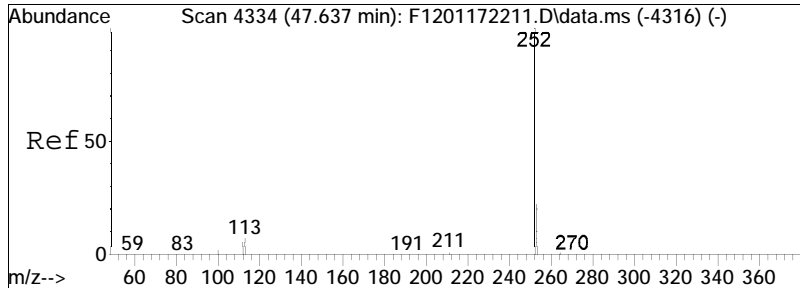




#82  
 C4-Chrysenes  
 Concen: 458.03 ng/mL M5  
 RT: 49.402 min Scan# 4527  
 Delta R.T. -0.613 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

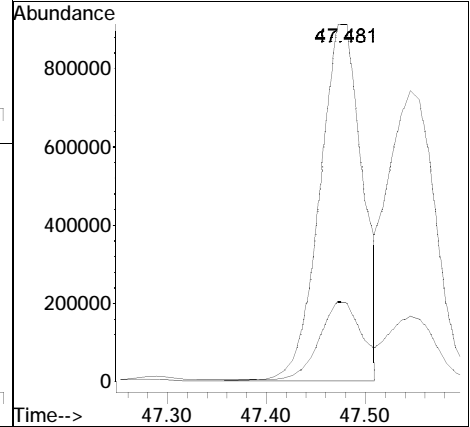
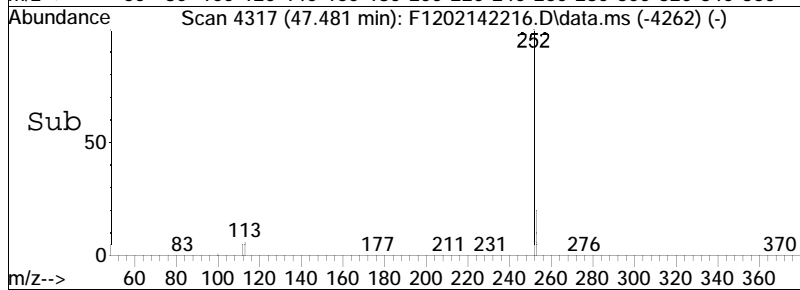
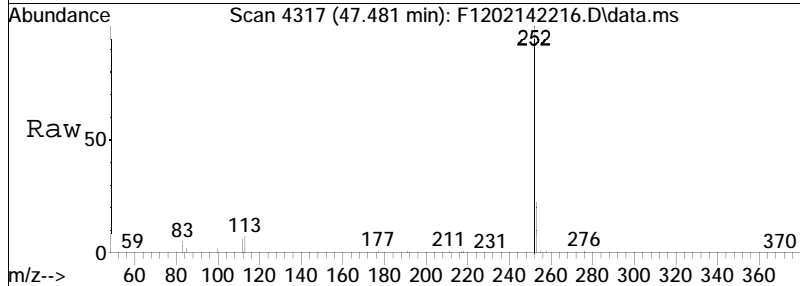
Tgt Ion	Resp	Lower	Upper
284	100		
269	0.0	62.2	115.6#

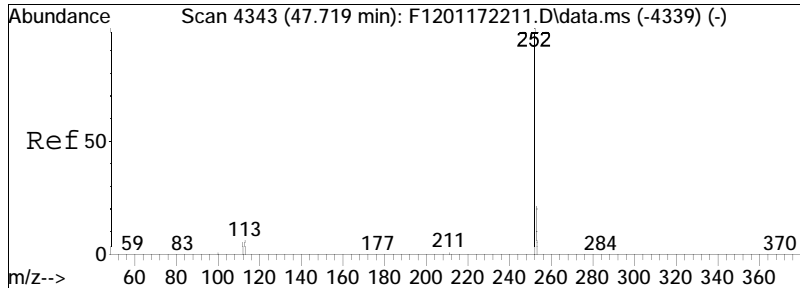




#85  
 Benzo[b]fluoranthene  
 Concen: 6336.23 ng/mL  
 RT: 47.481 min Scan# 4317  
 Delta R.T. 0.000 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

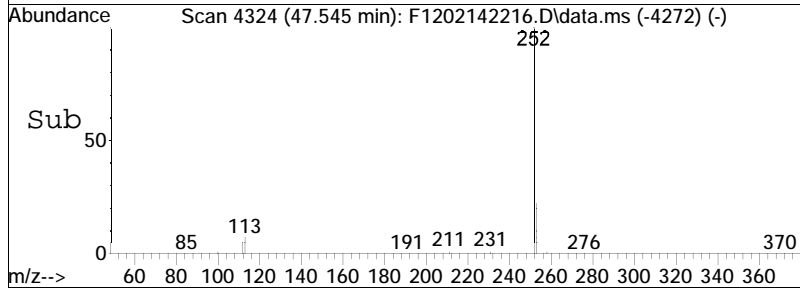
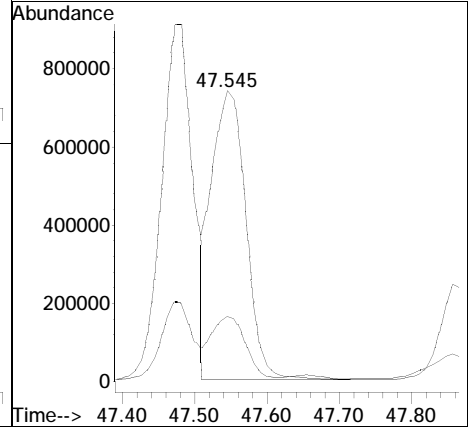
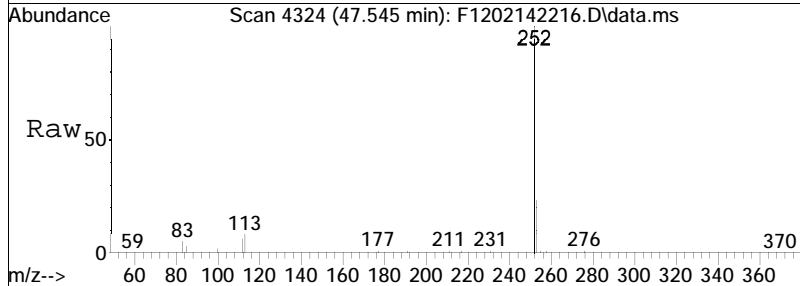
Tgt Ion: 252 Resp: 2744692  
 Ion Ratio Lower Upper  
 252 100  
 253 21.7 16.6 30.8

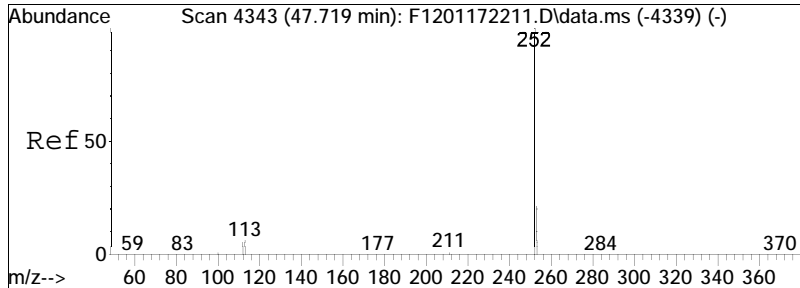




#86  
 Benzo[j]+[k]fluoranthene  
 Concen: 5482.03 ng/mL  
 RT: 47.545 min Scan# 4324  
 Delta R.T. -0.027 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

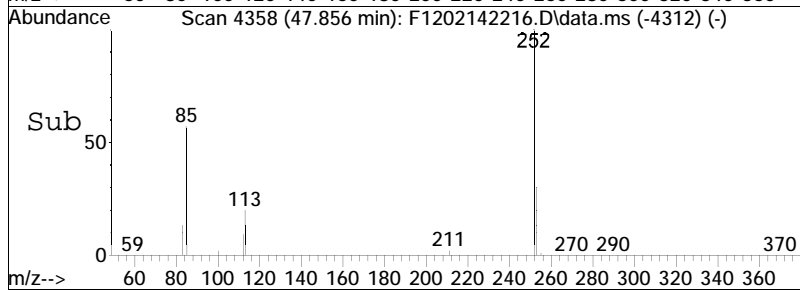
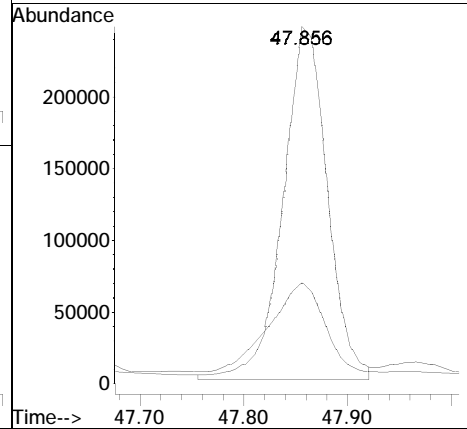
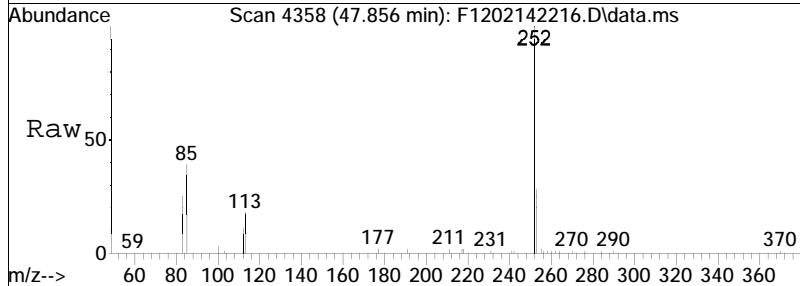
Tgt Ion: 252 Resp: 2450849  
 Ion Ratio Lower Upper  
 252 100  
 253 21.5 16.4 30.4

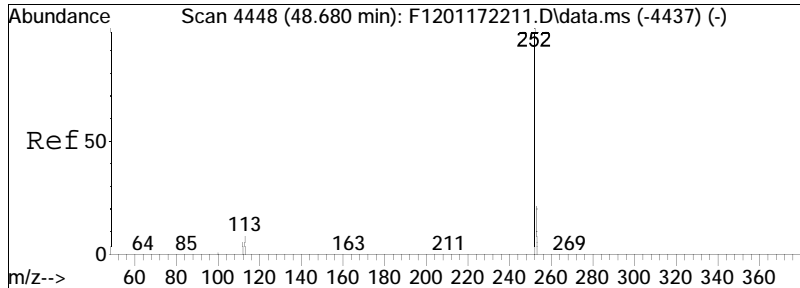




#87  
 Benzo[a]fluoranthene  
 Concen: 1638.09 ng/mL M3  
 RT: 47.856 min Scan# 4358  
 Delta R.T. -0.075 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

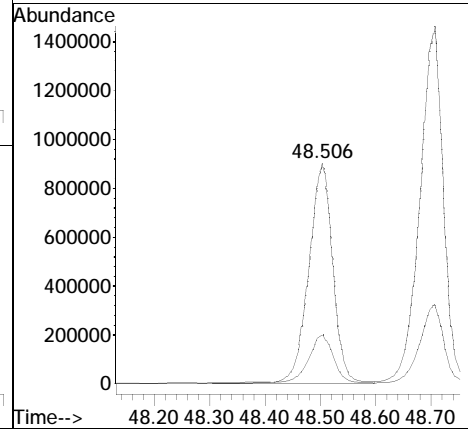
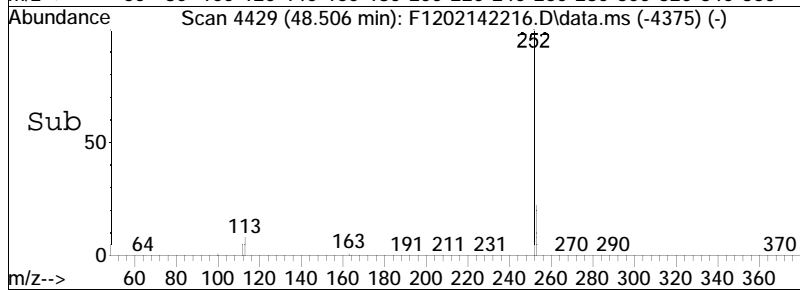
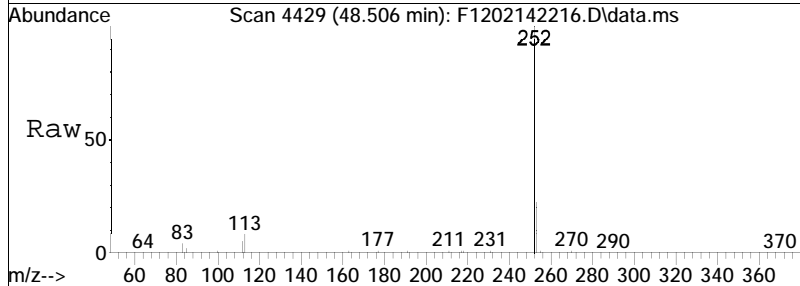
Tgt Ion:	252	Resp:	732340
Ion Ratio	Lower	Upper	
252	100		
253	1.5	203.3	377.6#

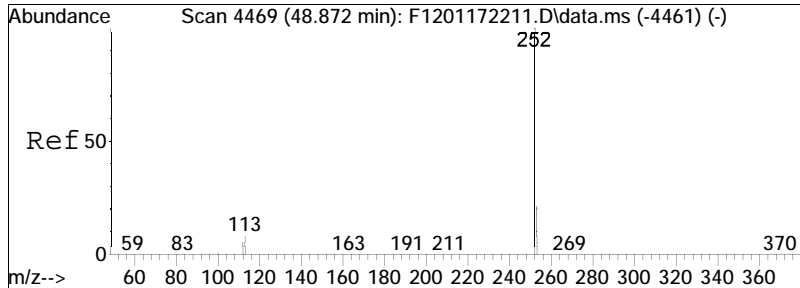




#88  
 Benzo[e]pyrene  
 Concen: 6303.41 ng/mL  
 RT: 48.506 min Scan# 4429  
 Delta R.T. -0.009 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

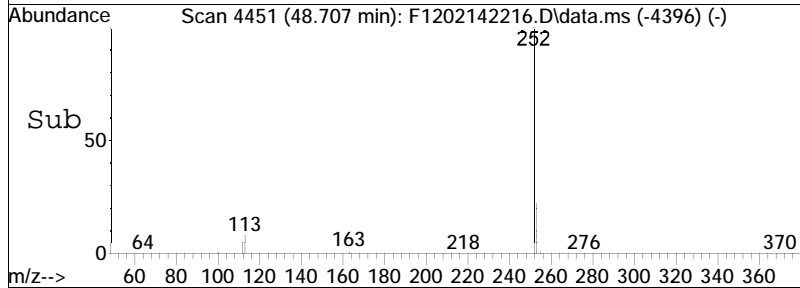
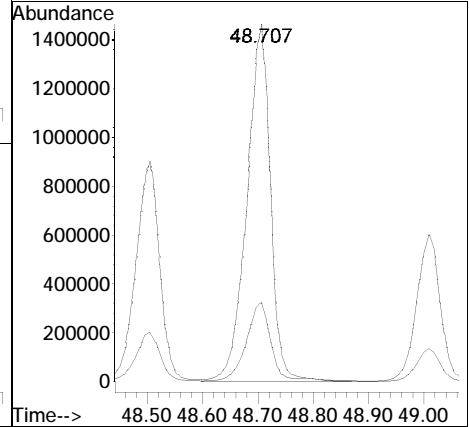
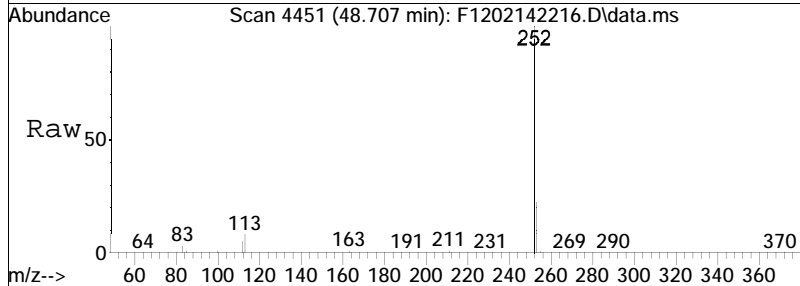
Tgt Ion: 252 Resp: 2697940  
 Ion Ratio Lower Upper  
 252 100  
 253 21.5 16.8 31.2

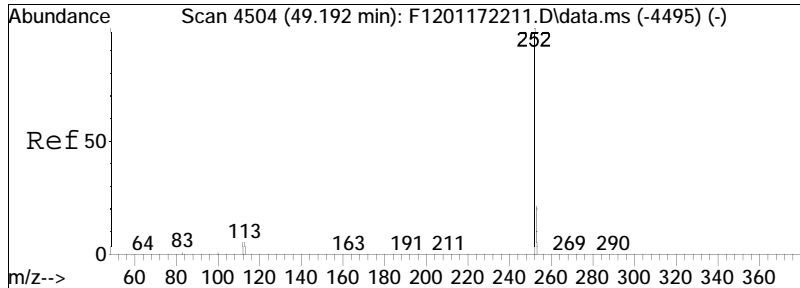




#90  
 Benzo[a]pyrene  
 Concen: 10316.25 ng/mL  
 RT: 48.707 min Scan# 4451  
 Delta R.T. 0.000 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

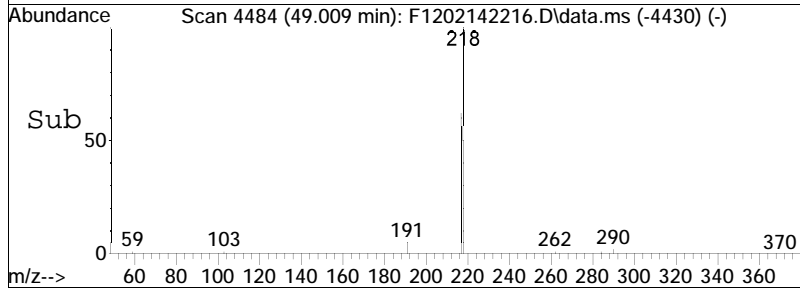
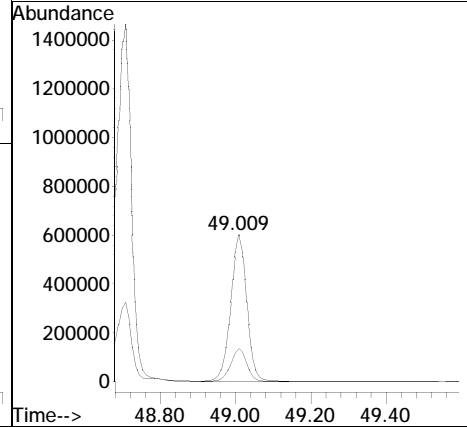
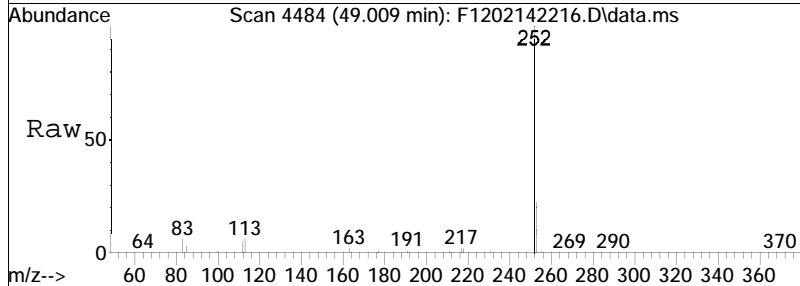
Tgt Ion: 252 Resp: 4281509  
 Ion Ratio Lower Upper  
 252 100  
 253 21.8 16.8 31.2



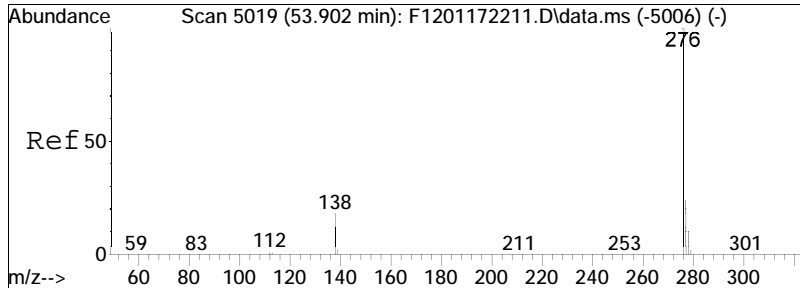


#91  
 Perylene  
 Concen: 4206.53 ng/mL  
 RT: 49.009 min Scan# 4484  
 Delta R.T. -0.009 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

Tgt Ion: 252 Resp: 1790533  
 Ion Ratio Lower Upper  
 252 100  
 253 21.3 17.3 32.1

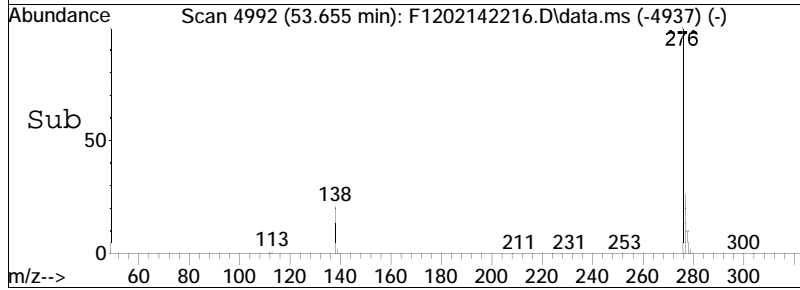
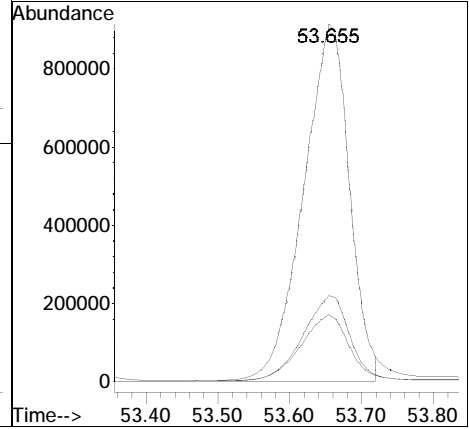
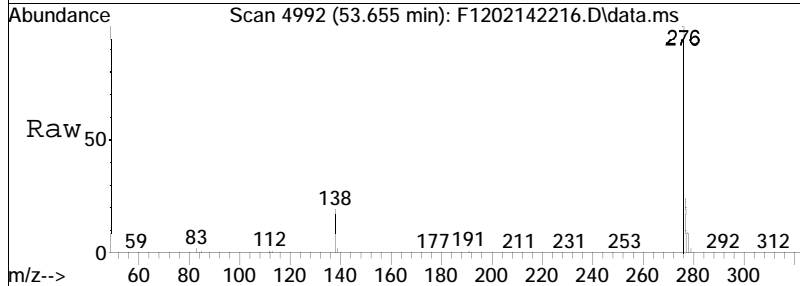


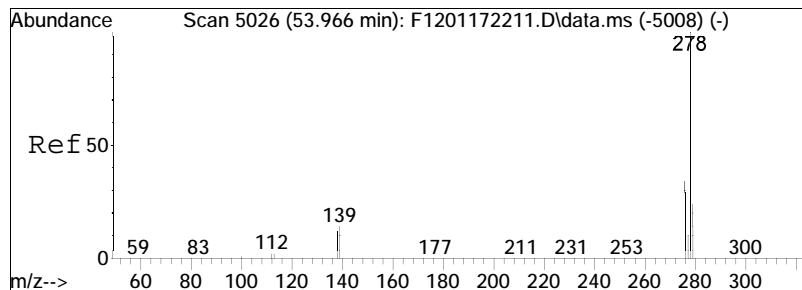




#92  
 Indeno[1,2,3-cd]pyrene  
 Concen: 7076.25 ng/mL M4  
 RT: 53.655 min Scan# 4992  
 Delta R.T. 0.000 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

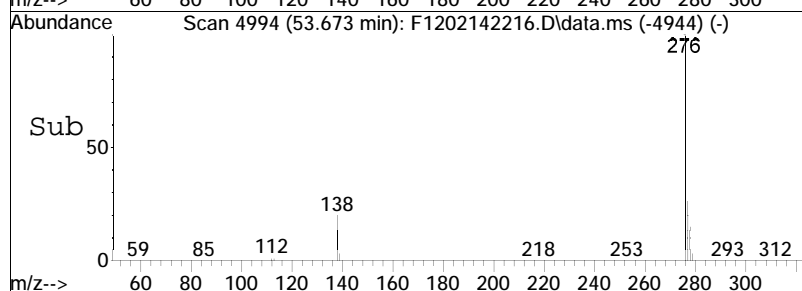
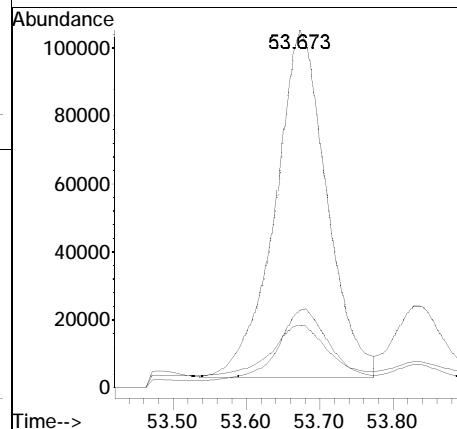
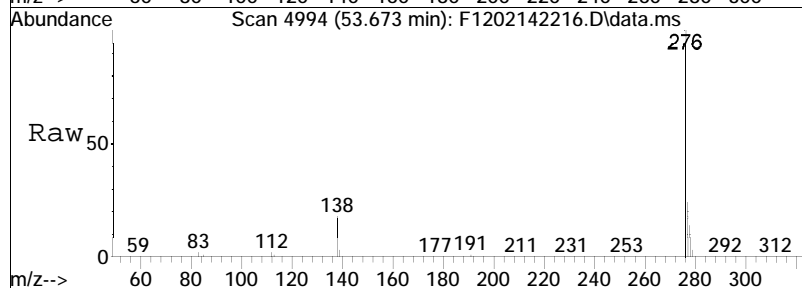
Tgt Ion	Resp	Lower	Upper
276	4024974		
138	20.0	12.2	22.7
277	24.8	16.7	30.9

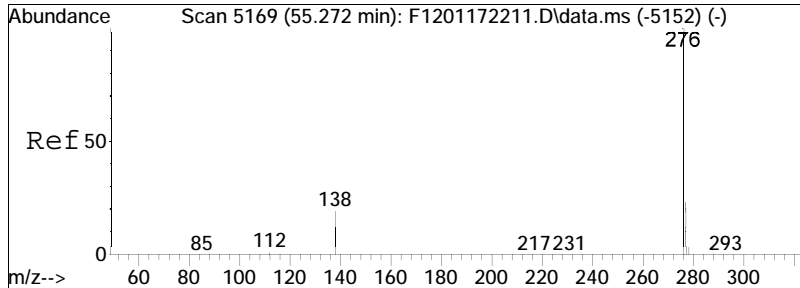




#93  
 Dibenz[ah]+[ac]anthracene  
 Concen: 1003.77 ng/mL M4  
 RT: 53.673 min Scan# 4994  
 Delta R.T. -0.046 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

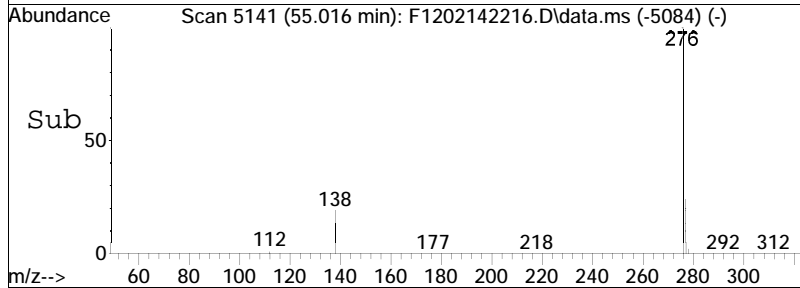
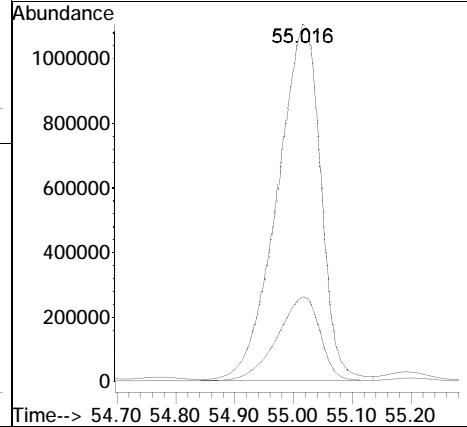
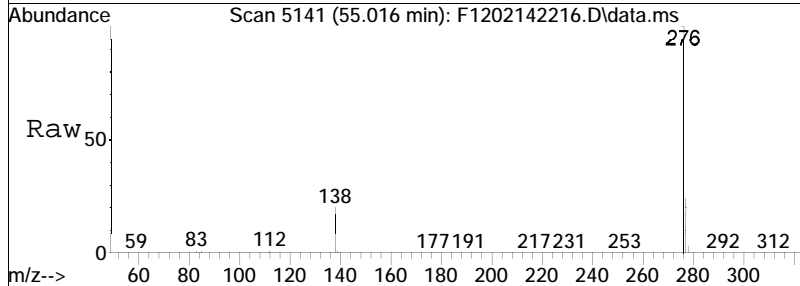
Tgt Ion	Resp	Lower	Upper
278	501187		
139	13.8	10.1	18.7
279	23.8	16.6	30.8





#94  
 Benzo[g,h,i]perylene  
 Concen: 11145.10 ng/mL  
 RT: 55.016 min Scan# 5141  
 Delta R.T. 0.018 min  
 Lab File: F1202142216.D  
 Acq: 15 Feb 2022 8:24 am

Tgt Ion: 276 Resp: 5608712  
 Ion Ratio Lower Upper  
 276 100  
 277 23.6 16.4 30.6



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142217.D  
 Acq On : 15 Feb 2022 9:56 am  
 Operator : PAH12:MJS  
 Sample : 12206076-08,32,,  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 22 11:58:37 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Thu Jan 20 14:34:52 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	26.995	164	89475M4	500.000	ng/mL	-0.03	
74) Chrysene-d12	43.470	240	166766	500.000	ng/mL	-0.03	
System Monitoring Compounds							
8) Naphthalene-d8	20.014	136	159516	413.491	ng/mL	-0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	41.35%#	
40) Phenanthrene-d10	32.862	188	155552	481.247	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	48.12%#	
84) Benzo[b]fluoranthene-d12	47.381	264	177247	457.092	ng/mL	-0.02	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	45.71%#	
89) Benzo[a]pyrene-d12	48.597	264	132035	449.884	ng/mL	-0.02	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	44.99%#	
Target Compounds							
2) trans-Decalin	16.665	138	2638	31.585	ng/mL		Qvalue 100
3) cis-Decalin	17.888	138	197M4	3.073	ng/mL		
4) C1-Decalins	18.599	152	12321M5	147.519	ng/mL		
5) C2-Decalins	19.923	166	27071M5	324.120	ng/mL		
6) C3-Decalins	22.405	180	24173M5	289.422	ng/mL		
7) C4-Decalins	24.677	194	30284M5	362.589	ng/mL		
9) Naphthalene	20.087	128	651038	1526.213	ng/mL		100
10) C1-Naphthalenes	22.788	142	246301M5	577.398	ng/mL		
11) C2-Naphthalenes	25.626	156	200716M5	470.534	ng/mL		
12) C3-Naphthalenes	27.962	170	144519M5	338.793	ng/mL		
13) C4-Naphthalenes	30.727	184	104552M5	245.099	ng/mL		
14) 2-Methylnaphthalene	22.788	142	167772	619.329	ng/mL		100
15) 1-Methylnaphthalene	23.208	142	78338	304.656	ng/mL		100
16) Benzothiophene	20.306	134	19943	55.259	ng/mL		100
17) C1-Benzo(b)thiophenes	23.171	148	8834M5	24.478	ng/mL		
18) C2-Benzo(b)thiophenes	24.942	162	9885M5	27.390	ng/mL		
19) C3-Benzo(b)thiophenes	27.807	176	14055M5	38.944	ng/mL		
20) C4-Benzo(b)thiophenes	29.906	190	14118M5	39.119	ng/mL		
21) Biphenyl	24.668	154	119310	359.806	ng/mL		100
22) 2,6-Dimethylnaphthalene	25.288	156	60461	262.007	ng/mL		100
23) Dibenzofuran	27.752	168	45246	127.973	ng/mL		89
24) Acenaphthylene	26.374	152	269889	662.932	ng/mL		100
25) Acenaphthene	27.114	153	350537	1360.965	ng/mL		99
26) 2,3,5-Trimethylnaphthalen	28.665	170	11714M3	52.906	ng/mL		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142217.D  
 Acq On : 15 Feb 2022 9:56 am  
 Operator : PAH12:MJS  
 Sample : 12206076-08,32,,  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 22 11:58:37 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Thu Jan 20 14:34:52 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	29.130	166	208746	732.598	ng/mL	99
28) C1-Fluorenes	31.356	180	82001M5	287.784	ng/mL	
29) C2-Fluorenes	33.546	194	98420M5	345.407	ng/mL	
30) C3-Fluorenes	36.193	208	100911M5	354.149	ng/mL	
31) Dibenzothiophene	32.460	184	298690	726.724	ng/mL#	86
32) 4-Methyldibenzothiophene(	34.230	198	31816	77.409	ng/mL	100
33) 2/3-Methyldibenzothiophen	34.586	198	36779	89.485	ng/mL	100
34) 1-Methyldibenzothiophene(	35.006	198	9405	22.883	ng/mL	100
36) C1-Dibenzothiophenes	34.230	198	110153M5	268.006	ng/mL	
36) C1-Dibenzothiophenes BS	34.230	198	90099M5	219.214	ng/mL	
37) C2-Dibenzothiophenes	35.919	212	92031M5	223.915	ng/mL	
38) C3-Dibenzothiophenes	37.727	226	116007M5	282.249	ng/mL	
39) C4-Dibenzothiophenes	39.407	240	67646M5	164.585	ng/mL	
41) Phenanthrene	32.962	178	4368365	10400.251	ng/mL	96
42) 3-Methylphenanthrene(3MP)	34.915	192	190168	452.754	ng/mL	96
43) 2-Methylphenanthrene(2MP)	35.025	192	215422	512.879	ng/mL	96
44) 2-Methylanthracene(2MA)	35.180	192	87281M3	207.800	ng/mL	
45) 9/4-Methylphenanthrene(9M	35.371	192	202740M3	482.686	ng/mL	
47) C1-Phenanthrenes/Anthrace	35.025	192	827473M5	1970.057	ng/mL	
48) C2-Phenanthrenes/Anthrace	37.188	206	474212M5	1129.009	ng/mL	
48) C2-Phenanthrenes/Anthr BS	37.188	206	474212M5	1129.009	ng/mL	
50) C3-Phenanthrenes/Anthrace	39.023	220	339029M5	807.164	ng/mL	
51) C4-Phenanthrenes/Anthrace	39.945	234	213420M5	508.113	ng/mL	
52) Retene	39.945	234	46538M4	334.331	ng/mL	
53) Anthracene	33.135	178	814440	2080.859	ng/mL	100
54) Carbazole	33.792	167	30454M4	74.966	ng/mL	
55) 1-Methylphenanthrene	35.463	192	126567	448.507	ng/mL	98
56) Fluoranthene	37.754	202	8744458M4	20760.688	ng/mL	
57) Benzo(b)fluorene	40.256	216	199052M3	749.960	ng/mL	
58) 7H-Benzo(c)fluorene	40.292	216	73176M3	275.702	ng/mL	
59) Pyrene	38.649	202	12030319M3	27522.441	ng/mL	
60) 2-Methylpyrene	40.411	216	183159M3	419.023	ng/mL	
61) 4-Methylpyrene	40.785	216	205771	470.754	ng/mL	77
62) 1-Methylpyrene	40.895	216	213503	488.443	ng/mL	70
63) C1-Fluoranthenes/Pyrenes	40.009	216	1608225M5	3679.227	ng/mL	
64) C2-Fluoranthenes/Pyrenes	41.744	230	371449M5	849.785	ng/mL	
65) C3-Fluoranthenes/Pyrenes	43.944	244	211163M5	483.090	ng/mL	
66) C4-Fluoranthenes/Pyrenes	45.177	258	189636M5	433.841	ng/mL	
67) Naphthobenzothiophene-2,1	42.474	234	344490	786.160	ng/mL#	66

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142217.D  
 Acq On : 15 Feb 2022 9:56 am  
 Operator : PAH12:MJS  
 Sample : 12206076-08,32,,  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 22 11:58:37 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Thu Jan 20 14:34:52 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	42.812	234	60940	139.071	ng/mL#	12
69) Naphthobenzothiophene-2,3	43.113	234	126946M3	289.703	ng/mL	
70) C1-Naphthobenzothiophenes	43.871	248	112258M5	256.184	ng/ml	
71) C2-Naphthobenzothiophenes	45.369	262	97868M5	223.344	ng/ml	
72) C3-Naphthobenzothiophenes	47.271	276	129855M5	296.342	ng/ml	
73) C4-Naphthobenzothiophenes	48.698	290	65856M5	150.290	ng/mL	
75) Benz[a]anthracene	43.406	228	2034879M3	5049.535	ng/mL	
76) Chrysene	43.570	228	2557874	6415.799	ng/mL	86
78) C1-Chrysenes	45.031	242	462891M5	1161.048	ng/mL	
79) C2-Chrysenes	46.740	256	258172M5	647.561	ng/mL	
79) C2-Chrysenes BS	46.740	256	250822M5	629.125	ng/mL	
81) C3-Chrysenes	48.506	270	193436M5	485.187	ng/mL	
82) C4-Chrysenes	49.393	284	130803M5	328.087	ng/mL	
85) Benzo[b]fluoranthene	47.472	252	2567728	5651.621	ng/mL	96
86) Benzo[j]+[k]fluoranthene	47.545	252	2431088	5184.568	ng/mL	96
87) Benzo[a]fluoranthene	47.856	252	690452M3	1472.466	ng/mL	
88) Benzo[e]pyrene	48.496	252	2650696	5904.596	ng/mL	96
90) Benzo[a]pyrene	48.698	252	4363129	10023.282	ng/mL	97
91) Perylene	49.000	252	1749978	3919.778	ng/mL	93
92) Indeno[1,2,3-cd]pyrene	53.646	276	4135170M4	6931.387	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.664	278	443057M4	846.022	ng/mL	
94) Benzo[g,h,i]perylene	55.016	276	6066846	11493.992	ng/mL	99

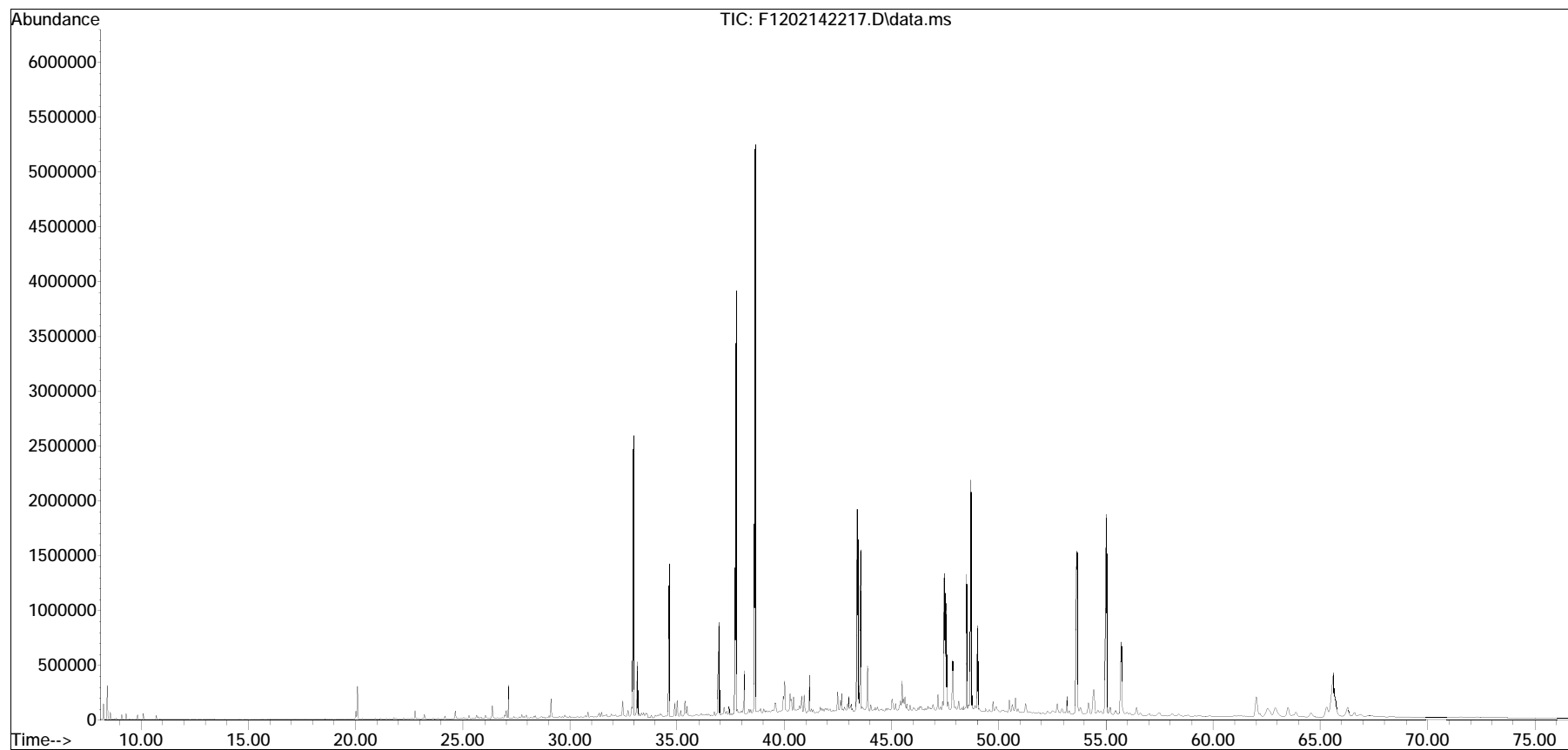
(#) = qualifier out of range (m) = manual integration (+) = signals summed

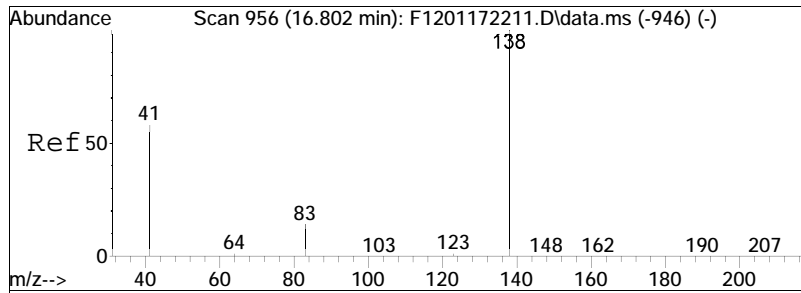
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
Data File : F1202142217.D  
Acq On : 15 Feb 2022 9:56 am  
Operator : PAH12:MJS  
Sample : 12206076-08,32,,  
Misc : WG1605097,WG1603644,ICAL18670  
ALS Vial : 17 Sample Multiplier: 1

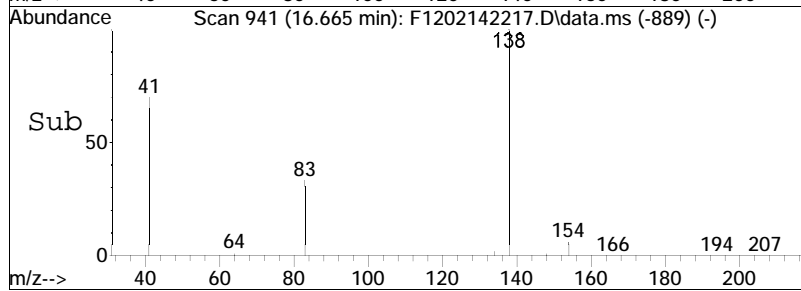
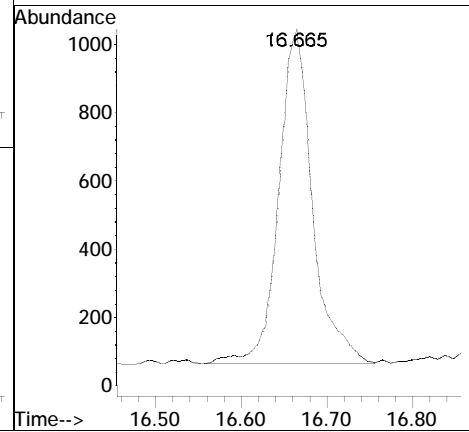
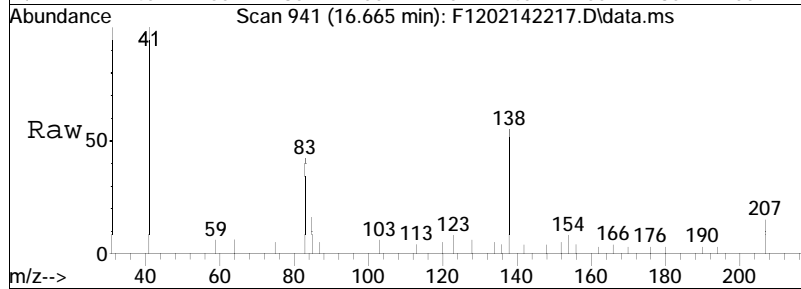
Quant Time: Feb 22 11:58:37 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Thu Jan 20 14:34:52 2022  
Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

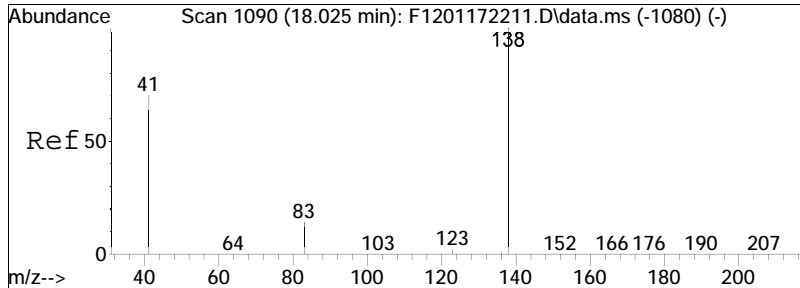




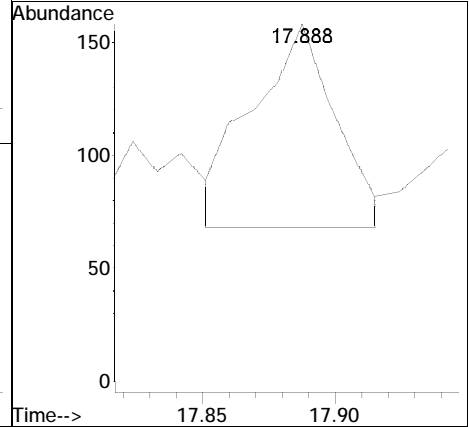
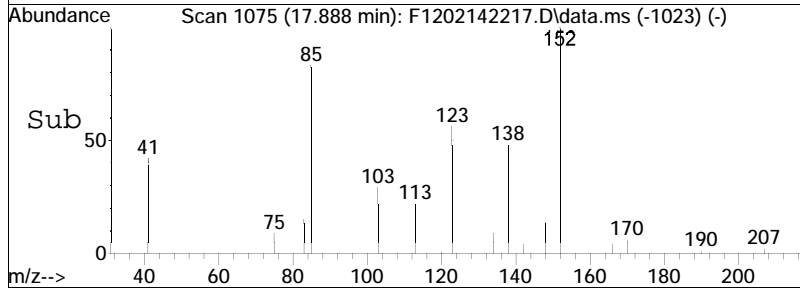
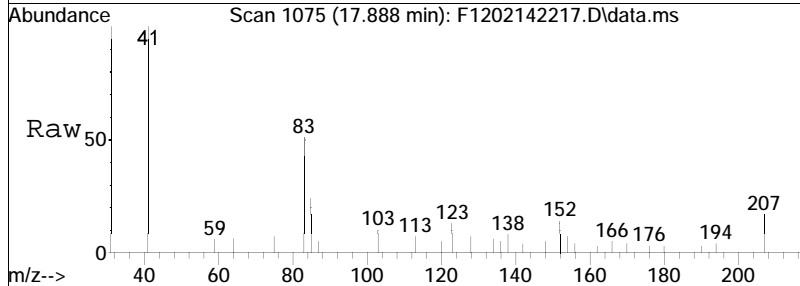
#2  
 trans-Decalin  
 Concen: 31.58 ng/mL  
 RT: 16.665 min Scan# 941  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:138 Resp: 2638

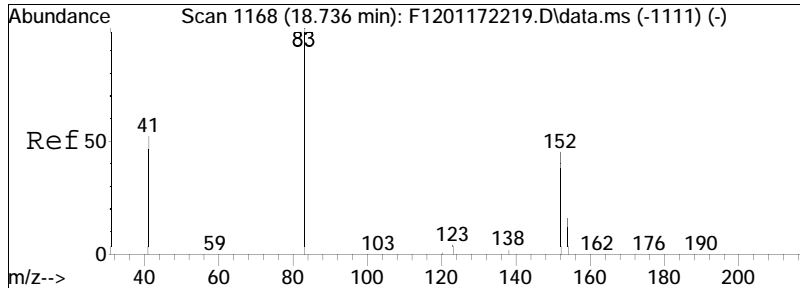




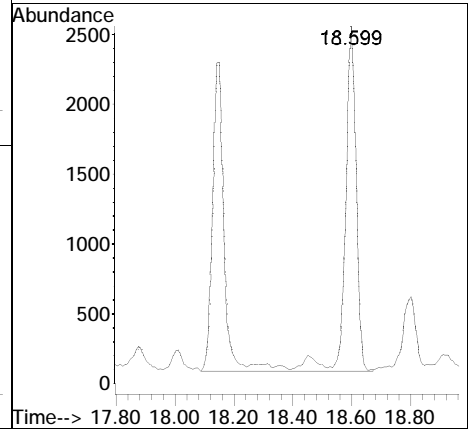
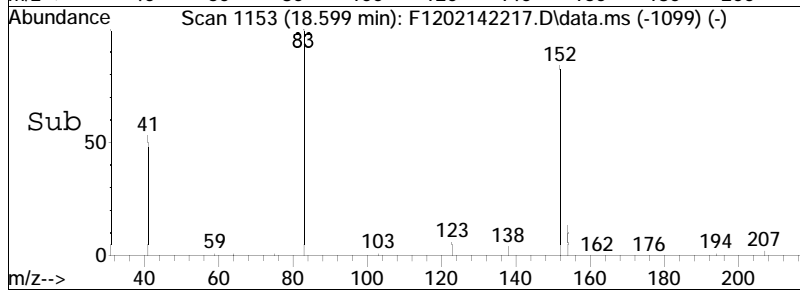
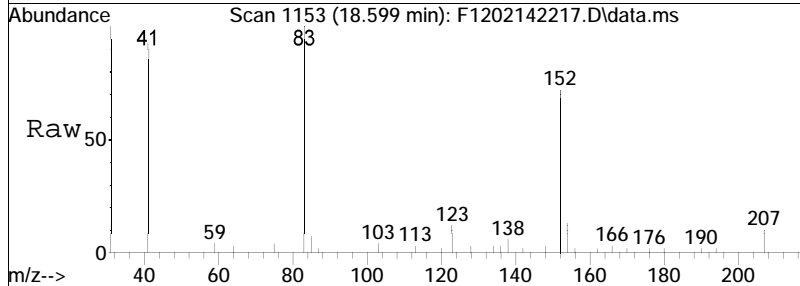


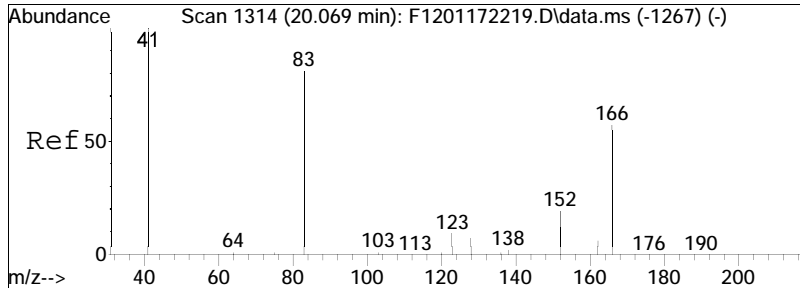
#3  
 cis-Decalin  
 Concen: 3.07 ng/mL M4  
 RT: 17.888 min Scan# 1075  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:138 Resp: 197



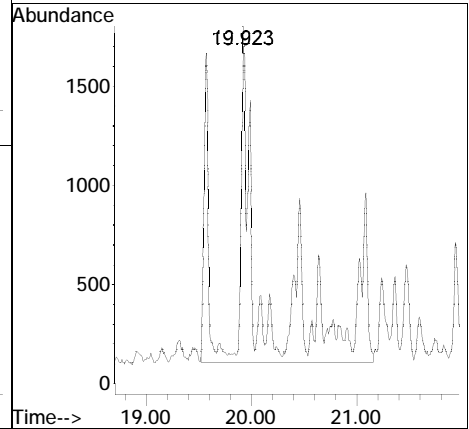
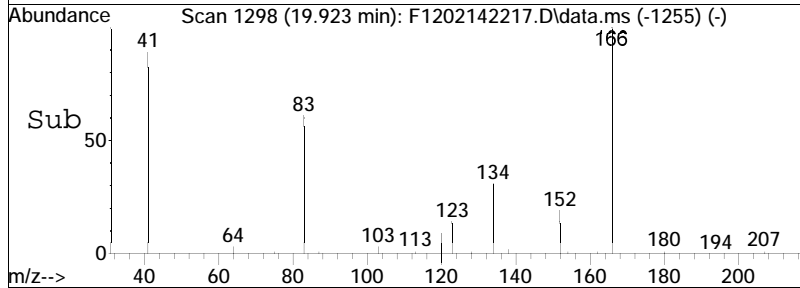
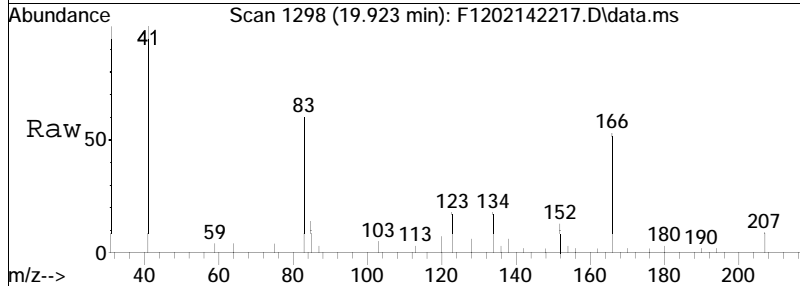


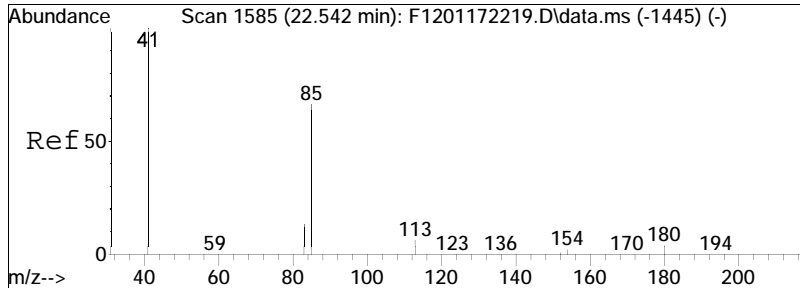
#4  
 Cl-Decalins  
 Concen: 147.52 ng/mL M5  
 RT: 18.599 min Scan# 1153  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:152 Resp: 12321



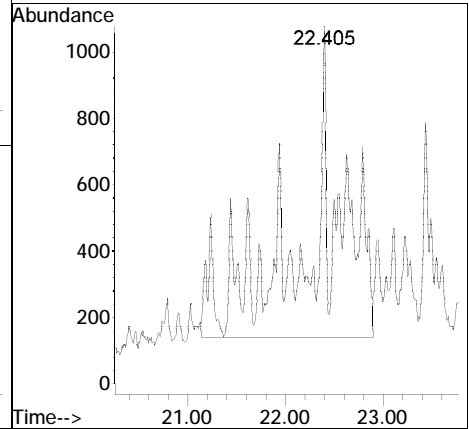
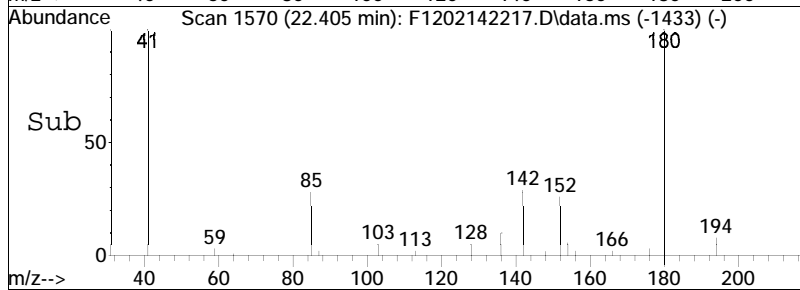
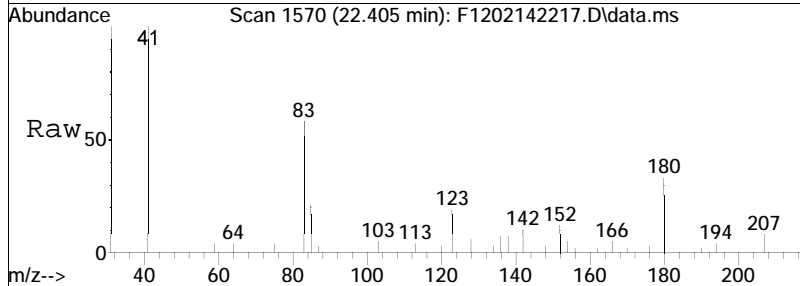


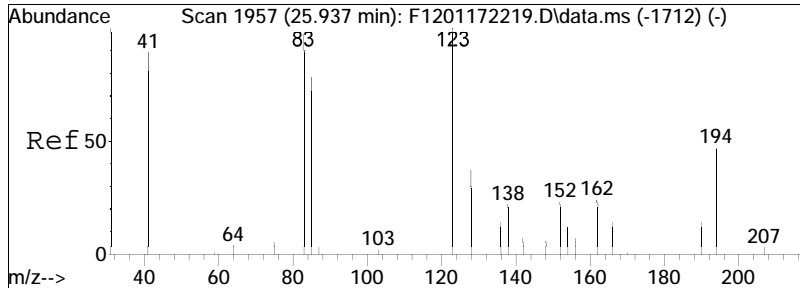
#5  
 C2-Decalins  
 Concen: 324.12 ng/mL M5  
 RT: 19.923 min Scan# 1298  
 Delta R.T. -0.037 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:166 Resp: 27071



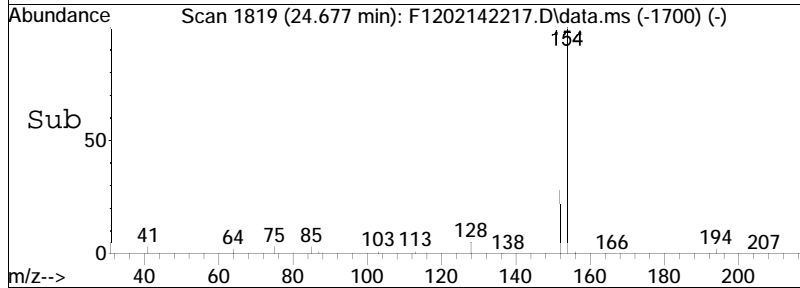
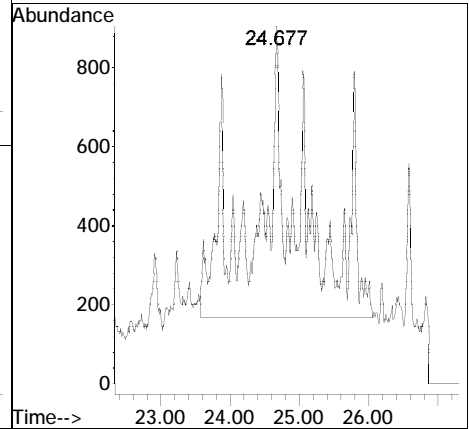
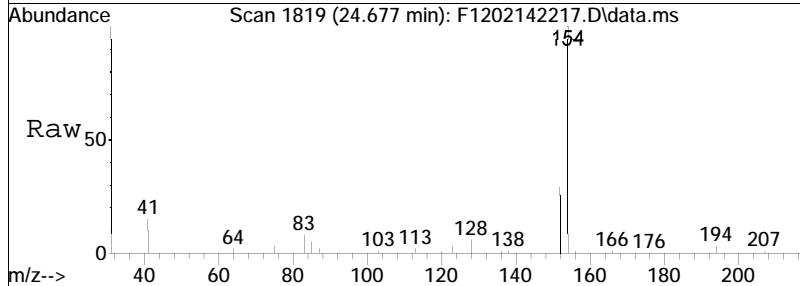


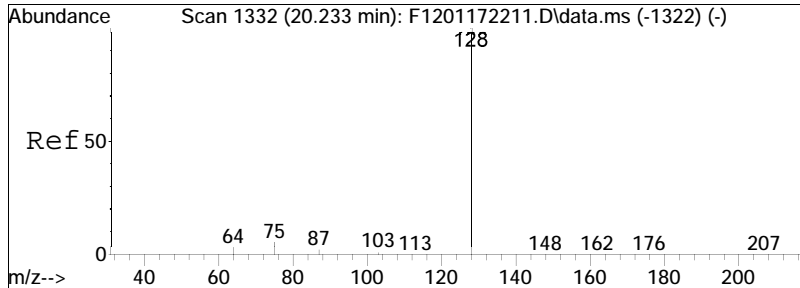
#6  
 C3-Decalins  
 Concen: 289.42 ng/mL M5  
 RT: 22.405 min Scan# 1570  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:180 Resp: 24173



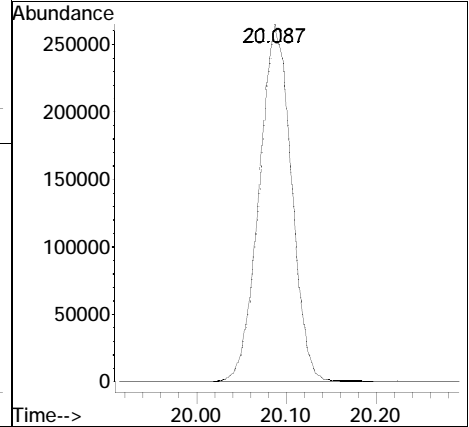
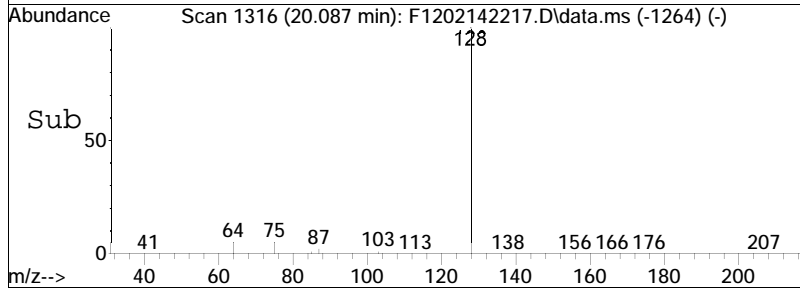
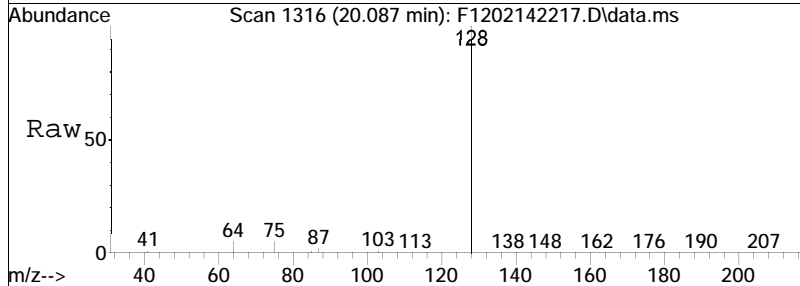


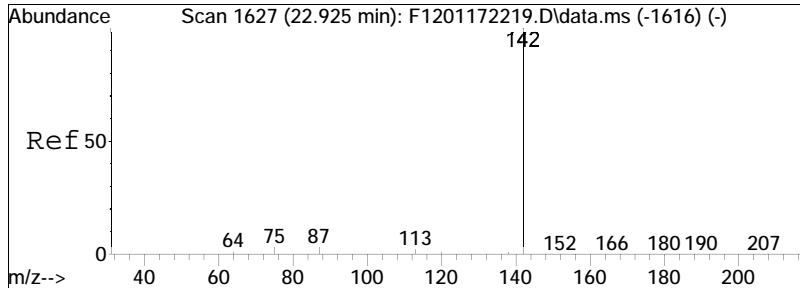
#7  
 C4-Decalins  
 Concen: 362.59 ng/mL M5  
 RT: 24.677 min Scan# 1819  
 Delta R.T. -1.150 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:194 Resp: 30284



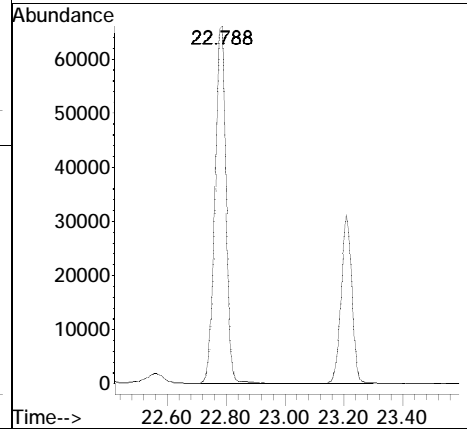
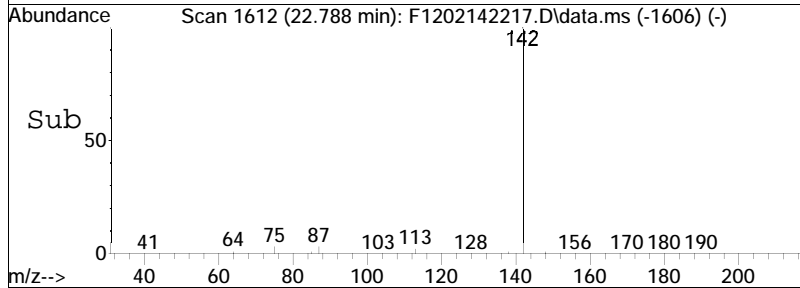
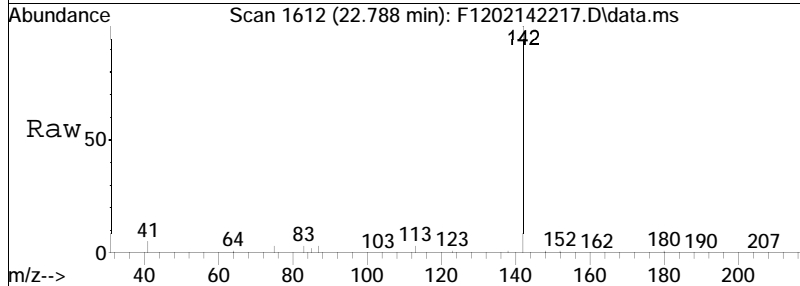


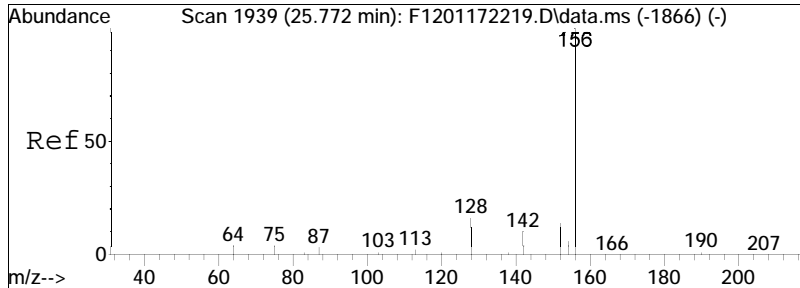
#9  
 Naphthalene  
 Concen: 1526.21 ng/mL  
 RT: 20.087 min Scan# 1316  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:128 Resp: 651038



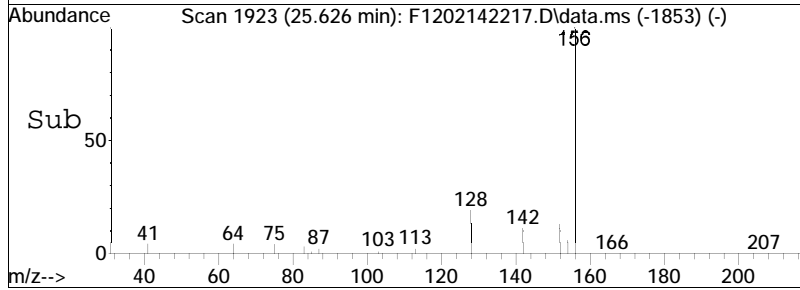
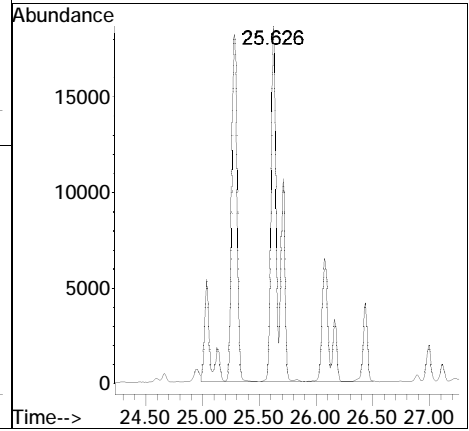
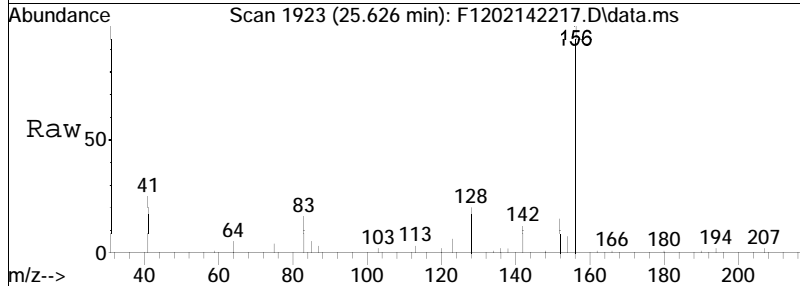


#10  
 Cl-Naphthalenes  
 Concen: 577.40 ng/mL M5  
 RT: 22.788 min Scan# 1612  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:142 Resp: 246301

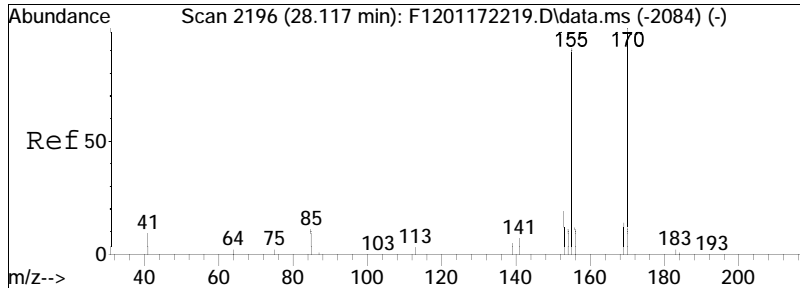




#11  
 C2-Naphthalenes  
 Concen: 470.53 ng/mL M5  
 RT: 25.626 min Scan# 1923  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:156 Resp: 200716

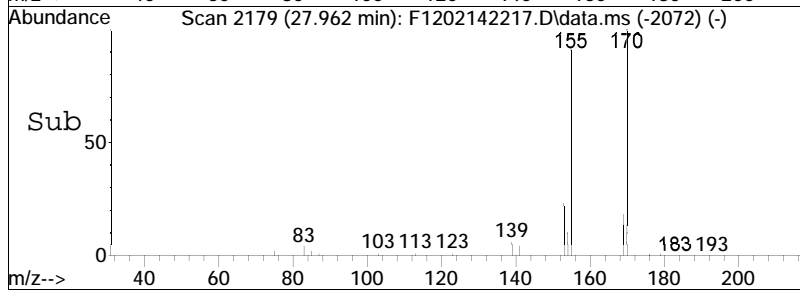
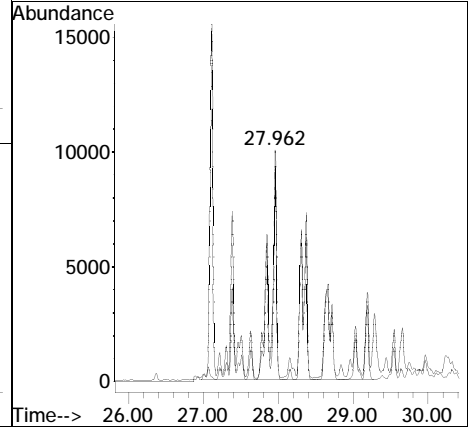
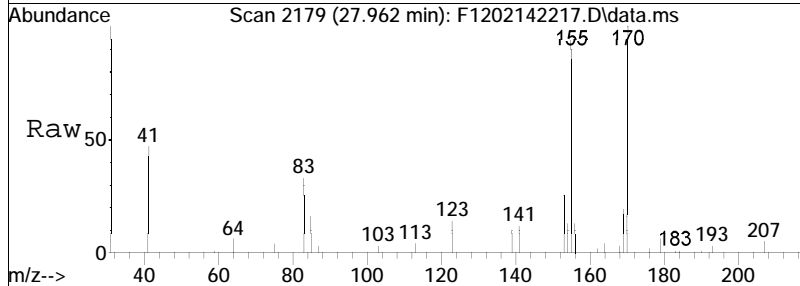


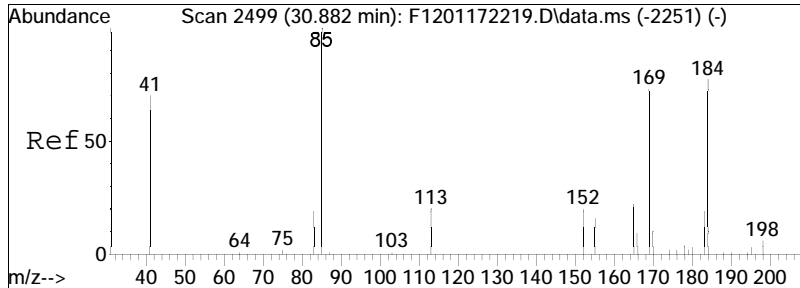




#12  
 C3-Naphthalenes  
 Concen: 338.79 ng/mL M5  
 RT: 27.962 min Scan# 2179  
 Delta R.T. -0.037 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

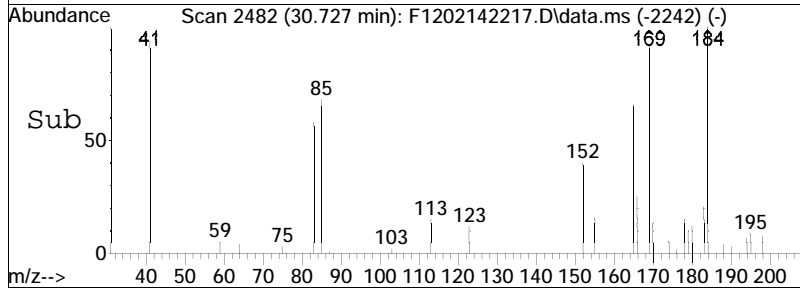
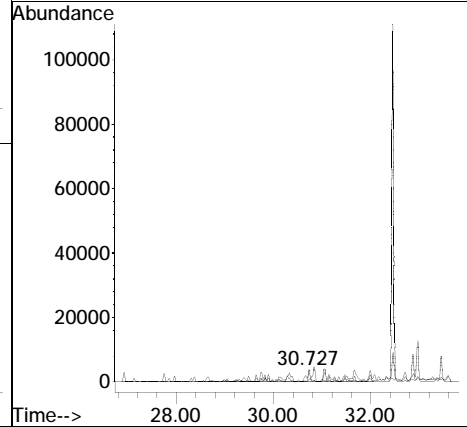
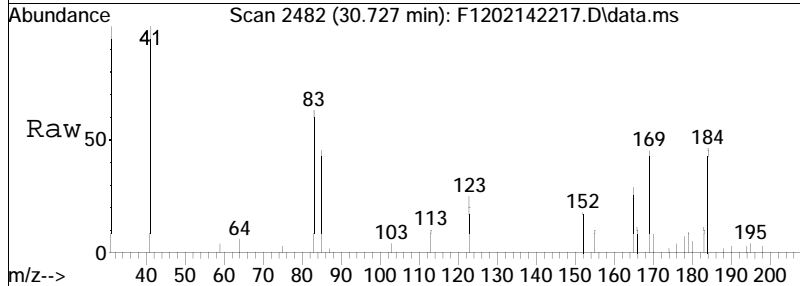
Tgt Ion	Resp	Lower	Upper
170	100		
155	17.9	63.8	118.4#

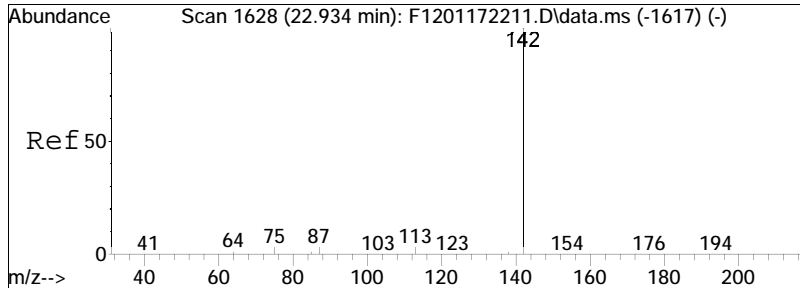




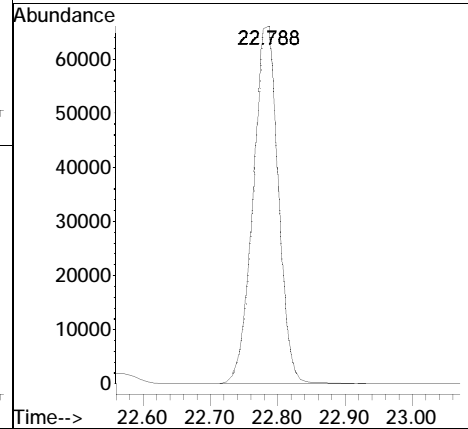
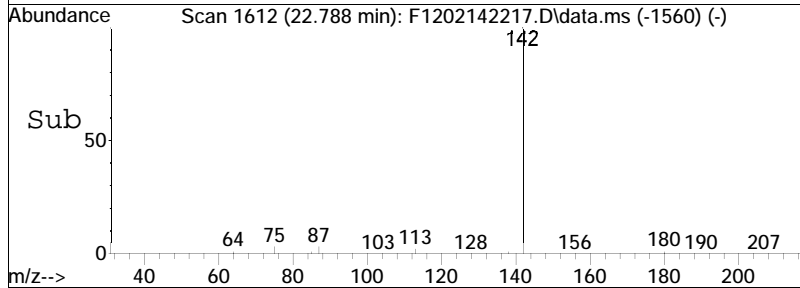
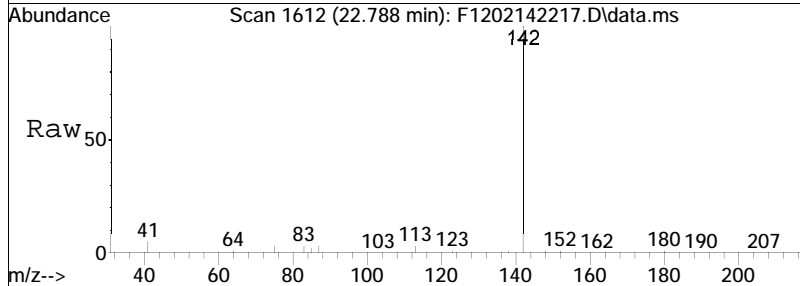
#13  
 C4-Naphthalenes  
 Concen: 245.10 ng/mL M5  
 RT: 30.727 min Scan# 2482  
 Delta R.T. -0.037 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

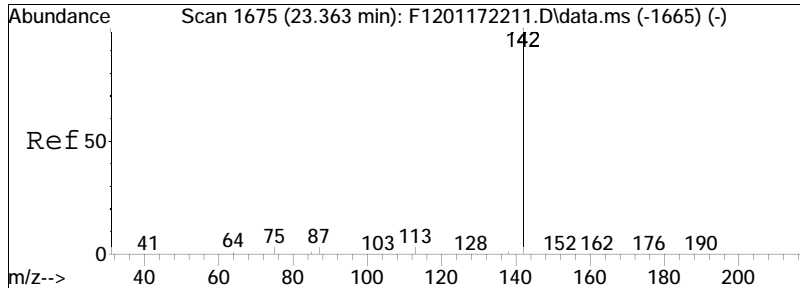
Tgt Ion	Ratio	Lower	Upper
184	100		
169	4.9	74.1	137.7#
183	1.1	23.0	42.8#



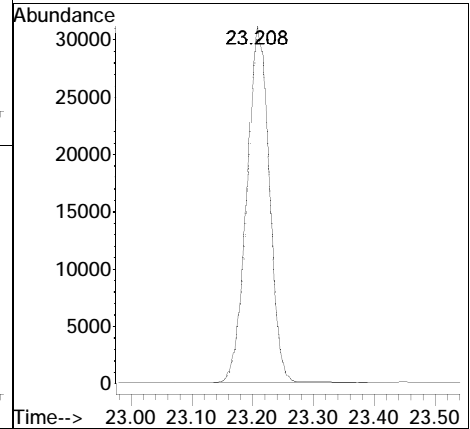
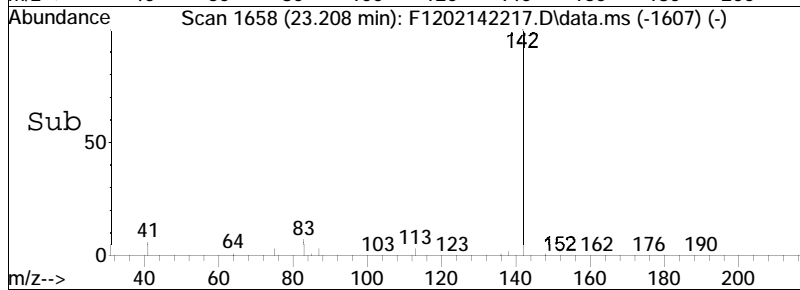
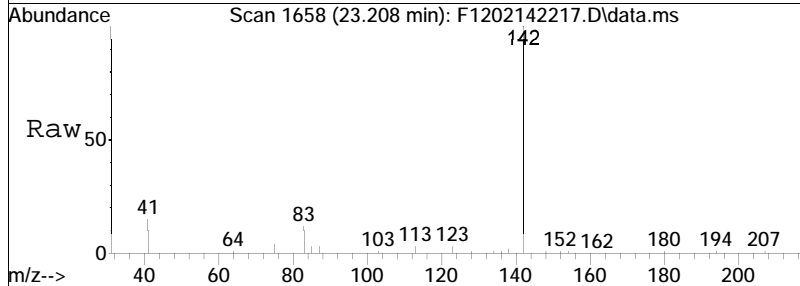


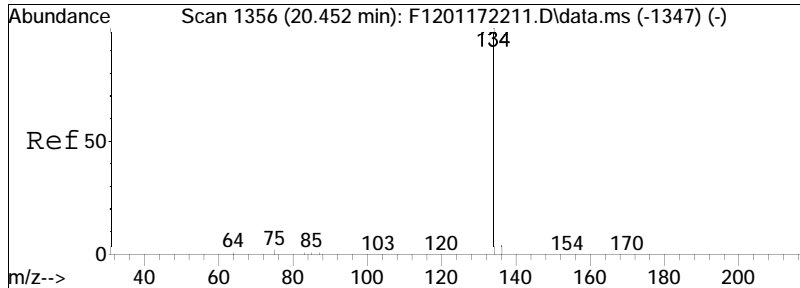
#14  
 2-Methylnaphthalene  
 Concen: 619.33 ng/mL  
 RT: 22.788 min Scan# 1612  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:142 Resp: 167772



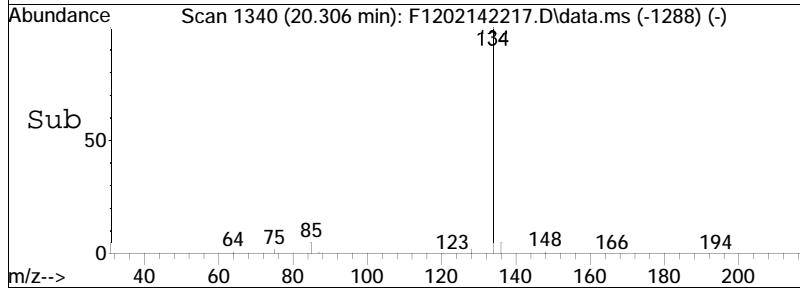
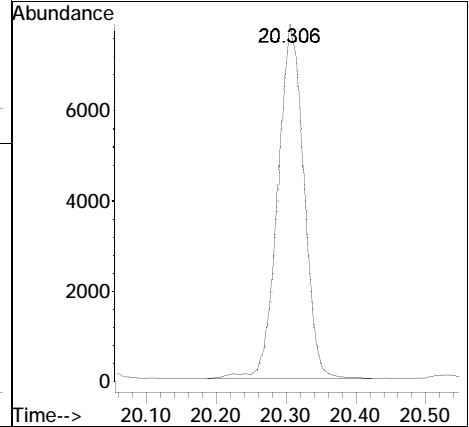
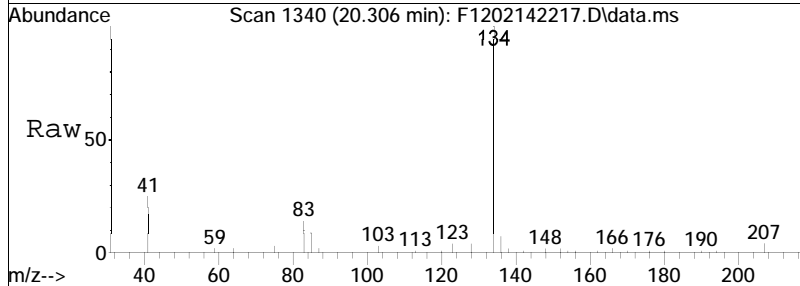


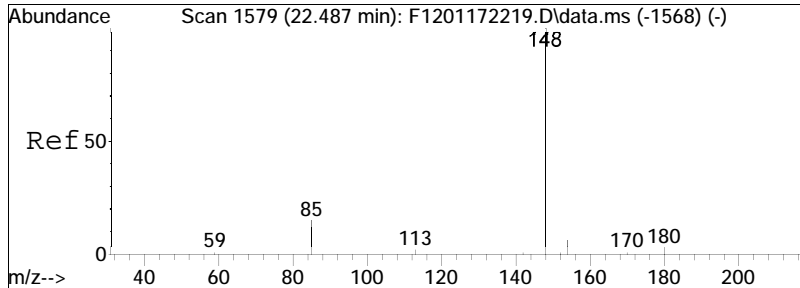
#15  
1-Methylnaphthalene  
Concen: 304.66 ng/mL  
RT: 23.208 min Scan# 1658  
Delta R.T. -0.037 min  
Lab File: F1202142217.D  
Acq: 15 Feb 2022 9:56 am  
Tgt Ion:142 Resp: 78338



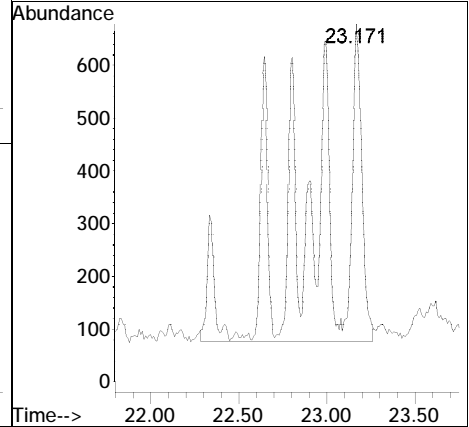
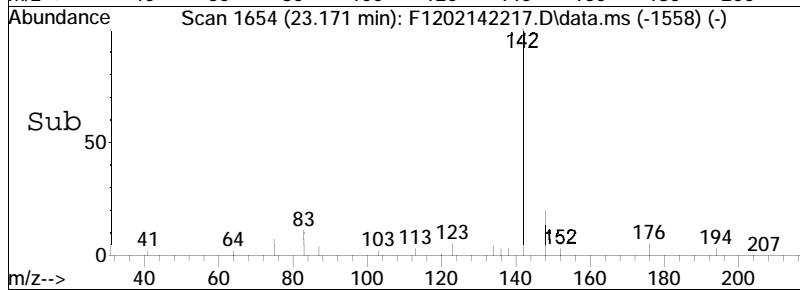
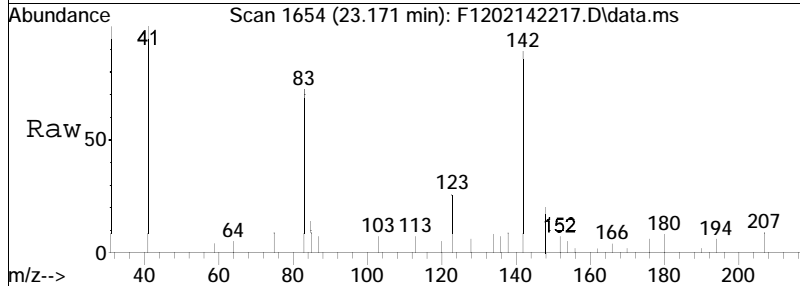


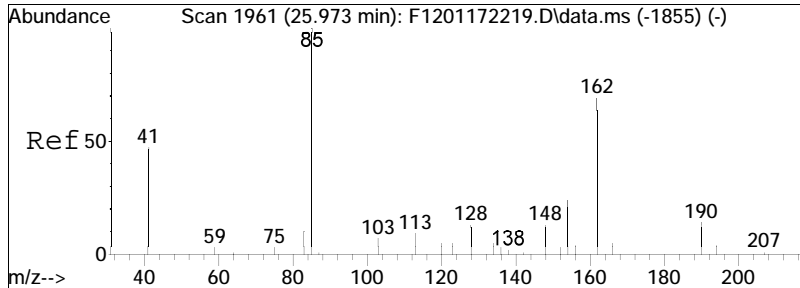
#16  
 Benzothiophene  
 Concen: 55.26 ng/mL  
 RT: 20.306 min Scan# 1340  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:134 Resp: 19943



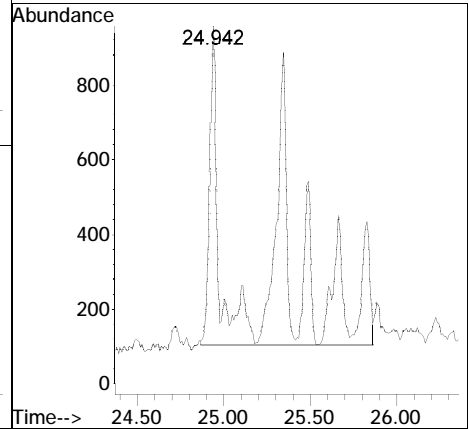
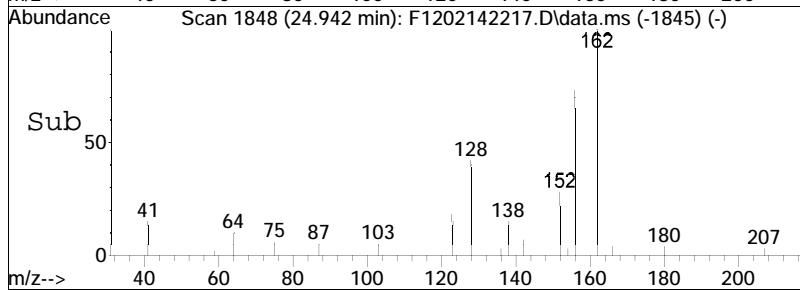
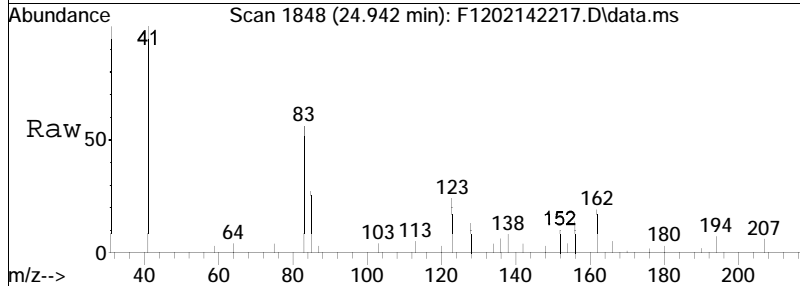


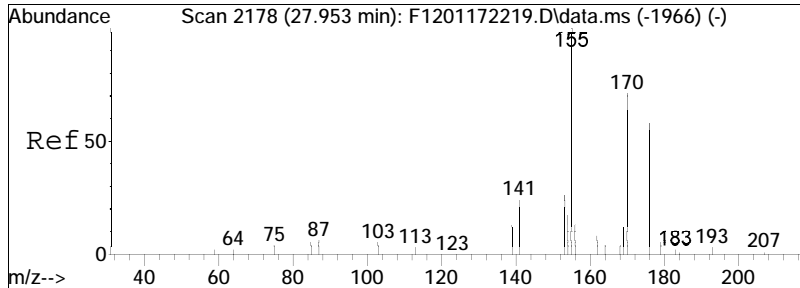
#17  
 Cl-Benzo(b)thiophenes  
 Concen: 24.48 ng/mL M5  
 RT: 23.171 min Scan# 1654  
 Delta R.T. 0.794 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:148 Resp: 8834



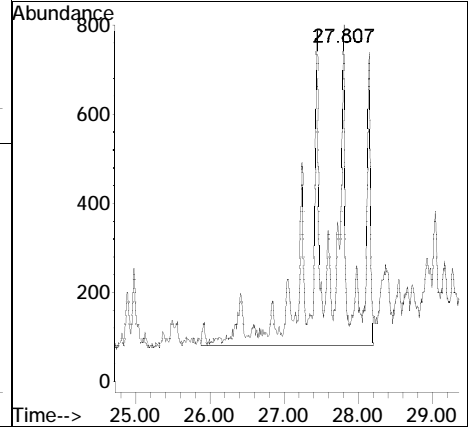
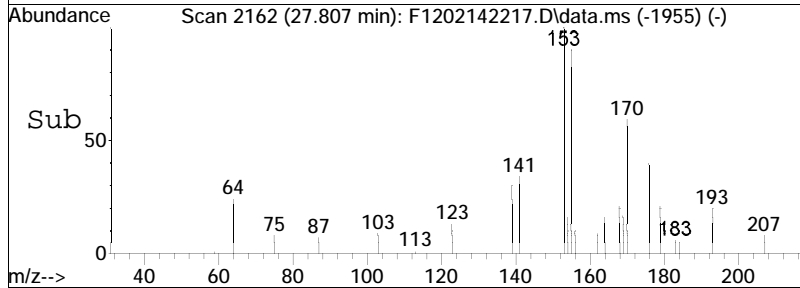
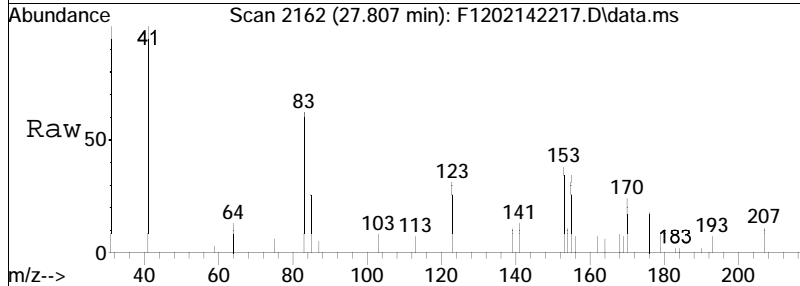


#18  
 C2-Benzo(b)thiophenes  
 Concen: 27.39 ng/mL M5  
 RT: 24.942 min Scan# 1848  
 Delta R.T. -0.913 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:162 Resp: 9885

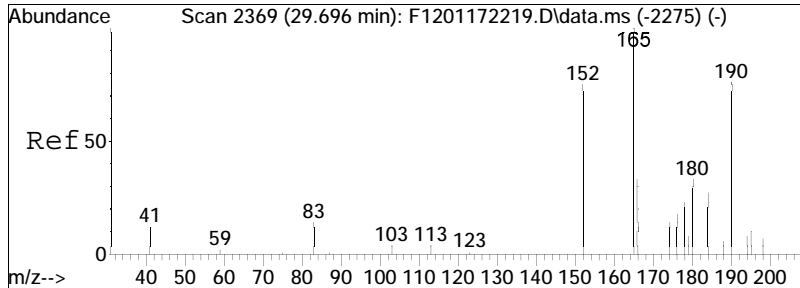




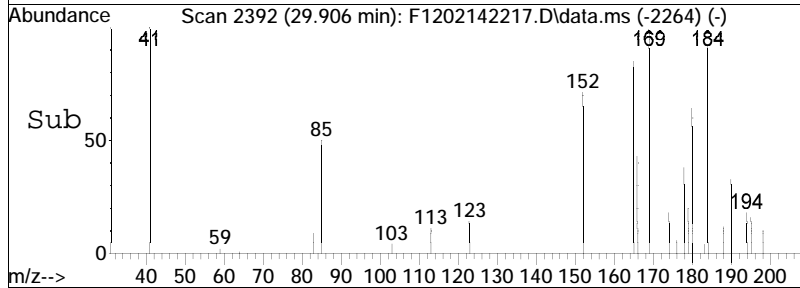
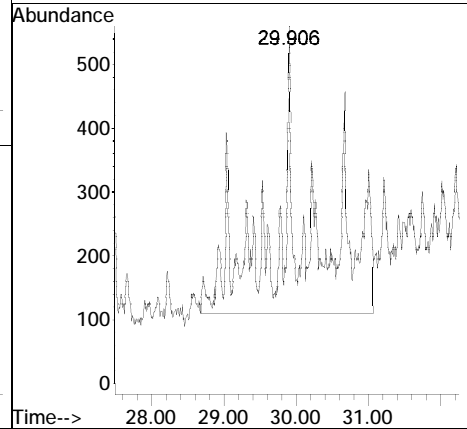
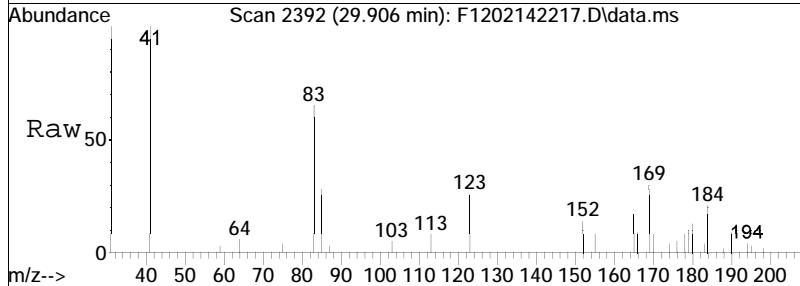
#19  
 C3-Benzo(b)thiophenes  
 Concen: 38.94 ng/mL M5  
 RT: 27.807 min Scan# 2162  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:176 Resp: 14055

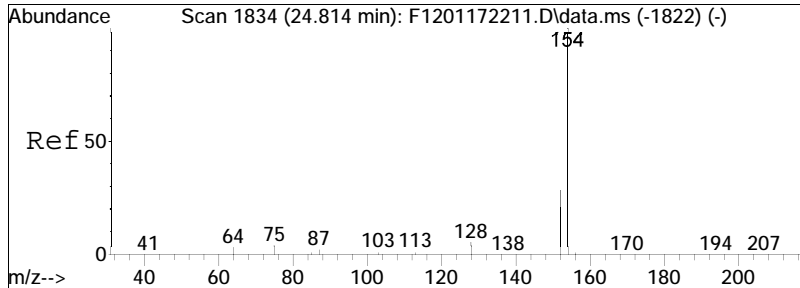




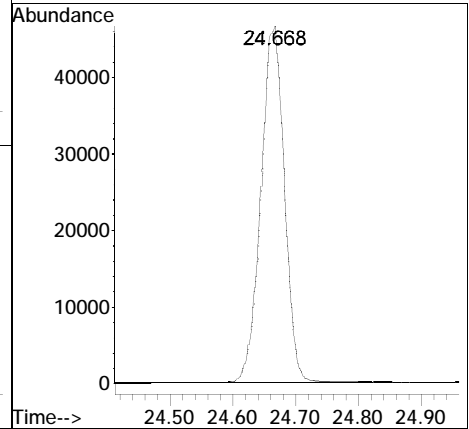
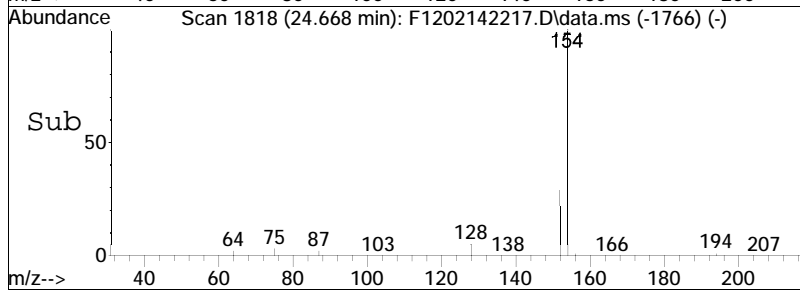
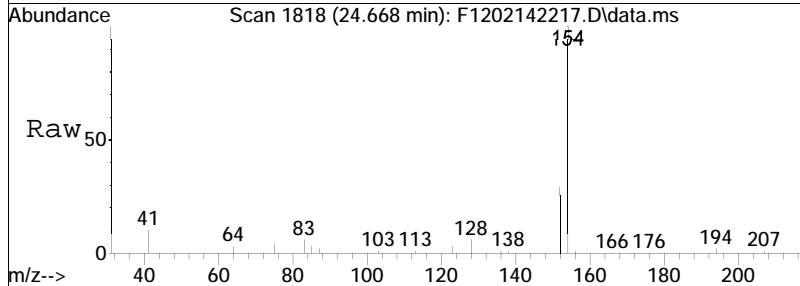


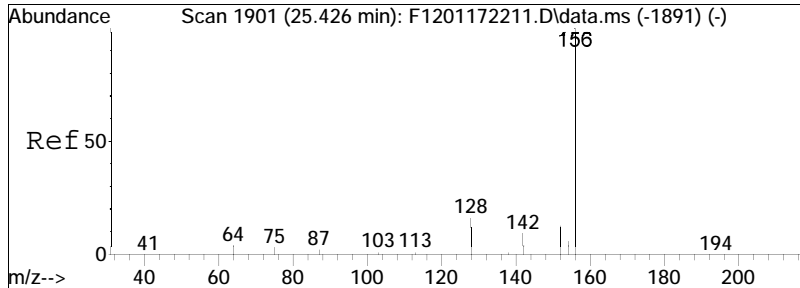
#20  
 C4-Benzo(b)thiophenes  
 Concen: 39.12 ng/mL M5  
 RT: 29.906 min Scan# 2392  
 Delta R.T. 0.328 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:190 Resp: 14118



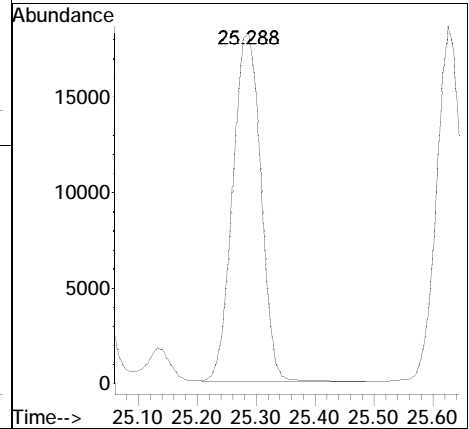
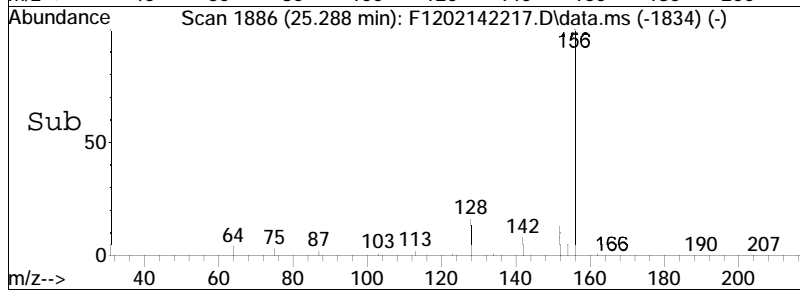
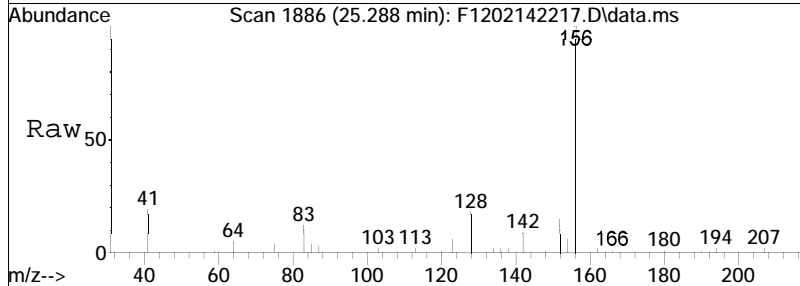


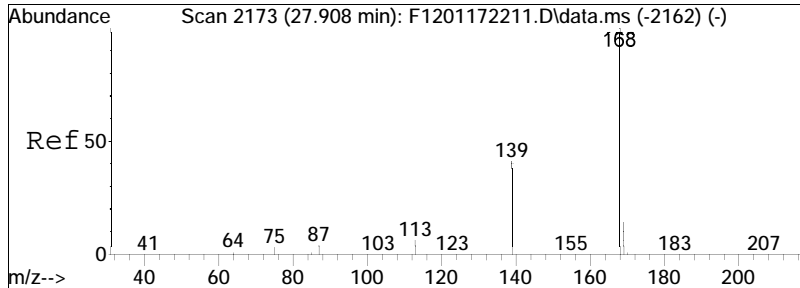
#21  
Biphenyl  
Concen: 359.81 ng/mL  
RT: 24.668 min Scan# 1818  
Delta R.T. -0.027 min  
Lab File: F1202142217.D  
Acq: 15 Feb 2022 9:56 am  
Tgt Ion:154 Resp: 119310





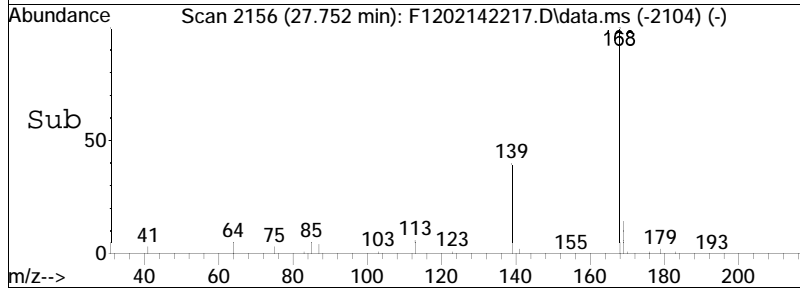
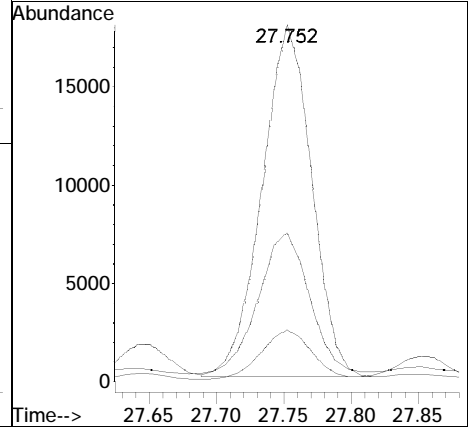
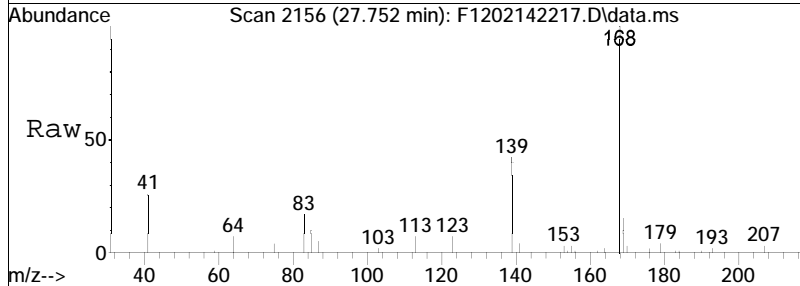
#22  
 2,6-Dimethylnaphthalene  
 Concen: 262.01 ng/mL  
 RT: 25.288 min Scan# 1886  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:156 Resp: 60461

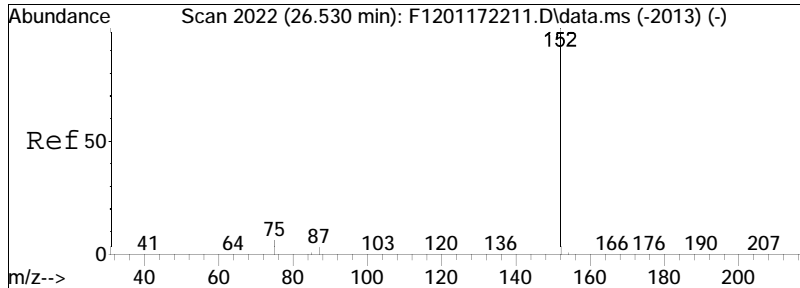




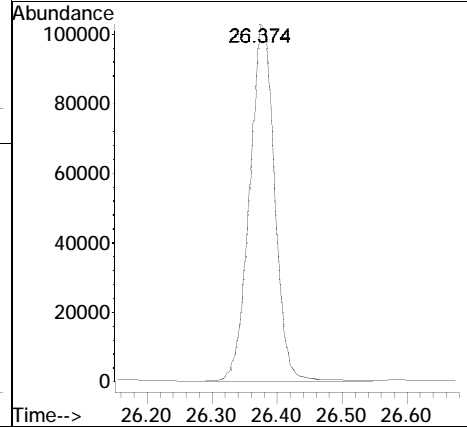
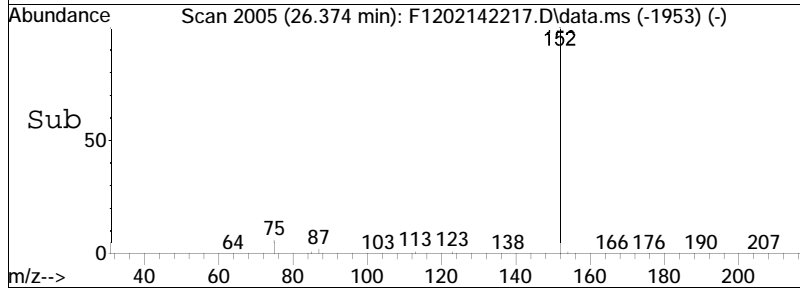
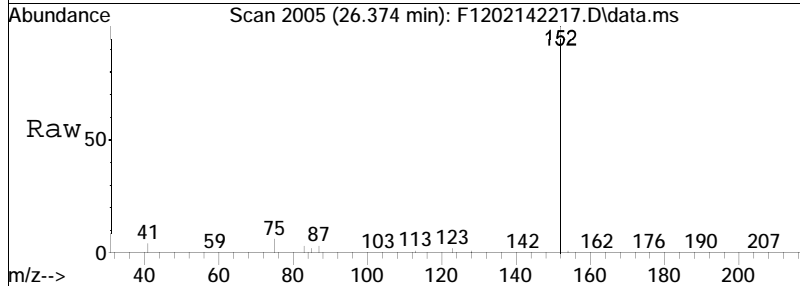
#23  
 Dibenzofuran  
 Concen: 127.97 ng/mL  
 RT: 27.752 min Scan# 2156  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

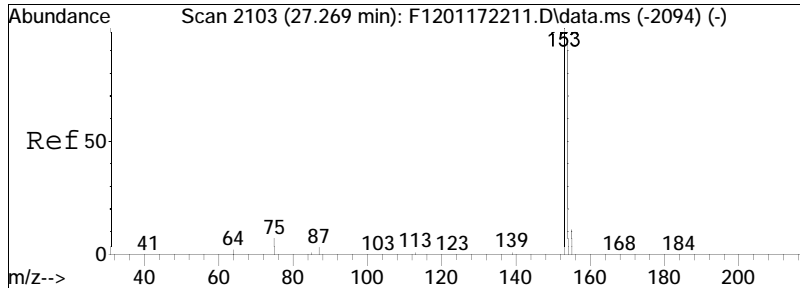
Tgt Ion	Ratio	Lower	Upper
168	100		
139	41.4	35.0	65.0
169	13.9	11.5	21.5





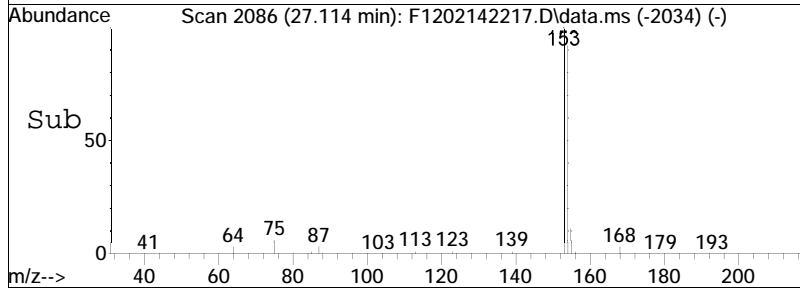
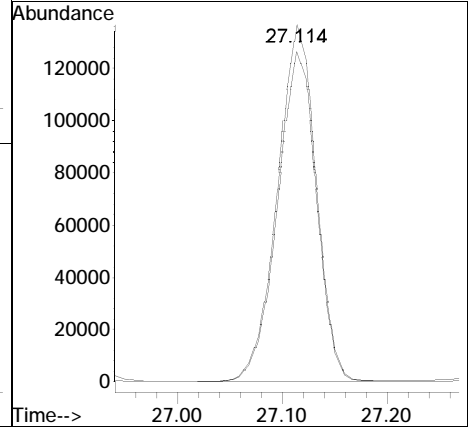
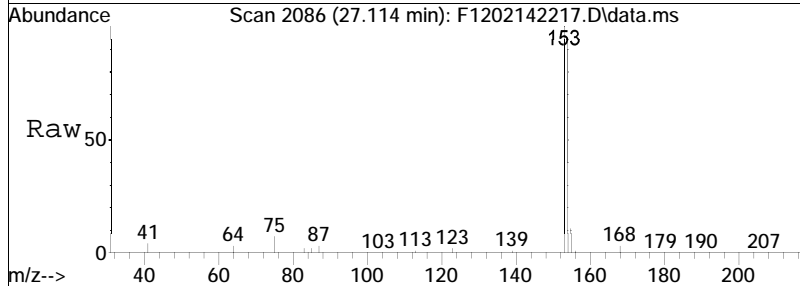
#24  
 Acenaphthylene  
 Concen: 662.93 ng/mL  
 RT: 26.374 min Scan# 2005  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:152 Resp: 269889

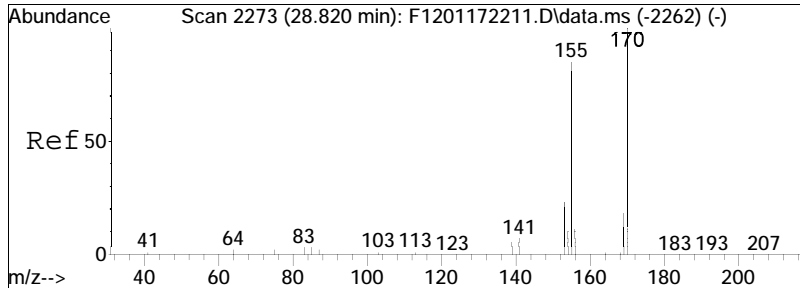




#25  
 Acenaphthene  
 Concen: 1360.97 ng/mL  
 RT: 27.114 min Scan# 2086  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

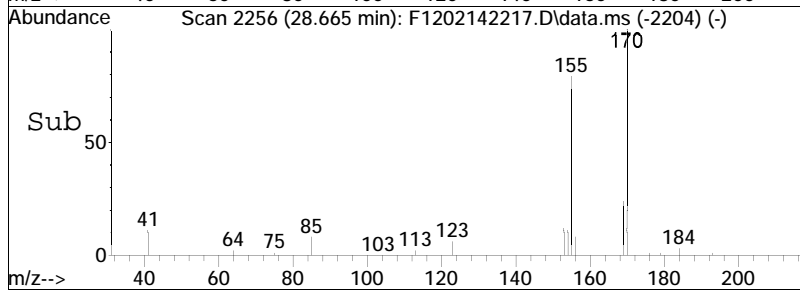
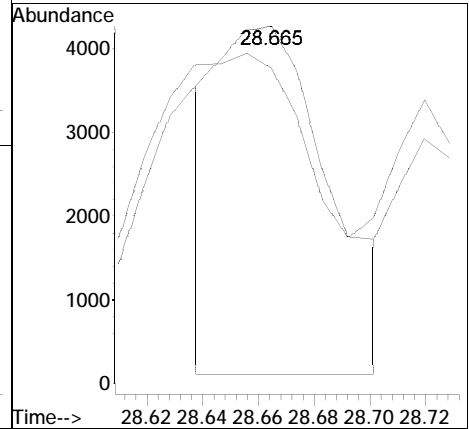
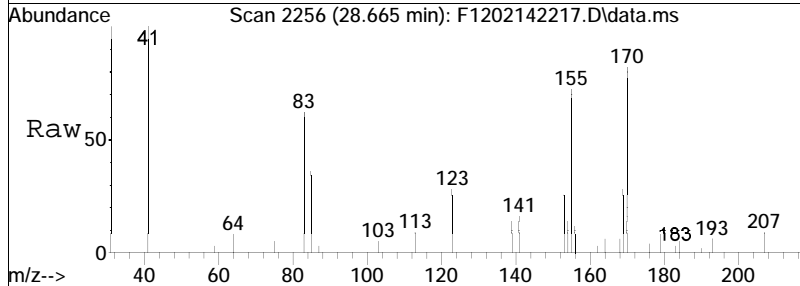
Tgt Ion	Resp	Lower	Upper
153	100		
154	92.7	65.4	121.4

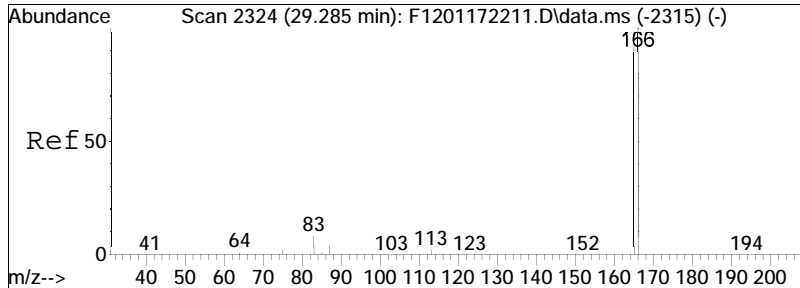




#26  
 2,3,5-Trimethylnaphthalene  
 Concen: 52.91 ng/mL M3  
 RT: 28.665 min Scan# 2256  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

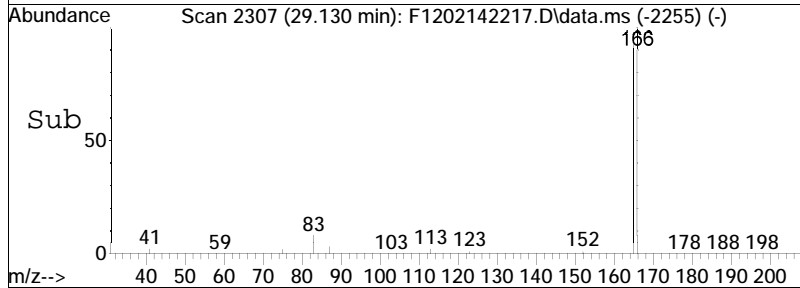
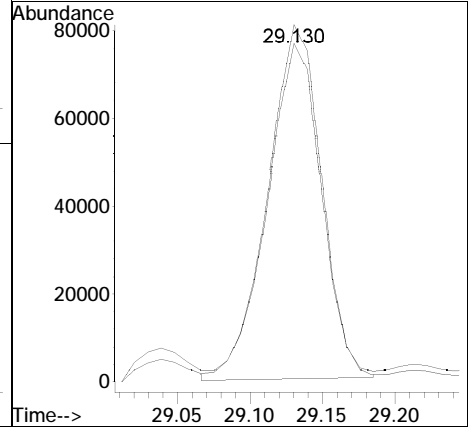
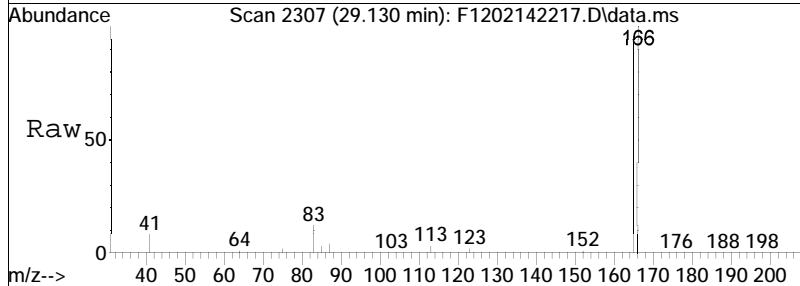
Tgt Ion: 170 Resp: 11714  
 Ion Ratio Lower Upper  
 170 100  
 155 139.9 61.6 114.4#



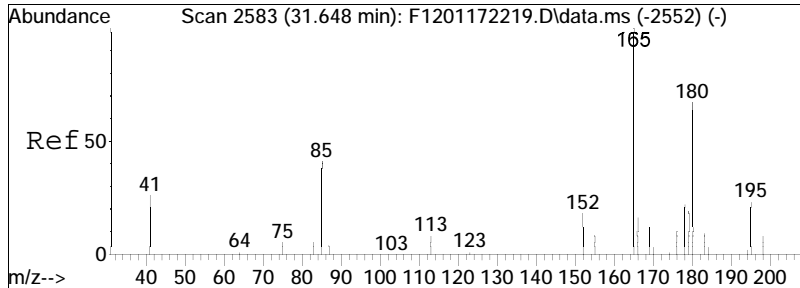


#27  
 Fluorene  
 Concen: 732.60 ng/mL  
 RT: 29.130 min Scan# 2307  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

Tgt Ion	Resp	Lower	Upper
166	100		
165	95.9	66.4	123.4

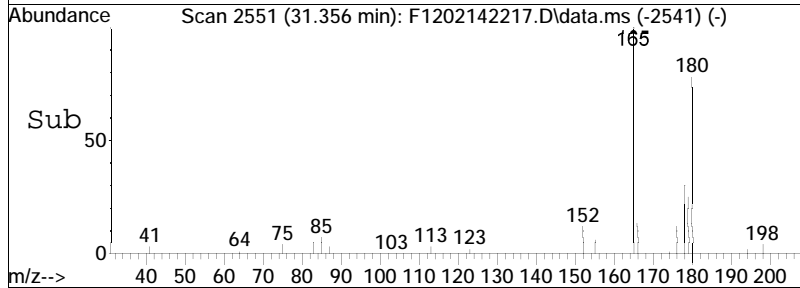
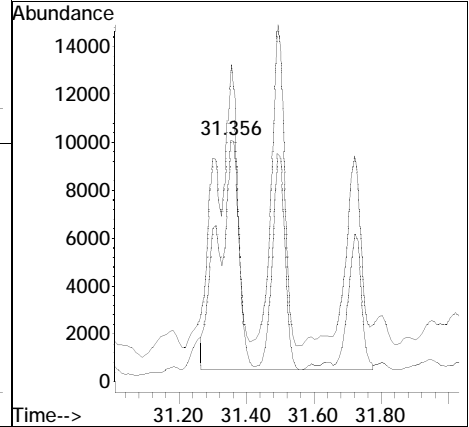
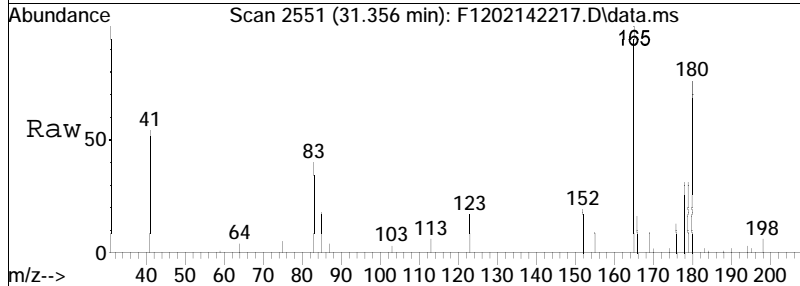


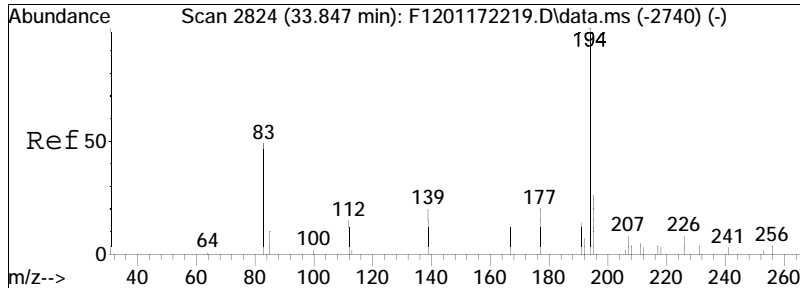




#28  
 Cl-Fluorenes  
 Concen: 287.78 ng/mL M5  
 RT: 31.356 min Scan# 2551  
 Delta R.T. -0.173 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

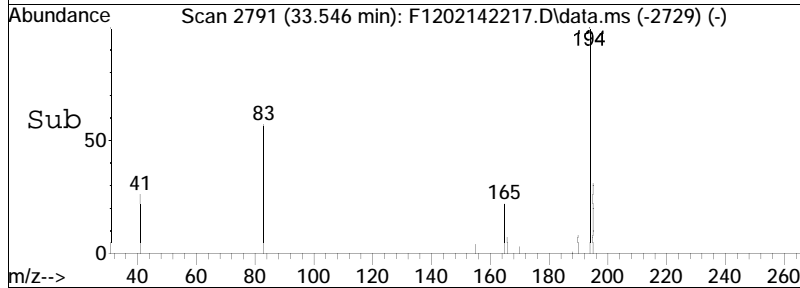
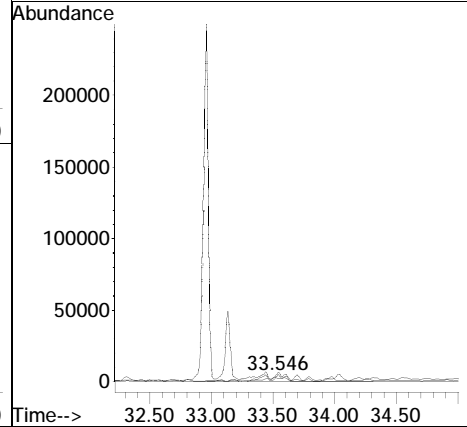
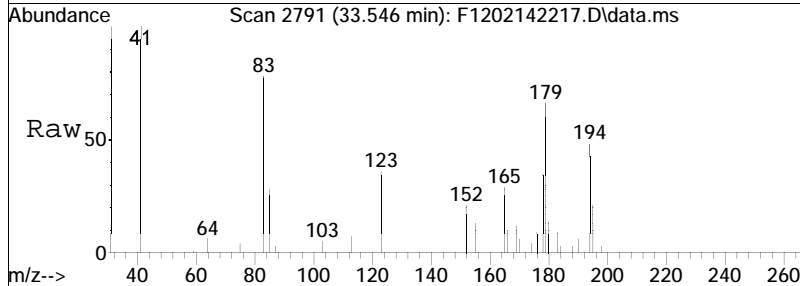
Tgt Ion: 180 Resp: 82001  
 Ion Ratio Lower Upper  
 180 100  
 165 42.7 105.8 196.4#

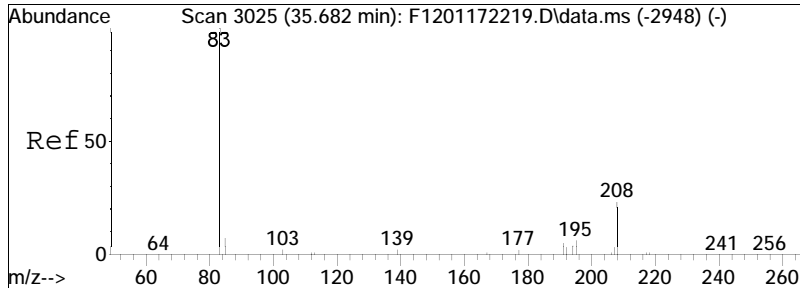




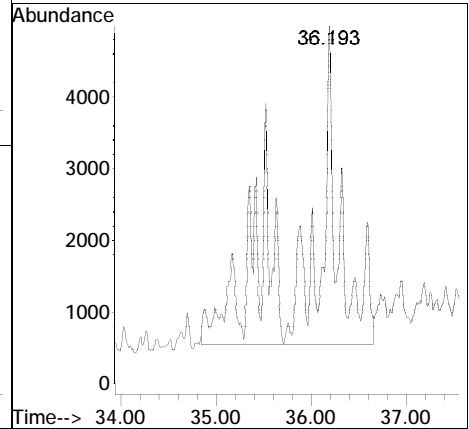
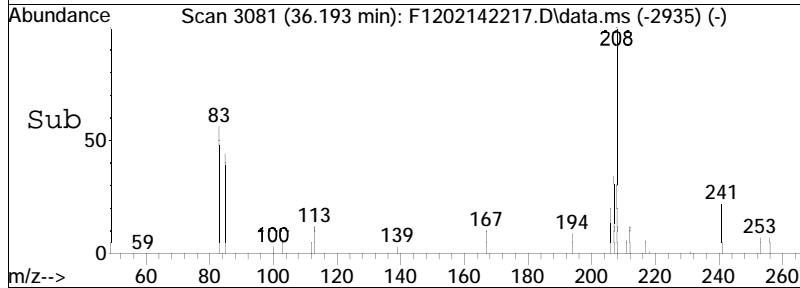
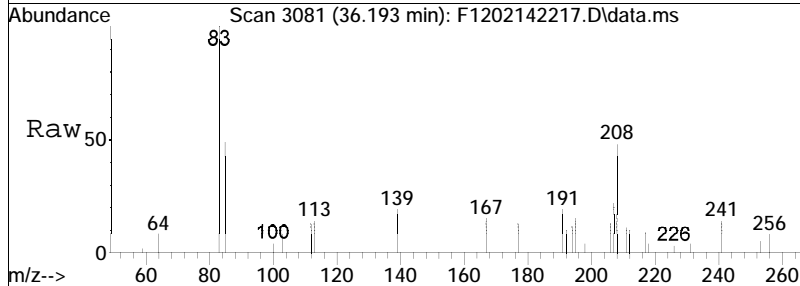
#29  
 C2-Fluorenes  
 Concen: 345.41 ng/mL M5  
 RT: 33.546 min Scan# 2791  
 Delta R.T. -0.183 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

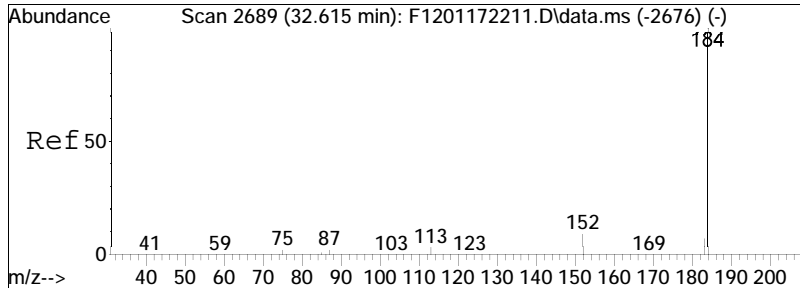
Tgt Ion	Resp	Lower	Upper
194	100		
179	0.0	0.0	0.0
195	2.4	23.8	44.2#





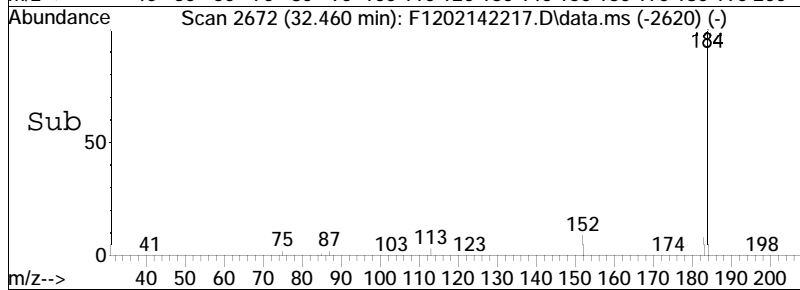
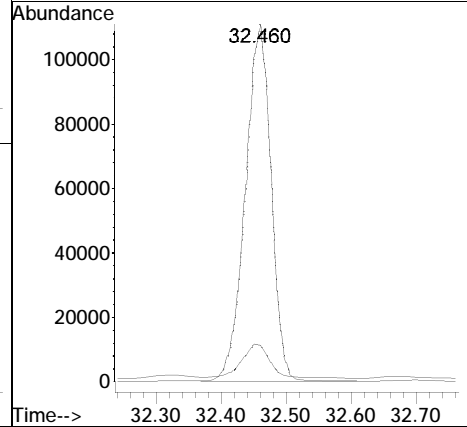
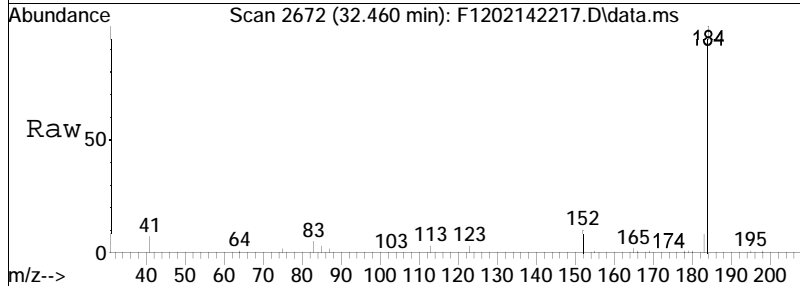
#30  
 C3-Fluorenes  
 Concen: 354.15 ng/mL M5  
 RT: 36.193 min Scan# 3081  
 Delta R.T. 0.639 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:208 Resp: 100911

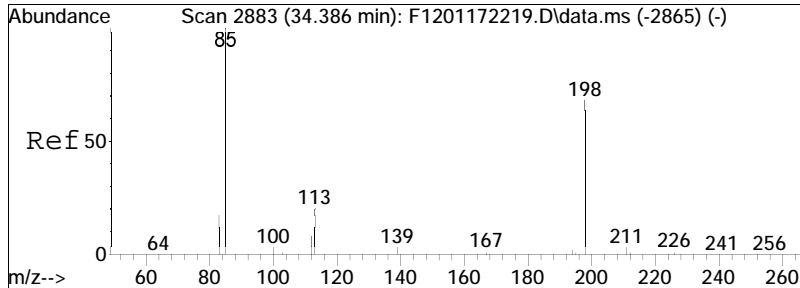




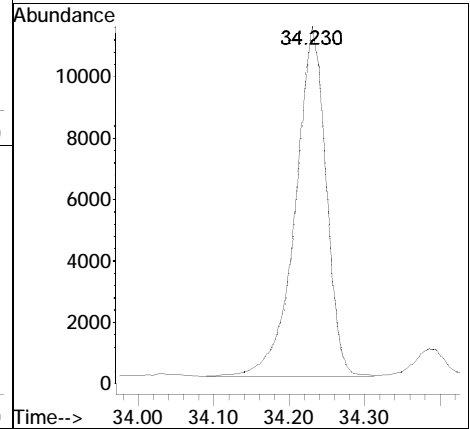
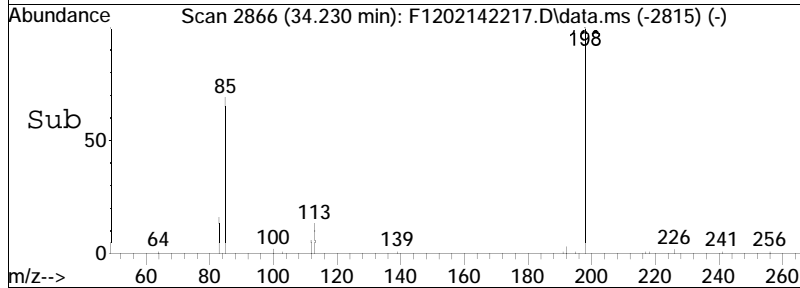
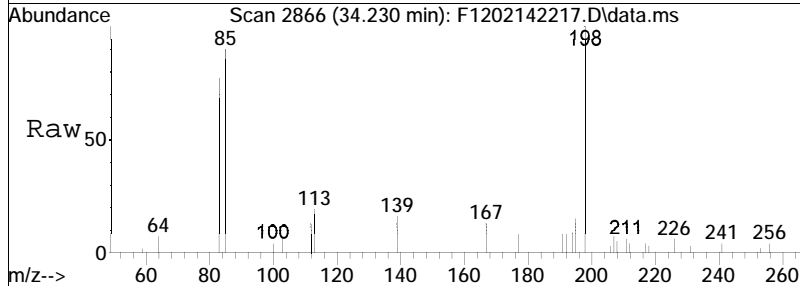
#31  
 Dibenzothiophene  
 Concen: 726.72 ng/mL  
 RT: 32.460 min Scan# 2672  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

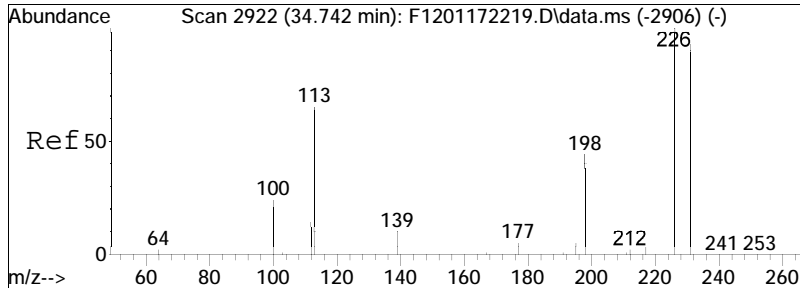
Tgt Ion	Resp	Lower	Upper
184	298690	100	
152	10.1	11.3	20.9#



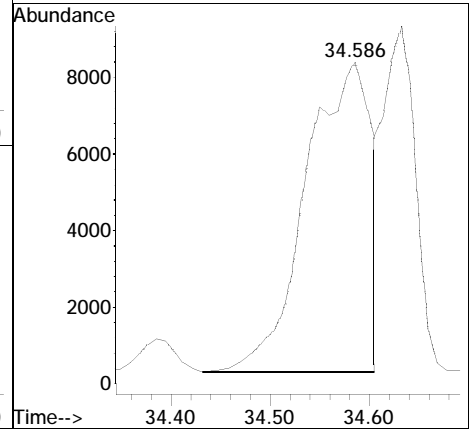
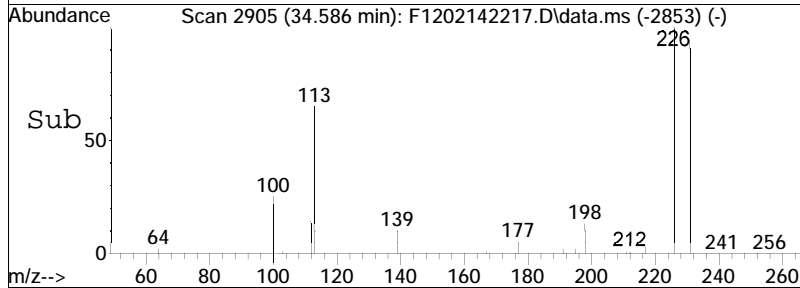
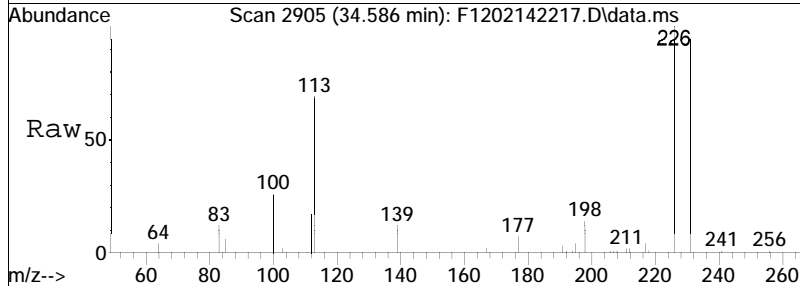


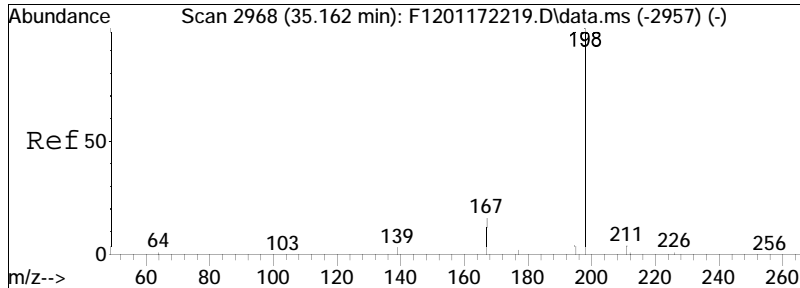
#32  
 4-Methyldibenzothiophene (4MDT)  
 Concen: 77.41 ng/mL  
 RT: 34.230 min Scan# 2866  
 Delta R.T. -0.037 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion: 198 Resp: 31816



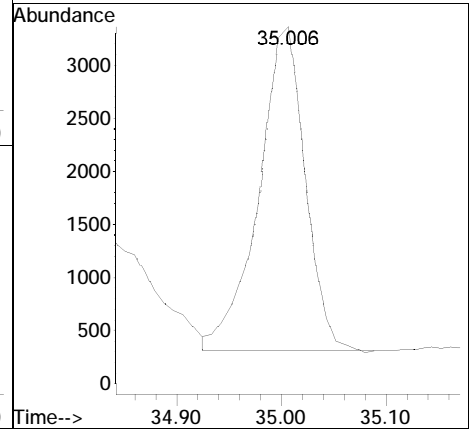
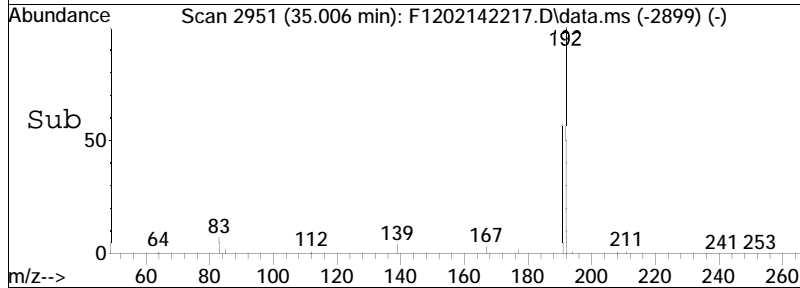
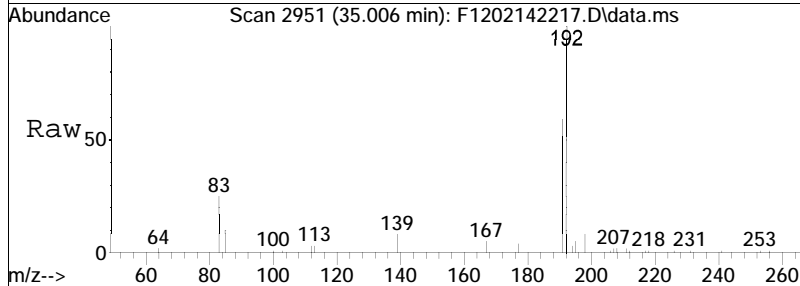


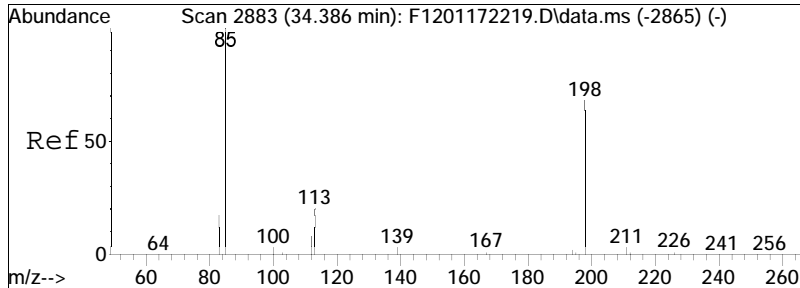
#33  
 2/3-Methyldibenzothiophene (2MD)  
 Concen: 89.48 ng/mL  
 RT: 34.586 min Scan# 2905  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion: 198 Resp: 36779



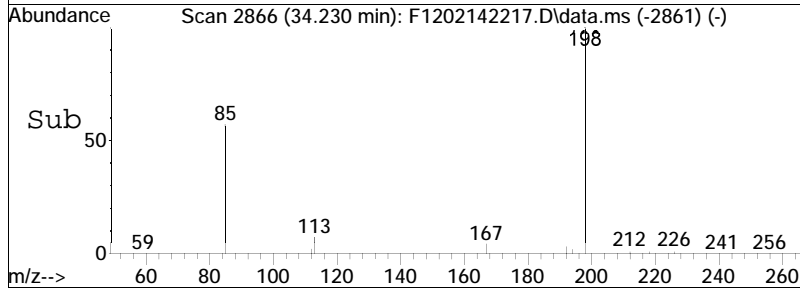
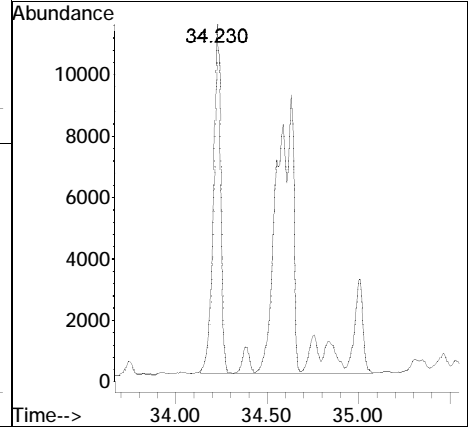
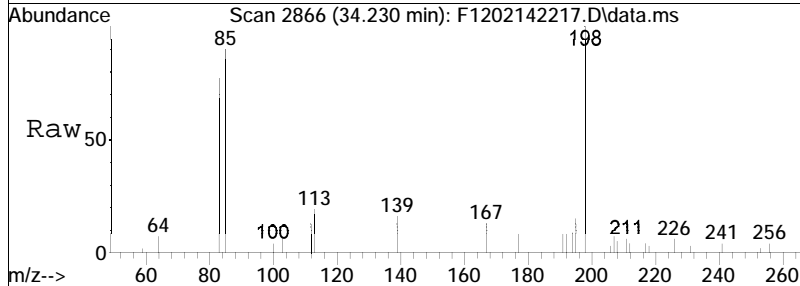


#34  
 1-Methyldibenzothiophene(1MDT)  
 Concen: 22.88 ng/mL  
 RT: 35.006 min Scan# 2951  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:198 Resp: 9405

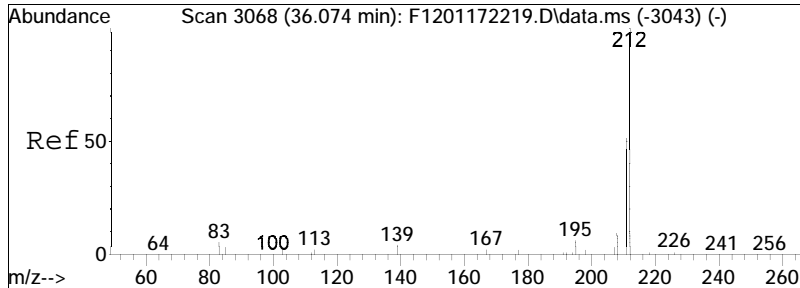




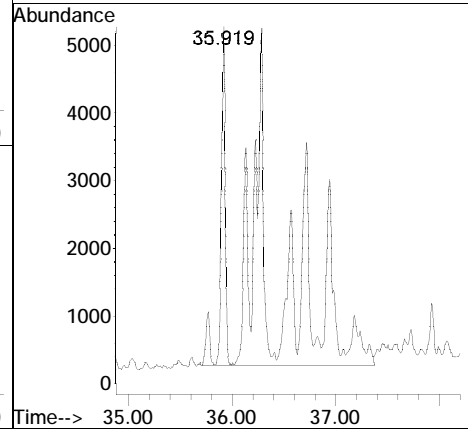
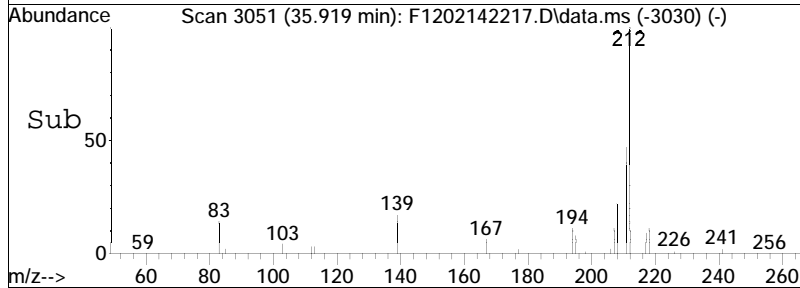
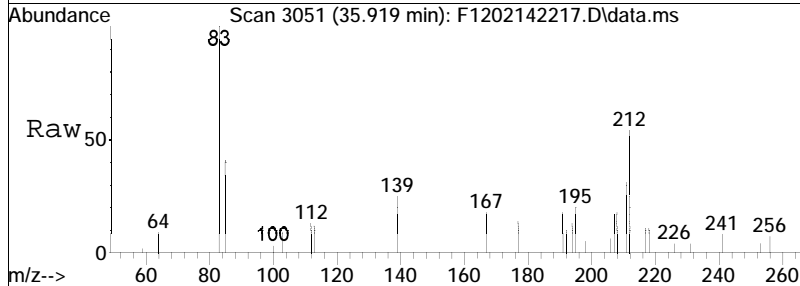
#36  
 Cl-Dibenzothiophenes  
 Concen: 268.01 ng/mL M5  
 RT: 34.230 min Scan# 2866  
 Delta R.T. -0.051 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:198 Resp: 110153

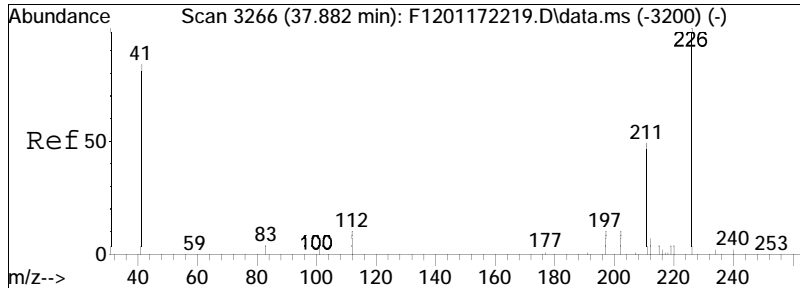






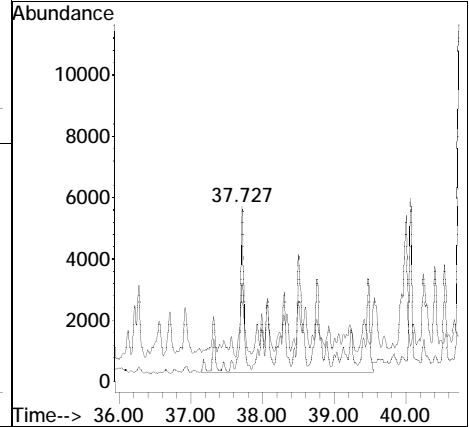
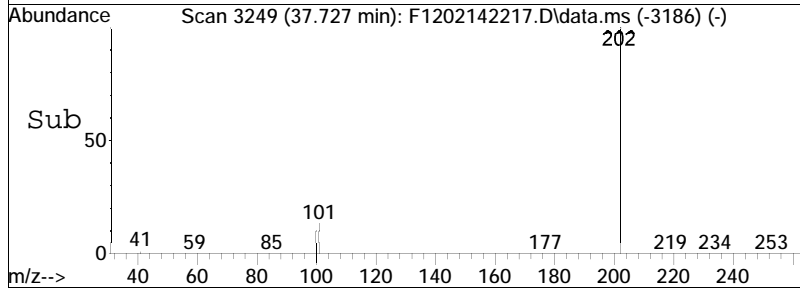
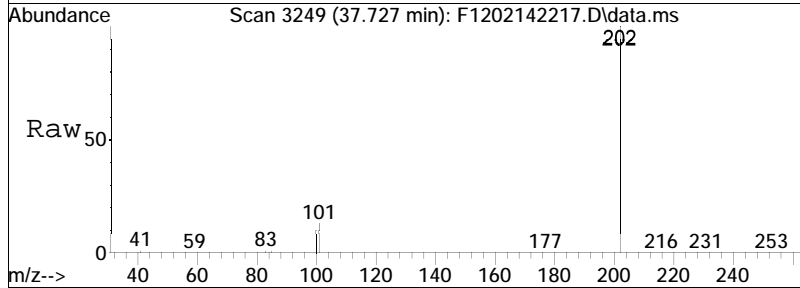
#37  
 C2-Dibenzothiophenes  
 Concen: 223.91 ng/mL M5  
 RT: 35.919 min Scan# 3051  
 Delta R.T. -0.046 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:212 Resp: 92031

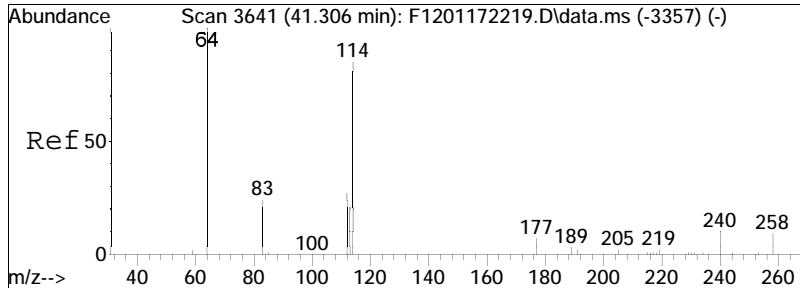




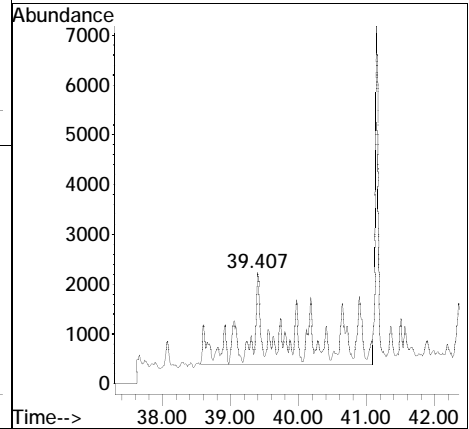
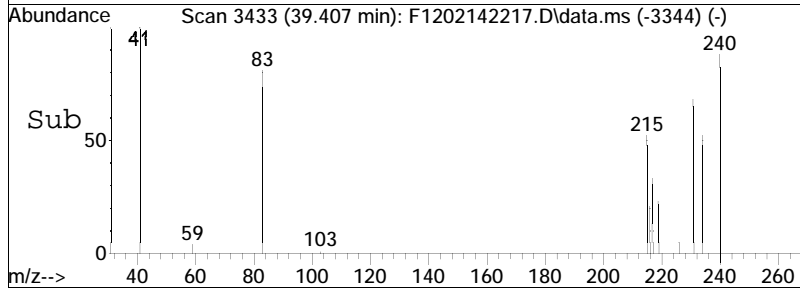
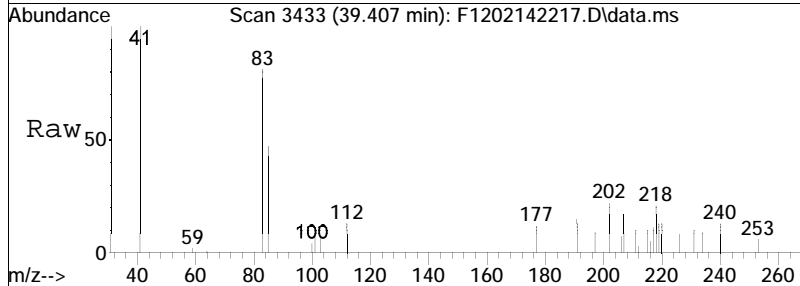
#38  
 C3-Dibenzothiophenes  
 Concen: 282.25 ng/mL M5  
 RT: 37.727 min Scan# 3249  
 Delta R.T. -0.041 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

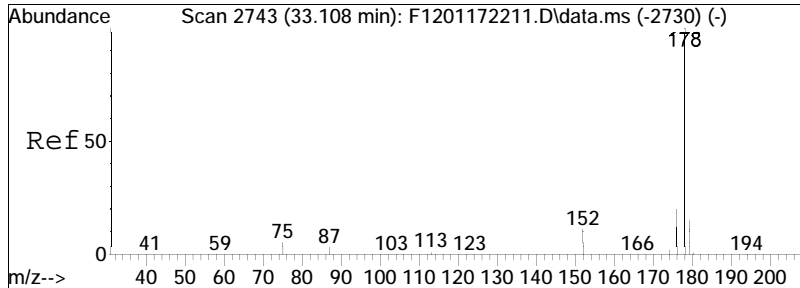
Tgt Ion	Resp	Lower	Upper
226	116007	100	
211	8.6	37.5	69.7#





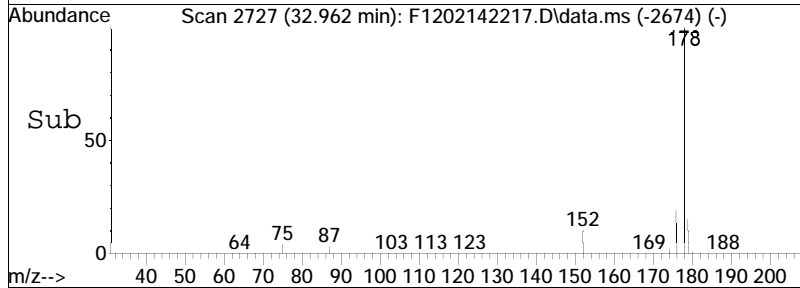
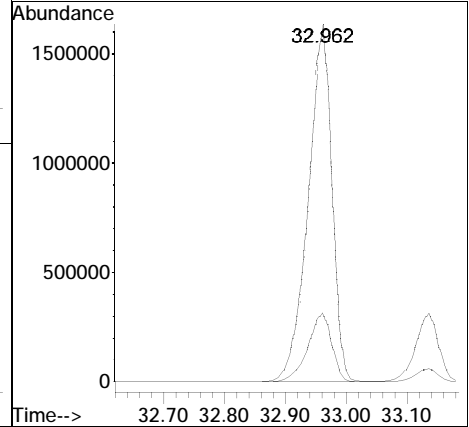
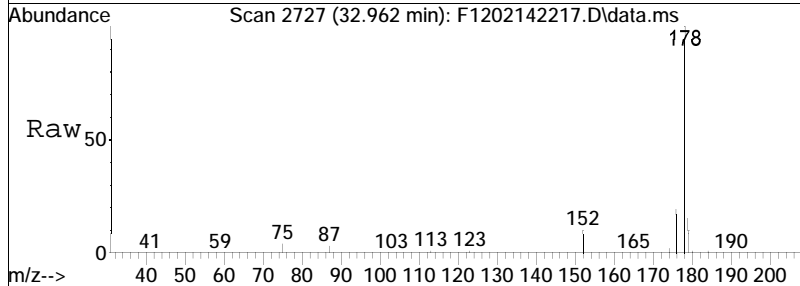
#39  
 C4-Dibenzothiophenes  
 Concen: 164.59 ng/mL M5  
 RT: 39.407 min Scan# 3433  
 Delta R.T. -0.036 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:240 Resp: 67646

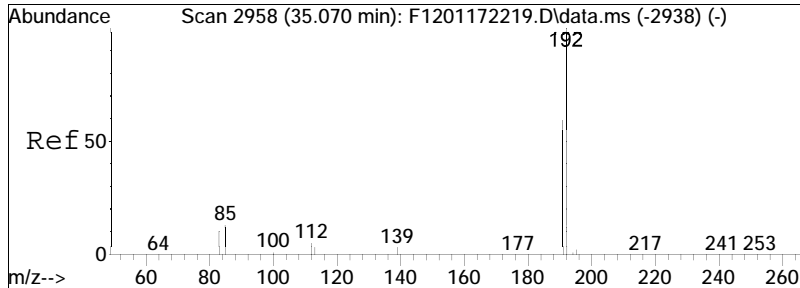




#41  
 Phenanthrene  
 Concen: 10400.25 ng/mL  
 RT: 32.962 min Scan# 2727  
 Delta R.T. -0.018 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

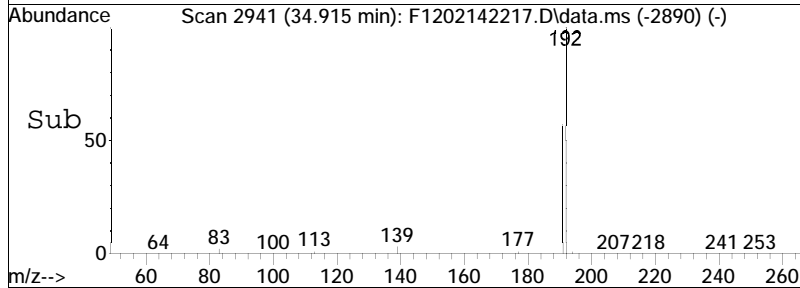
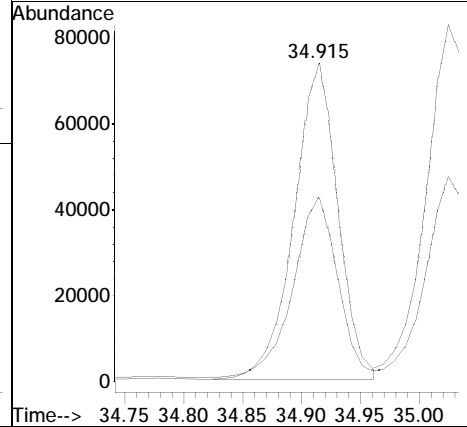
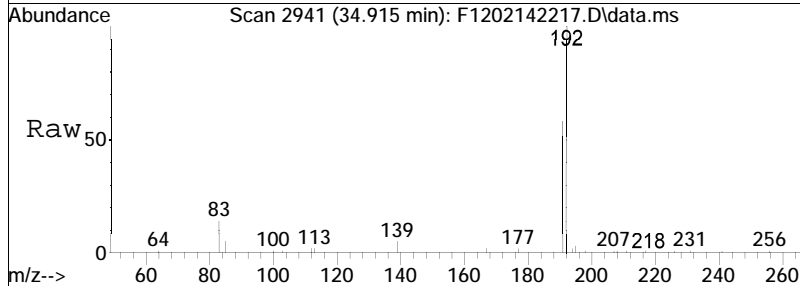
Tgt Ion	Resp	Lower	Upper
178	100		
176	19.5	14.8	27.6

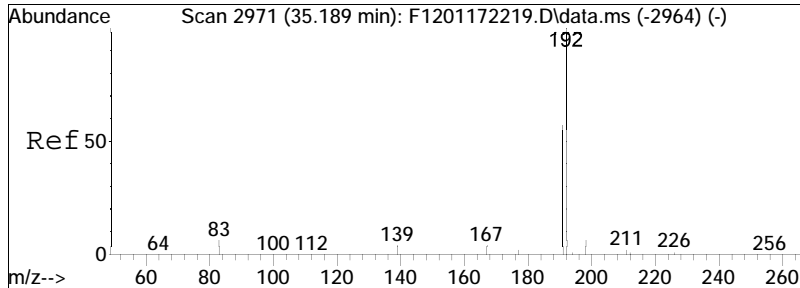




#42  
 3-Methylphenanthrene (3MP)  
 Concen: 452.75 ng/mL  
 RT: 34.915 min Scan# 2941  
 Delta R.T. -0.037 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

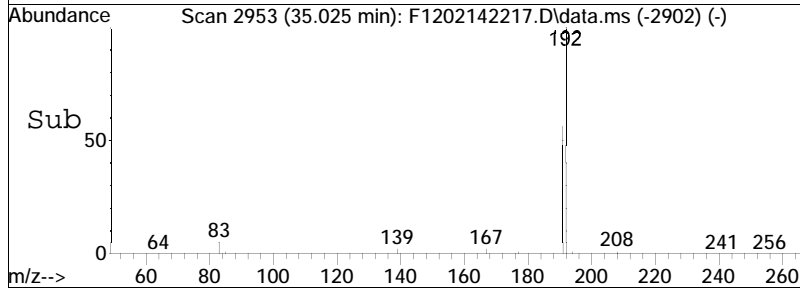
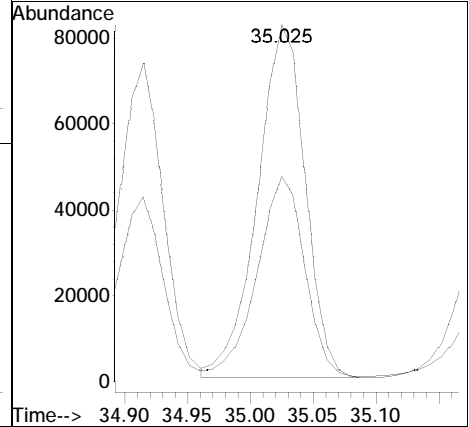
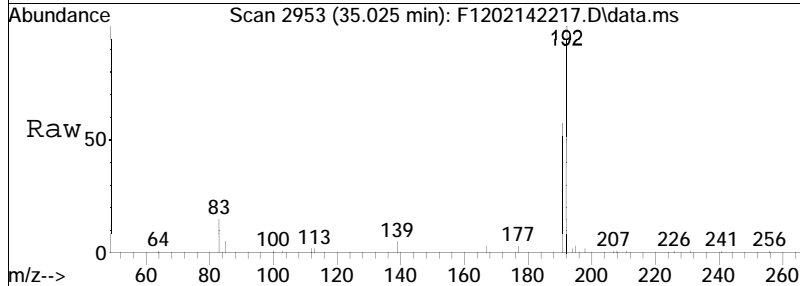
Tgt Ion: 192	Resp: 190168
Ion Ratio Lower	Upper
192 100	
191 58.1	42.6 79.0

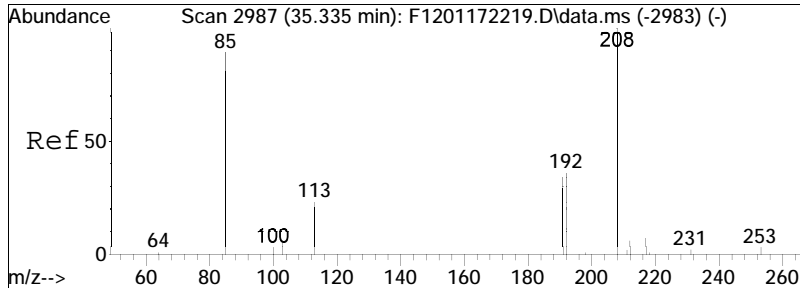




#43  
 2-Methylphenanthrene (2MP)  
 Concen: 512.88 ng/mL  
 RT: 35.025 min Scan# 2953  
 Delta R.T. -0.037 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

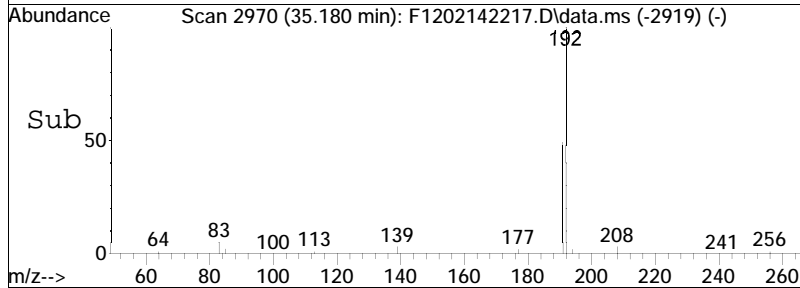
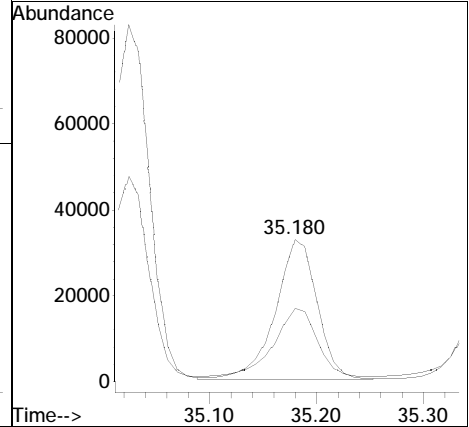
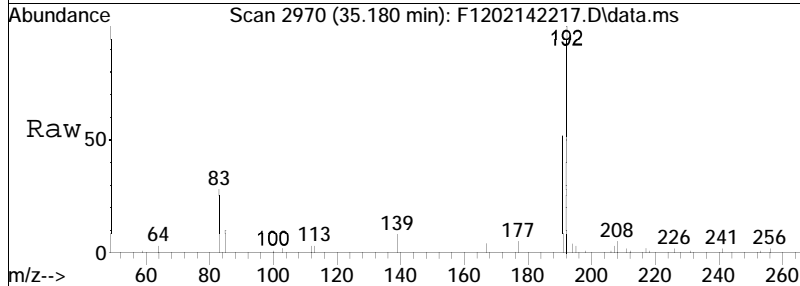
Tgt Ion	Resp	Lower	Upper
192	100		
191	56.0	41.5	77.1

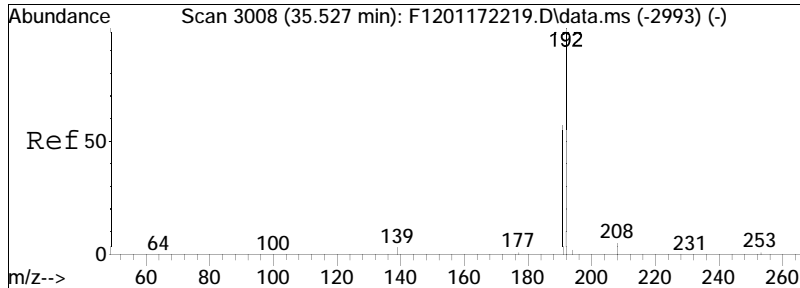




#44  
 2-Methylantracene(2MA)  
 Concen: 207.80 ng/mL M3  
 RT: 35.180 min Scan# 2970  
 Delta R.T. -0.037 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

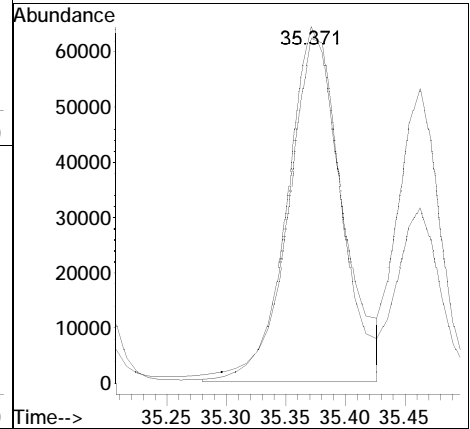
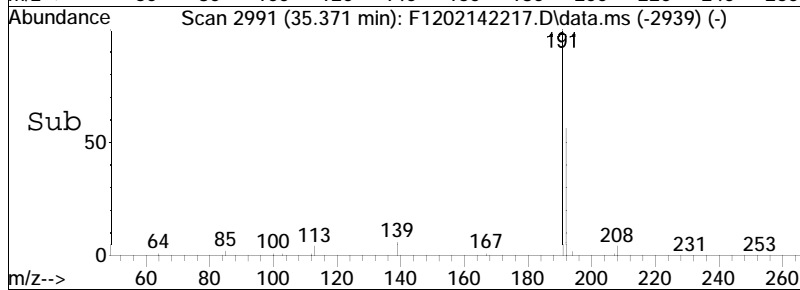
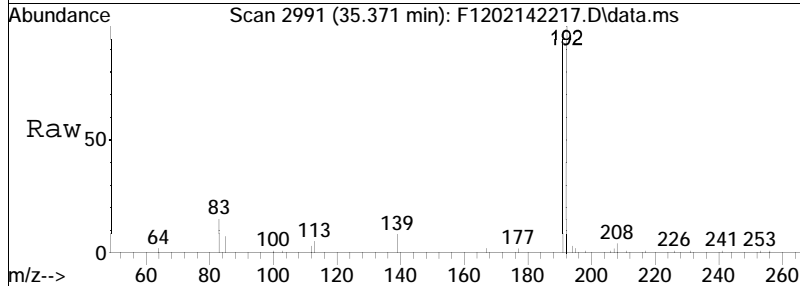
Tgt Ion: 192 Resp: 87281  
 Ion Ratio Lower Upper  
 192 100  
 191 213.9 83.9 155.7#



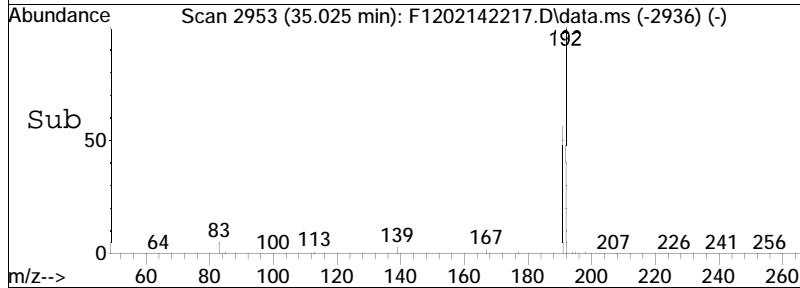
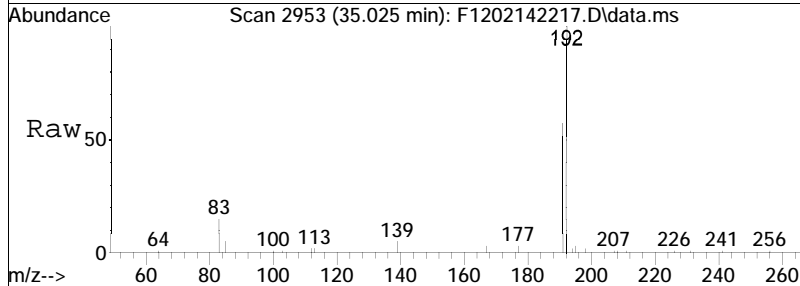
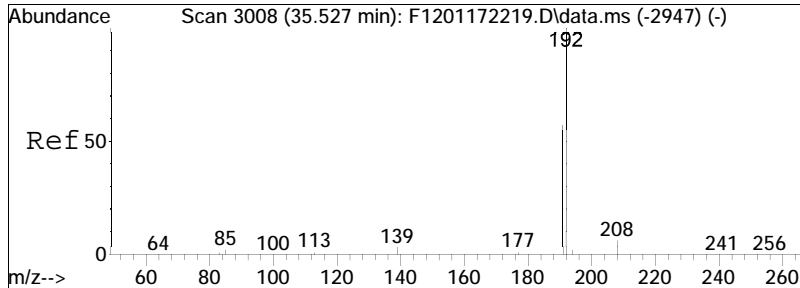


#45  
 9/4-Methylphenanthrene(9MP)  
 Concen: 482.69 ng/mL M3  
 RT: 35.371 min Scan# 2991  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

Tgt Ion	Resp	Lower	Upper
192	100		
191	36.9	41.5	77.1#

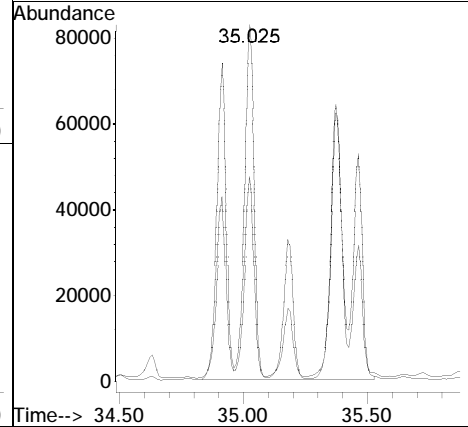


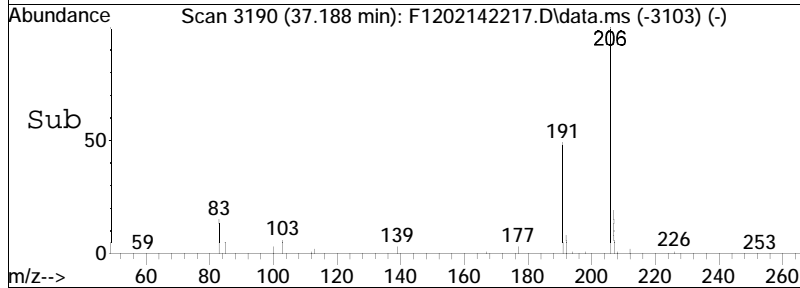
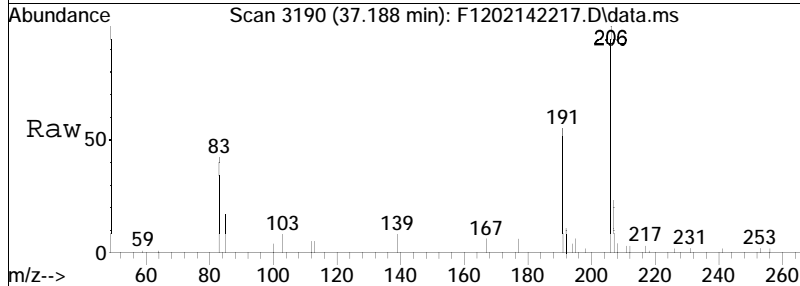
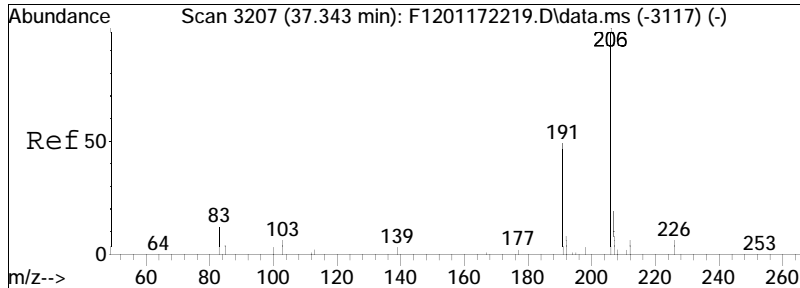




#47  
 Cl-Phenanthrenes/Anthracenes  
 Concen: 1970.06 ng/mL M5  
 RT: 35.025 min Scan# 2953  
 Delta R.T. -0.395 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

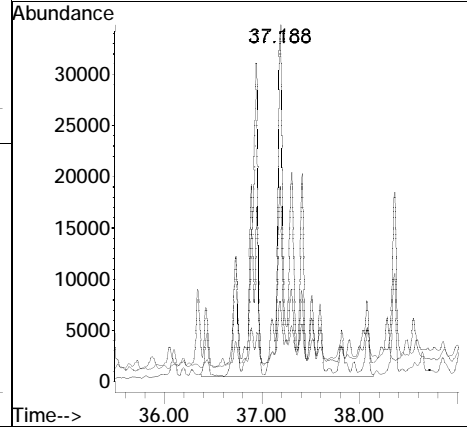
Tgt Ion: 192 Resp: 827473  
 Ion Ratio Lower Upper  
 192 100  
 191 8.3 40.9 76.0#

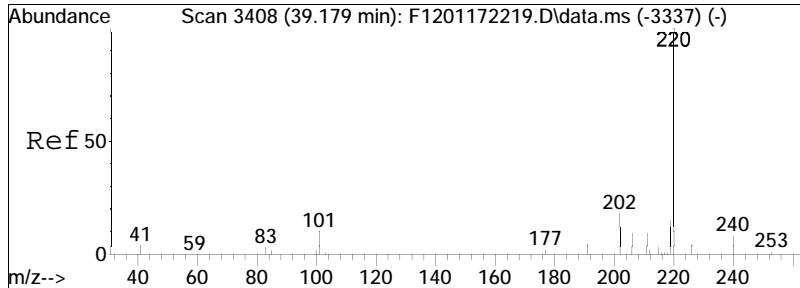




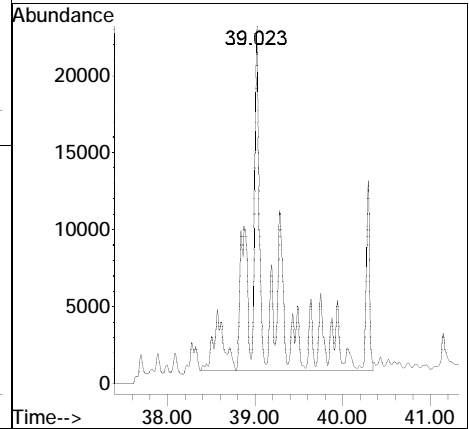
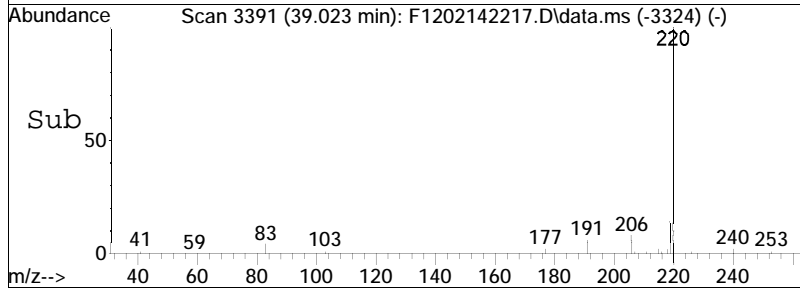
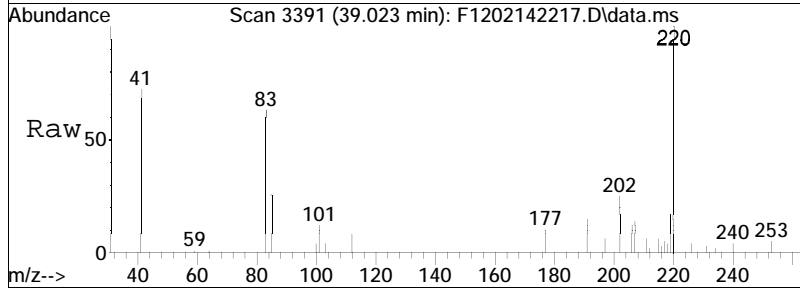
#48  
 C2-Phenanthrenes/Anthracenes  
 Concen: 1129.01 ng/mL M5  
 RT: 37.188 min Scan# 3190  
 Delta R.T. -0.042 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

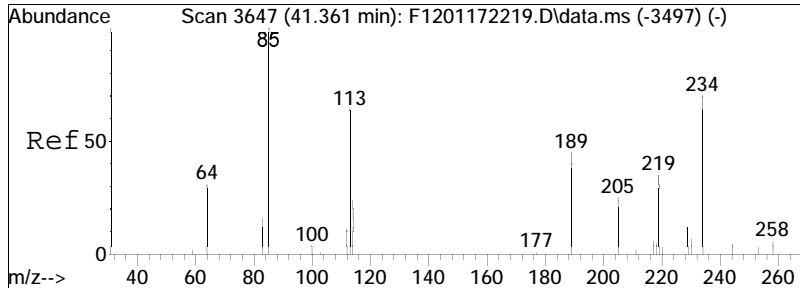
Tgt Ion	Ratio	Lower	Upper
206	100		
191	3.7	35.8	66.4#
207	2.2	14.7	27.3#





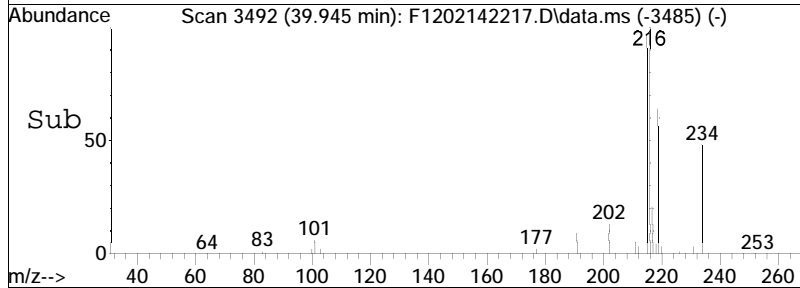
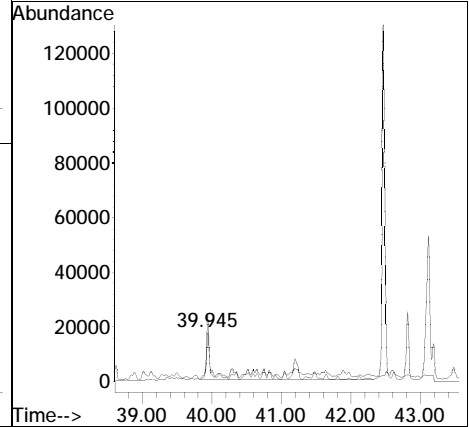
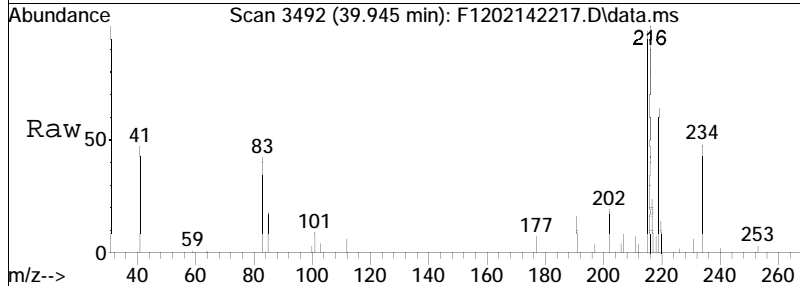
#50  
 C3-Phenanthrenes/Anthracenes  
 Concen: 807.16 ng/mL M5  
 RT: 39.023 min Scan# 3391  
 Delta R.T. -0.037 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:220 Resp: 339029

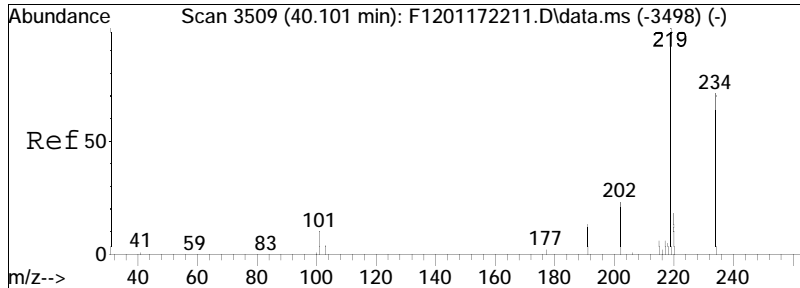




#51  
 C4-Phenanthrenes/Anthracenes  
 Concen: 508.11 ng/mL M5  
 RT: 39.945 min Scan# 3492  
 Delta R.T. -1.290 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

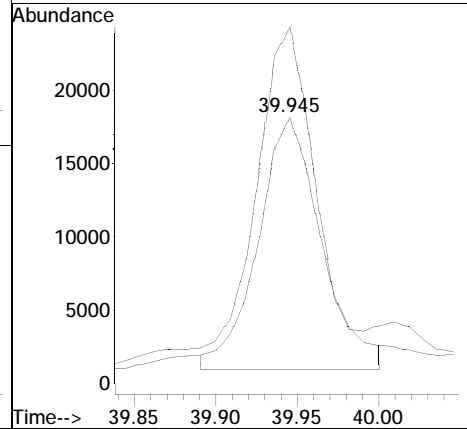
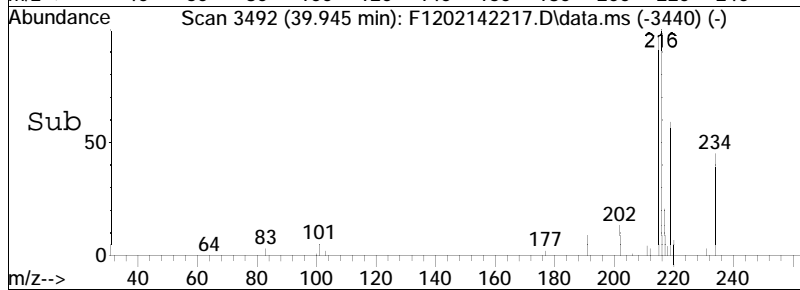
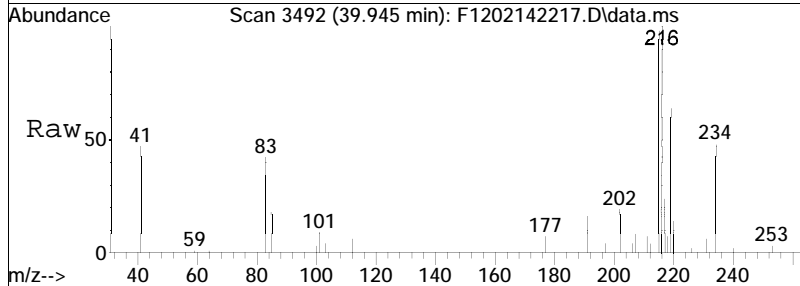
Tgt Ion	Ratio	Lower	Upper
234	100		
219	2.0	41.7	77.5#

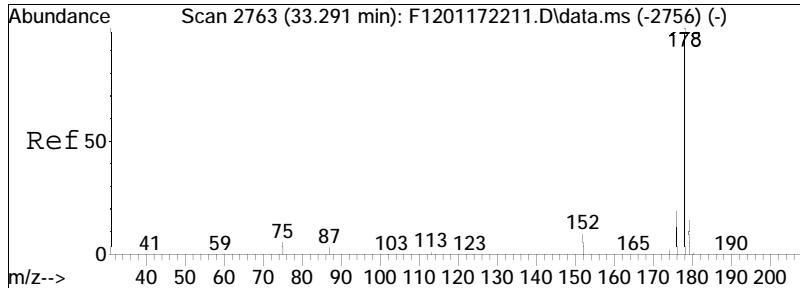




#52  
 Retene  
 Concen: 334.33 ng/mL M4  
 RT: 39.945 min Scan# 3492  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

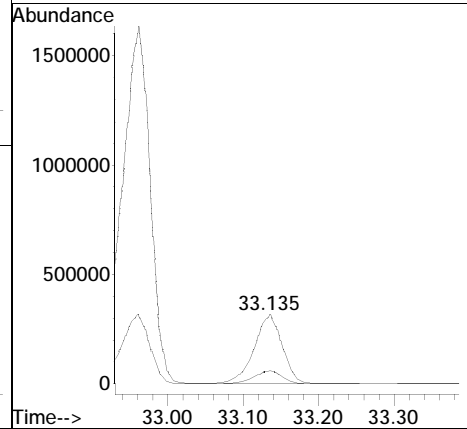
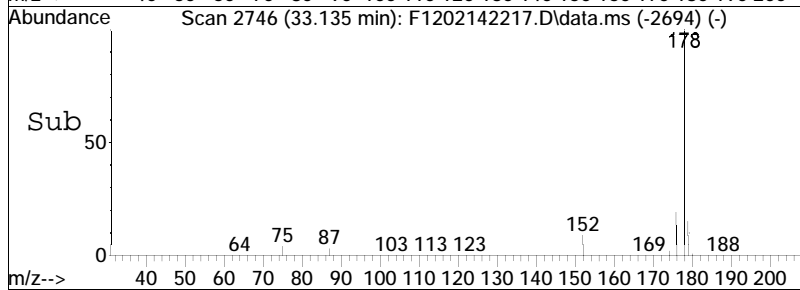
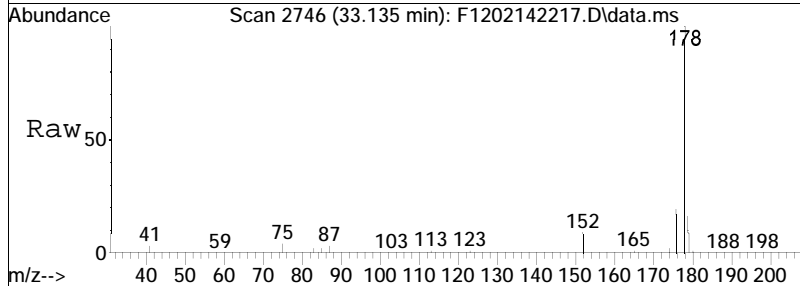
Tgt Ion: 234 Resp: 46538  
 Ion Ratio Lower Upper  
 234 100  
 219 131.2 94.0 174.6

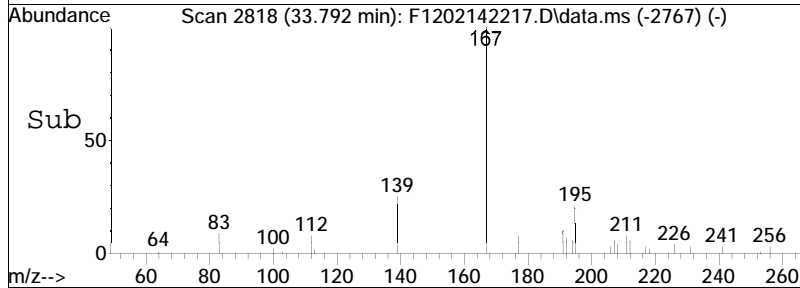
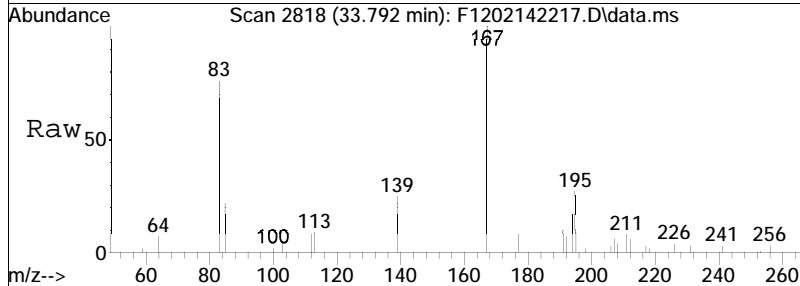
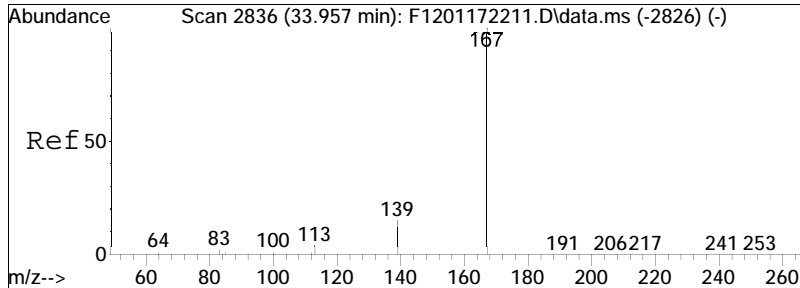




#53  
 Anthracene  
 Concen: 2080.86 ng/mL  
 RT: 33.135 min Scan# 2746  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

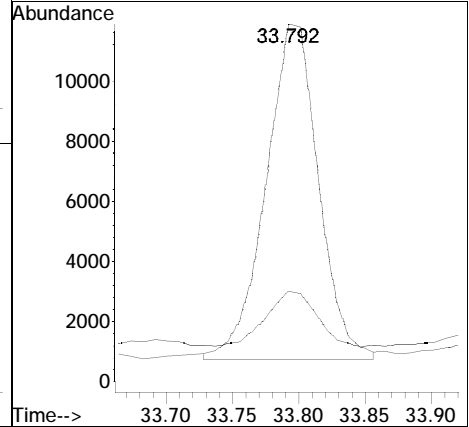
Tgt Ion	Resp	Lower	Upper
178	100		
176	19.0	13.4	24.8

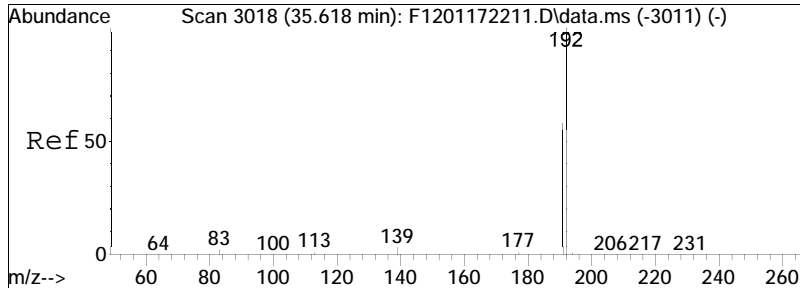




#54  
 Carbazole  
 Concen: 74.97 ng/mL M4  
 RT: 33.792 min Scan# 2818  
 Delta R.T. -0.037 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

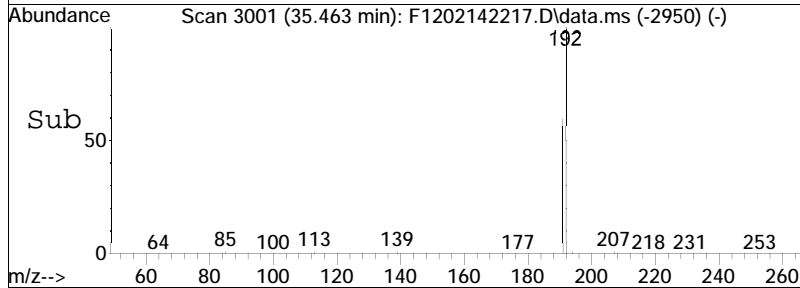
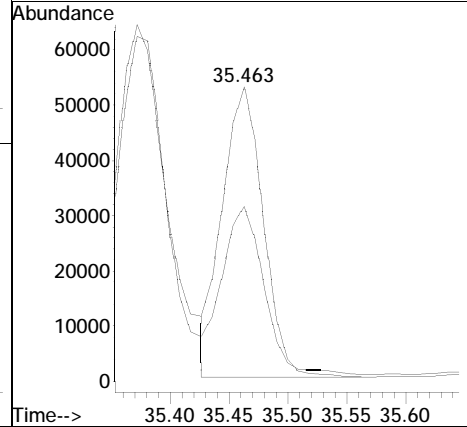
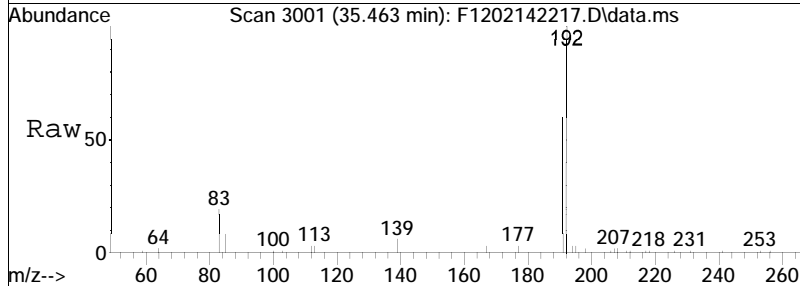
Tgt Ion	Resp	Lower	Upper
167	100		
139	21.0	10.3	19.1#



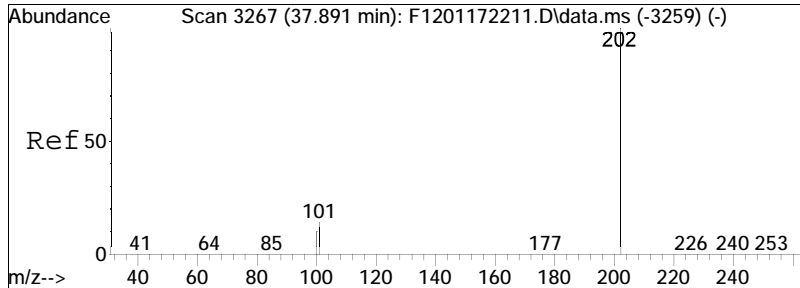


#55  
 1-Methylphenanthrene  
 Concen: 448.51 ng/mL  
 RT: 35.463 min Scan# 3001  
 Delta R.T. -0.037 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

Tgt Ion: 192 Resp: 126567  
 Ion Ratio Lower Upper  
 192 100  
 191 59.1 42.6 79.0

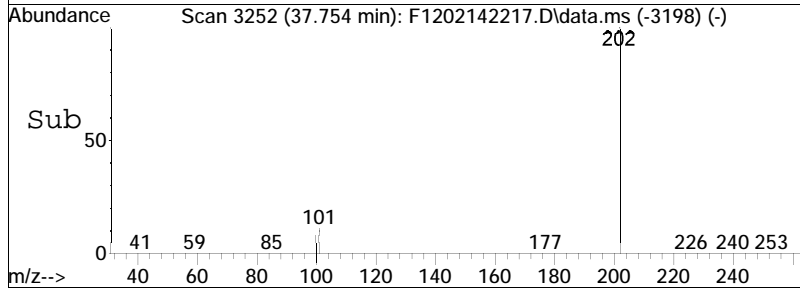
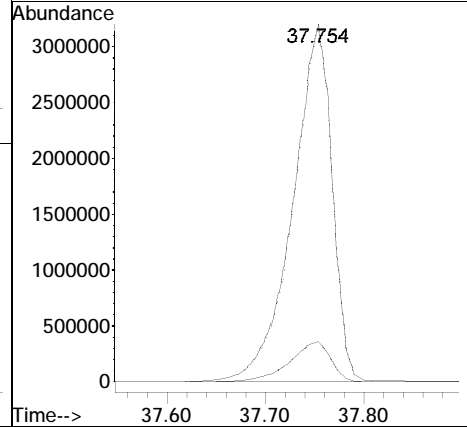
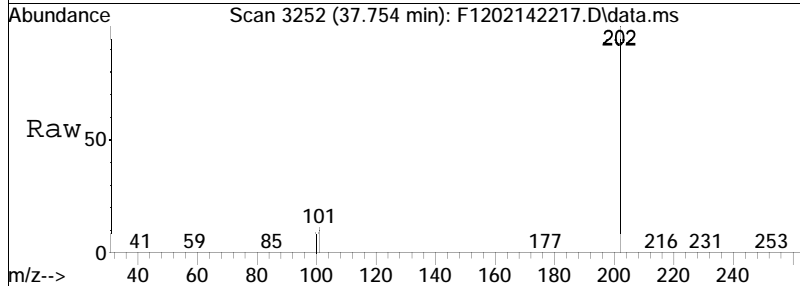


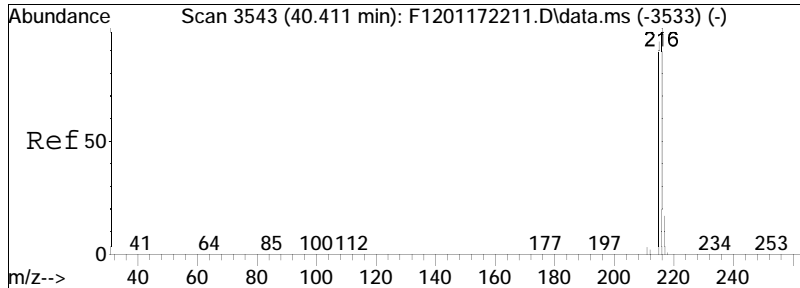




#56  
 Fluoranthene  
 Concen: 20760.69 ng/mL M4  
 RT: 37.754 min Scan# 3252  
 Delta R.T. -0.009 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

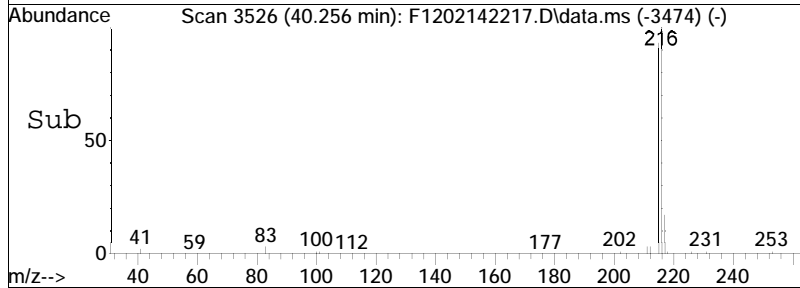
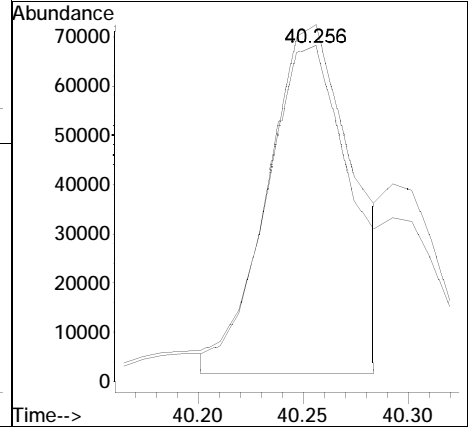
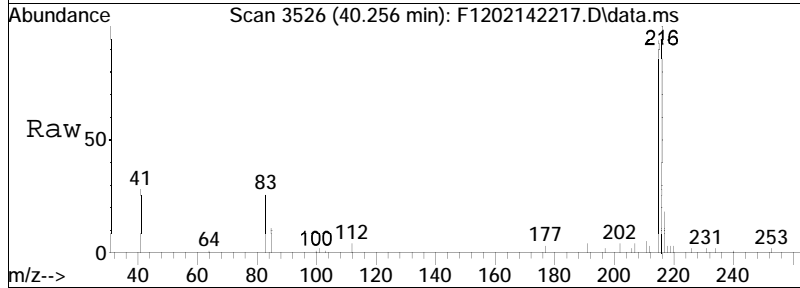
Tgt Ion: 202 Resp: 8744458  
 Ion Ratio Lower Upper  
 202 100  
 101 12.1 8.4 15.6

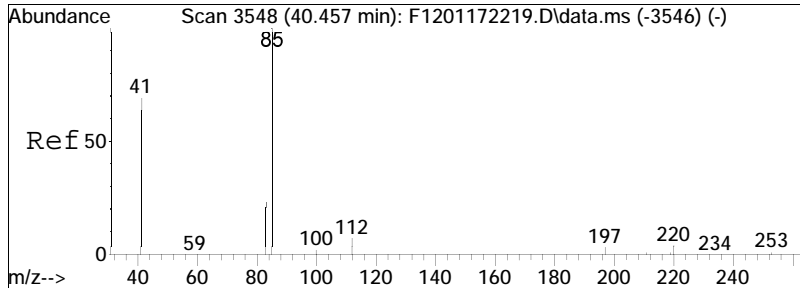




#57  
 Benzo(b)fluorene  
 Concen: 749.96 ng/mL M3  
 RT: 40.256 min Scan# 3526  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

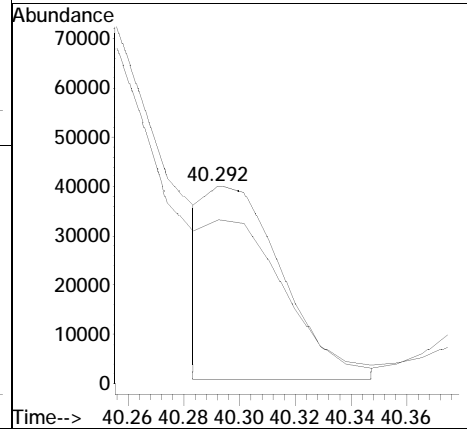
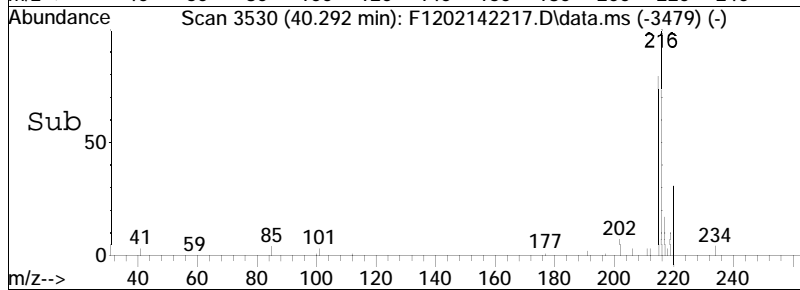
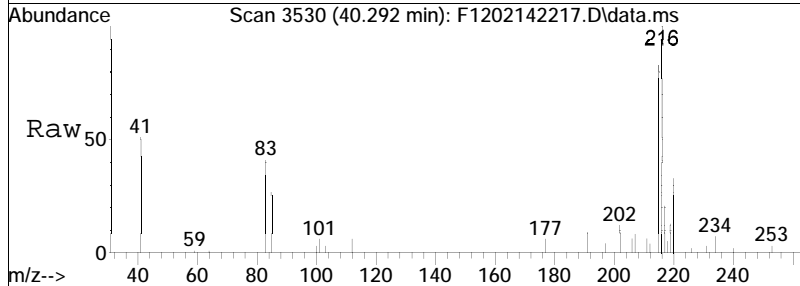
Tgt Ion	Resp	Lower	Upper
216	100		
215	27.0	91.7	170.3#

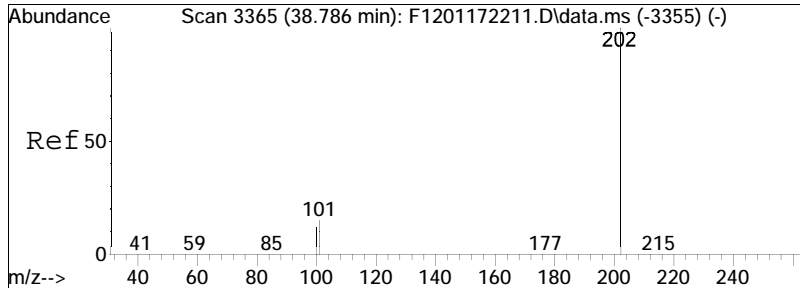




#58  
 7H-Benzo(c)fluorene  
 Concen: 275.70 ng/mL M3  
 RT: 40.292 min Scan# 3530  
 Delta R.T. -0.037 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

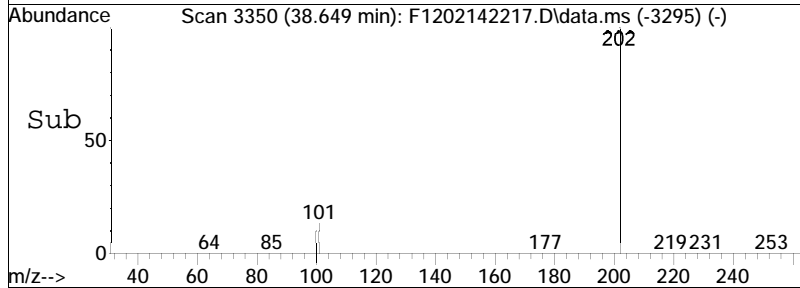
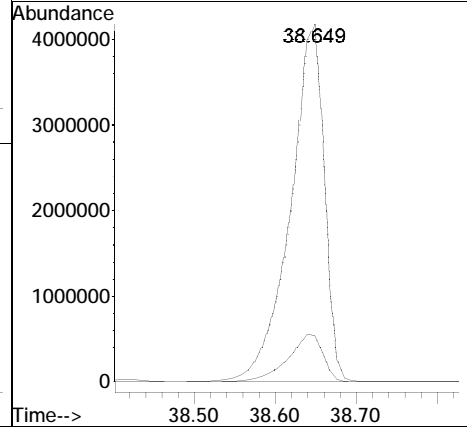
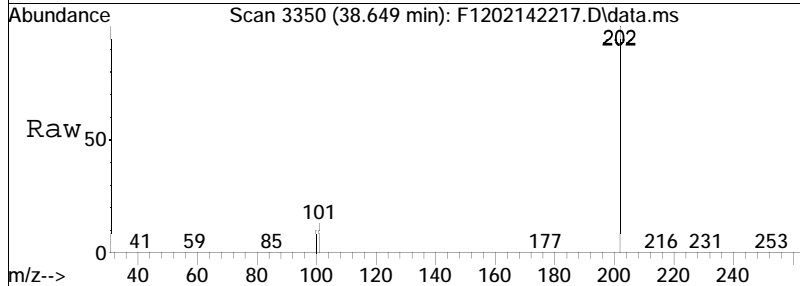
Tgt Ion: 216 Resp: 73176  
 Ion Ratio Lower Upper  
 216 100  
 215 84.7 99.9 185.5#

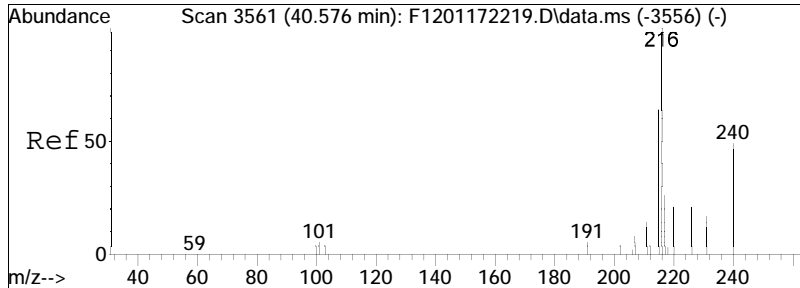




#59  
 Pyrene  
 Concen: 27522.44 ng/mL M3  
 RT: 38.649 min Scan# 3350  
 Delta R.T. -0.000 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

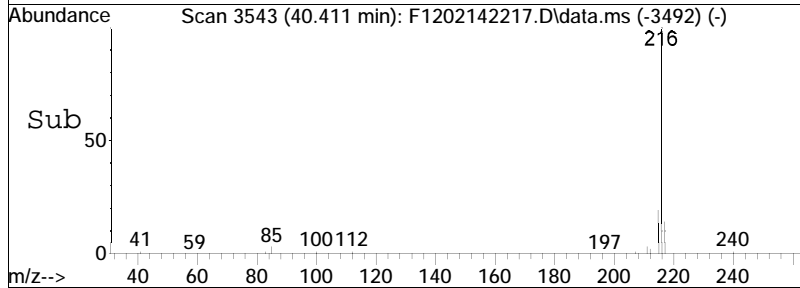
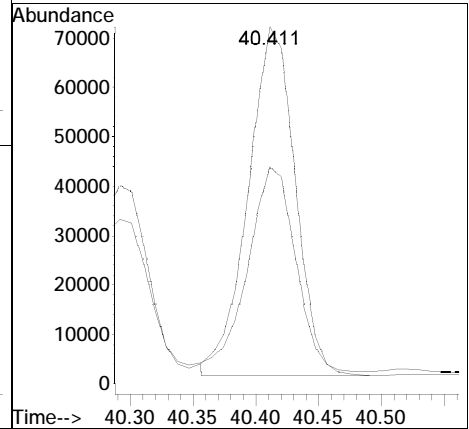
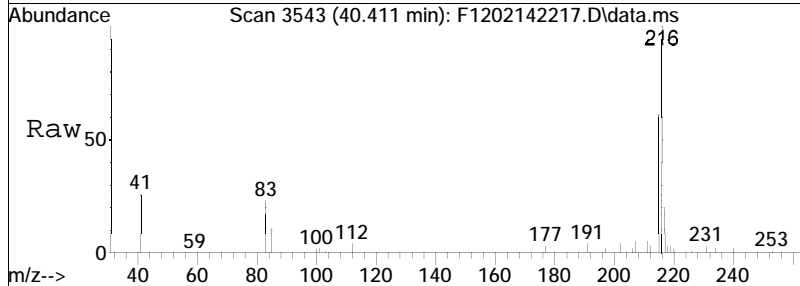
Tgt Ion	Resp	Lower	Upper
202	100		
101	0.0	21.0	39.0#

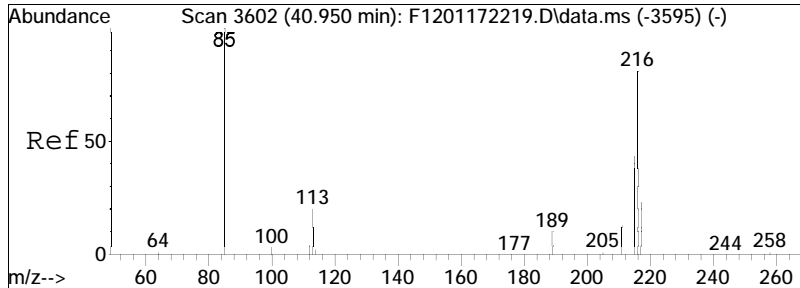




#60  
 2-Methylpyrene  
 Concen: 419.02 ng/mL M3  
 RT: 40.411 min Scan# 3543  
 Delta R.T. -0.037 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

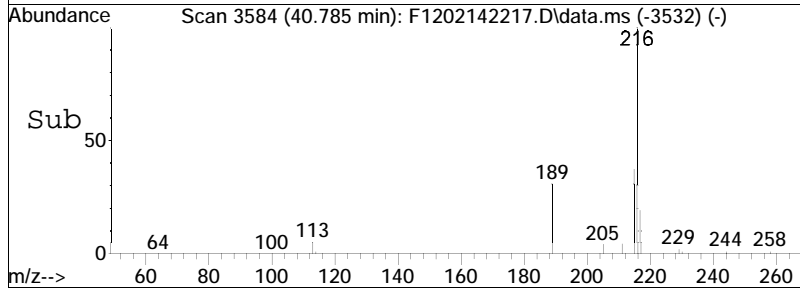
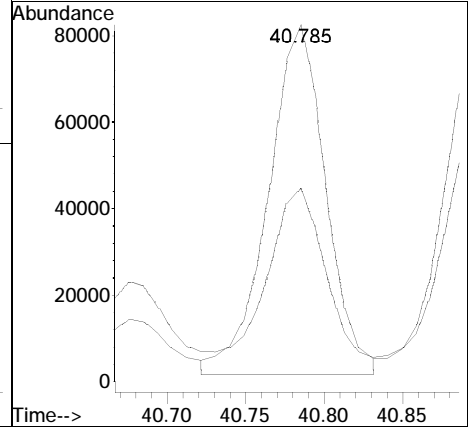
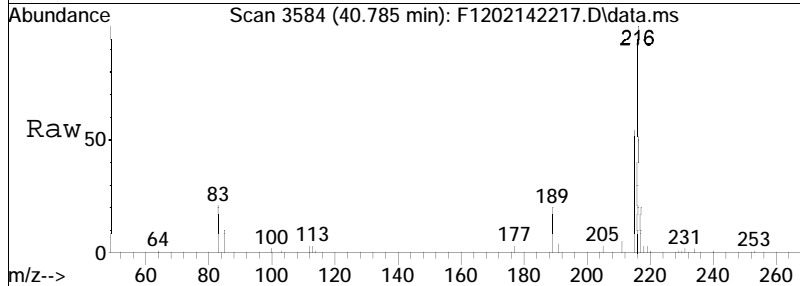
Tgt Ion	Ratio	Lower	Upper
216	100		
215	0.8	70.0	130.0#

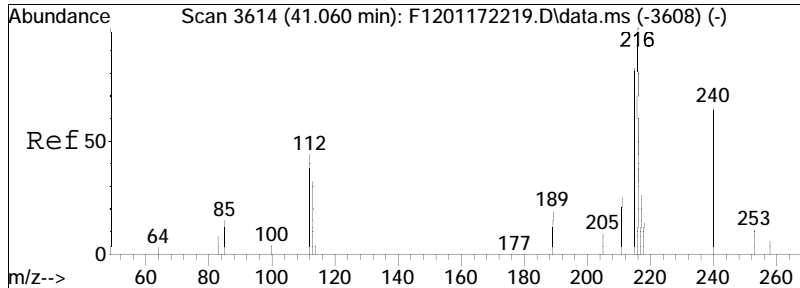




#61  
 4-Methylpyrene  
 Concen: 470.75 ng/mL  
 RT: 40.785 min Scan# 3584  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

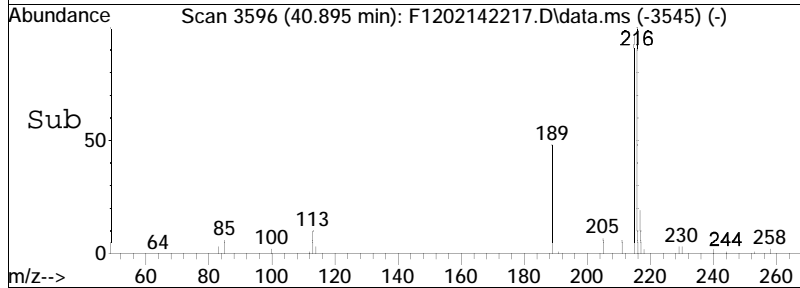
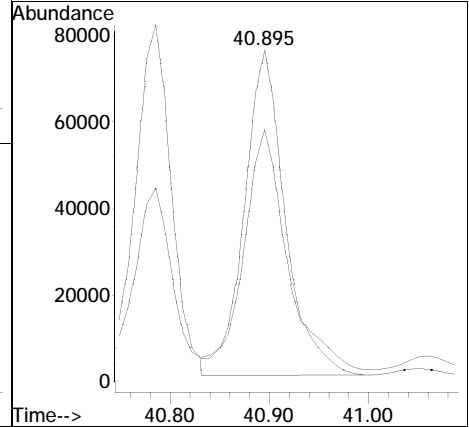
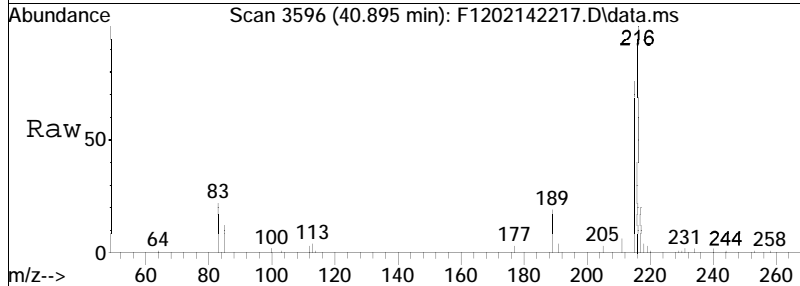
Tgt Ion	Resp	Lower	Upper
216	100		
215	53.6	51.2	95.2

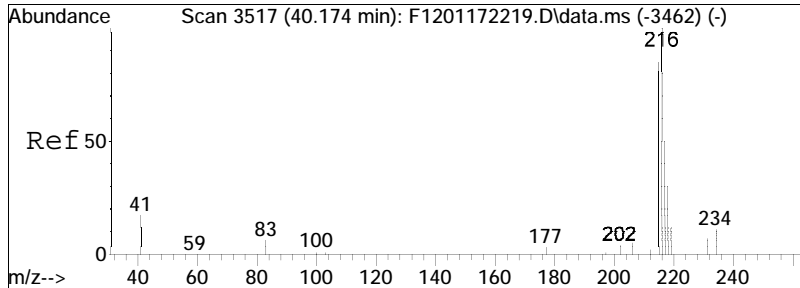




#62  
 1-Methylpyrene  
 Concen: 488.44 ng/mL  
 RT: 40.895 min Scan# 3596  
 Delta R.T. -0.037 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

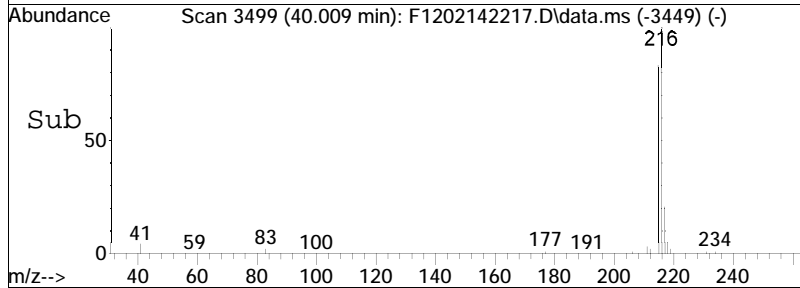
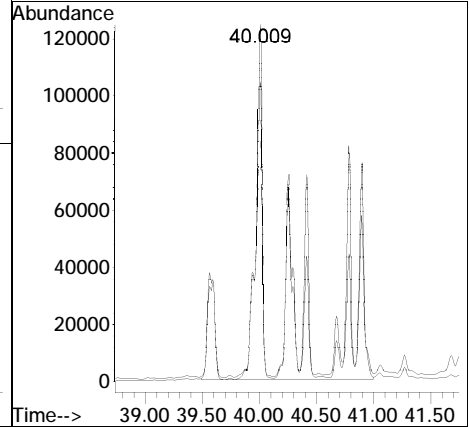
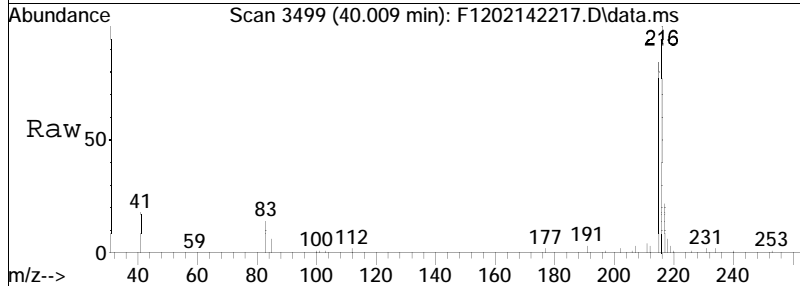
Tgt Ion: 216 Resp: 213503  
 Ion Ratio Lower Upper  
 216 100  
 215 77.5 76.4 141.8



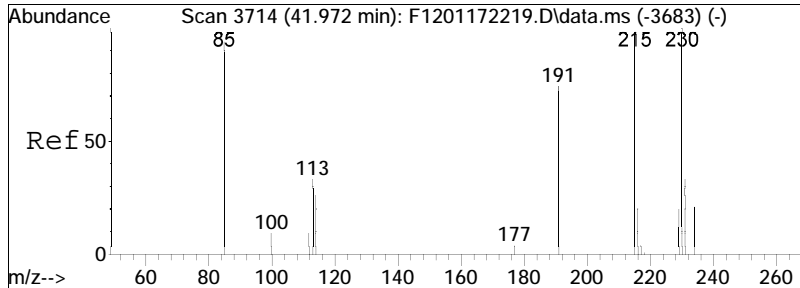


#63  
 Cl-Fluoranthenes/Pyrenes  
 Concen: 3679.23 ng/mL M5  
 RT: 40.009 min Scan# 3499  
 Delta R.T. -0.043 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

Tgt Ion: 216 Resp: 1608225  
 Ion Ratio Lower Upper  
 216 100  
 215 26.3 65.7 122.1#

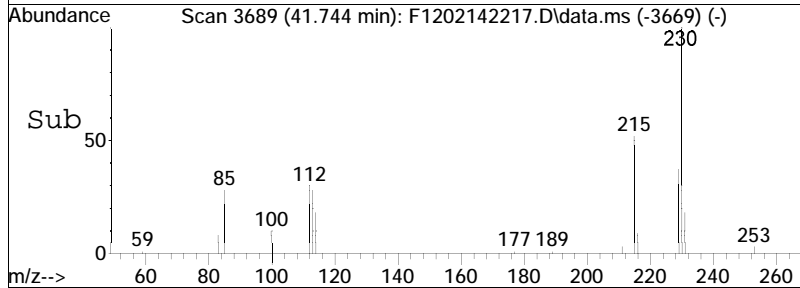
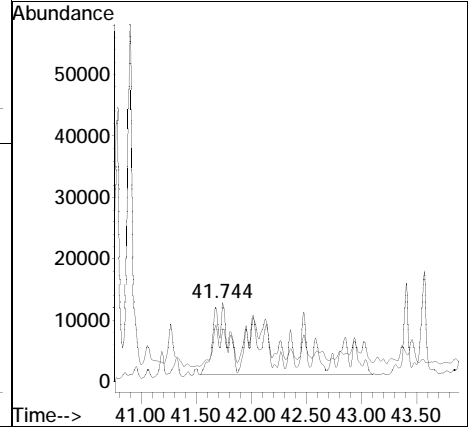
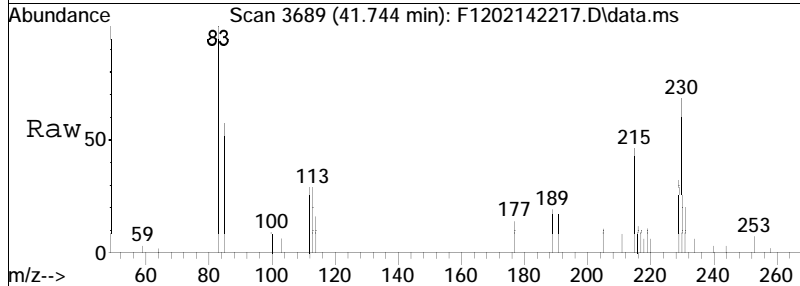


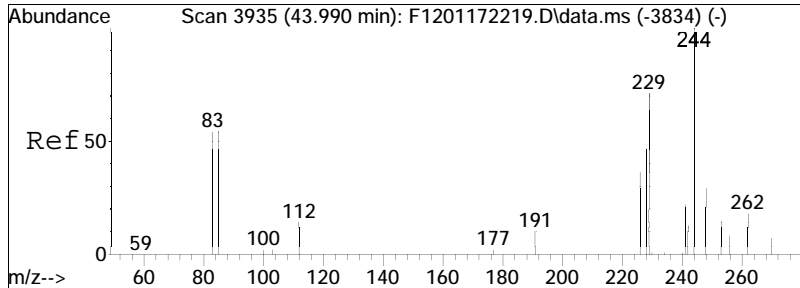




#64  
 C2-Fluoranthenes/Pyrenes  
 Concen: 849.78 ng/mL M5  
 RT: 41.744 min Scan# 3689  
 Delta R.T. -0.102 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

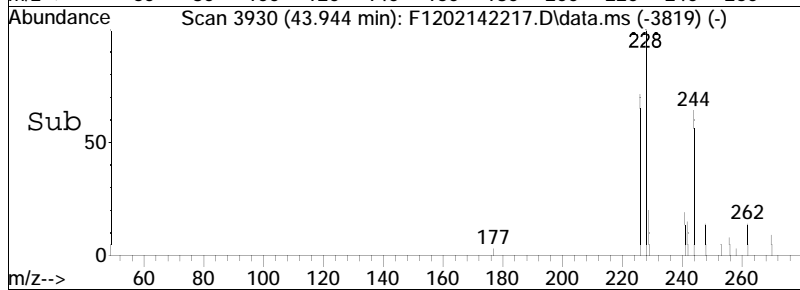
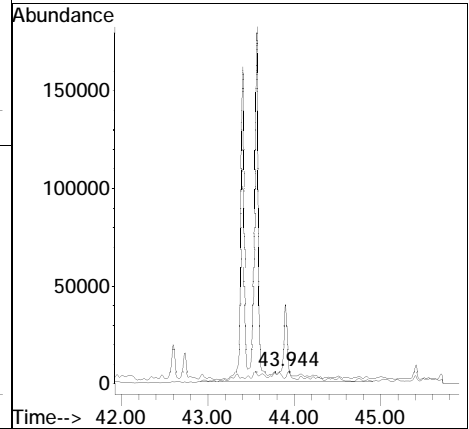
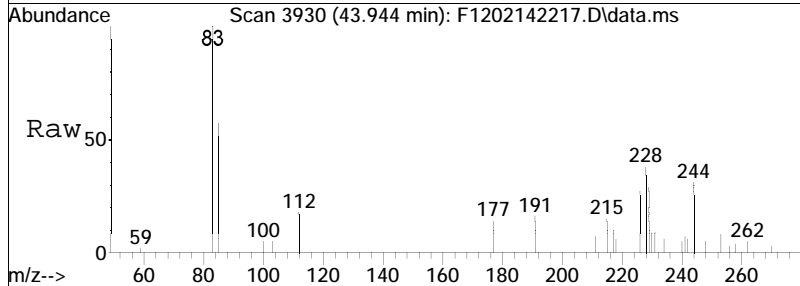
Tgt Ion	Resp	Lower	Upper
230	100		
215	4.4	79.5	147.7#

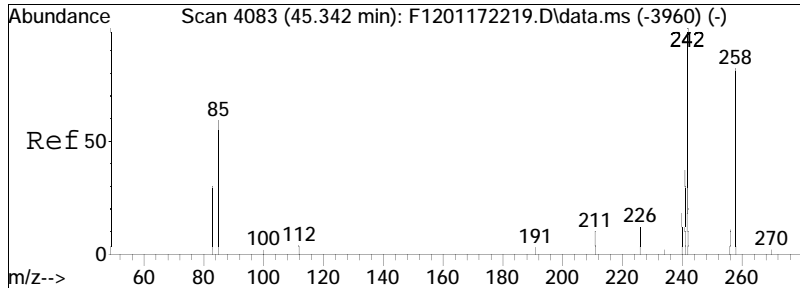




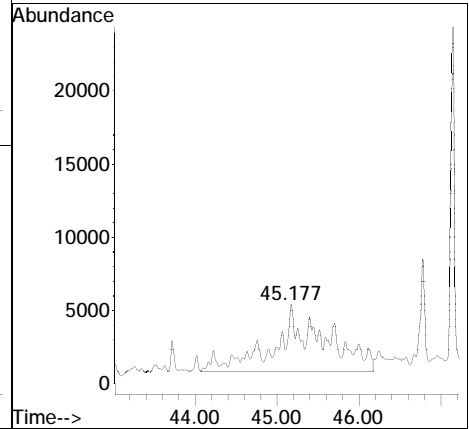
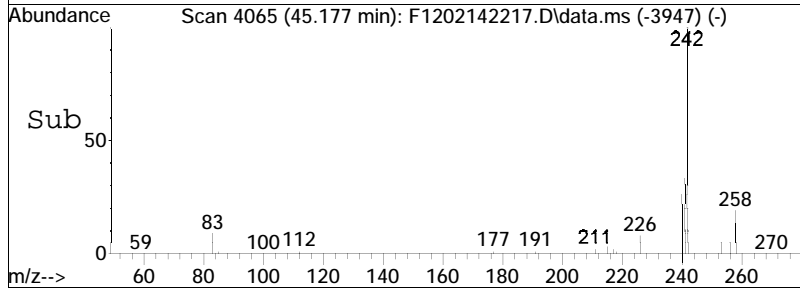
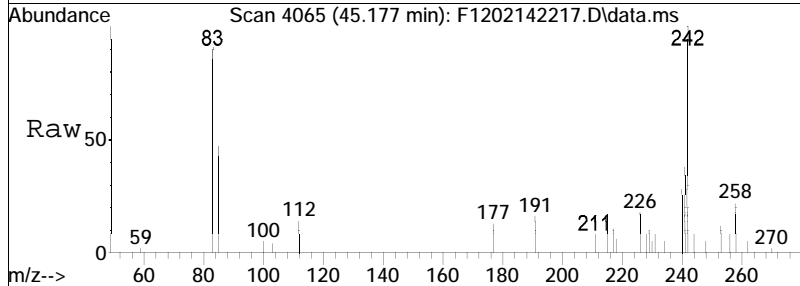
#65  
 C3-Fluoranthenes/Pyrenes  
 Concen: 483.09 ng/mL M5  
 RT: 43.944 min Scan# 3930  
 Delta R.T. 0.087 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

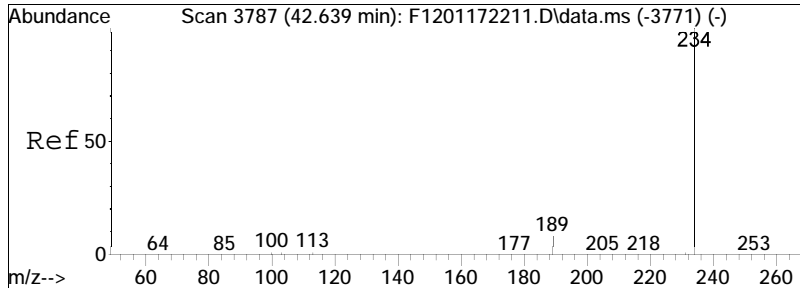
Tgt Ion	Resp	Lower	Upper
244	100		
229	1.9	65.4	121.4#





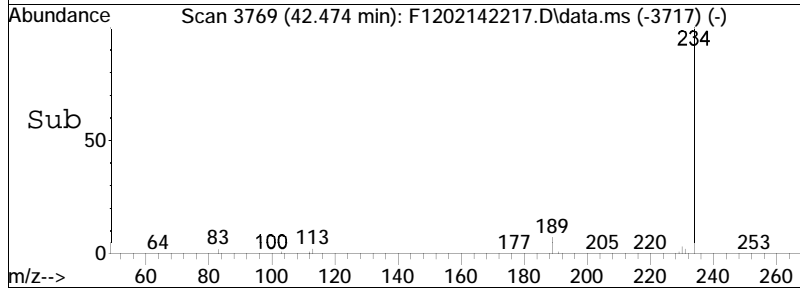
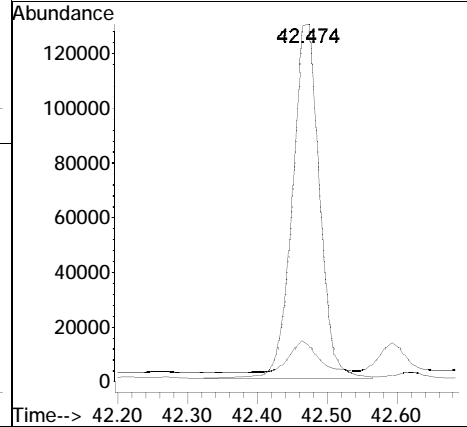
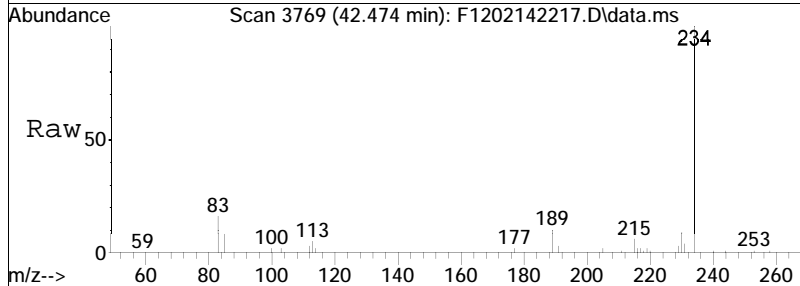
#66  
 C4-Fluoranthenes/Pyrenes  
 Concen: 433.84 ng/mL M5  
 RT: 45.177 min Scan# 4065  
 Delta R.T. -0.037 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion: 258 Resp: 189636

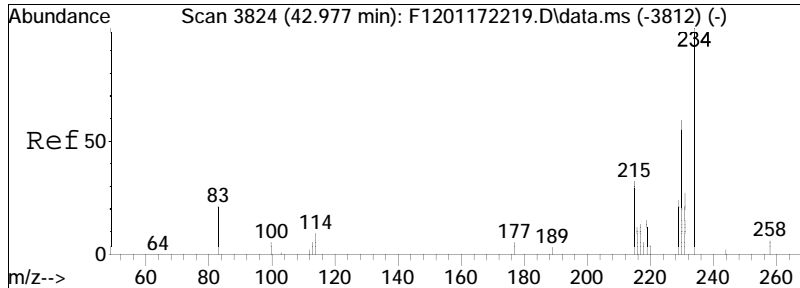




#67  
 Naphthobenzothiophene-2,1-D  
 Concen: 786.16 ng/mL  
 RT: 42.474 min Scan# 3769  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

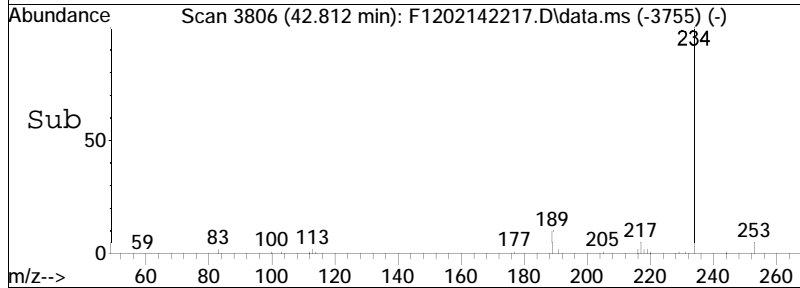
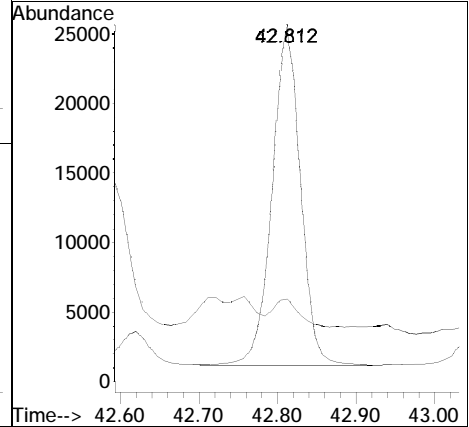
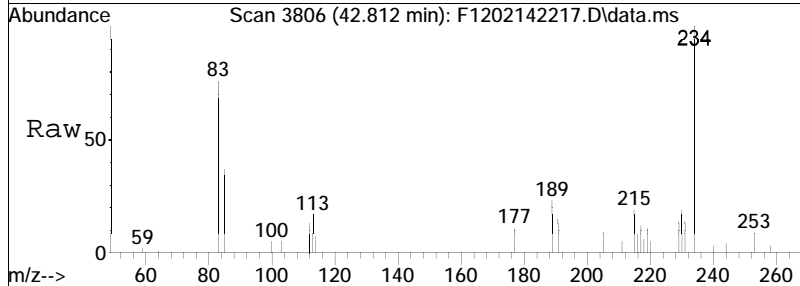
Tgt Ion	Resp	Lower	Upper
234	100		
189	9.5	18.9	35.1#

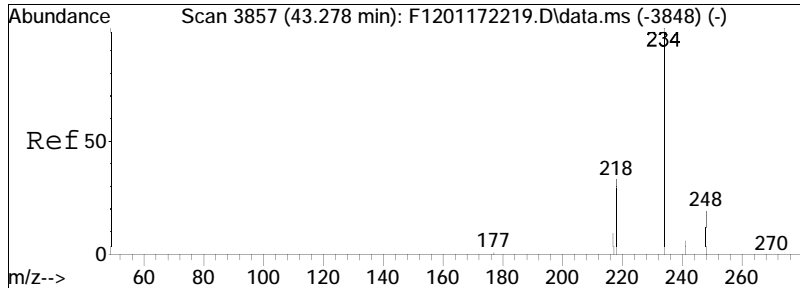




#68  
 Naphthobenzothiophene-1,2-D  
 Concen: 139.07 ng/mL  
 RT: 42.812 min Scan# 3806  
 Delta R.T. -0.037 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

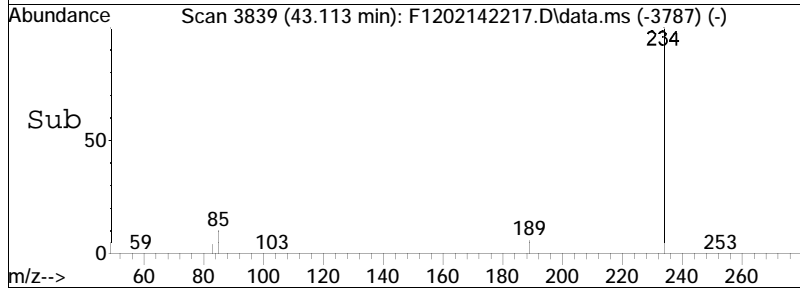
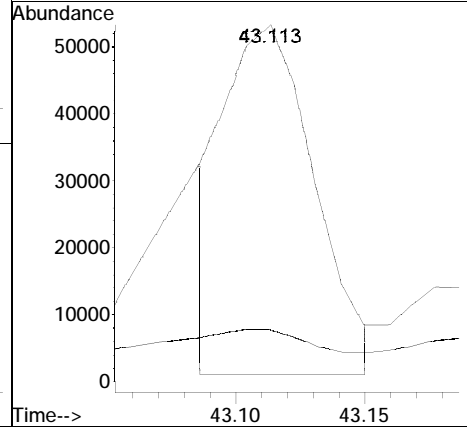
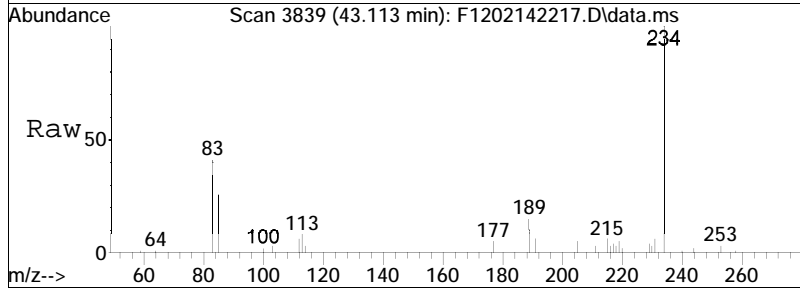
Tgt Ion: 234 Resp: 60940  
 Ion Ratio Lower Upper  
 234 100  
 189 0.0 53.0 98.4#

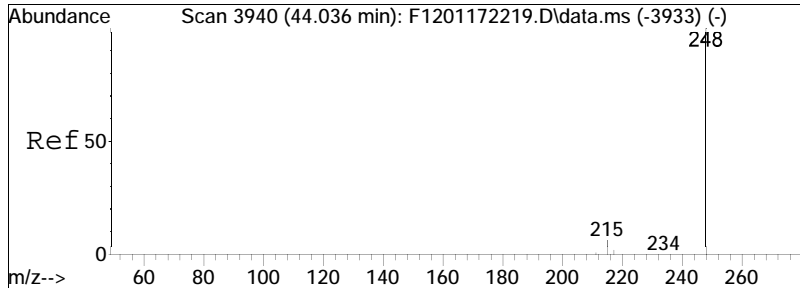




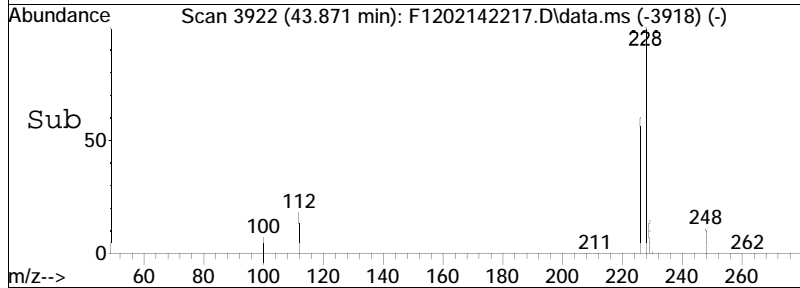
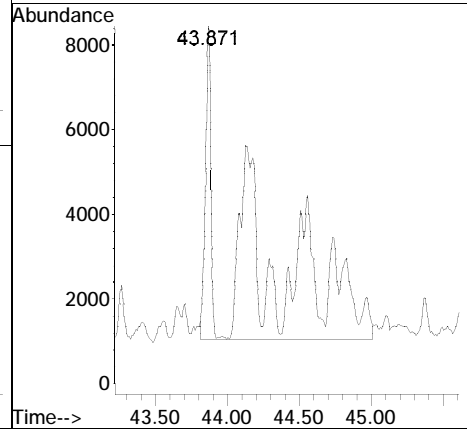
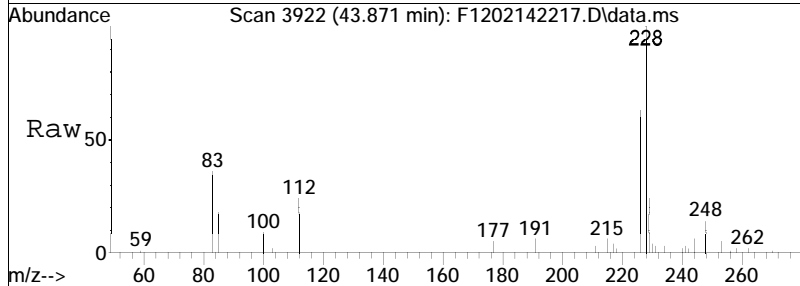
#69  
 Naphthobenzothiophene-2,3-D  
 Concen: 289.70 ng/mL M3  
 RT: 43.113 min Scan# 3839  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

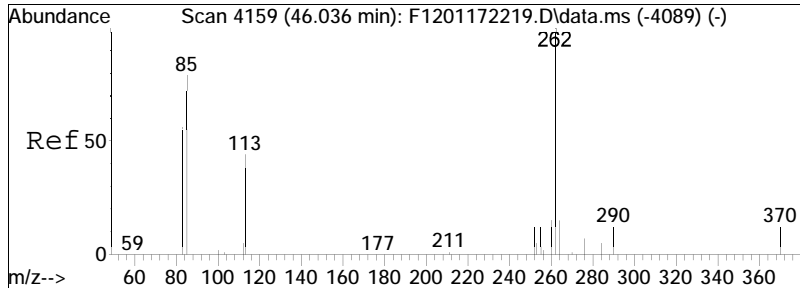
Tgt Ion: 234 Resp: 126946  
 Ion Ratio Lower Upper  
 234 100  
 189 18.6 77.6 144.0#



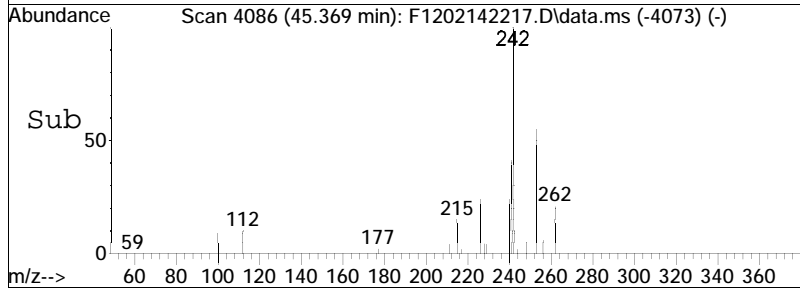
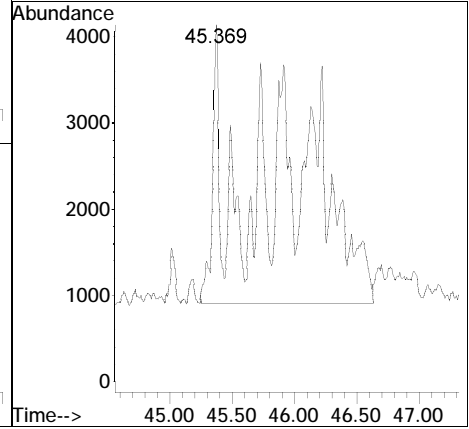
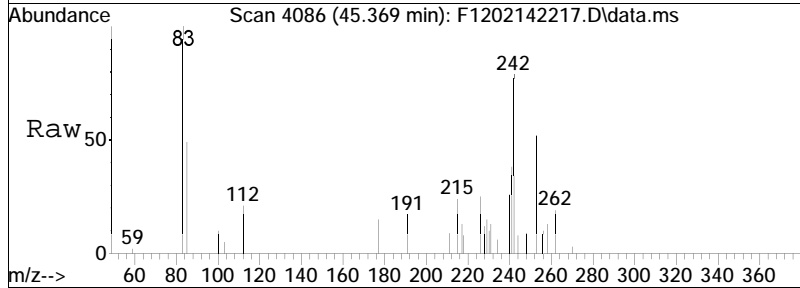


#70  
 C1-Naphthobenzothiophenes  
 Concen: 256.18 ng/ml M5  
 RT: 43.871 min Scan# 3922  
 Delta R.T. -0.031 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion:248 Resp: 112258

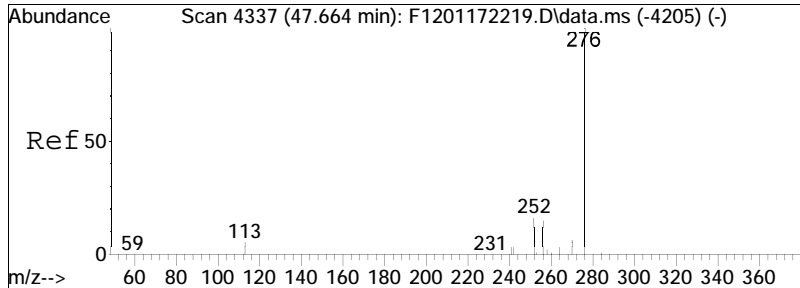




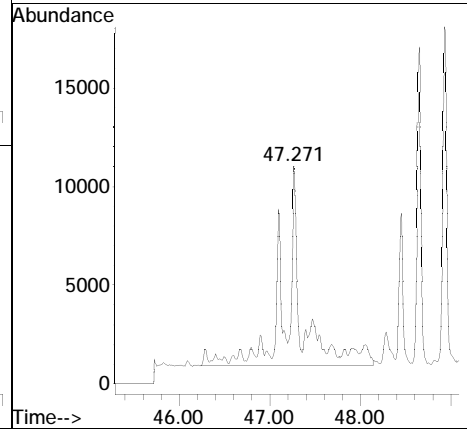
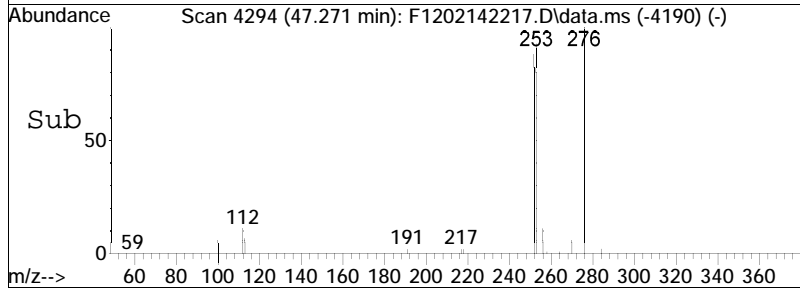
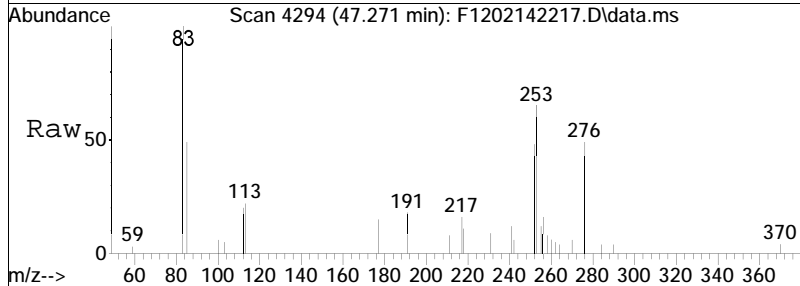
#71  
 C2-Naphthobenzothiophenes  
 Concen: 223.34 ng/ml M5  
 RT: 45.369 min Scan# 4086  
 Delta R.T. -0.528 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion: 262 Resp: 97868

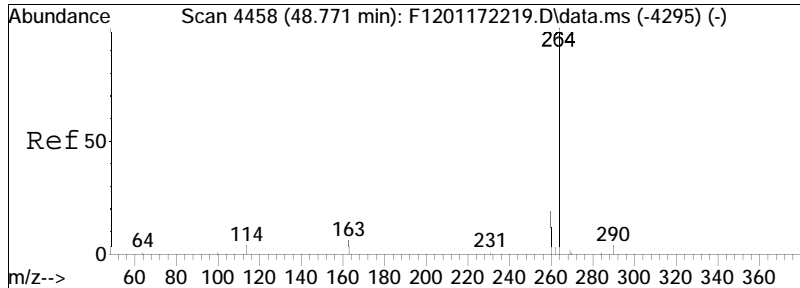




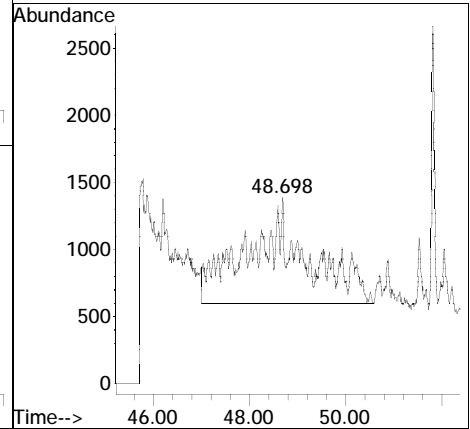
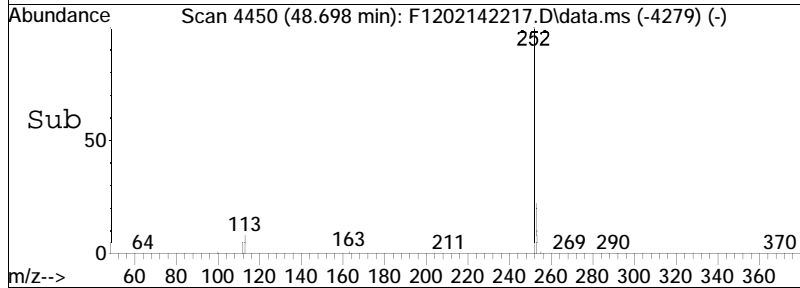
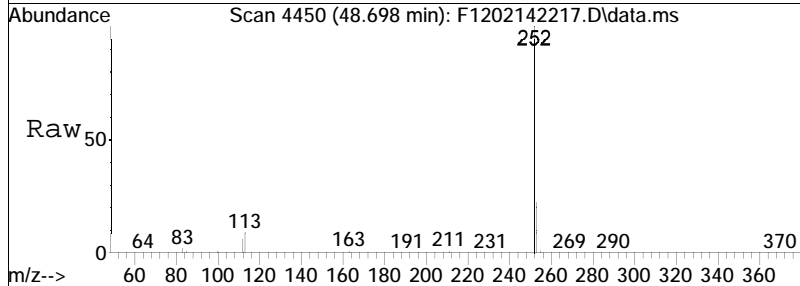


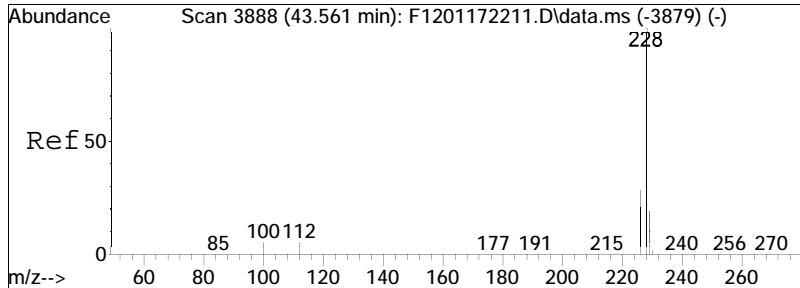
#72  
 C3-Naphthobenzothiophenes  
 Concen: 296.34 ng/ml M5  
 RT: 47.271 min Scan# 4294  
 Delta R.T. -0.249 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion: 276 Resp: 129855





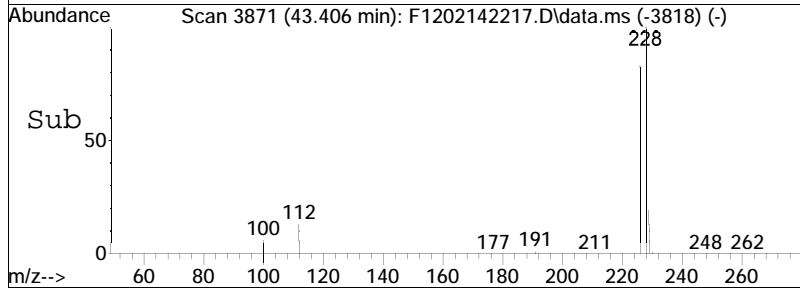
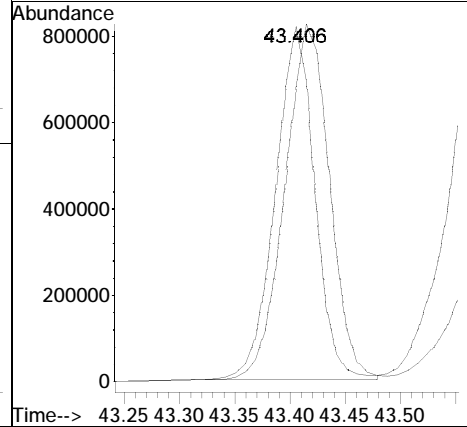
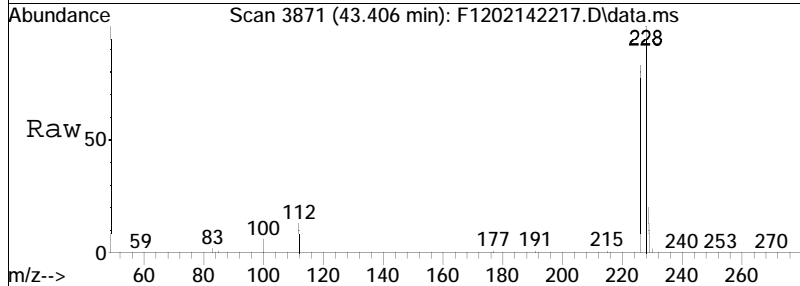
#73  
 C4-Naphthobenzothiophenes  
 Concen: 150.29 ng/mL M5  
 RT: 48.698 min Scan# 4450  
 Delta R.T. 0.074 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am  
 Tgt Ion: 290 Resp: 65856

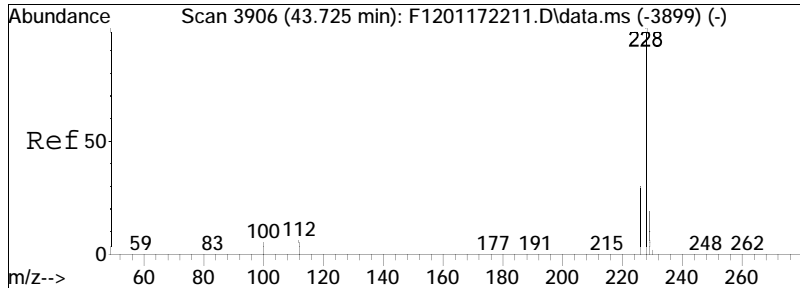




#75  
 Benz[a]anthracene  
 Concen: 5049.54 ng/mL M3  
 RT: 43.406 min Scan# 3871  
 Delta R.T. -0.018 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

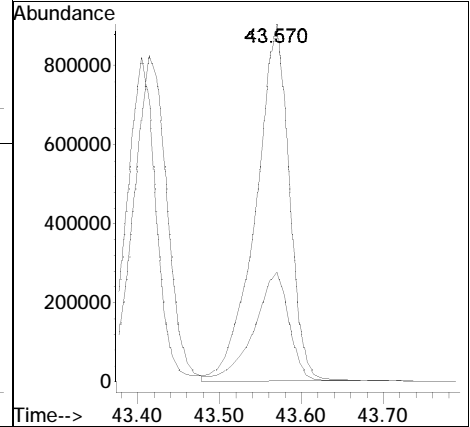
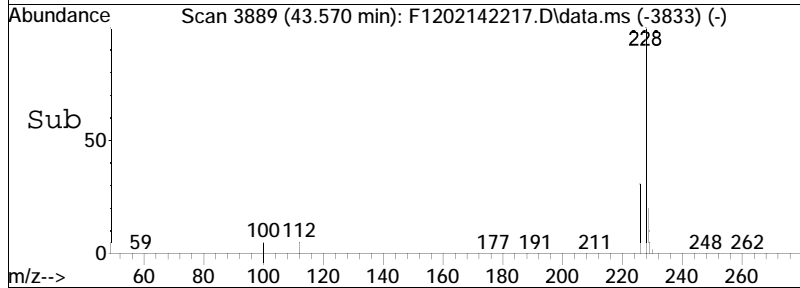
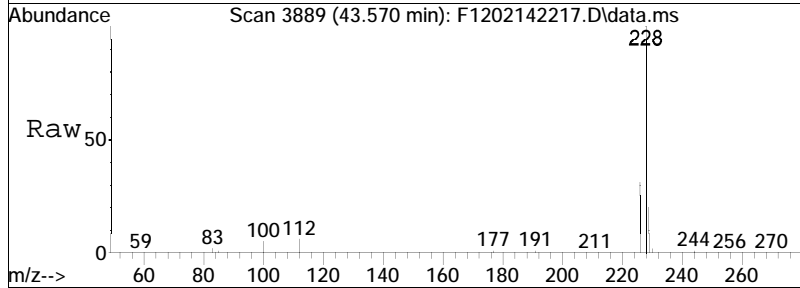
Tgt Ion	Resp	Lower	Upper
228	100		
226	39.0	19.1	35.5#

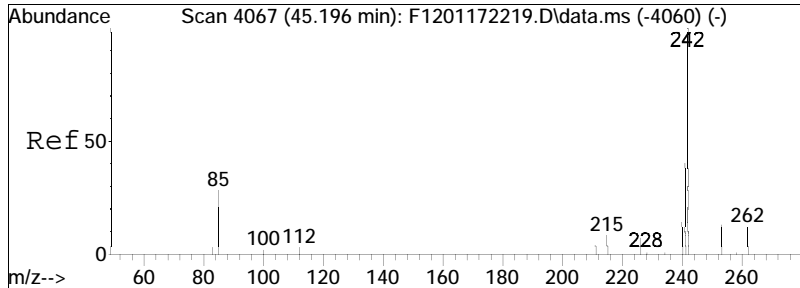




#76  
 Chrysene  
 Concen: 6415.80 ng/mL  
 RT: 43.570 min Scan# 3889  
 Delta R.T. 0.009 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

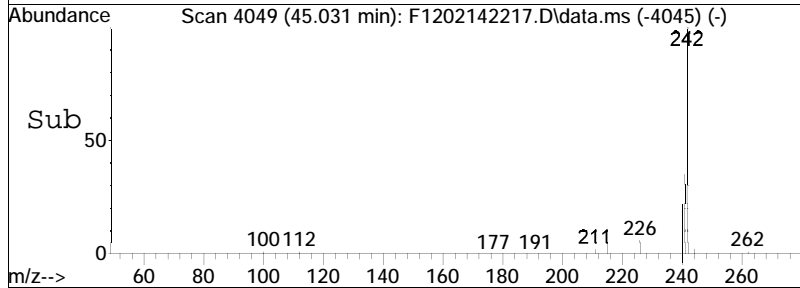
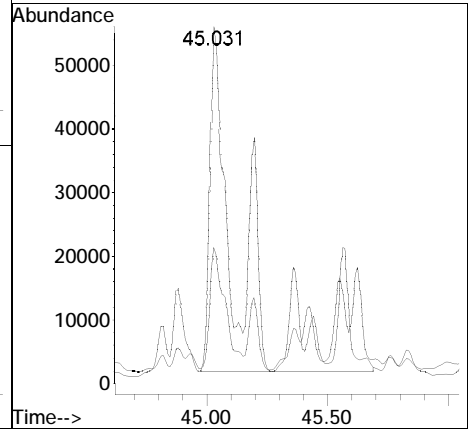
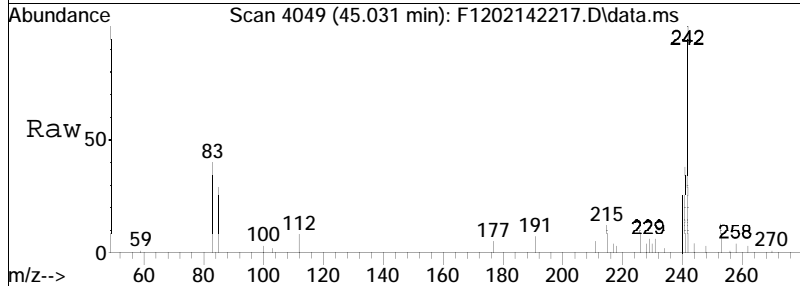
Tgt Ion: 228 Resp: 2557874  
 Ion Ratio Lower Upper  
 228 100  
 226 31.0 27.8 51.6

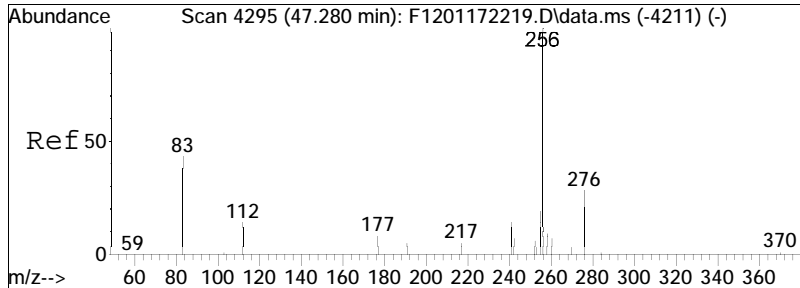




#78  
 C1-Chrysenes  
 Concen: 1161.05 ng/mL M5  
 RT: 45.031 min Scan# 4049  
 Delta R.T. -0.027 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

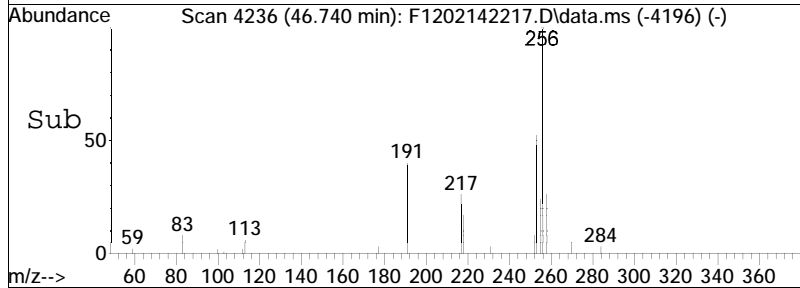
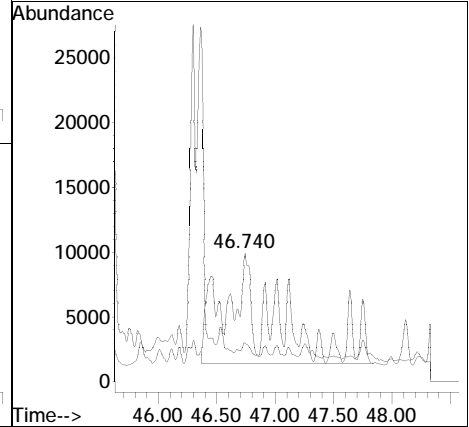
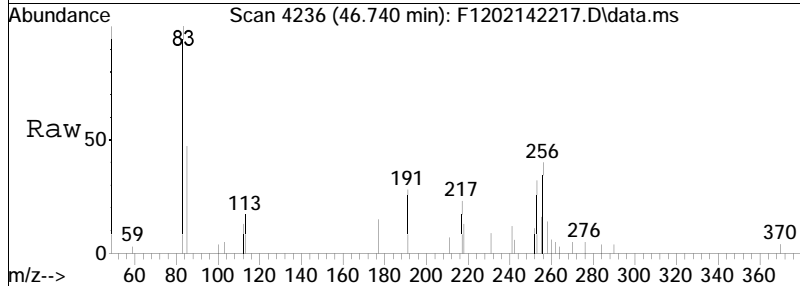
Tgt Ion: 242 Resp: 462891  
 Ion Ratio Lower Upper  
 242 100  
 241 17.7 31.9 59.2#

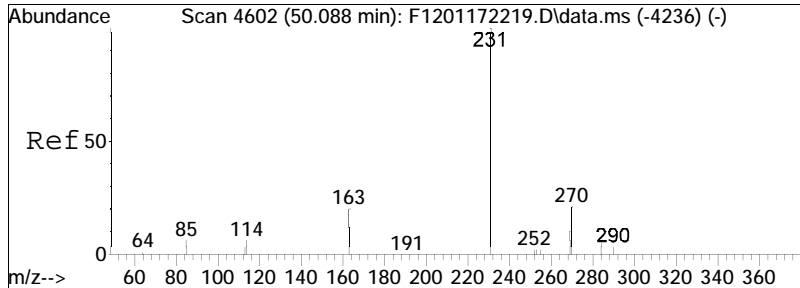




#79  
 C2-Chrysenes  
 Concen: 647.56 ng/mL M5  
 RT: 46.740 min Scan# 4236  
 Delta R.T. -0.403 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

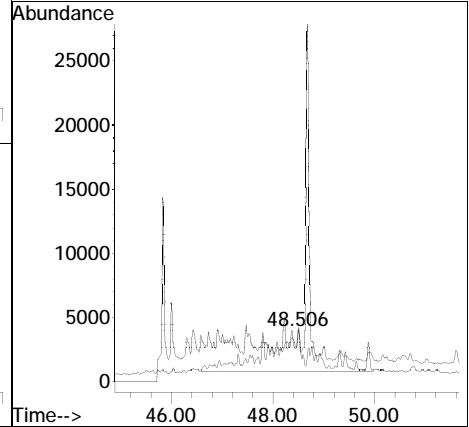
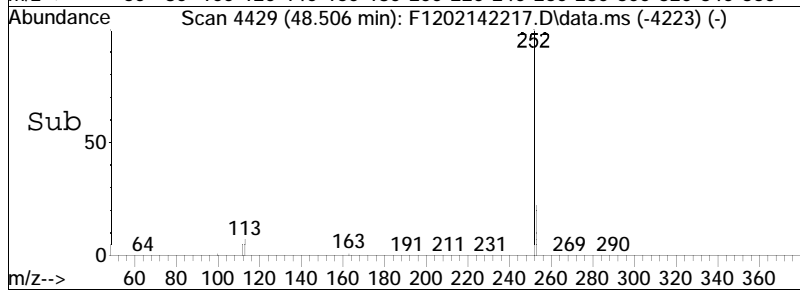
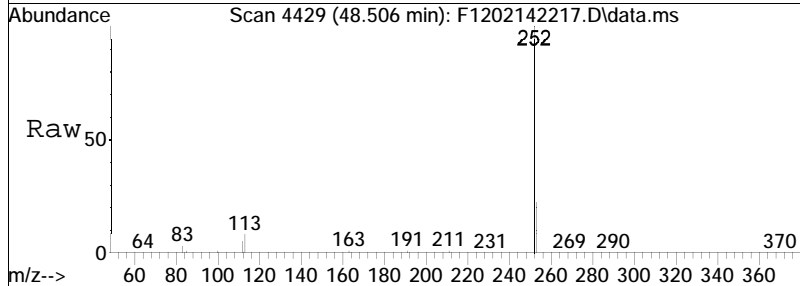
Tgt Ion	Resp	Lower	Upper
256	100		
241	1.4	25.1	46.7#

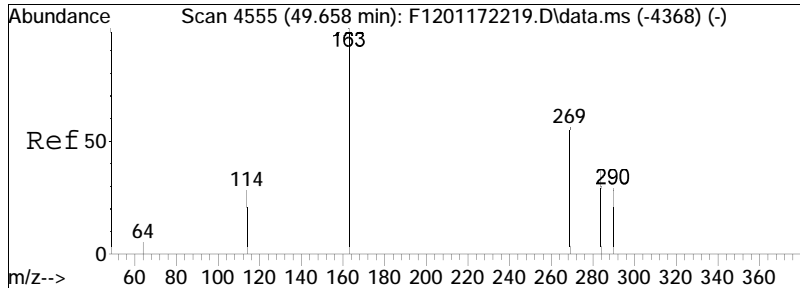




#81  
 C3-Chrysenes  
 Concen: 485.19 ng/mL M5  
 RT: 48.506 min Scan# 4429  
 Delta R.T. -1.409 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

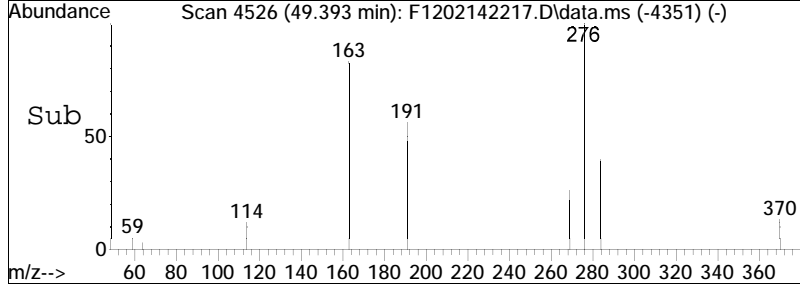
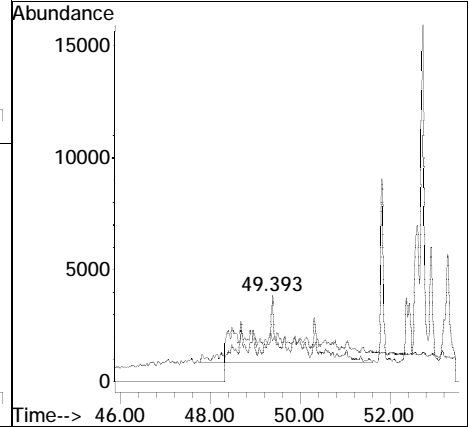
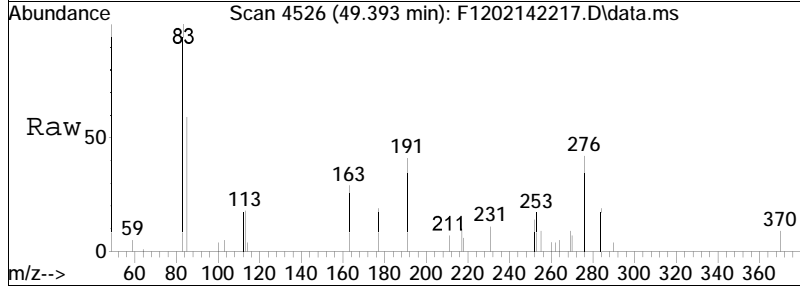
Tgt Ion	Resp	Lower	Upper
270	100		
255	0.4	40.7	75.7#



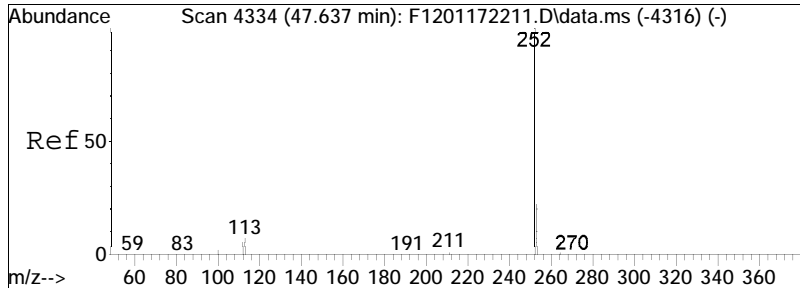


#82  
 C4-Chrysenes  
 Concen: 328.09 ng/mL M5  
 RT: 49.393 min Scan# 4526  
 Delta R.T. -0.622 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

Tgt Ion	Resp	Lower	Upper
284	100		
269	0.0	62.2	115.6#

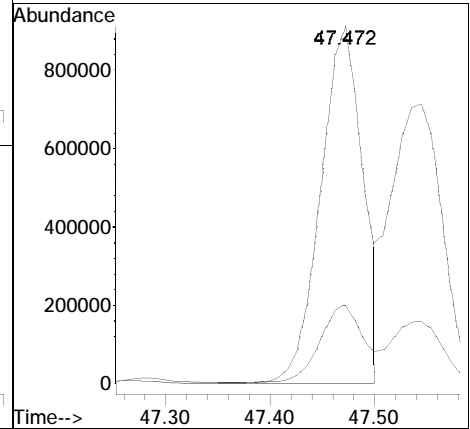
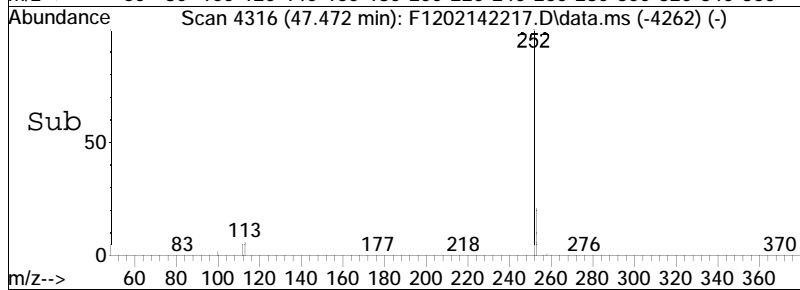
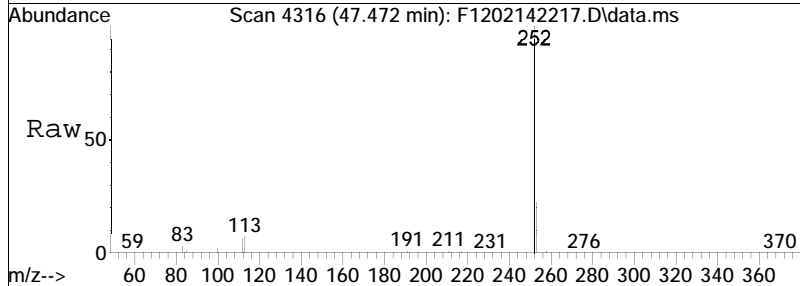


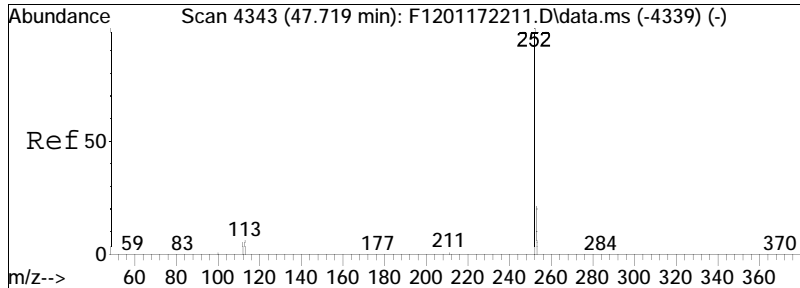




#85  
 Benzo[b]fluoranthene  
 Concen: 5651.62 ng/mL  
 RT: 47.472 min Scan# 4316  
 Delta R.T. -0.009 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

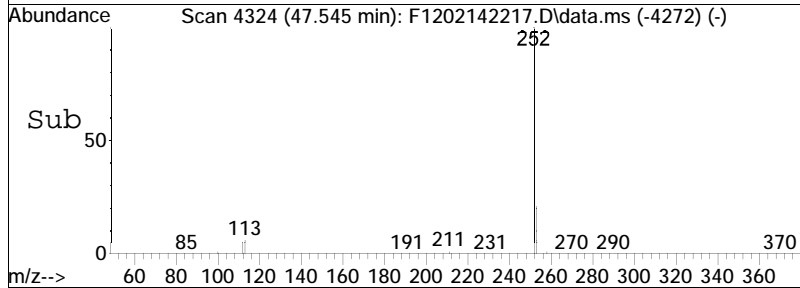
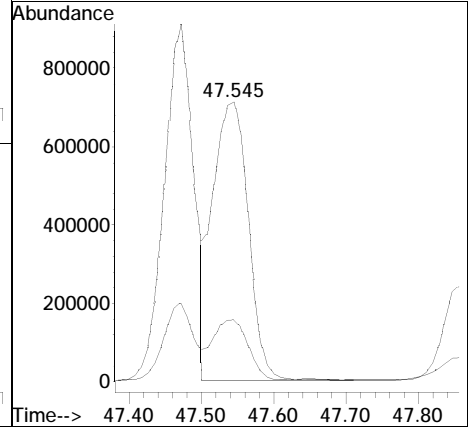
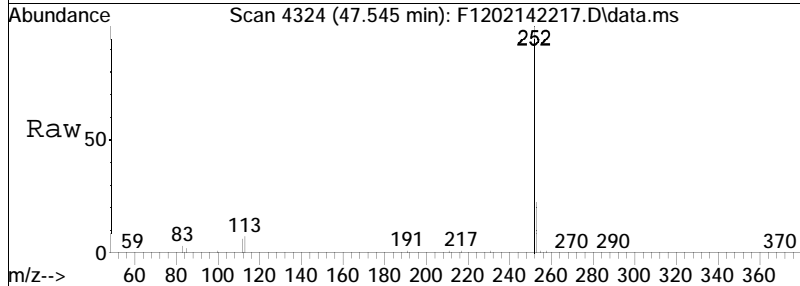
Tgt Ion: 252 Resp: 2567728  
 Ion Ratio Lower Upper  
 252 100  
 253 21.8 16.6 30.8

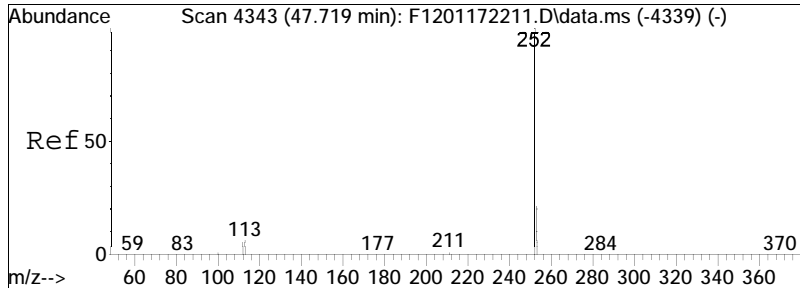




#86  
 Benzo[j]+[k]fluoranthene  
 Concen: 5184.57 ng/mL  
 RT: 47.545 min Scan# 4324  
 Delta R.T. -0.028 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

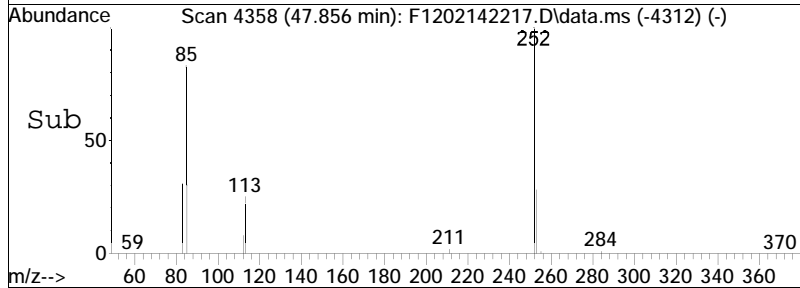
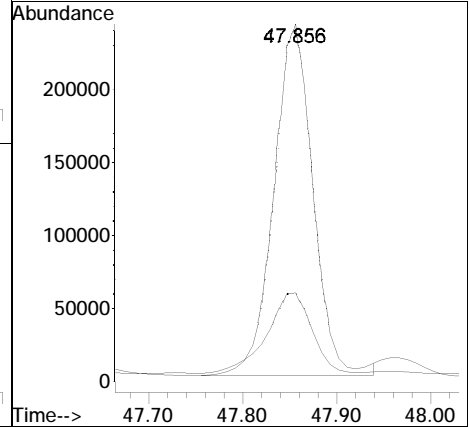
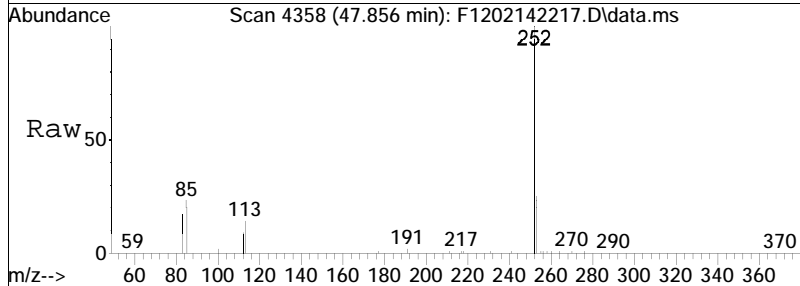
Tgt Ion: 252 Resp: 2431088  
 Ion Ratio Lower Upper  
 252 100  
 253 21.5 16.4 30.4

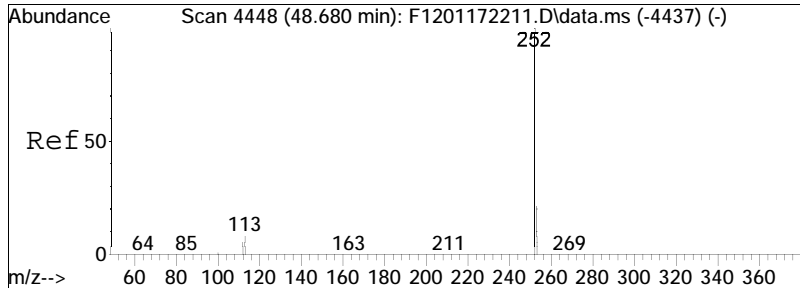




#87  
 Benzo[a]fluoranthene  
 Concen: 1472.47 ng/mL M3  
 RT: 47.856 min Scan# 4358  
 Delta R.T. -0.076 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

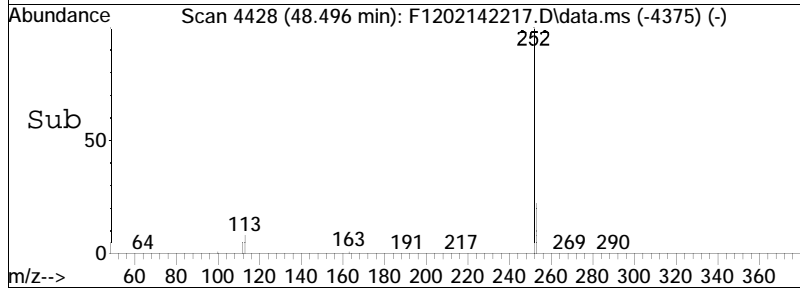
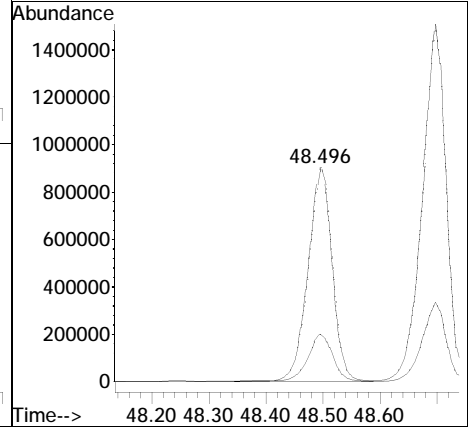
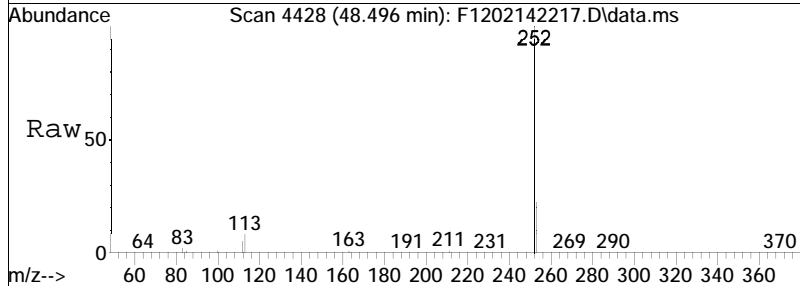
Tgt Ion	Ratio	Lower	Upper
252	100		
253	1.8	203.3	377.6#

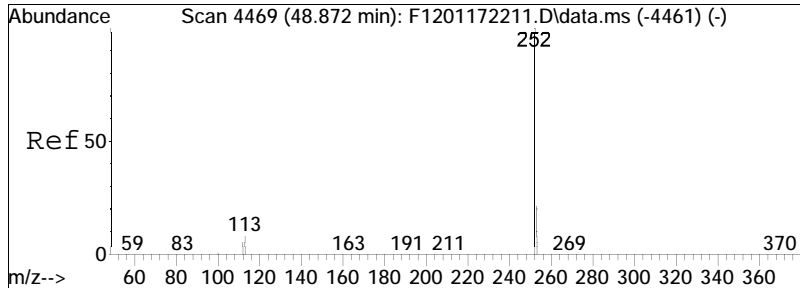




#88  
 Benzo[e]pyrene  
 Concen: 5904.60 ng/mL  
 RT: 48.496 min Scan# 4428  
 Delta R.T. -0.018 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

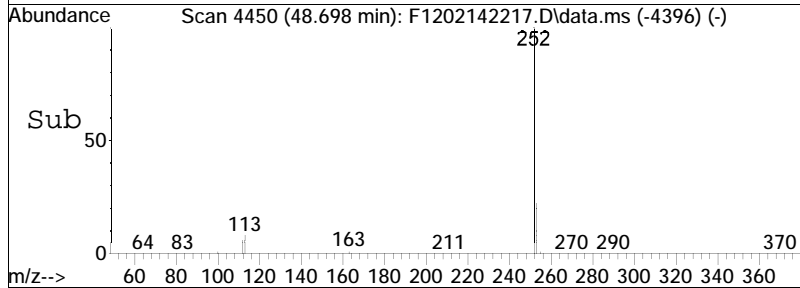
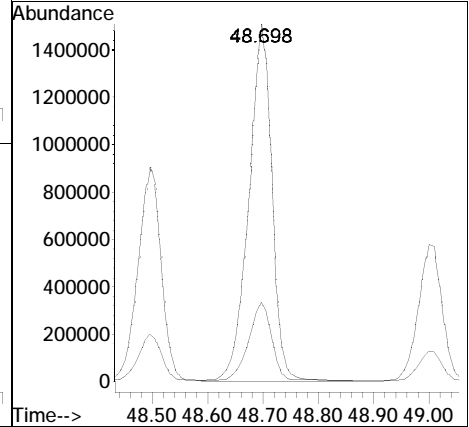
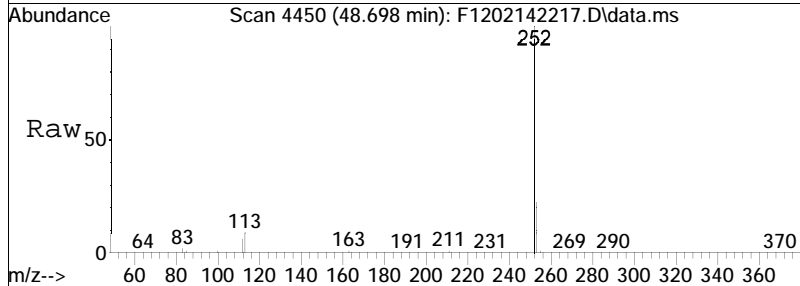
Tgt Ion: 252 Resp: 2650696  
 Ion Ratio Lower Upper  
 252 100  
 253 22.0 16.8 31.2

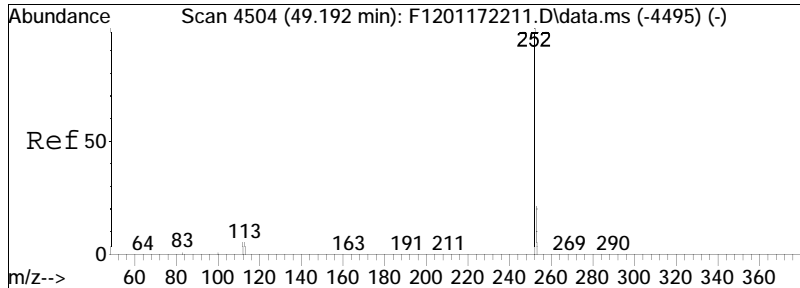




#90  
 Benzo[a]pyrene  
 Concen: 10023.28 ng/mL  
 RT: 48.698 min Scan# 4450  
 Delta R.T. -0.009 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

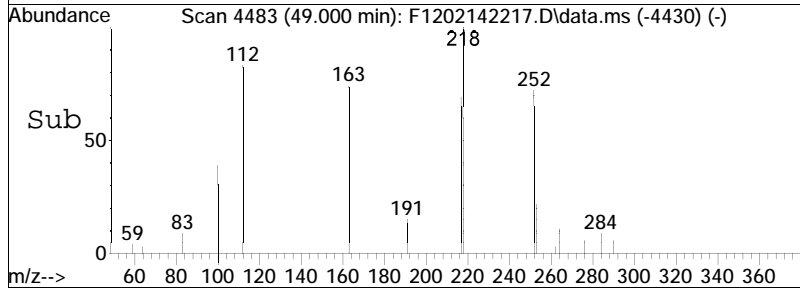
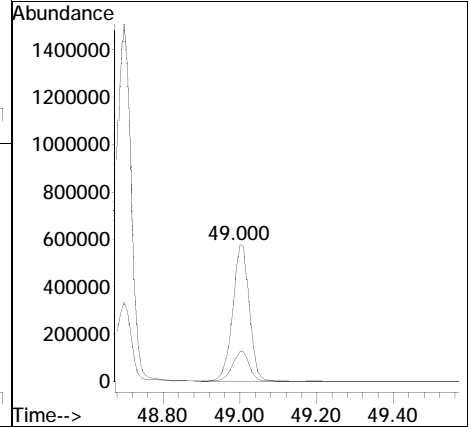
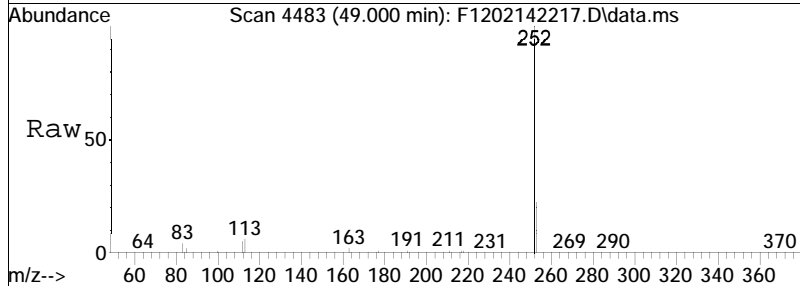
Tgt Ion	Resp	Lower	Upper
252	100		
253	22.4	16.8	31.2

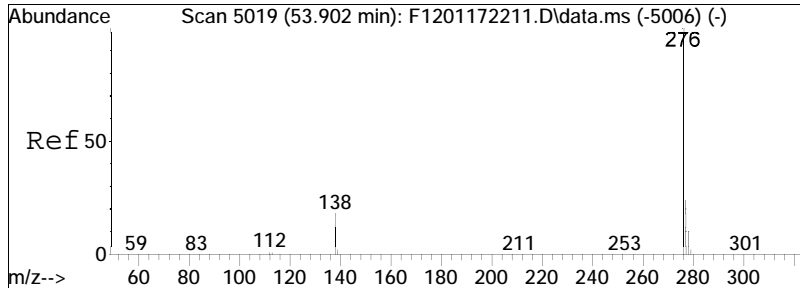




#91  
 Perylene  
 Concen: 3919.78 ng/mL  
 RT: 49.000 min Scan# 4483  
 Delta R.T. -0.018 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

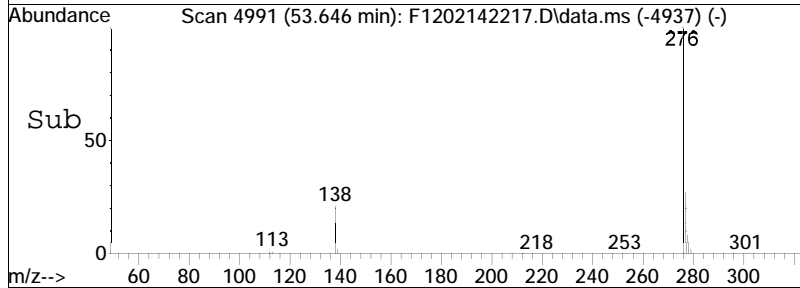
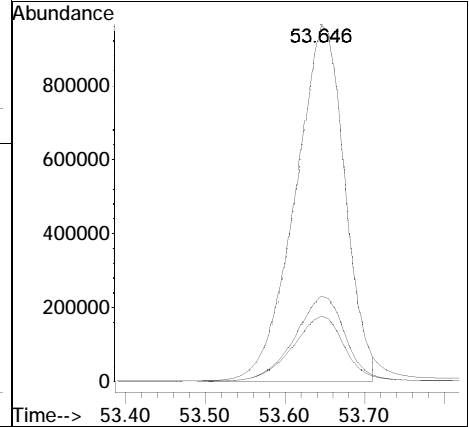
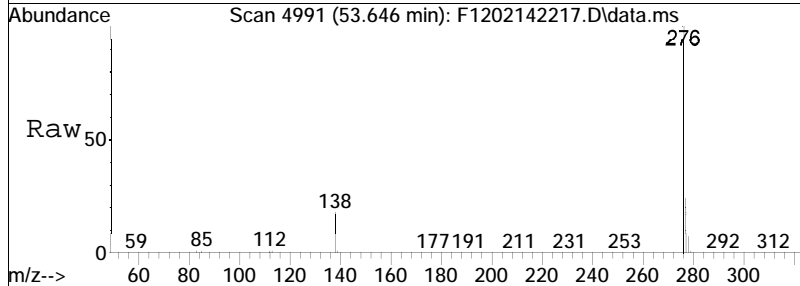
Tgt Ion: 252 Resp: 1749978  
 Ion Ratio Lower Upper  
 252 100  
 253 21.3 17.3 32.1

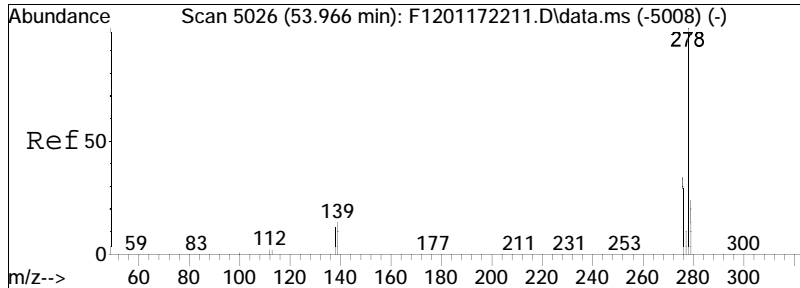




#92  
 Indeno[1,2,3-cd]pyrene  
 Concen: 6931.39 ng/mL M4  
 RT: 53.646 min Scan# 4991  
 Delta R.T. -0.009 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

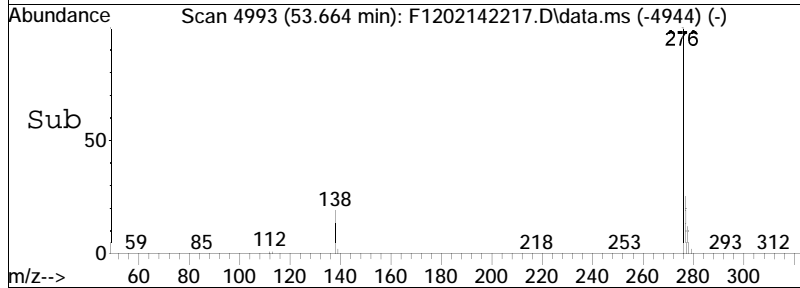
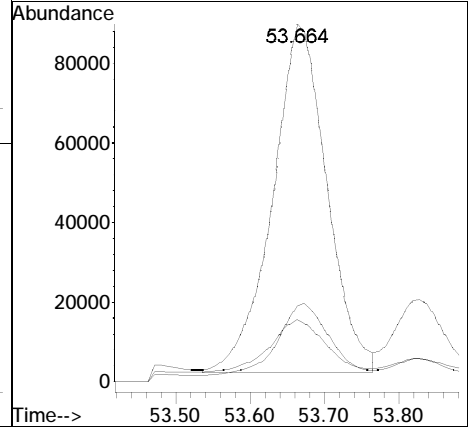
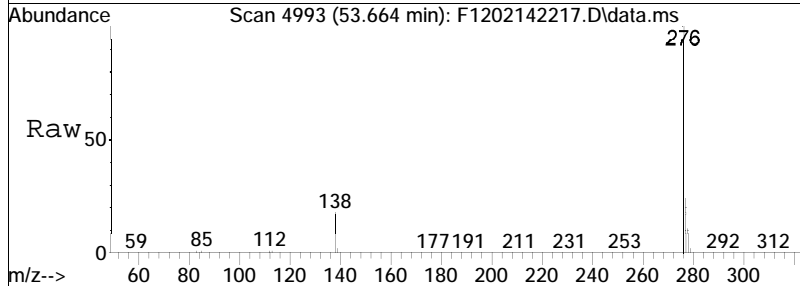
Tgt Ion	Resp	Lower	Upper
276	4135170		
138	19.6	12.2	22.7
277	24.6	16.7	30.9



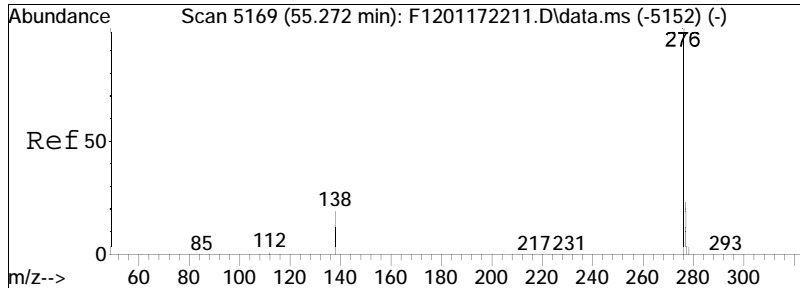


#93  
 Dibenz[ah]+[ac]anthracene  
 Concen: 846.02 ng/mL M4  
 RT: 53.664 min Scan# 4993  
 Delta R.T. -0.055 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

Tgt Ion	Resp	Lower	Upper
278	443057		
139	14.7	10.1	18.7
279	22.4	16.6	30.8

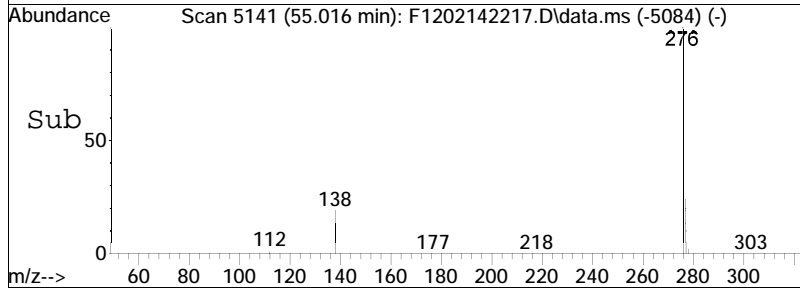
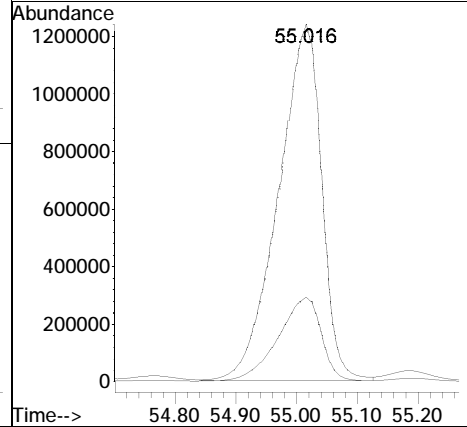
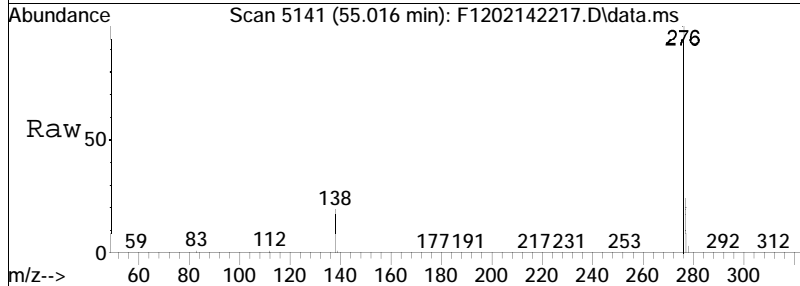






#94  
 Benzo[g,h,i]perylene  
 Concen: 11493.99 ng/mL  
 RT: 55.016 min Scan# 5141  
 Delta R.T. 0.018 min  
 Lab File: F1202142217.D  
 Acq: 15 Feb 2022 9:56 am

Tgt Ion: 276 Resp: 6066846  
 Ion Ratio Lower Upper  
 276 100  
 277 23.8 16.4 30.6



# **Analytical Event**

# **Continuing Calibration**

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142222.D  
 Acq On : 15 Feb 2022 5:46 pm  
 Operator : PAH12:MJS  
 Sample : WG1605097-4  
 Misc : WG1605097,FRBE43,ICAL18670  
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 22 12:02:41 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 i	Acenaphthene-d10	1.000	1.000	0.0	111	-0.04
2 A1	trans-Decalin	0.467	0.493	-5.6	117	-0.04
3 t	cis-Decalin	0.358	0.376	-5.0	117	-0.04
8 s	Naphthalene-d8	2.156	2.309	-7.1	114	-0.03
9 A1	Naphthalene	2.384	2.546	-6.8	113	-0.03
14 t	2-Methylnaphthalene	1.514	1.544	-2.0	111	-0.04
15 t	1-Methylnaphthalene	1.437	1.489	-3.6	112	-0.04
16 A1	Benzothiophene	2.017	2.142	-6.2	112	-0.03
21 t	Biphenyl	1.853	1.918	-3.5	111	-0.03
22 t	2,6-Dimethylnaphthalene	1.290	1.318	-2.2	111	-0.05
23 t	Dibenzofuran	1.976	2.065	-4.5	111	-0.03
24 t	Acenaphthylene	2.275	2.295	-0.9	108	-0.03
25 t	Acenaphthene	1.439	1.497	-4.0	111	-0.03
26 t	2,3,5-Trimethylnaphthalene	1.237	1.248	-0.9	109	-0.03
27 A1	Fluorene	1.592	1.613	-1.3	109	-0.03
31 A1	Dibenzothiophene	2.297	2.312	-0.7	109	-0.03
40 s	Phenanthrene-d10	1.806	1.871	-3.6	112	-0.04
41 A1	Phenanthrene	2.347	2.451	-4.4	112	-0.03
52 t	Retene	0.778	0.741	4.8	107	-0.04
53 t	Anthracene	2.187	2.218	-1.4	107	-0.04
54 t	Carbazole	2.270	2.086	8.1	108	-0.04
55 t	1-Methylphenanthrene	1.577	1.568	0.6	109	-0.05
56 A1	Fluoranthene	2.354	2.353	0.0	109	-0.04
57 A1	Benzo(b)fluorene	1.483	1.451	2.2	108	-0.04
59 A1	Pyrene	2.443	2.456	-0.5	110	-0.04
67 A1	Napthobenzothiophene-2,1-D	2.449	2.442	0.3	111	-0.04
74 i	Chrysene-d12	1.000	1.000	0.0	113	-0.05
75 t	Benz[a]anthracene	1.208	1.197	0.9	112	-0.04
76 A1	Chrysene	1.195	1.222	-2.3	114	0.00
77 A2	Chrysene/Triphenylene	1.195	1.222	-2.3	114	0.00
84 s	Benzo[b]fluoranthene-d12	1.163	1.121	3.6	109	-0.04
85 t	Benzo[b]fluoranthene	1.362	1.267	7.0	104	-0.04
86 A1	Benzo[j]+[k]fluoranthene	1.406	1.374	2.3	110	-0.04
88 t	Benzo[e]pyrene	1.346	1.276	5.2	107	-0.05
89 s	Benzo[a]pyrene-d12	0.880	0.835	5.1	107	-0.05
90 t	Benzo[a]pyrene	1.305	1.197	8.3	105	-0.05
91 t	Perylene	1.339	1.237	7.6	106	-0.04
92 t	Indeno[1,2,3-cd]pyrene	1.789	1.669	6.7	110	-0.05

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142222.D  
 Acq On : 15 Feb 2022 5:46 pm  
 Operator : PAH12:MJS  
 Sample : WG1605097-4  
 Misc : WG1605097,FRBE43,ICAL18670  
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 22 12:02:41 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 25% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
93 t Dibenz[ah]+[ac]anthracene	1.570	1.420	9.6	103	-0.05
94 t Benzo[g,h,i]perylene	1.583	1.419	10.4	104	-0.06
95 A1 Hopane (T19)	0.341	0.353	-3.5	118	-0.05
129 SA1 5B(H)Cholane - Surr	0.180	0.185	-2.8	119	-0.05

\* Evaluation of CC level amount vs concentration.  
 (#) = Out of Range SPCC's out = 0 CCC's out = 0

Mass Discrimination (Concentration)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	0.86	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.15	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142222.D  
 Acq On : 15 Feb 2022 5:46 pm  
 Operator : PAH12:MJS  
 Sample : WG1605097-4  
 Misc : WG1605097,FRBE43,ICAL18670  
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 22 12:02:41 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	26.986	164	77595M4	500.000	ng/mL	-0.04	
74) Chrysene-d12	43.451	240	153618	500.000	ng/mL	-0.05	
System Monitoring Compounds							
8) Naphthalene-d8	20.014	136	179132	535.430	ng/mL	-0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	53.54%	
40) Phenanthrene-d10	32.862	188	145189	517.957	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	51.80%	
84) Benzo[b]fluoranthene-d12	47.362	264	172149	481.942	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	48.19%#	
89) Benzo[a]pyrene-d12	48.570	264	128204	474.219	ng/mL	-0.05	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	47.42%#	
129) 5B(H)Cholane - Surr	44.072	217	28457	514.767	ng/ml	-0.05	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	51.48%	
Target Compounds							
2) trans-Decalin	16.656	138	19125	264.041	ng/mL	100	Qvalue
3) cis-Decalin	17.879	138	14604	262.714	ng/mL	100	
9) Naphthalene	20.087	128	197580	534.097	ng/mL	100	
14) 2-Methylnaphthalene	22.779	142	119819	510.030	ng/mL	100	
15) 1-Methylnaphthalene	23.208	142	115502	517.959	ng/mL	100	
16) Benzothiophene	20.306	134	166241	531.154	ng/mL	100	
21) Biphenyl	24.668	154	148864	517.665	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.270	156	102271	511.043	ng/mL	100	
23) Dibenzofuran	27.752	168	160252	522.650	ng/mL	88	
24) Acenaphthylene	26.374	152	178057	504.325	ng/mL	100	
25) Acenaphthene	27.114	153	116188	520.167	ng/mL	100	
26) 2,3,5-Trimethylnaphthalen	28.665	170	96873	504.511	ng/mL	97	
27) Fluorene	29.130	166	125163M4	506.514	ng/mL		
31) Dibenzothiophene	32.460	184	179416	503.359	ng/mL#	84	
41) Phenanthrene	32.953	178	190193	522.141	ng/mL	96	
52) Retene	39.936	234	57516	476.459	ng/mL	95	
53) Anthracene	33.126	178	172079	506.967	ng/mL	100	
54) Carbazole	33.792	167	161850	459.409	ng/mL	100	
55) 1-Methylphenanthrene	35.454	192	121699	497.283	ng/mL	94	
56) Fluoranthene	37.727	202	182558M4	499.779	ng/mL		
57) Benzo(b)fluorene	40.247	216	112568	489.051	ng/mL	67	
59) Pyrene	38.612	202	190581	502.756	ng/mL#	74	
67) Naphthobenzothiophene-2,1	42.465	234	189492	498.647	ng/mL#	64	
75) Benz[a]anthracene	43.387	228	183831	495.219	ng/mL	100	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142222.D  
 Acq On : 15 Feb 2022 5:46 pm  
 Operator : PAH12:MJS  
 Sample : WG1605097-4  
 Misc : WG1605097,FRBE43,ICAL18670  
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 22 12:02:41 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.552	228	187772	511.291	ng/mL	83
77) Chrysene/Triphenylene	43.552	228	187772	511.291	ng/mL	83
85) Benzo[b]fluoranthene	47.445	252	194598	464.973	ng/mL	96
86) Benzo[j]+[k]fluoranthene	47.536	252	211056	488.624	ng/mL	95
88) Benzo[e]pyrene	48.469	252	196062	474.121	ng/mL	95
90) Benzo[a]pyrene	48.661	252	183869	458.549	ng/mL	95
91) Perylene	48.981	252	189974	461.943	ng/mL	93
92) Indeno[1,2,3-cd]pyrene	53.600	276	256402M3	466.567	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.664	278	218139M4	452.190	ng/mL	
94) Benzo[g,h,i]perylene	54.934	276	218023	448.410	ng/mL	100
95) Hopane (T19)	52.695	191	54254	518.007	ng/mL#	88

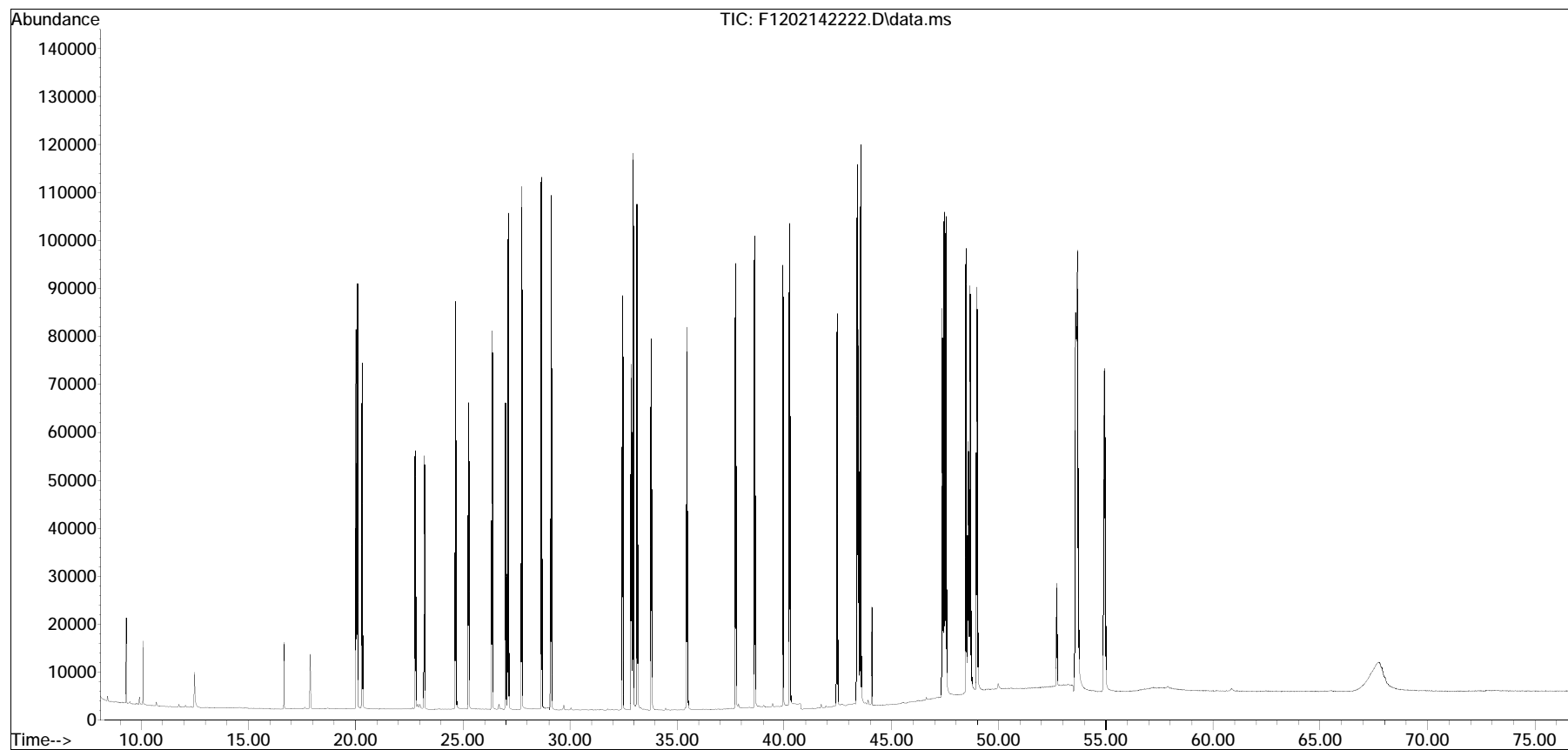
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
Data File : F1202142222.D  
Acq On : 15 Feb 2022 5:46 pm  
Operator : PAH12:MJS  
Sample : WG1605097-4  
Misc : WG1605097,FRBE43,ICAL18670  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 22 12:02:41 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Wed Feb 09 13:46:27 2022  
Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates





Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142225.D  
 Acq On : 15 Feb 2022 10:00 pm  
 Operator : PAH12:MJS  
 Sample : WG1605097-5  
 Misc : WG1605097,FRBE43,ICAL18670  
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 22 12:04:27 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 i	Acenaphthene-d10	1.000	1.000	0.0	115	-0.04
2 A1	trans-Decalin	0.467	0.489	-4.7	120	-0.04
3 t	cis-Decalin	0.358	0.374	-4.5	121	-0.04
8 s	Naphthalene-d8	2.156	2.285	-6.0	117	-0.03
9 A1	Naphthalene	2.384	2.511	-5.3	116	-0.03
14 t	2-Methylnaphthalene	1.514	1.538	-1.6	114	-0.04
15 t	1-Methylnaphthalene	1.437	1.479	-2.9	116	-0.04
16 A1	Benzothiophene	2.017	2.127	-5.5	115	-0.03
21 t	Biphenyl	1.853	1.903	-2.7	114	-0.03
22 t	2,6-Dimethylnaphthalene	1.290	1.326	-2.8	115	-0.05
23 t	Dibenzofuran	1.976	2.061	-4.3	114	-0.03
24 t	Acenaphthylene	2.275	2.337	-2.7	114	-0.03
25 t	Acenaphthene	1.439	1.489	-3.5	114	-0.03
26 t	2,3,5-Trimethylnaphthalene	1.237	1.265	-2.3	115	-0.03
27 A1	Fluorene	1.592	1.630	-2.4	114	-0.03
31 A1	Dibenzothiophene	2.297	2.299	-0.1	113	-0.04
40 s	Phenanthrene-d10	1.806	1.867	-3.4	116	-0.04
41 A1	Phenanthrene	2.347	2.439	-3.9	115	-0.03
52 t	Retene	0.778	0.776	0.3	116	-0.04
53 t	Anthracene	2.187	2.271	-3.8	114	-0.04
54 t	Carbazole	2.270	2.132	6.1	114	-0.04
55 t	1-Methylphenanthrene	1.577	1.583	-0.4	115	-0.05
56 A1	Fluoranthene	2.354	2.400	-2.0	115	-0.04
57 A1	Benzo(b)fluorene	1.483	1.522	-2.6	117	-0.04
59 A1	Pyrene	2.443	2.513	-2.9	116	-0.04
67 A1	Napthobenzothiophene-2,1-D	2.449	2.464	-0.6	116	-0.04
74 i	Chrysene-d12	1.000	1.000	0.0	118	-0.05
75 t	Benz[a]anthracene	1.208	1.209	-0.1	118	-0.04
76 A1	Chrysene	1.195	1.214	-1.6	118	0.00
77 A2	Chrysene/Triphenylene	1.195	1.214	-1.6	118	0.00
84 s	Benzo[b]fluoranthene-d12	1.163	1.182	-1.6	120	-0.04
85 t	Benzo[b]fluoranthene	1.362	1.346	1.2	115	-0.04
86 A1	Benzo[j]+[k]fluoranthene	1.406	1.428	-1.6	119	-0.04
88 t	Benzo[e]pyrene	1.346	1.336	0.7	117	-0.05
89 s	Benzo[a]pyrene-d12	0.880	0.897	-1.9	120	-0.05
90 t	Benzo[a]pyrene	1.305	1.278	2.1	117	-0.05
91 t	Perylene	1.339	1.321	1.3	118	-0.04
92 t	Indeno[1,2,3-cd]pyrene	1.789	1.764	1.4	121	-0.05

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142225.D  
 Acq On : 15 Feb 2022 10:00 pm  
 Operator : PAH12:MJS  
 Sample : WG1605097-5  
 Misc : WG1605097,FRBE43,ICAL18670  
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 22 12:04:27 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 25% Max. Rel. Area : 200%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
93 t Dibenz[ah]+[ac]anthracene	1.570	1.507	4.0	114	-0.05
94 t Benzo[g,h,i]perylene	1.583	1.500	5.2	114	-0.05
95 A1 Hopane (T19)	0.341	0.366	-7.3	128	-0.05
129 SA1 5B(H)Cholane - Surr	0.180	0.186	-3.3	124	-0.05

\* Evaluation of CC level amount vs concentration.  
 (#) = Out of Range SPCC's out = 0 CCC's out = 0

Mass Discrimination (Concentration)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	0.91	0.70 - 1.30

Mass Discrimination (Response)	Ratio	Range Limits
Benzo[g,h,i]perylene to Phenanthrene	1.23	0.70 - 2.00

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142225.D  
 Acq On : 15 Feb 2022 10:00 pm  
 Operator : PAH12:MJS  
 Sample : WG1605097-5  
 Misc : WG1605097,FRBE43,ICAL18670  
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 22 12:04:27 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	26.986	164	80404M4	500.000	ng/mL	-0.04	
74) Chrysene-d12	43.451	240	160399	500.000	ng/mL	-0.05	
System Monitoring Compounds							
8) Naphthalene-d8	20.014	136	183736	530.005	ng/mL	-0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	53.00%	
40) Phenanthrene-d10	32.862	188	150116	516.825	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	51.68%	
84) Benzo[b]fluoranthene-d12	47.362	264	189639	508.462	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	50.85%	
89) Benzo[a]pyrene-d12	48.570	264	143826	509.513	ng/mL	-0.05	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	50.95%	
129) 5B(H)Cholane - Surr	44.072	217	29793	516.151	ng/ml	-0.05	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	51.62%	
Target Compounds							
2) trans-Decalin	16.656	138	19648	261.784	ng/mL	100	Qvalue
3) cis-Decalin	17.879	138	15053	261.331	ng/mL	100	
9) Naphthalene	20.087	128	201917	526.752	ng/mL	100	
14) 2-Methylnaphthalene	22.779	142	123642	507.916	ng/mL	100	
15) 1-Methylnaphthalene	23.208	142	118943	514.755	ng/mL	100	
16) Benzothiophene	20.306	134	171002	527.278	ng/mL	100	
21) Biphenyl	24.668	154	152998	513.454	ng/mL	100	
22) 2,6-Dimethylnaphthalene	25.270	156	106625	514.186	ng/mL	100	
23) Dibenzofuran	27.752	168	165708	521.563	ng/mL	88	
24) Acenaphthylene	26.374	152	187912	513.644	ng/mL	100	
25) Acenaphthene	27.114	153	119719	517.250	ng/mL	100	
26) 2,3,5-Trimethylnaphthalen	28.665	170	101696	511.126	ng/mL	97	
27) Fluorene	29.130	166	131083M4	511.939	ng/mL		
31) Dibenzothiophene	32.451	184	184814	500.389	ng/mL#	85	
41) Phenanthrene	32.953	178	196087	519.515	ng/mL	96	
52) Retene	39.936	234	62367	498.595	ng/mL	96	
53) Anthracene	33.126	178	182565	519.069	ng/mL	99	
54) Carbazole	33.792	167	171415	469.560	ng/mL	100	
55) 1-Methylphenanthrene	35.454	192	127314	502.053	ng/mL	95	
56) Fluoranthene	37.727	202	192966M4	509.816	ng/mL		
57) Benzo(b)fluorene	40.247	216	122409	513.226	ng/mL	67	
59) Pyrene	38.612	202	202017	514.306	ng/mL#	74	
67) Naphthobenzothiophene-2,1	42.465	234	198078	503.031	ng/mL#	64	
75) Benz[a]anthracene	43.387	228	193974	500.452	ng/mL	100	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142225.D  
 Acq On : 15 Feb 2022 10:00 pm  
 Operator : PAH12:MJS  
 Sample : WG1605097-5  
 Misc : WG1605097,FRBE43,ICAL18670  
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 22 12:04:27 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Chrysene	43.552	228	194690	507.716	ng/mL	84
77) Chrysene/Triphenylene	43.552	228	194690	507.716	ng/mL	84
85) Benzo[b]fluoranthene	47.445	252	215926	494.123	ng/mL	96
86) Benzo[j]+[k]fluoranthene	47.536	252	229077	507.925	ng/mL	96
88) Benzo[e]pyrene	48.469	252	214218	496.126	ng/mL	96
90) Benzo[a]pyrene	48.661	252	205036	489.720	ng/mL	95
91) Perylene	48.981	252	211808	493.261	ng/mL	94
92) Indeno[1,2,3-cd]pyrene	53.600	276	282875M3	492.978	ng/mL	
93) Dibenz[ah]+[ac]anthracene	53.664	278	241771M4	479.990	ng/mL	
94) Benzo[g,h,i]perylene	54.943	276	240543	473.812	ng/mL	100
95) Hopane (T19)	52.695	191	58715	536.900	ng/mL#	88

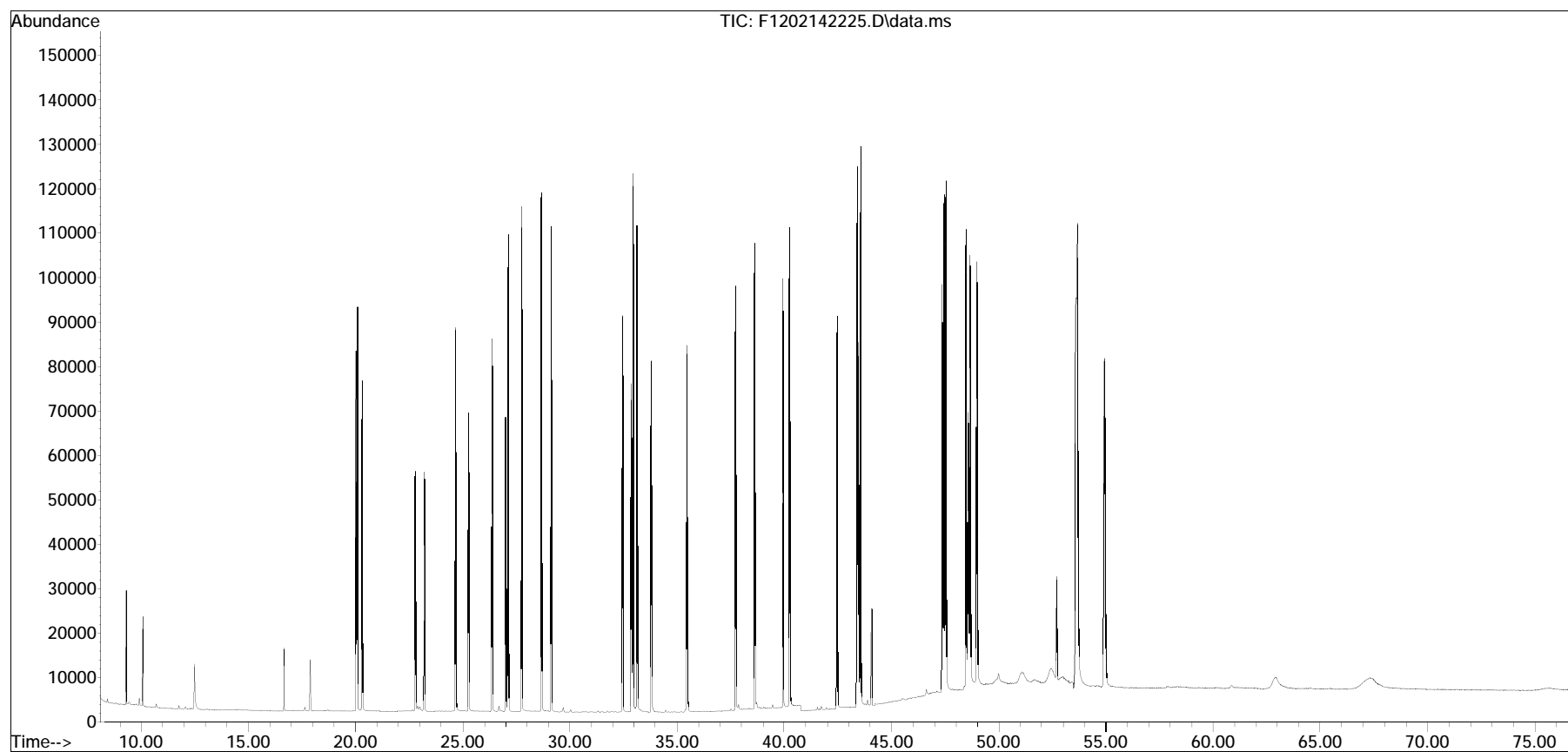
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
Data File : F1202142225.D  
Acq On : 15 Feb 2022 10:00 pm  
Operator : PAH12:MJS  
Sample : WG1605097-5  
Misc : WG1605097,FRBE43,ICAL18670  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 22 12:04:27 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Wed Feb 09 13:46:27 2022  
Response via : Initial Calibration

Sub List : ALKPAH\_CCV - CC with five surrogates



# Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142223.D  
 Acq On : 15 Feb 2022 7:11 pm  
 Operator : PAH12:MJS  
 Sample : L2206076-08D,32,2  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 22 12:09:00 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_LCS\_QC - LCS\_spike compounds

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	26.986	164	78802M4	500.000	ng/mL	-0.04	
74) Chrysene-d12	43.461	240	165630	500.000	ng/mL	-0.04	
System Monitoring Compounds							
8) Naphthalene-d8	20.005	136	66684	196.267	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	19.63%#	
40) Phenanthrene-d10	32.862	188	65561	230.304	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	23.03%#	
84) Benzo[b]fluoranthene-d12	47.362	264	84474	219.339	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	21.93%#	
89) Benzo[a]pyrene-d12	48.579	264	63707	218.558	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	21.86%#	
129) 5B(H)Cholane - Surr	0.000	217	0d	0.000	ng/ml		
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.00%#	
Target Compounds							
56) Fluoranthene	37.736	202	3723396M4	10037.199	ng/mL		Qvalue
59) Pyrene	38.622	202	5133661M3	13335.259	ng/mL		

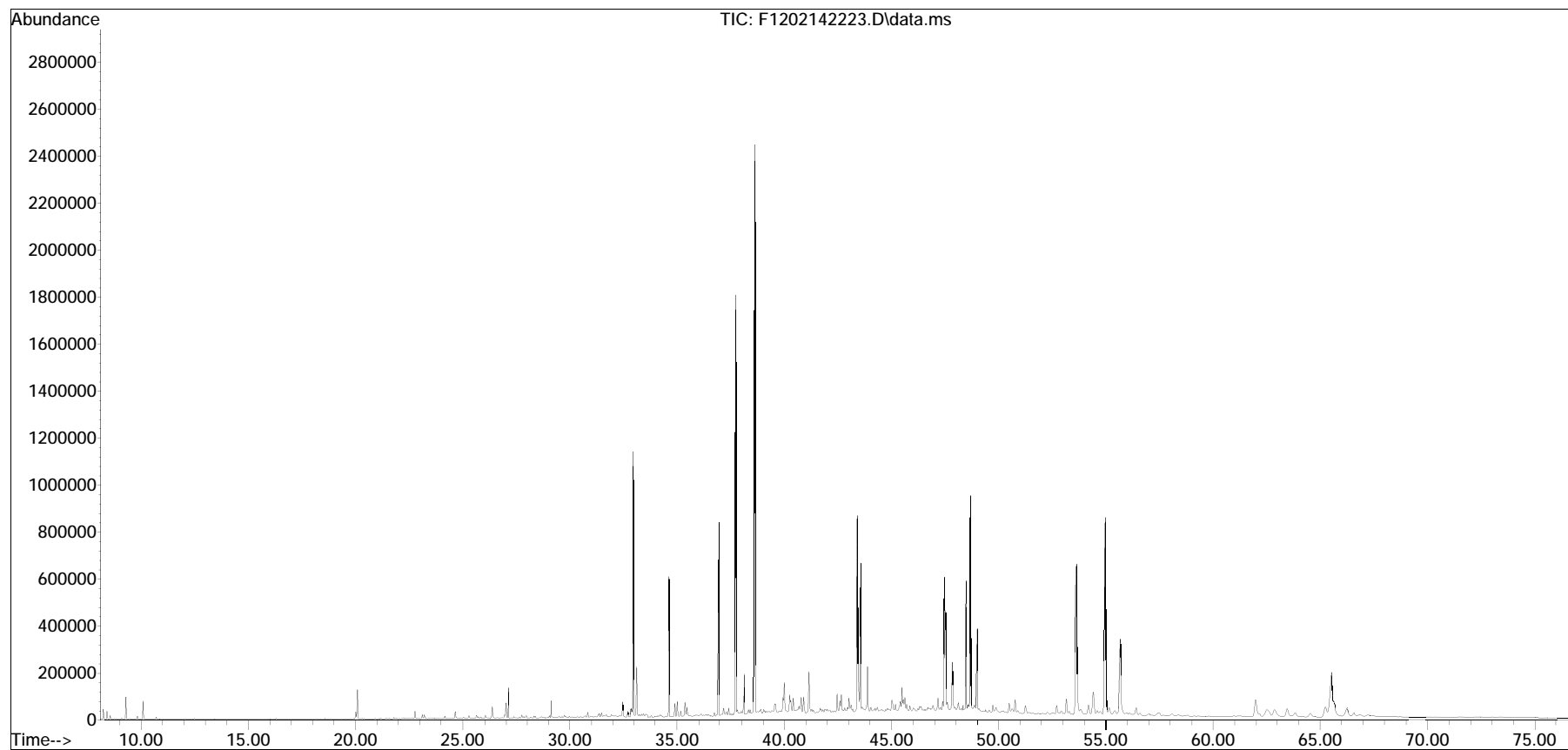
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

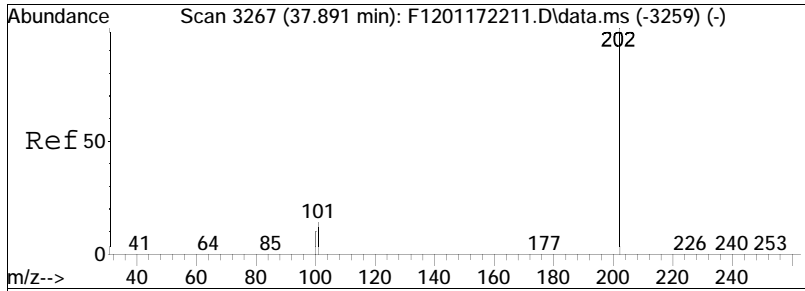
Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
Data File : F1202142223.D  
Acq On : 15 Feb 2022 7:11 pm  
Operator : PAH12:MJS  
Sample : L2206076-08D,32,2  
Misc : WG1605097,WG1603644,ICAL18670  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 22 12:09:00 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Wed Feb 09 13:46:27 2022  
Response via : Initial Calibration

Sub List : ALKPAH\_LCS\_QC - LCS\_spike compounds

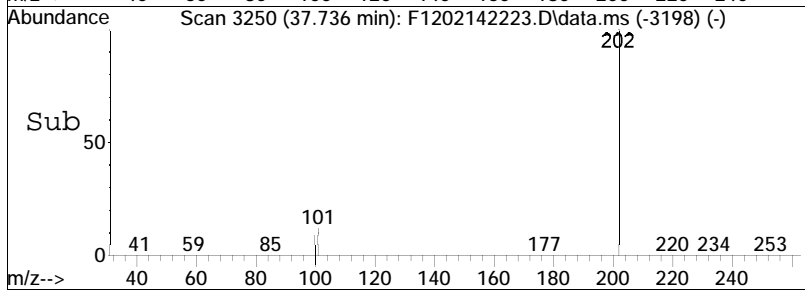
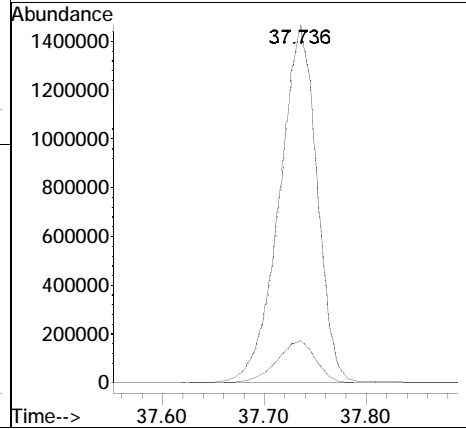
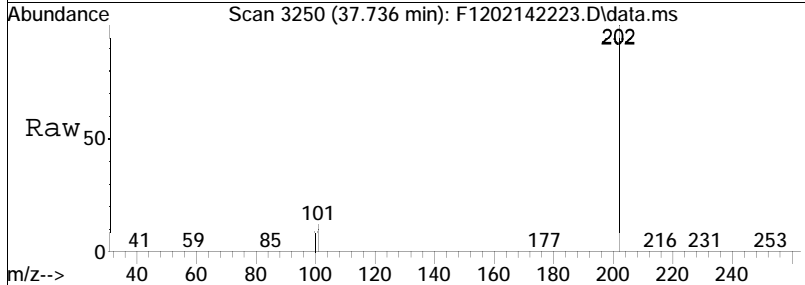


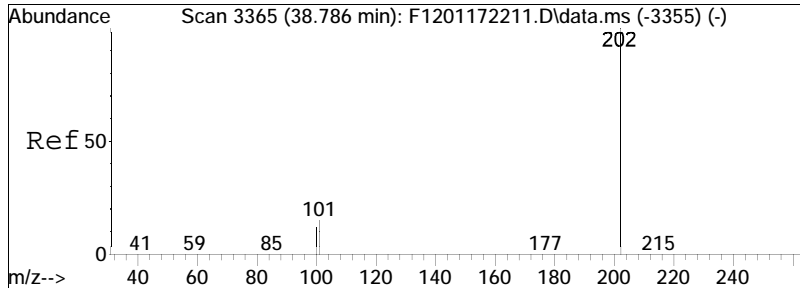




#56  
 Fluoranthene  
 Concen: 10037.20 ng/mL M4  
 RT: 37.736 min Scan# 3250  
 Delta R.T. -0.027 min  
 Lab File: F1202142223.D  
 Acq: 15 Feb 2022 7:11 pm

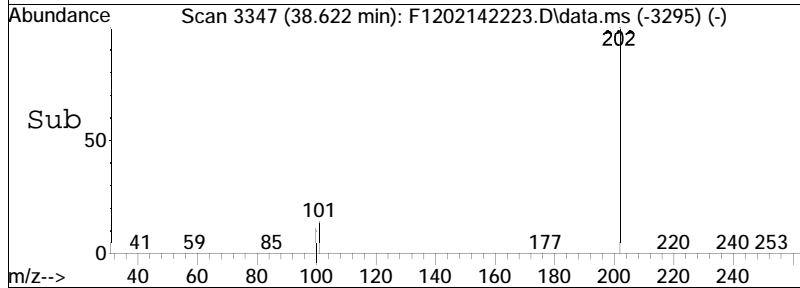
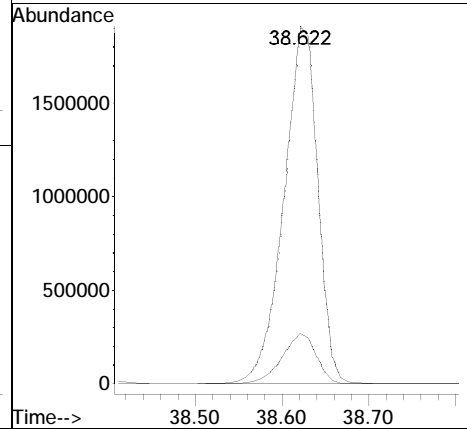
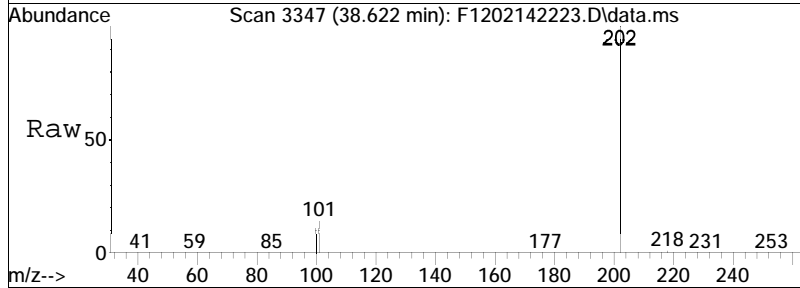
Tgt Ion: 202 Resp: 3723396  
 Ion Ratio Lower Upper  
 202 100  
 101 12.5 8.4 15.6





#59  
 Pyrene  
 Concen: 13335.26 ng/mL M3  
 RT: 38.622 min Scan# 3347  
 Delta R.T. -0.027 min  
 Lab File: F1202142223.D  
 Acq: 15 Feb 2022 7:11 pm

Tgt Ion	Ratio	Lower	Upper
202	100		
101	0.1	21.0	39.0#



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142224.D  
 Acq On : 15 Feb 2022 8:36 pm  
 Operator : PAH12:MJS  
 Sample : L2206076-07D,32,2  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 22 12:10:16 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_LCS\_QC - LCS\_spike compounds

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	26.986	164	78796M4	500.000	ng/mL	-0.04	
74) Chrysene-d12	43.460	240	157247	500.000	ng/mL	-0.04	
System Monitoring Compounds							
8) Naphthalene-d8	20.005	136	334124	983.483	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	98.35%	
40) Phenanthrene-d10	32.862	188	319850	1123.663	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	112.37%	
84) Benzo[b]fluoranthene-d12	47.371	264	385057	1053.113	ng/mL	-0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	105.31%	
89) Benzo[a]pyrene-d12	48.588	264	290738	1050.604	ng/mL	-0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	105.06%	
129) 5B(H)Cholane - Surr	0.000	217	0d	0.000	ng/ml		
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.00%#	
Target Compounds							
56) Fluoranthene	37.736	202	3887334M4	10479.926	ng/mL		Qvalue
59) Pyrene	38.631	202	5139270	13350.846	ng/mL#	71	

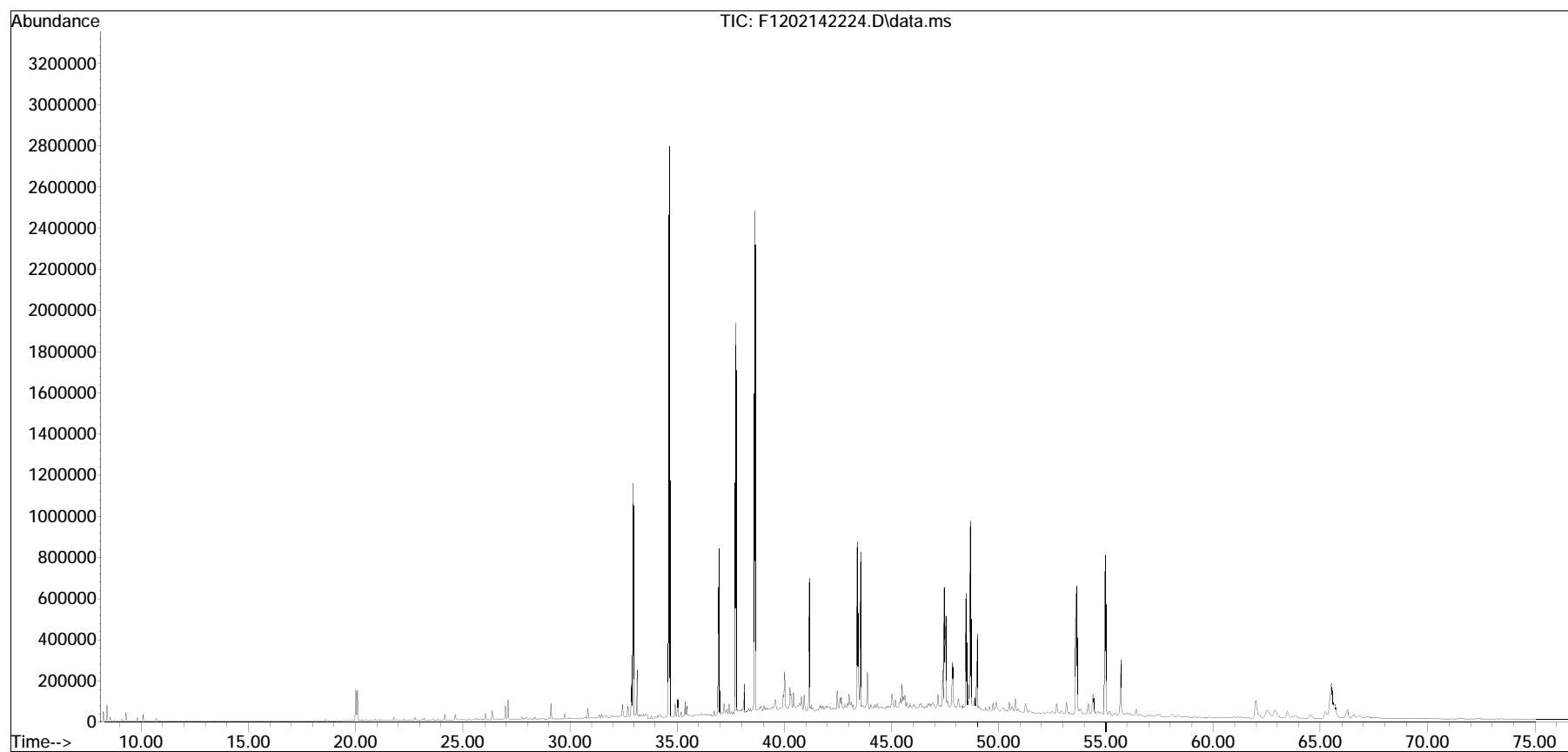
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 (#) = qualifier out of range (m) = manual integration (+) = signals summed

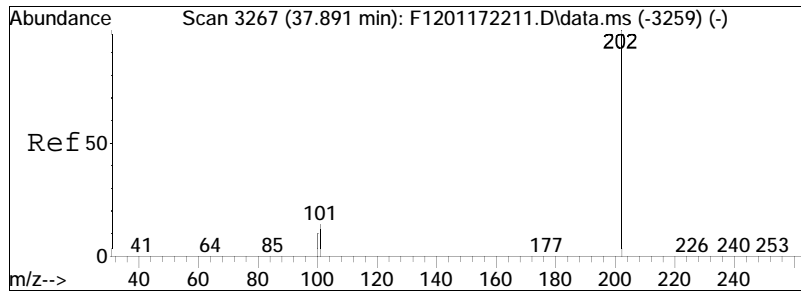
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
Data File : F1202142224.D  
Acq On : 15 Feb 2022 8:36 pm  
Operator : PAH12:MJS  
Sample : L2206076-07D,32,2  
Misc : WG1605097,WG1603644,ICAL18670  
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 22 12:10:16 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Wed Feb 09 13:46:27 2022  
Response via : Initial Calibration

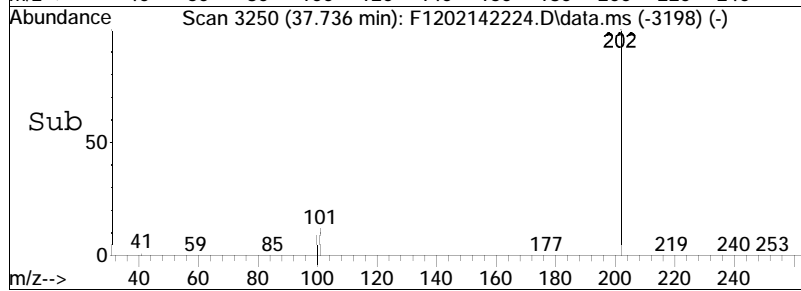
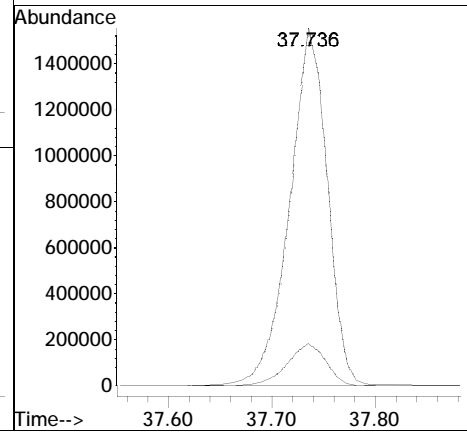
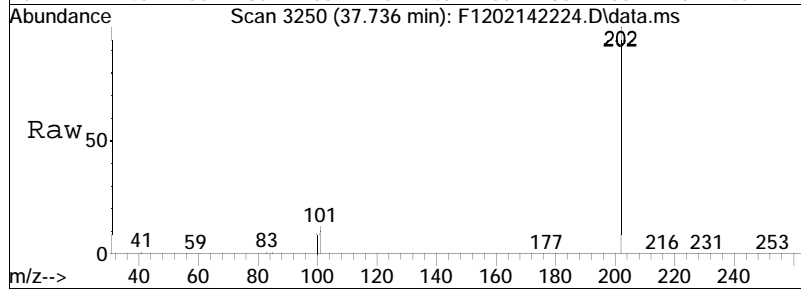
Sub List : ALKPAH\_LCS\_QC - LCS\_spike compounds

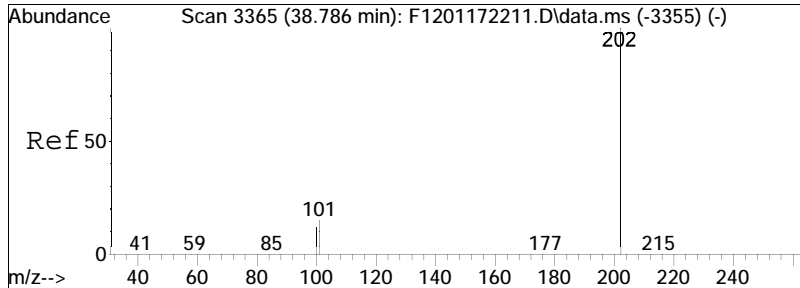




#56  
 Fluoranthene  
 Concen: 10479.93 ng/mL M4  
 RT: 37.736 min Scan# 3250  
 Delta R.T. -0.027 min  
 Lab File: F1202142224.D  
 Acq: 15 Feb 2022 8:36 pm

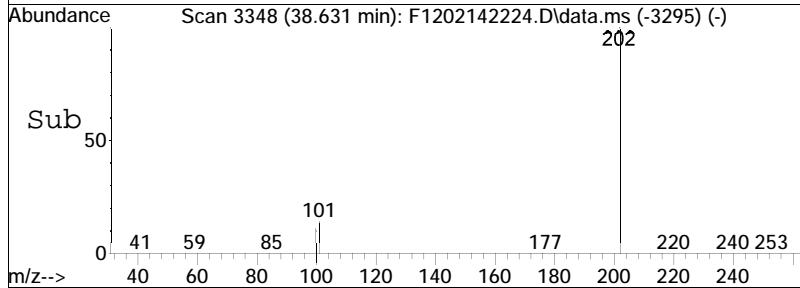
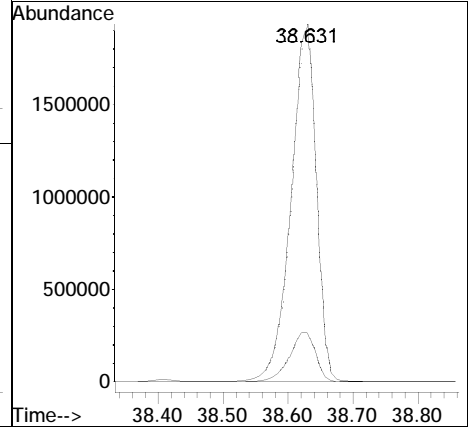
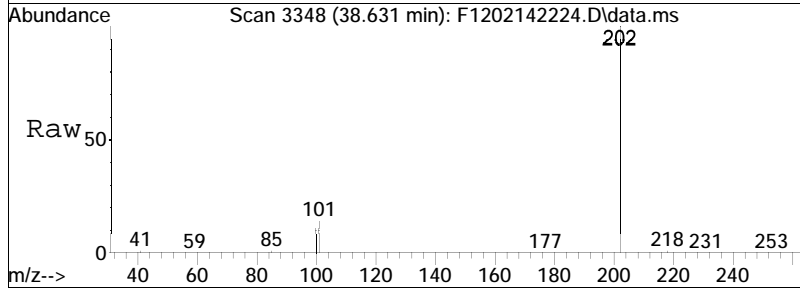
Tgt Ion: 202 Resp: 3887334  
 Ion Ratio Lower Upper  
 202 100  
 101 12.6 8.4 15.6





#59  
 Pyrene  
 Concen: 13350.85 ng/mL  
 RT: 38.631 min Scan# 3348  
 Delta R.T. -0.018 min  
 Lab File: F1202142224.D  
 Acq: 15 Feb 2022 8:36 pm

Tgt Ion: 202 Resp: 5139270  
 Ion Ratio Lower Upper  
 202 100  
 101 14.5 21.0 39.0#



# **Batch Quality Control**

# **Method Blank Raw Data**



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142206.D  
 Acq On : 14 Feb 2022 6:19 pm  
 Operator : PAH12:MJS  
 Sample : wgl603644-1,32,,  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 21 15:15:38 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	26.986	164	81074M4	500.000	ng/mL	-0.04	
74) Chrysene-d12	43.461	240	156949	500.000	ng/mL	-0.04	
System Monitoring Compounds							
8) Naphthalene-d8	20.005	136	150644	430.957	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	43.10%#	
40) Phenanthrene-d10	32.862	188	132696	453.075	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	45.31%#	
84) Benzo[b]fluoranthene-d12	47.372	264	162307	444.745	ng/mL	-0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	44.47%#	
89) Benzo[a]pyrene-d12	48.579	264	114794	415.604	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	41.56%#	
Target Compounds							
							Qvalue
2) trans-Decalin	0.000		0		N.D.		
3) cis-Decalin	0.000		0		N.D.		
4) C1-Decalins	0.000		0		N.D.		
5) C2-Decalins	0.000		0		N.D.		
6) C3-Decalins	0.000		0		N.D.		
7) C4-Decalins	0.000		0		N.D.		
9) Naphthalene	20.087	128	474	1.226	ng/mL	100	
10) C1-Naphthalenes	22.779	142	460M5	1.190	ng/mL		
11) C2-Naphthalenes	0.000		0		N.D. d		
12) C3-Naphthalenes	0.000		0		N.D.		
13) C4-Naphthalenes	0.000		0		N.D.		
14) 2-Methylnaphthalene	22.779	142	215	0.876	ng/mL	100	
15) 1-Methylnaphthalene	23.199	142	139	0.597	ng/mL	100	
16) Benzothiophene	0.000		0		N.D. d		
17) C1-Benzo(b)thiophenes	0.000		0		N.D. d		
18) C2-Benzo(b)thiophenes	0.000		0		N.D.		
19) C3-Benzo(b)thiophenes	0.000		0		N.D.		
20) C4-Benzo(b)thiophenes	0.000		0		N.D.		
21) Biphenyl	24.668	154	265	0.882	ng/mL	100	
22) 2,6-Dimethylnaphthalene	0.000		0		N.D. d		
23) Dibenzofuran	27.752	168	188	0.587	ng/mL#	36	
24) Acenaphthylene	0.000		0		N.D.		
25) Acenaphthene	0.000		0		N.D. d		
26) 2,3,5-Trimethylnaphthalen	0.000		0		N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142206.D  
 Acq On : 14 Feb 2022 6:19 pm  
 Operator : PAH12:MJS  
 Sample : wgl603644-1,32,,  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 21 15:15:38 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
27) Fluorene	29.130	166	138M4	0.534	ng/mL	
28) C1-Fluorenes	0.000		0	N.D.		
29) C2-Fluorenes	0.000		0	N.D.		
30) C3-Fluorenes	0.000		0	N.D.	d	
31) Dibenzothiophene	32.460	184	203	0.545	ng/mL#	62
32) 4-Methyldibenzothiophene(	0.000		0	N.D.	d	
33) 2/3-Methyldibenzothiophen	0.000		0	N.D.	d	
34) 1-Methyldibenzothiophene(	0.000		0	N.D.	d	
36) C1-Dibenzothiophenes	0.000		0	N.D.	d	
36) C1-Dibenzothiophenes BS	0.000		0d	0.000	ng/mL	
37) C2-Dibenzothiophenes	0.000		0	N.D.		
38) C3-Dibenzothiophenes	0.000		0	N.D.		
39) C4-Dibenzothiophenes	0.000		0	N.D.		
41) Phenanthrene	32.953	178	597M3	1.569	ng/mL	
42) 3-Methylphenanthrene(3MP)	0.000		0	N.D.	d	
43) 2-Methylphenanthrene(2MP)	0.000		0	N.D.	d	
44) 2-Methylanthracene(2MA)	0.000		0	N.D.	d	
45) 9/4-Methylphenanthrene(9M	0.000		0	N.D.		
47) C1-Phenanthrenes/Anthrace	0.000		0	N.D.	d	
48) C2-Phenanthrenes/Anthrace	0.000		0	N.D.	d	
48) C2-Phenanthrenes/Anthr BS	0.000		0d	0.000	ng/mL	
50) C3-Phenanthrenes/Anthrace	0.000		0	N.D.		
51) C4-Phenanthrenes/Anthrace	0.000		0	N.D.		
52) Retene	39.936	234	74M2	0.587	ng/mL	
53) Anthracene	33.135	178	155	0.437	ng/mL#	58
54) Carbazole	33.802	167	286	0.777	ng/mL#	64
55) 1-Methylphenanthrene	0.000		0	N.D.		
56) Fluoranthene	37.727	202	338M4	0.886	ng/mL	
57) Benzo(b)fluorene	40.247	216	115	0.478	ng/mL	94
58) 7H-Benzo(c)fluorene	0.000		0	N.D.	d	
59) Pyrene	38.622	202	314	0.793	ng/mL#	45
60) 2-Methylpyrene	0.000		0	N.D.	d	
61) 4-Methylpyrene	0.000		0	N.D.	d	
62) 1-Methylpyrene	0.000		0	N.D.	d	
63) C1-Fluoranthenes/Pyrenes	0.000		0	N.D.	d	
64) C2-Fluoranthenes/Pyrenes	0.000		0	N.D.		
65) C3-Fluoranthenes/Pyrenes	0.000		0	N.D.		
66) C4-Fluoranthenes/Pyrenes	0.000		0	N.D.		
67) Naphthobenzothiophene-2,1	42.465	234	444	1.118	ng/mL	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142206.D  
 Acq On : 14 Feb 2022 6:19 pm  
 Operator : PAH12:MJS  
 Sample : wgl603644-1,32,,  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 21 15:15:38 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH - POI+MP+BcF

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) Naphthobenzothiophene-1,2	0.000		0	N.D.	d	
69) Naphthobenzothiophene-2,3	0.000		0	N.D.	d	
70) C1-Naphthobenzothiophenes	0.000		0	N.D.		
71) C2-Naphthobenzothiophenes	0.000		0	N.D.	d	
72) C3-Naphthobenzothiophenes	0.000		0	N.D.		
73) C4-Naphthobenzothiophenes	0.000		0	N.D.		
75) Benz[a]anthracene	43.388	228	323	0.852	ng/mL	85
76) Chrysene	43.552	228	545M3	1.453	ng/mL	
78) C1-Chrysenes	0.000		0	N.D.		
79) C2-Chrysenes	0.000		0	N.D.	d	
79) C2-Chrysenes BS	0.000		0d	0.000	ng/mL	
81) C3-Chrysenes	0.000		0	N.D.		
82) C4-Chrysenes	0.000		0	N.D.	d	
85) Benzo[b]fluoranthene	47.454	252	1290	3.017	ng/mL	93
86) Benzo[j]+[k]fluoranthene	47.536	252	1059M3	2.400	ng/mL	
87) Benzo[a]fluoranthene	0.000		0	N.D.	d	
88) Benzo[e]pyrene	48.469	252	1170M3	2.769	ng/mL	
90) Benzo[a]pyrene	48.670	252	761M3	1.858	ng/mL	
91) Perylene	48.981	252	637	1.516	ng/mL	92
92) Indeno[1,2,3-cd]pyrene	53.609	276	901	1.605	ng/mL#	55
93) Dibenz[ah]+[ac]anthracene	53.664	278	961M4	1.950	ng/mL	
94) Benzo[g,h,i]perylene	54.943	276	575	1.158	ng/mL	90

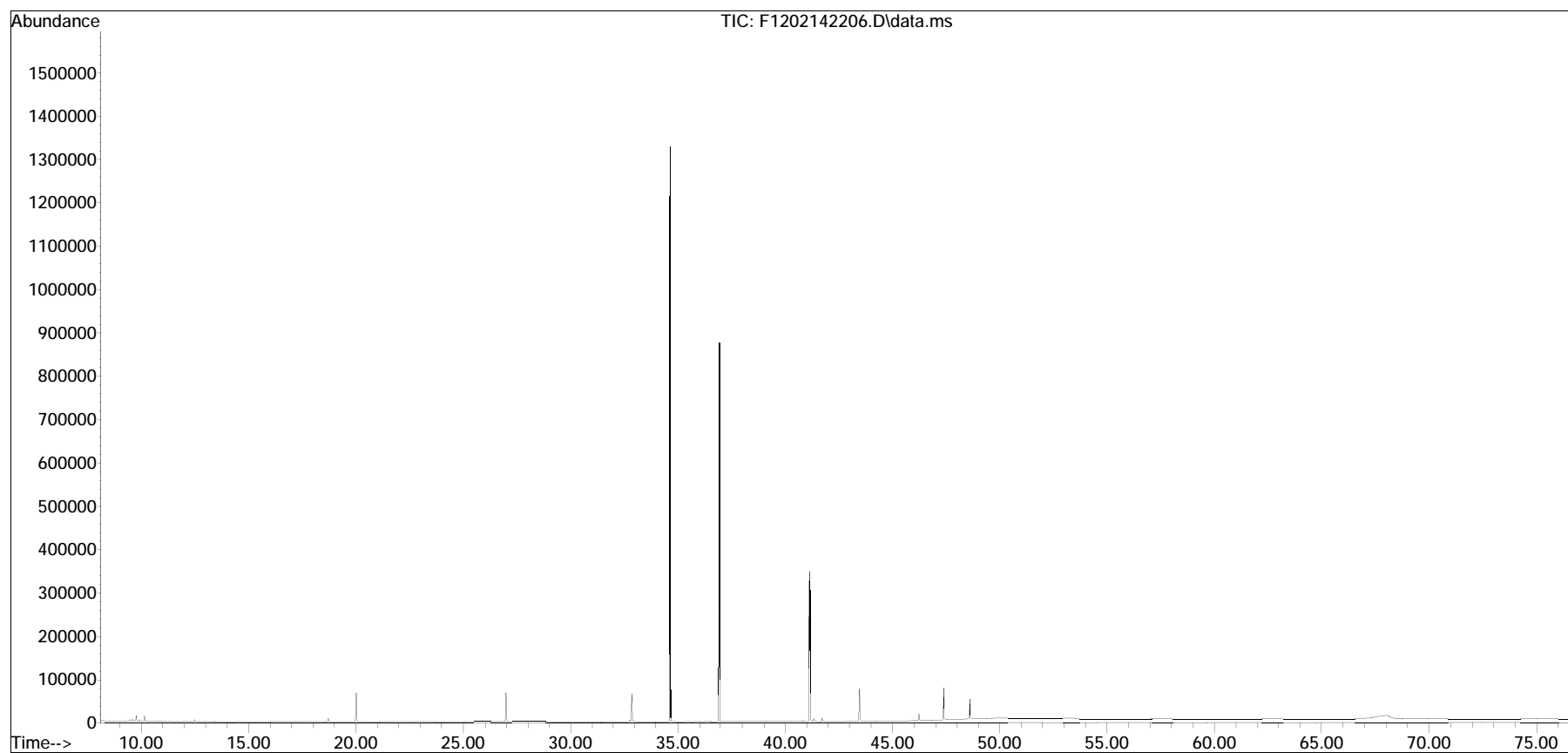
(#) = qualifier out of range (m) = manual integration (+) = signals summed

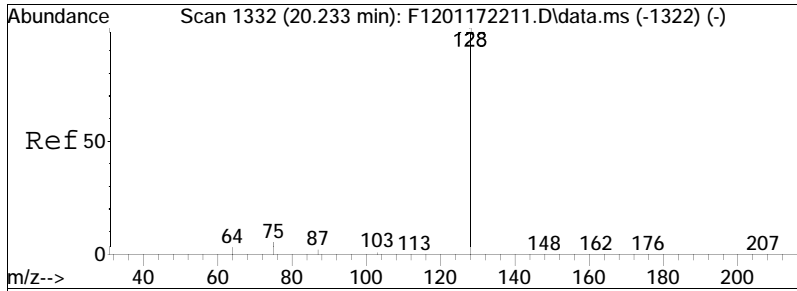
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
Data File : F1202142206.D  
Acq On : 14 Feb 2022 6:19 pm  
Operator : PAH12:MJS  
Sample : wg1603644-1,32,,  
Misc : WG1605097,WG1603644,ICAL18670  
ALS Vial : 6 Sample Multiplier: 1

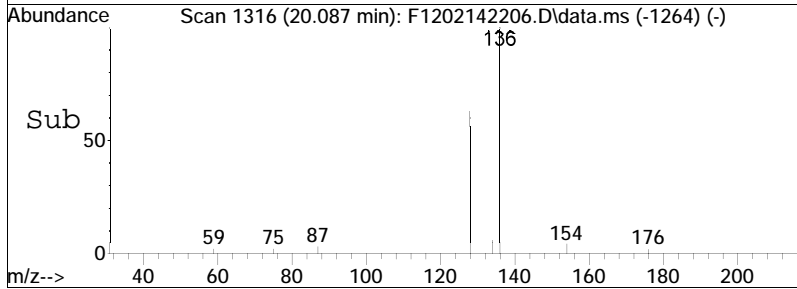
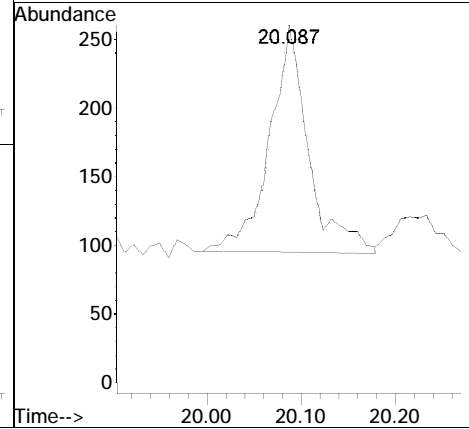
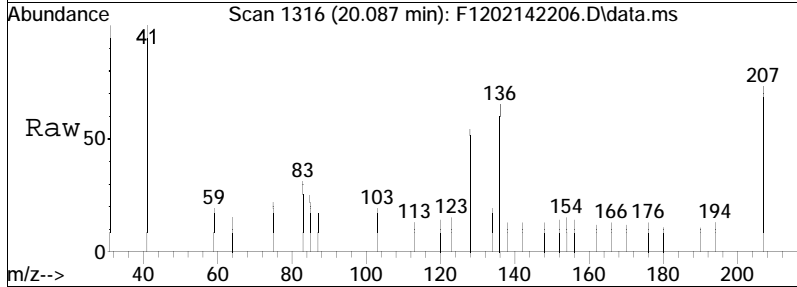
Quant Time: Feb 21 15:15:38 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Wed Feb 09 13:46:27 2022  
Response via : Initial Calibration

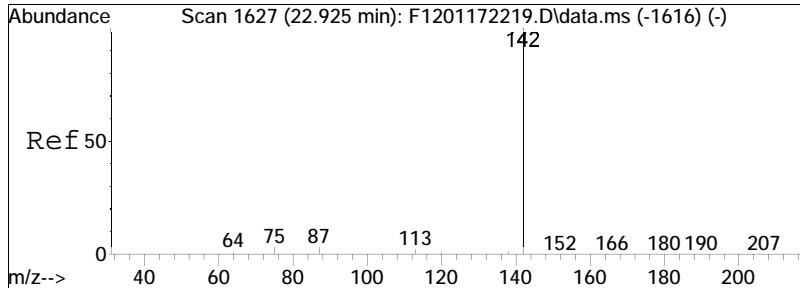
Sub List : ALKPAH - POI+MP+BcF



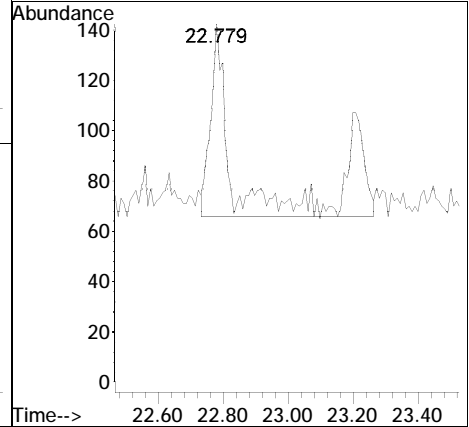
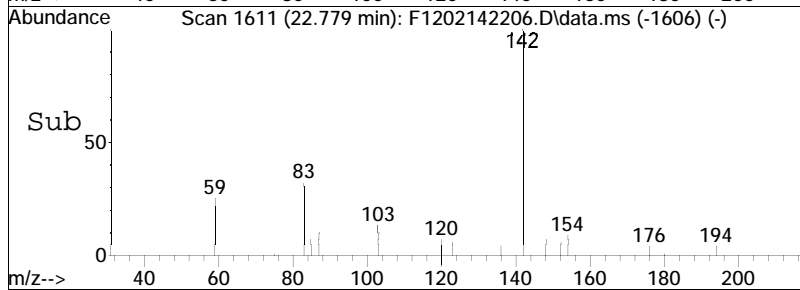
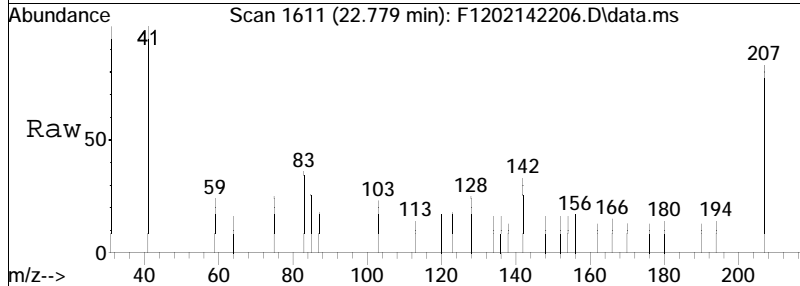


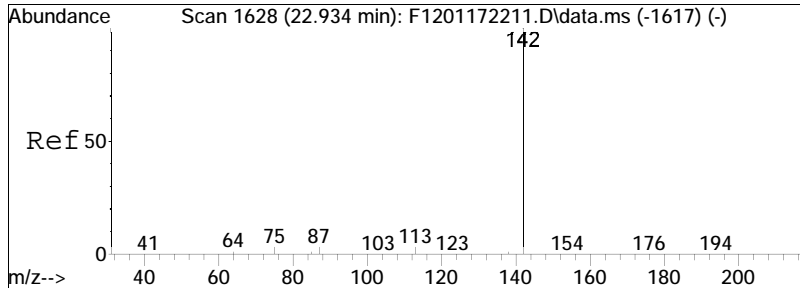
#9  
 Naphthalene  
 Concen: 1.23 ng/mL  
 RT: 20.087 min Scan# 1316  
 Delta R.T. -0.027 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm  
 Tgt Ion:128 Resp: 474



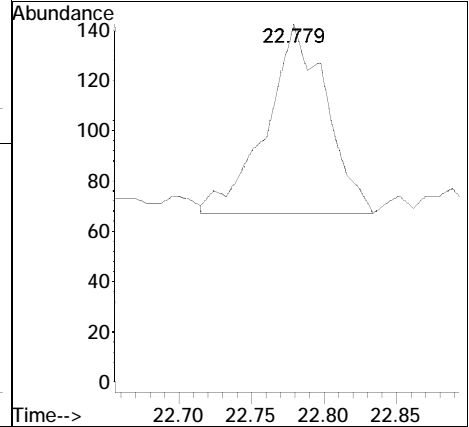
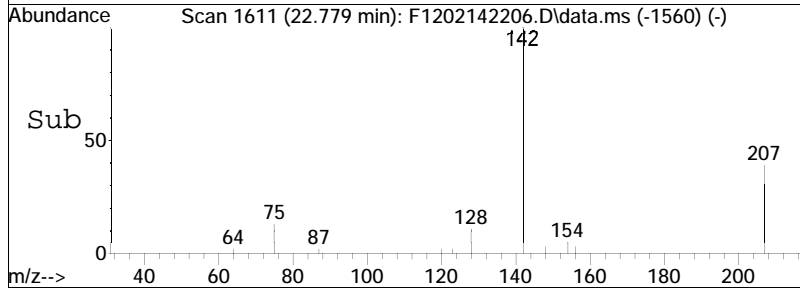
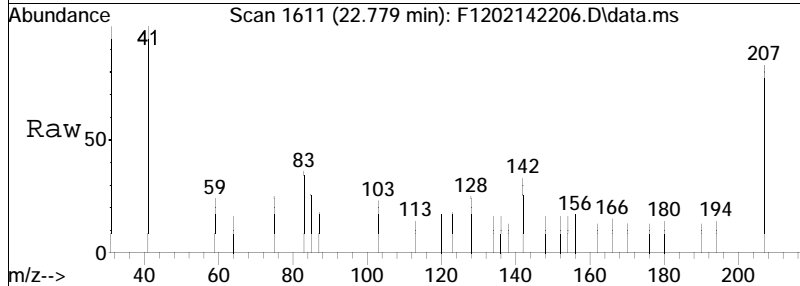


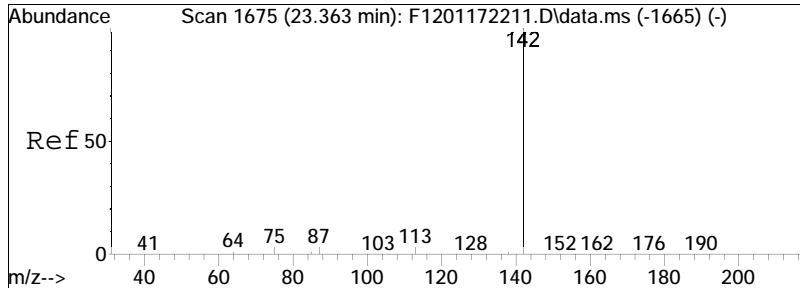
#10  
 Cl-Naphthalenes  
 Concen: 1.19 ng/mL M5  
 RT: 22.779 min Scan# 1611  
 Delta R.T. -0.036 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm  
 Tgt Ion:142 Resp: 460



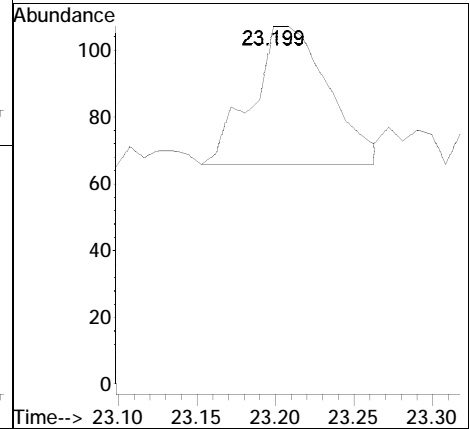
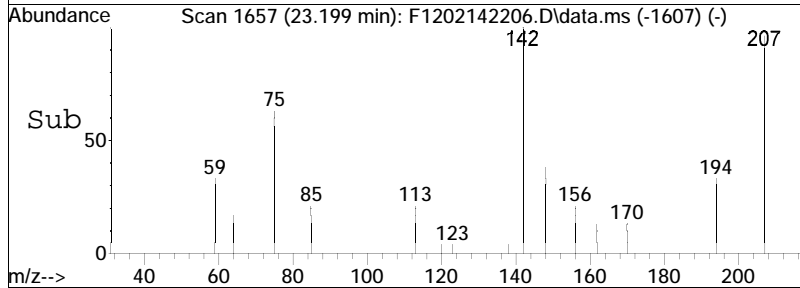
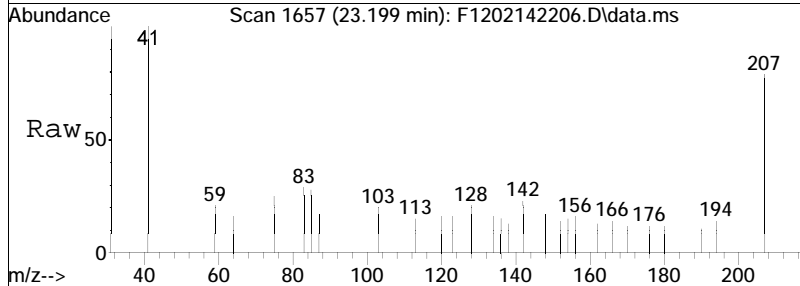


#14  
 2-Methylnaphthalene  
 Concen: 0.88 ng/mL  
 RT: 22.779 min Scan# 1611  
 Delta R.T. -0.036 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm  
 Tgt Ion:142 Resp: 215

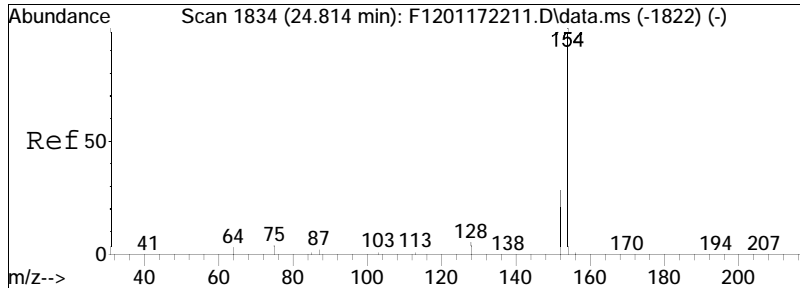




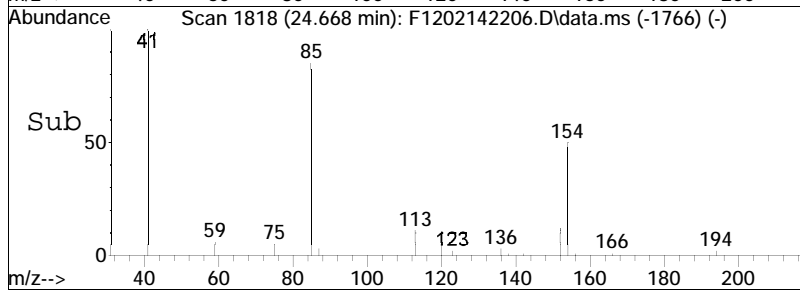
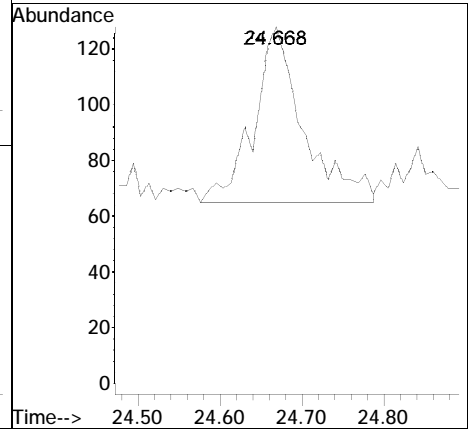
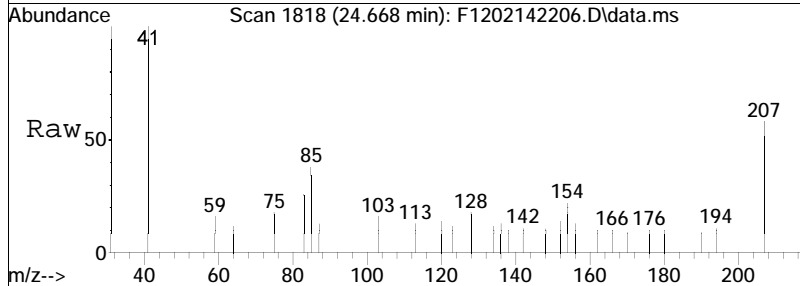
#15  
 1-Methylnaphthalene  
 Concen: 0.60 ng/mL  
 RT: 23.199 min Scan# 1657  
 Delta R.T. -0.046 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm  
 Tgt Ion:142 Resp: 139

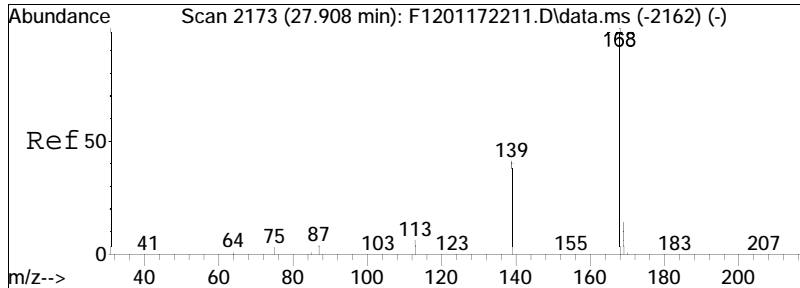






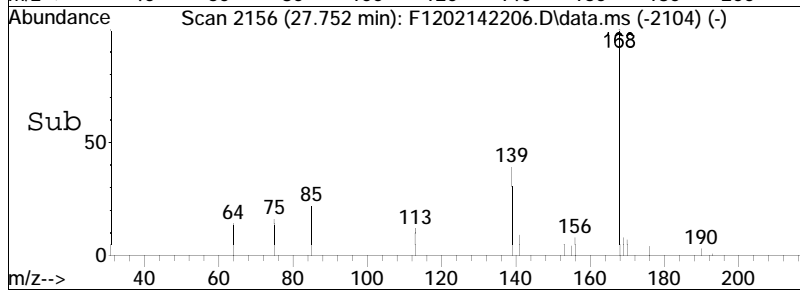
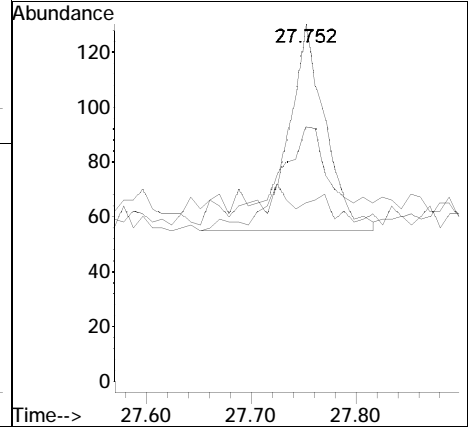
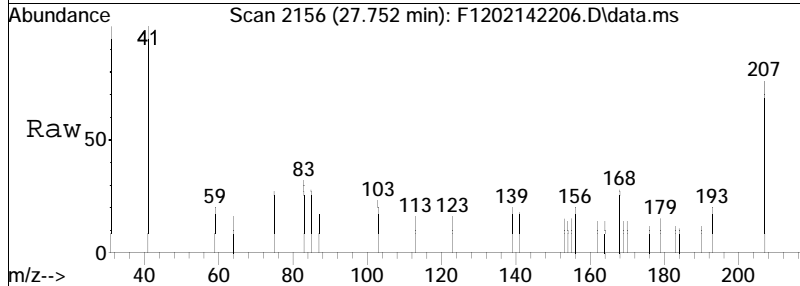
#21  
 Biphenyl  
 Concen: 0.88 ng/mL  
 RT: 24.668 min Scan# 1818  
 Delta R.T. -0.027 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm  
 Tgt Ion:154 Resp: 265

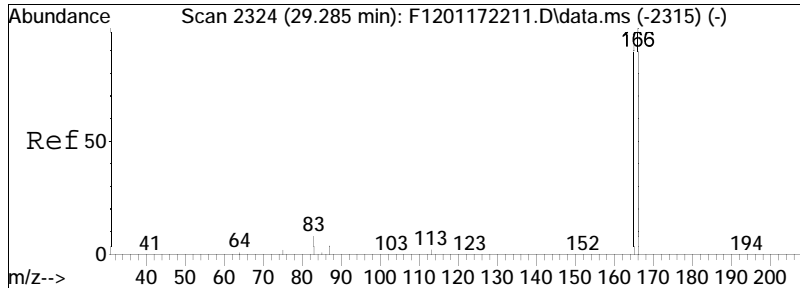




#23  
 Dibenzofuran  
 Concen: 0.59 ng/mL  
 RT: 27.752 min Scan# 2156  
 Delta R.T. -0.027 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

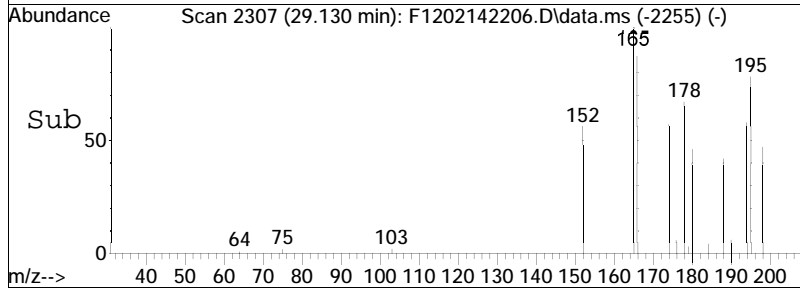
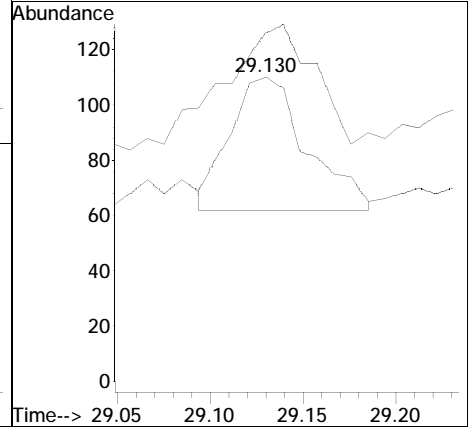
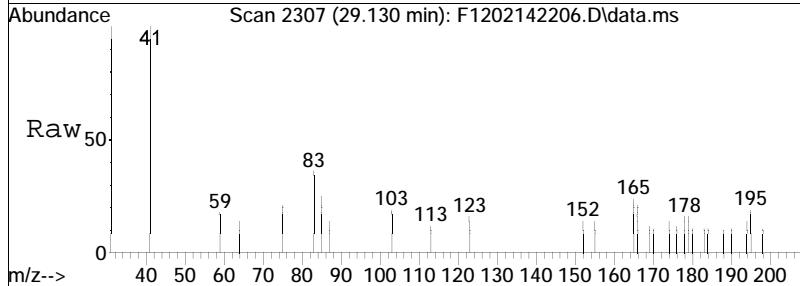
Tgt Ion	Ratio	Lower	Upper
168	100		
139	0.0	35.0	65.0#
169	0.0	11.5	21.5#

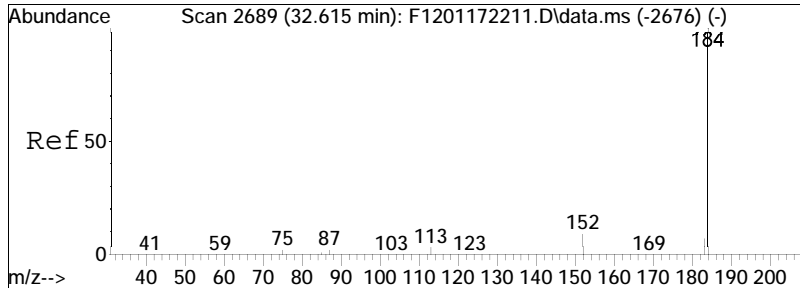




#27  
 Fluorene  
 Concen: 0.53 ng/mL M4  
 RT: 29.130 min Scan# 2307  
 Delta R.T. -0.027 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

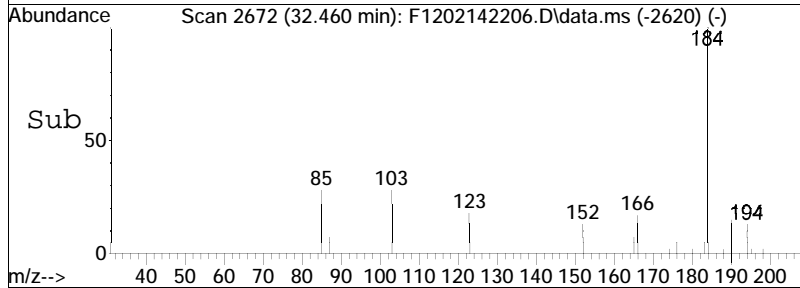
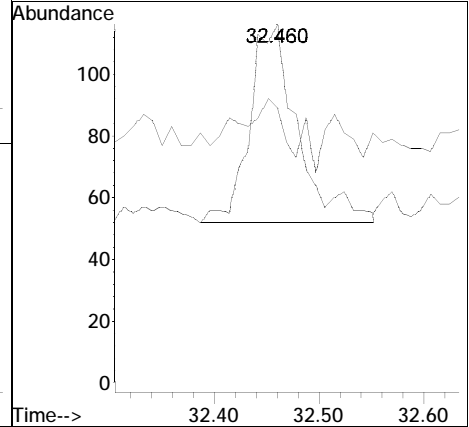
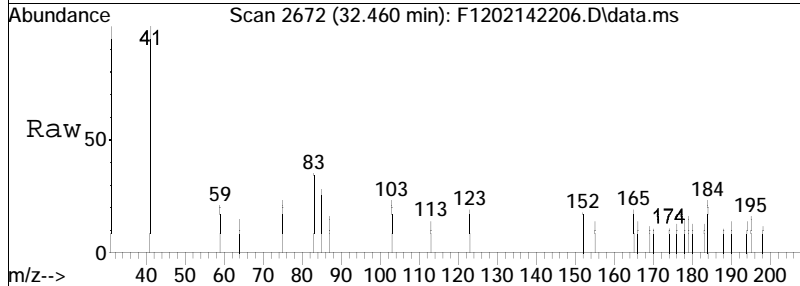
Tgt Ion	Resp	Lower	Upper
166	100		
165	0.0	66.4	123.4#

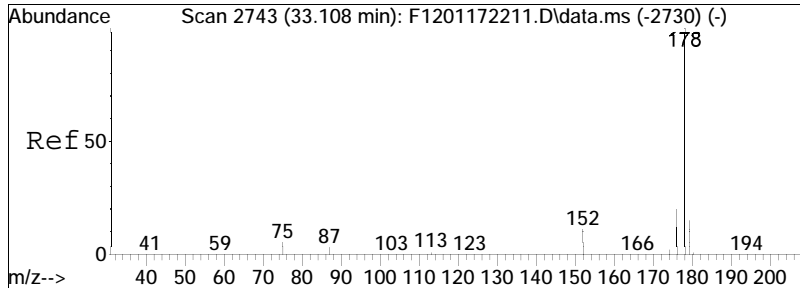




#31  
 Dibenzothiophene  
 Concen: 0.55 ng/mL  
 RT: 32.460 min Scan# 2672  
 Delta R.T. -0.027 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

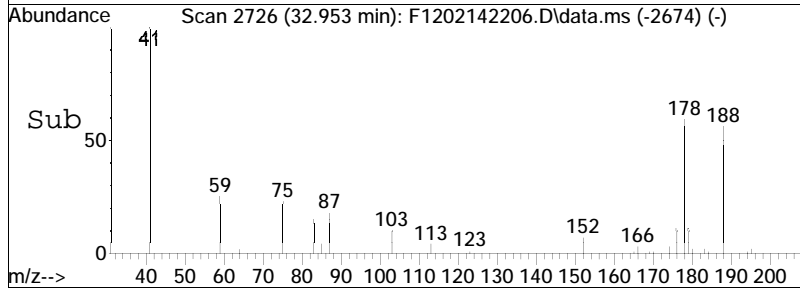
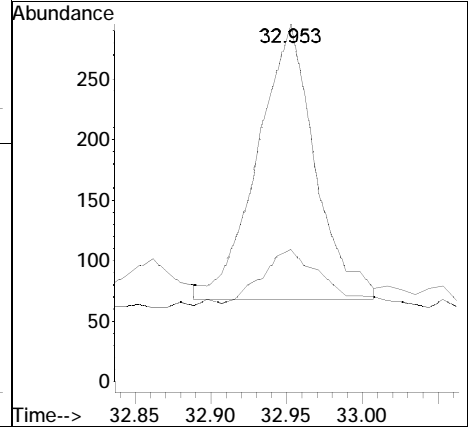
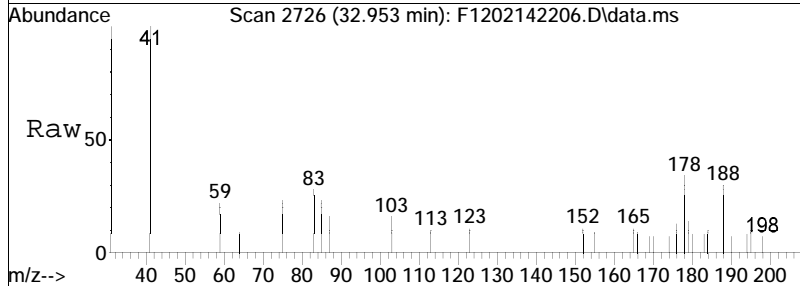
Tgt Ion: 184 Resp: 203  
 Ion Ratio Lower Upper  
 184 100  
 152 0.0 11.3 20.9#

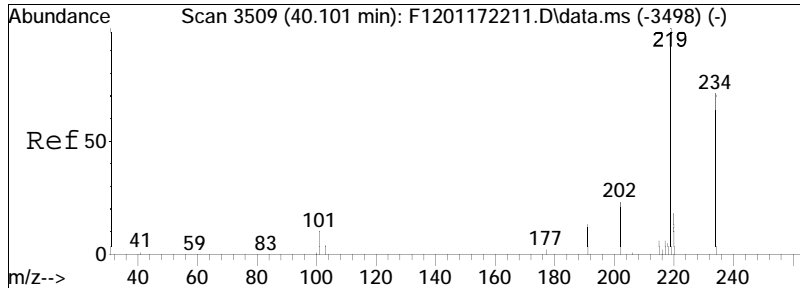




#41  
 Phenanthrene  
 Concen: 1.57 ng/mL M3  
 RT: 32.953 min Scan# 2726  
 Delta R.T. -0.027 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

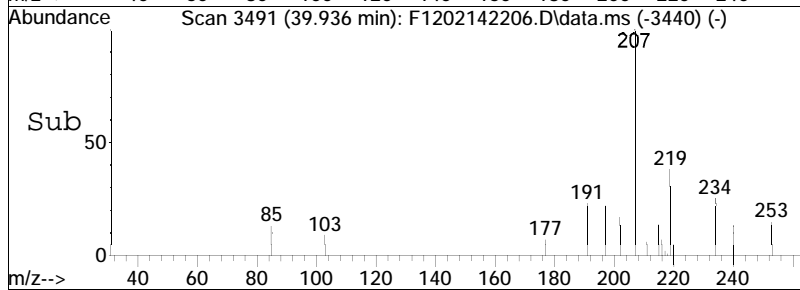
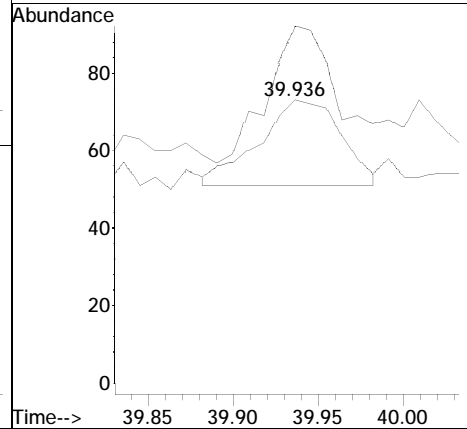
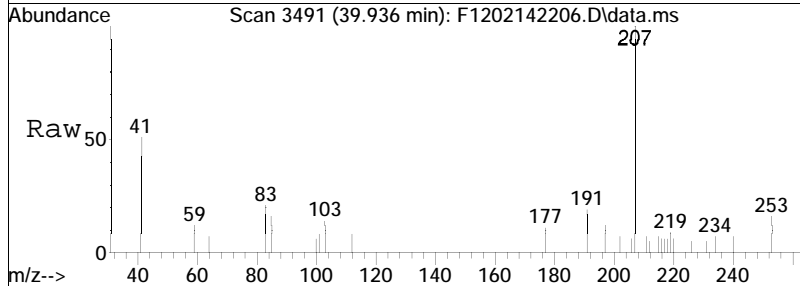
Tgt Ion	Ratio	Lower	Upper
178	100		
176	0.0	14.8	27.6#

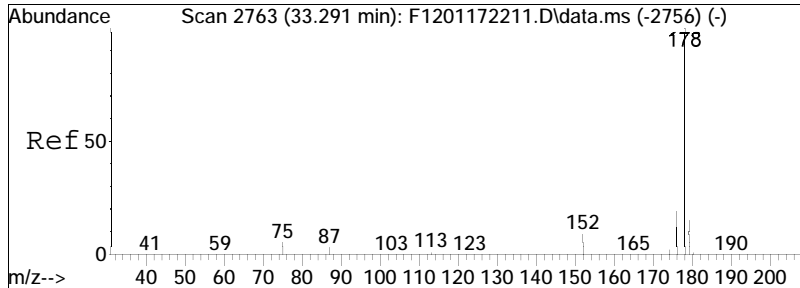




#52  
 Retene  
 Concen: 0.59 ng/mL M2  
 RT: 39.936 min Scan# 3491  
 Delta R.T. -0.036 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

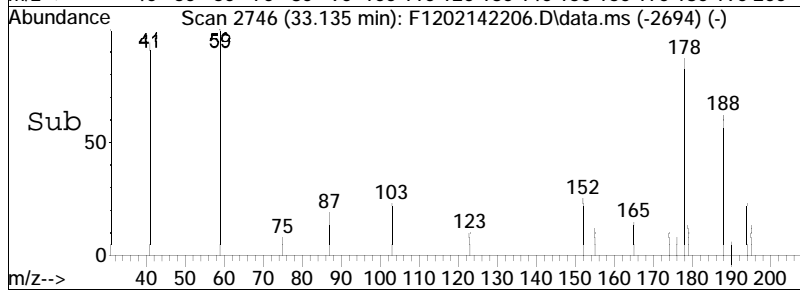
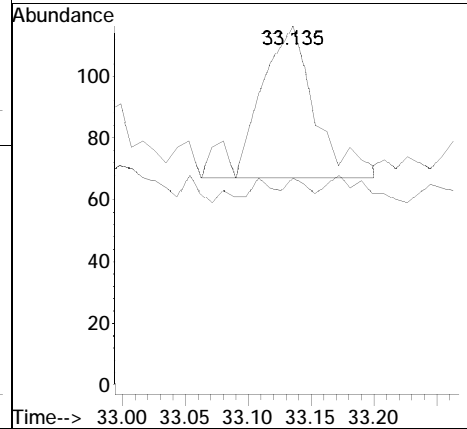
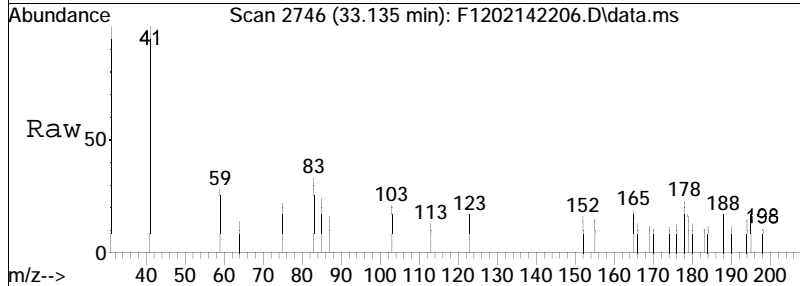
Tgt Ion: 234 Resp: 74  
 Ion Ratio Lower Upper  
 234 100  
 219 0.0 94.0 174.6#

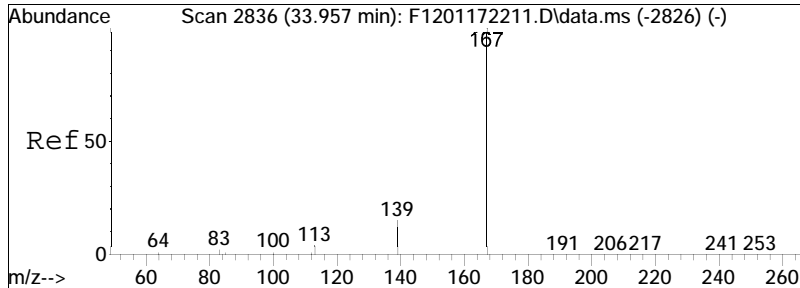




#53  
 Anthracene  
 Concen: 0.44 ng/mL  
 RT: 33.135 min Scan# 2746  
 Delta R.T. -0.027 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

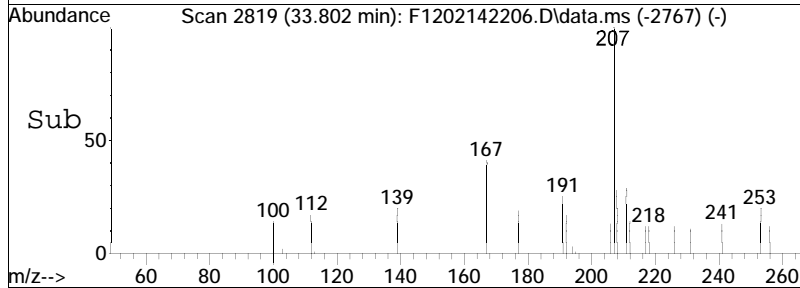
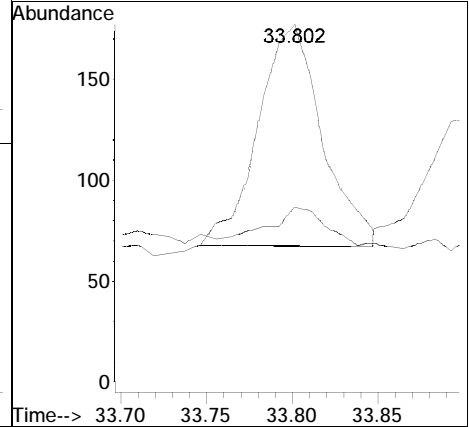
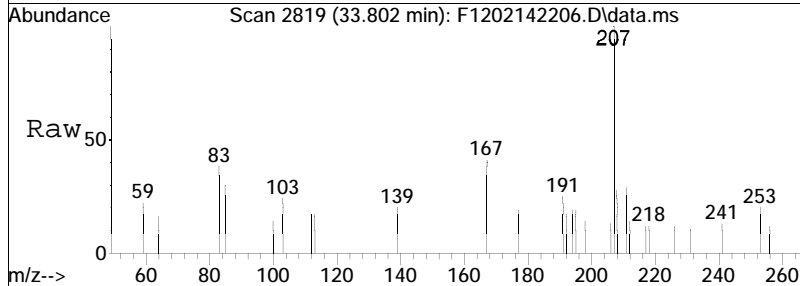
Tgt Ion: 178 Resp: 155  
 Ion Ratio Lower Upper  
 178 100  
 176 0.0 13.4 24.8#



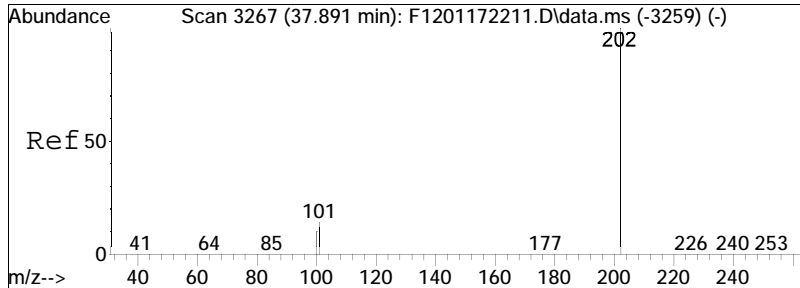


#54  
 Carbazole  
 Concen: 0.78 ng/mL  
 RT: 33.802 min Scan# 2819  
 Delta R.T. -0.027 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

Tgt Ion: 167 Resp: 286  
 Ion Ratio Lower Upper  
 167 100  
 139 0.0 10.3 19.1#

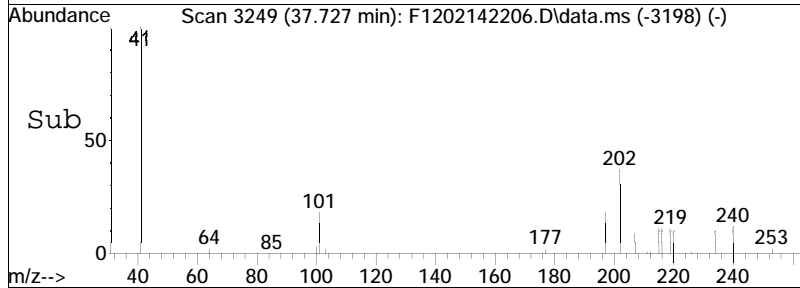
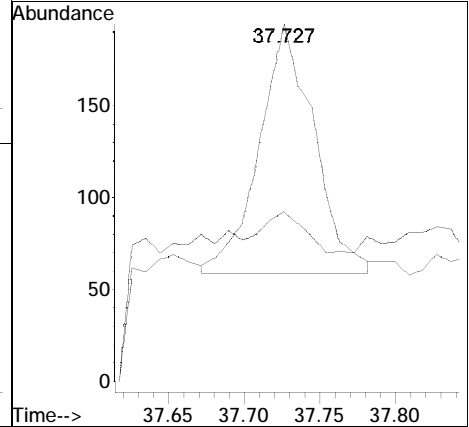
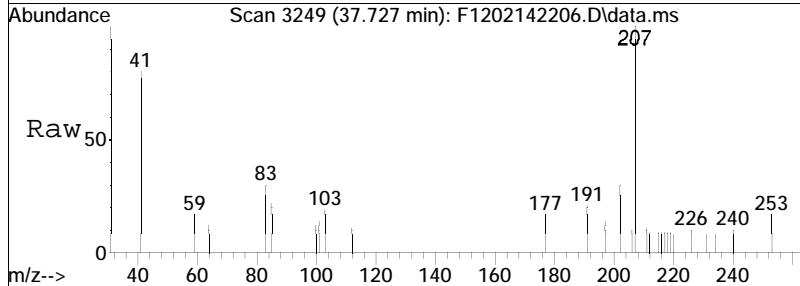


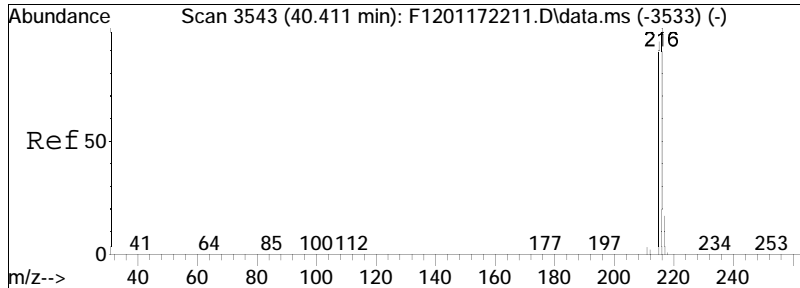




#56  
 Fluoranthene  
 Concen: 0.89 ng/mL M4  
 RT: 37.727 min Scan# 3249  
 Delta R.T. -0.036 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

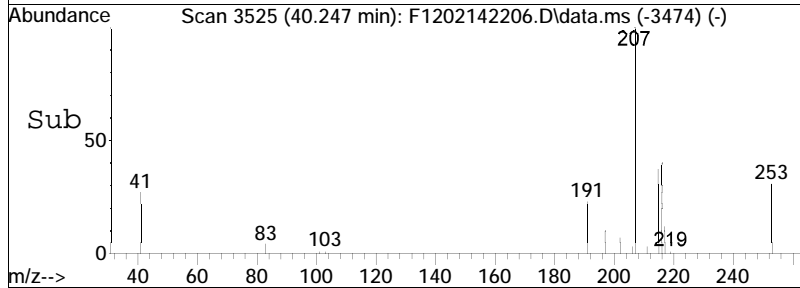
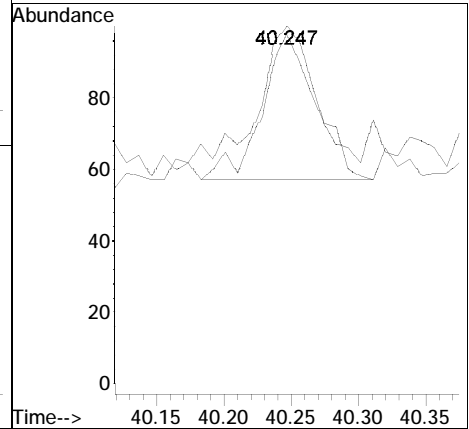
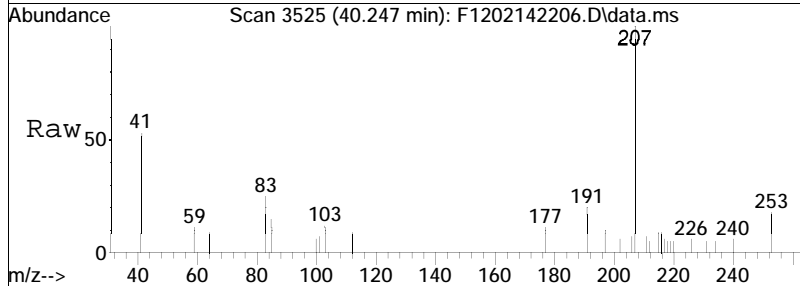
Tgt Ion	Ratio	Lower	Upper
202	100		
101	0.0	8.4	15.6#

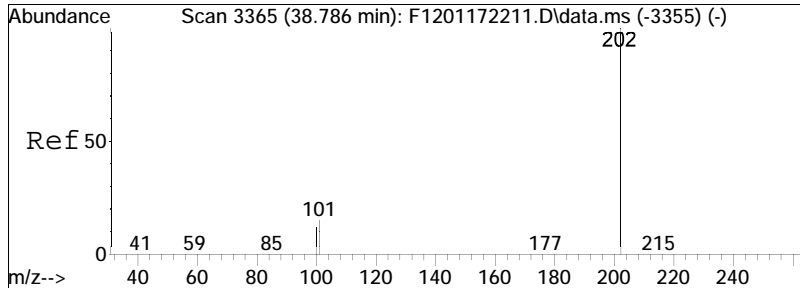




#57  
 Benzo(b)fluorene  
 Concen: 0.48 ng/mL  
 RT: 40.247 min Scan# 3525  
 Delta R.T. -0.036 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

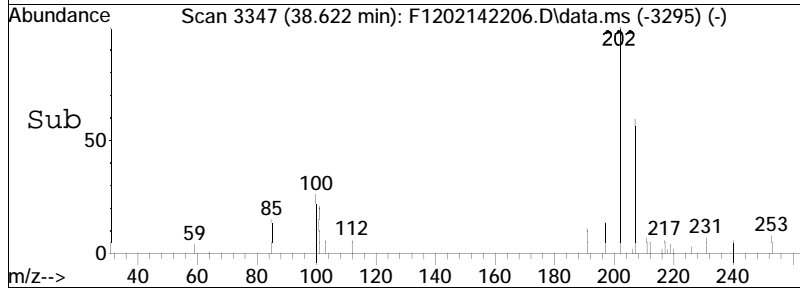
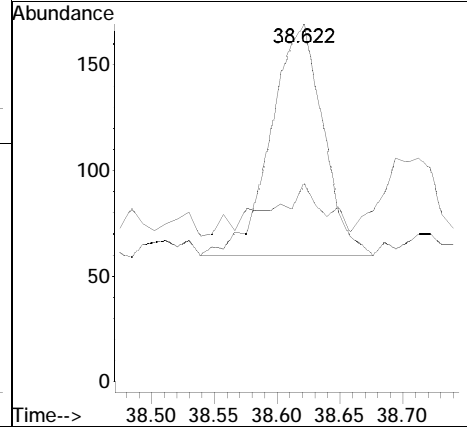
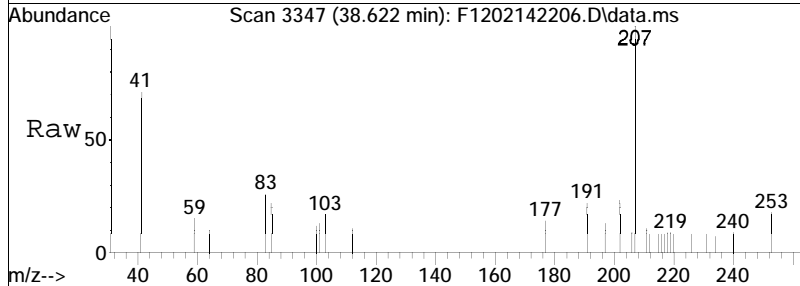
Tgt Ion	Resp	Lower	Upper
216	100		
215	123.5	91.7	170.3

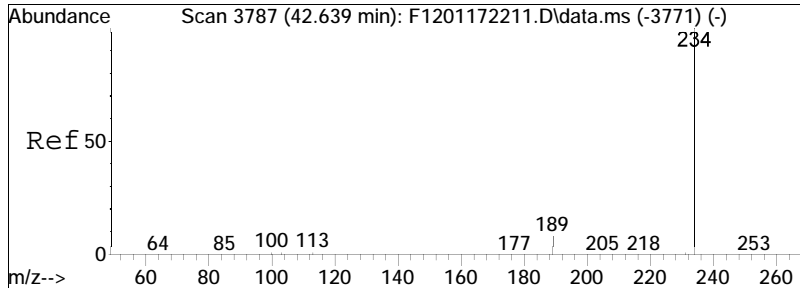




#59  
 Pyrene  
 Concen: 0.79 ng/mL  
 RT: 38.622 min Scan# 3347  
 Delta R.T. -0.027 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

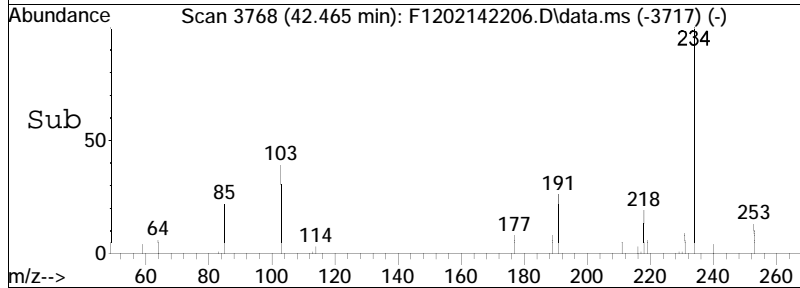
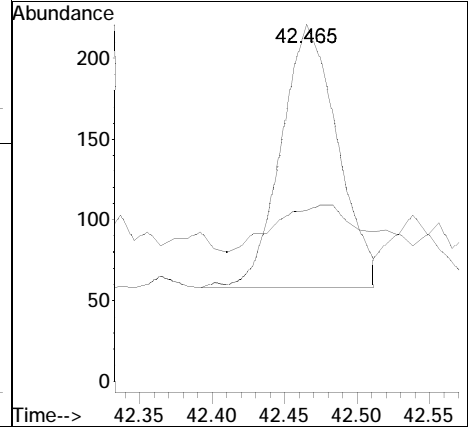
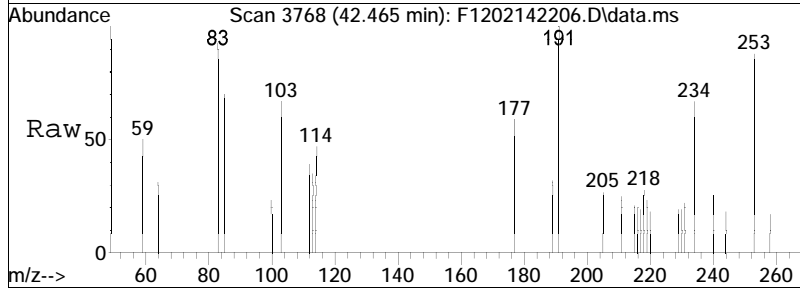
Tgt Ion: 202 Resp: 314  
 Ion Ratio Lower Upper  
 202 100  
 101 0.0 21.0 39.0#

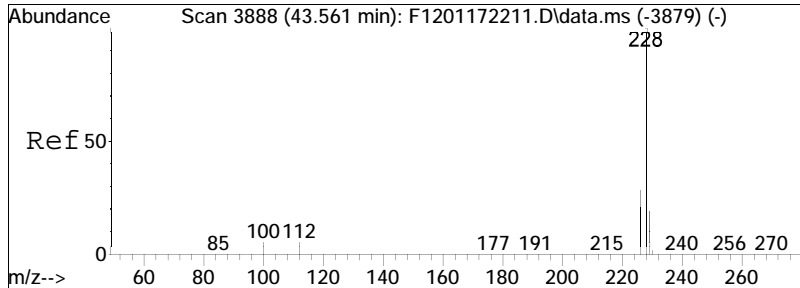




#67  
 Naphthobenzothiophene-2,1-D  
 Concen: 1.12 ng/mL  
 RT: 42.465 min Scan# 3768  
 Delta R.T. -0.036 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

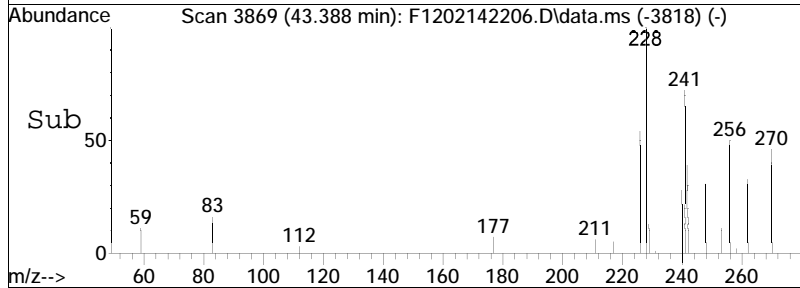
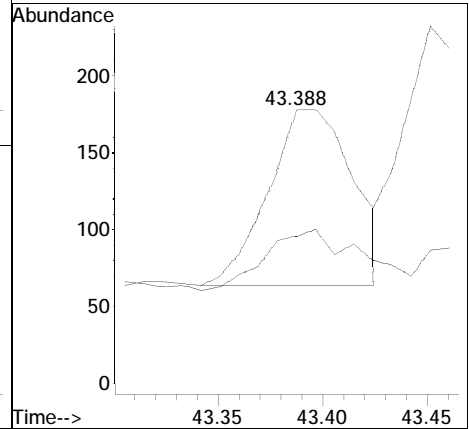
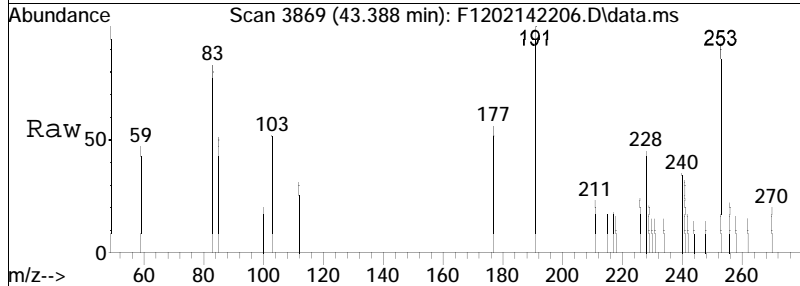
Tgt Ion	Resp	Lower	Upper
234	100		
189	28.6	18.9	35.1

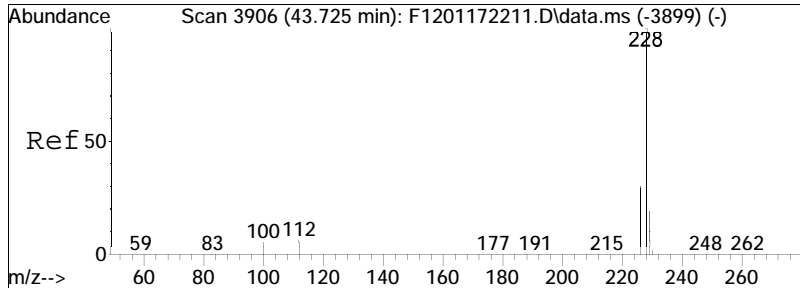




#75  
 Benz[a]anthracene  
 Concen: 0.85 ng/mL  
 RT: 43.388 min Scan# 3869  
 Delta R.T. -0.036 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

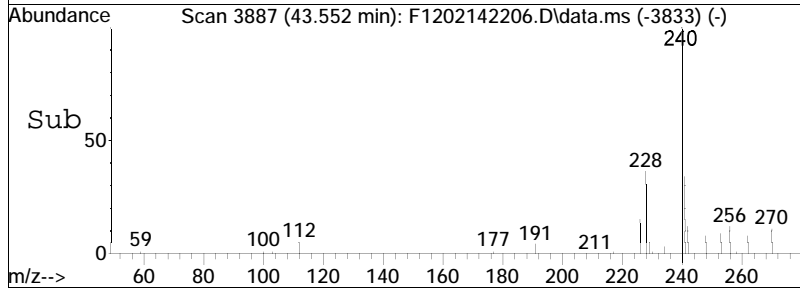
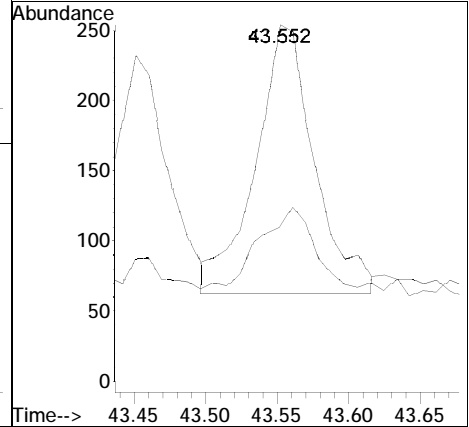
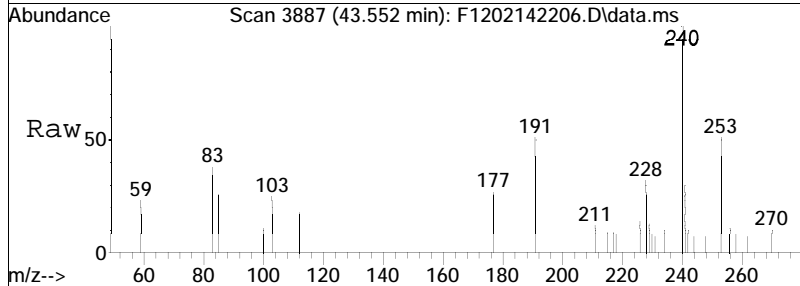
Tgt Ion: 228 Resp: 323  
 Ion Ratio Lower Upper  
 228 100  
 226 35.3 19.1 35.5

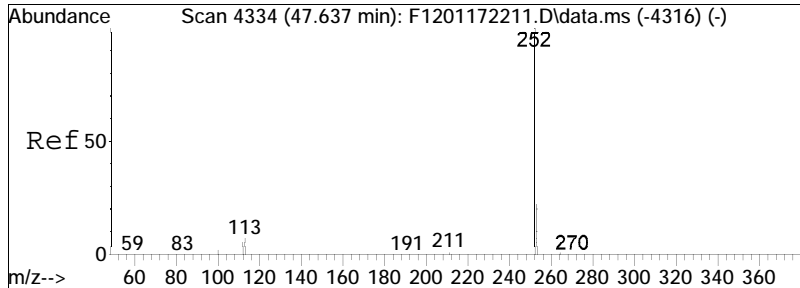




#76  
 Chrysene  
 Concen: 1.45 ng/mL M3  
 RT: 43.552 min Scan# 3887  
 Delta R.T. -0.009 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

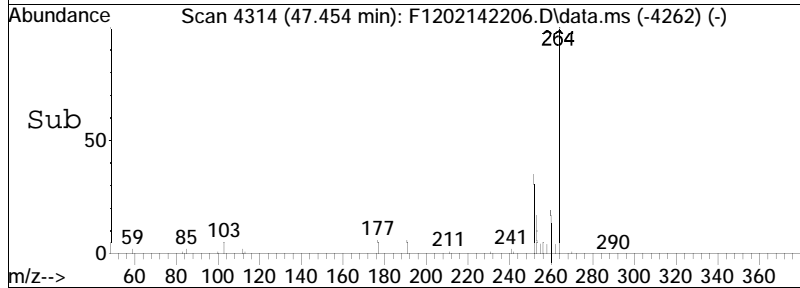
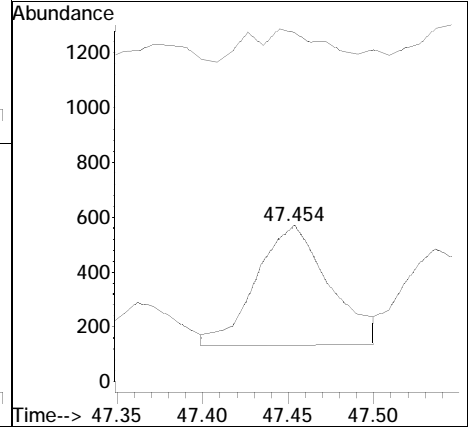
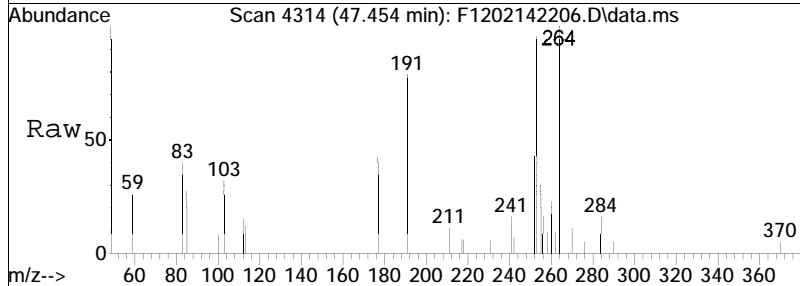
Tgt Ion	Ratio	Lower	Upper
228	100		
226	20.9	27.8	51.6#

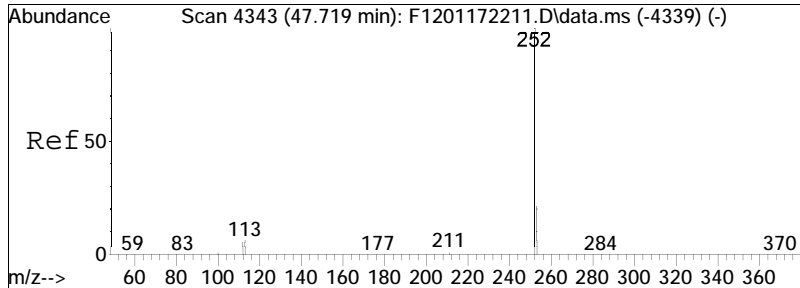




#85  
 Benzo[b]fluoranthene  
 Concen: 3.02 ng/mL  
 RT: 47.454 min Scan# 4314  
 Delta R.T. -0.027 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

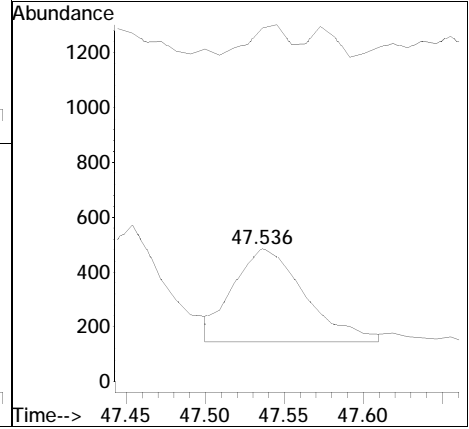
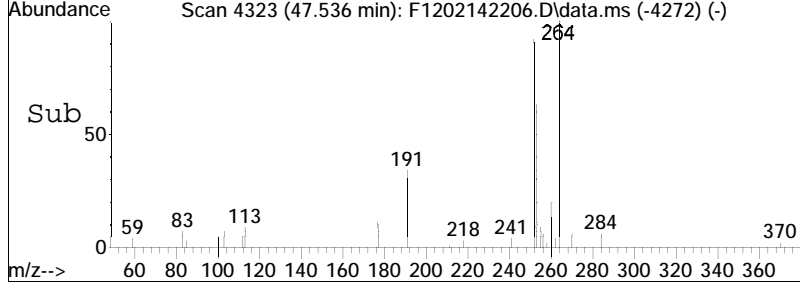
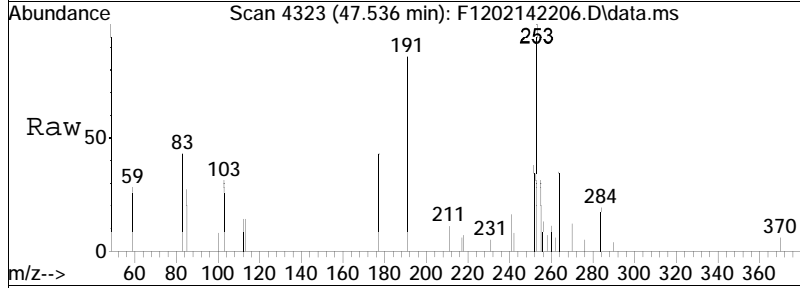
Tgt Ion: 252 Resp: 1290  
 Ion Ratio Lower Upper  
 252 100  
 253 27.3 16.6 30.8



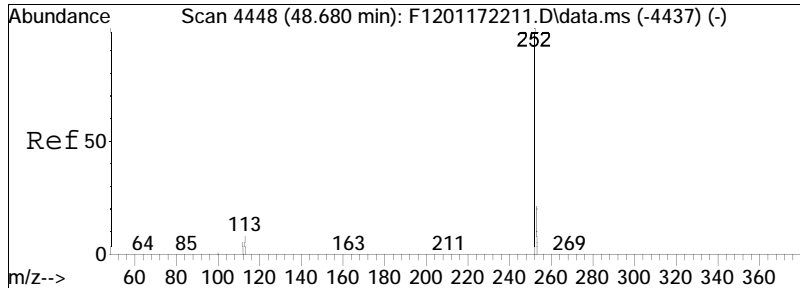


#86  
 Benzo[j]+[k]fluoranthene  
 Concen: 2.40 ng/mL M3  
 RT: 47.536 min Scan# 4323  
 Delta R.T. -0.037 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

Tgt Ion: 252 Resp: 1059  
 Ion Ratio Lower Upper  
 252 100  
 253 33.2 16.4 30.4#

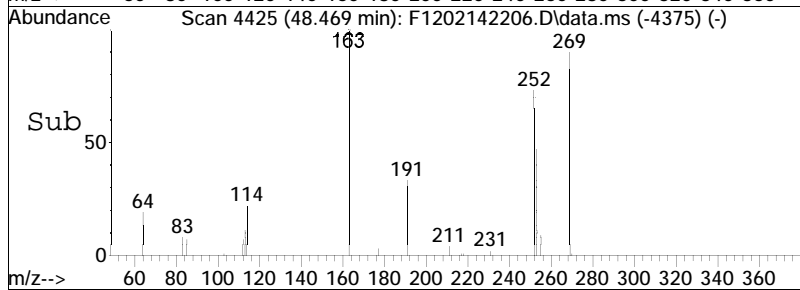
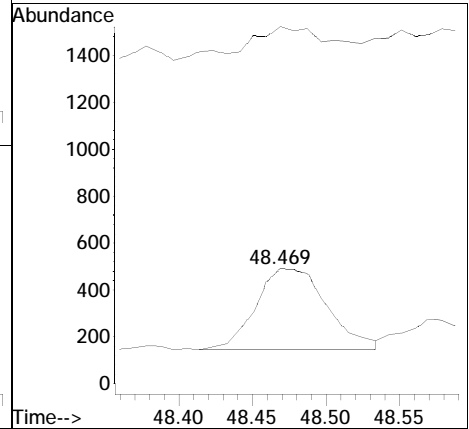
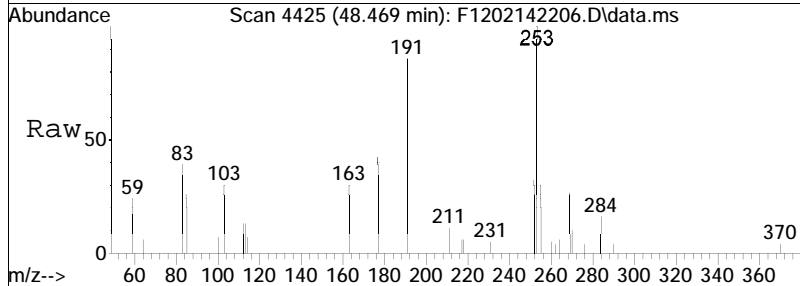


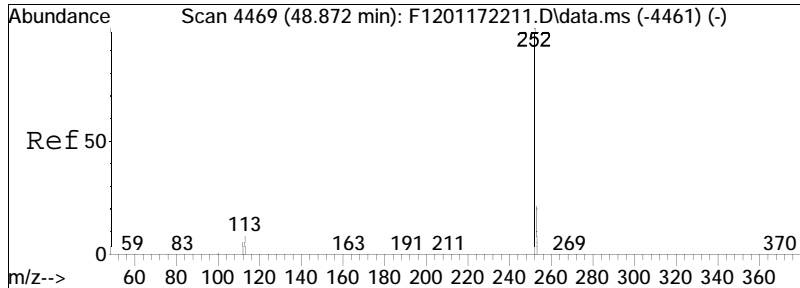




#88  
 Benzo[e]pyrene  
 Concen: 2.77 ng/mL M3  
 RT: 48.469 min Scan# 4425  
 Delta R.T. -0.046 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

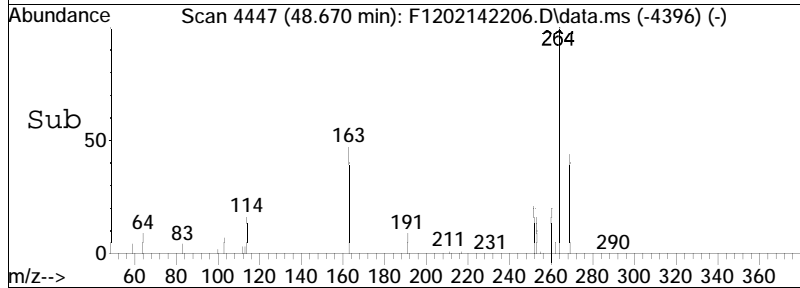
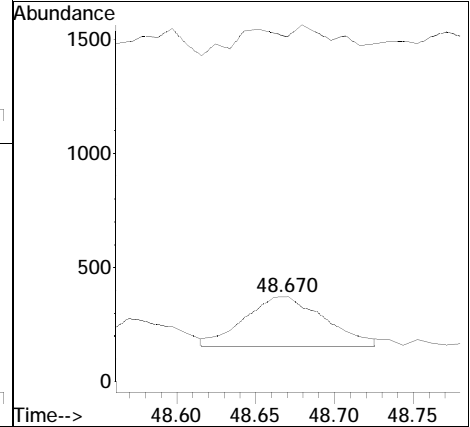
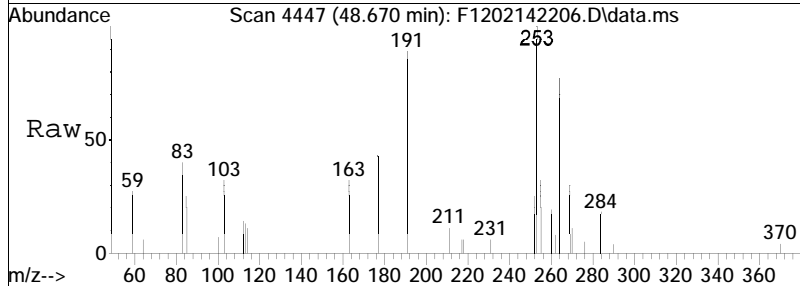
Tgt Ion: 252 Resp: 1170  
 Ion Ratio Lower Upper  
 252 100  
 253 13.8 16.8 31.2#

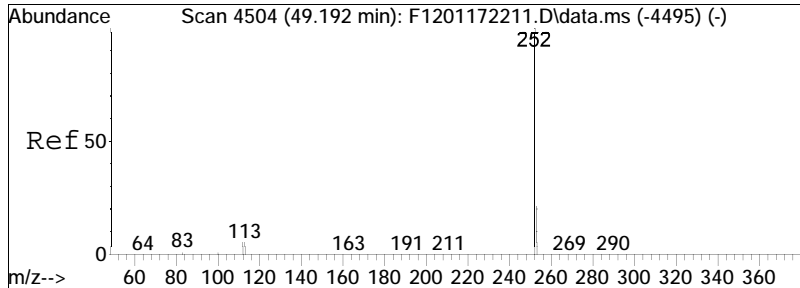




#90  
 Benzo[a]pyrene  
 Concen: 1.86 ng/mL M3  
 RT: 48.670 min Scan# 4447  
 Delta R.T. -0.037 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

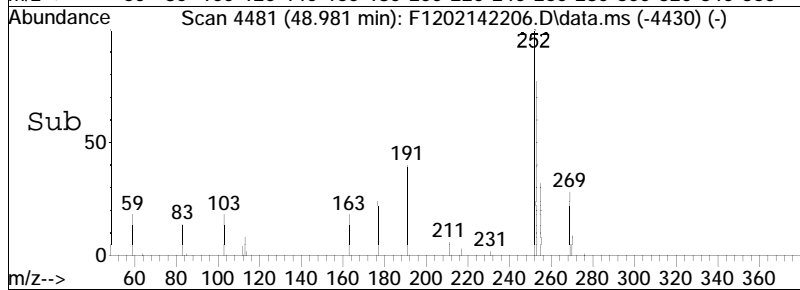
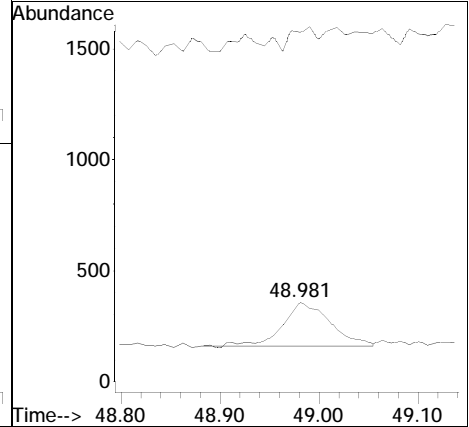
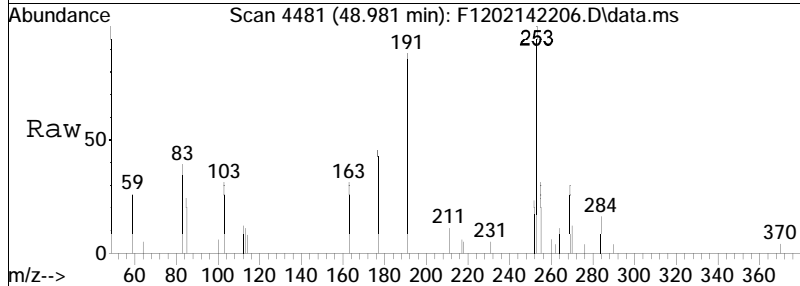
Tgt Ion: 252 Resp: 761  
 Ion Ratio Lower Upper  
 252 100  
 253 23.9 16.8 31.2

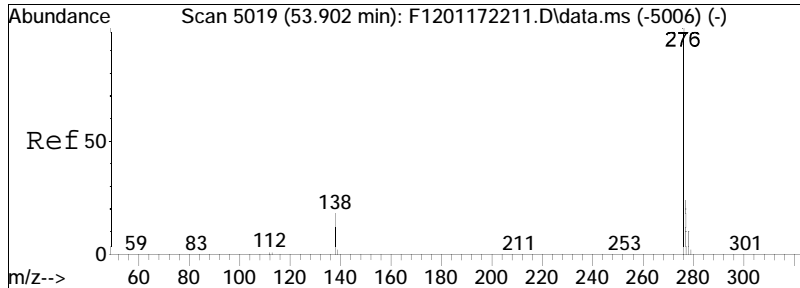




#91  
 Perylene  
 Concen: 1.52 ng/mL  
 RT: 48.981 min Scan# 4481  
 Delta R.T. -0.037 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

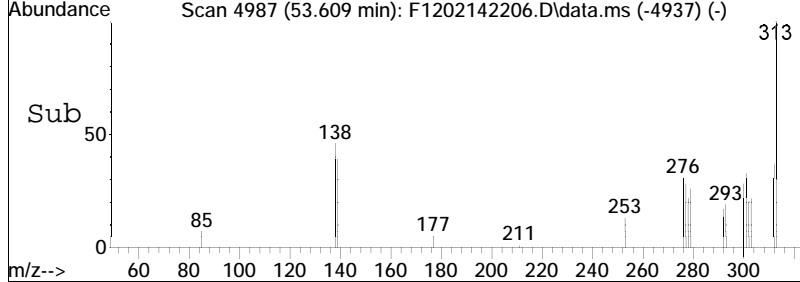
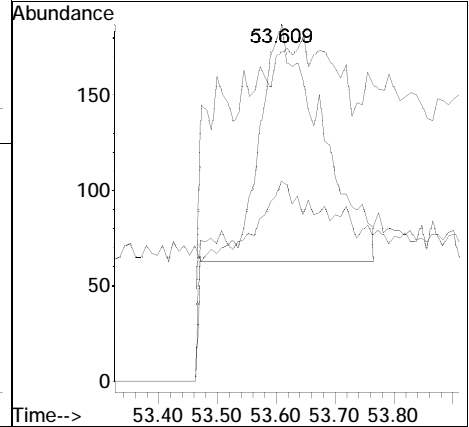
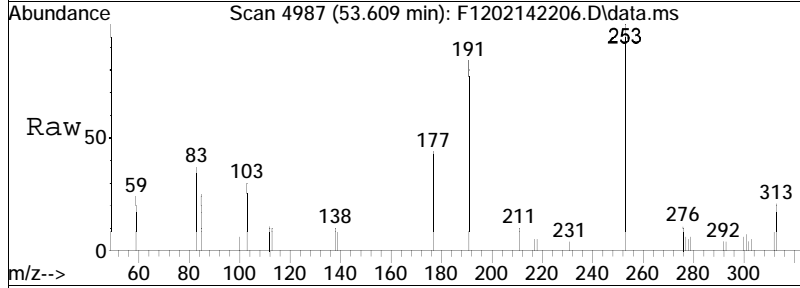
Tgt Ion: 252 Resp: 637  
 Ion Ratio Lower Upper  
 252 100  
 253 28.6 17.3 32.1

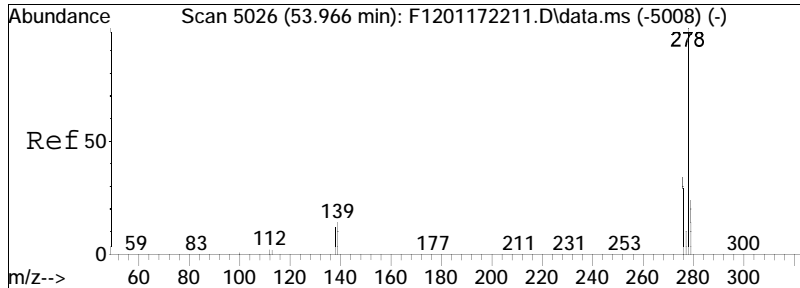




#92  
 Indeno[1,2,3-cd]pyrene  
 Concen: 1.60 ng/mL  
 RT: 53.609 min Scan# 4987  
 Delta R.T. -0.046 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

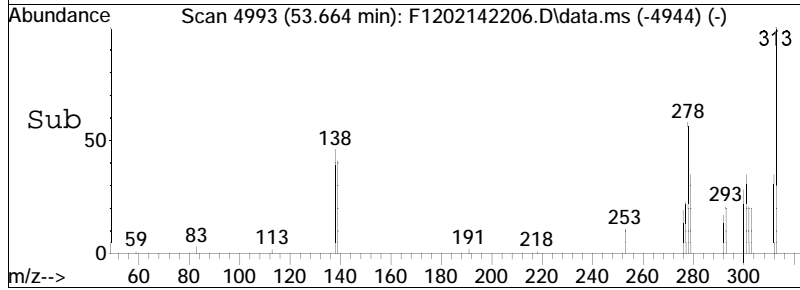
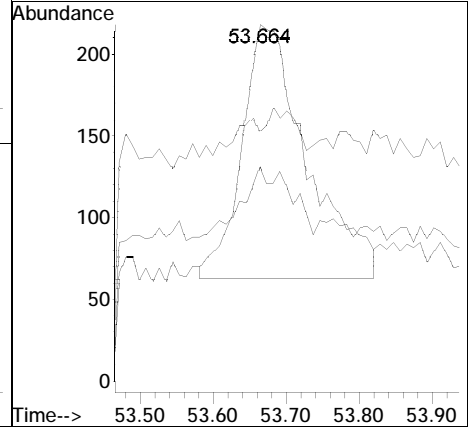
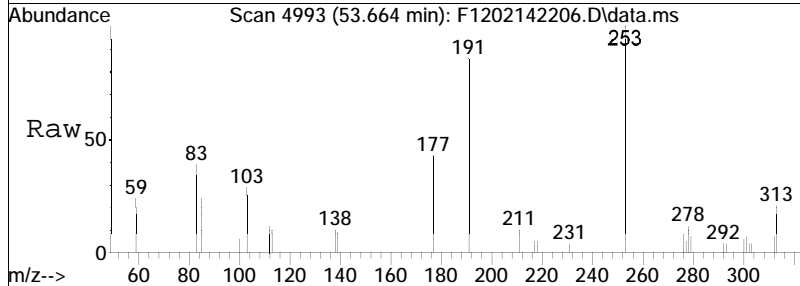
Tgt Ion	Resp	Lower	Upper
276	100		
138	0.0	12.2	22.7#
277	0.0	16.7	30.9#

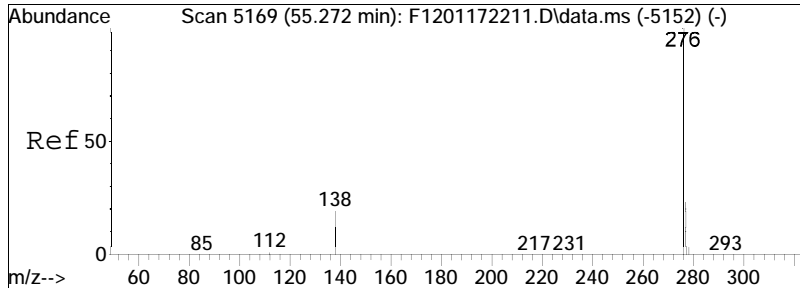




#93  
 Dibenz[ah]+[ac]anthracene  
 Concen: 1.95 ng/mL M4  
 RT: 53.664 min Scan# 4993  
 Delta R.T. -0.055 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

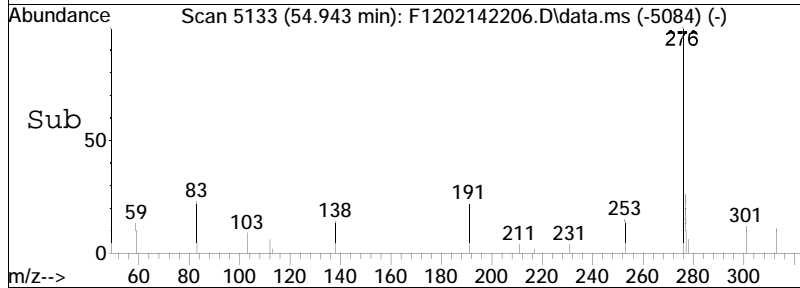
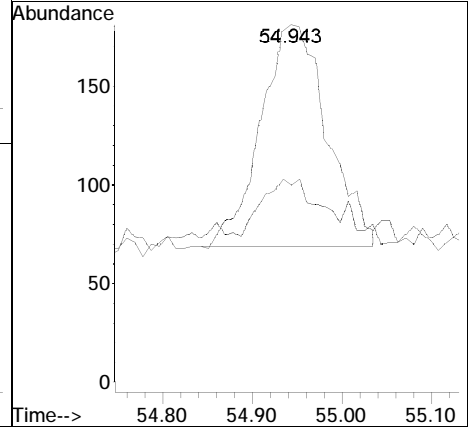
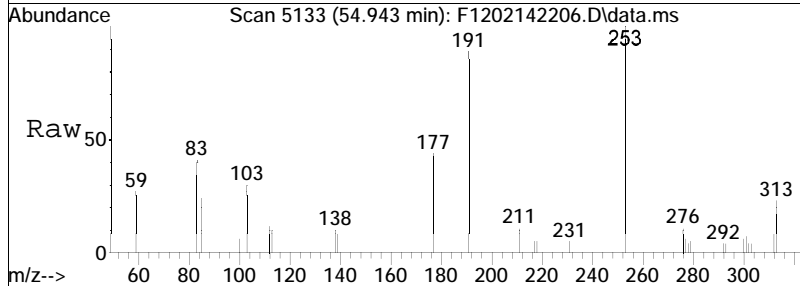
Tgt Ion	Resp	Lower	Upper
278	100		
139	0.0	10.1	18.7#
279	0.0	16.6	30.8#





#94  
 Benzo[g,h,i]perylene  
 Concen: 1.16 ng/mL  
 RT: 54.943 min Scan# 5133  
 Delta R.T. -0.055 min  
 Lab File: F1202142206.D  
 Acq: 14 Feb 2022 6:19 pm

Tgt Ion: 276 Resp: 575  
 Ion Ratio Lower Upper  
 276 100  
 277 28.3 16.4 30.6



# **LCS Raw Data**

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142207.D  
 Acq On : 14 Feb 2022 7:43 pm  
 Operator : PAH12:MJS  
 Sample : wgl603644-2,32,,  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 21 15:17:37 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_LCS\_QC - LCS\_spike compounds

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	26.986	164	83544	500.000	ng/mL	-0.04	
74) Chrysene-d12	43.461	240	167872	500.000	ng/mL	-0.04	
System Monitoring Compounds							
8) Naphthalene-d8	20.005	136	158675	440.511	ng/mL	-0.04	
Spiked Amount	1000.000		Range	50 - 130	Recovery	=	44.05%#
40) Phenanthrene-d10	32.862	188	142220	471.237	ng/mL	-0.04	
Spiked Amount	1000.000		Range	50 - 130	Recovery	=	47.12%#
84) Benzo[b]fluoranthene-d12	47.362	264	175086	448.544	ng/mL	-0.04	
Spiked Amount	1000.000		Range	50 - 130	Recovery	=	44.85%#
89) Benzo[a]pyrene-d12	48.579	264	123763	418.921	ng/mL	-0.04	
Spiked Amount	1000.000		Range	50 - 130	Recovery	=	41.89%#
129) 5B(H)Cholane - Surr	0.000	217	0	0.000	ng/ml		
Spiked Amount	1000.000		Range	50 - 130	Recovery	=	0.00%#
Target Compounds							
9) Naphthalene	20.087	128	172725	433.661	ng/mL		Qvalue 100
14) 2-Methylnaphthalene	22.779	142	102531	405.363	ng/mL		100
24) Acenaphthylene	26.375	152	142131	373.903	ng/mL		100
25) Acenaphthene	27.114	153	98154	408.139	ng/mL		100
27) Fluorene	29.130	166	112665M4	423.470	ng/mL		
41) Phenanthrene	32.953	178	169755	432.847	ng/mL		96
53) Anthracene	33.126	178	156298	427.684	ng/mL		99
56) Fluoranthene	37.727	202	175250M4	445.608	ng/mL		
59) Pyrene	38.612	202	179709	440.318	ng/mL#		74
75) Benz[a]anthracene	43.397	228	170066	419.237	ng/mL		100
76) Chrysene	43.552	228	180313	449.291	ng/mL		83
85) Benzo[b]fluoranthene	47.454	252	191620	418.981	ng/mL		97
86) Benzo[j]+[k]fluoranthene	47.536	252	212441	450.069	ng/mL		95
90) Benzo[a]pyrene	48.670	252	165459	377.600	ng/mL		96
92) Indeno[1,2,3-cd]pyrene	53.609	276	209488M3	348.831	ng/mL		
93) Dibenz[ah]+[ac]anthracene	53.673	278	197483	374.611	ng/mL		97
94) Benzo[g,h,i]perylene	54.943	276	213502	401.827	ng/mL		100

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

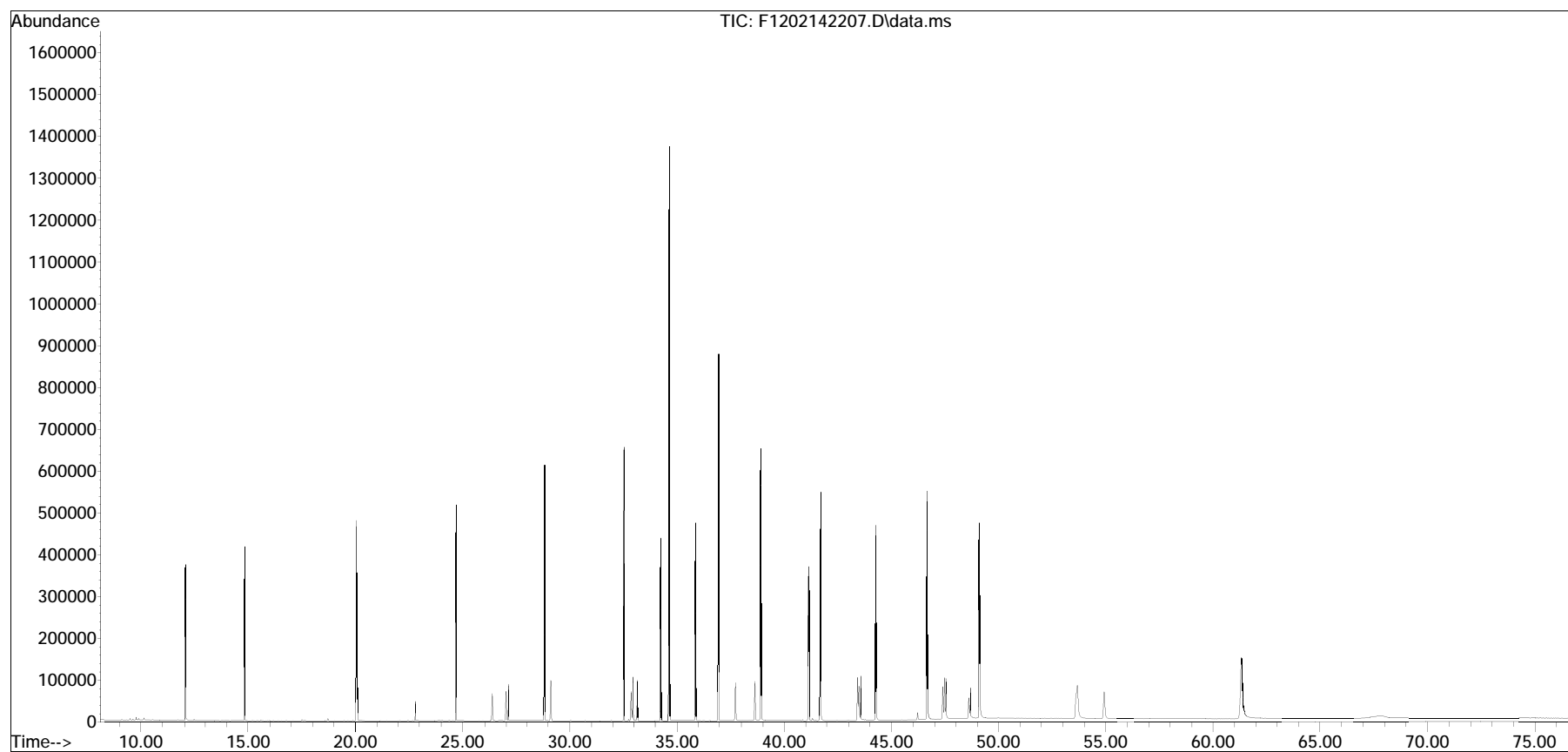


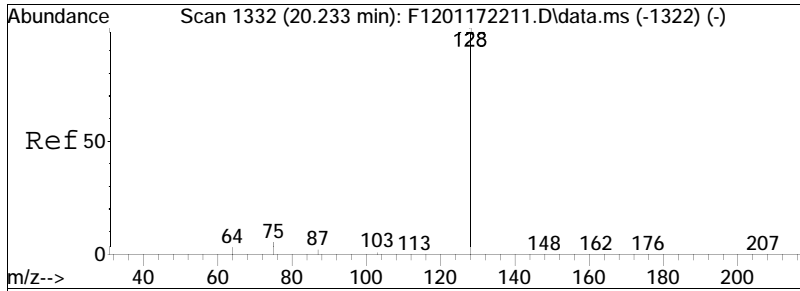
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
Data File : F1202142207.D  
Acq On : 14 Feb 2022 7:43 pm  
Operator : PAH12:MJS  
Sample : wgl603644-2,32,,  
Misc : WG1605097,WG1603644,ICAL18670  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 21 15:17:37 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Wed Feb 09 13:46:27 2022  
Response via : Initial Calibration

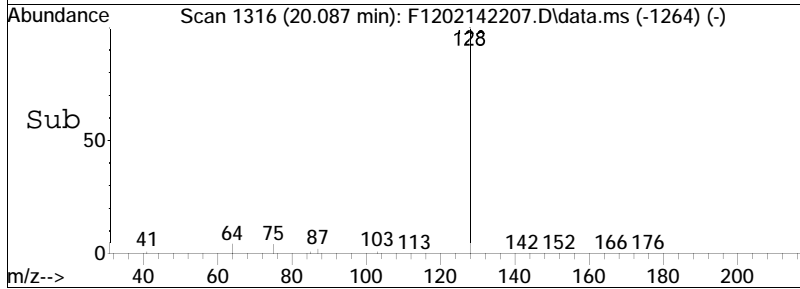
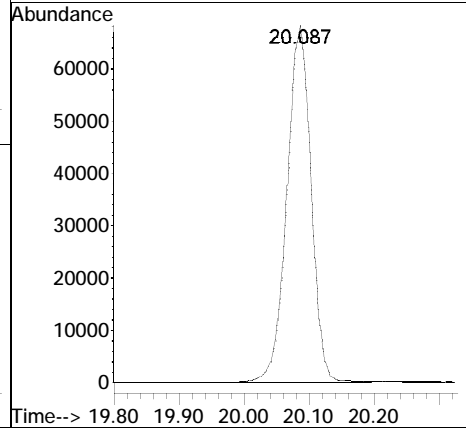
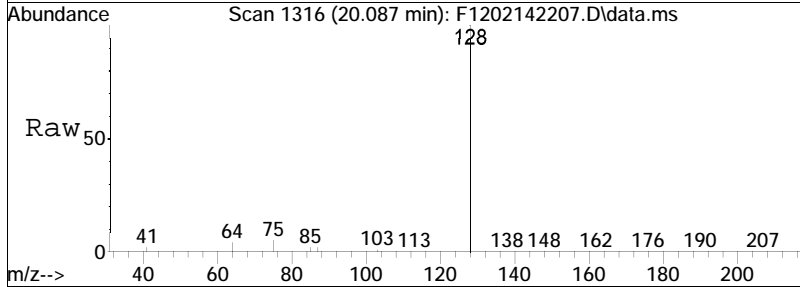
Sub List : ALKPAH\_LCS\_QC - LCS\_spike compounds

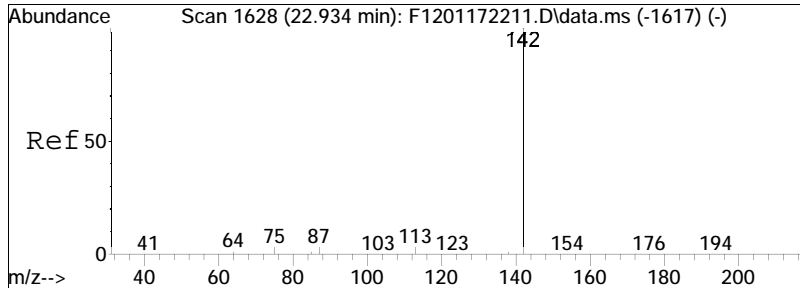




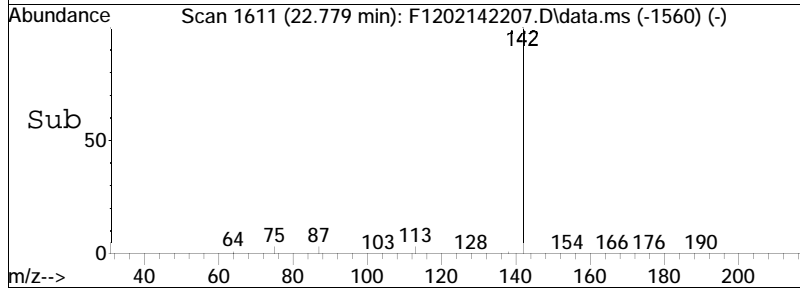
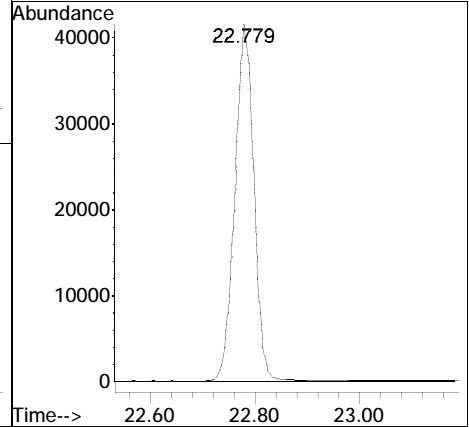
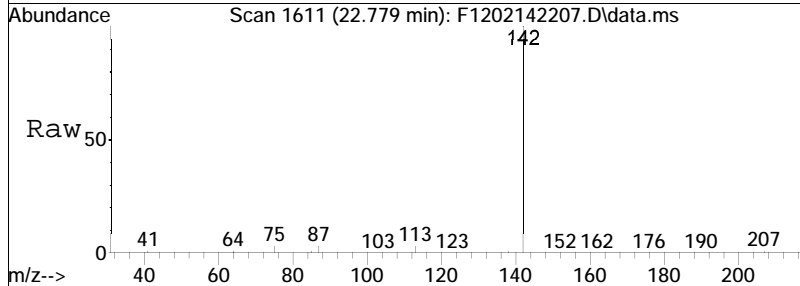
#9  
 Naphthalene  
 Concen: 433.66 ng/mL  
 RT: 20.087 min Scan# 1316  
 Delta R.T. -0.027 min  
 Lab File: F1202142207.D  
 Acq: 14 Feb 2022 7:43 pm

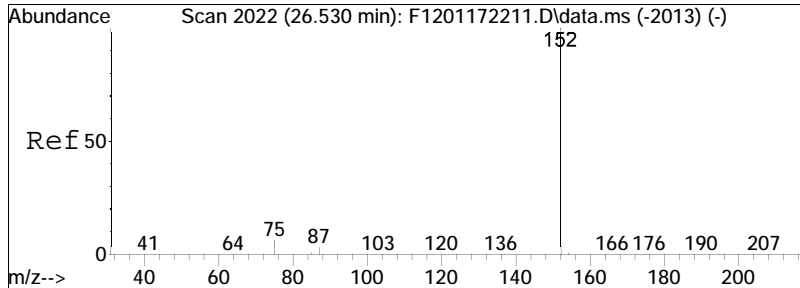
Tgt Ion:128 Resp: 172725



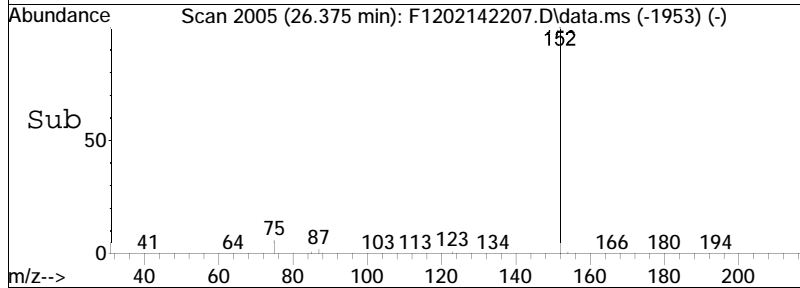
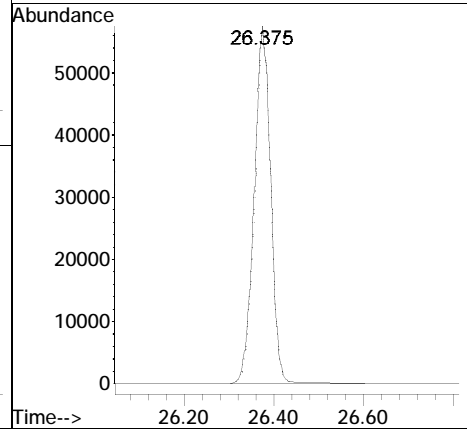
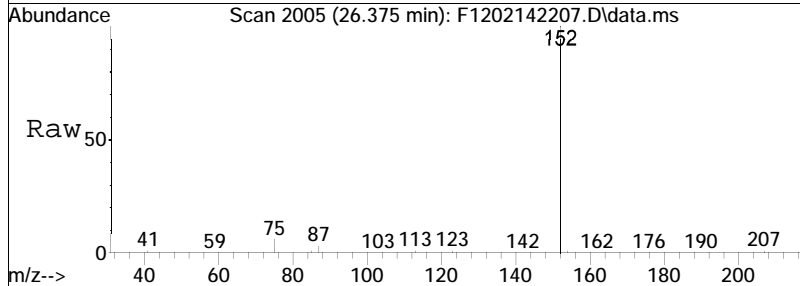


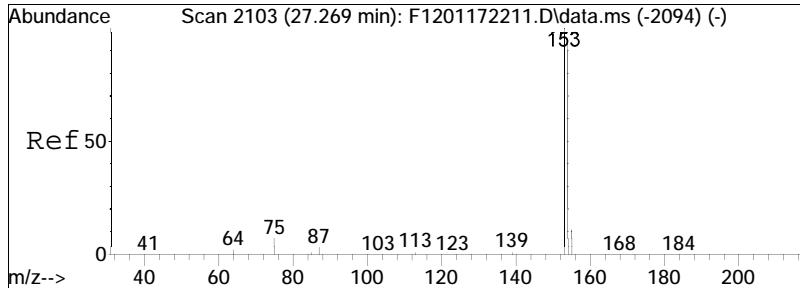
#14  
 2-Methylnaphthalene  
 Concen: 405.36 ng/mL  
 RT: 22.779 min Scan# 1611  
 Delta R.T. -0.036 min  
 Lab File: F1202142207.D  
 Acq: 14 Feb 2022 7:43 pm  
 Tgt Ion:142 Resp: 102531





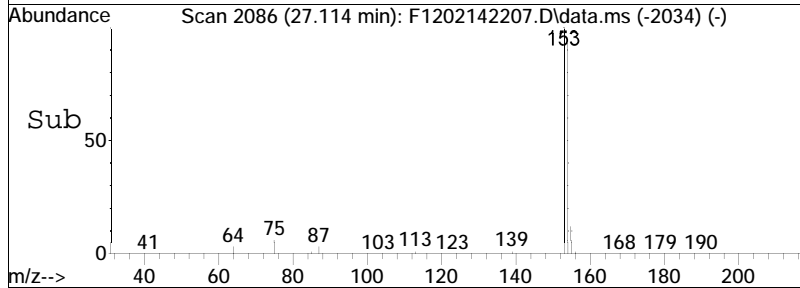
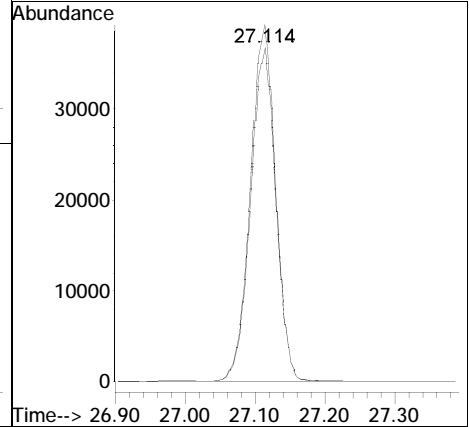
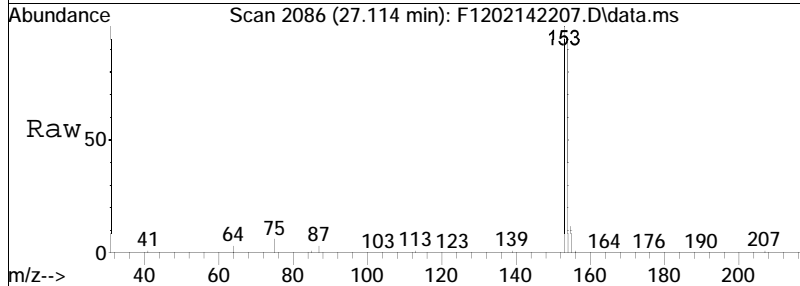
#24  
 Acenaphthylene  
 Concen: 373.90 ng/mL  
 RT: 26.375 min Scan# 2005  
 Delta R.T. -0.027 min  
 Lab File: F1202142207.D  
 Acq: 14 Feb 2022 7:43 pm  
 Tgt Ion:152 Resp: 142131

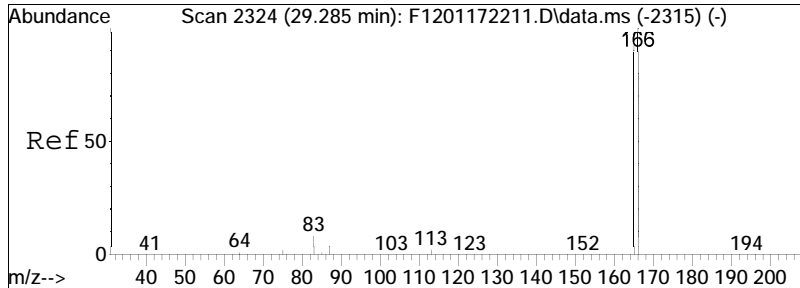




#25  
 Acenaphthene  
 Concen: 408.14 ng/mL  
 RT: 27.114 min Scan# 2086  
 Delta R.T. -0.027 min  
 Lab File: F1202142207.D  
 Acq: 14 Feb 2022 7:43 pm

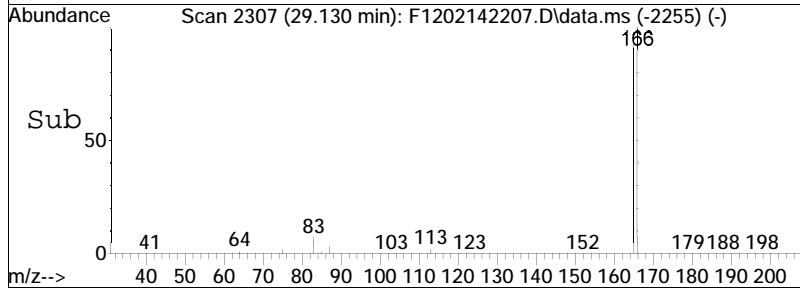
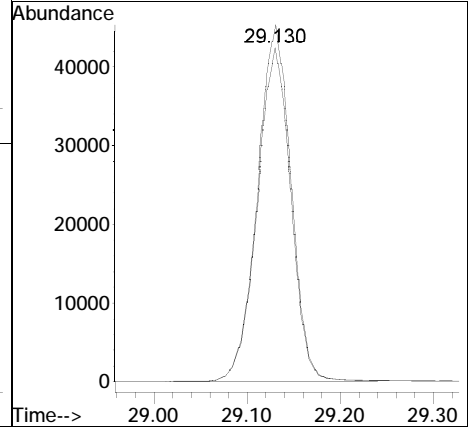
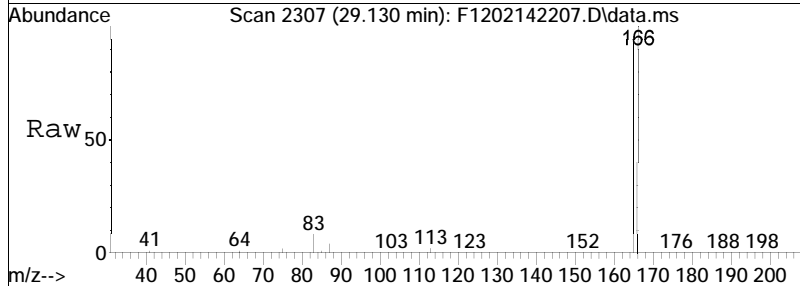
Tgt Ion	Resp	Lower	Upper
153	100		
154	93.4	65.4	121.4

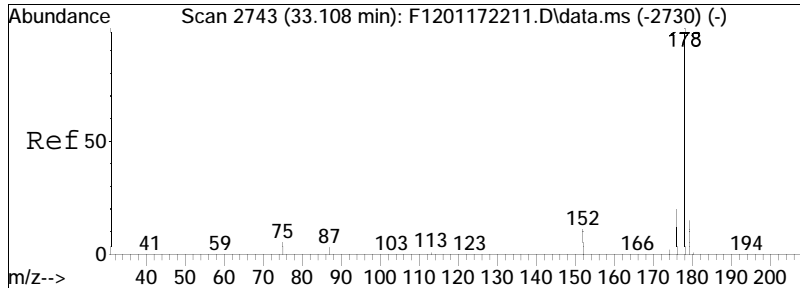




#27  
 Fluorene  
 Concen: 423.47 ng/mL M4  
 RT: 29.130 min Scan# 2307  
 Delta R.T. -0.027 min  
 Lab File: F1202142207.D  
 Acq: 14 Feb 2022 7:43 pm

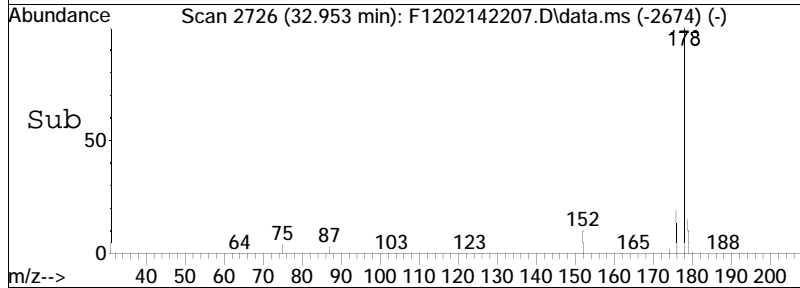
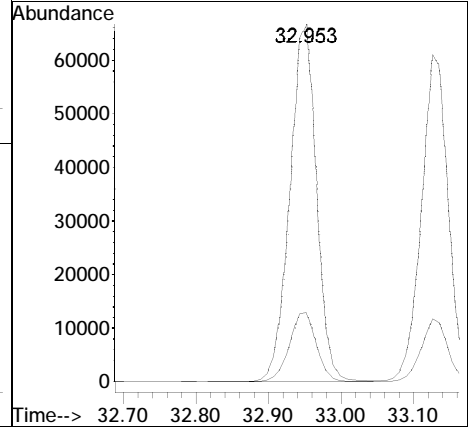
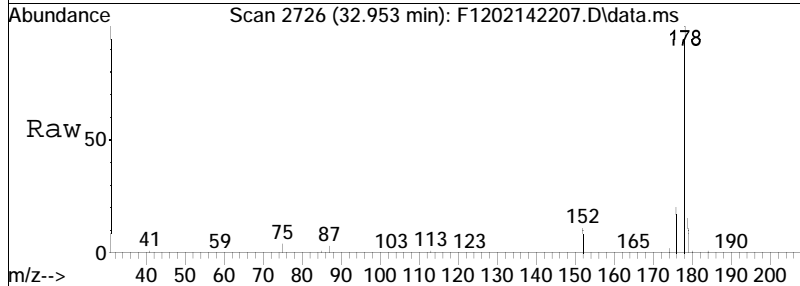
Tgt Ion	Resp	Lower	Upper
166	100		
165	95.2	66.4	123.4

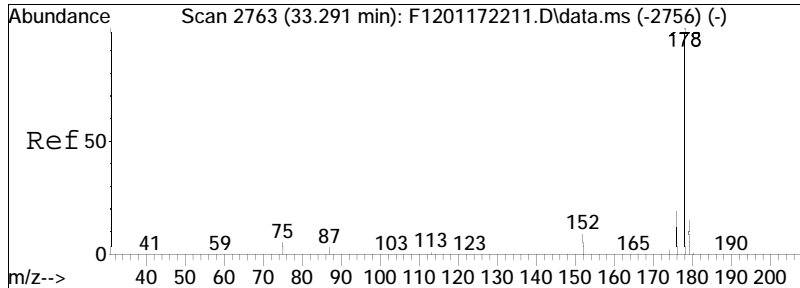




#41  
 Phenanthrene  
 Concen: 432.85 ng/mL  
 RT: 32.953 min Scan# 2726  
 Delta R.T. -0.027 min  
 Lab File: F1202142207.D  
 Acq: 14 Feb 2022 7:43 pm

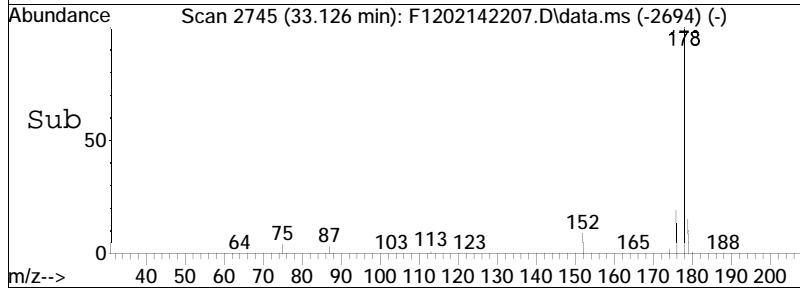
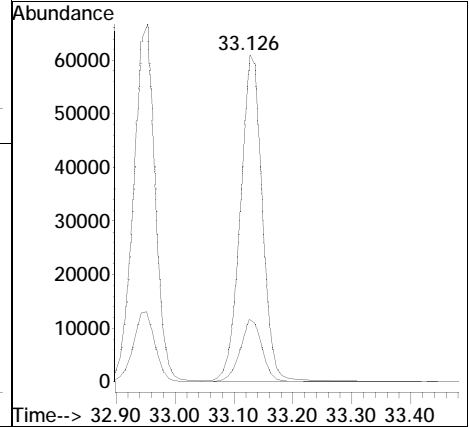
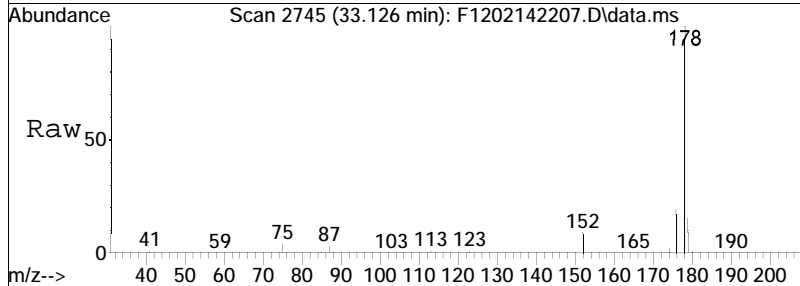
Tgt Ion	Resp	Lower	Upper
178	100		
176	19.5	14.8	27.6



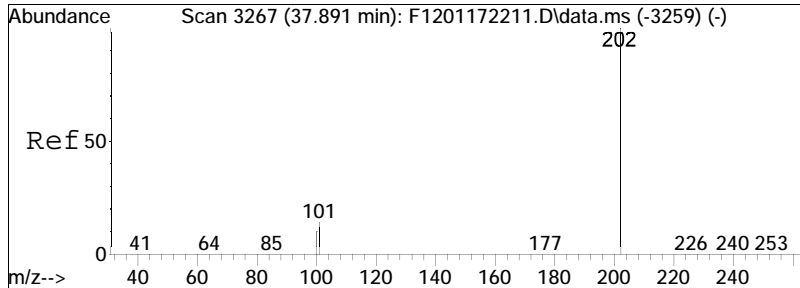


#53  
 Anthracene  
 Concen: 427.68 ng/mL  
 RT: 33.126 min Scan# 2745  
 Delta R.T. -0.036 min  
 Lab File: F1202142207.D  
 Acq: 14 Feb 2022 7:43 pm

Tgt Ion	Resp	Lower	Upper
178	100		
176	18.8	13.4	24.8

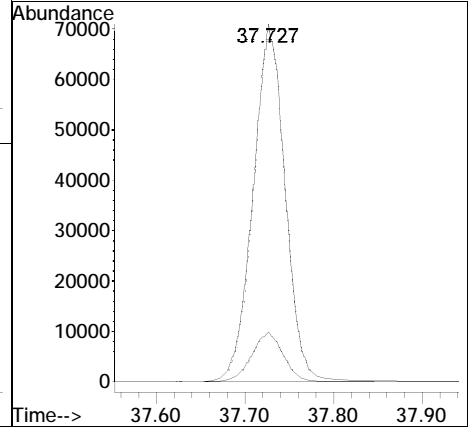
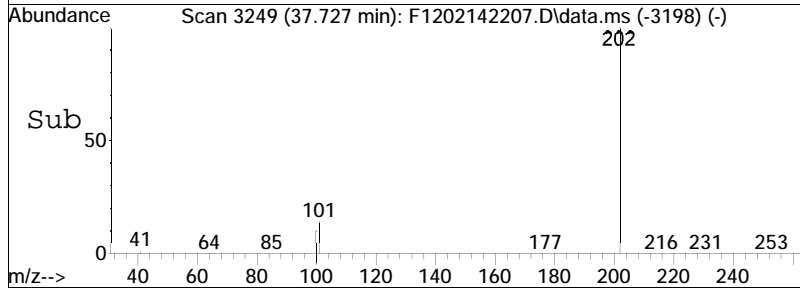
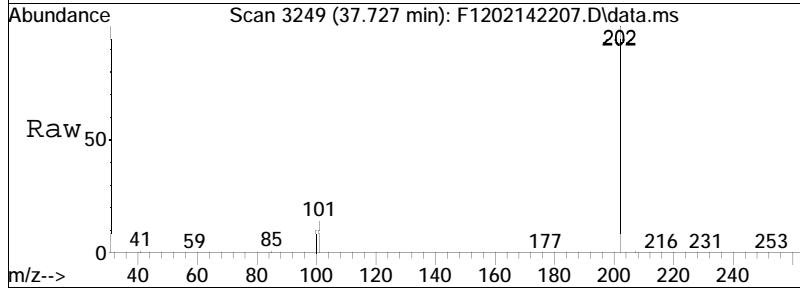


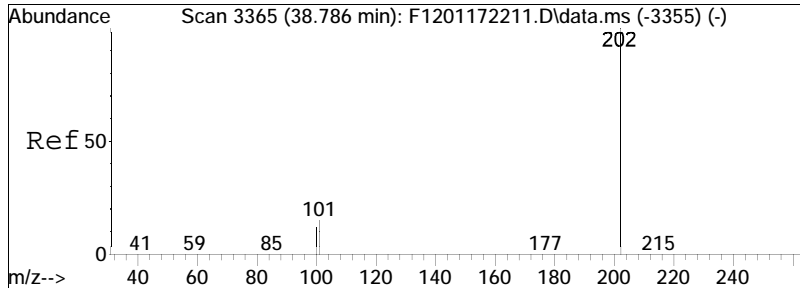




#56  
 Fluoranthene  
 Concen: 445.61 ng/mL M4  
 RT: 37.727 min Scan# 3249  
 Delta R.T. -0.036 min  
 Lab File: F1202142207.D  
 Acq: 14 Feb 2022 7:43 pm

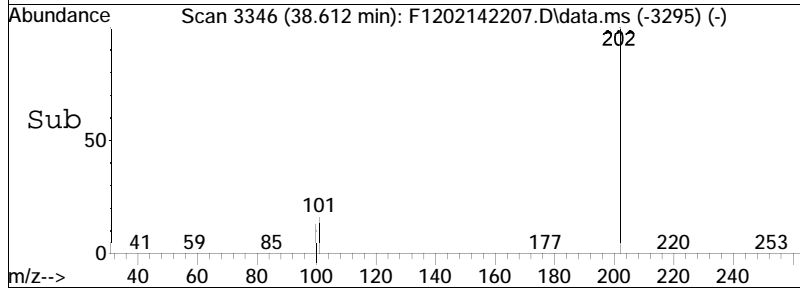
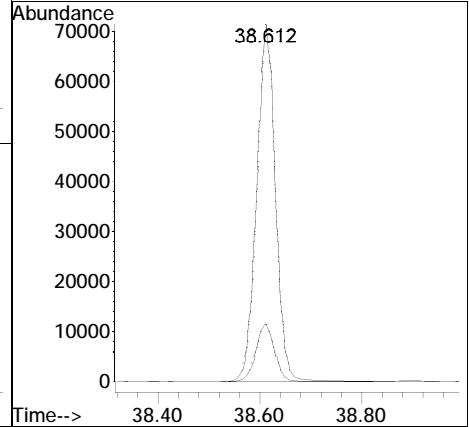
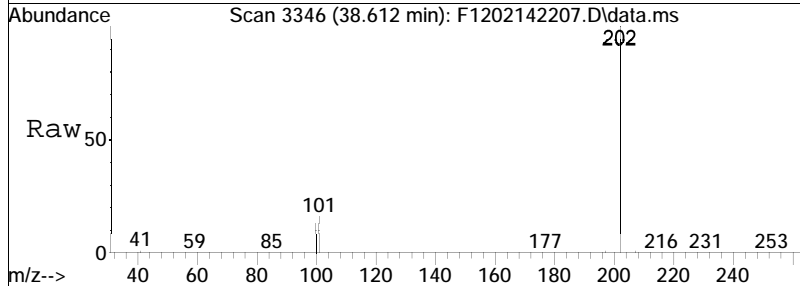
Tgt Ion	202	Resp:	175250
Ion Ratio	Lower	Upper	
202	100		
101	13.9	8.4	15.6

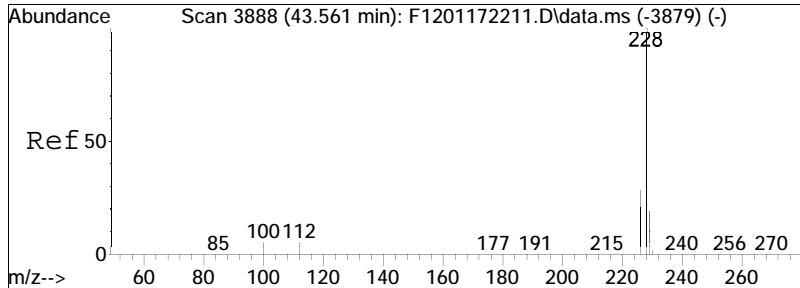




#59  
 Pyrene  
 Concen: 440.32 ng/mL  
 RT: 38.612 min Scan# 3346  
 Delta R.T. -0.036 min  
 Lab File: F1202142207.D  
 Acq: 14 Feb 2022 7:43 pm

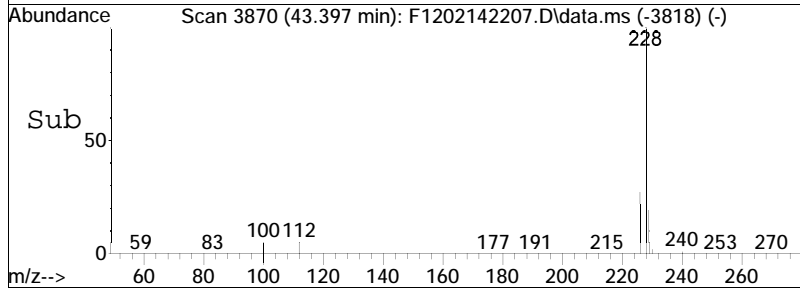
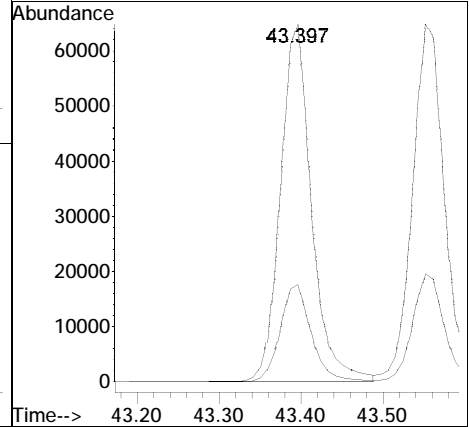
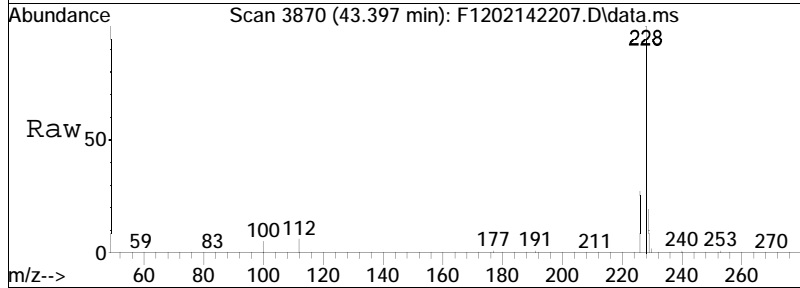
Tgt Ion	202	Resp:	179709
Ion Ratio	Lower	Upper	
202	100		
101	16.1	21.0	39.0#

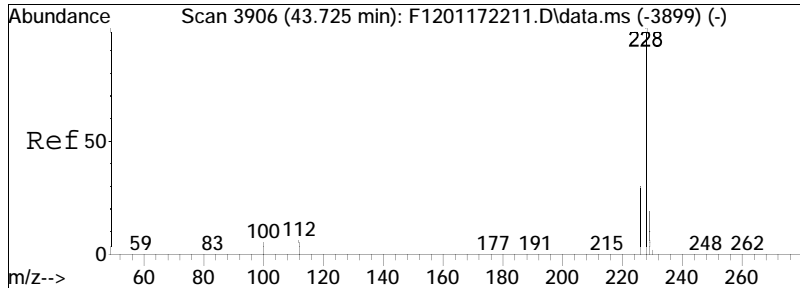




#75  
 Benz[a]anthracene  
 Concen: 419.24 ng/mL  
 RT: 43.397 min Scan# 3870  
 Delta R.T. -0.027 min  
 Lab File: F1202142207.D  
 Acq: 14 Feb 2022 7:43 pm

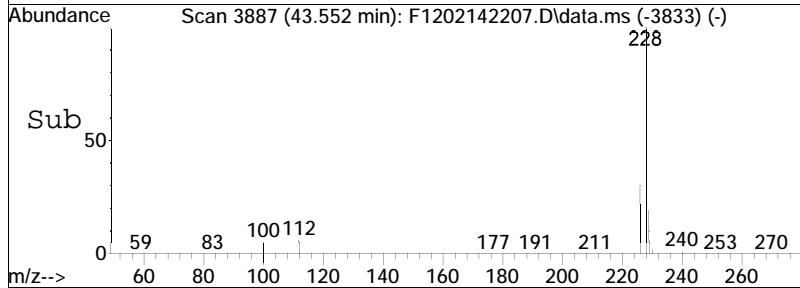
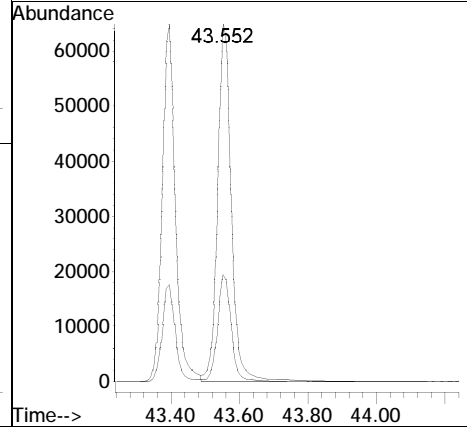
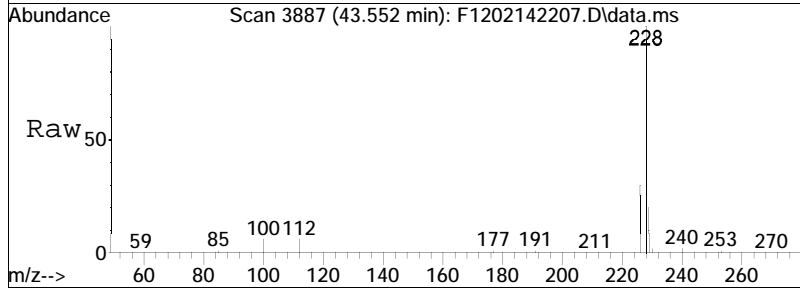
Tgt Ion	Resp	Lower	Upper
228	100		
226	27.2	19.1	35.5

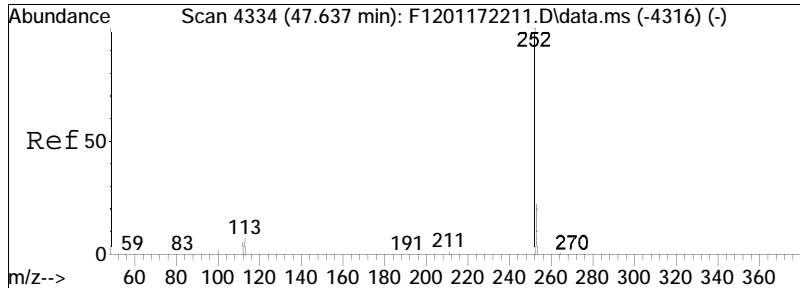




#76  
 Chrysene  
 Concen: 449.29 ng/mL  
 RT: 43.552 min Scan# 3887  
 Delta R.T. -0.009 min  
 Lab File: F1202142207.D  
 Acq: 14 Feb 2022 7:43 pm

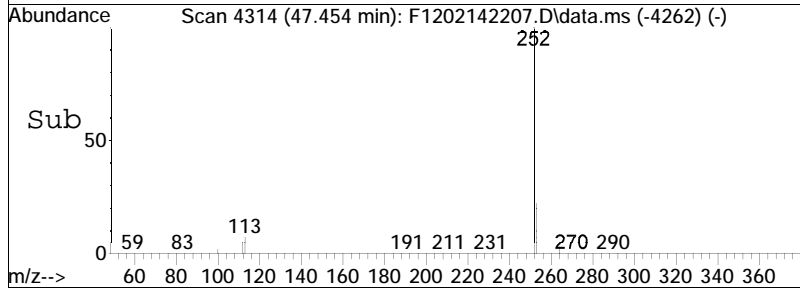
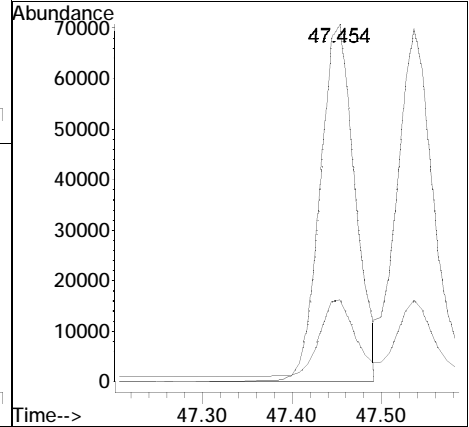
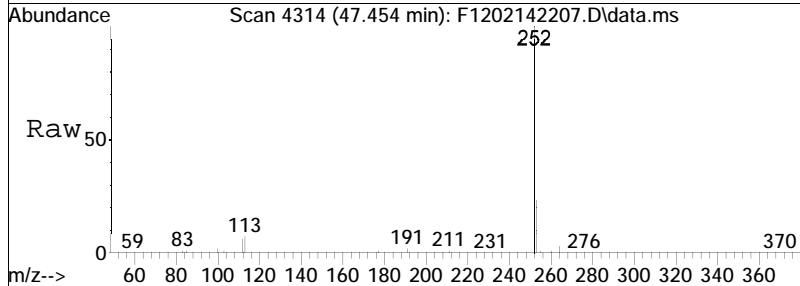
Tgt Ion	Resp	Lower	Upper
228	100		
226	29.4	27.8	51.6

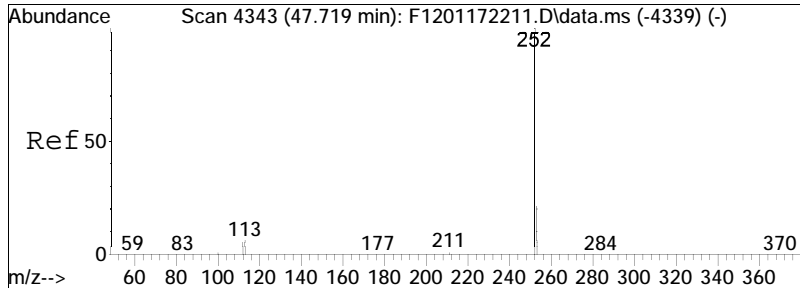




#85  
 Benzo[b]fluoranthene  
 Concen: 418.98 ng/mL  
 RT: 47.454 min Scan# 4314  
 Delta R.T. -0.027 min  
 Lab File: F1202142207.D  
 Acq: 14 Feb 2022 7:43 pm

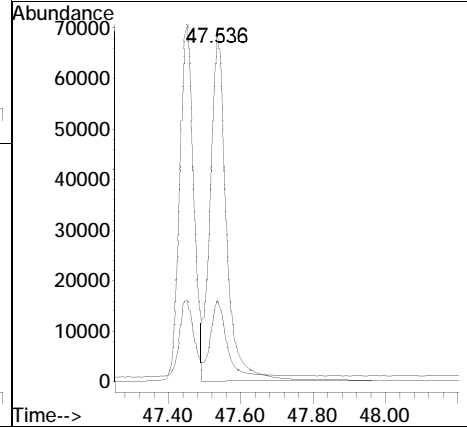
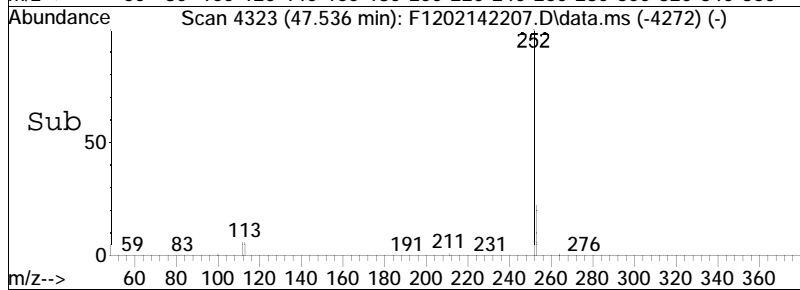
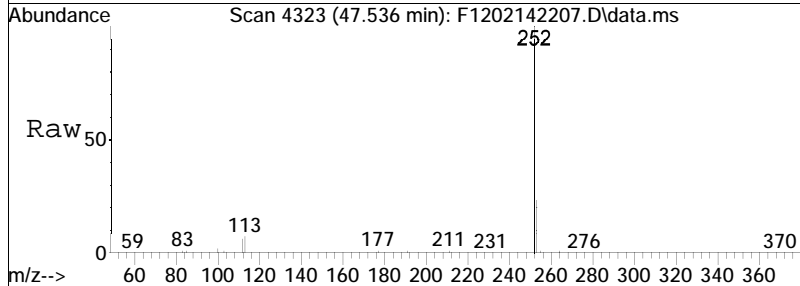
Tgt Ion: 252 Resp: 191620  
 Ion Ratio Lower Upper  
 252 100  
 253 22.0 16.6 30.8

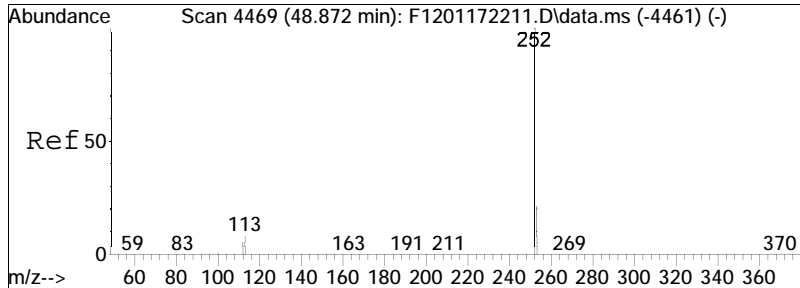




#86  
 Benzo[j]+[k]fluoranthene  
 Concen: 450.07 ng/mL  
 RT: 47.536 min Scan# 4323  
 Delta R.T. -0.037 min  
 Lab File: F1202142207.D  
 Acq: 14 Feb 2022 7:43 pm

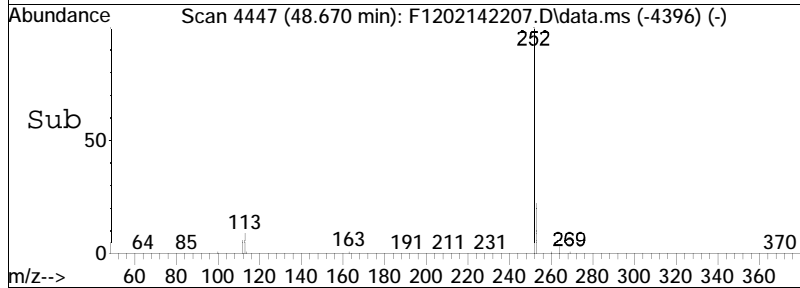
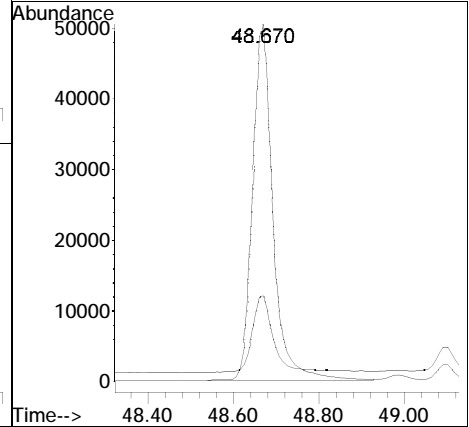
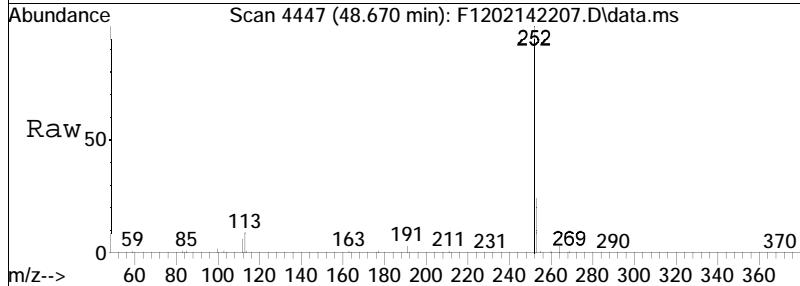
Tgt Ion	Resp	Lower	Upper
252	100		
253	20.9	16.4	30.4

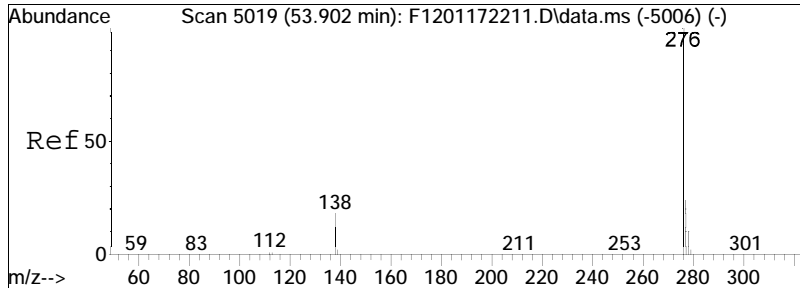




#90  
 Benzo[a]pyrene  
 Concen: 377.60 ng/mL  
 RT: 48.670 min Scan# 4447  
 Delta R.T. -0.037 min  
 Lab File: F1202142207.D  
 Acq: 14 Feb 2022 7:43 pm

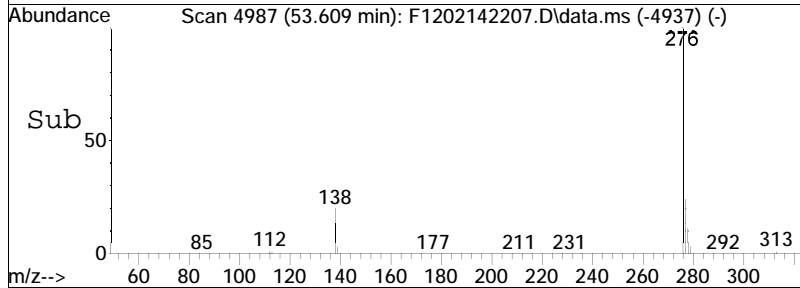
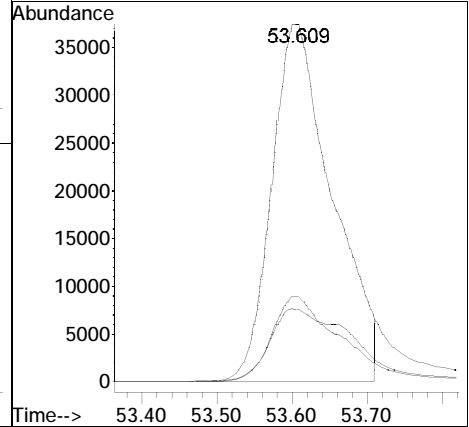
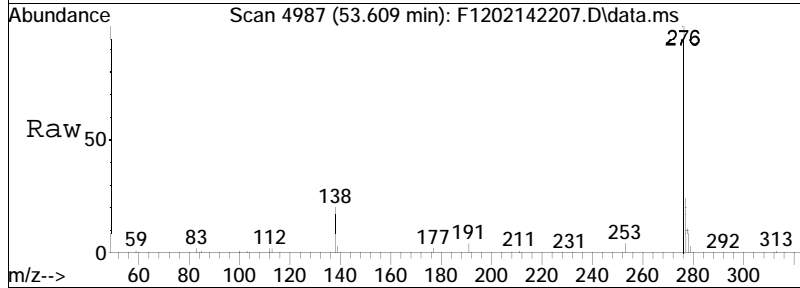
Tgt Ion	Resp	Lower	Upper
252	100		
253	21.9	16.8	31.2



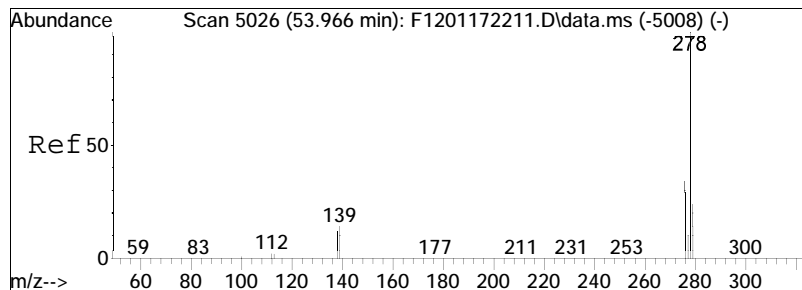


#92  
 Indeno[1,2,3-cd]pyrene  
 Concen: 348.83 ng/mL M3  
 RT: 53.609 min Scan# 4987  
 Delta R.T. -0.046 min  
 Lab File: F1202142207.D  
 Acq: 14 Feb 2022 7:43 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	30.2	12.2	22.7#
277	29.0	16.7	30.9

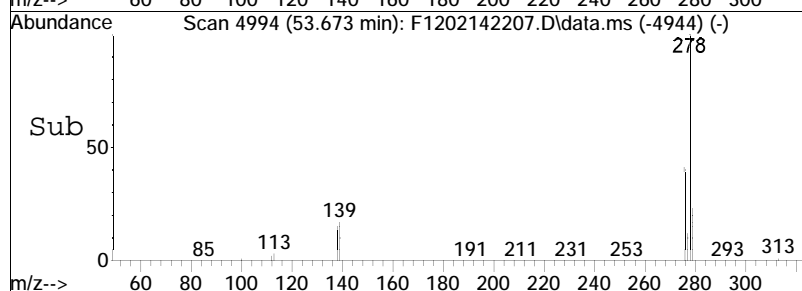
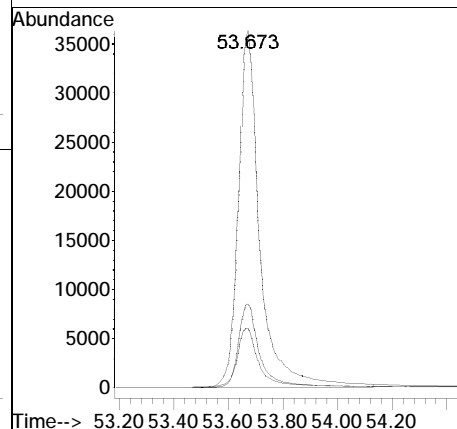
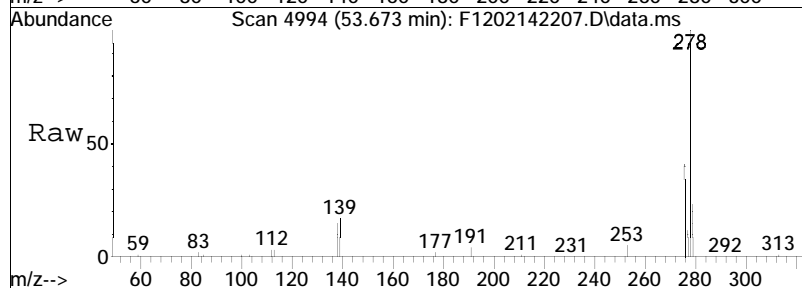


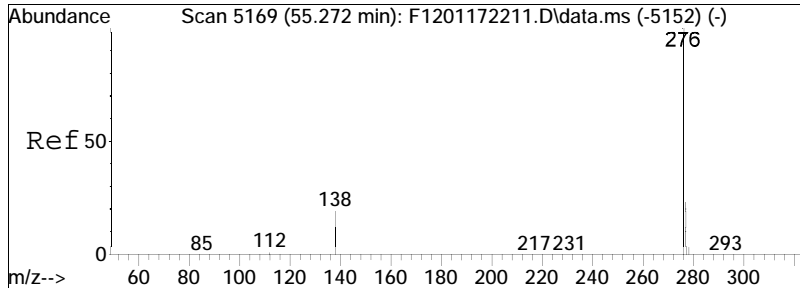




#93  
 Dibenz[ah]+[ac]anthracene  
 Concen: 374.61 ng/mL  
 RT: 53.673 min Scan# 4994  
 Delta R.T. -0.046 min  
 Lab File: F1202142207.D  
 Acq: 14 Feb 2022 7:43 pm

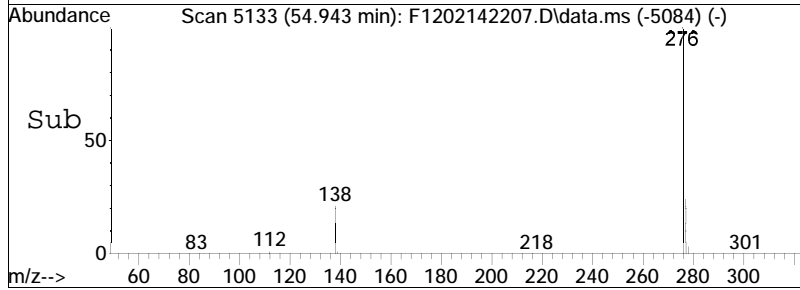
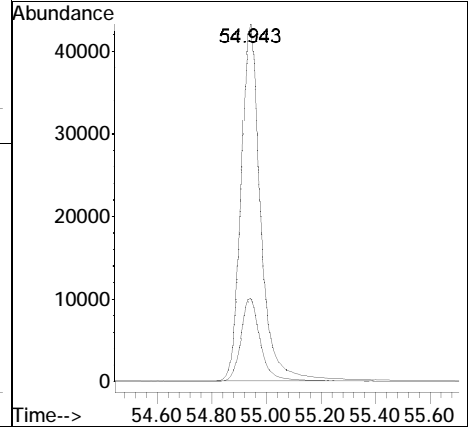
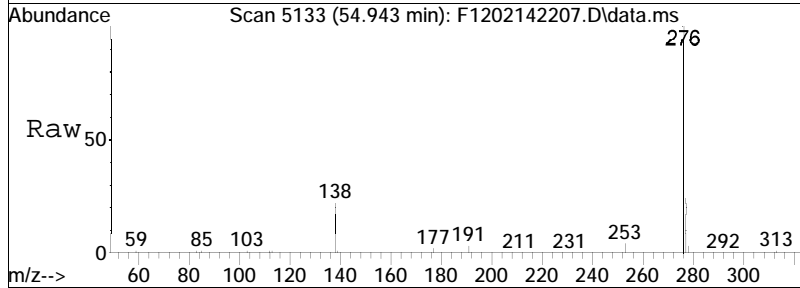
Tgt Ion	Resp	Lower	Upper
278	100		
139	17.0	10.1	18.7
279	24.5	16.6	30.8





#94  
 Benzo[g,h,i]perylene  
 Concen: 401.83 ng/mL  
 RT: 54.943 min Scan# 5133  
 Delta R.T. -0.055 min  
 Lab File: F1202142207.D  
 Acq: 14 Feb 2022 7:43 pm

Tgt Ion: 276 Resp: 213502  
 Ion Ratio Lower Upper  
 276 100  
 277 23.4 16.4 30.6



# **LCS Duplicate Raw Data**

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
 Data File : F1202142208.D  
 Acq On : 14 Feb 2022 9:08 pm  
 Operator : PAH12:MJS  
 Sample : wgl603644-3,32,,  
 Misc : WG1605097,WG1603644,ICAL18670  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 21 15:19:31 2022  
 Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
 Quant Title : Decalins & Alkylated PAH's  
 QLast Update : Wed Feb 09 13:46:27 2022  
 Response via : Initial Calibration

Sub List : ALKPAH\_LCS\_QC - LCS\_spike compounds

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Acenaphthene-d10	26.986	164	80343M4	500.000	ng/mL	-0.04	
74) Chrysene-d12	43.460	240	162866	500.000	ng/mL	-0.04	
System Monitoring Compounds							
8) Naphthalene-d8	20.014	136	157774	455.461	ng/mL	-0.03	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	45.55%#	
40) Phenanthrene-d10	32.862	188	138152	475.996	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	47.60%#	
84) Benzo[b]fluoranthene-d12	47.362	264	172482	455.455	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	45.55%#	
89) Benzo[a]pyrene-d12	48.579	264	119895	418.302	ng/mL	-0.04	
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	41.83%#	
129) 5B(H)Cholane - Surr	0.000	217	0	0.000	ng/ml		
Spiked Amount	1000.000	Range	50 - 130	Recovery	=	0.00%#	
Target Compounds							
9) Naphthalene	20.087	128	178641	466.384	ng/mL		Qvalue 100
14) 2-Methylnaphthalene	22.779	142	105994	435.750	ng/mL		100
24) Acenaphthylene	26.374	152	146497	400.743	ng/mL		100
25) Acenaphthene	27.114	153	101355	438.240	ng/mL		100
27) Fluorene	29.130	166	115827M4	452.701	ng/mL		
41) Phenanthrene	32.953	178	173877	461.021	ng/mL		96
53) Anthracene	33.126	178	159965	455.158	ng/mL		99
56) Fluoranthene	37.727	202	178109M4	470.921	ng/mL		
59) Pyrene	38.612	202	182943	466.100	ng/mL#		74
75) Benz[a]anthracene	43.387	228	172955	439.464	ng/mL		99
76) Chrysene	43.552	228	182976	469.940	ng/mL		84
85) Benzo[b]fluoranthene	47.454	252	197900	446.012	ng/mL		96
86) Benzo[j]+[k]fluoranthene	47.536	252	215948	471.561	ng/mL		95
90) Benzo[a]pyrene	48.661	252	167590	394.219	ng/mL		95
92) Indeno[1,2,3-cd]pyrene	53.600	276	214328M3	367.860	ng/mL		
93) Dibenz[ah]+[ac]anthracene	53.664	278	197292M4	385.752	ng/mL		
94) Benzo[g,h,i]perylene	54.934	276	215480	418.015	ng/mL		100

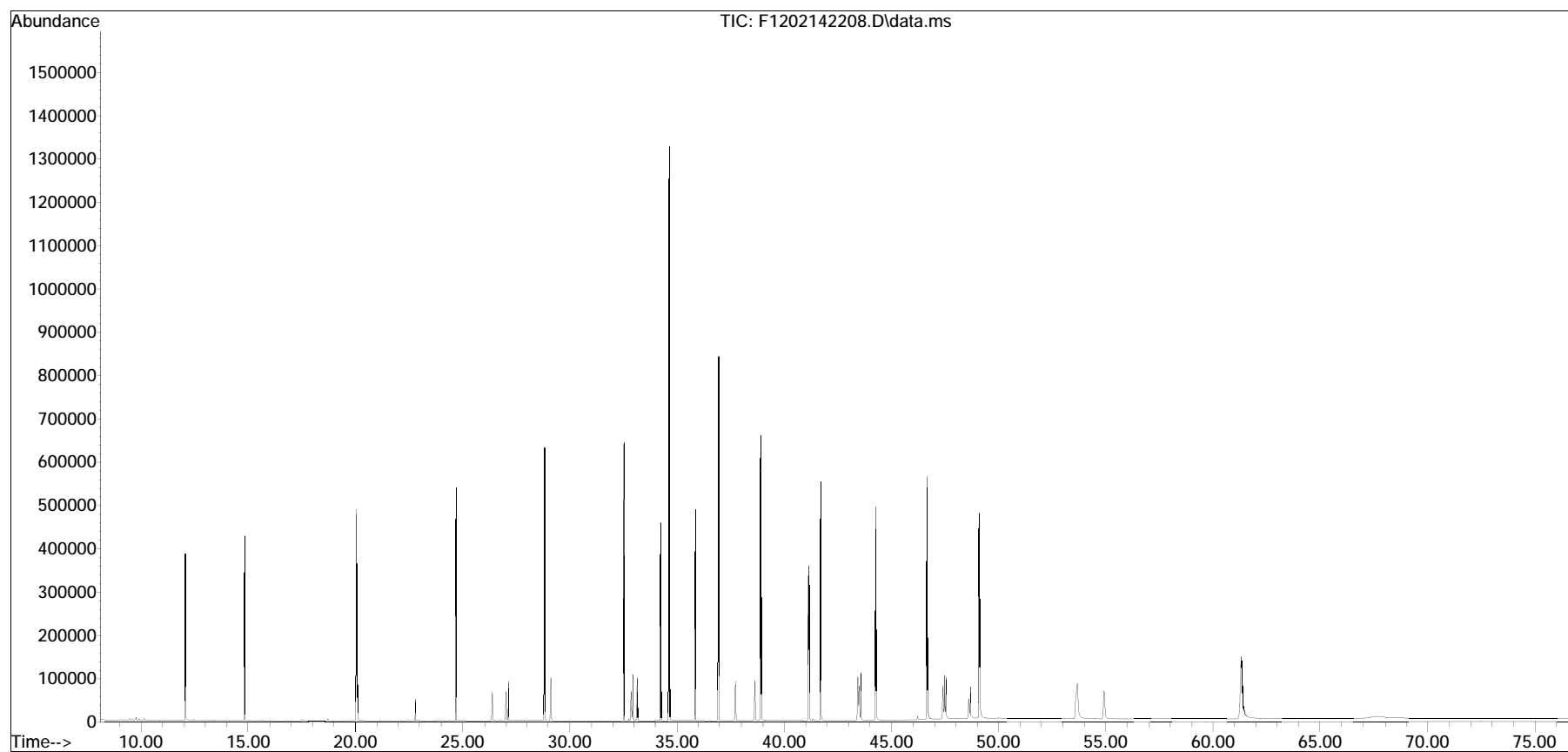
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 (#) = qualifier out of range (m) = manual integration (+) = signals summed

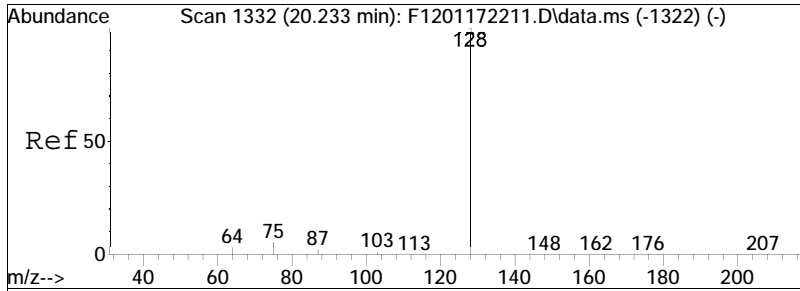
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\  
Data File : F1202142208.D  
Acq On : 14 Feb 2022 9:08 pm  
Operator : PAH12:MJS  
Sample : wg1603644-3,32,,  
Misc : WG1605097,WG1603644,ICAL18670  
ALS Vial : 8 Sample Multiplier: 1

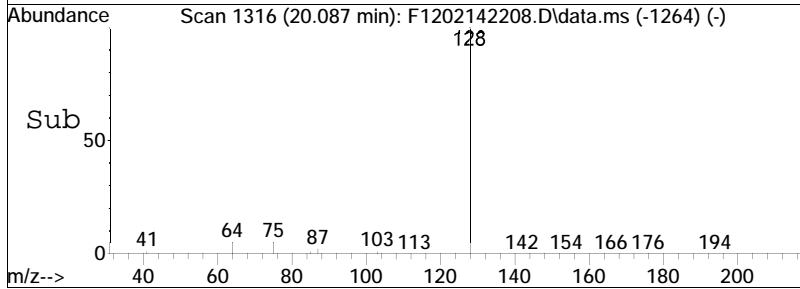
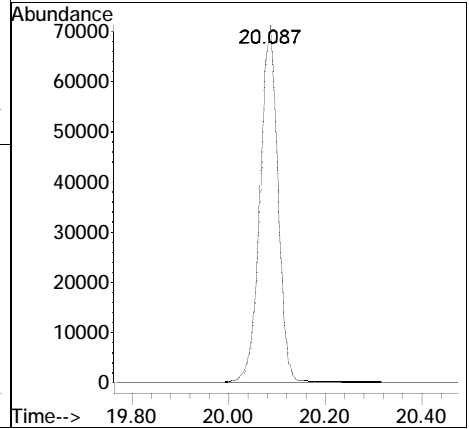
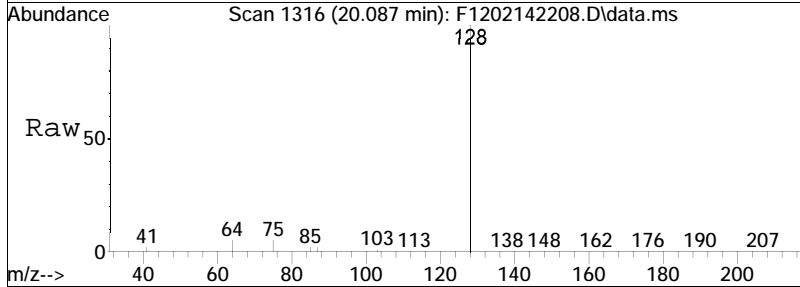
Quant Time: Feb 21 15:19:31 2022  
Quant Method : O:\Forensics\Data\PAH12\2022\FEB22\FEB14\PAH12011722.M  
Quant Title : Decalins & Alkylated PAH's  
QLast Update : Wed Feb 09 13:46:27 2022  
Response via : Initial Calibration

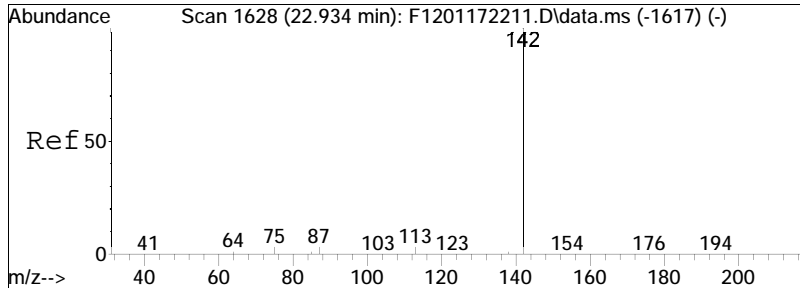
Sub List : ALKPAH\_LCS\_QC - LCS\_spike compounds



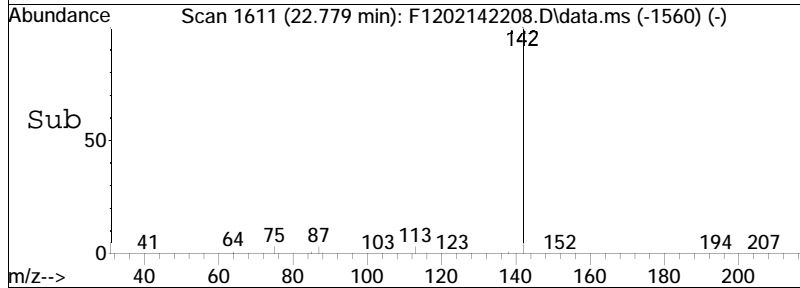
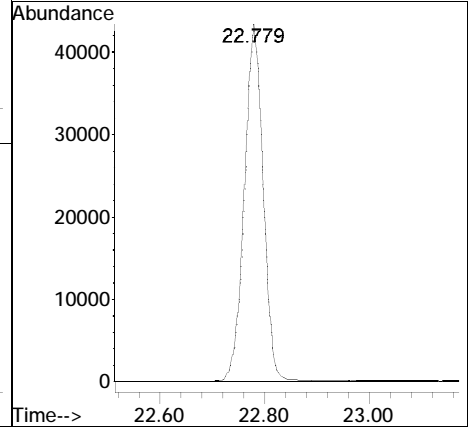
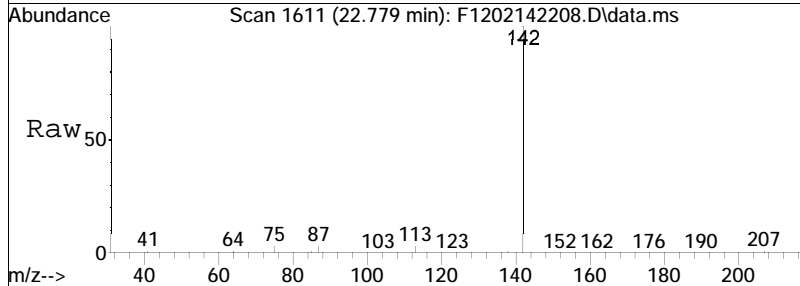


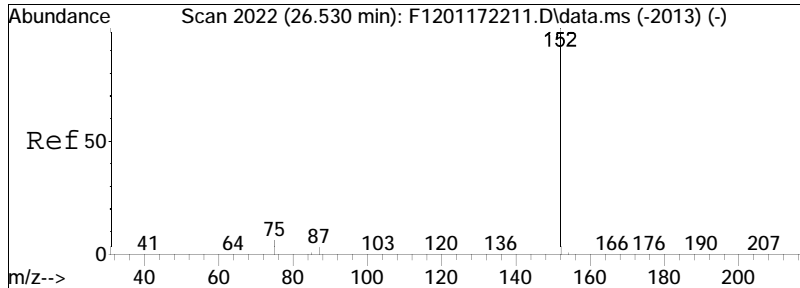
#9  
 Naphthalene  
 Concen: 466.38 ng/mL  
 RT: 20.087 min Scan# 1316  
 Delta R.T. -0.027 min  
 Lab File: F1202142208.D  
 Acq: 14 Feb 2022 9:08 pm  
 Tgt Ion:128 Resp: 178641



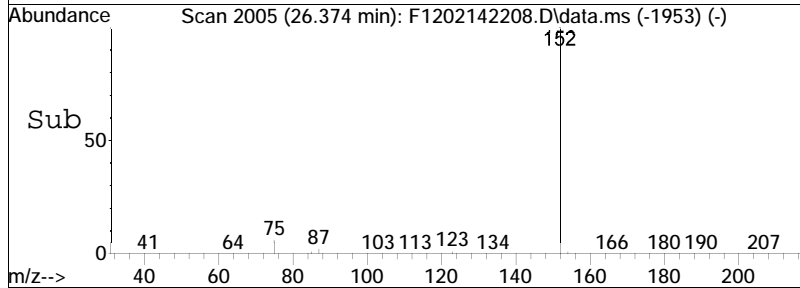
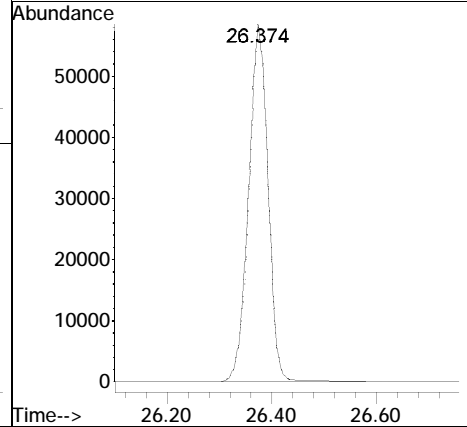
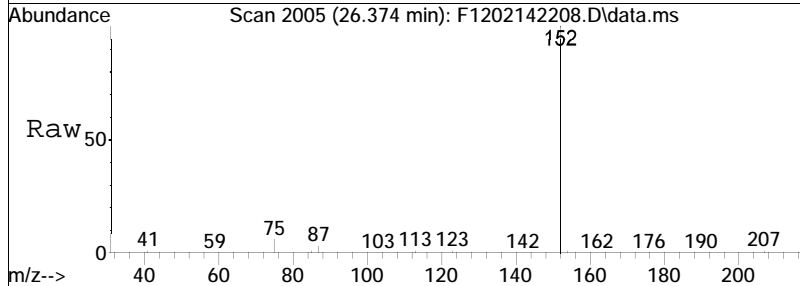


#14  
 2-Methylnaphthalene  
 Concen: 435.75 ng/mL  
 RT: 22.779 min Scan# 1611  
 Delta R.T. -0.037 min  
 Lab File: F1202142208.D  
 Acq: 14 Feb 2022 9:08 pm  
 Tgt Ion:142 Resp: 105994

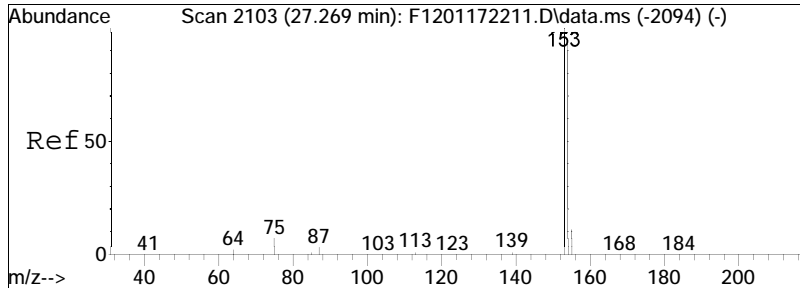




#24  
 Acenaphthylene  
 Concen: 400.74 ng/mL  
 RT: 26.374 min Scan# 2005  
 Delta R.T. -0.027 min  
 Lab File: F1202142208.D  
 Acq: 14 Feb 2022 9:08 pm  
 Tgt Ion:152 Resp: 146497

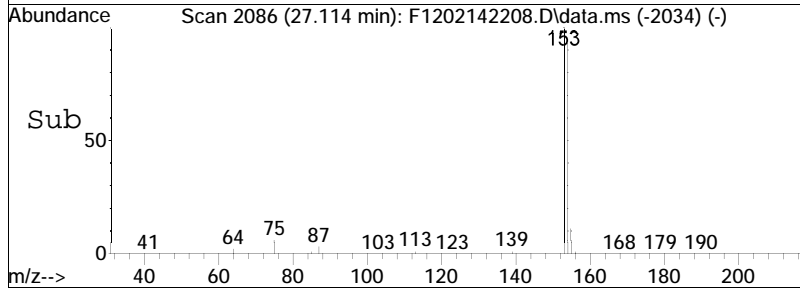
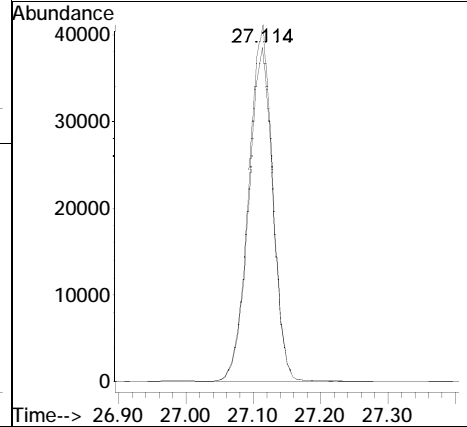
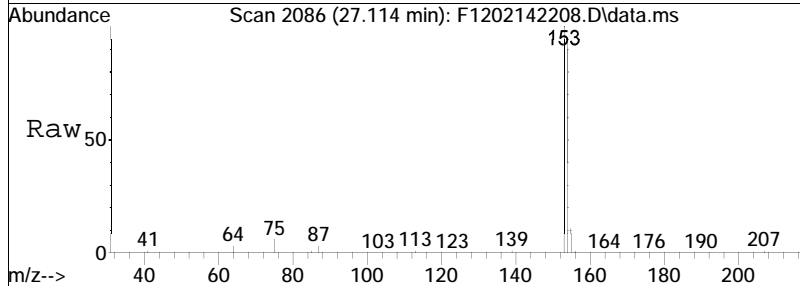


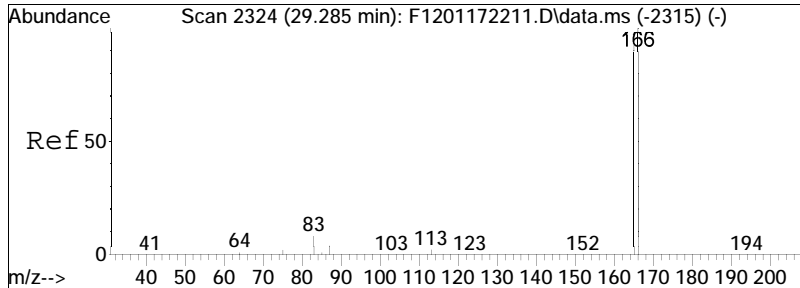




#25  
 Acenaphthene  
 Concen: 438.24 ng/mL  
 RT: 27.114 min Scan# 2086  
 Delta R.T. -0.027 min  
 Lab File: F1202142208.D  
 Acq: 14 Feb 2022 9:08 pm

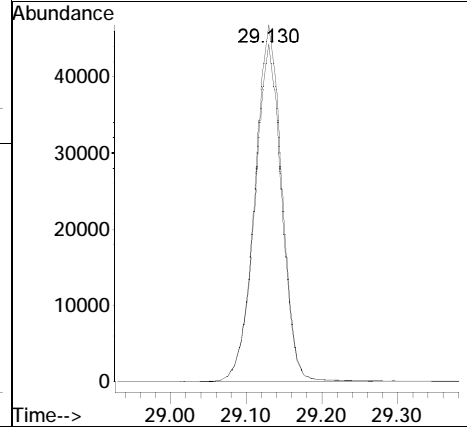
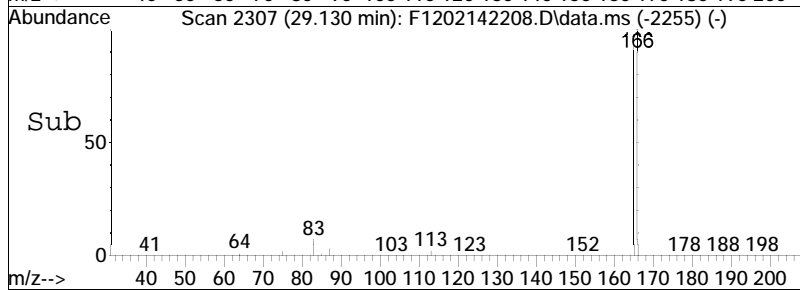
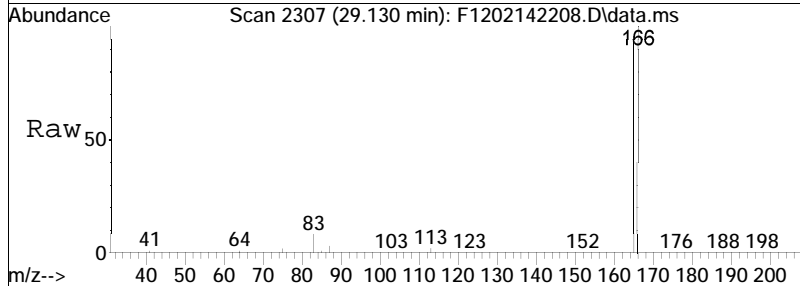
Tgt Ion	Resp	Lower	Upper
153	101355		
154	93.5	65.4	121.4

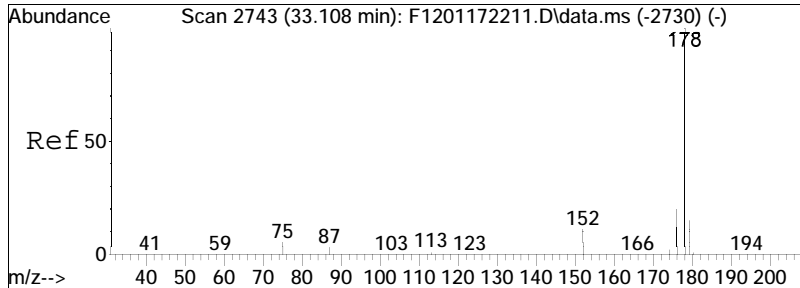




#27  
 Fluorene  
 Concen: 452.70 ng/mL M4  
 RT: 29.130 min Scan# 2307  
 Delta R.T. -0.027 min  
 Lab File: F1202142208.D  
 Acq: 14 Feb 2022 9:08 pm

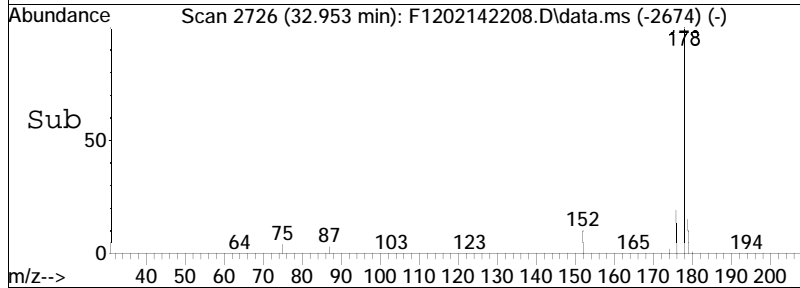
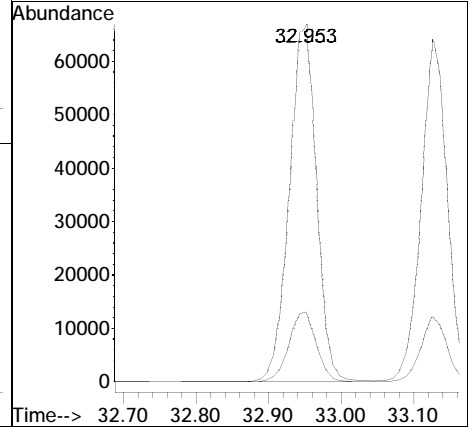
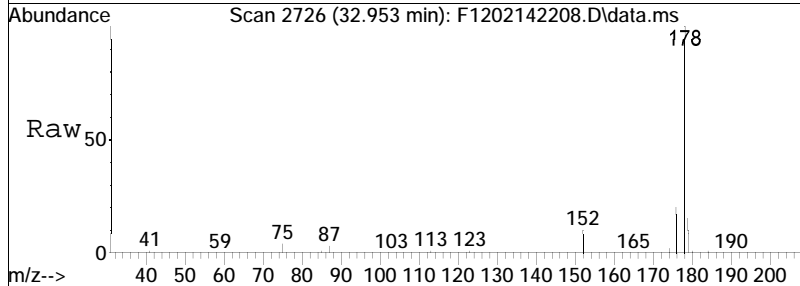
Tgt Ion	Resp	Lower	Upper
166	100		
165	94.8	66.4	123.4

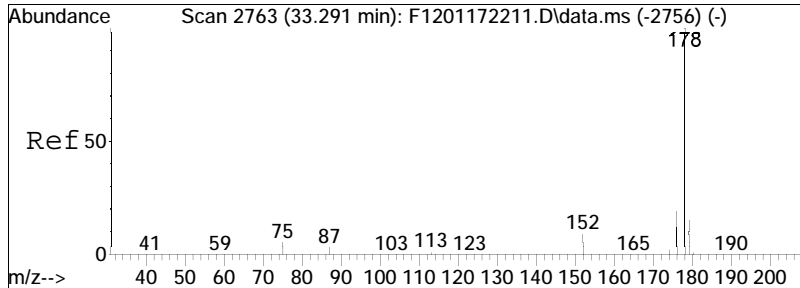




#41  
 Phenanthrene  
 Concen: 461.02 ng/mL  
 RT: 32.953 min Scan# 2726  
 Delta R.T. -0.027 min  
 Lab File: F1202142208.D  
 Acq: 14 Feb 2022 9:08 pm

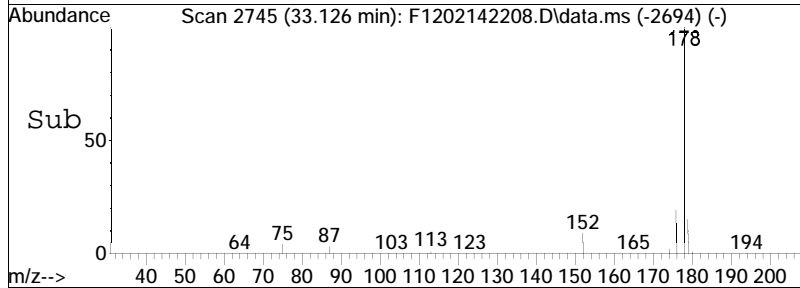
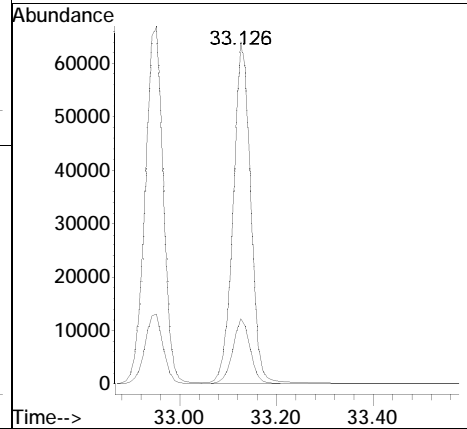
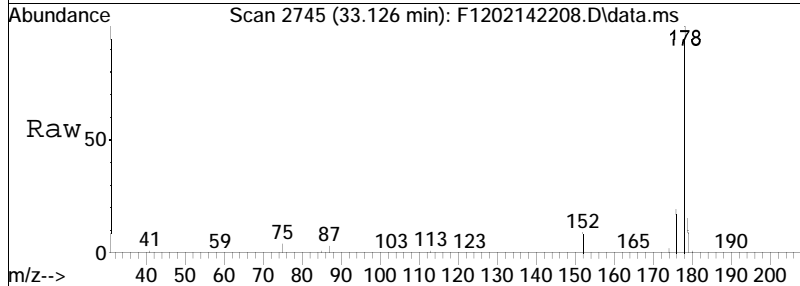
Tgt Ion	Resp	Lower	Upper
178	173877		
176	19.5	14.8	27.6

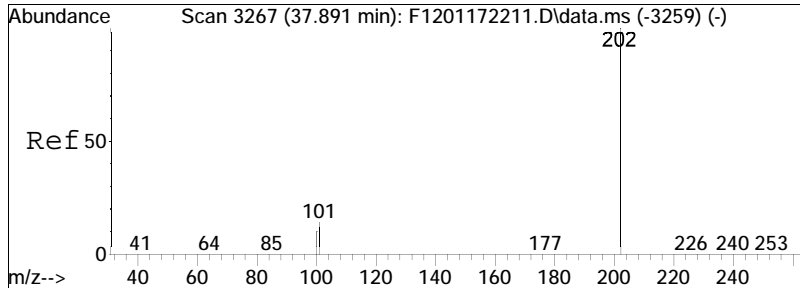




#53  
 Anthracene  
 Concen: 455.16 ng/mL  
 RT: 33.126 min Scan# 2745  
 Delta R.T. -0.037 min  
 Lab File: F1202142208.D  
 Acq: 14 Feb 2022 9:08 pm

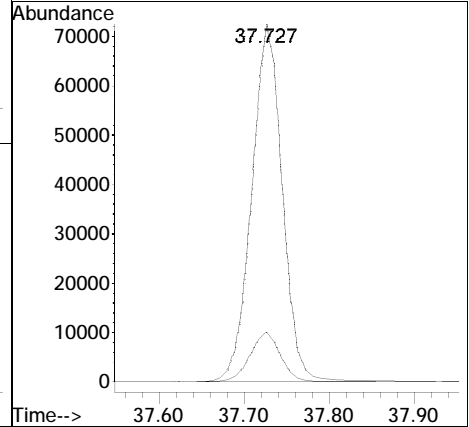
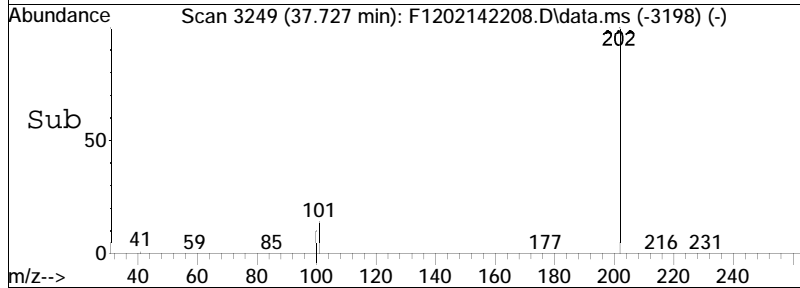
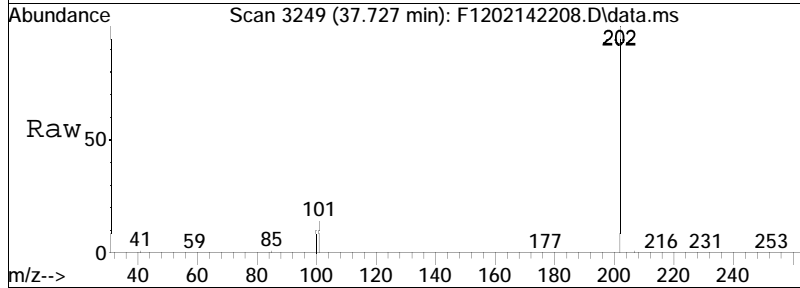
Tgt Ion	Resp	Lower	Upper
178	159965		
176	18.7	13.4	24.8

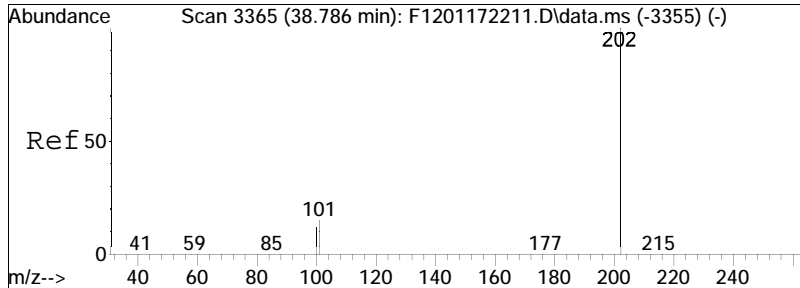




#56  
 Fluoranthene  
 Concen: 470.92 ng/mL M4  
 RT: 37.727 min Scan# 3249  
 Delta R.T. -0.037 min  
 Lab File: F1202142208.D  
 Acq: 14 Feb 2022 9:08 pm

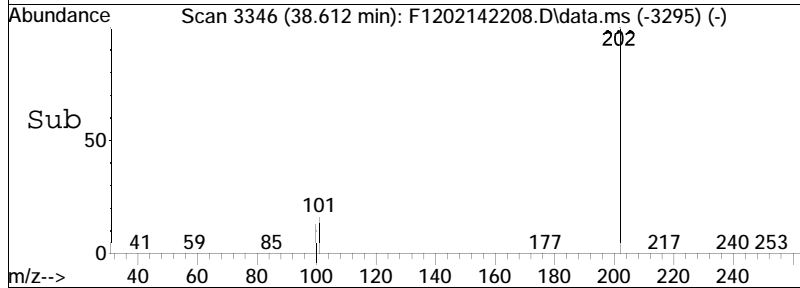
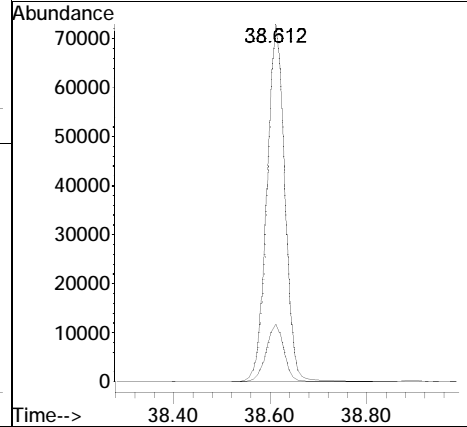
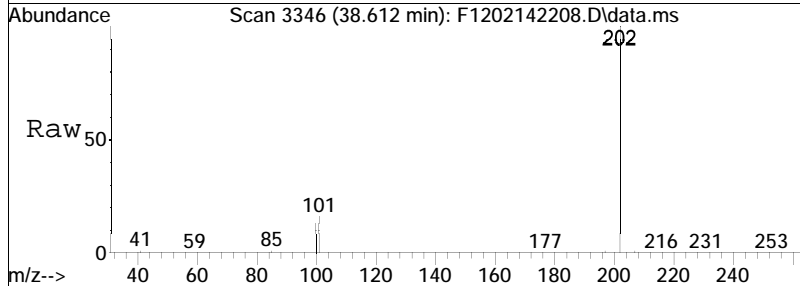
Tgt Ion	202	Resp:	178109
Ion Ratio	Lower	Upper	
202	100		
101	14.0	8.4	15.6

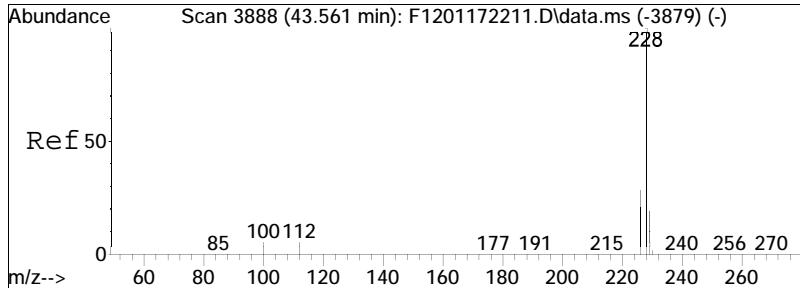




#59  
 Pyrene  
 Concen: 466.10 ng/mL  
 RT: 38.612 min Scan# 3346  
 Delta R.T. -0.037 min  
 Lab File: F1202142208.D  
 Acq: 14 Feb 2022 9:08 pm

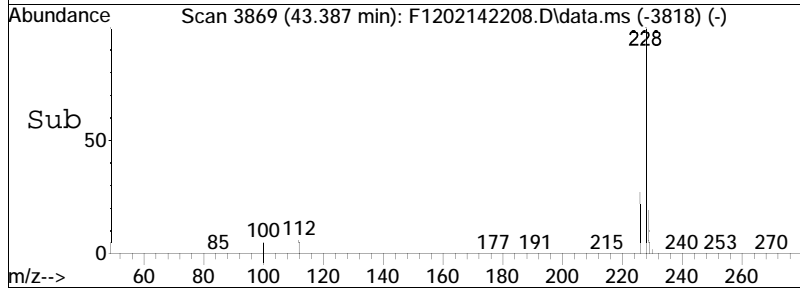
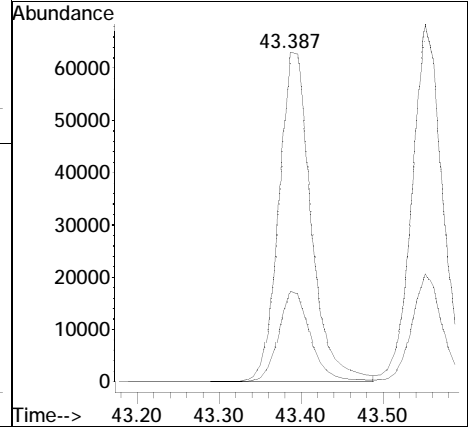
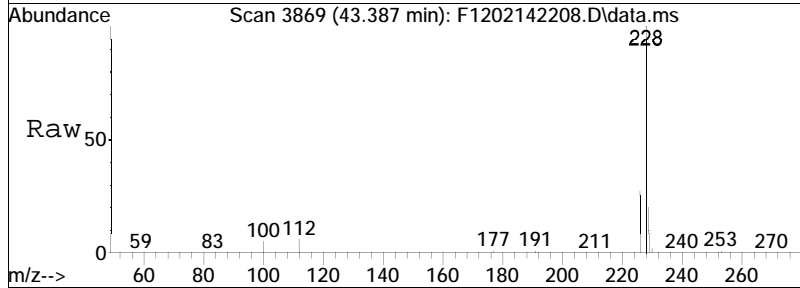
Tgt Ion	Ratio	Lower	Upper
202	100		
101	16.0	21.0	39.0#

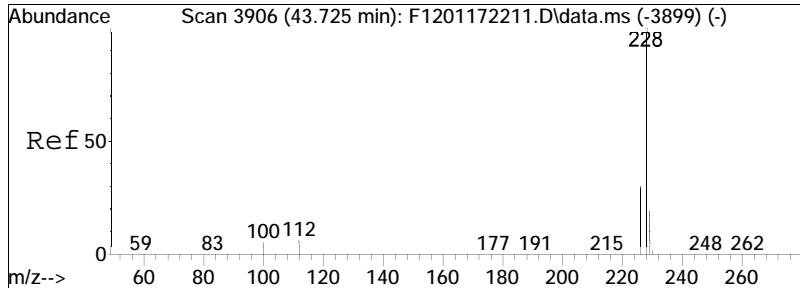




#75  
 Benz[a]anthracene  
 Concen: 439.46 ng/mL  
 RT: 43.387 min Scan# 3869  
 Delta R.T. -0.037 min  
 Lab File: F1202142208.D  
 Acq: 14 Feb 2022 9:08 pm

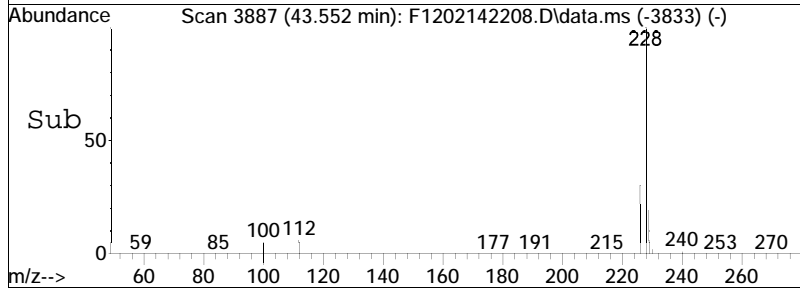
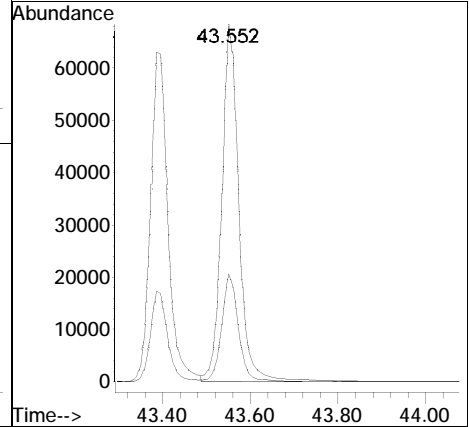
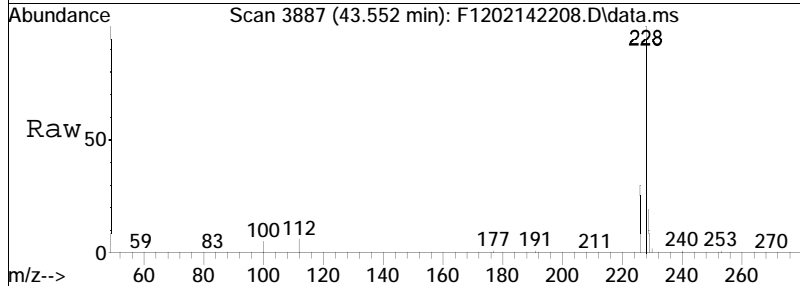
Tgt Ion	Resp	Lower	Upper
228	100		
226	27.0	19.1	35.5



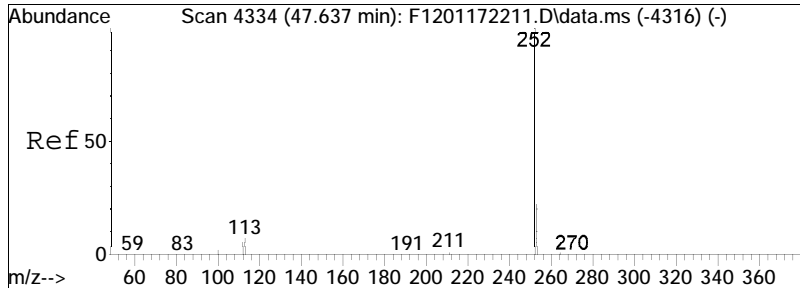


#76  
 Chrysene  
 Concen: 469.94 ng/mL  
 RT: 43.552 min Scan# 3887  
 Delta R.T. -0.009 min  
 Lab File: F1202142208.D  
 Acq: 14 Feb 2022 9:08 pm

Tgt Ion	Resp	Lower	Upper
228	100		
226	29.8	27.8	51.6

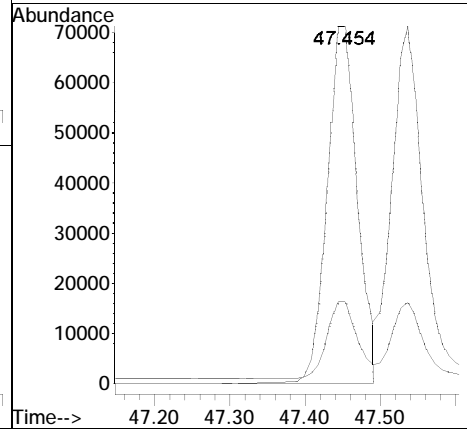
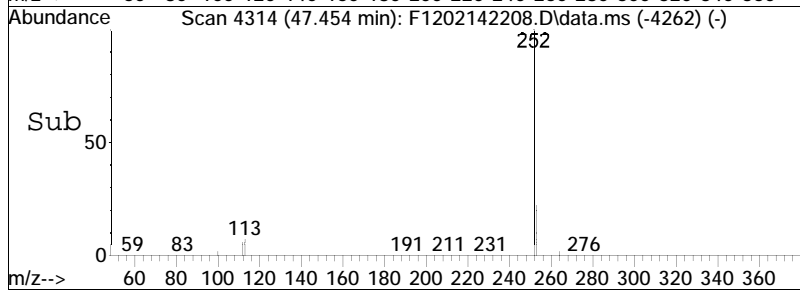
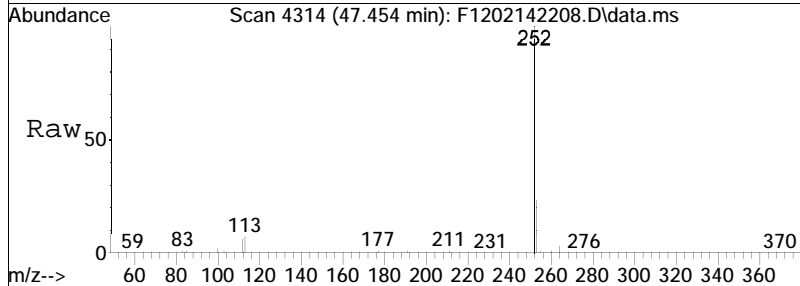


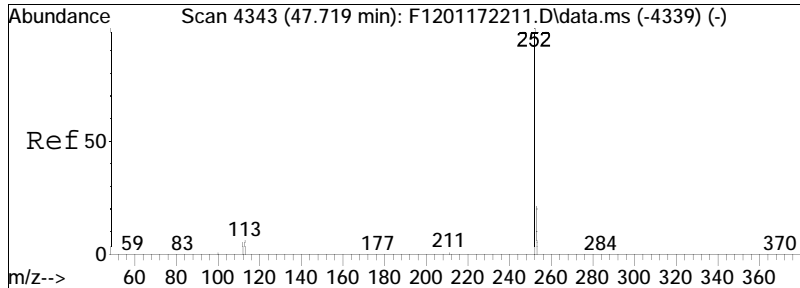




#85  
 Benzo[b]fluoranthene  
 Concen: 446.01 ng/mL  
 RT: 47.454 min Scan# 4314  
 Delta R.T. -0.028 min  
 Lab File: F1202142208.D  
 Acq: 14 Feb 2022 9:08 pm

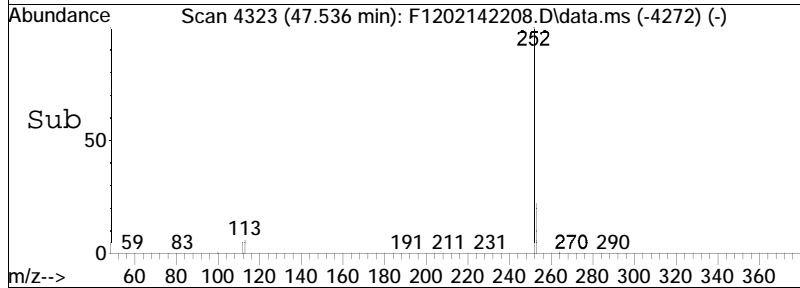
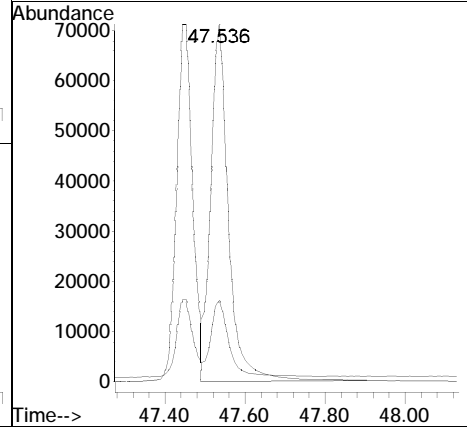
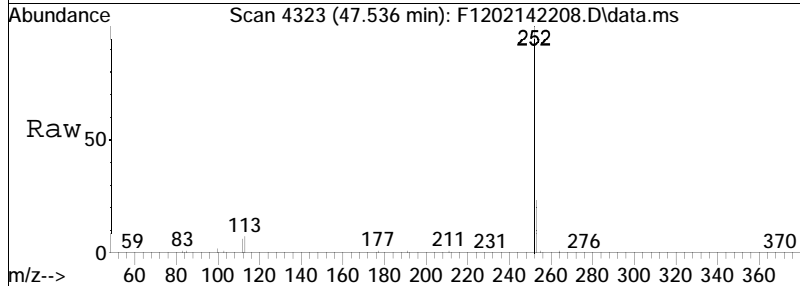
Tgt Ion	Resp	Lower	Upper
252	197900		
253	21.6	16.6	30.8

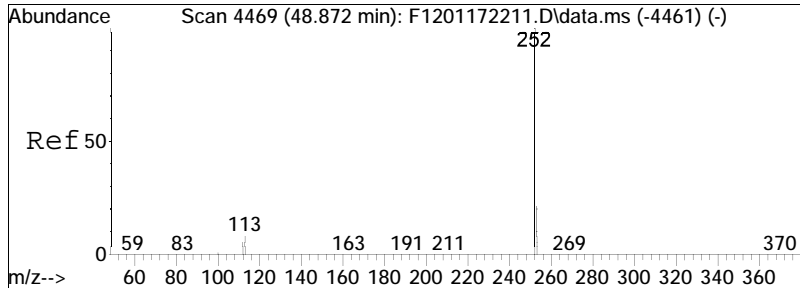




#86  
 Benzo[j]+[k]fluoranthene  
 Concen: 471.56 ng/mL  
 RT: 47.536 min Scan# 4323  
 Delta R.T. -0.037 min  
 Lab File: F1202142208.D  
 Acq: 14 Feb 2022 9:08 pm

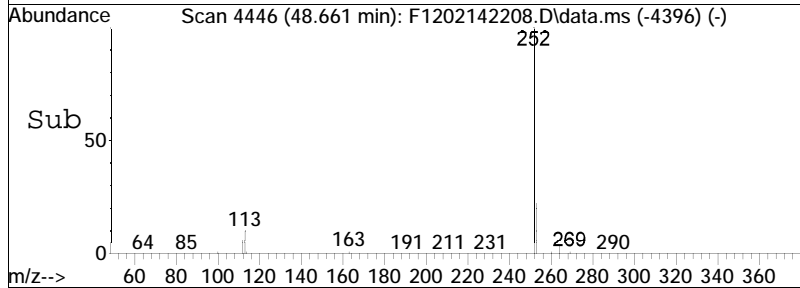
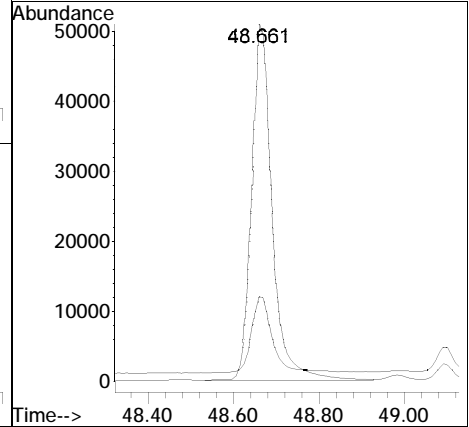
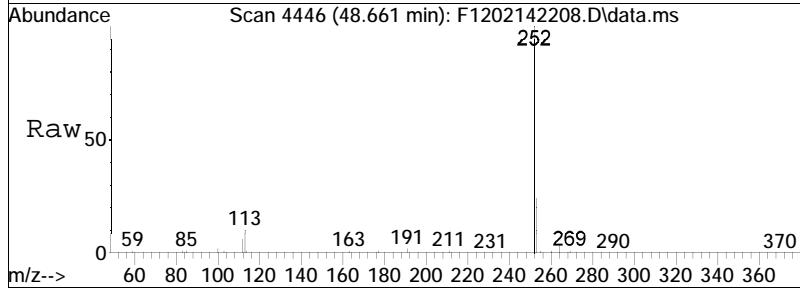
Tgt Ion	Resp	Lower	Upper
252	100		
253	20.7	16.4	30.4

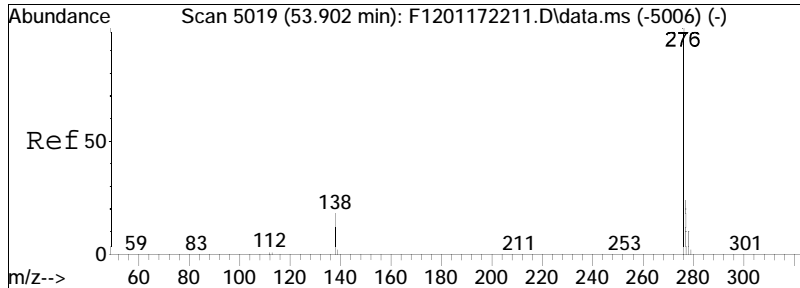




#90  
 Benzo[a]pyrene  
 Concen: 394.22 ng/mL  
 RT: 48.661 min Scan# 4446  
 Delta R.T. -0.046 min  
 Lab File: F1202142208.D  
 Acq: 14 Feb 2022 9:08 pm

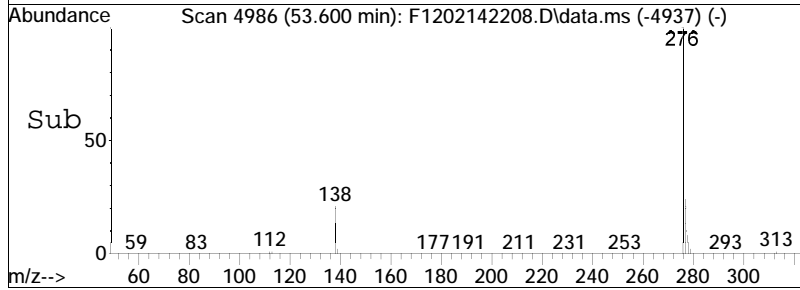
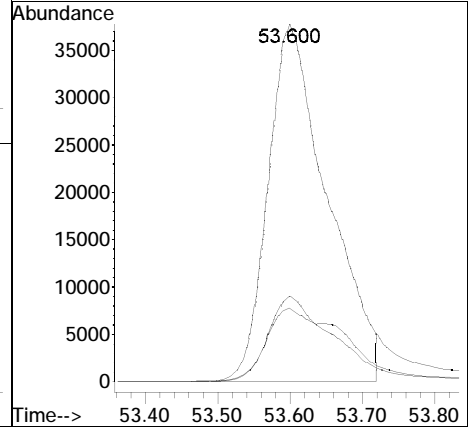
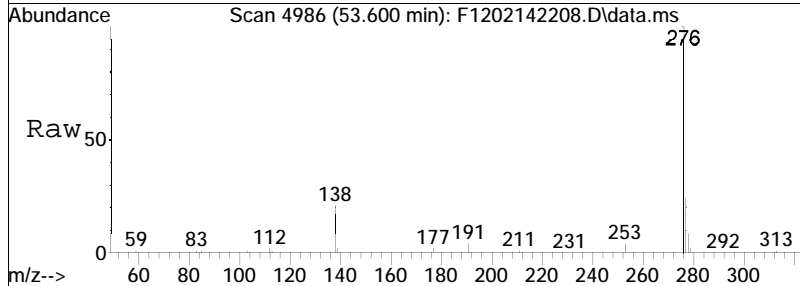
Tgt Ion	Resp	Lower	Upper
252	167590	100	
253	21.7	16.8	31.2

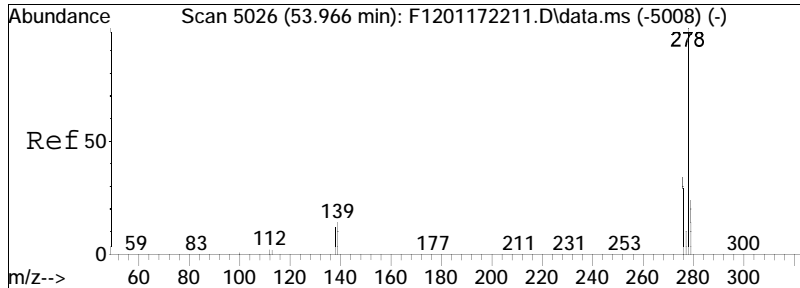




#92  
 Indeno[1,2,3-cd]pyrene  
 Concen: 367.86 ng/mL M3  
 RT: 53.600 min Scan# 4986  
 Delta R.T. -0.055 min  
 Lab File: F1202142208.D  
 Acq: 14 Feb 2022 9:08 pm

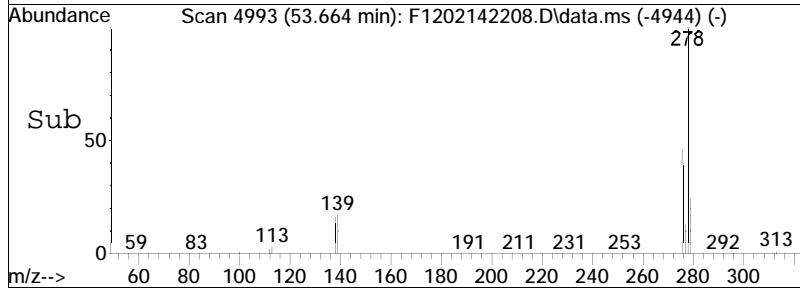
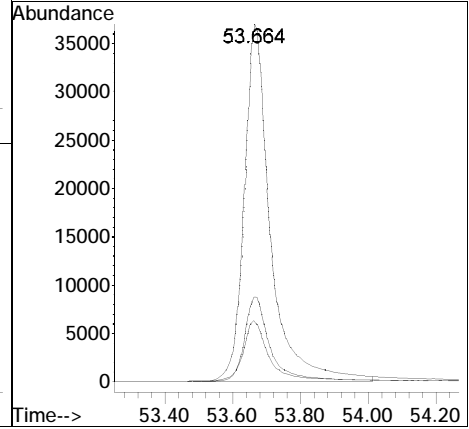
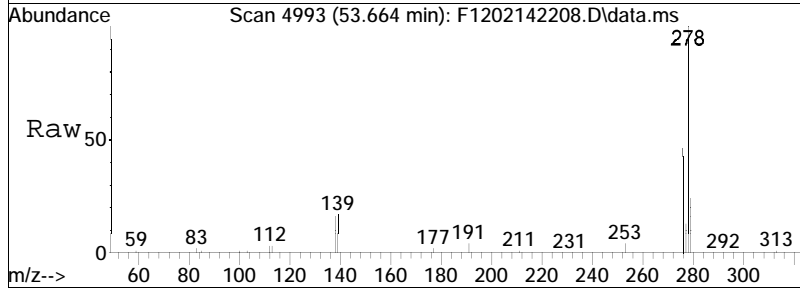
Tgt Ion	Ratio	Lower	Upper
276	100		
138	29.6	12.2	22.7#
277	28.7	16.7	30.9

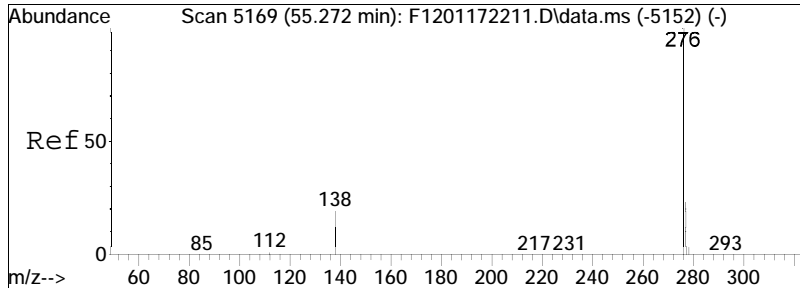




#93  
 Dibenz[ah]+[ac]anthracene  
 Concen: 385.75 ng/mL M4  
 RT: 53.664 min Scan# 4993  
 Delta R.T. -0.055 min  
 Lab File: F1202142208.D  
 Acq: 14 Feb 2022 9:08 pm

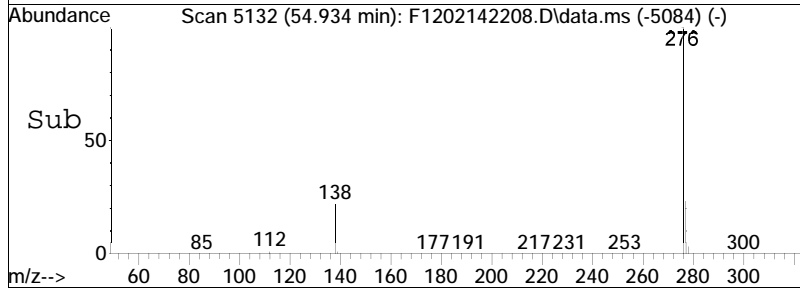
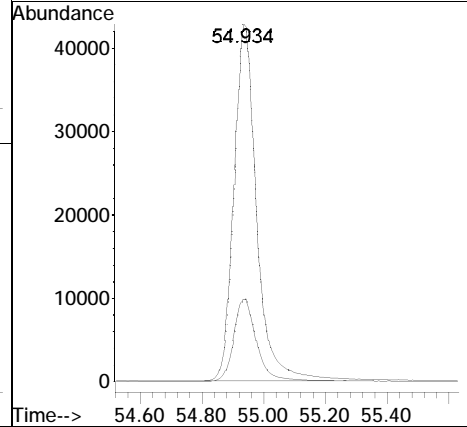
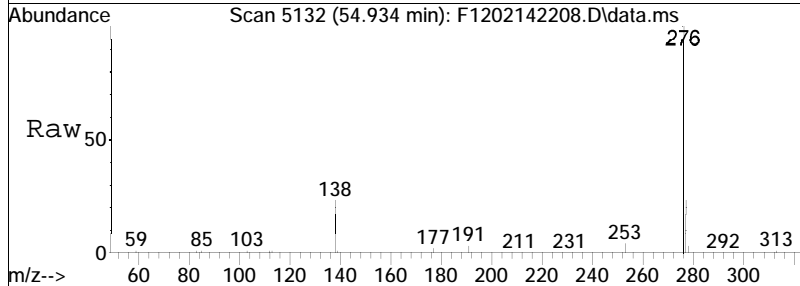
Tgt Ion	Resp	Lower	Upper
278	100		
139	17.0	10.1	18.7
279	24.9	16.6	30.8





#94  
 Benzo[g,h,i]perylene  
 Concen: 418.02 ng/mL  
 RT: 54.934 min Scan# 5132  
 Delta R.T. -0.064 min  
 Lab File: F1202142208.D  
 Acq: 14 Feb 2022 9:08 pm

Tgt Ion: 276 Resp: 215480  
 Ion Ratio Lower Upper  
 276 100  
 277 23.3 16.4 30.6



# Sample Preparation

Workgroup: WG1603644

<p><b>Prep Method:</b> ALPHA OP-013  <b>Solvent Type:</b> DCM      <b>Lot #:</b> ED092-US  <b>Surrogate Type:</b> A2-PAH/SHC      <b>Lot #:</b> FRBE56  <b>Spike Type:</b> A2-PAH/SHC      <b>Lot #:</b> FRBE55  <b>Spike Verify by:</b> N/A  <b>Lims Spikelot:</b> A2-PAH/SHC  <b>Additional Reagents/Std's</b></p> <table border="1"> <tr> <td>Na2SO4</td> <td>21J1161019</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	Na2SO4	21J1161019					<p><b>Conc.Method:</b> S-EVAP  <b>Solvent Type:</b> DCM  <b>Lot #:</b> ed092-us    <b>Additional Reagents/Std's</b></p> <table border="1"> <tr> <td>Na2SO4</td> <td>21j1161019</td> </tr> <tr> <td>Glass Wool</td> <td>06521999</td> </tr> </table>	Na2SO4	21j1161019	Glass Wool	06521999	<p><b>Cleanup 1</b>  <b>Cleanup Method 1:</b> EPA 3611B  <b>Cleanup Method 2:</b>  <b>Solvent Type:</b> DCM      <b>Lot #:</b> ed092-us    <b>Additional Reagents/Std's</b></p> <table border="1"> <tr> <td>Na2SO4</td> <td>21j1161019</td> </tr> <tr> <td>Glass Wool</td> <td>06521999</td> </tr> <tr> <td>Alumina</td> <td>26</td> </tr> <tr> <td>Granulated Copper</td> <td>OWR021422A</td> </tr> <tr> <td>RIS</td> <td>FRBE46</td> </tr> </table>	Na2SO4	21j1161019	Glass Wool	06521999	Alumina	26	Granulated Copper	OWR021422A	RIS	FRBE46
Na2SO4	21J1161019																					
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Alumina	26																					
Granulated Copper	OWR021422A																					
RIS	FRBE46																					

**Extraction**

**Concentration**

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Weight g	Balanc e Id	Surr Amt ml	Spike Amt ml	Conc Date	Analyst	Final Vol ml	Conc Unit
L2206076-01 SAMP	02/10/22 17:19	Cynthia Pimentel	15.45	BAL-7	.1		02/11/22 14:15	Cynthia Pimentel	4	SEVAP 3
	<b>Limited volume 2/10/2022 CSP</b>									
L2206076-02 SAMP	02/10/22 17:19	Cynthia Pimentel	15.35	BAL-7	.1		02/11/22 14:15	Cynthia Pimentel	4	SEVAP 3
	<b>Limited volume 2/10/2022 CSP</b>									
L2206076-03 SAMP	02/10/22 17:19	Cynthia Pimentel	15.05	BAL-7	.1		02/11/22 14:15	Cynthia Pimentel	4	SEVAP 3
	<b>Limited volume 2/10/2022 CSP</b>									
L2206076-04 SAMP	02/10/22 17:19	Cynthia Pimentel	15.53	BAL-7	.1		02/11/22 14:15	Cynthia Pimentel	4	SEVAP 3
	<b>Limited volume 2/10/2022 CSP</b>									
L2206076-05 SAMP	02/10/22 17:19	Cynthia Pimentel	15.28	BAL-7	.1		02/11/22 14:15	Cynthia Pimentel	4	SEVAP 3
	<b>Limited volume 2/10/2022 CSP</b>									
L2206076-06 SAMP	02/10/22 17:19	Cynthia Pimentel	15.15	BAL-7	.1		02/11/22 14:15	Cynthia Pimentel	4	SEVAP 3
	<b>Limited volume 2/10/2022 CSP</b>									



Workgroup: WG1603644

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Weight g	Balanc e Id	Surr Amt ml	Spike Amt ml	Conc Date	Analyst	Final Vol ml	Conc Unit
L2206076-07 SAMP	02/10/22 17:19	Cynthia Pimentel	15.65	BAL-7	.5		02/11/22 14:15	Cynthia Pimentel	4	SEVAP 3
	<b>Limited volume 2/10/2022 CSP</b>									
L2206076-08 SAMP	02/10/22 17:19	Cynthia Pimentel	15.46	BAL-7	.1		02/11/22 14:15	Cynthia Pimentel	4	SEVAP 3
	<b>Limited volume 2/10/2022 CSP</b>									
L2206578-01 SAMP	02/10/22 17:19	Cynthia Pimentel	15.27	BAL-7	.5		02/11/22 14:15	Cynthia Pimentel	4	SEVAP 3
L2206578-02 SAMP	02/10/22 17:19	Cynthia Pimentel	20.39	BAL-7	.5		02/11/22 14:15	Cynthia Pimentel	4	SEVAP 3
L2206578-03 SAMP	02/10/22 17:19	Cynthia Pimentel	30.49	BAL-7	.1		02/11/22 14:15	Cynthia Pimentel	4	SEVAP 3
L2206578-04 SAMP	02/10/22 17:19	Cynthia Pimentel	15.68	BAL-7	.5		02/11/22 14:15	Cynthia Pimentel	4	SEVAP 3
WG1603644-1 BLANK	02/10/22 17:19	Cynthia Pimentel	30	BAL-7	.1		02/11/22 14:15	Cynthia Pimentel	4	SEVAP 3
WG1603644-2 LCS	02/10/22 17:19	Cynthia Pimentel	30	BAL-7	.1	.1	02/11/22 14:15	Cynthia Pimentel	4	SEVAP 3
WG1603644-3 LCSD	02/10/22 17:19	Cynthia Pimentel	30	BAL-7	.1	.1	02/11/22 14:15	Cynthia Pimentel	4	SEVAP 3





# ORGANIC ELN REPORT

Workgroup: WG1603644

Sample/ Type	Cleanup 1						Cleanup 2					
	Cleanup Date	Cleanup Vol ml	Conc Date	Analyst	Conc Method	Final Cleanup Vol	Cleanup Date	Frac Cleanup Vol	Conc Date	Analyst	Conc Method	Final Frac Cleanup Vol
L2206076-01 SAMP	02/14/22 14:45	2	02/14/22 15:30	CYNTHIA PIMENTE L	SEVAP 3/NEVAP 2	1						
L2206076-02 SAMP	02/14/22 14:45	2	02/14/22 15:30	CYNTHIA PIMENTE L	SEVAP 3/NEVAP 2	1						
L2206076-03 SAMP	02/14/22 14:45	2	02/14/22 15:30	CYNTHIA PIMENTE L	SEVAP 3/NEVAP 2	1						
L2206076-04 SAMP	02/14/22 14:45	2	02/14/22 15:30	CYNTHIA PIMENTE L	SEVAP 3/NEVAP 2	1						
L2206076-05 SAMP	02/14/22 14:45	2	02/14/22 15:30	CYNTHIA PIMENTE L	SEVAP 3/NEVAP 2	1						
L2206076-06 SAMP	02/14/22 14:45	2	02/14/22 15:30	CYNTHIA PIMENTE L	SEVAP 3/NEVAP 2	1						
L2206076-07 SAMP	02/14/22 14:45	2	02/14/22 15:30	CYNTHIA PIMENTE L	SEVAP 3/NEVAP 2	1						
L2206076-08 SAMP	02/14/22 14:45	2	02/14/22 15:30	CYNTHIA PIMENTE L	SEVAP 3/NEVAP 2	1						
L2206578-01 SAMP	02/14/22 14:45	.15	02/14/22 15:30	CYNTHIA PIMENTE L	SEVAP 3/NEVAP 2	1						
L2206578-02 SAMP	02/14/22 14:45	1.2	02/14/22 15:30	CYNTHIA PIMENTE L	SEVAP 3/NEVAP 2	1						
L2206578-03 SAMP	02/14/22 14:45	1.6	02/14/22 15:30	CYNTHIA PIMENTE L	SEVAP 3/NEVAP 2	1						
L2206578-04 SAMP	02/14/22 14:45	1.1	02/14/22 15:30	CYNTHIA PIMENTE L	SEVAP 3/NEVAP 2	1						

Workgroup: WG1603644

Sample/ Type	Cleanup 1						Cleanup 2					
	Cleanup Date	Cleanup Vol ml	Conc Date	Analyst	Conc Method	Final Cleanup Vol	Cleanup Date	Frac Cleanup Vol	Conc Date	Analyst	Conc Method	Final Frac Cleanup Vol
WG1603644-1 BLANK	02/14/22 14:45	2	02/14/22 15:30	CYNTHIA SEVAP PIMENTE L	SEVAP 3/NEVAP 2	1						
WG1603644-2 LCS	02/14/22 14:45	2	02/14/22 15:30	CYNTHIA SEVAP PIMENTE L	SEVAP 3/NEVAP 2	1						
WG1603644-3 LCSD	02/14/22 14:45	2	02/14/22 15:30	CYNTHIA SEVAP PIMENTE L	SEVAP 3/NEVAP 2	1						

# **Supporting Documentation**

ETR L2206076\_6578

**Alpha Analytical**

- Pre-Alumina
- Post-Alumina
- Pre-Silica
- Oily Material Prep.
- Other

Analyst CSP  
 Date 02/14/2022

ETR	Lab ID	QC	Extract Volume (μL)	Aliquot Removed (μL)	Aliquot Weight (mg)	Total Extract Weight (mg)	Volume Removed for Column (μl)	Extract Weight to Column (mg)	Split Factor	QC (%R)
		<b>Gravimetric Standard</b>	10000	50	0.244	48.80	N/A	N/A	N/A	98%
L2206076	1		4000	50	0.003	0.24	2000	0.12	2.00	
	2		4000	50	0.006	0.48	2000	0.24	2.00	
	3		4000	50	0.007	0.56	2000	0.28	2.00	
	4		4000	50	0.002	0.16	2000	0.08	2.00	
	5		4000	50	0.011	0.88	2000	0.44	2.00	
	6		4000	50	0.104	8.32	2000	4.16	2.00	
	7		4000	50	0.110	8.80	2000	4.40	2.00	
	8		4000	50	0.064	5.12	2000	2.56	2.00	
L2206578	1		4000	50	2.563	205.04	150	7.69	26.67	
	2		4000	50	0.309	24.72	1200	7.42	3.33	
	3		4000	50	0.243	19.44	1600	7.78	2.50	
	4		4000	50	0.345	27.60	1100	7.58	3.64	

Note:

Total Extract Weight (mg) = (Extract Volume ÷ Aliquot Removed) (Aliquot Weight)

Gravimetric Standard = 5 mg/mL

LCS Acceptance Criteria: 95% - 105%

Verified by: \_\_\_\_\_

Date: \_\_\_\_\_

# Wet Chemistry

# **Total Solids / Percent Moisture Analysis**



# **Sample Raw Data**

<b>WorkGroup</b> WG1601751	<b>Temp In (C)</b> 104	<b>Temp In (C)</b> 104	<b>Temp In (C)</b>	<b>Temp In (C)</b>
<b>Title</b> Solids, Total	<b>Temp Out (C)</b> 104	<b>Temp Out (C)</b> 104	<b>Temp Out (C)</b>	<b>Temp Out (C)</b>
<b>Method</b> SM2540G	<b>Time In</b> 05-FEB-22 16:02	<b>Time In</b> 07-FEB-22 16:48	<b>Time In</b>	<b>Time In</b>
<b>Instrument</b> BALANCE#18	<b>Time Out</b> 07-FEB-22 16:23	<b>Time Out</b> 07-FEB-22 18:32	<b>Time Out</b>	<b>Time Out</b>

Sample #	Analysis Date	Analyst	Tare Weight (gm)	Gross Weight (gm)	Net Weight (1) (gm)	Net Weight (2) (gm)	Net Weight (3) (gm)	Net Weight (4) (gm)	Result %	Comment
L2205321-27	05-FEB-22 14:56	GREGORY FERNBERG	1.355	8.065	6.694	6.701			79.57	
L2205631-30	05-FEB-22 14:56	GREGORY FERNBERG	1.349	9.899	8.542	8.547			84.13	
L2205700-01	05-FEB-22 14:56	GREGORY FERNBERG	1.344	8.555	7.082	7.084			79.57	
L2205700-02	05-FEB-22 14:56	GREGORY FERNBERG	1.361	6.766	3.206	3.21			34.14	
L2205700-03	05-FEB-22 14:56	GREGORY FERNBERG	1.356	9.489	4.201	4.202			34.98	
L2205700-04	05-FEB-22 14:56	GREGORY FERNBERG	1.33	9.094	2.293	2.301			12.40	
L2205700-05	05-FEB-22 14:56	GREGORY FERNBERG	1.347	8.24	2.771	2.774			20.66	
L2205700-06	05-FEB-22 14:56	GREGORY FERNBERG	1.351	7.903	1.98	1.98			9.60	
L2205956-01	05-FEB-22 14:56	GREGORY FERNBERG	1.355	8.785	3.4	3.403			27.52	
L2205956-02	05-FEB-22 14:56	GREGORY FERNBERG	1.344	7.225	3.334	3.335			33.84	
L2205956-03	05-FEB-22 14:56	GREGORY FERNBERG	1.359	6.972	3.171	3.171			32.28	
L2205956-04	05-FEB-22 14:56	GREGORY FERNBERG	1.353	7.797	3.599	3.602			34.85	
L2206076-01	05-FEB-22 14:56	GREGORY FERNBERG	1.357	6.884	5.595	5.6			76.68	
L2206076-02	05-FEB-22 14:56	GREGORY FERNBERG	1.356	8.026	6.412	6.415			75.80	
L2206076-03	05-FEB-22 14:56	GREGORY FERNBERG	1.351	6.968	6.151	6.157			85.45	
L2206076-04	05-FEB-22 14:56	GREGORY FERNBERG	1.349	7.254	5.92	5.921			77.41	
L2206076-05	05-FEB-22 14:56	GREGORY FERNBERG	1.35	7.128	6.284	6.287			85.39	
L2206076-06	05-FEB-22 14:56	GREGORY FERNBERG	1.337	6.828	4.606	4.61			59.53	
L2206076-07	05-FEB-22 14:56	GREGORY FERNBERG	1.347	6.795	4.761	4.763			62.67	
L2206076-08	05-FEB-22 14:56	GREGORY FERNBERG	1.34	6.772	4.739	4.742			62.57	

<b>WorkGroup</b> WG1601751	<b>Temp In (C)</b> 104	<b>Temp In (C)</b> 104	<b>Temp In (C)</b>	<b>Temp In (C)</b>
<b>Title</b> Solids, Total	<b>Temp Out (C)</b> 104	<b>Temp Out (C)</b> 104	<b>Temp Out (C)</b>	<b>Temp Out (C)</b>
<b>Method</b> SM2540G	<b>Time In</b> 05-FEB-22 16:02	<b>Time In</b> 07-FEB-22 16:48	<b>Time In</b>	<b>Time In</b>
<b>Instrument</b> BALANCE#18	<b>Time Out</b> 07-FEB-22 16:23	<b>Time Out</b> 07-FEB-22 18:32	<b>Time Out</b>	<b>Time Out</b>

Sample #	Analysis Date	Analyst	Tare Weight (gm)	Gross Weight (gm)	Net Weight (1) (gm)	Net Weight (2) (gm)	Net Weight (3) (gm)	Net Weight (4) (gm)	Result %	Comment
WG1601751-1	05-FEB-22 14:56	GREGORY FERNBERG	1.343	7.231	3.368	3.37			34.39	

# **Work Group**

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Feb 08 2022, 09:31 am

Work Group: WG1601751 for Department: 7 Wet Chemistry

Created: 05-FEB-22 Due: Operator: GMF

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2205321-27	D-SSMW006-SB-1 (3.5-4.0)	S A2-TS	SOIL	DONE	U	0208	0222	S0	Plastic-A-TS
L2205631-30	D-14A-1-SW-SB-10 (5.5-6.0)	S A2-TS	SOIL	DONE	U	0209	0316	S0	Plastic-A-TS
L2205700-01	SSED1	S A2-TS	SOIL	DONE	U	0209	0303	S0	Plastic-A-TS
L2205700-02	WSED1	S A2-TS	SOIL	DONE	U	0209	0303	S0	Plastic-A-TS
L2205700-03	SSED2	S A2-TS	SOIL	DONE	U	0209	0303	S0	Plastic-A-TS
L2205700-04	WSED2	S A2-TS	SOIL	DONE	U	0209	0303	S0	Plastic-A-TS
L2205700-05	SSED3	S A2-TS	SOIL	DONE	U	0209	0303	S0	Plastic-A-TS
L2205700-06	WSED3	S A2-TS	SOIL	DONE	U	0209	0303	S0	Plastic-A-TS
L2205956-01	GRAB-A	C A2-TS	SOIL	DONE	U	0209	0317	S0	Plastic-A-TS
L2205956-01	GRAB-A	C A2-MOISTURE-2540	SOIL	DONE	U	0209	0317	S0	Glass-A.06
L2205956-02	GRAB-D	C A2-TS	SOIL	DONE	U	0209	0317	S0	Plastic-A-TS
L2205956-02	GRAB-D	C A2-MOISTURE-2540	SOIL	DONE	U	0209	0317	S0	Glass-A.06
L2205956-03	GRAB-G	C A2-MOISTURE-2540	SOIL	DONE	U	0209	0317	S0	Glass-A.06
L2205956-03	GRAB-G	C A2-TS	SOIL	DONE	U	0209	0317	S0	Plastic-A-TS
L2205956-04	GRAB-I	C A2-MOISTURE-2540	SOIL	DONE	U	0209	0317	S0	Glass-A.06
L2205956-04	GRAB-I	C A2-TS	SOIL	DONE	U	0209	0317	S0	Plastic-A-TS
L2206076-01	USMPDI-040SC-A-10-11-201103	S A2-TS	SOIL	DONE	U	1110	0304	S0	Plastic-A-TS
L2206076-02	USMPDI-040SC-A-11-12-201103	S A2-TS	SOIL	DONE	U	1110	0304	S0	Plastic-A-TS
L2206076-03	USMPDI-040SC-A-12-13-201103	S A2-TS	SOIL	DONE	U	1110	0304	S0	Plastic-A-TS
L2206076-04	USMPDI-056SC-A-07-08-201107	S A2-TS	SOIL	DONE	U	1114	0304	S0	Plastic-A-TS
L2206076-05	USMPDI-056SC-A-08-09-201107	S A2-TS	SOIL	DONE	U	1114	0304	S0	Plastic-A-TS
L2206076-06	USMPDI-004SC-A-07-08-201111	S A2-TS	SOIL	DONE	U	1118	0304	S0	Plastic-A-TS
L2206076-07	USMPDI-004SC-A-08-09-201111	S A2-TS	SOIL	DONE	U	1118	0304	S0	Plastic-A-TS
L2206076-08	USMPDI-004SC-A-09-10-201111	S A2-TS	SOIL	DONE	U	1118	0304	S0	Plastic-A-TS
WG1601751-1	Duplicate Sample	S A2-MOISTURE-2540	SOIL	DONE	U				
WG1601751-1	Duplicate Sample	S A2-TS	SOIL	DONE	U				
Comments:									
WG1601751-1	L2205956-02								

# Alpha Report



## ANALYTICAL REPORT

Lab Number:	L2206076
Client:	Anchor QEA, LLC 1605 Cornwall Avenue Bellingham, WA 98225
ATTN:	Delaney Peterson
Phone:	(360) 715-2707
Project Name:	GASCO HYDROCARBON INVESTIGATIO
Project Number:	000029-02
Report Date:	03/01/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

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320 Forbes Boulevard, Mansfield, MA 02048-1806  
508-822-9300 (Fax) 508-822-3288 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2206076-01	USMPDI-040SC-A-10-11-201103	SEDIMENT	Not Specified	11/03/20 16:30	02/04/22
L2206076-02	USMPDI-040SC-A-11-12-201103	SEDIMENT	Not Specified	11/03/20 16:30	02/04/22
L2206076-03	USMPDI-040SC-A-12-13-201103	SEDIMENT	Not Specified	11/03/20 16:30	02/04/22
L2206076-04	USMPDI-056SC-A-07-08-201107	SEDIMENT	Not Specified	11/07/20 13:30	02/04/22
L2206076-05	USMPDI-056SC-A-08-09-201107	SEDIMENT	Not Specified	11/07/20 13:30	02/04/22
L2206076-06	USMPDI-004SC-A-07-08-201111	SEDIMENT	Not Specified	11/11/20 08:35	02/04/22
L2206076-07	USMPDI-004SC-A-08-09-201111	SEDIMENT	Not Specified	11/11/20 08:35	02/04/22
L2206076-08	USMPDI-004SC-A-09-10-201111	SEDIMENT	Not Specified	11/11/20 08:35	02/04/22



**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

**HOLD POLICY** - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

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**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

### Case Narrative (continued)

#### Report Revision

March 1, 2022: The list of compounds reported has changed per client request.

#### Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.


#### Alkylated PAHs

L2206076: The samples were frozen upon receipt in order to arrest the holding time.

L2206076-07 and -08: The sample was re-analyzed on dilution in order to quantitate the results within the calibration range. The result(s) should be considered estimated, and are qualified with an E flag, for any compound(s) that exceeded the calibration range in the initial analysis. The re-analysis was performed only for the compound(s) that exceeded the calibration range.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Elizabeth Porta

Title: Technical Director/Representative

Date: 03/01/22

# ORGANICS

# SEMIVOLATILES

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-01  
 Client ID: USMPDI-040SC-A-10-11-201103  
 Sample Location: Not Specified

Date Collected: 11/03/20 16:30  
 Date Received: 02/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 1,8270D-SIM(M)  
 Analytical Date: 02/14/22 22:33  
 Analyst: MJS  
 Percent Solids: 77%

Extraction Method: ALPHA OP-013  
 Extraction Date: 02/10/22 17:19  
 Cleanup Method: EPA 3611B  
 Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PAHs - Mansfield Lab</b>						
cis/trans-Decalin	ND		ug/kg	1.26	0.252	1
C1-Decalins	1.03	J	ug/kg	1.26	0.252	1
C2-Decalins	2.63		ug/kg	1.26	0.252	1
C3-Decalins	ND		ug/kg	1.26	0.252	1
C4-Decalins	ND		ug/kg	1.26	0.252	1
Naphthalene	4.63		ug/kg	2.53	0.728	1
C1-Naphthalenes	0.955	J	ug/kg	2.53	0.728	1
C2-Naphthalenes	0.994	J	ug/kg	2.53	0.728	1
C3-Naphthalenes	0.970	J	ug/kg	2.53	0.728	1
C4-Naphthalenes	1.15	J	ug/kg	2.53	0.728	1
2-Methylnaphthalene	1.04	J	ug/kg	2.53	0.653	1
1-Methylnaphthalene	ND		ug/kg	2.53	0.798	1
Benzothiophene	ND		ug/kg	2.53	0.793	1
C1-Benzo(b)thiophenes	ND		ug/kg	2.53	0.793	1
C2-Benzo(b)thiophenes	ND		ug/kg	2.53	0.793	1
C3-Benzo(b)thiophenes	ND		ug/kg	2.53	0.793	1
Biphenyl	ND		ug/kg	2.53	0.782	1
2,6-Dimethylnaphthalene	ND		ug/kg	2.53	0.602	1
Dibenzofuran	ND		ug/kg	2.53	0.797	1
Acenaphthylene	1.17	J	ug/kg	2.53	0.483	1
Acenaphthene	3.69		ug/kg	2.53	0.446	1
2,3,5-Trimethylnaphthalene	ND		ug/kg	2.53	0.414	1
Fluorene	1.22	J	ug/kg	2.53	0.675	1
C1-Fluorenes	0.961	J	ug/kg	2.53	0.675	1
C2-Fluorenes	1.35	J	ug/kg	2.53	0.675	1
C3-Fluorenes	2.27	J	ug/kg	2.53	0.675	1
Dibenzothiophene	2.35	J	ug/kg	2.53	0.698	1
C1-Dibenzothiophenes BS	1.24	J	ug/kg	2.53	0.698	1

Project Name: GASCO HYDROCARBON INVESTIGATIO

Lab Number: L2206076

Project Number: 000029-02

Report Date: 03/01/22

## SAMPLE RESULTS

Lab ID: L2206076-01  
 Client ID: USMPDI-040SC-A-10-11-201103  
 Sample Location: Not Specified

Date Collected: 11/03/20 16:30  
 Date Received: 02/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PAHs - Mansfield Lab</b>						
C2-Dibenzothiophenes	1.85	J	ug/kg	2.53	0.698	1
C3-Dibenzothiophenes	1.44	J	ug/kg	2.53	0.698	1
C4-Dibenzothiophenes	0.939	J	ug/kg	2.53	0.698	1
Phenanthrene	26.9		ug/kg	2.53	0.839	1
C1-Phenanthrenes/Anthracenes	8.16		ug/kg	2.53	0.839	1
C2-Phenanthrenes/Anthr BS	4.53		ug/kg	2.53	0.839	1
C3-Phenanthrenes/Anthracenes	2.86		ug/kg	2.53	0.839	1
C4-Phenanthrenes/Anthracenes	1.88	J	ug/kg	2.53	0.839	1
Anthracene	3.52		ug/kg	2.53	0.522	1
Carbazole	ND		ug/kg	2.53	0.828	1
1-Methylphenanthrene	2.02	J	ug/kg	2.53	0.668	1
Fluoranthene	41.2		ug/kg	2.53	0.804	1
Pyrene	76.7		ug/kg	2.53	0.666	1
C1-Fluoranthenes/Pyrenes	16.1		ug/kg	2.53	0.666	1
C2-Fluoranthenes/Pyrenes	3.68		ug/kg	2.53	0.666	1
C3-Fluoranthenes/Pyrenes	1.89	J	ug/kg	2.53	0.666	1
C4-Fluoranthenes/Pyrenes	1.71	J	ug/kg	2.53	0.666	1
Naphthobenzothiophenes	6.20	J	ug/kg	2.53	0.708	1
C1-Naphthobenzothiophenes	2.17	J	ug/kg	2.53	0.708	1
C2-Naphthobenzothiophenes	1.98	J	ug/kg	2.53	0.708	1
C3-Naphthobenzothiophenes	1.14	J	ug/kg	2.53	0.708	1
C4-Naphthobenzothiophenes	ND		ug/kg	2.53	0.708	1
Benz(a)anthracene	20.0		ug/kg	2.53	0.516	1
Chrysene	27.3		ug/kg	2.53	0.512	1
C1-Chrysenes	5.77		ug/kg	2.53	0.512	1
C2-Chrysenes BS	2.50	J	ug/kg	2.53	0.512	1
C3-Chrysenes	ND		ug/kg	2.53	0.512	1
C4-Chrysenes	ND		ug/kg	2.53	0.512	1
Benzo(b)fluoranthene	18.5		ug/kg	2.53	0.658	1
Benzo(j)+(k)fluoranthene	21.8		ug/kg	2.53	0.502	1
Benzo(e)pyrene	21.4		ug/kg	2.53	0.522	1
Benzo(a)pyrene	35.1		ug/kg	2.53	0.723	1
Perylene	11.8		ug/kg	2.53	0.489	1
Indeno(1,2,3-cd)pyrene	19.5		ug/kg	2.53	0.687	1
Dibenz(a,h)+(a,c)anthracene	3.09		ug/kg	2.53	0.684	1
Benzo(g,h,i)perylene	36.9		ug/kg	2.53	0.672	1

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-01  
 Client ID: USMPDI-040SC-A-10-11-201103  
 Sample Location: Not Specified

Date Collected: 11/03/20 16:30  
 Date Received: 02/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	82		50-130
Phenanthrene-d10	93		50-130
Benzo(a)pyrene-d12	84		50-130

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-02  
 Client ID: USMPDI-040SC-A-11-12-201103  
 Sample Location: Not Specified

Date Collected: 11/03/20 16:30  
 Date Received: 02/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 1,8270D-SIM(M)  
 Analytical Date: 02/14/22 23:57  
 Analyst: MJS  
 Percent Solids: 76%

Extraction Method: ALPHA OP-013  
 Extraction Date: 02/10/22 17:19  
 Cleanup Method: EPA 3611B  
 Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PAHs - Mansfield Lab</b>						
cis/trans-Decalin	ND		ug/kg	1.29	0.256	1
C1-Decalins	ND		ug/kg	1.29	0.256	1
C2-Decalins	ND		ug/kg	1.29	0.256	1
C3-Decalins	ND		ug/kg	1.29	0.256	1
C4-Decalins	ND		ug/kg	1.29	0.256	1
Naphthalene	ND		ug/kg	2.58	0.741	1
C1-Naphthalenes	ND		ug/kg	2.58	0.741	1
C2-Naphthalenes	ND		ug/kg	2.58	0.741	1
C3-Naphthalenes	ND		ug/kg	2.58	0.741	1
C4-Naphthalenes	ND		ug/kg	2.58	0.741	1
2-Methylnaphthalene	ND		ug/kg	2.58	0.665	1
1-Methylnaphthalene	ND		ug/kg	2.58	0.812	1
Benzothiophene	ND		ug/kg	2.58	0.808	1
C1-Benzo(b)thiophenes	ND		ug/kg	2.58	0.808	1
C2-Benzo(b)thiophenes	ND		ug/kg	2.58	0.808	1
C3-Benzo(b)thiophenes	ND		ug/kg	2.58	0.808	1
Biphenyl	ND		ug/kg	2.58	0.797	1
2,6-Dimethylnaphthalene	ND		ug/kg	2.58	0.613	1
Dibenzofuran	ND		ug/kg	2.58	0.812	1
Acenaphthylene	ND		ug/kg	2.58	0.492	1
Acenaphthene	2.40	J	ug/kg	2.58	0.454	1
2,3,5-Trimethylnaphthalene	ND		ug/kg	2.58	0.422	1
Fluorene	ND		ug/kg	2.58	0.688	1
C1-Fluorenes	ND		ug/kg	2.58	0.688	1
C2-Fluorenes	ND		ug/kg	2.58	0.688	1
C3-Fluorenes	ND		ug/kg	2.58	0.688	1
Dibenzothiophene	ND		ug/kg	2.58	0.711	1
C1-Dibenzothiophenes BS	ND		ug/kg	2.58	0.711	1



Project Name: GASCO HYDROCARBON INVESTIGATIO

Lab Number: L2206076

Project Number: 000029-02

Report Date: 03/01/22

## SAMPLE RESULTS

Lab ID: L2206076-02  
 Client ID: USMPDI-040SC-A-11-12-201103  
 Sample Location: Not Specified

Date Collected: 11/03/20 16:30  
 Date Received: 02/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PAHs - Mansfield Lab</b>						
C2-Dibenzothiophenes	ND		ug/kg	2.58	0.711	1
C3-Dibenzothiophenes	ND		ug/kg	2.58	0.711	1
C4-Dibenzothiophenes	ND		ug/kg	2.58	0.711	1
Phenanthrene	3.10		ug/kg	2.58	0.854	1
C1-Phenanthrenes/Anthracenes	0.969	J	ug/kg	2.58	0.854	1
C2-Phenanthrenes/Anthr BS	ND		ug/kg	2.58	0.854	1
C3-Phenanthrenes/Anthracenes	ND		ug/kg	2.58	0.854	1
C4-Phenanthrenes/Anthracenes	ND		ug/kg	2.58	0.854	1
Anthracene	ND		ug/kg	2.58	0.531	1
Carbazole	ND		ug/kg	2.58	0.843	1
1-Methylphenanthrene	ND		ug/kg	2.58	0.681	1
Fluoranthene	2.78		ug/kg	2.58	0.819	1
Pyrene	7.22		ug/kg	2.58	0.678	1
C1-Fluoranthenes/Pyrenes	1.42	J	ug/kg	2.58	0.678	1
C2-Fluoranthenes/Pyrenes	ND		ug/kg	2.58	0.678	1
C3-Fluoranthenes/Pyrenes	ND		ug/kg	2.58	0.678	1
C4-Fluoranthenes/Pyrenes	ND		ug/kg	2.58	0.678	1
Naphthobenzothiophenes	ND		ug/kg	2.58	0.721	1
C1-Naphthobenzothiophenes	ND		ug/kg	2.58	0.721	1
C2-Naphthobenzothiophenes	ND		ug/kg	2.58	0.721	1
C3-Naphthobenzothiophenes	ND		ug/kg	2.58	0.721	1
C4-Naphthobenzothiophenes	ND		ug/kg	2.58	0.721	1
Benz(a)anthracene	1.17	J	ug/kg	2.58	0.526	1
Chrysene	2.04	J	ug/kg	2.58	0.521	1
C1-Chrysenes	ND		ug/kg	2.58	0.521	1
C2-Chrysenes BS	ND		ug/kg	2.58	0.521	1
C3-Chrysenes	ND		ug/kg	2.58	0.521	1
C4-Chrysenes	ND		ug/kg	2.58	0.521	1
Benzo(b)fluoranthene	1.16	J	ug/kg	2.58	0.670	1
Benzo(j)+(k)fluoranthene	1.17	J	ug/kg	2.58	0.512	1
Benzo(e)pyrene	1.23	J	ug/kg	2.58	0.532	1
Benzo(a)pyrene	1.85	J	ug/kg	2.58	0.736	1
Perylene	2.20	J	ug/kg	2.58	0.498	1
Indeno(1,2,3-cd)pyrene	1.00	J	ug/kg	2.58	0.700	1
Dibenz(a,h)+(a,c)anthracene	ND		ug/kg	2.58	0.696	1
Benzo(g,h,i)perylene	1.92	J	ug/kg	2.58	0.685	1

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-02  
 Client ID: USMPDI-040SC-A-11-12-201103  
 Sample Location: Not Specified

Date Collected: 11/03/20 16:30  
 Date Received: 02/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	86		50-130
Phenanthrene-d10	92		50-130
Benzo(a)pyrene-d12	82		50-130

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-03  
 Client ID: USMPDI-040SC-A-12-13-201103  
 Sample Location: Not Specified

Date Collected: 11/03/20 16:30  
 Date Received: 02/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 1,8270D-SIM(M)  
 Analytical Date: 02/15/22 01:22  
 Analyst: MJS  
 Percent Solids: 85%

Extraction Method: ALPHA OP-013  
 Extraction Date: 02/10/22 17:19  
 Cleanup Method: EPA 3611B  
 Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PAHs - Mansfield Lab</b>						
cis/trans-Decalin	ND		ug/kg	1.17	0.232	1
C1-Decalins	ND		ug/kg	1.17	0.232	1
C2-Decalins	ND		ug/kg	1.17	0.232	1
C3-Decalins	ND		ug/kg	1.17	0.232	1
C4-Decalins	ND		ug/kg	1.17	0.232	1
Naphthalene	ND		ug/kg	2.33	0.671	1
C1-Naphthalenes	ND		ug/kg	2.33	0.671	1
C2-Naphthalenes	ND		ug/kg	2.33	0.671	1
C3-Naphthalenes	ND		ug/kg	2.33	0.671	1
C4-Naphthalenes	ND		ug/kg	2.33	0.671	1
2-Methylnaphthalene	ND		ug/kg	2.33	0.602	1
1-Methylnaphthalene	ND		ug/kg	2.33	0.735	1
Benzothiophene	ND		ug/kg	2.33	0.731	1
C1-Benzo(b)thiophenes	ND		ug/kg	2.33	0.731	1
C2-Benzo(b)thiophenes	ND		ug/kg	2.33	0.731	1
C3-Benzo(b)thiophenes	ND		ug/kg	2.33	0.731	1
Biphenyl	ND		ug/kg	2.33	0.721	1
2,6-Dimethylnaphthalene	ND		ug/kg	2.33	0.555	1
Dibenzofuran	ND		ug/kg	2.33	0.735	1
Acenaphthylene	ND		ug/kg	2.33	0.445	1
Acenaphthene	2.76		ug/kg	2.33	0.411	1
2,3,5-Trimethylnaphthalene	ND		ug/kg	2.33	0.382	1
Fluorene	ND		ug/kg	2.33	0.622	1
C1-Fluorenes	ND		ug/kg	2.33	0.622	1
C2-Fluorenes	ND		ug/kg	2.33	0.622	1
C3-Fluorenes	ND		ug/kg	2.33	0.622	1
Dibenzothiophene	ND		ug/kg	2.33	0.644	1
C1-Dibenzothiophenes BS	ND		ug/kg	2.33	0.644	1

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-03  
 Client ID: USMPDI-040SC-A-12-13-201103  
 Sample Location: Not Specified

Date Collected: 11/03/20 16:30  
 Date Received: 02/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PAHs - Mansfield Lab</b>						
C2-Dibenzothiophenes	ND		ug/kg	2.33	0.644	1
C3-Dibenzothiophenes	ND		ug/kg	2.33	0.644	1
C4-Dibenzothiophenes	ND		ug/kg	2.33	0.644	1
Phenanthrene	1.12	J	ug/kg	2.33	0.773	1
C1-Phenanthrenes/Anthracenes	ND		ug/kg	2.33	0.773	1
C2-Phenanthrenes/Anthr BS	ND		ug/kg	2.33	0.773	1
C3-Phenanthrenes/Anthracenes	ND		ug/kg	2.33	0.773	1
C4-Phenanthrenes/Anthracenes	ND		ug/kg	2.33	0.773	1
Anthracene	ND		ug/kg	2.33	0.481	1
Carbazole	ND		ug/kg	2.33	0.764	1
1-Methylphenanthrene	ND		ug/kg	2.33	0.616	1
Fluoranthene	ND		ug/kg	2.33	0.742	1
Pyrene	2.48		ug/kg	2.33	0.614	1
C1-Fluoranthenes/Pyrenes	ND		ug/kg	2.33	0.614	1
C2-Fluoranthenes/Pyrenes	ND		ug/kg	2.33	0.614	1
C3-Fluoranthenes/Pyrenes	ND		ug/kg	2.33	0.614	1
C4-Fluoranthenes/Pyrenes	ND		ug/kg	2.33	0.614	1
Naphthobenzothiophenes	ND		ug/kg	2.33	0.653	1
C1-Naphthobenzothiophenes	ND		ug/kg	2.33	0.653	1
C2-Naphthobenzothiophenes	ND		ug/kg	2.33	0.653	1
C3-Naphthobenzothiophenes	ND		ug/kg	2.33	0.653	1
C4-Naphthobenzothiophenes	ND		ug/kg	2.33	0.653	1
Benz(a)anthracene	ND		ug/kg	2.33	0.476	1
Chrysene	ND		ug/kg	2.33	0.472	1
C1-Chrysenes	ND		ug/kg	2.33	0.472	1
C2-Chrysenes BS	ND		ug/kg	2.33	0.472	1
C3-Chrysenes	ND		ug/kg	2.33	0.472	1
C4-Chrysenes	ND		ug/kg	2.33	0.472	1
Benzo(b)fluoranthene	ND		ug/kg	2.33	0.607	1
Benzo(j)+(k)fluoranthene	ND		ug/kg	2.33	0.463	1
Benzo(e)pyrene	ND		ug/kg	2.33	0.482	1
Benzo(a)pyrene	ND		ug/kg	2.33	0.666	1
Perylene	3.44		ug/kg	2.33	0.450	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	2.33	0.633	1
Dibenz(a,h)+(a,c)anthracene	ND		ug/kg	2.33	0.630	1
Benzo(g,h,i)perylene	ND		ug/kg	2.33	0.620	1

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-03  
 Client ID: USMPDI-040SC-A-12-13-201103  
 Sample Location: Not Specified

Date Collected: 11/03/20 16:30  
 Date Received: 02/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	91		50-130
Phenanthrene-d10	92		50-130
Benzo(a)pyrene-d12	83		50-130

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-04  
 Client ID: USMPDI-056SC-A-07-08-201107  
 Sample Location: Not Specified

Date Collected: 11/07/20 13:30  
 Date Received: 02/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 1,8270D-SIM(M)  
 Analytical Date: 02/15/22 02:47  
 Analyst: MJS  
 Percent Solids: 77%

Extraction Method: ALPHA OP-013  
 Extraction Date: 02/10/22 17:19  
 Cleanup Method: EPA 3611B  
 Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PAHs - Mansfield Lab</b>						
cis/trans-Decalin	ND		ug/kg	1.25	0.248	1
C1-Decalins	0.986	J	ug/kg	1.25	0.248	1
C2-Decalins	2.07		ug/kg	1.25	0.248	1
C3-Decalins	ND		ug/kg	1.25	0.248	1
C4-Decalins	ND		ug/kg	1.25	0.248	1
Naphthalene	31.4		ug/kg	2.50	0.717	1
C1-Naphthalenes	9.59		ug/kg	2.50	0.717	1
C2-Naphthalenes	6.12		ug/kg	2.50	0.717	1
C3-Naphthalenes	7.26		ug/kg	2.50	0.717	1
C4-Naphthalenes	5.98		ug/kg	2.50	0.717	1
2-Methylnaphthalene	10.9		ug/kg	2.50	0.644	1
1-Methylnaphthalene	4.31		ug/kg	2.50	0.786	1
Benzothiophene	1.32	J	ug/kg	2.50	0.782	1
C1-Benzo(b)thiophenes	1.62	J	ug/kg	2.50	0.782	1
C2-Benzo(b)thiophenes	1.32	J	ug/kg	2.50	0.782	1
C3-Benzo(b)thiophenes	2.02	J	ug/kg	2.50	0.782	1
Biphenyl	3.86		ug/kg	2.50	0.771	1
2,6-Dimethylnaphthalene	3.30		ug/kg	2.50	0.593	1
Dibenzofuran	2.87		ug/kg	2.50	0.786	1
Acenaphthylene	3.57		ug/kg	2.50	0.476	1
Acenaphthene	18.2		ug/kg	2.50	0.440	1
2,3,5-Trimethylnaphthalene	1.03	J	ug/kg	2.50	0.408	1
Fluorene	7.35		ug/kg	2.50	0.666	1
C1-Fluorenes	4.67		ug/kg	2.50	0.666	1
C2-Fluorenes	6.11		ug/kg	2.50	0.666	1
C3-Fluorenes	5.56		ug/kg	2.50	0.666	1
Dibenzothiophene	15.7		ug/kg	2.50	0.688	1
C1-Dibenzothiophenes BS	5.51		ug/kg	2.50	0.688	1

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-04  
 Client ID: USMPDI-056SC-A-07-08-201107  
 Sample Location: Not Specified

Date Collected: 11/07/20 13:30  
 Date Received: 02/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PAHs - Mansfield Lab</b>						
C2-Dibenzothiophenes	6.55		ug/kg	2.50	0.688	1
C3-Dibenzothiophenes	5.12		ug/kg	2.50	0.688	1
C4-Dibenzothiophenes	2.50		ug/kg	2.50	0.688	1
Phenanthrene	132		ug/kg	2.50	0.827	1
C1-Phenanthrenes/Anthracenes	31.0		ug/kg	2.50	0.827	1
C2-Phenanthrenes/Anthr BS	19.2		ug/kg	2.50	0.827	1
C3-Phenanthrenes/Anthracenes	10.6		ug/kg	2.50	0.827	1
C4-Phenanthrenes/Anthracenes	5.13		ug/kg	2.50	0.827	1
Anthracene	10.6		ug/kg	2.50	0.514	1
Carbazole	1.01	J	ug/kg	2.50	0.816	1
1-Methylphenanthrene	7.71		ug/kg	2.50	0.659	1
Fluoranthene	119		ug/kg	2.50	0.793	1
Pyrene	167		ug/kg	2.50	0.656	1
C1-Fluoranthenes/Pyrenes	35.1		ug/kg	2.50	0.656	1
C2-Fluoranthenes/Pyrenes	11.0		ug/kg	2.50	0.656	1
C3-Fluoranthenes/Pyrenes	5.71		ug/kg	2.50	0.656	1
C4-Fluoranthenes/Pyrenes	3.29		ug/kg	2.50	0.656	1
Naphthobenzothiophenes	13.0	J	ug/kg	2.50	0.698	1
C1-Naphthobenzothiophenes	4.31		ug/kg	2.50	0.698	1
C2-Naphthobenzothiophenes	3.42		ug/kg	2.50	0.698	1
C3-Naphthobenzothiophenes	2.17	J	ug/kg	2.50	0.698	1
C4-Naphthobenzothiophenes	1.28	J	ug/kg	2.50	0.698	1
Benz(a)anthracene	36.8		ug/kg	2.50	0.509	1
Chrysene	49.1		ug/kg	2.50	0.504	1
C1-Chrysenes	12.0		ug/kg	2.50	0.504	1
C2-Chrysenes BS	5.92		ug/kg	2.50	0.504	1
C3-Chrysenes	5.57		ug/kg	2.50	0.504	1
C4-Chrysenes	ND		ug/kg	2.50	0.504	1
Benzo(b)fluoranthene	23.1		ug/kg	2.50	0.649	1
Benzo(j)+(k)fluoranthene	27.8		ug/kg	2.50	0.495	1
Benzo(e)pyrene	25.4		ug/kg	2.50	0.515	1
Benzo(a)pyrene	38.5		ug/kg	2.50	0.712	1
Perylene	19.7		ug/kg	2.50	0.482	1
Indeno(1,2,3-cd)pyrene	18.1		ug/kg	2.50	0.677	1
Dibenz(a,h)+(a,c)anthracene	3.25		ug/kg	2.50	0.674	1
Benzo(g,h,i)perylene	31.0		ug/kg	2.50	0.663	1

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-04  
 Client ID: USMPDI-056SC-A-07-08-201107  
 Sample Location: Not Specified

Date Collected: 11/07/20 13:30  
 Date Received: 02/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	86		50-130
Phenanthrene-d10	95		50-130
Benzo(a)pyrene-d12	85		50-130



**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-05  
 Client ID: USMPDI-056SC-A-08-09-201107  
 Sample Location: Not Specified

Date Collected: 11/07/20 13:30  
 Date Received: 02/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 1,8270D-SIM(M)  
 Analytical Date: 02/15/22 04:11  
 Analyst: MJS  
 Percent Solids: 85%

Extraction Method: ALPHA OP-013  
 Extraction Date: 02/10/22 17:19  
 Cleanup Method: EPA 3611B  
 Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PAHs - Mansfield Lab</b>						
cis/trans-Decalin	0.919	J	ug/kg	1.15	0.228	1
C1-Decalins	3.82		ug/kg	1.15	0.228	1
C2-Decalins	7.90		ug/kg	1.15	0.228	1
C3-Decalins	6.75		ug/kg	1.15	0.228	1
C4-Decalins	9.48		ug/kg	1.15	0.228	1
Naphthalene	30.7		ug/kg	2.30	0.661	1
C1-Naphthalenes	6.90		ug/kg	2.30	0.661	1
C2-Naphthalenes	7.84		ug/kg	2.30	0.661	1
C3-Naphthalenes	18.6		ug/kg	2.30	0.661	1
C4-Naphthalenes	19.6		ug/kg	2.30	0.661	1
2-Methylnaphthalene	7.02		ug/kg	2.30	0.593	1
1-Methylnaphthalene	4.02		ug/kg	2.30	0.724	1
Benzothiophene	1.74	J	ug/kg	2.30	0.720	1
C1-Benzo(b)thiophenes	1.63	J	ug/kg	2.30	0.720	1
C2-Benzo(b)thiophenes	2.11	J	ug/kg	2.30	0.720	1
C3-Benzo(b)thiophenes	4.46		ug/kg	2.30	0.720	1
Biphenyl	4.13		ug/kg	2.30	0.710	1
2,6-Dimethylnaphthalene	3.35		ug/kg	2.30	0.546	1
Dibenzofuran	2.88		ug/kg	2.30	0.724	1
Acenaphthylene	10.4		ug/kg	2.30	0.439	1
Acenaphthene	34.8		ug/kg	2.30	0.405	1
2,3,5-Trimethylnaphthalene	2.69		ug/kg	2.30	0.376	1
Fluorene	14.1		ug/kg	2.30	0.613	1
C1-Fluorenes	14.7		ug/kg	2.30	0.613	1
C2-Fluorenes	17.3		ug/kg	2.30	0.613	1
C3-Fluorenes	14.0		ug/kg	2.30	0.613	1
Dibenzothiophene	50.1		ug/kg	2.30	0.634	1
C1-Dibenzothiophenes BS	21.8		ug/kg	2.30	0.634	1



**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-05  
 Client ID: USMPDI-056SC-A-08-09-201107  
 Sample Location: Not Specified

Date Collected: 11/07/20 13:30  
 Date Received: 02/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PAHs - Mansfield Lab</b>						
C2-Dibenzothiophenes	16.5		ug/kg	2.30	0.634	1
C3-Dibenzothiophenes	11.6		ug/kg	2.30	0.634	1
C4-Dibenzothiophenes	5.76		ug/kg	2.30	0.634	1
Phenanthrene	392		ug/kg	2.30	0.762	1
C1-Phenanthrenes/Anthracenes	94.1		ug/kg	2.30	0.762	1
C2-Phenanthrenes/Anthr BS	48.6		ug/kg	2.30	0.762	1
C3-Phenanthrenes/Anthracenes	25.7		ug/kg	2.30	0.762	1
C4-Phenanthrenes/Anthracenes	12.0		ug/kg	2.30	0.762	1
Anthracene	25.4		ug/kg	2.30	0.474	1
Carbazole	1.81	J	ug/kg	2.30	0.752	1
1-Methylphenanthrene	24.2		ug/kg	2.30	0.607	1
Fluoranthene	501		ug/kg	2.30	0.730	1
Pyrene	709		ug/kg	2.30	0.605	1
C1-Fluoranthenes/Pyrenes	126		ug/kg	2.30	0.605	1
C2-Fluoranthenes/Pyrenes	28.7		ug/kg	2.30	0.605	1
C3-Fluoranthenes/Pyrenes	13.5		ug/kg	2.30	0.605	1
C4-Fluoranthenes/Pyrenes	9.80		ug/kg	2.30	0.605	1
Naphthobenzothiophenes	54.9		ug/kg	2.30	0.643	1
C1-Naphthobenzothiophenes	13.8		ug/kg	2.30	0.643	1
C2-Naphthobenzothiophenes	8.66		ug/kg	2.30	0.643	1
C3-Naphthobenzothiophenes	6.44		ug/kg	2.30	0.643	1
C4-Naphthobenzothiophenes	3.04		ug/kg	2.30	0.643	1
Benz(a)anthracene	155		ug/kg	2.30	0.469	1
Chrysene	209		ug/kg	2.30	0.465	1
C1-Chrysenes	38.2		ug/kg	2.30	0.465	1
C2-Chrysenes BS	15.9		ug/kg	2.30	0.465	1
C3-Chrysenes	11.8		ug/kg	2.30	0.465	1
C4-Chrysenes	9.27		ug/kg	2.30	0.465	1
Benzo(b)fluoranthene	134		ug/kg	2.30	0.598	1
Benzo(j)+(k)fluoranthene	137		ug/kg	2.30	0.456	1
Benzo(e)pyrene	141		ug/kg	2.30	0.474	1
Benzo(a)pyrene	226		ug/kg	2.30	0.656	1
Perylene	89.6		ug/kg	2.30	0.444	1
Indeno(1,2,3-cd)pyrene	135		ug/kg	2.30	0.624	1
Dibenz(a,h)+(a,c)anthracene	19.8		ug/kg	2.30	0.621	1
Benzo(g,h,i)perylene	216		ug/kg	2.30	0.611	1

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-05  
 Client ID: USMPDI-056SC-A-08-09-201107  
 Sample Location: Not Specified

Date Collected: 11/07/20 13:30  
 Date Received: 02/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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PAHs - Mansfield Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	83		50-130
Phenanthrene-d10	95		50-130
Benzo(a)pyrene-d12	89		50-130

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-06  
 Client ID: USMPDI-004SC-A-07-08-201111  
 Sample Location: Not Specified

Date Collected: 11/11/20 08:35  
 Date Received: 02/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 1,8270D-SIM(M)  
 Analytical Date: 02/15/22 05:35  
 Analyst: MJS  
 Percent Solids: 60%

Extraction Method: ALPHA OP-013  
 Extraction Date: 02/10/22 17:19  
 Cleanup Method: EPA 3611B  
 Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PAHs - Mansfield Lab</b>						
cis/trans-Decalin	23.0		ug/kg	1.66	0.331	1
C1-Decalins	93.1		ug/kg	1.66	0.331	1
C2-Decalins	166		ug/kg	1.66	0.331	1
C3-Decalins	130		ug/kg	1.66	0.331	1
C4-Decalins	148		ug/kg	1.66	0.331	1
Naphthalene	316		ug/kg	3.33	0.956	1
C1-Naphthalenes	45.6		ug/kg	3.33	0.956	1
C2-Naphthalenes	62.4		ug/kg	3.33	0.956	1
C3-Naphthalenes	82.0		ug/kg	3.33	0.956	1
C4-Naphthalenes	75.3		ug/kg	3.33	0.956	1
2-Methylnaphthalene	43.5		ug/kg	3.33	0.858	1
1-Methylnaphthalene	29.5		ug/kg	3.33	1.05	1
Benzothiophene	11.9		ug/kg	3.33	1.04	1
C1-Benzo(b)thiophenes	5.08		ug/kg	3.33	1.04	1
C2-Benzo(b)thiophenes	6.68		ug/kg	3.33	1.04	1
C3-Benzo(b)thiophenes	11.1		ug/kg	3.33	1.04	1
Biphenyl	34.5		ug/kg	3.33	1.03	1
2,6-Dimethylnaphthalene	30.2		ug/kg	3.33	0.791	1
Dibenzofuran	26.9		ug/kg	3.33	1.05	1
Acenaphthylene	86.5		ug/kg	3.33	0.635	1
Acenaphthene	113		ug/kg	3.33	0.587	1
2,3,5-Trimethylnaphthalene	12.6		ug/kg	3.33	0.544	1
Fluorene	116		ug/kg	3.33	0.888	1
C1-Fluorenes	48.5		ug/kg	3.33	0.888	1
C2-Fluorenes	82.7		ug/kg	3.33	0.888	1
C3-Fluorenes	114		ug/kg	3.33	0.888	1
Dibenzothiophene	86.6		ug/kg	3.33	0.918	1
C1-Dibenzothiophenes BS	54.3		ug/kg	3.33	0.918	1

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-06  
 Client ID: USMPDI-004SC-A-07-08-201111  
 Sample Location: Not Specified

Date Collected: 11/11/20 08:35  
 Date Received: 02/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PAHs - Mansfield Lab</b>						
C2-Dibenzothiophenes	71.9		ug/kg	3.33	0.918	1
C3-Dibenzothiophenes	88.4		ug/kg	3.33	0.918	1
C4-Dibenzothiophenes	51.3		ug/kg	3.33	0.918	1
Phenanthrene	1220		ug/kg	3.33	1.10	1
C1-Phenanthrenes/Anthracenes	337		ug/kg	3.33	1.10	1
C2-Phenanthrenes/Anthr BS	288		ug/kg	3.33	1.10	1
C3-Phenanthrenes/Anthracenes	264		ug/kg	3.33	1.10	1
C4-Phenanthrenes/Anthracenes	202		ug/kg	3.33	1.10	1
Anthracene	257		ug/kg	3.33	0.686	1
Carbazole	17.3		ug/kg	3.33	1.09	1
1-Methylphenanthrene	83.3		ug/kg	3.33	0.879	1
Fluoranthene	1680		ug/kg	3.33	1.06	1
Pyrene	2080		ug/kg	3.33	0.875	1
C1-Fluoranthenes/Pyrenes	413		ug/kg	3.33	0.875	1
C2-Fluoranthenes/Pyrenes	150		ug/kg	3.33	0.875	1
C3-Fluoranthenes/Pyrenes	113		ug/kg	3.33	0.875	1
C4-Fluoranthenes/Pyrenes	112		ug/kg	3.33	0.875	1
Naphthobenzothiophenes	102		ug/kg	3.33	0.931	1
C1-Naphthobenzothiophenes	50.1		ug/kg	3.33	0.931	1
C2-Naphthobenzothiophenes	49.9		ug/kg	3.33	0.931	1
C3-Naphthobenzothiophenes	41.2		ug/kg	3.33	0.931	1
C4-Naphthobenzothiophenes	45.9		ug/kg	3.33	0.931	1
Benz(a)anthracene	399		ug/kg	3.33	0.678	1
Chrysene	538		ug/kg	3.33	0.673	1
C1-Chrysenes	162		ug/kg	3.33	0.673	1
C2-Chrysenes BS	115		ug/kg	3.33	0.673	1
C3-Chrysenes	104		ug/kg	3.33	0.673	1
C4-Chrysenes	68.5		ug/kg	3.33	0.673	1
Benzo(b)fluoranthene	339		ug/kg	3.33	0.866	1
Benzo(j)+(k)fluoranthene	330		ug/kg	3.33	0.660	1
Benzo(e)pyrene	356		ug/kg	3.33	0.687	1
Benzo(a)pyrene	538		ug/kg	3.33	0.950	1
Perylene	374		ug/kg	3.33	0.642	1
Indeno(1,2,3-cd)pyrene	356		ug/kg	3.33	0.903	1
Dibenz(a,h)+(a,c)anthracene	58.2		ug/kg	3.33	0.899	1
Benzo(g,h,i)perylene	576		ug/kg	3.33	0.884	1

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-06  
 Client ID: USMPDI-004SC-A-07-08-201111  
 Sample Location: Not Specified

Date Collected: 11/11/20 08:35  
 Date Received: 02/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	77		50-130
Phenanthrene-d10	90		50-130
Benzo(a)pyrene-d12	81		50-130

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-07  
 Client ID: USMPDI-004SC-A-08-09-201111  
 Sample Location: Not Specified

Date Collected: 11/11/20 08:35  
 Date Received: 02/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 1,8270D-SIM(M)  
 Analytical Date: 02/15/22 08:24  
 Analyst: MJS  
 Percent Solids: 63%

Extraction Method: ALPHA OP-013  
 Extraction Date: 02/10/22 17:19  
 Cleanup Method: EPA 3611B  
 Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PAHs - Mansfield Lab</b>						
cis/trans-Decalin	14.6	J	ug/kg	1.53	0.304	1
C1-Decalins	62.8		ug/kg	1.53	0.304	1
C2-Decalins	135		ug/kg	1.53	0.304	1
C3-Decalins	113		ug/kg	1.53	0.304	1
C4-Decalins	145		ug/kg	1.53	0.304	1
Naphthalene	368		ug/kg	3.06	0.879	1
C1-Naphthalenes	53.0		ug/kg	3.06	0.879	1
C2-Naphthalenes	51.1		ug/kg	3.06	0.879	1
C3-Naphthalenes	67.5		ug/kg	3.06	0.879	1
C4-Naphthalenes	67.2		ug/kg	3.06	0.879	1
2-Methylnaphthalene	54.4		ug/kg	3.06	0.788	1
1-Methylnaphthalene	30.5		ug/kg	3.06	0.963	1
Benzothiophene	16.7		ug/kg	3.06	0.958	1
C1-Benzo(b)thiophenes	4.69		ug/kg	3.06	0.958	1
C2-Benzo(b)thiophenes	5.79		ug/kg	3.06	0.958	1
C3-Benzo(b)thiophenes	10.4		ug/kg	3.06	0.958	1
Biphenyl	64.4		ug/kg	3.06	0.945	1
2,6-Dimethylnaphthalene	27.0		ug/kg	3.06	0.727	1
Dibenzofuran	27.8		ug/kg	3.06	0.963	1
Acenaphthylene	123		ug/kg	3.06	0.583	1
Acenaphthene	214		ug/kg	3.06	0.539	1
2,3,5-Trimethylnaphthalene	10.1		ug/kg	3.06	0.500	1
Fluorene	156		ug/kg	3.06	0.815	1
C1-Fluorenes	57.0		ug/kg	3.06	0.815	1
C2-Fluorenes	89.3		ug/kg	3.06	0.815	1
C3-Fluorenes	108		ug/kg	3.06	0.815	1
Dibenzothiophene	150		ug/kg	3.06	0.843	1
C1-Dibenzothiophenes BS	83.8		ug/kg	3.06	0.843	1



Project Name: GASCO HYDROCARBON INVESTIGATIO

Lab Number: L2206076

Project Number: 000029-02

Report Date: 03/01/22

## SAMPLE RESULTS

Lab ID: L2206076-07  
 Client ID: USMPDI-004SC-A-08-09-201111  
 Sample Location: Not Specified

Date Collected: 11/11/20 08:35  
 Date Received: 02/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PAHs - Mansfield Lab</b>						
C2-Dibenzothiophenes	84.9		ug/kg	3.06	0.843	1
C3-Dibenzothiophenes	96.0		ug/kg	3.06	0.843	1
C4-Dibenzothiophenes	54.6		ug/kg	3.06	0.843	1
Phenanthrene	2180		ug/kg	3.06	1.01	1
C1-Phenanthrenes/Anthracenes	501		ug/kg	3.06	1.01	1
C2-Phenanthrenes/Anthr BS	348		ug/kg	3.06	1.01	1
C3-Phenanthrenes/Anthracenes	266		ug/kg	3.06	1.01	1
C4-Phenanthrenes/Anthracenes	171		ug/kg	3.06	1.01	1
Anthracene	468		ug/kg	3.06	0.630	1
Carbazole	25.1		ug/kg	3.06	1.00	1
1-Methylphenanthrene	120		ug/kg	3.06	0.807	1
Fluoranthene	4410	E	ug/kg	3.06	0.971	1
Pyrene	5690	E	ug/kg	3.06	0.804	1
C1-Fluoranthenes/Pyrenes	940		ug/kg	3.06	0.804	1
C2-Fluoranthenes/Pyrenes	238		ug/kg	3.06	0.804	1
C3-Fluoranthenes/Pyrenes	153		ug/kg	3.06	0.804	1
C4-Fluoranthenes/Pyrenes	134		ug/kg	3.06	0.804	1
Naphthobenzothiophenes	281		ug/kg	3.06	0.855	1
C1-Naphthobenzothiophenes	93.4		ug/kg	3.06	0.855	1
C2-Naphthobenzothiophenes	72.4		ug/kg	3.06	0.855	1
C3-Naphthobenzothiophenes	71.8		ug/kg	3.06	0.855	1
C4-Naphthobenzothiophenes	49.1		ug/kg	3.06	0.855	1
Benz(a)anthracene	1260		ug/kg	3.06	0.623	1
Chrysene	1630		ug/kg	3.06	0.618	1
C1-Chrysenes	358		ug/kg	3.06	0.618	1
C2-Chrysenes BS	185		ug/kg	3.06	0.618	1
C3-Chrysenes	147		ug/kg	3.06	0.618	1
C4-Chrysenes	93.4		ug/kg	3.06	0.618	1
Benzo(b)fluoranthene	1290		ug/kg	3.06	0.795	1
Benzo(j)+(k)fluoranthene	1120		ug/kg	3.06	0.607	1
Benzo(e)pyrene	1280		ug/kg	3.06	0.631	1
Benzo(a)pyrene	2100		ug/kg	3.06	0.873	1
Perylene	857		ug/kg	3.06	0.590	1
Indeno(1,2,3-cd)pyrene	1440		ug/kg	3.06	0.830	1
Dibenz(a,h)+(a,c)anthracene	204		ug/kg	3.06	0.826	1
Benzo(g,h,i)perylene	2270		ug/kg	3.06	0.812	1



**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-07  
 Client ID: USMPDI-004SC-A-08-09-201111  
 Sample Location: Not Specified

Date Collected: 11/11/20 08:35  
 Date Received: 02/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	83		50-130
Phenanthrene-d10	95		50-130
Benzo(a)pyrene-d12	89		50-130

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-07 D  
 Client ID: USMPDI-004SC-A-08-09-201111  
 Sample Location: Not Specified

Date Collected: 11/11/20 08:35  
 Date Received: 02/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 1,8270D-SIM(M)  
 Analytical Date: 02/15/22 20:36  
 Analyst: MJS  
 Percent Solids: 63%

Extraction Method: ALPHA OP-013  
 Extraction Date: 02/10/22 17:19  
 Cleanup Method: EPA 3611B  
 Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PAHs - Mansfield Lab</b>						
Fluoranthene	4270		ug/kg	6.11	1.94	2
Pyrene	5440		ug/kg	6.11	1.61	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	79		50-130
Phenanthrene-d10	90		50-130
Benzo(a)pyrene-d12	84		50-130

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-08  
 Client ID: USMPDI-004SC-A-09-10-201111  
 Sample Location: Not Specified

Date Collected: 11/11/20 08:35  
 Date Received: 02/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 1,8270D-SIM(M)  
 Analytical Date: 02/15/22 09:56  
 Analyst: MJS  
 Percent Solids: 63%

Extraction Method: ALPHA OP-013  
 Extraction Date: 02/10/22 17:19  
 Cleanup Method: EPA 3611B  
 Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PAHs - Mansfield Lab</b>						
cis/trans-Decalin	7.17	J	ug/kg	1.55	0.308	1
C1-Decalins	30.5		ug/kg	1.55	0.308	1
C2-Decalins	67.0		ug/kg	1.55	0.308	1
C3-Decalins	59.8		ug/kg	1.55	0.308	1
C4-Decalins	74.9		ug/kg	1.55	0.308	1
Naphthalene	315		ug/kg	3.10	0.891	1
C1-Naphthalenes	119		ug/kg	3.10	0.891	1
C2-Naphthalenes	97.2		ug/kg	3.10	0.891	1
C3-Naphthalenes	70.0		ug/kg	3.10	0.891	1
C4-Naphthalenes	50.6		ug/kg	3.10	0.891	1
2-Methylnaphthalene	128		ug/kg	3.10	0.799	1
1-Methylnaphthalene	63.0		ug/kg	3.10	0.977	1
Benzothiophene	11.4		ug/kg	3.10	0.971	1
C1-Benzo(b)thiophenes	5.06		ug/kg	3.10	0.971	1
C2-Benzo(b)thiophenes	5.66		ug/kg	3.10	0.971	1
C3-Benzo(b)thiophenes	8.05		ug/kg	3.10	0.971	1
Biphenyl	74.4		ug/kg	3.10	0.958	1
2,6-Dimethylnaphthalene	54.1		ug/kg	3.10	0.737	1
Dibenzofuran	26.4		ug/kg	3.10	0.976	1
Acenaphthylene	137		ug/kg	3.10	0.591	1
Acenaphthene	281		ug/kg	3.10	0.546	1
2,3,5-Trimethylnaphthalene	10.9		ug/kg	3.10	0.507	1
Fluorene	151		ug/kg	3.10	0.827	1
C1-Fluorenes	59.5		ug/kg	3.10	0.827	1
C2-Fluorenes	71.4		ug/kg	3.10	0.827	1
C3-Fluorenes	73.2		ug/kg	3.10	0.827	1
Dibenzothiophene	150		ug/kg	3.10	0.855	1
C1-Dibenzothiophenes BS	45.3		ug/kg	3.10	0.855	1

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-08  
 Client ID: USMPDI-004SC-A-09-10-201111  
 Sample Location: Not Specified

Date Collected: 11/11/20 08:35  
 Date Received: 02/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PAHs - Mansfield Lab</b>						
C2-Dibenzothiophenes	46.3		ug/kg	3.10	0.855	1
C3-Dibenzothiophenes	58.3		ug/kg	3.10	0.855	1
C4-Dibenzothiophenes	34.0		ug/kg	3.10	0.855	1
Phenanthrene	2150		ug/kg	3.10	1.03	1
C1-Phenanthrenes/Anthracenes	407		ug/kg	3.10	1.03	1
C2-Phenanthrenes/Anthr BS	233		ug/kg	3.10	1.03	1
C3-Phenanthrenes/Anthracenes	167		ug/kg	3.10	1.03	1
C4-Phenanthrenes/Anthracenes	105		ug/kg	3.10	1.03	1
Anthracene	430		ug/kg	3.10	0.639	1
Carbazole	15.5		ug/kg	3.10	1.01	1
1-Methylphenanthrene	92.7		ug/kg	3.10	0.818	1
Fluoranthene	4290	E	ug/kg	3.10	0.985	1
Pyrene	5690	E	ug/kg	3.10	0.815	1
C1-Fluoranthenes/Pyrenes	760		ug/kg	3.10	0.815	1
C2-Fluoranthenes/Pyrenes	176		ug/kg	3.10	0.815	1
C3-Fluoranthenes/Pyrenes	99.8		ug/kg	3.10	0.815	1
C4-Fluoranthenes/Pyrenes	89.6		ug/kg	3.10	0.815	1
Naphthobenzothiophenes	251		ug/kg	3.10	0.867	1
C1-Naphthobenzothiophenes	52.9		ug/kg	3.10	0.867	1
C2-Naphthobenzothiophenes	46.2		ug/kg	3.10	0.867	1
C3-Naphthobenzothiophenes	61.2		ug/kg	3.10	0.867	1
C4-Naphthobenzothiophenes	31.0		ug/kg	3.10	0.867	1
Benzo(a)anthracene	1040		ug/kg	3.10	0.632	1
Chrysene	1320		ug/kg	3.10	0.626	1
C1-Chrysenes	240		ug/kg	3.10	0.626	1
C2-Chrysenes BS	130		ug/kg	3.10	0.626	1
C3-Chrysenes	100		ug/kg	3.10	0.626	1
C4-Chrysenes	67.8		ug/kg	3.10	0.626	1
Benzo(b)fluoranthene	1170		ug/kg	3.10	0.806	1
Benzo(j)+(k)fluoranthene	1070		ug/kg	3.10	0.615	1
Benzo(e)pyrene	1220		ug/kg	3.10	0.640	1
Benzo(a)pyrene	2070		ug/kg	3.10	0.885	1
Perylene	810		ug/kg	3.10	0.598	1
Indeno(1,2,3-cd)pyrene	1430		ug/kg	3.10	0.841	1
Dibenz(a,h)+(a,c)anthracene	175		ug/kg	3.10	0.837	1
Benzo(g,h,i)perylene	2380		ug/kg	3.10	0.824	1

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-08  
 Client ID: USMPDI-004SC-A-09-10-201111  
 Sample Location: Not Specified

Date Collected: 11/11/20 08:35  
 Date Received: 02/04/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	83		50-130
Phenanthrene-d10	96		50-130
Benzo(a)pyrene-d12	90		50-130

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

Lab ID: L2206076-08 D  
 Client ID: USMPDI-004SC-A-09-10-201111  
 Sample Location: Not Specified

Date Collected: 11/11/20 08:35  
 Date Received: 02/04/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Sediment  
 Analytical Method: 1,8270D-SIM(M)  
 Analytical Date: 02/15/22 19:11  
 Analyst: MJS  
 Percent Solids: 63%

Extraction Method: ALPHA OP-013  
 Extraction Date: 02/10/22 17:19  
 Cleanup Method: EPA 3611B  
 Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>PAHs - Mansfield Lab</b>						
Fluoranthene	4150		ug/kg	6.20	1.97	2
Pyrene	5510		ug/kg	6.20	1.63	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	79		50-130
Phenanthrene-d10	92		50-130
Benzo(a)pyrene-d12	87		50-130

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270D-SIM(M)  
Analytical Date: 02/14/22 18:19  
Analyst: MJS

Extraction Method: ALPHA OP-013  
Extraction Date: 02/10/22 17:19  
Cleanup Method: EPA 3611B  
Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL
PAHs - Mansfield Lab for sample(s): 01-08 Batch: WG1603644-1					
cis/trans-Decalin	ND		ug/kg	0.500	0.099
C1-Decalins	ND		ug/kg	0.500	0.099
C2-Decalins	ND		ug/kg	0.500	0.099
C3-Decalins	ND		ug/kg	0.500	0.099
C4-Decalins	ND		ug/kg	0.500	0.099
Naphthalene	ND		ug/kg	1.00	0.287
C1-Naphthalenes	ND		ug/kg	1.00	0.287
C2-Naphthalenes	ND		ug/kg	1.00	0.287
C3-Naphthalenes	ND		ug/kg	1.00	0.287
C4-Naphthalenes	ND		ug/kg	1.00	0.287
2-Methylnaphthalene	ND		ug/kg	1.00	0.258
1-Methylnaphthalene	ND		ug/kg	1.00	0.315
Benzothiophene	ND		ug/kg	1.00	0.313
C1-Benzo(b)thiophenes	ND		ug/kg	1.00	0.313
C2-Benzo(b)thiophenes	ND		ug/kg	1.00	0.313
C3-Benzo(b)thiophenes	ND		ug/kg	1.00	0.313
Biphenyl	ND		ug/kg	1.00	0.309
2,6-Dimethylnaphthalene	ND		ug/kg	1.00	0.238
Dibenzofuran	ND		ug/kg	1.00	0.315
Acenaphthylene	ND		ug/kg	1.00	0.191
Acenaphthene	ND		ug/kg	1.00	0.176
2,3,5-Trimethylnaphthalene	ND		ug/kg	1.00	0.164
Fluorene	ND		ug/kg	1.00	0.267
C1-Fluorenes	ND		ug/kg	1.00	0.267
C2-Fluorenes	ND		ug/kg	1.00	0.267
C3-Fluorenes	ND		ug/kg	1.00	0.267
Dibenzothiophene	ND		ug/kg	1.00	0.276
C1-Dibenzothiophenes BS	ND		ug/kg	1.00	0.276
C2-Dibenzothiophenes	ND		ug/kg	1.00	0.276

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270D-SIM(M)  
Analytical Date: 02/14/22 18:19  
Analyst: MJS

Extraction Method: ALPHA OP-013  
Extraction Date: 02/10/22 17:19  
Cleanup Method: EPA 3611B  
Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL
PAHs - Mansfield Lab for sample(s): 01-08 Batch: WG1603644-1					
C3-Dibenzothiophenes	ND		ug/kg	1.00	0.276
C4-Dibenzothiophenes	ND		ug/kg	1.00	0.276
Phenanthrene	ND		ug/kg	1.00	0.331
C1-Phenanthrenes/Anthracenes	ND		ug/kg	1.00	0.331
C2-Phenanthrenes/Anthr BS	ND		ug/kg	1.00	0.331
C3-Phenanthrenes/Anthracenes	ND		ug/kg	1.00	0.331
C4-Phenanthrenes/Anthracenes	ND		ug/kg	1.00	0.331
Anthracene	ND		ug/kg	1.00	0.206
Carbazole	ND		ug/kg	1.00	0.327
1-Methylphenanthrene	ND		ug/kg	1.00	0.264
Fluoranthene	ND		ug/kg	1.00	0.318
Pyrene	ND		ug/kg	1.00	0.263
C1-Fluoranthenes/Pyrenes	ND		ug/kg	1.00	0.263
C2-Fluoranthenes/Pyrenes	ND		ug/kg	1.00	0.263
C3-Fluoranthenes/Pyrenes	ND		ug/kg	1.00	0.263
C4-Fluoranthenes/Pyrenes	ND		ug/kg	1.00	0.263
Naphthobenzothiophenes	ND		ug/kg	1.00	0.280
C1-Naphthobenzothiophenes	ND		ug/kg	1.00	0.280
C2-Naphthobenzothiophenes	ND		ug/kg	1.00	0.280
C3-Naphthobenzothiophenes	ND		ug/kg	1.00	0.280
C4-Naphthobenzothiophenes	ND		ug/kg	1.00	0.280
Benz(a)anthracene	ND		ug/kg	1.00	0.204
Chrysene	ND		ug/kg	1.00	0.202
C1-Chrysenes	ND		ug/kg	1.00	0.202
C2-Chrysenes BS	ND		ug/kg	1.00	0.202
C3-Chrysenes	ND		ug/kg	1.00	0.202
C4-Chrysenes	ND		ug/kg	1.00	0.202
Benzo(b)fluoranthene	ND		ug/kg	1.00	0.260
Benzo(j)+(k)fluoranthene	ND		ug/kg	1.00	0.198



**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8270D-SIM(M)  
Analytical Date: 02/14/22 18:19  
Analyst: MJS

Extraction Method: ALPHA OP-013  
Extraction Date: 02/10/22 17:19  
Cleanup Method: EPA 3611B  
Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL
PAHs - Mansfield Lab for sample(s): 01-08 Batch: WG1603644-1					
Benzo(e)pyrene	ND		ug/kg	1.00	0.206
Benzo(a)pyrene	ND		ug/kg	1.00	0.285
Perylene	ND		ug/kg	1.00	0.193
Indeno(1,2,3-cd)pyrene	ND		ug/kg	1.00	0.271
Dibenz(a,h)+(a,c)anthracene	ND		ug/kg	1.00	0.270
Benzo(g,h,i)perylene	ND		ug/kg	1.00	0.266

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Naphthalene-d8	86		50-130
Phenanthrene-d10	91		50-130
Benzo(a)pyrene-d12	83		50-130

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** GASCO HYDROCARBON INVESTIGATIO

**Lab Number:** L2206076

**Project Number:** 000029-02

**Report Date:** 03/01/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
PAHs - Mansfield Lab Associated sample(s): 01-08 Batch: WG1603644-2 WG1603644-3								
Naphthalene	87		93		50-130	7		30
2-Methylnaphthalene	81		87		50-130	7		30
Acenaphthylene	75		80		50-130	6		30
Acenaphthene	82		88		50-130	7		30
Fluorene	85		90		50-130	6		30
Phenanthrene	86		92		50-130	7		30
Anthracene	86		91		50-130	6		30
Fluoranthene	89		94		50-130	5		30
Pyrene	88		93		50-130	6		30
Benz(a)anthracene	84		88		50-130	5		30
Chrysene	90		94		50-130	4		30
Benzo(b)fluoranthene	84		89		50-130	6		30
Benzo(j)+(k)fluoranthene	90		94		50-130	4		30
Benzo(a)pyrene	76		79		50-130	4		30
Indeno(1,2,3-cd)pyrene	70		74		50-130	6		30
Dibenz(a,h)+(a,c)anthracene	75		77		50-130	3		30
Benzo(g,h,i)perylene	80		84		50-130	5		30

### Lab Control Sample Analysis

#### Batch Quality Control

**Project Name:** GASCO HYDROCARBON INVESTIGATIO

**Lab Number:** L2206076

**Project Number:** 000029-02

**Report Date:** 03/01/22

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
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PAHs - Mansfield Lab Associated sample(s): 01-08 Batch: WG1603644-2 WG1603644-3

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
Naphthalene-d8	88		91		50-130
Phenanthrene-d10	94		95		50-130
Benzo(a)pyrene-d12	84		84		50-130

# **INORGANICS & MISCELLANEOUS**

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

**Lab ID:** L2206076-01  
**Client ID:** USMPDI-040SC-A-10-11-201103  
**Sample Location:** Not Specified

**Date Collected:** 11/03/20 16:30  
**Date Received:** 02/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	76.7		%	0.100	0.100	1	-	02/05/22 14:56	121,2540G	GF



**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

**Lab ID:** L2206076-02  
**Client ID:** USMPDI-040SC-A-11-12-201103  
**Sample Location:** Not Specified

**Date Collected:** 11/03/20 16:30  
**Date Received:** 02/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	75.8		%	0.100	0.100	1	-	02/05/22 14:56	121,2540G	GF



**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

**Lab ID:** L2206076-03  
**Client ID:** USMPDI-040SC-A-12-13-201103  
**Sample Location:** Not Specified

**Date Collected:** 11/03/20 16:30  
**Date Received:** 02/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	85.4		%	0.100	0.100	1	-	02/05/22 14:56	121,2540G	GF



**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

**Lab ID:** L2206076-04  
**Client ID:** USMPDI-056SC-A-07-08-201107  
**Sample Location:** Not Specified

**Date Collected:** 11/07/20 13:30  
**Date Received:** 02/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	77.4		%	0.100	0.100	1	-	02/05/22 14:56	121,2540G	GF





**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

**Lab ID:** L2206076-05  
**Client ID:** USMPDI-056SC-A-08-09-201107  
**Sample Location:** Not Specified

**Date Collected:** 11/07/20 13:30  
**Date Received:** 02/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	85.4		%	0.100	0.100	1	-	02/05/22 14:56	121,2540G	GF



**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

**Lab ID:** L2206076-06  
**Client ID:** USMPDI-004SC-A-07-08-201111  
**Sample Location:** Not Specified

**Date Collected:** 11/11/20 08:35  
**Date Received:** 02/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	59.5		%	0.100	0.100	1	-	02/05/22 14:56	121,2540G	GF



**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

**Lab ID:** L2206076-07  
**Client ID:** USMPDI-004SC-A-08-09-201111  
**Sample Location:** Not Specified

**Date Collected:** 11/11/20 08:35  
**Date Received:** 02/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	62.7		%	0.100	0.100	1	-	02/05/22 14:56	121,2540G	GF



**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**SAMPLE RESULTS**

**Lab ID:** L2206076-08  
**Client ID:** USMPDI-004SC-A-09-10-201111  
**Sample Location:** Not Specified

**Date Collected:** 11/11/20 08:35  
**Date Received:** 02/04/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Mansfield Lab</b>										
Solids, Total	62.6		%	0.100	0.100	1	-	02/05/22 14:56	121,2540G	GF



## Lab Duplicate Analysis

*Batch Quality Control*

**Project Name:** GASCO HYDROCARBON INVESTIGATIO

**Project Number:** 000029-02

**Lab Number:** L2206076

**Report Date:** 03/01/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1601751-1 QC Sample: L2205956-02 Client ID: DUP Sample						
Solids, Total	33.8	34.4	%	2		10

**Project Name:** GASCO HYDROCARBON INVESTIGATIO**Lab Number:** L2206076**Project Number:** 000029-02**Report Date:** 03/01/22**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2206076-01A	Glass 60mL/2oz unpreserved	A	NA		2.5	Y	Absent		A2-ALKPAH(14),A2-TS(7)
L2206076-02A	Glass 60mL/2oz unpreserved	A	NA		2.5	Y	Absent		A2-ALKPAH(14),A2-TS(7)
L2206076-03A	Glass 60mL/2oz unpreserved	A	NA		2.5	Y	Absent		A2-ALKPAH(14),A2-TS(7)
L2206076-04A	Glass 60mL/2oz unpreserved	A	NA		2.5	Y	Absent		A2-ALKPAH(14),A2-TS(7)
L2206076-05A	Glass 60mL/2oz unpreserved	A	NA		2.5	Y	Absent		A2-ALKPAH(14),A2-TS(7)
L2206076-06A	Glass 60mL/2oz unpreserved	A	NA		2.5	Y	Absent		A2-ALKPAH(14),A2-TS(7)
L2206076-07A	Glass 60mL/2oz unpreserved	A	NA		2.5	Y	Absent		A2-ALKPAH(14),A2-TS(7)
L2206076-08A	Glass 60mL/2oz unpreserved	A	NA		2.5	Y	Absent		A2-ALKPAH(14),A2-TS(7)

**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

#### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

#### Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

**Difference:** With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**PAH Total:** With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

**PFAS Total:** With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

#### Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers





**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

**Data Qualifiers**

- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

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**Project Name:** GASCO HYDROCARBON INVESTIGATIO  
**Project Number:** 000029-02

**Lab Number:** L2206076  
**Report Date:** 03/01/22

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

### Westborough Facility

**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene

**EPA 625/625.1:** alpha-Terpineol

**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### Mansfield Facility

**SM 2540D:** TSS

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

**EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LCHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

**SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

**EPA 624.1:** Volatile Halocarbons & Aromatics,

**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

**EPA 522, EPA 537.1.**

#### Non-Potable Water

**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

**EPA 245.1 Hg.**

**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

2/4/22

SUBCONTRACT ORDER

Serial No:03012211:49

ET

Apex Laboratories

02/21/22 A2A1041

SENDING LABORATORY:

Apex Laboratories  
6700 S.W. Sandburg Street  
Tigard, OR 97223  
Phone: (503) 718-2323  
Fax: (503) 336-0745  
Project Manager: Darwin Thomas

RECEIVING LABORATORY:

Alpha Analytical, INC  
320 Forbes Boulevard  
Mansfield, MA 02048  
Phone :(508) 822-9300  
Fax:

01

Relogged-->A0K0164-26

Sample Name: USMPDI-040SC-A-10-11-201103 SE Sampled: 11/03/20 16:30 (A2A1041-03)

Analysis	Due	Expires	Comments
8270E LL PAH and Homologs - Full List Containers Supplied: (B)2 oz Glass Jar	02/11/22 17:00	11/17/20 16:30	PAHs and alkyl PAHs Frozen 11/3/20 Thawed 2/2/22

02

Relogged-->A0K0164-27

Sample Name: USMPDI-040SC-A-11-12-201103 SE Sampled: 11/03/20 16:30 (A2A1041-04)

Analysis	Due	Expires	Comments
8270E LL PAH and Homologs - Full List Containers Supplied: (B)2 oz Glass Jar	02/11/22 17:00	11/17/20 16:30	PAHs and alkyl PAHs Frozen 11/3/20 Thawed 2/2/22

03

Relogged--> A0K0164-28

Sample Name: USMPDI-040SC-A-12-13-201103 SE Sampled: 11/03/20 16:30 (A2A1041-05)

Analysis	Due	Expires	Comments
8270E LL PAH and Homologs - Full List Containers Supplied: (B)2 oz Glass Jar	02/11/22 17:00	11/17/20 16:30	PAHs and alkyl PAHs Frozen 11/3/20 Thawed 2/2/22

04

Relogged--> A0K0320-41

Sample Name: USMPDI-056SC-A-07-08-201107 SE Sampled: 11/07/20 13:30 (A2A1041-10)

Analysis	Due	Expires	Comments
8270E LL PAH and Homologs - Full List Containers Supplied: (B)2 oz Glass Jar	02/11/22 17:00	11/21/20 13:30	PAHs and alkyl PAHs Frozen: 11/9/20 Thawed 2/2/22

Standard TAT

WAB 2/2/22

Fed Ex (Shipper)

Released By Date

Received By Date

Fed Ex (Shipper)

2/4/22 11:19 am

Released By Date

Received By Date

SUBCONTRACT ORDER

ET

Apex Laboratories

AB 2/1/22

A2A1041

Relogged--> A0K0320-42

Sample Name: USMPDI-056SC-A-08-09-201107 SE Sampled: 11/07/20 13:30 (A2A1041-11)

Analysis Due Expires Comments

8270E LL PAH and Homologs - Full List 02/11/22 17:00 11/21/20 13:30 PAHs and alkyl PAHs Frozen 11/9/20 Thawed 2/2/22  
Containers Supplied: (B)2 oz Glass Jar

Relogged--> A0K0538-24

Sample Name: USMPDI-004SC-A-07-08-201111 SE Sampled: 11/11/20 08:35 (A2A1041-16)

Analysis Due Expires Comments

8270E LL PAH and Homologs - Full List 02/11/22 17:00 11/25/20 08:35 PAHs and alkyl PAHs Frozen 11/13/20 Thawed 2/2/22  
Containers Supplied: (B)2 oz Glass Jar

Relogged--> A0K0538-25

Sample Name: USMPDI-004SC-A-08-09-201111 SE Sampled: 11/11/20 08:35 (A2A1041-17)

Analysis Due Expires Comments

8270E LL PAH and Homologs - Full List 02/11/22 17:00 11/25/20 08:35 PAHs and alkyl PAHs Frozen 11/13/20 Thawed 2/2/22  
Containers Supplied: (B)2 oz Glass Jar

Relogged--> A0K0538-26

Sample Name: USMPDI-004SC-A-09-10-201111 SE Sampled: 11/11/20 08:35 (A2A1041-18)

Analysis Due Expires Comments

8270E LL PAH and Homologs - Full List 02/11/22 17:00 11/25/20 08:35 PAHs and alkyl PAHs Frozen 11/13/20 Thawed 2/2/22  
Containers Supplied: (B)2 oz Glass Jar

Standard TAT

Fed Ex (Shipper)

Released By Date Received By Date

Fed Ex (Shipper)

*[Signature]* 2/4/22 11:19am

Released By Date Received By Date

https://www.fedex.com/shipping/html/en/PrintFrame.html

ORIGIN ID: BNOA (503) 718-2323  
APEX LABS  
APEX LABORATORIES  
12232 SW GARDEN PL

SHIP DATE: 02FEB22  
ACTWGT: 24.00 LB  
CAD: 4718258/INET4460  
DIMS: 18x16x13 IN

TIGARD, OR 97223  
UNITED STATES US

BILL THIRD PARTY

TO **SAMPLE RECEIVING**  
**ALPHA ANALYTICAL**  
**320 FORBES BLVD.**

**MANSFIELD MA 02048**

(508) 822-9300  
INV.  
PO:

REF. ANCHOR

DEPT:

56D12027CFE4A

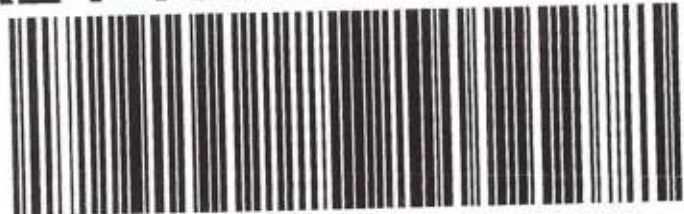


**THU - 03 FEB 10:30A**  
**PRIORITY OVERNIGHT**

TRK# **7759 4451 2340**  
0201

**XE PYMA**

**02048**  
**MA-US BOS**



Firefox

# Alpha Summary Forms

# Organic Summary Forms



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-01	Date Collected : 11/03/20 16:30
Client ID : USMPDI-040SC-A-10-11-201103	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/14/22 22:33
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142209	Analyst : MJS
Sample Amount : 15.45 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 77
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	ND	1.26	0.252	U
DECALINSC1	C1-Decalins	1.03	1.26	0.252	J
DECALINSC2	C2-Decalins	2.63	1.26	0.252	
DECALINSC3	C3-Decalins	ND	1.26	0.252	U
DECALINSC4	C4-Decalins	ND	1.26	0.252	U
91-20-3	Naphthalene	4.63	2.53	0.728	
91-20-3C1	C1-Naphthalenes	0.955	2.53	0.728	J
91-20-3C2	C2-Naphthalenes	0.994	2.53	0.728	J
91-20-3C3	C3-Naphthalenes	0.970	2.53	0.728	J
91-20-3C4	C4-Naphthalenes	1.15	2.53	0.728	J
91-57-6	2-Methylnaphthalene	1.04	2.53	0.653	J
90-12-0	1-Methylnaphthalene	ND	2.53	0.798	U
95-15-8	Benzo(b)thiophene	ND	2.53	0.793	U
95-15-8C1	C1-Benzo(b)thiophenes	ND	2.53	0.793	U
95-15-8C2	C2-Benzo(b)thiophenes	ND	2.53	0.793	U
95-15-8C3	C3-Benzo(b)thiophenes	ND	2.53	0.793	U
92-52-4	Biphenyl	ND	2.53	0.782	U
581-42-0	2,6-Dimethylnaphthalene	ND	2.53	0.602	U
132-64-9	Dibenzofuran	ND	2.53	0.797	U
208-96-8	Acenaphthylene	1.17	2.53	0.483	J
83-32-9	Acenaphthene	3.69	2.53	0.446	
2245-38-7	2,3,5-Trimethylnaphthalene	ND	2.53	0.414	U



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-01	Date Collected : 11/03/20 16:30
Client ID : USMPDI-040SC-A-10-11-201103	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/14/22 22:33
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142209	Analyst : MJS
Sample Amount : 15.45 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 77
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
86-73-7	Fluorene	1.22	2.53	0.675	J
86-73-7C1	C1-Fluorenes	0.961	2.53	0.675	J
86-73-7C2	C2-Fluorenes	1.35	2.53	0.675	J
86-73-7C3	C3-Fluorenes	2.27	2.53	0.675	J
132-65-0	Dibenzothiophene	2.35	2.53	0.698	J
132-65-0C1	C1-Dibenzothiophenes BS	1.24	2.53	0.698	J
132-65-0C2	C2-Dibenzothiophenes	1.85	2.53	0.698	J
132-65-0C3	C3-Dibenzothiophenes	1.44	2.53	0.698	J
132-65-0C4	C4-Dibenzothiophenes	0.939	2.53	0.698	J
85-01-8	Phenanthrene	26.9	2.53	0.839	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	8.16	2.53	0.839	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	4.53	2.53	0.839	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	2.86	2.53	0.839	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	1.88	2.53	0.839	J
120-12-7	Anthracene	3.52	2.53	0.522	
86-74-8	Carbazole	ND	2.53	0.828	U
832-69-9	1-Methylphenanthrene	2.02	2.53	0.668	J
206-44-0	Fluoranthene	41.2	2.53	0.804	
129-00-0	Pyrene	76.7	2.53	0.666	
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	16.1	2.53	0.666	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	3.68	2.53	0.666	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	1.89	2.53	0.666	J



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-01	Date Collected : 11/03/20 16:30
Client ID : USMPDI-040SC-A-10-11-201103	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/14/22 22:33
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142209	Analyst : MJS
Sample Amount : 15.45 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 77
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	1.71	2.53	0.666	J
61523-34-0	Naphthobenzothiophenes	6.20	2.53	0.708	J
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	2.17	2.53	0.708	J
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	1.98	2.53	0.708	J
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	1.14	2.53	0.708	J
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	ND	2.53	0.708	U
56-55-3	Benz(a)anthracene	20.0	2.53	0.516	
218-01-9	Chrysene	27.3	2.53	0.512	
218-01-9C1	C1-Chrysenes	5.77	2.53	0.512	
218-01-9C2	C2-Chrysenes BS	2.50	2.53	0.512	J
218-01-9C3	C3-Chrysenes	ND	2.53	0.512	U
218-01-9C4	C4-Chrysenes	ND	2.53	0.512	U
205-99-2	Benzo(b)fluoranthene	18.5	2.53	0.658	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	21.8	2.53	0.502	
192-97-2	Benzo(e)pyrene	21.4	2.53	0.522	
50-32-8	Benzo(a)pyrene	35.1	2.53	0.723	
198-55-0	Perylene	11.8	2.53	0.489	
193-39-5	Indeno(1,2,3-cd)pyrene	19.5	2.53	0.687	
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	3.09	2.53	0.684	
191-24-2	Benzo(g,h,i)perylene	36.9	2.53	0.672	



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-02	Date Collected : 11/03/20 16:30
Client ID : USMPDI-040SC-A-11-12-201103	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/14/22 23:57
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142210	Analyst : MJS
Sample Amount : 15.35 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 76
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	ND	1.29	0.256	U
DECALINSC1	C1-Decalins	ND	1.29	0.256	U
DECALINSC2	C2-Decalins	ND	1.29	0.256	U
DECALINSC3	C3-Decalins	ND	1.29	0.256	U
DECALINSC4	C4-Decalins	ND	1.29	0.256	U
91-20-3	Naphthalene	ND	2.58	0.741	U
91-20-3C1	C1-Naphthalenes	ND	2.58	0.741	U
91-20-3C2	C2-Naphthalenes	ND	2.58	0.741	U
91-20-3C3	C3-Naphthalenes	ND	2.58	0.741	U
91-20-3C4	C4-Naphthalenes	ND	2.58	0.741	U
91-57-6	2-Methylnaphthalene	ND	2.58	0.665	U
90-12-0	1-Methylnaphthalene	ND	2.58	0.812	U
95-15-8	Benzo(b)thiophene	ND	2.58	0.808	U
95-15-8C1	C1-Benzo(b)thiophenes	ND	2.58	0.808	U
95-15-8C2	C2-Benzo(b)thiophenes	ND	2.58	0.808	U
95-15-8C3	C3-Benzo(b)thiophenes	ND	2.58	0.808	U
92-52-4	Biphenyl	ND	2.58	0.797	U
581-42-0	2,6-Dimethylnaphthalene	ND	2.58	0.613	U
132-64-9	Dibenzofuran	ND	2.58	0.812	U
208-96-8	Acenaphthylene	ND	2.58	0.492	U
83-32-9	Acenaphthene	2.40	2.58	0.454	J
2245-38-7	2,3,5-Trimethylnaphthalene	ND	2.58	0.422	U



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-02	Date Collected : 11/03/20 16:30
Client ID : USMPDI-040SC-A-11-12-201103	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/14/22 23:57
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142210	Analyst : MJS
Sample Amount : 15.35 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 76
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
86-73-7	Fluorene	ND	2.58	0.688	U
86-73-7C1	C1-Fluorenes	ND	2.58	0.688	U
86-73-7C2	C2-Fluorenes	ND	2.58	0.688	U
86-73-7C3	C3-Fluorenes	ND	2.58	0.688	U
132-65-0	Dibenzothiophene	ND	2.58	0.711	U
132-65-0C1	C1-Dibenzothiophenes BS	ND	2.58	0.711	U
132-65-0C2	C2-Dibenzothiophenes	ND	2.58	0.711	U
132-65-0C3	C3-Dibenzothiophenes	ND	2.58	0.711	U
132-65-0C4	C4-Dibenzothiophenes	ND	2.58	0.711	U
85-01-8	Phenanthrene	3.10	2.58	0.854	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	0.969	2.58	0.854	J
PHENANTHC2	C2-Phenanthrenes/Anthr BS	ND	2.58	0.854	U
PHENANTHC3	C3-Phenanthrenes/Anthracenes	ND	2.58	0.854	U
PHENANTHC4	C4-Phenanthrenes/Anthracenes	ND	2.58	0.854	U
120-12-7	Anthracene	ND	2.58	0.531	U
86-74-8	Carbazole	ND	2.58	0.843	U
832-69-9	1-Methylphenanthrene	ND	2.58	0.681	U
206-44-0	Fluoranthene	2.78	2.58	0.819	
129-00-0	Pyrene	7.22	2.58	0.678	
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	1.42	2.58	0.678	J
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	ND	2.58	0.678	U
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	ND	2.58	0.678	U



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-02	Date Collected : 11/03/20 16:30
Client ID : USMPDI-040SC-A-11-12-201103	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/14/22 23:57
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142210	Analyst : MJS
Sample Amount : 15.35 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 76
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	ND	2.58	0.678	U
61523-34-0	Naphthobenzothiophenes	ND	2.58	0.721	U
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	ND	2.58	0.721	U
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	ND	2.58	0.721	U
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	ND	2.58	0.721	U
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	ND	2.58	0.721	U
56-55-3	Benz(a)anthracene	1.17	2.58	0.526	J
218-01-9	Chrysene	2.04	2.58	0.521	J
218-01-9C1	C1-Chrysenes	ND	2.58	0.521	U
218-01-9C2	C2-Chrysenes BS	ND	2.58	0.521	U
218-01-9C3	C3-Chrysenes	ND	2.58	0.521	U
218-01-9C4	C4-Chrysenes	ND	2.58	0.521	U
205-99-2	Benzo(b)fluoranthene	1.16	2.58	0.670	J
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	1.17	2.58	0.512	J
192-97-2	Benzo(e)pyrene	1.23	2.58	0.532	J
50-32-8	Benzo(a)pyrene	1.85	2.58	0.736	J
198-55-0	Perylene	2.20	2.58	0.498	J
193-39-5	Indeno(1,2,3-cd)pyrene	1.00	2.58	0.700	J
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	ND	2.58	0.696	U
191-24-2	Benzo(g,h,i)perylene	1.92	2.58	0.685	J



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-03	Date Collected : 11/03/20 16:30
Client ID : USMPDI-040SC-A-12-13-201103	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/15/22 01:22
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142211	Analyst : MJS
Sample Amount : 15.05 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 85
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	ND	1.17	0.232	U
DECALINSC1	C1-Decalins	ND	1.17	0.232	U
DECALINSC2	C2-Decalins	ND	1.17	0.232	U
DECALINSC3	C3-Decalins	ND	1.17	0.232	U
DECALINSC4	C4-Decalins	ND	1.17	0.232	U
91-20-3	Naphthalene	ND	2.33	0.671	U
91-20-3C1	C1-Naphthalenes	ND	2.33	0.671	U
91-20-3C2	C2-Naphthalenes	ND	2.33	0.671	U
91-20-3C3	C3-Naphthalenes	ND	2.33	0.671	U
91-20-3C4	C4-Naphthalenes	ND	2.33	0.671	U
91-57-6	2-Methylnaphthalene	ND	2.33	0.602	U
90-12-0	1-Methylnaphthalene	ND	2.33	0.735	U
95-15-8	Benzothiophene	ND	2.33	0.731	U
95-15-8C1	C1-Benzo(b)thiophenes	ND	2.33	0.731	U
95-15-8C2	C2-Benzo(b)thiophenes	ND	2.33	0.731	U
95-15-8C3	C3-Benzo(b)thiophenes	ND	2.33	0.731	U
92-52-4	Biphenyl	ND	2.33	0.721	U
581-42-0	2,6-Dimethylnaphthalene	ND	2.33	0.555	U
132-64-9	Dibenzofuran	ND	2.33	0.735	U
208-96-8	Acenaphthylene	ND	2.33	0.445	U
83-32-9	Acenaphthene	2.76	2.33	0.411	
2245-38-7	2,3,5-Trimethylnaphthalene	ND	2.33	0.382	U



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-03	Date Collected : 11/03/20 16:30
Client ID : USMPDI-040SC-A-12-13-201103	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/15/22 01:22
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142211	Analyst : MJS
Sample Amount : 15.05 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 85
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
86-73-7	Fluorene	ND	2.33	0.622	U
86-73-7C1	C1-Fluorenes	ND	2.33	0.622	U
86-73-7C2	C2-Fluorenes	ND	2.33	0.622	U
86-73-7C3	C3-Fluorenes	ND	2.33	0.622	U
132-65-0	Dibenzothiophene	ND	2.33	0.644	U
132-65-0C1	C1-Dibenzothiophenes BS	ND	2.33	0.644	U
132-65-0C2	C2-Dibenzothiophenes	ND	2.33	0.644	U
132-65-0C3	C3-Dibenzothiophenes	ND	2.33	0.644	U
132-65-0C4	C4-Dibenzothiophenes	ND	2.33	0.644	U
85-01-8	Phenanthrene	1.12	2.33	0.773	J
PHENANTHC1	C1-Phenanthrenes/Anthracenes	ND	2.33	0.773	U
PHENANTHC2	C2-Phenanthrenes/Anthr BS	ND	2.33	0.773	U
PHENANTHC3	C3-Phenanthrenes/Anthracenes	ND	2.33	0.773	U
PHENANTHC4	C4-Phenanthrenes/Anthracenes	ND	2.33	0.773	U
120-12-7	Anthracene	ND	2.33	0.481	U
86-74-8	Carbazole	ND	2.33	0.764	U
832-69-9	1-Methylphenanthrene	ND	2.33	0.616	U
206-44-0	Fluoranthene	ND	2.33	0.742	U
129-00-0	Pyrene	2.48	2.33	0.614	
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	ND	2.33	0.614	U
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	ND	2.33	0.614	U
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	ND	2.33	0.614	U





# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-03	Date Collected : 11/03/20 16:30
Client ID : USMPDI-040SC-A-12-13-201103	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/15/22 01:22
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142211	Analyst : MJS
Sample Amount : 15.05 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 85
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	ND	2.33	0.614	U
61523-34-0	Naphthobenzothiophenes	ND	2.33	0.653	U
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	ND	2.33	0.653	U
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	ND	2.33	0.653	U
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	ND	2.33	0.653	U
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	ND	2.33	0.653	U
56-55-3	Benz(a)anthracene	ND	2.33	0.476	U
218-01-9	Chrysene	ND	2.33	0.472	U
218-01-9C1	C1-Chrysenes	ND	2.33	0.472	U
218-01-9C2	C2-Chrysenes BS	ND	2.33	0.472	U
218-01-9C3	C3-Chrysenes	ND	2.33	0.472	U
218-01-9C4	C4-Chrysenes	ND	2.33	0.472	U
205-99-2	Benzo(b)fluoranthene	ND	2.33	0.607	U
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	ND	2.33	0.463	U
192-97-2	Benzo(e)pyrene	ND	2.33	0.482	U
50-32-8	Benzo(a)pyrene	ND	2.33	0.666	U
198-55-0	Perylene	3.44	2.33	0.450	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.33	0.633	U
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	ND	2.33	0.630	U
191-24-2	Benzo(g,h,i)perylene	ND	2.33	0.620	U



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-04	Date Collected : 11/07/20 13:30
Client ID : USMPDI-056SC-A-07-08-201107	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/15/22 02:47
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142212	Analyst : MJS
Sample Amount : 15.53 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 77
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	ND	1.25	0.248	U
DECALINSC1	C1-Decalins	0.986	1.25	0.248	J
DECALINSC2	C2-Decalins	2.07	1.25	0.248	
DECALINSC3	C3-Decalins	ND	1.25	0.248	U
DECALINSC4	C4-Decalins	ND	1.25	0.248	U
91-20-3	Naphthalene	31.4	2.50	0.717	
91-20-3C1	C1-Naphthalenes	9.59	2.50	0.717	
91-20-3C2	C2-Naphthalenes	6.12	2.50	0.717	
91-20-3C3	C3-Naphthalenes	7.26	2.50	0.717	
91-20-3C4	C4-Naphthalenes	5.98	2.50	0.717	
91-57-6	2-Methylnaphthalene	10.9	2.50	0.644	
90-12-0	1-Methylnaphthalene	4.31	2.50	0.786	
95-15-8	Benzothiophene	1.32	2.50	0.782	J
95-15-8C1	C1-Benzo(b)thiophenes	1.62	2.50	0.782	J
95-15-8C2	C2-Benzo(b)thiophenes	1.32	2.50	0.782	J
95-15-8C3	C3-Benzo(b)thiophenes	2.02	2.50	0.782	J
92-52-4	Biphenyl	3.86	2.50	0.771	
581-42-0	2,6-Dimethylnaphthalene	3.30	2.50	0.593	
132-64-9	Dibenzofuran	2.87	2.50	0.786	
208-96-8	Acenaphthylene	3.57	2.50	0.476	
83-32-9	Acenaphthene	18.2	2.50	0.440	
2245-38-7	2,3,5-Trimethylnaphthalene	1.03	2.50	0.408	J



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-04	Date Collected : 11/07/20 13:30
Client ID : USMPDI-056SC-A-07-08-201107	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/15/22 02:47
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142212	Analyst : MJS
Sample Amount : 15.53 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 77
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
86-73-7	Fluorene	7.35	2.50	0.666	
86-73-7C1	C1-Fluorenes	4.67	2.50	0.666	
86-73-7C2	C2-Fluorenes	6.11	2.50	0.666	
86-73-7C3	C3-Fluorenes	5.56	2.50	0.666	
132-65-0	Dibenzothiophene	15.7	2.50	0.688	
132-65-0C1	C1-Dibenzothiophenes BS	5.51	2.50	0.688	
132-65-0C2	C2-Dibenzothiophenes	6.55	2.50	0.688	
132-65-0C3	C3-Dibenzothiophenes	5.12	2.50	0.688	
132-65-0C4	C4-Dibenzothiophenes	2.50	2.50	0.688	
85-01-8	Phenanthrene	132	2.50	0.827	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	31.0	2.50	0.827	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	19.2	2.50	0.827	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	10.6	2.50	0.827	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	5.13	2.50	0.827	
120-12-7	Anthracene	10.6	2.50	0.514	
86-74-8	Carbazole	1.01	2.50	0.816	J
832-69-9	1-Methylphenanthrene	7.71	2.50	0.659	
206-44-0	Fluoranthene	119	2.50	0.793	
129-00-0	Pyrene	167	2.50	0.656	
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	35.1	2.50	0.656	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	11.0	2.50	0.656	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	5.71	2.50	0.656	



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-04	Date Collected : 11/07/20 13:30
Client ID : USMPDI-056SC-A-07-08-201107	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/15/22 02:47
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142212	Analyst : MJS
Sample Amount : 15.53 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 77
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	3.29	2.50	0.656	
61523-34-0	Naphthobenzothiophenes	13.0	2.50	0.698	J
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	4.31	2.50	0.698	
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	3.42	2.50	0.698	
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	2.17	2.50	0.698	J
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	1.28	2.50	0.698	J
56-55-3	Benz(a)anthracene	36.8	2.50	0.509	
218-01-9	Chrysene	49.1	2.50	0.504	
218-01-9C1	C1-Chrysenes	12.0	2.50	0.504	
218-01-9C2	C2-Chrysenes BS	5.92	2.50	0.504	
218-01-9C3	C3-Chrysenes	5.57	2.50	0.504	
218-01-9C4	C4-Chrysenes	ND	2.50	0.504	U
205-99-2	Benzo(b)fluoranthene	23.1	2.50	0.649	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	27.8	2.50	0.495	
192-97-2	Benzo(e)pyrene	25.4	2.50	0.515	
50-32-8	Benzo(a)pyrene	38.5	2.50	0.712	
198-55-0	Perylene	19.7	2.50	0.482	
193-39-5	Indeno(1,2,3-cd)pyrene	18.1	2.50	0.677	
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	3.25	2.50	0.674	
191-24-2	Benzo(g,h,i)perylene	31.0	2.50	0.663	



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-05	Date Collected : 11/07/20 13:30
Client ID : USMPDI-056SC-A-08-09-201107	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/15/22 04:11
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142213	Analyst : MJS
Sample Amount : 15.28 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 85
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	0.919	1.15	0.228	J
DECALINSC1	C1-Decalins	3.82	1.15	0.228	
DECALINSC2	C2-Decalins	7.90	1.15	0.228	
DECALINSC3	C3-Decalins	6.75	1.15	0.228	
DECALINSC4	C4-Decalins	9.48	1.15	0.228	
91-20-3	Naphthalene	30.7	2.30	0.661	
91-20-3C1	C1-Naphthalenes	6.90	2.30	0.661	
91-20-3C2	C2-Naphthalenes	7.84	2.30	0.661	
91-20-3C3	C3-Naphthalenes	18.6	2.30	0.661	
91-20-3C4	C4-Naphthalenes	19.6	2.30	0.661	
91-57-6	2-Methylnaphthalene	7.02	2.30	0.593	
90-12-0	1-Methylnaphthalene	4.02	2.30	0.724	
95-15-8	Benzothiophene	1.74	2.30	0.720	J
95-15-8C1	C1-Benzo(b)thiophenes	1.63	2.30	0.720	J
95-15-8C2	C2-Benzo(b)thiophenes	2.11	2.30	0.720	J
95-15-8C3	C3-Benzo(b)thiophenes	4.46	2.30	0.720	
92-52-4	Biphenyl	4.13	2.30	0.710	
581-42-0	2,6-Dimethylnaphthalene	3.35	2.30	0.546	
132-64-9	Dibenzofuran	2.88	2.30	0.724	
208-96-8	Acenaphthylene	10.4	2.30	0.439	
83-32-9	Acenaphthene	34.8	2.30	0.405	
2245-38-7	2,3,5-Trimethylnaphthalene	2.69	2.30	0.376	



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-05	Date Collected : 11/07/20 13:30
Client ID : USMPDI-056SC-A-08-09-201107	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/15/22 04:11
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142213	Analyst : MJS
Sample Amount : 15.28 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 85
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
86-73-7	Fluorene	14.1	2.30	0.613	
86-73-7C1	C1-Fluorenes	14.7	2.30	0.613	
86-73-7C2	C2-Fluorenes	17.3	2.30	0.613	
86-73-7C3	C3-Fluorenes	14.0	2.30	0.613	
132-65-0	Dibenzothiophene	50.1	2.30	0.634	
132-65-0C1	C1-Dibenzothiophenes BS	21.8	2.30	0.634	
132-65-0C2	C2-Dibenzothiophenes	16.5	2.30	0.634	
132-65-0C3	C3-Dibenzothiophenes	11.6	2.30	0.634	
132-65-0C4	C4-Dibenzothiophenes	5.76	2.30	0.634	
85-01-8	Phenanthrene	392	2.30	0.762	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	94.1	2.30	0.762	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	48.6	2.30	0.762	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	25.7	2.30	0.762	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	12.0	2.30	0.762	
120-12-7	Anthracene	25.4	2.30	0.474	
86-74-8	Carbazole	1.81	2.30	0.752	J
832-69-9	1-Methylphenanthrene	24.2	2.30	0.607	
206-44-0	Fluoranthene	501	2.30	0.730	
129-00-0	Pyrene	709	2.30	0.605	
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	126	2.30	0.605	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	28.7	2.30	0.605	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	13.5	2.30	0.605	



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-05	Date Collected : 11/07/20 13:30
Client ID : USMPDI-056SC-A-08-09-201107	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/15/22 04:11
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142213	Analyst : MJS
Sample Amount : 15.28 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 85
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	9.80	2.30	0.605	
61523-34-0	Naphthobenzothiophenes	54.9	2.30	0.643	
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	13.8	2.30	0.643	
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	8.66	2.30	0.643	
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	6.44	2.30	0.643	
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	3.04	2.30	0.643	
56-55-3	Benz(a)anthracene	155	2.30	0.469	
218-01-9	Chrysene	209	2.30	0.465	
218-01-9C1	C1-Chrysenes	38.2	2.30	0.465	
218-01-9C2	C2-Chrysenes BS	15.9	2.30	0.465	
218-01-9C3	C3-Chrysenes	11.8	2.30	0.465	
218-01-9C4	C4-Chrysenes	9.27	2.30	0.465	
205-99-2	Benzo(b)fluoranthene	134	2.30	0.598	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	137	2.30	0.456	
192-97-2	Benzo(e)pyrene	141	2.30	0.474	
50-32-8	Benzo(a)pyrene	226	2.30	0.656	
198-55-0	Perylene	89.6	2.30	0.444	
193-39-5	Indeno(1,2,3-cd)pyrene	135	2.30	0.624	
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	19.8	2.30	0.621	
191-24-2	Benzo(g,h,i)perylene	216	2.30	0.611	



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-06	Date Collected : 11/11/20 08:35
Client ID : USMPDI-004SC-A-07-08-201111	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/15/22 05:35
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142214	Analyst : MJS
Sample Amount : 15.15 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 60
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	23.0	1.66	0.331	
DECALINSC1	C1-Decalins	93.1	1.66	0.331	
DECALINSC2	C2-Decalins	166	1.66	0.331	
DECALINSC3	C3-Decalins	130	1.66	0.331	
DECALINSC4	C4-Decalins	148	1.66	0.331	
91-20-3	Naphthalene	316	3.33	0.956	
91-20-3C1	C1-Naphthalenes	45.6	3.33	0.956	
91-20-3C2	C2-Naphthalenes	62.4	3.33	0.956	
91-20-3C3	C3-Naphthalenes	82.0	3.33	0.956	
91-20-3C4	C4-Naphthalenes	75.3	3.33	0.956	
91-57-6	2-Methylnaphthalene	43.5	3.33	0.858	
90-12-0	1-Methylnaphthalene	29.5	3.33	1.05	
95-15-8	Benzothiophene	11.9	3.33	1.04	
95-15-8C1	C1-Benzo(b)thiophenes	5.08	3.33	1.04	
95-15-8C2	C2-Benzo(b)thiophenes	6.68	3.33	1.04	
95-15-8C3	C3-Benzo(b)thiophenes	11.1	3.33	1.04	
92-52-4	Biphenyl	34.5	3.33	1.03	
581-42-0	2,6-Dimethylnaphthalene	30.2	3.33	0.791	
132-64-9	Dibenzofuran	26.9	3.33	1.05	
208-96-8	Acenaphthylene	86.5	3.33	0.635	
83-32-9	Acenaphthene	113	3.33	0.587	
2245-38-7	2,3,5-Trimethylnaphthalene	12.6	3.33	0.544	





# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-06	Date Collected : 11/11/20 08:35
Client ID : USMPDI-004SC-A-07-08-201111	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/15/22 05:35
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142214	Analyst : MJS
Sample Amount : 15.15 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 60
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
86-73-7	Fluorene	116	3.33	0.888	
86-73-7C1	C1-Fluorenes	48.5	3.33	0.888	
86-73-7C2	C2-Fluorenes	82.7	3.33	0.888	
86-73-7C3	C3-Fluorenes	114	3.33	0.888	
132-65-0	Dibenzothiophene	86.6	3.33	0.918	
132-65-0C1	C1-Dibenzothiophenes BS	54.3	3.33	0.918	
132-65-0C2	C2-Dibenzothiophenes	71.9	3.33	0.918	
132-65-0C3	C3-Dibenzothiophenes	88.4	3.33	0.918	
132-65-0C4	C4-Dibenzothiophenes	51.3	3.33	0.918	
85-01-8	Phenanthrene	1220	3.33	1.10	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	337	3.33	1.10	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	288	3.33	1.10	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	264	3.33	1.10	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	202	3.33	1.10	
120-12-7	Anthracene	257	3.33	0.686	
86-74-8	Carbazole	17.3	3.33	1.09	
832-69-9	1-Methylphenanthrene	83.3	3.33	0.879	
206-44-0	Fluoranthene	1680	3.33	1.06	
129-00-0	Pyrene	2080	3.33	0.875	
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	413	3.33	0.875	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	150	3.33	0.875	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	113	3.33	0.875	



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-06	Date Collected : 11/11/20 08:35
Client ID : USMPDI-004SC-A-07-08-201111	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/15/22 05:35
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142214	Analyst : MJS
Sample Amount : 15.15 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 60
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	112	3.33	0.875	
61523-34-0	Naphthobenzothiophenes	102	3.33	0.931	
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	50.1	3.33	0.931	
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	49.9	3.33	0.931	
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	41.2	3.33	0.931	
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	45.9	3.33	0.931	
56-55-3	Benz(a)anthracene	399	3.33	0.678	
218-01-9	Chrysene	538	3.33	0.673	
218-01-9C1	C1-Chrysenes	162	3.33	0.673	
218-01-9C2	C2-Chrysenes BS	115	3.33	0.673	
218-01-9C3	C3-Chrysenes	104	3.33	0.673	
218-01-9C4	C4-Chrysenes	68.5	3.33	0.673	
205-99-2	Benzo(b)fluoranthene	339	3.33	0.866	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	330	3.33	0.660	
192-97-2	Benzo(e)pyrene	356	3.33	0.687	
50-32-8	Benzo(a)pyrene	538	3.33	0.950	
198-55-0	Perylene	374	3.33	0.642	
193-39-5	Indeno(1,2,3-cd)pyrene	356	3.33	0.903	
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	58.2	3.33	0.899	
191-24-2	Benzo(g,h,i)perylene	576	3.33	0.884	



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-07	Date Collected : 11/11/20 08:35
Client ID : USMPDI-004SC-A-08-09-201111	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/15/22 08:24
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142216	Analyst : MJS
Sample Amount : 15.65 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 63
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	14.6	1.53	0.304	J
DECALINSC1	C1-Decalins	62.8	1.53	0.304	
DECALINSC2	C2-Decalins	135	1.53	0.304	
DECALINSC3	C3-Decalins	113	1.53	0.304	
DECALINSC4	C4-Decalins	145	1.53	0.304	
91-20-3	Naphthalene	368	3.06	0.879	
91-20-3C1	C1-Naphthalenes	53.0	3.06	0.879	
91-20-3C2	C2-Naphthalenes	51.1	3.06	0.879	
91-20-3C3	C3-Naphthalenes	67.5	3.06	0.879	
91-20-3C4	C4-Naphthalenes	67.2	3.06	0.879	
91-57-6	2-Methylnaphthalene	54.4	3.06	0.788	
90-12-0	1-Methylnaphthalene	30.5	3.06	0.963	
95-15-8	Benzothiophene	16.7	3.06	0.958	
95-15-8C1	C1-Benzo(b)thiophenes	4.69	3.06	0.958	
95-15-8C2	C2-Benzo(b)thiophenes	5.79	3.06	0.958	
95-15-8C3	C3-Benzo(b)thiophenes	10.4	3.06	0.958	
92-52-4	Biphenyl	64.4	3.06	0.945	
581-42-0	2,6-Dimethylnaphthalene	27.0	3.06	0.727	
132-64-9	Dibenzofuran	27.8	3.06	0.963	
208-96-8	Acenaphthylene	123	3.06	0.583	
83-32-9	Acenaphthene	214	3.06	0.539	
2245-38-7	2,3,5-Trimethylnaphthalene	10.1	3.06	0.500	



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-07	Date Collected : 11/11/20 08:35
Client ID : USMPDI-004SC-A-08-09-201111	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/15/22 08:24
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142216	Analyst : MJS
Sample Amount : 15.65 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 63
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
86-73-7	Fluorene	156	3.06	0.815	
86-73-7C1	C1-Fluorenes	57.0	3.06	0.815	
86-73-7C2	C2-Fluorenes	89.3	3.06	0.815	
86-73-7C3	C3-Fluorenes	108	3.06	0.815	
132-65-0	Dibenzothiophene	150	3.06	0.843	
132-65-0C1	C1-Dibenzothiophenes BS	83.8	3.06	0.843	
132-65-0C2	C2-Dibenzothiophenes	84.9	3.06	0.843	
132-65-0C3	C3-Dibenzothiophenes	96.0	3.06	0.843	
132-65-0C4	C4-Dibenzothiophenes	54.6	3.06	0.843	
85-01-8	Phenanthrene	2180	3.06	1.01	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	501	3.06	1.01	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	348	3.06	1.01	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	266	3.06	1.01	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	171	3.06	1.01	
120-12-7	Anthracene	468	3.06	0.630	
86-74-8	Carbazole	25.1	3.06	1.00	
832-69-9	1-Methylphenanthrene	120	3.06	0.807	
206-44-0	Fluoranthene	4410	3.06	0.971	E
129-00-0	Pyrene	5690	3.06	0.804	E
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	940	3.06	0.804	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	238	3.06	0.804	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	153	3.06	0.804	



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-07	Date Collected : 11/11/20 08:35
Client ID : USMPDI-004SC-A-08-09-201111	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/15/22 08:24
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142216	Analyst : MJS
Sample Amount : 15.65 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 63
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	134	3.06	0.804	
61523-34-0	Naphthobenzothiophenes	281	3.06	0.855	
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	93.4	3.06	0.855	
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	72.4	3.06	0.855	
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	71.8	3.06	0.855	
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	49.1	3.06	0.855	
56-55-3	Benz(a)anthracene	1260	3.06	0.623	
218-01-9	Chrysene	1630	3.06	0.618	
218-01-9C1	C1-Chrysenes	358	3.06	0.618	
218-01-9C2	C2-Chrysenes BS	185	3.06	0.618	
218-01-9C3	C3-Chrysenes	147	3.06	0.618	
218-01-9C4	C4-Chrysenes	93.4	3.06	0.618	
205-99-2	Benzo(b)fluoranthene	1290	3.06	0.795	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	1120	3.06	0.607	
192-97-2	Benzo(e)pyrene	1280	3.06	0.631	
50-32-8	Benzo(a)pyrene	2100	3.06	0.873	
198-55-0	Perylene	857	3.06	0.590	
193-39-5	Indeno(1,2,3-cd)pyrene	1440	3.06	0.830	
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	204	3.06	0.826	
191-24-2	Benzo(g,h,i)perylene	2270	3.06	0.812	



**Results Summary**  
**Form 1**  
**PAHs**

<p>Client : Anchor QEA, LLC          Project Name : GASCO HYDROCARBON INVESTIGATIO          Lab ID : L2206076-07D          Client ID : USMPDI-004SC-A-08-09-201111          Sample Location :          Sample Matrix : Sediment          Analytical Method : 1,8270D-SIM(M)          Lab File ID : F1202142224          Sample Amount : 15.65 g          Extraction Method : ALPHA OP-013          Extract Volume : 4000 uL          GPC Cleanup : N</p>	<p>Lab Number : L2206076          Project Number : 000029-02          Date Collected : 11/11/20 08:35          Date Received : 02/04/22          Date Analyzed : 02/15/22 20:36          Date Extracted : 02/10/22          Dilution Factor : 2          Analyst : MJS          Instrument ID : PAH12          GC Column : ZB-5          %Solids : 63          Injection Volume : 1 uL</p>
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CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
206-44-0	Fluoranthene	4270	6.11	1.94	
129-00-0	Pyrene	5440	6.11	1.61	



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-08	Date Collected : 11/11/20 08:35
Client ID : USMPDI-004SC-A-09-10-201111	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/15/22 09:56
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142217	Analyst : MJS
Sample Amount : 15.46 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 63
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	7.17	1.55	0.308	J
DECALINSC1	C1-Decalins	30.5	1.55	0.308	
DECALINSC2	C2-Decalins	67.0	1.55	0.308	
DECALINSC3	C3-Decalins	59.8	1.55	0.308	
DECALINSC4	C4-Decalins	74.9	1.55	0.308	
91-20-3	Naphthalene	315	3.10	0.891	
91-20-3C1	C1-Naphthalenes	119	3.10	0.891	
91-20-3C2	C2-Naphthalenes	97.2	3.10	0.891	
91-20-3C3	C3-Naphthalenes	70.0	3.10	0.891	
91-20-3C4	C4-Naphthalenes	50.6	3.10	0.891	
91-57-6	2-Methylnaphthalene	128	3.10	0.799	
90-12-0	1-Methylnaphthalene	63.0	3.10	0.977	
95-15-8	Benzo(b)thiophene	11.4	3.10	0.971	
95-15-8C1	C1-Benzo(b)thiophenes	5.06	3.10	0.971	
95-15-8C2	C2-Benzo(b)thiophenes	5.66	3.10	0.971	
95-15-8C3	C3-Benzo(b)thiophenes	8.05	3.10	0.971	
92-52-4	Biphenyl	74.4	3.10	0.958	
581-42-0	2,6-Dimethylnaphthalene	54.1	3.10	0.737	
132-64-9	Dibenzofuran	26.4	3.10	0.976	
208-96-8	Acenaphthylene	137	3.10	0.591	
83-32-9	Acenaphthene	281	3.10	0.546	
2245-38-7	2,3,5-Trimethylnaphthalene	10.9	3.10	0.507	



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-08	Date Collected : 11/11/20 08:35
Client ID : USMPDI-004SC-A-09-10-201111	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/15/22 09:56
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142217	Analyst : MJS
Sample Amount : 15.46 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 63
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
86-73-7	Fluorene	151	3.10	0.827	
86-73-7C1	C1-Fluorenes	59.5	3.10	0.827	
86-73-7C2	C2-Fluorenes	71.4	3.10	0.827	
86-73-7C3	C3-Fluorenes	73.2	3.10	0.827	
132-65-0	Dibenzothiophene	150	3.10	0.855	
132-65-0C1	C1-Dibenzothiophenes BS	45.3	3.10	0.855	
132-65-0C2	C2-Dibenzothiophenes	46.3	3.10	0.855	
132-65-0C3	C3-Dibenzothiophenes	58.3	3.10	0.855	
132-65-0C4	C4-Dibenzothiophenes	34.0	3.10	0.855	
85-01-8	Phenanthrene	2150	3.10	1.03	
PHENANTHC1	C1-Phenanthrenes/Anthracenes	407	3.10	1.03	
PHENANTHC2	C2-Phenanthrenes/Anthr BS	233	3.10	1.03	
PHENANTHC3	C3-Phenanthrenes/Anthracenes	167	3.10	1.03	
PHENANTHC4	C4-Phenanthrenes/Anthracenes	105	3.10	1.03	
120-12-7	Anthracene	430	3.10	0.639	
86-74-8	Carbazole	15.5	3.10	1.01	
832-69-9	1-Methylphenanthrene	92.7	3.10	0.818	
206-44-0	Fluoranthene	4290	3.10	0.985	E
129-00-0	Pyrene	5690	3.10	0.815	E
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	760	3.10	0.815	
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	176	3.10	0.815	
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	99.8	3.10	0.815	





# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : L2206076-08	Date Collected : 11/11/20 08:35
Client ID : USMPDI-004SC-A-09-10-201111	Date Received : 02/04/22
Sample Location :	Date Analyzed : 02/15/22 09:56
Sample Matrix : Sediment	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142217	Analyst : MJS
Sample Amount : 15.46 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : 63
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	89.6	3.10	0.815	
61523-34-0	Naphthobenzothiophenes	251	3.10	0.867	
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	52.9	3.10	0.867	
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	46.2	3.10	0.867	
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	61.2	3.10	0.867	
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	31.0	3.10	0.867	
56-55-3	Benz(a)anthracene	1040	3.10	0.632	
218-01-9	Chrysene	1320	3.10	0.626	
218-01-9C1	C1-Chrysenes	240	3.10	0.626	
218-01-9C2	C2-Chrysenes BS	130	3.10	0.626	
218-01-9C3	C3-Chrysenes	100	3.10	0.626	
218-01-9C4	C4-Chrysenes	67.8	3.10	0.626	
205-99-2	Benzo(b)fluoranthene	1170	3.10	0.806	
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	1070	3.10	0.615	
192-97-2	Benzo(e)pyrene	1220	3.10	0.640	
50-32-8	Benzo(a)pyrene	2070	3.10	0.885	
198-55-0	Perylene	810	3.10	0.598	
193-39-5	Indeno(1,2,3-cd)pyrene	1430	3.10	0.841	
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	175	3.10	0.837	
191-24-2	Benzo(g,h,i)perylene	2380	3.10	0.824	



**Results Summary  
Form 1  
PAHs**

<b>Client</b> : Anchor QEA, LLC <b>Project Name</b> : GASCO HYDROCARBON INVESTIGATIO <b>Lab ID</b> : L2206076-08D <b>Client ID</b> : USMPDI-004SC-A-09-10-201111 <b>Sample Location</b> : <b>Sample Matrix</b> : Sediment <b>Analytical Method</b> : 1,8270D-SIM(M) <b>Lab File ID</b> : F1202142223 <b>Sample Amount</b> : 15.46 g <b>Extraction Method</b> : ALPHA OP-013 <b>Extract Volume</b> : 4000 uL <b>GPC Cleanup</b> : N	<b>Lab Number</b> : L2206076 <b>Project Number</b> : 000029-02 <b>Date Collected</b> : 11/11/20 08:35 <b>Date Received</b> : 02/04/22 <b>Date Analyzed</b> : 02/15/22 19:11 <b>Date Extracted</b> : 02/10/22 <b>Dilution Factor</b> : 2 <b>Analyst</b> : MJS <b>Instrument ID</b> : PAH12 <b>GC Column</b> : ZB-5 <b>%Solids</b> : 63 <b>Injection Volume</b> : 1 uL
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CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
206-44-0	Fluoranthene	4150	6.20	1.97	
129-00-0	Pyrene	5510	6.20	1.63	



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : WG1603644-1	Date Collected : NA
Client ID : WG1603644-1BLANK	Date Received : NA
Sample Location :	Date Analyzed : 02/14/22 18:19
Sample Matrix : SOIL	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142206	Analyst : MJS
Sample Amount : 30 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : NA
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
493-01-6/493-02-7	cis/trans-Decalin	ND	0.500	0.099	U
DECALINSC1	C1-Decalins	ND	0.500	0.099	U
DECALINSC2	C2-Decalins	ND	0.500	0.099	U
DECALINSC3	C3-Decalins	ND	0.500	0.099	U
DECALINSC4	C4-Decalins	ND	0.500	0.099	U
91-20-3	Naphthalene	ND	1.00	0.287	U
91-20-3C1	C1-Naphthalenes	ND	1.00	0.287	U
91-20-3C2	C2-Naphthalenes	ND	1.00	0.287	U
91-20-3C3	C3-Naphthalenes	ND	1.00	0.287	U
91-20-3C4	C4-Naphthalenes	ND	1.00	0.287	U
91-57-6	2-Methylnaphthalene	ND	1.00	0.258	U
90-12-0	1-Methylnaphthalene	ND	1.00	0.315	U
95-15-8	Benzo(b)thiophene	ND	1.00	0.313	U
95-15-8C1	C1-Benzo(b)thiophenes	ND	1.00	0.313	U
95-15-8C2	C2-Benzo(b)thiophenes	ND	1.00	0.313	U
95-15-8C3	C3-Benzo(b)thiophenes	ND	1.00	0.313	U
92-52-4	Biphenyl	ND	1.00	0.309	U
581-42-0	2,6-Dimethylnaphthalene	ND	1.00	0.238	U
132-64-9	Dibenzofuran	ND	1.00	0.315	U
208-96-8	Acenaphthylene	ND	1.00	0.191	U
83-32-9	Acenaphthene	ND	1.00	0.176	U
2245-38-7	2,3,5-Trimethylnaphthalene	ND	1.00	0.164	U



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : WG1603644-1	Date Collected : NA
Client ID : WG1603644-1BLANK	Date Received : NA
Sample Location :	Date Analyzed : 02/14/22 18:19
Sample Matrix : SOIL	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142206	Analyst : MJS
Sample Amount : 30 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : NA
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
86-73-7	Fluorene	ND	1.00	0.267	U
86-73-7C1	C1-Fluorenes	ND	1.00	0.267	U
86-73-7C2	C2-Fluorenes	ND	1.00	0.267	U
86-73-7C3	C3-Fluorenes	ND	1.00	0.267	U
132-65-0	Dibenzothiophene	ND	1.00	0.276	U
132-65-0C1	C1-Dibenzothiophenes BS	ND	1.00	0.276	U
132-65-0C2	C2-Dibenzothiophenes	ND	1.00	0.276	U
132-65-0C3	C3-Dibenzothiophenes	ND	1.00	0.276	U
132-65-0C4	C4-Dibenzothiophenes	ND	1.00	0.276	U
85-01-8	Phenanthrene	ND	1.00	0.331	U
PHENANTHC1	C1-Phenanthrenes/Anthracenes	ND	1.00	0.331	U
PHENANTHC2	C2-Phenanthrenes/Anthr BS	ND	1.00	0.331	U
PHENANTHC3	C3-Phenanthrenes/Anthracenes	ND	1.00	0.331	U
PHENANTHC4	C4-Phenanthrenes/Anthracenes	ND	1.00	0.331	U
120-12-7	Anthracene	ND	1.00	0.206	U
86-74-8	Carbazole	ND	1.00	0.327	U
832-69-9	1-Methylphenanthrene	ND	1.00	0.264	U
206-44-0	Fluoranthene	ND	1.00	0.318	U
129-00-0	Pyrene	ND	1.00	0.263	U
FLUORPYRC1	C1-Fluoranthenes/Pyrenes	ND	1.00	0.263	U
FLUORPYRC2	C2-Fluoranthenes/Pyrenes	ND	1.00	0.263	U
FLUORPYRC3	C3-Fluoranthenes/Pyrenes	ND	1.00	0.263	U



# Results Summary

## Form 1

### PAHs

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Lab ID : WG1603644-1	Date Collected : NA
Client ID : WG1603644-1BLANK	Date Received : NA
Sample Location :	Date Analyzed : 02/14/22 18:19
Sample Matrix : SOIL	Date Extracted : 02/10/22
Analytical Method : 1,8270D-SIM(M)	Dilution Factor : 1
Lab File ID : F1202142206	Analyst : MJS
Sample Amount : 30 g	Instrument ID : PAH12
Extraction Method : ALPHA OP-013	GC Column : ZB-5
Extract Volume : 4000 uL	%Solids : NA
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/Kg			Qualifier
		Results	RL	MDL	
FLUORPYRC4	C4-Fluoranthenes/Pyrenes	ND	1.00	0.263	U
61523-34-0	Naphthobenzothiophenes	ND	1.00	0.280	U
NAPBENZOTHIOPC1	C1-Naphthobenzothiophenes	ND	1.00	0.280	U
NAPBENZOTHIOPC2	C2-Naphthobenzothiophenes	ND	1.00	0.280	U
NAPBENZOTHIOPC3	C3-Naphthobenzothiophenes	ND	1.00	0.280	U
NAPBENZOTHIOPC4	C4-Naphthobenzothiophenes	ND	1.00	0.280	U
56-55-3	Benz(a)anthracene	ND	1.00	0.204	U
218-01-9	Chrysene	ND	1.00	0.202	U
218-01-9C1	C1-Chrysenes	ND	1.00	0.202	U
218-01-9C2	C2-Chrysenes BS	ND	1.00	0.202	U
218-01-9C3	C3-Chrysenes	ND	1.00	0.202	U
218-01-9C4	C4-Chrysenes	ND	1.00	0.202	U
205-99-2	Benzo(b)fluoranthene	ND	1.00	0.260	U
205-82-3/207-08-9	Benzo(j)+(k)fluoranthene	ND	1.00	0.198	U
192-97-2	Benzo(e)pyrene	ND	1.00	0.206	U
50-32-8	Benzo(a)pyrene	ND	1.00	0.285	U
198-55-0	Perylene	ND	1.00	0.193	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.00	0.271	U
215-58-7/53-70-3	Dibenz(a,h)+(a,c)anthracene	ND	1.00	0.270	U
191-24-2	Benzo(g,h,i)perylene	ND	1.00	0.266	U



# Surrogate Recovery Summary

## Form 2

### Semivolatiles

Client: Anchor QEA, LLC  
 Project Name: GASCO HYDROCARBON INVESTIGATIO

Lab Number: L2206076  
 Project Number: 000029-02  
 Matrix: Sediment

CLIENT ID (LAB SAMPLE NO.)	S1 (ND8)	S2 (PHE)	S3 (BAP)	S4 ( )	S5 ( )	S6 ( )	TOT OUT
USMPDI-040SC-A-10-11-201103 (L2206076-01)	82	93	84	--	--	--	0
USMPDI-040SC-A-11-12-201103 (L2206076-02)	86	92	82	--	--	--	0
USMPDI-040SC-A-12-13-201103 (L2206076-03)	91	92	83	--	--	--	0
USMPDI-056SC-A-07-08-201107 (L2206076-04)	86	95	85	--	--	--	0
USMPDI-056SC-A-08-09-201107 (L2206076-05)	83	95	89	--	--	--	0
USMPDI-004SC-A-07-08-201111 (L2206076-06)	77	90	81	--	--	--	0
USMPDI-004SC-A-08-09-201111 (L2206076-07)	83	95	89	--	--	--	0
USMPDI-004SC-A-08-09-201111 (L2206076-07D)	79	90	84	--	--	--	0
USMPDI-004SC-A-09-10-201111 (L2206076-08)	83	96	90	--	--	--	0
USMPDI-004SC-A-09-10-201111 (L2206076-08D)	79	92	87	--	--	--	0
WG1603644-1BLANK	86	91	83	--	--	--	0
WG1603644-2LCS	88	94	84	--	--	--	0
WG1603644-3LCSD	91	95	84	--	--	--	0

**QC LIMITS**

(50-130) ND8 = NAPHTHALENE-D8  
 (50-130) PHE = PHENANTHRENE-D10  
 (50-130) BAP = BENZO(A)PYRENE-D12

\* Values outside of QC limits

FORM II A2-ALKPAH



## Laboratory Control Sample Summary Form 3 Semivolatiles

**Client** : Anchor QEA, LLC **Lab Number** : L2206076  
**Project Name** : GASCO HYDROCARBON INVESTIGATIO **Project Number** : 000029-02  
**Matrix** : SOIL  
**LCS Sample ID** : WG1603644-2 **Analysis Date** : 02/14/22 19:43 **File ID** : F1202142207  
**LCSD Sample ID** : WG1603644-3 **Analysis Date** : 02/14/22 21:08 **File ID** : F1202142208

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/kg)	Found (ug/kg)	%R	True (ug/kg)	Found (ug/kg)	%R			
Naphthalene	33.3	28.9	87	33.3	31.1	93	7	50-130	30
2-Methylnaphthalene	33.3	27.0	81	33.3	29.0	87	7	50-130	30
Acenaphthylene	33.3	24.9	75	33.3	26.7	80	6	50-130	30
Acenaphthene	33.3	27.2	82	33.3	29.2	88	7	50-130	30
Fluorene	33.3	28.2	85	33.3	30.2	90	6	50-130	30
Phenanthrene	33.3	28.8	86	33.3	30.7	92	7	50-130	30
Anthracene	33.3	28.5	86	33.3	30.3	91	6	50-130	30
Fluoranthene	33.3	29.7	89	33.3	31.4	94	5	50-130	30
Pyrene	33.3	29.4	88	33.3	31.1	93	6	50-130	30
Benz(a)anthracene	33.3	27.9	84	33.3	29.3	88	5	50-130	30
Chrysene	33.3	30.0	90	33.3	31.3	94	4	50-130	30
Benzo(b)fluoranthene	33.3	27.9	84	33.3	29.7	89	6	50-130	30
Benzo(j)+(k)fluoranthene	33.3	30.0	90	33.3	31.4	94	4	50-130	30
Benzo(a)pyrene	33.3	25.2	76	33.3	26.3	79	4	50-130	30
Indeno(1,2,3-cd)pyrene	33.3	23.2	70	33.3	24.5	74	6	50-130	30
Dibenz(a,h)+(a,c)anthracene	33.3	25.0	75	33.3	25.7	77	3	50-130	30
Benzo(g,h,i)perylene	33.3	26.8	80	33.3	27.9	84	5	50-130	30



# Method Blank Summary

## Form 4

### Semivolatiles

Client	: Anchor QEA, LLC	Lab Number	: L2206076
Project Name	: GASCO HYDROCARBON INVESTIGATIO	Project Number	: 000029-02
Lab Sample ID	: WG1603644-1	Lab File ID	: F1202142206
Instrument ID	: PAH12	Extraction Date	: 02/10/22
Matrix	: SOIL	Analysis Date	: 02/14/22 18:19
Level	: LOW		

Client Sample No.	Lab Sample ID	Analysis Date
WG1603644-2LCS	WG1603644-2	02/14/22 19:43
WG1603644-3LCSD	WG1603644-3	02/14/22 21:08
USMPDI-040SC-A-10-11-201103	L2206076-01	02/14/22 22:33
USMPDI-040SC-A-11-12-201103	L2206076-02	02/14/22 23:57
USMPDI-040SC-A-12-13-201103	L2206076-03	02/15/22 01:22
USMPDI-056SC-A-07-08-201107	L2206076-04	02/15/22 02:47
USMPDI-056SC-A-08-09-201107	L2206076-05	02/15/22 04:11
USMPDI-004SC-A-07-08-201111	L2206076-06	02/15/22 05:35
USMPDI-004SC-A-08-09-201111	L2206076-07	02/15/22 08:24
USMPDI-004SC-A-09-10-201111	L2206076-08	02/15/22 09:56
USMPDI-004SC-A-09-10-201111	L2206076-08D	02/15/22 19:11
USMPDI-004SC-A-08-09-201111	L2206076-07D	02/15/22 20:36





# Initial Calibration Summary

## Form 6

### Semivolatiles

**Client** : Anchor QEA, LLC **Lab Number** : L2206076  
**Project Name** : GASCO HYDROCARBON INVESTIGATIO **Project Number** : 000029-02  
**Instrument ID** : PAH12 **Ical Ref** : ICAL18670  
**Calibration dates** : 01/17/22 19:07 01/18/22 09:18

Calibration Files

10 =F1201172208.D 25 =F1201172218.D 100 =F1201172210.D 500 =F1201172211.D 5000=F1201172212.D  
 1e4 =F1201172213.D 2e4 =F1201172214.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
1) i Acenaphthene-d10	-----ISTD-----								
2) A1 trans-Decalin	0.510	0.488	0.450	0.470	0.438	0.452	0.460	0.467	5.33
3) t cis-Decalin	0.414	0.361	0.340	0.357	0.336	0.346	0.353	0.358	7.26
4) A2 C1-Decalins	0.510	0.488	0.450	0.470	0.438	0.452	0.460	0.467	5.33
5) A2 C2-Decalins	0.510	0.488	0.450	0.470	0.438	0.452	0.460	0.467	5.33
6) A2 C3-Decalins	0.510	0.488	0.450	0.470	0.438	0.452	0.460	0.467	5.33
7) A2 C4-Decalins	0.510	0.488	0.450	0.470	0.438	0.452	0.460	0.467	5.33
8) s Naphthalene-d8	2.164	2.199	2.110	2.245	2.080	2.125	2.167	2.156	2.60
9) A1 Naphthalene	2.464	2.417	2.338	2.496	2.283	2.325	2.363	2.384	3.27
10) A2 C1-Naphthalenes	2.464	2.417	2.338	2.496	2.283	2.325	2.363	2.384	3.27
11) A2 C2-Naphthalenes	2.464	2.417	2.338	2.496	2.283	2.325	2.363	2.384	3.27
12) A2 C3-Naphthalenes	2.464	2.417	2.338	2.496	2.283	2.325	2.363	2.384	3.27
13) A2 C4-Naphthalenes	2.464	2.417	2.338	2.496	2.283	2.325	2.363	2.384	3.27
14) t 2-Methylnaphthalene	1.532	1.538	1.431	1.548	1.456	1.513	1.578	1.514	3.47
15) t 1-Methylnaphthalene	1.510	1.417	1.369	1.469	1.379	1.429	1.486	1.437	3.73
16) A1 Benzothiophene	1.961	2.019	1.998	2.126	1.949	2.000	2.064	2.017	3.04
17) A2 C1-Benzo(b)thi	1.961	2.019	1.998	2.126	1.949	2.000	2.064	2.017	3.04
18) A2 C2-Benzo(b)thi	1.961	2.019	1.998	2.126	1.949	2.000	2.064	2.017	3.04
19) A2 C3-Benzo(b)thi	1.961	2.019	1.998	2.126	1.949	2.000	2.064	2.017	3.04
20) A2 C4-Benzo(b)thi	1.961	2.019	1.998	2.126	1.949	2.000	2.064	2.017	3.04
21) t Biphenyl	1.876	1.838	1.774	1.915	1.785	1.850	1.933	1.853	3.27
22) t 2,6-Dimethylnaphthalene	1.275	1.207	1.215	1.321	1.271	1.331	1.405	1.290	5.38
23) t Dibenzofuran	1.862	1.923	1.922	2.075	1.947	2.020	2.081	1.976	4.23
24) t Acenaphthylene	2.160	2.071	2.165	2.349	2.301	2.402	2.477	2.275	6.47
25) t Acenaphthene	1.384	1.364	1.392	1.500	1.425	1.484	1.527	1.439	4.44
26) t 2,3,5-Trimethylnaphthalen	1.199	1.111	1.163	1.268	1.244	1.308	1.368	1.237	7.09
27) A1 Fluorene	1.528	1.464	1.503	1.646	1.598	1.673	1.735	1.592	6.19
28) A2 C1-Fluorenes	1.528	1.464	1.503	1.646	1.598	1.673	1.735	1.592	6.19
29) A2 C2-Fluorenes	1.528	1.464	1.503	1.646	1.598	1.673	1.735	1.592	6.19
30) A2 C3-Fluorenes	1.528	1.464	1.503	1.646	1.598	1.673	1.735	1.592	6.19
31) A1 Dibenzothiophene	2.289	2.196	2.171	2.347	2.267	2.370	2.438	2.297	4.15
32) A2 4-Methyldibenz	2.289	2.196	2.171	2.347	2.267	2.370	2.438	2.297	4.15
33) A2 2/3-Methyldibe	2.289	2.196	2.171	2.347	2.267	2.370	2.438	2.297	4.15
34) A2 1-Methyldibenz	2.289	2.196	2.171	2.347	2.267	2.370	2.438	2.297	4.15
35) A2 OTP	2.289	2.196	2.171	2.347	2.267	2.370	2.438	2.297	4.15
36) A2 C1-Dibenzothio	2.289	2.196	2.171	2.347	2.267	2.370	2.438	2.297	4.15



# Initial Calibration Summary

## Form 6

### Semivolatiles

**Client** : Anchor QEA, LLC **Lab Number** : L2206076  
**Project Name** : GASCO HYDROCARBON INVESTIGATIO **Project Number** : 000029-02  
**Instrument ID** : PAH12 **Ical Ref** : ICAL18670  
**Calibration dates** : 01/17/22 19:07 01/18/22 09:18

Calibration Files

10 =F1201172208.D 25 =F1201172218.D 100 =F1201172210.D 500 =F1201172211.D 5000=F1201172212.D  
 1e4 =F1201172213.D 2e4 =F1201172214.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
37) A2 C2-Dibenzothio	2.289	2.196	2.171	2.347	2.267	2.370	2.438	2.297	4.15
38) A2 C3-Dibenzothio	2.289	2.196	2.171	2.347	2.267	2.370	2.438	2.297	4.15
39) A2 C4-Dibenzothio	2.289	2.196	2.171	2.347	2.267	2.370	2.438	2.297	4.15
40) s Phenanthrene-d10	1.744	1.666	1.697	1.858	1.810	1.896	1.972	1.806	6.13
41) A1 Phenanthrene	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
42) A2 3-Methylphenan	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
43) A2 2-Methylphenan	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
44) A2 2-Methylanthra	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
45) A2 9/4-Methylphen	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
46) A2 1-Methylphenan	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
47) A2 C1-Phenanthren	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
48) A2 C2-Phenanthren	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
49) A2 5AA IS BKGD	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
50) A2 C3-Phenanthren	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
51) A2 C4-Phenanthren	2.369	2.192	2.242	2.434	2.318	2.400	2.475	2.347	4.37
52) t Retene	0.720	0.593	0.699	0.772	0.808	0.875	0.978	0.778	16.08
53) t Anthracene	2.039	1.839	2.065	2.301	2.277	2.358	2.432	2.187	9.66
54) t Carbazole	3.358	1.827	1.968	2.146	2.136	2.220	2.237	2.270	22.09
55) t 1-Methylphenanthrene	1.570	1.373	1.444	1.591	1.601	1.690	1.771	1.577	8.60
56) A1 Fluoranthene	2.264	2.033	2.164	2.403	2.411	2.541	2.661	2.354	9.22
57) A1 Benzo(b)fluorene	1.445	1.145	1.335	1.492	1.553	1.641	1.772	1.483	13.79
58) A2 7H-Benzo(c)flu	1.445	1.145	1.335	1.492	1.553	1.641	1.772	1.483	13.79
59) A1 Pyrene	2.395	2.115	2.268	2.490	2.489	2.608	2.733	2.443	8.46
60) A2 2-Methylpyrene	2.395	2.115	2.268	2.490	2.489	2.608	2.733	2.443	8.46
61) A2 4-Methylpyrene	2.395	2.115	2.268	2.490	2.489	2.608	2.733	2.443	8.46
62) A2 1-Methylpyrene	2.395	2.115	2.268	2.490	2.489	2.608	2.733	2.443	8.46
63) A2 C1-Fluoranthen	2.395	2.115	2.268	2.490	2.489	2.608	2.733	2.443	8.46
64) A2 C2-Fluoranthen	2.395	2.115	2.268	2.490	2.489	2.608	2.733	2.443	8.46
65) A2 C3-Fluoranthen	2.395	2.115	2.268	2.490	2.489	2.608	2.733	2.443	8.46
66) A2 C4-Fluoranthen	2.395	2.115	2.268	2.490	2.489	2.608	2.733	2.443	8.46
67) A1 Naphthobenzothiophene-2,1	2.489	2.124	2.230	2.443	2.467	2.611	2.777	2.449	8.98
68) A2 Naphthobenzoth	2.489	2.124	2.230	2.443	2.467	2.611	2.777	2.449	8.98
69) A2 Naphthobenzoth	2.489	2.124	2.230	2.443	2.467	2.611	2.777	2.449	8.98
70) A2 C1-Naphthobenz	2.489	2.124	2.230	2.443	2.467	2.611	2.777	2.449	8.98
71) A2 C2-Naphthobenz	2.489	2.124	2.230	2.443	2.467	2.611	2.777	2.449	8.98
72) A2 C3-Naphthobenz	2.489	2.124	2.230	2.443	2.467	2.611	2.777	2.449	8.98



# Initial Calibration Summary

## Form 6

### Semivolatiles

**Client** : Anchor QEA, LLC **Lab Number** : L2206076  
**Project Name** : GASCO HYDROCARBON INVESTIGATIO **Project Number** : 000029-02  
**Instrument ID** : PAH12 **Ical Ref** : ICAL18670  
**Calibration dates** : 01/17/22 19:07 01/18/22 09:18

Calibration Files

10 =F1201172208.D 25 =F1201172218.D 100 =F1201172210.D 500 =F1201172211.D 5000=F1201172212.D  
 1e4 =F1201172213.D 2e4 =F1201172214.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
73) A2 C4-Naphthobenz	2.489	2.124	2.230	2.443	2.467	2.611	2.777	2.449	8.98
74) i Chrysene-d12	-----ISTD-----								
75) t Benz[a]anthracene	1.200	1.029	1.117	1.203	1.198	1.284	1.427	1.208	10.38
76) A1 Chrysene	1.193	1.089	1.109	1.211	1.162	1.236	1.368	1.195	7.75
77) A2 Chrysene/Triphenylene	1.193	1.089	1.109	1.211	1.162	1.236	1.368	1.195	7.75
78) A2 C1-Chrysenes	1.193	1.089	1.109	1.211	1.162	1.236	1.368	1.195	7.75
79) A2 C2-Chrysenes	1.193	1.089	1.109	1.211	1.162	1.236	1.368	1.195	7.75
80) A2 BBF-D12 Surr BKGD	1.193	1.089	1.109	1.211	1.162	1.236	1.368	1.195	7.75
81) A2 C3-Chrysenes	1.193	1.089	1.109	1.211	1.162	1.236	1.368	1.195	7.75
82) A2 C4-Chrysenes	1.193	1.089	1.109	1.211	1.162	1.236	1.368	1.195	7.75
83) A2 DAT-16 (t)	1.193	1.089	1.109	1.211	1.162	1.236	1.368	1.195	7.75
84) s Benzo[b]fluoranthene-d12	1.205	1.029	1.082	1.160	1.136	1.209	1.316	1.163	8.04
85) t Benzo[b]fluoranthene	1.415	1.195	1.267	1.374	1.331	1.413	1.540	1.362	8.20
86) A1 Benzo[j]+[k]fluoranthene	1.441	1.243	1.309	1.413	1.369	1.452	1.615	1.406	8.43
87) A2 Benzo[a]fluora	1.441	1.243	1.309	1.413	1.369	1.452	1.615	1.406	8.43
88) t Benzo[e]pyrene	1.429	1.248	1.259	1.346	1.302	1.375	1.464	1.346	6.12
89) s Benzo[a]pyrene-d12	0.969	0.768	0.824	0.880	0.864	0.905	0.951	0.880	7.97
90) t Benzo[a]pyrene	1.467	1.180	1.197	1.286	1.255	1.326	1.425	1.305	8.36
91) t Perylene	1.485	1.173	1.240	1.320	1.302	1.380	1.469	1.339	8.58
92) t Indeno[1,2,3-cd]pyrene	1.958	1.525	1.642	1.714	1.726	1.859	2.097	1.789	10.92
93) t Dibenz[ah]+[ac]anthracene	1.700	1.246	1.468	1.562	1.528	1.634	1.853	1.570	12.16
94) t Benzo[g,h,i]perylene	1.868	1.499	1.469	1.546	1.484	1.565	1.646	1.583	8.81
95) A1 Hopane (T19)	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
96) A2 C23 Tricyclic	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
97) A2 C24 Tricyclic	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
98) A2 C25 Tricyclic	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
99) A2 C24 Tetracycli	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
100) A2 C26 Tricyclic	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
101) A2 C26 Tricyclic	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
102) A2 C28 Tricyclic	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
103) A2 C28 Tricyclic	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
104) A2 C29 Tricyclic	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
105) A2 C29 Tricyclic	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
106) A2 18a-22,29,30-T	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
107) A2 C30 Tricyclic	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
108) A2 C30 Tricyclic	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86



# Initial Calibration Summary

## Form 6

### Semivolatiles

**Client** : Anchor QEA, LLC **Lab Number** : L2206076  
**Project Name** : GASCO HYDROCARBON INVESTIGATIO **Project Number** : 000029-02  
**Instrument ID** : PAH12 **Ical Ref** : ICAL18670  
**Calibration dates** : 01/17/22 19:07 01/18/22 09:18

Calibration Files

10 =F1201172208.D 25 =F1201172218.D 100 =F1201172210.D 500 =F1201172211.D 5000=F1201172212.D  
 1e4 =F1201172213.D 2e4 =F1201172214.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
109) A2 17a (H) -22,29,3	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
110) A2 17a/b,21b/a 28	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
111) A2 17a (H) ,21b (H) -	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
112) A2 30-Norhopane (	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
113) A2 18a (H) -30-Norn	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
114) A2 17a (H) -Diahopa	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
115) A2 30-Normoretane	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
116) A2 18a (H) &18b (H) -	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
117) A2 Moretane (T20)	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
118) A2 30-Homohopane-	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
119) A2 30-Homohopane-	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
120) A2 Gammacerane/C3	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
121) A2 30,31-Bishomoh	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
122) A2 30,31-Bishomoh	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
123) A2 30,31-Trishomo	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
124) A2 30,31-Trishomo	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
125) A2 Tetrakishomoho	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
126) A2 Tetrakishomoho	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
127) A2 Pentakishomoho	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
128) A2 Pentakishomoho	0.365	0.314	0.345	0.338	0.337	0.346		0.341	4.86
129) SA1 5B(H)Cholane - Surr	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
130) A2 13b (H) ,17a (H) -	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
131) A2 13b (H) ,17a (H) -	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
132) A2 13b,17a-20S-Me	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
133) A2 14a,17a-20S-Ch	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
134) A2 14a,17a-20R-Ch	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
135) A2 Unknown Steran	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
136) A2 13a,17b-20S-Et	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
137) A2 14a,17a-20S-Me	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
138) A2 14a,17a-20R-Me	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
139) A2 14a (H) ,17a (H) -	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
140) A2 14a (H) ,17a (H) -	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
141) A2 14b (H) ,17b (H) -	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
142) A2 14b (H) ,17b (H) -	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
143) A2 14b,17b-20R-Me	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
144) A2 14b,17b-20S-Me	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40



# Initial Calibration Summary

## Form 6

### Semivolatiles

<b>Client</b>	: Anchor QEA, LLC	<b>Lab Number</b>	: L2206076
<b>Project Name</b>	: GASCO HYDROCARBON INVESTIGATIO	<b>Project Number</b>	: 000029-02
<b>Instrument ID</b>	: PAH12	<b>Ical Ref</b>	: ICAL18670
<b>Calibration dates</b>	: 01/17/22 19:07    01/18/22 09:18		

Calibration Files

10 =F1201172208.D    25 =F1201172218.D    100 =F1201172210.D    500 =F1201172211.D    5000=F1201172212.D  
 1e4 =F1201172213.D    2e4 =F1201172214.D

Compound	10	25	100	500	5000	1e4	2e4	Avg	%RSD
145) A2 14b(H),17b(H)-	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
146) A2 14b(H),17b(H)-	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
147) A2 C20 Pregnane	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
148) A2 C21 20-Methylp	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
149) A2 C22 20-Ethylpr	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
150) A2 C22 20-Ethylpr	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
151) A2 C26,20S TAS	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
152) A2 C26,20R+C27,20	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
153) A2 C28,20S TAS	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
154) A2 C27,20R TAS	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
155) A2 C28,20R TAS	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
156) A2 C29,20S TAS	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
157) A2 C29,20R TAS	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
158) A2 5b(H)-C27 (20S	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
159) A2 5b(H)-C27 (20R	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
160) A2 5a(H)-C27 (20S	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
161) A2 5b(H)-C28 (20S	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
162) A2 5a(H)-C27 (20R	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
163) A2 5a(H)-C28 (20S	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
164) A2 5b(H)-C28 (20R	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
165) A2 5b(H)-C29 (20S	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
166) A2 5a(H)-C29 (20S	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
167) A2 5a(H)-C28 (20R	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
168) A2 5b(H)-C29 (20R	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40
169) A2 5a(H)-C29 (20R	0.198	0.148	0.165	0.176	0.176	0.187	0.210	0.180	11.40



# Calibration Verification Summary

## Form 7

### Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Instrument ID : PAH12	Calibration Date : 02/14/22 12:39
Lab File ID : F1202142202	Init. Calib. Date(s) : 01/17/22      01/18/22
Sample No : WG1605097-1	Init. Calib. Times : 19:07      09:18
Channel :	

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	127	-.03
trans-Decalin	0.467	0.489	.05	-4.7	25	132	-.03
cis-Decalin	0.358	0.371	.05	-3.6	25	132	-.03
Naphthalene-d8	2.156	2.264	.05	-5	25	128	-.03
Naphthalene	2.384	2.484	.05	-4.2	25	126	-.03
2-Methylnaphthalene	1.514	1.534	.05	-1.3	25	126	-.03
1-Methylnaphthalene	1.437	1.462	.05	-1.7	25	126	-.04
Benzothiophene	2.017	2.096	.05	-3.9	25	125	-.03
Biphenyl	1.853	1.876	.05	-1.2	25	124	-.03
2,6-Dimethylnaphthalene	1.29	1.317	.05	-2.1	25	126	-.04
Dibenzofuran	1.976	2.025	.05	-2.5	25	124	-.03
Acenaphthylene	2.275	2.288	.05	-0.6	25	124	-.02
Acenaphthene	1.439	1.459	.05	-1.4	25	124	-.03
2,3,5-Trimethylnaphthalene	1.237	1.255	.05	-1.5	25	126	-.03
Fluorene	1.592	1.618	.05	-1.6	25	125	-.03
Dibenzothiophene	2.297	2.288	.05	0.4	25	124	-.03
Phenanthrene-d10	1.806	1.851	.05	-2.5	25	127	-.04
Phenanthrene	2.347	2.389	.05	-1.8	25	125	-.03
Retene	0.778	0.773	.05	0.6	25	127	-.03
Anthracene	2.187	2.24	.05	-2.4	25	124	-.03
Carbazole	2.27	2.161	.05	4.8	25	128	-.03
1-Methylphenanthrene	1.577	1.614	.05	-2.3	25	129	-.04
Fluoranthene	2.354	2.415	.05	-2.6	25	128	-.03
Benzo(b)fluorene	1.483	1.512	.05	-2	25	129	-.03
Pyrene	2.443	2.519	.05	-3.1	25	128	-.03
Naphthobenzothiophene-2,1-	2.449	2.434	.05	0.6	25	126	-.04
Chrysene-d12	1	1	.05	0	25	125	-.04
Benz[a]anthracene	1.208	1.207	.05	0.1	25	126	-.03
Chrysene	1.195	1.235	.05	-3.3	25	128	0
Chrysene/Triphenylene	1.195	1.235	.05	-3.3	25	128	0
Benzo[b]fluoranthene-d12	1.163	1.175	.05	-1	25	127	-.03
Benzo[b]fluoranthene	1.362	1.309	.05	3.9	25	119	-.03
Benzo[j]+[k]fluoranthene	1.406	1.454	.05	-3.4	25	129	-.03
Benzo[e]pyrene	1.346	1.345	.05	0.1	25	125	-.04
Benzo[a]pyrene-d12	0.88	0.887	.05	-0.8	25	126	-.04
Benzo[a]pyrene	1.305	1.265	.05	3.1	25	123	-.04
Perylene	1.339	1.326	.05	1	25	126	-.03
Indeno[1,2,3-cd]pyrene	1.789	1.607	.05	10.2	25	117	-.04
Dibenz[ah]+[ac]anthracene	1.57	1.418	.05	9.7	25	114	-.04
Benzo[g,h,i]perylene	1.583	1.491	.05	5.8	25	121	-.05
Hopane (T19)	0.341	0.368	.05	-7.9	25	137	-.04
5B(H)Cholane - Surr	0.18	0.191	.05	-6.1	25	136	-.04

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Instrument ID : PAH12	Calibration Date : 02/15/22 06:59
Lab File ID : F1202142215	Init. Calib. Date(s) : 01/17/22      01/18/22
Sample No : WG1605097-2	Init. Calib. Times : 19:07      09:18
Channel :	

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	116	-.04
trans-Decalin	0.467	0.487	.05	-4.3	25	120	-.04
cis-Decalin	0.358	0.372	.05	-3.9	25	121	-.04
Naphthalene-d8	2.156	2.303	.05	-6.8	25	119	-.04
Naphthalene	2.384	2.537	.05	-6.4	25	118	-.03
2-Methylnaphthalene	1.514	1.549	.05	-2.3	25	116	-.04
1-Methylnaphthalene	1.437	1.485	.05	-3.3	25	117	-.04
Benzothiophene	2.017	2.16	.05	-7.1	25	118	-.03
Biphenyl	1.853	1.919	.05	-3.6	25	116	-.04
2,6-Dimethylnaphthalene	1.29	1.323	.05	-2.6	25	116	-.05
Dibenzofuran	1.976	2.063	.05	-4.4	25	115	-.03
Acenaphthylene	2.275	2.343	.05	-3	25	115	-.03
Acenaphthene	1.439	1.501	.05	-4.3	25	116	-.03
2,3,5-Trimethylnaphthalene	1.237	1.267	.05	-2.4	25	116	-.03
Fluorene	1.592	1.637	.05	-2.8	25	115	-.03
Dibenzothiophene	2.297	2.333	.05	-1.6	25	115	-.04
Phenanthrene-d10	1.806	1.86	.05	-3	25	116	-.04
Phenanthrene	2.347	2.465	.05	-5	25	117	-.04
Retene	0.778	0.778	.05	0	25	117	-.04
Anthracene	2.187	2.274	.05	-4	25	114	-.04
Carbazole	2.27	2.155	.05	5.1	25	116	-.04
1-Methylphenanthrene	1.577	1.606	.05	-1.8	25	117	-.05
Fluoranthene	2.354	2.443	.05	-3.8	25	118	-.04
Benzo(b)fluorene	1.483	1.53	.05	-3.2	25	119	-.04
Pyrene	2.443	2.582	.05	-5.7	25	120	-.04
Naphthobenzothiophene-2,1-	2.449	2.505	.05	-2.3	25	119	-.04
Chrysene-d12	1	1	.05	0	25	117	-.05
Benz[a]anthracene	1.208	1.227	.05	-1.6	25	120	-.04
Chrysene	1.195	1.242	.05	-3.9	25	120	0
Chrysene/Triphenylene	1.195	1.242	.05	-3.9	25	120	0
Benzo[b]fluoranthene-d12	1.163	1.174	.05	-0.9	25	119	-.04
Benzo[b]fluoranthene	1.362	1.367	.05	-0.4	25	117	-.04
Benzo[j]+[k]fluoranthene	1.406	1.449	.05	-3.1	25	120	-.04
Benzo[e]pyrene	1.346	1.359	.05	-1	25	119	-.05
Benzo[a]pyrene-d12	0.88	0.888	.05	-0.9	25	118	-.05
Benzo[a]pyrene	1.305	1.288	.05	1.3	25	118	-.05
Perylene	1.339	1.344	.05	-0.4	25	120	-.04
Indeno[1,2,3-cd]pyrene	1.789	1.731	.05	3.2	25	119	-.05
Dibenz[ah]+[ac]anthracene	1.57	1.5	.05	4.5	25	113	-.05
Benzo[g,h,i]perylene	1.583	1.52	.05	4	25	115	-.06
Hopane (T19)	0.341	0.364	.05	-6.7	25	126	-.05
5B(H)Cholane - Surr	0.18	0.187	.05	-3.9	25	125	-.04

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Instrument ID : PAH12	Calibration Date : 02/15/22 11:21
Lab File ID : F1202142218	Init. Calib. Date(s) : 01/17/22      01/18/22
Sample No : WG1605097-3	Init. Calib. Times : 19:07      09:18
Channel :	

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	122	-.04
trans-Decalin	0.467	0.481	.05	-3	25	125	-.04
cis-Decalin	0.358	0.373	.05	-4.2	25	127	-.04
Naphthalene-d8	2.156	2.28	.05	-5.8	25	123	-.03
Naphthalene	2.384	2.504	.05	-5	25	122	-.03
2-Methylnaphthalene	1.514	1.54	.05	-1.7	25	121	-.04
1-Methylnaphthalene	1.437	1.474	.05	-2.6	25	122	-.04
Benzothiophene	2.017	2.12	.05	-5.1	25	121	-.03
Biphenyl	1.853	1.902	.05	-2.6	25	121	-.03
2,6-Dimethylnaphthalene	1.29	1.324	.05	-2.6	25	122	-.05
Dibenzofuran	1.976	2.043	.05	-3.4	25	120	-.03
Acenaphthylene	2.275	2.352	.05	-3.4	25	122	-.03
Acenaphthene	1.439	1.5	.05	-4.2	25	122	-.03
2,3,5-Trimethylnaphthalene	1.237	1.274	.05	-3	25	122	-.03
Fluorene	1.592	1.638	.05	-2.9	25	121	-.03
Dibenzothiophene	2.297	2.32	.05	-1	25	120	-.03
Phenanthrene-d10	1.806	1.872	.05	-3.7	25	123	-.04
Phenanthrene	2.347	2.455	.05	-4.6	25	123	-.03
Retene	0.778	0.796	.05	-2.3	25	125	-.04
Anthracene	2.187	2.265	.05	-3.6	25	120	-.03
Carbazole	2.27	2.162	.05	4.8	25	123	-.04
1-Methylphenanthrene	1.577	1.6	.05	-1.5	25	122	-.04
Fluoranthene	2.354	2.493	.05	-5.9	25	126	-.04
Benzo(b)fluorene	1.483	1.563	.05	-5.4	25	127	-.04
Pyrene	2.443	2.618	.05	-7.2	25	128	-.04
Naphthobenzothiophene-2,1-	2.449	2.535	.05	-3.5	25	126	-.04
Chrysene-d12	1	1	.05	0	25	127	-.04
Benz[a]anthracene	1.208	1.229	.05	-1.7	25	130	-.03
Chrysene	1.195	1.218	.05	-1.9	25	128	0
Chrysene/Triphenylene	1.195	1.218	.05	-1.9	25	128	0
Benzo[b]fluoranthene-d12	1.163	1.189	.05	-2.2	25	130	-.04
Benzo[b]fluoranthene	1.362	1.363	.05	-0.1	25	126	-.03
Benzo[j]+[k]fluoranthene	1.406	1.439	.05	-2.3	25	129	-.04
Benzo[e]pyrene	1.346	1.356	.05	-0.7	25	128	-.04
Benzo[a]pyrene-d12	0.88	0.91	.05	-3.4	25	131	-.04
Benzo[a]pyrene	1.305	1.312	.05	-0.5	25	130	-.04
Perylene	1.339	1.36	.05	-1.6	25	131	-.04
Indeno[1,2,3-cd]pyrene	1.789	1.759	.05	1.7	25	130	-.05
Dibenz[ah]+[ac]anthracene	1.57	1.569	.05	0.1	25	128	-.05
Benzo[g,h,i]perylene	1.583	1.566	.05	1.1	25	129	-.05
Hopane (T19)	0.341	0.37	.05	-8.5	25	139	-.05
5B(H)Cholane - Surr	0.18	0.187	.05	-3.9	25	135	-.04

\* Value outside of QC limits.





# Calibration Verification Summary

## Form 7

### Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Instrument ID : PAH12	Calibration Date : 02/15/22 17:46
Lab File ID : F1202142222	Init. Calib. Date(s) : 01/17/22      01/18/22
Sample No : WG1605097-4	Init. Calib. Times : 19:07      09:18
Channel :	

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	111	-.04
trans-Decalin	0.467	0.493	.05	-5.6	25	117	-.04
cis-Decalin	0.358	0.376	.05	-5	25	117	-.04
Naphthalene-d8	2.156	2.309	.05	-7.1	25	114	-.03
Naphthalene	2.384	2.546	.05	-6.8	25	113	-.03
2-Methylnaphthalene	1.514	1.544	.05	-2	25	111	-.04
1-Methylnaphthalene	1.437	1.489	.05	-3.6	25	112	-.04
Benzothiophene	2.017	2.142	.05	-6.2	25	112	-.03
Biphenyl	1.853	1.918	.05	-3.5	25	111	-.03
2,6-Dimethylnaphthalene	1.29	1.318	.05	-2.2	25	111	-.05
Dibenzofuran	1.976	2.065	.05	-4.5	25	111	-.03
Acenaphthylene	2.275	2.295	.05	-0.9	25	108	-.03
Acenaphthene	1.439	1.497	.05	-4	25	111	-.03
2,3,5-Trimethylnaphthalene	1.237	1.248	.05	-0.9	25	109	-.03
Fluorene	1.592	1.613	.05	-1.3	25	109	-.03
Dibenzothiophene	2.297	2.312	.05	-0.7	25	109	-.03
Phenanthrene-d10	1.806	1.871	.05	-3.6	25	112	-.04
Phenanthrene	2.347	2.451	.05	-4.4	25	112	-.03
Retene	0.778	0.741	.05	4.8	25	107	-.04
Anthracene	2.187	2.218	.05	-1.4	25	107	-.04
Carbazole	2.27	2.086	.05	8.1	25	108	-.04
1-Methylphenanthrene	1.577	1.568	.05	0.6	25	109	-.05
Fluoranthene	2.354	2.353	.05	0	25	109	-.04
Benzo(b)fluorene	1.483	1.451	.05	2.2	25	108	-.04
Pyrene	2.443	2.456	.05	-0.5	25	110	-.04
Naphthobenzothiophene-2,1-	2.449	2.442	.05	0.3	25	111	-.04
Chrysene-d12	1	1	.05	0	25	113	-.05
Benz[a]anthracene	1.208	1.197	.05	0.9	25	112	-.04
Chrysene	1.195	1.222	.05	-2.3	25	114	0
Chrysene/Triphenylene	1.195	1.222	.05	-2.3	25	114	0
Benzo[b]fluoranthene-d12	1.163	1.121	.05	3.6	25	109	-.04
Benzo[b]fluoranthene	1.362	1.267	.05	7	25	104	-.04
Benzo[j]+[k]fluoranthene	1.406	1.374	.05	2.3	25	110	-.04
Benzo[e]pyrene	1.346	1.276	.05	5.2	25	107	-.05
Benzo[a]pyrene-d12	0.88	0.835	.05	5.1	25	107	-.05
Benzo[a]pyrene	1.305	1.197	.05	8.3	25	105	-.05
Perylene	1.339	1.237	.05	7.6	25	106	-.04
Indeno[1,2,3-cd]pyrene	1.789	1.669	.05	6.7	25	110	-.05
Dibenz[ah]+[ac]anthracene	1.57	1.42	.05	9.6	25	103	-.05
Benzo[g,h,i]perylene	1.583	1.419	.05	10.4	25	104	-.06
Hopane (T19)	0.341	0.353	.05	-3.5	25	118	-.05
5B(H)Cholane - Surr	0.18	0.185	.05	-2.8	25	119	-.05

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Instrument ID : PAH12	Calibration Date : 02/15/22 22:00
Lab File ID : F1202142225	Init. Calib. Date(s) : 01/17/22      01/18/22
Sample No : WG1605097-5	Init. Calib. Times : 19:07      09:18
Channel :	

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthene-d10	1	1	.05	0	25	115	-.04
trans-Decalin	0.467	0.489	.05	-4.7	25	120	-.04
cis-Decalin	0.358	0.374	.05	-4.5	25	121	-.04
Naphthalene-d8	2.156	2.285	.05	-6	25	117	-.03
Naphthalene	2.384	2.511	.05	-5.3	25	116	-.03
2-Methylnaphthalene	1.514	1.538	.05	-1.6	25	114	-.04
1-Methylnaphthalene	1.437	1.479	.05	-2.9	25	116	-.04
Benzothiophene	2.017	2.127	.05	-5.5	25	115	-.03
Biphenyl	1.853	1.903	.05	-2.7	25	114	-.03
2,6-Dimethylnaphthalene	1.29	1.326	.05	-2.8	25	115	-.05
Dibenzofuran	1.976	2.061	.05	-4.3	25	114	-.03
Acenaphthylene	2.275	2.337	.05	-2.7	25	114	-.03
Acenaphthene	1.439	1.489	.05	-3.5	25	114	-.03
2,3,5-Trimethylnaphthalene	1.237	1.265	.05	-2.3	25	115	-.03
Fluorene	1.592	1.63	.05	-2.4	25	114	-.03
Dibenzothiophene	2.297	2.299	.05	-0.1	25	113	-.04
Phenanthrene-d10	1.806	1.867	.05	-3.4	25	116	-.04
Phenanthrene	2.347	2.439	.05	-3.9	25	115	-.03
Retene	0.778	0.776	.05	0.3	25	116	-.04
Anthracene	2.187	2.271	.05	-3.8	25	114	-.04
Carbazole	2.27	2.132	.05	6.1	25	114	-.04
1-Methylphenanthrene	1.577	1.583	.05	-0.4	25	115	-.05
Fluoranthene	2.354	2.4	.05	-2	25	115	-.04
Benzo(b)fluorene	1.483	1.522	.05	-2.6	25	117	-.04
Pyrene	2.443	2.513	.05	-2.9	25	116	-.04
Naphthobenzothiophene-2,1-	2.449	2.464	.05	-0.6	25	116	-.04
Chrysene-d12	1	1	.05	0	25	118	-.05
Benz[a]anthracene	1.208	1.209	.05	-0.1	25	118	-.04
Chrysene	1.195	1.214	.05	-1.6	25	118	0
Chrysene/Triphenylene	1.195	1.214	.05	-1.6	25	118	0
Benzo[b]fluoranthene-d12	1.163	1.182	.05	-1.6	25	120	-.04
Benzo[b]fluoranthene	1.362	1.346	.05	1.2	25	115	-.04
Benzo[j]+[k]fluoranthene	1.406	1.428	.05	-1.6	25	119	-.04
Benzo[e]pyrene	1.346	1.336	.05	0.7	25	117	-.05
Benzo[a]pyrene-d12	0.88	0.897	.05	-1.9	25	120	-.05
Benzo[a]pyrene	1.305	1.278	.05	2.1	25	117	-.05
Perylene	1.339	1.321	.05	1.3	25	118	-.04
Indeno[1,2,3-cd]pyrene	1.789	1.764	.05	1.4	25	121	-.05
Dibenz[ah]+[ac]anthracene	1.57	1.507	.05	4	25	114	-.05
Benzo[g,h,i]perylene	1.583	1.5	.05	5.2	25	114	-.05
Hopane (T19)	0.341	0.366	.05	-7.3	25	128	-.05
5B(H)Cholane - Surr	0.18	0.186	.05	-3.3	25	124	-.05

\* Value outside of QC limits.



# Internal Standard Area and RT Summary

## Form 8a

### Semivolatiles

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Instrument ID : PAH12	Analysis Date : 02/14/22 12:39:00
Sample No : WG1605097-1	Lab File ID : F1202142202

	Acenaphthene-d10		Chrysene-d12		Area	RT
	Area	RT	Area	RT		
WG1605097-1	88740	27.00	170561	43.46		
Upper Limit	177480	27.50	341122	43.96		
Lower Limit	44370	26.50	85281	42.96		
<hr/>						
Sample ID						
WG1603644-1 BLANK	81074	26.99	156949	43.46		
WG1603644-2 LCS	83544	26.99	167872	43.46		
WG1603644-3 LCSD	80343	26.99	162866	43.46		
USMPDI-040SC-A-10-11-201103	80432	26.99	160915	43.46		
USMPDI-040SC-A-11-12-201103	79056	26.99	150734	43.45		
USMPDI-040SC-A-12-13-201103	77936	26.99	147809	43.45		
USMPDI-056SC-A-07-08-201107	79578	26.99	161906	43.45		
USMPDI-056SC-A-08-09-201107	81991	26.99	167748	43.45		
USMPDI-004SC-A-07-08-201111	84275	26.99	152415	43.46		
WG1605097-2 CCAL	80947	26.99	159809	43.45		

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

RT Upper Limit = +0.50 minutes of internal standard RT  
 RT Lower Limit = -0.50 minutes of internal standard RT

\* Values outside of QC limits



**Internal Standard Area and RT Summary  
Form 8a  
Semivolatiles**

Client : Anchor QEA, LLC	Lab Number : L2206076
Project Name : GASCO HYDROCARBON INVESTIGATIO	Project Number : 000029-02
Instrument ID : PAH12	Analysis Date : 02/15/22 06:59:00
Sample No : WG1605097-2	Lab File ID : F1202142215

	Acenaphthene-d10		Chrysene-d12		Area	RT
	Area	RT	Area	RT		
WG1605097-2	80947	26.99	159809	43.45		
Upper Limit	161894	27.49	319618	43.95		
Lower Limit	40474	26.49	79905	42.95		
Sample ID						
USMPDI-004SC-A-08-09-201111	89401	26.99	158999	43.47		
USMPDI-004SC-A-09-10-201111	89475	27.00	166766	43.47		
WG1605097-3 CCAL	85022	26.99	172870	43.46		

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

RT Upper Limit = +0.50 minutes of internal standard RT  
RT Lower Limit = -0.50 minutes of internal standard RT

\* Values outside of QC limits



# Internal Standard Area and RT Summary

## Form 8a

### Semivolatiles

Client	: Anchor QEA, LLC	Lab Number	: L2206076
Project Name	: GASCO HYDROCARBON INVESTIGATIO	Project Number	: 000029-02
Instrument ID	: PAH12	Analysis Date	: 02/15/22 17:46:00
Sample No	: WG1605097-4	Lab File ID	: F1202142222

	Acenaphthene-d10		Chrysene-d12		Area	RT
	Area	RT	Area	RT		
WG1605097-4	77595	26.99	153618	43.45		
Upper Limit	155190	27.49	307236	43.95		
Lower Limit	38798	26.49	76809	42.95		
Sample ID						
USMPDI-004SC-A-09-10-201111	78802	26.99	165630	43.46		
USMPDI-004SC-A-08-09-201111	78796	26.99	157247	43.46		
WG1605097-5 CCAL	80404	26.99	160399	43.45		

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

RT Upper Limit = +0.50 minutes of internal standard RT  
 RT Lower Limit = -0.50 minutes of internal standard RT

\* Values outside of QC limits

